



## LUMBERYARD at PAINT CREEK

# PROGRESS REPORT

## PHASE 2 – RESTORATION

### Report to the Board

For the Period 9/15/25 – 11/15/25

November 16, 2025 @ 6:30pm

By: Matthew Gibb, Executive Director



The project is approaching the end of Phase 2, which is targeted at finalizing the repair and restoration of the public trail head and market structures. At the end of this Phase the project will be ready for full sire development, and the adaptive new and repurposed uses outlined in the scope. This report outlines what has been done in the immediately prior work period and concludes with next steps.

### TRAILHEAD

The restoration of the 1917 Supply Shed into a new Trail Head for the Paint Creek is substantially done. The re-framing shown in this July photo comes through in the rendered concept drawing below it, which shows the concept for the public space I this portion of the Project.



#### Steps Completed:

- As built drawings now on file
- All structural framing done
- Inconsistent concrete covered by original materials form Main Barn
- Access and parking balanced against storm water requirements
- Trip and pedestrian analysis completed.
- Ancillary public benefits/uses placed under preliminary LOI



GOAL

## Next Steps:

- Final water/electric plan
- Bid and define landscape
- Secure prefab restrooms
- Adjust legal for easements
- Re-set fencing and add gates
- Acquire historic elements



## Development Issues

- Storm water / Retention
- Parking and accessibility
- Location of sanitary easement
- Parking areas compromised by storm water demand calculations



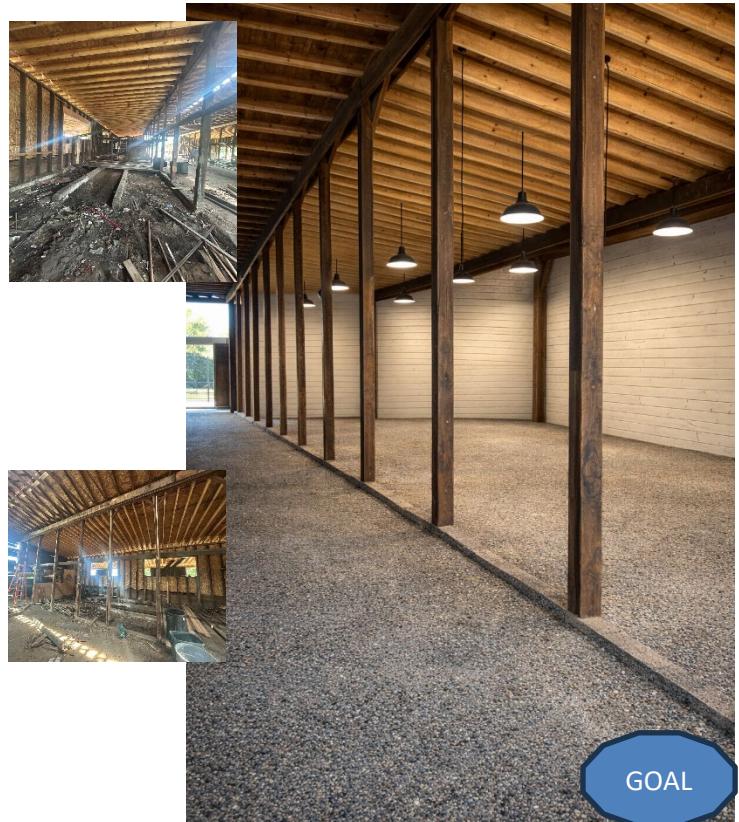
## MAIN MARKET/EVENT BARN

The main restoration is nearing completion. The final West Wall reconstruction was intentionally held to allow for the final concrete work in the interior to be poured (taking advantage of the open west side for access). Winter came early. So the exposed aggregate floor will be poured post-frost law relief when concrete starts again in the spring. At that time the wall be finished with the purchased and stored doors, windows and foundational ties and supports. Completed work includes footing repair(s), garage door market access, clean and prep of interior flooring, pre-electrical, and as built drawings.



