

CITY OF BLOOMINGTON



October 17, 2024 @ 5:30 p.m.
City Hall, 401 N. Morton Street
Common Council Chambers, Room #115

[https://bloomington.zoom.us/j/82448983657?pwd=enJxcnArK1pLVDI
nWGROTU43dEpXdz09](https://bloomington.zoom.us/j/82448983657?pwd=enJxcnArK1pLVDI
nWGROTU43dEpXdz09)

Meeting ID: 824 4898 3657
Passcode: 319455

**CITY OF BLOOMINGTON
BOARD OF ZONING APPEALS (Hybrid Meeting)**

City Hall, 401 N. Morton Street
Common Council Chambers, Room #115 and via Zoom

October 17, 2024 at 5:30 p.m.

❖Virtual Meeting:

<https://bloomington.zoom.us/j/82448983657?pwd=enJxcnArK1pLVdInWGROTU43dEpXdz09>

Meeting ID: 824 4898 3657

Passcode: 319455

Petition Map: <https://arcg.is/1qznO0>

ROLL CALL

APPROVAL OF MINUTES:

PETITIONS CONTINUED TO: November 14, 2024

- AA-17-22 **Joe Kemp Construction, LLC & Blackwell Construction, Inc.**
Summit Woods (Sudbury Farm Parcel O) W. Ezekiel Dr.
Parcel(s): 53-08-07-400-008.002-009, 53-08-07-400-008.004-009...
Request: Administrative Appeal of the Notice of Violation (NOV) issued
March 25, 2022. Case Manager: Jackie Scanlan
- V-27-22 **Cutters Kirkwood 123, LLC**
113 E. Kirkwood Ave.
Parcel: 53-05-33-310-062.000-005
Request: Variances from Downtown Character Overlay standards to allow less
non-residential area and less large display windows; and a variance from the
requirement to align with the front setback of an adjacent historic structure in the
Mixed-Use Downtown zoning district with the Courthouse Square Character
Overlay (MD-CS). Case Manager: Jackie Scanlan
- V-26-24 **Elisha Spier**
2110 E. Covenant Drive
Parcel: 53-08-03-407-027.000-009, 53-08-03-409-002.000-009
Request: Conditional use request to allow a home occupation in the home
and variances from use-specific standards related to the number of
employees and on-site sales in the Residential Medium Lot (R2) zoning
district. Case Manager: Jackie Scanlan
- CU-31-24 **Tim Henke**
915 & 927 E Miller Drive

*Auxiliary aids for people with disabilities are available upon request with adequate notice. Please call 812-349-3429 or
E-mail human.rights@bloomington.in.gov.*

The City is committed to providing equal access to information. However, despite our efforts, at times, portions of our board and commission packets are not accessible for some individuals. If you encounter difficulties accessing material in this packet, please contact Melissa Hirtzel at hirtzelm@bloomington.in.gov and provide your name, contact information, and a link to or description of the document or web page you are having problems with.

Parcel(s): 53-08-09-104-124.000-009, 53-08-09-104-120.000-009

Request: Conditional use approval to allow a "Dwelling, cottage development" in the Residential Medium Lot (R2) zoning district.

Case Manager: Eric Greulich

PETITIONS:

- V-23-24 **Scott and Susan Slaven**
2408 S. Shadow Grove Ct
Parcel: 53-08-10-403-014.000-009
Request: Variance from Entrance and Drive standards to allow a circle drive and from fence height standards for a property in the Residential Medium Lot (R2) zoning district.
Case Manager: Eric Greulich
- V-27-24 **Keith Clay**
729 S. Washington Street
Parcel: 53-08-04-217-049.000-009
Request: Variances from detached garage setback standards and from improved alley access standards in the Residential Large Lot (R3) zoning district. Case Manager: Jackie Scanlan
- V-28-24 **John Kincaid**
523 W. 7th Street
Parcel: 53-05-32-413-0800000-005
Request: Determinate sidewalk variance to allow construction of a single-family dwelling without construction of a sidewalk along the Jackson Street frontage of the property in the Residential Urban Lot (R4) zoning district.
Case Manager: Gabriel Holbrow
- V-29-24 **Lindsay & Michael Hannon**
711 S. Fess Avenue
Parcel: 53-08-04-112.049.000-009
Request: Variance from side yard setbacks to convert detached garage to an ADU in the Residential Small Lot (R3) zoning district.
Case Manager: Joe Patterson
- CU-30-24 **Layton Cockerham**
1001 N. Jackson Street
Parcel: 53-05-32-106-037.000-005
Request: Conditional use approval to allow a "Dwelling, duplex" use in the Residential Small Lot (R3) zoning district.
Case Manager: Eric Greulich

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required for a circle drive, from the maximum 10' width allowed for a circle drive, and from the minimum 60' separation between two driveway access points required to allow the circle drive to remain as constructed.

In summary, the petitioners are requesting two variances consisting of:

- (1) Variance from fence height standards in the Residential Medium Lot (R2) zoning district, to allow a six-foot tall wrought iron and limestone pillar fence on the south edge of the property and an eight-foot tall privacy fence along the eastern and western edge of the property, forward of the front building wall to remain as constructed.
- (2) Variance from circle drive standards in the Residential Medium Lot (R2) zoning district, to allow the drive, as constructed, in place.

CRITERIA AND FINDINGS FOR DEVELOPMENT STANDARDS VARIANCE
20.06.080(b)(3)(E) Standards for Granting Variances from Development Standards:

A variance from the development standards of the Unified Development Ordinance may be approved only upon determination in writing that each of the following criteria is met:

- 1) *The approval will not be injurious to the public health, safety, morals, and general welfare of the community.*

PROPOSED FINDING:

Fencing: The granting of this variance would be injurious to the general welfare of the community. The fencing could have been constructed to meet the existing regulations within the UDO as personal security and privacy concerns are not valid exemptions from development standards. As constructed, the fencing does not align with the character of the neighborhood.

Circle Drive: The petitioners failed to address how a lack of a circle drive would be injurious. The assertion that the home is located on two lots does not automatically allow for a separate drive as the two lots were built as one developable lot for planning and zoning purposes and the property has historically been accessed by a singular driveway with no known or reported negative impacts. The safety concerns provided could be addressed with a turnaround or some similar feature within the property.

- 2) *The use and value of the area adjacent to the property included in the Development Standards Variance will not be affected in a substantially adverse manner.*

PROPOSED FINDING:

Fencing: The use and value of the areas adjacent to the property are affected in a substantially adverse manner as the manner of installation does not meet the character of the neighborhood.

Circle Drive: Although there is one other property on this street with a circle drive, this is

not the predominant development pattern within this neighborhood. The use and value of the areas adjacent to the property are not affected in a substantially adverse manner as circle drives do exist for other homes within the immediate neighborhood.

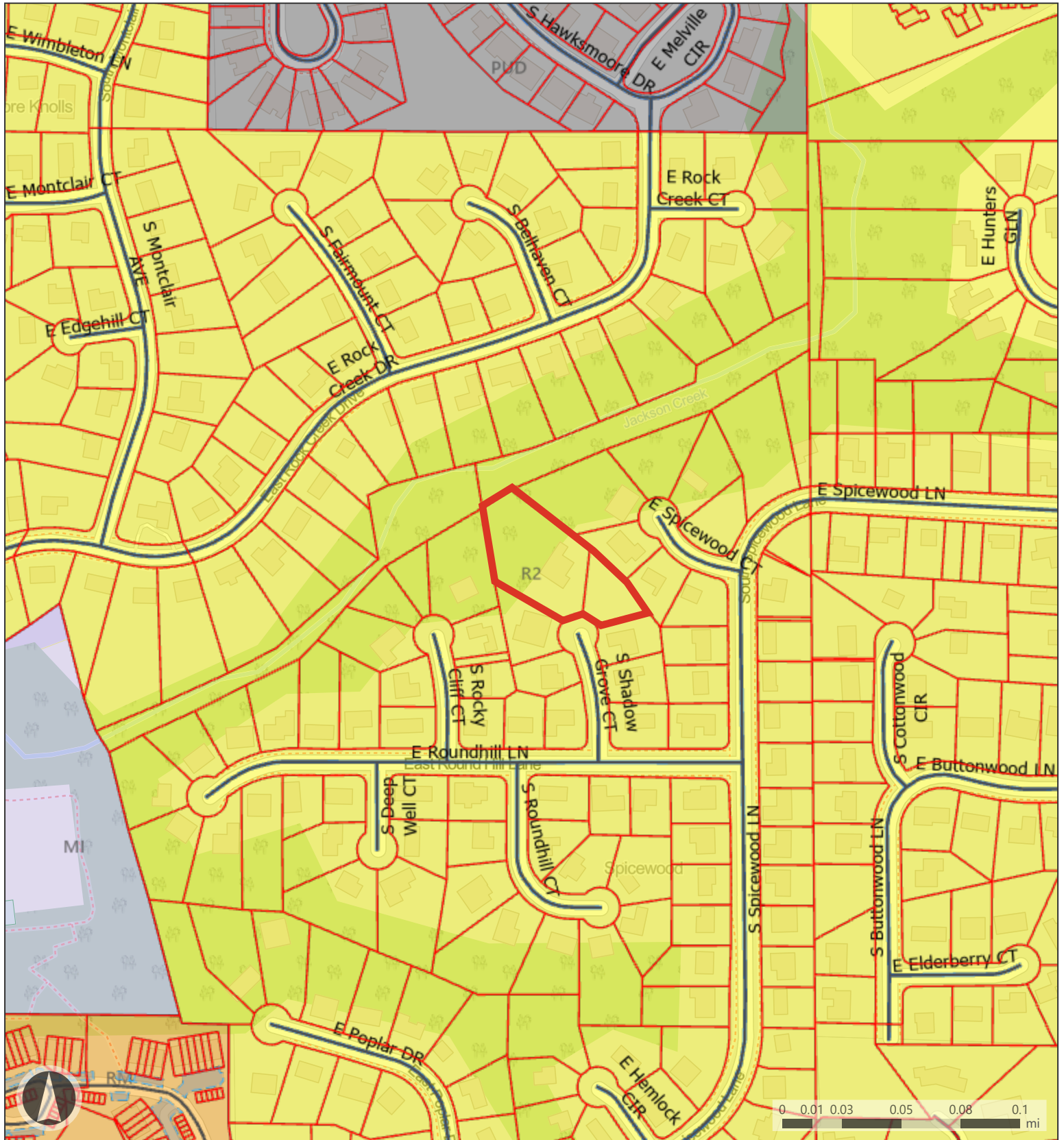
- 3) *The strict application of the terms of the Unified Development Ordinance will result in practical difficulties in the use of the property; that the practical difficulties are peculiar to the property in question; that the Development Standards Variance will relieve the practical difficulties.*

PROPOSED FINDING:

Fencing: The strict application of the terms of the UDO does not result in any practical difficulties of maintaining a four-foot tall fence within the front yard area as there are numerous properties within the City that meet the four-foot requirement. There are no practical difficulties to meeting the fence height requirement that are peculiar to this property. The home is a distance from the front property line that is not uncommon and no peculiar property characteristics warrant variance from the requirement. The approval of this variance would detract from the character of the neighborhood and would fail to meet standards as desired by the UDO for the community in general which could be met under practical circumstances.

Circle Drive: The strict application of the terms of the UDO does not result in practical difficulties as the UDO does not assume that every property will have enough frontage for a circle driveway. The petition site has 100 feet of frontage, which exceeds the minimum width requirements for the zoning district. There are no practical difficulties to meeting the driveway requirements for this property, as the number of driveway cuts that meet the UDO requirement previously existed on this site. The approval of this variance would detract from the character of the neighborhood and would fail to meet standards as required by the UDO for the community in general. There are no peculiar conditions of this property that do not allow safe access to the property through a singular connection. The location of this property at the end of a cul-de-sac results in very low traffic and thus low safety hazards related to ingress and egress.

RECOMMENDATION: The Department recommends that the Board of Zoning Appeals adopt the proposed findings and deny both requested variances.



Map Legend

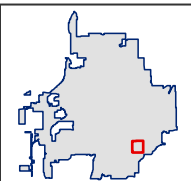
- Parcels
- Parking Lot Type**
- Paved Parking Lot

- Current
- City Maintained Streets

Street Typology

- Neighborhood Connector
- Neighborhood Residential

- Bloomington Municipal
- Mixed-Use Institutional
- Planned Unit Development





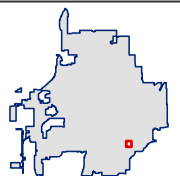
Map Legend

- Parcels
- Buildings
- Pavement

- Current
- City Maintained Streets

Street Typology

- Neighborhood Connector
- Neighborhood Residential





City of Bloomington
Planning and Transportation Department

March 8, 2024

Hiram S & Susan Slaven
2408 South Shadow Grove Court
Bloomington, IN 47401

Re: Notice of Violation

- Outdoor Lighting
- Outdoor Storage
- Fence Height
- Number of Drives
- Siltation and Erosion Prevention
- Steep Slope Development
- Floodplain Development
- Riparian Buffers

Dear Sir or Madam:

This Notice of Violation (NOV) serves as a formal warning of non-compliance with Unified Development Ordinance (UDO) **Section 20.04.090 [Development Standards & Incentives; Outdoor Lighting]**, **Section 20.03.030(e)(1) [Use-Specific Standards; Employment Uses; Storage, Outdoor]**, **Section 20.04.080(n) [Development Standards & Incentives; Landscaping, Buffering, and Fences; Fences and Walls]**, **Section 20.04.050(C) [Development Standards & Incentives; Access and Connectivity; Driveways and Access]**, **Section 20.04.030(d)(3) [Environment; Siltation and Erosion Prevention; Erosion and Pollutant Control Requirements]**, **Section 20.04.030(c) [Environment; Steep Slopes]**, **Section 20.06.050(d)(2) [Administration & Procedures; Development Permits and Procedures; Floodplain Development Permit; Applicability]**, and **Section 20.04.030(f) [Development Standards & Incentives; Environment; Riparian Buffers]** at 2408 S Shadow Grove Court. Records show that you are the owner of this property.

The City of Bloomington Planning and Transportation Department staff received a complaint of bright lighting and land disturbing activity, including the cutting down and burning of trees, occurring on steep slopes at 2408 S Shadow Grove Court on 02/16/2024. Staff observed lighting potentially in excess of lumen limits causing glare, prohibited outdoor storage of materials, non-compliant fencing, multiple driveways which exceed the allowed number, and violations of Environmental Standards at 2408 S Shadow Grove Court on 02/20/2024, 02/22/2024, and 03/01/2024 (see enclosed). Specifically, staff observed the following: multiple strings of light bulbs visible from the northwest property line, building materials in the yard in the southeast portion of the property, fencing forward of the front building wall of the primary structure exceeding 4 feet in height, two driveways at the property, and the tracking of sediment into the adjacent roadway.

Additionally, staff observed disturbed, non-stabilized earth with exposed dirt on steep slopes in the floodplain and in the riparian buffer zones with a lack of erosion control measures in place. Staff also observed trees that had been removed from the steep slope and apparently from City-owned property within the floodplain and within the riparian buffer zones, as well as brush and wood piles pushed downhill partially onto City-owned property (see enclosed). Please note that a Stop Work Order (SWO) was issued on 02/22/2024 at 2408 S Shadow Grove Court. No work should occur at 2408 S Shadow Grove Court until the SWO has been lifted by the Planning and Transportation Department or you receive written approval from the Planning and

Transportation Department to conduct work to remedy the violations in order to lift the SWO. Machinery continued to operate on site causing earth disturbance and trees continued to be cut down on City-owned property in the riparian buffer and floodplain on 02/29/2024 (see enclosed). The property is located in the Residential Medium Lot (R2) Zoning District.

According to Unified Development Ordinance UDO **Section 20.04.090 [Development Standards & Incentives; Outdoor Lighting];**

(3) Exemptions

(F) Low Intensity Lighting

- i. No shielding is required for a light fixture with a bulb rated 260 lumens or less.
- ii. Full shielding is not required for a light fixture with a bulb rated at more than 260 lumens and less than 1,000 lumens when the bulbs are installed inside frosted glass or other translucent covers and shielded on top.
- iii. The total lumens of bulbs specified in subsections 20.04.090(b)(3)(F)i and 20.04.090(b)(3)(F)ii above, when not motion detector activated, shall not exceed 2,000 lumens per building, or 1,000 lumens per exterior entryway, whichever is less.

According to Unified Development Ordinance UDO **Section 20.04.090 [Development Standards & Incentives; Outdoor Lighting];**

(c) General Standards

(5) Glare

All lighting fixtures shall be installed so as not to cause glare at or beyond the property line and shall not be aimed toward traffic.

According to Unified Development Ordinance (UDO) **Section 20.07.010 [Definitions; Defined Words]; Storage, Outdoor**

The storage of any material outside of an enclosed building for a period greater than 24 hours, including but not limited to storage of items awaiting processing or repair. This use does not include "Vehicle Sales or Rental" or accessory "Outdoor Retail and Display" uses.

According to Unified Development Ordinance (UDO) **Section 20.03.030(e)(1) [Use-Specific Standards; Employment Uses; Storage, Outdoor];**

(C) Prohibited Storage Materials

In all zoning districts where this use is allowed, except for the MI zoning district, outdoor storage of equipment, materials, waste or scrap materials, and pallets is prohibited.

According to Unified Development Ordinance (UDO) **Section 20.04.080(n) [Development Standards & Incentives; Landscaping, Buffering, and Fences; Fences and Walls];**

(3) Fence and Wall Height

(A) Interior Lots

- i. Behind the front building wall of the primary structure, fences and walls shall not exceed a combined height of eight feet, except as provided in Subsection (1)(G) above.
- ii. Forward of the front building wall of the primary structure, fences and walls shall not exceed four feet in height.

According to Unified Development Ordinance UDO **Section 20.04.050(C) [Development Standards & Incentives; Access and Connectivity; Driveways and Access];**

(1) Number of Drives

(A) Single-Family, Duplex, Triplex, and Fourplex Residential Uses

For single-family, duplex, triplex, and fourplex residential uses, a maximum of one driveway access point shall be permitted, regardless of the number of street frontages, except that a circle drive shall be permitted according to the following standards:

- i. The maximum circle drive width shall be 10 feet;
- ii. The lot shall have at minimum of 120 feet of street frontage on the street the circle drive will access; and
- iii. The minimum distance between the driveway access points of a circle drive shall be 60 feet, measured from the inside edge of each driveway where it intersects the public right-of-way.

According to Unified Development Ordinance (UDO) **Section 20.07.010 [Definitions; Defined Words]; Land Disturbing Activity**

Any man-made change of the land surface including removing vegetative cover, removal of trees, excavating, filling and grading but not including agricultural land uses such as planting, growing, cultivating and harvesting of crops, growing and tending of gardens and landscape modifications.

According to Unified Development Ordinance (UDO) **Section 20.04.030(d)(3) [Environment; Siltation and Erosion Prevention; Erosion and Pollutant Control Requirements];**

(A) Current Preferred Practices

All sites undergoing land disturbing activities, regardless of size, shall prevent the erosion of sediment or any other contaminant off site or conveyed into any bodies of water, either by wind or water. All land disturbing activities shall be protected by current preferred practices (CPP) including, but not limited to silt or erosion-control fences, filter socks, straw bales, sedimentation basins, articulated concrete blocks, mechanically stabilized earth, storm grate filters, or erosion control mats.

(D) Tracking

Each site shall have sediment control devices or crushed stone streets, access drives, and parking areas of sufficient size and thickness to prevent sediment from being tracked onto public or private streets. Such areas shall be maintained at sufficient size and thickness throughout the duration of the construction activity on site. Any sediment that leaves the site is a violation of this UDO.

(F) Sediment Control

Sediment shall be controlled and contained on site, and control measures shall prevent damage to existing vegetation or pavement.

(I) Finished Grade

Disturbed areas that are at finished grade with installed utilities shall be permanently seeded or mulched within seven days.

(J) Unfinished Grade

Areas that have undergone land-disturbing activities and are not yet at finished grade, and that have no construction activity for 15 days or more, shall be established with temporary vegetation, seed, and/or straw, or other measures approved by the City.

For your reference, according to Unified Development Ordinance (UDO) **Section 20.04.030(d)(3)(L) [Environment; Siltation and Erosion Prevention; Erosion and Pollutant Control Requirements; Plastic Netting]**, "Under no circumstances shall plastic netting or mesh be used on site for any type of permanent landscaping or erosion control." Thus, all erosion control measures or seed protection mats installed shall not include any plastic netting or mesh.

According to Unified Development Ordinance (UDO) **Section 20.07.010 [Definitions; Defined Words]; Development (Generally)**

In all other contexts, the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any structure, any mining, excavation, landfill or land disturbance, or any change in use, or alteration or extension of the use of land.

According to Unified Development Ordinance (UDO) **Section 20.04.030(c) [Environment; Steep Slopes];**

(4) Excessive Slopes

Areas of land where the pre-development slopes are greater than 18 percent shall not be disturbed for any improvements with the exception of utility lines.

(5) Steep Slopes

Any development on slopes between 12 percent and 18 percent shall be allowed a maximum disturbance of 50 percent of the total slope area. Priority for slope preservation shall be given to slope areas that exhibit one or more of the following characteristics:

- (A) Presence of highly erodible soils as identified in the Web Soil Survey produced by the National Cooperative Soil Services and operated by the USDA Natural Resources Conservation Service;
- (B) Adjacent to slopes of greater than 18 percent;
- (C) Adjacent to water resources;
- (D) Adjacent to other environmental features that are required to be preserved as part of this UDO; or
- (E) Presence of tree cover on 50% or more of the surface area of the slope.

According to Unified Development Ordinance (UDO) **Section 20.07.010 [Definitions; Defined Words];**

Development (Floodplain Regulations)

For purposes of floodplain management any man-made change to improved or unimproved real estate including but not limited to:

- 1) construction, reconstruction, or placement of a structure or any addition to a structure;
- 2) installing a manufactured home on a site, preparing a site for a manufactured home or installing a recreational vehicle on a site for more than 180 days;
- 3) installing utilities, erection of walls and fences, construction of roads, or similar projects;
- 4) construction of flood control structures such as levees, dikes, dams, channel improvements, etc.;
- 5) mining, dredging, filling, grading, excavation, or drilling operations;
- 6) construction and/or reconstruction of boat lifts, docks, piers, or seawalls;
- 7) construction and/or reconstruction of bridges or culverts;
- 8) storage of materials; or
- 9) any other activity that might change the direction, height, or velocity of flood or surface waters.

"Development" does not include activities such as the maintenance of existing structures and facilities such as painting, re-roofing; resurfacing roads; or gardening, plowing, and similar agricultural practices that do not involve filling, grading, excavation, or the construction of permanent structures.

According to Unified Development Ordinance UDO **Section 20.06.050(d)(2) [Administration & Procedures; Development Permits and Procedures; Floodplain Development Permit; Applicability];**

- (A) No development shall occur in any special flood hazard area (SFHA) and known flood prone areas, unless a grading permit for such activity has been issued.
- (B) Compliance with the standards in this UDO shall not relieve any person of the independent obligation to comply with all applicable standards and practices established in federal and state law and all other applicable rules, regulations, standards and specifications of the City regarding development within a floodplain.

According to Unified Development Ordinance (UDO) **Section 20.04.030(f) [Development Standards & Incentives; Environment; Riparian Buffers];**

(1) Applicability

- (A) This subsection shall apply to all land development activities on properties that are contiguous with or contain intermittent or perennial streams. However, platted lots of record of less than one-half acre in size shall not be subject to 20.04.030(f)(6) nor 20.04.030(f)(7) of this section.
- (B) Any new, non-single-family development that is exempt from providing riparian buffer zones as outlined in 20.04.030(f)(1), shall provide at least a 25-foot wide streamside buffer zone in compliance with the design standards of 20.04.030(f)(5). Additionally, two of the following best

management practices, including plans for post-installation maintenance of such practices, shall be incorporated into the site design:

- i. Use of 100 percent native vegetation;
- ii. Use of permeable pavement for at least 50 percent of all the on-site parking areas;
- iii. Biofiltration swales;
- iv. Culverts outfalls; or
- v. 50 percent vegetated roof.

(2) Adjacent Properties

Where intermittent or perennial streams are present on adjacent properties, and where required buffer zones for such streams would extend onto the subject property, the buffer zones required by this subsection (f) shall be established.

(3) Easements

All riparian buffer zones required to be preserved subject to this subsection (f) shall be placed within riparian buffer easements pursuant to the standards of Section 20.05.040 (Easements).

(4) Graduated Buffer Zones

All intermittent or perennial streams shall be protected by a riparian buffer composed of three distinct zones. These zones shall be defined as:

(A) Streamside Zone (Zone 1)

The primary function of the streamside zone is to ensure stream-bank stabilization.

(B) Intermediate Zone (Zone 2)

The primary function of the intermediate zone is to protect soil particles that trap nutrients and chemicals.

(C) Fringe Zone (Zone 3)

The primary function of the fringe zone is to filter runoff, and to maximize infiltration, water storage, and nutrient absorption.

(5) Streamside Zone Design

The streamside zone (Zone 1) shall be designed as follows:

(A) Location

Immediately adjacent to the stream channel.

(B) Buffer Width

The width of this zone shall be a minimum of 25 feet on each side of the stream, measured from the centerline of the stream.

(C) Vegetation Requirements

All vegetative cover within this zone shall consist of undisturbed, existing vegetation, except that invasive and nonnative plants may be removed. In cases where little or no existing vegetation is present, only native, water tolerant species shall be planted. Acceptable species for planting within buffer zones are listed in Section 20.04.080(d) (Permitted Plant Species). Plant spacing and density for new vegetation within buffer zones shall comply with specifications of the natural resource's conservation service for each plant type.

(D) Disturbance Activities

Only the following land disturbance activities may be allowed within this zone, subject to approval of the City Planning and Transportation Department:

- i. Utility installation; if no alternative location is available;
- ii. Street crossings, where necessary to achieve connectivity;
- iii. Bicycle and/or pedestrian crossings, where necessary to achieve connectivity;
- iv. Connector path and multi-use trail constructed with a permeable surface.

(6) Intermediate Zone Design

The intermediate zone (Zone 2) shall be designed as follows:

(A) Location

Immediately outside the streamside zone (Zone 1).

(B) Buffer Width

The required width shall be a minimum 25 feet on each side, measured perpendicularly from the outer boundary of Zone 1.

(C) **Vegetation Requirements**

Vegetative cover within this zone shall consist of undisturbed, existing vegetation, supplemented by native, groundcover and edge vegetation except that invasive and non-native plants may be removed. In cases where little or no existing vegetation is present, only native, water tolerant species shall be planted. Appropriate species for planting within buffer zones are listed in Section 20.04.080(d) (Permitted Plant Species). Plant spacing and density for new vegetation within buffer zones shall comply with specifications of the natural resource's conservation service for each plant type.

(D) **Disturbance Activities**

Only the following land disturbance activities may be allowed within this zone, subject to approval of the City Planning and Transportation Department:

- i. All activities allowed in Zone 1 (streamside zone); and
- ii. Stormwater management facilities.

(7) Fringe Zone Design

The fringe zone (Zone 3) shall be designed as follows:

(A) **Location**

Immediately outside the intermediate zone (Zone 2).

(B) **Buffer Width**

The required width shall be a minimum of 25 feet measured perpendicular from the outer boundary of Zone 2.

(C) **Vegetation Requirements**

The vegetative cover for the outer zone shall be native grasses, sedges, and forbs that perform phytofiltration, except that invasive and non-native plants may be removed. In addition, woody plants may be utilized where appropriate. Appropriate species for planting within buffer zones are listed in Section 20.04.080(d) (Permitted Plant Species). Plant spacing and density for new vegetation within buffer zones shall comply with specifications of the natural resource's conservation service for each plant type.

(D) **Disturbance Activities**

Only the following land-disturbance activities may be allowed within this zone, subject to approval of the City Planning and Transportation Department:

- i. All activities allowed within Zones 1 and 2.
- ii. Streets, as needed to achieve connectivity where no reasonable alternative route can be identified and where a need for new streets has been established, as required by adopted City regulations and Common Council policy.

(8) Additional Riparian Buffer Design Standards

(A) Riparian buffer design shall be fitted to the topography and soil conditions of the site.

(B) Preference shall be given to preserving existing vegetation within riparian buffer areas. Protection of tree crowns and root zones within the dripline shall be required for all trees planned for retention.

(C) Temporary vegetation, sufficient to stabilize the soil, may be required on all disturbed areas as needed to prevent soil erosion. New plantings shall be given sufficient water and protection to ensure reestablishment.

(D) In order to ensure vegetative diversity, a minimum of nine different plant species shall be used within the overall riparian buffer area. At least three of these species shall be trees selected from Section 20.04.080(d) (Permitted Plant Species).

(E) No alteration to the shoreline or bed of a stream or creek shall be made unless written approval is obtained from the appropriate governmental agencies. Alterations subject to this requirement include, but are not limited to, filling, damming, or dredging of a stream, creek, ditch, or wetland.

(9) Riparian Buffer Maintenance

Management of riparian buffers shall be limited to the minimum necessary, with no alterations of forest understory, except for the removal of nonnative or invasive species. Limited mowing may occur in Zone 3 but shall be prohibited in Zones 1 and 2.

In accordance with UDO Section 20.06.100, a Violation of Environmental Standards for land disturbing activity on steep slopes, in the floodplain, and in the riparian buffer may result in a two-thousand-five-hundred dollar (\$2,500) fine per violation; a Violation of Illegal Land Use for prohibited outdoor storage materials may result in a two-thousand-five-hundred dollar (\$2,500) fine; and a Violation of Failure to Comply with Development Standards for non-compliant lighting, fence height, and number of drives may result in a one hundred dollar (\$100) fine per violation. Each day a violation is allowed to continue is considered a distinct and separate violation. Subsequent violations are twice the previous fine, up to a maximum daily fine of seven thousand five hundred dollars (\$7,500).

As a result of violating the Stop Work Order (SWO) issued on 02/22/2024, pursuant to BMC Section 20.06.100(d), Hiram S & Susan Slaven, are hereby assessed a fine of \$2,500. This is reflective of a two thousand five hundred dollar (\$2,500) fine per day for continued site work in violation of the SWO observed on 02/29/2024. Payment of the full amount of \$2,500 shall be made to City of Bloomington Planning and Transportation, 401 N. Morton St., Suite 130, Bloomington, IN 47404, no later than 03/22/2024.

If the violations remain unresolved, additional fines will begin to accrue daily on 03/23/2024 in accordance with above referenced UDO Section 20.06.100 [Enforcement and Penalties] until such a time as the violation is remedied. To remedy the situation, the following actions need to be taken:

1. Submit a lighting plan with specification information, including total lumens rating per light bulb and total lumens rating for all lighting fixtures installed on the building, to the Planning and Transportation Department by 03/22/2024. **OR;**
Remove the non-compliant lighting by 03/22/2024.
2. Remove any building materials and equipment from the property or place them in an enclosed building by 03/22/2024.
3. Remove the fencing in excess of 4 feet in height forward of the front building wall by 03/22/2023. **OR;**
Make a phone appointment with a Planner to occur on or before 03/22/2023 to discuss filing a variance request, **AND** file for a variance by 04/26/2024 for the 05/23/2024 Board of Zoning Appeals hearing. **It is very unlikely that you would receive a variance approval for fence height forward of the front building wall of the primary structure.**
4. Submit a completion timeline, to return the width and design of the driveway to a compliant state for review and approval by the Planning and Transportation Department by 03/22/2024. **OR;**
Make a phone appointment with a Planner to occur on or before 03/22/2023 to discuss filing a variance request, **AND** file for a variance by 04/26/2024 for the 05/23/2024 Board of Zoning Appeals hearing.
5. Install erosion controls to prevent sediment/debris from leaving the site, specifically at the base of the steep slope that has been disturbed to the northwest of the site, by 03/22/2024.
6. Sweep the areas adjacent to 2408 S Shadow Grove Court to contain the sediment/debris onto the site by 03/22/2024.
7. If the disturbed areas are at finished grade, permanently revegetate the areas by 03/22/2024. **OR;**
If the disturbed areas are at unfinished grade and have no construction activity for 15 days or more, revegetate the areas with temporary vegetation, seed, and/or straw by 03/22/2024.
8. Disturbance is not permitted on excessive slopes greater than 18 percent as outlined above. Submit a timeline for a remediation plan to return the site to a compliant state by 03/22/2024. The remediation plan must include specifications on number and species of trees and vegetation to be replanted. A survey of the area may be required. **OR;**
Make a phone appointment with a Planner to occur on or before 03/22/2024 to discuss filing a variance request, **AND** file for a variance by 04/26/2024 for the 05/23/2024 Board of Zoning Appeals hearing.

9. Development on slopes between 12 and 18 percent shall only be allowed a maximum disturbance of 50 percent of the total slope area as outlined above. A Stop Work Order was issued on 02/22/2024; No development or land disturbing activity in these areas should occur in excess of the allowed 50 percent.
10. Disturbance has occurred in the floodplain without a permit. As outlined above, a Floodplain Development Permit is required for this activity. Contact the Floodplain Administrator to discuss the process and requirements of a Floodplain Development Permit, **AND** apply for a Floodplain Development Permit by 03/22/2024.
11. Disturbance and the removal of trees and vegetation has occurred in the riparian buffer zones. Submit a timeline for a remediation plan to return the site to a compliant state by 03/22/2024. The remediation plan must include specifications on number and species of trees and vegetation to be replanted. A survey of the area may be required. **OR;**
Make a phone appointment with a Planner to occur on or before 03/22/2024 to discuss filing a variance request, **AND** file for a variance by 04/26/2024 for the 05/23/2024 Board of Zoning Appeals hearing.

If you dispute the City's assertion that the property is in violation of the above referenced sections of the Unified Development Ordinance, you may file an appeal with the City's Board of Zoning Appeals. Said appeal shall be filed with the Planning and Transportation Department within ten (10) days of your receipt of this Notice of Violation and shall conform to the requirements of UDO Section 20.06.080(d).

Failure to resolve this violation may result in further enforcement action. If a fine is issued, the final fine amount shall be paid to the City of Bloomington. All fines may be contested in the Monroe County Circuit Courts.

Please contact the Planning and Transportation Department at planning@bloomington.in.gov or 812-349-3423 with any questions or concerns.

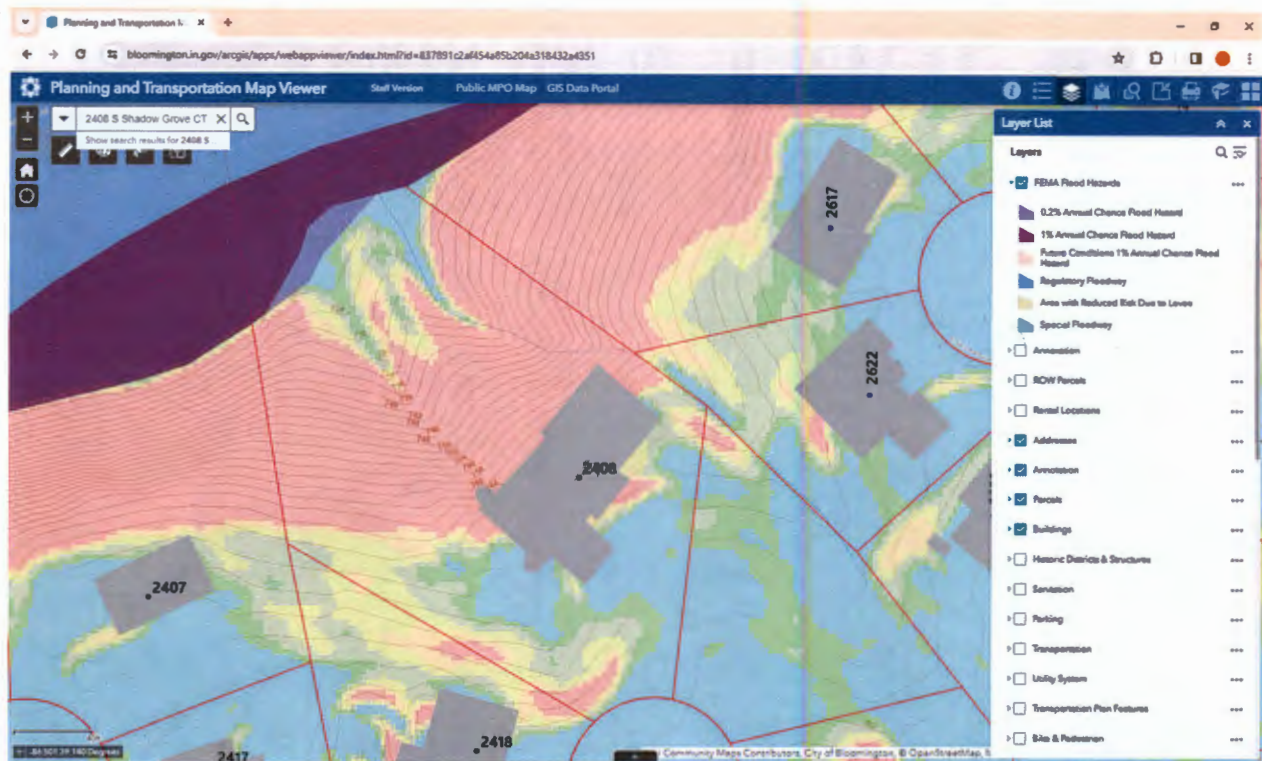
Sincerely,



Joy Brown
Zoning Compliance Planner, Planning and Transportation Department

Enclosures (25): (1) Steep Slope and FEMA Flood Hazards Map; (24) Photographs

CC: Jackie Scanlan, AICP, Interim Director, Development Services Manager, Planning and Transportation Department
Beth Rosenbarger, AICP, Assistant Director, Planning and Transportation Department
Jennifer Burrell, Floodplain Administrator, Senior Zoning Compliance Planner, Planning and Transportation Department



Map 1: Map of steep slopes and FEMA Flood Hazards at 2408 S Shadow Grove Court. Areas in red represent a slope of 24 degrees or higher. Areas in orange represent a slope of 21 to 24 degrees. Areas in yellow represent a slope of 18 to 21 degrees. Areas in light brown represent a slope of 15 to 18 degrees. Areas in green represent a slope of 12 to 15 degrees. Areas in blue represent a slope of 0 to 12 degrees. Slopes greater than 18 percent shall not be disturbed for any improvements with the exception of utility lines. This means development and land-disturbing activity are prohibited in all areas of yellow, orange, and red on this map. The floodplain (floodway) is located at the northwestern border of 2408 S Shadow Grove Court where land disturbing activity was taking place. As shown in the Layers List, the blue-purple area represents the Regulatory Floodway, the darker purple area represents the 1% Annual Chance Flood Hazard Area, and the light purple area represents the 0.2% Annual Chance Flood Hazard Area.



Photo 1: Disturbed land, including trees removed on steep slopes at 2408 S Shadow Grove Ct on 02/22/2024.



Photo 2: Disturbed land, including trees removed on steep slopes at 2408 S Shadow Grove Ct on 02/22/2024.



Photo 3: Disturbed land, including trees removed on steep slopes at 2408 S Shadow Grove Ct on 02/22/2024.



Photo 4: Disturbed land, including trees removed on steep slopes at 2408 S Shadow Grove Ct on 02/22/2024.



Photo 5: Lighting fixtures (string lights with bulbs not shielded) and disturbed land, including trees removed on steep slopes at 2408 S Shadow Grove Ct on 02/22/2024.



Photo 6: Disturbed land and land disturbing activity, including the removal and burying of trees, and lack of erosion controls installed at 2408 S Shadow Grove Ct on 02/22/2024.



