

# Wisconsin Bureau of Aeronautics – BOA Airport Project Development 101

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# Agenda

## Key Takeaway: Planning Ahead Helps the Project Go Smoothly

- Today, we're going to run through a standard project so you can see "behind the scenes" of how BOA gets from concept to construction



<https://emojipedia.org>



# Milestones to Discuss Today

- Capital Improvement Plan (CIP) Development
- Petition – it's your project, and we'll help you get there!
- Consultant Selection
- Project Scoping
- Planning Needs
- Environmental
- Design
- Bid Process
- Post-Bid Process



# Project Scenario for the Day: Badger Municipal Airport

- The airport manager is receiving complaints from tenants that the runway condition is getting poor.
- The airport manager decides it is the right time to bring this project up locally for a project with BOA.
- What happens next starts the beautiful relationship between the airport, BOA/FAA, and the consultant community.



# Beginning a Project – It's All About Planning

- Sponsor workshop/CIP meetings – target end of summer through early winter
- Petition for CIP items - [brandon.benjamin@dot.wi.gov](mailto:brandon.benjamin@dot.wi.gov)
- Eligibility Statement
- Consultant selection
- Scoping meeting - kickoff
  - Funding check plan (verify CIP) – How can we fund the project
  - Environmental – Establishes affected areas for various environmental approvals such as DNR, Army Corps, Section 106, etc.
  - Check into planning
    - Reimbursable Agreement with FAA if needed for any affects to FAA owned Navaids. This includes even potential impacts such as grading in the runway safety area or glide slope, runway profile changes, any affects to existing cabling.
    - Section 163 determination
    - Pen ink/alp
  - Constructability Review



# Environmental Steps

## Once the project is well-scoped in the Project Kickoff Scoping Meeting:

- The BOA project manager starts the environmental process by filling out key pieces of information for BOA Environmental. This includes several steps and pieces of coordination such as:
  - Section 106 Archeological and Historical project reviews
  - Coordination with the Wisconsin DNR for permitting
  - Coordination with Tribal Nations
  - Coordination with other regulatory agencies as appropriate
- Things that can affect the environmental process that are a little less intuitive include:
  - Waste or borrow sites
  - Haul roads
  - Are approaches clear and do we need tree clearing for a runway project?
  - Are we trenching new cables for electrical equipment?
- On a standard Categorical Exclusion project (like an existing pavement project like Badger Municipal Airport), the environmental document can take about 3.5-5 months before bid authorization. Adding complexity will add time.



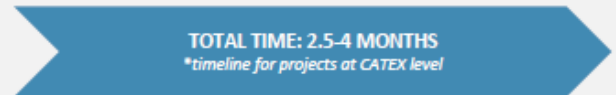


# WisDOT-BOA | ENVIRONMENTAL PROCESS TIMELINE



	Phase 1 Define Project Scope	Phase 2 Stakeholder Coordination	Phase 3 NEPA Analysis & Document Development	Phase 4 Finalize NEPA
Tasks	Prepare desktop review prior to scoping meeting	Send tribal notification email (30 days for responses)	Review IRL	Send draft environmental document to BOA PM for review and input
	Attend project scoping meeting	Submit Section 106 form/package (30-45 days for review/approval)	Identify and address resource concerns	Address all comments and outstanding concerns
	Obtain 400 Shell from BOA PM	Send Project Coordination Request Form to DNR TL (30 days for review/response)	Identify mitigation measures	Route the environmental document for necessary signatures (BOA, FAA)
		Complete additional coordination with USACE, USFWS, etc.	Draft an environmental document	

	Phase 1 Define Project Scope	Phase 2 Stakeholder Coordination	Phase 3 NEPA Analysis & Document Development	Phase 4 Finalize NEPA
Outcomes	Obtain a project description (includes work items/justification)	Identify and address resource concerns	Complete resource agency coordination	Obtain a signed environmental document
	Obtain a map of the project area	Document and address any tribal notification responses	Obtain a draft environmental document	
	Identify NEPA document type	Obtain Section 106 determination	Document mitigation and environmental commitments	
	Identify initial resource concerns	Obtain Initial Review Letter (IRL) from DNR TL		
	Identify necessary survey work			



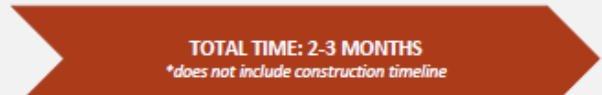
Highlighted Sections: Environmental Coordinator tasks or outcomes that require BOA PM/Consultant coordination.

