APPENDIX 5.12 BIG-1

NOISE AND VIBRATION TECHNICAL REPORT

Barstow International Gateway
Noise and Vibration
Technical Report

November 2025

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APPENDICES

Appendix A: Noise Measurement and Modeling Data

ACRONYMS AND ABBREVIATIONS

BESS	battery energy storage system
BIG	Barstow International Gateway
BNSF	BNSF Railway
dBA	A-weighted sound level
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City	City of Barstow
CNEL	community equivalent noise level
L_{dn}	day-night noise level
dB	decibel
L_{eq}	equivalent noise level
EV	Electric Vehicle
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
FRA	U.S. Federal Railroad Administration
FTA	Federal Transit Administration
HVAC	heating ventilation and air conditioning
Hz	hertz
I	Interstate
in/sec	inches per second
L_{max}	maximum noise level
µPa	micropascals
mCFph	Miles per hour
OSHA	Occupational Safety and Health Administration
PPV	peak particle velocity
RCNM	Roadway Construction Noise Model
RMS	root mean square
RTG	rubber-tired gantry cranes
SCE	Southern California Edison
SEL	sound exposure level
SF	square feet
SR	State Route
U.S. EPA	United States Environmental Protection Agency
VdB	vibration velocity level

1.0 PROJECT SUMMARY

This Report has been prepared to analyze the proposed Barstow International Gateway ("BIG") and associated offsite improvements. BIG is located in the City of Barstow ("City") and in unincorporated territory in the County of San Bernardino ("County"), California (see **Figure 1: Regional Vicinity Map** and **Figure 2: Local Vicinity Map**). BIG consists of a rail yard with an intermodal facility[1] and "block swap" facility[2], a transload warehouse center[3], and a solar farm.

Additionally, to serve the proposed rail yard and transload warehouse center, BNSF Railway Company (BNSF) proposes off-site rail improvements (including lead track extensions), and off-site non-rail improvements (including drainage, utilities, and roadways).

BIG's proposed components are depicted on **Figure 3: Barstow International Gateway Conceptual Site Plan**, **Figure 4: BIG Off-Site Improvements, West**, and off-site improvements are depicted on **Figure 5: BIG Off-Site Improvements, East.**

1.1 Project Location and Setting

BIG totals approximately 5,000 acres[4], and includes approximately 680 acres which would remain ungraded/undisturbed ("Mojave River buffer area"). BIG's Specific Plan area totals approximately 4,300 acres and is generally bounded by the Mojave River to the north, Main Street (also referred to as National Trails Highway or Route 66) to the south, Lenwood Road to the east, and Hinkley Road to the west.

Most of the BIG footprint is within unincorporated County lands, while the remainder is within Barstow City limits. The BIG footprint is generally flat and gradually slopes north to the Mojave River. Offsite improvements are generally within existing BNSF rail and City/County street rights-of-way. The BIG footprint is primarily vacant undeveloped land, which is traversed by an existing BNSF railroad, and which contains scattered residential, commercial, and industrial land uses. This area is mostly devoid of tall vegetation and trees, with structures and other elements of the built environment scattered throughout. Existing land uses within BIG's footprint are listed in **Table 1: Existing Land Uses**. There are approximately 108 dwelling units and approximately 94,000 square feet (SF) of non-residential land uses (i.e., commercial and industrial) within the BIG footprint. Additionally, a private airstrip ("Depue Airport") is within BIG's proposed solar farm footprint. Under BIG, this private airstrip would be demolished and replaced with the proposed solar farm.

[1] "Intermodal facility" refers to a rail yard where containerized goods are transferred between trains and trucks. Trucks arrive to either pick up containers from arriving trains or deliver containers for departing trains. However, unlike traditional intermodal facilities, at BIG the majority of containers would arrive by train and be transferred to and from electric hostlers.

[2] "Block Swap" refers to transferring a block of intermodal train cars between trains. In effect, the entire block of cars remains coupled together and is moved en masse to another train.

[3] "Transload" refers to the transfer of goods from one container to another. In this document, it specifically refers to the transfer of goods from 40-foot international containers to 53-foot domestic containers. The transload warehouse center at the BIG is designed to serve goods transported to and from the intermodal facility by rail.

[4] Although the BIG Specific Plan acreage is 4,335 acres, throughout this technical report, the BIG Specific Plan acreage is referred to as 4,300 acres. Note: all acreages in this report are preliminary and based on GIS data. Acreages will be refined with site survey.

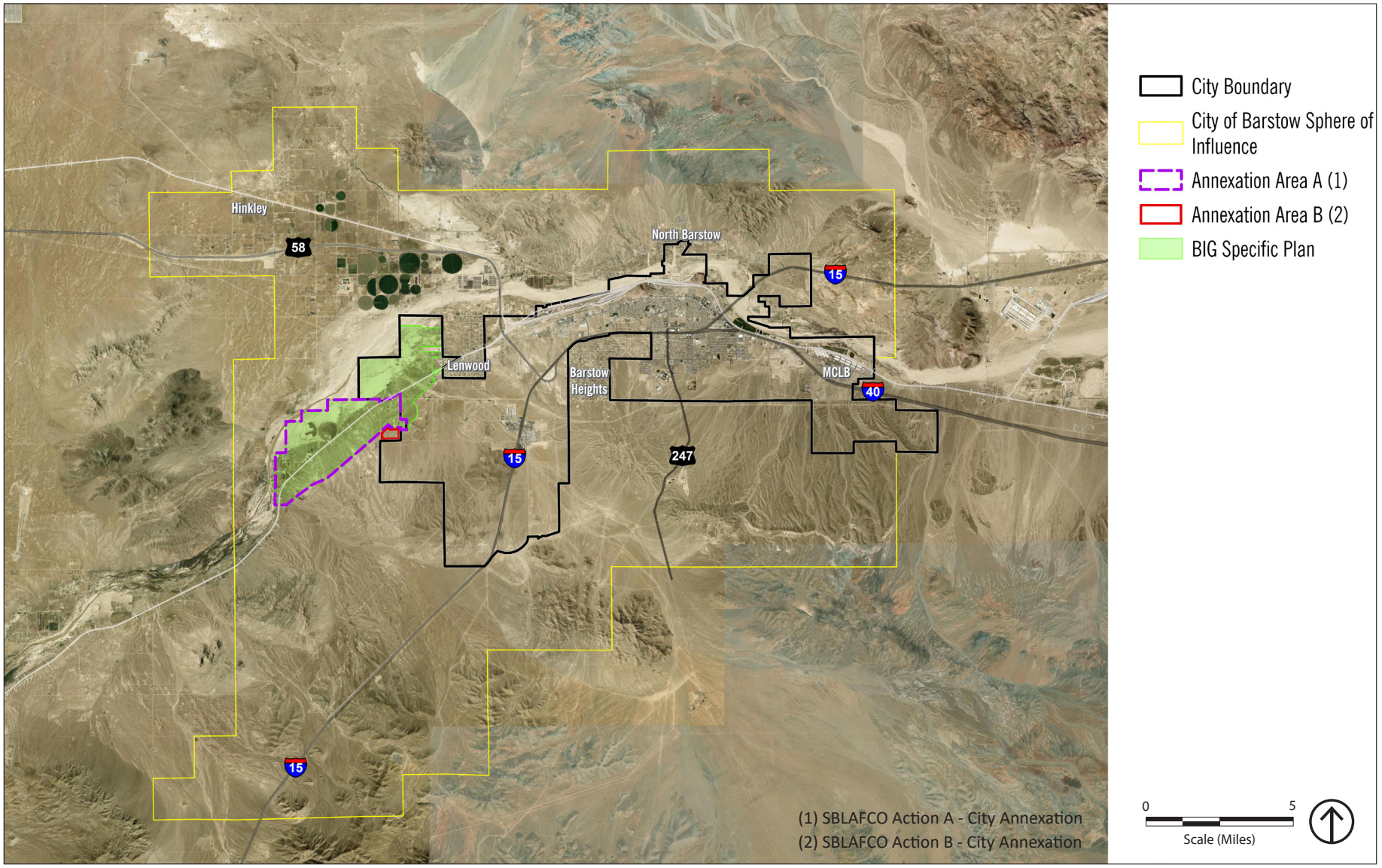
Table 1: Existing Land Uses					
Description	**Residential (DU)**	**Commercial (SF)**	**Industrial (SF)**	**TOTAL (DU)**	**TOTAL (SF)**
Existing Land Use	108	85,887	7,837	108	93,724

Regional vehicular access to BIG is provided by Main Street from the south, I-15 from the southeast, and SR-58 from the east. Local access to BIG is primarily provided by Lenwood Road and Hinkley Road from the east and west, respectively, in addition to various unpaved roads along Main Street. Regional rail access is provided from the north by BNSF's Mojave subdivision, from the west by BNSF's Cajon subdivision, and from the east by BNSF's Needles subdivision.



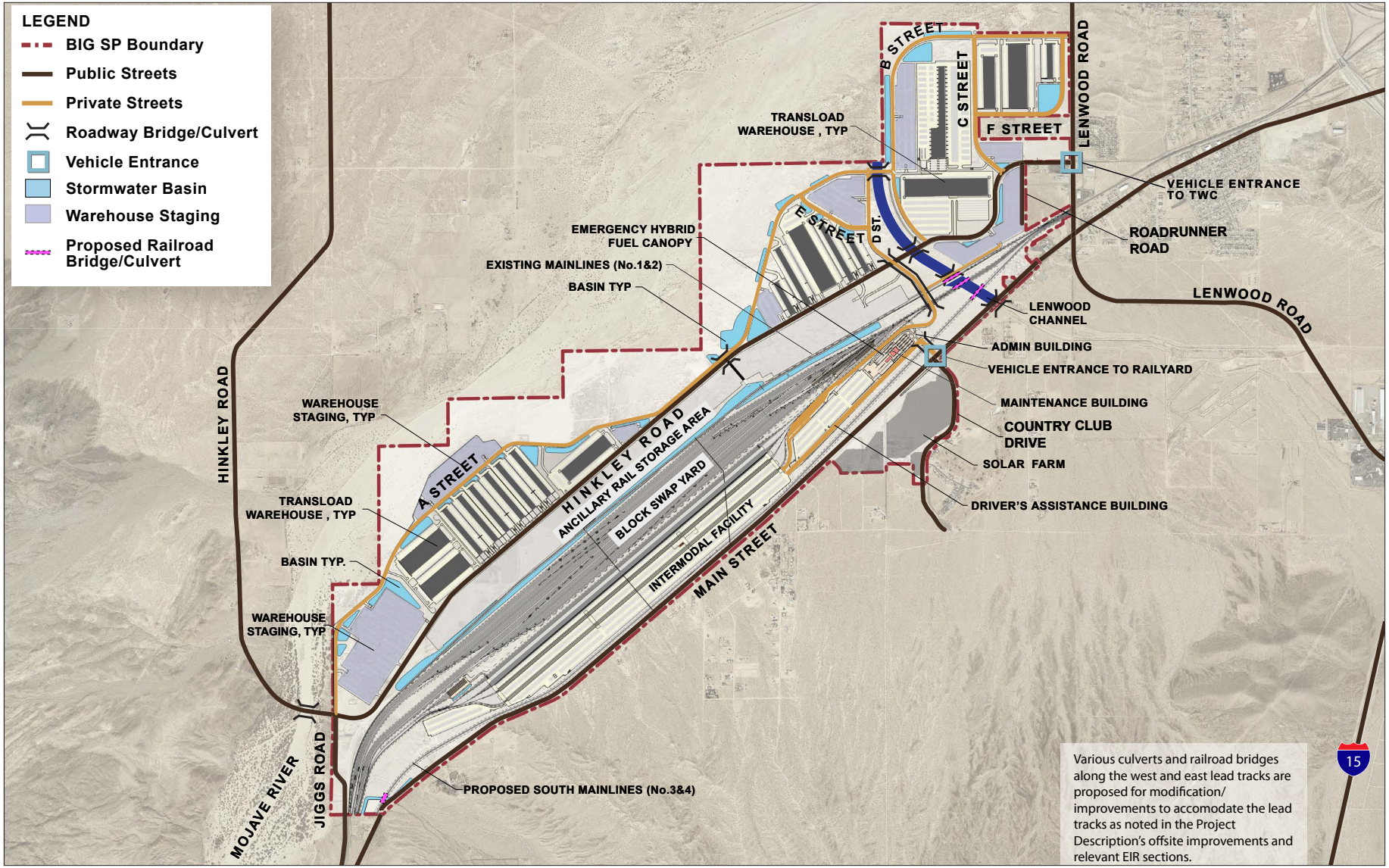
Sources:
City of Barstow , City Boundaries, 2024.

Figure 1
Regional Vicinity Map



Sources:
County of San Bernardino, 2023; City of Barstow, 2024.

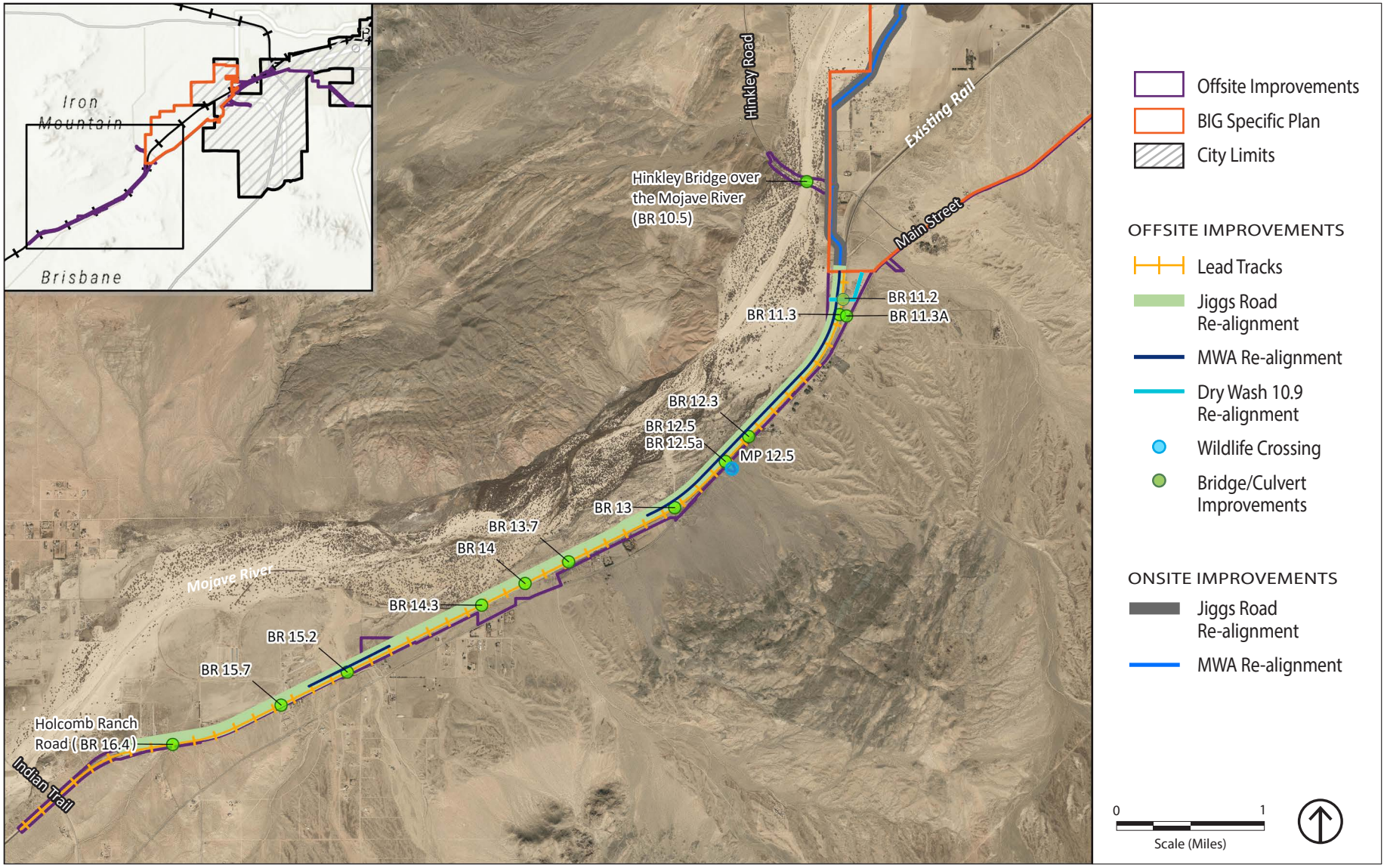
Figure 2
Local Vicinity Map



Sources:
Transystems, 2025.

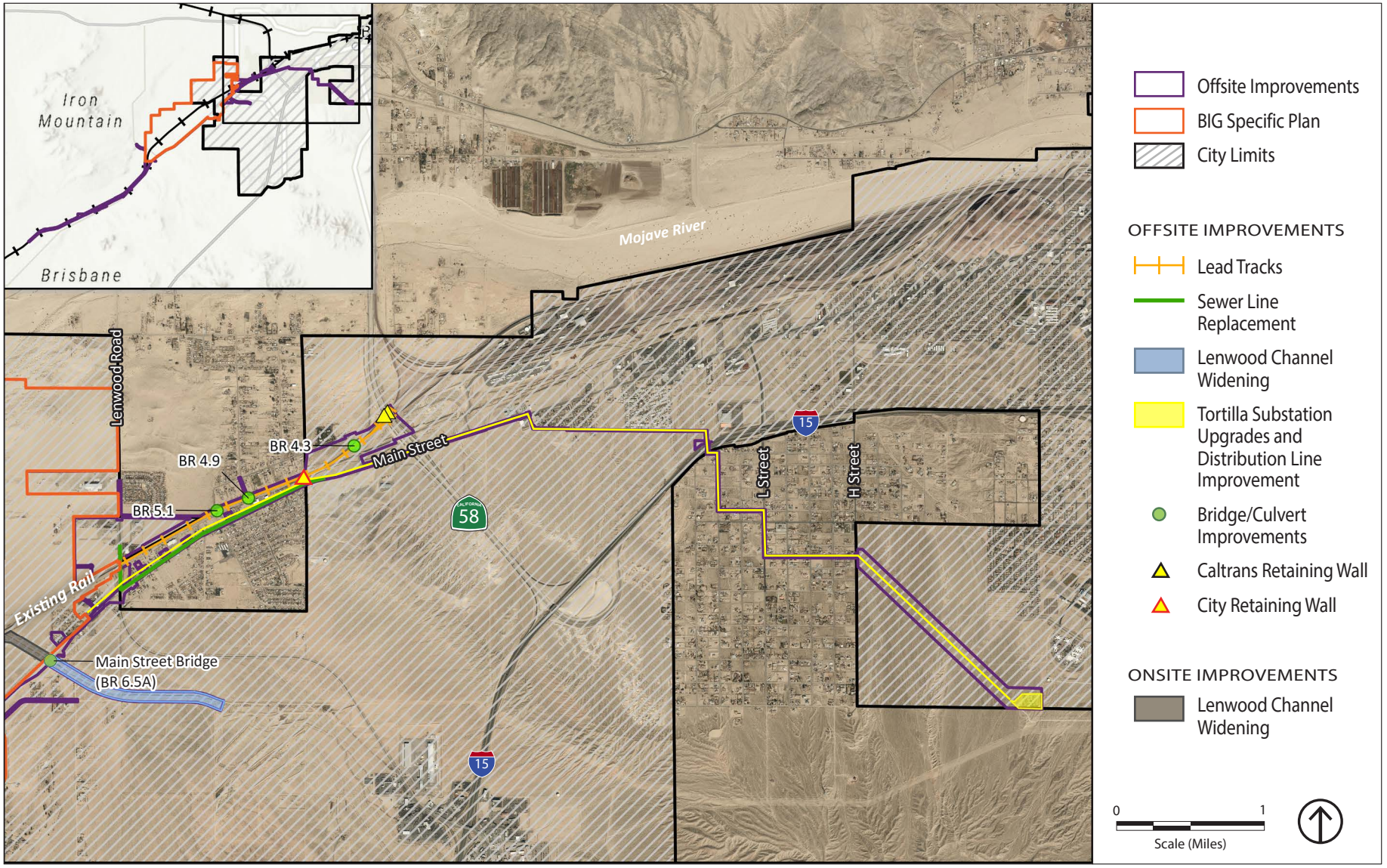
Note: Specific details set forth in the Specific Plan pertaining to the rail yard are considered difinitive. The conceptual site plan for the transload warehouse center is for illustrative purposes only. The final site plan presented for entitlement approval may differ based on final design with building square footages not to exceed 9 MSF.

Figure 3
Barstow International Gateway Conceptual Site Plan



Sources:
TransSystems, 2025.

Figure 4
BIG Offsite Improvements, West



Sources:
TransSystems, 2025.

Figure 5
BIG Offsite Improvements, East

1.2 Project Components

Rail Yard

Overview

The rail yard would be generally bound by the existing mainline to the north, Main Street to the south, Lenwood Road to the east, and Hinkley Road to the west. The rail yard would consist of an intermodal facility (i.e., where cross-dock intermodal operations and other intermodal facility operations would occur and where support intermodal facility uses would be located), a block swap yard, and ancillary rail areas (i.e., container yard, chassis storage, and ancillary rail storage area), as described below.

BIG's proposed rail yard would operate 24 hours per day, 365 days per year. The rail yard would have approximately 860 employees during Opening Year (2028), 1,010 employees in Interim Year (2033), and 1,125 employees during Horizon Year (2048)[5], which would accommodate both the block swap yard and intermodal facility operations. Employees would be split evenly between three shifts.

While the block swap yard would change the number of trains that would arrive or depart BIG by optimizing for end destinations, it would not increase the number of containers. BIG's intermodal facility would, through the cross-dock intermodal operation, add a new volume to the BNSF network, totaling approximately 3.2 trains per day on average in 2028, approximately 4.3 trains per day on average in 2033, and approximately 4.9 trains per day on average in 2048. These train counts include eastbound and westbound trains, and as described elsewhere, trains between the Ports and the BIG intermodal facility would be comprised of dedicated Tier 4 locomotives.

Intermodal Facility

BIG's intermodal facility is proposed at the southern extent of the BIG Specific Plan area and its operations would consist of two types: cross-dock intermodal and "other" operations. BIG's intermodal facility would operate differently than typical intermodal facilities in that most of the containers processed at BIG intermodal facility would not arrive or leave externally by heavy-duty trucks. Instead, almost all of the containers would arrive or leave by train and be processed via BIG's unique "cross-dock intermodal" operation. The intermodal facility's primary purpose would be to transfer containers between railcars and electric hostlers[6] for cross-dock movements at the onsite proposed transload warehouse center, and vice versa, though a small portion would arrive by heavy-duty truck. The electric hostlers would be used to transport containers within the rail yard, and between the rail yard and transload warehouse center. The electric hostlers would be zero-emission and would not leave BIG. This differs from the operations at a traditional intermodal facility where the primary purpose is to transfer containers from heavy-duty trucks[7] to railcars, and vice versa (defined as "other" operations). BIG also includes a dedicated fleet of Tier 4 linehaul locomotives[8] to move containers between the Ports and the BIG intermodal facility.

[5] A "Horizon Year" is the last year of analysis. BIG's Horizon Year is 20 years after opening.
[6] Electric hostlers are trucks used for moving trailers and containers short distances within freight terminals, rail yards, and warehouses. Electric holsters would not use public roadways outside of BIG footprint.
[7] "Heavy-duty" trucks are conventional highway trucks that travel on public roads and carry containers intra- and inter-state.
[8] "Tier" refers to emissions standards set by regulatory agencies for engine emissions, with Tier 0 referring to the oldest and having the highest emissions, while Tier 4 is the latest, more stringent standard with the fewest emissions.

BIG's intermodal facility would be composed of various components including railroad tracks, cargo handling equipment, an automated gate system, circulation roadways, yard equipment parking, container parking, stormwater detention ponds, electric vehicle charging stations, and buildings and ancillary rail facilities. Containers would be stored in parking spaces and low stacks at the intermodal facility, along with the ancillary rail area, and transload warehouse center (each described further below). Although electric lift equipment would be utilized to the extent commercially feasible within BIG's intermodal facility, a small 5,000-square-foot fuel canopy would be constructed in the electric hostler maintenance area to accommodate fueling of hybrid equipment. Hybrid and diesel equipment would include rubber-tired gantry cranes (RTGs), seven air compressors, welders, railcar wheel change machines, and heavy-duty truck transport refrigeration units. The fuel canopy would be served by a 10,000-gallon unleaded fuel aboveground storage tank and a 20,000-gallon diesel fuel aboveground storage tank, with both controlled by an electronic fuel control system. In addition, starting in BIG opening year 2028, BNSF would increase the renewable diesel composition within their existing southern California fueling sites, including the existing fueling sites at the Ports and Barstow classification yard from 1 percent to 10 percent, a 900 percentage point increase in renewable diesel. This would improve the emissions of all BNSF trains fueling at the Ports, including those BNSF trains that would not stop at BIG.

BIG's intermodal facility proposes approximately 134,000 SF of support buildings and structures, as detailed in **Table 2: BIG Intermodal Facility Structures**. As described below, final building sizes may vary slightly, this Environmental Impact Report conservatively analyzes up to 150,000 SF of support buildings and structures.

Table 2: BIG Intermodal Facility Structures

Building/Canopy	Square Footage
Administration Building	23,000
Electric Hostler Employee and Maintenance Building	39,000
Drivers Assist Building	5,000
Crane Maintenance Employee and Storage Building	5,000
Crane Maintenance Canopies	22,500
Container Safe Haven Canopies	2,500
Quick Repair Canopy	10,000
AGS Kiosk Canopies	20,000
AGS Portals	2,000
Emergency Fuel Station Canopy for Hybrid Vehicles	5,000
Total	134,000
Assumed Building Total for Final Design	150,000

Note:
The square footage described is an estimate and may vary up to 10% depending on the final engineering, therefore, the total square footage for planning purposes is estimated at approximately 150,000 sf.

Block Swap Yard

The block swap yard is proposed within the middle portion of the BIG Specific Plan area, on approximately 410 acres of the rail yard's total approximately 1,200 acres. The proposed block swap yard would allow

for the transfer of multiple railcars, or "blocks" of intermodal rail cars between trains via Tier 4 switcher locomotives. A block is defined as rail cars of a similar type moving to a similar destination that are already connected and can be combined with other blocks intended for similar destinations to produce more efficient train movements. The entire block of rail cars would remain coupled together and be moved en masse, permitting the synchronizing of blocks to their destinations, so that each train would be compiled of rail car blocks travelling to similar destinations. Blocks could be assembled from inbound trains or trains processed at the intermodal facility carrying containers processed at the transload warehouse center. Certain train blocks may stage at the block swap yard until another train arrives with similar destination. The block swap yard would facilitate switching and transfer of lengthy rail car blocks between tracks for assembling departing trains. Thus, by synchronizing trains to their destinations, the block swap yard would improve train efficiency eastbound and westbound. The rail car blocks within the block swap yard would include containers from BIG's intermodal facility and containers processed at the transload warehouse center, combining as needed based on their destination.

The block swap yard's function is unique compared to a typical classification yard, such as the existing Barstow classification yard. Classification yards are where trains being processed are made up of non-intermodal railcars (i.e., individual boxcars, gondolas, open and closed hopper cars, automobile railcars, and tank cars), rather than intermodal railcars. BNSF designates these types of trains with a different train identification than those that would be processed at BIG. Further, BNSF uses different equipment to process these trains than would be used at BIG. While there is a small intermodal facility component adjacent to the existing Barstow classification yard, that intermodal facility is only used to process overflow from other BNSF intermodal facilities. By contrast, BIG's block swap yard would disassemble and assemble lengthy blocks of railcars with intermodal containers to similar destinations utilizing Tier 4 switcher locomotives. The existing Barstow classification yard also utilizes switcher locomotives as part of its operations, although they are currently Tier 0/0+/1+ switchers. Starting in BIG opening year 2028, BNSF will voluntarily retire all existing Tier 0/0+/1+ switcher locomotives at the unrelated existing Barstow classification yard, and in their place add six Tier 4 switcher locomotives.

Ancillary Rail Area

The ancillary rail storage area is an approximately 400-acre area north of the existing mainline and would be graded and covered with aggregate to be used for numerous purposes, including a container yard, truck chassis storage, and storage of maintenance equipment. A container yard would support the storage of empty containers awaiting loading while chassis storage would be used to provide parking for empty chassis awaiting use for loading, unloading, or draying of containers. The ancillary rail storage area would also be used for storage of spare parts and equipment for track maintenance, including rail, ties, turnouts, and other track material.

Mainline Improvements

BIG would retain the existing two rail mainlines ("north mainlines") within their current alignments, except at bridge crossings, which would be upgraded. BIG also proposes to construct two new mainlines ("south mainlines"), which would traverse the proposed rail yard in an east-west orientation, extending from Lenwood Road on the east to Hinkley Road on the west. During the construction phase, the south mainlines would be used to divert train traffic from the existing mainlines while they are upgraded. During

BIG operations, half of the trains which would bypass BIG would use the north mainlines and half would use the south mainlines to balance train counts between the mainlines. BIG would also upgrade various bridge crossings including replacement of the crossing at Lenwood Channel to accommodate the proposed Lenwood Channel widening; removal of existing culverts[9] to accommodate proposed culverts for the overall rail yard; and replacement of two structures to meet BNSF standards regarding 50- and 100-year flood conditions.

Transload Warehouse Center

The transload warehouse center is proposed at the northern extent of the BIG Specific Plan area, on approximately 1,330 acres of BIG SP's total approximately 4,300 acres. The transload warehouses would be designed to process the contents of containers from cross-dock intermodal operations, with a small percentage dedicated to processing the contents of containers that have a portion destined for the Inland Empire (the remainder of the container's contents would be placed on trains destined eastward). A small percentage of containers processed at the transload warehouse center would arrive/leave by heavy-duty trucks, primarily from/to the Inland Empire. The transload warehouse center would process most of the containers within an onsite "closed loop" operation between BIG's intermodal facility and the transload warehouse center. The transload warehouse center would include approximately 9.0 million SF of transload warehouses. The transload warehouse center would be fully built during construction, but operations would gradually increase as customers relocate to BIG. Transload warehouse center operations would include approximately 2,767 employees in Opening Year, approximately 3,660 employees in Interim Year, and 4,248 employees in Horizon Year.

The transload warehouse center would be composed of multiple buildings of various configurations and sizes, depending on tenant needs. As such, **Figure 4**: BIG Off-Site Improvements, West

provides a conceptual site plan for illustrative purposes showing potential transload warehouse buildings, locations, and sizes. Final transload warehouse buildings, locations, and sizes may differ from those proposed and would be processed with the City, as development occurs. Each transload warehouse would include container parking/storage areas, employee parking, stormwater/hydrology improvements, and landscaping. Finally, emergency generators are proposed throughout the transload warehouse center to provide electric power in the event of a power outage.

There would also be several areas distributed around the transload warehouse center, adding up to approximately 275 acres, for staging/overflow parking of containers accessing the transload warehouse center. These warehouse staging areas would be for truck containers only; truck "hoteling"[10] would not occur, as electric hostlers would transfer containers to/from these areas, thus, heavy-duty truck trailers would not enter or exit these areas.

Hydrology/Stormwater Drainage Improvements

BIG would construct various infiltration basins and drainage outlets to the Mojave River that would be designed for 100-year flood events. Preliminarily, BIG proposes detention ponds of various sizes

[9] Culverts are drainage features, typically a pipe or arch, used to convey water under a road or rail tracks.
[10] Truck "hoteling" refers to when a heavy-duty truck parks for the driver to rest within the cab.

throughout BIG footprint totaling approximately 165 acre-feet of storage volume, which would accommodate the 100-year flood conditions.

In addition to various ephemeral washes throughout BIG footprint, three other primary hydrologic features traverse BIG footprint, as detailed below.

Unnamed Stream (Milepost 10.9): This feature is a dry wash from Main Street to the Mojave River that includes a sharp western bend. This feature would be realigned to accommodate track mains, sidings, and support tracks and improved with a combination of bridges and box culverts spanning the channel (Bridge 10.9a and Bridge 11.2, respectively).

Hinkley Road Bridge at Mojave River (Milepost 10.5): The existing Hinkley Road Bridge, which the County owns and maintains, is at a narrowed section of the Mojave River and crosses via a concrete pier structure. Based on discussions with the County, the existing Hinkley Road Bridge over the Mojave River is experiencing structural issues and is at risk of being over-topped from seasonal flooding. Hydrology and hydraulic analyses have indicated the existing bridge is undersized. To maintain a roadway connection to Hinkley Road from the transload warehouse center, BIG proposes to replace the existing bridge with a longer structure to better match the channel width of the Mojave River at that location. The channel beneath, and immediately adjacent to, the existing bridge would be excavated and widened to match the natural channel width more closely. Portions of Hinkley Road immediately east and west of the bridge would be raised to reduce exposure to Mojave River flood events. These proposed improvements at Hinkley Road Bridge would reduce flooding compared to existing conditions. As part of the improvements, the existing at-grade crossing would be abandoned, and vehicles would instead utilize the proposed Hinkley Road extension through the transload warehouse center.

Lenwood Channel (Milepost 6.5): A portion of the BIG footprint along Lenwood Channel is currently within the FEMA 100-year flood zone due to existing flooding concerns. Lenwood Channel is a north-south earthen channel used to convey water from the southeast to the Mojave River and maintained by San Bernardino County Flood District. Lenwood Channel would be widened by 60 to 100 feet throughout the Specific Plan area, continuing offsite south of Main Street, for a total of approximately 1.25 miles. The widened channel would improve flooding compared to existing conditions. Preliminary BIG design requires the Lenwood Channel to be spanned at three locations for additional track east leads, mains, and sidings, as well as three roadway crossings: Main Street, Hinkley Road, and the private road between the intermodal facility and transload warehouse center.

Utility Improvements

To accommodate the proposed rail yard and transload warehouse center, BIG would require both relocations of existing facilities and construction of new/expanded facilities (i.e., water, wastewater, electric power, natural gas, and telecommunications). The utility improvements proposed within BIG's footprint are discussed below.

Water

BIG's construction phase water demand includes non-potable water for construction activities and potable water for on-site construction workers. To provide non-potable water during the construction

phase, up to eight new private on-site temporary groundwater wells would be constructed within BIG's transload warehouse center portion.

Temporary aboveground connections from Golden State Water Company existing mains within Main Street to BIG would be constructed to supply potable water to the construction sites. Additionally, Mojave Water Agency owns and operates a 48-inch recharge water line that crosses the BIG Specific Plan area. BIG proposes to relocate this existing line to the north to avoid conflict with rail yard and transload warehouse center improvements.

Operational potable water and fire flow water would be provided by directly connecting to facilities owned and operated by the Golden State Water Company. Fire flow would be supplemented by on-site water tanks and fire pumps if necessary to meet the fire flow requirements. Power to water tanks and fire pumps would be supported by the transload warehouse diesel backup generators in the case of an emergency. Water tanks would be placed entirely within the BIG footprint. The transload warehouse center would connect to an existing water main in Jasper Road on the east end of the BIG Specific Plan area. The rail yard would connect to an existing water main on the east end of the BIG Specific Plan area near Lenwood Road on the south side of Main Street. A new public 12- to 16-inch looped water main would be constructed from the existing connection in Main Street, extending west to the edge of rail yard, north to Hinkley Rd, and then continue east in Hinkley Road to the existing connection point near Lenwood Road. A second connection from the looped water main would be provided at the northeast corner of the Specific Plan at Lenwood Road. The new on-site public water mains total approximately 10 miles in length.

Wastewater

BIG's construction-related wastewater generation would be from construction workers. Temporary portable facilities (i.e., portable restrooms and portable handwash stations) would be utilized during the construction phase.

BIG's operational wastewater generation would be from transload warehouse center and rail yard employees, and the rail yard wash bays and track pans. Wastewater generated by BIG would discharge to the City's existing wastewater system at three connection points. The transload warehouse center would discharge to the proposed new sewer main in Hinkley Road. A new 8-inch wastewater line is proposed within the Hinkley Road extension from the west end of the transload warehouse center to the northeast end of the transload warehouse center and would connect to the existing sewer main in Lenwood Road. Within the transload warehouse center, west of the Lenwood Channel, 8-inch lines would extend north in C Street to serve the transload warehouses connecting to Lenwood Road via B Street. The rail yard would include new wastewater lines and force mains at the southern portion of the rail yard, conveying wastewater to the east and connecting to the existing sanitary sewer main in Main Street near Country Club Drive. BIG's wastewater would be conveyed by gravity flow to and treated at the Barstow Regional Wastewater Treatment Facility, which is owned and operated by the City. Wastewater conveyance and treatment would be coordinated with the City.

Electrical Power

BIG construction activities would generate temporary electric power demand from construction equipment, tools, lighting, and other necessary facilities (e.g., temporary offices). The electric power for

construction activities would be supplied through connections to existing Southern California Edison (SCE) facilities.

BIG operations would generate permanent electric power demand from the transload warehouse center (lighting, electric vehicle charging for material handling, and forklifts) and rail yard (lighting, buildings, cranes, and electric hostlers (used to move containers between the rail yard and the transload warehouse center). BIG operational electric power demand would be met through connecting to the SCE Tortilla Substation and supplemented with onsite electrical generation (i.e., an approximately 140-acre, approximately 21 megawatts solar power generation facility (i.e., solar farm), which is described further below. BIG proposes to construct the following on-site electric power facilities to serve BIG:

- Three substations: two substations at the eastern and western extents of the rail yard; and one substation within the solar farm.
- Additional 33kV distribution lines connecting via underground duct banks in a loop around the west end of the intermodal facility and north end of the transload warehouse center. These proposed 33KV distribution lines would total 23 miles of duct bank within the BIG Specific Plan area.
- An approximately 140-acre solar farm is proposed south of BIG rail yard, at the southwest corner of the Main Street at Country Club Drive intersection. The solar farm is estimated to generate approximately 21 megawatts to serve BIG. The solar farm would include a battery electric storage system (BESS) and a new substation at the northwest corner to route power from the solar farm to BIG rail yard. The solar farm would be fenced to prevent trespass and would include internal roadways for maintenance vehicles. The solar farm would require minimal grading to level the site as existing topography is utilized wherever possible and excavation limited primarily to stormwater detention to capture runoff. Additionally, BIG would comply with CalGreen regulations requiring that rooftop solar generation be installed on the industrial warehouse rooftops (Title 24, Section 140.10). Based on 9.0 MSF of transload warehouse, BIG would include approximately 6.4 megawatts of rooftop solar generation for Title 24 compliance.
- Emergency diesel generators are proposed at various locations across the rail yard and transload warehouse center to provide backup power in the event of Tortilla Substation service interruptions. Rail yard generators would only be used if a power outage were to occur at nighttime, as the proposed solar farm would provide sufficient power during daytime in the event of a power outage. The rail yard would include up to 10 emergency generators at the far western extent, while the transload warehouse center would include up to 29 emergency generators dispersed throughout. The emergency generators would require up to 50 hours of testing and maintenance operations per year.

Solar farm maintenance would consist of cleaning, inspecting, and replacing solar panels, equipment, and other system components. Maintenance trips associated with these activities would be limited to trucks transporting materials, equipment, and supplies to and from the farm. To maintain uninterrupted power generation for BIG, maintenance activities would occur incrementally. The solar farm would also require vegetative maintenance (e.g., mowing and weeding, and other grass control measures). No grading would occur during solar farm maintenance.

Natural Gas

BIG construction activities would not require construction of new natural gas facilities, although protection in place or relocation of existing natural gas facilities would be required to accommodate BIG.

Stormwater

To collect stormwater runoff, BIG proposes stormwater basins that would detain any stormwater in excess of predevelopment flows then discharge to existing drainageways through stormwater best management practices. BIG would include various outlets to the Mojave River. Exact sizing and locations of transload warehouse center basins would be dependent on final transload warehouse location, layout, and sizing. In addition, Lenwood Channel would be modified as discussed under **Section 0**.

Solid Waste

BIG would result in solid waste generation from construction (demolition debris, broken or excess materials, packaging, and other construction waste), as well as during operations from the rail yard and transload warehouse center. BIG's solid waste would be collected within on-site trash bins and be disposed of at the Barstow Sanitary Landfill, with 65 percent being recycled (for instance, demolished concrete foundations can be crushed and re-used onsite as aggregate).

Telecommunications

Telecommunication lines cross BIG footprint along Lenwood Road and along the southern edge of the existing tracks. Underground utilities may also be present. All underground communication facilities are assumed to have shallow depths except those crossing under existing features such as underpasses and creeks. Lines within BIG footprint may be relocated adjacent to/within existing and proposed rights of way or abandoned. In addition, BNSF Telecommunications would install approximately 12 communication towers with heights generally between 100 - 120 feet, though two communication towers would be 160 feet tall. Additionally, various existing telecommunications lines owned by Frontier Communications and Lumen would be removed from within BIG footprint, and, in their place, new communications line would be run beginning at the Jasper Road at Lenwood Road intersection, running to the western extent of the BIG Specific Plan area, and then running eastward back to Lenwood Road in a "loop."

On-Site Circulation Improvements

BIG would include various on-site circulation improvements as discussed below.

Hinkley Road Realignment: BIG would vacate Hinkley Road between the south side of the Mojave River bridge crossing and Main Street, closing the existing at-grade rail crossing. Hinkley Road would be realigned beginning at the north side of the Mojave River bridge crossing to connect through the transload warehouse center to the Jasper Road/Lenwood Road intersection. Transload warehouse center employees and heavy-duty trucks destined for the transload warehouse center would enter from the Lenwood Road/Hinkley Road/Jasper Road intersection.

Internal private roadways: In addition to the realigned public Hinkley Road (discussed above), BIG would include four dedicated internal private roadways for electric hostlers (private streets A, B, D, and E), and two internal private roadways for employee, visitor, and truck access (private streets C and F).

Country Club Drive: Country Club Drive would be widened along the solar farm frontage for approximately 400 feet to the proposed realignment of Sweeten Lane. A new stop-controlled intersection is proposed at the Country Club Drive at Sweeten Lane intersection.

Main Street: Rail yard employees and heavy-duty trucks destined for the intermodal facility would enter BIG's rail yard from a new driveway on Main Street across from Country Club Road. Main Street would be widened from two lanes to four lanes for approximately 0.5 mile east of Country Club, resulting in a consistent four-lane roadway width through Barstow. Additionally, the existing two-lane Main Street over Lenwood Channel low water crossing would be replaced with a new four-lane bridge that accommodates the 100-year flood condition, substantially reducing the existing flood conditions. Main Street would be raised over Lenwood channel, modifying the vertical alignment of Main Street for approximately 0.8 mile. The intent of this design is to keep flood waters contained in Lenwood Channel and convey the flow to the Mojave River under the bridge at MP 6.5, avoiding the overflow of the bank that can occur under existing conditions.

To accommodate BIG, various on-site public rights-of-way within the City and unincorporated San Bernardino County would also need to be vacated.

Off-Site Improvements

In addition to the on-site improvements described above, BIG also proposes off-site rail and non-rail improvements, as discussed below:

Off-Site Rail Improvements

BIG proposes lead track extensions to the east of approximately two miles and lead track extensions to the west of approximately seven miles ("east lead track" and "west lead track"). These offsite rail improvements would be primarily within existing BNSF right-of-way. These improvements would enable trains to safely enter and exit the mainline at mainline speeds, rather than slower "yard" speeds and risk fouling the track.[11] BIG east and west lead tracks would require modifications to existing culverts within the footprint; see also *Stormwater Drainage* discussion below.

Off-Site Non-Rail Improvements

BIG proposes ancillary and related stormwater drainage, utility (i.e., water, sewer, electric power, natural gas, and telecommunications), and circulation/roadway improvements and modifications, described below.

Water. North of transload warehouse center, an existing Mojave Water Agency 48-inch recharge line would be relocated. The relocated line would stretch along the north side of the transload warehouse center to the west end of the BIG Specific Plan area, then continue along the north side of the mainline and lead tracks for a total of 8.3 miles.

Wastewater. An existing approximately 27-inch sanitary sewer line is within existing BNSF ROW for approximately 1.6 miles between Lenwood Road and Pettit Road. This line includes multiple north/south

[11] "Fouling the track" means the placement of an individual or an item of equipment in such proximity to a track that the individual or equipment could be struck by a moving train or on-track equipment, or in any case is within four feet of the field side of the near running rail (49 CFR Part 214). When a rail network becomes congested, trains can foul the track by moving slower than a train behind them.

lateral connections to serve the land uses between Main Street and the existing BNSF tracks. BIG would relocate this line at Phillips Street south to within Main Street. Additionally, the transload warehouse center will connect to City sewer via a new 27-inch sewer line within Jasper Road extending to north of Paris Avenue.

Electric Power. Electrical demand would be handled through connecting to the Southern California Edison Tortilla Substation, located approximately 0.4 mile south of the Veterans Parkway at Diamond Avenue intersection. Three underground duct banks with electrical conductors would connect BIG to the Tortilla Substation utilizing existing franchise agreements with the City and County on a route following Main Street, Sunrise Road, N Street, and Bonanza Road before utilizing existing easements between Bonanza Road and the substation. This proposed 33KV distribution route would extend approximately 7.1 miles underground from the Tortilla Substation to the intermodal facility's eastern extent at Country Club drive, then continue overhead approximately 3.5 miles from Country Club Drive to approximately Hinkley Road. For the 33kv line segment from Tortilla Substation to BIG, the 33kv circuits would be in underground utility lines resulting in an approximately 30-foot-wide disturbance to account for construction access and temporary spoils. From Tortilla substation to H Street (approximately 1.2 miles), the 33kv conduit could occur within a 450-foot-wide corridor, inclusive of the existing 150-foot wide SCE easement along Bonanza Road. However, the exact alignment is presently unknown and is being coordinated with SCE. Therefore, this EIR analyzes an approximately 30-foot wide disturbance within the 450-feet wide corridor ("33kv distribution corridor"). This EIR analyzes the "worst-case" environmental impacts within the 33kv distribution corridor. SCE would make modifications, which include constructing new feeders and new power distribution lines. Within the Tortilla Substation's existing fence line, SCE would also make modifications to supply the new feeders from their existing 115kV-33kV transformers. Various offsite existing electric power lines could be relocated, modified, or extended to accommodate BIG improvements.

Natural Gas. Various off-site existing natural gas lines could be relocated to accommodate BIG improvements.

Telecommunications. No off-site telecommunications improvements are proposed. Various minor existing telecommunications lines would be relocated toward the eastern end of the lead track improvements. Existing telecommunications lines passing through the intermodal facility and block swap yard would be relocated to the north side of the Main Street ROW.

Stormwater Drainage. As described above, the Lenwood Channel widening would continue offsite, south of Main Street. It would be widened by approximately 60 to 100 feet for a total of approximately 2.1 miles (of which 1 mile would be offsite) to improve flooding compared to existing conditions. At the Main Street crossing at Lenwood Channel, BIG would replace 0.8-mile of the existing Main Street low water crossing of Lenwood Channel with a bridge and raise and widen the road through this stretch west to the new intermodal facility entrance. These improvements accommodate the City/County master plan and improve flooding compared to existing conditions.

Other. To accommodate wildlife crossings from south of Main Street to the Mojave River without potential conflict with vehicular or train traffic, BIG proposes an underground wildlife crossing under Main Street west of the existing Hinkley Road.

Circulation/Roadway. Jiggs Road would be realigned generally from just east of Indian Trail to Hinkley Road to maintain emergency access from Indian Trails to Hinkley Road. In addition, a maintenance road would be constructed alongside the mainline to provide maintenance access to the tracks, generally from just east of Indian Trail to Hinkley Road. Various circulation and roadway improvements and modifications are proposed outside the BIG Specific Plan area. All circulation improvements would be permanent, except a temporary Main Street bypass. The temporary bypass would be constructed to maintain access along Main Street during Lenwood Channel Bridge reconstruction. To maintain access for adjacent residents, the temporary Main Street bypass would include private driveways for adjacent residential uses and would be open for the approximately 18-month bridge reconstruction period. Once the Lenwood Channel Bridge reconstruction is complete, the bypass would be removed and the site restored to its original condition. Additionally, construction of additional lead tracks over Pettit Road (approximately 1,100 feet west of SR-58) would require the road to be lowered by approximately 2.0 feet. BIG would also vacate various ROW within the City and County. Finally, Sweeten Lane would be vacated and realigned to eliminate the existing unimproved intersection with Main Street. A new paved access would extend from Country Club east approximately 1,000 feet and connect to the unimproved Sweeten Lane.

Maintenance Activities

While "light maintenance activities" [12] could occur at BIG, major maintenance activities[13] would still occur at the existing Barstow classification yard, thus, requiring short-distance trips via BNSF's existing mainline to and from the existing Barstow classification yard for heavy maintenance. Locomotive trips associated with maintenance activities would be based on the number of linehaul locomotives needed to move trains between the Ports and BIG intermodal facility, and the number of switcher locomotives needed to haul rail cars within BIG intermodal facility and block swap yard. All switcher locomotives at BIG would be Tier 4 locomotives, and BNSF would also retire all existing Tier 0/0+/1+ locomotives at the unrelated existing Barstow yard and, in their stead, add six Tier 4 switcher locomotives.

1.3 Project Construction Activities Timeline

For analysis purposes, construction is anticipated to occur over approximately 34 months beginning in the third quarter of 2025 and ending in the third quarter of 2028. The entirety of BIG's construction activities, including offsite improvements, are analyzed in this report and described below. The anticipated construction timing is shown in **Table 3: Big Construction Schedule**. However, the current construction schedule anticipates that BIG construction would begin approximately August 2026, and end approximately July 2029, for an approximate 13-month shift from the schedule shown in **Table 3: BIG Construction Schedule** and analyzed in this technical report. However, construction duration (34 months) would remain unchanged. Further, given fleet turnover and compliance with increased regulatory requirements, construction and operational air quality emissions would improve over time as is reflected in CalEEMod, the California Air Resource Board's air quality emissions modeling platform.

[12] "Light maintenance activities" means routine locomotive servicing (e.g., window washing, fueling, inspecting fluid levels and topping off fluids, stocking cabins with crew equipment such as water and trash bags, toilet servicing) and minor railcar servicing (e.g., wheel changes, brake and friction shoes, and loose or missing bolts).

[13] "Major maintenance activities" means repair of railing and platform, railcar suspension, hitches, engine, etc.

During peak construction periods, work would be under way at several locations within BIG footprint simultaneously, with overlapping construction of various elements. Construction working hours and the number of workers present at any time would vary depending on the activities being performed. BIG construction would require approximately 8,177 construction workers per year.[14]

Table 3: Big Construction Schedule		
Phase	**Start Date**	**End Date**
South Mainlines	8/7/2025	10/2/2026
Intermodal Facility	8/7/2025	1/4/2027
Block Swap Yard	1/22/2026	6/8/2028
North Mainlines	5/27/2027	6/8/2028
Transload Warehouse	2/5/2026	12/6/2027
33 kV Distribution Undergrounding	9/13/2025	5/7/2027
Solar Site	3/20/2026	2/27/2027

Nighttime construction could occur throughout the BIG footprint except where within 300 feet of sensitive receptors (along the 33kv distribution line). To avoid potential noise and vibration impacts from pile driving, BIG proposes to establish a buffer of 1,800 feet for nighttime pile driving and 500 feet for daytime pile driving from sensitive receptors. Additionally, nighttime construction would be necessary for track work adjacent to the existing mainline where lead tracks would tie into the mainline. All construction activities would occur within BIG footprint.

BIG components would involve the following construction activities:

Demolition and Grading

The BIG footprint is primarily vacant, undeveloped land traversed by an existing BNSF railroad and containing scattered residential, commercial, and industrial land uses. Existing land uses within BIG's footprint are listed in **Table 1: Existing Land Uses**. All existing land uses not demolished during acquisition to avoid trespassing and safety concerns would be demolished prior to, or during, mass grading. In addition, existing utilities (underground and aboveground) within BIG footprint would be removed or temporarily relocated as needed.

Six culverts/bridges would need to be demolished within the existing BIG footprint. Demolition would involve excavators to break apart bridge abutments and foundations.

Mass grading would occur in one phase across the BIG footprint and require approximately 26 million cubic yards of cut and fill. Mass grading would be typified by large construction equipment establishing the area's general grading contours. For locations supporting future buildings, roadways, or track, mass grading would include watering and compaction of soil to provide a stable subgrade. Earthwork onsite would be balanced, with excess cut from the rail yard being used as fill within the transload warehouse center.

[14] Based on 23,200 construction worker "job years".

Fine grading would include site-specific grading for the transload warehouse center, as well as finish grading around buildings, parking areas, curb and gutter, etc.

Construction of Rail Yard (Intermodal Facility and Block Swap Yard)

The likely sequence for BIG rail yard construction (intermodal facility and block swap yard) would include mass grading; compacting the rail bed and internal roadways/parking areas; installing underground improvements/utilities; fine grading; installing crushed rock subballast; laying track and ballast; and installing train signals and communications systems. To reduce construction trucking, BIG would bring rail ties, welded rail, and rail ballast in via train.

Rail yard construction elements would include surface and elevated track work where the track would cross a water feature, a grade-separated roadway crossing for electric hostlers to access (and return from) the transload warehouse center, and installation of an intermodal facility. Major construction activities would include grading and excavation support, underground utility installation, systems construction, bridge construction, and railway systems construction (including trackwork, signaling, and communications). High-mast lights (up to 120 feet in height) would be constructed throughout the rail yard, including foundation work, conduits, and security camera positions. Rail yard construction would also include foundations and tracks for gantry cranes.

Furthermore, the proposed rail yard area would be excavated to result in a nearly-level grade between the east and west ends. With the proposed grading, most of the rail yard would be approximately 30-45 feet below Main Street. Various key BIG elements are also shown below.

Rail materials such as rail ties, welded rails, and ballast would be delivered by train. As noted above, the two existing north mainlines would be protected in place except at the bridge crossings, and two new south mainlines constructed. The south mainlines would be constructed first, and, during the first year of construction, existing rail traffic would use the new south mainlines so that the existing mainlines can be rebuilt and their bridge crossings upgraded. Mainline, rail yard, and lead track construction would utilize a Track-Laying Machine for approximately 20 months to lay track.

Intermodal facility construction would include various administrative and support buildings and substantial paving for the container parking and storage.

Solar Farm Construction

Solar farm construction, which would occur in a single phase, would require minimal grading to level the site as existing topography is utilized wherever possible and excavation limited primarily to stormwater detention to capture runoff. Fencing would be installed around the solar farm's perimeter of the solar farm, internal drive-aisles would be graded and paved, and the proposed substation would be constructed per SCE standards.

Construction of Transload Warehouse Center

Construction elements for the transload warehouse center would include grading, over-excavation,[15] footing and foundation excavation and pouring, tilt-up panel concrete construction, parking lot grading and paving, utility installation and undergrounding, and hydrology/drainage improvements.

Construction of Onsite Bridges and Roadway Improvements

Railroad bridge and roadway construction may use various methods including segmented pre-cast, cast-in-place, box girder or pre-cast, and span-by-span techniques.

Pre-construction activities would occur during final design and would include geotechnical investigations, identification of staging areas, initiation of site preparation and demolition, relocation of utilities, and implementation of temporary, long-term, and permanent road closures. Two bridges would be constructed over Lenwood Channel (BR 6.5D, 6.5E, and BR 6.5F) to enable traffic to flow from either side of Lenwood Channel.

Construction of Off-Site Rail Improvements

Off-site rail improvements would include clearing and grubbing, bridge crossing construction, ballast placement, track laying, and connection to the mainline. Off-site rail improvements would parallel the existing mainline and primarily be within existing BNSF right-of-way. BIG's rail deliveries of rail ties and ballast would include materials for construction of off-site rail improvement.

Construction of Off-Site Non-Rail Improvements

Off-site non-rail improvements would include construction of drainage, utility, and roadway improvements.

Drainage. Lenwood Channel improvements would consist of scouring and widening the channel. Construction equipment would be within Lenwood Channel in order to accomplish the widening.

Utilities. Additionally, off-site construction would include utility improvements including the 33kv distribution/Tortilla Substation improvements. Construction processes are anticipated to include clearing and grubbing, saw cuts and demolition of existing pavement, excavation to approximately ten feet below ground surface, installation of temporary shoring, placement of circuits and distribution lines, fill placement and removal of temporary shoring, and roadway repair.

Roadways/Intersections. A bridge over Lenwood Channel for Main Street would be constructed to replace the existing low water crossing and accommodate widening of Main Street in that immediate area. Additionally, BIG proposes roadway/intersection improvements/modifications, including the installation of traffic signals at various intersections.

Typical construction processes for these off-site non-rail improvements would include clearing and grubbing, over-excavation, bridge construction, traffic signals with associated underground conduits and cabling, and restriping and asphalt or concrete pavement placement, where needed.

[15] "Over-excavation" refers to removal and re-compaction of soil.

2.0 NOISE DEFINITIONS AND DESCRIPTORS

2.1 Acoustic Fundamentals

Sound is mechanical energy transmitted by pressure waves through a medium such as air or water; the manner in which sound travels through this medium is influenced by the medium's physical properties (such as temperature, density, and humidity). Noise is often defined as unwanted sound. Of the various noise descriptors used to characterize the loudness of a sound, the sound pressure level has become the most common.

To appropriately characterize the community noise environment and evaluate noise impacts, noise exposure must be measured over a period of time. This time-varying nature of environmental noise is characterized using statistical noise descriptors. The following definitions are used in this evaluation:

- **dB**. The decibel (dB) scale is used to quantify sound intensity, with 0 dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain.
- **dBA**. A-weighted decibels (dBA) are measured using a filter that de-emphasizes the frequencies below 1,000 hertz (Hz) and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies. The dBA is the standard tool used for environmental noise assessment.
- **Sound Pressure Level**. Sound pressure is the sound force per unit area and is usually expressed in micropascals (µPa), or 20 micronewtons per square meter, where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in dB as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 µPa). Sound pressure level is the quantity that is directly measured by a sound level meter.
- **L_{eq}**. The energy-equivalent sound level (L_{eq}) provides for the average noise measured over a specified period of time.
- **L_{max}**. The instantaneous maximum noise level (L_{max}) measured during the measurement period.
- **L_{dn}**. The day-night average sound level (L_{dn}) is the average of the A-weighted sound levels occurring during a 24-hour period and accounts for the greater sensitivity of most people to noise at night. L_{dn} "penalizes" noise occurring between 10:00 p.m. and 7:00 a.m. by adding 10 dBA to nighttime noise levels.
- **CNEL**. Similar to L_{dn}, the community noise equivalent level (CNEL) is a 24-hour average L_{eq} , which adds a 4.77 dB "penalty" for noise events occurring between 7:00 p.m. and 10:00 p.m. and adds a 10 dB penalty to noise events occurring between 10:00 p.m. and 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.
- **Frequency**. The number of complete pressure fluctuations per second above and below atmospheric pressure, usually expressed in Hz. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sounds are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
- **Ambient Noise Level**. The composite of noise from all sources near and far. The normal or existing environmental noise level at a given location. Ambient noise represents the existing (baseline) condition.

- **Sound Exposure Level (SEL)**. The cumulative noise exposure from a single noise event, normalized to one second. SEL contains the same overall sound energy as the actual varying sound energy during the event.

Measuring sound directly in terms of pressure would require a large range of numbers. To avoid this, the logarithmic dB scale was devised. The dB scale uses the hearing threshold of 20 µPa as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The dB scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels correspond closely to human perception of relative loudness. **Table 4: Typical Noise Levels** provides typical noise levels.

Table 4: Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	– 110 –	Rock Band
Jet fly-over at 1,000 feet		
	– 100 –	
Gas lawnmower at 3 feet		
	– 90 –	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	– 80 –	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower, 100 feet	– 70 –	Vacuum cleaner at 10 feet
Commercial area		Normal Speech at 3 feet
Heavy traffic at 300 feet	– 60 –	
		Large business office
Quiet urban daytime	– 50 –	Dishwasher in next room
Quiet urban nighttime	– 40 –	Theater, large conference room (background)
Quiet suburban nighttime		
	– 30 –	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	– 20 –	
		Broadcast and/or recording studio
	– 10 –	
Lowest threshold of human hearing	– 0 –	Lowest threshold of human hearing

Note:
[1] dBA = A-weighted decibels, mph = miles per hour

Source: **Caltrans**. 2013. ***Technical Noise Supplement to the Traffic Noise Analysis Protocol.***

A-Weighted Decibels

The perceived loudness of sounds is dependent on many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness

is relatively predictable and can be approximated by dBA values. There is a strong correlation between dBA and the way the human ear perceives sound. For this reason, the dBA has become the standard tool used for environmental noise assessment. All noise levels reported in this section are in terms of dBA but are expressed as dB unless otherwise noted.

Addition of Decibels

As noted above, the dB scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic dB is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound and twice as loud as a 60 dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than one source under the same conditions. Under the dB scale, three sources of equal loudness together would produce an increase of 5 dBA.

Sound Propagation and Attenuation

Sound spreads (propagates uniformly outward in a spherical pattern), and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics. No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3 dB per doubling of distance is assumed.

Noise levels could also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

Human Response to Noise

The typical human response to noise can be placed into three categories: the subjective effects of annoyance, nuisance, and dissatisfaction; interference with activities such as speech, sleep, and learning; and physiological effects such as hearing loss or sudden startling. Environmental noise typically produces effects in the first two categories. Workers at industrial plants often experience noise in the third category. A wide variation exists in the individual thresholds of annoyance, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Therefore, an important method of predicting human reactions to a new noise environment is to compare the new noise level to the existing noise level to which one has adapted (i.e., the ambient noise level). In general, the more a new noise level exceeds the former ambient noise level, the less acceptable the new noise environment would be judged. The California Department of Transportation (Caltrans) *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (Caltrans, 2013) reports the following human responses to changes in noise levels:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived.
- Outside of the laboratory, a 3 dBA increase is considered a "barely perceptible" difference (i.e., the change in noise is perceived but does not cause a human response).
- An increase of at least 5 dBA is required before any noticeable change in human response is expected.
- A 10 dBA increase is subjectively heard as an approximate doubling in loudness.

Effects of Noise on People

Hearing Loss

Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise. The Occupational Safety and Health Administration (OSHA) has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over 8 hours in places of employment subject to OSHA regulation. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

Annoyance

Attitude surveys are used for measuring the annoyance felt in a community by noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation between noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. A noise level of about 55 dBA L_{dn} is the threshold at which a substantial percentage of people begin to report annoyance. (FICON, 1992, pg. 3-17)

Sleep Disturbance

The effect of noise on sleep is a recognized concern when addressing the impacts of noise on people. Historical studies of sleep disturbance were focused mainly on laboratories, using various indicators of response (electroencephalographic recordings, verbal response, button push, etc.). Field studies also were conducted, in which subjects were exposed to noise in their own homes, using real or simulated transportation noise. (Lukas, 1975; Griefahn and Muzet, 1978; and Pearsons, et al., 1989)

Based on a 1989 literature review by Pearsons for the U.S. Air Force, no specific adverse health effects have been clearly associated with sleep disturbance, characterized either by awakening or by sleep-state changes (Pearsons, et al., 1989). Nevertheless, sleep disturbance is deemed undesirable and may be considered an effect caused by noise exposure.

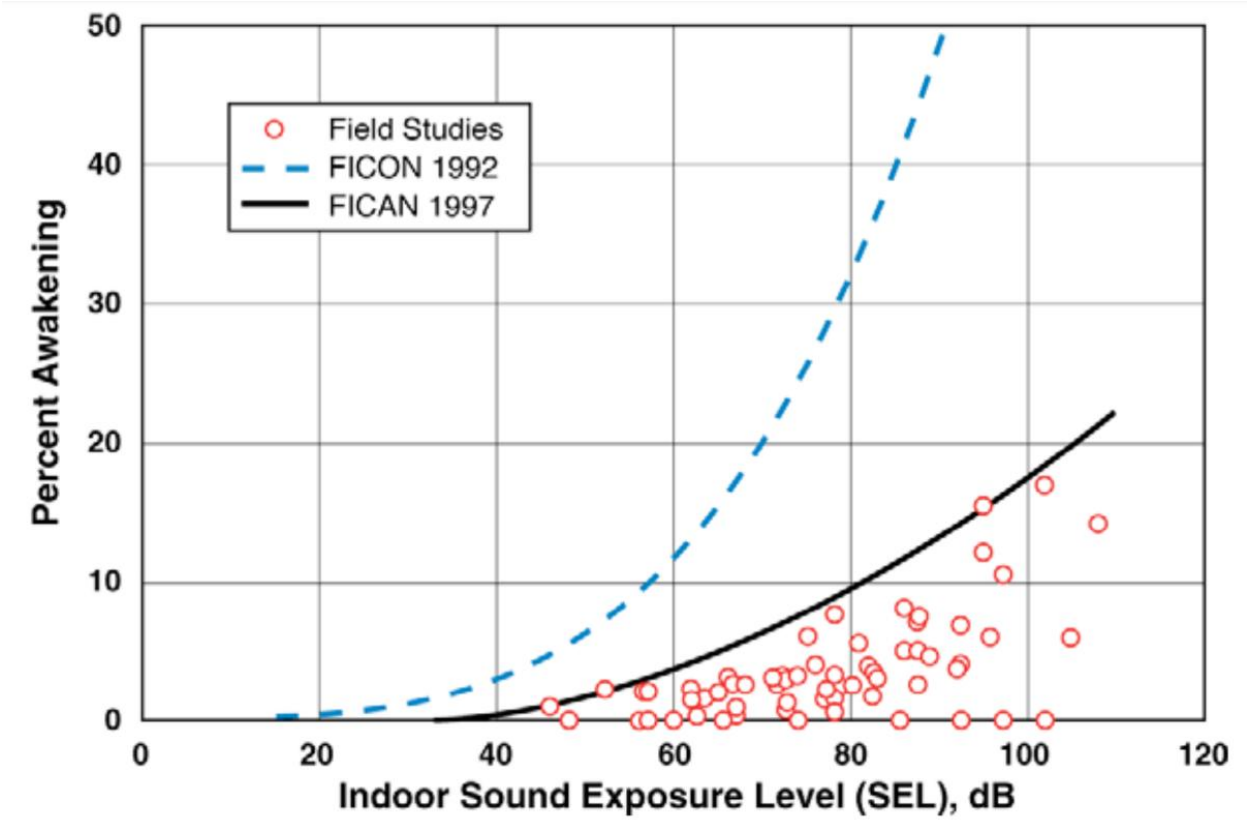
The Federal Interagency Committee on Noise (FICON) was formed in 1990 to review Federal policies that govern the assessment of airport noise impacts. (FICON, 1992, pg. ES-1) In 1992, FICON created an interim dose-response curve to predict the population expected to be awakened by a single event noise level. Due to their findings, FICON recommended that a standing federal interagency committee should be established to continue to research community reaction to aircraft noise including sleep disturbance,

speech interference, and non-auditory health effects of noise. (FICAN, 1997) Therefore, the Federal Interagency Committee on Aviation Noise (FICAN) was formed in 1993. Since the adoption of FICON's interim curve and the establishment of FICAN, substantial research around sleep disturbance has been completed.

In 1997, FICAN utilized results from three studies, conducted in the United Kingdom, near Castle Air Force Base adjacent to Los Angeles International Airport, and communities near the Denver International Airport, in 1992, 1992 and 1995, respectively, in order to create a sleep disturbance curve. This curve illustrates the maximum percent of a residential population to be behaviorally awakened when exposed to varying indoor noise levels. The FICAN 1997 sleep disturbance curve is shown in **Figure 6: FICAN 1997 Sleep Disturbance Curve**

and should be interpreted as predicting the "maximum percent of the exposed population expected to be behaviorally awakened," or the "maximum percent awakened" for a given residential population at a given sound exposure level (SEL) exposure level. (FICAN, 1997)

Figure 6: FICAN 1997 Sleep Disturbance Curve



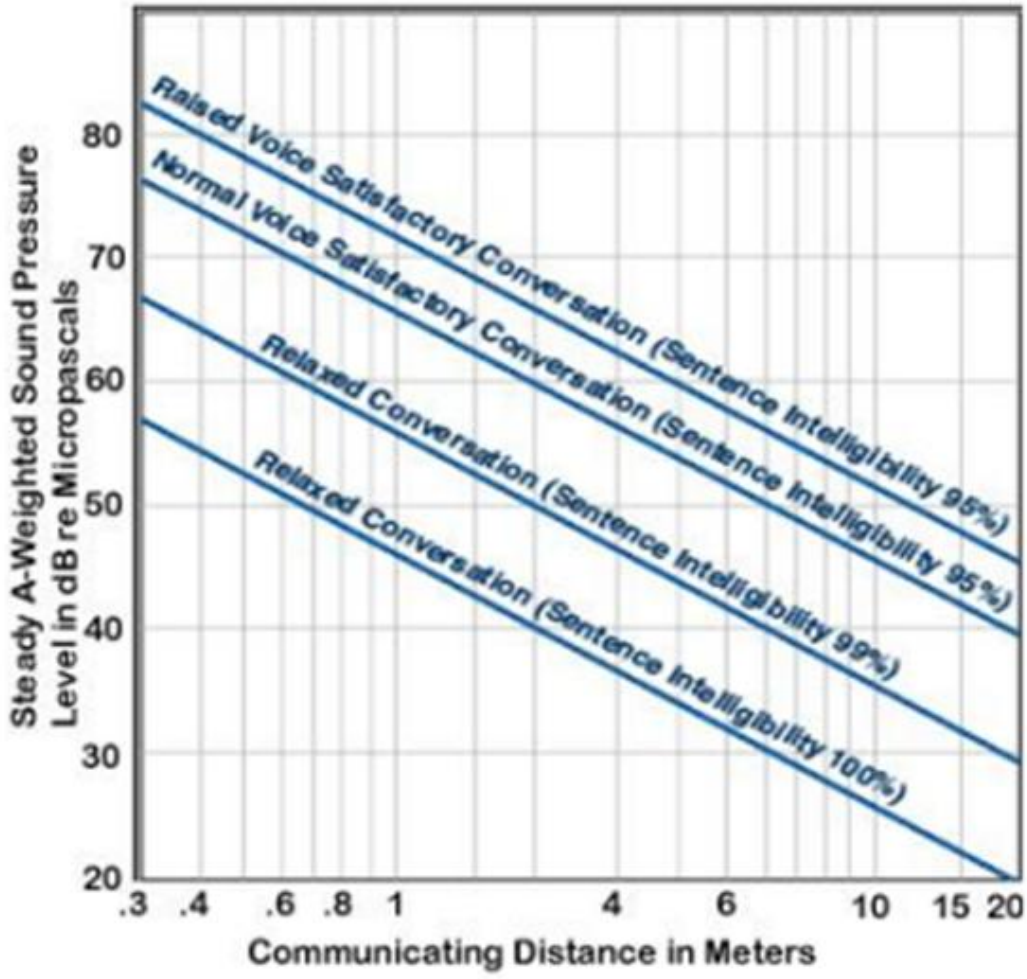
Source: FICAN. 1997. Effects of Aviation Noise on Awakenings from Sleep.

Speech Interference

Another negative impact of sustained noise is speech interference, in which people find it more difficult to maintain intelligible spoken communication as ambient noise levels increase. **Figure 7: Distance for Satisfactory Conversations**

presents the distance that must be obtained between talker and listener for satisfactory conversations, defined as 95 percent intelligibility or higher in the presence of different steady A-weighted background noise levels (U.S. EPA, 1974, pg. D-7). For example, as shown below, in environments with high ambient noise levels, the distance needed to achieve intelligible speech can be a foot or less.

Figure 7: Distance for Satisfactory Conversations



Source: US EPA, *Information on Levels of Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety*, March 1974.

Propagation of Noise to Receptors

Attenuation Due to Distance (Divergence)

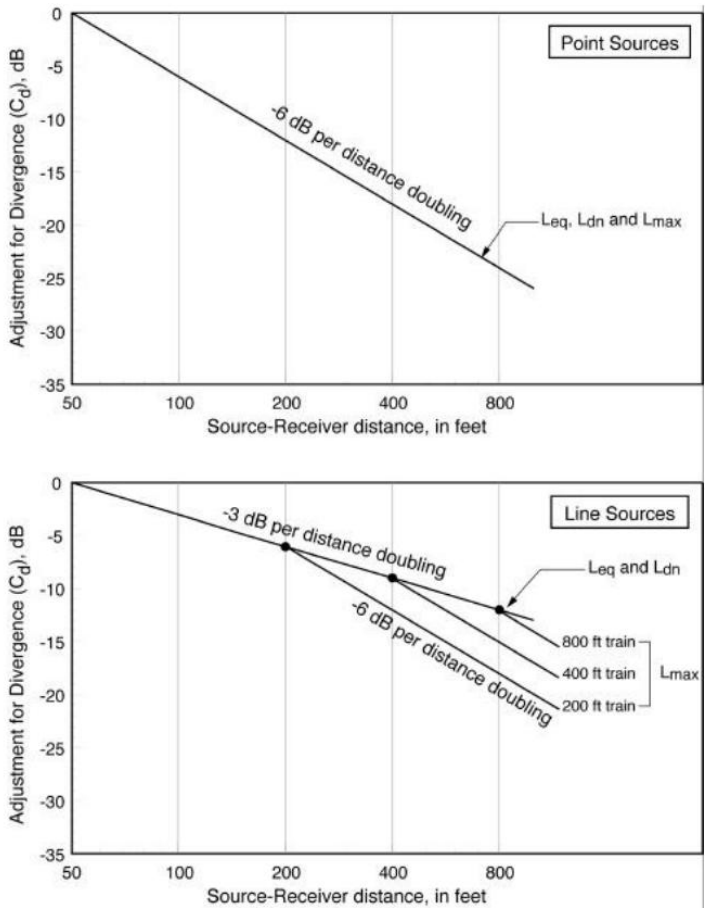
Sound levels naturally attenuate with distance. Such attenuation, sometimes called "divergence," depends upon source configuration and noise generation characteristics. **Figure 8: Attenuation Due to Distance (Divergence)**

shows divergence graphically for point sources and line sources separately in terms of how they attenuate with distance. As shown, the sound level attenuates with increasing distance due to the geometric

spreading of sound energy. For sources grouped closely together (called point sources), attenuation with distance is high: 6 dB per doubling of distance. Most individual noise sources on a moving train radiate sound as point sources. When many point sources are arrayed in a line, all radiating sound at the same time so any one source is not distinguishable, the arrangement is called a line source. For line sources, divergence with distance is less: 3 decibels per doubling of distance for L_{eq} and L_{dn}, and 3 to 6 decibels per doubling of distance for L_{max}. A train, such as those that would visit BIG, passing a stationary receptor along a track can be considered a line source. **Figure 8**: **Attenuation Due to Distance (Divergence)**

shows the line source curve separates into three separate lines for L_{max}, with the point of departure depending on the line source's length. For example, close to a short train, it behaves like a line source; far away, it behaves like a point source.

Figure 8: Attenuation Due to Distance (Divergence)



Source*: FRA, High-Speed Ground Transportation Noise and Vibration Impact Assessment Manual, 2012*

Some sound sources, such as warning bells, radiate sound energy nearly uniformly in all directions. These are called nondirectional, or monopole, sources. For train noise, however, the rolling noise from wheel-rail interactions, as well as some types of aerodynamic noise, as caused by the train moving at high speeds, is complicated because the sources do not radiate sound equally in all directions.[16] This unequal radiation

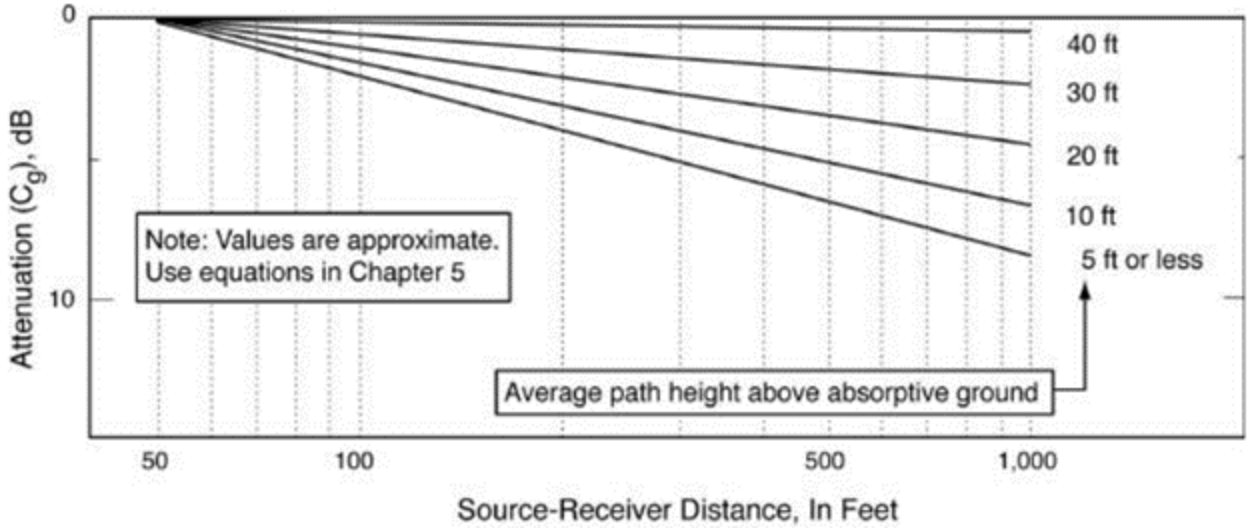
[16] Aerodynamic noise is a phenomenon caused by objects moving through the air. It is acoustic noise caused by turbulent airflow over the surface of a body which creates pressure waves in the air that propagate to receptors and is perceived as noise. Levels of aerodynamic noise are determined by multiple factors, such as the topography of the body moving through air, the velocity of the body relative to the air,

is known as source directivity, which is a measure of the variation in a source's radiation with direction. Studies have shown that wheel-rail noise can be modeled by representing the source as a line source (or continuous row of point sources) with dipole directivity. A dipole radiation pattern has also been observed in the turbulent boundary layer near the sides of a train. Typically, a dipole source radiates a directivity pattern such that the sound pressure is proportional to the cosine of the angle between the source orientation and the receptor. Consequently, wheel-rail noise is propagated more efficiently to either side of a moving train than in front, above, or behind it.

