ZONING MAP AMENDMENT
BOONE COUNTY PLANNING COMMISSION

Seven (7) copies of submitted drawings are required

An application consists of all fees paid in full, submitted drawings, and a completed application form

SECTION A: (To be completed by applicant)

1. Name of Project: McDonald's Restaurant with Drive-Thru
2. Location of Project: Southeast corner of Mt. Zion Road & Lakeside Drive, Florence, KY 41042
3. Total Acreage of Project: 1.01 Acres
4. Current Zoning of Property: MHP (Mobile Home Park)
5. Proposed Zoning of Property (classification being requested): C-4 (Commercial Four)
6. Proposed Use(s) (specify each use):
   ~~Proposed is a new McDonald's Restaurant with Drive-Thru service~~
7. Proposed Building Intensities (specify for each building):
   Gross floor area would be 4,395 s.f. with space inside for 70 seats in the dining room. The drive-thru would be a two-lane drive-thru with a pay window and two (2) pick-up windows
8. Are you applying for any of the following (check all that apply):
   [Conditional Use Permit ☑ Variance * 3
9. Current Owner: Mt. Zion MHC LP
   Address: 467 Erlanger Road
   Erlanger (City) | KY (State) | 41018 (Zip Code)
   Phone Number: _____ Fax Number: _____
   Email: _____
10. Applicant: Atty. James Parsons, KMK Law (Agent for McDonald's)
    Address: One East Fourth Street, Suite 1400
    Cincinnati (City) | OH (State) | 45202 (Zip Code)
    Phone Number: (513) 579-6960 Fax Number: (513) 579-6457
    Email: jparsons@kmklaw.com
11. Are there any existing buildings on the site: ☑ Yes ☐ No
    If yes, indicate how many: There are five (5) existing mobile homes and concrete slabs for several other mobile homes at the proposed site

12. 1187 (Deed Book) 362 (Page Number) 2058 (Group Number)

13. Have you had a pre-application meeting with the BCPC staff: ☑ Yes ☐ No

14. Have you submitted a Concept Development Plan: ☑ Yes ☐ No

15. Have you met or discussed your proposed development with any of the following organizations/agencies (check all that apply):

- ☐ Boone County Building Department
- ☑ Boone County Public Works Department
- ☐ Boone County Water District
- ☐ Cincinnati Bell
- ☐ Cincinnati/Northern Kentucky International Airport (Kentucky Airport Zoning Commission for height restrictions near the airport)
- ☐ Duke Energy
- ☐ Florence Public Services Department
- ☐ Kentucky Division of Water
- ☑ Kentucky Transportation Cabinet
- ☑ Local Fire District
- ☐ Local School District
- ☐ Northern Kentucky Health Department
- ☐ Owen Cooperative Electric, Inc.
- ☐ Sanitation District No. 1
- ☐ USDA NRCS/Boone County Conservation District
- ☐ Other: _____

16. Concept Development Plan Jurisdiction/Location (check all that apply):
☑ Unincorporated Boone ☐ Florence ☐ Walton ☐ Union

17. Waiver of 60 Day Time Requirement by Originator for Final Planning Commission Action:

In accordance with the provisions of KRS 100.211, the applicant(s) and property owner(s) or originator(s) hereby waive the 60 day time limit for the Boone County Planning Commission to take final action on my (our) Zoning Map Amendment/Concept Development Plan application. This time limit waiver is considered effective immediately upon receipt by the Boone County Planning Commission and expires on November 30, 2023

Property Owner's Signature: kurtis P. kuenning Managing Member/ President CEO

Applicant's Signature: James E Larson

EXHIBIT
"A"

STAFF REPORT

#2

Request of **KMK Law, per James Parsons (applicant)** for **Mt. Zion MHC LP, per Kurtis P. Keeney (owner)** for a Zoning Map Amendment from Mobile Home Park (MHP) to Commercial Four (C-4), including the following variances: (1) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Mt. Zion Road; (2) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Carpenter Drive; and (3) reducing the rear yard building setback from fifty (50) feet to thirty-eight (38) feet, for an approximate 1 acre area located at the southeast corner of the intersection of Mt. Zion Road and Lakeside Drive, including the properties at 266, 270, 274, 278, 282, 286, and 290 Carpenter Drive and 10006 West Garland Court, Boone County, Kentucky. The request is for a Zoning Map Amendment to allow the development of an eating and drinking establishment with drive-through service.

October 4, 2023

REQUESTS

A. The first request is a zoning map amendment for an approximate 1 acre area from MHP to C-4 in order to develop a 4,359 square foot eating and drinking establishment (McDonald's) with drive-through service.
B. The second request is for a Variance to reduce the street frontage buffer requirement from 10 feet in width to approximately 1 foot in width along Mt. Zion Road.
C. The third request is for a Variance to reduce the street frontage buffer requirement from 10 feet in width to approximately 1 foot in width along Carpenter Drive.
D. The fourth request is for a Variance to reduce the rear yard building setback from 50 feet to approximately 38 feet.

PERTINENT SITE HISTORY

The site was developed as a mobile home park sometime in the early 1970's.

APPLICABLE REGULATIONS

A. Section 308 of the Boone County Zoning Regulations states that before any map amendment is granted, the Planning Commission and legislative body shall use the following criteria:

    1. The map amendment is in agreement with the adopted comprehensive plan and any specific study designed to further detail the Boone County Comprehensive Plan for the location in question; or

    2. The existing zoning classification is inappropriate and that the proposed zoning classification is appropriate; or

3. There have been major changes of an economic, physical, or social nature not anticipated in the adopted comprehensive plan that substantially alter the area's character.

B. Section 302 of the Boone County Zoning Regulations states that at the time of filing an application for a zoning map amendment, an applicant may also request a dimensional variance for the same development.

C. Section 250 of the Boone County Zoning Regulations defines a variance as a departure from dimensional terms of the zoning regulation pertaining to the height, width, or location of structures, and the size of yards and open spaces where such departure meets the requirements of KRS 100.241 to 100.247.

D. The Planning Commission should evaluate the variance as it relates to the Variance criteria as stated in Section 251 of the Boone County Zoning Regulations.

Before any variance is granted, the Board must find that the granting of the variance will not adversely affect the public health, safety or welfare, will not alter the essential character of the general vicinity, will not cause a hazard or a nuisance to the public, and will not allow an unreasonable circumvention of the requirements of the zoning regulations. In making these findings, the board shall consider whether:

1. The requested variance arises from special circumstances which do not generally apply to land in the general vicinity, or in the same zone;

2. The strict application of the provisions of the regulations would deprive the applicant of the reasonable use of the land or would create an unnecessary hardship on the applicant;

3. The circumstances are the result of actions of the applicant taken subsequent to the adoption of the zoning regulation from which relief is sought.

The Board shall deny any request for a variance arising from circumstances that are the result of willful violations of the zoning regulation by the applicant subsequent to the adoption of the zoning regulation from which relief is sought.

E. Section 505.4 and Table 5-5 of the Boone County Zoning Regulations principally permits eating and drinking establishments in the C-4 zoning district.

F. Section 1004.6 of the Boone County Zoning Regulations allows for Drive-in facilities as an accessory use in the C-4 zoning district.

G. Section 3155 of the Boone County Zoning Regulations requires the following stacking standards:

Eating and Drinking Establishment: A minimum of four (4) stacking spaces, per drive-through lane, prior to the menu board/ordering station, plus one (1) stacking space at the menu board/ordering station, plus a minimum of four (4) stacking spaces between the menu board/ordering station and the pick-up window.

The zoning administrator may modify the requirements of this subsection, based upon the submittal of a traffic/parking study.

H. Table 31.1 of the Boone County Zoning Regulations shows the following minimum building setbacks that are required in a C-4 district:

1. Front Yard – 30 feet
2. Rear Yard – 50 feet when adjoining MHP
3. Side Yard – 50 feet when adjoining MHP

I. Table 32-2 and Section 3620 of the Boone County Zoning Regulations require a street frontage buffer to be a minimum of 10' in width.

J. Section 1004. A of the Boone County Zoning Regulations states that the purpose of the Commercial Four district is to provide locally oriented commercial services, either retail, recreational or office uses, in areas located near or adjacent to interstate highways and arterial roads. These areas are either currently or expected to experience rapid growth due to the population projections and recommended land uses in the Boone County Comprehensive Plan and in other land use studies. Such uses would serve to accommodate the service demands of an expanding local population that normally can't be met because of the limited type and scale of office, recreational or retail use in the immediate area. These types of uses are intended to serve the local population or community rather than regional interests. Districts will be located near or adjacent to interstate highways and along arterial roads whereby access and visibility are required to serve local residents. These districts shall be limited in size in order to provide maximum ingress and egress for the local population.

RELATIONSHIP TO COMPREHENSIVE PLAN

A. The Our Boone County Plan 2040 Future Land Use Plan designates the site for Commercial uses, which is described as "retail, corporate and professional office, interchange commercial, indoor commercial recreation, restaurants, services, etc."

B. The Land Use Plan Element of Our Boone County Plan 2040, includes the following passages, which relate to the request:

1. Development at the Mt. Zion interchange should be planned in such a way as to not greatly impact the existing and planned Suburban Density Residential uses in

the area. KY 536 (Mt. Zion Rd.) is planned for major widening, which will make this corridor a major arterial route from Boone County, through Kenton County, to Campbell County. Reconstruction of the Mt. Zion/I-75 interchange is expected to begin in 2019 and the reconstruction of Mt. Zion Road from I-75 to Old Union Road is underway and should be completed by 2020. Commercial activity associated with the interchange should be concentrated on the east side of the interstate. Access for these commercial uses should be coordinated so that all development can easily access traffic signals. All commercial development should be planned with attention to possible traffic impacts because this interchange will serve an increasing volume of residential, commercial, and industrial traffic. The type of commercial activity northeast of the interchange should serve the residential areas on Mt. Zion Road and along Dixie Highway, Gateway Technical College, and the Northern Kentucky Industrial Park. Street and parking lot connections are critical in this area to help traffic flow on Mt. Zion Road. South of the interchange, between the interstate and U.S. 25, should develop in a variety of residential and commercial mixed uses. In time, the Greenlawn Estates Mobile Home Park should redevelop as Commercial due to its high visibility and access along Mt. Zion Road. Mobile home development should not extend south of Maher Road. Reconstruction and widening of U.S. 25 creates the potential for redevelopment in much of this corridor. Mixed use development with prevalent interconnections is recommended. (Florence Industrial Future Land Use Geographical Area, pg. 132).

2. "Developments in Boone County must recognize the potential impacts upon adjoining land uses and incorporate a transition of land uses, building setbacks, and/or landscaping to minimize these impacts. Potential impacts include visual, noise or vibrations, odors, dust, smoke, and light. Buffering to mitigate these impacts should be an integral part of the design of proposed projects; where appropriate, existing site features should be used in meeting this guideline. Developments should provide buffering along public roadways, to soften the visual impact. Appropriate wooded areas and stream valleys should remain as open space within developments and between developments. Developments proposed adjacent to planned or established open spaces should provide pedestrian access where appropriate. Natural green space benefits the community as well as encourages developers to create innovative development designs through clustering of buildings and impermeable area. Typically, buffering is required and provided between both like and unlike land uses. However, as the development of Boone County fills in previously rural areas, different lot sizes and designs of residential development sometimes impact each other. Where an appropriate gradation of lot size and setbacks cannot be designed into a proposed residential subdivision development of a significantly higher density than existing adjacent residential uses, deliberate vegetation buffering may need to be incorporated into the design to help protect low density residential areas. Buffer areas should use and supplement existing site features where possible" (Future Land Use Development Guidelines, Buffering, pp. 95-96).

3. "Developments in Boone County must include landscaping to accompany the proposed project. Retention of existing healthy vegetation is considered a component of landscaping and is encouraged. This landscaping should be designed to improve the public view of a development, and should be incorporated into parking lots and other vehicle circulation areas, as well as within open spaces and around structures. Landscaping is intended to soften the visual impacts of the development from adjoining properties and roadways. The amount of heat absorbed by impervious cover from sun radiation is decreased by landscaping, which reduces energy costs. Landscaping helps purify the air of harmful pollutants, thus reducing health impacts. It also helps reduce the quantity and improve the quality of storm water runoff, including temperature. The use of bioretention islands (water filtering basins) and grass swales should be used where possible in place of raised islands as described in Northern Kentucky's Storm Water Best Management Practices Manual (2012). Native species are often heartier than nursery stock and should be used wherever possible to minimize pesticides and other high impact forms of maintenance. Developments along major roadways in Boone County must include landscaping between the development and the right-of-way in order to promote the aesthetic appearance from the roads and to facilitate the compatibility of differing land uses (Future Land Use Development Guidelines, Landscaping, pg. 96).

4. Developments in Boone County must recognize the potential impacts of associated traffic on adjoining properties and transportation systems. The need exists to protect the capacity of the existing roadway network and to plan improvements to accommodate new development and travel patterns. Access management provisions include the coordination of curb cuts, adequate corner clearance and sight distance for access points, adequate spacing between access points, shared access points and parking facilities, provisions for access connections to adjoining properties, and dedication of public right-of-way (Future Land Use Development Guidelines, Access Management, pg. 96).

5. Developments in Boone County should give consideration to the overall design of the area. Site, landscape, and building design should be a primary concern at the early stages of the development, with an emphasis on the aesthetic impact of the proposed use. The minimal use of signs is encouraged; signage should be adequate to identify a specific development, but should not be used as a means to compete for motorist attention. The objective is to avoid the confusion and/or distraction of motorists, and to avoid the potential negative impacts of signs on the visual appearance of a development or corridor. Utility lines should be placed underground wherever possible, and junction boxes screened from public view (Future Land Use Development Guidelines, Design, Signs, and Cultural Resource Preservation, pg. 97).

C. The following Our Boone County Plan 2040 Goals and Objectives apply to this

application:

1. Land uses and zoning decisions shall strive to balance the rights of landowners with the rights of neighbors and the community (Overall Goal A, Objective 4).

2. Provide appropriate services, housing, employment, and shopping opportunities in order to meet the needs of the population in all geographic areas of the County (Demographics Goal A, Objective 4).

3. Boone County businesses are developed in appropriate locations and are compatible with surrounding land uses. (Economy Goal B).

4. Compact, efficient development patterns shall be encouraged for industrial, commercial, and office uses with appropriately sized and well maintained buffer spaces between the business use and other land uses. (Economy Goal B, Objective 1).

5. Mixing of commercial and non-commercial uses shall occur in areas where consideration has been given to assure compatibility with surrounding land uses and natural systems (Economy Goal B, Objective 2).

6. Commercial uses shall be designed and located to coordinate with the surrounding land uses and shall have safe access and adequate parking. (Economy Goal B, Objective 3).

7. Priority shall be given towards maintaining, protecting, and improving the capacity and safety of the existing road system across jurisdictions (Transportation Goal A, Objective 1).

8. Roadway capacity shall be preserved by utilizing access management policies and guidelines (Transportation Goal B, Objective 4).

9. Traffic impact analysis should be used as a tool to address impacts to the existing transportation system. (Transportation Goal C, Objective 3).

D. Mt. Zion Road is a state-maintained arterial street providing for two-way traffic within five driving lanes and additional turn lanes. There are multi-use paths along both sides of the roadway. The posted speed limit is 45 MPH.

E. Lakeside Drive and Carpenter Drive are privately maintained streets providing two-way traffic within two driving lanes. There are sidewalks located along the private streets. The posted speed limit is 20 MPH.

ADJACENT LAND USES AND ZONES

North: Commercial businesses (C-4)
South: Mobile Home Park (MHP)
East: Mobile Home Park (MHP)
West: Commercial businesses (C-4) and Mobile Home Park (MHP)

SITE CHARACTERISTICS

A. The approximate 1-acre area is located along the south side of Mt. Zion Road, the east side of Lakeside Drive, and the north side of Carpenter Drive.

B. The area to be rezoned has approximately two hundred and ninety-four (294) feet of frontage along Mt. Zion Road, approximately three hundred and forty (340) feet of frontage along Carpenter Drive, and approximately one hundred and twenty (120) feet of frontage along Lakeside Drive.

C. The approximate 1-acre area is currently occupied by five mobile homes.

D. The proposed site will be accessed from the signalized intersection of Mt. Zion Road and Lakeside Drive.

E. Topographically, the approximately 1-acre site slopes from Mt Zion Road back to Carpenter Drive at an average grade of 3%.

F. There is currently a barricade across Lakeside Drive preventing access to the mobile home park from Mt. Zion Road.

G. The main access to the mobile home park is from the intersection of Dixie Highway and Beeson Drive.

H. There appears to be a regional retention pond located near the end of Lakeside Drive.

CONCEPT PLAN

A. The applicant is proposing the following:

1. Construction of a 4,359 square foot McDonald's restaurant with drive-through service and a 70 seat dining room.
2. A single point of access to and from the site onto Lakeside Drive.
3. Asphalt paving providing a total of 43 parking spaces.
4. Provision for utilities, lighting, signage, and landscaping.

STAFF COMMENTS

A. Staff has reviewed the submitted Concept Development Plan and sign package against the Boone County Zoning Regulations and offers the following comments. Given the conceptual nature of the submitted plan, this review is not intended to be all-inclusive.

1. Staff has requested that peak hour trip generation information be provided for the drive-through based on existing McDonald's sites located in Boone County.

    i. Staff expressed that although the Plan shows compliance with the stacking requirements for drive-through facilities, additional vehicles at peak time could impede upon the required 14-foot wide width of the internal, one-way drive aisle.

2. Section 3220.A states that the Planning Commission may require that all traffic requiring access to and from a development shall operate in such a manner as to not adversely affect the level of service of the roadway. Provisions for the present or future construction of a frontage road, restriction or channelization of turning movements, or other improvements may be required, as a condition of approval, in order to maintain the level of service of any adjacent roadway.

    i. The Concept Development Plan shows a 24" barrier curb being constructed to prohibit traffic from accessing the mobile home park via Lakeside Drive. Although this reduces the potential traffic to this use, it does not allow for the potential of future connections as this area transitions towards the recommended, commercial use.

3. Section 3232.B states that adequate stacking capacity must be provided for both inbound and outbound vehicles to facilitate safe movement. Inbound vehicle storage areas must be of sufficient size to ensure that vehicles will not obstruct the adjacent street, sidewalk, or circulation within the development. Outbound vehicle storage areas must be provided to eliminate backup and delay of vehicles within the development.

    i. The Concept Development Plan does not provide stacking information for vehicles exiting the site. There could be stacking issues exiting the parking lot out onto Lakeside Drive and potentially Mt. Zion Road.

4. Section 3311. states that one (1) off-street loading space shall be provided and maintained on the same lot for every building designed to house uses which require delivery of goods and having a modified gross floor area of up to five thousand (5,000) square feet.

i. The Concept Development Plan does not address deliveries to the proposed use, nor does it identify a loading space.

5. Section 3645.B.4 states that buffer yards can be located within building setbacks, and in some circumstances can be located within utility easements or rights of ways. However, this will require approval by the Planning Commission Staff and shall only be permitted if the required amount of plant material can be accommodated in an area in which the plants will be permitted to flourish. Planting within these areas shall require a written agreement from the grantee of the easement or owner of the right-of-way.

   i. The Concept Development Plan shows proposed landscaping within the right-of-way of Mt. Zion Road. Staff has not received an approved encroachment permit or an email from the Kentucky Transportation Cabinet to allow the landscaping within the public right-of-way.

6. Section 3151.A states that within Unincorporated Boone County and the Cities of Union and Walton, trash collection structures shall be constructed of brick or masonry walls and/or wooden fences which are a minimum of five (5) feet tall or one (1) foot higher than the trash container to be screened. Chain link fences with slats are not acceptable enclosure materials.

   i. The Concept Development Plan references an architectural plan detail for the trash collection structure. Staff was not able to identify the architectural plan sheet that provided the detail.

7. Section 3155 A.5. states that intercoms or other audio devices used in conjunction with a drive-through facility shall not be audible beyond the property line of the lot containing the drive-through facility.

   i. The proposed ordering station is less than 80 feet from the east property line. Staff cannot determine from the submitted plan if the proposal will be audible to the adjacent mobile home tenants.

8. Section 3325 outlines the formulas for determining the number of required parking spaces. An eating and drinking establishment located in Unincorporated Boone County requires 1.00 space for every 2 seats including wait area seating, plus 1.00 space for each 20 sf of open wait area; any drive-in service spaces shall not be credited towards required spaces.

i. The Concept Development Plan shows a total of provided parking to be 43 spaces. The calculation shows that 38 spaces are required but does not account for the drive-in service spaces. The submitted sign package shows ten (10) signs dedicated to "Curbside Pick Up" and six (6) "Drive Thru Reserved", but those spaces are not indicated on the plan nor accounted for in the calculations.

9. Section 3400 through Section 3408 gives the Zoning Regulations as it pertains to signs.

   i. The submitted sign package shows directional signs for "Curbside Pick Up" and "Drive Thru Reserved" being seven (7) feet in height. The maximum allowable height for directional signs is five (5) feet.

   ii. The sign package includes a 25-foot-high McDonald's flag which is prohibited.

   iii. The McDelivery, Mobile Order, and Window Position signs meet the definition of projecting signs which are prohibited in the C-4 Zoning District.

10. Table 36-1 outlines the required buffer yards of the Zoning Regulations.

    i. The proposed zone to be developed would be C-4 and the east property line would adjoin the MHP requiring a Buffer Yard "B". The plan would need to be revised to meet the planting requirement for that buffer yard.

B. A Traffic Impact Study was submitted with the request and it's part of the record as an exhibit. Staff included the executive summary, introduction, and the recommendations and conclusions in the Staff Report.

The following information comes from the Traffic Impact Study:

Table 1
Regional Traffic Distribution

Existing Traffic Percentage Distribution/Orientation (To/From)	AM Peak		PM Peak	
	Entering	Exiting	Entering	Exiting
East on Mt. Zion Road (KY 536)	51%	51%	52%	53%
West on Mt. Zion Road (KY 536)	49%	49%	48%	47%
Total	100%	100%	100%	100%

Table 2
Trip Generation – McDonald's Restaurant

McDonald's Restaurant Development Land Use	ITE Code*	Size	Unit	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
Fast-Food Restaurant w/Drive Thru	934	4.235	SF	96	93	189	73	67	140
Pass-By Reduction @ 50% AM, 55% PM				-48	-47	-95	-40	-37	-77
Final Trips				*48*	*46*	*94*	*33*	*30*	*63*

* *Trip Generation Manual*, Institute of Transportation Engineers (ITE), 11th Edition. See Excerpts in Appendix D.

C. An inter-departmental email was sent to the Boone County Building Department, Boone County Public Works, Boone County Water District, Florence Fire Department, KYTC, and SD1 requesting comments pertaining to the requests. These comments are attached to the Staff Report.

STAFF CONCERNS

1. There doesn't seem to be pedestrian access from the existing sidewalks into the site. Can a sidewalk be provided from the existing sidewalk along Lakeside Drive into the site at the striped pedestrian crossing in the parking lot?

2. Any signage will be required to meet the applicable Zoning Regulations for the C-4 zoning district and be submitted as a separate permit.

3. Section 3155 A.5. states that intercoms or other audio devices used in conjunction with a drive-through facility shall not be audible beyond the property line of the lot containing the drive-through facility. With the east property line being less than 80 feet away, can you address how this may affect the adjacent mobile home tenants?

4. The submitted Concept Plan shows parking that would meet the requirements but does not show proposed curbside pick-up or drive-through reservations. Will there be dedicated parking spaces for those applications?

5. The Concept Plan that was submitted doesn't address deliveries. Moreover, it does not identify a designated area for loading. Can the plan be revised to include a dedicated loading space? Are deliveries made using tractor-trailers? If so, have turning simulations been conducted and evaluated?

6. Staff would like the issue of future connectivity addressed. Has there been any discussion about the continuation of commercial development and future access when/if it continues along Mt. Zion Road?

7. Staff requests that stacking information be provided for the drive-through which is based on existing McDonald's sites located in Boone County.

8. Staff would like the applicant to address the stacking onto Lakeside Drive coming out of the development. Is there a potential for exiting vehicles to back up into the development while waiting for the traffic light?

9. Is it possible to reconstruct a portion of Carpenter Drive further south? This would allow for a better bypass lane and eliminate some of the stacking concerns. It could also allow for a full street buffer along the southern boundary and compliance with the rear yard setback.

CONCLUSION

A. The request for the proposed zoning map amendment needs to be evaluated by the Boone County Planning Commission and Boone Fiscal Court in terms of Kentucky Revised Statute (KRS) 100.213, Article 3 of the Boone County Zoning Regulations, the appropriate planning documents noted herein, and the potential impacts on existing and planned uses in the area. The 2040 Future Land Use Map will not need to be amended if the request is approved.

B. The request for the proposed Variance needs to be evaluated by the Boone County Planning Commission in terms of Kentucky Revised Statute (KRS) 100.243, Article 2 of the Boone County Zoning Regulations, the appropriate planning documents noted herein, and the potential impacts on existing and planned uses in the area.

Respectfully submitted,

Steven Lilly
Planner, Zoning Services

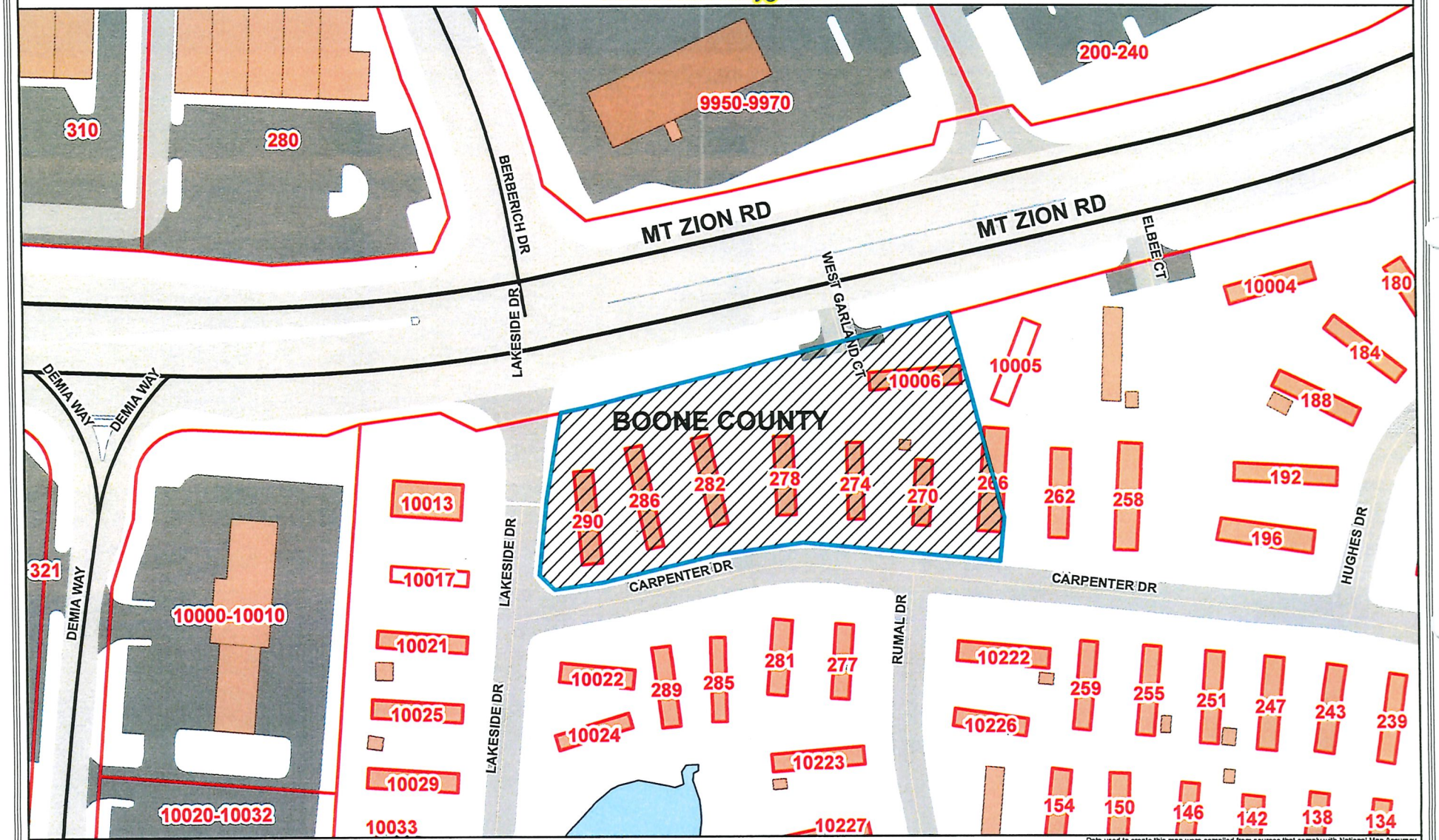
SCL/ss

Attachments:

*Vicinity Map
*Aerial Map
*Topographical Map
*Zoning Map
*2040 Future Land Use Map
* Application
*Materials Submitted by the Applicant
*Concept Development Plan
* Inter-departmental emails

Vicinity Map

www.boonecountygis.com



Data used to create this map were compiled from sources that comply with National Map Accuracy Standards. Boone County GIS extends no warranty with respect to the accuracy or content of the information provided by this map. This map should be used for general planning purposes only.

0 50 100 200 300 400 Feet

1 inch = 100 feet

N W E S

Boone County GIS - Putting Northern Kentucky on the Map

Map Created: xx/xx/2022

ArcMap Document: *.mxd

2023 Aerial Map

www.boonecountygis.com

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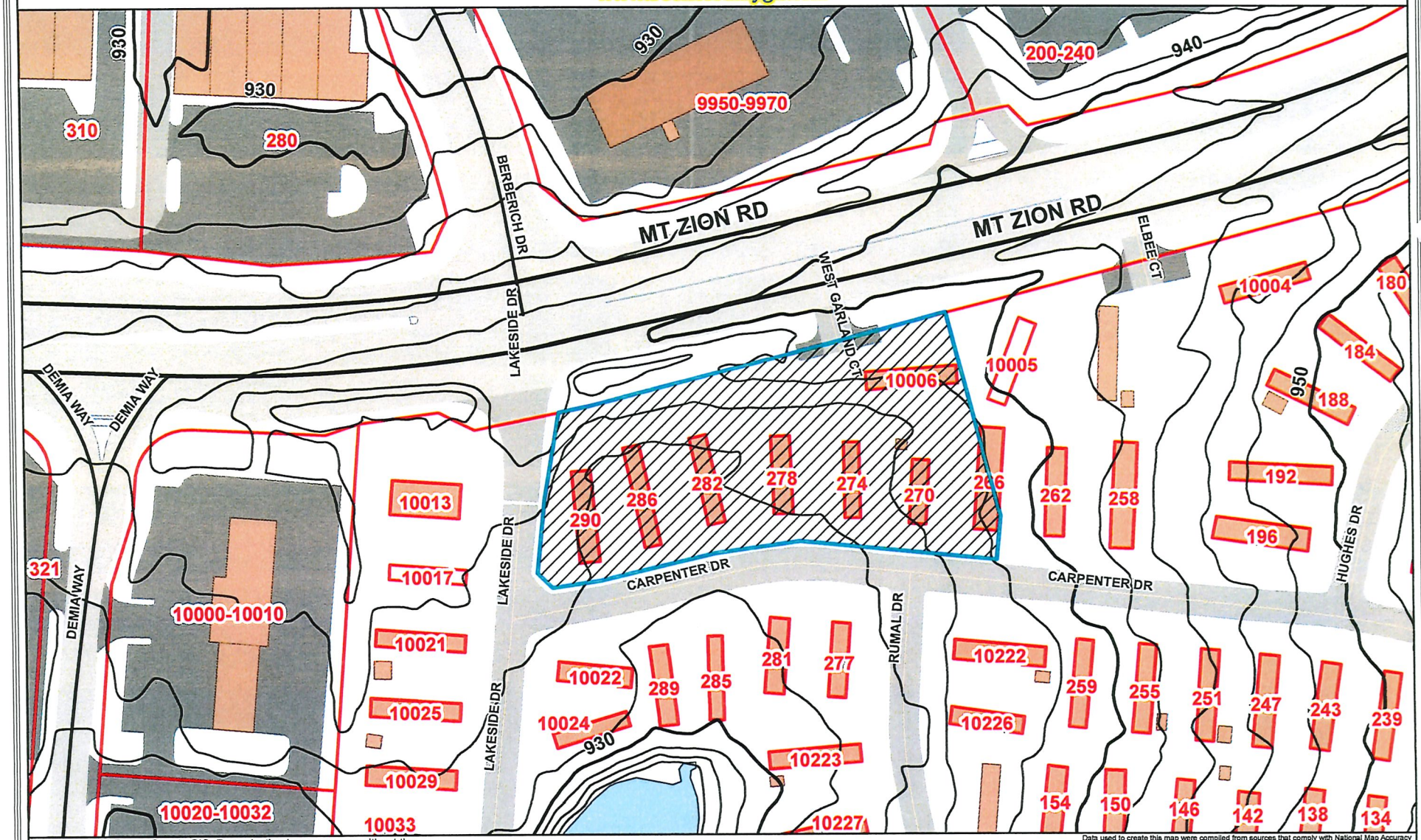
Map Created: xx/xx/2022

ArcMap Document: *.mxd

Topographical Map

www.boonecountygis.com



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Boone County GIS - Putting Northern Kentucky on the Map

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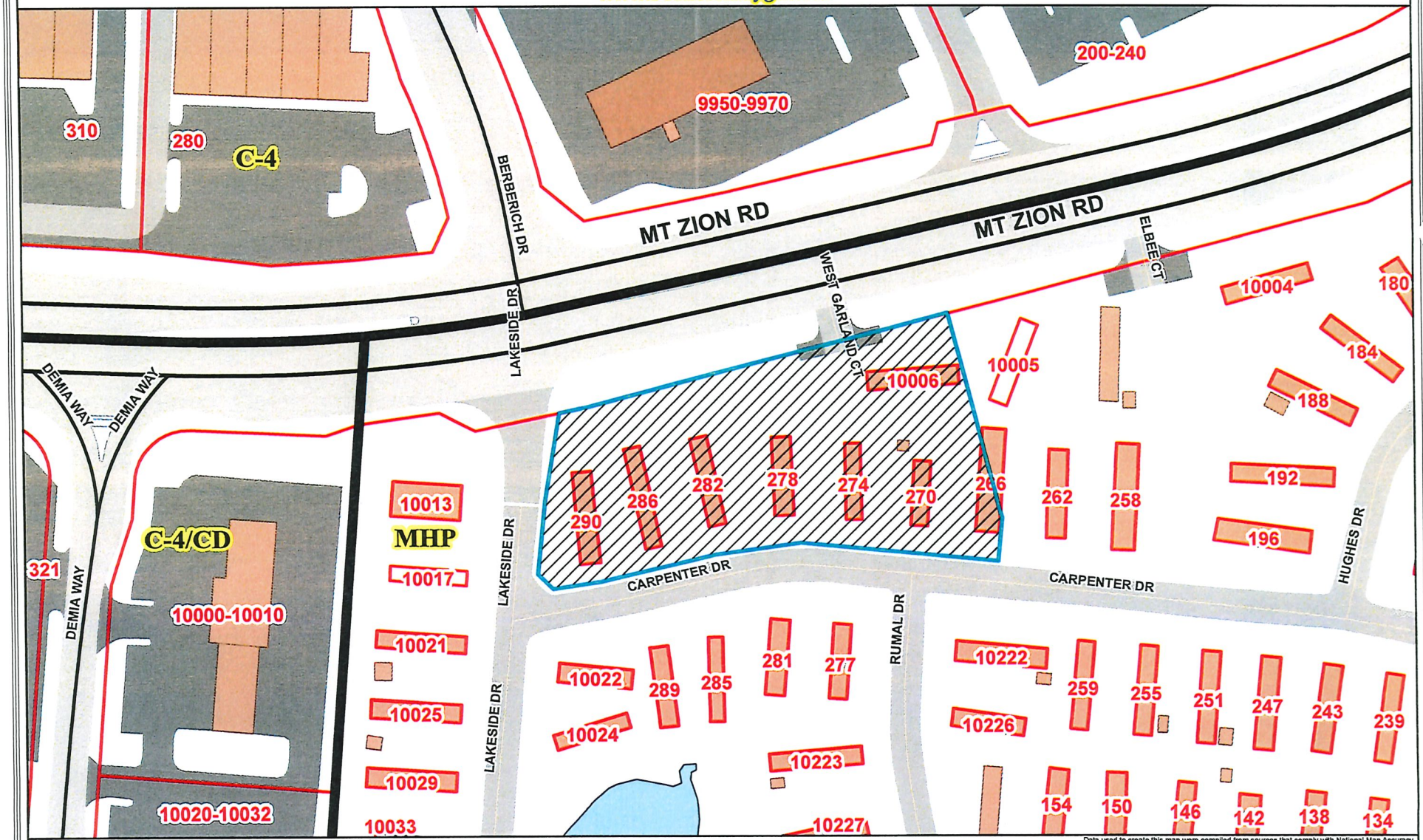
ArcMap Document: *.mxd

Zoning Map

www.boonecountygis.com



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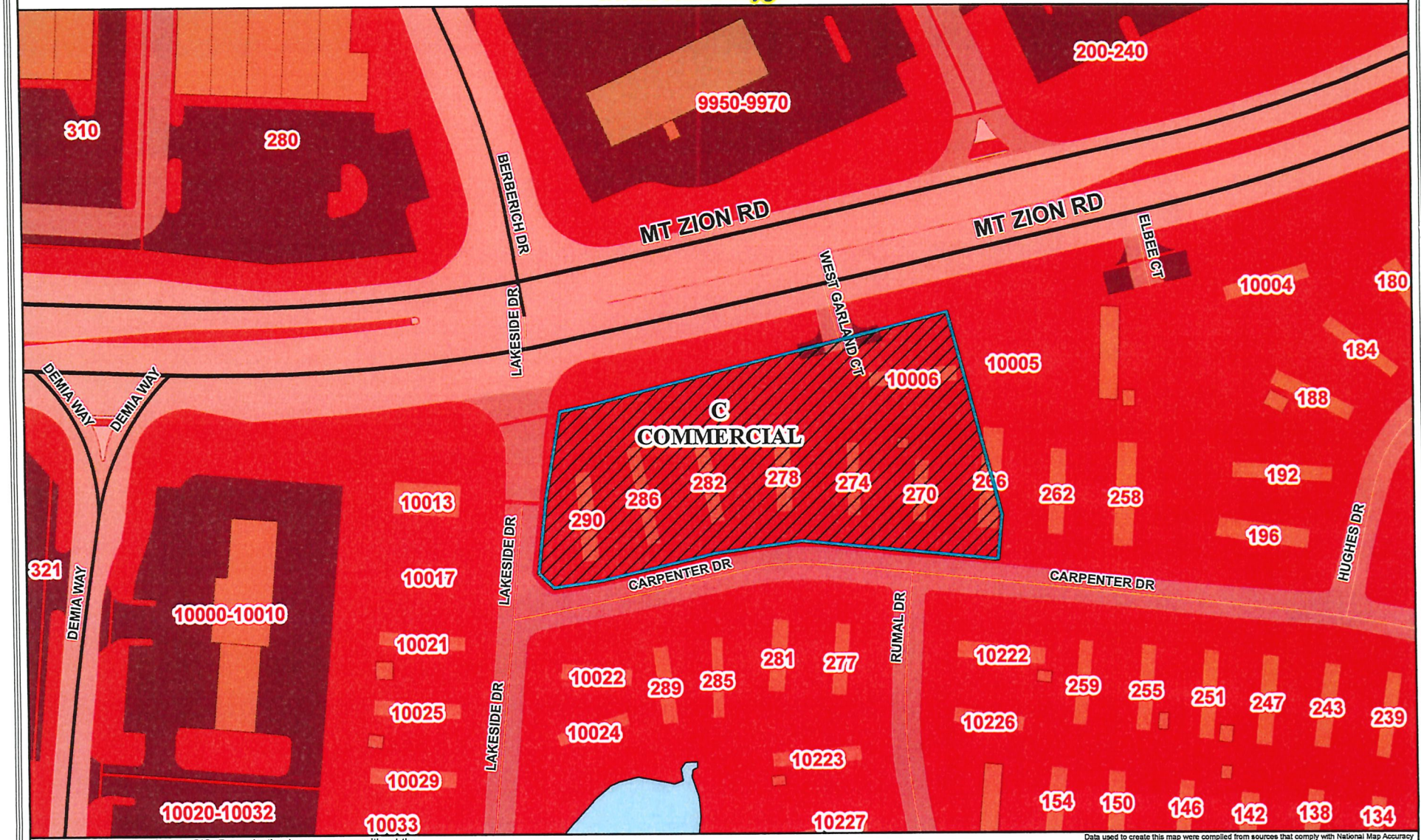
Map Created: xx/xx/2022

ArcMap Document: *.mxd

2040 Future Land Use Map

www.boonecountygis.com



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ZONING MAP AMENDMENT
BOONE COUNTY PLANNING COMMISSION

Seven (7) copies of submitted drawings are required

An application consists of all fees paid in full, submitted drawings, and a completed application form

SECTION A: (To be completed by applicant)

1. Name of Project: McDonald's Restaurant with Drive-Thru
2. Location of Project: Southeast corner of Mt. Zion Road & Lakeside Drive, Florence, KY 41042
3. Total Acreage of Project: 1.01 Acres
4. Current Zoning of Property: MHP (Mobile Home Park)
5. Proposed Zoning of Property (classification being requested): C-4 (Commercial Four)
6. Proposed Use(s) (specify each use):
   ~~Proposed is a new McDonald's Restaurant with Drive-Thru service~~
7. Proposed Building Intensities (specify for each building):
   Gross floor area would be 4,395 s.f. with space inside for 70 seats in the dining room. The drive-thru would be a two-lane drive-thru with a pay window and two (2) pick-up windows
8. Are you applying for any of the following (check all that apply):
   ☐ Conditional Use Permit ☑ Variance
9. Current Owner: Mt. Zion MHC LP
   Address: 467 Erlanger Road
   Erlanger (City) | KY (State) | 41018 (Zip Code)
   Phone Number: _____ Fax Number: _____
   Email: _____
10. Applicant: Atty. James Parsons, KMK Law (Agent for McDonald's)
    Address: One East Fourth Street, Suite 1400
    Cincinnati (City) | OH (State) | 45202 (Zip Code)
    Phone Number: (513) 579-6960 Fax Number: (513) 579-6457
    Email: jparsons@kmklaw.com
11. Are there any existing buildings on the site: ☑ Yes ☐ No
    If yes, indicate how many: There are five (5) existing mobile homes and concrete slabs for several other mobile homes at the proposed site

12. _____ Deed Book _____ Page Number _____ Group Number

13. Have you had a pre-application meeting with the BCPC staff: ☑ Yes ☐ No

14. Have you submitted a Concept Development Plan: ☑ Yes ☐ No

15. Have you met or discussed your proposed development with any of the following organizations/agencies (check all that apply):

- ☐ Boone County Building Department
- ☑ Boone County Public Works Department
- ☐ Boone County Water District
- ☐ Cincinnati Bell
- ☐ Cincinnati/Northern Kentucky International Airport (Kentucky Airport Zoning Commission for height restrictions near the airport)
- ☐ Duke Energy
- ☐ Florence Public Services Department
- ☐ Kentucky Division of Water
- ☑ Kentucky Transportation Cabinet
- ☑ Local Fire District
- ☐ Local School District
- ☐ Northern Kentucky Health Department
- ☐ Owen Cooperative Electric, Inc.
- ☐ Sanitation District No. 1
- ☐ USDA NRCS/Boone County Conservation District
- ☐ Other: _____

16. Concept Development Plan Jurisdiction/Location (check all that apply):
☑ Unincorporated Boone ☐ Florence ☐ Walton ☐ Union

17. Waiver of 60 Day Time Requirement by Originator for Final Planning Commission Action:

In accordance with the provisions of KRS 100.211, the applicant(s) and property owner(s) or originator(s) hereby waive the 60 day time limit for the Boone County Planning Commission to take final action on my (our) Zoning Map Amendment/Concept Development Plan application. This time limit waiver is considered effective immediately upon receipt by the Boone County Planning Commission and expires on November 30, 2023

Property Owner's Signature: kurtis P. kremer Managing Member/ President CEO

Applicant's Signature: James E Parsons

SECTION B: (To be completed by Planning Commission staff)

1. Date Received: _____ Fee Received: _____ Receipt #: _____

2. Number of Copies Received: _____

3. Has the following been submitted (check all that apply):

   ☐ Completed Application
   ☐ Concept Development Plan
   ☐ Legal Description
   ☐ Names and Mailing Addresses of Adjacent Property Owners

4. Date the application is Administratively Complete (as defined in KRS 100.211): _____

5. Staff Reviewer: _____

6. Committee Chairperson: _____

7. Scheduled Public Hearing Date: _____

8. Boone County Planning Commission Action: Date of Action: _____

   _____ Approved

   _____ Approved with Conditions

   _____ Denial

   _____ Other

9. Resolution Number: _____

Boone County Planning Commission
Boone County Administration Building
2950 Washington Street, Room 317
P.O. Box 958
Burlington, Kentucky 41005
Phone: 859-334-2196 Fax: 859-334-2264
plancom@boonecountyky.org
www.boonecountyky.org

BOONE COUNTY, KENTUCKY – ZONING MAP AMENDMENT MHP TO C-4

1.01 ACRE PARCEL ON SOUTH SIDE OF MT. ZION ROAD AT LAKESIDE DRIVE
(THE "PROPERTY")

Project Narrative

The proposed Map Amendment is for a planned new 1.01 acre parcel located at Mt. Zion Road (KY 536) and Lakeside Drive, Florence (unincorporated Boone County), Kentucky. The plan is to lease the Property, which is currently part of the Greenlawn Estates Mobile Home Park, and to redevelop the Property as a new McDonald's restaurant with drive-thru lanes with a gross floor area of 4,395 square feet.

The Map Amendment includes a request to approve the Concept Plan submitted herewith and to approve required side yard variances along Mt. Zion Road, Lakeside Drive and Carpenter Drive.

The Property is currently zoned Mobile Home Park (MHP), and the request is to amend the zoning for the Property to Commercial-Four (C-4), which is the same zoning as the other commercial uses to the west and north of the Property.

Boone County, KY Zoning Regulations – Section 308 Findings Necessary for Map Amendment

The Boone County Zoning Regulations state the following:

Before any amendment is granted, the Planning Commission or the legislative body shall determine that one or more of the following findings apply:

1. The map amendment is in agreement with the adopted comprehensive plan and any specific study designed to further detail the Boone County Comprehensive Plan for the location in question;

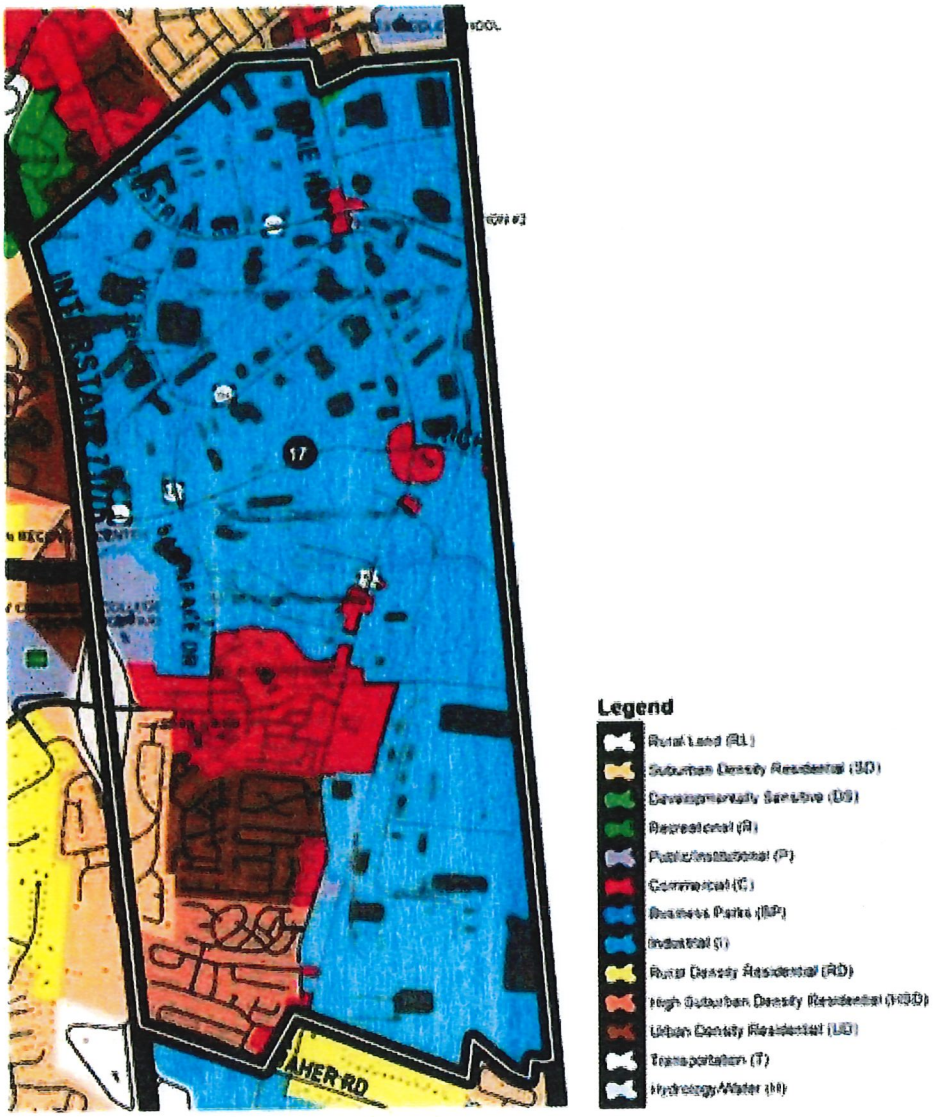
2. The existing zoning classification given to the property is inappropriate and that the proposed zoning classification is appropriate;

3. There have been major changes of an economic, physical, or social nature within the area involved which were not anticipated in the adopted comprehensive plan and which have substantially altered the basic character of such area.

Compliance with the Comprehensive Plan

For the foregoing reasons, the requested Map Amendment is consistent with the duly adopted Comprehensive Plan for the County titled "Our Boone County Plan 2040," adopted June 5, 2019 (the "Comprehensive Plan").

The Property is included within the "Florence Industrial" section of the Comprehensive Plan, as shown on the following map:



While there are general references to the Comprehensive Plan to show that the Map Amendment is in compliance, in the case at hand, there are specific references that show the change from Mobile Home Park to Commercial complies with the Comprehensive Plan. The last paragraph of the narrative for the Florence Industrial section of the Comprehensive Plan on page 132 provides as follows:

> South of the interchange, between the interstate and U.S. 25, should develop in a variety of residential and commercial mixed uses. In time, the Greenlawn Estates Mobile Home Park should redevelop as

Commercial due to its high visibility and access along Mt. Zion Road.

The Project is the first commercial development of part of the Greenlawn Estates Mobile Home Park and is encouraged to happen by the Comprehensive Plan. With the recent reconstruction of Mt. Zion Road, commercial expansion in this area is appropriate. Furthermore, the change to C-4 is consistent with the zoning for the other commercial uses in the immediate area.

Variance Request

The Applicant requests the following variances:

(1) From Article 36, Section 3620 - Landscaping Along Street Frontages (public or private)

- For both Mt. Zion Road and Carpenter Drive, the site is required to have a 10' wide buffer area
- With the current site plan, neither frontage has a 10' wide buffer area (for the entire frontage)

(2) From Article 31, Table 31.10 - Rear Yard Building Setback

- Rear Yard Building Setback in the C-4 zoning district (the proposed zone), a 50' rear yard and side yard setback is required when a property zoned C-4 is adjacent to a property zoned MHP (or any other residential district)
- With the current site plan, part of the restaurant at the southwest corner of the building is less than 50' from the adjacent parcel zoned MHP (Mobile Home Park) to the south;

The requested variances will not alter the essential character of the general vicinity, will not cause a hazard or nuisance to the public, and will not allow an unreasonable contravention of the zoning regulations. While the minimum side yards will need to be varied, significant landscaping will be provided to buffer the area. In addition, the applicant has received approval from the State Highway Department to provide landscaping in the right-of-way along Mt. Zion Road. The landscaping planned for the site is significantly greater than that provided for the other commercial uses along Mt. Zion Road. Further,

- The requested variance arises from special circumstances which do not generally apply to land in the general vicinity, or in the same district.

- The strict application of the provisions of the regulations would deprive the applicant of the reasonable use of the land or would create an unnecessary hardship on the applicant.

- The circumstances are the result of actions of the applicant taken subsequent to the adoption of the zoning regulations from which relief is sought.

bayer becker

bayerbecker.com
513.336.6600
mason | cincinnati | oxford | fort mitchell

DESCRIPTION: Mt. Zion MHC, LP
Purchase Property – 1.057 Ac.

LOCATION: Mt. Zion Road & Lakeside Drive

DATE: June 21, 2023

Situated in the County of Boone, Commonwealth of Kentucky, located on the South side of Mt. Zion Road (KY Hwy 536), and being all of the remaining portion of a 34.672 acre tract conveyed to Mt. Zion MHC, LP in Deed Book 1187, Page 362 of the Boone County Clerk's Records at Burlington and being more particularly described as follows:

Begin at the centerline intersection of Mt. Zion Road (KY Hwy 536 Sta. 191+66.01) and Lakeside Drive (Sta. 100+00), thence, departing the centerline of said Mt. Zion Road, and with the centerline of said Lakeside Drive, the following two courses: South 10°22'56" East, 57.25 feet; thence, with a curve to the right having a radius of 200.00 feet, an arc length of 16.63 feet, and a chord bearing South 07°59'59" East, 16.63 feet to a point on the South line of Parcel 118, Tract A, as conveyed to the Commonwealth of Kentucky, Transportation Cabinet, Department of Highways in Highway Deed Book 22, Page 528; thence, departing said Lakeside Drive centerline, and with the existing South right-of-way line of said KY Hwy 536, North 78°33'14" East, 26.82 feet to a point 73.60 feet right of KY Hwy 536 Sta. 191+90.84 and the TRUE POINT OF BEGINNING;

thence, from the TRUE POINT OF BEGINNING, continuing with said existing South right-of-way line of said Mt. Zion Road, North 78° 33' 14" East, 22.29 feet to a point being referenced by a found 6:x6" concrete monument (N82°47'36"W, 1.33') and also being referenced by a found 1/2" iron pin (S75°15'01"W, 1.26'), said point also being the beginning of controlled access right-of-way at Mt. Zion Road centerline station 192+12.01 as noted in said Highway Deed Book 22, Page 528;

thence, with the existing South controlled access right-of-way line of said Mt. Zion Road, North 75° 30' 27" East, 156.87 feet to the end of controlled access right-of-way at KY Hwy 536 Station 193+68.00;

thence, departing said controlled access right-of-way, and with the existing South right-of-way line of said Mt. Zion Road, North 75° 30' 12" East, 66.03 feet to the beginning of controlled access right-of-way at KY Hwy 536 station 194+34.00;

thence, with the existing South controlled access right-of-way line of said Mt. Zion Road, North 75° 16' 42" East, 49.25 feet;

thence, departing said South controlled access right-of-way line of said Mt. Zion Road, and with a new division line through said 34.672 acre tract, the following nine courses:

1. South 14° 29' 48" East, 155.25 feet;
2. thence, South 05° 29' 43" West, 31.89 feet;
3. thence, North 84° 30' 17" West, 145.30 feet;
4. thence, South 81° 56' 17" West, 62.75 feet;
5. thence, South 76° 31' 41" West, 86.34 feet;
6. thence, South 81° 29' 19" West, 36.23 feet;

7. thence, North 45° 37' 56" West, 15.64 feet;
8. thence, North 06° 02' 47" East, 55.39 feet;
9. thence, North 09° 38' 35" East, 64.58 feet to the TRUE POINT OF BEGINNING.

Containing 1.057 acres of land and being subject to all easements and rights-of-way of record.

All set corners are 5/8" x 30" iron pins with a plastic cap stamped "Chris Gephart PLS 3292" or a Mag nail with identification tag stamped "PLS 3292" unless otherwise noted. The reference meridian is NAD83(2011) Kentucky State Plane Coordinates, North Zone (1601).

The above description was prepared from a survey completed on _____ under the direction of Chris R. Gephart, Licensed Professional Land Surveyor #3292 in the Commonwealth of Kentucky.

Prior Instrument Reference: Deed Book 1187, Page 362

Next Gen 30' Road Sign

Everbrite

Illumination: LED

Electrical: 11.20 Amps @ 120V

Power Supply: Agilight PS12-60W-100/277V

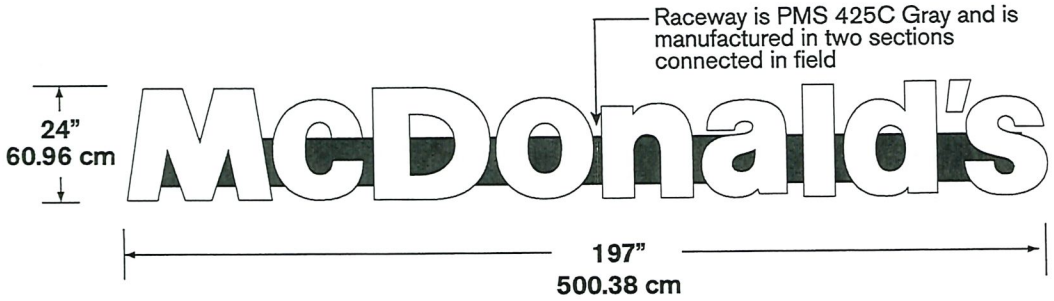
Face Detail: Laser cut aluminum faces with illuminated copy and push thru arch

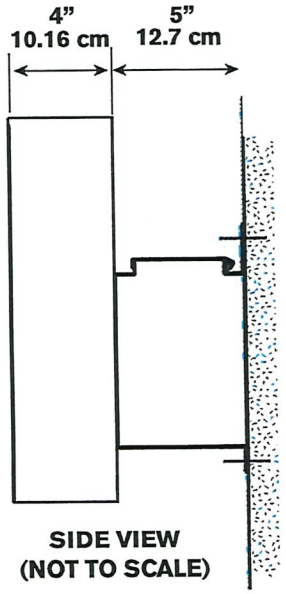
Available Panels -

Electronic Message Center (EMC) option also available.

Everbrite, LLC, 315 Marion Ave., South Milwaukee, WI, 53172 P: 888-857-4078 F: 877-430-7363 www.everbrite.com

NextGen 24" Wordmark on Raceway





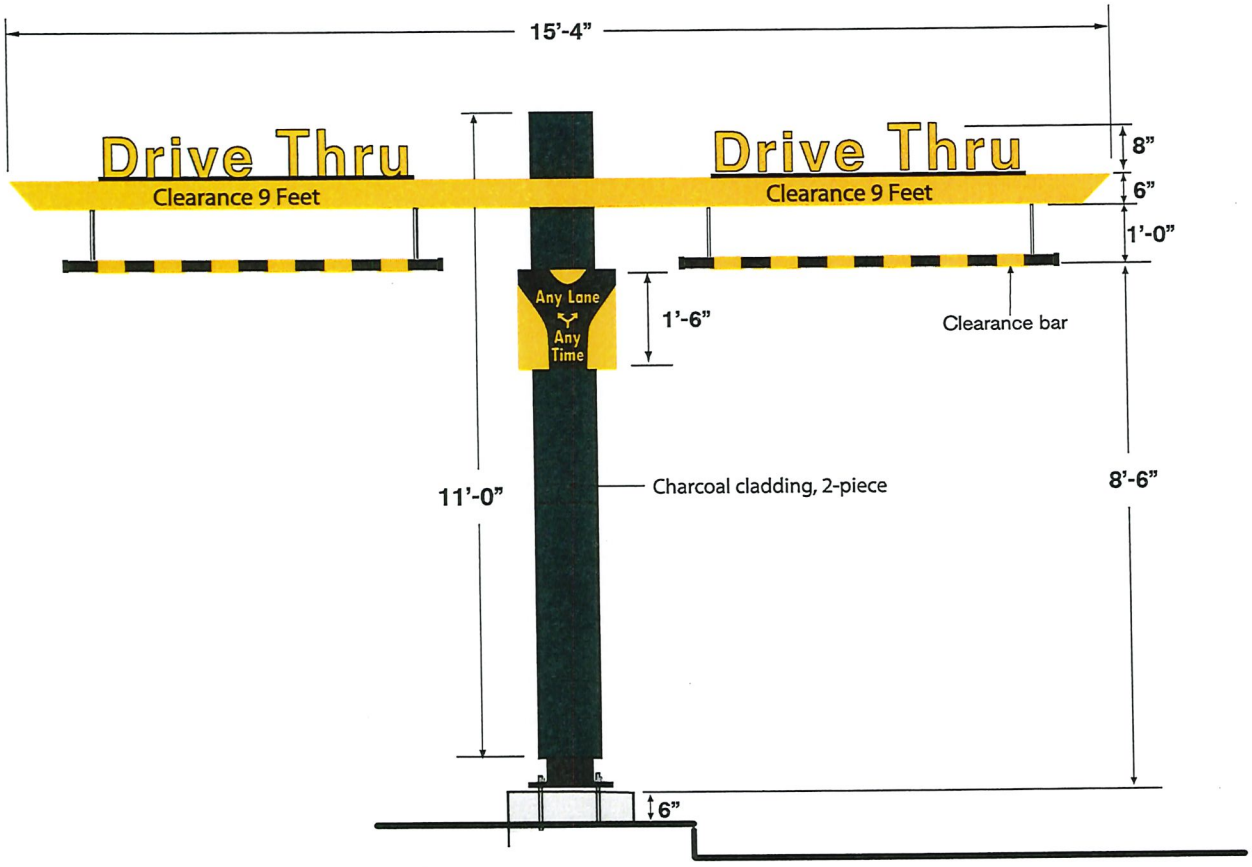
Illumination:	Agilight LS-PRO260-50K-2G3B
Electrical:	1.08 AMPS @120V
Power Supply:	(2) Agilight #PS12-60WSL-100-277V
Ship Weight:	190 lbs.

Double Welcome Point Gateway

Everbrite
Identity Systems Division

Illumination: N/A

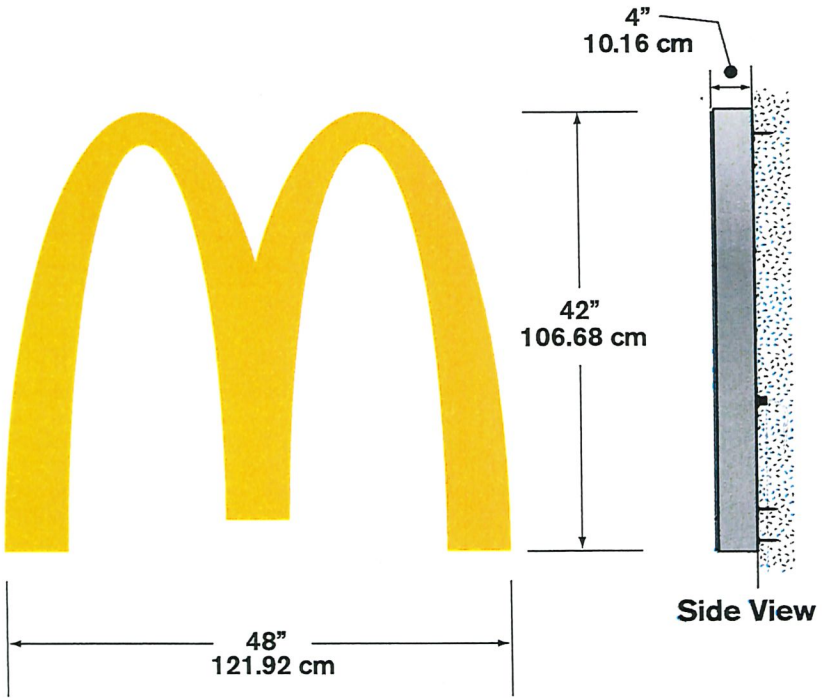
Other:
- Non-illuminated clearance sign with spring loaded break away clearance arm.
- Adjustable bang bar.



APPROACH VIEW

Everbrite, LLC, 315 Marion Ave., South Milwaukee, WI, 53172 P: 888-857-4078 F: 877-430-7363 www.everbrite.com

42” NextGen Illuminated Building Arch - LED



Illumination: LED

Electrical: .35 AMPS

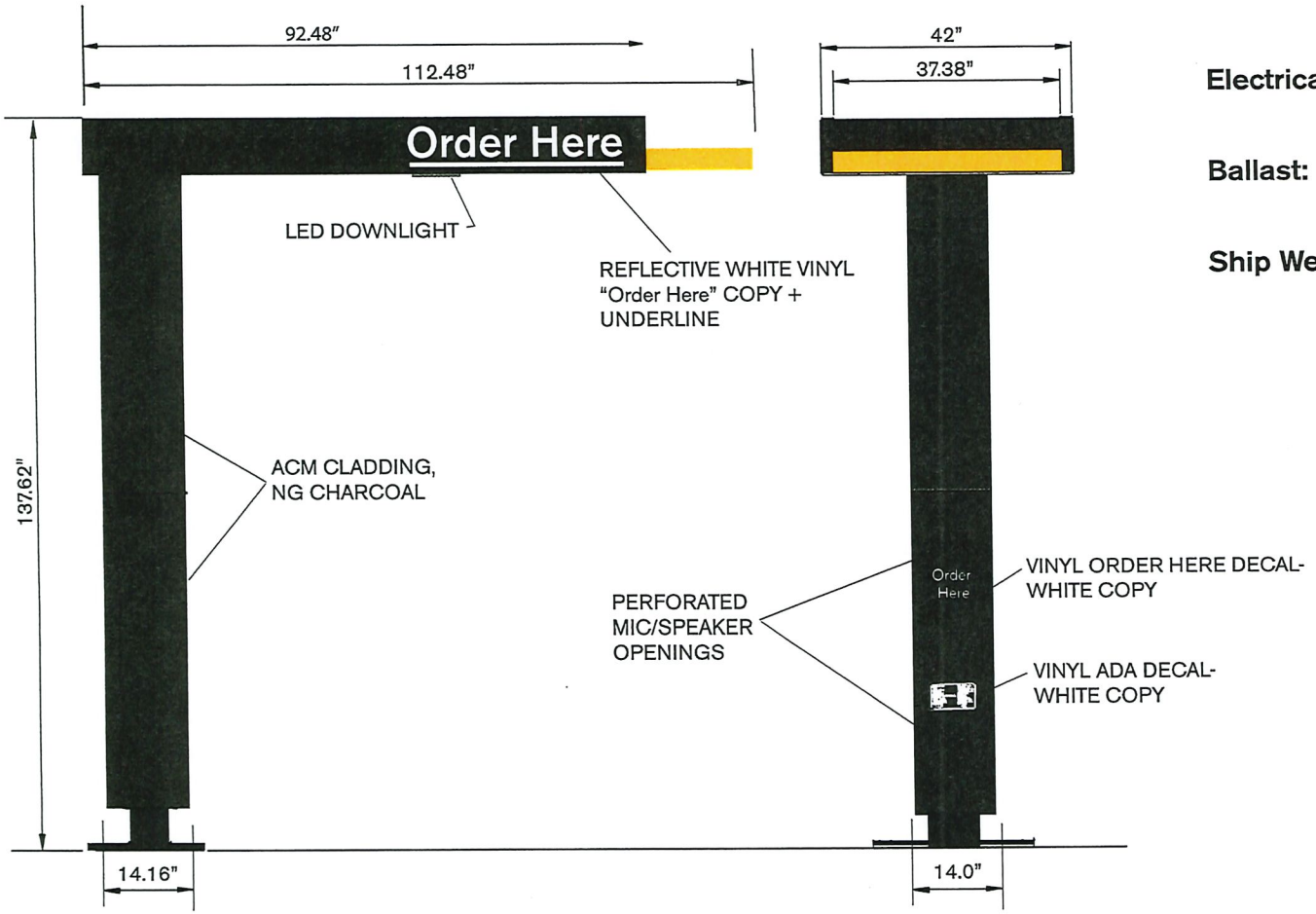
Ballast: (1) OSRAM OT75-120-277-24

Ship Weight:

Everbrite, LLC, 315 Marion Ave., South Milwaukee, WI. 53172 P: 888-857-4078 F: 877-430-7363 www.everbrite.com

Slim Springboard Canopy w/Audio Only - Yellow

Everbrite
Identity Systems Division



Illumination: LED Downlighting

Electrical: 1.5 Amps 120 volt, 60 Hz

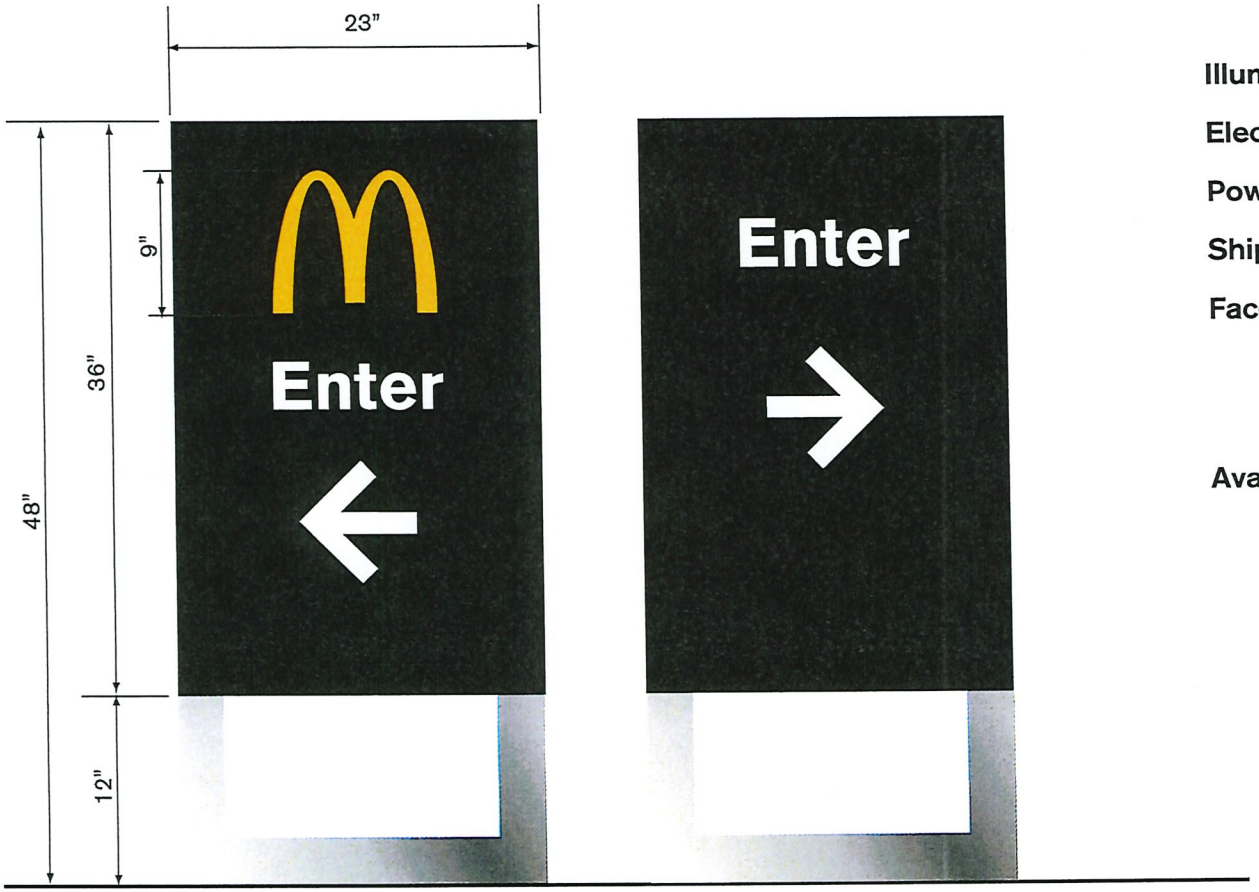
Ballast:

Ship Weight:

Everbrite, LLC, 315 Marion Ave., South Milwaukee, WI, 53172 P: 888-857-4078 F: 877-430-7363 www.everbrite.com

Next Gen Directional

Everbrite
Identity Systems Division



Directional with Arch

Directional with out Arch

Illumination:	LED
Electrical:	.25 amps
Power Supply:	Amperor ANP90-30P1
Ship Weight:	130 lbs.
Face Details:	Laser cut aluminum faces painted charcoal, white illuminated copy and arrow. Optional illuminated gold arch.
Available Copy:	Enter Exit Welcome Thank You Drive-Thru

Everbrite, LLC, 315 Marion Ave., South Milwaukee, WI, 53172 P: 888-857-4078 F: 877-430-7363 www.everbrite.com

Flag Poles

Everbrite
Identity Systems Division

Available Heights: 25' (762 cm.)
30' (914 cm.)
40' (1219 cm.)
50' (1524 cm.)

