Cutoff Coalition

Response to the Request for Expressions of Interest in the Adaptive Reuse of the LIRR Montauk Cutoff

Submitted to the MTA/LIRR
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596 Acres, Inc.
Boyce Technologies, Inc.
Newtown Creek Alliance Incorporated
HarborLAB
The Long Island City Community Boathouse
NYC Compost Project hosted by Queens Botanical Garden
Green Map System, Inc.
NYC 2030 District Committee
Common Ground Compost
Vokashi, Inc.
Members of the biology faculty group at LaGuardia Community College (CUNY)

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Homestead Design Build LLC
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Love Grace, Inc.
NYC Parks Department GreenThumb Program
New York Mechanical Gardens Bike Co-op

Organic Food Incubator, LLC
P4Q@Skillman
Palms for Life Fund, Inc.
Queens Action Council
Queens Preservation Council
Revolution Rickshaws LLC
Sculpture Center
Sierra Club
Transition NYC

RANCH ON RAILS

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Introduction: A Ranch on Rails

The Montauk Cutoff offers the MTA and New Yorkers a once-in-a-generation opportunity to work together to create a truly unique destination in Long Island City. Our vision, the Ranch on Rails, is of a self-powered urban farm and resiliency lab, featuring innovative green infrastructure, landscaped common spaces, and economic development opportunities to form a thriving ecology that brings together nature, community, and industry.
Ranch on Rails is the outcome of a collaboration among a coalition of LIC-based organizations, civic leaders, and local residents. Our process began with a series of four open meetings and shared meals, attended by over 60 individuals. The Awesome Foundation and an anonymous donor contributed funding to the Cutoff Coalition process. The concepts, strategies and partnerships that form Ranch on Rails emerged from this community driven, public visioning process for the future of the Cutoff.

Ranch on Rails will be a transformative ecology: a welcoming and inclusive space for community wealth-building projects such as urban agriculture, composting, education, cooperative businesses, renewable energy production, and green infrastructure.

Ranch on Rails will maintain the existing community use of the Degnon Terminal and transform the Montauk Cutoff into a vital and resilient landscape that inspires, develops, and innovates for the benefit of the whole neighborhood and the City.

The Ranch on Rails will bring a new ecology and new infrastructural elements to the Montauk Cutoff. Centered along a continuous path that takes advantage of the linear site’s unique attributes, the Ranch on Rails amplifies current gardening, composting, water catchment and educational programs of Smiling Hogshead Ranch through six methods:

- **Urban Agriculture:** Community farm, learning gardens, greenhouse facilities, and aquaponics
- **Composting:** Commercial-scale composting operation
- **Public Space and Education:** Visitor center, amphitheater and amenities
- **Cooperative Hub:** Cooperatively-owned business incubator and workshops/studios
- **Renewable Energy and Utilities:** On-site energy generation and utilities
- **Green Infrastructure:** On-site bioremediation and stormwater management using natural systems
Site History

Montauk Cutoff

From 1908 to early 2014, the Montauk Cutoff carried freight trains to and from the factories, warehouses and transload facilities of Long Island City. The Cutoff was a crucial piece of infrastructure for the industries in Long Island City, connecting them to the national economy. Freight traffic slowly declined as industries relocated outside of the city and the LIRR ceased using the waterfront “float bridge” gantries to move freight between Long Island and New Jersey. In the spring of 2014 the last of the freight customers were relocated to the nearby former Wheelspur Yard, thus ending rail service over the Cutoff.

Above: Historic photo of the Sunnyside Railyard where tracks rise over Skillman Ave and turn into the Montauk Cutoff area, mid-20th century.

Degnon Terminal & Smiling Hogshead Ranch

In the 20th century, a spur from the Cutoff connected to the factories and warehouses of the Degnon Terminal. This spur branched off of the Cutoff just east of Skillman Avenue. The tracks of the Degnon Terminal were formally abandoned in 1989 and had sat vacant until 2011.

A group of intrepid New Yorkers that would soon form Smiling Hogshead, Inc. began gardening on the former Degnon Terminal rail spur (Queens Block 100, Lot 2) in the spring of 2011. In 2013, they incorporated and formalized an agreement with MTA via a lease for the property that was signed in 2014. Through Smiling Hogshead Ranch’s efforts, the site was transformed from a disused lot to a vibrant place for community building, agricultural learning, and ecological restoration. In the last five years, they have brought together thousands of people from New York City and the surrounding region for public events and workshops, ranging from bio-dynamic farming skillshares to composting workdays to yoga classes. The farm at Smiling Hogshead Ranch grew more than 1000 pounds of food last year, and hosted more than 50 workshops, offering great benefit to the local community.

Above: Members of Smiling Hogshead Ranch at their official Ribbon Cutting Ceremony on Sept. 6, 2014, a month after reaching an agreement with the MTA to lease Queens Block 100, Lot 2.

Above: Members of Smiling Hogshead Ranch at their official Ribbon Cutting Ceremony on Sept. 6, 2014, a month after reaching an agreement with the MTA to lease Queens Block 100, Lot 2.
Just as the gantries were preserved with the transformation of Long Island City’s industrial shoreline into the Queens West housing and park development, the Montauk Cutoff, a significant chapter in Queens railroad history, will still be visible in what we propose. As Queens Borough Historian, I support development that retains a visible link to the past rather than erasing it.

– Dr. Jack Eichenbaum, Queens Borough Historian
Smiling Hogshead Ranch

Through their programming, Smiling Hogshead Ranch has brought hundreds of people to the Degnon Terminal, including elementary school students, job trainees with Fortune Society, Girl Scout troops, corporate volunteers, college groups, walking tours, and diverse neighbors from Long Island City. The events at Smiling Hogshead Ranch have included workshops, skill shares, workdays, corporate in-service days, “toddler takeover” days, fundraisers, member meetings, biodynamic windrow building, bike tours, a tea party, a barbecue for the industrial business zone, as well as a weekly series of post workday parties called “Terrific Tuesdays.” Smiling Hogshead Ranch provides opportunities for people to get involved with farming and gardening in New York City, helping people to make their neighborhood a better place to live by working together.

Smiling Hogshead Ranch has received financial support from a number of organizations and grantors. They received funding from the Citizens Committee for New York City in 2012, 2014 and 2015, as well as the New York Community Trust. The Eastman Family Trust covered Smiling Hogshead Ranch's first year of insurance expenses. Individual giving during our Hogshead Hoedown fundraiser in 2015 raised additional funds for the operations. Smiling Hogshead Ranch also received Discretionary Expense funding from NYC City Council (Reso A) via local Council Member Jimmy Van Bramer for fiscal year 2016.

The first five years of community engagement, enabled by Smiling Hogshead Ranch, have built a sense of shared investment in the area around the Degnon Terminal and Montauk Cutoff. The model of incremental development and community-building that Smiling Hogshead Ranch embodies will make the Ranch on Rails on the Montauk Cutoff a natural evolution of the current use of the space, using a strategy of phased growth and local stakeholder participation to sustain continual community investment and responsible environmental stewardship.

Building an actively engaged and resilient local community takes time, involving cooperation among a wide variety of stakeholders. The Cutoff Coalition has brought together community groups, businesses, and professionals who are committed to a process that is open to everyone that would be affected by future development of the site. We are working together to identify local needs and resources, and to forge new connections with other key stakeholders. Moving forward, we see sustained engagement with the community from which this vision has grown as vital to the implementation and operation plans. Over the years to come, Ranch on Rails will become a beacon of sustainable community development.
Smiling Hogshead Ranch provides opportunities to engage physically through my passion of gardening, stimulates me socially as I co-create a thriving interactive community, and fulfills my soul’s desire to be a part of a mission that contributes to the overall well-being of many. The Ranch on Rails will expand upon the good work we’ve already begun.

– Jennifer Plewka, Member, Smiling Hogshead Ranch
Below:
View from the fields of Smiling Hogshead Ranch toward the skyline during the growing season. Kale, squash and tomatoes grow beautifully in this permaculture garden. Photo by Claudia Ray-Centeno.
Adaptive Reuse Plan

The Ranch on Rails is grounded in a strategy for generating community wealth and well-being while restoring the productivity of a post-industrial site. The Ranch on Rails’ design expands our current ecological restoration efforts with extensive development of our urban agriculture program. We will enhance the existing composting operations and public education programs, while adding impact-reducing renewable energy and innovative green infrastructure. Ranch on Rails will bring together a robust management plan and a cooperative business hub that will generate sustaining revenue, while enlivening the heart of Long Island City and mobilizing a renewed spirit among members of the public.
Interwoven elements combine to support a diverse array of activities, and to engage a variety of local businesses, community organizations, and members of the public, building a broad base of support for the adaptive reuse of the Montauk Cutoff.

