

Hangar Development Guidance at Vermont-Owned Airports

Terms/Definitions:

Authority Having Jurisdiction (AHJ): An entity that has the authority and responsibility for developing, implementing, maintaining, and overseeing the qualification process within its organization or jurisdiction.

Developer: An individual or corporation intending to construct a hangar at a state-owned airport in Vermont.

Designer: An individual or firm (engineering or architectural) working on behalf of the Developer. Will generally require a Professional Engineer (PE) licensed to stamp plans in the State of Vermont.

VTrans: The Vermont Agency of Transportation. VTrans is the property owner and leasing authority at the airport.

VPM: VTrans Aviation Project Manager for the specific airport.

Disclaimer

This document provides potential Developers guidance in navigating the development of hangars and facilities on airport property owned by the State of Vermont. This process of development has multiple entities acting as the Authority Having Jurisdiction (AHJ). There are federal, state, and local AHJs for any development at any airport. Within each governing body, there can be multiple agencies that have rights as the AHJ. In the federal government the Federal Aviation Administration (FAA) is responsible for regulating and overseeing civil aviation in the United States, however, there are multiple divisions within the FAA that regulate different aspects of civil aviation. At the state level, the Agency of Natural Resources (ANR), which is in charge of managing Vermont's natural environment, is the acting AHJ for many environmental permits for development where VTrans is the managing entity for the Vermont-owned airport itself. Additionally, development projects in Vermont must be permitted through Vermont's statewide land use and development review law, known as Act 250, through the State's Natural Resource Board (NRB). Getting approval from one AHJ does not mean approval from another. It is the responsibility of the Developer to have the approval from all AHJs before development. The steps discussed in this document focus on the role VTrans has in this process. Any approval provided by VTrans through this document is limited to the jurisdiction VTrans has as the managing entity for these Vermont-owned airports.

Background

All Vermont-owned airports have Airport Layout Plans (ALP), planning documents that have FAA approval. The FAA requires VTrans to keep the ALP up to date to reflect actual or planned modifications to the airport. Typically, the ALP will show possible future hangar development in locations that maximize the available space at the airport while avoiding any constraints to future projects. It should be noted, the ALP is a living document that will be constantly updated over time as the needs of the airport change. Regular updates will likely occur every 5-10 years or on a project-specific basis. Any update to the ALP requires VTrans and FAA approval. ALPs can be found on the VTrans Aviation Program's website:

<https://vtrans.vermont.gov/aviation/forms/hangar-development>.

Hangar Developers should review the ALP when considering possible locations for hangar development. Hangar Developers are not restricted to locations shown on the ALP for future hangar development, as hangar development not shown on the ALP can be allowed with additional review and FAA approval.

To assist hangar Developers and promote economic development, VTrans has been working to obtain partial findings from the Act 250 district commissions for various hangar sizes at every Vermont-owned airport with a paved runway. Developers interested in hangars that have received partial findings will be able to rely upon the positive findings in the Act 250 partial findings decision to facilitate their permitting effort. Any development, including development at locations that have received partial findings, will require an Act 250 permit amendment prior to construction. These amendment applications must document any deviation from the Act 250 partial findings decision or from any previously issued Act 250 permit, including changes that decrease the size of the development (i.e., less impervious area or smaller sized hangar). Proposed hangar footprints used in the partial findings were selected to accommodate a variety of potential development needs with the understanding that smaller development could be an acceptable use of some of the locations contingent on VTrans approval. Act 250 Partial Findings decisions can be reviewed on the Act 250 database online: <https://anrweb.vt.gov/ANR/Act250/default.aspx>.

Hangar Developers should use the Act 250 database to review the Act 250 partial findings for sites they are interested in developing prior to beginning the steps listed below.

Hangar Development Steps

The steps below are intended to be in a logical order meeting federal requirements first, followed by state and local requirements. However, once a lease agreement is signed, the Developer does have some flexibility in working on multiple steps (steps 1 – 7) at the same time to get ready for construction. See the *Hangar Development Guidance at Vermont-Owned Airports - Checklist* on the Aviation Program's website <https://vtrans.vermont.gov/aviation/forms/hangar-development>, for more information on this.

