

# Visualizing a Hydrogen Community

Introduced by Bingham Labs and Lloyd Goff

# OASIS VILLAGE

A \$400 million  
Concept Plan

A 135 acre Pedestrian Community at Some Skyways Station Stops  
with 2.5 million s.f. mixed uses surrounded by 700,000 sf of landscaping with a variety of land uses all using Oasis Machines for water, electrical, hydrogen fuel, cooling and heat. Roads, trolleys, golf carts, bicycles and walking paths connect all sites inside.  
This is a walkable village with all cars parked on the outside.

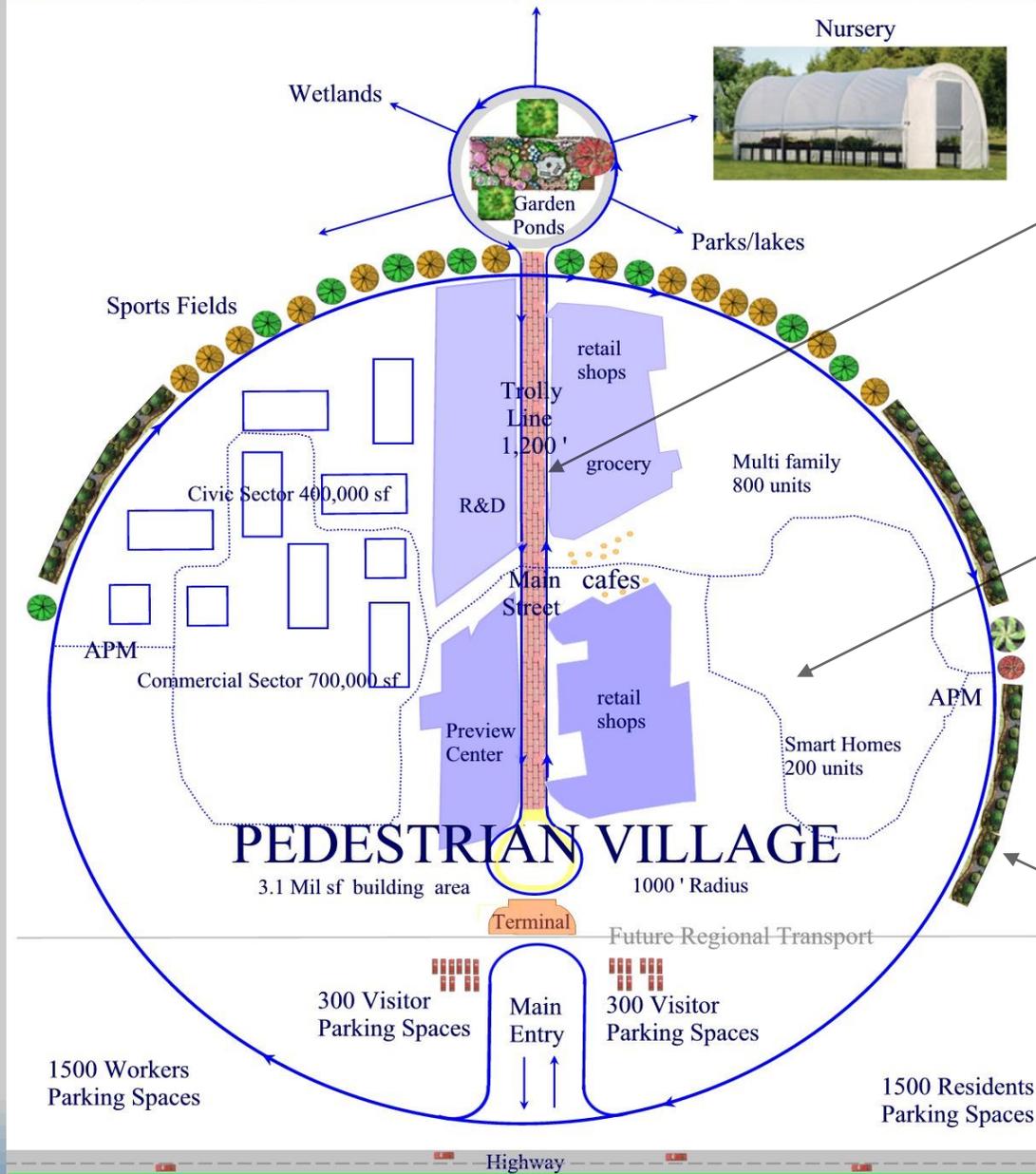
- ▶ We believe that the future will see a shift from people moving into the city, to people moving back into the country. But this will only happen if we give them a reason to do so. The OASIS VILLAGE provides that reason. We refer to this solution as a VILLAGE, and also refer to it as a CITY. We call it a VILLAGE as we intend it to be small, friendly, and prosperous. It will also be a city, although a small city, a small town, that can best be defined as a VILLAGE. By use of our new sources of energy, we will transform the environment from one of pollution to restoration, with new methods of living, farming and manufacturing, free of air and water contamination.
- ▶ The Purpose of this slide show is to illustrate the variety of ways that this can happen in a local community. It is our intention to grow this visualization for the next year thru sketch up and be able to calculate what happens on every s.f. of this Oasis Village.
- ▶ This will allow us to accurately predict the rents and other revenue sources that it takes to service the \$400 million needed to build it. We are currently calculating revenues over \$3.5 million per month will pay debt service of \$2 million per month, as shown in the coming slides.

