General Aviation Land Use Planning

PURDUE ROAD SCHOOL - 2017

Presented by:

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## Land Controls in the U.S.

| Federal | Federal Aviation Administration | • Airspace and air traffic management  
|         |                               | • Airport safety  
|         |                               | • Federal aid grants  
|         |                               | • Environmental review  
| State   | State Legislature  
|         | Creates levels of local authority over land use (zoning, land use permitting) | • Indiana Regulation of Tall Structures  
|         |                               | • Airport Authorities  
| Local   | Counties Cities and Towns Airport Authorities | • Zoning laws,  
|         |                               | • Site permits  
|         |                               | • Building permits  

The Major Federal Regs:

Code of Federal Regulations
- 14 CFR Part 77 Safe, Efficient Use, and Preservation of the Navigable **Airspace**
- 14 CFR Part 150 Airport **Noise** Compatibility Planning (mostly for large airports)
- 14 CFR Part 139.337 **Wildlife** Hazards
- 40 CFR Part 258.10, Municipal Solid Waste **Landfills**, Location Restrictions, Airport Safety
- National **Environmental** Policy Act of 1969 (NEPA)
- Airport **Noise** and Capacity Act of 1990 (National Noise Policy)

FAA Advisory Circulars (Mandatory if Airport Takes Federal Grant) and Orders
- AC 150/5190-4A A Model Zoning Ordinance to Limit **Height** of Objects Around Airports
- AC 150/5020-1 **Noise** Control and Compatibility Planning for Airports
- AC 150/5100-17 **Land Acquisition** & Relocation Assistance for Airport Projects
- AC 150/5200-33 Hazardous **Wildlife** Attractants on or near Airports
- AC 150/5200-34 Construction or Establishment of **Landfills** near Public Airports
- AC 150/5300-13A **Airport Design**
- AC 70/7460-2K Proposed Construction or Alteration of Objects that May Affect the Navigable **Airspace**
- Orders 1050.1F & 5050.4A - **Environmental** Impacts
The Major State Regs:

Indiana Code 8-21-10 – Regulation of Tall Structures (and noise sensitive areas)

05 IAC 3: Airport Site Approvals and Operating Certificates of Approval

876 IAC 9-1-2 Residential sales disclosure form

329 IAC 10: Solid Waste Land Disposal Facilities
The Major Regs:

Local governments have jurisdiction over land outside the airport boundary.

Only influence FAA has for promoting compatible land use off the airport is via grant assurances airport sponsor signs.

Grants include assurances sponsor will take efforts to support adequate zoning and land use controls to protect the airport.
4 Categories of Land

1. on the airport w/ access to a runway aka airside

2. on the airport w/o access to a runway aka landside

3. adjacent to the airport but not owned by the airport

4. in the vicinity of the airport
1 – On airport - Airside
2 – On airport - Land side

Most common issues:

– Heavily regulated by the FAA

– Require certain land to be “unused” because it has to be free of obstructions

– Protect the pilot, passenger, and people/property on the ground

– Prevent non-aeronautical use of land on the airport without FAA approval
1 – On airport - Airside
2 – On airport - Land side

- demand for the development has been expressed
- level of demand will remain sufficiently high
- revenues resulting from the new development will cover associated costs
- For non-aeronautical use:
  • FAA concurrence
  • FMV rents
  • All current and aeronautical uses have been accommodated
  • provisions in interim-use lease that leasehold reverts back to the sponsor
  • Depiction of non-aeronautical use on ALP
Most common issues:

- Noise
- Wildlife attractants
- Tall structures
- Visual obstructions
- Concentrations of people
Industrial land use – good or bad?

