



County Commissioners Hearing Room
400 High Street
Chestertown, Maryland

AGENDA
May 4, 2023
1:30 p.m.

Members of the public are welcome to attend meetings in person or via conference call.

Public participation and audio-only call-in number:

- 1. Dial 1-872-239-8359
2. Enter Conference ID: 580 089 424#

Members of the public are asked to mute their phones/devices, until the Commission Chair opens the floor for comment.

MINUTES - April 6, 2023

APPLICATIONS FOR REVIEW

23-10 Gillespie Precast LLC – Major Site Plan (Final)
Map 37, Parcel 490 – Fourth Election District – Industrial (I) and Industrial Critical
Area -- LDA (ICA-LDA)..... PC Decision

23-27 County Commissioners of Kent County – Zoning Text Amendment – Height of Industrial Structures
AN ACT to update Article V. District Regulations, Section 11. Commercial District, § 11.5 Density, Area, Height,
Width, and Yard Requirements, by adding a new provision to regulate the height of industrial structures in
general and by adding a new provision to regulate the permitted height of industrial structures in the 301
Corridor; to update Article V. District Regulations, Section 14. Employment Center District, § 14.5 Density,
Height, Width, Bulk, and Fence Requirements, by adding a new provision to regulate the permitted height of
industrial structures in the 301 Corridor; and, to update Article V. District Regulations, Section 15. Industrial
District, § 15.5 Density, Height, Width, and Fence Requirements, by adding a new provision to regulate the
permitted height of industrial structures in the 301 Corridor..... Rec to CCs

GENERAL DISCUSSION

STAFF REPORTS

ADJOURN

Meetings are conducted in Open Session unless otherwise indicated. All or part of the Planning Commission meetings can be held in closed session under the authority of the MD Open Meetings Law by vote of the members. Breaks are at the call of the Chairman. Meetings are subject to audio and video recordings.

All applications will be given the time necessary to assure full public participation and a fair and complete review of all projects. Agenda items are subject to change due to cancellations.

MINUTES

April 6, 2023

1:30 p.m.

The Kent County Planning Commission met in regular session on Thursday, April 6, 2023, at 1:30 p.m. in the County Commissioners' Hearing Room at 400 High Street, Chestertown, Maryland. The following members were in attendance: Chair F. Joseph Hickman, Vice Chair Paul Ruge, William Sutton, James Saunders, Ray Strong, Paula Reeder, and William Crowding. Cynthia L. McCann, Esquire, Planning Commission Attorney, was in attendance. Staff in attendance were William Mackey, AICP, Director; Carla Gerber, AICP, Deputy Director; Mark Carper, LEED Green Associate, Associate Planner; and Campbell Safian, Planning Specialist.

Other Kent County staff: Jamie Williams, CECD, Economic Development Director (remote); and Dawson Hunter, Housing and Transportation Coordinator (remote).

Members of the public in attendance included Latonya Cotton Tillman, LCSW-C, Kenah One Health Care Services; Kevin Shearon, P.E., LEED AP, DMS & Associates, LLC; Eugene Aucott; Erin Murphy; Dan Gural; Ed Breitenbach; Melanie Breitenbach; Michael Kent; Chip MacLeod, Esquire; Janet Christensen-Lewis; Catherine Durham; Russ Richardson; Commissioner Ronald Fithian; Judy Gifford; Frank Lewis; Jay Silcox, P.E., Silcox Engineering & Drafting; and Melinda Bookwalter (remote).

Chair Hickman called the meeting to order at 1:30 p.m.

MINUTES

Ms. McCann requested that the motion made by Mr. Strong on page 2 of the March 2 minutes which reads "Mr. Strong seconded the motion, and the motion did not pass by a vote of 2-4", be changed to "Mr. Strong seconded the motion, and the motion failed with 2 votes in favor and 4 against."

Additionally, Ms. McCann requested that the first sentence on page 5 of the March 2 minutes which reads "Mr. Crowding exited the County Commissioners Hearing Room to recuse himself from participating in the review of this application", be changed to "Mr. Crowding recused himself from participating in the review of this application and exited the County Commissioners Hearing Room."

Mr. Sutton requested that "gas sales" be changed to "fuel sales" in Task Force Recommendation item P5. "Request to allow truck stops, truck parking lots, gas sales, convenience stores and restaurants with or without drive-through in the Industrial district."

Mr. Crowding moved to accept the minutes of March 2, 2023, with the corrections. Mr. Ruge seconded the motion. The motion passed with all in favor.

APPLICATIONS FOR REVIEW

22-41 Kenah One Health Care Services – Site Plan Review for Special Exception 25000 Lambs Meadow Road – Third Election District – Village (V)

Kenah One Health Care Services is requesting final site plan review to operate an existing assisted living facility as a hospital, rehabilitation facility, or other similar institution for human care in a Village District. The facility will service adults with mental health and substance use disorders who need rehabilitative services over a 30–90-day period. Current assisted living residents will continue to be provided services as needed.

At its August 15, 2022, meeting, the Board of Appeals approved a special exception with the conditions that the facility shall have no more than 14 in-patients at any time and that the Planning Commission shall be satisfied that adequate parking can be provided on-site for the assisted living and rehabilitative services to be offered. The property is located at 25000 Lambs Meadow Road in the Third Election District.

Mr. Carper presented the staff report, recommending approval with conditions. The Chair swore in Latonya Cotton Tillman with Kenah One Health Care Services.

Ms. Tillman stated that eight parking spaces are outlined on site; however, there is adequate space available to park additional cars.

Chair Hickman noted that the proposal complies with the Kent County Land Use Ordinance. A minimum of 7 spaces is required to comply with the 1 space per 2 patient beds ratio for hospital use.

Mr. Saunders spoke in support of the application.

Mr. Crowding made a motion to grant final site plan approval based on Staff's comments. The proposal is consistent with the Comprehensive Plan. Areas of vehicular flow are clearly identified, and sufficient parking is provided. The proposal will not create undue disturbance caused by excessive or unreasonable noise, smoke, vapors, fumes, dust, odors, glare, or stormwater runoff. The proposed use places reasonable demands on public services and infrastructure.

Ms. Reeder seconded the motion, and the motion passed unanimously, 7-0.

23-11 Camp Fairlee – Major Site Plan (Final) 22242 Bay Shore Road – Sixth Election District – Agricultural Zoning District (AZD) and Resource Conservation District (RCD)

Camp Fairlee/ESSD-M, Inc., is proposing to construct two, single-story dwellings for full-time, permanent staff. The proposed cottages will allow staff who currently live in the Manor House, which is also used for administrative purposes, to move into single-family dwellings. The property is currently improved with other cottages and buildings associated with the use as a camp. The property is located at 22242 Bay Shore Road in the Sixth Election District and is zoned Agricultural Zoning District (AZD) and Resource Conservation District (RCD).

Ms. Gerber presented the staff report, recommending approval with conditions. The Chair swore in Eugene Aucott with ESSD-M, Inc and Kevin Shearon with DMS & Associates, LLC.

Mr. Aucott opined that the Manor House is not adequate housing for the permanent staff who are asked to work and be on-call for over 80 hours per week.

Mr. Crowding made a motion to grant final site plan approval to Camp Fairlee/ESSD-M Inc. to construct two, single-story dwellings on the site contingent upon corrections to the Forest Conservation Plan, recordation of the Forest Conservation Easement, final approval of the Stormwater Management Plan, and final approval of water and sewer improvements.

Ms. Reeder seconded the motion, and the motion passed unanimously, 7-0.

*23-15 Thomas and Susan Schwarzwaldler – Buffer Variance
9827 Breezecroft Lane – Sixth Election District – Critical Area Residential (CAR)*

Thomas and Susan Schwarzwaldler, property owners, are requesting a variance to replace 88 feet of existing 4-foot-high fence in the buffer. The in-kind replacement fence follows the same configuration as the existing fence; It will be 4 feet high, set in concrete, and include two gates. A 2" x 4" wire fence is to be added and attached to the wooden structure. The Public Landing on Fairlee Creek abuts this fence line, and the replacement fence is to keep people at the Public Landing and their pets from trespassing on the applicant's property. The property is located at 9827 Breezecroft Lane in the Sixth Election District and is zoned Critical Area Residential (CAR).

Mr. Carper presented the staff report, recommending approval with conditions. A letter from the Critical Area Commission (CAC) was read into the record. The CAC did not oppose the approval of the application. The Chair swore in Thomas Schwarzwaldler, property owner.

Mr. Carper stated the size of the 3:1 mitigation requirement will be based upon the square footage of the cement footers.

Mr. Crowding recommended that Mr. Schwarzwaldler have a survey conducted before constructing the fence, to verify the boundary line of his property.

Chair Hickman asked for additional information regarding the practical difficulty of the property.

Mr. Mackey opined that the right of way to the public landing, which is parallel to the side property line, creates an extraordinary topographical practical difficulty.

Mr. Crowding made a motion to send a favorable recommendation to the Kent County Board of Appeals for Thomas and Susan Schwarzwaldler for a variance to replace 88 feet of existing fence 4-foot-high fence in the buffer. The variance will not cause a substantial detriment to adjacent or neighboring properties. The variance will not change the character of the neighborhood or district, and the variance is consistent with the Comprehensive Plan and the general intent of this Ordinance. According to testimony, the practical difficulty is the fact that this property abuts a public landing and the fence will deter trespassing onto this lot. This is dissimilar from a residential neighborhood, where neighbors are on either side of a property. The public landing has different people at all times who could trespass onto the property. The practical difficulty or other injustice was not caused by the applicant's own actions. The proposed 2" by 4" wire fencing will keep out errant pets while allowing small

wildlife to pass through or climb over. Cement footers are to be included. This application was sent to the Critical Area Commission for review, comments have been received, and the CAC does not object. The boundary line is to be located before the fence is replaced and installed.

Mr. Ruge seconded the motion, and the motion passed unanimously, 6-0.

Mr. Sutton recused himself from voting on the application. Mr. Sutton was not present in the County Commissioners Hearing Room during a majority of the testimony for this application.

*23-27 County Commissioners of Kent County – Zoning Text Amendment – Height of Industrial Structures
Recommendation to the County Commissioners*

Ms. McCann read into the record the notice of the public hearing that appeared in the Kent County News on March 23, 2023.

Mr. Mackey noted correspondence was received from Patricia Langenfelder, and Brenda and Mali Vujanic. Mr. Mackey read the letters into the record.

Mr. MacLeod noted that the site for the proposed warehouses is a wooded area along Route 301. Mr. MacLeod expressed that the Dixon building on MD 213 and the Gillespie Precast, LLC, sites on Morgnec Road are not hidden by landscaping.

Ms. Murphy, co-owner of Everton Industrial Development, LLC, stated that the HVAC equipment and solar panels will be stationed on top of the proposed warehouse buildings. The HVAC equipment is 5 to 6 feet tall, and the solar panels are roughly 4 feet by 8 feet.

Ms. Durham, Mr. Kent, Ms. Bookwalter, Ms. Gifford, Ms. Christensen-Lewis, and Mr. Lewis spoke in opposition to the proposed Zoning Text Amendment.

Mr. Ruge moved to close the public hearing. Mr. Sutton seconded, and the motion passed unanimously, 7-0.

Ms. Reeder spoke in favor of the proposed Zoning Text Amendment. Ms. Reeder noted that the maximum allowable height of silos is 150 feet.

Mr. Saunders spoke in agreement with Ms. Reeder, stating that Kent County will benefit from increasing the permitted height of industrial structures in the 301 Corridor.

Mr. Crowding expressed interest in receiving confirmation from the Towns' fire departments whether they have the appropriate equipment to contain a potential fire on top of a 60-foot-tall building. Mr. Crowding was also interested in seeing examples of 60-foot-tall buildings.

Chair Hickman spoke in favor of increasing setback and buffer requirements if the maximum allowable height of industrial structures in the 301 Corridor were to be increased. Chair Hickman also expressed interest in receiving a revised definition of the 301 Corridor that is more precise.

Mr. Ruge spoke in agreement, requesting a revised definition of the 301 Corridor. Mr. Ruge suggested that the Planning Commission table the proposed Zoning Text Amendment until the next Planning Commission meeting.

Mr. Mackey confirmed with the Planning Commission that the members would like to see photographic examples of buildings that are 60 feet in height, photographic examples of screening for the buildings that are 60 feet in height, a map depicting the 301 Corridor, and a more precise definition of the 301 Corridor in writing.

Mr. Ruge made a motion to postpone the decision until the next Planning Commission meeting. Mr. Sutton seconded the motion, and the motion passed unanimously, 7-0.

STAFF REPORTS

Mr. Mackey reported that the Planning Commission’s recommendations on the Comprehensive Rezoning and Update (CRU) Task Force Recommendations are included in the April 4 County Commissioners agenda. The document includes links to the minutes and staff reports that discuss each recommendation. Mr. Mackey is crafting legislation to incorporate the Planning Commission’s recommendations into the Land Use Ordinance. The legislation will be presented to the County Commissioners for their consideration, then the legislation will come before the Planning Commission for their recommendations. Lastly, the legislation would go through the standard legislation process. Changes to the Kent County Zoning Map will be the next half of the Comprehensive Rezoning process, following the adoption of the text changes.

GENERAL DISCUSSION

ADJOURN

Mr. Ruge moved to adjourn the meeting. Mr. Strong seconded. The meeting adjourned at approximately 3:55 pm.

Francis J. Hickman, Chair

/s/ Campbell Safian
Campbell Safian, Planning Specialist

To: Kent County Planning Commission
From: Mark Carper, Associate Planner
Meeting: May 4, 2023
Subject: Gillespie Precast, LLC/Brickyard Landing Holdings, LLC
Final Site Plan Review – Storage Yard Expansion

Executive Summary

REQUEST BY THE APPLICANT

Gillespie Precast, LLC is requesting final site plan review for a 6.22-acre expansion of its finished product storage yard, to construct a 16,000 square foot storage building, and to construct a new entrance on to Maryland Route 291.

PUBLIC PROCESS

Per Article VI, Section 5.2 of the Kent County *Land Use Ordinance*, the Planning Commission shall review and approve major site plans.

SUMMARY OF THE STAFF REPORT

Located at 101 Brickyard Road, Chestertown, Maryland, this precast facility operates across three adjacent parcels (26, 161, and 490) under the ownership and maintenance of Brickyard Land Holding, LLC. The current facility entrance is onto Parcel 26, which is zoned Commercial (C), Industrial (I), and Industrial Critical Area (ICA). Parcel 161 is zoned Industrial (I), and Parcel 490 is zoned Industrial (I) and Industrial Critical Area (ICA). The proposed storage yard expansion and proposed storage building are to be on Parcel 490, but the proposed submerged gravel wetlands (SGW) for the stormwater management is to be constructed on Parcel 161. All proposed development is to occur entirely within the Industrial Zoning District.

As more than 50% of the project site is within the Critical Area, Staff has determined that the proposed activity is exempt from Forest Conservation requirements per Article VI, Section 8.2.10. The application complies with the standards of the Land Use Ordinance.

STAFF RECOMMENDATION

Staff recommends granting final site plan approval. Staff suggests the following conditions for final approval:

- Submission of all required sureties for stormwater management, sediment and erosion control, and landscaping
- Approval of the stormwater and sediment and erosion control plans
- MDOT SHA approval for proposed access
- An updated landscaping plan is submitted to and approved by the Department of Planning, Housing, and Zoning

PRELIMINARY STAFF REPORT

TO: Kent County Planning Commission
SUBJECT: #23-10 – Gillespie Precast, LLC/Brickyard Land Holdings, LLC
Concept and Preliminary Site Plan Review – Storage Yard Expansion
DATE: April 28, 2023

DESCRIPTION OF PROPOSAL

Gillespie Precast, LLC is requesting final site plan review for a 6.22-acre expansion of its finished product storage yard, to construct a 16,000 square foot storage building, and to construct a new entrance on to Maryland Route 291 (Morgnec Road).

Located at 101 Brickyard Road, Chestertown, Maryland, this precast facility operates across three adjacent parcels (26, 161, and 490) under the ownership and maintenance of Brickyard Land Holding, LLC. The current facility entrance is onto Parcel 26, which is zoned Commercial (C), Industrial (I), and Industrial Critical Area (ICA). Parcel 161 is zoned Industrial (I), and Parcel 490 is zoned Industrial (I) and Industrial Critical Area (ICA). The proposed storage yard expansion and proposed storage building are to be on Parcel 490, but the proposed submerged gravel wetlands (SGW) for the stormwater management is to be constructed on Parcel 161. All proposed development is to occur entirely within the Industrial Zoning District.

With a combined area of 76.558 acres for the three parcels, 49.606 acres (approximately 65%) is in Critical Area. As more than 50% of the project site is within the Critical Area, Staff has determined that the proposed activity is exempt from Forest Conservation requirements per Article VI, Section 8.2.10.

RELEVANT ISSUES

I. Permitted Uses and Density, Height, Width, Bulk, and Fence Requirements

- A. *Applicable Laws:* Article V, Section 15.2 of the *Kent County Land Use Ordinance* establishes site plan review requirements for all permitted industrial uses in the Industrial District.

Manufacture of concrete and ceramics products, commercial sawmills, sewage treatment plants, and lumberyards provided such use shall be located at least 400 feet from any residential district boundary.

- B. Article V, Section 15.5 of the *Kent County Land Use Ordinance* establishes the density, height, width, bulk, and fence requirements for the Industrial District Industrial Critical Area District.
- C. *Staff and TAC Comments:* The proposed use is permitted, and the applicant property is more than 400 feet from any residential district. Building plans with front, side, and rear elevations of all exterior walls for the proposed storage structure have been submitted for review. The proposed storage structure meets the minimum setback requirements and height limitations.

II. Industrial Performance Standards

- A. *Applicable Law:* Article V, Section 15.6 of the *Kent County Land Use Ordinance* establishes the performance standards for industrial activity. These performance standards address noise, vibration,

glare, air pollution, water pollution, radioactivity, electrical interference, smoke and particulate matter, toxic matter, and odorous matter limitations with compliance certified in an engineer's report.

- B. *Staff and TAC Comments:* The applicant has addressed the performance standards and has submitted a Certified Engineer's Report.

III. Industrial Environmental Standards

- A. *Applicable Law:* Article V, Section 15.8 of the *Kent County Land Use Ordinance* establishes the Industrial Environmental Standards which include agriculture, anadromous fish, forest conservation, natural heritage areas, nontidal wetlands, stream protection corridor, stormwater management, threatened and endangered species, and water quality standards.

- B. *Staff and TAC Comments:*

- Per Article VI, Section 8.2.10 of the Land Use Ordinance, the proposed activity is exempt from Forest Conservation requirements as more than 50% of the project site is within the Critical Area.
- A stormwater management plan has been submitted for review, and comments have been provided.
- Maryland's Environmental Resource and Land Information Network (MERLIN), indicates that there are no threatened or endangered species in the vicinity of the proposed activity.

IV. Design Standards

- A. *Applicable Law:* Article V, Section 15.9 of the *Kent County Land Use Ordinance* establishes the Industrial Design Standards which address site access, on-site circulation, floodplain, landscaping, screening, lighting, site planning, and subdivision. Screening is required to protect adjoining properties and roadways from noise, glare, and uses which are visually incompatible with neighboring land uses. Lighting on the site should be sufficient to provide for the safety and security of the business, its employees, and its customers while avoiding glare onto adjacent properties and adjacent roadways and not interfere with traffic or create a safety hazard.

15.9.5 Screening - Screening is required to protect adjoining properties and roadways from noise, glare, and uses which are visually incompatible with neighboring land uses.

- B. *Staff and TAC Comments:*

- An additional access point from Maryland Route 291 is proposed. Plans for the proposed access have been submitted to MDOT SHA District 2 for review.
- Adequate spacing is provided to ensure on-site circulation for the proposed use.
- No exterior lighting is proposed.
- An existing hedgerow along the road frontage of Parcel 490, where the proposed storage yard and building are to be constructed, satisfies the screening requirement for that parcel.
- In 2018, a landscape plan was approved and implemented on the road frontage of Parcel 161 for an addition to the existing concrete production building. Current site plans for the proposed access point and the submerged gravel wetland (SGW) for stormwater management indicate that several trees previously installed in front of this parcel are to be removed. These items must be moved or replaced along the road frontage of Parcel 161 to serve as screening. Other existing landscaping along this road frontage must be retained intact.

- A site visit revealed that portions of the 2018 landscape plan are no longer present. These missing components are to be replaced and located along the road frontage of Parcel 161 to serve as screening.

V. Site Plan Review

- A. *Comprehensive Plan*: “Strategy: Retain and promote existing businesses and assist in their growth” (Page 8)
- B. *Applicable Law*: Article VI, Section 5 of the Kent County Land Use Ordinance outlines the procedures and requirements for site plan review. Site Development Plans are required to ensure that new development complies with the Comprehensive Plan, Land Use Ordinance, Village Master Plans and other agency requirements, thereby promoting the health, safety, and general welfare of Kent County residents.

At each stage of review the Planning Commission shall review the site plan and supporting documents taking into consideration the reasonable fulfillment of the following objectives:

- a. Conformance with the Comprehensive Plan and, where applicable, the Village Master Plan
 - b. Conformance with the provisions of all applicable rules and regulations of county, state, and federal agencies.
 - c. Convenience and safety of both vehicular and pedestrian movement within the site and in relationship to adjoining ways and properties.
 - d. Provisions for the off-street loading and unloading of vehicles incidental to the normal operation of the establishment, adequate lighting, and internal traffic control.
 - e. Reasonable demands placed on public services and infrastructure.
 - f. Adequacy of methods for sewage and refuse disposal, and the protection from pollution of both surface waters and groundwater. This includes minimizing soil erosion both during and after construction.
 - g. Protection of abutting properties and County amenities from any undue disturbance caused by excessive or unreasonable noise, smoke, vapors, fumes, dust, odors, glare, stormwater runoff, etc.
 - h. Minimizing the area over which existing vegetation is to be removed. Where tree removal is required, special attention shall be given to planting of replacement trees.
 - i. The applicant’s efforts to integrate the proposed development into the existing landscape through design features such as vegetative buffers, roadside plantings, and the retention of open space and agricultural land.
 - j. The applicant’s efforts to design the development to complement and enhance the rural and historic nature of the County including incorporating into the project forms and materials that reflect the traditional construction patterns of neighboring communities.
 - k. The building setbacks, area, and location of parking, architectural compatibility, signage, and landscaping of the development, and how these features harmonize with the surrounding townscape and natural landscape.
- C. *Staff and TAC Comments*:
 - The proposal is consistent with the Comprehensive Plan.
 - The proposal conforms with the provisions of applicable rules and regulations.
 - Areas for vehicular flow appear to be adequate for the use proposed.
 - Demands on public services and infrastructure are reasonable.

- Standard waste from the office is discharged into the Chestertown sewage system. No sewage or refuse disposal is proposed for this project, and protection of surface and groundwater from pollution is proposed through stormwater management.
- Except for the removal/disturbance of road frontage landscaping for the proposed access and proposed submerged gravel wetlands (SGW), no other vegetation is proposed to be removed.
- A Citizen Participation Report has been submitted, and no opposition to the proposed development is reported.

STAFF RECOMMENDATION

Staff recommends granting final site plan approval. Staff suggests the following conditions for final approval:

- Submission of all required sureties for stormwater management, sediment and erosion control, and landscaping
- Approval of the stormwater and sediment and erosion control plans
- MDOT SHA approval for proposed access.
- An updated landscaping plan is submitted to and approved by the Department of Planning, Housing, and Zoning.

Kent County Department of Planning, Housing and Zoning

Kent County Government Center
400 High Street • Chestertown, MD 21620
410-778-7475 (phone) • 410-810-2932 (fax)

SITE PLAN APPLICATION

File Number: _____ **Amount Paid:** _____ **Date:** 1/25/2023

Project Name: Gillespie Precast, LLC Storage Yard Expansion (on former David A. Bramble, Inc. property)

District: 4th Map: 37 Parcel: 490 Lot Size: 19.422ac, Deed Ref: 2/286 Zoning: I / ICA

LOCATION: 101 Brickyard Road, Chestertown, Maryland 21620

PROPOSED USE: Contractor's Yard / Manufacturing of Concrete and Ceramics

OWNER OF LAND:

Name: Brickyard Land Holding, LLC Telephone: 410-778-0940

Address: P.O. Box 450, Chestertown, MD 21620 Email: agillespie@gillespieprecast.com

APPLICANT:

Name: (same as owner) Telephone: _____

Address: _____ Email: _____

AGENT/ATTORNEY (if any):

Name: _____ Telephone: _____

Address: _____ Email: _____

REGISTERED ENGINEER OR SURVEYOR:

Name: DMS & Associates c/o Kevin Shearon Telephone: 443-262-9130

Address: P.O. Box 80, Centreville, MD 21617 Email: kjs@dmsandassociates.com

Please provide the email of the one person who will be responsible for responding to comments. Only this person will be contacted by staff and will be the person responsible for forwarding the comments or requests for additional information to any other interested parties. EMAIL: kjs@dmsandassociates.com

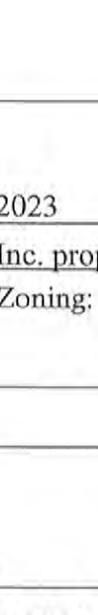
Water Supply: Public System On lot system n/a - no water service proposed

Sewerage: Public System On lot system n/a - no sewerage system proposed

TELEPHONE SERVICED BY: n/a

ELECTRIC SERVICED BY: n/a

NOTICE: The Planning Office is not required to make out this Application. If the Planning Department assists you, it cannot be held responsible for its contents.



Signature of Applicant

1/25/23

Date

Concept Plan Approving Authority: _____ Date _____

Preliminary Approving Authority: _____ Date _____

Final Approving Authority: _____ Date _____

PROJECT NARRATIVE

Brickyard Land Holding – Morgnec Road, Chestertown, Maryland

In accordance with Article VI, Section 5.4.B of the Kent County Zoning Ordinance, we offer the following:

This project involves the expansion of the Gillespie Precast, LLC finished-product storage yard at their existing facility located at 101 Brickyard Road, Chestertown, Maryland. In December, 2022, Brickyard Land Holding, LLC (property owner) purchased 7.969 acres from David A. Bramble, Inc for the purpose of expanding the storage yard. A lot line adjustment was recorded in the Kent County Land Records. The additional land brings the subject property (Tax Map 37, Parcel 490) to a total of 19.422 acres. It is zoned Industrial and Industrial Critical Area. The storage yard expansion falls entirely within the Industrial zoning district.

Gillespie Precast, LLC is proposing to expand the existing storage yard by 6.22 acres, construct a 16,000-sf storage building, and construct a new MDOT SHA entrance on to Morgnec Road (MD Route 291) to improve onsite circulation. An existing hedgerow along the road frontage will remain and be used as the required screening.

In accordance with Article V, Section 15:7.1 of the Industrial General Standards, we provide the following:

- a. The existing precast process will continue as it is currently operating. Generally the process involves the mixing of raw materials (sand, cement, and water) which are stored on-site. The mixing occurs at the existing precast building where the mixture is loaded into an overhead hopper. The hopper is controlled by an overhead crane that pours the concrete into forms to create a variety of structures including storm drain inlets, manholes, headwalls, etc.
- b. The industrial portion of this proposal does not discharge any chemicals or solids into the sewage system. Standard waste from the office will discharge into the sewage system.
- c. The added storage yard will allow Gillespie Precast to cast finished products in advance of customer orders for quicker and more efficient deliveries. It is anticipated that there will be an additional five truck trips per week.
- d. The hours of operation will remain the same. Hours at the facility are generally 6:30am to 5:00pm.
- e. Architectural elevations of the proposed storage building will be provided for review.

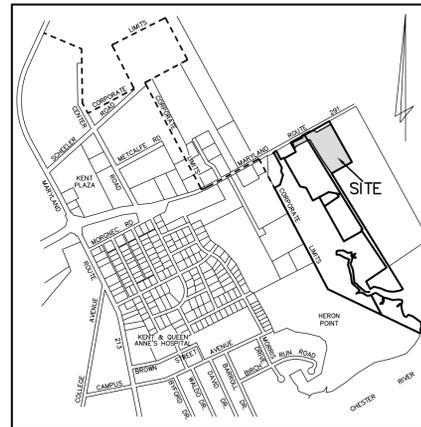
The property is intended to remain under the ownership and maintenance of Brickyard Land Holding, LLC.

FINAL SITE PLAN FOR A NEW STORAGE BUILDING AND YARD NEAR THE TOWN OF CHESTERTOWN FOURTH ELECTION DISTRICT, KENT COUNTY, MARYLAND PREPARED FOR : BRICKYARD LAND HOLDING, LLC

SITE STATISTICS

GROSS AREA	= 76,558 acrs±
PARCELS 26 & 161	= 57,136 acrs±
PARCEL 490	= 19,422 acrs±
CRITICAL AREA	= 49,606 acrs±
INDUSTRIAL CRITICAL AREA - LDA ZONE	= 49,606 acrs±
NON-CRITICAL AREA	= 26,952 acrs±
CROSSROADS COMMERCIAL ZONE	= 0,196 acrs±
INDUSTRIAL ZONE	= 26,756 acrs±
AREA IN FLOODPLAIN	= 23,90 acrs±
NON-CRITICAL AREA:	
FLOOR AREA (EXISTING) (9.5%)	= 2,548 acrs± (111,008 sq. ft.±)
FLOOR AREA (TO BE REMOVED)	= 0,000 acrs± (0,000 sq. ft.±)
FLOOR AREA (PROPOSED)	= 0,367 acrs± (16,000 sq. ft.±)
FLOOR AREA (TOTAL)	= 2,916 acrs± (127,008 sq. ft.±)
LOT COVERAGE (EXISTING) (47.3%)	
LOT COVERAGE (TO BE REMOVED)	= 0.00 acrs±
LOT COVERAGE (PROPOSED)	= 5.75 acrs±
LOT COVERAGE (TOTAL) (68.7%)	= 18.51 acrs±
LANDSCAPE AREA (EXISTING) (52.7%)	
LANDSCAPE AREA (PROPOSED) (31.3%)	= 14.19 acrs±
LANDSCAPE AREA (TOTAL)	= 8.44 acrs±
CRITICAL AREA:	
FLOOR AREA (EXISTING)	= 0,000 acrs± (0,000 sq. ft.±)
FLOOR AREA (TO BE REMOVED)	= 0,000 acrs± (0,000 sq. ft.±)
FLOOR AREA (PROPOSED)	= 0,000 acrs± (0,000 sq. ft.±)
FLOOR AREA (TOTAL)	= 0,000 acrs± (0,000 sq. ft.±)
LOT COVERAGE (EXISTING) (6.0%)	
LOT COVERAGE (TO BE REMOVED)	= 0.00 acrs±
LOT COVERAGE (PROPOSED)	= 0.00 acrs±
LOT COVERAGE (TOTAL) (6.0%)	= 2.96 acrs±
LANDSCAPE AREA (EXISTING) (94.0%)	
LANDSCAPE AREA (PROVIDED) (94.0%)	= 46.65 acrs±
FOREST CALCULATIONS (ALL PROPERTIES):	
AREA OF EXISTING FOREST (OVERALL)	= 19,086 acrs±
15% OF GROSS AREA (OVERALL)	= 11,48 acrs±
PERCENTAGE OF FOREST ONSITE (OVERALL)	= 24.9%
AREA OF EXISTING FOREST (NON-CRITICAL AREA)	
15% OF GROSS AREA (NON-CRITICAL AREA)	= 1.34 acrs±
PERCENTAGE OF FOREST ONSITE (NON-CRITICAL AREA)	= 5.0%
AREA OF EXISTING FOREST (CRITICAL AREA)	
15% OF GROSS AREA (CRITICAL AREA)	= 17,742 acrs±
PERCENTAGE OF FOREST ONSITE (CRITICAL AREA)	= 7.441 acrs±
PERCENTAGE OF FOREST ONSITE (CRITICAL AREA)	
= 35.8%	

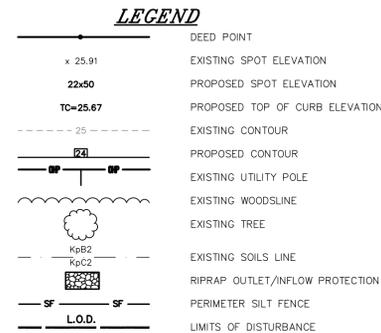
- NOTES**
- PROPERTY LINE INFORMATION FOR P. 26 AND P. 161 ARE TAKEN FROM PLATS ENTITLED "LOT LINE ADJUSTMENT OF THE LANDS OF BRICKYARD LAND HOLDING, LLC" PREPARED BY DMS AND ASSOCIATES, LLC, RECORDED IN PLAT BOOK LIBER M.L.M. 5, FOLIO 164 A-B AND LIBER M.L.M. 5, FOLIO 250 A-B. PROPERTY LINE INFORMATION FOR P. 490 IS TAKEN FROM A PLAT ENTITLED "LOT LINE ADJUSTMENT OF THE LANDS OF BRICKYARD LAND HOLDING, LLC AND DAVID A. BRAMBLE, INC." PREPARED BY DMS AND ASSOCIATES, LLC IN NOVEMBER, 2022. HORIZONTAL DATUM IS ASSUMED.
 - FOR DEED REFERENCE, SEE LIBER M.L.M. 1002, FOLIO 110.
 - CURRENT ZONING - I (INDUSTRIAL)
- CC (CROSSROADS COMMERCIAL)
- ICA-LDA (INDUSTRIAL CRITICAL AREA - LDA)
 - THE PROPERTY IS PARTIALLY LOCATED WITHIN THE CHESAPEAKE BAY CRITICAL AREA DESIGNATION - LDA.
 - SITE IS PARTIALLY LOCATED WITHIN 100 YEAR FLOODPLAIN AS SCALED FROM FLOOD INSURANCE RATE MAP COMMUNITY PANEL No. 24049C0281D. (ZONE "AE") ELEV. = 6.0
 - SOILS SHOWN ONSITE ARE SCALED FROM <http://websoilsurvey.nrcs.usda.gov> FOR KENT COUNTY, MARYLAND.
 - NONTIDAL WETLANDS SHOWN HEREON ON THE PROPERTY ARE SCALED FROM THE U.S. DEPARTMENT OF THE INTERIOR FISH AND WILDLIFE WETLAND INVENTORY MAP OF CHESTERTOWN, MARYLAND.
 - PERENNIAL/INTERMITTENT STREAMS DO NOT APPEAR ON THE PROPERTY AS SCALED FROM U.S. GEOLOGICAL SURVEY, CHESTERTOWN, MARYLAND TOPOGRAPHIC QUADRANGLE MAP.
 - STEEP SLOPES DO NOT APPEAR TO OCCUR ON THE SUBJECT PROPERTY.
 - EXISTING IMPROVEMENTS AND CONTOURS AROUND THE PROPOSED DEVELOPMENT AREA ARE THE RESULT OF A FIELD RUN SURVEY BY MICHAEL A. SCOTT, INC. IN DECEMBER, 2022. VERTICAL DATUM IS NAVD 88.
 - THE PROPOSED DEVELOPMENT DOES NOT REQUIRE THE NEED FOR SEWAGE DISPOSAL OR A POTABLE WATER SUPPLY.



VICINITY MAP
SCALE 1" = 1200'

TABLE OF CONTENTS

SHEET C-1	-	TITLE SHEET
SHEET C-2	-	OVERALL SITE PLAN
SHEET C-3	-	MDOT SHA ROAD IMPROVEMENTS PLAN
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SHEET C-7	-	SITE DETAILS, STORMWATER MANAGEMENT DETAILS AND SPECIFICATIONS
SHEET C-8 thru C-9	-	STORMWATER MANAGEMENT PROFILES
SHEET C-10	-	SEDIMENT AND EROSION CONTROL AND SPECIFICATIONS



- GENERAL NOTES**
- These drawings show information obtained from the best available records regarding pipes, conduits, telephone lines, and other structures and conditions which exist along the lines of the work both at and below the surface of the ground. The owner and engineer disclaim any responsibilities for the accuracy or completeness of said information being shown only for the convenience of the contractor, who must verify the information to his own satisfaction. If the contractor relies on said information, he does so at his own risk. The giving of the information on the contract drawings will not relieve the contractor of his obligations to support and protect all pipes, conduits, telephone lines, and other structures.
 - The contractor shall notify the following two (2) weeks prior to the start of construction and shall coordinate construction with the utility companies involved:
Delmarva Power & Light Company ----- 1-800-375-7117
Miss Utility ----- 1-800-441-8355
DMS & Associates, LLC ----- 1-443-262-9130
Kent County Dept. Public Works ----- 1-410-778-7439
Kent Co. Sediment & Erosion Control Inspector - 1-410-778-7423
Kent Co. Dept. of Water & Wastewater ----- 1-410-778-3287
Maryland Department of the Environment ----- 1-410-631-3510
 - All construction shall be marked for traffic and pedestrian safety.
 - The Contractor shall provide all equipment, labor, and materials for any miscellaneous or test pit excavations required by the Engineer.
 - The owner is responsible for the acquisition of all easements, both permanent and temporary.
 - The Contractor assumes all responsibility for any deviations from these plans unless said deviation is approved by the Engineer. Contractor shall receive written permission from the Engineer if a deviation of the plans is necessary.
 - All disturbed areas shall be smoothly graded to provide positive drainage in the direction of flow arrows herein and stabilized with topsoil, seed, and mulch. If settlement occurs, topsoil, seeding, and mulching shall be repeated until settlement subsides (See Erosion and Sediment Control Specifications).
 - All trash, trees, and underbrush are to be cleared and removed off site to an approved dump site by the contractor.
 - Any excess excavated material shall be removed off site by the contractor or material shall be placed on site as directed by the Engineer and/or Owner.
 - Any existing survey monumentation that is disturbed during construction shall be replaced by a registered surveyor at the contractor's expense.
 - The Contractor shall conduct his work in easements so that there will be a minimum of disturbance of the properties crossed. Any disturbed areas shall be restored to its original condition.
 - All materials and methods of construction shall conform to the drawings, specifications, local building codes, and the standard specifications and details of Kent County.
 - All drainage structures and swales shall remain functional during construction unless otherwise indicated on the plans.
 - All water valves, boxes and hydrants shall be set and adjusted to finish grade.
 - Wherever sewer or water mains or services run parallel to each other, a minimum horizontal separation of 10' shall be provided.
 - Minimum cover over the sewer main shall be 42".
 - All concrete used for utility work shall be in accordance with MD SHA Standards and Specifications for Mix No. 2.
 - All paving materials and methods shall be in accordance with the latest MD SHA Standards and Specifications and be supplied by a State Certified plant.
 - Trenches shall not remain open overnight. If it is necessary for trenches to remain open, steel plates capable of bearing traffic shall be used to completely cover the trench openings.
 - Erosion and Sediment Control will be strictly enforced by the Kent County Sediment and Erosion Control Inspector.