Photo 7: Disturbed land within the floodplain and riparian buffer at 2408 S Shadow Grove Ct and adjacent City-owned property on 02/22/2024. The green stake in the center bottom of the photo marks the edge of the property line with City-owned property to the left and 2408 S Shadow Grove Ct to the right.



Photo 8: Disturbed land and brush pile within the floodplain and riparian buffer at 2408 S Shadow Grove Ct and adjacent City-owned property on 02/22/2024. The stake with the orange flagging tape located in the left-center bottom of the photo marks the edge of the property line with City-owned property to the right and 2408 S Shadow Grove Ct to the left.



Photo 9: Lighting potentially exceeding the maximum allowed lumens per property at 2408 S Shadow Grove Ct on 01/26/2024.



Photo 10: Tracking of sediment from the property and into the roadway at 2408 S Shadow Grove Ct on 02/20/2024.



Photo 11: Tracking of sediment from the property into the roadway and fencing exceeding 4 feet in height forward of the front building wall at 2408 S Shadow Grove Ct on 02/20/2024.



Photo 12: Fencing exceeding 4 feet forward of the front building wall at 2408 S Shadow Grove Ct on 02/20/2024.



Photo 13: Prohibited outdoor storage of materials at the southeastern corner at 2408 S Shadow Grove Ct on 02/20/2024.



Photo 14: Prohibited outdoor storage of materials in the driveway of 2408 S Shadow Grove Ct on 02/20/2024.



Photo 15: Multiple driveways in excess of the allowed number at 2408 S Shadow Grove Ct on 02/22/2024.



Photo 16: Stop Work Order (SWO) posted at 2408 S Shadow Grove Ct on 02/22/2024.



Photo 17: Screenshot of a video of a chainsaw being used to remove and chop up vegetation in the floodplain and riparian buffer on City-owned property adjacent to 2408 S Shadow Grove Ct on 02/29/2024 after the Stop Work Order (SWO) was issued on 02/22/2024.



Photo 18: Screenshot of a video of a chainsaw being used to remove and chop up vegetation in the floodplain and riparian buffer on City-owned property adjacent to 2408 S Shadow Grove Ct on 02/29/2024 after the Stop Work Order (SWO) was issued on 02/22/2024.



Photo 19: Screenshot of a video of the excavator operating on the property and being used to bring down vines on trees in the floodplain and riparian buffer on City-owned property adjacent to 2408 S Shadow Grove Ct on 02/29/2024 after the Stop Work Order (SWO) was issued on 02/22/2024.



Photo 20: Sediment eroding off 2408 S Shadow Grove Ct from the disturbed land area downhill through to adjacent City-owned property and towards Jackson Creek 03/01/2024. Excavator still present on property.



Photo 21: Trees removed in the riparian buffer and floodplain on City-owned property adjacent to 2408 S Shadow Grove Ct on 03/01/2024.



Photo 22: Tree removed at edge of Jackson Creek in riparian buffer and floodplain on City-owned property adjacent to 2408 S Shadow Grove Ct on 03/01/2024.

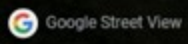


Photo 23: Tree removed adjacent Jackson Creek in riparian buffer and floodplain on City-owned property adjacent to 2408 S Shadow Grove Ct on 03/01/2024.



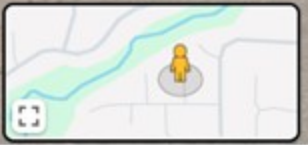
Photo 24: Tree removed adjacent to Jackson Creek in riparian buffer and floodplain on City-owned property adjacent to 2408 S Shadow Grove Ct on 03/01/2024.

← 2417 S Shadow Grove Ct
Bloomington, Indiana

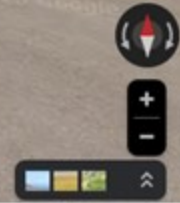


Jul 2023 See more dates

42



Google





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Cindy Paull
Legal Assistant

July 24, 2024

City of Bloomington, Planning Department
401 N. Morton Street
Bloomington, IN 47404

**RE: 2408 S. Shadow Grove Ct., Bloomington IN
Request for Development Standards Variances
Driveways and Fencing**

Dear members of the Bloomington, Indiana Board of Zoning Appeals:

This firm represents Hiram S. ("Scott") Slaven and Susan Slaven who reside at 2408 S. Shadow Grove Ct., Bloomington, Indiana. The Slavens received a Notice of Violation on March 8, 2024, regarding several issues, including: a second driveway accessing their property and the installation of fencing in front of the residence that is more than 4 feet in height. On May 16, 2024, I met with Joy Brown at the property to establish some timeframes for resolving other issues contained in the Notice of Violation. On June 4, 2024, I met with Eric Greulich, Joe Pattersson and Joy Brown concerning the variances addressed in this application. I want to thank each of them for their time and attention to this request. Pursuant to these meetings, I am requesting a hearing on my clients' request for a variance in regard the number of driveway access points allowed for their property, and a variance for the allowable fence height forward of the front of the residence on their property.

This approximately 1.29 acre property is located at 2408 S. Shadow Grove Court and is zoned Residential Medium Lot (R2). It is comprised of 2 lots (32 & 33) in Spicewood Section I. Surrounding land uses include detached single family residential use to the east and west, and floodplain and riparian buffer to the north. The petitioners' residence is located on lot 33. Lot 32 is vacant. The property is accessed from the cul-de-sac at the end of Shadow Grove Court.

I. Fence Height Forward of Residence

Forward of the front building wall of the primary structure, fences and walls shall not exceed four feet in height. UDO Section 20.04.080(n)(3)(A)ii.

A wrought iron fence with limestone pillars is constructed along the front (South) of the property with wrought iron gates across the drive. This fence is approximately 6 foot in height to promote security, privacy, and to keep deer from entering the property from the front. The residence and the front door can be seen from

the street through the wrought iron fencing. (Photo – Exhibit A). A variance is needed and requested to allow this 6 foot wrought iron and limestone pillar fencing to remain where located and as constructed.

A privacy fence is constructed with panels varying between 6 to 8 feet along portions of each side (Southeast & Southwest) of the property, which extends forward of the front of the residence and connects with the wrought iron fence at the front of the property. (Photos – Exhibits B & C). The purpose of this fence is to delineate the property line, promote privacy, and minimize deer from entering the property. A variance is needed and requested to allow this 6-8' privacy fencing to remain where located and as constructed.

CRITERIA AND FINDINGS FOR DEVELOPMENT STANDARDS VARIANCE

20.06.080(b)(3)(E) Standards for Granting Variances from Development Standards:

A variance from the development standards of the Unified Development Ordinance may be approved only upon determination in writing that each of the following criteria is met:

1) *The approval will not be injurious to the public health, safety, morals, and general welfare of the community.*

PROPOSED FINDING: The granting of this variance will not be injurious to the public health, safety, morals, or general welfare of the community. The six-foot wrought iron fence is located along the north side of the sidewalk in front of the property. It would not interfere with or create a safety hazard for users of the sidewalk. The 6 to 8 foot privacy fencing is located along the sides of the property and ends on each side before reaching the back property line. The height of the fence panels used varies to account for the slope of the property. The 8 foot panels are located primarily behind the front of the residence. This fencing ends at points where the slope of the property becomes a steep decline toward Jackson Creek. It would not interfere with or create a safety hazard for the community.

2) *The use and value of the area adjacent to the property included in the Development Standards Variance will not be affected in a substantially adverse manner.*

PROPOSED FINDING: No adverse impacts to the use and value of surrounding properties as a result of the requested variance are found. The four-foot fence maximum in the UDO is intended to help promote visibility and allow for a positive interface and interactions between private property and the users of the adjacent public right-of-way. The six-foot wrought iron fence is transparent and thus will not block visibility between the front door of the residence from the cul-de-sac. The eight-foot privacy fencing does not affect visibility in the use of the street, sidewalk or the neighboring properties.

3) *The strict application of the terms of the Unified Development Ordinance will result in practical difficulties in the use of the property; that the practical difficulties are peculiar to the property in question; that the Development Standards Variance will relieve the practical difficulties.*

PROPOSED FINDING: The Department does find that the strict application of the terms of the Unified Development Ordinance will result in practical difficulties in the use of the property and that these practical difficulties are peculiar to the property in question. This property has little usable back yard because of the steep decline toward Jackson Creek to the north of the residence. Usable area for recreation on the property is in the front and directly to the west of the residence. A pool is constructed in the front of the residence, making this property very peculiar. Approval of this variance would allow the wrought iron fencing and the privacy fencing to remain as is and where constructed and would enable the property to continue to be used as a livable

residential dwelling because the fence would be high enough to allow for security and privacy in the portions of the property usable for recreation. The approval of this variance would allow the property owners both increased security of their residential property while also maintaining visibility and connectivity to the neighboring properties and the public ROW as desired by the UDO.

II. Maximum Driveway Access Point – Circle Drive

A maximum of one driveway access point shall be permitted, regardless of the number of street frontages, except that a circle drive shall be permitted according to the following standards:

- i. The maximum circle drive width shall be 10 feet;
- ii. The lot shall have at minimum of 120 feet of street frontage on the street the circle drive will access; and
- iii. The minimum distance between the driveway access points of a circle drive shall be 60 feet, measured from the inside edge of each driveway where it intersects the public right-of-way.

UDO Section 20.04.050(C)(1)(A).

The property lies at the end of a cul-de-sac and includes two lots (32 & 33 in Spicewood Sec. I). There is a circle drive constructed on the property, with drive access points on each lot. The distance between the interior of the access points is 200 inches. The drive access point existing prior to construction of the circle drive proceeds on a relatively steep decline from the street down to the garage at the front of the residence. Using only the prior existing drive access point resulted in vehicles backing out across the sidewalk on an uphill slope with limited visibility. The purpose of constructing the circle drive was to increase visibility when exiting the property onto the street. (Photo – Exhibit D). The dimensions of the property do not allow for meeting the permitted distances required by the UDO for a circle drive. A variance is needed and requested to allow this circle drive to remain where located and as constructed.

CRITERIA AND FINDINGS FOR DEVELOPMENT STANDARDS VARIANCE

20.06.080(b)(3)(E) Standards for Granting Variances from Development Standards:

A variance from the development standards of the Unified Development Ordinance may be approved only upon determination in writing that each of the following criteria is met:

1) *The approval will not be injurious to the public health, safety, morals, and general welfare of the community.*

PROPOSED FINDING: The granting of this variance will not be injurious to the public health, safety, morals, or general welfare of the community. The circle drive is located at the end of a cul-de-sac. It would not interfere with or create a safety hazard for users of the street or the sidewalk.

2) *The use and value of the area adjacent to the property included in the Development Standards Variance will not be affected in a substantially adverse manner.*

PROPOSED FINDING: No adverse impacts to the use and value of surrounding properties as a result of the requested variance are found. The limitation on drive access points in the UDO is intended to help promote traffic flow and safety for the users of the adjacent public right-of-way. The circle drive, as constructed in its present location, has a positive impact on visibility and safety for vehicles entering and exiting the property and for pedestrians on the sidewalk near the property. The circle drive has no adverse impact on the use of the street, sidewalk or the neighboring properties.

3) *The strict application of the terms of the Unified Development Ordinance will result in practical difficulties in the use of the property; that the practical difficulties are peculiar to the property in question; that the Development Standards Variance will relieve the practical difficulties.*

PROPOSED FINDING: The Department does find that the strict application of the terms of the Unified Development Ordinance will result in practical difficulties in the use of the property and that these practical difficulties are peculiar to the property in question. The grade change on this property declines from street level to the residence, with an increasing slope going beyond the residence to Jackson Creek. There is minimal area for construction of a turn-around area, given the property's limited areas for recreational use. A pool is constructed in the front of the residence, making this property very peculiar. The approach to street level by vehicles exiting the property would be substantially safer without the necessity of backing out onto the street. Approval of this variance would allow the existing circle drive to remain as is and where constructed and would enable the property to continue to be used as a livable residential dwelling because the circle drive would allow for safe entrance and exit onto the adjacent street. The approval of this variance would allow the property owners use of their front yard for recreation, and also maintain visibility at the drive and safe use of the ROW and sidewalk by residents of neighboring properties and the public ROW as desired by the UDO.

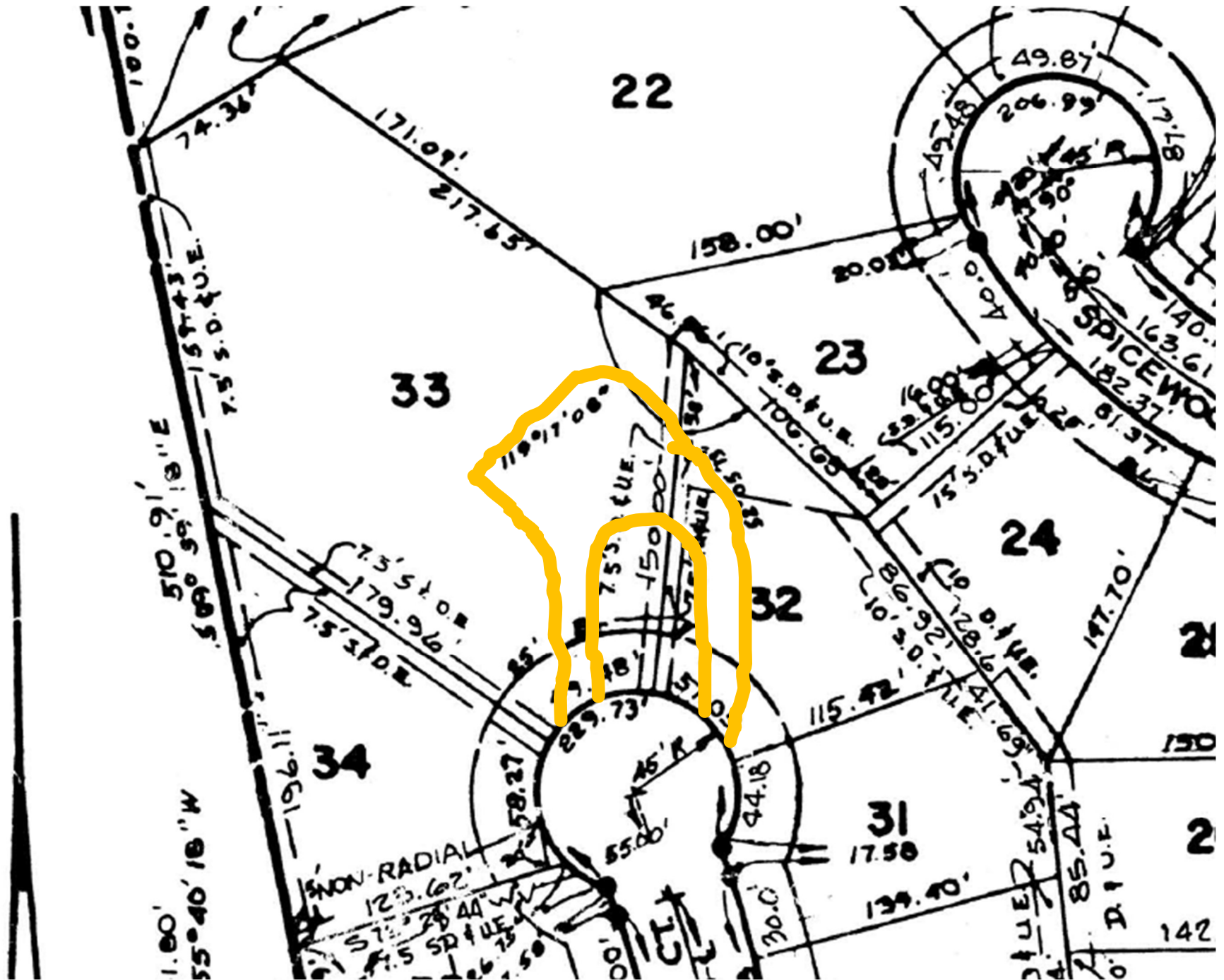
I appreciate your consideration of these variance requests.

Very truly yours,

McAULEY LAW LLC

By: Jason L. McAuley
 Jason L. McAuley
jason@mcauleylawllc.com

JLM/krh



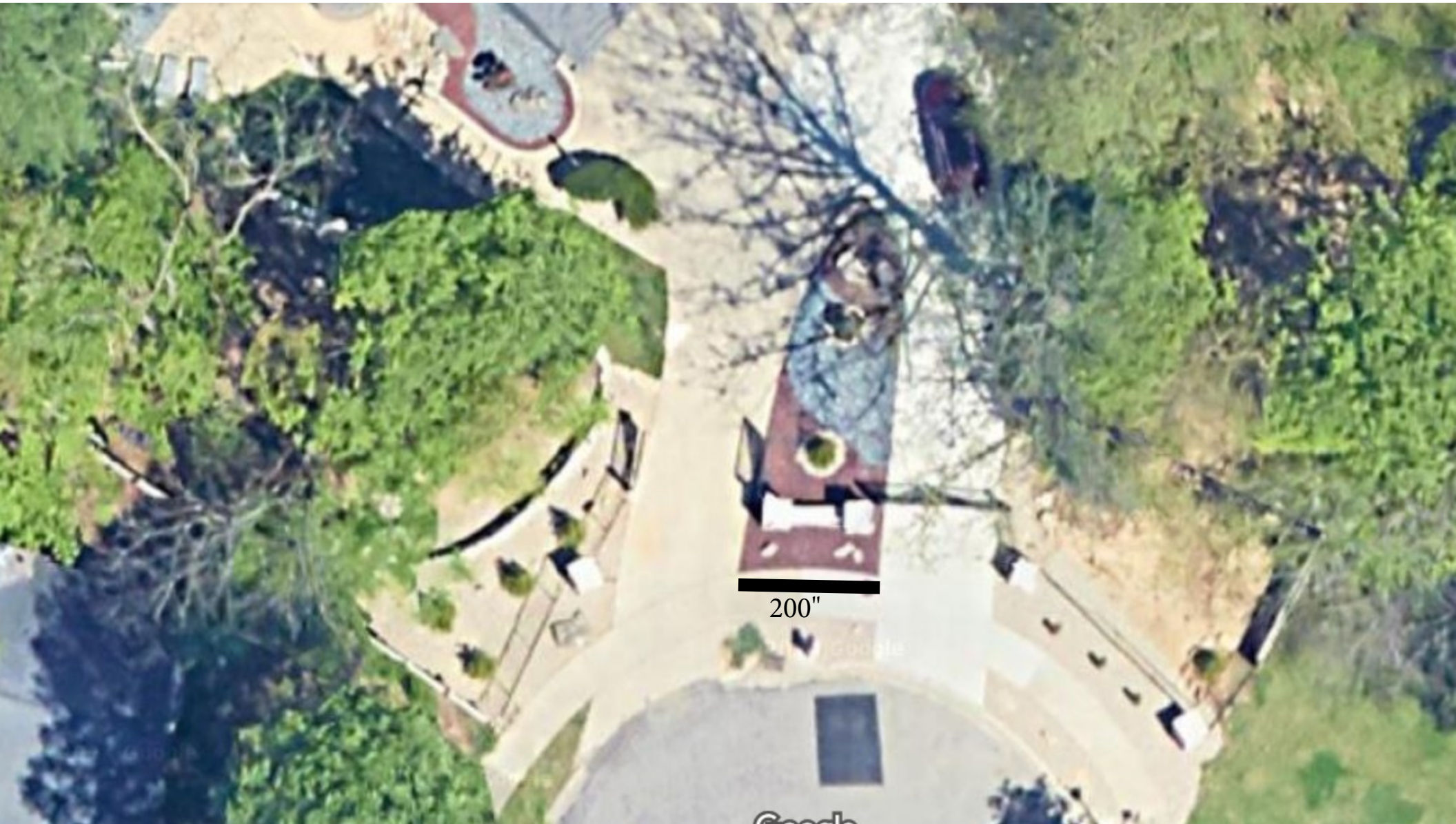


Exhibit A



Exhibit B



Exhibit C



Exhibit D



**Memorandum to the Planning and Transportation Department
Staff Serving the Bloomington Board of Zoning Appeals**

We, the undersigned, own lots adjacent and contiguous to lots owned by Hiram S. Slaven and Susan Slaven in Spicewood Addition, Section One.

We oppose the Slavens' petitions for a driveway variance and a fence variance from development standards at 2408 S. Shadow Grove Court.

The Slavens' petitions do not satisfy any of the three statutory criteria for a Board of Zoning Appeals variance under the Indiana Code. As you know, these criteria are incorporated as General Approval Criteria in the Unified Development Ordinance (UDO).

**There are no special conditions, practical difficulties or unnecessary hardship
peculiar to the property which require development standards variances**

The UDO states that a variance shall only be granted, "where, owing to special conditions, literal enforcement of this UDO will result in practical difficulties or unnecessary hardship." There are no special conditions, practical difficulties, or unnecessary hardship that would justify the variances the Slavens request. The legal standard for the grant of a variance has been stated as follows:

Because a variance is relief granted from a literal and exact enforcement of a zoning ordinance, thereby permitting use of property in a manner otherwise forbidden by the terms of such ordinance . . . it should be strictly construed and granted only in cases of extreme hardship where the statutory requirements are present.

Light Co. V. Houghton, 226 N.E.2d 341, 343 (Ind. Ct. App. 1967). And, more specifically, the legal standard for a claim of unnecessary hardship is defined as follows:

The determination of the existence of an unnecessary hardship is governed by all the relevant factors which, when taken together, indicate that *the property cannot reasonably be put to a conforming use because of limitations imposed upon it by the ordinance*.

Id. at 344. (Emphasis added.)

The previous owner, Roland Nobis, built the house at 2408 Shadow Grove Court and maintained the property as a conforming use for forty-five (45) years before the Slavens purchased the property in 2020. As such, it cannot be said that literal enforcement of the UDO will create any practical difficulties or unnecessary hardship for the Slavens. Nothing has changed except for the Slavens' flagrant violations of the UDO.

Practical Difficulties or Unnecessary Hardship

In determining whether compliance with the UDO will result in "practical difficulties," the BZA must consider three non-exclusive factors: (1) whether "significant economic injury" will result if the ordinance is enforced; (2) whether the injury is self-created; and (3) whether there are feasible alternatives. *Caddyshack Looper, LLC v. Long Beach Advisory Bd. of Zoning Appeals*, 22 N.E.3d 694, 704 (Ind. Ct. App. 2014).

As for the first factor, hardship based on significant economic injury must exist independently of, and without regard to, the conditions created by the applicant. *Suess v. Vogelgesang*, 281 N.E.2d 536, 541 (Ind. Ct. App. 1972). The owner who embarks upon extensive remodeling or alteration of the premises in violation of a zoning ordinance runs the extreme and very real risk of losing his investment. *Id.* at 638. The condition of the land is examined without reference to such alterations as may have been prematurely and

unlawfully made. *Id.*

As for the second factor, a claim of unnecessary hardship cannot be based upon self-created conditions. *Board of Zoning Appeals of the City of Whiting, Lake County v. McFadden*, 337 N.E.2d 576, 580 (Ind. Ct. App. 1975).

And as for the third factor, a claim of “practical difficulties in the use of the property” under Indiana Code Section 36–7–4–918.5(a)(3) (same factor as under General Approval Criteria for a development standards variance under the Bloomington Municipal Code) will not be sustained where the property owner cannot demonstrate that there is no feasible alternative aside from a development standards variance. *See Edward Rose of Indiana, LLC v. Metropolitan Board of Zoning Appeals, Division II, Indianapolis-Marion County*, 907 N.E.2d 598, 906 (Ind. Ct. App. 2009)

The Slavens cannot satisfy any of these factors. First, the Slavens have not claimed – and cannot show – that significant economic injury will result if the UDO is enforced. Second, whatever economic injury they may have incurred cannot be considered because it is has been entirely self-created. And, third, there is a feasible alternative, which is for the Slavens to use the property in compliance with the UDO just as the property was used for 45 years by the previous owner, Mr. Nobis.

A Driveway Variance is Unnecessary

The City has issued an NOV to the Slavens for having constructed a second driveway without applying for a residential driveway permit, which the City would have denied.

While the Slavens seek a variance for a “circular driveway,” a circular driveway requires a radius. The Slavens have actually constructed parallel driveways separated by only a few feet. Their dual driveways violate at least three UDO dimensional standards.

The driveway used for 45 years by the previous owner included a paved area large enough for vehicles to turn and leave the property facing toward the street without any difficulty. The original design is a feasible alternative established by 45 years of actual use. Nothing has changed. The property as it existed at the time of purchase conformed fully with the provisions of the zoning ordinance. See *Bd. of Zoning Appeals of City of Hammond v. Waskelo* (1960) 240 Ind. 594, 168 N.E.2d 72, 73 (“one who purchases property with knowledge of the use restrictions thereon will generally not be permitted to claim special or unnecessary hardship”). There are no practical difficulties “peculiar to the property” (General Approval Criteria, Paragraph c.) that would support a dual driveway exception.

The law is clear and definite in its declaration that financial or economic considerations cannot govern the granting of a variance. *Light v. Houghton*, 226 N.E.2d 341, 343 (Ind. Ct. App. 1967). A showing of “hardship for variance purposes cannot be premised upon self-created conditions” and must exist “independently of, and without regard to, the conditions created” by the petitioner himself. *Seuss*, 281 N.E.2d at 541. The Slavens cannot show hardship independent of the conditions created by their investment in the driveway entrances for which they did not seek or obtain a permit.

The Fences Are Unlawful

As a matter of law the Board of Zoning Appeals cannot approve the fence variances regardless of their height. The fences in question are located within platted easements contrary to law. The fences erected along the property lines with the Slavens' neighbors violate Section 20.04.08(n)(2)(B) of the Bloomington Municipal Code, which states that:

No fence or wall shall be located within a public or private easement unless written permission from the easement holder has been granted.

The covenants and restrictions of Spicewood Addition designate public utilities, government agencies, and "other lot owners" within Spicewood as the easement holders who have rights "to ingress and egress in, along and through" the easements. In other words, the easements are dedicated for the use and benefit of other lot owners as well as public utilities and government agencies, who are the dominant estate holders.

The BZA cannot authorize a variance which is contrary to law. A BZA decision which is contrary to law is arbitrary and capricious and will be reversed. *Board of Zoning Appeals, Bloomington v. Elkins*, 659 N.E.2d 681, 683-84 (no legal basis for BZA decision). A trial court is authorized to reverse a BZA decision if that decision is illegal. *Board of Zoning Appeals of the City of Whiting, Lake County v. McFadden*, 337 N.E.2d 576, 578 (Ind. Ct. App. 1975). On judicial review, the courts defer to a BZA's findings of fact but owe no such deference where a board has made an error of law. *Cundiff v. Schmidt Development Company*, 649 N.E.2d 1063, 1066 (Ind. Ct. App. 1995).

The Slavens' purported need for "security and privacy" is not unique to their property at all. The feasible alternative is simply for the Slavens to bring their driveway into compliance with the UDO just as it was when they purchased the property.

The Fences Are a Public Nuisance

Because the Slavens' fences located along property lines within platted easements are unlawful, they also constitute a public nuisance, which is a nuisance per se. A nuisance per se is something that cannot be lawfully conducted or maintained. *Centennial Park, LLC v. Highland Park Estates, LLC*, 151 N.E.3d 1230, 1234 (Ind. Ct. App. 2020). And a public nuisance is that which affects an entire neighborhood or community. *Id.*

In Indiana, nuisances are defined by statute. *Wernke v. Halas*, 600 N.E.2d 117, 120 (Ind. Ct. App. 1992). Indiana Code Section 32-30-6-6 defines a nuisance as follows:

Whatever is: (1) injurious to health; (2) indecent; (3) offensive to the senses; or (4) *an obstruction to the free use of property*; so as essentially to interfere with the comfortable enjoyment of life or property, is a nuisance, and the subject of an action.

(Emphasis added.) An easement of ingress and egress constitutes a property right. *State v. Ensley*, 164 N.E.2d 342, 349 (Ind. 1960). Thus, the fences installed by the Slavens are an obstruction to the free use of property, namely, the easement rights granted to public utilities, government agents, and the other lot owners in the platted easements of Spicewood Addition. It would be injurious to the public health, safety, morals, and general welfare of the community for the BZA to authorize maintenance of a public nuisance.

In sum, under the UDO, the Slavens' fences located along property lines within

platted easements, dedicated for the use of public utilities, government agencies, and other lot owners, are both unlawful and constitute a public nuisance. As such, these fences affect not only the easement rights but the peace and quiet enjoyment of other lot owners in a substantially adverse manner. (General Approval Criteria, Paragraph (b)).

Conclusion

It would be injurious to the public health, safety, morals, and general welfare of the community for the BZA to approve either of the variances requested.

It is contrary to law to allow a property owner to violate the UDO's development standards willy nilly and then to obtain variances after-the-fact for "hardships" they themselves have created.

There are no special conditions, practical difficulties, or unnecessary hardships in the use of the Slaven property which require approval of dual driveways. Instead, there are feasible alternatives for the beneficial use of the property that do not require a deviation from development standards.

And the fences constructed within platted easements impair the property rights of public utilities, government agencies, and other Spicewood lot owners in a substantially adverse manner, are contrary to law, and constitute a public nuisance.

John Warner
2617 E. Spicewood Court
Lot #22, Spicewood Addition

Ted Najam
2628 E. Spicewood Court
Lot 24, Spicewood Addition

Paul Newman
2622 E. Spicewood Court
Lot #23, Spicewood Addition

October 8, 2024

Excerpt from Spicewood Addition, Section One, Covenants and Restrictions

* * * * *

C. (Easements)

There are strips of ground as shown on the within plat marked "Drainage Easements" (D.E.), "Sewer Easements" (S.E.) and "Utility Easements" (U.E.) Either separately or in any combination of the three, which are reserved for the use of public utility companies and governmental agencies as follows: "Drainage Easements" (D.E.) are created to provide paths and courses for area and local storm drainage, either overland or in adequate underground conduit to serve the needs of this and adjoining ground and/or the public drainage system. **No structure, including fences, shall be built upon said easements which will obstruct flow from the area being served.** "Sewer Easements" (S.E.) are created for the use of the local governmental agency having jurisdiction over the storm and sanitary waste disposal system of said city and/or county for the purpose of installation and maintenance of sewers that are part of said system. "Utility Easements" (U.E.) are created for the use of all public utility companies not including transportation companies, for the installation and maintenance of mains, ducts, poles, lines, wires, and also all rights and uses specified for sewer easements above designated. **The owners of all lots in this addition shall take title subject to the rights of public utilities, governmental agencies and the rights of the other lot owners in this addition, to said easement[s] herein granted for ingress and egress in, along and through the strips of ground for the purposes therein stated.**









BLOOMINGTON BOARD OF ZONING APPEALS
STAFF REPORT
Location: 729 S Washington Street

CASE #: V-27-24
DATE: October 17, 2024

PETITIONER: Keith and Caroline Clay
 729 S Washington Street, Bloomington

REQUEST: Variances from detached garage/carport setbacks and from improved alley access standards.

REPORT: The property is currently zoned Residential Small Lot (R3), and is located at the northeast corner of S. Washington and E. Dodds Streets. The properties to the north, south, and east are also zoned R3. The properties west are zoned Residential Urban (R4). The surrounding neighborhood is largely single-family with some multifamily and plex development.

This request is for two variances. The first variance is from the requirement to meet setbacks for a detached garage or carport. The Unified Development Ordinance (UDO) requires that a detached garage or carport be setback at least 10 feet behind the primary structure's front façade. The petitioner requests the carport to be attached to the existing historic garage, at 0 feet behind the primary structure's front façade.

The second variance is to allow a vehicular access from Dodds Street. The UDO prohibits driveways from accessing a street when a side or rear setback is accessible via an improved alley. Though there is an approved alley to the east that is utilized by other driveways, the petitioner request a new driveway on Dodds Street to a new carport that would be attached to the existing garage. The variances, as presented by the petitioner, are in tandem, as both are needed for the desired location.

The petitioner is requesting a variance in order to add a carport to the east of their existing garage, adjacent to Dodds Street.

CRITERIA AND FINDINGS FOR DEVELOPMENT STANDARDS VARIANCE

20.06.080(b)(3)(E)(i)(1) Standards for Granting Variances from Development Standards: Pursuant to Indiana Code 36-7-4-918.5, the Board of Zoning Appeals or Hearing Officer may grant a variance from the development standards of this UDO if, after a public hearing, it makes findings of fact in writing, that:

- (1) The approval will not be injurious to the public health, safety, morals, and general welfare of the community; and*

CARPORT SETBACK PROPOSED FINDING: The granting of the variance to allow for a carport setback variance is expected to be injurious to the public health, safety, morals, or general welfare of the community. The carport would be in-line with the existing garage, which would lower visibility of the roadway to the west for a vehicle parked in the garage exiting onto Dodds Street.

ALLEY ACCESS PROPOSED FINDING: The granting of the variance to allow for a carport setback variance is expected to be injurious to the public health, safety, morals, or

general welfare of the community. Requiring vehicular access from the improved alley that exists allows for a limited number of vehicular intersections with Dodds Street. Legitimizing a driveway approximately 25 feet west, the proposed location, of the existing utilized alley is not a desired design for safety of the road or drive users.

- (2) *The use and value of the area adjacent to the property included in the development standards variance will not be affected in a substantially adverse manner; and*

CARPORT SETBACK PROPOSED FINDING: Adverse impacts to the use and value of surrounding properties is not found as a result of a variance to allow the carport at a reduced setback.

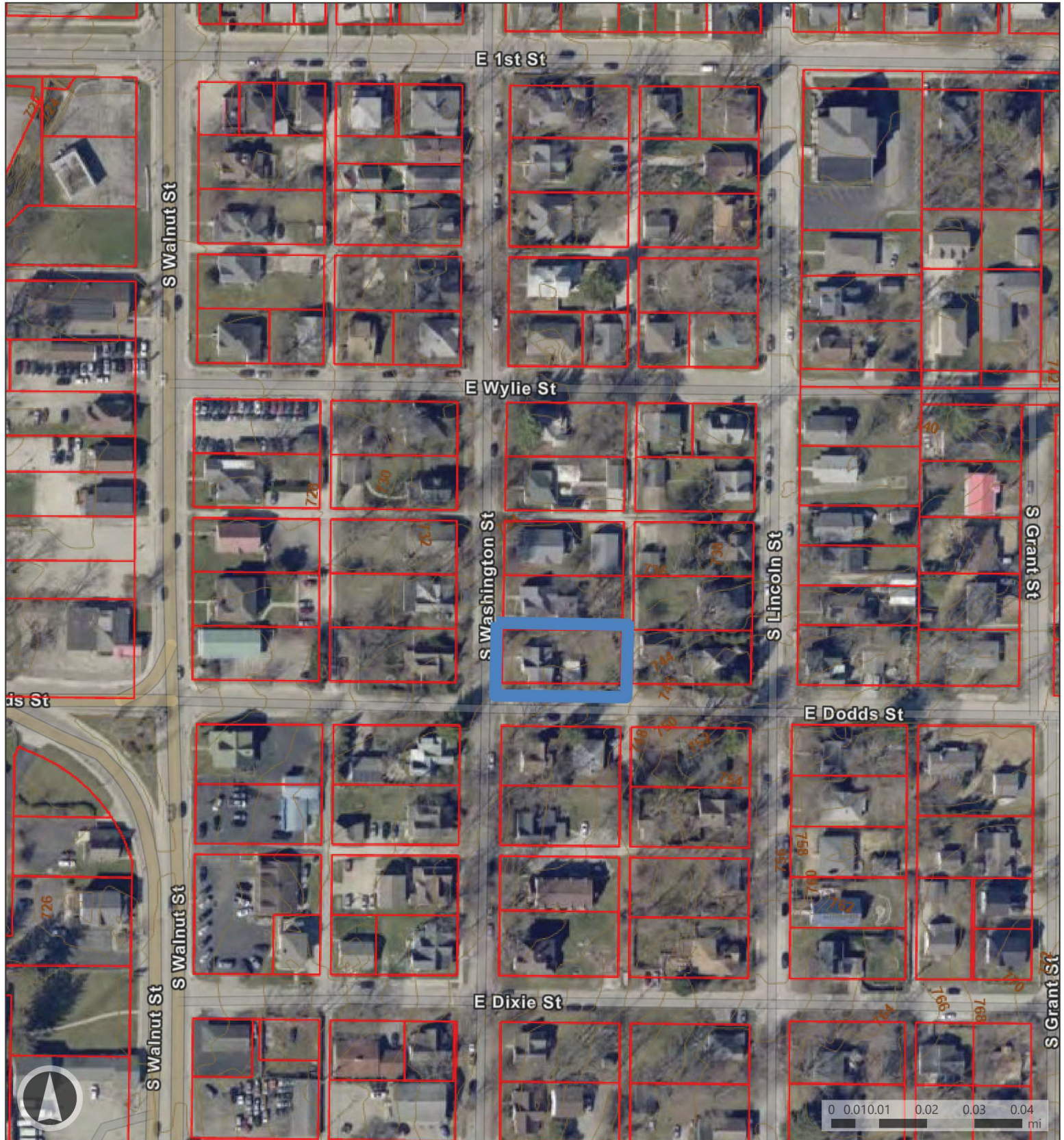
ALLEY ACCESS PROPOSED FINDING: Adverse impacts to the use and value of surrounding properties is not found as a result of a variance from the requirement to utilize the existing improved alley for vehicular access, though the property to the south also utilizes an improved alley and adding a third drivecut is less desirable than having the property utilize the existing improved alley.

- (3) *The strict application of the terms of the Unified Development Ordinance will result in practical difficulties in the use of the property; that the practical difficulties are peculiar to the property in questions; that the development standards variance will relieve the practical difficulties.*

CARPORT SETBACK PROPOSED FINDING: The strict application of the terms of the UDO will not result in practical difficulties in the use of the property, as there is enough space on the property to fit a carport that meets the setback requirements. No peculiar conditions of this property are found that create practical difficulties to meeting the carport setback requirements. The property immediately to the east has a garage that meets the front setback requirements and the parcels have identical dimensions.

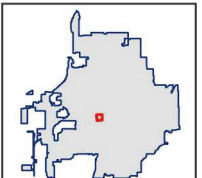
ALLEY ACCESS PROPOSED FINDING: The strict application of the terms of the UDO will not result in practical difficulties in the use of the property, as the property can utilize the alley to the east to add a vehicular access to the property. No peculiar conditions of this property are found that create practical difficulties to meeting the alley access requirements. The property immediately to the east has a garage that utilizes the same alley for vehicular access and the parcels have identical dimensions. Utilization of the existing alley (that is already used by the neighbors) allows for less driveway cuts on Dodds Street, and less points of interaction between vehicles, bicycles, and pedestrians on Dodds Street with vehicles entering and exiting the property. No peculiar condition exists to require the relief of a variance and increasing the possible danger to those road users.

