



City of Boulder Planning & Development Services

CITY OF BOULDER

LAND USE REVIEW RESULTS AND COMMENTS

DATE OF COMMENTS: **February 26, 2020**
CASE MANAGER: **Sloane Walbert**
PROJECT NAME: **WATERVIEW**
LOCATION: **5801 ARAPAHOE RD**
REVIEW TYPE: **Use Review**
REVIEW NUMBER: **LUR2019-00022**
APPLICANT: **BILL HOLICKY, COBURN PARTNERS**
DESCRIPTION: **Request for Use Review approval of the following uses within the development:**

- **Residential uses within the IG zone district;**
- **Professional, technical, or other offices in Buildings 1 and 2 in the RH-4 zone district;**
- **Convenience retail sales in Buildings 1 and 2 in the RH-4 zone district; and**
- **Restaurant, brewpub, or tavern within the RH-4 zone district with 60 indoor and 50 outdoor seats.**

Refer to LUR2019-00021 for companion Site Review.

I. REVIEW FINDINGS

Additional information and revisions to the plan documents are required as indicated below. Revised plans must be submitted, or an extension granted by 4/26/2020 for this application to remain active. Please contact staff with any questions or concerns. Refer to 'Next Steps' below for more information.

II. CITY REQUIREMENTS

The section below addresses issues that must be resolved prior to project approval.

Floodplain

Christin Shepherd, 303-441-3425

Please see all comments associated with LUR2019-00021.

Plan Documents

Sloane Walbert, 303-441-4231

1. An approved Use Review constitutes an operating agreement between a business operator and the city as to how the business will be conducted, based upon the written statement and other application materials. Any expansions or modifications to the approved use would require another Use Review to evaluate the proposed changes. Thus, the written statement cannot state TBD. Please provide the days and hours of operation, number of employees, etc. while providing necessary flexibility to accommodate future changes.

2. Revise the written statement to include the residential use in an industrial zone and to address the requirements of Section 9-6-4(f), B.R.C. 1981. Additionally, submit the following items are required for use review applications for residential development in industrial zoning districts:
 - (A) Environmental Assessment: A report that addresses each of the items required by the American Society for Testing and Materials Standards (ASTM) E-1527 and E-1528. The report shall be current and with a completion date within five years of the date of application. This documentation is necessary for staff to evaluate the criteria concerning environmental suitability in Section 9-6-4(f).
 - (B) Contiguity Map: A map that demonstrates that the proposed residential development meets the contiguity requirements of Paragraph (g)(2) of this section.
3. As previously requested, additional detail is necessary for the proposed commercial and office uses in the RH-4 zone district. Please revise the request and plans based on the use categories in Table 6-1, B.R.C. 1981 and corresponding definitions in Section 9-16-1. For example, the application requests "office uses." However, there are several types of office uses in the use table, which have different operational characteristics. Are medical or dental offices anticipated?
4. Please revise the narrative on the construction and environmental noise report to specifically address the requirements of Section 9-6-4(f)(9), B.R.C. 1981 and site review criterion (2)(F)(vii). A sample noise report is attached to these comments for your reference. Note, the applicant will be required to provide written certification prior to the issuance of a certificate of occupancy that the sound abatement and attenuation measures in the approved plan were incorporated in the construction and site design as recommended by a professional engineer.
5. Please submit a management plan for the proposed restaurant/brewpub/tavern use based on the standards of Section 9-2-4, "Good Neighbor Meetings and Management Plans," B.R.C. 1981.

Wetland

Please see all comments associated with LUR2019-00021.

Christin Shepherd, 303-441-3425

Zoning

Open Space: The applicant has not demonstrated how the proposed open space will be organized and programmed to meet the requirement for a common continuous area. Refer to staff's comments on the site review application.

Sloane Walbert, 303-441-4231

III. INFORMATIONAL COMMENTS

1. **Drainage**, Luke McKay, (303) 817-5302, mckayl@bouldercolorado.gov
 - The applicant's drainage plans must maintain historic drainage patterns on the property
 - Some of the proposed drainage structures appear to be located on the portion of the property encumbered with a city Trail Easement (Rec. No. 01309207) and Scenic Easement (Rec. No. 00492737). Both easements prohibit the construction of structures and improvements. As such, the drainage plans will either need to remove these proposed structures or the applicant will have to submit a request to amend the easements
2. **Landscaping**, Luke McKay, (303) 817-5302, mckayl@bouldercolorado.gov
 - Wetland seed mix consists of invasive, problematic species (reed canarygrass, Garrison foxtail, and climax timothy) and needs to be replaced in its entirety with native, noninvasive species
 - OSMP has worked hard and invested significant resources into protecting the native genotype of switchgrass in the South Boulder Creek corridor. Please remove switchgrass from all seed lists
 - As a condition of approval, OSMP requests that Scotch thistle, musk thistle and other State listed noxious weeds be removed and controlled on the property
 - As a condition of approval, OSMP requests that all Russian olives, Siberian elms and crack willow be removed from the property

3. **Legal Documents**, Julia Chase, 303-441-3052

The Applicant will be required to sign a Development Agreement, if approved. When staff requests, the Applicant shall provide the following:

- a. an updated title commitment current within 30 days; and
- b. any additional documentation pertaining to signature authority, as may be necessary.

4. **Next Steps**, Sloane Walbert, 303-441-4231

Revisions to the plan documents are required. Please address the comments herein and resubmit **five (5) hard copies** (only one (1) copy of the drainage report) and **one (1) digital copy** of the revised plans to the front counter of the at the Planning and Development Services Center. The application deadlines for the review track system can be found at <https://bouldercolorado.gov/plan-develop>. Staff is happy to meet with you to discuss these comments in detail at your convenience.

5. **Review Process**, Sloane Walbert, 303-441-4231

Pursuant to the "Use Standards" found in section 9-6-1, B.R.C. 1981, a Use Review is required for the following proposed uses:

- o Residential uses within the IG zone district;
- o Professional, technical, or other offices in Buildings 1 and 2 in the RH-4 zone district;
- o Convenience retail sales in Buildings 1 and 2 in the RH-4 zone district; and
- o Restaurant, brewpub, or tavern within the RH-4 zone district with 60 indoor and 50 outdoor seats.

The purpose of a Use Review is to determine if a particular use and its potential impacts are appropriate for a proposed location (refer to Section 9-2-15(a), B.R.C. 1981). Use Review is typically a staff level decision with a 14-day Planning Board call-up period. However, staff has the discretion to refer all development review applications directly to the Planning Board for review. Given the companion Site Review request, staff will be referring the Use Review application to Planning Board for a public hearing and decision.

Use Review approvals are valid for three years, after which they expire if they have not been implemented. In addition, any Use Review use that is discontinued for at least one year or replaced by another use expires. Use Review approvals are specific to the description of the use and the operating characteristics that the applicant details in the written statement. Any future change in these characteristics will require a new Use Review application.

