White County Highway Garage Project Development and outcomes Reynolds, IN
Presentation Agenda

• Project Development History
  • What we replaced and why
  • The project delivery method
  • Site selection criteria
  • Site preparation requirements
  • Building & facility design Criteria
  • Facilities Development Specifications and Costs
  • Project results and operational benefits gained

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Why a new Highway Garage Campus and Operations Facility?

• The County’s Highway Department had machinery, equipment, and materials scattered over 7 different sites, mostly unprotected from the elements.

• Equipment had increased in size from the 1950s to where it could not be safely and adequately serviced and maintained.

• With more than 30 employees, there was no sufficient space available to hold training and employee sessions.

• The garage had simply outlasted its useful life.

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White County Highway Departments Scope of Responsibility and Road/Asset Inventory

- 950 miles of roads to maintain
  - 550 miles hard surfaced
  - 400 miles stone surfaced
- 165 bridges
- 28 plow routes
- Multiple campgrounds
- 2 lakes
- 1 amusement part
- 30,000 cottages occupied throughout the summer
- 520 wind turbines (50 more in 2023)
- 4 solar farms under development, totaling 10,000 acres

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White County Highway Departments Scope of Responsibility and Road/Asset Inventory

• 2022 budget = $4.4 MVH
• 2022 windfarm road replacement = $3.3M
• 2023 solar farm road and culvert replacement = $6.8M
• 2024 wind and solar road replacement = $?.?M

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Why a new Highway Garage Campus and Operations Facility?

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White County Highway Garage Campus Pre-2021
Originally constructed in 1955 on 2.5 acres

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Project Delivery Method

• White County chose to utilize a consultant/construction manager delivery system. In this capacity, Garmong:
  • Worked with the Commissioners and Highway Superintendent to identify the most appropriate site from which to serve the County
  • Assisted the County with the selection and engagement of the design professionals
  • Directed the project development activities and assumed full responsibility for advancing the project
  • Developed and updated budgets at intervals throughout the design process to validate that designs could be constructed within budget
  • Advertised and bid the project on behalf of the County
  • Managed the contractors/vendors through the construction process
  • Provided project close-out oversight
  • Handled post occupancy warranty issues and resolution

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Site Selection Criteria

• A location central to the County’s Highway System
• On a main artery with an existing cut or access
• Available to purchase from a “reasonable” landowner
• Large enough to serve the County’s needs for +/- 50 years
• Free from environmental contamination issues
New Highway Garage Site Pre-Development

+/- 16 Acres

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Site issues and mitigation steps

• Surveys indicated a discrepancy as to the actual acreage recorded in the plat
• While in the process of purchasing the site, DNR declared the site to have significant wetlands issues
• Water and sewer had not been extended to the site by the Town of Reynolds
• Soil bearing pressures were inadequate to support construction “as is”
• Site bordered upon residential neighbors – screening required
• Certain adjoining property owners had “sprawled” onto the site
Campus & Building Site Criteria

- Easy access and truck/equipment circulation
- Buildings needed to “command respect” without appearing to be too opulent at the taxpayer’s expense
- Site needed to be fully secured
- All equipment enclosed and/or out of the weather
- Training & meeting space that could be utilized by other County agencies and civic organizations
- Large enough to accommodate anticipated growth in future equipment size
- Easy access to fuel island
- Specific and strategic materials storage
- Bid specifications as “friendly” as possible to local contractors

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Facilities Development Specifications and Cost

- Office and Maintenance Building – 22,728 SF
- Heated Equipment Storage Building – 4,772 SF
- Cold Equipment Storage Building – 11,695 SF
- Salt, Sand, and Solution Mixing Barn – 26,706 SF
- Plow Storage Shed – 9,072 SF
- Patcher Storage – Shed – 3,024 SF