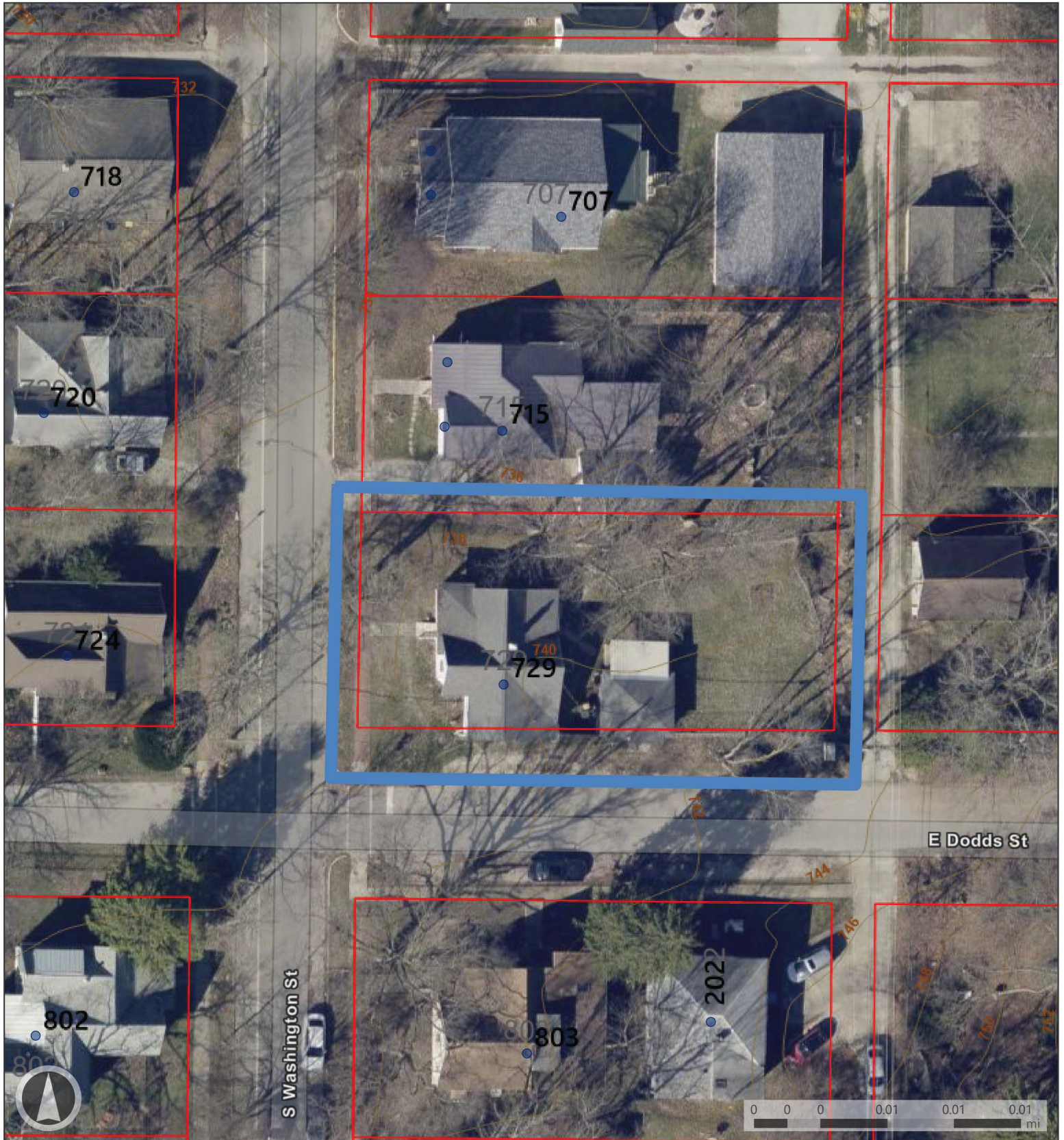
RECOMMENDATION: Based upon the report and written findings of fact above, the Department recommends that the Board of Zoning Appeals adopt the proposed findings of fact and deny V-27-24.



Map Legend

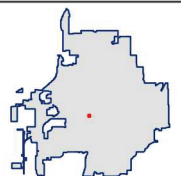
- Parcels
- Contours 2021
- Bloomington Municipal Boundary





Map Legend

- Addresses
- Parcels
- Contours 2021
- Bloomington Municipal Boundary



Petitioner's Statement

Keith and Caroline Clay (the owners) moved to Bloomington in 1986 for a position as a new IU faculty member. We have owned five residences in Bloomington over 36+ years, and have received an award for historical preservation. 729 S. Washington (on the corner of Dodds) was purchased in 2016 for Caroline's mother, who recently passed away. We have never rented the house and only Caroline's mother, ourselves and our son Ben Clay have lived there since the 2016 purchase. Prior to that it was a student rental.

We are requesting a variance to build a carport on the east side of the existing limestone garage, which was possibly built 100 years ago and is not functional as a garage for modern cars. We are proposing to reroute a short existing driveway into the proposed carport off of Dodds St. The currently existing driveway will be removed. This variance request relates to the requirement in the UDO that any driveway needs to come off an improved alley if the house borders an improved valley. However, alley access is not feasible for our location because there is a 4-foot drop-off from the alley to our backyard (see attached PPT). The topography is too steep for a driveway without extensive engineering, significant earth-moving and preemption of much of our back yard. The requirement of alley access would be moot if the house was located on the south side of Dodds because the alley ends at Dodds where the neighboring owner paved the previous alley to make a private parking area.

The second variance request is to put up a 16' x 10' carport on the east side of the existing limestone garage. Carports have a simple open design, require minimal materials (a roof and two support posts), and are common around Bloomington as illustrated in the attached PPT. Our house and garage are technically in violation of current UDO set-back requirements (they are 23' from the center of Dodds) but the house and garage are grandfathered based on their age and time of construction ~100 years ago. Given that the carport requires connection to and support from the current garage roof, we are requesting the current setback requirement be relaxed to allow a carport to be attached to the existing limestone garage given its key structural role. It is not clear if a carport is technically a structure requiring setback since it is not enclosed and is essentially an awning or a canopy .

We are making this request for a zoning variance to construct a carport on the east side of the existing limestone garage with driveway access from Dodds St. for several reasons. The carport provides protection and safety of people and possessions in light of the recent history of storms and falling trees that have pounded our property. We are also striving to age in place (we are both in our early 70's) in a neighborhood largely dominated by student rental houses. The requested variance will make our house more livable and user-friendly compared to the present where we have limited options for parking close to our house. The one parking spot in front of the house on Washington St. is open to all and is often monopolized for extended periods by nearby student residents. Further, police and other official vehicles often travel along S. Washington at high rates of speed responding to calls. The requested variance will also preserve the maximum amount of open greenspace in our backyard while improving and stabilizing an antique limestone structure, which is unique in our immediate area.

Relevant to this variance request is the fact that there are no sidewalks along Dodds St. and no adjacent neighbors on the north side of Dodds (our side). It is unlikely that sidewalks would ever be built on the north side of Dodds because of the AT&T switching station located on the southeastern corner of our lot and within the existing city right-of-way (see PPT). We are not in a flood plain and there are no streams or drainage ditches in the area. We have spoken to all of the neighboring homeowners behind us on Lincoln St., in front of us on S. Washington and on the south side of Dodds across from our house. All are supportive of our plans and have no objections. There are two student

rental houses across Dodds from our house (we have spoken to the owner Gil Coty, South Bend, owner) where it is not uncommon to have 6 – 8 or more cars parked on the side of the street or in their driveway constructed over the preexisting alley.

This request meets the General Approval Criteria for variance from development standards outlined in the UDO as stated in BMC 20.06.080(b)(3)(E)(i).

Additional details, photographs and maps are provided in the included PPT.

Keith and Caroline Clay (owners)

Moved to B'ton in 1986 as IU faculty member

Have owned six houses in B'ton and have received an award for historical preservation

Purchased 729 S. Washington in 2016 for Caroline's mother, who recently passed away

We have never rented the house. Only Caroline's mother, ourselves and our son Ben Clay have ever lived there (since 2016 purchase)

There are no adjacent neighbors on the north side of Dodds, and there are no sidewalks on Dodds. There are two student rental houses across Dodds and one owner-occupied residence on east side of alley on Lincoln.

We are requesting a variance to build a carport on the east side of the existing limestone garage, which was built 60-100 years ago and is no longer functional as a garage, and shift the existing driveway onto Dodds 10 ft. to the east.



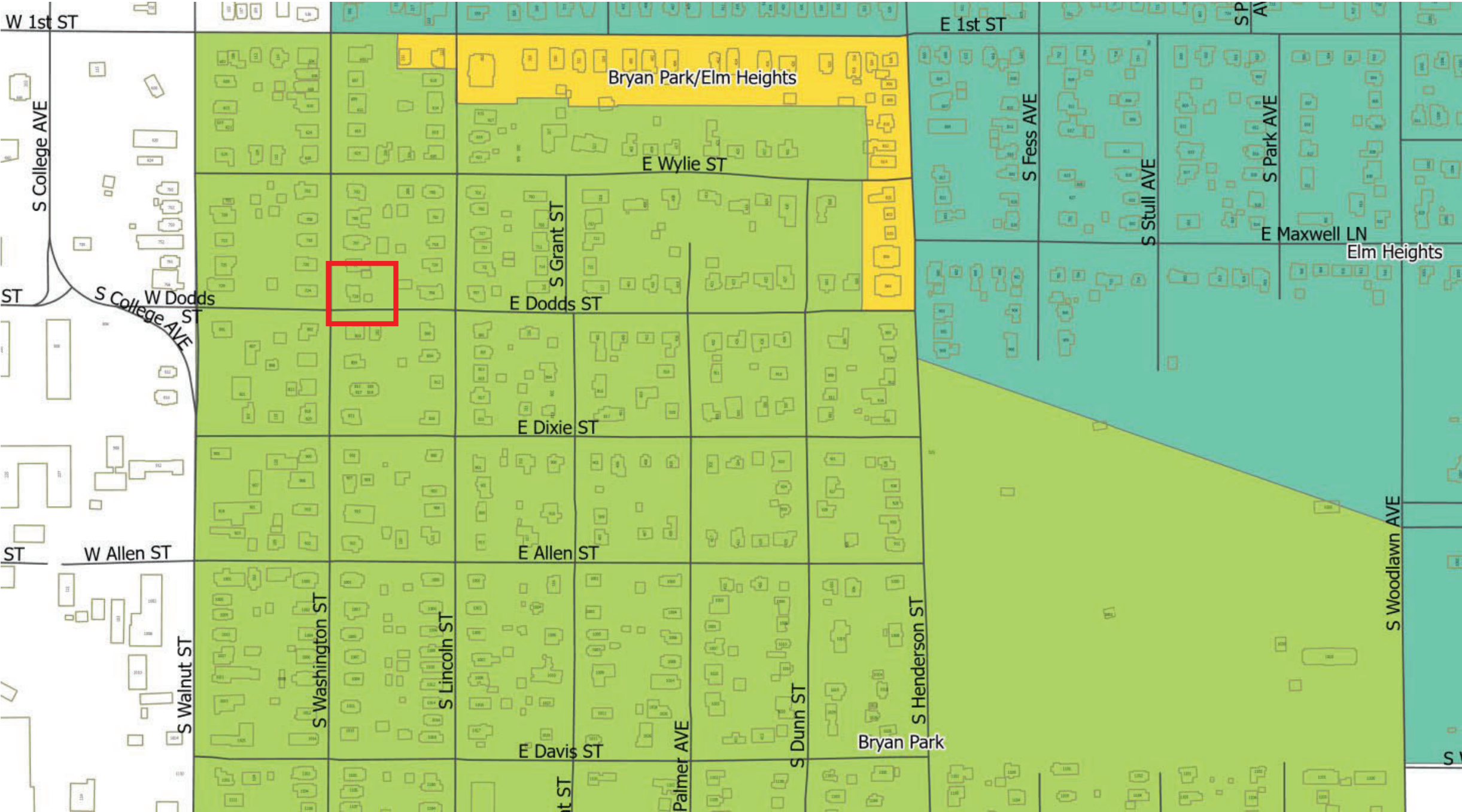
Carports have a simple design and require minimal materials, and are common around Bloomington. This carport is two blocks from our house.

Carport on the side of the Red Cross building at College and 2nd St.

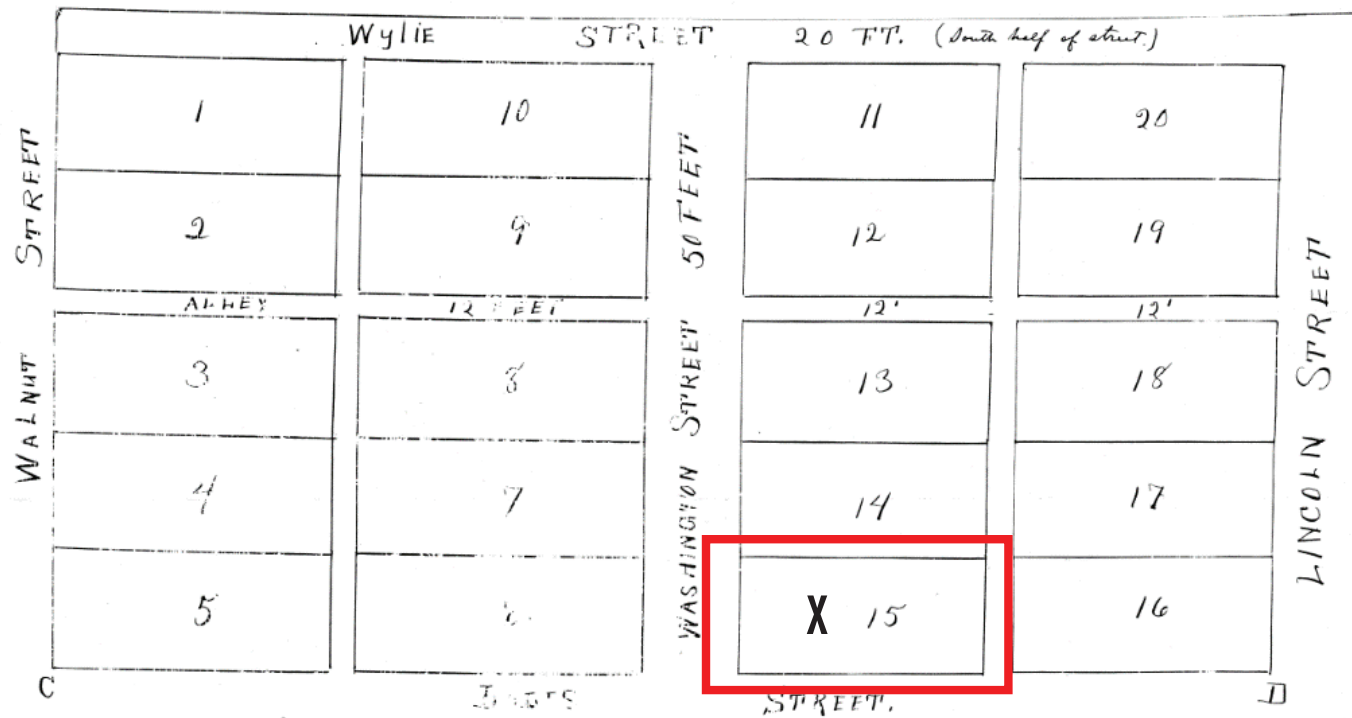


Google Earth image of our house on the corner of S. Washington and Dodds

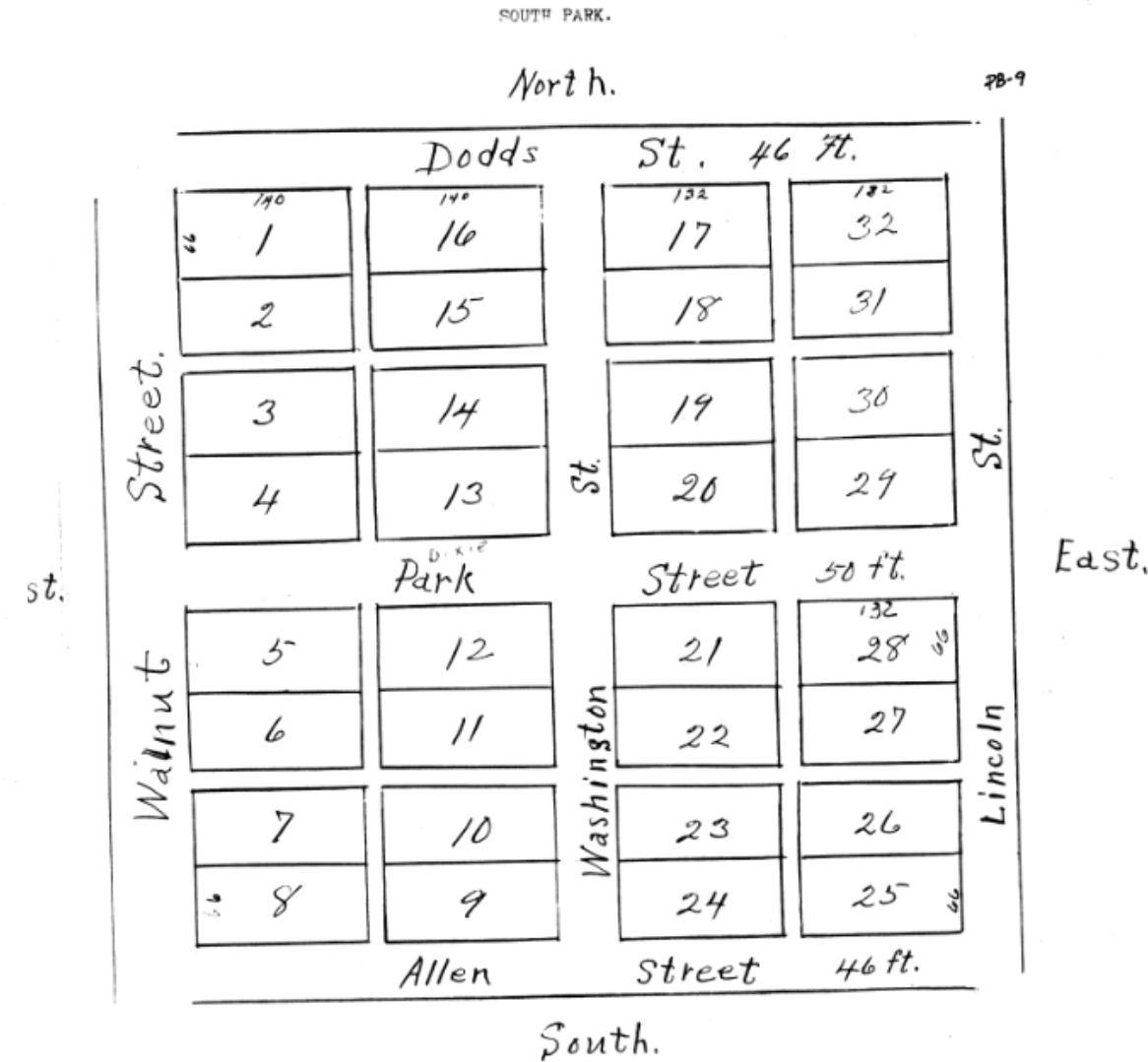


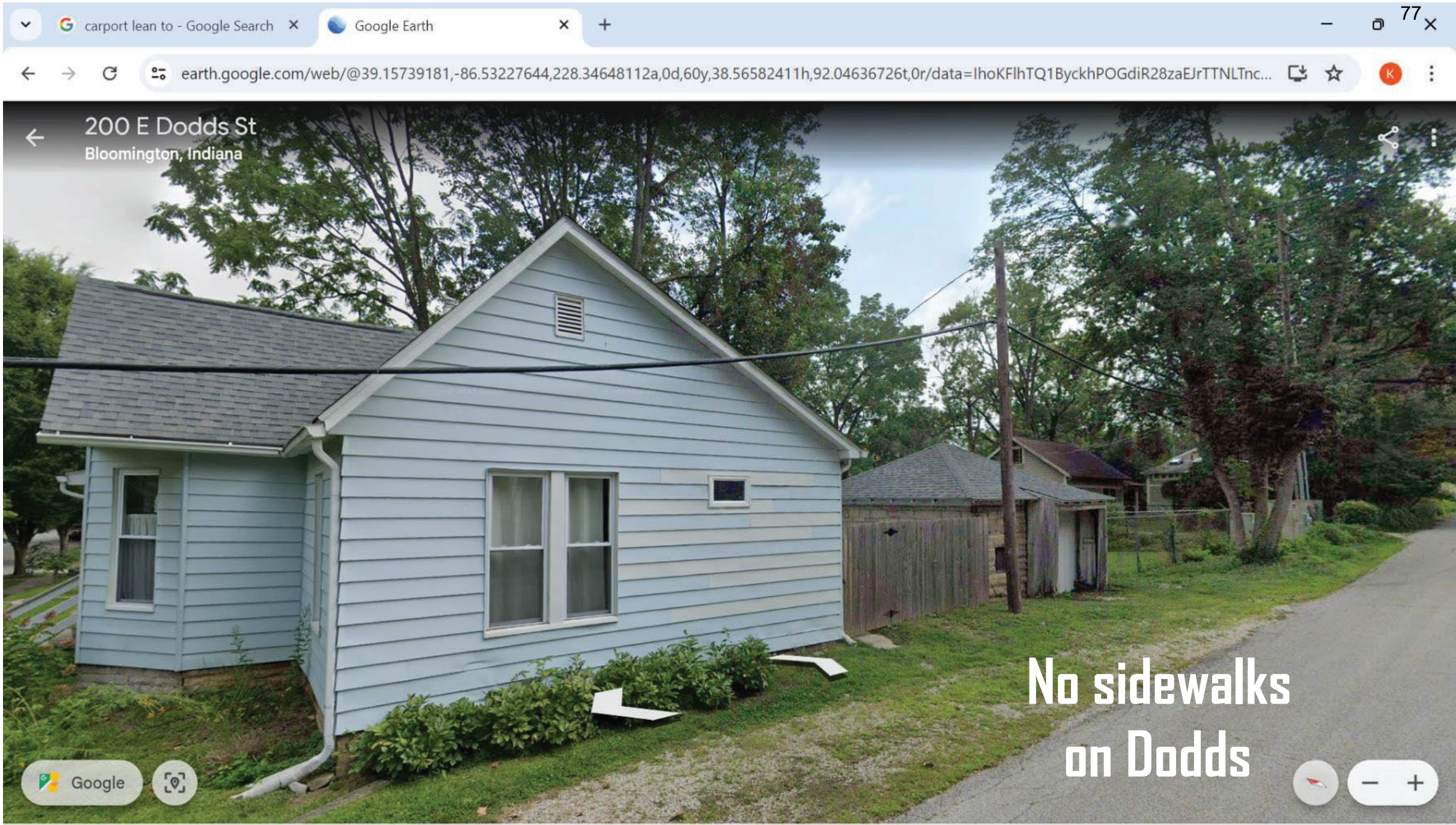


South Half of Seminary Square Lot Number 70 in the City of Bloomington
 Indiana Corner stones at C. and D.
 Lots numbered 1 to 10 are 59.6 feet by 140 feet.
 Lots numbered 11 to 20 are 59.6 feet by 132 feet.

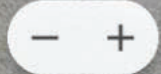


Plat map dates from 1906





Google



Google 0% Data attribution

Camera: 228 m

Breaking news
Americans Jagg...



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2:17 PM
7/29/2024





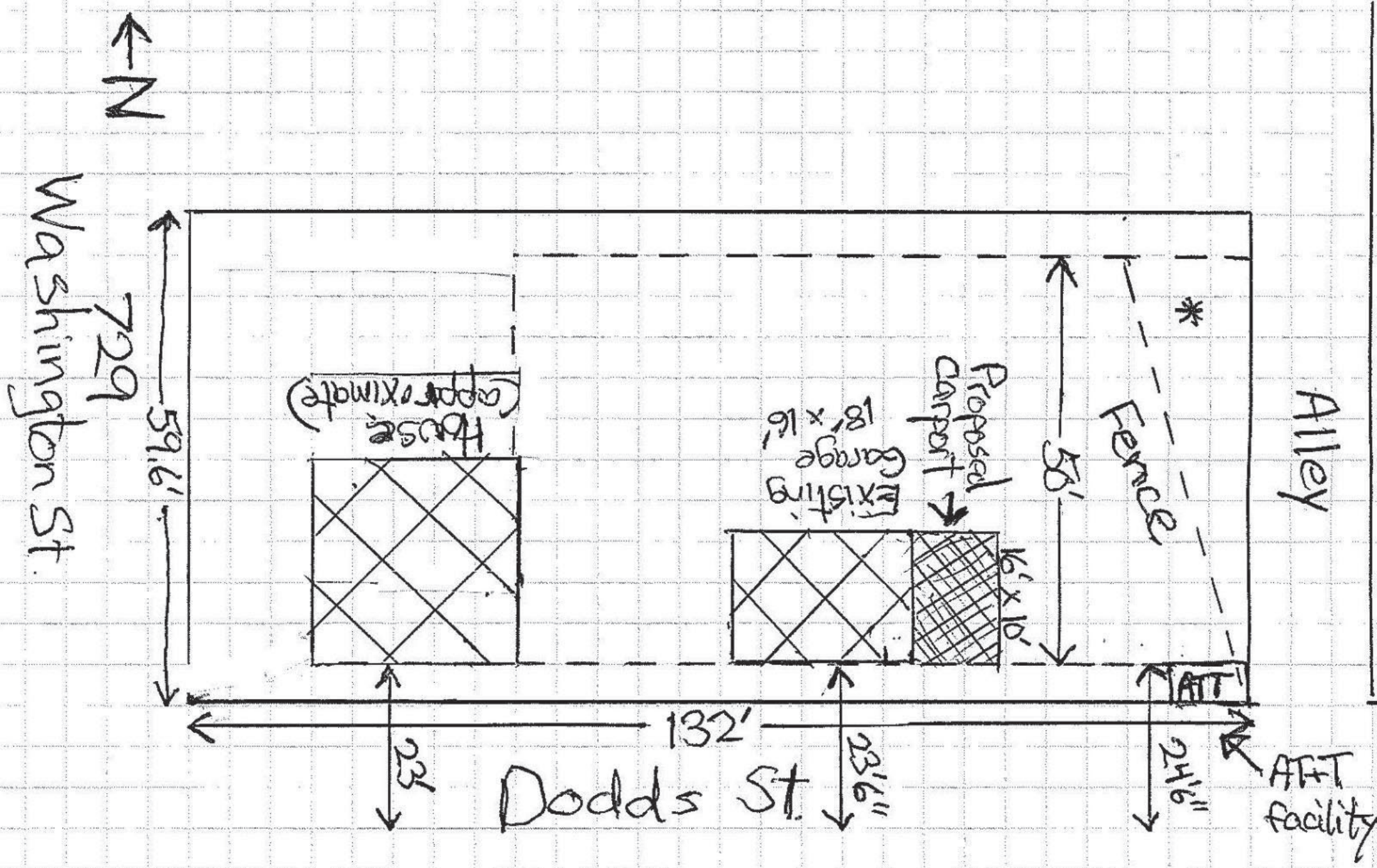


AT&T routing complex and phone-line pole at southeastern corner of lot where alley enters Dodds St.



**Alley ends at Dodds
where it was usurped
for driveway at 202 Dodds.
Improved alley disappears south of
driveway.**

**Note large number of student cars at
202 Dodds.**



Why are we making this request for a zoning variance to construct a carport on the east side of the existing limestone garage with access from Dodds St.

- protection and safety of people and possessions**
- homeowners in primarily student rental area**
- goal of aging in place**
- engineering challenges for driveway access via alley**
- preservation of urban greenspace (our backyard)**
- preservation and renovation of historical limestone structure**

Note that house (and garage) are ~100 years old and were built before current zoning. Both house and garage are in technical violation of the UDO but are grandfathered in.



83



2020 damage from falling city trees (Dodds side)

July 2024 storm damage from falling trees from neighbor's yard





March 2016 hailstorm caused \$5,100
damage to our roof (410 W. 4th St.) and
\$3,700 body damage to our car

Most recently, remnants of Hurricane Helene Oct. 27-28, 2004



Large limb from sweetgum tree (on City Right-of-Way) fell on edge of South Washington St. where we often park



Plus dying white ash (in City Right of Way) leaning over fence along Dodds and soon to fall in our yard and on electrical lines.

Have requested of Urban Forester that the City remove this tree before it falls.

Our Goal:

Aging in Place

Healthier & Happier at Home



Engineering challenges for alley access

10-Foot Contours 24k



IndianaMap GIO
IndianaMap

Summary

10-foot elevation contours for the extent of the state of Indiana, created from downloading, projecting and combining several datasets from USGS based on 7.5-minute quadrangle boundaries. Summary from the original source metadata: This dataset represents variant packaging of USGS elevation data. The primary USGS elevation products are gridded elevation points; contours are derived from these data for standard contour maps, and these contour

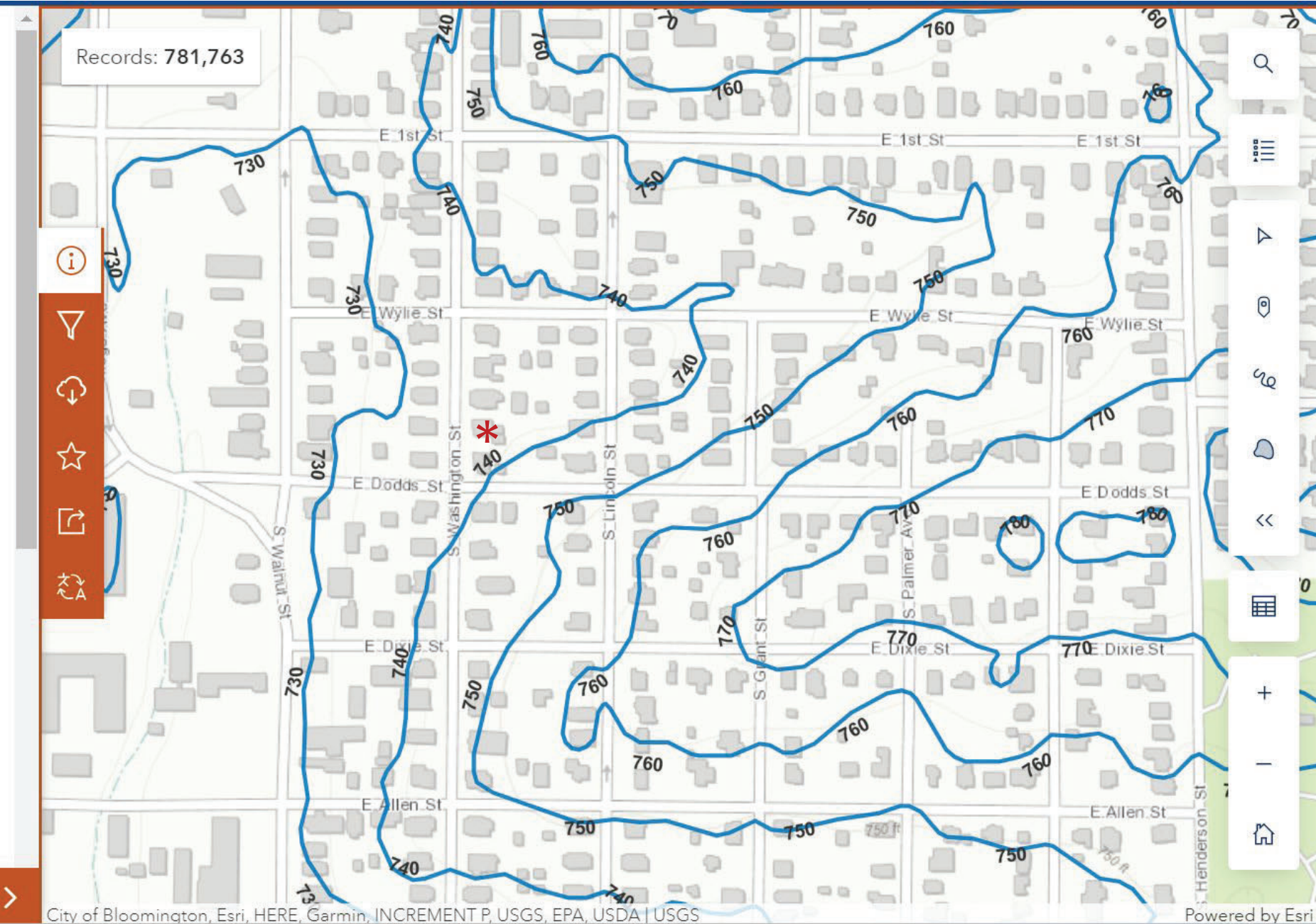
[Read More](#) ▾

[View Full Details](#)

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Details

I want to use this

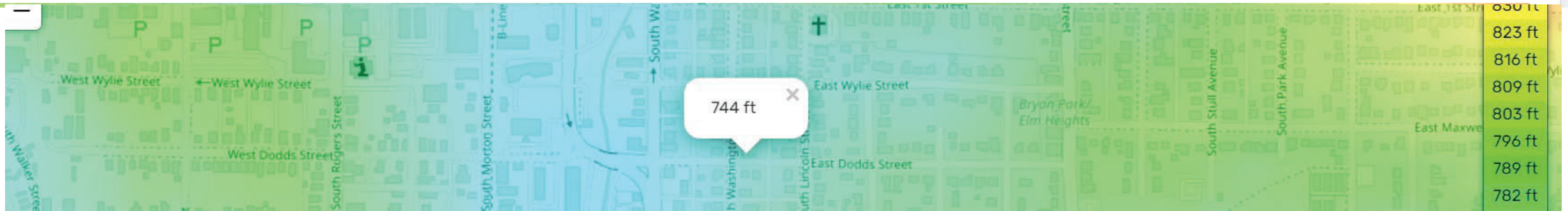




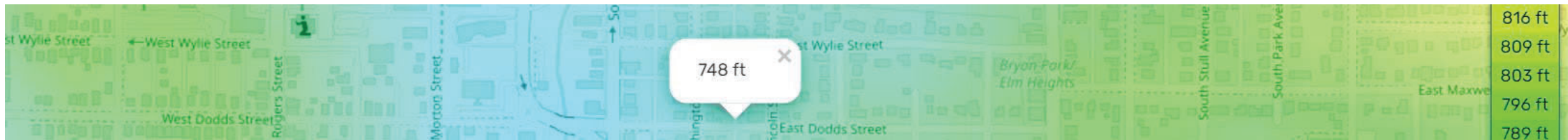
interactive map

click on the map to display elevation.

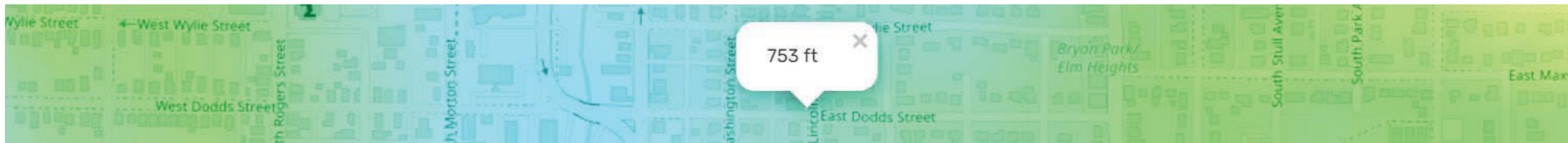
Our House (729 S. Washington) – 744 ft. elevation



Alley to east of our House – 748 ft. elevation



House directly to east of our House – 753 ft. elevation





Clearing out invasive plants near alley revealed a buried limestone retaining wall, emphasizing the drop off from the alley to our backyard. The AT&T routing complex and pole shown in the upper right also would make it challenging to turn into a driveway off the alley near Dodds.

**Bloomington UDO requires driveway access
off an improved alley**

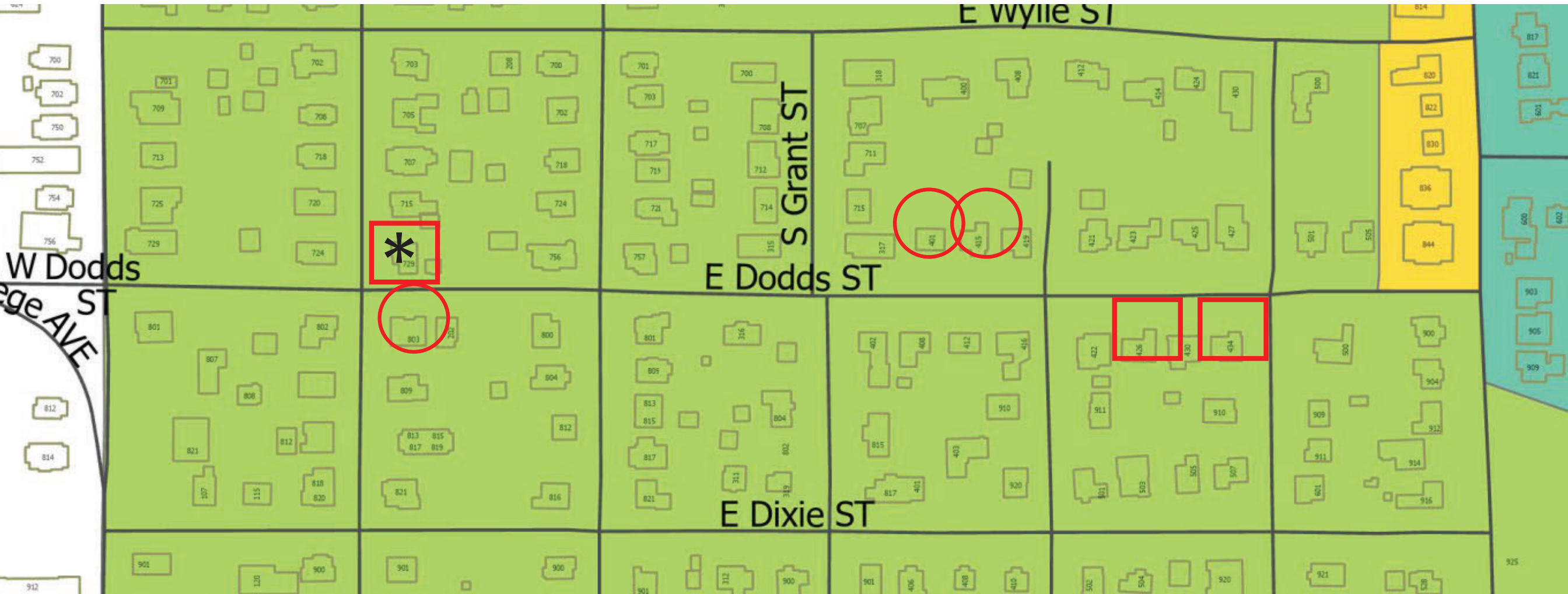
**But there is a 4 ft drop from alley to our backyard
12:1 slope would require 48 ft driveway from alley,
which would not fit in backyard and would destroy
much of the existing greenspace**

**Carport design is open on all sides but abuts existing
structure with minimal materials but requires
connection to the existing garage roof. Current
driveway to Dodds would be shifted 8 - 10 ft east**

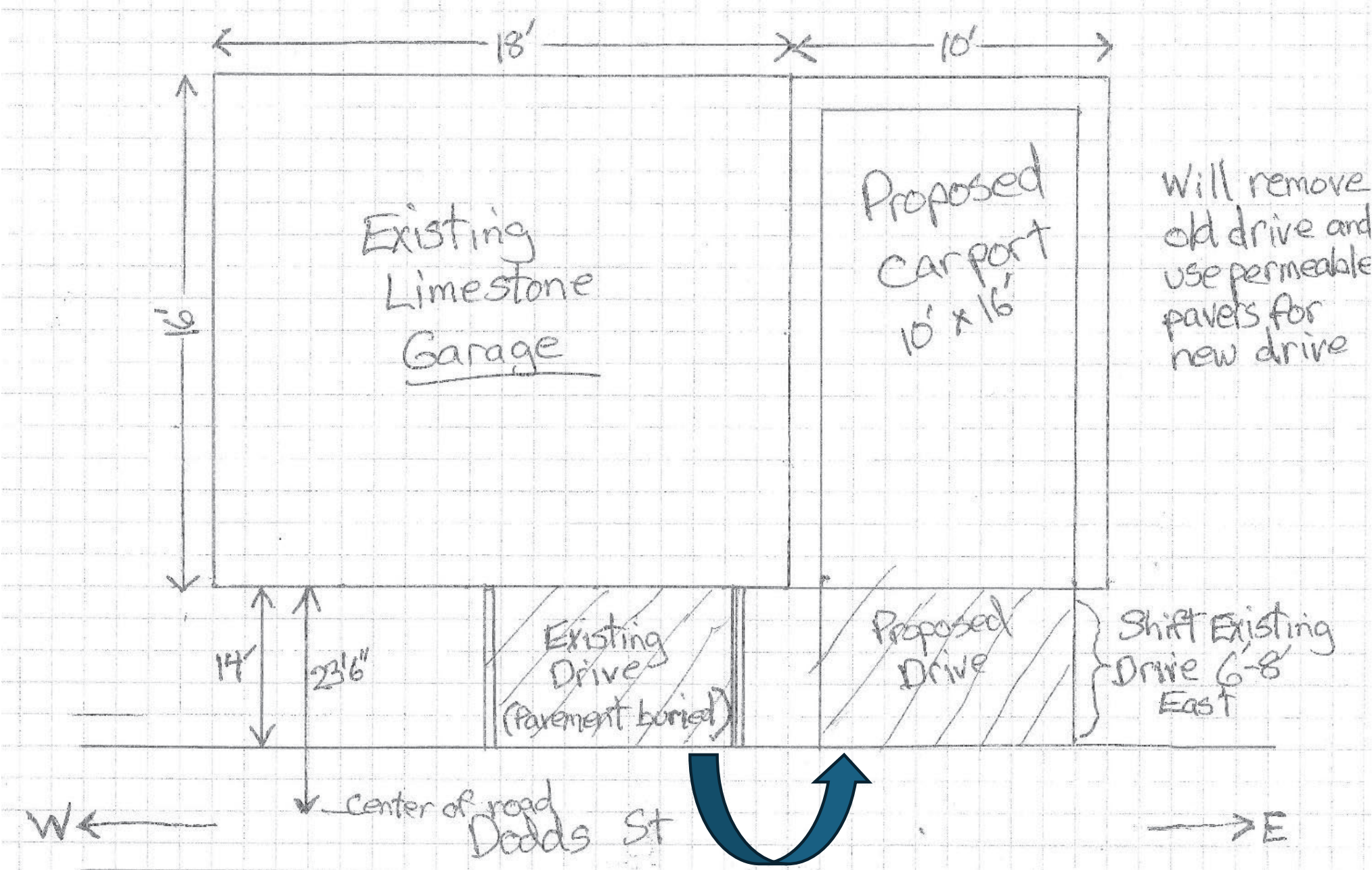
Request – to add a carport for one vehicle on east side of existing structure and shift existing driveway 8 – 10 feet to the east, which is the only feasible location for a driveway



Of 29 houses facing front or one side on Dodds, only three do not have driveway access (red squares). Our house plus 434 and 426 Dodds. The remaining 26 houses (90%) have driveway access. Three of those 26 houses have "informal" driveway access (red circles).



