

REQUEST FOR BOARD ACTION

HENDERSON COUNTY BOARD OF COMMISSIONERS

MEETING DATE: August 3, 2009

SUBJECT: 2009 Feasibility Study Presentation
Henderson County Solid Waste

ATTACHMENTS: Yes

1. Executive Summary
2. Table of Contents
3. Presentation
4. Site Plan Maps

SUMMARY OF REQUEST:

At the Board's direction under the County's Strategic Plan in Strategy 4.4 (Address solid waste management issues including recycling and upcoming pertinent solid waste legislation) and the County's Twenty Year Vision for Solid Waste, McGill and Associates have completed the subject study. The Solid Waste Advisory Committee (SWAC) and staff have been continually involved in the development of this study, and during SWAC's meeting on July 27, 2009, SWAC voted to recommend the study to the Board of Commissioners.

The study's executive summary and table of contents are attached as well as the meeting presentation.

BOARD ACTION REQUESTED:

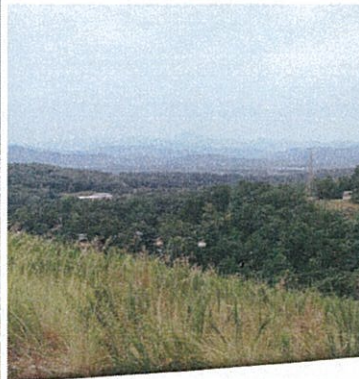
For the Board's consideration, discussion and direction on the Henderson County Solid Waste 2009 Feasibility Study.

Suggested Motion:

No motion suggested.

Solid Waste Feasibility Study

Henderson County, North Carolina



June 2009



SOLID WASTE FEASIBILITY STUDY

Henderson County, North Carolina

JEFFREY R. BISHOP, P.E.



Engineering • Planning • Finance
Post Office Box 2259
Asheville, North Carolina 28802

June 2009

08.00710

EXECUTIVE SUMMARY

Solid waste management is an essential service provided by Henderson County to its respective citizens. In Henderson County, this service is managed by the Solid Waste Division operating under the leadership of the County Engineering Department. The Solid Waste Division is charged with the task of protecting human health and the environment by providing environmentally sound, cost efficient waste disposal. Effective solid waste management is also essential for the County to continue to grow and expand as new businesses and residents move into the area.

The Henderson County Solid Waste Division operates as an enterprise fund, separate from the general fund and property taxes. For the Division to continue to operate as a viable economic operation, it must provide excellent customer service, safe efficient access to all solid waste services, as well as value to its rate payers and the citizens of the County. The County must continually review and upgrade services and facilities to meet new challenges as well as continue to conform to new and ever changing environmental regulations.

In May 2008, Henderson County adopted their 20-Year Vision Plan for solid waste management in the County. One major aspect of this Plan was the development of a Solid Waste Feasibility Study. This Solid Waste Feasibility Study was prepared to evaluate the existing solid waste operations, identify capital projects needed to enhance operations, evaluate various waste collection options, and develop a long-term financial assessment to meet the County's goals.

The center of the Division's operation is the Stoney Mountain Road Landfill Facility located on Stoney Mountain Road. This facility presently operates as a transfer facility for waste collected within the County as well as providing collection and processing for various other components of the waste stream. Recyclable material collection is also provided on a limited basis. The facility is utilized by permitted private haulers as well as citizens transporting their own residential waste and recyclable material to the facility for disposal and/or processing. Over the years, the number of customers and citizens accessing this facility has grown, resulting in a need to provide new and/or expanded services. Several capital improvement projects have been proposed to expand/improve services as well as enhance the safe and efficient access to the site for the commercial customers and the citizens of the County. The proposed improvements should also enhance the flow of traffic along Stoney Mountain Road.

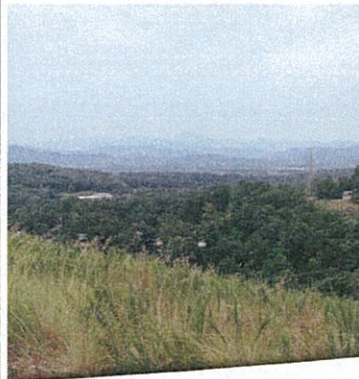
Collection of solid waste within the unincorporated areas of the County is handled by a network of private haulers licensed to provide these services by the Solid Waste Division. Some of these permitted haulers provide residential waste collection services for a fee to residents as an alternative to transporting their own waste to the Stoney Mountain Road Landfill Facility for disposal. Several incorporated municipalities within the County already provide residential waste collection services to their citizens. The County presently works in general partnership with these private haulers to ensure a general level of service is provided to the citizens in a cost effective manner. These permitted haulers provide a steady source of income for the Solid Waste Division. This partnership must be continued and expanded to enhance the opportunity for efficient cost effective collection of residential waste for all citizens in the unincorporated areas of the County.

