


# ALTERNATE SITE:

# SUGAR GROVE

**Sugar Grove: Alternate Site**

**1. Proposed Land and Site Control**

**Table 1. Sugar Grove Location Information**

| Sugar Grove (Alternate Permanent Site) | |
|---|---|
| **Detail** | **Response** |
| **Street Address** | 133 Hedrick Drive, Brandywine, WV 26802 |
| **Geographic Coordinates** | 38.520110, -79.290329 |
| **Jurisdiction** | District 6, Pendleton County, WV |
| **County, State** | Pendleton County, WV |
| **Total Acreage** | 122.85 |
| **Parcels** | Four parcels comprising the former U.S. Naval Station Sugar Grove Property |
| **Current Ownership** | Sugar Grove LLC |
| **Listing Price** | $5,000,000 |
| **Earliest Date USSA Could Gain Access or Control** | Property would be made available immediately upon sale. The current tenant's lease ends Jan 1, 2027, but lease could be broken sooner. |
| **Existing Buildings with Sq. Foot.** | The property was a former U.S. Naval Station which includes ~445,071 square feet of existing assets; Housing 186,654 SF, Recreation 133,871 SF, Other utilities/support 102,546 SF, Administrative 22,000 SF. |
| **Existing Infrastructure** | Electrical, water, natural gas, sewage treatment system, and wastewater storage. |
| **Current or Planned Occupants** | Currently leased by Liberty Behavioral and Community Services for behavioral and substance abuse services. The lease can be broken at any time, and the tenant is reportedly preparing to close. |

An alternate site in Sugar Grove, WV was identified during the development of the response to the Request for Information. Sugar Grove Station is located at 133 Hedrick Drive, Brandywine, WV 26802. The property is situated in Pendleton County, West Virginia, at geographic coordinates 38.520110 latitude and -79.290329 longitude. Formerly a naval installation, Sugar

Grove Station offers an established site with existing buildings, utility infrastructure, and the potential to accommodate the Academy.

The property encompasses approximately 122.85 acres across four parcels currently owned by Sugar Grove LLC. The parcels include 84.51 acres under Parcel ID 36-06-0002-0008-0000, 33.29 acres under Parcel ID 36-06-0002-0006-0000, 3.05 acres under Parcel ID 36-06-0002-0012-0002, and 2 acres under Parcel ID 36-06-0002-0013-0000.

Additional adjoining acreage may be available for purchase from Seneca Rocks Development, which can provide capacity to meet the 300-acre minimum requirement. The availability of this site, amount of additional acreage, and the potential acquisition cost have not been established, but represents a potential option for future acquisition pending discussions with the property owner.

The asking price for the property is $5,000,000. The West Virginia Department of Commerce recommends making the site available through a negotiated purchase from the current owner, with control then transferred to the Academy.

Sugar Grove Station is currently leased by Liberty Behavioral and Community Services for behavioral and substance abuse services. However, the existing lease is reportedly terminable at any time, and the property would be available immediately upon sale. The Academy could obtain the site as early as January 1, 2027, with the possibility of an earlier date.

Sugar Grove Station is a former naval installation with utility infrastructure already in place, including existing electrical, natural gas, water, wastewater, and backup power systems that may support the development and operation of a permanent USSA campus. Sugar Grove Station contains approximately 445,071 square feet of existing buildings and facilities. The current site assets include approximately 186,654 square feet of housing, 22,000 square feet of administrative space, 102,546 square feet of utilities and support facilities, and 133,871 square feet of recreation facilities. The property's existing facilities and infrastructure provide an opportunity to establish the permanent USSA campus while potentially reducing the need for extensive new construction.

**2. Site Readiness and Infrastructure – Sugar Grove Station**

Sugar Grove Station, located at 133 Hedrick Drive in Pendleton County, West Virginia, offers the United States Space Academy (USSA) an established institutional campus with substantial existing infrastructure and opportunities for adaptive reuse. The former U.S. Navy installation encompasses 122.85 acres and approximately 445,071 square feet of residential, administrative, recreational, and support facilities. Its history as a fully operational military installation provides a foundation of utility systems, internal transportation networks, public safety facilities, and supporting infrastructure that could be adapted to accommodate Academy operations.