Ranch on Rails offers an opportunity for incremental community-led development of the Montauk Cutoff site. This approach empowers New Yorkers to become active in shaping the neighborhood, and to invest in the future of the community. We believe this strategy will serve as a model for the sustainable and democratic development of urban space for communities in New York City and beyond.

Above: Rail tracks leading to the elevated portion of the Montauk Cutoff in 2013, before being remediated by the Smiling Hogshead Ranch.

Above: A view from the tracks of the Montauk Cutoff.

The implementation of the Ranch on Rails will be a coordinated effort between public, private, and nonprofit groups. The collaboration will bring together the capacities of the Cutoff Coalition member organizations – their relationships, local knowledge, and fundraising abilities – with the financial support of city and state agencies, foundations, and private sector entities. Supplementing earned income from produce, products, tours, and trainings, the Ranch on Rails management will also coordinate a crowdsourced fundraising campaign strategy to raise capital for the various projects through individual giving and support.
People and entities playing a significant role in the reuse concept:

The Ranch on Rails adaptive reuse strategy will build upon a network of existing relationships to develop a collaborative implementation effort through public, private, and community partnerships. The implementation strategy will draw upon the expertise and efforts of a range of organizations, from local groups, to national-scale companies, and federal government programs.

To develop partnerships for implementation and operations, the Ranch on Rails management will continue reaching out to even more city, state, and federal agencies, foundations, community organizations, and businesses whose missions and goals align with the Ranch on Rails. Committed partners include the member organizations of the Cutoff Coalition, with the help of the groups that have pledged their support for the Ranch on Rails (see the Letters of Support included with this submission). Additional partnerships for programming on site will be sought with local schools, community groups, non-profit organizations, and individuals.

Facilities management, maintenance, and security of the overall site will be coordinated and administered through the Ranch on Rails management team. Programmatic elements within the Ranch on Rails will be operated through partnerships with diverse stakeholders.

The types of users who would be utilizing the site:

The range of programs, activities and events at the Ranch on Rails will bring together neighborhood residents, local businesses and cooperatives, school groups, workshop participants, farmers and gardeners, environmental scientists, educators, artists, local restaurants and food vendors, and visitors from around New York City and beyond.

The interwoven strategies for adaptive reuse of the site are described on the pages that follow.
The Ranch on Rails harnesses the momentum that Smiling Hogshead Ranch has developed and supercharges it: it transforms the Ranch into an engine for innovative regenerative practices that are poised to influence adaptive reuse of rail in urban contexts worldwide.

What you hold in your hands today is a vision for a regenerating, self-sustaining ecosystem that was produced via a collaborative methodology that will be extended through the life of the Ranch on Rails.

– Paula Z. Segal, Esq.,
Founder, 596 Acres, Inc.
Queens Block 111, Lot 1

- In-Vessel composter
- Composting coop office
- Composting windrows
- Meandering walking paths & gathering areas
- Kinetic energy generating swings
- Mushroom cultivation
- Mycorremediation lab
- Aquaponics greenhouse

Urban Agriculture
Composting
Public Space & Education
Cooperative Hub
Renewable Energy
Green Infrastructure

Queens Block 110, Lot 1

- Stormwater collection below LIE overpass
- Constructed wetlands filter stormwater, along sloping grade
- Meandering walking paths & gathering areas
- 5,000sf Cooperative Hub, incubator & maker space
- Accessible entrance to elevated portion of the Montauk Cutoff from 50th Ave
Urban Agriculture

Urban agriculture is a cornerstone of the Ranch on Rails and will be integrated throughout the Montauk Cutoff site in multiple forms. Each programmatic element, from the outdoor learning garden to greenhouses and mushroom cultivation, will serve the program’s larger goal of building community through urban agriculture. Expanding upon the success of Smiling Hogshead Ranch, these programs will bring together environmental educators, community members, school groups, and other visitors to the neighborhood. Programming will be administered by a single non-profit which will be revenue-generating and self-sustaining, in part through the sale of goods produced on site.

Above: The Learning Garden at the Ranch on Rails.
1. Learning Garden
2. Fencing and gated entrances
3. Welcome Center
4. ADA Accessible Ramp
5. Solar Pergola

Wildflowers and native grasses
Urban Agriculture overall
Outdoor Cultivation areas
Learning Garden

The Learning Garden will be sited on Block 100, Lot 2, where the gradual sloping entrance from Skillman Ave will allow for a universally accessible, ADA compliant space for both young and old. An additional entrance point on the western edge of the lot, adjacent to the neighboring charter school, will allow controlled access for school programs and after school activities. The existing relationship with area schools will be expanded and improved by the addition of the terraced portion of the Learning Garden adjacent to their school yard.

The Learning Garden will serve as a teaching space where trained educators provide hands-on learning opportunities to people of all ages while using the landscape as a living teaching tool. The creation of an outdoor learning garden focusing on growing food organically will provide academic enrichment through programming with local schools as well as educational events for adults and families.

Research has shown that gardens can function as living laboratories enhancing academic performance. Students who participate in gardening activities show increases in grade point average as they utilize new learning styles and develop critical 21st-century skills such as “curiosity, flexibility, open-mindedness, informed skepticism, creativity, and critical thinking.”

The Learning Garden will include a sensory garden, which provides an intimate space where people can be immersed in the scents, textures, and colors of specially selected plants and related elements.

Through the Learning Garden’s ‘Adopt-A-Garden-Bed’ program, community partners can sign up each season to assist in the growing, maintenance and harvesting of food from dedicated garden plots. Two garden beds will be dedicated to this initiative.

Gardens can be designed with the goal of attracting aesthetically pleasing wildlife and pollinators, like birds and butterflies, and other important garden visitors, like bees, can also be drawn to specially planned and modified gardens known as native pollinator gardens.

The Learning Garden will include:

- Planting beds for vegetables
- Fruit trees
- Program area with shaded seating for educational discussions and activities
- Raised beds allowing accessible gardening activities for mobility impaired visitors
- Vertical planting areas allowing students to interact from either side without stepping on the plants and compacting the soil
- Vermicompost demonstration area
- A sensory garden, native pollinator garden and seasonal planting areas such as a pick-your-own pumpkin patch
- Storage shed for tools and gardening supplies used in participatory programs
- Adopt-A-Garden-Bed sponsorship program for community partners

Above: The LIC Girl Scout troop visits Smiling Hogshead Ranch.

Greenhouse and Cultivation Facilities

Queens Block 111, Lot 1, part of the elevated portion of the Montauk Cutoff, will be the site of two large greenhouse buildings for aquaponic sustainable agriculture programs and indoor mushroom cultivation.

Aquaponics

Aquaponics is a soil-less agricultural system that is capable of turning out significantly high yields with minimum inputs. A method that evolved as an effective solution for the recycling of the waste generated in aquaculture (the cultivation of freshwater plant or food fish species), aquaponic systems function as a wetland ecosystem in which aqueous plants, animals, and beneficial bacteria support each other — the nitrogenous waste produced in the aquaculture of fish, crustaceans, or mollusks is used as fertilizer for plants grown hydroponically, or directly in water.

Greenhouse and Cultivation Facilities

Above: A view of the greenhouses at night.

With the establishment of an aquaponics greenhouse system, Ranch on Rails will grow an abundance of healthy food for our region, demonstrate the commercial viability of aquaponics farming, promote the sustainability of this methodology as an alternative to existing urban food production systems, while utilizing the filtered stormwater systems (see Green Infrastructure, 72). Ranch on Rails will educate others in cutting edge and emerging food production techniques that lighten the impact of agricultural practices and can be replicated at scales from large commercial farms to backyards.

Besides seeds and the fish themselves, the main resources needed in an aquaponic system are fish food, electricity for running pumps that recirculate the water around the clock, and fresh, clean water. Water loss is minimal since any loss is mainly from transpiration by plants and evaporation into the atmosphere. Replenishment is very rarely needed thus making aquaponics extremely water-efficient as compared to the usage levels of traditional cultivation. In regards to electrical need, although the daily power expenditure is high in aquaponics with its frequent water circulation, it is easily offset by the high returns from both the fish and the variety of plant crops.