The challenges associated with operating a solid management program continue to increase every day. One of the most notable challenges pertains to the increased costs associated with waste disposal. Reducing the tonnage of waste material that must be hauled off-site for disposal is one way to control this cost. Another major challenge pertains to the implementation of new regulations by the State relative to how certain components of the waste stream must be collected, processed and ultimately disposed of. Enhanced recycling opportunities are a way to reduce disposal costs, achieve compliance with new regulations as well as generate revenue. The County should continue to work in partnership with the permitted residential waste haulers to implement a County wide collection program for recyclable material. This, in conjunction with proposed capital improvements to the Stoney Mountain Road Landfill collection and consolidation facilities, should result in a notable increase in the volume of recyclable material collected for processing. With an increase in recyclable material collection comes the need to develop a material recovery facility (MRF) to separate the collected material by component type. The degree of separation can be as simple or as complex as the County may desire. The degree of sophistication is generally driven by available markets and market prices for the processed material. Regardless of the degree of separation, the sale of recyclable material has the potential to generate revenue for the Solid Waste Division.

The financial assessment portion of this Study is essential to understanding the implications of future regulatory compliance issues, proposed capital expenditures and other aspects of the overall solid waste management program. The assessment complements the County's ability to evaluate programmatic and technical alternatives prior to actual implementation. Several capital improvement projects were recommended as a part of this Study. A particular component of the financial assessment evaluated these proposed capital improvements in conjunction with various residential waste and recyclable material collection/processing options and sources of revenue associated with the citizen's convenience center to estimate future tipping fee rates. Based on this assessment, the County should be able to implement the proposed capital improvements to enhance the overall operational efficiency and effectiveness of the solid waste management program. This could be done without the need for substantial increases in the disposal fee charged to commercial customers.

Solid Waste Feasibility Study

Henderson County, North Carolina



June 2009



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APPENDIX A – County Map, Solid Waste Advisory Committee By-Laws, 2008 Twenty Year Vision Presentation
APPENDIX B – Data for Existing Waste Stream Review: 2005 - 2008
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APPENDIX D – Organization Chart and Staffing
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APPENDIX F – Proposed Capital Improvement Site Plans
APPENDIX G – Recycling Data
APPENDIX H – Henderson County Code
APPENDIX I – Henderson County MSW Study, Solid Waste Advisory Committee
APPENDIX J – Financial Assessment Rate Analysis
APPENDIX K - Financial Assessment Support Data

Solid Waste Feasibility Study

July 2009

2009 Feasibility Study



Solid Waste Feasibility Study

Board Direction: From the approved 2008 Solid Waste Vision Statement, study the feasibility of Improvements to Facilities and the County Collection System

2009 Feasibility Study



Solid Waste Advisory Committee

Over the past year and under Chairman Stan Kumor's Leadership, SWAC reviewed the Feasibility Study in detail and provided feedback which was incorporated into the study as it was developed.

2009 Feasibility Study



McGill Associates, P.A.

As the consultants retained to conduct this study, McGill Associates, P.A., contributed detailed analysis of the recommendations and input from SWAC and County Staff.

2009 Feasibility Study



Solid Waste Feasibility Study

Presentation Overview

- Review 20 Year Vision Statement
- Capital Improvements
- Collection Improvements
- Rate Analysis
- Conclusions
- Recommendations

2009 Feasibility Study



Review 20 Year Vision

2009 Feasibility Study



Review 20 Year Vision

Challenges

- Increased Regulatory Requirements by NC and soon SC
- Increases in Disposal and Collection Expenses
- Current Disposal Contract Expires 12/2010
- Maintain or Improve Quality of Life & Natural Resources

2009 Feasibility Study



Review 20 Year Vision

Obstacles

- New Henderson County Landfill
 - ▶ Economy of Scale
 - ▶ “NIMBY”
- Incineration
 - ▶ \pm \$90 per ton
- No “Silver Bullet”

2009 Feasibility Study



Review 20 Year Vision

Solutions, “Need a new Perspective on Current Processes: Recycling and Collections”

- Recycling
 - ▶ Expense Reducer & Revenue Generator
 - ▶ Compliance Requirements
 - ▶ Quality of Life
- Collection System: More County Convenience Sites and / or Develop Partnership w/ Haulers

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Review 20 Year Vision

Solutions: Feasibility Study

Study improvements to Solid Waste Facilities and Collections that improve safety and our ability to carry out the 20 Year Solid Waste Vision Without General Fund Contributions.