The applicant should note that a Declaration of Use is required for residential uses in industrial zones. Before receiving a building permit, all owners shall sign a declaration of use, including all the conditions for continued use, to be recorded in the office of the Boulder County Clerk and Recorder to serve as actual and constructive notice to potential tenants of the owner's property status as a residential use within an industrial zoning district classification. The applicant should note the city is considering changes to the Land Use Table to align the use standards with the BVCP policies and explore more compatible and updated land uses. This may impact whether a Use Review is necessary for the proposed convenience retail sales

6. **Scenic Easement & Trail Easement**, Luke McKay, 303-817-5302, mckayl@bouldercolorado.gov

- As noted on the applicant's ALTA survey, the city's Trail Easement (Rec. No. 01309207) does not align with the city's trail. As a condition of approval, the city will require the legal description of the Trail Easement to be corrected so that it overlays the trail. Since the Scenic Easement (Rec. No. 00492737) covers a portion of the trail, and both easements have similar purposes, one option would be to amend both the Trail Easement and the Scenic Easement and combine them under a single easement agreement. If amended, OSMP may require additional protections and restrictions to the Scenic Easement in accordance with its Conservation Easement Amendment Policy
- During its 2019 monitoring visit, OSMP noticed that there was trash, debris and other materials on both the property and in South Boulder Creek. Section 3 of the Scenic Easement prohibits the dumping of "soil, trash, ashes, garbage, chemicals, or any unsightly or offensive material within the scenic area." As a condition of approval, OSMP requests that the property owner carefully remove any trash, debris and materials from the Scenic Easement area in order to be compliant with the terms of the Easement.

7. Transportation

Transportation comments for the use review application have been included in the project's site review comments.

8. Zoning, Sloane Walbert, 303-441-4231

The project site is zoned both Industrial General (IG) and Residential High-4 (RH-4). The IG zone district is defined as: *“General industrial areas where a wide range of light industrial uses, including research and manufacturing operations and service industrial uses are located. Residential uses and other complementary uses may be allowed in appropriate locations”*. The RH-4 zone district is defined as: *“High density residential areas primarily used for a variety of types of attached residential units, including, without limitation, apartment buildings, and where complementary uses may be allowed”*.

IV. FEES

Please note that current development review fees include a \$131 hourly rate for reviewer services following the initial city response. Please see the P&DS Questions and Answers brochure for more information about the hourly billing system.

October 11, 2016

Matthew Schildt
Maple Multi-Family Land TX, LP
2150 W 29th Avenue, Suite 400
Denver, CO 80211

Re: Noise Study for Proposed Alexan Flatirons Development

Dear Mr. Schildt,

Per your request, Hankard Environmental measured and assessed existing noise levels on the site of the proposed Alexan Flatirons community located in northeast Boulder, Colorado. Noise levels were measured at three locations on the Alexan site, as well as at two other locations in Boulder where there are existing residences located near roadways. Noise levels measured at the Alexan site were compared to those at the existing residences, as well as to U.S. Housing and Urban Development Administration noise standards.

In general, noise levels at the Alexan site are equal to or slightly lower than the levels measured at the Holiday Neighborhood adjacent to Highway 36 at Lee Hill Road, as well as those measured at Flatiron Terrace at Gateway Park along the 28th Street Frontage Road. Development of residential units at the Alexan sites is feasible from a noise standpoint, however it would be prudent to take noise into consideration in the layout and design of the buildings.

The following sections of this report describe the proposed Alexan project site and the sites where comparable noise levels were measured, noise level measurement procedures and equipment, the results of the comparison analysis, the results of the HUD standard analysis, as well as our recommendations regarding noise levels at the Alexan site and their suitability for residential land use.

DESCRIPTION OF PROJECT AND NOISE MEASUREMENT LOCATIONS

Alexan Flatirons is a proposed development consisting of a mix of commercial and residential land uses. The residences consist of multiple three-story units, and there are outdoor uses including a pool and community gardens. As shown in Figure 1, the Alexan site is located in northeast Boulder between the Diagonal Highway (Highway 119) and Foothills Parkway (Highway 157). Other noise sources in the area include the Burlington Northern Santa Fe (BNSF) railroad that runs along the southeast side of the site, and the Boulder Municipal Airport that is located to the east. As shown in Figure 2, noise levels were measured at three locations on the Alexan site. Locations were chosen to provide a spatial representation of noise at the site. Measurement location M1 is in the approximate location of the proposed pool. Measurement locations M2 and M3 are located approximately at the facades of proposed residential buildings closest to the highways.

Noise levels were also measured at two locations in Boulder where there are existing residential communities located similar distances to roadways with high traffic volumes. As shown in Figure 3, measurement location M4 is located along Highway 36 near Lee Hill Road. The microphone was placed in line with the facade of the townhomes of the Holiday neighborhood. As shown in Figure 4, measurement location M5 is located on the 28th Street Frontage Road north of Aurora Avenue on a first floor patio of the Flatirons Terrace senior living building.