Schematic for proposed carport on east side of existing garage





We will remove preexisting driveway and replace with sod.

Then, for the relocated drive, we will install permeable pavers similar to those shown to provide a solid base for parking under the carport but where water can percolate through to the soil without runoff (if allowed).

We have spoken with all of the adjacent homeowners and all have indicated their support and enthusiasm for our plans and improvement to the immediate neighborhood. ~50 letters have been mailed to all property owners within 300 ft.

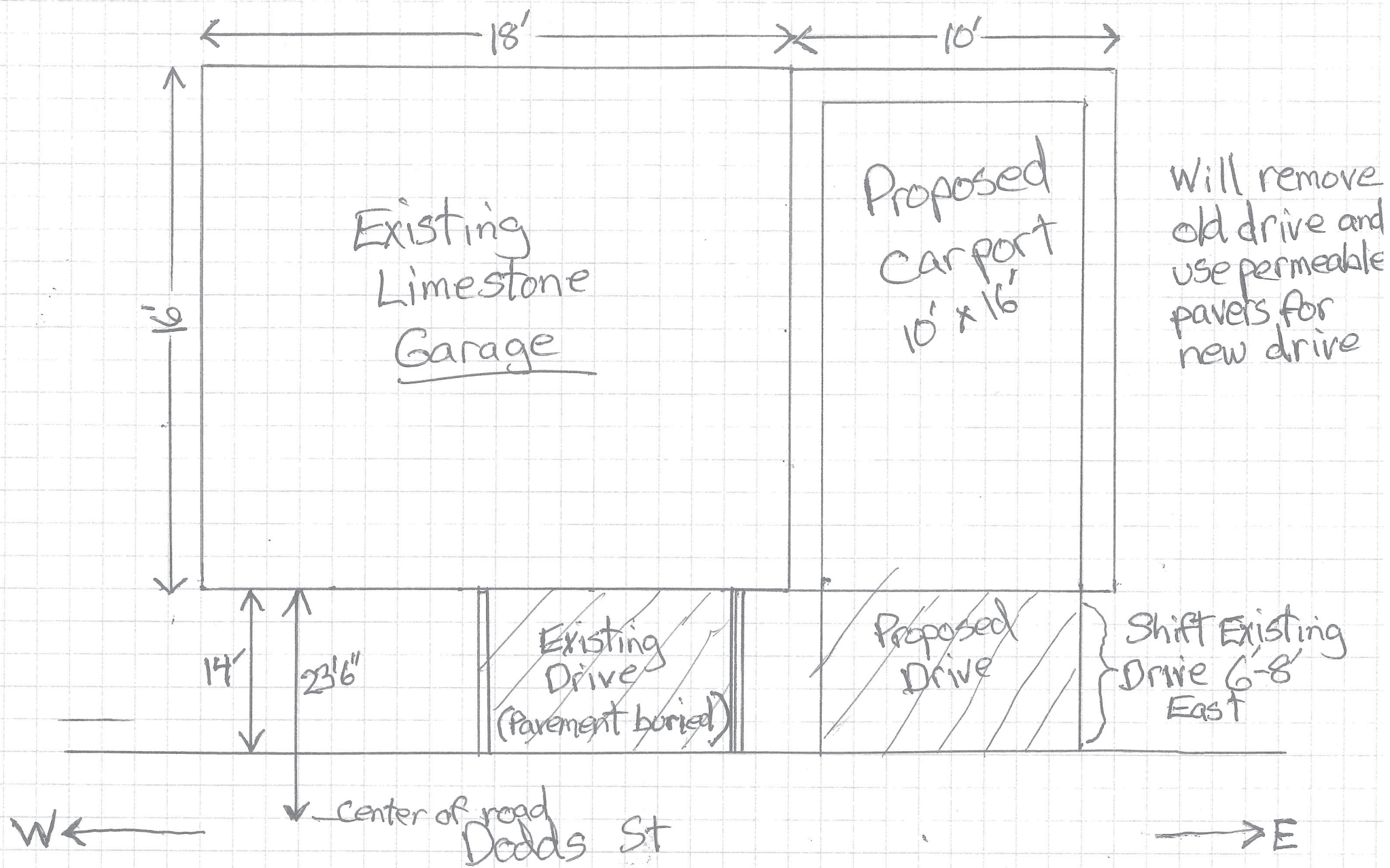
The adjacent neighbors are:

Steve Percy, 756 S. Lincoln St. (immediate neighbor to east)

Christi Baine, 724 S. Washington St. (immediate neighbor to west)

Chelsea Blanchard and Andy Bayer, 802 S. Washington St. (diagonal neighbor at S. Washington/Dodds intersection)

Two student rental houses to the south of us on Dodds (202 Dodds and 803 S. Washington) owned by absentee landlord Gil Coty.



BLOOMINGTON BOARD OF ZONING APPEALS
STAFF REPORT
Location: 523 West 7th Street

CASE #: V-28-24
/ VAR2024-09-0047
DATE: October 17, 2024

PETITIONER/OWNER: John and Jennifer Kincaid
 3956 North Hinkle Road
 Bloomington, IN

REQUEST: The petitioner is requesting a determinate sidewalk variance to allow construction of a single-family dwelling without construction of a sidewalk along the Jackson Street frontage of the property at this time in the Residential Urban Lot (R4) zoning district.

REPORT: The property is located at the southeast corner of the intersection of West 7th Street and North Jackson Street. The property is currently vacant, but formerly contained a single-family house which was demolished in 2019. The property as well as all surrounding properties are located in the Near West Side Historic District. The property and adjacent properties to the south and east are located in the Residential Urban Lot (R4) zoning district. Adjacent properties to the north and west are located in the Mixed-Use Institutional (MI) zoning district, and contain a school (MCCSC Fairview Elementary School) to the north across 7th Street and a place of worship (Fairview United Methodist Church) to the west across Jackson Street.

The petitioner proposes to build a new single-family house on the property. The design of the new house itself complies with applicable standards in the Unified Development Ordinance (UDO) and received certificate of appropriateness COA 24-28 from the Historic Preservation Commission on August 8, 2024. Construction of a new primary structure on the lot triggers full compliance with all UDO standards for the lot, including the requirement in UDO section 20.04.050(d)(2) to provide pedestrian facilities along all street frontages of the property, and the requirement in UDO section 20.04.050(d)(5) that the type of pedestrian facility shall be as indicated in the Transportation Plan. There is an existing sidewalk along 7th Street abutting the property, which the Planning and Transportation Department has determined is compliant with UDO requirements. There is currently no sidewalk along Jackson Street abutting the property; the UDO also requires a sidewalk along the Jackson Street frontage.

This segment of Jackson Street is identified in the Transportation Plan as a Neighborhood Residential street typology, which calls for a minimum six-foot-wide sidewalk separated from the roadway by a minimum five-foot-wide greenscape (tree plot). In situations where there is not enough existing public right-of-way width for the required pedestrian facilities, the UDO directs the pedestrian facilities to be installed on the adjacent private property and placed within a pedestrian easement. Because the existing public right-of-way of this segment of Jackson Street is only 40 feet wide, full compliance with the UDO would require the sidewalk to be placed on the property within a pedestrian easement.

The petitioner is requesting a variance from the UDO requirement to provide a sidewalk on the Jackson Street frontage of the property, in order to construct the house without constructing the sidewalk.

This petition was heard by the Hearing Officer on September 25, 2024. The Hearing Officer raised questions and concerns regarding each of the three criteria for granting a variance. Due to lingering questions and concerns, the Hearing Officer forwarded the petition to the Board of Zoning Appeals. The petition is now before the Board for a final decision.

For the first criterion, the Hearing Officer pointed to the absence of evidence supporting a finding of no injury to the public safety of the community—specifically, the absence of data showing traffic counts and traffic speeds on Jackson Street. To respond to this concern, staff requested the City of Bloomington Engineering Department to conduct a traffic count on both Jackson Street and 7th Street adjacent to the petitioner's property. Engineering Department staff placed counters on Jackson Street where it abuts the petitioner's property and on 7th Street west of Jackson Street on Wednesday and Thursday, October 2 and 3, 2024. The full data for both traffic volume and traffic speed at both locations are included in this packet. In summary, the block of Jackson Street adjacent to the petitioner's property was used by fewer than 200 vehicles per day, with 85 percent of the vehicles traveling at 20 miles per hour or less. The block of 7th Street just west of the petitioner's property was used by approximately 1,125 vehicles per day, with just over half of the vehicles traveling at 20 miles per hour or less. To put the traffic volume in context, best practices for street design indicate that shared streets—meaning streets where motor vehicles, bicycles, and pedestrians all share the same road space without curbs or other physical separation—are generally only appropriate for corridors with a low traffic volume of fewer than 1,000 vehicles per day. To put the traffic speeds in context, collisions between motor vehicles and pedestrians are always hazardous for pedestrians, and the risk and potential harm to the pedestrian increases continuously as the vehicle speed increases, but there is a significant inflection point at approximately 20 miles per hour. Collisions at speeds slower than 20 miles per hour typically result in non-lethal and non-debilitating injuries for the pedestrian, while collisions at speeds faster than 20 miles per hour are much more likely to result in debilitating injuries or death for the pedestrian. For this reason, vehicle speeds greater than 20 miles per hour are considered lethal speeds when considering pedestrian safety.

The Hearing Officer's concerns with the second variance criterion included that the staff report and proposed findings at the first hearing did not adequately address potential adverse effects on the use and value of the school property to the north across 7th Street. Specifically, there is currently no marked pedestrian crossing across 7th Street at the Jackson Street intersection. Because there is currently no sidewalk along Jackson Street leading to the intersection from the south, the City does not consider the crossing of 7th Street at the intersection to be a legal crosswalk and consequently the Engineering Department would not allow construction of pedestrian landings (curb ramps, etc.) on either side and crosswalk markings across 7th Street at this time. However, if a sidewalk were installed along Jackson Street leading to the intersection, it would become possible to construct a pedestrian crossing across 7th Street at this location. (A sidewalk along Jackson Street would create the *possibility* of a pedestrian crossing across 7th Street, but would not automatically make the crossing happen or trigger a requirement for anyone to construct the crossing.) Because such a pedestrian crossing across 7th Street would lead directly to the main front door of Fairview Elementary School, the Hearing Officer pointed out that granting the variance could have a significant effect on the use and value of the school property. To respond to this concern, staff contacted the school building administration of Fairview Elementary School and the MCCSC district administration. School officials confirmed

several facts about transportation operations at the school at this time. Morning entry and afternoon dismissal for walkers and car-riders is at the 8th Street entrance to the school, while the 7th Street entrance is used by bus-riders. At morning entry and afternoon dismissal, multiple buses line up along the north side of 7th Street between Rogers Street and Fairview Street. Even with this general routine, there are various reasons why individual students and families may walk up to the 7th Street entrance on any given day, including early morning and late afternoon extended-day care, late drop-off or early pick-up, or other individual reasons. Occasional buses also load and unload along the north side of 7th Street throughout the day for various reasons. Because of the heavy bus traffic at entry and dismissal times and because of general vehicle traffic at all times on 7th Street, school staff instruct students, families, and visitors to cross 7th Street only at the marked crosswalks at Rogers Street and Fairview Street and not to cross at the Jackson Street intersection. In order for a pedestrian crossing across 7th Street at Jackson Street to be useful to the school, there would not only have to be landings and a marked crosswalk installed but there would also have to be changes to the current bus operations and school routines.

The Hearing Officer's concerns with the third variance criterion included that the proposed findings at the first hearing did not convincingly show anything peculiar to the property that creates a practical difficulty which does not apply to other similar properties. The Hearing Officer pointed out that, as cited in the staff report, the UDO specifically addresses where pedestrian facilities should be placed when there is not adequate width in the public right-of-way (on private property within a pedestrian easement). In the Hearing Officer's view, the UDO's anticipation of this situation indicates that any practical difficulty resulting from the narrow right-of-way width is a general difficulty for a whole class of similar properties and not something peculiar to this property. The Hearing Officer also pointed out that the lot width, as shown in the site plan submitted by the petitioner, is not substandard for the zoning district—that is, the lot is 66 feet wide east to west, which is wider than the required minimum of 35 feet for the district—and therefore the lot width is not a peculiar feature of the property. Additionally, in the Hearing Officer's view, one existing tree needing to be removed is not a practical difficulty in the use of the property. To respond to this concern, staff does not have any new information regarding peculiarity or practical difficulty to present to the Board. However, staff does offer that the available facts in the record, as presented in the staff report at the first hearing and in the staff report for the second hearing, are not in dispute. It is the Board's role and within the Board's authority to interpret the facts in the record and make a determination whether the facts do or do not support the variance criteria.

CRITERIA AND FINDINGS FOR DEVELOPMENT STANDARDS VARIANCE

20.06.080(b)(3)(E)(i) Standards for Granting Variances from Development Standards: A variance from the development standards of the Unified Development Ordinance may be approved only upon determination in writing that each of the following criteria is met:

- 1) *The approval will not be injurious to the public health, safety, morals, and general welfare of the community.*

PROPOSED FINDING: Not constructing a sidewalk along the Jackson Street frontage of the property at this time will not be injurious to the public health, safety, morals, and general welfare of the community. This block of Jackson Street experiences an extremely low volume of vehicle traffic with fewer 200 vehicles per day. The peak traffic observed in a recent traffic count was 24 total vehicles, combined southbound and northbound, in the one hour from 5 to 6 pm on a Thursday. This block of Jackson Street also experiences generally low vehicle speeds with 85 percent of vehicles traveling at 20 miles per hour or less, slower than lethal speeds. The maximum speed observed in a recent traffic count was one vehicle out of 368 which was traveling between 30 and 35 miles per hour. Existing sidewalk on the west side of Jackson Street is available from 6th Street to the south, running as far north as the north end of the church building approximately 90 feet south of 7th Street (determinate sidewalk variance consideration [d]). Even though a dedicated pedestrian sidewalk separate from the vehicle roadway is preferable, lack of a sidewalk on this side of this segment of North Jackson Street will not be injurious to public safety.

- 2) *The use and value of the area adjacent to the property included in the Development Standards Variance will not be affected in a substantially adverse manner.*

PROPOSED FINDING: Lack of a sidewalk along the Jackson Street frontage of the property will not limit access to other adjacent properties to the west and south and will not substantially affect those properties. The abutting property to the south on the east side of Jackson Street does not currently have a sidewalk along its Jackson Street frontage, and constructing a continuation sidewalk along this abutting property would necessitate removal of part of the primary structure as well as several large trees (determinate sidewalk variance consideration [c]). Existing structures in the path of a sidewalk connection to the south mean that deferring sidewalk construction until at least the full block could be completed would result in more uniformity of development for the pedestrian network in the area (determinate sidewalk variance consideration [e]). Representatives from the Fairview United Methodist Church on the abutting property to the west across Jackson Street testified at the first public hearing before the Hearing Officer on September 25, 2024 that the existing sidewalk on the west side of Jackson Street and the other existing pedestrian routes provided adequate access to the church. Lack of a sidewalk along Jackson Street does limit access to the adjacent school property to the north because the lack prevents a pedestrian crossing across 7th Street from being installed. However, the current bus operations mean that a potential new pedestrian crossing could create conflict between the bus locations and pedestrians.

- 3) *The strict application of the terms of the Unified Development Ordinance will result in practical difficulties in the use of the property; that the practical difficulties are peculiar to the property in question; that the Development Standards Variance will relieve the practical difficulties.*

PROPOSED FINDING: Due to the limited public right-of-way width of 40 feet for this segment of North Jackson Street, the required sidewalk and greenscape would necessarily be located approximately 10 feet onto the property. This area of the property contains a significantly large mature pine tree in good health which would have to be removed to make way for the sidewalk. The existing state of this area of the property poses a practical difficulty for constructing the sidewalk (determinate sidewalk variance consideration item [a]). A determinate sidewalk variance to allow the sidewalk not to be constructed at this time would relieve the practical difficulty.

20.06.080(b)(3)(E)(i)(3) Determinate Sidewalk Variance Approval Criteria:

While not to be included as separate findings of fact, items to consider when determining the practical difficulties or peculiar conditions associated with a determinate sidewalk variance include, but are not limited to:

- [a] That the topography of the lot or tract together with the topography of the adjacent lots or tract and the nature of the street right-of-way make it impractical for construction of a sidewalk; or*
- [b] That the pedestrian traffic reasonably to be anticipated over and along the street adjoining such lot or tract upon which new construction is to be erected is not and will not be such as to require sidewalks to be provided for the safety of pedestrians; or*
- [c] The adjacent lot or tracts are at present developed without sidewalks and there is no reasonable expectation of additional sidewalk connections on the block in the near future; or*
- [d] The location of the lot or tract is such that a complete pedestrian network is present on the other of the street on the same block; or*
- [e] Uniformity of development of the area would best be served by deferring sidewalk construction on the lot or tract until some future date.*

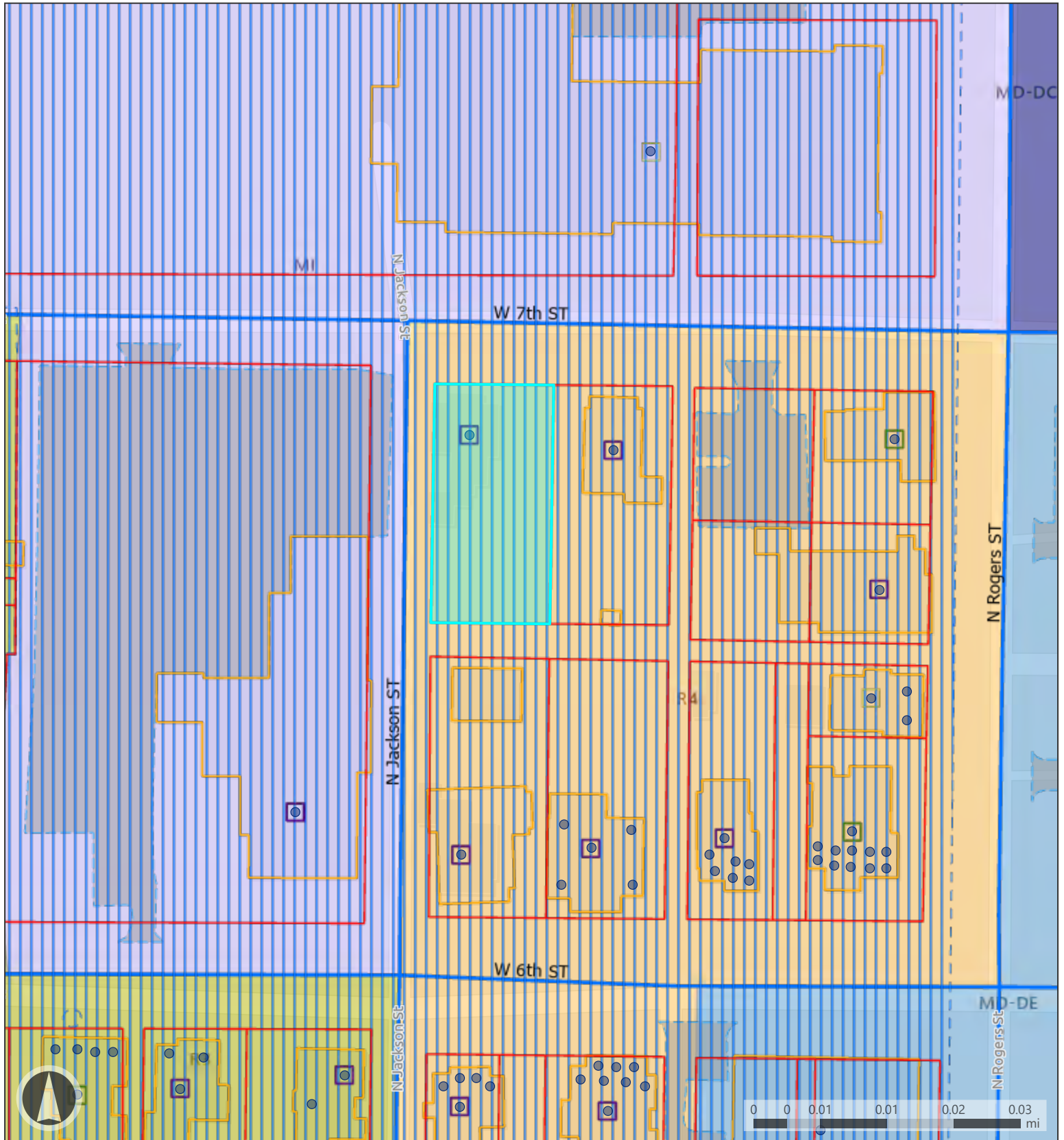
Review of Determinate Sidewalk Criteria:

- [a] Existing features along the property's Jackson Street frontage, including existing utility poles and guy wires in the right-of-way adjacent to the street as well as a significantly large mature pine tree on the property where a sidewalk would be located, add complications to the design and construction of a sidewalk.*
- [b] This block of North Jackson Street experiences an extremely low volume of vehicle traffic and low vehicle speeds.*
- [c] The abutting property to the south on the east side of Jackson Street does not currently have a sidewalk along its Jackson Street frontage. Constructing a continuation sidewalk to the south along the abutting property would necessitate removal of part of the primary structure as well as several large trees. There is no reasonable expectation of a sidewalk connection to the south along the east side of Jackson Street in the near future.*

- [d] There is a partial pedestrian network on the west side of Jackson Street across from the property. From the sidewalk on the north side of 6th Street, there is a series of existing sidewalk segments running 210 feet to the north end of the church building, which is approximately 90 feet south of 7th Street. The sidewalk segments include three locations with a vertical step, so the pedestrian path does not comply with ADA (Americans with Disabilities Act) accessibility standards. After the end of the sidewalks, it is possible for a pedestrian on the west side of the street to continue north through the edge of the church parking lot to the sidewalk along the south side of 7th Street. At the next north-south street to the west, there are sidewalks on both sides of Maple Street which provide an alternative pedestrian route between 6th Street and 7th Street that may be along a useful path for some pedestrians who might otherwise use Jackson Street.
- [e] Existing structures in the path of a sidewalk connection to the south mean that deferring sidewalk construction until at least the full block could be completed would result in more uniformity of development for the pedestrian network in the area.

RECOMMENDATION: Based upon the written findings above, the Department recommends that the Board adopt the proposed findings for V-28-24 / VAR2024-09-0047 and approve the requested variance with the following condition:

1. A zoning commitment for the determinate sidewalk variance must be recorded and submitted prior to approval of a building permit.



Map Legend

- Addresses
- Parcels
- Buildings

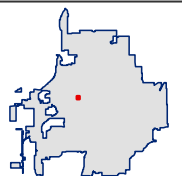
Rating

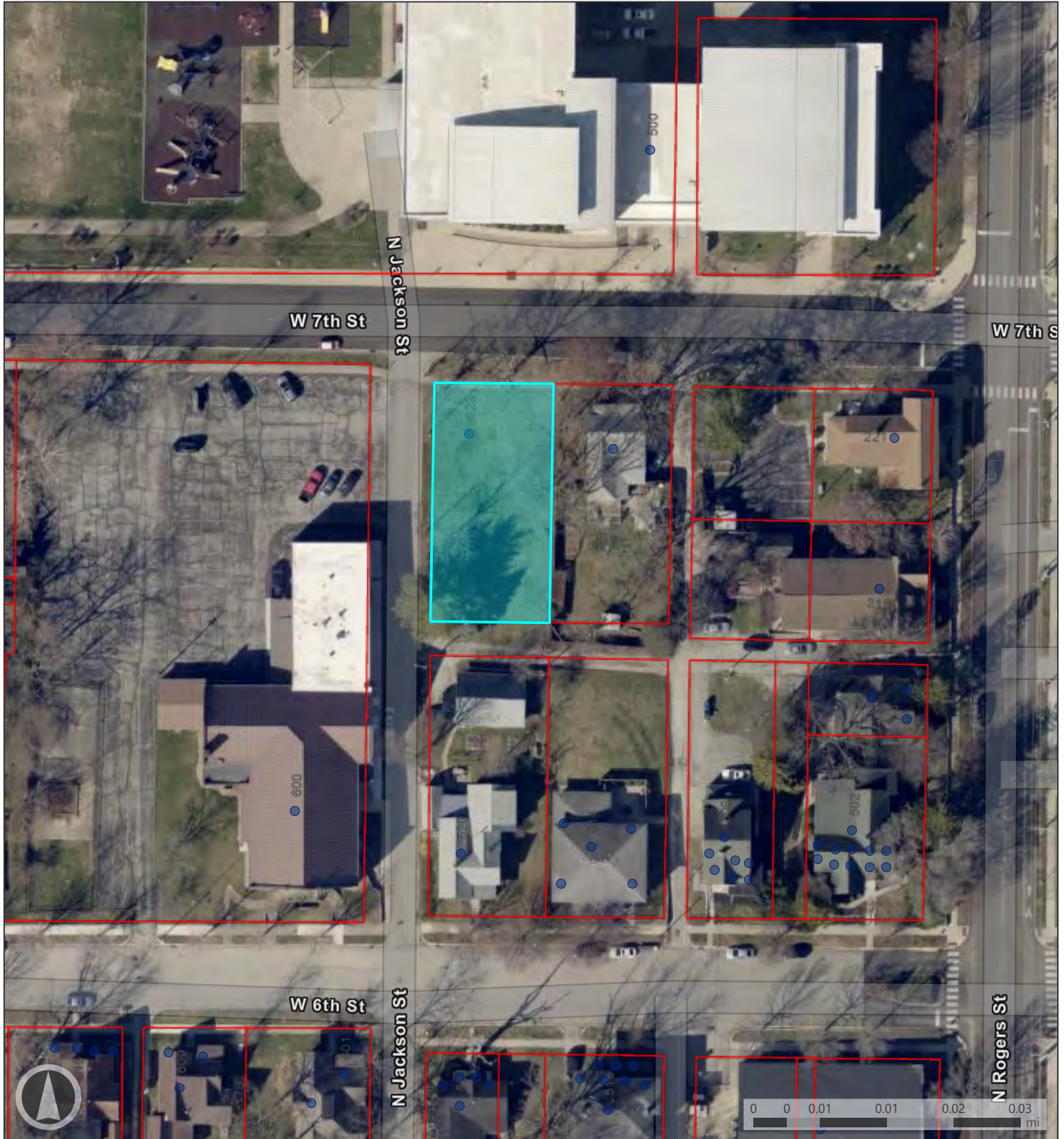
- Notable
- Contributing

- Non-Contributing
- Local Historic Districts

Parking Lot

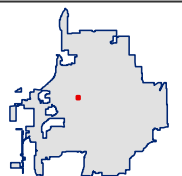
- Paved
- City





Map Legend

- Addresses
- Parcels



PETITIONERS' STATEMENT

Variance application: 523 W. 7th Street

Project description:

New construction single-family home to be occupied by owners. Plans have previously been approved by Historic Commission and received Certificate of Appropriateness. There is an existing sidewalk along 7th Street in the front-facing side of the proposed home. There is no sidewalk along Jackson Street and petitioners request a variance so as not to have to construct a sidewalk on that west side of the property.

The variance request meets several of the listed criteria:

- a) That the topography of the lot or tract together with the topography of the adjacent lots or tract and the nature of the street right-of-way make it impractical for construction of a sidewalk
 - If a sidewalk were required, a significantly large mature pine tree in good health would have to be removed. Petitioners had already worked with an arborist and the City to remove diseased trees in order to preserve the remaining trees as much as possible. In addition, two utility lines/poles would have to be relocated.
- b) That the pedestrian traffic reasonably to be anticipated over and along the street adjoining such lot or tract upon which new construction is to be erected is not and will not be such as to require sidewalks to be provided for the safety of pedestrians
 - Jackson Street between 6th and 7th Streets does not receive much car traffic. Fairview United Methodist Church takes up the entirety of the property across the street on that side. There is a sidewalk all along the church buildings ending with a ramped portion into the church parking lot where there is even more room for any pedestrians to walk.
- c) The adjacent lot or tracts are at present developed without sidewalks and there is no reasonable expectation of additional sidewalk connections on the block in the near future
 - The adjoining property to the south of the lot along Jackson Street is a residence with no sidewalk. No sidewalk can be expected to be constructed there as it would necessitate the removal of a structure and the removal of several large trees.
- d) The location of the lot or tract is such that a complete pedestrian network is present on the other side of the street on the same block
 - See item (b)- there is a complete pedestrian network on the other side of the street on that block.
- e) Uniformity of development of the area would best be served by deferring sidewalk construction on the lot or tract until some future date
 - Having a one-lot length of sidewalk would not serve the uniformity of development in the neighborhood. Very few sidewalks exist on parallel blocks in the neighborhood.

Thank you for your consideration,
Jennifer and John Kincaid

NOTES:

- 1). Basis of Bearings (State Plane- West).
- 2). Fieldwork performed in May 2024.
- 3). Proposed 1st floor elevation of residence shall be 798.0'.
- 4). Source of title now or formerly owned by John W. Kincaid and Jennifer Uber Kincaid as found in Instrument Number 2024002834 in the Office of the Monroe County Recorder.
- 5). The proposed finish floor and finish grade elevations shown are minimum elevations in order to provide positive surface drainage away from the proposed residence. The finish grade elevations shall not in any way shed surface storm water flow onto the adjoining properties unless provisions have been made with the adjoining property owners and the governing jurisdiction. Shallow flow lines shall be made by the finish grade subcontractor along the common lines with adjoining property owners to direct the storm water flow as shown on this plot plan. The builder shall notify this firm if field adjustments are made lowering than the elevations shown or redirecting the surface storm water flows.
- 6). The dimensions shown on the proposed residence are based upon plans provided by the builder. Prior to construction the builder shall verify no changes have been made from those shown hereon.
- 7). The plot plan has been prepared for use in obtaining a building permit and is not intended to identify lot or property lines. The dimensions shown to lot lines or lines representing property lines are shown based upon limited field evidence of said lines and the dimensions are subject to the same limitations which might affect the accuracy of the dimensions.
- 8). No wetlands shall be disturbed during or after the construction of the site improvements.
- 9). Any subsurface drainage tiles encountered during the construction of the site improvements shall be protected from damage and if necessary rerouted with the drainage flow within perpetuated. If said tile is damaged, repairs shall be made immediately to restore the tile to its original condition.
- 10). The builder and/or any underground site contractor shall call Indiana 811 to verify the location of the underground utilities on this site and report any conflicts to Deckard Land Surveying prior to commencing work.
- 11). Construction drive: Temporary construction drive to comply with City of Bloomington ordinances.
- 12). Gentle swale statement: Gentle swale required to be constructed (or be protected if existing along side lot line) during construction and to remain post-construction to direct sheet drained watershed towards the front and back of lot and not towards existing or proposed residence.
- 13). Erosion control measure must be functional and maintained through construction.
- 14). Sediment Discharge and tracking from lot shall be minimized.
- 15). Adjacent lots disturbed by an individual lot operator must be repaired and stabilized.
- 16). Concrete and Cementitious Washwater: Include location of concrete washout and building materials area on site plan. All concrete and cementitious washwater is required to be captured in a leak-proof concrete washout container.
- 17). Ingress/Egress: Equipment is only allowed to access the site through the approved driveway with a Driveway Permit. Maintain the driveway as a stabilized construction ingress/egress. If alternate access is required, please apply for another Driveway Permit with the City of Bloomington Street Department.
- 18). Tracking and Off-Site Discharges: Any sediment tracked off site, must be swept (not flushed) off the road by the end of the business day. Off-site discharges of sediment must be remediated by the end of the business day.
- 19). Spill Response: No vehicle fueling, storage of fuel, or repair of equipment is allowed on site. All spills must be cleaned up immediately and reported according to local, state, and federal regulations. Contact the MS4 Coordinator immediately for any reportable spills or discharge to storm sewers or waterbodies.
- 20). Karst: New sinkholes that develop as a result of construction must be reported to the MS4 Coordinator within 24 hours of discovery. Immediately protect the sinkhole with erosion control measures. Filling of new sinkholes requires MS4 Coordinator approval.
- 21). Stabilization: Permanently stabilize areas at final grade within 7 days. Temporary stabilization is required for disturbed areas left inactive for more than 7 days. Any disturbance caused on adjacent lots must be repaired or stabilized.
- 22). Changes or deviations to this plan shall be submitted to City of Bloomington Planning Department for approval.
- 23). The individual lot operator is responsible for installation and maintenance of all erosion and sediment control measure until the lot is stabilized. The operator must comply with all the requirements of the zoning ordinance of the City of Bloomington.
- 24). This drawing is not intended to be represented as a retracement or original boundary survey, a route survey, or a Surveyor Location Report.
- 25). I affirm, under penalty for perjury, that I have taken responsible care to redact each Social Security Number in this document, unless required by law.
-ERIC L. DECKARD

SITE PLAN
IN LOT NUMBERED TWO HUNDRED EIGHTY (280) IN THE
ORIGINAL PLAT OF THE CITY OF BLOOMINGTON
MONROE COUNTY, INDIANA

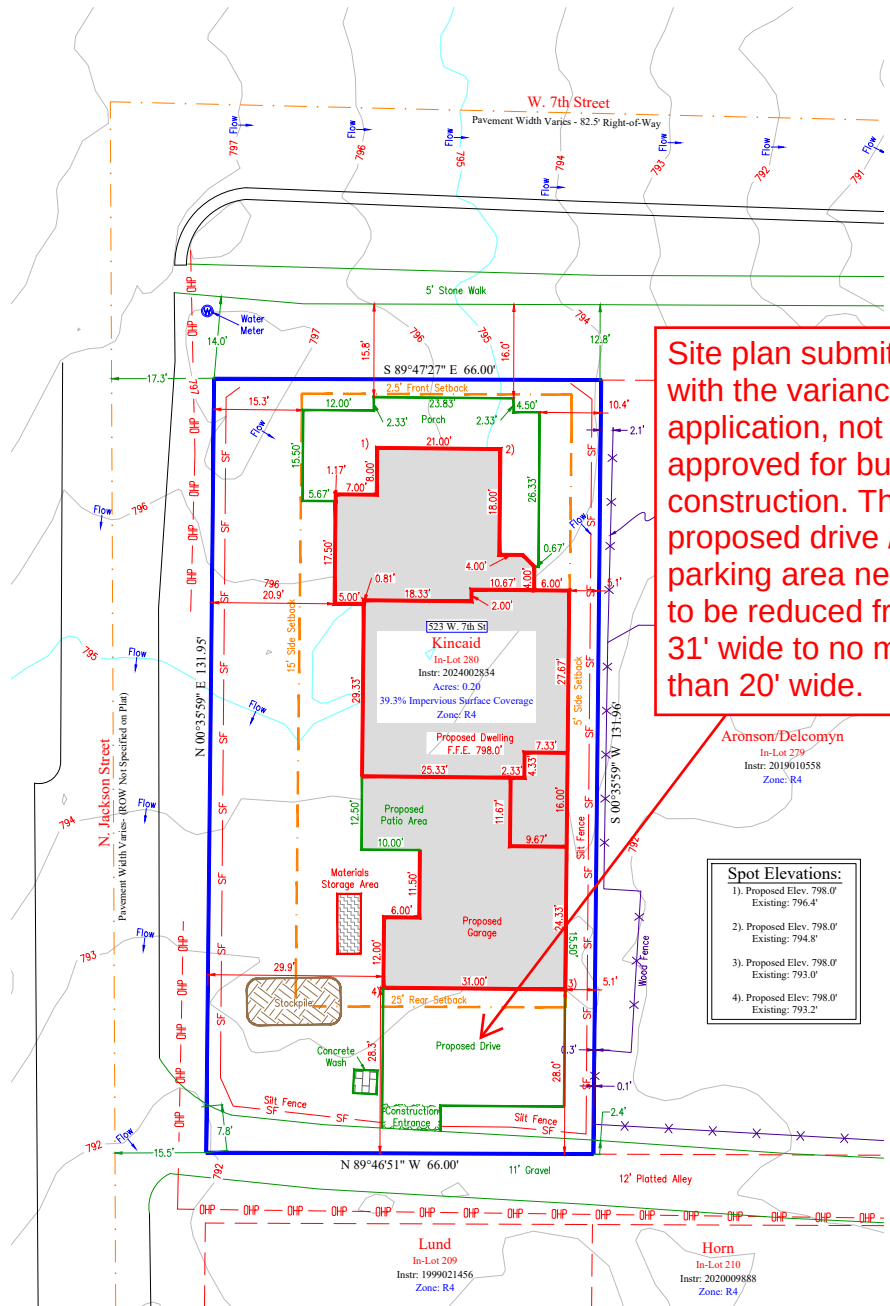
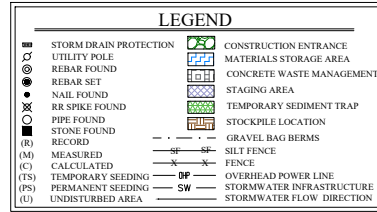
PROJECT LOCATION

BLOOMINGTON TWP.
TOWNSHIP 9 N
RANGE 1 W
SECTION 32

DEVELOPER, APPLICANT & OR OWNER
JOHN W. KINCAID &
JENNIFER UBER KINCAID
INSTRUMENT NUMBER 2024002834
3956 N. HINKLE ROAD
BLOOMINGTON, INDIANA 47408



LOCATION MAP



Site plan submitted with the variance application, not yet approved for building construction. The proposed drive / parking area needs to be reduced from 31' wide to no more than 20' wide.