Public Perspective
- Jobs and pay checks
- Property, income, payroll taxes
- Economic impact

Airport Perspective
- Visual obstructions
- Hazards to flight
- Concentrations of people
The Early Days

Bartholomew County Indiana Farm Land North of Columbus

August 30, 1937 aerial photo of the future site of the air base
Non-Compatible Land Uses and Safety
Monetary Gain vs. Allowed Uses
Non-Aviation

- Completed 2005 by Aerofinity
- Focused on:
  - Approved Land Uses
  - Review and Approval Process
  - Land Appraisals
Land Use Planning

**Planned Unit Development (PUD)**

- Completed in 2008 by HNTB
- Focused on:
  - Existing Site Conditions
  - Identifying Types of Uses
  - Developmental Standards
Existing Conditions
Types of Uses
Types of Uses

- Identify Strengths of Each Area
- Grouping Like Businesses
- Permitted vs. Conditional
Developmental Standards

Prohibited Uses

• Storage of Explosives
• Release into the Air
• Light Emissions
• Electrical Emissions
• Attract Wildlife

2. Prohibited Uses
   In addition to residential uses, which are expressly prohibited from locating within the Columbus Municipal AirPark PUD, the following uses are also expressly prohibited from being located within said PUD due to their character, or hazardous/harmful nature:
   
   a. Manufacturing, manipulation, storage or transportation of any hazardous material, specifically Class-A explosives;
   b. Uses that release into the air any substance which would impair visibility or otherwise interfere with the operation of aircraft;
   c. Uses that produce light emissions, either direct or indirect (reflective) which would interfere with the operation of aircraft;
   d. Uses that produce electrical, magnetic or other emissions which would interfere with the operation of aircraft, aircraft communication or aircraft guidance systems; or
   e. Uses that attract birds, waterfowl, or wildlife, in a manner that creates a hazard to aviation.
Developmental Standards

Plant Materials

• Prohibited:
  - Known to attract wildlife
  - Plants with nuts or seeds
  - Densely planted