STATEMENT OF PURPOSE AND INTENT

THE SITE IS LOCATED ON THE SOUTH SIDE OF MARYLAND ROUTE 291 (MORNEG ROAD) AND IS THE CURRENT LOCATION OF A PRECAST CONCRETE PRODUCTION FACILITY, STORAGE BUILDING AND AN OFFICE BUILDING. THE INTENT OF THE PLAN IS TO EXPAND THE EXISTING STORAGE AREA AND CONSTRUCT A NEW STORAGE BUILDING. NO ADDITIONAL EMPLOYEES OR PARKING ARE REQUIRED FOR THIS STORAGE AREA.

THE PURPOSE OF THIS FINAL SITE PLAN IS TO OBTAIN APPROVAL FROM THE KENT COUNTY PLANNING COMMISSION FOR THE PROPOSED IMPROVEMENTS ON THIS SITE AS REPRESENTED ON THESE PLANS.

REVIEWED FOR THE KENT SOIL AND WATER CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS

APPROVED: _____ DATE _____

KENT SOIL AND WATER CONSERVATION DISTRICT

NOTE: KENT SOIL AND WATER CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR OTHERWISE ALTER THE EROSION CONTROL PROVISIONS OF THIS PLAN IN THE EVENT ADDITIONAL PROTECTION BECOMES NECESSARY.

DEVELOPERS CERTIFICATION

I (WE) CERTIFY THAT:

- ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE IN ACCORDANCE WITH THIS SEDIMENT AND EROSION CONTROL PLAN AND/OR STORMWATER MANAGEMENT PLAN, AND FURTHER, AUTHORIZED THE RIGHT OF ENTRY FOR PERIODIC ONSITE EVALUATION BY THE KENT SOIL AND WATER CONSERVATION DISTRICT SEDIMENT CONTROL INSPECTOR OR MARYLAND DEPARTMENT OF THE ENVIRONMENT.
- ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF ATTENDANCE AT THE DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT.
- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR OR SUBCONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THIS PLAN, ANY CHANGE MADE IN THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL PLACE RESPONSIBILITY FOR SAID CHANGE ON THE CONTRACTOR OR SUBCONTRACTOR.

SIGNATURE _____ DATE _____

ADDRESS _____ CARD No. _____

PHONE No. _____

OWNER:
BRICKYARD LAND HOLDING, LLC
c/o ANDREW GILLESPIE
P.O. BOX 450
CHESTERTOWN, MARYLAND 21620
PHONE No. 1-410-778-0940

SURVEYOR:
MICHAEL A. SCOTT, INC.
c/o MIKE SCOTT
400 S. CROSS STREET
CHESTERTOWN, MARYLAND 21620
PHONE No. 1-410-778-2310

ENGINEER:
DMS & ASSOCIATES, LLC
c/o KEVIN J. SHEARON, PE LEED AP
P.O. BOX 80
CENTREVILLE, MARYLAND 21617
PHONE No. 1-443-262-9130



DAVIS, MOORE, SHEARON & ASSOCIATES, LLC
ENGINEERING, DRAFTING/DESIGN, ENVIRONMENTAL SERVICES & SURVEYING
P.O. BOX 80
CENTREVILLE, MARYLAND 21617
PHONE : 1-443-262-9130
FAX : 1-443-262-9148

DATE	REVISION
2-16-23	PER COMMENTS
4-13-23	PER COMMENTS

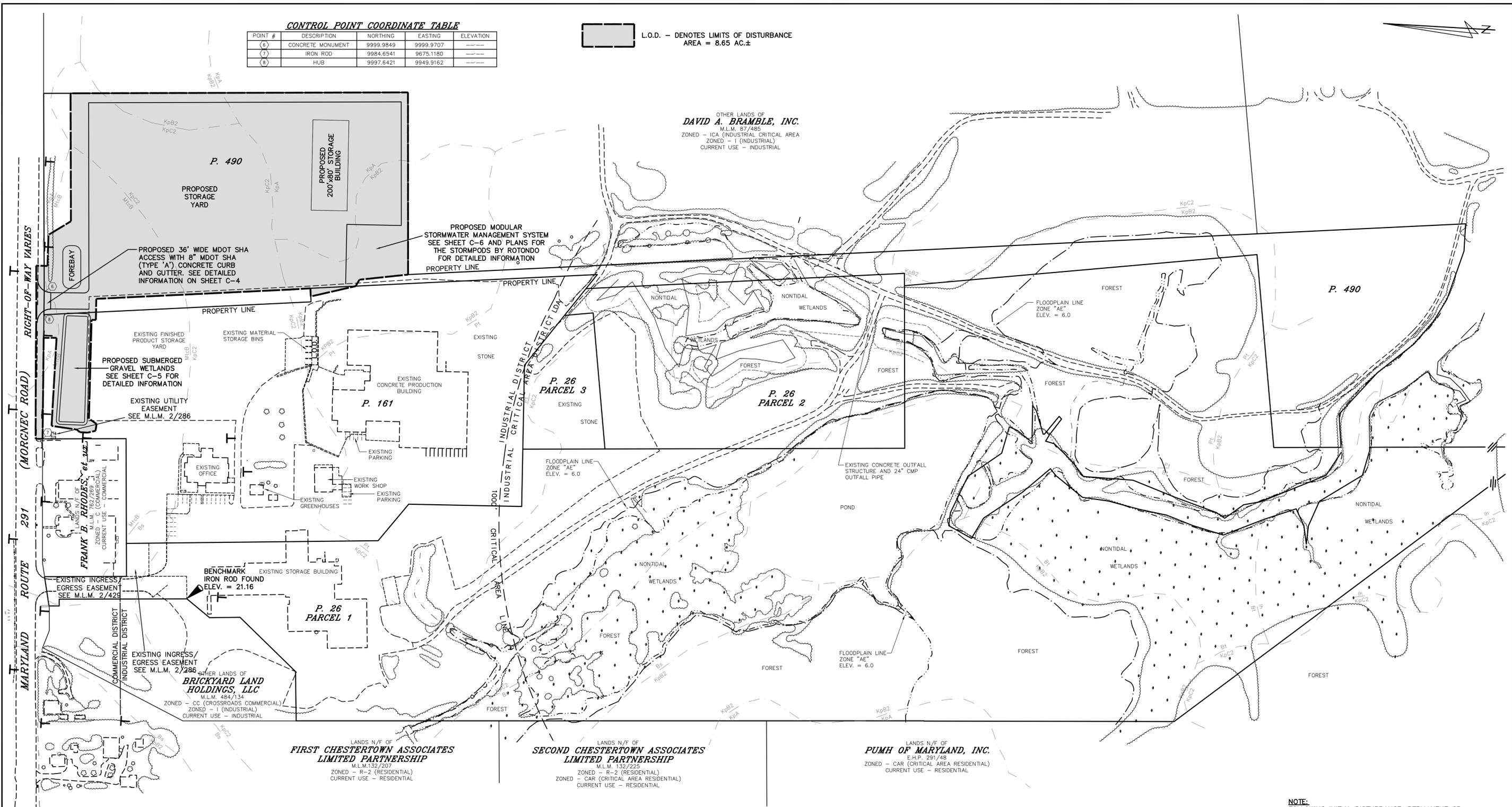
TITLE SHEET
FOR
BRICKYARD LAND HOLDING, LLC
NEAR THE TOWN OF CHESTERTOWN
FOURTH ELECTION DISTRICT, KENT COUNTY, MARYLAND
TAX MAP - 37, GRID - 3F, PARCEL - 26, 161 & 490
PREPARED FOR : BRICKYARD LAND HOLDING, LLC

DATE	SCALE
JANUARY '23	AS SHOWN
JOB No. 2022149	DRAWN BY WJM
FOLDER Ref. 37-2022149	DESIGNED BY KJS
SHEET No. - C-1	
CADD FILE - 22149C01	

CONTROL POINT COORDINATE TABLE

POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
6	CONCRETE MONUMENT	9999.9849	9999.9707	---
7	IRON ROD	9984.6541	9675.1180	---
8	HUB	9997.6421	9949.9162	---

L.O.D. - DENOTES LIMITS OF DISTURBANCE
AREA = 8.65 AC.±



OTHER LANDS OF
DAVID A. BRAMBLE, INC.
M.L.M. 87/485
ZONED - ICA (INDUSTRIAL CRITICAL AREA)
ZONED - I (INDUSTRIAL)
CURRENT USE - INDUSTRIAL

PROPOSED 36' WIDE MDOT SHA ACCESS WITH 8" MDOT SHA (TYPE 'A') CONCRETE CURB AND GUTTER. SEE DETAILED INFORMATION ON SHEET C-4

PROPOSED MODULAR STORMWATER MANAGEMENT SYSTEM SEE SHEET C-6 AND PLANS FOR THE STORMPODS BY ROTONDO FOR DETAILED INFORMATION

PROPOSED SUBMERGED GRAVEL WETLANDS SEE SHEET C-5 FOR DETAILED INFORMATION

EXISTING UTILITY EASEMENT SEE M.L.M. 2/286

LANDS N/E OF
FRANK B. REIDERS et al.
M.L.M. 782/269
ZONED - C (COMMERCIAL)
CURRENT USE - COMMERCIAL

EXISTING INGRESS/EGRESS EASEMENT SEE M.L.M. 2/428

EXISTING INGRESS/EGRESS EASEMENT SEE M.L.M. 2/286

OTHER LANDS OF
BRICKYARD LAND HOLDINGS, LLC
M.L.M. 484/134
ZONED - CC (CROSSROADS COMMERCIAL)
ZONED - I (INDUSTRIAL)
CURRENT USE - INDUSTRIAL

LANDS N/E OF
FIRST CHESTERTOWN ASSOCIATES LIMITED PARTNERSHIP
M.L.M. 132/207
ZONED - R-2 (RESIDENTIAL)
CURRENT USE - RESIDENTIAL

LANDS N/E OF
SECOND CHESTERTOWN ASSOCIATES LIMITED PARTNERSHIP
M.L.M. 132/225
ZONED - R-2 (RESIDENTIAL)
ZONED - CAR (CRITICAL AREA RESIDENTIAL)
CURRENT USE - RESIDENTIAL

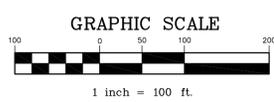
LANDS N/E OF
PUMH OF MARYLAND, INC.
E.H.P. 291/48
ZONED - CAR (CRITICAL AREA RESIDENTIAL)
CURRENT USE - RESIDENTIAL

MSHA NOTES FOR MARYLAND ROUTE 291
ROAD TYPE : MAJOR COLLECTOR
SPEED LIMIT : 55 mph
SHA PLAT REFERENCE : 31684

NOTE:
EXISTING PAVED ACCESS TO ACT AS A STABILIZED CONSTRUCTION ENTRANCE DURING CONSTRUCTION

NOTE:
FOLLOWING INITIAL DISTURBANCE, PERMANENT OR TEMPORARY, STABILIZATION SHALL BE COMPLETED WITHIN 3 CALENDAR DAYS ON ALL PERIMETER CONTROLS AND SLOPES GREATER THAN 3:1 AND 7 DAYS ON ALL OTHER DISTURBED AREAS ON THE SITE.

NOTE:
ALL SEDIMENT AND EROSION CONTROL WILL BE STRICTLY ENFORCED



REVIEWED FOR THE KENT SOIL AND WATER CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

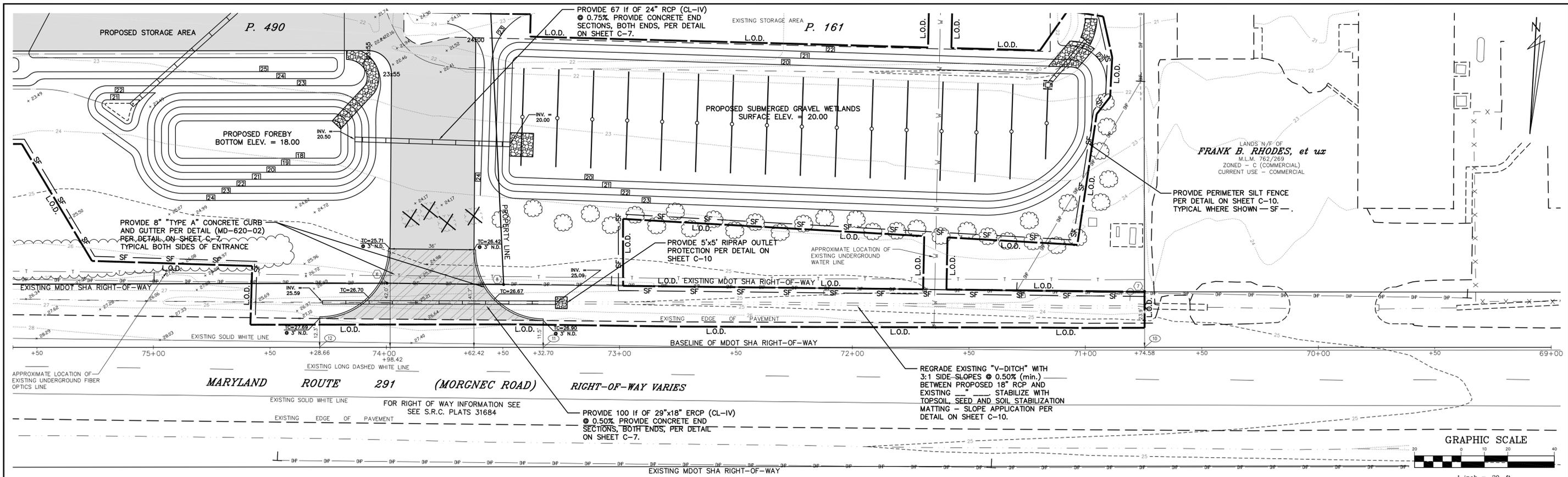
KENT SOIL AND WATER CONSERVATION DISTRICT DATE

KENT SOIL AND WATER CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR OTHERWISE ALTER THE EROSION CONTROL PROVISIONS OF THIS PLAN IN THE EVENT ADDITIONAL PROTECTION BECOMES NECESSARY.

KENT COUNTY PLANNING AND ZONING	KENT COUNTY PLANNING COMMISSION	PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE JURISDICTION OF THE STATE OF MARYLAND, LICENSE No. 2004690, AND MY EXPIRES ON 09/22/2025. APRIL 13, 2023
KENT COUNTY HEALTH DEPARTMENT	KENT SOIL AND WATER CONSERVATION DISTRICT	DATE SEAL

DAVIS, MOORE, SHEARON & ASSOCIATES, LLC
ENGINEERING, DRAFTING/DESIGN, ENVIRONMENTAL SERVICES & SURVEYING
P.O. BOX 80
CENTREVILLE, MARYLAND 21617
PHONE : 1-443-262-9130
FAX : 1-443-262-9148

DATE	REVISION	OVERALL SITE PLAN'	DATE	SCALE
2-16-23	PER COMMENTS	FOR BRICKYARD LAND HOLDING, LLC NEAR THE TOWN OF CHESTERTOWN FOURTH ELECTION DISTRICT, KENT COUNTY, MARYLAND TAX MAP - 37, GRID - 3F, PARCEL - 26, 161 & 490 PREPARED FOR : BRICKYARD LAND HOLDING, LLC	JANUARY '23	1" = 100'
4-13-23	PER COMMENTS			
			JOB No. 2022149	DRAWN BY WJM
			FOLDER Ref. 37-2022149	DESIGNED BY KJS
			SHEET No. - C-2	
			CADD FILE - 22149C02	



- LEGEND**
- × 26.72 EXISTING SPOT ELEVATION
 - 23+55 PROPOSED SPOT ELEVATION
 - TC=26.50 PROPOSED TOP OF CURB ELEVATION
 - 38 --- EXISTING CONTOUR
 - 57 --- PROPOSED CONTOUR
 - X --- EXISTING FENCE
 - T --- EXISTING UNDERGROUND FIBER OPTIC LINE
 - W --- EXISTING WATER LINE
 - U --- EXISTING UTILITY POLE LINE
 - O --- OVERHEAD UTILITY LINE
 - E --- EDGE OF EXISTING TREES
 - T --- EXISTING TREE
 - X --- EXISTING TREE TO BE REMOVED
 - R --- RIPRAP OUTLET PROTECTION
 - SF --- PERIMETER SILT FENCE
 - L.O.D. --- LIMITS OF DISTURBANCE

PAVEMENT SHOWN (MSHA SECTION) SHALL BE 8" BITUMINOUS CONCRETE (2" SUPERPAVE ASPHALT MIX 9.5mm FOR SURFACE, PG64S-22, LEVEL 2 ON 6" SUPERPAVE ASPHALT MIX 19.0mm FOR BASE, PG64S-22, LEVEL 2, ON 12" OF CR-6 ON COMPACTED SUBGRADE. SUBGRADE AND CR-6 ARE TO BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY. 504.03.04 TACK COAT. ENSURE THE SURFACE IS DRY AND THOROUGHLY CLEANED BY POWER BROOM AND/OR AIR BLOWING PRIOR TO APPLICATION. APPLY THE TACK COAT BY UNIFORMLY COVERING THE ENTIRE SURFACE TO BE PAVED USING AN APPLICATION RATE OF 0.4 TO 0.10 gal/yd² OR AS DIRECTED BY THE CONTACT DOCUMENTS. ALLOW THE TACK COAT TIME TO THOROUGHLY BREAK AND SET.

AREA SHOWN SHALL BE 8" OF RECYCLED CONCRETE TO BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY

CONTROL POINT COORDINATE TABLE

POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
(6)	CONCRETE MONUMENT	9999.9849	9999.9707	---
(7)	IRON ROD	9984.6541	9675.1180	---
(8)	HUB	9997.6421	9949.9162	---

BASELINE COORDINATE TABLE

POINT #	DESCRIPTION	NORTHING	EASTING
(10)	Sta. 70+74.58	10008.5155	9673.7354
(11)	Sta. 73+32.70	10023.4486	9931.4316
(12)	Sta. 74+28.66	10028.8770	10027.2331

MSHA NOTES FOR MARYLAND ROUTE 291
 ROAD TYPE : MAJOR COLLECTOR
 SPEED LIMIT : 55 mph
 SHA PLAT REFERENCE : 31684

NOTE:
 CONTRACTOR SHALL PROVIDE STANDARD TRAFFIC CONTROLS PER MARYLAND STATE HIGHWAY ADMINISTRATION DETAIL MD-104.02-03 AND MD-104.02-09

NOTE:
 STABILIZE ALL SIDE SLOPES GREATER THAN 3:1 SLOPE WITH TOPSOIL, SEED AND SOIL STABILIZATION MATTING - SLOPE APPLICATION PER DETAIL ON SHEET C-10

NOTE:
 FOLLOWING INITIAL DISTURBANCE, PERMANENT OR TEMPORARY, STABILIZATION SHALL BE COMPLETED WITHIN 3 CALENDAR DAYS ON ALL PERIMETER CONTROLS AND SLOPES GREATER THAN 3:1 AND 7 DAYS ON ALL OTHER DISTURBED AREAS ON THE SITE.

NOTE:
 ALL SEDIMENT AND EROSION CONTROL WILL BE STRICTLY ENFORCED

REVIEWED FOR THE KENT SOIL AND WATER CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

KENT SOIL AND WATER CONSERVATION DISTRICT DATE

KENT SOIL AND WATER CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR OTHERWISE ALTER THE EROSION CONTROL PROVISIONS OF THIS PLAN IN THE EVENT ADDITIONAL PROTECTION BECOMES NECESSARY.

KENT COUNTY PLANNING AND ZONING

KENT COUNTY PLANNING COMMISSION

KENT COUNTY HEALTH DEPARTMENT

KENT SOIL AND WATER CONSERVATION DISTRICT

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE JURISDICTION OF THE STATE OF MARYLAND, LICENSE NO. 2004690, AND MY EXPIRATION DATE IS 9-2-23

STATE OF MARYLAND

APRIL 13, 2023

DAVIS, MOORE, SHEARON & ASSOCIATES, LLC
 ENGINEERING, DRAFTING/DESIGN, ENVIRONMENTAL SERVICES & SURVEYING
 P.O. BOX 80
 CENTREVILLE, MARYLAND 21617
 PHONE : 1-443-262-9130
 FAX : 1-443-262-9148

DATE	REVISION
2-16-23	PER COMMENTS
4-13-23	PER COMMENTS

MDOT SHA ROAD IMPROVEMENTS PLAN		DATE	SCALE
FOR		JANUARY '23	1" = 20'
MARYLAND ROUTE 291 (MORGNEC ROAD)		JOB No.	2022149
NEAR THE TOWN OF CHESTERTOWN		DRAWN BY	WJM
FOURTH ELECTION DISTRICT, KENT COUNTY, MARYLAND		FOLDER Ref	37-2022149
TAX MAP - 37, GRID - 3F, PARCEL - 26, 161 & 490		DESIGNED BY	KJS
		SHEET No.	- C-3
		CADD FILE	- 22149C03

NOTE:
FOLLOWING INITIAL DISTURBANCE, PERMANENT OR TEMPORARY, STABILIZATION SHALL BE COMPLETED WITHIN 3 CALENDAR DAYS ON ALL PERIMETER CONTROLS AND SLOPES GREATER THAN 3:1 AND 7 DAYS ON ALL OTHER DISTURBED AREAS ON THE SITE.

NOTE:
ALL SEDIMENT AND EROSION CONTROL WILL BE STRICTLY ENFORCED

AREA SHOWN  SHALL BE 8" OF RECYCLED CONCRETE TO BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY

L.O.D. - DENOTES LIMITS OF DISTURBANCE

PROVIDE A DIVERSION SWALE WITH 3:1 SIDE SLOPES @ VARYING SLOPE. PROVIDE TOPSOIL, SEED AND SOIL STABILIZATION MATTING - CHANNEL APPLICATION PER DETAIL ON SHEET C-10.

PROVIDE 6" WIDE EARTH BERM @ VARYING SLOPE

EXISTING UTILITY POLE WITH OVERHEAD UTILITY LINE. TYPICAL

PROVIDE 150 lf of 24" RCP (CL-IV) @ 0.60%. PROVIDE CONCRETE END SECTION, UPSTREAM, PER DETAIL ON SHEET C-7.

PROVIDE 100 lf of 29"x18" ERCP (CL-IV) @ 0.50%. PROVIDE CONCRETE END SECTIONS, BOTH ENDS, PER DETAIL ON SHEET C-7.

PROVIDE 5'x5' RIPRAP OUTLET PROTECTION PER DETAIL ON SHEET C-10.

PROVIDE 10'x10' RIPRAP OUTLET PROTECTION PER DETAIL ON SHEET C-10.

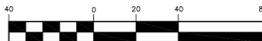
EXISTING TREE TYPICAL

NOTE:
SUBMERGED GRAVEL WETLANDS TO ACT AS A SEDIMENT TRAP DURING CONSTRUCTION

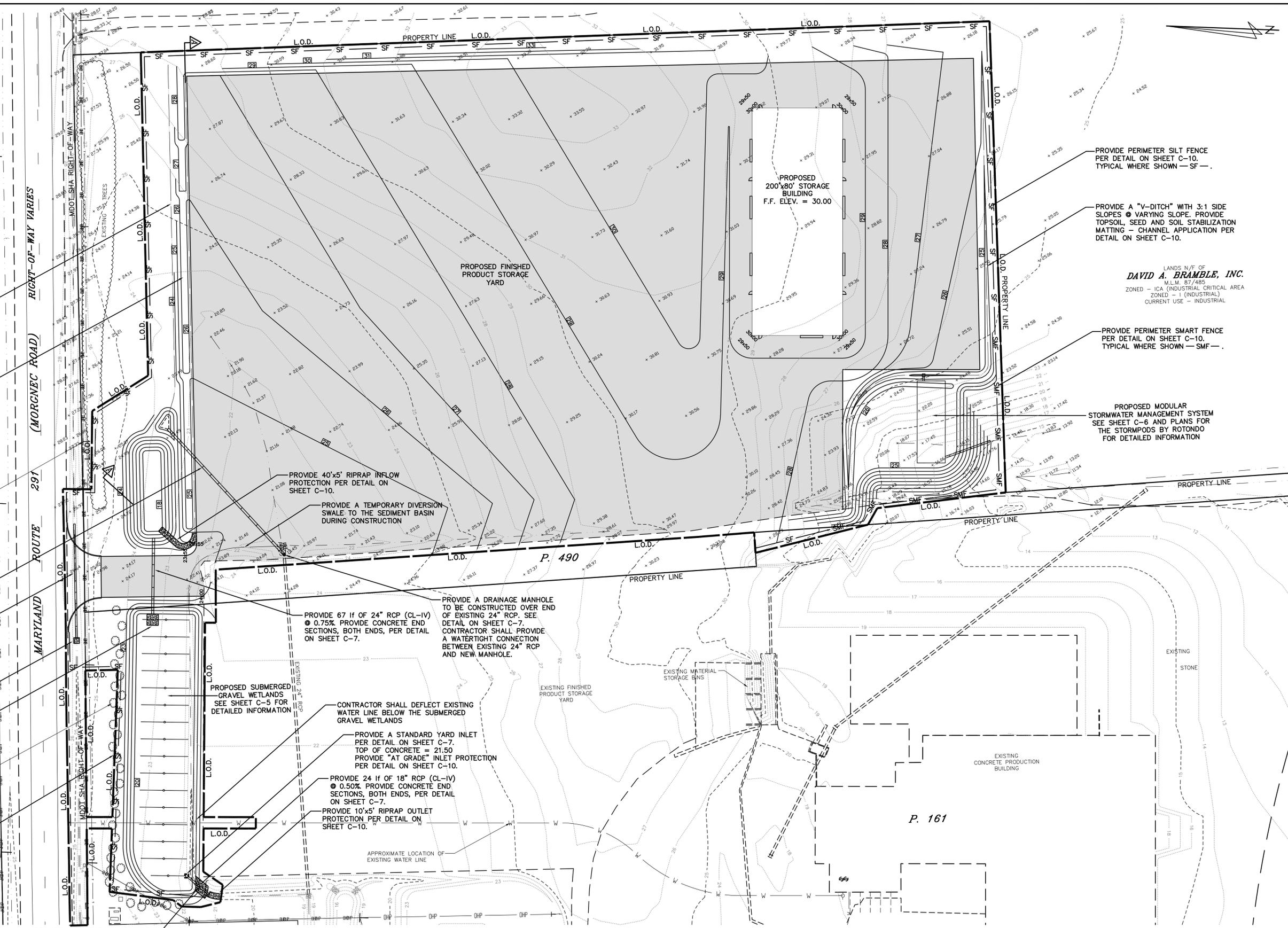
PROVIDE PERIMETER SILT FENCE PER DETAIL ON SHEET C-10. TYPICAL WHERE SHOWN - SF -

**DRAINAGE AREA #C
STONE SEDIMENT TRAP - ST-II**
DRAINAGE AREA = 6.22 AC ±
STORAGE REQUIRED = 22,392 cf
STORAGE PROVIDED = 27,961 cf
WET VOLUME = 13,099 cf
DRY VOLUME = 14,862 cf
WEIR LENGTH = 10 ft
STORAGE DEPTH = 2.0 ft
TRAP BOTTOM ELEV. = 20.00
CLEANOUT ELEV. = 20.50
WET STORAGE ELEV. = 21.00
TOP OF TRAP ELEV. = 22.00
BOTTOM DIMENSIONS = 52'x43'±

GRAPHIC SCALE



1 inch = 40 ft.



PROVIDE PERIMETER SILT FENCE PER DETAIL ON SHEET C-10. TYPICAL WHERE SHOWN - SF -

PROVIDE A "V-DITCH" WITH 3:1 SIDE SLOPES @ VARYING SLOPE. PROVIDE TOPSOIL, SEED AND SOIL STABILIZATION MATTING - CHANNEL APPLICATION PER DETAIL ON SHEET C-10.

LANDS N/F OF
DAVID A. BRAMBLE, INC.
M.L.M. 87/485
ZONED - ICA (INDUSTRIAL CRITICAL AREA)
ZONED - I (INDUSTRIAL)
CURRENT USE - INDUSTRIAL

PROVIDE PERIMETER SMART FENCE PER DETAIL ON SHEET C-10. TYPICAL WHERE SHOWN - SMF -

PROPOSED MODULAR STORMWATER MANAGEMENT SYSTEM SEE SHEET C-6 AND PLANS FOR THE STORMPODS BY ROTONDO FOR DETAILED INFORMATION

PROVIDE 40'x5' RIPRAP INFLOW PROTECTION PER DETAIL ON SHEET C-10.

PROVIDE A TEMPORARY DIVERSION SWALE TO THE SEDIMENT BASIN DURING CONSTRUCTION

PROVIDE 67 lf of 24" RCP (CL-IV) @ 0.75%. PROVIDE CONCRETE END SECTIONS, BOTH ENDS, PER DETAIL ON SHEET C-7.

PROVIDE A DRAINAGE MANHOLE TO BE CONSTRUCTED OVER END OF EXISTING 24" RCP. SEE DETAIL ON SHEET C-7. CONTRACTOR SHALL PROVIDE A WATER TIGHT CONNECTION BETWEEN EXISTING 24" RCP AND NEW MANHOLE.

PROPOSED SUBMERGED GRAVEL WETLANDS SEE SHEET C-5 FOR DETAILED INFORMATION

CONTRACTOR SHALL DEFLECT EXISTING WATER LINE BELOW THE SUBMERGED GRAVEL WETLANDS

PROVIDE A STANDARD YARD INLET PER DETAIL ON SHEET C-7. TOP OF CONCRETE = 21.50 PROVIDE "AT GRADE" INLET PROTECTION PER DETAIL ON SHEET C-10.

PROVIDE 24 lf of 18" RCP (CL-IV) @ 0.50%. PROVIDE CONCRETE END SECTIONS, BOTH ENDS, PER DETAIL ON SHEET C-7.

PROVIDE 10'x5' RIPRAP OUTLET PROTECTION PER DETAIL ON SHEET C-10.

APPROXIMATE LOCATION OF EXISTING WATER LINE

REVIEWED FOR THE KENT SOIL AND WATER CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

KENT COUNTY PLANNING AND ZONING

KENT COUNTY PLANNING COMMISSION

KENT COUNTY HEALTH DEPARTMENT

KENT SOIL AND WATER CONSERVATION DISTRICT

KENT SOIL AND WATER CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR OTHERWISE ALTER THE EROSION CONTROL PROVISIONS OF THIS PLAN IN THE EVENT ADDITIONAL PROTECTION BECOMES NECESSARY.

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE JURISDICTION OF THE STATE OF MARYLAND, LICENSE NO. 2004650, AND MY EXPIRES ON DATE: 9-2-23

DAVIS, MOORE, SHEARON & ASSOCIATES, LLC
ENGINEERING, DRAFTING/DESIGN, ENVIRONMENTAL SERVICES & SURVEYING
P.O. BOX 80
CENTREVILLE, MARYLAND 21617
PHONE : 1-443-262-9130
FAX : 1-443-262-9148

APRIL 13, 2023

DAVIS, MOORE, SHEARON & ASSOCIATES, LLC
ENGINEERING, DRAFTING/DESIGN, ENVIRONMENTAL SERVICES & SURVEYING
P.O. BOX 80
CENTREVILLE, MARYLAND 21617
PHONE : 1-443-262-9130
FAX : 1-443-262-9148

DATE	REVISION
2-16-23	PER COMMENTS
4-13-23	PER COMMENTS

SITE, GRADING AND SEDIMENT & EROSION CONTROL PLAN

FOR
BRICKYARD LAND HOLDING, LLC

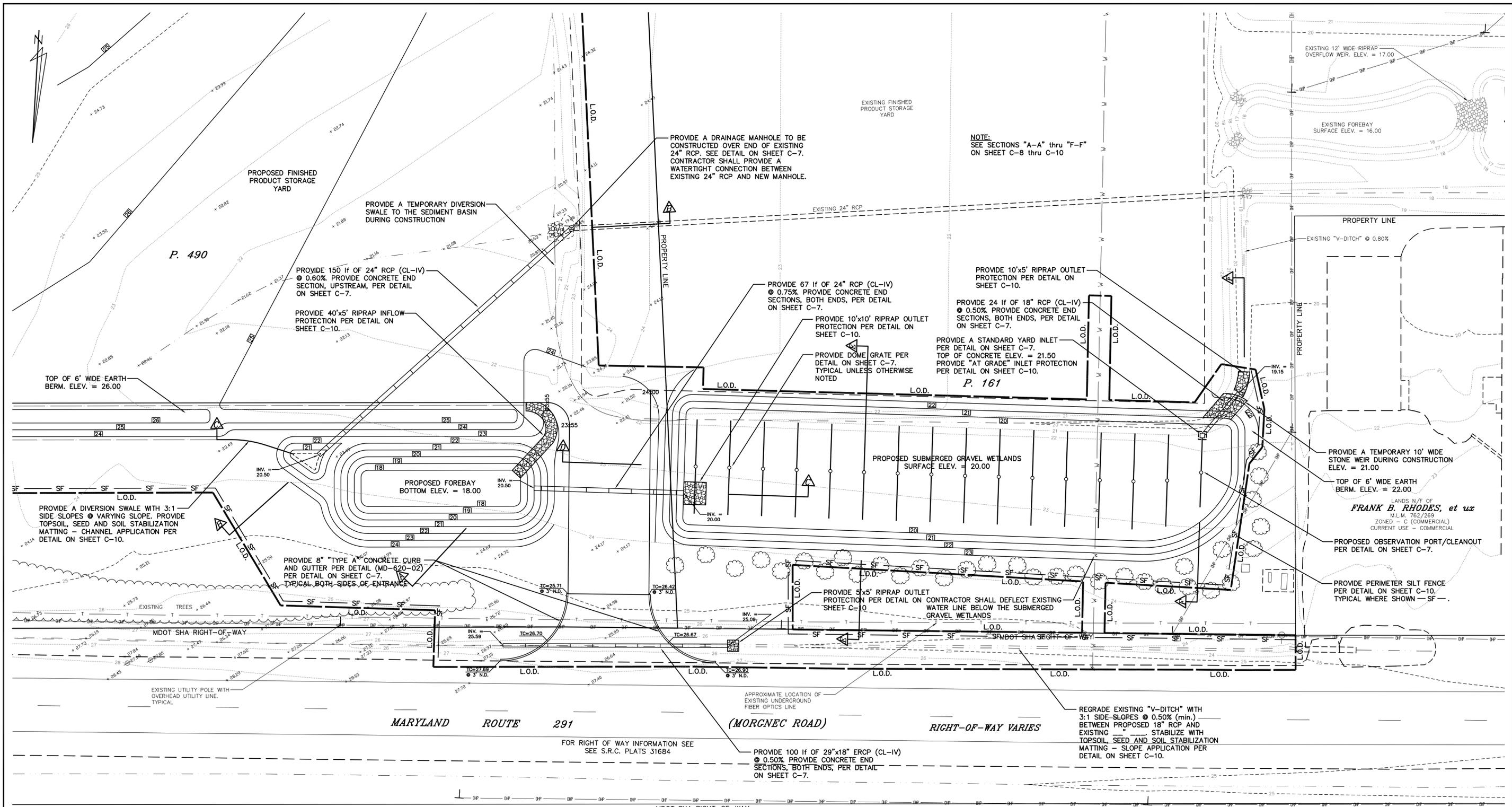
NEAR THE TOWN OF CHESTERTOWN

FOURTH ELECTION DISTRICT, KENT COUNTY, MARYLAND

TAX MAP - 37, GRID - 3F, PARCEL - 26, 161 & 490

PREPARED FOR : BRICKYARD LAND HOLDING, LLC

DATE	SCALE
JANUARY '23	1" = 40'
JOB No. 2022149	DRAWN BY WJM
FOLDER Ref. 37-2022149	DESIGNED BY KJS
SHEET No. - C-4	
CADD FILE - 22149C04	



NOTE: SEE SECTIONS "A-A" thru "F-F" ON SHEET C-8 thru C-10

NOTE: SUBMERGED GRAVEL WETLANDS TO ACT AS A SEDIMENT TRAP DURING CONSTRUCTION

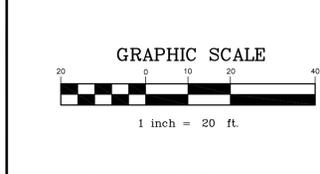
NOTE: STABILIZE ALL SIDE SLOPES GREATER THAN 3:1 SLOPE WITH TOPSOIL, SEED AND SOIL STABILIZATION MATTING - SLOPE APPLICATION PER DETAIL ON SHEET C-10

NOTE: FOLLOWING INITIAL DISTURBANCE, PERMANENT OR TEMPORARY, STABILIZATION SHALL BE COMPLETED WITHIN 3 CALENDAR DAYS ON ALL PERIMETER CONTROLS AND SLOPES GREATER THAN 3:1 AND 7 DAYS ON ALL OTHER DISTURBED AREAS ON THE SITE.

NOTE: ALL SEDIMENT AND EROSION CONTROL WILL BE STRICTLY ENFORCED

DRAINAGE AREA #C
 STONE SEDIMENT TRAP - ST-II
 DRAINAGE AREA = 6.22 AC.±
 STORAGE REQUIRED = 22,392 cf
 STORAGE PROVIDED = 27,961 cf
 WET VOLUME = 13,099 cf
 DRY VOLUME = 14,862 cf
 WEIR LENGTH = 10 ft
 STORAGE DEPTH = 2.0 ft
 TRAP BOTTOM ELEV. = 20.00
 CLEANOUT ELEV. = 20.50
 WET STORAGE ELEV. = 21.00
 TOP OF TRAP ELEV. = 22.00
 BOTTOM DIMENSIONS = 52'x24'±

L.O.D. - DENOTES LIMITS OF DISTURBANCE



REVIEWED FOR THE KENT SOIL AND WATER CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

KENT SOIL AND WATER CONSERVATION DISTRICT _____ DATE _____

KENT SOIL AND WATER CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR OTHERWISE ALTER THE EROSION CONTROL PROVISIONS OF THIS PLAN IN THE EVENT ADDITIONAL PROTECTION BECOMES NECESSARY.