The property has an established three-phase electrical distribution system with 15-kilovolt switching and transfer equipment designed to support the substantial residential, administrative, and operational demands of the former Navy installation. Mon Power, a FirstEnergy company, serves the Sugar Grove area. Existing backup generation includes a 1,100-kilowatt generator and

two additional 100-kilowatt generators, providing 1.3 megawatts of nominal generation capacity. The property also includes natural gas infrastructure and a dedicated meter building. These established systems provide a substantial electrical infrastructure foundation for the Academy, with any necessary repairs, modernization, or expansion incorporated into campus redevelopment.

Sugar Grove Station has an on-site water treatment plant with a capacity of 100 gallons per minute, equivalent to 144,000 gallons per day. The system includes filtration and chlorination facilities, distribution infrastructure, and three 100,000-gallon storage tanks providing 300,000 gallons of water storage capacity. The installation also has an existing wastewater collection and treatment system, including lagoon and storage infrastructure, with a treatment capacity of 50,000 gallons per day. The former Navy installation maintained a formal stormwater management system with 18 documented Main Base outfalls. These established water, wastewater, and drainage systems provide substantial infrastructure for campus operations, with any necessary improvements and provisions for water availability, drought resilience, and treatment incorporated into redevelopment planning.

Regional fiber infrastructure developed by Spruce Knob Seneca Rocks Telephone makes broadband service available to the project at speeds of up to 250 megabits per second download and 100 megabits per second upload. Fiber connections were historically present at the former Navy installation, and any necessary service extensions, building connections, or network upgrades would be incorporated into campus redevelopment. The Academy could establish dedicated internal networks, cybersecurity controls, and redundant communications infrastructure to support instructional, administrative, residential, and research operations. Sugar Grove is located within the National Radio Quiet Zone, where certain new or modified radio transmitters require coordination to protect sensitive receiving facilities. Campus communications, wireless systems, satellite-related activities, and research equipment would be designed to accommodate these requirements.

Sugar Grove Station is accessible from West Virginia Route 21 and the regional highway network serving Pendleton County. The former military installation includes an established internal road system connecting residential, administrative, recreational, and utility facilities, along with two existing road entrances from West Virginia Route 21. This transportation infrastructure provides a foundation for campus circulation without requiring an entirely new internal road network. Any necessary pavement improvements, entrance modifications, pedestrian connections, or additional emergency access provisions would be incorporated into redevelopment planning.

The installation's approximately 445,071 square feet of existing facilities include 186,654 square feet of housing, 133,871 square feet of recreation facilities, 102,546 square feet of utility and support facilities, and 22,000 square feet of administrative space. These buildings, together with the established campus layout and supporting infrastructure, provide opportunities for phased occupancy, renovation, and targeted new construction, potentially reducing the time and investment required to establish Academy operations. Site preparation would focus on adapting existing structures, upgrading facilities where needed, and addressing any drainage, remediation, or demolition requirements associated with the Academy's intended uses. Existing environmental

considerations, including floodplain and wetland conditions and the property's former military operations, would be incorporated into redevelopment planning.

Sugar Grove Station also contains a 6,996-square-foot fire station, 13,939-square-foot emergency services center, 1,344-square-foot emergency vehicle garage, and 207-square-foot hazardous materials storage building. These facilities provide an established foundation for campus emergency management, public safety, and security operations, with modernization and staffing tailored to Academy requirements. Regional emergency services include South Fork Volunteer Fire Department, Franklin Volunteer Fire Department, and Pendleton County Emergency Rescue. Local primary healthcare services are available through Pendleton Community Care, while hospital and emergency department services are available through WVU Medicine Grant Memorial Hospital in Petersburg, West Virginia, and Sentara RMH Medical Center in Harrisonburg, Virginia. Advanced trauma care is available through UVA Health University Medical Center in Charlottesville, Virginia, a designated Level I Trauma Center.

The property's 1.3 megawatts of nominal backup generation capacity, 300,000 gallons of water storage, established utility systems, and former military support facilities provide substantial assets for continuity-of-operations planning. The Academy could establish an integrated campus-wide emergency management and security framework using existing infrastructure where appropriate, supplemented by modernized backup power, emergency communications, controlled access, and security monitoring systems. These capabilities would be incorporated into redevelopment planning to support operational resilience, emergency preparedness, and the Academy's long-term security requirements.