Table 3: Prohibited Plant Materials

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Negative Characteristic(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Elm</td>
<td>Ulmus americana</td>
<td>Root rot, disease</td>
</tr>
<tr>
<td>Ash</td>
<td>Fraxinus</td>
<td>Black knot</td>
</tr>
<tr>
<td>Arizona White Pine</td>
<td>Pinus strobiformis</td>
<td>Resistant to pine weevil</td>
</tr>
<tr>
<td>Arizona Olive</td>
<td>Elaeagnus oliveri</td>
<td>Poor from disease, pests, invasive</td>
</tr>
<tr>
<td>Beach</td>
<td>Pappus</td>
<td>Fruit bearing, wildlife attractant</td>
</tr>
<tr>
<td>Black and Gold Chrysanthemum</td>
<td>Chrysanthemum coccineum</td>
<td>Invasive</td>
</tr>
<tr>
<td>Black Locust</td>
<td>Robinia pseudoacacia</td>
<td>Invasive</td>
</tr>
<tr>
<td>Black walnut</td>
<td>Juglans nigra</td>
<td>Invasive, shallow roots, weak wood</td>
</tr>
<tr>
<td>Brain Tree</td>
<td>Pyrus calleryana</td>
<td>Very staminate, low stature</td>
</tr>
<tr>
<td>Bur Oak</td>
<td>Quercus macrocarpa</td>
<td>Fruit bearing, wildlife attractant</td>
</tr>
<tr>
<td>Bur Oak</td>
<td>Bur oak</td>
<td>Shallow roots, seeds</td>
</tr>
<tr>
<td>Calycanthus</td>
<td>Calycanthus occidentalis</td>
<td>Fruit bearing, wildlife attractant</td>
</tr>
<tr>
<td>Crape Myrtle</td>
<td>Lagerstroemia indica</td>
<td>Fruit bearing, wildlife attractant</td>
</tr>
<tr>
<td>European White Birch</td>
<td>Betula pendula</td>
<td>Root rot</td>
</tr>
<tr>
<td>Geranium (Family)</td>
<td>Geranium spp.</td>
<td>Root rot, foliage</td>
</tr>
<tr>
<td>Himalayan Cherry</td>
<td>Prunus serrulata</td>
<td>Fruit bearing, wildlife attractant</td>
</tr>
<tr>
<td>Himalayan Poplar</td>
<td>Populus nitida</td>
<td>Invasive, shallow roots, weak wood</td>
</tr>
<tr>
<td>Japanese Maple</td>
<td>Acer palmatum</td>
<td>Invasive</td>
</tr>
<tr>
<td>Kentucky Coffee</td>
<td>Gymnocladus dioicus</td>
<td>Invasive</td>
</tr>
<tr>
<td>Kashmir</td>
<td>Cistus xalifolius</td>
<td>Fruit bearing, wildlife attractant</td>
</tr>
<tr>
<td>Lesser Celandine</td>
<td>Ranunculus ficaria</td>
<td>Invasive</td>
</tr>
<tr>
<td>Lycium</td>
<td>Lycium</td>
<td>Invasive</td>
</tr>
<tr>
<td>Michigan Maple</td>
<td>Acer saccharinum</td>
<td>Invasive</td>
</tr>
<tr>
<td>Mimosa</td>
<td>Acacia dealbata</td>
<td>Pest, shallow roots, invasive</td>
</tr>
<tr>
<td>Monkshood</td>
<td>Aconitum napellus</td>
<td>Invasive</td>
</tr>
<tr>
<td>Mexican Poppy</td>
<td>Argemone mexicana</td>
<td>Invasive</td>
</tr>
<tr>
<td>Mexican Sunflower</td>
<td>Helianthus annuus</td>
<td>Invasive</td>
</tr>
<tr>
<td>New Zealand Flax</td>
<td>Phormium tenax</td>
<td>Invasive</td>
</tr>
<tr>
<td>Norway Maple</td>
<td>Acer platanoides</td>
<td>Invasive</td>
</tr>
<tr>
<td>Oak</td>
<td>Quercus</td>
<td>Fruit bearing, wildlife attractant</td>
</tr>
<tr>
<td>Oriental Walnut</td>
<td>Juglans orientalis</td>
<td>Invasive</td>
</tr>
<tr>
<td>Ponderosa Pine</td>
<td>Pinus ponderosa</td>
<td>Poor from disease, pests, invasive</td>
</tr>
<tr>
<td>Port Orford Cedar</td>
<td>Cryptomeria japonica</td>
<td>Invasive</td>
</tr>
<tr>
<td>Pseudopanax</td>
<td>Pseudopanax</td>
<td>Fruit bearing, wildlife attractant</td>
</tr>
<tr>
<td>Rabbit's Foot</td>
<td>Dactyliospermum</td>
<td>Invasive</td>
</tr>
<tr>
<td>Redbud</td>
<td>Cercis canadensis</td>
<td>Invasive</td>
</tr>
<tr>
<td>Rhus</td>
<td>Rhus</td>
<td>Invasive</td>
</tr>
<tr>
<td>Rubus</td>
<td>Rubus</td>
<td>Invasive</td>
</tr>
<tr>
<td>Russian Olive</td>
<td>Elaeagnus angustifolia</td>
<td>Invasive, shallow roots, weak wood</td>
</tr>
<tr>
<td>Russian Oak</td>
<td>Quercus</td>
<td>Invasive</td>
</tr>
<tr>
<td>Smilax</td>
<td>Smilax</td>
<td>Root rot, disease</td>
</tr>
<tr>
<td>South African</td>
<td>Aleurites</td>
<td>Invasive, shallow roots, weak wood</td>
</tr>
<tr>
<td>Sourwood</td>
<td>Oxydendrum arboreum</td>
<td>Invasive</td>
</tr>
<tr>
<td>Tamarisk</td>
<td>Tamarix</td>
<td>Invasive, shallow roots, weak wood</td>
</tr>
<tr>
<td>Texas Sage</td>
<td>Salvia</td>
<td>Invasive, shallow roots, weak wood</td>
</tr>
<tr>
<td>Tree of Heaven</td>
<td>Ailanthus altissima</td>
<td>Invasive, shallow roots, weak wood</td>
</tr>
<tr>
<td>Vining</td>
<td>Vining</td>
<td>Invasive</td>
</tr>
<tr>
<td>White Pine</td>
<td>Pinus</td>
<td>Invasive, shallow roots, weak wood</td>
</tr>
<tr>
<td>Willow</td>
<td>Salix</td>
<td>Invasive, shallow roots, weak wood</td>
</tr>
</tbody>
</table>