## **Next Steps:**

- Pouring interior exposed aggregate
- Final design for electrical
- Lighting plan and security
- Ingress/Egress final build out
- Hard wire sound and event infrastructure
- Frame in West Wall/Re-side
- Place windows and doors.
- Re-side South wall with barn wood



## **Development Issues**

- Blending Historic Preservation with Fire code
- Parking and accessibility
- Occupancy load over suppression
- Use of cisterns and storm water retention
- DTE service planning



## **NORTH ANNEX/ DECK.**

The footings have been installed to meet code and inspection and the north Public Deck complete, subject to electrical and painting in post-winter weather. It was decided to use “hog wire” for the railing and to buildout of the framing with an extra row of cookie supported pillar footings to support load. An opening has been left for stairs on the north side, and it remain intended to grade to the west side for ADA access to both the deck and the barn annex. The North Annex has been restored using all original salvaged materials form the main barn.

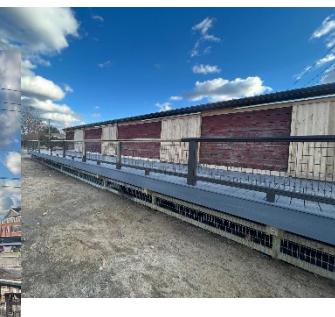
### **Next Steps**

- Build out of public access areas
- Electrical for site use and lighting
- Incorporation of access and walkability, restoration of railroad tracks
- Moving and restoration of 1910 Coal Shed



### **Development Issues**

- Approval of PUD based on shipping container based kitchen/bar public ancillary use
- Fire access demands for hard surface
- Re-purposing the coal shed and build out



## **SITE PLAN / PUD**

A series of meetings and cost plans have been completed that lead to the development of a final proposed site plan for Planned Unit Development (PUD) eligibility and approval. This has been the development plan goal, but has been interrupted for a variety of reasons including lack of immediate access and engagement with necessary agency and consultant representatives. To expedite the process for solving calculations and site layout for storm water, grade applications, fire access, DTE service drops, and hydrant placement the Executive Director has completed several studies, many of which are attached hereto:

- Trip and Pedestrian Trip Report
- Load Calculation Sheet for Service Planning Application of Historic Preservation policy goals against strict code interpretation
- Legal application of MDOT easement and basin status
- Pre Eligibility Narrative
- Suppression Cost analysis

The anticipated Village review for PUD approval will be submitted in early January, with expected approval not later than March 2026.

The CURRENT proposed PUD site plan is attached.