Attenuation Due to Absorption and Diffusion

In addition to the attenuation from geometric spreading of the sound energy, sound levels are further attenuated when sound paths lie close to absorptive or "soft" ground, such as freshly plowed or vegetation-covered areas. This additional attenuation, which can be 5 dB or more within a few hundred feet, is shown graphically on **Figure 9: Absorption and Diffusion**. At very large distances, wind and temperature gradients can alter ground attenuation; such variable atmospheric effects generally influence noise levels well beyond the range of typical railway noise impact.

Figure 9: Absorption and Diffusion

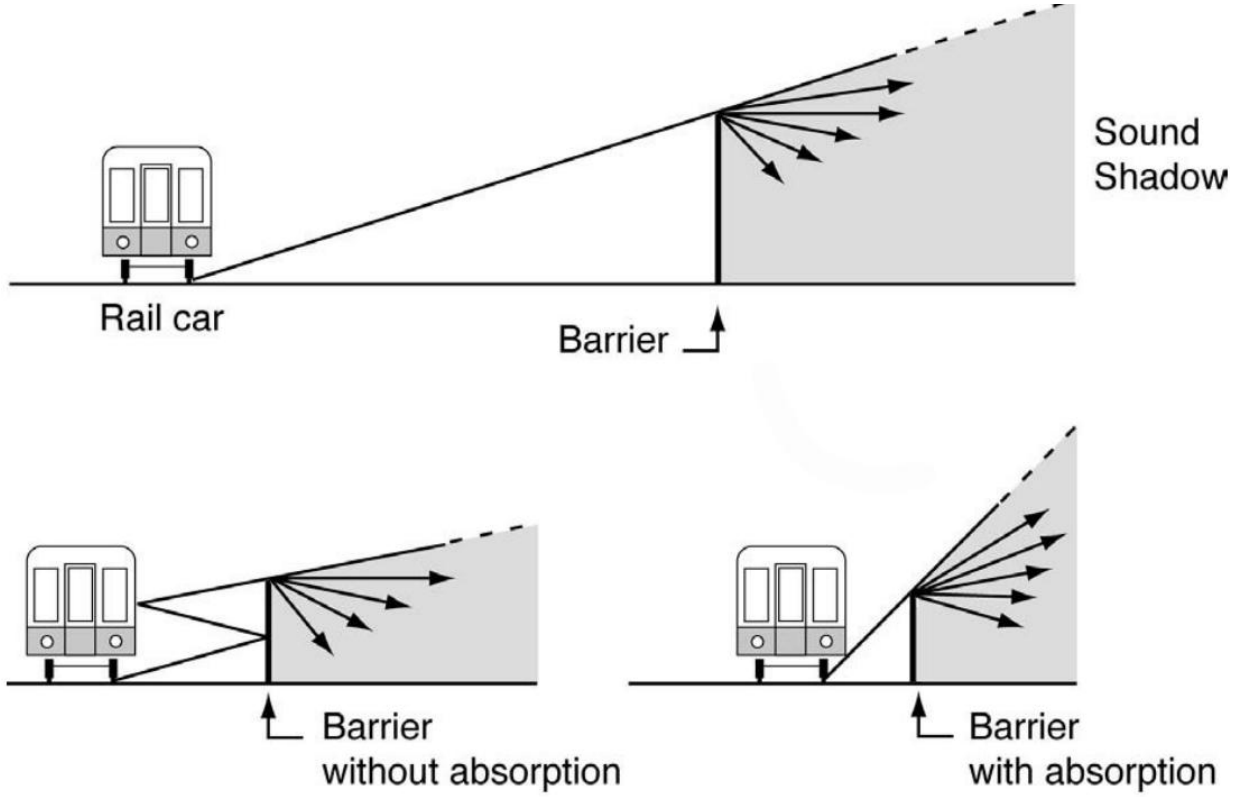


Source: FTA. 2018.*Transit Noise and Vibration Impact Assessment Manual.*

atmospheric conditions, distance of receptors to the moving body, among others. The most common example an individual may experience is the “whooshing” sound a fast-moving car may make when passing by an observer.

Sound paths are sometimes interrupted by noise barriers, terrain, rows of buildings, or vegetation. Noise barriers, usually the most effective means of mitigating noise at sensitive receptors, are the most important of these sound path interruptions. A noise barrier reduces sound levels at a receptor by breaking the direct path between the source and receptor with a solid wall; trees or other vertical landscape vegetation/hedges, in contrast, block the line of sight with the source but do not reduce sound levels substantively. **Figure 10: Noise Barrier Geometry** depicts sound barrier geometry (i.e., absorption and diffusion) which is expected to occur with the proposed trains. Sound energy reaches the receptor only by bending (diffracting) over the top of the barrier, as shown on **Figure 10**: . This diffraction reduces the sound level at the receptor.

Figure 10: Noise Barrier Geometry



Source: FTA. 2018.*Transit Noise and Vibration Impact Assessment Manual.*

Noise barriers for transportation systems typically attenuate noise at the receptor by 5 to 15 dBA depending upon receptor and source height, barrier height, length, and distance from both source and receptor. A barrier's noise attenuation is also frequency (Hz) dependent (i.e., all other factors being the same, the higher the noise frequency, the greater the barrier attenuation). The peak frequencies and source heights of train noise vary according to the dominant noise source in a particular speed regime. In general, aerodynamic noise has lower peak frequencies than does wheel-rail noise, which means that a barrier is less effective at attenuating aerodynamic noise. In addition, aerodynamic noise sources tend to be located higher up on the train than wheel-rail noise sources. As a result, a noise barrier high enough to shield aerodynamic noise would be relatively expensive compared to a noise barrier for shielding wheel-rail noise, since it must extend 15 feet or more above the top of rail. For operating speeds up to about

160 miles per hour (mph), a barrier high enough to shield wheel-rail and other lower car body sound sources would normally provide sufficient sound attenuation.

Barriers on a structure very close to the source provide less attenuation than predicted using standard barrier attenuation formulae, due to reverberation (multiple reflections) between the barrier and the train's body. This reverberation can be offset by increased barrier height, and/or the use of acoustically absorptive material on the source side of the barrier. These concepts are illustrated on **Figure 10**: .

2.2 Vibration

Vibratory Motion

Vibration is an oscillatory motion through a solid medium. In contrast to airborne noise, ground-borne vibration is not a common environmental problem. It is unusual for individuals to perceive vibration from sources such as buses and trucks, even in locations near major roads. However, some common vibration sources produce ground-borne vibration that can be felt (e.g., construction activities such as blasting, pile-driving, and operating heavy equipment). There are several methods employed to quantify vibration. The measurement used in this analysis — PPV —is defined as the vibration signal's maximum instantaneous positive or negative peak. PPV is used to describe vibration impacts on buildings and structures and is expressed in in/sec. Typically, ground-borne vibration generated by human activity attenuates rapidly with distance from the vibration's source. Vibration-sensitive receptors include structures (especially older masonry structures); people (residents, especially the elderly and sick); and land uses with vibration-sensitive equipment such as hospitals, research labs, and production facilities for computer-chip manufacturing.

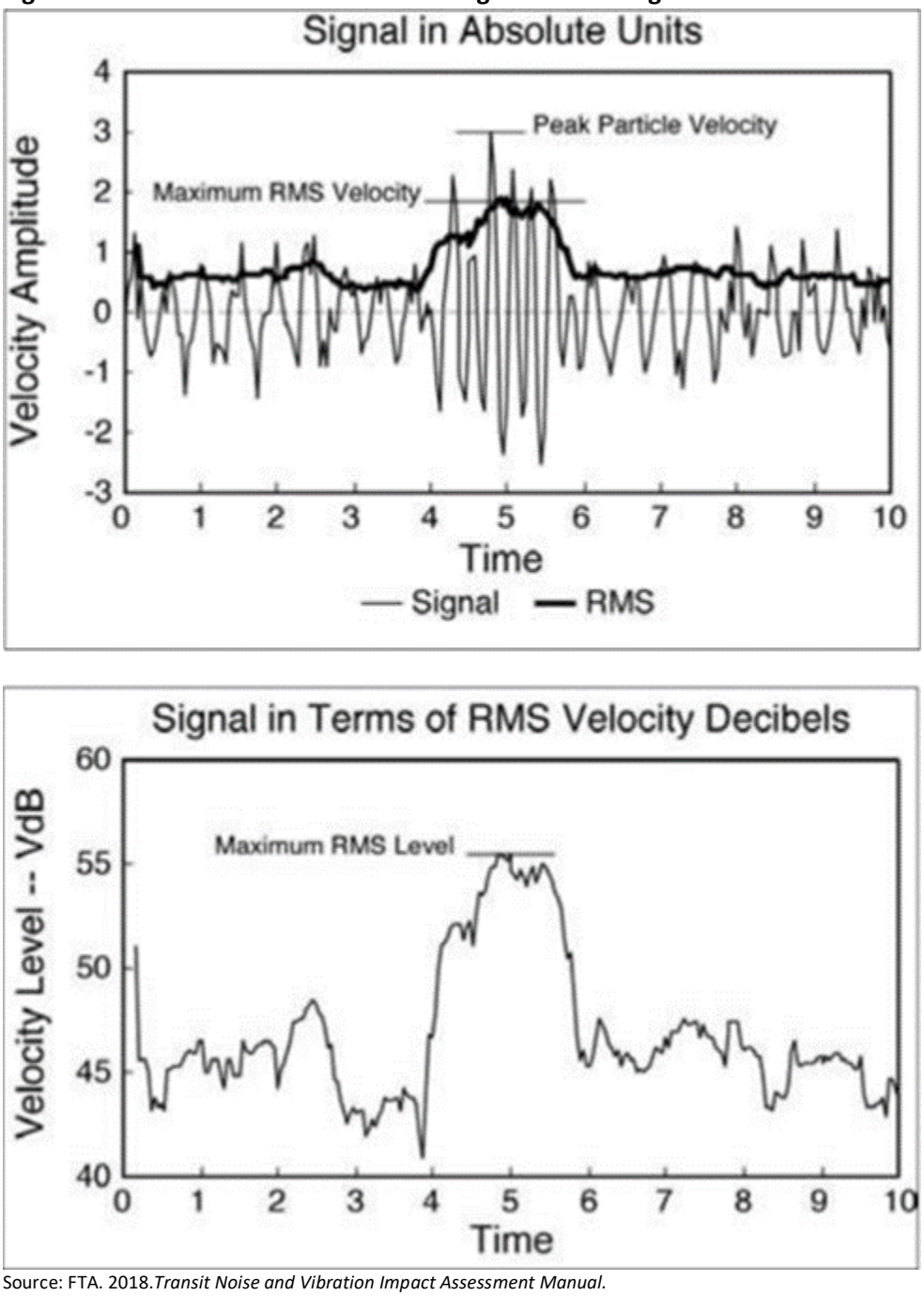
The responses of human receptors and structures to vibration are influenced by a combination of factors including soil and rock type, distance from the source, duration, and the number of perceived events. Energy transmitted through the ground as vibration can reach levels that cause structural damage; however, humans are very sensitive, and the vibration amplitudes that can be perceived by humans are well below the levels that cause architectural or structural damage. The FTA has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (0.2 in/sec) is conservative. The *Caltrans Transportation and Construction Vibration Guidance Manual* characterizes the annoyance potential of vibration as follows: 0.01 in/sec PPV is "barely perceptible," 0.04 in/sec PPV is "distinctly perceptible," 0.1 in/sec PPV is "strongly perceptible," and 0.4 in/sec PPV is "severe" for continuous or frequent intermittent sources. (Caltrans, 2020)

Amplitude Descriptors

The various methods used to quantify vibration amplitude are shown on **Figure 11: Different Methods of Describing a Vibration Signal**

. The raw signal is the lighter weight curve in the top graph of this figure. This is the instantaneous vibration velocity, which fluctuates near the zero point. As noted above, PPV is defined as the vibration signal's maximum instantaneous positive or negative peak. PPV often is used in monitoring blasting vibration because it is related to the stresses that are experienced by buildings.

Figure 11: Different Methods of Describing a Vibration Signal



Source: FTA. 2018.*Transit Noise and Vibration Impact Assessment Manual.*

Although PPV is appropriate for evaluating the potential of building damage, it is not suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. Because the net average of a vibration signal is zero, the root mean square (RMS) amplitude is used to describe the "smoothed" vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal. The average is typically calculated over a 1-second period. **Figure 11** shows the RMS amplitude superimposed on the vibration signal. The RMS amplitude is always less than the PPV and is always positive. The ratio of PPV to

maximum RMS amplitude is defined as the crest factor for the signal. The crest factor is always greater than 1.71, although a crest factor of 8 or more is not unusual for impulsive signals. For ground-borne vibration from trains, the crest factor is usually 4 to 5 (FTA, 2018).

The PPV and RMS velocities are normally described in in/sec within the United States. Although it is not universally accepted, decibel notation is common use for vibration. Decibel notation serves to compress the range of numbers required to describe vibration. The bottom graph on **Figure 11** shows the top graph's RMS curve expressed in decibels. Vibration velocity level in decibels is defined as:

$$L_v = 20 \times \text{Log10}\ (v/v_{ref})$$

Where: L_v = velocity level in decibels
v = RMS velocity amplitude
v_{ref} = reference velocity amplitude

A reference always must be specified whenever a quantity is expressed in terms of decibels. The accepted reference quantity for vibration velocity level in the nation is 1x10-6 in/sec; however, it is important to clearly state the reference quantity being used whenever velocity levels are specified. All vibration levels in this report are referenced to 1x10-6 in/sec. Although not a universally accepted notation, the abbreviation VdB (RMS vibration velocity level, decibels) is used in this document for vibration decibels to reduce the potential for confusion with sound decibels.

Ground-Borne Noise

The rumbling sound caused by the vibration of room surfaces is called ground-borne noise. The annoyance potential of ground-borne noise is usually characterized using the A-weighted sound level (i.e., dBA). Although the A-weighted level is typically the only descriptor used for community noise, there are potential problems with characterizing low-frequency noise using A-weighting. This is because of the non-linearity of human hearing, which causes sounds dominated by low frequency components to seem louder than broadband sounds[17] that have the same A-weighted level. The result is that a ground-borne noise level of 40 dBA sounds louder than 40 dBA broadband airborne noise. This anomaly is accounted for by setting the limits for ground-borne noise lower than would be the case for broadband noise.

Ground-borne noise is generally only an issue for trains operating underground. For systems where the train is operating either at or above grade, the airborne noise level is generally noticeably louder than the ground-borne noise, so that the ground-borne noise is masked by the airborne noise (FTA, 2018, pg. 112-114). This would be the case for BIG, as there are no tracks proposed underground—all proposed tracks would be either at or above grade. Ground-borne noise is typically not generated by construction equipment and the FTA Guidelines do not establish methodologies or thresholds for construction ground-borne noise analyses. Therefore, this report does not include a ground-borne noise analysis for BIG construction activities.

[17] Broadband noise is noise whose sound energy is distributed over a wide section of the audible range as opposed to a smaller range.

3.0 LAWS, REGULATIONS, AND ORDERS

3.1 Federal

NOISE

Noise Control Act of 1972

The Noise Control Act of 1972 (42 United States Cde § 4910) was the first comprehensive statement of national noise policy. The act declared "it is the policy of the U.S. to promote an environment for all Americans free from noise that jeopardizes their health or welfare." Although the act, as a funded program, was ultimately abandoned at the federal level, it served as the catalyst for comprehensive noise studies and the generation of noise assessment and mitigation policies, regulations, ordinances, standards and guidance for many states, counties, and even municipal governments.

Code of Federal Regulations Title 40 (Parts 201, 202, and 205) and Title 49 (Part 210)

Federal regulations related to noise are codified in the *United States (U.S.) Code of Federal Regulations* (CFR). The Federal Highway Administration (FHWA) sets federal regulations related to noise limits for medium and heavy trucks and locomotives. Federal noise regulations for medium and heavy trucks are contained in 40 CFR Part 201 and railroad noise regulations are contained in 49 CFR Part 210. The regulations set noise limits for locomotives and are implemented through regulatory controls on locomotive manufacturers. Federal regulations regarding motor carriers engaged in interstate commerce are contained in Title 40 of the CFR Part 202. The regulations set noise limits for motor carriers engaged in interstate commerce, including setting standards for highway operations. Federal regulations also establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 CFR Part 205, Subpart B. The federal truck pass-by noise standard is 80 dB at 15 meters from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers.

Federal Railroad Administration Guidelines

The U.S. Federal Railroad Administration (FRA) has jurisdiction over all freight and passenger rail (FRA, 2019). According to the FRA's *Guidance on Assessing Noise and Vibration Impacts* (FRA, 2021), the noise standards and methodologies from the Federal Transit Authority (FTA) "Transit Noise and Vibration Impact Assessment Manual" (FTA, 2018), herein referenced as the "FTA guidelines," are relied on by FRA in evaluating improvements to conventional passenger and freight rail lines.

Section 7 of the FTA guidelines provides standards for determining construction noise for rail projects. FTA detailed construction assessment criteria were used for this report and are consistent with Section 7.1 of the FTA guidelines. According to FTA guidelines a "detailed" assessment is warranted when a project has "potentially severe" impacts near noise-sensitive receptors, such as schools, parks and recreation areas, and residential uses.

Table 5: Federal Transit Administration Construction Noise Assessment Criteria shows the FTA's "detailed" impact assessment construction noise criteria, which is an appropriate method for this noise study due to the size and scope of BIG construction activities, and the proximity of existing sensitive receptors to the BIG footprint. According to the FTA guidelines, a detailed analysis of construction noise

is warranted when many noise-sensitive receptors are adjacent to a construction project or where contractors are faced with stringent local ordinances or heightened public concerns expressed in early outreach efforts (FTA, 2018, pg. 177).

Table 5: Federal Transit Administration Construction Noise Assessment Criteria

Land Use	8-hour L_{eq}, dBA	
	Day	Night
Residential	80	70
Commercial	85	85
Industrial	90	90

Note:
dBA = A-weighted decibels, and L_{eq} = equivalent sound level, dBA. See Section 3.1 for Noise descriptor definitions.

Source: FTA. 2018.*Transit Noise and Vibration Impact Assessment Manual.*

Occupational Safety and Health Administration Occupational Noise Exposure

OSHA has set legal limits on noise exposure in the workplace. These limits are based on a worker's 8-hour time-weighted average over a workday. For noise, OSHA's permissible 8-hour time weighted average exposure limit is 90 dBA (29 CFR Part 1910.95). Areas where levels exceed 85 dBA must be designated and labeled as high-noise-level areas where hearing protection is required. This noise exposure criterion for workers would apply to construction activities associated with BIG.

U.S. Environmental Protection Agency Railroad Noise Standards

The United States Environmental Protection Agency (U.S. EPA) is charged with the regulation of railroad noise under the Noise Control Act. U.S. EPA set noise standards are found in 40 CFR Part 201. Enforcement of the regulations shifted to the FRA in 1982 when the U.S. EPA Office of Noise Abatement and Control was closed. Since that time, the U.S. EPA's role in regulating rail noise primarily involves setting national standards and coordinating federal efforts, rather than directly enforcing regulations. **Table 6: Summary of U.S. EPA and FRA Railroad Noise Standards** summarizes the U.S. EPA operating noise standards for railroad equipment and set noise limit standards for new equipment.

Table 6: Summary of U.S. EPA and FRA Railroad Noise Standards

Noise Sources	Operating Conditions	Noise Metric[1,2]	Measured Distance (feet)	Standard (dBA)[2]
Non-switcher locomotives built on or before 12/31/79	Stationary	L_{max} (Slow)	100	73
	Idle stationary	L_{max} (Slow)	100	93
	Non-idle moving	L_{max} (Fast)	100	95
Switcher locomotives plus non-switcher locomotives built after 12/31/79	Stationary	L_{max} (Slow)	100	70
	Idle stationary	L_{max} (Slow)	100	87
	Non-idle moving	L_{max} (Fast)	100	90
Railcars	Speed < 45 mph	L_{max} (Fast)	100	88
	Speed> 45 mph	L_{max} (Fast)	100	93
	Coupling	Adj. average max.	50	92

Note:
[1] Slow and fast exponential-time-weighting is used.
[2] dBA = A-weighted decibels, L_{max} = instantaneous maximum noise level, mph = miles per hour.

Sources: U.S. EPA. 1975. *Background Document for Railroad Noise Emission Standards*. Retrieved from: https://nepis.epa.gov/Exe/ZyPDF.cgi/9101KI1M.PDF?Dockey=9101KI1M.PDF.

Federal Transit Administration Noise and Vibration Guidance

The Federal Transit Administration (FTA) has published the *Transit Noise and Vibration Impact Assessment Manual* (FTA Transit Noise and Vibration Manual) to provide guidance on procedures for assessing impacts at different stages of transit project development (FTA, 2018). The evaluation of vibration impacts can be divided into two categories: human annoyance and building damage. The guidelines provide ground-borne noise and vibration criteria as listed in **Table 7: Ground-Borne Vibration and Noise Impact for Affected Communities Land Use Category.** The most common metric to characterize the impact of vibration on the human body is the root mean square (RMS) amplitude. The RMS amplitude, a metric that lessens error from noise readings, is defined as the average of the signal's squared amplitude. Decibel notation (VdB) is commonly used to measure RMS; RMS is described in more detail in Section 2.1 above. The levels listed in **Table 7** represent the maximum RMS level of an event. In addition, the FTA guidelines provide criteria for special buildings that are very sensitive to ground-borne noise and vibration. The impact criteria for these special buildings are shown in **Table 8: Ground-Borne Vibration and Noise Impact Criteria for Special Buildings**.

Both **Table 7** and **Table 8** differentiate vibration impact thresholds depending on the frequency of daily vibration events, with fewer than 30 vibration events per day considered "infrequent," between 30 and 70 events considered "occasional," and more than 70 events considered "frequent." These definitions were originally developed so that most commuter rail or intercity rail projects would fall into the "infrequent" category and most urban transit projects (subway and light rail transit) would more typically fall into the "frequent" category. BIG operations would result in a maximum of the following:

- 24 total daily freight trains in Opening Year 2028, which would fall into the infrequent category,
- 27 total daily freight trains in Interim Year 2033, which would fall into the occasional category, and
- 34 total daily freight trains in Horizon Year 2048, which would fall into the occasional category

Therefore, for vibration analyses, the occasional event category is assumed.

Table 7: Ground-Borne Vibration and Noise Impact for Affected Communities Land Use Category						
Land Use Category	**Ground-Borne Vibration Impact Levels (VdB re 1 micro inch/second)**			**Ground-Borne Noise Impact Levels (VdB re 20 µPa)**		
	Frequent Events[1]	**Occasional Events[2]**	**Infrequent Events[3]**	**Frequent Events[1]**	**Occasional Events[2]**	**Infrequent Events[3]**
Category 1: Buildings where vibration would interfere with interior operations	65 VdB[4]	65 VdB[4]	65 VdB[4]	N/A[4]	N/A[4]	N/A[4]
Category 2: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB	40 dBA	43 dBA	48 dBA

Note:
[1] "Frequent events" are defined as more than 70 vibration events of the same kind per day.
[2] "Occasional events" are defined as between 30 and 70 vibration events of the same kind per day.
[3] "Infrequent events" are defined as fewer than 30 vibration events of the same kind per day.
[4] This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC and stiffened floors.
[5] dB = decibel, N/A = not applicable, VdB = vibration velocity level, decibels, µPa = micropascals

Source: FTA. 2018. Transit Noise and Vibration Impact Assessment Manual.

Table 8: Ground-Borne Vibration and Noise Impact Criteria for Special Buildings				
Type of Building or Room	**Ground-Borne Vibration Impact Levels (VdB re 1 micro inch/second)**		**Ground-Borne Noise Impact Levels (VdB re 20 µPa)**	
	Frequent Events[1]	**Occasional or Infrequent Events[2]**	**Frequent Events[1]**	**Occasional or Infrequent Events[2]**
Concert halls	65 VdB	65 VdB	25 dBA	25 dBA
Television studios	65 VdB	65 VdB	25 dBA	25 dBA
Recording studios	65 VdB	65 VdB	25 dBA	25 dBA
Auditoriums	72 VdB	80 VdB	30 dBA	38 dBA
Theaters	72 VdB	80 VdB	35 dBA	43 dBA

Note:
[1] "Frequent events" are defined as more than 70 vibration events of the same kind per day.
[2] "Occasional or infrequent events" are defined as fewer than 70 vibration events of the same kind per day.
1 dBA = A-weighted decibel, VdB = root mean square vibration velocity level, decibels, µPa = micropascals

Source: *FTA. 2018. Transit Noise and Vibration Impact Assessment Manual.*

Existing vibration is not accounted for in the criteria given in **Table 7** and **Table 8**. Although rail projects commonly use parts of existing rail routes, the criteria given in **Table 7** and **Table 8** do not indicate how to account for existing vibration on such routes. Methods of handling representative scenarios include the following:

- **Infrequently used rail route**—Use the vibration criteria from **Table 7** and **Table 8**: Ground-Borne Vibration and Noise Impact Criteria for Special Buildings when the existing rail traffic consists of five or fewer trains per day.
- **Moderately used rail route**—If the existing rail traffic consists of 5 to 12 trains per day with vibration that substantially exceeds the impact criteria, there would be no effect as long as the

project vibration levels estimated using the procedures outlined in Section 6 of the FTA guidelines are at least 5 vibration decibels (VdB) less than the existing vibration. Vibration from existing trains could be estimated using the General Assessment procedures in Section 6 of the FTA guidelines; however, measuring vibration from existing train traffic is usually preferable.

- **Heavily used rail route**—If the existing traffic exceeds 12 trains per day and if the project would not substantially increase the number of vibration events (less than doubling the number of trains is usually considered not substantial), there would be no additional effect unless the project vibration, estimated using the procedures of Section 6 of the FTA guidelines, would be higher than the existing vibration. When the project would cause vibration more than 5 VdB greater than the existing source, the existing source can be ignored and the vibration criteria in **Table 7** and **Table 8** can be applied to the project.
- **Moving existing tracks**—Another scenario where existing vibration can be substantial is a new rail line within an existing rail right-of-way that requires shifting the location of existing tracks. Where the track relocation would cause higher vibration levels at sensitive receptors, the projected vibration levels from both rail systems must be compared to the appropriate impact criterion to determine if there would be a new effect. If an effect were judged to have existed prior to moving the tracks, new effects would be assessed only if the relocation would result in more than a 3 VdB increase in vibration level. Although the impact thresholds given in **Table 7: Ground-Borne Vibration and Noise Impact for Affected Communities Land Use Category** and **Table 8: Ground-Borne Vibration and Noise Impact Criteria for Special Buildings** are based on experience with vibration from rail transit systems, the thresholds can be applied to freight train vibrations as well. However, locomotive and railcar vibration should be considered separately. Because locomotive vibration only lasts for a few seconds, the infrequent-event limit is appropriate, but for a typical line haul freight train where the railcar vibration lasts for several minutes, the frequent-event limits should be applied to the railcar vibration. Some judgment must be exercised to make sure that the approach is reasonable. For example, some spur rail lines carry very little rail traffic (sometimes only one train per week) or have short trains, in which case the infrequent-event limits are appropriate.

Additionally, construction activities can result in varying degrees of ground vibration, depending on the equipment and method employed. The vibration associated with typical construction activities is not likely to damage building structures, but it could cause cosmetic building damage. Consequently, the construction vibration impact on a building is generally assessed in terms of peak particle velocity (PPV).

Table 9: Construction Vibration Building Damage Criteria

Table 9: Construction Vibration Building Damage Criteria summarizes the FTA's construction vibration criteria.

Table 9: Construction Vibration Building Damage Criteria

Building Category	PPV (inches per second)	Approximate L_v[2]
I. Reinforced-concrete, steel, or timber (no plaster)	0.50	102 VdB
II. Engineered concrete and masonry (no plaster)	0.30	98 VdB
III. Non-engineered timber and masonry buildings	0.20	94 VdB
IV. Buildings extremely susceptible to vibration damage	0.12	90 VdB

Note:
[1] VdB re 1 micro-inch per second
2 L_v = velocity level, PPV = peak particle velocity, VdB = root mean square vibration velocity level, decibels;

Source: FTA. 2018. *Transit Noise and Vibration Impact Assessment Manual*.

3.2 State

California Noise Control Act

The California Noise Control Act of 1973 (California Health and Safety Code, § 46010 et seq.) directs the Office of Noise Control in the Department of Health Services to assist communities in developing local noise control programs and to work with the Office of Planning and Research to provide guidance for the preparation of the required noise elements in city and county general plans, pursuant to California Government Code § 65302(f). In preparing the noise element, a city or county must identify local noise sources and analyze and quantify, to the extent practicable, current, and projected noise levels for various sources including highways and freeways; passenger and freight railroad operations; ground rapid transit systems; commercial, general, and military aviation and airport operations; and other ground stationary noise sources. Noise-level contours must be mapped for these sources using both CNEL and day-night average level and are to be used as a guide in land use decisions to minimize the exposure of community residents to excessive noise.

California Code of Regulations

The California Noise Insulation Standards found in Title 24 of the California Code of Regulations and California Health and Safety Code § 17922.6 set requirements for new multi-family residential units, hotels, and motels that could be subject to relatively high levels of transportation-related noise. For exterior noise, the noise insulation standard is 45 dBA L_{dn} or CNEL in any habitable room and requires an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than 60 dBA L_{dn} or CNEL.

3.3 Local

California counties and cities prepare general plans with noise policies and ordinances consistent with state law discussed above. Noise elements often incorporate specific allowable noise levels to achieve a quality environment. General plans are not required to address ground-borne vibration.

County of San Bernardino Countywide Plan

The County adopted the Countywide Plan in October 2020. The Countywide Policy Pan addresses the physical, social, and economic issues facing the County's unincorporated portions. **Table 10: Countywide Plan Policy Plan Relevant Goals and Policies – Noise** includes the noise policies relevant to BIG:

Table 10: Countywide Plan Policy Plan Relevant Goals and Policies – Noise

Number	Goal or Policy
HAZARDS ELEMENT	
Goal HZ-2	**Human Generated Hazards.** People and the natural environment protected from exposure to hazardous materials, excessive noise, and other human-generated hazards.
Policy HZ-2.6	**Coordination with Transportation Authorities**. We collaborate with airport owners, FAA, Caltrans, SBCTA, SCAG, neighboring jurisdictions, and other transportation providers in the preparation and maintenance of, and updates to transportation-related plans and projects to minimize noise impacts and provide appropriate mitigation measures.
Policy HZ-2.7	**Truck Delivery Areas.** We encourage truck delivery areas to be located away from residential

	properties and require associated noise impacts to be mitigated.
Policy HZ-2.8	**Proximity to Noise Generating Uses.** We limit or restrict new noise sensitive land uses in proximity to existing conforming noise generating uses and planned industrial areas.
Policy HZ-2.9	**Control Sound at the Source.** We prioritize noise mitigation measures that control sound at the source before buffers, soundwalls, and other perimeter measures.
Goal HZ-3	**Environmental Justice.** For unincorporated environmental justice focus areas, equitable levels of protection from environmental and health hazards; expanded opportunities for physical activity and meaningful civic engagement; and access to healthy food, public facilities, safe and sanitary housing.
Policy HZ-3.19	**Community Education.** We make educational materials available to the public in unincorporated environmental justice focus areas so that they clearly understand the potential for adverse pollution, noise, odor, vibration, and lighting and glare, and the effects of toxic materials to promote civil engagement. We require that such educational materials be developed in accordance with Plain Language Guidelines. We require that this information be made available in public spaces such as libraries and community centers, as well as on County websites and other appropriate means.
Sources: County of San Bernardino. 2020. *Countywide Plan.* Retrieved from: https://countywideplan.com/policy-plan.	

Codified Ordinances of the San Bernardino County Municipal Code

County Code Title 2 Division 4 Chapter 7: Noise Abatement and Control. San Bernardino County Development Code (County Code) Title 2, Division 4, Chapter 7, *Noise Abatement and Control* was adopted to regulate noise in the County's unincorporated area to promote the public health, comfort, and convenience of its inhabitants and visitors. However, as stated in the County Code, this Chapter is not intended to establish thresholds of significance for the purpose of any analysis required by CEQA. This chapter further specifies that no person shall create any sound, or allow the creation of any sound, on any property that causes the sound level on any other occupied property to exceed the sound level limits set forth in County Code § 83.01.080 (General Performance Standards, Noise).

County Code Title 8 Division 3 Chapter 1: Vibration. This section (§ 83.01.090) establishes standards for acceptable vibration levels. County Code § 83.01.090 states that no ground vibration shall be allowed that can be felt without the aid of instruments at or beyond the lot line, nor shall any vibration be allowed which produces a particle velocity greater than or equal to 0.20 in/sec measured at or beyond the lot line. Temporary construction, maintenance, repair, or demolition activities between 7 a.m. and 7 p.m. are exempt from this vibration limit, except on Sundays and federal holidays, when construction is prohibited.

County Code Title 8, Division 3, Chapter 83.01.080(C) sets interior and exterior noise standards for stationary sources by receiving land use type. Exterior noise standards for noise from stationary sources are summarized in **Table 11: San Bernardino County Exterior Noise Standards for Stationary Sources of Noise.** As shown in **Table 11**, the noise standard for residential properties is 55 dBA L_{eq} from 7 a.m. to 10 p.m. and 45 dBA L_{eq} from 10 p.m. to 7 a.m. For industrial properties, the noise standard from stationary noise sources is 70 dBA at any time of the day or night. Areas exposed to noise levels exceeding these standards are considered noise-affected areas. The County Code exempts construction noise if construction is limited to the hours between 7 a.m. and 7 p.m., except on Sundays or federal holidays, when construction is not allowed. The County's exterior and interior noise standards for mobile sources are shown in **Table 12: San Bernardino County Noise Standards for Mobile Sources**.

Table 11: San Bernardino County Exterior Noise Standards for Stationary Sources of Noise		
Affected Land Uses (Receiving Noise)	**7 a.m. – 10 p.m. L_{eq}**	**10 p.m. – 7 a.m. L_{eq}**
Residential	55 dBA	45 dBA
Professional services	55 dBA	55 dBA
Other commercial	60 dBA	60 dBA
Industrial	70 dBA	70 dBA
Note: [1] L_{eq} = (Equivalent Energy Level). The sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period, typically 1, 8, or 24 hours. [2] dBA = (A-weighted decibels). The sound pressure level, in decibels, as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound, placing greater emphasis on those frequencies within the sensitivity range of the human ear.		
Sources: San Bernardino County. 2024. *San Bernardino County Development Code*.		

Table 12: San Bernardino County Noise Standards for Mobile Sources			
Receiving Land Use		**L_{dn} (or CNEL) dBA**	
Categories	**Uses**	**Interior[1]**	**Exterior[2]**
Residential	Single and multi-family, duplex, mobile homes	45	60[3]
Commercial	Hotel, motel, transient housing	45	60[3]
	Commercial retail, bank, restaurant	50	N/A
	Office building, research and development, professional offices	45	65
	Amphitheater, concert hall, auditorium, movie theater	45	N/A
Institutional/Public	Hospital, nursing home, school classroom, religious institution, library	45	65
Open Space	Park	N/A	65
Note: [1] The indoor environment shall exclude bathrooms, kitchens, toilets, closets, and corridors. [2] The outdoor environment shall be limited to: • Hospital/office building patios • Hotel and motel recreation areas • Mobile home parks • Multi-family private patios or balconies • Park picnic areas • Private yard of single-family dwellings • School playgrounds [3] An exterior noise level of up to 65 dB(A) (or CNEL) shall be allowed provided exterior noise levels have been substantially mitigated through a reasonable application of the best available noise reduction technology, and interior noise exposure does not exceed 45 dBA (or CNEL) with windows and doors closed. Requiring that windows and doors remain closed to achieve an acceptable interior noise level shall necessitate the use of air conditioning or mechanical ventilation. [4] CNEL = Community Noise Equivalent Level (The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7 p.m. to 10 a.m. and 10 decibels to sound levels in the night before 7 a.m. and after 10 p.m.) [5] dBA = A-weighted decibels, L_{dn} = day-night sound level, dBA			
Source: San Bernardino County. (2024). *San Bernardino County Development Code*.			

City of Barstow 2015 General Plan

The City adopted the City of Barstow 2015 General Plan (2015 General Plan) in February 2015. The 2015 General Plan Noise Element utilizes the State of California interior and exterior noise standards. The

Barstow General Plan Noise Report includes a noise contour map, which identifies noise levels throughout Barstow. It also provides a calculated noise contour map for the year 2020 assuming the 2015 General Plan developments, goals, and policies are implemented.

Table 13: 2015 General Plan Relevant Goals, Policies, and Strategies – Noise includes the noise-related goals, policies, and strategies relevant to BIG:

Table 13: 2015 General Plan Relevant Goals, Policies, and Strategies – Noise	
Number	**Goal or Policy**
NOISE ELEMENT	
Goal 1	Provide an environment free of potentially hazardous sounds and noise.
Policy 1.A	The City shall adhere to the State of California interior and exterior standards for desirable sound levels in various land use categories as shown in Table N-1 (refer to **Table 14: City of Barstow Interior and Exterior Noise Standards**, below).
Strategy 1.A.1	For projects that are expected to generate potentially harmful noise levels, conduct noise analyses and prepare projections and incorporate mitigation measures to ensure that exterior noise levels at property lines of sensitive noise receptors (e.g., residential, institutional and open space) do not exceed 65 dBA.
Strategy 1.A.2	Endeavor to locate noise-sensitive land uses outside of the 60-65 dBA noise contours illustrated on Exhibit N-1.
Policy 1.B	Minimize the exposure of residents and visitors to temporary noise levels that are potentially harmful.
Strategy 1.B.1	Consider noise impacts and require noise mitigation mechanisms in approving public events that are likely to generate high levels of noise. Responsible Parties: City Council, City Manager, or designee.
Strategy 1.B.2	Limit the hours of operation of activities that are likely to generate high noise levels.
Goal 2	Minimize adverse noise impacts of development anticipated under the General Plan.
Policy 2.A	Proposals for development as well as changes proposed to the Land Use Map shall include consideration of the potential noise impacts associated with such activities.
Strategy 2.A.1	Residential projects proposed adjacent to any street where the build out noise level at 50 feet from centerline is expected to exceed 65 dBA, as well as commercial and industrial projects proposed adjacent to sensitive receptors, or lands designated for sensitive receptors, including residential, school or hospital sites, shall be required to submit a noise analysis in conjunction with entitlement applications.
Strategy 2.A.2	Minimum requirements for noise analyses for proposed development projects shall be developed and distributed to applicants early in the development review process.
Policy 2.B	Minimize noise and ground vibration associated with project construction.
Strategy 2.B.1	Exempt construction activities from the operational noise standards set forth in Table N-1 between the hours of 7:00 a.m. and 7:00 p.m. and enforce the standards outside of these hours.
Strategy 2.B.2	Pursuant to San Bernardino County Ordinance 87.0910, vibration levels shall be limited to 0.2 inch per second (in/sec) at the property line (or nearest sensitive receptor).
Sources: City of Barstow. (2015). *2015-2020 General Plan*.	

In addition, the City has adopted the State of California's interior and exterior noise standards in the 2015 General Plan, which are shown in **Table 14: City of Barstow Interior and Exterior Noise Standards**. These are the standards incorporated directly into the existing 2015 General Plan.

Table 14: City of Barstow Interior and Exterior Noise Standards			
Categories	**Uses**	**CNEL (dBA)**	
		Interior	**Exterior**
Residential	Single-family, duplex, multi-family	45[3]	65
	Mobile homes	--	65[4]
Commercial Industrial	Hotel, motel, transient lodge	45	65[5]
	Commercial retail, bank, restaurants	55	--
	Office building, R&D, professional & government offices	50	--
	Amphitheater, concert hall, auditorium, meeting hall	45	--
	Gymnasium (multipurpose)	50	--
	Sports club	55	--
	Manufacturing, warehousing, wholesale, utilities	65	--
	Movie theaters	45	--
Institutional	Hospitals, schools, classrooms	45	65
	Church, library	45	--
Open Space	Parks and outdoor active and passive recreational facilities	--	65

Note:
1. Indoor environment excluding: bathrooms, toilets, closets, and corridors.
2. Outdoor environment limited to: Private yard of single-family residential dwellings. Multi-family private patio or balcony which is served by a means of exit from inside. Mobile home park. Hospital patio. Park's picnic area. School's playground. Hotel and motel recreation area.
3. Noise level requirements with closed windows. Mechanical ventilation or other means of natural ventilation shall be provided as per Uniform Building Code Chapter 12, § 1205.
4. Exterior noise level should be such that interior noise level would not exceed 45 dBA CNEL. Except those areas affected by aircraft noise.
5. CNEL = (Community Noise Equivalent Level), dBA = A-weighted decibels

Source: City of Barstow. (2015). *2015 General Plan*.

The Code of the City of Barstow

The Code of the City of Barstow (Barstow Code) regulations addressing geology, soils, and mineral resources are provided below.

Barstow Code § 19.18.170: I Industrial District. This section includes the following regulations for land uses in the Industrial District:

> *(2) Uses in the industrial district shall be planned, developed, conducted, and operated so that noise and vibration do not impact adjacent properties pursuant to* section 19.18.060*(h) and the noise element of the Barstow General Plan. Noise levels shall be no more than 65 dBA when measured at the property line when adjacent to residential or other sensitive uses, or as approved by the city for other uses.*

4.0 METHODS FOR EVALUATING IMPACTS

4.1 Impact Analysis Methodology

BIG construction and operational noise and vibration levels were calculated based on BIG-specific activities. The following procedures and methodologies are utilized to evaluate BIG's construction and operational noise and vibration impacts.

Construction Noise

Construction noise was evaluated consistent with FTA guidelines and using the FHWA Roadway Construction Noise Model (RCNM), RCNM User's Guide, and SoundPLAN 3D modeling software. RCNM is a program that enables the prediction of construction noise levels for a variety of construction operations based on a compilation of empirical data and the application of acoustical propagation formulas. The RCNM User's Guide provides input data and references, adjustment factors, noise calculation formulas, and other pertinent information for the RCNM model. SoundPLAN is a complex state-of-the-art noise modeling software used for simulating noise environments, and creates noise contour maps using reference noise levels, topography, point and area noise sources, mobile noise sources, and intervening walls and structures. Inputs to the SoundPLAN model include ground topography and ground type, intervening walls and structures, noise source locations and heights, receptor locations, and sound power level data. Construction equipment reference noise levels were obtained from the FTA guidelines and were input into RCNM for each construction phase and area and then modeled in SoundPLAN to predict construction noise levels at the nearest noise-sensitive receptors surrounding the BIG footprint. The modeled receptor location represents the area of frequent human use[18] for each noise-sensitive use[19] evaluated for construction and operational noise impacts in this report. Construction equipment was modeled in SoundPLAN as area sources[20] for eight distinct construction areas: block swap yard, intermodal facility, transload warehouse center, east and west lead tracks, solar farm, 33 kV line, and Lenwood Channel improvements. In addition, pile driving and concrete batch plants required for BIG construction were modeled in SoundPLAN as point sources[21] to capture construction noise from all equipment sources. Ancillary construction activities, including bridge demolition and Sweeten Lane paving were also modeled in SoundPLAN as areas sources.

Typical noise levels generated by construction equipment are identified in **Table 15: Typical Construction Equipment Noise Levels**. Operating cycles for these types of construction equipment could involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of noise impacts would be due to random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). Ground-borne noise and other types of construction-related noise impacts would typically occur during

[18] According to A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations (FHWA, 2017) and Techniques for Reviewing Noise Analyses and Associated Noise Reports (FHWA, 2018), an area of frequent human use is defined as "…areas that people use for a significant period of time" and includes areas such as balconies, exterior sitting or eating areas, playgrounds, pools or other similar locations where people gather for extended periods.

[19] See Section 5.1 of this report. Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, and parks and recreation areas. Residential uses are also considered noise-sensitive, especially during nighttime hours.

[20] An "area source" forms a single plane and the noise source radiates over a defined geographic area (dB/m^2).

[21] A "point source" in SoundPLAN Essential 5.1 represents a stationary noise source that radiates sound spherically in all directions.

grading phase excavation activities, which have the potential to create the highest noise levels. Other construction activities with the potential to generate high noise levels include pile-driving during bridge construction and railroad track laydown during track construction. Neither the County nor the City have construction noise standards. As such, construction noise is evaluated against the FTA's day and night construction noise assessment criteria of 80 dBA (8-hour L_{eq}) and 70 dBA (8-hour L_{eq}), respectively, for residential uses; see **Table 5**. Per FTA guidelines Section 7.1, L_{eq} is the appropriate unit for evaluation because can be used to describe noise level from operation of each piece of equipment separately, and levels can be combined to represent the noise level from all equipment operating during a given period.

Table 15: Typical Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA) at 50 feet from Source	Typical Noise Level (dBA) at 100 feet from Source[1]
Air compressor	80	74
Backhoe	80	74
Compactor	82	76
Concrete mixer	85	79
Concrete pump	82	76
Concrete vibrator	76	70
Crane, derrick	88	82
Crane, mobile	83	77
Dozer	85	79
Generator	82	76
Grader	85	79
Impact wrench	85	79
Jack hammer	88	82
Loader	80	74
Paver	85	79
Pile-driver (impact)	101	95
Pile-driver (sonic)	95	89
Pneumatic tool	85	79
Pump	77	71
Roller	85	79
Saw	76	70
Scraper	85	79
Shovel	82	76
Truck	84	78

Note:
1. Calculated using the inverse square law formula for sound attenuation: dBA2 = dBA1+20Log(d1/d2)
2. dBA2 = estimated noise level at receptor, dBA1 = reference noise level, d1 = reference distance, d2 = receptor location distance, dBA = A-weighted decibels

Source: FTA. 2018. *Transit Noise and Vibration Impact Assessment Manual, Table 7-1.*

BIG construction activities would primarily occur between 7 a.m. and 7 p.m. consistent with the County Code (County Code Title 8, Division 3, Chapter 83.01). However, nighttime construction would be required throughout the BIG footprint during certain phases or periods to accommodate key activities required to maintain progress on BIG construction and rail operations (e.g., concrete foundation pouring for the transload warehouse center, east and west lead track work adjacent to the mainline tracks where the lead tracks would tie into the mainline tracks, etc.). Thus, nighttime construction was analyzed to occur at each phase of BIG construction, and nighttime noise levels were evaluated against the FTA's nighttime

construction noise assessment criteria as shown in **Table 5: Federal Transit Administration Construction Noise Assessment Criteria**.

BIG construction would last for approximately 34 months, intermittently increasing the ambient noise level at various noise-sensitive receptors due to the various types of construction equipment required, and the various locations and times at which such equipment would be used. Increased noise levels would be experienced at the nearest noise-sensitive receptor. Because the magnitude of the effect depends on the type of construction activity, the number of units of construction equipment, and the sound level generated by various units of equipment, noise-sensitive receptors nearest to the active construction area would experience the highest levels of BIG-related noise.

BIG has nine distinct construction phases: demolition, site preparation and mobilization; mass grading; fine grading; bridges, box culverts, sub-ballast, drainage, and utilities; buildings; paving; tracks and signals; solar farm, and 33 kV transmission line. Each construction phase involves a different mix of construction equipment.

Details regarding construction equipment for each construction phase were provided by BNSF. BIG includes construction at the eight construction areas listed above (block swap yard, intermodal facility, transload warehouse center, east and west lead tracks, solar farm, 33 kV line, and Lenwood Channel improvements). The construction equipment was proportionally distributed to each of the eight construction areas based on their relative size for the BIG footprint. All eight construction areas and associated equipment were analyzed as individual noise sources and conservatively assumed to operate simultaneously. The two loudest construction phases within each construction area were modeled in SoundPLAN and assumed to occur simultaneously as a worst-case scenario to account for potential overlapping construction activities in accordance with FTA methodologies. The construction activities and noise levels for each construction area are discussed in more detail below.

Maximum or peak day BIG construction trips are compared to existing average daily traffic for BIG construction routes and are conservatively evaluated using the barely perceptible noise increase threshold of 3 dBA in accordance with FHWA traffic noise methodologies.

Construction Noise Levels

Table 15 presents typical construction noise levels for various pieces of construction equipment at a standard reference level distance of 50 feet. The sound levels would be attenuated with distance from the source by a variety of mechanisms, but the most effective of these mechanisms is the diversion of sound waves with distance from the source (i.e., attenuation by divergence). In general, there would be a 6 dB decrease in the sound level with every doubling of distance from the construction equipment. Therefore, at a distance of 100 feet, the noise levels would be about 6 dB lower than at the 50-foot reference distance. Similarly, at a distance of 200 feet, the noise levels would be approximately 12 dB lower than at the 50-foot reference distance.

The following equation calculates the resulting L_{eq} at a noise-sensitive receptor for an individual piece of construction equipment and was used to estimate noise levels from BIG construction activities:

$$Leq\ (equip) = \ E.L. + 10log(U.F.) - 20log\left(\frac{D}{50}\right) - \ 10Glog(\frac{D}{50})$$

Where: L_{eq}(equip) = L_{eq} at a receptor resulting from the operation of a single piece of equipment over a specified time period

E.L. = noise emission level of the particular piece of equipment at a reference distance of 50 feet

G = constant that accounts for topography and ground effects

D = distance from the receptor to the piece of equipment

U.F. = usage factor that accounts for the fraction of time that the equipment is in use over the specified period of time

The following assumptions were used to conduct a detailed assessment of the noise effects of each construction phase and provide a conservative estimate of BIG construction noise levels:

- **Noise source level –** Sound generation levels for construction equipment items were obtained from **Table 15**. Usage factors for each piece of construction equipment were determined based on the RCNM User's Guide to calculate L_{eq} for each construction phase.
- **Noise propagation –** For construction assessment, the ground was considered hard, and *G* = 0.
- **Location –** All pieces of equipment are conservatively assumed to operate throughout each construction activity area.

The sections below describe, in detail, the methodology for determining construction noise impacts for each construction activity within BIG.

Block Swap Yard

Block swap yard construction activities would include surface and elevated track, track work, and grade-separated roadway crossings. Major construction activities would include earthwork and excavation support, railway systems construction, bridge construction, and railway systems construction (including trackwork, signaling, and communications). A typical construction sequence for the railway systems includes clearing, grubbing, grading, and compacting the rail bed, applying crushed rock ballast, laying track, and installing electrical and communications systems. The construction phase for the block swap yard that would generate the highest noise level is mass grading. Equipment used during mass grading includes cranes, excavators, generators, graders, dump trucks, grapple/dump trucks, rollers, dozers, loaders, scrapers, and water trucks. This equipment was modeled in SoundPLAN as an area source consistent with FTA construction noise methodologies.[22]

[22] In accordance with Section 7.1 (Construction Noise Assessment) of the FTA guidelines, construction equipment is assumed to operate at the center of the construction site due to the variability of construction activities and the type, location, duration, and horsepower of equipment being used. As such, construction equipment noise was modeled in SoundPLAN as an area source that distributes the noise source over a defined geographic area. Because equipment would operate throughout each construction area and not at a fixed location for extended periods of time, area sources best represent the variability of construction noise associated with BIG.

Intermodal Facility

Intermodal facility construction would include construction of tracks similar to the block swap yard described above, along with various administrative and support buildings and substantial amounts of paving for container parking and storage. Like the block swap yard, the construction phase for the intermodal facility that would generate the highest noise level would be mass grading. Equipment used during mass grading includes cranes, excavators, generators, graders, dump trucks, grapple/dump trucks, rollers, dozers, loaders, scrapers, and water trucks. This equipment was modeled in SoundPLAN as an area source consistent with FTA construction noise methodologies.

Transload Warehouse Center

Transload warehouse center construction activities would include mass grading, over excavation, footing and foundation excavation and pouring, tilt-up construction, parking lot grading and paving, utility undergrounding, and hydrology/drainage improvements. Similar to the block swap yard and intermodal facility, the construction phase for the transload warehouse center that would generate the highest noise level is mass grading. Equipment used during mass grading includes cranes, excavators, generators, graders, dump trucks, grapple/dump trucks, rollers, dozers, loaders, scrapers, and water trucks. This equipment was modeled in SoundPLAN as an area source consistent with FTA construction noise methodologies.

East Lead and West Lead Track Alignments

East and west lead track construction activities would include clearing and grubbing, bridge crossing construction, ballast placement, track laying, and connection to the mainline. These activities would occur parallel to the existing BNSF mainline and primarily be within BNSF right-of-way. The construction phase for the lead tracks that would generate the highest noise level is mass grading. Equipment used during mass grading includes cranes, excavators, generators, graders, dump trucks, grapple/dump trucks, rollers, dozers, loaders, scrapers, and water trucks. Consistent with FTA construction noise methodologies, this equipment was modeled in SoundPLAN as two area sources (i.e., one for the east lead track construction area, and one for the west lead track construction area).

Hinkley Road Bridge Replacement

Construction activities for the Hinkley Road bridge over the Mojave River include constructing a longer structure to better match the channel width of the Mojave River at that location. The channel beneath the existing bridge would be excavated and widened to match the natural channel width more closely. Portions of Hinkley Road immediately east and west of the bridge would be raised to reduce exposure to Mojave River flood events. Due to the proximity of the Hinkley Road bridge to the transload warehouse center, construction noise activities associated with the Hinkley Road bridge replacement were integrated into the construction noise modeling conducted for the transload warehouse center, as discussed above.

Solar Farm

Construction of the solar farm would require minimal grading to level the site as existing topography is accommodated wherever possible and excavation is limited primarily to stormwater detention to capture runoff. The construction phase for the solar farm that would generate the highest noise level is mass

grading. Equipment used during mass grading would include cranes, excavators, generators, light carts, post drivers, tampers, dozers, loaders, skid steers, and water trucks. Consistent with FTA construction noise methodologies, this equipment was modeled in SoundPLAN as two area sources (i.e., one for the eastern solar array and one for the western solar array).

33 kV Transmission Line

BIG proposes a 33kV electrical transmission line to connect BIG to the Southern California Edison (SCE) Tortilla Substation located in the southernmost portion of the City. This proposed 33KV distribution route would extend approximately 7.1 miles underground from the Tortilla Substation to the intermodal facility's eastern extent at Country Club drive, then continue overhead approximately 3.5 miles from Country Club Drive to approximately Hinkley Road. The construction phase for the 33 kV that would generate the highest noise level is mass grading. Equipment used during mass grading includes cranes, excavators, generators, graders, dump trucks, grapple/dump trucks, rollers, dozers, loaders, scrapers, and water trucks. Consistent with FTA construction noise methodologies, this equipment was modeled in SoundPLAN as an area source at the closest distance (approximately 50 feet) from residences along the transmission line route.

Lenwood Channel Improvements

Lenwood Channel construction activities would include widening the channel by approximately 40 feet for approximately 1.25 miles and replacing 0.8-mile of Main Street at the Lenwood Channel low water crossing with a bridge and raising and widening the road through this stretch west to the proposed intermodal facility entrance. The construction phase for the Lenwood Channel that would generate the highest noise level is mass grading. Equipment used during mass grading would include auger boring machines, cranes, excavators, generators, dump trucks, horizontal directional drilling machines, tampers, skid steers, tractors/loaders/backhoes, and water trucks. This equipment was modeled in SoundPLAN as an area source consistent with FTA construction noise methodologies.

Pile-Driving

Pile-driving would be required wherever there are railroad bridges, including at Bridge 6.5F, located about 4,000 feet northwest of the Lenwood Road and Main Street intersection, Bridge 10.9B, located approximately 920 feet west of the Main Street and Buckboard Road intersection, and Bridges 6.5B and 6.5C at the Lenwood Channel improvement area. Based on BIG's site plan and potential pile-driving locations, the nearest sensitive receptor(s) would be located as close as 0.28-mile (1,500 feet) from pile-driving equipment. Pile-driving locations were modeled in SoundPLAN as point sources consistent with FTA construction noise methodologies.

Concrete Batch Plants

Concrete would also be required for components such as the intermodal facility as well as the construction of bridges and retaining walls. Intermodal facility construction would use approximately 876,000 cubic yards of concrete and transload warehouse center construction would use approximately 1,400,000 cubic yards of concrete. The precise locations of the anticipated batch plants would ultimately be determined by the construction contractor and are currently unknown. However, due to the size of the BIG footprint,

four batch plants were assumed to operate throughout the BIG footprint during construction and were modeled in SoundPLAN as point sources consistent with FTA construction noise methodologies.

Construction Year 2026 Condition – South Mainlines

During 2026, BIG construction, the south mainlines would be used to divert train traffic from the existing north mainlines while they are being upgraded, which would divert 100 percent of trains along the new south mainlines. Once BIG construction is finished, half of the trains which would bypass BIG would use the north mainlines and half would use the south mainlines to balance train counts between the mainlines. This condition (Construction Year 2026) was modeled in SoundPLAN to evaluate potential impacts as a result of diverting 100 percent of trains along the new south mainlines.

Operational Noise Levels

The FTA guidelines recommend evaluating operational rail noise impacts by quantifying and evaluating project-generated noise levels against FTA's sliding scale noise standards that are based on measured existing ambient noise levels at nearby sensitive receptors. However, this methodology does not account for a potential change in future baseline noise levels at sensitive receptors. Train activity along the existing mainlines in the vicinity of BIG is anticipated to increase approximately 1.0-2.5 percent annually without BIG (ENSAFE, 2025), and thus, future baseline train noise levels at sensitive receptors would also increase. Specifically, future daily train volumes along the rail corridor would increase by the following percentages when compared to existing conditions:

- Year 2028 No BIG: 7.43 percent increase in daily train trips (which equates to an approximate 2.62 percent increase annually);
- Interim Year 2033 No BIG: 15.75 percent increase in daily train trips (which equates to an approximate 1.43 percent increase annually); and
- Horizon Year 2048 No BIG: 47.27 percent increase in daily train trips (which equates to an approximate 1.89 percent increase annually).

According to State CEQA Guidelines § 15125, where existing conditions change or fluctuate over time, and where it is necessary to provide the most accurate picture of a project's impacts, a lead agency may define existing conditions by referencing historic conditions, conditions expected when the project becomes operational, or both, supported with substantial evidence. Therefore, operational train noise modeling was completed for future years without BIG (2028, 2033, and 2048) to establish future baseline train noise conditions and analyze incremental noise increase impacts directly attributable to BIG at nearby sensitive receptors. . Based on that data, use of existing conditions alone would be misleading and without informative value to decision-makers and the public. (See State CEQA Guideline § 15125(a)(2).)

To model predicted operational noise levels at noise-sensitive receptor as a result of BIG, noise source reference levels, operating conditions, propagation paths (i.e., the manner in which sound travels, which is affected by many factors which include spreading, absorption, terrain, and obstacles), and distances, in conjunction with existing background noise were considered. No BIG and With BIG train noise levels were quantified using SoundPLAN and are based on the proposed track alignment, daily train volumes, speed, number of locomotives and rail cars, rail car length, and train noise acoustical factors published by the FTA.

Operations – Rail Corridor/Train Movements

Sources of Train Noise

Freight rail operations vary daily, monthly, and annually. Train operational noise involves many parameters, including the type of freight, travel speed, number of locomotives and cars per train, number of trains per day, and railcar coupling. Determining train noise levels can be accomplished using screening estimates, measurements, or predictions, as described below. It is also noted that train horns would be used in accordance with BNSF's General Code of Operating Rules in the following situations: when there are persons or livestock on the track; during an emergency situation (e.g., derailment); when stopped to apply and release the breaks; at at-grade crossings; and backing up from a stop. Train horns would also be used in accordance with the FRA's Train Horn Requirements outlined in 49 CFR Part 222, which requires locomotive engineers to sound train horns at least 15 seconds and no more than 20 seconds before reaching a public highway-rail grade crossing. For trains traveling over 60 mph, the horn must not be sounded more than one-quarter mile in advance of the nearest crossing, even if this results in an advance warning of less than 15 seconds. Additionally, in accordance with 49 CFR Part 229.129, train horns are required to operate at a maximum volume of 110 decibels and a minimum volume of 96 decibels.

Noise Measurements

Existing sound levels were measured at noise-sensitive receptors and relevant locations surrounding the BIG footprint and are used as input to the train noise calculations to evaluate operational noise impacts from BIG. **Table 20** identifies the short- and long-term noise measurement locations and provides measured results. Measured ambient noise levels could be the combined result of freight trains, vehicular traffic, or other sources of noise in the vicinity of each monitoring location.

Noise Predictions

FTA's guidelines provide both general assessment and detailed analysis techniques for predicting rail noise. The simplified manual method is based on the FTA's General Assessment Method and can be further refined using the additional noise sources found in FTA's guidance manual and executed in the FRA Chicago Rail Efficiency and Transportation Efficiency program. In addition, the FTA's Detailed Noise Assessment methodology can be applied for a more comprehensive assessment of rail noise. This method requires additional input parameters such as terrain geometry, ground type, additional track parameters, specific stationary source parameters, and noise barrier parameters. This technical report utilizes the Detailed Noise Assessment methodology consistent with FTA guidelines to predict train noise levels and assess potential BIG noise impacts.

To model predicted noise levels, including noise attributable to BIG, at noise-sensitive receptor, several factors were considered, including source-specific noise reference levels, operating conditions, propagation paths (i.e., the manner in which sound travels, which is affected by many factors which include spreading, absorption, terrain, and obstacles), and distances, in conjunction with existing background noise.

Train Operating Conditions

BIG train operating conditions are important in determining peak hour noise levels (L_{max}), average noise energy measured over an hour (L_{eq}), and day-night average sound levels (L_{dn}) at noise-sensitive receptors. Train noise can vary depending on several key factors, including train speed, train events per day, and the number of locomotives and railcars. The following input parameters were used to adjust each reference sound exposure level to BIG operating conditions:

- Source type (e.g., diesel-electric locomotive, railcar, etc.).
- Number of locomotives per train (four locomotives per train for pass-through trains and three locomotives per train for BIG trains).
- Number of railcars per train (240 railcars per train);
- Average length of each train, which was assumed to be approximately 10,000 feet.
- Speed (a maximum design speed of 70 mph was assumed for pass-through trains, 40 mph for BIG trains along the east and west leads; and 20 mph for BIG trains traveling within the block swap yard and intermodal facility).
- Distance to receptor; and
- Up to 24 trains per day would pass through BIG in Opening Year 2028, up to 27 trains per day would pass through BIG in Interim Year 2033, and up to 34 trains per day would pass through BIG in Horizon Year 2048.

Train noise from BIG was modeled in SoundPLAN as 26 railway sources representing the north and south mainlines, east and west lead tracks, and rail spurs/tracks associated with the intermodal facility and block swap yard. Train horn noise was incorporated into the SoundPLAN model as a line source for trains passing through at-grade crossings, and as an area source at the block swap yard to represent the potential locations train horns would be used during train assembly activities (i.e., a train stopping/stopped and/or backing up from a stopped position).

Non-Train Noise Sources

Noise levels from BIG's non-train sources discussed below were modeled in SoundPLAN at the nearest noise-sensitive receptors based on reference noise levels and the Inverse Square Law of sound propagation.

Block Swap Yard Operations

The predominant noise sources from block swap yard operations would include the transferring of a block of train cars between trains and railcar coupling. See Rail Yard Operations below for additional block swap yard noise sources.

Intermodal Facility Operations

The predominant noise sources from intermodal facility operations would include loading and unloading containers from heavy trucks onto trains and from trains onto heavy trucks. See Rail Yard Operations below for additional intermodal facility noise sources.

Table 16: Operational Electric Equipment at the Intermodal Facility and **Table 17: Operational Diesel Equipment at the Intermodal Facility** list the electric and diesel equipment that would operate within the intermodal facility that would generate noise.

Table 16: Operational Electric Equipment at the Intermodal Facility

Equipment[1]	Quantity (Interim Year 2028)	Quantity (Interim Year 2033)	Quantity (Horizon Year 2048)
Widespan Rail Mounted Gantry Cranes	10	12	14
Chassis Stacking Forklifts	2	2	3
Intermodal Facility Forklifts	2	2	3
Top Pick/Side Loaders	2	2	3
Terminal Electric Hostlers	47	62	73
Transload Electric Hostlers	81	107	124
Warehouse Forklifts	540	540	540

Sources:

- AECOM. 2023. *BNSF Barstow Simulation Analysis.*
- Warehouse forklifts per SCAQMD. 2014. *High Cube Warehouse Truck Trip Study White Paper Summary of Business Survey Results*.

As indicated in **Table 17**, 10 diesel backup (emergency) generators would be used at the rail yard only in the event of a power outage at nighttime, as the solar farm is anticipated to generate enough power to maintain BIG Specific Plan area operations during a daytime power outage. However, emergency generators would also undergo regular testing totaling up to 50 hours per year per generator (a maximum of one generator would be tested for up to one hour in any single day), thus, would be a stationary noise source during intermodal facility operations.

Table 17: Operational Diesel Equipment at the Intermodal Facility

Equipment[1]	Opening Year 2028		Interim Year 2033		Horizon Year 2048		Horse-power[2]	Load Factor[2]
	Quantity	Hours per Day per Unit (peak)	Quantity	Hours per Day per Unit (peak)	Quantity	Hours per Day per Unit (peak)		
Rubber Tired Gantry (RTG) Cranes (Mi-Jack)[3]	7	6.9	8	6.9	10	6.9	165	0.15
Rail Car Wheel Change Machine	2	4	2	4	2	5	160	0.43
Air Compressors	2	2	2	2	2	3	78	0.48
Welders	2	1	2	1	2	2	46	0.45
Truck Transport Refrigeration Units (TRU)[3]	15	4.9	19	4.9	23	4.9	50	0.56
Warehouse Yard Trucks	32	4	32	4	32	4	225	0.39
Warehouse Forklifts	540	4	540	4	540	4	106	0.30
EMERGENCY GENERATORS (TESTING, MAINTENANCE, AND TRAINING)								
2000 kW (Intermodal Facility)	10	1	10	1	20	1	2,682	0.74

750 kW (Warehousing)	5	1	5	1	5	1	1,006	0.74
500 kW (Warehousing)	2	1	2	1	2	1	671	0.74
350 kW (Warehousing)	1	1	1	1	1	1	469	0.74
250 kW (Warehousing)	15	1	15	1	15	1	335	0.74
175 kW (Warehousing)	6	1	6	1	6	1	235	0.74

Note:

[1] Cargo handling equipment and generators, and activity/usage hours provided by BNSF and AECOM.

[2] Horsepower and load factors from CARB CHE inventory and CARB OFFROAD.

[3] The RTG Load Factor is from the Port of Long Beach RTG Crane Load Factor Study, 2009.

[4] Truck TRUs are 5 percent of the total one-way trucks and hours per unit are from CARB OFFROAD.

Rail Yard Operations

Noise sources within the rail yard would include the use of heavy trucks, rail-mounted gantry cranes, electric hostlers, container loading and unloading activities, electric hostler and crane maintenance activities, train idling, and railcar coupling.

Heavy trucks and electric hostlers would generate noise from their engines, tires, and exhaust. Heavy truck activity would consist of intermodal rail yard truck traffic arriving, departing, and moving about within the yard. Electric hostlers would transport containers between storage areas and the loading and unloading tracks. Crane operations would include the use of rail-mounted gantry cranes on the strip tracks for loading and unloading railcars and chassis and managing container stacking. The intermodal facility would include electric hostlers and cranes, which would generate minimal noise. Container stacking would generate noise from impacts with other containers, truck trailers, or the ground. The maintenance activities would consist of electric hostlers and crane maintenance, which would be supported by a maintenance building on the rail yard's northwestern portion.

Additional block swap yard noise sources include railcar coupling and locomotive idling. Railcar coupling describes the way a locomotive is connected to a railcar and by which succeeding railcars in a train are linked. During railcar coupling, one railcar is stationary, and a second railcar approaches the first at a low speed (less than 3 mph) and runs into the stationary railcar to couple the two railcars; this creates a "crashing" noise that is loud at close distances. Generally, coupling is carried out between two railcars, but in some cases several railcars can be coupled simultaneously. The coupling impact noises are of relatively short duration; however, the frequency of coupling noise impacts would depend on the rail yard's schedule. Locomotive idling at the intermodal facility is anticipated to occur throughout the day, which would likely generate low-frequency diesel engine noise. Noise with low-frequency components can cause greater annoyance and often cause nearby structures to vibrate, resulting in secondary effects to buildings, such as rattling of dishes on shelves and pictures on walls.

Noise from operational activities at the rail yard were modeled in SoundPLAN as the following sources:

- One (1) area source representing intermodal facility operations was modeled using a combined reference sound level of 89.6 dBA at 50 feet. The following reference noise levels were logarithmically added together and resulted in a combined noise level of 89.6 dBA:
    - RTG Cranes: 83.0 dBA at 50 feet (The Port of Long Beach, 1990);

- Electric Hostlers: 67.0 dBA at 50 feet (Ibid);
- Container Loading and Unloading: 61.0 dBA at 50 feet (Ibid);
- Heavy Truck movements: 77.0 dBA at 50 feet (Berger, Neitzel, and Kladden, 2015);
- Truck Backup Beepers: 86.0 dBA at 50 feet (Behrens, 2010); and
- Train Movements (slow): 84.1 dBA at 50 feet (Anderson, 2009).

An area source was modeled in SoundPLAN to represent the variable nature of intermodal facility activities, including truck and electric hostler movements throughout; container loading/unloading; backup beepers; horizontal and vertical movements from cranes; and trains arriving, idling, and moving through the facility. These noise sources/activities would not operate in a fixed location but rather would maneuver throughout and at various locations within the intermodal facility. Thus, an area source is considered the most representative noise source to model in SoundPLAN for intermodal facility operations.

- One (1) area source representing train movements/idling and railcar maintenance (wheel change machine and welders) at the block swap yard was modeled using a reference sound level of 87.8 dBA at 50 feet. The following reference noise levels were logarithmically added together and resulted in a combined noise level of 87.8 dBA:
  - Trains Idling: 84.1 dBA at 50 feet (Ibid);
  - Train Movements (slow): 84.1 dBA at 50 feet (Ibid);
  - Rail Car Wheel Change Machine: 79.6 BA at 50 feet (Berger, Neitzel, and Kladden, 2015); and
  - Welders: 61.0 dBA at 50 feet (SoundPLAN, 2009).

  An area source was modeled for the block swap yard in SoundPLAN to represent the numerous locations of train maintenance activities and train movements. These noise sources/activities would not operate in a fixed location, but rather at various locations throughout the block swap yard. Thus, an area source is considered the most representative noise source to model in SoundPLAN for block swap yard operations.
- Three (3) point sources representing railcar coupling activities at the block swap yard were modeled using a reference sound level of 106 dBA at 50 feet. (FRA, 2009) Railcar coupling was excluded from the area source modeling above for the block swap yard, as these events are brief (lasting only a few seconds) and produce high noise levels at a static location. Three separate block swap yard point sources were modeled in SoundPLAN: one in the southwestern portion, one in the central portion, and one in the northeastern portion. Since the specific locations of railcar coupling events would vary depending on train length, direction, and which rail line they would occur on, the modeling locations were positioned along the center rail line of the block swap yard. Railcar coupling was conservatively assumed to occur simultaneously at all three locations to provide a worst-case noise scenario at nearby receptors.

Transload Warehouse Center

The transload warehouse center is proposed in BIG footprint's northern extent. The predominant noise sources from transload warehouse center operations would include container parking/storage areas, employee parking, loading dock activities, and electric hostlers transporting containers to and from the intermodal facility via an internal private road. In addition, **Table 18: Operational Diesel Equipment (Transload Warehouse Center)** lists the diesel equipment (emergency generators) and mechanical equipment (heating, ventilation, and air conditioning [HVAC]) that would operate at the transload warehouse center that would be stationary operational noise sources.

Table 18: Operational Diesel Equipment (Transload Warehouse Center)

Equipment[1]	Opening Year 2028		Horizon Year 2048		Horse-power[2]	Load Factor[2]
	Quantity	Hours per Day per Unit (peak)	Quantity	Hours per Day per Unit (peak)		
EMERGENCY GENERATORS						
750 kW (Warehousing)	5	1	5	1	1,006	0.74
500 kW (Warehousing)	2	1	2	1	671	0.74
350 kW (Warehousing)	1	1	1	1	469	0.74
250 kW (Warehousing)	15	1	15	1	335	0.74
175 kW (Warehousing)	6	1	6	1	235	0.74

Note:
[1] Generators and activity/usage hours provided by BNSF and AECOM.
[2] Horsepower and load factors from CARB OFFROAD.

Like the intermodal facility, diesel backup generators would only be used at the transload warehouse center in the event of a power outage at nighttime, as the solar farm is anticipated to generate enough power to maintain BIG Specific Plan area operations during a daytime power outage. However, emergency generators would also undergo regular testing totaling up to 50 hours per year, per each individual generator (generator testing can occur for a maximum of one hour per day), thus, would be a stationary noise source during transload warehouse center operations.

Noise from truck loading and forklifts operations at the transload warehouse center was modeled in SoundPLAN as 56 area sources (the total number of truck loading areas) using a combined reference noise level of 86.5 dBA at 50 feet from the following sources:

- Heavy Truck movements: 77.0 dBA at 50 feet (Berger, Neitzel, and Kladde, 2015);
- Truck Backup Beepers: 86.0 dBA at 50 feet (Behrens, 2010); and
- Forklifts: 61.0 dBA at 50 feet (Strautins, 2014).

In addition, 29 emergency generators were modeled as point sources using a reference noise level of 78 dBA at 23 feet (seven meters), and 124 HVAC units (i.e., three to eight units on each building rooftop depending on the size of the building) were modeled as point sources using a reference noise level of 52 dBA at 50 feet (Berger, Neitzel, and Kladden, 2015).

Solar Farm

The proposed solar farm at BIG's southwest corner would produce long-term, continuous, operational noise from battery energy storage system (BESS) and solar array inverter equipment. The BESS equipment would be located at the northwestern corner of the solar farm adjacent to Main Street, and the solar array inverter equipment would be positioned at various locations throughout the solar farm. Noise from solar farm equipment was modeled in SoundPLAN as the following sources:

- 32-point sources representing the HVAC equipment for the BESS was modeled using a reference sound level of 75 dBA at one foot (Eos Gen 2.3 Energy Block, 2021);
- 32-point sources representing the 3000 kV transformers for the BESS were modeled using a reference sound level of 63 dBA at one foot (NEMA, 2025); and
- Eight (8) solar array inverters were modeled at the locations identified in BIG's site plans throughout the solar farm using a reference sound level of 57.1 dBA at 50 feet (Hankard Environmental, Inc., 2019).

Temporary Mainline Relocation – Train Noise

As noted in Section 1.0, the existing mainline would be upgraded at bridge crossings during construction. During improvements to the existing mainline, a new south mainline would be constructed immediately north of Main Street. Trains would then be diverted to this south mainline while the existing mainline is upgraded. Upon relocation, trains would be evenly split between the two mainlines. Thus, an operational noise analysis for the temporary mainline relocation was conducted for the years 2025-2027. Train volumes are then split between the two proposed mainlines from Opening Year 2028 to Horizon Year 2048 and are incorporated into the operational train noise modeling discussed above.

Roadway Traffic Noise

Roadway traffic noise levels were calculated using the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) and traffic data from BIG's transportation analysis (see **Appendix 5.15-2: Level of Service Assessment**) (Kimley-Horn, 2025). The Noise Prediction Model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (also referred to as energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by Caltrans.