*Invasive* means the plant has established populations outside its native range and is regarded as invasive or pests. *Root rot* refers to a condition that can kill or damage the plant's roots. *Disease* indicates that the plant is susceptible to certain diseases. *Pests* refer to insects or animals that can harm the plant.
Developmental Standards

H. Lighting (Revised 12.16.14 – Ord. #52, 2014)

1. On-site Lighting
   For the purposes of administering and enforcing this District, on-site lighting shall refer to freestanding light fixtures located on the premises and out of the public right-of-way.
   a. Design Limitations
      All on-site lighting shall be completely enclosed and not flat in shape to prevent perching and nesting of birds. The open construction of such features is prohibited.
   b. Height Limitation
      All freestanding light fixtures, such as pole mounted parking lot lighting, shall be limited to a maximum total height of thirty (30) feet throughout the entire Columbus Municipal AirPark PUD. The height shall be measured as the distance between the grade level of the surface being illuminated and the bottom of the lighting fixture. All freestanding lighting shall make use of ninety (90) degree cut-off fixtures with fully recessed lens covers.
   c. Illumination
      All lighting fixtures must be illuminated using a low heat transfer fixture, such as LED, to further prevent perching in the cool season.
   d. Spillage
      With the exception of lights used for aviation, there shall be a maximum of 0.1 foot candle where the Columbus Municipal AirPark PUD boundary abuts an adjacent property.

2. Exterior Illumination of Buildings
   The uplighting of the exterior of a building within the Columbus Municipal AirPark PUD shall be prohibited. Building facades may be illuminated using downlighting (where objects or areas are illuminated from above where the lighting comes directly from overhead), provided that all fixtures are located, aimed, and shielded so that light is directed only onto the building façade. Building façade light fixtures shall be designed and installed so as to wash the façade of the building with light rather than to provide a spotlight or floodlight effect. In no instance shall a building’s exterior illumination be directed toward a public right-of-way, adjacent property, or the sky.

3. Lighting of nonconforming structures and trees
   Refer to the Airport Hazard Area Overlay District of the Columbus Zoning Ordinance, as amended from time to time.

I. Signage (Revised 12.16.14 – Ord. #52, 2014)

1. Sign Design
   All signs shall be designed so that the sign face is flush and sealed. Projecting elements of a sign are prohibited as they allow for nesting and perching of birds, becoming a wildlife attractant. In addition, the back of all signs shall be sealed and void of any perching/nesting opportunities. Any sign with a corrugated back shall have vertical lines instead of horizontal lines.

2. Illumination of Signs
   Signs may be illuminated externally or internally, including through the use of back lighting and flood lighting. Signs that portray movement are prohibited. The source of any external illumination shall be located, aimed and shielded so that light is directed onto the sign face. No exposed bulb or lamp shall be used on the exterior surface of any sign so as to expose the face of the bulb, light or lamp to any public right-of-way, adjacent property, or towards the sky.