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Capital Improvements

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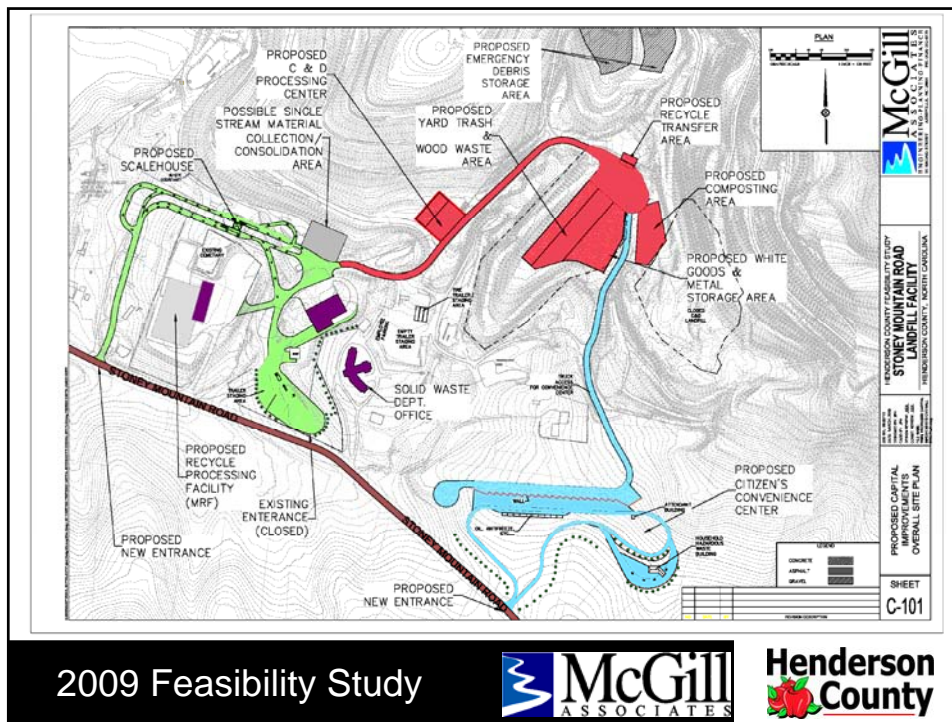


Capital Improvements

- ▶ Convenience Center & HHW/Electronic Center
- ▶ Entrance Road with New Scales/Scale House
- ▶ Recycling Processing Center & Transfer
- ▶ Other Diversion Improvements

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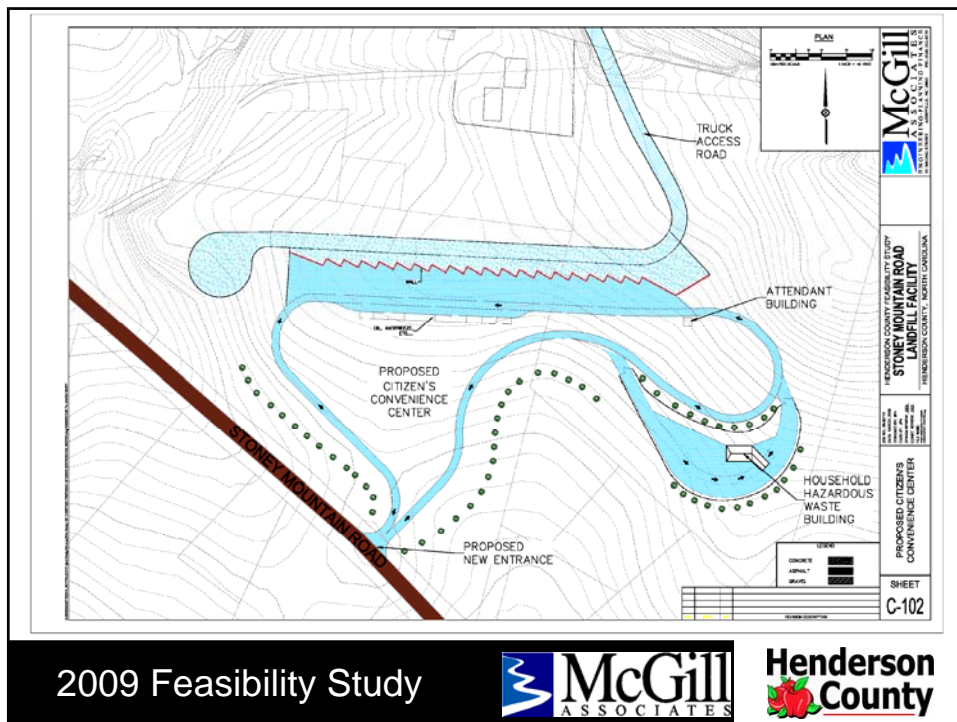
Capital Improvements