Combined Operational Noise Levels

Noise levels associated with rail yard operations, rail corridor/train movements, transload warehouse center, mechanical equipment, and the solar farm were modeled with the SoundPLAN software. Inputs to the SoundPLAN model included ground topography and ground type, intervening walls, and structures (including the stacked containers at the intermodal facility), noise source locations and heights, receptor locations, and sound power level data. The SoundPLAN model run for BIG operations conservatively assumes the simultaneous operation of all on-site BIG noise sources described above. It is noted that the modeled operational noise levels in SoundPLAN exclude mobile roadway traffic noise sources, as roadway traffic noise is assessed using a 24-hour noise scale and impacts are evaluated using different thresholds and methodologies compared to on-site BIG facility noise; see **Section 4.2: Thresholds of Significance**.

Utilizing the input data described above, SoundPLAN was used to calculate noise levels at the nearest properties and noise-sensitive receptors surrounding the BIG Specific Plan area. It is noted that predicted noise levels are conservative estimates since it was assumed that all equipment and operational activity at the BIG Specific Plan area would occur simultaneously during the daytime and nighttime hours. SoundPLAN was utilized to model Opening Year 2028, Interim Year 2033, and Horizon Year 2048 BIG operations; however, the impact analysis below focuses on Horizon Year 2048 BIG operations, since this represents the worst-case noise scenario due to higher train and traffic volumes compared to Opening Year 2028 and Interim Year 2033 BIG operations. It is also noted that SoundPLAN utilizes FTA rail calculation factors and methodologies consistent with the FTA guidelines to quantify train noise levels.

The BIG operational impact analysis incorporates the following structure to present and evaluate modeling data, identify impacted receptor locations, and analyze potential noise abatement measures to potentially reduce BIG operational noise impacts for Opening Year 2028, Interim Year 2033, and Horizon Year 2048 conditions:

1. Only receptors that would either exceed the incremental increase noise standard or the absolute noise standard (City or County) are presented. Modeling data and screening analyses for all other receptors can be found in **Appendix A**.
2. Noise barriers were modeled in SoundPLAN at various heights and locations to evaluate potential noise reductions and determine if BIG operational noise levels can be reduced below the incremental increase noise standard or absolute noise standard at the impacted receptor(s).
3. Noise impacts are determined based on whether noise barriers can acoustically reduce BIG operational noise levels below standards.
4. The financial feasibility and reasonability to construct the noise barriers evaluated in the impact analysis is provided in the **Noise Barrier Financial Feasibility Analysis – On-Site BIG Facility Noise** section. Only noise barriers that meet the maximum cost allowance per benefited receptor are considered financially feasible and reasonable and are recommended as mitigation to reduce BIG operational noise impacts.

Federal Interagency Committee on Noise Incremental Noise Thresholds

The FICON developed guidance to analyze incremental noise level increases that account for the ambient noise level. Although the FICON guidance and recommendations were specifically developed to evaluate aircraft noise impacts, these recommendations are often used in environmental noise impact assessments. The recommendations are considered applicable to this analysis due to the range of measured ambient noise levels in the surrounding area and magnitude of BIG operations.

FICON identifies that a readily perceptible 5 dBA or greater project-related noise level increase is considered a significant impact when the ambient noise level is less than 60 dBA. According to the FICON thresholds, in areas where the noise levels range from 60 to 65 dBA, a 3 dBA barely perceptible noise level increase is appropriate (FICON, 1997). When the noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance.

Noise Barrier Feasibility Analysis

State CEQA Guidelines § 21002 requires mitigation measures (including noise barriers) to be feasible. Per FTA guidelines Section 2.3 (Mitigation Policy Considerations), "…cost is an important consideration in reaching decisions about noise mitigation measures. One guideline for gauging the reasonableness of the cost of mitigation is the state DOT's procedures on the subject" (FTA, 2018). Therefore, this analysis utilizes the Caltrans Noise Analysis Protocol methodology for financial feasibility, which establishes a maximum allowable cost per benefited receptor to assess whether a noise barrier is reasonable or feasible for implementation. The noise barrier feasibility analysis can be found in **Section 6.1 Noise Analysis, Noise Barrier Financial Feasibility Analysis – On-Site BIG Facility Noise**. All feasible mitigation measures are included, as discussed below.

Interior Noise, Sleep Disturbance, and Speech Interference

Interior noise, sleep disturbance, and speech interference were evaluated for two conditions: with windows closed and with windows open. With windows closed, a 28 dBA noise reduction was applied to exterior noise to estimate interior noise levels (Locher, et al., 2018, pg. 1). With windows open, a conservative noise reduction of 10 dB for exterior-to-interior noise was utilized (Locher, et al., 2018, pg. 1). Interior noise levels were then analyzed in combination with the FICAN Sleep Disturbance Curve (**Figure 6: FICAN 1997 Sleep Disturbance** Curve**)** to predict the likelihood of sleep awakenings during BIG operations. (Locher et al, 2018, pg. 1)

For classroom speech interference, a separation distance between a teacher and back row students was assumed to be nominally 20 feet and noise levels were evaluated against a speech intelligibility of 95 percent to determine impacts from BIG operations.

Interior noise, sleep disturbance, and speech interference impacts were analyzed using the operational noise levels modeled for BIG operations (i.e., for rail corridor/train movements, rail yard activities, transload warehouse center, and the solar farm) and roadway traffic noise. Specifically, BIG operational noise levels modeled in SoundPLAN and FHWA RD-77-108 were applied a 28 dBA noise reduction (windows closed) and 10 dBA noise reduction (windows open) to evaluate interior noise, sleep disturbance, and speech interference impacts.

Vibration

Construction

Ground-borne vibration levels associated with BIG construction-related activities were evaluated utilizing typical ground-borne vibration levels associated with construction equipment, obtained from FTA published data for construction equipment. Potential ground-borne vibration impacts related to building/structure damage and interference for existing vibration-sensitive receptors were evaluated, considering the distance from construction activities to nearby land uses and typically applied criteria.

For a structure built traditionally, without assistance from qualified engineers, the FTA guidelines show that a vibration level of up to 0.20 in/sec is considered safe and would not result in any vibration damage. FTA guidelines show that modern engineered buildings built with reinforced-concrete, steel, or timber

can withstand vibration levels up to 0.50 in/sec and not experience vibration damage; see **Table 9: Construction Vibration Building Damage Criteria**.

According to the Caltrans' *Transportation and Construction Vibration Guidance Manual,* a vibration level of 0.1 in/sec PPV is the level at which human annoyance starts and levels of 0.2 in/sec PPV is used for building damage. (Caltrans, 2020) Construction vibration impacts would occur if BIG construction vibration levels are expected to exceed any of the aforementioned FTA or Caltrans vibration standards.

BIG construction vibration levels were quantified using reference levels and calculation equations from the FTA guidelines. BIG construction equipment was conservatively assumed to operate at the BIG footprint's boundary line closest to sensitive receptors.

Operations

Vibration levels at sensitive receptors are determined by estimating the overall vibration velocity level and A-weighted ground-borne noise levels as a function of distance from the track and applying adjustments to account for factors such as track support systems, vehicle speed, type of building, and track and wheel conditions.

A General Vibration Assessment was prepared for BIG operations in accordance with FTA guidelines Section 6.4. The General Vibration Assessment is used to more closely examine potential impacts on vibration-sensitive receptors identified in the screening step. BIG operations would result in significant impacts if vibration levels are substantial enough to damage nearby structures or buildings or result in vibration levels that are commonly accepted as an annoyance to sensitive receptors. Long-term vibration impacts from BIG would occur if the modeled operational vibration levels exceed the vibration criteria for building damage and/or human annoyance in **Table 9: Construction Vibration Building Damage Criteria** and **Table 7: Ground-Borne Vibration and Noise Impact for Affected Communities Land Use Category**, respectively**.**

The FTA criteria for "infrequent events" are used for BIG in Opening Year 2028 and Interim Year 2033 because BIG train operations would result in a maximum of approximately 24 daily freight train pass-bys in Opening Year 2028 and 26 pass-bys in Interim Year 2033 at the nearest receptors. The FTA criteria for "occasional events" are used for BIG in Horizon Year 2048 because BIG train operations would result in a maximum of approximately 35 daily freight train pass-bys; see **Table 4: Typical Noise Levels**. The FTA vibration standards for infrequent events are also provided in **Table 7: Ground-Borne Vibration and Noise Impact for Affected Communities Land Use Category**.

Ground-Borne Noise

Ground-borne noise impacts are assessed based on criteria for human annoyance and activity interference. The FTA Detailed Vibration Analysis procedure provides vibration propagation characteristics inside a building. In addition to vibration that can be felt, the vibration of room surfaces radiates low-frequency sound that may be audible. The sound level is affected by the amount of acoustical absorption in the receptor room. Ground-borne noise is determined in dBA.

4.2 Thresholds of Significance

State CEQA Guidelines Appendix G: Environmental Checklist Form, includes questions concerning noise. The issues presented in the Environmental Checklist Form have been used as thresholds of significance in this report. Accordingly, BIG would have a significant effect on the environment if it would:

- Generate a substantial temporary or permanent increase in ambient noise levels (i.e., levels without BIG) in the vicinity of BIG in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generate excessive groundborne vibration or groundborne noise levels; and
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the BIG footprint to excessive noise levels.

The standards and impact criteria used to analyze BIG noise and vibration impacts in accordance with the aforementioned State CEQA Guidelines are discussed in more detail below.

Noise

Construction

A construction noise impact would occur if BIG construction noise levels exceed any of the following construction noise standards established in the FTA guidelines:[23]

- 80 dBA $L_{eq(8\text{-}hour)}$ during the daytime (7:00 a.m. to 10:00 p.m.) at any residential use; or
- 70 dBA $L_{eq(8\text{-}hour)}$ during the nighttime (10:00 p.m. to 7:00 a.m.) at any residential use

Operations – On-Site BIG Facility

An operational noise impact from BIG facility operations would occur if BIG operational noise levels exceed the following thresholds:

Exterior Noise

(1) Do Opening Year 2028/Interim Year 2033/Horizon Year 2048 with BIG noise levels exceed any of the following City or County noise standards, as applicable?

- The City's residential exterior noise standard of 65 dBA (for receptors located within the City's jurisdiction only, see **Table 14**);
- The County's residential exterior daytime noise standard of 55 dBA (7:00 a.m. to 10:00 p.m.) or nighttime noise standard of 45 dBA (10:00 p.m. to 7:00 a.m.) for stationary sources (for receptors located within the County's jurisdiction only, see **Table 11**); or
- The County's residential exterior noise standard of 60 dBA (for receptors located within the County's jurisdiction only, see **Table 12**).

If operational noise levels without BIG already exceed the applicable noise standard, noise impacts are assessed based on BIG's contribution to the noise level exceedance using the incremental increase criteria below.

OR

[23] It is noted the construction noise criteria listed does not apply to roadway traffic noise sources. Roadway traffic noise is analyzed under separate significance criteria and thresholds as provided below.

(2) Do Opening Year 2028/Interim Year 2033/Horizon Year 2048 with BIG noise level increases exceed any of the following FICON incremental noise increase standards when compared to No BIG noise levels?:

- 5.0 dBA or greater when measured ambient noise levels are less than 60 dBA;
- 3.0 dBA or greater when measured ambient noise levels range from 60 to 65 dBA; or
- 1.5 dBA or greater when measured ambient noise levels exceed 65 dBA.

If BIG operational noise exceeds either of these thresholds, a potentially significant noise impact would occur and mitigation is required.

Interior Noise

Similar to the criteria above, interior noise impacts from BIG facility operations are evaluated using the following incremental increase and absolute noise thresholds:

(1) Do Opening Year 2028/Interim Year 2033/Horizon Year 2048 with BIG noise levels exceed any of the following City or County noise standards as applicable?

- The City's residential interior noise standard of 45 dBA (for receptors located within the City's jurisdiction only, see **Table 14**);
- The County's residential interior noise standard of 45 dBA (for receptors located within the County's jurisdiction only, see **Table 12**).

OR

(2) Do Opening Year 2028/Interim Year 2033/Horizon Year 2048 with BIG noise level increases exceed any of the following FICON incremental noise increase standards when compared to No BIG noise levels?:

- 5.0 dBA or greater when measured ambient noise levels are less than 60 dBA;
- 3.0 dBA or greater when measured ambient noise levels range from 60 to 65 dBA; or
- 1.5 dBA or greater when measured ambient noise levels exceed 65 dBA.

If BIG operational noise exceeds either of these impact thresholds, a potentially significant noise impact would occur and mitigation is required.

Roadway Traffic Noise Sources (Construction and Operational)

Project Level Analysis

Exterior Roadway Traffic Noise

Exterior roadway traffic noise impacts are evaluated using the following incremental increase and absolute thresholds:

(1) The modeled roadway traffic noise level With BIG is compared to the applicable City or County exterior noise standards depending on the roadway segment and receptor location.

- **City of Barstow.** If the roadway traffic noise level results in an exterior noise level exceeding the City's land use noise standards (see **Table 14**) at any impacted property, the noise impact is considered significant and mitigation is required.

- **San Bernardino County.** If the roadway traffic noise level results in an exterior noise level exceeding the County's noise standards for mobile sources (See **Table 12**) at any impacted property, the noise impact is considered significant and mitigation is required.

If roadway traffic noise levels without BIG already exceed the applicable noise standard, noise impacts are assessed based on BIG's contribution to the noise level exceedance using the incremental increase criteria below.

OR

(2) Does BIG construction, or Opening Year 2028/Interim Year 2033/Horizon Year 2048 with BIG traffic noise level increases exceed any of the following FICON incremental noise increase standards?

- 5.0 dBA or greater when No BIG traffic noise levels are less than 60 dBA;
- 3.0 dBA or greater when No BIG traffic noise levels range from 60 to 65 dBA; or
- 1.5 dBA or greater when No BIG traffic noise levels exceed 65 dBA.

If BIG roadway traffic noise exceeds either of these impact thresholds, a potentially significant noise impact would occur and mitigation is required.

Interior Roadway Traffic Noise

Similar to the exterior roadway traffic noise criteria above, interior traffic noise impacts are evaluated against the following incremental and absolute noise thresholds:

(1) The modeled noise level is compared to the applicable City or County exterior noise standards depending on the roadway segment and receptor location.

- **City of Barstow**. If the roadway traffic noise level results in an interior noise level exceeding the City's land use noise standards (see **Table 14**) at any impacted property, the noise impact is considered significant and mitigation is required.
- **San Bernardino County**. If the roadway traffic noise level results in an interior noise level exceeding the County's noise standards for mobile sources (See **Table 12**) at any impacted property, the noise impact is considered significant and mitigation is required.

OR

(2) Does BIG construction, or Opening Year 2028/Interim Year 2033/Horizon Year 2048 with BIG traffic noise level increases exceed any of the following FICON incremental noise increase standards?:

- 5.0 dBA or greater when No BIG traffic noise levels are less than 60 dBA;
- 3.0 dBA or greater when No BIG traffic noise levels range from 60 to 65 dBA; or
- 1.5 dBA or greater when No BIG traffic noise levels exceed 65 dBA.

If BIG roadway traffic noise exceeds either of these impact thresholds, a potentially significant noise impact would occur and mitigation is required.

Cumulative Roadway Traffic Noise Analysis

Cumulative roadway traffic noise impacts are evaluated using the following incremental increase and absolute noise impact thresholds:

(1) Do Opening Year 2028/Interim Year 2033/Horizon Year 2048 with BIG roadway traffic noise level increases, when compared to existing roadway traffic noise levels, exceed the following FICON incremental noise increase standards?

- 5.0 dBA or greater when no BIG traffic noise levels are less than 60 dBA.
- 3.0 dBA or greater when no BIG traffic noise levels range from 60 to 65 dBA; or
- 1.5 dBA or greater when no BIG traffic noise levels exceed 65 dBA.

(2) Do Opening Year 2028/Interim Year 2033/Horizon Year 2048 with BIG noise levels exceed City or County noise standards?

- **City of Barstow**. If the roadway traffic noise level results in an exterior noise level exceeding the City's land use noise standards (see **Table 14**) at any impacted property, the noise impact is considered significant and mitigation is required.
- **San Bernardino County**. If the roadway traffic noise level results in an exterior noise level exceeding the County's noise standards for mobile sources (See **Table 12**) at any impacted property, the noise impact is considered significant and mitigation is required.

If BIG roadway traffic noise exceeds either of these impact thresholds, a potentially significant cumulative noise impact would occur and mitigation is required.

Sleep Disturbance and Speech Intelligibility

Sleep disturbance impacts from BIG were evaluated using the FICAN Sleep Disturbance Curve (**Figure 6: FICAN 1997 Sleep Disturbance** Curve) to predict the likelihood of single event awakenings. Frequency of sleep awakenings above 10 percent are considered significant and would require mitigation. BIG noise was also analyzed against the U.S. EPA curve for speech intelligibility (see **Figure 7: Distance for Satisfactory Conversations**

); speech intelligibility less than 95 percent is considered an impact.

Vibration

Construction

A construction vibration/ground-borne noise impact would occur if BIG construction vibration levels exceed any of the following FTA and Caltrans construction vibration standards:

Building Damage Criterion (FTA)

- 0.50 in/sec PPV for reinforced-concrete, steel, or timber (no plaster) buildings.
- 0.30 in/sec PPV for engineered concrete and masonry (no plaster) buildings.
- 0.20 in/sec PPV for non-engineered timber and masonry buildings; and
- 0.12 in/sec PPV for buildings extremely susceptible to vibration damage.

Human Annoyance Criterion (Caltrans)

- 0.1 in/sec PPV.

Operations

An operational vibration/ground-borne noise impact would occur if BIG operational vibration levels exceed any of the following FTA standards for -sensitive receptors as compared to No BIG conditions:

Vibration Criterion

- 75 VdB for residential buildings; and
- 78 VdB for institutional (school) uses with primarily daytime use.

Ground-Borne Noise Criterion

- 38 dBA for residential buildings; and
- 43 dBA for institutional (school) uses with primarily daytime use.

Airport Noise

The airport nearest BIG is the Barstow-Daggett Airport located approximately 19 miles east of the BIG footprint. Therefore, BIG would not expose people residing or working in the BIG footprint to excessive airport-related noise levels. No further analysis for airport noise is provided in this report.

5.0 ENVIRONMENTAL SETTING

The existing noise environment at any particular location is a function of the types of nearby noise sources, the relative distance to the sources, and the intervening topography and structures. Baseline noise and vibration levels in the BIG footprint, as well as in the surrounding areas that border transportation corridors to and from BIG, are attributed to vehicular traffic on local arterials, vehicular traffic on State Route (SR) 58 and Main Street, railroad activity, industrial operations, and community and wildlife activity. For the purposes of this report, the study area for impacts concerning noise and vibration includes the BIG footprint and its nearest sensitive receptors.

The City's primary mobile noise sources are vehicular traffic traveling on the roadway network and BNSF railway traffic. Roadway traffic noise is a function of the traffic volume and vehicle speed on the roadways. Main Street, which parallels the existing BNSF main line tracks to the south, is the City's primary source of roadway traffic noise. Other nearby residential streets, local roadways, and State Route 58 also contribute to roadway traffic noise in the area. Existing BNSF trains that traverse Barstow daily are the primary source of railway traffic noise and generate noise levels ranging from approximately 50.0 dBA CNEL to 83.7 dBA CNEL at sensitive receptors along the rail corridor; see **Appendix A: Noise Measurement and Modeling Data.**

The area surrounding BIG is developed with a mix of residential, commercial, institutional, industrial, and recreational uses served by a grid system of arterial and collector streets. The primary stationary noise sources in the area consist of urban-related activities (e.g., mechanical equipment, parking areas, and residential areas). The noise associated with these stationary sources could represent a single-event noise occurrence, short-term, long-term, or continuous noise.

5.1 Noise-Sensitive Receptors

Human response to noise varies widely depending on the type of noise, time of day, and the receptor's sensitivity. The effects of noise on humans can range from temporary or permanent hearing loss to mild stress and annoyance due to such things as speech interference and sleep deprivation. Prolonged stress, regardless of the cause, is known to contribute to a variety of health disorders. Noise, or the lack thereof, is a factor in the aesthetic perception of some settings, particularly those with religious or cultural significance. Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, and parks and recreation areas. Residential uses are also considered noise-sensitive, especially during nighttime hours. Sensitive receptors nearest BIG are shown in **Figure 12: Sensitive Receptor Locations**

through **Figure 17: Sensitive Receptor Property Locations** and listed in **Table 19: Sensitive Receptors**.

Table 19: Sensitive Receptors			
Receptor ID	**Receptor Description**	**Location**	**Distance and Direction from BIG[1]**
RESIDENTIAL RECEPTORS – WEST LEAD RECEPTOR AREA			
W1	Single-Family Residences	North of Indian Trail	715 feet north
W2	Single-family Residences	North of Link Road	690 feet north
W3	Single-family Residences	South of Main Street	120 feet south
W4	Single-family Residences	North of Main Street	250 feet south
W5	Single-family Residences	South of Main Street	200 feet south
RESIDENTIAL RECEPTORS – BLOCK SWAP/INTERMODAL RECEPTOR AREA			
R1	Single-family Residences	Along Hinkley Road	1,500 feet north
R2	Single-family Residences	South of Main Street	300 feet south
R3	Single-family Residences	South of Main Street	130 feet south
RESIDENTIAL RECEPTORS – EAST LEAD RECEPTOR AREA			
E1	High Desert Estates, Single-family Residences	Northeast corner of Lenwood Road and Jasper Road	570 feet north
E2	Single-family Residences	Along the south side of Jasper Road, approximately 380 feet west of Birch Road	250 feet north
E3	Single-family Residences	South of Main Street	400 feet south
E4	Single-family Residences	1,200 feet southeast of the Main Street and Osborne Street intersection	3,200 feet southeast
E5	Single-family Residences	South of I-15 and L Street Ramps	9,000 feet southeast
E6	Single-family Residences	Southeast of Main Street and Avenue H	13,000 feet east
SCHOOLS			
1	Lenwood Elementary School	34374 Ash Road Barstow CA 92311	520 feet southeast
PLACES OF WORSHIP			
2	Landmark Missionary Baptist Church	34836 Cedar Road Barstow, CA 92311	1,080 northeast
3	St. Philip Neri Catholic Church	25333 3rd Street Barstow, CA 92311	1,670 feet southeast
PARKS			
4	Jasper Park	25473 Jasper Road Barstow, CA 92311	Adjacent to the northeast
5	Lenwood Park	Ash Road Barstow, CA 92311	960 feet to the southeast

Note:
[1] Distances are measured from the closest sensitive receptor to the closest point of BIG.

Sources: Google Inc. (2024). *Google Earth Pro*.

Figure 12: Sensitive Receptor Locations

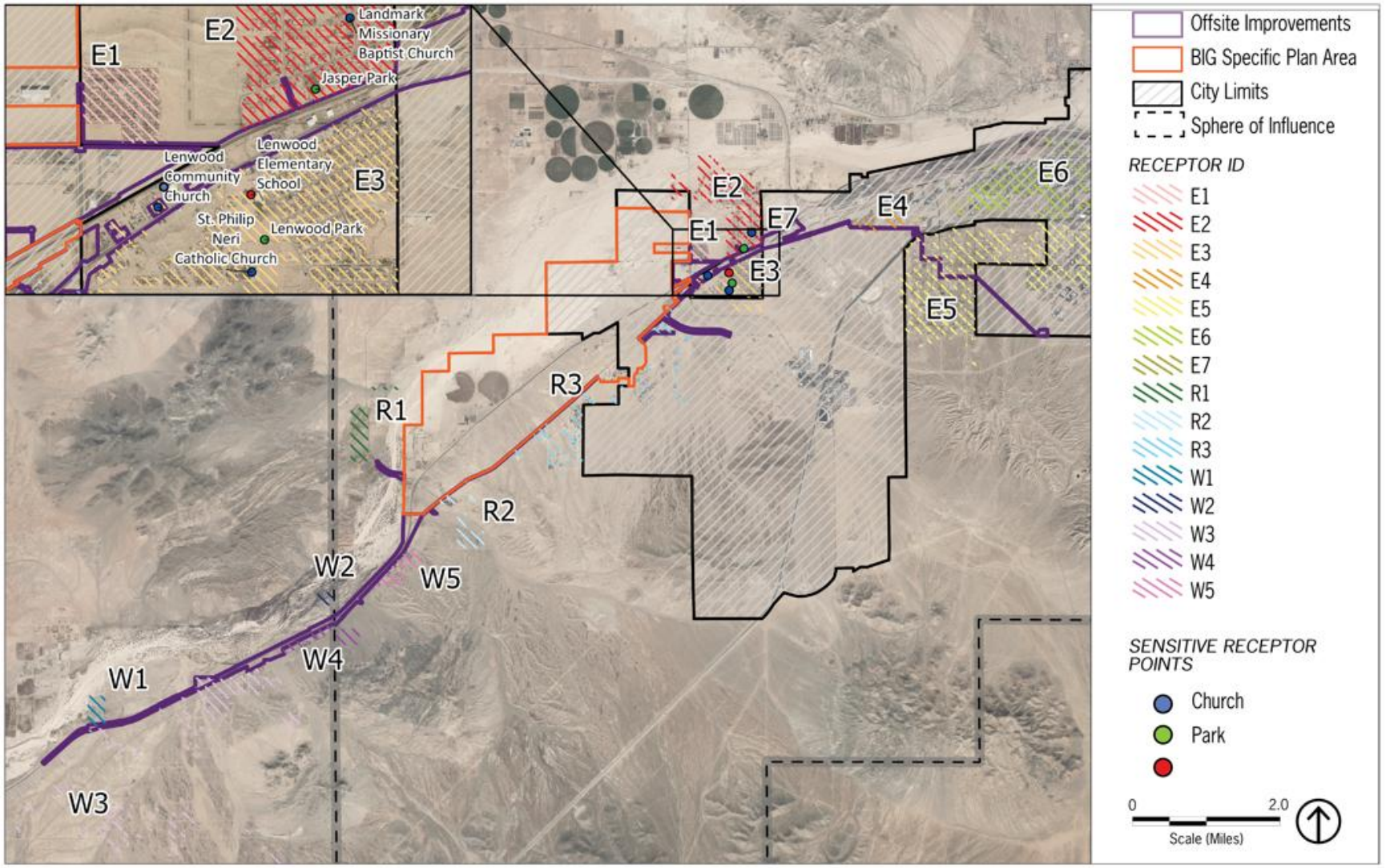


Figure 13: Sensitive Receptor Property Locations

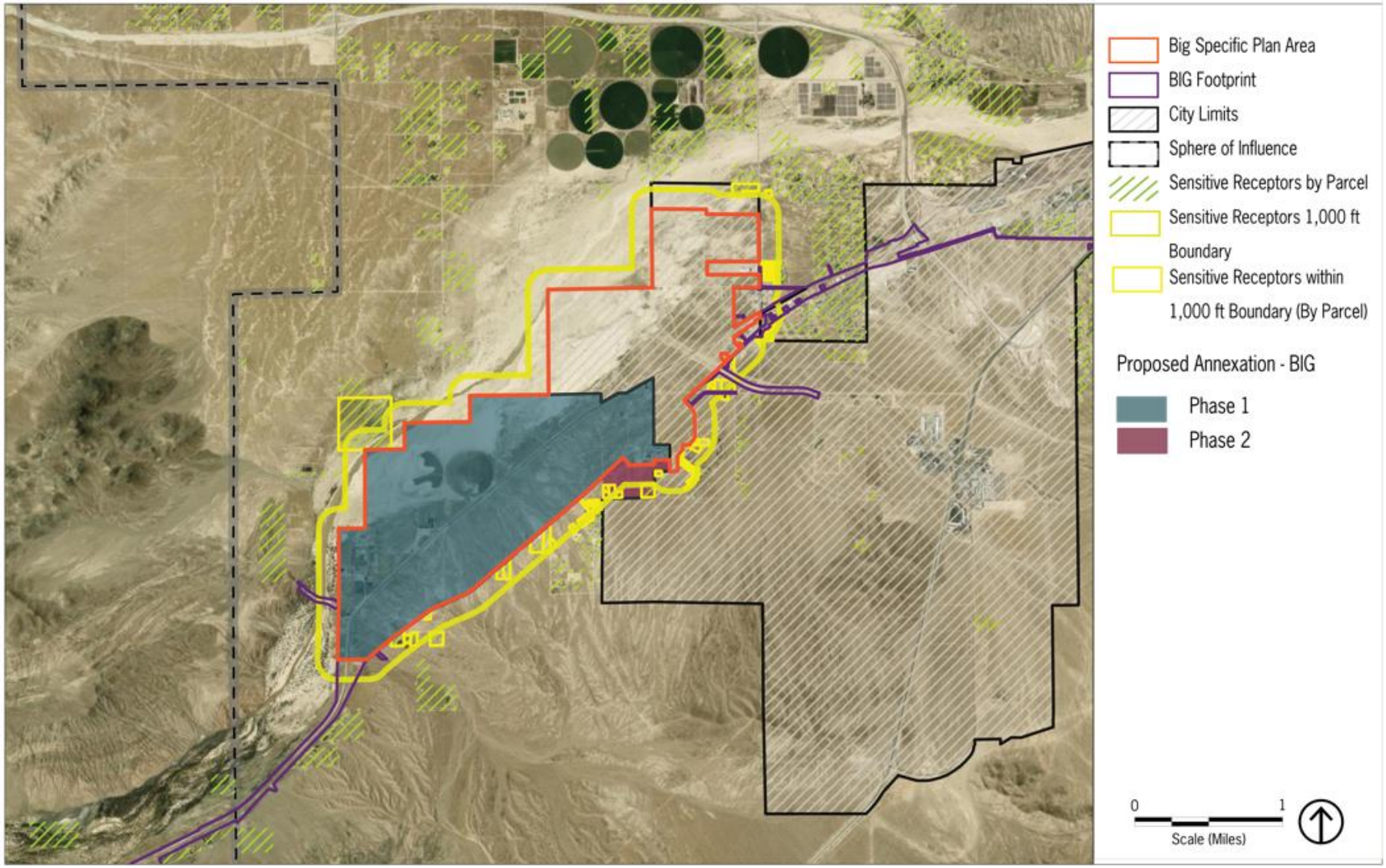


Figure 14: Sensitive Receptor Property Locations

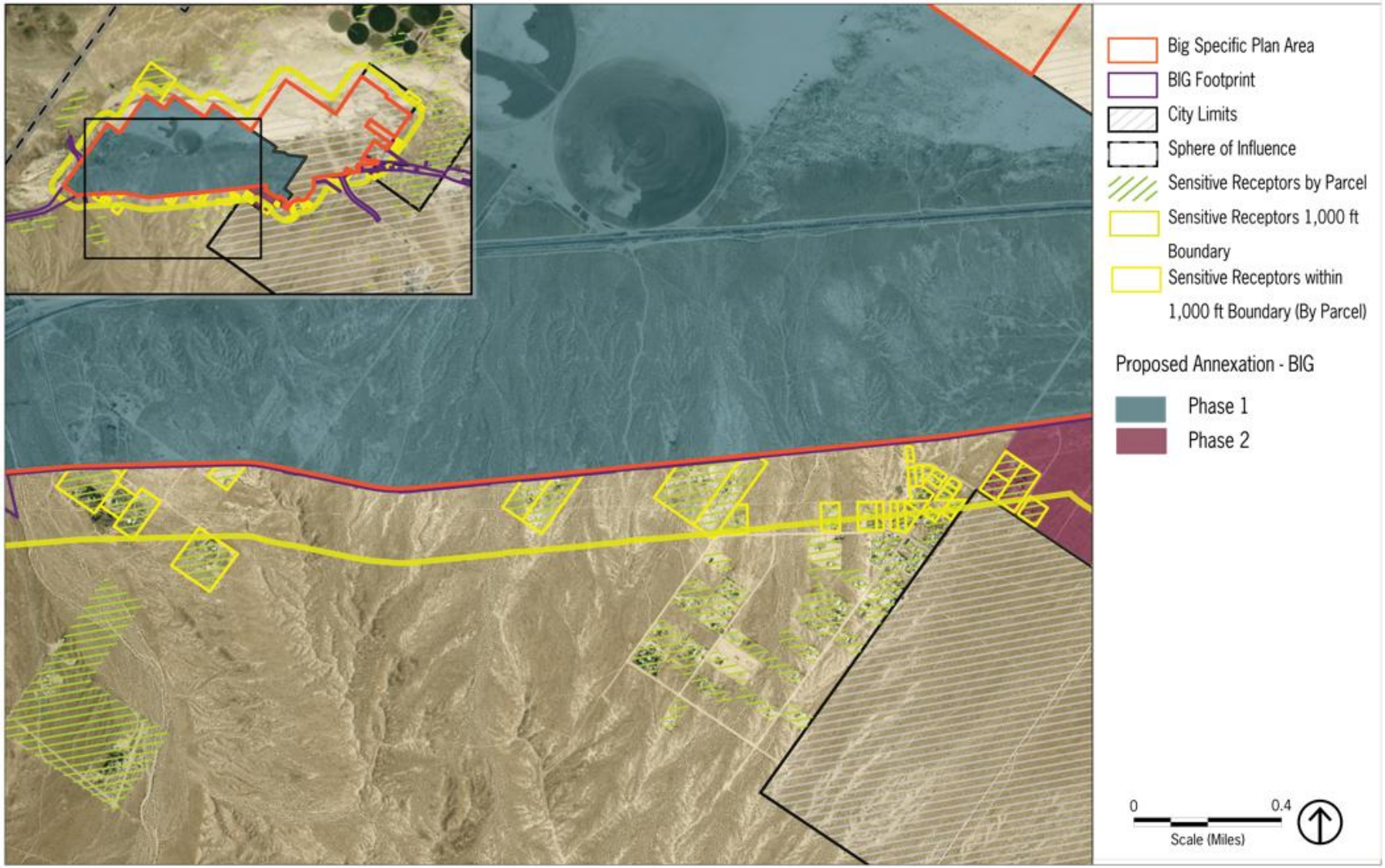


Figure 15: Sensitive Receptor Property Locations

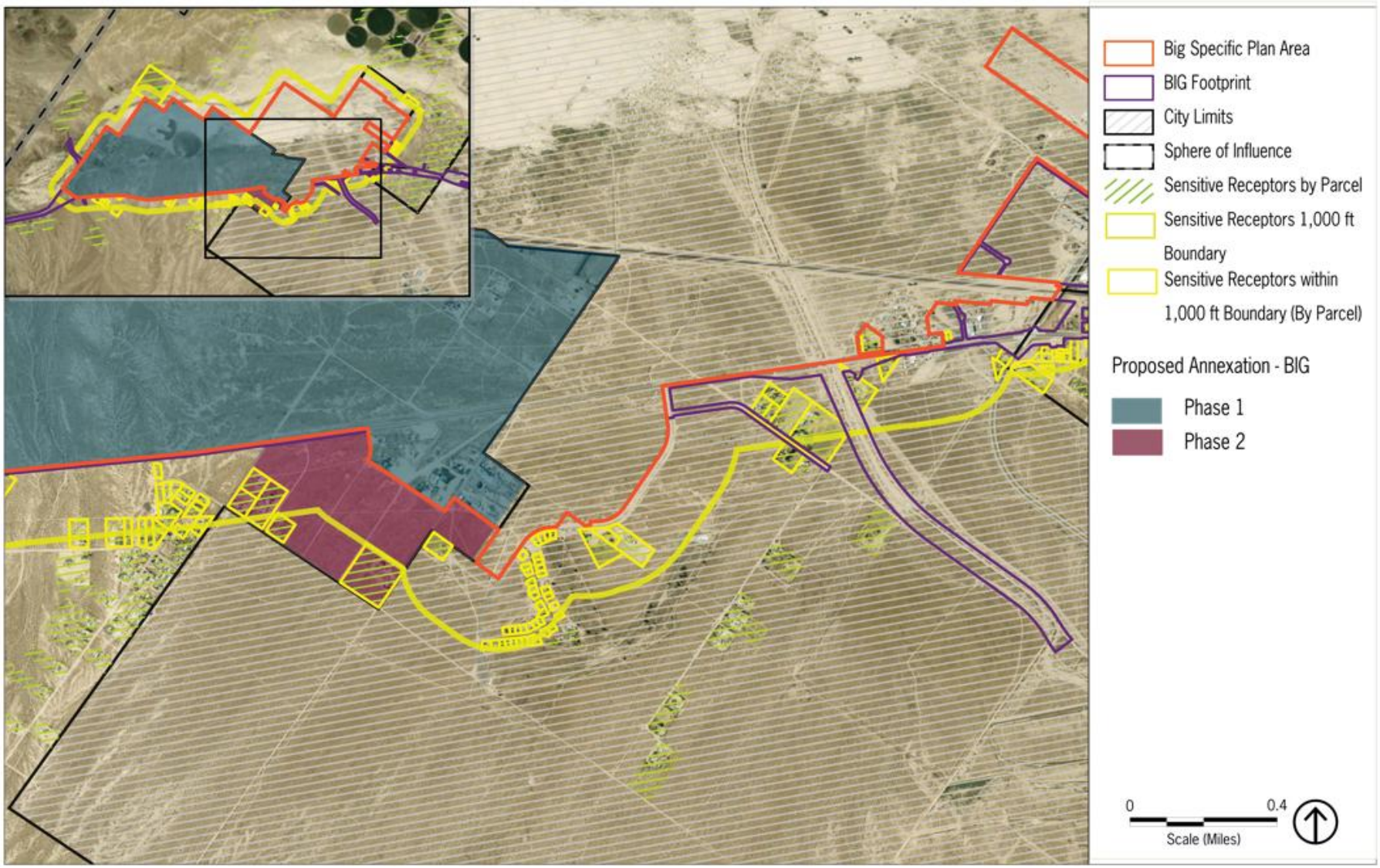


Figure 16: Sensitive Receptor Property Locations

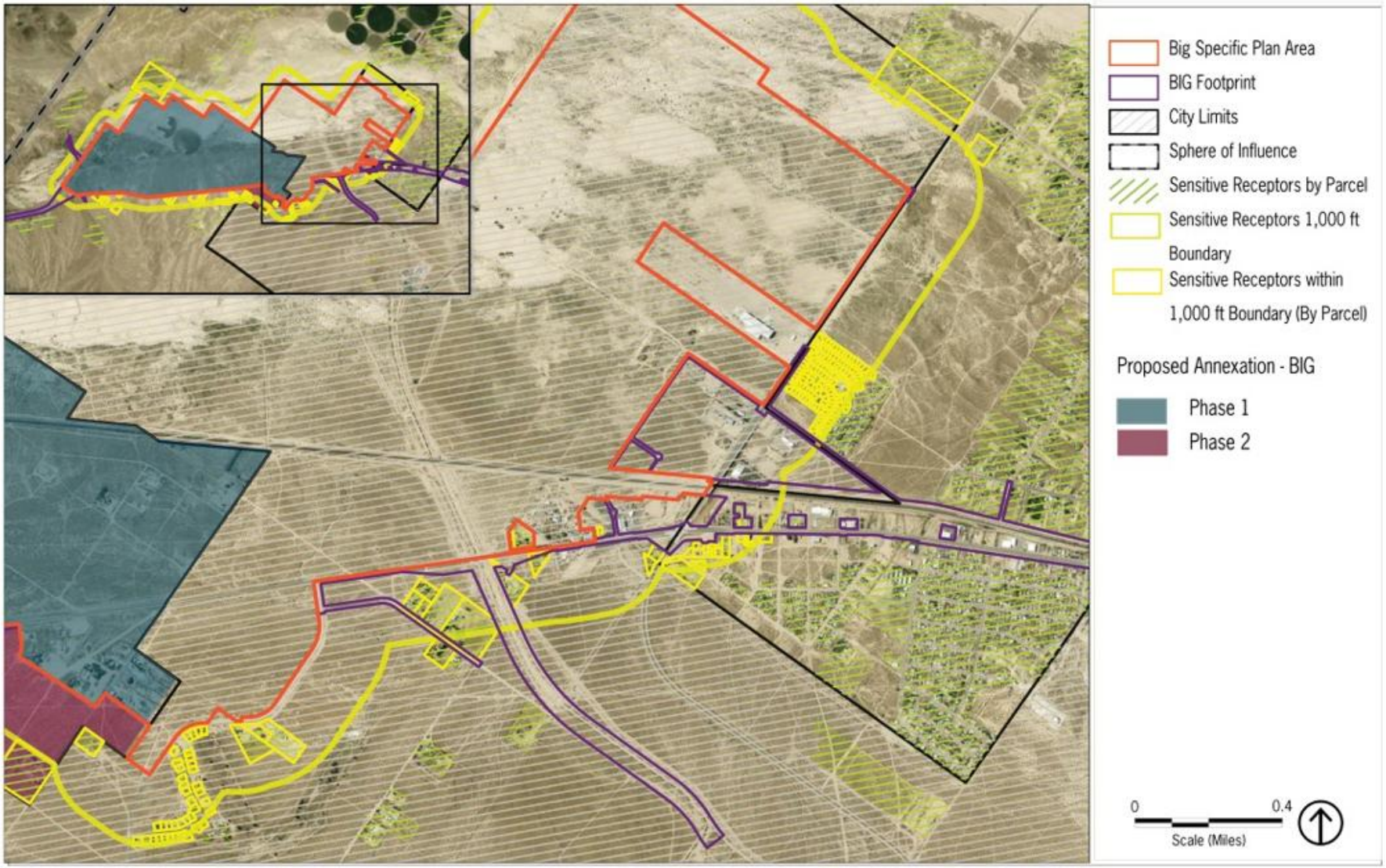


Figure 17: Sensitive Receptor Property Locations



5.2 Noise Measurements

To determine ambient noise levels in the noise and vibration study area, three one-hour noise measurements were taken between 2:00 p.m. and 4:45 p.m. on October 25, 2022, and six long-term measurements were taken between 12:45 p.m. on October 25, 2022, and 6:45 p.m. on October 26, 2022. Long-term measurement instruments continuously monitored the measurement sites for at least 24 hours to record the L_{dn}. Short-term measurements were one-hour long and the hourly L_{eq} was recorded. **Figure 18: Noise Measurement Locations (Southern Portion)** and **Figure 19: Noise Measurement Locations (Lenwood)** show the locations of the noise measurements and Table 20: Noise Measurement Results provides the noise measurement results. In accordance with the FTA guidelines methodologies for determining existing noise exposure, short-term (1-hour) measurements were taken to assess impacts to non-residential receptors, whereas long-term (24-hour) measurements were taken to assess impacts to residential receptors (FTA, 2018, pg. 92-95).

Table 20: Noise Measurement Results

Measurement Location	Duration	Time of day	L_{min} (dBA)	L_{max} (dBA)	L_{eq} (dBA)	L_{dn} (dBA)[4]
SHORT-TERM MEASUREMENTS[1]						
ST-1	60 mins	2:11 PM	32.9	84.4	58.8	-
ST-2	60 mins	3:30 PM	34.8	72.7	54.9	-
ST-3	60 mins	3:35 PM	32.6	59.3	43.8	-
LONG-TERM MEASUREMENTS[2]						
LT-1	24 hours	12:44 PM	26.1	87.3	53.7	61.2
LT-2	24 hours	12:18 PM	16.1	106.0	69.9	77.2
LT-3	24 hours	2:08 PM	34.5	100.3	60.8	66.5
LT-4	24 hours	5:31 PM	29.7	97.7	61.6	66.1
LT-5	24 hours	3:07 PM	21.5	84.4	52.6	58.1
LT-6	24 hours	5:01 PM	29.6	93.8	64.8	69.2

Note*:*

[1] Short-term (one-hour) noise measurements were taken to obtain existing ambient noise levels at non-residential uses in the BIG footprint.

[2] Long-term 24-hour noise measurements were taken to obtain representative long-term (24-hour) noise levels at residential receptors, consistent with the FTA guidelines.

[3] dBA = A-weighted decibels, L_{min} = instantaneous minimum noise level, L_{max} = instantaneous maximum noise level, L_{eq} = energy-equivalent noise level, L_{dn} = day/night noise level

[4] As explained in Section 3.1, L_{dn} is the average A weighted sound level over a 24-hour period. It includes a 10 dBA penalty for noise levels between 10:00 p.m. and 7:00 a.m. Since the short-term measurements were taken for only one hour during the daytime, there is no L_{dn} noise level for the short-term measurements.

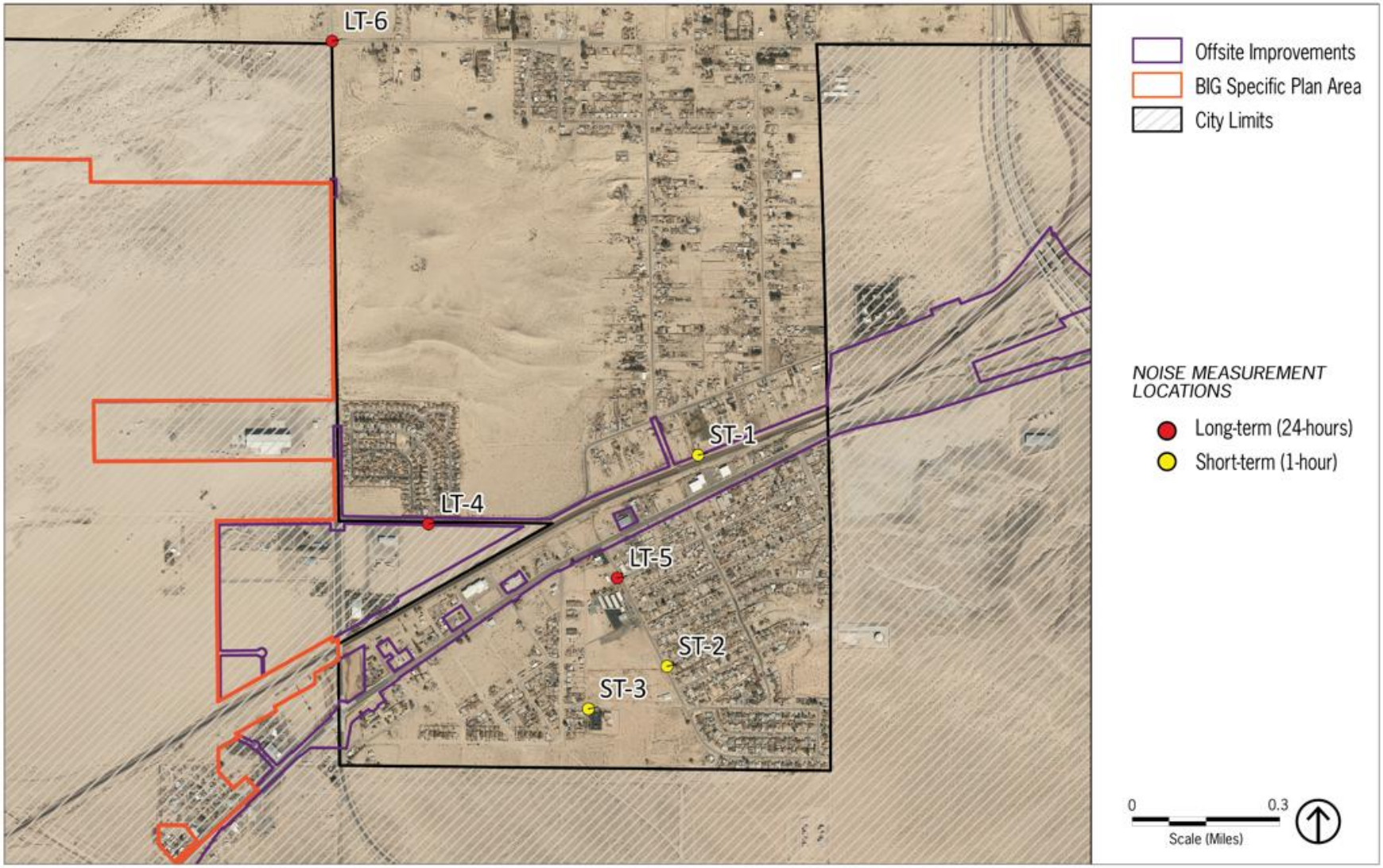
Sources*: Noise measurements taken by Kimley-Horn on October 25-26, 2022.*

Figure 18: Noise Measurement Locations (Southern Portion)[24]



[24] Please note that there were no short-tern noise measurements taken in the vicinity of the southern portion of the BIG footprint.

Figure 19: Noise Measurement Locations (Lenwood)



Noise measurements at locations ST-1 through ST-3, and LT-1 through LT-6 were taken at the following locations in accordance with FTA guidelines methodologies:

- ST-1 was taken to obtain existing ambient noise levels for recreational receptors at Jasper Park.
- ST-2 was taken to obtain existing ambient noise levels for recreational receptors at Lenwood Park.
- ST-3 was taken to obtain existing ambient noise levels for recreational receptors at St. Philip Neri Catholic Church.
- LT-1 was taken to obtain existing ambient noise levels at the nearest residential receptors to the intermodal facility's southwestern portion.
- LT-2 was taken to obtain existing ambient noise levels at the nearest residential receptors to the west lead tracks.
- LT-3 was taken to obtain existing ambient noise levels at the nearest residential receptors to the intermodal facility's northeastern portion.
- LT-4 was taken to obtain existing ambient noise levels at the residential receptors north of the east lead tracks.
- LT-5 was taken to obtain existing ambient noise levels at the residential receptors and Lenwood Elementary School south of the east lead tracks.
- LT-6 was taken to obtain existing ambient noise levels at Ingels School and Grandview Baptist Church north of the east lead tracks.

5.3 Existing Roadway Traffic Noise Conditions

Existing roadway traffic noise levels were calculated for the roadway segments in the noise and vibration study area using the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108) and existing traffic volumes; see **Appendix A** for traffic noise modeling assumptions and results. The noise prediction model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (also referred to as energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates that Caltrans identified for California. Caltrans data indicates that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels (Hendricks, 1987). The average daily traffic noise levels noise and vibration study area roadway segments are included in **Table 21: Existing No BIG Conditions Roadway Traffic Noise Levels**.

Table 21: Existing No BIG Conditions Roadway Traffic Noise Levels						
Roadway	**Segment**	**Existing ADT**	**dBA CNEL at 100 feet from Roadway Centerline**	**Distance to dBA CNEL Contour (feet)**		
				60 dBA CNEL	**65 dBA CNEL**	**70 dBA CNEL**
Main Street	Hinkley Road to Country Club Drive	3,610	57.7	70	32	-
	Country Club Drive to Lenwood Road	3,610	57.7	70	32	-
	Lenwood Road to County/City Boundary	9,650	61.6	127	59	-
	County/City Boundary to SR 58 Eastbound Ramps	9,650	62.6	149	69	-
	SR 58 Eastbound Off-Ramps to SR 58 Westbound Ramps	8,320	62.8	154	71	-
	SR 58 Westbound Ramps to L Street	6,990	61.3	123	57	-
	L Street to Avenue A	12,800	61.4	123	57	-
	Avenue A to Barstow Road	12,190	60.6	110	51	-
Barstow Road	Main Street to I-15 Southbound Ramps	11,070	63.4	169	79	-
	I-15 Southbound Ramps to I-15 Northbound Ramps	11,100	63.9	182	84	-
	I-15 Northbound ramps to Rimrock Road	11,140	64.3	194	90	-
Lenwood Road	SR 58 Westbound Ramps to Community Boulevard	1,290	59.7	96	44	-
	Community Boulevard to Agate Road	1,290	58.3	77	36	-
	Agate Road to Jasper Road	3,830	61.2	121	56	-
	Jasper Road to Main Street	6,370	63.0	158	73	34
	Main Street to High Desert Road	3,610	60.0	100	47	-
	High Desert Road to I-15 SB Off-Ramp	10,590	66.2	260	121	56
	I-15 SB Off-Ramp to I-15 NB Off-Ramp	8,980	62.2	139	65	-
Hinkley Road	SR 58 Westbound Ramp to BIG Driveway	360	47.5	-	-	-
	BIG Driveway to Main Street[2]	360	47.5	-	-	-

Note:
ADT = average daily traffic, dBA = A-weighted decibels, CNEL = community noise equivalent level, EB = eastbound, SB = southbound, WB = westbound; " - " = this noise level contour does not exist along this roadway segment.

Sources: Based on traffic data derived from the Traffic Impact Analysis (Kimley-Horn, 2025). Refer to **Appendix A** for traffic noise modeling

Roadway traffic noise in BIG's immediate vicinity is primarily generated along Main Street. State Route 58 and other local roadways are also sources of roadway traffic noise. According to the 2015 General Plan Noise Element and as indicated in **Table 21**, uses along Main Street are within the 60-65 dBA CNEL roadway traffic noise contours. **Table 21** shows that the existing (no BIG) roadway traffic noise levels on study area roadways range from 47.5 to 66.2 dBA CNEL at 100 feet from the centerline.

5.4 Existing Vibration Environment

Based on the existing land use types, business operations, and empirical observations of typical vibration sources (as outlined in the FTA guidelines) in the BIG footprint, the primary source of existing ground vibration within the noise and vibration study area is freight train vibration along the existing BNSF rail alignment (FTA, 2018, pg. 113). The noise and vibration study area's vibration-sensitive receptors are the same as the noise-sensitive receptors identified in **Table 19**, except limited to the buildings/structures located at these sensitive receptor properties.

6.0 IMPACT ANALYSIS

6.1 Noise Analysis

Impact - 1	*Would BIG generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of BIG in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Construction

Construction Noise Levels

The noise levels calculated in **Table 22: Maximum BIG Construction Noise Levels at Nearest Sensitive Receptors**, show BIG's highest estimated construction noise levels (by construction area) at the nearest sensitive receptors (residential uses). Modeled receptor locations for construction and operations are shown in **Figure 20: Modeled Sensitive Receptor Locations (West Lead** Track), **Figure 21: Modeled Sensitive Receptors (BIG Specific Plan Area)** and **Figure 22: Model Sensitive Receptor Locations (**Lenwood). Construction equipment reference noise levels were obtained from the FTA guidelines (see **Table 15**) and were input into SoundPLAN for each construction area. Construction equipment was modeled as an area source in SoundPLAN considering that construction activities would occur throughout the BIG footprint and would not be concentrated at the point closest to sensitive receptors or other off-site properties. The noise levels presented in **Table 22** represent a worst-case condition with the maximum amount of equipment in each construction area operating simultaneously.

Daytime Construction

As indicated in **Table 22,** BIG construction noise levels would reach a maximum of 84.2 dBA $L_{eq(8\text{-}hour)}$ during 33 kV Line construction and would exceed the FTA's 80 dBA $L_{eq(8\text{-}hour)}$ daytime construction noise standard for residential uses in only one construction area- the 33 kV line. Noise levels from all other construction areas/activities would not exceed the FTA's daytime standard. In addition, the combined noise level from simultaneous construction activities at all construction areas would reach a maximum of 84.4 dBA $L_{eq(8\text{-}hour)}$ and would exceed the FTA 80 dBA $L_{eq(8\text{-}hour)}$ daytime noise standard. However, as indicated in **Table 22** and previously described, 33 kV line construction itself would exceed the FTA's daytime threshold and is the primary contributor to the combined construction noise level. Construction of the 33 kV line would occur over approximately four weeks and would move in a linear fashion along the 7.5-mile route from the SCE Tortilla Substation to the intermodal facility's western end. Due to the nature of 33 kV line construction activities, the only feasible mitigation to reduce construction noise levels would be to construct a temporary noise barrier to block the line of sight from the construction area to the nearest residences. However, to attenuate noise levels below 80 dBA at the impacted residences, the temporary noise barrier would have to constantly be moved, re-oriented, and properly positioned as construction activities move along the 7.5-mile 33 kV line route. In addition, a temporary noise barrier placed between the 33 kV line construction area and the impacted residences could create vehicle/pedestrian access issues at residential properties. As such, temporary noise barriers for construction of the 33 kV line would be considered infeasible mitigation, and a significant and unavoidable construction noise impact would occur.

Table 22: Maximum BIG Construction Noise Levels at Nearest Sensitive Receptors							
Construction Area/Activity	**Impacted Receptor (Receptor ID)[1]**	**Land Use Type**	**Maximum Noise Level (dBA $L_{eq\ (8\text{-}hr)}$)[2]**	**FTA Daytime Construction Noise Threshold (dBA $L_{eq(8\text{-}hr)}$)**	**Threshold Exceeded?**	**FTA Nighttime Construction Noise Threshold (dBA $L_{eq(8\text{-}hr)}$)**	**Threshold Exceeded?**
Block Swap Yard	5	Residential	61.9	80	No	70	No
Intermodal Facility	1	Residential	63.6	80	No	70	No
Transload Warehouse Center	7	Residential	58.4	80	No	70	No
East Lead Tracks	15	Residential	73.3	80	No	70	Yes
West Lead Tracks	62	Residential	65.6	80	No	70	No
Solar Farm	87	Residential	75.7	80	No	70	Yes
Lenwood Channel Improvements	6	Residential	73.4	80	No	70	Yes
33 kV Line	13	Residential	84.2	80	Yes	70	Yes
Concrete Batch Plant	53	Residential	30.5	80	No	70	No
Pile Driving	5	Residential	73.7	80	No	70	Yes
Sweeten Lane Paving	83	Residential	67.5	80	No	70	No
Bridge Demolition	5	Residential	52.6	80	No	70	No
Combined (all sources)[3]	13	Residential	84.4	80	Yes	70	Yes

Notes:
[1] Modeled receptor locations are shown in **Figure 20** through **Figure 22**.
[2] Noise levels calculated using the SoundPLAN Essential software. Modeling results are provided in **Appendix A**.

Sources: Kimley-Horn, 2025; SoundPLAN Essential version 5.1. Refer to **Appendix A** for noise modeling results and receptor locations.

Figure 20: Modeled Sensitive Receptor Locations (West Lead Track)

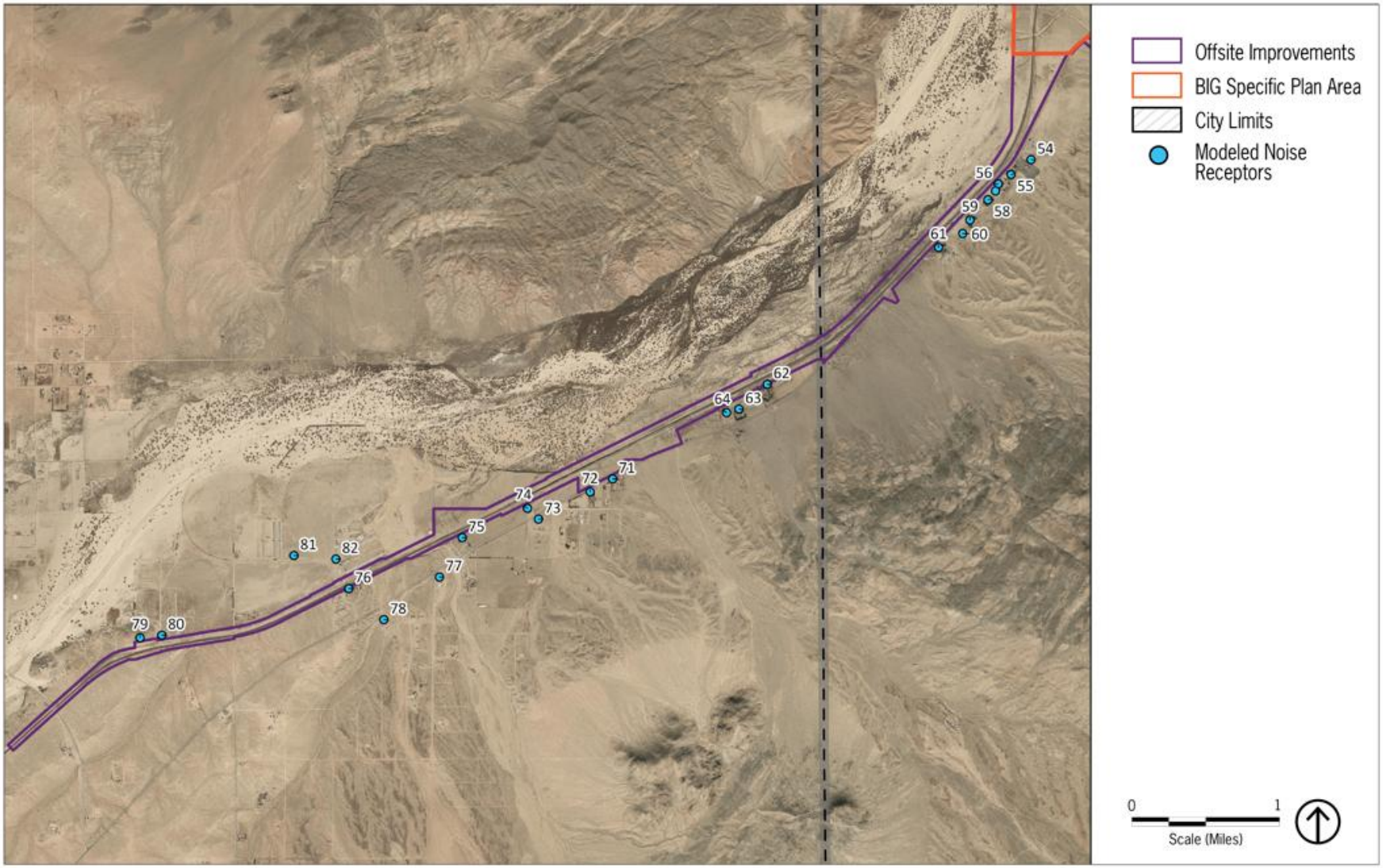


Figure 21: Modeled Sensitive Receptors (BIG Specific Plan Area)

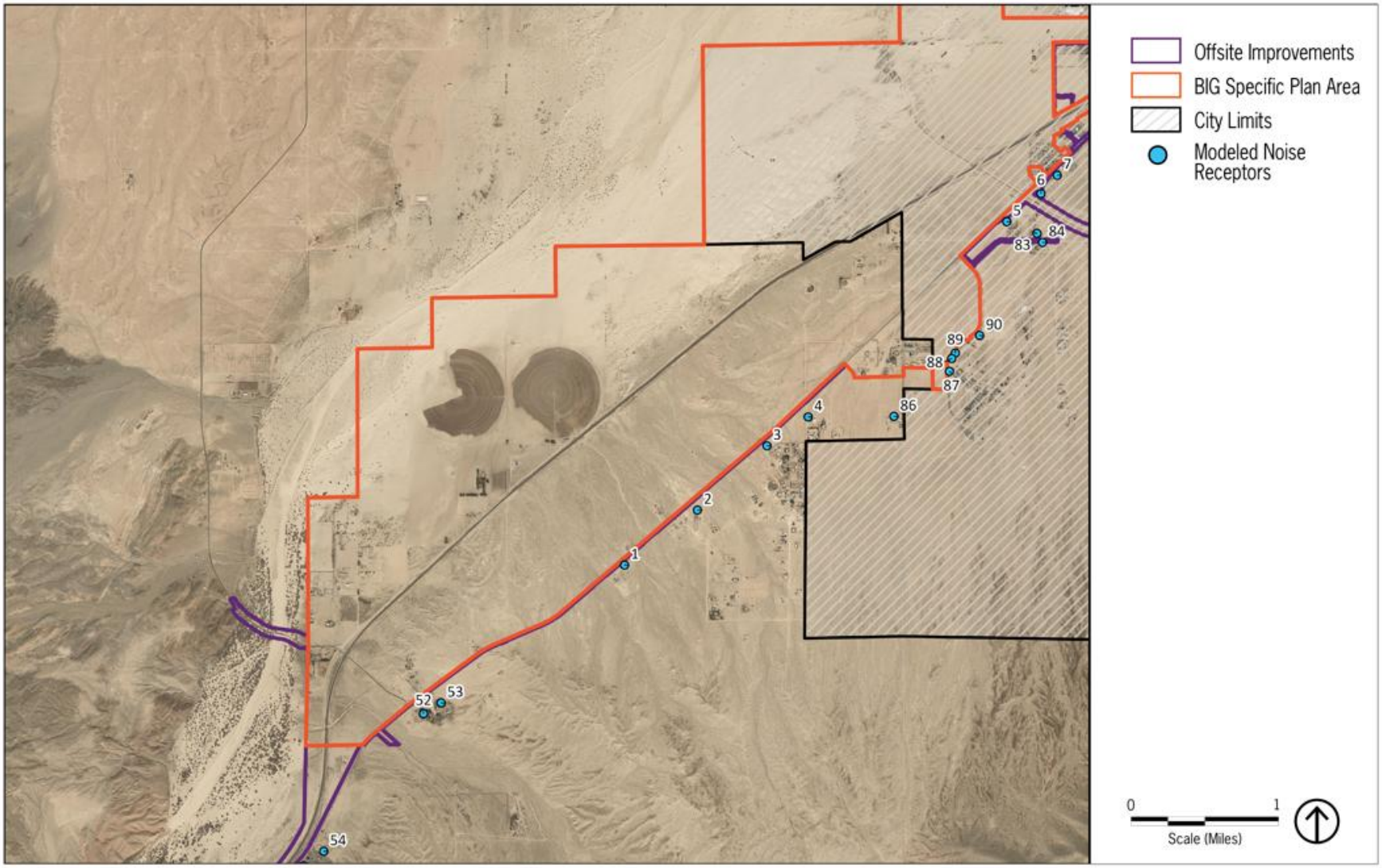
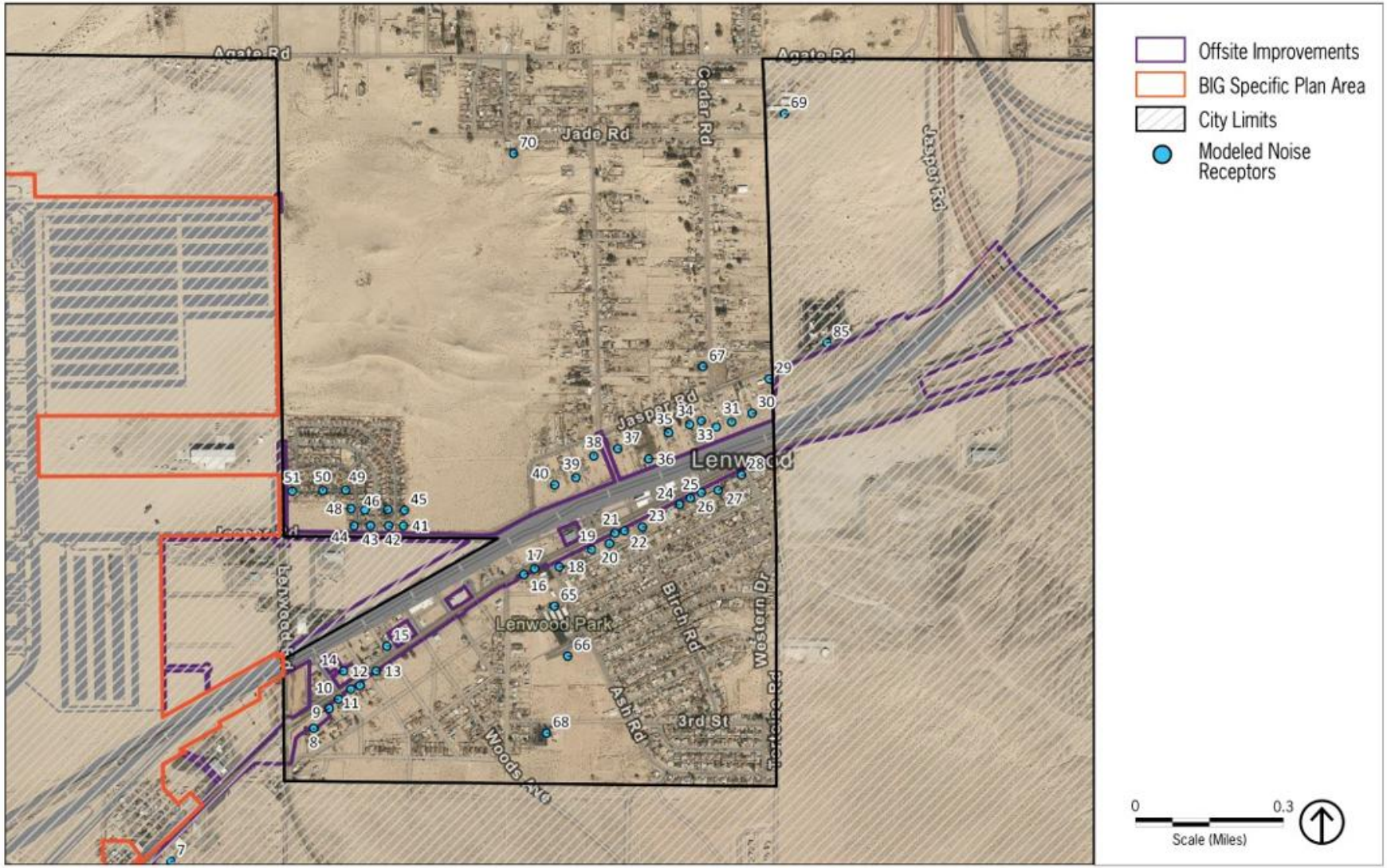


Figure 22: Model Sensitive Receptor Locations (Lenwood)



Nighttime Construction

BIG would require approximately four weeks of nighttime construction for east and west lead track work adjacent to the mainline tracks where the lead tracks would tie into the mainline tracks. Additionally, nighttime construction may be required throughout the BIG footprint during certain phases or periods to accommodate key activities required to maintain progress on construction and rail operations (e.g., concrete foundation pouring for the transload warehouse center, etc.).

As shown in **Table 22**, nighttime construction noise levels associated with the east lead tracks, solar farm, Lenwood Channel improvements, and 33 kV line would exceed the FTA's 70 dBA $L_{eq(8\text{-}hour)}$ nighttime construction noise standard for residential uses. Noise levels from the other construction areas/activities would not exceed the FTA's nighttime standard. As previously noted, the combined noise level from simultaneous construction activities at all construction areas would reach a maximum of 84.4 dBA $L_{eq(8\text{-}hour)}$ and would exceed the FTA 70 dBA $L_{eq(8\text{-}hour)}$ nighttime noise standard. BIG would incorporate Mitigation Measure NOI-1, which requires preparation of a Construction Noise Logistics Plan to reduce nighttime construction noise levels. While incorporation of Mitigation Measure NOI-1 would reduce nighttime construction noise levels to the extent feasible, the precise details regarding the proposed schedule, duration/hours, equipment type/quantity, and specific location of construction for nighttime construction activities are unknown at this time. Therefore, despite incorporation of noise reduction measures (to be included in the Construction Noise Logistics Plan), nighttime construction noise levels could still exceed the FTA's 70 dBA $L_{eq(8\text{-}hour)}$ for residential uses. Therefore, BIG nighttime construction noise could result in a significant and unavoidable impact despite incorporation of Mitigation Measure NOI-1.

Pile-driving (Daytime and Nighttime)

Pile-driving would be required wherever there are railroad bridges, including at Bridge 6.5, located about 4,000 feet northeast of the Lenwood Road and Main Street intersection, and Bridge 10.9B, located approximately 920 feet west of the Main Street and Buckboard Road intersection. Based on the site plan and potential pile-driving locations at the BIG footprint, the nearest sensitive receptor(s) would be located as close as 0.28-mile (approximately 1,500 feet) from pile-driving equipment.

As shown in **Table 15**, an impact pile-driver generates a noise level of approximately 101 dBA at a distance of 50 feet. Conservatively assuming six impact pile drivers would be used simultaneously during construction of Bridges 6.5 and Bridge 10.9B (i.e., one pile driver at Bridge 6.5B, one pile driver at Bridge 6.5C, two pile drivers at Bridge 6.5F, and two pile drivers at Bridge 10.9B), the highest expected noise level at the nearest sensitive receptor would be approximately 73.7 dBA,[25] which is below the FTA 80 dBA $L_{eq\ (8\text{-}hour)}$ daytime standard for residential uses. However, as also shown in **Table 12**, pile driving activities during the nighttime would likely exceed the FTA's 70 dBA $L_{eq(8\text{-}hour)}$ nighttime noise standard for residential. As discussed above, BIG would incorporate Mitigation Measure NOI-1, which requires preparation of a Construction Noise Logistics Plan to reduce nighttime construction noise levels. While incorporation of Mitigation Measure NOI-1 would reduce nighttime pile-driving noise levels to the extent feasible, the precise details for nighttime construction activities are unknown at this time. Therefore,

[25] Pile driving noise modeled in SoundPLAN Essential 5.1 as six (6) point sources at Bridge 6.5 and Bridge 10.98 (i.e., one pile driver at Bridge 6.5B, one pile driver at Bridge 6.5C, two pile drivers at Bridge 6.5F, and two pile drivers at Bridge 10.9B). See **Appendix A** for SoundPLAN modeling results.

despite incorporation of Mitigation Measure NOI-1, nighttime pile-driving noise levels could still exceed the FTA's 70 dBA $L_{eq(8\text{-}hour)}$ for residential uses. As such, nighttime noise from pile driving would result in a significant and unavoidable impact despite incorporation of Mitigation Measure NOI-1.

Construction Roadway Traffic Noise

Construction crews traveling to and from the BIG footprint and vendors transporting construction equipment and materials to construction sites would incrementally increase noise levels along travel routes. In addition, BIG construction activities would require temporary lane or roadway closures. Rerouted traffic could affect existing noise levels and nearby land uses.

According to the *Barstow International Gateway CEQA Assessment – VMT Analysis, Active Transportation, and Public Transit Analysis* (Kimley-Horn, 2025), BIG is expected to generate a maximum of 3,265 daily trips (worker trips + heavy truck trips) during month 13 of construction. A doubling of traffic (or a 100 percent increase) is required to result in a barely perceptible 3 dBA noise increase. (Caltrans, 2013) The primary local access roads that would carry BIG construction traffic are Main Street and Lenwood Road, which currently experience approximately 3,868 and 6,499 daily trips, respectively, along roadway segments with access to the BIG construction site. Based on a worst-case total traffic volume of 4,105 daily BIG construction trips split evenly along both Main Street and Lenwood Road (i.e., 50 percent of construction trips would occur along Main Street, and 50 percent would occur along Lenwood Road), BIG's construction-related trips would result in a maximum increase of 53 percent and 32 percent increase in traffic along Main Street and Lenwood Road, respectively. Therefore, BIG's construction trips would not double existing traffic volumes and would result in a less than perceptible 3 dBA roadway traffic noise increase, and a less than significant impact would occur.

Construction Year 2026 Condition – South Mainlines

During 2026 BIG construction, the south mainlines would be used to divert train traffic from the existing north mainlines while they are being upgraded. This condition (Year 2026) was modeled in SoundPLAN to evaluate potential impacts as a result of diverting 100 percent of trains along the new south mainlines. Once BIG construction is finished, half of the trains which would bypass BIG would use the north mainlines and half would use the south mainlines to balance train counts between the mainlines. The Year 2026 No BIG and Year 2026 With BIG noise levels and impact screening analysis can be found in **Appendix A**.

As shown in **Appendix A**, the receptors surrounding BIG would generally experience a reduction in train noise levels under the Year 2026 With BIG condition compared to the Year 2026 No BIG condition, thus, would not result in any noise impacts. The modeled receptors would experience a maximum noise reduction in train noise levels up to approximately 9.1 dBA and maximum increase of 1.3 dBA. Based on the SoundPLAN modeling results, the improved noise condition from the Year 2026 With BIG scenario is a result of several factors, including a grade separation/change of up to approximately 30 feet in the southernmost extent of the BIG footprint along Main Street that breaks the line of sight between the rail yard and mainlines, and the removal of the Hinkley Road at-grade crossing (train horns would not be used at this location anymore). Therefore, no train noise impacts would occur from the Year 2026 With BIG condition.

Operations – On-Site BIG Facility Noise

Operational Exterior Noise Levels – Opening Year 2028

BIG operations would result in new noise sources that could affect nearby sensitive receptors. Specifically, BIG would generate an increase in rail corridor activity along the existing mainline and at the block swap yard and intermodal facility, construct a new south mainline track closer to residential uses, increase train switching and coupling activities at the block swap yard, include new sources such as intermodal facility operations, truck loading/unloading activity at the transload warehouse center, mechanical equipment, solar generation facility operations, increased truck/traffic volumes along local roadways, and emergency generator equipment. BIG's noise sources are discussed in more detail below.

The Opening Year 2028 operational noise levels are evaluated against the applicable City and County noise standards in **Table 23: Opening Year 2028 BIG Operational Noise Levels – City/County Noise Standards Impact Analysis** and the incremental noise analysis is provided in **Table 24: Opening Year 2028 BIG Operational Noise Levels – Noise Increase Impact Analysis**. Only receptors that would, under "with BIG" conditions, exceed either the absolute noise standard or the incremental noise increase thresholds described in **Section 4.2 (Thresholds of Significance)** are provided. See **Appendix A** for SoundPLAN results and impact screening analyses for all receptors.