# FARMLANDS

## Synopsis

This project is a living demonstration of the many uses of hydrogen in all our everyday lives. It is a complete town with all the components of work, live, play, shop, govern and tourism, all in 3 Million sf of land area. Farm, sports and wetlands are outside the ring road. This will contain a car free zone inside the ring road, thus allowing for a pond and garden setting for 2.5 million sf of urban mixed uses.

The economic generator for the community is Bingham Labs which is a hydrogen research and development Company that intends to provide hundreds of small Oasis machines. Other economic sources are farming and tourism.



Trolley on Mall runs on hydrogen



Lush Gardens Throughout



APMs run on Hydrogen

# Funding Requirements

Year 1	Bingham Labs provides For the community and funding plan	\$100,000
Year 2	Private Placement Provides For testing lab and prototype manufacturing in exchange for initial equity	\$5,000,000
Year 3	Sale or Private Placement provides To build a Hydrogen Community of 135 acres in exchange for combination of debt and equity	\$400,000,000

## Four Economic Generators

1. Agribusiness
2. Manufacturing Oasis Machines
3. Tourism
4. Retirees



## Core Land Uses

By eliminating the car from the core area, it leaves room for more gardens, pond, trees paths and landscaping as shown by the green areas

## Value Capture District

Whether the Oasis Village is in an urban area, suburbs or country, it will have a taxing district set up for property taxes. These revenue can pay for the trolleys, walkways, carts, mall, terminal and landscaping. Such an new Operating Business District will be set up at construction.

# Development Costs

Yellow = 1<sup>st</sup> year initial projects. These figures show what \$400 Million will buy

	Millions
Buildable density of 2,500,000 s.f. @ \$154 psf ave	
Trolley one mile with 2 cars	\$4
Mall Buildings 200,000 sf x \$125per	\$38
Single family 200 units @1,500 sf x \$150 psf	\$30
Multi -family 800 units @1,000 sf x \$ 100 psf	\$80
Commercial and Office 400,000 sf x \$150 psf	\$60
Bingham Labs and Operations Centerter 80,000 sf	\$20
Community Center, Studios, Café, Airship Terminal 80,000 sf	\$30
Hotel and Service shops 100,000 sf	\$20
Civic 400,000 sf x \$125 psf	\$50
Loop/ APM 6200' X 15' x \$15 psf/ 10 cars	\$4
Land 135 acres @ \$0 costs plus surveys, soils test	\$0
Water & oasis machines 1200 units @ \$15,000 ave.	\$18
Parking 3300 cars at \$5,000 per space	\$17
Urban Landscaping & paths 500,000 sf @ \$12.5 psf	\$6
Urban Development Costs	\$371
Design/Engineer @ 3%	\$11
Farm crops: water, soils, storage, 2 circle pivots 50 ac	\$8
3 Nurseries 15,000 sf at \$30 psf + plants	\$2
Optional Skyways demo	\$10
Total Costs	\$402

# Feasibility Sketch

This sketch shows what revenues it would take to pay the \$400 million start up costs. The community and Infrastructure services are supported by rents and property taxes. Here are some attainable assumptions.