Convenience Center and Household Hazardous Waste / Electronic Center

- ▶ Separation of Commercial and Residential Traffic
- ▶ Design Allows for Improved Staff Oversight
- ▶ Paved with Drainage
- ▶ Eliminate Traffic Congestion

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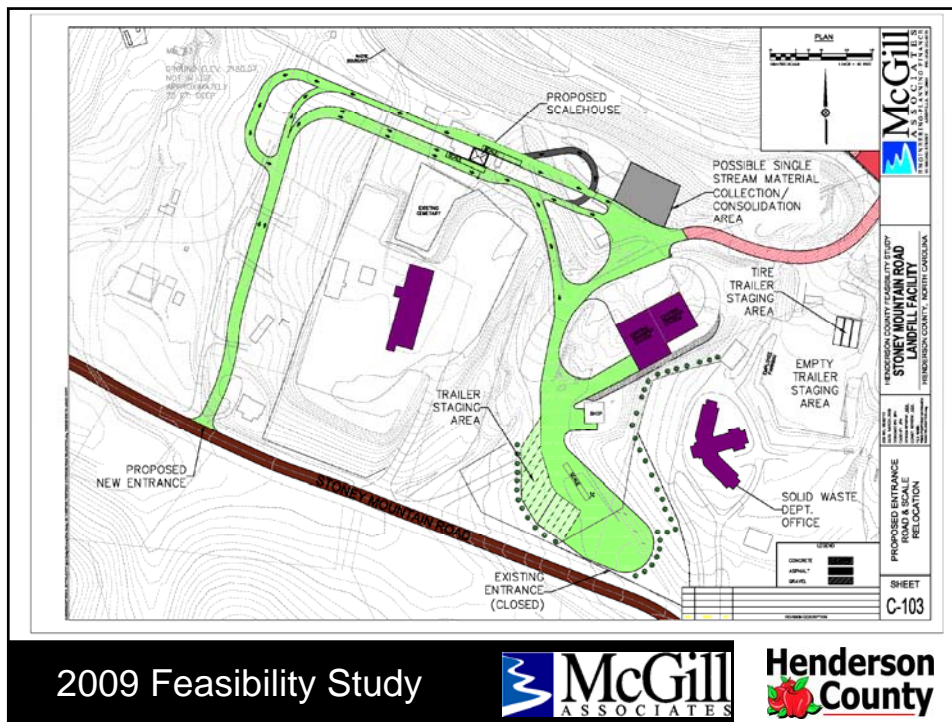
Capital Improvements

Entrance Road with New Scales/Scale House

- ▶ Separate Entrance for Scale Traffic with proper on-site vehicle storage
- ▶ In and Out Bound Scales
- ▶ Proper oversight on Transfer Station
- ▶ Eliminate Traffic Congestion

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Capital Improvements

Recycling Transfer Area

- ▶ Improved Marketability and Revenue
- ▶ Facilitates Efficient Consolidation of Recycling by Participating Haulers and the County
- ▶ Increase in Recycling Rate