As shown in **Table 23** and **Table 24**, BIG operational noise levels at 12 modeled receptors would either exceed a City or County noise standard or result in a substantial noise increase when compared to No BIG conditions. All 12 impacted receptors are located south of BIG:

- Receptors 1, 2, and 4: located directly south of the intermodal facility and block swap yard;
- Receptors 5, 6, 83, and 84: located directly south of the north and south mainline tracks, and northeast of the solar farm;
- Receptor 86: located south of the intermodal facility, block swap yard, and solar farm; and
- Receptors 87 through 90: located directly south of the solar farm.

The following noise barriers were modeled in SoundPLAN to determine if they would reduce Opening Year 2028 With BIG operational noise levels below the City/County absolute noise level and/or the incremental noise increase standard for the impacted receptors identified above.[26]

- **Barrier 1 (BAR-1)**: a 20-foot-high concrete masonry noise barrier approximately 2.48-mile (13,088 feet) in length along the southernmost BIG site boundary adjacent to Main Street;
- **Barrier 2 (BAR-2)**: a 10-foot-high absorptive noise barrier approximately 700 feet in length surrounding the BESS equipment in the northeastern portion of the solar farm;
- **Barrier 3 (BAR-3)**: a 10-foot-high absorptive noise barrier approximately 470 feet in length surrounding the substation in the northeastern portion of the solar farm; and

[26] It should be noted that all four noise barriers (BAR-1 through BAR-4) are included in this analysis regardless of feasibility. The feasibility analysis for noise barriers is included in Section 6.1: Noise Analysis, Noise Barrier Financial Feasibility Analysis – On Site BIG Facility Noise (page 126-127 of this technical report).

- **Barrier 4 (BAR-4)**: an 8-foot-high concrete masonry noise barrier approximately 0.53-mile (2,790 feet) feet in length along the north side of Main Street from Country Club Drive to Accessor Parcel Number 0421-171-51 across the Lenwood Channel.

The modeled noise barrier locations are depicted in Figure 23 and Figure 24 **(Modeled Noise Barrier Locations)**. It should be noted that Barrer 5 (BAR-5) is excluded from this analysis, as this barrier would reduce emergency generator noise only and would not affect or influence typical (non-emergency situation) BIG operational noise levels.

Opening Year 2028 With BIG operational noise levels with incorporation of the noise barriers discussed above were modeled in SoundPLAN and the impacted receptor results are provided in **Table 25: Opening Year 2028 BIG Operational Noise Levels With Noise Barriers – City/County Noise Standards Impact Analysis** and **Table 26: Opening Year 2028 BIG Operational Noise Levels With Noise Barriers – Noise Increase Impact Analysis**. As indicated in **Table 25**, BAR-1 through BAR-4 would reduce BIG operational noise levels below the applicable City and/or County noise standards at all impacted receptor locations except for Receptors 1 and 2, which would exceed City/County noise thresholds despite construction of a 20-foot-high noise barrier. BAR-1 through BAR-4 would reduce noise levels below the incremental increase threshold(s) at Receptors 1, 2, and 4 through 6, but Receptors 83, 84, and 86 through 90 would still experience a substantial noise increase over ambient conditions as a result of BIG operations; see **Table 26**. Therefore, a significant noise impact would occur in this regard. It is noted the maximum noise level reduction from BAR-1 through BAR-4 under Opening Year 2028 With BIG conditions would be approximately 5.2 dBA, which is considered clearly noticeable.

Table 23: Opening Year 2028 BIG Operational Noise Levels – City/County Noise Standards Impact Analysis											
Receptor No.[1]	Land Use	Jurisdiction	Daytime			Nighttime			24-hour		
			Modeled Noise Level (dBA)	Noise Standard (dBA)[2]	Exceeds Standard?	Modeled Noise Level (dBA)	Noise Standard (dBA)[2]	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA Ldn)[3]	Exceeds Standard?
NO BIG											
1	Residential	County	59.5	55	Yes	58.1	45	Yes	64.7	60	Yes
2	Residential	County	58.4	55	Yes	57.0	45	Yes	63.7	60	Yes
4	Residential	City	57.0	65	No	55.6	65	No	62.3	65	No
5	Residential	City	58.7	65	No	57.4	65	No	64.0	65	No
6	Residential	City	53.1	65	No	51.7	65	No	58.3	65	No
83	Residential	City	47.3	65	No	45.9	65	No	52.6	65	No
84	Residential	City	46.2	65	No	44.9	65	No	51.5	65	No
88	Residential	City	45.5	65	No	44.2	65	No	50.8	65	No
89	Residential	City	45.6	65	No	44.2	65	No	50.9	65	No
90	Residential	City	45.1	65	No	43.8	65	No	50.4	65	No
WITH BIG											
1	Residential	County	61.5	55	Yes	60.9	45	Yes	67.4	60	Yes
2	Residential	County	59.2	55	Yes	58.9	45	Yes	65.3	60	Yes
4	Residential	City	59.2	65	No	58.7	65	No	65.2	65	Yes
5	Residential	City	63.9	65	No	63.8	65	No	70.2	65	Yes
6	Residential	City	59.7	65	No	59.5	65	No	66.0	65	Yes
83	Residential	City	59.8	65	No	59.7	65	No	66.1	65	Yes
84	Residential	City	59.8	65	No	59.8	65	No	66.2	65	Yes
88	Residential	City	59.3	65	No	59.1	65	No	65.5	65	Yes
89	Residential	City	59.8	65	No	59.7	65	No	66.1	65	Yes
90	Residential	City	61.6	65	No	61.5	65	No	67.9	65	Yes

Notes:
1. See **Figure 20** through **Figure 22** for receptor locations.
2. City and County noise standards obtained from **Table 11**, and **Table 14**.
3. City and County 24-hour average (dBA Ldn) noise standard obtained from **Table 12**.

Source: SoundPLAN Essential version 5.1. Please see **Appendix A** for complete modeling results for all receptors.

Table 24: Opening Year 2028 BIG Operational Noise Levels – Noise Increase Impact Analysis

Receptor No.[1]	Land Use	Jurisdiction	Daytime			Nighttime			24-Hour		
			Incremental Increase (dBA) (With BIG Condition Minus No BIG Condition)	Incremental Standard (dBA)[2]	Exceeds Standard?	Incremental Increase (dBA) (With BIG Condition Minus No BIG Condition)	Incremental Standard (dBA)[2]	Exceeds Standard?	Incremental Increase (dBA Ldn) (With BIG Condition Minus No BIG Condition)	Incremental Standard (dBA Ldn)[2]	Exceeds Standard?
1	Residential	County	2.0	1.5	**Yes**	2.8	1.5	**Yes**	2.7	1.5	**Yes**
2	Residential	County	0.8	1.5	No	1.9	1.5	**Yes**	1.6	1.5	**Yes**
4	Residential	City	2.2	1.5	**Yes**	3.1	1.5	**Yes**	2.9	1.5	**Yes**
5	Residential	City	5.2	1.5	**Yes**	6.4	1.5	**Yes**	6.2	1.5	**Yes**
6	Residential	City	6.6	5.0	**Yes**	7.8	5.0	**Yes**	7.7	5.0	**Yes**
83	Residential	City	12.5	1.5	**Yes**	13.8	1.5	**Yes**	13.6	1.5	**Yes**
84	Residential	City	13.6	1.5	**Yes**	14.9	1.5	**Yes**	14.7	1.5	**Yes**
86	Residential	City	8.7	1.5	**Yes**	9.8	1.5	**Yes**	9.7	1.5	**Yes**
87	Residential	City	13.2	1.5	**Yes**	14.4	1.5	**Yes**	14.1	1.5	**Yes**
88	Residential	City	13.8	1.5	**Yes**	14.9	1.5	**Yes**	14.7	1.5	**Yes**
89	Residential	City	14.2	1.5	**Yes**	15.5	1.5	**Yes**	15.2	1.5	**Yes**
90	Residential	City	16.5	1.5	**Yes**	17.7	1.5	**Yes**	17.5	1.5	**Yes**

Notes:
1. See **Figure 20** through **Figure 22** for receptor locations.
2. Incremental standards are based on FICON methodology using measured ambient levels as described in **Section 4.1 (Impact Analysis Methodology**) and **Section 4.2 (Thresholds of Significance)**.

Sources: SoundPLAN Essential version 5.1. Please see **Appendix A** for complete modeling results and impact screening analysis for all receptors.

Table 25: Opening Year 2028 BIG Operational Noise Levels With Noise Barriers – City/County Noise Standards Impact Analysis

Receptor No.[1]	Land Use	Jurisdiction	Daytime[2]			Nighttime[2]			24-Hour[2]		
			Modeled Noise Level (dBA)	Noise Standard (dBA)[3]	Exceeds Standard?	Modeled Noise Level (dBA)	Noise Standard (dBA)[3]	Exceeds Standard?	Modeled Noise Level (dBA Ldn)	Noise Standard (dBA Ldn)[3]	Exceeds Standard?
WITH BIG											
1	Residential	County	57.7	55	**Yes**	57.4	45	**Yes**	63.8	60	**Yes**
2	Residential	County	57.4	55	**Yes**	57.2	45	**Yes**	63.6	60	**Yes**
4	Residential	City	56.9	65	No	56.6	65	No	63.0	65	No
5	Residential	City	58.8	65	No	58.6	65	No	65.0	65	No
6	Residential	City	56.9	65	No	56.6	65	No	63.2	65	No
83	Residential	City	57.6	65	No	57.6	65	No	64.0	65	No
84	Residential	City	57.7	65	No	57.7	65	No	64.1	65	No
88	Residential	City	57.0	65	No	56.8	65	No	63.2	65	No
89	Residential	City	57.1	65	No	56.9	65	No	63.3	65	No
90	Residential	City	58.3	65	No	58.2	65	No	64.6	65	No

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. Modeled noise levels include the following noise barriers and associated impacted receptor locations:
   - BAR-1: Receptors 1, 2, 4, and 88 through 90;
   - BAR-2 and BAR-3: Receptors 83, 84, and 88 through 90; and
   - BAR-4: Receptors 5, 6, 83, and 84.
3. City and County noise standards obtained from **Table 11, Table 9,** and Table 14**.**

Source: SoundPLAN Essential version 5.1. Please see **Appendix A** for complete modeling results for all receptors.

Table 26: Opening Year 2028 BIG Operational Noise Levels With Noise Barriers – Noise Increase Impact Analysis											
			Daytime			Nighttime			24-Hour		
Receptor No.[1]	Land Use	Jurisdiction	Incremental Increase (dBA) (With BIG Condition Minus No BIG Condition)[2]	Incremental Standard (dBA)[3]	Exceeds Standard?	Incremental Increase (dBA) (With BIG Condition Minus No BIG Condition)[2]	Incremental Standard (dBA)[3]	Exceeds Standard?	Incremental Increase (dBA Ldn) (With BIG Condition Minus No BIG Condition)[2]	Incremental Standard (dBA Ldn)[3]	Exceeds Standard?
1	Residential	County	-1.8	1.5	No	-0.7	1.5	No	-0.9	1.5	No
2	Residential	County	-1.0	1.5	No	0.2	1.5	No	-0.1	1.5	No
4	Residential	City	-0.1	1.5	No	1.0	1.5	No	0.7	1.5	No
5	Residential	City	0.1	1.5	No	1.2	1.5	No	1.0	1.5	No
6	Residential	City	3.8	5.0	No	4.9	5.0	No	4.9	5.0	No
83	Residential	City	10.3	1.5	**Yes**	10.3	1.5	**Yes**	11.4	1.5	**Yes**
84	Residential	City	11.5	1.5	**Yes**	11.5	1.5	**Yes**	12.6	1.5	**Yes**
86	Residential	City	7.9	1.5	**Yes**	7.9	1.5	**Yes**	8.9	1.5	**Yes**
87	Residential	City	11.4	1.5	**Yes**	11.4	1.5	**Yes**	12.2	1.5	**Yes**
88	Residential	City	11.5	1.5	**Yes**	11.5	1.5	**Yes**	12.4	1.5	**Yes**
89	Residential	City	11.5	1.5	**Yes**	11.5	1.5	**Yes**	12.4	1.5	**Yes**
90	Residential	City	13.2	1.5	**Yes**	13.2	1.5	**Yes**	14.2	1.5	**Yes**

Notes:

1. See **Figure 13** through **Figure 22** for receptor locations.
2. Modeled noise levels include the following noise barriers and associated impacted receptor locations:
   - BAR-1: Receptors 1, 2, 4, and 86 through 90;
   - BAR-2 and BAR-3: Receptors 5, 83, 84, and 88 through 90; and
   - BAR-4: Receptors 5, 6, 83, and 84.
3. Incremental standards are based on FICON methodology using measured ambient levels as described in **Section 4.1 (Impact Analysis Methodology**) and **Section 4.2 (Thresholds of Significance)**.

Sources: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results and impact screening analysis for all receptors.

Figure 23: Modeled Noise Barriers (Main Street)

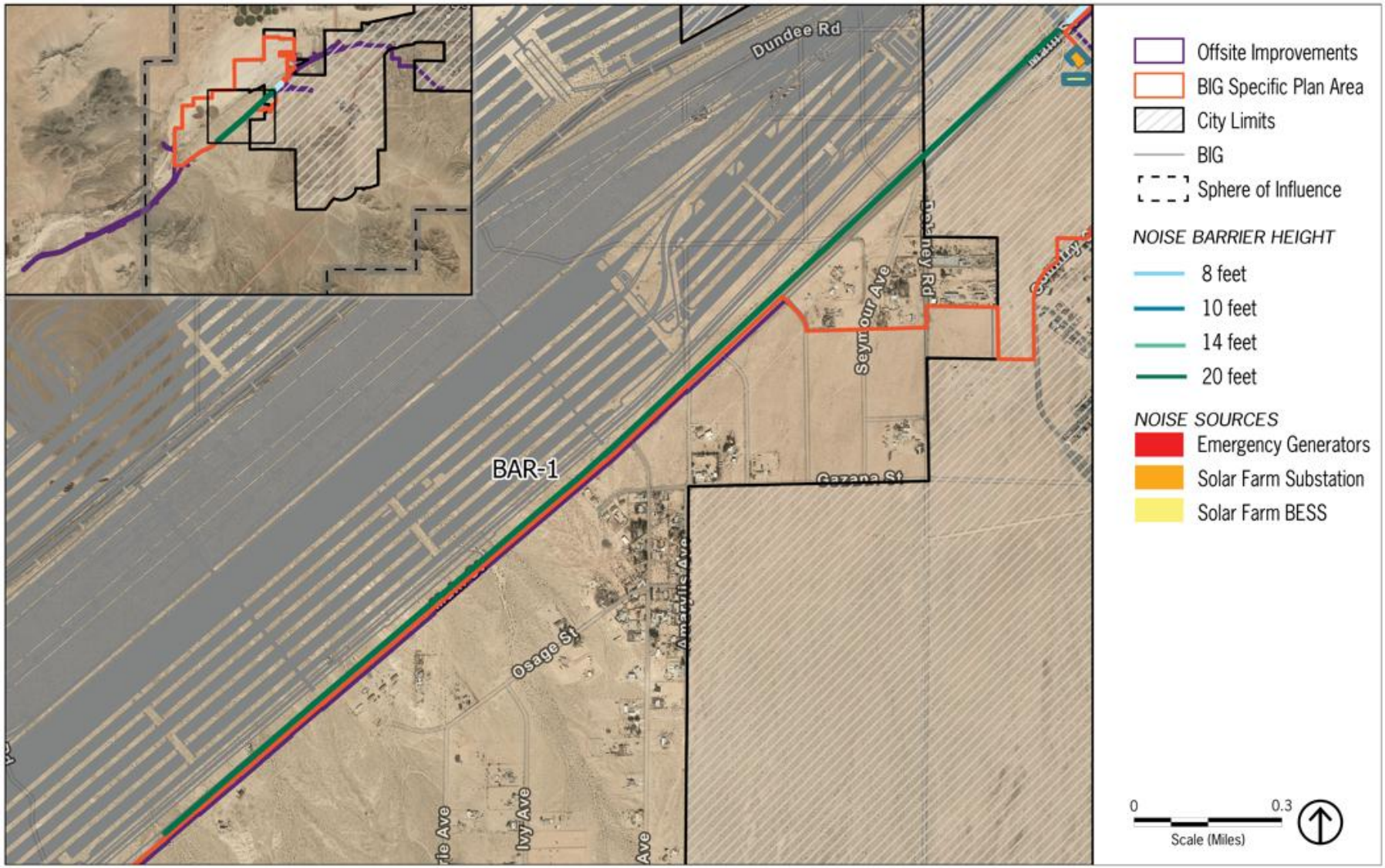
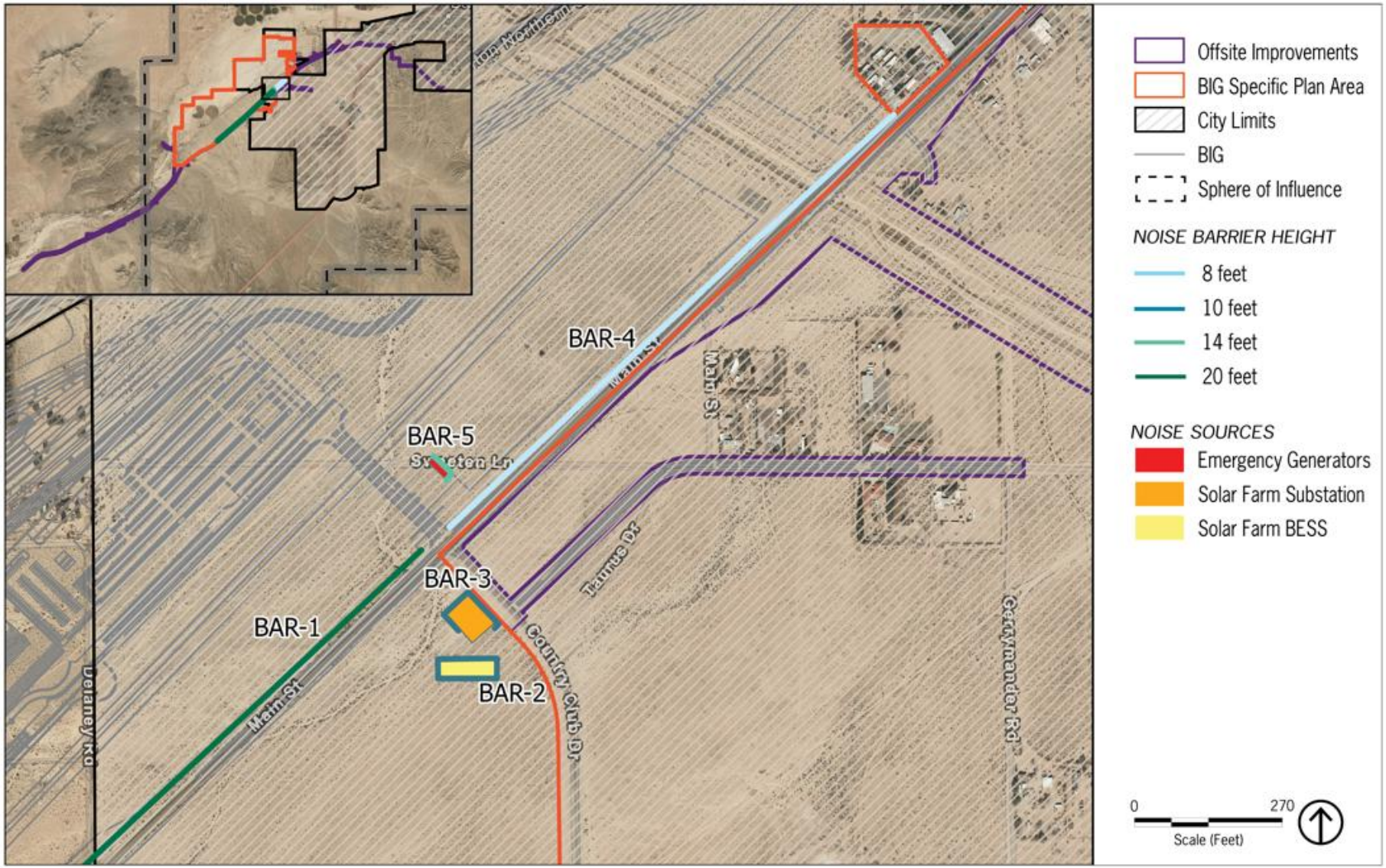


Figure 24: Modeled Noise Barriers (BIG Specific Plan Area)



Operational Exterior Noise Levels – Interim Year 2033

The 2033 operational noise levels are found in **Table 27: Interim Year 2033 BIG Operational Noise Levels – City/County Noise Standards Impact Analysis** and the incremental noise analysis is provided in **Table 28: Interim Year 2033 BIG Operational Noise Levels – Noise Increase Impact Analysis**. Only receptors that would, under "with BIG" conditions, exceed either the absolute noise standard or the incremental noise increase thresholds described in **Section 4.2 (Thresholds of Significance)** are provided. See **Appendix A** for SoundPLAN results and impact screening analyses for all receptors.

As shown in **Table 27** and **Table 28**, BIG operational noise levels at 12 modeled receptors would exceed a City or County noise standard or result in a substantial noise increase when compared to No BIG conditions. Similar to the Opening Year 2028 analysis above, all 12 impacted receptors are located south of BIG:

- Receptors 1, 2, and 4: located directly south of the intermodal facility and block swap yard;
- Receptors 5, 6, 83, and 84: located directly south of the north and south mainline tracks, and northeast of the solar farm;
- Receptor 86: located south of the intermodal facility, block swap yard, and solar farm; and
- Receptors 87-90: located directly south of the solar farm.

Noise barriers BAR-1 through BAR-4 were evaluated for Interim Year 2033 With BIG conditions to reduce operational noise impacts.[27] It should be noted that BAR-5 is excluded from the analysis, as this barrier would reduce emergency generator noise only would not affect or influence typical BIG operational noise levels. The Interim Year 2033 With BIG results with incorporation of noise barriers for impacted receptors are provided in **Table 29: Interim Year 2033 BIG Operational Noise Levels With Noise Barriers – City/County Noise Standards Impact Analysis** and **Table 30: Interim Year 2033 BIG Operational Noise Levels With Noise Barriers – Noise Increase Impact Analysis.** As indicated in **Table 29** , BAR-1 through BAR-4 would reduce BIG operational noise levels below the applicable City and/or County noise standards at all impacted receptor locations except for Receptors 1 and 2, which would exceed City/County noise thresholds despite construction of a 20-foot-high noise barrier. BAR-1 through BAR-4 would reduce noise levels below the incremental increase threshold(s) at Receptors 1, 2, and 4 through 6, but Receptors 83, 84, and 86 through 90 would still experience a substantial noise increase over ambient conditions as a result of BIG operations; see **Table 30**. Therefore, a significant noise impact would occur in this regard. It is noted the maximum noise level reduction from BAR-1 through BAR-4 under Horizon Year 2048 With BIG conditions would be approximately 5.2 dBA, which is considered clearly noticeable.

[27] It should be noted that all four noise barriers (BAR-1 through BAR-4) are included in this analysis regardless of feasibility. The feasibility analysis for noise barriers is included in Section 6: Noise Analysis, Noise Barrier Financial Feasibility Analysis – On Site BIG Facility Noise (page 126-127 of this technical report).

Table 27: Interim Year 2033 BIG Operational Noise Levels – City/County Noise Standards Impact Analysis

Receptor No.[1]	Land Use	Jurisdiction	Daytime			Nighttime			24-hour		
			Modeled Noise Level (dBA)	Noise Standard (dBA)[2]	Exceeds Standard?	Modeled Noise Level (dBA)	Noise Standard (dBA)[2]	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA Ldn)[3]	Exceeds Standard?
NO BIG											
1	Residential	County	59.8	55	**Yes**	58.4	45	**Yes**	65.0	60	**Yes**
2	Residential	County	58.7	55	**Yes**	57.3	45	**Yes**	64.0	60	**Yes**
4	Residential	City	57.3	65	No	55.9	65	No	62.6	65	No
5	Residential	City	59.1	65	No	57.7	65	No	64.3	65	No
6	Residential	City	53.4	65	No	52.0	65	No	58.6	65	No
83	Residential	City	47.6	65	No	46.2	65	No	52.9	65	No
84	Residential	City	46.6	65	No	45.2	65	No	51.8	65	No
88	Residential	City	45.9	65	No	44.5	65	No	51.1	65	No
89	Residential	City	45.9	65	No	44.5	65	No	51.1	65	No
90	Residential	City	45.5	65	No	44.0	65	No	50.7	65	No
WITH BIG											
1	Residential	County	61.7	55	**Yes**	60.9	45	**Yes**	67.5	60	**Yes**
2	Residential	County	59.3	55	**Yes**	58.9	45	**Yes**	65.4	60	**Yes**
4	Residential	City	59.3	65	No	58.7	65	No	65.2	65	**Yes**
5	Residential	City	64.0	65	No	63.8	65	No	70.2	65	**Yes**
6	Residential	City	59.7	65	No	59.5	65	No	66.0	65	**Yes**
83	Residential	City	59.8	65	No	59.7	65	No	66.2	65	**Yes**
84	Residential	City	59.8	65	No	59.8	65	No	66.2	65	**Yes**
88	Residential	City	59.3	65	No	59.1	65	No	65.5	65	**Yes**
89	Residential	City	59.8	65	No	59.7	65	No	66.1	65	**Yes**
90	Residential	City	61.6	65	No	61.5	65	No	67.9	65	**Yes**

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. City and County noise standards obtained from **Table 11**, and **Table 14**.
3. City and County 24-hour average (dBA Ldn) noise standard obtained from **Table 12**.

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Table 28: Interim Year 2033 BIG Operational Noise Levels – Noise Increase Impact Analysis

Receptor No.[1]	Land Use	Jurisdiction	Daytime			Nighttime			24-Hour		
			Incremental Increase (dBA) (With BIG Condition Minus No BIG Condition)	Incremental Standard (dBA)[2]	Exceeds Standard?	Incremental Increase (dBA) (With BIG Condition Minus No BIG Condition)	Incremental Standard (dBA)[2]	Exceeds Standard?	Incremental Increase (dBA Ldn) (With BIG Condition Minus No BIG Condition)	Incremental Standard (dBA Ldn)[2]	Exceeds Standard?
1	Residential	County	1.9	1.5	**Yes**	2.5	1.5	**Yes**	2.5	1.5	**Yes**
2	Residential	County	0.6	1.5	No	1.6	1.5	**Yes**	1.4	1.5	No
4	Residential	City	2.0	1.5	**Yes**	2.8	1.5	**Yes**	2.6	1.5	**Yes**
5	Residential	City	4.9	1.5	**Yes**	6.1	1.5	**Yes**	5.9	1.5	**Yes**
6	Residential	City	6.3	5.0	**Yes**	7.5	5.0	**Yes**	7.4	5.0	**Yes**
83	Residential	City	12.2	1.5	**Yes**	13.5	1.5	**Yes**	13.3	1.5	**Yes**
84	Residential	City	13.2	1.5	**Yes**	14.6	1.5	**Yes**	14.4	1.5	**Yes**
86	Residential	City	8.3	1.5	**Yes**	9.5	1.5	**Yes**	9.4	1.5	**Yes**
87	Residential	City	12.9	1.5	**Yes**	14.1	1.5	**Yes**	13.8	1.5	**Yes**
88	Residential	City	13.4	1.5	**Yes**	14.6	1.5	**Yes**	14.4	1.5	**Yes**
89	Residential	City	13.9	1.5	**Yes**	15.2	1.5	**Yes**	15.0	1.5	**Yes**
90	Residential	City	16.1	1.5	**Yes**	17.5	1.5	**Yes**	17.2	1.5	**Yes**

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. Incremental standards are based on FICON methodology using measured ambient levels as described in Section 4.1 (**Impact Analysis Methodology**) and Section 4.2 (**Thresholds of Significance**).

Sources: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results and impact screening analysis for all receptors.

Table 29: Interim Year 2033 BIG Operational Noise Levels With Noise Barriers – City/County Noise Standards Impact Analysis

Receptor No.[1]	Land Use	Jurisdiction	Daytime[2]			Nighttime[2]			24-Hour[2]		
			Modeled Noise Level (dBA)	Noise Standard (dBA)[3]	Exceeds Standard?	Modeled Noise Level (dBA)	Noise Standard (dBA)[3]	Exceeds Standard?	Modeled Noise Level (dBA Ldn)	Noise Standard (dBA Ldn)[3]	Exceeds Standard?
WITH BIG											
1	Residential	County	57.8	55	**Yes**	57.4	45	**Yes**	63.8	60	**Yes**
2	Residential	County	57.5	55	**Yes**	57.2	45	**Yes**	63.6	60	**Yes**
4	Residential	City	57.0	65	No	56.6	65	No	63.0	65	No
5	Residential	City	58.8	65	No	58.6	65	No	65.0	65	No
6	Residential	City	57.0	65	No	56.8	65	No	63.2	65	No
83	Residential	City	57.7	65	No	57.6	65	No	64.0	65	No
84	Residential	City	57.7	65	No	57.7	65	No	64.1	65	No
88	Residential	City	57.1	65	No	56.8	65	No	63.2	65	No
89	Residential	City	57.2	65	No	56.9	65	No	63.3	65	No
90	Residential	City	58.4	65	No	58.2	65	No	64.6	65	No

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. Modeled noise levels include the following noise barriers and associated impacted receptor locations:
   - BAR-1: Receptors 1, 2, 4, and 88 through 90;
   - BAR-2 and BAR-3: Receptors 83, 84, and 88 through 90;
   - BAR-4: Receptors 5, 6, 83, and 84.
3. City and County noise standards obtained from **Table 11**, Table 9, and **Table 14.**

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Table 30: Interim Year 2033 BIG Operational Noise Levels With Noise Barriers – Noise Increase Impact Analysis

Receptor No.[1]	Land Use	Jurisdiction	Daytime			Nighttime			24-Hour		
			Incremental Increase (dBA) (With BIG Condition Minus No BIG Condition)[2]	Incremental Standard (dBA)[2]	Exceeds Standard?	Incremental Increase (dBA) (With BIG Condition Minus No BIG Condition)[2]	Incremental Standard (dBA)[2]	Exceeds Standard?	Incremental Increase (dBA Ldn) (With BIG Condition Minus No BIG Condition)[2]	Incremental Standard (dBA Ldn)[2]	Exceeds Standard?
1	Residential	County	-2.0	1.5	No	-1.0	1.5	No	-1.2	1.5	No
2	Residential	County	-1.2	1.5	No	-0.1	1.5	No	-0.4	1.5	No
4	Residential	City	-0.3	1.5	No	0.7	1.5	No	0.4	1.5	No
5	Residential	City	-0.3	1.5	No	0.9	1.5	No	0.7	1.5	No
6	Residential	City	3.6	5.0	No	4.8	5.0	No	4.6	5.0	No
83	Residential	City	10.1	1.5	**Yes**	11.4	1.5	**Yes**	11.1	1.5	**Yes**
84	Residential	City	11.1	1.5	**Yes**	12.5	1.5	**Yes**	12.3	1.5	**Yes**
86	Residential	City	7.6	1.5	**Yes**	8.7	1.5	**Yes**	8.6	1.5	**Yes**
87	Residential	City	11.2	1.5	**Yes**	12.1	1.5	**Yes**	11.9	1.5	**Yes**
88	Residential	City	11.2	1.5	**Yes**	12.3	1.5	**Yes**	12.1	1.5	**Yes**
89	Residential	City	11.3	1.5	**Yes**	12.4	1.5	**Yes**	12.2	1.5	**Yes**
90	Residential	City	12.9	1.5	**Yes**	14.2	1.5	**Yes**	13.9	1.5	**Yes**

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. Modeled noise levels include the following noise barriers and associated impacted receptor locations:
   - BAR-1: Receptors 1, 2, 4, and 86 through 90;
   - BAR-2 and BAR-3: Receptors 83, 84, and 88 through 90; and
   - BAR-4: Receptors 5, 6, 83, and 84.
3. Incremental standards are based on FICON methodology using measured ambient levels as described in **Section 4.1 (Impact Analysis Methodology**) and **Section 4.2 (Thresholds of Significance)**.

Sources: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results and impact screening analysis for all receptors.

Operational Exterior Noise Levels – Horizon Year 2048

The Horizon Year 2048 operational noise levels are found in **Table 31: Horizon Year 2048 BIG Operational Noise Levels – City/County Noise Standards Impact Analysis** and the incremental noise analysis is provided in **Table 32: Horizon Year 2048 BIG Operational Noise Levels – Noise Increase Impact Analysis.** Only receptors that would, under "with BIG" conditions, exceed either the absolute noise standard or the incremental noise increase thresholds described in **Section 4.2 (Thresholds of Significance)** are provided. See **Appendix A** for SoundPLAN results and impact screening analyses for all receptors

As shown in **Table 31** and **Table 32**, BIG Operational noise levels at 11 modeled receptors would exceed a City or County noise standard or result in a substantial noise increase when compared to No BIG conditions. Similar to the Opening Year 2028 and Interim Year 2033 analyses above, all 11 impacted receptors are located south of BIG:

- Receptors 1 and 4: located directly south of the intermodal facility and block swap yard;
- Receptors 5, 6, 83, and 84: located directly south of the north and south mainline tracks, and northeast of the solar farm;
- Receptor 86: located south of the intermodal facility, block swap yard, and solar farm; and
- Receptors 87-90: located directly south of the solar farm.

Noise barriers BAR-1 through BAR-4 were evaluated for Horizon Year 2048 With BIG conditions to reduce operational noise impacts.[28] It should be noted that BAR-5 is excluded from the analysis, as this barrier would reduce emergency generator noise only would not affect or influence typical BIG operational noise levels. The Horizon Year 2048 results with incorporation of noise barriers for impacted receptors are provided in **Table 33: Horizon Year 2048 BIG Operational Noise Levels With Noise Barriers – City/County Noise Standards Impact Analysis** and **Table 34 Horizon Year 2048 BIG Operational Noise Levels With Noise Barriers – Noise Increase Impact Analysis**. As indicated in **Table 33**, BAR-1 through BAR-4 would reduce BIG operational noise levels below the applicable City and/or County noise standards at all impacted receptor locations except for Receptor 1, which would exceed City/County noise thresholds despite construction of a 20-foot-high noise barrier. BAR-1 through BAR-4 would reduce noise levels below the incremental increase threshold(s) at Receptors 1, and 4 through 6, but Receptors 83, 84, and 86 through 90 would still experience a substantial noise increase over ambient conditions as a result of BIG operations; see **Table 34**. Therefore, a significant noise impact would occur in this regard. It is noted the maximum noise level reduction from BAR-1 through BAR-4 under Horizon Year 2048 With BIG conditions would be approximately 5.5 dBA, which is considered clearly noticeable.

[28] It should be noted that all four noise barriers (BAR-1 through BAR-4) are included in this analysis regardless of feasibility. The feasibility analysis for noise barriers is included in **Section 6: Noise Analysis, Noise Barrier Financial Feasibility Analysis – On Site BIG Facility Noise** (page 126-127 of this technical report).

Table 31: Horizon Year 2048 BIG Operational Noise Levels – City/County Noise Standards Impact Analysis												
Receptor No.[1]	Land Use	Jurisdiction	Daytime			Nighttime			24-hour			
			Modeled Noise Level (dBA)	Noise Standard (dBA)[2]	Exceeds Standard?	Modeled Noise Level (dBA)	Noise Standard (dBA)[2]	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA Ldn)[3]	Exceeds Standard?	
NO BIG												
1	Residential	County	60.9	55	**Yes**	59.4	45	**Yes**	66.0	60	**Yes**	
4	Residential	City	58.4	65	No	56.9	65	No	63.6	65	No	
5	Residential	City	60.1	65	No	58.6	65	No	65.3	65	**Yes**	
6	Residential	City	54.5	65	No	53.0	65	No	59.6	65	No	
83	Residential	City	48.7	65	No	47.2	65	No	53.8	65	No	
84	Residential	City	47.6	65	No	46.1	65	No	52.8	65	No	
88	Residential	City	46.9	65	No	45.4	65	No	52.1	65	No	
89	Residential	City	47.0	65	No	45.5	65	No	52.1	65	No	
90	Residential	City	46.5	65	No	45.0	65	No	51.7	65	No	
WITH BIG												
1	Residential	County	62.2	55	**Yes**	61.6	45	**Yes**	68.1	60	**Yes**	
4	Residential	City	59.8	65	No	59.3	65	No	65.8	65	**Yes**	
5	Residential	City	64.1	65	No	64.0	65	No	70.4	65	**Yes**	
6	Residential	City	59.8	65	No	59.7	65	No	66.1	65	**Yes**	
83	Residential	City	59.8	65	No	59.8	65	No	66.2	65	**Yes**	
84	Residential	City	59.8	65	No	59.8	65	No	66.2	65	**Yes**	
88	Residential	City	59.3	65	No	59.1	65	No	65.6	65	**Yes**	
89	Residential	City	59.8	65	No	59.7	65	No	66.1	65	**Yes**	
90	Residential	City	61.6	65	No	61.5	65	No	67.9	65	**Yes**	

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. City and County noise standards obtained from **Table 11**, and **Table** 14.
3. City and County 24-hour average (dBA Ldn) noise standard obtained from **Table 12**.

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Table 32: Horizon Year 2048 BIG Operational Noise Levels – Noise Increase Impact Analysis

Receptor No.[1]	Land Use	Jurisdiction	Daytime			Nighttime			24-Hour		
			Incremental Increase (dBA) (With BIG Condition Minus No BIG Condition)	Incremental Standard (dBA)[2]	Exceeds Standard?	Incremental Increase (dBA) (With BIG Condition Minus No BIG Condition)	Incremental Standard (dBA)[2]	Exceeds Standard?	Incremental Increase (dBA Ldn) (With BIG Condition Minus No BIG Condition)	Incremental Standard (dBA Ldn)[2]	Exceeds Standard?
1	Residential	County	1.3	1.5	No	2.2	1.5	**Yes**	2.1	1.5	**Yes**
4	Residential	City	1.4	1.5	No	2.4	1.5	**Yes**	2.2	1.5	**Yes**
5	Residential	City	4.0	1.5	**Yes**	5.4	1.5	**Yes**	5.1	1.5	**Yes**
6	Residential	City	5.3	5.0	**Yes**	6.7	5.0	**Yes**	6.5	5.0	**Yes**
83	Residential	City	11.1	1.5	**Yes**	12.6	1.5	**Yes**	12.4	1.5	**Yes**
84	Residential	City	12.2	1.5	**Yes**	13.7	1.5	**Yes**	13.4	1.5	**Yes**
86	Residential	City	7.4	1.5	**Yes**	8.7	1.5	**Yes**	8.5	1.5	**Yes**
87	Residential	City	11.9	1.5	**Yes**	13.1	1.5	**Yes**	13.0	1.5	**Yes**
88	Residential	City	12.4	1.5	**Yes**	13.7	1.5	**Yes**	13.5	1.5	**Yes**
89	Residential	City	12.8	1.5	**Yes**	14.2	1.5	**Yes**	14.0	1.5	**Yes**
90	Residential	City	15.1	1.5	**Yes**	16.5	1.5	**Yes**	16.2	1.5	**Yes**

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. Incremental standards are based on FICON methodology using measured ambient levels as described in Section 4.1 (**Impact Analysis Methodology**) and Section 4.2 (**Thresholds of Significance**).

Sources: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results and impact screening analysis for all receptors.

Table 33: Horizon Year 2048 BIG Operational Noise Levels With Noise Barriers – City/County Noise Standards Impact Analysis

Receptor No.[1]	Land Use	Jurisdiction	Daytime[2]			Nighttime[2]			24-Hour[2]		
			Modeled Noise Level (dBA)	Noise Standard (dBA)[3]	Exceeds Standard?	Modeled Noise Level (dBA)	Noise Standard (dBA)[3]	Exceeds Standard?	Modeled Noise Level (dBA Ldn)	Noise Standard (dBA Ldn)[3]	Exceeds Standard?
WITH BIG											
1	Residential	County	58.2	55	**Yes**	57.8	45	**Yes**	64.2	60	**Yes**
4	Residential	City	57.3	65	No	56.9	65	No	63.4	65	No
5	Residential	City	59.0	65	No	58.8	65	No	64.9	65	No
6	Residential	City	57.2	65	No	57.0	65	No	63.4	65	No
83	Residential	City	57.7	65	No	57.6	65	No	64.1	65	No
84	Residential	City	57.8	65	No	57.7	65	No	64.1	65	No
88	Residential	City	57.1	65	No	56.9	65	No	63.3	65	No
89	Residential	City	57.2	65	No	57.0	65	No	63.4	65	No
90	Residential	City	58.4	65	No	58.3	65	No	64.7	65	No

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. Modeled noise levels include the following noise barriers and associated impacted receptor locations:
   - BAR-1: Receptors 1; 4, and 88 through 90;
   - BAR-2 and BAR-3: Receptors 83, 84, and 88 through 90;
   - BAR-4: Receptors 5, 6, 83, and 84.
3. City and County noise standards obtained from **Table 11**, **Table 9**, and **Table 14**.

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Table 34 Horizon Year 2048 BIG Operational Noise Levels With Noise Barriers – Noise Increase Impact Analysis

Receptor No.[1]	Land Use	Jurisdiction	Daytime			Nighttime			24-Hour		
			Incremental Increase (dBA) (With BIG Condition Minus No BIG Condition)[2]	Incremental Standard (dBA)[2]	Exceeds Standard?	Incremental Increase (dBA) (With BIG Condition Minus No BIG Condition)[2]	Incremental Standard (dBA)[2]	Exceeds Standard?	Incremental Increase (dBA Ldn) (With BIG Condition Minus No BIG Condition)[2]	Incremental Standard (dBA Ldn)[2]	Exceeds Standard?
1	Residential	County	-2.7	1.5	No	-1.6	1.5	No	-1.8	1.5	No
4	Residential	City	-1.1	1.5	No	0.0	1.5	No	-0.2	1.5	No
5	Residential	City	-1.1	1.5	No	0.2	1.5	No	-0.4	1.5	No
6	Residential	City	2.7	5.0	No	4.0	5.0	No	3.8	5.0	No
83	Residential	City	9.0	1.5	**Yes**	10.4	1.5	**Yes**	10.3	1.5	**Yes**
84	Residential	City	10.2	1.5	**Yes**	11.6	1.5	**Yes**	11.3	1.5	**Yes**
86	Residential	City	6.8	1.5	**Yes**	8.0	1.5	**Yes**	7.8	1.5	**Yes**
87	Residential	City	10.2	1.5	**Yes**	11.2	1.5	**Yes**	11.1	1.5	**Yes**
88	Residential	City	10.2	1.5	**Yes**	11.5	1.5	**Yes**	11.2	1.5	**Yes**
89	Residential	City	10.2	1.5	**Yes**	11.5	1.5	**Yes**	11.3	1.5	**Yes**
90	Residential	City	11.9	1.5	**Yes**	13.3	1.5	**Yes**	13.0	1.5	**Yes**

Notes:

1. See **Figure 13** through **Figure 22** for receptor locations.
2. Modeled noise levels include the following noise barriers and associated impacted receptor locations:
   - BAR-1: Receptors 1, 4, and 86 through 90;
   - BAR-2 and BAR-3: Receptors 83, 84, and 88 through 90; and
   - BAR-4: Receptors 5, 6, 83, and 84.
3. Incremental standards are based on FICON methodology using measured ambient levels as described in **Section 4.1 (Impact Analysis Methodology**) and **Section 4.2 (Thresholds of Significance)**.

Sources: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results and impact screening analysis for all receptors.

While there are several impacted receptors identified for Opening Year 2028 With BIG, Interim Year 2033 With BIG, and Horizon Year 2048 with BIG conditions, it is worth noting that numerous receptors would see a reduction in operational noise levels when compared to No BIG conditions; see Appendix A. Based on the modeling results this is due to several factors, including an estimated grade separation/change of up to approximately 30 feet in the southernmost extent of the BIG footprint along Main Street that breaks the line of sight between the rail yard and mainlines, the removal of the Hinkley Road at-grade crossing (train horns would no longer be used at this location), and slower train speeds as a result of BIG (i.e., more trains would be traveling at slower speeds [20/40 mph] as they enter BIG) compared to No BIG conditions where maximum speeds up to 70 mph are often reached.

Operational Interior Noise Levels – Opening Year 2028

The Opening Year 2028 operational interior noise levels are evaluated against interior noise standards in **Table 35: Opening Year 2028 BIG Operational Interior Noise Levels – Interior Noise Standard Analysis** and the incremental noise impact analysis is provided in **Table 36: Opening Year 2028 BIG Operational Interior Noise Levels – Noise Increase Impact Analysis**. Only receptors that would exceed the absolute noise standard of 45 dBA L_{dn} as a result of BIG or the incremental increase standard are provided. See **Appendix A** for SoundPLAN results and impact screening analyses for all receptors.

As shown in **Table 35** and **Table 36**, BIG operational noise levels at 12 modeled receptors would exceed both the interior noise standard of 45 dBA L_{dn} and result in a substantial noise increase under a windows open condition. In addition, BIG would also result in a substantial noise increase at 12 receptors under a windows closed condition; see **Table 36**. All 12 impacted receptors are located south of BIG:

- Receptors 1, 2, and 4: located directly south of the intermodal facility and block swap yard;
- Receptors 5, 6, 83, and 84: located directly south of the north and south mainline tracks, and northeast of the solar farm;
- Receptor 86: located south of the intermodal facility, block swap yard, and solar farm; and
- Receptors 87-90: located directly south of the solar farm.

Noise barriers BAR-1 through BAR-4 were evaluated for Opening Year 2028 With BIG conditions to reduce operational interior noise impacts.[29] It should be noted that BAR-5 is excluded from the analysis, as this barrier would reduce emergency generator noise only would not affect or influence typical BIG operational noise levels. The interior Opening Year 2028 results with incorporation of noise barriers for impacted receptors are provided in **Table 37: Opening Year 2028 BIG Operational Interior Noise Levels With Noise Barriers** and **Table 38: Opening Year 2028 BIG Operational Interior Noise Levels With Noise Barriers – Noise Increase Impact Analysis**. As shown in **Table 37**, interior noise levels at all impacted receptors would remain above the 45 dBA L_{dn} noise standard despite implementation of noise barriers BAR-1 through BAR-4 for a windows open condition. **Table 38** shows that receptors 83, 84, and 86 through 90 would experience a substantial noise increase despite implementation of noise barriers. It is noted the maximum interior noise level reduction from BAR-1 through BAR-4 under Opening Year 2028 With BIG conditions would be approximately 5.2 dBA, which is considered clearly noticeable.

[29] It should be noted that all four noise barriers (BAR-1 through BAR-4) are included in this analysis regardless of feasibility. The feasibility analysis for noise barriers is included in Section 6: Noise Analysis, Noise Barrier Financial Feasibility Analysis – On Site BIG Facility Noise (page 126-127 of this technical report).

Table 35: Opening Year 2028 BIG Operational Interior Noise Levels – Interior Noise Standard Analysis							
Receptor No.[1]	Land Use	Windows Open			Windows Closed		
		Modeled Interior Noise Level (dBA Ldn)[2]	Noise Standard (dBA Ldn)	Exceeds Standard?	Modeled Interior Noise Level (dBA Ldn)[2]	Noise Standard (dBA Ldn)	Exceeds Standard?
NO BIG							
1	Residential	54.7	45	**Yes**	36.7	45	No
2	Residential	53.7	45	**Yes**	35.7	45	No
4	Residential	52.3	45	**Yes**	34.3	45	No
5	Residential	54.0	45	**Yes**	36.0	45	No
6	Residential	48.3	45	**Yes**	30.3	45	No
83	Residential	42.6	45	No	24.6	45	No
84	Residential	41.5	45	No	23.5	45	No
86	Residential	42.0	45	No	24.0	45	No
87	Residential	40.3	45	No	22.3	45	No
88	Residential	40.8	45	No	22.8	45	No
89	Residential	40.9	45	No	22.9	45	No
90	Residential	40.4	45	No	22.4	45	No
WITH BIG							
1	Residential	57.4	45	**Yes**	39.4	45	No
2	Residential	55.3	45	**Yes**	37.3	45	No
4	Residential	55.3	45	**Yes**	37.3	45	No
5	Residential	55.2	45	**Yes**	37.2	45	No
6	Residential	60.2	45	**Yes**	42.2	45	No
83	Residential	56.0	45	**Yes**	38.0	45	No
84	Residential	56.2	45	**Yes**	38.2	45	No
86	Residential	56.2	45	**Yes**	38.2	45	No
87	Residential	51.7	45	**Yes**	33.7	45	No
88	Residential	54.4	45	**Yes**	36.4	45	No
89	Residential	55.5	45	**Yes**	37.5	45	No
90	Residential	56.1	45	**Yes**	38.1	45	No

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. Interior noise levels calculated using the modeled exterior noise levels and using an outdoor-to-indoor noise reduction of 10 dBA for windows open and 28 dBA for windows closed per the Locher, et al., Differences between Outdoor and Indoor Sound Levels for open, Tilted, and Closed Windows, 2018.

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Table 36: Opening Year 2028 BIG Operational Interior Noise Levels – Noise Increase Impact Analysis							
		Windows Open			Windows Closed		
Receptor No.[1]	Land Use	Incremental Increase (With BIG Condition Minus No BIG Condition) (dBA Ldn)	Incremental Standard (dBA Ldn)[2]	Exceeds Standard?	Incremental Increase (With BIG Condition Minus No BIG Condition) (dBA Ldn)	Incremental Noise Standard (dBA Ldn)[2]	Exceeds Standard?
1	Residential	2.7	1.5	**Yes**	2.7	1.5	**Yes**
2	Residential	1.6	1.5	**Yes**	1.6	1.5	**Yes**
4	Residential	2.9	1.5	**Yes**	2.9	1.5	Yes
5	Residential	6.2	1.5	**Yes**	6.2	1.5	Yes
6	Residential	7.7	5.0	**Yes**	7.7	5.0	Yes
83	Residential	13.6	1.5	**Yes**	13.6	1.5	Yes
84	Residential	14.7	1.5	**Yes**	14.7	1.5	Yes
86	Residential	9.7	1.5	**Yes**	9.7	1.5	Yes
87	Residential	14.1	1.5	**Yes**	14.1	1.5	Yes
88	Residential	14.7	1.5	**Yes**	14.7	1.5	Yes
89	Residential	15.2	1.5	**Yes**	15.2	1.5	Yes
90	Residential	17.5	1.5	**Yes**	17.5	1.5	Yes

Notes:
1 See **Figure 13 t**hrough **Figure 22** for receptor locations.
2. Incremental standards are based on FICON methodology using measured ambient levels as described in Section 4.1 (Impact Analysis Methodology) and Section 4.2 (Thresholds of Significance).

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Table 37: Opening Year 2028 BIG Operational Interior Noise Levels With Noise Barriers							
Receptor No.[1]	Land Use	Windows Open			Windows Closed		
		Modeled Interior Noise Level (dBA Ldn)[2,3]	Noise Standard (dBA Ldn)	Exceeds Standard?[3]	Modeled Interior Noise Level (dBA Ldn)[2,3]	Noise Standard (dBA Ldn)	Exceeds Standard?
WITH BIG							
1	Residential	53.8	45	**Yes**	35.8	45	No
2	Residential	53.6	45	**Yes**	35.6	45	No
4	Residential	53.0	45	**Yes**	35.0	45	No
5	Residential	55.0	45	**Yes**	37.0	45	No
6	Residential	53.2	45	**Yes**	35.2	45	No
83	Residential	54.0	45	**Yes**	36.0	45	No
84	Residential	54.1	45	**Yes**	36.1	45	No
86	Residential	50.9	45	**Yes**	32.9	45	No
87	Residential	52.5	45	**Yes**	34.5	45	No
88	Residential	53.2	45	**Yes**	35.2	45	No
89	Residential	53.3	45	**Yes**	35.3	45	No
90	Residential	54.6	45	**Yes**	36.6	45	No

Notes:
1 See **Figure 13** through **Figure 22** for receptor locations.
2. Interior noise levels calculated using the modeled exterior noise levels and using an outdoor-to-indoor noise reduction of 10 dBA for windows open and 28 dBA for windows closed per the Locher, et al., Differences between Outdoor and Indoor Sound Levels for open, Tilted, and Closed Windows, 2018.
3. Modeled noise levels include the following noise barriers and associated impacted receptor locations:

- BAR-1: Receptors 1, 2, 4, and 88 through 90;
- BAR-2 and BAR-3: Receptors 83, 84, and 88 through 90; and
- BAR-4: Receptors 5, 6, 83, and 84.

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Table 38: Opening Year 2028 BIG Operational Interior Noise Levels With Noise Barriers – Noise Increase Impact Analysis							
		Windows Open			Windows Closed		
Receptor No.[1]	Land Use	Incremental Increase (With BIG Condition Minus No BIG Condition) (dBA Ldn)[2]	Incremental Standard (dBA Ldn)[3]	Exceeds Standard?	Incremental Increase (With BIG Condition Minus No BIG Condition) (dBA Ldn)[2]	Incremental Noise Standard (dBA Ldn)[3]	Exceeds Standard?
1	Residential	-0.9	1.5	No	-0.9	1.5	No
2	Residential	-0.1	1.5	No	-0.1	1.5	No
4	Residential	0.7	1.5	No	0.7	1.5	No
5	Residential	1.0	1.5	No	1.0	1.5	No
6	Residential	4.9	5.0	No	4.9	5.0	No
83	Residential	11.4	1.5	**Yes**	11.4	1.5	**Yes**
84	Residential	12.6	1.5	**Yes**	12.6	1.5	**Yes**
86	Residential	8.9	1.5	**Yes**	8.9	1.5	**Yes**
87	Residential	12.2	1.5	**Yes**	12.2	1.5	**Yes**
88	Residential	12.4	1.5	**Yes**	12.4	1.5	**Yes**
89	Residential	12.4	1.5	**Yes**	12.4	1.5	**Yes**
90	Residential	14.2	1.5	**Yes**	14.2	1.5	**Yes**

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. Modeled noise levels include the following noise barriers and associated impacted receptor locations:
   - BAR-1: Receptors 1, 2, 4, and 88 through 90;
   - BAR-2 and BAR-3: Receptors 83, 84, and 88 through 90; and
   - BAR-4: Receptors 5, 6, 83, and 84.
3. Incremental standards are based on FICON methodology using measured ambient levels as described in Section 4.1 (Impact Analysis Methodology) and Section 4.2 (Thresholds of Significance).

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Increased noise barrier heights for BAR-1 through BAR-4 were modeled in SoundPLAN to evaluate their effectiveness and determine whether they could reduce interior noise impacts at the affected receptors below standards for the windows open condition. The modeling results indicate the increased barrier heights would not achieve a large enough noise level reduction to bring interior noise levels below standards for the windows open condition, and thus, a potentially significant impact would occur. Other options to reduce interior noise levels for a windows open condition are limited, as upgraded windows are ineffective and BIG cannot willfully construct a noise barrier on a private property. Therefore, as there are no feasible interior noise abatement measures for a windows open condition, a significant and unavoidable impact would occur in this regard. It is noted that no impacts would occur for the windows closed condition.

Operational Interior Noise Levels – Interim Year 2033

The Interim Year 2033 operational interior noise levels are found in **Table 39: Interim Year 2033 BIG Operational Interior Noise Levels** and **Table 40: Interim Year 2033 BIG Operational Interior Noise Levels – Noise Increase Impact Analysis**. Only receptors that would exceed the absolute noise standard of 45 dBA L_{dn} as a result of BIG or the incremental increase standard described in **Section 4.2 (Thresholds of Significance)** are provided. See **Appendix A** for SoundPLAN results and impact screening analyses for all receptors.

As shown in **Table 39** and **Table 40**, BIG operational noise levels at 11 modeled receptors would exceed both the interior noise standard of 45 dBA L_{dn} and result in a substantial noise increase under a windows open condition. In addition, BIG would also result in a substantial noise increase at 11 receptors under a windows closed condition; see **Table 40**. All 11 impacted receptors are located south of BIG:

- Receptors 1 and 4: located directly south of the intermodal facility and block swap yard;
- Receptors 5, 6, 83, and 84: located directly south of the north and south mainline tracks, and northeast of the solar farm;
- Receptor 86: located south of the intermodal facility, block swap yard, and solar farm; and
- Receptors 87-90: located directly south of the solar farm.

Noise barriers BAR-1 through BAR-4 were evaluated for Interim Year 2033 With BIG conditions to reduce operational interior noise impacts.[30] It should be noted that BAR-5 is excluded from the analysis, as this barrier would reduce emergency generator noise only would not affect or influence typical BIG operational noise levels. The interior Interim Year 2033 results with incorporation of noise barriers for impacted receptors are provided in **Table 41: Interim Year 2033 BIG Operational Interior Noise Levels With Noise Barriers** and **Table 42: Interim Year 2028 BIG Operational Interior Noise Levels With Noise Barriers – Noise Increase Impact Analysis**. As shown in **Table 41**, interior noise levels at all impacted receptors would remain above the 45 dBA L_{dn} noise standard despite implementation of noise barriers BAR-1 through BAR-4 for a windows open condition. **Table 42** shows that receptors 83, 84, and 86 through 90 would experience a substantial noise increase despite implementation of noise barriers. It is noted the

[30] It should be noted that all four noise barriers (BAR-1 through BAR-4) are included in this analysis regardless of feasibility. The feasibility analysis for noise barriers is included in Section 6.1: Noise Analysis, Noise Barrier Financial Feasibility Analysis – On Site BIG Facility Noise (page 126-127 of this technical report).

maximum interior noise level reduction from BAR-1 through BAR-4 under Interim Year 2033 With BIG conditions would be approximately 5.2 dBA, which is considered clearly noticeable.

Table 39: Interim Year 2033 BIG Operational Interior Noise Levels							
Receptor No.[1]	Land Use	Windows Open			Windows Closed		
		Modeled Interior Noise Level (dBA Ldn)[2]	Noise Standard (dBA Ldn)	Exceeds Standard?	Modeled Interior Noise Level (dBA Ldn)[2]	Noise Standard (dBA Ldn)	Exceeds Standard?
NO BIG							
1	Residential	55.0	45	**Yes**	37.0	45	No
4	Residential	52.6	45	**Yes**	34.6	45	No
5	Residential	54.3	45	**Yes**	36.3	45	No
6	Residential	48.6	45	**Yes**	30.6	45	No
83	Residential	42.9	45	No	24.9	45	No
84	Residential	41.8	45	No	23.8	45	No
86	Residential	42.3	45	No	24.3	45	No
87	Residential	40.6	45	No	22.6	45	No
88	Residential	41.1	45	No	23.1	45	No
89	Residential	41.1	45	No	23.1	45	No
90	Residential	40.7	45	No	22.7	45	No
WITH BIG							
1	Residential	57.5	45	**Yes**	39.1	45	No
4	Residential	55.2	45	**Yes**	36.9	45	No
5	Residential	60.2	45	**Yes**	42.2	45	No
6	Residential	56.0	45	**Yes**	37.9	45	No
83	Residential	56.2	45	**Yes**	38.1	45	No
84	Residential	56.2	45	**Yes**	38.2	45	No
86	Residential	51.7	45	**Yes**	33.6	45	No
87	Residential	54.4	45	**Yes**	36.4	45	No
88	Residential	55.5	45	**Yes**	37.5	45	No
89	Residential	56.1	45	**Yes**	38.1	45	No
90	Residential	57.9	45	**Yes**	39.9	45	No

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. Interior noise levels calculated using the modeled exterior noise levels and using an outdoor-to-indoor noise reduction of 10 dBA for windows open and 28 dBA for windows closed per Locher, et al., *Differences between Outdoor and Indoor Sound Levels for open, Tilted, and Closed Windows*, 2018.

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Table 40: Interim Year 2033 BIG Operational Interior Noise Levels – Noise Increase Impact Analysis							
		Windows Open			Windows Closed		
Receptor No.[1]	Land Use	Incremental Increase (With BIG Condition Minus No BIG Condition) (dBA Ldn)	Incremental Standard (dBA Ldn)[2]	Exceeds Standard?	Incremental Increase (With BIG Condition Minus No BIG Condition) (dBA Ldn)	Incremental Noise Standard (dBA Ldn)[2]	Exceeds Standard?
1	Residential	2.5	1.5	**Yes**	2.5	1.5	**Yes**
4	Residential	2.6	1.5	**Yes**	2.6	1.5	**Yes**
5	Residential	5.9	1.5	**Yes**	5.9	1.5	**Yes**
6	Residential	7.4	5.0	**Yes**	7.4	5.0	**Yes**
83	Residential	13.3	1.5	**Yes**	13.3	1.5	**Yes**
84	Residential	14.4	1.5	**Yes**	14.4	1.5	**Yes**
86	Residential	9.4	1.5	**Yes**	9.4	1.5	**Yes**
87	Residential	13.8	1.5	**Yes**	13.8	1.5	**Yes**
88	Residential	14.4	1.5	**Yes**	14.4	1.5	**Yes**
89	Residential	15.0	1.5	**Yes**	15.0	1.5	**Yes**
90	Residential	17.2	1.5	**Yes**	17.2	1.5	**Yes**

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. Incremental standards are based on FICON methodology using measured ambient levels as described in Section 4.1 (Impact Analysis Methodology) and Section 4.2 (Thresholds of Significance).

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Table 41: Interim Year 2033 BIG Operational Interior Noise Levels With Noise Barriers							
Receptor No.[1]	Land Use	Windows Open			Windows Closed		
		Modeled Interior Noise Level (dBA Ldn)[2,3]	Noise Standard (dBA Ldn)	Exceeds Standard?	Modeled Interior Noise Level (dBA Ldn)[2,3]	Noise Standard (dBA Ldn)	Exceeds Standard?
WITH BIG							
1	Residential	53.8	45	**Yes**	35.8	45	No
2	Residential	53.6	45	**Yes**	35.6	45	**No**
4	Residential	53.0	45	**Yes**	35.0	45	No
5	Residential	55.0	45	**Yes**	37.0	45	No
6	Residential	53.2	45	**Yes**	35.2	45	No
83	Residential	54.0	45	**Yes**	36.0	45	No
84	Residential	54.1	45	**Yes**	36.1	45	No
86	Residential	50.9	45	**Yes**	32.9	45	No
87	Residential	52.5	45	**Yes**	34.5	45	No
88	Residential	53.2	45	**Yes**	35.2	45	No
89	Residential	53.3	45	**Yes**	35.3	45	No
90	Residential	54.6	45	**Yes**	36.6	45	No

Notes:

1. See **Figure 13** through **Figure 22** for receptor locations.
2. Interior noise levels calculated using the modeled exterior noise levels and using an outdoor-to-indoor noise reduction of 10 dBA for windows open and 28 dBA for windows closed per the Locher, et al. *Differences between Outdoor and Indoor Sound Levels for open, Tilted, and Closed Windows*, 2018.
3. Modeled noise levels include the following noise barriers and associated impacted receptor locations:
   - BAR-1: Receptors 1, 2, 4, and 86 through 90;
   - BAR-2 and BAR-3: Receptors 83, 84, and 88 through 90; and
   - BAR-4: Receptors 5, 6, 83, and 84.

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Table 42: Interim Year 2028 BIG Operational Interior Noise Levels With Noise Barriers – Noise Increase Impact Analysis							
		Windows Open			Windows Closed		
Receptor No.[1]	Land Use	Incremental Increase (With BIG Condition Minus No BIG Condition) (dBA Ldn)[2]	Incremental Standard (dBA Ldn)[3]	Exceeds Standard?	Incremental Increase (With BIG Condition Minus No BIG Condition) (dBA Ldn)[2]	Incremental Noise Standard (dBA Ldn)[3]	Exceeds Standard?
1	Residential	-0.9	1.5	No	-0.9	1.5	**No**
4	Residential	0.7	1.5	No	0.7	1.5	**No**
5	Residential	1.0	1.5	No	1.0	1.5	**No**
6	Residential	4.9	5.0	No	4.9	5.0	**No**
83	Residential	11.4	1.5	**Yes**	11.4	1.5	**Yes**
84	Residential	12.6	1.5	**Yes**	12.6	1.5	**Yes**
86	Residential	8.9	1.5	**Yes**	8.9	1.5	**Yes**
87	Residential	12.2	1.5	**Yes**	12.2	1.5	**Yes**
88	Residential	12.4	1.5	**Yes**	12.4	1.5	**Yes**
89	Residential	12.4	1.5	**Yes**	12.4	1.5	**Yes**
90	Residential	14.2	1.5	**Yes**	14.2	1.5	**Yes**

Notes:
5. See **Figure 13** through **Figure 22** for receptor locations.
6. Modeled noise levels include the following noise barriers and associated impacted receptor locations:
- BAR-1: Receptors 1, 4, and 88 through 90;
- BAR-2 and BAR-3: Receptors 83, 84, and 88 through 90; and
- BAR-4: Receptors 5, 6, 83, and 84.

3. Incremental standards are based on FICON methodology using measured ambient levels as described in Section 4.1 (Impact Analysis Methodology) and Section 4.2 (Thresholds of Significance).

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Increased noise barrier heights for BAR-1 through BAR-4 were modeled in SoundPLAN to evaluate their effectiveness and determine whether they could reduce interior noise impacts at the affected receptors for the windows open condition. The modeling results indicate the increased barrier heights would not achieve a large enough reduction to bring interior noise levels below standards for the windows open condition, and thus, a potentially significant impact would occur. Other options to reduce interior noise levels for a windows open condition are limited, as upgraded windows are ineffective under such condition and BIG cannot willfully construct a noise barrier on a private property. Therefore, as there are no feasible interior noise abatement measures for a windows open condition, a significant and unavoidable impact would occur in this regard. It is noted that no impacts would occur for the windows closed condition.

Operational Interior Noise Levels – Horizon Year 2048

The 2048 operational interior noise levels are found in **Table 43: Horizon Year 2048 BIG Operational Interior Noise Levels** and the incremental noise impact analysis is provided in **Table 44: Horizon Year 2048 BIG Operational Interior Noise Levels – Noise Increase Impact Analysis**. Only receptors that would exceed the absolute noise standard of 45 dBA L_{dn} as a result of BIG or the incremental increase standard described in **Section 4.2 (Thresholds of Significance)** are provided. See **Appendix A** for SoundPLAN results and impact screening analyses for all receptors.

As shown in **Table 43** and **Table 44**, BIG operational noise levels at 11 modeled receptors would exceed both the interior noise standard of 45 dBA L_{dn} and result in a substantial noise increase under a windows open condition. In addition, BIG would also result in a substantial noise increase at 11 receptors under a windows closed condition; see **Table 44**. All 11 impacted receptors are located south of BIG:

- Receptors 1 and 4: located directly south of the intermodal facility and block swap yard;
- Receptors 5, 6, 83, and 84: located directly south of the north and south mainline tracks, and northeast of the solar farm;
- Receptor 86: located south of the intermodal facility, block swap yard, and solar farm; and
- Receptors 87-90: located directly south of the solar farm.

Noise barriers BAR-1 through BAR-4 were evaluated for Horizon Year 2048 With BIG conditions to reduce operational interior noise impacts.[31] It should be noted that BAR-5 is excluded from the analysis, as this barrier would reduce emergency generator noise only would not affect or influence typical BIG operational noise levels. The interior Horizon Year 2048 results with incorporation of noise barriers for impacted receptors are provided in **Table 45: Horizon Year 2048 BIG Operational Interior Noise Levels With Noise Barriers** and **Table 46: Horizon Year 2048 BIG Operational Interior Noise Levels With Noise Barriers – Noise Increase Impact Analysis**. As shown in **Table 45**, interior noise levels at all impacted receptors would remain above the 45 dBA L_{dn} noise standard despite implementation of noise barriers BAR-1 through BAR-4 for a windows open condition. **Table 46** shows that receptors 83, 84, and 86 through 90 would experience a substantial noise increase despite implementation of noise barriers. The maximum

[31] It should be noted that all four noise barriers (BAR-1 through BAR-4) are included in this analysis regardless of feasibility. The feasibility analysis for noise barriers is included in Section 6.1: Noise Analysis, Noise Barrier Financial Feasibility Analysis – On Site BIG Facility Noise (page 126-127 of this technical report).

interior noise level reduction from BAR-1 through BAR-4 under Horizon Year 2048 With BIG conditions would be approximately 5.5 dBA, which is considered clearly noticeable.

Table 43: Horizon Year 2048 BIG Operational Interior Noise Levels							
Receptor No.[1]	Land Use	Windows Open			Windows Closed		
		Modeled Interior Noise Level (dBA Ldn)[2]	Noise Standard (dBA Ldn)	Exceeds Standard?	Modeled Interior Noise Level (dBA Ldn)[2]	Noise Standard (dBA Ldn)	Exceeds Standard?
NO BIG							
1	Residential	56.0	45	**Yes**	38.0	45	No
4	Residential	53.6	45	**Yes**	35.6	45	No
5	Residential	55.3	45	**Yes**	37.3	45	No
6	Residential	49.6	45	**Yes**	31.6	45	No
83	Residential	43.8	45	No	25.8	45	No
84	Residential	42.8	45	No	24.8	45	No
86	Residential	43.3	45	No	25.3	45	No
87	Residential	41.5	45	No	23.5	45	No
88	Residential	42.1	45	No	24.1	45	No
89	Residential	42.1	45	No	24.1	45	No
90	Residential	41.7	45	No	23.7	45	No
WITH BIG							
1	Residential	58.1	45	**Yes**	40.1	45	No
4	Residential	55.8	45	**Yes**	37.8	45	No
5	Residential	60.4	45	**Yes**	42.4	45	No
6	Residential	56.1	45	**Yes**	38.1	45	No
83	Residential	56.2	45	**Yes**	38.2	45	No
84	Residential	56.2	45	**Yes**	38.2	45	No
86	Residential	51.8	45	**Yes**	33.8	45	No
87	Residential	54.5	45	**Yes**	36.5	45	No
88	Residential	55.6	45	**Yes**	37.6	45	No
89	Residential	56.1	45	**Yes**	38.1	45	No
90	Residential	57.9	45	**Yes**	39.9	45	No

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. Interior noise levels calculated using the modeled exterior noise levels and using an outdoor-to-indoor noise reduction of 10 dBA for windows open and 28 dBA for windows closed per the Locher, et al. *Differences between Outdoor and Indoor Sound Levels for open, Tilted, and Closed Windows*, 2018.

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Table 44: Horizon Year 2048 BIG Operational Interior Noise Levels – Noise Increase Impact Analysis							
		Windows Open			Windows Closed		
Receptor No.[1]	Land Use	Incremental Increase (With BIG Condition Minus No BIG Condition) (dBA Ldn)	Incremental Standard (dBA Ldn)[2]	Exceeds Standard?	Incremental Increase (With BIG Condition Minus No BIG Condition) (dBA Ldn)	Incremental Noise Standard (dBA Ldn)[2]	Exceeds Standard?
1	Residential	2.1	1.5	**Yes**	2.1	1.5	**Yes**
4	Residential	2.2	1.5	**Yes**	2.2	1.5	**Yes**
5	Residential	5.1	1.5	**Yes**	5.1	1.5	**Yes**
6	Residential	6.5	5.0	**Yes**	6.5	5.0	**Yes**
83	Residential	12.4	1.5	**Yes**	12.4	1.5	**Yes**
84	Residential	13.4	1.5	**Yes**	13.4	1.5	**Yes**
86	Residential	8.5	1.5	**Yes**	8.5	1.5	**Yes**
87	Residential	13.0	1.5	**Yes**	13.0	1.5	**Yes**
88	Residential	13.5	1.5	**Yes**	13.5	1.5	**Yes**
89	Residential	14.0	1.5	**Yes**	14.0	1.5	**Yes**
90	Residential	16.2	1.5	**Yes**	16.2	1.5	**Yes**

Notes:
1 See **Figure 13** through **Figure 22** for receptor locations.
2. Incremental standards are based on FICON methodology using measured ambient levels as described in Section 4.1 (Impact Analysis Methodology) and Section 4.2 (Thresholds of Significance).

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Table 45: Horizon Year 2048 BIG Operational Interior Noise Levels With Noise Barriers							
Receptor No.[1]	Land Use	Windows Open			Windows Closed		
		Modeled Interior Noise Level (dBA L_{dn})[2,3]	Noise Standard (dBA L_{dn})	Exceeds Standard?	Modeled Interior Noise Level (dBA L_{dn})[2,3]	Noise Standard (dBA L_{dn})	Exceeds Standard?
WITH BIG							
1	Residential	54.2	45	**Yes**	36.2	45	**No**
4	Residential	53.4	45	**Yes**	35.4	45	**No**
5	Residential	54.9	45	**Yes**	36.9	45	**No**
6	Residential	53.4	45	**Yes**	35.4	45	**No**
83	Residential	54.1	45	**Yes**	36.1	45	**No**
84	Residential	54.1	45	**Yes**	36.1	45	**No**
86	Residential	51.1	45	**Yes**	33.1	45	**No**
87	Residential	52.6	45	**Yes**	34.6	45	**No**
88	Residential	53.3	45	**Yes**	35.3	45	**No**
89	Residential	53.4	45	**Yes**	35.4	45	**No**
90	Residential	54.7	45	**Yes**	36.7	45	**No**

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. Interior noise levels calculated using the modeled exterior noise levels and using an outdoor-to-indoor noise reduction of 10 dBA for windows open and 28 dBA for windows closed per the Locher, et al., *Differences between Outdoor and Indoor Sound Levels for open, Tilted, and Closed Windows*, 2018.
3. Modeled noise levels include the following noise barriers and associated impacted receptor locations:
   - BAR-1: Receptors 1, 4, and 86 through 90;
   - BAR-2 and BAR-3: Receptors 83, 84, and 88 through 90; and
   - BAR-4: Receptors 5, 6, 83, and 84.

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Table 46: Horizon Year 2048 BIG Operational Interior Noise Levels With Noise Barriers – Noise Increase Impact Analysis							
		Windows Open			Windows Closed		
Receptor No.[1]	Land Use	Incremental Increase (With BIG Condition Minus No BIG Condition) (dBA Ldn)[2]	Incremental Standard (dBA Ldn)[3]	Exceeds Standard?	Incremental Increase (With BIG Condition Minus No BIG Condition) (dBA Ldn)[2]	Incremental Noise Standard (dBA Ldn)[3]	Exceeds Standard?
1	Residential	-1.8	1.5	No	-1.8	1.5	**No**
4	Residential	-0.2	1.5	No	-0.2	1.5	**No**
5	Residential	-0.4	1.5	No	-0.4	1.5	**No**
6	Residential	3.8	5.0	No	3.8	5.0	**No**
83	Residential	10.3	1.5	**Yes**	10.3	1.5	**Yes**
84	Residential	11.3	1.5	**Yes**	11.3	1.5	**Yes**
86	Residential	7.8	1.5	**Yes**	7.8	1.5	**Yes**
87	Residential	11.1	1.5	**Yes**	11.1	1.5	**Yes**
88	Residential	11.2	1.5	**Yes**	11.2	1.5	**Yes**
89	Residential	11.3	1.5	**Yes**	11.3	1.5	**Yes**
90	Residential	13.0	1.5	**Yes**	13.0	1.5	**Yes**

Notes:

1. See **Figure 13** through **Figure 22** for receptor locations.
2. Modeled noise levels include the following noise barriers and associated impacted receptor locations:
   - BAR-1: Receptors 1, 4, and 88 through 90;
   - BAR-2 and BAR-3: Receptors 83, 84, and 88 through 90; and
   - BAR-4: Receptors 5, 6, 83, and 84.
3. Incremental standards are based on FICON methodology using measured ambient levels as described in Section 4.1 (Impact Analysis Methodology) and Section 4.2 (Thresholds of Significance).

Source: SoundPLAN Essential version 5.1. Please see Appendix A for complete modeling results for all receptors.

Increased noise barrier heights for BAR-1 through BAR-4 were modeled in SoundPLAN to evaluate their effectiveness and determine whether they could reduce interior noise impacts at the affected receptors for the windows open condition. The modeling results indicate the increased barrier heights would not achieve a large enough reduction to bring interior noise levels below standards for the windows open condition, and a potentially significant impact would occur. Other options to reduce interior noise levels for a windows open condition are limited, as upgraded windows are ineffective and BIG cannot willfully construct a noise barrier on a private property. Therefore, as there are no feasible interior noise abatement measures for a windows open condition, a significant and unavoidable impact would occur in this regard. It is noted that no impacts would occur for the windows closed condition.