Fertilizer made from fish and their wastes is a common and beneficial organic fertilizer for a wide variety of plants, thus a substantial range of plants can be grown together in aquaponics. In a well-established system, the different components such as fish, worms, plants, and various bacteria form a natural ecosystem that resists diseases. This is the foundation on which to create a densely prolific, cultivated living ecosystem.

To date, more than 150 different vegetables, herbs, flowers and small trees have been grown successfully in aquaponic systems. Our greenhouse will grow a polyculture of a variety of vegetables such as beans and broccoli; fruiting crops like tomatoes, peppers, and cucumbers and strawberries; herbs such as parsley and thyme, and leafy greens like kale and watercress.

Even though the initial cost of setting up a complete system is moderately high, once established it runs like clockwork with minimal recurring inputs.
Indoor and Outdoor Mushroom Cultivation

Mushroom cultivation offers both a hands-on learning experience for the public and a source of revenue to the operations of the urban agriculture program. In recent years, both indoor and outdoor mushroom cultivation have been growing in public interest and have experienced increased economic profitability. In September 2015, New York State officially designated log grown mushrooms an agricultural crop.1

Mushrooms will be cultivated on managed logs as part of the Urban Agriculture element of the Ranch on Rails. Outdoor log cultivation is both simple and successful in woodland settings. A portion of the Montauk Cutoff where the grade of Smiling Hogshed Ranch meets the elevated rail is well suited to this process.

Indoor cultivated mushrooms can be reliably produced on a wide range of organic materials (straw, sawdust, etc) on a rapid weekly production cycle when grown in a protected environment.

Above: Mushrooms grown at Smiling Hogshed Ranch.


Above: Smiling Hogshed Ranch members working in the garden.

Both processes have produced reliably in our climate, each offering different opportunities for special workshop events, volunteer days for public engagement, and income generation. The outdoor logs are limited to certain times during the fruiting season and have a longer growth period while the indoor cultivation will allow visitors to experience the growth cycles and harvest year round.

Due to the difference in growing cycles, we anticipate utilizing the rapid growth of indoor mushroom harvests to stimulate the entire process and revenue, as we wait for the inoculated logs to bear fruit, which once happens, will happen repeatedly over the following years.
**Integrated Agricultural Ecology**

By simultaneously working with natural ecosystems and incorporating the reclamation and remediation systems put into place (see Green Infrastructure), we will demonstrate the possibilities for high-yield sustainable urban agriculture methods and the commercial viability of these techniques. Ranch on Rails with promote an alternative to existing urban food production systems which all too often simply replicate, in miniature, agrarian agriculture systems that do not take into account space limitations and different inputs available in urban areas.

In short, the various elements focused in this chapter will grow vegetables for the surrounding community, provide educational opportunities and training, and demonstrate the sustainable nature of food production. Visitor hours and education programming will allow volunteers and visitors to bring the methods they learn back to their homes and communities. These programs will be part of the growing movement in New York City toward a more just, sustainable, and community-based agricultural system.

**Urban Agriculture at the Ranch on Rails is inspired by organizations and projects including:**

- Smiling Hogshead Ranch
- Added Value
- Bushwick Campus Farm
- East New York Farms!

The agricultural spaces will be staffed by farm managers, Smiling Hogshead Ranch members, and volunteers, and open for visitors to pass through during regular scheduled hours. The combination of a productive working agricultural space with public engagement through visitor hours will provide a rare and valuable experience for New Yorkers who are otherwise removed from the cycle of food production.

Ranch on Rails will offer one of very few locations in the neighborhood to purchase high quality organic food at affordable prices. Just as importantly, it will offer internships, training, and volunteer opportunities, managed by experienced farmers, to those who wish to learn applicable skills for sustainable agriculture in urban environments.

Above: Cherry tomatoes ripening at Smiling Hogshead Ranch.

Opposite page: Carrots during the harvest at Smiling Hogshead Ranch.
I’d like to see this site created using the fundamental principles of permaculture design, where we embrace cooperation, learn how to read our landscape and organize around energy flows to create a vibrant community of gardeners, artists, scientists, and learners of all ages who have chosen to cultivate their community together.

– Dina Ciccarone, Member, Smiling Hogshead Ranch
Composting

Smiling Hogshead Ranch has been an official NYC Compost Project Community Composting Site since 2012. This free, residential drop-off program will continue to be a free, volunteer run system at the Ranch. The new composting elements of the Ranch on Rails will work to expand existing composting operations at Smiling Hogshead Ranch. In cooperation with several local composting businesses, we will create a nexus for commercial scale processing of food waste and clean, safe, and fair jobs within this growing industry. Located at Queens Block 111, Lot 1, the site allows for drop off of organic waste on the flat edge of the lot adjacent to the street, and uses the sloped side of the Cutoff for terraced windrows where finished compost will be created.

Above: Terraced compost windrows on the sloped sides of the Ranch on Rails.

The site will be administered by the composting operators who will be based there: Smiling Hogshead Ranch, Vokashi, and Common Ground Compost, among other potential partners.

The participation of these existing, successful businesses at the Montauk Cutoff composting site will allow them to expand and provide greater compost services to local residents and businesses. This is especially important when considering that NYC Local Law 146, which will require certain commercial food producers to compost their organic wastes instead of sending them to landfills, has been sidelined until 2017 due to limitations in local compost processing capacity. As demonstrated by the letters of support from local food manufacturers, the market for this service is very promising in this particular neighborhood.
A healthy soil-food web is one of the most basic building blocks of civilization. Compost attracts and utilizes various micro- and macro-organisms including bacteria, fungi and invertebrates. In addition to breaking down food scraps into compost, these decomposers also break down toxins in the environment and are an essential part of the Montauk Cutoff’s transformation into a healthy environmental and social ecosystem. Introducing composting systems into the flows of food waste in an urban setting allows us to lighten the human impact of city-dwellers, by transforming our waste into a productive resource. In its finished state, compost is used to enliven and nourish the soil so we can grow more nutrient dense, delicious food. The process both reduces the amount of food waste in our landfills, and invests in future healthy ecosystems by generating nutrient rich soils. Healthy soils produce healthy food, and healthy food in turn contributes to the health of the entire community.

Above: Compost windrow construction at Smiling Hogshead Ranch.
Opposite page: Composting at Smiling Hogshead Ranch creates nutrient-rich soil for urban agriculture.

Composting at the Ranch on Rails is inspired by organizations and projects including:
Smiling Hogshead Ranch
Vokashi, Inc.
Common Ground Compost
Added Value
NYC Composting Project
Gowanus Canal Conservancy

Creating compost at the Ranch on Rails will provide opportunities for numerous revenue streams while reducing the cost of municipal solid waste for the City (DSNY’s current average combined collection and disposal cost is $431 per ton). It will support partnerships, create jobs and offer educational opportunities for students, and volunteers. The composting operation will include three methods: traditional and biodynamic windrows, bokashi composting (fermentation of food waste), and an in-vessel compost machine. These programs will be separated from the public access areas, but will be open for tours and workshops.
Above: Smiling Hogshead Ranch member Gil Lopez at the free community compost drop-off point and weigh station.

Left: Bike cart provides fossil-fuel-free compost collection at Smiling Hogshead Ranch.

Smiling Hogshead Ranch is a magical place in Long Island City. We are so pleased to have the interest of the collective to build out a compost collection service to support the growth, development, and sustainability of the site.

-Vandra Thorburn, Founder & President, Vokashi
Public Space and Education

At the heart of the Ranch on Rails is a shared desire to create vital educational and entrepreneurial resources set within a much-needed green space in Long Island City. As the Ranch on Rails expands and evolves, its ecologically progressive elements will be connected to programmatic events and educational activities tailored to attract and inform a wide range of visitors and participants. Located within Queens Community Board 2, an area with one of the lowest ratios of open space per capita in the city, the Ranch on Rails offers a unique opportunity to make a lasting contribution to the quality of public life of New York City.

All New Yorkers should be able to access and enjoy our public spaces, and the Ranch on Rails’ strategy embodies an inclusive ethos. The design provides for multiple universally accessible entrances leading onto meandering walkways which pass through gardens, trees, and wildflowers. Seating and gathering areas are interspersed along the length of the site, incorporating playful street furniture at varying heights to accommodate people of all ages and physical abilities. Smiling Hogshead Ranch is already popular as a lunch break location for nearby company employees as well as the students and other members of the visiting public; Ranch on Rails will extend the opportunity to relax and recreate while providing restrooms and other amenities. Overlooks at the four street bridges connect the elevated space to the streetscape below, as well as to dramatic views across the East River to the Manhattan skyline.