## **NEXT STEPS**

### **SITE DEVELOPMENT**

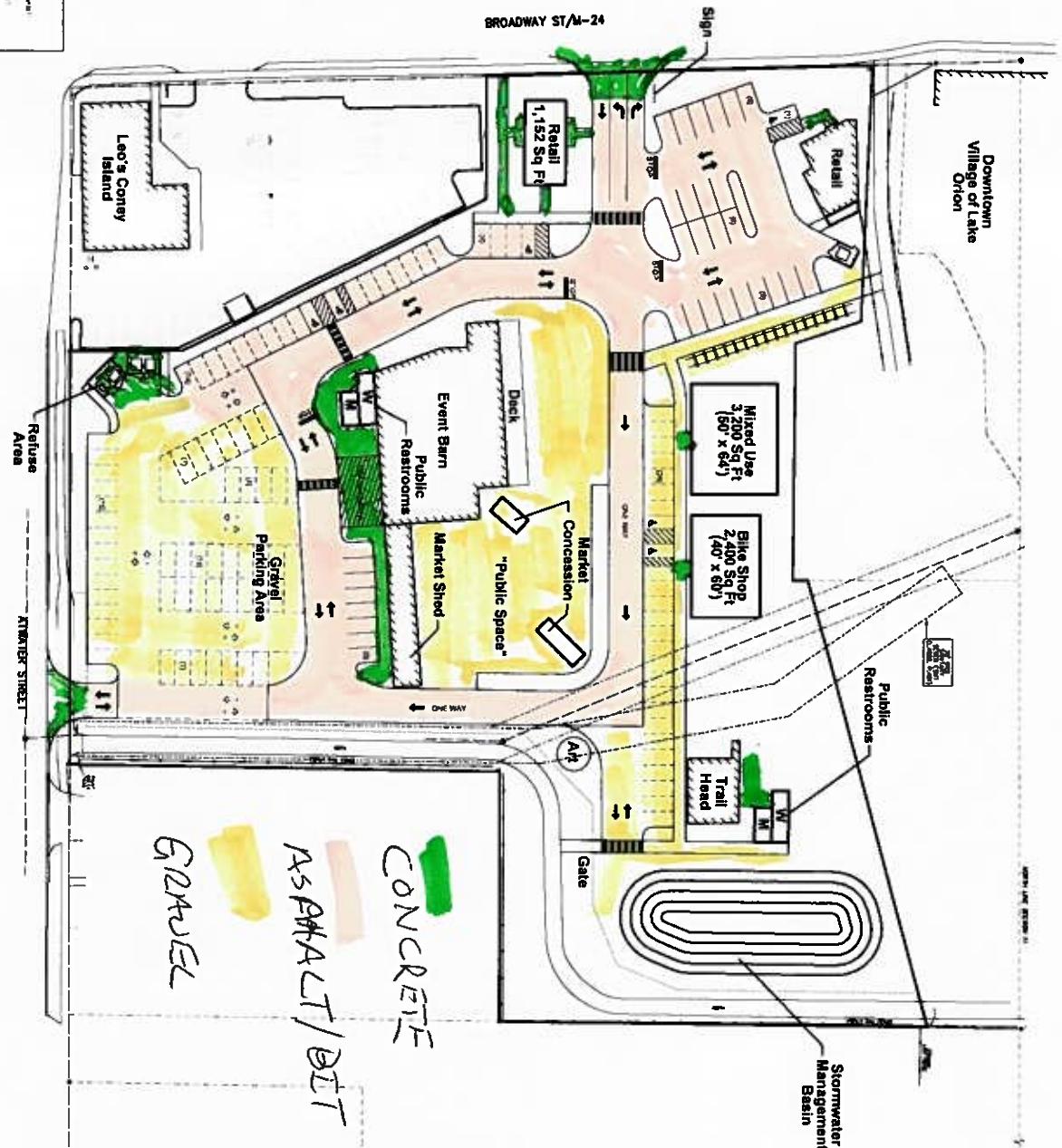
1. Apply for PUD Eligibility
2. Complete Site Engineering and Plan
3. Secure MDOT/DTE approvals for site work
4. Renew SEC permit

### **USE DEVELOPMENT**

1. Finish LOI documentation for proposed uses of bakery, beer garden, retail/mixed use, and bike shop
2. Build non-profit package and vendor market contract and offering package
3. Build sponsorship pre-listings
4. Secure design assistance on public areas
5. Build native plantings list and rain garden concepts



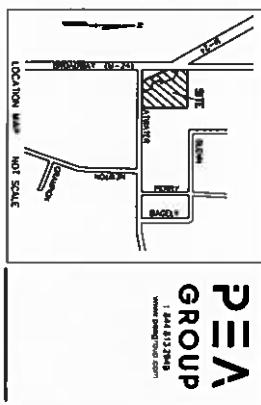




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# Lumber Yard at Paint Creek

## Trip Generation & Foot Traffic Report

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This report estimates the **vehicular trips** and **person trips (foot traffic)** anticipated from the proposed reuse of the historic barns and associated structures at the **Lumber Yard at Paint Creek** as:

- A **public market** (Thursday–Sunday, warm season with seasonal winter operations)
- A **farmers market** (Friday and Saturday in market season)
- A **formal trailhead** serving the adjacent trail system

and, in a full build-out scenario, with:

- A **bakery** ( $\pm 1,400$  sq ft)
- A **bike shop** ( $\pm 2,800$  sq ft)
- A small **8-room hotel**
- A seasonal **brewery with food**, using shipping-container bar and kitchen with outdoor seating

The intent is to provide **planning-level estimates** appropriate for:

- Planning Commission packet materials
- Market study and lease preparation
- Internal DDA project planning and communications

These are **reasonable, order-of-magnitude projections**, not a stamped Traffic Impact Study. Final engineering should refine them using the latest ITE Trip Generation Manual datasets and any local traffic counts.