**3. Environmental / Regulatory Considerations**

The former Navy support campus at Sugar Grove has documented environmental constraints that inform the layout from the outset. The Navy’s 2010 plan identified approximately 10 acres of wetlands and 23 acres of floodplain on the Main Base and reported that its buildings stood outside the floodplain at that time. The plan also identified potential bat habitat and recorded archaeological sites across the broader installation. Current mapping and field review would establish where those resources intersect the proposed work. The Navy completed PFAS assessments in 2022 and site inspections in 2023 for the Support and Operations Areas. The Support Area sampling results should be matched to the offered parcels and drinking-water system to determine whether further investigation or restrictions on excavation are warranted. Flooding along the South Fork, bank erosion, and emergency access are the principal documented concerns for the Sugar Grove site. The Navy recorded severe river flooding in 1996, and a 2014 facilities assessment identified two entrances from the same road, only one of which was then in use. The facility has a 1,100-kW generator, and on-site water and wastewater treatment. The generator could be tested before the project begins to identify which critical loads it can carry, how long fuel and potable water would last, and whether treatment and communications can remain operational through an extended outage.

West Virginia also generally requires construction stormwater coverage for disturbance of one acre or more, including smaller phases of a larger common development plan. Identifying routes that avoid stream and wetland crossings early would reduce permitting and redesign risk.

Three considerations for the Sugar Grove site are environmental conditions on the offered parcels, the operating status and permits of the water and wastewater systems, and communications design within the National Radio Quiet Zone. Deed restrictions, wetland impacts, archaeological findings, or PFAS sampling results could potentially affect the location or timing of renovation and construction.

**4. Proximity and Supporting Ecosystem**

While West Virginia University (WVU) has been selected as the location for the initial launch of the Academy and the Charles Pointe Parcel in Harrison County stands as the primary, preferred location; the unique former Sugar Grove Naval Station in Pendleton County is presented as an alternate permanent site option. Evaluating Sugar Grove provides the state and Academy leadership with a distinct, complementary model: while the primary Charles Pointe location embeds the institution directly within an established industrial corridor, Sugar Grove offers a highly secure enclave where the Academy could develop an independent, self-contained campus while remaining closely tied to West Virginia's broader aerospace, defense, and academic network.

Crucially, the site is situated within the 13,000-square-mile National Radio Quiet Zone (NRQZ), where restrictions on certain radio transmissions help reduce interference with sensitive receiving equipment, creating opportunities for radio astronomy, passive spectrum research, and other compatible scientific activities. Proposed communications systems and research equipment would need to comply with applicable NRQZ coordination requirements. It is located just 30 miles from the Green Bank Observatory in Pocahontas County, home to the Robert C. Byrd Green Bank Telescope and world-renowned space-science research. Furthermore, the facility maintains statewide alignment with federal space assets, notably the NASA Katherine Johnson IV&V Facility in Fairmont, linking the permanent campus directly to NASA's software assurance and mission-critical systems engineering operations.

The operational and academic transition from the 2028 launch at WVU to a permanent Sugar Grove campus in 2031 is anchored by a unified coalition of West Virginia higher education institutions. While these partner institutions are situated across the state, their collective statewide reach provides the long-term curriculum breadth, faculty pipelines, and research support needed to sustain the Academy well past 2031.

As a permanent home, Sugar Grove retains strong logistical ties to West Virginia's powerhouse aerospace, defense, and advanced manufacturing corridor along the I-79 corridor. The site sits within an approximate two-hour drive of the expansive industrial cluster in Bridgeport and Clarksburg, connecting future cohorts to a robust regional ecosystem specializing in advanced composite aerostructures, military propulsion sustainment, global commercial aircraft maintenance and overhaul (MRO), advanced tooling materials, and cutting-edge defense technology manufacturing.

