



Raylan Data Center

Noise Assessment Summary Report

PREPARED FOR
Justified DataPower, LLC.

DATE
August 2026

REFERENCE
0836880

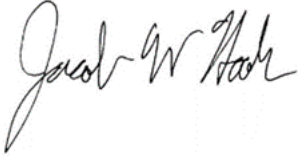


Signature page

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CLIENT: Justified DataPower, LLC.

PROJECT NO: 0836880

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1. INTRODUCTION

1.1 Scope of Report

This report presents the results of a noise assessment conducted for the Justified DataPower, LLC (Justified DataPower) Raylan Data Center Project (Project) in Hawesville, Kentucky. This report has been undertaken by Environmental Resources Management, Inc. (ERM) on behalf of Justified DataPower and includes operational noise predictions that have been carried out to understand the noise levels that would be generated from the operation of building cooling equipment and emergency generators, which will be the main noise sources associated with the Project.

1.2 Project Description

The surrounding land uses in the area around the site include the existing aluminum smelting facility that is currently being demolished, industrial uses south of the site, light residential and agricultural uses to the north and west, and a mix of residential and industrial uses across the Ohio river in Indiana.

The Project evaluated herein consists of three data center buildings, denoted Compute Building (CB) CB1, CB2, and CB3. Buildings CB1 and CB2 will be equipped with rooftop chiller units and HVAC units. Grade level transformers and emergency generators will be located at grade level. Building CB3 will contain chillers, HVACs and transformers at grade level. Only the chiller units, HVACs and transformers will be in operation during normal operating conditions. The emergency generators would undergo routine testing approximately once per month and may be operated occasionally for maintenance. The emergency generators are designed to supply electrical power when a complete loss of electrical grid power occurs at the site, which is not anticipated to be a frequent occurrence.

The nearest noise sensitive area (NSA) within Hawesville are two residences south of the site approximately 4,400 feet away from CB3. Additional NSAs in Hawesville are located west of the site along Southwire Plant Road. NSAs in Indiana are located 3,200 feet or more from any data center buildings.

The noise model receptor locations are provided in Table 1.

Table 1. Noise Model Receptor

Noise Sensitive Receiver	Approximate Distance/Direction from Nearest Data Center Building
Southwire Plant Road (Hawesville)	5,700 feet / Southwest
River Road (Hawesville)	4,400 feet / South
4 th Street (Indiana)	3,200 feet / East
Humbolt Street (Indiana)	4,200 feet / Southeast

1.3 Noise Ordinances and Guidelines

No state, county or local level noise ordinances applicable to the Project were identified. In lieu of any standards, the Project considered the noise guideline developed by the U.S. Environmental Protection Agency (USEPA).

In 1974, the U.S. Environmental Protection Agency (EPA) published its document entitled "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin on Safety" (EPA, 1974). This publication evaluated the effects of environmental noise with respect to health and safety. The U.S. EPA recommended in the document that environmental noise levels should not exceed a day-night sound level (Ldn¹) of 55 A-weighted decibels (dBA). A 55 dBA Ldn noise level equates to a continuous sound level of 48.6 dBA (i.e., a facility that does not exceed a continuous noise level of 48.6 dBA for a 24-hour period will not exceed 55 dBA Ldn). This level was developed for "outdoor residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use". The USEPA considers this level as protective of the public health and welfare from the effects of environmental noise and notes that this criterion was developed without regard to technical or economic feasibility and contains a margin of safety. The USEPA also stated that the guideline is not intended to be a standard. The Project nonetheless voluntarily opted to work toward reducing Project noise levels as close as practical to this guideline level.

¹ Ldn, or day-night average sound level, is a 24-hour A-weighted equivalent sound level with a 10-dB penalty added to sound levels occurring during nighttime hours, typically 10:00 p.m. to 7:00 a.m., to account for increased sensitivity to noise at night