KENT COUNTY PLANNING AND ZONING	KENT COUNTY PLANNING COMMISSION
KENT COUNTY HEALTH DEPARTMENT	KENT SOIL AND WATER CONSERVATION DISTRICT

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE JURISDICTION OF THE STATE OF MARYLAND, LICENSE NO. 2004690, EXPIRATION DATE: 9-2-23

DAVIS, MOORE, SHEARON & ASSOCIATES, LLC
 ENGINEERING, DRAFTING/DESIGN, ENVIRONMENTAL SERVICES & SURVEYING
 P.O. BOX 80
 CENTREVILLE, MARYLAND 21617
 PHONE : 1-443-262-9130
 FAX : 1-443-262-9148

APRIL 13, 2023

DATE	REVISION
2-16-23	PER COMMENTS
4-13-23	PER COMMENTS

STORMWATER MANAGEMENT AND SEDIMENT & EROSION CONTROL PLAN		DATE	SCALE
FOR BRICKYARD LAND HOLDING, LLC		JANUARY '23	1" = 20'
NEAR THE TOWN OF CHESTERTOWN		JOB No.	DRAWN BY
FOURTH ELECTION DISTRICT, KENT COUNTY, MARYLAND		2022149	WJM
TAX MAP - 37, GRID - 3F, PARCEL - 26, 161 & 490		FOLDER Ref.	DESIGNED BY
PREPARED FOR : BRICKYARD LAND HOLDING, LLC		37-2022149	KJS
		SHEET No. - C-5	
		CADD FILE - 22149C05	



PROPOSED
200'x80' STORAGE
BUILDING
F.F. ELEV. = 30.00

PROPOSED FINISHED
PRODUCT STORAGE
YARD

PROPOSED BURIED
SMARTPOD STORMWATER
MANAGEMENT DEVICE.
SEE PLANS BY
ROTONDO FOR
ADDITIONAL DETAIL

PROVIDE A SINGLE "WR" INLET
PER DETAIL ON SHEET C-7.
PROVIDE "AT GRADE" INLET PROTECTION
PER DETAIL ON SHEET C-10.
CONTRACTOR SHALL COORDINATE WITH
ROTONDO FOR INVERTS AND PIPE SIZES

PROVIDE PERIMETER SILT FENCE
PER DETAIL ON SHEET C-10.
TYPICAL WHERE SHOWN - SF -

PROVIDE A "V-DITCH" WITH 3:1 SIDE
SLOPES @ VARYING SLOPE. PROVIDE
TOPSOIL, SEED AND SOIL STABILIZATION
MATTING - CHANNEL APPLICATION PER
DETAIL ON SHEET C-10.

LANDS N/F OF
DAVID A. BRAMBLE, INC.
M.L.M. 877485
ZONED - ICA (INDUSTRIAL CRITICAL AREA)
ZONED - I (INDUSTRIAL)
CURRENT USE - INDUSTRIAL

PROVIDE 5'x5' RIPRAP OUTLET
PROTECTION PER DETAIL ON
SHEET C-10.

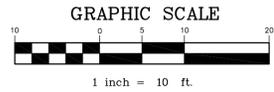
PROVIDE PERIMETER SMART FENCE
PER DETAIL ON SHEET C-10.
TYPICAL WHERE SHOWN - SMF -

CONTRACTOR SHALL COORDINATE WITH
ROTONDO FOR OUTFALL PIPE SIZE

L.O.D. - DENOTES LIMITS OF DISTURBANCE

NOTE:
FOLLOWING INITIAL DISTURBANCE, PERMANENT OR
TEMPORARY, STABILIZATION SHALL BE COMPLETED
WITHIN 3 CALENDAR DAYS ON ALL PERIMETER
CONTROLS AND SLOPES GREATER THAN 3:1 AND
7 DAYS ON ALL OTHER DISTURBED AREAS ON
THE SITE.

NOTE:
ALL SEDIMENT AND EROSION
CONTROL WILL BE STRICTLY
ENFORCED



REVIEWED FOR THE KENT SOIL AND WATER CONSERVATION DISTRICT
AND MEETS TECHNICAL REQUIREMENTS

KENT SOIL AND WATER CONSERVATION DISTRICT _____ DATE _____

KENT SOIL AND WATER CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR
OTHERWISE ALTER THE EROSION CONTROL PROVISIONS OF THIS PLAN IN THE EVENT ADDITIONAL
PROTECTION BECOMES NECESSARY.

KENT COUNTY PLANNING AND ZONING	KENT COUNTY PLANNING COMMISSION	
KENT COUNTY HEALTH DEPARTMENT	KENT SOIL AND WATER CONSERVATION DISTRICT	

DAVIS, MOORE, SHEARON & ASSOCIATES, LLC
ENGINEERING, DRAFTING/DESIGN,
ENVIRONMENTAL SERVICES & SURVEYING

P.O. BOX 80
CENTREVILLE, MARYLAND 21617
PHONE : 1-443-262-9130
FAX : 1-443-262-9148

APRIL 13, 2023

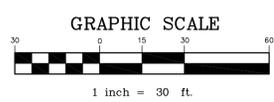
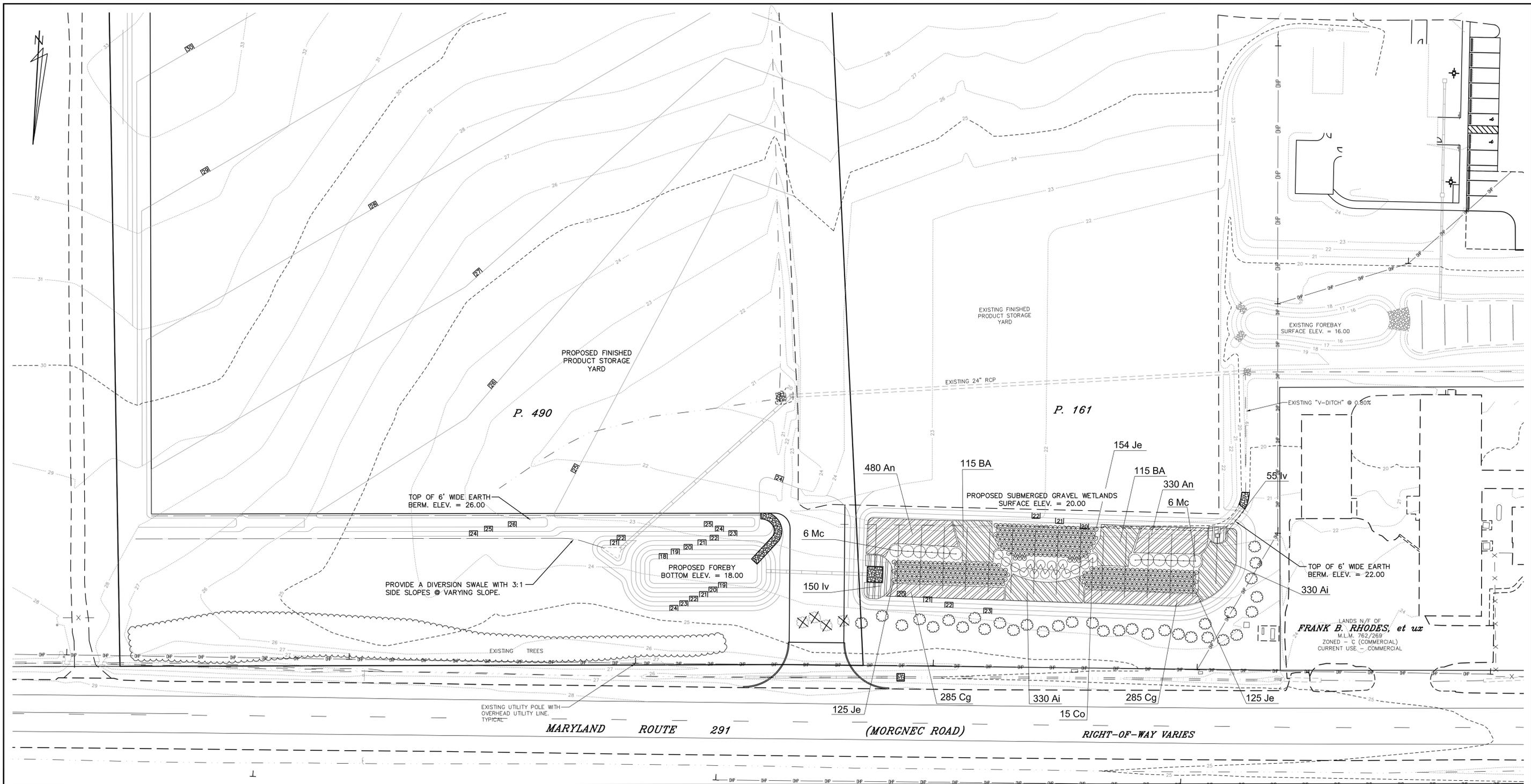
DATE	REVISION
2-16-23	PER COMMENTS
4-13-23	PER COMMENTS

STORMWATER MANAGEMENT AND SEDIMENT & EROSION CONTROL PLAN

FOR
BRICKYARD LAND HOLDING, LLC

NEAR THE TOWN OF CHESTERTOWN
FOURTH ELECTION DISTRICT, KENT COUNTY, MARYLAND
TAX MAP - 37, GRID - 3F, PARCEL - 26, 161 & 490
PREPARED FOR : BRICKYARD LAND HOLDING, LLC

DATE	SCALE
JANUARY '23	1" = 10'
JOB No. 2022149	DRAWN BY WJM
FOLDER Ref. 37-2022149	DESIGNED BY KJS
SHEET No. - C-6	
CADD FILE - 22149C06	

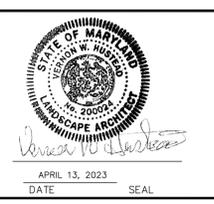


REVIEWED FOR THE KENT SOIL AND WATER CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

KENT SOIL AND WATER CONSERVATION DISTRICT _____ DATE _____

KENT SOIL AND WATER CONSERVATION DISTRICT RESERVES THE RIGHT TO ADD, DELETE, MODIFY OR OTHERWISE ALTER THE EROSION CONTROL PROVISIONS OF THIS PLAN IN THE EVENT ADDITIONAL PROTECTION BECOMES NECESSARY.

KENT COUNTY PLANNING AND ZONING	KENT COUNTY PLANNING COMMISSION
KENT COUNTY HEALTH DEPARTMENT	KENT SOIL AND WATER CONSERVATION DISTRICT



DAVIS, MOORE, SHEARON & ASSOCIATES, LLC
 P.O. BOX 80
 CENTREVILLE, MARYLAND 21617

HUSTEAD Landscape Architecture, LLC
 120 Bay Meadows Lane Stevensville, MD 21666
 Phone : 443.988.2294
 E-mail: Vhustead@Husteadla.com Web: www.Husteadla.com

DATE	REVISION

LANDSCAPE PLAN
 FOR
BRICKYARD LAND HOLDING, LLC
 NEAR THE TOWN OF CHESTERTOWN
 FOURTH ELECTION DISTRICT, KENT COUNTY, MARYLAND
 TAX MAP - 37, GRID - 3F, PARCEL - 26, 161 & 490
 PREPARED FOR : BRICKYARD LAND HOLDING, LLC

DATE JANUARY '23	SCALE 1" = 30'
JOB No. 2022149	DRAWN BY WJM
FOLDER Ref. 37-2022149	DESIGNED BY KJS
SHEET No. - L-1	
CADD FILE - 22149LS1	





KEY PLAN



WAREHOUSE

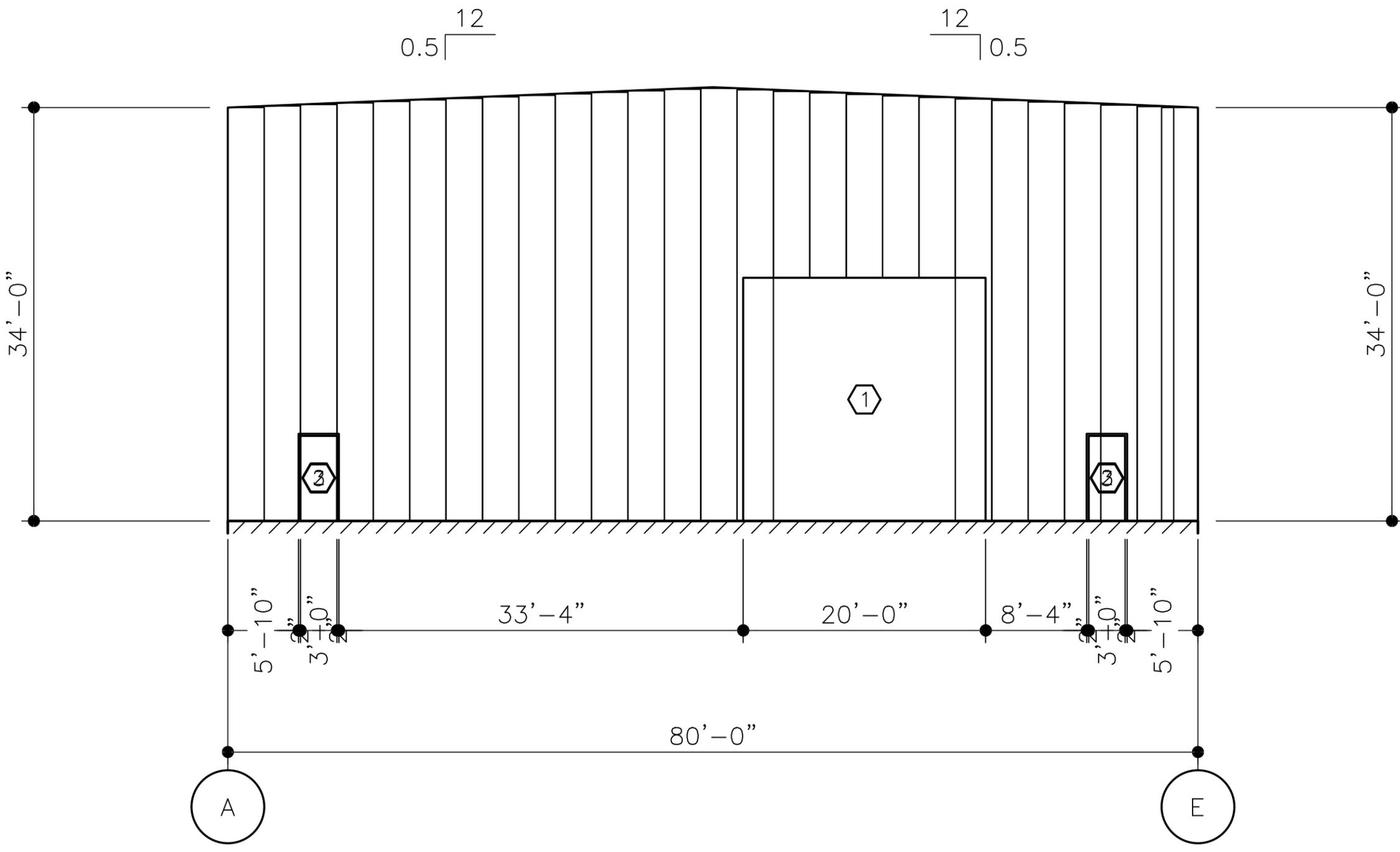
FRAMED OPENING SCHEDULE

ID	QTY	WIDTH	HEIGHT	SILL HEIGHT	LOCATED
1	1	20'-0"	20'-0"	0'-0"	FACTORY
2	2	3'-4"	7'-2"	0'-0"	FACTORY
3	2	3'-0"	7'-0"	0'-0"	FACTORY



PROJECT NAME:
 GILLESPIE
 CHESTERTOWN, MD
 CUSTOMER NAME:
 BOB BREEDING GENERAL CONTRACTORS, LLC
 DENTON, MD

DO NOT USE FOR FINAL CONSTRUCTION
 SHEET TITLE:
 PRELIMINARY SHEETING ELEVATIONS
 SHEET NUMBER:
 WS5
 GILLESPIE
 2/14/2023 6:13 AM

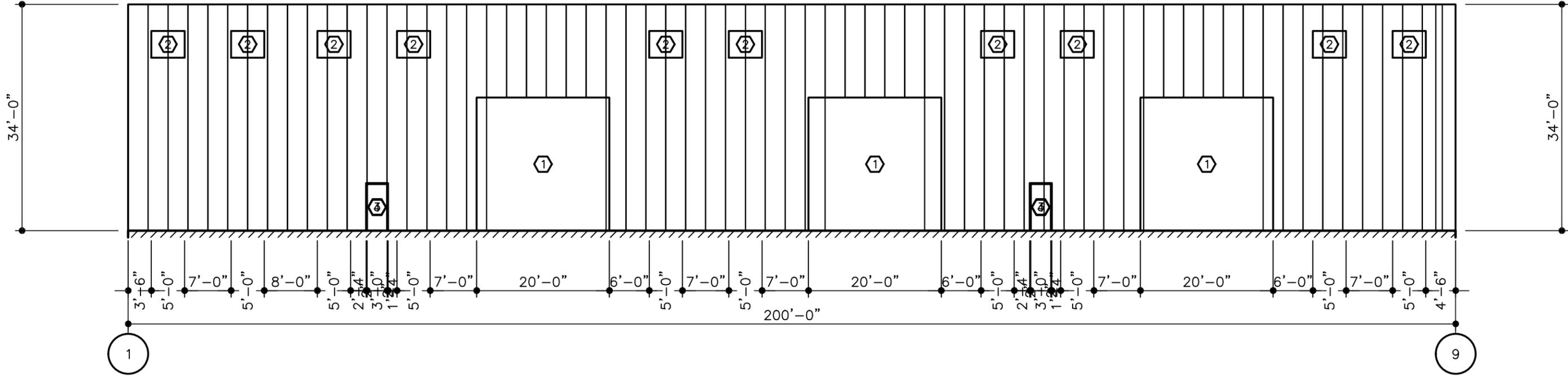


WALL SHEETING ELEVATION AT LINE 1

PANELS: 26 GA. R-PANEL - REGAL WHITE (PVDF)



ID	QTY	WIDTH	HEIGHT	SILL HEIGHT	LOCATED
1	3	20'-0"	20'-0"	0'-0"	FACTORY
2	10	5'-0"	4'-0"	26'-0"	FACTORY
3	2	3'-4"	7'-2"	0'-0"	FACTORY
4	2	3'-0"	7'-0"	0'-0"	FACTORY



WALL SHEETING ELEVATION AT LINE E

PANELS: 26 GA. R-PANEL - REGAL WHITE (PVDF)



PROJECT NAME:
GILLESPIE
 CHESTERTOWN, MD

CUSTOMER NAME:
BOB BREEDING GENERAL CONTRACTORS, LLC
 DENTON, MD

DO NOT USE FOR FINAL CONSTRUCTION

SHEET TITLE:
 2/14/2023 6:13 AM
PRELIMINARY SHEETING ELEVATIONS

SHEET NUMBER:
 WS6

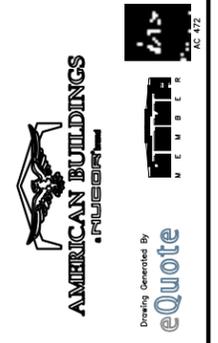
QUOTE NUMBER:
 GILLESPIE

KEY PLAN



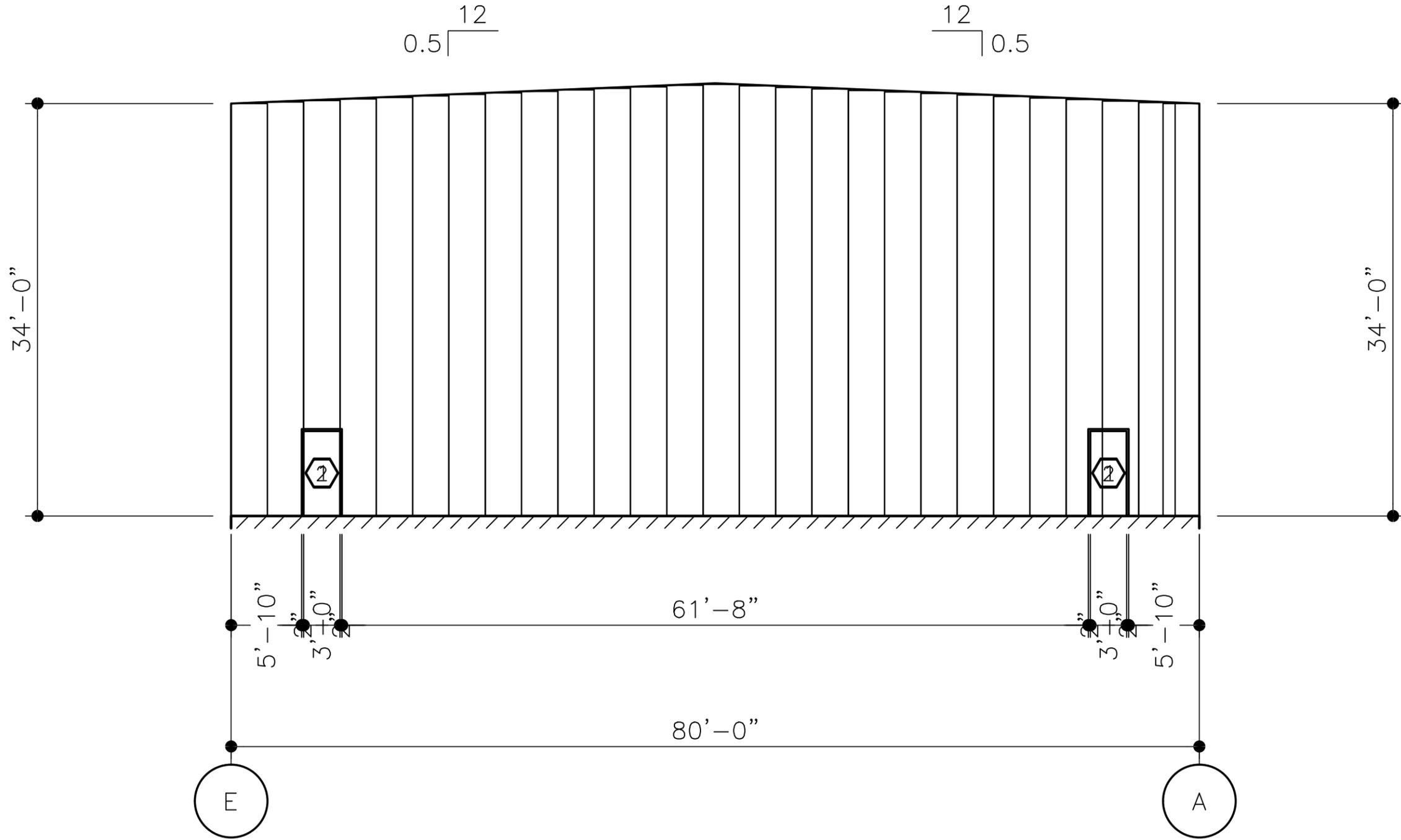
WAREHOUSE

FRAMED OPENING SCHEDULE					
ID	QTY	WIDTH	HEIGHT	SILL HEIGHT	LOCATED
1	2	3'-4"	7'-2"	0'-0"	FACTORY
2	2	3'-0"	7'-0"	0'-0"	FACTORY



PROJECT NAME:
 GILLESPIE
 CHESTERTOWN, MD
 CUSTOMER NAME:
 BOB BREEDING GENERAL CONTRACTORS, LLC
 DENTON, MD

DO NOT USE FOR FINAL CONSTRUCTION
 SHEET TITLE:
 PRELIMINARY SHEETING ELEVATIONS
 SHEET NUMBER:
 WS7
 GILLESPIE
 2/14/2023 6:13 AM



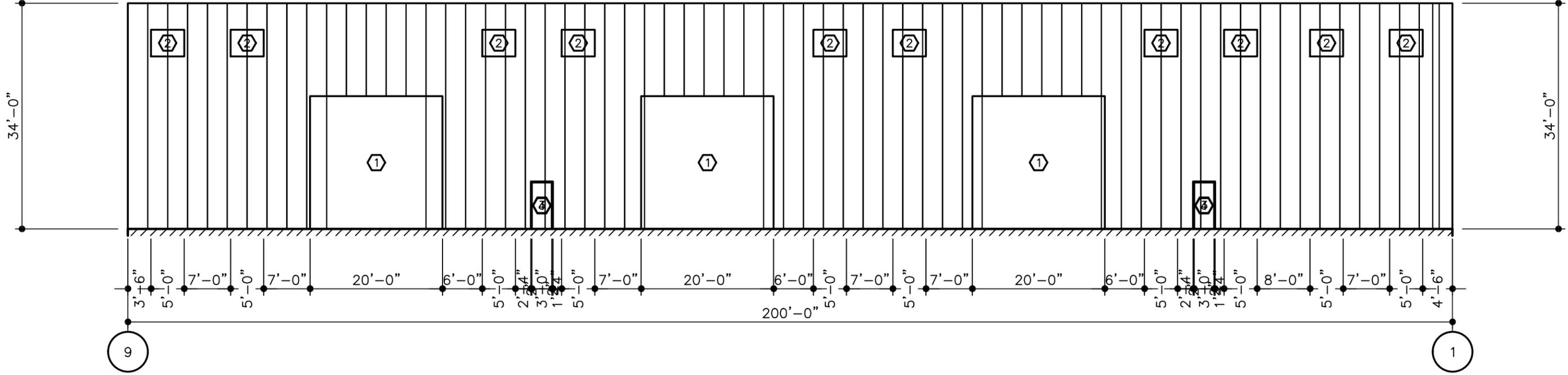
WALL SHEETING ELEVATION AT LINE 9

PANELS: 26 GA. R-PANEL - REGAL WHITE (PVDF)

KEY PLAN

WAREHOUSE

FRAMED OPENING SCHEDULE					
ID	QTY	WIDTH	HEIGHT	SILL HEIGHT	LOCATED
1	3	20'-0"	20'-0"	0'-0"	FACTORY
2	10	5'-0"	4'-0"	26'-0"	FACTORY
3	2	3'-4"	7'-2"	0'-0"	FACTORY
4	2	3'-0"	7'-0"	0'-0"	FACTORY



WALL SHEETING ELEVATION AT LINE A

PANELS: 26 GA. R-PANEL - REGAL WHITE (PVDF)



PROJECT NAME:
GILLESPIE
 CHESTERTOWN, MD

CUSTOMER NAME:
BOB BREEDING GENERAL CONTRACTORS, LLC
 DENTON, MD

DO NOT USE FOR FINAL CONSTRUCTION

SHEET TITLE:
PRELIMINARY SHEETING ELEVATIONS

SHEET NUMBER:
WS8

QUOTE NUMBER:
GILLESPIE

DATE:
 2/14/2023 6:13 AM



To: Kent County Planning Commission
From: Bill Mackey, AICP, Director
Meeting: May 4, 2023
Subject: Zoning Text Amendment - to update the height of industrial structures in the US 301 Corridor

Additional Materials

On April 6, 2023, the Planning Commission discussed the proposed zoning text amendment and requested additional information. At the meeting, following the discussion, I confirmed that the members would like to see photographic examples of buildings that are 60 feet in height, photographic examples of screening for the buildings that are 60 feet in height, a map depicting the 301 Corridor, and a more precise definition of the 301 Corridor in writing. This additional materials memorandum is intended to address these requests.

Map depicting the 301 Corridor

A map detailing the desired area for the proposed Route 301 Corridor is attached for your reference.

More precise definition of the 301 Corridor

A more precise definition as an alternative is proposed below with revisions indicated in tracked changes.

Route 301 Corridor - One of two growth areas in Kent County identified by the Comprehensive Plan, which includes **land adjacent to and approximately one mile east and one mile west of the nine-mile-long section of U.S. Route 301, as it passes from north to south through Kent County, Maryland, and land surrounding and in the general vicinity of the intersection of MD Routes 299, 313, and 330 and adding those five properties zoned Employment Center and Industrial, which are located along MD 299 in Massey.**

Images of 60-foot-tall buildings

The Eastern Shore Regional GIS Cooperative at Salisbury University utilized LiDAR (Light Detection and Ranging) to identify buildings on its campus that are 60 feet in height. These are good examples since they have windows and doors, and it's easy to understand their scale, as opposed to buildings with few features to identify scale. The actual heights of each building are provided on the images, and these images are attached after the revised map.

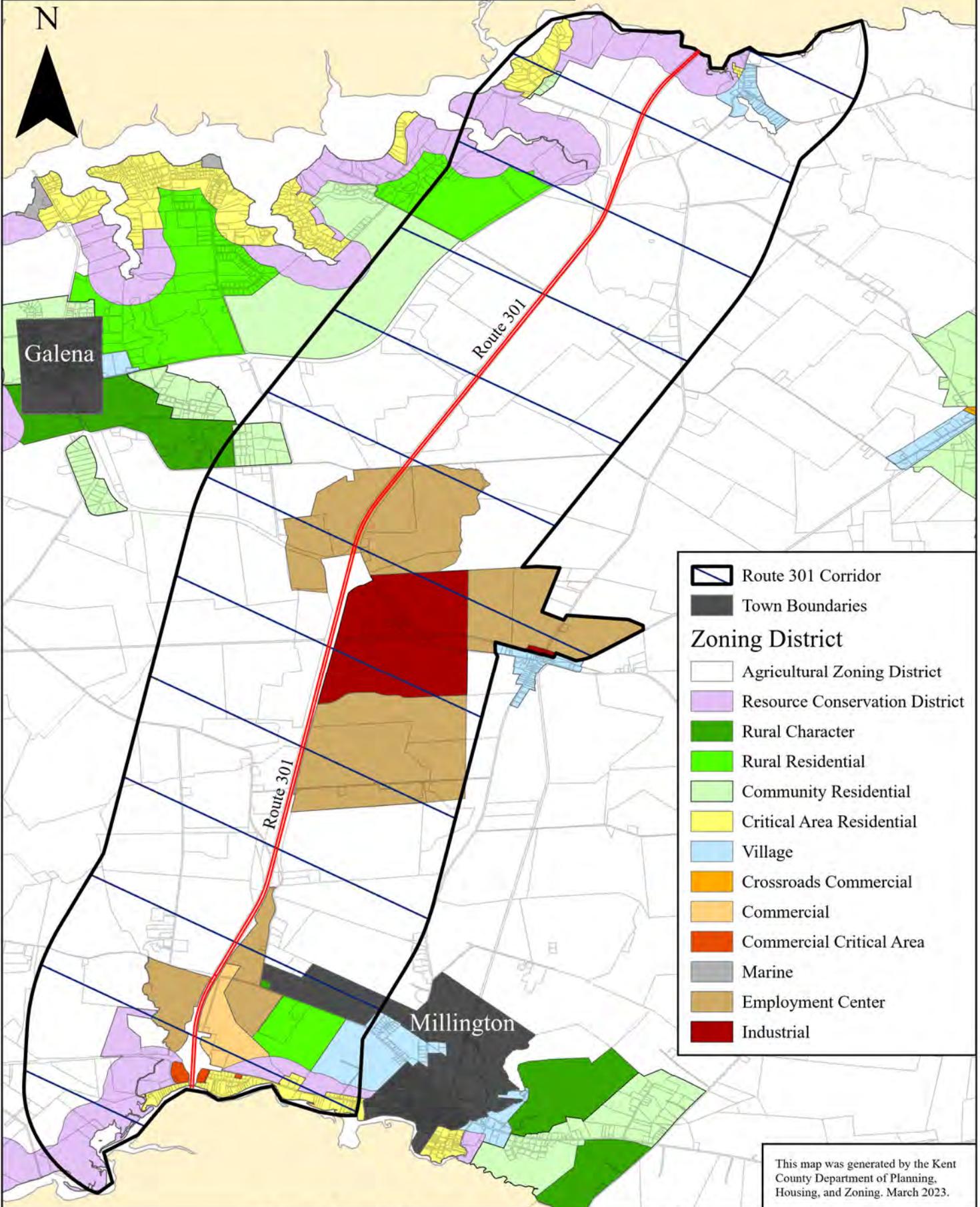
Images of possible landscaping

For this assignment, I used the artificial intelligence program DALL-E-2 and requested landscaping for very-tall or for 60-foot-tall buildings. The AI generated unique images from scratch to provide examples of how landscape screening might appear. The attached may look like photographs, but they are AI-created images.

As part of this section, I thought it would be helpful to calculate how high landscaping would need to be to effectively screen a project from view on the public roads alongside such a project. For an individual whose eye level is five feet, standing on the edge of a property with a sixty-foot-tall building, setback 100 feet from the edge of property, a 20-foot-tall tree that is setback 20 feet would block the view. Please see last page.



Proposed Route 301 Corridor



This map was generated by the Kent County Department of Planning, Housing, and Zoning, March 2023.

0 0.5 1 2 3 Miles

Conway Hall/TETC

65 ft at peak of roof



Conway Hall/TETC

65 ft at peak of roof



Purdue School of Business

62.5 ft at peak of roof



Purdue School of Business

62.5 ft at peak of roof



Purdue School of Business

62.5 ft at peak of roof



Chester Hall

60.5 ft (flat roof)



Chester Hall

60.5 ft (flat roof)



Sea Gull Square

57 ft at peak of roof



Sea Gull Square

57 ft at peak of roof



Sea Gull Square

57 ft at peak of roof



Holloway Hall

57.5 ft (at the top of the roofing, 92ft to dome's peak)



Holloway Hall

57.5 ft (at the top of the roofing, 92ft to dome's peak)



Henson Hall

66 ft to top of gray peak



Henson Hall

66 ft to top of gray peak



Potential Landscaping drawn by DALL-E 2



Potential Landscaping drawn by DALL-E 2



Potential Landscaping drawn by DALL-E 2



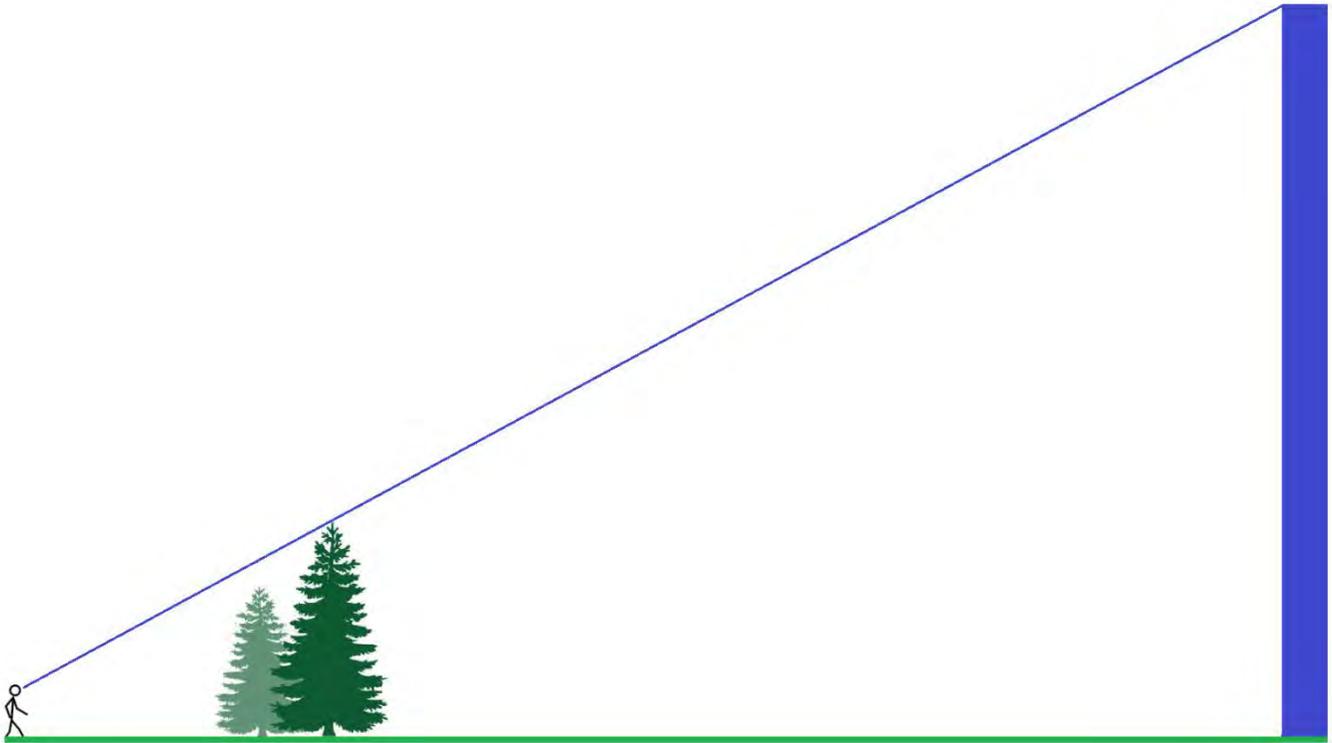
Potential Landscaping drawn by DALL-E-2



Potential Landscaping drawn by DALL-E-2



Image showing relationship between building height and landscaping



For an individual whose eye level is five feet, standing on the edge of a property with a sixty-foot-tall building, setback 100 feet from the edge of property, a 20-foot-tall tree that is setback 20 feet would block the view.



For an individual whose eye level is five feet, standing on the ground, the following would provide screening:

A row of trees 20 feet in height on the perimeter of a property would fully screen the building up to 38 feet away.

A row of trees 30 feet in height on the perimeter of a property would fully screen the building up to 83 feet away.

A row of trees 40 feet in height on the perimeter of a property would fully screen the building up to 175 feet away.

A row of trees 50 feet in height on the perimeter of a property would fully screen the building up to 450 feet away.

A row of trees 55 feet in height on the perimeter of a property would fully screen the building up to 1,000 feet away.

A row of trees 60 feet in height on the perimeter of a property would fully screen the building up to any distance.





To: Kent County Planning Commission
From: Bill Mackey, AICP, Director
Meeting: April 6, 2023
Subject: Zoning Text Amendment - to update the height of industrial structures in the US 301 Corridor

Executive Summary

Request

On March 14, 2023, the County Commissioners adopted a Resolution to consider a zoning text amendment to update Article V. *District Regulations, Section 11. Commercial District, § 11.5 Density, Area, Height, Width, and Yard Requirements*, by adding a new provision to regulate the height of industrial structures in general and by adding a new provision to regulate the permitted height of industrial structures in the 301 Corridor; to update Article V. *District Regulations, Section 14. Employment Center District, § 14.5 Density, Height, Width, Bulk, and Fence Requirements*, by adding a new provision to regulate the permitted height of industrial structures in the 301 Corridor; and, to update Article V. *District Regulations, Section 15. Industrial District, § 15.5 Density, Height, Width, and Fence Requirements*, by adding a new provision to regulate the permitted height of industrial structures in the 301 Corridor.

Adopted Resolution 2023-2 including Exhibit A that contains the text of the Code Home Rule Bill is attached.

Public Process

Per Article XII *Administrative Procedures, Section 6 Amendments* of the Kent County Land Use Ordinance, the County Commissioners may amend, supplement, or change the boundaries of the districts or the regulations of the Land Use Ordinance. Before taking any action on any proposed amendment, supplement, or change, the County Commissioners will submit the proposal to the Planning Commission for its review and recommendation.