**DEFINITIONS**  
**400 Shell:** 'Environmental Initiation Form'. A BOA internal shell for PMs to communicate new projects to Environmental Coordinators for completion of NEPA.  
**Work Items:** List of project components (runway rehab, taxiway lighting, replace PAPIs, etc.). Should follow AIP Handbook.  
**Project Area:** Boundary that includes all areas of potential project impacts. Consider access roads and borrow/wastes sites when determining the boundary.  
**Tribal Notification:** Email notification sent to all tribes with interest in WisDOT projects. BOA requests responses within 30 days of notification.  
**Section 106:** Federal regulation for cultural resources protection. Includes review of archeological and historical resources. SHPO has 30 days to review submittal.  
**DNR TL:** WisDOT-BOA Environmental Coordinators work with DNR Transportation Liaisons (TL) under the guidance of the WisDOT/DNR Cooperative Agreement.  
**DNR Coordination:** The Cooperative Agreement outlines a streamlined project review process. That process includes initial project review and final concurrence.  
**Resource Agency:** Federal, State or local agencies that BOA coordinates with on airport projects.  
**USACE:** US Army Corps of Engineers. BOA coordinates with USACE when wetlands have the potential to be impacted by an airport project.  
**USFWS:** US Fish & Wildlife Service. BOA coordinates with USFWS when federally listed species have the potential to be impacted by an airport project.



	Phase 5 Pre-Bid Authorization	Phase 6 Pre-Construction	Phase 7 Construction	Phase 8 Post Construction
Tasks	Send DNR Final Concurrence Request (30 days for review/concurrence)	Work with DNR to review and provide comments on ECIP (14 calendar days)	Attend construction progress meetings	Obtain site photos for NOT
	Submit NOI (TCGP)	Review environmental commitments/timing restrictions	Coordinate with RE, BOA PM, DNR when washouts occur	Submit NOT (TCGP)
	Complete wetland coordination with USACE, DNR	Attend pre-construction meeting	Perform erosion control inspections	Review wetland impacts and mitigation
	Draft WITF	Ensure contractor is aware of TCGP requirements		Fund wetland mitigation

	Phase 5 Pre-Bid Authorization	Phase 6 Pre-Construction	Phase 7 Construction	Phase 8 Post Construction
Outcomes	Obtain DNR Final Concurrence Letter	BOA PM sends ECIP approval letter	Document and maintain erosion control inspections records	Closeout TCGP
	Obtain TCGP			
	Obtain USACE wetland permit			
	Obtain approved WITF			



**DEFINITIONS**  
**TCGP:** Transportation Construction General Permit. A DNR permit obtained by BOA when a project has one acre or more of disturbance. Disturbance is defined as all work on subgrade and below in addition to any vegetation removal on topsoil. The TCGP is broken into two parts (NOI/NOT).  
**NOI:** Notice of Intent. BOA submits the completed NOI to DNR at least 14 working days prior to commencing any land disturbing construction activities.  
**NOT:** Notice of Termination. BOA submits an NOT to DNR within 45 days after a construction site has undergone final stabilization, temporary erosion control BMPs have been removed and all land disturbing construction activities have ceased. Final stabilization means all land disturbing construction activities at the construction site have been completed and a uniform perennial vegetative cover has been established with a density of at least 70% cover for unpaved areas.  
**WITF:** Wetland Impact Tracking Form. The WITF is used by BOA, WisDOT and DNR to track wetland mitigation credits from the WisDOT Wetland Bank.  
**ECIP:** Erosion Control Implementation Plan. ECIPs are required for all projects with erosion control items noted in the bid, including incidental items. The ECIP is developed by a contractor and submitted to BOA at least 14 calendar days prior to pre-construction meeting. BOA and DNR review and provide comments on the document. BOA provides final approval letter to contractor.

