

Houston Spaceport Development Update

Presented by: Houston Airport System
May 13, 2021





Houston Spaceport Overview

Licensed as a Spaceport by the FAA in 2015



Investment by Houston Airport System:

- 400-acre site for aerospace development.
- Phase 1 Infrastructure was recently completed.
 - \$21 Million investment with \$1 Million EDA Grant.
 - Infrastructure includes roads, cabling and utilities serving 153 Acres.
- Purchase of Houston Aerospace Support Center (HASC) in late 2015. Current tenants include:
 - EDGE Center
 - Intuitive Machines





Houston Spaceport Overview



New Investment by Houston Airport System:

- Taxiway Lima is currently in the Planning stage and will serve aeronautical users at the Houston Spaceport.
- Two planned developments are now ready:
 - Axiom Space
 - Binding Memorandum of Agreement
 - Hamilton Sundstrand (dba Collins Aerospace)
 - Lease Agreement





Axiom Space Development at Houston Spaceport

Houston Airport System

May 13, 2021



Axiom Space (Axiom) Houston Spaceport Development Project



- Axiom Space is a company specializing in aerospace technology and management of missions to space.
- Orbiting 250 miles above the Earth's surface and traveling over 17,000 miles per hour, the Axiom Station will be a commercial laboratory and residential infrastructure in space that will serve as a home to microgravity experiments, critical space-environment materials testing, and use by private and professional astronauts alike.
- It is the cornerstone – the origin – of a permanent, prosperous human presence and a thriving network of commercial activity in Low Earth Orbit.





Axiom Spaceport Development Project



- Axiom plans an Aerospace Operations and Technology Facility Development for the production of space station components:
 - Habitation, Research and Manufacturing, Observation and Power Thermal Modules for Axiom Station.
- The binding MOA will appropriate funds to allow facility planning and design to commence. A future lease agreement will be brought to City Council following the binding MOA.





Axiom Spaceport Development Project



- Construction –
 - Estimated start Q4 2021–Q1 2022, completion within 24 months.
- MWBE Requirements –
 - 24% Design and 30% Construction
- Job Creation – Est. 1,000 employees, including engineers and technicians.
 - Current Employees in Houston = ~200
 - Temporarily Leasing 60k sq ft Office Space in the Clear Lake Area





