PLANNING COMMISSION
STAFF REPORT

August 31, 2020

TO: Chairwoman Bailey
Planning Commission Members
Anna Krstulic, Zoning Counsel

FROM: Kim Young, City Clerk and Abbie Aldridge, Assistant City Clerk

APPLICANT: Bryce and Libby Gilman, property owners

The legal description for the lot(s) is: 6132 DELMAR STREET, MISSION HIGHLANDS LOT 349
FAC-06143

15-235 – Site Plan Review

- Adds to or replaces a portion of the structure on more than fifty percent (50%) of existing
building footprints;
- Any application, regardless of the size or impact of the project, that requests and exception to
the Site Design Standards in Section 15-297.

Applicant is submitting a request for an addition/remodel to add approximately 945-square feet of new
footprint to the existing footprint of 1200 square feet and exception to the greenspace requirement. The
new footprint includes a garage, mudroom and master bedroom. The existing second story will be
expanded by almost 900-square feet. They appeared before the PC on June 27, 2020 and the matter was
continued to get additional information from the engineer regarding the watershed analysis and allow
applicant to consider comments from the Commissioners.

The watershed analysis states that the impervious area will increase 1,000 square feet. To mitigate the
impact to the adjacent property the west and north side gutters will underground into a French drain system
directing the runoff towards Delmar Street. The pop-up is currently shown in the Right-of-Way and will be
moved to the property line. Brian Hill, PE, provided an additional statement explaining the analysis and
the French drain capacity.

Since the last meeting, staff has received two emails regarding the project. The adjacent neighbor to the
North at 6128 Delmar has provided a statement of support to the proposed project. A neighbor further
North at 6118 has provided a statement of concern regarding the French drain.

The applicant made some small changes resulting in reduction of hardscape by 70.59 square feet.
Required greenspace for the lot is 4680 square feet. As proposed the lot will have 4365.59 square feet – or
just under 4% short of requirement.

STAFF RECOMMENDATION:

The project meets the code with the exception of the greenspace.

Should the Planning Commission approve the site plan and exception request, the approval should include
the following conditions:
1. Three (3) complete sets of plans, and one electronic set (pdf), are submitted for plan review and approval.
2. Building permit must be obtained and fees paid, as required by City code.
3. That the project complies with all City ordinances and the 2012 International Residential Code.
4. Application and approval is void if a building permit is not obtained within one year from the date of Planning Commission approval.
5. Engineer’s report that the structure can support the second floor addition.
Kim --

To follow up our conversation on Friday regarding the Gilman Property improvements:

- The City code asks to evaluate the existing and proposed drainage and determine if there is an impact on adjacent property owners. The provided drainage study addressed City code requirements.

- There is a very minimal increase in peak runoff from the improvements. Currently runoff from the Gilman property drains onto the neighbor’s driveway to the north, then down the neighbor’s driveway to the street.

- The drainage study recommends a French drain system along the north side of the Gilman residence. The benefits of this system are:
  - Significantly reduces the surface runoff to the neighbor's driveway to the north.
  - The system will have a perforated pipe in a clean gravel trench the entire length of the house. The system is nearly 70’ in length, 3’ wide, and 1-8’ deep. Water can release through the perforated pipe into the clean gravel. The clean gravel provides a 40% void ratio and provides 140 cubic feet (1047 gallons) of storage of water. Underground storage is being provided and will slow water runoff from the property.
  - The end of the system will have a 90 degree bend up and a bubble up for water release. This is not the same as having a pipe or a pipe end section releasing on the ground. The 90 degree and bubble up will slow down the water release and aid in storing water in the French drain system.
  - The bubble up could be pulled back from the curb into the yard. End treatments can be evaluated for the bubble up to ensure erosion and rutting does not occur. This could be established grass, landscaping, decorative rocks, etc.

- The study documents existing impervious area that is being removed from the site (large back patio and double lane driveway). This offsets much of the new improvement impervious area.

- Overall the drainage study meets City code requirements and provides the storage component the City has inquired about after the study submittal.

Please let me know if you have any questions.