Construction: Spun aluminum

Includes: Halyard, rope and cleat

Max. allowable sq. ft. of flag: (flag not included)
25' - 40 sq. ft. 5' x 8' flag
30' - 60 sq. ft. 6' x 10' flag
40' - 96 sq. ft. 8' x 12' flag
50' - 150 sq. ft. 10' x 15' flag

Other:

- 25', 30', 40' AND 50' flag poles- standard with ball top. Eagle top available upon request.
- Pole mount Stonco or roof mount Ruud flood light available

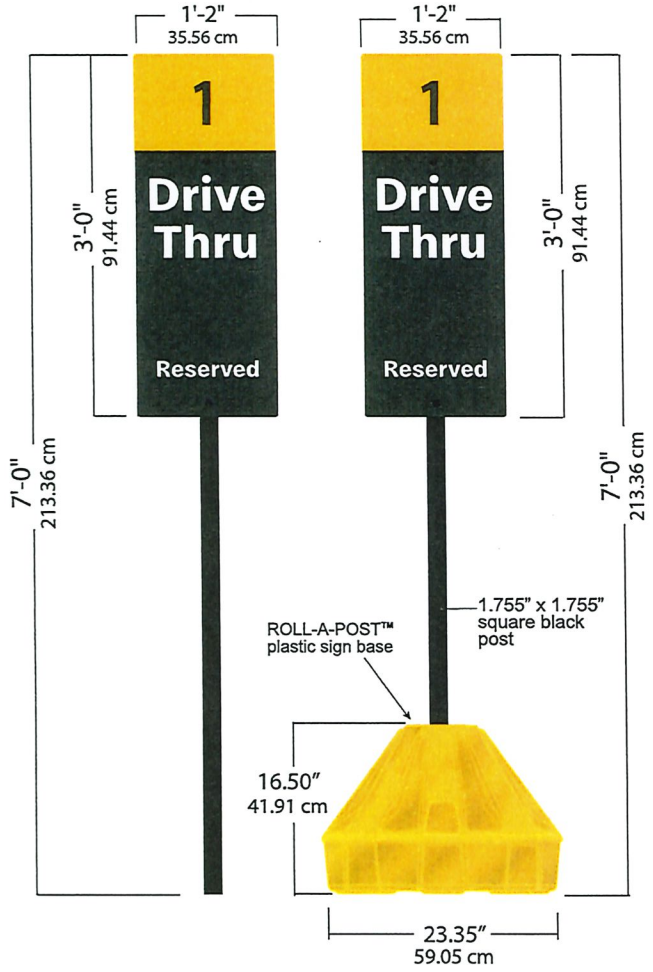
Everbrite, LLC, 315 Marion Ave., South Milwaukee, WI, 53172 P: 888-857-4078 F: 877-430-7363 www.everbrite.com

DRIVE THRU RESERVED 36"ACM SIGNS

Everbrite

OPTION A
IN GROUND SIGN
POLE PROVIDED BY OTHERS

OPTION B
MOVABLE SIGN



FACE OPTIONS

Illumination: N/A

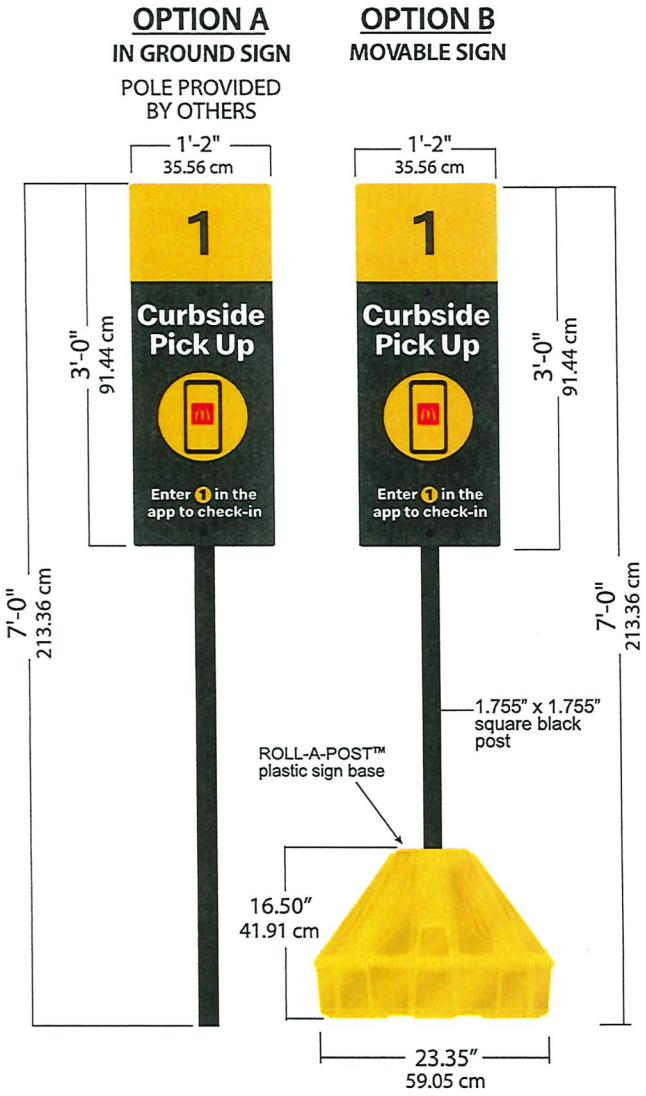
Face Details: ACM panel to match PMS 425C NG Charcoal, matte finish screened copy and graphics; Reflective yellow vinyl section at the top

Pole: Black 72" post

Base: 24" yellow ROLL-A-POST™ base

Evebrite, LLC, 315 Marion Ave., South Milwaukee, WI, 53172 P: 888-857-4078 F: 877-430-7363 www.everbrite.com

CURBSIDE PICK UP 36"ACM SIGNS



FACE OPTIONS

Illumination: N/A

Face Details: ACM panel to match PMS 425C NG Charcoal, matte finish screened copy and graphics; Reflective yellow vinyl section at the top

Pole: Black 72" post

Base: 24" yellow ROLL-A-POST™ base

Everbrite, LLC, 315 Marion Ave., South Milwaukee, WI, 53172 P: 888-857-4078 F: 877-430-7363 www.everbrite.com

TRAFFIC IMPACT STUDY
FOR
MCDONALD'S RESTAURANT DEVELOPMENT

MT. ZION ROAD (KY 536)
BOONE COUNTY, KENTUCKY

SEPTEMBER 2023

PREPARED FOR:

MCDONALD'S USA, LLC
CENTRAL OHIO REGIONAL OFFICE
2 EASTON OVAL, SUITE 200
COLUMBUS, OHIO 43219-6013

PREPARED BY:

BAYER BECKER
6900 TYLERSVILLE ROAD, SUITE 100
MASON, OHIO 45040
(513) 336-6600

bayer becker

Executive Summary

The proposed McDonald's Restaurant development is to be located in the southeast corner of the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection, in Boone County, Kentucky. The land use and density for the proposed McDonald's Restaurant development is a fast-food restaurant with drive-through window at approximately 4,235 square feet. The full build-out year of 2025 is assumed for the proposed McDonald's Restaurant development. The horizon year for the Study is 2035 (Full Build-Out + 10-Yrs).

Regional access to the proposed McDonald's Restaurant development is available on Mt. Zion Road (KY 536), with access to Interstate Highway 71/75 (I-71/I-75) and Dixie Highway (US 25), on Mt. Zion Road (KY 536), within 1-mile east and west of the proposed McDonald's Restaurant development. Direct access to the proposed McDonald's Restaurant development is planned on Lakeside Drive, Site Access is located approximately 104 feet south of Mt. Zion Road (KY 536), (measured stop bar to centerline).

Bayer Becker (BB) corresponded with the Kentucky Transportation Cabinet (KYTC) District 6 and Boone County to review and discuss the project and to establish the scope of services for this Study, which is summarized in a Traffic Scoping Document (Memorandum of Understanding (MOU)), dated July 18, 2023, and provided as Appendix A.

The following intersections comprise the study area of this report and were analyzed to determine the levels of service for the 2025 Full Build Out and 2035 Horizon Year Traffic Projections:

- Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive (Site Access).
- Mt. Zion Road (KY 536) and Demia Way.
- Mt. Zion Road (KY 536) and Kroger Center Drive.

Based on the analysis contained in this report, there are no improvements recommended to accommodate the ***2023 Existing Traffic***, ***2025 No-Build***, and ***2035 No-Build Traffic Projections*** (excluding site traffic).

Based on the analysis contained in this report, the recommended improvements to accommodate the ***2025 Build*** and ***2035 Build Traffic Projections*** (including site traffic) are as follows:

Lakeside Drive and Site Access

Construct Site Access on Lakeside Drive to the proposed McDonald's Restaurant development, approximately 104 feet (stop bar to centerline) south of the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection. The intersection design should be as follows:

- Provide one (1) eastbound lane on proposed Site Access for entering traffic.
- Provide one (1) westbound lane on proposed Site Access for exiting traffic.
- Install a stop sign traffic control device on the westbound approach to the intersection.

Compliance with Applicable Codes

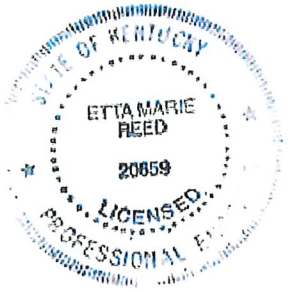
Based upon engineering judgment and the analysis contained in this report, the proposed McDonald's development will not significantly impact operations on the adjacent Mt. Zion Road (KY 536) roadway network.

Traffic Impact Study Certification

I Etta Marie Reed certify that this Traffic Impact Study has been prepared under my direct supervision and that I am a Professional Engineer registered in the State of Kentucky and have successfully completed the Traffic Impact Study Requirements training course required by KYTC. Furthermore, I certify that this study has been completed in accordance with the KYTC Traffic Impact Study Requirements and in accordance with engineering standards of practice. The results presented have been determined to be accurate representations of existing and anticipated conditions based on the assumptions and methodologies presented in this report.

Etta Marie Reed 9-15-23

Etta Marie Reed, P.E.
Engineer of Record
License No. 1-20659



College of Engineering | TECHNOLOGY TRANSFER PROGRAM

TRAFFIC IMPACT STUDY COURSE
Certificate of Completion (3.5 PDH)

Etta Reed
KY PE License No. 20659

Completed: 09/16/2022
Expires: 09/16/2026
Company: University of Kentucky

TIM THARPE
Tim Tharpe, KYTC
Director of Traffic Operations

Adam Kirk, Instructor

The official status of this certificate can be verified with the KYTC Division of Traffic Operations

Introduction

Purpose of Report and Study Objectives

The purpose of this study is to determine the traffic impacts of the proposed McDonald's Restaurant development, and to satisfy the Kentucky Transportation Cabinet's (KYTC's) requirements for traffic impact studies.

According to the Kentucky Transportation Cabinet's *Traffic Impact Study Requirements*, the purpose of a traffic impact study is to:

- Determine the appropriate location, spacing, and design of access points necessary to mitigate the traffic and operational impacts on the highway,
- Determine the need for any improvements to the adjacent and nearby roadway system and
- Maintain a satisfactory level of service and safety and to protect the function of the highway system while providing appropriate and necessary access to the proposed development.

This study describes the existing roadway network, identifies peak conditions, forecasts and distributes future traffic volumes and projects the impact of this proposed development. Conclusions relative to the impact of the increased traffic on the roadway system associated with the proposed McDonald's Restaurant Development have been identified and recommendations for mitigating any possible impacts are provided.

The following references were used in the preparation of this study for the proposed development:

- Site reconnaissance and field observations by Bayer Becker.
- Communications with staff at the Kentucky Transportation Cabinet (KYTC) District 6.
- Communications with staff at the Boone County Public Works Department.
- Communications with representatives at McDonald's USA.
- Peak hour turning movement traffic counts, performed by Bayer Becker on Tuesday, August 29, 2023, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM at the following intersections:
  - Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive.
  - Mt. Zion Road (KY 536) and Demia Way.
  - Mt. Zion Road (KY 536) and Kroger Center Drive.
- Institute of Transportation Engineer's (ITE) *Trip Generation Manual 11th, Edition.*

- *Boone County Zoning Regulations.*
- *Highway Capacity Manual (HCM), 7th Edition.*
- The *Highway Capacity Software 2023 (HCS2023,* Version 8.2*).*
- *Traffic Impact Study Requirements* provided by KYTC.
- The web based *KYTC Traffic Count Reporting System.*
- KYTC *TIS Simplified Traffic Forecast* spreadsheet.

The proposed McDonald's Restaurant development is located in the southeast corner of the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection in Boone County, Kentucky. A vicinity map is provided as Figure 1.

Figure 1
Vicinity Map

The primary objective of this traffic impact study is to determine the traffic impacts of the proposed development, to determine what off-site improvements are required to mitigate the site's impact, and to satisfy KYTC's requirements for traffic impact studies.

The following intersections define the study area of this report:

- Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive.
- Mt. Zion Road (KY 536) and Demia Way.
- Mt. Zion Road (KY 536) and Kroger Center Drive.

It should be noted that exclusive site access to the proposed McDonald's Restaurant development is on Lakeside Drive, by way of the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection.

The ***2023 Existing Year Traffic***, ***2025 Full Build-Out Year - No-Build and Build Traffic Projections***, and ***2035 Horizon Design Year (Full Build-Out + 10-yrs) - No-Build and Build Traffic Projections*** were evaluated as part of the study.

Recommendations and Conclusions

Improvements to Accommodate Base Traffic

Based on the analysis contained in this report, there are no improvements recommended to accommodate the ***2023 Existing Traffic***, ***2025 No-Build***, and ***2035 No-Build Traffic Projections***. The existing traffic and no-build traffic projections do not include traffic generated by the proposed development.

Improvements to Accommodate Site Traffic

Based on the analysis contained in this report, the following improvements are recommended to accommodate the ***2025 Build*** and ***2035 Build Traffic Projections***. The Opening Day and the Horizon Year conditions include traffic generated by the proposed development.

Lakeside Drive and Site Access

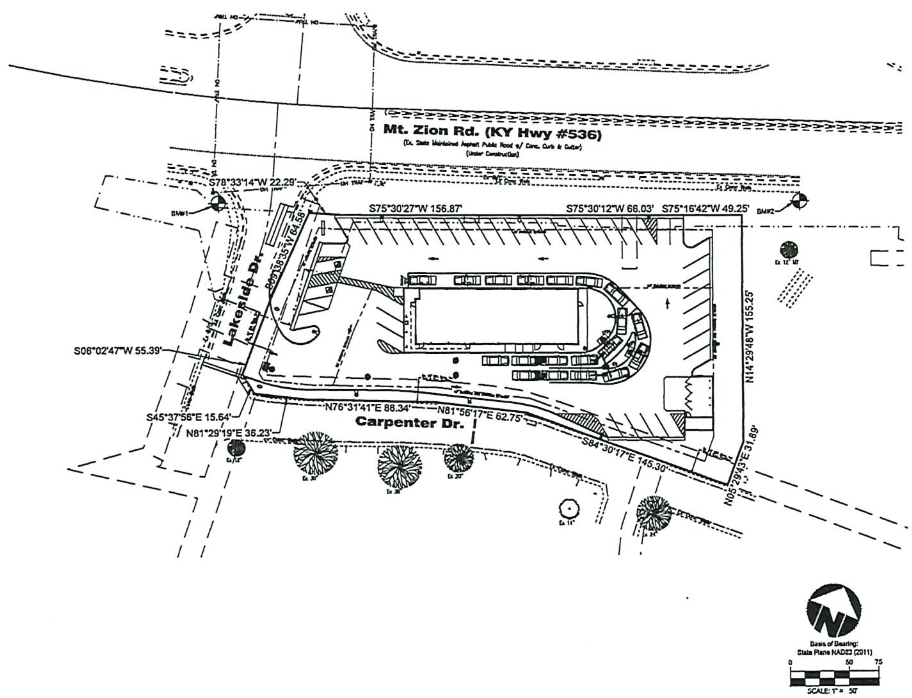
Construct Site Access on Lakeside Drive to the proposed McDonald's Restaurant development, approximately 104 feet (stop bar to centerline) south of the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection. The intersection design should be as follows:

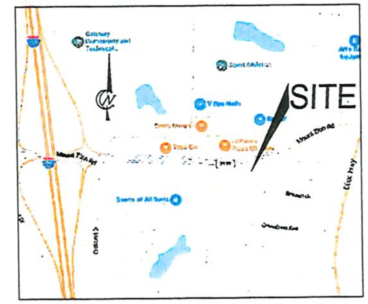
- Provide one (1) eastbound lane on proposed Site Access for entering traffic.
- Provide one (1) westbound lane on proposed Site Access for exiting traffic.
- Install a stop sign traffic control device on the westbound approach to the intersection.

Based upon engineering judgment and the analysis contained in this report, the proposed McDonald's development will not significantly impact operations on the adjacent Mt. Zion Road (KY 536) roadway network.

Plot time: Sep 05, 2023 - 3:03pm - Login Name: gregkoch
Drawing name: J:\2021\21-0244\CV\DWG\21-0244 C0.dwg - Layout Tab: C0's

McDONALD'S USA, LLC
L/C# 16-1002
MT. ZION ROAD
CITY OF FLORENCE
BOONE COUNTY, KENTUCKY





VICINITY MAP - NTS

SITE SUMMARY

LOT ACREAGE:	1.06 ACRES
EXISTING ZONING:	MHP (MOBILE HOME PARK)
PROPOSED ZONING:	C-4 (COMMERCIAL-FOUR)
GROSS FLOOR AREA:	4235 SQUARE FEET
PARKING REQUIREMENTS:	1 SPACE FOR EVERY 2 SEATS INCLUDING WAIT AREA SEATING PLUS 1 SPACE FOR EACH 20 SF OF OPEN WAIT AREA
REQUIRED PARKING:	38 SPACES
PROVIDED PARKING:	
STANDARD	41 SPACES
ACCESSIBLE	2 SPACES
TOTAL	43 SPACES

UTILITY COMPANIES

Gas
Duke Energy
Contact: Wade Begley
1262 Cox Rd.
Erlanger, KY 41018
859-534-4453

Sanitary Sewer
Sanitation District No. 1
Contact: Greg Haggard
1045 Eaton Drive
Ft. Wright, KY 41017
859-578-7450

Water Main
Boone County Water District
Contact: Mike Rouse
2475 Burlington Pike
Burlington, KY 41005
859-586-6155

Storm
Sanitation District No. 1
Contact: Andy Aman
1045 Eaton Drive
Ft. Wright, KY 41017
859-578-6880

Electric
Duke Energy
Contact: Zach Howell
1262 Cox Rd.
Erlanger, KY 41018
859-534-4445

Telephone
Cincinnati Bell Telephone
Contact: Bill Savitz
221 East 4th Street
Cincinnati, OH 45202
513-565-7187

Cable TV
Insite Communications
7906 Dixie Highway
Florence, KY 41042
859-431-7766

SHEET INDEX

OWNER
McDONALD'S CORPORATION
2 EASTON OVAL, SUITE 200
COLUMBUS, OHIO 43219

SURVEYOR, CIVIL ENGINEER & LANDSCAPE ARCHITECT
BAYER BECKER
6900 TYLERSVILLE ROAD, SUITE A
MASON, OHIO 45040
513-336-6600

BENCHMARK #1
IRON PIN ON SOUTHWEST SIDE ON MOUNT ZION RD
N:530478.417
E:1533540.713
ELEVATION=940.43

BENCHMARK #2
IRON PIN ON SOUTHEAST SIDE ON MOUNT ZION RD
N:530579.652
E:1533922.963
ELEVATION=942.32

REV	DATE	DESCRIPTION	BY
1	9-05-23	REVISE PER COUNTY COMMENTS	GJK

bayer becker
www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

L/C# 16-1002

McDonald's

PROPOSED McDONALD'S RESTAURANT AT:
MT. ZION ROAD
FLORENCE, BOONE COUNTY, KENTUCKY

JOB NO. 21-0244
DATE: 5-22-23
SCALE: 1"=40'
TITLE SHEET
SHEET: C1.0

Plot time: Sep 05, 2023 - 3:04pm - Login Name: gregkoch
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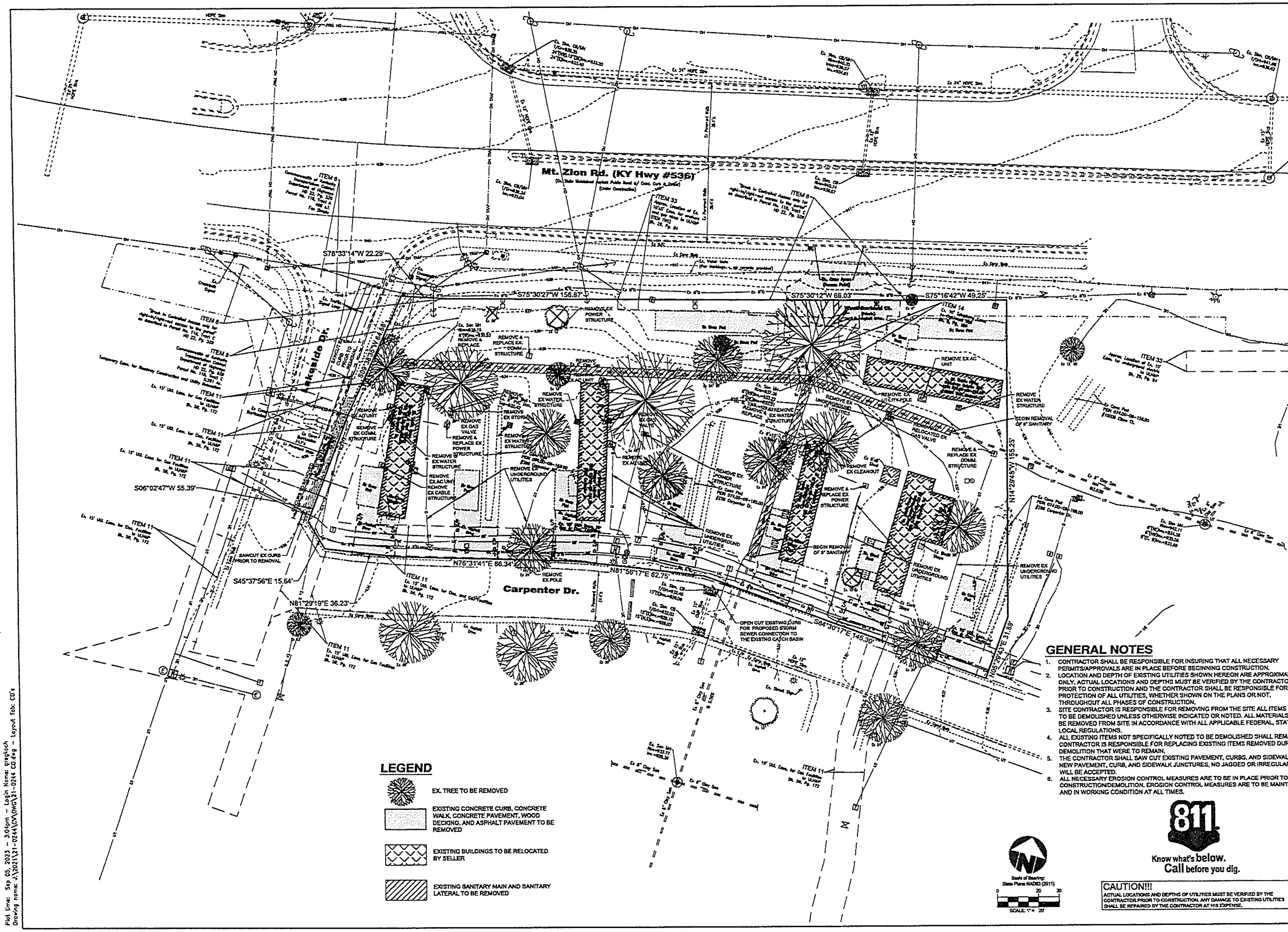


GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING THAT ALL NECESSARY PERMITS/APPROVALS ARE IN PLACE BEFORE BEGINNING CONSTRUCTION.
2. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, THROUGHOUT ALL PHASES OF CONSTRUCTION.
3. SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING FROM THE SITE ALL ITEMS SHOWN TO BE DEMOLISHED UNLESS OTHERWISE INDICATED OR NOTED. ALL MATERIALS SHALL BE REMOVED FROM SITE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
4. ALL EXISTING ITEMS NOT SPECIFICALLY NOTED TO BE DEMOLISHED SHALL REMAIN. CONTRACTOR IS RESPONSIBLE FOR REPLACING EXISTING ITEMS REMOVED DURING DEMOLITION THAT WERE TO REMAIN.
5. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT, CURBS, AND SIDEWALKS AT NEW PAVEMENT, CURB, AND SIDEWALK JUNCTURES, NO JAGGED OR IRREGULAR CUTS WILL BE ACCEPTED.
6. ALL NECESSARY EROSION CONTROL MEASURES ARE TO BE IN PLACE PRIOR TO CONSTRUCTION/DEMOLITION. EROSION CONTROL MEASURES ARE TO BE MAINTAINED AND IN WORKING CONDITION AT ALL TIMES.

811
Know what's below.
Call before you dig.

CAUTION!!!
ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

REV	DATE	DESCRIPTION	BY

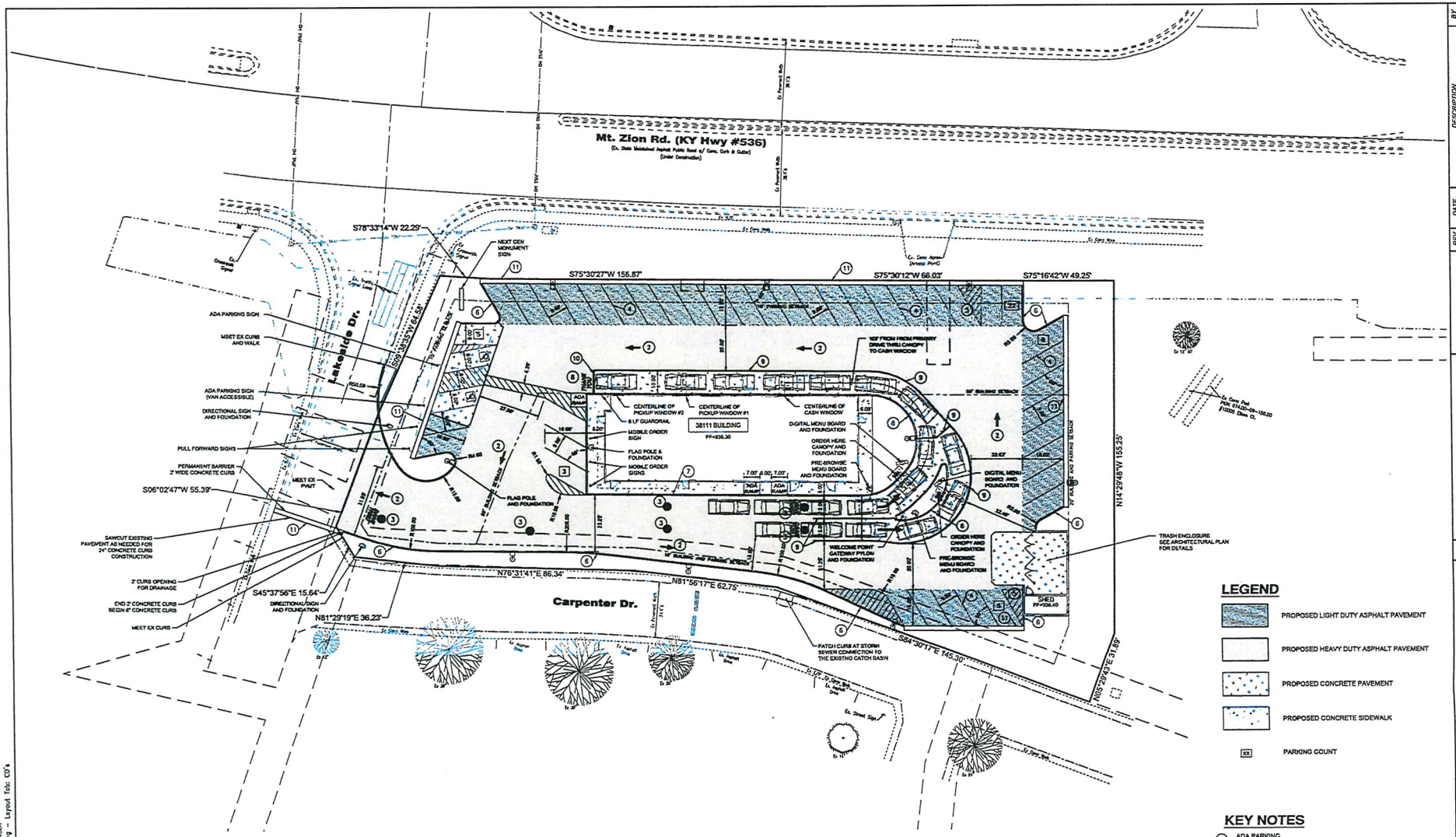
bayer becker
www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

L/C# 16-1002

McDonald's
THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF McDONALD'S CORPORATION AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

PROPOSED McDONALD'S RESTAURANT AT:
MT. ZION ROAD
FLORENCE, BOONE COUNTY, KENTUCKY

JOB NO. 21-0244
DATE: 5-22-23
SCALE: 1"=20'
DEMOLITION PLAN
SHEET: C2.0



LEGEND

- PROPOSED LIGHT DUTY ASPHALT PAVEMENT
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- XX PARKING COUNT

SITE SUMMARY

LOT ACREAGE:	1.01 ACRES
EXISTING ZONING:	MHP (MOBILE HOME PARK)
PROPOSED ZOING:	C-4 (COMMERCIAL-FOUR)
GROSS FLOOR AREA:	4395 SQUARE FEET
PARKING REQUIREMENTS:	1 SPACE FOR EVERY 2 SEATS INCLUDING WAIT AREA SEATING PLUS 1 SPACE FOR EACH 20 SF OF OPEN WAIT AREA
REQUIRED PARKING:	38 SPACES
PROVIDED PARKING:	
STANDARD	41 SPACES
ACCESSIBLE	2 SPACES
TOTAL	43 SPACES

SITE LAYOUT NOTES

1. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
2. ALL WORK TO BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE BOONE COUNTY SUBDIVISION REGULATIONS, SANITATION DISTRICT No. 1 RULES & REGULATIONS, AND THE STATE OF KENTUCKY TRANSPORTATION CABINET SPECIFICATIONS.
3. WHERE CONNECTING TO EXISTING ASPHALT PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING EDGE OF PAVEMENT TO PROVIDE A CLEAN EDGE. TACK COAT SHALL BE APPLIED TO THE ENTIRE CUT FACE OF THE EXISTING PAVEMENT PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT.
4. WHERE CONNECTING TO EXISTING CONCRETE WALK, THE CONTRACTOR SHALL SAWCUT THE EXISTING WALK (AT AN EXISTING JOINT IF POSSIBLE) TO PROVIDE A SOUND & CLEAN EDGE.
5. ADDITIONAL PAVEMENT/CURB WORK DUE TO EXTENTS OF DEMO OR REWORK SHALL BE INCLUDED AS PART OF THE CONTRACTORS SCOPE OF WORK.
6. SEE SHEET C3.1 FOR SITE DETAILS AND PAVEMENT SECTIONS.
7. BUILDING FOOTPRINT SHOWN IS APPROXIMATE, SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.

KEY NOTES

1. ADA PARKING (PAINTED HANDICAP SYMBOL)
2. DIRECTIONAL ARROW (WHITE)
3. DRIVE THRU PAVEMENT MARKINGS (YELLOW)
4. PARKING, 4" WIDE SOLID WHITE STRIPE, TYP.
5. 4" PAINTED WHITE STRIPE
6. 6" CONCRETE CURB
7. 6" CURB & SIDEWALK
8. "THANK YOU" (YELLOW)
9. 6" PAINTED YELLOW STRIPE
10. 8" PAINTED YELLOW STRIPE
11. 2' CONCRETE CURB
12. 6" PAINTED YELLOW STRIPE DASHED

811 Know what's below. Call before you dig.

CAUTION!!! ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

Basis of Bearing: State Plane NAD83 (2011)

SCALE: 1" = 20'

REV	DATE	DESCRIPTION	BY
1	7-19-23	REVISE PER REVIEW COMMENTS	GJK
2	8-05-23	REVISE PER COUNTY COMMENTS	GJK

bayer becker
www.bayerbecker.com
8900 Tyler Run Blvd, Suite A
Mason, OH 45040 513.336.6600

L/C# 16-1002

McDonald's

THESE PLANS ARE THE EXCLUSIVE PROPERTY OF MCDONALD'S CORPORATION AND SHALL NOT BE REPRODUCED WITHOUT WRITTEN PERMISSION.

PROPOSED McDONALD'S RESTAURANT AT:
MT. ZION ROAD
FLORENCE, BOONE COUNTY, KENTUCKY

JOB NO. 21-0244

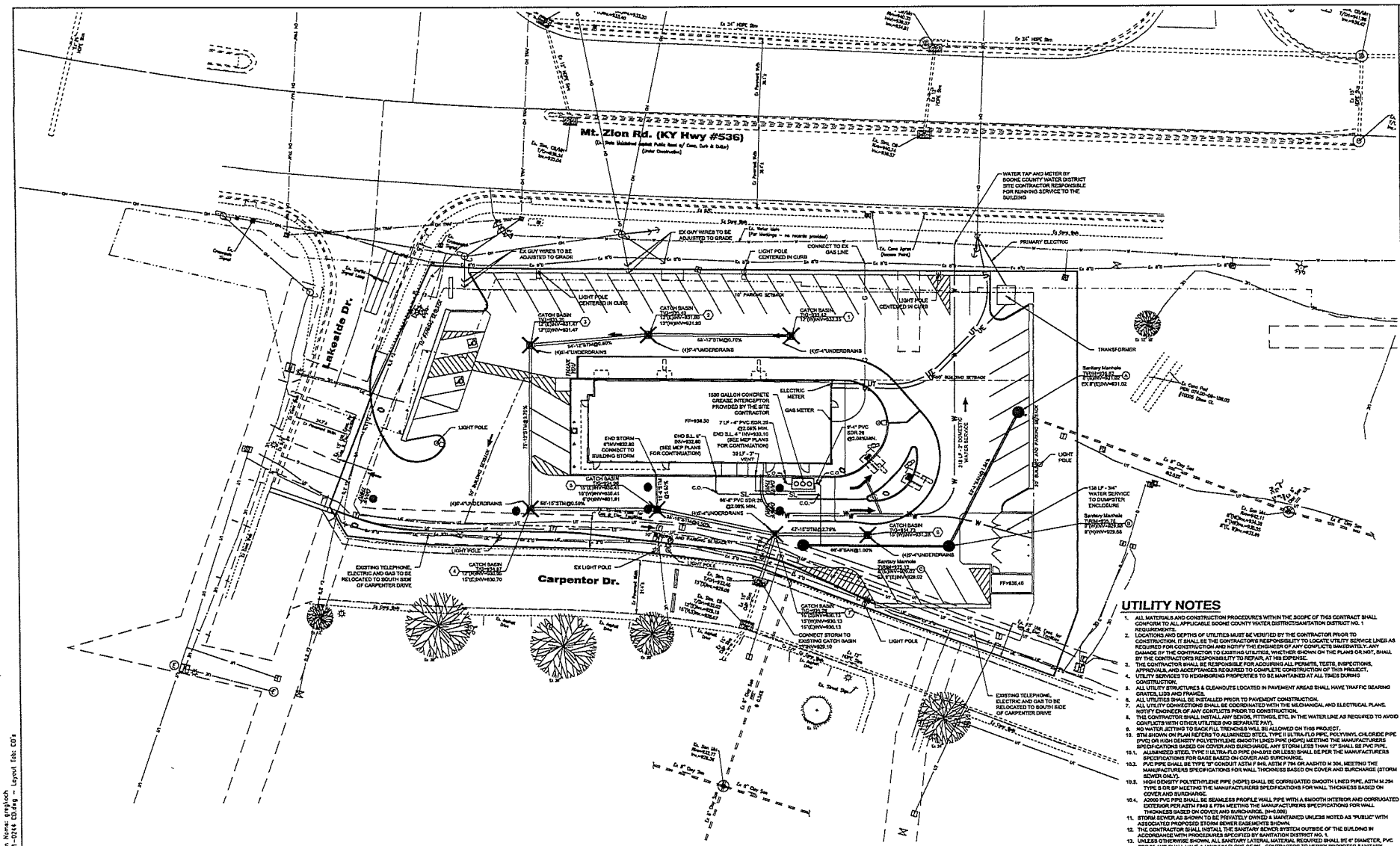
DATE: 5-22-23

SCALE: 1"=20'

SITE PLAN

SHEET: C3.0

Plot time: Sep 05, 2023 - 3:04pm - Login Name: gretsch
Drawing name: J:\2021\21-0244\COVDWG\21-0244 C0.dwg - Layout Tab: C0's



POST CONSTRUCTION WATER QUALITY NOTES

1. THE OWNER IS RESPONSIBLE FOR PROPER MAINTENANCE OF THE PERMANENT WATER QUALITY SYSTEM ON THE SITE PER THE APPROVAL AND WILL COMPLETE ANY NECESSARY REPAIRS AND/OR PREVENTIVE MAINTENANCE PROCEDURES IN A TIMELY MANNER TO ENSURE PROPER FUNCTIONING OF THE SYSTEM AS A STORM WATER MANAGEMENT DEVICE.
2. CATCH BASIN FILTER INSERTS SHALL BE PROVIDED FOR ALL ONSITE CATCH BASIN IN PAVEMENT AREAS (STRUCTURES 1,2,3, 4, 5, 6 AND 7). INSERTS SHALL BE ENPAC STORM SENTINEL OR APPROVED EQUAL, SEE SHEET C5.1 FOR DETAIL.
3. ON AVERAGE, THREE CLEANOUTS OF THE FILTER INSERTS AND ONE CHANGE OUT OR REPLACEMENT OF THE INSERTS SHALL BE PERFORMED PER YEAR. MAINTENANCE FREQUENCY SHALL BE ADJUSTED FOR CATCH BASIN INSERTS PLACED IN AREAS OF GREATER OR LESSER POLLUTANT LOADING.

POST CONSTRUCTION WATER QUALITY NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL SANITARY BYPASS PUMPING.
2. THE CONTRACTOR SHALL FURNISH ALL PUMPING EQUIPMENT, LABOR, TRAFFIC CONTROL, CONDUITS, FITTINGS, BARRICADES, SAFETY EQUIPMENT, POWER AND OTHER NECESSARY MATERIALS AND EQUIPMENT TO MAINTAIN WASTE WATER FLOWS IN THE SEWER BY MEANS OF BYPASS PUMPING AROUND THE SEWER SEGMENT TO MAINTAIN FLOW CONTINUOUSLY AND PREVENT BACKUPS UNTIL REHABILITATION WORK IS COMPLETED.
3. CONTRACTOR TO COORDINATE BY-PASS PUMPING AND CONNECTIONS WITH THE SANITATION DISTRICT NO. 1 (SD1).

UTILITY NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL CONFORM TO ALL APPLICABLE BOONE COUNTY WATER DISTRICT/SANITATION DISTRICT NO. 1 REQUIREMENTS.
2. LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY CONFLICTS IMMEDIATELY. ANY DAMAGE BY THE CONTRACTOR TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, INSPECTIONS, APPROVALS, AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
4. UTILITY SERVICES TO NEIGHBORING PROPERTIES TO BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
5. ALL UTILITY STRUCTURES & CLEANOUTS LOCATED IN PAVEMENT AREAS SHALL HAVE TRAFFIC BEARING GRATES, LIDS AND FRAMES.
6. ALL UTILITIES SHALL BE INSTALLED PRIOR TO PAVEMENT CONSTRUCTION.
7. ALL UTILITY CONNECTIONS SHALL BE COORDINATED WITH THE MECHANICAL AND ELECTRICAL PLANS. NOTIFY ENGINEER OF ANY CONFLICTS PRIOR TO CONSTRUCTION.
8. THE CONTRACTOR SHALL INSTALL ANY BENDS, FITTINGS, ETC. IN THE WATER LINE AS REQUIRED TO AVOID CONFLICTS WITH OTHER UTILITIES (NO SEPARATE PAY).
9. NO WATER JETTING TO BACKFILL TRENCHES WILL BE ALLOWED ON THIS PROJECT.
10. STM SHOWN ON PLAN REFERS TO ALUMINIZED STEEL, TYPE II ULTRA-FLO PIPE, POLYVINYL CHLORIDE PIPE (PVC) OR HIGH DENSITY POLYETHYLENE SMOOTH LINED PIPE (HDPE) MEETING THE MANUFACTURERS SPECIFICATIONS BASED ON COVER AND SURCHARGE. ANY STORM LESS THAN 12" SHALL BE PVC PIPE.
10.1. ALUMANIZED STEEL, TYPE II ULTRA-FLO PIPE (N=0.012 OR LESS) SHALL BE PER THE MANUFACTURERS SPECIFICATIONS FOR GAGE BASED ON COVER AND SURCHARGE.
10.2. PVC PIPE SHALL BE TYPE "S" CONDUIT ASTM F 949, ASTM F 794 OR AASHTO M 304, MEETING THE MANUFACTURERS SPECIFICATIONS FOR WALL THICKNESS BASED ON COVER AND SURCHARGE (STORM SEWER ONLY).
10.3. HIGH DENSITY POLYETHYLENE PIPE (HDPE) SHALL BE CORRUGATED SMOOTH LINED PIPE, ASTM M 294 TYPE S OR SP MEETING THE MANUFACTURERS SPECIFICATIONS FOR WALL THICKNESS BASED ON COVER AND SURCHARGE.
10.4. A2000 PVC PIPE SHALL BE SEAMLESS PROFILE WALL PIPE WITH A SMOOTH INTERIOR AND CORRUGATED EXTERIOR PER ASTM F949 & F794 MEETING THE MANUFACTURERS SPECIFICATIONS FOR WALL THICKNESS BASED ON COVER AND SURCHARGE. (N=0.009)
11. STORM SEWER AS SHOWN TO BE PRIVATELY OWNED & MAINTAINED UNLESS NOTED AS "PUBLIC" WITH ASSOCIATED PROPOSED STORM SEWER EASEMENTS SHOWN.
12. THE CONTRACTOR SHALL INSTALL THE SANITARY SEWER SYSTEM OUTSIDE OF THE BUILDING IN ACCORDANCE WITH PROCEDURES SPECIFIED BY SANITATION DISTRICT NO. 1.
13. UNLESS OTHERWISE SHOWN, ALL SANITARY LATERAL MATERIAL REQUIRED SHALL BE 6" DIAMETER, PVC SDR 35 AND SHALL HAVE A MINIMUM SLOPE OF 2%. CONTRACTOR TO VERIFY PROPOSED SANITARY SEWER SIZE & LATERAL ELEVATION WITH MEP PLANS.
14. ALL ROCK AND OTHER UNSUITABLE MATERIAL FROM THIS WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, AT THEIR EXPENSE.
15. ALL SERVICES ARE BROUGHT TO WITHIN 5 FEET OF THE BUILDING. BUILDING CONTRACTOR SHALL INCLUDE IN THEIR BID THE COST TO CONNECT ALL SERVICES TO THE BUILDING.
16. CLEAN OUTS SHALL BE INSTALLED IN ACCORDANCE WITH THE PLUMBING CODE AND AS DIRECTED BY SANITATION DISTRICT NO. 1 INSPECTOR. ALL CLEAN OUT TOPS SHALL INSTALLED AT LEAST 2" ABOVE FINISHED GRADE OUTSIDE PAVEMENT AND FLUSH WITH FINISHED GRADE WITHIN THE PAVEMENT AREAS.
17. THE DOMESTIC WATER SEWER SHALL BE POLYETHYLENE PIPE FROM THE METER PIT TO THE BUILDING.
18. A MINIMUM OF 3'-0" COVER SHALL BE MAINTAINED ON ALL WATER & SERVICE LINES.
19. PROVIDE GRANULAR CLASS B PIPE BEDDING THROUGHOUT. BACKFILL ALL TRENCHES UNDER SLABS, WALKS, AND PAVED AREAS WITH DENSE GRADED AGGREGATE OR CRUSHED STONE. ALL EXCAVATING AND BACKFILLING IS BY INDIVIDUAL CONTRACTORS (PLUMBING, ELECTRICAL, ETC.).
20. CONTRACTOR SHALL STORE CONSTRUCTION MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS TO PREVENT DELETERIOUS MATERIALS FROM BECOMING AFFIXED OR DETERIORATION FROM SUN EXPOSURE.
21. EXISTING UTILITIES LOCATED ALONG THE NORTH SIDE OF CARPENTER DR RUNNING THROUGH THE SITE ARE TO BE RELOCATED TO THE SOUTH SIDE OF CARPENTER DR DURING CONSTRUCTION.

811 Know what's below. Call before you dig.

CAUTION!!! ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

Basis of Bearings: State Plane NAD83 (2011)

SCALE: 1" = 20'

REV	DATE	DESCRIPTION	BY
1	8-05-23	REVISE PER COUNTY COMMENTS	GAK

bayer becker
www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

L/C# 16-1002

McDonald's

PROPOSED McDONALD'S RESTAURANT AT:
MT. ZION ROAD
FLORENCE, BOONE COUNTY, KENTUCKY

JOB NO. 21-0244
DATE: 5-22-23
SCALE: 1"=20'

UTILITY PLAN

SHEET: C4.0

Plot Date: Sep 05, 2023 - 3:06pm - Login Name: greyloch
Drawing name: J:\2021\21-0244\CAD\ENG\21-0244 C03.dwg - Layout Tab: C03

GENERAL NOTES

SEE SHEET 2 FOR PLANT SCHEDULE AND PLANTING PLAN. SEE SHEET 3 FOR PLANTING NOTES & DETAILS.

ZONING NOTES:

PLANT MATERIAL TYPE		MINIMUM INSTALL
• PLANT LIST A TREES	(LRG DECIDUOUS 50'+ MATURE HEIGHT)	= 2.0" CALIPER
• PLANT LIST B TREES	(MED DECIDUOUS 30-50' MATURE HEIGHT)	= 2.0" CALIPER
• PLANT LIST C TREES	(SML DECIDUOUS 10-30' MATURE HEIGHT)	= 1.5" CALIPER
• PLANT LIST C SHRUBS	(TALL DECIDUOUS SHRUBS)	= 24" HEIGHT
• PLANT LIST D TREES	(EVERGREEN)	= 6.0' HEIGHT
• PLANT LIST E SHRUBS	(SMALL/LOW SHRUBS)	= 3 GALLON

SECTION 3610: GENERAL REQUIREMENTS

- EXISTING ZONING: C-3/PD/PO
- ADJACENT NORTH: MT ZION ROAD (KY HWY 536)
- ADJACENT SOUTH: CARPENTER DRIVE (PRIVATE)
- ADJACENT EAST: MHP - TO BE RE-ZONED TO C-3
- ADJACENT WEST: LAKESIDE DRIVE (PRIVATE)

SECTION 3618: SIGHT TRIANGLES

NO PLANT MATERIAL TALLER THAN THREE AND ONE HALF (3.5) FEET IS PROHIBITED IN SIGHT TRIANGLES

SECTION 3620: LANDSCAPING ALONG STREET FRONTAGES

- BUFFER YARD 'A' ALONG STREET FRONTAGE
  - (5) 'C' TREES OR (3) 'A', 'B', OR 'D' TREES PER 100 LF OF STREET FRONTAGE
  - 'C' TREES REQUIRED WHEN UNDER OVERHEAD POWER LINE
  - (30) 'E' SHRUBS OR (15) 'C' SHRUBS PER 100 LF OF STREET FRONTAGE (ELIMINATED IF BUFFER YARD IS (30)' & REDUCED BY HALF IF BUFFER YARD IS (20'))

SOUTH: CARPENTER DRIVE = 346.1 LF

346.1 LF / 100 LF = 3.46
3.46 X 5 'C' TREES = 17 'C' TREES OR 10 'A', 'B' & 'D' TREES
3.46 X 30 'E' SHRUBS = 104 'E' SHRUBS OR 53 'C' SHRUBS

8 'A' & 3 'C' TREES PROVIDED
80 'E' & 12 'C' SHRUBS PROVIDED

WEST: LAKESIDE DRIVE - 120 LF - 31 LF DRIVE = 89.0 LF

89.0 LF / 100 LF = .89
.89 X 5 'C' TREES = 5 'C' TREES OR 3 'A', 'B' & 'D' TREES
.89 X 30 'E' SHRUBS = 27 'E' SHRUBS OR 13 'C' SHRUBS

3 'A' TREES PROVIDED
27 'E' SHRUBS PROVIDED

NORTH: MT. ZION ROAD (KY HIGHWAY 536) = 284.4 LF

284.4 LF / 100 LF = 2.84
2.84 X 5 'C' TREES = 14 'C' OR 9 'A', 'B' & 'D' TREES
6 'A' & 4 'C' TREES PROVIDED

194.1 (30' WIDE BUFFER) - NO SHRUBS REQUIRED
90.3 LF (20' WIDE BUFFER) - 50% SHRUBS REQUIRED
90.3 LF / 100 LF = .90
.90 X 30 'E' SHRUBS = 27 'E' OR 13 'C' SHRUBS / 2
= 14 'E' OR 7 'C' SHRUBS REQUIRED

9 'E' & 2 'C' SHRUBS PROVIDED

SECTION 3625: INTERIOR LANDSCAPING FOR VEHICULAR AREAS

- A MINIMUM OF FIVE PERCENT (5%) OF VEHICULAR USE AREA SHALL BE LANDSCAPED. ONLY REQUIRED FOR SITES WITH FIFTY (50) OR MORE PARKING SPACES.
  - 53 PARKING SPACES PROVIDED
  - 28,987 SQ FT X 5% = 1,450 SQ FT INTERIOR LANDSCAPING REQUIRED
    1,596 SQ FT INTERIOR LANDSCAPING PROVIDED

SECTION 3630: BUILDING LANDSCAPING

- ANY BLANK FACADE OR PORTION OF A FACADE NOT USED FOR OUTDOOR DISPLAY, STORAGE, OR LOADING/UNLOADING SHALL PROVIDE LANDSCAPING IF VISIBLE FROM THE PUBLIC R.O.W.
- (1) 'A', 'B', 'C', OR 'D' TREE PER 40 LF OF FACADE = (1) 'E' SHRUB PER 10 LF
  - BUILDINGS 10,000 (TEN THOUSAND) SQ FT OR SMALLER SHALL BE EXEMPT FROM REQUIREMENTS WITHIN THIS SECTION.
    - PROPOSED BUILDING IS 4,267 SQ FT. = NO SHRUBS REQUIRED

SECTION 3645: BUFFER YARDS

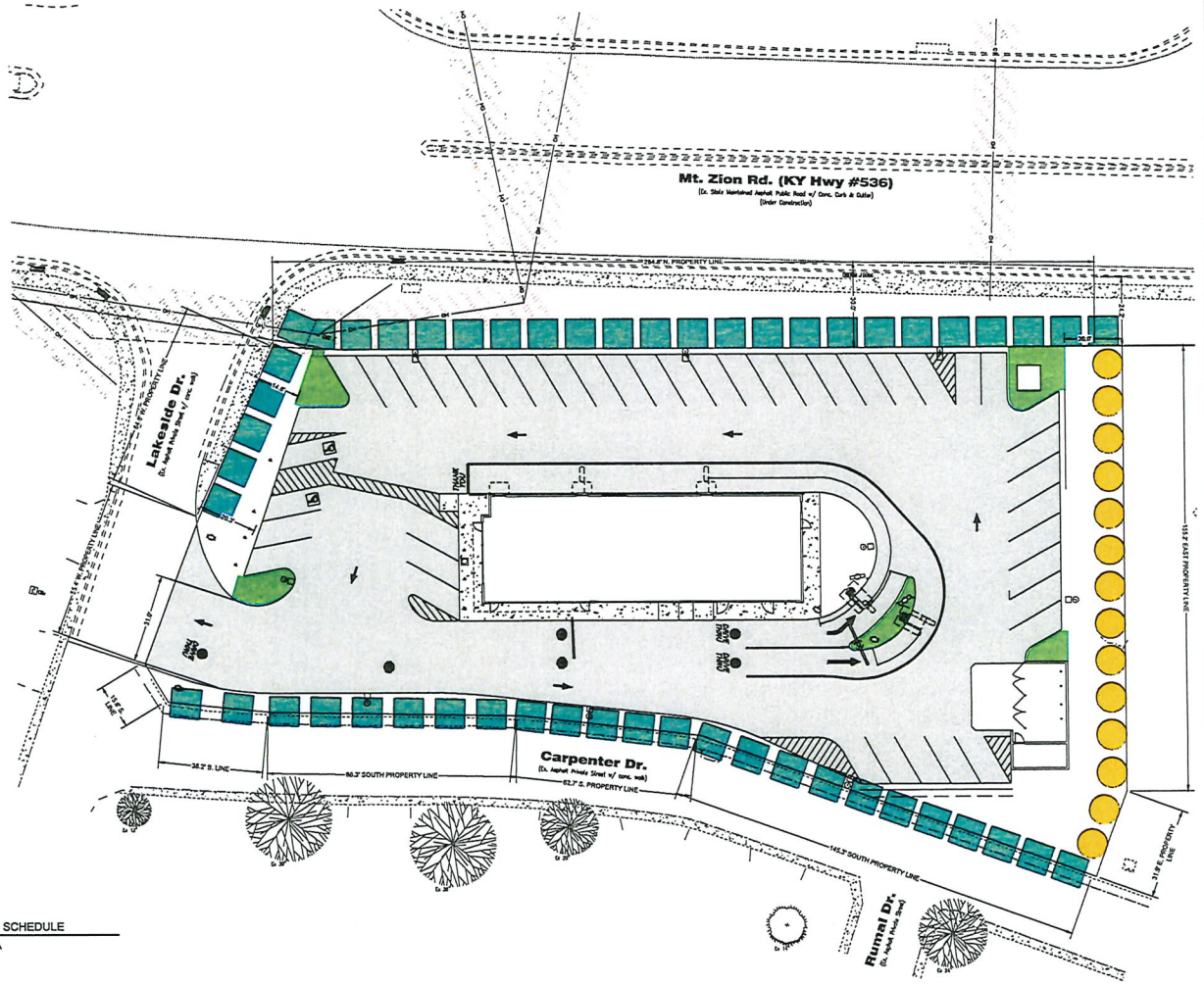
- BUFFER YARDS BETWEEN ADJOINING PARCELS SHALL CONSIST OF A CONTINUOUS STRIP OF LAND AND SCREENING THAT SHALL CONTAIN EXISTING VEGETATION, A BERM, A WALL OR FENCE, OR ANY COMBINATION OF THESE THINGS. BUFFER YARDS SHALL BE IN ADDITION TO REQUIREMENTS IN SECTION 3620.

EAST PROPERTY LINE IS ADJACENT TO C-3 (COMMERCIAL) LOT

- BUFFER YARD 'A' REQUIRED
  - (5) 'C' TREES OR (3) 'A', 'B', OR 'D' TREES PER 100 LF
  - (30) 'E' SHRUBS OR (15) 'C' SHRUBS PER 100 LF (ELIMINATED IF BUFFER YARD IS 30')

187.1 LF / 100 LF = 1.87
1.87 X 5 'C' TREES = 9 'C' TREES OR 6 'A', 'B' & 'D' TREES
1.87 X 30 'E' SHRUBS = 56 'E' SHRUBS OR 28 'C' SHRUBS

31 'E' SHRUBS & 12 'C' SHRUBS PROVIDED



CONCEPT GRAPHICS SCHEDULE

- VEHICULAR USE AREA — *Takeoff: 28,987 sf*
- INTERIOR LANDSCAPING — *Takeoff: 1,596 sf*
- STREET FRONTAGE BUFFER 'A' — *Takeoff: 609 lf*
- ADJACENT PROPERTY LINE BUFFER 'A' REQUIRED — *Takeoff: 187 lf*

Base of Bearing: State Plane NAD83 (2011)

0 20 30

SCALE: 1" = 20'

REV	DATE	DESCRIPTION	BY
1	8-8-23	REVISE PER COUNTY COMMENTS	CDO

bayer becker
www.bayerbecker.com
8900 Keystone Crossing, Suite A
Indianapolis, IN 46240 • 317.338.6600

L/C# 16-1002

McDonald's

PROPOSED McDONALD'S RESTAURANT AT:
MT. ZION ROAD
FLORENCE, BOONE COUNTY, KENTUCKY

JOB NO. 21-0244

DATE: 7-7-23

SCALE: 1"=20'

ZONING PLANTING PLAN

SHEET: L1.0

Plot time: Sep 05, 2023 - 2:03pm - Login Name: christoosterlof
Drawing name: a:\2021\21-0244\UA\DWG\21-0244 ZN.DWG - Layout Tab: L1.0

GENERAL NOTES

SEE SHEET 1 FOR ZONING NOTES. SEE SHEET 3 FOR PLANTING NOTES & DETAILS.

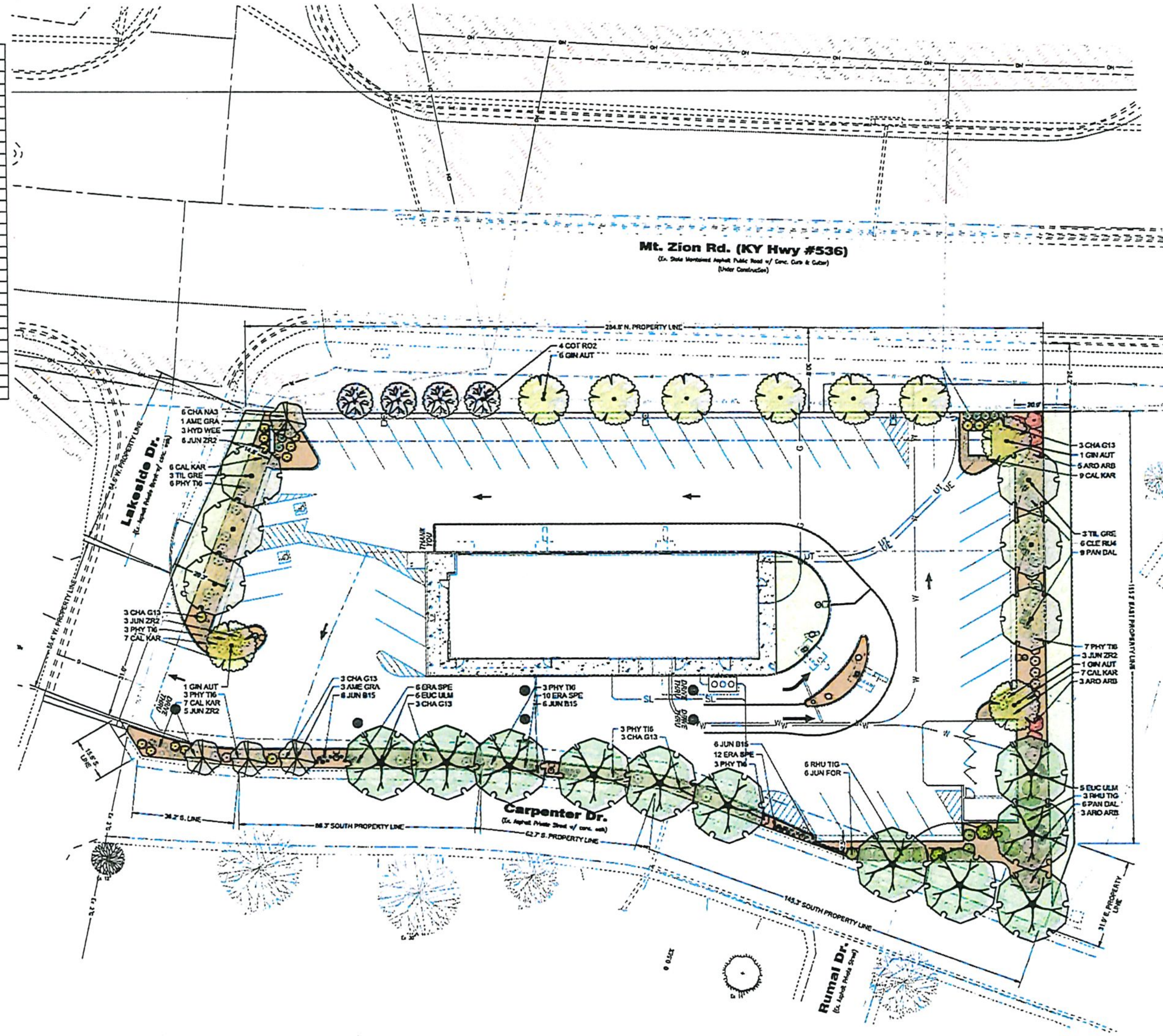
PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	TYPE	MIN. SIZE
EUC ULM	11	Eucommia ulmoides	Hardy Rubber Tree	B & B	2.0" Cal
GIN AUT	9	Ginkgo biloba 'Autumn Gold' TM	Maidenhair Tree	B & B	2.0" Cal
TIL GRE	6	Tilia cordata 'Greenspire'	Greenspire Littleleaf Linden	B & B	2.0" Cal
ORNAMENTAL TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**TYPE**	**MIN. SIZE**
AME GRA	4	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry Tree Form	B & B	2.0" Cal
COT RO2	4	Cotinus coggygria 'Royal Purple'	Royal Purple Smoke Tree	B & B	1.5" Cal
DECIDUOUS SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**HEIGHT**
ARO ARB	11	Aronia arbutifolia 'Brilliantissima'	Brilliant Red Chokeberry	3 gal	24" Ht.
CLE RU4	7	Clethra alnifolia 'Ruby Spice'	Ruby Spice Clethra	3 gal	24" Ht.
HYD WEE	8	Hydrangea quercifolia 'Pee Wee'	Oakleaf Hydrangea	3 gal	24" Ht.
PHY TI6	28	Physocarpus opulifolius 'SMPOTW' TM	Tiny Wine Ninebark	3 gal	24" Ht.
RHU TIG	9	Rhus typhina 'Tiger Eyes'	Tiger Eyes Sumac	3 gal	24" Ht.
EVERGREEN GROUNDCOVER	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**HEIGHT**
JUN ZR2	17	Juniperus horizontalis 'Golden Carpet'	Golden Carpet Juniper	3 gal	Clump
EVERGREEN SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**HEIGHT**
CHA NA3	6	Chamaecyparis obtusa 'Nana'	Dwarf Hinoki False Cypress	5 gal	18" Ht.
CHA G13	16	Chamaecyparis pisifera 'Golden Mop'	Golden Mop Threadleaf False Cypress	3 gal	24" Ht.
JUN FOR	6	Juniperus chinensis 'Sea Green'	Sea Green Juniper	3 gal	24" Ht.
JUN B15	18	Juniperus scopulorum 'Blue Arrow'	Blue Arrow Juniper	B & B	6' Ht.
ORNAMENTAL GRASSES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**HEIGHT**
CAL KAR	38	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	3 gal	Clump
ERA SPE	28	Eragrostis spectabilis	Purple Lovegrass	3 gal	Clump
PAN DAL	15	Panicum virgatum 'Dallas Blues' TM	Dallas Blues Switch Grass	3 gal	Clump

CONCEPT_GRAPHICS_SCHEDULE

SEED

MULCH



REV	DATE	DESCRIPTION	BY
1	9-5-23	REVISE PER COUNTY COMMENTS	CDO

bayer becker
www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

LIC# 16-1002

McDonald's

PROPOSED McDONALD'S RESTAURANT AT:
MT. ZION ROAD
FLORENCE, BOONE COUNTY, KENTUCKY

Basis of Bearing: State Plane NAD83 (2011)

SCALE: 1" = 20'

JOB NO. 21-0244

DATE: 7-7-23

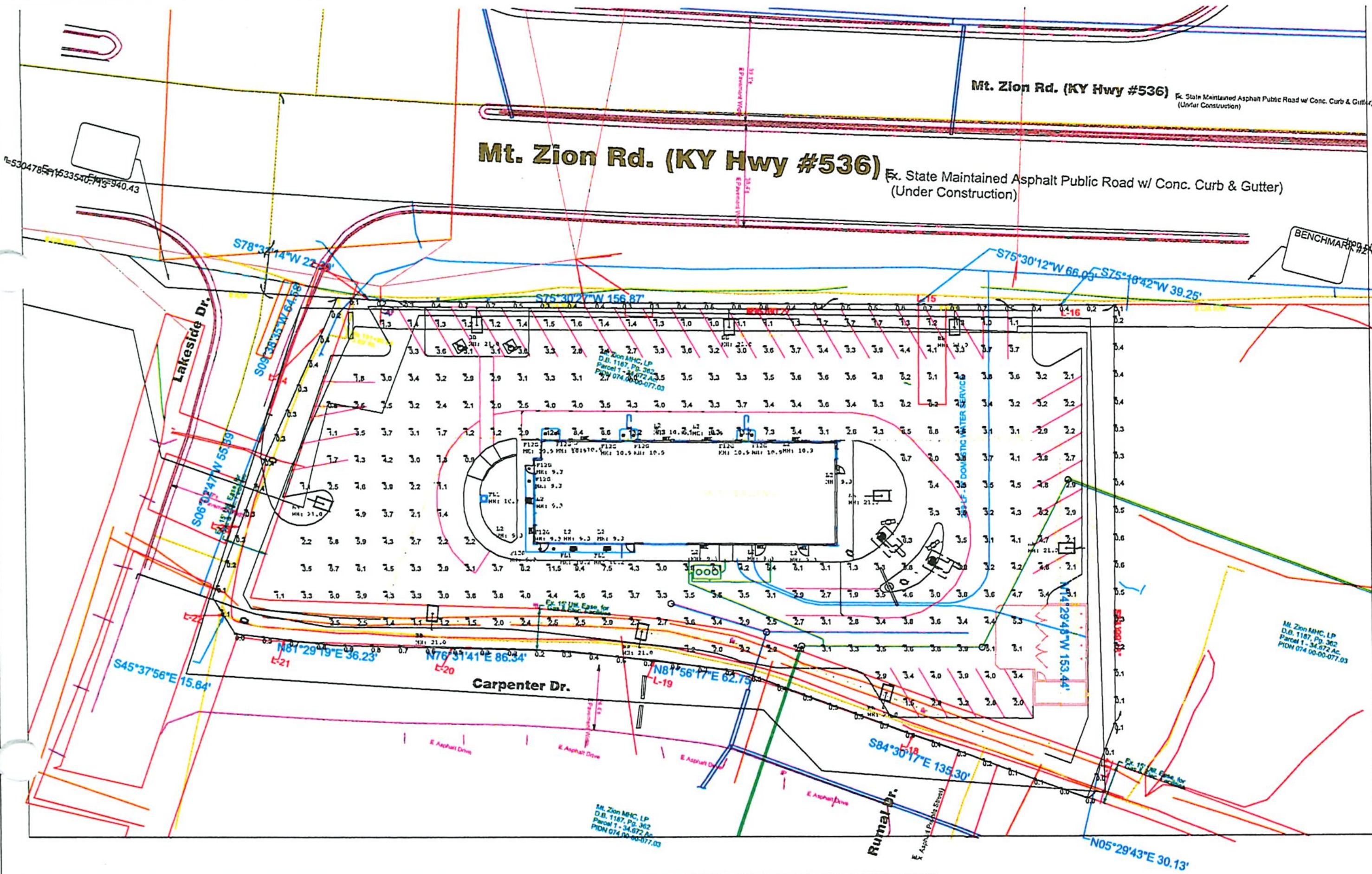
SCALE: 1"=20'

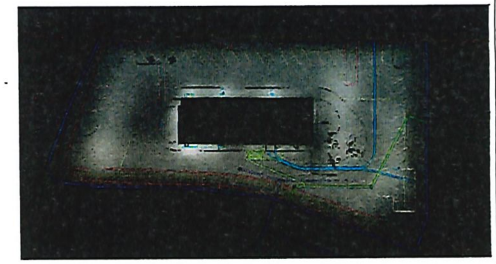
LANDSCAPE PLANTING PLAN

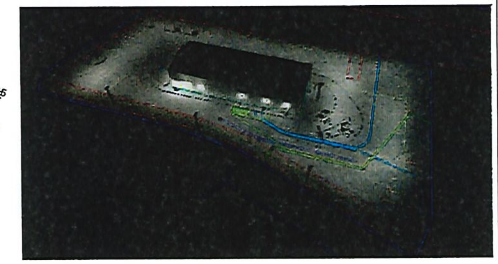
SHEET: L1.1

NOTES:

1. THE FOOTCANDLE LEVELS AS SHOWN ARE BASED ON THE FOLLOWING CRITERIA. ANY SUBSTITUTIONS IN SPECIFIED FIXTURES OR CHANGES TO LAYOUT WILL AFFECT LIGHTING LEVELS SHOWN AND WILL NOT BE THE RESPONSIBILITY OF SECURITY LIGHTING.
2. DISTANCE BETWEEN READINGS 10'







Pole Fixtures Are Full Cutoff
Tilt=0
Calculation Grids Are At Grade
Pole Light Mounting Height=21ft
(18' Pole + 3' Base)

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PAVED SURFACE READINGS	Illuminance	Fc	3.50	13.2	0.8	4.38	16.50
PROPERTY LINE READINGS	Illuminance	Fc	0.39	0.9	0.0	N.A.	N.A.