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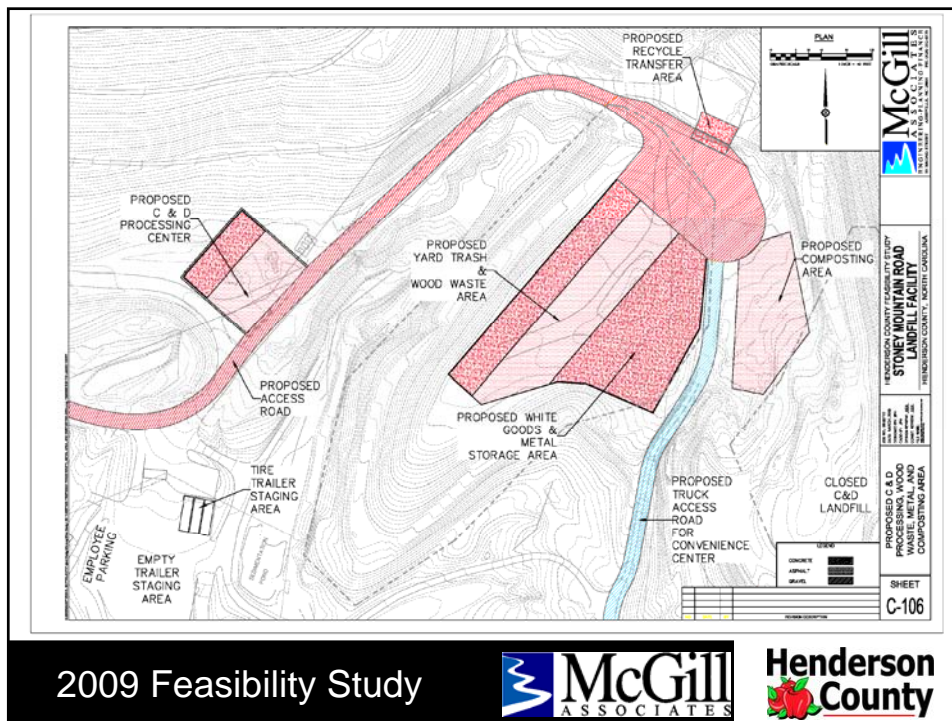


Capital Improvements

Other Diversion Improvements

- ▶ Construction & Demolition Recycling Area
- ▶ Wood Waste & Metal Area
- ▶ Composting Area

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Capital Improvements

Recycling Processing Center

- ▶ Improved Marketability and Revenue
- ▶ Facilitates Efficient Collection of Recycling by Haulers, Municipalities and Other Counties
- ▶ Allows Significant Increase in Recycling Rate
- ▶ Off-Site Initially with Transfer Area

Engineering: Solid Waste



Capital Improvements

Construction Cost Estimates

▶ Relocated Convenience Center	\$974,600
▶ New Entrance Road/Scales	\$1,146,000
▶ Recycle Transfer Area	\$99,800
▶ Recycling Process Equipment	<u>\$276,700</u>
▶ Total Capital Outlay	\$3,197,100

Engineering: Solid Waste



Collection Improvements

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Selected Collection Options

- ▶ Continue Existing Operations
- ▶ Add County Convenience Centers
- ▶ Franchise Curbside Collection

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Rate Analysis

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Rate Analysis

Methodology (Black Box)

▶ Input

- Budget: Expenses, Revenues & Fund Balance
- Capital Improvements & Equipment Purchases
- Impact of Collection Alternatives

▶ Output: Annual Tipping Fee Projection for next 10 years

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Rate Analysis

Capital Project Phasing

- ▶ Year 1 (FY2010): Pre-Construction for Year 2
- ▶ Year 2 (FY2011)
 - New Convenience Center
 - New Entrance and Scales
 - Recycle Transfer Area
 - New Recycling Processing Center (Off-Site)
- ▶ Year 3 (FY2012): C&D Processing Area

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Rate Analysis

Six Rate Analysis for Collection Alternatives

1. Existing Collections
2. Existing Collections w/ Convenience Center Revenue (CCR)
3. Construct Additional Convenience Centers
4. Construct Additional Convenience Centers w/ CCR
5. Franchised Collections
6. Franchised Collections w/ CCR

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Rate Analysis: Proposed Tipping Fees

	Year 1 2010	Year 2 2011	Year 3 2012	Year 4 2013	Year 5 2014	Year 10 2019
Existing	\$52	\$53	\$54	\$55	\$56	\$62
Existing w/ CCR	\$52	\$53	\$53	\$54	\$54	\$54
Centers	\$52	\$58	\$64	\$67	\$67	\$71
Centers w/ CCR	\$52	\$58	\$61	\$64	\$64	\$65
Franchise	\$52	\$53	\$54	\$55	\$56	\$59
Franchise w/ CCR	\$52	\$53	\$53	\$53	\$53	\$54