Emergency Generator Noise

To provide backup power in the event of electrical service interruptions, emergency diesel generators are proposed at various locations across the rail yard and transload warehouse center. The rail yard would include 10 emergency generators at the southeastern portion of the intermodal facility, while the transload warehouse center would include 29 emergency generators dispersed throughout. The combined 39 emergency generators would undergo regular testing up to 50 hours per year, for a total of approximately 1,950 hours of generator testing per year. However, to provide a worst-case analysis of potential noise impacts from emergency generators, the proposed 39 emergency generators were modeled in SoundPLAN assuming all generators would operate simultaneously during an emergency situation at their specific/identified locations in BIG's site plans. Under this emergency scenario, BIG generators would produce exterior noise levels up to approximately 51.9 dBA at the nearest sensitive receptors (residential uses adjacent to the 10 generators in the southeastern portion of the intermodal facility) and would exceed the County's most stringent 45 dBA nighttime noise standard for stationary sources but would not exceed the City's 65 dBA CNEL noise standard for residential uses. Interior noise levels would not exceed the 45 dBA noise standard under and windows open or closed condition; see **Appendix A**.

Noise barriers were modeled in SoundPLAN to reduce emergency generator noise levels at nearby receptors. Various wall heights, lengths, and configurations were analyzed iteratively. Based on the noise modeling results, an approximately 14-foot-high absorptive noise barrier positioned along the eastern and southern boundaries of the emergency generators would reduce exterior noise levels below the County's nighttime standard of 45 dBA for stationary sources at all receptors; see generator noise modeling results in **Appendix A**. This noise barrier is depicted as BAR-5 in Figure 24.

Noise Barrier Financial Feasibility Analysis – On-Site BIG Facility Noise

For noise barriers BAR-1 through BAR-5 to be potentially constructed, they would need to be financially feasible and reasonable to be incorporated into BIG. According to Caltrans, noise abatement measures are considered financially feasible and reasonable if the total cost of the abatement is within the cost allowance per benefited receptor. For purposes of providing a conservative analysis, this report designates a benefited receptor to be any receptor that experiences a noise reduction of 1 dBA or more as a result of the recommended noise abatement measure. The current cost allowance per benefited receptor is $146,000 (Caltrans, ND).

Table 47: Noise Barrier Reasonable Cost Allowance shows that recommended noise barriers BAR-2, BAR-3, and BAR-5 would be within the maximum cost allowance of $146,000 per benefited receptor and would be considered financially reasonable. Therefore, BIG would incorporate Mitigation Measure NOI-2, which requires construction of noise barriers BAR-2, BAR-3, and BAR-5 to reduce operational noise levels; please see AD Environmental Impact Report Section 5.12 Noise for the mitigated noise levels inclusive of feasible barriers only (BAR-2, BAR BAR-3, and BAR-5). It is noted that noise barriers BAR-1 and BAR-4 would exceed the maximum cost allowance per benefited receptor and would be considered financially infeasible and unreasonable, and thus, are excluded from Mitigation Measure NOI-2. Therefore, a significant and unavoidable noise impact would occur for Receptors 1, 2, 4, and 86 through 90 along Main Street during BIG operations.

Table 47: Noise Barrier Reasonable Cost Allowance

Barrier No.	Height (ft)	Approximate Length (ft)	Noise Barrier Cost[1]	Number of Benefited Units/Receptors[2]	Cost per Benefited Receptor[3]	Meets the Financially Reasonable Threshold[4]?
BAR-1	20	13,088	$16,229,120	5	$3,245,824	No
BAR-2	10	700	$434,000	60	$7,233	**Yes**
BAR-3	10	470	$291,400	60	$4,857	**Yes**
BAR-4	8	2,790	1,383,840	7	$197,691	No
BAR-5	14	150	$130,200	28	$4,650	**Yes**

Notes:
1. Noise barrier cost based on an estimated $62 per square foot for noise barrier construction per Caltrans contract data, https://d8data.dot.ca.gov/contractcost/results.php?item=582001&cs=1 , accessed June 12, 2025.
2. A benefited receptor is any receptor that experiences a noise reduction of 1 dBA or more as a result of the recommended noise barrier.
3. Calculated by dividing the barrier cost by the number of benefited receptors.
4. A noise barrier is considered financially reasonable if the cost per benefited receptor is less than $146,000, per Caltrans: https://dot.ca.gov/programs/environmental-analysis/noise-vibration.

Operations – Roadway Traffic Noise

Roadway Traffic Noise – Exterior Noise Analysis

Opening Year 2028

BIG operations are anticipated to result in additional traffic within the noise and vibration study area roadways/highways thereby increasing vehicular noise at nearby land uses. BIG would result in new net daily trips in Opening Year 2028, Interim Year 2033, and Horizon Year 2048; see **Appendix 5.15 BIG-2: Level of Service Assessment. Table 48: Opening Year 2028 Plus BIG Conditions Roadway Traffic Noise Levels** shows roadway traffic noise levels along roadway segments for Opening Year 2028 Plus BIG.

As indicated in **Table 48**, roadway noise levels (CNEL) would range from 47.5 dBA to 69.1 dBA at 100 feet from the roadway centerline under Opening Year 2028 Plus BIG conditions. The highest noise level of 69.1 dBA would occur along Lenwood Road from High Desert Road to I-15 Southbound Off-Ramp and would result in an imperceptible increase of 0.8 dBA compared to Opening Year 2028 No BIG conditions. There are no roadway segments where the traffic noise level increase would exceed the incremental standard. Additionally, none of the roadway segments would experience noise levels that exceed the applicable land use noise standards at the nearest sensitive receptors. Therefore, BIG roadway traffic noise levels under Opening Year 2028 conditions would result in a less than significant impact.

Table 48: Opening Year 2028 Plus BIG Conditions Roadway Traffic Noise Levels

Roadway	Segment	Opening Year 2028		Opening Year 2028 + BIG		Incremental Increase	Incremental Increase Threshold	Exceeds Threshold?	Nearest Receptor Land Use Type	Opening Year 2028 + BIG Noise Level at Nearest Receptor (dBA CNEL)	City/County Noise Standard (dBA CNEL)	Exceeds Standard?	Impact?
		ADT	dBA CNEL at 100 feet from Roadway Centerline	ADT	dBA CNEL at 100 feet from Roadway Centerline								
Main Street	Hinkley Road to Country Club Drive	5,046	62.9	5,396	63.0	0.0	3.0	No	SF Residential	60.8	60	Yes	No[3]
	Country Club Drive to Lenwood Road	4,465	62.2	6,942	64.4	2.2	3.0	No	SF Residential	63.8	65	No	No
	Lenwood Road to County/City Boundary	9,341	61.8	10,645	62.2	0.4	3.0	No	SF Residential	65.5	65	Yes	No[3]
	County/City Boundary to SR 58 Eastbound Ramps	9,341	62.8	10,645	63.2	0.4	3.0	No	Commercial	51.0	65	No	No
	SR 58 Eastbound Off-Ramps to SR 58 Westbound Ramps	7,902	63.1	10,041	63.6	0.5	3.0	No	N/A[2]	-	-	-	-
	SR 58 Westbound Ramps to L Street	6,837	62.0	8,583	62.1	0.1	5.0	No	SF Residential	66.0	65	Yes	No[3]
	L Street to Avenue A	12,797	61.5	13,670	61.5	0.0	3.0	No	MF Residential	65.4	65	Yes	No[3]
	Avenue A to Barstow Road	12,218	60.7	12,917	60.7	0.0	3.0	No	MF Residential	56.2	65	No	No
Barstow Road	Main Street to I-15 Southbound Ramps	11,754	63.6	12,191	63.7	0.1	3.0	No	SF Residential	70.5	65	Yes	No[3]
	I-15 Southbound Ramps to I-15 Northbound Ramps	12,399	64.3	12,923	64.4	0.1	3.0	No	SF Residential	56.2	65	No	No
	I-15 Northbound ramps to Rimrock Road	13,209	64.9	13,297	64.9	0.0	3.0	No	MF Residential	67.7	65	Yes	No[3]
Lenwood Road	SR 58 Westbound Ramps to Community Boulevard	1,202	59.3	2,008	62.5	3.2	5.0	No	SF Residential	65.8	60	Yes	No[3]
	Community Boulevard to Agate Road	1,100	57.8	2,517	61.5	3.7	5.0	No	SF Residential	51.7	60	No	No
	Agate Road to Jasper Road	3,929	62.4	6,306	64.2	1.8	5.0	No	SF Residential	65.7	60	Yes	No[3]
	Jasper Road to Main Street	5,930	64.4	11,166	66.5	2.0	3.0	No	SF Residential	54.1	60	No	No
	Main Street to High Desert Road	5,051	64.4	9,179	65.5	1.1	5.0	No	SF Residential	68.3	65	Yes	No[3]
	High Desert Road to I-15 SB Off-Ramp	12,735	68.4	16,689	69.1	0.8	1.5	No	Commercial	56.0	65	No	No
	I-15 SB Off-Ramp to I-15 NB Off-Ramp	10,929	64.2	12,513	64.8	0.6	1.5	No	Commercial	60.9	65	No	No
Hinkley Road	SR 58 Westbound Ramp to BIG Driveway	348	47.9	418	47.9	0.1	5.0	No	SF Residential	49.0	60	No	No
	BIG Driveway to Main Street[1]	370	47.5	-	-	-	-	-	-	-	-		-

Notes:
1. Hinkley Road would be vacated along this segment as part of BIG.
2. There are no developed land uses or sensitive receptors along roadway segment.
3. This roadway segment would not result in a substantial increase when No BIG noise levels already exceed City/County noise standards (see **Section 4.2** for noise impact thresholds). See **Appendix A** for impact screening analyses for all receptors.

Source: Based on traffic data derived from the Traffic Impact Analysis (Kimley-Horn, 2025). Refer to **Appendix A** for roadway traffic noise modeling assumptions and results.

Interim Year 2033

Table 49: Interim Year 2033 Plus BIG Conditions Roadway Traffic Noise Levels shows roadway traffic noise levels along roadway segments for Interim Year 2033 Plus BIG. As indicated in **Table 49**, roadway noise levels (CNEL) would range from 48.0 dBA to 70.5 dBA at 100 feet from the roadway centerline under Interim Year 2033 Plus BIG conditions. The highest noise level of 70.5 dBA would occur along Lenwood Road from High Desert Road to I-15 Southbound Off-Ramp and would result in an imperceptible increase of 0.7 dBA compared to Interim Year 2033 No BIG conditions. There are no roadway segments where the traffic noise increase exceeds the incremental standard.

One roadway segment (Main Street from Country Club Drive to Lenwood Road) would experience noise levels that exceed the applicable land use noise standards at the nearest sensitive receptors. Therefore, BIG roadway traffic noise levels under Interim Year 2033 conditions would result in a potentially significant impact.

Potential mitigation measures to reduce BIG's traffic noise impact at the impacted receptors would include the construction of noise barriers, noise abatement design features (e.g., providing upgraded windows), and/or re-paving the impacted roadway segment with rubberized asphalt. However, there are several issues with the aforementioned measures that would make off-site mitigation for traffic noise impacts infeasible:

(1) The BIG applicant for BIG does not have jurisdiction over the local roadways and/or existing residences to directly mitigate traffic noise impacts at the impacted receptors. Noise barriers are not feasible at the impacted residence due to driveway access issues. The noise barriers would have gaps to allow for driveway access and would be ineffective.

(2) Noise barriers could create safety issues for ingress/egress at the residential driveway.

(3) Upgraded windows would not be effective at reducing interior noise in a windows open condition.

(4) Rubberized asphalt surfaces would not be consistent with the rest Main Street and/or the roadways in the surrounding area. Public roadways are improved and maintained by the City and not by project applicants. Roadway improvements are implemented based on a Capital Improvements Program schedule, and rubberized asphalt has a different maintenance schedule and requires specialized equipment for installation compared to conventional asphalt. This could cause logistical issues for the City Public Works Department and road maintenance contractors. In addition, the cost of paving a 0.97-mile roadway segment with rubberized asphalt would not be roughly proportional to reducing a barely perceptible noise level increase[32] in interior noise levels for the windows open condition. It is also noted that the interior noise level standard of 45 dBA L_{dn} is already exceeded along several roadway segments under the Interim Year 2033 No BIG scenario (see **Table 49**).

Table 49: Interim Year 2033 Plus BIG Conditions Roadway Traffic Noise Levels

Roadway	Segment	Interim Year 2033		Interim Year 2033 + BIG		Incremental Increase	Incremental Increase Threshold	Exceeds Threshold?	Nearest Receptor Land Use Type	Interim Year 2033 + BIG Noise Level at Nearest Receptor (dBA CNEL)	City/County Noise Standard (dBA CNEL)	Exceeds Standard?	Impact?
		ADT	dBA CNEL at 100 feet from Roadway Centerline	ADT	dBA CNEL at 100 feet from Roadway Centerline								
Main Street	Hinkley Road to Country Club Drive	6,482	65.2	6,934	65.3	0.0	3.0	No	SF Residential	63.1	60	Yes	No[3]
	Country Club Drive to Lenwood Road	5,319	64.4	8,292	66.1	1.7	3.0	No	SF Residential	65.5	65	Yes	**Yes**
	Lenwood Road to County/City Boundary	9,031	62.0	10,692	62.5	0.5	3.0	No	SF Residential	65.8	65	Yes	No[3]
	County/City Boundary to SR 58 Eastbound Ramps	9,031	63.0	10,692	63.5	1.5	3.0	No	Commercial	51.3	65	No	No
	SR 58 Eastbound Off-Ramps to SR 58 Westbound Ramps	7,484	63.4	10,250	63.9	0.6	3.0	No	N/A[2]	-	-	-	-
	SR 58 Westbound Ramps to L Street	6,683	62.5	8,941	62.6	0.1	5.0	No	SF Residential	66.5	65	Yes	No[3]
	L Street to Avenue A	12,793	61.6	13,979	61.7	0.1	3.0	No	MF Residential	65.6	65	Yes	No[3]
	Avenue A to Barstow Road	12,245	60.7	13,036	60.7	0.0	3.0	No	MF Residential	56.2	65	No	No
Barstow Road	Main Street to I-15 Southbound Ramps	12,438	63.8	12,947	63.8	0.1	3.0	No	SF Residential	70.7	65	Yes	No[3]
	I-15 Southbound Ramps to I-15 Northbound Ramps	13,698	64.7	14,348	64.8	0.1	3.0	No	SF Residential	56.6	65	No	No
	I-15 Northbound ramps to Rimrock Road	15,277	65.5	15,390	65.5	0.0	3.0	No	MF Residential	68.3	65	Yes	No[3]
Lenwood Road	SR 58 Westbound Ramps to Community Boulevard	1,113	58.8	2,027	62.7	4.0	5.0	No	SF Residential	66.1	60	Yes	No
	Community Boulevard to Agate Road	910	57.2	2,558	61.8	4.6	5.0	No	SF Residential	52.0	60	No	No
	Agate Road to Jasper Road	4,028	63.4	6,861	65.1	1.8	5.0	No	SF Residential	66.6	60	Yes	No[3]
	Jasper Road to Main Street	5,489	65.5	12,466	67.6	2.0	3.0	No	SF Residential	55.2	60	No	No
	Main Street to High Desert Road	6,492	66.6	12,114	67.5	0.9	5.0	No	SF Residential	70.3	65	Yes	No[3]
	High Desert Road to I-15 SB Off-Ramp	14,880	69.8	19,825	70.5	0.7	1.5	No	Commercial	57.4	65	No	No
	I-15 SB Off-Ramp to I-15 NB Off-Ramp	12,877	65.6	14,983	66.1	0.6	1.5	No	Commercial	62.3	65	No	No
Hinkley Road	SR 58 Westbound Ramp to BIG Driveway	336	47.8	429	48.0	0.1	5.0	No	SF Residential	49.0	60	No	No
	BIG Driveway to Main Street[1]	379	47.5	-	-	-	-	-	-	-	-	-	-

Notes:
1. Hinkley Road would be vacated along this segment as part of BIG.
2. There are no developed land uses or sensitive receptors along this roadway segment.
3. This roadway segment would not result in a substantial increase when No BIG noise levels already exceed City/County noise standards (see **Section 4.2** for noise impact thresholds). See **Appendix A** for impact screening analyses for all receptors.

Source: Based on traffic data derived from the Traffic Impact Analysis (Kimley-Horn, 2025). Refer to **Appendix A** for roadway traffic noise modeling assumptions and results.

For the reasons mentioned above, off-site mitigation measures to reduce roadway traffic noise impacts from BIG are not feasible for implementation. Therefore, BIG roadway traffic noise levels under Interim Year 2033 conditions would be significant and unavoidable.

Horizon Year 2048

Table 50: Horizon Year 2048 Plus BIG Conditions Roadway Traffic Noise Levels shows roadway traffic noise levels along roadway segments for Horizon Year 2048 Plus BIG conditions. As shown in **Table 50**, roadway noise levels (CNEL) would range from 47.6 dBA to 72.9 dBA at 100 feet from the roadway centerline under Horizon Year 2048 Plus BIG conditions. The highest noise level of 72.9 dBA would occur along Lenwood Road from High Desert Road to I-15 Southbound Off-ramp and would result in an imperceptible increase of 0.5 dBA compared to Horizon Year 2048 No BIG conditions. Traffic noise levels along one roadway segment (Lenwood Road from Community Boulevard to Agate Road) would exceed the incremental standard. None of the aforementioned roadway segments would experience noise levels that exceed the applicable land use noise standard(s) at the nearest sensitive receptor(s) due to BIG. Therefore, BIG roadway traffic noise levels under Horizon Year 2048 would result in a potentially significant impact.

As previously mentioned above, off-site mitigation measures to reduce roadway traffic noise impacts are not feasible for implementation. Therefore, BIG roadway traffic noise levels under Horizon Year 2048 conditions would be significant and unavoidable.

Table 50: Horizon Year 2048 Plus BIG Conditions Roadway Traffic Noise Levels

Roadway	Segment	Horizon Year 2048		Horizon Year 2048 + BIG		Incremental Increase	Incremental Increase Threshold	Exceeds Threshold?	Nearest Receptor Land Use Type	Horizon Year 2045 + BIG Noise Level at Nearest Receptor (dBA CNEL)	City/County Noise Standard (dBA CNEL)	Exceeds Standard?	Impact?
		ADT	dBA CNEL at 100 feet from Roadway Centerline	ADT	dBA CNEL at 100 feet from Roadway Centerline								
Main Street	Hinkley Road to Country Club Drive	10,790	68.7	11,300	68.7	0.0	3.0	No	SF Residential	66.5	60	Yes	No[3]
	Country Club Drive to Lenwood Road	7,880	67.7	11,300	68.7	1.0	3.0	No	SF Residential	68.1	65	Yes	No[3]
	Lenwood Road to County/City Boundary	8,101	62.5	10,000	63.0	0.5	3.0	No	SF Residential	66.4	65	Yes	No[3]
	County/City Boundary to SR 58 Eastbound Ramps	8,101	63.4	10,000	64.0	0.5	3.0	No	Commercial	50.8	65	No	No
	SR 58 Eastbound Off-Ramps to SR 58 Westbound Ramps	6,229	64.1	9,400	64.7	0.6	3.0	No	N/A[2]	-	-	-	-
	SR 58 Westbound Ramps to L Street	6,221	63.9	8,800	63.9	0.1	5.0	No	SF Residential	67.8	65	Yes	No[3]
	L Street to Avenue A	12,780	61.9	14,200	62.0	0.1	3.0	No	MF Residential	65.9	65	Yes	No[3]
	Avenue A to Barstow Road	12,325	60.8	13,100	60.8	0.0	3.0	No	MF Residential	56.3	65	No	No
Barstow Road	Main Street to I-15 Southbound Ramps	14,488	64.2	15,000	64.3	0.1	3.0	No	SF Residential	71.1	65	Yes	No[3]
	I-15 Southbound Ramps to I-15 Northbound Ramps	17,594	65.6	18,300	65.7	0.1	3.0	No	SF Residential	57.5	65	No	No
	I-15 Northbound ramps to Rimrock Road	21,481	66.8	21,600	66.8	0.0	3.0	No	MF Residential	69.6	65	Yes	No[3]
Lenwood Road	SR 58 Westbound Ramps to Community Boulevard	846	56.7	2,100	60.6	3.9	5.0	No	SF Residential	64.0	60	Yes	No[3]
	Community Boulevard to Agate Road	339	54.5	2,300	60.0	5.5	5.0	**Yes**	SF Residential	50.2	60	No	**Yes**
	Agate Road to Jasper Road	4,323	65.3	7,400	66.8	1.4	5.0	No	SF Residential	68.2	60	Yes	No[3]
	Jasper Road to Main Street	4,166	67.7	12,400	69.3	1.6	3.0	No	SF Residential	56.9	60	No	No
	Main Street to High Desert Road	10,814	69.9	17,600	70.4	0.5	5.0	No	SF Residential	73.2	65	Yes	No[3]
	High Desert Road to I-15 SB Off-Ramp	21,313	72.5	26,800	72.9	0.5	1.5	No	Commercial	59.8	65	No	No
	I-15 SB Off-Ramp to I-15 NB Off-Ramp	18,721	68.2	21,200	68.5	0.4	1.5	No	Commercial	64.7	65	Yes	No[3]
Hinkley Road	SR 58 Westbound Ramp to BIG Driveway	299	47.5	400	47.6	0.1	5.0	No	SF Residential	48.7	60	No	No
	BIG Driveway to Main Street[1]	406	47.6	-	-	-	-	-	-		-	-	-

Notes:
1. Hinkley Road would be vacated along this segment as part of BIG.
2. There are no developed land uses or sensitive receptors along roadway segment.
3. This roadway segment would not result in a substantial increase when No BIG noise levels already exceed City/County noise standards (see **Section 4.2** for noise impact thresholds). See **Appendix A** for impact screening analyses for all receptors.

Source: Based on traffic data derived from the Traffic Impact Analysis (Kimley-Horn, 2025). Refer to **Appendix A** for roadway traffic noise modeling assumptions and results.

Roadway Traffic Noise – Interior Noise Analysis

Opening Year 2028

Table 51: Opening Year 2028 Plus BIG Conditions Roadway Traffic Interior Noise Levels – Windows Open and **Table 52: Opening Year 2028 Plus BIG Conditions Roadway Traffic Interior Noise Levels – Windows Closed** show interior roadway traffic noise levels along roadway segments for Opening Year 2028 Plus BIG. As indicated in **Table 51**, interior noise levels with windows open from BIG roadway noise sources would range from 37.9 dBA to 59.1 dBA at 100 feet from the roadway centerline under Opening Year 2028 Plus BIG conditions. Roadway traffic noise would not result in an increase above the incremental standard due to BIG operations under the windows open condition. In addition, none of the studied roadway segments would exceed the interior noise standard of 45 dBA L_{dn} at the nearest sensitive receptors as a result of BIG for a windows open condition and would result in less than significant impacts.

As shown in **Table 52**, interior noise levels at the nearest sensitive receptors would also be below 45 dBA L_{dn} for the windows closed condition. Therefore, BIG roadway traffic noise levels under Opening Year 2028 windows open and windows closed conditions would be less than significant and no impacts would occur.

Table 51: Opening Year 2028 Plus BIG Conditions Roadway Traffic Interior Noise Levels – Windows Open

Roadway	Segment	Opening Year 2028 Interior Noise Level (dBA CNEL)[1]	Opening Year 2028 + BIG Interior Noise Level (dBA CNEL)[1]	Incremental Increase	Incremental Increase Threshold	Exceeds Threshold?	Nearest Receptor Land Use Type	Opening Year 2028 + BIG Interior Noise Level at Nearest Receptor (dBA CNEL)	Interior Noise Standard (dBA CNEL)	Exceeds Standard?	Impact?
Main Street	Hinkley Road to Country Club Drive	52.9	53.0	0.1	3.0	No	SF Residential	50.8	45	Yes	No[4]
	Country Club Drive to Lenwood Road	52.2	54.4	2.2	3.0	No	SF Residential	53.8	45	Yes	No[4]
	Lenwood Road to County/City Boundary	51.8	52.2	0.4	3.0	No	SF Residential	55.5	45	Yes	No[4]
	County/City Boundary to SR 58 Eastbound Ramps	51.8	52.2	0.4	3.0	No	Commercial	40.0	45	No	No
	SR 58 Eastbound Off-Ramps to SR 58 Westbound Ramps	53.1	53.6	0.5	3.0	No	N/A[5]	N/A[5]	45	-	No
	SR 58 Westbound Ramps to L Street	52.0	52.1	0.1	5.0	No	SF Residential	56.0	45	Yes	No[4]
	L Street to Avenue A	51.5	51.5	0.0	3.0	No	MF Residential	55.4	45	Yes	No[4]
	Avenue A to Barstow Road	50.7	50.7	0.0	3.0	No	MF Residential	46.2	45	Yes	No[4]
Barstow Road	Main Street to I-15 Southbound Ramps	53.6	53.7	0.1	3.0	No	SF Residential	60.5	45	Yes	No[4]
	I-15 Southbound Ramps to I-15 Northbound Ramps	54.3	54.4	0.1	3.0	No	SF Residential	46.2	45	Yes	No[4]
	I-15 Northbound ramps to Rimrock Road	54.9	54.9	0.0	3.0	No	MF Residential	57.7	45	Yes	No[4]
Lenwood Road	SR 58 Westbound Ramps to Community Boulevard	49.3	52.5	3.2	5.0	No	SF Residential	55.8	45	Yes	No[4]
	Community Boulevard to Agate Road	47.8	51.5	3.7	5.0	No	SF Residential	41.7	45	No	No
	Agate Road to Jasper Road	52.4	54.2	1.8	5.0	No	SF Residential	55.7	45	Yes	No[4]
	Jasper Road to Main Street	54.4	56.5	2.0	3.0	No	SF Residential	44.1	45	No	No
	Main Street to High Desert Road	54.4	55.5	1.1	5.0	No	SF Residential	57.8	45	Yes	No[4]
	High Desert Road to I-15 SB Off-Ramp	58.4	59.1	0.8	1.5	No	Commercial	46.0	50	No	No[2]
	I-15 SB Off-Ramp to I-15 NB Off-Ramp	54.2	54.8	0.6	1.5	No	Commercial	50.9	50	Yes	No[2,4]
Hinkley Road	SR 58 Westbound Ramp to BIG Driveway	37.9	37.9	0.0	5.0	No	SF Residential	39.0	45	No	No
	BIG Driveway to Main Street[3]	-	-	-	-	-	-	-	-	-	-

Notes:
1. Interior noise levels calculated using the modeled exterior noise levels and using an outdoor-to-indoor noise reduction of 10 dBA for windows open per the Locher, et al., *Differences between Outdoor and Indoor Sound Levels for open, Tilted, and Closed Windows*, 2018.
2. Hotels do not have operable windows, and therefore, interior noise levels would be within 50 dBA CNEL under a windows closed condition; see **Table 52**.
3. Hinkley Road would be vacated along this segment as part of BIG.
4. This roadway segment would not result in a substantial increase when No BIG noise levels already exceed City/County noise standards (see **Section 4.2** for noise impact thresholds). See **Appendix A** for impact screening analyses for all receptors.
5. There are no developed land uses or sensitive receptors along roadway segment.

Source: Based on traffic data derived from the Traffic Impact Analysis (Kimley-Horn, 2025). Refer to **Appendix A** for roadway traffic noise modeling assumptions and results.

Table 52: Opening Year 2028 Plus BIG Conditions Roadway Traffic Interior Noise Levels – Windows Closed

Roadway	Segment	Opening Year 2028 Interior Noise Level (dBA CNEL)[1]	Opening Year 2028 + BIG Interior Noise Level (dBA CNEL)[1]	Incremental Increase	Incremental Increase Threshold	Exceeds Threshold?	Nearest Receptor Land Use Type	Opening Year 2028 + BIG Interior Noise Level at Nearest Receptor (dBA CNEL)	Interior Noise Standard (dBA CNEL)	Exceeds Standard?	Impact?
Main Street	Hinkley Road to Country Club Drive	34.9	35.0	0.0	3.0	No	SF Residential	33.3	45	No	No
	Country Club Drive to Lenwood Road	34.2	36.4	2.2	3.0	No	SF Residential	35.8	45	No	No
	Lenwood Road to County/City Boundary	33.8	34.2	0.4	3.0	No	SF Residential	37.5	45	No	No
	County/City Boundary to SR 58 Eastbound Ramps	33.8	34.2	0.4	3.0	No	Commercial	22.0	45	No	No
	SR 58 Eastbound Off-Ramps to SR 58 Westbound Ramps	35.1	35.6	0.5	3.0	No	N/A[3]	-	45	No	No[3]
	SR 58 Westbound Ramps to L Street	34.0	34.1	0.1	5.0	No	SF Residential	38.0	45	No	No
	L Street to Avenue A	33.5	33.5	0.0	3.0	No	MF Residential	37.4	45	No	No
	Avenue A to Barstow Road	32.7	32.7	0.0	3.0	No	MF Residential	28.2	45	No	No
Barstow Road	Main Street to I-15 Southbound Ramps	35.6	35.7	0.1	3.0	No	SF Residential	42.5	45	No	No
	I-15 Southbound Ramps to I-15 Northbound Ramps	36.3	36.4	0.1	3.0	No	SF Residential	28.2	45	No	No
	I-15 Northbound ramps to Rimrock Road	36.9	36.9	0.0	3.0	No	MF Residential	39.7	45	No	No
Lenwood Road	SR 58 Westbound Ramps to Community Boulevard	31.3	34.5	3.2	5.0	No	SF Residential	37.8	45	No	No
	Community Boulevard to Agate Road	29.8	33.5	3.7	5.0	No	SF Residential	23.7	45	No	No
	Agate Road to Jasper Road	34.4	36.2	1.8	5.0	No	SF Residential	37.7	45	No	No
	Jasper Road to Main Street	36.4	38.5	2.0	3.0	No	SF Residential	26.1	45	No	No
	Main Street to High Desert Road	36.4	37.5	1.1	5.0	No	SF Residential	39.8	45	No	No
	High Desert Road to I-15 SB Off-Ramp	40.4	41.1	0.8	1.5	No	Commercial	28.0	50	No	No
	I-15 SB Off-Ramp to I-15 NB Off-Ramp	36.2	36.8	0.6	1.5	No	Commercial	32.9	50	No	No
Hinkley Road	SR 58 Westbound Ramp to BIG Driveway	19.9	19.9	0.1	5.0	No	SF Residential	21.0	45	No	No
	BIG Driveway to Main Street[2]	-	-	-	-	-	-	-	-	-	-

Notes:
1. Interior noise levels calculated using the modeled exterior noise levels and using an outdoor-to-indoor noise reduction of 28 dBA for windows closed per the Locher, et al., *Differences between Outdoor and Indoor Sound Levels for open, Tilted, and Closed Windows*, 2018.
2. Hinkley Road would be vacated along this segment as part of BIG.
3. There are no developed land uses or sensitive receptors along roadway segment.

Source: Based on traffic data derived from the Traffic Impact Analysis (Kimley-Horn, 2025). Refer to Appendix A for roadway traffic noise modeling assumptions and results.

Interim Year 2033

Table 53: Interim Year 2033 Plus BIG Conditions Roadway Traffic Interior Noise Levels – Windows Open and **Table 54: Interim Year 2033 Plus BIG Conditions Roadway Traffic Interior Noise Levels – Windows Closed** show interior roadway traffic noise levels along roadway segments for Interim Year 2033 Plus BIG conditions. As indicated in **Table 53**, interior noise levels with windows open from BIG roadway noise sources would range from 38.0 dBA to 60.5 dBA at 100 feet from the roadway centerline under Interim Year 2033 Plus BIG conditions. Roadway traffic noise would not result in an increase above the incremental standard due to BIG operations under the windows open condition.

Residences along the one roadway segments (Lenwood Road from Jasper Road to Main Street) would exceed the interior noise standard of 45 dBA L_{dn} at the nearest sensitive receptors as a result of BIG for a windows open condition and would result in potentially significant impacts. As previously mentioned, off-site mitigation measures to reduce roadway traffic noise impacts from BIG are not feasible for implementation. As shown in **Table 54**, interior noise levels at the nearest sensitive receptors would be below 45 dBA L_{dn} for the windows closed condition. However, due to limited and infeasible interior noise mitigation options for a windows open condition, a significant and unavoidable impact would occur in this regard.

It is also noted that noise barriers BAR-1 through BAR-5 would not reduce roadway traffic noise levels at the impacted receptors Lenwood Road (from Jasper Road to Main Street) due to their location(s). Noise barriers BAR-1 through BAR-5 were strategically positioned to block the line of sight from onsite BIG operational activities (i.e., rail corridor activity along the existing mainline and at the block swap yard and intermodal facility, new south mainline, train switching and coupling activities at the block swap yard, intermodal facility operations, truck loading/unloading activity at the transload warehouse center, mechanical equipment, solar generation facility operations, and generators) would not block roadway traffic noise at the impacted receptors discussed above. Therefore, noise barriers BAR-1 through BAR-5 are not considered feasible mitigation to reduce roadway traffic noise impacts and are excluded from this analysis.

Table 53: Interim Year 2033 Plus BIG Conditions Roadway Traffic Interior Noise Levels – Windows Open

Roadway	Segment	Interim Year 2033 Interior Noise Level (dBA CNEL)[1]	Interim Year 2033 + BIG Interior Noise Level (dBA CNEL)[1]	Incremental Increase	Incremental Increase Threshold	Exceeds Threshold?	Nearest Receptor Land Use Type	Interim Year 2033 + BIG Interior Noise Level at Nearest Receptor (dBA CNEL)	Interior Noise Standard (dBA CNEL)	Exceeds Standard?	Impact?
Main Street	Hinkley Road to Country Club Drive	55.2	55.3	0.0	3.0	No	SF Residential	53.1	45	Yes	No[4]
	Country Club Drive to Lenwood Road	54.4	56.1	1.7	3.0	No	SF Residential	55.5	45	Yes	No[4]
	Lenwood Road to County/City Boundary	52.0	52.5	0.5	3.0	No	SF Residential	55.8	45	Yes	No[4]
	County/City Boundary to SR 58 Eastbound Ramps	52.0	52.5	0.5	3.0	No	Commercial	40.3	45	No	No
	SR 58 Eastbound Off-Ramps to SR 58 Westbound Ramps	53.4	53.9	0.6	3.0	No	N/A[5]	-	45	No	No
	SR 58 Westbound Ramps to L Street	52.5	52.6	0.1	5.0	No	SF Residential	56.5	45	Yes	No[4]
	L Street to Avenue A	51.6	51.7	0.1	3.0	No	MF Residential	55.6	45	Yes	No[4]
	Avenue A to Barstow Road	50.7	50.7	0.0	3.0	No	MF Residential	46.2	45	Yes	No[4]
Barstow Road	Main Street to I-15 Southbound Ramps	53.8	53.8	0.1	3.0	No	SF Residential	60.7	45	Yes	No[4]
	I-15 Southbound Ramps to I-15 Northbound Ramps	54.7	54.8	0.1	3.0	No	SF Residential	46.6	45	Yes	No[4]
	I-15 Northbound ramps to Rimrock Road	55.5	55.5	0.0	3.0	No	MF Residential	58.3	45	Yes	No[4]
Lenwood Road	SR 58 Westbound Ramps to Community Boulevard	48.8	52.7	4.0	5.0	No	SF Residential	56.1	45	Yes	No[4]
	Community Boulevard to Agate Road	47.2	51.8	4.6	5.0	No	SF Residential	42.0	45	No	No
	Agate Road to Jasper Road	53.4	55.1	1.8	5.0	No	SF Residential	56.6	45	Yes	No[4]
	Jasper Road to Main Street	55.5	57.6	2.0	3.0	No	SF Residential	45.2	45	Yes	**Yes**
	Main Street to High Desert Road	56.6	57.5	0.9	5.0	No	SF Residential	59.8	45	Yes	No[4]
	High Desert Road to I-15 SB Off-Ramp	59.8	60.5	0.7	1.5	No	Commercial	47.4	50	No	No[2,4]
	I-15 SB Off-Ramp to I-15 NB Off-Ramp	55.6	56.1	0.6	1.5	No	Commercial	52.3	50	Yes	No[2,4]
Hinkley Road	SR 58 Westbound Ramp to BIG Driveway	37.8	38.0	0.1	5.0	No	SF Residential	39.0	45	No	No
	BIG Driveway to Main Street[3]	-	-	-	-	-	-	-	-	-	-

Notes:
1. Interior noise levels calculated using the modeled exterior noise levels and using an outdoor-to-indoor noise reduction of 10 dBA for windows open per the Locher, et al., *Differences between Outdoor and Indoor Sound Levels for open, Tilted, and Closed Windows*, 2018.
2. Hotels do not have operable windows, and therefore, interior noise levels would be within 50 dBA CNEL under a windows closed condition; see **Table 54**.
3. Hinkley Road would be vacated along this segment as part of BIG.
4. This roadway segment would not result in a substantial increase when No BIG noise levels already exceed City/County noise standards (see **Section 4.2** for noise impact thresholds). See **Appendix A** for impact screening analyses for all receptors.
5. There are no developed land uses or sensitive receptors along roadway segment.

Source: Based on traffic data derived from the Traffic Impact Analysis (Kimley-Horn, 2025). Refer to **Appendix A** for roadway traffic noise modeling assumptions and results.

Table 54: Interim Year 2033 Plus BIG Conditions Roadway Traffic Interior Noise Levels – Windows Closed

Roadway	Segment	Interim Year 2033 Interior Noise Level (dBA CNEL)[1]	Interim Year 2033 + BIG Interior Noise Level (dBA CNEL)[1]	Incremental Increase	Incremental Increase Threshold	Exceeds Threshold?	Nearest Receptor Land Use Type	Interim Year 2033 + BIG Interior Noise Level at Nearest Receptor (dBA CNEL)	Interior Noise Standard (dBA CNEL)	Exceeds Standard?	Impact?
Main Street	Hinkley Road to Country Club Drive	37.2	37.3	0.0	3.0	No	SF Residential	35.1	45	No	No
	Country Club Drive to Lenwood Road	36.4	38.1	1.7	3.0	No	SF Residential	37.5	45	No	No
	Lenwood Road to County/City Boundary	34.0	34.5	0.5	3.0	No	SF Residential	37.8	45	No	No
	County/City Boundary to SR 58 Eastbound Ramps	34.0	34.5	0.5	3.0	No	Commercial	22.3	45	No	No
	SR 58 Eastbound Off-Ramps to SR 58 Westbound Ramps	35.4	35.9	0.6	3.0	No	N/A[3]		45	No	No
	SR 58 Westbound Ramps to L Street	34.5	34.6	0.1	5.0	No	SF Residential	38.5	45	No	No
	L Street to Avenue A	33.6	33.7	0.1	3.0	No	MF Residential	37.6	45	No	No
	Avenue A to Barstow Road	32.7	32.7	0.0	3.0	No	MF Residential	28.2	45	No	No
Barstow Road	Main Street to I-15 Southbound Ramps	35.8	35.8	0.1	3.0	No	SF Residential	42.7	45	No	No
	I-15 Southbound Ramps to I-15 Northbound Ramps	36.7	36.8	0.1	3.0	No	SF Residential	28.6	45	No	No
	I-15 Northbound ramps to Rimrock Road	37.5	37.5	0.0	3.0	No	MF Residential	40.3	45	No	No
Lenwood Road	SR 58 Westbound Ramps to Community Boulevard	30.8	34.7	4.0	5.0	No	SF Residential	38.1	45	No	No
	Community Boulevard to Agate Road	29.2	33.8	4.6	5.0	No	SF Residential	24.0	45	No	No
	Agate Road to Jasper Road	35.4	37.1	1.8	5.0	No	SF Residential	38.6	45	No	No
	Jasper Road to Main Street	37.5	39.6	2.0	3.0	No	SF Residential	27.2	45	No	No
	Main Street to High Desert Road	38.6	39.5	0.9	5.0	No	SF Residential	41.8	45	No	No
	High Desert Road to I-15 SB Off-Ramp	41.8	42.5	0.7	1.5	No	Commercial	29.4	45	No	No
	I-15 SB Off-Ramp to I-15 NB Off-Ramp	37.6	38.1	0.6	1.5	No	Commercial	34.3	45	No	No
Hinkley Road	SR 58 Westbound Ramp to BIG Driveway	19.8	20.0	0.1	5.0	No	SF Residential	21.0	45	No	No
	BIG Driveway to Main Street[2]	-	-	-	-	-	-	-	-	-	-

Notes:
1. Interior noise levels calculated using the modeled exterior noise levels and using an outdoor-to-indoor noise reduction of 28 dBA for windows closed per the Locher, et al., *Differences between Outdoor and Indoor Sound Levels for open, Tilted, and Closed Windows*, 2018.
2. Hinkley Road would be vacated along this segment as part of BIG.
3. There are no developed land uses or sensitive receptors along roadway segment.

Source: Based on traffic data derived from the Traffic Impact Analysis (Kimley-Horn, 2025). Refer to **Appendix A** for roadway traffic noise modeling assumptions and results.

Horizon Year 2048

Table 55: Horizon Year 2048 Plus BIG Conditions Roadway Traffic Interior Noise Levels – Windows Open and **Table 56: Horizon Year 2048 Plus BIG Conditions Roadway Traffic Interior Noise Levels – Windows Closed** show interior roadway traffic noise levels along roadway segments for Horizon Year 2048 Plus BIG conditions. As indicated in **Table 55**, interior noise levels with windows open due to the addition of BIG roadway noise sources would range from 37.6 dBA to 62.9 dBA at 100 feet from the roadway centerline under Horizon Year 2048 Plus BIG conditions. Roadway traffic noise along one roadway segment (Lenwood Road from Community Boulevard to Agate Road) would result in an increase above the incremental standard under a windows open condition and exceed the exceed the interior noise standard of 45 dBA L_{dn} at the nearest sensitive receptors as a result of BIG.

As shown in **Table 56**, no roadway segments would also exceed the interior noise standard of 45 dBA L_{dn} at the nearest sensitive receptors as a result of BIG for a windows closed condition. One roadway segment (Lenwood Road from Community Boulevard to Agate Road) would result in an increase above the incremental standard under a windows closed condition and result in a potentially significant impact. However, as discussed above for exterior roadway traffic noise impacts, mitigation options to reduce incremental increase interior roadway traffic noise levels are limited and infeasible to implement. Therefore, a significant and unavoidable impact would occur in this regard.

It is also noted that noise barriers BAR-1 through BAR-5 would not reduce roadway traffic noise levels at the impacted receptors along Lenwood Road (from Jasper Road to Main Street) due to their location(s). Noise barriers BAR-1 through BAR-5 were strategically positioned to block the line of sight from onsite BIG operational activities (i.e., rail corridor activity along the existing mainline and at the block swap yard and intermodal facility, new south mainline, train switching and coupling activities at the block swap yard, intermodal facility operations, truck loading/unloading activity at the transload warehouse center, mechanical equipment, solar generation facility operations, and generators) would not block roadway traffic noise at the impacted receptors discussed above. Therefore, noise barriers BAR-1 through BAR-5 are not considered feasible mitigation to reduce roadway traffic noise impacts and are excluded from this analysis.

Table 55: Horizon Year 2048 Plus BIG Conditions Roadway Traffic Interior Noise Levels – Windows Open

Roadway	Segment	Horizon Year 2048 Interior Noise Level (dBA CNEL)[1]	Horizon Year 2048 + BIG Interior Noise Level (dBA CNEL)[1]	Incremental Increase	Incremental Increase Threshold	Exceeds Threshold?	Nearest Receptor Land Use Type	Horizon Year 2048 + BIG Interior Noise Level at Nearest Receptor (dBA CNEL)	Interior Noise Standard (dBA CNEL)	Exceeds Standard?	Impact?
Main Street	Hinkley Road to Country Club Drive	58.7	58.7	0.0	3.0	No	SF Residential	56.5	45	Yes	No[4]
	Country Club Drive to Lenwood Road	57.7	58.7	1.0	3.0	No	SF Residential	58.1	45	Yes	No[4]
	Lenwood Road to County/City Boundary	52.5	53.0	0.5	3.0	No	SF Residential	56.4	45	Yes	No[4]
	County/City Boundary to SR 58 Eastbound Ramps	52.5	53.0	0.5	3.0	No	Commercial	40.8	45	No	No
	SR 58 Eastbound Off-Ramps to SR 58 Westbound Ramps	54.1	54.7	0.6	3.0	No	N/A[5]	-	45	No	No
	SR 58 Westbound Ramps to L Street	53.9	53.9	0.1	5.0	No	SF Residential	57.8	45	Yes	No[4]
	L Street to Avenue A	51.9	52.0	0.1	3.0	No	MF Residential	55.9	45	Yes	No[4]
	Avenue A to Barstow Road	50.8	50.8	0.0	3.0	No	MF Residential	46.3	45	Yes	No[4]
Barstow Road	Main Street to I-15 Southbound Ramps	54.2	54.3	0.1	3.0	No	SF Residential	61.1	45	Yes	No[4]
	I-15 Southbound Ramps to I-15 Northbound Ramps	55.6	55.7	0.1	3.0	No	SF Residential	47.5	45	Yes	No[4]
	I-15 Northbound ramps to Rimrock Road	56.8	56.8	0.0	3.0	No	MF Residential	59.6	45	Yes	No[4]
Lenwood Road	SR 58 Westbound Ramps to Community Boulevard	46.7	50.6	3.9	5.0	No	SF Residential	54.0	45	Yes	No[4]
	Community Boulevard to Agate Road	44.5	50.0	5.5	5.0	**Yes**	SF Residential	40.2	45	No	No
	Agate Road to Jasper Road	55.3	56.8	1.4	5.0	No	SF Residential	58.2	45	Yes	No[4]
	Jasper Road to Main Street	57.7	59.3	1.6	3.0	No	SF Residential	46.9	45	Yes	No[4]
	Main Street to High Desert Road	59.9	60.4	0.5	5.0	No	SF Residential	62.8	45	Yes	No[4]
	High Desert Road to I-15 SB Off-Ramp	62.5	62.9	0.5	1.5	No	Commercial	49.8	50	Yes	No[2,4]
	I-15 SB Off-Ramp to I-15 NB Off-Ramp	58.2	58.5	0.4	1.5	No	Commercial	54.7	50	Yes	No[2,4]
Hinkley Road	SR 58 Westbound Ramp to BIG Driveway	37.5	37.6	0.1	5.0	No	SF Residential	38.7	45	No	No
	BIG Driveway to Main Street[3]	-	-	-	-	-	-	-	-	-	-

Notes:
1. Interior noise levels calculated using the modeled exterior noise levels and using an outdoor-to-indoor noise reduction of 10 dBA for windows open per the Locher, et al., *Differences between Outdoor and Indoor Sound Levels for open, Tilted, and Closed Windows*, 2018.
2. Hotels do not have operable windows, and therefore, interior noise levels would be within 45 dBA CNEL under a windows closed condition; see **Table 56.**
3. Hinkley Road would be vacated along this segment as part of BIG.
4. This roadway segment would not result in a substantial increase when No BIG noise levels already exceed City/County noise standards (see **Section 4.2** for noise impact thresholds). See **Appendix A** for impact screening analyses for all receptors.
5. There are no developed land uses or sensitive receptors along roadway segment.

Source: Based on traffic data derived from the Traffic Impact Analysis (Kimley-Horn, 2025). Refer to **Appendix A** for roadway traffic noise modeling assumptions and results.

Table 56: Horizon Year 2048 Plus BIG Conditions Roadway Traffic Interior Noise Levels – Windows Closed

Roadway	Segment	Horizon Year 2048 Interior Noise Level (dBA CNEL)1	Horizon Year 2048 + BIG Interior Noise Level (dBA CNEL)1	Incremental Increase	Incremental Increase Threshold	Exceeds Threshold?[3]	Nearest Receptor Land Use Type	Horizon Year 2048 + BIG Interior Noise Level at Nearest Receptor (dBA CNEL)	Interior Noise Standard (dBA CNEL)	Exceeds Standard?	Impact?
Main Street	Hinkley Road to Country Club Drive	40.7	40.7	0.0	3.0	No	SF Residential	38.5	45	No	No
	Country Club Drive to Lenwood Road	39.7	40.7	1.0	3.0	No	SF Residential	40.1	45	No	No
	Lenwood Road to County/City Boundary	34.5	35.0	0.5	3.0	No	SF Residential	38.4	45	No	No
	County/City Boundary to SR 58 Eastbound Ramps	34.5	35.0	0.5	3.0	No	Commercial	22.8	45	No	
	SR 58 Eastbound Off-Ramps to SR 58 Westbound Ramps	36.1	36.7	0.6	3.0	No	N/A	-	45	No	No
	SR 58 Westbound Ramps to L Street	35.9	35.9	0.1	5.0	No	SF Residential	39.8	45	No	No
	L Street to Avenue A	33.9	34.0	0.1	3.0	No	MF Residential	37.9	45	No	No
	Avenue A to Barstow Road	32.8	32.8	0.0	3.0	No	MF Residential	28.3	45	No	No
Barstow Road	Main Street to I-15 Southbound Ramps	36.2	36.3	0.1	3.0	No	SF Residential	43.1	45	No	No
	I-15 Southbound Ramps to I-15 Northbound Ramps	37.6	37.7	0.1	3.0	No	SF Residential	29.5	45	No	No
	I-15 Northbound ramps to Rimrock Road	38.8	38.8	0.0	3.0	No	MF Residential	41.6	45	No	No
Lenwood Road	SR 58 Westbound Ramps to Community Boulevard	28.7	32.6	3.9	5.0	No	SF Residential	36.0	45	No	No
	Community Boulevard to Agate Road	26.5	32.0	5.5	5.0	**Yes**	SF Residential	22.2	45	No	No
	Agate Road to Jasper Road	37.3	38.8	1.4	5.0	No	SF Residential	40.2	45	No	No
	Jasper Road to Main Street	39.7	41.3	1.6	3.0	No	SF Residential	28.9	45	No	No
	Main Street to High Desert Road	41.9	42.4	0.5	5.0	No	SF Residential	44.8	45	Yes	No
	High Desert Road to I-15 SB Off-Ramp	44.5	44.9	0.5	1.5	No	Commercial	31.8	45	No	No
	I-15 SB Off-Ramp to I-15 NB Off-Ramp	40.2	40.5	0.4	1.5	No	Commercial	36.7	45	No	No
Hinkley Road	SR 58 Westbound Ramp to BIG Driveway	19.5	19.6	0.1	5.0	No	SF Residential	20.7	45	No	No
	BIG Driveway to Main Street[2]	-	-	-	-	-	-	-	-	-	-

Notes:
1. Interior noise levels calculated using the modeled exterior noise levels and using an outdoor-to-indoor noise reduction of 28 dBA for windows closed per the Locher, et al., *Differences between Outdoor and Indoor Sound Levels for open, Tilted, and Closed Windows*, 2018.
2. Hinkley Road would be vacated along this segment as part of BIG.
3. This roadway segment would not result in a substantial increase when No BIG noise levels already exceed City/County noise standards (see Section 4.2 for noise impact thresholds). See Appendix A for impact screening analyses for all receptors.

Source: Based on traffic data derived from the Traffic Impact Analysis (Kimley-Horn, 2025). Refer to Appendix A for roadway traffic noise modeling assumptions and results.

6.2 Vibration Analysis

Impact - 2	*Would BIG result in generation of excessive groundborne vibration or groundborne noise levels?*

Construction

Construction vibration could result in human annoyance and building damage. Human annoyance occurs when construction vibration rises above the threshold of human perception for extended periods of time. The ground-borne vibration effect criteria during construction activities for different building categories are presented in **Table 9: Construction Vibration Building Damage Criteria**

Table 9: Construction Vibration Building Damage Criteria

. Building damage occurs when construction activities produce waves in the ground that are strong enough to cause cosmetic or structural damage.

BIG construction has the potential to result in varying degrees of temporary ground-borne vibration, depending on the equipment used and the operations involved. In general, the FTA architectural damage criterion for continuous vibrations (0.2 in/sec PPV) is considered conservative.

Table 57: Typical Construction Equipment Vibration Levels lists vibration levels at 50 feet for typical construction equipment. Ground-borne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. No construction activities generating ground-borne vibration would be conducted closer than 50 feet from sensitive receptors. As indicated in **Table 57**, at 50 feet, construction equipment peak particle velocities and approximate vibration velocities would not exceed 0.074 in/sec PPV and 85 VdB, respectively, which would be below the FTA's 0.2 in/sec PPV threshold for structural damage, Caltrans' 0.1 in/sec PPV threshold for human annoyance, and FTA's most stringent construction building damage criterion of 90 VdB for extremely sensitive buildings (see **Table 9**).

Table 57: Typical Construction Equipment Vibration Levels

Equipment	Peak Particle Velocity at 50 Feet (inches/second)[1]	Approximate Velocity Level at 50 Feet (VdB)[2]
Large bulldozer	0.032	78
Caisson drilling	0.032	78
Loaded trucks	0.027	77
Vibratory roller	0.074	85
Jackhammer	0.012	70
Small bulldozer/tractors	0.001	49

Note:
[1] Calculated using the following formula: $PPV_{equip} = PPV_{ref}$ x (25/D)1.5, where: PPV_{equip} = the peak particle velocity in in/sec of the equipment adjusted for the distance; PPV_{ref} = the reference vibration level in in/sec from Table 7-4 of the Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018; D = the distance from the equipment to the receptor.
[2] Calculated using the following formula: $Lv(D) = Lv_{ref} - 30\log(D/25 \text{ feet})$, where: Lv(D) = the RMS velocity level adjusted for distance; Lv_{ref} = the source reference vibration level at 25 feet (VdB); and D = distance from the equipment to the receptor (feet) from Equation 7-3 of the Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.
[3] VdB = vibration velocity level, decibels

Sources: FTA. 2018. *Transit Noise and Vibration Impact Assessment Manual.*

Pile-driving for Bridge 6.5 and 10.98 would occur at distances of 2,500 feet from the nearest sensitive receptors. As shown in **Table 58: Pile-Driving Vibration Levels**, at 2,500 feet, pile-driving vibration velocities would be approximately 0.002 in/sec PPV and 52 VdB, which would not exceed the FTA's 0.2 PPV threshold for structural damage, Caltrans' 0.1 in/sec PPV threshold for human annoyance, or FTA's most stringent construction building damage criterion of 90 VdB for extremely sensitive buildings.

Table 58: Pile-Driving Vibration Levels

Equipment	Peak Particle Velocity at 2,500 Feet (inches/second)	Approximate Velocity Level at 2,500 Feet (VdB)[1]
Pile-driver (impact)	0.002	52

Note:
1. VdB = vibration velocity level, decibels

Sources: FTA. 2018. *Transit Noise and Vibration Impact Assessment Manual.*

As discussed above, construction vibration levels from BIG would not exceed any applicable thresholds or standards, and a less than significant impact would occur in this regard.

Operations

Ground-borne Vibration Analysis

The nearest off-site structure (a single-family dwelling) to the BIG footprint is approximately 165 feet from the center of the mainline tracks along the west lead track alignment. At this distance and conservatively assuming a maximum speed of 50 mph,[33] vibration levels from BIG train pass-bys would be approximately 73.44 VdB, which would be below the FTA's 80 VdB ground-borne vibration impact level for Land Use Category 2 uses for infrequent events during Opening Year 2028 and Interim Year 2033 with BIG conditions. In addition, vibration levels (73.44 VdB) be below the FTA's 75 VdB ground-borne vibration impact level for Land Use Category 2 for infrequent events under Horizon Year 2048 with BIG conditions. The expected vibration levels would also be substantially below the building damage criterion of 94 vdB as established in **Table 9: Construction Vibration Building Damage Criteria**.

In addition, the nearest Land Use Category 3 structure (Lenwood Elementary School) is approximately 600 feet from the proposed east lead track alignment. At this distance and a maximum speed of 40 mph, vibration levels from BIG would be approximately 57.54 VdB, which would be below the FTA's 83 VdB ground-borne vibration impact level for Land Use Category 3 for infrequent events during Opening Year 2028 and Interim Year 2033 with BIG conditions and 78 VdB threshold for occasional events during Horizon Year 2048 with BIG conditions. As a result, vibration levels from BIG operational train pass-bys would not cause structural damage at off-site structures or create human annoyance.

BIG would also include heavy truck movement activity in and around BIG. These movements would generally be low-speed and would occur over new, smooth surfaces. For perspective, Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses and notes that "heavy trucks, and quite frequently buses, generate the highest earthborn [groundborne] vibrations of normal traffic." Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that "vibrations measured on freeway shoulders (five meters from the centerline of the

[33] According to BNSF, trains are likely to be traveling at speeds lower than 40 mph as they enter/exit the BIG footprint. However, 50 mph is conservatively used to evaluate worst-case operational vibration effects.

nearest lane) have never exceeded 0.08 inches per second, with the worst combinations of heavy trucks and poor roadway conditions (while such trucks were moving at freeway speeds). This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings)". (Caltrans, 2013) Since BIG's truck movements would be at low speed (not at freeway speeds) and would be over smooth surfaces (not under poor roadway conditions), BIG-related vibration associated with truck activity would not result in excessive ground-borne vibrations; no vehicle-generated vibration impacts would occur.

As discussed above, BIG operations would not create or cause significant vibration impacts. A less than significant impact would occur in this regard.

Ground-borne Noise Analysis

Ground-borne noise is audible noise caused by the low-frequency vibration of room surfaces. In simpler terms, ground-borne noise is caused by ground vibrations, and estimated by looking at how much a building floor shakes. The FTA measures how loud a sound is by adding the ground-borne vibration speed (VdB) to adjustments for the type of room due to absorption and diffusion from the building material and the sound frequency. For typical rooms, the adjustment is -5 decibels (dB), and for heavier structures like storage sheds, it is 0 dB. This means that the noise from ground vibrations would be less than the actual vibrations themselves.

According to the FTA, airborne noise levels would be higher than ground-borne noise levels; therefore, if a project's airborne noise levels would not result in significant effects, then it is assumed that ground-borne noise would similarly not result in significant effects. (FTA, 2018) Unless indoor receptors have substantial sound insulation (e.g., recording studio) and would be exposed to vibration velocities great enough to cause substantial levels of ground-borne noise, ground-borne noise does not need to be assessed. (Ibid) Ground-borne noise is typically assessed for locations where subway or tunnel operations, where there is no airborne noise path, are present. (Ibid) BIG would not include a subway or tunnel, and all rail operations would occur at-grade. In addition, there are no substantially insulated indoor noise receptors located within 100 feet of the BIG site. Therefore, the effects of airborne noise would be greater than ground-borne noise levels.

Ground-borne A-weighted noise levels can be estimated utilizing the average vibration velocity level. (Ibid) For low frequency ground vibration such as that generated by at-grade or surface rail operations, the ground-borne noise level is estimated by subtracting 50 dB from the vibration velocities (VdB). (Ibid) As discussed above, the estimated ground-borne vibration levels from BIG trains would reach approximately 73.44 VdB, which would result in a ground-borne noise level of approximately 23.44 VdB and would not exceed the FTA's most stringent standard of 35 dBA at Category 2 Buildings (residences and buildings where people normally sleep) for frequent vibration events. (Ibid) Therefore, ground-borne noise impacts from BIG would be less than significant.

6.3 Sleep Disturbance and Speech Interference Analysis

Sleep Disturbance Analysis

Table 59: BIG Operational Interior Noise Levels – Sleep Disturbance and Speech Interference Analysis summarizes the maximum Opening Year 2028, Interim Year 2033, and Horizon Year 2048 Plus BIG operational interior levels at nearby residences and an assessment of sleep disturbance. It is noted that sleep disturbance and speech interference impacts are evaluated using the highest sound exposure level (SEL)[34] from BIG operations (train horns), and thus, the results in Table 59 are higher than the interior noise levels provided in **Table 35** through **Table 45** above which are in the 24-hour (L_{dn}) noise scale. As shown in **Table 59**, interior noise levels with windows open would reach a maximum of 74.2 SEL and would result in approximately eight percent of exposed population at a residence to be awakened due to BIG operations. Interior noise levels with windows closed would reach a maximum of 56.2 SEL and would result in approximately three percent of exposed population to be awakened due to BIG operations. As such, sleep disturbance awakenings from BIG operations would occur at a frequency below 10 percent and a less than significant impact would occur.

Speech Interference Analysis

Operational noise from BIG has the potential to interfere with speech intelligibility between the teacher and the student. **Table 59** summarizes the interior operational noise from BIG within the nearest classrooms and the speech intelligibility between a teacher and student separated by 20 feet. The analysis and evaluation considers both a normal and raised voice speech level between a teacher and student. Future interior noise levels would be as high as 37.9 dBA L_{max} at Lenwood Elementary School with windows open. When compared with the U.S. EPA curve for speech intelligibility, there would be greater than 95% normal voice satisfactory and raised voice satisfactory conversation speech at the nearest school for a windows open condition, and 100% speech intelligibility for a relaxed conversation with windows closed. When the distance between the teacher and student is less than 20 feet, speech intelligibility would be expected to be even greater. And therefore, speech-interference impacts would be less than significant.

[34] Sound exposure level (SEL) is the cumulative noise exposure from a single noise event, normalized to one second. SEL contains the same overall sound energy as the actual varying sound energy during the event (FTA, 2018).

Table 59: BIG Operational Interior Noise Levels – Sleep Disturbance and Speech Interference Analysis								
		Windows Open				Windows Closed		
Receptor No.[1]	Land Use	Modeled BIG Train Horn Interior SEL[2]	Approximate Percentage of Exposed Population Expected to be Awakened[3]	Normal Voice Satisfactory Conversation Speech Intelligibility at 20 feet between Speaker and Listener[4]	Raised Voice Satisfactory Conversation Speech Intelligibility at 20 feet between Speaker and Listener[4]	Modeled BIG Train Horn Interior SEL[2]	Approximate Percentage of Exposed Population Expected to be Awakened[3]	Relaxed Conversation Speech Intelligibility at 20 feet between Speaker and Listener[4]
1	Residential	74.2	8%	-	-	56.2	3%	-
65	School[4]	49.7	-	Greater than 95%	Greater than 95%	31.7	-	100%

Notes:
1. See **Figure 13** through **Figure 22** for receptor locations.
2. Interior noise levels calculated using the modeled exterior noise levels and using an outdoor-to-indoor noise reduction of 10 dBA for windows open and 28 dBA for windows closed per the Locher, et al. *Differences between Outdoor and Indoor Sound Levels for open, Tilted, and Closed Windows*, 2018.
3. Based on FICAN 1997 Sleep Disturbance Curve; see **Figure 6.**
4. Based on U.S. EPA Speech Intelligibility Curve; see **Figure 7**: Distance for Satisfactory Conversations

5. The nearest school is Lenwood Elementary School located at 34374 Ash Rd, Barstow, CA 92311.

Source: SoundPLAN Essential version 5.1. Please see **Appendix A** for complete modeling results for all receptors.

7.0 CUMULATIVE IMPACTS ASSESSMENT

7.1 Noise Analysis

Cumulative Off-Site Traffic Noise

Cumulative noise impacts describe how much noise levels are projected to increase over existing (no BIG) conditions with the development of BIG and other foreseeable projects. Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways from BIG and other projects in the vicinity because traffic occurs offsite and is most likely to combine with other cumulative traffic. Cumulative increases in traffic noise levels were estimated by comparing the Existing (no BIG) and Opening Year 2028 No BIG scenarios to the 2028 Opening Year With BIG scenario, comparing the Existing (no BIG) and Interim Year 2033 No BIG scenarios to the Interim Year 2033 With BIG scenario, and comparing the Existing and Horizon Year 2048 No BIG scenarios to the Horizon Year 2048 With BIG scenario. The traffic analysis considers cumulative traffic from future growth assumed in the transportation model, as well as cumulative projects.

Opening Year 2028

Table 60: Opening Year 2028 Plus BIG Cumulative Roadway Traffic Noise Levels identifies the cumulative traffic noise effects along roadway segments in the BIG vicinity for Existing, Opening Year 2028 No BIG, and Opening Year 2028 With BIG conditions. As indicated in **Table 60**, seven roadway segments that would exceed either the incremental increase noise standard or applicable land use standard (or both) under Interim Year 2033 with BIG cumulative traffic conditions:

- Main Street: Hinkley Road to Country Club Drive
- Main Street: Country Club Drive to Lenwood Road
- Main Street: SR 58 to Westbound Ramps to L Street
- Lenwood Road: Jasper Road to Main Street
- Lenwood Road: Main Street to High Desert Road
- Lenwood Road: High Desert Road to I-15 SB Off-Ramp
- Lenwood Road: I-15 SB Off-Ramp to I-15 NB Off-Ramp

As such, a potentially significant cumulative roadway traffic noise impact would occur.

Similar to the project-level roadway traffic noise analysis, potential mitigation measures to reduce BIG's cumulative traffic noise impacts at the impacted receptors are infeasible due to safety and access issues, among other reasons. Therefore, Opening Year 2028 cumulative traffic impacts from BIG would be significant and unavoidable.

Table 60: Opening Year 2028 Plus BIG Cumulative Roadway Traffic Noise Levels

Roadway	Segment	dBA CNEL at 100 feet from Roadway Centerline			Difference In dBA Between Existing (no BIG) and Opening Year With BIG	Threshold	Exceeds Threshold?	Nearest Receptor Land Use Type	Opening Year 2028 + Noise Level at Nearest Receptor (dBA CNEL)	City/ County Noise Standard (dBA CNEL)	Exceeds Standard?	Impact?[2]
		Existing	Opening Year 2028	Opening Year 2028 + BIG								
Main Street	Hinkley Road to Country Club Drive	57.7	60.7	63.0	5.3	3.0	**Yes**	SF Residential	60.8	60	Yes	No[3]
	Country Club Drive to Lenwood Road	57.7	61.6	64.4	6.7	3.0	**Yes**	SF Residential	63.8	65	No	**Yes**
	Lenwood Road to County/City Boundary	61.6	65.1	62.2	0.6	3.0	No	SF Residential	65.5	65	Yes	No[3]-
	County/City Boundary to SR 58 Eastbound Ramps	62.6	50.6	63.2	0.6	3.0	No	Commercial	51.0	65	No	No
	SR 58 Eastbound Off-Ramps to SR 58 Westbound Ramps	62.8	63.1	63.6	0.8	3.0	No	None	-	-	-	No
	SR 58 Westbound Ramps to L Street	61.3	65.9	62.1	0.7	5.0	No	SF Residential	66.0	65	Yes	**Yes**
	L Street to Avenue A	61.4	65.4	61.5	0.2	3.0	No	MF Residential	65.4	65	Yes	No[3]-
	Avenue A to Barstow Road	60.6	56.2	60.7	0.1	3.0	No	MF Residential	56.2	65	No	No
Barstow Road	Main Street to I-15 Southbound Ramps	63.4	70.4	63.7	0.2	3.0	No	SF Residential	70.5	65	Yes	No[3]
	I-15 Southbound Ramps to I-15 Northbound Ramps	63.9	56.1	64.4	0.5	3.0	No	SF Residential	56.2	65	No	No
	I-15 Northbound ramps to Rimrock Road	64.3	67.7	64.9	0.6	3.0	No	MF Residential	67.7	65	Yes	No
Lenwood Road	SR 58 Westbound Ramps to Community Boulevard	59.7	62.6	62.5	2.8	5.0	No	SF Residential	65.8	60	Yes	No
	Community Boulevard to Agate Road	58.3	48.0	61.5	3.2	5.0	No	SF Residential	51.7	60	No	No
	Agate Road to Jasper Road	61.2	63.9	64.2	3.0	5.0	No	SF Residential	65.7	60	Yes	No[3]-
	Jasper Road to Main Street	63.0	52.1	66.5	3.5	3.0	**Yes**	SF Residential	54.1	60	No	**Yes**
	Main Street to High Desert Road	60.0	67.2	65.5	5.5	5.0	**Yes**	SF Residential	67.8	65	Yes	**Yes**
	High Desert Road to I-15 SB Off-Ramp	66.2	55.3	69.1	2.9	1.5	**Yes**	Commercial	56.0	65	No	**Yes**
	I-15 SB Off-Ramp to I-15 NB Off-Ramp	62.2	60.4	64.8	2.6	1.5	**Yes**	Commercial	60.9	65	No	**Yes**
Hinkley Road	SR 58 Westbound Ramp to BIG Driveway	47.5	48.9	47.9	0.4	5.0	No	SF Residential	49.0	60	No	No
	BIG Driveway to Main Street[1]	47.5	47.5	-	-	-	-	-	-	-	-	-

Notes:

1. Hinkley Road would be vacated along this segment as part of BIG.
2. There are no developed land uses or sensitive receptors along roadway segment.
3. Cumulative roadway traffic noise impacts are analyzed against the FICON incremental noise increase standards and the applicable City or County noise standards; see Section 4.2, Cumulative Roadway Traffic Noise Analysis.
4. Existing roadway traffic noise levels already exceed the applicable City/County noise standard at receptors along this roadway segment, and BIG would not result in a substantial noise increase in roadway traffic noise levels when compared to existing conditions. See **Appendix A** for complete roadway traffic modeling results.

Source: Based on traffic data derived from the Traffic Impact Analysis (Kimley-Horn, 2025). Refer to **Appendix A** for roadway traffic noise modeling assumptions and results.

Interim Year 2033

Table 61: Interim Year 2033 Plus BIG Cumulative Roadway Traffic Noise Levels identifies the traffic noise effects along roadway segments in the BIG vicinity for Existing, Interim Year 2033 No BIG, and Interim Year 2033 With BIG conditions. As indicated in Table 61, there are seven roadway segments that would exceed either the incremental increase noise standard or applicable land use standard (or both) under Interim Year 2033 with BIG cumulative traffic conditions:

- Main Street: Hinkey Road to Country Club Drive;
- Main Street: Country Club Drive to Lenwood Road;
- Lenwood Road: SR-58 Westbound Ramps to Community Boulevard;
- Lenwood Road: Jasper Road to Main Street;
- Lenwood Road: Main Street to High Desert Road;
- Lenwood Road: High Desert Road to I-15 SB Off-Ramp; and
- Lenwood Road: I-15 SB Off-Ramp to I-15 NB Off-Ramp

Similar to the project-level traffic noise analysis, potential mitigation measures to reduce BIG's cumulative traffic noise impact at the impacted receptors are infeasible due to safety and access issues, among other reasons. Therefore, Interim Year 2033 cumulative traffic impacts from BIG would be significant and unavoidable.

Table 61: Interim Year 2033 Plus BIG Cumulative Roadway Traffic Noise Levels

Roadway	Segment	dBA CNEL at 100 feet from Roadway Centerline			Difference In dBA Between Existing (no BIG) and Interim Year 2033 With BIG	Threshold	Exceeds Threshold?	Nearest Receptor Land Use Type	Interim Year 2033 + BIG Noise Level at Nearest Receptor (dBA CNEL)	City/ County Noise Standard (dBA CNEL)	Exceeds Standard?	Impact?[2]
		Existing	Interim Year 2033	Interim Year 2033 + BIG								
Main Street	Hinkley Road to Country Club Drive	57.7	63.0	65.3	7.6	3.0	**Yes**	SF Residential	63.1	60	Yes	**Yes**
	Country Club Drive to Lenwood Road	57.7	63.7	66.1	8.4	3.0	**Yes**	SF Residential	65.5	65	No	**Yes**
	Lenwood Road to County/City Boundary	61.6	65.3	62.5	0.9	3.0	No	SF Residential	65.8	65	**Yes**	No[3]
	County/City Boundary to SR 58 Eastbound Ramps	62.6	49.8	63.5	0.9	3.0	No	Commercial	51.3	65	**No**	No
	SR 58 Eastbound Off-Ramps to SR 58 Westbound Ramps	62.8	63.4	63.9	1.1	3.0	No	None	-	-	-	No
	SR 58 Westbound Ramps to L Street	61.3	66.4	62.6	1.3	5.0	No	SF Residential	66.5	65	**Yes**	No[3]
	L Street to Avenue A	61.4	65.5	61.7	0.3	3.0	No	MF Residential	65.6	65	**Yes**	No[3]
	Avenue A to Barstow Road	60.6	56.2	60.7	0.1	3.0	No	MF Residential	56.2	65	No	No
Barstow Road	Main Street to I-15 Southbound Ramps	63.4	70.6	63.8	0.4	3.0	No	SF Residential	70.7	65	**Yes**	No[3]
	I-15 Southbound Ramps to I-15 Northbound Ramps	63.9	56.5	64.8	0.9	3.0	No	SF Residential	56.6	65	No	No
	I-15 Northbound ramps to Rimrock Road	64.3	68.3	65.5	1.2	3.0	No	MF Residential	68.3	65	**Yes**	No[3]
Lenwood Road	SR 58 Westbound Ramps to Community Boulevard	59.7	62.1	62.7	3.0	5.0	No	SF Residential	66.1	60	**Yes**	**Yes**
	Community Boulevard to Agate Road	58.3	47.4	61.8	3.5	5.0	No	SF Residential	52.0	60	**No**	No
	Agate Road to Jasper Road	61.2	64.8	65.1	3.9	5.0	No	SF Residential	66.6	60	**Yes**	No[3]
	Jasper Road to Main Street	63.0	53.1	67.6	4.6	3.0	**Yes**	SF Residential	55.2	60	No	**Yes**
	Main Street to High Desert Road	60.0	69.4	67.5	7.4	5.0	**Yes**	SF Residential	69.8	65	**Yes**	**Yes**
	High Desert Road to I-15 SB Off-Ramp	66.2	56.7	70.5	4.3	1.5	**Yes**	Commercial	57.4	65	No	**Yes**
	I-15 SB Off-Ramp to I-15 NB Off-Ramp	62.2	61.7	66.1	4.0	1.5	**Yes**	Commercial	62.3	65	No	**Yes**
Hinkley Road	SR 58 Westbound Ramp to BIG Driveway	47.5	48.9	48.0	0.4	5.0	No	SF Residential	49.0	60	No	No
	BIG Driveway to Main Street[1]	47.5	47.5	-	-	-	-	-	-	-	-	-

Notes:
1. Hinkley Road would be vacated along this segment as part of BIG.
2. Cumulative roadway traffic noise impacts are analyzed against the FICON incremental noise increase standards and the applicable City or County noise standards; see Section 4.2, Cumulative Roadway Traffic Noise Analysis.
3. Existing roadway traffic noise levels already exceed the applicable City/County noise standard at receptors along this roadway segment, and BIG would not result in a substantial noise increase in roadway traffic noise levels when compared to existing conditions. See **Appendix A** for complete roadway traffic modeling results.

Source: Based on traffic data derived from the Traffic Impact Analysis (Kimley-Horn, 2025). Refer to **Appendix A** for roadway traffic noise modeling assumptions and results.

Horizon Year 2048

Table 62: Horizon Year 2048 Plus BIG Cumulative Roadway Traffic Noise Levels identifies the traffic noise effects along roadway segments in the BIG vicinity for Existing, Horizon Year 2048 No BIG, and Horizon Year 2048 With BIG conditions, including incremental and net cumulative impacts. As indicated in **Table 62,** there are nine roadway segments that would exceed either the incremental increase noise standard or applicable land use standard (or both) under Horizon Year 2048 with BIG cumulative traffic conditions:

- Main Street: Hinkey Road to Country Club Drive;
- Main Street: Country Club Drive to Lenwood Road;
- Barstow Road: I-15 Southbound Ramps to I-15 Northbound Ramps;
- Lenwood Road: SR-58 Westbound Ramps to Community Boulevard;
- Lenwood Road: Community Boulevard to Agate Road;
- Lenwood Road: Agate Road to Jasper Road;
- Lenwood Road: Main Street to High Desert Road;
- Lenwood Road: High Desert Road to I-15 SB Off-Ramp; and
- Lenwood Road: I-15 SB Off Ramp to I-15 NB Off Ramp

Similar to the project-level traffic noise analysis, potential mitigation measures to reduce BIG's cumulative traffic noise impact at the impacted residence are infeasible due to safety and access issues, among other reasons. Therefore, Horizon Year 2048 cumulative traffic impacts from BIG would be significant and unavoidable.

Cumulative On-Site Operational Noise

There is one cumulative project within the vicinity of BIG that could result in overlapping BIG facility operational noise: the Electric Vehicle (EV) Charging and Logistics Facility located directly east of BIG (on the eastern side of Lenwood Road). All other cumulative projects are located over one mile from the BIG footprint and would not interact with and/or result in a noticeable increase in ambient noise levels when combined with BIG. Based on the Inverse Square Law of sound propagation[35] and the logarithmic addition of decibels, two separate noise sources producing the same noise level 5,280 feet (one mile) apart would not increase ambient noise levels at either location. Details regarding operational noise levels for the EV Charging and Logistics Facility are currently unavailable. However, based on the development type, a warehouse with heavy-duty truck trips and truck court loading operations, onsite (non-traffic noise) levels at this site would be expected to be similar to those at the BIG transload warehouse center, but at a smaller scale. The nearest sensitive receptors to BIG and the EV Charging and Logistics Facility are single-family residences located on the northeast corner of the Lenwood Road and Jasper Road intersection (receptors 41 through 51). As discussed above, a less than significant impact would occur at these receptors from BIG operations, and thus, BIG would not have a cumulatively considerable noise impact.