### **A. Project Description & Operating Assumptions**

Program Description:

- Main barn usable interior floor area: approx. 5,500 sq ft
- Pavilion / market rack: 11 stalls  $\times$  140 sq ft  $\approx$  1,540 sq ft
- Total enclosed/open market area:  $\approx$  7,040 sq ft

Additional program elements (full build-out scenario):

- Bakery:  $\pm 1,400$  sq ft
- Bike shop:  $\pm 2,800$  sq ft
- Small hotel: 8 rooms
- Seasonal brewery with food: shipping-container kitchen + bar; effective guest area assumed  $\approx$  2,000 sq ft (containers plus outdoor seating)

## **B. Operating Schedule**

- Public market (general market use):
  - Open Thursday–Sunday, beginning in warm weather and transitioning to a smaller seasonal/winter market.
  - Typical operating hours: 9:00 a.m. to dark, extended later on weekends with music/events (anticipated every weekend in season).
- Farmers market:
  - Friday and Saturday, 9:00 a.m. to dark, during the regular farmers market season.
- Trailhead:
  - 7 days per week, dawn to dusk, supporting trail users, downtown visitors, and market patrons.
- Coffee / bakery service:
  - Coffee, donuts, and healthy options early morning through early afternoon, at least five days per week.
- Barn event space:
  - Assumed ~20 events/year, with event-day traffic “spikes” occurring primarily on weekend evenings. Event days are treated qualitatively in this report, with core numeric estimates focused on typical market days.

The report focuses on peak-season operation (warmer months when all elements are active).

## **C. Methodology & Key Assumptions**

### ***Data Sources***

- The ITE Trip Generation Manual (11th and 12th Editions) and related resources, which provide standard trip rates and methodologies for various land uses.
- Supplemental studies of farmers markets and agritourism/winery/brewery uses, which highlight higher person-trip activity and a stronger share of walking and biking for these uses.
- Summary tables of common trip generation rates for retail, restaurant, and lodging uses derived from the ITE manual.

Where no exact ITE land-use code exists (e.g., public/farmers market, small seasonal brewery), this report uses analogous land uses (specialty retail, restaurant, agritourism) and conservative mid-range rates.

### ***Land-Use Analogues***

Approximate land-use analogues used:

- Public & farmers market: Specialty retail / farmers market analogues (ITE specialty retail center + limited farmers market data).
- Bakery / coffee: Coffee/donut shop without drive-through (scaled down), with more walk/bike and sit-down activity than a high-turnover drive-through.
- Bike shop: Specialty retail.
- Hotel: Small hotel, 8 rooms, using typical hotel trip rates per room.

- Brewery with food: Treated similarly to a drinking place / sit-down restaurant, adjusted to reflect its seasonal, evening, and event focus.
- Trailhead: Modeled as a small park/trailhead with parking, recognizing that a large share of trail users are walk/bike arrivals from the neighborhood/downtown grid.

### ***Vehicle Trip Assumptions (Per Day)***

For planning-level estimates, approximate **average daily external vehicle trip rates** are:

- Public market (7,040 sq ft market area):  
≈ 40 vehicle trips / 1,000 sq ft → ~280 daily vehicle trips
- Bakery (1,400 sq ft):  
≈ 80 vehicle trips / 1,000 sq ft → ~110 daily vehicle trips
- Bike shop (2,800 sq ft):  
≈ 30 vehicle trips / 1,000 sq ft → ~85 daily vehicle trips
- Brewery with food (2,000 sq ft effective guest area):  
≈ 120 vehicle trips / 1,000 sq ft → ~240 daily vehicle trips
- Hotel (8 rooms):  
≈ 6 vehicle trips / room / day → ~50 daily vehicle trips
- Trailhead (incremental site use):  
~40 daily vehicle trips (many additional person trips by bike/foot).
- Farmers market (when active on top of public market):  
Additional ~150 daily vehicle trips and higher midday peak activity, informed by farmers market studies showing high person-trip intensity.