Thanks,

Brian Hill, PE
Senior Project Manager, Principal

MKEC ENGINEERING SUCCESS
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1127 W. 112th St., Ste. 200 • Overland Park, KS 66210
bhill@mkec.com • www.mkec.com
Facebook • Twitter • LinkedIn

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07/20/2020

City of Fairway, KS
5240 Belinder Road
Fairway, KS 66205

RE: Watershed Study
6132 Delmar, Fairway, KS

To Whom It May Concern:

A home addition and driveway improvements are proposed for an existing residential lot located at 6132 Delmar. The property is Lot 349 within the Mission Highlands plat. A watershed analysis has been performed to determine drainage patterns for the proposed project and evaluate impact to adjacent properties. This letter will address the City requirements for the R-1 activity defined as a building addition replacing a portion of the principal buildings on more than fifty percent of the existing principal building footprint.

The watershed analysis has analyzed and will outline:
1. Baseline watershed level as property exists
2. Watershed level with proposed changes including new construction, hardscapes, and specific changes to grade
3. Impact on immediate surrounding properties
4. Determination that the new construction will not adversely impact adjoining or downstream property

1.0 Existing Drainage Conditions
Under existing conditions, the 0.09-acres of offsite drainage area and 0.18-acres of onsite area drains from southwest to northeast as it sheet flows through the existing property. Runoff sheet flows to the neighboring drive to the north and then east to Delmar Street. The curve number of the existing property is 88.7 to reflect the existing impervious areas. The existing impervious areas include the existing house footprint, driveway, patio, and shed. Table 1 outlines the drainage calculations performed for existing watershed conditions. See Attachment A in regards to existing drainage patterns and impervious areas included in drainage calculations.

Table 1. Existing Drainage Conditions

<table>
<thead>
<tr>
<th>Area (acres)</th>
<th>Tc (min)</th>
<th>CN</th>
<th>2-Yr (cfs)</th>
<th>10-Yr (cfs)</th>
<th>100-Yr (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offsite Drainage Area</td>
<td>0.09</td>
<td>5.0</td>
<td>88.0</td>
<td>0.35</td>
<td>0.57</td>
</tr>
<tr>
<td>Existing Property</td>
<td>0.18</td>
<td>5.0</td>
<td>88.7</td>
<td>0.72</td>
<td>1.15</td>
</tr>
<tr>
<td>Existing Flows from Site</td>
<td>1.07</td>
<td></td>
<td></td>
<td>1.72</td>
<td>2.65</td>
</tr>
</tbody>
</table>

2.0 Proposed Drainage Conditions
Under proposed conditions, the same drainage area will continue to flow from the southwest to northeast. The proposed impervious areas include the proposed house footprint, driveway, garage, courtyard, and shed. This results in an increased impervious area of 1.000 sf. The curve number of the proposed property improvements is 90.3 to reflect the proposed increase of impervious area.
Table 2 outlines the drainage calculations performed for proposed improvements conditions. The peak runoff from the property is a negligible increase when compared to existing condition flow rates.

<table>
<thead>
<tr>
<th></th>
<th>Area (acres)</th>
<th>Tc (min)</th>
<th>CN</th>
<th>2-Yr (cfs)</th>
<th>10-Yr (cfs)</th>
<th>100-Yr (cfs)</th>
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</thead>
<tbody>
<tr>
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<td>0.09</td>
<td>5.0</td>
<td>88.0</td>
<td>0.35</td>
<td>0.57</td>
<td>0.88</td>
</tr>
<tr>
<td>Proposed Property</td>
<td>0.18</td>
<td>5.0</td>
<td>90.3</td>
<td>0.75</td>
<td>1.19</td>
<td>1.80</td>
</tr>
<tr>
<td>Proposed Flows from Site</td>
<td></td>
<td></td>
<td></td>
<td>1.10</td>
<td>1.75</td>
<td>2.68</td>
</tr>
</tbody>
</table>

In order to mitigate any impacts to the adjacent property to the north, gutter located on the west and north sides of the house will be connected to underground piping and to a French drain system on the north side of the house. The proposed gutter and French drain system will control stormwater from reaching the neighboring property and will reroute the flows to Delmar Street, as it does in existing conditions. The proposed system improves existing drainage patterns and will provide storage capacity in the rock trench. The system will bubble up and drain over grass surface east of the houses. See Attachment B in regards to proposed drainage patterns and impervious areas included in drainage calculations.