[35] A 6 dBA noise level reduction for each doubling of distance (Caltrans, 2013).

Based on the operational activities (heavy-duty truck trips and truck court loading, etc.) and proximity of the EV Charging and Logistics Facility project to the nearest sensitive receptors, this cumulative project is anticipated to be the primary contributor to potential increases in ambient noise levels and/or potential exceedances of County noise standards and would likely result in higher noise levels at these receptors than BIG. Thus, BIG operational noise levels would not be cumulatively considerable when combined or compared to the EV Charging and Logistics Facility project. In addition, the EV Charging and Logistics Facility project would be required to analyze and mitigate operational noise impacts in compliance with County noise standards and CEQA. Therefore, BIG would result in a less than significant cumulative impact regarding operational noise.

Table 62: Horizon Year 2048 Plus BIG Cumulative Roadway Traffic Noise Levels

Roadway	Segment	dBA CNEL at 100 feet from Roadway Centerline			Difference In dBA Between Existing (no BIG) and Horizon Year 2048 With BIG	Threshold	Exceeds Threshold?	Nearest Receptor Land Use Type	Horizon Year 2048 + BIG Noise Level at Nearest Receptor (dBA CNEL)	City/ County Noise Standard (dBA CNEL)	Exceeds Standard?	Impact?[2]
		Existing	Horizon Year 20483	Horizon Year 2048 + BIG								
Main Street	Hinkley Road to Country Club Drive	57.7	66.5	68.7	11.1	3.0	**Yes**	SF Residential	66.5	60	No	**Yes**
	Country Club Drive to Lenwood Road	57.7	67.1	68.7	11.1	3.0	**Yes**	SF Residential	68.1	65	**Yes**	**Yes**
	Lenwood Road to County/City Boundary	61.6	65.8	63.0	1.5	3.0	No	SF Residential	66.4	65	**Yes**	No[3]
	County/City Boundary to SR 58 Eastbound Ramps	62.6	50.3	63.0	0.4	3.0	No	Commercial	50.8	65	No	No
	SR 58 Eastbound Off Ramps to SR 58 Westbound Ramps	62.8	64.1	64.7	1.9	3.0	No	None	-	-	-	No
	SR 58 Westbound Ramps to L Street	61.3	67.8	63.9	2.6	5.0	No	SF Residential	67.8	65	**Yes**	No[3]
	L Street to Avenue A	61.4	65.8	62.0	0.6	3.0	No	MF Residential	65.9	65	**Yes**	No[3]
	Avenue A to Barstow Road	60.6	56.2	60.8	0.2	3.0	No	MF Residential	56.3	65	No	No
Barstow Road	Main Street to I-15 Southbound Ramps	63.4	71.0	64.3	0.8	3.0	No	SF Residential	71.1	65	**Yes**	No[3]
	I-15 Southbound Ramps to I-15 Northbound Ramps	63.9	57.5	65.7	1.8	3.0	No	SF Residential	57.5	65	No	**Yes**
	I-15 Northbound ramps to Rimrock Road	64.3	69.6	66.8	2.5	3.0	No	MF Residential	69.6	65	**Yes**	No[3]
Lenwood Road	SR 58 Westbound Ramps to Jasper Road	59.7	60.1	60.6	0.9	5.0	No	SF Residential	64.0	60	**Yes**	No[3]
	SR 58 Westbound Ramps to Community Boulevard	58.3	44.7	60.0	1.7	3.0	No	SF Residential	50.2	60	No	**Yes**
	Community Boulevard to Agate Road	61.2	66.8	66.8	5.5	5.0	**Yes**	SF Residential	68.2	65	Yes	**Yes**
	Agate Road to Jasper Road	63.0	55.3	69.3	6.3	5.0	**Yes**	SF Residential	56.9	65	No	**Yes**
	Main Street to High Desert Road	60.0	72.7	70.4	10.4	5.0	**Yes**	SF Residential	72.8	65	**Yes**	**Yes**
	High Desert Road to I-15 SB Off Ramp	66.2	59.3	72.9	6.7	1.5	**Yes**	Commercial	59.8	65	No	**Yes**
	I-15 SB Off Ramp to I-15 NB Off Ramp	62.2	64.3	68.5	6.4	1.5	**Yes**	Commercial	64.7	65	No	**Yes**
Hinkley Road	SR 58 Westbound Ramp to BIG Driveway	47.5	48.5	47.6	0.1	5.0	No	SF Residential	48.7	60	No	No
	BIG Driveway to Main Street[1]	47.5	47.6	-	-	-	-	-	-	-	-	-

Notes:
1. Hinkley Road would be vacated along this segment as part of BIG.
2. Cumulative roadway traffic noise impacts are analyzed against the FICON incremental noise increase standards and the applicable City or County noise standards; see Section 4.2, Cumulative Roadway Traffic Noise Analysis.
3. Existing roadway traffic noise levels already exceed the applicable City/County noise standard at receptors along this roadway segment, and BIG would not result in a substantial noise increase in roadway traffic noise levels when compared to existing conditions. See **Appendix A** for complete roadway traffic modeling results.

Source: Based on traffic data derived from the Traffic Impact Analysis (Kimley-Horn, 2025). Refer to **Appendix A** for roadway traffic noise modeling assumptions and results.

8.0 MITIGATION MEASURES

The following mitigation measure are proposed to reduce or avoid the potentially significant rail noise impacts identified above:

8.1 Mitigation Measure NOI-1: Construction Noise Logistics Plan

Prior to Grading Permit issuance, the Applicant shall demonstrate, to the satisfaction of the City of Barstow Director of Public Works or City Engineer that BIG includes a Nighttime Construction Noise Logistics Plan. The Construction Noise Logistics Plan shall identify the specific construction activity areas, list of construction equipment to be used during nighttime construction and include noise reduction measures to minimize nighttime construction noise levels at nearby residences to the extent feasible. Noise reduction measures may include, but are not limited to, the following:

- Install a temporary construction sound barrier near the noise source.
- Prohibit unnecessary idling of internal combustion engines. Post signs at gates and other places where vehicles may congregate reminding operators of the State's Airborne Toxic Control Measure (ATCM) limiting idling to no more than 5 minutes.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.
- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the BIG footprint.
- Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other State-required noise attenuation devices.
- Property owners and occupants located within 300 feet of the BIG footprint shall be sent a notice, at least 15 days prior to the commencement of nighttime construction activities, regarding the construction schedule of BIG. A sign, legible at 50 feet shall also be posted at BIG's construction site. All notices and signs shall be reviewed and approved by the Director of Planning, Building and Code Enforcement or Director's designee, prior to mailing or posting and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number for the Noise Disturbance Coordinator where residents can inquire about the construction process and register complaints.
- Prior to issuance of any Grading or Building Permit, the Contractor shall provide evidence that at all times during construction activities an onsite construction staff member will be designated as a Noise Disturbance Coordinator. The Noise Disturbance Coordinator is responsible for responding to complaints about construction noise. When a complaint is received, the Noise Disturbance Coordinator shall determine the cause (e.g., starting too early, bad muffler, etc.), implement reasonable measures to resolve the complaint, and document actions taken. All notices sent to residential units within 300 feet of the construction site and all signs posted at the construction site, shall include the contact name and the telephone number for the Noise Disturbance Coordinator.

8.2 Mitigation Measure NOI-2: Noise Barriers

BNSF shall construct three noise barriers as listed below to mitigate BIG's operational noise impacts:

- A 10-foot high, approximately 700-foot-long absorptive noise barrier surrounding the BESS equipment in the northeastern portion of the solar farm (BAR-2);
- A 10-foot-high, approximately 470-foot-long absorptive noise barrier surrounding the substation in the northeastern portion of the solar farm (BAR-3); and
- A 14-foot-high, approximately 150-foot-long absorptive noise barrier along the eastern and southern boundary of the emergency generators in the northeastern portion of the intermodal facility (BAR-5).

To be effective, the barriers shall be constructed with a solid material with no gaps in the face of the wall or at the base. Openings or gaps between sound wall materials or the ground substantially reduce the effectiveness of the noise barrier. All noise control barrier walls shall be designed to preclude structural failure due to such factors as winds, shear, shallow soil failure, earthquakes, and erosion. The City Building Official shall review and approve all proposed designs prior to the issuance of a building permit.

The approximate locations of the noise barriers are provided in Figure 23 and Figure 24 **(Modeled Noise Barrier Locations).**

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Appendix A

Noise Measurement and Modeling Data

Noise Measurement Field Data

Project:	BNSF Inland Port	**Job Number:**	195165003
Site No.:	ST-1	**Date:**	10/25/2023
Analyst:	Ryan Callahan, Simran Singh, Cameron Bauer, Hannah Thurlow	**Time:**	5:01 PM
Location:	Northwest Corner of Lenwood Road and Agate Road		
Noise Sources:	Railway, roadway (trucks), ambient animal noises		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
58.8	32.9	84.4	105.3

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	62°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.07"
Humidity:	27%

Photo:

Kimley»Horn

Summary

File Name on Meter	ST-.007.s
File Name on PC	LxTse_0007061-20221025 141121-ST-.007.ldbin
Serial Number	0007061
Model	SoundExpert® LxT
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2022-10-25 14:11:21
Stop	2022-10-25 15:11:21
Duration	01:00:00.0
Run Time	01:00:00.0
Pause	00:00:00.0
Pre-Calibration	2022-10-25 14:04:19
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	FF:90 2116
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	A Weighting
OBA Max Spectrum	At LMax
Overload	122.6 dB

	A	C	Z
Under Range Peak	**79.1**	76.1	81.1 dB
Under Range Limit	**24.3**	25.3	31.5 dB
Noise Floor	15.1	16.2	22.3 dB

	First	Second	Third
Instrument Identification	Kimley-Horn and Associates	1100 W. Town&Country Rd, #700	Orange, CA 92868

Results

LAeq	58.8 dB	
LAE	94.4 dB	
EA	303.431 µPa²h	
LApeak (max)	2022-10-25 14:36:35	105.3 dB
LASmax	2022-10-25 14:36:35	84.4 dB
LASmin	2022-10-25 14:15:55	32.9 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LApeak > 135.0 dB	0	0.0 s
LApeak > 137.0 dB	0	0.0 s
LApeak > 140.0 dB	0	0.0 s

	Ldn	LDay 07:00-22:00	LNight 22:00-07:00	Lden	LDay 07:00-19:00	LEvening 19:00-22:00	LNight 22:00-07:00	
Community Noise	58.8	58.8	-99.9	58.8	58.8	-99.9	-99.9	dB

LCeq	75.9 dB
LAeq	58.8 dB
LCeq - LAeq	17.1 dB
LAleq	62.7 dB
LAeq	58.8 dB
LAleq - LAeq	3.9 dB

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
Leq	58.8		75.9			
LS(max)	84.4	2022/10/25 14:36:35				
LS(min)	32.9	2022/10/25 14:15:55				
LPeak(max)	105.3	2022/10/25 14:36:35				

Overload Count	0
Overload Duration	0.0 s
OBA Overload Count	0
OBA Overload Duration	0.0 s

Statistics

LA 5.00	65.1 dB
LA 10.00	49.5 dB
LA 33.30	46.2 dB

LA 50.00	45.3 dB
LA 66.60	44.1 dB
LA 90.00	38.5 dB

Noise Measurement Field Data

Project:	BNSF Inland Port	**Job Number:**	195165003
Site No.:	ST-2	**Date:**	10/25/2023
Analyst:	Ryan Callahan, Simran Singh, Cameron Bauer, Hannah Thurlow	**Time:**	3:30 PM
Location:	Southeast corner of Dayton Ave and Asd Rd		
Noise Sources:	Ambient animal noises, occasional roadway traffic		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
54.9	34.8	72.7	92.3

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	62°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.07"
Humidity:	27%

Photo:



Kimley»Horn

Summary

File Name on Meter	22102500.RC0.s
File Name on PC	LxTse_0005586-20221025 152944-22102500.RC0.ldbin
Serial Number	0005586
Model	SoundExpert® LxT
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2022-10-25 15:29:44
Stop	2022-10-25 16:29:44
Duration	01:00:00.0
Run Time	01:00:00.0
Pause	00:00:00.0
Pre-Calibration	2022-10-25 15:27:04
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	A Weighting
OBA Max Spectrum	At LMax
Overload	122.5 dB

	A	**C**	**Z**
Under Range Peak	**79.0**	76.0	81.0 dB
Under Range Limit	**25.3**	25.9	31.6 dB
Noise Floor	16.1	16.8	22.5 dB

	First	**Second**	**Third**
Instrument Identification	Kimley-Horn & Associates, Inc.	1100 W.Town & Country Rd, 700	714.939.1030

Results

LAeq	54.9	dB
LAE	90.5	dB
EA	123.612	µPa²h
LApeak (max)	2022-10-25 15:59:40	92.3 dB
LASmax	2022-10-25 16:13:28	72.7 dB
LASmin	2022-10-25 16:14:14	34.8 dB
SEA	-99.9	dB

	Exceedance Counts	**Duration**
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LApeak > 135.0 dB	0	0.0 s
LApeak > 137.0 dB	0	0.0 s
LApeak > 140.0 dB	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**	
	54.9	54.9	-99.9	54.9	54.9	-99.9	-99.9	dB

LCeq	64.7	dB
LAeq	54.9	dB
LCeq - LAeq	9.8	dB
LAleq	57.9	dB
LAeq	54.9	dB
LAleq - LAeq	3.0	dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	54.9		64.7			
LS(max)	72.7	2022/10/25 16:13:28				
LS(min)	34.8	2022/10/25 16:14:14				
LPeak(max)	92.3	2022/10/25 15:59:40				

Overload Count	0	
Overload Duration	0.0	s
OBA Overload Count	0	
OBA Overload Duration	0.0	s

Statistics

LA 5.00	61.6	dB
LA 10.00	55.0	dB
LA 33.30	44.8	dB

LA 50.00	40.6 dB
LA 66.60	39.0 dB
LA 90.00	37.1 dB

Noise Measurement Field Data

Project:	BNSF Inland Port	**Job Number:**	195165003
Site No.:	ST-3	**Date:**	10/25/2023
Analyst:	Ryan Callahan, Simran Singh, Cameron Bauer, Hannah Thurlow	**Time:**	3:35 PM
Location:	Edge of 3rd Street, Near St. Philip Neri Catholic Church		
Noise Sources:	Ambient animal noises, occasional roadway traffic		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
43.8	32.6	59.3	86.1

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	62°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.07"
Humidity:	27%

Photo:

Kimley»Horn

Summary

File Name on Meter	ST-.008.s
File Name on PC	LxTse_0007061-20221025 153545-ST-.008.ldbin
Serial Number	0007061
Model	SoundExpert® LxT
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2022-10-25 15:35:45
Stop	2022-10-25 16:35:45
Duration	01:00:00.0
Run Time	01:00:00.0
Pause	00:00:00.0
Pre-Calibration	2022-10-25 15:33:19
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	FF:90 2116
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	A Weighting
OBA Max Spectrum	At LMax
Overload	122.7 dB

	A	**C**	**Z**
Under Range Peak	**79.2**	76.2	81.2 dB
Under Range Limit	**24.3**	25.4	31.5 dB
Noise Floor	15.1	16.2	22.4 dB

	First	**Second**	**Third**
Instrument Identification	Kimley-Horn and Associates	1100 W. Town&Country Rd, #700	Orange, CA 92868

Results

LAeq	43.8 dB		
LAE	79.4 dB		
EA	9.595 µPa²h		
LApeak (max)	2022-10-25 16:34:01	86.1 dB	
LASmax	2022-10-25 16:34:18	59.3 dB	
LASmin	2022-10-25 16:08:10	32.6 dB	
SEA	-99.9 dB		

	Exceedance Counts	**Duration**
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LApeak > 135.0 dB	0	0.0 s
LApeak > 137.0 dB	0	0.0 s
LApeak > 140.0 dB	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**	
	43.8	43.8	-99.9	43.8	43.8	-99.9	-99.9	dB

LCeq	60.1 dB		
LAeq	43.8 dB		
LCeq - LAeq	16.3 dB		
LAleq	47.6 dB		
LAeq	43.8 dB		
LAleq - LAeq	3.8 dB		

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	43.8		60.1			
LS(max)	59.3	2022/10/25 16:34:18				
LS(min)	32.6	2022/10/25 16:08:10				
LPeak(max)	86.1	2022/10/25 16:34:01				

Overload Count	0
Overload Duration	0.0 s
OBA Overload Count	0
OBA Overload Duration	0.0 s

Statistics

LA 5.00	49.8 dB
LA 10.00	46.6 dB
LA 33.30	41.4 dB

LA 50.00	39.4 dB
LA 66.60	38.0 dB
LA 90.00	35.8 dB

Noise Measurement Field Data

Project:	BNSF Inland Port	**Job Number:**	195165003
Site No.:	LT-1	**Date:**	10/25/2023
Analyst:	Ryan Callahan, Simran Singh, Cameron Bauer, Hannah Thurlow	**Time:**	12:44 PM
Location:	Main Steet		
Noise Sources:	Railway, roadway (trucks), ambient animal noises		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
53.7	26.1	87.3	122.2

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	66°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.05"
Humidity:	12%

Photo:

Kimley»Horn

Summary

File Name on Meter	LxT_Data.001.s
File Name on PC	LxT_0006999-20221020 044604-LxT_Data.001.ldbin
Serial Number	0006999
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2022-10-20 04:46:04
Stop	2022-10-21 04:55:05
Duration	24:09:00.703
Run Time	24:09:00.703
Pause	00:00:00.0
Pre-Calibration	2022-10-20 04:26:18
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Exponential
OBA Range	Low
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	Z Weighting
OBA Max Spectrum	Bin Max
Overload	121.7 dB

	A	C	Z
Under Range Peak	78.2	75.2	**80.2** dB
Under Range Limit	**24.0**	24.8	30.7 dB
Noise Floor	14.9	15.7	21.6 dB

	First	Second	Third
Instrument Identification			

Results

LASeq	53.7 dB	
LASE	103.1 dB	
EAS	2.265 mPa²h	
EAS8	750.153 µPa²h	
EAS40	3.751 mPa²h	
LZpeak (max)	2022-10-20 19:27:11	122.2 dB
LASmax	2022-10-21 04:28:55	87.3 dB
LASmin	2022-10-20 06:41:25	26.1 dB
SEA	138.6 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	1	3.5 s
LAS > 115.0 dB	0	0.0 s
LZpeak > 135.0 dB	0	0.0 s
LZpeak > 137.0 dB	0	0.0 s
LZpeak > 140.0 dB	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**	
	61.2	52.6	55.0	61.4	52.3	53.8	55.0	dB

LCSeq	72.7 dB	
LASeq	53.7 dB	
LCSeq - LASeq	19.0 dB	
LAleq	55.9 dB	
LAeq	53.7 dB	
LAleq - LAeq	2.2 dB	

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	53.7					
LS(max)	87.3	2022/10/21 4:28:55				
LS(min)	26.1	2022/10/20 6:41:25				
LPeak(max)					122.2	2022/10/20 19:27:11

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	-99.94	0.02	%
Projected Dose	-99.94	0.01	%
TWA (Projected)	-99.9	19.3	dB
TWA (t)	-99.9	27.3	dB
Lep (t)	58.5	58.5	dB

Statistics		
LAS 5.00	58.5	dB
LAS 10.00	56.4	dB
LAS 33.30	51.1	dB
LAS 50.00	47.8	dB
LAS 66.60	44.2	dB
LAS 90.00	37.5	dB

Noise Measurement Field Data

Project:	BNSF Inland Port	**Job Number:**	195165003
Site No.:	LT-2	**Date:**	10/25/2023
Analyst:	Ryan Callahan, Simran Singh, Cameron Bauer, Hannah Thurlow	**Time:**	12:18 PM
Location:	Main Steet		
Noise Sources:	Railway, roadway (trucks), ambient animal noises		
Comments:			
Results (dBA):			

Leq:	Lmin:	Lmax:	Peak:
69.9	16.1	106.0	121.8

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	68°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.04"
Humidity:	12%

Photo:



Kimley»Horn

Summary

File Name on Meter	LxT_Data.001.s
File Name on PC	LxT_0006996-20221020 042023-LxT_Data.001.ldbin
Serial Number	0006996
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2022-10-20 04:20:23
Stop	2022-10-21 04:49:07
Duration	24:28:43.797
Run Time	24:28:43.797
Pause	00:00:00.0
Pre-Calibration	2022-10-19 10:26:58
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Exponential
OBA Range	Low
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	Z Weighting
OBA Max Spectrum	Bin Max
Overload	121.3 dB

	A	**C**	**Z**	
Under Range Peak	77.8	74.8	**79.8**	dB
Under Range Limit	**23.9**	24.6	30.4	dB
Noise Floor	14.8	15.5	21.3	dB

	First	**Second**	**Third**
Instrument Identification			

Results

LASeq	69.9	dB	
LASE	119.4	dB	
EAS	95.687	mPa²h	
EAS8	31.272	mPa²h	
EAS40	156.358	mPa²h	
LZpeak (max)	2022-10-20 23:32:34	121.8	dB
LASmax	2022-10-20 23:32:35	106.0	dB
LASmin	2022-10-20 13:08:18	16.1	dB
SEA	134.8	dB	

	Exceedance Counts	**Duration**	
LAS > 85.0 dB	70	375.8	s
LAS > 115.0 dB	0	0.0	s
LZpeak > 135.0 dB	0	0.0	s
LZpeak > 137.0 dB	0	0.0	s
LZpeak > 140.0 dB	0	0.0	s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**
	77.2	69.1	71.0	77.3	69.7	65.3	71.0

LCSeq	78.3	dB
LASeq	69.9	dB
LCSeq - LASeq	8.4	dB
LAIeq	72.1	dB
LAeq	69.9	dB
LAIeq - LAeq	2.2	dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	69.9					
LS(max)	106.0	2022/10/20 23:32:35				

$L_{S(min)}$	16.1	2022/10/20 13:08:18				
$L_{Peak(max)}$					121.8	2022/10/20 23:32:34

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	0.20	2.02	%
Projected Dose	0.07	0.66	%
TWA (Projected)	37.1	53.8	dB
TWA (t)	45.2	61.9	dB
Lep (t)	74.8	74.8	dB

Statistics		
LAS 5.00	76.7	dB
LAS 10.00	73.6	dB
LAS 33.30	53.6	dB
LAS 50.00	44.8	dB
LAS 66.60	39.2	dB
LAS 90.00	31.8	dB

Noise Measurement Field Data

Project:	BNSF Inland Port	**Job Number:**	194091003
Site No.:	LT-3	**Date:**	10/25/2023
Analyst:	Ryan Callahan, Simran Singh, Cameron Bauer, Hannah Thurlow	**Time:**	2:08 PM
Location:	Main Steet		
Noise Sources:	Railway, roadway (trucks), ambient animal noises		
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
60.8	34.5	100.3	121.5

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	69°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.04"
Humidity:	12%

Photo:



Kimley»Horn

Summary

File Name on Meter	LxT_Data.001.s
File Name on PC	LxT_0006393-20221020 065605-LxT_Data.001.ldbin
Serial Number	0006393
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2022-10-20 06:56:05
Stop	2022-10-21 07:00:45
Duration	24:04:39.398
Run Time	24:04:39.398
Pause	00:00:00.0
Pre-Calibration	2022-10-20 06:02:37
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Exponential
OBA Range	Low
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	Z Weighting
OBA Max Spectrum	Bin Max
Overload	121.8 dB

	A	C	Z
Under Range Peak	78.4	75.4	**80.4** dB
Under Range Limit	**24.1**	24.9	30.8 dB
Noise Floor	14.9	15.8	21.7 dB

	First	Second	Third
Instrument Identification			

Results

LASeq	60.8 dB		
LASE	110.2 dB		
EAS	11.579 mPa²h		
EAS8	3.847 mPa²h		
EAS40	19.236 mPa²h		
LZpeak (max)	2022-10-20 11:19:04	121.5 dB	
LASmax	2022-10-20 11:19:04	100.3 dB	
LASmin	2022-10-20 20:34:50	34.5 dB	
SEA	131.5 dB		

	Exceedance Counts	Duration
LAS > 85.0 dB	5	26.2 s
LAS > 115.0 dB	0	0.0 s
LZpeak > 135.0 dB	0	0.0 s
LZpeak > 137.0 dB	0	0.0 s
LZpeak > 140.0 dB	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**
	66.5	61.2	59.9	66.6	62.0	54.7	59.9

LCSeq	72.3 dB	
LASeq	60.8 dB	
LCSeq - LASeq	11.5 dB	
LAIeq	63.8 dB	
LAeq	60.8 dB	
LAIeq - LAeq	3.0 dB	

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	60.8					
LS(max)	100.3	2022/10/20 11:19:04				

$L_{S(min)}$	34.5	2022/10/20 20:34:50				
$L_{Peak(max)}$					121.5	2022/10/20 11:19:04

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	0.05	0.13	%
Projected Dose	0.02	0.04	%
TWA (Projected)	27.2	33.9	dB
TWA (t)	35.1	41.8	dB
Lep (t)	65.6	65.6	dB

Statistics		
LAS 5.00	65.1	dB
LAS 10.00	62.0	dB
LAS 33.30	53.4	dB
LAS 50.00	49.7	dB
LAS 66.60	46.5	dB
LAS 90.00	41.4	dB

Noise Measurement Field Data

Project:	BNSF Inland Port	**Job Number:**	195165003
Site No.:	LT-4	**Date:**	10/25/2023
Analyst:	Ryan Callahan, Simran Singh, Cameron Bauer, Hannah Thurlow	**Time:**	5:31 PM
Location:	Along Jasper Road, south of single-family residential neghborhood.		
Noise Sources:			
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
61.6	29.7	97.7	117.2

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	69°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.04"
Humidity:	12%

Photo:

Kimley»Horn

Summary

File Name on Meter	LT_.008.s
File Name on PC	LxTse_0007061-20221025 173057-LT_.008.ldbin
Serial Number	0007061
Model	SoundExpert® LxT
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2022-10-25 17:30:57
Stop	2022-10-26 17:40:15
Duration	24:09:18.102
Run Time	24:09:18.102
Pause	00:00:00.0
Pre-Calibration	2022-10-25 17:28:00
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	FF:90 2116
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	A Weighting
OBA Max Spectrum	At LMax
Overload	122.6 dB

	A	**C**	**Z**
Under Range Peak	**79.1**	76.1	81.1 dB
Under Range Limit	**24.3**	25.3	31.4 dB
Noise Floor	15.1	16.2	22.3 dB

	First	**Second**	**Third**
Instrument Identification	Kimley-Horn and Associates	1100 W. Town&Country Rd, #700	Orange, CA 92868

Results

L_{Aeq}	61.6 dB	
LAE	111.0 dB	
EA	13.966 mPa^2h	
$L_{Apeak\ (max)}$	2022-10-26 15:01:23	117.2 dB
L_{ASmax}	2022-10-26 15:01:23	97.7 dB
L_{ASmin}	2022-10-26 04:35:49	29.7 dB
SEA	-99.9 dB	

	Exceedance Counts	**Duration**
LAS > 85.0 dB	6	17.4 s
LAS > 115.0 dB	0	0.0 s
L_{Apeak} > 135.0 dB	0	0.0 s
L_{Apeak} > 137.0 dB	0	0.0 s
L_{Apeak} > 140.0 dB	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**	
	66.1	62.6	59.0	66.6	62.6	62.4	59.0	dB

L_{Ceq}	78.6 dB	
L_{Aeq}	61.6 dB	
L_{Ceq} - L_{Aeq}	17.0 dB	
L_{AIeq}	64.1 dB	
L_{Aeq}	61.6 dB	
L_{AIeq} - L_{Aeq}	2.5 dB	

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	61.6		78.6			
$L_{S(max)}$	97.7	2022/10/26 15:01:23				
$L_{S(min)}$	29.7	2022/10/26 4:35:49				
$L_{Peak(max)}$	117.2	2022/10/26 15:01:23				

Statistics

LA 5.00	67.7 dB
LA 10.00	63.5 dB
LA 33.30	53.6 dB
LA 50.00	49.7 dB
LA 66.60	46.7 dB
LA 90.00	40.5 dB

Noise Measurement Field Data

Project:	BNSF Inland Port	**Job Number:**	194091003
Site No.:	LT-5	**Date:**	10/25/2023
Analyst:	Ryan Callahan, Simran Singh, Cameron Bauer, Hannah Thurlow	**Time:**	3:07 PM
Location:	West of the Ash Rd and Anderson Ave intersection		
Noise Sources:			
Comments:			

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
52.6	21.5	84.4	122.6

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	69°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.04"
Humidity:	12%

Photo:



Kimley»Horn

Summary

File Name on Meter	LxT_Data.001.s
File Name on PC	LxT_0007092-20221020 070550-LxT_Data.001.ldbin
Serial Number	0007092
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2022-10-20 07:05:50
Stop	2022-10-21 07:17:19
Duration	24:11:29.703
Run Time	24:11:29.703
Pause	00:00:00.0
Pre-Calibration	2022-10-19 10:18:30
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Exponential
OBA Range	Low
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	Z Weighting
OBA Max Spectrum	Bin Max
Overload	122.1 dB

	A	C	Z
Under Range Peak	78.6	75.6	**80.6** dB
Under Range Limit	**24.1**	25.1	31.0 dB
Noise Floor	15.0	15.9	21.9 dB

	First	Second	Third
Instrument Identification			

Results

LASeq	52.6 dB	
LASE	102.0 dB	
EAS	1.761 mPa²h	
EAS8	582.304 µPa²h	
EAS40	2.912 mPa²h	
LZpeak (max)	2022-10-20 21:52:47	122.6 dB
LASmax	2022-10-20 20:06:24	84.4 dB
LASmin	2022-10-20 22:27:52	21.5 dB
SEA	145.5 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LZpeak > 135.0 dB	0	0.0 s
LZpeak > 137.0 dB	0	0.0 s
LZpeak > 140.0 dB	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**	
	58.1	53.2	51.4	58.8	52.1	56.0	51.4	dB

LCSeq	72.7 dB
LASeq	52.6 dB
LCSeq - LASeq	20.1 dB
LAleq	56.2 dB
LAeq	52.6 dB
LAleq - LAeq	3.6 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	52.6					
LS(max)	84.4	2022/10/20 20:06:24				
LS(min)	21.5	2022/10/20 22:27:52				
LPeak(max)					122.6	2022/10/20 21:52:47

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	-99.94	0.00	%
Projected Dose	-99.94	0.00	%
TWA (Projected)	-99.9	8.1	dB
TWA (t)	-99.9	16.1	dB
Lep (t)	57.4	57.4	dB

Statistics		
LAS 5.00	56.7	dB
LAS 10.00	53.6	dB
LAS 33.30	47.3	dB
LAS 50.00	44.4	dB
LAS 66.60	41.2	dB
LAS 90.00	34.4	dB

Noise Measurement Field Data

Project:	BNSF Inland Port	**Job Number:**	195165003
Site No.:	LT-6	**Date:**	10/25/2023
Analyst:	Ryan Callahan, Simran Singh, Cameron Bauer, Hannah Thurlow	**Time:**	5:01 PM
Location:	Northwest Corner of Lenwood Road and Agate Road		
Noise Sources:			
Comments:			

Results (dBA):

Leq:	**Lmin:**	**Lmax:**	**Peak:**
64.8	29.6	93.8	107.1

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	69°
Wind (mph):	< 5
Sky:	Clear
Bar. Pressure:	30.04"
Humidity:	12%

Photo:



Kimley»Horn

Summary

File Name on Meter	22102501.RC0.s
File Name on PC	LxTse_0005586-20221025 170104-22102501.RC0.ldbin
Serial Number	0005586
Model	SoundExpert® LxT
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2022-10-25 17:01:04
Stop	2022-10-26 17:24:50
Duration	24:23:46.297
Run Time	24:23:46.297
Pause	00:00:00.0
Pre-Calibration	2022-10-25 15:27:04
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Frequency Weighting	A Weighting
OBA Max Spectrum	At LMax
Overload	122.5 dB

	A	**C**	**Z**
Under Range Peak	**79.0**	76.0	81.0 dB
Under Range Limit	**25.3**	25.9	31.6 dB
Noise Floor	16.1	16.8	22.5 dB

	First	**Second**	**Third**
Instrument Identification	Kimley-Horn & Associates, Inc.	1100 W.Town & Country Rd, 700	714.939.1030

Results

LAeq	64.8	dB
LAE	114.2	dB
EA	29.470	mPa²h
LApeak (max)	2022-10-26 02:06:51	107.1 dB
LASmax	2022-10-25 20:40:54	93.8 dB
LASmin	2022-10-26 04:57:23	29.6 dB
SEA	-99.9	dB

	Exceedance Counts	**Duration**
LAS > 85.0 dB	16	31.7 s
LAS > 115.0 dB	0	0.0 s
LApeak > 135.0 dB	0	0.0 s
LApeak > 137.0 dB	0	0.0 s
LApeak > 140.0 dB	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**	
	69.2	65.8	62.0	69.5	66.2	63.9	62.0	dB

LCeq	79.6	dB
LAeq	64.8	dB
LCeq - LAeq	14.8	dB
LAleq	68.1	dB
LAeq	64.8	dB
LAleq - LAeq	3.3	dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	64.8		79.6			
LS(max)	93.8	2022/10/25 20:40:54				
LS(min)	29.6	2022/10/26 4:57:23				
LPeak(max)	107.1	2022/10/26 2:06:51				

Project: **BNSF BIG Barstow - Block Swap Yard**

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Reference Level (50 Feet)	50	0	

Construction Phase	Equipment Type	No. of Equip.	Acoustical Usage Factor	Reference Noise Level at 50ft per Unit, Lmax	RECEPTOR 1 Noise Level at Receptor 1, Lmax	 Noise Level at Receptor 1, Leq
1 Demo, Site Preparation, Mobilization						
	Excavator	7	40%	81	89.2	85.2
	Front End Loader	7	40%	79	87.6	83.6
	Generator	4	50%	81	86.6	83.6
	Scraper	30	40%	84	98.4	94.4
	Dump Truck	101	40%	77	96.5	92.6
	Dozer	19	40%	82	94.5	90.5
	Flat Bed Truck	2	40%	74	77.3	73.3
Combined LEQ						**98.1**
2 Mass Grading						
	Excavator	51	40%	81	97.8	93.8
	Front End Loader	66	40%	79	97.3	93.3
	Generator	4	50%	81	86.6	83.6
	Scraper	163	40%	84	105.7	101.7
	Dump Truck	172	40%	77	98.9	94.9
	Roller	3	20%	80	84.8	77.8
	Grader	3	40%	85	89.8	85.8
	Dozer	142	40%	82	103.2	99.2
	Flat Bed Truck	20	40%	74	87.3	83.3
Combined LEQ						**105.0**
3 Drainage and Underground						
	Excavator	3	40%	81	85.5	81.5
	Front End Loader	3	40%	79	83.9	79.9
	Generator	4	50%	81	86.6	83.6
	Crane	3	16%	81	85.4	77.4
	Dump Truck	7	40%	77	85.0	81.0
	Concrete Pump Truck	1	20%	81	81.4	74.4
	Flat Bed Truck	2	40%	74	77.3	73.3
Combined LEQ						**88.4**
4 Bridges and Box Culverts						
	Excavator	6	40%	81	88.5	84.5
	Front End Loader	5	40%	79	86.1	82.1
	Generator	4	50%	81	86.6	83.6
	Generator	8	50%	81	89.6	86.6
	Crane	3	16%	81	85.4	77.4
	Dump Truck	8	40%	77	85.5	81.6
	Auger Drill Rig	1	20%	84	84.4	77.4
	Backhoe	1	40%	78	77.6	73.6
	Concrete Pump Truck	1	20%	81	81.4	74.4
	Roller	1	20%	80	80.0	73.0
	Grader	1	40%	85	85.0	81.0
	Dozer	1	40%	82	81.7	77.7
	Flat Bed Truck	2	40%	74	77.3	73.3
Combined LEQ						**92.2**
5 Fine Grading/Place Subballast						
	Generator	4	50%	81	86.6	83.6
	Front End Loader	4	40%	79	85.1	81.1
	Slurry Trenching Machine	4	50%	80	86.4	83.4
	Roller	20	20%	80	93.0	86.0
	Grader	20	40%	85	98.0	94.0
	Dozer	11	40%	82	92.1	88.1
	Flat Bed Truck	20	40%	74	87.3	83.3
Combined LEQ						**96.4**
6 Track and Signal						
	Excavator	5	40%	81	87.7	83.7
	Front End Loader	5	40%	79	86.1	82.1
	Generator	4	50%	81	86.6	83.6
	Generator	8	50%	81	89.6	86.6
	Dump Truck	1	40%	77	76.5	72.5
	Paver	2	50%	77	80.2	77.2
	Front End Loader	2	40%	79	82.1	78.1
	Backhoe	1	40%	78	77.6	73.6
	Grapple (on backhoe)	2	40%	87	90.0	86.0
	Compactor (ground)	1	20%	83	83.2	76.2
	Paver	1	50%	77	77.2	74.2
	Dozer	2	40%	82	84.7	80.7
	Flat Bed Truck	1	40%	74	74.3	70.3
Combined LEQ						**92.7**
7 Track and Signal						
	Excavator	2	40%	81	83.7	79.7
	Front End Loader	2	40%	79	82.1	78.1
	Generator	4	50%	81	86.6	83.6
	Generator	8	50%	81	89.6	86.6
	Crane	1	16%	81	80.6	72.6
	Dump Truck	2	40%	77	79.5	75.5
	Paver	1	50%	77	77.2	74.2
	Front End Loader	1	40%	79	79.1	75.1
	Backhoe	1	40%	78	77.6	73.6
	Grapple (on backhoe)	1	40%	87	87.0	83.0
	Compactor (ground)	1	20%	83	83.2	76.2
	Paver	1	50%	77	77.2	74.2
	Dozer	1	40%	82	81.7	77.7
	Flat Bed Truck	1	40%	74	74.3	70.3
Combined LEQ						**91.2**

Source for Ref. Noise Levels: RCNM, 2005

Project: **BNSF BIG Barstow - Intermodal Facility**

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Reference Level (50 Feet)	50	0	

Construction Phase	Equipment Type	No. of Equip.	Acoustical Usage Factor	Reference Noise Level at 50ft per Unit, Lmax	RECEPTOR 1 Noise Level at Receptor 1, Lmax	RECEPTOR 1 Noise Level at Receptor 1, Leq
1 Demo, Site Preparation, Mobilization						
	Excavator	3	40%	81	85.5	81.5
	Front End Loader	3	40%	79	83.9	79.9
	Generator	4	50%	81	86.6	83.6
	Scraper	11	40%	84	94.0	90.0
	Dump Truck	36	40%	77	92.1	88.1
	Dozer	7	40%	82	90.2	86.2
	Flat Bed Truck	2	40%	74	77.3	73.3
Combined LEQ						**94.1**
2 Mass Grading						
	Excavator	13	40%	81	91.8	87.9
	Front End Loader	16	40%	79	91.1	87.2
	Generator	4	50%	81	86.6	83.6
	Scraper	39	40%	84	99.5	95.5
	Dump Truck	41	40%	77	92.6	88.6
	Roller	1	20%	80	80.0	73.0
	Grader	1	40%	85	85.0	81.0
	Dozer	34	40%	82	97.0	93.0
	Flat Bed Truck	20	40%	74	87.3	83.3
Combined LEQ						**99.1**
3 Drainage and Underground						
	Excavator	7	40%	81	89.2	85.2
	Front End Loader	9	40%	79	88.6	84.7
	Generator	4	50%	81	86.6	83.6
	Slurry Trenching Machine	1	50%	80	80.4	77.4
	Crane	1	16%	81	80.6	72.6
	Dump Truck	23	40%	77	90.1	86.1
	Flat Bed Truck	2	40%	74	77.3	73.3
Combined LEQ						**91.3**
4 Bridges and Box Culverts						
	Excavator	5	40%	81	87.7	83.7
	Front End Loader	4	40%	79	85.1	81.1
	Generator	4	50%	81	86.6	83.6
	Generator	8	50%	81	89.6	86.6
	Crane	3	16%	81	85.4	77.4
	Dump Truck	7	40%	77	85.0	81.0
	Auger Drill Rig	1	20%	84	84.4	77.4
	Backhoe	2	40%	78	80.6	76.6
	Concrete Pump Truck	1	20%	81	81.4	74.4
	Roller	1	20%	80	80.0	73.0
	Grader	1	40%	85	85.0	81.0
	Dozer	1	40%	82	81.7	77.7
	Flat Bed Truck	2	40%	74	77.3	73.3
Combined LEQ						**92.0**
5 Fine Grading/Place Subballast						
	Generator	4	50%	81	86.6	83.6
	Roller	10	20%	80	90.0	83.0
	Grader	10	40%	85	95.0	91.0
	Dozer	5	40%	82	88.7	84.7
	Flat Bed Truck	20	40%	74	87.3	83.3
Combined LEQ						**93.4**
6 Buildings/Pavement						
	Excavator	2	40%	81	83.7	79.7
	Front End Loader	2	40%	79	82.1	78.1
	Generator	4	50%	81	86.6	83.6
	Generator	8	50%	81	89.6	86.6
	Backhoe	1	40%	78	77.6	73.6
	Crane	1	16%	81	80.6	72.6
	Dump Truck	4	40%	77	82.5	78.5
	Auger Drill Rig	1	20%	84	84.4	77.4
	Backhoe	2	40%	78	80.6	76.6
	Concrete Pump Truck	1	20%	81	81.4	74.4
	Roller	1	20%	80	80.0	73.0
	Grader	1	40%	85	85.0	81.0
	Dozer	1	40%	82	81.7	77.7
	Flat Bed Truck	1	40%	74	74.3	70.3
Combined LEQ						**91.2**
7 Track and Signal						
	Excavator	2	40%	81	83.7	79.7
	Front End Loader	2	40%	79	82.1	78.1
	Generator	4	50%	81	86.6	83.6
	Generator	8	50%	81	89.6	86.6
	Crane	1	16%	81	80.6	72.6
	Dump Truck	2	40%	77	79.5	75.5
	Paver	1	50%	77	77.2	74.2
	Front End Loader	1	40%	79	79.1	75.1
	Backhoe	1	40%	78	77.6	73.6
	Grapple (on backhoe)	1	40%	87	87.0	83.0
	Compactor (ground)	1	20%	83	83.2	76.2
	Paver	1	50%	77	77.2	74.2
	Dozer	1	40%	82	81.7	77.7
	Flat Bed Truck	1	40%	74	74.3	70.3
Combined LEQ						**91.2**

Source for Ref. Noise Levels: RCNM, 2005

Project: **BNSF BIG Barstow - Warehouse**

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Reference Level (50 Feet)	50	0	

					RECEPTOR	**1**
Construction Phase	**Equipment Type**	**No. of Equip.**	**Acoustical Usage Factor**	**Reference Noise Level at 50ft per Unit, Lmax**	**Noise Level at Receptor 1, Lmax**	**Noise Level at Receptor 1, Leq**
1 Warehouse Construction						
	Generator	4	50%	81	86.6	83.6
	Generator	8	50%	81	89.6	86.6
	Dump Truck	69	40%	77	94.9	90.9
	Concrete Pump Truck	4	20%	81	87.4	80.4
	Roller	3	20%	80	84.8	77.8
	Grader	3	40%	85	89.8	85.8
	Dozer	3	40%	82	86.5	82.5
	Flat Bed Truck	2	40%	74	77.3	73.3
Combined LEQ						**94.3**
2 Civil Site Improvements						
	Excavator	51	40%	81	97.8	93.8
	Front End Loader	66	40%	79	97.3	93.3
	Generator	4	50%	81	86.6	83.6
	Scraper	163	40%	84	105.7	101.7
	Dump Truck	172	40%	77	98.9	94.9
	Roller	3	20%	80	84.8	77.8
	Grader	3	40%	85	89.8	85.8
	Dozer	142	40%	82	103.2	99.2
	Flat Bed Truck	20	40%	74	87.3	83.3
Combined LEQ						**105.0**

Source for Ref. Noise Levels: RCNM, 2005

Project: **BNSF BIG Barstow - East Leads**

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Reference Level (50 Feet)	50	0	

						RECEPTOR	1
Construction Phase	**Equipment Type**	**No. of Equip.**	**Acoustical Usage Factor**	**Reference Noise Level at 50ft per Unit, Lmax**	**Noise Level at Receptor 1, Lmax**	**Noise Level at Receptor 1, Leq**
1 Demo, Site Preparation, Mobilization						
	Excavator	1	40%	81	80.7	76.7
	Generator	4	50%	81	86.6	83.6
	Front End Loader	1	40%	79	79.1	75.1
	Scraper	4	40%	84	89.6	85.6
	Dump Truck	5	40%	77	83.5	79.5
	Dozer	1	40%	82	81.7	77.7
	Flat Bed Truck	2	40%	74	77.3	73.3
Combined LEQ						**89.3**
2 Mass Grading						
	Excavator	2	40%	81	83.7	79.7
	Generator	4	50%	81	86.6	83.6
	Grapple (on backhoe)	1	40%	87	87.0	83.0
	Front End Loader	2	40%	79	82.1	78.1
	Scraper	4	40%	84	89.6	85.6
	Dump Truck	4	40%	77	82.5	78.5
	Roller	1	20%	80	80.0	73.0
	Grader	1	40%	85	85.0	81.0
	Dozer	4	40%	82	87.7	83.7
	Flat Bed Truck	20	40%	74	87.3	83.3
Combined LEQ						**92.1**
3 Bridges and Box Culverts						
	Auger Drill Rig	1	20%	84	84.4	77.4
	Crane	1	16%	81	80.6	72.6
	Excavator	2	40%	81	83.7	79.7
	Generator	4	50%	81	86.6	83.6
	Grader	1	40%	85	85.0	81.0
	Generator	8	50%	81	89.6	86.6
	Grapple (on backhoe)	3	40%	87	91.8	87.8
	Roller	1	20%	80	80.0	73.0
	Dozer	1	40%	82	81.7	77.7
	Front End Loader	2	40%	79	82.1	78.1
	Backhoe	1	40%	78	77.6	73.6
	Dump Truck	3	40%	77	81.3	77.3
	Flat Bed Truck	2	40%	74	77.3	73.3
Combined LEQ						**92.6**
4 Fine Grading/Place Subballast						
	Generator	4	50%	81	86.6	83.6
	Grader	8	40%	85	94.0	90.1
	Roller	8	20%	80	89.0	82.0
	Dozer	4	40%	82	87.7	83.7
	Flat Bed Truck	20	40%	74	87.3	83.3
Combined LEQ						**92.7**
5 Track and Signal						
	Crane	1	16%	81	80.6	72.6
	Excavator	2	40%	81	83.7	79.7
	Generator	4	50%	81	86.6	83.6
	Generator	8	50%	81	89.6	86.6
	Dump Truck	3	40%	77	81.3	77.3
	Grapple (on backhoe)	4	40%	87	93.0	89.0
	Paver	2	50%	77	80.2	77.2
	Compactor (ground)	1	20%	83	83.2	76.2
	Dozer	1	40%	82	81.7	77.7
	Front End Loader	3	40%	79	83.9	79.9
	Backhoe	1	40%	78	77.6	73.6
Combined LEQ						**92.8**

Source for Ref. Noise Levels: RCNM, 2005

Project: **BNSF BIG Barstow - West Leads**

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Reference Level (50 Feet)	50	0	

					RECEPTOR	1
Construction Phase	**Equipment Type**	**No. of Equip.**	**Acoustical Usage Factor**	**Reference Noise Level at 50ft per Unit, Lmax**	**Noise Level at Receptor 1, Lmax**	**Noise Level at Receptor 1, Leq**
1 Demo, Site Preparation, Mobilization						
	Excavator	1	40%	81	80.7	76.7
	Front End Loader	1	40%	79	79.1	75.1
	Generator	4	50%	81	86.6	83.6
	Scraper	1	40%	84	83.6	79.6
	Dump Truck	3	40%	77	81.3	77.3
	Dozer	1	40%	82	81.7	77.7
	Flat Bed Truck	2	40%	74	77.3	73.3
Combined LEQ						**87.3**
2 Mass Grading						
	Excavator	2	40%	81	83.7	79.7
	Front End Loader	3	40%	79	83.9	79.9
	Generator	4	50%	81	86.6	83.6
	Scraper	5	40%	84	90.6	86.6
	Dump Truck	2	40%	77	79.5	75.5
	Roller	1	20%	80	80.0	73.0
	Grader	1	40%	85	85.0	81.0
	Dozer	5	40%	82	88.7	84.7
	Flat Bed Truck	20	40%	74	87.3	83.3
Combined LEQ						**92.0**
3 Bridges and Box Culverts						
	Excavator	6	40%	81	88.5	84.5
	Front End Loader	6	40%	79	86.9	82.9
	Generator	4	50%	81	86.6	83.6
	Generator	8	50%	81	89.6	86.6
	Crane	3	16%	81	85.4	77.4
	Dump Truck	9	40%	77	86.0	82.1
	Auger Drill Rig	1	20%	84	84.4	77.4
	Backhoe	2	40%	78	80.6	76.6
	Concrete Pump Truck	1	20%	81	81.4	74.4
	Roller	1	20%	80	80.0	73.0
	Grader	1	40%	85	85.0	81.0
	Dozer	1	40%	82	81.7	77.7
	Flat Bed Truck	2	40%	74	77.3	73.3
Combined LEQ						**92.4**
4 Fine Grading/Place Subballast						
	Generator	4	50%	81	86.6	83.6
	Roller	3	20%	80	84.8	77.8
	Grader	3	40%	85	89.8	85.8
	Dozer	2	40%	82	84.7	80.7
	Flat Bed Truck	20	40%	74	87.3	83.3
Combined LEQ						**90.0**
5 Track and Signal						
	Excavator	2	40%	81	83.7	79.7
	Front End Loader	2	40%	79	82.1	78.1
	Generator	4	50%	81	86.6	83.6
	Generator	8	50%	81	89.6	86.6
	Crane	1	16%	81	80.6	72.6
	Dump Truck	2	40%	77	79.5	75.5
	Paver	1	50%	77	77.2	74.2
	Front End Loader	1	40%	79	79.1	75.1
	Backhoe	1	40%	78	77.6	73.6
	Grapple (on backhoe)	2	40%	87	90.0	86.0
	Compactor (ground)	1	20%	83	83.2	76.2
	Paver	1	50%	77	77.2	74.2
	Concrete Pump Truck	1	20%	81	81.4	74.4
	Dozer	1	40%	82	81.7	77.7
	Flat Bed Truck	1	40%	74	74.3	70.3
Combined LEQ						**91.9**

Source for Ref. Noise Levels: RCNM, 2005

Project: **BNSF BIG Barstow - Solar Farm**

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Reference Level (50 Feet)	50	0	

					RECEPTOR	1
Construction Phase	**Equipment Type**	**No. of Equip.**	**Acoustical Usage Factor**	**Reference Noise Level at 50ft per Unit, Lmax**	**Noise Level at Receptor 1, Lmax**	**Noise Level at Receptor 1, Leq**
1 Solar South						
	Excavator	1	40%	81	80.7	76.7
	Backhoe	1	40%	78	77.6	73.6
	Crane	1	16%	81	80.6	72.6
	Generator	4	50%	81	86.6	83.6
	Generator	8	50%	81	89.6	86.6
	Front End Loader	1	40%	79	79.1	75.1
	Backhoe	1	40%	78	77.6	73.6
	Mounted Impact Hammer (hoe ram)	1	20%	90	90.3	83.3
	Man Lift	1	20%	75	74.7	67.7
	Compactor (ground)	1	20%	83	83.2	76.2
	Flat Bed Truck	1	40%	74	74.3	70.3
	Flat Bed Truck	1	40%	74	74.3	70.3
	Dozer	1	40%	82	81.7	77.7
Combined LEQ						**90.7**

Source for Ref. Noise Levels: RCNM, 2005

Project: **BNSF BIG Barstow - 33 kV Line**

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Reference Level (50 Feet)	50	0	

					RECEPTOR	1
Construction Phase	**Equipment Type**	**No. of Equip.**	**Acoustical Usage Factor**	**Reference Noise Level at 50ft per Unit, Lmax**	**Noise Level at Receptor 1, Lmax**	**Noise Level at Receptor 1, Leq**
1 33 kV Distribution UG						
	Excavator	3	40%	81	85.5	81.5
	Backhoe	2	40%	78	80.6	76.6
	Crane	1	16%	81	80.6	72.6
	Generator	4	50%	81	86.6	83.6
	Generator	8	50%	81	89.6	86.6
	Dump Truck	1	40%	77	76.5	72.5
	Auger Drill Rig	1	20%	84	84.4	77.4
	Horizontal Boring Hydr. Jack	1	25%	82	82.0	76.0
	Pickup Truck	1	40%	75	75.0	71.0
	Backhoe	1	40%	78	77.6	73.6
	Man Lift	3	20%	75	79.5	72.5
	Compactor (ground)	3	20%	83	88.0	81.0
	Flat Bed Truck	3	40%	74	79.1	75.1
	Flat Bed Truck	3	40%	74	79.1	75.1
Combined LEQ						**91.0**

Source for Ref. Noise Levels: RCNM, 2005

Project: **BNSF BIG Barstow - East Leads**

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Reference Level (50 Feet)	50	0	

					RECEPTOR	**1**
Construction Phase	**Equipment Type**	**No. of Equip.**	**Acoustical Usage Factor**	**Reference Noise Level at 50ft per Unit, Lmax**	**Noise Level at Receptor 1, Lmax**	**Noise Level at Receptor 1, Leq**
3 Bridges and Box Culverts						
	Auger Drill Rig	1	20%	84	84.4	77.4
	Crane	1	16%	81	80.6	72.6
	Excavator	2	40%	81	83.7	79.7
	Generator	4	50%	81	86.6	83.6
	Grader	1	40%	85	85.0	81.0
	Generator	8	50%	81	89.6	86.6
	Grapple (on backhoe)	3	40%	87	91.8	87.8
	Roller	1	20%	80	80.0	73.0
	Dozer	1	40%	82	81.7	77.7
	Front End Loader	2	40%	79	82.1	78.1
	Backhoe	1	40%	78	77.6	73.6
	Flat Bed Truck	2	40%	74	77.3	73.3
Combined LEQ						**92.5**

Source for Ref. Noise Levels: RCNM, 2005

Project: **BNSF BIG Barstow - Sweeten Lane Paving**

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Reference Level (50 Feet)	50	0	

					RECEPTOR	**1**
Construction Phase	**Equipment Type**	**No. of Equip.**	**Acoustical Usage Factor**	**Reference Noise Level at 50ft per Unit, Lmax**	**Noise Level at Receptor 1, Lmax**	**Noise Level at Receptor 1, Leq**
1 Paving						
	Paver	1	50%	77	77.2	74.2
	Roller	1	20%	80	80.0	73.0
Combined LEQ						**76.7**

Source for Ref. Noise Levels: RCNM, 2005

Project: **BNSF BIG Barstow - Bridge Demolition**

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

	Receptor (Land Use)	Distance (feet)	Shielding	Direction
1	Reference Level (50 Feet)	50	0	

					RECEPTOR	1
Construction Phase	**Equipment Type**	**No. of Equip.**	**Acoustical Usage Factor**	**Reference Noise Level at 50ft per Unit, Lmax**	**Noise Level at Receptor 1, Lmax**	**Noise Level at Receptor 1, Leq**
1 Demolition						
	Jackhammer	2	20%	89	91.9	84.9
			#N/A	#N/A	0.0	0.0
	Combined LEQ					**84.9**

Source for Ref. Noise Levels: RCNM, 2005

SoundPLAN Modeling Results - Construction

Receiver	Land Use	Block Swap Yard	Intermodal Facility	Transload Warehouse Center	East Lead Tracks	West Lead Tracks	Solar Farm	Lenwood Channel	33 kV Line	Concrete Batch Plant	Pile Driving	Sweeten Lane Paving	Bridge Demolition	Combined - All Areas
		Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day
		Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
1	Residential	61.7	63.8	55.5	0.0	32.5	42.4	31.4	0.0	20.1	53.2	18.7	45.7	66.5
2	Residential	61.0	62.1	54.6	27.3	28.5	46.5	34.9	30.1	18.2	52.3	21.9	46.1	65.4
3	Residential	61.3	62.6	54.4	33.0	22.6	52.1	38.4	33.2	20.3	54.0	25.8	46.6	65.9
4	Residential	61.0	61.4	54.2	34.9	0.0	56.3	40.3	34.8	22.7	55.4	51.4	46.2	65.9
5	Residential	61.9	53.7	58.3	47.5	0.0	54.5	60.8	47.8	26.6	73.7	44.6	52.6	74.4
6	Residential	61.3	50.5	58.2	50.2	0.0	51.3	73.4	50.8	24.5	73.6	40.8	51.6	76.8
7	Residential	61.4	48.9	58.4	52.7	0.0	49.5	61.2	53.4	23.6	71.6	0.0	50.4	72.7
8	Residential	55.9	44.7	56.5	63.0	0.0	45.3	53.3	72.1	19.8	64.1	0.0	44.2	73.4
9	Residential	55.4	44.3	56.4	66.4	0.0	45.0	52.6	81.1	19.5	63.6	0.0	43.7	81.4
10	Residential	54.9	44.0	56.1	66.6	0.0	44.6	52.2	81.1	19.2	63.1	0.0	43.2	81.3
11	Residential	54.5	43.7	56.0	66.5	0.0	44.4	51.8	82.2	19.0	62.7	0.0	42.9	82.4
12	Residential	54.1	43.5	55.7	67.0	0.0	44.1	51.5	83.0	18.7	62.4	0.0	42.6	83.2
13	Residential	53.7	43.2	55.5	68.3	0.0	43.8	51.0	84.2	18.4	62.0	0.0	42.2	84.3
14	Residential	54.5	43.6	56.3	69.9	0.0	44.2	51.2	75.8	19.0	62.7	0.0	42.9	77.0
15	Residential	52.6	42.4	55.1	71.6	0.0	43.0	49.7	65.1	17.7	61.0	0.0	41.2	72.9
16	Residential	49.8	40.2	52.8	69.9	0.0	41.0	47.3	55.0	15.4	58.3	0.0	38.5	70.5
17	Residential	49.5	39.9	52.6	70.2	0.0	40.8	47.1	54.3	15.1	58.0	0.0	38.2	70.7
18	Residential	48.9	39.5	52.0	66.4	0.0	40.5	46.7	53.1	14.6	57.4	0.0	37.7	67.3
19	Residential	48.4	39.0	51.6	66.6	0.0	40.0	46.1	51.8	14.1	56.8	0.0	37.1	67.4
20	Residential	48.0	38.6	51.2	67.2	0.0	39.7	45.6	51.0	13.8	56.4	0.0	36.7	67.8
21	Residential	47.8	38.5	51.1	68.5	0.0	39.6	45.4	50.7	13.7	56.3	0.0	36.5	69.0
22	Residential	47.6	38.3	50.9	67.9	0.0	39.4	45.3	50.4	13.5	56.1	0.0	36.4	68.4
23	Residential	47.3	38.0	50.6	67.0	0.0	39.2	44.9	49.7	13.2	55.8	0.0	35.8	67.6
24	Residential	46.5	37.3	50.0	68.0	0.0	38.6	44.2	48.4	12.6	55.1	0.0	35.1	68.4
25	Residential	46.4	37.1	49.8	67.8	0.0	38.5	44.0	48.1	12.4	54.9	0.0	34.9	68.2
26	Residential	46.1	37.0	49.6	67.6	0.0	38.3	43.8	47.7	12.2	54.7	0.0	34.7	68.0
27	Residential	45.8	36.5	49.3	66.8	0.0	38.1	43.5	47.2	11.9	54.4	0.0	34.4	67.2
28	Residential	45.4	36.1	49.0	67.3	0.0	37.7	43.0	46.6	11.6	54.0	0.0	34.0	67.6
29	Residential	44.4	34.9	48.5	66.8	0.0	36.7	41.5	45.0	10.8	53.1	0.0	33.1	67.1
30	Residential	44.8	35.3	48.8	67.9	0.0	37.1	42.0	45.7	11.1	53.5	0.0	33.5	68.2
31	Residential	45.1	35.8	49.1	67.5	0.0	37.3	42.4	46.1	11.4	53.8	0.0	33.8	67.8
32	Residential	45.4	36.0	49.3	67.3	0.0	37.5	42.6	46.5	11.6	54.0	28.0	34.0	67.6
33	Residential	45.6	36.1	49.5	65.5	0.0	37.6	42.6	46.7	11.8	54.2	33.9	34.2	66.0
34	Residential	45.8	36.3	49.8	65.5	0.0	37.8	42.9	47.1	12.0	54.4	33.3	34.4	66.1
35	Residential	46.2	36.8	50.1	65.6	0.0	38.1	43.2	47.7	12.3	54.8	32.8	34.8	66.2
36	Park	46.6	37.2	50.5	67.5	0.0	38.4	43.7	48.5	12.7	55.2	32.4	35.2	67.9
37	Residential	47.0	37.5	51.0	64.7	0.0	38.6	43.9	49.0	13.1	55.6	32.1	35.6	65.6
38	Residential	47.6	38.0	51.5	64.5	0.0	39.0	44.3	49.8	13.5	56.1	31.7	36.0	65.5
39	Residential	47.9	38.4	51.8	66.2	0.0	39.3	44.8	50.6	13.8	56.5	32.1	36.6	67.0
40	Residential	48.5	38.8	52.3	66.2	0.0	39.7	45.2	51.5	14.3	57.0	30.4	37.1	67.1
41	Residential	51.5	41.3	55.4	62.6	0.0	41.7	47.3	57.2	17.0	60.1	27.9	40.1	66.0
42	Residential	51.8	41.4	55.7	62.1	0.0	41.9	47.4	57.4	17.2	60.3	27.6	40.3	65.9
43	Residential	52.2	41.7	56.2	61.4	0.0	42.0	47.5	57.6	17.6	60.7	27.2	40.7	65.8
44	Residential	52.4	41.8	56.6	60.8	0.0	42.2	47.6	57.6	17.8	61.0	26.6	41.0	65.8
45	Residential	51.3	41.1	55.4	61.8	0.0	41.5	47.0	56.4	16.9	59.9	26.2	39.9	65.4
46	Residential	51.6	41.3	55.8	61.1	0.0	41.7	47.1	56.5	17.1	60.2	26.1	40.2	65.3
47	Residential	52.0	41.6	56.3	60.4	0.0	41.9	47.2	56.7	17.5	60.6	25.9	40.6	65.3
48	Residential	52.3	41.7	56.6	59.9	0.0	42.0	47.3	56.8	17.8	60.9	25.6	40.8	65.3
49	Residential	52.1	41.6	56.8	58.9	0.0	41.8	46.9	55.8	17.7	60.8	24.9	40.7	64.9
50	Residential	52.5	41.8	57.3	58.4	0.0	42.0	47.0	55.7	18.1	61.2	24.7	41.0	65.0
51	Residential	53.0	42.2	58.1	57.6	0.0	42.3	47.1	55.4	18.6	61.8	24.5	41.5	65.3
52	Residential	59.3	58.8	55.7	0.0	43.7	33.1	0.0	0.0	30.2	66.7	24.2	48.4	68.3
53	Residential	59.5	58.9	55.8	0.0	42.7	33.7	0.0	0.0	30.5	65.1	23.8	47.7	67.3
54	Residential	51.2	49.3	49.1	0.0	60.4	0.0	0.0	0.0	20.9	63.9	22.5	42.1	65.9
55	Residential	50.2	48.1	48.3	0.0	63.4	0.0	0.0	0.0	19.7	62.5	23.0	41.3	66.2
56	Residential	49.7	47.5	47.9	0.0	63.8	0.0	0.0	0.0	19.1	61.8	23.3	40.8	66.2
57	Residential	49.2	47.0	47.5	0.0	62.9	0.0	0.0	0.0	18.6	61.1	23.5	40.3	65.4
58	Residential	48.7	46.3	47.0	0.0	63.0	0.0	0.0	0.0	18.0	60.3	23.7	39.8	65.1
59	Residential	47.5	45.1	46.0	0.0	62.2	0.0	0.0	0.0	16.8	58.7	23.8	38.7	64.0
60	Residential	46.9	44.4	45.5	0.0	61.0	0.0	0.0	0.0	16.2	57.9	24.2	38.1	63.0

SoundPLAN Modeling Results - Construction

Receiver	Land Use	Block Swap Yard	Intermodal Facility	Transload Warehouse Center	East Lead Tracks	West Lead Tracks	Solar Farm	Lenwood Channel	33 kV Line	Concrete Batch Plant	Pile Driving	Sweeten Lane Paving	Bridge Demolition	Combined - All Areas
		Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day
		Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP	Level w/o NP
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
61	Residential	45.8	43.2	44.5	0.0	64.6	0.0	0.0	0.0	15.1	56.6	24.7	37.1	65.4
62	Residential	35.9	34.1	35.7	0.0	65.6	0.0	0.0	0.0	7.7	47.9	24.9	29.7	65.7
63	Residential	34.1	32.3	34.1	0.0	61.2	0.0	0.0	0.0	6.5	46.6	25.4	28.5	61.4
64	Residential	33.9	32.0	33.0	0.0	62.6	0.0	0.0	0.0	3.9	46.3	25.8	28.3	62.7
65	School	49.4	40.0	52.1	63.0	0.0	41.0	47.5	54.2	15.0	57.8	26.2	38.1	65.0
66	Park	49.5	40.3	51.8	59.7	0.0	41.4	48.5	54.2	15.1	57.9	28.7	38.2	63.3
67	Church	44.9	35.2	49.3	60.8	0.0	36.8	41.4	45.4	11.2	53.7	28.9	33.5	62.1
68	Church	50.2	41.1	51.8	56.9	0.0	42.4	50.5	54.7	15.6	58.5	29.1	38.9	62.8
69	School	41.4	30.6	47.1	54.4	0.0	32.7	37.6	40.7	8.6	50.9	29.2	30.5	56.9
70	Church	45.2	35.2	51.5	52.0	0.0	36.3	39.8	44.0	11.9	54.5	28.5	33.7	58.2
71	Residential	20.5	0.0	0.0	0.0	59.7	0.0	0.0	0.0	0.0	39.4	28.6	0.0	59.7
72	Residential	0.0	0.0	0.0	0.0	59.4	0.0	0.0	0.0	0.0	0.0	28.8	0.0	59.4
73	Residential	0.0	0.0	0.0	0.0	59.0	0.0	0.0	0.0	0.0	0.0	29.0	0.0	59.0
74	Residential	0.0	0.0	0.0	0.0	64.3	0.0	0.0	0.0	0.0	0.0	28.7	0.0	64.3
75	Residential	0.0	0.0	0.0	0.0	63.4	0.0	0.0	0.0	0.0	0.0	28.9	0.0	63.4
76	Residential	0.0	0.0	0.0	0.0	64.7	0.0	0.0	0.0	0.0	0.0	29.2	0.0	64.7
77	Residential	0.0	0.0	0.0	0.0	55.1	0.0	0.0	0.0	0.0	0.0	27.8	0.0	55.1
78	Residential	0.0	0.0	0.0	0.0	52.4	0.0	0.0	0.0	0.0	0.0	28.3	0.0	52.4
79	Residential	0.0	0.0	0.0	0.0	61.6	0.0	0.0	0.0	0.0	0.0	22.7	0.0	61.6
80	Residential	0.0	0.0	0.0	0.0	62.0	0.0	0.0	0.0	0.0	0.0	29.5	0.0	62.0
81	Residential	0.0	0.0	0.0	0.0	52.4	0.0	0.0	0.0	0.0	0.0	19.4	0.0	52.4
82	Residential	0.0	0.0	0.0	0.0	55.4	0.0	0.0	0.0	0.0	0.0	22.0	0.0	55.4
83	Residential	59.3	51.5	56.6	48.0	0.0	53.5	63.5	48.5	24.7	69.9	56.3	49.4	71.6
84	Residential	58.8	51.5	56.1	47.6	0.0	53.9	61.8	48.0	24.6	68.7	67.5	48.7	72.1
85	Residential	43.1	33.5	47.4	68.0	0.0	35.7	40.2	43.2	9.7	52.0	21.4	31.9	68.2
86	Residential	57.9	55.7	52.8	37.2	0.0	61.1	42.9	36.7	24.8	56.5	30.8	43.5	64.7
87	Residential	57.6	54.9	53.4	40.3	0.0	75.7	46.6	39.6	27.9	59.5	35.4	44.4	75.9
88	Residential	58.0	55.2	53.8	40.7	0.0	73.0	47.3	40.1	28.8	60.2	36.4	45.0	73.5
89	Residential	58.1	55.3	53.9	41.0	0.0	69.7	47.7	40.4	29.0	60.6	37.1	45.2	70.7
90	Residential	57.8	54.6	54.1	42.1	0.0	64.3	49.5	41.6	28.4	61.8	39.3	45.6	67.4
	Receptor	5	1	7	15	62	87	6	13	53	5	83	5	13
	Land Use	Residential	Residential	Residential	Residential	Residential	Residential	Residential	Residential	Residential	Residential	Residential	Residential	Residential
	Noise Level	61.9	63.8	58.4	71.6	65.6	75.7	73.4	84.2	30.5	73.7	67.5	52.6	84.3

Tracker Motor Combined Noise Level

Solar Site 1

$$L_\Sigma = 10 \cdot \log_{10}(n) + L_1$$

Reference Noise Level:[1]	68	dBA
Reference Distance:	3	feet
Number of Sources:	83	(total number of tracker motors)
Total Noise Level (at 3 feet):	87.2	dBA

Solar Site 2

$$L_\Sigma = 10 \cdot \log_{10}(n) + L_1$$

Reference Noise Level:[1]	68	dBA
Reference Distance:	3	feet
Number of Sources:	252	(total number of tracker motors)
Total Noise Level (at 3 feet):	92.0	dBA

Solar Site 3

$$L_\Sigma = 10 \cdot \log_{10}(n) + L_1$$

Reference Noise Level:[1]	68	dBA
Reference Distance:	3	feet
Number of Sources:	18	(total number of tracker motors)
Total Noise Level (at 3 feet):	80.5	dBA

1. Reference noise level of 68 dbA @ 3' per Hankard Environmental, *Luning Solar Energy Center Noise Measurement and Analysis Results* , https://apps.psc.wi.gov/ERF/ERFview/viewdoc.aspx?docid=384115

2. Calculated with the inverse square law:

where: dBA_1 = Reference Noise Level, dBA_2 = Estimated Noise Level, d_1 = Reference Distance, and d_2 = Receptor Location Distance

Noise emissions of railway traffic - Existing

Existing Mainline - W of West Leads	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	32	14	113	3747	yes	85.4	84.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	474551.792	3848421.213	6.40	-	-	-	-	-

Existing Mainline - W of Hinkley Horn Crossing 2	Rail track:	Direction:	Section: 1	Km: 9+325

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	32	14	113	3747	yes	85.4	84.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
9+325	482508.691	3852935.036	6.00	-	-	-	-	-

isting Mainline - E of East Leads	Rail track:	Direction:	Section: 1	Km: 18+722

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	32	14	113	3747	yes	85.4	84.0
0	0	0	-	-	-	-	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
18+722	489106.537	3859097.085	13.59	-	-	-	-	-

Existing Mainline - Hinkley Crossing (Horn) 2	Rail track:	Direction:	Section: 1	Km: 10+870

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	32	14	113	3747	yes	86.7	85.3

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+870	482888.438	3854406.782	1.85	-	-	-	-	-

Existing Mainline - E of Hinkley Horn Crossing	Rail track:	Direction:	Section: 1	Km: 11+323

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	32	14	113	3747	yes	85.4	84.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
11+323	483107.968	3854801.387	-	-	-	-	-	-

Existing Mainline - Hinkley Crossing (Horn) 1	Rail track:	Direction:	Section: 1	Km: 10+487

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	32	14	113	3747	yes	86.7	85.3

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+487	482820.355	3854031.671	5.20	-	-	-	-	-

Noise emissions of railway traffic - 2026 No BIG

Existing Mainline - W of West Leads	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	33	14	113	3747	yes	85.6	84.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	474551.792	3848421.213	6.40	-	-	-	-	-

Existing Mainline - W of Hinkley Horn Crossing 2	Rail track:	Direction:	Section: 1	Km: 9+325

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	33	14	113	3747	yes	85.6	84.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
9+325	482508.691	3852935.036	6.00	-	-	-	-	-

Existing Mainline - E of East Leads	Rail track:	Direction:	Section: 1	Km: 18+722

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	33	14	113	3747	yes	85.6	84.0
0	0	0	-	-	-	-	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
18+722	489106.537	3859097.085	13.59	-	-	-	-	-

Existing Mainline - Hinkley Crossing (Horn) 2	Rail track:	Direction:	Section: 1	Km: 10+870

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	33	14	113	3747	yes	86.8	85.3

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+870	482888.438	3854406.782	1.85	-	-	-	-	-

Existing Mainline - E of Hinkley Horn Crossing	Rail track:	Direction:	Section: 1	Km: 11+323

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	33	14	113	3747	yes	85.6	84.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
11+323	483107.968	3854801.387	-	-	-	-	-	-

Existing Mainline - Hinkley Crossing (Horn) 1	Rail track:	Direction:	Section: 1	Km: 10+487

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	33	14	113	3747	yes	86.8	85.3

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+487	482820.355	3854031.671	5.20	-	-	-	-	-

Noise emissions of railway traffic - 2026 With BIG

Existing Mainline - W of South Main	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	33	14	113	3747	yes	85.6	84.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	474551.792	3848421.213	3.62	-	-	-	-	-

South Mainline (Interim)	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	33	14	113	3747	yes	85.6	84.1

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	482516.696	3852935.120	6.00	-	-	-	-	-

Existing Mainline - E of South Main	Rail track:	Direction:	Section: 1	Km: 18+722

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	33	14	113	3747	yes	85.6	84.0
0	0	0	-	-	-	-	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
18+722	489106.537	3859097.085	13.59	-	-	-	-	-

Noise emissions of industry sources - BIG Stationary Sources

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
IMF	Lw/unit	Day	124.3	124.3	-	-	-
		Night	124.3	124.3	-	-	-
		Lmax	124.3	124.3	-	-	-
Block Swap	Lw/unit	Day	118.8	118.8	-	-	-
		Night	118.8	118.8	-	-	-
		Lmax	118.8	118.8	-	-	-
Truck Court 3	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
Truck Court 4	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
Truck Court 5	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
Truck Court 6	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
Truck Court 1	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
Truck Court 2	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
Truck Court 12	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
Truck Court 11	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
Truck Court 12	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
Truck Court 13	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
Truck Court 19	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
Truck Court 2	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
Truck Court 10	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
Truck Court 10		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
Truck Court 19	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-

Noise emissions of industry sources - BIG Stationary Sources

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
Truck Court 19		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
	Lw/unit	Day	121.2	121.2	-	-	-
		Night	121.2	121.2	-	-	-
		Lmax	121.2	121.2	-	-	-
Solar Array 1	Lw/unit	Day	97.4	97.4	-	-	-
		Night	-	-	-	-	-
		Lmax	97.4	97.4	-	-	-
Solar Array 2	Lw/unit	Day	102.2	102.2	-	-	-
		Night	-	-	-	-	-
		Lmax	102.2	102.2	-	-	-
Solar Array 3	Lw/unit	Day	90.7	90.7	-	-	-
		Night	-	-	-	-	-
		Lmax	90.7	90.7	-	-	-
Railcar Coupling 1	Lw/unit	Day	94.3	94.3	-	-	-
		Night	91.7	91.7	-	-	-
		Lmax	123.9	123.9	-	-	-
Railcar Coupling 2	Lw/unit	Day	94.3	94.3	-	-	-
		Night	91.7	91.7	-	-	-
		Lmax	123.9	123.9	-	-	-
Railcar Coupling 3	Lw/unit	Day	94.3	94.3	-	-	-
		Night	91.7	91.7	-	-	-
		Lmax	123.9	123.9	-	-	-
BESS HVAC 2	Lw/unit	Day	73.0	73.0	-	-	-
		Night	73.0	73.0	-	-	-
		Lmax	73.0	73.0	-	-	-