Axiom Binding MOA Terms

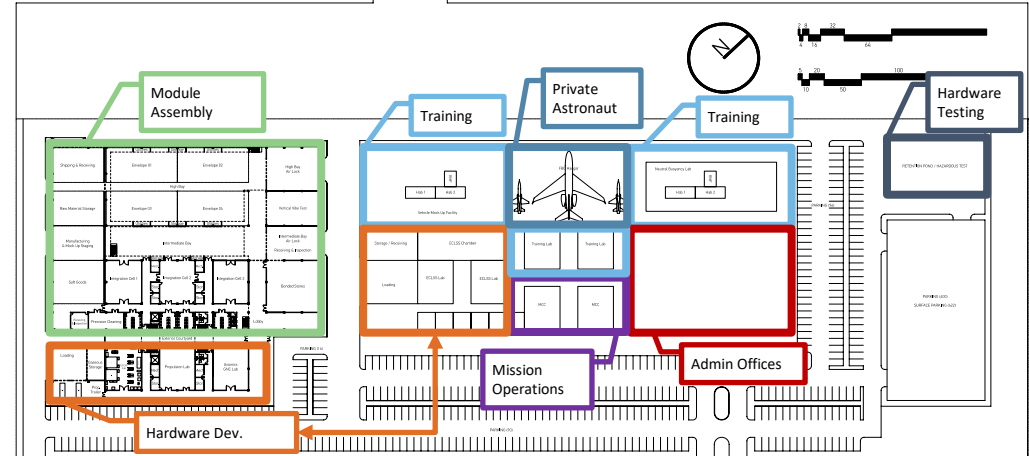
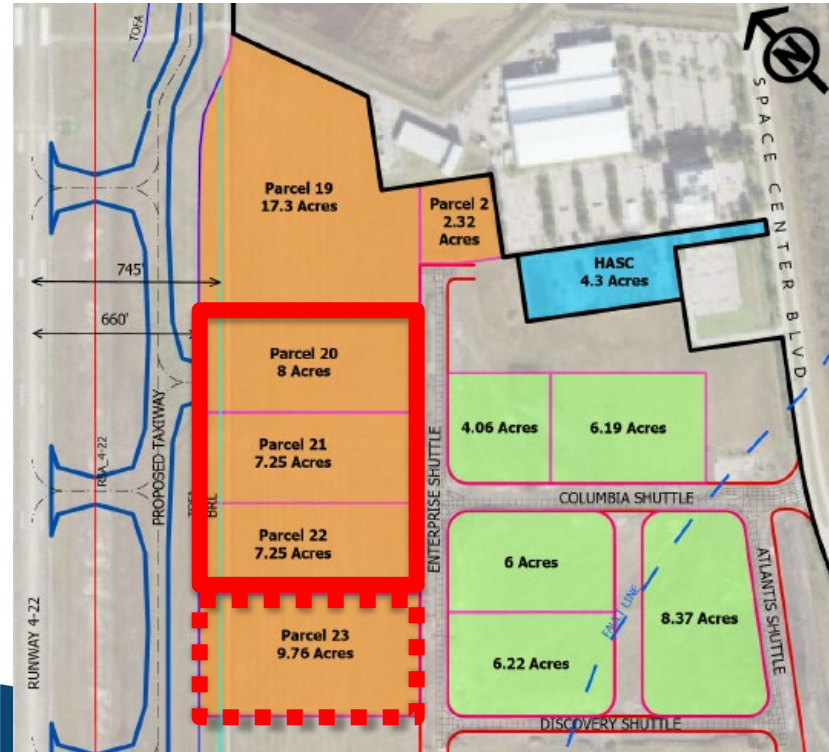


- Axiom will plan, design and construct an estimated 430,000 square feet of high bay space, hangar, flight development and testing space, office space, astronaut facilities and parking on approximately 22.5 acres.
 - High-bay space will be designed to support the integration of space modules that will be flown to create the Axiom Station.
 - Hangar will be designed to accommodate aircraft, such as private jets and T-38s for astronaut training purposes.
 - Axiom may conduct FAR Part 145 aircraft maintenance and storage for its commercial space customers arriving in their own aircraft.
 - Axiom shall have a right of first refusal on an option tract comprised of 9.76 acres.