# Design Steps

## Once we have a consultant selected for design:

- The BOA PM and the Design Consultant would negotiate the design contract scope and fee
  - This would take the agreed-upon “broad-brush scope” from the Project Scoping Meeting and get more granular into what it would take to deliver each item and how many hours each item will take to design.
  - Some things may have timing considerations, which may cause a separate contract to be completed, such as archeological work or aerial obstruction surveys before winter.
  - In Badger Municipal Airport’s case, we need to include a drone survey to ensure the approaches are clear.
  - Also, since this is a runway project, we would need to study/verify a few things:
    - First, is this a runway rehabilitation or a runway reconstruction? A geotechnical analysis will help determine this (another scope items to include in the contract)
    - Are the Runway Safety Areas to standard? This will be analyzed during the design survey and submitted to the FAA for their records. This item could increase the area the project needs to grade, add a scope item for funding, and introduce a borrow/waste site for the environmental document. It’s best to know this up front and make any changes early in the project (0%-30% design completion).
    - Is there a Disadvantaged Business Enterprise (DBE) goal? This can affect how much work the consultant needs to subcontract.
    - Are the federal Navigational Aids that are going to be in the area of the project? This may need coordination with FAA





# Design Steps

## Once we have an agreed upon scope and fee, the Finding for the Runway Rehabilitation can begin

- The Finding is a document that gets routed through the DOT and Governor's Office to assign funding to the specific project.
- The Finding needs to be based on a negotiated contract
  - This is so that we're not obligated more funds in the project than would be needed
  - Those are funds that could be used for other projects you may have going on
  - If the funds are apportionment dollars that BOA has assigned to your project, extra dollars in the Finding mean less money for other projects to get funded.
- The Finding process should take about 30 days once the Finding starts routing for signature
  - Note: There may be a bit of time on the front end as well while the Finding goes through review/final funding allocations within BOA.



<https://clipart-library.com/free/dollar-signs-transparent-background.html>



<https://theblockssl.com/events/2021/08/sherlock-holmes-and-the-case-of-the-missing-maestro/>

# Design Steps

## The Finding is back, and the contract is signed. Let's go on design!

The consultant and team are now working on the project. The next check-in should be about a 30% design completion review, where we would look at the following items:

- Review the results from the drone survey. Are the obstructions clear?
- Discuss the results from the geotechnical work. Is pavement design confirmed to be a rehabilitation?
- Look at the design survey. Is additional grading for the Runway Safety Area needed?
- Check on the environmental process (make sure the assumptions are still valid)
  - Are grading limits still appropriate?
  - Now that we have our design survey, is this a cut/fill job? Do we need to add a waste site, staging areas, or haul roads?
  - Are there any new work items not previously included in the environmental process that got added? Does the environmental document and its analyses need to be updated?
- Review the 30% estimate. Are we still in budget (federal and local budgets)?
- Is the design accurately on the approved Airport Layout Plan?



# Design Steps

## 65% Design Review

The consultant and team are now further into the design. The next check-in should be about a 65% design completion review, where we would look at the following items:

- Review the scope one more time
- Check on the environmental process – this should be wrapping up at about 65% completion.
  - **Reminder! Environmental documents for projects like this are due to the ADO by August 30<sup>th</sup> to get a signature by September 30<sup>th</sup> the year prior to requesting a grant.**
- Review the 65% estimate. Are we still in budget (federal and local budgets)? This estimate should be broken out per work item (like runway rehabilitation, runway lighting, etc.)
- Review the ALP to make sure the project is accurately shown or an ALP Pen & Ink should be submitted now for minor changes.
- For any Federal Discretionary-funded projects (like this Badger Municipal Airport Runway Rehabilitation project), we should aim to meet this milestone by mid-August the year before bidding.
  - **This will help ensure we program enough funding with the FAA to make sure we can fund your project.**
  - **It also gives assurance that the project is far enough along that it will be ready to bid and receive a grant**
- The Airspacing process should begin now – Airspacing “Points of Interest” are the physical improvements and the Airspacing “Construction Safety and Phasing Plan” are how the project will be accomplished.



During the 65% review – an idea comes up!