### ***Peak-Hour Assumptions***

- Combined uses (full build-out) are estimated to generate on the order of:
  - ~100 external vehicle trips in a typical design peak hour (late afternoon/early evening on a busy market day).
  - On farmers market days, this rises to about 140 external vehicle trips in the peak hour (approximate).

### ***Person-Trip, Mode Split & Internal Capture***

To convert vehicle trips to people and recognize your walkable downtown + trailhead setting, we assume:

- **Average vehicle occupancy:** 1.8 persons/vehicle (typical for mixed-use non-commute trips).
- **Non-motorized share (walk/bike):** approx. **30% of total person trips** for this site, reflecting strong trail, downtown, and internal circulation.
- **Internal capture between uses (full build-out):** approx. **30% reduction** in external vehicle trips due to cross-shopping and guests moving between the hotel, bakery, brewery, market, and bike shop **without re-entering the road system**.

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## Scenario Definitions

For clarity, two primary scenarios are presented:

**Scenario A – Core Barn & Trailhead Program Only**

- . Public market (barn + pavilion)
- . Farmers market (on designated days)
- . Trailhead
- . No bakery, bike shop, hotel, or brewery

**Scenario B – Full Build-Out (Barns + All Tenants)**

- . All Scenario A uses
- . Plus bakery, bike shop, small hotel (8 rooms), and seasonal brewery with food.

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## D. Estimated Vehicle Trip Generation

### Typical Peak-Season Day (Non–Farmers Market Day)

Scenario A – Barns + Trailhead Only

- Daily external vehicle trips:  $\approx$  325 trips/day
- Peak-hour external vehicle trips:  $\approx$  50 trips/hour

Scenario B – Full Build-Out

After accounting for internal capture between uses:

- Daily external vehicle trips:  $\approx$  575 trips/day
- Peak-hour external vehicle trips:  $\approx$  100 trips/hour

### Farmers Market Days (Friday & Saturday in Season)

On days when the farmers market is operating in conjunction with the public market:

Scenario A – Barns + Trailhead + Farmers Market

- Daily external vehicle trips:  $\approx$  475 trips/day
- (This reflects the base 325 plus  $\sim$ 150 additional trips from farmers market activity.)

Scenario B – Full Build-Out + Farmers Market

- Daily external vehicle trips:  $\approx$  725 trips/day
- Peak-hour external vehicle trips:  $\approx$  140 trips/hour

These values reflect the “**most probable**” scenario rather than ultra-conservative or highly optimistic assumptions, per your direction.

## E. Estimated Person Trips & Foot Traffic

Using the mode split and occupancy assumptions (1.8 persons/vehicle, 30% non-motorized), the site supports a significantly larger **person-trip** volume than vehicle-trip volume, which is exactly the point of your trail-oriented, walkable design.

### Typical Peak-Season Day (Non–Farmers Market Day)

Scenario A – Barns + Trailhead Only

- Total daily person trips (all modes):  $\approx$  825 people/day
- Peak-hour person trips:  $\approx$  125 people/hour

Scenario B – Full Build-Out

- Total daily person trips (all modes):  $\approx$  1,475 people/day
- Peak-hour person trips:  $\approx$  250 people/hour

### Farmers Market Days

Scenario A – Barns + Trailhead + Farmers Market

- Total daily person trips:  $\approx$  1,225 people/day

Scenario B – Full Build-Out + Farmers Market

- Total daily person trips:  $\approx$  1,875 people/day
- Peak-hour person trips:  $\approx$  350–375 people/hour (rounded as  $\approx$  350 for planning purposes)

These person-trip totals reflect:

- Market shoppers
- Farmers market patrons
- Trail users
- Hotel guests
- Bakery and coffee patrons (including strong AM peak)
- Brewery and food patrons (evening and weekend peaks)
- Cross-shopping between all on-site uses

**Design peak hour for vehicles** typically occurs **late afternoon / early evening**, when:

- Market activity is still present
- Brewery and food service is ramping up
- Music/events are underway on weekends
- Hotel guests are arriving or returning for dinner

Even under full build-out, this peak is roughly **100–140 vehicles/hour and 250–350 people/hour**, which is significant for site design but generally manageable for a downtown street network when paired with appropriate access management and on-site circulation.

## **F. Pedestrian, Bicycle, and Trailhead Emphasis**

An important qualitative conclusion is that the Lumber Yard at Paint Creek is a pedestrian- and trail-oriented destination, not a conventional auto-only commercial strip:

- Formal trailhead encourages arrivals by bicycle and on foot.
- Direct adjacency to downtown Lake Orion supports short “park once, walk many” trips.
- Internal connectivity (barn, pavilion, bakery, bike shop, brewery, hotel) increases internal capture and reduces repeated driveways interactions.
- The site’s programming (events, markets, outdoor seating) and design (decks, paths, plazas) intentionally favors walking and lingering.

For Planning Commission and Council, it is appropriate to emphasize that:

- While the vehicle trip generation is moderate, the person-trip generation is high, which is exactly what a thriving public market, historic barn reuse, and trailhead are supposed to do.

## **G. Traffic & Parking Implications (High-Level)**

At this planning level:

- 100–140 peak-hour vehicle trips is a moderate traffic load typically handled by a standard two-lane downtown street with appropriate access.
- Parking demand will be driven by peak overlapping activity (farmers market + brewery + evening events). Even so, the walk/bike share and internal capture significantly reduce the need for standalone parking compared to an auto-only strip center of equivalent square footage.
- Event days (weddings, concerts) will create spiky peaks; these should be handled through event management (shared lots, shuttle options, and clear wayfinding) rather than trying to size permanent infrastructure for the absolute peak.

The core barns + trailhead program (Scenario A) is expected to generate on the order of:

- ~325 external vehicle trips/day (typical day), rising to ~475/day on farmers market days.
- ~825–1,225 person trips/day depending on whether the farmers market is operating.

The full build-out with bakery, bike shop, small hotel, and brewery (Scenario B) is expected to generate on the order of:

- ~575 external vehicle trips/day (typical peak-season day) and ~725/day on farmers market days.
- ~1,475–1,875 person trips/day, with 250–350 people in the design peak hour.



## Lumber Yard at Paint Creek

### Preliminary Analysis

#### Dry Fire Suppression System Demand & Cost

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This memorandum is intended to support coordination and discussion with the Fire Marshal regarding a potential fire suppression system for the Lumber Yard at Paint Creek project. A dry-pipe sprinkler system is required by the physical characteristics of the buildings, outlines the design assumptions driving system demand, and presents a defensible planning-level cost range for budgeting and capital planning purposes.

#### **Project Overview**

The project includes two historic, unheated structures that are being adaptively reused for public assembly and limited mercantile purposes:

##### **Main Barn**

- Approximately 4,500 square feet
- Open volume with approximately 28 feet of clear height to balloon truss roof framing
- Standing seam metal roof
- No ceiling; fully exposed trusses and purlins
- Concrete slab floor
- No heat
- Intended for public gathering, market, and event use

##### **Annex**

- Approximately 800 square feet
- Wood-frame construction on pier blocks
- Open rafters to metal roof
- No ceiling
- No heat
- Pine plank interior wall finish
- Intended for small vendor or accessory retail use

Total sprinklered area is approximately 5,300 square feet.