Axiom – Site Plan and Sample Conceptual Layout



Initial tract – Parcels 20, 21, 22

Option tract – Parcel 23

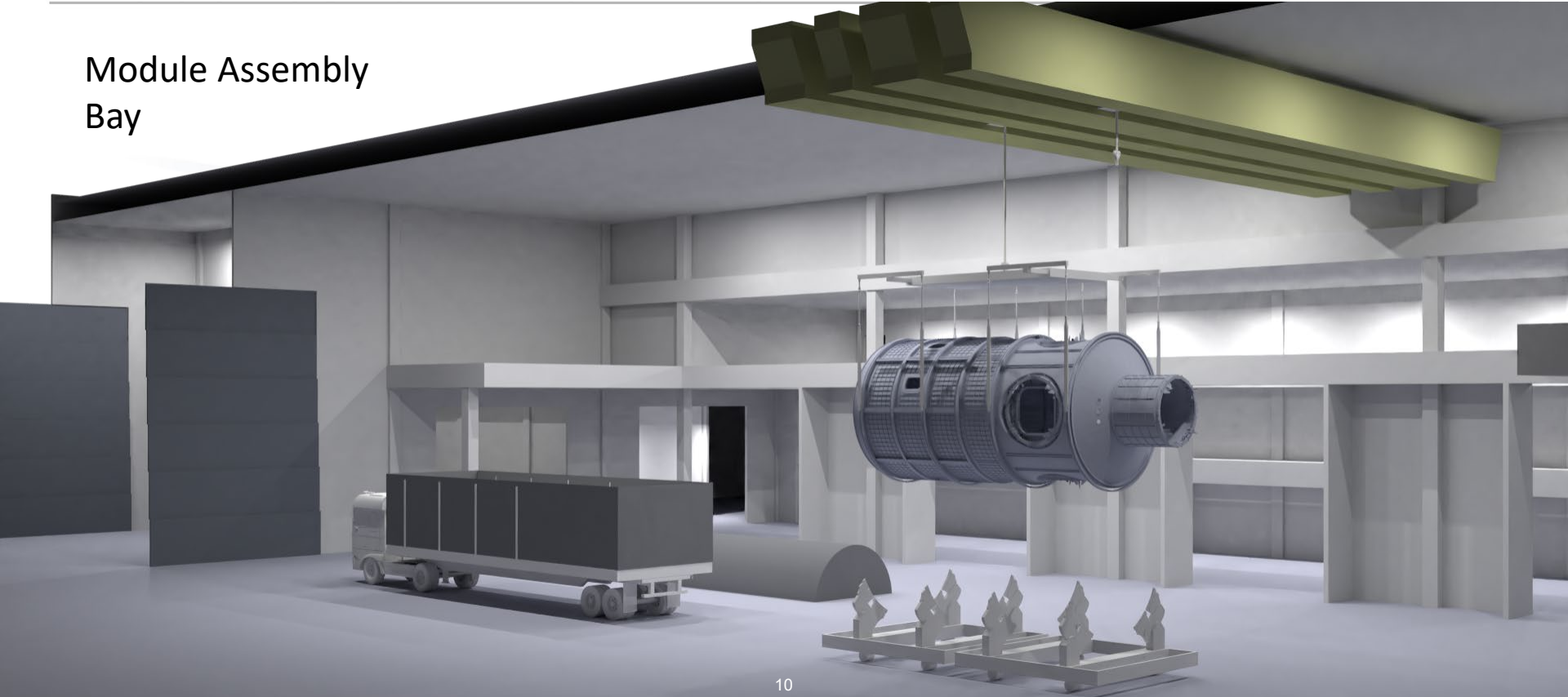




Axiom Development Conceptual Design



Module Assembly Bay





Axiom Development Project Components



Airside-Accessible:

- Module Assembly ~ 101,700 sq. ft.
- Flight Hardware Dev. ~ 24,400 sq. ft.
- Flight Hardware Testing ~ 13,600 sq. ft.
- Hangar/Private Amenities ~ 96,000 sq. ft.
- Astronaut Training ~ 43,500 sq. ft.

Landside Facilities:

- Manufacturing ~ 17,300 sq. ft.
- Mission Operations ~ 19,700 sq. ft.
- Office/Employee Amenities ~ 114,000 sq. ft.





Additional Axiom MOA Terms



- The Project will vest in the City on a brick-by-brick basis, with reimbursement of the project costs by the City, for a not-to-exceed total cost of \$40 Million. \$4 Million will be appropriated under the binding MOA for Planning and Design.
 - Total project investment estimated by Axiom as \$120 Million, with ~\$80 Million funding provided by the private sector.
- The initial term shall be 10 years for up to \$22 Million in reimbursable project costs, or 20 years for up to \$40 Million in reimbursable project costs. Additional ten-year option periods are available so long as the total term does not exceed 40 years.





Additional Axiom MOA Terms



- Project Cost Recovery –
 - Initial 10 Year Term - Project costs will be recovered from Axiom at the rate of 5% of the total cost reimbursed by City, escalated annually 2.5%.
 - Years 10-20 – Rent for the second 10 years of the initial term shall be assessed at 10% of the total cost reimbursed by City.
 - Option Period – Rent is based on fair market value set by appraisal.
 - Option Tract – Rent for the option tract, if exercised, shall be based on fair market value for ground set by appraisal.
 - If Axiom chooses not to enter into a lease agreement, it shall be required to pay back all money reimbursed by the City from the \$4 Million appropriation.