3. Location of Signs by Sign Type
   In no instance shall commercial signage be located within the public right-of-way. The location of signs within the Columbus Municipal AirPark PUD shall be as prescribed by the following table. The type of sign permitted within the PUD, and their subsequent requirements are as follows:

M. Drainage
   No permanent structure shall be permitted to be located in a drainage easement without express written permission from the City of Columbus Engineering Department.
   For the purposes of administering and enforcing this Ordinance the storm water management standards established by the Columbus Engineering Department shall apply, with the exception of the Department’s open water storm water management standards given their nature of attracting wildlife. All open water areas proposed within the Columbus Municipal AirPark PUD shall be based on flight patterns of aircrafts and the location of proposed features and be consistent with the open water standards prescribed by the United State Department of Agriculture (USDA) & Animal and Plant Health Inspection Service (APHIS), as amended from time to time, and/or the Federal Aviation Administration (FAA), as amended from time to time.
   In addition all developers/rentants will be encouraged to reduce soil erosion and sedimentation by minimizing the removal of vegetative cover, and employ the use of the following temporary and permanent best management practices.
   The following measures for site grading and clearing are strongly encouraged as they are intended to reduce soil erosion and sedimentation that originates from the development or redevelopment of land.

1. Minimization of the Removal of Vegetative Cover
   A developer shall remove no more vegetation than is necessary to construct the approved development.

2. Temporary Best Management Practices
   A developer shall install temporary mulching, such as straw bales, on areas to be left bare of plant material for an extended period of time. These temporary best management practices shall then be removed no later than twelve (12) months from the date it was installed.

3. Permanent Best Management Practices
   A developer shall provide de-silting basins to remove sediment from runoff water.
Lessons Learned

Positives of the PUD

• Easy to Identify Potential New Tenant Locations
• Tenants know there are rules to everything they do
• Easily Accessible and Digestible – 47 pages
• Keeps Planning Department and Airport on the Same Page
Lessons Learned

Negatives to the PUD

• Initially Too Specific
  – Lights with Domed Top

• Opportunities
  – Student Housing
  – Indoor Sports Complex
  – Commercial

• Timeline to Modify
Future Plans

- Concept of Aerotropolis
- Create an Airport City
- Work to Identify Needed Tenants
Value in working with State

1. Greater outreach with Businesses unfamiliar with your local government
2. Better understanding of Incentives, Grants, Programs available to assist the airport in development for future business demands
3. Airport will be featured in Indiana’s Site Selector Database. Gives Airports sites a distinct competitive advantage
4. Less competition against other general aviation airports on states database
5. Creates shovel ready sites for any business whether from State or from local EDC group.
6. Airport and Community Leaders better connected to State officials and more visible with statewide economic development initiatives.
7. Increased Airport recognition in Community
8. Increased Airport recognition in State
Benefits to Businesses

1. State Certified Shovel Ready sites = less time permitting, ready for development to meet their construction completion time, lowers development cost

2. State Certified Shovel Ready sites lower risk and unpredictability

3. State Certified Shovel Ready sites give the business a level of comfort and the State opportunity to assist with incentives

4. State Certified Shovel Ready sites illustrate a communities commitment to new business
   1. Increased Airport recognition in community
   2. Increased Airport recognition in State
Levels of Indiana Certified Shovel Ready Sites

1. Indiana Site Certified Silver (Bottom Tier)

2. Indiana Site Certified Gold (Middle Tier)

3. Indiana Site Certified Prime (Top Tier)
Indiana Site Certified Silver

1. No size limit
2. No proximity to state highway
3. Support from LUG-CEO
4. Clear Title – 50 year title search
5. Zoning not required
6. ALTA Survey
7. Topo map using LIDAR
8. Aerial Map
9. Phase 1
10. Wetland Delineation
11. Letter from INDOT addressing appropriate use of site
12. Utility Service capacity and distance defined
Indiana Site Certified Gold

1. 20 contiguous acres
2. 5 miles from state highway
3. Zoning required
4. Geotechnical study required
5. Seismic hazard map
6. No recs or site clear
7. Desktop archeological investigation
8. Utility to property line or future build located in public right of way
Indiana Site Certified Prime

1. 30 contiguous acres
2. 2.5 miles from state highway
3. Zoning required
4. Geotechnical study required
5. No recs or site clear
6. Archeological investigation
7. Utility to property line
8. LUG, LEDO or REDO must own property or have agreement with property owner
Aerial Map: Map of the site using photographs showing layout and location from an elevated position.