This connection to the Mountain State's aerospace heartland is mirrored in air travel and logistics access. Within West Virginia, the site links directly via the US-33 corridor to the state's closest in-state commercial and cargo asset, the North Central West Virginia Airport (CKB) in

Bridgeport (approximately 90 to 95 miles; under two hours), which boasts the state's longest commercial runway at 7,800 feet and co-locates with the West Virginia AeroTech Park. Morgantown Municipal Airport (MGW) provides additional in-state passenger connections roughly 125 miles northwest. For closer immediate regional passenger feeder service, Shenandoah Valley Regional Airport (SHD) lies just 35 to 40 miles east via US-33. Beyond state borders, established highway routes link the site directly to the National Capital Region (approximately 140 to 170 miles east/northeast), placing the permanent campus within a manageable half-day drive of federal agency headquarters, major defense contractors, and Washington Dulles International Airport (IAD) for global international transit.

Community and healthcare capacity represent vital assets for the 2031 transition. Because the property was developed as a full naval base, Sugar Grove features extensive self-contained infrastructure—including existing residential quarters, dining halls, administrative facilities, and recreational spaces—that can be fully modernized to create an independent permanent campus without placing excessive demand on local civilian housing. Health and medical needs are served through a multi-tiered regional network:

Emergency and Critical Care: Advanced, round-the-clock emergency medical and hospital services are accessible via Sentara RMH Medical Center in Harrisonburg (approximately 26 miles east; a 238-bed regional medical center featuring a 24/7 Emergency Department, advanced diagnostic imaging, and comprehensive specialty care) and Grant Memorial Hospital in Petersburg, WV, to the north.

On-Campus Health Infrastructure: The former naval installation historically operated its own branch medical clinic, triage and stabilization facilities, and emergency rescue bays. Modernizing this facility allows the Academy to deliver direct on-site basic life support, student health counseling, athletic training medicine, and urgent care triage directly on campus.

While local public transit is limited to rural service via the Potomac Valley Transit Authority (PVTA), campus-operated shuttle networks can readily connect faculty, students, and visitors to regional airport, transit, healthcare, and hospitality corridors. Ultimately, Sugar Grove offers an enduring, distraction-free permanent setting for 2031 and beyond, rooted entirely in West Virginia's strategic space, defense, and higher education assets.

**Transition Plan to Permanent USSA Campus**

Transitioning the permanent campus to Sugar Grove will carry many of the same benefits as selecting the Charles Pointe Parcel would. The temporary campus will still be based at WVU and bring together several of the Mountain State's institutions of higher education. It will connect to the same aerospace legacy that can inspire the inaugural class of cadets and those who follow. However, the Sugar Grove site brings some unique advantages that would facilitate a comprehensive and executable transition to a permanent campus.

For one, as a former Navy base, the Sugar Grove location already has housing, buildings for classrooms and labs, connections to utilities, and its own natural gas supply. Having this infrastructure means that transitioning to Sugar Grove would not require all new construction. Some spaces could be renovated and put to use more quickly.

Another benefit of Sugar Grove is the strong support the community has for the Space Academy. In the proposal of the site to the West Virginia Department of Commerce, the Seneca Rocks Regional Development Authority, Pendleton County Commission, Pendleton Community Bank, Pendleton Convention and Visitors Bureau, and Pendleton County Office of Emergency Management all submitted letters of support. This reflects the “coming together” of several community groups, each with missions related to the prosperity of Pendleton County. Having them all on board at this early stage would make transitioning from Monongalia County to Pendleton a smooth process.

Lastly, Pendleton boasts one of the top spots for dark skies in the Eastern United States. Maintaining these dark skies is a priority for the region, in part because it draws tourism to the area. For the Space Academy, dark skies are an ideal condition for research and study.

**Financial Capability – Cost and Partnership Interest**

Sugar Grove, a former Naval base located in Pendleton County, is another potential site for the Space Academy. The property is 122.85 acres and is already a functional facility, although renovations and adaptations would be needed to meet the requirements of a permanent USSA campus. As noted, Sugar Grove's strategic location offers an ideal balance between isolation and proximity to Washington, D.C., providing a secure inland position close enough for rapid communication and transit to the nation's capital, while also being shielded by the Appalachian Mountains. Additional acreage is available for purchase near Sugar Grove, but the exact parcels and property acquisition costs have not yet been established.