Step 1: Initial Contact, Siting Review, and Lease Agreement

- **Initial contact** - Developers shall contact a VTrans Aviation Right-of-Way (ROW) Agent (guy.tapper@vermont.gov) for the initial contact with VTrans. Developers will be required to fill out the VTrans New Hangar Project Questionnaire, found on the Aviation Program's website <https://vtrans.vermont.gov/aviation/forms/hangar-development>, and submit a proposed siting Sketch (drawing depicting which location they would like to develop). This sketch, although subject to change, will be needed to set up a hangar siting meeting with the VPM.
 - The VTrans Aviation ROW Agent can discuss possible hangar sizes and locations at a particular airport and may assist the Developer in selecting a location to show in their siting sketch. The VTrans Aviation ROW Agent can provide the following:
 - Guidance on hangar locations where permits may already have been partially or completely obtained.
 - Existing aviation environmental resources can be found in the [ANR Natural Resource Atlas](#). The Developer may request to review existing data that VTrans Aviation has on file. This data is not comprehensive but can indicate areas that should be avoided due to the presence of known resources (i.e., wetlands, wildlife areas, etc.).
 - General information on lease agreements at the desired airport.
 - Information on any known VTrans and FAA restrictions for the airport such as the runway object free area (ROFA), taxiway object free area (TOFA), building restriction line (BRL) and runway visibility zone (RVZ), based on coordination with the VPM supporting the desired airport.

- Hangar Siting Meeting – In this meeting the Hangar Developer, VTrans Aviation ROW Agent, and VPM will discuss the proposed siting sketch and next steps. The goal of this meeting is to discuss the development sufficiently to enter into a land lease agreement. It is the responsibility of the Developer to request this meeting after the initial contact. It will be important to discuss possible environmental impacts that would result from a proposed development to make sure the Developer is aware of any additional effort that might be needed.
 - A land lease is an agreement whereby the Developer leases a parcel of land for a period of time (term) and gives the right to make improvements on that land. This is the first step to assure VTrans of the level of commitment from the Developer while protecting the Developer's investment from other interested parties. It is understood that the lease agreement will likely need to be updated as the process progresses and permits are acquired.
 - If the location proposed by the Developer is shown on the ALP, the Developer can move to Step 2 with a signed lease agreement.
 - If the location proposed by the Developer is not shown on the ALP, the development will need to move to Step 1a for additional approval. The proposed project will need a signed lease agreement before moving to Step 1a
- The Developer shall then provide VTrans with a figure of the proposed hangar size and desired location on the airport, including the following:
 - Pre-permitted sites, sites with partial findings of fact, only need to include a location map with the hangar location illustrated as a box with dimensions.
 - All other site proposals shall include a map identifying any known presence of environmental resources listed on the checklist in Attachment 1.
 - Utilize the [Agency of Natural Resources \(ANR\) Natural Resource Atlas](#) to review existing resources such as wetlands, streams, threatened and endangered species, etc.
 - Utilize the [Vermont Environmental Research Tool](#) to locate existing permits associated with the airport.
- VPM, in coordination with VTrans Environmental, will review the proposal and provide feedback as to whether the desired size and location are potentially acceptable for the construction of a new hangar (consultation with ANR is recommended at this stage if any questions exist regarding environmental site constraints). If the desired location is preliminarily determined to be acceptable, the Developer may proceed to the next step. If not acceptable, the Developer may propose an alternate location that will be reviewed following the same steps described above.
- This step is complete once the Developer has entered into a lease agreement with VTrans.

Step 1a: FAA ALP Approval

- Hangar developments not shown on the ALP will require a Section 163/734 review and determination from FAA. The VPM will use the siting sketch to submit for a Section 163/734 review. If the review finds the property is federally obligated, the VPM will then need to complete a "Pen & Ink update" to the ALP with the FAA. This update will need to have FAA approval before any construction takes place.
- It is the responsibility of the Developer to make sure their proposed development is on the ALP. This is completed by VTrans making the revision and the Developer reimbursing VTrans for their work.
- This step is considered complete with the receipt of FAA Section 163/734 determination and/or approval of the ALP.

Step 2: Federal Environmental Review

- All projects without Section 163/734 exemption shall comply with the National Environmental Policy Act (NEPA). See *FAA Order 1050.1F, Environmental Impacts: Policies and Procedures* for more information. The NEPA process may vary depending on the level of impact the proposed development could have on the environment. It is recommended that the Developer meet with the VPM to review the FAA Order and determine the next steps to comply with NEPA.
- It is the responsibility of the Developer to complete the work required to comply with NEPA. This can be accomplished in two ways:
 - 1.) The Developer has VTrans complete NEPA and reimburses VTrans for their work
 - 2.) The Developer completes NEPA and VTrans approves the work as the signatory of the landowner. NEPA documentation is typically prepared by a designer specializing in environmental documentation.
- This step is considered complete when either a Categorical Exclusion (CATEX), documented CATEX, or Environmental Assessment/Findings of No Significant Impact (EA/FONSI) determination is received from the FAA.