Summary of Staff Report

The proposed zoning text amendment would update permitted maximum heights for industrial structures in the Employment Center and Industrial districts. It would also include provisions for the height of industrial structures in the Commercial district, since *distribution centers and warehousing* are permitted in the Commercial district.

The proposed height update is limited to those projects proposed in the Route 301 Corridor. Staff have proposed adding a definition, since the Corridor is not defined in the Land Use Ordinance, and a definition would be useful.

Recommendation

Staff recommends sending a favorable recommendation to the Board of County Commissioners on the proposed zoning text amendment and a favorable recommendation related to the proposed definition for the 301 Corridor.

PRELIMINARY STAFF REPORT

TO: Kent County Planning Commission
SUBJECT: Zoning Text Amendment – To update the height of industrial structures in the US 301 Corridor
DATE: March 31, 2023

DESCRIPTION OF PROPOSAL

AN ACT to amend Chapter 222, Zoning, of the Public Local Laws of Kent County, Maryland, also known as the Kent County Land Use Ordinance, in order to update Article V. *District Regulations*, Section 11. *Commercial District*, § 11.5 *Density, Area, Height, Width, and Yard Requirements*, by adding a new provision to regulate the height of industrial structures in general and by adding a new provision to regulate the permitted height of industrial structures in the 301 Corridor; to update Article V. *District Regulations*, Section 14. *Employment Center District*, § 14.5 *Density, Height, Width, Bulk, and Fence Requirements*, by adding a new provision to regulate the permitted height of industrial structures in the 301 Corridor; and, to update Article V. *District Regulations*, Section 15. *Industrial District*, § 15.5 *Density, Height, Width, and Fence Requirements*, by adding a new provision to regulate the permitted height of industrial structures in the 301 Corridor.

APPLICABLE LAW

Article XII *Administrative Procedures*, Section 6 *Amendments* of the Kent County Land Use Ordinance establishes the standards for the review and approval of a zoning text amendment on pages 487-488 and as follows:

1. The County Commissioners may amend, supplement, or change the boundaries of the districts or the regulations of this Ordinance. Any amendment may be initiated by a resolution of the County Commissioners, the motion of the Planning Commission, or petition of any property owner using forms specified by the Planning Commission.

Staff comment: Resolution 2023-2 is attached hereto for reference.

2. The application for an amendment to the text of the Ordinance shall, at a minimum, state in particular the article section, and paragraph sought to be amended. The application shall contain the language of the proposed amendment and shall recite the reasons for the proposed change in text.

Staff comment: Reasons are set forth in the attached Resolution. Article sections and sub-sections are set forth in Exhibit A including proposed text language in legislative format for consideration. Mock-up pages from the Land Use Ordinance illustrating the proposed changes are also attached.

3. The application for an amendment to the map of this Ordinance shall, at a minimum, specify the map and parcels sought to be amended, the current and proposed zoning classification, and recite the reasons for the proposed amendment.

Staff comment: In this case, a map amendment is not being proposed.

PRELIMINARY STAFF REPORT

4. Before taking any action on any proposed amendment, supplement, or change, the County Commissioners shall submit the proposal to the Planning Commission for review and recommendation. The Planning Commission may hold a hearing on any proposed amendment, supplement, or change before submitting its recommendation to the County Commissioners. The Planning Commission may request any pertinent data and information as it deems necessary. In its recommendation, the Planning Commission shall address:

a) The public need for the proposed amendment; and

Staff comment: A suggested public need is set forth in Resolution 2023-2 to provide for the local zoning provisions to be updated to allow for construction of modern, marketable buildings.

b) The extent to which the proposed amendment complies with or deviates from the Comprehensive Plan and the Critical Area Law.

Staff comment: The proposed zoning text amendment addresses one of the HIGHEST PRIORITIES in the Comprehensive Plan, and this is detailed in the staff report section immediately below.

Staff comment: In this case, Critical Area Law would not be affected, since the proposed changes only relate to zoning districts that are not mapped for the Critical Area.

c) When reviewing an amendment to the zoning map, the Planning Commission shall address the suitability of the property in question for the uses permitted under the proposed zoning. The Planning Commission shall not recommend the adoption of the amendment unless it finds that the adoption of the amendment is in the public interest and not solely for the interest of the applicant. Failure of the Planning Commission to report to the County Commissioners within 60 days after its first meeting after the proposal was referred to them, shall be deemed approval.

Staff comment: In this case, a map amendment is not being proposed.

COMPREHENSIVE PLAN

The proposed text amendment is consistent with HIGHEST PRIORITIES in the Kent County Comprehensive Plan and the corresponding strategy and implementation text located in the body of the Comprehensive Plan.

The 2018 Comprehensive Plan calls for regulatory flexibility related specifically to industrial uses. Updating the Land Use Ordinance to address modern standards and construction practices for the height of industrial structures in those zoning districts in the US 301 Corridor, where industrial uses are permitted, is supported by the Comprehensive Plan.

On page 12, the *2018 Comprehensive Plan* includes the following strategy and implementation text in the Economy chapter under the Business and Industry section:

PRELIMINARY STAFF REPORT

Strategy: Expand regulatory flexibility for the creation of and location of employment centers and industrial uses.

Through its economic development planning and land use implementation measures, the County will support flexibility in and an expanded area of employment center and industrial zoning in general to support commercial and mixed-use development. These efforts will especially focus on the Worton area, and the US 301 corridor with a priority that the area between the Town of Millington and the lands surrounding the Route 291-Route 301 intersection be guided by the desired expansion of services and land use identified by Millington’s municipal growth element.

Potential new sites will be located where infrastructure exists or can be cost effectively developed consistent with this Comprehensive Plan and the County’s Water and Sewerage Plan.

On page 129, the *2018 Comprehensive Plan* includes the following under its HIGHEST PRIORITIES section:

- B. Expand regulatory flexibility for the creation of and location of employment centers and industrial uses. Through its economic development planning and land use implementation measures, the County will support flexibility in and an expanded area of employment center and industrial zoning in general to support commercial and mixed-use development. These efforts will especially focus on the Worton area, and the US 301 corridor with a priority that the area between the Town of Millington and the lands surrounding the Route 291-Route 301 intersection be guided by the desired expansion of services and land use identified by Millington’s municipal growth element.

STAFF ANALYSIS

Industry changes. NAIOP Maryland, the Maryland Chapter of the National Association of Industrial and Office Parks, notes in its online article discussing cold storage and then expanding to a more general discussion in the final section of the article that “Across the board, these [industrial] buildings are growing larger, include 130-foot truck courts, feature up to 40-foot clear ceiling heights (up from 28 feet which was common just 10 years ago) and state-of-the-art automated fulfillment technology and equipment. Sustainability elements, such as green rooftops, are also starting to creep into the newer designs” (see *Scarce land, changing user needs alter designs* section [here](#)).

Rising interior clear ceiling heights mean that updated overall building heights are needed, especially when buildings will also need to accommodate structural members, green roofs, rooftop mechanical equipment, and decorative parapets that would be required to shield views of the rooftop mechanical equipment.

Some cases are reported where 50-foot interior clear heights are being designed. “In recent years, as ecommerce companies like Amazon push the envelope in maximizing warehouse efficiency with new automation and racking systems, developers are responding by raising the clear height in new warehouse developments to new levels. Thirty-six-foot clear heights are becoming the norm. One architect recently wrote a column about a request to design a build-to-suit facility with a 50-foot clear height” (From a review of North American warehouse development [here](#)).

PRELIMINARY STAFF REPORT

In conversations with designers of the proposed industrial structures currently under review, 60 feet was mentioned. This would be sufficient to address changing standards in the industry and allow for marketable buildings to be built.

Route 301 Corridor. Throughout the Land Use Ordinance, the term *Route 301 Corridor* is widely used; however, it is not defined. The term is defined in the *US Route 301 Corridor Study*, January 2007 (attached):

For purposes of this report and for ongoing discussions, we will define the "Route 301 Corridor" as that portion of land adjacent to and one mile east and one mile west of the nine-mile long section of U.S. Route 301 as it passes from north to south through Kent County, Maryland (*US Route 301 Corridor Study*, page 2).

Upon reviewing the attached map, there are properties in Massey that are zoned Employment Center and Industrial, which are located on MD Route 313 close to US 301, but they are just outside the one-mile band described above.

From the context of these Employment Center-zoned properties, it appears that the intention of the zoning for these properties was that they be regulated using the various Route 301 Corridor-related provisions in the Land Use Ordinance. Since the *US Route 301 Corridor Study* was conducted after zoning districts were established, it appears that this intention and the one-mile band were not necessarily tightly coordinated.

Excerpts from the Land Use Ordinance related to the 301 Corridor are provided in the attached, which does not include the 301 Corridor provisions that were already included in the three mock-up pages. These are provided to illustrate how the Land Use Ordinance currently incorporates the 301 Corridor as a concept.

Staff proposes adding a definition to Article XI *Definitions*, Section 2 *Definitions* of the Land Use Ordinance. The language used in the definition from the *US Route 301 Corridor Study* is indicated below in **bolded** font.

Route 301 Corridor - One of two growth areas in Kent County identified by the Comprehensive Plan, which includes **land adjacent to and approximately one mile east and one mile west of the nine-mile-long section of U.S. Route 301, as it passes from north to south through Kent County, Maryland**, and land surrounding and in the general vicinity of the intersection of MD Routes 299, 313, and 330.

STAFF RECOMMENDATION

Staff recommends sending a favorable recommendation to the Board of County Commissioners on the proposed zoning text amendment and a favorable recommendation related to the proposed definition for the 301 Corridor.

ATTACHMENTS

- Resolution 2023-2 with Exhibit A detailing the proposed zoning text amendment
- Mock-up pages from the Land Use Ordinance illustrating proposed changes
- *US Route 301 Corridor Study*, January 2007
- One-mile corridor mapped for illustration
- Land Use Ordinance excerpted provisions

RESOLUTION 2023-02

COUNTY COMMISSIONERS OF KENT COUNTY, MARYLAND

A RESOLUTION TO INTRODUCE A TEXT AMENDMENT TO REVISE CHAPTER 222, ZONING, OF THE COUNTY CODE OF KENT COUNTY, MARYLAND, ALSO KNOWN AS THE KENT COUNTY LAND USE ORDINANCE, TO UPDATE THE PERMITTED HEIGHT OF INDUSTRIAL STRUCTURES LOCATED IN CERTAIN ZONING DISTRICTS AND LOCATED IN THE ROUTE 301 CORRIDOR.

WHEREAS, the Board of County Commissioners of Kent County, Maryland (the Board) may exercise its right to amend the County Code of Kent County, Maryland (the Code), by legislative action in the form of a Code Home Rule Bill to create an Act and thus propose text amendments to the Code; and,

WHEREAS, in Article XII, *Administrative Procedures*, Section 6, *Amendments*, §1, the Land Use Ordinance states regarding the Board and the Code that “The County Commissioners may amend, supplement, or change the boundaries of the districts or the regulations of this Ordinance. Any amendment may be initiated by resolution of the County Commissioners...”; and,

WHEREAS, the *2018 Comprehensive Plan* specifically identifies as one of its highest priorities that “Through its economic development planning and land use implementation measures [zoning code, among other tools], the County will support flexibility in and an expanded area of employment center and industrial zoning in general to support commercial and mixed-use development”; and,

WHEREAS, industry standards are changing including up to 40-foot clear ceiling heights for new warehouse facilities and even 50-foot clear ceiling heights, as reported by NAIOP Maryland and others, necessitating new building height limits to accommodate both interior spaces and structures to support roofs and screening of rooftop equipment; and,

WHEREAS, the Board finds that amending the permitted height of industrial structures in certain zoning districts for those properties located along the 301 Corridor addresses the public need to provide for economic development through the aforementioned tool of land use implementation measures by expanding zoning district flexibility in employment center and industrial zoning in general; and,

WHEREAS, the permitted maximum heights for industrial structures in the Employment Center zoning district and the Industrial zoning district could be amended for greater flexibility; and,

WHEREAS, the Code does not currently include provisions for the height of industrial structures in the Commercial zoning district, even though *distribution centers and warehousing* are permitted uses in said district; and,

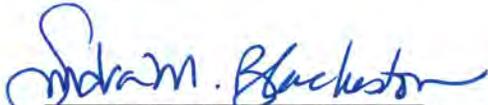
WHEREAS, the Board determines that updating local zoning regulations including provisions to allow for construction of modern, marketable buildings on properties currently zoned for new industrial uses to support economic development does serve to further the health, safety, and welfare of Kent County.

NOW, THEREFORE, BE IT RESOLVED, that on March 14, 2023, the Board does hereby introduce the proposed text amendment, attached hereto as Exhibit A, to amend the height of industrial structures along the 301 Corridor in the Employment Center zoning district and Industrial zoning district, and to add new height regulations for industrial structures both inside and outside the 301 Corridor in the Commercial zoning district that already permits such structures as *distribution centers and warehousing*.

BE IT FURTHER RESOLVED that the Board refers the draft amendment for advisory review and recommendation to the Kent County Planning Commission.

ADOPTED this day, March 14, 2023.

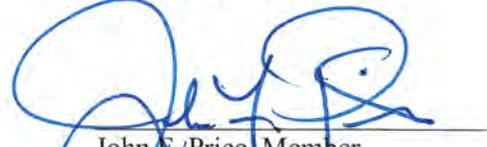
ATTEST:


Sondra M. Blackiston, Clerk

THE COUNTY COMMISSIONERS
OF KENT COUNTY, MARYLAND


Ronald H. Fithian, President


Albert H. Nickerson, Member


John R. Price, Member

THE COUNTY COMMISSIONERS OF KENT COUNTY, MARYLAND

Month X, 2023
Legislative Session Day

Legislative Session Day
Month X, 2023

CODE HOME RULE
BILL NO. X-2023

INTRODUCED BY: Ronald H. Fithian, President of the Board of County Commissioners for Kent County, Maryland.

AN ACT to amend Chapter 222, Zoning, of the Public Local Laws of Kent County, Maryland, also known as the Kent County Land Use Ordinance, in order to update Article V. District Regulations, Section 11. Commercial District, § 11.5 Density, Area, Height, Width, and Yard Requirements, by adding a new provision to regulate the height of industrial structures in general and by adding a new provision to regulate the permitted height of industrial structures in the 301 Corridor; to update Article V. District Regulations, Section 14. Employment Center District, § 14.5 Density, Height, Width, Bulk, and Fence Requirements, by adding a new provision to regulate the permitted height of industrial structures in the 301 Corridor; and, to update Article V. District Regulations, Section 15. Industrial District, § 15.5 Density, Height, Width, and Fence Requirements, by adding a new provision to regulate the permitted height of industrial structures in the 301 Corridor.

THE COUNTY COMMISSIONERS
OF KENT COUNTY, MARYLAND

Ronald H. Fithian, President

INTRODUCED, read the first time, Month X, 2023, ordered posted and public hearing scheduled on Month X, 2023, at XX:XX a.m. / p.m. in the County Commissioners Hearing Room, R. Clayton Mitchell, Jr., Kent County Government Center, 400 High Street, Chestertown, Maryland.

By order of:

Sondra M. Blackiston, Clerk

PUBLIC HEARING

HAVING been posted and notice of the time and place of the hearing and copies having been made available to the public and the press, a public hearing was held on Month X, 2023. Reported favorably [with] [without] amendments; read the second time and ordered to be considered on Month X, 2023, a legislative session day.

BILL NO. X-2023

CAPITALS & BOLD INDICATES MATTER ADDED TO EXISTING LAW.

~~Strike through~~ indicates matter deleted from existing law.

A BILL ENTITLED CHR X-2023 INDUSTRIAL STRUCTURES IN 301 CORRIDOR

NOW, THEREFORE, BE IT ENACTED BY THE COUNTY COMMISSIONERS OF KENT COUNTY, MARYLAND that the Kent County Land Use Ordinance is hereby amended as follows:

SECTION 1.

ARTICLE V.
DISTRICT REGULATIONS

SECTION 11. COMMERCIAL DISTRICT

...

11.5 DENSITY, AREA, HEIGHT, WIDTH, AND YARD REQUIREMENTS

...

Height ¹

- INDUSTRIAL STRUCTURE	45 FEET
- INDUSTRIAL STRUCTURE	60 FEET
IN 301 CORRIDOR	
- Commercial <i>structure</i>	45 feet
- Residential <i>structure</i>	38 feet
- Fence ²	
- Security	8 feet
- Ornamental	
Front and <i>side yard</i>	4 feet
Rear <i>yard</i>	8 feet

¹ Except in an area defined as the Kent County *Airport* Safety Area, the height limitations do not apply to: belfries; ornamental towers and spires; church spires; public monuments; commercial radio, personal wireless facility, and television towers less than 200 feet in height; stage towers or scenery lofts; tanks; conveyors; silos and corn dryers; elevator bulkheads; fire towers; water towers; stand pipes; and flag poles.

² Fences do not need to meet yard requirements.

SECTION 2.

ARTICLE V.
DISTRICT REGULATIONS

SECTION 14. EMPLOYMENT CENTER DISTRICT

...

14.5 DENSITY, HEIGHT, WIDTH, BULK, AND FENCE REQUIREMENTS

	STANDARD	INDUSTRIAL SUBDIVISION
...		
Height		
- Industrial <i>structure</i>	45 feet	45 feet
- INDUSTRIAL STRUCTURE IN 301 CORRIDOR	60 FEET	60 FEET
- Residential <i>structure</i>	35 feet	35 feet
- Towers, silos, etc.	150 feet ⁵	150 feet ⁵
- Fence ⁶		
- Security	8 feet	8 feet
- Ornamental		
<i>Front and Side</i>	4 feet	4 feet
<i>Rear</i>	8 feet	8 feet
Maximum building footprint		
- Distribution Center		
- Route 301 Corridor	NA	NA
- Other locations	75,000 sq. ft.	75,000 sq. ft.
- Other industrial <i>buildings</i>		
- Route 301 Corridor	NA	NA
- Other locations	250,000 sq. ft.	250,000 sq. ft.
- Office <i>buildings</i> *	10,000 sq. ft.	10,000 sq. ft.

⁵ Except in the *Airport Safety Zone*

⁶ Fences do not need to meet the yard requirements.

SECTION 3.

ARTICLE V.
DISTRICT REGULATIONS

SECTION 15. INDUSTRIAL DISTRICT

...

15.5 DENSITY, HEIGHT, WIDTH, BULK, AND FENCE REQUIREMENTS

	STANDARD	INDUSTRIAL SUBDIVISION
...		
Height		
- Industrial <i>structure</i>	45 feet	45 feet
- INDUSTRIAL STRUCTURE IN 301 CORRIDOR	60 FEET	60 FEET
- Residential <i>structure</i>	35 feet	35 feet
- Towers, silos, etc.	150 feet ⁵	150 feet ⁵
- Fence ⁶		
- Security	8 feet	8 feet
- Ornamental		
<i>Front and Side</i>	4 feet	4 feet
<i>Rear</i>	8 feet	8 feet
Maximum building footprint		
- Distribution Center		
- Route 301 Corridor	NA	NA
- Other locations	75,000 sq. ft.	75,000 sq. ft.
- Other industrial <i>buildings</i>		
- Route 301 Corridor	NA	NA
- Other locations	250,000 sq. ft.	250,000 sq. ft.
- Office <i>buildings</i> *	10,000 sq. ft.	10,000 sq. ft.

⁵ Except in the *Airport* Safety Zone.

⁶ Fences do not need to meet the yard requirements.

7. Temporary *MET Tower* of any height provided:*
 - a. The tower is erected for no more than 12 months.
 - b. Any free standing *structure* is located a minimum of 3 times its total height from a property line.
 - c. Towers are not readily climbable from the ground up to 12 feet.

8. *Wind energy systems, small*, limited to one tower provided:*
 - a. The height of the *structure* to the tip of the blade at its highest point does not exceed 80 feet.
 - b. Any system is located a minimum of 3 times its total height from a property line.
 - c. Towers are not readily climbable from the ground up to 12 feet.
 - d. All access doors to towers and electrical equipment shall be lockable.
 - e. Appropriate warning signage is placed on the tower and electrical equipment.
 - f. The blade tip at its lowest point had a ground clearance of at least 25 feet.
 - g. Wind turbines and towers maintain a galvanized steel, brushed aluminum finish, or a non-garish color.
 - h. Any small wind energy system that is not operational for a period of 12 consecutive months or more shall be removed at the landowner's expense.

11.5 DENSITY, AREA, HEIGHT, WIDTH, AND YARD REQUIREMENTS

Minimum <i>lot size</i>	NA
Minimum <i>frontage</i>	
- Public road	100 feet
Minimum <i>yard</i>	
- <i>Front</i>	50 feet
- <i>Side & Rear yard</i>	50 feet with buffering from adjoining AZD, RCD, RC, RR, CAR, CR, V, IV, & IVCA 30 feet from CC, C, CCA, M, EC, I, ICA-LDA, & ICA which may be reduced to 0 if emergency and maintenance vehicle access are acceptably addressed and if the adjoining property is a compatible use
- Waterfront	100 feet
Height ¹	
- INDUSTRIAL STRUCTURE	45 FEET
- INDUSTRIAL STRUCTURE	60 FEET
IN 301 CORRIDOR	
- Residential <i>structure</i>	38 feet
- Fence ²	
- Security	8 feet
- Ornamental	
Front and <i>side yard</i>	4 feet
<i>Rear yard</i>	8 feet

¹ Except in an area defined as the Kent County *Airport* Safety Area, the height limitations do not apply to: belfries; ornamental towers and spires; church spires; public monuments; commercial radio, personal wireless facility, and television towers less than 200 feet in height; stage towers or scenery lofts; tanks; conveyors; silos and corn dryers; elevator bulkheads; fire towers; water towers; stand pipes; and flag poles.

² Fences do not need to meet yard requirements.

14.5 DENSITY, HEIGHT, WIDTH, BULK, AND FENCE REQUIREMENTS

	STANDARD	INDUSTRIAL SUBDIVISION
Gross <i>density</i> (dwelling units/ acre)	0.05 (1/20) ¹	²
Minimum <i>lot size</i>	20 acres	NA
Maximum residential <i>lot size</i>	2 acres	2 acres
Minimum <i>lot frontage</i>	75 feet	²
Minimum <i>yard</i>		
- <i>Front</i>		
- Existing <i>Primary road</i>	100 feet ³	100 feet ³
- <i>Other roads</i>	²	²
- <i>Side and Rear</i>		
- Adjacent to I, ICA, EC	15 feet	²
- Adjacent to CC, CCCA, M, AZD, RCD	40 feet ³	²
- Adjacent to V, RR, CAR	100 feet ³	²
- Adjacent to public road	100 feet ⁴	100 feet ⁴
Height		
- Industrial <i>structure</i>	45 feet	45 feet
- INDUSTRIAL STRUCTURE IN 301 CORRIDOR	60 FEET	60 FEET
- Residential <i>structure</i>	35 feet	35 feet
- Towers, silos, etc.	150 feet ⁵	150 feet ⁵
- Fence ⁶		
- Security	8 feet	8 feet
- Ornamental		
<i>Front and Side</i>	4 feet	4 feet
<i>Rear</i>	8 feet	8 feet
Maximum building footprint		
- Distribution Center		
- Route 301 Corridor	NA	NA
- Other locations	75,000 sq. ft.	75,000 sq. ft.
- Other industrial <i>buildings</i>		
- Route 301 Corridor	NA	NA
- Other locations	250,000 sq. ft.	250,000 sq. ft.
- Office <i>buildings</i> *	10,000 sq. ft.	10,000 sq. ft.

¹ *Intrafamily transfers* only

² As approved during *subdivision* review

³ When a side or rear lot line coincides with a side or rear lot line of a property in a non-industrial zone, the required yard shall be landscaped and screened and shall be unoccupied by buildings, *structures*, or parking area.

⁴ May be reduced or increased during *site* plan review

⁵ Except in the *Airport Safety Zone*

⁶ Fences do not need to meet the yard requirements.

15.5 DENSITY, HEIGHT, WIDTH, BULK, AND FENCE REQUIREMENTS

	STANDARD	INDUSTRIAL SUBDIVISION
Gross <i>density</i> (dwelling units/ acre)	0.05 (1/20) ¹	²
Minimum <i>lot size</i>	20 acres	NA
Maximum residential <i>lot size</i>	2 acre	2 acre
Minimum <i>frontage</i>	75 feet	²
Minimum <i>yard</i>		
- <i>Front</i>		
- Existing <i>Primary road</i>	100 feet ³	100 feet ³
- <i>Other roads</i>	₂	₂
- <i>Side and Rear</i>		
- Adjacent to EC, I, ICA-LDA, & ICA	15 feet	²
- Adjacent to AZD, RCD, CC, C, CCA, & M	40 feet ³	²
- Adjacent to V, RR, CAR	100 feet ³	²
- Adjacent to public road	100 feet ⁴	100 feet ⁴
Height		
- Industrial <i>structure</i>	45 feet	45 feet
- INDUSTRIAL STRUCTURE IN 301 CORRIDOR	60 FEET	60 FEET
- Residential <i>structure</i>	35 feet	35 feet
- Towers, silos, etc.	150 feet ⁵	150 feet ⁵
- Fence ⁶		
- Security	8 feet	8 feet
- Ornamental		
<i>Front and Side</i>	4 feet	4 feet
<i>Rear</i>	8 feet	8 feet
Maximum building footprint		
- Distribution Center		
- Route 301 Corridor	NA	NA
- Other locations	75,000 sq. ft.	75,000 sq. ft.
- Other industrial <i>buildings</i>		
- Route 301 Corridor	NA	NA
- Other locations	250,000 sq. ft.	250,000 sq. ft.

¹ *Intrafamily transfers* only.

² As approved during *subdivision* review.

³ When a side or rear lot line coincides with a side or rear lot line of a property in a non-industrial zone, the required yard shall be landscaped and screened and shall be unoccupied by buildings, *structures*, or parking area.

⁴ May be reduced or increased during *site* plan review.

⁵ Except in the *Airport Safety Zone*.

⁶ Fences do not need to meet the yard requirements.

U. S Route 301 Corridor Study

As undertaken for the

Kent County, Maryland

Board of County Commissioners

and the

Kent County Economic Development Advisory Board

by the

Kent County Economic Development Office

January 2007

Background

Following a recommendation by the Kent County Economic Development Advisory Board (EDAB), the Kent County Board of Commissioners (BOC) directed the Kent County Economic Development Office to undertake a study of the U.S. Route 301 corridor. For purposes of this report and for ongoing discussions, we will define the "Route 301 Corridor" as that portion of land adjacent to and one mile east and one mile west of the nine-mile long section of U.S. Route 301 as it passes from north to south through Kent County, Maryland.

Route 301 passes through Kent County on a north-to-south route for a distance of approximately nine miles. The corridor area comprises approximately 18 square miles, or 11,520 acres of land, which is approximately 7% of Kent County's total land area of 278 square miles or 179,840 acres. There is no local municipality directly within the defined boundary, although the Town of Millington and the Village of Massey are just east of the defined boundary and the Town of Galena is just west of the defined boundary.

The general feeling of the BOC was that, in order to lessen the impact of eventual commercial/industrial growth within the county, any such growth outside of the County's five incorporated towns should probably take place in the 301 Corridor. However, the BOC needed to better understand the characteristics of the corridor, in order to direct growth into that sector. The purpose of the study was to ascertain and document the water/sewer, electric, gas, rail, ground water supply and other infrastructure available in the corridor. With that information, a determination could then be made as to the best usage of the area for business development purposes.

Existing Infrastructure

Existing Zoning Areas or Districts:

The corridor contains 12 separate or overlapping planning zones, areas or districts (*definitions in italics are taken from the Kent County Land Use Ordinance*):

1. Priority Funding Areas:

The purpose of this district is to delineate areas eligible for state funding of growth projects. Some areas were designated by the state; however, most were located and designated by the County, utilizing state guidelines as general directional tools.

There are several Priority Funding Areas within the 301 Corridor. One Priority Funding area lies on both sides of 301 at the intersection of Rte. 291. The second Priority Funding Area lies east of 301 at the intersection of Rte. 313.

2. Agriculture Zoning District:

The purpose of this district is to encourage the use of agricultural land for farming and other agricultural businesses and to limit the use of these lands for non-agricultural purposes. In addition, the district is to provide for farm, home occupations, and cottage industries that are compatible with agriculture as a means to further diversify the County's economy.

This is the largest zoning classification and comprises over 50% of the total 301 Corridor, and virtually all of the businesses within this district are farm-related.

3. **Resource Conservation District:**

The purpose of this district is to conserve and protect the ecological values of the Critical Areas and provide adequate breeding habitats for those wildlife populations that require the Chesapeake Bay and tributaries/habitats to sustain life. It is also intended to conserve existing developed woodlands and forests, and to conserve the land and water resources necessary to support agriculture, forestry, fishing, and aquaculture.

There are two such districts located in the corridor, and both are either adjacent or near the Sassafras and Chester Rivers and currently have no businesses in them.

4. **Rural Character District:**

The purpose of this district is to provide for the market demand for rural lots, including large estate lots, in a manner that maintains rural character and in a location that minimizes conflicts with agriculture. The district may function as a transition between towns, villages, residential developments, and the Agriculture Zoning District. Public water and sewer will not be extended into this district except to correct a public health emergency.

There is one area in the corridor, located west of Millington and north of and adjacent to a Rural Residential District, and also the very edge of one located east of Galena. There are currently no businesses in either district.

5. **Rural Residential District:**

The purpose of this district is to provide for a low density, single family residential development in areas of existing residential development, together with facilities and accessory uses normally compatible with residential surroundings, and at the same time to permit agricultural uses and to preserve open spaces and rural character.

There are two areas in the corridor. The first is located in the northwest section near Sassafras and the second is located just west of Millington. The areas currently contain no businesses.

6. **Community Residential:**

The purpose of this district is to provide for single family residential development in areas of existing residential development, together with facilities and accessory uses normally compatible with residential surroundings, and at the same time to permit agricultural uses and to preserve open spaces and rural character.

There are two areas in the corridor which are zoned in this manner and are located just east of Galena. Currently there are no businesses in either area.

7. **Commercial District:**

The purpose of this district is to accommodate commercial and service activities that are not normally located in central business concentrations. The uses are primarily oriented to highway locations and include services and destination retail. Consequently, the district is located along major arterial highways. Because these uses are subject to public view, they should provide appropriate appearance, controlled traffic movement, ample landscaping, and protect adjacent properties from the traffic and visual impacts associated with commercial activity.

There is one area in the corridor, with approximately 97 acres located ^{west} east of Millington at the Rte. 301/291 intersection. The area currently contains 2 operating businesses, 3 communication towers, the proposed Food Lion site and the vacant Howard Johnson's Restaurant site. This area also includes the proposed site for Chesapeake Fields planned location.

8. **Industrial District:**

The purpose of this district is to provide for a range of industrial uses which are environmentally sound, sustainable, and compatible with adjacent uses. Furthermore, the district is limited to light manufacturing and support businesses. Light industries include those which manufacturer, process, store, package, or distribute goods and materials, and are, in general, dependent on raw materials refined elsewhere.

There is only one such district within the defined corridor, which is located near Massey at the intersection of Rte. 301/313, however, there is a small industrial district just east of that on the northern edge of Massey. The main district within the corridor contains approximately 470 acres, with only one current business, that being the David Bramble operations at 132 acres. The proposed Needham mushroom farm will be located across from Bramble's location on 214 acres. In addition, there is a large electrical transfer station located on a 3 acre site in the district.

9. **Employment Center:**

These districts are defined as planned developments primarily for light industrial uses which are environmentally sound, sustainable, and compatible with adjacent uses. They are further defined as areas devoted to industrial uses which present an attractive appearance and complement surrounding land use character by means of appropriate settings of buildings and service areas and landscape treatment.

There are six such districts in the corridor encompassing approximately 1,300 acres. There are currently 4 farms which operate not only dairy, but also nursery operations. A portion of David Bramble's operation is conducted on about 92 acres in this district, and there are 2 communication towers located therein.

10. **Village Area:**

The purpose of this district is to provide for high quality residential, neighborhood business, and office development. In those areas served by public water and sewer, this zone will be characterized by a wide variety of housing types, densities, and uses. In those areas without public utilities, this zone will be largely single family with the possibility of multi-family residential when it does not hazard public health and is consistent with Village Master Plan for the area.

There are two such districts within the defined corridor and one just outside the corridor at Massey. The two defined areas encompass approximately 138 acres and currently include no non-farm businesses, as such, but do include 2 farms and 4 church-owned lots.

11. **Commercial Critical District:**

The purpose of this district is to accommodate commercial and service activities that are not normally located in central business concentrations. These uses are primarily oriented to highway locations and include services and destination retail. Consequently, the district is located along major arterial highways.

There are only three small districts in the corridor, and all are located in the Rte. 301/291 area, west of Millington, totaling approximately 11 acres. The largest parcel is the currently vacant 7 acre parcel located on the west side of the 301/291 intersection known as the Stoltzfus property. Currently there are 3 businesses located in the balance of the other 2 districts.

12. **Critical Area Residential:**

This district is intended to allow low density residential development in areas where the impact on the natural environment is minimal. The purpose of the district is to maintain, or if possible to improve, the quality of runoff and groundwater entering the Chesapeake Bay.

There are three areas within the corridor. One is located west of Rte. 301 on the Sassafras River and the other two are on either side of Rte. 301 on the Chester River. Currently there are no businesses located in the districts.

Enterprise Zones:

Although Maryland was a pioneer in the development of enterprise zones, and was the third state to enact its own Enterprise Zone Program, Kent County had no designated enterprise zones. The Maryland Enterprise Zone Program is a local economic development program which gives local governments the legal authority to offer economic incentives, and to fund matching and supplementary incentives. Areas within enterprise zones that meet more stringent standards of eligibility may be declared *focus areas*, which are eligible for enhanced tax incentives. Incentives include the following:

Standard Enterprise Zone Benefits:

Real Property Tax Credits – Ten-year credit against local real property taxes on the value of a portion of real property improvements. The credit is 80 percent for the first five years and decreases 10 percent annually thereafter to 30 percent in the 10th and final year.

Income Tax Credits – One or three year credit for wages paid to eligible new employees. The general credit is a one-time \$1,000 credit per new worker. For economically disadvantaged employees, the credit increases to a total of \$6,000 per worker distributed over three years.

Enhanced Job Creation Tax Credits – For businesses eligible for Maryland's Job Creation Tax Credit Program (a separate program), the tax credit is doubled from 2.5 percent to 5.00 percent and the ceiling is increased from \$1,000 to \$1,500 for each new qualified position.

Enhanced Focus Area Benefits:

Real Property Tax Credits – Ten-year, 80 percent credit against local real property taxes on a portion of real property improvements. Credit does not decline in a focus area as it does with the standard benefit.

Personal Property Tax Credits – Ten-year, 80 percent credit against local personal property taxes on new investment in personal property within a *focus area*. Personal property tax credits are only available in *focus areas*.

Income Tax Credits – One or three year credit for wages paid to new employees. The general credit is a one-time \$1,500 credit for each new qualified position. For economically disadvantaged employees, the credit increases to a total of \$9,000 per worker distributed over three years.

Because Kent County offers virtually no incentives to prospective or existing businesses, at some point in the near future, the County should revisit the concept of enterprise zones and reconsider their appropriateness.

Municipal Sewer/Wastewater Facilities:

The 301 Corridor contains only one municipal sewer/wastewater facility. The facility is located in the Town of Millington and is a 105,000 gallon per day capacity plant with sewer/water lines within the town boundaries and extending approximately 1 mile to the north, and approximately 3 miles to the west, with the western extension terminating at the west edge road. The south boundary of the town is the Chester River and Queen Anne's County and, therefore, the lines do not run in that direction.

As of December 31, 2006 approximately 100% of the facility capacity was committed on paper, however, the town has asked McCrone Engineering to look at having the plant re-rated for a higher capacity, which would allow for some future growth.

Ground Water Supply:

The Millington Water/Sewer District is the only municipal sewer/wastewater facility in the corridor. Therefore, if we are to encourage and direct commercial and industrial development into the area, we must understand and manage the supply of ground water available. In order to determine our approximate supply of ground water, it was felt that a limited geological water availability survey should be undertaken in the defined corridor area.

A proposal for the study of the corridor was provided by Earth Data, Inc., a Centerville, Maryland-based environmental consultant firm, which the County has regularly used for water-related issues. Wayne Morris, Kent County Director of Water & Wastewater Management, provided the needed technical support and direction in the planning of the Earth Data study to assure that the information contained in their final report would be what was needed to conduct intelligent economic development activities. Because this study would have been an unbudgeted item, and the cost of the study was \$31,000, the Board of Commissioners asked that alternative funding sources be researched. Inquiries were made to USDA, without success, and an attempt was made to utilize some accrued interest from the Kent County Revolving Loan Fund. Although the State had originally alluded to the use of those funds, in the end they refused that request. DBED did, however, agree to consider a partial grant request, and we are awaiting receipt of the forms. Absent that source, only a special exception from the BOC would allow the water study to go forward.

Electrical Service:

Electrical service in the corridor is provided by both Choptank Electric, of Denton, MD, and Delmarva Power, of Wilmington, DE, and full electrical service capability is available through either of the providers. These two providers are the sole providers authorized by the Public Service Commission, and their areas of service are somewhat gerrymandered throughout the corridor.

Choptank Electric has an electrical substation located in Millington, and according to G. Lee Turner, V.P. Distribution Services, Choptank has the unique ability to custom fit any electrical need to fit a customer's demand. For example, they were able to provide the special voltage needs for the new German-made machines that the former CFF plant in Worton required. Because Choptank's customers are technically the co-op's owners, virtually any customer demand is met. Mr. Turner was very interested in assisting any new businesses we might be interested in locating in the corridor. He provided the Economic Development Office with a map of the 301 Corridor delineating the electric service area of both Choptank Electric and Delmarva Power, including the types of facilities available.

Discussions with Ms. Cheryl Russell, Upper Shore Account Manager for Delmarva Power, indicated that the company has two electrical substations located in the general Millington area. If a new provider requires a substantial amount of power, then Delmarva would probably upgrade whatever substation provides that location with service. Because of the gerrymandering of the two electric providers, Cheryl works closely with Choptank Electric to determine on a case by case basis who will be the provider for a specific project.