Oasis Village Feasibility Sketch			Monthly
\$400,000,000 Cost to Build at 6% financing has a monthly Debt Service of			<b>\$2,000,000</b>
<b>Revenue Sources</b>			
Buildable density of 2,300,000 s.f		Rent rate	Monthly
Trolley one mile with 2 cars		<u>psf p/ mo</u>	<u>Revenues</u>
Mall Buildings 200,000 sf x		\$1.5 psf	\$300,000
Single family 200 units @1,500 sf x		\$1500 p/u	\$300,000
Multi -family 800 units @1,000 sf x		\$1200 p/u	\$960,000
Commercial 700,000 sf x		\$1.25 psf	\$875,000
Civic 400,000 sf x		\$1 psf	\$400,000
Loop/ APM 6200' X 15' x \$15 psf/ 10 cars			
Land 135 acres @ \$100,000 per ac			
Water & oasis machines 1200		\$50 ea p/m	\$60,000
Parking 3300 cars at \$5,000 per space		\$50 pm/60%	\$100,000
Media 7000 users		\$25 pm	\$150,000
Farmlands water, soil,storage 75 acres and up			\$100,000
Total revenues per month			<b>\$3,245,000</b>

# The Terminal Connections

The terminal is an Intermodal connecting the parking, trolley, APMs, vans, taxis, bus and perhaps someday Skyways. Parking is close to terminal and outside the village.

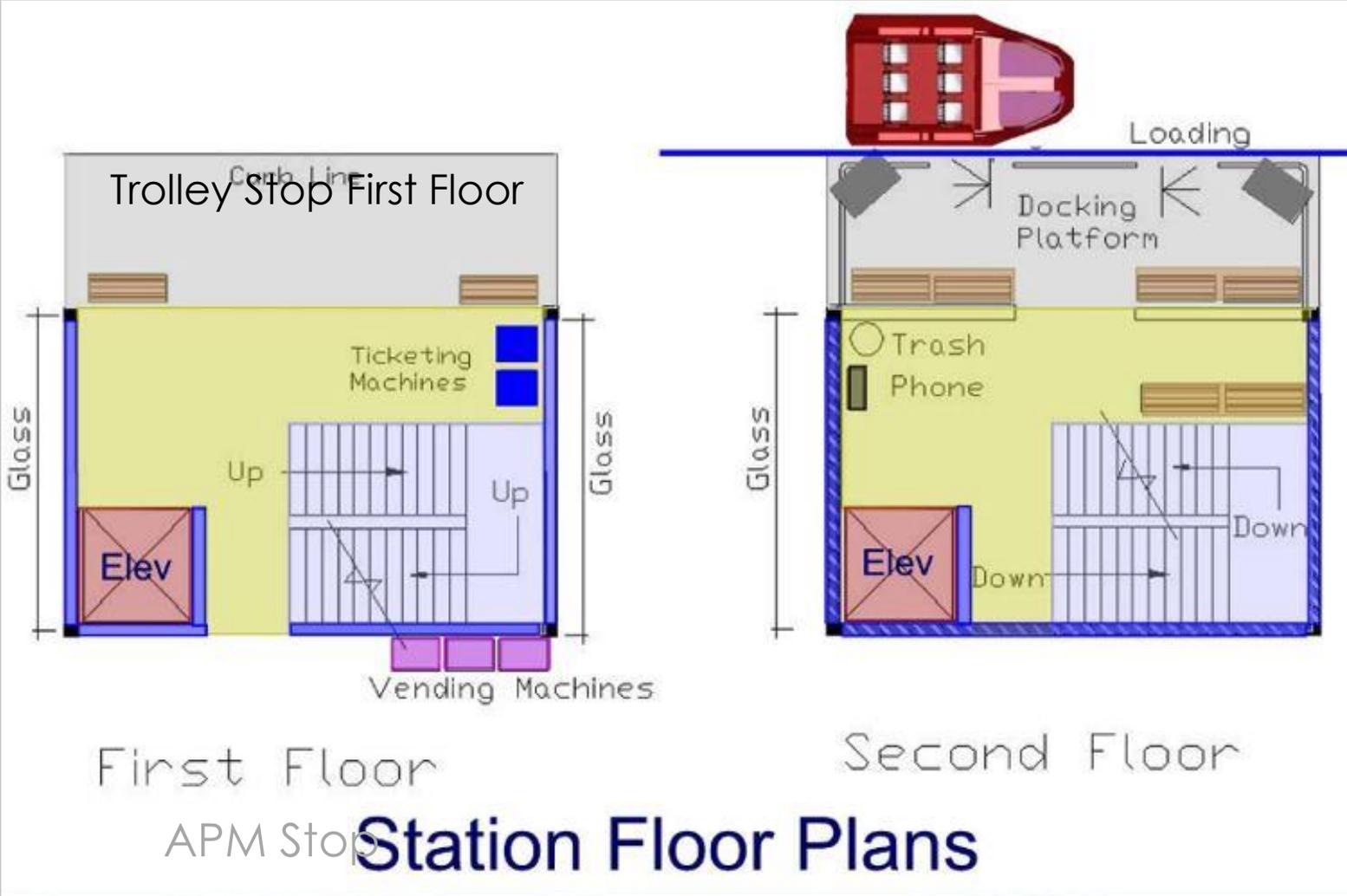


# Terminal Future Regional Skyways Add-on



The Terminal is an Intermodal area linking APM Pods, trolley, vans parking and a future regional Skyways