Archaeological Investigation: Archaeological records checks including a thorough investigation of documentary records, historical maps and plans of the area, photograph evidence, geological information as well as all relevant data from the IDNR DHPA along with a Phase 1a Reconnaissance Report.

ALTA Map: Survey map including boundary lines, location of the main building with improvements, location of ancillary buildings, identification of easements (access rights by service companies such as water, gas, telephone, railways, and other utilities).

Clear Title: The fifty-year title search found no liens, mortgages, judgments, encumbrances, or unpaid taxes.

Contiguous Acres: All acreage must be uninterrupted, touching or connected throughout in an unbroken sequence.

Current Documents: Completion of annual updates ensuring the status and information on the site and building database is accurate.

Desktop Archaeological Investigation: Desk top assessment will include a thorough investigation of documentary records, historical maps and plans of the area, photograph evidence, geological information as well as all relevant data from IDNR.

Established Price: Letter from the property owner includes a sale and/or lease price.

Support from LUG-CEO: The chief elected official from the local unit of government has submitted a letter of support for the project.

Five miles from two-lane highway transportation: The site must be a minimum of five miles from an INDOOT designated state or federal highway.

Infrastructure to the property line or on the property: The site must have water, wastewater, electric, natural gas and high speed communications to the property line or located on the property.

Letter from INDOOT addressing appropriate use of site: Letter from INDOOT district office discussing transportation access points for the site.

Free of environmental concerns: The Phase I Environmental Assessment returned without any Recognized Environmental Conditions (REC) or documentation demonstrates all contaminants have been cleaned up.

Phase II Environmental Assessment: Report identifying potential or existing environmental contamination liabilities. Includes examination of potential soil contamination, groundwater quality, and surface water quality. Must be based on ASTM standards E 1527-00 or 1527-05.

Phase II Environmental Assessment: Report following the identification of a Recognized Environmental Condition (REC) during the Phase I Environmental Assessment. Includes collection of soil samples and/or ground-water and surface water. Only required if the Phase I Environmental Assessment identified REC(s).

Proper Zoning: Site is located in a jurisdiction that has a planning department established in compliance with IC 36-7-4 and the selected industry profile(s) is/are consistent with the local zoning ordinance.

Public Right of Way: an easement granted or reserved over the land for transportation purposes. This could be a highway, public footpath canal, or pipelines.

Seismic Hazard Map: Inclusion of mapping of the site to verify seismic hazard % for 2% in 50 years peak ground acceleration (PGA).

Geo tech survey: Study investigating sample soil borings taken at site to obtain information on the physical properties of the site’s soil and rock to determine the strength and properties of a required building foundation. Report will determine any known risk factors including seismic vibration/activity, fault lines, sink holes and past under mining. Must meet the requirements of one soil boring for every ten acres of land and each soil boring must be a minimum of 20 feet in depth.

Topographical Map using LIDAR: LIDAR mapping is a technological form of mapping that uses high-resolution project depth set imagery that collects data via LIDAR and provides a detailed image.

Utility capacity and distance defined: Letters from utility providers identify the site’s capacity and distance for water, wastewater, electric, natural gas and high speed communications to the property line or located on the property or the community has demonstrated the ability to construct and pay for the infrastructure up to the property line.

Wetland Delineation: Report performed by a certified professional determining wetland boundaries or locations on the property.
### Threshold

<table>
<thead>
<tr>
<th>Documentation Needed</th>
<th>Silver</th>
<th>Gold</th>
<th>Prime</th>
</tr>
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<tbody>
<tr>
<td>Size of site</td>
<td>None</td>
<td>Minimum of 20 contiguous acres</td>
<td>Minimum of 30 contiguous acres</td>
</tr>
<tr>
<td>Distance to highway</td>
<td>None</td>
<td>5 miles from state highway transportation</td>
<td>2.5 miles from state highway transportation</td>
</tr>
</tbody>
</table>