The public spaces of the Ranch on Rails will be open for specified hours, staffed by maintenance and security workers, and secured with perimeter fencing and security cameras during closed hours.
Welcome Center

Housed in a restored historic rail car, the Ranch on Rails Welcome Center will offer visitors a visual history of the neighborhood and its local and regional rail lines. As both a link to the past and a point of entry into a new type of urban space, the adaptive reuse of the rail car as a site of public education will engage visitors of all ages in the history of New York City’s waterfronts and rail infrastructure. The Welcome Center will be located in convenient proximity to bathrooms and water fountains, and within a short distance to the ADA accessible entrance from Skillman Avenue.

Working with museums and area historians, the Welcome Center will include historically significant items and interactive displays detailing the significance of the MTA’s Montauk Cutoff to the development of Long Island City, Queens, and the rest of Long Island. It will provide current MTA maps and share a perspective on the relationship between MTA and the Ranch on Rails. It will also contain interactive displays with educational documentation on all of the various aspects of the Ranch on Rails. This display will provide in-depth information on urban agriculture, composting, renewable energy and the collaborative hub. The exterior of the rail car will be restored to its original LIRR colors and decals.

Public Programming and Activities

The community-led development of the Montauk Cutoff into a vital public space will bring benefits to New York City beyond the immediate Long Island City neighborhood. During the warm summer months, public programming partnerships with local arts and music organizations will bring free concerts, movie screenings and other arts events to the public spaces. Part of Queens Block 100, Lot 1 will be transformed into an amphitheater to accommodate seated audiences during performances or special events, community meetings or educational workshops. Signage with live data and maps will introduce systems and collect visitor feedback.
Securing the perimeter and managing access

During daytime open hours, the public spaces of the Ranch on Rails will be open and accessible through entrances at street level. Staff will be present, and can relate information about the non-public areas of the Ranch on Rails and answer questions. For the comfort of visitors and neighborhood residents, landscape and security lighting will illuminate the space after dusk and after hours, the gates will be closed, and the space will be monitored. At the northwest portion of the property, Smiling Hogshead Ranch will maintain the open feel and character it has cultivated over years. There are several neighboring businesses that operate night shifts; their employees already rely on the amenities of the open space of Smiling Hogshead Ranch during breaks and after work, and will continue to be able to do so.

Public Space and Education at the Ranch on Rails is inspired by organizations and projects including:

- The Railroad Museum of Long Island
- The Waterfront Museum
- Socrates Sculpture Park
- Rooftop Films

I would love to see more publicly accessible open space, as it is ever under threat of rapidly disappearing in NYC.

– Annabelle Meunier, NYC Dept of City Planning
Cooperative Hub

The Cooperative Hub will house and support worker owned cooperatives, local artists, and non-profits focused on community wealth building programs. The Hub will help incubate these businesses and non-profits by providing affordable leases, the revenue from which will support the other activities on the Ranch on Rails. It will serve as one of the main attractors, drawing visitors to the site, providing jobs through new economic activity, and forging stronger ties with the broader community. Tenant selection will balance a mix of worker cooperatives, artists and artisans, and non-profit organizations that build community wealth through inclusion, collaboration, and reliance on local assets.

In worker cooperatives, since everyone is a co-owner, decision making is democratic and profits are distributed more equitably, meaning more wealth is held and reinvested locally by those living and working in the community. This proven model can foster strong camaraderie and commitment to a business’s success (since everyone has a vested interest), and can build resilience by offering good job security. In New York City, community wealth-building strategies have gained traction and attention in recent years, including the New York City Council’s multi-million dollar initiative to support the growth of worker coops. The Cooperative Hub is envisioned as a place where cooperative businesses can be incubated and cooperative principles can guide reinvestment in the neighborhood.

In a structure that supports collaboration, the Cooperative Hub builds upon the Ranch on Rails’ commitment to community wealth-building and slow-growth practices, bringing together environmental, social, and economic sustainability.
The cooperative hub will provide affordable commercial space for start-up cooperative businesses, makers, artists, and nonprofit tenants. The facility will provide year-round office and production space along the Ranch on Rails.

There has been great interest expressed in the possibility of leasable space at the Cooperative Hub from local businesses and nonprofits. The Ranch on Rails management will lease the available units as income to support the programs on the site, and provide an on-site facilities manager for the Cooperative Hub.

The Cooperative Hub will also include a retail space for the produce and goods produced on site through the Urban Agriculture activities. Grown without pesticides, this source of local, fresh food will be a welcome resource in the community, and will be made accessible to low-income families through acceptance of SNAP benefits (food stamps).

Located on 25th Street between 50th Ave and 51st Ave, the Hub will connect the street level to the top of the Montauk Cutoff, securing access to the site by allowing public circulation through the building during open hours. The facilities manager provided by the Ranch on Rails management will coordinate operations and maintenance, ensuring safety and security on the premises.

The design of the Hub blends rough industrial materials with cutting edge green building technologies, reflecting the overall ambitions of the Cutoff Coalition to transform a post-industrial urban space into a vital and resilient community ecology. The Hub will consist of a shipping container substructure, modified for inhabitation according to NYC building codes. The aesthetic choice of the shipping containers is in keeping with the industrial character of the neighborhood context, while the adaptive reuse of that basic unit reflects the ecological ambitions of our project. Green building principles incorporated in the design include the use of recycled materials, passive solar thermal heating, rainwater catchment, and on-site generation of renewable energy.

Above: The Cooperative Hub’s prefabricated units are made from adapted shipping containers, which are then sheathed in an external layer of insulating material. Covered outdoor spaces will include trellises of metal mesh that can grow vine plants, reducing interior summer heat gains.
Tenant selection for the Cooperative Hub

As the Montauk Cutoff is located on MTA Property, it is important to preserve the public benefit nature of the work the MTA does in the programming of the site. The Cooperative Hub within the Ranch on Rails is an exercise in transformative economics. The Ranch on Rails will operate as a non-profit real estate leasing agent and offer community-based businesses and organizations modest spaces at affordable rents to do their important work within NYC’s greater extractive, competition-based economy. To select tenants in the Cooperative Hub, we will seek to create a balanced mix between the following three groups of tenants:

- Worker-Owned Cooperative: Business entities that are owned and controlled by the people who work in them, where a majority of employees are worker-owners.
- Social Venture and Non-Profit Organizations: An undertaking by a firm or social entrepreneur that seeks to provide systemic solutions to achieve a sustainable, social objective.
- Artist, Maker, and Artisan Workspaces: Studios for artists, craftspeople, and small-scale fabricators.

Businesses in the Cooperative Hub could include, but are not limited to:
- Membership-based woodworking, fabrication, and maker-space (small scale)
- Technology incubator
- Co-working offices and shared meeting space
- Artist and craftsmanship studios
- Bicycle repair cooperative
- Printing cooperative
- Web design cooperative
- House cleaning cooperative
- Retail space for goods produced on site

The Cooperative Hub will be leased by the Ranch on Rails management and will be overseen on a day-to-day basis by an on-site facilities manager.
NYC is a dynamic city, but so much of the hype is just business as usual. It is important that we make space in this uber-competitive marketplace for projects that bring and retain real wealth within communities and actively encourage spaces that allow truly innovative ideas, such as cooperation, to flourish.

– Gil Lopez, Co-founder of Smiling Hogshead Ranch
Renewable Energy and Utilities

As a model of sustainable urban planning practices for the 21st century, the Ranch on Rails will incorporate cost effective, cutting edge renewable energy sources, in addition to the necessary conventional grid connections. With energy efficiency built into all lighting, operations, and communications, a significant portion of onsite energy demands will be met through carefully selected renewable energy sources along the Montauk Cutoff including solar photovoltaics, vertical axis wind turbines and energy generating kinetic furniture and fitness equipment. The potential to cooperatively fund and benefit from the sun will be extended to neighboring businesses and the MTA, particularly for backup power during a grid outage. Throughout this resilient landscape, these installations of renewable energy production are designed as interactive and educational spaces. Sections of the walkway are sheltered by “solar pergolas,” photovoltaic canopies that generate energy as well as provide seating and shaded gathering areas.