# Terminal Station for Trolley, APM, Carts and Skyways



First Floor

Second Floor

## APM Stop Station Floor Plans

APM Path →

# Main Street Mall

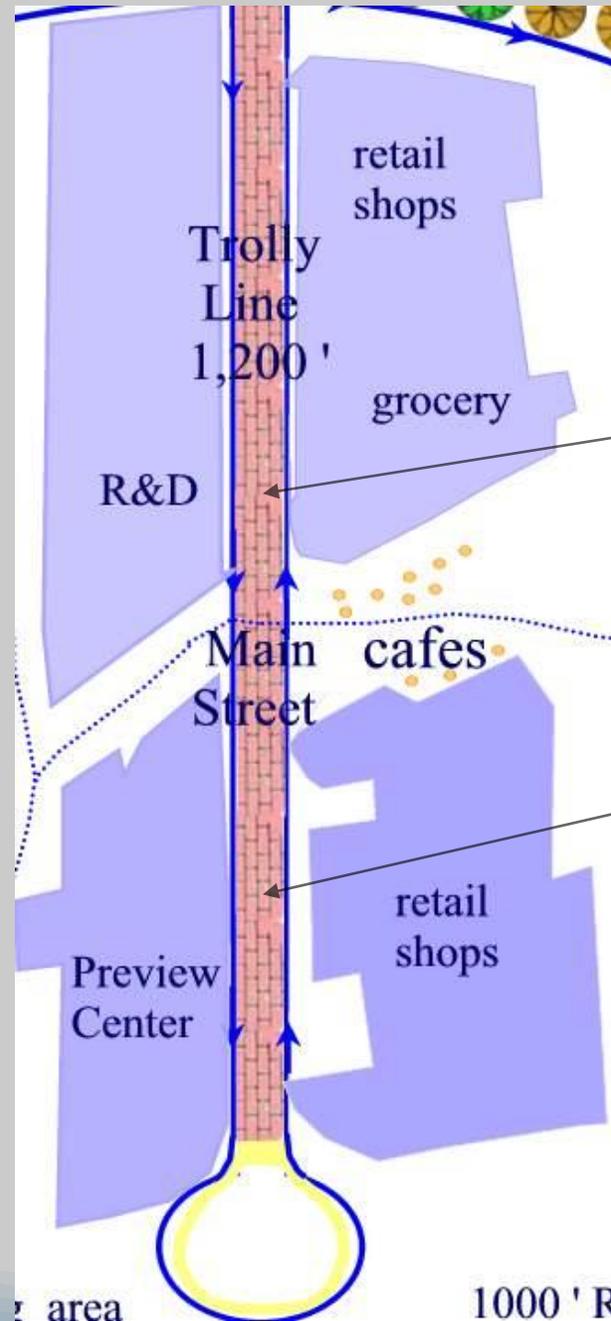
Two blocks long for shops, banks, cafes and previews



The Oasis Village core is shown bisected by a walking mall and free trolley serving grocery, banks, shops, attractions, cafes. It is the prime real estate and is planned for 200,000 sf activity core in four separate buildings each for multiple tenants. It is 1,200' long. Disneyland main street is the inspiration.

# Using Disney's Main Street

As a Core Template, Initially this will have one trolley and grow to three or perhaps four trolleys as demand increases. The mall will be installed early with facades of the shops. The full building will be built, as it is leased. The four quadrants shown in blue are each larger than the size of football fields



1200 ' Trolley Mall as the activity core



Shops, cafes, attractions,

# Residential Modular Types

This sector has 800 rental units averaging 1,000 sf with 100,00 sf of landscaping.  
It will demonstrate new building systems based on using the Oasis Machines



We are looking for innovative modular multi story condos plans and single family systems like:

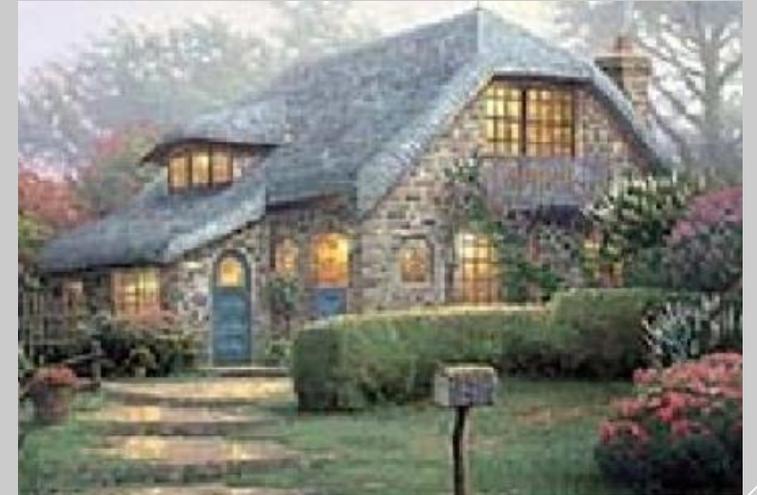


**Honeycomb Paper  
With choice of facings**



# A Housing Mix

This sector has 200 smart homes averaging 1,500 sf for 300,000 sf density within 100,000 sf of landscaping



## Designer Homes

Whatever the design of the homes turns out to be they will be situated in a garden like setting with water provided by Oasis Machines.



Luxury Homes



Container Homes

# Commercial Sector Modular Buildings



Expandable Office and Commercial Space



Small Hotel at Entry with First Floor Services

# Civic Sector Uses

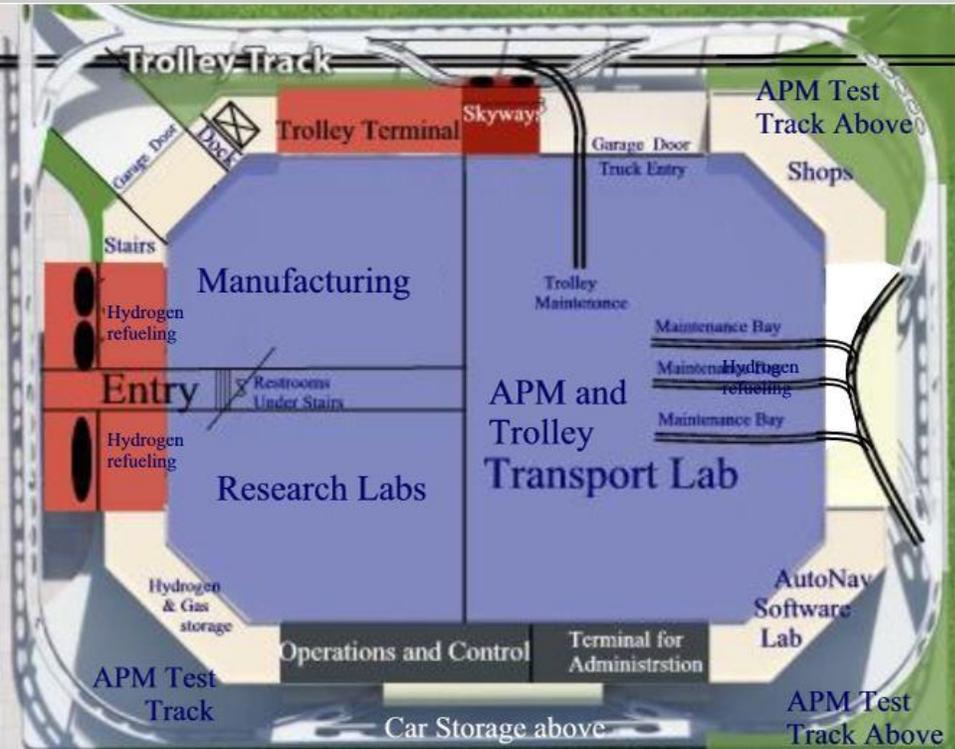
This area has 400,000 sf of building with 100,000 sf of landscaping. Some of the uses could be:

1. A Hydrogen Academy teaching world wide to schools
2. Police, fire and safety facilities
3. Spa, Wellness Center and Emergency
4. Churches, clubs and charities
5. Town Hall with all government offices