Railroad Service:

Kent County is served by a single line branch of the Maryland and Delaware Railroad. The line originates in Townsend, DE and enters the County north of the Goltz area and then travels southwest to Massey. At Massey, the line splits, with one branch going south through the east side of Millington. The other branch travels west to Kennedyville, Worton and Chestertown, and it is this branch which crosses Rte. 301 in an east/west direction at Massey. According to Operations Manager Joe Pearsol, the line can handle a heavier 286,000 lb. single car/cargo from Townsend to Massey, but then can carry only a 263,500 lb. car/cargo past that point. He also noted that the line is interchanged with Norfolk Southern Railway at Townsend only twice a week, meaning that a car coming from California, for example, would be held at Townsend and only brought onto the Maryland and Delaware line twice a week. Other non-Norfolk Southern traffic can be handled daily.

There are no spurs currently located in the two miles of track going through the corridor. However, given the proper land availability, the railroad would put in a spur if a new business needed one. Of course, the cost of the spur would be at the business' expense.

Airport/Airfield Service:

There is no regular hard surfaced airport facility in the County. The nearest regulation airports capable of handling up to small corporate jets are located in Easton, MD (Easton Airport, 35 miles to the south), in Dover, DE (Delaware Airport, 30 miles to the east), in Middletown, DE (Summit Airport, 25 miles to the northeast), and in Elkton, MD (Cecil County Airpark, 30 miles to the north).

However there is a 3,000-foot turf airstrip, known as the Massey Aerodrome, located just outside the corridor approximately 1.5 miles east of Massey. This general purpose public-use facility is the only such airstrip in the County and is capable of handling light twin engine aircraft. It is open every day without charge, but does not currently have fuel availability or lighting for night landings. The availability of both of the later services would clearly increase the desirability of the facility and attractiveness of the corridor to light plane pilots, and authorization for such should be considered.

Additionally, although it is not located in the Rte. 301 Corridor, there is one privately owned but commercially operated air strip located off Rte. 213 and Worton Lynch Road. This strip is owned/operated by Mr. Wayne Wright, an aerial spraying contractor.

Natural Gas/Propane Gas / Oil Service:

There is no natural gas line service in the corridor, or in any location within Kent County. The closest existing natural gas line is a Chesapeake Utilities Natural Gas Transmission Pipeline located approximately 9 miles east of the corridor in Delaware. That transmission line runs from Salisbury, MD north through Delaware into Pennsylvania, and crosses the eastern section of Cecil County. In Cecil County, a distribution line is taken off and operated by the Eastern Shore National Gas Company with distribution through Elkton Gas Company. This distribution line provides natural gas service to businesses and residents in the Elkton area.

According to Mr. Jeff Tietbohl, Director of Business Planning & Development for Chesapeake Utilities Corporation, the company is required to prove a specific rate of return on a new transmission or distribution line. Although they have no current plans to extend the existing line into the corridor, they would do so if there was enough potential business to warrant the extension. Of note, if their economic models disclosed a rate of return shortfall, the potential end user could make up the difference in initial cost to have the line run to their area, which would allow for the extension. Mr. Tietbohl expressed a strong interest in continuing to monitor the Kent County development, and work with us in establishing the point in which it made economic sense to bring natural gas into the County. We have agreed to be mutual contacts for this purpose, and I will share Kent County development activity and plans with them in order to encourage the earliest possible availability of this important resource.

In the absence of natural gas availability, propane gas service is provided to residential, commercial, and industrial customers by a number of local and regional companies including Alger Oil, Tri Gas & Oil, Peninsula Oil & Gas, Southern States, Poore's Propane Gas, Callahan's Gas, and Synergy Gas. These propane gas distribution firms are able to handle any level of propane usage required.

Those homes or businesses not using propane would typically use oil, which is also provided by most of the above propane providers. Again, more than ample supplies of oil are available through the providers.

High Speed Internet Service:

High speed internet service ("broadband" is another generic term for high speed internet service) in the 301 Corridor is available on a sporadic basis through BayBroadband, Inc., Verizon, Inc., Atlantic Broadband, Inc. ComCast Communication has cable service in the Galena area but it is an analog system and not high speed internet. In addition, the Maryland Broadband Co-op (MdBC) is planning to run high speed fiber optic cable through Kent County along Rte. 213 from the Bay Bridge to Elkton, MD by the end of 2007. It is also their current intent to extend the fiber optic cable along the balance of Rte. 301 during the fiscal 2008/2009 year.

According to Mr. Steve Pennington, General Manager for BayBroadband, the general 301 corridor is served by four BayBroadband access points located in Millington, Massey, Galena and Georgetown. The primary access points might be on a water tower, as in Galena, or on commercial sites, such as Massey. From those primary access points, BayBroadband can provide direct service to anyone who is in a direct line-of-site of a primary tower. Additionally, more access points or private access points can be constructed/utilized as the need warrants. BayBroadband can provide T-1 or better access to businesses, and can probably dedicate a private tower/hookup to a business for under \$5,000. The main difficulty with line-of-sight based radio frequency service is that trees can stop transmission and therefore result in spotty and inconsistent availability in an area. Literally, one neighbor could have wonderful reception and next door, only a few hundred feet away, that neighbor has no service.

Atlantic Broadband's Commercial Account Representative, Mr. Chris Singleton, noted that, although Atlantic is available in virtually all of Kent County, Millington is the farthest north along the 301 Corridor that they go. They have fiber optics running from the south into Millington and then east along Rte. 291 to Smyrna, DE, then north to Middletown, DE. Atlantic does have two currently spare fiber cables which could follow the electric easements up Rte. 301 into Cecil County either above or below ground, depending on how the electric power runs. The farthest north that their current cable runs is approximately 2 miles from Millington. Atlantic would only run the fiber optic up the 301 Corridor if it made economic sense, based on potential near-term commercial/residential usage.

Discussions were held with Verizon's Assistant Vice President of External Affairs, Mr. Joe Daniels, regarding their service availability. Although not all areas of the corridor currently have DSL availability, apparently the entire corridor has digital wireless availability. Depending upon the distance from the unit itself to the nearest tower, the customer's internet connection will vary in speed accessibility. We have been provided with the name and number of the regional small business representative for Verizon and will pass that name on to any potential new businesses.

John Dillman, Executive Director of the Upper Shore Regional Council, is also the President of the Maryland Broadband Co-op (MdBC). MdBC has taken on the responsibility of providing a fiber optic network throughout the Eastern Shore, and by the end of 2007 will have a main line running from Wallop Island, VA, then up into Maryland, through Salisbury to the Bay Bridge, and then down to the Patuxent River Naval Station. The line will also go from the Bay Bridge up to Rte. 213 and through Kent County to Elkton, MD. This will be the main feeder line and Washington College will be a major benefactor of the lines. After completion of that line configuration, MdBC will expand the fiber optics down Rte. 40 from Elkton to Aberdeen

Proving Grounds to handle the BRAC projects, and finally MdBC will expand the Bay Bridge line up Rte. 301 through Kent County into Cecil County.

Conclusions and Recommendations

The Economic Development Advisory Board concurs with the Economic Development Office in the belief that although specific zoning areas have been delineated within the Corridor, little or no pro-active strategy has been developed or undertaken to take advantage of those areas. To the contrary, the County has seemingly been simply reactive to inquiries from potential businesses interested in locating in the area. Additionally, we currently have no solid base of information relating to the interest current land owners have in offering their parcels to potential developers.

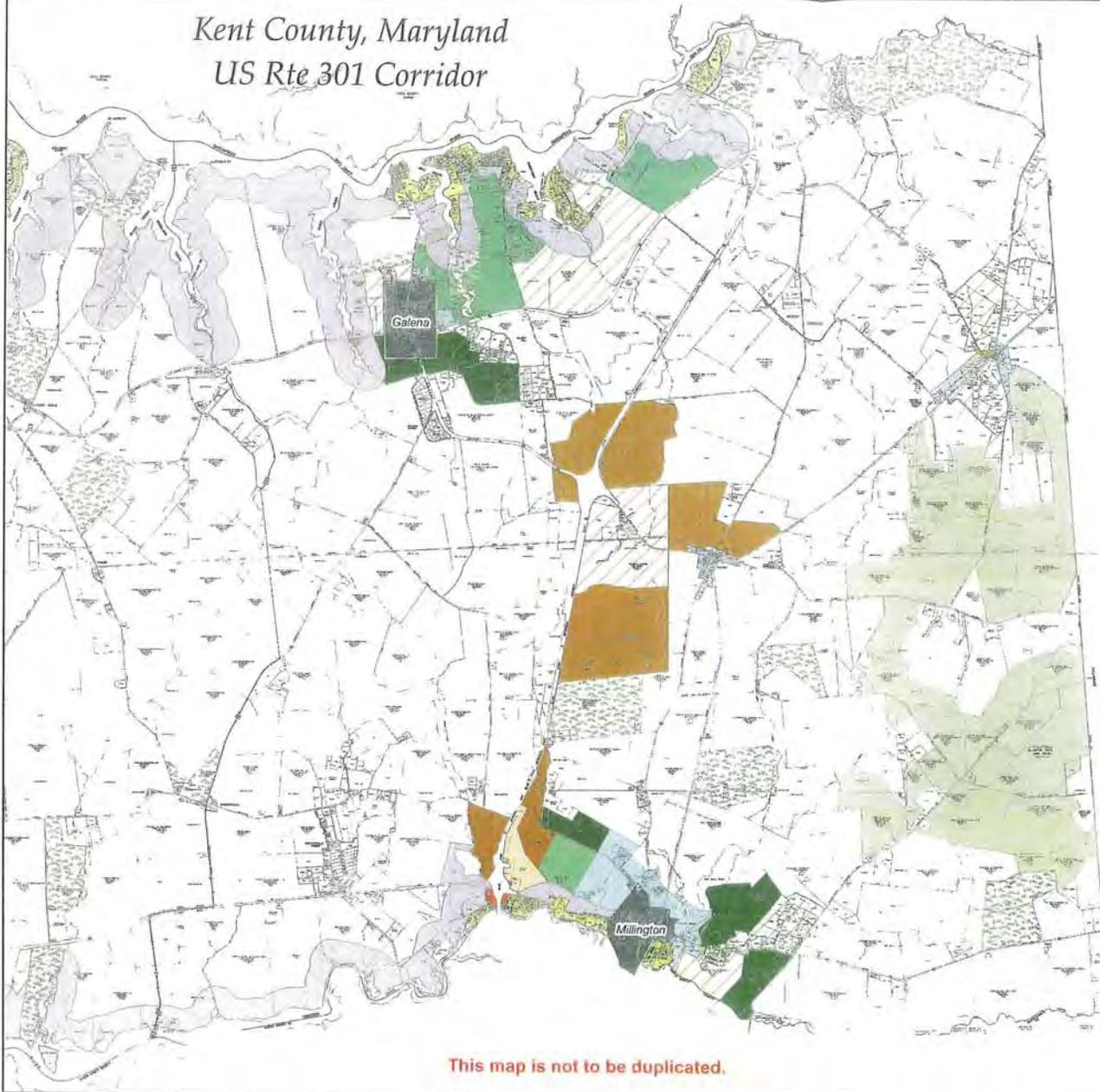
Business attraction and development opportunities in the Corridor appear to have been left mostly to chance. Both the Economic Development Office and the Economic Development Advisory Board feel that inaction is not in our best interest. Rather, we feel that definitive direction should be agreed upon and a strategy developed to attain that directive goal. Several steps are recommended:

1. Determine if the County really wants to allow and encourage development in the Route 301 Corridor which is consistent with the existing zoning districts.
2. Determine if the existing zoning districts still make sense relative to their placement within the Corridor, and make modifications only if the County is willing to allow and encourage development within those new/modified districts.
3. If a decision is made to control or withhold development within the Corridor, then those limitations should be clearly defined and other areas where development is actually desired should be identified.
4. Assuming that development is desired within the Corridor, determine the best way to handle waste water issues, particularly by the aggressive acceptance of proven technology relating to self-contained, on-site treatment facilities.
5. Complete the ground water availability study, even if it requires all County funds.
6. Consider Enterprise Zone overlays into appropriate business districts.
7. Continue to work with the Chamber of Commerce in joint economic development strategy formation.

An additional concept was discussed relating to what we might want the Corridor to look like twenty years from now. The planned large scale residential and commercial/industrial development taking place in Middletown, DE is typically viewed as very threatening to our county. Threatening in the sense that many see Middletown's planned development as sprawl creeping into our area on an uncontrolled basis. However, on the other hand, their development could be viewed as a positive potential for us for two reasons. First, their high residential concentration provides an excellent pool of potential professional workforce members. This large potential pool may be a reason for the County to develop a more upscale technology park operation in the Corridor, possibly in conjunction with a professional business park developer/operator, such as KRM. Such a new strategy would require a strong commitment from the Country, but may provide excellent long term potential for the Corridor. Secondly, the large number of businesses going into Middletown, will require a workforce that will have many members who are not interested in living in a typical subdivision atmosphere, but rather would enjoy a rural atmosphere. Kent County offers such an alternative.

The EDAB would appreciate an opportunity to discuss this report with the Commissioners.

Kent County, Maryland
US Rte 301 Corridor



Legend

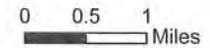
- Incorporated Town
- Agricultural/Conservation Easement
- Federal, State or County land

ZONING

- Agricultural Zoning District
- Resource Conservation District
- Rural Character
- Rural Residential
- Critical Area Residential
- Community Residential
- Village
- Intense Village
- Crossroads Commercial
- Commercial
- Commercial Critical Area
- Marine
- Employment Center
- Industrial
- Industrial Critical Area - LDA

For illustrative purposes only. Zoning maps are subject to change. Questions concerning individual parcels should be directed to the Kent County Department of Planning, Housing & Zoning.

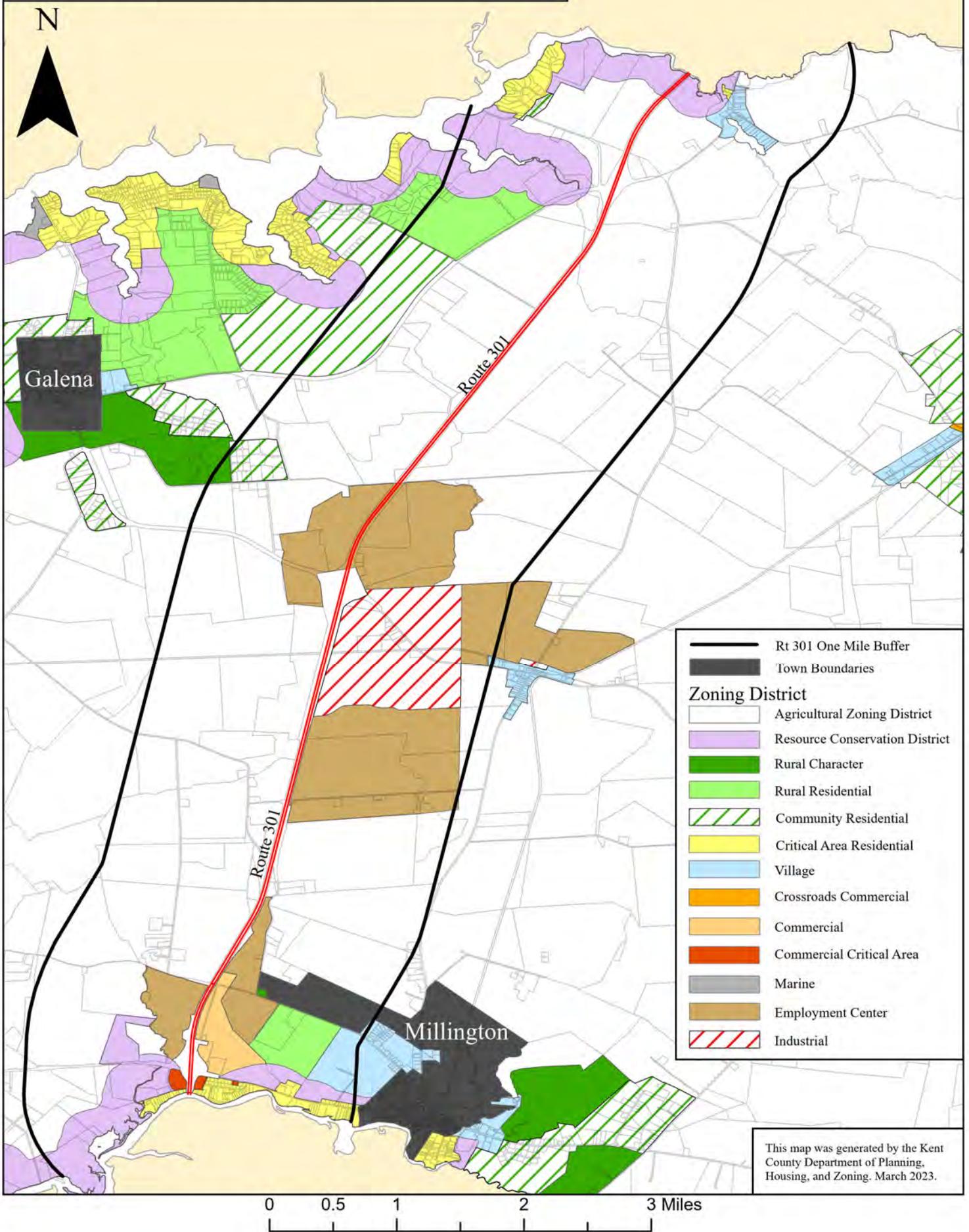
Gail Webb Davis
11-29-06



This map is not to be duplicated.

Source: Kent County Dept. of Planning, Housing & Zoning
October 2006

One-Mile Route 301 Corridor



This map was generated by the Kent County Department of Planning, Housing, and Zoning, March 2023.

EXCERPTED PROVISIONS FROM THE LAND USE ORDINANCE

COMMERCIAL DISTRICT – PERMITTED PRINCIPAL USES AND STRUCTURES [p. 188]

Retail businesses, supplying on the *premises*, household goods, new automotive parts, agricultural supplies and commodities, sporting goods, and the like, including department, outlet and discount stores provided:

- a. All retail sales and/or storage shall be conducted entirely within a *building* except where otherwise approved by the *Planning Commission*.
- b. The retail business does not exceed 60,000 square feet of gross *floor area*. The restriction on *gross floor area* does not apply to the Commercial District in the **Route 301 corridor**.

In the **US Route 301 Corridor**, the manufacture, processing, fabrication, and assembly of products. These uses include, but are not limited to, scientific and precision instruments, photographic equipment, communications equipment, computation equipment, drugs, medicines, pharmaceuticals, household appliances, toys, sporting and athletic goods, glass products made of purchased glass, electric lighting and wiring equipment, service industry machines, lithographic and printing processes, industrial controls, radio and TV receiving sets, watches and clocks, bags and containers, sanitary paper products, optical goods, electrical machinery, prefabricated and modular housing and components, dairy product feed and grain, baked and confectioners' goods, farm machinery, frozen food processing, packing plants, animal and seafood processing, fruit and vegetable processing, canning and storage, recyclable materials processing as defined in the Code of Kent County Public Laws (Article 148-2) or companies of a similar nature provided:

- a. That in reviewing the site plan and determining the suitability of the proposed business, the Planning Commission or, where applicable, the Planning Director must find all of the following:
 - i. Existing or planned public facilities are adequate to handle the usage generated by the business. The use does not require improvements to public facilities detrimental to the character of the area.
 - ii. The proposed use does not create an unacceptable impact on the surrounding area by way of noise, odor, noxious materials, or other nuisances. The Planning Commission may require a Certified Engineer's Report describing the proposed operation, all machines, processes, products and by-products, stating the nature and expected levels of emissions or discharge to land, air, water or liquid, solid, or gaseous effluent and electrical impulses, vibrations and noise under normal operations and the specifications or treatment methods and mechanisms to be used to control such emissions or discharge.
 - iii. The health, safety, and welfare of employees and residents of the neighborhood will be protected.
- b. In so far as possible, all uses shall be conducted within a completely enclosed structure or be completely screened. Outdoor storage of materials and unfinished products is prohibited unless otherwise approved by the Planning Commission or, where applicable, the Planning Director and subject to such conditions as may be determined by the Planning Commission or, where applicable, the Planning Director.

EXCERPTED PROVISIONS FROM THE LAND USE ORDINANCE

COMMERCIAL CRITICAL AREA – PERMITTED PRINCIPAL USES AND STRUCTURES [p. 202]

12. Retail businesses, including *shopping centers*, supplying on the premises, household goods, new automotive parts, agricultural supplies and commodities, sporting goods, and the like, including department, outlet and discount stores provided:
 - a. All retail sales and/or storage shall be conducted entirely within a *building* except where otherwise approved by the *Planning Commission*.
 - b. The *building* size does not exceed 60,000 square feet in size. The restriction on *building* size does not apply to the Commercial Critical Area District in the **Route 301 corridor**.

EMPLOYMENT CENTER / INDUSTRIAL DISTRICT PERMITTED PRINCIPAL USES AND STRUCTURES [p. 235, p. 253]

3. Distribution centers and warehousing provided that a single building footprint does not exceed 75,000 square feet in size. **The restriction on building footprint does not apply to the Employment Center District in the Route 301 corridor.** In reviewing the *site plan*, the *Planning Commission*, or where applicable the Planning Director, shall consider the following:
 - a. The impact of the proposed business or industry on existing or planned public facilities.
 - b. The impact of the operation of the facility on the surrounding area.
 - c. The health, safety, and welfare of employees and residents of the neighborhood.

EMPLOYMENT CENTER / INDUSTRIAL CENTER PERMITTED PRINCIPAL USES AND STRUCTURES [p. 237, 254]

Truck terminals, limited to 20 trucks provided the parking and loading area is fenced, screened, and located at least 400 feet from any residential district boundary and 100 feet from all property lines. The limitation on the number of trucks does not apply to Employment Center Districts in the **Route 301 corridor**.

Kent County Planning Commission
Joe Hickman, Chair
James Saunders, Member
William Sutton, Member
Paul J. Ruge, Jr, Member
Paula Reeder, Member
Ray Strong, Member
Bill Crowding, Citizen Representative

Dear Commissioners;

This letter is written to correct and add context to statements made at a recent Economic Development Commission meeting. I request that this letter be entered into the public record for consideration during the deliberations on the ZTA before the Planning Commission on height increases of industrial structures “within the 301 corridor” in the Commercial, Industrial, and Employment Center Districts. It is important for the integrity of the Commission that the information that might be relied upon to come to a decision be accurate.

During a recent meeting of the Economic Development Committee, Ms. Paula Reeder and Ms. Jamie Williams, Director of Economic Development and Tourism, stated that the Dixon Headquarters was “53 plus” feet in height. However, it appears that they either misspoke or were given erroneous information during their research.

To obtain accurate information about the actual height of the Headquarters and the Distribution Center on the Dixon campus after the last Planning Commission meeting, I began researching those buildings eventually contacting Kees de Mooy, Planning Director for Chestertown, who provided the following details:

The Dixon Headquarters facade is 36 feet from grade to the top of the parapet wall, and the warehouse distribution center is 42 feet tall. The screen shots of the blueprints provided to me by the Chestertown’s Planning Director are attached.

It is worth noting, as Mr. de Mooy pointed out to me, that the Dixon buildings are located in the LI-1 Limited Industrial Zoning District, as per Article § 170-45 of the Chestertown Zoning Ordinance, which limits the height of buildings to 50 feet.

Furthermore, Chestertown's LUO does have a provision in § 170-46B specific to major educational, medical and government facilities and institutions for an IN Institutional District, which allows the Planning Commission to consider an increase in the height limit for buildings in excess of 40 feet, up to a maximum height of 60 feet with adjustments to the setbacks. However, this section of the LUO requires a Master Development Plan to be created and approved by the Planning Commission before a building can be considered for this designation. Without an approved Master Development Plan, buildings will not be considered under this zoning district's regulations.

During the EDC meeting referred to above, Ms. Williams mentioned that someone had counted 1400 silos, grain elevators and grain storage bins before they stopped.

Chestertown's zoning code also accommodates buildings for civic or religious assembly, or for other common or institutional purposes that act as visual landmarks and therefore have flexibility in heights. § 170-52, Modification of height regulations, has exceptions for, among other things: Church Spires, Belfries, Silos and other architectural features associated with public uses.

Kent County has a similar ordinance, Article VI Special Provisions § 3.2.1 that accommodates for the heights of such structures as Belfries, Church spires, **Conveyors, Silos** and **Corn Dryers**.

To those familiar with Kent County's Cultural Landscape, silos, grain elevators and steeples are landmarks:

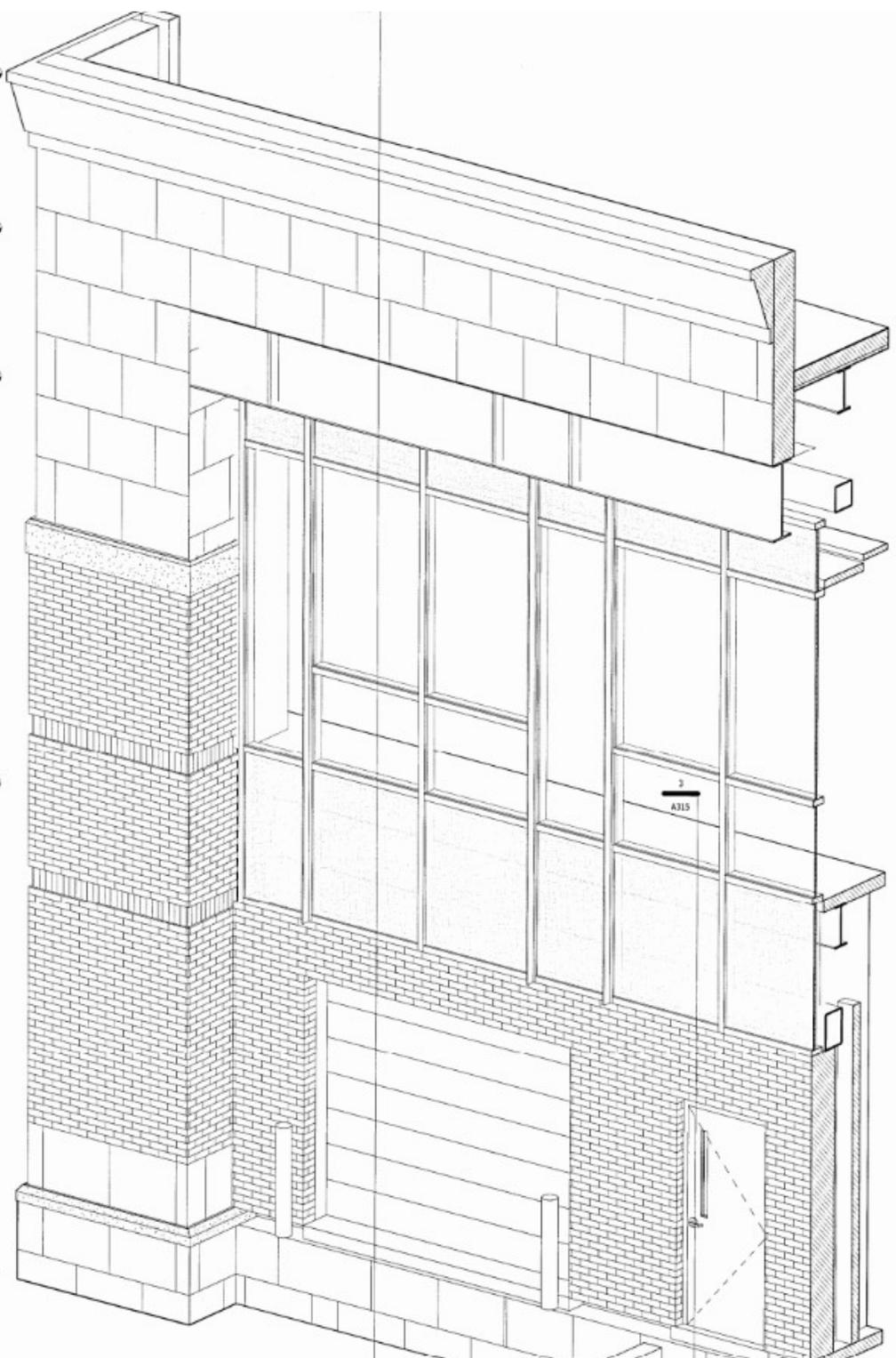
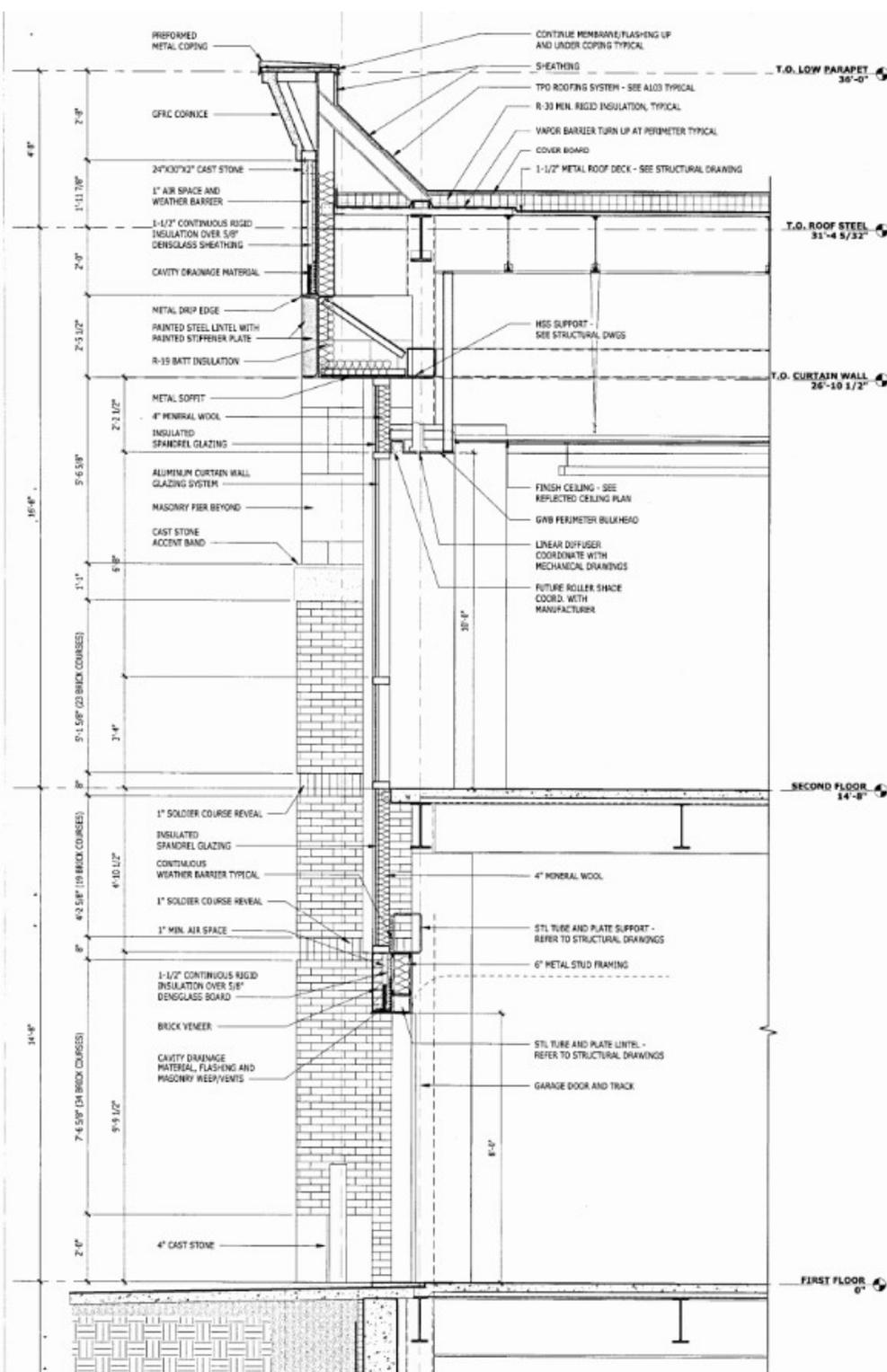
*Representing one of the oldest working landscapes in North America and one the last intact colonial and early American landscapes anywhere. Archeological sites, historic buildings, old churches, and **traditional landscapes** are all evidence of Kent County's long and significant history-*
Kent County 2022 Land Preservation, Parks & Recreation Plan, July 2022

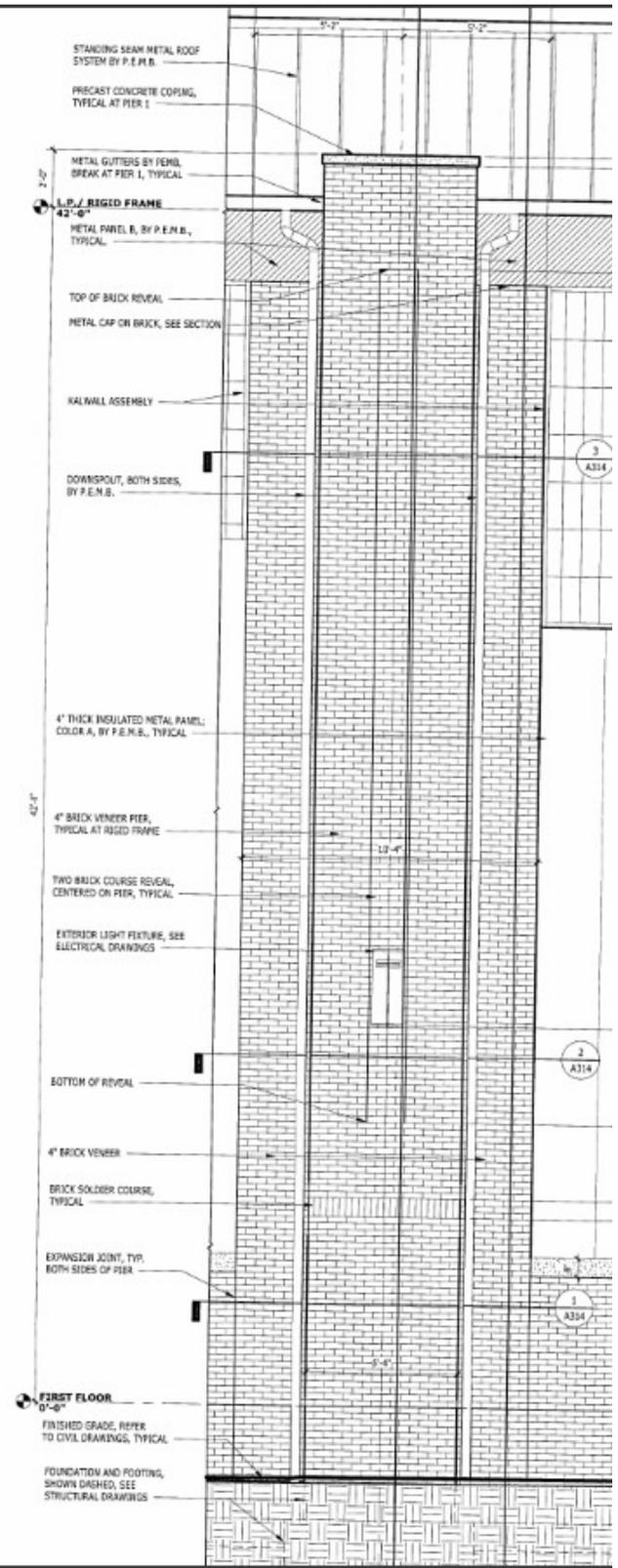
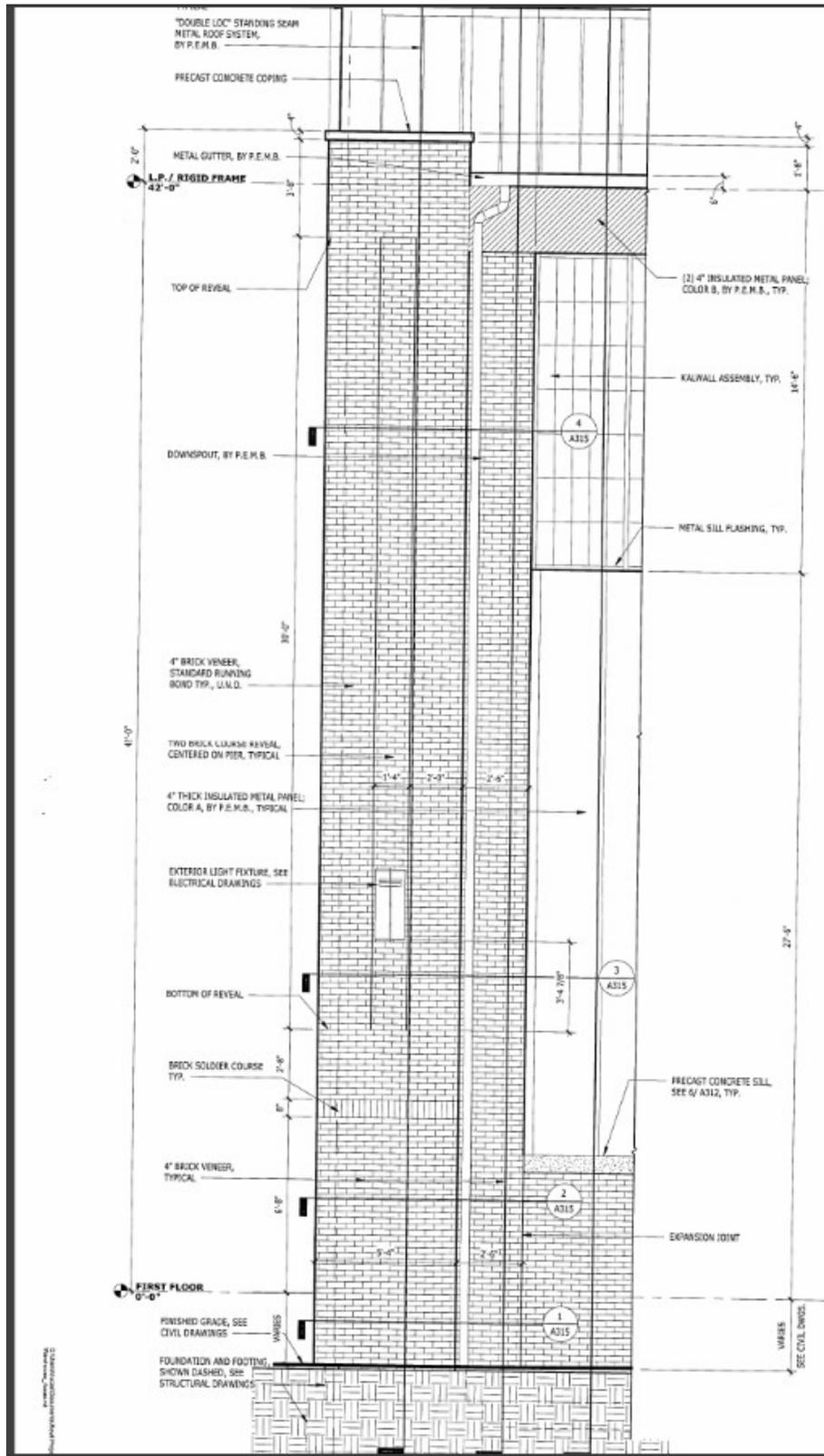
A large agricultural landscape on the East Coast that has a high level of continuity of land use and surviving physical characteristics is among the rarest of the rare, especially one that was densely settled so early in the history of the nation, and which has so many identified historic resources. The World Heritage Convention of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) has established a definition for an organically evolved landscape and, more specifically, a continuing landscape. The cultural landscape of Kent County can be defined as a continuing landscape... Preliminary Cultural Landscape Assessment of Kent County, Maryland March 2019

I hope the information provided will be useful to the Planning Commission.