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	EPA	Mtg Height	Pole Type
	2	AB	SINGLE	0.900	RAR-2-480L-240-5K7-4W-BC	226.9	0.607	21	SES-18-40-1-TA-GL-xx (4")
	7	BB	SINGLE	0.900	RAR-2-320L-165-5K7-4-BC	154.2	0.607	21	SES-18-40-1-TA-GL-xx (4")
	10	F12G	SINGLE	0.900	LB6-10LDM-50K9GD	11.9			
	3	FL1	SINGLE	0.900	EL218WF5-8L5K	15			
	12	L2	SINGLE	0.900	RWSC-36L-5K-DO-U-PS	14.4			

THIS DRAWING MEETS OR EXCEEDS McDONALDS CURRENT ILLUMINATION SPECIFICATIONS OF A 3-4 FOOTCANDLE AVERAGE, UNLESS SUPERSEDED BY OTHER REQUIREMENTS.

Regional Drawing
16-1002

1. THIS LIGHTING DESIGN IS BASED ON INFORMATION SUPPLIED BY OTHERS TO SECURITY LIGHTING SYSTEMS. SITE DETAILS PROVIDED HEREIN ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT.

2. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS.

3. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.

4. THIS LAYOUT MAY NOT MEET TITLE 24 OR LOCAL ENERGY REQUIREMENTS. IF THIS LAYOUT NEEDS TO E COMPLIANT WITH TITLE 24 OR OTHER ENERGY REQUIREMENTS, PLEASE CONSULT FACTORY WITH SPECIFIC DETAILS REGARDING PROJECT REQUIREMENTS SO THAT REVISIONS MAY BE MADE TO THE DRAWING.

PROJECT WIND LOAD CRITERIA BASED ON:
ASCE 7-10 WIND SPEEDS (3-SEC PEAK GUST MPH)
50 YEAR MEAN RECURRENCE INTERVAL
ALLOWED EPA 13.6 @ WIND LOAD 90 MPH

SECURITY LIGHTING

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES

SCALE 1"=20' 0"

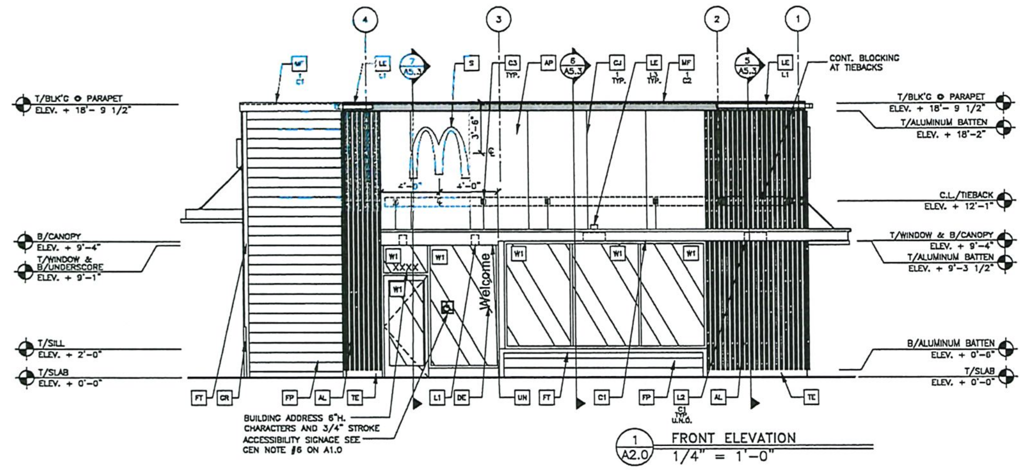
DRAWN BY CLB

POINT-BY-POINT FOOTCANDLE PLOT FOR
MCDONALDS
286 CARPENTER DR
FLORENCE, KY 41042

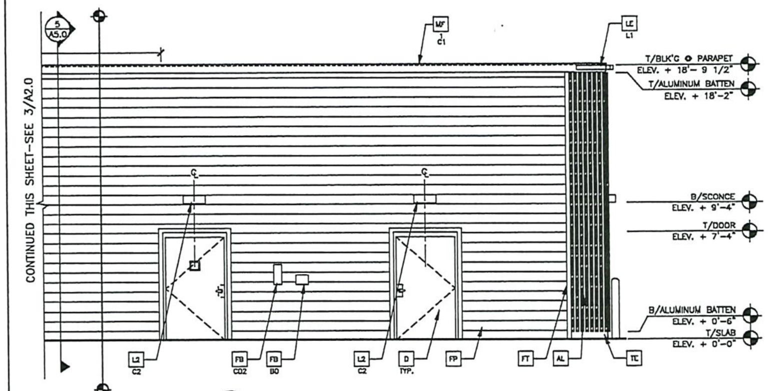
NATIONAL STORE NUMBER 40544

DATE 7/27/2023

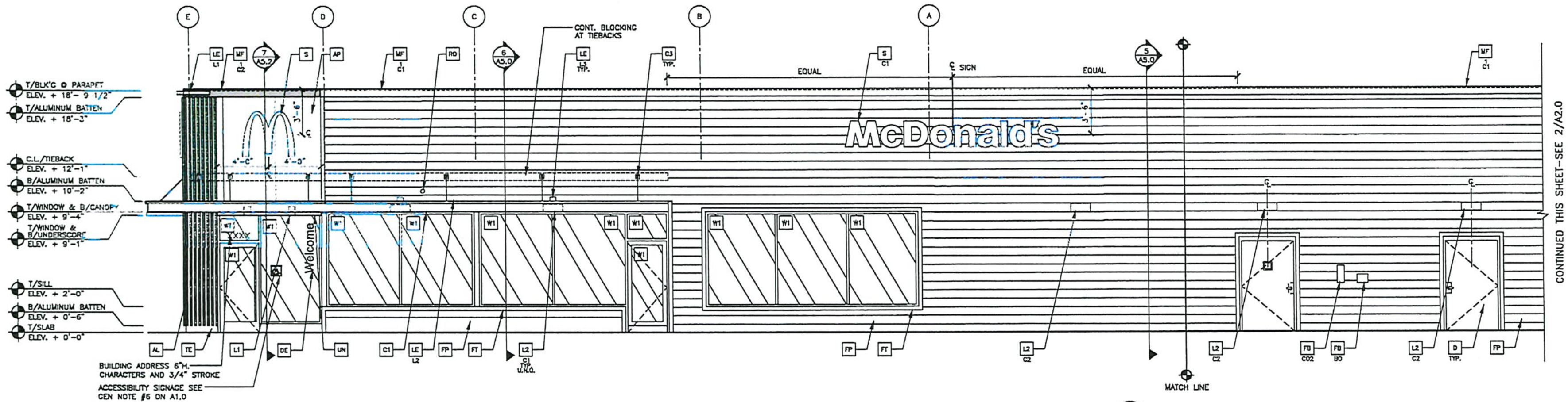
DRAWING NUMBER A231056B.AGI



1/A2.0 FRONT ELEVATION
1/4" = 1'-0"



2/A2.0 NON-DRIVE-THRU ELEVATION
1/4" = 1'-0"



3/A2.0 NON-DRIVE-THRU ELEVATION
1/4" = 1'-0"

KEY NOTES:

AL ALUMINUM BATTEN SYSTEM
SIZE: 2"X2" PROFILE
COLOR: WOOD GRAIN, BACKRAIL UNFINISHED, ENDCAP PAINTED TO MATCH
SUBSTRATE: 1/2" EXTERIOR HIGH DENSITY OVERLAY (HDO) PLYWOOD, BB, GROUP 1, HDO BOTH FACES, APA TRADEMARKED.
COURSE GRIT SAND SURFACES PRIOR TO PRIMING. PRIME AND PAINT BOTH SIDES AND ALL EDGES PRIOR TO INSTALLATION.
SUBSTRATE COLOR: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS

AP ALPOLIC METAL PANEL (COLOR: DON GRAY)

C1 ALUMINUM CANOPY SYSTEM W/FASCIA
COLOR: WHITE

C2 ALUMINUM CANOPY SYSTEM
COLOR: RAL 7022

C3 ALUMINUM CANOPY TIEBACK
COLOR: RAL 7022
GC TO PROVIDE CONTINUOUS BLOCKING ON WALL BEHIND TIEBACKS, WHEN TIEBACKS ARE INSTALLED ON METAL PANELING.
SEE DETAIL 3/A5.0

CJ CONTROL JOINT
1 —TYPE: 1 = EIFS

D HOLLOW METAL DOOR
PAINT: "GAUNTLET GREY" SW7019 BY SHERWIN WILLIAMS

DC DECAL BY GRAPHICS SUPPLIER
SURFACE APPLIED, FIELD INSTALLED, PRE CUT, PRE SPACED.
SUPPLIERS:
VOMELA (865) 330-7337, ann.bowen@vomela.com
GFX INTERNATIONAL (847) 543-4600, mcdonaldsdecor@gfxl.com

EJ EXPANSION JOINT, SEE DETAIL 7/A4.1

FB
CO2 — CO2 = BULK CO2 FILL BOX (EOPM SCHEDULE ITEM 49.00)
BO = BULK OIL FILL BOX (EOPM SCHEDULE ITEM 700.18)

FP FIBER CEMENT LAP SIDING: SMOOTH HARDI-BOARD PLANK BY JAMES HARDIE, 8-1/4" WIDTH, 7" EXPOSURE, HZ5
PAINT: "GAUNTLET GREY" SW7019 BY SHERWIN WILLIAMS

FT FIBER CEMENT TRIM: HARDIE TRIM BOARDS 4/4 SMOOTH, 1 5/8" AND 3 1/2" WIDTH, 3/4" THICK, HZ5
PAINT: "GAUNTLET GREY" SW7019 BY SHERWIN WILLIAMS

GR GUARD RAIL -SEE SITE PLAN FOR EXACT LOCATION AND LENGTH
PAINT: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS

L1 RECESSED DOWN LIGHT FIXTURE – SEE ELECTRICAL
COLOR: GOLD

L2 RADIAL SCONCE LIGHT FIXTURE – SEE ELECTRICAL
C1—COLOR:
C1= WHITE
C2= PLATINUM SILVER

LE ACCENT LIGHTING – SEE ELECTRICAL
L1—LED LIGHT:
L1 = SLIM LED (DOWN ONLY)
L2 = INTEGRAL CANOPY FIXTURE
L3 = UP ONLY FLOOD FIXTURE

MF METAL FASCIA
1 C1 — TYPE:
1 = PRE-FAB ANCHOR-TITE FASCIA
2 = BOTTOM TRIM AT METAL REVEAL PANEL
3 = VERTICAL TRIM AT METAL REVEAL PANEL CORNERS, CLOSURES
COLOR:
C1= WEATHERED ZINC
C2= RAL 7022

PB PIPE BOLLARD – PAINTED YELLOW

PT (RMHC) COIN COLLECTOR
MODEL: #WPT STD
CALL 1-888-743-7435 TO ORDER

RO ROOF DRAIN OVERFLOW PIPE PAINT TO MATCH SURROUNDING MATERIAL

S McDONALD'S SIGNAGE BY OTHERS – UNDER SEPARATE PERMIT.
C1— COLOR:
C1= WEATHERED ZINC RACEWAY
C2= RAL 7022 RACEWAY

ST CO2 STROBE/ALARM. SEE MECHANICAL DRAWINGS FOR SPECIFICATION.

TE TRU EXTERIOR 1"X6" TRIM, PAINTED ON SITE
COLOR: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS

UN METAL UNDERSCORE
COLOR: GOLD

W1 EXTERIOR WINDOW ASSEMBLY – TEMPERED GLASS
COLOR: DARK BRONZE

W2 DRIVE-THRU WINDOW BY READY ACCESS
MODEL: 600 SERIES, 36" SERVICE HEIGHT WITH TRANSOM, MANUAL OPEN; ELECTRONIC RELEASE
XX— COLOR: DEEP BRONZE
SLIDE DIRECTION: RL = RIGHT TO LEFT
LR = LEFT TO RIGHT

REV	DATE	DESCRIPTION	BY

PATRICK G. BLEES REGISTERED NO. 5272 COMMONWEALTH OF KENTUCKY 06/22/23

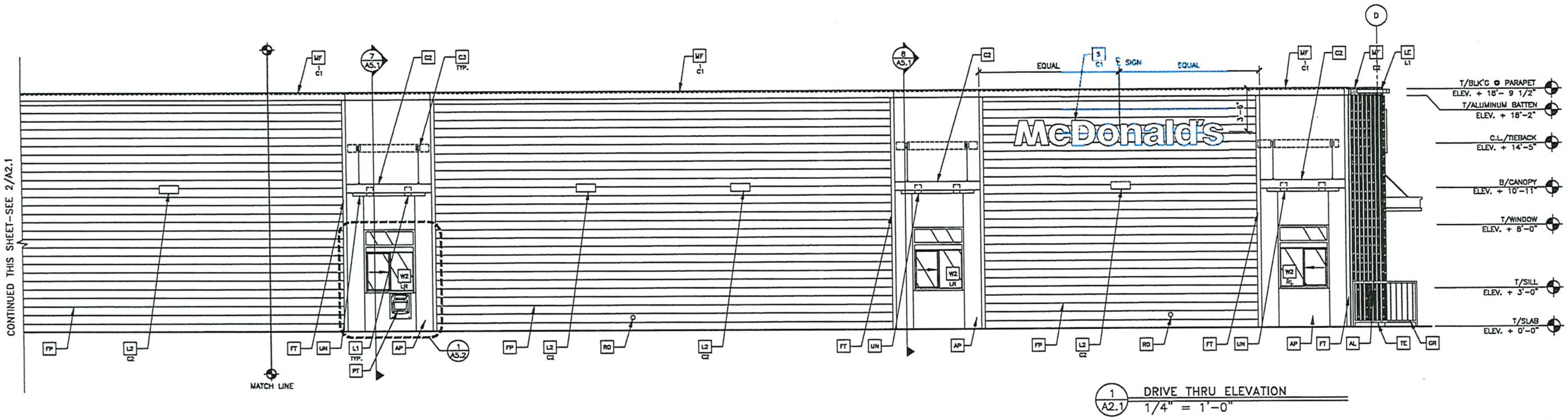
PREPARED BY: CORE STATES GROUP

PREPARED FOR: McDonald's USA, LLC
©2023 McDonald's USA, LLC

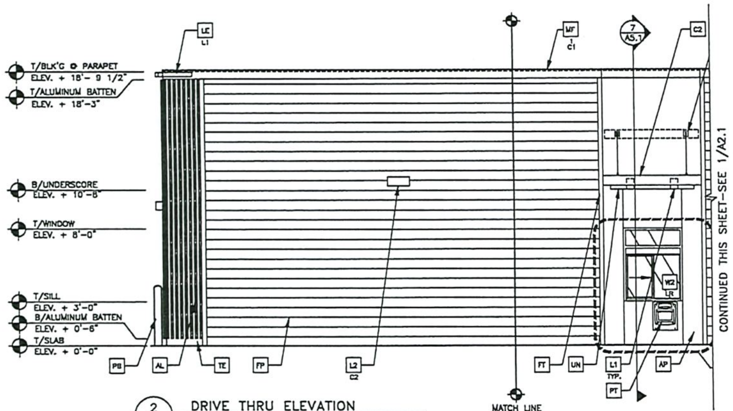
DRAWN BY: N.GLUKHOMAN
STD ISSUE DATE: 2022_12
REVIEWED BY: M.PELINI
DATE ISSUED: 06/12/2023
C.S.G. PROJECT #: MCD.37059

TITLE: 2023 STANDARD BUILDING – BB20
38111 – WOOD/WOOD
DESCRIPTION: WOOD BEARING WALLS W/ LAP SIDING
WOOD ROOF TRUSS FRAMING
BATTEN/LAP SIDING, ALPOLIC FEATURE WALL
SITE ID: 016-1002
SITE ADDRESS: 285 CARPENTER DR. FLORENCE, KY 41042

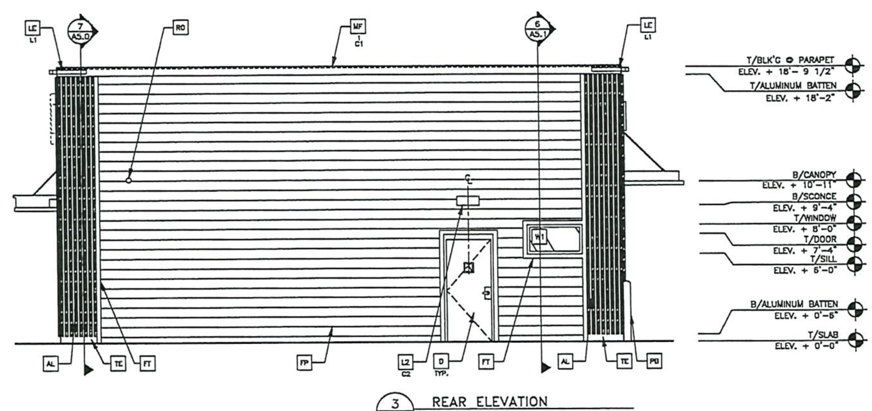
SHEET NO. 016-1002
A2.0
ELEVATIONS



1/A2.1 DRIVE THRU ELEVATION
1/4" = 1'-0"



2/A2.1 DRIVE THRU ELEVATION
1/4" = 1'-0"



3/A2.1 REAR ELEVATION
1/4" = 1'-0"

KEY NOTES:

AL ALUMINUM BATTEN SYSTEM
SIZE: 2"X2" PROFILE
COLOR: WOOD GRAIN, BACKRAIL UNFINISHED, ENDCAP PAINTED TO MATCH
SUBSTRATE: 1/2" EXTERIOR HIGH DENSITY OVERLAY (HDO) PLYWOOD, BB, GROUP 1, HDO BOTH FACES, APA TRADEMARKED.
COURSE GRIT SAND SURFACES PRIOR TO PRIMING. PRIME AND PAINT BOTH SIDES AND ALL EDGES PRIOR TO INSTALLATION.
SUBSTRATE COLOR: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS

AP ALPOLIC METAL PANEL (COLOR: DON GRAY)

C1 ALUMINUM CANOPY SYSTEM W/FASCIA
COLOR: WHITE

C2 ALUMINUM CANOPY SYSTEM
COLOR: RAL 7022

C3 ALUMINUM CANOPY TIEBACK
COLOR: RAL 7022
GC TO PROVIDE CONTINUOUS BLOCKING ON WALL BEHIND TIEBACKS, WHEN TIEBACKS ARE INSTALLED ON METAL PANELING.
SEE DETAIL 3/A5.0

CJ CONTROL JOINT
1 —TYPE: 1 = EIFS

D HOLLOW METAL DOOR
PAINT: "GAUNTLET GREY" SW7019 BY SHERWIN WILLIAMS

DE DECAL BY GRAPHICS SUPPLIER
SURFACE APPLIED, FIELD INSTALLED, PRE CUT, PRE SPACED.
SUPPLIERS:
VOMELA (865) 330-7337, ann.bowen@vomela.com
GFX INTERNATIONAL (847) 543-4600, mcdonaldsdecor@gfxl.com

EJ EXPANSION JOINT, SEE DETAIL 7/A4.1

FB
CO2— CO2 = BULK CO2 FILL BOX (EQPM SCHEDULE ITEM 49.00)
BO = BULK OIL FILL BOX (EQPM SCHEDULE ITEM 700.18)

FP FIBER CEMENT LAP SIDING: SMOOTH HARDI-BOARD PLANK BY JAMES HARDIE, 8-1/4" WIDTH, 7" EXPOSURE, HZ5
PAINT: "GAUNTLET GREY" SW7019 BY SHERWIN WILLIAMS

FT FIBER CEMENT TRIM: HARDIE TRIM BOARDS 4/4 SMOOTH, 1 5/8" AND 3 1/2" WIDTH, 3/4" THICK, HZ5
PAINT: "GAUNTLET GREY" SW7019 BY SHERWIN WILLIAMS

GR GUARD RAIL -SEE SITE PLAN FOR EXACT LOCATION AND LENGTH
PAINT: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS

L1 RECESSED DOWN LIGHT FIXTURE - SEE ELECTRICAL
COLOR: GOLD

L2 RADIAL SCONCE LIGHT FIXTURE - SEE ELECTRICAL
C1—COLOR:
C1= WHITE
C2= PLATINUM SILVER

LE ACCENT LIGHTING - SEE ELECTRICAL
L1—LED LIGHT:
L1 = SLIM LED (DOWN ONLY)
L2 = INTEGRAL CANOPY FIXTURE
L3 = UP ONLY FLOOD FIXTURE

MF METAL FASCIA
1 —TYPE:
C1 1 = PRE-FAB ANCHOR-TITE FASCIA
2 = BOTTOM TRIM AT METAL REVEAL PANEL
3 = VERTICAL TRIM AT METAL REVEAL PANEL CORNERS, CLOSURES
COLOR:
C1= WEATHERED ZINC
C2= RAL 7022

PB PIPE BOLLARD - PAINTED YELLOW

PT (RMHC) COIN COLLECTOR
MODEL: #WPT STD
CALL 1-888-743-7435 TO ORDER

RO ROOF DRAIN OVERFLOW PIPE PAINT TO MATCH SURROUNDING MATERIAL

S McDONALD'S SIGNAGE BY OTHERS - UNDER SEPARATE PERMIT.
C1— COLOR:
C1= WEATHERED ZINC RACEWAY
C2= RAL 7022 RACEWAY

ST CO2 STROBE/ALARM. SEE MECHANICAL DRAWINGS FOR SPECIFICATION.

TE TRU EXTERIOR 1"X8" TRIM, PAINTED ON SITE
COLOR: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS

UN METAL UNDERSCORE
COLOR: GOLD

W1 EXTERIOR WINDOW ASSEMBLY - TEMPERED GLASS
COLOR: DARK BRONZE

W2 DRIVE-THRU WINDOW BY READY ACCESS
MODEL: 600 SERIES, 36" SERVICE HEIGHT WITH TRANSOM, MANUAL OPEN; ELECTRONIC RELEASE
XX— COLOR: DEEP BRONZE
SLIDE DIRECTION: RL = RIGHT TO LEFT
LR = LEFT TO RIGHT

REV	DATE	DESCRIPTION	BY

PATRICK G. BLEES — REGISTERED — 5272 — COMMONWEALTH OF KENTUCKY — 06/22/23

PREPARED BY: CORE STATES GROUP

PREPARED FOR: McDonald's USA, LLC

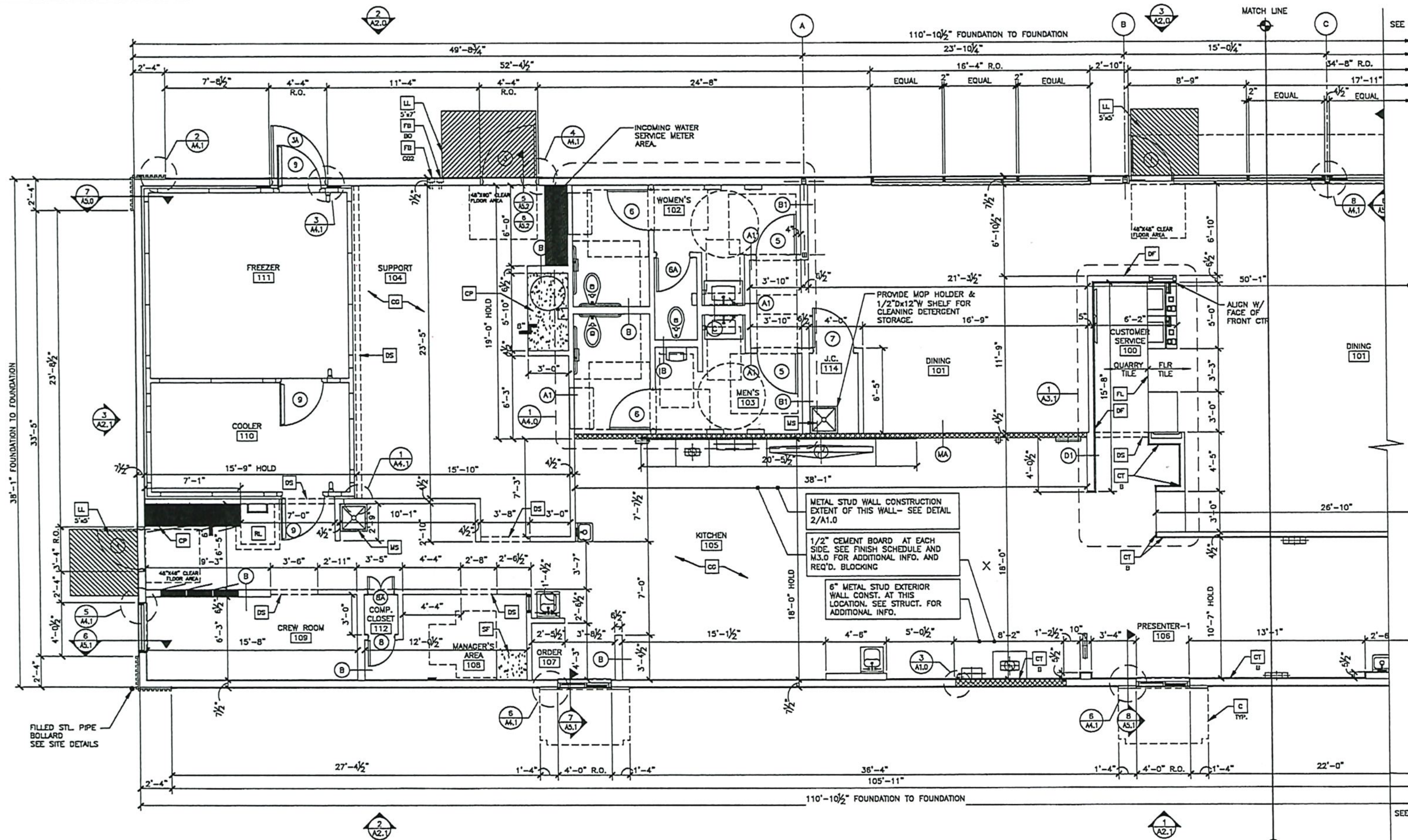
DRAWN BY	N.GLUKHOMAN
STD ISSUE DATE	2022_12
REVIEWED BY	M.PELINI
DATE ISSUED	06/12/2023
C.S.G. PROJECT #	MCD.37059

TITLE: 2023 STANDARD BUILDING - BB20
38111 - WOOD/WOOD

DESCRIPTION:
WOOD BEARING WALLS W/ LAP SIDING
WOOD ROOF TRUSS FRAMING
BATTEN/LAP SIDING, ALPOLIC FEATURE WALL

SITE ID: 016-1002 | SITE ADDRESS: 285 CARPENTER DR. FLORENCE, KY 41042

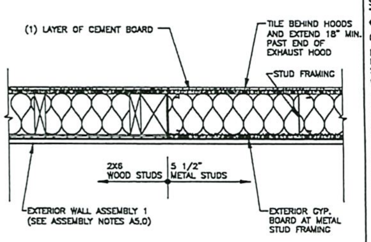
SHEET NO. 016-1002
A2.1
ELEVATIONS



PARTIAL FLOOR PLAN

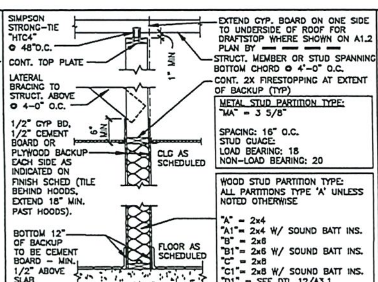
1/A1.0 — 1/4"=1'-0"

(SEE PARTIAL PLAN 1/A1.1 FOR CONTINUATION OF FLOOR PLAN)



TRANSITON DETAIL

3/A1.0 — 1 1/2"=1'-0"



METAL STUD PARTITION TYPE:
"MA" = 3 5/8"

SPACING: 16" O.C.
STUD GUAGE:
LOAD BEARING: 18
NON-LOAD BEARING: 20

WOOD STUD PARTITION TYPE:
ALL PARTITIONS TYPE 'A' UNLESS NOTED OTHERWISE

"A" = 2x4
"A1"= 2x4 W/ SOUND BATT INS.
"B" = 2x6
"B1"= 2x6 W/ SOUND BATT INS.
"C" = 2x8
"C1"= 2x8 W/ SOUND BATT INS.
"D1" = SEE DTL 12/A3.1

STUD SPACING: 16" O.C.

INTERIOR PARTITION

2/A1.0 — 3/4"=1'-0"

KEY NOTES

- **C** ALUMINUM CANOPY SYSTEM ABOVE - SEE 4/A5.0 FOR NOTES - SEE ROOF PLAN FOR DIMENSIONS. SEE ELEVATION FOR COLORS AND FASCIA LOCATIONS
- **CG** C.C. TO PROVIDE 4"x4"x5'-0" HIGH STAINLESS STEEL CORNER GUARDS AT ALL EXPOSED LOCATIONS IN KITCHEN/SUPPORT AREA. CORNER GUARDS TO START AT FINISH FLOOR. ATTACH WITH WOOD SCREWS INTO WOOD BLOCKING BULLNOSE COVE BASE WHERE TILE MEETS STAINLESS STEEL CORNER
- **CP** CONCRETE EQMT PAD - SEE STRUCTURAL
- **CT B** WALL TILE: CROSSVILLE - COLOR BY NUMBERS COLOR: INTUITIVE GRAY, SIZE: 4"x12", PATTERN: RUNNING BOND GROUT: MAPEI 02 PEWTER - JOINT TO BE 1/16" MAX. USE THIS TILE WHEN HIGH LRV IS REQUIRED COORDINATE WITH McDONALD'S AREA CONSTRUCTION MANAGER
- **DE** DECOR ELEMENT - VERIFY SIZE AND PLACEMENT WITH DECOR PLANS
- **DF** DECOR FINISH TO BE ORDERED/INSTALLED BY GC AND MANUFACTURED BY DECOR; REFER TO PORTFOLIO.
- **DS** DROPPED SOFFIT ABOVE - SEE REFLECTED CEILING PLAN
- **FB CO2** CO2 FILL BOX (EQUIPMENT SCHEDULE ITEM 49.00)
- **FB BO** OPTIONAL BULK OIL FILL BOX (EQPM SCHEDULE ITEM 700.18) CONFIRM USE WITH MCDONALD'S AREA CONSTRUCTION MANAGER
- **FL** FLOOR LINE - CHANGE IN MATERIAL - SEE DECOR DRAWINGS
- **FP** FIBERGLASS REINFORCED PLASTIC (FRP) - PANOLAM, WHITE SMOOTH, CLASS A, .075. REFER TO ROOM FINISH SCHEDULE SHEET A6.1 FOR INSTALLATION LOCATIONS. FOR ORDERING, CONTACT KIMBERLY LAWSON Kimberly_Lawson@panolam.com 1-866-925-4377
- **LL 5'x5'** LEVEL LANDING @ EXT. DOOR W/ MAX. 2% RUNNING/CROSS SLOPE AWAY FROM BUILDING — SIZE OF LANDING
- **MS** MOP SINK - SEE DETAIL 8/A6.1 AND PLUMBING DRAWINGS.
- **RL** ROOF ACCESS LADDER W/HATCH ABOVE SEE STRUCTURAL FRAMING PLAN FOR LOCATING DIMENSIONS
- **SF** SAFE PAD - SEE STRUCTURAL

SYMBOL LEGEND

- (A) PARTITION TYPE TAG SEE 2/A1.0
- DRAFT STOPPING - SEE 2/A1.0
- (7) DOOR TAG - SEE DOOR SCHEDULE ON A6.0
- [x] KEY NOTE

GENERAL NOTES

1. EXTERIOR DIMENSIONS ARE TO COLUMN REFERENCE LINES AND EXTERIOR FACE OF MASONRY UNLESS OTHERWISE NOTED. INTERIOR DIMENSIONS ARE TO FACE OF INTERIOR WALL BOARD
2. SEE 4/A5.0 FOR EXTERIOR WALL ASSEMBLY TYPES. SEE 2/A1.0 FOR INTERIOR PARTITION TYPES. INTERIOR PARTITIONS ARE TYPE 'A' UNLESS NOTED OTHERWISE.
3. SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES
4. SEE SHEET A6.0 FOR DOOR AND ROOM FINISH SCHEDULES
5. SEE SITE PLAN FOR SIDEWALKS, RAMPS, ETC.
6. GC TO PROVIDE ADA SIGNAGE PACKAGE AND INSTALL SIGNS AT LOCATIONS AND POSITIONS INDICATED IN PACKAGE OR AS REQUIRED BY LOCAL CODES. SIGNAGE PACKAGE SUPPLIED BY: FRANKE/S2K 1-800-423-5247 www.frankesupply.com email: fs-frankesupply.us@franke.com
7. MAXIMUM OCCUPANCY SIGN TO BE POSTED PER LOCAL CODE. SIGN FURNISHED AND INSTALLED BY GENERAL CONTRACTOR.
8. ALL HANDSINK LOCATIONS SHALL HAVE CEMENT BOARD BACKING 48" IN HEIGHT A.F.F.
9. GC TO COORDINATE ALL REQUIRED BLOCKING FOR WALL HUNG EQUIPMENT, SHELVES, ETC. FOR PROPER INSTALLATION HEIGHTS.
10. KNOX BOX TO BE INSTALLED PER LOCAL CODE AS REQUIRED. MODEL AND LOCATION TO BE COORDINATED WITH FIRE MARSHALL.

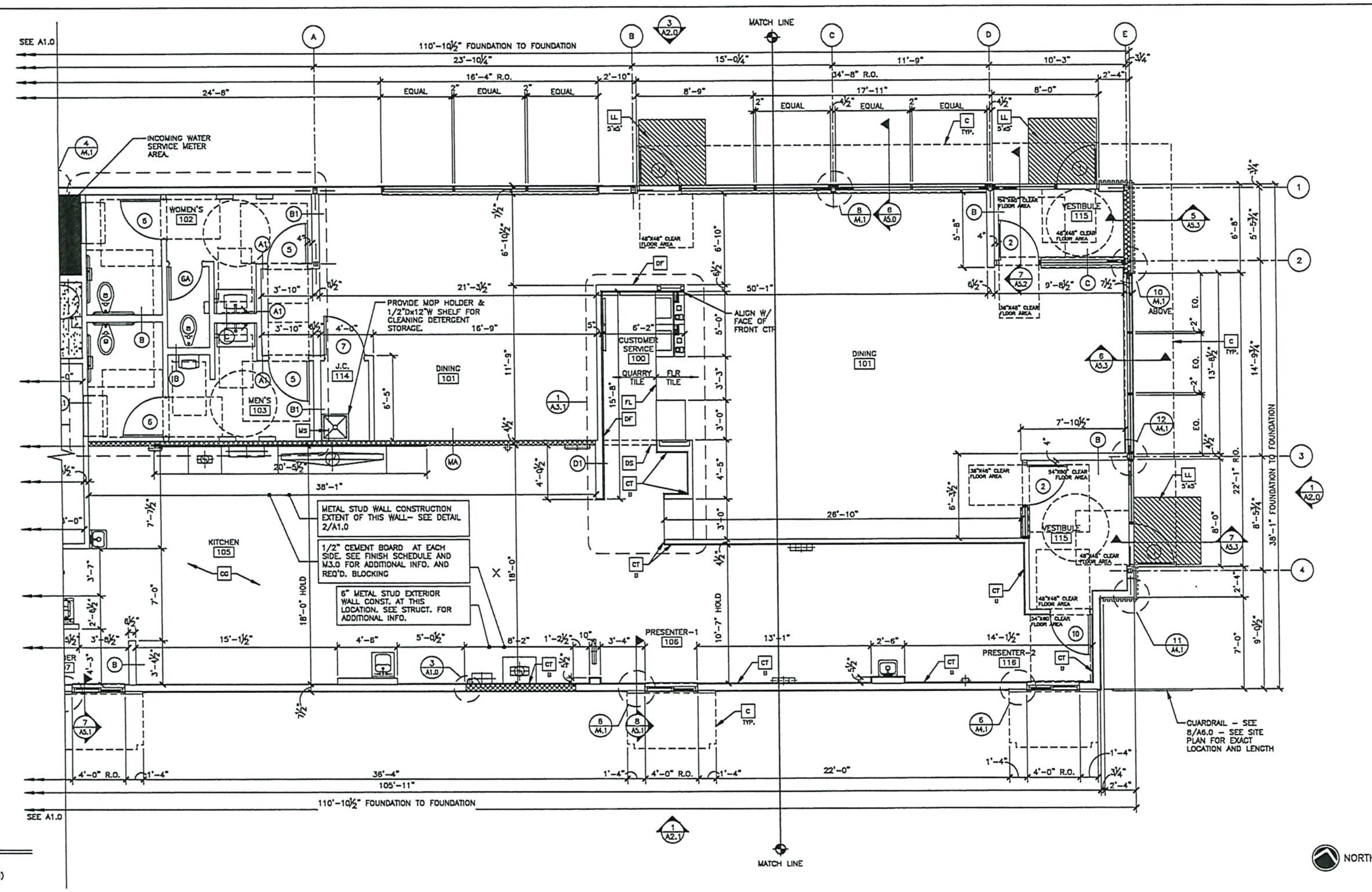
REV	DATE	DESCRIPTION	BY

PATRICK G. BLEES REGISTERED NO. 5272 COMMONWEALTH OF KENTUCKY ARCHITECT 06/22/23

PREPARED BY: CORE STATES GROUP

PREPARED FOR: McDonald's USA, LLC

DRAWN BY	N.GLUKHOVAN
STD ISSUE DATE	2022_12
REVIEWED BY	M.PELINI
DATE ISSUED	06/12/2023
C.S.G. PROJECT #	MCD.37059
TITLE	2023 STANDARD BUILDING - BB20 38111 - WOOD/WOOD
DESCRIPTION	WOOD BEARING WALLS W/ LAP SIDING; WOOD ROOF TRUSS FRAMING; BATTEN/LAP SIDING, ALPOLIC FEATURE WALL
SITE ID	016-1002
SITE ADDRESS	288 CARPENTER DR. FLORENCE, KY 41042
SHEET NO.	A1.0 FLOOR PLAN (016-1002)



1 PARTIAL FLOOR PLAN
A1.1 1/4"=1'-0"
(SEE PARTIAL PLAN 1/A1.0 FOR CONTINUATION OF FLOOR PLAN)

KEY NOTES

- C — ALUMINUM CANOPY SYSTEM ABOVE – SEE 4/A5.0 FOR NOTES – SEE ROOF PLAN FOR DIMENSIONS. SEE ELEVATION FOR COLORS AND FASCIA LOCATIONS
- CG — G.C. TO PROVIDE 4"x4"x5'-0" HIGH STAINLESS STEEL CORNER GUARDS AT ALL EXPOSED LOCATIONS IN KITCHEN/SUPPORT AREA. CORNER GUARDS TO START AT FINISH FLOOR. ATTACH WITH WOOD SCREWS INTO WOOD BLOCKING BULLNOSE COVE BASE WHERE TILE MEETS STAINLESS STEEL CORNER
- CP — CONCRETE EQMT PAD – SEE STRUCTURAL
- CT B — WALL TILE: CROSSVILLE – COLOR BY NUMBERS COLOR: INTUITIVE GRAY, SIZE: 4"x12", PATTERN: RUNNING BOND GROUT: MAPEI 02 PEWTER – JOINT TO BE 1/16" MAX. USE THIS TILE WHEN HIGH LRV IS REQUIRED COORDINATE WITH McDONALD'S AREA CONSTRUCTION MANAGER
- DE — DECOR ELEMENT – VERIFY SIZE AND PLACEMENT WITH DECOR PLANS
- DF — DECOR FINISH TO BE ORDERED/INSTALLED BY GC AND MANUFACTURED BY DECOR; REFER TO PORTFOLIO.
- DS — DROPPED SOFFIT ABOVE – SEE REFLECTED CEILING PLAN
- FB CO2 — CO2 FILL BOX (EQUIPMENT SCHEDULE ITEM 49.00)
- FB BO — OPTIONAL BULK OIL FILL BOX (EQPM SCHEDULE ITEM 700.18) CONFIRM USE WITH MCDONALD'S AREA CONSTRUCTION MANAGER
- FL — FLOOR LINE – CHANGE IN MATERIAL – SEE DECOR DRAWINGS
- FP — FIBERGLASS REINFORCED PLASTIC (FRP) – PANOLAM, WHITE SMOOTH, CLASS A, .075. REFER TO ROOM FINISH SCHEDULE SHEET A6.1 FOR INSTALLATION LOCATIONS. FOR ORDERING, CONTACT KIMBERLY LAWSON Kimberly_Lawson@panolam.com 1-866-925-4377
- LL 5'x5' — LEVEL LANDING @ EXT. DOOR W/ MAX. 2% RUNNING/CROSS SLOPE AWAY FROM BUILDING; SIZE OF LANDING
- MS — MOP SINK – SEE DETAIL 8/A6.1 AND PLUMBING DRAWINGS.
- RL — ROOF ACCESS LADDER W/HATCH ABOVE SEE STRUCTURAL FRAMING PLAN FOR LOCATING DIMENSIONS
- SF — SAFE PAD – SEE STRUCTURAL

SYMBOL LEGEND

- (A) — PARTITION TYPE TAG SEE 2/A1.0
- DRAFT STOPPING – SEE 2/A1.0
- (7) — DOOR TAG – SEE DOOR SCHEDULE ON A6.0
- [x] — KEY NOTE

GENERAL NOTES

1. EXTERIOR DIMENSIONS ARE TO COLUMN REFERENCE LINES AND EXTERIOR FACE OF MASONRY UNLESS OTHERWISE NOTED. INTERIOR DIMENSIONS ARE TO FACE OF INTERIOR WALL BOARD
2. SEE 4/A5.0 FOR EXTERIOR WALL ASSEMBLY TYPES. SEE 2/A1.0 FOR INTERIOR PARTITION TYPES. INTERIOR PARTITIONS ARE TYPE 'A' UNLESS NOTED OTHERWISE.
3. SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES
4. SEE SHEET A6.0 FOR DOOR AND ROOM FINISH SCHEDULES
5. SEE SITE PLAN FOR SIDEWALKS, RAMPS, ETC.
6. GC TO PROVIDE ADA SIGNAGE PACKAGE AND INSTALL SIGNS AT LOCATIONS AND POSITIONS INDICATED IN PACKAGE OR AS REQUIRED BY LOCAL CODES. SIGNAGE PACKAGE SUPPLIED BY: FRANKE/S2K 1-800-423-5247 www.frankesupply.com email: fs-frankesupply.us@franke.com
7. MAXIMUM OCCUPANCY SIGN TO BE POSTED PER LOCAL CODE. SIGN FURNISHED AND INSTALLED BY GENERAL CONTRACTOR.
8. ALL HANDSINK LOCATIONS SHALL HAVE CEMENT BOARD BACKING 48" IN HEIGHT A.F.F.
9. GC TO COORDINATE ALL REQUIRED BLOCKING FOR WALL HUNG EQUIPMENT, SHELVES, ETC. FOR PROPER INSTALLATION HEIGHTS.
10. KNOX BOX TO BE INSTALLED PER LOCAL CODE AS REQUIRED. MODEL AND LOCATION TO BE COORDINATED WITH FIRE MARSHALL.

PREPARED FOR: McDonald's USA, LLC

PREPARED BY: CORE STATES GROUP

PATRICK G. BLEES REGISTERED NO. 5272 COMMONWEALTH OF KENTUCKY 06/22/23

DRAWN BY	N.GLUKHOMAN
STD ISSUE DATE	2022_12
REVIEWED BY	M.PELINI
DATE ISSUED	05/12/2023
C.S.G. PROJECT #	MCD.37059

TITLE: 2023 STANDARD BUILDING – BB20 38111 – WOOD/WOOD

DESCRIPTION: WOOD BEARING WALLS W/ LAP SIDING; WOOD ROOF TRUSS FRAMING; BATTEN/LAP SIDING, ALPOLIC FEATURE WALL

SITE ID: 016-1002 | SITE ADDRESS: 288 CARPENTER DR. FLORENCE, KY 41042

SHEET NO. 016-1002 A1.1 FLOOR PLAN

REV	DATE	DESCRIPTION	BY

Steve Lilly

From: Andy Aman <aaman@sd1.org>
Sent: Thursday, September 7, 2023 10:06 AM
To: Steve Lilly
Subject: RE: Zoning Map Amendment - McDonalds Mt Zion Rd

EXTERNAL MESSAGE

Storm:

1. This project will need to apply for and obtain a Storm Water Permit from SD1 with a disturbance of 1-acre and greater.

Sanitary:

1. A reservation of sanitary sewer capacity needs to be applied for.
2. All new 8" sanitary sewers will be considered private. An SD1 private sanitary sewer connection permit needs to be applied for.
3. All existing sanitary sewer connections need be properly abandoned by a certified tapper.
4. New sanitary connection(s) with this project will need to obtain the appropriate sanitary sewer connection permits from SD1.

Plats:

1. All plats with an SD1 easement(s) will need to be reviewed and signed off on by SD1.

Andy Aman
Director of Development Services
SD1
1045 Eaton Dr
Ft. Wright, KY 41017
859-578-6880
aaman@sd1.org
www.sd1.org

From: Steve Lilly <steve.lilly@boonecountyky.org>
Sent: Wednesday, September 6, 2023 10:07 AM
To: Paul Stephenson <Pstephenson@boonecountyky.org>; Mark Martin <mmartin@boonecountyky.org>; Alison Chadwell <alison@aspire-eng.com>; Robert Franxman <rfranxman@boonecountyky.org>; Tom Logan <tlogan@boonecountyky.org>; Randy Childress <randy.childress@florence-ky.gov>; Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>; Andy Aman <aaman@sd1.org>; Mike Roush <mroush@boonecountyky.org>
Subject: Zoning Map Amendment - McDonalds Mt Zion Rd

Good morning,

We have received an application for a Zoning Map Amendment including three variances for a 1-acre area located near the intersection of Mt. Zion Road and Lakeside Drive. Below is a link that contains the submitted files for the request. Please review the files and provide comments back to me no later than Monday, September 25, 2023.

If you have any questions, please let me know.

202309_McDonalds - Mt Zion Road

Steve Lilly

From: Randy Childress <Randy.Childress@Florence-KY.gov>
Sent: Friday, September 8, 2023 3:43 PM
To: Steve Lilly
Subject: RE: Zoning Map Amendment - McDonalds Mt Zion Rd

EXTERNAL MESSAGE
Comments:

1. Existing private fire hydrant on the Lakeside Dr. needs to remain in place.
2. Florence Fire/EMS is aware of the curb being placed to maintain the closure of Lakeside Dr. from Mt. Zion. We have no issue with curb placement.

From: Steve Lilly <steve.lilly@boonecountyky.org>
Sent: Wednesday, September 6, 2023 10:07 AM
To: Paul Stephenson <Pstephenson@boonecountyky.org>; Mark Martin <mmartin@boonecountyky.org>; Alison Chadwell <alison@aspire-eng.com>; Robert Franxman <rfranxman@boonecountyky.org>; Tom Logan <tlogan@boonecountyky.org>; Randy Childress <Randy.Childress@Florence-KY.gov>; Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>; Andy Aman <aaman@sd1.org>; Mike Roush <mroush@boonecountyky.org>
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If you have any questions, please let me know.

202309_McDonalds - Mt Zion Road

Steven Lilly, PLS
Planner, Zoning Services

BOONE COUNTY
PLANNING COMMISSION

2950 Washington Street, Room 317
Burlington, Kentucky 41005
(P) 859-334-2196 (F) 859-334-2264

Steve Lilly

From: Alison Chadwell <alison@aspire-eng.com>
Sent: Tuesday, September 12, 2023 4:53 PM
To: Steve Lilly; Paul Stephenson; Mark Martin; Robert Franxman; Tom Logan; Randy Childress; Brefeld, Linzy M (KYTC-D06); Andy Aman; Mike Roush
Subject: RE: Zoning Map Amendment - McDonalds Mt Zion Rd

EXTERNAL MESSAGE
Steve,

I've added my comments; though somewhat limited.

I have concerns with the location of the driveway and potential stacking issues impacting Mt. Zion Road. I'm sure the state will have some input, but not sure how this will work out as they are not requesting access from KYTC. I believe that will the zone change application, the applicant should be submitting a TIS. I'm seeing a very similar situation to the McDonalds on Hazelwood Drive in Villa Hills and I don't want a situation affecting a state roadway, so I've asked that a TIS be submitted. Another option may be to request that they modify their access to Carpenter Drive instead of Lakeside to get some additional stacking area. (@Robert Franxman, @Brefeld, Linzy M (KYTC-D06))

The other issue that I see is detention. It appears that there is a regional facility for this residential area, but when you include the off-site demolition, it appears that the disturbed area is great than 1 acre, and modifications would need to be made to the existing facility. It will likely be cumbersome, BUT, if we let it go on this one, then the next section will use it as a reason to do the same. (@Andy Aman) Let me know if any pushback on this.

Thanks,

Alison S. Chadwell, PE, PTOE, LEED AP

Aspire Engineering
C: (859) 312-8434
alison@aspire-eng.com

From: Steve Lilly <steve.lilly@boonecountyky.org>
Sent: Wednesday, September 6, 2023 10:07 AM
To: Paul Stephenson <Pstephenson@boonecountyky.org>; Mark Martin <mmartin@boonecountyky.org>; Alison Chadwell <alison@aspire-eng.com>; Robert Franxman <rfranxman@boonecountyky.org>; Tom Logan <tlogan@boonecountyky.org>; Randy Childress <randy.childress@florence-ky.gov>; Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>; Andy Aman <aaman@sd1.org>; Mike Roush <mroush@boonecountyky.org>
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If you have any questions, please let me know.

Steve Lilly

From: Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>
Sent: Thursday, September 14, 2023 1:31 PM
To: Steve Lilly
Subject: RE: Zoning Map Amendment - McDonalds Mt Zion Rd

EXTERNAL MESSAGE
We are waiting on a TIS from the consultant.

Thanks!

Linzy Brefeld, P.E.
Transportation Engineer Supervisor
KYTC District 6
Traffic and Permits Section
Linzy.Brefeld@ky.gov

From: Steve Lilly <steve.lilly@boonecountyky.org>
Sent: Wednesday, September 6, 2023 10:07 AM
To: Paul Stephenson <Pstephenson@boonecountyky.org>; Mark Martin <mmartin@boonecountyky.org>; Alison Chadwell <alison@aspire-eng.com>; Robert Franxman <rfranxman@boonecountyky.org>; Tom Logan <tlogan@boonecountyky.org>; Randy Childress <randy.childress@florence-ky.gov>; Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>; Andy Aman <aaman@sd1.org>; Mike Roush <mroush@boonecountyky.org>
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If you have any questions, please let me know.

202309_McDonalds - Mt Zion Road

Steven Lilly, PLS
Planner, Zoning Services

BOONE COUNTY
PLANNING COMMISSION

2950 Washington Street, Room 317
Burlington, Kentucky 41005
(P) 859-334-2196 (F) 859-334-2264

Steve Lilly

From: Robert Franxman
Sent: Tuesday, September 19, 2023 4:09 PM
To: Steve Lilly
Subject: RE: Zoning Map Amendment - McDonalds Mt Zion Rd

No comments on the TIS or Site Plan.

From: Steve Lilly <steve.lilly@boonecountyky.org>
Sent: Friday, September 15, 2023 11:31 AM
To: Paul Stephenson <Pstephenson@boonecountyky.org>; Mark Martin <mmartin@boonecountyky.org>; Alison Chadwell <alison@aspire-eng.com>; Robert Franxman <rfranxman@boonecountyky.org>; Tom Logan <tlogan@boonecountyky.org>; Randy Childress <randy.childress@florence-ky.gov>; Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>; Andy Aman <aaman@sd1.org>; Mike Roush <mroush@boonecountyky.org>
Subject: RE: Zoning Map Amendment - McDonalds Mt Zion Rd

Good morning,

The applicant just provided the TIS for the proposed McDonald's site. Please review and let me know if you have any comments.

Steven Lilly, PLS
Planner, Zoning Services

BOONE COUNTY
PLANNING COMMISSION

2950 Washington Street, Room 317
Burlington, Kentucky 41005
(P) 859-334-2196 (F) 859-334-2264

From: Steve Lilly
Sent: Wednesday, September 6, 2023 10:07 AM
To: Paul Stephenson <Pstephenson@boonecountyky.org>; Mark Martin <mmartin@boonecountyky.org>; Alison Chadwell <alison@aspire-eng.com>; Robert Franxman <rfranxman@boonecountyky.org>; Tom Logan <tlogan@boonecountyky.org>; Randy Childress <randy.childress@florence-ky.gov>; Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>; Andy Aman <aaman@sd1.org>; Mike Roush <mroush@boonecountyky.org>
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If you have any questions, please let me know.

202309_McDonalds - Mt Zion Road

Steve Lilly

From: Alison Chadwell <alison@aspire-eng.com>
Sent: Tuesday, September 26, 2023 12:00 PM
To: Steve Lilly
Subject: RE: Mt Zion McDonald's - Traffic Impact Study

EXTERNAL MESSAGE
Steve,

This report technically meets the TIS requirements. My concern is the distance from Mt. Zion to the entrance along Lakeshore Drive and I'm not sure we have the ability to ask for a change. From local experience at Mt. Donald's (Hebron, Burlington & Villa Hills) at lunch time, the stacking has exceeded the driveway and traffic sits on the roadway. I'd like to prevent that from happening here, but I'm afraid we have no levers to pull, as Lakeside Drive is a private roadway. The best remedy would be for the entrance to be moved to Carpenter Drive to pull the stacking away from Mt. Zion, but I don't believe we can require this.

Alison S. Chadwell, PE, PTOE, LEED AP

Aspire Engineering
C: (859) 312-8434
alison@aspire-eng.com

From: Steve Lilly <steve.lilly@boonecountyky.org>
Sent: Friday, September 22, 2023 9:52 AM
To: Alison Chadwell <alison@aspire-eng.com>
Subject: Mt Zion McDonald's - Traffic Impact Study

Alison,

Attached is the TIS that was sent to me. Please take a look and let me know if you have any additional comments.

Thanks,

Steven Lilly, PLS
Planner, Zoning Services

BOONE COUNTY PLANNING COMMISSION
2950 Washington Street, Room 317
Burlington, Kentucky 41005
(P) 859-334-2196 (F) 859-334-2264

EXHIBIT
"B"

ZONE CHANGE/CONCEPT PLAN COMMITTEE REPORT

TO: Boone County Planning Commission

FROM: Steve Harper, Chair

DATE: November 1, 2023

RE: Request of **KMK Law, per James Parsons (applicant)** for **Mt. Zion MHC LP, per Kurtis P. Keeney (owner)** for a Zoning Map Amendment from Mobile Home Park (MHP) to Commercial Four (C-4), including the following variances: (1) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Mt. Zion Road; (2) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Carpenter Drive; and (3) reducing the rear yard building setback from fifty (50) feet to thirty-eight (38) feet, for an approximate 1 acre area located at the southeast corner of the intersection of Mt. Zion Road and Lakeside Drive, including the properties at 266, 270, 274, 278, 282, 286, and 290 Carpenter Drive and 10006 West Garland Court, Boone County, Kentucky. The request is for a Zoning Map Amendment to allow the development of an eating and drinking establishment with drive-through service.

REMARKS:

1. We, the Committee Members were present at the Committee Meeting and voted on the above request or else were absent from voting. Further, based upon the vote, the Committee directs the Staff to draft the finding of fact and conditions, if deemed necessary, to complete the Committee Report.

2. We, the Committee, recommend approval of the Zoning Map Amendment and Variance requests based on the following findings of fact:

ZONING MAP FINDINGS OF FACT

1. The Committee concluded that the proposed C-4 district is consistent with the Our Boone County Plan 2040 Future Land Use Plan Map which identifies the site for Commercial uses which is described as "retail, corporate and professional office, interchange commercial, indoor commercial recreation, restaurants, services, etc.".

   The submitted Concept Development Plan shows the construction of a fast-food restaurant with drive-through service.

2. The Committee concluded that the proposed C-4 district is consistent with the Land Use Plan Element of Our Boone County Plan 2040, which includes the following passages, which relate to the request:

   Development at the Mt. Zion interchange should be planned in such a way as to not greatly impact the existing and planned Suburban Density Residential uses in the area. KY 536 (Mt. Zion Rd.) is planned for major widening, which will make this corridor a major arterial route from Boone County, through Kenton County, to Campbell County. Reconstruction of the Mt. Zion/I-75 interchange is expected to begin in 2019 and the reconstruction of Mt. Zion Road from I-75 to Old Union Road is underway and should be completed by 2020.

Commercial activity associated with the interchange should be concentrated on the east side of the interstate. Access for these commercial uses should be coordinated so that all development can easily access traffic signals. All commercial development should be planned with attention to possible traffic impacts because this interchange will serve an increasing volume of residential, commercial, and industrial traffic. The type of commercial activity northeast of the interchange should serve the residential areas on Mt. Zion Road and along Dixie Highway, Gateway Technical College, and the Northern Kentucky Industrial Park. Street and parking lot connections are critical in this area to help traffic flow on Mt. Zion Road. South of the interchange, between the interstate and U.S. 25, should develop in a variety of residential and commercial mixed uses. In time, the Greenlawn Estates Mobile Home Park should redevelop as Commercial due to its high visibility and access along Mt. Zion Road. Mobile home development should not extend south of Maher Road. Reconstruction and widening of U.S. 25 creates the potential for redevelopment in much of this corridor. Mixed use development with prevalent interconnections is recommended. (Florence Industrial Future Land Use Geographical Area, pg. 132).

This proposal represents the first redevelopment of the Mobile Home Park to Commercial as recommended.

3. The Committee concluded that the proposed C-4district is consistent with several Our Boone County Plan 2040 Goals and Objectives.

   a. Land uses and zoning decisions shall strive to balance the rights of landowners with the rights of neighbors and the community (Overall Goal A, Objective 4).
   b. Provide appropriate services, housing, employment, and shopping opportunities in order to meet the needs of the population in all geographic areas of the County (Demographics Goal A, Objective 4).
   c. Boone County businesses are developed in appropriate locations and are compatible with surrounding land uses. (Economy Goal B).
   d. Compact, efficient development patterns shall be encouraged for industrial, commercial, and office uses with appropriately sized and maintained buffer spaces between the business use and other land uses. (Economy Goal B, Objective 1).
   e. Commercial uses shall be designed and located to coordinate with the surrounding land uses and shall have safe access and adequate parking. (Economy Goal B, Objective 3).

CONDITIONS

The Committee concluded that the attached conditions are necessary to achieve consistency with the Our Boone County Plan 2040. The Committee also concluded that the attached conditions are necessary to mitigate any foreseeable community impacts that may be created by the development. The property owner has signed a letter demonstrating agreement with the conditions:

1. The approval shall be based on the revised Concept Development Plan that was reviewed at the November 1, 2023 Zone Change Committee meeting, unless modified by other conditions below.

2. That landscaping shall be installed on-site per the submitted landscaping plan with the exception that the east property buffer yard adjoining the MHP meets the planting requirement for a Buffer Yard "B".

3. Directional signage indicating the end of the street shall be placed at the proposed curb separating Lakeside Drive and Carpenter Drive. The sign shall be constructed per the recommendation of the County Engineer.

4. Signage shall meet the requirements of Article 34 of the zoning regulations.

VARIANCE FINDINGS OF FACT

The request is in agreement with KRS 100.243 and Section 251 of the Boone County Zoning Regulations for the following reasons:

1. The proposed variances do not adversely affect the public health, safety, or welfare, will not alter the essential character of the general vicinity, will not cause a hazard or nuisance to the public, and will not allow an unreasonable circumvention of the requirements of the zoning regulations. In making this finding, the Committee concluded the strict application of the landscaping buffer yard requirements and the rear yard setback would deprive the applicant of the reasonable use of the land or create an unnecessary hardship.

2. The proposed variance is being requested as part of a proposed zoning map amendment with the submittal of a proposed Concept Development Plan. Since the requested variance is part of, and being reviewed in light of, the proposed zoning map amendment and concept development plan, it is the decision of this committee that the proposed variances should only be approved and be in effect if the proposed zoning map amendment is approved by the legislative body.

A copy of the Public Hearing minutes accompanies the findings and recommendation serving as a summary of the evidence and testimony presented by the proponents and opponents of this request. Attached is the signature page for the Zone Change/Concept Development Plan Committee Vote.

ZONE CHANGE/CONCEPT PLAN COMMITTEE VOTE

TO: Boone County Planning Commission

FROM: Steve Harper, Chairman

DATE: October 18, 2023

REMARKS:

We, the Committee Members were present at the Committee Meeting and voted on the above request or else were absent from voting. Further, based upon the vote, the Committee directs the Staff to draft the findings of fact and conditions if deemed necessary in order to complete the Committee Report.

ZONING MAP AMENDMENTS, Steve Harper, Chairman, Steve Lilly, Staff

1. Request of **KMK Law, per James Parsons (applicant)** for **Mt. Zion MHC LP, per Kurtis P. Keeney (owner)** for a Zoning Map Amendment from Mobile Home Park (MHP) to Commercial Four (C-4), including the following variances: (1) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Mt Zion Road; (2) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Carpenter Drive; and (3) reducing the rear yard building setback from fifty (50) feet to thirty-eight (38) feet, for an approximate 1 acre area located at the southeast corner of the intersection of Mt Zion Road and Lakeside Drive, including the properties at 266, 270, 274, 278, 282, 286, and 290 Carpenter Drive and 10006 West Garland Court, Boone County, Kentucky. The request is for a Zoning Map Amendment to allow the development of an eating and drinking establishment with drive-through service.

Janet Kegley

For Project ____ Absent____
Against Project ____
Abstain ____ Deferred ____

Corrin Gulick

For Project ____ Absent____
Against Project ____
Abstain ____ Deferred ____

Rick Lunnemann

For Project ____ Absent____
Against Project ____
Abstain ____ Deferred ____

Kathy Clark (Alternate)

For Project ____ Absent____
Against Project ____
Abstain Deferred

Steve Harper (Chairman)

For Project ____ Absent____
Against Project ____
Abstain ____ Deferred ____

Steve Turner (Alternate)

For Project ____ Absent____
Against Project ____
Abstain ____ Deferred ____

David Hincks

For Project ____ Absent____
Against Project ____
Abstain ____ Deferred ____

Jackie Steele (Alternate)

For Project ____ Absent____
Against Project ____
Abstain ____

TOTAL: _____ DEFERRED _____ FOR PROJECT _____ ABSENT
_____ AGAINST PROJECT _____ ABSTAIN

ZONE CHANGE/CONCEPT PLAN COMMITTEE VOTE

TO: Boone County Planning Commission

FROM: Steve Harper, Chairman

DATE: November 1, 2023

REMARKS:

We, the Committee Members were present at the Committee Meeting and voted on the above request or else were absent from voting. Further, based upon the vote, the Committee directs the Staff to draft the findings of fact and conditions if deemed necessary in order to complete the Committee Report.

ZONING MAP AMENDMENTS, Steve Harper, Chairman, Steve Lilly, Staff

1. Request of **KMK Law, per James Parsons (applicant)** for **Mt. Zion MHC LP, per Kurtis P. Keeney (owner)** for a Zoning Map Amendment from Mobile Home Park (MHP) to Commercial Four (C-4), including the following variances: (1) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Mt Zion Road; (2) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Carpenter Drive; and (3) reducing the rear yard building setback from fifty (50) feet to thirty-eight (38) feet, for an approximate 1 acre area located at the southeast corner of the intersection of Mt Zion Road and Lakeside Drive, including the properties at 266, 270, 274, 278, 282, 286, and 290 Carpenter Drive and 10006 West Garland Court, Boone County, Kentucky. The request is for a Zoning Map Amendment to allow the development of an eating and drinking establishment with drive-through service.

Janet Kegley

For Project ____ Absent____
Against Project ____
Abstain ____ Deferred ____

Corrin Gulick

For Project ✓ Absent____
Against Project ____
Abstain ____ Deferred ____

Rick Lunnemann

For Project ✓ Absent____
Against Project ____
Abstain ____ Deferred ____

Kathy Clark (Alternate)

For Project ____ Absent____
Against Project ____
Abstain Deferred

Steve Harper (Chairman)

For Project ✓ Absent____
Against Project ____
Abstain ____ Deferred ____

Steve Turner (Alternate)

For Project ____ Absent____
Against Project ____
Abstain ____ Deferred ____

David Hincks

For Project ✓ Absent____
Against Project ____
Abstain ____ Deferred ____

Jackie Steele (Alternate)

For Project ____ Absent____
Against Project ____
Abstain ____

TOTAL: ____ DEFERRED ____ FOR PROJECT ____ ABSENT
____ AGAINST PROJECT ____ ABSTAIN

COMMISSION MEMBERS PRESENT:

Mr. Randy Bessler
Mrs. Kathy Clark
Ms. Corrin Gulick, Vice Chairwoman
Mr. Steve Harper, Temporary Presiding Officer
Mr. David Hincks
Mr. Rick Lunnemann
Mr. Charlie Rolfsen, Chairman
Mr. Bob Schwenke
Mrs. Jackie Steele, Secretary/Treasurer
Mr. Tom Szurlinski
Mr. Steve Turner
Mr. Kenny Vaught

COMMISSION MEMBERS NOT PRESENT:

Mrs. Pamela Goetting
Mrs. Janet Kegley
Mr. Eric Richardson

LEGAL COUNSEL PRESENT:

Mr. Dale Wilson

STAFF MEMBERS PRESENT:

Mr. Kevin P. Costello, AICP, Executive Director
Mr. Todd K. Morgan, AICP, Senior Planner
Mr. Steve Lilly, GISP, Planner

Chairman Rolfsen introduced the second item on the Agenda at 8:58 p.m.

ZONING MAP AMENDMENTS, Steve Lilly, Staff

2. Request of **KMK Law, per James Parsons (applicant)** for **Mt. Zion MHC LP, per Kurtis P. Keeney (owner)** for a Zoning Map Amendment from Mobile Home Park (MHP) to Commercial Four (C-4), including the following variances: (1) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Mt Zion Road; (2) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Carpenter Drive; and (3) reducing the rear yard building setback from fifty (50) feet to thirty-eight (38) feet, for an approximate 1 acre area located at the southeast corner of

the intersection of Mt Zion Road and Lakeside Drive, including the properties at 266, 270, 274, 278, 282, 286, and 290 Carpenter Drive and 10006 West Garland Court, Boone County, Kentucky. The request is for a Zoning Map Amendment to allow the development of an eating and drinking establishment with drive-through service.

Staff Member, Steve Lilly, referred to his PowerPoint presentation (See Staff Report). The request is to rezone the site from MHP to C-4. The site is located on the south side of Mt. Zion Road, east of Lakeside Drive and north of Carpenter Drive. Mt. Zion Road has been rebuilt. There is a designated turn lane in both directions on Mt. Zion Road to Lakeside Drive. The existing intersection is signalized and sidewalks exist along Mt. Zion Road, Lakeside Drive and Carpenter Drive. The site is relatively flat and has an average grade of 3%. Commercial zoning exists north and west of the site. Pages 1-3 of the Staff Report contain the applicable regulations that pertain to the application. The 2040 Future Land Use Map designates the site as Commercial (C) use. Mr. Lilly referred to the Comprehensive Plan that suggests the Greenlawn Mobile Home Park be developed for commercial uses due to its high visibility and access (Mt. Zion Road). Lakeside Drive and Carpenter Drive are considered private streets. Pages 3-6 of the Staff Report contain sections from the Comprehensive Plan that are pertinent to the request.

The applicant has submitted a Concept Development Plan showing a 4,359 square foot McDonald's restaurant with drive thru service and seating for 70 customers. Three variances are being requested. The first variance is for a street frontage buffer along Mt. Zion Road. The second variance is a street frontage buffer that runs along Carpenter Drive. The final one is for the rear yard building setback from 50 feet to 38 feet. A single point access is being proposed via Lakeside Drive. The applicant is proposing to install a barrier near the end of the curb cut off Lakeside Drive. No vehicular access from the mobile home park will be permitted. A lighting plan and landscaping plan have been provided by the applicant. The proposed landscaping along Mt. Zion Road is planned to be installed in the right-of-way. An encroachment permit from the State will be required. The buffer along Carpenter Drive will be Buffer Yard A. Buffer Yard A is also planned for the eastern property line. It will have to be revised to reflect Buffer Yard B. The applicant has submitted a sign package for the site. There are no variances being requested for signage.

Mr. Lilly showed building elevations and photographs of the site and adjoining properties. Pages 8-10 of the Staff Report lists a series of Staff Comments. A traffic study was submitted and Staff included the executive summary in the Staff Report. Comments from outside agencies are included in the Staff Report. SD1 indicated that the site will have to go through storm water permit process. Staff has not received any comments back from the Kentucky Transportation Cabinet. In terms of Staff concerns, there doesn't seem to be pedestrian access from the existing sidewalks into the site. Can a sidewalk be provided from the existing sidewalk along Lakeside Drive into the site at the stripe pedestrian crossing in the parking lot? Section 3155 A.5. states that intercoms or other audio devices used in conjunction with a drive-through facility shall not be audible beyond the property line of the lot containing the drive-through facility. With the east property line being less than 80 feet away, can the applicant address how this may affect the adjacent mobile home

tenants? The submitted Concept Development Plan shows parking that would meet the requirements but does not show proposed curbside pick-up or drive-through reservations. Will there be dedicated parking spaces for those applications? The Concept Development Plan that was submitted doesn't address deliveries. Moreover, it does not identify a designated area for loading spaces? Are deliveries made by using tractor-trailers? If so, have turning simulations been conducted and evaluated? Staff would like the issue of future connectivity addressed? Has there been any discussion about the continuation of commercial development and future access when/if it continues along Mt. Zion Road? Staff requests that stacking information be provided for the drive-through which is based on existing McDonald's sites located in Boone County. Staff would like the applicant to address the stacking onto Lakeside Drive coming out of the development. Is there a potential for existing vehicles to back up into the development while waiting for the traffic light? Finally, is it possible to reconstruct a portion of Carpenter Drive further south? This would allow for a better bypass lane and eliminate some of the stacking concerns. It could also allow for a full street buffer along the southern boundary and compliance with the rear yard setback.

Chairman Rolfsen asked if the applicant was present and wanted to proceed with their presentation?

Mr. James Parsons, applicant for McDonald's, referred to his PowerPoint presentation. He indicated that the owner of the mobile home park wants the barrier to remain in place for Lakeside Drive for now. The restaurant site will be leased from the owners of Greenlawn Mobile Home Park. All landscaping along Mt. Zion Road is all gone due to the reconstruction of the road. The variance request will not alter the essential character of the area. The road itself ended the buffer. The roadway today is right up against the right-of-way. Despite this, they are going to attempt to put some landscaping in on the site. The property is surrounded by commercial uses except for the mobile home park. The request is for a 4,395 square foot McDonald's restaurant in a C-4 Zoning District. It is consistent with the Comprehensive Plan and adjacent uses. The submitted plan meets the stacking requirements. The Kentucky Transportation Cabinet has approved the landscape plans. A lighting plan has been submitted along with a Traffic Impact Study. The Comprehensive Plan calls out the area to be developed for Commercial (C) uses. The Traffic Impact Study doesn't require any additional improvements. Most of the proposed building setback is in compliance along Carpenter Drive. Just a small portion of it requires a variance. It is a lot corner. There will be no sound from the drive-thru speakers leaving the property line.