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Conclusions

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Conclusions

- ▶ Capital Improvements are Feasible as Phased
- ▶ Adding Convenience Centers is not Feasible without General Fund Contribution
- ▶ Recycling Processing Center
 - Benefit Citizens, Haulers and Enterprise Fund
 - Begin Flow Diversion to Avoid Future Expenses
 - Enhance Quality of Life

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Conclusions

- ▶ Franchising Collection will Provide Benefits to Citizens, Haulers & Enterprise Fund
 - \$1 to \$3 Million Less for Private Collection
 - More Efficient and Profitable Collection Routes
 - Largely More Urban than Rural
 - Waste Collection as a Public Utility
 - Reduce Risk in Capital Investments
 - Increased Recycling Rate

2009 Feasibility Study



Conclusions

- ▶ Revenue Source – Convenience Center
 - Provide Fee Equity for all Citizens
 - Generate Revenue to Pay for Relocated Convenience Center
 - Increases Value of Recyclables

2009 Feasibility Study



Recommendations

2009 Feasibility Study



Recommendations

- ▶ Approve the Capital Improvement Plan
- ▶ Direct Staff and SWAC to work with the Permitted Haulers to develop a plan to implement Franchising and/or Collection Efficiencies

2009 Feasibility Study



Recommendations

- ▶ Develop Convenience Center Revenue Plan for Incorporation in Future Budgets
- ▶ Initiate Haul/Disposal Contract Negotiations No Later Than January 2010.

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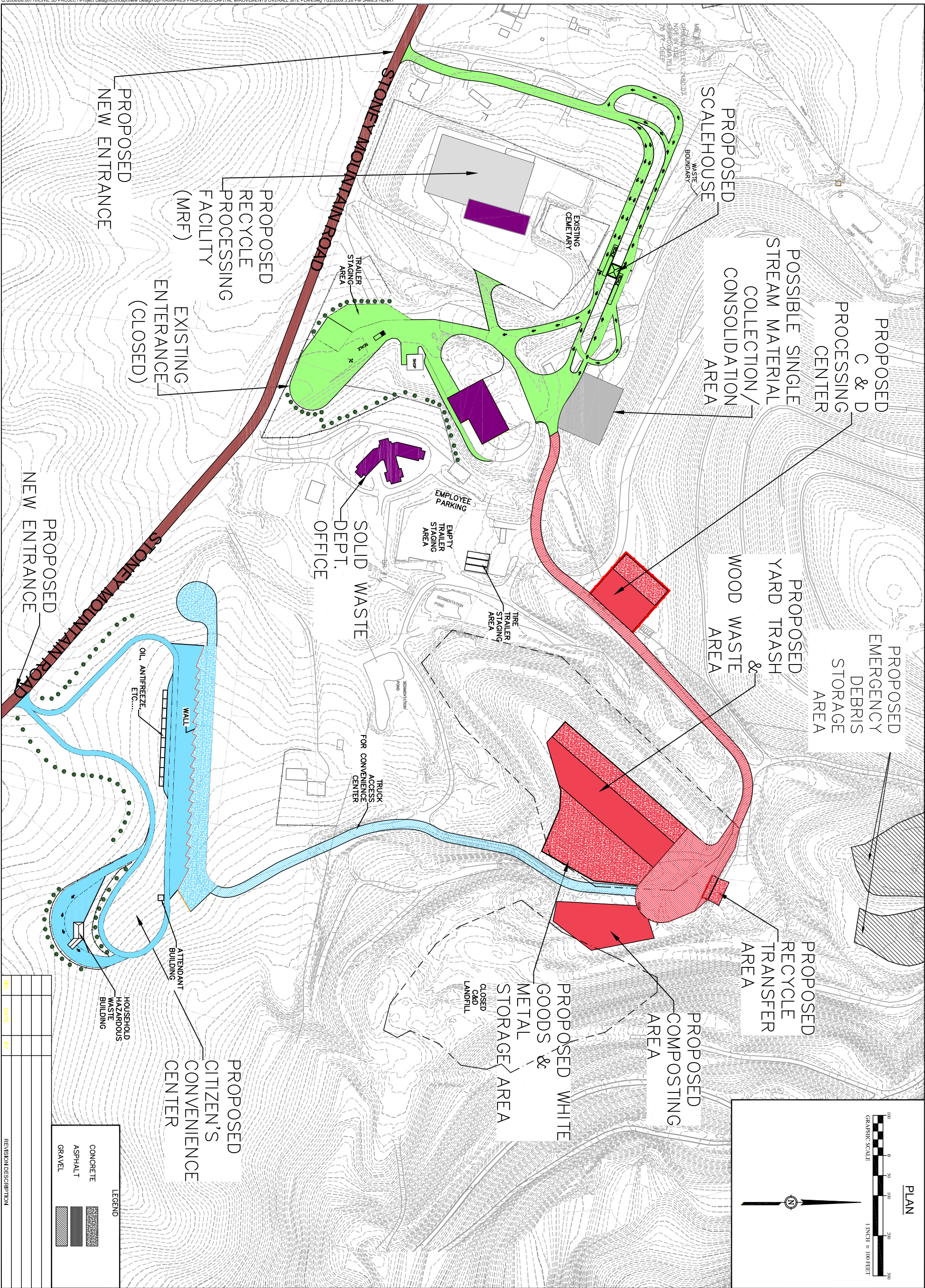