Best,

Janet Christensen-Lewis
Millington, MD





Kent County Planning Commission
400 High Street
Chestertown, Md 21620

Joe Hickman, Chair
James Saunders, Member
William Sutton, Member
Paul J. Ruge, Jr, Member
Paula Reeder, Member
Ray Strong, Member
Bill Crowding, Citizen Representative

Dear Commissioners;

The role of the Planning Commission is a challenging one as it involves navigating diverse perspectives in prioritizing the public interest. According to the Code of Maryland Land Use Article §§2-104, the Planning Commission is authorized to engage planners, architects, engineers, and other consultants to conduct research on specific issues. While Planning Commissions can either be proactive or reactive in their approach, in the case of proposed changes to the zoning regulations regarding the increase of building height from 45 to 60 feet for industrial structures in Kent County's Commercial (CZD), Industrial (IZD), and Employment Center (ECD) Districts; I suggest that the Planning Commission take the opportunity to conduct a comprehensive review of the zoning regulations for all parcels within the CZD, IZD, and ECD zoning districts that allow industrial structures. Piecemeal patches to the LUO are never ideal and in this case perhaps disastrous.

The Lehigh Valley Planning Commission's extensive analysis on the potential effects of larger warehouses provides an excellent model for the Kent County Planning Commission to follow. By undertaking a similar study, the Kent County Planning Commission can gain valuable insights into the potential implications of proposed building code changes and make more informed decisions that align with the public interest. Furthermore, it is crucial for the Planning Commission to demonstrate its credibility as a deliberative body by showing the public that they have fully informed themselves and are capable of understanding all aspects of proposed changes to the LUO. The commission did not satisfy this criteria in the April 6th hearing on the ZTA.

The LVPC study highlights the importance of building height as it relates to usage. Height matters. The Planning Commission must seek information from various experts, not solely the information provided by Mr. McLeod's clients, to understand the full implications of taller industrial buildings. When considering changes to building height, it is crucial to evaluate all parameters, such as setbacks, landscaping, and building design, as well as potential impacts on property values, long-term infrastructure costs, and traffic.

The safety of the community must also be a primary concern. The Planning Commission should obtain information about the capacity of volunteer fire departments to respond to fires in large warehouses, particularly those with a height of 60 feet. The commission deserves more information than what was conveyed by Mr. Mackey from an "informal conversation" he had with the Millington Fire Chief. The Technical Advisory Committee does not review ZTAs and the committee's members are not listed on line. However, it is an advisory group for the Planning Department, and it does not appear to have representation from the Sheriff's Department, EMS, or Volunteer Fire Department.

Considering these factors, I ask the Kent County Planning Commission submit an unfavorable recommendation for the current text amendment under review and undertake a comprehensive review of the zoning districts involved. The Planning Commission should include a recommendation that Kent County Commissioners table the ZTA until the Planning Commission has completed the review. Seeking input from outside experts and conducting a thorough analysis, is the only way the Planning Commission and the Kent County Commissioners can ensure that decisions made to the LUO align with the best interests of the community.

Sincerely,

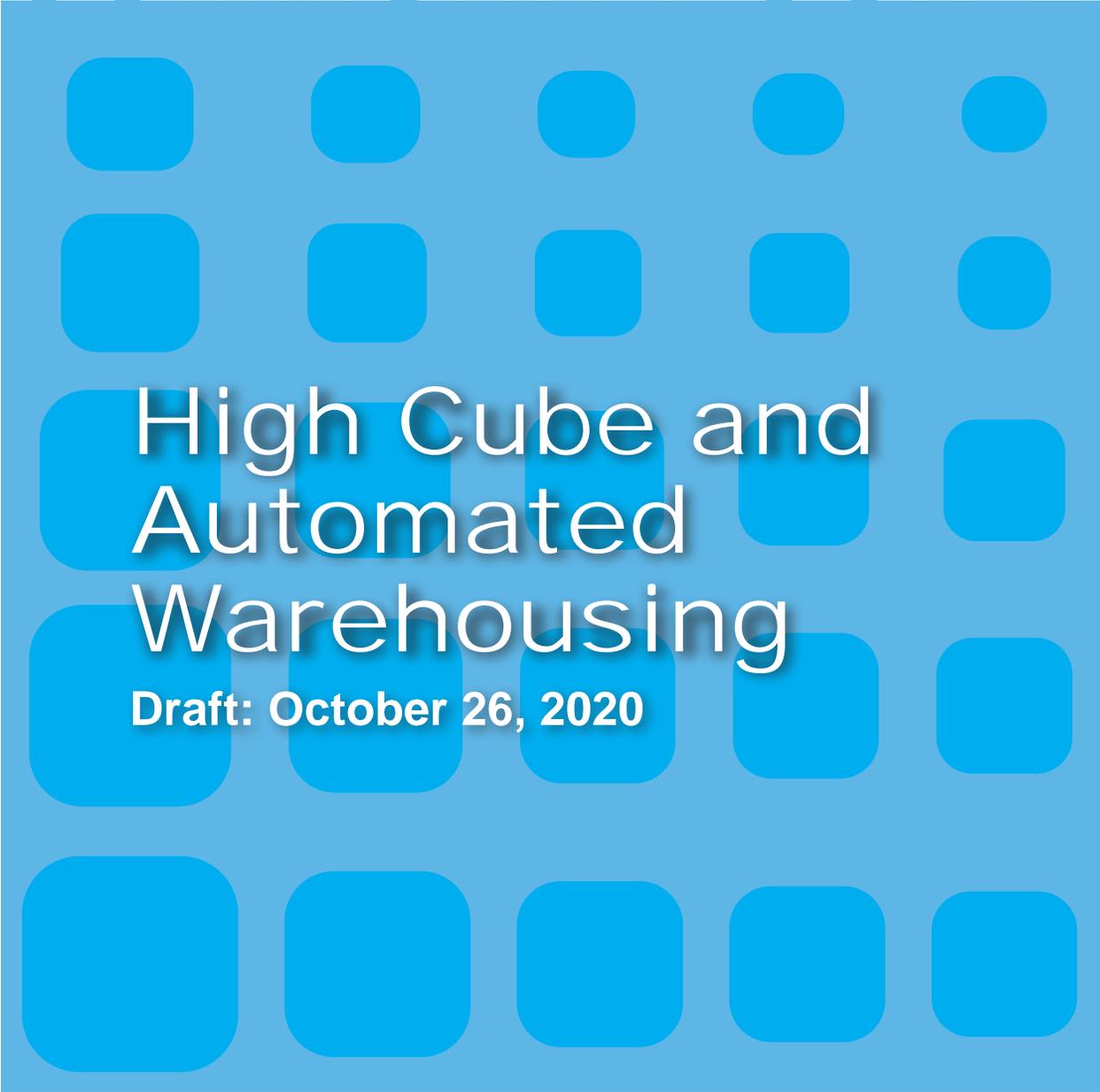
Janet Christensen-Lewis

Millington, MD 21651

TAKE AWAYS FROM LEHIGH VALLEY PLANNING COMMISSION REPORT/ A MODEL FOR KENT COUNTY

- **SPECIAL EXCEPTIONS AND CONDITIONAL USES ARE PREFERRED OVER PERMITTED BY RIGHT.**
 - Allows a thorough understanding of projects and impacts.
 - Impact analysis for traffic, economics environmental including but not limited to viewshed analysis and environmental impact statements.
- **CONSIDERATION OF CHANGES IN NEIGHBORHOOD CHARACTER**
 - Permissible building heights should take into account changes in neighborhood character.
 - A tall warehouse out of scale with the current building heights will have a greater impact and the build will become the “landmark”.
- **PUBLIC SAFETY CONCERNS**
 - Land use ordinance should be amended to reflect standards that consider the equipment and capital needs of emergency services operation-police, fire, ambulances- be included in the application review process.
 - Public safety committees to facilitate communication and coordination of emergency services- should be a consideration to add to the Technical Advisory Committee representation from fire, police, other first responders.
- **ECONOMIC IMPACTS**
 - In addition to considering the amount of tax, a analysis of potential costs needs to evaluate-
 - Cost of public safety training and equipment need to service the facility.
 - Public works have adequate funding to add and maintain existing roads.
- **DESIGN**
 - The ability to secure minimum architectural standards that can be negotiated through a special exception and conditional use allows for process.
- **COMMUNITY COLLABORATION**
 - Establishing a process for community feedback before the project comes for formal approvals builds trust and results in project that are more suitable to community needs and desires.
- **TRAFFIC IMPACTS**
 - Traditional and high cube warehouse land uses are estimated by separate traffic trip generation.
 - Traffic is determined not by sq. footage but on cubic sq. foot. A taller warehouse increases the storage capacity of a warehouse with the same floor space, but lower height.
 - Assessment not only of roads, and bridges but also air and water quality.
- **BE PROACTIVE. INSTALL NEW REGULATIONS NOW, BEFORE LARGE WAREHOUSING ARRIVES**

COMMUNITY GUIDE



High Cube and Automated Warehousing

Draft: October 26, 2020



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Vice Chair: Steven L. Glickman, RA, CSI

Treasurer: Pamela Pearson, MBA

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This document serves as guidance to Lehigh and Northampton counties, the 62 municipalities of the Lehigh Valley, developers and community members, all of which have a vested interest in the impacts of high cube and automated warehousing on the health and well-being of the region. The LVPC is committed to supporting municipal governments and building collaboration between public and private partners to ensure the region's continued sustainability and resilience.

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In July 2017, Coca-Cola opened this 19-story, fully automated cold storage warehouse in Singapore. The built-in automation moves products nearly three times faster than traditional warehouses while using half of the land area. This international trend has the potential to bring positive and negative impacts to the Lehigh Valley.



Photos courtesy of CT-Technologies

Introduction

High Cube and Automated Warehousing

As the growth of e-commerce and one-day delivery makes the Lehigh Valley one of the fastest-growing freight corridors in the nation, companies are increasingly looking for ways to move goods through the region more efficiently. High cube and automated warehouses are the latest trend that carries the potential to bring positive and negative impacts to the region. This shift in how warehouses operate will push the limits of local codes and regulations and require careful consideration by municipal governments. However, there are several steps municipalities can take to better manage the location, size and look of this emerging development trend.

What is High Cube and Automated Warehousing?

High cube and automated warehouses are differentiated from traditional warehouses because of their height, which to date, have been proposed up to 180 feet tall. They are highly automated, with newer warehouses being built for specific uses utilizing rack systems that also serve as the building's structure. The rack system is then wrapped with a metal skin that serves as the building's walls.

These tall structures typically integrate Automated Storage and Retrieval Systems (ASRS) to maximize storage space availability, and for the processing of goods in a more efficient manner than traditional human-manipulated storage movement systems. The intricate racking system increases the efficiency of goods moving into and out of these warehouses, with faster turnaround times for trucks, theoretically reducing the time a driver needs to stage or park.



High Cube Warehouses utilize automated storage and retrieval systems (ASRS) to move and retrieve goods. Photo Courtesy of Westphalia Technologies, INC.



Traditional warehouses utilize people operated forklifts to move goods. LVPC file photo.

Potential Impacts

High cube and automated warehouses enable freight and distribution businesses to build massive warehouses that are as much as eight times the height of other warehouses in the region. By allowing companies to build higher, these automated structures need less physical land to develop, with their intricate racking systems moving both products and the trucks that deliver to them through the site more quickly. Less land being developed is potentially a positive outcome, leading to reduced pressure on farmland and open space. Increased efficiency within the warehousing industry is also likely to lead to increased economic productivity.

This emerging land use also has the potential for tremendous adverse impacts on the local and surrounding communities. Their high-tech automation means fewer jobs are created at the facility. Their height means drastic changes to landscapes in communities that have no other structures higher than three or four stories. These communities often do not have the emergency management service infrastructure necessary to serve structures of this scale, posing a threat to the public health, safety and welfare. While the efficiency of these facilities likely increases freight trips in and out of the site, the real impacts on traffic, and on the road and bridge infrastructure are not fully known because examples are not yet available to accurately assess trip generation. These factors will require proactive measures by municipal governments.

Potential Effects of High Cube and Automated Warehouses

Possible Positive Outcomes	Possible Negative Outcomes
Development type may need less land per facility	Increased emergency management needs
Reduction of energy used for operations	Increased freight traffic
Reduction of customer wait times for goods	Increased wear and tear on roads and bridges
Reduction of customer returns and damage losses	Fewer jobs
May be located where adequate infrastructure exists to support development	Potential increased demand for broadband, electric, gas, water, and stormwater and sewer services
May include green and renewable infrastructure to offset environmental impacts of development	Decreased air quality due to freight traffic increases and truck idling
Compatible design may improve community skyline	Incompatible design could substantially harm community skyline

Locally, these vertical structures are being proposed for refrigerated and frozen storage and computer and electronics warehousing because their height allows them to be more energy efficient, reduce labor and product damage costs, and increase order accuracy and customer service. This design is also being proposed nationally and internationally for other types of warehousing, including dry goods and retail commodities.

Simultaneously with the development of new high cube warehouse facilities, traditional existing warehouses are redeveloping and retrofitting for automation as well. In these cases, the density of goods stored increases, potential for freight vehicle trips grows and the job roles for employees shift and decline.

With this increase in high cube warehousing and deployment of automated storage and retrieval systems, the Lehigh Valley's industrial economy has entered into its second phase of the 4th Industrial Revolution.

New construction of high cube and automated warehouses utilize the tall, intricate racking system for two purposes. The racks increase the efficiency of goods moving into and out of the warehouses, and serve as the building's support structure, before being wrapped in a metal covering that acts as the building's exterior walls. The racking system encompasses the entirety of the building's height. The completed building photo below offers a glimpse of comparison to the height of a traditional warehouse. Traditional warehouses, found broadly throughout the Lehigh Valley, typically don't exceed 50 feet, but the bottom photo shows how the 130-foot-tall building dwarfs the tractor-trailers at the first-floor bays.



The 130-foot-tall Americold Automated Storage and Retrieval System under construction in Rochelle, Illinois (above) and completed (below). Photos courtesy of Griffco Design/Build, Inc.



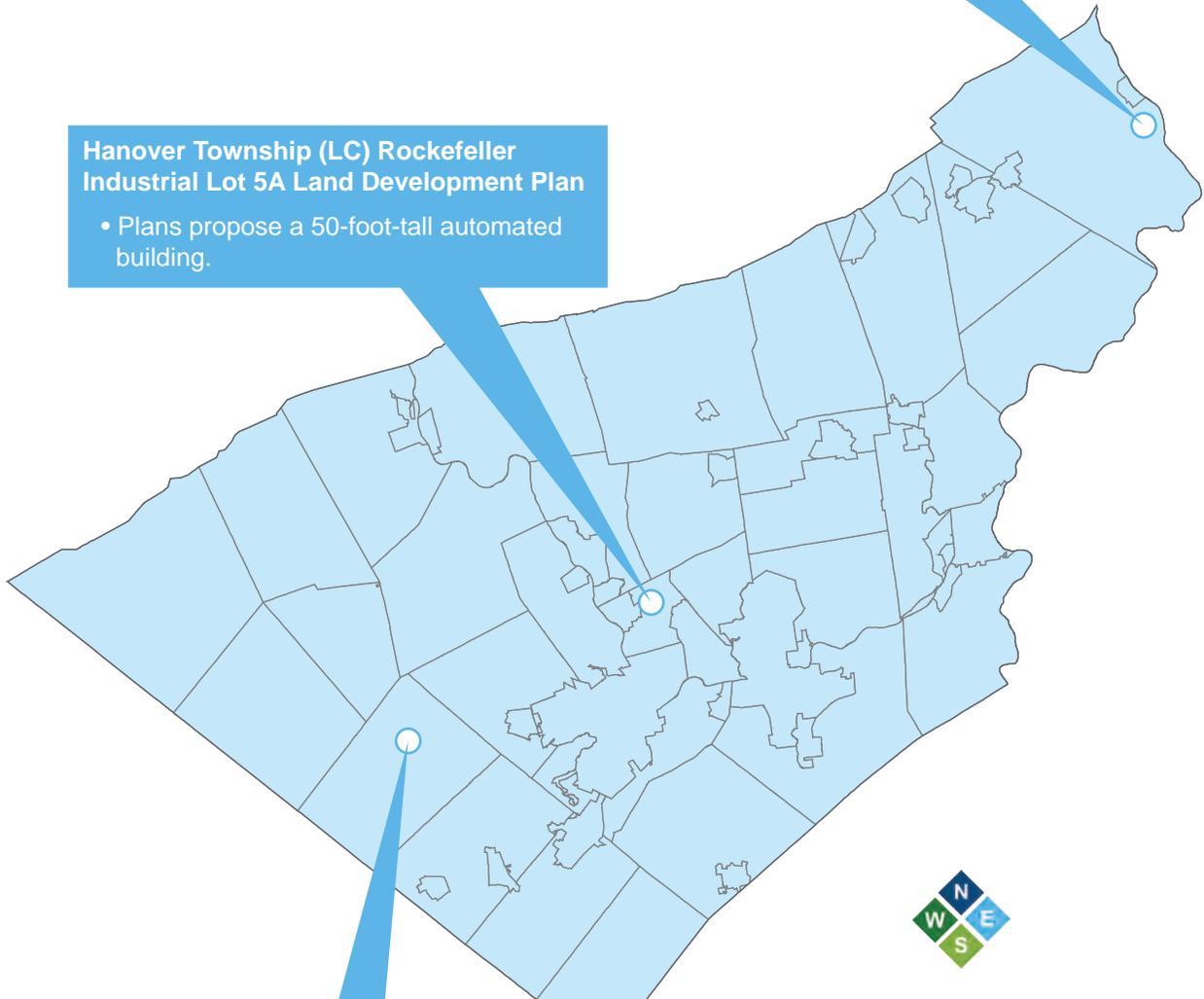
Local Examples

Upper Mount Bethel Township Proposed Ordinance Amendments

- Ordinance proposal would allow for building heights of 100 feet by right, and 110 feet with conditional use approval.

Hanover Township (LC) Rockefeller Industrial Lot 5A Land Development Plan

- Plans propose a 50-foot-tall automated building.



Upper Macungie (Americold) Zoning Ordinance Amendment

- Original ordinance proposal would allow for buildings up to 140 feet in height.
- Ahead of the proposed ordinance amendment, the Upper Macungie Zoning Hearing Board allowed for a height variance up to 140 feet. The Upper Macungie Board of Supervisors appealed the decision and a Lehigh County Court judge overturned the zoning hearing board decision.

Municipal Considerations

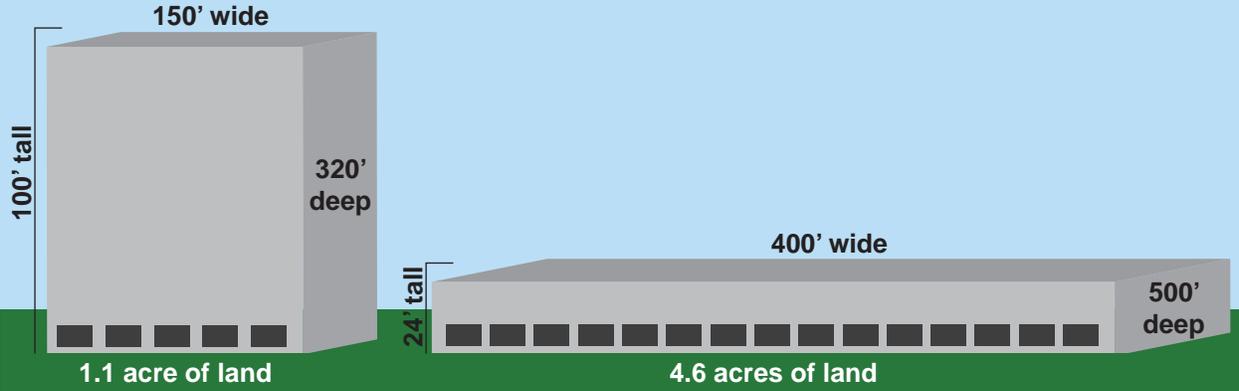
High cube and automated warehousing brings numerous implications that should be considered and planned for by local leaders in response to changing landscapes, safety and quality of life impacts. These considerations stem from the height of these development types, impacts on the workforce, reuse potential, transportation, water, sewer and stormwater system impacts and emergency services implications. Therefore, municipal considerations are wide-ranging, from traffic and transportation, to land use and zoning, to fire and police services.

As municipalities consider the most appropriate ways to address these uses between zoning, subdivision and land development or building code regulations, it's important to understand the three distinct manners in which they may emerge:

- **New construction, or greenfield development**, involves the construction of a facility at an undeveloped new location. In this situation, municipal regulatory controls are likely to have the greatest impact because zoning, land development and building codes all apply.
- **Redevelopment** is when a building or developed site is changed. Modifications are generally considered substantial when 50% or more of the building(s) and/or site are changed. This covers everything from a tower or major addition to an existing building, a large industrial use change that would markedly increase traffic but may not alter the structure of the existing building, or a complete removal of existing structures to build new. Municipal control in redevelopment will depend on the scale and extent of which a building and/or site is redeveloped. Zoning and building codes review will apply in all cases, however in major redevelopments local land development regulations should also apply.
- **Retrofit** of a facility for automated uses includes retention of the existing building and site, with interior renovations to accommodate the new use. Essentially, no volume changes to the existing building are proposed and alterations are largely, if not exclusively, internal. In these cases, municipal regulatory options are limited, with building codes likely the only management tool available, though there may be exceptions depending on the use categories defined in the zoning ordinance.

Volume is a vital consideration in high cube and automated warehousing because instead of the traditional model of storing goods on the ground floor, nearly all of the space within a high cube building is used for goods storage. While a 24-foot traditional warehouse is often shorter than a typical three-story home, a 100-foot high cube warehouse rivals the nine or ten stories found in Allentown's Lehigh County Courthouse or Easton's Alpha Building.

This 3D graphic illustrates the same 4.8 million cubic volume of space allocated in a high cube versus a traditional warehouse. The traditional warehouse is 200,000 square feet with a 24-foot ceiling height common in the Lehigh Valley, built over 4.6 acres of land, while the footprint of a 100-foot ceiling height high cube fits on 1.1 acre of land.



Municipal governments can be challenged in determining which rules and regulations apply as a result of the variety and scale of high cube and automated warehousing. It is easiest to think about the volume of a development as a measure of its impact on the community.

Zoning Ordinance

- **New construction:** Requires zoning approval for appropriately locating the land use within a community and on the property itself.
- **Redevelopment:** Standards for zoning districts must be met, although a comprehensive review of the proposal in consideration of all standards within the zoning ordinance may only be required when a substantial change to the site is proposed, such as a change to the building footprint or land use. For example, the Americold cold storage facility in Upper Macungie Township is pre-existing, therefore, increasing the height scale of that existing use above the locally allowable limit has triggered a zoning review and subsequent height variance request.
- **Retrofit:** Least likely to trigger a zoning review, unless there are significant site improvements proposed simultaneously, because the use and building footprint are not typically changing. Though substantial changes in water, sewer, stormwater, electric, gas, transportation and emergency management services needs may require other reviews and permits beyond zoning. Specifically defining High Cube and Automated Warehouses in the zoning ordinance is extremely important here. A retrofit that changes the defined use of a facility will trigger a zoning review and enable the municipality to better assess the impacts of the proposal on the community.

In any of the three potential development scenarios, the land use must be permissible in the zoning district in which it is proposed. In all cases, a project cannot exceed maximum lot or building provisions standards outlined for the applicable zoning district.

Subdivision and Land Development Ordinance

- **New construction:** New developments require a subdivision and land development plan, enabling a community to more comprehensively assess impacts of the proposal. The provisions of the municipal subdivision and land development ordinance are applicable for new projects, including general impact and improvements provisions. The Pennsylvania Municipalities Planning Code specifically requires that, at a minimum, development plans outline “any subdivision, all covenants relating to use, location and bulk of buildings and other structures, intensity of use or density of development, streets, ways and parking facilities, common open space and public facilities.” [Act of 1968, P.L.805, No.247 as reenacted and amended, Article 1§107. Definitions].
- **Redevelopment:** The municipal subdivision and land development ordinance typically only applies if the proposal substantially changes the site or the building. Again, the Pennsylvania Municipalities Planning Code gives broad power to the municipal government to decide whether to process a redevelopment plan as a retrofit or a development proposal. Specifically, the state law broadly outlines:
 - “(1) The improvement of one lot or two or more contiguous lots, tracts or parcels of land for any purpose involving:
 - (i) a group of two or more residential or non-residential buildings, whether proposed initially or cumulatively, or a single non-residential building on a lot or lots regardless of the number of occupants or tenure; or
 - (ii) the division or allocation of land or space, whether initially or cumulatively, between or among two or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups or other features.” [Act of 1968, P.L.805, No.247 as reenacted and amended, Article 1§107. Definitions].
- **Retrofit:** May or may not require a land development plan based on the intensity, timing, character and cumulative nature of what is being proposed.

This table provides a quick reference for which municipal tools are most applicable to each development scenario:

Local Regulatory Authority: What Tools Apply and Where

Development Type	Zoning Ordinance	Subdivision and Land Development Ordinance	Building Codes
New Construction	Yes	Yes	Yes
Redevelopment	Situational <ul style="list-style-type: none"> • Change of use • Site improvement qualifying as land development (as defined by the MPC) 	Situational <ul style="list-style-type: none"> • Over 50% change to building or site 	Yes
Retrofit	Situational <ul style="list-style-type: none"> • Change of use 	Unlikely	Yes

Building Codes

In cases of redevelopment and retrofit where only building codes apply, municipalities should establish a process by which they can adequately determine the same use-related information that would otherwise be provided in a zoning or subdivision and land development review. The Pennsylvania Universal Construction Code is a statewide standard, applicable in all development scenarios that a municipality cannot supersede. However, the building code review process contains opportunities to implement alternative tools to help assess impacts of a development. An assessment form, for example, may provide a municipality with information relating to impacts to emergency services, transportation infrastructure, the economy and the environment.

Land Use and Zoning Implications

Municipalities and the development community should work together to identify and address the potential impacts of high cube and automated warehousing, as municipalities amend their zoning ordinances and subdivision and land development ordinances to reflect these emerging and rapidly evolving uses. High cube and automated warehousing can happen anywhere, from new construction on former agricultural fields, to redevelopment of existing retail properties, to retrofit of existing buildings. When evaluating these different development approaches, municipalities should consider the tools at their disposal in the form of zoning ordinances, subdivision and land development ordinances, and building codes, that can assist in planning for an increase in these uses, while mitigating adverse community impacts.

The following sections provide specific considerations for communities when assessing potential impacts—positive, negative or neutral—of high cube and automated warehousing:

Permitting and Review/Approval Process

Municipalities looking to regulate high cube and automated warehousing in their zoning ordinances should consider a number of zoning specific factors, including refining industrial use types, as high cube and automated warehousing uses require specific definitions and regulations.

Zoning Districts

Zoning district locations are critically important for matching the intensity of land use with locations that minimize impacts and provide the best outcomes for municipalities. Generally, locating these uses in existing industrial parks and in urban areas with proximity to major arterial roads and highways will mitigate conflicts between area residents and commercial vehicles. Municipalities must balance their needs between matching building form and scale, to matching transportation demands, to appropriate infrastructure. Locating a high cube or automated warehouse in an urban area with similar building heights may be appropriate for the landscape, but traffic generated by the use may also be detrimental to the street network. Conversely, matching the use and scale of development to appropriate infrastructure may result in an inconsistent building form if there are no existing buildings of the same scale.

Special Exceptions and Conditional Use

Municipalities should consider allowing these as special exceptions or conditional uses, rather than uses permitted by right, to allow thorough understanding of project specifics and resulting impacts of the proposed use.

“Special exceptions and conditional uses are usually reserved for those land uses that will have a significant impact on the zoning district or the whole community, or for those uses that necessitate additional safeguards. Common examples of such uses include, but are not limited to, landfills, warehouse and distribution facilities, telecommunications towers, etc. These additional safeguards take the form of specific standards and criteria stated in the zoning ordinance. The applicant for a special exception or conditional use must demonstrate compliance with the specific standards and criteria stated in the zoning ordinance.”
- Pennsylvania Department of Community and Economic Development, Planning Series 07

Municipalities should position themselves for developing the best projects in the interest of their community by periodically reviewing and amending ordinances to reflect modern or emerging development trends like high cube and automated warehouses. Subdivision and land development ordinance amendments should be made to require an impact analysis for these specific types of uses. Analyses should consider not only traffic impacts but economic impacts, such as job creation, as well as environmental impacts, including but not limited to viewshed analysis and environmental impact statements. Studies of this nature allow communities to make more informed decisions on land development proposals, especially related to public safety.

Sketch Plans

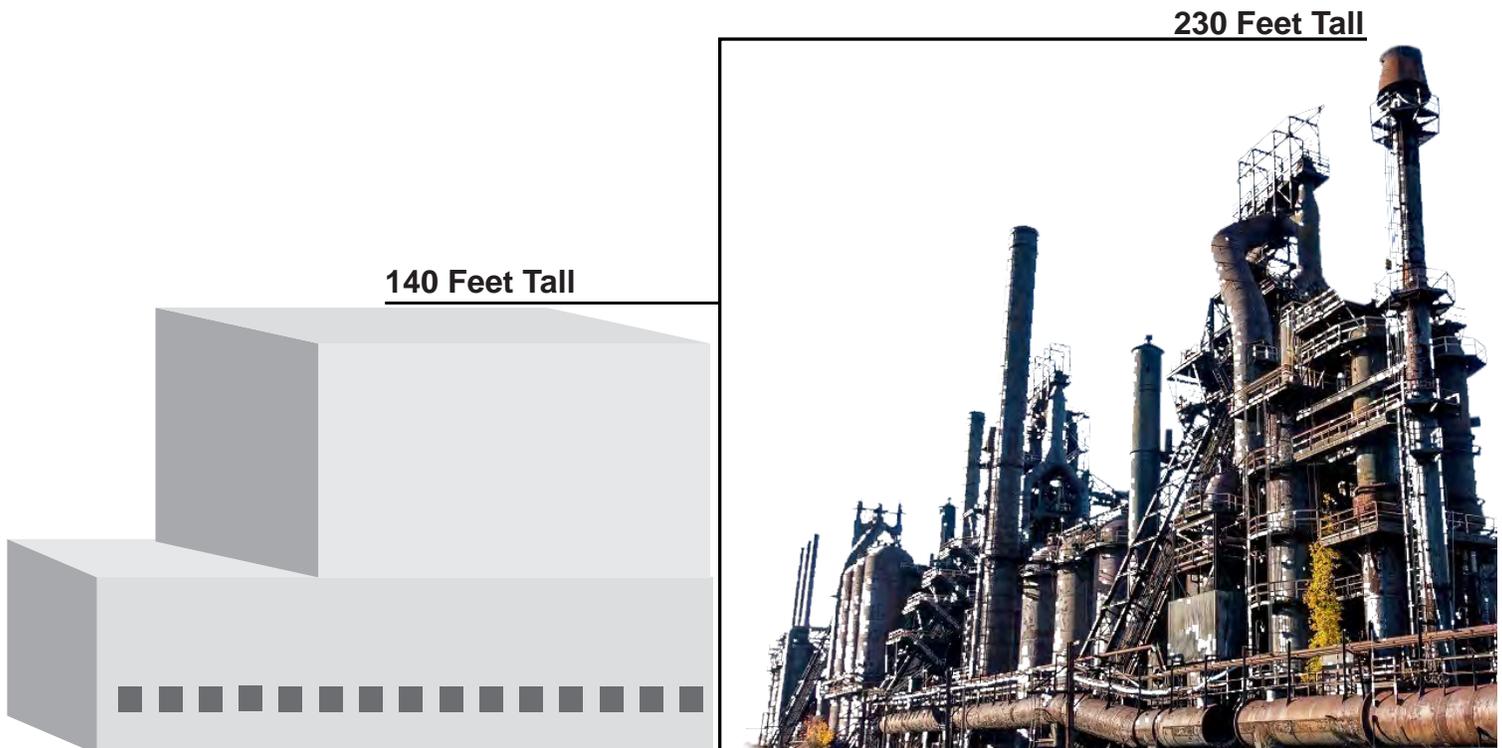
One tool used to facilitate conversations between a municipality and developer is a sketch plan. A sketch plan submittal and review requirement is designed to provide developers an opportunity to informally discuss project intentions with municipalities. The plan is reviewed for general scope and layout, conformity with applicable municipal requirements and the local comprehensive plan, as well as for conditions which might affect the implementation of the development. Incorporating a sketch plan requirement in the subdivision and land development ordinance will enable public and private collaboration to ensure the project is designed to fit the fabric of a community, while also respecting property rights. Municipalities may also choose to require that the sketch plan be reviewed by the LVPC. This is recommended, as it allows for review of consistency with *FutureLV: The Regional Plan*, and provides an opportunity for a municipality to receive additional recommendations for improving upon the proposal.

Amending both the zoning code and subdivision and land development ordinances with these provisions allows a developer, in a site development or redevelopment scenario, or an end-user, in the case of a building retrofit, to understand community needs and vice versa. This allows communities to consider industrial sector needs related to goals outlined in the comprehensive plan, empowering communities to facilitate discussion among residents, stakeholders, appointed officials, elected representatives and developers and facility end users. Ultimately, this leads to more sustainable and resilient businesses and communities.

Height and Viewshed

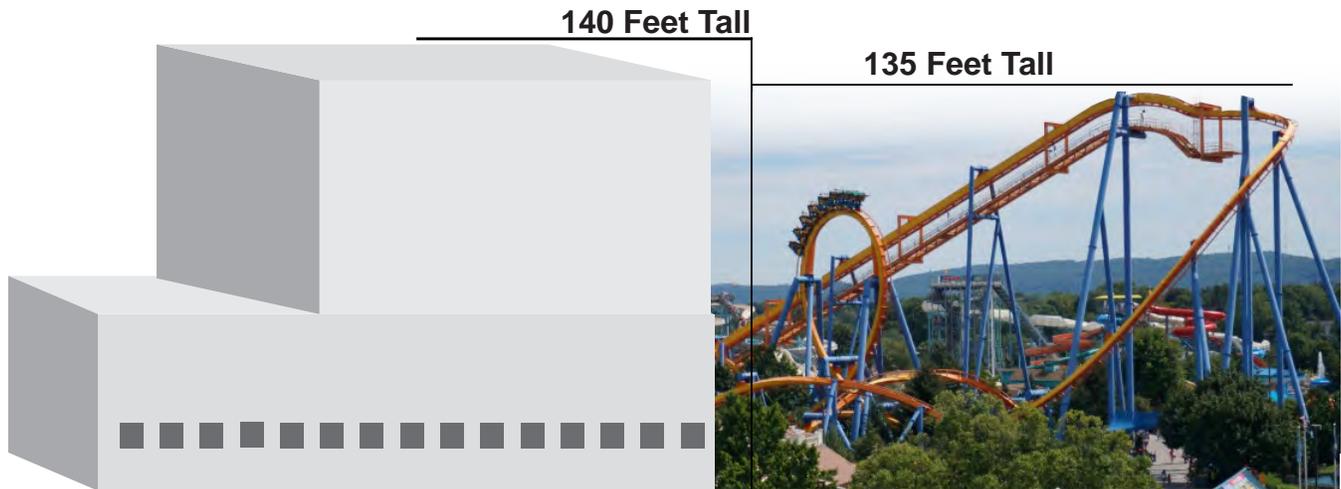
In consideration of the larger region, there is a possibility of significant changes to the landscape created by tall industrial buildings, lacking architectural features, potentially visible from miles away. These projects set unique standards for warehouse height, resulting in significant visual impacts across the region. Building architecture and articulation standards should be considered to support community character.

This substantial building height could not only change the character of the municipality where it is proposed, but of neighboring communities and even the region. Permissible building heights should take into account distance to adjacent buildings and property lines to avoid impacts to emergency access and changes in neighborhood character—both critical to safety and to the tax base. Topography and tall structures nearby are also considerations for viewshed impacts. For example, a 100-foot-tall high cube warehouse may not have a negative impact in a location with other tall buildings or high hills or mountains.



Height of high cube warehouse compared to Bethlehem Steel Blast Furnaces

On the other hand, high cube warehousing could have a sharp effect if the heights of buildings nearby or topography are out of scale with the proposed tall structure. In these cases, the high cube warehouse becomes the “landmark” or the dominate feature in the landscape. In communities and neighborhoods with lower height buildings and flatter topography, taller structures will have more of an impact.



Height of high cube warehouse compared to Talon rollercoaster at Dorney Park

The contrast between these two points of reference is created by the topography and character of the communities in which they are located, and underscores the importance of municipal height and viewshed consideration.

Communities should amend subdivision and land development and zoning ordinances to require viewshed information and analyses to assess the potential impacts, both positive and negative, where high cube and automated warehousing is proposed. Appropriateness of these taller structures in environments that can accommodate their impacts to the landscape, such as in existing industrial parks, with similarly tall buildings and where substantial elevation changes exist in the surrounding landscape should be considered.

Airport-Related Height and Use Restrictions

An important consideration municipalities must make in allowing for high cube and automated warehousing are Federal Aviation Authority (FAA) height restrictions related to airports. These regulations are reinforced through Pennsylvania Act 164 of 1984, the Airport Hazard Zoning Law.

Height restrictions exist to ensure obstructions, such as buildings and signs, are not constructed in airspace associated with airport approaches. They are mandated through both the state and federal governments and should be reflected in municipal ordinances through airport overlay zoning. The FAA identifies surface zones, which are associated with aircraft approaches to airports and have varying degrees of height restrictions depending upon the type of aircraft utilizing the airport, approach paths and topography, among other things. These height restrictions must be considered when municipalities are implementing zoning ordinance changes.

Regionally, the Lehigh-Northampton Airport Authority oversees Lehigh Valley International Airport, Queen City Municipal Airport and Braden Airpark. Half of all municipalities in the Lehigh Valley are within one or more surface zones. As many municipalities are experiencing the pressure of industrial growth, coordination with the Lehigh-Northampton Airport Authority and implementation of standards that do not allow for obstructions in airspace is vital.