# Bingham Research Labs

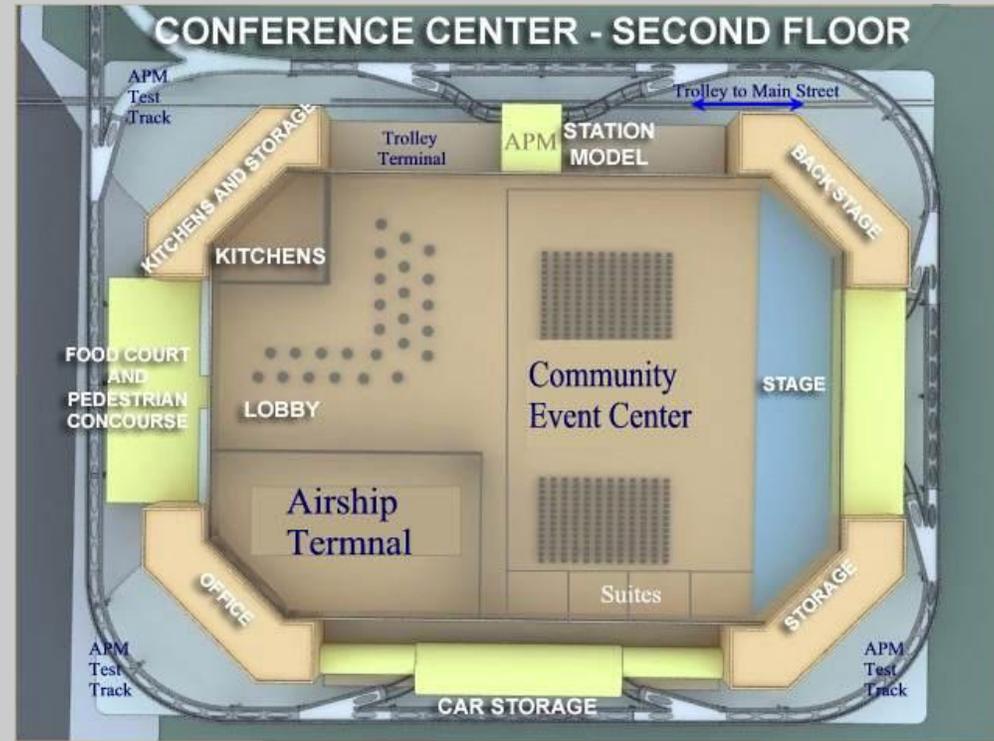
With ¼ mile Skyways Test Track and Stations

As Bingham Labs outgrows this facility, it will become the  
Community Operations Center



## 1st Level Facilities For:

- Hydrogen Research
- Oasis Manufacturing
- APM Transport Labs
- Hydro-gas disperser
- Terminals for APMs, trolley & Skyways



## 2nd Level Incubator

This video conference facility grows jobs and becomes a hub that will attract business tourists, shoppers and residents to the community

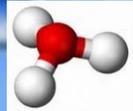
# Manufacturing Prototype

Each building in the Village will operate independently by using an Oasis Machine (scaled-to-fit) that is significantly cheaper to generator power and water and gas and it operates off grid. Residential sizes will be smaller than a refrigerator. These machines will be manufactured by Bingham Labs for the Oasis community until it is full, and then sold thru dealers outside.