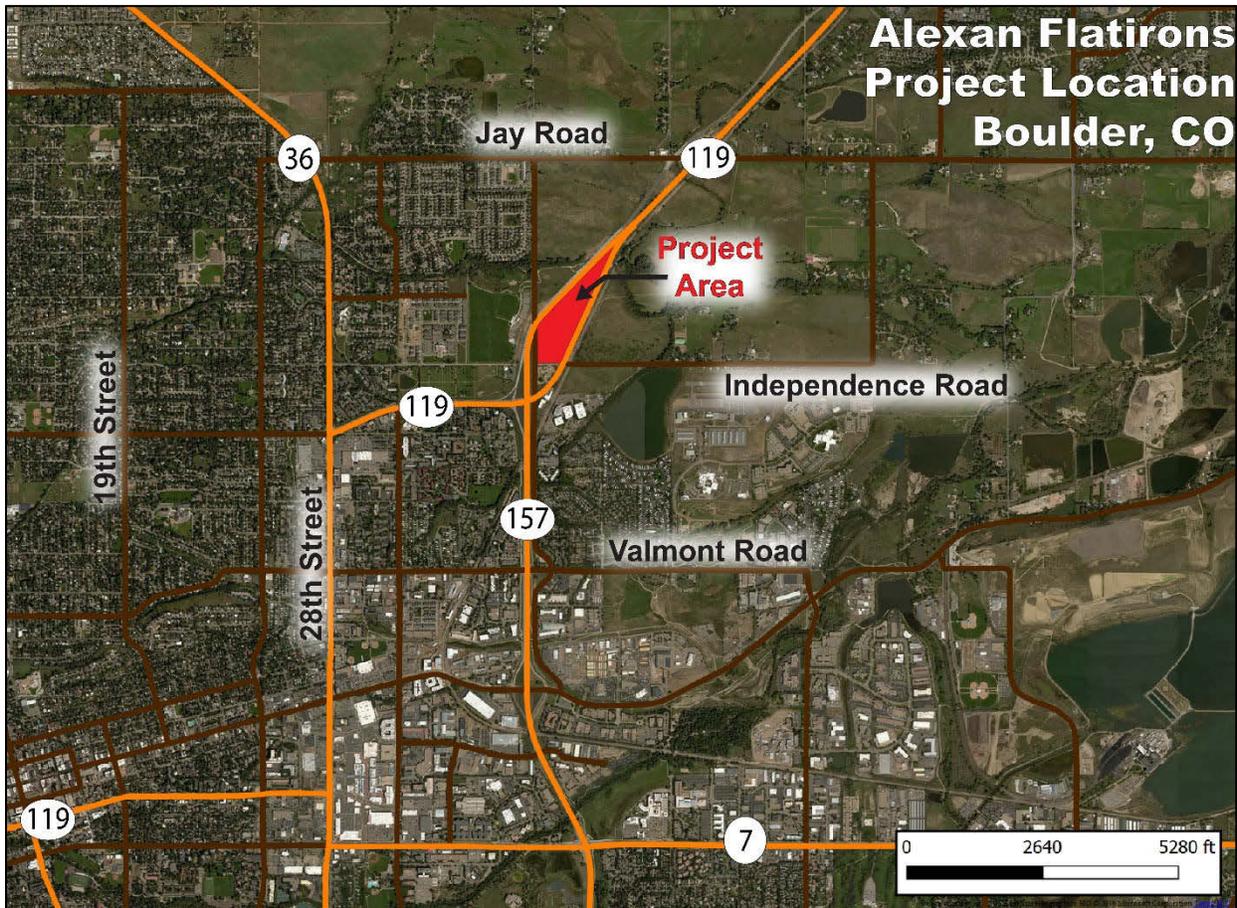


FIGURE 1 – PROJECT LOCATION

NOISE LEVEL MEASUREMENT EQUIPMENT AND PROCEDURES

Noise levels were measured on the Alexan site from July 21 through July 28, 2016 (M1 – M3). Noise levels were measured at M4 from July 28 to August 5, and at M5 from August 1 to 5, 2016. Larson Davis LXT sound level meters were placed at M1, M2, M4, and M5, and a Larson Davis 820 was placed at M3. All meters meet the Type 1 specifications of the American National Standards Institute (ANSI). The equipment was field-calibrated using a Larson Davis Model 200 Acoustic Calibrator. A calibration laboratory qualified all of the equipment within the previous 12 months using references traceable to the National Institute of Standards and Technology. The

meters were left at each site and configured to continuously measure and record 1-minute L_{eq} levels. Noise was measured in terms of the overall A-weighted level, one-third octave band levels, and statistical levels. The 1-minute averages were used to calculate 10-minute L_{eq} 's (which show the long-term level as well as train and aircraft impacts) and 1-hour L_{eq} levels (which show long-term noise levels and are also used to compare to U.S. federal standards).