Use restrictions are also a consideration for municipalities that are within surface zones. The permissibility of industrial uses is not of concern outright, but detailed assessment should be made into the proposed materials used, stored or manufactured at facilities within the surface zones to ensure no site-specific hazards are presented. Limitations or outright prohibition should be made to the extent and intensity of hazardous materials stored or utilized at high cube and automated warehouses to mitigate impacts of a disaster, should one occur.

Municipalities must also consider that they are likely at increased liability should an emergency event occur without these mandated restrictions in place. While municipalities move to adopt standards in response to the emergence of high cube and automated warehousing, they should utilize the opportunity to incorporate provisions reflective of their proximity to the Lehigh Valley's airports and related surface zones.

Emergency Response

Structures of this scale and height pose a need for thorough evaluation of services provided by fire companies, police forces and emergency medical operations. These considerations are especially important for those entities that rely on volunteers, have equipment that can only serve lower height buildings, and organizations that lack specific emergency response training for larger, taller and high-powered (potential electrical, hazardous materials risks) facilities. Communities should evaluate the equipment required to mitigate emergency situations and engage service organizations in conversations about capital equipment needs, training and resources necessary to serve these facilities. Simultaneously with the development or use alteration or change, communities need to understand the fiscal impact and ultimate pressure on the tax base.

Emergency Services Impact Statement

Municipal subdivision and land development ordinances should be amended to reflect standards that consider the equipment and capital needs of emergency service operations. The best way to do this is to involve emergency management personnel including, police, fire and ambulance services, in the application review process. Emergency services impact statements, which could be in the form of a questionnaire included with the zoning or subdivision and land development application, should be developed and codified for high cube and automated warehousing proposals. This is especially vital to the success of service provisions to existing facilities that are retrofitted to accommodate these emerging technologies. Impacts evaluated in association with existing facilities should consider not only those on the surrounding community but also on the project site, such as reviews of parking, drive aisle, fire lane and staging adequacy.

In many ways, use changes or expansions should almost be treated like a new development proposal by the local government. This doesn't necessarily mean that a full land development application is required, though it could, depending on the extent of the proposal. In some cases, a municipality may simply require a building permit to retrofit a structure. However, if traffic could double, the types of materials stored is changing, volume of goods warehoused is substantially increasing, or amount or type of energy being used to operate a facility is changed, then emergency response needs will change.

Public Safety Committees

In order to facilitate communication and coordination between emergency response organizations affected by a development proposal, it is recommended that municipalities establish a 'public safety' or 'emergency services' committee. As appropriate, based on entities providing service in a particular municipality, the committee should be comprised of local police, state highway patrol, fire companies, ambulance services, municipal public works departments, and appointed municipal residents. This committee would afford an early opportunity for engagement and review of the potential impacts of a plan on the general health, safety and welfare of a community.

A committee of this sort would further allow for emergency services, such as fire departments, to coordinate anticipated emergency response and planning for future service to a proposed high cube or automated warehouse, and ensure that the most accurate data is included in the *Lehigh Valley Hazard Mitigation Plan*. It is important for first responders to have knowledge of the internal structure of a building, any operations that may hinder or complicate emergency response and inner workings of a proposed facility, including any hazardous material situations particularly involving automation or stored goods. The location of areas accessible to employees is also important to planning for future public safety needs, especially in high cube and automated warehouses where employees are not generally located within the structure above the typical first floor height.

Economic Impacts

The LVPC recommends that municipalities incorporate requirements for the economic study and assessment of development impacts into their subdivision and land development ordinances. Proactive municipal provisions will ensure that a community is not required to bear full responsibility for costs associated with a proposed development.

Changes in development patterns and community character associated with high cube and automated warehousing pose potential impacts to property values, for example, by reducing market interest in buying a home near a facility that has high rates of ongoing daily traffic, noise generation, or a blocked viewshed. Considerations of all possible economic impacts to the region, municipality and residents compels a partnership between the public and private sectors to ensure the long-term viability and success of these facilities. The use of cost-benefit analysis in planning, development and infrastructure decisions is vital to quantify potential impacts.

In addition to considering the amount of tax revenue a community may receive, it is important to assess potential costs to ensure:

- Public safety officials have the training and equipment needed to service a facility
- Public works and engineering departments have funding to add new infrastructure and maintain existing roads and bridges affected by new traffic and changing mobility patterns
- Transit has adequate facilities and funding to support emerging and changing transit needs

Ultimately, if workers cannot get to their jobs because of poor system quality or congested infrastructure and a lack of public safety, businesses will struggle, tax revenue will decline and the potential economic benefits of a high cube or automated warehouse will decline.



Cargill Cooler DRY Automated Storage and Retrieval System – 103 feet – Sidney, Ohio. Photo courtesy of Griffco Design/Build, Inc.

Job creation and retention is a major consideration and should be integral to any negotiations between municipalities and developers or end users. Municipalities can account for economic impacts of both new and existing facilities by including high cube and automated warehouses as a special exception or conditional use in their zoning ordinances as a mechanism to allow for municipal negotiation through the development review and approval process.

Counties, school districts and municipalities should consider ways to ensure a return on investment in terms of tax revenue compared to local costs associated with service of these facilities. Monitoring industrial occupancy and vacancy is also important to maintaining jobs and the tax base, and ensuring that development is as additive to the community and region as possible. Creating a database of building and property actions allows local governments to monitor use and allows municipalities, counties and the region to get in front of major changes. This allows for incentives for redevelopment; changes in employment density, transit ridership, and emergency response needs; and other impacts to be managed in the best interests of all segments of the community.

Reusability

High cube warehousing and related industrial land uses are often built with the intent of leasing to companies based upon agreed timeframes for property rental. By leasing a property, a company does not need to commit to the additional expenses and responsibilities of long-term property ownership. At the end of a contract the leaseholder will either need to renegotiate an agreement or may be free to vacate the warehouse or industrial space. This can, in turn, create the need to redevelop or renovate such structures to attract new leaseholders.

An industrial development analysis by CBRE Group, a national commercial real estate services and investment firm, identifies the Lehigh Valley as a key region for assessment in the Interstates I-78/I-81 Corridor. Analysis from the second financial quarter in 2020 has identified several trends in the supply of industrial space for leasing that may impact the long-term viability for high cube and automated warehousing. As speculation and the supply of industrial space throughout the Lehigh Valley region has increased, the long-term usage of these structures should be considered.

The “persistent demand” for industrial space is indicative of the need to prepare for change. CBRE notes that both third-party logistics companies, e-commerce, retailers and food and beverage manufacturers are the primary sub-markets leasing industrial facilities. Space that has been vacant for several quarters was beginning to fill as a result of the stay-at-home order, which halted new construction in the spring and early summer. The Lehigh Valley, in particular, has the lowest industrial vacancy and corresponding highest contract rents in the I-78/I-81 Corridor. As the land available for industrial development declines, inventory declines and consumer demand for products and services purchased online increases, proposals for high cube and automated warehousing will only increase.

Municipalities should strive to understand the existing development trends to best plan for a healthy supply of various land use needs. Permitting too much industrial space, or any type of land use for that matter, may create an oversaturated market, and lead to high vacancy rates or a need to constantly revitalize existing structures. The technology used in high cube and automated warehouses is often built with a dual-purpose of serving as the support structure for the building frame as well as facilitating goods movement. These structures, particularly in instances of new construction, are often built to serve a specific tenant. Municipal plans and ordinances should encourage flexibility to support reusability and long-term marketability of these facilities, as the specificity of building design may reduce opportunities for reuse if the tenant vacates.

Below is a warehouse in the City of Allentown proposed for redevelopment into apartment units in 2020. The structural building frame lends itself to a variety of reuse options that would not be available for structures built to consist only of automation technology.



LVPC file photo

Workforce

Approximately 10% of the region's workforce, 31,795 Lehigh Valley employees, is in the transportation and warehousing industry (Lehigh Valley Workforce Development Area Profile, October 2020). Highly-automated facilities are bound to have substantial impacts on the local and regional workforce, with the distinct possibility of requiring fewer employees. This could result in fewer jobs available to people with minimal education and younger workers with little work experience. It's a concern for many communities as the potential loss of regional warehousing jobs to robotics technology occurs simultaneously with the ongoing decline of retail positions. Scott Anderson, director of Amazon Robotics Fulfillment, said in a 2019 statement that it's possible that existing facilities will convert to high automation within the next 10 years (Gizmodo), and a 2020 report from the National Bureau of Economic Research indicates that companies are likely to move even faster towards automation investments as a result of the COVID-19 Pandemic.

As one of the largest employment sectors in the Lehigh Valley, changes in the number of warehousing jobs resulting from the trend toward automation should be closely monitored by municipalities, counties and the Lehigh Valley Workforce Investment Board. However, there is currently no data to confirm that rapidly increasing automation will result in massive layoffs in the near future. Reports by the University of California Berkeley Labor Center and Harvard Business Review suggest that automation is more so changing the day-to-day functions of existing jobs.

Assessing Employment Impacts

Communities should assess potential employment impacts related to new development, redevelopment and retrofit projects. Public and private partnerships should be formed to ensure that developers are advising municipal governments of job creation and loss, or overall change, as a measure of impact to a community. Subdivision and land development ordinances should include provisions for economic impact statements with these types of proposals that specifically address impacts to a community's workforce. For building retrofits, where the subdivision and land development ordinance is not applicable, municipalities should consider the implementation of assessment forms with required zoning applications. These assessment forms should collect pertinent information, such as expected change in employee volume and traffic generation, so that municipalities can appropriately plan for shifts in municipal service needs.

Sustainability and Design

Incorporating sustainable building practices and design provides immense benefits to the community and developer. Utilizing renewable resources or employing sustainable design increases asset value, and decreases operational costs for the user through energy, water, maintenance and waste savings. Additionally, stormwater management benefits are generated through overall green infrastructure design.

As communities implement sustainable building practices, the benefit of reduced building footprint through increased building height should be considered. Increased 'vertical' impact is likely to result in the need for less land to develop these facilities and will result in reduced pressure on greenfield development, helping to sustain the Valley's limited natural resources. Building retrofits for automated warehousing are also supportive of the environment in this way.



Geneva II Warehouse in Charlotte, NC.

Photo courtesy of Shelco LLC.



Prologis Park 33 Building 1 (above) in Lower Nazareth Township utilizes energy-efficient lighting. Prologis Park 33 Building 2 (below) utilized recycled and locally sourced materials for construction.

Photos courtesy of Mowery

Developers should also consider the benefits of incorporating sustainability into designs, as green building has become an increasingly popular and widespread practice that can enhance business reputation in the industry. Warehousing and distribution developers such as Prologis are pushing the envelope in this area.

Although a relatively new land use, the nature of high cube and automated warehouses to be highly efficient opens them to many sustainable opportunities to reduce development pressure and lessen their carbon footprint. Developers or end-users can initiate these energy cost savings by installing solar panels or energy-efficient light fixtures.

Municipalities can incentivize the inclusion of renewable energy systems and energy-conserving building design in their subdivision and land development ordinances, per the Pennsylvania Municipalities Planning Code (MPC) Section 503(6). For example, offering a density bonus when meeting sustainability thresholds can benefit the developer and the community by offsetting the associated costs of sustainable systems over the long-term, while lessening impacts of the development on the environment.

For greenfield and redevelopment sites, aesthetic features such as building form and shape, as well as minimum percentage of window area per building wall, would supplement these sustainable design recommendations and reduce the visual impact of the building's height. Standards for building form and shape should address wall and roof scale to break up one's line of sight. For instance, municipalities could require columns on building walls to break up the monotony of a flat wall. Minimum window requirements should ensure adequate visibility into and out of spaces accessible to employees and the creation of the appearance of windows, through building wall design, in storage areas.

Allowing high cube and automated warehouses as a special exception or conditional use supports the ability to secure minimum architectural standards. In addition to building form, architectural standards can also involve a variation of colors on building walls to reduce the perception of a 'white box', all of which can be negotiated through the special exception or conditional use process.

Community Collaboration

Establishing a process that enables and encourages community feedback on proposals helps build trust between local governments, residents and the private sector, educates the community on the legally applicable process, and ultimately results in better projects that are more suitable to community needs and desires.

It is in the private sector's best interest to have an understanding of a community's goals and objectives. For instance, a public open house allows residents to visualize what the project may look like early in the planning process. This can garner community support and understanding, and can serve to address or mitigate concerns that may not otherwise be raised until substantial investment has already been made in the project design. These community engagement opportunities provide a platform for resident voices to be heard prior to any formal review and informs developers of potential historical issues within the area, such as road flooding. It also allows resident desires, such as a walking trail or buffering beyond what the subdivision and land development ordinance requires, to be considered.

In addition to internal meetings held between a municipality and developer, pre-submission meetings can involve the other community partners, such as the LVPC, Lehigh and Northampton Transportation Authority (LANTA) and the Lehigh Valley Workforce Investment Board. Pre-submission meetings are highly encouraged because they offer parties the opportunity to provide higher-level insight into regional implications and consider a holistic approach to development, transit accessibility and sourcing workers once the project is completed.

Traffic Impacts

Changes to existing traffic patterns, especially truck traffic, is a principal concern of most communities. The LVPC encourages that any special exception or conditional use, and particularly any warehouse use, include a traffic impact study. Traffic impact studies are reports that estimate the changes that are likely to occur to the overall transportation network near the land development project based upon access needs, projected trip generation of traffic and potential effects to congestion along access roads.

Traffic Impact Studies and Trip Generation

Traffic impact study requirements are established within a municipality's subdivision and land development ordinance. A traffic impact study is another tool used to assess the ramifications of a development, inform of future transportation constraints and enable a community to plan the best possible project outcome. Transportation impacts specifically related to high cube and automated warehousing are not fully known and are changing rapidly, therefore such scrutiny should be taken for these types of land uses.

Traditional and high cube warehouse land uses are each estimated by a separate traffic trip generation rate by the Institute of Traffic Engineers (ITE) Trip Generation Manual, 10th Edition. The ITE Manual is the engineering standard for calculating estimates of vehicle trip generated by developments. There is a relatively small volume of study information available in the high cube warehouse land use database. The database relies primarily on floor area, while there is a stronger correlation between vehicle trips and building gross square footage in regard to high cube warehousing. Gross building storage square footage is currently not available in the ITE Trip Generation manuals.

The ITE manual calculates traffic based only on gross floor area, a reflection of traditional warehouse footprints, which may not necessarily reflect the impacts of structures with storage capacity of 100 vertical feet or more. In essence, by measuring only floor area ITE treats a 24-foot-tall building with a floor area of 200,000 square feet the same as it treats a 100-foot-tall building with 200,000 square feet of floor area. In reality, the 100-foot-tall high cube or automated warehouse building is akin to stacking four traditional warehouses on top of each other.

Trip Generation Example

For the purposes of this example, every land use category in ITE in regard to warehousing was calculated with a base assumption of a structure of 1,000,000 square feet gross floor area

Land Use Category	Description	Average Daily Rate of Trips
Land Use 150: Warehousing	A warehouse is primarily devoted to the storage of materials	1,740
Land Use 154: High-Cube Transload and Short-Term Storage Warehouse	Buildings that have a primary function of consolidation and distribution of pallet loads (or larger) for manufacturers, wholesalers, or retailers. They typically have little storage duration, high throughput, and are high-efficient facilities	1,400
Land Use 155: High-Cube Fulfillment Warehouse	A facility characterized by a significant storage function and direct distribution of e-commerce product to end users. These facilities typically handle smaller packages and quantities than other types of HCWs and often contain multiple mezzanine levels	8,180
Land Use 156: High-Cube Parcel Warehouse	Warehouses that typically serve as regional and local freight forwarder facilities for time sensitive shipments via airfreight and ground carriers. These sites also often include truck maintenance, wash or fueling facilities	7,750
Land Use 157: High-Cube Cold Storage Warehouse	Facilities typified by temperature-controlled environments for frozen food or other perishable products	2,120

Careful consideration is necessary to develop policies regarding a 'warehouse built on top of a warehouse'. As these uses appear it may mean radical changes in trip generation calculations. The goods stored and moved are available in far greater quantities when stored vertically rather than in traditional warehouses, making assumptions of transportation impacts a complicated endeavor. The limited data available for cold storage facilities produce acceptable levels of accuracy for vehicle trip estimates. However, vehicle trip generation rates based on data collected in recent years are higher than those derived from data collected at least 10 years ago. It is recommended that further investigation be made into the existing data and that additional data be collected.

In the meantime, it is anticipated that industrial developers and engineers will utilize the ITE Trip Generation Manual to calculate vehicle trips and level of service changes to the roadway system. It is critically important to note that bridge sufficiency ratings, pavement quality and maintenance, transit connections, air quality impacts, among other key questions should be addressed as part of a transportation impact statement. Some of these factors have standardized data available to assess impacts, like the ITE Manual and PennDOT traffic safety data, but other impacts are more localized, like bridge condition assessments or the ability of a road to withstand higher frequency and higher weight vehicles without falling apart. Proximity to housing, hospitals, elder care facilities and schools can have impacts as well. These may be negative, such as lowered air quality, or positive like infrastructure already built to standards that support more intense uses. Transportation Impact Statement requirements should accommodate the variety of scenarios that can arise when development is proposed.

As automation makes loading and unloading of trucks more efficient, it is likely that truck turnaround time may be faster as well, enabling a higher usage of the transportation network than traditional warehousing.

Challenges have been noted, but opportunities also exist. Higher intensity uses can be clustered to target costly infrastructure improvements to limited areas, reducing upfront and long-term maintenance costs, as one example. Also, high cube and automated warehousing, in and of itself, is a significant technological achievement. This increase in efficiency and advancement can be carried beyond the building's interior and to the parking areas through electric charging stations for tractor-trailers and solar powering for the building's operation, as well as supporting automated traffic signal corridors key to reducing congestion and air pollution and enhancing emergency management services delivery. Again, each development or redevelopment will have unique needs, as will the seamless integration of that facility into the community. Holistically approaching issues and needs through traffic impact assessments can support facility and community success.

This 68-foot-tall Prologis facility in Seattle features a highway-style ramp network that enables tractor-trailers to dock at two levels of bays, potentially doubling truck traffic at the building. These increased impacts are something for the Lehigh Valley region to consider. Locations with substantial industrial development near highway interchanges, near the Lehigh Valley International Airport or along major freight corridors should prepare for highly intensive facilities as industrial land becomes more limited



Photo courtesy of Prologis

Truck Routes and Access

The scoping of a traffic impact study should identify all transportation impacts, including vehicular, truck, pedestrian, multimodal and transit access. The scope of the traffic impact study should scrutinize the planned truck routes, particularly between the project location and the closest highway or interstate because the trucks utilizing these facilities will ultimately want to connect to a highway. It is critical to plan and identify the best logical and capable truck route to access these high classification roadways, to minimize tractor-trailer impacts on local roads. Improvements to potential conflict points along these routes may be negotiated between the developer, municipality and Pennsylvania Department of Transportation (PennDOT), which will ultimately make a project more accessible to tenants and users. Traffic impact studies should also consider on-site needs, including parking and insufficient infrastructure capacity.

Tractor-Trailer and Driver Amenities

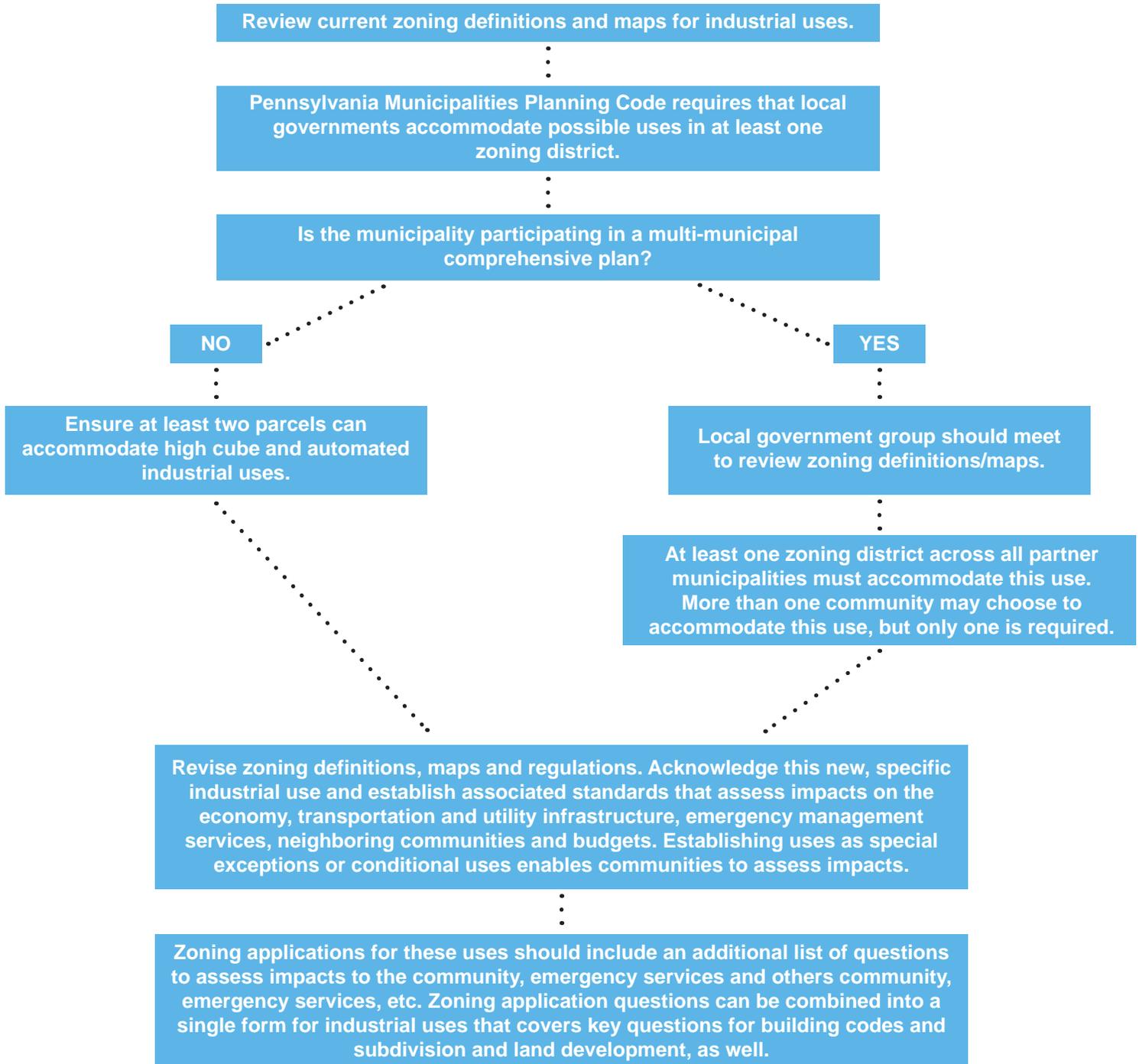
Minimum truck parking and queuing requirements at facilities, along with driver amenities, should be included within the subdivision and land development ordinance. This recommendation also involves access opportunities, such as gated facilities, to ensure that trucks are not queuing along the roadway but rather internal to the site.

Municipal standards should also require or incentivize electrical hookups within truck parking areas, both for trucks and for refrigeration trailer units in which goods are transported. Electric-diesel hybrid refrigeration trailer units are becoming more common. The availability of hookups will mitigate the impacts of diesel-run units on the neighboring area and regional air quality.

Impacts to the origin and destination of goods, as well as staging and parking concerning the commodity flows to logistics of freight, are anticipated to change. Driven by continual e-commerce demand, it is likely that regulation of these uses will require ongoing evolution to maintain the service expectations of citizens. Direct attention by both PennDOT and municipal officials should focus on monitoring traffic generation and its impact on the Lehigh Valley transportation network. The true changes to both state of good repair and existing conditions present an ongoing issue, and the growing demand on the transportation network will require continued assessment on both a case-by-case and global basis.

High Cube and Automated Warehousing: Municipal Considerations for Updating Standards

Serving as a 'to do list' for what and how a municipality should consider making updates to local zoning codes, this chart should be used in conjunction with the detailed information provided in the High Cube and Automated Warehouse Guidance Document. Municipalities should follow a similar process when proposing updates to subdivision and land development ordinances and/or other municipal procedures and codes.



Zoning Codes Must Consider Regulations for:

Location

Location has a big impact on whether a land use is appropriate for that community.

ADEQUATE ROAD, BRIDGE AND TRANSIT INFRASTRUCTURE

Where can transportation-intensive high cube or automated uses operate without adversely affecting infrastructure?

FREIGHT ROUTES AND CORRIDORS

Where are there designated freight routes that can accommodate higher frequency and higher weight vehicles?

QUALITY OF LIFE

Where will the 24-hour operational potential of these uses have the least impact on residential, medical, educational, recreational and other uses that's value is inherently connected to lower noise, emergency access and high air quality?

EMERGENCY MANAGEMENT SERVICES ACCESS

Can emergency management services, including fire, police and ambulance, access high cube and automated warehouse use locations effectively?

Is there an established emergency service delivery corridor providing traffic signal preemption to these uses from police, fire and ambulance facilities and hospitals? Do traffic signals need to be upgraded in order to ensure corridors are established?

Do local emergency response agencies have adequate staffing and equipment to handle any emergency at tall or very large buildings with 24-hour operations, and as the scale of industrial facilities and multi-tenant developments grow?

Is there water capacity and conveyance infrastructure, including adequately sized pipes and fire hydrants, to fight a fire should one occur?

Volume

Volume considers not only the building footprint, but the height and dimensions that allow more goods to be stored.

COMMUNITY CHARACTER

What impacts does the building volume have on the community's existing character?

Consider assessing not just the front, rear and side yard setbacks, but also maximum height and size limitations.

VIEWSHED

What is visible to and from these facilities?

Consider impacts to residential; protected open space; historic and cultural sites; parks or recreational lands; farmland; other businesses; schools; hospitals; continuing care facilities; emergency management facilities; and other types of uses.

PROPERTY VALUES

Will property values decline in a specific neighborhood(s) or other land use or group affect municipal revenue and therefore make it more challenging for the delivery of governmental services, including but not limited to, road and bridge maintenance, sewer, water and stormwater infrastructure maintenance, police, fire and ambulatory needs?

Will a specific neighborhood(s) or other land use or group be directly affected? Will those specific neighborhoods(s) or other land use or group see a decline in the value of their property(ies)?

QUALITY OF LIFE

What impact could an individual high cube or automated warehouse, or grouping of industrial facilities, have on the quality of life of the community?

Conclusion

The true impacts of high cube and automated warehousing uses are yet to be fully determined. These emerging land uses pose both positive and adverse impacts to a community's transportation network, economy, municipal budget, character and viewshed. Municipalities have an interest in protecting the health, safety and general welfare of their residents through regulation of these types of warehousing. The manner and approach to regulating these land uses are based upon whether the plan is for a new construction project, redevelopment of an existing lot or renovation to an existing structure.

Municipalities are encouraged to begin early in planning for this evolving land use. The most desirable outcomes benefiting communities are achievable by leveraging proper regulations in the subdivision and land development ordinance, zoning ordinance and building codes. These tools serve to assess the real impacts of a proposal, identify appropriate locations for development and ensure the prevention of additional costs to a community. Further, they serve to support the long-term success of a development.

Continually assessing the effectiveness of subdivision and land development ordinances and zoning ordinances allows a municipality to remain abreast of rapidly evolving development and industry trends, such as high cube and automated warehousing. Engaging with the private sector, relevant municipal departments, public safety organizations and residents early and often in the planning process facilitates widespread and comprehensive understanding of overall needs, resulting in the best possible outcome for all parties.

Be proactive. Install new regulations now, before they arrive.



148-foot Americold High Cube warehouse in Atlanta, Ga. Photo courtesy of Griffco Design/Build, Inc.

Resources

Project Examples

<https://www.wibw.com/content/news/Frito-Lay-one-step-closer-to-building-new-warehouse-486523091.html>

<https://www.westfaliausa.com/resources/case-studies/organic-valley>

<https://www.prologis.com/industrial-logistics-warehouse-space/washington/seattle/prologis-georgetown-crossroads>

https://www.gcca.org/system/files/coldfactmagazine/0584_GCCA%20ColdFacts%20CEBA%20Insert%202019_V6_lowres.pdf

<https://rsmowery.com/project/prologis-warehouse-park-33-building-1/>

Land Use and Zoning

<https://dced.pa.gov/download/planning-series-07-special-exceptions-conditional-uses-variances/>

Lower Macungie Township Zoning Example: Specific Criteria for Warehouse, Wholesale, Storage, or Distribution uses: <https://ecode360.com/34785641>

Economic Impacts and Incentives

<https://www.easternlandpa.com/listings/parcel-9northampton/LERTA.pdf>

<https://www.nber.org/papers/w27249.pdf>

<https://www.itprotoday.com/artificial-intelligence/us-recession-will-automation-help-or-hurt-recovery>

<https://laborcenter.berkeley.edu/future-of-warehouse-work/>

<https://hbr.org/2015/06/robots-seem-to-be-improving-productivity-not-costing-jobs>

Workforce

<https://gizmodo.com/fully-automated-warehouses-are-a-decade-away-amazon-sa-1834459784>

Reusability

CBRE Marketview, Pennsylvania I-78/I-81 Corridor Industrial, Q1 2020, Market fundamentals remain strong amid speculative development starts, 2020, www.cbre.com/researchgateway.

Sustainability

<https://www.prologis.com/sustainable-industrial-real-estate/environmental-stewardship/LEED-certification?title=&page=0>

Traffic Impacts

<https://www.ite.org/pub/?id=a3e6679a%2De3a8%2Dbf38%2D7f29%2D2961becdd498>



Lehigh Valley Planning Commission / Lehigh Valley Transportation Study
961 Marcon Boulevard, Suite 310
Allentown, Pennsylvania 18109

As technology helps companies pack more goods in ever-larger distribution warehouses, this ‘too tall, too dense’ approach elevates the severity of warehouse fires.

Storage configurations and technology create new challenges.¹

Consider how warehouse trends have changed over the past six decades:

How Warehouse Trends have Changed		
Characteristic	Warehouse Trends 60 years	Warehouse Trends Today
Size	1-2 football fields	10-30 football fields or more
Roof Height	20 to 25 feet	45 feet or more
Storage height	15 to 20 feet	40 feet or more
Aisle width	8 to 12 feet	5 feet
Commodities	Paper, metal,, glass	Plastic, aerosols, lithium-ion batteries
Goods handling	Forklift Trucks and operators	Robots, Automation
Location	Urban/suburban areas where firefighters may be prepared for storage fires	Rural areas where firefighters may not be prepared for storage fires

¹ <https://www.zurichna.com/knowledge/articles/2022/07/storage-trends-and-new-technology-ignite-fire-risks-for-commercial-warehouses>



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Storage trends and new technology ignite fire risks for commercial warehouses

As technology helps companies pack more goods in ever-larger distribution warehouses, this ‘too tall, too dense’ approach elevates the severity of warehouse fires.



Zurich North America

The growing popularity of a “too-tall, too dense” approach to commercial warehouse storage is increasing the size and severity of fires and with it, the risk to lives and property.

Warehouses by their nature are designed to store a large amount of material in a relatively small space. However, companies have been pursuing ways to increase the density of stock in the same amount of space. Factors contributing to this trend include the growing demands of e-commerce and just-in-time deliveries; automated technology that creates efficiencies for identification and retrieval of goods; and the desire to offset rising real estate costs by building up, not out.

Unfortunately, this trend is creating scenarios that set the stage for larger, more destructive fires that exceed the abilities of even the most experienced firefighters. The fact that many warehouses are being built in more rural areas with less sophisticated public fire organizations further complicates this situation.

To demonstrate the size and impact of fires in today’s commercial warehouses, consider these recent examples:



firefighters and 30 fire agencies assisting in fighting the blaze. Damage was significant enough to prevent it from reopening.¹

- A February 2022 fire in a document storage warehouse in Illinois burned the 250,000-square-foot facility to the ground. It took two days to fully extinguish the fire and, at one point, required so much water fire officials said it started to drain the municipal water supply.²
- In 2021, a fire “the size of a city block” destroyed a California warehouse and created a post-fire field of debris the size of two football fields.³
- A 2021 fire at a 1.2-million-square-foot North Carolina distribution center for a television shopping channel was ranked “the largest structure fire” in the state’s history. It took crews from over dozens of fire departments 10 days to battle.^{4,5}

The total costs of these fires are still being assessed. For some perspective, consider that of the top 10 costliest large-loss fires in the U.S. in 2020, a fire that destroyed a 600,000-square-foot online sales warehouse ranked third, with a loss of \$300



about \$120 million in U.S. dollars.⁷

These immense fires dramatically underscore the need to address this risk. They pose life-and-death dangers to both the building occupants and firefighters; can result in millions of dollars of losses; and adversely impact the environment, notes the National Fire Protection Association (NFPA).⁸ To that last point, several of the aforementioned warehouse fires in 2021 and 2022 emitted chemicals into the air and local water systems. What's more, rising inflation rates further escalate the replacement costs of goods and the buildings that store them.

Storage configurations and technology create new challenges

Consider how warehouse trends have changed over the past six decades:



Size	1-2 football fields	10-30 football fields or more
Roof height	6.1-7.6 m (20-25 feet)	13.7 m (45 feet) or more
Storage height	4.6-6.1 m (15-20 feet)	12.2 m (40 feet) or more
Aisle width	2.4-3.6 m (8-12 feet)	1.5 m (5 feet)
Commodities	Paper, metal, glass	Plastics, aerosols, lithium-ion batteries
Location	Urban/suburban areas where firefighters may be prepared for storage fires	Rural areas where firefighters may not be prepared for storage fires
Goods handling	Forklift trucks and operators	Robots

Source: Zurich Resilience Solutions

In addition, it's worth examining two specific trends in commercial distribution warehousing that are complicating fire mitigation:

1. Storage-savvy tech and sprinklers: In the past, warehouses handled goods by the pallet load and stored them in conventional piled or racked configurations. Over the past 50 years, sprinkler guidelines were developed for these conventional configurations and are found today in standards such as [NFPA 13, "Standard for the Installation of Sprinkler Systems."](#)

But the e-commerce warehouse has become an active environment fulfilling orders. That means goods are being handled in smaller amounts, i.e., individual cases or pieces. According to my colleague Richard Gallagher, Risk Engineer and Property Technical Director for Zurich Resilience Solutions,



For example, the protection of racked storage depends on adequately sized and spaced flues to allow a fire's heat to flow vertically up to sprinklers and sprinkler discharge to flow downward dousing a fire. With palletized goods, adequate flues for the most part were automatic. But with pallets broken down into case goods or individual items, flue spaces tend to be too small, misaligned vertically, or even omitted. As Gallagher noted, "When you block flues and can't get water into the (storage) rack, you run a higher risk of burning your building down."

As another example, e-commerce warehouses often store goods in open-top containers to facilitate order picking. Standards such as NFPA 13 offer no protection guidance where open-top containers are used. The challenge here is that open-top containers capture the sprinkler discharge that would otherwise flow downward toward a fire. The outcome is similar to inadequate flues.

In general, the modern e-commerce warehouse needs sprinkler protection beyond NFPA 13 to be considered adequately protected.

2. Storage-savvy tech and firefighting: The pace of play in the e-commerce warehouse is driven by order fulfillment rates, especially where next-day delivery is offered. This drives a need



Traditional ASRS warehouses have always been a firefighting challenge. With goods stored 40 or more feet above the floor, firefighters have no realistic means to access fire-damaged goods in the upper storage tiers.

Also, newer robotic ASRS adversely impact firefighter access. Aisles are becoming too narrow or are even being eliminated. Narrow aisles hamper firefighters' movements when they're wearing personal protective gear that includes self-contained breathing apparatus. Firefighters may not even be able to turn around in an aisle! And, where aisles are eliminated, firefighters may have to work hours to access fire damaged goods located just 10 or 15 feet from an access point.

Recognizing the realities of extinguishing fires

Although storage trends are changing, the principles of fully extinguishing a fire still rely on two steps: First, sprinklers of adequate design that can control or suppress the storage fire so it does not spread and, second, firefighters who achieve final fire extinguishment.

Step two is crucial. Although sprinkler systems can control or suppress fires, it is the role of firefighters to achieve and confirm



building. There's a reason for that. Even a tiny ember can smolder for hours and reignite a fire, potentially destroying the building.

But getting materials out of a building first depends on firefighters' ability to access the materials, Gallagher explains. "If goods are stored too high or too densely, firefighters may find it impossible to reach the fire-damaged goods."

Even if firefighters can reach the goods, consider that they will be wearing heavy equipment, with limited time in their air pack, and working with poor visibility, he notes. "They're on their hands and knees, dragging a hose, they've already crawled 100 feet into the building, and now they're faced with a ton of material they've got to remove." In short, each warehouse needs a realistic final fire extinguishment plan that stays within the physical limits of human firefighters.

Furthermore, no property is ever worth the loss of life. We never want a firefighter to be harmed protecting property.

When access is impeded, the fire department is often forced to use large hose streams to try and control the fire. One of these hoses can release 500 to 900 gallons of water a minute, and sometimes more, creating even greater water damage to goods.⁹



It's impossible to discuss fire-related property risks without addressing the adverse and costly impact of smoke. Fire obliterates what it consumes, but it also produces smoke and soot that can travel far beyond the flames. Depending on what has been burned, different types of smoke will result, incurring expensive cleanup costs but also the possibility of rendering impacted materials worthless.

Some points about smoke damage:

- Smoke from a fire will often migrate to the physical boundaries of the building walls.
- Did you know smoke particles ionize and possess electrical charges? Smoke and soot can short-circuit electronics and contaminate HVAC systems.¹⁰
- Cleaning up smoke deposits on building features can be very labor intensive and expensive, and should be done by experienced professionals. For example, if bar joists at the roof level need to be cleaned, this may have to be done by hand using mobile equipment. Simply pressure-washing is rarely an option due to equipment, utilities and storage that may be damaged from the water.



harmful products of combustion. While some commodities in a warehouse may be easier to clean up either by the nature of the product or how it is packaged, some items may not be salvageable.

Overlooked costs of large warehouse fires

Current economic trends also exacerbate the total cost of these massive fires. While these factors come into play for any commercial warehouse fire, their losses are multiplied when a fire destroys a single, gigantic property filled with goods.

Consider:

- The loss of so many goods in one large warehouse puts the supply chain in jeopardy for all of the companies depending on those products. It further aggravates an already compromised global supply chain and contributes to today's inflationary environment.
- Businesses, in an effort to protect their brand and avoid liability, are less tolerant of selling or salvaging products with any level of smoke damage than they have been in the past. Consequently, it increases the stock damage from smoke and the resultant costs. Even if the damage is



Again, inflation makes replacing products more expensive.