Spot Elevations:

- 1). Proposed Elev. 798.0'
Existing: 796.4'
- 2). Proposed Elev. 798.0'
Existing: 794.8'
- 3). Proposed Elev. 798.0'
Existing: 793.0'
- 4). Proposed Elev. 798.0'
Existing: 793.2'

CERTIFICATION

This drawing was prepared in the office without the benefit of a field survey and examination of adjoining deeds. This certification does not take into consideration additional facts that an accurate and correct title search and/or examination of a field survey might disclose.

Certified this 23rd day of July, 2024.

Eric L. Deckard
Registered Surveyor LS29900012
State of Indiana

Record Legal Description:
In Lot Number Two Hundred and Eighty (280) in the
Town (now City) of Bloomington, Indiana.

Zoning Classification:
R4 - Residential

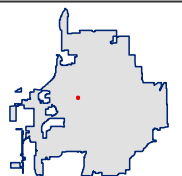
Setback Table:
Per Bloomington UDO 20.02.010
Front - 1.5' or the median front setback of abutting
residential structure, whichever is less
Side - 5'
Rear - 25'
These lots are for "Single Family" use.

SITE SHEET	DATE 7/23/24	SHEET 1	SCALE 24:61	SURVEYED WS & T1 WRS CHECKED ELD DATE 7/23/24	REVISIONS	BY	DATE	JOB TITLE KINCAID SITE PLAN A PART OF SECTION 32, T9N, R1W	DRAWN BY DECKARD LAND SURVEYING 1604 S. HENDERSON STREET BLOOMINGTON, IN 47401 TELEPHONE (812) 961-0235 ERIC@DECKARDLLS.COM



Map Legend

 Parcels





Jackson Street from 7th Street (looking north to south), 10/11/2024



Jackson Street from 6th Street (looking south to north) 10/11/2024



Existing partial pedestrian route on the west side of Jackson Street from 6th Street to 7th Street, first vertical step (looking south to north) 10/11/2024



Existing partial pedestrian route on the west side of Jackson Street from 6th Street to 7th Street, second vertical step (looking south to north) 10/11/2024



Existing partial pedestrian route on the west side of Jackson Street from 6th Street to 7th Street, jog in the sidewalk (looking northwest to southeast) 10/11/2024



Existing partial pedestrian route on the west side of Jackson Street from 6th Street to 7th Street, third vertical step (looking south to north) 10/11/2024



Existing partial pedestrian route on the west side of Jackson Street from 6th Street to 7th Street, edge of the church parking lot (looking south to north) 10/11/2024



Existing utility poles and trees in the path of a potential sidewalk along the Jackson Street frontage of the petitioner's property at 523 West 7th Street (looking north to south) 10/11/2024



Existing utility pole, tree, and structure in the path of a potential sidewalk along the Jackson Street frontage of 520 West 6th Street, the abutting property to the south of the petitioner's property (looking north to south) 10/11/2024

**HEARING OFFICER –Kelly Conference Room #155
September 25, 2024 @ 2:00 p.m. - Record of Meeting**

The Hearing Officer meeting was held on Wednesday, September 25, 2024 in the Kelly Conference Room #155 and on Zoom. Hearing Officer present: Ryan Robling

REPORTS RESOLUTIONS AND COMMUNICATIONS:

APPROVAL OF MINUTES:

Ryan Robling, Hearing Officer, made a motion to approve all minutes from 2023.

Robling made a motion to approve all minutes from 2024.

PETITIONS:

V-28-24

John & Jennifer Kincaid

523 W 7th Street

Parcel: 53-05-32-413-0800000-005

Request: Determinate sidewalk variance to allow construction of a single-family dwelling without construction of a sidewalk along the Jackson Street frontage of the property in the Residential Urban Lot (R4) zoning district.

Case Manager: Gabriel Holbrow

Gabriel Holbrow, Case Manager, presented the staff report. Staff is recommending the Hearing Officer adopt the proposed findings and approve V-28-24 with the following condition:

1. A zoning commitment for the determinate sidewalk variance must be recorded and submitted prior to approval of a building permit.

Jennifer Kincaid, petitioner, gave more information about the variance request.

PUBLIC COMMENT:

Barb Lund spoke in favor of this petition.

George Hartzog, Pastor and Chief Administrative Officer of the Fairview United Methodist Church, spoke in favor of this petition. Hartzog wanted to add that anyone can use the sidewalk on the side of the church.

Dietrich Hartzog, Executive Director of the Wesley Living Learning Center at Fairview United Methodist Church, spoke in favor of this petition. Hartzog stated there is no significant traffic on Jackson Street.

BACK TO HEARING OFFICER:

Robling asked if there are traffic counts for the section of N. Jackson Street; Holbrow said no.

Robling asked if there are any vehicular speed data; Holbrow said no.

Robling asked for confirmation that the UDO has specific rules about when existing right-of-way width is not sufficient to include newly constructed sidewalks and tree plots; Holbrow confirmed.

HEARING OFFICER –Kelly Conference Room #155
September 25, 2024 @ 2:00 p.m. - Record of Meeting

Robling asked if sites that are going through development, are often required to remove things like trees in order to develop; Holbrow confirmed.

Robling asked if the location of the utility poles actually interfere with the location of the sidewalk. They seem to be located within 2 feet of the road. From old street view pictures of the street it appears even a building didn't affect the location of those poles. Holbrow said the utility poles appear to be in the Right-of-Way, which does not prevent construction of a sidewalk, but they do add complication to the design of the sidewalk.

Robling asked if the sidewalk were to be constructed as required would the Lund property be forced to be demolished in order to construct a sidewalk on the Lund's property; Gabriel said no.

Robling said, "I'm not sure criteria number 2 was answered in the proposed findings. And, I too am having difficulty answering it. Development Services staff, and certainly the petitioner, may not be aware but legal crossings require a number of things including a landing. A newly added sidewalk would allow for the creation of a landing and thus potentially allow for a future crosswalk and related infrastructure to the school so that could potentially impact the use of a property adjacent to the property in the variance.

For criteria 1 Jackson St. was identified as having "extremely low volume of vehicle traffic" but I don't note any evidences to support this claim. While I do suspect that it does not feature many vehicles I'm more concerned about vehicles speeds. Do we have data to suggest that vehicles are traveling at or below lethal speeds? That is speeds below 20 miles per hour. I'm especially concerned because there is a strong possibility that the person in the road is going to be a child walking to school. I don't agree with the idea that sidewalks are a preferences. Especially so when adjacent to a school in an urban-residential area. Sidewalks are life preserving infrastructure. The current design would have a pedestrian travel in a roadway, with their back to traffic, for roughly 90 feet. If a sidewalk was constructed as required a pedestrian would be able to cross from the new sidewalk to the adjacent church's sidewalk in roughly 20 feet, while perpendicular to the street allowing them to look in both directions of vehicle traffic while in the roadway. 69% of pedestrian fatalities happen in locations without a sidewalk so I'm not sure that I can support a positive finding of fact for criteria 1.

For criteria 3 I am again finding it difficult to find positive findings of fact. The UDO explicitly outlines how properties should develop their required sidewalk when it cannot be located within the right-of-way. This inclusion, to me, represents that the UDO expects this occurrence to happen enough that it cannot be deemed as peculiar. Additionally, I do not believe that one existing tree needing to be removed on a developing lot is peculiar. I find no practical difficulty preventing this property from being developed if the required sidewalk is constructed. The lot is not substandard for the district."

Due to the lingering questions, Robling made a motion to forward V-28-24 to the October 19, 2024 Board of Zoning Appeals meeting.

Meeting adjourned 2:33 P.M.



City of Bloomington Engineering Department

401 N. Morton St., Suite 130
Bloomington, IN 47404

Start Date: 10/2/2024
End Date: 10/3/2024
Comment 1:

Site Code: p45166
Station ID:
Location 1: N Jackson St
Location 2: From W 6th St to W 7th St
Latitude: 39.168300
Longitude: -86.539859

9/30/2024	Monday		Tuesday		Wednesday		Thursday		Friday		Weekday Average		Saturday		Sunday	
Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
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1:00	*	*	*	*	1	1	0	0	*	*	0	0	*	*	*	*
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6:00	*	*	*	*	0	1	2	0	*	*	1	0	*	*	*	*
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9:00	*	*	*	*	3	13	7	11	*	*	5	12	*	*	*	*
10:00	*	*	*	*	1	2	3	2	*	*	2	2	*	*	*	*
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9:00	*	*	*	*	0	3	2	10	*	*	1	6	*	*	*	*
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11:00	*	*	*	*	2	0	1	1	*	*	2	0	*	*	*	*
Total	0	0	0	0	72	102	86	108	0	0	80	103	0	0	0	0
Day	0		0		174		194		0		183		0		0	
AM Peak					8:00	9:00	8:00	9:00			7:00	9:00				
Volume					10	13	7	11			8	12				
PM Peak					5:00	5:00	5:00	3:00			5:00	5:00				
Volume					7	14	12	14			10	13				
Comb Total	0		0		174		194		0		183		0		0	
ADT	ADT: 184		AADT: 184													



City of Bloomington Engineering Department

401 N. Morton St., Suite 130
Bloomington, IN 47404

Start Date: 10/2/2024
End Date: 10/3/2024
Comment 1:

Site Code: p45166
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Location 2: From W 6th St to W 7th St
Latitude: 39.168300
Longitude: -86.539859

Direction: NB

10/2/2024	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	> 70 MPH	Total
Time 0 - 15 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH													
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	1	0	0	0	0	0	0	0	0	0	0	1
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7:00	1	1	0	0	0	0	0	0	0	0	0	0	2
8:00	1	0	1	0	0	0	0	0	0	0	0	0	2
9:00	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	1	0	1	0	0	0	0	0	0	0	0	0	2
Total	24	31	15	2	0	0	0	0	0	0	0	0	72



City of Bloomington Engineering Department

401 N. Morton St., Suite 130
Bloomington, IN 47404

Start Date: 10/2/2024
End Date: 10/3/2024
Comment 1:

Site Code: p45166
Station ID:
Location 1: N Jackson St
Location 2: From W 6th St to W 7th St
Latitude: 39.168300
Longitude: -86.539859

Direction: NB

10/3/2024	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	> 70 MPH	Total
Time 0 - 15 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH													
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	1	0	1	0	0	0	0	0	0	0	0	2
7:00	0	1	5	0	0	0	0	0	0	0	0	0	6
8:00	1	2	4	0	0	0	0	0	0	0	0	0	7
9:00	1	2	4	0	0	0	0	0	0	0	0	0	7
10:00	2	0	1	0	0	0	0	0	0	0	0	0	3
11:00	0	2	1	0	0	0	0	0	0	0	0	0	3
12:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	2
1:00	3	3	0	0	0	0	0	0	0	0	0	0	6
2:00	2	6	1	0	0	0	0	0	0	0	0	0	9
3:00	0	4	3	1	0	0	0	0	0	0	0	0	8
4:00	2	2	1	0	0	0	0	0	0	0	0	0	5
5:00	6	5	1	0	0	0	0	0	0	0	0	0	12
6:00	2	1	1	0	0	0	0	0	0	0	0	0	4
7:00	1	3	0	0	0	0	0	0	0	0	0	0	4
8:00	2	0	0	0	0	0	0	0	0	0	0	0	2
9:00	1	1	0	0	0	0	0	0	0	0	0	0	2
10:00	1	1	0	0	0	0	0	0	0	0	0	0	2
11:00	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	26	35	23	2	0	0	0	0	0	0	0	0	86
Grand Total	50	66	38	4	0	0	0	0	0	0	0	0	158
Stats	Percentile												
	Speed												
	Mean Speed (Average)												
	10 MPH Pace Speed												
	Number in Pace												
	Percent in Pace												
	Number > 25 MPH												
	Percent > 25 MPH												



City of Bloomington
Engineering Department

401 N. Morton St., Suite 130
Bloomington, IN 47404

Start Date: 10/2/2024
End Date: 10/3/2024
Comment 1:

Site Code: p45166
Station ID:
Location 1: N Jackson St
Location 2: From W 6th St to W 7th St
Latitude: 39.168300
Longitude: -86.539859

Direction: SB

10/2/2024	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	> 70 MPH	Total
Time 0 - 15 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH													
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	1	0	0	0	0	0	0	0	0	0	0	1
7:00	1	3	1	0	0	0	0	0	0	0	0	0	5
8:00	2	2	1	0	0	0	0	0	0	0	0	0	5
9:00	10	2	0	1	0	0	0	0	0	0	0	0	13
10:00	1	1	0	0	0	0	0	0	0	0	0	0	2
11:00	1	0	0	0	0	0	0	0	0	0	0	0	1
12:00 PM	3	2	2	0	0	0	0	0	0	0	0	0	7
1:00	1	6	0	0	0	0	0	0	0	0	0	0	7
2:00	9	1	1	0	0	0	0	0	0	0	0	0	11
3:00	1	3	1	0	1	0	0	0	0	0	0	0	6
4:00	3	7	1	0	0	0	0	0	0	0	0	0	11
5:00	2	5	7	0	0	0	0	0	0	0	0	0	14
6:00	4	4	1	0	0	0	0	0	0	0	0	0	9
7:00	3	1	2	0	0	0	0	0	0	0	0	0	6
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00	1	1	1	0	0	0	0	0	0	0	0	0	3
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	42	40	18	1	1	0	0	0	0	0	0	0	102



City of Bloomington Engineering Department

401 N. Morton St., Suite 130
Bloomington, IN 47404

Start Date: 10/2/2024
End Date: 10/3/2024
Comment 1:

Site Code: p45166
Station ID:
Location 1: N Jackson St
Location 2: From W 6th St to W 7th St
Latitude: 39.168300
Longitude: -86.539859

Direction: SB

10/3/2024	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	> 70 MPH	Total
Time 0 - 15 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH													
12:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	2	0	0	0	0	0	0	0	0	0	0	2
8:00	3	3	1	0	0	0	0	0	0	0	0	0	7
9:00	5	5	1	0	0	0	0	0	0	0	0	0	11
10:00	0	2	0	0	0	0	0	0	0	0	0	0	2
11:00	2	0	0	0	0	0	0	0	0	0	0	0	2
12:00 PM	1	3	0	0	0	0	0	0	0	0	0	0	4
1:00	0	3	0	0	0	0	0	0	0	0	0	0	3
2:00	5	1	0	0	0	0	0	0	0	0	0	0	6
3:00	8	3	3	0	0	0	0	0	0	0	0	0	14
4:00	4	3	2	0	0	0	0	0	0	0	0	0	9
5:00	4	4	4	0	0	0	0	0	0	0	0	0	12
6:00	7	6	0	0	0	0	0	0	0	0	0	0	13
7:00	5	2	0	0	0	0	0	0	0	0	0	0	7
8:00	1	2	0	0	0	0	0	0	0	0	0	0	3
9:00	7	1	2	0	0	0	0	0	0	0	0	0	10
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	54	40	13	1	0	0	0	0	0	0	0	0	108
Grand Total	96	80	31	2	1	0	0	0	0	0	0	0	210
Stats	Percentile												
	Speed												
	Mean Speed (Average)												
	10 MPH Pace Speed												
	Number in Pace												
	Percent in Pace												
	Number > 25 MPH												
	Percent > 25 MPH												



City of Bloomington
Engineering Department

401 N. Morton St., Suite 130
Bloomington, IN 47404

Start Date: 10/2/2024
End Date: 10/3/2024
Comment 1:

Site Code: p45166
Station ID:
Location 1: N Jackson St
Location 2: From W 6th St to W 7th St
Latitude: 39.168300
Longitude: -86.539859

Direction: Combined

10/2/2024	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	> 70 MPH	Total
Time 0 - 15 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH													
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	2	0	0	0	0	0	0	0	0	0	0	2
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	1	0	0	0	0	0	0	0	0	0	0	1
7:00	5	6	2	1	0	0	0	0	0	0	0	0	14
8:00	5	5	5	0	0	0	0	0	0	0	0	0	15
9:00	12	3	0	1	0	0	0	0	0	0	0	0	16
10:00	1	2	0	0	0	0	0	0	0	0	0	0	3
11:00	4	2	2	0	0	0	0	0	0	0	0	0	8
12:00 PM	3	4	4	0	0	0	0	0	0	0	0	0	11
1:00	2	6	1	0	0	0	0	0	0	0	0	0	9
2:00	9	5	2	1	0	0	0	0	0	0	0	0	17
3:00	1	7	1	0	1	0	0	0	0	0	0	0	10
4:00	6	9	1	0	0	0	0	0	0	0	0	0	16
5:00	6	8	7	0	0	0	0	0	0	0	0	0	21
6:00	5	8	3	0	0	0	0	0	0	0	0	0	16
7:00	4	2	2	0	0	0	0	0	0	0	0	0	8
8:00	1	0	1	0	0	0	0	0	0	0	0	0	2
9:00	1	1	1	0	0	0	0	0	0	0	0	0	3
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	1	0	1	0	0	0	0	0	0	0	0	0	2
Total	66	71	33	3	1	0	0	0	0	0	0	0	174



City of Bloomington Engineering Department

401 N. Morton St., Suite 130
Bloomington, IN 47404

Start Date: 10/2/2024
End Date: 10/3/2024
Comment 1:

Site Code: p45166
Station ID:
Location 1: N Jackson St
Location 2: From W 6th St to W 7th St
Latitude: 39.168300
Longitude: -86.539859

Direction: Combined

10/3/2024	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	> 70 MPH	Total
Time 0 - 15 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH													
12:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	2	0	0	0	0	0	0	0	0	0	0	0	2
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	1	0	1	0	0	0	0	0	0	0	0	2
7:00	0	3	5	0	0	0	0	0	0	0	0	0	8
8:00	4	5	5	0	0	0	0	0	0	0	0	0	14
9:00	6	7	5	0	0	0	0	0	0	0	0	0	18
10:00	2	2	1	0	0	0	0	0	0	0	0	0	5
11:00	2	2	1	0	0	0	0	0	0	0	0	0	5
12:00 PM	1	4	1	0	0	0	0	0	0	0	0	0	6
1:00	3	6	0	0	0	0	0	0	0	0	0	0	9
2:00	7	7	1	0	0	0	0	0	0	0	0	0	15
3:00	8	7	6	1	0	0	0	0	0	0	0	0	22
4:00	6	5	3	0	0	0	0	0	0	0	0	0	14
5:00	10	9	5	0	0	0	0	0	0	0	0	0	24
6:00	9	7	1	0	0	0	0	0	0	0	0	0	17
7:00	6	5	0	0	0	0	0	0	0	0	0	0	11
8:00	3	2	0	0	0	0	0	0	0	0	0	0	5
9:00	8	2	2	0	0	0	0	0	0	0	0	0	12
10:00	1	1	0	0	0	0	0	0	0	0	0	0	2
11:00	2	0	0	0	0	0	0	0	0	0	0	0	2
Total	80	75	36	3	0	0	0	0	0	0	0	0	194
Grand Total	146	146	69	6	1	0	0	0	0	0	0	0	368
Stats	Percentile												
	Speed												
	Mean Speed (Average)												
	10 MPH Pace Speed												
	Number in Pace												
	Percent in Pace												
	Number > 25 MPH												
	Percent > 25 MPH												



City of Bloomington Engineering Department

401 N. Morton St., Suite 130
Bloomington, IN 47404

Start Date: 10/2/2024
End Date: 10/3/2024
Comment 1:

Site Code: p4637
Station ID:
Location 1: W 7th St
Location 2: From N Jackson St to N Fairview St
Latitude: 39.168659
Longitude: -86.541105

9/30/2024	Monday		Tuesday		Wednesday		Thursday		Friday		Weekday Average		Saturday		Sunday	
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	4	8	3	3	*	*	4	6	*	*	*	*
1:00	*	*	*	*	2	2	0	3	*	*	1	2	*	*	*	*
2:00	*	*	*	*	1	2	0	3	*	*	0	2	*	*	*	*
3:00	*	*	*	*	0	0	2	1	*	*	1	0	*	*	*	*
4:00	*	*	*	*	1	1	1	0	*	*	1	0	*	*	*	*
5:00	*	*	*	*	2	1	2	2	*	*	2	2	*	*	*	*
6:00	*	*	*	*	7	5	4	6	*	*	6	6	*	*	*	*
7:00	*	*	*	*	31	17	37	19	*	*	34	18	*	*	*	*
8:00	*	*	*	*	50	34	36	38	*	*	43	36	*	*	*	*
9:00	*	*	*	*	39	32	33	42	*	*	36	37	*	*	*	*
10:00	*	*	*	*	24	19	27	17	*	*	26	18	*	*	*	*
11:00	*	*	*	*	50	30	32	30	*	*	41	30	*	*	*	*
12:00 PM	*	*	*	*	26	24	37	31	*	*	32	28	*	*	*	*
1:00	*	*	*	*	33	36	27	29	*	*	30	32	*	*	*	*
2:00	*	*	*	*	32	45	31	45	*	*	32	45	*	*	*	*
3:00	*	*	*	*	43	63	47	78	*	*	45	70	*	*	*	*
4:00	*	*	*	*	45	78	43	81	*	*	44	80	*	*	*	*
5:00	*	*	*	*	49	65	48	67	*	*	48	66	*	*	*	*
6:00	*	*	*	*	35	31	36	29	*	*	36	30	*	*	*	*
7:00	*	*	*	*	28	33	21	29	*	*	24	31	*	*	*	*
8:00	*	*	*	*	13	20	22	20	*	*	18	20	*	*	*	*
9:00	*	*	*	*	17	21	18	16	*	*	18	18	*	*	*	*
10:00	*	*	*	*	5	9	7	10	*	*	6	10	*	*	*	*
11:00	*	*	*	*	5	9	6	4	*	*	6	6	*	*	*	*
Total	0	0	0	0	542	585	520	603	0	0	534	593	0	0	0	0
Day	0		0		1127		1123		0		1127		0		0	
AM Peak					8:00	8:00	7:00	9:00			8:00	9:00				
Volume					50	34	37	42			43	37				
PM Peak					5:00	4:00	5:00	4:00			5:00	4:00				
Volume					49	78	48	81			48	80				
Comb Total	0		0		1127		1123		0		1127		0		0	
ADT	ADT: 1,125		AADT: 1,125													



City of Bloomington
Engineering Department

401 N. Morton St., Suite 130
Bloomington, IN 47404

Start Date: 10/2/2024
End Date: 10/3/2024
Comment 1:

Site Code: p4637
Station ID:
Location 1: W 7th St
Location 2: From N Jackson St to N Fairview St
Latitude: 39.168659
Longitude: -86.541105

Direction: EB

10/2/2024	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	> 70 MPH	Total
Time 0 - 15 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH													
12:00 AM	1	1	2	0	0	0	0	0	0	0	0	0	4
1:00	2	0	0	0	0	0	0	0	0	0	0	0	2
2:00	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00	1	0	0	1	0	0	0	0	0	0	0	0	2
6:00	2	3	1	1	0	0	0	0	0	0	0	0	7
7:00	15	1	7	6	2	0	0	0	0	0	0	0	31
8:00	20	8	12	9	1	0	0	0	0	0	0	0	50
9:00	24	2	10	3	0	0	0	0	0	0	0	0	39
10:00	4	3	7	7	0	3	0	0	0	0	0	0	24
11:00	19	4	16	10	1	0	0	0	0	0	0	0	50
12:00 PM	6	4	8	6	2	0	0	0	0	0	0	0	26
1:00	12	6	8	3	3	1	0	0	0	0	0	0	33
2:00	13	4	8	7	0	0	0	0	0	0	0	0	32
3:00	16	5	16	6	0	0	0	0	0	0	0	0	43
4:00	21	6	12	4	2	0	0	0	0	0	0	0	45
5:00	24	6	12	7	0	0	0	0	0	0	0	0	49
6:00	16	6	8	3	2	0	0	0	0	0	0	0	35
7:00	11	3	8	5	0	0	0	1	0	0	0	0	28
8:00	5	1	3	2	2	0	0	0	0	0	0	0	13
9:00	10	2	2	2	1	0	0	0	0	0	0	0	17
10:00	1	0	3	0	1	0	0	0	0	0	0	0	5
11:00	3	0	0	2	0	0	0	0	0	0	0	0	5
Total	227	65	143	85	17	4	0	1	0	0	0	0	542



City of Bloomington Engineering Department

401 N. Morton St., Suite 130
Bloomington, IN 47404

Start Date: 10/2/2024
End Date: 10/3/2024
Comment 1:

Site Code: p4637
Station ID:
Location 1: W 7th St
Location 2: From N Jackson St to N Fairview St
Latitude: 39.168659
Longitude: -86.541105

Direction: EB

10/3/2024	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	> 70 MPH	Total
Time 0 - 15 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH													
12:00 AM	3	0	0	0	0	0	0	0	0	0	0	0	3
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	1	1	0	0	0	0	0	0	0	0	2
4:00	0	0	0	1	0	0	0	0	0	0	0	0	1
5:00	0	0	2	0	0	0	0	0	0	0	0	0	2
6:00	0	0	3	1	0	0	0	0	0	0	0	0	4
7:00	10	2	8	13	4	0	0	0	0	0	0	0	37
8:00	12	9	5	8	2	0	0	0	0	0	0	0	36
9:00	17	6	5	4	1	0	0	0	0	0	0	0	33
10:00	12	3	6	6	0	0	0	0	0	0	0	0	27
11:00	10	5	6	9	2	0	0	0	0	0	0	0	32
12:00 PM	14	3	10	9	1	0	0	0	0	0	0	0	37
1:00	11	2	10	3	1	0	0	0	0	0	0	0	27
2:00	15	8	6	2	0	0	0	0	0	0	0	0	31
3:00	22	11	12	2	0	0	0	0	0	0	0	0	47
4:00	17	12	9	4	1	0	0	0	0	0	0	0	43
5:00	22	8	12	5	1	0	0	0	0	0	0	0	48
6:00	17	3	9	6	0	1	0	0	0	0	0	0	36
7:00	8	0	8	5	0	0	0	0	0	0	0	0	21
8:00	6	4	9	3	0	0	0	0	0	0	0	0	22
9:00	11	2	3	2	0	0	0	0	0	0	0	0	18
10:00	4	2	0	1	0	0	0	0	0	0	0	0	7
11:00	1	0	3	2	0	0	0	0	0	0	0	0	6
Total	212	80	127	87	13	1	0	0	0	0	0	0	520
Grand Total	439	145	270	172	30	5	0	1	0	0	0	0	1062
Stats	Percentile												
	Speed												
	Mean Speed (Average)												
	10 MPH Pace Speed												
	Number in Pace												
	Percent in Pace												
	Number > 25 MPH												
	Percent > 25 MPH												



City of Bloomington Engineering Department

401 N. Morton St., Suite 130
Bloomington, IN 47404

Start Date: 10/2/2024
End Date: 10/3/2024
Comment 1:

Site Code: p4637
Station ID:
Location 1: W 7th St
Location 2: From N Jackson St to N Fairview St
Latitude: 39.168659
Longitude: -86.541105

Direction: WB

10/2/2024	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	> 70 MPH	Total
Time 0 - 15 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH													
12:00 AM	3	1	2	2	0	0	0	0	0	0	0	0	8
1:00	2	0	0	0	0	0	0	0	0	0	0	0	2
2:00	0	0	0	1	1	0	0	0	0	0	0	0	2
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00	0	0	0	1	0	0	0	0	0	0	0	0	1
6:00	2	1	1	0	1	0	0	0	0	0	0	0	5
7:00	9	2	2	4	0	0	0	0	0	0	0	0	17
8:00	17	3	8	5	1	0	0	0	0	0	0	0	34
9:00	23	3	4	2	0	0	0	0	0	0	0	0	32
10:00	8	2	3	5	0	1	0	0	0	0	0	0	19
11:00	7	3	8	7	4	1	0	0	0	0	0	0	30
12:00 PM	6	5	4	6	3	0	0	0	0	0	0	0	24
1:00	12	2	11	9	1	0	1	0	0	0	0	0	36
2:00	15	5	5	17	3	0	0	0	0	0	0	0	45
3:00	28	7	14	11	2	0	1	0	0	0	0	0	63
4:00	27	4	27	14	5	1	0	0	0	0	0	0	78
5:00	31	4	21	6	3	0	0	0	0	0	0	0	65
6:00	13	3	5	5	5	0	0	0	0	0	0	0	31
7:00	11	0	4	15	2	1	0	0	0	0	0	0	33
8:00	3	2	6	6	1	2	0	0	0	0	0	0	20
9:00	4	1	8	5	3	0	0	0	0	0	0	0	21
10:00	2	1	2	2	2	0	0	0	0	0	0	0	9
11:00	1	0	4	1	2	1	0	0	0	0	0	0	9
Total	225	49	139	124	39	7	2	0	0	0	0	0	585



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10/3/2024	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	> 70 MPH	Total
Time 0 - 15 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH													
12:00 AM	0	1	1	1	0	0	0	0	0	0	0	0	3
1:00	1	0	1	1	0	0	0	0	0	0	0	0	3
2:00	2	0	0	0	0	1	0	0	0	0	0	0	3
3:00	0	1	0	0	0	0	0	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	2	0	0	0	0	0	0	0	0	2
6:00	3	1	1	0	1	0	0	0	0	0	0	0	6
7:00	6	4	5	3	1	0	0	0	0	0	0	0	19
8:00	20	4	6	6	2	0	0	0	0	0	0	0	38
9:00	24	6	6	5	1	0	0	0	0	0	0	0	42
10:00	4	2	3	7	1	0	0	0	0	0	0	0	17
11:00	11	1	7	8	3	0	0	0	0	0	0	0	30
12:00 PM	7	3	6	13	2	0	0	0	0	0	0	0	31
1:00	9	6	5	8	1	0	0	0	0	0	0	0	29
2:00	15	4	10	15	1	0	0	0	0	0	0	0	45
3:00	34	10	16	12	5	1	0	0	0	0	0	0	78
4:00	27	5	23	22	4	0	0	0	0	0	0	0	81
5:00	27	9	17	11	3	0	0	0	0	0	0	0	67
6:00	12	1	3	10	3	0	0	0	0	0	0	0	29
7:00	11	6	2	6	4	0	0	0	0	0	0	0	29
8:00	8	0	2	7	3	0	0	0	0	0	0	0	20
9:00	5	2	4	4	1	0	0	0	0	0	0	0	16
10:00	2	0	3	5	0	0	0	0	0	0	0	0	10
11:00	3	1	0	0	0	0	0	0	0	0	0	0	4
Total	231	67	121	146	36	2	0	0	0	0	0	0	603
Grand Total	456	116	260	270	75	9	2	0	0	0	0	0	1188
Stats	Percentile												
	Speed												
	Mean Speed (Average)												
	10 MPH Pace Speed												
	Number in Pace												
	Percent in Pace												
	Number > 25 MPH												
	Percent > 25 MPH												



City of Bloomington Engineering Department

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10/2/2024	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	> 70 MPH	Total
Time 0 - 15 MPH MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH		
12:00 AM	4	2	4	2	0	0	0	0	0	0	0	0	12
1:00	4	0	0	0	0	0	0	0	0	0	0	0	4
2:00	0	0	0	2	1	0	0	0	0	0	0	0	3
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	2	0	0	0	0	0	0	0	0	0	0	0	2
5:00	1	0	0	2	0	0	0	0	0	0	0	0	3
6:00	4	4	2	1	1	0	0	0	0	0	0	0	12
7:00	24	3	9	10	2	0	0	0	0	0	0	0	48
8:00	37	11	20	14	2	0	0	0	0	0	0	0	84
9:00	47	5	14	5	0	0	0	0	0	0	0	0	71
10:00	12	5	10	12	0	4	0	0	0	0	0	0	43
11:00	26	7	24	17	5	1	0	0	0	0	0	0	80
12:00 PM	12	9	12	12	5	0	0	0	0	0	0	0	50
1:00	24	8	19	12	4	1	1	0	0	0	0	0	69
2:00	28	9	13	24	3	0	0	0	0	0	0	0	77
3:00	44	12	30	17	2	0	1	0	0	0	0	0	106
4:00	48	10	39	18	7	1	0	0	0	0	0	0	123
5:00	55	10	33	13	3	0	0	0	0	0	0	0	114
6:00	29	9	13	8	7	0	0	0	0	0	0	0	66
7:00	22	3	12	20	2	1	0	1	0	0	0	0	61
8:00	8	3	9	8	3	2	0	0	0	0	0	0	33
9:00	14	3	10	7	4	0	0	0	0	0	0	0	38
10:00	3	1	5	2	3	0	0	0	0	0	0	0	14
11:00	4	0	4	3	2	1	0	0	0	0	0	0	14
Total	452	114	282	209	56	11	2	1	0	0	0	0	1127



City of Bloomington Engineering Department

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10/3/2024	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	> 70 MPH	Total
Time 0 - 15 MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH MPH													
12:00 AM	3	1	1	1	0	0	0	0	0	0	0	0	6
1:00	1	0	1	1	0	0	0	0	0	0	0	0	3
2:00	2	0	0	0	0	1	0	0	0	0	0	0	3
3:00	0	1	1	1	0	0	0	0	0	0	0	0	3
4:00	0	0	0	1	0	0	0	0	0	0	0	0	1
5:00	0	0	2	2	0	0	0	0	0	0	0	0	4
6:00	3	1	4	1	1	0	0	0	0	0	0	0	10
7:00	16	6	13	16	5	0	0	0	0	0	0	0	56
8:00	32	13	11	14	4	0	0	0	0	0	0	0	74
9:00	41	12	11	9	2	0	0	0	0	0	0	0	75
10:00	16	5	9	13	1	0	0	0	0	0	0	0	44
11:00	21	6	13	17	5	0	0	0	0	0	0	0	62
12:00 PM	21	6	16	22	3	0	0	0	0	0	0	0	68
1:00	20	8	15	11	2	0	0	0	0	0	0	0	56
2:00	30	12	16	17	1	0	0	0	0	0	0	0	76
3:00	56	21	28	14	5	1	0	0	0	0	0	0	125
4:00	44	17	32	26	5	0	0	0	0	0	0	0	124
5:00	49	17	29	16	4	0	0	0	0	0	0	0	115
6:00	29	4	12	16	3	1	0	0	0	0	0	0	65
7:00	19	6	10	11	4	0	0	0	0	0	0	0	50
8:00	14	4	11	10	3	0	0	0	0	0	0	0	42
9:00	16	4	7	6	1	0	0	0	0	0	0	0	34
10:00	6	2	3	6	0	0	0	0	0	0	0	0	17
11:00	4	1	3	2	0	0	0	0	0	0	0	0	10
Total	443	147	248	233	49	3	0	0	0	0	0	0	1123
Grand Total	895	261	530	442	105	14	2	1	0	0	0	0	2250
Stats	Percentile												
	Speed												
	10												
Mean Speed (Average)	18.5												
10 MPH Pace Speed	20-29												
Number in Pace	975												
Percent in Pace	44.0%												
Number > 25 MPH	564												
Percent > 25 MPH	25.1%												

PETITIONER/OWNER: Michael and Lindsay Hannon
711 S Fess St, Bloomington, IN

REPORT: This 0.12 acre property is located at 711 S Fess Avenue (located along the north side of an alley approximately midway between East University Street and East 1st Street) and is zoned Residential Small Lot (R3). All immediate surrounding properties are designated Residential Small Lot (R3). There is a transition to Residential Multifamily (RM) approximately two blocks to the north and northwest. Surrounding land uses include a mix of detached single-family residential use and multifamily uses with a mix of owner-occupied and renter-occupied units.

In doing so, they indicate that they would be adding approximately 171 square feet of impervious surface coverage due to the addition of a new porch and stairs and landing for accessing the ADU, but would offset that by removing approximately 225 square feet of existing impervious surface coverage by converting the existing walk between the proposed ADU and the primary dwelling unit to utilize permeable pavers, and to further remove an existing concrete slab on the north side of the proposed ADU. This would result in a net benefit of impervious surface coverage of 54 square feet thereby bringing the overall amount closer to requirements.

The petitioner is requesting a variance from side yard setback standards in the Residential Small Lot (R3) zoning district, to allow modifying the existing detached garage to add a second story ADU.

CRITERIA AND FINDINGS FOR DEVELOPMENT STANDARDS VARIANCE
20.06.080(b)(3)(E) Standards for Granting Variances from Development Standards:

A variance from the development standards of the Unified Development Ordinance may be approved only upon determination in writing that each of the following criteria is met:

- 1) *The approval will not be injurious to the public health, safety, morals, and general welfare of the community.*

PROPOSED FINDING: The granting of this variance will not be injurious to the public health, safety, morals, or general welfare of the community. In fact, the general welfare of the community is likely improved by not only repairing a damaged structure, but converting it into additional living space, thus providing a potential additional housing opportunity in the community. The petitioner has indicated that any proposed increase to impervious surface coverage would be offset even greater by removing an existing concrete slab on the north side of the existing detached garage and, furthermore, by replacing an existing walk from the primary dwelling unit to the proposed accessory dwelling unit with permeable pavers. This will bring the property closer to complying with the established maximum of 45% impervious surface coverage.

- 2) *The use and value of the area adjacent to the property included in the Development Standards Variance will not be affected in a substantially adverse manner.*

PROPOSED FINDING: No adverse impacts to the use and value of surrounding properties as a result of the requested variance are found. In fact, the use and value of this and surrounding properties will likely be impacted in a positive manner. By repairing a damaged structure and providing an additional housing option, this aids in providing more useable space in the community and likely further enhances the overall property value. Additionally, this does not substantially alter the character of the neighborhood as several other homes in the vicinity appear to have similar structures and/or layouts.