For more about Axiom:
<https://www.axiomspace.com>

The Axiom Leadership Team:
<https://www.axiomspace.com/team>

The First Mission and News:
<https://www.axiomspace.com/news-and-media>





Collins Aerospace Development at Houston Spaceport

Houston Airport System

May 13, 2021




Collins Aerospace Houston Spaceport Development Project





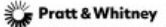




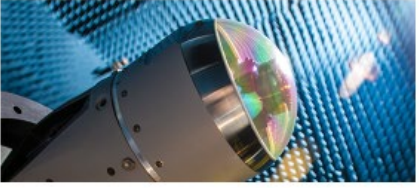
Collins Aerospace—a division of Raytheon Technologies—is a company specializing in aviation and aerospace technology.

- Hamilton Sundstrand, the entity named in the proposed lease agreement, is a division of Collins Aerospace.

Collins Aerospace is a leader in technologically advanced, intelligent solutions that help redefine the aerospace and defense industry.



Businesses

 <p>Collins Aerospace NET SALES \$19 BILLION</p> 	 <p>Pratt & Whitney NET SALES \$17.2 BILLION</p> 
 <p>Raytheon Intelligence & Space NET SALES \$15 BILLION</p> 	 <p>Raytheon Missiles & Defense NET SALES \$15.3 BILLION</p> 

This document does not include any export controlled technical data. 3





Collins Aerospace Houston Spaceport Development Project

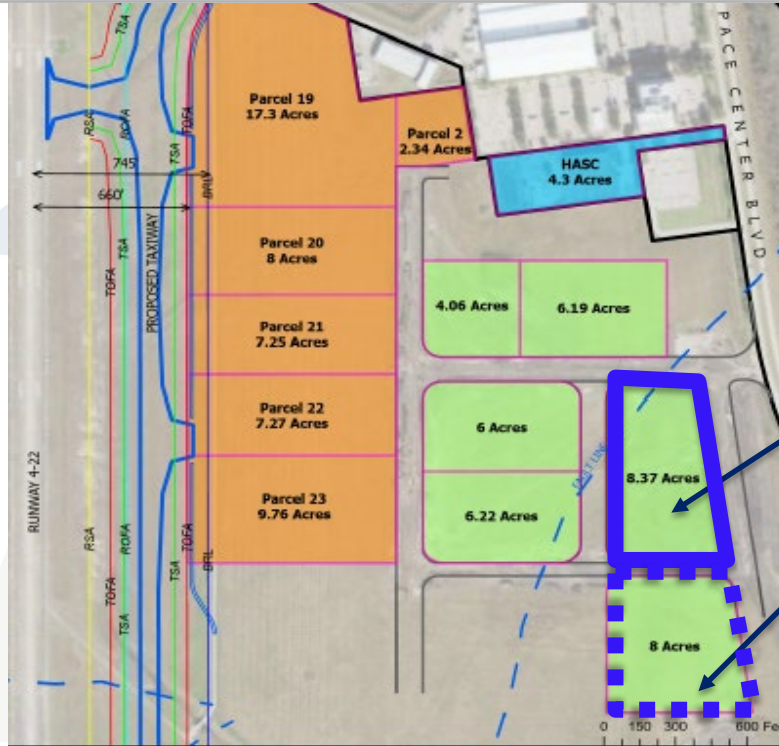


- Collins Aerospace (via Hamilton Sundstrand) will plan, design and construct an estimated 116,000 square feet facility for office space and manufacturing laboratory space, including 10,000 square feet of accelerator space on approximately 8.37 acres.
 - Accelerator space will be subleased by Collins Aerospace (via Hamilton Sundstrand) to a third-party organization that will bring Houston's entrepreneurial, corporate and academic communities together in collaborative space to accelerate innovation and opportunities in the aerospace field tackling aerospace-related challenges.
- Jobs Expansion – Facility allows for growth of up to 250 engineers & technicians.
- Construction – Estimated start Q2 2021, completion within 24 months.
- MWBE Requirements – 24% Design and 30% Construction