**System Type Requirement** – Both the Main Barn and Annex are unheated and subject to freezing temperatures. Under these conditions, a wet-pipe sprinkler system is not feasible due to the risk of frozen piping and system failure. **As a result, a dry-pipe sprinkler system is required to comply with applicable fire protection standards.**

A dry-pipe system contains pressurized air or nitrogen in the piping rather than water. Water is introduced into the system only upon sprinkler activation, reducing freeze risk in cold environments. This system type is commonly required and accepted for barns, unheated warehouses, open pavilions, and similar assembly structures in cold climates.

## **Design Factors Driving System Demand**

Several project-specific conditions influence the required system design and cost:

### **1. Building Height and Open Volume**

The Main Barn's 28-foot clear height and open truss configuration require sprinkler spacing, pipe sizing, and hydraulic calculations appropriate for large open volumes. Taller spaces typically require greater water demand to achieve required discharge densities at the most remote sprinklers.

### **2. Occupancy Classification**

The anticipated use includes public assembly and mercantile activities. These occupancies generally require light to ordinary hazard design criteria under NFPA 13, influencing sprinkler density and system flow requirements.

### **3. Dry System Performance Requirements**

Dry-pipe systems must meet specific performance criteria, including limits on water delivery time to the most remote sprinkler. To meet these requirements, systems often require larger pipe diameters, optimized layouts, and additional control equipment.

### **4. Historic Retrofit Conditions**

The system must be installed within existing historic structures. While the absence of ceilings allows for efficient exposed installation, routing must coordinate with existing trusses and framing, which increases layout and installation complexity relative to new construction.

### **5. Exposed Piping Aesthetic**

The project intends for sprinkler piping to be exposed and routed cleanly along structural members. While this avoids concealment costs, it requires careful layout and coordination to maintain straight, visually orderly runs.

## **Anticipated Cost Framework**

Based on current industry data for commercial fire sprinkler installations, the following planning-level assumptions apply:

- Dry-pipe sprinkler systems typically cost more than wet systems due to additional valves, compressors, controls, sloped piping, and testing requirements.
- Commercial retrofit sprinkler systems generally range from approximately \$4 to \$8 per square foot.
- Dry systems in unheated or historic retrofit conditions commonly fall in the range of \$7 to \$11 per sprinklered square foot for core installation.

## **Cost Calculations**

Using the project's total sprinklered area of approximately 5,300 square feet:

### **Core Dry System Installation : 5,300 sf x \$11/sf $\approx$ \$58,000**

This core cost includes piping, sprinkler heads, hangers, dry valve assembly, air compressor, and standard installation labor. It does not include engineering, permitting, or water service upgrades.

#### **Engineering, Design, and Permitting**

Fire sprinkler projects typically require:

- NFPA 13 layout and hydraulic calculations
- Professional engineer review and stamp
- Authority Having Jurisdiction review and permit approvals
- As-built documentation

These services typically add approximately 10% to 20% to the core installation cost. Using a midpoint allowance of 15 percent:

### **Combined system + engineering estimate: approximately \$67,000**

#### **Water Service and Infrastructure Considerations**

Final system demand and total cost are dependent on available municipal water pressure and flow. If existing water service is adequate, costs may be limited to backflow prevention and interior connections. If upgrades are required, additional costs may be incurred for:

- Dedicated fire service line
- Increased service size
- Fire pump and controls
- Trenching and surface restoration

At this stage, a conservative planning allowance of approximately \$40,000 is reasonable until hydraulic calculations and utility coordination are completed.

#### **Planning-Level Total Cost Range**

Based on the assumptions above, the anticipated planning-level cost for the dry fire suppression system serving both the Main Barn and Annex is:

### **Total Estimate (adequate water service): approximately \$90,000 to \$120,000**



## **Distinguishing New Development from Historic Restoration in Municipal Review, Infrastructure Requirements, and Regulatory Application**

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This Memorandum affirms why a historic restoration project, such as the Lumber Yard at Paint Creek, should not be reviewed or regulated using the same standards that apply to new development. The argument draws from planning practice, preservation policy, engineering norms, and the intent of state and federal laws governing redevelopment, stormwater, and construction.