FIGURE 2 – MEASUREMENT LOCATIONS M1 - M3

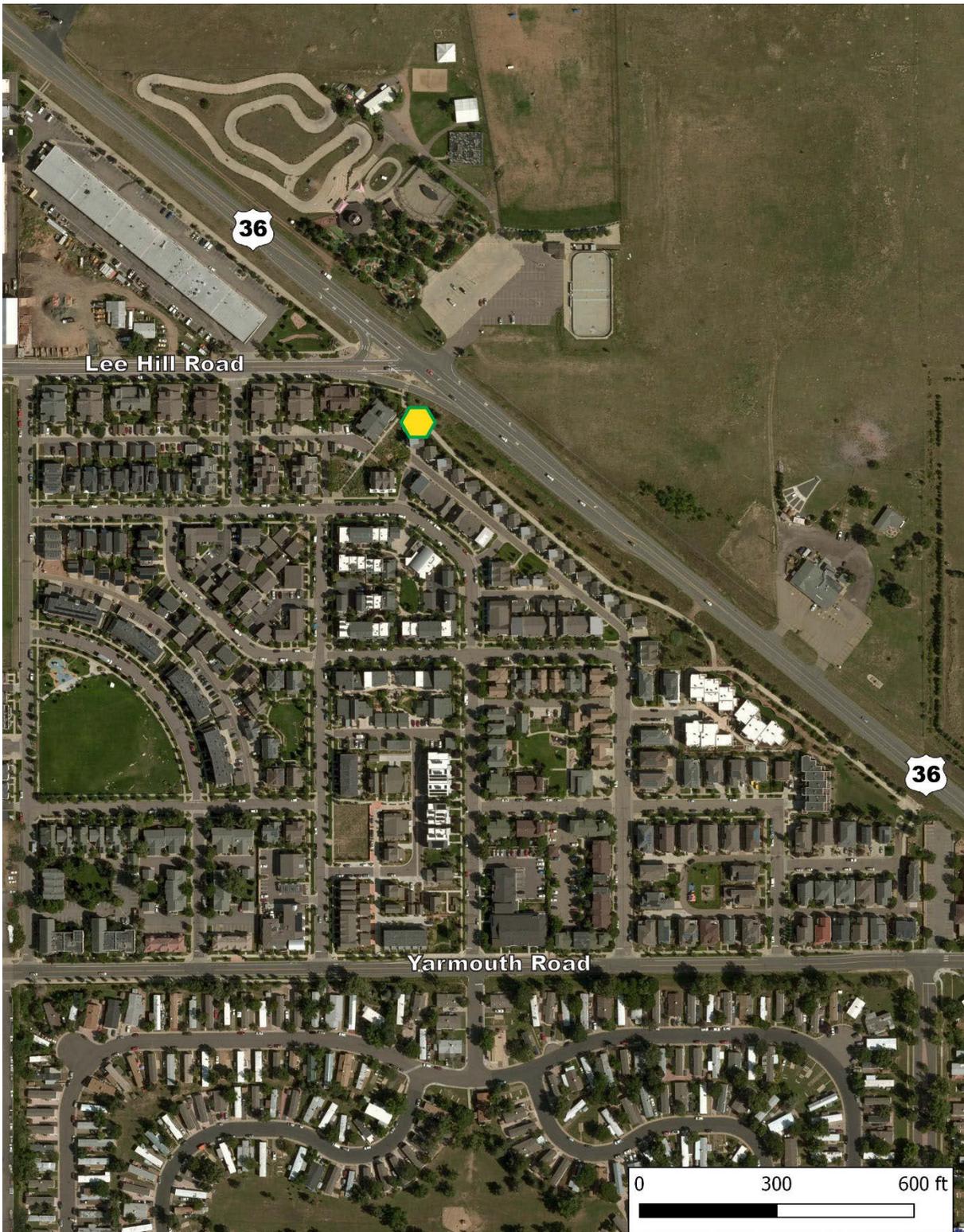


FIGURE 3 – MEASUREMENT LOCATION M4

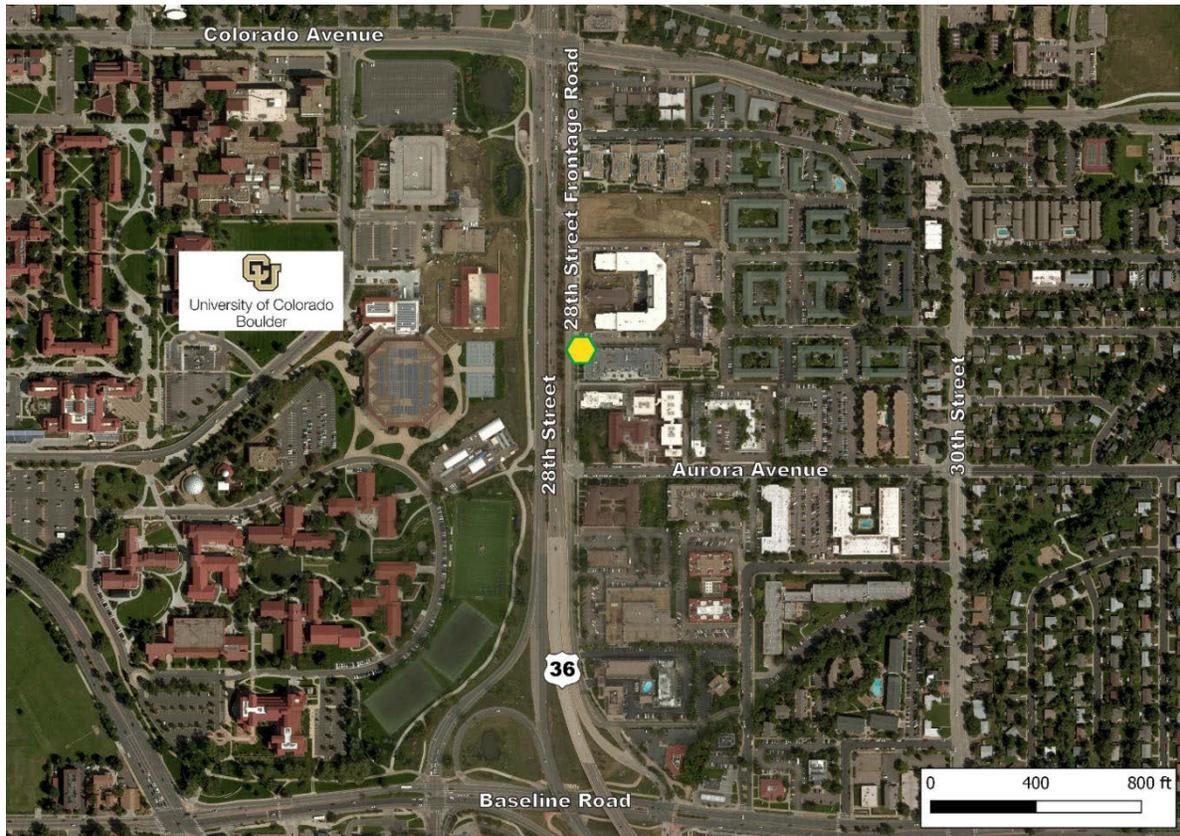


FIGURE 4 – MEASUREMENT LOCATION M5

NOISE MEASUREMENT AND ANALYSIS RESULTS

Attached to this report are “noise level versus time” plots showing the 10-minute and one-hour L_{eq} noise levels measured at each of the five sites studied. The 10-minute plots show the effect of traffic, train, and aircraft noise at the Alexan site. Train noise is most prominent at M3, as expected given this location’s proximity to the Independence Road railroad crossing where warning devices are sounded. Train noise is also evident, to a lesser degree, at M1 and M2. At M4 and M5 there are no trains evident in the plots. The one-hour plots are more indicative of overall noise levels, that from all sources, and the typical traffic noise day-night pattern is evident. The influence of trains can be seen in the one-hour levels as well, but to a lesser degree.

The average daytime and nighttime L_{eq} for each location was calculated from these one-hour averages, with nighttime defined as 10:00 pm to 7:00 am. These results are shown in Table 1, below. In general, the measured noise levels from the proposed Alexan site are slightly lower than those at either of the two comparison sites.

The day-night noise level (L_{dn}) was also calculated, which is a 24-hour average with a 10 dB nighttime ‘penalty’ added to the levels measured during the nighttime (10:00 pm to 7:00 am). These results are also shown in Table 1. L_{dn} levels are also slightly lower for the Alexan site than

at the other two comparison sites. Noise levels at M1 on the Alexan site meet the 65 dBA L_{dn} standard recognized by the U.S. Housing and Urban Development Administration. Noise levels at M2 and M3 on the Alexan site are 1 to 2 dBA above the 65 dBA standard. These levels fall into HUD’s “Normally Unacceptable” category for residential land use. Therefore, some form of noise mitigation should be considered.

Table 1: Summary of Measured Noise Levels at the Proposed Alexan and Comparable Sites			
Location	Daytime $L_{eq}(1-hr)$ (dBA)	Nighttime $L_{eq}(1-hr)$ (dBA)	L_{dn} (dBA)
M1 - Alexan North Site	59	57	64
M2 - Alexan Middle Site	63	60	67
M3 - Alexan South Site	62	58	66
M4 - Holiday Neighborhood (US 36)	64	60	67
M5 - Flatirons Terrace (28 th St)	63	60	67

CONCLUSIONS

1. In general, the measured noise levels at the Alexan site are equal to or slightly lower than the levels measured at the Holiday neighborhood near US 36 and Lee Hill Road and the Flatiron Terrace at Gateway Park adjacent to the 28th Street frontage road.
2. Development of residential units at the Alexan sites is feasible from a noise standpoint, but it would be prudent to take noise into consideration in the layout and design of the buildings. In order to minimize levels between units, between buildings and from either on-site or off-site external sources, special considerations should be given to the design of spacing, landscaping and building materials.

In general, the layout, balconies, living rooms, bedrooms, building penetrations, etc. should be orientated away from the highways and railroad to the degree possible. Outdoor use areas, such as pools, should be shielded from direct view of noise sources using berms, walls, or other structures.

The interior noise levels should be analyzed during final design to ensure the correct specification of building materials, windows, vent silencers, etc. are being employed to achieve a reasonable interior noise levels for each type of interior space.

3. Day-night noise levels (L_{dn}) on the Alexan site range from 64 to 67 dBA, some of which exceed the 65 dBA standard used by U.S HUD. This can be addressed at the Alexan site using the noise mitigation strategies previously described such as berms and walls.
4. Noise from trains is present at the Alexan site, particularly for those areas closer to the Independence Road at-grade crossing. Refer to the January 2014 memorandum from SHE to the City of Boulder for more information about train noise levels and mitigation opportunities.

Thank you for commissioning Hankard Environmental to conduct this analysis. Please call if you have any questions.