- 3) *The strict application of the terms of the Unified Development Ordinance will result in practical difficulties in the use of the property; that the practical difficulties are peculiar to the property in question; that the Development Standards Variance will relieve the practical difficulties.*

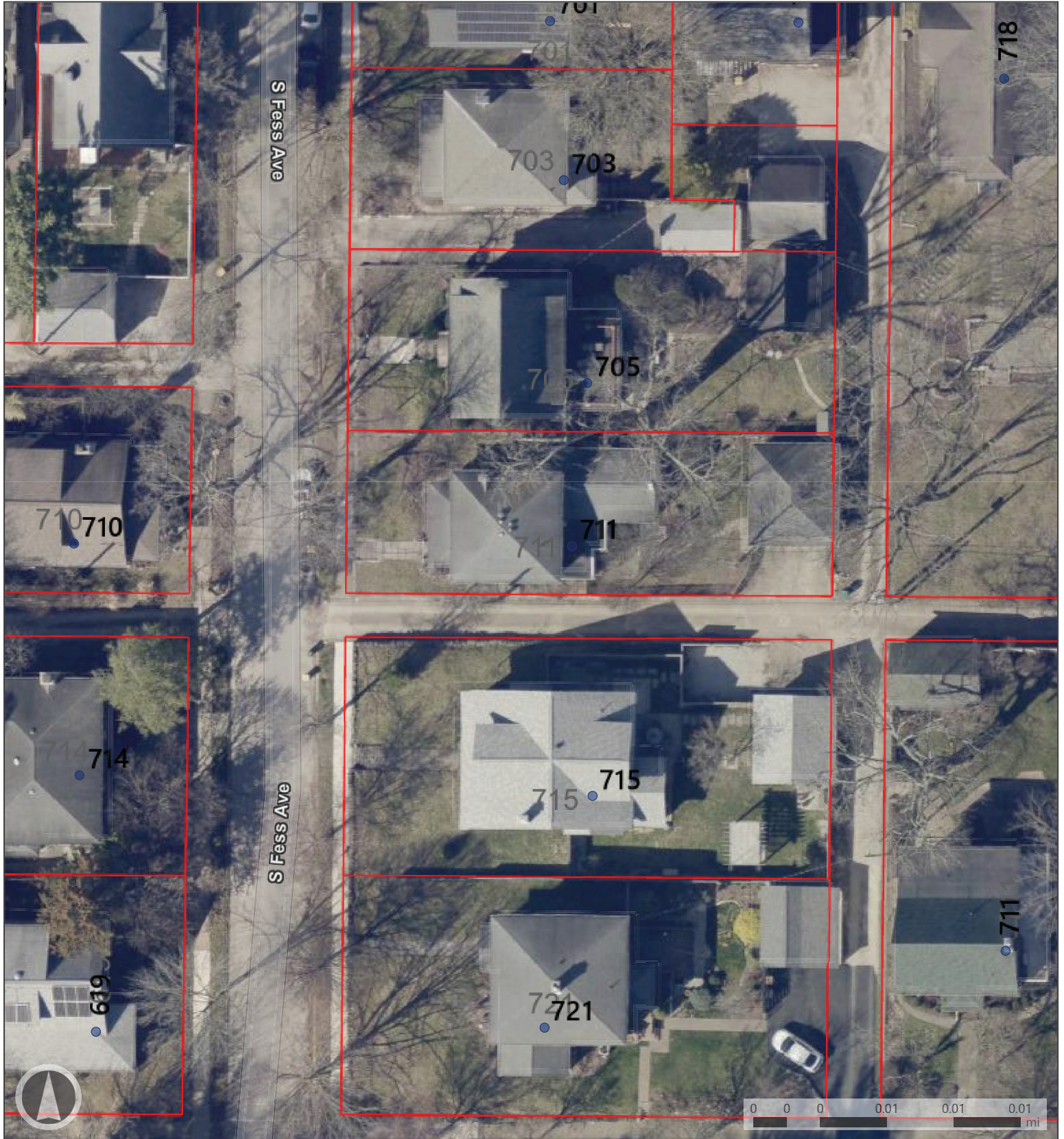
PROPOSED FINDING: The Department does find that the strict application of the terms of the Unified Development Ordinance will result in practical difficulties in the use of the property and that these practical difficulties are peculiar to the property in question. As the detached garage is existing in its current lawful nonconforming location, it is impractical to require a completely separate ADU to be constructed in order for the ADU to meet setbacks, as this would exceed the impervious surface coverage and the maximum allowed square footage for accessory structures. By adding a second floor to the detached garage to add an ADU, it greatly reduces the additional impact of impervious surface coverage. Furthermore, it would be impractical to require the detached garage to be relocated in a manner to meet the

five-foot side yard setback requirement for an ADU established by the standards in the UDO.

The approval of this variance would improve the use and value of this and surrounding properties, provide a potential opportunity for a community member to find housing, and aid in maintaining or improving the overall character of the neighborhood.

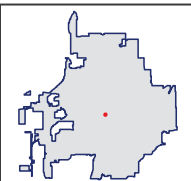
RECOMMENDATION: The Department recommends that the Board of Zoning Appeals adopt the proposed findings and approve case V-29-24/ VAR-2024-09-0048, with the following conditions:

1. The side yard setback for an accessory dwelling unit on this property be reduced to three feet on the north property line and one-and-one-half feet on the east property line, the existing setbacks of the detached garage.
2. The existing walk between the planned accessory dwelling unit and primary dwelling unit shall be removed and replaced with permeable pavers.
3. The existing approximate 75 square foot concrete slab to the north of the planned ADU shall be removed and replaced with green space.



Map Legend

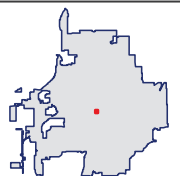
- Addresses
- ▭ Parcels
- ▭ Bloomington Municipal Boundary





Map Legend

- Addresses
- Parcels
- Bloomington Municipal Boundary
- Urban Area
- Metropolitan Planning Area
- Residential Small Lot



Petitioner's Statement

711 S Fess Avenue ADU



Attention: City of Bloomington Board of Zoning Appeals

Petitioner: Linday & Michael Hannon, Homeowners

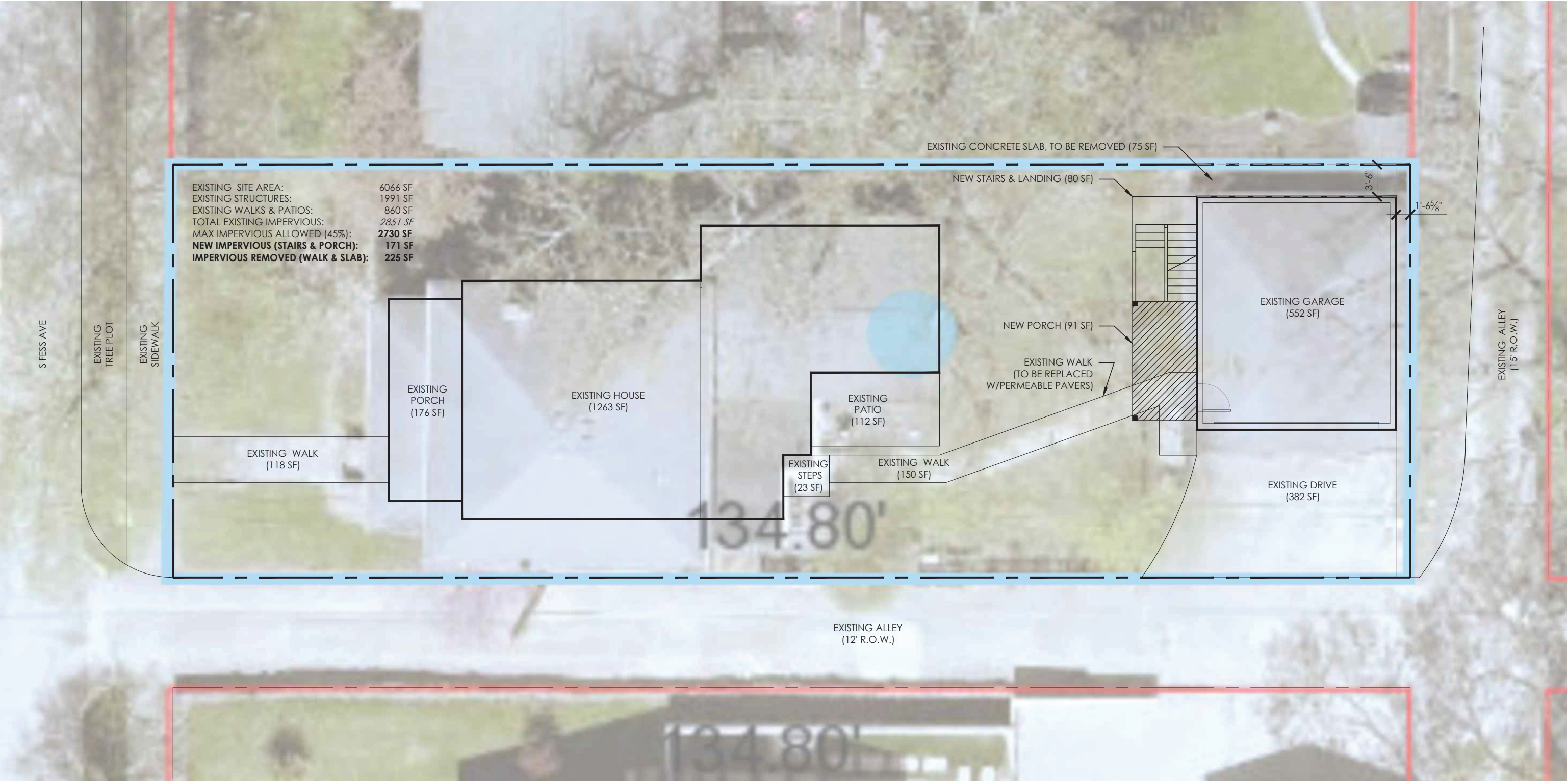
Property Description

The property at 711 S Fess Avenue contains an existing 2 story residence and a 1 story detached accessory garage along the rear alley. During a recent storm the garage was damaged from a large tree and the roof is in need of considerable repair. The petitioner is planning to remove the existing garage roof and add a second story Accessory Dwelling Unit (ADU). The current UDO allows for an accessory structure in an R3 zone of up to 580 sf, which is slightly larger than the existing garage (566 sf). Because the existing garage is currently within the side and rear setbacks (see site plan) a variance is granted from the standard 5' side and rear setbacks so that the ADU can be built directly above the garage. Offsetting the ADU to meet the setbacks would be considerably more cost prohibitive as well as awkward aesthetically. Considering that the rear alley has a larger Right of Way (15') and there are no existing structures immediately adjacent to the garage we believe the addition would not pose any undue burden on it's surroundings. In fact, it appears based on GIS and aerial data of neighboring properties that there are other existing structures currently encroaching on the alley ROW. Lastly, the proposed ADU expansion would meet all the other UDO requirements including for height (25' max).

Thank your for your consideration of this petition.

A handwritten signature in black ink, appearing to read "Matt Ellenwood".

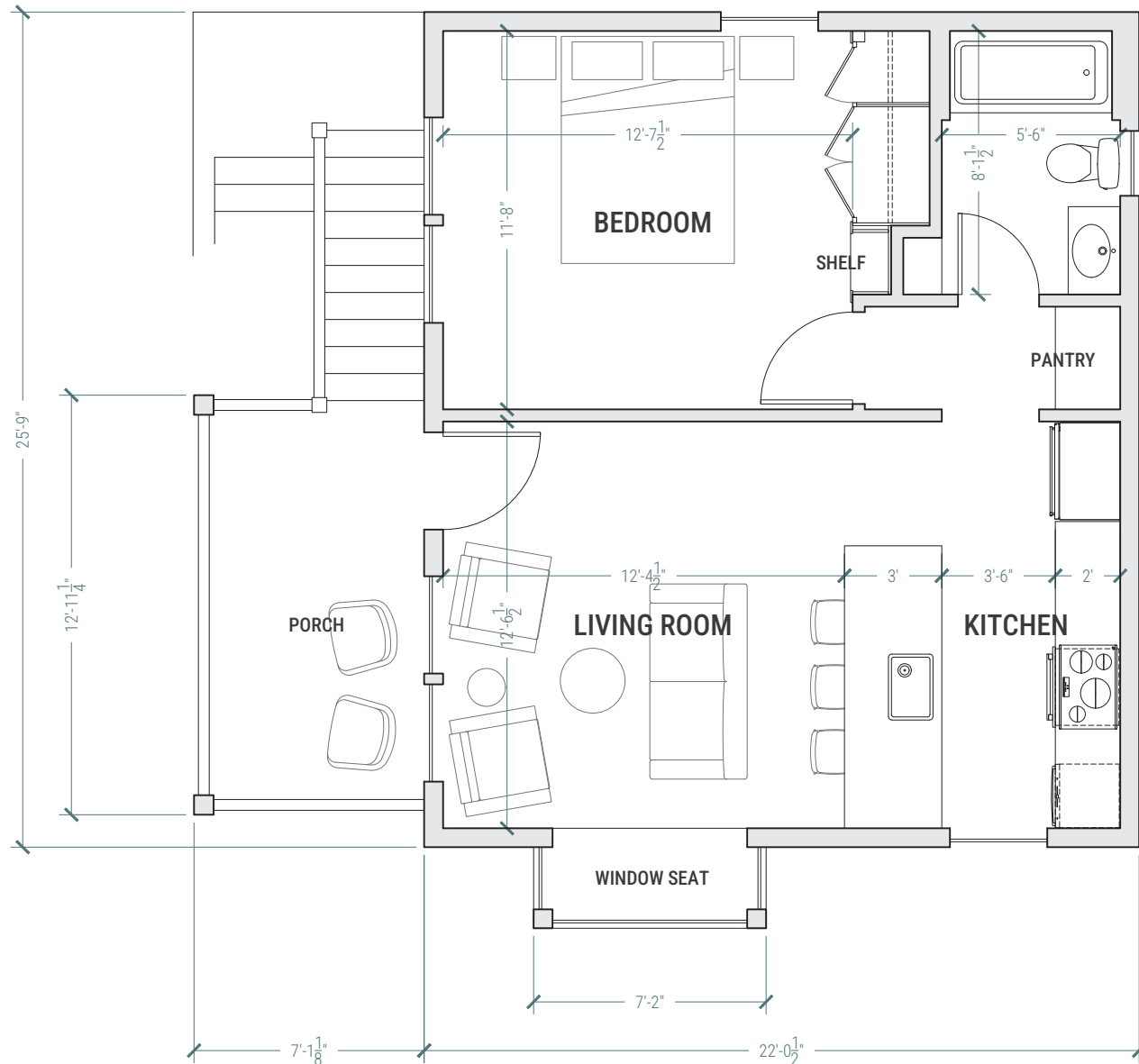
Matt Ellenwood, AIA (on behalf of the petitioner)



 PROPOSED SITE PLAN
SCALE: 1' = 3/32"

711 S FESS AVENUE ADU

LEVEL 2 FLOOR PLAN



Items located in Garage:

Washer/Dryer
Hot Water Heater



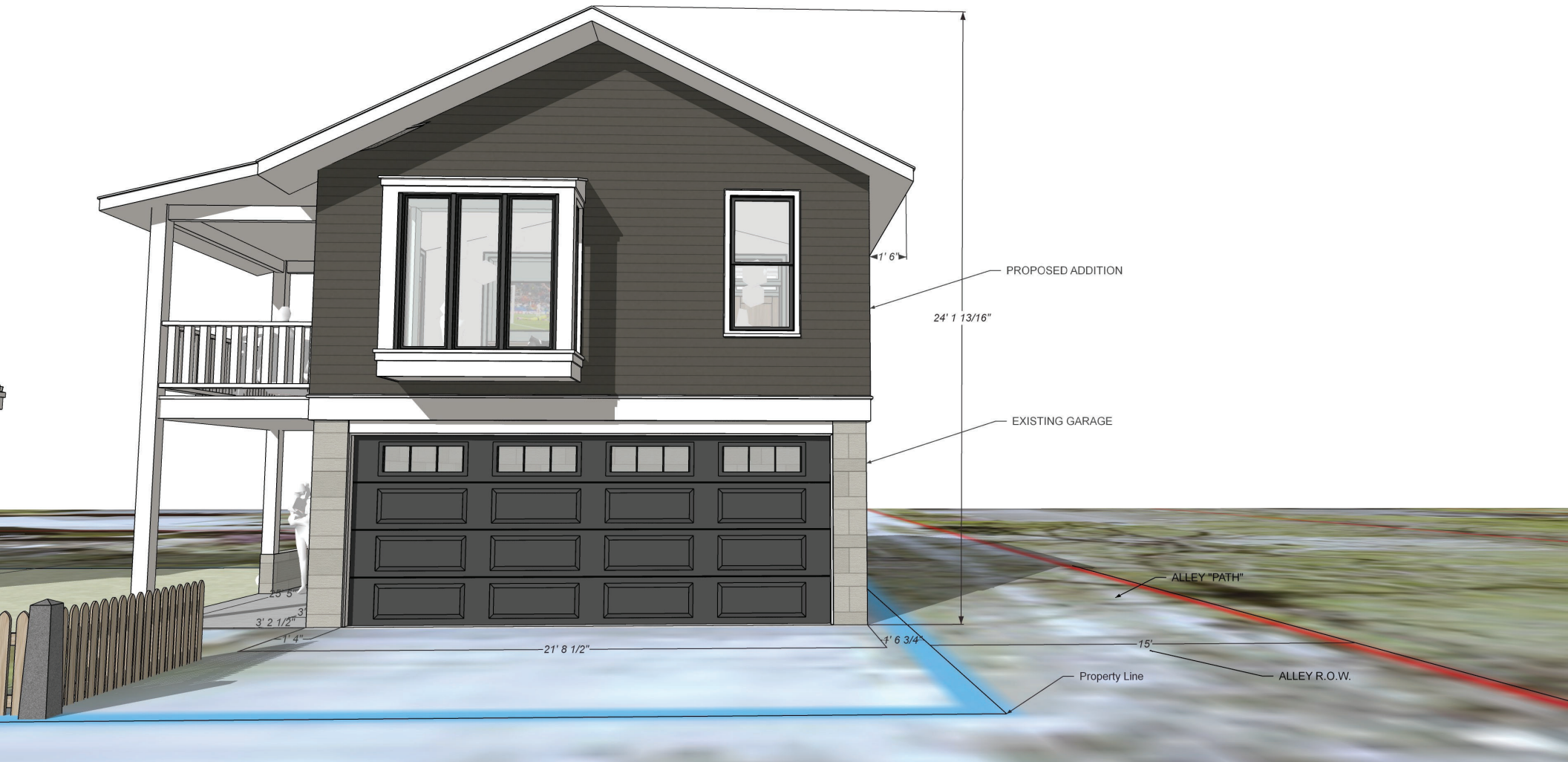
$3/16" = 1'-0"$



PERSPECTIVE LOOKING NORTH EAST



PERSPECTIVE LOOKING SOUTH EAST





John Simpson
705 S Fess Avenue
October 8, 2024

City of Bloomington Board of Zoning Appeals
401 N. Morton Street
Bloomington, IN 47401

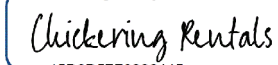
Dear Members of the City of Bloomington Board of Zoning Appeals,

On behalf of Chickering Rentals, I am writing to express our support for the proposed Accessory Dwelling Unit (ADU) at 711 S Fess Avenue, submitted by Mikey and Lindsay Hannon. As a rental agency serving the community, we see the value in expanding housing options, particularly well-planned ADUs that meet local guidelines and benefit the neighborhood.

The addition of this ADU will provide affordable, flexible housing options while maintaining the aesthetic and property standards of the area. We believe this project will contribute positively to the community.

We respectfully ask the Board to consider approving this request.

Sincerely,

DocuSigned by:
 Chickering Rentals
45D6D57F0896445...

John Simpson

President, Chickering Rentals

Scot Wright and Michelle Moyd
718 E University Street
October 8, 2024

City of Bloomington Board of Zoning Appeals
401 N. Morton Street
Bloomington, IN 47401

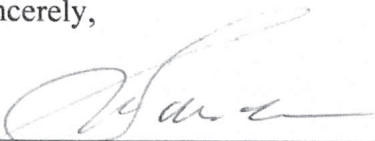
Dear Members of the City of Bloomington Board of Zoning Appeals,

I am writing to express my support for the Accessory Dwelling Unit (ADU) that my neighbors, Mikey and Lindsay Hannon, are proposing at 711 S Fess Avenue. As a resident whose property is adjacent to the proposed structure, I don't have any objections to their plans.

I have reviewed the plans and am confident that the ADU will be respectful of neighboring properties, maintain the character of our community, and will not negatively impact privacy or property values. The Hannon's have been considerate in their approach, and I trust the structure will be well-maintained.

I encourage the Board to approve this request, as it aligns with the best interests of our neighborhood.

Sincerely,



Scot Wright and Michelle Moyd

wrigh939@msu.edu

BLOOMINGTON BOARD OF ZONING APPEALS
STAFF REPORT
LOCATION: 1001 N. Jackson Street

CASE#: CU-30-24
DATE: October 17, 2024

PETITIONER: Layton Cockerham
 1008 S. Meadowbrook Drive

REQUEST: The petitioner is requesting Conditional Use approval to allow a “Dwelling, duplex” use in the Residential Small Lot (R3) zoning district.

REPORT: The property is located at 1001 N. Jackson Street and is zoned Residential Small Lot (R3). All surrounding properties are zoned Residential Small Lot (R3) and have been developed with single family residences. The property is currently vacant and was previously developed with a single family residence that has been removed. The property is within the Maple Heights Neighborhood Association area. There are no known regulated environmental features on the site. The property does not have any alleys along the side or rear property lines.

The petitioner is proposing to develop the site with a new duplex. The residence would face 15th Street and be accessed by an 18’ wide driveway along 15th Street. The proposed residence would be one-story with two bedrooms in each unit. There are separate entrances along the front for each unit with covered porches shown for each unit. The building will be finished with vinyl siding with a pitched roof. The proposed duplex meets all of the Use Specific Standards with each unit having its own separate exterior entrance and the inclusion of design elements similar to the general shape, size, and design of surrounding residences on this block face including- pitched roof, front porch width and depth, building setback, and vehicle parking access.

This petition was presented to Maple Heights Neighborhood Association and no concerns with the use or proposed design were expressed.

The petitioner is requesting conditional use approval to allow the establishment of a “Duplex, dwelling” use on the property.

CRITERIA AND FINDINGS FOR CONDITIONAL USE PERMIT

20.06.040(d)(6)(B) General Compliance Criteria: All petitions shall be subject to review and pursuant to the following criteria and shall only be approved if they comply with these criteria.

- i. *Compliance with this UDO*
- ii. *Compliance with Other Applicable Regulations*
- iii. *Compliance with Utility, Service, and Improvement Standards*
- iv. *Compliance with Prior Approvals*

PROPOSED FINDING: There are use-specific standards that apply to the use “dwelling, duplex” within the R3 zoning district and this petition meets those standards. The property owner does not have any notices of violation on file. Each unit has its own separate exterior entrance and the design of the building incorporates many elements similar to surrounding residences on this block face including- pitched roof, covered porches, and building setback.

The structure will contain no more than six bedrooms. Each unit will have its own separate utility meters. The petitioner did attend the Maple Heights Neighborhood Association meeting and presented this petition as required. There are no other known applicable regulations for this petition. There are water and sewer connections available in both Jackson and 15th Street and no conflicts with connecting to those services have been identified. There are no known prior approvals for this site.

20.06.040(d)(6)(C) ADDITIONAL CRITERIA APPLICABLE TO CONDITIONAL USES

i. *Consistency with Comprehensive Plan and Other Applicable Plans*

The proposed use and development shall be consistent with and shall not interfere with the achievement of the goals and objectives of the Comprehensive Plan and any other applicable adopted plans and policies.

PROPOSED FINDING: This proposal is in line with the goals of the Comprehensive Plan. The Comprehensive Plan identifies this area as the “Mixed Urban Residential” land use category. The Comprehensive Plan states that the Mixed Urban Residential land use category is largely in older neighborhoods and that redevelopment should be compatible with surroundings. Policy 5.3.1 encourages opportunities for infill and redevelopment across Bloomington with consideration for increased residential densities, complementary design, and underutilized housing types such as accessory dwelling units and duplexes. This location is also well served by existing services and utilities. The proposal also accomplishes many of the design goals of the Comprehensive Plan in relation to compatibility with adjacent structures and has a clear relationship with the adjacent public street through the sidewalk connection from the residence to the sidewalk on the street. The proposal is in line with the Comprehensive Plan.

ii. *Provides Adequate Public Services and Facilities*

Adequate public service and facility capacity shall exist to accommodate uses permitted under the proposed development at the time the needs or demands arise, while maintaining adequate levels of service to existing development. Public services and facilities include, but are not limited to, streets, potable water, sewer, stormwater management structures, schools, public safety, fire protection, libraries, and vehicle/pedestrian connections and access within the site and to adjacent properties.

PROPOSED FINDING: The site has existing utility connection and no issues have been identified with the proposed connections.

iii. *Minimizes or Mitigates Adverse Impacts*

- 1. The proposed use and development will not result in the excessive destruction, loss or damage of any natural, scenic, or historic feature of significant importance.*
- 2. The proposed development shall not cause significant adverse impacts on surrounding properties nor create a nuisance by reason of noise, smoke, odors, vibrations, or objectionable lights.*
- 3. The hours of operation, outside lighting, and trash and waste collection must not pose a hazard, hardship, or nuisance to the neighborhood.*
- 4. The petitioner shall make a good-faith effort to address concerns of the adjoining*

property owners in the immediate neighborhood as defined in the pre-submittal neighborhood meeting for the specific proposal, if such a meeting is required.

PROPOSED FINDING: There are no regulated natural or scenic features that will be impacted. The building is not located within a historic district. No significant adverse impacts are expected from the creation of the proposed duplex. No changes to trash and waste collection service are expected. No concerns from adjoining property owners were expressed at the Neighborhood Meeting.

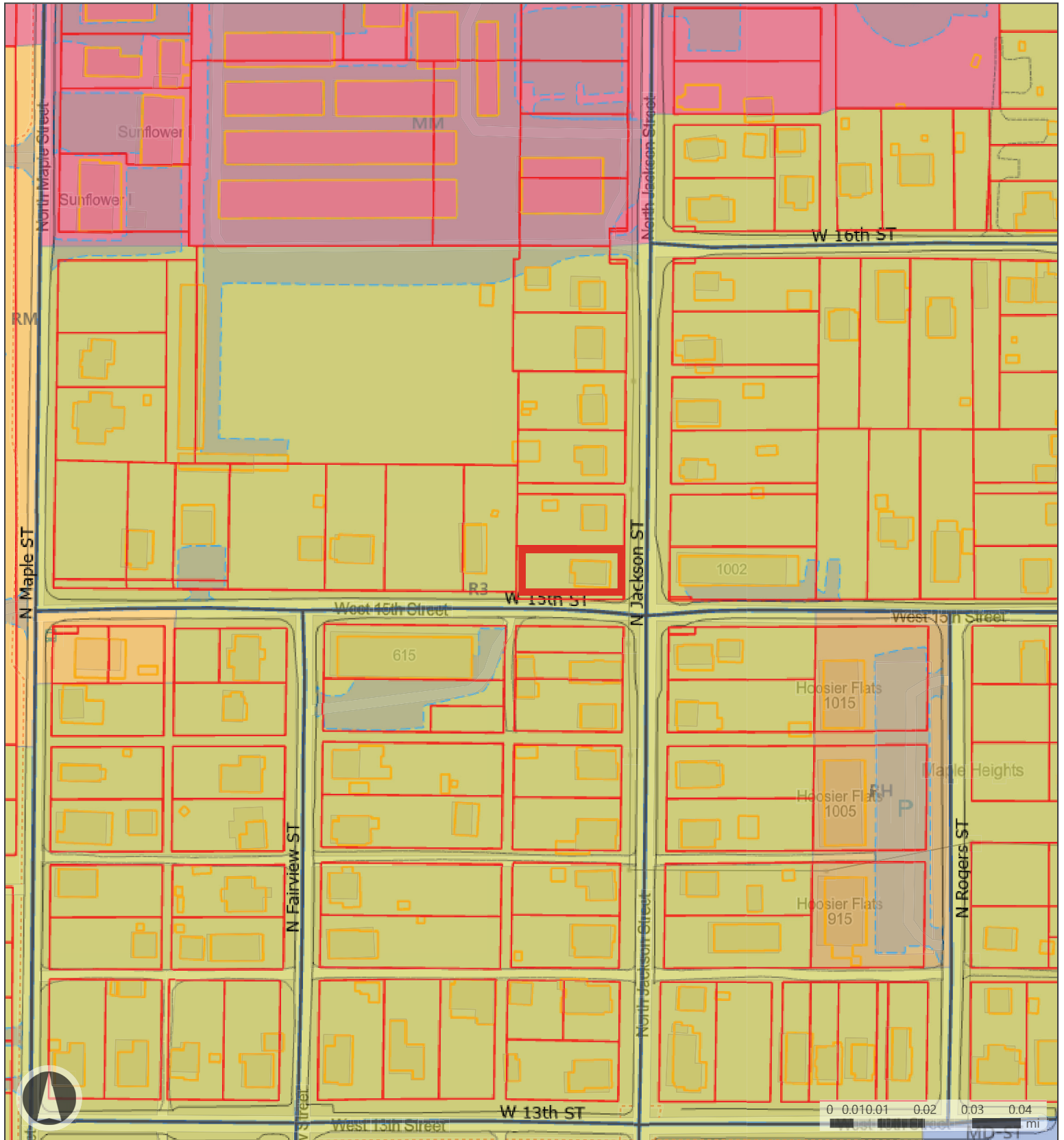
iv. Rational Phasing Plan

If the petition involves phases, each phase of the proposed development shall contain all of the required streets, utilities, landscaping, open space, and other improvements that are required to comply with the project's cumulative development to date and shall not depend upon subsequent phases for those improvements.

PROPOSED FINDING: No phasing is proposed with this plan.

RECOMMENDATION: The Department recommends that the Board of Zoning Appeals adopts the proposed findings and recommends approval of CU-30-24 with the following conditions:

1. This conditional use approval is limited to the design shown and discussed in the packet.
2. Street trees not more than 30' from center are required along both property frontages.



Map Legend

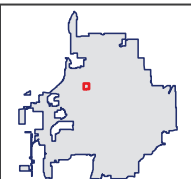
- Parcels
- Buildings
- Pavement

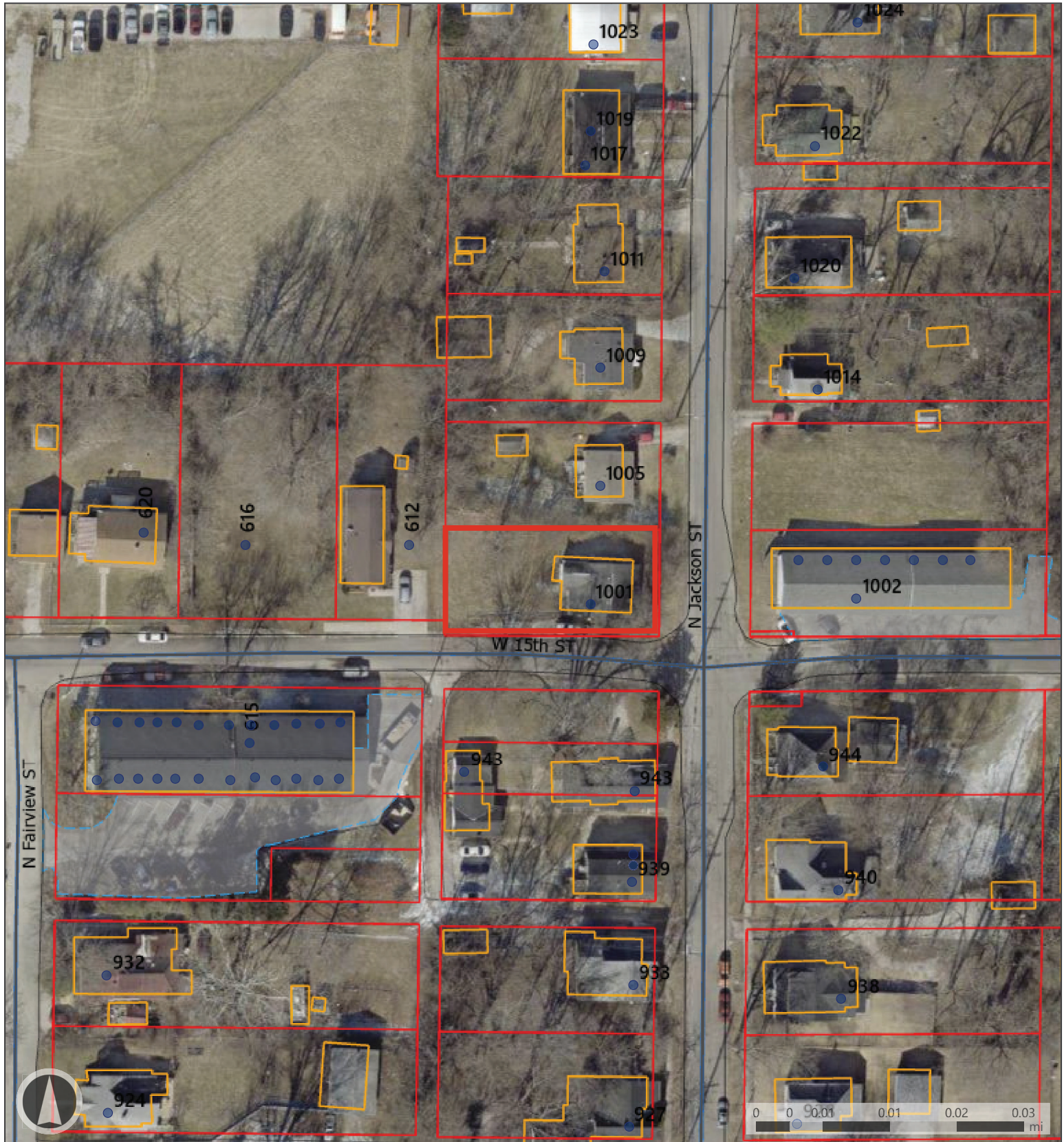
- Drive
- Alley

Parking Lot Type

- Paved Parking Lot
- Current

Street





Map Legend

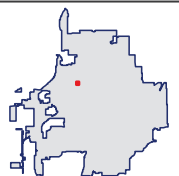
- Addresses
- ▭ Parcels
- ▭ Buildings

- Pavement
- Alley

Parking Lot Type

- ▭ Paved Parking Lot
- Current

- City Maintained Streets
- Street Typology
- Neighborhood Residential



Petitioner's Statement

1001 N Jackson Street

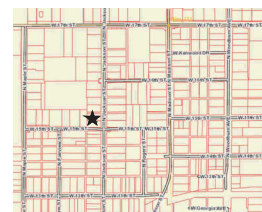
Petitioner: Layton Cockerham

Property Description

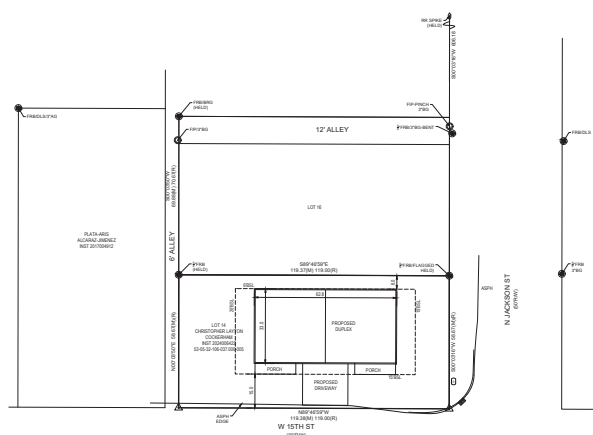
1001 North Jackson Street is a vacant, residential lot on the corner of Jackson Street and 15th Street in the Maple Heights Neighborhood. The Property is zoned Residential Small Lot (R3). The property is next to two single family residential homes as well as two multi-family apartment buildings.

Conditional Use Request

Layton Cockerham is filing a request for Conditional Use per the UDO for Dwelling, Duplex construction in R3 zoning. The proposal meets the design requirements and the development standards in the UDO. The proposal consists of a new 1 story building that includes (2) 2 bedrooms and 2 bath dwelling units. The dwelling will be facing South along 15th street with two separate entrances for each unit. The design of the dwelling will be a horizontal vinyl siding with a front porch. The water, sewer, and electricity will be separated for each unit which will be coordinated by the City of Bloomington and Duke Energy. Upon approval, construction will likely begin in December of 2024 with completion expected in the summer of 2025.



BEARING	0	000 DEGREES
BRANCH	1	BRANCH
BRIDGE	2	BRIDGE
CLIFF	3	CLIFF
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CLIFF TOP	5	CLIFF TOP
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LEGAL DESCRIPTION
LOT 14 IN DOLAN'S ADDITION TO THE CITY OF BLOOMINGTON, INDIANA, AS SHOWN BY THE PLAT THEREOF, RECORDED IN PLAT CABINET B, ENVELOPE 19, IN THE OFFICE OF THE RECORDER OF MONROE COUNTY INDIANA.

The following table is a summary of the district-specific dimensional standards. Additional standards from Section 20.04.020 (Dimensional Standards) also apply.

Lot Dimensions (Minimum, only for lots created after the effective date)

Building Setbacks (Minimum)		
C	Front build to line	15 feet or the median front setback of abutting residential structures, whichever is less.
	Attached front-loading garage or carport	10 feet behind the primary structure's front building wall
D	Side	First floor: 6 feet [2]
E	Rear	Each story above the ground floor: 10 feet [2] 25 feet [1]
Other Standards		
	Impervious surface coverage (maximum)	40%
F	Primary structure height (maximum)	35 feet
	Accessory structure height (maximum)	20 feet

Notes:

[2] Legally established lots of record that are less than the minimum lot width may reduce the required setback up to 2 feet.

IMPORTANT DISCLAIMER

THE ENCLOSED INFORMATION IS INTENDED TO ASSIST AND INFORM YOU THROUGH THE CONSTRUCTION OF YOUR HOME. YOUR CONSTRUCTION PLANS HAVE BEEN DRAWN TO PRESCRIBE TO INDUSTRY STANDARDS. THESE PROFESSIONAL STANDARDS DETERMINE HOW CONSTRUCTION PLANS ARE DRAWN AND WHAT INFORMATION THEY INCLUDE. CONSTRUCTION PLANS ARE INTENDED AS A TECHNICAL GUIDE TO PROFESSIONAL CONTRACTORS AND ARE NOT INTENDED TO BE A SET OF STEP-BY-STEP INSTRUCTIONS. THEREFORE, IF YOU ARE PLANNING TO BUILD YOUR HOME WITHOUT THE SERVICE OF A PROFESSIONAL BUILDER, WE SUGGEST THAT YOU BECOME THOROUGHLY FAMILIAR WITH READING CONSTRUCTION PLANS OR CONSIDER CONSULTING A CONSTRUCTION SPECIALIST. GREAT CARE AND EFFORT GOES INTO THE DESIGN AND CREATION OF THE CONSTRUCTION PLANS; HOWEVER, BECAUSE OF THE IMPOSSIBILITY OF PROVIDING ANY PERSONAL AND/OR ON-SITE CONSULTATION, SUPERVISION AND CONTROL OVER THE ACTUAL CONSTRUCTION, AND BECAUSE OF THE GREAT VARIANCES IN LOCAL BUILDING CODE REQUIREMENTS AND OTHER GEOGRAPHIC LOCATION AND WEATHER CONDITIONS, HOUSE PLAN ZONE, LLC, NOR THE AGENTS OR EMPLOYEES ASSUMES NO RESPONSIBILITY FOR ANY DAMAGES INCLUDING BUT NOT LIMITED TO, ANY DEFICIENCIES, OMISSIONS, OR ERRORS IN THE DESIGN, IN ANY CASE, ANY DEFICIENCIES, ERRORS, AND/OR OMISSIONS IN THE DIMENSIONS AND/OR DRAWINGS CONTAINED IN THE CONSTRUCTION PLANS SHALL BE BROUGHT TO THE ATTENTION OF HOUSE PLAN ZONE, LLC, PRIOR TO COMMENCEMENT OF CONSTRUCTION. PROCEEDING WITH CONSTRUCTION CONSTITUTES THE ACCEPTANCE OF THE CONSTRUCTION DOCUMENTS AS IS AND ANY DEFICIENCIES, ERRORS, AND/OR OMISSIONS BECOME THE SOLE RESPONSIBILITY OF THE PURCHASER. IF ANY ERRORS ARE DISCOVERED PRIOR TO CONSTRUCTION HOUSE PLAN ZONE, LLC, WILL BE GIVEN FULL OPPORTUNITY TO CORRECT ANY ERRORS AND/OR OMISSIONS TO THE CONSTRUCTION PLANS. IN ANY OR ALL CIRCUMSTANCES, THE MAXIMUM FINANCIAL LIABILITY TO HOUSE PLAN ZONE, LLC, CAN NOT EXCEED THE TOTAL PLAN PURCHASE PRICE.