This section provides a rough order-of-magnitude estimate for constructing a new permanent USSA campus at Sugar Grove, along with any potential adjacent parcels. This estimate includes the repurposing of existing buildings and is based on standard costs for higher education facilities and advanced laboratory construction, calculated on a per-student basis. The proposed cost model differentiates between existing buildings and infrastructure and new core academic facilities, student housing, specialized instructional and research facilities, campus infrastructure, and other supporting facilities.

The asking price for the Sugar Grove property is $5 million. The West Virginia Department of Commerce recommends that the site be acquired through a negotiated purchase from the current owner, after which control will be transferred to the USSA. The State of West Virginia commits to absorb site acquisition along with initial site preparation costs, which have yet to be established, as well as to provide up to $50 million through a flexible, dedicated "greatest needs" fund to support unique infrastructure requirements and other priorities, including campus needs and student support initiatives (See Table 3 for a detailed list of financial commitments from the State of West Virginia).

Table 2 includes a rough order-of-magnitude estimate for constructing a new permanent USSA campus by 2031, as well as repurposing existing facilities in Sugar Grove. The campus will have the capacity to host up to 1,200 students and 240 staff and faculty members, totaling approximately $2.16 billion in construction and renovation costs. Cost estimates include $300

million for each of the following new campus spaces: (1) academic, administrative, engineering, science, and research facilities; (2) dining, student-life, healthcare, and institutional support facilities; and (3) research facilities and infrastructure; (4) $275 million for student residence halls; (5) $180 million for major sporting venues with associated athletic and physical-fitness facilities; (6) $36 million for leadership development, ceremonial, formation, and indoor/outdoor experiential-learning spaces; and (7) 36 million for administration, security, information technology, and other institutional support. Funding is also set aside for the renovation of existing facilities, including housing units ($12,612,600), rental cabins ($698,400), BEQ Building ($4,542,400), administrative building ($2,004,000), and the gym and bowling center ($2,699,900).

**Table 2. Sugar Grove 122.85-Acre Campus Construction Cost Estimate – 1,200 Students**

| **Preliminary Construction Cost Estimate Worksheet** | | | | |
|---|---|---|---|---|
| **Item** | **Description** | **Unit** | **Student/ Staff** | **Cost** |
| **1.0** | CM Preconstruction Services Fee (lump sum) | Lump Sum | | **$300,000** |
| | | | | |
| **2.0** | **Cost of Work** | | | |
| | **Former Navy Base Campus Buildings:** | | | |
| | MEMQ Housing Units (90 in total) | 126,126 | $100 SF | $12,612,600 |
| | MWR Rental Cabins (10 in total) | 6,984 | $100 SF | $698,400 |
| | BEQ Building | 45,424 | $100 SF | $4,542,400 |
| | Administrative Building | 20,040 | $100 SF | $2,004,000 |
| | PW / Gym / Bowling Center | 26,999 | $100 SF | $2,699,900 |
| | **New Buildings:** | | | |
| | Academic, Administrative, Engineering, Science, and Research Facilities for 1,200 Students | $250,000 | 1,200 | $300,000,000 |
| | Student Residence Halls for  Students | $250,000 | 1,100 | $275,000,000 |
| | Dining, Student-Life, Healthcare, & Institutional Support Facilities for 1,200 Students | $250,000 | 1,200 | $300,000,000 |
| | Research Facilities and Infrastructure for 1,200 Students | $250,000 | 1,200 | $300,000,000 |
| | Major Sporting Venues with Accompanying Athletic and Physical-Fitness Facilities | $150,000 | 1,200 | $180,000,000 |
| | Administration, Security, Information Technology, and other Institutional Support | $150,000 | 240 | $36,000,000 |
| | Leadership-Development, Ceremonial, Formation, and Indoor/Outdoor Experiential-Learning Spaces | $150,000 | 240 | $36,000,000 |
| | Total Trade Bid Packages (Owner's Estimated Cost of Work) | | | included in below |