2. NOISE MODELING

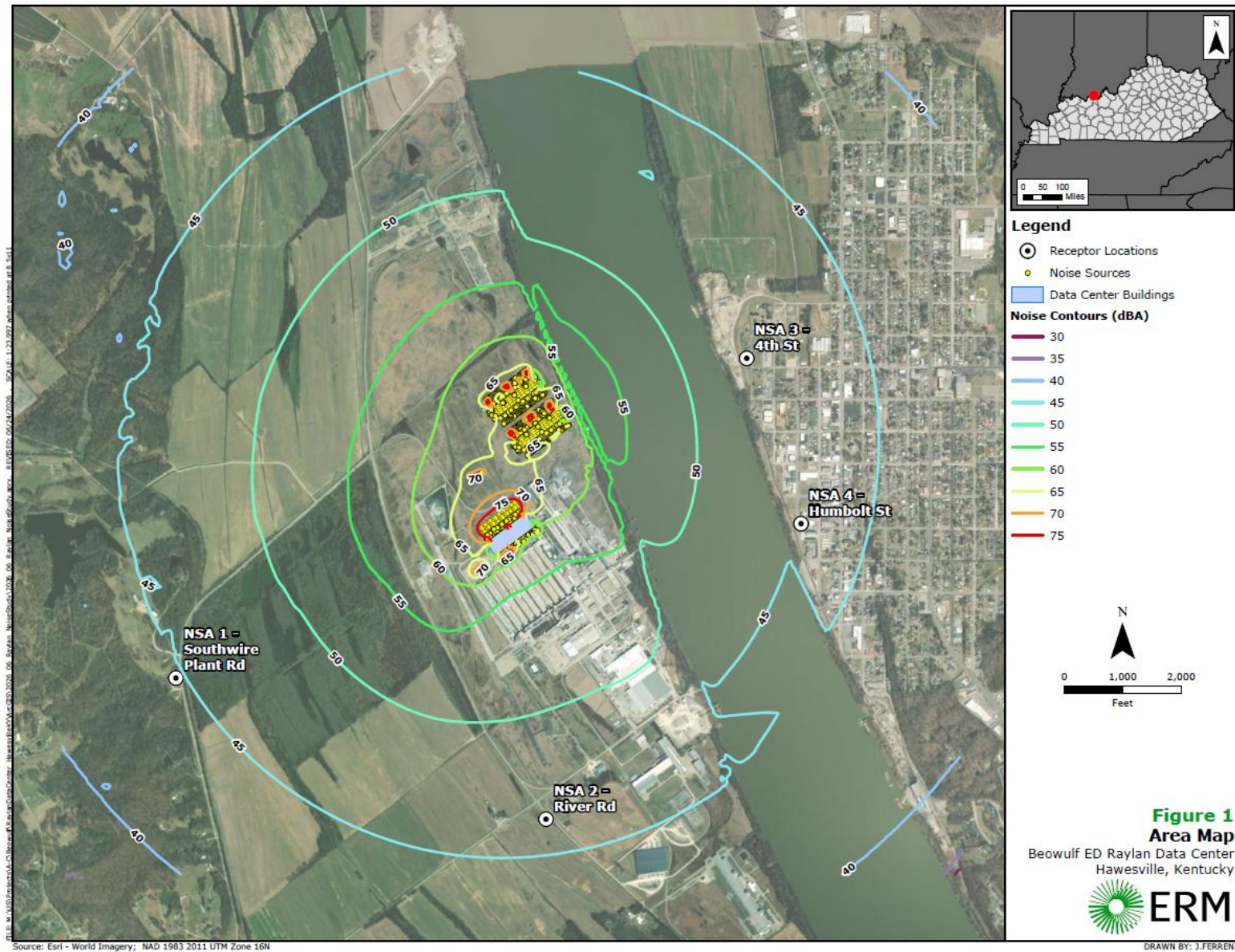
A noise modeling study of Project sources was conducted using the commercially available CadnaA model developed by DataKustik GmbH (2025). The software has the ability to account for spreading losses, ground and atmospheric effects, shielding from barriers and buildings, and reflections from surfaces. The software is standards-based and included the International Organization for Standardization (ISO) 9613 standard for air absorption and other noise propagation calculations (ISO 2024). Reflections off the Project building walls and roof were also accounted for.

Modeling was conducted to determine anticipated Project generated noise levels, with identified sources, including the emergency generators, operating at full load conditions, at each of the aforementioned NSA locations, and a noise contour map was further generated to depict modeled noise levels throughout the area. Noise model results are provided in Table 2 and Figure 1.

Table 2: Noise Model Results – Full Load Normal Operation (dBA)

Receiver	Modelled Project Noise Level
Southwire Plant Road (Hawesville)	45
River Road (Hawesville)	46
4 th Street (Indiana)	49
Humbolt Street (Indiana)	47

Figure 1. Area Map with Noise Contours



As provided in Table 2, modeled noise levels at the NSA locations are within or below the USEPA protective guideline.

In addition to evaluating Project noise levels for comparison to the USEPA guideline, an additional analysis was conducted to evaluate low frequency noise. Low frequency noise is naturally present in the environment, generated by natural sources (wind) and anthropogenic sources (vehicular traffic, mechanical equipment). The American National Standards Institute recommends that low frequency noise levels should be maintained below 70 dBC. Modeling conducted for the Project with identified sources, including the emergency generators, operating at full load conditions revealed maximum dBC noise levels of 67 dBC or less at any NSA location.

3. SUMMARY

The Project conducted a noise modeling study to evaluate expected noise levels with identified Project sources, including emergency generators, operating at full load conditions. In lieu of applicable noise standards or ordinance, the Project evaluated expected noise levels against the USEPA's protective noise guideline, developed for "outdoor residential areas, farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use"

Modeled noise levels were shown to be within the USEPA guideline at the NSA locations. Low frequency noise was also evaluated and found to be below the ANSI recommended level.