### **Foundational Principle: New Development ≠ Historic Restoration**

*New Development:* A new development assumes:

- Vacant, undisturbed land
- No existing impervious surface
- No existing utilities, foundations, or structures
- No cultural or historic resources to preserve
- Full design freedom to shape the site
- Engineering standards applied at their strictest because the site can be fully re-graded, re-engineered, and optimized

*Historic Restoration / Adaptive Reuse:* A historic restoration project involves:

- Long-existing buildings, foundations, utilities, and soils
- Pre-existing impervious surfaces
- Legally recognized or municipally valued historic resources
- A primary public benefit: preservation of cultural heritage
- Structural, spatial, and environmental constraints that limit redesign options
- A regulatory expectation of flexibility because the project improves rather than creates conditions

Therefore, treating a historic restoration as if it were raw, greenfield land contradicts the core principles of planning, engineering, historic preservation, and redevelopment law.

## **Purpose of Redevelopment and Historic Preservation Policy**

*Public Policy Intention.* State and federal frameworks clearly encourage:

- Reuse of existing buildings
- Stabilization of historic sites
- Revitalization of downtowns
- Intensification of existing urban areas
- Avoidance of unnecessary demolition
- Reduction of sprawl and greenfield consumption

*Compliance Burden Must Be Proportional.* These policies assume that:

- Redevelopment receives reasonable regulatory flexibility
- New development receives the strictest application of standards

This is why programs like Brownfield TIF, Main Street, SHPO incentives, and redevelopment credits exist — they recognize that restoration is inherently more constrained.

## **Engineering and Site Constraints Are Fundamentally Different**

*Existing Foundations.* Historic sites contain:

- Old stone walls
- Timber-frame barns
- Masonry without reinforcement
- Settled or uneven substrates

Deep excavation or major grading can destabilize historic structures.

*Utilities and Unknown Subsurface Conditions.* Historic sites often include:

- Shallow utilities
- Abandoned lines
- Nonstandard connections
- Fill soils and buried debris
- Potential contamination

These factors eliminate feasibility for many new-development-style infrastructure installations.

*High Public Benefit = Lower Infrastructure Footprint*

- Tourism and cultural value
- Aesthetic improvement
- Property value uplift
- Pedestrian vibrancy
- Sustainability gains from reuse

## **Stormwater and MS4 Application Must Differ.**

New Development Standards Assume:

- No impervious surface
- No existing historical constraints
- Ability to install large basins or full-site infiltration systems

Historic Restoration Standards Must Consider:

- Existing impervious cover
- Limited infiltration potential
- Existing foundations and utilities
- Preservation constraints
- MS4's Maximum Extent Practicable (MEP) standard

**Legal distinction:** MS4 compliance for redevelopment is measured against MEP, not absolute performance.

***Historic restoration projects should be reviewed using:***

- Redevelopment stormwater standards
- Net imperviousness increases
- 90th percentile storm options
- BMP trains
- Alternative compliance allowances

## **Building Code Distinctions – Historic Buildings Are Not New Construction**

IEBC and Michigan Rehabilitation Code:

- Reduce requirements for historic buildings
- Allow alternative compliance

- Permit equivalent performance methods
- Discourage forcing prescriptive new construction standards on historic structures

*Planning & Zoning Distinctions: Land Use vs. Preservation Overlay*

Historic projects receive:

- Parking flexibility
- Dimensional variances
- Reduced landscaping requirements
- Modified utility standards

The policy goal is preservation, not demolition via regulatory burden.

*Public Interest Argument*

Historic restoration provides:

- Downtown revitalization
- Cultural preservation
- Tourism draw
- Sustainability benefits
- Enhanced walkability
- Identity and heritage continuity

The Lumber Yard at Paint Creek project is not a new development. It is a historic restoration within a constrained, previously developed site. Forcing new-development engineering and stormwater standards onto a preservation project contradicts MS4 law, the building code, planning practice, and the public policy goals of historic preservation. The correct regulatory path is redevelopment-level review, using flexibility built into MS4, IEBC, and local zoning to achieve compliance to the maximum extent practicable without damaging historic assets.