Chairman Rolfsen asked if anyone in the audience had any comments or questions? Mr. Rick Hall, 10000 Demia Way, stated that he owns the Valvoline and car wash. A lot of the people from the mobile home park walk through his property. How will these be relocated if the project is built? Eight mobile homes will be removed from the site. There are good people back there and someone needs to take care of them. The barriers were installed by the previous owner because of the traffic back up on Mt. Zion Road. It was a short cut to Dixie Highway. The mobile home at 10013 has a direct access to his property and could alleviate some of the back-up at the signal. The blank mobile home at the bottom on Lakeside Drive and between his property and 10020

Demia Way, there is an easement that could take care of the back-up. There isn't much room between the McDonald's exit and the traffic signal. Traffic will back into the parking lot and on Carpenter Drive. Mr. Hall has had vandalism problems in the past. There will have to be a lot of lights for the restaurant to prevent security issues. Any connectivity would be welcomed.

Chairman Rolfsen asked if any Commissioner had any questions or comments for the applicant? He asked how many cars can be stacked at the light? Ms. Etta Reed, Bayer-Becker, replied that 4 vehicles can be accommodated on Lakeside Drive before it affects McDonald's entrance. Mr. Parsons explained that his site is only the leased area and does not connect to adjoining properties. Perhaps it could be available for future development. Chairman Rolfsen asked how wide were the plantings on Mt. Zion Road? Mr. Parsons responded that he would give an answer at the Zone Change Committee meeting.

Seeing no further questions or comments, Chairman Rolfsen announced that the Committee Meeting for this item will be on October 18, 2023 at 5:00 P.M. This item will be on the Agenda for the Business Meeting on November 1, 2023 at 7:00 p.m. in the Fiscal Courtroom. Chairman Rolfsen closed the Public Hearing at 9:30 p.m.

APPROVED:

Charlie Rolfsen
Chairman

Attest:

Kevin P. Costello, AICP
Executive Director

BOONE COUNTY PLANNING COMMISSION
BOONE COUNTY FISCAL COURTROOM
BURLINGTON, KENTUCKY
BUSINESS MEETING
NOVEMBER 15, 2023
7:00 P.M.

Chairman Rolfsen opened the Business Meeting at 7:00 p.m. and welcomed the audience to the Planning Commission's November 15, 2023 Business Meeting.

COMMISSION MEMBERS PRESENT:

Mr. Randy Bessler
Mrs. Kathy Clark
Mrs. Pamela Goetting
Ms. Corrin Gulick, Vice Chairwoman
Mr. Steve Harper, Temporary Presiding Officer
Mrs. Janet Kegley
Mr. Rick Lunnemann
Mr. Eric Richardson
Mr. Charlie Rolfsen, Chairman
Mr. Bob Schwenke
Mr. Tom Szurlinski
Mr. Kenny Vaught

COMMISSION MEMBERS NOT PRESENT:

Mr. David Hincks
Mrs. Jackie Steele, Secretary/Treasurer
Mr. Steve Turner

LEGAL COUNSEL PRESENT:

Mr. Dale Wilson

STAFF MEMBERS PRESENT:

Mr. Kevin P. Costello, AICP, Executive Director
Mr. Michael D. Schwartz, Director, Zoning Services
Mr. Todd K. Morgan, AICP, Senior Planner
Mr. Steve Lilly, PLS, GISP, Planner

APPROVAL OF THE MINUTES:

Chairman Rolfsen stated that the Commissioners received copies of the Minutes from the November 15, 2023 Business Meeting and Public Hearings. He asked if there were any comments or corrections?

Mrs. Goetting moved to approve the Minutes as presented. Mr. Harper seconded the motion and it carried unanimously.

D. ACTION ON PLAN REVIEWS

TECHNICAL/DESIGN REVIEW – Rick Lunnemann, Chairman, Michael Schwartz, Staff

1. Request of the **Boone County Planning Commission Technical/Design Review Committee** to consider a series of amendments to the **Boone County Subdivision Regulations.**

At this time, Mr. Michael Schwartz, read the Committee Report. He referred to an email from Justin Verst, City of Florence Engineer, dated November 14m 2023, that was distributed to each Board Member. Staff had a meeting with Florence City Staff on Monday and with members of the Business Industry Association (BIA) regarding the proposed street specifications and some minor modifications. The proposed changes are minor in nature and only affect streets within the City of Florence. Mr. Schwartz stated that the Committee met and recommended the approval of the Subdivision Regulations as they are in agreement with the Goals and Objectives and the seven Elements of the adopted Comprehensive Plan. The proposed regulations meet all of the statutory requirements of KRS Chapter 100. The Technical/Design Review Committee voted unanimously to forward the recommendation for approval to the full Planning Commission.

Seeing no further comment, **Chairman Rolfsen asked if there was a motion? Mr. Lunnemann moved to approve the proposed Subdivision Regulations as presented by Staff, including the changes proposed by Mr. Verst on behalf of the City of Florence. Mr. Vaught seconded the motion.** Mr. Costello noted that the proposed regulations go into effect immediately after adoption by the full Board. He also thanked Mr. Schwartz for doing a wonderful job on the project. Both the new Zoning Regulations and the Subdivision Regulations have now been adopted.

Chairman Rolfsen asked for a vote on the original motion made by Mr. Lunnemann and seconded by Mr. Vaught. The motion passed unanimously.

ZONING MAP AMENDMENT & VARIANCES, Steve Harper, Chairman, Steve Lilly, Staff

2. Request of **KMK Law, per James Parsons (applicant)** for **Mt. Zion MHC LP, per Kurtis P. Keeney (owner)** for a Zoning Map Amendment from Mobile Home Park (MHP) to Commercial Four (C-4), including the following variances: (1) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Mt Zion Road; (2) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Carpenter Drive; and (3) reducing the rear yard building setback from fifty (50) feet to thirty-eight (38) feet, for an approximate 1 acre area located at the southeast corner of the intersection of Mt Zion Road and Lakeside Drive, including the properties at 266, 270, 274, 278, 282, 286, and 290 Carpenter Drive and 10006 West Garland Court, Boone County, Kentucky. The request is for a Zoning Map Amendment to allow the development of an eating and drinking establishment with drive-through service.

Staff Member, Steve Lilly, read the Committee Report, which recommended approval based upon Findings of Facts and Conditions for the Zoning Map Amendment and Variance requests. The applicant has signed the condition letter. Committee members, Mr. Lunnemann, Mr. Harper, Mr. Hincks and Ms. Gulick voted unanimously in favor of the request.

Chairman Rolfsen asked if there was anyone in the audience who had a comment or question? Mr. Jim Parsons, applicant, stated that he supported the Committee's recommendation.

Seeing no further comment, **Chairman Rolfsen asked if there was a motion? Mr. Harper moved to approve the request by Resolution to the Boone County Fiscal Court based upon the Committee Report and subject to the Findings of Fact and Conditions as noted by Mr. Lilly. Dr. Clark seconded the motion.**

Chairman Rolfsen asked how many people will be displaced as a result of the proposed project? Mr. Parsons stated that he couldn't answer that question. That is for the property owner to answer. Mr. Costello stated that it might have been 2-3 units. Mr. Harper asked that question at the Committee meeting but the property owner wasn't present to answer it. **Chairman Rolfsen asked for a vote on the original motion made by Mr. Harper and seconded by Dr. Clark. The motion passed unanimously.**

E. Executive Director's Report:

Mr. Kevin P. Costello, AICP, stated that Staff is continuing to interview candidates for the vacant GIS Analyst position. Hopefully, there will be a recommendation to hire someone next month. Mr. Costello also noted that the is trying to get Kim Patton back to one of the Planning Commission meetings to recognize his years of service to the Planning Commission. He hopes to do it sometime in the next two months.

F. Other:

G. Adjournment:

There being no further business to come before the Planning Commission, **Mr. Bessler moved to adjourn the meeting. Ms. Goetting seconded the motion and it passed unanimously. The meeting was adjourned at 7:14 P.M.**

APPROVED

Charlie Rolfsen
Chairman

Attest:

Kevin P. Costello, AICP
Executive Director

SUPPORTING INFORMATION

bayer becker

bayerbecker.com
513.336.6600
mason | cincinnati | oxford | fort mitchell

DESCRIPTION: Mt. Zion MHC, LP
Purchase Property – 1.057 Ac.

LOCATION: Mt. Zion Road & Lakeside Drive

DATE: June 21, 2023

Situated in the County of Boone, Commonwealth of Kentucky, located on the South side of Mt. Zion Road (KY Hwy 536), and being all of the remaining portion of a 34.672 acre tract conveyed to Mt. Zion MHC, LP in Deed Book 1187, Page 362 of the Boone County Clerk's Records at Burlington and being more particularly described as follows:

Begin at the centerline intersection of Mt. Zion Road (KY Hwy 536 Sta. 191+66.01) and Lakeside Drive (Sta. 100+00), thence, departing the centerline of said Mt. Zion Road, and with the centerline of said Lakeside Drive, the following two courses: South 10°22'56" East, 57.25 feet; thence, with a curve to the right having a radius of 200.00 feet, an arc length of 16.63 feet, and a chord bearing South 07°59'59" East, 16.63 feet to a point on the South line of Parcel 118, Tract A, as conveyed to the Commonwealth of Kentucky, Transportation Cabinet, Department of Highways in Highway Deed Book 22, Page 528; thence, departing said Lakeside Drive centerline, and with the existing South right-of-way line of said KY Hwy 536, North 78°33'14" East, 26.82 feet to a point 73.60 feet right of KY Hwy 536 Sta. 191+90.84 and the TRUE POINT OF BEGINNING;

thence, from the TRUE POINT OF BEGINNING, continuing with said existing South right-of-way line of said Mt. Zion Road, North 78° 33' 14" East, 22.29 feet to a point being referenced by a found 6:x6" concrete monument (N82°47'36"W, 1.33') and also being referenced by a found 1/2" iron pin (S75°15'01"W, 1.26'), said point also being the beginning of controlled access right-of-way at Mt. Zion Road centerline station 192+12.01 as noted in said Highway Deed Book 22, Page 528;

thence, with the existing South controlled access right-of-way line of said Mt. Zion Road, North 75° 30' 27" East, 156.87 feet to the end of controlled access right-of-way at KY Hwy 536 Station 193+68.00;

thence, departing said controlled access right-of-way, and with the existing South right-of-way line of said Mt. Zion Road, North 75° 30' 12" East, 66.03 feet to the beginning of controlled access right-of-way at KY Hwy 536 station 194+34.00;

thence, with the existing South controlled access right-of-way line of said Mt. Zion Road, North 75° 16' 42" East, 49.25 feet;

thence, departing said South controlled access right-of-way line of said Mt. Zion Road, and with a new division line through said 34.672 acre tract, the following nine courses:

1. South 14° 29' 48" East, 155.25 feet;
2. thence, South 05° 29' 43" West, 31.89 feet;
3. thence, North 84° 30' 17" West, 145.30 feet;
4. thence, South 81° 56' 17" West, 62.75 feet;
5. thence, South 76° 31' 41" West, 86.34 feet;
6. thence, South 81° 29' 19" West, 36.23 feet;

7. thence, North 45° 37' 56" West, 15.64 feet;
8. thence, North 06° 02' 47" East, 55.39 feet;
9. thence, North 09° 38' 35" East, 64.58 feet to the TRUE POINT OF BEGINNING.

Containing 1.057 acres of land and being subject to all easements and rights-of-way of record.

All set corners are 5/8" x 30" iron pins with a plastic cap stamped "Chris Gephart PLS 3292" or a Mag nail with identification tag stamped "PLS 3292" unless otherwise noted. The reference meridian is NAD83(2011) Kentucky State Plane Coordinates, North Zone (1601).

The above description was prepared from a survey completed on _____ under the direction of Chris R. Gephart, Licensed Professional Land Surveyor #3292 in the Commonwealth of Kentucky.

Prior Instrument Reference: Deed Book 1187, Page 362

BOONE COUNTY PLANNING COMMISSION

www.boonecountyky.org/pc
www.boonecountygis.com

Boone County Administration Building
2950 Washington Street, Room 317
P.O. Box 958
Burlington, KY 41005

Phone (859) 334-2196; Fax (859) 334-2264
plancom@boonecountyky.org

November 2, 2023

KMK Law
James Parsons
8269 Pleasant Valley Road
Florence, KY 41005

RE: Request of **KMK Law, per James Parsons (applicant)** for **Mt. Zion MHC LP, per Kurtis P. Keeney (owner)** for a Zoning Map Amendment from Mobile Home Park (MHP) to Commercial Four (C-4), including the following variances: (1) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Mt. Zion Road; (2) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Carpenter Drive; and (3) reducing the rear yard building setback from fifty (50) feet to thirty-eight (38) feet, for an approximate 1 acre area located at the southeast corner of the intersection of Mt. Zion Road and Lakeside Drive, including the properties at 266, 270, 274, 278, 282, 286, and 290 Carpenter Drive and 10006 West Garland Court, Boone County, Kentucky. The request is for a Zoning Map Amendment to allow the development of an eating and drinking establishment with drive-through service.

Dear Mr. Parsons:

The following represents the recommended conditions of approval for the above-referenced application as discussed by the Planning Commission at their November 1, 2023 meeting. As you verbally agreed to these conditions at that meeting, please so indicate by signing in the space provided at the end of this letter and return the original letter to the Planning Commission's office no later than November 14, 2023.

CONDITIONS

1. The approval shall be based on the revised Concept Development Plan that was reviewed at the November 1, 2023 Zone Change Committee meeting, unless modified by other conditions below.

2. That landscaping shall be installed on-site per the submitted landscaping plan with the exception that the east property buffer yard adjoining the MHP meets the planting requirement for a Buffer Yard "B".

3. Directional signage indicating the end of the street shall be placed at the proposed curb separating Lakeside Drive and Carpenter Drive. The sign shall be constructed per the recommendation of the County Engineer.

4. Signage shall meet the requirements of Article 34 of the zoning regulations.

Sincerely,

Steven Lilly
Planner, Zoning Services
SCL/ss

AGREEMENT

The property owner and developer of the approximate 1 acre area located at the southeast corner of the intersection of Mt. Zion Road and Lakeside Drive, including the properties at 266, 270, 274, 278, 282, 286, and 290 Carpenter Drive and 10006 West Garland Court, Boone County, Kentucky, agrees to the conditions listed herein for the above referenced Zoning Map Amendment.

Kurtis P. Keeney — 11/10/2023

Mt. Zion MHC LP, per Kurtis P. Keeney (owner) — Date

11/13/2023

KMK Law, per James Parsons (applicant) — Date

TRAFFIC IMPACT STUDY
FOR
MCDONALD'S RESTAURANT DEVELOPMENT

MT. ZION ROAD (KY 536)
BOONE COUNTY, KENTUCKY

SEPTEMBER 2023

PREPARED FOR:

MCDONALD'S USA, LLC
CENTRAL OHIO REGIONAL OFFICE
2 EASTON OVAL, SUITE 200
COLUMBUS, OHIO 43219-6013

PREPARED BY:

BAYER BECKER
6900 TYLERSVILLE ROAD, SUITE 100
MASON, OHIO 45040
(513) 336-6600

bayer becker

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Appendices

Executive Summary

The proposed McDonald's Restaurant development is to be located in the southeast corner of the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection, in Boone County, Kentucky. The land use and density for the proposed McDonald's Restaurant development is a fast-food restaurant with drive-through window at approximately 4,235 square feet. The full build-out year of 2025 is assumed for the proposed McDonald's Restaurant development. The horizon year for the Study is 2035 (Full Build-Out + 10-Yrs).

Regional access to the proposed McDonald's Restaurant development is available on Mt. Zion Road (KY 536), with access to Interstate Highway 71/75 (I-71/I-75) and Dixie Highway (US 25), on Mt. Zion Road (KY 536), within 1-mile east and west of the proposed McDonald's Restaurant development. Direct access to the proposed McDonald's Restaurant development is planned on Lakeside Drive, Site Access is located approximately 104 feet south of Mt. Zion Road (KY 536), (measured stop bar to centerline).

Bayer Becker (BB) corresponded with the Kentucky Transportation Cabinet (KYTC) District 6 and Boone County to review and discuss the project and to establish the scope of services for this Study, which is summarized in a Traffic Scoping Document (Memorandum of Understanding (MOU)), dated July 18, 2023, and provided as Appendix A.

The following intersections comprise the study area of this report and were analyzed to determine the levels of service for the 2025 Full Build Out and 2035 Horizon Year Traffic Projections:

- Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive (Site Access).
- Mt. Zion Road (KY 536) and Demia Way.
- Mt. Zion Road (KY 536) and Kroger Center Drive.

Based on the analysis contained in this report, there are no improvements recommended to accommodate the ***2023 Existing Traffic***, ***2025 No-Build***, and ***2035 No-Build Traffic Projections*** (excluding site traffic).

Based on the analysis contained in this report, the recommended improvements to accommodate the ***2025 Build*** and ***2035 Build Traffic Projections*** (including site traffic) are as follows:

Lakeside Drive and Site Access

Construct Site Access on Lakeside Drive to the proposed McDonald's Restaurant development, approximately 104 feet (stop bar to centerline) south of the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection. The intersection design should be as follows:

- Provide one (1) eastbound lane on proposed Site Access for entering traffic.
- Provide one (1) westbound lane on proposed Site Access for exiting traffic.
- Install a stop sign traffic control device on the westbound approach to the intersection.

Compliance with Applicable Codes

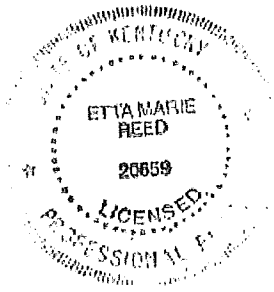
Based upon engineering judgment and the analysis contained in this report, the proposed McDonald's development will not significantly impact operations on the adjacent Mt. Zion Road (KY 536) roadway network.

Traffic Impact Study Certification

I Etta Marie Reed certify that this Traffic Impact Study has been prepared under my direct supervision and that I am a Professional Engineer registered in the State of Kentucky and have successfully completed the Traffic Impact Study Requirements training course required by KYTC. Furthermore, I certify that this study has been completed in accordance with the KYTC Traffic Impact Study Requirements and in accordance with engineering standards of practice. The results presented have been determined to be accurate representations of existing and anticipated conditions based on the assumptions and methodologies presented in this report.

Etta Marie Reed 9-15-23

Etta Marie Reed, P.E.
Engineer of Record
License No. 1-20659



College of Engineering | TECHNOLOGY TRANSFER PROGRAM

TRAFFIC IMPACT STUDY COURSE
Certificate of Completion (3.5 PDH)

Etta Reed
KY PE License No. 20659

Completed: 09/16/2022
Expires: 09/16/2026
Company: University of Kentucky

TIM THARPE
Tim Tharpe, KYTC
Director of Traffic Operations

Adam Kirk, Instructor

The official status of this certificate can be verified with the KYTC Division of Traffic Operations

Introduction

Purpose of Report and Study Objectives

The purpose of this study is to determine the traffic impacts of the proposed McDonald's Restaurant development, and to satisfy the Kentucky Transportation Cabinet's (KYTC's) requirements for traffic impact studies.

According to the Kentucky Transportation Cabinet's *Traffic Impact Study Requirements*, the purpose of a traffic impact study is to:

- Determine the appropriate location, spacing, and design of access points necessary to mitigate the traffic and operational impacts on the highway,
- Determine the need for any improvements to the adjacent and nearby roadway system and
- Maintain a satisfactory level of service and safety and to protect the function of the highway system while providing appropriate and necessary access to the proposed development.

This study describes the existing roadway network, identifies peak conditions, forecasts and distributes future traffic volumes and projects the impact of this proposed development. Conclusions relative to the impact of the increased traffic on the roadway system associated with the proposed McDonald's Restaurant Development have been identified and recommendations for mitigating any possible impacts are provided.

The following references were used in the preparation of this study for the proposed development:

- Site reconnaissance and field observations by Bayer Becker.
- Communications with staff at the Kentucky Transportation Cabinet (KYTC) District 6.
- Communications with staff at the Boone County Public Works Department.
- Communications with representatives at McDonald's USA.
- Peak hour turning movement traffic counts, performed by Bayer Becker on Tuesday, August 29, 2023, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM at the following intersections:
  - Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive.
  - Mt. Zion Road (KY 536) and Demia Way.
  - Mt. Zion Road (KY 536) and Kroger Center Drive.
- Institute of Transportation Engineer's (ITE) *Trip Generation Manual 11th, Edition.*

- *Boone County Zoning Regulations.*
- *Highway Capacity Manual (HCM), 7th Edition.*
- The *Highway Capacity Software 2023 (HCS2023,* Version 8.2).
- *Traffic Impact Study Requirements* provided by KYTC.
- The web based *KYTC Traffic Count Reporting System.*
- KYTC *TIS Simplified Traffic Forecast* spreadsheet.

The proposed McDonald's Restaurant development is located in the southeast corner of the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection in Boone County, Kentucky. A vicinity map is provided as Figure 1.

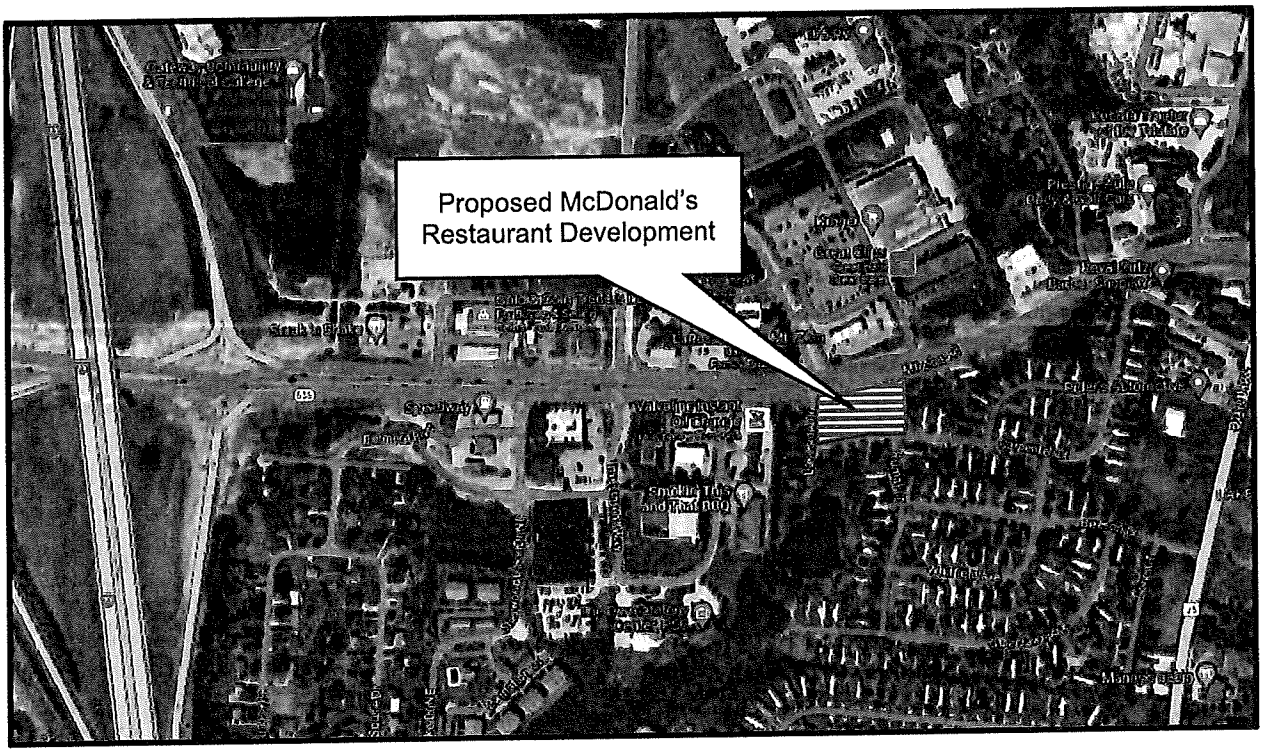


Figure 1
Vicinity Map

The primary objective of this traffic impact study is to determine the traffic impacts of the proposed development, to determine what off-site improvements are required to mitigate the site's impact, and to satisfy KYTC's requirements for traffic impact studies.

The following intersections define the study area of this report:

- Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive.
- Mt. Zion Road (KY 536) and Demia Way.
- Mt. Zion Road (KY 536) and Kroger Center Drive.

It should be noted that exclusive site access to the proposed McDonald's Restaurant development is on Lakeside Drive, by way of the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection.

The ***2023 Existing Year Traffic***, ***2025 Full Build-Out Year - No-Build and Build Traffic Projections***, and ***2035 Horizon Design Year (Full Build-Out + 10-yrs) - No-Build and Build Traffic Projections*** were evaluated as part of the study.

Proposed Site Development

The site for the proposed McDonald's Restaurant development consists of approximately 1.06 acres located in the southeast corner of the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection, in Boone County, Kentucky. The full build-out year of 2025 is assumed for the proposed McDonald's Restaurant development. The horizon year for the Study is 2035 (Full Build-Out + 10-Yrs).

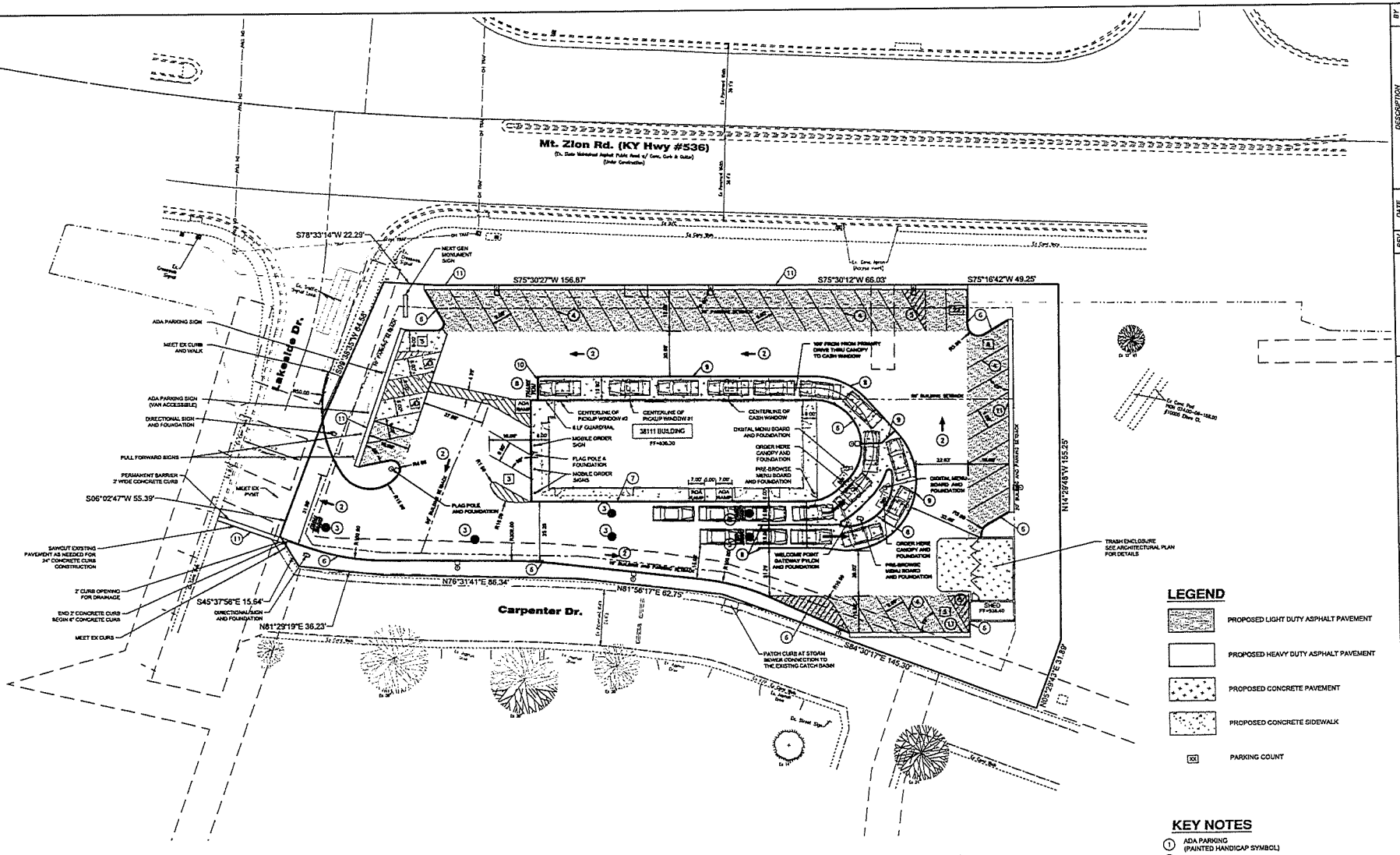
The proposed McDonald's Restaurant development will consist of a 4,235 square foot fast-food restaurant with a drive-thru window. Regional access to the proposed McDonald's Restaurant development is available on the Mt. Zion Road (KY 536) corridor and at the following adjacent intersections:

- Mt. Zion Road (KY 536) and I-71/I-75 (northbound and southbound) ramps.
- Mt. Zion Road (KY 536) and Dixie Highway (US 25).

Direct access to the proposed McDonald's Restaurant development is planned on Lakeside Drive, Site Access is to be located approximately 104 feet south of Mt. Zion Road (KY 536) (measured stop bar to centerline).

The proposed McDonald's Restaurant development plan is provided as Figure 2.

According to the Boone County, Kentucky, Zoning Map and Regulations, the site is currently zoned "MHP" (Single-Family Mobile Home). The land uses of the adjacent properties, to the proposed McDonald's Restaurant development parcel, includes C-1, C-3, C-4, C4-CD. A C-4 (Commercial 4) zone change is requested for the subject parcel to permit the commercial land use of the proposed McDonald's Restaurant development.



LEGEND

- PROPOSED LIGHT DUTY ASPHALT PAVEMENT
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- XX PARKING COUNT

KEY NOTES

1. ADA PARKING (PAINTED HANDICAP SYMBOL)
2. DIRECTIONAL ARROW (WHITE)
3. DRIVE THRU PAVEMENT MARKINGS (YELLOW)
4. PARKING, 4" WIDE SOLID WHITE STRIPE, TYP.
5. 4" PAINTED WHITE STRIPE
6. 6" CONCRETE CURB
7. 6" CURB & SIDEWALK
8. "THANK YOU" (YELLOW)
9. 6" PAINTED YELLOW STRIPE
10. 8" PAINTED YELLOW STRIPE
11. 2' CONCRETE CURB
12. 6" PAINTED YELLOW STRIPE DASHED

SITE SUMMARY

LOT ACREAGE:	1.01 ACRES
EXISTING ZONING:	MHP (MOBILE HOME PARK)
PROPOSED ZOING:	C-4 (COMMERCIAL-FOUR)
GROSS FLOOR AREA:	4395 SQUARE FEET
PARKING REQUIREMENTS:	1 SPACE FOR EVERY 2 SEATS INCLUDING WAIT AREA SEATING PLUS 1 SPACE FOR EACH 20 SF OF OPEN WAIT AREA
REQUIRED PARKING:	38 SPACES
PROVIDED PARKING:	
STANDARD	41 SPACES
ACCESSIBLE	2 SPACES
TOTAL	43 SPACES

SITE LAYOUT NOTES

1. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
2. ALL WORK TO BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE BOONE COUNTY SUBDIVISION REGULATIONS, SANITATION DISTRICT No. 1 RULES & REGULATIONS, AND THE STATE OF KENTUCKY TRANSPORTATION CABINET SPECIFICATIONS.
3. WHERE CONNECTING TO EXISTING ASPHALT PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING EDGE OF PAVEMENT TO PROVIDE A CLEAN EDGE. TACK COAT SHALL BE APPLIED TO THE ENTIRE CUT FACE OF THE EXISTING PAVEMENT PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT.
4. WHERE CONNECTING TO EXISTING CONCRETE WALK, THE CONTRACTOR SHALL SAWCUT THE EXISTING WALK (AT AN EXISTING JOINT IF POSSIBLE) TO PROVIDE A SOUND & CLEAN EDGE.
5. ADDITIONAL PAVEMENT/CURB WORK DUE TO EXTENTS OF DEMO OR REWORK SHALL BE INCLUDED AS PART OF THE CONTRACTORS SCOPE OF WORK.
6. SEE SHEET C3.1 FOR SITE DETAILS AND PAVEMENT SECTIONS.
7. BUILDING FOOTPRINT SHOWN IS APPROXIMATE, SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.

811 Know what's below. Call before you dig.

CAUTION!!! ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

Basis of Bearing: State Plane NAD83 (2011)

SCALE: 1" = 20'

REV	DATE	DESCRIPTION	BY
1	7-28-23	REVISE PER REVIEW COMMENTS	GJK
2	9-05-23	REVISE PER COUNTY COMMENTS	GJK

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L/C# 16-1002

McDonald's

PROPOSED McDONALD'S RESTAURANT AT:
MT. ZION ROAD
FLORENCE, BOONE COUNTY, KENTUCKY

JOB NO. 21-0244
DATE: 5-22-23
SCALE: 1"=20'

SITE PLAN

SHEET: C3.0

Plot time: Sep 05, 2023 - 3:04pm - Login Name: gvgloch
Drawing name: J:\2021\21-0244\CAD\dwg\21-0244 C0.dwg - Layout Tab: C0

Area Conditions

Study Area

The primary roadway that will provide regional access to the proposed McDonald's Restaurant development site is Mt. Zion Road (KY 536). Access to Interstate Highway 71/75 (I-71/I-75) and Dixie Highway (US 25) is available, on Mt. Zion Road (KY 536), within 1-mile east and west of the proposed McDonald's Restaurant development.

Adjacent Road Network

Mt. Zion Road (KY 536) is an east-west, multi-lane minor arterial state highway facility, with a posted speed limit of 45 mph, in the vicinity of the site frontage. Three (3) lanes of travel are provided in the eastbound direction and two (2) lanes are provided in the westbound direction, with a center lane median installed along the site frontage between the I-71/I-75 ramp terminals and Dixie Highway (US 25). Exclusive left-turn and/or right-turn lanes are installed at key signalized intersections.

A major roadway improvement project on the Mt. Zion Road Corridor was recently completed between the I-71/I-75 northbound and southbound interchange ramps and Dixie Highway (US 25). The roadway improvement project included the construction of a Double Crossover Diamond (DCD) interchange design, at the northbound and southbound interchange ramps, and the installation of a center island boulevard along Mt Zion Road (KY 536), between key signalized intersections.

Lakeside Drive is a private street operating one (1) lane of travel each in the northbound and southbound directions. Lakeside Drive intersects with Mt. Zion Road (KY 536), opposite Berberich Drive. The intersection of Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive is signalized. A barricade is installed on Lakeside Drive just north of Carpenter Drive, which restricts access to/from the Greenlawn Estates Mobile Home Park.

As part of the Mt. Zion Road (KY 536) Improvement project, traffic signal timing and phasing for Lakeside Drive and an exclusive eastbound right turn lane and a westbound left turn lane were installed on the Mt. Zion Road (KY 536), at the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection. These roadway improvements will benefit future traffic operations of the proposed McDonald's Restaurant development.

Study Area Land Use

The site is immediately surrounded by commercial, retail, medical office, and residential land uses.

Site Accessibility

Exclusive access to the proposed McDonald's Restaurant development is planned on Lakeside Drive, Site Access is to be located approximately 104 feet south of Mt. Zion Road (KY 536) (measured stop bar to centerline).

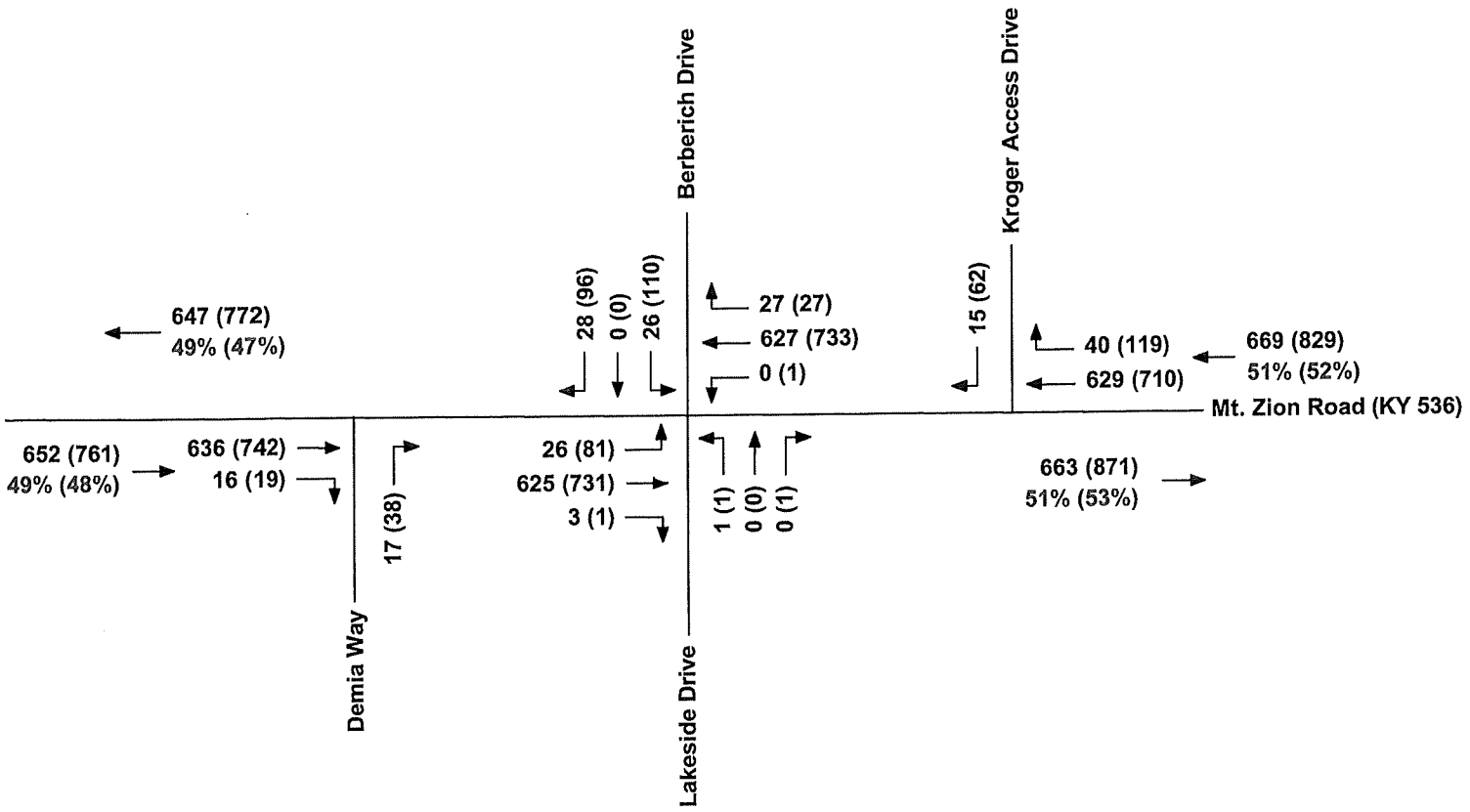
Existing Traffic Volumes

To determine the 2023 existing AM and PM peak hour traffic volumes at the study area intersections, Bayer Becker performed a turning movement count, using MioVision Traffic Counting equipment, on Tuesday, August 29, 2023, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM at the following existing intersections:

- Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive.
- Mt. Zion Road (KY 536) and Demia Way.
- Mt. Zion Road (KY 536) and Kroger Center Drive.

It should be noted that existing vehicles were recorded turning into and out of Lakeside Drive, at the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection. While these volumes are vehicles accessing Lakeside Drive in error or were turning around, the volumes were included in the analysis because of the existing signal timing and phase operating the Lakeside Drive approach at the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection.

The Existing 2023 AM and PM peak hour traffic volume counts are presented graphically in Figure 3 and the actual traffic summary reports are provided in Appendix B.



External Station Traffic and Percentages	AM In		AM Out	
Mt. Zion Road (KY 536) To/From East	669	51%	663	51%
Mt. Zion Road (KY 536) To/From West	652	49%	647	49%
	1,321	100%	1,310	100%

	PM In		PM Out	
Mt. Zion Road (KY 536) To/From East	829	52%	871	53%
Mt. Zion Road (KY 536) To/From West	761	48%	772	47%
	1,590	100%	1,643	100%

N

N.T.S.

Figure 3

McDonald's Restaurant Development
Boone County, Kentucky

2023 Existing Traffic Volumes & Percentage (%) Distributions

xx/xx% - AM Peak Hour
(xx)/(xx%) - PM Peak Hour

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Traffic Percentage Distributions

The regional traffic percentage distributions were determined based on the existing traffic patterns at the external traffic stations in the Study area. Specifically, the regional traffic distribution percentages for entering and exiting traffic during the traditional AM and PM peak hour periods, on the adjacent road network, are shown in Table 1 as follows:

Table 1
Regional Traffic Distribution

Existing Traffic Percentage Distribution/Orientation (To/From)	AM Peak		PM Peak	
	Entering	Exiting	Entering	Exiting
East on Mt. Zion Road (KY 536)	51%	51%	52%	53%
West on Mt. Zion Road (KY 536)	49%	49%	48%	47%
Total	100%	100%	100%	100%

The existing regional percentage distributions, of the peak hour entering and exiting traffic on the road network, are presented in Figure 3, along with the existing traffic counts.

No-Build Traffic Projections

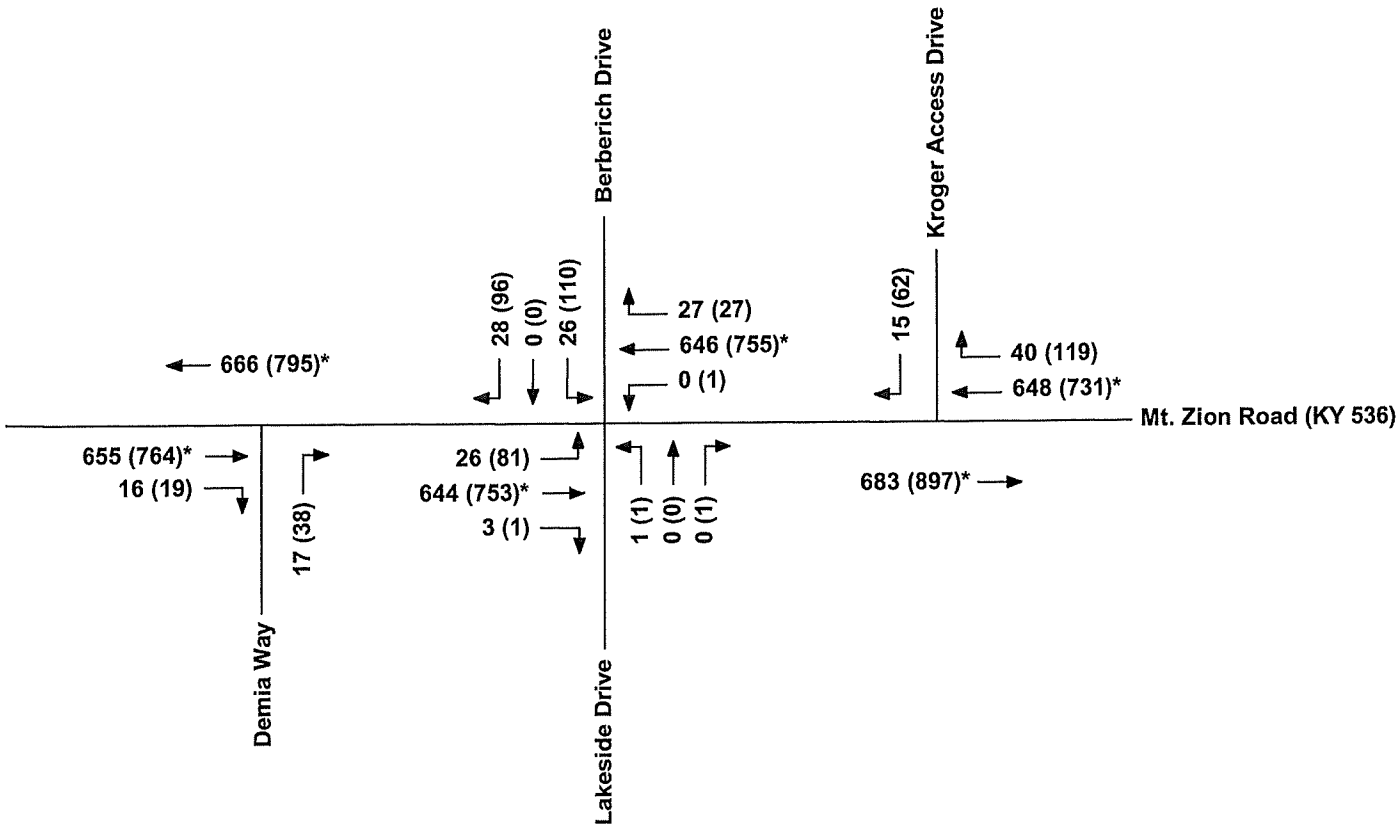
According to the KYTC *Traffic Impact Study Requirements*, the growth rate used to forecast the natural growth in traffic volumes, occurring within the study area, should be based on historical growth patterns, and should be determined using the *KYTC TIS Simplified Traffic Forecast Spreadsheet* (KYTC Spreadsheet). The KYTC Spreadsheet requires a minimum of four (4) Annual Average Daily Traffic (AADT) records over the previous 15-year period.

The change in traffic recorded on Mt. Zion Road (KY 536), west of Demia Way, on Sam Neace Drive, north of Mt. Zion Road (KY 536), and on Dixie Highway (US 25), north of Mt. Zion Road (KY 536), are the sources of data available in the KYTC *Traffic Count Recording System* (Historic Traffic Volumes). The no-build growth rate was calculated based on the historic traffic volumes, using the KYTC Spreadsheet. The results of the calculation process yielded a negative growth rate. Based on discussions with KYTC representatives, a 1.31% annual growth rate was established for the study area.

The KYTC Historic Traffic Volumes, Traffic Forecast Reports, and communications with KYTC are contained in Appendix C.

The no-build (background) traffic projections to address the natural growth in traffic, without the proposed McDonald's Restaurant development trips, are ***2025*** and ***2035 No-Build Traffic Projections***. In accordance with the traffic forecasting procedure outlined by KYTC, the 2025 and 2035 no-build traffic projections were obtained by growing the ***2023 Existing*** traffic count volumes at the established exponential growth rate of 1.31% per year, for 2 years and 12 years. Thus, yielding a growth factor of ***1.03 - 2025*** and ***1.17 - 2035 No-Build Traffic Projections***.

The ***2025*** and ***2035 No-Build Traffic Projections*** are presented in Figure 4 and Figure 5.



Note: *2025 No-Build Traffic Projections Includes an exponential growth rate of 1.31% for 2 years, or a growth factor of 1.03, which was applied to the 2023 Existing Traffic Volumes.

N.T.S.

Figure 4

McDonald's Restaurant Development
Boone County, Kentucky

2025 No-Build Traffic Projections

xx - AM Peak Hour
(xx) - PM Peak Hour

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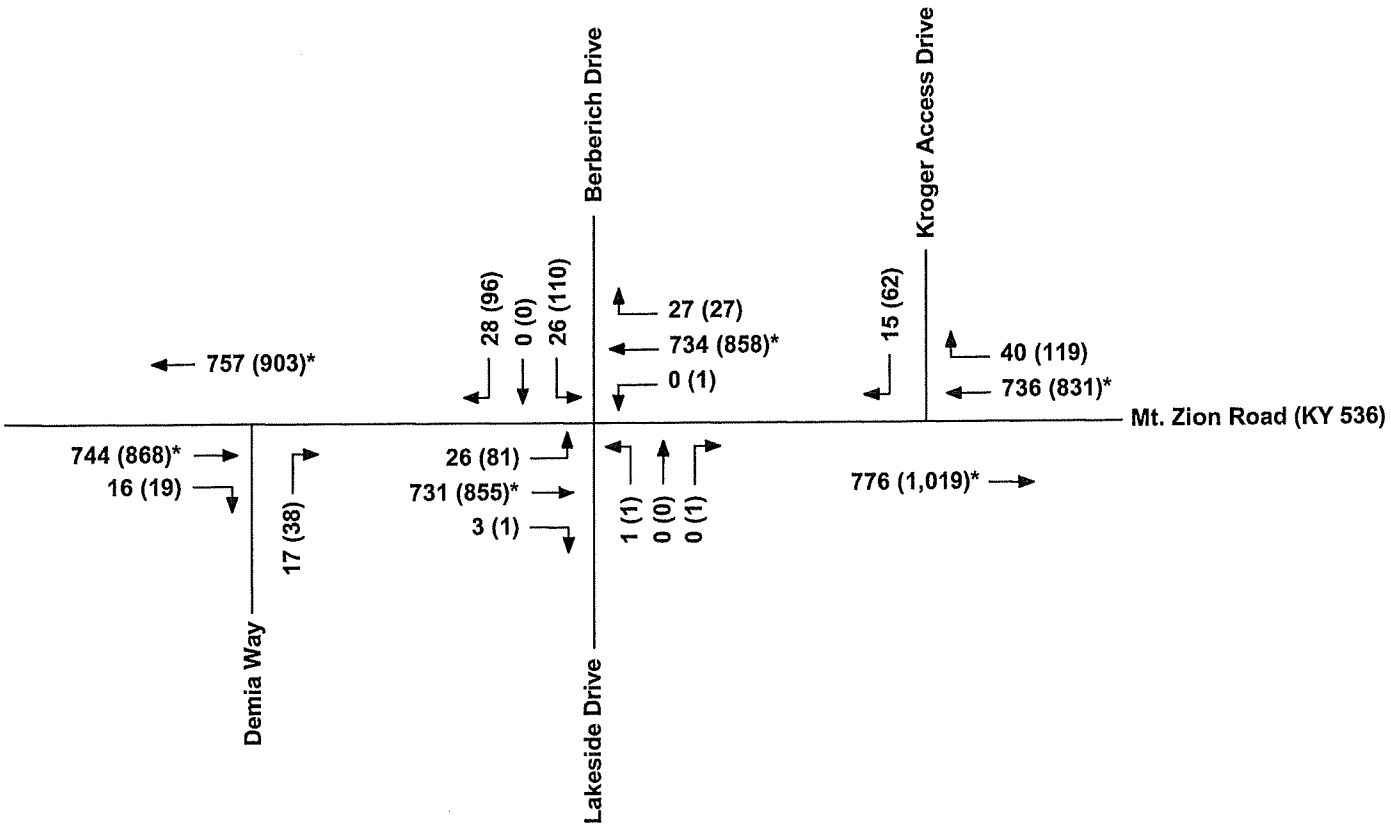

Note: *2035 No-Build Traffic Projections Includes an exponential growth rate of 1.31% for 12 years, or a growth factor of 1.17, which was applied to the 2023 Existing Traffic Volumes.

N.T.S.

Figure 5

McDonald's Restaurant Development
Boone County, Kentucky

2035 No-Build Traffic Projections

xx - AM Peak Hour
(xx) - PM Peak Hour

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Development Traffic

Site Traffic

The Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition* is the nationally accepted data source used by the traffic engineering industry to estimate the future trips for the land uses of a proposed development. The trips generated by the proposed McDonald's Restaurant development were calculated using the *Trip Generation Manual,* based on the weekday AM and PM peak hour of adjacent street traffic, and are provided in Table 2.

Table 2
Trip Generation – McDonald's Restaurant

McDonald's Restaurant Development Land Use	ITE Code*	Size	Unit	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
Fast-Food Restaurant w/Drive Thru	934	4,235	SF	96	93	189	73	67	140
Pass-By Reduction @ 50% AM, 55% PM				-48	-47	-95	-40	-37	-77
Final Trips				*48*	*46*	*94*	*33*	*30*	*63*

* *Trip Generation Manual*, Institute of Transportation Engineers (ITE), 11th Edition. See Excerpts in Appendix D.

External Trips

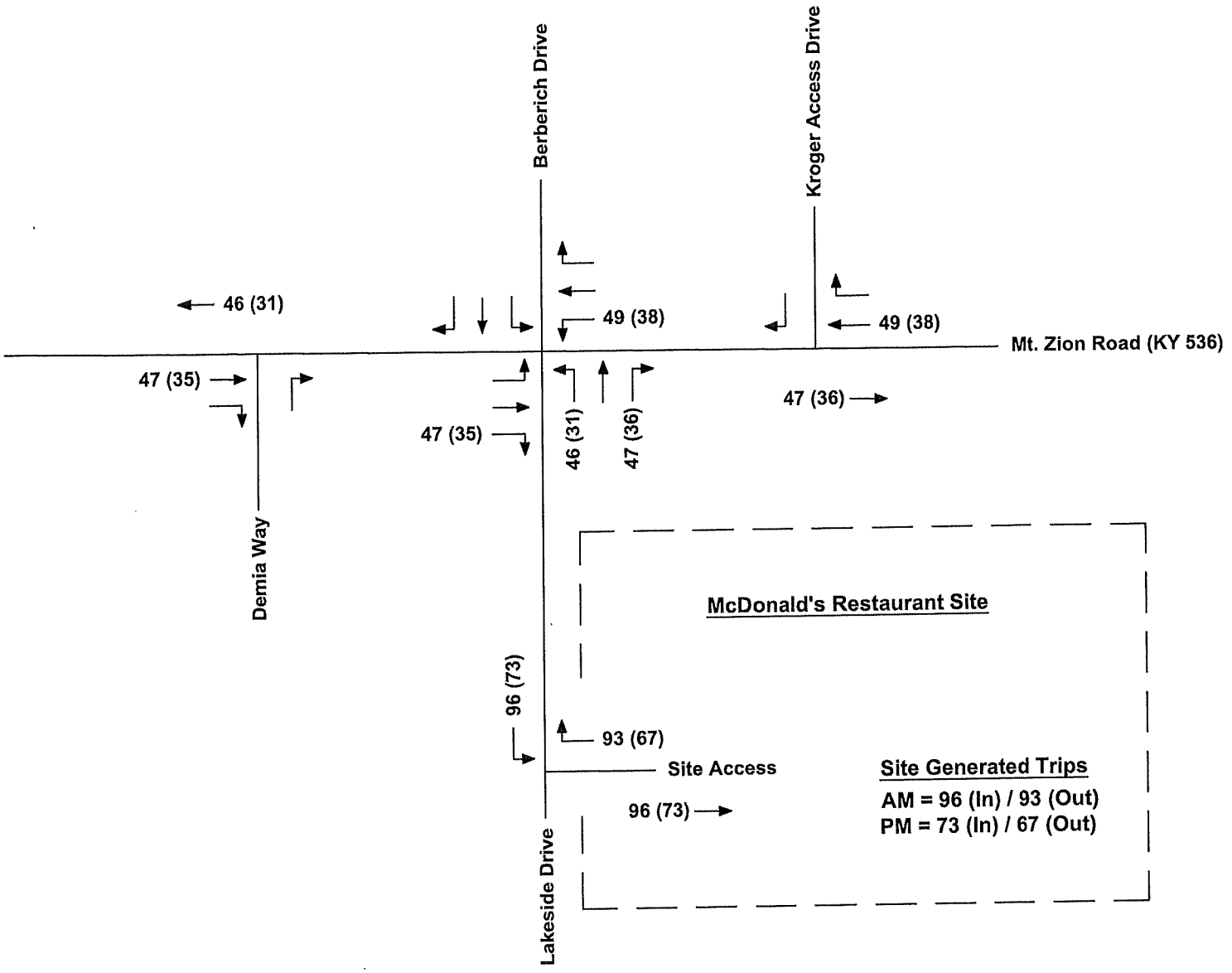
The external trips generated by the proposed McDonald's Restaurant development were distributed to the adjacent roadway network, by directional distribution; based on existing traffic patterns (see Table 1, on page 12, and Figure 3, on page 11) and experience related to land use patterns in the area.

The ***External Trips*** for the proposed McDonald's Restaurant development are presented in Figure 6.

Pass-By Trips

The pass-by trip reductions, associated with the proposed McDonald's Restaurant development, extracted from the adjacent road network were determined based on the average pass-by rates of 50% (AM Peak) and 55% (PM Peak), as provided by ITE. The pass-by trip reductions were assigned to the adjacent road network based on existing traffic patterns (see Table 1 on page 10).

The ***Pass-By Trips*** for the proposed McDonald's Restaurant development are presented in Figure 7.



External Station Site Trip Validation	AM In	AM Out
Mt. Zion Road (KY 536) To/From East	49	47
Mt. Zion Road (KY 536) To/From West	47	46
	96	93

	PM In	PM Out
Mt. Zion Road (KY 536) To/From East	38	36
Mt. Zion Road (KY 536) To/From West	35	31
	73	67

Figure 6

McDonald's Restaurant Development
Boone County, Kentucky

External Site Trips

xx - AM Peak Hour
(xx) - PM Peak Hour

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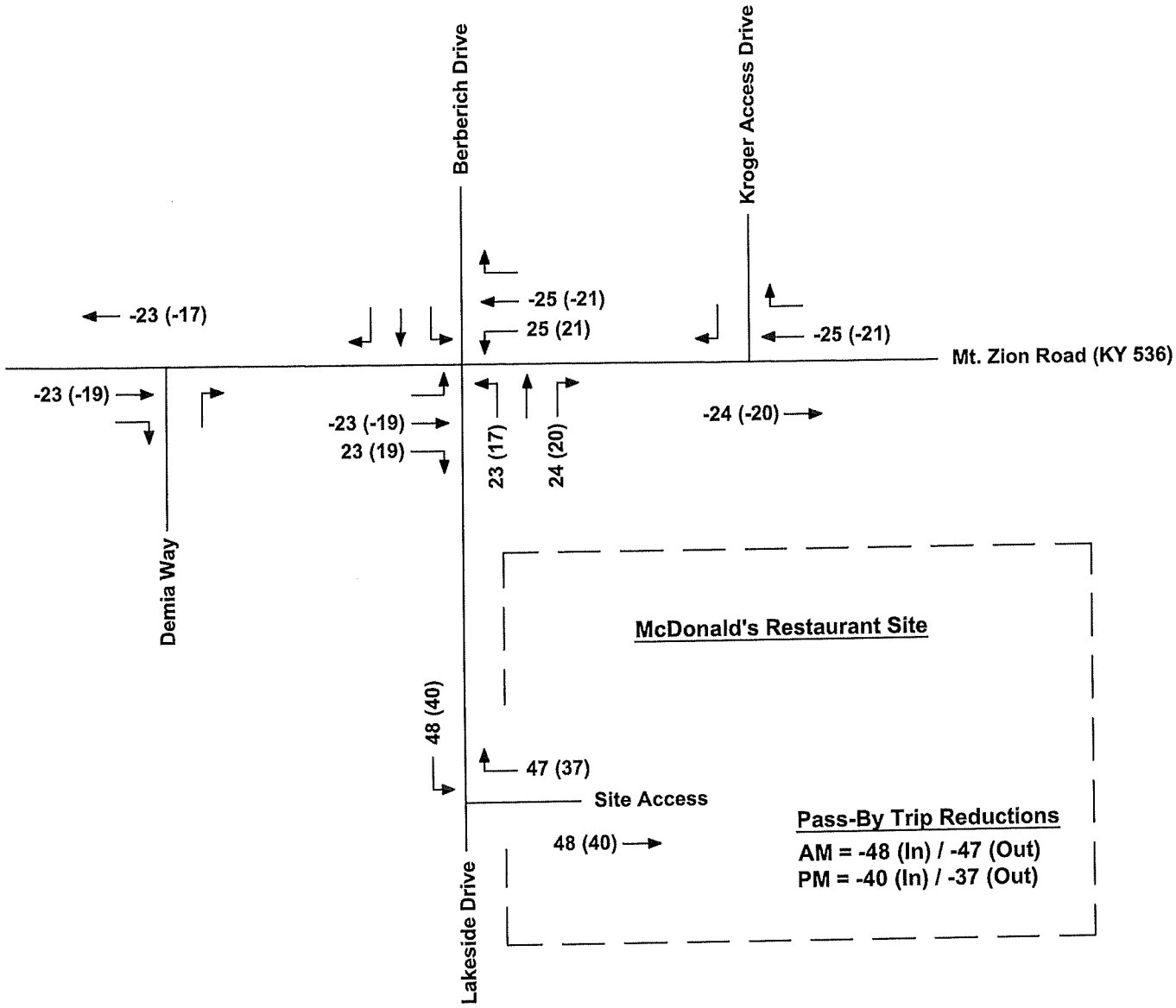

External Station Pass-By Trip Validation	AM In	AM Out
Mt. Zion Road (KY 536) To/From East	-25	-24
Mt. Zion Road (KY 536) To/From West	-23	-23
	-48	-47

	PM In	PM Out
Mt. Zion Road (KY 536) To/From East	-21	-20
Mt. Zion Road (KY 536) To/From West	-19	-17
	-40	-37

Figure 7

McDonald's Restaurant Development
Boone County, Kentucky

Pass-By Trips

xx - AM Peak Hour
(xx) - PM Peak Hour

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Final Trips

The final trips of the proposed McDonald's Restaurant development to be assigned to the adjacent road network were determined by subtracting the pass-by trips from the site generated trips. The ***Final Trips*** for the proposed McDonald's Restaurant development are presented in Figure 8.

2025 Build Traffic Projections – Full Build-Out

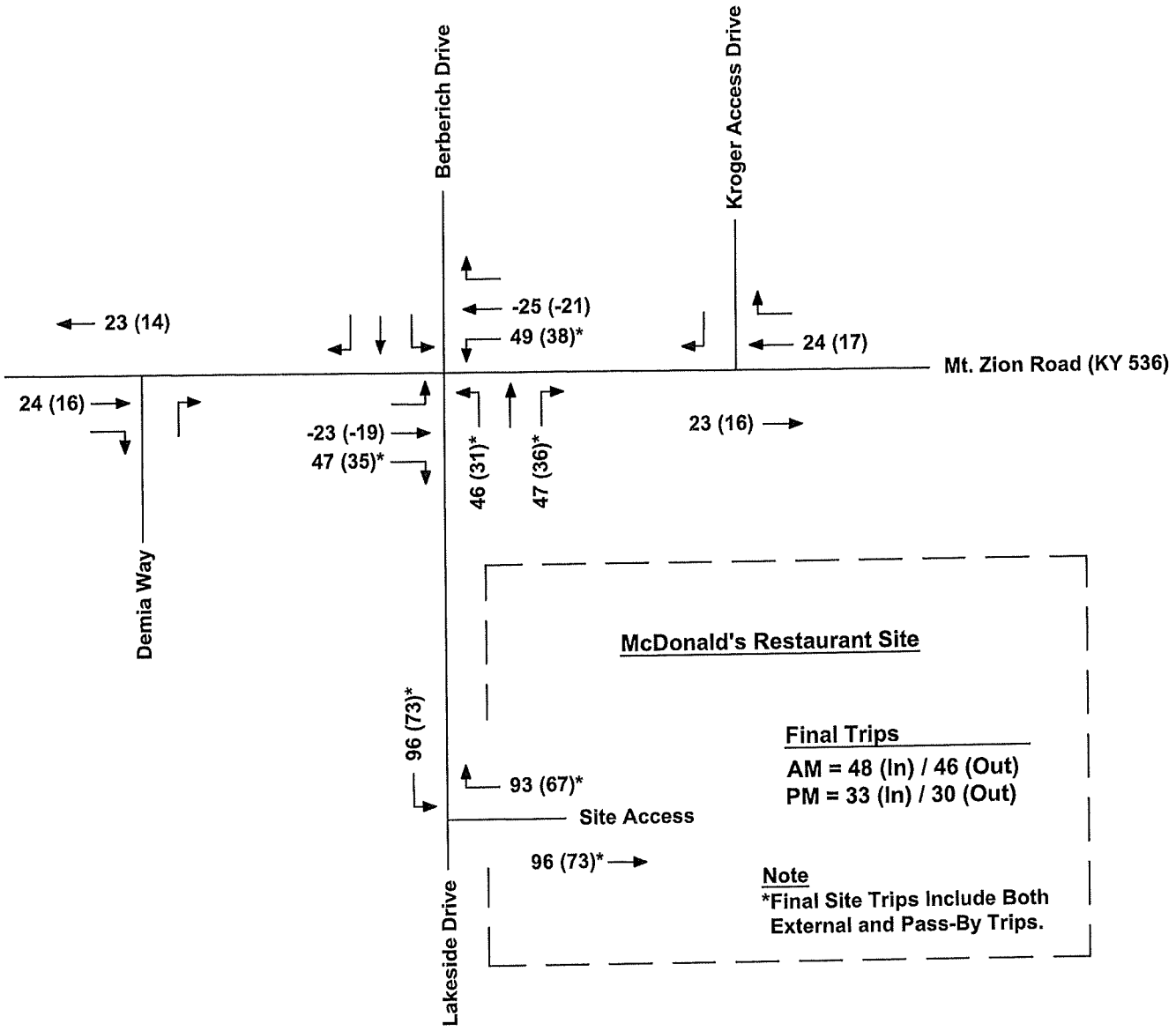
The 2025 Build Traffic Projections for the full build-out of the proposed McDonald's Restaurant development were obtained by adding the ***2025 No-Build Traffic Projections*** (see Figure 4) together with the ***Final Trips*** (see Figure 8).

The ***2025 Build Traffic Projections*** are presented in Figure 9.

2035 Build Traffic Projections – Horizon Year

The 2035 Build Traffic Projections for the horizon year of the proposed McDonald's Restaurant development were obtained by adding the ***2035 No-Build Traffic Projections*** (see Figure 5) together with the ***Final Trips*** (see Figure 8).

The ***2035 Build Traffic Projections*** are presented in Figure 10.



External Station Final Trip Validation	AM In	AM Out
Mt. Zion Road (KY 536) To/From East	-25	-24
Mt. Zion Road (KY 536) To/From West	-23	-23
	-48	-47

	PM In	PM Out
Mt. Zion Road (KY 536) To/From East	-21	-20
Mt. Zion Road (KY 536) To/From West	-19	-17
	-40	-37

Figure 8

McDonald's Restaurant Development
Boone County, Kentucky

Final Trips

xx - AM Peak Hour
(xx) - PM Peak Hour

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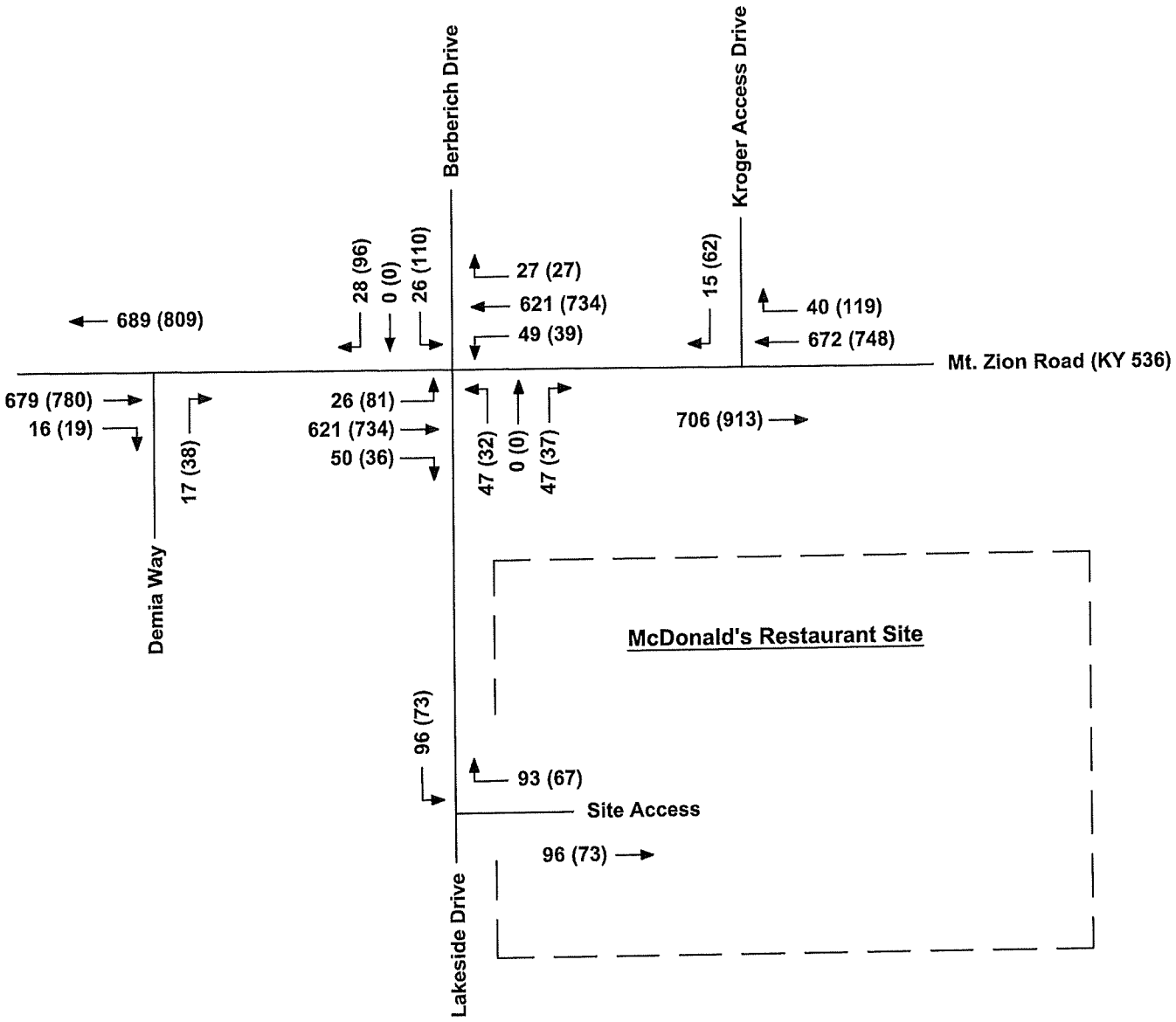

Figure 9

McDonald's Restaurant Development
Boone County, Kentucky

2025 Build Traffic Projections

xx - AM Peak Hour
(xx) - PM Peak Hour

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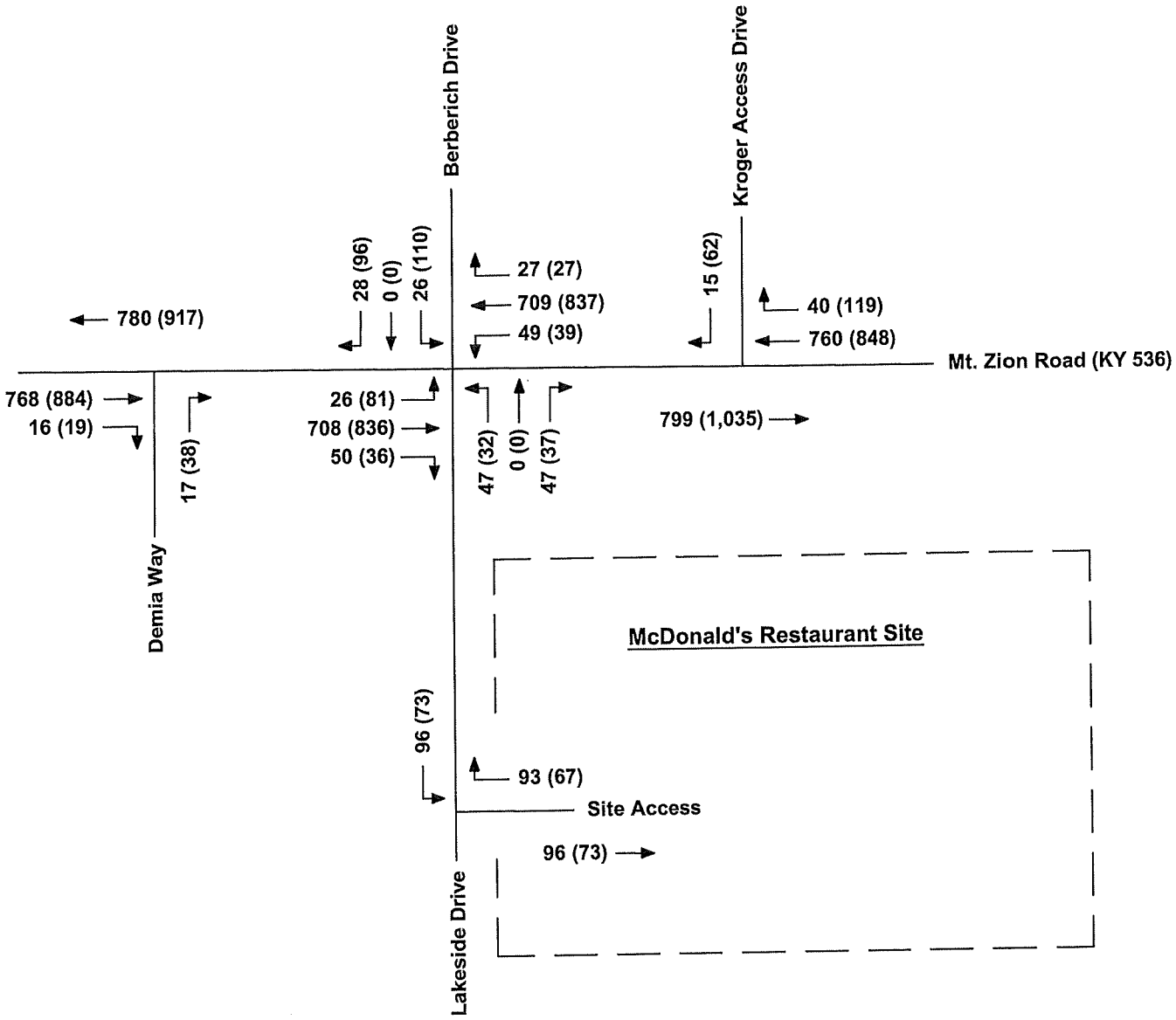

Figure 10

McDonald's Restaurant Development
City of Florence, Boone County, Kentucky

2035 Build Traffic Projections

xx - AM Peak Hour
(xx) - PM Peak Hour

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Traffic Analysis

Site Access

Exclusive direct access to the proposed McDonald's Restaurant development is planned on Lakeside Drive, Site Access is to be located approximately 104 feet south of Mt. Zion Road (KY 536) (measured stop bar to centerline).