# Design Steps – What if We Want to Add Something?

## Adding a Scope Item at this Stage Will Add Time

- At the 65% design review meeting, the project team looks at the PAPIs for the airport. The airport has been having quite a bit more maintenance needed on their PAPIs, and the PAPIs are now NOTAMed as not available. We will have an electrical subcontractor on the project to do runway lighting with this project. Is this something we can add?
- Yes, but it may be advantageous to do a separate project. Adding this will add time for a re-review.
  - Has the items been petitioned?
  - Are the PAPIs accurately shown on the approved ALP (including the PAPI Obstacle Clearance Surface)? This might mean more tree clearing than was anticipated before.
  - The environmental document (including Section 106, DNR coordination, Categorical Exclusion) may need to be redone be re-evaluated to add this item.
  - Because of the re-review timeframe, this might throw into question the readiness for discretionary milestones. This can throw off the entire discretionary program.



# Design Steps

## 90% and 100% Design Reviews:

- 90% Check in
  - Construction Estimate - separated by work items
    - Does the estimate still line up with anticipated Federal/State funding?
    - Sponsor funds established based on this estimate.
    - Contingency needed for possible CCO's to be covered sponsor only.
  - Design details – Has anything else changed from the 65%?
  - Construction and Resident Engineering DBE goals assigned by BOA.
  - Pre-bid environmental authorization complete (including DNR Final Concurrence and Transportation General Construction Permit (TCGP) or Construction General Permit (CGP), if needed)
  - Plans and specs to BOA/FAA for GAs and Primaries respectively. See BOA bid schedule for dates.
  - Establish order of award – Need a clear write-up in the special provisions that details how alternates will be awarded.
- 100% PS&E
  - Bid Authorization - Final double check on key items.
  - POI/CSPP
  - Environmental
  - DBE goals/Wage Rates
  - If approved, the bid will be advertised on BidExpress



# Bid Steps

- Electronic Bidding through Bid Express <https://www.bidexpress.com/businesses/51671/home>
  - Opening
    - Bids are opened on the day and time listed in the project specification typically the third Thursday of the month
    - I read the bids aloud via a Microsoft TEAMS meeting with an audio only call in for those without TEAMS
    - The as-read bid results are then posted on Bid Express and the BOA website once the bids have been determined to be acceptable
  - Benefits of Electronic Bidding
    - Better pricing
    - Fewer errors
    - Bids can be submitted day of bid opening
    - Changes can be made more quickly
  - Disadvantaged Business Enterprise (DBE) Goals/Training
    - If contractors have any questions big or small regarding the DBE goal for a project, please send them our way
    - This is especially important on vertical infrastructure projects like buildings where contractors tend to ask for a good faith efforts (GFE) waiver to the DBE goal. GFE waivers are difficult to obtain and should be avoided if possible. We can provide training on filling these out if needed.
    - Contact Shannon Clary at [shannon.clary@dot.wi.gov](mailto:shannon.clary@dot.wi.gov)



# Post-Bid Steps

## Bids Opened and Resident Engineering Contracts Have Been Negotiated

- This allows BOA to identify the low bidder, develop the grant application amount, and submit the DT-30/DOA12001 Forms based on bids and negotiated contracts
- The critical path is the DT-30/DOA12001 process which takes approximately 30 days
- Contractor submits Buy American Waiver request to FAA if applicable (within 15 days of bid opening)

## Once the DT-30/DOA12001 form is signed, the Grant Application can be signed and sent to FAA

- FAA has indicated it takes a minimum of 45 days to offer a grant once the application is submitted
- The critical path is the Grant Offer from the FAA

## Once the Grant Offer is received, the contracting process can start

- The Award of Contract to the low bidder can be signed as soon as the grant offer is received from FAA
- The following processes run concurrently after the Award of Contract:
  - The Construction Contracts can be sent to the contractor to begin the process of bonding/scheduling/Erosion Control Implementation Plans/Safety Plan Compliance Documents (approximately a 30-day process)
    - Note: the ECIP requires DNR comment and BOA review/ approval
  - The Finding can be sent for signatures (approximately a 30-day process)
- The critical path is two-fold: the contractor's paperwork needs to be in proper order and the Finding must be received back with signatures

## Once the contracts/requirements are in place and the Finding is signed, the construction contracts can be signed.

- This allows the pre-construction meeting to occur
- This allows the Notice to Proceed to be issued to start construction





# Wrap-Up



# Questions?