Noise emissions of industry sources - BIG Stationary Sources

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
BESS HVAC 1	Lw/unit	Day	73.0	73.0	-	-	-
		Night	73.0	73.0	-	-	-
		Lmax	73.0	73.0	-	-	-
3000 KV Transformer 1	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	81.5	81.5	-	-	-
3000 KV Transformer 2	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
Solar Array Inverter 1	Lw/unit	Day	91.8	91.8	-	-	-
		Night	-	-	-	-	-
		Lmax	91.8	91.8	-	-	-
Solar Array Inverter 2	Lw/unit	Day	91.8	91.8	-	-	-
		Night	-	-	-	-	-
		Lmax	91.8	91.8	-	-	-
Solar Array Inverter 3	Lw/unit	Day	91.8	91.8	-	-	-
		Night	-	-	-	-	-
		Lmax	91.8	91.8	-	-	-
Solar Array Inverter 4	Lw/unit	Day	91.8	91.8	-	-	-
		Night	-	-	-	-	-
		Lmax	91.8	91.8	-	-	-
Solar Array Inverter 5	Lw/unit	Day	91.8	91.8	-	-	-
		Night	-	-	-	-	-
		Lmax	91.8	91.8	-	-	-
Solar Array Inverter 6	Lw/unit	Day	91.8	91.8	-	-	-
		Night	-	-	-	-	-
		Lmax	91.8	91.8	-	-	-
Solar Array Inverter 7	Lw/unit	Day	91.8	91.8	-	-	-
		Night	-	-	-	-	-
		Lmax	91.8	91.8	-	-	-
Solar Array Inverter 8	Lw/unit	Day	91.8	91.8	-	-	-
		Night	-	-	-	-	-
		Lmax	91.8	91.8	-	-	-
HVAC 1	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 2	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 3	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 4	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 5	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 6	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 7	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 8	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 9	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 10	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 11	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-

Noise emissions of industry sources - BIG Stationary Sources

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
HVAC 11		Lmax	86.9	86.9	-	-	-
HVAC 12	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 13	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 14	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 15	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 16	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 17	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 18	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 19	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 20	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 21	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 22	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 23	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 24	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 25	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 26	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 27	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 28	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 29	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 30	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 31	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 32	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 33	Lw/unit	Day	86.9	86.9	-	-	-

Noise emissions of industry sources - BIG Stationary Sources

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
HVAC 33		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 34	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 35	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 36	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 37	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 38	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 39	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 40	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 41	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 42	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 43	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 44	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 45	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 46	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 47	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 48	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 49	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 50	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 51	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 52	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 53	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 54	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-

Noise emissions of industry sources - BIG Stationary Sources

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
HVAC 55	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 56	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 57	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 58	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 59	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 60	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 61	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 62	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 63	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 64	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 65	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 66	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 67	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 68	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 69	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 70	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 71	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 72	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 73	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 74	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 75	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 76	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
HVAC 76		Lmax	86.9	86.9	-	-	-
HVAC 77	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 78	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 79	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 80	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 81	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 82	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 83	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 84	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 85	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 86	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 87	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 88	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 89	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 90	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 91	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 92	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 93	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 94	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 95	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 96	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 97	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 98	Lw/unit	Day	86.9	86.9	-	-	-

Noise emissions of industry sources - BIG Stationary Sources

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
HVAC 98		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 99	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 100	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 101	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 102	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 103	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 104	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 105	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 106	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 107	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 108	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 109	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 110	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 111	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 112	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 113	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 114	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 115	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 116	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 117	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 118	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 119	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-

Noise emissions of industry sources - BIG Stationary Sources

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
HVAC 120	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 121	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 122	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 123	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 124	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 125	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 126	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
HVAC 127	Lw/unit	Day	86.9	86.9	-	-	-
		Night	86.9	86.9	-	-	-
		Lmax	86.9	86.9	-	-	-
Solar Array Inverter 9	Lw/unit	Day	91.8	91.8	-	-	-
		Night	-	-	-	-	-
		Lmax	91.8	91.8	-	-	-
Solar Array Inverter 10	Lw/unit	Day	91.8	91.8	-	-	-
		Night	-	-	-	-	-
		Lmax	91.8	91.8	-	-	-
Solar Array Inverter 11	Lw/unit	Day	91.8	91.8	-	-	-
		Night	-	-	-	-	-
		Lmax	91.8	91.8	-	-	-
Solar Array Inverter 12	Lw/unit	Day	91.8	91.8	-	-	-
		Night	-	-	-	-	-
		Lmax	91.8	91.8	-	-	-
BESS HVAC 3	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 4	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 5	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 6	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 7	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 8	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 9	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 10	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 11	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 12	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
BESS HVAC 12		Lmax	86.0	86.0	-	-	-
BESS HVAC 13	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 14	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 15	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 16	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 17	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 18	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 19	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 20	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 21	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 22	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 23	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 24	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 25	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 26	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 27	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 28	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 29	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 30	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 31	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 32	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 33	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 34	Lw/unit	Day	86.0	86.0	-	-	-

Noise emissions of industry sources - BIG Stationary Sources

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
BESS HVAC 34		Night	86.0	86.0	-	-	-
		Lmax	86.0	86.0	-	-	-
BESS HVAC 35	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 36	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 37	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 38	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 39	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 40	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 41	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 42	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 43	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 44	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 45	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 46	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 47	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 48	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 49	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 50	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 51	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
BESS HVAC 52	Lw/unit	Day	86.0	86.0	-	-	-
		Night	86.0	86.0	-	-	-
		Lmax	73.0	73.0	-	-	-
3000 KV Transformer 3	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 4	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 5	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-

Noise emissions of industry sources - BIG Stationary Sources

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	Corrections CI dB	Corrections CT dB
			dB(A)				
3000 KV Transformer 6	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 7	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 8	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 9	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 10	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 11	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 12	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 13	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 14	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 15	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 16	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 17	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 18	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 19	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 20	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 21	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 22	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 23	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 24	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 25	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
3000 KV Transformer 26	Lw/unit	Day	116.8	116.8	-	-	-
		Night	116.8	116.8	-	-	-
		Lmax	116.8	116.8	-	-	-
Substation Transformer	Lw/unit	Day	115.3	115.3	-	-	-
		Night	115.3	115.3	-	-	-

Noise emissions of industry sources - BIG Stationary Sources

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
Substation Transformer		Lmax	115.3	115.3	-	-	-
Substation Inverter 1	Lw/unit	Day	91.8	91.8	-	-	-
		Night	91.8	91.8	-	-	-
		Lmax	91.8	91.8	-	-	-
Block Swap Train Horn	Lw/unit	Day	126.9	126.9	-	-	-
		Night	126.9	126.9	-	-	-
		Lmax	147.7	147.7	-	-	-

Noise emissions of railway traffic - 2028 No BIG

Existing Mainline - W of West Leads	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	34	15	113	3747	yes	85.7	84.3

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	474551.792	3848421.213	6.40	-	-	-	-	-

Existing Mainline - W of Hinkley Horn Crossing 2	Rail track:	Direction:	Section: 1	Km: 9+325

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	34	15	113	3747	yes	85.7	84.3

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
9+325	482508.691	3852935.036	6.00	-	-	-	-	-

Existing Mainline - E of East Leads	Rail track:	Direction:	Section: 1	Km: 18+722

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	34	15	113	3747	yes	85.7	84.3
0	0	0	-	-	-	-	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
18+722	489106.537	3859097.085	13.59	-	-	-	-	-

Existing Mainline - Hinkley Crossing (Horn) 2	Rail track:	Direction:	Section: 1	Km: 10+870

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	34	15	113	3747	yes	86.9	85.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+870	482888.438	3854406.782	1.85	-	-	-	-	-

Existing Mainline - E of Hinkley Horn Crossing	Rail track:	Direction:	Section: 1	Km: 11+323

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	34	15	113	3747	yes	85.7	84.3

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
11+323	483107.968	3854801.387	-	-	-	-	-	-

Existing Mainline - Hinkley Crossing (Horn) 1	Rail track:	Direction:	Section: 1	Km: 10+487

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	34	15	113	3747	yes	86.9	85.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+487	482820.355	3854031.671	5.20	-	-	-	-	-

Noise emissions of railway traffic - 2028 With BIG

Mainline - W of West Leads (ALL)	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	37	16	113	3747	yes	86.1	84.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	474551.792	3848421.213	3.70	-	-	-	-	-

Block Swap - West 2	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	7	3	32	3724	yes	68.2	66.8

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	483328.840	3854951.536	-	-	-	-	-	-

Block Swap - West 1b	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	7	3	32	3724	yes	68.2	66.8

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	483932.465	3855250.821	-	-	-	-	-	-

South Mainline	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	11	5	113	3747	yes	80.8	79.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	482518.093	3852935.271	6.00	-	-	-	-	-

IMF - 4 East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	1	32	3724	yes	59.8	62.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	486619.891	3856921.999	5.80	-	-	-	-	-

IMF - 3 East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	486545.121	3857000.115	3.70	-	-	-	-	-

Noise emissions of railway traffic - 2028 With BIG

IMF - 2 East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	486490.848	3857052.636	2.15	-	-	-	-	-

IMF - 1 East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	486478.169	3857129.344	0.85	-	-	-	-	-

Block Swap East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	14	6	32	3724	yes	71.3	69.8

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	487592.453	3858123.541	-	-	-	-	-	-

IMF + Block Swap - East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	14	6	32	3724	yes	71.3	69.8

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	487968.738	3858349.503	7.19	-	-	-	-	-

IMF + Block Swap West	Rail track:	Direction:	Section: 1	Km: 10+053

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	14	6	32	3724	yes	71.3	69.8

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+053	482515.272	3852939.660	6.00	-	-	-	-	-

IMF West Lead	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	2	1	32	3724	yes	62.8	62.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	482827.115	3853692.675	4.68	-	-	-	-	-

Noise emissions of railway traffic - 2028 With BIG

IMF - 1 West	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	483716.344	3854846.750	2.95	-	-	-	-	-

IMF - 2 West	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	483725.491	3854836.849	3.30	-	-	-	-	-

IMF - 3 West	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	483725.400	3854828.942	3.60	-	-	-	-	-

IMF - 4 West	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	1	32	3724	yes	59.8	62.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	483908.617	3854871.585	5.24	-	-	-	-	-

North Mainline - 1	Rail track:	Direction:	Section: 1	Km: 9+325

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	11	5	113	3747	yes	80.8	79.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
9+325	482509.262	3852961.590	6.00	-	-	-	-	-

Mainline - E of BIG	Rail track:	Direction:	Section: 1	Km: 18+722

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	22	10	113	3747	yes	83.8	82.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
18+722	489104.943	3859108.245	13.00	-	-	-	-	-

Noise emissions of railway traffic - 2028 With BIG

North Mainline - 2	Rail track:	Direction:	Section: 1	Km: 10+870

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	11	5	113	3747	yes	80.8	79.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+870	482888.438	3854406.782	1.00	-	-	-	-	-

Block Swap - West 1a	Rail track:	Direction:	Section: 1	Km: 1+912

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	7	3	32	3724	yes	68.2	66.8

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
1+912	482836.323	3853781.316	4.62	-	-	-	-	-

West Leads (BIG)	Rail track:	Direction:	Section: 1	Km: 3+639

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	14	6	64	3724	yes	77.0	75.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
3+639	477796.510	3849921.902	6.00	-	-	-	-	-

Mainline - W of BIG	Rail track:	Direction:	Section: 1	Km: 3+639

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	22	10	64	3747	yes	79.1	77.9

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
3+639	477797.062	3849938.641	6.00	-	-	-	-	-

East Leads (BIG)	Rail track:	Direction:	Section: 1	Km: 18+722

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	17	7	64	3724	yes	77.9	76.2
0	0	0	-	-	-	-	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
18+722	488917.555	3858980.752	13.50	-	-	-	-	-

IMF East Lead	Rail track:	Direction:	Section: 1	Km: 0+517

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	2	1	32	3724	yes	62.8	62.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+517	486802.146	3857381.606	1.25	-	-	-	-	-

Noise emissions of railway traffic - 2028 With BIG

Mainline - E of East Leads (ALL)	Rail track:	Direction:	Section: 1	Km: 21+099

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	34	15	113	3747	yes	85.7	84.3

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
21+099	491234.041	3860148.102	13.20	-	-	-	-	-

Noise emissions of railway traffic - 2033 No BIG

Existing Mainline - W of West Leads	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	37	16	113	3747	yes	86.1	84.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	474551.792	3848421.213	6.40	-	-	-	-	-

Existing Mainline - W of Hinkley Horn Crossing 2	Rail track:	Direction:	Section: 1	Km: 9+325

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	37	16	113	3747	yes	86.1	84.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
9+325	482508.691	3852935.036	6.00	-	-	-	-	-

Existing Mainline - E of East Leads	Rail track:	Direction:	Section: 1	Km: 18+722

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	37	16	113	3747	yes	86.1	84.6
0	0	0	-	-	-	-	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
18+722	489106.537	3859097.085	13.59	-	-	-	-	-

Existing Mainline - Hinkley Crossing (Horn) 2	Rail track:	Direction:	Section: 1	Km: 10+870

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	37	16	113	3747	yes	87.3	85.9

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+870	482888.438	3854406.782	1.85	-	-	-	-	-

Existing Mainline - E of Hinkley Horn Crossing	Rail track:	Direction:	Section: 1	Km: 11+323

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	37	16	113	3747	yes	86.1	84.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
11+323	483107.968	3854801.387	-	-	-	-	-	-

Existing Mainline - Hinkley Crossing (Horn) 1	Rail track:	Direction:	Section: 1	Km: 10+487

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	37	16	113	3747	yes	87.3	85.9

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+487	482820.355	3854031.671	5.20	-	-	-	-	-

Noise emissions of railway traffic - 2033 With BIG

Mainline - W of West Leads (ALL)	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	37	16	113	3747	yes	86.1	84.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	474551.792	3848421.213	3.70	-	-	-	-	-

Block Swap - West 2	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	8	3	32	3724	yes	68.8	66.8

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	483328.840	3854951.536	-	-	-	-	-	-

Block Swap - West 1b	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	8	3	32	3724	yes	68.8	66.8

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	483932.465	3855250.821	-	-	-	-	-	-

South Mainline	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	12	5	113	3747	yes	81.2	79.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	482518.093	3852935.271	6.00	-	-	-	-	-

IMF - 4 East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	1	32	3724	yes	59.8	62.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	486619.891	3856921.999	5.80	-	-	-	-	-

IMF - 3 East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	486545.121	3857000.115	3.70	-	-	-	-	-

Noise emissions of railway traffic - 2033 With BIG

IMF - 2 East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	486490.848	3857052.636	2.15	-	-	-	-	-

IMF - 1 East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	486478.169	3857129.344	0.85	-	-	-	-	-

Block Swap East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	16	7	32	3724	yes	71.8	70.5

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	487592.453	3858123.541	-	-	-	-	-	-

IMF + Block Swap - East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	15	7	32	3724	yes	71.6	70.5

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	487968.738	3858349.503	7.19	-	-	-	-	-

IMF + Block Swap West	Rail track:	Direction:	Section: 1	Km: 10+053

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	15	7	32	3724	yes	71.6	70.5

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+053	482515.272	3852939.660	6.00	-	-	-	-	-

IMF West Lead	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	3	1	32	3724	yes	64.6	62.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	482827.115	3853692.675	4.68	-	-	-	-	-

Noise emissions of railway traffic - 2033 With BIG

IMF - 1 West	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	483716.344	3854846.750	2.95	-	-	-	-	-

IMF - 2 West	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	483725.491	3854836.849	3.30	-	-	-	-	-

IMF - 3 West	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	483725.400	3854828.942	3.60	-	-	-	-	-

IMF - 4 West	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	1	32	3724	yes	59.8	62.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	483908.617	3854871.585	5.24	-	-	-	-	-

North Mainline - 1	Rail track:	Direction:	Section: 1	Km: 9+325

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	12	5	113	3747	yes	81.2	79.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
9+325	482509.262	3852961.590	6.00	-	-	-	-	-

Mainline - E of BIG	Rail track:	Direction:	Section: 1	Km: 18+722

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	24	10	113	3747	yes	84.2	82.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
18+722	489104.943	3859108.245	13.00	-	-	-	-	-

Noise emissions of railway traffic - 2033 With BIG

North Mainline - 2	Rail track:	Direction:	Section: 1	Km: 10+870

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	12	5	113	3747	yes	81.2	79.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+870	482888.438	3854406.782	1.00	-	-	-	-	-

Block Swap - West 1a	Rail track:	Direction:	Section: 1	Km: 1+912

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	8	3	32	3724	yes	68.8	66.8

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
1+912	482836.323	3853781.316	4.62	-	-	-	-	-

West Leads (BIG)	Rail track:	Direction:	Section: 1	Km: 3+639

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	15	7	64	3724	yes	77.3	76.2

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
3+639	477796.510	3849921.902	6.00	-	-	-	-	-

Mainline - W of BIG	Rail track:	Direction:	Section: 1	Km: 3+639

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	24	10	64	3747	yes	79.5	77.9

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
3+639	477797.062	3849938.641	6.00	-	-	-	-	-

East Leads (BIG)	Rail track:	Direction:	Section: 1	Km: 18+722

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	19	8	64	3724	yes	78.3	76.8
0	0	0	-	-	-	-	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
18+722	488917.555	3858980.752	13.50	-	-	-	-	-

IMF East Lead	Rail track:	Direction:	Section: 1	Km: 0+517

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	3	1	32	3724	yes	64.6	62.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+517	486802.146	3857381.606	1.25	-	-	-	-	-

Noise emissions of railway traffic - 2033 With BIG

Mainline - E of East Leads (ALL)	Rail track:	Direction:	Section: 1	Km: 21+099

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	37	16	113	3747	yes	86.1	84.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
21+099	491234.041	3860148.102	13.20	-	-	-	-	-

Noise emissions of railway traffic - 2048 No BIG

Existing Mainline - W of West Leads	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	47	20	113	3747	yes	87.1	85.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	474551.792	3848421.213	6.40	-	-	-	-	-

Existing Mainline - W of Hinkley Horn Crossing 2	Rail track:	Direction:	Section: 1	Km: 9+325

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	47	20	113	3747	yes	87.1	85.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
9+325	482508.691	3852935.036	6.00	-	-	-	-	-

Existing Mainline - E of East Leads	Rail track:	Direction:	Section: 1	Km: 18+722

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	47	20	113	3747	yes	87.1	85.6
0	0	0	-	-	-	-	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
18+722	489106.537	3859097.085	13.59	-	-	-	-	-

Existing Mainline - Hinkley Crossing (Horn) 2	Rail track:	Direction:	Section: 1	Km: 10+870

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	47	20	113	3747	yes	88.4	86.9

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+870	482888.438	3854406.782	1.85	-	-	-	-	-

Existing Mainline - E of Hinkley Horn Crossing	Rail track:	Direction:	Section: 1	Km: 11+323

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	47	20	113	3747	yes	87.1	85.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
11+323	483107.968	3854801.387	-	-	-	-	-	-

Existing Mainline - Hinkley Crossing (Horn) 1	Rail track:	Direction:	Section: 1	Km: 10+487

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	47	20	113	3747	yes	88.4	86.9

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+487	482820.355	3854031.671	5.20	-	-	-	-	-

Noise emissions of railway traffic - 2048 With BIG

Mainline - W of West Leads (ALL)	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	47	20	113	3747	yes	87.1	85.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	474551.792	3848421.213	3.70	-	-	-	-	-

Block Swap - West 2	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	10	4	32	3724	yes	69.8	68.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	483328.840	3854951.536	-	-	-	-	-	-

Block Swap - West 1b	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	10	4	32	3724	yes	69.8	68.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	483932.465	3855250.821	-	-	-	-	-	-

South Mainline	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	15	7	113	3747	yes	82.1	81.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	482518.093	3852935.271	6.00	-	-	-	-	-

IMF - 4 East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	1	32	3724	yes	59.8	62.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	486619.891	3856921.999	5.80	-	-	-	-	-

IMF - 3 East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	486545.121	3857000.115	3.70	-	-	-	-	-

Noise emissions of railway traffic - 2048 With BIG

IMF - 2 East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	486490.848	3857052.636	2.15	-	-	-	-	-

IMF - 1 East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	486478.169	3857129.344	0.85	-	-	-	-	-

Block Swap East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	20	9	32	3724	yes	72.8	71.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	487592.453	3858123.541	-	-	-	-	-	-

IMF + Block Swap - East	Rail track:	Direction:	Section: 1	Km: 0+000

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	19	8	32	3724	yes	72.6	71.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+000	487968.738	3858349.503	7.19	-	-	-	-	-

IMF + Block Swap West	Rail track:	Direction:	Section: 1	Km: 10+053

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	19	8	32	3724	yes	72.6	71.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+053	482515.272	3852939.660	6.00	-	-	-	-	-

IMF West Lead	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	3	1	32	3724	yes	64.6	62.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	482827.115	3853692.675	4.68	-	-	-	-	-

Noise emissions of railway traffic - 2048 With BIG

IMF - 1 West	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	483716.344	3854846.750	2.95	-	-	-	-	-

IMF - 2 West	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	483725.491	3854836.849	3.30	-	-	-	-	-

IMF - 3 West	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	0	32	3724	yes	59.8	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	483725.400	3854828.942	3.60	-	-	-	-	-

IMF - 4 West	Rail track:	Direction:	Section: 1	Km: 10+580

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	1	1	32	3724	yes	59.8	62.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+580	483908.617	3854871.585	5.24	-	-	-	-	-

North Mainline - 1	Rail track:	Direction:	Section: 1	Km: 9+325

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	15	7	113	3747	yes	82.1	81.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
9+325	482509.262	3852961.590	6.00	-	-	-	-	-

Mainline - E of BIG	Rail track:	Direction:	Section: 1	Km: 18+722

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	30	13	113	3747	yes	85.1	83.7

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
18+722	489104.943	3859108.245	13.00	-	-	-	-	-

Noise emissions of railway traffic - 2048 With BIG

North Mainline - 2	Rail track:	Direction:	Section: 1	Km: 10+870

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	15	7	113	3747	yes	82.1	81.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
10+870	482888.438	3854406.782	1.00	-	-	-	-	-

Block Swap - West 1a	Rail track:	Direction:	Section: 1	Km: 1+912

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	10	4	32	3724	yes	69.8	68.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
1+912	482836.323	3853781.316	4.62	-	-	-	-	-

West Leads (BIG)	Rail track:	Direction:	Section: 1	Km: 3+639

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	19	8	64	3724	yes	78.3	76.8

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
3+639	477796.510	3849921.902	6.00	-	-	-	-	-

Mainline - W of BIG	Rail track:	Direction:	Section: 1	Km: 3+639

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	30	13	64	3747	yes	80.4	79.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
3+639	477797.062	3849938.641	6.00	-	-	-	-	-

East Leads (BIG)	Rail track:	Direction:	Section: 1	Km: 18+722

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	25	11	64	3724	yes	79.5	78.2
0	0	0	-	-	-	-	-

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
18+722	488917.555	3858980.752	13.50	-	-	-	-	-

IMF East Lead	Rail track:	Direction:	Section: 1	Km: 0+517

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	3	1	32	3724	yes	64.6	62.0

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
0+517	486802.146	3857381.606	1.25	-	-	-	-	-

Noise emissions of railway traffic - 2048 With BIG

Mainline - E of East Leads (ALL)	Rail track:	Direction:	Section: 1	Km: 21+099

Train type	Number of trains day	Number of trains night	Speed km/h	Length pe train m	Max	Emission level day dB(A)	Emission level night dB(A)
0	47	20	113	3747	yes	87.1	85.6

Track Station km	Coordinates of track axis X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level day	night
21+099	491234.041	3860148.102	13.20	-	-	-	-	-

Noise emissions of industry sources - Generators

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
Generator 1	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 2	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 3	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 4	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 5	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 6	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 7	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 8	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 9	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 10	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 11	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 12	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 13	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 14	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 15	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 16	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 17	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 18	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 19	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 20	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 21	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 22	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-

Noise emissions of industry sources - Generators

Source name	Reference	Level		Frequency spectrum [dB(A)] 500 Hz	Corrections Cwall dB	CI dB	CT dB
			dB(A)				
Generator 22		Lmax	107.7	107.7	-	-	-
Generator 23	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 24	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 25	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 26	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 27	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 28	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 43	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 44	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 45	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 46	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 47	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 48	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 49	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 50	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 51	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-
Generator 52	Lw/unit	Day	107.7	107.7	-	-	-
		Night	107.7	107.7	-	-	-
		Lmax	107.7	107.7	-	-	-

BIG Operations - SoundPLAN Modeling Results

EXISTING					CONSTRUCTION YEAR 2026 - SOUTH MAINLINES										OPENING YEAR 2028									
					NO PROJECT					WITH PROJECT					NO PROJECT					WITH PROJECT					
Receiver	Land Use	Day	Night	Ldn	Receiver	Land Use	Day	Night	Ldn	Receiver	Land Use	Day	Night	Ldn	Receiver	Land Use	Day	Night	Ldn	Receiver	Land Use	Day	Night	Ldn	Day	Night	Ldn
		Level w/o NP					Level w/o NP					Level w/o NP					Level w/o NP					Level w/o NP			Level w/ NP		
		dB(A)					dB(A)					dB(A)					dB(A)					dB(A)			dB(A)		
1	Residential	59.2	57.8	64.5	1	Residential	59.3	57.8	64.5	1	Residential	58.1	56.6	63.3	1	Residential	59.5	58.1	64.7	1	Residential	61.5	60.9	67.4	57.7	57.4	63.8
2	Residential	58.1	56.7	63.4	2	Residential	58.2	56.7	63.4	2	Residential	54.3	52.8	59.4	2	Residential	58.4	57.0	63.7	2	Residential	59.2	58.9	65.3	57.4	57.2	63.6
3	Residential	59.3	57.9	64.6	3	Residential	59.4	57.9	64.6	3	Residential	54.6	53.1	59.8	3	Residential	59.6	58.2	64.8	3	Residential	59.6	59.2	65.7	57.0	56.7	63.2
4	Residential	56.7	55.3	62.0	4	Residential	56.8	55.3	62.0	4	Residential	52.1	50.6	57.3	4	Residential	57.0	55.6	62.3	4	Residential	59.2	58.7	65.2	56.9	56.6	63.0
5	Residential	58.4	57.1	63.7	5	Residential	58.6	57.1	63.7	5	Residential	51.2	49.7	56.3	5	Residential	58.7	57.4	64.0	5	Residential	63.9	63.8	70.2	58.8	58.6	65.0
6	Residential	52.8	51.4	58.1	6	Residential	52.9	51.4	58.1	6	Residential	50.2	48.7	55.4	6	Residential	53.1	51.7	58.3	6	Residential	59.7	59.5	66.0	56.9	56.6	63.2
7	Residential	61.9	60.5	67.2	7	Residential	62.0	60.5	67.2	7	Residential	60.0	58.5	65.2	7	Residential	62.2	60.8	67.4	7	Residential	62.2	61.6	68.1	61.6	60.9	67.4
8	Residential	64.7	63.3	70.0	8	Residential	64.8	63.3	70.0	8	Residential	65.0	63.5	70.1	8	Residential	65.0	63.6	70.2	8	Residential	64.0	62.9	69.5	63.9	62.8	69.4
9	Residential	66.1	64.7	71.3	9	Residential	66.2	64.7	71.4	9	Residential	66.3	64.8	71.5	9	Residential	66.3	65.0	71.6	9	Residential	65.4	64.3	70.9	65.3	64.2	70.8
10	Residential	66.3	65.0	71.6	10	Residential	66.5	65.0	71.6	10	Residential	66.6	65.1	71.7	10	Residential	66.6	65.3	71.9	10	Residential	65.8	64.6	71.2	65.7	64.5	71.1
11	Residential	66.7	65.3	71.9	11	Residential	66.8	65.3	72.0	11	Residential	66.9	65.4	72.0	11	Residential	66.9	65.6	72.2	11	Residential	66.1	64.9	71.5	66.0	64.8	71.4
12	Residential	67.0	65.6	72.3	12	Residential	67.2	65.6	72.3	12	Residential	67.2	65.7	72.3	12	Residential	67.3	65.9	72.6	12	Residential	66.4	65.2	71.8	66.4	65.2	71.8
13	Residential	67.4	66.1	72.7	13	Residential	67.6	66.1	72.7	13	Residential	67.6	66.1	72.7	13	Residential	67.7	66.4	73.0	13	Residential	66.8	65.6	72.2	66.8	65.5	72.1
14	Residential	70.4	69.1	75.7	14	Residential	70.6	69.1	75.7	14	Residential	70.6	69.1	75.8	14	Residential	70.7	69.4	76.0	14	Residential	69.6	68.3	74.9	69.5	68.3	74.9
15	Residential	72.2	70.9	77.5	15	Residential	72.4	70.9	77.5	15	Residential	72.4	70.9	77.5	15	Residential	72.5	71.2	77.8	15	Residential	71.3	70.0	76.6	71.3	70.0	76.6
16	Residential	70.1	68.7	75.4	16	Residential	70.3	68.7	75.4	16	Residential	70.3	68.7	75.4	16	Residential	70.4	69.0	75.7	16	Residential	69.0	67.8	74.4	69.0	67.8	74.4
17	Residential	70.2	68.8	75.4	17	Residential	70.3	68.8	75.5	17	Residential	70.3	68.8	75.5	17	Residential	70.4	69.1	75.7	17	Residential	69.1	67.8	74.4	69.1	67.8	74.4
18	Residential	68.3	66.9	73.5	18	Residential	68.4	66.9	73.6	18	Residential	68.4	66.9	73.6	18	Residential	68.5	67.2	73.8	18	Residential	67.4	66.1	72.7	67.4	66.1	72.7
19	Residential	68.9	67.5	74.1	19	Residential	69.0	67.5	74.1	19	Residential	69.0	67.5	74.2	19	Residential	69.1	67.8	74.4	19	Residential	68.0	66.7	73.3	68.0	66.7	73.3
20	Residential	69.1	67.7	74.3	20	Residential	69.2	67.7	74.4	20	Residential	69.2	67.7	74.4	20	Residential	69.3	68.0	74.6	20	Residential	68.2	66.9	73.6	68.2	66.9	73.6
21	Residential	70.0	68.6	75.2	21	Residential	70.1	68.6	75.2	21	Residential	70.1	68.6	75.3	21	Residential	70.2	68.9	75.5	21	Residential	69.1	67.8	74.4	69.1	67.8	74.4
22	Residential	69.7	68.3	75.0	22	Residential	69.8	68.3	75.0	22	Residential	69.9	68.4	75.0	22	Residential	70.0	68.6	75.3	22	Residential	68.9	67.6	74.2	68.8	67.6	74.2
23	Residential	69.3	67.9	74.6	23	Residential	69.4	67.9	74.6	23	Residential	69.5	68.0	74.6	23	Residential	69.6	68.2	74.9	23	Residential	68.5	67.2	73.8	68.5	67.2	73.8
24	Residential	70.8	69.4	76.1	24	Residential	70.9	69.4	76.1	24	Residential	71.0	69.5	76.1	24	Residential	71.1	69.7	76.4	24	Residential	69.9	68.6	75.2	69.9	68.6	75.2
25	Residential	70.9	69.5	76.1	25	Residential	71.0	69.5	76.2	25	Residential	71.0	69.5	76.2	25	Residential	71.1	69.8	76.4	25	Residential	70.0	68.7	75.3	70.0	68.6	75.3
26	Residential	71.0	69.6	76.2	26	Residential	71.1	69.6	76.3	26	Residential	71.2	69.7	76.3	26	Residential	71.2	69.9	76.5	26	Residential	70.1	68.7	75.4	70.1	68.7	75.4
27	Residential	70.6	69.2	75.9	27	Residential	70.8	69.2	75.9	27	Residential	70.8	69.3	76.0	27	Residential	70.9	69.5	76.2	27	Residential	69.7	68.4	75.0	69.7	68.4	75.0
28	Residential	71.8	70.4	77.0	28	Residential	71.9	70.4	77.0	28	Residential	72.0	70.5	77.1	28	Residential	72.0	70.7	77.3	28	Residential	70.7	69.4	76.1	70.7	69.4	76.1
29	Residential	68.5	67.2	73.8	29	Residential	68.7	67.2	73.8	29	Residential	68.6	67.1	73.8	29	Residential	68.8	67.4	74.1	29	Residential	68.3	67.0	73.6	68.3	67.0	73.6
30	Residential	73.1	71.7	78.4	30	Residential	73.2	71.7	78.4	30	Residential	73.2	71.7	78.3	30	Residential	73.4	72.0	78.7	30	Residential	73.3	72.1	78.7	73.3	72.1	78.7
31	Residential	73.0	71.7	78.3	31	Residential	73.2	71.7	78.3	31	Residential	73.1	71.6	78.2	31	Residential	73.3	72.0	78.6	31	Residential	73.2	71.9	78.6	73.2	71.9	78.6
32	Residential	73.0	71.6	78.3	32	Residential	73.1	71.6	78.3	32	Residential	73.0	71.5	78.2	32	Residential	73.3	71.9	78.6	32	Residential	73.1	71.9	78.5	73.1	71.9	78.5
33	Residential	70.5	69.1	75.8	33	Residential	70.6	69.1	75.8	33	Residential	70.6	69.1	75.7	33	Residential	70.8	69.4	76.1	33	Residential	70.4	69.1	75.7	70.4	69.1	75.7
34	Residential	70.6	69.2	75.8	34	Residential	70.7	69.2	75.9	34	Residential	70.6	69.1	75.8	34	Residential	70.8	69.5	76.1	34	Residential	70.4	69.2	75.8	70.4	69.2	75.8
35	Residential	70.7	69.3	75.9	35	Residential	70.8	69.3	75.9	35	Residential	70.8	69.3	75.9	35	Residential	70.9	69.6	76.2	35	Residential	70.5	69.3	75.9	70.5	69.3	75.9
36	Residential	73.2	71.9	78.5	36	Residential	73.4	71.9	78.5	36	Residential	73.3	71.8	78.5	36	Residential	73.5	72.2	78.8	36	Residential	73.3	72.1	78.7	73.3	72.1	78.7
37	Park	69.3	68.0	74.6	37	Park	69.5	68.0	74.6	37	Park	69.4	67.9	74.6	37	Park	69.6	68.3	74.9	37	Park	69.1	67.9	74.5	69.1	67.9	74.5
38	Residential	68.9	67.5	74.2	38	Residential	69.0	67.5	74.2	38	Residential	69.0	67.5	74.2	38	Residential	69.2	67.8	74.5	38	Residential	68.7	67.5	74.1	68.7	67.5	74.1
39	Residential	71.3	70.0	76.6	39	Residential	71.5	70.0	76.6	39	Residential	71.4	69.9	76.6	39	Residential	71.6	70.3	76.9	39	Residential	71.3	70.1	76.7	71.3	70.1	76.7
40	Residential	71.1	69.7	76.4	40	Residential	71.2	69.7	76.4	40	Residential	71.2	69.7	76.4	40	Residential	71.4	70.0	76.7	40	Residential	71.2	70.0	76.6	71.2	69.9	76.6
41	Residential	66.2	64.9	71.5	41	Residential	66.4	64.9	71.5	41	Residential	66.4	64.8	71.5	41	Residential	66.5	65.2	71.8	41	Residential	66.1	65.0	71.6	66.1	64.9	71.5
42	Residential	65.6	64.2	70.9	42	Residential	65.7	64.2	70.9	42	Residential	65.7	64.2	70.9	42	Residential	65.9	64.5	71.1	42	Residential	65.5	64.3	70.9	65.5	64.3	70.9
43	Residential	64.9	63.5	70.2	43	Residential	65.0	63.5	70.2	43	Residential	65.0	63.5	70.2	43	Residential	65.2	63.8	70.5	43	Residential	64.8	63.7	70.3	64.8	63.7	70.3
44	Residential	64.3	63.0	69.6	44	Residential	64.5	63.0	69.6	44	Residential	64.4	62.9	69.6	44	Residential	64.6	63.3	69.9	44	Residential	64.3	63.2	69.8	64.3	63.2	69.8
45	Residential	65.0	63.6	70.3	45	Residential	65.2	63.6	70.3	45	Residential	65.1	63.6	70.3	45	Residential	65.3	63.9	70.6	45	Residential	65.0	63.8	70.4	65.0	63.8	70.4
46	Residential	64.2	62.9	69.5	46	Residential	64.4	62.9	69.5	46	Residential	64.3	62.8	69.5	46	Residential	64.5	63.2	69.8	46	Residential	64.2	63.1	69.7	64.2	63.1	69.7
47	Residential	63.5	62.2	68.8	47	Residential	63.7	62.2	68.8	47	Residential	63.6	62.1	68.8	47	Residential	63.8	62.5	69.1	47	Residential	63.6	62.6	69.1	63.6	62.5	69.1
48	Residential	63.2	61.8	68.5	48	Residential	63.3	61.8	68.5	48	Residential	63.3	61.8	68.4	48	Residential	63.5	62.1	68.7	48	Residential	63.3	62.3	68.9	63.3	62.3	68.8
49	Residential	61.9	60.6	67.2	49	Residential	62.1	60.6	67.2	49	Residential	62.0	60.5	67.1	49	Residential	62.2	60.9	67.5	49	Residential	62.3	61.4	67.9	62.3	61.3	67.9
50	Residential	61.6	60.3	66.9	50	Residential	61.8	60.3	66.9	50	Residential	61.7	60.2	66.8	50	Residential	61.9	60.6	67.2	50	Residential	62.1	61.2	67.8	62.1	61.2	67.7
51	Residential	61.3	59.9	66.6	51	Residential	61.5	59.9	66.6	51	Residential	61.3	59.8	66.4	51	Residential	61.6	60.2	66.9	51	Residential	62.0	61.2	67.7	62.0	61.1	67.7
52	Residential	55.4	54.0	60.6	52	Residential	55.5	54.0	60.6	52	Residential	47.9	46.4	53.0	52	Residential	55.6	54.3	60.9	52	Residential	54.0	53.7	60.1	54.0	53.7	60.1
53	Residential	54.6	53.2	59.8	53	Residential	54.7	53.2	59.9	53	Residential	47.4	45.9	52.6	53	Residential	54.8	53.5	60.1	53	Residential	54.2	54.0	60.4	54.2	54.0	60.4
54	Residential	66.5	65.1	71.8	54	Residential	66.6	65.1	71.8	54	Residential	67.8	66.3	73.0	54	Residential	66.8	65.4	72.1	54	Residential	65.6	64.4	71.0	65.6	64.4	71.0
55	Residential	70.8	69.5	76.1	55	Residential	71.0	69.5	76.1	55	Residential	72.2	70.7	77.4	55	Residential	71.1	69.8	76.4	55	Residential	69.7	68.5	75.1	69.7	68.5	75.1
56	Residential	72.0	70.7	77.3	56	Residential	72.2	70.7	77.3	56	Residential	72.9	71.4	78.0	56	Residential	72.3	71.0	77.6	56	Residential	68.8	67.5	74.1	68.8	67.5	74.1
57	Residential	71.3	70.0	76.6	57	Residential	71.5	70.0	76.6	57	Residential	71.8	70.3	76.9	57	Residential	71.6	70.3	76.9	57	Residential	67.0	65.7	72.4	67.0	65.7	72.4
58	Residential	72.0	70.7	77.3	58	Residential	72.2	70.7	77.3	58	Residential	72.3	70.8	77.4	58	Residential	72.3	71.0	77.6	58	Residential	67.4	66.1	72.7	67.4	66.1	72.7
59	Residential	71.0	69.6	76.2	59	Residential	71.1	69.6	76.3	59	Residential	71.1	69.6	76.2	59	Residential	71.2	69.9	76.5	59	Residential	66.3	64.9	71.6	66.3	64.9	71.6
60	Residential	69.2	67.8	74.4	60	Residential	69.3	67.8	74.4	60	Residential	69.2	67.7	74.4	60	Residential	69.4	68.1	74.7	60	Residential	64.5	63.2	69.8	64.5	63.2	69.8
61	Residential	73.6	72.3	78.9	61	Residential	73.8	72.3	78.9	61	Residential	73.8	72.2	78.9	61	Residential	73.9	72.6	79.2	61	Residential	68.9	67.6	74.2	68.9	67.6	74.2
62	Residential	74.9	73.5	80.2	62	Residential	75.0	73.5	80.2	62	Residential	75.0	73.5	80.2	62	Residential	75.2	73.8	80.5	62	Residential	70.1	68.7	75.4	70.1	68.7	75.4
63	Residential	69.1	67.7	74.4	63	Residential	69.2	67.7	74.4	63	Residential	69.2	67.7	74.4	63	Residential	69.4	68.0	74.7	63	Residential	64.5	63.2	69.8	64.5	63.2	69.8
64	Residential	71.0	69.6	76.2	64	Residential	71.1	69.6	76.3	64	Residential	71.1	69.6	76.3	64	Residential	71.2	69.9	76.5	64	Residential	66.3	65.0	71.6	66.3	65.0	71.6

BIG Operations - SoundPLAN Modeling Results

EXISTING					CONSTRUCTION YEAR 2026 - SOUTH MAINLINES										OPENING YEAR 2028									
					NO PROJECT					WITH PROJECT					NO PROJECT					WITH PROJECT				
Receiver	Land Use	Day	Night	Ldn	Receiver	Land Use	Day	Night	Ldn	Receiver	Land Use	Day	Night	Ldn	Receiver	Land Use	Day	Night	Ldn	Receiver	Land Use	Day	Night	Ldn
		Level w/o NP					Level w/o NP					Level w/o NP					Level w/o NP					Level w/o NP			Level w/ NP	
		dB(A)					dB(A)					dB(A)					dB(A)					dB(A)			dB(A)	
65	Residential	64.8	63.4	70.1	65	Residential	64.9	63.4	70.1	65	Residential	64.9	63.4	70.1	65	Residential	65.1	63.7	70.4	65	Residential	64.2	63.0	69.6	64.2	63.0	69.6
66	School	61.2	59.8	66.4	66	School	61.3	59.8	66.5	66	School	61.3	59.8	66.5	66	School	61.4	60.1	66.7	66	School	60.9	59.8	66.4	60.9	59.7	66.3
67	Park	62.5	61.1	67.7	67	Park	62.6	61.1	67.7	67	Park	62.6	61.1	67.8	67	Park	62.7	61.4	68.0	67	Park	62.2	61.0	67.6	62.2	61.0	67.6
68	Church	58.2	56.8	63.5	68	Church	58.4	56.8	63.5	68	Church	58.4	56.9	63.5	68	Church	58.5	57.1	63.8	68	Church	58.4	57.4	63.9	58.3	57.2	63.8
69	Church	56.1	54.8	61.4	69	Church	56.3	54.8	61.4	69	Church	56.3	54.8	61.4	69	Church	56.4	55.1	61.7	69	Church	56.6	55.4	62.0	56.5	55.4	62.0
70	School	53.8	52.4	59.0	70	School	53.9	52.4	59.1	70	School	54.0	52.5	59.2	70	School	54.0	52.7	59.3	70	School	55.2	54.4	61.0	55.2	54.4	60.9
71	Church	67.2	65.8	72.5	71	Church	67.3	65.8	72.5	71	Church	67.3	65.8	72.5	71	Church	67.5	66.1	72.8	71	Church	62.7	61.4	68.0	62.7	61.4	68.0
72	Residential	66.8	65.4	72.1	72	Residential	66.9	65.4	72.1	72	Residential	66.9	65.4	72.1	72	Residential	67.1	65.7	72.4	72	Residential	62.4	61.1	67.7	62.4	61.1	67.7
73	Residential	66.2	64.8	71.5	73	Residential	66.3	64.8	71.5	73	Residential	66.3	64.8	71.5	73	Residential	66.5	65.1	71.7	73	Residential	61.9	60.6	67.2	61.9	60.6	67.2
74	Residential	72.7	71.3	77.9	74	Residential	72.8	71.3	78.0	74	Residential	72.8	71.3	78.0	74	Residential	72.9	71.6	78.2	74	Residential	68.5	67.1	73.8	68.5	67.1	73.8
75	Residential	73.8	72.4	79.0	75	Residential	73.9	72.4	79.1	75	Residential	73.9	72.4	79.1	75	Residential	74.0	72.7	79.3	75	Residential	69.8	68.5	75.1	69.8	68.5	75.1
76	Residential	78.5	77.1	83.7	76	Residential	78.6	77.1	83.7	76	Residential	78.6	77.1	83.7	76	Residential	78.7	77.4	84.0	76	Residential	78.9	77.5	84.1	78.9	77.5	84.1
77	Residential	63.8	62.4	69.1	77	Residential	64.0	62.4	69.1	77	Residential	64.0	62.4	69.1	77	Residential	64.1	62.7	69.4	77	Residential	62.0	60.6	67.3	62.0	60.6	67.3
78	Residential	61.6	60.3	66.9	78	Residential	61.8	60.3	66.9	78	Residential	61.8	60.3	66.9	78	Residential	61.9	60.6	67.2	78	Residential	62.1	60.7	67.3	62.1	60.7	67.3
79	Residential	66.8	65.4	72.1	79	Residential	66.9	65.4	72.1	79	Residential	66.9	65.4	72.1	79	Residential	67.1	65.7	72.4	79	Residential	67.4	66.0	72.7	67.4	66.0	72.6
80	Residential	67.6	66.2	72.8	80	Residential	67.7	66.2	72.9	80	Residential	67.7	66.2	72.9	80	Residential	67.8	66.5	73.1	80	Residential	68.2	66.8	73.4	68.2	66.8	73.4
81	Residential	63.4	62.0	68.6	81	Residential	63.5	62.0	68.7	81	Residential	63.5	62.0	68.7	81	Residential	63.6	62.3	68.9	81	Residential	64.0	62.6	69.2	64.0	62.6	69.2
82	Residential	66.5	65.2	71.8	82	Residential	66.7	65.2	71.8	82	Residential	66.7	65.2	71.8	82	Residential	66.8	65.5	72.1	82	Residential	67.2	65.8	72.4	67.2	65.8	72.4
83	Residential	47.0	45.6	52.3	83	Residential	47.1	45.6	52.3	83	Residential	44.4	42.9	49.5	83	Residential	47.3	45.9	52.6	83	Residential	59.8	59.7	66.2	57.6	57.6	64.0
84	Residential	46.0	44.6	51.2	84	Residential	46.1	44.6	51.2	84	Residential	43.5	42.0	48.6	84	Residential	46.2	44.9	51.5	84	Residential	59.8	59.8	66.2	57.7	57.7	64.1
85	Residential	66.5	65.1	71.7	85	Residential	66.6	65.1	71.7	85	Residential	66.6	65.1	71.7	85	Residential	66.7	65.4	72.0	85	Residential	66.2	64.9	71.5	66.2	64.9	71.5
86	Residential	46.5	45.1	51.7	86	Residential	46.6	45.1	51.8	86	Residential	42.1	40.6	47.2	86	Residential	46.7	45.4	52.0	86	Residential	55.4	55.2	61.7	54.6	54.4	60.9
87	Residential	44.7	43.3	50.0	87	Residential	44.8	43.3	50.0	87	Residential	41.6	40.1	46.7	87	Residential	45.0	43.6	50.3	87	Residential	58.2	58.0	64.4	56.4	56.0	62.5
88	Residential	45.3	43.9	50.5	88	Residential	45.4	43.9	50.5	88	Residential	42.2	40.7	47.4	88	Residential	45.5	44.2	50.8	88	Residential	59.3	59.1	65.5	57.0	56.8	63.2
89	Residential	45.3	43.9	50.6	89	Residential	45.4	43.9	50.6	89	Residential	42.3	40.8	47.5	89	Residential	45.6	44.2	50.9	89	Residential	59.8	59.7	66.1	57.1	56.9	63.3
90	Residential	44.8	43.5	50.1	90	Residential	45.0	43.5	50.1	90	Residential	42.0	40.5	47.2	90	Residential	45.1	43.8	50.4	90	Residential	61.6	61.5	67.9	58.3	58.2	64.6

Source: SoundPLAN Essential 5.1

BIG Operations - SoundPLAN Modeling Results

OPENING YEAR 2033

NO PROJECT

Receiver	Land Use	Day	Night	Ldn
		Level w/o NP		
		dB(A)		
1	Residential	59.8	58.4	65.0
2	Residential	58.7	57.3	64.0
3	Residential	59.9	58.5	65.1
4	Residential	57.3	55.9	62.6
5	Residential	59.1	57.7	64.3
6	Residential	53.4	52.0	58.6
7	Residential	62.5	61.1	67.7
8	Residential	65.3	63.9	70.5
9	Residential	66.7	65.3	71.9
10	Residential	67.0	65.6	72.2
11	Residential	67.3	65.9	72.5
12	Residential	67.6	66.2	72.9
13	Residential	68.1	66.6	73.3
14	Residential	71.1	69.7	76.3
15	Residential	72.9	71.4	78.1
16	Residential	70.7	69.3	76.0
17	Residential	70.8	69.4	76.0
18	Residential	68.9	67.5	74.1
19	Residential	69.5	68.1	74.7
20	Residential	69.7	68.3	74.9
21	Residential	70.6	69.2	75.8
22	Residential	70.3	68.9	75.6
23	Residential	69.9	68.5	75.2
24	Residential	71.4	70.0	76.7
25	Residential	71.5	70.1	76.7
26	Residential	71.6	70.2	76.8
27	Residential	71.2	69.8	76.5
28	Residential	72.4	71.0	77.6
29	Residential	69.2	67.7	74.4
30	Residential	73.7	72.3	79.0
31	Residential	73.7	72.2	78.9
32	Residential	73.6	72.2	78.9
33	Residential	71.1	69.7	76.4
34	Residential	71.2	69.8	76.4
35	Residential	71.3	69.9	76.5
36	Residential	73.9	72.4	79.1
37	Park	70.0	68.5	75.2
38	Residential	69.5	68.1	74.8
39	Residential	72.0	70.5	77.2
40	Residential	71.7	70.3	77.0
41	Residential	66.9	65.4	72.1
42	Residential	66.2	64.8	71.4
43	Residential	65.5	64.1	70.8
44	Residential	65.0	63.5	70.2
45	Residential	65.6	64.2	70.9
46	Residential	64.9	63.4	70.1
47	Residential	64.2	62.7	69.4
48	Residential	63.8	62.4	69.0
49	Residential	62.6	61.1	67.8
50	Residential	62.3	60.9	67.5
51	Residential	61.9	60.5	67.2
52	Residential	56.0	54.6	61.2
53	Residential	55.2	53.8	60.4
54	Residential	67.1	65.7	72.4
55	Residential	71.5	70.0	76.7
56	Residential	72.7	71.2	77.9
57	Residential	72.0	70.5	77.2
58	Residential	72.7	71.2	77.9
59	Residential	71.6	70.2	76.8
60	Residential	69.8	68.4	75.0
61	Residential	74.3	72.8	79.5
62	Residential	75.5	74.1	80.8
63	Residential	69.7	68.3	75.0
64	Residential	71.6	70.2	76.8
65	Residential	65.4	64.0	70.7
66	School	61.8	60.4	67.0
67	Park	63.1	61.7	68.3
68	Church	58.8	57.4	64.1
69	Church	56.8	55.4	62.0
70	School	54.4	53.0	59.6

WITH PROJECT

Receiver	Land Use	Day	Night	Ldn	Day	Night	Ldn
		Level w/o NP			Level w/ NP		
		dB(A)			dB(A)		
1	Residential	61.7	60.9	67.5	57.8	57.4	63.8
2	Residential	59.3	58.9	65.4	57.5	57.2	63.6
3	Residential	59.8	59.2	65.7	57.1	56.7	63.2
4	Residential	59.3	58.7	65.2	57.0	56.6	63.0
5	Residential	64.0	63.8	70.2	58.8	58.6	65.0
6	Residential	59.7	59.5	66.0	57.0	56.8	63.2
7	Residential	62.5	61.6	68.2	61.9	60.9	67.5
8	Residential	64.4	63.1	69.7	64.3	62.9	69.5
9	Residential	65.8	64.4	71.0	65.7	64.3	70.9
10	Residential	66.1	64.7	71.4	66.1	64.6	71.3
11	Residential	66.5	65.0	71.7	66.4	65.0	71.6
12	Residential	66.8	65.3	72.0	66.7	65.3	71.9
13	Residential	67.2	65.7	72.4	67.1	65.7	72.3
14	Residential	69.9	68.4	75.1	69.9	68.4	75.1
15	Residential	71.7	70.1	76.8	71.7	70.1	76.8
16	Residential	69.4	67.9	74.6	69.4	67.9	74.6
17	Residential	69.5	68.0	74.6	69.5	68.0	74.6
18	Residential	67.8	66.3	72.9	67.8	66.3	72.9
19	Residential	68.4	66.8	73.5	68.4	66.8	73.5
20	Residential	68.6	67.1	73.7	68.6	67.1	73.7
21	Residential	69.5	67.9	74.6	69.5	67.9	74.6
22	Residential	69.3	67.7	74.4	69.2	67.7	74.4
23	Residential	68.9	67.3	74.0	68.9	67.3	74.0
24	Residential	70.3	68.7	75.4	70.3	68.7	75.4
25	Residential	70.4	68.8	75.5	70.4	68.8	75.5
26	Residential	70.5	68.9	75.6	70.5	68.9	75.6
27	Residential	70.1	68.5	75.2	70.1	68.5	75.2
28	Residential	71.2	69.6	76.3	71.1	69.6	76.3
29	Residential	68.7	67.1	73.8	68.7	67.1	73.8
30	Residential	73.7	72.2	78.8	73.7	72.2	78.8
31	Residential	73.6	72.0	78.7	73.6	72.0	78.7
32	Residential	73.5	71.9	78.6	73.5	71.9	78.6
33	Residential	70.8	69.2	75.9	70.8	69.2	75.9
34	Residential	70.8	69.3	75.9	70.8	69.3	75.9
35	Residential	70.9	69.4	76.0	70.9	69.4	76.0
36	Residential	73.7	72.1	78.8	73.7	72.1	78.8
37	Park	69.5	68.0	74.6	69.5	68.0	74.6
38	Residential	69.1	67.5	74.2	69.1	67.5	74.2
39	Residential	71.7	70.1	76.8	71.7	70.1	76.8
40	Residential	71.6	70.0	76.7	71.6	70.0	76.7
41	Residential	66.5	65.0	71.7	66.5	65.0	71.7
42	Residential	65.9	64.4	71.1	65.8	64.4	71.0
43	Residential	65.2	63.8	70.4	65.2	63.8	70.4
44	Residential	64.7	63.3	70.0	64.6	63.3	69.9
45	Residential	65.4	63.9	70.6	65.3	63.9	70.5
46	Residential	64.6	63.2	69.8	64.6	63.2	69.8
47	Residential	64.0	62.6	69.3	63.9	62.6	69.2
48	Residential	63.7	62.4	69.0	63.6	62.3	69.0
49	Residential	62.6	61.4	68.0	62.6	61.4	68.0
50	Residential	62.4	61.3	67.9	62.4	61.2	67.8
51	Residential	62.3	61.3	67.8	62.2	61.2	67.8
52	Residential	54.1	53.7	60.2	54.1	53.7	60.2
53	Residential	54.3	54.0	60.4	54.3	54.0	60.4
54	Residential	66.0	64.5	71.1	66.0	64.5	71.1
55	Residential	70.1	68.6	75.2	70.1	68.6	75.2
56	Residential	69.2	67.7	74.4	69.2	67.7	74.4
57	Residential	67.4	66.0	72.7	67.4	66.0	72.7
58	Residential	67.7	66.4	73.0	67.7	66.4	73.0
59	Residential	66.6	65.3	71.9	66.6	65.3	71.9
60	Residential	64.9	63.5	70.1	64.9	63.5	70.1
61	Residential	69.2	67.9	74.5	69.2	67.9	74.5
62	Residential	70.4	69.1	75.7	70.4	69.1	75.7
63	Residential	64.8	63.5	70.1	64.8	63.5	70.1
64	Residential	66.6	65.3	71.9	66.6	65.3	71.9
65	Residential	64.6	63.1	69.8	64.6	63.1	69.7
66	School	61.3	59.9	66.5	61.2	59.8	66.5
67	Park	62.6	61.1	67.8	62.6	61.1	67.7
68	Church	58.7	57.5	64.1	58.6	57.3	63.9
69	Church	56.9	55.6	62.2	56.9	55.6	62.2
70	School	55.5	54.5	61.1	55.5	54.5	61.0

HORIZON YEAR 2048

NO PROJECT

Receiver	Land Use	Day	Night	Ldn
		Level w/o NP		
		dB(A)		
1	Residential	60.9	59.4	66.0
2	Residential	59.8	58.3	64.9
3	Residential	61.0	59.5	66.1
4	Residential	58.4	56.9	63.6
5	Residential	60.1	58.6	65.3
6	Residential	54.5	53.0	59.6
7	Residential	63.6	62.1	68.7
8	Residential	66.4	64.9	71.5
9	Residential	67.7	66.2	72.9
10	Residential	68.0	66.5	73.2
11	Residential	68.3	66.9	73.5
12	Residential	68.7	67.2	73.9
13	Residential	69.1	67.6	74.3
14	Residential	72.1	70.6	77.3
15	Residential	73.9	72.4	79.1
16	Residential	71.8	70.3	77.0
17	Residential	71.8	70.4	77.0
18	Residential	69.9	68.5	75.1
19	Residential	70.5	69.0	75.7
20	Residential	70.7	69.2	75.9
21	Residential	71.6	70.1	76.8
22	Residential	71.4	69.9	76.5
23	Residential	71.0	69.5	76.1
24	Residential	72.5	71.0	77.6
25	Residential	72.5	71.0	77.7
26	Residential	72.7	71.2	77.8
27	Residential	72.3	70.8	77.5
28	Residential	73.4	71.9	78.6
29	Residential	70.2	68.7	75.4
30	Residential	74.8	73.3	79.9
31	Residential	74.7	73.2	79.9
32	Residential	74.7	73.2	79.8
33	Residential	72.2	70.7	77.3
34	Residential	72.2	70.7	77.4
35	Residential	72.3	70.8	77.5
36	Residential	74.9	73.4	80.1
37	Park	71.0	69.5	76.2
38	Residential	70.6	69.1	75.7
39	Residential	73.0	71.5	78.2
40	Residential	72.8	71.3	77.9
41	Residential	67.9	66.4	73.1
42	Residential	67.3	65.8	72.4
43	Residential	66.6	65.1	71.7
44	Residential	66.0	64.5	71.2
45	Residential	66.7	65.2	71.9
46	Residential	65.9	64.4	71.1
47	Residential	65.2	63.7	70.4
48	Residential	64.9	63.4	70.0
49	Residential	63.6	62.1	68.8
50	Residential	63.3	61.8	68.5
51	Residential	63.0	61.5	68.2
52	Residential	57.0	55.5	62.2
53	Residential	56.2	54.8	61.4
54	Residential	68.2	66.7	73.3
55	Residential	72.5	71.0	77.7
56	Residential	73.7	72.2	78.9
57	Residential	73.0	71.5	78.2
58	Residential	73.7	72.2	78.9
59	Residential	72.7	71.2	77.8
60	Residential	70.8	69.3	76.0
61	Residential	75.3	73.8	80.5
62	Residential	76.6	75.1	81.7
63	Residential	70.8	69.3	75.9
64	Residential	72.6	71.2	77.8
65	Residential	66.5	65.0	71.6
66	School	62.8	61.3	68.0
67	Park	64.1	62.6	69.3
68	Church	59.9	58.4	65.1
69	Church	57.8	56.3	63.0
70	School	55.4	54.0	60.6

WITH PROJECT

Receiver	Land Use	Day	Night	Ldn	Day	Night	Ldn
		Level w/o NP			Level w/ NP		
		dB(A)			dB(A)		
1	Residential	62.2	61.6	68.1	58.2	57.8	64.2
2	Residential	59.7	59.3	65.8	57.8	57.5	64.0
3	Residential	60.1	59.7	66.2	57.4	57.1	63.6
4	Residential	59.8	59.3	65.8	57.3	56.9	63.4
5	Residential	64.1	64.0	70.4	59.0	58.8	64.9
6	Residential	59.8	59.7	66.1	57.2	57.0	63.4
7	Residential	63.0	62.4	68.9	62.5	61.8	68.3
8	Residential	65.3	64.1	70.7	65.2	64.0	70.6
9	Residential	66.7	65.5	72.1	66.7	65.4	72.0
10	Residential	67.1	65.8	72.4	67.0	65.7	72.4
11	Residential	67.4	66.1	72.8	67.4	66.1	72.7
12	Residential	67.7	66.4	73.1	67.7	66.4	73.0
13	Residential	68.1	66.8	73.5	68.1	66.8	73.4
14	Residential	70.9	69.6	76.2	70.9	69.6	76.2
15	Residential	72.7	71.3	78.0	72.7	71.3	78.0
16	Residential	70.5	69.1	75.7	70.4	69.1	75.7
17	Residential	70.5	69.1	75.8	70.5	69.1	75.8
18	Residential	68.8	67.4	74.1	68.8	67.4	74.1
19	Residential	69.4	68.0	74.7	69.4	68.0	74.7
20	Residential	69.6	68.3	74.9	69.6	68.3	74.9
21	Residential	70.5	69.1	75.8	70.5	69.1	75.8
22	Residential	70.3	68.9	75.5	70.3	68.9	75.5
23	Residential	69.9	68.5	75.1	69.9	68.5	75.1
24	Residential	71.3	69.9	76.6	71.3	69.9	76.6
25	Residential	71.4	70.0	76.6	71.4	70.0	76.6
26	Residential	71.5	70.1	76.7	71.5	70.1	76.7
27	Residential	71.1	69.7	76.4	71.1	69.7	76.4
28	Residential	72.2	70.8	77.4	72.2	70.8	77.4
29	Residential	69.7	68.3	74.9	69.7	68.3	74.9
30	Residential	74.7	73.3	80.0	74.7	73.3	80.0
31	Residential	74.6	73.2	79.8	74.6	73.2	79.8
32	Residential	74.5	73.1	79.7	74.5	73.1	79.7
33	Residential	71.8	70.4	77.0	71.8	70.4	77.0
34	Residential	71.8	70.4	77.1	71.8	70.4	77.1
35	Residential	71.9	70.5	77.2	71.9	70.5	77.2
36	Residential	74.7	73.3	80.0	74.7	73.3	80.0
37	Park	70.5	69.1	75.8	70.5	69.1	75.8
38	Residential	70.1	68.7	75.3	70.1	68.7	75.3
39	Residential	72.7	71.3	77.9	72.7	71.3	77.9
40	Residential	72.6	71.2	77.8	72.6	71.2	77.8
41	Residential	67.5	66.1	72.8	67.4	66.1	72.7
42	Residential	66.8	65.5	72.1	66.8	65.5	72.1
43	Residential	66.1	64.8	71.5	66.1	64.8	71.4
44	Residential	65.6	64.3	70.9	65.5	64.3	70.9
45	Residential	66.3	65.0	71.6	66.3	65.0	71.6
46	Residential	65.5	64.2	70.9	65.5	64.2	70.8
47	Residential	64.8	63.6	70.2	64.8	63.6	70.2
48	Residential	64.5	63.4	70.0	64.5	63.3	69.9
49	Residential	63.4	62.3	68.9	63.4	62.3	68.9
50	Residential	63.2	62.2	68.7	63.2	62.1	68.7
51	Residential	63.0	62.1	68.6	63.0	62.0	68.6
52	Residential	54.4	54.0	60.5	54.4	54.0	60.5
53	Residential	54.6	54.3	60.7	54.6	54.3	60.7
54	Residential	67.0	65.9	72.4	67.0	65.9	72.4
55	Residential	71.1	69.9	76.5	71.1	69.9	76.5
56	Residential	70.1	68.8	75.5	70.1	68.8	75.5
57	Residential	68.4	66.9	73.6	68.4	66.9	73.6
58	Residential	68.7	67.3	73.9	68.7	67.3	73.9
59	Residential	67.6	66.1	72.8	67.6	66.1	72.8
60	Residential	65.9	64.4	71.0	65.9	64.4	71.0
61	Residential	70.2	68.8	75.4	70.2	68.8	75.4
62	Residential	71.4	69.9	76.6	71.4	69.9	76.6
63	Residential	65.8	64.4	71.0	65.8	64.4	71.0
64	Residential	67.6	66.2	72.8	67.6	66.2	72.8
65	Residential	65.6	64.2	70.8	65.5	64.2	70.8
66	School	62.2	60.9	67.5	62.2	60.9	67.5
67	Park	63.6	62.2	68.8	63.6	62.2	68.8
68	Church	59.5	58.4	65.0	59.5	58.3	64.9
69	Church	57.8	56.5	63.1	57.8	56.5	63.1
70	School	56.2	55.2	61.8	56.2	55.2	61.8

GENERATORS

Receiver	Land Use	Level w/o NP	Level w/NP
		dB(A)	
1	Residential	39.1	39.1
2	Residential	38.1	38.1
3	Residential	38.1	38.1
4	Residential	39.0	39.0
5	Residential	51.9	44.5
6	Residential	47.1	42.7
7	Residential	45.6	42.7
8	Residential	42.3	41.0
9	Residential	42.0	40.9
10	Residential	41.8	40.7
11	Residential	41.5	40.5
12	Residential	41.3	40.3
13	Residential	41.1	40.1
14	Residential	41.8	40.8
15	Residential	40.5	39.7
16	Residential	38.1	37.4
17	Residential	37.9	37.2
18	Residential	37.4	36.7
19	Residential	36.8	36.1
20	Residential	36.5	35.8
21	Residential	36.4	35.7
22	Residential	36.2	35.5
23	Residential	35.8	35.2
24	Residential	35.2	34.6
25	Residential	35.0	34.4
26	Residential	34.8	34.2
27	Residential	34.5	33.9
28	Residential	34.1	33.5
29	Residential	33.5	33.0
30	Residential	33.8	33.3
31	Residential	34.1	33.6
32	Residential	34.4	33.8
33	Residential	34.6	34.1
34	Residential	34.8	34.3
35	Residential	35.2	34.7
36	Residential	35.6	35.0
37	Park	36.0	35.5
38	Residential	36.5	36.0
39	Residential	36.8	36.3
40	Residential	37.4	36.8
41	Residential	40.6	40.0
42	Residential	40.9	40.4
43	Residential	41.3	40.8
44	Residential	41.7	41.2
45	Residential	40.5	40.0
46	Residential	40.9	40.4
47	Residential	41.5	41.0
48	Residential	41.8	41.4
49	Residential	41.9	41.5
50	Residential	42.5	42.1
51	Residential	43.3	43.0
52	Residential	37.6	37.6
53	Residential	37.7	37.7
54	Residential	30.5	30.5
55	Residential	29.7	29.7
56	Residential	29.2	29.2
57	Residential	28.8	28.8
58	Residential	28.3	28.3
59	Residential	27.3	27.3
60	Residential	26.8	26.8
61	Residential	25.8	25.8
62	Residential	16.3	16.3
63	Residential	15.1	15.1
64	Residential	14.9	14.9
65	Residential	37.5	36.7
66	School	37.3	36.3
67	Park	34.3	33.8
68	Church	37.6	36.4
69	Church	31.8	31.5
70	School	36.2	35.9

BIG Operations - SoundPLAN Modeling Results

OPENING YEAR 2033

NO PROJECT

Receiver	Land Use	Day	Night	Ldn
		Level w/o NP		
		dB(A)		
71	Church	67.8	66.4	73.1
72	Residential	67.4	66.0	72.7
73	Residential	66.8	65.4	72.0
74	Residential	73.3	71.9	78.5
75	Residential	74.4	73.0	79.6
76	Residential	79.1	77.7	84.3
77	Residential	64.4	63.0	69.7
78	Residential	62.3	60.8	67.5
79	Residential	67.4	66.0	72.7
80	Residential	68.2	66.8	73.4
81	Residential	64.0	62.6	69.2
82	Residential	67.2	65.8	72.4
83	Residential	47.6	46.2	52.9
84	Residential	46.6	45.2	51.8
85	Residential	67.1	65.7	72.3
86	Residential	47.1	45.7	52.3
87	Residential	45.3	43.9	50.6
88	Residential	45.9	44.5	51.1
89	Residential	45.9	44.5	51.1
90	Residential	45.5	44.0	50.7

WITH PROJECT

Receiver	Land Use	Day	Night	Ldn	Day	Night	Ldn
		Level w/o NP			Level w/ NP		
		dB(A)			dB(A)		
71	Church	63.1	61.7	68.3	63.1	61.7	68.3
72	Residential	62.7	61.4	68.0	62.7	61.4	68.0
73	Residential	62.2	60.9	67.5	62.2	60.9	67.5
74	Residential	68.8	67.5	74.1	68.8	67.5	74.1
75	Residential	70.1	68.8	75.4	70.1	68.8	75.4
76	Residential	78.9	77.5	84.1	78.9	77.5	84.1
77	Residential	62.1	60.7	67.4	62.1	60.7	67.4
78	Residential	62.1	60.7	67.3	62.1	60.7	67.3
79	Residential	67.4	66.0	72.7	67.4	66.0	72.6
80	Residential	68.2	66.8	73.4	68.2	66.8	73.4
81	Residential	64.0	62.6	69.2	64.0	62.6	69.2
82	Residential	67.2	65.8	72.4	67.2	65.8	72.4
83	Residential	59.8	59.7	66.2	57.7	57.6	64.0
84	Residential	59.8	59.8	66.2	57.7	57.7	64.1
85	Residential	66.6	65.0	71.7	66.6	65.0	71.7
86	Residential	55.4	55.2	61.7	54.7	54.4	60.9
87	Residential	58.2	58.0	64.4	56.5	56.0	62.5
88	Residential	59.3	59.1	65.5	57.1	56.8	63.2
89	Residential	59.8	59.7	66.1	57.2	56.9	63.3
90	Residential	61.6	61.5	67.9	58.4	58.2	64.6

HORIZON YEAR 2048

NO PROJECT

Receiver	Land Use	Day	Night	Ldn
		Level w/o NP		
		dB(A)		
71	Church	68.9	67.4	74.0
72	Residential	68.5	67.0	73.6
73	Residential	67.9	66.4	73.0
74	Residential	74.3	72.9	79.5
75	Residential	75.4	74.0	80.6
76	Residential	80.1	78.6	85.3
77	Residential	65.5	64.0	70.7
78	Residential	63.3	61.8	68.5
79	Residential	68.5	67.0	73.6
80	Residential	69.2	67.7	74.4
81	Residential	65.1	63.6	70.2
82	Residential	68.2	66.7	73.4
83	Residential	48.7	47.2	53.8
84	Residential	47.6	46.1	52.8
85	Residential	68.1	66.6	73.3
86	Residential	48.1	46.6	53.3
87	Residential	46.4	44.9	51.5
88	Residential	46.9	45.4	52.1
89	Residential	47.0	45.5	52.1
90	Residential	46.5	45.0	51.7

WITH PROJECT

Receiver	Land Use	Day	Night	Ldn	Day	Night	Ldn
		Level w/o NP			Level w/ NP		
		dB(A)			dB(A)		
71	Church	64.1	62.6	69.3	64.1	62.6	69.3
72	Residential	63.7	62.2	68.9	63.7	62.2	68.9
73	Residential	63.2	61.8	68.4	63.2	61.8	68.4
74	Residential	69.8	68.3	75.0	69.8	68.3	75.0
75	Residential	71.1	69.6	76.3	71.1	69.6	76.3
76	Residential	79.9	78.4	85.1	79.9	78.4	85.1
77	Residential	63.1	61.7	68.3	63.1	61.7	68.3
78	Residential	63.1	61.7	68.3	63.1	61.7	68.3
79	Residential	68.5	67.0	73.6	68.5	67.0	73.6
80	Residential	69.2	67.7	74.4	69.2	67.7	74.4
81	Residential	65.0	63.6	70.2	65.0	63.6	70.2
82	Residential	68.3	66.8	73.4	68.3	66.8	73.4
83	Residential	59.8	59.8	66.2	57.7	57.6	64.1
84	Residential	59.8	59.8	66.2	57.8	57.7	64.1
85	Residential	67.6	66.2	72.8	67.6	66.2	72.8
86	Residential	55.5	55.3	61.8	54.9	54.6	61.1
87	Residential	58.3	58.0	64.5	56.6	56.1	62.6
88	Residential	59.3	59.1	65.6	57.1	56.9	63.3
89	Residential	59.8	59.7	66.1	57.2	57.0	63.4
90	Residential	61.6	61.5	67.9	58.4	58.3	64.7

GENERATORS

Receiver	Land Use	Level w/o NP	Level w/NP
		dB(A)	
71	Church	0.0	0.0
72	Residential	0.0	0.0
73	Residential	0.0	0.0
74	Residential	0.0	0.0
75	Residential	0.0	0.0
76	Residential	0.0	0.0
77	Residential	0.0	0.0
78	Residential	0.0	0.0
79	Residential	0.0	0.0
80	Residential	0.0	0.0
81	Residential	0.0	0.0
82	Residential	0.0	0.0
83	Residential	48.3	42.3
84	Residential	48.0	42.2
85	Residential	32.4	32.0
86	Residential	39.9	39.7
87	Residential	43.3	42.4
88	Residential	44.3	43.3
89	Residential	44.8	43.7
90	Residential	46.0	44.7

Source: SoundPLAN Essential 5.1

BIG Operational Exterior Noise Impact Analysis - Existing

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Exterior Noise								
				Daytime			Nighttime			Ldn		
				Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?
1	Residential	County	LT-3	59.2	60	No	57.8	60	No	64.5	60	**Yes**
2	Residential	County	LT-3	58.1	60	No	56.7	60	No	63.4	60	**Yes**
3	Residential	County	LT-3	59.3	60	No	57.9	60	No	64.6	60	**Yes**
4	Residential	City	LT-3	56.7	65	No	55.3	60	No	62.0	60	**Yes**
5	Residential	City	LT-3	58.4	65	No	57.1	65	No	63.7	65	No
6	Residential	City	LT-5	52.8	65	No	51.4	65	No	58.1	65	No
7	Residential	City	LT-5	61.9	65	No	60.5	65	No	67.2	65	**Yes**
8	Residential	County	LT-5	64.7	60	**Yes**	63.3	60	**Yes**	70.0	60	**Yes**
9	Residential	County	LT-5	66.1	60	**Yes**	64.7	60	**Yes**	71.3	60	**Yes**
10	Residential	County	LT-5	66.3	60	**Yes**	65.0	60	**Yes**	71.6	60	**Yes**
11	Residential	County	LT-5	66.7	60	**Yes**	65.3	60	**Yes**	71.9	60	**Yes**
12	Residential	County	LT-5	67.0	60	**Yes**	65.6	60	**Yes**	72.3	60	**Yes**
13	Residential	County	LT-5	67.4	60	**Yes**	66.1	60	**Yes**	72.7	60	**Yes**
14	Residential	County	LT-5	70.4	60	**Yes**	69.1	60	**Yes**	75.7	60	**Yes**
15	Residential	County	LT-5	72.2	60	**Yes**	70.9	60	**Yes**	77.5	60	**Yes**
16	Residential	County	LT-5	70.1	60	**Yes**	68.7	60	**Yes**	75.4	60	**Yes**
17	Residential	County	LT-5	70.2	60	**Yes**	68.8	60	**Yes**	75.4	60	**Yes**
18	Residential	County	LT-5	68.3	60	**Yes**	66.9	60	**Yes**	73.5	60	**Yes**
19	Residential	County	LT-5	68.9	60	**Yes**	67.5	60	**Yes**	74.1	60	**Yes**
20	Residential	County	LT-5	69.1	60	**Yes**	67.7	60	**Yes**	74.3	60	**Yes**
21	Residential	County	LT-5	70.0	60	**Yes**	68.6	60	**Yes**	75.2	60	**Yes**
22	Residential	County	LT-5	69.7	60	**Yes**	68.3	60	**Yes**	75.0	60	**Yes**
23	Residential	County	LT-5	69.3	60	**Yes**	67.9	60	**Yes**	74.6	60	**Yes**
24	Residential	County	LT-5	70.8	60	**Yes**	69.4	60	**Yes**	76.1	60	**Yes**
25	Residential	County	LT-5	70.9	60	**Yes**	69.5	60	**Yes**	76.1	60	**Yes**
26	Residential	County	LT-5	71.0	60	**Yes**	69.6	60	**Yes**	76.2	60	**Yes**
27	Residential	County	LT-5	70.6	60	**Yes**	69.2	60	**Yes**	75.9	60	**Yes**
28	Residential	County	LT-5	71.8	60	**Yes**	70.4	60	**Yes**	77.0	60	**Yes**
29	Residential	County	LT-5	68.5	60	**Yes**	67.2	60	**Yes**	73.8	60	**Yes**
30	Residential	County	LT-4	73.1	60	**Yes**	71.7	60	**Yes**	78.4	60	**Yes**
31	Residential	County	LT-4	73.0	60	**Yes**	71.7	60	**Yes**	78.3	60	**Yes**
32	Residential	County	LT-4	73.0	60	**Yes**	71.6	60	**Yes**	78.3	60	**Yes**
33	Residential	County	LT-4	70.5	60	**Yes**	69.1	60	**Yes**	75.8	60	**Yes**
34	Residential	County	LT-4	70.6	60	**Yes**	69.2	60	**Yes**	75.8	60	**Yes**
35	Residential	County	LT-4	70.7	60	**Yes**	69.3	60	**Yes**	75.9	60	**Yes**