Turn Lane Warrant Analysis

In accordance with the *KYTC Traffic Impact Study Requirements*, turn lane analysis shall be conducted for all Unsignalized Access Points to the proposed development. This analysis shall determine if a right or left turn lane is warranted at a location to improve operations or safety. Turn lane analysis shall be conducted in accordance with KYTC design and permit standards.

As mentioned earlier, Lakeside Drive is a private street providing exclusive access to the proposed McDonald's Restaurant development. Therefore, no left or right turn lane warrants were evaluated at the Lakeside Drive and Site Access intersection as part of this analysis.

Level of Service Analysis

Level of service (LOS), as defined in the *Highway Capacity Manual, 7th Edition (HCM)*, is a function of average delay encountered by the motorist. It is the national standard used to evaluate traffic flow and delay on a segment of roadway and at intersections. LOS considers such factors as speed, traffic volumes and geometric features.

The criterion used by *HCM* is provided as follows in Table 3.

Table 3
Level of Service Criteria for Signalized Intersections

Level of Service	Delay Range (sec/veh)	Expected Delay
A	<10	Extremely Favorable Progression
B	>10 and < 20	Good Progression
C	>20 and < 35	Fair Progression
D	>35 and < 55	Unfavorable Progression
E	>55 and < 80	Poor Progression
F	>80	Excessive Traffic Delay

Table 3 Continued
Level of Service Criteria for Unsignalized Intersections

Level of Service	Delay Range (sec/veh)	Expected Delay
A	<10	Little or No Delay
B	>10 and < 15	Short Traffic Delay
C	>15 and < 25	Average Traffic Delay
D	>25 and < 35	Long Traffic Delay
E	>35 and < 50	Very long Traffic Delay
F	>50	Excessive Traffic Delay

According to *KYTC Traffic Impact Study Requirements*, the following provisions shall be used to define thresholds for acceptable operational performance for the "Build" condition within the study area. The average intersection delay at an existing intersection shall not exceed 80 seconds and shall not increase more than 30 percent (30%) over the "No Build" condition. Delay for individual turning movements and lane groups at the intersection shall not exceed 80 seconds. In such cases where intersection or individual turning movements are shown to operate with delays greater than 80 seconds under the "No Build" condition, delay shall not increase. Proposed intersections shall operate at an intersection LOS C or better. Delay for individual turning movements and lane groups shall not exceed 80 seconds.

An intersection LOS analysis was performed for the ***2025 No-Build***, ***2025 Build***, ***2035 No-Build***, and ***2035 Build Traffic Projections***. The levels of service capacity results are provided in Table 4, on the following page.

Table 4
Levels of Service Results

		2025 No-Build Traffic Projections		2025 Build Traffic Projections		2035 No-Build Traffic Projections		2035 Build Traffic Projections	
		LOS (Delay, Sec.)							
		AM	PM	AM	PM	AM	PM	AM	PM
Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive - Signalized									
EB	L	B (17.1)	C (20.4)	B (18.5)	C (20.2)	B (17.8)	C (21.4)	B (19.1)	C (21.2)
	T	B (15.4)	C (32.0)	C (30.9)	C (31.9)	B (15.7)	C (32.9)	C (31.6)	C (32.8)
	R	B (13.2)	C (26.6)	C (27.9)	C (27.5)	B (13.2)	C (26.6)	C (27.9)	C (27.5)
	Approach	**B (15.4)**	**C (30.9)**	**C (30.2)**	**C (30.6)**	**B (15.8)**	**C (31.9)**	**C (31.0)**	**C (31.6)**
WB	L	-	B (17.0)	B (17.2)	B (17.4)	-	B (17.3)	B (17.4)	B (17.7)
	T	C (31.8)	C (33.2)	C (31.5)	C (32.9)	C (32.9)	C (34.7)	C (32.6)	C (34.4)
	R	C (31.8)	C (33.2)	C (31.5)	C (32.9)	C (32.9)	C (34.7)	C (32.6)	C (34.4)
	Approach	**C (31.8)**	**C (33.1)**	**C (30.5)**	**C (32.1)**	**C (32.9)**	**C (34.7)**	**C (31.6)**	**C (33.7)**
NB	LTR	D (43.4)	D (43.4)	D (46.3)	D (45.4)	D (43.4)	D (43.4)	D (46.3)	D (45.4)
	Approach	**D (43.4)**	**D (43.4)**	**D (46.3)**	**D (45.4)**	**D (43.4)**	**D (43.4)**	**D (46.3)**	**D (45.4)**
SB	L/LT	D (44.3)	D (47.5)	D (44.5)	D (47.7)	D (44.3)	D (47.5)	D (44.5)	D (47.7)
	R	D (44.2)	D (46.5)	D (44.2)	D (46.5)	D (44.2)	D (46.5)	D (44.2)	D (46.5)
	Approach	**D (44.2)**	**D (47.1)**	**D (44.3)**	**D (47.2)**	**D (44.2)**	**D (47.1)**	**D (44.3)**	**D (47.2)**
Overall Intersection		**C (24.4)**	**C (33.7)**	**C (31.8)**	**C (33.5)**	**C (25.0)**	**C (34.7)**	**C (32.5)**	**C (34.4)**
Mt. Zion Road (KY 536) and Demia Way - Unsignalized									
NB	R	B (11.9)	B (13.0)	B (12.1)	B (13.1)	B (12.5)	B (13.8)	B (12.6)	B (13.9)
	Approach	**B (11.9)**	**B (13.0)**	**B (12.1)**	**B (13.1)**	**B (12.5)**	**B (13.8)**	**B (12.6)**	**B (13.9)**
Mt. Zion Road (KY 536) and Kroger Center Access - Unsignalized									
SB	R	B (11.0)	B (12.6)	B (11.1)	B (12.7)	B (11.4)	B (13.3)	B (11.5)	B (13.4)
	Approach	**B (11.0)**	**B (12.6)**	**B (11.1)**	**B (12.7)**	**B (11.4)**	**B (13.3)**	**B (11.5)**	**B (13.4)**

The complete LOS reports are provided in Appendix E.

Based on the level of service analysis completed and summarized in Table 4, acceptable levels of service and delays at the Study intersections will be maintained, through the 2035 design year, with the proposed McDonald's Restaurant development.

It should be noted that the existing signal cycle length of 180 seconds, operating the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection, was maintained for all analyzed peak periods. The timing was optimized, within the 180 second signal cycle length, to maximize the intersection's performance.

Queuing Analysis

As mentioned earlier, KYTC recently completed a major roadway improvement project on Mt. Zion Road (KY 536) along the site frontage. The improvements at the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection included the installation of an eastbound right turn lane, containing approximately 130 feet of storage plus diverging taper, and a westbound left turn lane, containing approximately 325 feet of storage plus diverging taper.

A review of the 95th percentile back of queue, turn lane storage length only, at the intersection of Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive, as included in the LOS results, provides the following:

- Eastbound Right Turn Lane Length = 62.1 Feet (AM Peak)/ 44.2 Feet (PM Peak).
- Westbound Left Turn Lane Length = 43.4 Feet (AM Peak)/ 34.4 Feet (PM Peak).

Based on the queue results, the existing installed eastbound right turn and left turn lanes at the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection are sufficient to support the proposed McDonald's Restaurant development through the ***2035 Build Traffic Projections***.

The queue results are included with the LOS reports in Appendix E.

Site Access, Circulation, and Parking

The internal site access, circulation, and parking are sufficient to handle the anticipated site traffic volumes.

Recommendations and Conclusions

Improvements to Accommodate Base Traffic

Based on the analysis contained in this report, there are no improvements recommended to accommodate the ***2023 Existing Traffic***, ***2025 No-Build***, and ***2035 No-Build Traffic Projections***. The existing traffic and no-build traffic projections do not include traffic generated by the proposed development.

Improvements to Accommodate Site Traffic

Based on the analysis contained in this report, the following improvements are recommended to accommodate the ***2025 Build*** and ***2035 Build Traffic Projections***. The Opening Day and the Horizon Year conditions include traffic generated by the proposed development.

Lakeside Drive and Site Access

Construct Site Access on Lakeside Drive to the proposed McDonald's Restaurant development, approximately 104 feet (stop bar to centerline) south of the Mt. Zion Road (KY 536) and Berberich Drive and Lakeside Drive intersection. The intersection design should be as follows:

- Provide one (1) eastbound lane on proposed Site Access for entering traffic.
- Provide one (1) westbound lane on proposed Site Access for exiting traffic.
- Install a stop sign traffic control device on the westbound approach to the intersection.

Based upon engineering judgment and the analysis contained in this report, the proposed McDonald's development will not significantly impact operations on the adjacent Mt. Zion Road (KY 536) roadway network.

APPENDIX A

TRAFFIC SCOPING DOCUMENT
(MEMORANDUM OF UNDERSTANDING)

bayer becker

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mason | cincinnati | oxford | fort mitchell

Date Submitted: July 18, 2023

Reviewing Agency Prepared For: Kentucky Transportation Cabinet (KYTC) District #6
Boone County Public Works

Prepared By: Wardell Wilcox, PTP

Subject: **Traffic Impact Study Scoping Document**

This document is scoping guidance prepared for the reviewing agency, by the traffic analysts Bayer Becker (BB), for use in preparing the scope of services for the required traffic impact study analysis. It is a Memorandum of Understanding (MOU) between the reviewing agency and the analysts.

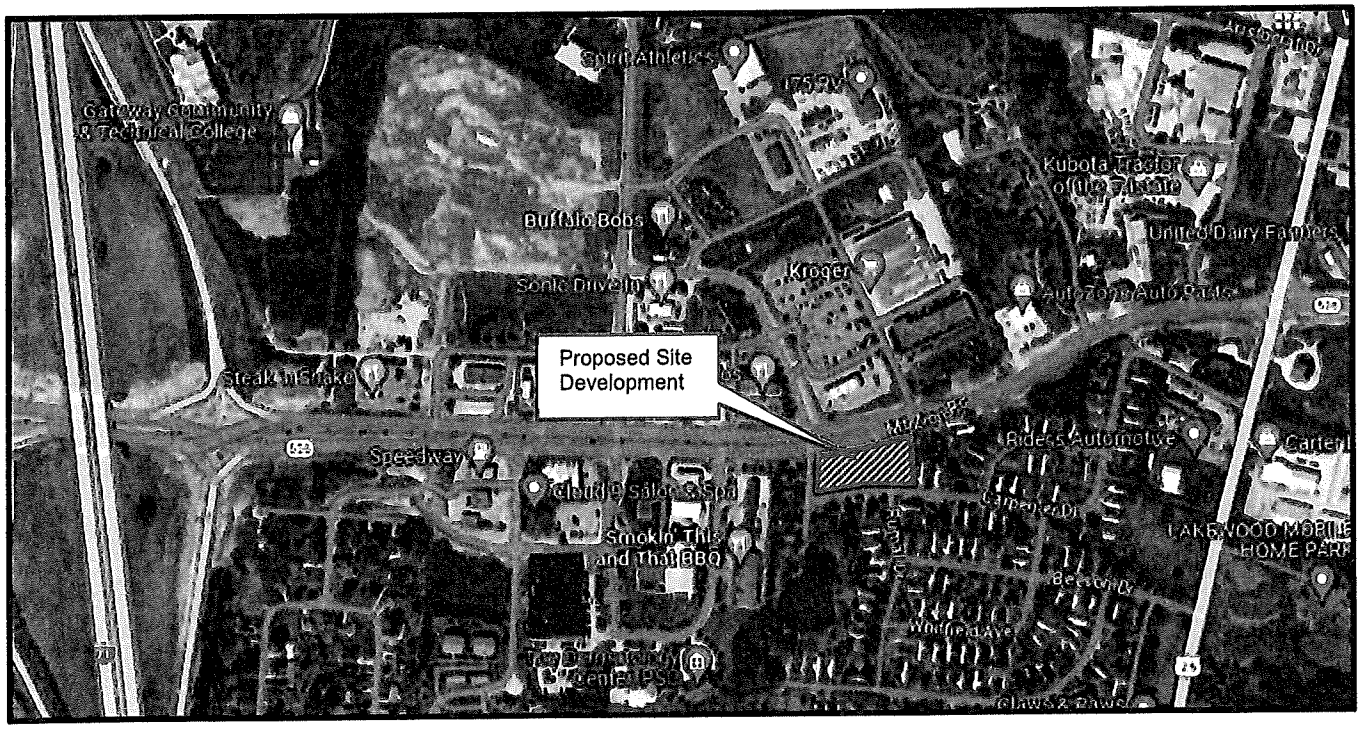
Project Information

Project Name: KY-536 (Mt. Zion Road) McDonald's **BB Project Identification (PID) #:** 21-0244

County: Boone **City/Township:** Florence **State:** Kentucky **Route/Street:** KY-536 (Mt. Zion Road)

Project Description: (including vicinity map and/or site plan)

A fast-food restaurant (McDonald's) is proposed for development in the southeast corner of the SR-536 (Mt. Zion Road) and Lakeside Drive intersection. Exclusive site access to the restaurant is anticipated on Lakeside Drive. A site plan for the proposed McDonald's development is included as an attachment.



Vicinity Map

Analysis Boundary Limits: (Include key study intersections)

The key intersections for this analysis are the following:

- SR-536 (Mt. Zion Road) and Lakeside Road and Berberich Drive.
- SR-536 (Mt. Zion Road) and Demia Way.
- SR-536 (Mt. Zion Road) and Kroger Center Access.

Study Period and Analysis Years:

Existing Year: 2023 **Project Build Year:** 2025 **Design Year:** 2035

Traffic Analysis Tool: (List tool to be used along with versions) *check all that apply*

HCS: X **SYNCHRO:** ___ **Other:**

Data Requirements and Data Collection Plan: (i.e., include locations, sources, techniques and schedule, if applicable)

Segment Counts (Include key road corridors):

- **24-Hour Count:** Yes ___ No ___
- **12-Hour Count:** Yes ___ No ___
- **Peak Hour Count:** Yes X No ___

Intersection Turning Movement Counts (Includes key existing study intersections):

- **12 Hour Count:** Yes ___ No ___
- **8 Hour Count:** Yes ___ No ___
- **Peak Hour Count – MioVision Video Collection Equipment:**
  - **7:00 – 9:00 AM*:** Yes X No ___
  - **11:00 AM – 1:00 PM:** Yes ___ No ___
  - **1:00 PM – 3:00 PM:** Yes ___ No ___
  - **4:00 – 6:00 PM*:** Yes X No ___

*The traditional AM and PM peak hour periods are assumed. 24-Hrs of data will be recorded.

- **Friday/Weekend Count:** Yes ___ No ___
  (If Yes, Specify Hours)

Existing Traffic Signal Timing (If Yes, Include key study intersections): Yes X No ___

The key intersections for this analysis are the following:

- SR-536 (Mt. Zion Road) and Lakeside Road and Berberich Drive.

Project Traffic Forecasting: (summarize methodology for developing traffic forecast)
Background (No-Build) traffic volumes will be projected to the future years (2025 and 2035) using a growth rate established through the KYTC Traffic Database tool. The final site trips (site generated trips minus internal capture and minus pass-by trips) will be added to the no-build traffic projections to establish the 2025 and 2035 Build traffic projections.

Project Analysis:

Existing Conditions Analysis: Yes ___ No _X_

If yes, explain why:
Any proposed improvements anticipated at study intersections?

No-Build Analysis: Yes _X_ No ___

If no, explain why:
If yes, how many years anticipated? 2 (2025 and 2035)

Any proposed improvements anticipated at study intersections?

Build Analysis:
How many Build years anticipated? 2 (2025 and 2035)

Turn Lane Warrant Analysis: Yes _X_ No ___

Signal Warrant Analysis: Yes ___ No _X_, If Yes, Which Warrant?

- **Warrant 1 – Eight-Hour Vehicular Volume:** Yes ___ No ___
- **Warrant 2 – Four-Hour Vehicular Volume:** Yes ___ No ___
- **Warrant 3 – Peak Hour:** Yes ___ No ___
- **Warrant 4 – Pedestrian Volume:** Yes ___ No ___
- **Warrant 5 – School Crossing:** Yes ___ No ___
- **Warrant 6 – Coordinated Signal System:** Yes ___ No ___
- **Warrant 7 – Crash Experience:** Yes ___ No ___
- **Warrant 8 – Roadway Network:** Yes ___ No ___
- **Warrant 9 – Intersection Near a Grade Crossing:** Yes ___ No ___

Performance Measures:

Level of Service (LOS) Capacity? Yes _X_ No ___

Seconds of Delay (LOS)? Yes _X_ No ___

Turn Lane Storage Length (Back of Queue):

- **HCS - 95th Percentile?** Yes ___ No ___
- **SYNCHRO - 95th Percentile?** Yes ___ No ___
- **KYTC Standards?** Yes _X_ No ___

Safety Measures:

Intersection Sight Distance	Yes ___	No X
Stopping Sight Distance	Yes ___	No X
Accident Crash Experience	Yes ___	No X

Additional Notes:

APPENDIX B

2023 EXISTING AM AND PM PEAK HOUR TRAFFIC COUNT SUMMARY REPORTS

Bayer Becker
6900 Tylersville Road
Suite A
Mason, Ohio, United States 45040
513-336-6600 wardellwilcox@bayerbecker.com

Count Name: Mt Zion and Lakeside
Site Code: 21-0244
Start Date: 08/29/2023

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Berberich Drive Southbound					Mt Zion Road Westbound					Lakeside Road Northbound					Mt Zion Road Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
7:30 AM	4	0	4	0	8	4	166	0	0	170	0	0	0	0	0	0	152	5	1	158	336
7:45 AM	4	0	9	0	13	14	146	0	1	161	0	0	0	0	0	0	195	11	0	206	380
8:00 AM	9	0	4	0	13	4	174	0	0	178	0	0	0	0	0	1	138	4	1	144	335
8:15 AM	11	0	9	0	20	5	141	0	2	148	0	0	1	0	1	2	140	6	0	148	317
Total	28	0	26	0	54	27	627	0	3	657	0	0	1	0	1	3	625	26	2	656	1368
Approach %	51.9	0.0	48.1	0.0	-	4.1	95.4	0.0	0.5	-	0.0	0.0	100.0	0.0	-	0.5	95.3	4.0	0.3	-	-
Total %	2.0	0.0	1.9	0.0	3.9	2.0	45.8	0.0	0.2	48.0	0.0	0.0	0.1	0.0	0.1	0.2	45.7	1.9	0.1	48.0	-
PHF	0.636	0.000	0.722	0.000	0.675	0.482	0.901	0.000	0.375	0.923	0.000	0.000	0.250	0.000	0.250	0.375	0.801	0.591	0.500	0.796	0.900
All Vehicles (no classification)	28	0	26	0	54	27	627	0	3	657	0	0	1	0	1	3	625	26	2	656	1368
% All Vehicles (no classification)	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	100.0	-	-	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Bayer Becker
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Suite A
Mason, Ohio, United States 45040
513-336-6600 wardellwilcox@bayerbecker.com

Count Name: Mt Zion and Lakeside
Site Code: 21-0244
Start Date: 08/29/2023

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Berberich Drive Southbound					Mt Zion Road Westbound					Lakeside Road Northbound					Mt Zion Road Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
4:30 PM	21	0	29	0	50	10	169	0	3	182	0	0	1	1	2	1	173	16	0	190	424
4:45 PM	27	0	26	0	53	9	174	0	0	183	0	0	0	0	0	0	170	25	1	196	432
5:00 PM	23	0	27	0	50	5	204	0	1	210	0	0	0	0	0	0	191	20	0	211	471
5:15 PM	25	0	28	0	53	3	186	1	2	192	1	0	0	0	1	0	197	20	1	218	464
Total	96	0	110	0	206	27	733	1	6	767	1	0	1	1	3	1	731	81	2	815	1791
Approach %	46.6	0.0	53.4	0.0	-	3.5	95.6	0.1	0.8	-	33.3	0.0	33.3	33.3	-	0.1	89.7	9.9	0.2	-	-
Total %	5.4	0.0	6.1	0.0	11.5	1.5	40.9	0.1	0.3	42.8	0.1	0.0	0.1	0.1	0.2	0.1	40.8	4.5	0.1	45.5	-
PHF	0.889	0.000	0.948	0.000	0.972	0.675	0.898	0.250	0.500	0.913	0.250	0.000	0.250	0.250	0.375	0.250	0.928	0.810	0.500	0.935	0.951
All Vehicles (no classification)	96	0	110	0	206	27	733	1	6	767	1	0	1	1	3	1	731	81	2	815	1791
% All Vehicles (no classification)	100.0	-	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Bayer Becker
6900 Tylersville Road
Suite A
Mason, Ohio, United States 45040
513-336-6600 wardellwilcox@bayerbecker.com

Count Name: Mt Zion and Demia
Site Code: 21-0244
Start Date: 08/29/2023

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Mt Zion Road Westbound				Demia Way Northbound				Mt Zion Road Eastbound				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
7:15 AM	161	0	0	161	3	0	0	3	1	145	0	146	310
7:30 AM	162	0	0	162	4	0	0	4	3	150	0	153	319
7:45 AM	148	0	0	148	8	0	0	8	7	197	0	204	360
8:00 AM	176	0	0	176	2	0	0	2	5	144	0	149	327
Total	647	0	0	647	17	0	0	17	16	636	0	652	1316
Approach %	100.0	0.0	0.0	-	100.0	0.0	0.0	-	2.5	97.5	0.0	-	-
Total %	49.2	0.0	0.0	49.2	1.3	0.0	0.0	1.3	1.2	48.3	0.0	49.5	-
PHF	0.919	0.000	0.000	0.919	0.531	0.000	0.000	0.531	0.571	0.807	0.000	0.799	0.914
All Vehicles (no classification)	647	0	0	647	17	0	0	17	16	636	0	652	1316
% All Vehicles (no classification)	100.0	-	-	100.0	100.0	-	-	100.0	100.0	100.0	-	100.0	100.0

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Count Name: Mt Zion and Demia
Site Code: 21-0244
Start Date: 08/29/2023

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Mt Zion Road Westbound				Demia Way Northbound				Mt Zion Road Eastbound				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
4:30 PM	191	0	0	191	9	0	0	9	4	168	0	172	372
4:45 PM	188	0	0	188	13	0	0	13	5	179	0	184	385
5:00 PM	203	0	0	203	8	0	0	8	2	195	0	197	408
5:15 PM	190	0	0	190	8	0	0	8	8	200	0	208	406
Total	772	0	0	772	38	0	0	38	19	742	0	761	1571
Approach %	100.0	0.0	0.0	-	100.0	0.0	0.0	-	2.5	97.5	0.0	-	-
Total %	49.1	0.0	0.0	49.1	2.4	0.0	0.0	2.4	1.2	47.2	0.0	48.4	-
PHF	0.951	0.000	0.000	0.951	0.731	0.000	0.000	0.731	0.594	0.928	0.000	0.915	0.963
All Vehicles (no classification)	772	0	0	772	38	0	0	38	19	742	0	761	1571
% All Vehicles (no classification)	100.0	-	-	100.0	100.0	-	-	100.0	100.0	100.0	-	100.0	100.0

Bayer Becker
6900 Tylersville Road
Suite A
Mason, Ohio, United States 45040
513-336-6600 wardellwilcox@bayerbecker.com

Count Name: Mt Zion and Kroger Access
Site Code: 21-0244
Start Date: 08/29/2023

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Kroger Access Drive Southbound				Mt Zion Road Westbound				Mt Zion Road Eastbound				Int. Total
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	
7:15 AM	3	0	0	3	7	152	0	159	151	0	0	151	313
7:30 AM	5	0	0	5	9	163	0	172	158	0	0	158	335
7:45 AM	3	0	0	3	11	149	0	160	210	0	0	210	373
8:00 AM	4	0	0	4	13	165	0	178	144	0	0	144	326
Total	15	0	0	15	40	629	0	669	663	0	0	663	1347
Approach %	100.0	0.0	0.0	-	6.0	94.0	0.0	-	100.0	0.0	0.0	-	-
Total %	1.1	0.0	0.0	1.1	3.0	46.7	0.0	49.7	49.2	0.0	0.0	49.2	-
PHF	0.750	0.000	0.000	0.750	0.769	0.953	0.000	0.940	0.789	0.000	0.000	0.789	0.903
All Vehicles (no classification)	15	0	0	15	40	629	0	669	663	0	0	663	1347
% All Vehicles (no classification)	100.0	-	-	100.0	100.0	100.0	-	100.0	100.0	-	-	100.0	100.0

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Count Name: Mt Zion and Kroger Access
Site Code: 21-0244
Start Date: 08/29/2023

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Kroger Access Drive Southbound				Mt Zion Road Westbound				Mt Zion Road Eastbound				Int. Total
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	
4:30 PM	16	0	0	16	22	164	0	186	213	0	0	213	415
4:45 PM	9	0	0	9	21	184	0	205	209	0	0	209	423
5:00 PM	19	0	0	19	44	187	0	231	216	0	0	216	466
5:15 PM	18	0	0	18	32	175	0	207	233	0	0	233	458
Total	62	0	0	62	119	710	0	829	871	0	0	871	1762
Approach %	100.0	0.0	0.0	-	14.4	85.6	0.0	-	100.0	0.0	0.0	-	-
Total %	3.5	0.0	0.0	3.5	6.8	40.3	0.0	47.0	49.4	0.0	0.0	49.4	-
PHF	0.816	0.000	0.000	0.816	0.676	0.949	0.000	0.897	0.935	0.000	0.000	0.935	0.945
All Vehicles (no classification)	62	0	0	62	119	710	0	829	871	0	0	871	1762
% All Vehicles (no classification)	100.0	-	-	100.0	100.0	100.0	-	100.0	100.0	-	-	100.0	100.0

APPENDIX C

KYTC HISTORICAL TRAFFIC VOLUME SUMMARY, TIS SIMPLIFIED TRAFFIC FORECAST, & KYTC COMMUNICATIONS

Historical Traffic Volume Summary

Station Details:

Sta ID:	008L17
Sta Type:	Full Coverage
Map:	MapIt
District:	6
County:	Boone
Route:	008-US-0025 -000
Route Desc:	DIXIE HWY

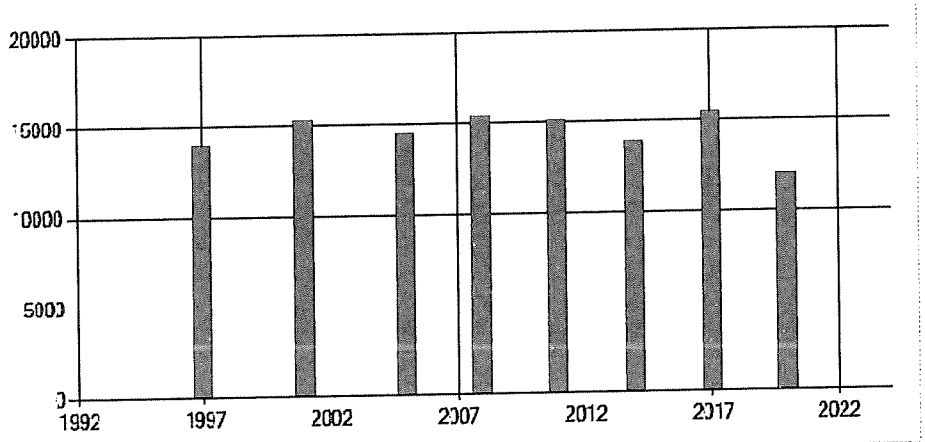
Begin MP:	7.6430
Begin Desc:	KY 536 (MT ZION ROAD)
End Mp:	8.4480
End Desc:	RICHARDSON ROAD/KY 842
Impact Year:	
Year Added:	

Newest Count:

AADT:	12021
Year:	2020
% Single:	4.9470
% Combo:	5.4020
K Factor:	8.60
D Factor:	56

Definitions:
Sta. ID - Three digit county number + station number
MP - milepoint
Impact Year – year of significant change to traffic pattern within station segment
AADT – Annual Average Daily Traffic – the annualized average 24-hour volume of vehicles on a segment of roadway
% Single – single unit truck volume as a percentage of the AADT
% Combo – combination truck volume as a percentage of the AADT
K Factor – peak hour volume as a percentage of the AADT
D Factor – percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2023		2013		2003	
2022		2012		2002	
2021		2011	15200	2001	15300
2020	12021	2010		2000	
2019		2009		1999	
2018		2008	15400	1998	
2017	15490	2007		1997	14000
2016		2006		1996	
2015		2005	14500	1995	
2014	13813	2004		1994	



Historical Traffic Volume Summary

Station Details:

Sta ID:	008L16
Sta Type:	Full Coverage
Map:	MapIt
District:	6
County:	Boone
Route:	008-KY-0536 -000
Route Desc:	MT ZION RD

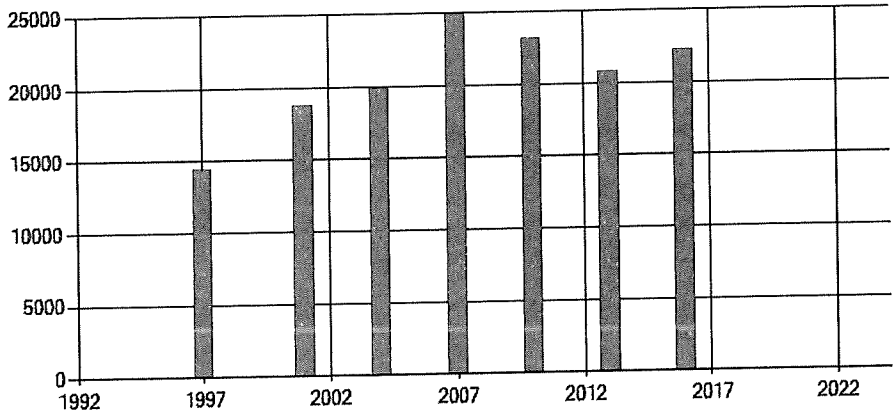
Begin MP:	13.4060
Begin Desc:	I 71 & I 75 UNDERPASS
End Mp:	14.2050
End Desc:	US 25 (DIXIE HIGHWAY)
Impact Year:	
Year Added:	

Newest Count:

AADT:	22266
Year:	2016
% Single:	5.4710
% Combo:	1.3820
K Factor:	6.80
D Factor:	56

Definitions:
Sta. ID - Three digit county number + station number
MP - milepoint
Impact Year – year of significant change to traffic pattern within station segment
AADT – Annual Average Daily Traffic – the annualized average 24-hour volume of vehicles on a segment of roadway
% Single – single unit truck volume as a percentage of the AADT
% Combo – combination truck volume as a percentage of the AADT
K Factor – peak hour volume as a percentage of the AADT
D Factor – percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2023		2013	20791	2003	
2022		2012		2002	
2021		2011		2001	18800
2020		2010	23200	2000	
2019		2009		1999	
2018		2008		1998	
2017		2007	24900	1997	14400
2016	22266	2006		1996	
2015		2005		1995	
2014		2004	19900	1994	



Historical Traffic Volume Summary

Station Details:

Sta ID:	008M19
Sta Type:	Classification
Map:	MapIt
District:	6
County:	Boone
Route:	008-KY-3503 -000
Route Desc:	SAM NEACE DR+EMPIRE CONN+EMPIRE DR

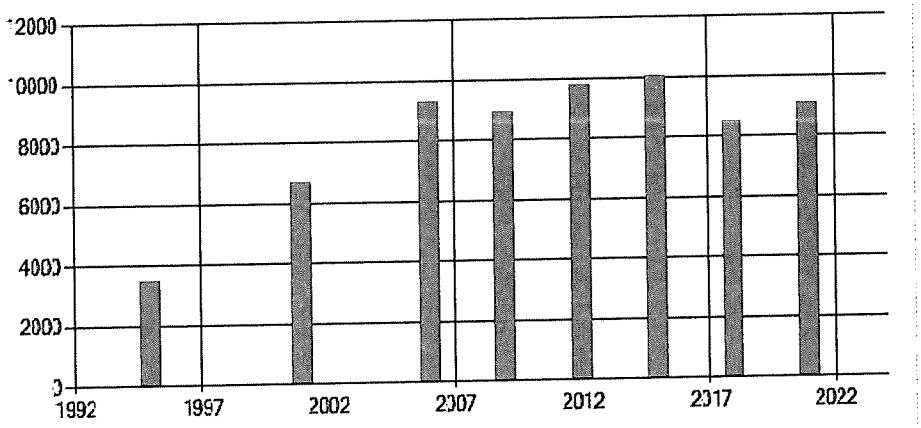
Begin MP:	0
Begin Desc:	KY 536 (MT ZION ROAD)
End Mp:	1.6740
End Desc:	KY 1829 IN KY INDUSTRIAL PARK
Impact Year:	
Year Added:	1994

Newest Count:

AADT:	9085
Year:	2021
% Single:	5.1970
% Combo:	2.7180
K Factor:	9.50
D Factor:	59

Definitions:
Sta. ID - Three digit county number + station number
MP - milepoint
Impact Year – year of significant change to traffic pattern within station segment
AADT – Annual Average Daily Traffic – the annualized average 24-hour volume of vehicles on a segment of roadway
% Single – single unit truck volume as a percentage of the AADT
% Combo – combination truck volume as a percentage of the AADT
K Factor – peak hour volume as a percentage of the AADT
D Factor – percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2023		2013		2003	
2022		2012	9800	2002	
2021	9085	2011		2001	6680
2020		2010		2000	
2019		2009	8910	1999	
2018	8524	2008		1998	
2017		2007		1997	
2016		2006	9320	1996	
2015	10023	2005		1995	3460
2014		2004		1994	



TIS Simplified Traffic Forecast

Count Year	2023
Opening Year	2025
Design Year	2035
Years Back	15

Number of Counts	7
Growth Rate	-0.72%

KYTC Traffic Count Station #1

STA ID 008L16

Paste Count Data Here	
2022	
2021	
2020	
2019	
2018	
2017	
2016	22266
2015	
2014	
2013	20791
2012	
2011	
2010	23200
2009	
2008	
2007	24900
2006	
2005	
2004	19900
2003	
2002	
2001	18800
2000	
1999	
1998	
1997	14400
1996	
1995	
1994	
1993	
1992	
1993	

KYTC Traffic Count Station #2

STA ID

Paste Count Data Here	

KYTC Traffic Count Station #3

STA ID

Paste Count Data Here	

STA ID# 008L16 - Mt. Zion Road (KY 536)

TIS Simplified Traffic Forecast

Count Year	2023
Opening Year	2025
Design Year	2035
Years Back	15
Number of Counts	15
Growth Rate	-0.53%

KYTC Traffic Count Station #1		KYTC Traffic Count Station #2		KYTC Traffic Count Station #3	
STA ID	008L16	STA ID	008M19	STA ID	
Paste Count Data Here		Paste Count Data Here		Paste Count Data Here	
2022		2022			
2021		2021	9085		
2020		2020			
2019		2019			
2018		2018	8524		
2017		2017			
2016	22266	2016			
2015		2015	10023		
2014		2014			
2013	20791	2013			
2012		2012	9800		
2011		2011			
2010	23200	2010			
2009		2009	8910		
2008		2008			
2007	24900	2007			
2006		2006	9320		
2005		2005			
2004	19900	2004			
2003		2003			
2002		2002			
2001	18800	2001	6680		
2000		2000			
1999		1999			
1998		1998			
1997	14400	1997			
1996		1996			
1995		1995	3460		
1994		1994			
1993		1993			
1992		1992			
1991		1991			

STA ID# 008L16 - Mt. Zion Road (KY 536)
STA ID# 008M19 - Sam Neace Drive

TIS Simplified Traffic Forecast

Count Year	2023
Opening Year	2025
Design Year	2035
Years Back	15

Number of Counts	23
Growth Rate	-1.03%

KYTC Traffic Count Station #1

STA ID 008L16

Paste Count Data Here	
2022	
2021	
2020	
2019	
2018	
2017	
2016	22266
2015	
2014	
2013	20791
2012	
2011	
2010	23200
2009	
2008	
2007	24900
2006	
2005	
2004	19900
2003	
2002	
2001	18800
2000	
1999	
1998	
1997	14400
1996	
1995	
1994	
1993	
1992	
1991	

KYTC Traffic Count Station #2

STA ID 008M19

Paste Count Data Here	
2022	
2021	9085
2020	
2019	
2018	8524
2017	
2016	
2015	10023
2014	
2013	
2012	9800
2011	
2010	
2009	8910
2008	
2007	
2006	9320
2005	
2004	
2003	
2002	
2001	6680
2000	
1999	
1998	
1997	
1996	
1995	3460
1994	
1993	
1992	
1991	

KYTC Traffic Count Station #3

STA ID 008L17

Paste Count Data Here	
2022	
2021	
2020	12021
2019	
2018	
2017	15490
2016	
2015	
2014	13813
2013	
2012	
2011	15200
2010	
2009	
2008	15400
2007	
2006	
2005	14500
2004	
2003	
2002	
2001	15300
2000	
1999	
1998	
1997	14000
1996	
1995	
1994	
1993	
1992	
1991	

STA ID# 008L16 - Mt. Zion Road (KY 536)
STA ID# 008M19 - Sam Neace Drive
STA ID# 008L17 - Dixie Highway (US 25)

Wardell Wilcox

From: Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>
Sent: Tuesday, September 5, 2023 10:39 AM
To: Wardell Wilcox
Cc: Minckley, James A (KYTC-D06)
Subject: Re: Traffic Forecasting - Mt Zion McDonald's Development

Yes, OKI gave us a rate of 1.31%.

Thanks!

Linzy Brefeld, P.E.
Transportation Engineer Supervisor
KYTC District 6
Traffic and Permits Section
Linzy.Brefeld@ky.gov

From: Wardell Wilcox <wardellwilcox@bayerbecker.com>
Sent: Tuesday, September 5, 2023 10:36:55 AM
To: Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>
Cc: Minckley, James A (KYTC-D06) <James.Minckley@ky.gov>
Subject: RE: Traffic Forecasting - Mt Zion McDonald's Development

Good Morning Linzy,

Do we have an answer from OKI yet, regarding the growth rate? I am under an extreme timeline so the sooner you can provide the growth rate the better.

Thanks,

Wardell L. Wilcox, PTP
Senior Transportation Planner

D: 513-492-9844
M: 513-708-9749
E: wardellwilcox@bayerbecker.com

bayerbecker.com

mason | cincinnati | ft. mitchell | oxford

MASON OFFICE TEMPORARY ADDRESS:
8630 Jacquemin Drive
West Chester Twp, OH 45069

From: Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>
Sent: Tuesday, August 29, 2023 8:31 AM
To: Wardell Wilcox <wardellwilcox@bayerbecker.com>
Cc: Minckley, James A (KYTC-D06) <James.Minckley@ky.gov>
Subject: RE: Traffic Forecasting - Mt Zion McDonald's Development

Wardell,

I'm reaching out to OKI about the growth rate. I'll be in touch when I hear back from them.

Thanks!

Linzy Brefeld, P.E.
Transportation Engineer Supervisor
KYTC District 6
Traffic and Permits Section
Linzy.Brefeld@ky.gov

From: Wardell Wilcox <wardellwilcox@bayerbecker.com>
Sent: Friday, August 25, 2023 9:55 AM
To: Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>
Cc: Minckley, James A (KYTC-D06) <James.Minckley@ky.gov>
Subject: Traffic Forecasting - Mt Zion McDonald's Development

Good Morning Linzy,

Schools are officially back in session, and I plan to install the traffic counting equipment next week. In the meantime, I have begun the no-build traffic forecasting process and it appears that the area is generating negative growth. Attached are the historic traffic summaries and the forecast spreadsheets we used to establish the growth rate for the study area. As you will see, I computed the growth rate based on 3 count stations in the vicinity of the proposed development and all trials produced a negative value. Of note, I eliminated traffic counts in 2020 or 2021, due to the interruptions in traffic caused by COVID.

Please review and advise how we should proceed.

Have a great weekend!

Regards,

Wardell L. Wilcox, PTP
Senior Transportation Planner

D: 513-492-9844
M: 513-708-9749

APPENDIX D

ITE TRIP GENERATION
LAND USE #934
&
PASS-BY REDUCTION EXCERPTS

Land Use: 934
Fast-Food Restaurant with Drive-Through Window

Description

This land use includes any fast-food restaurant with a drive-through window. This type of restaurant is characterized by a large drive-through and large carry-out clientele, long hours of service (some are open for breakfast, all are open for lunch and dinner, some are open late at night or 24 hours a day) and high turnover rates for eat-in customers. The restaurant does not provide table service. A patron generally orders from a menu board and pays before receiving the meal. A typical duration of stay for an eat-in patron is less than 30 minutes. Fast casual restaurant (Land Use 930), high-turnover (sit-down) restaurant (Land Use 932), fast-food restaurant without drive-through window (Land Use 933), and fast-food restaurant with drive-through window and no indoor seating (Land Use 935) are related uses.

Additional Data

Users should exercise caution when applying statistics during the AM peak periods, as the sites contained in the database for this land use may or may not be open for breakfast. In cases where it was confirmed that the sites were not open for breakfast, data for the AM peak hour of the adjacent street traffic were removed from the database.

If the restaurant has outdoor seating, its area is not included in the overall gross floor area. For a restaurant that has significant outdoor seating, the number of seats may be more reliable than GFA as an independent variable on which to establish a trip generation rate.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alaska, Alberta (CAN), California, Colorado, Florida, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Montana, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Dakota, Texas, Vermont, Virginia, Washington, and Wisconsin.

Source Numbers

163, 164, 168, 180, 181, 241, 245, 278, 294, 300, 301, 319, 338, 340, 342, 358, 389, 438, 502, 552, 577, 583, 584, 617, 640, 641, 704, 715, 728, 810, 866, 867, 869, 885, 886, 927, 935, 962, 977, 1050, 1053, 1054

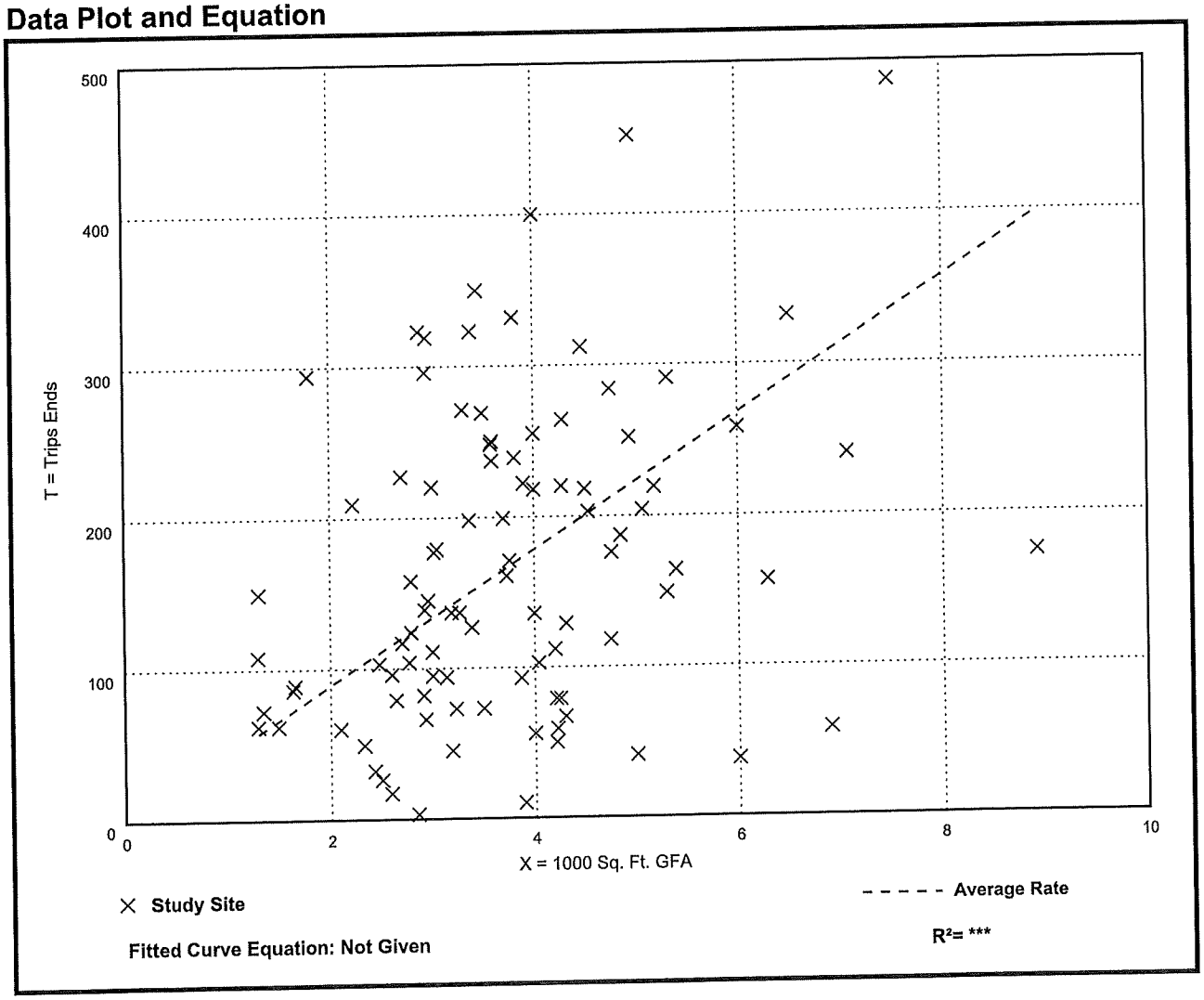
Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 96
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
44.61	1.05 - 164.25	27.14

Data Plot and Equation



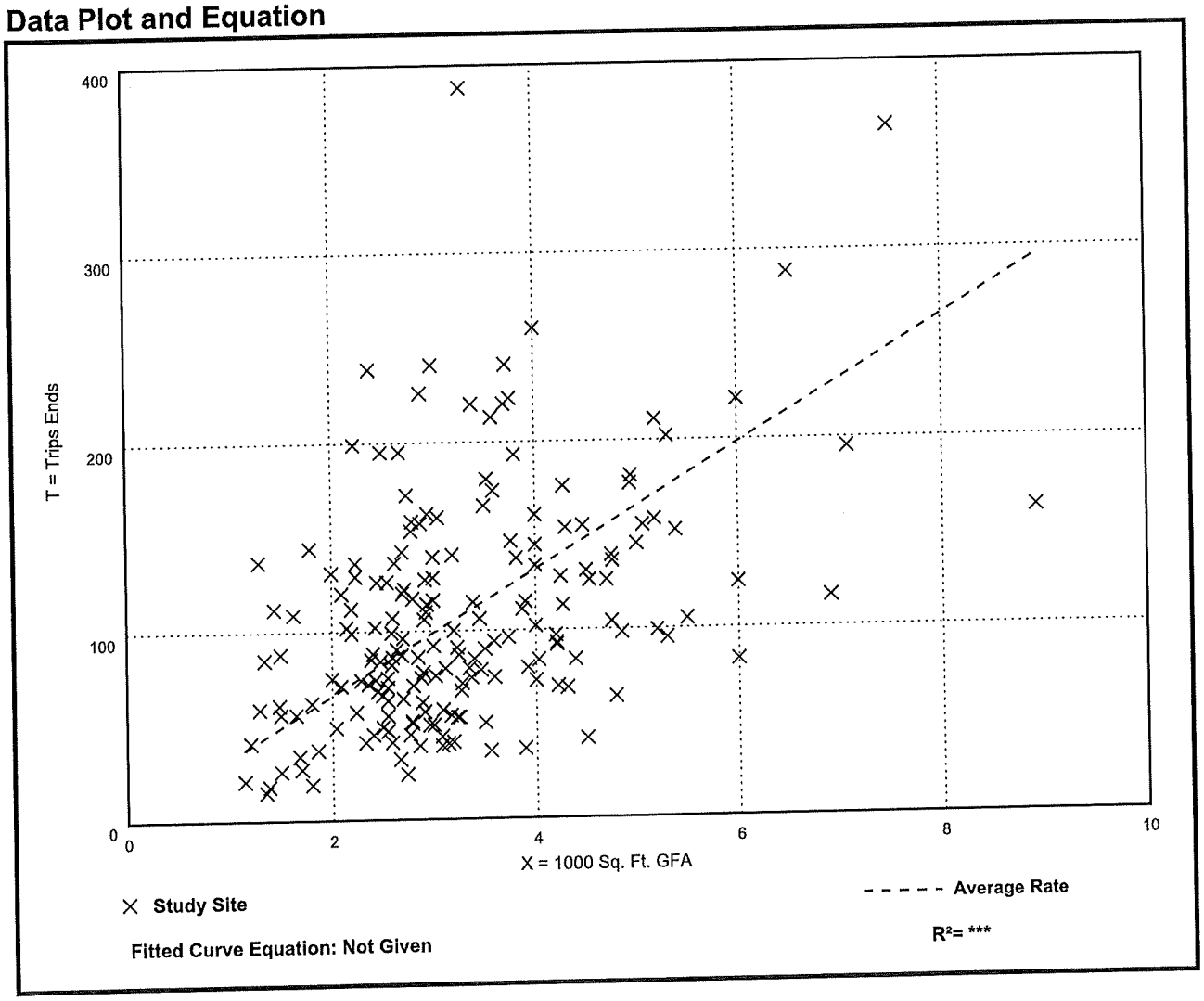
Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 190
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
33.03	8.77 - 117.22	17.59

Data Plot and Equation



Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

Land Use Code	934
Land Use	Fast-Food Restaurant with Drive-Through Window
Setting	General Urban/Suburban
Time Period	Weekday AM Peak Period
# Data Sites	5
Average Pass-By Rate	50%

Pass-By Characteristics for Individual Sites

GFA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
1.4	Kentucky	1993	—	62	22	16	38	1407	2
3	Kentucky	1993	—	43	14	43	57	2903	2
3.3	--	1996	—	68	—	—	32	—	21
3.6	Kentucky	1993	—	32	47	21	68	437	2
4.2	Indiana	1993	—	46	23	31	54	1049	2

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

Land Use Code	934
Land Use	Fast-Food Restaurant with Drive-Through Window
Setting	General Urban/Suburban
Time Period	Weekday PM Peak Period
# Data Sites	11
Average Pass-By Rate	55%

Pass-By Characteristics for Individual Sites

GFA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
1.3	Kentucky	1993	—	68	22	10	32	2055	2
1.9	Kentucky	1993	33	67	24	9	33	2447	2
2.8	Florida	1995	47	66	—	—	34	—	30
2.9	Florida	1996	271	41	41	18	59	—	30
3	Kentucky	1993	—	31	31	38	69	4250	2
3.1	Florida	1995	28	71	—	—	29	—	30
3.1	Florida	1996	29	38	—	—	62	—	30
3.2	Florida	1996	202	40	39	21	60	—	30
3.3	—	1996	—	62	—	—	38	—	21
4.2	Indiana	1993	—	56	25	19	44	1632	2
4.3	Florida	1994	304	62	—	—	38	—	30

APPENDIX E

LEVEL OF SERVICE CAPACITY

&

BACK OF QUEUE RESULTS

2025 No-Build Traffic Projections
AM and PM Peak Hour

HCS Two-Way Stop-Control Report

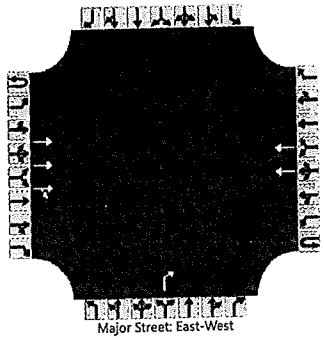
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2025
Time Analyzed	AM Peak
Intersection Orientation	East-West
Project Description	No-Build Traffic Projections

Site Information

Intersection	Mt Zion and Demia
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Demia Way
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			655	16			666					17				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)												7.1				
Critical Headway (sec)												7.16				
Base Follow-Up Headway (sec)												3.9				
Follow-Up Headway (sec)												3.93				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												18				
Capacity, c (veh/h)												538				
v/c Ratio												0.03				
95% Queue Length, Q_{95} (veh)												0.1				
Control Delay (s/veh)												11.9				
Level of Service (LOS)												B				
Approach Delay (s/veh)										11.9						
Approach LOS										B						

HCS Two-Way Stop-Control Report

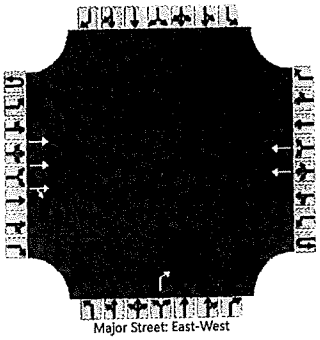
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2025
Time Analyzed	PM Peak
Intersection Orientation	East-West
Project Description	No-Build Traffic Projections

Site Information

Intersection	Mt Zion and Demia
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Demia Way
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			764	19			795					38				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Undivided															

Critical and Follow-up Headways

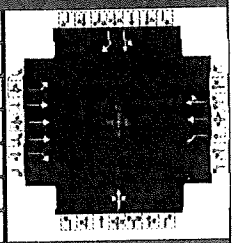
Base Critical Headway (sec)												7.1				
Critical Headway (sec)												7.16				
Base Follow-Up Headway (sec)												3.9				
Follow-Up Headway (sec)												3.93				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												41				
Capacity, c (veh/h)												491				
v/c Ratio												0.08				
95% Queue Length, Q_{95} (veh)												0.3				
Control Delay (s/veh)												13.0				
Level of Service (LOS)												B				
Approach Delay (s/veh)										13.0						
Approach LOS										B						

HCS Signalized Intersection Results Summary

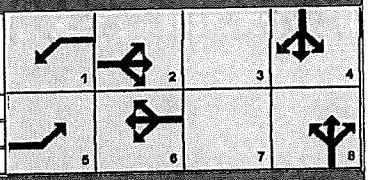
General Information				Intersection Information	
Agency	Bayer Becker			Duration, h	0.250
Analyst	WLW	Analysis Date	9/6/2023	Area Type	Other
Jurisdiction	City of Florence-KYTC	Time Period	AM Peak	PHF	0.92
Urban Street	Mt. Zion Road (KY 536)	Analysis Year	No-Build 2025	Analysis Period	1> 7:00
Intersection	Berberich Road and Lak...	File Name	21-0244 Mt Zion and Lakeside - 2025 NB AM.xus		
Project Description	Existing Geometry, Projected Traffic				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	26	644	3	0	646	27	1	0	0	26	0	28

Signal Information			
Cycle, s	180.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	20.0	84.4	55.1	0.0	0.0	0.0
Yellow	3.5	4.3	3.6	0.0	0.0	0.0
Red	3.3	2.0	3.8	0.0	0.0	0.0



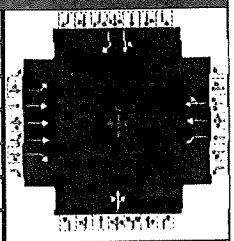
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	3.0	1.1	4.0		8.0		7.0
Phase Duration, s	26.8	117.5	0.0	90.7		62.5		62.5
Change Period, ($Y+R_c$), s	6.8	6.3	7.1	6.3		7.4		7.4
Max Allow Headway (*MAH*), s	3.8	3.7	0.0	3.7		3.9		3.9
Queue Clearance Time (g_s), s	3.2	12.8		25.0		2.1		4.5
Green Extension Time (g_e), s	0.0	5.6	0.0	5.6		0.2		0.2
Phase Call Probability	1.00	1.00		1.00		1.00		1.00
Max Out Probability	0.00	0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	28	700	3	0	368	363		1			28	30
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1725	1610	1810	1900	1873		1440			1440	1610
Queue Service Time (g_s), s	1.2	10.8	0.1	0.0	23.0	23.0		0.0			2.4	2.4
Cycle Queue Clearance Time (g_c), s	1.2	10.8	0.1	0.0	23.0	23.0		0.1			2.5	2.4
Green Ratio (*g/C*)	0.59	0.62	0.62	0.43	0.47	0.47		0.31			0.31	0.31
Capacity (*c*), veh/h	492	3197	995	396	891	878		481			481	493
Volume-to-Capacity Ratio (*X*)	0.057	0.219	0.003	0.000	0.413	0.414		0.002			0.059	0.062
Back of Queue (*Q*), ft/ln (95 th percentile)	22.1	190.4	2.4	0	398.2	393.8		1.6			41.2	44.3
Back of Queue (*Q*), veh/ln (95 th percentile)	0.9	7.6	0.1	0.0	15.9	15.8		0.1			1.6	1.8
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00		0.00			0.00	0.00
Uniform Delay (d_1), s/veh	17.1	15.2	13.2	0.0	31.5	31.5		43.4			44.2	44.2
Incremental Delay (d_2), s/veh	0.0	0.2	0.0	0.0	0.3	0.3		0.0			0.1	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	0.0
Control Delay (*d*), s/veh	17.1	15.4	13.2	0.0	31.8	31.8		43.4			44.3	44.2
Level of Service (LOS)	B	B	B		C	C		D			D	D
Approach Delay, s/veh / LOS	15.4	B		31.8	C		43.4	D		44.2	D	
Intersection Delay, s/veh / LOS	24.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.68	B	1.93	B	2.46	B	2.60	C
Bicycle LOS Score / LOS	0.89	A	1.09	A	0.49	A	0.58	A

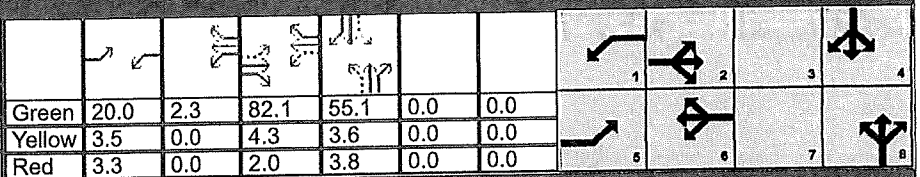
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Bayer Becker			Duration, h	0.250
Analyst	WLW	Analysis Date	9/6/2023	Area Type	Other
Jurisdiction	City of Florence-KYTC	Time Period	PM Peak	PHF	0.92
Urban Street	Mt. Zion Road (KY 536)	Analysis Year	No-Build 2025	Analysis Period	1> 7:00
Intersection	Berberich Road and Lak...	File Name	21-0244 Mt Zion and Lakeside - 2025 NB PM.xus		
Project Description	Existing Geometry, Projected Traffic				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	81	753	1	1	755	27	1	0	1	110	0	96

Signal Information			
Cycle, s	180.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	20.0	2.3	82.1	55.1	0.0	0.0
Yellow	3.5	0.0	4.3	3.6	0.0	0.0
Red	3.3	0.0	2.0	3.8	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	3.0	1.1	4.0		8.0		7.0
Phase Duration, s	26.8	88.4	29.1	90.7		62.5		62.5
Change Period, ($Y+R_c$), s	6.8	6.3	7.1	6.3		7.4		7.4
Max Allow Headway (*MAH*), s	3.8	3.7	2.8	3.7		3.9		3.9
Queue Clearance Time (g_s), s	6.0	20.4	2.0	29.8		2.2		13.3
Green Extension Time (g_e), s	0.1	6.9	0.0	6.9		0.7		0.7
Phase Call Probability	1.00	1.00	1.00	1.00		1.00		1.00
Max Out Probability	0.00	0.00	0.00	0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	88	818	1	1	428	422		2			120	104
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1725	1449	1810	1900	1877		1548			1439	1610
Queue Service Time (g_s), s	4.0	18.4	0.1	0.0	27.8	27.8		0.0			11.2	8.7
Cycle Queue Clearance Time (g_c), s	4.0	18.4	0.1	0.0	27.8	27.8		0.2			11.3	8.7
Green Ratio (*g/C*)	0.57	0.46	0.46	0.58	0.47	0.47		0.31			0.31	0.31
Capacity (*c*), veh/h	441	2361	661	501	891	880		504			480	493
Volume-to-Capacity Ratio (*X*)	0.200	0.347	0.002	0.002	0.480	0.480		0.004			0.249	0.212
Back of Queue (*Q*), ft/ln (95 th percentile)	76.4	308.1	1.2	0.9	466.2	461.8		3.1			186.8	159.8
Back of Queue (*Q*), veh/ln (95 th percentile)	3.1	12.3	0.0	0.0	18.6	18.5		0.1			7.5	6.4
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00		0.00			0.00	0.00
Uniform Delay (d_1), s/veh	20.1	31.6	26.6	17.0	32.8	32.8		43.4			47.3	46.3
Incremental Delay (d_2), s/veh	0.2	0.4	0.0	0.0	0.4	0.4		0.0			0.3	0.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	0.0
Control Delay (*d*), s/veh	20.4	32.0	26.6	17.0	33.2	33.2		43.4			47.5	46.5
Level of Service (LOS)	C	C	C	B	C	C		D			D	D
Approach Delay, s/veh / LOS	30.9	C		33.1	C		43.4	D		47.1	D	
Intersection Delay, s/veh / LOS	33.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.70	B	1.93	B	2.46	B	2.60	C
Bicycle LOS Score / LOS	0.99	A	1.19	A	0.49	A	0.86	A

HCS Two-Way Stop-Control Report

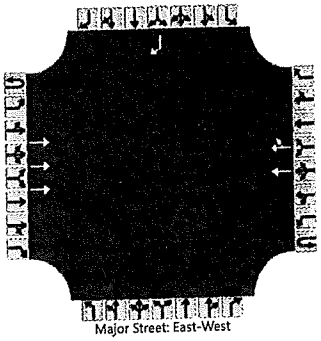
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2025
Time Analyzed	AM Peak
Intersection Orientation	East-West
Project Description	No-Build Traffic Projections

Site Information

Intersection	Mt Zion and Kroger Drive
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Kroger Access Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	0		0	0	1
Configuration			T				T	TR								R
Volume (veh/h)			683				648	40								15
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized														No		
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.9
Critical Headway (sec)																6.96
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																16
Capacity, c (veh/h)																621
v/c Ratio																0.03
95% Queue Length, Q_{95} (veh)																0.1
Control Delay (s/veh)																11.0
Level of Service (LOS)																B
Approach Delay (s/veh)														11.0		
Approach LOS														B		

HCS Two-Way Stop-Control Report

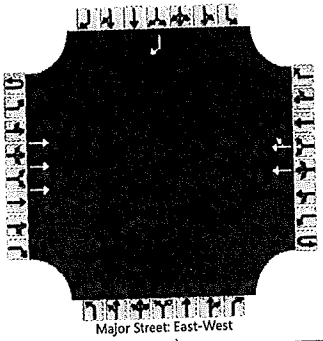
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2025
Time Analyzed	PM Peak
Intersection Orientation	East-West
Project Description	No-Build Traffic Projections

Site Information

Intersection	Mt Zion and Kroger Drive
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Kroger Access Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	0		0	0	1
Configuration			T				T	TR								R
Volume (veh/h)			897				731	119								62
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized														No		
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.9
Critical Headway (sec)																6.96
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																67
Capacity, c (veh/h)																544
v/c Ratio																0.12
95% Queue Length, Q_{95} (veh)																0.4
Control Delay (s/veh)																12.6
Level of Service (LOS)																B
Approach Delay (s/veh)													12.6			
Approach LOS													B			

2025 BUILD TRAFFIC PROJECTIONS AM AND PM PEAK HOUR

HCS Two-Way Stop-Control Report

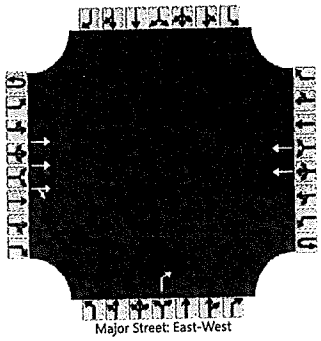
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2025
Time Analyzed	AM Peak
Intersection Orientation	East-West
Project Description	Build Traffic Projections

Site Information

Intersection	Mt Zion and Demia
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Demia Way
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			679	16			689					17				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)												7.1				
Critical Headway (sec)												7.16				
Base Follow-Up Headway (sec)												3.9				
Follow-Up Headway (sec)												3.93				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												18				
Capacity, c (veh/h)												527				
v/c Ratio												0.04				
95% Queue Length, Q_{95} (veh)												0.1				
Control Delay (s/veh)												12.1				
Level of Service (LOS)												B				
Approach Delay (s/veh)										12.1						
Approach LOS										B						

HCS Two-Way Stop-Control Report

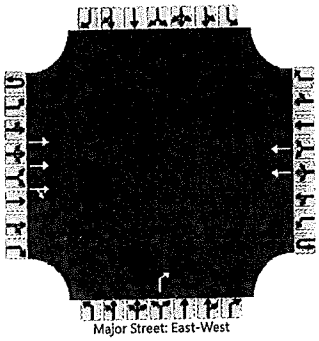
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2025
Time Analyzed	PM Peak
Intersection Orientation	East-West
Project Description	Build Traffic Projections

Site Information

Intersection	Mt Zion and Demia
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Demia Way
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			780	19			809					38				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Undivided															

Critical and Follow-up Headways

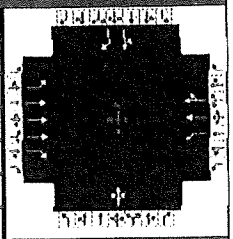
Base Critical Headway (sec)												7.1				
Critical Headway (sec)												7.16				
Base Follow-Up Headway (sec)												3.9				
Follow-Up Headway (sec)												3.93				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												41				
Capacity, c (veh/h)												485				
v/c Ratio												0.09				
95% Queue Length, Q_{95} (veh)												0.3				
Control Delay (s/veh)												13.1				
Level of Service (LOS)												B				
Approach Delay (s/veh)										13.1						
Approach LOS										B						

HCS Signalized Intersection Results Summary

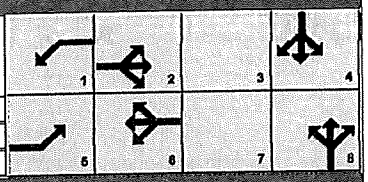
General Information				Intersection Information	
Agency	Bayer Becker			Duration, h	0.250
Analyst	WLW	Analysis Date	9/6/2023	Area Type	Other
Jurisdiction	City of Florence-KYTC	Time Period	AM Peak	PHF	0.92
Urban Street	Mt. Zion Road (KY 536)	Analysis Year	2025 Build	Analysis Period	1> 7:00
Intersection	Berberich Road and Lak...	File Name	21-0244 Mt Zion and Lakeside - 2025 Build AM.xus		
Project Description	Existing Geometry, Projected Traffic				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	26	621	50	49	621	27	47	0	47	26	0	28

Signal Information			
Cycle, s	180.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	20.0	2.3	82.1	55.1	0.0	0.0	
Yellow	3.5	0.0	4.3	3.6	0.0	0.0	
Red	3.3	0.0	2.0	3.8	0.0	0.0	