| | | | | |
|---|---|---|---|---|
| | General Requirements (CM self perform or Subcontract) | | | included in below |
| | General & Liability (G&L) Insurance | | | included in below |
| | Optional Subcontractor Default Insurance | | | included in below |
| | Builder's Risk (for value of contract): | | | included in below |
| | | Total 2.0 | | $1,449,557,300 |
| | | **Subtotal A:** | | **$1,449,857,300** |
| | | | | |
| **3.0** | **FFE Packages For Above New & Renovated Buildings** | 25% Sub Total 2.0 | | $362,464,325 |
| | | **Subtotal B:** | | **$1,812,321,625** |
| | | | | |
| **4.0** | **CM Job Site Management Staff Cost of Work (Salaries + related expenses)** | Lump Sum | | $92,055,000 |
| | | **Subtotal C:** | | **$1,904,376,625** |
| | | | | |
| **5.0** | **CM Contingency** (Applied to Subtotal C) | 5.00% | | $95,218,831 |
| | | **Subtotal D:** | | **$1,999,595,456** |
| | | | | |
| **6.0** | **CM Fee for Overhead and Profit** (Shown as a percentage applied to Subtotal D) | 5.00% | | $99,979,773 |
| | | **Subtotal E:** | | **$2,099,575,229** |
| | | | | |
| **7.0** | **Performance and Payment Bonds** (Shown as a percentage applied to Subtotal E) | 1.00% | | $20,995,752 |
| | | **Subtotal F:** | | **$2,120,570,981** |
| | | | | |
| **8.0** | **B&O Tax** (2% of Total Contract value applied to Subtotal F) | 2.00% | | $42,411,420 |
| | | **Subtotal G:** | | **$2,162,982,401** |
| | | | | |
| **9.0** | **Preliminary Construction Cost Estimate** | **Overall Total:** | | **$2,162,982,401** |
| | | | | |
| **10.0** | **Former Navy Base (Covered by the State of West Virginia)** | **122.85 Acre** | | **$5,000,000** |
| | | | | |
| **11.0** | **Overall Project Cost** | **Overall Total:** | | **$2,167,982,401** |

Additional State support for USSA students in the inaugural 2028 class will include a two-year outdoor recreation package valued at $3,100 per student that includes a Country Roads Tour ($1,500), a Discovery Pass ($800), and socials and activities ($800), totaling a $930,000 additional contribution from the State of West Virginia. This package will allow students to enjoy a state that offers breathtaking views, mountain landscapes, and some of the best natural resources and recreational assets on the East Coast, while attending the Academy. In Morgantown alone, where the inaugural class will be held, there are 257 miles of whitewater, 23 climbing locations, 171 climbing routes, 443 boulder problems, and 277 miles of mountain bike trails.

**Table 3. Financial Support Provided by the State of West Virginia**

| Type of Support | Financial Commitment | Disbursement Schedule |
|---|---|---|
| Land Acquisition | $5,000,000 | Spring 2027 |
| “Greatest Needs” Fund | $50,000,000 | Spring 2027 |
| Outdoor Recreation Package | $930,000 | Fall 2027 - Spring 2028 |
| **Total Commitment** | **$55,930,000** | |

In essence, the State of West Virginia proposes a partnership in which it carries the early, front-loaded costs and risks by acquiring the property and funding unique infrastructure needs and student wraparound support. This strategy enables NASA and federal partners to concentrate their resources exclusively on constructing the Academy's facilities, developing programs, and managing operations.

**Construction Cost for Permanent USSA Campus at Full Operating Capacity**

Table 4 includes rough order-of-magnitude estimates for building new campus facilities to accommodate an additional 2,800 students and 560 staff and faculty members when the Academy is operating at full capacity. Construction costs total approximately $5.45 billion and include $700 million for each of the following campus spaces: (1) academic, administrative, engineering, science, and research facilities; (2) student residence halls; (3) dining, student-life, healthcare, and institutional support facilities; (4) research facilities and infrastructure; and (5) major sporting venues with associated athletic and physical-fitness facilities. The budget also allocates $84 million for leadership development, ceremonial, and indoor/outdoor experiential-learning spaces, and $84 million for administration, security, information technology, and other institutional support.