Sincerely,



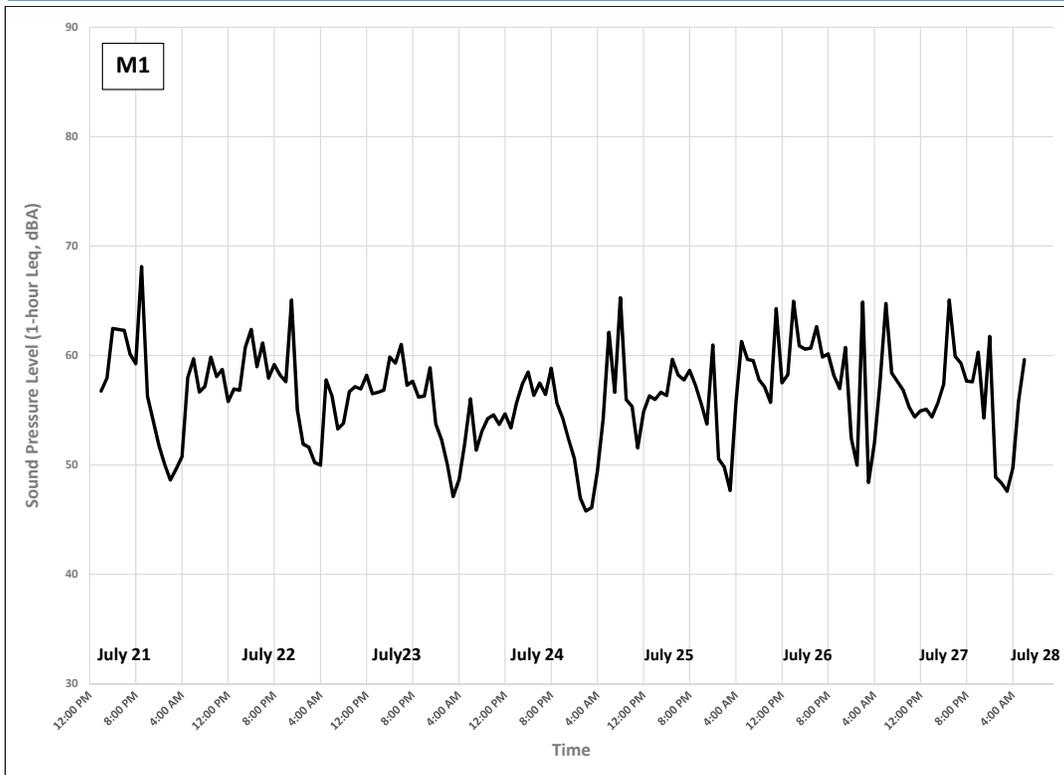
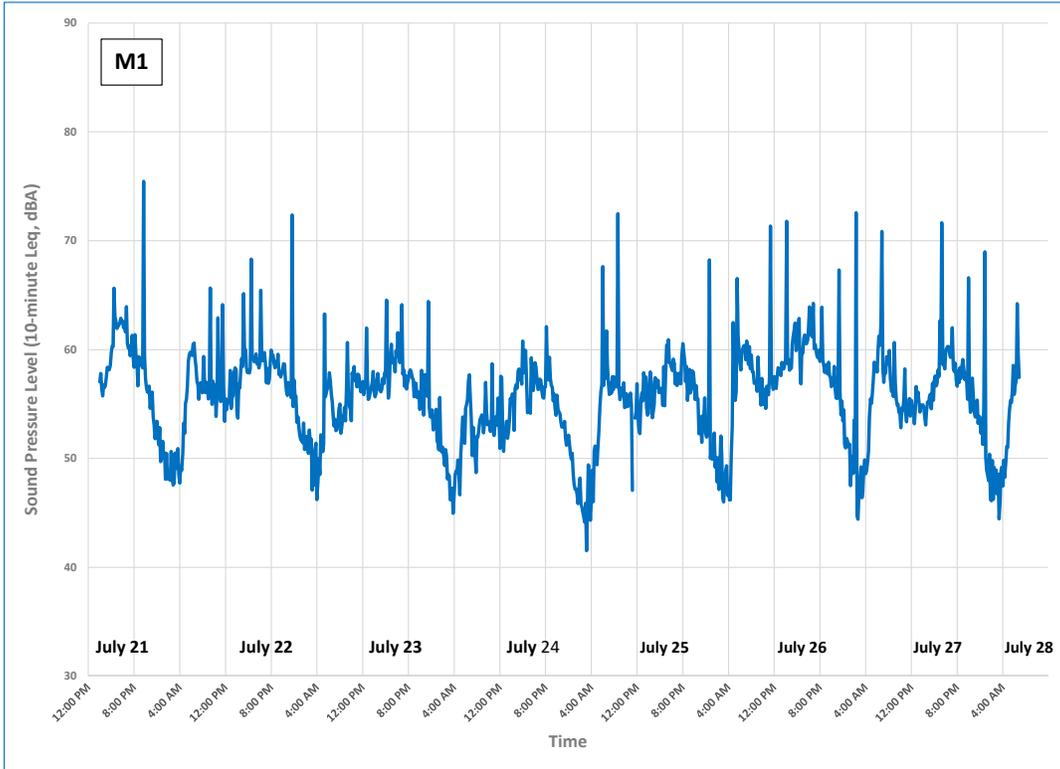
Jeff M. Cerjan
Senior Acoustical Consultant
Member Institute of Noise Control Engineering

Cc: Michael Hankard, Hankard Environmental
Shelley Morton, Hankard Environmental

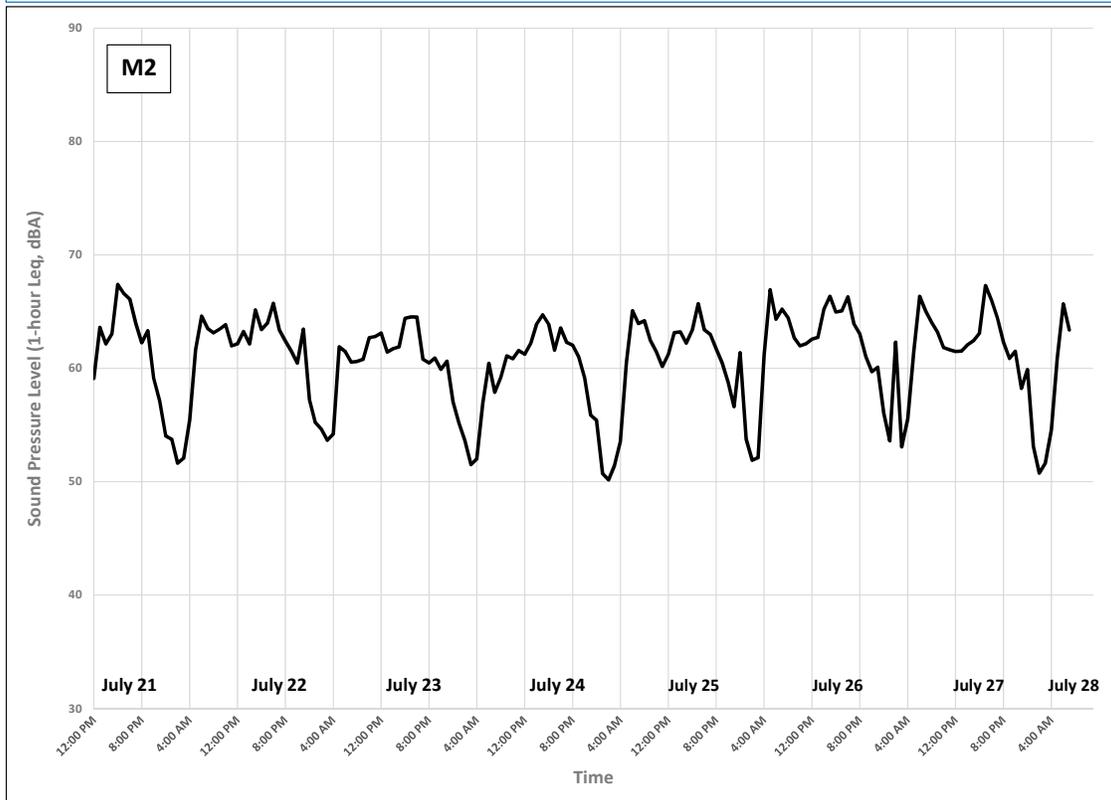
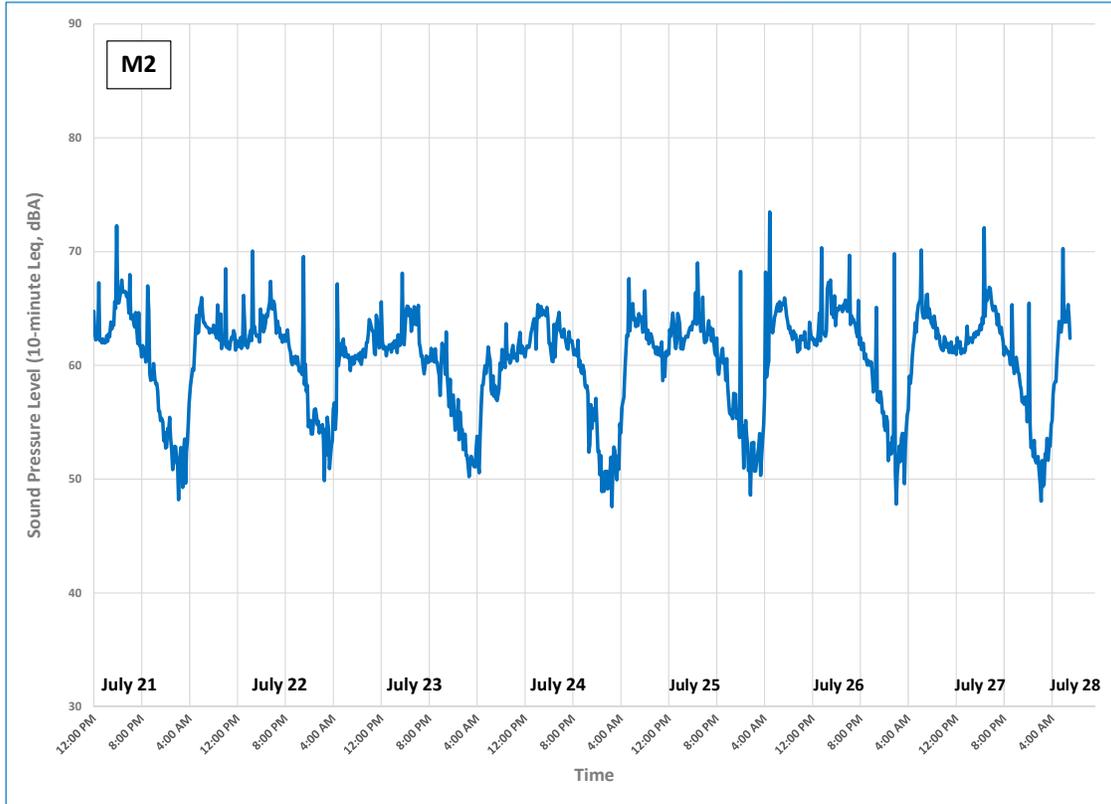
Attachments: Noise Level Plots