Carefully placed along the length of the Ranch on Rails, individual photovoltaic installations are linked to mobile charging ports and provide a wireless internet access point. Arrays are located close to elements that need power, along with batteries and/or grid-tied inverters to gain maximum use of the energy generated on site. Passive design principles to maximize daylighting and conserve heat and power use will be applied throughout, paired with Energy Star lighting and installations. Play spaces for children and the young at heart allow visitors to engage directly in the production of green energy through energy bikes, playgrounds, and swinging benches at the bridges overlooking the streetscape.

Linked by a distributed microgrid, these disparate sources of energy production will demonstrate the potential for integrating sustainable energy production with vital urban spaces.
Conventional utility connections to the Ranch on Rails is the first step in the development of the site, to allow for construction and programmatic functions to begin smoothly and without delay. This initial connection will provide the water, power, and sewer connections necessary for the expansion of all other elements. In following construction phases, the installation of renewable energy sources including solar, wind, and kinetic energy will be gradually added, thoughtfully designed to enhance the activities and public spaces along the Ranch on Rails.

The highest priority is to create a thriving space for multiple communities to come together to build a more resilient whole. Included are local businesses, such as Boyce Technologies, with whom we can explore grid-tied cooperative solar energy generation with mutual benefits. Over time, Ranch on Rails may also provide showcase space for renewable energy models, providing real world data shared via a webcam system, social media and other reporting. To that end, the utilities for the Ranch on Rails are designed to bring our city closer to environmentally responsible urban space through interactive and educational elements that engage visitors and spur innovation.

Renewable Energy at the Ranch on Rails is based on best practices established by:
Solar One
Whole Foods Gowanus
Western Harbor, Malmo
Green Energy Cooperative
Westmill Windfarm Coop

Above: A view underneath a solar pergola.
Experiential education is important for all ages, and within the Cutoff proposal there are ample opportunities to engage with and interpret the regenerative technologies and methodologies being demonstrated. Innovation and public engagement go hand in hand!

– Wendy Brawer, Founder, Green Map System
Green Infrastructure

The Ranch on Rails integrates ecological restoration efforts with the development of public space in the heart of Long Island City. It promotes the healthy coexistence of natural and human ecologies by introducing green infrastructure techniques including fungi and compost tea, bioremediation, constructed wetlands, native grass and flower species, an on-site mycoremediation lab and migratory bird habitats. Ranch on Rails will be a model for sustainable post-industrial redevelopment for communities in New York City and beyond.

The surrounding neighborhood has long been affected by the toxic legacy of heavy industry, including the decades of environmental devastation to the Newtown Creek and adjacent land parcels. Aging infrastructure systems and combined sewage overflows (CSOs) result in massive amounts of polluted water dumping into the Newtown Creek during rain events.

The Long Island Expressway (LIE) downspouts, adjacent to the Montauk Cutoff, cause regular flooding of nearby businesses and feed the combined sewer area that discharges into the adjacent Dutch Kills section of the Newtown Creek (CSO outfall BB-043). This specific CSO outfall discharges approximately 11 million gallons per year into the Newtown Creek near the Pulaski Bridge.

The Ranch on Rails will include a system that uses natural elements to capture, retain, filter and slowly disperse the water from such heavy precipitation events, thus reducing the strain on the city drainage systems, minimizing CSO outflow and filtration costs, and decreasing the flood potential for buildings in the surrounding area. Initial calculations show the stormwater reclamation and filtration system can divert 14,000 gallons per hour of 1” peak rainfall. This water can be captured, cleaned and used to irrigate up to 25,000 square feet of plantings, thus maximizing the use of water that would otherwise be a burden on the City’s grey infrastructure water systems. Low waste drip irrigation systems will create greater value by maximizing water usage.
**Constructed Wetlands**

Captured rainwater, once diverted from the LIE, will be held in retainage tanks distributed along the length of the Ranch on Rails. From the tanks, water will pass through a series of filters and into a subsurface of constructed wetlands, terraced along the sloping banks of the Cutoff. The constructed wetlands, a reed-rock system, will further purify the waters for use in irrigation of other plantings along the Montauk Cutoff via a drip irrigation system, as part of the cycle of onsite food production.

Supplementing other lighting, storm water runoff which passes through constructed wetlands will be generating a low-voltage current to power LED landscape and security lighting using Plant-E technology. This passive energy generation will provide a soft glow at the edges of the paths and walkways of the Ranch on Rails.

The constructed wetlands will demonstrate the synergies between ecology and technology to researchers, students, startups, and government, and act as a model for water-sensitive design strategies for NYC’s coastal communities and institutions working to mitigate the impacts of sea level rise.
Mycoremediation Lab

The Mycoremediation Mushroom Lab (M) Lab within the Ranch on Rails will be an artist run space dedicated to cultivating knowledge and use of fungi to remediate urban contaminants. The (M) Lab will provide workshops and locally produced mushroom mycelium spawn to be used for bioremediation and urban agriculture, building on capacity from previous mycoremediation events and workshops conducted at Smiling Hogshead Ranch to offer much needed bioremediation resources to the community.

Bioremediation in practice is the deliberate use of microorganisms to restore healthier soil ecology and safely break down toxins in surface soil by exploiting the naturally occurring metabolic pathways of microbes, in this case fungi. Fungi are adept as molecular dissemblers, breaking down many recalcitrant long-chained toxins into simpler, less toxic chemicals. These fungi act as a “gateway,” leading mycologist Paul Stamets emphasizes, to “a domino effect of ecological recovery.” Mycoremediation practices – and the cascading microbial activities they provoke – help healthy soils become better fortified to filter contaminants from water and air, either by sequestering them or by breaking them down into the fundamental elements and energy needed for life.

As a creative cleanup initiative, the (M) Lab aims to bring accessible remediation strategies to local residents by harnessing processes that occur naturally in the environment to target historical contaminants and recondition surface soils using established bioremediation techniques, including mycoremediation. The application of these soil-enhancing technologies and techniques will not only help our soils filter toxins and thus reduce the flow of contaminants into Newtown Creek, but will also decompose contaminants in soil we touch, and minimize contaminant uptake in locally-grown food.


Environmental restoration strategies are powerful. In addition to working to remediate the impact of human activities and mitigate the impacts of polluted rainwater flooding into the Newtown Creek, these regenerative techniques also allow for the reintroduction of a healthy living ecosystem. Native plantings, including grasses and wildflowers, will be introduced throughout the site. At the southernmost portion of the Montauk Cutoff, Queens Block 68, Lot 74, there will be a large wildflower garden with bird houses and bat boxes providing habitat for native and migratory species. This portion of the site will remain the most undeveloped and “wild,” providing an oasis within this urban lab and industrial landscape.
Landscape design integrating native plants and flowers will rebuild the natural ecosystem on site to support birds, bats, insects and migratory birds.

Above: Butterfly at Smiling Hogshead Ranch.

Left: The current stormwater collection unit at Smiling Hogshead Ranch, which gathers rainwater from a nearby rooftop.

The Montauk Cutoff has the potential to bring back to our urban area some of the natural world that once thrived here.

– Sarah Durand, Biology Faculty, LaGuardia Community College, CUNY
Implementation Plan

The implementation phase of the Cutoff Coalition’s bold vision will draw upon the support generated by the Smiling Hogshead Ranch and the dozens of professionals, organizations, and agencies already actively involved. It is our intention to continue to work collaboratively to make the Ranch on Rails a material reality.

The implementation of the Ranch on Rails will be a coordinated effort between public, private, and nonprofit groups. The following pages describe the implementation of each element within the Ranch on Rails, along with providing an overall work schedule, implementation budget including capital construction costs and first year operational expenses, with a sources and uses statement to describe the implementation plan fully and in its entirety.

- Urban Agriculture
- Composting
- Public Space and Education
- Cooperative Hub
- Renewable Energy and Utilities
- Green Infrastructure
Urban Agriculture

The implementation of the urban agriculture components of the Ranch on Rails will be financed in majority through a construction loan from a financial lender which supports the development of worker cooperatives around the globe. We believe that the urban agriculture elements of the proposal will be eligible for potential sources of grant funding including but not limited to the National Sustainable Agriculture Coalition, the Northeast Sustainable Agriculture Research & Education (NESARE), the National Garden Association’s Youth Garden Grant, the Organic Crop Improvement Association, and the New York State Department of Environmental Conservation’s Environmental Justice Community Impact Grant Program, among others.