3.0 / 4.0 Impact to downstream properties

The proposed drainage system will control the flows from the site and will reroute the area to discharge from the site to Delmar Street through a proposed bubble-up structure. The proposed gutter and French drain system will decrease the impact to downstream properties by bypassing what was, under existing conditions, sheet flowing onto the neighboring downstream property. The French drain system includes a perforated underdrain surrounded by clean washed gravel. The gravel will provide storage capacity in the rock voids. This additional storage will decrease the impact to adjacent properties by controlling flows from the site. The bubble up structure will be placed east of the existing house at the location of the removed driveway. Due to the removal of the existing drive, grades at this location will allow the flows from the watershed area to be rerouted to Delmar Street. These improvements, along with the peak flow rates from the site remaining similar to existing conditions, will improve existing drainage conditions.

Sincerely,

MKEC ENGINEERING, INC.

Brian Hill, PE
Attachment “B” - Proposed Drainage Plan
### Calculations

<table>
<thead>
<tr>
<th></th>
<th>Total Square Feet Window</th>
<th>Total Square Feet Wall</th>
<th>Percentage Window/Door</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>East Elevation</strong></td>
<td>154.00</td>
<td>578.02</td>
<td>26.64%</td>
</tr>
<tr>
<td><strong>South Elevation</strong></td>
<td>127.78</td>
<td>728.94</td>
<td>16.73%</td>
</tr>
<tr>
<td><strong>West Elevation - House/MB</strong></td>
<td>43.11</td>
<td>533.92</td>
<td>19.12%</td>
</tr>
<tr>
<td><strong>West Elevation - House</strong></td>
<td>54.81</td>
<td>254.83</td>
<td>21.73%</td>
</tr>
<tr>
<td><strong>South Elevation - Bonus Room/MdRM</strong></td>
<td>30.5</td>
<td>242.72</td>
<td>12.46%</td>
</tr>
<tr>
<td><strong>West Elevation - Garage</strong></td>
<td>50.00</td>
<td>271.03</td>
<td>18.50%</td>
</tr>
<tr>
<td><strong>North Elevation - Garage/MdRM</strong></td>
<td>301.8</td>
<td>653.88</td>
<td>46.24%</td>
</tr>
<tr>
<td><strong>North Elevation - House</strong></td>
<td>100.32</td>
<td>548.9</td>
<td>18.46%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>House Footprint</strong></th>
<th><strong>Total Square Feet</strong></th>
<th><strong>Percentage Window</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>House</td>
<td>1675.45</td>
<td>32.00%</td>
</tr>
<tr>
<td>Garage</td>
<td>208.32</td>
<td>30.46%</td>
</tr>
<tr>
<td>Total</td>
<td>1943.77</td>
<td>31.46%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Lot and Building Footprint</strong></th>
<th><strong>Total</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot Size</td>
<td>7800</td>
</tr>
<tr>
<td>Driveway - Concrete</td>
<td>674.64</td>
</tr>
<tr>
<td>Driveway - Permeable Pavers</td>
<td>449</td>
</tr>
<tr>
<td>Sidewalk - Stepping Stones</td>
<td>58.5</td>
</tr>
<tr>
<td>Hunt Wall less than 4' depth</td>
<td>51.5</td>
</tr>
<tr>
<td>House Footprint</td>
<td>2133.77</td>
</tr>
<tr>
<td>Percentage Green space (Gross,Perm,Drvy,Crdy,Swd+Idk)</td>
<td>63.22%</td>
</tr>
</tbody>
</table>

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**House Footprint**

- 1st Floor: 1675.45
- 2nd Floor: 1617.74
- Garage: 518.32
- Total: 3811.51

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*Not an architect*

**May 27, 2020**

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**Bryce and Libby Gilman**
6132 Delmar St, Fairway KS
913-484-1451

**KC Renovations**
1309 W 23rd St, Independence, MO 64052
Ph: 913-449-5900
E: orders@kcrl.us
Timberline roofing
New Hardieboard siding and trim to replicate existing Tudor elements
Eyebrow roof extended to existing porch
Simulated shake siding
1x8 Smart trim frieze

East Elevation
scale: 1/8"=1'-0"

Hardie panel siding and trim
Timberline roofing

1x8 Smart trim frieze
Simulated shake siding

South Elevation
scale: 1/8"=1'-0"

Hardie panel siding and trim

Simulated shake siding

South Elevation - Garage/Mudroom
scale: 1/8"=1'-0"

1x8 Smart trim frieze

Elevations - East/South

*Not an architect*
Bryce and Libby Gilman
6132 Delmar St, Fairway KS