Measurement Location 1

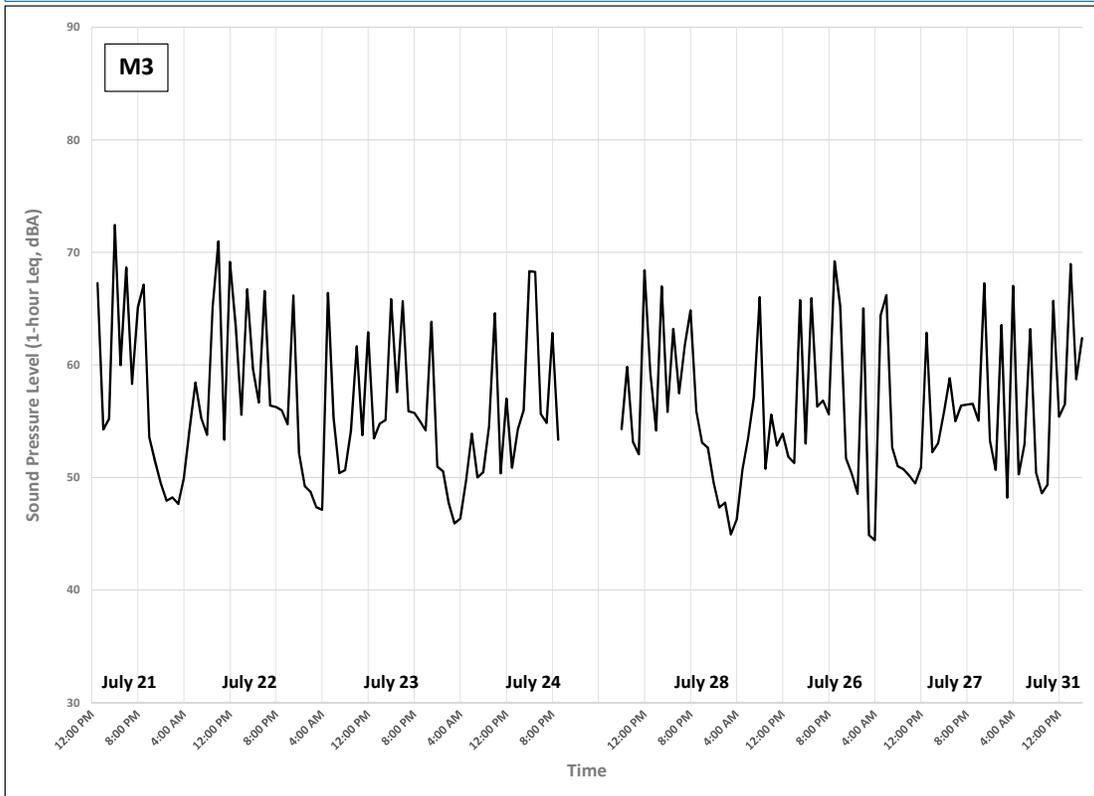
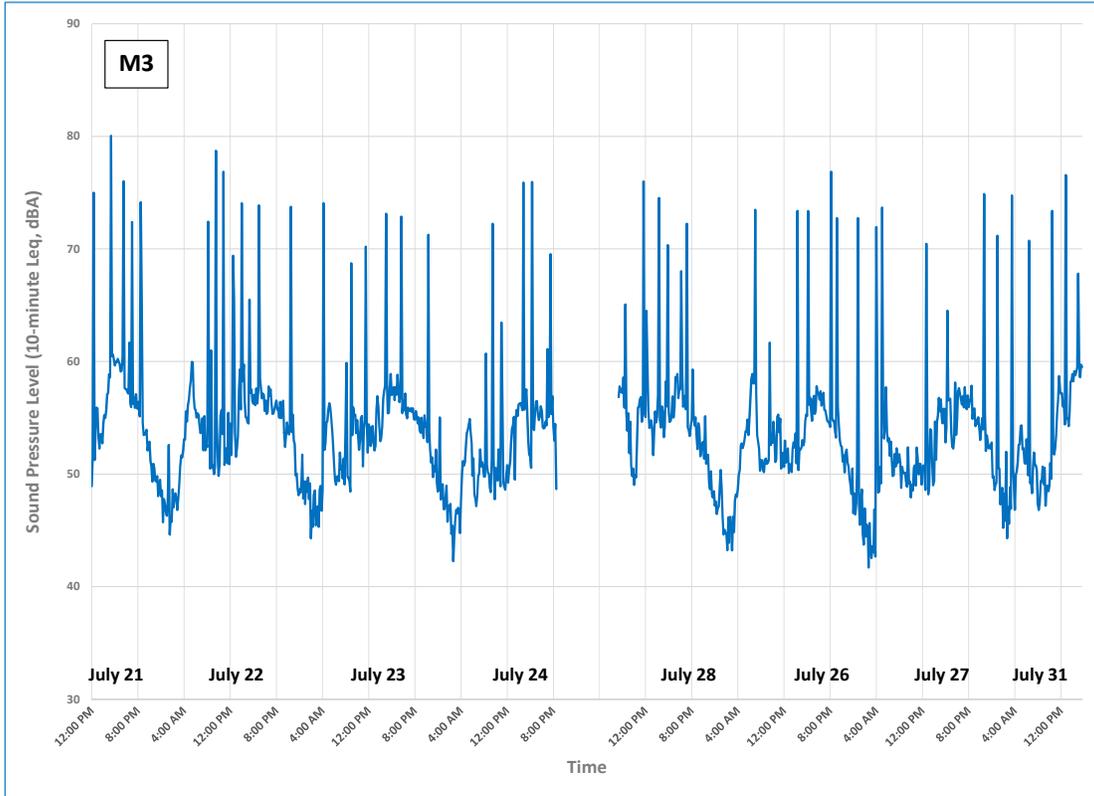
10 minute and 1 hour L_{eq} Averages