PROFESSIONAL SEAL/ADDITIONAL DRAWINGS

THOUGH EVERY EFFORT WAS MADE TO MAKE THE CONSTRUCTION DOCUMENTS FOLLOW THE I.C.C. NATIONAL CODE METHODOLOGIES, A FEW STATES AND CITIES HAVE PASSED BYLAWS REGARDING CONSTRUCTION PLANS THAT WOULD BE SUBMITTED TO YOUR LOCAL MUNICIPALITY AND USED FOR THE CONSTRUCTION OF YOUR HOME. THESE BYLAWS REQUIRE THE CONSTRUCTION PLANS TO BE REVIEWED AND/OR PREPARED, INSPECTED, AND SEALED (OR STAMPED) BY A LICENSED ARCHITECT ENGINEER IN YOUR STATE. IT IS ADVISED THAT YOU CONTACT YOUR MUNICIPALITY'S BUILDING DEPARTMENT FOR INSTRUCTIONS TO COMPLY WITH THEIR CONSTRUCTION PLANS REVIEW PROCESS. FURTHERMORE, ADDITIONAL ITEMS SUCH AS STRUCTURAL, HVAC, PLUMBING, SITE, ENERGY EFFICIENCY DOCUMENTATION, ETC. MAY BE REQUIRED AND THESE SHALL BE PROVIDED BY A LOCAL PROFESSIONAL THAT IS FAMILIAR WITH THE REQUIREMENTS AND THESE SHALL BE PROVIDED AT THE OWNER'S EXPENSE.

OTHER IMPORTANT INFORMATION

MATERIALS LIST DISCLAIMER: IF A MATERIALS LIST WAS ORDERED, IT WILL ONLY CONFORM TO THE PLAN IN ITS ORIGINAL FORMAT. ADDITIONAL OPTIONS SUCH AS 2ND EXTERIOR WALLS, BASEMENT, OR WALKOUT BASEMENT FOUNDATIONS, THREE CAR GARAGE VERSIONS, ETC. WILL NOT BE REFLECTED IN THE LIST, WHILE IT WILL NOT MATCH THESE OPTIONS. THE LIST IS STILL A GREAT REFERENCE DOCUMENT FOR THE MATERIALS THAT WILL BE REQUIRED TO CONSTRUCT YOUR HOME.

FOUNDATIONS: MOST OF OUR FOUNDATIONS ARE DESIGNED WITH CONCRETE BLOCK STEM WALLS AND NOT POURED-IN-PLACE CONCRETE. ADDITIONALLY, THE MAJORITY OF OUR SLAB FOUNDATIONS ARE DESIGNED WITH A CHAIN WALL (RAISED SLAB AND NOT MONOLITHIC SLAB) ON GRAVEL. CONTRACTOR/LOCAL ENGINEER SHALL ADJUST DESIGN AS NEEDED FOR YOUR SPECIFIC AREA/NEED.

SQUARE FOOTAGES: SQUARE ROOMS (WHERE APPLICABLE) ARE NOT INCLUDED IN THE HEATED AREA OF THE DESIGN UNLESS SPECIFICALLY NOTED. GARAGE PLANS ARE EXCLUDED. SQUARE FOOTAGES SHOWN ARE CALCULATED TO THE OUTSIDE OF THE STUD WALL AND DO NOT INCLUDE THE EXTERIOR MATERIALS SUCH AS BRICK, STONE, OR SIDING.

DIMENSIONS: OUR PLANS ARE DIMENSIONED TO THE OUTSIDE OF THE STUD WALL ONLY AND NOT TO THE OUTSIDE OF THE BRICK LEDGE (WHERE APPLICABLE).

COPYRIGHTS

REPRODUCTION OF THESE CONSTRUCTION PLANS, EITHER IN WHOLE OR IN PART, INCLUDING ANY FORM COPYING AND/OR PREPARATION OF A DERIVATIVE WORKS THEREOF, FOR ANY REASON IS STRICTLY PROHIBITED. THE PURCHASE OF A SET OF CONSTRUCTION PLANS IN NO WAY TRANSFERS ANY COPYRIGHT OR OTHER OWNERSHIP INTEREST IN IT TO THE PURCHASER EXCEPT FOR A LIMITED LICENSING RELEASE TO USE THE SAID PLAN SET FOR CONSTRUCTING ONE AND ONLY ONE DWELLING UNIT. THE PURCHASE OF ADDITIONAL SETS OF THE SAID PLAN AT A REDUCED PRICE FROM THE ORIGINAL SET OR AS PART OF A MULTIPLE SET PACKAGE DOES NOT CONVEY TO THE PURCHASER A LICENSE TO CONSTRUCT MORE THAN ONE DWELLING. SIMILARLY, THE PURCHASE OF REPRODUCIBLE CONSTRUCTION PLANS (I.E., SETS, MYLARS, OR VOLUMES) CARRIES THE SAME COPYRIGHT PROTECTION AS MENTIONED ABOVE. IT IS GENERALLY ALLOWED TO MAKE A MAXIMUM OF 10 COPIES FOR THE CONSTRUCTION OF A SINGLE DWELLING ONLY. TO USE ANY PLAN MORE THAN ONCE, AND TO AVOID ANY COPYRIGHT/LICENSING INFRINGEMENT, IT IS NECESSARY TO CONTACT THE ORIGINAL DESIGNER TO RECEIVE A LICENSE FOR ANY EXTENDED USAGE. WHEREAS A PURCHASER OF REPRODUCIBLES IS GRANTED A LICENSE TO MAKE COPIES, IT SHOULD BE NOTED THAT AS COPYRIGHTED MATERIALS, MAKING PHOTOCOPIES FROM CONSTRUCTION PLANS IS ILLEGAL. COPYRIGHT AND LICENSES OF CONSTRUCTION PLANS EXIST TO PROTECT ALL PARTIES. IT RESPECTS AND SUPPORTS THE INTELLECTUAL PROPERTY OF THE ORIGINAL ARCHITECT AND/OR DESIGNER. THEREBY KEEPING IT POSSIBLE TO OFFER PRE-DRAWN PLANS AT AFFORDABLE PRICES. COPYRIGHT LAW FOR PRE-DRAWN CONSTRUCTION PLANS IS NOW BEING VIGOROUSLY ENFORCED. COPYRIGHT INFRINGEMENT COULD LEAD TO FINES OF UP TO \$10,000 PER VIOLATION.

GENERAL SITE NOTES

1. CONTRACTOR TO VERIFY LOCATIONS OF SITE UTILITIES, REQUIREMENTS, AND CONNECTIONS FEES. OWNER, CONTRACTOR AND SUBCONTRACTORS TO PAY ALL OF THEIR RELATED CONSTRUCTION PERMIT FEES AS AGREED UPON BETWEEN THE OWNER AND CONTRACTOR.

2. BEFORE EXCAVATION, THE CONTRACTOR SHALL EXAMINE ALL DRAWINGS, MAPS, AND BUILDING SITE TO DETERMINE THE ROUTES OF ALL UNDERGROUND UTILITIES.

BEFORE BEGINS COMMENCEMENT IT IS ADVISED THAT THE OWNER AND OR CONTRACTOR CALL THEIR STATE'S UTILITY LOCATOR FACILITATOR.

3. IT IS RECOMMENDED THAT THE SITE BE TESTED FOR COMPRESSION RATINGS TO DETERMINE FOUNDATION AND FOOTING DESIGN. CONCRETE FOUNDATIONS AND FOOTING DESIGN SHALL BE IN ACCORDANCE TO CHAPTER 4 OF THE I.R.C. CODE. FOUNDATION DESIGN TO BE VERIFIED BY A LOCAL PROFESSIONAL OR ENGINEER. CONSULT A LOCAL CIVIL ENGINEER FOR SITE PLANS AND SURVEYS OF EXISTING PROPERTY. A LANDSCAPE ARCHITECT SHOULD BE CONSULTED FOR MORE EXTENSIVE LANDSCAPE DESIGNS.

HOUSE PLAN ZONE, LLC.

www.HPZplans.com

Phone: 601.336.3254



PLAN #: 1994

FOUNDATION TYPE: SLAB
EXTERIOR WALL SIZE: 2x4 EXT. WALLS

STANDARD ABBREVIATIONS

1	1"	1"	1"
2	2"	2"	2"
3	3"	3"	3"
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SHEET INDEX:

- | | |
|-------------------------|------------------------|
| 1. COVER SHEET | N1 I.R.C. CODE SHEET |
| 2. FOUNDATION PLAN | N2 I.R.C. CODE SHEET |
| 3. FLOOR PLAN | N3 I.R.C. CODE SHEET |
| 4. EXTERIOR VIEWS | N4 I.R.C. ENERGY SHEET |
| 5. SECTION AND CABINETS | |
| 6. ROOF PLAN | |
| 7. ELECTRICAL PLAN | |

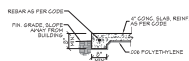
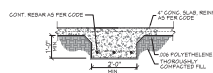
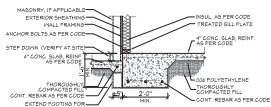
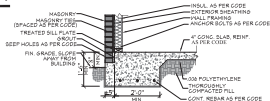
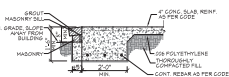
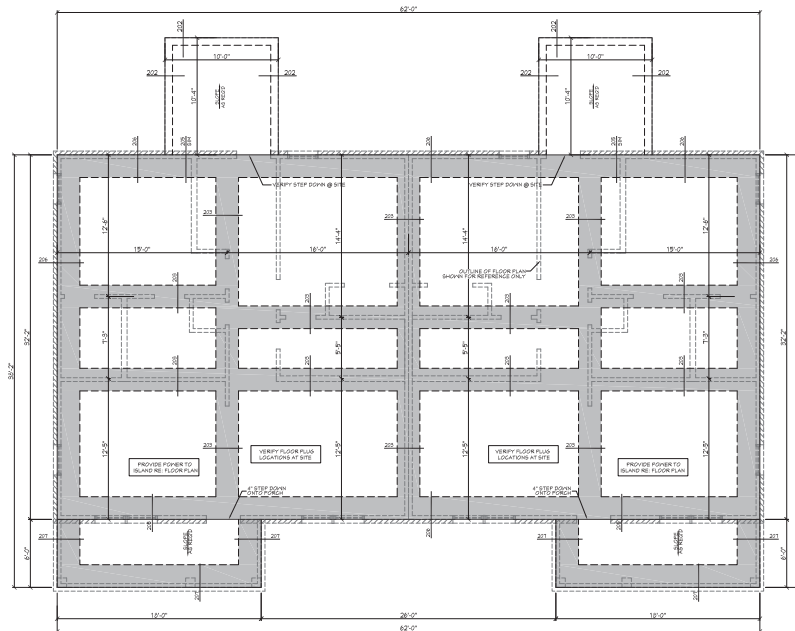
DESIGN DATA

MINIMUM SOIL BEARING CAPACITY = 2000 P.S.F. FOR GROUP II
CONCRETE MINIMUM (28 DAYS) Fc
FOOTERS = 3000 P.S.I.
SLABS & WALLS = 3000 P.S.I.
REINFORCING STEEL: A.S.T.M. A615-60
ROOF LIVE LOAD (GROUND SNOW LOAD) = 30 P.S.F.
ROOF DEAD LOAD = 10 P.S.F.
FLOOR LIVE LOAD = 40 P.S.F.
30 P.S.F. SLEEPING AREAS
FLOOR DEAD LOAD = 10 P.S.F.
DECK LIVE LOAD = 40 P.S.F.
DECK DEAD LOAD = 10 P.S.F.
NOTE: ALL REQUIRED BRACE WALL PANELS LOCATED BY CONTRACTOR PER LOCAL CODE REQUIREMENTS.

N.C.B.D.C. NATIONAL COUNCIL OF BUILDING DESIGNERS JONATHAN L. BOONE (06/23/22)	
Date:	06/23/22
Drawn By:	R.B.N.
© COPYRIGHT HOUSE PLAN ZONE, LLC ALL RIGHTS RESERVED	
SHEET NUMBER 1	

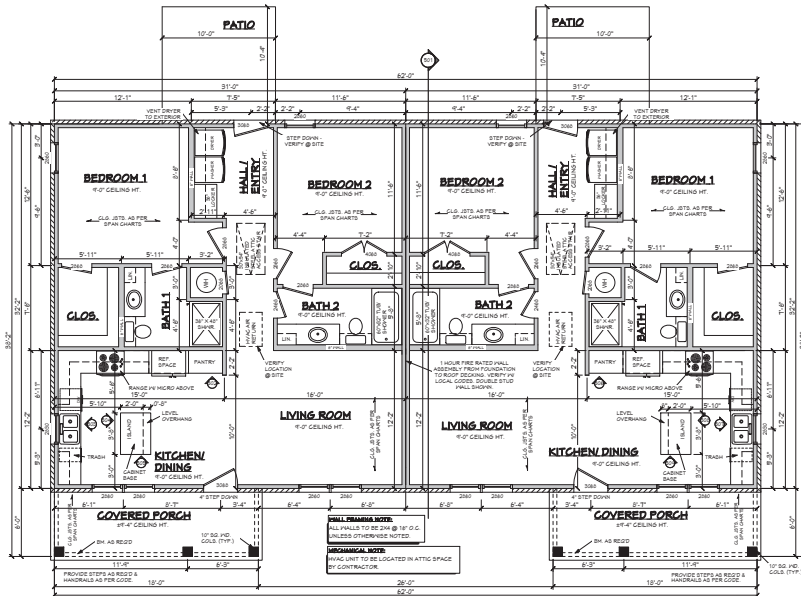
SLAB FOUNDATION NOTES:

1. ALL FOOTING SIZES AND LOCATIONS TO BE VERIFIED BY A LICENSED STRUCTURAL ENGINEER.
2. CONTRACTOR TO ADAPT PLANS AS REQUIRED TO MEET ALL APPLICABLE CODES AT SITE.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH FLOOR PLAN PRIOR TO CONSTRUCTION AND MAKE ANY NECESSARY ADJUSTMENTS.
4. CONTRACTOR TO PROVIDE WATERPROOFING AS REQ'D TO MEET ALL APPLICABLE CODES AND TYPICAL BUILDING PRACTICES.
5. CONCRETE SLABS TO BE 4" (3000 psi MIN.), REINFORCED AS PER CODE OR AS DETERMINED BY LICENSED ENGINEER.
6. ALL EXTERIOR DIMENSIONS ARE TO THE OUTSIDE OF THE STUD WALL AND DO NOT INCLUDE THE BRICK LEDGE (IF APPLICABLE).

**202 FTG. DET.****203 FTG. DET.****205 FTG. DET.****206 FTG. DET.****207 FTG. DET.****201 FOUNDATION PLAN**
SCALE 1/4" = 1'-0"

FLOOR PLAN NOTES: (2018 IRC)

1. ALL DIMENSIONS & SITE CONDITIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
2. ALL EXTERIOR DIMENSIONS ARE TO THE OUTSIDE FACE OF THE STUD AND DO NOT INCLUDE EXTERIOR FINISHES SUCH AS SIDING, BRICK, STUCCO, ETC.
3. ALL FINISHED (INTERIOR & EXTERIOR) TO BE VERIFIED WITH OWNER PRIOR TO CONSTRUCTION.
4. VERIFY ALL DOOR AND WINDOW STYLES AND SIZES WITH OWNER PRIOR TO CONSTRUCTION. MANUFACTURER TO SUPPLY ALL ROUGH OPENING SIZES.
5. CONTRACTOR TO VERIFY ALL CLEARANCES OF ALL DOORS, WINDOWS AND OTHER ITEMS THAT ARE CRITICAL PRIOR TO CONSTRUCTION.
6. CONTRACTOR TO ADAPT PLANS AS REQUIRED TO MEET ALL APPLICABLE CODES AT SITE.
7. ALL BEAMS TO BE SIZED BY A LICENSED STRUCTURAL ENGINEER.
8. PORCHES, BALCONIES OR RAISED FLOOR SURFACES LOCATED MORE THAN 30 INCHES ABOVE THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 36 INCHES HORIZONTALLY SHALL HAVE GUARDS, NOT LESS THAN 36 INCHES IN HEIGHT. OPEN SIDES OF STAIRS WITH A TOTAL RISE OF MORE THAN 30 INCHES ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDS NOT LESS THAN 36 INCHES IN HEIGHT MEASURED VERTICALLY FROM THE NOSING OF THE TREADS. INSECT SCREENINGS SHALL NOT BE CONSIDERED AS A GUARD. IRC 2018, R310.1.1 & R312.1.2
9. HISS 12 APPLIANCES IN ATTICS: ATTICS CONTAINING APPLIANCES SHALL BE PROVIDED WITH AN OPENING AND A CLEAR AND UNOBSTRUCTED PASSAGEWAY LARGE ENOUGH TO ALLOW REMOVAL OF THE LARGEST APPLIANCE, BUT NOT LESS THAN 30 INCHES HIGH AND 22 INCHES WIDE AND NOT MORE THAN 22 FEET LONG MEASURED ALONG THE CENTERLINE OF THE PASSAGEWAY FROM THE OPENING TO THE APPLIANCE. THE PASSAGEWAY SHALL HAVE CONTINUOUS SOLID FLOORING IN ACCORDANCE WITH CHAPTER 5 NOT LESS THAN 24 INCHES WIDE. A LEVEL SERVICE SPACE AT LEAST 10 INCHES DEEP AND 30 INCHES WIDE SHALL BE PRESENT ALONG ALL SIDES OF THE APPLIANCE WHERE ACCESS IS REQUIRED. THE CLEAR ACCESS OPENING DIMENSIONS SHALL BE A MINIMUM OF 22 INCHES BY 30 INCHES, AND LARGE ENOUGH TO ALLOW REMOVAL OF THE LARGEST APPLIANCE. EXCEPTIONS: (A) THE PASSAGEWAY AND LEVEL SERVICE SPACE ARE NOT REQUIRED WHERE THE APPLIANCE CAN BE SERVICED AND REMOVED THROUGH THE REQUIRED OPENING. (B) WHERE THE PASSAGEWAY IS UNOBSTRUCTED AND NOT LESS THAN 6 FEET HIGH AND 30 INCHES WIDE FOR ITS ENTIRE LENGTH. THE PASSAGEWAY SHALL BE NOT MORE THAN 30 FEET LONG.
10. APPLIANCE ACCESS FOR INSPECTION, SERVICE, REPAIR AND REPLACEMENT: APPLIANCES SHALL BE ACCESSIBLE FOR INSPECTION, SERVICE, REPAIR AND REPLACEMENT WITHOUT REMOVING PERMANENT CONSTRUCTION, OTHER APPLIANCES, OR ANY OTHER PIPING OR DUCTS NOT CONNECTED TO THE APPLIANCE BEING INSPECTED, SERVICED, REPAIRED OR REPLACED. A LEVEL WORKING SPACE AT LEAST 30 INCHES DEEP AND 30 INCHES WIDE SHALL BE PROVIDED IN FRONT OF THE CONTROL, SIDE TO SERVICE AN APPLIANCE. HIS505.1.1
11. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE OPERATIONAL FROM THE INSIDE OF THE ROOM WITHOUT THE USE OF KEYS, TOOLS OR SPECIAL KNOWLEDGE. WINDOW OPENING CONTROL DEVICES COMPLYING WITH ASTM F 2090 SHALL BE PERMITTED FOR USE ON WINDOWS SERVING AS A REQUIRED EMERGENCY ESCAPE AND RESCUE OPENING. ALL SLEEPING ROOMS TO HAVE AN EXTERIOR ACCESS THROUGH A DOOR OR WINDOW WITH A MINIMUM OF 5.7 SQUARE FEET NET CLEAR OPENING AS PER IRC 2018 R310.2.1. EXCEPTION: GRADE FLOOR OR BELOW GRADE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET. MAXIMUM SLIGHT HEIGHT TO BE 44 INCHES. MINIMUM NET CLEAR OPENING HEIGHT TO BE 24 INCHES. MINIMUM NET CLEAR OPENING WIDTH TO BE 20 INCHES.
12. ALL RETURN AIR GRILLS ARE TO BE LOCATED TO COMPLY WITH SECTION M1602 OF THE IRC 2018.
13. ALL SQUARE FOOTAGE MEASUREMENTS ARE APPROXIMATE AND MAY DIFFER FROM ACTUAL. CONSTRUCTED RESIDENCE OR BUILDING FOOTAGES SHOWN ARE TO THE OUTSIDE OF THE STUD WALL AND DO NOT INCLUDE THE EXTERIOR FINISH MATERIAL SUCH AS SIDING, BRICK, STONE, ETC.
14. FIRE SPRINKLER SYSTEM TO BE DESIGNED AND INSTALLED (IF REQUIRED BY LOCAL CODES) AS PER THE IRC 2018 AND BY A LICENSED PROFESSIONAL IN THE AREA OF CONSTRUCTION.
15. ALL BATHROOM EXHAUST VENTS SHALL BE VENTED DIRECTLY TO THE EXTERIOR OF THE HOME AND NOT INTO THE ATTIC. IRC 2018, M1505.2

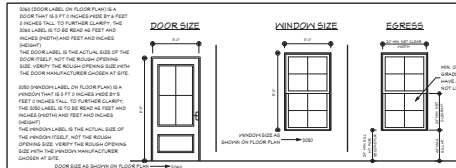


FLOOR PLAN

SCALE: 1/4" = 1'-0"

AREAS:	941	S.F. HEATED PER UNIT
	109	S.F. UNHEATED PER UNIT
	1105	S.F. TOTAL UNDER ROOF PER UNIT
1994	5.6	S.F. TOTAL HEATED - TWO UNITS
216	5.6	S.F. TOTAL UNHEATED - TWO UNITS
2210	5.6	S.F. TOTAL UNDER ROOF - TWO UNITS

SQUARE FOOTAGE CALCULATIONS:
 1. SQUARE FOOTAGE OF HEATED AREA IS FIGURED TO THE OUTSIDE OF THE STUD WALL OF THE EXTERIOR WALLS (DOES NOT INCLUDE MASONRY OR OTHER EXTERIOR MATERIAL).
 2. FLOOR AREAS THAT PROJECT FROM THE EXTERIOR FOOTPRINT ARE NOT INCLUDED IN TOTAL AREA.
 3. STAIRWELLS ARE ONLY INCLUDED IN THE FIRST FLOOR CALCULATIONS AND NOT THE SECOND FLOOR CALCULATIONS (IF APPLICABLE).



OPENING SIZES/ EGRESS

SCALE: 1/4" = 1'-0"

DOOR Egress of openings. Openings shall be provided with a minimum clear height of 6'6" and a minimum clear width of 20". The minimum clear height shall be measured from the finished floor to the top of the door frame. The minimum clear width shall be measured from the edge of the door frame to the edge of the door frame. The minimum clear height shall be measured from the finished floor to the top of the door frame. The minimum clear width shall be measured from the edge of the door frame to the edge of the door frame.

Window Egress of openings. Openings shall be provided with a minimum clear height of 20" and a minimum clear width of 20". The minimum clear height shall be measured from the finished floor to the top of the window frame. The minimum clear width shall be measured from the edge of the window frame to the edge of the window frame. The minimum clear height shall be measured from the finished floor to the top of the window frame. The minimum clear width shall be measured from the edge of the window frame to the edge of the window frame.

Egress of openings. Openings shall be provided with a minimum clear height of 6'6" and a minimum clear width of 20". The minimum clear height shall be measured from the finished floor to the top of the egress frame. The minimum clear width shall be measured from the edge of the egress frame to the edge of the egress frame. The minimum clear height shall be measured from the finished floor to the top of the egress frame. The minimum clear width shall be measured from the edge of the egress frame to the edge of the egress frame.

Window Egress of openings. Openings shall be provided with a minimum clear height of 20" and a minimum clear width of 20". The minimum clear height shall be measured from the finished floor to the top of the window frame. The minimum clear width shall be measured from the edge of the window frame to the edge of the window frame. The minimum clear height shall be measured from the finished floor to the top of the window frame. The minimum clear width shall be measured from the edge of the window frame to the edge of the window frame.

Egress of openings. Openings shall be provided with a minimum clear height of 6'6" and a minimum clear width of 20". The minimum clear height shall be measured from the finished floor to the top of the egress frame. The minimum clear width shall be measured from the edge of the egress frame to the edge of the egress frame. The minimum clear height shall be measured from the finished floor to the top of the egress frame. The minimum clear width shall be measured from the edge of the egress frame to the edge of the egress frame.

Window Egress of openings. Openings shall be provided with a minimum clear height of 20" and a minimum clear width of 20". The minimum clear height shall be measured from the finished floor to the top of the window frame. The minimum clear width shall be measured from the edge of the window frame to the edge of the window frame. The minimum clear height shall be measured from the finished floor to the top of the window frame. The minimum clear width shall be measured from the edge of the window frame to the edge of the window frame.



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Pre-Drawn Plan ID:

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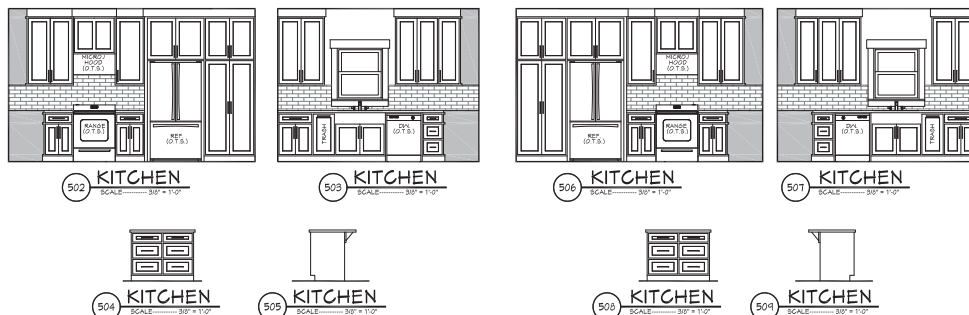
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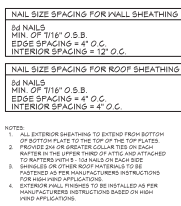
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SHEET NUMBER

3

1. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AT SITE.
2. ALL RIDGE BEAMS, HIP, RAFTERS, & VALLEY RAFTERS TO BE 2" X 10", OR AS REQUIRED BY LOCAL ENGINEER.
3. CONTRACTOR TO PROVIDE RAFTER BRACING TO MEET APPLICABLE CODES.
4. CONTRACTOR TO THOROUGHLY WATERPROOF ALL EXTERIOR INTERSECTIONS AS PER CODE AND TYPICAL BUILDING PRACTICES.
5. ALL BEAMS TO BE SIZED BY A LOCAL PROFESSIONAL OR LICENSED STRUCTURAL ENGINEER.
6. ALL LUMBER SIZES AND SPACING TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
7. CONTRACTOR TO PROVIDE ADEQUATE ROOF VENTILATION AS REQ'D. BY CURRENT CODES.





SCALE..... 1/4" = 1'-0"

1. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES
2. ALL RIDGE BEAMS, HIF RAFTERS, & VALLEY RAFTERS TO BE 2" X 10", No.2 S.Y.P. OR AS REQ'D BY ENGINEER.
3. ALL RAFTERS TO BE SIZED AS PER SPAN CHART.
4. CONTRACTOR TO WATERPROOF ALL ROOF INTERSECTIONS AS PER CODE.
5. CONTRACTOR TO VERIFY ALL ROOF PITCHES WITH EXTERIOR ELEVATIONS PRIOR TO CONSTRUCTION.
6. CONTRACTOR TO PROVIDE ADEQUATE ROOF VENTILATION AS PER CODE.



(551) SCALE----- 1/4" = 1'-0"

ROOF PITCH	FACTOR
2/12	1.09
4/12	1.01
5/12	1.10
6/12	1.14
7/12	1.17
8/12	1.20
9/12	1.29
10/12	1.30
11/12	1.36
12/12	1.40
14/12	1.54
16/12	1.70

MULTIPLY HORIZONTAL SPAN OF MEMBER BY FACTOR
CHOOSE APPROPRIATE FACTOR BY ROOF PITCH

DIFFERENTIAL CHARGE

NOTES:
The above tables are based on the IRC 2015 TABLE R502.4.1(3)

RAFTER SPANS

NOTES:
The above tables are based on the IRC 2018 TABLE R&O2.5.1(2)

10/11/2016



○ TYPE ROOF BRACING

NOTES:

1. THE ABOVE INFORMATION IS FROM THE 2018 IRC TABLE R602.1(1).
2. PLEASE REFER TO THE IRC 2018 FOR ADDITIONAL LUMBER SPECIES AND HEADER OPTIONS.
3. ALL HEADER SIZES SHALL BE DESIGNED/ VERIFIED BY A LOCAL PROFESSIONAL.

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(2) 2 x 12	6-6	2
(3) 2 x 10	7-2	2
(3) 2 x 12	8-5	2

SUPPORTING ROOF AND CEILING ONLY

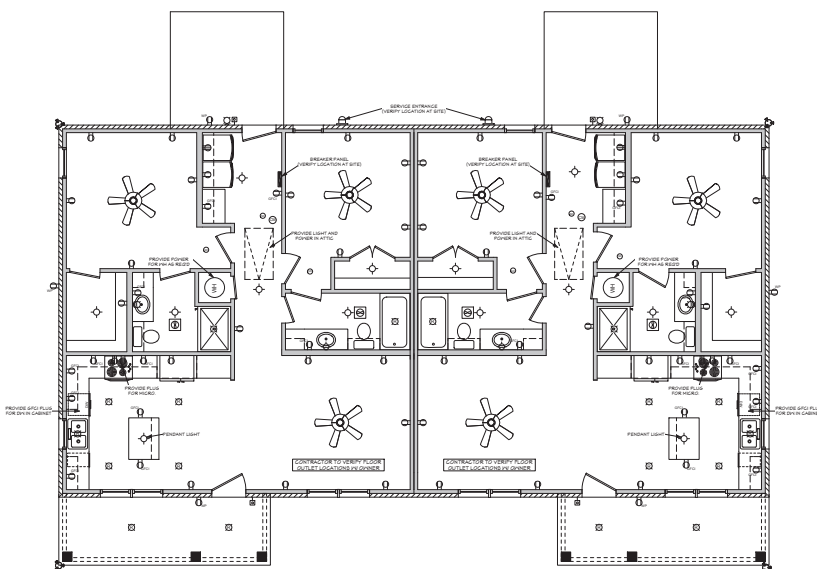
NOTES:

1. THE ABOVE INFORMATION IS FROM THE 2018 IRC TABLE R602.1(1).
2. PLEASE REFER TO THE IRC 2018 FOR ADDITIONAL LUMBER SPECIES AND HEADER OPTIONS.
3. ALL HEADER SIZES SHALL BE DESIGNED/ VERIFIED BY A LOCAL PROFESSIONAL.

ELECTRICAL SYMBOLS LEGEND	
	110 VOLT OUTLET
	GROUND FAULT PROTECTED OUTLET
	WEATHERPROOF OUTLET
	220 VOLT RECEPTACLE
	FLOOR OUTLET (OWNER TO LOCATE)
	CEILING HUNG FIXTURE
	OVERHANG MOUNTED FLOODLIGHTS
	WALL MOUNTED FLOODLIGHTS
	RECESSED CEILING FIXTURE
	FLUORESCENT LIGHT
	CARBON MONOXIDE DETECTOR
	SMOKE DETECTOR
	SWITCH
	THREE WAY SWITCH
	WALL MOUNTED LIGHT
	DIMMER SWITCH (OWNER TO LOCATE)
	DOOR ACTIVATED SWITCH
	WEATHERPROOF OUTLET
	CATS NETWORKING JACK (OWNER TO LOCATE)
	TELEPHONE OUTLET (OWNER TO LOCATE)
	TELEVISION OUTLET (OWNER TO LOCATE)
	DOORBELL BUTTON (CONTRACTOR TO LOCATE)
	THERMOSTAT (CONTRACTOR TO LOCATE)
	CEILING EXHAUST FAN, VENT TO EXTERIOR
	TV SPEAKER
	RADIO SPEAKER
	CEILING FAN ONLY, NO LIGHT KIT
	CEILING FAN WITH LIGHT KIT
	TRACK LIGHTING (OWNER TO LOCATE)
	WALL SCONCE (OWNER TO LOCATE)
	CHANDELIER 1 (O.T.S.)
	CHANDELIER 2 (O.T.S.)
	UNDER COUNTER LIGHTING
	EMERGENCY LIGHTING/EXIT SIGN

ELECTRICAL NOTES: (2019 IRC)

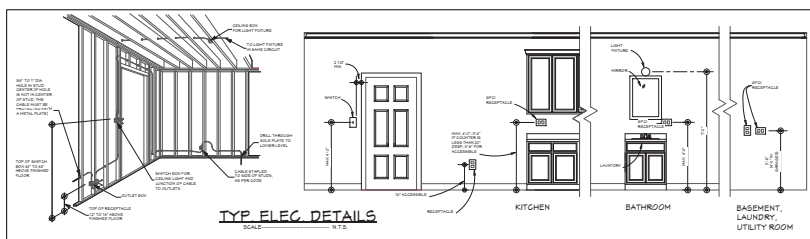
- ALL WORK SHALL COMPLY WITH ALL CODES APPLICABLE AT SITE.
- SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS: EACH SLEEPING ROOM, OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS. WHEN MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN A DWELLING THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE UNIT. SMOKE ALARMS SHALL BE HARD WIRED WITH A BATTERY BACK-UP.
- CARBON MONOXIDE ALARMS SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS IN DWELLING UNITS WITHIN WHICH FUEL-BURNING APPLIANCES ARE INSTALLED AND IN DWELLING UNITS WITH ATTACHED GARAGES.
- A 120 VOLT, SINGLE PHASE, 15-20 AMPERE RATED RECEPTACLE OUTLET SHALL BE INSTALLED AT AN ACCESSIBLE LOCATION FOR THE SERVICING OF HEATING, AIR CONDITIONING AND REFRIGERATION EQUIPMENT. THE RECEPTACLE SHALL BE LOCATED ON THE SAME LEVEL AND WITHIN 20 FEET OF THE EQUIPMENT. THE RECEPTACLE OUTLET SHALL NOT BE CONNECTED TO THE LOAD SIDE OF THE MAIN EQUIPMENT DISCONNECTING MEANS.



ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"

NOTE: SWITCHES AND ELECTRICAL CONNECTIONS ARE NOT SHOWN. OWNER TO LOCATE THESE ITEMS DURING ELECTRICAL WALK-THROUGH WITH ELECTRICAL CONTRACTOR AT SITE.



R01.1.2 HANDRAILS REQUIRED.
HANDRAILS SHALL BE PROVIDED ON NOT LESS THAN ONE SIDE OF RAMPS EXCEEDING A SLOPE OF ONE UNIT VERTICAL IN 10 UNITS HORIZONTAL (10% PERCENT SLOPE).

R01.1.3 HESBIT.
HORIZONTAL HEIGHT MEASURED ABOVE THE FINISHED SURFACE OF THE RAMPS SLOPE SHALL BE NOT LESS THAN 36 INCHES (965 MM) AND NOT MORE THAN 38 INCHES (965 MM).

R01.1.3.1 DWP SIDE.
HANDRAILS ON RAMPS SHALL COMPLY WITH SECTION R01.1.7.5.5.

R01.1.3.2 CONTINUITY.
HANDRAILS ARE REQUIRED ON RAMPS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE RAMP. HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN HANDS, POSTS OR SAFETY TERMINALS. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 110 INCHES (28 MM) BETWEEN THE WALL AND THE HANDRAILS.

SECTION R12 GUARDS AND WINDOW FALL PROTECTION

R12.1 GUARDS.
GUARDS SHALL BE PROVIDED IN ACCORDANCE WITH SECTIONS R12.1.1 THROUGH R12.1.4.

R12.1.1 WHERE REQUIRED.
GUARDS SHALL BE PROVIDED FOR THOSE PORTIONS OF OPENED SURFACES SURFACES, INCLUDING STAIRS, RAMPS AND LANDINGS, THAT ARE LOCATED MORE THAN 30 INCHES (762 MM) MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 36 INCHES (914 MM) HORIZONTALLY TO THE EDGE OF THE OPEN SIDE OR OPENED SCREENING SHALL NOT BE CONSIDERED AS A GUARD.

R12.1.2 HESBIT.
REQUIRED GUARDS AT OPENED WALKING SURFACES, INCLUDING STAIRS, PORCHES, BALCONIES OR LANDINGS, SHALL BE NOT LESS THAN 36 INCHES (914 MM) HEIGHT AS MEASURED VERTICALLY ABOVE THE ADJACENT WALKING SURFACE OR THE LINE CONNECTING THE NOSINGS.

R12.1.3 OPENING LIMITS.
REQUIRED GUARDS SHALL NOT BE OPENED FROM THE WALKING SURFACE TO THE REQUIRED GRADE BELOW THAT ALLOW PASSAGE OF A SPHERE 4 INCHES (102 MM) IN DIAMETER.

R12.1.4 EXTERIOR PLASTIC COMPOSITE GUARDS.
PLASTIC COMPOSITE EXTERIOR GUARDS SHALL COMPLY WITH THE REQUIREMENTS OF SECTION R12.1.4.

R12.1.5 WINDOW FALL PROTECTION.
WINDOW FALL PROTECTION SHALL BE PROVIDED IN ACCORDANCE WITH SECTIONS R12.1.5.1 AND R12.1.5.2.

R12.1.5.1 WINDOW FALLS.
IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR AND USES MORE THAN 10 FT² (0.93 M²) OF GLASS, THE WINDOW SHALL BE PROVIDED WITH WINDOW FALL PROTECTION ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

1. OPERABLE WINDOW OPENINGS WILL NOT ALLOW A 4-INCH-DIAMETER (102 MM) SPHERE TO PASS THROUGH WHERE THE OPENINGS ARE IN THEIR LARGEST OPENED POSITION.
2. OPERABLE WINDOW FALL PROTECTION SHALL BE PROVIDED WITH WINDOW FALL PROTECTION ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

1. OPERABLE WINDOW OPENINGS WILL NOT ALLOW A 4-INCH-DIAMETER (102 MM) SPHERE TO PASS THROUGH WHERE THE OPENINGS ARE IN THEIR LARGEST OPENED POSITION.

2. OPERABLE WINDOW FALL PROTECTION SHALL BE PROVIDED WITH WINDOW FALL PROTECTION ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

3. OPERABLE WINDOW FALL PROTECTION SHALL BE PROVIDED WITH WINDOW FALL PROTECTION ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

SECTION R13 AUTOMATIC FIRE SPRINKLER SYSTEMS

SECTION R13.1 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.2 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.3 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.4 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.5 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.6 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.7 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.8 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.9 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.10 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.11 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.12 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.13 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.14 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.15 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.16 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.17 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.18 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

SECTION R13.19 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS.

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN TOWNHOUSES.

R20.1 LOCATION.
SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

1. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
2. ON EACH ADJACENT STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS AND NOT INCLUDING CRAWL SPACES AND UNHABITABLE ATTICS, IN DWELLINGS OR DWELLING UNITS WITH SLEEPING LEVELS AND WITHOUT AN INTERVENING CRAWL SPACE AND UNHABITABLE ATTICS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL, SHALL BE WITHIN THE ADJACENT LOWER LEVEL SLEEPING AREA.

R20.1.1 INSTALLATION NEAR SLEEPING APPLIANCES.
SMOKE ALARMS SHALL NOT BE INSTALLED IN THE FOLLOWING LOCATIONS UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM IN A LOCATION REQUIRED BY SECTION R20.1.1.1:

1. IN A LOCATION NEAR SLEEPING APPLIANCES SHALL NOT BE INSTALLED LESS THAN 20 FEET (6096 MM) HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.
2. IN A LOCATION NEAR SLEEPING APPLIANCES SHALL NOT BE INSTALLED LESS THAN 10 FEET (3048 MM) HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.

R20.1.2 INTERCONNECTION.
WHERE MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING, ALL SMOKE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL DWELLING UNIT. PHYSICAL INTERCONNECTION OF WIRELESS ALARMS SHALL NOT BE REQUIRED UNLESS WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTUATION OF ONE ALARM.

R20.1.3 COMBINATION ALARMS.
COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION R20.1.3.1.

R20.1.4 POWER SOURCE.
SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRE AND WHERE PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION.