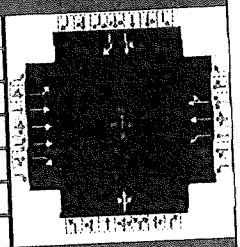
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	3.0	1.1	4.0		8.0		7.0
Phase Duration, s	26.8	88.4	29.1	90.7		62.5		62.5
Change Period, ($Y+R_c$), s	6.8	6.3	7.1	6.3		7.4		7.4
Max Allow Headway (MAH), s	3.8	3.7	2.8	3.7		3.4		3.4
Queue Clearance Time (g_s), s	3.2	16.7	4.3	24.0		10.6		5.1
Green Extension Time (g_e), s	0.0	5.5	0.0	5.5		0.4		0.4
Phase Call Probability	1.00	1.00	1.00	1.00		1.00		1.00
Max Out Probability	0.00	0.00	0.00	0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	28	675	54	53	355	350		102			28	30
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1725	1449	1810	1900	1872		1531			1344	1610
Queue Service Time (g_s), s	1.2	14.7	3.8	2.3	21.9	22.0		5.5			0.0	2.4
Cycle Queue Clearance Time (g_c), s	1.2	14.7	3.8	2.3	21.9	22.0		8.6			3.1	2.4
Green Ratio (g/C)	0.57	0.46	0.46	0.58	0.47	0.47		0.31			0.31	0.31
Capacity (c), veh/h	495	2361	661	552	891	878		499			451	493
Volume-to-Capacity Ratio (X)	0.057	0.286	0.082	0.097	0.398	0.398		0.205			0.063	0.062
Back of Queue (Q), ft/ln (95 th percentile)	23.6	256.4	62.1	43.4	383.1	378.7		157.9			42	45
Back of Queue (Q), veh/ln (95 th percentile)	0.9	10.3	2.5	1.7	15.3	15.1		6.3			1.7	1.8
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00		0.00			0.00	0.00
Uniform Delay (d_1), s/veh	18.5	30.6	27.7	17.1	31.2	31.2		46.2			44.4	44.2
Incremental Delay (d_2), s/veh	0.0	0.3	0.2	0.0	0.3	0.3		0.1			0.1	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	0.0
Control Delay (d), s/veh	18.5	30.9	27.9	17.2	31.5	31.5		46.3			44.5	44.2
Level of Service (LOS)	B	C	C	B	C	C		D			D	D
Approach Delay, s/veh / LOS	30.2		C	30.5		C	46.3		D	44.3		D
Intersection Delay, s/veh / LOS	31.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.70	B	1.93	B	2.46	B	2.60	C
Bicycle LOS Score / LOS	0.90	A	1.11	A	0.66	A	0.58	A

HCS Signalized Intersection Results Summary

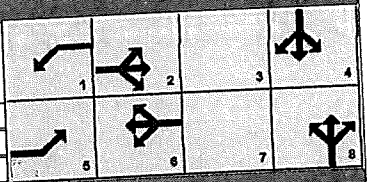
General Information				Intersection Information	
Agency	Bayer Becker	Analysis Date	9/6/2023	Duration, h	0.250
Analyst	WLW	Time Period	PM Peak	Area Type	Other
Jurisdiction	City of Florence-KYTC	Analysis Year	2025 Build	PHF	0.92
Urban Street	Mt. Zion Road (KY 536)	File Name	21-0244 Mt Zion and Lakeside - 2025 Build PM.xus	Analysis Period	1> 7:00
Intersection	Berberich Road and Lak...				
Project Description	Existing Geometry, Projected Traffic				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	81	734	36	39	734	27	32	0	37	110	0	96

Signal Information			
Cycle, s	180.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	20.0	2.3	82.1	55.1	0.0	0.0	
Yellow	3.5	0.0	4.3	3.6	0.0	0.0	
Red	3.3	0.0	2.0	3.8	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	3.0	1.1	4.0		8.0		7.0
Phase Duration, s	26.8	88.4	29.1	90.7		62.5		62.5
Change Period, ($Y+R_c$), s	6.8	6.3	7.1	6.3		7.4		7.4
Max Allow Headway (MAH), s	3.8	3.7	2.8	3.7		3.8		3.8
Queue Clearance Time (g_s), s	6.0	19.8	3.8	28.8		7.8		13.8
Green Extension Time (g_e), s	0.1	6.9	0.0	6.9		0.9		0.9
Phase Call Probability	1.00	1.00	1.00	1.00		1.00		1.00
Max Out Probability	0.00	0.00	0.00	0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	88	798	39	42	416	411		75			120	104
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1725	1449	1810	1900	1876		1557			1389	1610
Queue Service Time (g_s), s	4.0	17.8	2.7	1.8	26.8	26.8		0.0			6.0	8.7
Cycle Queue Clearance Time (g_c), s	4.0	17.8	2.7	1.8	26.8	26.8		5.8			11.8	8.7
Green Ratio (g/C)	0.57	0.46	0.46	0.58	0.47	0.47		0.31			0.31	0.31
Capacity (c), veh/h	449	2361	661	508	891	880		506			465	493
Volume-to-Capacity Ratio (X)	0.196	0.338	0.059	0.083	0.467	0.467		0.148			0.257	0.212
Back of Queue (Q), ft/ln (95 th percentile)	76.4	300.3	44.2	34.3	452.8	448.4		113.5			189.9	162
Back of Queue (Q), veh/ln (95 th percentile)	3.1	12.0	1.8	1.4	18.1	17.9		4.5			7.6	6.5
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00		0.00			0.00	0.00
Uniform Delay (d_1), s/veh	20.0	31.5	27.4	17.3	32.5	32.5		45.3			47.4	46.3
Incremental Delay (d_2), s/veh	0.2	0.4	0.2	0.0	0.4	0.4		0.0			0.3	0.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	0.0
Control Delay (d), s/veh	20.2	31.9	27.5	17.4	32.9	32.9		45.4			47.7	46.5
Level of Service (LOS)	C	C	C	B	C	C		D			D	D
Approach Delay, s/veh / LOS	30.6	C		32.1	C		45.4	D		47.2	D	
Intersection Delay, s/veh / LOS	33.5						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.70	B	1.93	B	2.46	B	2.60	C
Bicycle LOS Score / LOS	1.00	A	1.20	A	0.61	A	0.86	A

HCS Two-Way Stop-Control Report

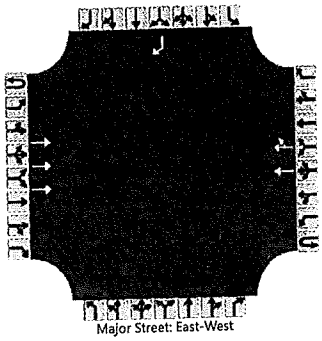
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2025
Time Analyzed	AM Peak
Intersection Orientation	East-West
Project Description	Build Traffic Projections

Site Information

Intersection	Mt Zion and Kroger Drive
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Kroger Access Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	0		0	0	1
Configuration			T				T	TR								R
Volume (veh/h)			706				672	40								15
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.9
Critical Headway (sec)																6.96
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																16
Capacity, c (veh/h)																609
v/c Ratio																0.03
95% Queue Length, Q_{95} (veh)																0.1
Control Delay (s/veh)																11.1
Level of Service (LOS)																B
Approach Delay (s/veh)													11.1			
Approach LOS													B			

HCS Two-Way Stop-Control Report

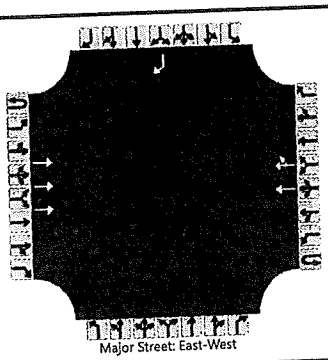
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2025
Time Analyzed	PM Peak
Intersection Orientation	East-West
Project Description	Build Traffic Projections

Site Information

Intersection	Mt Zion and Kroger Drive
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Kroger Access Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	0		0	0	1
Configuration			T				T	TR								R
Volume (veh/h)			913				748	119								62
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized														No		
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.9
Critical Headway (sec)																6.96
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																67
Capacity, c (veh/h)																536
v/c Ratio																0.13
95% Queue Length, Q_{95} (veh)																0.4
Control Delay (s/veh)																12.7
Level of Service (LOS)																B
Approach Delay (s/veh)														12.7		
Approach LOS														B		

2035 No-Build Traffic Projections AM and PM Peak Hour

HCS Two-Way Stop-Control Report

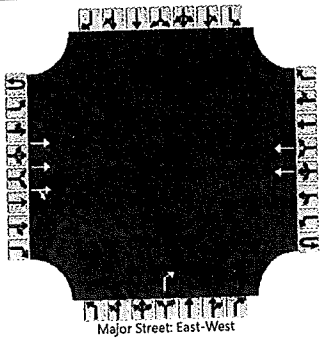
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2035
Time Analyzed	AM Peak
Intersection Orientation	East-West
Project Description	No-Build Traffic Projections

Site Information

Intersection	Mt Zion and Demia
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Demia Way
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			744	16			757					17				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)												7.1				
Critical Headway (sec)												7.16				
Base Follow-Up Headway (sec)												3.9				
Follow-Up Headway (sec)												3.93				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												18				
Capacity, c (veh/h)												500				
v/c Ratio												0.04				
95% Queue Length, Q_{95} (veh)												0.1				
Control Delay (s/veh)												12.5				
Level of Service (LOS)												B				
Approach Delay (s/veh)										12.5						
Approach LOS										B						

HCS Two-Way Stop-Control Report

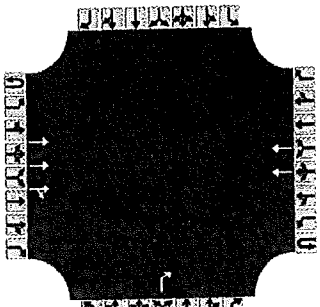
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2035
Time Analyzed	PM Peak
Intersection Orientation	East-West
Project Description	No-Build Traffic Projections

Site Information

Intersection	Mt Zion and Demia
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Demia Way
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			868	19			903					38				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Undivided															

Critical and Follow-up Headways

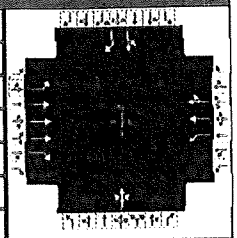
Base Critical Headway (sec)												7.1				
Critical Headway (sec)												7.16				
Base Follow-Up Headway (sec)												3.9				
Follow-Up Headway (sec)												3.93				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												41				
Capacity, c (veh/h)												452				
v/c Ratio												0.09				
95% Queue Length, Q_{95} (veh)												0.3				
Control Delay (s/veh)												13.8				
Level of Service (LOS)												B				
Approach Delay (s/veh)									13.8							
Approach LOS									B							

HCS Signalized Intersection Results Summary

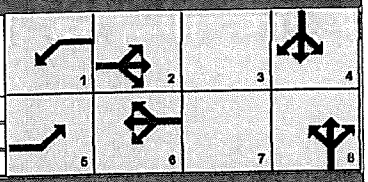
General Information				Intersection Information	
Agency	Bayer Becker			Duration, h	0.250
Analyst	WLW	Analysis Date	9/6/2023	Area Type	Other
Jurisdiction	City of Florence-KYTC	Time Period	AM Peak	PHF	0.92
Urban Street	Mt. Zion Road (KY 536)	Analysis Year	No-Build 2035	Analysis Period	1> 7:00
Intersection	Berberich Road and Lak...	File Name	21-0244 Mt Zion and Lakeside - 2035 NB AM.xus		
Project Description	Existing Geometry, Projected Traffic				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	26	731	3	0	734	27	1	0	0	26	0	28

Signal Information			
Cycle, s	180.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	20.0	84.4	55.1	0.0	0.0	0.0						
Yellow	3.5	4.3	3.6	0.0	0.0	0.0						
Red	3.3	2.0	3.8	0.0	0.0	0.0						



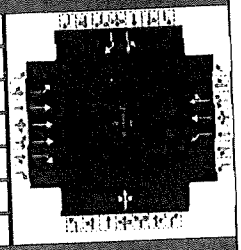
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	3.0	1.1	4.0		8.0		7.0
Phase Duration, s	26.8	117.5	0.0	90.7		62.5		62.5
Change Period, (*Y+R c*), s	6.8	6.3	7.1	6.3		7.4		7.4
Max Allow Headway (*MAH*), s	3.8	3.7	0.0	3.7		3.9		3.9
Queue Clearance Time (*g s*), s	3.2	14.5		28.8		2.1		4.5
Green Extension Time (*g e*), s	0.0	6.7	0.0	6.7		0.2		0.2
Phase Call Probability	1.00	1.00		1.00		1.00		1.00
Max Out Probability	0.00	0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	28	795	3	0	416	411		1			28	30
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1725	1610	1810	1900	1876		1440			1440	1610
Queue Service Time (*g s*), s	1.2	12.5	0.1	0.0	26.8	26.8		0.0			2.4	2.4
Cycle Queue Clearance Time (*g c*), s	1.2	12.5	0.1	0.0	26.8	26.8		0.1			2.5	2.4
Green Ratio (*g/C*)	0.59	0.62	0.62	0.43	0.47	0.47		0.31			0.31	0.31
Capacity (*c*), veh/h	456	3197	995	366	891	880		481			481	493
Volume-to-Capacity Ratio (*X*)	0.062	0.249	0.003	0.000	0.467	0.467		0.002			0.059	0.062
Back of Queue (*Q*), ft/ln (95 th percentile)	22.1	214.1	2.4	0	452.8	448.4		1.6			41.2	44.3
Back of Queue (*Q*), veh/ln (95 th percentile)	0.9	8.6	0.1	0.0	18.1	17.9		0.1			1.6	1.8
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00		0.00			0.00	0.00
Uniform Delay (*d 1*), s/veh	17.7	15.5	13.2	0.0	32.5	32.5		43.4			44.2	44.2
Incremental Delay (*d 2*), s/veh	0.1	0.2	0.0	0.0	0.4	0.4		0.0			0.1	0.1
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	0.0
Control Delay (*d*), s/veh	17.8	15.7	13.2	0.0	32.9	32.9		43.4			44.3	44.2
Level of Service (LOS)	B	B	B		C	C		D			D	D
Approach Delay, s/veh / LOS	15.8	B		32.9	C		43.4	D		44.2	D	
Intersection Delay, s/veh / LOS	25.0						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.68	B	1.93	B	2.46	B	2.60	C
Bicycle LOS Score / LOS	0.94	A	1.17	A	0.49	A	0.58	A

HCS Signalized Intersection Results Summary

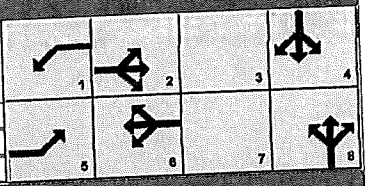
General Information				Intersection Information	
Agency	Bayer Becker			Duration, h	0.250
Analyst	WLW	Analysis Date	9/6/2023	Area Type	Other
Jurisdiction	City of Florence-KYTC	Time Period	PM Peak	PHF	0.92
Urban Street	Mt. Zion Road (KY 536)	Analysis Year	No-Build 2035	Analysis Period	1> 7:00
Intersection	Berberich Road and Lak...	File Name	21-0244 Mt Zion and Lakeside - 2035 NB PM.xus		
Project Description	Existing Geometry, Projected Traffic				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	81	855	1	1	858	27	1	0	1	110	0	96

Signal Information			
Cycle, s	180.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	20.0	2.3	82.1	55.1	0.0	0.0	
Yellow	3.5	0.0	4.3	3.6	0.0	0.0	
Red	3.3	0.0	2.0	3.8	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	3.0	1.1	4.0		8.0		7.0
Phase Duration, s	26.8	88.4	29.1	90.7		62.5		62.5
Change Period, ($Y+R_c$), s	6.8	6.3	7.1	6.3		7.4		7.4
Max Allow Headway (MAH), s	3.8	3.7	2.8	3.7		3.9		3.9
Queue Clearance Time (g_s), s	6.0	23.4	2.0	34.6		2.2		13.3
Green Extension Time (g_e), s	0.1	8.4	0.0	8.4		0.7		0.7
Phase Call Probability	1.00	1.00	1.00	1.00		1.00		1.00
Max Out Probability	0.00	0.01	0.00	0.01		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	88	929	1	1	484	478		2			120	104
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1725	1449	1810	1900	1879		1548			1439	1610
Queue Service Time (g_s), s	4.0	21.4	0.1	0.0	32.6	32.6		0.0			11.2	8.7
Cycle Queue Clearance Time (g_c), s	4.0	21.4	0.1	0.0	32.6	32.6		0.2			11.3	8.7
Green Ratio (g/C)	0.57	0.46	0.46	0.58	0.47	0.47		0.31			0.31	0.31
Capacity (c), veh/h	405	2361	661	467	891	881		504			480	493
Volume-to-Capacity Ratio (X)	0.217	0.394	0.002	0.002	0.543	0.543		0.004			0.249	0.212
Back of Queue (Q), ft/ln (95 th percentile)	76.5	349	1.2	0.9	536.6	532.1		3.1			186.8	159.8
Back of Queue (Q), veh/ln (95 th percentile)	3.1	14.0	0.0	0.0	21.5	21.3		0.1			7.5	6.4
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00		0.00			0.00	0.00
Uniform Delay (d_1), s/veh	21.1	32.5	26.6	17.3	34.1	34.1		43.4			47.3	46.3
Incremental Delay (d_2), s/veh	0.3	0.5	0.0	0.0	0.7	0.7		0.0			0.3	0.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	0.0
Control Delay (d), s/veh	21.4	32.9	26.6	17.3	34.7	34.7		43.4			47.5	46.5
Level of Service (LOS)	C	C	C	B	C	C		D			D	D
Approach Delay, s/veh / LOS	31.9	C		34.7	C		43.4	D		47.1	D	
Intersection Delay, s/veh / LOS	34.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.70	B	1.93	B	2.46	B	2.60	C
Bicycle LOS Score / LOS	1.05	A	1.28	A	0.49	A	0.86	A

HCS Two-Way Stop-Control Report

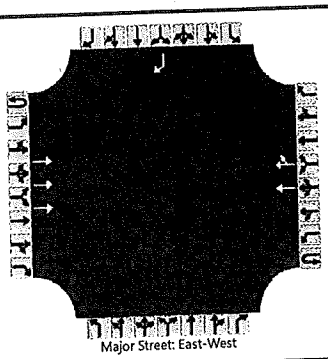
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2035
Time Analyzed	AM Peak
Intersection Orientation	East-West
Project Description	No-Build Traffic Projections

Site Information

Intersection	Mt Zion and Kroger Drive
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Kroger Access Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	0		0	0	1
Configuration			T				T	TR								R
Volume (veh/h)			776				736	40								15
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.9
Critical Headway (sec)																6.96
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																16
Capacity, c (veh/h)																578
v/c Ratio																0.03
95% Queue Length, Q_{95} (veh)																0.1
Control Delay (s/veh)																11.4
Level of Service (LOS)																B
Approach Delay (s/veh)													11.4			
Approach LOS													B			

HCS Two-Way Stop-Control Report

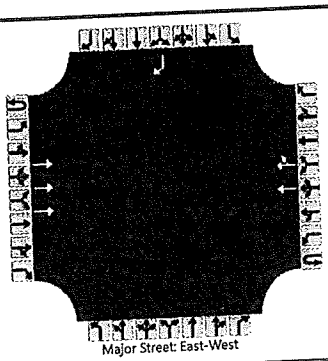
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2035
Time Analyzed	PM Peak
Intersection Orientation	East-West
Project Description	No-Build Traffic Projections

Site Information

Intersection	Mt Zion and Kroger Drive
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Kroger Access Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	0		0	0	1
Configuration			T				T	TR								R
Volume (veh/h)			1019				831	119								62
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized														No		
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.9
Critical Headway (sec)																6.96
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																67
Capacity, c (veh/h)																501
v/c Ratio																0.13
95% Queue Length, Q_{95} (veh)																0.5
Control Delay (s/veh)																13.3
Level of Service (LOS)																B
Approach Delay (s/veh)														13.3		
Approach LOS														B		

2035 BUILD TRAFFIC PROJECTIONS AM AND PM PEAK HOUR

HCS Two-Way Stop-Control Report

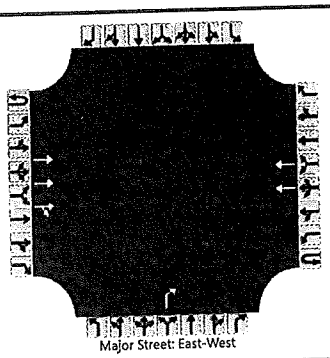
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2035
Time Analyzed	AM Peak
Intersection Orientation	East-West
Project Description	Build Traffic Projections

Site Information

Intersection	Mt Zion and Demia
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Demia Way
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			768	16			780					17				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)												7.1				
Critical Headway (sec)												7.16				
Base Follow-Up Headway (sec)												3.9				
Follow-Up Headway (sec)												3.93				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												18				
Capacity, c (veh/h)												491				
v/c Ratio												0.04				
95% Queue Length, Q_{95} (veh)												0.1				
Control Delay (s/veh)												12.6				
Level of Service (LOS)												B				
Approach Delay (s/veh)										12.6						
Approach LOS										B						

HCS Two-Way Stop-Control Report

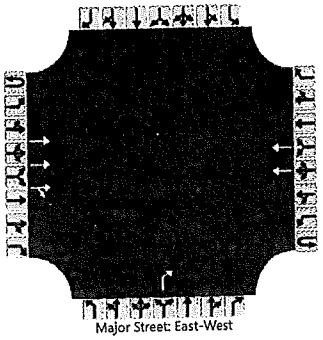
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2035
Time Analyzed	PM Peak
Intersection Orientation	East-West
Project Description	Build Traffic Projections

Site Information

Intersection	Mt Zion and Demia
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Demia Way
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume (veh/h)			884	19			917					38				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type | Storage	Undivided															

Critical and Follow-up Headways

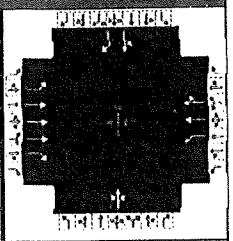
Base Critical Headway (sec)												7.1				
Critical Headway (sec)												7.16				
Base Follow-Up Headway (sec)												3.9				
Follow-Up Headway (sec)												3.93				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												41				
Capacity, c (veh/h)												446				
v/c Ratio												0.09				
95% Queue Length, Q_{95} (veh)												0.3				
Control Delay (s/veh)												13.9				
Level of Service (LOS)												B				
Approach Delay (s/veh)										13.9						
Approach LOS										B						

HCS Signalized Intersection Results Summary

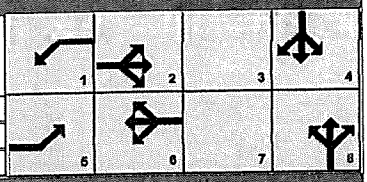
General Information				Intersection Information	
Agency	Bayer Becker			Duration, h	0.250
Analyst	WLW	Analysis Date	9/6/2023	Area Type	Other
Jurisdiction	City of Florence-KYTC	Time Period	AM Peak	PHF	0.92
Urban Street	Mt. Zion Road (KY 536)	Analysis Year	2035 Build	Analysis Period	1> 7:00
Intersection	Berberich Road and Lak...	File Name	21-0244 Mt Zion and Lakeside - 2035 Build AM.xus		
Project Description	Existing Geometry, Projected Traffic				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	26	708	50	49	709	27	47	0	47	26	0	28

Signal Information			
Cycle, s	180.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	20.0	2.3	82.1	55.1	0.0	0.0	
Yellow	3.5	0.0	4.3	3.6	0.0	0.0	
Red	3.3	0.0	2.0	3.8	0.0	0.0	



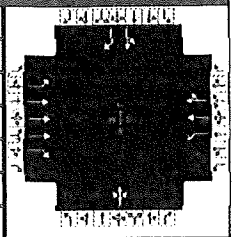
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	3.0	1.1	4.0		8.0		7.0
Phase Duration, s	26.8	88.4	29.1	90.7		62.5		62.5
Change Period, ($Y+R_c$), s	6.8	6.3	7.1	6.3		7.4		7.4
Max Allow Headway (MAH), s	3.8	3.7	2.8	3.7		3.4		3.4
Queue Clearance Time (g_s), s	3.2	19.1	4.3	27.7		10.6		5.1
Green Extension Time (g_e), s	0.0	6.6	0.0	6.6		0.4		0.4
Phase Call Probability	1.00	1.00	1.00	1.00		1.00		1.00
Max Out Probability	0.00	0.00	0.00	0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	28	770	54	53	403	397		102			28	30
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1725	1449	1810	1900	1875		1531			1344	1610
Queue Service Time (g_s), s	1.2	17.1	3.8	2.3	25.7	25.7		5.5			0.0	2.4
Cycle Queue Clearance Time (g_c), s	1.2	17.1	3.8	2.3	25.7	25.7		8.6			3.1	2.4
Green Ratio (g/C)	0.57	0.46	0.46	0.58	0.47	0.47		0.31			0.31	0.31
Capacity (c), veh/h	458	2361	661	518	891	879		499			451	493
Volume-to-Capacity Ratio (X)	0.062	0.326	0.082	0.103	0.452	0.452		0.205			0.063	0.062
Back of Queue (Q), ft/ln (95 th percentile)	23.6	290.2	62.1	43.4	436.8	432.5		157.9			42	45
Back of Queue (Q), veh/ln (95 th percentile)	0.9	11.6	2.5	1.7	17.5	17.3		6.3			1.7	1.8
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00		0.00			0.00	0.00
Uniform Delay (d_1), s/veh	19.0	31.3	27.7	17.4	32.2	32.2		46.2			44.4	44.2
Incremental Delay (d_2), s/veh	0.1	0.4	0.2	0.0	0.4	0.4		0.1			0.1	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	0.0
Control Delay (d), s/veh	19.1	31.6	27.9	17.4	32.6	32.6		46.3			44.5	44.2
Level of Service (LOS)	B	C	C	B	C	C		D			D	D
Approach Delay, s/veh / LOS	31.0	C		31.6	C		46.3	D		44.3	D	
Intersection Delay, s/veh / LOS	32.5						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.70	B	1.93	B	2.46	B	2.60	C
Bicycle LOS Score / LOS	0.96	A	1.19	A	0.66	A	0.58	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Bayer Becker			Duration, h	0.250
Analyst	WLW	Analysis Date	9/6/2023	Area Type	Other
Jurisdiction	City of Florence-KYTC	Time Period	PM Peak	PHF	0.92
Urban Street	Mt. Zion Road (KY 536)	Analysis Year	2035 Build	Analysis Period	1> 7:00
Intersection	Berberich Road and Lak...	File Name	21-0244 Mt Zion and Lakeside - 2035 Build PM.xus		
Project Description	Existing Geometry, Projected Traffic				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	81	836	36	39	837	27	32	0	37	110	0	96

Signal Information					EB		WB				NB			SB		
Cycle, s	180.0	Reference Phase	2													
Offset, s	0	Reference Point	End	Green	20.0	2.3	82.1	55.1	0.0	0.0						
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	3.5	0.0	4.3	3.6	0.0	0.0						
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.3	0.0	2.0	3.8	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	3.0	1.1	4.0		8.0		7.0
Phase Duration, s	26.8	88.4	29.1	90.7		62.5		62.5
Change Period, ($Y+R_c$), s	6.8	6.3	7.1	6.3		7.4		7.4
Max Allow Headway (*MAH*), s	3.8	3.7	2.8	3.7		3.8		3.8
Queue Clearance Time (g_s), s	6.0	22.8	3.8	33.6		7.8		13.8
Green Extension Time (g_e), s	0.1	8.4	0.0	8.4		0.9		0.9
Phase Call Probability	1.00	1.00	1.00	1.00		1.00		1.00
Max Out Probability	0.00	0.01	0.00	0.01		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	88	909	39	42	472	467		75			120	104
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1725	1449	1810	1900	1879		1557			1389	1610
Queue Service Time (g_s), s	4.0	20.8	2.7	1.8	31.6	31.6		0.0			6.0	8.7
Cycle Queue Clearance Time (g_c), s	4.0	20.8	2.7	1.8	31.6	31.6		5.8			11.8	8.7
Green Ratio (*g/C*)	0.57	0.46	0.46	0.58	0.47	0.47		0.31			0.31	0.31
Capacity (*c*), veh/h	412	2361	661	473	891	881		506			465	493
Volume-to-Capacity Ratio (*X*)	0.214	0.385	0.059	0.090	0.530	0.530		0.148			0.257	0.212
Back of Queue (*Q*), ft/ln (95 th percentile)	76.5	341.2	44.2	34.4	522.1	517.2		113.5			189.9	162
Back of Queue (*Q*), veh/ln (95 th percentile)	3.1	13.6	1.8	1.4	20.9	20.7		4.5			7.6	6.5
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00		0.00			0.00	0.00
Uniform Delay (d_1), s/veh	20.9	32.3	27.4	17.7	33.8	33.8		45.3			47.4	46.3
Incremental Delay (d_2), s/veh	0.3	0.5	0.2	0.0	0.6	0.6		0.0			0.3	0.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	0.0
Control Delay (*d*), s/veh	21.2	32.8	27.5	17.7	34.4	34.4		45.4			47.7	46.5
Level of Service (LOS)	C	C	C	B	C	C		D			D	D
Approach Delay, s/veh / LOS	31.6	C		33.7	C		45.4	D		47.2	D	
Intersection Delay, s/veh / LOS	34.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.70	B	1.93	B	2.46	B	2.60	C
Bicycle LOS Score / LOS	1.06	A	1.30	A	0.61	A	0.86	A

HCS Two-Way Stop-Control Report

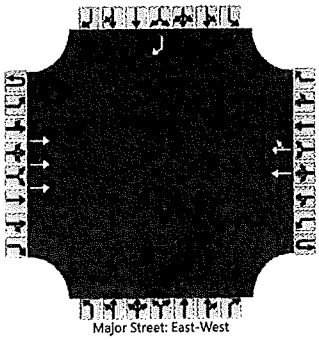
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2035
Time Analyzed	AM Peak
Intersection Orientation	East-West
Project Description	Build Traffic Projections

Site Information

Intersection	Mt Zion and Kroger Drive
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Kroger Access Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	0		0	0	1
Configuration			T				T	TR								R
Volume (veh/h)			799				760	40								15
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized														No		
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.9
Critical Headway (sec)																6.96
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																16
Capacity, c (veh/h)																567
v/c Ratio																0.03
95% Queue Length, Q_{95} (veh)																0.1
Control Delay (s/veh)																11.5
Level of Service (LOS)																B
Approach Delay (s/veh)														11.5		
Approach LOS														B		

HCS Two-Way Stop-Control Report

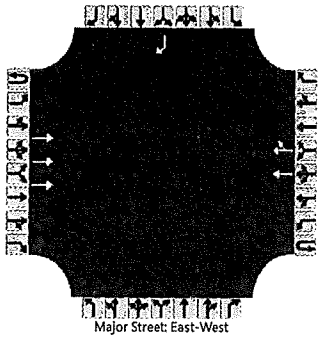
General Information

Analyst	WLW
Agency/Co.	Bayer Becker
Date Performed	9/7/2023
Analysis Year	2035
Time Analyzed	PM Peak
Intersection Orientation	East-West
Project Description	Build Traffic Projections

Site Information

Intersection	Mt Zion and Kroger Drive
Jurisdiction	City of Florence-KYTC
East/West Street	Mt Zion Road
North/South Street	Kroger Access Drive
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	3	0	0	0	2	0		0	0	0		0	0	1
Configuration			T				T	TR								R
Volume (veh/h)			1035				848	119								62
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.9
Critical Headway (sec)																6.96
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																67
Capacity, c (veh/h)																494
v/c Ratio																0.14
95% Queue Length, Q_{95} (veh)																0.5
Control Delay (s/veh)																13.4
Level of Service (LOS)																B
Approach Delay (s/veh)													13.4			
Approach LOS													B			

ORDINANCE 2023-27

AN ORDINANCE OF THE BOONE COUNTY FISCAL COURT, KENTUCKY RECOMMENDING APPROVAL, WITH CONDITIONS, FOR A REQUEST OF KMK LAW, PER JAMES PARSONS (APPLICANT) FOR MT. ZION MHC LP, PER KURTIS P. KEENEY (OWNER) FOR A ZONING MAP AMENDMENT FROM MOBILE HOME PARK (MHP) TO COMMERCIAL FOUR (C-4), INCLUDING THE FOLLOWING VARIANCES: (1) REDUCING THE BUFFER YARD A WIDTH FROM TEN (10) FEET TO ONE (1) FOOT ALONG MT ZION ROAD; (2) REDUCING THE BUFFER YARD A WIDTH FROM TEN (10) FEET TO ONE (1) FOOT ALONG CARPENTER DRIVE; AND (3) REDUCING THE REAR YARD BUILDING SETBACK FROM FIFTY (50) FEET TO THIRTY-EIGHT (38) FEET, FOR AN APPROXIMATE 1 ACRE AREA LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF MT ZION ROAD AND LAKESIDE DRIVE, INCLUDING THE PROPERTIES AT 266, 270, 274, 278, 282, 286, AND 290 CARPENTER DRIVE AND 10006 WEST GARLAND COURT, BOONE COUNTY, KENTUCKY.

WHEREAS, the Boone County Planning Commission received a request for Zoning Map Amendment from Mobile Home Park (MHP) to Commercial Four (C-4) and including the following variances: (1) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Mt Zion Road; (2) reducing the Buffer Yard A width from ten (10) feet to one (1) foot along Carpenter Drive; and (3) reducing the rear yard building setback from fifty (50) feet to thirty-eight (38) feet, for an approximate 1 acre area located at the southeast corner of the intersection of Mt Zion Road and Lakeside Drive, including the properties at 266, 270, 274, 278, 282, 286, and 290 Carpenter Drive and 10006 West Garland Court, Boone County, Kentucky, which is more particularly described below; and,

WHEREAS, the Boone County Planning Commission as the planning unit for the unincorporated areas of Boone County, Kentucky, was requested to and has conducted a Public Hearing serving as a due process trial-type hearing and made Findings of Fact recommending approval, with Conditions, for the Zoning Map Amendment and Variances.

NOW, THEREFORE, BE IT ORDAINED BY THE FISCAL COURT OF COUNTY OF BOONE, COMMONWEALTH OF KENTUCKY:

Section One

That the request for a Zoning Map Amendment for the real estate which is more particularly described below is hereby approved, with conditions, this a Zoning Map Amendment from Mobile Home Park (MHP) to Commercial Four (C-4) for an approximate 1 acre area located at the southeast corner of the intersection of Mt Zion Road and Lakeside Drive, including the properties at 266, 270, 274, 278, 282, 286, and 290 Carpenter Drive and 10006 West Garland Court, Boone County, Kentucky and corresponding variances, finally approved by the Planning Commission subject to approval of the zoning map amendment by the Fiscal Court. The real estate which is the subject of this request for a Zoning Map Amendment in a Mobile Home Park (MHP) zone is more particularly described in DEED BOOK: 1187, PAGE NO: 362 (as supplied by the applicant) as recorded in the Boone County Clerk's office.

Section Two

That as a basis for the recommendation of approval, with Conditions, for a Zoning Map Amendment from Mobile Home Park (MHP) to Commercial Four (C-4) for an approximate 1 acre area located at the southeast corner of the intersection of Mt Zion Road and Lakeside Drive, including the properties at 266, 270, 274, 278, 282, 286, and 290 Carpenter Drive and 10006 West Garland Court, Boone County, Kentucky, Boone County, Kentucky and corresponding variances, finally approved by the Planning Commission subject to approval of the zoning map amendment by the Fiscal Court, are the Findings of Fact, and Conditions, of the Boone County Planning Commission as set forth in its minutes and official records for this request shall be and are hereby incorporated by reference as if fully set out in this Ordinance and marked as "Exhibit A."

The Committee recommended approval for these requests based on the Findings of Fact and Conditions as set forth in the Committee Report and marked as "Exhibit B."

Section Three

This Ordinance shall be in effect and in full force from and after its passage, publication and adoption, according to law.

First Reading the 19th day of December 2023

Second Reading the 9th day of January 2024

Adopted this 9th **day of** January **2024** **Yes** 4 **No** 0

Gary W. Moore

Gary W. Moore, Judge/Executive
Boone County Fiscal Court

ATTEST:

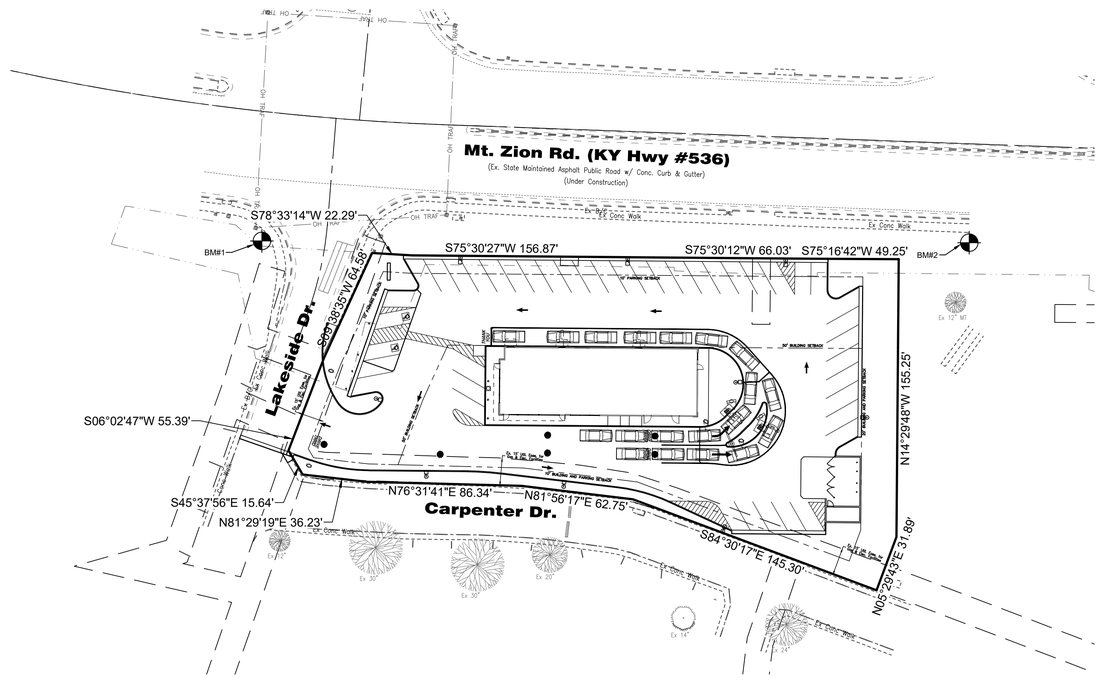
Shona Schulkers

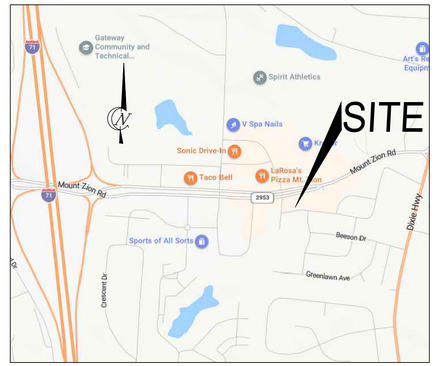
Shona Schulkers,
Fiscal Court Clerk

McDONALD'S USA, LLC
L/C# 16-1002
MT. ZION ROAD
CITY OF FLORENCE
BOONE COUNTY, KENTUCKY

KENTUCKY UNDERGROUND PROTECTION, INC. CALL 2 WORKING DAYS BEFORE YOU DIG 1-800-752-6007

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN HAVE BEEN OBTAINED BY FIELD CHECKS AND INFORMATION PROVIDED BY THE UTILITY COMPANIES. IT IS BELIEVED THAT THEY ARE CORRECT BUT THE PREPARER DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS. THEREFORE, ALL UNDERGROUND UTILITIES SHALL BE FIELD LOCATED PRIOR TO CONSTRUCTION. FOR MORE INFORMATION USE NUMBER SHOWN.





VICINITY MAP - NTS

SITE SUMMARY

LOT ACREAGE:	1.06 ACRES
EXISTING ZONING:	MHP (MOBILE HOME PARK)
PROPOSED ZOING:	C-4 (COMMERCIAL-FOUR)
GROSS FLOOR AREA:	4235 SQUARE FEET
PARKING REQUIREMENTS:	1 SPACE FOR EVERY 2 SEATS INCLUDING WAIT AREA SEATING PLUS 1 SPACE FOR EACH 20 SF OF OPEN WAIT AREA
REQUIRED PARKING:	38 SPACES
PROVIDED PARKING:	
STANDARD	41 SPACES
ACCESSIBLE	2 SPACES
TOTAL	43 SPACES

UTILITY COMPANIES

Gas
Duke Energy
Contact: Wade Begley
1262 Cox Rd.
Erlanger, KY 41018
859-534-4453

Sanitary Sewer
Sanitation District No. 1
Contact: Greg Haggard
1045 Eaton Drive
Ft. Wright, KY 41017
859-578-7450

Water Main
Boone County Water District
Contact: Mike Rouse
2475 Burlington Pike
Burlington, KY 41005
859-586-6155

Storm
Sanitation District No. 1
Contact: Andy Aman
1045 Eaton Drive
Ft. Wright, KY 41017
859-578-6880

Electric
Duke Energy
Contact: Zach Howell
1262 Cox Rd.
Erlanger, KY 41018
859-534-4445

Telephone
Cincinnati Bell Telephone
Contact: Bill Savitz
221 East 4th Street
Cincinnati, OH 45202
513-565-7187

Cable TV
Insite Communications
7906 Dixie Highway
Florence, KY 41042
859-431-7766

SHEET INDEX

OWNER

McDONALD'S CORPORATION
2 EASTON OVAL, SUITE 200
COLUMBUS, OHIO 43219

SURVEYOR, CIVIL ENGINEER & LANDSCAPE ARCHITECT

BAYER BECKER
6900 TYLERSVILLE ROAD, SUITE A
MASON, OHIO 45040
513-336-6600

BENCHMARK #1

IRON PIN ON SOUTHWEST SIDE
ON MOUNT ZION RD
N:530478.417
E:1533540.713
ELEVATION=940.43

BENCHMARK #2

IRON PIN ON SOUTHEAST SIDE
ON MOUNT ZION RD
N:530579.652
E:1533922.963
ELEVATION=942.32

Zoning Map Amendment and Variances
APPROVED - with conditions
By Steven C. Lilly, PLS Nov. 15, 2023
Boone County Planning Commission

REV	DATE	DESCRIPTION	BY
1	9-05-23	REVISE PER COUNTY COMMENTS	GJK

bayer becker
www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

L/C# 16-1002

McDonald's®

PROPOSED McDONALD'S RESTAURANT AT:
MT. ZION ROAD
FLORENCE, BOONE COUNTY, KENTUCKY

JOB NO. 21-0244

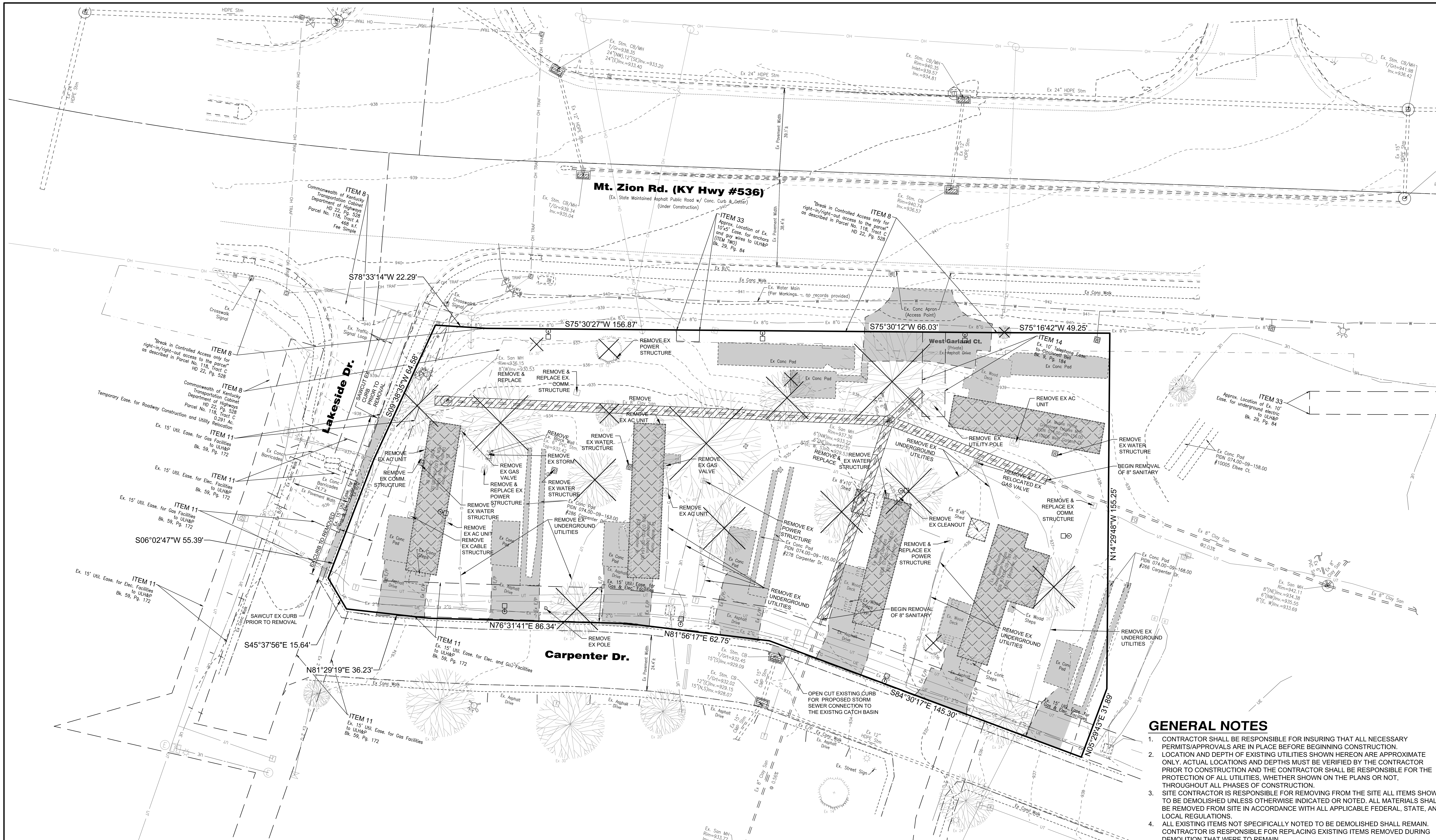
DATE: 5-22-23

SCALE: 1"=40'

TITLE SHEET

SHEET: C1.0

Plot time: Sep 05, 2023 - 3:03pm - Login Name: gregkoch
Drawing name: J:\2021\21-0244\DWGs\21-0244 CD.dwg - Layout Tab: CD's



LEGEND

(tree symbol)	EX. TREE TO BE REMOVED
(shaded box)	EXISTING CONCRETE CURB, CONCRETE WALK, CONCRETE PAVEMENT, WOOD DECKING, AND ASPHALT PAVEMENT TO BE REMOVED
(cross-hatched box)	EXISTING BUILDINGS TO BE RELOCATED BY SELLER
(hatched box)	EXISTING SANITARY MAIN AND SANITARY LATERAL TO BE REMOVED

GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING THAT ALL NECESSARY PERMITS/APPROVALS ARE IN PLACE BEFORE BEGINNING CONSTRUCTION.
2. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, THROUGHOUT ALL PHASES OF CONSTRUCTION.
3. SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING FROM THE SITE ALL ITEMS SHOWN TO BE DEMOLISHED UNLESS OTHERWISE INDICATED OR NOTED. ALL MATERIALS SHALL BE REMOVED FROM SITE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
4. ALL EXISTING ITEMS NOT SPECIFICALLY NOTED TO BE DEMOLISHED SHALL REMAIN. CONTRACTOR IS RESPONSIBLE FOR REPLACING EXISTING ITEMS REMOVED DURING DEMOLITION THAT WERE TO REMAIN.
5. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT, CURBS, AND SIDEWALKS AT NEW PAVEMENT, CURB, AND SIDEWALK JUNCTURES, NO JAGGED OR IRREGULAR CUTS WILL BE ACCEPTED.
6. ALL NECESSARY EROSION CONTROL MEASURES ARE TO BE IN PLACE PRIOR TO CONSTRUCTION/DEMOLITION. EROSION CONTROL MEASURES ARE TO BE MAINTAINED AND IN WORKING CONDITION AT ALL TIMES.

Basis of Bearing:
State Plane NAD83 (2011)

0 10 20 30
SCALE: 1" = 20'

811
Know what's below.
Call before you dig.

CAUTION!!!
ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

REV	DATE	DESCRIPTION	BY

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MT. ZION ROAD
FLORENCE, BOONE COUNTY, KENTUCKY

JOB NO. 21-0244

DATE: 5-22-23

SCALE: 1"=20'

DEMOLITION PLAN

SHEET: C2.0

Plot time: Sep 05, 2023 – 3:04pm – Login Name: gregkoch
Drawing name: J:\2021\21-0244\CV\DWG\21-0244 CD.dwg – Layout Tab: CD's

Mt. Zion Rd. (KY Hwy #536)
(Ex. State Maintained Asphalt Public Road w/ Conc. Curb & Gutter)
(Under Construction)

Ex. Pavement Width 39.1'±

Ex. Pavement Width 38.4'±

Ex. Conc Walk

Ex. Conc Apron (Access Point)

Ex. Crosswalk Signal

Ex. Traffic Signal Loop

Lakeside Dr.

Ex. Crosswalk Signal

DIRECTIONAL SIGN AND FOUNDATION

PULL FORWARD SIGNS

PERMANENT BARRIER 2' WIDE CONCRETE CURB

Ex. Conc Walk

Ex. Pavement Width 24.4'±

DRIVE

50' BUILDING SETBACK

10' PARKING SETBACK

10' BUILDING AND PARKING SETBACK

DIRECTIONAL SIGN AND FOUNDATION

Carpenter Dr.

Ex. Pavement Width 24.4'±

Ex. Conc Walk

Ex. Asphalt Drive

Ex. Asphalt Drive

Ex. Asphalt Drive

Ex. Asphalt Drive

Ex. T/P

Ex. Conc Walk

Ex. Street Sign

Ex. Conc Walk

Ex. 12" M

Ex. Conc. Pad PIDN 074.00-09-158.00 #10005 Eakes Ct.

THANK YOU

CENTERLINE OF PICKUP WINDOW #2

CENTERLINE OF PICKUP WINDOW #1

CENTERLINE OF CASH WINDOW

38111 BUILDING
FF=936.30

MOBILE ORDER SIGN

FLAG POLE & FOUNDATION

MOBILE ORDER SIGNS

100' FROM FROM PRIMARY DRIVE THRU CANOPY TO CASH WINDOW

DIGITAL MENU BOARD AND FOUNDATION

ORDER HERE CANOPY AND FOUNDATION

PRE-BROWSE MENU BOARD AND FOUNDATION

DIGITAL MENU BOARD AND FOUNDATION

20' BUILDING AND PARKING SETBACK

WELCOME POINT GATEWAY PYLON AND FOUNDATION

ORDER HERE CANOPY AND FOUNDATION

PRE-BROWSE MENU BOARD AND FOUNDATION

TRASH ENCLOSURE SEE ARCHITECTURAL PLAN FOR DETAILS

SHED
FF=936.40

LEGEND

MOBILE ORDER PARKING SPACES

PULL FORARD PARKING SPACES

Basis of Bearing:
State Plane NAD83 (2011)

SCALE: 1" = 20'

REV	DATE	DESCRIPTION	BY

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McDonald's®

PROPOSED McDONALD'S RESTAURANT AT:
MT. ZION ROAD
FLORENCE, BOONE COUNTY, KENTUCKY

JOB NO. 21-0244

DATE: 11-16-23

SCALE: 1"=20'

SITE PLAN

SHEET: 1 OF 1

Plot time: Nov 16, 2023 - 9:55am — Login Name: gregkoch
Drawing name: J:\2021\21-0244\DWGS\21-0244 CD.dwg — Layout Tab: CD's

Mt. Zion Rd. (KY Hwy #536)
(Ex. State Maintained Asphalt Public Road w/ Conc. Curb & Gutter)
(Under Construction)

Carpenter Dr.

Lakeside Dr.

38111 BUILDING
FF=936.30

SHED
FF=936.40

DIRECTIONAL SIGN AND FOUNDATION

PULL FORWARD SIGNS

PERMANENT BARRIER 2' WIDE CONCRETE CURB

CENTERLINE OF PICKUP WINDOW #2

CENTERLINE OF PICKUP WINDOW #1

CENTERLINE OF CASH WINDOW

MOBILE ORDER SIGN

FLAG POLE & FOUNDATION

MOBILE ORDER SIGNS

DIGITAL MENU BOARD AND FOUNDATION

ORDER HERE CANOPY AND FOUNDATION

PRE-BROWSE MENU BOARD AND FOUNDATION

100' FROM FROM PRIMARY DRIVE THRU CANOPY TO CASH WINDOW

DIGITAL MENU BOARD AND FOUNDATION

ORDER HERE CANOPY AND FOUNDATION

PRE-BROWSE MENU BOARD AND FOUNDATION

WELCOME POINT
~~GATEWAY PYLON~~
AND FOUNDATION

TRASH ENCLOSURE
SEE ARCHITECTURAL PLAN
FOR DETAILS

DIRECTIONAL SIGN AND FOUNDATION

10' PARKING SETBACK

50' BUILDING SETBACK

10' BUILDING AND PARKING SETBACK

20' BUILDING AND PARKING SETBACK

Ex. Pavement Width 39.1'±

Ex. Pavement Width 38.4'±

Ex. Pavement Width 24'±

Ex. Crosswalk Signal

Ex. Traffic Signal Loop

Ex. Conc Walk

Ex. Conc Apron (Access Point)

Ex. Asphalt Drive

Ex. Conc. Pad PIDN 074.00-09-158.00 #10005 Ebee Ct.

Ex. Street Sign

Ex. 12" M

Ex. 30"

Ex. 24"

Ex. 18"

Basis of Bearing:
State Plane NAD83 (2011)

0 20 30
SCALE: 1" = 20'

REV	DATE	DESCRIPTION	BY

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FLORENCE, BOONE COUNTY, KENTUCKY

JOB NO. 21-0244

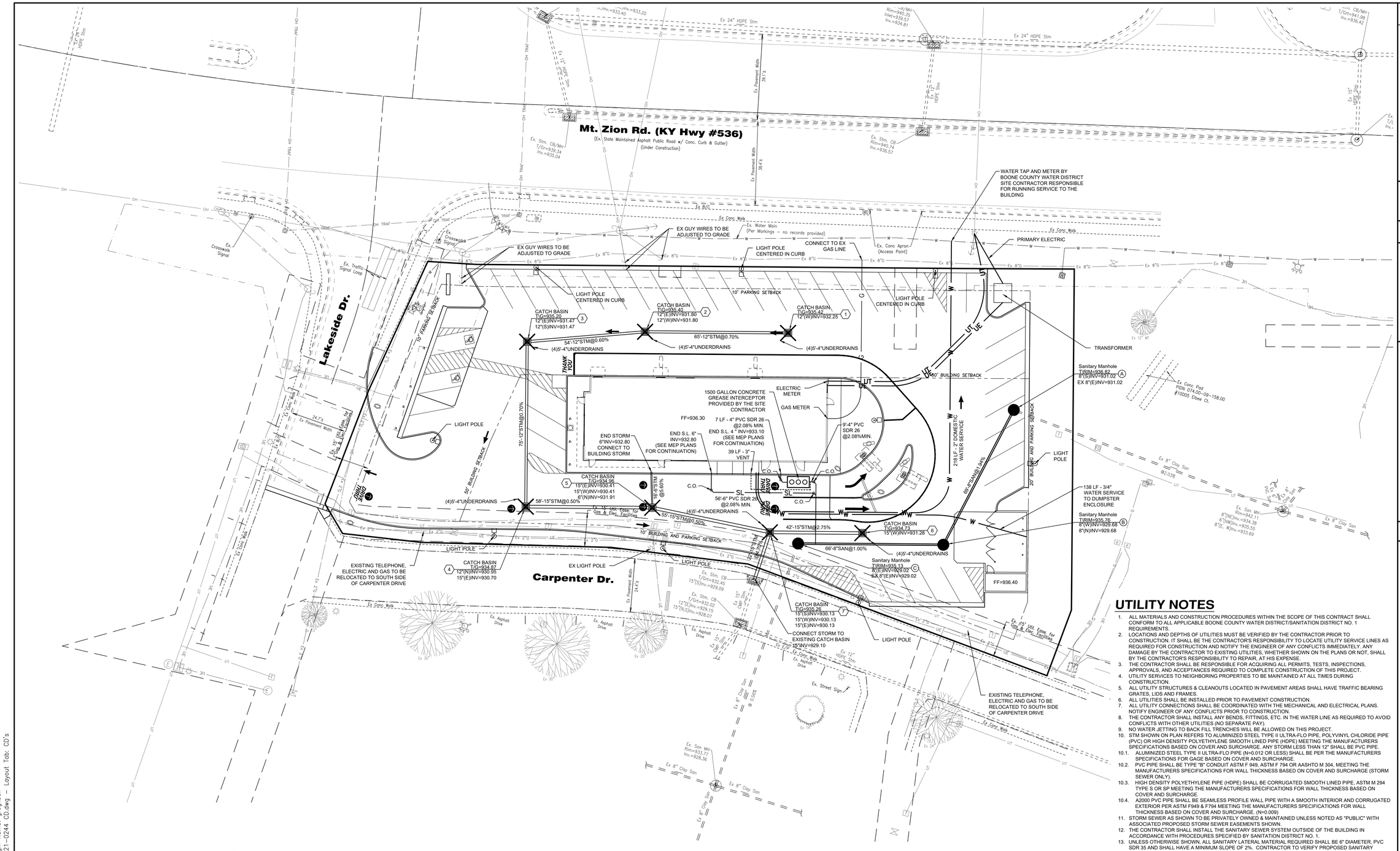
DATE: 11-16-23

SCALE: 1"=20'

TRUCK TURNING

SHEET: 1 OF 1

Plot time: Nov 16, 2023 - 9:23am - Login Name: gregkoch
Drawing name: J:\2021\21-0244\CAD\DWG\21-0244 CD.dwg - Layout Tab: CD's



Basis of Bearing:
State Plane NAD83 (2011)

0 20 30

SCALE: 1" = 20'

811 Know what's below. Call before you dig.

CAUTION!!!
ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

POST CONSTRUCTION WATER QUALITY NOTES

1. THE OWNER IS RESPONSIBLE FOR PROPER MAINTENANCE OF THE PERMANENT WATER QUALITY SYSTEM ON THE SITE PER THE APPROVAL AND WILL COMPLETE ANY NECESSARY REPAIRS AND/OR PREVENTIVE MAINTENANCE PROCEDURES IN A TIMELY MANNER TO ENSURE PROPER FUNCTIONING OF THE SYSTEM AS A STORM WATER MANAGEMENT DEVICE.
2. CATCH BASIN FILTER INSERTS SHALL BE PROVIDED FOR ALL ONSITE CATCH BASIN IN PAVEMENT AREAS (STRUCTURES 1,2, 3, 4, 5, 6 AND 7). INSERTS SHALL BE ENPAC STORM SENTINEL OR APPROVED EQUAL, SEE SHEET C5.1 FOR DETAIL.
3. ON AVERAGE, THREE CLEANOUTS OF THE FILTER INSERTS AND ONE CHANGE OUT OR REPLACEMENT OF THE INSERTS SHALL BE PERFORMED PER YEAR. MAINTENANCE FREQUENCY SHALL BE ADJUSTED FOR CATCH BASIN INSERTS PLACED IN AREAS OF GREATER OR LESSER POLLUTANT LOADING.

POST CONSTRUCTION WATER QUALITY NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL SANITARY BYPASS PUMPING.
2. THE CONTRACTOR SHALL FURNISH ALL PUMPING EQUIPMENT, LABOR, TRAFFIC CONTROL, CONDUITS, FITTINGS, BARRICADES, SAFETY EQUIPMENT, POWER AND OTHER NECESSARY MATERIALS AND EQUIPMENT TO MAINTAIN WASTE WATER FLOWS IN THE SEWER BY MEANS OF BYPASS PUMPING AROUND THE SEWER SEGMENT TO MAINTAIN FLOW CONTINUOUSLY AND PREVENT BACKUPS UNTIL REHABILITATION WORK IS COMPLETED.
3. CONTRACTOR TO COORDINATE BY-PASS PUMPING AND CONNECTIONS WITH THE SANITATION DISTRICT NO. 1 (SD1).

UTILITY NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL CONFORM TO ALL APPLICABLE BOONE COUNTY WATER DISTRICT/SANITATION DISTRICT NO. 1 REQUIREMENTS.
2. LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY CONFLICTS IMMEDIATELY. ANY DAMAGE BY THE CONTRACTOR TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BY THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, INSPECTIONS, APPROVALS, AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
4. UTILITY SERVICES TO NEIGHBORING PROPERTIES TO BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
5. ALL UTILITY STRUCTURES & CLEANOUTS LOCATED IN PAVEMENT AREAS SHALL HAVE TRAFFIC BEARING GRATES, LIDS AND FRAMES.
6. ALL UTILITIES SHALL BE INSTALLED PRIOR TO PAVEMENT CONSTRUCTION.
7. ALL UTILITY CONNECTIONS SHALL BE COORDINATED WITH THE MECHANICAL AND ELECTRICAL PLANS. NOTIFY ENGINEER OF ANY CONFLICTS PRIOR TO CONSTRUCTION.
8. THE CONTRACTOR SHALL INSTALL ANY BENDS, FITTINGS, ETC. IN THE WATER LINE AS REQUIRED TO AVOID CONFLICTS WITH OTHER UTILITIES (NO SEPARATE PAY).
9. NO WATER JETTING TO BACK FILL TRENCHES WILL BE ALLOWED ON THIS PROJECT.
10. STM SHOWN ON PLAN REFERS TO ALUMINIZED STEEL TYPE II ULTRA-FLO PIPE, POLYVINYL CHLORIDE PIPE (PVC) OR HIGH DENSITY POLYETHYLENE SMOOTH LINED PIPE (HDPE) MEETING THE MANUFACTURERS SPECIFICATIONS BASED ON COVER AND SURCHARGE. ANY STORM LESS THAN 12" SHALL BE PVC PIPE.
- 10.1. ALUMINIZED STEEL TYPE II ULTRA-FLO PIPE (N=0.012 OR LESS) SHALL BE PER THE MANUFACTURERS SPECIFICATIONS FOR GAGE BASED ON COVER AND SURCHARGE.
- 10.2. PVC PIPE SHALL BE TYPE "B" CONDUIT ASTM F 949, ASTM F 794 OR AASHTO M 304, MEETING THE MANUFACTURERS SPECIFICATIONS FOR WALL THICKNESS BASED ON COVER AND SURCHARGE (STORM SEWER ONLY).
- 10.3. HIGH DENSITY POLYETHYLENE PIPE (HDPE) SHALL BE CORRUGATED SMOOTH LINED PIPE, ASTM M 294 TYPE S OR SP MEETING THE MANUFACTURERS SPECIFICATIONS FOR WALL THICKNESS BASED ON COVER AND SURCHARGE.
- 10.4. A2000 PVC PIPE SHALL BE SEAMLESS PROFILE WALL PIPE WITH A SMOOTH INTERIOR AND CORRUGATED EXTERIOR PER ASTM F949 & F794 MEETING THE MANUFACTURERS SPECIFICATIONS FOR WALL THICKNESS BASED ON COVER AND SURCHARGE. (N=0.009)
11. STORM SEWER AS SHOWN TO BE PRIVATELY OWNED & MAINTAINED UNLESS NOTED AS "PUBLIC" WITH ASSOCIATED PROPOSED STORM SEWER EASEMENTS SHOWN.
12. THE CONTRACTOR SHALL INSTALL THE SANITARY SEWER SYSTEM OUTSIDE OF THE BUILDING IN ACCORDANCE WITH PROCEDURES SPECIFIED BY SANITATION DISTRICT NO. 1.
13. UNLESS OTHERWISE SHOWN, ALL SANITARY LATERAL MATERIAL REQUIRED SHALL BE 6" DIAMETER, PVC SDR 35 AND SHALL HAVE A MINIMUM SLOPE OF 2%. CONTRACTOR TO VERIFY PROPOSED SANITARY SEWER SIZE & LATERAL ELEVATION WITH MEP PLANS.
14. ALL SPOIL AND OTHER UNSUITABLE MATERIAL FROM THIS WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, AT THEIR EXPENSE.
15. ALL SERVICES ARE BROUGHT TO WITHIN 5 FEET OF THE BUILDING. BUILDING CONTRACTOR SHALL INCLUDE IN THEIR BID THE COST TO CONNECT ALL SERVICES TO THE BUILDING.
16. CLEAN OUTS SHALL BE INSTALLED IN ACCORDANCE WITH THE PLUMBING CODE AND AS DIRECTED BY SANITATION DISTRICT NO. 1 INSPECTOR. ALL CLEAN OUT TOPS SHALL INSTALLED AT LEAST 2" ABOVE FINISHED GRADE OUTSIDE PAVEMENT AND FLUSH WITH FINISHED GRADE WITHIN THE PAVEMENT AREAS.
17. THE DOMESTIC WATER SEWER SHALL BE POLYETHLENE PIPE FROM THE METER PIT TO THE BUILDING.
18. A MINIMUM OF 3'-0" COVER SHALL BE MAINTAINED ON ALL WATER & SERVICE LINES.
19. PROVIDE GRANULAR CLASS B PIPE BEDDING THROUGHOUT. BACKFILL ALL TRENCHES UNDER SLABS, WALKS, AND PAVED AREAS WITH DENSE GRADED AGGREGATE OR CRUSHED STONE. ALL EXCAVATING AND BACKFILLING IS BY INDIVIDUAL CONTRACTORS (PLUMBING, ELECTRICAL, ETC.).
20. CONTRACTOR SHALL STORE CONSTRUCTION MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS TO PREVENT DELETERIOUS MATERIALS FROM BECOMING AFFIXED OR DETERIORATION FROM SUN EXPOSURE.
21. EXISTING UTILITIES LOCATED ALONG THE NORTH SIDE OF CARPENTER DR RUNNING THROUGH THE SITE ARE TO BE RELOCATED TO THE SOUTH SIDE OF CARPENTER DR DURING CONSTRUCTION.

REV	DATE	DESCRIPTION	BY
1	9-05-23	REVISE PER COUNTY COMMENTS	GJK

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PROPOSED McDONALD'S RESTAURANT AT:
MT. ZION ROAD
FLORENCE, BOONE COUNTY, KENTUCKY

JOB NO. 21-0244

DATE: 5-22-23

SCALE: 1"=20'

UTILITY PLAN

SHEET: C4.0

Plot time: Sep 05, 2023 - 3:05pm – Login Name: gregkoch
Drawing name: J:\2021\21-0244\CIVIL\21-0244 C0.dwg – Layout Tab: C0's

GENERAL NOTES

SEE SHEET 2 FOR PLANT SCHEDULE AND PLANTING PLAN. SEE SHEET 3 FOR PLANTING NOTES & DETAILS.

ZONING NOTES:

PLANT MATERIAL TYPE		MINIMUM INSTALL
• PLANT LIST A TREES	(LRG DECIDUOUS 50'+ MATURE HEIGHT)	= 2.0" CALIPER
• PLANT LIST B TREES	(MED DECIDUOUS 30-50' MATURE HEIGHT)	= 2.0" CALIPER
• PLANT LIST C TREES	(SML DECIDUOUS 10-30' MATURE HEIGHT)	= 1.5" CALIPER
• PLANT LIST C SHRUBS	(TALL DECIDUOUS SHRUBS)	= 24" HEIGHT
• PLANT LIST D TREES	(EVERGREEN)	= 6.0' HEIGHT
• PLANT LIST E SHRUBS	(SMALL/LOW SHRUBS)	= 3 GALLON

SECTION 3610: GENERAL REQUIREMENTS

- EXISTING ZONING: C-3/PD/PO
- ADJACENT NORTH: MT ZION ROAD (KY HWY 536)
- ADJACENT SOUTH: CARPENTER DRIVE (PRIVATE)
- ADJACENT EAST: MHP - TO BE RE-ZONED TO C-3
- ADJACENT WEST: LAKESIDE DRIVE (PRIVATE)

SECTION 3618: SIGHT TRIANGLES

NO PLANT MATERIAL TALLER THAN THREE AND ONE HALF (3.5) FEET IS PROHIBITED IN SIGHT TRIANGLES

SECTION 3620: LANDSCAPING ALONG STREET FRONTAGES

- BUFFER YARD 'A' ALONG STREET FRONTAGE
  - (5) 'C' TREES OR (3) 'A', 'B', OR 'D' TREES PER 100 LF OF STREET FRONTAGE
  - **'C' TREES REQUIRED WHEN UNDER OVERHEAD POWER LINE**
  - (30) 'E' SHRUBS OR (15) 'C' SHRUBS PER 100 LF OF STREET FRONTAGE (ELIMINATED IF BUFFER YARD IS (30)' & REDUCED BY HALF IF BUFFER YARD IS (20'))

SOUTH: CARPENTER DRIVE = 346.1 LF

346.1 LF / 100 LF = **3.46**
3.46 X 5 'C' TREES **= 17 'C' TREES OR 10 'A', 'B' & 'D' TREES**
3.46 X 30 'E' SHRUBS **= 104 'E' SHRUBS OR 53 'C' SHRUBS**

8 'A' & 3 'C' TREES PROVIDED
80 'E' & 12 'C' SHRUBS PROVIDED

WEST: LAKESIDE DRIVE - 120 LF - 31 LF DRIVE **= 89.0 LF**

89.0 LF / 100 LF = **.89**
.89 X 5 'C' TREES = **5 'C' TREES OR 3 'A', 'B' & 'D' TREES**
.89 X 30 'E' SHRUBS = **27 'E' SHRUBS OR 13 'C' SHRUBS**

3 'A' TREES PROVIDED
27 'E' SHRUBS PROVIDED

NORTH: MT. ZION ROAD (KY HIGHWAY 536) = 284.4 LF

284.4 LF / 100 LF = **2.84**
2.84 X 5 'C' TREES = 14 'C' OR 9 'A', 'B' & 'D' TREES
6 'A' & 4 'C' TREES PROVIDED

194.1 (30' WIDE BUFFER) - NO SHRUBS REQUIRED
90.3 LF (20' WIDE BUFFER) - 50% SHRUBS REQUIRED
90.3 LF / 100 LF = **.90**
.90 X 30 'E' SHRUBS = **27 'E' OR 13 'C' SHRUBS / 2**
= 14 'E' OR 7 'C' SHRUBS REQUIRED

9 'E' & 2 'C' SHRUBS PROVIDED

SECTION 3625: INTERIOR LANDSCAPING FOR VEHICULAR AREAS

- A MINIMUM OF FIVE PERCENT (5%) OF VEHICULAR USE AREA SHALL BE LANDSCAPED. ONLY REQUIRED FOR SITES WITH FIFTY (50) OR MORE PARKING SPACES.
  - 53 PARKING SPACES PROVIDED
  - 28,987 SQ FT X 5% = **1,450 SQ FT INTERIOR LANDSCAPING REQUIRED**
    1,586 SQ FT INTERIOR LANDSCAPING PROVIDED

SECTION 3630: BUILDING LANDSCAPING

- ANY BLANK FACADE OR PORTION OF A FACADE NOT USED FOR OUTDOOR DISPLAY, STORAGE, OR LOADING/UNLOADING SHALL PROVIDE LANDSCAPING IF VISIBLE FROM THE PUBLIC R.O.W.
- (1) 'A', 'B', 'C', OR 'D' TREE PER 40 LF OF FACADE + (1) 'E' SHRUB PER 10 LF
  - **BUILDINGS 10,000 (TEN THOUSAND) SQ FT OR SMALLER SHALL BE EXEMPT FROM REQUIREMENTS WITHIN THIS SECTION.**
    - **PROPOSED BUILDING IS 4,267 SQ FT. = NO SHRUBS REQUIRED**

SECTION 3645: BUFFER YARDS

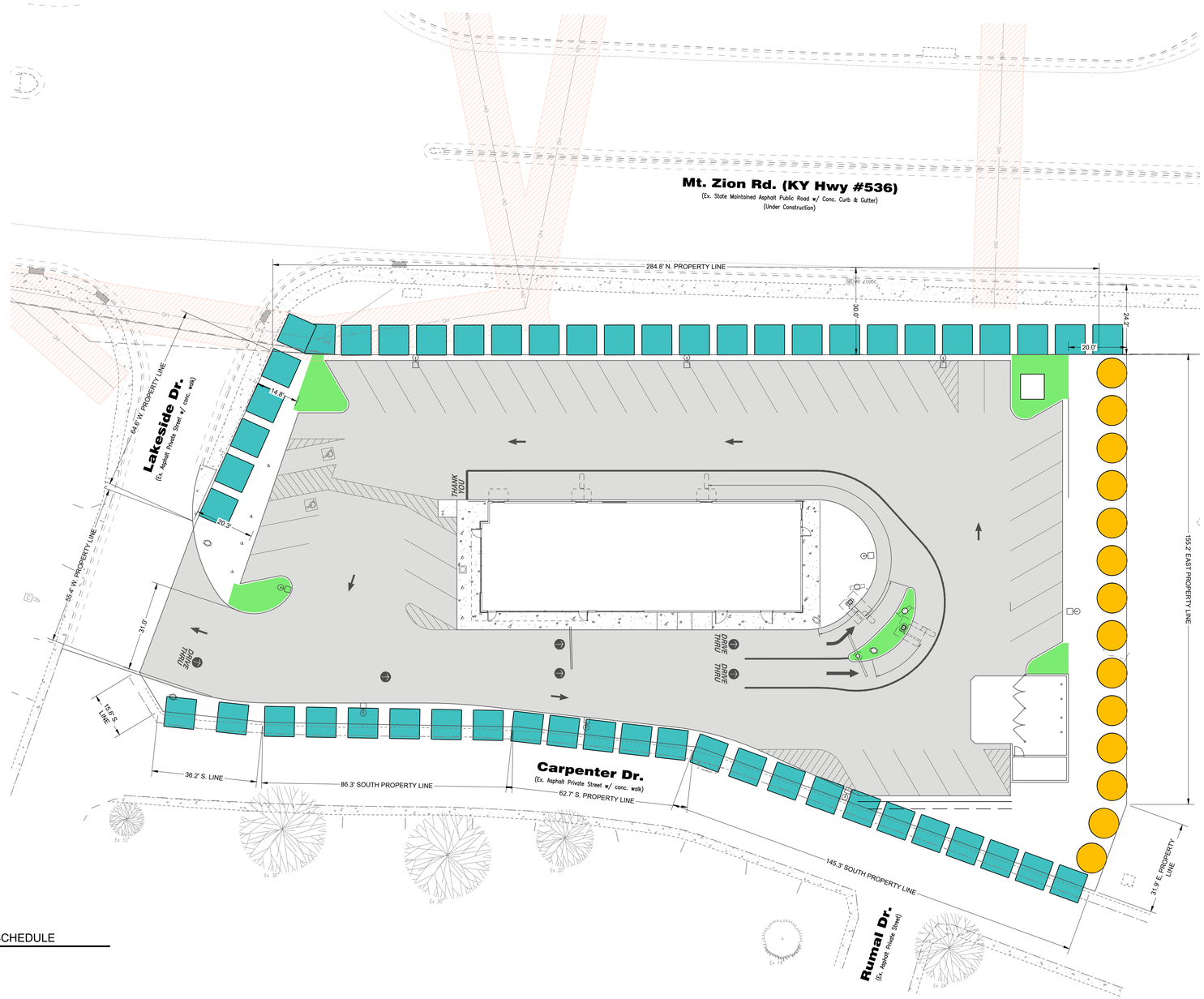
- BUFFER YARDS BETWEEN ADJOINING PARCELS SHALL CONSIST OF A CONTINUOUS STRIP OF LAND AND SCREENING THAT SHALL CONTAIN EXISTING VEGETATION, A BERM, A WALL OR FENCE, OR ANY COMBINATION OF THESE THINGS. BUFFER YARDS SHALL BE IN ADDITION TO REQUIREMENTS IN SECTION 3620.