Questions?

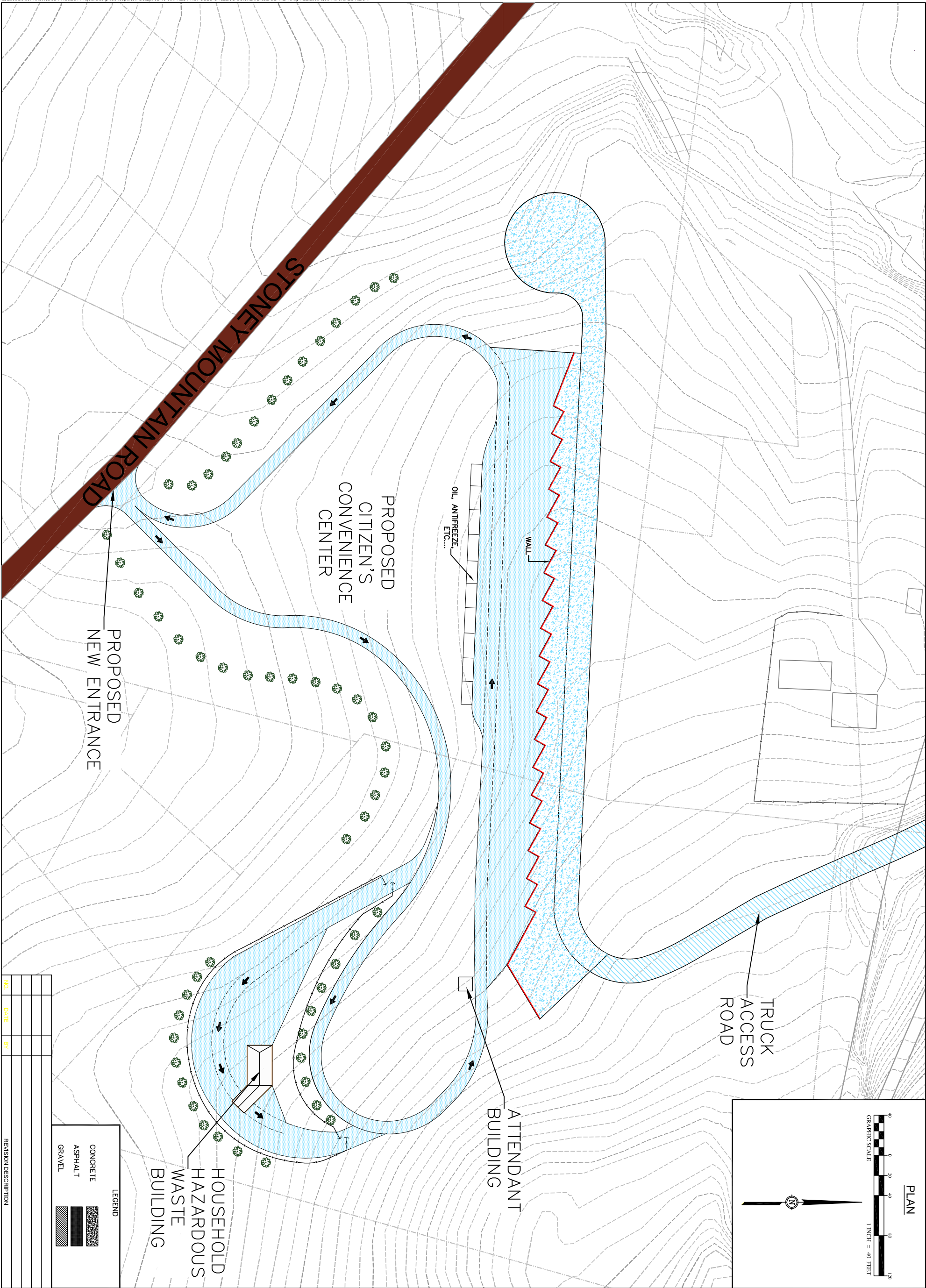
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