### A. Community Support (Executive-Level Local Government Official Support)

<table>
<thead>
<tr>
<th>Documentation Needed</th>
<th>Silver</th>
<th>Gold</th>
<th>Prime</th>
</tr>
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<tbody>
<tr>
<td>Letter from Chief Elected Official</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Letter from Applicant with summary of qualification of site for shovel ready program</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### B. Site Ownership/Control (Clear Title or Development Option)

<table>
<thead>
<tr>
<th>Documentation Needed</th>
<th>Silver</th>
<th>Gold</th>
<th>Prime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter from property owner/option holder stating that site is for sale/lease. Letter signed by property owner stating: 1) Unequivocal willingness to transact with any legal party/developer, 2) Person is legal owner with full authority to transact, 3) Price OR Current real estate listing agreement may substitute for letter OR Copy of option agreement</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>LUG, LEDO, or REDO must own the property or have option agreement with property owner</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Fifty-year title search including: 1) Copies of results and findings 2) Letter stating time period covered in search</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Title and encumbrance report</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Copies of current property tax records</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>
### C. Local Zoning Ordinances (Identification of current zoning & proof of special taxing district)

<table>
<thead>
<tr>
<th>Documentation Needed</th>
<th>Silver</th>
<th>Gold</th>
<th>Prime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official letter from local zoning official providing proof of adopted ordinances and permitted uses of site</td>
<td>Plan to discuss how site will overcome lack of zoning</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Highlight excerpts from adopted zoning ordinance</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Relevant portion of zoning map</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Narrative with a map of land use descriptions of adjacent properties</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Menu of tax incentives available identified</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

### D. Maps (Identification of boundaries & infrastructure)

<table>
<thead>
<tr>
<th>Documentation Needed</th>
<th>Silver</th>
<th>Gold</th>
<th>Prime</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALTA survey</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Site map Showing site layout and location</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Topographical map using LIDAR</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Aerial Map</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Plat map showing site (if site is platted)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### E. Environmental

<table>
<thead>
<tr>
<th>Documentation Needed</th>
<th>ISR-Silver</th>
<th>ISR-Gold</th>
<th>Prime</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-year flood plain map of site and environs. (To be provided by FAST Team)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
1) Soil Borings/Geotechnical Study
   a) Geotechnical Report conducted by a Soil Engineer and supporting information based on the following standards:
      i) Brief summary highlighting relevant report sections of Geotechnical Study
      (1) Sample soil borings on soil conditions and stability taken at the site, burying capacity
      (2) Identify soil type at site
      (3) Exact number of soil borings will be based on the site’s acreage meeting the requirement of one soil boring for every ten acres of land
      (4) 20 feet is the accepted minimum depth for soil borings or auger refusal
      ii) Map to scale depicting location and depth of soil borings
      iii) Brief summary highlighting any known risk factors including seismic vibration/activity, fault lines, sink holes or past undermining
      iv) Copies of all reports, data and/or documentation
   Inclusion of mapping of the site to verify seismic hazard %g for 2% in 50 years peak ground acceleration (PGA). Yes Yes

   Phase I report and supporting information based on ASTM standards E 1527-13. Any materials and records requested Appendix III. Including 1) Brief summary highlighting relevant report sections of Phase I, 2) Copies of all reports, data and/or documentation, brief summary regarding Phase II (if relevant), 3) Brief summary highlighting issue and indicating if further investigation is planned regarding known contaminants (if relevant) Disclosure Document.
   Phase I w/ no REC's or Phase II No recs or site clear No recs or site clear