**Table 4. Sugar Grove Campus Construction Cost Estimate – Additional 2,800 Students**

| Preliminary Construction Cost Estimate Worksheet | | | | |
|---|---|---|---|---|
| **Item** | **Description** | **Unit** | **Student/ Staff** | **Cost** |
| **1.0** | CM Preconstruction Services Fee (lump sum) | Lump Sum | | **$700,000** |
| | | | | |
| **2.0** | **Cost of Work** | | | |

| | | | | |
|---|---|---|---|---|
| | Academic, Administrative, Engineering, Science, and Research Facilities for 2,800 Students | $250,000 | 2,800 | $700,000,000 |
| | Student Residence Halls for 2,800 Students | $250,000 | 2,800 | $700,000,000 |
| | Dining, Student-Life, Healthcare, & Institutional Support Facilities for 2,800 Students | $250,000 | 2,800 | $700,000,000 |
| | Research Facilities and Infrastructure for 2,800 Students | $250,000 | 2,800 | $700,000,000 |
| | Major Sporting Venues with Accompanying Athletic and Physical-Fitness Facilities | $250,000 | 2,800 | $700,000,000 |
| | Administration, Security, Information Technology, and other Institutional Support | $150,000 | 560 | $84,000,000 |
| | Leadership-Development, Ceremonial, Formation, and Indoor/Outdoor Experiential-Learning Spaces | $150,000 | 560 | $84,000,000 |
| | Total Trade Bid Packages (Owner's Estimated Cost of Work) | | | included in below |
| | General Requirements (CM self perform or Subcontract) | | | included in below |
| | General & Liability (G&L) Insurance | | | included in below |
| | Optional Subcontractor Default Insurance | | | included in below |
| | Builder's Risk (for value of contract): | | | included in below |
| | | Total 2.0 | | $3,668,000,000 |
| | | **Subtotal A:** | | **$3,668,700,000** |
| | | | | |
| **3.0** | **Furniture, fixtures and equipment (FFE) Packages For Above New Buildings** | 25% Sub Total 2.0 | | $917,175,000 |
| | | **Subtotal B:** | | **$4,585,875,000** |
| | | | | |
| **4.0** | **CM Job Site Management Staff Cost of Work (Salaries + related expenses)** | Lump Sum | | $214,795,000 |
| | | **Subtotal C:** | | **$4,800,670,000** |
| | | | | |
| **5.0** | **CM Contingency** (Applied to Subtotal C) | 5.00% | | $240,033,500 |
| | | **Subtotal D:** | | **$5,040,703,500** |
| | | | | |
| **6.0** | **CM Fee for Overhead and Profit** (Shown as a percentage applied to Subtotal D) | 5.00% | | $252,035,175 |
| | | **Subtotal E:** | | **$5,292,738,675** |
| | | | | |

| | | | | |
|---|---|---|---|---|
| **7.0** | **Performance and Payment Bonds** (Shown as a percentage applied to Subtotal E) | 1.00% | | $52,927,387 |
| | | **Subtotal F:** | | **$5,345,666,062** |
| | | | | |
| **8.0** | **B&O Tax** (2% of Total Contract value applied to Subtotal F) | 2.00% | | $106,913,321 |
| | | **Subtotal G:** | | **$5,452,579,383** |
| | | | | |
| **9.0** | **Overall Project Cost** | **Overall Total:** | | **$5,452,579,383** |

**Operating Costs for the Space Academy: 2028-2029 to 2031-2032**
This section includes high-level cost estimates for operating the Space Academy, largely based on the annual cost of attendance for out-of-state, non-resident students at West Virginia University (WVU). The primary rationale for solely using cost of attendance is that several currently unknown variables may impact actual operating costs, including (1) the cost of instruction will vary dramatically from program to program; (2) how to account for federal revenue that supports operating costs; (3) how to account for state appropriations that support operating costs; (4) auxiliary services, such as housing and dining, actually generate revenue above operating costs and are figured into the total operating cost for the university; and (5) the consideration of whether NASA would be looking at WVU wholly as a contractor or would operate the Academy itself using WVU facilities and faculty from across the state.

Given these factors, Table 5 includes the estimated cost of attendance at WVU for out-of-state, non-resident students for academic years 2028-2029 through 2031-2032, without making any cost assumptions regarding the variables listed above. Starting in academic year 2029-2030, calculations include a 4 percent escalation rate to account for potential annual increases in tuition and fees. Enrollment is expected to grow by 300 students per academic year, leading to 1,200 students by 2031. Additionally, 2028-2029 uses 2026-2027 numbers, as WVU has yet to establish tuition for that academic year. Furthermore, costs related to stipends, travel, internships, summer operations, inflation beyond the stated assumption (i.e., 4 percent), and host-site indirect-cost negotiations require separate treatment. Lastly, scholarships and negotiated discounts, as shown in the examples listed in the paragraph below, may reduce the cost of attendance but are not taken into consideration in Table 5. The total cost of attendance (high-level operating costs) is $14,644,800 for cohort 1, $30,461,184 for cohort 2, $47,519,447 for cohort 3, and $65,893,633 for cohort 4.