Measurement Location 2 10 minute and 1 hour L_{eq} Averages

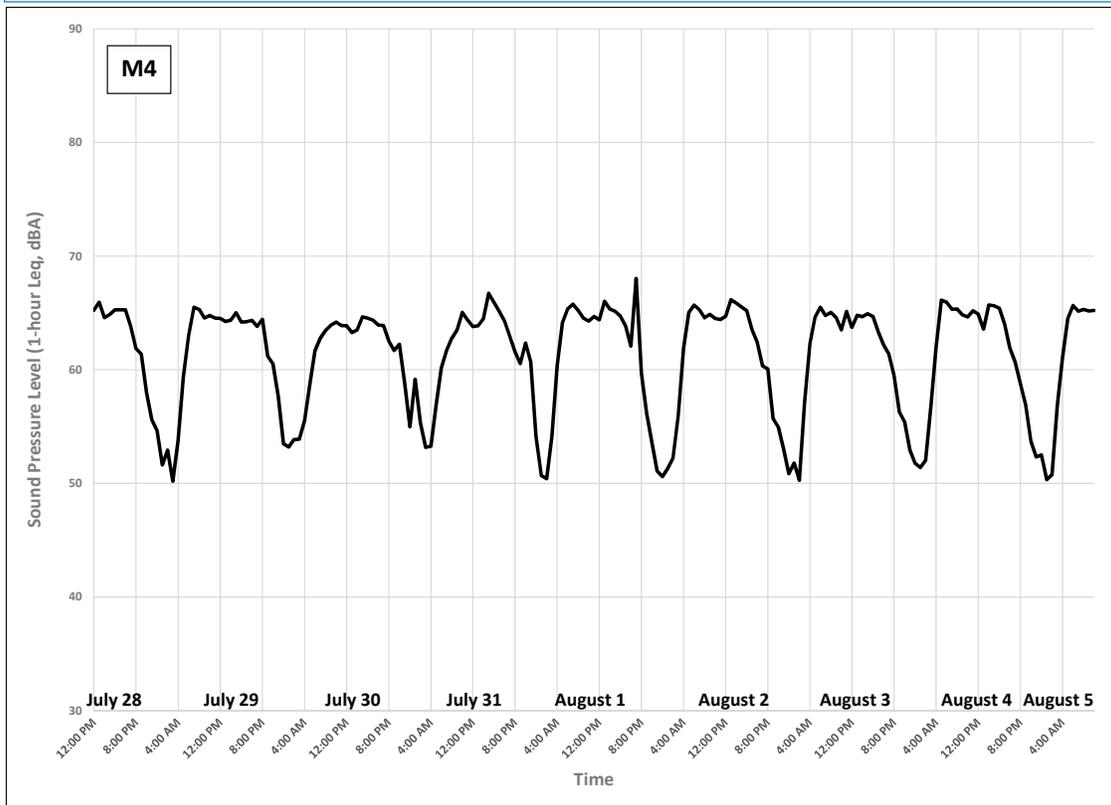
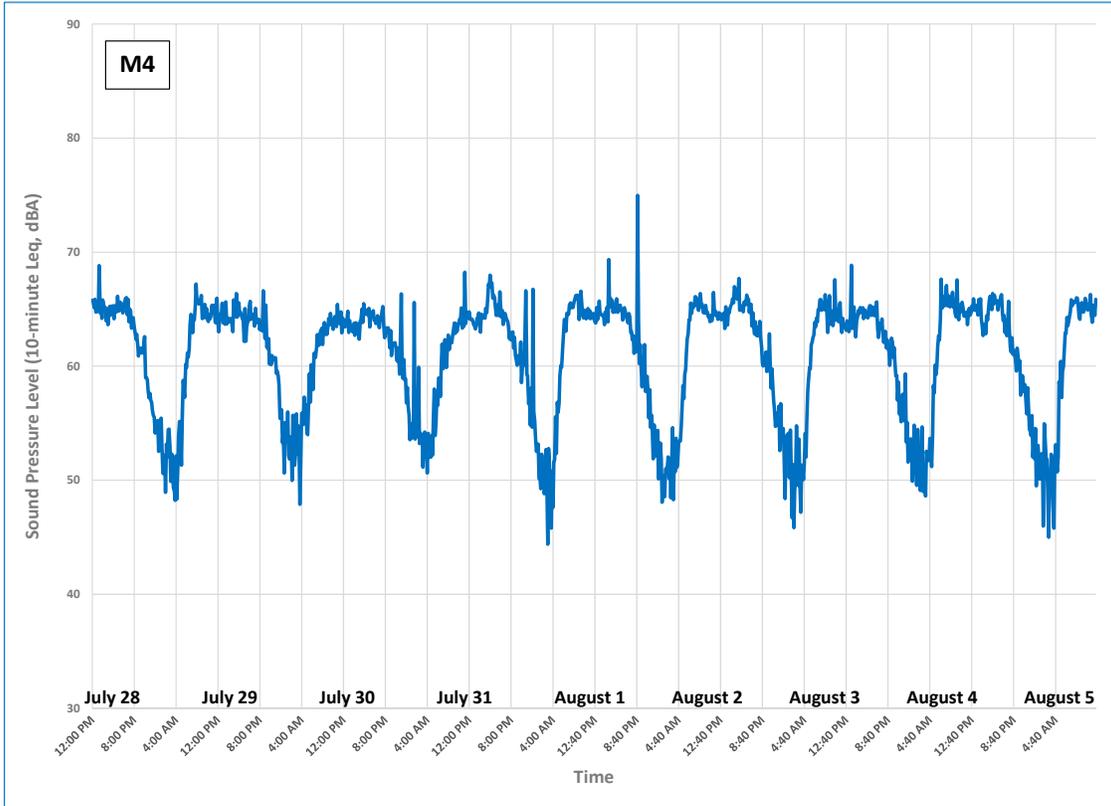