Collins Aerospace – Site Plan



Initial tract – 8.37 acres
Option tract – 8 acres



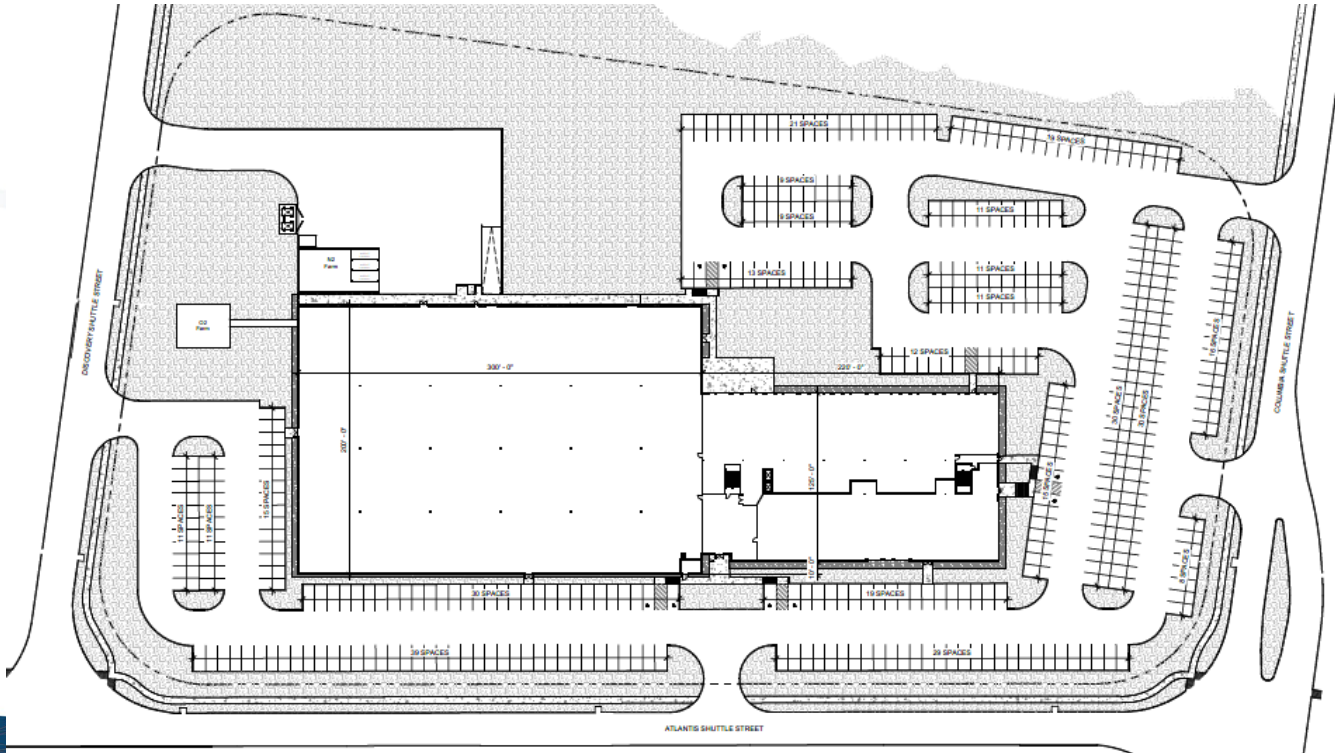


Collins Aerospace Development Architectural Rendering





Collins Aerospace Development Site Plan





Additional Collins Aerospace Lease Terms



- The Project will vest in the City on a brick-by-brick basis, with monthly reimbursement of the project costs by the City, for a not-to-exceed cost of \$25.6 Million.
- Project costs will be recovered from Hamilton Sundstrand at the rate of 5% of the total cost reimbursed by City, escalated annually 2.5% throughout the initial ten-year term. Rent for any option periods shall be based on fair market value of land plus improvements set by independent appraisal.
- Rent for the option tract, if exercised, shall be based on fair market value of ground, set by independent appraisal.
- The lease term shall be 10 years with up to three 5-year option periods.





For more about Collins Aerospace:
<https://www.collinsaerospace.com>

The Collins Aerospace Leadership Team:
<https://www.collinsaerospace.com/who-we-are/leadership>

Collins Aerospace News:
<https://www.collinsaerospace.com/newsroom>



Questions?