Itemized budget
Includes total capital costs (labor + materials)

Aquaponics Greenhouse $63,000
Mushroom Cultivation Facilities $58,000
Learning garden $35,000
Outdoor Mushroom Cultivation $5,000
Seasonal outdoor classroom $10,000

Construction Cost Total $171,000

Sources and Uses

Sources
Construction Loan 100,000
Foundation funding 35,000
In-kind material donations 105,000
Donated labor 10,000
Total 250,000

Uses
Construction Costs 171,000
Permanent Working Capital Costs 35,000
Developmental Costs 5,000
Project Contingency Costs (5%) 10,550
Total 221,550

Above: A volunteer planting perennials in an existing garden at Smiling Hogshead Ranch.
Composting

The implementation of composting programs on the Ranch on Rails can begin immediately and with low initial costs, as a partnership between several successful local businesses whose existing clientele will provide an immediate source of operating revenue. These existing business structures will provide initial capital for construction and reduce permanent working capital costs for the new composting program within the Ranch on Rails. Once the composting businesses are operational in this new location, there is potential for further expansion during later phases of development.

**Itemized budget**
Includes total capital costs (labor + materials)

- Clearing, excavation, and grading ($2/sf x 1,000sf) $2,000
- Gravel driveway for bike carts (+/- 1,200sf, $3/sf) $3,600
- Tool storage & office shed (+/- 400sf, $75/sf) $30,000

**Construction Cost Total** $35,600

**Sources and Uses**

**Sources**
- Capital Investment from business partners $30,000
- Foundation funding $5,000
- In-kind material donations $15,000
- Donated labor $10,000
- **Total** $60,000

**Uses**
- Construction Costs $35,600
- Permanent Working Capital Costs $15,000
- Developmental Costs $5,000
- Project Contingency Costs (5%) $2,750
- **Total** $58,350

Above: Composting practices existing on site, to be expanded and improved.
Public Space and Education

The Ranch on Rails provides valuable public space for Long Island City and all New Yorkers. These spaces will be a resource to the residents and workers of the surrounding community, and attract visitors and students from across the city. The construction of the public spaces will be financed in partnership with city agencies, grant making institutions for public space and corporate sponsors. We believe that this element of the proposal will be eligible for potential sources of funding including but not limited to the New York City Economic Development Corporation (NYCEDC), the New York City Parks Department, the Borough President’s Office fund for discretionary projects, and other supplemental sources from grantmaking institutions.

**Itemized budget**

Includes total capital costs (labor + materials)

<table>
<thead>
<tr>
<th>Item</th>
<th>Budget</th>
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</thead>
<tbody>
<tr>
<td>Clearing, excavation, and grading ($2/sf x 4,000sf)</td>
<td>$8,000</td>
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<tr>
<td>Utility connections</td>
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<tr>
<td>Utility connections within site</td>
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<tr>
<td>Permeable walking surfaces (+/- 20,000sf, $7/sf)</td>
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<tr>
<td>Seating and gathering areas, street furniture</td>
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<tr>
<td>Solar lighting/wifi/charging stations (17 stations, $3,000 each)</td>
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<tr>
<td>Public bathrooms (+/- 800sf, $150/sf)</td>
<td>$120,000</td>
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<tr>
<td>Outdoor Amphitheater (+/- 1,600sf, $12/sf)</td>
<td>$19,200</td>
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<tr>
<td>Passenger Train Car for Rail History Museum</td>
<td>$50,000</td>
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<tr>
<td>Crane rental</td>
<td>$10,000</td>
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<tr>
<td>Train car retrofit costs ($70/sf x 300sf)</td>
<td>$21,000</td>
</tr>
<tr>
<td><strong>Construction Cost Total</strong></td>
<td><strong>$681,200</strong></td>
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**Sources and Uses**

<table>
<thead>
<tr>
<th>Sources</th>
<th>Budget</th>
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</thead>
<tbody>
<tr>
<td>Public funding</td>
<td>$350,000</td>
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<tr>
<td>Foundation funding</td>
<td>$275,000</td>
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<tr>
<td>Crowd-funding campaign</td>
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<td>In-kind material donations</td>
<td>$85,000</td>
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<td>Donated labor</td>
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<td><strong>Total</strong></td>
<td><strong>$820,000</strong></td>
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<table>
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<th>Uses</th>
<th>Budget</th>
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<td>Construction Costs</td>
<td>$681,200</td>
</tr>
<tr>
<td>Permanent Working Capital Costs</td>
<td>$85,000</td>
</tr>
<tr>
<td>Developmental Costs</td>
<td>$20,000</td>
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<tr>
<td>Project Contingency Costs (5%)</td>
<td>$33,260</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$799,460</strong></td>
</tr>
</tbody>
</table>

Above: CityTERM school group visiting the existing site.
Cooperative Hub

The Cooperative Hub will be refined through a participatory process with stakeholder groups whose needs would inform the final design and budget of the project. Final design will account for existing site, zoning and MTA conditions, public access, and security. The construction of the Cooperative Hub will be financed in majority through a low interest construction loan from a financial lender which supports the development of worker cooperatives around the globe. The project will also seek support from the New York City Economic Development Corporation (NYCEDC), the Queens Borough President, capital funds for the City Council District, and supplemental sources from grantmaking institutions.

---

**Itemized budget**

Includes total capital costs (labor + materials)

**Container Hub Construction Hard Costs**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Container Substructure ($2,000 ea x 15)</td>
<td>$30,000</td>
</tr>
<tr>
<td>Transport of containers ($700 ea x 15)</td>
<td>$10,500</td>
</tr>
<tr>
<td>Crane rental</td>
<td>$10,000</td>
</tr>
<tr>
<td>Container retrofit costs ($90/sf x 5,000sf)</td>
<td>$450,000</td>
</tr>
<tr>
<td>HVAC, plumbing, and electrical ($8/sf x 5,000sf)</td>
<td>$40,000</td>
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<tr>
<td>Utilities connections (water, sewer, electrical, wifi)</td>
<td>$45,000</td>
</tr>
<tr>
<td>Clearing, excavation, and grading</td>
<td>$30,000</td>
</tr>
<tr>
<td>Footings (4’ deep piers, $1/sf)</td>
<td>$7,500</td>
</tr>
<tr>
<td>Permitting costs (Expeditor, Application &amp; Work permits)</td>
<td>$15,000</td>
</tr>
</tbody>
</table>

**Construction Hard Cost Subtotal**

$638,000

**Container Hub Construction Soft Costs**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor Profit &amp; Overhead (15% of construction costs)</td>
<td>$95,700</td>
</tr>
<tr>
<td>Mechanical Engineer (5% of construction costs)</td>
<td>$31,900</td>
</tr>
<tr>
<td>Structural Engineer (5% of construction costs)</td>
<td>$31,900</td>
</tr>
<tr>
<td>Architect (5% of construction costs)</td>
<td>$31,900</td>
</tr>
</tbody>
</table>

**Construction Soft Cost Subtotal**

$191,400

**Construction Cost Total**

$829,400

---

**Sources and Uses**

**Sources**

- Construction Loan: $450,000
- Public funding: $125,000
- Foundation funding: $155,000
- Crowd-funding campaign: $150,000
- In-kind material donations: $175,000
- Donated labor: $10,000
- **Total Sources:** $1,065,000

**Uses**

- Construction Costs: $829,400
- Permanent Working Capital Costs: $55,000
- Developmental Costs: $25,000
- Project Contingency Costs (5%): $44,885
- **Total Uses:** $954,285
Renewable Energy and Utilities

The implementation and installation of the bulk of the renewable energy infrastructure along the Ranch on Rails will be financed through a power purchase agreement with the installer, eliminating up front capital costs. In a power purchase agreement, the installation company finances the material and labor costs of installation of photovoltaics and grid connection, and the partner organization then purchases back the renewable energy produced on the site at below market rates. This arrangement would cover the initial cost of installation and allow the Ranch on Rails management to purchase back energy produced through its solar and wind production, using the revenues generated through other elements, such as Composting and Cooperative Hub operations. The implementation cost of kinetic playground elements and seating will be funded separately through a crowdfunding campaign, which will energize the public and generate good will towards this playful and productive aspect of the Ranch on Rails.