Measurement Location 3 10 minute and 1 hour L_{eq} Averages

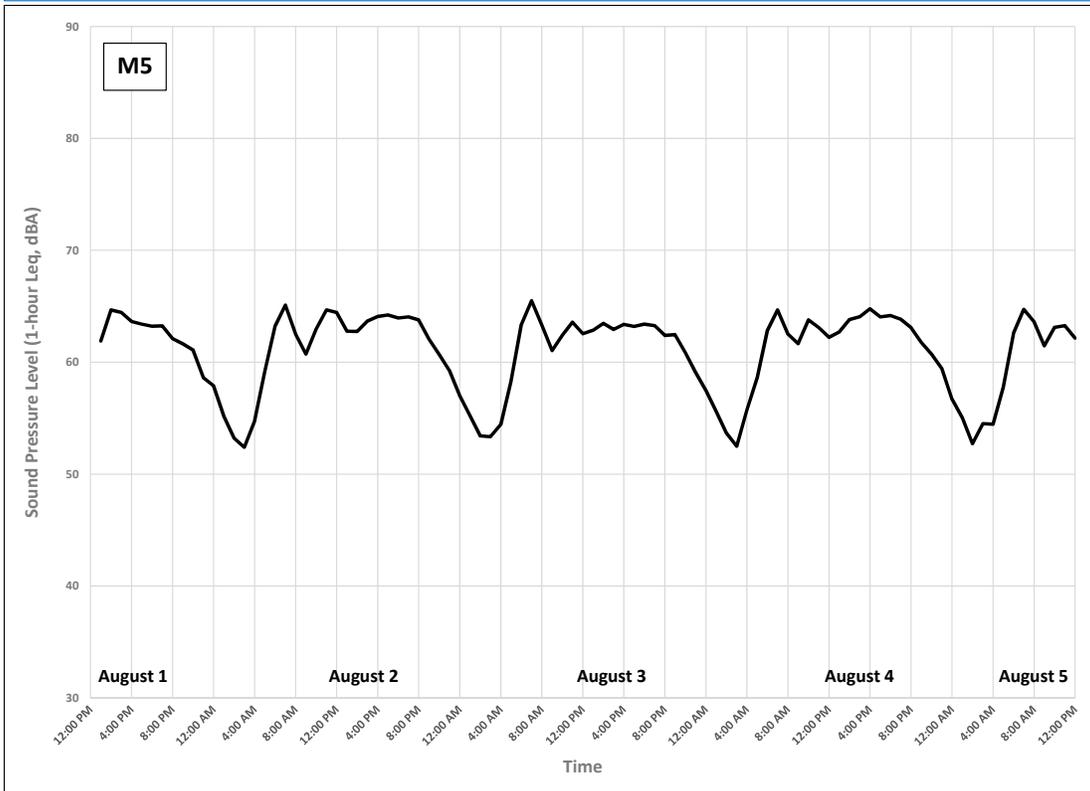
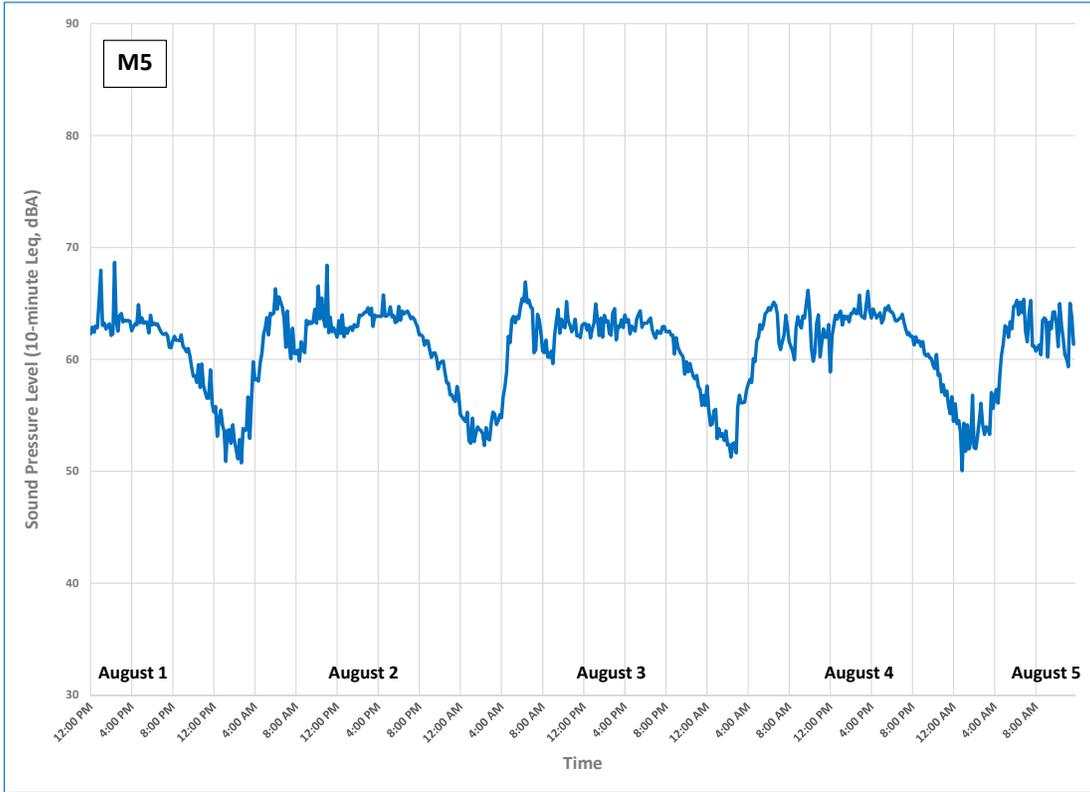


Measurement Location 4

10 minute and 1 hour L_{eq} Averages



Measurement Location 5 10 minute and 1 hour L_{eq} Averages



December 2, 2016

Matthew Schildt
Maple Multi-Family Land TX, LP
2150 W 29th Avenue, Suite 400
Denver, CO 80211

Re: Noise Study for Proposed Alexan Flatirons Development – Supplemental Response

Dear Mr. Schildt,

The City of Boulder responded to our *Noise Study for Proposed Alexan Flatirons Development*, Hankard Environmental, October 11, 2016 with a comment requesting additional information regarding noise mitigation. The City provided the following comment (in bold):

3. Section 9-2-14(h)(2)(F)(viii),B.R.C. 1981 requires that, “*For residential projects, noise is minimized between units, between buildings and from either on-site or off-site external sources through spacing, landscaping and building materials.*” **The submitted noise study indicates that residential uses on the site will be impacted greater than recommended federal standards and that some form of noise mitigation should be considered. Staff finds that additional information and mitigation efforts would be necessary to determine compliance with the above mentioned section. The mitigation solutions should also be reviewed by the acoustic consultant and analyzed as to whether it would be acceptable or not.**

The noise levels measured on portions of the Alexan site exceed the U.S. Housing and Urban Development Administration’s (HUD) category of “Normally Acceptable” for residential land use by 1 or 2 dB, and if left unmitigated fall into the category of “Normally Unacceptable”. Therefore, some form of noise mitigation should be included in the design of the project.

HUD’s primary intent with regard to noise impact is to achieve an interior noise level of 45 dBA or less for the main living areas, such as bedrooms and living rooms. This will be achieved assuming an exterior noise level of 65 dBA or less, and assuming typical construction methods and materials that result in an outdoor-indoor noise level reduction of 20 dBA. Given that existing noise levels reach as high as 67 dBA on portions of the Alexan site, an additional 1 to 2 dB of noise reduction is needed over that provided by a standard building design.

This degree of additional noise reduction is relatively small, and quite feasible. The specific details of how to achieve this are dependent on final site layout, interior room layout, interior material types, exterior building materials, locations of vents and other building penetrations, etc. That level of detailed information is not available at this time. However, the following provides general concepts of how to achieve an additional ~2 dB of noise reduction. The noise reduction provided by an architectural element, such as a door, window, or wall, is rated in terms of Sound Transmission Class (STC). Each one point increase in STC equates, roughly, to 1 dB of additional noise reduction. In general, STC values between 15-20 are considered poor, 25-35 marginal, 35-45 good, 45-55 very good, and greater than 55 excellent.

Once an initial layout and structural design of the Alex facility is available, interior noise can be calculated given standard construction materials. If that analysis shows that additional noise reduction is needed, the following are examples of how it can be achieved:

1. A typical residential exterior wall with an STC of 40 could be increased to an STC of 56 by adding brick face or 7/8" stucco to the exterior.
2. A typical double pane window with an STC of 29 (two 1/8" glass panes with 13/16" air gap) could be increased to an STC 31 by changing one pane of glass to 3/32". A yet higher STC can be achieved by increasing the air gap between the windows, increasing the density of the window panes, or laminating at least one pane of glass.
3. A typical hollow core wood door has an STC of 20. A typical solid core door has an STC of 27. This can be improved to STC 34 by adding a typical exterior storm door.
4. A vaulted roof with ceiling has a typical STC of 39. This can be improved to 44 when increasing the thickness of the roof sheathing (i.e. plywood) from 5/8" to 1".
5. The proposed berms around the edges of the property would be effective at mitigating noise to receivers when breaking line of sight from the roadway. Though the shrubs and understory plantings on these berms will have little to no effect to the noise reduction.

These are examples showing how additional noise reduction can be achieved through proper design. The specific amount of noise reduction required for the proposed Alexan facility should be determined based on measured noise levels, the layout of the facility, and the proposed construction materials.

Thank you for commissioning Hankard Environmental to conduct this analysis. Please call if you have any questions.

Sincerely,



Jeff M. Cerjan
Senior Acoustical Consultant
Member Institute of Noise Control Engineering

Cc: Michael Hankard, Hankard Environmental