Total under roof = 77,997

Total construction duration of approximately 14 months

Total project hard & soft costs + FFE = < $14M
Office & Maintenance Building

- 240’ x 96’ = 23,040 SF and Accommodates:
  - Office Administration
  - Clerk
  - Superintendent
  - Assistant Superintendent
  - Foreman
  - Men’s and Women’s Restrooms
  - Employee’s men & Women’s Restrooms, Lockers, and Showers
  - Conference room / 15 seats

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Maintenance Service Bay Exterior

- 4 repair bays
- 2 fabrication/welder/hydraulic bays
- Storage of new/used oil, jacks, stands, and welder gas
- Tires, blade, air compressor, and hotsy

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Training Room

Training Room Accommodates:
- 35 front facing / 70 plus seating capacity in total
- Also functions as break room / lunch room
- The County makes this room available to local professional organizations for their meeting functions

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Map and Survey Room

- Plan sets and records for 163 bridges
- Plans and prints for all highway engineering
- Plow route mapping
- Federal aid project records

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Service Bays – Interior

- 5 ton and 7 ton cranes covering 4 bays
- 64,000 lb drive through lift
- Twelve (12) 14,000 lb mobile lifts
- Large work/storage bench/computer/phone/2 way radio station
- Water/air/electric in between every door and on crane columns in the center
- Drinking fountain and restroom
- Central lube reels / 4 products plus grease
- Fab shop with welder/plasma/iron worker/hydraulic hose/fittings/crimper/steel rack/bandsaw/grinders/sanders/drill press/mag drill
- We build trucks, order beds, hydraulic system, plow fame, build box hitches, tool boxes, run wiring and air lines – Saves County +/- $40,000 per year

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Wash Bay

• Features:
  • Remote start hotsy
  • 2” water supply for mechanical wash
  • Allowed more trucks to be washed in the last year than the previous twenty years combined

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• Items are scanned in and out (inventoried)
• $2M in parts inventory
• Transmissions/rear-ends/springs/brakes/plow parts, electrical parts, wipers, blowers, and filters in stock

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272’ x 100’ = 27,200 SF
Storage and operational provisions include:
• 4,000 tons of salt
• 4,000 tons of sand
• 4,000 tons or road mix
• Houses an 8 ton batch mixer, really cutting down on the tonnage. Mix is a lot hotter.
Rolling Equipment Storage

150’ x 80’ = 12,000 SF
Out of the elements storage for:
• Graders
• Rollers
• Backhoe
• Excavator
• Mini
• Drop deck
• Other trailers
• Pallet racking with tile fittings
• 80% of other required miscellaneous supplies

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Heated Storage & Light Maintenance

80’ x 62’ = 4,960 SF
This building serves to house:
• Jet vac truck
• Sweeper
• Broom
• Sign shop
• Tire Shop
• Heated workshop
• Painted guardrail
• Barricades

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Snowplow covered storage

168’ x 54’ = 9,072 SF
Provides protection from the elements for:
• 30+ snow plows
• 30+ V plows
• 7 pick-up plows
• Pushers for other equipment
• Barricade rack (200)
• High water stands (200)
• A few odds and ends
• Culver storage on the back side – 15 spots for 10 x 20 culverts

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Aggregate and Materials Storage

Provides storage for:
- 10,000 tons of #11s
- 5,000 tons of #73s
- 1000 tons of #9s
- 1000 tons of #8s
- 1000 tons of #2s
- 2,000 tons of rip rap
- 1,000 open bin of sand or 12s or ?
- 250 moveable blocks

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Fueling island and fuel storage

Fuel island features:
• 30’ x 30’ cement pad with canopy
• 2 dual hose road fueling stations
• 30’ x 0’ pad with 100’ runway
• 12,000 gallons of road fuel storage
• 1,500 gallons of red fuel storage
• 500 gallons of gasoline storage
• 300 gallons of DEF
• All accessed and monitored via electronic car reader

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Other Highway Department Campus Provisions:

- A 72 x 42 = 3,042 SF storage building that houses:
  - 4 total patchers
  - 8,000 gallon total tank capacity
  - Distributer

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Things We Would Have Done Differently

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Questions……

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