Step 3: FAA Height Restrictions

- The Developer shall file an FAA form 7460 request with the FAA regarding the proposed height and location of the hangar. This process may take up to 60 days (sometimes longer) to receive a determination from FAA. It is the Developer's responsibility to provide a sketch of the proposed hangar site, including latitude and longitude coordinates with anticipated heights at the four corners of the proposed building(s) and the building(s) peaks. Reference [FAA Advisory Circular 150/5300-20 Submission of On-Airport Proposals for Aeronautical Studies](#) for guidance.
- This information shall be filed by the Developer at the following website:
<https://oeaaa.faa.gov/oeaaa/external/portal.jsp>.
 - The FAA has an advisory circular providing guidance on 7460 submissions and can be found at: https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_150_5300_20_on_arp_aero_study.pdf
- The Developer should file the 7460 when the final location of the building is confirmed. It should be noted that the FAA will need to be notified of any changes in the location or height of the building, and these changes may require a new 7460 submission and full review period.
- Once a determination from FAA is received regarding the proposed hangar, this step is considered complete.

Step 4: Environmental Review and Permitting

- **The Developer shall acquire and/or amend all permits required for the proposed hangar.** It is strongly recommended that a Developer hire a design consultant (engineer) to assist in the design and pursuit of necessary permits. The VPM can be contacted for any questions or guidance related to environmental permitting.

- Prior to any submittal of a permit application to regulators, the Developer shall provide a copy of the application and relevant plans to the VPM. The VPM will coordinate necessary reviews and, if necessary, signatures for permit applications.
- All Vermont-owned Airports have existing **ANR permits** which may require amendments for development. Developers may request a meeting with the VPM and ANR Office of Planning to review the permitting approach prior to work and a formal submission.
 - Stormwater Permitting
 - All Vermont-owned Airports have existing VT Operational Stormwater Permits which will require an amendment for any development.
 - The Developer is required to meet with VTrans Stormwater Management Engineer to discuss potential stormwater impacts expected from the proposed development.
 - All VTrans airports have existing VT Operational Stormwater Permits and VTrans stormwater staff will need to review the proposed hangar development to determine how it may impact existing permits and what amendments to those permits are required.
 - Based on input from VTrans, the Developer (or their design consultant) shall prepare the necessary stormwater treatment permitting plans and application. Note that associated impervious areas outside of the specific hangar location, such as buildings, taxiways, vehicle drives, and parking areas, may need to be accounted for in the stormwater treatment design.
 - The Developer shall submit the permit application to the VPM for review by the VTrans Stormwater Management Engineer for acceptance prior to submitting. Note that VTrans shall be listed as a Co-permittee on operational stormwater permits and that the application must be prepared by or under the direction of a VT-licensed Professional Engineer.
 - VTrans Stormwater Management Engineer will submit the application to ANR.
 - If additional changes to the stormwater treatment permitting plans are required, it is the Developer's responsibility to provide updated information.
- All state-owned Airports have existing Act 250 permits which will require an amendment for any development. The Developer is required to meet with the VTrans Environmental Permitting Coordinator prior to drafting the Act 250 permit amendment and shall contact the VPM to coordinate and schedule that meeting.
 - **Act 250 Permitting**
 - The Developer shall research the previous Act 250 permits for the airport. The Act 250 database may be searched at the following website:
<https://anrweb.vt.gov/anr/act250/default.aspx>
 - The Developer may consider utilizing an approved hangar design that conforms to previous partial findings, if applicable, as this may alleviate some Act 250 permitting requirements such as only requiring a minor amendment to the permit.
 - The Developer can request a meeting to discuss the proposed hangar development with the Act 250 district coordinator. This meeting is intended to provide general guidance to the developer to complete the Act 250 application and to identify specific areas where additional information will be required to obtain a permit amendment. Contacts can be found at: <https://act250.vermont.gov/contact-us>.

- The Developer shall prepare the Act 250 permit application through the ANR Portal <https://anronline.vermont.gov/>. VTrans will need to be added to the application as reviewers because only VTrans can sign and submit an Act 250 amendment at the Vermont-owned airports. Guidance can be found at: <https://nrb.vermont.gov/act250-permit>.
- This step is complete once all necessary Vermont permits have been issued.

Step 5: Utility Coordination

- Proposed utility plans will need VTrans approval before entering into a utility agreement.
- Utility plans will be developed by the Developer with the utility company and submitted to VTrans for review.
- Utilities required for development will be completed, by a Utility agreement.
 - Primary lines will be owned and maintained by the Utility company.
 - Service connections will be constructed by the Developer.
- Any cost associated with the development for utilities is the responsibility of the Developer.
- The earth disturbance associated with proposed utilities should be included in all permit applications. It is recommended that the utility plans be developed prior to preparing permit applications.
- This step is complete when all utility agreements are in place and the site plans depicting the service connection to the building are approved by VPM.