R20.1.5 FIRE ALARM SYSTEMS.
FIRE ALARM SYSTEMS SHALL BE PERMITTED TO BE USED IN LEU OF SMOKE ALARMS SHALL COMPLY WITH SECTION R20.1.5.1.

SECTION R15 CARBON MONOXIDE ALARMS

R15.1 GENERAL.
CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R15.1.1.

R15.1.1 LISTINGS.
CARBON MONOXIDE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL203 CARBON MONOXIDE MONITOR AND SMOKE ALARM SHALL BE LISTED IN ACCORDANCE WITH UL 203A AND UL 217.

R15.1.2 WHERE REQUIRED.
CARBON MONOXIDE ALARMS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION R15.1.2.1 AND R15.1.2.2.

R15.1.3 INTERCONNECTION.
WHERE MORE THAN ONE CARBON MONOXIDE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT, ALL CARBON MONOXIDE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL DWELLING UNIT. PHYSICAL INTERCONNECTION OF WIRELESS ALARMS SHALL NOT BE REQUIRED UNLESS WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTUATION OF ONE ALARM.

R15.1.4 POWER SOURCE.
CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM A COMMERCIAL SOURCE AND, WHERE PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION.

R15.1.5 FIRE ALARM SYSTEMS.
FIRE ALARM SYSTEMS SHALL BE PERMITTED TO BE USED IN LEU OF CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R15.1.5.1.

SECTION R16 CARBON MONOXIDE ALARMS

R16.1 GENERAL.
CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R16.1.1.

R16.1.1 LISTINGS.
CARBON MONOXIDE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL203 CARBON MONOXIDE MONITOR AND SMOKE ALARM SHALL BE LISTED IN ACCORDANCE WITH UL 203A AND UL 217.

R16.1.2 WHERE REQUIRED.
CARBON MONOXIDE ALARMS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION R16.1.2.1 AND R16.1.2.2.

R16.1.3 INTERCONNECTION.
WHERE MORE THAN ONE CARBON MONOXIDE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT, ALL CARBON MONOXIDE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL DWELLING UNIT. PHYSICAL INTERCONNECTION OF WIRELESS ALARMS SHALL NOT BE REQUIRED UNLESS WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTUATION OF ONE ALARM.

R16.1.4 POWER SOURCE.
CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM A COMMERCIAL SOURCE AND, WHERE PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION.

R16.1.5 FIRE ALARM SYSTEMS.
FIRE ALARM SYSTEMS SHALL BE PERMITTED TO BE USED IN LEU OF CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R16.1.5.1.

SECTION R17 CARBON MONOXIDE ALARMS

R17.1 GENERAL.
CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R17.1.1.

R17.1.1 LISTINGS.
CARBON MONOXIDE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL203 CARBON MONOXIDE MONITOR AND SMOKE ALARM SHALL BE LISTED IN ACCORDANCE WITH UL 203A AND UL 217.

R17.1.2 WHERE REQUIRED.
CARBON MONOXIDE ALARMS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION R17.1.2.1 AND R17.1.2.2.

R17.1.3 INTERCONNECTION.
WHERE MORE THAN ONE CARBON MONOXIDE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT, ALL CARBON MONOXIDE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL DWELLING UNIT. PHYSICAL INTERCONNECTION OF WIRELESS ALARMS SHALL NOT BE REQUIRED UNLESS WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTUATION OF ONE ALARM.

R17.1.4 POWER SOURCE.
CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM A COMMERCIAL SOURCE AND, WHERE PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION.

R17.1.5 FIRE ALARM SYSTEMS.
FIRE ALARM SYSTEMS SHALL BE PERMITTED TO BE USED IN LEU OF CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R17.1.5.1.

SECTION R18 CARBON MONOXIDE ALARMS

R18.1 GENERAL.
CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R18.1.1.

R18.1.1 LISTINGS.
CARBON MONOXIDE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL203 CARBON MONOXIDE MONITOR AND SMOKE ALARM SHALL BE LISTED IN ACCORDANCE WITH UL 203A AND UL 217.

R18.1.2 WHERE REQUIRED.
CARBON MONOXIDE ALARMS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION R18.1.2.1 AND R18.1.2.2.

R18.1.3 INTERCONNECTION.
WHERE MORE THAN ONE CARBON MONOXIDE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT, ALL CARBON MONOXIDE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL DWELLING UNIT. PHYSICAL INTERCONNECTION OF WIRELESS ALARMS SHALL NOT BE REQUIRED UNLESS WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTUATION OF ONE ALARM.

R18.1.4 POWER SOURCE.
CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM A COMMERCIAL SOURCE AND, WHERE PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION.

R18.1.5 FIRE ALARM SYSTEMS.
FIRE ALARM SYSTEMS SHALL BE PERMITTED TO BE USED IN LEU OF CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R18.1.5.1.

SECTION R19 CARBON MONOXIDE ALARMS

R19.1 GENERAL.
CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R19.1.1.

R19.1.1 LISTINGS.
CARBON MONOXIDE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL203 CARBON MONOXIDE MONITOR AND SMOKE ALARM SHALL BE LISTED IN ACCORDANCE WITH UL 203A AND UL 217.

R19.1.2 WHERE REQUIRED.
CARBON MONOXIDE ALARMS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION R19.1.2.1 AND R19.1.2.2.

R19.1.3 INTERCONNECTION.
WHERE MORE THAN ONE CARBON MONOXIDE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT, ALL CARBON MONOXIDE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL DWELLING UNIT. PHYSICAL INTERCONNECTION OF WIRELESS ALARMS SHALL NOT BE REQUIRED UNLESS WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTUATION OF ONE ALARM.

R19.1.4 POWER SOURCE.
CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM A COMMERCIAL SOURCE AND, WHERE PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION.

R19.1.5 FIRE ALARM SYSTEMS.
FIRE ALARM SYSTEMS SHALL BE PERMITTED TO BE USED IN LEU OF CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R19.1.5.1.

SECTION R20 CARBON MONOXIDE ALARMS

R20.1 GENERAL.
CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R20.1.1.

R20.1.1 LISTINGS.
CARBON MONOXIDE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL203 CARBON MONOXIDE MONITOR AND SMOKE ALARM SHALL BE LISTED IN ACCORDANCE WITH UL 203A AND UL 217.

R20.1.2 WHERE REQUIRED.
CARBON MONOXIDE ALARMS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION R20.1.2.1 AND R20.1.2.2.

R20.1.3 INTERCONNECTION.
WHERE MORE THAN ONE CARBON MONOXIDE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT, ALL CARBON MONOXIDE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL DWELLING UNIT. PHYSICAL INTERCONNECTION OF WIRELESS ALARMS SHALL NOT BE REQUIRED UNLESS WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTUATION OF ONE ALARM.

R20.1.4 POWER SOURCE.
CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM A COMMERCIAL SOURCE AND, WHERE PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION.

R20.1.5 FIRE ALARM SYSTEMS.
FIRE ALARM SYSTEMS SHALL BE PERMITTED TO BE USED IN LEU OF CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R20.1.5.1.

SECTION R21 CARBON MONOXIDE ALARMS

R21.1 GENERAL.
CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R21.1.1.

R21.1.1 LISTINGS.
CARBON MONOXIDE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL203 CARBON MONOXIDE MONITOR AND SMOKE ALARM SHALL BE LISTED IN ACCORDANCE WITH UL 203A AND UL 217.

R21.1.2 WHERE REQUIRED.
CARBON MONOXIDE ALARMS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION R21.1.2.1 AND R21.1.2.2.

R21.1.3 INTERCONNECTION.
WHERE MORE THAN ONE CARBON MONOXIDE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT, ALL CARBON MONOXIDE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL DWELLING UNIT. PHYSICAL INTERCONNECTION OF WIRELESS ALARMS SHALL NOT BE REQUIRED UNLESS WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTUATION OF ONE ALARM.

R21.1.4 POWER SOURCE.
CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM A COMMERCIAL SOURCE AND, WHERE PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION.

R21.1.5 FIRE ALARM SYSTEMS.
FIRE ALARM SYSTEMS SHALL BE PERMITTED TO BE USED IN LEU OF CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTION R21.1.5.1.

SECTION R321 ELEVATORS AND PLATFORM LIFTS

R321.1 ELEVATORS.
WHERE PROVIDED, ELEVATOR ELEVATORS, LIMITED-USE AND LIMITED-APPLICATION ELEVATORS OR PRIVATE RESIDENTIAL ELEVATORS SHALL COMPLY WITH ASME A17.1-2013.

R321.2 FLOOD-RESISTANT CONSTRUCTION.

R321.2.1 GENERAL.
BUILDINGS AND STRUCTURES CONSTRUCTED IN WIND-OR PART OF FLOOD HAZARD AREAS, INCLUDING A OR V ZONES AND COASTAL ZONES, AS ESTABLISHED IN TABLE 1601.1, SHALL BE CONSTRUCTED TO RESIST SUBSTANTIAL DAMAGE OF BUILDINGS AND STRUCTURES IN FLOOD HAZARD AREAS. SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS CONTAINED IN THIS SECTION, BUILDINGS AND STRUCTURES THAT ARE LOCATED IN THE PROVISIONS ASSOCIATED WITH THE MOST RESTRICTIVE FLOOD HAZARD AREA, BUILDINGS AND STRUCTURES LOCATED IN WIND-OR PART IN IDENTIFIED FLOOD HAZARD AREAS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH ASCE 24.

R321.2.2 STRUCTURAL SYSTEMS.
STRUCTURAL SYSTEMS OF BUILDINGS AND STRUCTURES SHALL BE DESIGNED AND CONSTRUCTED TO RESIST FLOODING, COLLAPSE OR PERMANENT LATERAL MOVEMENT DUE TO FLOODING, LOADS AND STRESSES FROM FLOODING EQUAL TO THE DESIGN FLOOD ELEVATION.

R321.2.3 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.4 ESTABLISHING THE DESIGN FLOOD ELEVATION.
THE DESIGN FLOOD ELEVATION SHALL BE USED TO DETERMINE FLOOD HAZARD AREAS AT A MINIMUM, THE DESIGN FLOOD ELEVATION SHALL BE THE HIGHER OF THE FOLLOWING:

1. THE BASE FLOOD ELEVATION AT THE DEPTH OF PEAK 1 PERCENT 100-YEAR FLOOD OR GREATER CHANCE OF BEING EXCEEDED IN ANY 100-YEAR PERIOD.

2. THE ELEVATION OF THE DESIGN FLOOD ASSOCIATED WITH THE DETERMINED DESIGN FLOOD ELEVATION AND IMPACTS REFERRED TO IN SECTIONS R321.1.1 AND R321.1.2.

R321.2.5 FLOOD-RESISTANT CONSTRUCTION.
THE LOWEST FLOOR OF THE BUILDING SHALL BE CONSTRUCTED TO RESIST FLOODING, COLLAPSE OR PERMANENT LATERAL MOVEMENT DUE TO FLOODING, LOADS AND STRESSES FROM FLOODING EQUAL TO THE DESIGN FLOOD ELEVATION.

R321.2.6 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.7 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.8 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.9 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.10 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.11 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.12 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.13 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.14 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.15 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.16 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.17 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.18 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.19 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.20 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.21 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.22 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.23 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.24 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.25 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT MINIMIZE FLOOD DAMAGE.

R321.2.26 FLOOD-RESISTANT CONSTRUCTION.
BUILDINGS AND STRUCTURES ERECTED IN AREAS PRONE TO FLOODING SHALL BE CONSTRUCTED BY THE METHODS AND PRACTICES THAT

R802.1 ALLOWABLE GIRDER AND HEADER SPANS.
THE ALLOWABLE SPANS OF GIRDERS AND HEADERS FABRICATED OF DIMENSION LAMBER SHALL NOT EXCEED THE VALUES SET FORTH IN TABLE R802.1.1, R802.1.2 AND R802.1.3.

R802.2 BEARING.
THE ENDS OF EACH JOIST, BEAM OR GIRDER SHALL HAVE NOT LESS THAN 1/2 INCHES (12 MM) OF BEARING ON WOOD OR METAL, NOT LESS THAN 1 INCHES (25 MM) OF BEARING ON MASONRY OR CONCRETE BE SUPPORTED BY APPROVED JOIST HANGERS. ALTERNATIVELY, THE ENDS OF JOISTS SHALL BE SUPPORTED ON A LATCH BY ANCHOR 2X4 BY 1/2 INCH (12.7MM) STRIP AND SHALL BE NOTED TO THE ADJACENT STUD. THE BEARING ON MASONRY OR CONCRETE SHALL BE DIRECT, OR A SLIP PLATE OF JACK-BIRMINGHAM STEEL BEARING PLATES SHALL BE PROVIDED UNDER THE JOIST. BEAM OR GIRDER THE SLIP PLATE SHALL PROVIDE A MINIMUM MINIMUM BEARING AREA OF 4 SQUARE INCHES (258 SQ. MM). SEE SECTIONS R802.1 THROUGH R802.2.2 FOR FURTHER SPECIFICATIONS.

REFER TO THE IRC FOR FURTHER INFORMATION ON THE FOLLOWING AREAS:

- **R802.3 CUTTING, DRILLING AND NOTCHING.**
- **R802.4 FASTENERS.**
- **R802.5 FASTENING OF OPENINGS.**
- **R802.6 PRELOADING REQUIRED.**
- **R802.7 DRAFTSTOPPING REQUIRED.**
- **R802.8 PRELOADING REQUIRED.**

REFER TO THE IRC FOR THE FOLLOWING SECTIONS:

SECTION 805 FLOOR SHEATHING
SECTION 806 PRESSURE TREATED WOOD FLOOR
SECTION 808 SOLID-FORMED FLOOR FRAMING

SECTION 809 SOLID CONCRETE FLOORS (ON GROUND)

R809.1 GENERAL.
CONCRETE SLAB ON-GROUND FLOORS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF THIS SECTION OR AS23. FLOORS SHALL BE A MINIMUM 3.0 INCHES (76 MM) THICK FOR EXPANSIVE SOILS. SEE SECTION R809.1.1B, THE SPECIFIED COMPRESSION STRENGTH OF CONCRETE SHALL BE AS SET FORTH IN SECTION R809.2.

SECTION 812 SLAB PREPARATION.

THE AREA AROUND THE FOUNDATION WALLS SHALL HAVE ALL VEGETATION, TOP SOIL, AND FOREIGN MATERIAL REMOVED.

R812.1 FILL.
ALL MATERIAL SHALL BE FREE OF VEGETATION AND FOREIGN MATERIAL. THE FILL SHALL BE COMPACTED TO ENSURE UNIFORM SUPPORT OF THE SLAB AND EQUIVY. WHERE APPROVED BY THE ENGINEER, FILL MAY BE PLACED ON TOP OF CLEAR SAND OR GRAVEL AND 8 INCHES (203 MM) FOR EARTH.

R812.2 BASE.
A 4-INCH-THICK (102 MM) BASE COURSE CONSISTING OF CLEAN, GRADED SAND, GRAVEL, CRUSHED STONE, CRUSHED CURB OR CRUSHED SLAT FURNACE SLAG PAVING 2.1 INCH (51 MM) DEEP SHALL BE PLACED ON THE PREPARED SUBGRADE WHERE A BASE COURSE DOES NOT EXIST.

NOTE: SEE SECTION 506.2.2 FOR SUBGRADE.

SECTION 812.2 VAPOR RETARDER.

A 5-MIL (0.127 MM) POLYETHYLENE OR APPROVED EQUIVY RETARDER WITH JOISTS LAPPED NOT LESS THAN 18 INCHES (457 MM) SHALL BE USED BETWEEN THE CONCRETE FLOOR SLAB AND THE BASE COURSE OR THE PREPARED SUBGRADE WHERE A BASE COURSE DOES NOT EXIST.

NOTE: SEE SECTION R802.3 FOR EXCEPTIONS.

SECTION 812.2 REINFORCEMENT SUPPORT.

WHERE PROVIDED IN SLABS ON-GROUND, REINFORCEMENT SHALL BE SUPPORTED TO REMAIN IN PLACE FROM THE NOTCH TO UPPER ONE-THIRD OF THE SLAB FOR THE DURATION OF THE CONCRETE PLACEMENT.

SECTION 807 DECKS

R807.1 DECK.
DECKING SHALL BE IN ACCORDANCE WITH THIS SECTION. THE DECKING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THIS SECTION. REFER TO SECTION R807.1 FOR FURTHER SPECIFICATIONS.

R807.2 MATERIALS.
MATERIALS USED FOR THE CONSTRUCTION OF DECKS SHALL COMPLY WITH THE SECTION.

R807.3 WOOD MATERIALS.
MATERIALS SHALL BE NO. 2 GRADE OR BETTER LUMBER. PRESERVATIVE-TREATED WOOD SHALL BE IN ACCORDANCE WITH SECTION R807.1. ALL PRESERVATIVE-TREATED WOOD SHALL BE IN ACCORDANCE WITH SECTION R807.1. ALL PRESERVATIVE-TREATED WOOD SHALL BE IN CONTACT WITH THE GROUND SHALL BE LABELED FOR SUCH USAGE.

R807.4 ENGINEERED WOOD PRODUCTS.
ENGINEERED WOOD PRODUCTS SHALL BE IN ACCORDANCE WITH SECTION R807.2.

R807.5 PLASTIC COMPOSITE DECK BOARDS, STAIR TREADS, GUARDS, OR HANDRAILS.
PLASTIC COMPOSITE DECK BOARDS, STAIR TREADS, GUARDS, AND HANDRAILS SHALL COMPLY WITH THE PROVISIONS OF THIS SECTION. REFER TO SECTION R807.2.1 THROUGH R807.2.3 AND SECTION R807.2.3.1 FOR FURTHER SPECIFICATIONS.

R807.6 FASTENERS AND CONNECTORS.
METAL FASTENERS AND CONNECTORS USED FOR ALL DECKS SHALL BE IN ACCORDANCE WITH SECTION 807.3.1 AND SECTION R807.3.2.

R807.7 FOOTINGS.
REFER TO THE IRC FOR INFORMATION REGARDING FOOTINGS.

R807.8 DECK POSTS.
FOR SINGLE-LAYER, WOOD-FRAME DECKS WITH BEAMS, SIZES IN ACCORDANCE WITH TABLE R807.8.1, DECK POST SIZE SHALL BE IN ACCORDANCE WITH TABLE R807.8.2.

R807.9 DECK POST TO FOOTING CONNECTION.
WHERE POSTS BEAR ON CONCRETE FOOTINGS, A LATERAL RESTRAINT WITH SECTION R807.9.1 AND FIGURE R807.9.1, A LATERAL RESTRAINT SHALL BE PROVIDED BY MANUFACTURED CONNECTORS OR A MINIMUM POST EMBEDMENT OF 1/2 INCHES (25 MM) IN SURROUNDING SOIL BE PERMITTED.

NOTE: SEE SECTION R807.9.1 FOR EXCEPTIONS.

R807.10 DECK BEAMS.
MAXIMUM ALLOWABLE SPAN FOR WOOD DECK BEAMS, AS SHOWN IN FIGURE R807.10.1, SHALL BE IN ACCORDANCE WITH TABLE R807.10.1. BEAMS SHALL BE FASTENED WITH TWO ROWS OF 1/2 INCH (12.7 MM) DIAMETER NAILS OR 1/4 INCH (6.35 MM) DIAMETER NAILS ON CENTER ALONG EACH EDGE. BEAMS SHALL BE FASTENED TO CANTILEVER AT EACH END TO ONE-FOURTH OF THE ALLOWABLE BEAM SPAN. DECK BEAMS OF OTHER MATERIALS SHALL BE PERMITTED WHERE DESIGNED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES.

R807.11 DECKING.
MAXIMUM ALLOWABLE SPACING FOR JOISTS SUPPORTING DECKING SHALL BE IN ACCORDANCE WITH TABLE R807.11.1. WOOD DECKING SHALL BE ATTACHED TO EACH SUPPORTING MEMBER WITH NOT LESS THAN TWO THREADED NAILS OR TWO NO. 8 WOOD SCREWS. OTHER APPROVED DECKING OR FASTENING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS.

R807.12 VERTICAL AND LATERAL SUPPORTS.
WHERE SUPPORTED BY ATTACHMENT TO AN EXTERIOR WALL, DECKS SHALL BE POSITIVELY ANCHORED TO THE PRIMARY STRUCTURE AND DESIGN FOR BOTH VERTICAL AND LATERAL LOADS. SUCH ATTACHMENT SHALL NOT BE ACHIEVED BY THE USE OF TENDONS OR WALS SUBJECT TO WITHDRAWAL. FOR DECKS WITH CANTILEVERED FRAMING MEMBERS, CONNECTIONS TO EXTERIOR WALLS OR OTHER FRAMING MEMBERS SHALL BE DESIGNED AND CONSTRUCTED TO RESIST UP-LIFT RESULTING FROM THE CANTILEVERED PORTION OF THE DECK WHERE POSITIVE CONNECTION TO THE PRIMARY BUILDING STRUCTURE CANNOT BE VERIFIED DURING INSPECTION. DECKS SHALL BE SELF-SUPPORTING.

R807.13 DECK POST TO DECK FOOTING.
POSTS SHALL BEAR ON FOOTINGS IN ACCORDANCE WITH SECTION R807.9.1 AND FIGURE R807.9.1. POSTS SHALL BE RESISTANT TO PULL-OUT AND SHALL BE FASTENED TO THE FOOTING WITH ANCHORS. SUCH LATERAL RESTRAINT SHALL BE PROVIDED BY MANUFACTURED CONNECTORS OR A MINIMUM POST EMBEDMENT OF 1/2 INCHES (25 MM) IN SURROUNDING SOIL ON CONCRETE PILES.

CHAPTER 8 :: WALL CONSTRUCTION

SECTION R801 GENERAL.

R801.1 APPLICATION.
THE PROVISIONS OF THIS CHAPTER SHALL COVER THE DESIGN AND CONSTRUCTION OF WALLS AND PARTITIONS FOR BUILDINGS.

R801.2 REQUIREMENTS.
WALL CONSTRUCTION SHALL BE CAPABLE OF ACCOMMODATING ALL LOADS EMPLOYED IN ACCORDANCE WITH SECTION R801.2.1. THE PROVISIONS OF THIS SECTION SHALL BE IN ACCORDANCE WITH SECTION R801.2.2.

R801.3 MATERIALS.
MATERIALS USED FOR THE CONSTRUCTION OF WALLS SHALL COMPLY WITH THE SECTION.

R801.4 ENGINEERED WOOD PRODUCTS.
ENGINEERED WOOD PRODUCTS SHALL BE IN ACCORDANCE WITH SECTION R801.2.

R801.5 PLASTIC COMPOSITE DECK BOARDS, STAIR TREADS, GUARDS, OR HANDRAILS.
PLASTIC COMPOSITE DECK BOARDS, STAIR TREADS, GUARDS, AND HANDRAILS SHALL COMPLY WITH THE PROVISIONS OF THIS SECTION. REFER TO SECTION R801.2.1 THROUGH R801.2.3 AND SECTION R801.2.3.1 FOR FURTHER SPECIFICATIONS.

R801.6 FASTENERS AND CONNECTORS.
METAL FASTENERS AND CONNECTORS USED FOR ALL DECKS SHALL BE IN ACCORDANCE WITH SECTION 807.3.1 AND SECTION R807.3.2.

R801.7 FOOTINGS.
REFER TO THE IRC FOR INFORMATION REGARDING FOOTINGS.

R801.8 DECK POSTS.
FOR SINGLE-LAYER, WOOD-FRAME DECKS WITH BEAMS, SIZES IN ACCORDANCE WITH TABLE R807.8.1, DECK POST SIZE SHALL BE IN ACCORDANCE WITH TABLE R807.8.2.

R801.9 DECK POST TO FOOTING CONNECTION.
WHERE POSTS BEAR ON CONCRETE FOOTINGS, A LATERAL RESTRAINT WITH SECTION R807.9.1 AND FIGURE R807.9.1, A LATERAL RESTRAINT SHALL BE PROVIDED BY MANUFACTURED CONNECTORS OR A MINIMUM POST EMBEDMENT OF 1/2 INCHES (25 MM) IN SURROUNDING SOIL BE PERMITTED.

NOTE: SEE SECTION R807.9.1 FOR EXCEPTIONS.

R801.10 DECK BEAMS.
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R801.11 DECKING.
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R801.12 VERTICAL AND LATERAL SUPPORTS.
WHERE SUPPORTED BY ATTACHMENT TO AN EXTERIOR WALL, DECKS SHALL BE POSITIVELY ANCHORED TO THE PRIMARY STRUCTURE AND DESIGN FOR BOTH VERTICAL AND LATERAL LOADS. SUCH ATTACHMENT SHALL NOT BE ACHIEVED BY THE USE OF TENDONS OR WALS SUBJECT TO WITHDRAWAL. FOR DECKS WITH CANTILEVERED FRAMING MEMBERS, CONNECTIONS TO EXTERIOR WALLS OR OTHER FRAMING MEMBERS SHALL BE DESIGNED AND CONSTRUCTED TO RESIST UP-LIFT RESULTING FROM THE CANTILEVERED PORTION OF THE DECK WHERE POSITIVE CONNECTION TO THE PRIMARY BUILDING STRUCTURE CANNOT BE VERIFIED DURING INSPECTION. DECKS SHALL BE SELF-SUPPORTING.

R801.13 DECK POST TO DECK FOOTING.
POSTS SHALL BEAR ON FOOTINGS IN ACCORDANCE WITH SECTION R807.9.1 AND FIGURE R807.9.1. POSTS SHALL BE RESISTANT TO PULL-OUT AND SHALL BE FASTENED TO THE FOOTING WITH ANCHORS. SUCH LATERAL RESTRAINT SHALL BE PROVIDED BY MANUFACTURED CONNECTORS OR A MINIMUM POST EMBEDMENT OF 1/2 INCHES (25 MM) IN SURROUNDING SOIL ON CONCRETE PILES.

CHAPTER 8 :: WALL CONSTRUCTION

SECTION R801 GENERAL.

R801.1 APPLICATION.
THE PROVISIONS OF THIS CHAPTER SHALL COVER THE DESIGN AND CONSTRUCTION OF WALLS AND PARTITIONS FOR BUILDINGS.

R801.2 REQUIREMENTS.
WALL CONSTRUCTION SHALL BE CAPABLE OF ACCOMMODATING ALL LOADS EMPLOYED IN ACCORDANCE WITH SECTION R801.2.1. THE PROVISIONS OF THIS SECTION SHALL BE IN ACCORDANCE WITH SECTION R801.2.2.

R801.3 MATERIALS.
MATERIALS USED FOR THE CONSTRUCTION OF WALLS SHALL COMPLY WITH THE SECTION.

R801.4 ENGINEERED WOOD PRODUCTS.
ENGINEERED WOOD PRODUCTS SHALL BE IN ACCORDANCE WITH SECTION R801.2.

R801.5 PLASTIC COMPOSITE DECK BOARDS, STAIR TREADS, GUARDS, OR HANDRAILS.
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R801.6 FASTENERS AND CONNECTORS.
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CHAPTER 8 :: WALL CONSTRUCTION

SECTION R801 GENERAL.

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R801.3 MATERIALS.
MATERIALS USED FOR THE CONSTRUCTION OF WALLS SHALL COMPLY WITH THE SECTION.

R801.4 ENGINEERED WOOD PRODUCTS.
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CHAPTER 8 :: WALL CONSTRUCTION

SECTION R801 GENERAL.

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THE PROVISIONS OF THIS CHAPTER SHALL COVER THE DESIGN AND CONSTRUCTION OF WALLS AND PARTITIONS FOR BUILDINGS.

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R801.7 FOOTINGS.
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SECTION R809 EXTERIOR WINDOWS AND DOORS.

R809.1 GENERAL.
THIS SECTION PRESCRIBES PERFORMANCE AND CONSTRUCTION REQUIREMENTS FOR EXTERIOR WINDOWS AND DOORS INSTALLED IN WALLS. WINDOWS AND DOORS SHALL BE INSTALLED AND LABELED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. WINDOWS AND DOORS OPENINGS SHALL BE LABELED IN ACCORDANCE WITH SECTION R809.1. A WRITTEN INSTALLATION INSTRUCTIONS SHALL BE PROVIDED FOR THE FRAMESTATION MANUFACTURER FOR EACH WINDOW OR DOOR.

R809.2 PERFORMANCE.
EXTERIOR WINDOWS AND DOORS SHALL BE CAPABLE OF RESISTING THE DESIGN WIND LOADS SPECIFIED IN TABLE R809.2.1. WINDOWS AND DOORS SHALL BE LABELED IN ACCORDANCE WITH TABLE R809.2.1 OR AS DETERMINED BY THE MANUFACTURER'S WRITTEN INSTRUCTIONS. WINDOWS AND DOORS SHALL BE LABELED IN ACCORDANCE WITH TABLE R809.2.1 OR AS DETERMINED BY THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

R809.3 MATERIALS.
MATERIALS USED FOR THE CONSTRUCTION OF EXTERIOR WINDOWS AND DOORS SHALL COMPLY WITH THE SECTION.

R809.4 FASTENERS AND CONNECTORS.
METAL FASTENERS AND CONNECTORS USED FOR ALL DECKS SHALL BE IN ACCORDANCE WITH SECTION 807.3.1 AND SECTION R807.3.2.

R809.5 FOOTINGS.
REFER TO THE IRC FOR INFORMATION REGARDING FOOTINGS.

R809.6 DECK POSTS.
FOR SINGLE-LAYER, WOOD-FRAME DECKS WITH BEAMS, SIZES IN ACCORDANCE WITH TABLE R807.8.1, DECK POST SIZE SHALL BE IN ACCORDANCE WITH TABLE R807.8.2.

R809.7 DECK POST TO FOOTING CONNECTION.
WHERE POSTS BEAR ON CONCRETE FOOTINGS, A LATERAL RESTRAINT WITH SECTION R807.9.1 AND FIGURE R807.9.1, A LATERAL RESTRAINT SHALL BE PROVIDED BY MANUFACTURED CONNECTORS OR A MINIMUM POST EMBEDMENT OF 1/2 INCHES (25 MM) IN SURROUNDING SOIL BE PERMITTED.

NOTE: SEE SECTION R807.9.1 FOR EXCEPTIONS.

R809.8 DECK BEAMS.
MAXIMUM ALLOWABLE SPAN FOR WOOD DECK BEAMS, AS SHOWN IN FIGURE R807.10.1, SHALL BE IN ACCORDANCE WITH TABLE R807.10.1. BEAMS SHALL BE FASTENED WITH TWO ROWS OF 1/2 INCH (12.7 MM) DIAMETER NAILS OR 1/4 INCH (6.35 MM) DIAMETER NAILS ON CENTER ALONG EACH EDGE. BEAMS SHALL BE FASTENED TO CANTILEVER AT EACH END TO ONE-FOURTH OF THE ALLOWABLE BEAM SPAN. DECK BEAMS OF OTHER MATERIALS SHALL BE PERMITTED WHERE DESIGNED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES.

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R809.10 VERTICAL AND LATERAL SUPPORTS.
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R809.11 DECK POST TO DECK FOOTING.
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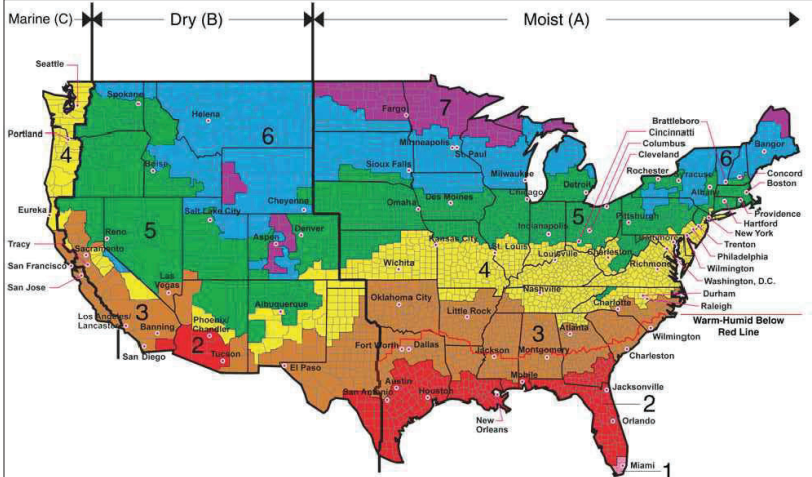
CHAPTER 8 :: INTERIOR COVERING

R801.1 GENERAL.
INTERIOR COVERINGS OR WALL FINISHES SHALL BE INSTALLED IN ACCORDANCE WITH THE CHAPTER AND TABLE R801.1.1, TABLE R801.1.2, TABLE R801.1.3 AND TABLE R801.1.4. INTERIOR COVERINGS SHALL BE LABELED IN ACCORDANCE WITH SECTION R801.1.1 FOR SUPPORT AND SECTION R801.1.2 FOR FLAME RESISTANCE AND SMOKE DEVELOPMENT REQUIREMENTS OF SECTION R801.1.3.

SECTION R807 EXTERIOR COVERING

R807.1 GENERAL.
EXTERIOR WALLS SHALL PROVIDE THE COVERING WITH A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE FLASHINGS AS DESCRIBED IN SECTION R807.2.

R807.2 WATER-RESISTIVE BARRIER.
A WATER-RESISTIVE BARRIER SHALL BE APPLIED TO THE EXTERIOR WALLS. THE BARRIER



All of Alaska in Zone 7 except for the following Boroughs in Zone 8: Bethel, Dillingham, Fairbanks, N. Star, Nome North Slope, Northwest Arctic, Southeast Fairbanks, Wade Hampton, and Yukon-Koyukuk

Zone 1 includes: Hawaii, Guam, Puerto Rico, and the Virgin Islands

TABLE N1102.1.2 (R402.1.2)
INSULATION AND PENETRATION REQUIREMENTS BY COMPONENTS

CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC, %	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB R-VALUE	CRACK SPACE R-VALUE
1	NR	0.75	0.25	30	13	3/4	13	0	0	0
2	0.40	0.65	0.25	38	13	4/8	13	0	0	0
3	0.32	0.55	0.25	38	20 or 13 + 5b	8/13	19	5/13f	0	5/13
4 except Marine	0.32	0.55	0.40	49	20 or 13 + 5b	8/13	19	10/13	10, 2 ft	10/13
5 and Marine 4	0.30	0.55	NR	49	20 or 13 + 5b	13/17	30g	15/19	10, 2 ft	15/19
6	0.30	0.55	NR	49	20 + 5 or 13 + 10b	15/20	30g	15/19	10, 4 ft	15/19
7 and 8	0.30	0.55	NR	49	20 + 5 or 13 + 10b	19/21	36g	15/19	10, 4 ft	15/19

For 3/4" Ice - 304.8 mm.

a. R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed R-value of the insulation shall not be less than the R-value specified in the table.

b. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.

Exception: Skylights may be excluded from glazed fenestration SHGC requirements in Climate Zones 1 through 3 where the SHGC for such skylights does not exceed 0.30.

c. "15/19" means R-15 continuous insulation on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the home. "10/13" means R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.

d. R-5 shall be added to the required slab edge R-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Zones 1 through 3 for heated slabs.

e. There are no SHGC requirements in the Marine Zone.

f. Basement wall insulation is not required in warm-humid locations as defined by Figure N1101.10 and Table N1101.10.

g. Or insulation sufficient to fill the framing cavity, R-19 minimum.

h. The first value is cavity insulation, the second value is continuous insulation, so "13-5" means R-13 cavity insulation plus R-5 continuous insulation.

i. The second R-value applies when more than half the insulation is on the interior of the mass wall.

TABLE N1102.1.4 (R402.1.4)
EQUIVALENT U-FACTORS^a

CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	CEILING U-FACTOR	FRAME WALL U-FACTOR	MASS WALL U-FACTOR	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR	CRACK SPACE U-FACTOR
1	0.50	0.75	0.035	0.084	0.197	0.064	0.360	0.477
2	0.40	0.65	0.030	0.084	0.165	0.064	0.360	0.477
3	0.35	0.55	0.030	0.060	0.098	0.047	0.091c	0.136
4 except Marine	0.35	0.55	0.026	0.060	0.098	0.047	0.059	0.065
5 and Marine 4	0.32	0.55	0.026	0.060	0.082	0.033	0.050	0.055
6	0.32	0.55	0.026	0.045	0.060	0.033	0.050	0.055
7 and 8	0.32	0.55	0.026	0.045	0.057	0.028	0.050	0.055

a. Nonfenestration U-factors shall be obtained from measurement, calculation or an approved source.

b. When more than half the insulation is on the interior, the mass wall U-factors shall be a maximum of 0.17 in Zone 1, 0.14 in Zone 2, 0.12 in Zone 3, 0.087 in Zone 4 except Marine, 0.065 in Zone 5 and Marine 4, and 0.057 in Zones 6 through 8.

c. Basement wall U-factor of 0.360 in warm-humid locations as defined by Figure N1101.10 (R301.1) and Table N1101.10 (R301.1).

TABLE N1102.4.1.1 (R402.4.1.1)
AIR BARRIER AND INSULATION INSTALLATION (a)

COMPONENT	AIR BARRIER CRITERIA	INSULATION INSTALLATION CRITERIA
General requirements	A continuous air barrier shall be installed in the building envelope. The exterior thermal envelope contains a continuous air barrier. Breaks or joints in the air barrier shall be sealed.	Air-permeable insulation shall not be used as a sealing material.
Ceiling/attic	If an air barrier is in any dropped ceiling or soffit shall be aligned with the insulation and any gaps in the air barrier sealed. Access openings, drop-down stairs or knee wall doors to unconditioned attic spaces shall be sealed.	The insulation in any dropped ceiling/soffit shall be aligned with the air barrier.
Walls	The junction of the foundation and sill plate shall be sealed. The junction of the top plate and the top of exterior walls shall be sealed. Knee wall shall be sealed.	Cavities within corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance of not less than 15.3 per inch. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and in continuous alignment with the air barrier.
Windows, skylights and doors	The space between framing and skylights, and framing the joints of windows and doors, shall be sealed.	
Rim joists	Rim joists shall include the air barrier.	Rim joists shall be insulated.
Floors (including above garage and cantilevered floors) and floors above garages	The air barrier shall be installed at any exposed edge of insulation.	Floor framing cavity insulation shall be installed to maintain permanent contact with the underside of subfloor decking. Alternatively floor framing cavity insulation shall be in contact with the top side of sheathing, or continuous insulation installed on the underside of floor framing, and extending from the bottom to the top of all perimeter floor framing members.
Crawl space walls	Exposed earth in unventilated crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.	Instead of floor insulation, crawl space insulation shall be provided. Insulation shall be permanently attached to the walls.
Shafts, penetrations	DUCT shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.	
Narrow cavities		Balls to be installed in narrow cavities shall be cut to fit, or narrow cavities shall be filled with insulation that on installation readily conforms to the available cavity space.
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.	
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed to the finished surface.	Recessed light fixtures installed in the building thermal envelope shall be air tight and IC rated.
Plumbing and wiring		If exterior walls, ball insulation shall be cut neatly to fit around wiring and plumbing or insulation that on installation, readily conforms to available space, shall extend behind piping and wiring.
Shower/tub on exterior wall	The air barrier installed at exterior walls adjacent to showers and tubs shall separate the wall from the shower or tub.	Exterior walls adjacent to showers and tubs shall be insulated.
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical and communication boxes. Alternatively, air-sealed boxes shall be installed.	
HVAC register boots	HVAC register boots that penetrate building thermal envelope shall be sealed to the subfloor or drywall. Where required for fire safety, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.	
Concealed sprinklers		

(a) Inspection of log walls shall be in accordance with the provisions of ICC 400.

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Energy Efficient and Conservation

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