**Table 5. West Virginia University 2028-2029 to 2031-2032 Estimated Cost of Attendance for Out-of-State Non-Resident Students**

| | **Academic Year** | | | |
|---|---|---|---|---|
| **Annual Cost Line Item** | **2028-2029** | **2029-2030** | **2030-2031** | **2031-2032** |
| Enrollment | 300 | 600 | 900 | 1,200 |
| Out-of-State Tuition and Fees | $32,256 | $33,546 | $34,888 | $36,284 |

| | | | | |
|---|---|---|---|---|
| Representative Undergraduate CLASS College Tuition: Non-Resident | $1,032 | $1,073 | $1,116 | $1,161 |
| Housing and Food Cost | $15,028 | $15,629 | $16,254 | $16,904 |
| Mountaineer Athletics Advantage Fee | $500 | $520 | $541 | $562 |
| Total Cost Per Student | $48,816 | $50,769 | $52,799 | $54,911 |
| **Annual Cost for Entire Cohort** | **$14,644,800** | **$30,461,184** | **$47,519,447** | **$65,893,633** |

The Academy also would be eligible for existing state higher education grant programs, which support development of academic courses and instructional and research equipment. If the Space Academy were to locate in West Virginia, it would be eligible for the state's Research Challenge Fund (RCF), a state program to build research capacity, develop students and faculty, and leverage federal and private dollars. The Academy could compete for the Research Challenge Grant (up to $1,955,000 over four years to build research centers aligned with the state's Vision 2030 platforms), as well as the Instrumentation Grant (up to $20,000) and Innovation Grant (about $40,000) for teaching labs, equipment, and curriculum. Awards are competitive and not guaranteed, but these programs offer a defined path to the workforce development, partnerships, and federally aligned funding the Academy would need from its host state.

**Rationale for Campus Construction Rough Order-of-Magnitude Cost Estimate**
In the absence of defined facility programming, gross square footage, laboratory and specialty-space requirements, detailed site conditions and utility infrastructure requirements, and other project-specific design criteria, this cost estimate is provided solely for preliminary, order-of-magnitude planning purposes.

The estimate is based on projected student capacity and per-student capital-cost benchmarks informed by discussions with capital project and facilities management professionals at baccalaureate institutions in the Southeast region of the United States. This estimate applies a preliminary allowance of approximately $250,000 per major facility per student served for new construction and $150,000 per major facility per faculty/staff member. Table 6 includes capital ranges for different campus construction options.

The costing formula considers:

- Acquisition and preparation of a 122.85-acre site
- Major utility, road, communications, resilience, and security infrastructure
- Student housing, dining, recreation, administration, health, and support services
- Academic buildings and specialized engineering or research facilities
- Athletic venues and public-facing ceremonial/event facilities
- Contingency, escalation, design, federal compliance, and acceleration costs for the aggressive 2027–2031 timeline

**Table 6. Campus Construction Options: Basis for Rough Order-of-Magnitude Cost Estimate**

| Campus Construction Options | Capital Range |
|---|---|
| Lean campus, shared local research/athletics infrastructure, phased growth | $2B–$4B |

| | |
|---|---|
| Full residential academy with robust engineering facilities | $4B–$6B |
| Fully built-out greenfield flagship campus with expensive research, security, infrastructure, and accelerated delivery | $6B–$8B+ |

This methodology is intended to provide a reasonable basis for preliminary planning in response to the RFI. It does not constitute a detailed cost estimate, bid, guaranteed maximum price, or commitment to deliver the proposed facilities at the stated amount.

Actual project costs may vary materially based on subsequent programming, scope definition, design development, specialized instructional or laboratory requirements, site and utility conditions, applicable codes and standards, sustainability, security, phasing, procurement approach, prevailing market conditions, construction escalation, and other project-specific factors.