   Phase II Report following the identification of a Recognized Environmental Condition (REC) during the Phase I Environmental Assessment. Includes collection of soil samples and/or groundwater and surface water. Only required if the Phase I Environmental Assessment identified REC(s). Based on Phase I Based on Phase I Based on Phase I
   IDEM Air Quality Maps with county clearly marked Yes Yes Yes
| Wetland delineation report conducted by trained professional. A map to scale depicting the location, extent and wetlands/waters. | Yes | Yes | Yes |
| USACE jurisdictional determination | Yes | Yes | Yes |
| If except isolated wetlands are present, document their location, extent and rationale for exemption. | Yes | Yes | Yes |
| Desktop archeological investigation- desk-top assessment will include a thorough investigation of documentary records, historical maps and plans of the area, photograph evidence, geological information as well as all relevant data from the local Historic Environment Record (HER) |  |  | Yes |
| Archeological investigation- desk-top assessment will include a thorough investigation of documentary records, historical maps and plans of the area, photograph evidence, geological information as well as all relevant data from the local Historic Environment Record (HER) along with field inspections of the site. |  |  | Yes |

**F. Transportation (Capacity clearly defined)**

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<tbody>
<tr>
<td>Letter from INDOT district office addressing appropriate use of site. Copies of traffic impact study (if applicable)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Inclusion of site map indicating existing and permissible access</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Inclusion of dated area wide maps or dated aerial photography with markers for selected destinations and primary routes.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Letter from rail service/ port provider demonstrating capability and commitment to service site.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
### G. Utilities (Capacity clearly identified and to the property line)

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<tbody>
<tr>
<td>Letter from water service provider detailing capacity, distance and service at site.</td>
<td>Capacity and distance defined</td>
<td>To property line or future build located in public right of way</td>
<td>To property line or future build located in public right of way</td>
</tr>
<tr>
<td>Letter from wastewater service provider detailing capacity, distance and service at site.</td>
<td>Capacity and distance defined</td>
<td>To property line or future build located in public right of way</td>
<td>To property line or future build located in public right of way</td>
</tr>
<tr>
<td>Letter from electric service provider detailing capacity, distance, and service at site.</td>
<td>Capacity and distance defined</td>
<td>To property line or future build located in public right of way</td>
<td>To property line or future build located in public right of way</td>
</tr>
<tr>
<td>Letter from natural gas service provider detailing capacity, distance and service at site.</td>
<td>Capacity and distance defined</td>
<td>To property line or future build located in public right of way</td>
<td>To property line or future build located in public right of way</td>
</tr>
<tr>
<td>Letter from high speed communication service provider detailing capacity, distance and service at site.</td>
<td>Capacity and distance defined</td>
<td>To property line or future build located in public right of way</td>
<td>To property line or future build located in public right of way</td>
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### H. Miscellaneous (Demographics and workforce)

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<tbody>
<tr>
<td>Identification of emergency, public safety and protective services, fire marshal, fire protection district chief or similar authority addressing adequate service for fire</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Population &amp; unemployment data including list and descriptions of major employers within 50 miles and list of similar-business closures in past two years within 50 miles</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
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</table>
Lessons Learned

• Use Airport’s Vision and Mission statements as Litany test for proposed development.
  1. Concise and Easily repeatable
  2. Identify why Airport exists and what defines success

• Look at Locally and State funded projects not only those projects identified for FAA funding

• Identify your Airport’s Champion to better elevate your Airport’s connection with the State

• Land Use planning should always include local stakeholders to ensure everyone’s vision around the airport is heard from an airports perspective and the communities perspective.

• Graphical display of the plan should be apparent for the City/County leaders as well as at the Airport
Summary

• Litany of Regulations governing airports
  1. FAA has sole authority over safe and efficient use of nation’s airspace
  2. Local governments have jurisdiction over land use controls off airport
  3. Land use on Airports is controlled by grant obligations between airport and FAA
  4. Any non-aeronautical land use on Airport has to be approved by FAA
  5. Compatible development on and around airports benefits everyone

• Planned Unit Development (PUD) is beneficial in guiding compatible land uses
• Working with State provides greater outreach and increased opportunities
• Shovel Ready Sites mitigate risks for potential businesses
• Working with State may provide incentives for businesses coming to Airport
• Who’s your CHAMPION?
Questions?

Thank you for the opportunity to present at the 103rd Purdue Road School Conference