### Itemized Budget
Includes total capital costs (labor + materials)

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>30kW photovoltaic system (power purchase agreement)</td>
<td>$0</td>
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<tr>
<td>Vertical Axis Wind Turbines ($2,000 ea x 8)</td>
<td>$16,000</td>
</tr>
<tr>
<td>Kinetic Playground Structures</td>
<td>$25,000</td>
</tr>
<tr>
<td>Kinetic swinging benches at overlooks ($4,000 ea x 5)</td>
<td>$20,000</td>
</tr>
<tr>
<td><strong>Construction Cost Total</strong></td>
<td><strong>$61,000</strong></td>
</tr>
</tbody>
</table>

### Sources and Uses

#### Sources
- Crowd-funding campaign: $50,000
- Foundation funding: $25,000
- In-kind material donations: $15,000
- Donated labor: $10,000
- **Total**: $100,000

#### Uses
- Construction Costs: $61,000
- Permanent Working Capital Costs: $15,000
- Developmental Costs: $5,000
- Project Contingency Costs (5%): $4,050
- **Total**: $85,050

Above: Sunflower in bloom at Smiling Hogshead Ranch.
Green Infrastructure

The implementation of the green infrastructure along the Ranch on Rails will be achieved through partnerships with city and state agencies whose contribution to the project will align with their institutional mandates and goals. These partnerships will provide the necessary capital costs for construction and contribute to the reserve fund for the continued maintenance of these systems. In-kind donations and pro bono volunteer labor from supporters and members of the Cutoff Coalition who are experts in the field will greatly offset the cost of the system, and their technical expertise will ensure its success.

**Itemized budget**
Includes total capital costs (labor + materials)

| Storm water retainage tanks | $31,000 |
| Irrigation and pumping system | $28,000 |
| Constructed Wetlands rock-reed system | $16,000 |
| Mycoremediation lab construction | $12,000 |
| Mycoremediation lab equipment | $5,000 |

**Construction Cost Total**: $92,000

**Sources and Uses**

<table>
<thead>
<tr>
<th>Sources</th>
<th>Uses</th>
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</thead>
<tbody>
<tr>
<td>Public Funding</td>
<td>Construction Costs</td>
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<tr>
<td>In-kind material donations</td>
<td>Permanent Working Capital Costs</td>
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<tr>
<td>Donated labor</td>
<td>Developmental Costs</td>
</tr>
<tr>
<td>Total</td>
<td>Project Contingency Costs (5%)</td>
</tr>
</tbody>
</table>

**Total**: $111,500

Above: Existing gardens at Smiling Hogshead Ranch use drip irrigation with collected rainwater. New green infrastructure will expand this system with filtered stormwater runoff.
Implementation Summary
The implementation and installation of the components of the Ranch on Rails, as detailed in the preceding pages, are summarized here.

Itemized budget summary
Includes total capital costs (labor + materials)

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Urban Agriculture</td>
<td>$171,000</td>
</tr>
<tr>
<td>Composting</td>
<td>$35,600</td>
</tr>
<tr>
<td>Public Space and Education</td>
<td>$881,200</td>
</tr>
<tr>
<td>Cooperative Hub</td>
<td>$829,400</td>
</tr>
<tr>
<td>Renewable Energy and Utilities</td>
<td>$61,000</td>
</tr>
<tr>
<td>Green Infrastructure</td>
<td>$92,000</td>
</tr>
<tr>
<td><strong>Construction Cost Total</strong></td>
<td><strong>$1,870,200</strong></td>
</tr>
</tbody>
</table>

Sources and Uses summary

Sources
Loans (23%) $550,000
Public Funding (24%) $575,000
Capital Investment from Business Partners (1%) $30,000
Donations (52%) $1,275,000
Total (100%) $2,430,000

Donations Details
Foundation Funding (39%) $495,000
Crowd Funding (23%) $300,000
Material Donations (33%) $420,000
Donated Labor (5%) $60,000
Total Donations (100%) $1,275,000

Uses
Urban Agriculture $221,550
Composting $58,340
Public Space and Education $799,460
Cooperative Hub $954,285
Renewable Energy and Utilities $85,050
Green Infrastructure $111,500
Uses Total $2,230,195
Operating Plan

The Ranch on Rails will be a productive ecology – environmentally, socially, and economically.

Revenue from the Cooperative Hub, compost pick up service fees, and product sales (vegetables, mushrooms, compost) will support the on-going operations of the Ranch on Rails. Additionally, grants and partnerships with the public and private sector will be sought for sustaining the operations, public events, tours and workshops.

The following pages describe the comprehensive operating plan for the Ranch on Rails, including annual operating budgets and staffing plans for each component:

- Urban Agriculture
- Composting
- Public Space and Education
- Cooperative Hub
- Renewable Energy and Utilities
- Green Infrastructure
Urban Agriculture

The majority of expected operating revenue will come from the fresh, naturally grown vegetables and mushrooms produced through the indoor greenhouse, aquaponic and outdoor cultivation methods. These goods will be sold through farmers markets and on site during regular hours at a dedicated retail space in the Cooperative Hub. We anticipate that labor costs for program and educational staff will be greatly offset through foundation grants and private sector partnerships to support environmental education and sustainable food.

Operating Budget

**Sources of Operating Funding**
- Foundation Funding: $95,000
- Mushroom & Produce sales: $78,150
- Anticipated Annual Operating Funding: $173,150

**Anticipated Annual Operating Expenses**
- Personnel expenses: $154,000
- Materials & Supplies: $15,000
- Anticipated Annual Operating Expenses: $169,000

**Staffing Plan**
- 2 Full-time employees:
  - Urban Agriculture Program Manager: 35hrs/wk
  - Urban Agriculture Facilities Manager: 35hrs/wk
- 1 Seasonal Full-time employee:
  - Assistant Farm Manager: 35hrs/wk
- 4 Seasonal Part-time employees:
  - Environmental educators (2): 20hrs/week
  - Farm assistants (2): 20hrs/week

**Volunteers**
- To facilitate special projects and community outreach

Composting

The composting operations on the Ranch on Rails will be a collaborative effort between several existing successful private businesses and the volunteer run Smiling Hogshead Ranch. Bringing their existing portfolio of local commercial clientele to the new facilities at the Montauk Cutoff, these composting operations will be ready to immediately begin their operations and generate operating revenue. A portion of these profits will go directly to supporting the public spaces and program activities along the Ranch on Rails.

Operating Budget

**Sources of Operating Funding**
- Compost pick-up services, anticipated revenue: $68,000
- Gardening compost sales, anticipated revenue: $12,000
- Anticipated Annual Operating Funding: $80,000

**Anticipated Annual Operating Expenses**
- Insurance: $10,000
- Personnel: $35,000
- Anticipated Annual Operating Expenses: $45,000

**Staffing Plan**
- 1 Full-time employee:
  - Composting Manager: 35hrs/wk
  - To manage and coordinate composting operations

**Volunteers**
- To facilitate special projects and workshops
Public Space and Education

The public spaces of the Ranch on Rails, connected by meandering pathways and accessed through secure entrances during operating hours, will provide a valuable resource to the surrounding community and all New Yorkers. Operational funding for these public open spaces will come from local public funding and foundation funding from institutions whose missions align with the preservation of accessible open space in the urban context.

Operating Budget

Sources of Operating Funding
- Public Funding: $35,000
- Foundation Funding: $200,000
- Anticipated Annual Operating Funding: $235,000

Anticipated Annual Operating Expenses
- Insurance: $25,000
- Waste Carting: $10,000
- Personnel expenses: $30,000
- Part-time maintenance staff: $50,000
- Part-time security staff: $100,000
- Anticipated Annual Operating Expenses: $215,000

Staffing Plan

- 6 Part-time employees:
  - Part-time maintenance staff (2): 20hrs/wk
    - To clean, maintain and repair public areas
  - Part-time security (4): 20hrs/wk
    - To provide security during open and closed hours

Cooperative Hub

The Cooperative Hub will act as a catalyst for local small businesses, worker cooperatives and nonprofit organizations and artists, providing space for their activities at an affordable lease rate. The majority of operational funding will be drawn from the rental income on this approximately 5,000sf complex, and the project will be eligible for potential grant funding from institutions supporting economic development, worker cooperatives, arts facilities and start-ups in New York City.

Operating Budget

Sources of Operating Funding
- Rental Income (5000sf, leased at $25/sf/yr): $125,000
- Foundation Funding: $45,000
- Anticipated Annual Operating Funding: $170,000

Anticipated Annual Operating Expenses
- Insurance: $25,000
- Waste Carting: $5,000
- Part-time Location Manager: $25,000
- Anticipated Annual Operating Expenses: $55,000

Staffing Plan

1 part time employee:
- Location Manager: 20 hrs/wk
  - To ensure the facility is properly secured and maintained in compliance with all applicable regulations.