## Oasis Machines



### GENERATES:



#### Hydrogen gas

Battery charge separates the hydrogen bond from water



#### Electrical generation

By splitting hydrogen from water and powering an engine



#### Water from the air

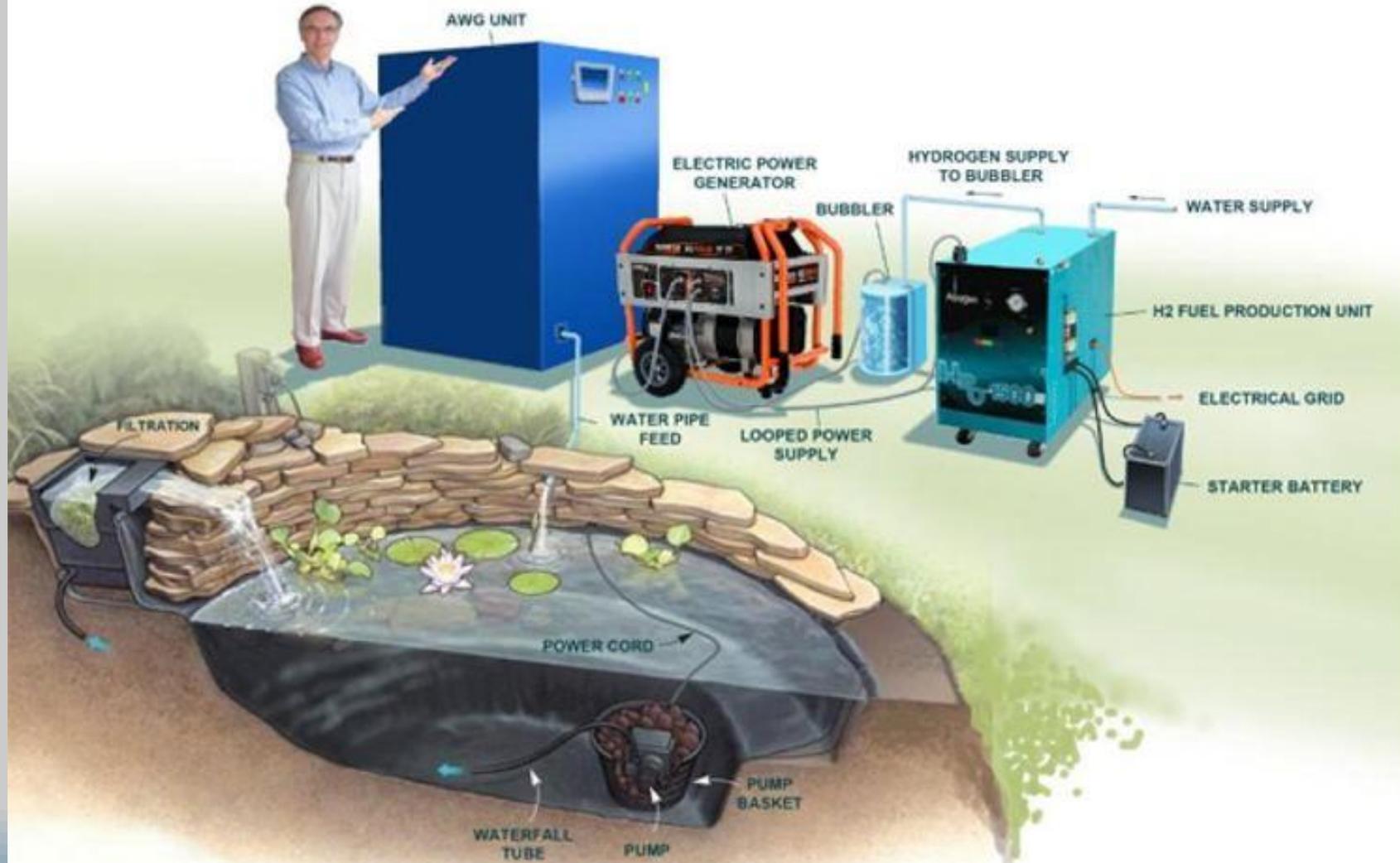
Uses electricity to generate condensate from water vapor like an air conditioner



#### Climate control of heating and cooling

A by product of the condensation process is either cold or hot air

# OASIS MACHINE



This image breaks down the components to illustrate how it works. They are a water splitter (Aqua), an electric generator (orange) that runs on hydrogen/Oxygen from the water splitter. The generate the power to run a water generator (blue) that pulls water vaper out of the air like air conditioning does. By products are cold or hot air for each building. This is off the grid and completely sustainable. This village will not need to import any electricity or water.

# Bingham Labs Builds 1200 + Oasis Machines

varying sizes

- Commercial size
- Residential size
- ▲ Outside



This site plan shows where the 1200 Oasis Machines will go. They will provide all the water, energy, gas, cooling, heating needed in each machine small than a mini refrigerator.

## Oasis Machines Grow Gardens



This slide is meant to show how we can create a lush landscape using the Oasis Machines to generate the water from water vapor in the air in large enough quantities to do things like this. We plan to show an 80% cost reduction in creating and maintaining this supply of water generated on site.

# Oasis Machines Grow a Loop Trail

with APM, trees as wind breakers, soils control and shade



## Zippidy DoDa Trail

This is an environmentally engineered path accommodating a variety of users testing a dedicated lane for APMs (Automated People Movers). Features : are tree shading, music, flowers, aromas and signs to show a new urbanism in paths

# AUTOMATED PEOPLE MOVERS (APM)

Demonstrations on the Loop and APM leasing tours



A guideway signal receiver



Golf Carts



Trams



Classic Car Bodies



Skyways cabin

The concept is to build a chassis that can accept any kind of vehicular cabin and together they work as a driverless vehicle following buried cables/sensors on dedicated paths. They can mix with pedestrians and even vehicle crossings



Oasis Machines used for

# Terra Forming for an Agribusiness

1. Reintroducing worms
2. Generating water that builds ponds and wetlands to attract fowl and other life
3. Farming with water captured from the air starting with Greenhouses
4. Introducing a food chain capable of supporting the village
5. Planting trees and shrubs that maximize shade, erosion and wind control