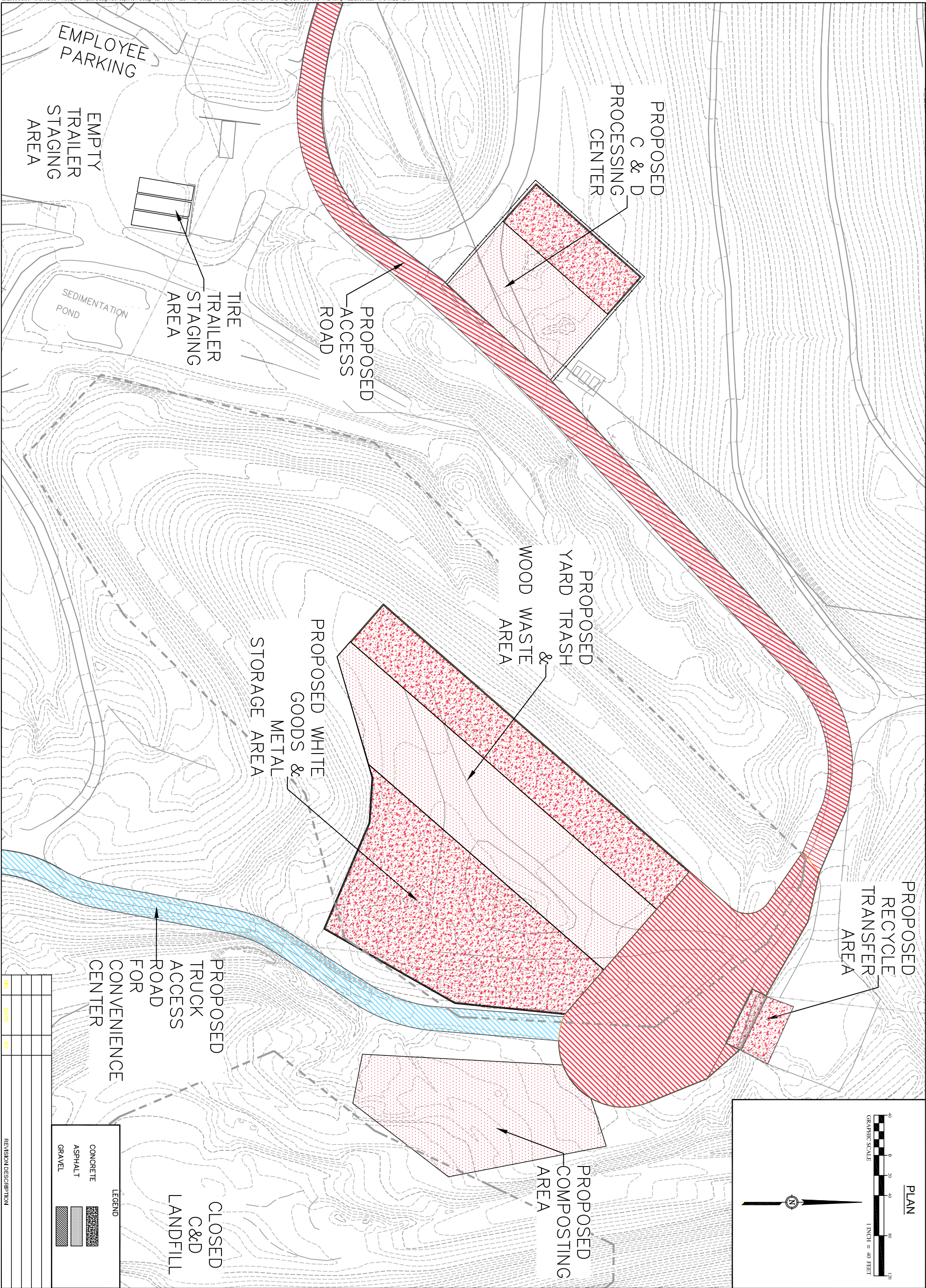


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