Preventing commercial warehouse fires

Businesses need to take every possible precaution to prevent a storage fire. As discussed here, that includes avoiding the shortcomings of too-tall, too-dense warehousing. The better option is to have several warehouses that are adequately spaced, with storage configurations most likely to remain within the capabilities of your local public fire service and their sprinkler protection designs, and allow adequate aisles and flue spaces.

Here are some additional tips for from the Zurich Resilience Solutions team¹¹:

- Develop a pre-fire plan with your local fire department to help support the most effective response. Like any mitigation plan, this process should be reviewed and updated as necessary, especially if site conditions change.
- The result of the evaluation of the local fire department capabilities and the situation at the site may lead to the assumption that the final extinguishment of the storage is



external space separation distances.

- Consult with your fire protection engineer or sprinkler contractor to ensure the automatic sprinkler system can meet the demands of a potential fire within your facility.
- Regularly inspect, test and maintain your storage warehouse's automatic sprinkler system.
- Assume manual firefighting will be needed. Firefighters are instrumental to achieving final fire extinguishment. The local public fire service needs to review your warehouse and storage areas to familiarize themselves with the storage commodities and configuration. Consider choosing storage configurations within their capabilities, staffing, training, equipment and experience. For example, could a firefighter credibly reach fire-damaged goods at the highest elevations of, or the deepest points within, your storage array?
- Ensure that any robotic or automated stock handling systems will shut down automatically upon fire detection. This includes smoke detection, heat detection and a sprinkler's water-flow detection.
- Train your staff so they will know which sprinkler control valve to close after a fire. And, whenever sprinklers are



watch is to immediately notify the valve watch to open the sprinkler valve if there are signs of a rekindling fire.

- Identify sources of water for manual firefighting. The water demands for storage fires can be very high, so it's important to review the availability of water and conduct regular flow tests to help assure you have sufficient capabilities.
- Develop a plan so fire-damaged goods are never left unsupervised inside a building. This risk-mitigation step anticipates the very real risk of fire-damaged goods reigniting.
- The finding from the evaluation of storage fire protection and final fire extinguishment should be included in the overall hazard analysis of the site as well as the impacts it may have on the business.

[Learn more about Zurich's Property solutions.](#)

[Click here](#) to read the Zurich Resilience Solutions RiskTopic "Storage Fires and Final Extinguishment."

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7. "Ocado Warehouse Fire: Rebuilt Andover Centre Fully Operational." BBC.com. 12 August 2021.
8. "Warehouse Fire Safety." National Fire Protection Association. November 2020.
9. Rowett, Jr., Anthony. "From Hoselines to Hydrants: Understanding Water Supply." Firehouse. 14 November 2017.
10. "How to Get Rid of Smoke Damage After a Fire at Your Business." Servicemaster Restore. 19 July 2021.
11. "Storage Fires and Final Extinguishment." Zurich Resilience Solutions. August 2020.

The information in this publication was compiled from sources believed to be reliable and is intended for informational purposes only. All sample policies and procedures herein should serve as a guideline, which you can use to create your own policies and procedures. We trust that you will customize these samples to reflect your own operations and believe that these samples may serve as a helpful platform for this endeavor. Any and all information contained herein is not intended to constitute advice (particularly not legal advice). Accordingly, persons requiring advice should consult independent advisors when developing programs and policies. We do not guarantee the accuracy of this information or any results and further assume no liability in connection with this publication and sample policies and procedures, including any information, methods or safety suggestions contained herein. We undertake no obligation to publicly update or revise any of this information, whether to reflect new information, future developments, events or circumstances or otherwise. Moreover, Zurich reminds you that this cannot be assumed to contain every acceptable safety and compliance procedure or that additional procedures might not be appropriate under the circumstances. The subject matter of this publication is not tied to any specific insurance product nor will adopting these policies and procedures ensure coverage under any insurance policy.



*TOWN OF MILLINGTON
PLANNING COMMISSION*

*P O Box 330
402 Cypress Street
Millington, MD 21651*

*Joyce Morales, Chair
Moe Morton
Patty Cartagena-Santiago
Rita Jackson
Rahul "Rocky" Datta*

*Phone: 410-928-3880
Fax: 410-928-5764*

May 3, 2023

Mr. William Mackey, Director
Kent County Planning, Housing, & Zoning
400 High Street
Chestertown, MD 21620

Re: Proposed Zoning Text Amendment – Resolution 2023-02

Dear Director Mackey:

The Millington Planning Commission is aware of the proposed Zoning Text Amendment to update the permitted height of industrial structures in certain zoning districts especially along Route 301 corridor. We would like this to serve as notification that we are opposed to this amendment.

The Community Volunteer Fire Company of Millington does not have the proper equipment for buildings of this height, nor do they have the proper facilities to house such a piece of apparatus. They are a volunteer company with limited resources and manpower. These restrictions could be detrimental to the structure as well as a safety issue with employees and staff.

Sincerely,

Joyce Price Morales
Millington Planning Commission, Chair

*Community Volunteer Fire Company
255 Hurtt Avenue
Millington, MD 21651*

May 3, 2023

*Kent County Planning Commission
400 High Street
Chestertown, Maryland 21620*

Honorable Joe Hickman and Planning Commission:

It has been brought to our attention of a text amendment changing the height of buildings in Kent County to 60 feet. This is a great concern to the Community Volunteer Fire Company as we do not have the necessary equipment to address issues at a building this height. The nearest Company with the proper equipment is at least 15 miles away from the proposed site of warehouses along US Route 301.

Therefore, we are opposed to this text amendment and feel fire suppression is extremely important and should be considered with future growth in the area.

Sincerely,

A handwritten signature in black ink, appearing to read 'Charlie Boyles', with a long horizontal line extending to the right.

*Charlie Boyles
Chief*



Economic and Tourism Development Commission

April 13, 2023

Ronald H. Fithian, President
Albert H. Nickerson, Member
John F. Price, Member
Kent County Commissioners
400 High Street
Chestertown, MD 21620

Re: Letter of Support – Zoning Text Amendment

Dear County Commissioners:

I am pleased to write this letter of support on behalf of the Kent County Economic and Tourism Development Commission (EDTC). The EDTC, at their April 12, 2023, meeting, voted unanimously in support of the proposed Zoning Text Amendment (ZTA) that would regulate the permitted height of industrial structures in the 301 Corridor.

As you know, this is one of only two, targeted areas in Kent County, outside municipal limits to market and attract new businesses. Allowing a larger structure would give the county a greater economic development opportunity. We further ask you to consider raising the building height in all Industrial structures located in the two areas identified above, on Industrial and Employment Center zoned parcels. The Commission is also in full support of defining the 301 Corridor in the Land Use Ordinance. Planning, Housing, and Zoning staff clearly explain how and why this ZTA complies with the Comprehensive Plan and its highest priorities as well as changes in these buildings and automated fulfillment technology require this update to previous regulations.

We are pleased that the Commissioners will consider this Zoning Text Amendment and look forward to continuing our efforts in locating the responsible developers and businesses along the 301 Corridor and in the Worton Industrial Area.

Sincerely,

D. Aaron Bramble
Chair

cc: William Mackey, Director, Planning, Housing, and Zoning

From: Charles MacLeod
Sent: Monday, May 1, 2023 3:42 PM
To: William Mackey
Cc: Jamie Williams, Dan Gural, Erin Murphy, Russ Richardson, Kevin J. Shearon
Subject: Building Height Zoning Text Amendment

Hello Bill:

On behalf of Everton Industrial Development and Richardson Properties Corporation, and in connection with the upcoming Planning Commission meeting on Thursday, May 4, attached please find correspondence re the proposed Zoning Text Amendment referred by the County Commissioners. The Planning Commission held their public hearing on the proposed ZTA during their April meeting. To the extent the record remains open, is reopened or the Planning Commission is accepting input, please include this correspondence with the information to be considered by the Planning Commission.

The original letter will be hand delivered. Thank you.

Regards,
Chip



Charles D. MacLeod, Esq.
MacLeod Law Group, LLC
110 N. Cross Street
Chestertown, Maryland 21620
Phone: 410-810-1381
Fax: 410-810-1383
www.mlg-lawyers.com



MACLEOD

LAW GROUP LLC

Redacted to remove personal email addresses

Charles D. MacLeod, Esq.

May 1, 2023

Kent County Planning Commission
c/o William A. Mackey, AICP
Director of Planning, Housing and Zoning
400 High Street
Chestertown, MD 21620

Re: Proposed Zoning Text Amendment Increasing Height of Industrial Structures
Along Route 301 Corridor

Dear Planning Commission Members:

This letter is being submitted to the Planning Commission to correct inaccuracies in an undated letter from Ms. Janet Christensen-Lewis to the Planning Commission regarding the pending Zoning Text Amendment (ZTA) referred by the County Commissioners to increase certain building heights and, of all things, “that the information that might be relied upon [by the Planning Commission] to come to a decision be accurate.” It is unclear if Ms. Christensen-Lewis is writing on her own behalf or in her capacity as Chair of Kent Conservation & Preservation Alliance.

We are confident that a well-placed call to a Chestertown official knowledgeable about the buildings on the Chestertown Business Campus and the nuances of building height measurement *via a vis* zoning (i.e., the Town Zoning Administrator) will confirm that even though the Town of Chestertown measures roof height differently than the County, based upon plans submitted and approved by the Town the overall height of the Dixon warehouse/distribution center from the lowest grade (loading docks) to the peak of the pitched roof is 52.75’. The components are: 4’ tall loading dock, 42’ from finished floor to top of rigid frame, and an additional 6’-9” to the peak of the sloped roof.

With respect to the commentary about tall structures such as farm silos, grain elevators and steeples being part of Kent County’s “cultural landscape”, there is nothing in the proposed ZTA that removes or limits such structures (or “landmarks”) throughout the County, including along the Route 301 corridor. The simple reason for pointing out the existence of numerous buildings and other structures around Kent County that exceed 50 or 60 feet in height is to dull the “outrage” and exaggerations that permitting industrial buildings of that height along the Route 301 corridor will destroy the character of Kent County. A fundamental purpose of designated Growth Areas is to avoid development sprawl (save cultural landscapes). The proposed ZTA is focused on a Growth Area and limited to the “Route 301 Corridor”, which the Planning Commission is wisely going to define per the recommendation of Mr. Mackey and a well-researched Staff Report.

Letter to Kent County Planning Commission

May 1, 2023

Page 2

In your May 4 meeting materials, you will see that the Planning Director and Staff have substantially enhanced the record in support of the proposed ZTA while others have submitted additional correspondence to feign outrage, further obfuscate and now cite a Lehigh Valley Planning Commission (Allentown, Pennsylvania) study from 2020. When that PA study is read in the context of current circumstances here in Kent County, it supports the rationale for the proposed ZTA as outlined in Kent County Commissioners' Resolution 2023-02 (attached and part of the record).

Thank you for your attention and consideration.

Sincerely,



Charles D. MacLeod

Attachment

cc: Economic and Tourism Development Commission
Jamie Williams, CECD, Director
Everton Industrial Development
Richardson Properties Corporation



RESOLUTION 2023-02

COUNTY COMMISSIONERS OF KENT COUNTY, MARYLAND

A RESOLUTION TO INTRODUCE A TEXT AMENDMENT TO REVISE CHAPTER 222, ZONING, OF THE COUNTY CODE OF KENT COUNTY, MARYLAND, ALSO KNOWN AS THE KENT COUNTY LAND USE ORDINANCE, TO UPDATE THE PERMITTED HEIGHT OF INDUSTRIAL STRUCTURES LOCATED IN CERTAIN ZONING DISTRICTS AND LOCATED IN THE ROUTE 301 CORRIDOR.

WHEREAS, the Board of County Commissioners of Kent County, Maryland (the Board) may exercise its right to amend the County Code of Kent County, Maryland (the Code), by legislative action in the form of a Code Home Rule Bill to create an Act and thus propose text amendments to the Code; and,

WHEREAS, in Article XII, *Administrative Procedures*, Section 6, *Amendments*, §1, the Land Use Ordinance states regarding the Board and the Code that “The County Commissioners may amend, supplement, or change the boundaries of the districts or the regulations of this Ordinance. Any amendment may be initiated by resolution of the County Commissioners...”; and,

WHEREAS, the *2018 Comprehensive Plan* specifically identifies as one of its highest priorities that “Through its economic development planning and land use implementation measures [zoning code, among other tools], the County will support flexibility in and an expanded area of employment center and industrial zoning in general to support commercial and mixed-use development”; and,

WHEREAS, industry standards are changing including up to 40-foot clear ceiling heights for new warehouse facilities and even 50-foot clear ceiling heights, as reported by NAIOP Maryland and others, necessitating new building height limits to accommodate both interior spaces and structures to support roofs and screening of rooftop equipment; and,

WHEREAS, the Board finds that amending the permitted height of industrial structures in certain zoning districts for those properties located along the 301 Corridor addresses the public need to provide for economic development through the aforementioned tool of land use implementation measures by expanding zoning district flexibility in employment center and industrial zoning in general; and,

WHEREAS, the permitted maximum heights for industrial structures in the Employment Center zoning district and the Industrial zoning district could be amended for greater flexibility; and,

WHEREAS, the Code does not currently include provisions for the height of industrial structures in the Commercial zoning district, even though *distribution centers and warehousing* are permitted uses in said district; and,

WHEREAS, the Board determines that updating local zoning regulations including provisions to allow for construction of modern, marketable buildings on properties currently zoned for new industrial uses to support economic development does serve to further the health, safety, and welfare of Kent County.

NOW, THEREFORE, BE IT RESOLVED, that on March 14, 2023, the Board does hereby introduce the proposed text amendment, attached hereto as Exhibit A, to amend the height of industrial structures along the 301 Corridor in the Employment Center zoning district and Industrial zoning district, and to add new height regulations for industrial structures both inside and outside the 301 Corridor in the Commercial zoning district that already permits such structures as *distribution centers and warehousing*.

BE IT FURTHER RESOLVED that the Board refers the draft amendment for advisory review and recommendation to the Kent County Planning Commission.

ADOPTED this day, March 14, 2023.

ATTEST:


Sondra M. Blackiston, Clerk

THE COUNTY COMMISSIONERS
OF KENT COUNTY, MARYLAND


Ronald H. Fithian, President


Albert H. Nickerson, Member


John F. Price, Member

Kent County Planning Commission
c/o William A Mackey, AJCP
Director of Planning, Housing and Zoning
400 High Street
Chestertown, MD 21620

May 2, 2023

RE: Zoning Text Amendment – Height of Industrial Structures –

Dear Planning Commission Members:

We are Michael Kent and Christopher Kent, owners of the Kent Family Farm (aka, “Deer Haven”) located at 31245 Chesterville Bridge Rd. We have owned the farm since 2002. In 2003 we placed the entire farm in Trust, through the Eastern Shore Land Conservancy and the Maryland Environmental Trust.

We write to you today to express our deep opposition to Resolution 2023-2, which proposes to increase allowable building heights for industrial structures along the “301 Corridor” from 45 feet to 60 feet. Please understand that we support our County attracting new businesses, including warehouse operations. However, not at the expense of creating an environment that is potentially unsafe and unhealthy for people who live near the 301 Corridor.

The recently completed (2018) County Comprehensive Plan identifies the concept of warehouses for the development of the 301 Corridor. The reality, however, is that a warehouse with a 60 feet height limitation is VERY different from a warehouse constructed under the County Land Use Ordinance - which limits industrial structures to a maximum height of 45 feet height - from visual, structural, and functional perspectives. The type of warehouse built with a maximum allowable height of 45 feet is compatible with the type of warehouse envisioned by the Comprehensive Plan. A warehouse with an allowable height of 60 feet is not. Quite simply, it is the difference between a traditional “industrial warehouse” and a high-cube fulfillment center warehouse.

This current ZTA is driven by a variance request from Everton, Inc. Of course, we don’t know what the ultimate use for the Everton proposed warehouses will be because there is insufficient information to make any informed decision. Even the

Planning Commission staff have had to guess regarding what the proposed warehouses might look like – admittedly using AI to simulate impacts. (Ironically, it seems, that in trying to examine those simulated impacts, staff used the assumptions of a height limitation of 50 feet, not the proposed 60 feet). It is clear to us that neither the members of the Planning Commission nor the Commissioners currently have adequate data to decide on the proposed height increase. Further, it certainly does not seem prudent to make such consequential change to the Land Use Ordinance, and this is a very consequential change, without considering the proposed project in its entirety.

We hope you understand our concern. We urge you not to approve the height increase. Unfortunately, we may not be able to attend the May 4 meeting. However, should you have any questions, please do not hesitate to contact us. We request that this letter be included as part of the official record

Sincerely,

Christopher Kent
703-447-9057

Michael Kent
410-708-6754

From: Marsha Fritz

Sent: Wednesday, May 3, 2023 6:19 PM

To: Planning

Cc: Cynthia Saunders; Elizabeth Watson, FAICP; Marsha Fritz

Subject: Warehouse proposal under review today by the Planning Commission

mMMembers of the Planning Commission of Kent County MD

Gentlemen and Lady,

This proposal under review is very concerning to this former Kent County resident. Eighteen years ago I left Chestertown to move to the beautiful Lehigh Valley in Southeastern Pennsylvania. I enjoyed the Valley's rolling farm fields, historic buildings, sparkling creeks and rivers. I loved driving through the countryside then, but no more.

In the years since, the Valley has been overrun with enormous flat roofed warehouses. In the 1970's Bethlehem, where we live, was facing economic catastrophe Bethlehem Steel closed its factories leaving thousands unemployed. Through the creativity and dedication of its citizens, the Valley has survived and grown. A few years later, though, when the warehouse developers came calling, the government was easily swayed by the promise of good jobs, a growing tax base that guaranteed increased prosperity and clean energy. Now we can see that none of these promises has really come true.

Instead, highways, the local and connector roads are crawling with trucks; they are now crumbling and dangerous. The jobs don't provide a living wage and housing becomes unaffordable for these employees. Union protection for those holding "unskilled" jobs is poor. Bad things keep happening. For example, a local newspaper reported recently that an Amazon warehouse saved money on their HVAC systems by leaving out air conditioning. The out-of-state company realized that it was cheaper to negotiate a contract to keep an ambulance on site during the summer. When the overheated workers collapsed, they were simply carted off to the emergency room. Unbelievable.

As is so often the case, development breeds on itself. Even the bad stuff. Now, while new warehouses are going up, newly constructed ones are empty, with enormous signs advertising availability. Warehouses are becoming more and more automated, eliminating those promised good jobs. In the meantime, the Valley is experiencing a shortage of affordable housing. So much for the jobs, the economical development, the support for families. To be fair, something is increasing: pollution from all of those diesel truck, according to a study released last month. Run-off from all of those flat roofs and parking lots is growing too.

So what can Kent County learn from the Lehigh Valley? These facilities have little to offer the local economy or quality of life. In spite of the promises you are hearing, I encourage you to send them down the road and focus on what makes Kent County and its resources thrive. If you decide to accept them, please place strict restrictions on them. Find out what they precisely mean about their L.E.E.D. claims; insist that they power themselves with roof-mounted solar panels; keep the 45 foot height limit.

Thank you for your work for the County.

Very truly yours,

Marsha Fritz



April 26, 2023

William A. Mackey, AICP
Director, Department of Planning, Housing, and Zoning
Kent County, Maryland
400 High Street, Suite 103
Chestertown, MD 21620

RE: Zoning Text Amendment

Dear Mr. Mackey:

I am writing in support of the proposed text amendment providing for increased building heights up to sixty feet (60') including roof protrusions for HVAC or solar panels. Our firm represents developers as well as end-users of all types of commercial real estate and can attest to the demand for forty-five foot (45') interior clear heights for warehouse space. Developers and users consider an array of factors when expanding or relocating including a comprehensive review of the zoning code to determine whether they can develop functional space without having to seek variances.

One of the biggest selling points for Kent County and the Town of Millington is that it can be a lower cost alternative than sites to the north such as Middletown, Delaware, and those to the west on the Annapolis side of the Bay Bridge. We have a network of partners working with state, national and international businesses that are seeking to bring manufacturing & distribution operations to Maryland and look forward to presenting Kent County as a viable option.

I applaud this proactive position which sends a message to the commercial real estate community that Kent County supports responsible development.

Best regards,

A handwritten signature in blue ink that reads "Tara Weekes Stout".

Tara Weekes Stout

DEPARTMENT OF
PLANNING, HOUSING & ZONING
RECEIVED 5/1/2023

**Redacted to remove personal email addresses
and personal phone numbers**

From: William Mackey

Sent: Tuesday, May 2, 2023 4:03 PM

To: Francis J. Hickman, Paul Ruge, Paula Reeder, James Saunders, Raymond Strong, William S. Sutton, William Crowding,

Cc: Cynthia L. McCann, Esq., Carla Gerber, Mark Carper, Campbell Safian

Subject: Kent County Planning Commission - height of the Dixon campus buildings

Good afternoon, Planning Commission Chair and Members,

Yesterday, I reached out to Kees de Mooy about the discussions of industrial building heights. Kees responded quickly, and he kindly provided the attached drawing. For the overall dimensions of the Dixon Distribution Center (the taller of the two buildings), Kees defers to the project's engineer, Kevin Shearon, P.E., and Kees provided the engineer's statement, which is included below.

Even though the town measures roof height differently, based on the attached plan the overall height from the lowest grade (loading docks) to the peak of the pitched roof is 52.75'. The components are: 4' tall loading dock, 42' from finished floor to top of rigid frame, and an additional 6'-9" to the peak of the sloped roof.

Kees also noted that when looking at the buildings from Rt. 213, the overall height of the front façades of both buildings, as seen from Rt. 213 and as measured from finished grade, is under 50 feet, as required by the Town of Chestertown's Zoning Ordinance.

Many thanks to Kees for providing this information and clarification.

Sincerely,

Bill



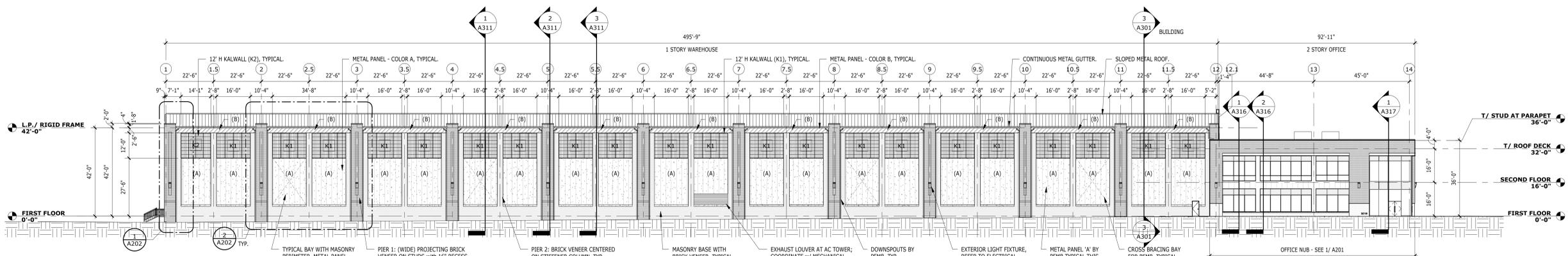
William A. Mackey, AICP

Director, Department of Planning, Housing, and Zoning

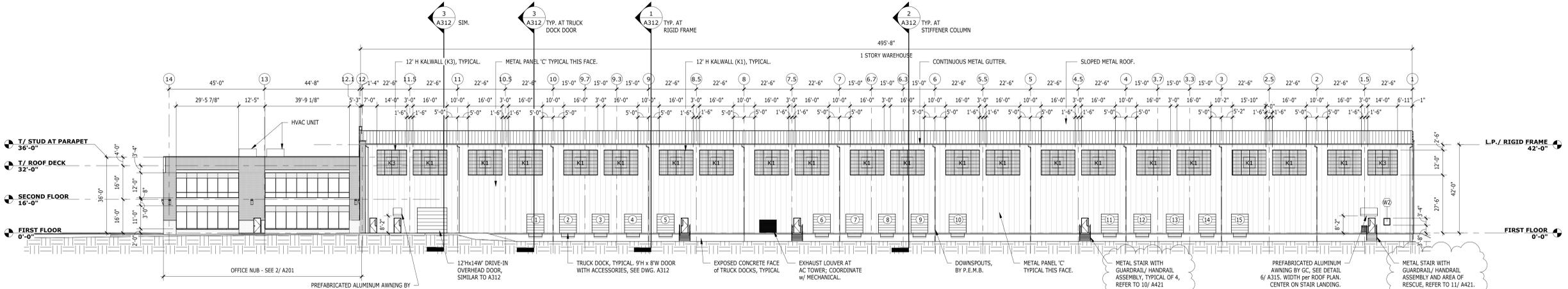
Kent County, Maryland

400 High Street, Suite 103

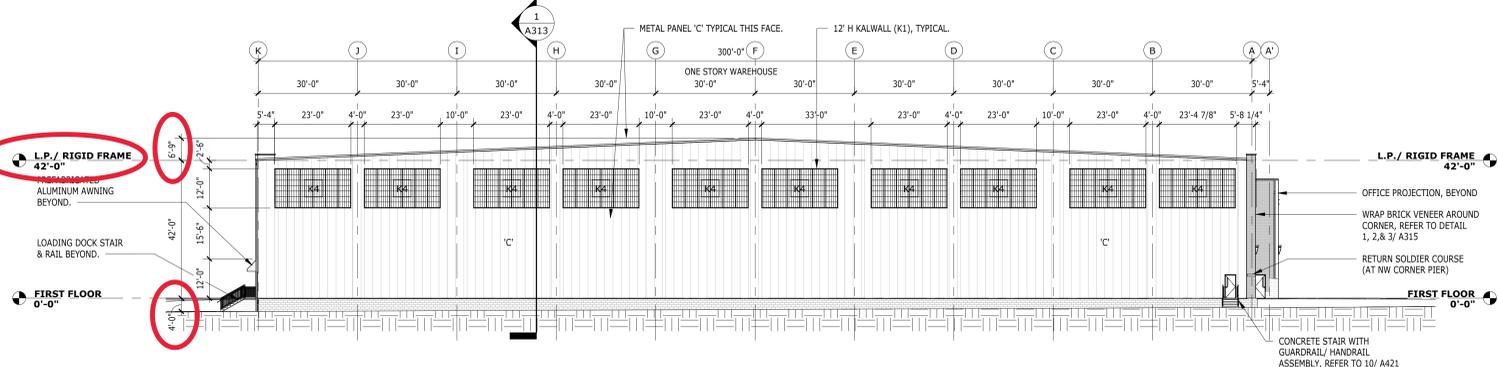
Chestertown, MD 21620



"FRONT" NORTH ELEVATION
A200 SCALE: 3/64" = 1'-0"



"BACK" SOUTH ELEVATION
A200 SCALE: 3/64" = 1'-0"



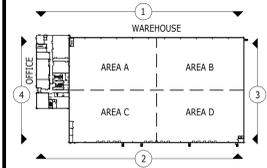
EAST ELEVATION
A200 SCALE: 3/64" = 1'-0"

MATERIALS LEGEND

- METAL PANEL 'A'
TURF/WALL TEXTURED INSUL. BY P.E.M.B.
ANTIQUE BRONZE TUFF COTE KMD0152
- METAL PANEL 'B'
MESA EMBROSSED INSUL. BY P.E.M.B.
WEATHERED COPPER 437R1124
- METAL PANEL 'C'
MESA EMBROSSED INSUL. BY P.E.M.B.
SMOKE GREY 432R1584
- METAL PANEL 'D'
OFFICE TRANSLUCENT METAL PANELS
SIMILAR TO 'C' SMOKE GREY
- ROOF PANEL
STANDING SEAM METAL BY P.E.M.B.
SMOKE GREY 432R1584
- BRICK RUNNING BOND
UNLESS NOTED OTHERWISE
- DECORATIVE CONCRETE BLOCK

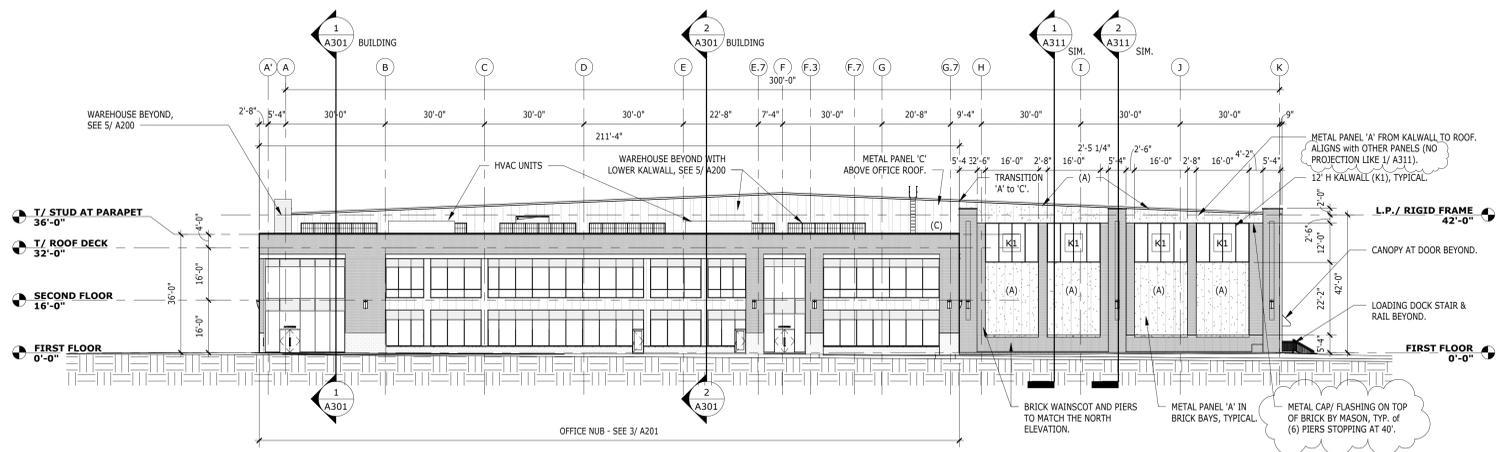
ELEVATION NOTES

- A. TEMPERED GLAZING SHALL CONFORM TO CPSC 16 CFR 201 AS REQUIRED IN SECTION 2406 OF THE IBC.
- B. SAFETY GLAZING SHALL CARRY A FIRE RATING AS RECOGNIZED BY THE IBC AND CONFORM TO THE REQUIREMENTS OF TEMPERED GLAZING.
- C. SEE SHEET A602 FOR VARIOUS WINDOW TYPES.
- D. COLOR/FINISH T.B.D.;
PRECAST CONCRETE SILLS
SECTIONAL DOORS
AWNING ROOFING
LIGHT FIXTURES
SOUTH LOUVER

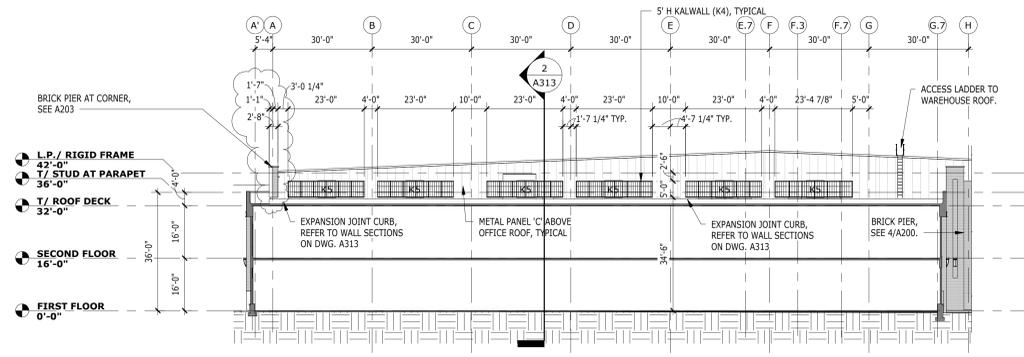


KEY PLAN

These drawings are instruments of the Architect's service and are the property of LGA Partners. They shall not be reproduced or used in any way, without the written permission of LGA Partners. © 2015.
I certify that these documents were prepared or approved by me, and that I am a duly licensed architect under the laws of the state of Maryland.



WEST ELEVATION
A200 SCALE: 3/64" = 1'-0"



WEST ELEVATION AT WAREHOUSE
A200 SCALE: 3/64" = 1'-0"

NO.	DATE	UPDATE & COORDINATION	DESCRIPTION
1	10/16/17	UPDATE & COORDINATION	

DATE:	07/28/2017
DRAWN BY:	REL
PROJECT NO.:	16357
FILE NAME:	Checker

**EXTERIOR ELEVATIONS
at WAREHOUSE**

Catherine Walraven Durham
10970 Dudley Chance Road

April 6, 2023

Good afternoon Planning Commissioners.

I am here today to tell you why I am opposed to the proposed Text Amendment specifically changing the height allowance on buildings in the 301 Growth Corridor from 45 ft. To 60 ft.

In the past, I have stated my opposition to the size of proposed buildings in this area. NOW, this amendment would allow for even BIGGER buildings. Obviously I find this to be totally unacceptable and actually unbelievable that such a thing would even be considered and asked to be looked at.

This size building does not match with the surroundings. Growth in ANY part of Kent County should match with, preserve and enhance the already existing areas here in Kent County as STATED in our Kent County Comprehensive Plan.

Just because 301 runs straight through this part of our beautiful county DOES NOT mean that this part of the county's looks and feel can be 'ruined' by allowing uncontrolled size buildings along the way around the 291/301 intersection or the lands between there and the town of Millington!

This certainly would please developers but certainly would not please most Kent County citizens who live in this area. This would NOT be preserving the rural character of our area. Our quality of life will be changed forever.

Our Kent County Comprehensive Plan says that new development in our county should preserve and enhance our county's existing landscape with its rural and historic resources AND be inviting to our tourists?

How about having it be maintained for our own Kent County residents' quality of life?

How will all of this look to visitors who are entering Kent County via 301/291?

Where and when will this idea end? When the developers are finally happy with getting what they want? What they think is 'best' for Kent County? They do not care about what Kent County has to offer right now to it's own citizens and to our visitors!

What will be next? Developers wanting to change more and more of our Comprehensive Plan and Land Use Ordinances to fit their needs?

How about growth along all of 291? 213? How about route 20?
What will the residents of Kent County think about those places being developed?

I would think most would NOT want to even have it considered... let alone be a proposed Text Amendment.

It is the Planning Commission's role to see what is best for ALL of Kent County's residents. I hope you do consider this when hearing from all of Kent County's residents who care about this matter at hand.

Thank you for your time and considerations.

Respectfully submitted,

Catherine W. Durham

301 Corridor Districts

Commercial
Employment
Industrial

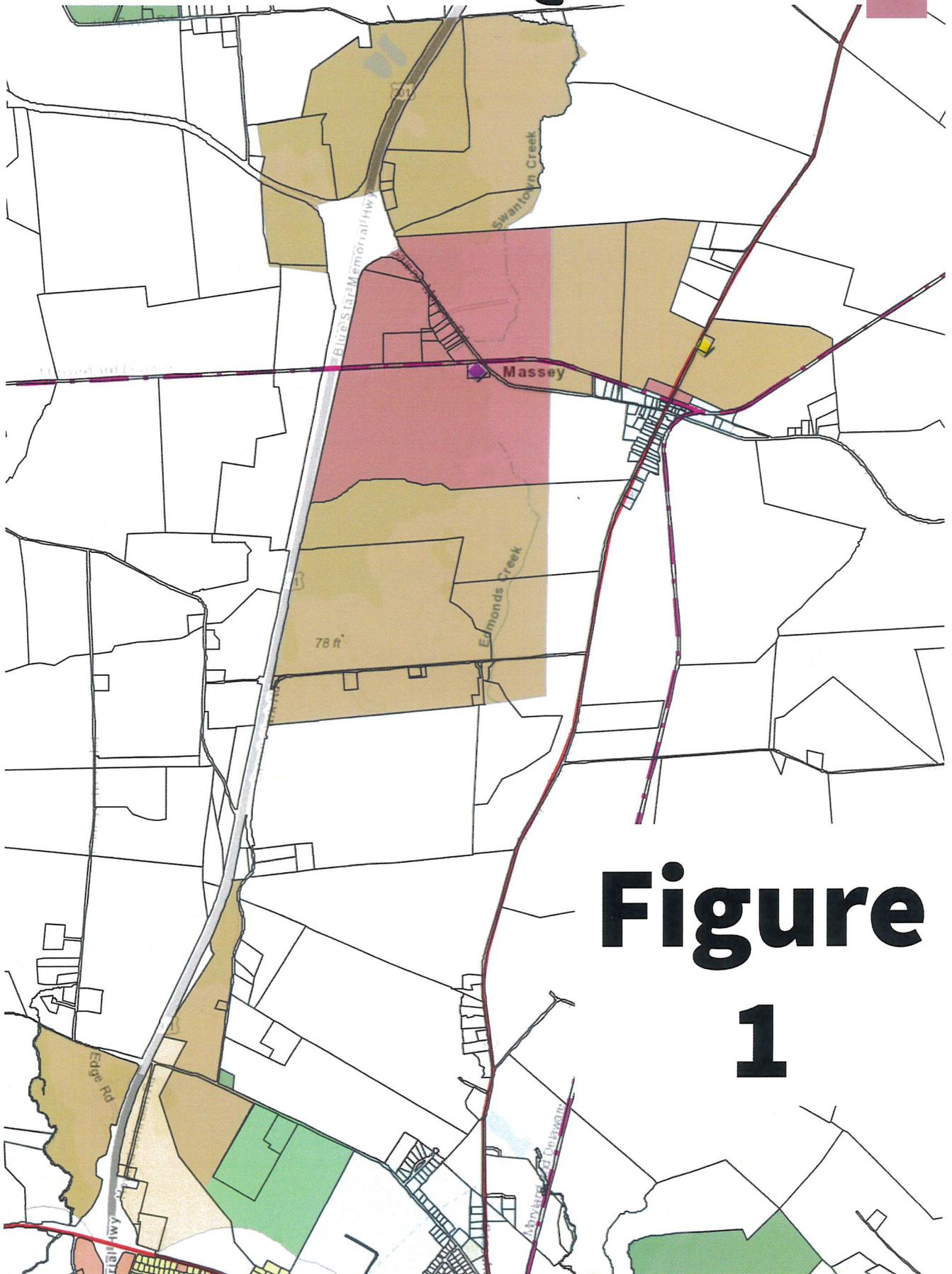


Figure 1

Properties with Current or Planned Access to Water & Sewer

Figure

2



Property in the 301 corridor that can use the ZTA proposed

Figure 3