# Getting Started with Agribusiness

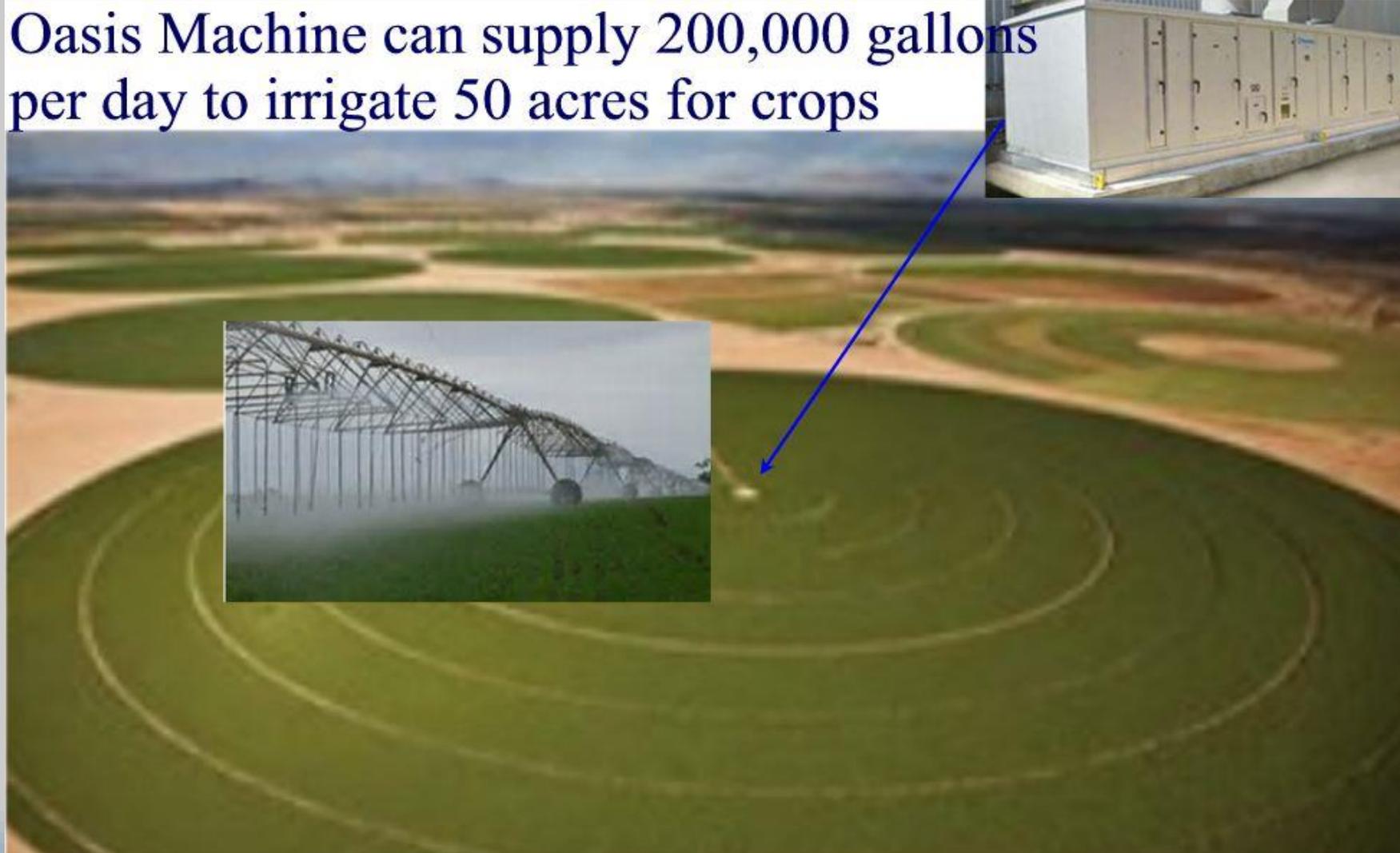
Greenhouses can grow year round using Oasis Machines for lighting, water and humidity



Greenhouses will be the first activity in starting a Village

# Making The Deserts Bloom

Oasis Machine can supply 200,000 gallons per day to irrigate 50 acres for crops



# Sports Facility Complex

These would be bundled in one Location outside the ring road  
and use oasis machines for electricity and water



# Adding Corporate Partners Along The way

We need to deal with these kinds of vendors along the way so we can also grow this group into a development consortium for future projects

Homebuilders

Food services

Software

Banking

Media

Farming

Manufacturing

Commercial developers

Attractions

Hotel Flag

Engineering

Property management

# Starting Improvements

Nurseries and farm prep

Mall and facades with Trolley runs

APM Ring Road and Walking Trail

Bingham Labs and administrative offices

Temporary Housing and Cafeteria

APM tours for leasing