EAST PROPERTY LINE IS ADJACENT TO C-3 (COMMERCIAL) LOT

- BUFFER YARD 'A' REQUIRED
  - (5) 'C' TREES OR (3) 'A', 'B', OR 'D' TREES PER 100 LF
  - (30) 'E' SHRUBS OR (15) 'C' SHRUBS PER 100 LF (ELIMINATED IF BUFFER YARD IS 30')

187.1 LF / 100 LF = 1.87
1.87 X 5 'C' TREES = **9 'C' TREES OR 6 'A', 'B' & 'D' TREES**
1.87 X 30 'E' SHRUBS = **56 'E' SHRUBS OR 28 'C' SHRUBS**

31 'E' SHRUBS & 12 'C' SHRUBS PROVIDED



CONCEPT GRAPHICS SCHEDULE

VEHICULAR USE AREA
Takeoff: 28,987 sf

INTERIOR LANDSCAPING
Takeoff: 1,586 sf

STREET FRONTAGE BUFFER
BUFFER 'A'
Takeoff: 698 lf

ADJACENT PROPERTY LINE BUFFER
BUFFER 'A' REQUIRED
Takeoff: 187 lf

Basis of Bearing:
State Plane NAD83 (2011)
0 20 30
SCALE: 1" = 20'

REV	DATE	DESCRIPTION	BY
1	9-5-23	REVISE PER COUNTY COMMENTS	CDO

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L/C# 16-1002

PROPOSED McDONALD'S RESTAURANT AT:
MT. ZION ROAD
FLORENCE, BOONE COUNTY, KENTUCKY

JOB NO. 21-0244

DATE: 7-7-23

SCALE: 1"=20'

ZONING PLANTING PLAN

SHEET: L1.0

Plot time: Sep 05, 2023 - 2:03pm — Login Name: christianossenfort
Drawing name: J:\2021\21-0244\LA\DWG\21-0244 ZN.DWG — Layout Tab: L1.0

GENERAL NOTES

SEE SHEET 1 FOR ZONING NOTES. SEE SHEET 3 FOR PLANTING NOTES & DETAILS.

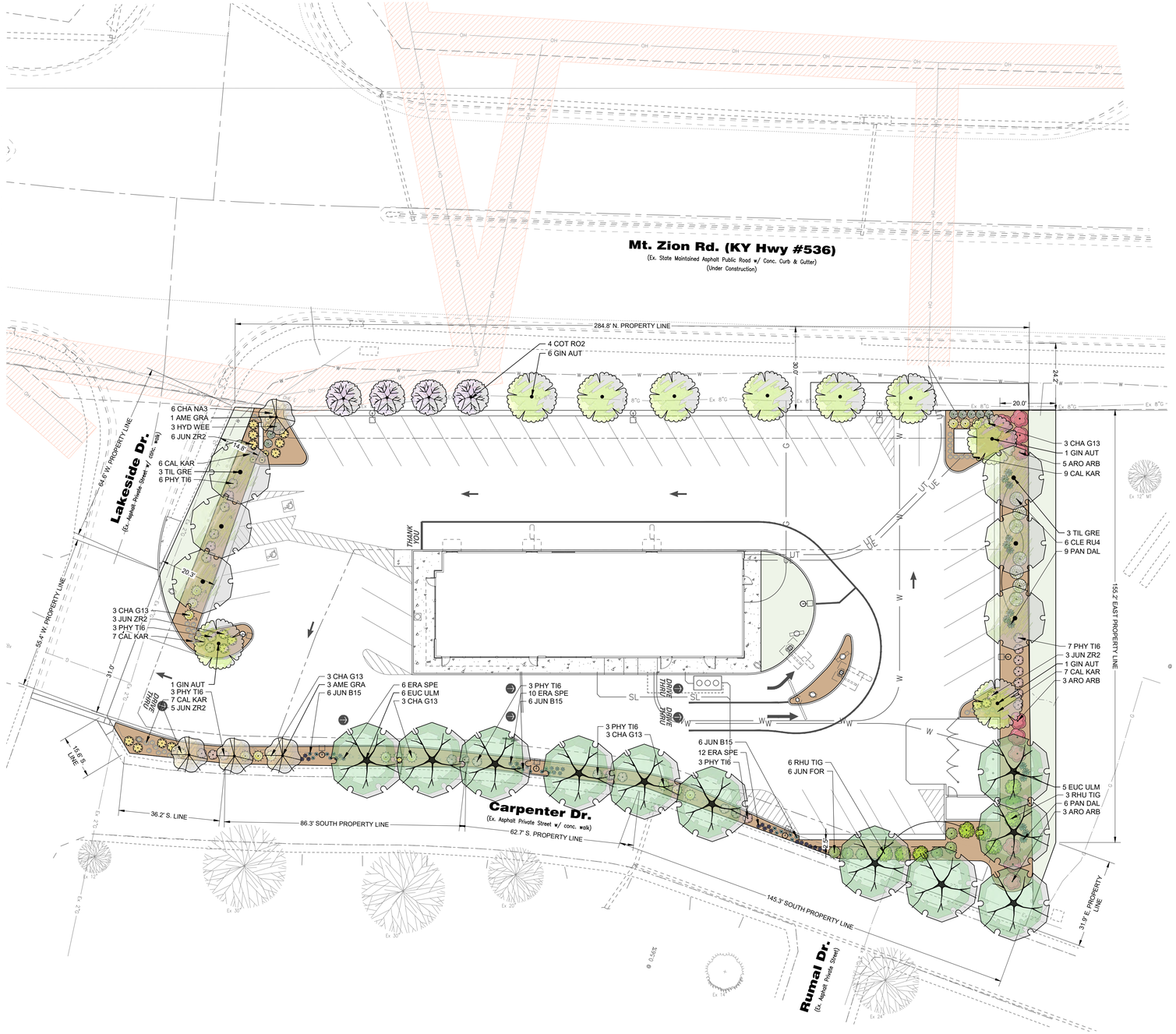
PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	TYPE	MIN. SIZE
EUC ULM	11	Eucommia ulmoides	Hardy Rubber Tree	B & B	2.0" Cal
GIN AUT	9	Ginkgo biloba `Autumn Gold` TM	Maidenhair Tree	B & B	2.0" Cal
TIL GRE	6	Tilia cordata `Greenspire`	Greenspire Littleleaf Linden	B & B	2.0" Cal
ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	TYPE	MIN. SIZE
AME GRA	4	Amelanchier x grandiflora `Autumn Brilliance`	Autumn Brilliance Serviceberry Tree Form	B & B	2.0" Cal
COT RO2	4	Cotinus coggygria 'Royal Purple'	Royal Purple Smoke Tree	B & B	1.5" Cal
DECIDUOUS SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT
ARO ARB	11	Aronia arbutifolia `Brilliantissima`	Brilliant Red Chokeberry	3 gal	24" Ht.
CLE RU4	7	Clethra alnifolia `Ruby Spice`	Ruby Spice Clethra	3 gal	24" Ht.
HYD WEE	8	Hydrangea quercifolia `Pee Wee`	Oakleaf Hydrangea	3 gal	24" Ht.
PHY TI6	28	Physocarpus opulifolius `SMPOTW` TM	Tiny Wine Ninebark	3 gal	24" Ht.
RHU TIG	9	Rhus typhina `Tiger Eyes`	Tiger Eyes Sumac	3 gal	24" Ht.
EVERGREEN GROUNDCOVER	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT
JUN ZR2	17	Juniperus horizontalis 'Golden Carpet'	Golden Carpet Juniper	3 gal	Clump
EVERGREEN SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT
CHA NA3	6	Chamaecyparis obtusa `Nana`	Dwarf Hinoki False Cypress	5 gal	18" Ht.
CHA G13	16	Chamaecyparis pisifera `Golden Mop`	Golden Mop Threadleaf False Cypress	3 gal	24" Ht.
JUN FOR	6	Juniperus chinensis `Sea Green`	Sea Green Juniper	3 gal	24" Ht.
JUN B15	18	Juniperus scopulorum 'Blue Arrow'	Blue Arrow Juniper	B & B	6` Ht.
ORNAMENTAL GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT
CAL KAR	38	Calamagrostis x acutiflora `Karl Foerster`	Feather Reed Grass	3 gal	Clump
ERA SPE	28	Eragrostis spectabilis	Purple Lovegrass	3 gal	Clump
PAN DAL	15	Panicum virgatum `Dallas Blues` TM	Dallas Blues Switch Grass	3 gal	Clump

CONCEPT_GRAPHICS_SCHEDULE

SEED

MULCH



Basis of Bearing:
State Plane NAD83 (2011)

0 20 30

SCALE: 1" = 20'

REV	DATE	DESCRIPTION	BY
1	9-5-23	REVISE PER COUNTY COMMENTS	CDO

bayer becker
www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

L/C# 16-1002

McDonald's®

PROPOSED McDONALD'S RESTAURANT AT:
MT. ZION ROAD
FLORENCE, BOONE COUNTY, KENTUCKY

JOB NO. 21-0244

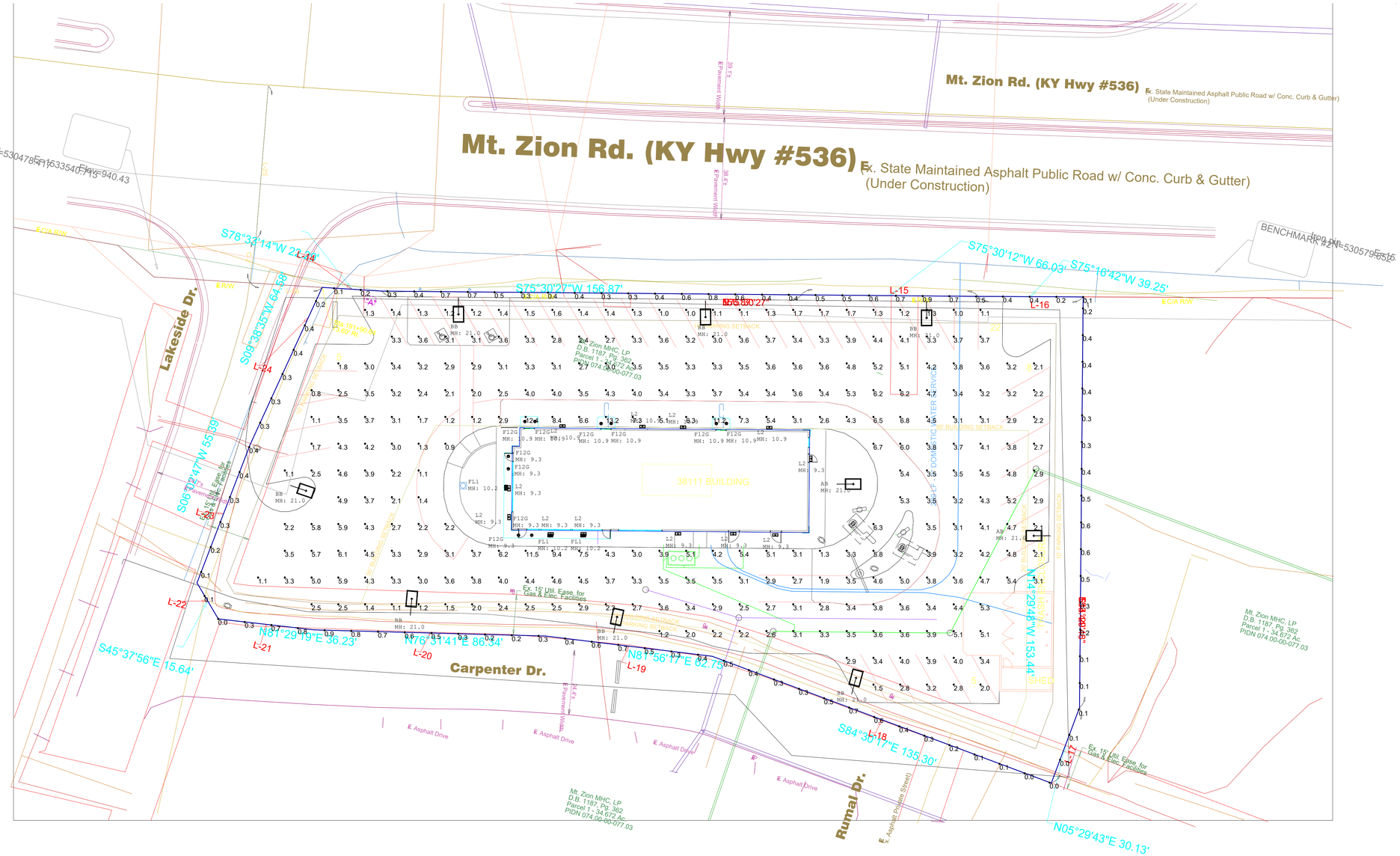
DATE: 7-7-23

SCALE: 1"=20'

LANDSCAPE PLANTING PLAN

SHEET: L1.1

Plot time: Sep 05, 2023 - 1:26pm - Login Name: christianossenfort
Drawing name: J:\2021\21-0244\LA\DWG\21-0244 ZN.DWG - Layout Tab: L1.0



NOTES:

1. THE FOOTCANDLE LEVELS AS SHOWN ARE BASED ON THE FOLLOWING CRITERIA. ANY SUBSTITUTIONS IN SPECIFIED FIXTURES OR CHANGES TO LAYOUT WILL AFFECT LIGHTING LEVELS SHOWN AND WILL NOT BE THE RESPONSIBILITY OF SECURITY LIGHTING.

2. DISTANCE BETWEEN READINGS 10'

Pole Fixtures Are Full Cutoff
Tilt=0
Calculation Grids Are At Grade
Pole Light Mounting Height=21ft
(18' Pole + 3' Base)

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PAVED SURFACE READINGS	Illuminance	Fc	3.50	13.2	0.8	4.38	16.50
PROPERTY LINE READINGS	Illuminance	Fc	0.39	0.9	0.0	N.A.	N.A.

Luminaire Schedule

Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	EPA	Mtg Height	Pole Type
	2	AB	SINGLE	0.900	RAR-2-480L-240-5K7-4W-BC	226.9	0.607	21	SES-18-40-1-TA-GL-xx (4")
	7	BB	SINGLE	0.900	RAR-2-320L-165-5K7-4-BC	154.2	0.607	21	SES-18-40-1-TA-GL-xx (4")
⊕	10	F12G	SINGLE	0.900	LB6-10LDM-50K9GD	11.9			
▮	3	FL1	SINGLE	0.900	EL218WF5-8L5K	15			
	12	L2	SINGLE	0.900	RWSC-36L-5K-DO-U-PS	14.4			

PROJECT WIND LOAD CRITERIA BASED ON:
ASCE 7-10 WIND SPEEDS (3-SEC PEAK GUST MPH)
50 YEAR MEAN RECURRENCE INTERVAL
ALLOWED EPA 13.6 @ WIND LOAD 90 MPH

Regional Drawing
16-1002

1. THIS LIGHTING DESIGN IS BASED ON INFORMATION SUPPLIED BY OTHERS TO SECURITY LIGHTING SYSTEMS. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT.

2. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS.

3. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.

4. THIS LAYOUT MAY NOT MEET TITLE 24 OR LOCAL ENERGY REQUIREMENTS. IF THIS LAYOUT NEEDS TO E COMPLIANT WITH TITLE 24 OR OTHER ENERGY REQUIREMENTS, PLEASE CONSULT FACTORY WITH SPECIFIC DETAILS REGARDING PROJECT REQUIREMENTS SO THAT REVISIONS MAY BE MADE TO THE DRAWING.

THIS DRAWING MEETS OR EXCEEDS McDONALDS CURRENT ILLUMINATION SPECIFICATIONS OF A 3-4 FOOTCANDLE AVERAGE, UNLESS SUPERSEDED BY OTHER REQUIREMENTS.

SECURITY LIGHTING™
2100 Golf Road, Suite 460, Rolling Meadows, IL 60008
1-800-544-4848

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES

SCALE 1"=20' 0"

DRAWN BY CLB

POINT-BY-POINT FOOTCANDLE PLOT FOR
MCDONALDS
286 CARPENTER DR
FLORENCE, KY 41042

NATIONAL STORE NUMBER
40544

DATE
7/27/2023

DRAWING NUMBER
A231056B.AGI

BEACON
design . performance . technology

RATIO Series

AREA/SITE LIGHTER

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

FEATURES

- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as retail, commercial and campus parking lots
- Featuring Micro Strike Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues
- Visual comfort standard
- Compact and lightweight design with low EPA
- 3G rated for high vibration applications including bridges and overpasses
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™ and 7-Pin with networked controls
- Best in class surge protection available

10-DAY QUICK SHIP PROGRAM

QS10

See Certification Specifications

CONTROL TECHNOLOGY

NX LIGHTING CONTROLS™

SPECIFICATIONS

CONSTRUCTION

- Rectilinear form mimics the traditional shoebox form factor keeping a similar but updated style and appearance, ideal for retrofit applications
- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with powder coat paint finish

OPTICS

- Entire optical aperture illuminates to create a larger luminous surface area resulting in a low glare appearance without sacrificing optical performance
- 80, 160, 320 or 480 midpower LEDs
- 3000K, 4000K or 5000K (70 CRI) CCT
- Zero uplight at 0 degrees of tilt
- Field rotatable optics

INSTALLATION

- Standard square arm mount, compatible with B3 drill pattern
- Optional universal mounting block for ease of installation during retrofit applications. Available as an option or accessory for square and round poles.
- Knuckle arm fitter option available for 2-3/8" OD tenon. Max tilt of 60 degrees with 4 degree adjustable increments. (Restrictions apply for 7-pin options)

ELECTRICAL

- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
- Ambient operating temperature -40˚C to 40˚C
- Drivers have greater than 90% power factor and less than 20% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Field replaceable surge protection device provides 20kA protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is compromised

CONTROLS

- Photo control, occupancy sensor and wireless available for complete on/off and dimming control
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)
- 0- 10 V Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard
- NX Distributed Intelligence™ available with in fixture wireless control module, features dimming and occupancy sensor

CERTIFICATIONS

- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Not all product variations on this page are DLC Qualified. Refer to www.designlights.org for the most up-to-date list.
- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40˚C ambient temperatures
- 3G rated for ANSI C136.31 high vibration applications
- Fixture is IP66 rated
- Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/23/2020

WARRANTY

- 5 year limited warranty

KEY DATA	
Lumen Range	3,000–48,000
Wattage Range	25–340
Efficacy Range (LPW)	118–155
Fixture Projected Life (Hours)	L70>60K
Weights lbs. (kg)	13.5–24 (6.1–10.9)

BEACON
design . performance . technology

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RATIO Series

AREA/SITE LIGHTER

= Service Program
Limit of 15 luminaires

ORDERING GUIDE

Example: RAR1-80L-25-3K7-2-UNV-ASQ-BL-NXWE-BC

CATALOG #

ORDERING INFORMATION

Series		# LEDs - Wattage		CCT/CRI		Distribution		Optics Rotation		Voltage	
RAR1	Ratio Area Size 1	**80L-25**	25W - 3,000 Lumens	**3K7**	3000K, 70 CRI	**2**	IES TYPE II	Blank for no rotation		**UNV**	Universal 120-277V
		80L-39	39W -5,200 Lumens	**4K7**	4000K, 70 CRI	**3**	IES TYPE III	**L**	Optic rotation left	**120**	120V
		80L-50	50W - 6,000 Lumens	**5K7**	5000K, 70 CRI	**4W**	IES TYPE IV	**R**	Optic rotation right	**208**	208V
		160L-70	70W - 9,000 Lumens			**4F**	IES TYPE IV Forward			**240**	240V
		160L-100	100W - 12,000 Lumens			**5QW**	IES TYPE V			**277**	277V
		160L-115	115W - 15,000 Lumens							**347**	347V
		160L-135	135W - 18,000 Lumens							**480**	480V
RAR2	Ratio Area Size 2	**320L-110**	110W - 15,000 Lumens								
		320L-140	140W - 18,000 Lumens								
		320L-165	165W - 21,000 Lumens								
		480L-185	185W - 24,000 Lumens								
		480L-210	210W - 27,000 Lumens								
		480L-240	240W - 30,000 Lumens								
		480L-255	255W - 36,000 Lumens								
		480L-295	295W - 42,000 Lumens								
		480L-340	340W - 48,000 Lumens								

Mounting	
ASQ	Arm mount for square pole/flat surface
ASQU	Universal arm mount for square pole/flat surface
Mounting Round Poles	
A_	Arm mount for round pole[1]
A_U	Universal arm mount for round pole[1]
Mounting Other	
WB	Wall bracket
MAF	Mast arm fitter for 2-3/8" OD horizontal arm
K	Knuckle

Color	
BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Brone Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured
Color Option	
CC	Custom Color

Control Options Network	
NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [6,7]
NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [6,7]
NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [6,7]
Control Options Other	
SCP-40F	Programmable occupancy sensor [3]
7PR	7-Pin twist lock receptacle
7PR-SC	7-Pin receptacle with shorting cap
7PR-MD40F	Low voltage sensor for 7PR
7PR-TL	7-Pin PCR with photocontrol
ADD	AutoDim Timer Based Dimming
ADT	AutoDim Time of Day Dimming
Sensors	
BTS_F	Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens [4]
BTSO_F	Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens, up to 12' mounting height [5]

Options	
BC	Backlight control
F	Fusing (must specify voltage)
TB	Terminal block
2PF	2 power feed with 2 drivers[2]

Notes:
1. Replace "_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole
2. Not available with 25, 50, 255, 295 & 340W configurations
3. At least one SCPREMOTE required to program SCP motion sensor
4. Replace "_" with "14" for up to 14' mounting height, "40F" for 15-40' mounting height
5. Replace "_" with "12" for up to 12' mounting height
6. Networked Controls cannot be combined with other control options
7. Not available with 2PF option

STOCK ORDERING INFORMATION

Catalog Number	Lumens	Wattage	LED Count	CCT/CRI	Voltage	Distribution	Mounting	Finish
RAR1-100-4K-3	12,000	100W	160L	4000K/70CRI	120-277V	Type 3	Square Arm	Bronze
RAR1-100-4K-4W	12,000	100W	160L	4000K/70CRI	120-277V	Type 4W	Square Arm	Bronze
RAR1-135-4K-3	18,000	135W	160L	4000K/70CRI	120-277V	Type 3	Square Arm	Bronze
RAR1-135-4K-4W	18,000	135W	160L	4000K/70CRI	120-277V	Type 4W	Square Arm	Bronze
RAR2-165-4K-3	21,000	165W	320L	4000K/70CRI	120-277V	Type 3	Square Arm	Bronze
RAR2-165-4K-4W	21,000	165W	320L	4000K/70CRI	120-277V	Type 4W	Square Arm	Bronze

OPTIONS AND ACCESSORIES - STOCK (ORDERED SEPARATELY)

	Catalog Number	Description
☐	**RARRPA3DB**	Round pole adapter 3.5" to 4.13" for ASQ arm, 3.5" to 4.13" OD pole, dark bronze finish
☐	**RARA3UDB**	Universal mount for square pole or round pole 3.5" to 4.13", dark bronze finish
☐	**RARBC80L**	Ratio backlight control 80L
☐	**RARBC160L**	Ratio backlight control 160L
☐	**RARBC320L**	Ratio backlight control 320L
☐	**RARBC480L**	Ratio backlight control 480L

ACCESSORIES AND REPLACEMENT PARTS - MADE TO ORDER

	Catalog Number	Description
☐	**RAR–ASQU–XX**	Universal arm mount for square pole/flat surface[2]
☐	**RAR–A_U-XX**	Universal arm mount for round poles[1,2]
☐	**RAR–RPA_–XX**	Round pole adapter[1, 2]
☐	**SETAVP-XX**	4" square pole top tenon adapter, 2 3/8" OD slipfitter[2]
☐	**RETAVP-XX**	4" round pole top tenon adapter; 2 3/8" OD slipfitter for max. Four fixtures (90o); order 4" round pole adapters separately[2]
☐	**BIRD–SPIKE–3**	Ratio size 1 bird deterrent/spikes
☐	**BIRD–SPIKE–4**	Ratio size 2 bird deterrent/spikes
☐	**RARWB–XX**	Wall bracket - use with Mast Arm Fitter or Knuckle[2]

1 Replace "_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole
2 Replace "XX" with desired color/paint finish

CONTROLS

Control Options	
Standalone	
SCPREMOTE	Order at least one per project location to program and control
Networked – Wireless	
WIR-RME-L	wiSCAPE External Fixture Module[1,2]
NX Networked – Wireless	
NXOFM-1R1D-UNV	NX Wireless, Daylight Harvesting, BLE, 7 pin twisted lock

Notes:
1 Works with external networked photosensor
2 wiSCAPE Gateway required for system programming

RATIO Series

AREA/SITE LIGHTER

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

PERFORMANCE DATA

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RAR1	25	25.4	2	3438	135	1	0	1	3445	136	1	0	1	3240	128	1	0	1
			3	3460	136	1	0	1	3467	136	1	0	1	3260	128	1	0	1
			4W	3406	134	1	0	1	3412	134	1	0	1	3209	126	1	0	1
			5QW	3483	137	2	0	1	3490	137	2	0	1	3282	129	2	0	1
	39	39	2	5263	139	1	0	2	5273	139	1	0	2	4960	131	1	0	2
			3	5297	139	1	0	2	5308	140	1	0	2	4991	131	1	0	2
			4W	5200	137	1	0	2	5210	137	1	0	2	4900	129	1	0	2
			5QW	5333	140	3	0	1	5344	141	3	0	1	5025	132	3	0	1
	50	49.8	2	6310	127	1	0	2	6323	127	1	0	2	5946	120	1	0	2
			3	6349	128	1	0	2	6362	128	1	0	2	5983	120	1	0	2
			4W	6233	125	1	0	2	6245	126	1	0	2	5873	118	1	0	2
			5QW	6392	129	3	0	1	6405	129	3	0	1	6023	121	3	0	1
	70	68.4	2	9486	139	1	0	2	9505	139	1	0	2	8938	131	1	0	2
			3	9544	140	1	0	2	9563	140	1	0	2	8993	131	1	0	2
			4W	9395	137	1	0	2	9414	138	1	0	2	8853	129	1	0	2
			5QW	9608	140	4	0	2	9628	141	4	0	2	9054	132	4	0	2
	100	90.0	2	11976	133	2	0	2	12000	133	2	0	2	11285	125	2	0	2
			3	12050	134	2	0	2	12074	134	2	0	2	11354	126	2	0	2
			4W	11861	132	2	0	2	11885	132	2	0	2	11177	124	2	0	2
			5QW	12131	135	4	0	2	12155	135	4	0	2	11431	127	4	0	2
	115	109.7	2	15572	142	2	0	2	15494	141	2	0	2	14871	136	2	0	2
			3	15833	144	2	0	2	15754	144	2	0	2	15121	138	2	0	2
			4W	15281	139	2	0	3	15205	139	2	0	3	14623	133	2	0	3
			5QW	15732	143	4	0	2	15653	143	4	0	2	15024	137	4	0	2
	135	133.3	2	17971	135	3	0	3	17881	134	3	0	3	17163	129	3	0	3
			3	18272	137	2	0	2	18181	136	2	0	2	17450	131	2	0	2
			4W	17635	132	2	0	3	17547	132	2	0	3	16876	127	2	0	3
			5QW	18156	136	4	0	2	18065	136	4	0	2	17339	130	4	0	2

RAR2 Performance Data on next page

* Lumen values are from photometric test performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.

RATIO Series

AREA/SITE LIGHTER

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

PERFORMANCE DATA

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RAR2	110	100.3	2	15326	153	2	0	3	15357	153	2	0	3	14442	144	2	0	3
			3	15421	154	2	0	3	15452	154	2	0	3	14531	145	2	0	3
			4W	15180	151	2	0	2	15210	152	2	0	2	14304	143	2	0	2
			5QW	15525	155	4	0	2	15556	155	4	0	2	14629	146	4	0	2
	140	133.2	2	19395	146	2	0	3	19434	146	2	0	3	18276	137	2	0	3
			3	19515	147	2	0	3	19554	147	2	0	3	18389	138	2	0	3
			4W	19210	144	2	0	3	19248	145	2	0	3	18101	136	2	0	3
			5QW	19647	148	5	0	3	19686	148	5	0	3	18513	139	5	0	3
	165	153.6	2	21651	141	3	0	3	21695	141	3	0	3	20402	133	3	0	3
			3	21785	142	3	0	3	21828	142	3	0	3	20527	134	3	0	3
			4W	21444	140	3	0	3	21487	140	3	0	3	20206	132	3	0	3
			5QW	21932	143	5	0	3	21976	143	5	0	3	20666	135	5	0	3
	185	174.5	2	26046	149	3	0	3	26098	150	3	0	3	24543	141	3	0	3
			3	26207	150	3	0	3	26259	150	3	0	3	24694	142	3	0	3
			4W	25797	148	3	0	4	25849	148	3	0	4	24308	139	3	0	4
			5QW	26384	151	5	0	3	26437	152	5	0	3	24861	143	5	0	3
	210	198.2	2	28848	145	3	0	4	28906	146	3	0	4	27184	137	3	0	4
			3	29027	146	3	0	4	29085	147	3	0	4	27351	138	3	0	4
			4W	28572	144	3	0	4	28630	144	3	0	4	26924	136	3	0	4
			5QW	29222	147	5	0	4	29281	148	5	0	4	27536	139	5	0	4
	240	226.9	2	32087	141	3	0	4	32151	142	3	0	4	30235	133	3	0	4
			3	32285	142	3	0	4	32350	143	3	0	4	30422	134	3	0	4
			4W	31780	140	3	0	4	31844	140	3	0	4	29946	132	3	0	4
			5QW	32503	143	5	0	4	32568	144	5	0	4	30627	135	5	0	4
	255	257.0	2	37040	144	3	0	4	36854	143	3	0	4	35373	138	3	0	4
			3	37660	147	3	0	4	37472	146	3	0	4	35966	140	3	0	4
			4W	36347	141	3	0	5	36166	140	3	0	5	34782	135	3	0	5
			5QW	37420	146	5	0	4	37233	145	5	0	4	35736	139	5	0	4
	295	294.0	2	41733	142	3	0	4	41524	141	3	0	4	39855	136	3	0	4
			3	42432	144	3	0	4	42220	144	3	0	4	40523	138	3	0	4
			4W	40953	139	3	0	5	40748	139	3	0	5	39190	133	3	0	5
			5QW	42162	143	5	0	4	41951	143	5	0	4	40264	137	5	0	4
	340	347.1	2	48392	139	4	0	5	48150	139	4	0	5	46215	133	4	0	5
			3	49203	142	3	0	4	48957	141	3	0	4	46989	135	3	0	4
			4W	47488	137	4	0	5	47261	136	4	0	5	45443	131	4	0	5
			5QW	48889	141	5	0	5	48645	140	5	0	5	46689	135	5	0	5

* Lumen values are from photometric test performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.

RATIO Series

AREA/SITE LIGHTER

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

ELECTRICAL DATA

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RAR1	25	120	0.21	25.4
		208	0.12	
		240	0.11	
		277	0.09	
	39	120	0.32	38.0
		208	0.18	
		240	0.16	
		277	0.14	
		347	0.11	
		480	0.08	
	50	120	0.42	49.8
		208	0.24	
		240	0.21	
		277	0.18	
	70	120	0.57	68.4
		208	0.33	
		240	0.29	
		277	0.25	
	100	120	0.75	90.0
		208	0.43	
		240	0.38	
		277	0.32	
	115	120	0.91	109.7
		208	0.53	
		240	0.46	
		277	0.40	
		347	0.32	
		480	0.23	
	135	120	1.11	133.3
		208	0.64	
		240	0.56	
		277	0.48	
		347	0.38	
		480	0.28	

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RAR2	110	120	0.84	100.3
		208	0.48	
		240	0.42	
		277	0.36	
	140	120	1.11	133.2
		208	0.64	
		240	0.56	
		277	0.48	
	165	120	1.28	153.6
		208	0.74	
		240	0.64	
		277	0.55	
	185	120	1.45	174.5
		208	0.84	
		240	0.73	
		277	0.63	
	210	120	1.65	198.3
		208	0.95	
		240	0.83	
		277	0.72	
	240	120	1.89	226.9
		208	1.09	
		240	0.95	
		277	0.82	
	255	120	2.14	257.0
		208	1.24	
		240	1.07	
		277	0.93	
		347	0.74	
		480	0.54	
	295	120	2.45	294.0
		208	1.41	
		240	1.23	
		277	1.06	
		347	0.85	
		480	0.61	
	340	120	2.89	347.1
		208	1.67	
		240	1.45	
		277	1.25	
		347	1.00	
		480	0.72	

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0˚ C	32˚ F	1.03
10˚ C	50˚ F	1.01
20˚ C	68˚ F	1.00
25˚ C	77˚ F	1.00
30˚ C	86˚ F	0.99
40˚ C	104˚ F	0.98
50˚ C	122˚ F	0.97

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

PROJECTED LUMEN MAINTENANCE

Ambient Temperature	OPERATING HOURS					
	0	25,000	TM-21-11 L90 36,000	50,000	100,000	L70 (Hours)
25°C / 77°F	1.00	0.97	0.95	0.93	0.86	238,000
40°C / 104°F	0.99	0.96	0.95	0.93	0.85	225,000

BEACON
design . performance . technology

RATIO Series

AREA/SITE LIGHTER

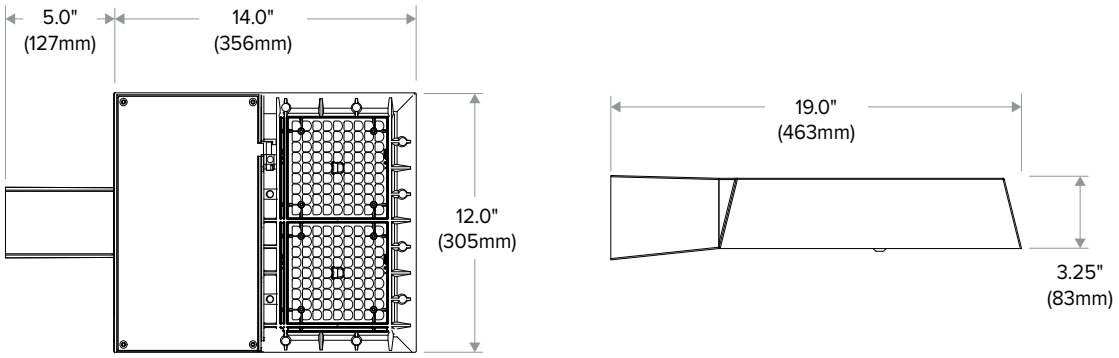
DATE: LOCATION:

TYPE: PROJECT:

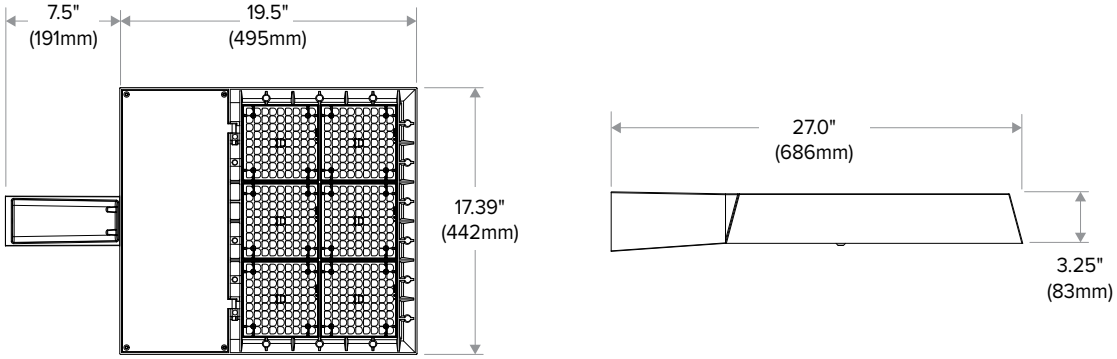
CATALOG #:

DIMENSIONS

RAR1

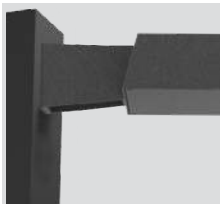


RAR2



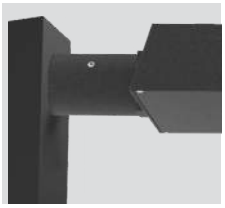
ADDITIONAL INFORMATION

MOUNTING

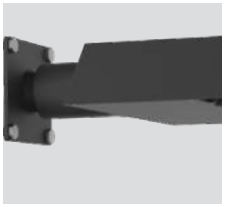


Arm Mount – Fixture ships with integral arm for ease of installation. Compatible with Hubbell Outdoor B3 drill pattern.

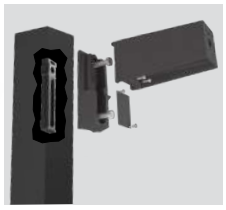
Knuckle – Knuckle mount 15° aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes.



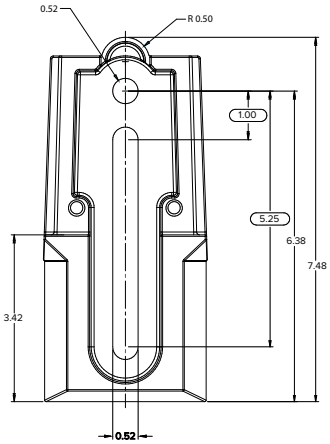
MAF – Fits 2-3/8" OD arms Roadway applications.



Wall Mount – Wall mount bracket designed for building mount applications.



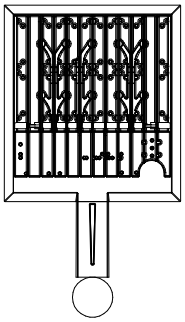
Universal Mounting – Universal mounting block for ease of installation. Compatible with drill patterns from 2.5" to 4.5"



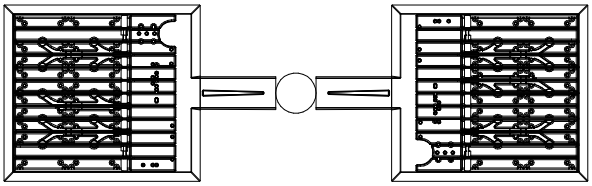
RATIO Series

AREA/SITE LIGHTER

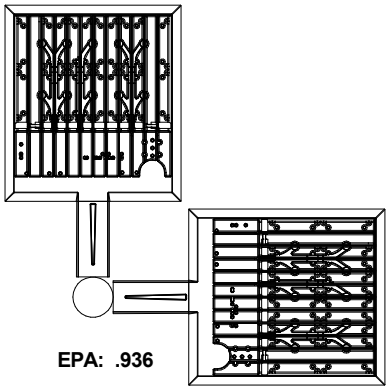
EPA



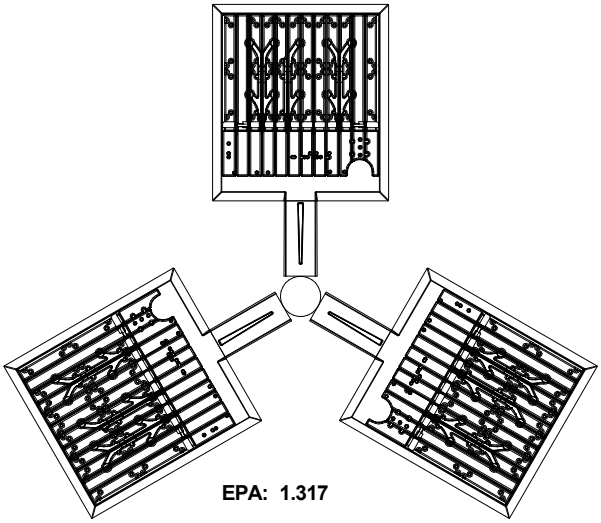
EPA: .607



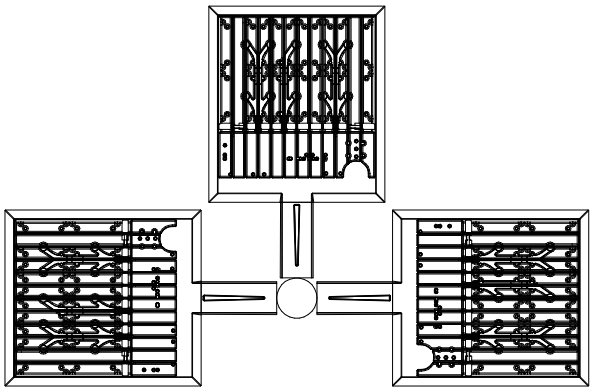
EPA: 1.214



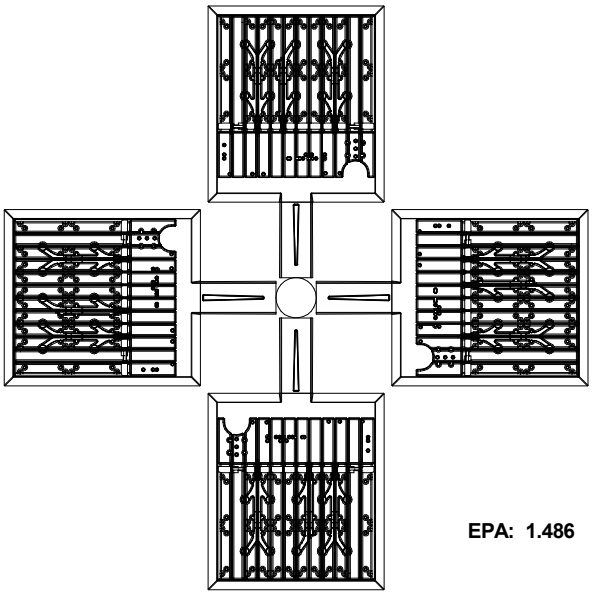
EPA: .936



EPA: 1.317



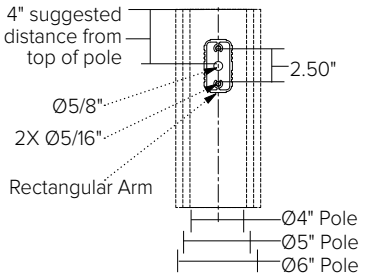
EPA: 1.486



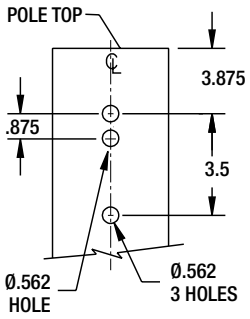
EPA: 1.486

ADDITIONAL INFORMATION (CONT'D)

ARM MOUNT (ASQ)
Compatible with Pole drill pattern B3



UNIVERSAL MOUNTING (ASQU)
Compatible with pole drill pattern S2



PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6
Auto-Dim Brightness	0-9% Brightness	5
Auto-Dim Return	Delay 0-9 Hours	R6

ADT-AutoDim Time of Day Based Option

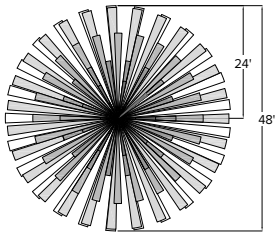
- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

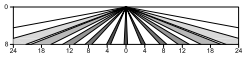
EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6
Auto-Dim Brightness	0-9% Brightness	5
Auto-Dim Return	12-6 AM and 9-11P	R6

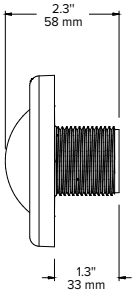
ADDITIONAL INFORMATION (CONT'D)

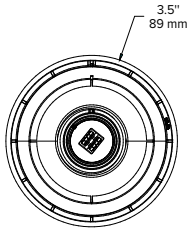
NXSP-14F



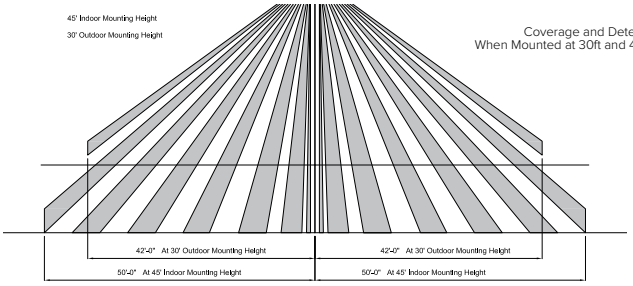


Sensor Lens Coverage and Detection Patterns
When Mounted at 8ft with Low Mount Lens

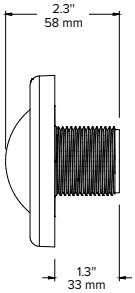


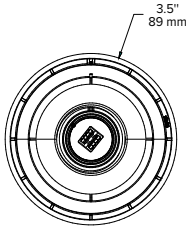


NXSP-30F

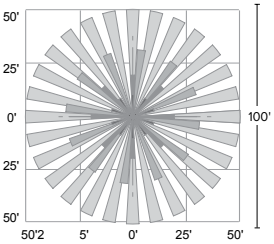


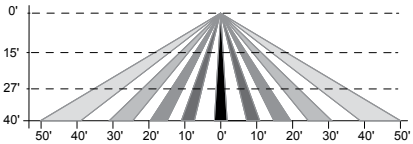
Coverage and Detection Patterns
When Mounted at 30ft and 45ft with Standard Lens

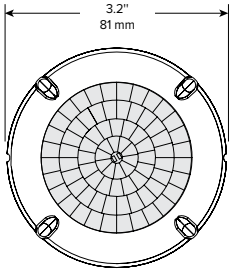


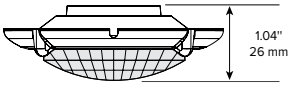


SCP-40F









RAR1 EPA

RAR-1	
EPA at 0˚	EPA at 30˚
.45ft.^{2} .13m^2	.56ft.^{2} .17m^2

RAR2 EPA

RAR-2	
EPA at 0˚	EPA at 30˚
.55ft.^{2} .17m^2	1.48ft.^{2} .45m^2

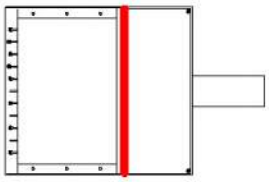
SHIPPING

Catalog Number	G.W(kg)/ CTN	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
RAR1	15 (6.8)	20.75 (52.7)	15.125 (38.4)	6.9375 (17.6)
RAR2	19 (8.6)	25 (63.5)	15.125 (38.4)	6.9375 (17.6)

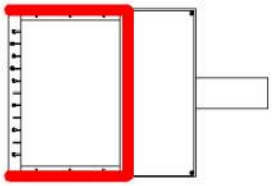
ADDITIONAL INFORMATION (CONT'D)

RATIO HOUSE SIDE SHIELD

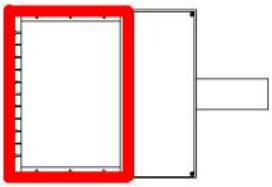
RARx HSS-90-B-xx



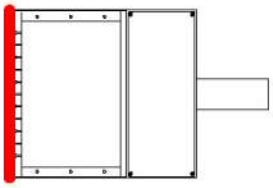
RARx HSS-270-BSS-xx



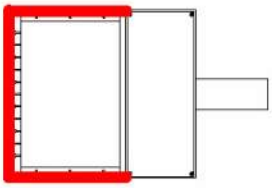
RARx HSS-360-xx



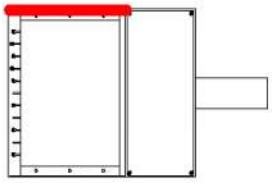
RARx HSS-90-F-xx



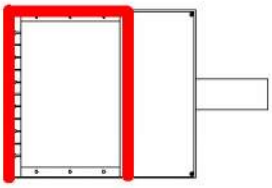
RARx HSS-270-FSS-xx



RARx HSS-90-S-xx



RARx HSS-270-FSB-xx



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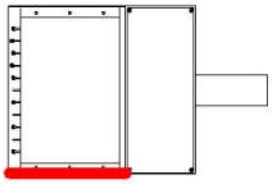
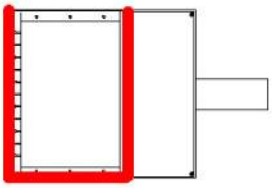


RARx HSS-270-FSB-xx



SES GALVANIZED POLES

SQUARE STEEL STRAIGHT POLES (SSP)

Specifications

The Square Steel Straight Pole has been successfully installed in projects of all types for over 30 years and has become the most popular and economical pole option for all site lighting applications including retail, commercial, industrial and residential projects

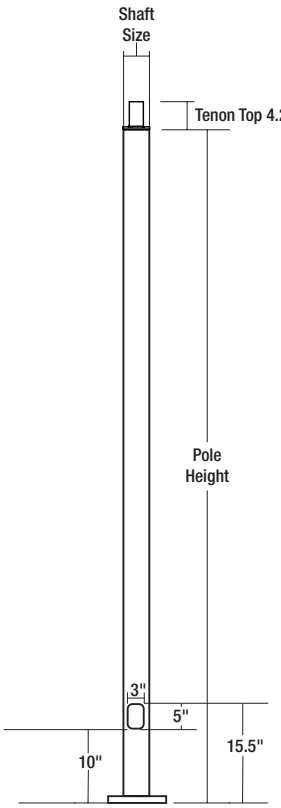
Now this popular series is offered as a fully hot dipped galvanized steel pole and base plate which is finished in weatherproof powder coat.

The SES GL series of galvanized poles are stocked for immediate shipping in multiple shaft sizes, heights and colors, all with a 2 3/8" OD tenon to enable any mounting configuration required with the full offering of available tenon top adaptors.

- Square Steel Straight Shaft
- One piece construction
- 2 3/8" OD tenon
- Steel Base Plate
- Fully hot dipped galvanized steel pole
- Finished in weatherproof powder coat
- 3 size options for anchor bolts. All anchor bolts fully galvanized with 2 nuts and washer (bolts ordered as separate line item and paper template included as component of pole)
- Square base cover available (ordered as separate line item)
- Pole finished in weather proof powder coast paint in 4 standard colors
- 3" x 5" Gasketed hand hole standard

Tenon Top Pole

Dimensions



Ordering Information

Ordering Example: SES-18-40-1-TA-GL-PS

SES

Series	
SES	Square Steel Straight Pole

Height	
18	18 Feet
22	22 Feet
28	26.6 Feet

Size	
40	4"x4" Shaft[2]
50	5"x5" Shaft[3]

Gauge	
1	11 Gauge .119" thick
07	7 Guage .179" thick

TA

Mounting	
TA	2 3/8" OD Tenon

GL

Coating	
GL	Galvanized

Color	
DB	Dark Bronze
WH	White
BL	Black
PS	Platinum Silver

1. All non stocked galvanized poles have a 6 to 8 week lead time
2. Available in 11 gauge only
3. Available in 7 gauge only

Web: www.securitylighting.com
2100 Golf Road, Suite 460, Rolling Meadows, IL 60008-4704
Phone: 1-800-LIGHT IT, 1-800-544-4848, **Fax:** 847-279-0642

Current

SES GALVANIZED POLES

SQUARE STEEL STRAIGHT POLES (SSP)

Ordering Information

Catalog Number	Pole Ht.		Nominal Shaft Dim.	Wind Load Rating[1]					Wall Thick.	Bolt Circle (Sug.)	Bolt Circle	Bolt Sq.	Base Plate (sq.)	Anchor Bolt Size	Bolt Proj.	Pole Wt (lbs)
	ft	m		70 MPH	80 MPH	90 MPH	100 MPH	120 MPH								
SSP-4118-TA-GL-XX	18		4"	14.0	12.2	9.2	7.0	5.3	.125"	10.5"	8-11"	5.6-7.8"	10.25x0.75"	3/4x30x3"	4"	150
SSP-5722-TA-GL-XX	22		5"	25.0	25.0	20.2	15.9	12.5	.188"	10.5"	10-13.5"	7.1-9.5"	12x1"	1x36x4"	4"	300
SSP-5728-TA-GL-XX	28		5'	19.0	16.4	12.1	8.8	6.2	.188"	10.5"	10-13.5"	7.1-9.5"	12x1"	1x36x4"	4"	400

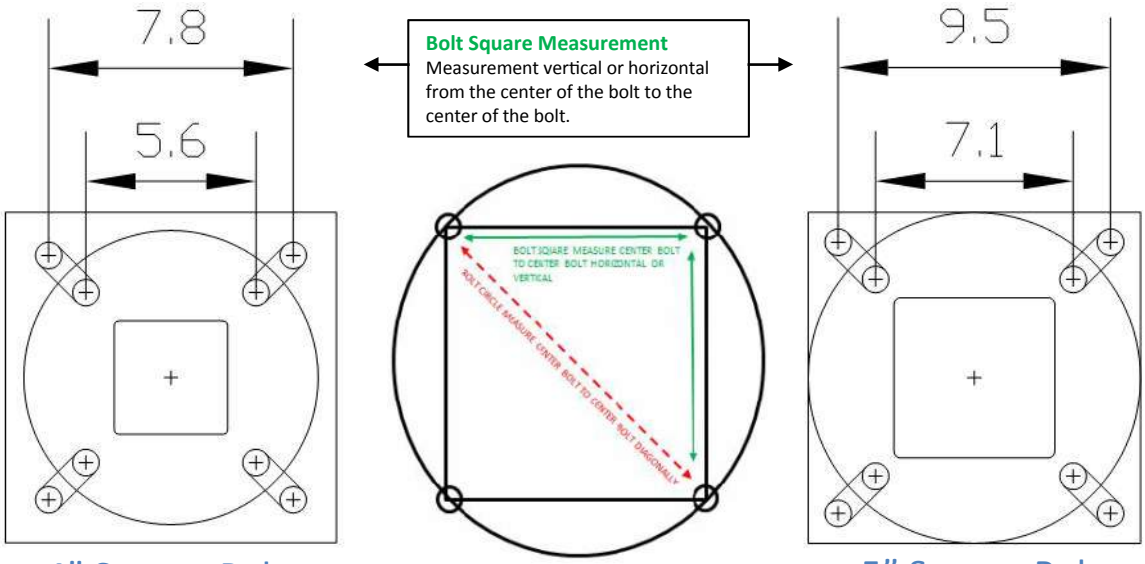
1. Allowable EPA with 1.3 gust factor; To determine max; pole loading weight, multiply allowable EPA by 30 lbs; Published allowable EPA values based upon calculations of Spaulding Lighting Allowable EPA values for project requiring AASHTO methodology are available upon request.

Notes: Factory supplied template must be used when setting anchor bolts; Hubbell Lighting will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template anchor bolts.

Stocked Poles

Catalog Number	Description
SES18401TAGLDB	POLE-SES-18ftx4inSQ-11GA-TENON-GALVANIZED-DARK BRONZE
SES18401TAGLBL	POLE-SES-18ftx4iNSQ-11GA-TENON-GALVANIZED-BLACK
SES18401TAGLPS	POLE-SES-18ftx4inSQ-11GA-TENON-GALVANIZED-PLATINUM SILVER
SES18501TAGLDB	POLE-SES-18ftx5inSQ-11GA-TENON-GALVANIZED-DARK BRONZE
SES18501TAGLPS	POLE-SES-18ftx5inSQ-11GA-TENON-GALVANIZED-PLATINUM SILVER
SES22507TAGLDB	POLE-SES-22ftx5INSQ-7GA-TENON-GALVANIZED-DARK BRONZE
SES22507TAGLPS	POLE-SES-22ftx5INSQ-7GA-TENON-GALVANIZED-PLATINUM SILVER
SES28507TAGLDB	POLE-SES-26.6ftx5inSQ-7GA-TENON-GALVANIZED-DARK BRONZE
SES28507TAGLPS	POLE-SES-26.6ftx5inSQ-7GA-TENON-GALVANIZED-PLATINUM SILVER

Bolt Circle Diagram



All listed SES poles use 27701349904 paper template

It's the contractors' responsibilty to ensure that new poles will fit existing bases

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SES GALVANIZED POLES

SQUARE STEEL STRAIGHT POLES (SSP)

Accessories

Pole Cap

4" POLE CAP	20102389702
5" POLE CAP	20102389802
6" POLE CAP	20102389902

Tenon

TA | (2 3/8" OD)

Note: TA Tenons are factory installed. For installation into open top poles, use TT1A tenon top adapter

Hand Hole Cover

Note: Hand hole cover included with all new poles. Replacement parts: 22106400112 + (2)23115839901 + (1)26508469902(3"x5")

Base Cover

Order as a separate line item

Catalog Number	Description
Pole Base Covers for Square Poles	
SBC-4-XX[1]	10 1/2" Sq x 5" Deep (use on 4" sq poles)
SBC-4L-XX[1]	12 1/4" Sq x 5" Deep (use on 4" sq poles)
SBC-5-XX[1]	12 1/4" Sq x 5" Deep (use on 5" sq poles)
SBC-6-XX[1]	12 1/4" Sq x 5" Deep (use on 6" sq poles)

1. Replace XX with two letter color designation

Anchorage | Order as a separate line item

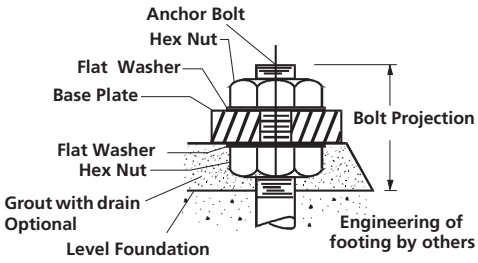
3/4" x 30" x 3" Anchor Bolt TAB-30M38 qty: 4

1" x 36" x 4" Anchor Bolt TAB-36M38 qty: 4

1" x 42" Anchor Bolt TAB-30M38 qty: 4

Note Fabricated from hight tensile steel, each anchor bolt has two nuts and two washers; Galvanized anchor bolts are hot dipped; (Galvanized includes threaded portion plus six inches minimum); Anchor Bolt template included with pole purchase.

Base Detail



Replacement Nut/Washer Kit	
80033249902	3/4" TAB30 Set
80033259902	1" TAB36 Set
80036549903	1 1/4" TAB42 Set

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SES GALVANIZED POLES

SQUARE STEEL STRAIGHT POLES (SSP)

Mounting Brackets | Order As accessories

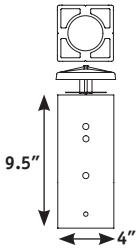
Side Mounting Locations

Catalog Number		Description	EPA	Weight
TTF-XX-XX[1,2]		4" Square pole top tenon adapter 2 3/8" OD slipfitter for max. four fixtures (90°)	0.4ft² 0.04m²	20lbs. 9kgs.
RETA-XX[1,2] **RETA-XX-VIPER**[4]		4" Round pole top tenon adapter 2 3/8" OD slipfitter for max. four fixtures (90°)	0.2ft² 0.02m²	20lbs. 9kgs.
TETA-XX[1,2,3]		Three sided pole top tenon adapter 2 3/8" OD slipfitter for max. three fixtures (120°)		20lbs. 9kgs.
TTF-VIPER-XX		4" Square pole top tenon adapter 2 3/8" OD slipfitter for max. fixture (90 0) Drilled 3 sides for Viper and plugged on two sides		

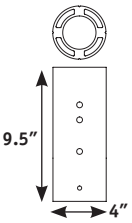
1 Replace X or XX with color designation
2 All fitters drilled with drill pattern 26 (except for TTFVIPER). Any other drill pattern must be designated at time of ordering.
3 Must use 10" arm on fixture for 120° mounting
4 Drilled for Beacon Viper LED fixture on 4 sides with 3 sides plugged

TTF-10	Single
TTF-29	Twin 90°
TTF-28	Twin 180°
TTF-39	Triple 90°
TTF-49	Quad 90°
TTFViper	Triple 90° plugged on 2 sides

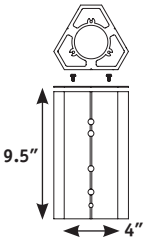
TTF-XX-XX
TTF-VIPER-XX
SETA-XX



RETA-XX



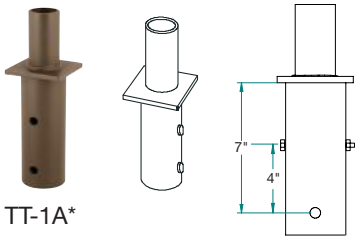
TETA-XX



Tenon Insert for single fixture mounting or tenon adapters

TT1A4-XX[1,2,3]	2 3/8" OD Tenon top adapter for 4" square open top poles, (slips 9" into pole aligns with #6 drill pattern)
TT1A5-XX[1,2,3]	2 3/8" OD Tenon top adapter for 5" square open top poles, (slips 9" into pole aligns with #6 drill pattern)

1 TT1A not required with tenon top pole. Use only for retrofit (specify 4" or 5" pole).
2 Replace XX with two letter color designation
3 Installed with one through bolt supplied with fitter. May require field drilling of pole for proper installation.



TT-1A*

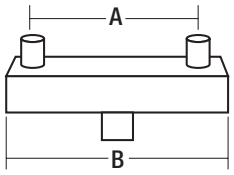
Two Fixture Mounting Bracket

Decorative steel floodlight brackets 4" square tubing with 2 1/3" O.D. fixture tenons. Square 4" bottom with 2 1/2" I.D. internet adapter for standard round tenons. Available in multiple finishes as shown. Use with SES series poles

Description	Maximum Weight Per Tenon		EPA		Weight	
	lbs	(kg)	Ft²	(m²)	lbs.	(kg)
Twin 180°	60	(27.2)	1.2	(0.1)	24	(10.9)

1 Replace XX with two letter color designation

TT2A-XX[1]



A	B
24"	30"
610mm	762mm

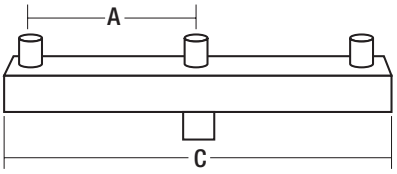
Three Fixture Mounting Bracket

Decorative steel floodlight brackets 4" square tubing with 2 1/3" O.D. fixture tenons. Square 4" bottom with 2 1/2" I.D. internet adapter for standard round tenons. Available in multiple finishes as shown. Use with SES series poles

Description	Maximum Weight Per Tenon		EPA		Weight	
	lbs	(kg)	Ft²	(m²)	lbs.	(kg)
Triple 180°	60	(27.2)	2.3	(0.2)	44	(19.9)

1 Replace XX with two letter color designation

TT3A-XX[1]



A	C
24"	54"
610mm	1372mm

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Current

SES GALVANIZED POLES

SQUARE STEEL STRAIGHT POLES (SSP)

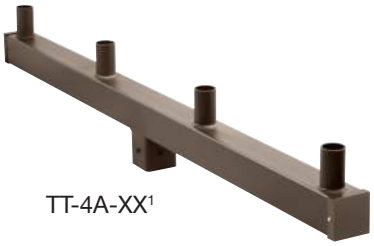
Mounting Brackets | Order As accessories

Four Fixture Mounting Bracket

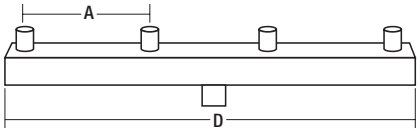
Decorative steel floodlight brackets 4" square tubing with 2 1/3" O.D. fixture tenons. Square 4" bottom with 2 1/2" I.D. internet adapter for standard round tenons. Available in multiple finishes as shown. Use with SES series poles

Description	Maximum Weight Per Tenon		EPA		Weight	
	lbs	(kg)	Ft²	(m²)	lbs.	(kg)
Quad 180°	60	(27.2)	3.4	(0.3)	64	(29)

1 Replace XX with two letter color designation



TT-4A-XX[1]



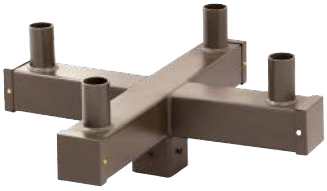
A	D
24"	78"
610mm	1981mm

Four Fixture Mounting Bracket (90°)

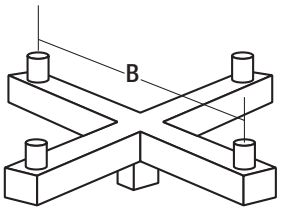
Decorative steel floodlight brackets 4" square tubing with 2 1/3" O.D. fixture tenons. Square 4" bottom with 2 1/2" I.D. internet adapter for standard round tenons. Available in multiple finishes as shown. Use with SES series poles

Description	Maximum Weight Per Tenon		EPA		Weight	
	lbs	(kg)	Ft²	(m²)	lbs.	(kg)
Quad 180°	60	(27.2)	2.8	(0.3)	46	(20.8)

1 Replace XX with two letter color designation



TT-4AX-XX[1]
(90°)



A	B
24"	30"
610mm	762mm

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SES GALVANIZED POLES

SQUARE STEEL STRAIGHT POLES (SSP)

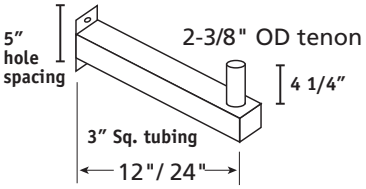
Mid Pole Bracket Options | Order As accessories

Catalog Number	Description
FLB-12-XX[1,2]	12" floodlight bracket for pole mounting (bracket requires internal pole access)
FLB-24-XX[1,2]	24" floodlight bracket for pole mounting (bracket requires internal pole access)

1 Replace XX with two letter color designation

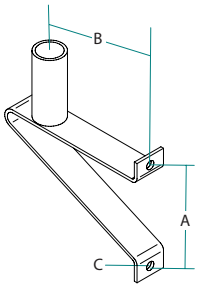
2 Mounting Hardware by others

FLB-12/24



Catalog Number	Description
4041	Heavy-duty steel wall/pole bracket 2" pipe (2 3/8" OD) tenon fitting for use with slipfitter units or 4024C; In dark bronze finish Mounting Hardware by Others

4041

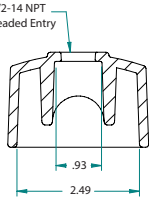


A	B	C
8 1/4"	9 1/2"	11"
210mm	241mm	279mm

Catalog Number	Description	
S-302-XX[1]	Slipfits 1 1/2" or 2" pipe (1.9" OD or 2 3/8" OD) with 1/2" N.P.S.M. hub; Bronze	.6(0.3)

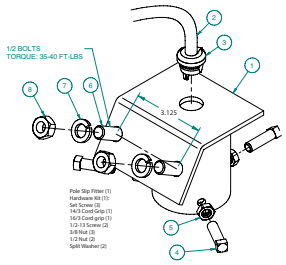
1 Replace XX with two letter color designation

S-302



Catalog Number	Description
4024C	Steel Slipfitter for 2" pipe, 2 3/8" OD yoke mount, bronze finish
4024CM53	Steel Slipfitter for 2" pipe, 2 3/8" OD yoke mount, gray finish
4024CM38	Steel Slipfitter for 2" pipe, 2 3/8" OD yoke mount, galvanized finish

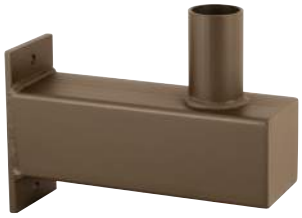
4024C



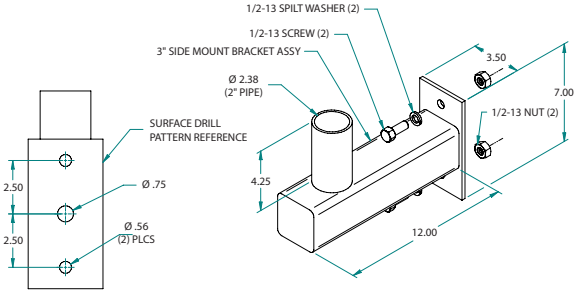
Catalog Number	Description
TTWM-XX[1]	Wall Mount Bracket with 2 3/8" OD Tenon

1 Replace XX with two letter color designation

2 Mounting hardware by others



TTWM



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SES GALVANIZED POLES

SQUARE STEEL STRAIGHT POLES (SSP)

Pole Introduction | Pole Selection Guide

Poles should initially be selected, according to lighting application needs, and second, but equally important, according to the structural requirements imposed on the pole by the lighting fixtures, bracketry and wind. Before attempting to make this selection, it would be helpful to have an understanding of the terminology, such as steady or sustained wind velocity, gust velocity, EPA, special wind region, and maximum weight. Then a step-by-step procedure can be followed to select the proper pole for your particular requirements.