Step 6: Local Permitting

- Additional Permits:
 - The Developer is responsible for the local municipal permits (i.e., building permit).
 - Developments will need coordination from the regional Fire Marshal.
- The developer will be responsible for any fees associated with permitting.
- **The Developer shall provide VTrans with a copy of all hangar development permits required, prior to proceeding the construction steps.**
- This step is complete when all permits are completed and submitted to the VPM for verification of completeness. Once the VPM confirms all permits have been submitted and completed the Developer is ready to proceed to the construction phases (steps 7-9)

Step 7: Coordination Prior to Construction

- The Developer shall provide the VPM with the proposed final hangar and associated development plans for verification of completion of all previous steps.
- The VPM will coordinate a meeting with VTrans airport operations. The purpose of this meeting is to coordinate anticipated construction and discuss the development of the required Construction Safety and Phasing Plan (CSPP).
- The Developer shall create a CSPP for review and comment by VTrans prior to submission to the FAA for approval.

- CSPP requirements vary greatly based on hangar location and duration of construction. [FAA Advisory Circular 150/5370-2G, Operational Safety on Airports During Construction](#) (current edition) ([Series 150 Advisory Circulars \(ACs\) for Airport Projects](#)) is a good resource for the development of a CSPP.
- A separate FAA form 7460 shall be submitted for temporary construction impacts to the airspace, especially if a crane is used, per the [FAA Advisory Circular 150/5300-20, Submission of On-Airport Proposals for Aeronautical Study](#). The 7460 determination from FAA is required prior to a notice to proceed for construction is issued.
- The Developer (or Developer's engineer) shall host a pre-construction meeting prior to the commencement of construction. An important topic of this meeting will be to inform VTrans of the proposed construction schedule, and to coordinate access to the site with VTrans.
 - It is the responsibility of the Developer to maintain and adhere to a schedule of work.
 - The Developer shall submit an overall schedule of work a minimum of two weeks prior to the pre-construction meeting.
 - The Developer shall submit a two-week look ahead of the construction schedule weekly throughout construction.
 - Only VTrans has the authority to authorize access for construction or close areas of the airport for construction. Without proper notification, construction will not be permitted. All closures of airfield facilities are at the discretion of VTrans. Requests to close areas are required 72-hours in advance with VTrans.
 - Only VTrans has the authority to open areas of the airport previously closed for construction.
 - Adherence to the approved CSPP will be required throughout construction. Changes to the CSPP will need VTrans and FAA approval. It should be noted that any changes to the CSPP may be subject to a 45-day review period by the FAA. Non-adherence to the CSPP will result in an immediate stoppage of all construction activities until a written and approved change in procedure is approved by the VPM to bring the construction back to adherence to the CSPP.
 - Review all required local and state permits as well as FAA approvals and determinations.
 - Review any building Special Inspections and Tests required by local or Vermont Building Code and the firm that will conduct the special inspections and tests.
- This step is complete once the VPM issues a notice to proceed with construction.

Step 8: Construction

- All prior steps shall be completed prior to performing the work associated with this step.
- **Construction must conform to all permit requirements. Field changes will require VTrans review and potential amendments to permits to proceed. All field changes must approved by AHJ prior to being installed. Any field changes made without AHJ approval may need to be corrected by the Developer at the Developer's expense. Non-adherence to permits can result in a stoppage of work.**
- The Developer may be required to provide a resident engineer to watch over and inspect the hangar improvements. This determination is to be made on a case-by-case basis by VTrans. Non-adherence to CSPP will result in oversight being assigned to the project at the expense of the Developer.
- VTrans reserves the right to inspect the work being completed at any point during the process. VTrans can issue a stoppage of all construction activities if developers is found in non-compliance to their permits. Construction can only resume with written approval by the VPM that corrective action was proposed and approved by the AHJ.

- Prior to completion of construction, a site meeting with the Developer/Designer, VTrans Regional Stormwater Technician and VTrans Stormwater Management Engineer shall be set to ensure VTrans is satisfied with site's conformance to the operational stormwater permit.

Step 9: Post-Construction

- The operational stormwater permit requires an initial designer's certification of compliance by a VT licensed Professional Engineer within 60 days of completion. The Developer/Designer shall coordinate via a site meeting with VTrans to determine if treatment is in compliance with the permit.
- Schedule a final inspection walkthrough. The final inspection walkthrough shall be an on-site meeting with the Developer, Designer, and VTrans.
- Developers shall provide as built drawings of the development to the VPM for record.
- Developers shall provide the VPM a building Certificate of Occupancy issued by the AHJ.
- Step 9 is considered complete when VTrans issues a VTrans Certificate of Project Completion (CPC). The VTrans CPC is issued once all steps mentioned in the guidance document and guidance checklist are complete and no issues were identified in the final inspection walkthrough. Any issues identified in the final inspection walkthrough must be fixed prior to receiving a VTrans CPC.
- This step is complete once the VPM issues a CPC. No use of the development is allowed until the CPC is issued.

Contact List:

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