Volunteers
- To facilitate special projects and events
Renewable Energy & Utilities

The installation of renewable energy technologies along the Ranch on Rails will be initially funded through a lease or purchase agreement with the installation company. Due to this funding structure, operating costs will be limited to the purchasing back of power produced on site. Energy cost estimates are dependent on final design.

Operating Budget

Sources of Operating Funding
- Foundation Funding: $20,000

Anticipated Annual Operating Funding: $20,000

Anticipated Annual Operating Expenses
- Security & landscape lighting: $14,986 (electrical consumption, $0.20/sf x 74,930sf area)
- Cooperative Hub: $8,750 (electrical consumption, $1.75/sf x 5,000sf area)
- Bathrooms: $1,200 (electrical consumption, $1.50/sf x 800sf area)
- Rail Car Welcome Center: $375 (electrical consumption, $1.50/sf x 250sf area)

Total: $25,311

Staffing Plan
- 1 part time employee:
  - Maintenance Staff: 5 hrs/week
  - These hours would be worked by one of the 2 part-time maintenance employees accounted for in the Public Space and Education subsection, thus their labor cost is not included here.

Green Infrastructure

Anticipated sources of operating funding include public funding and foundation funding for the treatment of stormwater that would otherwise enter NYC’s CSO system.

Operating Budget

Sources of Operating Funding
- Foundation Funding: $25,000
- Public Funding: $15,000

Anticipated Annual Operating Funding: $40,000

Anticipated Annual Operating Expenses
- Mycoremediation lab consumables: $4,000
- Part-time maintenance staff: $10,000
- Mycoremediation staff: $15,000
- Maintenance and repairs: $10,000

Total: $39,000

Staffing Plan
- 2 part-time employees:
  - Part-time maintenance staff: 10 hrs/wk
  - Mycoremediation lab staff: 15 hrs/wk
Operating Plan Summary

The hypothetical operating budgets and staffing plans of the components of the Ranch on Rails, as detailed in the preceding pages, are summarized here.

Annual Operating Budget

**Sources of Operating Funding**
- Public Funding (7%) $50,000
- Rental Income (18%) $125,000
- Compost Services (12%) $68,000
- Mushroom & Produce Sales (11%) $90,150
- Donations (52%) $385,000
- Total (100%) $718,150

**Donations Details**
- Foundation Funding (100%) $385,000
- Total Donations (100%) $385,000

**Uses**
- Urban Agriculture $169,000
- Composting $45,000
- Public Space and Education $215,000
- Cooperative Hub $55,000
- Renewable Energy and Utilities $25,311
- Green Infrastructure $111,500
- Uses Total $548,311

**Staffing Plan**

**Full time employees:**
- Urban Agriculture (3) 35 hrs/week
- Composting (1) 35 hrs/week

**Part time employees:**
- Green Infrastructure (1) 5 hrs/week
- Urban Agriculture (1) 15 hrs/week
- Public Space and Education (4) 20 hrs/week
- Cooperative Hub (2) 20 hrs/week
- Renewable Energy and Utilities (4) 20 hrs/week

**Volunteers**
- To facilitate special projects and workshops
Conclusion

The Ranch on Rails will generate a thriving social economy and natural ecology in the heart of Long Island City.

Our vision for the Ranch on Rails is representative of how we see our community: diverse, creative, cooperative, and committed to the future of New York.

The voices of our neighbors, local businesses, and community leaders have come together through months of transparent and collaborative working sessions to develop this initial vision of the Ranch on Rails. Listening to and learning from each other, we have drawn upon our individual areas of expertise and practiced the difficult and valuable art of cooperation. Represented here as a cohesive whole are our many visions for building a better future for our local community. The abundance and diversity of elements is not incidental to the Ranch on Rails, but rather it is crucial to the successful construction of a densely layered ecology.

Our community-led process has demonstrated the critical value of an open and inclusive urban development strategy. We strongly believe that the transformation of the Montauk Cutoff site will be most valued, supported, and enjoyed by all New Yorkers when the process for its development is truly community-led.

We look forward to working with the MTA to ensure that future.
Appendix: Press Mentions for Smiling Hogshead Ranch and Ranch on Rails

“An urban oasis filled with gardens, a vineyard, houses for birds and bats and a self-sustaining power grid to support WiFi and charging stations is among the visions being floated for a 4-acre stretch of old railroad tracks in Queens.”

“In a neighborhood known for its industrial feel and growing number of towers, Long Island City’s Smiling Hogshead Ranch, with the help of other community groups, is trying to preserve its vision for an urban garden as a community organizing tool.”

“In the heart of a desolate, industrialized section of Skillman Avenue, along a stretch of abandoned Long Island Rail Road tracks, a community garden continues to thrive against all odds.”

“This is a once in a generation opportunity to do something right for the environment in the ruined biome of Long Island City…a frankly huge opportunity to create an enormous acreage of green space in an otherwise completely barren industrial area which can be best described as a ‘devastation of concrete.’”

“Seriously, there are giant flowers here, so check the Smiling Hogshead Ranch out. Long Island City can use all the giant flowers it can get.”

“The guerilla gardeners of Long Island City are going legit.”


“LIC Urban Garden Fights to Keep Land on Defunct Rail Line, Envisions New Use”, Angela Matua, Queens Courier, January 20, 2016 http://qns.com/story/2016/01/20/160587/

“These Views”, Mitch Waxman, Newtown Pentacle November 30, 2015

“Really, there are giant flowers here, so check the Smiling Hogshead Ranch out. Long Island City can use all the giant flowers it can get.”

“The guerilla gardeners of Long Island City are going legit.”
LONG ISLAND CITY — An urban oasis filled with gardens, a vineyard, houses for birds and bats and a self-sustaining power grid to support WiFi and charging stations is among the visions being floated for a 4-acre stretch of old railroad tracks in Queens.

The so-called "Ranch on Rails," proposed by a group of locals and advocates, is among the proposals for the future of the Montauk Cutoff, a raised rail line about a third of a mile long that stretches from Skillman Avenue near Sunnyside Yards to the Dutch Kills tributary, passing over 49th, 50th, 51st and Borden Avenues.

Though the MTA no longer uses the line, it wants to keep it in case it's needed again in the future — and so is considering leasing the land to a business or community group to use in the meantime, according to a "Request for Expressions of Interest (RFEI)" that the agency released this fall.

All submissions are due by next week, and the MTA will use them to determine who's interested in potentially reusing the Montauk Cutoff and what the public would like to see the space used for, according to MTA spokesman Aaron Donovan.

"(To) identify that there is a desire in the community to activate the space, and have it be used in some way, as opposed it just remaining forlorn and derelict," he said.

The "Ranch on Rails" was conceived by the Cutoff Coalition, an informal group of residents and organizations that met several times this fall and winter to come up with their vision for the Montauk Cutoff.

The group includes members of the Newtown Creek Alliance (http://www.newtowncreekalliance.org/), land access advocates 596 Acres (http://596acres.org/) and the Smiling Hogshead Ranch (http://smiling-hogshead-ranch.tumblr.com/), an urban farm near (https://www.dnainfo.com/new-york/20140905/long-island-city/community-farm-on-mta-owned-land-inks-deal-officially-use-space) the Montauk Cutoff that's located within the area the RFEI covers.

Their concept would expand upon many of the activities the Smiling Hogshead Ranch does already, but on a larger scale — creating what 596 Acres director and Coalition member Paula Segal described as "a regenerating, self-sustaining ecosystem."

"We're taking the train infrastructure and repurposing it and reinventing it," Segal said. "This is really an opportunity to do that and to be sensitive to the fabric of the rest of the neighborhood."

Under the group's vision, the Montauk Cutoff would be home to two greenhouses where farmers could grow vegetables, as well as an outdoor learning garden that could host school groups.

There would be a grape vineyard, areas for mushroom cultivation as well as a wildflower garden with houses for birds and bats, according to the plans.

"Ranch on Rails floated as Plan to Reuse Old Track in LIC", Jeanmarie Evely, DNA Info, February 17, 2016
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Groups of committed individuals developed detailed proposals for specific portions of the Ranch on Rails adaptive reuse plan, based on input from the Cutoff Coalition:

**Urban Agriculture**  
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Icons are based on designs from the Green Map System  
Photographs courtesy of Smiling Hogshead Ranch and Mitch Waxman unless otherwise noted

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