STEADY WIND OR SUSTAINED WIND VELOCITY

This is the maximum steady wind velocity expressed in MPH likely to occur in a specific location. Refer to isotach wind map on the next page for the wind velocity in your location. Isotach maps are provided for reference only. **Consult local authorities to determine the maximum velocities in your area.**

GUST VELOCITY

Our isotach maps represent two different methods of addressing wind speed gusts. We have used the 'fastest-mile' wind speeds for years. These have a 1.3 gust factor in the calculations to account for gusting. As technology has improved the ability to accurately measure wind speeds for short durations, the gusts associated to a sustained wind speed have lessened. We are now moving toward '3-second-gust' wind speed maps. The results are typically higher steady/sustained wind speeds with lower factors for gusts. The gust factors are different depending on the wind speed map selected.

EFFECTIVE PROJECTED AREA

Effective Projected Area (EPA) is the exposed surface area of a fixture and bracket multiplied by a shape factor which varies depending on the shape of the fixture and bracket. For example, a large rectangular fixture will present more resistance to the wind than will a round or cylindrical shape.

SPECIAL WIND REGIONS

Many locations such as mountainous areas, coastal areas and areas surrounding the Great Lakes exhibit wind velocities considerably higher than the surrounding areas. **Consult local authorities to determine maximum wind velocities and select equipment accordingly.**

MAXIMUM WEIGHT

This is the maximum allowable weight based on EPA loads. The weight is based on 30 pounds per square foot of EPA. Weight exceeding the 30 pound per foot of EPA may reduce the allowable EPA rating of the pole.

POLE SELECTION PROCEDURE

With an understanding of the parameters for pole selection, you can follow this simple step-by-step procedure and, with confidence, select a pole to meet your particular requirements.

1. Determine the site location and steady wind velocity by referring to the appropriate isotach map. If the steady wind exceeds those listed, consult factory. The isotach maps are provided for reference only. **Consult local authorities to determine the maximum velocities in your area.**

2. Total the **EPA** for the required luminaires and bracketry.

3. Total the **weight** of the luminaires and bracketry.

4. Compare steps 2 and 3 with the maximum allowable EPA and weight tables shown for the style, material, and height pole required. The maximum allowable must be equal to or exceed the totals from steps 2 and 3.

POLE SELECTION CONCERNS

Caution: These selection methods are guidelines only. Hubbell Lighting assumes no responsibility for selection and recommends you consult qualified professionals for verification of overall system design, site suitability, foundation considerations and applicable code and regulatory conformances.

Maintenance: The facility owner's/manager's regular scheduled maintenance program must include initial and regular follow-up inspections for structural damage, broken welds, tampering, nut loosening, missing wire covers, dangling electrical wiring, internal or external corrosion, foundation settlement, excessive shaft deflection and vibration for all lighting poles. Immediate repair or replacement may be necessary.

Overloading: Do not overload poles by attaching flags, banners, or any items that can add excessive wind or mechanical load to designed pole assemblies.

Observation: Installation and local area conditions can dramatically affect lighting pole performance. Excessive vibration may result from some wind and mounting conditions. Only individuals with local knowledge, who have observed or inspected the site can effectively evaluate site specific issues. Consult the factory for information on vibration dampers, special corrosion, foundation settlement, excessive shaft deflection and vibration for all lighting poles. Immediate repair or replacement may be necessary.

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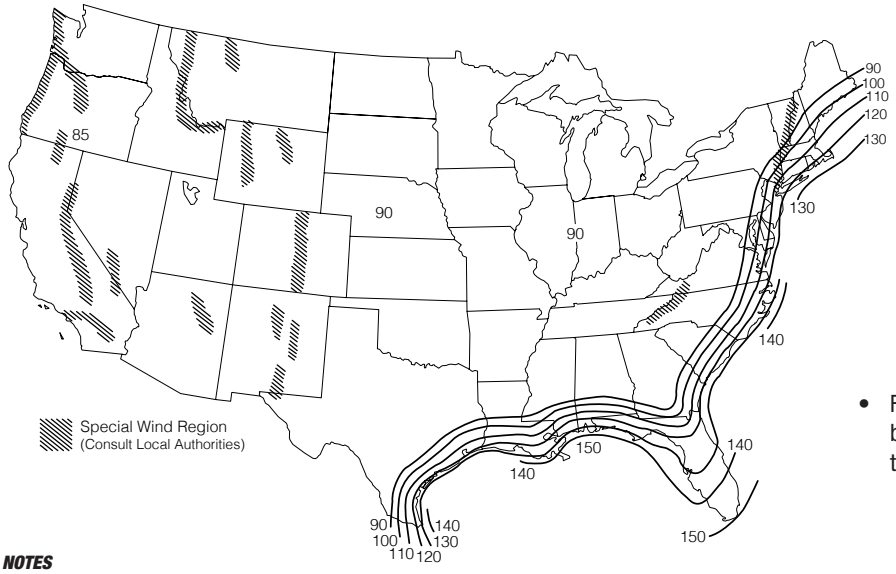
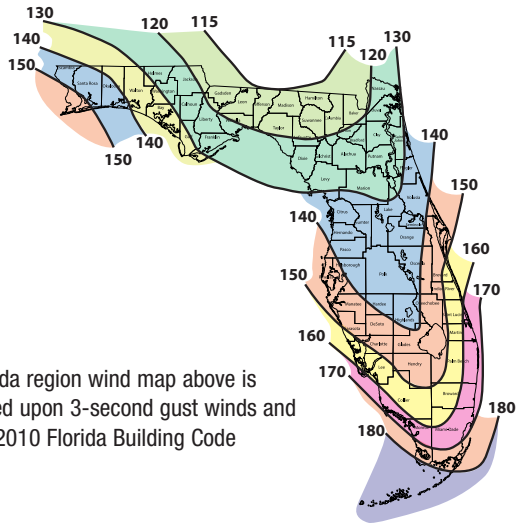
Current

SES GALVANIZED POLES

SQUARE STEEL STRAIGHT POLES (SSP)

Wind Speed





- Florida region wind map above is based upon 3-second gust winds and the 2010 Florida Building Code

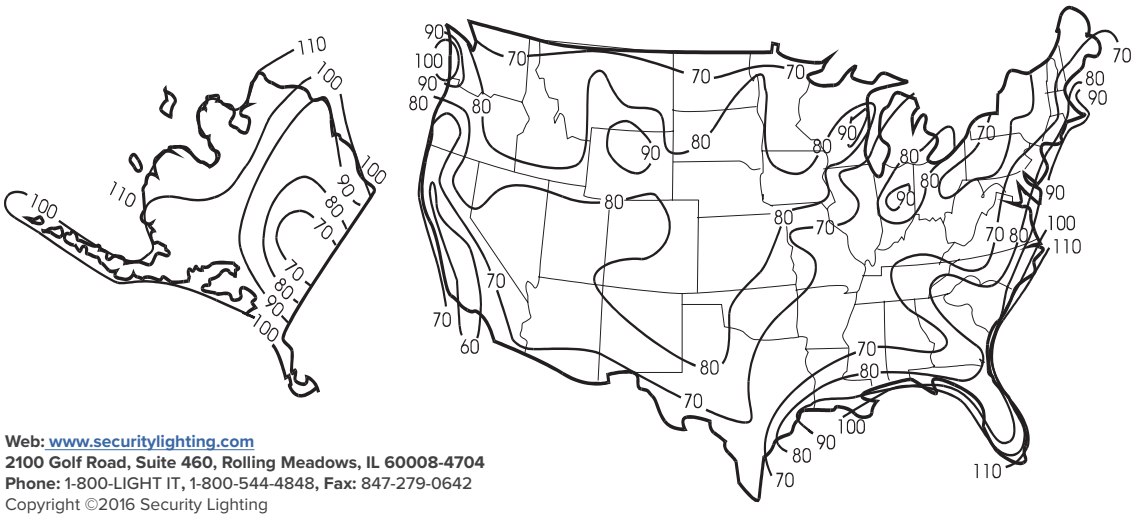
NOTES

- Allowable EPA, to determine max pole loading weight, multiply allowable EPA by 30 lbs.
- The tables for allowable pole EPA are based on the ASCE 7-05 Wind Map or the Florida Region Wind Map for the 2010 Florida Building Code. The Wind Maps are intended only as a general guide and cannot be used in conjunction with other maps. Always consult local authorities to determine maximum wind velocities, gusting and unique wind conditions for each specific application
- Allowable pole EPA for jobsite wind conditions must be equal to or greater than the total EPA for fixtures, arms, and accessories to be assembled to the pole. Responsibility lies with the specifier for correct pole selection. Installation of poles without luminaires or attachment of any unauthorized accessories to poles is discouraged and shall void the manufacturer's warranty
- Wind speeds and listed EPAs are for ground mounted installations. Poles mounted on structures (such as bridges and buildings) must consider vibration and coefficient of height factors beyond this general guide; Consult local and federal standards
- Wind Induced Vibration brought on by steady, unidirectional winds and other unpredictable aerodynamic forces are not included in wind velocity ratings. Consult Hubbell Lighting's Pole Vibration Application Guide for environmental risk factors and design considerations. http://cdn.hubbelloutdoor.com/content/products/literature/literature_files/Pole_Wind_Induced_Flyer_HLOI0022.pdf
- Extreme Wind Events like, Hurricanes, Typhoons, Cyclones, or Tornadoes may expose poles to flying debris, wind shear or other detrimental effects not included in wind velocity ratings

STEADY/SUSTAINED WIND VELOCITY (Miles Per Hour, for KM/hr - multiply values by 1.61)

- Hawaii has an 80 MPH wind velocity
- Puerto Rico has a 95 MPH wind velocity
- Use caution in determining wind velocities in special wind areas such as mountainous areas, coastal areas and areas surrounding the Great Lakes
- Isotach map is provided for reference only. **Consult local authorities to determine the maximum velocities in your area**

Note The maximum allowable EPA and weights are listed for each pole; The EPA and weights are listed in this Selection Guide for each luminaire and bracket



For information on AASHTO Standards for Lighting Equipment contact:
American Association of State Highway and Transportation Officials
444 N. Capitol Street, NW, Suite 249
(202) 624-5800
www.aashto.org

AASHTO standards used are found in the following publications:
I-LTS-3 "*Standard Specification For Structural Support For Highway Signs, Luminaires And Traffic Signals*", (1994)
I-LPH "*A Guide for Standardizing Highway Lighting Pole Hardware*", (1980)
I-GL-5 "*An Informational Guide for Roadway Lighting*", (1984)

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Current

SECURITY LIGHTING™

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RWSC

LED RADIUS WALL SCONCE

FEATURES

- Durable cast aluminum housing
- Integrated design eliminates high angle brightness
- Completely sealed, flat tempered glass lenses
- UL listed for use in wet locations
- DLC, Downlight only, full cut-off

4.2

SPECIFICATIONS

APPLICATION

- The RWSC LED radius wall sconce series offers a combination of light distributions that wash the building facade while the radial soft form housing accentuates building architectural design elements in all commercial and residential applications.
- The RWSC LED provides excellent illumination with a high efficiency LED light source of 72 or 36 mid power LEDS that deliver up to 2,400 lumens and up to 109 lumens per watt
- The RWSC LED fixture has become a building standard and is stocked as a quick ship item in many colors and distributions

CONSTRUCTION

- Durable cast aluminum housing
- Completely sealed

OPTICS

- Integrated design eliminates high angle brightness
- Flat Tempered glass lens
- Downlight only, full cut off
- Optional Dimming (consult factory)

INSTALLATION

- Intelligent Mounting Bracket allows easy, single person installation
- User friendly mounting bracket features integrated bubble ensuring perfect installation

ELECTRICAL

- Fully integrated driver for completely self-contained lighting system
- Power feed required only at beginning of each continuous row or stand alone fixture

CERTIFICATIONS

- UL listed for use in wet locations
- DLC® (DesignLights Consortium) Qualified, with some Premium Qualified configurations. Please refer to the DLC website for specific product qualifications at www.designlights.org

WARRANTY

- 5 year warranty
- See HLI Standard Warranty for additional information

KEY DATA	
Lumens	834 / 1211
Wattage	30
Efficacy (LPW)	83.6 / 82.9
Reported Life (Hours)	L70 >120,000
Input Current Range (Amps)	.036 - 0.12

SECURITY LIGHTING™

RWSC

LED RADIUS WALL SCONCE

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

ORDERING GUIDE

Example: RWSC - XXL - XK - XX - U - XX

CATALOG #

RWSC –	–	–	– U –	
Series	**# of LEDs**	**CCT**	**Distribution**	**Voltage**	**Finish**
RWSC Radius Wall Sconce	36L 36 Mid-Powered LEDs[1] 72L 72 Mid-Power LEDs[2]	3K 3000K 4K 4000K 5K 5000K	DO Down Only UD Up/Down	U Universal 120/277V	DB Dark Bronze WH White BK Black PS Platinum Silver RA RAL Color[4] CC Custom Color[5]

Notes:

1 36L Only available in DO distribution

2 72L Only available in UD distribution

3 One remote inverter required to operate every 8 down only or 5 up/down fixtures requiring EM operation
4 Must prov

4 Must provide RAL color at time of ordering

5 Must provide color sample at time of ordering

Quick Ship

- ☐ **RWSC36LU5KDOBK**
- ☐ **RWSC36LU5KDOWH**
- ☐ **RWSC36LU5KDODB**
- ☐ **RWSC36LU5KDOPS**
- ☐ **RWSC72L5KUDUWH**
- ☐ **RWSC72LU5KUDBK**
- ☐ **RWSC72LU5KUDDB**
- ☐ **RWSC72LU5KUDPS**

Accessories

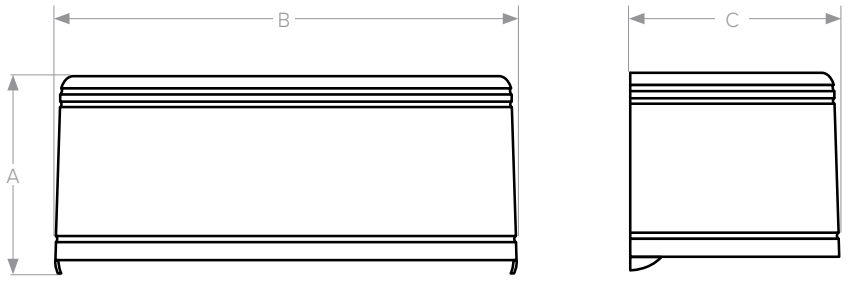
- ☐ **LG125T** Remote Emergency Inverter (grid mount only)[3]
- ☐ **LG125S** Remote Emergency Inverter (surface mount only)[3]

PERFORMANCE DATA

				5K (5000K nominal, 80 CRI)					3K (3000K nominal, 80 CRI)				
# of LEDS	Drive Current (Milliamps)	System Watts	Distribution Type	Lumens	LPW[1]	B	U	G	Lumens	LPW[1]	B	U	G
36	350	14.4	down	1565	108.7	0	0	0	1561	109.1	0	0	0
72	350	25	up/down	2400	96	n/a	n/a	n/a	2391	97.6	n/a	n/a	n/a

[1]Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.

DIMENSIONS



A	B	C
7.25"	18.0"	9.0"

SECURITY LIGHTING™

RWSC

LED RADIUS WALL SCONCE

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

PHOTOMETRY

RWSC-36L-5K-DO-U-PS

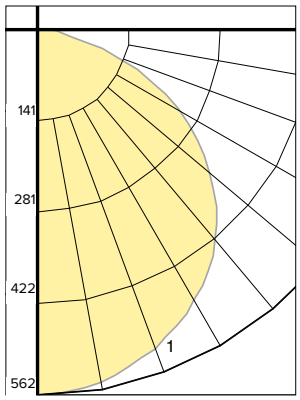
LUMINAIRE DATA

Test No.	
Description	**5000K, 80 CRI**
Delivered Lumens	**1565**
Watts	**14.4W**
Efficacy	**109**
Mounting	**Wall**
Spacing Criterion	**1.20**

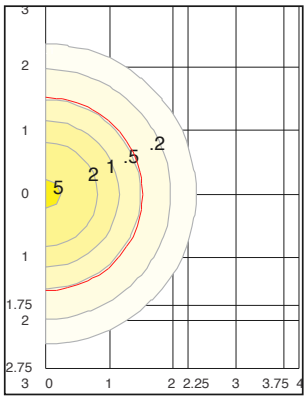
ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixt.
Front Low (0-30)	218.6	14.0
Front Medium (30-60)	424.2	27.1
Front High (60-80)	135.5	8.7
Front Very High (80-90)	4.2	0.3
Back Low (0-30)	218.6	14.0
Back Medium (30-60)	424.2	27.1
Back High (60-80)	135.5	8.7
Back Very High (80-90)	4.2	0.3
Uplight Low (90-100)	0.0	0.0
Uplight High (100-180)	0.0	0.0

POLAR GRAPH



ISOMETRIC FOOTCANDLE



RWSC-72L-5K-UD-U-PS

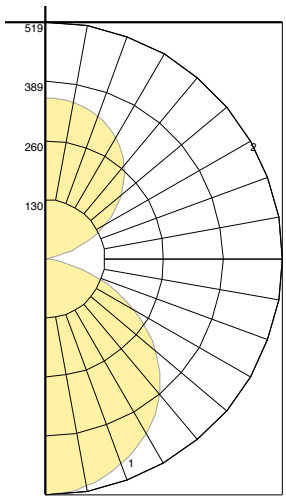
LUMINAIRE DATA

Test No.	
Description	**5000K, 80 CRI**
Delivered Lumens	**2400**
Watts	**25W**
Efficacy	**96**
Mounting	**Wall**
Spacing Criterion	**1.20**

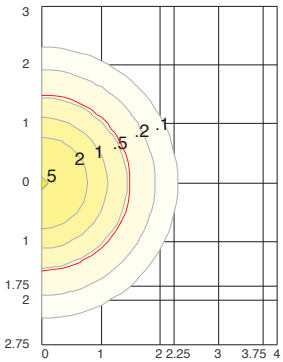
ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixt.
Front Low (0-30)	201.4	8.4
Front Medium (30-60)	387.5	16.1
Front High (60-80)	119.6	5.0
Front Very High (80-90)	3.5	0.1
Back Low (0-30)	201.4	8.4
Back Medium (30-60)	387.5	16.1
Back High (60-80)	119.6	5.0
Back Very High (80-90)	3.5	0.1
Uplight Low (90-100)	5.6	0.2
Uplight High (100-180)	970.7	40.4

POLAR GRAPH



ISOMETRIC FOOTCANDLE



SECURITY LIGHTING™

LB6A-10LDM GD

6" LED DOWNLIGHT (FOR EXTERIOR USE ONLY)

DATE: F12G | LOCATION:

TYPE: | PROJECT:

CATALOG #:

FEATURES

- 6" LED downlight delivering up to 1000 lumens
- For use with compatible 6” Quick Link DM LED housings
- Available in 5000K 90 CRI
- Universal 120-277V with 0-10V dimming to 10%

SPECIFICATIONS

HOUSING

- Remodel, IC or Non-IC applications
- Galvanized steel shallow housing ideal for 2 x 6 joist construction
- Pre-wired J-box with snap-on covers
- Quick Link mating connectors to meet high efficacy energy codes

OPTICS/REFLECTOR

- Spun aluminum reflector painted Gold
- Regressed optical grade diffuse acrylic lens
- Flood distribution for general illumination
- 5000K, 90 CRI

ELECTRICAL

- Long Life LED array: L70 / 55,000 hours (TM-21)
- Universal 120/277V, 60Hz integral driver
- Standard 0-10V dimming to 10%

INSTALLATION

- Housing accommodates ½” to 1”ceiling thickness
- Adjustable slide bars lock housing securely to the ceiling
- LED Trim easily installs with (3) pre-installed spring brackets

CERTIFICATIONS

- cULus listed to UL1598
- Suitable for wet locations under covered ceiling
- Housing: Approved for 90°C, 2 IN / 2 OUT through branch wiring
- ENERGY STAR® certified

WARRANTY

- 5 year warranty
- See HLI Standard Warranty for additional information

ORDERING GUIDE

Example: LB6A-10LDM50K9GD-RMNICS-QLDM

CATALOG #

LB6A-10LDM	50K	9		GD	-	RMNICS-QLDM
Trim	LED Color	CRI	Trim Type	Trim Color		Housing
LB6A-10LDM 6"LED Trim, 1000 lumen, 120-277V with 0-10V dimming to 10%	**50K** 5000 Kelvin	**9** 90 CRI	Standard Downlight	**GD** Gold **WH** White		**RMNICS-QLDM** 6"LED Quicklink Remodel Housing Shallow, IC Rated, DM

KEY DATA	
Lumen Range	1000
Wattage	12
Reported Life (Hours)	L70 / 55,000

Current

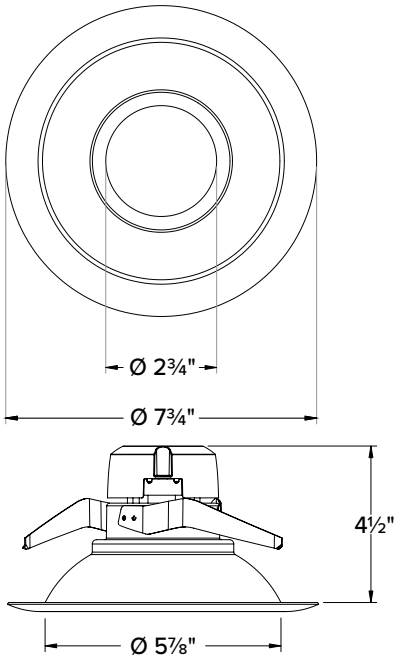
SECURITY LIGHTING™

LB6A-10LDM GD

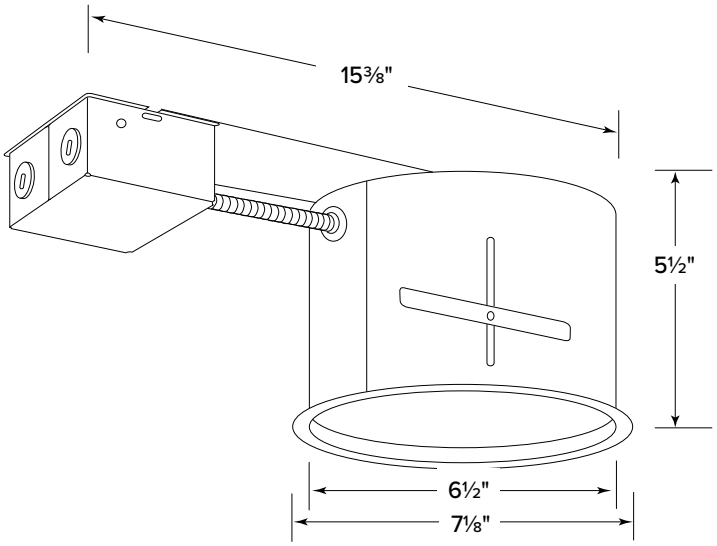
6" LED DOWNLIGHT (FOR EXTERIOR USE ONLY)

DIMENSIONS

Trim



Housing

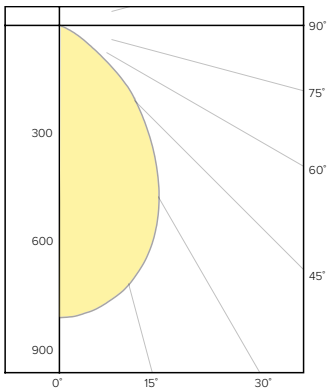


PERFORMANCE SUMMARY

System Watts	Lumens	Lumens Per Watt
12.1	1072	103.2

PHOTOMETRY

POLAR GRAPH



Current

SECURITY LIGHTING™

TYPE FL1

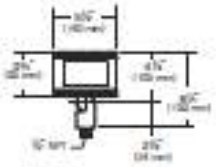
EL218

KIM LIGHTING

MICRO-FLOOD LED

FEATURES

- Unique swivel mount provides superior aiming without loosening over time
- IP66 Certified to keep dust and moisture out
- Available in 3000K, 4000K and 5000K standard CCT
- Spot, Narrow Flood and Wide Flood distributions



Certifications

c UL us LISTED

ORDERING CODE

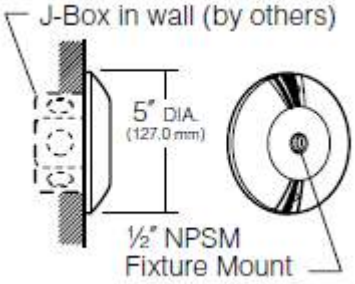
EL218							
Fixture[3]	**Distribution**	**Drive Current**	**Electrical Module**			**Fixture Finish**	**MOUNTING OPTIONS**
	S Spot **F** Narrow Flood **W** Wide Flood	**3** 350mA, 10W **5** 550mA, 16W	Source **8L** 8 LEDs	Color Temperature **3K** 3000K **4K** 4200K **5K** 5100K	Voltage **UV** 120 to 277V with a ±10% tolerance	Aluminum **BL** Black **DB** Dark Bronze **GR** Verde Green **VWH** Vivid White **IO** Iron Ore	**JWIO** Architectural Wall Mount in Iron Ore

[3] Specify finish, **BL** - Black, **DB** - Dark Bronze, **GR** - Verde Green.

Architectural Wall Mount

Die-cast aluminum with ½" NPSM fixture mount. Internal set screw provided for locking position. Canopy attaches to stainless steel wall plate for mounting to any standard electrical outlet box. Super TGIC powder coat paint over titanated zirconium conversion coating.

NOTE: May also be used to hard mount low voltage fixtures.



SECURITY LIGHTING™

EL218

KIM LIGHTING

MICRO-FLOOD LED

Performance:

Spectroradiometric			
	3000K	4200K	5100K
Correlated Color Temp. CCT (K)	2800 to 3175K	3800 to 4600K	4600 to 5600K
Color Rendering Index (CRI)	≥72	≥72	≥72
Power Factor	>.90 @ 120V	>.90 @ 120V	>.90 @ 120V

Electrical Drive Current					
350mA			550mA		
Volts -AC	Amps - AC	System Watts	Volts -AC	Amps - AC	System Watts
120	0.08	10	120	0.13	16
208	0.05	10	208	0.08	16
240	0.04	10	240	0.07	16
277	0.04	10	277	0.06	16

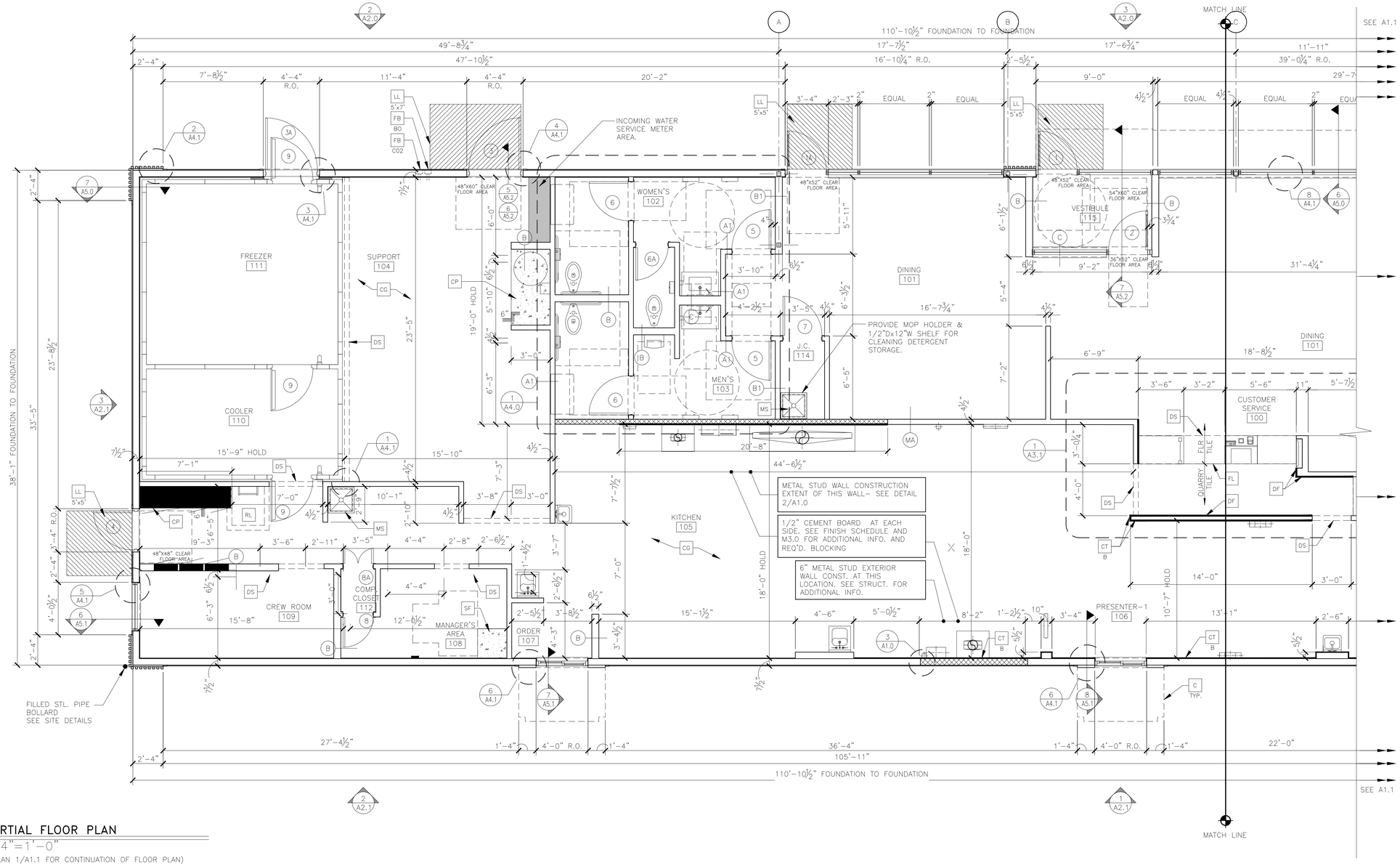
Absolute Lumens				
Temp.	mA	Spot	Narrow Flood	Wide Flood
3000K	350	1078	938	889
4200K		1143	992	925
5100K		1152	1008	953
3000K	550	1608	1411	1331
4200K		1691	1487	1386
5100K		1703	1511	1422

Main Beam Candela and Beam Angle							
Temp.	mA	Spot (3 x 3)	Beam°	Narrow Flood (4 x 4)	Beam°	Wide Flood (6 x 6)	Beam°
3000K	350	7865	19°	2722	32°	665	53°
4200K		8742	18°	2962	31°	694	52°
5100K		8578	18°	2656	30°	709	53°
3000K	550	11962	19°	4024	32°	1009	53°
4200K		13129	18°	4408	31°	1050	52°
5100K		12974	18°	4655	32°	1066	52°

LED performance and lumen output continues to improve at a rapid pace. Log onto www.kimlighting.com to download the most current photometric files from Kim Lighting's IES File Library. For custom optics and color temperature configurations, contact factory.

Projected Lumen Maintenance		
TM21-11*	100,000 hrs	Calulated (L70)
.96	.95	927,000 hrs

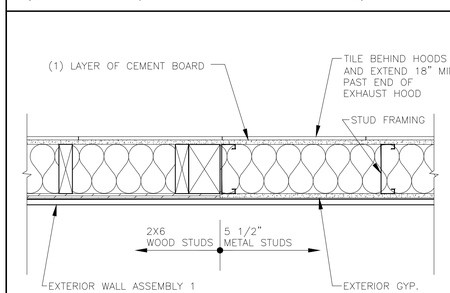
* 60,000 hrs, 350mA, Ts 57°C / 25°C ambient.



1 A1.0 PARTIAL FLOOR PLAN

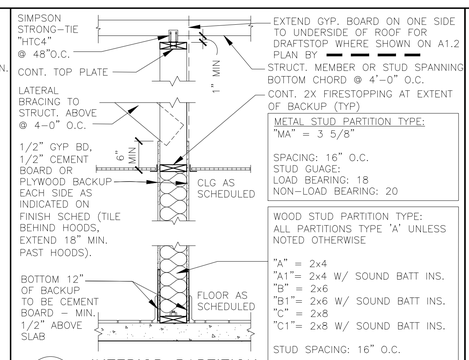
1/4"=1'-0"

(SEE PARTIAL PLAN 1/A1.1 FOR CONTINUATION OF FLOOR PLAN)



3 A1.0 TRANSITON DETAIL

1 1/2"=1'-0"



2 A1.0 INTERIOR PARTITION

3/4"=1'-0"

KEY NOTES

- C — ALUMINUM CANOPY SYSTEM ABOVE – SEE 4/A5.0 FOR NOTES – SEE ROOF PLAN FOR DIMENSIONS, SEE ELEVATION FOR COLORS AND FASCIA LOCATIONS
- CG — G.C. TO PROVIDE 4"x4"x5'-0" HIGH STAINLESS STEEL CORNER GUARDS AT ALL EXPOSED LOCATIONS IN KITCHEN/SUPPORT AREA. CORNER GUARDS TO START AT FINISH FLOOR. ATTACH WITH WOOD SCREWS INTO WOOD BLOCKING BULLNOSE COVE BASE WHERE TILE MEETS STAINLESS STEEL CORNER
- CP — CONCRETE EQMT PAD – SEE STRUCTURAL
- CT B — WALL TILE: CROSSVILLE – COLOR BY NUMBERS COLOR: INTUITIVE GRAY, SIZE: 4"x12", PATTERN: RUNNING BOND GROUT: MAPEI 02 PEWTER – JOINT TO BE 1/16" MAX. USE THIS TILE WHEN HIGH LRV IS REQUIRED COORDINATE WITH McDONALD'S AREA CONSTRUCTION MANAGER
- DE — DECOR ELEMENT – VERIFY SIZE AND PLACEMENT WITH DECOR PLANS
- DF — DECOR FINISH TO BE ORDERED/INSTALLED BY GC AND MANUFACTURED BY DECOR; REFER TO PORTFOLIO.
- DS — DROPPED SOFFIT ABOVE – SEE REFLECTED CEILING PLAN
- FB CO2 — CO2 FILL BOX (EQUIPMENT SCHEDULE ITEM 49.00)
- FB BO — OPTIONAL BULK OIL FILL BOX (EQPM SCHEDULE ITEM 700.18) CONFIRM USE WITH MCDONALD'S AREA CONSTRUCTION MANAGER
- FL — FLOOR LINE – CHANGE IN MATERIAL – SEE DECOR DRAWINGS
- FP — FIBERGLASS REINFORCED PLASTIC (FRP) – PANOLAM, WHITE SMOOTH, CLASS A, .075. REFER TO ROOM FINISH SCHEDULE SHEET A6.1 FOR INSTALLATION LOCATIONS. FOR ORDERING, CONTACT KIMBERLY LAWSON Kimberly_Lawson@panolam.com 1–866–925–4377
- LL 5'x5' — LEVEL LANDING @ EXT. DOOR W/ MAX. 2% RUNNING/CROSS SLOPE AWAY FROM BUILDING SIZE OF LANDING
- MS — MOP SINK – SEE DETAIL 8/A6.1 AND PLUMBING DRAWINGS.
- RL — ROOF ACCESS LADDER W/HATCH ABOVE SEE STRUCTURAL FRAMING PLAN FOR LOCATING DIMENSIONS
- SF — SAFE PAD – SEE STRUCTURAL
- WW — LATE NIGHT WINDOW BY READYACCESS, MANUAL OPEN/SELF CLOSE (OPTIONAL FOR HIGH DELIVERY RESTAURANTS)

SYMBOL LEGEND

- (A) — PARTITION TYPE TAG SEE 2/A1.0
- DRAFT STOPPING – SEE 2/A1.0
- (7) — DOOR TAG – SEE DOOR SCHEDULE ON A6.0
- (X) — KEY NOTE

GENERAL NOTES

1. EXTERIOR DIMENSIONS ARE TO COLUMN REFERENCE LINES AND EXTERIOR FACE OF MASONRY UNLESS OTHERWISE NOTED. INTERIOR DIMENSIONS ARE TO FACE OF INTERIOR WALL BOARD
2. SEE 4/A5.0 FOR EXTERIOR WALL ASSEMBLY TYPES. SEE 2/A1.0 FOR INTERIOR PARTITION TYPES. INTERIOR PARTITIONS ARE TYPE 'A' UNLESS NOTED OTHERWISE.
3. SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES
4. SEE SHEET A6.0 FOR DOOR AND ROOM FINISH SCHEDULES
5. SEE SITE PLAN FOR SIDEWALKS, RAMPS, ETC.
6. GC TO PROVIDE ADA SIGNAGE PACKAGE AND INSTALL SIGNS AT LOCATIONS AND POSITIONS INDICATED IN PACKAGE OR AS REQUIRED BY LOCAL CODES. SIGNAGE PACKAGE SUPPLIED BY: FRANKE/S2K 1–800–423–5247 www.frankesupply.com email: fs–frankesupply.us@franke.com
7. MAXIMUM OCCUPANCY SIGN TO BE POSTED PER LOCAL CODE. SIGN FURNISHED AND INSTALLED BY GENERAL CONTRACTOR.
8. ALL HANDSINK LOCATIONS SHALL HAVE CEMENT BOARD BACKING 48" IN HEIGHT A.F.F.
9. GC TO COORDINATE ALL REQUIRED BLOCKING FOR WALL HUNG EQUIPMENT, SHELVES, ETC. FOR PROPER INSTALLATION HEIGHTS.
10. KNOX BOX TO BE INSTALLED PER LOCAL CODE AS REQUIRED. MODEL AND LOCATION TO BE COORDINATED WITH FIRE MARSHALL.

BY	DESCRIPTION	DATE	REV

PATRICK G. BLIES REGISTERED NO. 5272 COMMONWEALTH OF KENTUCKY 10/23/23

PREPARED BY: CORE STATES GROUP CONSTRUCTION, INC. 111 3rd Ave S Suite 400 Minneapolis, MN 55401 612.547.1300 www.corestates.com

PREPARED FOR: McDonald's USA, LLC

DRAWN BY	STD ISSUE DATE	REVIEWED BY	DATE ISSUED	C.S.G. PROJECT #
N.GLUKHOMAN	2022_12	M.PELINI	06/12/2023	MCD.37059

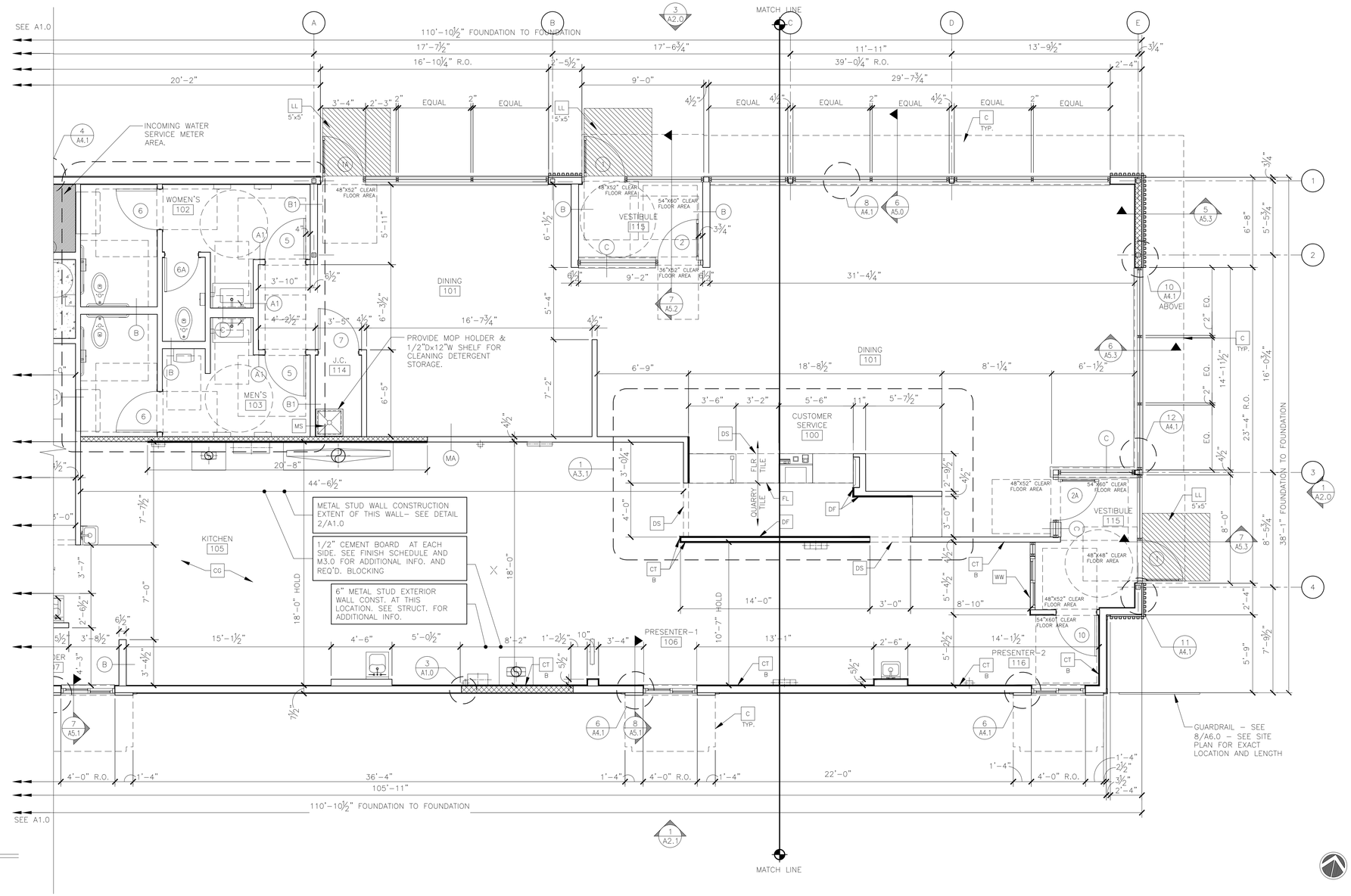
TITLE: 2023 STANDARD BUILDING – BB20 38111 – WOOD/WOOD

DESCRIPTION: WOOD BEARING WALLS W/ LAP SIDING WOOD ROOF TRUSS FRAMING BATTEN/LAP SIDING, ALPOLIC FEATURE WALL

SITE ID: 016-1002

SITE ADDRESS: 286 CARPENTER DR. FLORENCE, KY 41042

SHEET NO. 016-1002 A1.0 FLOOR PLAN



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1/4"=1'-0"
(SEE PARTIAL PLAN 1/A1.0 FOR CONTINUATION OF FLOOR PLAN)

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  COLOR: INTUITIVE GRAY, SIZE: 4"x12", PATTERN: RUNNING BOND
  GROUT: MAPEI 02 PEWTER – JOINT TO BE 3/16" MAX.
  USE THIS TILE WHEN HIGH LRV IS REQUIRED
  COORDINATE WITH McDONALD'S AREA CONSTRUCTION MANAGER
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  CONFIRM USE WITH MCDONALD'S AREA CONSTRUCTION MANAGER
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   email: fs-frankesupply.us@franke.com
7. MAXIMUM OCCUPANCY SIGN TO BE POSTED PER LOCAL CODE. SIGN FURNISHED AND INSTALLED BY GENERAL CONTRACTOR.
8. ALL HANDSINK LOCATIONS SHALL HAVE CEMENT BOARD BACKING 48" IN HEIGHT A.F.F.
9. GC TO COORDINATE ALL REQUIRED BLOCKING FOR WALL HUNG EQUIPMENT, SHELVES, ETC. FOR PROPER INSTALLATION HEIGHTS.
10. KNOX BOX TO BE INSTALLED PER LOCAL CODE AS REQUIRED. MODEL AND LOCATION TO BE COORDINATED WITH FIRE MARSHALL.

NO.	DESCRIPTION	DATE	BY

PATRICK G. BLEES — REGISTERED NO. 5272 — COMMONWEALTH OF KENTUCKY — 10/23/23

PREPARED BY: CORE STATES GROUP — CORE/ARCHITECTURE, INC.
111 3rd Ave S, Suite 400, Minneapolis, MN 55401, 612.547.1300, www.core-states.com

PREPARED FOR: McDonald's USA, LLC

DRAWN BY	STD ISSUE DATE	REVIEWED BY	DATE ISSUED
N.GLUKHOMAN	2022_12	M.PELINI	06/12/2023

C.S.G. PROJECT # MCD.37059

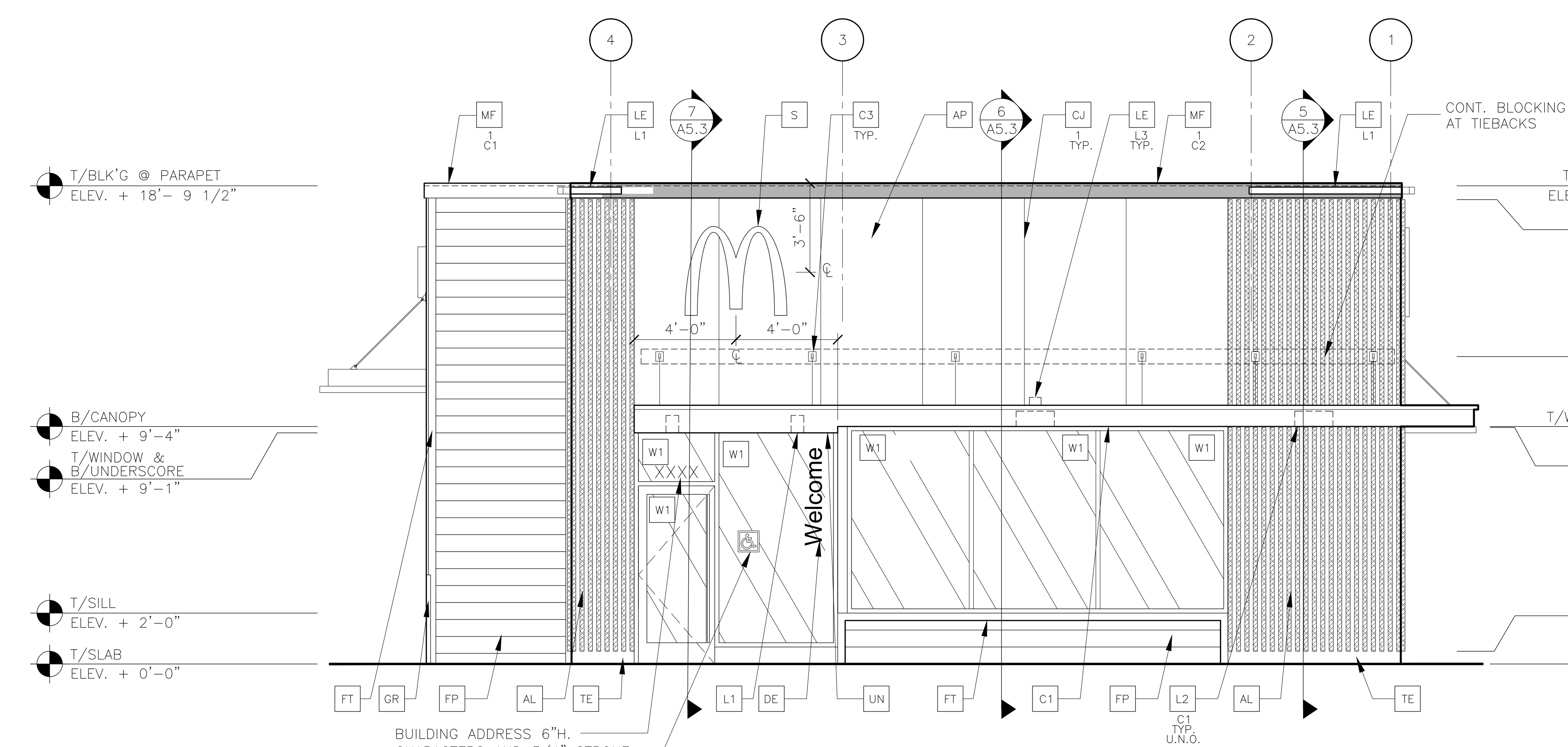
TITLE: 2023 STANDARD BUILDING – BB20
38111 – WOOD/WOOD

DESCRIPTION:
WOOD BEARING WALLS W/ LAP SIDING
WOOD ROOF TRUSS FRAMING
BATTEN/LAP SIDING ALPOLIC FEATURE WALL

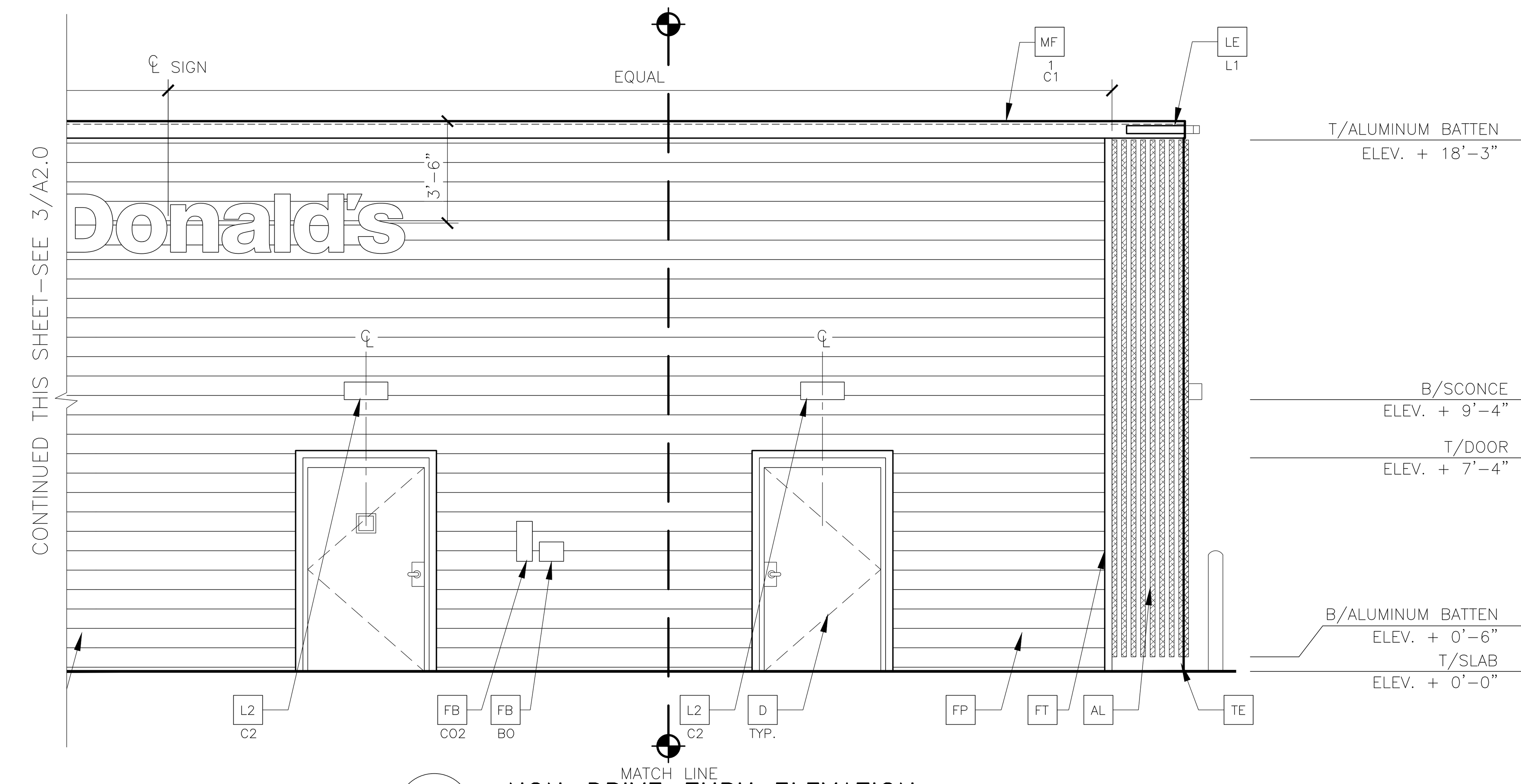
SITE ID 016-1002

SITE ADDRESS 286 CARPENTER DR. FLORENCE, KY 41042

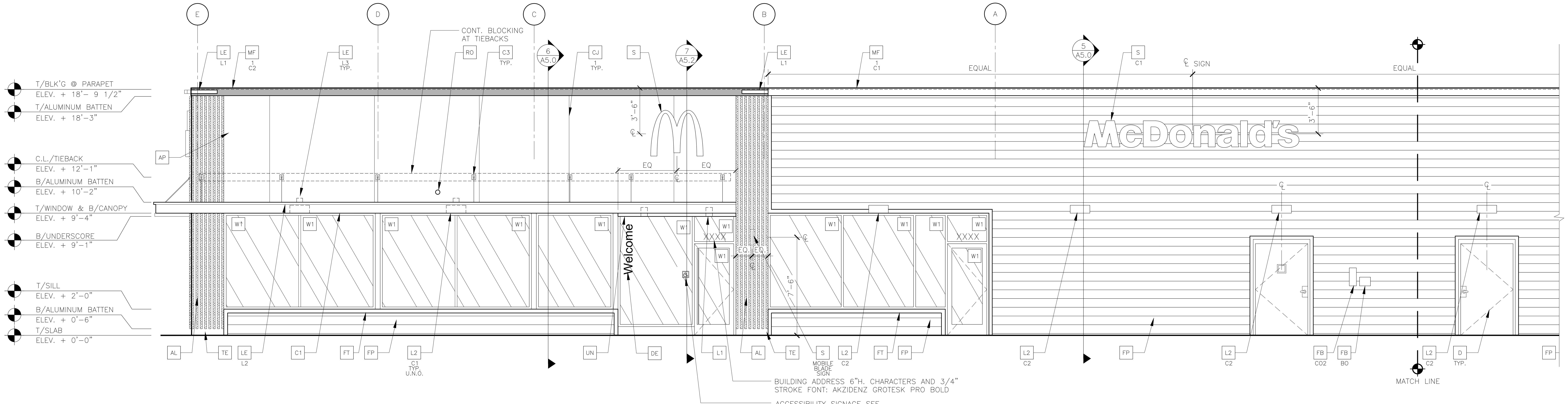
SHEET NO. 016-1002 — A1.1 — FLOOR PLAN



1 / A2.0 FRONT ELEVATION
1/4" = 1'-0"



2 / A2.0 NON-DRIVE-THRU ELEVATION
1/4" = 1'-0"



3 / A2.0 NON-DRIVE-THRU ELEVATION
1/4" = 1'-0"

KEY NOTES:

AL ALUMINUM BATTEN SYSTEM
SIZE: 2"X2" PROFILE
COLOR: WOOD GRAIN, BACKRAIL UNFINISHED, ENDCAP PAINTED TO MATCH
SUBSTRATE: 1/2" EXTERIOR HIGH DENSITY OVERLAY (HDO) PLYWOOD, BB, GROUP 1, HDO BOTH FACES, APA TRADEMARKED.
COURSE GRIT SAND SURFACES PRIOR TO PRIMING. PRIME AND PAINT BOTH SIDES AND ALL EDGES PRIOR TO INSTALLATION.
SUBSTRATE COLOR: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS

AP ALPOLIC METAL PANEL (COLOR: DON GRAY)

C1 ALUMINUM CANOPY SYSTEM W/FASCIA
COLOR: WHITE

C2 ALUMINUM CANOPY SYSTEM
COLOR: RAL 7022

C3 ALUMINUM CANOPY TIEBACK
COLOR: RAL 7022
GC TO PROVIDE CONTINUOUS BLOCKING ON WALL BEHIND TIEBACKS, WHEN TIEBACKS ARE INSTALLED ON METAL PANELING.
SEE DETAIL 3/A5.0

CJ CONTROL JOINT
1 —TYPE: 1 = EIFS

D HOLLOW METAL DOOR
PAINT: "GAUNTLET GREY" SW7019 BY SHERWIN WILLIAMS

DE DECAL BY GRAPHICS SUPPLIER
SURFACE APPLIED, FIELD INSTALLED, PRE CUT, PRE SPACED.
SUPPLIERS:
VOMELA (865) 330-7337, ann.bowen@vomela.com
GFX INTERNATIONAL (847) 543-4600, mcdonaldsdecor@gfxi.com

EJ EXPANSION JOINT, SEE DETAIL 7/A4.1

FB
C02 — C02 = BULK C02 FILL BOX (EQPM SCHEDULE ITEM 49.00)
BO = BULK OIL FILL BOX (EQPM SCHEDULE ITEM 700.18)

FP FIBER CEMENT LAP SIDING: SMOOTH HARDI-BOARD PLANK BY JAMES HARDIE, 8-1/4" WIDTH, 7" EXPOSURE, HZ5
PAINT: "GAUNTLET GREY" SW7019 BY SHERWIN WILLIAMS

FT FIBER CEMENT TRIM: HARDIE TRIM BOARDS 4/4 SMOOTH, 1 5/8" AND 3 1/2" WIDTH, 3/4" THICK, HZ5
PAINT: "GAUNTLET GREY" SW7019 BY SHERWIN WILLIAMS

GR GUARD RAIL -SEE SITE PLAN FOR EXACT LOCATION AND LENGTH
PAINT: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS

L1 RECESSED DOWN LIGHT FIXTURE - SEE ELECTRICAL
COLOR: GOLD

L2 RADIAL SCONCE LIGHT FIXTURE - SEE ELECTRICAL
C1— COLOR:
C1= WHITE
C2= PLATINUM SILVER

LE ACCENT LIGHTING - SEE ELECTRICAL
L1— LED LIGHT:
L1 = SLIM LED (DOWN ONLY)
L2 = INTEGRAL CANOPY FIXTURE
L3 = UP ONLY FLOOD FIXTURE

MF METAL FASCIA
1 — TYPE:
1 = PRE-FAB ANCHOR-TITE FASCIA
2 = BOTTOM TRIM AT METAL REVEAL PANEL
3 = VERTICAL TRIM AT METAL REVEAL PANEL CORNERS, CLOSURES
C1 — COLOR:
C1= WEATHERED ZINC
C2= RAL 7022

PB PIPE BOLLARD - PAINTED YELLOW

PT (RMHC) COIN COLLECTOR
MODEL: #WPT STD
CALL 1-888-743-7435 TO ORDER

RO ROOF DRAIN OVERFLOW PIPE PAINT TO MATCH SURROUNDING MATERIAL

S McDONALD'S SIGNAGE BY OTHERS - UNDER SEPARATE PERMIT.
C1— COLOR:
C1= WEATHERED ZINC RACEWAY
C2= RAL 7022 RACEWAY

ST CO2 STROBE/ALARM. SEE MECHANICAL DRAWINGS FOR SPECIFICATION.

TE TRU EXTERIOR 1"X6" TRIM, PAINTED ON SITE
COLOR: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS

UN METAL UNDERSCORE
COLOR: GOLD

W1 EXTERIOR WINDOW ASSEMBLY - TEMPERED GLASS
COLOR: DARK BRONZE

W2 DRIVE-THRU WINDOW BY READY ACCESS
MODEL: 600 SERIES, 36" SERVICE HEIGHT WITH TRANSOM, MANUAL OPEN; ELECTRONIC RELEASE
XX— COLOR: DEEP BRONZE
SLIDE DIRECTION: RL = RIGHT TO LEFT
LR = LEFT TO RIGHT

REV	DATE	DESCRIPTION	BY

PATRICK G. BLEES
REGISTERED
NO. 5272
COMMONWEALTH OF KENTUCKY
ARCHITECT
10/23/23

PREPARED BY:
CORE STATES GROUP
CORESTATES, INC.
111 3rd Ave S
Suite 400
Minneapolis, MN 55401
612.547.1300
www.core-states.com

PREPARED FOR:
McDonald's USA, LLC

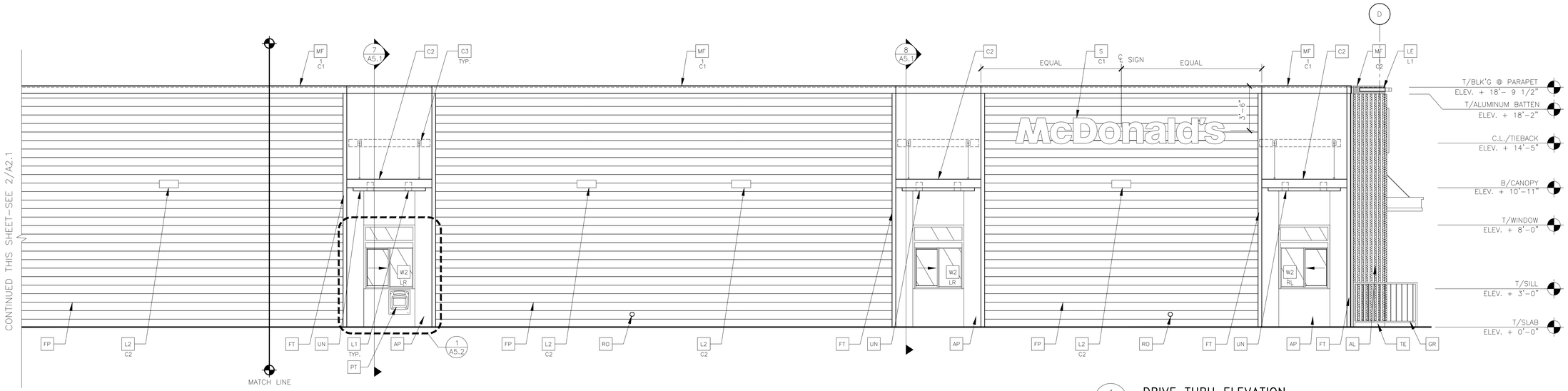
DRAWN BY: N.GLUKHOMAN
STD ISSUE DATE: 2022_12
REVIEWED BY: M.PELINI
DATE ISSUED: 06/12/2023
C.S.G. PROJECT #: MCD.37059

TITLE: 2023 STANDARD BUILDING - BB20
38111 - WOOD/WOOD

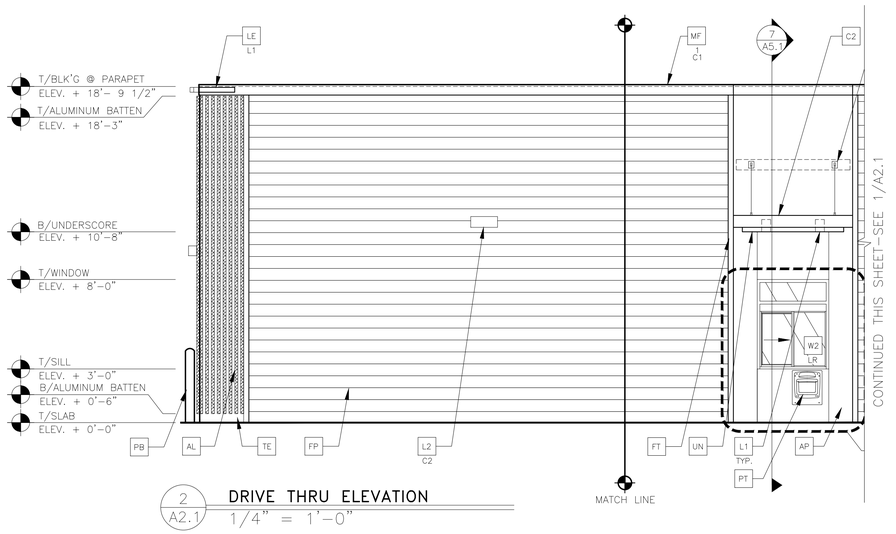
DESCRIPTION:
WOOD BEARING WALLS W/ LAP SIDING
WOOD ROOF TRUSS FRAMING
BATTEN/LAP SIDING, ALPOLIC FEATURE WALL

SITE ID: 016-1002
SITE ADDRESS: 286 CARPENTER DR. FLORENCE, KY 41042

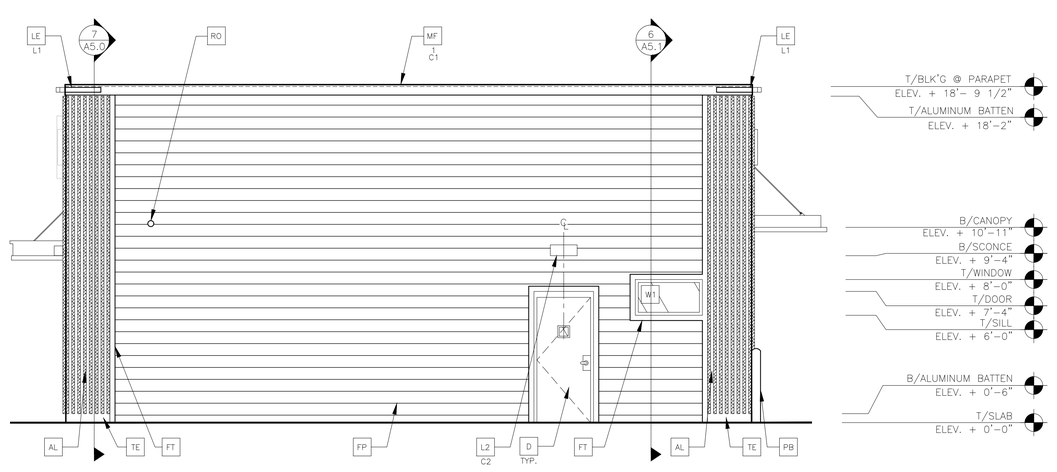
SHEET NO. 016-1002
A2.0
ELEVATIONS



1 A2.1 DRIVE THRU ELEVATION
1/4" = 1'-0"



2 A2.1 DRIVE THRU ELEVATION
1/4" = 1'-0"



3 A2.1 REAR ELEVATION
1/4" = 1'-0"

KEY NOTES:

- AL — ALUMINUM BATTEN SYSTEM
  SIZE: 2"X2" PROFILE
  COLOR: WOOD GRAIN, BACKRAIL UNFINISHED, ENDCAP PAINTED TO MATCH
  SUBSTRATE: 1/2" EXTERIOR HIGH DENSITY OVERLAY (HDO) PLYWOOD, BB, GROUP 1, HDO BOTH FACES, APA TRADEMARKED.
  COURSE GRIT SAND SURFACES PRIOR TO PRIMING. PRIME AND PAINT BOTH SIDES AND ALL EDGES PRIOR TO INSTALLATION.
  SUBSTRATE COLOR: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS
- AP — ALPOLIC METAL PANEL (COLOR: DON GRAY)
- C1 — ALUMINUM CANOPY SYSTEM W/FASCIA
  COLOR: WHITE
- C2 — ALUMINUM CANOPY SYSTEM
  COLOR: RAL 7022
- C3 — ALUMINUM CANOPY TIEBACK
  COLOR: RAL 7022
  GC TO PROVIDE CONTINUOUS BLOCKING ON WALL BEHIND TIEBACKS, WHEN TIEBACKS ARE INSTALLED ON METAL PANELING.
  SEE DETAIL 3/A5.0
- CJ — CONTROL JOINT
  1 —TYPE: 1 = EIFS
- D — HOLLOW METAL DOOR
  PAINT: "GAUNTLET GREY" SW7019 BY SHERWIN WILLIAMS
- DE — DECAL BY GRAPHICS SUPPLIER
  SURFACE APPLIED, FIELD INSTALLED, PRE CUT, PRE SPACED.
  SUPPLIERS:
  VOMELA (865) 330-7337, ann.bowen@vomela.com
  GFX INTERNATIONAL (847) 543-4600, mcdonaldsdecor@gfxi.com
- EJ — EXPANSION JOINT, SEE DETAIL 7/A4.1
- FB — C02— C02 = BULK CO2 FILL BOX (EQPM SCHEDULE ITEM 49.00)
  BO = BULK OIL FILL BOX (EQPM SCHEDULE ITEM 700.18)
- FP — FIBER CEMENT LAP SIDING: SMOOTH HARDI-BOARD PLANK BY JAMES HARDIE, 8-1/4" WIDTH, 7" EXPOSURE, HZ5
  PAINT: "GAUNTLET GREY" SW7019 BY SHERWIN WILLIAMS
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  COLOR: GOLD
- L2 — RADIAL SCONCE LIGHT FIXTURE – SEE ELECTRICAL
  C1— COLOR:
  C1= WHITE
  C2= PLATINUM SILVER
- LE — ACCENT LIGHTING – SEE ELECTRICAL
  L1— LED LIGHT:
  L1 = SLIM LED (DOWN ONLY)
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  L3 = UP ONLY FLOOD FIXTURE
- MF — METAL FASCIA
  1 — TYPE:
  C1 — 1 = PRE-FAB ANCHOR-TITE FASCIA
  2 = BOTTOM TRIM AT METAL REVEAL PANEL
  3 = VERTICAL TRIM AT METAL REVEAL PANEL CORNERS, CLOSURES
  COLOR:
  C1= WEATHERED ZINC
  C2= RAL 7022
- PB — PIPE BOLLARD – PAINTED YELLOW
- PT — (RMHC) COIN COLLECTOR
  MODEL: #WPT STD
  CALL 1-888-743-7435 TO ORDER
- RO — ROOF DRAIN OVERFLOW PIPE PAINT TO MATCH SURROUNDING MATERIAL
- S — McDONALD'S SIGNAGE BY OTHERS – UNDER SEPARATE PERMIT.
  C1— COLOR:
  C1= WEATHERED ZINC RACEWAY
  C2= RAL 7022 RACEWAY
- ST — C02 STROBE/ALARM. SEE MECHANICAL DRAWINGS FOR SPECIFICATION.
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  COLOR: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS
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  COLOR: DARK BRONZE
- W2 — DRIVE-THRU WINDOW BY READY ACCESS
  MODEL: 600 SERIES, 36" SERVICE HEIGHT WITH TRANSOM, MANUAL OPEN; ELECTRONIC RELEASE
  XX — COLOR: DEEP BRONZE
  SLIDE DIRECTION: RL = RIGHT TO LEFT
  LR = LEFT TO RIGHT

BY	DESCRIPTION	DATE	REV

PATRICK G. BLEES
REGISTERED NO. 5272
COMMONWEALTH OF KENTUCKY
10/23/23

PREPARED BY:
CORE STATES GROUP
CORE STATES CONSTRUCTION, INC
111 3rd Ave S
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PREPARED FOR:
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SITE ID: 016-1002

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SHEET NO. A2.1
016-1002
ELEVATIONS