BIG Operational Exterior Noise Impact Analysis - Existing

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Exterior Noise								
				Daytime			Nighttime			Ldn		
				Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?
36 (Jasper Park)	Park/Recreation	County	LT-4	73.2	60	**Yes**	71.9	60	**Yes**	78.5	60	**Yes**
37	Residential	County	OH-1	69.3	60	**Yes**	68.0	60	**Yes**	74.6	60	**Yes**
38	Residential	County	LT-4	68.9	60	**Yes**	67.5	60	**Yes**	74.2	60	**Yes**
39	Residential	County	LT-4	71.3	60	**Yes**	70.0	60	**Yes**	76.6	60	**Yes**
40	Residential	County	LT-4	71.1	60	**Yes**	69.7	60	**Yes**	76.4	60	**Yes**
41	Residential	County	LT-4	66.2	60	**Yes**	64.9	60	**Yes**	71.5	60	**Yes**
42	Residential	County	LT-4	65.6	60	**Yes**	64.2	60	**Yes**	70.9	60	**Yes**
43	Residential	County	LT-4	64.9	60	**Yes**	63.5	60	**Yes**	70.2	60	**Yes**
44	Residential	County	LT-4	64.3	60	**Yes**	63.0	60	**Yes**	69.6	60	**Yes**
45	Residential	County	LT-4	65.0	60	**Yes**	63.6	60	**Yes**	70.3	60	**Yes**
46	Residential	County	LT-4	64.2	60	**Yes**	62.9	60	**Yes**	69.5	60	**Yes**
47	Residential	County	LT-4	63.5	60	**Yes**	62.2	60	**Yes**	68.8	60	**Yes**
48	Residential	County	LT-4	63.2	60	**Yes**	61.8	60	**Yes**	68.5	60	**Yes**
49	Residential	County	LT-4	61.9	60	**Yes**	60.6	60	**Yes**	67.2	60	**Yes**
50	Residential	County	LT-4	61.6	60	**Yes**	60.3	60	**Yes**	66.9	60	**Yes**
51	Residential	County	LT-4	61.3	60	**Yes**	59.9	60	No	66.6	60	**Yes**
52	Residential	County	LT-4	55.4	60	No	54.0	60	No	60.6	60	**Yes**
53	Residential	County	LT-1	54.6	60	No	53.2	60	No	59.8	60	No
54	Residential	County	LT-1	66.5	60	**Yes**	65.1	60	**Yes**	71.8	60	**Yes**
55	Residential	County	LT-2	70.8	60	**Yes**	69.5	60	**Yes**	76.1	60	**Yes**
56	Residential	County	LT-2	72.0	60	**Yes**	70.7	60	**Yes**	77.3	60	**Yes**
57	Residential	County	LT-2	71.3	60	**Yes**	70.0	60	**Yes**	76.6	60	**Yes**
58	Residential	County	LT-2	72.0	60	**Yes**	70.7	60	**Yes**	77.3	60	**Yes**
59	Residential	County	LT-2	71.0	60	**Yes**	69.6	60	**Yes**	76.2	60	**Yes**
60	Residential	County	LT-2	69.2	60	**Yes**	67.8	60	**Yes**	74.4	60	**Yes**
61	Residential	County	LT-2	73.6	60	**Yes**	72.3	60	**Yes**	78.9	60	**Yes**
62	Residential	County	LT-2	74.9	60	**Yes**	73.5	60	**Yes**	80.2	60	**Yes**
63	Residential	County	LT-2	69.1	60	**Yes**	67.7	60	**Yes**	74.4	60	**Yes**
64	Residential	County	LT-2	71.0	60	**Yes**	69.6	60	**Yes**	76.2	60	**Yes**
65 (Lenwood Elementary School)	School	County	LT-2	64.8	60	**Yes**	63.4	60	**Yes**	70.1	60	**Yes**
66 (Lenwood Park)	Park/Recreation	County	OH-2	61.2	60	**Yes**	59.8	60	No	66.4	60	**Yes**
67 (Missionary Baptist Church)	Church	County	OH-2	62.5	60	**Yes**	61.1	60	**Yes**	67.7	60	**Yes**
68 (Saint Phillip Church)	Church	County	OH-1	58.2	60	No	56.8	60	No	63.5	60	**Yes**
69 (Ingels School)	School	City	OH-3	56.1	65	No	54.8	65	No	61.4	65	No
70 (Grandview Baptist Church)	Church	County	LT-6	53.8	60	No	52.4	60	No	59.0	60	No

BIG Operational Exterior Noise Impact Analysis - Existing

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Exterior Noise								
				Daytime			Nighttime			Ldn		
				Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?
71	Residential	County	LT-6	67.2	60	**Yes**	65.8	60	**Yes**	72.5	60	**Yes**
72	Residential	County	LT-2	66.8	60	**Yes**	65.4	60	**Yes**	72.1	60	**Yes**
73	Residential	County	LT-2	66.2	60	**Yes**	64.8	60	**Yes**	71.5	60	**Yes**
74	Residential	County	LT-2	72.7	60	**Yes**	71.3	60	**Yes**	77.9	60	**Yes**
75	Residential	County	LT-2	73.8	60	**Yes**	72.4	60	**Yes**	79.0	60	**Yes**
76	Residential	County	LT-2	78.5	60	**Yes**	77.1	60	**Yes**	83.7	60	**Yes**
77	Residential	County	LT-2	63.8	60	**Yes**	62.4	60	**Yes**	69.1	60	**Yes**
78	Residential	County	LT-2	61.6	60	**Yes**	60.3	60	**Yes**	66.9	60	**Yes**
79	Residential	County	LT-2	66.8	60	**Yes**	65.4	60	**Yes**	72.1	60	**Yes**
80	Residential	County	LT-2	67.6	60	**Yes**	66.2	60	**Yes**	72.8	60	**Yes**
81	Residential	County	LT-2	63.4	60	**Yes**	62.0	60	**Yes**	68.6	60	**Yes**
82	Residential	County	LT-2	66.5	60	**Yes**	65.2	60	**Yes**	71.8	60	**Yes**
83	Residential	City	LT-2	47.0	65	No	45.6	65	No	52.3	65	No
84	Residential	City	LT-3	46.0	65	No	44.6	65	No	51.2	65	No
85	Residential	City	LT-3	66.5	65	**Yes**	65.1	65	**Yes**	71.7	65	**Yes**
86	Residential	City	LT-3	46.5	65	No	45.1	65	No	51.7	65	No
87	Residential	City	LT-3	44.7	65	No	43.3	65	No	50.0	65	No
88	Residential	City	LT-3	45.3	65	No	43.9	65	No	50.5	65	No
89	Residential	City	LT-3	45.3	65	No	43.9	65	No	50.6	65	No
90	Residential	City	LT-3	44.8	65	No	43.5	65	No	50.1	65	No

Construction Year 2026 (South Mainlines) Absolute Exterior Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT									Impact Analysis								
				Measured Ambient Noise Level (L_{dn}, L_{eq})	Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	59.3	55	Yes	59.3	45	Yes	64.5	60	Yes	58.1	55	Yes	56.6	45	Yes	63.3	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
2	Residential	County	LT-3	66.5	58.2	55	Yes	58.2	45	Yes	63.4	60	Yes	54.3	55	No	52.8	45	Yes	59.4	60	No	No	1.5	No	Yes	1.5	No	No	1.5	No
3	Residential	County	LT-3	66.5	59.4	55	Yes	59.4	45	Yes	64.6	60	Yes	54.6	55	No	53.1	45	Yes	59.8	60	No	No	1.5	No	Yes	1.5	No	No	1.5	No
4	Residential	City	LT-3	66.5	56.8	65	No	56.8	65	No	62.0	65	No	52.1	65	No	50.6	65	No	57.3	65	No	No	1.5	No	No	1.5	No	No	1.5	No
5	Residential	City	LT-3	66.5	58.6	65	No	58.6	65	No	63.7	65	No	51.2	65	No	49.7	65	No	56.3	65	No	No	1.5	No	No	1.5	No	No	1.5	No
6	Residential	City	LT-5	58.1	52.9	65	No	52.9	65	No	58.1	65	No	50.2	65	No	48.7	65	No	55.4	65	No	No	5.0	No	No	5.0	No	No	5.0	No
7	Residential	City	LT-5	58.1	62.0	65	No	62.0	65	No	67.2	65	Yes	60.0	65	No	58.5	65	No	65.2	65	Yes	No	5.0	No	No	5.0	No	Yes	5.0	No
8	Residential	County	LT-5	58.1	64.8	55	Yes	64.8	45	Yes	70.0	60	Yes	65.0	55	Yes	63.5	45	Yes	70.1	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
9	Residential	County	LT-5	58.1	66.2	55	Yes	66.2	45	Yes	71.4	60	Yes	66.3	55	Yes	64.8	45	Yes	71.5	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
10	Residential	County	LT-5	58.1	66.5	55	Yes	66.5	45	Yes	71.6	60	Yes	66.6	55	Yes	65.1	45	Yes	71.7	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
11	Residential	County	LT-5	58.1	66.8	55	Yes	66.8	45	Yes	72.0	60	Yes	66.9	55	Yes	65.4	45	Yes	72.0	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
12	Residential	County	LT-5	58.1	67.2	55	Yes	67.2	45	Yes	72.3	60	Yes	67.2	55	Yes	65.7	45	Yes	72.3	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
13	Residential	County	LT-5	58.1	67.6	55	Yes	67.6	45	Yes	72.7	60	Yes	67.6	55	Yes	66.1	45	Yes	72.7	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
14	Residential	County	LT-5	58.1	70.6	55	Yes	70.6	45	Yes	75.7	60	Yes	70.6	55	Yes	69.1	45	Yes	75.8	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
15	Residential	County	LT-5	58.1	72.4	55	Yes	72.4	45	Yes	77.5	60	Yes	72.4	55	Yes	70.9	45	Yes	77.5	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
16	Residential	County	LT-5	58.1	70.3	55	Yes	70.3	45	Yes	75.4	60	Yes	70.3	55	Yes	68.7	45	Yes	75.4	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
17	Residential	County	LT-5	58.1	70.3	55	Yes	70.3	45	Yes	75.5	60	Yes	70.3	55	Yes	68.8	45	Yes	75.5	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
18	Residential	County	LT-5	58.1	68.4	55	Yes	68.4	45	Yes	73.6	60	Yes	68.4	55	Yes	66.9	45	Yes	73.6	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
19	Residential	County	LT-5	58.1	69.0	55	Yes	69.0	45	Yes	74.1	60	Yes	69.0	55	Yes	67.5	45	Yes	74.2	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
20	Residential	County	LT-5	58.1	69.2	55	Yes	69.2	45	Yes	74.4	60	Yes	69.2	55	Yes	67.7	45	Yes	74.4	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
21	Residential	County	LT-5	58.1	70.1	55	Yes	70.1	45	Yes	75.2	60	Yes	70.1	55	Yes	68.6	45	Yes	75.3	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
22	Residential	County	LT-5	58.1	69.8	55	Yes	69.8	45	Yes	75.0	60	Yes	69.9	55	Yes	68.4	45	Yes	75.0	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
23	Residential	County	LT-5	58.1	69.4	55	Yes	69.4	45	Yes	74.6	60	Yes	69.5	55	Yes	68.0	45	Yes	74.6	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
24	Residential	County	LT-5	58.1	70.9	55	Yes	70.9	45	Yes	76.1	60	Yes	71.0	55	Yes	69.5	45	Yes	76.1	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
25	Residential	County	LT-5	58.1	71.0	55	Yes	71.0	45	Yes	76.2	60	Yes	71.0	55	Yes	69.5	45	Yes	76.2	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
26	Residential	County	LT-5	58.1	71.1	55	Yes	71.1	45	Yes	76.3	60	Yes	71.2	55	Yes	69.7	45	Yes	76.3	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
27	Residential	County	LT-5	58.1	70.8	55	Yes	70.8	45	Yes	75.9	60	Yes	70.8	55	Yes	69.3	45	Yes	76.0	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
28	Residential	County	LT-5	58.1	71.9	55	Yes	71.9	45	Yes	77.0	60	Yes	72.0	55	Yes	70.5	45	Yes	77.1	60	Yes	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
29	Residential	County	LT-4	66.1	68.7	55	Yes	68.7	45	Yes	73.8	60	Yes	68.6	55	Yes	67.1	45	Yes	73.8	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
30	Residential	County	LT-4	66.1	73.2	55	Yes	73.2	45	Yes	78.4	60	Yes	73.2	55	Yes	71.7	45	Yes	78.3	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
31	Residential	County	LT-4	66.1	73.2	55	Yes	73.2	45	Yes	78.3	60	Yes	73.1	55	Yes	71.6	45	Yes	78.2	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
32	Residential	County	LT-4	66.1	73.1	55	Yes	73.1	45	Yes	78.3	60	Yes	73.0	55	Yes	71.5	45	Yes	78.2	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
33	Residential	County	LT-4	66.1	70.6	55	Yes	70.6	45	Yes	75.8	60	Yes	70.6	55	Yes	69.1	45	Yes	75.7	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
34	Residential	County	LT-4	66.1	70.7	55	Yes	70.7	45	Yes	75.9	60	Yes	70.6	55	Yes	69.1	45	Yes	75.8	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
35	Residential	County	LT-4	66.1	70.8	55	Yes	70.8	45	Yes	75.9	60	Yes	70.8	55	Yes	69.3	45	Yes	75.9	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	73.4	55	Yes	73.4	-	No	78.5	60	Yes	73.3	55	Yes	71.8	-	No	78.5	60	Yes	Yes	5.0	No	No	5.0	No	Yes	5.0	No
37	Residential	County	LT-4	66.1	69.5	55	Yes	69.5	45	Yes	74.6	60	Yes	69.4	55	Yes	67.9	45	Yes	74.6	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
38	Residential	County	LT-4	66.1	69.0	55	Yes	69.0	45	Yes	74.2	60	Yes	69.0	55	Yes	67.5	45	Yes	74.2	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
39	Residential	County	LT-4	66.1	71.5	55	Yes	71.5	45	Yes	76.6	60	Yes	71.4	55	Yes	69.9	45	Yes	76.6	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
40	Residential	County	LT-4	66.1	71.2	55	Yes	71.2	45	Yes	76.4	60	Yes	71.2	55	Yes	69.7	45	Yes	76.4	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
41	Residential	County	LT-4	66.1	66.4	55	Yes	66.4	45	Yes	71.5	60	Yes	66.4	55	Yes	64.8	45	Yes	71.5	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
42	Residential	County	LT-4	66.1	65.7	55	Yes	65.7	45	Yes	70.9	60	Yes	65.7	55	Yes	64.2	45	Yes	70.9	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
43	Residential	County	LT-4	66.1	65.0	55	Yes	65.0	45	Yes	70.2	60	Yes	65.0	55	Yes	63.5	45	Yes	70.2	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
44	Residential	County	LT-4	66.1	64.5	55	Yes	64.5	45	Yes	69.6	60	Yes	64.4	55	Yes	62.9	45	Yes	69.6	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
45	Residential	County	LT-4	66.1	65.2	55	Yes	65.2	45	Yes	70.3	60	Yes	65.1	55	Yes	63.6	45	Yes	70.3	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
46	Residential	County	LT-4	66.1	64.4	55	Yes	64.4	45	Yes	69.5	60	Yes	64.3	55	Yes	62.8	45	Yes	69.5	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
47	Residential	County	LT-4	66.1	63.7	55	Yes	63.7	45	Yes	68.8	60	Yes	63.6	55	Yes	62.1	45	Yes	68.8	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
48	Residential	County	LT-4	66.1	63.3	55	Yes	63.3	45	Yes	68.5	60	Yes	63.3	55	Yes	61.8	45	Yes	68.4	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
49	Residential	County	LT-4	66.1	62.1	55	Yes	62.1	45	Yes	67.2	60	Yes	62.0	55	Yes	60.5	45	Yes	67.1	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
50	Residential	County	LT-4	66.1	61.8	55	Yes	61.8	45	Yes	66.9	60	Yes	61.7	55	Yes	60.2	45	Yes	66.8	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
51	Residential	County	LT-4	66.1	61.5	55	Yes	61.5	45	Yes	66.6	60	Yes	61.3	55	Yes	59.8	45	Yes	66.4	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
52	Residential	County	LT-1	61.2	55.5	55	Yes	55.5	45	Yes	60.6	60	Yes	47.9	55	No	46.4	45	Yes	53.0	60	No	No	3.0	No	Yes	3.0	No	No	3.0	No
53	Residential	County	LT-1	61.2	54.7	55	No	54.7	45	Yes	59.9	60	No	47.4	55	No	45.9	45	Yes	52.6	60	No	No	3.0	No	Yes	3.0	No	No	3.0	No
54	Residential	County	LT-2	77.2	66.6	55	Yes	66.6	45	Yes	71.8	60	Yes	67.8	55	Yes	66.3	45	Yes	73.0	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
55	Residential	County	LT-2	77.2	71.0	55	Yes	71.0	45	Yes	76.1	60	Yes	72.2	55	Yes	70.7	45	Yes	77.4	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
56	Residential	County	LT-2	77.2	72.2	55	Yes	72.2	45	Yes	77.3	60	Yes	72.9	55	Yes	71.4	45	Yes	78.0	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
57	Residential	County	LT-2	77.2	71.5	55	Yes	71.5	45	Yes	76.6	60	Yes	71.8	55	Yes	70.3	45	Yes	76.9	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
58	Residential	County	LT-2	77.2	72.2	55	Yes	72.2	45	Yes	77.3	60	Yes	72.3	55	Yes	70.8	45	Yes	77.4	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
59	Residential	County	LT-2	77.2	71.1	55	Yes	71.1	45	Yes	76.3	60	Yes	71.1	55	Yes	69.6	45	Yes	76.2	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
60	Residential	County	LT-2	77.2	69.3	55	Yes	69.3	45	Yes	74.4	60	Yes	69.2	55	Yes	67.7	45	Yes	74.4	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
61	Residential	County	LT-2	77.2	73.8	55	Yes	73.8	45	Yes	78.9	60	Yes	73.8	55	Yes	72.2	45	Yes	78.9	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
62	Residential	County	LT-2	77.2	75.0	55	Yes	75.0	45	Yes	80.2	60	Yes	75.0	55	Yes	73.5	45	Yes	80.2	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
63	Residential	County	LT-2	77.2	69.2	55	Yes	69.2	45	Yes	74.4	60	Yes	69.2	55	Yes	67.7	45	Yes	74.4	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
64	Residential	County	LT-2	77.2	71.1	55	Yes	71.1	45	Yes	76.3	60	Yes	71.1	55	Yes	69.6	45	Yes	76.3	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	64.9	55	Yes	64.9	-	No	70.1	60	Yes	64.9	55	Yes	63.4	-	No	70.1	60	Yes	Yes	5.0	No	No	5.0	No	Yes	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	61.3	55	Yes	61.3	-	No	66.5	60	Yes	61.3	55	Yes	59.8	-	No	66.5	60	Yes	Yes	5.0	No	No	5.0	No	Yes	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	62.6	55	Yes	62.6	-	No	67.7	60	Yes	62.6	55	Yes	61.1	-	No	67.8	60	Yes	Yes	5.0	No	No	5.0	No	Yes	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	58.4	55	Yes	58.4	-	No	63.5	60	Yes	58.4	55	Yes	56.9	-	No	63.5	60	Yes	Yes	5.0	No	No	5.0	No	Yes	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	56.3	55	Yes	56.3	-	No	61.4	65	No	56.3	55	Yes	54.8	-	No	61.4	65	No	Yes	3.0	No	No	3.0	No	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	53.9	55	No	53.9	-	No	59.1	60	No	54.0	55	No	52.5	-	No	59.2	60	No	No	3.0	No	No	3.0	No	No	3.0	No
71	Residential	County	LT-2	77.2	67.3	55	Yes	67.3	45	Yes	72.5	60	Yes	67.3	55	Yes	65.8	45	Yes	72.5	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
72	Residential	County	LT-2	77.2	66.9	55	Yes	66.9	45	Yes	72.1	60	Yes	66.9	55	Yes	65.4	45	Yes	72.1	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
73	Residential	County	LT-2	77.2	66.3	55	Yes	66.3	45	Yes	71.5	60	Yes	66.3	55	Yes	64.8	45	Yes	71.5	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
74	Residential	County	LT-2	77.2	72.8	55	Yes	72.8	45	Yes	78.0	60	Yes	72.8	55	Yes	71.3	45	Yes	78.0	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
75	Residential	County	LT-2	77.2	73.9	55	Yes	73.9	45	Yes	79.1	60	Yes	73.9	55	Yes	72.4	45	Yes	79.1	60	Yes	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No

Construction Year 2026 (South Mainlines) Absolute Exterior Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT										Impact Analysis								
				Measured Ambient Noise Level (L_{dn}, L_{eq})	Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
76	Residential	County	LT-2	77.2	78.6	55	**Yes**	78.6	45	**Yes**	83.7	60	**Yes**	78.6	55	**Yes**	77.1	45	**Yes**	83.7	60	**Yes**	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
77	Residential	County	LT-2	77.2	64.0	55	**Yes**	64.0	45	**Yes**	69.1	60	**Yes**	64.0	55	**Yes**	62.4	45	**Yes**	69.1	60	**Yes**	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
78	Residential	County	LT-2	77.2	61.8	55	**Yes**	61.8	45	**Yes**	66.9	60	**Yes**	61.8	55	**Yes**	60.3	45	**Yes**	66.9	60	**Yes**	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
79	Residential	County	LT-2	77.2	66.9	55	**Yes**	66.9	45	**Yes**	72.1	60	**Yes**	66.9	55	**Yes**	65.4	45	**Yes**	72.1	60	**Yes**	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
80	Residential	County	LT-2	77.2	67.7	55	**Yes**	67.7	45	**Yes**	72.9	60	**Yes**	67.7	55	**Yes**	66.2	45	**Yes**	72.9	60	**Yes**	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
81	Residential	County	LT-2	77.2	63.5	55	**Yes**	63.5	45	**Yes**	68.7	60	**Yes**	63.5	55	**Yes**	62.0	45	**Yes**	68.7	60	**Yes**	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
82	Residential	County	LT-2	77.2	66.7	55	**Yes**	66.7	45	**Yes**	71.8	60	**Yes**	66.7	55	**Yes**	65.2	45	**Yes**	71.8	60	**Yes**	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
83	Residential	City	LT-3	66.5	47.1	65	No	47.1	65	No	52.3	65	No	44.4	65	No	42.9	65	No	49.5	65	No	No	1.5	No	No	1.5	No	No	1.5	No
84	Residential	City	LT-3	66.5	46.1	65	No	46.1	65	No	51.2	65	No	43.5	65	No	42.0	65	No	48.6	65	No	No	1.5	No	No	1.5	No	No	1.5	No
85	Residential	City	LT-3	66.5	66.6	65	**Yes**	66.6	65	**Yes**	71.7	65	**Yes**	66.6	65	**Yes**	65.1	65	**Yes**	71.7	65	**Yes**	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
86	Residential	City	LT-3	66.5	46.6	65	No	46.6	65	No	51.8	65	No	42.1	65	No	40.6	65	No	47.2	65	No	No	1.5	No	No	1.5	No	No	1.5	No
87	Residential	City	LT-3	66.5	44.8	65	No	44.8	65	No	50.0	65	No	41.6	65	No	40.1	65	No	46.7	65	No	No	1.5	No	No	1.5	No	No	1.5	No
88	Residential	City	LT-3	66.5	45.4	65	No	45.4	65	No	50.5	65	No	42.2	65	No	40.7	65	No	47.4	65	No	No	1.5	No	No	1.5	No	No	1.5	No
89	Residential	City	LT-3	66.5	45.4	65	No	45.4	65	No	50.6	65	No	42.3	65	No	40.8	65	No	47.5	65	No	No	1.5	No	No	1.5	No	No	1.5	No
90	Residential	City	LT-3	66.5	45.0	65	No	45.0	65	No	50.1	65	No	42.0	65	No	40.5	65	No	47.2	65	No	No	1.5	No	No	1.5	No	No	1.5	No

Construction Year 2026 (South Mainelines) Exterior Incremental Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
1	Residential	County	59.3	59.3	64.5	58.1	56.6	63.3	-1.2	-2.7	-1.2	1.5	No	1.5	No	1.5	No
2	Residential	County	58.2	58.2	63.4	54.3	52.8	59.4	-3.9	-5.4	-4.0	1.5	No	1.5	No	1.5	No
3	Residential	County	59.4	59.4	64.6	54.6	53.1	59.8	-4.8	-6.3	-4.8	1.5	No	1.5	No	1.5	No
4	Residential	City	56.8	56.8	62.0	52.1	50.6	57.3	-4.7	-6.2	-4.7	1.5	No	1.5	No	1.5	No
5	Residential	City	58.6	58.6	63.7	51.2	49.7	56.3	-7.4	-8.9	-7.4	1.5	No	1.5	No	1.5	No
6	Residential	City	52.9	52.9	58.1	50.2	48.7	55.4	-2.7	-4.2	-2.7	5.0	No	5.0	No	5.0	No
7	Residential	City	62.0	62.0	67.2	60.0	58.5	65.2	-2.0	-3.5	-2.0	5.0	No	5.0	No	5.0	No
8	Residential	County	64.8	64.8	70.0	65.0	63.5	70.1	0.2	-1.3	0.1	5.0	No	5.0	No	5.0	No
9	Residential	County	66.2	66.2	71.4	66.3	64.8	71.5	0.1	-1.4	0.1	5.0	No	5.0	No	5.0	No
10	Residential	County	66.5	66.5	71.6	66.6	65.1	71.7	0.1	-1.4	0.1	5.0	No	5.0	No	5.0	No
11	Residential	County	66.8	66.8	72.0	66.9	65.4	72.0	0.1	-1.4	0.0	5.0	No	5.0	No	5.0	No
12	Residential	County	67.2	67.2	72.3	67.2	65.7	72.3	0.0	-1.5	0.0	5.0	No	5.0	No	5.0	No
13	Residential	County	67.6	67.6	72.7	67.6	66.1	72.7	0.0	-1.5	0.0	5.0	No	5.0	No	5.0	No
14	Residential	County	70.6	70.6	75.7	70.6	69.1	75.8	0.0	-1.5	0.1	5.0	No	5.0	No	5.0	No
15	Residential	County	72.4	72.4	77.5	72.4	70.9	77.5	0.0	-1.5	0.0	5.0	No	5.0	No	5.0	No
16	Residential	County	70.3	70.3	75.4	70.3	68.7	75.4	0.0	-1.6	0.0	5.0	No	5.0	No	5.0	No
17	Residential	County	70.3	70.3	75.5	70.3	68.8	75.5	0.0	-1.5	0.0	5.0	No	5.0	No	5.0	No
18	Residential	County	68.4	68.4	73.6	68.4	66.9	73.6	0.0	-1.5	0.0	5.0	No	5.0	No	5.0	No
19	Residential	County	69.0	69.0	74.1	69.0	67.5	74.2	0.0	-1.5	0.1	5.0	No	5.0	No	5.0	No
20	Residential	County	69.2	69.2	74.4	69.2	67.7	74.4	0.0	-1.5	0.0	5.0	No	5.0	No	5.0	No
21	Residential	County	70.1	70.1	75.2	70.1	68.6	75.3	0.0	-1.5	0.1	5.0	No	5.0	No	5.0	No
22	Residential	County	69.8	69.8	75.0	69.9	68.4	75.0	0.1	-1.4	0.0	5.0	No	5.0	No	5.0	No
23	Residential	County	69.4	69.4	74.6	69.5	68.0	74.6	0.1	-1.4	0.0	5.0	No	5.0	No	5.0	No
24	Residential	County	70.9	70.9	76.1	71.0	69.5	76.1	0.1	-1.4	0.0	5.0	No	5.0	No	5.0	No
25	Residential	County	71.0	71.0	76.2	71.0	69.5	76.2	0.0	-1.5	0.0	5.0	No	5.0	No	5.0	No
26	Residential	County	71.1	71.1	76.3	71.2	69.7	76.3	0.1	-1.4	0.0	5.0	No	5.0	No	5.0	No
27	Residential	County	70.8	70.8	75.9	70.8	69.3	76.0	0.0	-1.5	0.1	5.0	No	5.0	No	5.0	No
28	Residential	County	71.9	71.9	77.0	72.0	70.5	77.1	0.1	-1.4	0.1	5.0	No	5.0	No	5.0	No
29	Residential	County	68.7	68.7	73.8	68.6	67.1	73.8	-0.1	-1.6	0.0	1.5	No	1.5	No	1.5	No
30	Residential	County	73.2	73.2	78.4	73.2	71.7	78.3	0.0	-1.5	-0.1	1.5	No	1.5	No	1.5	No
31	Residential	County	73.2	73.2	78.3	73.1	71.6	78.2	-0.1	-1.6	-0.1	1.5	No	1.5	No	1.5	No
32	Residential	County	73.1	73.1	78.3	73.0	71.5	78.2	-0.1	-1.6	-0.1	1.5	No	1.5	No	1.5	No
33	Residential	County	70.6	70.6	75.8	70.6	69.1	75.7	0.0	-1.5	-0.1	1.5	No	1.5	No	1.5	No
34	Residential	County	70.7	70.7	75.9	70.6	69.1	75.8	-0.1	-1.6	-0.1	1.5	No	1.5	No	1.5	No
35	Residential	County	70.8	70.8	75.9	70.8	69.3	75.9	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
36 (Jasper Park)	Park/Recreation	County	73.4	73.4	78.5	73.3	71.8	78.5	-0.1	-1.6	0.0	5.0	No	5.0	No	5.0	No
37	Residential	County	69.5	69.5	74.6	69.4	67.9	74.6	-0.1	-1.6	0.0	1.5	No	1.5	No	1.5	No
38	Residential	County	69.0	69.0	74.2	69.0	67.5	74.2	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
39	Residential	County	71.5	71.5	76.6	71.4	69.9	76.6	-0.1	-1.6	0.0	1.5	No	1.5	No	1.5	No
40	Residential	County	71.2	71.2	76.4	71.2	69.7	76.4	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
41	Residential	County	66.4	66.4	71.5	66.4	64.8	71.5	0.0	-1.6	0.0	1.5	No	1.5	No	1.5	No
42	Residential	County	65.7	65.7	70.9	65.7	64.2	70.9	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
43	Residential	County	65.0	65.0	70.2	65.0	63.5	70.2	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No

Construction Year 2026 (South Mainelines) Exterior Incremental Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
44	Residential	County	64.5	64.5	69.6	64.4	62.9	69.6	-0.1	-1.6	0.0	1.5	No	1.5	No	1.5	No
45	Residential	County	65.2	65.2	70.3	65.1	63.6	70.3	-0.1	-1.6	0.0	1.5	No	1.5	No	1.5	No
46	Residential	County	64.4	64.4	69.5	64.3	62.8	69.5	-0.1	-1.6	0.0	1.5	No	1.5	No	1.5	No
47	Residential	County	63.7	63.7	68.8	63.6	62.1	68.8	-0.1	-1.6	0.0	1.5	No	1.5	No	1.5	No
48	Residential	County	63.3	63.3	68.5	63.3	61.8	68.4	0.0	-1.5	-0.1	1.5	No	1.5	No	1.5	No
49	Residential	County	62.1	62.1	67.2	62.0	60.5	67.1	-0.1	-1.6	-0.1	1.5	No	1.5	No	1.5	No
50	Residential	County	61.8	61.8	66.9	61.7	60.2	66.8	-0.1	-1.6	-0.1	1.5	No	1.5	No	1.5	No
51	Residential	County	61.5	61.5	66.6	61.3	59.8	66.4	-0.2	-1.7	-0.2	1.5	No	1.5	No	1.5	No
52	Residential	County	55.5	55.5	60.6	47.9	46.4	53.0	-7.6	-9.1	-7.6	3.0	No	3.0	No	3.0	No
53	Residential	County	54.7	54.7	59.9	47.4	45.9	52.6	-7.3	-8.8	-7.3	3.0	No	3.0	No	3.0	No
54	Residential	County	66.6	66.6	71.8	67.8	66.3	73.0	1.2	-0.3	1.2	1.5	No	1.5	No	1.5	No
55	Residential	County	71.0	71.0	76.1	72.2	70.7	77.4	1.2	-0.3	1.3	1.5	No	1.5	No	1.5	No
56	Residential	County	72.2	72.2	77.3	72.9	71.4	78.0	0.7	-0.8	0.7	1.5	No	1.5	No	1.5	No
57	Residential	County	71.5	71.5	76.6	71.8	70.3	76.9	0.3	-1.2	0.3	1.5	No	1.5	No	1.5	No
58	Residential	County	72.2	72.2	77.3	72.3	70.8	77.4	0.1	-1.4	0.1	1.5	No	1.5	No	1.5	No
59	Residential	County	71.1	71.1	76.3	71.1	69.6	76.2	0.0	-1.5	-0.1	1.5	No	1.5	No	1.5	No
60	Residential	County	69.3	69.3	74.4	69.2	67.7	74.4	-0.1	-1.6	0.0	1.5	No	1.5	No	1.5	No
61	Residential	County	73.8	73.8	78.9	73.8	72.2	78.9	0.0	-1.6	0.0	1.5	No	1.5	No	1.5	No
62	Residential	County	75.0	75.0	80.2	75.0	73.5	80.2	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
63	Residential	County	69.2	69.2	74.4	69.2	67.7	74.4	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
64	Residential	County	71.1	71.1	76.3	71.1	69.6	76.3	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
65 (Lenwood Elementary School)	School	County	64.9	64.9	70.1	64.9	63.4	70.1	0.0	-1.5	0.0	5.0	No	5.0	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	61.3	61.3	66.5	61.3	59.8	66.5	0.0	-1.5	0.0	5.0	No	5.0	No	5.0	No
67 (Missionary Baptist Church)	Church	County	62.6	62.6	67.7	62.6	61.1	67.8	0.0	-1.5	0.1	5.0	No	5.0	No	5.0	No
68 (Saint Phillip Church)	Church	County	58.4	58.4	63.5	58.4	56.9	63.5	0.0	-1.5	0.0	5.0	No	5.0	No	5.0	No
69 (Ingels School)	School	County	56.3	56.3	61.4	56.3	54.8	61.4	0.0	-1.5	0.0	3.0	No	3.0	No	3.0	No
70 (Grandview Baptist Church)	Church	County	53.9	53.9	59.1	54.0	52.5	59.2	0.1	-1.4	0.1	3.0	No	3.0	No	3.0	No
71	Residential	County	67.3	67.3	72.5	67.3	65.8	72.5	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
72	Residential	County	66.9	66.9	72.1	66.9	65.4	72.1	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
73	Residential	County	66.3	66.3	71.5	66.3	64.8	71.5	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
74	Residential	County	72.8	72.8	78.0	72.8	71.3	78.0	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
75	Residential	County	73.9	73.9	79.1	73.9	72.4	79.1	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
76	Residential	County	78.6	78.6	83.7	78.6	77.1	83.7	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
77	Residential	County	64.0	64.0	69.1	64.0	62.4	69.1	0.0	-1.6	0.0	1.5	No	1.5	No	1.5	No
78	Residential	County	61.8	61.8	66.9	61.8	60.3	66.9	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
79	Residential	County	66.9	66.9	72.1	66.9	65.4	72.1	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
80	Residential	County	67.7	67.7	72.9	67.7	66.2	72.9	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
81	Residential	County	63.5	63.5	68.7	63.5	62.0	68.7	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
82	Residential	County	66.7	66.7	71.8	66.7	65.2	71.8	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
83	Residential	City	47.1	47.1	52.3	44.4	42.9	49.5	-2.7	-4.2	-2.8	1.5	No	1.5	No	1.5	No
84	Residential	City	46.1	46.1	51.2	43.5	42.0	48.6	-2.6	-4.1	-2.6	1.5	No	1.5	No	1.5	No
85	Residential	City	66.6	66.6	71.7	66.6	65.1	71.7	0.0	-1.5	0.0	1.5	No	1.5	No	1.5	No
86	Residential	City	46.6	46.6	51.8	42.1	40.6	47.2	-4.5	-6.0	-4.6	1.5	No	1.5	No	1.5	No

Construction Year 2026 (South Mainelines) Exterior Incremental Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
87	Residential	City	44.8	44.8	50.0	41.6	40.1	46.7	-3.2	-4.7	-3.3	1.5	No	1.5	No	1.5	No
88	Residential	City	45.4	45.4	50.5	42.2	40.7	47.4	-3.2	-4.7	-3.1	1.5	No	1.5	No	1.5	No
89	Residential	City	45.4	45.4	50.6	42.3	40.8	47.5	-3.1	-4.6	-3.1	1.5	No	1.5	No	1.5	No
90	Residential	City	45.0	45.0	50.1	42.0	40.5	47.2	-3.0	-4.5	-2.9	1.5	No	1.5	No	1.5	No

Opening Year 2028 Exterior Absolute Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT										COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
				Measured Ambient Noise Level (L_{dn}, L_{eq})	Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn						Daytime			Nighttime			Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Daytime	Nighttime	Ldn	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	59.5	55	Yes	58.1	45	Yes	64.7	60	Yes	61.5	55	Yes	60.9	45	Yes	67.4	60	Yes	2.0	2.8	2.7	Yes	1.5	Yes	Yes	1.5	Yes	Yes	1.5	Yes
2	Residential	County	LT-3	66.5	58.4	55	Yes	57.0	45	Yes	63.7	60	Yes	59.2	55	Yes	58.9	45	Yes	65.3	60	Yes	0.8	1.9	1.6	Yes	1.5	No	Yes	1.5	Yes	Yes	1.5	Yes
3	Residential	County	LT-3	66.5	59.6	55	Yes	58.2	45	Yes	64.8	60	Yes	59.6	55	Yes	59.2	45	Yes	65.7	60	Yes	0.0	1.0	0.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
4	Residential	City	LT-3	66.5	57.0	65	No	55.6	65	No	62.3	65	No	59.2	65	No	58.7	65	No	65.2	65	Yes	2.2	3.1	2.9	No	1.5	No	No	1.5	Yes	Yes	1.5	Yes
5	Residential	City	LT-3	66.5	58.7	65	No	57.4	65	No	64.0	65	No	63.9	65	No	63.8	65	No	70.2	65	Yes	5.2	6.4	6.2	No	1.5	No	No	1.5	Yes	Yes	1.5	Yes
6	Residential	City	LT-5	58.1	53.1	65	No	51.7	65	No	58.3	65	No	59.7	65	No	59.5	65	No	66.0	65	Yes	6.6	7.8	7.7	No	5.0	No	No	5.0	Yes	Yes	5.0	Yes
7	Residential	City	LT-5	58.1	62.2	65	No	60.8	65	No	67.4	65	Yes	62.2	65	No	61.6	65	No	68.1	65	Yes	0.0	0.8	0.7	No	5.0	No	No	5.0	No	Yes	5.0	No
8	Residential	County	LT-5	58.1	65.0	55	Yes	63.6	45	Yes	70.2	60	Yes	64.0	55	Yes	62.9	45	Yes	69.5	60	Yes	-1.0	-0.7	-0.7	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
9	Residential	County	LT-5	58.1	66.3	55	Yes	65.0	45	Yes	71.6	60	Yes	65.4	55	Yes	64.3	45	Yes	70.9	60	Yes	-0.9	-0.7	-0.7	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
10	Residential	County	LT-5	58.1	66.6	55	Yes	65.3	45	Yes	71.9	60	Yes	65.8	55	Yes	64.6	45	Yes	71.2	60	Yes	-0.8	-0.7	-0.7	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
11	Residential	County	LT-5	58.1	66.9	55	Yes	65.6	45	Yes	72.2	60	Yes	66.1	55	Yes	64.9	45	Yes	71.5	60	Yes	-0.8	-0.7	-0.7	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
12	Residential	County	LT-5	58.1	67.3	55	Yes	65.9	45	Yes	72.6	60	Yes	66.4	55	Yes	65.2	45	Yes	71.8	60	Yes	-0.9	-0.7	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
13	Residential	County	LT-5	58.1	67.7	55	Yes	66.4	45	Yes	73.0	60	Yes	66.8	55	Yes	65.6	45	Yes	72.2	60	Yes	-0.9	-0.8	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
14	Residential	County	LT-5	58.1	70.7	55	Yes	69.4	45	Yes	76.0	60	Yes	69.6	55	Yes	68.3	45	Yes	74.9	60	Yes	-1.1	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
15	Residential	County	LT-5	58.1	72.5	55	Yes	71.2	45	Yes	77.8	60	Yes	71.3	55	Yes	70.0	45	Yes	76.6	60	Yes	-1.2	-1.2	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
16	Residential	County	LT-5	58.1	70.4	55	Yes	69.0	45	Yes	75.7	60	Yes	69.0	55	Yes	67.8	45	Yes	74.4	60	Yes	-1.4	-1.2	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
17	Residential	County	LT-5	58.1	70.4	55	Yes	69.1	45	Yes	75.7	60	Yes	69.1	55	Yes	67.8	45	Yes	74.4	60	Yes	-1.3	-1.3	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
18	Residential	County	LT-5	58.1	68.5	55	Yes	67.2	45	Yes	73.8	60	Yes	67.4	55	Yes	66.1	45	Yes	72.7	60	Yes	-1.1	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
19	Residential	County	LT-5	58.1	69.1	55	Yes	67.8	45	Yes	74.4	60	Yes	68.0	55	Yes	66.7	45	Yes	73.3	60	Yes	-1.1	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
20	Residential	County	LT-5	58.1	69.3	55	Yes	68.0	45	Yes	74.6	60	Yes	68.2	55	Yes	66.9	45	Yes	73.6	60	Yes	-1.1	-1.1	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
21	Residential	County	LT-5	58.1	70.2	55	Yes	68.9	45	Yes	75.5	60	Yes	69.1	55	Yes	67.8	45	Yes	74.4	60	Yes	-1.1	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
22	Residential	County	LT-5	58.1	70.0	55	Yes	68.6	45	Yes	75.3	60	Yes	68.9	55	Yes	67.6	45	Yes	74.2	60	Yes	-1.1	-1.0	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
23	Residential	County	LT-5	58.1	69.6	55	Yes	68.2	45	Yes	74.9	60	Yes	68.5	55	Yes	67.2	45	Yes	73.8	60	Yes	-1.1	-1.0	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
24	Residential	County	LT-5	58.1	71.1	55	Yes	69.7	45	Yes	76.4	60	Yes	69.9	55	Yes	68.6	45	Yes	75.2	60	Yes	-1.2	-1.1	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
25	Residential	County	LT-5	58.1	71.1	55	Yes	69.8	45	Yes	76.4	60	Yes	70.0	55	Yes	68.7	45	Yes	75.3	60	Yes	-1.1	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
26	Residential	County	LT-5	58.1	71.2	55	Yes	69.9	45	Yes	76.5	60	Yes	70.1	55	Yes	68.7	45	Yes	75.4	60	Yes	-1.1	-1.2	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
27	Residential	County	LT-5	58.1	70.9	55	Yes	69.5	45	Yes	76.2	60	Yes	69.7	55	Yes	68.4	45	Yes	75.0	60	Yes	-1.2	-1.1	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
28	Residential	County	LT-5	58.1	72.0	55	Yes	70.7	45	Yes	77.3	60	Yes	70.7	55	Yes	69.4	45	Yes	76.1	60	Yes	-1.3	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
29	Residential	County	LT-4	66.1	68.8	55	Yes	67.4	45	Yes	74.1	60	Yes	68.3	55	Yes	67.0	45	Yes	73.6	60	Yes	-0.5	-0.4	-0.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
30	Residential	County	LT-4	66.1	73.4	55	Yes	72.0	45	Yes	78.7	60	Yes	73.3	55	Yes	72.1	45	Yes	78.7	60	Yes	-0.1	0.1	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
31	Residential	County	LT-4	66.1	73.3	55	Yes	72.0	45	Yes	78.6	60	Yes	73.2	55	Yes	71.9	45	Yes	78.6	60	Yes	-0.1	-0.1	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
32	Residential	County	LT-4	66.1	73.3	55	Yes	71.9	45	Yes	78.6	60	Yes	73.1	55	Yes	71.9	45	Yes	78.5	60	Yes	-0.2	0.0	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
33	Residential	County	LT-4	66.1	70.8	55	Yes	69.4	45	Yes	76.1	60	Yes	70.4	55	Yes	69.1	45	Yes	75.7	60	Yes	-0.4	-0.3	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
34	Residential	County	LT-4	66.1	70.8	55	Yes	69.5	45	Yes	76.1	60	Yes	70.4	55	Yes	69.2	45	Yes	75.8	60	Yes	-0.4	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
35	Residential	County	LT-4	66.1	70.9	55	Yes	69.6	45	Yes	76.2	60	Yes	70.5	55	Yes	69.3	45	Yes	75.9	60	Yes	-0.4	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	73.5	55	Yes	72.2	-	No	78.8	60	Yes	73.3	55	Yes	72.1	-	No	78.7	60	Yes	-0.2	-0.1	-0.1	Yes	5.0	No	No	5.0	No	Yes	5.0	No
37	Residential	County	LT-4	66.1	69.6	55	Yes	68.3	45	Yes	74.9	60	Yes	69.1	55	Yes	67.9	45	Yes	74.5	60	Yes	-0.5	-0.4	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
38	Residential	County	LT-4	66.1	69.2	55	Yes	67.8	45	Yes	74.5	60	Yes	68.7	55	Yes	67.5	45	Yes	74.1	60	Yes	-0.5	-0.3	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
39	Residential	County	LT-4	66.1	71.6	55	Yes	70.3	45	Yes	76.9	60	Yes	71.3	55	Yes	70.1	45	Yes	76.7	60	Yes	-0.3	-0.2	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
40	Residential	County	LT-4	66.1	71.4	55	Yes	70.0	45	Yes	76.7	60	Yes	71.2	55	Yes	70.0	45	Yes	76.6	60	Yes	-0.2	0.0	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
41	Residential	County	LT-4	66.1	66.5	55	Yes	65.2	45	Yes	71.8	60	Yes	66.1	55	Yes	65.0	45	Yes	71.6	60	Yes	-0.4	-0.2	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
42	Residential	County	LT-4	66.1	65.9	55	Yes	64.5	45	Yes	71.1	60	Yes	65.5	55	Yes	64.3	45	Yes	70.9	60	Yes	-0.4	-0.2	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
43	Residential	County	LT-4	66.1	65.2	55	Yes	63.8	45	Yes	70.5	60	Yes	64.8	55	Yes	63.7	45	Yes	70.3	60	Yes	-0.4	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
44	Residential	County	LT-4	66.1	64.6	55	Yes	63.3	45	Yes	69.9	60	Yes	64.3	55	Yes	63.2	45	Yes	69.8	60	Yes	-0.3	-0.1	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
45	Residential	County	LT-4	66.1	65.3	55	Yes	63.9	45	Yes	70.6	60	Yes	65.0	55	Yes	63.8	45	Yes	70.4	60	Yes	-0.3	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
46	Residential	County	LT-4	66.1	64.5	55	Yes	63.2	45	Yes	69.8	60	Yes	64.2	55	Yes	63.1	45	Yes	69.7	60	Yes	-0.3	-0.1	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
47	Residential	County	LT-4	66.1	63.8	55	Yes	62.5	45	Yes	69.1	60	Yes	63.6	55	Yes	62.6	45	Yes	69.1	60	Yes	-0.2	0.1	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
48	Residential	County	LT-4	66.1	63.5	55	Yes	62.1	45	Yes	68.7	60	Yes	63.3	55	Yes	62.3	45	Yes	68.9	60	Yes	-0.2	0.2	0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
49	Residential	County	LT-4	66.1	62.2	55	Yes	60.9	45	Yes	67.5	60	Yes	62.3	55	Yes	61.4	45	Yes	67.9	60	Yes	0.1	0.5	0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
50	Residential	County	LT-4	66.1	61.9	55	Yes	60.6	45	Yes	67.2	60	Yes	62.1	55	Yes	61.2	45	Yes	67.8	60	Yes	0.2	0.6	0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
51	Residential	County	LT-4	66.1	61.6	55	Yes	60.2	45	Yes	66.9	60	Yes	62.0	55	Yes	61.2	45	Yes	67.7	60	Yes	0.4	1.0	0.8	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
52	Residential	County	LT-1	61.2	55.6	55	Yes	54.3	45	Yes	60.9	60	Yes	54.0	55	No	53.7	45	Yes	60.1	60	Yes	-1.6	-0.6	-0.8	No	3.0	No	Yes	3.0	No	Yes	3.0	No
53	Residential	County	LT-1	61.2	54.8	55	No	53.5	45	Yes	60.1	60	Yes	54.2	55	No	54.0	45	Yes	60.4	60	Yes	-0.6	0.5	0.3	No	3.0	No	Yes	3.0	No	Yes	3.0	No
54	Residential	County	LT-2	77.2	66.8	55	Yes	65.4	45	Yes	72.1	60	Yes	65.6	55	Yes	64.4	45	Yes	71.0	60	Yes	-1.2	-1.0	-1.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
55	Residential	County	LT-2	77.2	71.1	55	Yes	69.8	45	Yes	76.4	60	Yes	69.7	55	Yes	68.5	45	Yes	75.1	60	Yes	-1.4	-1.3	-1.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
56	Residential	County	LT-2	77.2	72.3	55	Yes	71.0	45	Yes	77.6	60	Yes	68.8	55	Yes	67.5	45	Yes	74.1	60	Yes	-3.5	-3.5	-3.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
57	Residential	County	LT-2	77.2	71.6	55	Yes	70.3	45	Yes	76.9	60	Yes	67.0	55	Yes	65.7	45	Yes	72.4	60	Yes	-4.6	-4.6	-4.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
58	Residential	County	LT-2	77.2	72.3	55	Yes	71.0	45	Yes	77.6	60	Yes	67.4	55	Yes	66.1	45	Yes	72.7	60	Yes	-4.9	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
59	Residential	County	LT-2	77.2	71.2	55	Yes	69.9	45	Yes	76.5	60	Yes	66.3	55	Yes	64.9	45	Yes	71.6	60	Yes	-4.9	-5.0	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
60	Residential	County	LT-2	77.2	69.4	55	Yes	68.1	45	Yes	74.7	60	Yes	64.5	55	Yes	63.2	45	Yes	69.8	60	Yes	-4.9	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
61	Residential	County	LT-2	77.2	73.9	55	Yes	72.6	45	Yes	79.2	60	Yes	68.9	55	Yes	67.6	45	Yes	74.2	60	Yes	-5.0	-5.0	-5.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
62	Residential	County	LT-2	77.2	75.2	55	Yes	73.8	45	Yes	80.5	60	Yes	70.1	55	Yes	68.7	45	Yes	75.4	60	Yes	-5.1	-5.1	-5.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
63	Residential	County	LT-2	77.2	69.4	55	Yes	68.0	45	Yes	74.7	60	Yes	64.5	55	Yes	63.2	45	Yes	69.8	60	Yes	-4.9	-4.8	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
64	Residential	County	LT-2	77.2	71.2	55	Yes	69.9	45	Yes	76.5	60	Yes	66.3	55	Yes	65.0	45	Yes	71.6	60	Yes	-4.9	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	65.1	55	Yes	63.7	-	No	70.4	60	Yes	64.2	55	Yes	63.0	-	No	69.6	60	Yes	-0.9	-0.7	-0.8	Yes	5.0	No	No	5.0	No	Yes	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	61.4	55	Yes	60.1	-	No	66.7	60	Yes	60.9	55	Yes	59.8	-	No	66.4	60	Yes	-0.5	-0.3	-0.3	Yes	5.0	No	No	5.0	No	Yes	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	62.7	55	Yes	61.4	-	No	68.0	60	Yes	62.2	55	Yes	61.0	-	No	67.6	60	Yes	-0.5	-0.4	-0.4	Yes	5.0	No	No	5.0	No	Yes	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	58.5	55	Yes	57.1	-	No	63.8	60	Yes	58.4	55	Yes	57.4	-	No	63.9	60	Yes	-0.1	0.3	0.1	Yes	5.0	No	No	5.0	No	Yes	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	56.4	55	Yes	55.1	-	No	61.7	65	No	56.6	55	Yes	55.4	-	No	62.0	65	No	0.2	0.3	0.3	Yes	3.0	No	No	3.0	No	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	54.0	55	No	52.7	-	No	59.3	60	No	55.2	55	Yes	54.4	-	No	61.0	60	Yes	1.2	1.7	1.7	Yes	3.0	No	No	3.0	No	Yes	3.0	No
71	Residential	County	LT-2	77.2	67.5	55	Yes	66.1	45	Yes	72.8	60	Yes	62.7	55	Yes	61.4	45	Yes	68.0	60	Yes	-4.8	-4.7	-4.8	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
72	Residential	County	LT-2	77.2	67.1	55	Yes	65.7	45	Yes	72.4	60	Yes	62.4	55	Yes	61.1	45	Yes	67.7	60	Yes	-4.7	-4.6	-4.7	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
73	Residential	County	LT-2	77.2	66.5	55	Yes	65.1	45	Yes	71.7	60	Yes	61.9	55	Yes	60.6	45	Yes	67.2	60	Yes	-4.6	-4.5	-4.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
74	Residential	County	LT-2	77.2	72.9	55	Yes	71.6	45	Yes	78.2	60	Yes	68.5	55	Yes	67.1	45	Yes	73.8	60	Yes	-4.4	-4.5	-4.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
75	Residential	County	LT-2	77.2	74.0	55	Yes	72.7	45	Yes	79.3	60	Yes	69.8	55	Yes	68.5	45	Yes	75.1	60	Yes	-4.2	-4.2	-4.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
76	Residential	County	LT-2	77.2	78.7	55	Yes	77.4	45	Yes	84.0	60	Yes	78.9	55	Yes	77.5	45	Yes	84.1	60	Yes	0.2	0.1	0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
77	Residential	County	LT-2	77.2	64.1	55	Yes	62.7	45	Yes	69.4	60	Yes	62.0	55	Yes	60.6	45	Yes	67.3	60	Yes	-2.1	-2.1	-2.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
78	Residential	County	LT-2	77.2	61.9	55	Yes	60.6	45	Yes	67.2	60	Yes	62.1	55	Yes	60.7	45	Yes	67.3	60	Yes	0.2	0.1	0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
79	Residential	County	LT-2	77.2	67.1	55	Yes	65.7	45	Yes	72.4	60	Yes	67.4	55	Yes	66.0	45	Yes	72.7	60	Yes	0.3	0.3	0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
80	Residential	County	LT-2	77.2	67.8	55	Yes	66.5	45	Yes	73.1	60	Yes	68.2	55	Yes	66.8	45	Yes	73.4	60	Yes	0.4	0.3	0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
81	Residential	County	LT-2	77.2	63.6	55	Yes	62.3	45	Yes	68.9	60	Yes	64.0	55	Yes	62.6	45	Yes	69.2	60	Yes	0.4	0.3	0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
82	Residential	County	LT-2	77.2	66.8	55	Yes	65.5	45	Yes	72.1	60	Yes	67.2	55	Yes	65.8	45	Yes	72.4	60	Yes	0.4	0.3	0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No

Opening Year 2028 Exterior Absolute Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT									COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
				Measured Ambient Noise Level (L_{eq}, L_{eq})	Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn			Daytime	Nighttime	Ldn	Daytime			Nighttime			Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?				Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
83	Residential	City	LT-3	66.5	47.3	65	No	45.9	65	No	52.6	65	No	59.8	65	No	59.7	65	No	66.2	65	**Yes**	12.5	13.8	13.6	No	1.5	No	No	1.5	No	**Yes**	1.5	**Yes**
84	Residential	City	LT-3	66.5	46.2	65	No	44.9	65	No	51.5	65	No	59.8	65	No	59.8	65	No	66.2	65	**Yes**	13.6	14.9	14.7	No	1.5	No	No	1.5	No	**Yes**	1.5	**Yes**
85	Residential	City	LT-3	66.5	66.7	65	**Yes**	65.4	65	**Yes**	72.0	65	**Yes**	66.2	65	**Yes**	64.9	65	No	71.5	65	**Yes**	-0.5	-0.5	-0.5	**Yes**	1.5	No	No	1.5	No	**Yes**	1.5	No
86	Residential	City	LT-3	66.5	46.7	65	No	45.4	65	No	52.0	65	No	55.4	65	No	55.2	65	No	61.7	65	No	8.7	9.8	9.7	No	1.5	No	No	1.5	No	No	1.5	No
87	Residential	City	LT-3	66.5	45.0	65	No	43.6	65	No	50.3	65	No	58.2	65	No	58.0	65	No	64.4	65	No	13.2	14.4	14.1	No	1.5	No	No	1.5	No	No	1.5	No
88	Residential	City	LT-3	66.5	45.5	65	No	44.2	65	No	50.8	65	No	59.3	65	No	59.1	65	No	65.5	65	**Yes**	13.8	14.9	14.7	No	1.5	No	No	1.5	No	**Yes**	1.5	**Yes**
89	Residential	City	LT-3	66.5	45.6	65	No	44.2	65	No	50.9	65	No	59.8	65	No	59.7	65	No	66.1	65	**Yes**	14.2	15.5	15.2	No	1.5	No	No	1.5	No	**Yes**	1.5	**Yes**
90	Residential	City	LT-3	66.5	45.1	65	No	43.8	65	No	50.4	65	No	61.6	65	No	61.5	65	No	67.9	65	**Yes**	16.5	17.7	17.5	No	1.5	No	No	1.5	No	**Yes**	1.5	**Yes**

Opening Year 2028 Exterior Incremental Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
1	Residential	County	59.5	58.1	64.7	61.5	60.9	67.4	2.0	2.8	2.7	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
2	Residential	County	58.4	57.0	63.7	59.2	58.9	65.3	0.8	1.9	1.6	1.5	No	1.5	**Yes**	1.5	**Yes**
3	Residential	County	59.6	58.2	64.8	59.6	59.2	65.7	0.0	1.0	0.9	1.5	No	1.5	No	1.5	No
4	Residential	City	57.0	55.6	62.3	59.2	58.7	65.2	2.2	3.1	2.9	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
5	Residential	City	58.7	57.4	64.0	63.9	63.8	70.2	5.2	6.4	6.2	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
6	Residential	City	53.1	51.7	58.3	59.7	59.5	66.0	6.6	7.8	7.7	5.0	**Yes**	5.0	**Yes**	5.0	**Yes**
7	Residential	City	62.2	60.8	67.4	62.2	61.6	68.1	0.0	0.8	0.7	5.0	No	5.0	No	5.0	No
8	Residential	County	65.0	63.6	70.2	64.0	62.9	69.5	-1.0	-0.7	-0.7	5.0	No	5.0	No	5.0	No
9	Residential	County	66.3	65.0	71.6	65.4	64.3	70.9	-0.9	-0.7	-0.7	5.0	No	5.0	No	5.0	No
10	Residential	County	66.6	65.3	71.9	65.8	64.6	71.2	-0.8	-0.7	-0.7	5.0	No	5.0	No	5.0	No
11	Residential	County	66.9	65.6	72.2	66.1	64.9	71.5	-0.8	-0.7	-0.7	5.0	No	5.0	No	5.0	No
12	Residential	County	67.3	65.9	72.6	66.4	65.2	71.8	-0.9	-0.7	-0.8	5.0	No	5.0	No	5.0	No
13	Residential	County	67.7	66.4	73.0	66.8	65.6	72.2	-0.9	-0.8	-0.8	5.0	No	5.0	No	5.0	No
14	Residential	County	70.7	69.4	76.0	69.6	68.3	74.9	-1.1	-1.1	-1.1	5.0	No	5.0	No	5.0	No
15	Residential	County	72.5	71.2	77.8	71.3	70.0	76.6	-1.2	-1.2	-1.2	5.0	No	5.0	No	5.0	No
16	Residential	County	70.4	69.0	75.7	69.0	67.8	74.4	-1.4	-1.2	-1.3	5.0	No	5.0	No	5.0	No
17	Residential	County	70.4	69.1	75.7	69.1	67.8	74.4	-1.3	-1.3	-1.3	5.0	No	5.0	No	5.0	No
18	Residential	County	68.5	67.2	73.8	67.4	66.1	72.7	-1.1	-1.1	-1.1	5.0	No	5.0	No	5.0	No
19	Residential	County	69.1	67.8	74.4	68.0	66.7	73.3	-1.1	-1.1	-1.1	5.0	No	5.0	No	5.0	No
20	Residential	County	69.3	68.0	74.6	68.2	66.9	73.6	-1.1	-1.1	-1.0	5.0	No	5.0	No	5.0	No
21	Residential	County	70.2	68.9	75.5	69.1	67.8	74.4	-1.1	-1.1	-1.1	5.0	No	5.0	No	5.0	No
22	Residential	County	70.0	68.6	75.3	68.9	67.6	74.2	-1.1	-1.0	-1.1	5.0	No	5.0	No	5.0	No
23	Residential	County	69.6	68.2	74.9	68.5	67.2	73.8	-1.1	-1.0	-1.1	5.0	No	5.0	No	5.0	No
24	Residential	County	71.1	69.7	76.4	69.9	68.6	75.2	-1.2	-1.1	-1.2	5.0	No	5.0	No	5.0	No
25	Residential	County	71.1	69.8	76.4	70.0	68.7	75.3	-1.1	-1.1	-1.1	5.0	No	5.0	No	5.0	No
26	Residential	County	71.2	69.9	76.5	70.1	68.7	75.4	-1.1	-1.2	-1.1	5.0	No	5.0	No	5.0	No
27	Residential	County	70.9	69.5	76.2	69.7	68.4	75.0	-1.2	-1.1	-1.2	5.0	No	5.0	No	5.0	No
28	Residential	County	72.0	70.7	77.3	70.7	69.4	76.1	-1.3	-1.3	-1.2	5.0	No	5.0	No	5.0	No
29	Residential	County	68.8	67.4	74.1	68.3	67.0	73.6	-0.5	-0.4	-0.5	1.5	No	1.5	No	1.5	No
30	Residential	County	73.4	72.0	78.7	73.3	72.1	78.7	-0.1	0.1	0.0	1.5	No	1.5	No	1.5	No
31	Residential	County	73.3	72.0	78.6	73.2	71.9	78.6	-0.1	-0.1	0.0	1.5	No	1.5	No	1.5	No
32	Residential	County	73.3	71.9	78.6	73.1	71.9	78.5	-0.2	0.0	-0.1	1.5	No	1.5	No	1.5	No
33	Residential	County	70.8	69.4	76.1	70.4	69.1	75.7	-0.4	-0.3	-0.4	1.5	No	1.5	No	1.5	No
34	Residential	County	70.8	69.5	76.1	70.4	69.2	75.8	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No
35	Residential	County	70.9	69.6	76.2	70.5	69.3	75.9	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No
36 (Jasper Park)	Park/Recreation	County	73.5	72.2	78.8	73.3	72.1	78.7	-0.2	-0.1	-0.1	5.0	No	5.0	No	5.0	No
37	Residential	County	69.6	68.3	74.9	69.1	67.9	74.5	-0.5	-0.4	-0.4	1.5	No	1.5	No	1.5	No
38	Residential	County	69.2	67.8	74.5	68.7	67.5	74.1	-0.5	-0.3	-0.4	1.5	No	1.5	No	1.5	No
39	Residential	County	71.6	70.3	76.9	71.3	70.1	76.7	-0.3	-0.2	-0.2	1.5	No	1.5	No	1.5	No
40	Residential	County	71.4	70.0	76.7	71.2	70.0	76.6	-0.2	0.0	-0.1	1.5	No	1.5	No	1.5	No
41	Residential	County	66.5	65.2	71.8	66.1	65.0	71.6	-0.4	-0.2	-0.2	1.5	No	1.5	No	1.5	No
42	Residential	County	65.9	64.5	71.1	65.5	64.3	70.9	-0.4	-0.2	-0.2	1.5	No	1.5	No	1.5	No

Opening Year 2028 Exterior Incremental Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
43	Residential	County	65.2	63.8	70.5	64.8	63.7	70.3	-0.4	-0.1	-0.2	1.5	No	1.5	No	1.5	No
44	Residential	County	64.6	63.3	69.9	64.3	63.2	69.8	-0.3	-0.1	-0.1	1.5	No	1.5	No	1.5	No
45	Residential	County	65.3	63.9	70.6	65.0	63.8	70.4	-0.3	-0.1	-0.2	1.5	No	1.5	No	1.5	No
46	Residential	County	64.5	63.2	69.8	64.2	63.1	69.7	-0.3	-0.1	-0.1	1.5	No	1.5	No	1.5	No
47	Residential	County	63.8	62.5	69.1	63.6	62.6	69.1	-0.2	0.1	0.0	1.5	No	1.5	No	1.5	No
48	Residential	County	63.5	62.1	68.7	63.3	62.3	68.9	-0.2	0.2	0.2	1.5	No	1.5	No	1.5	No
49	Residential	County	62.2	60.9	67.5	62.3	61.4	67.9	0.1	0.5	0.4	1.5	No	1.5	No	1.5	No
50	Residential	County	61.9	60.6	67.2	62.1	61.2	67.8	0.2	0.6	0.6	1.5	No	1.5	No	1.5	No
51	Residential	County	61.6	60.2	66.9	62.0	61.2	67.7	0.4	1.0	0.8	1.5	No	1.5	No	1.5	No
52	Residential	County	55.6	54.3	60.9	54.0	53.7	60.1	-1.6	-0.6	-0.8	3.0	No	3.0	No	3.0	No
53	Residential	County	54.8	53.5	60.1	54.2	54.0	60.4	-0.6	0.5	0.3	3.0	No	3.0	No	3.0	No
54	Residential	County	66.8	65.4	72.1	65.6	64.4	71.0	-1.2	-1.0	-1.1	1.5	No	1.5	No	1.5	No
55	Residential	County	71.1	69.8	76.4	69.7	68.5	75.1	-1.4	-1.3	-1.3	1.5	No	1.5	No	1.5	No
56	Residential	County	72.3	71.0	77.6	68.8	67.5	74.1	-3.5	-3.5	-3.5	1.5	No	1.5	No	1.5	No
57	Residential	County	71.6	70.3	76.9	67.0	65.7	72.4	-4.6	-4.6	-4.5	1.5	No	1.5	No	1.5	No
58	Residential	County	72.3	71.0	77.6	67.4	66.1	72.7	-4.9	-4.9	-4.9	1.5	No	1.5	No	1.5	No
59	Residential	County	71.2	69.9	76.5	66.3	64.9	71.6	-4.9	-5.0	-4.9	1.5	No	1.5	No	1.5	No
60	Residential	County	69.4	68.1	74.7	64.5	63.2	69.8	-4.9	-4.9	-4.9	1.5	No	1.5	No	1.5	No
61	Residential	County	73.9	72.6	79.2	68.9	67.6	74.2	-5.0	-5.0	-5.0	1.5	No	1.5	No	1.5	No
62	Residential	County	75.2	73.8	80.5	70.1	68.7	75.4	-5.1	-5.1	-5.1	1.5	No	1.5	No	1.5	No
63	Residential	County	69.4	68.0	74.7	64.5	63.2	69.8	-4.9	-4.8	-4.9	1.5	No	1.5	No	1.5	No
64	Residential	County	71.2	69.9	76.5	66.3	65.0	71.6	-4.9	-4.9	-4.9	1.5	No	1.5	No	1.5	No
65 (Lenwood Elementary School)	School	County	65.1	63.7	70.4	64.2	63.0	69.6	-0.9	-0.7	-0.8	5.0	No	5.0	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	61.4	60.1	66.7	60.9	59.8	66.4	-0.5	-0.3	-0.3	5.0	No	5.0	No	5.0	No
67 (Missionary Baptist Church)	Church	County	62.7	61.4	68.0	62.2	61.0	67.6	-0.5	-0.4	-0.4	5.0	No	5.0	No	5.0	No
68 (Saint Phillip Church)	Church	County	58.5	57.1	63.8	58.4	57.4	63.9	-0.1	0.3	0.1	5.0	No	5.0	No	5.0	No
69 (Ingels School)	School	County	56.4	55.1	61.7	56.6	55.4	62.0	0.2	0.3	0.3	3.0	No	3.0	No	3.0	No
70 (Grandview Baptist Church)	Church	County	54.0	52.7	59.3	55.2	54.4	61.0	1.2	1.7	1.7	3.0	No	3.0	No	3.0	No
71	Residential	County	67.5	66.1	72.8	62.7	61.4	68.0	-4.8	-4.7	-4.8	1.5	No	1.5	No	1.5	No
72	Residential	County	67.1	65.7	72.4	62.4	61.1	67.7	-4.7	-4.6	-4.7	1.5	No	1.5	No	1.5	No
73	Residential	County	66.5	65.1	71.7	61.9	60.6	67.2	-4.6	-4.5	-4.5	1.5	No	1.5	No	1.5	No
74	Residential	County	72.9	71.6	78.2	68.5	67.1	73.8	-4.4	-4.5	-4.4	1.5	No	1.5	No	1.5	No
75	Residential	County	74.0	72.7	79.3	69.8	68.5	75.1	-4.2	-4.2	-4.2	1.5	No	1.5	No	1.5	No
76	Residential	County	78.7	77.4	84.0	78.9	77.5	84.1	0.2	0.1	0.1	1.5	No	1.5	No	1.5	No
77	Residential	County	64.1	62.7	69.4	62.0	60.6	67.3	-2.1	-2.1	-2.1	1.5	No	1.5	No	1.5	No
78	Residential	County	61.9	60.6	67.2	62.1	60.7	67.3	0.2	0.1	0.1	1.5	No	1.5	No	1.5	No
79	Residential	County	67.1	65.7	72.4	67.4	66.0	72.7	0.3	0.3	0.3	1.5	No	1.5	No	1.5	No
80	Residential	County	67.8	66.5	73.1	68.2	66.8	73.4	0.4	0.3	0.3	1.5	No	1.5	No	1.5	No
81	Residential	County	63.6	62.3	68.9	64.0	62.6	69.2	0.4	0.3	0.3	1.5	No	1.5	No	1.5	No
82	Residential	County	66.8	65.5	72.1	67.2	65.8	72.4	0.4	0.3	0.3	1.5	No	1.5	No	1.5	No
83	Residential	City	47.3	45.9	52.6	59.8	59.7	66.2	12.5	13.8	13.6	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
84	Residential	City	46.2	44.9	51.5	59.8	59.8	66.2	13.6	14.9	14.7	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Opening Year 2028 Exterior Incremental Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
85	Residential	City	66.7	65.4	72.0	66.2	64.9	71.5	-0.5	-0.5	-0.5	1.5	No	1.5	No	1.5	No
86	Residential	City	46.7	45.4	52.0	55.4	55.2	61.7	8.7	9.8	9.7	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
87	Residential	City	45.0	43.6	50.3	58.2	58.0	64.4	13.2	14.4	14.1	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
88	Residential	City	45.5	44.2	50.8	59.3	59.1	65.5	13.8	14.9	14.7	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
89	Residential	City	45.6	44.2	50.9	59.8	59.7	66.1	14.2	15.5	15.2	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
90	Residential	City	45.1	43.8	50.4	61.6	61.5	67.9	16.5	17.7	17.5	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Opening Year 2028 Exterior Absolute Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT										COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
					Daytime			Nighttime			Ldn				Daytime			Nighttime			Ldn							Daytime			Nighttime			Ldn		
				Measured Ambient Noise Level (L_{eq}, L_{dn})	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Daytime	Nighttime	Ldn	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	59.5	55	Yes	58.1	45	Yes	64.7	60	Yes	57.7	55	Yes	57.4	45	Yes	63.8	60	Yes	-1.8	-0.7	-0.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
2	Residential	County	LT-3	66.5	58.4	55	Yes	57.0	45	Yes	63.7	60	Yes	57.4	55	Yes	57.2	45	Yes	63.6	60	Yes	-1.0	0.2	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
3	Residential	County	LT-3	66.5	59.6	55	Yes	58.2	45	Yes	64.8	60	Yes	57.0	55	Yes	56.7	45	Yes	63.2	60	Yes	-2.6	-1.5	-1.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
4	Residential	City	LT-3	66.5	57.0	65	No	55.6	65	No	62.3	65	No	56.9	65	No	56.6	65	No	63.0	65	No	-0.1	1.0	0.7	No	1.5	No	No	1.5	No	No	1.5	No
5	Residential	City	LT-3	66.5	58.7	65	No	57.4	65	No	64.0	65	No	58.8	65	No	58.6	65	No	65.0	65	No	0.1	1.2	1.0	No	1.5	No	No	1.5	No	No	1.5	No
6	Residential	City	LT-5	58.1	53.1	65	No	51.7	65	No	58.3	65	No	56.9	65	No	56.6	65	No	63.2	65	No	3.8	4.9	4.9	No	5.0	No	No	5.0	No	No	5.0	No
7	Residential	City	LT-5	58.1	62.2	65	No	60.8	65	No	67.4	65	Yes	61.6	65	No	60.9	65	No	67.4	65	Yes	-0.6	0.1	0.0	No	5.0	No	No	5.0	No	Yes	5.0	No
8	Residential	County	LT-5	58.1	65.0	55	Yes	63.6	45	Yes	70.2	60	Yes	63.9	55	Yes	62.8	45	Yes	69.4	60	Yes	-1.1	-0.8	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
9	Residential	County	LT-5	58.1	66.3	55	Yes	65.0	45	Yes	71.6	60	Yes	65.3	55	Yes	64.2	45	Yes	70.8	60	Yes	-1.0	-0.8	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
10	Residential	County	LT-5	58.1	66.6	55	Yes	65.3	45	Yes	71.9	60	Yes	65.7	55	Yes	64.5	45	Yes	71.1	60	Yes	-0.9	-0.8	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
11	Residential	County	LT-5	58.1	66.9	55	Yes	65.6	45	Yes	72.2	60	Yes	66.0	55	Yes	64.8	45	Yes	71.4	60	Yes	-0.9	-0.8	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
12	Residential	County	LT-5	58.1	67.3	55	Yes	65.9	45	Yes	72.6	60	Yes	66.4	55	Yes	65.2	45	Yes	71.8	60	Yes	-0.9	-0.7	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
13	Residential	County	LT-5	58.1	67.7	55	Yes	66.4	45	Yes	73.0	60	Yes	66.8	55	Yes	65.5	45	Yes	72.1	60	Yes	-0.9	-0.9	-0.9	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
14	Residential	County	LT-5	58.1	70.7	55	Yes	69.4	45	Yes	76.0	60	Yes	69.5	55	Yes	68.3	45	Yes	74.9	60	Yes	-1.2	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
15	Residential	County	LT-5	58.1	72.5	55	Yes	71.2	45	Yes	77.8	60	Yes	71.3	55	Yes	70.0	45	Yes	76.6	60	Yes	-1.2	-1.2	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
16	Residential	County	LT-5	58.1	70.4	55	Yes	69.0	45	Yes	75.7	60	Yes	69.0	55	Yes	67.8	45	Yes	74.4	60	Yes	-1.4	-1.2	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
17	Residential	County	LT-5	58.1	70.4	55	Yes	69.1	45	Yes	75.7	60	Yes	69.1	55	Yes	67.8	45	Yes	74.4	60	Yes	-1.3	-1.3	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
18	Residential	County	LT-5	58.1	68.5	55	Yes	67.2	45	Yes	73.8	60	Yes	67.4	55	Yes	66.1	45	Yes	72.7	60	Yes	-1.1	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
19	Residential	County	LT-5	58.1	69.1	55	Yes	67.8	45	Yes	74.4	60	Yes	68.0	55	Yes	66.7	45	Yes	73.3	60	Yes	-1.1	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
20	Residential	County	LT-5	58.1	69.3	55	Yes	68.0	45	Yes	74.6	60	Yes	68.2	55	Yes	66.9	45	Yes	73.6	60	Yes	-1.1	-1.1	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
21	Residential	County	LT-5	58.1	70.2	55	Yes	68.9	45	Yes	75.5	60	Yes	69.1	55	Yes	67.8	45	Yes	74.4	60	Yes	-1.1	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
22	Residential	County	LT-5	58.1	70.0	55	Yes	68.6	45	Yes	75.3	60	Yes	68.8	55	Yes	67.6	45	Yes	74.2	60	Yes	-1.2	-1.0	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
23	Residential	County	LT-5	58.1	69.6	55	Yes	68.2	45	Yes	74.9	60	Yes	68.5	55	Yes	67.2	45	Yes	73.8	60	Yes	-1.1	-1.0	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
24	Residential	County	LT-5	58.1	71.1	55	Yes	69.7	45	Yes	76.4	60	Yes	69.9	55	Yes	68.6	45	Yes	75.2	60	Yes	-1.2	-1.1	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
25	Residential	County	LT-5	58.1	71.1	55	Yes	69.8	45	Yes	76.4	60	Yes	70.0	55	Yes	68.6	45	Yes	75.3	60	Yes	-1.1	-1.2	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
26	Residential	County	LT-5	58.1	71.2	55	Yes	69.9	45	Yes	76.5	60	Yes	70.1	55	Yes	68.7	45	Yes	75.4	60	Yes	-1.1	-1.2	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
27	Residential	County	LT-5	58.1	70.9	55	Yes	69.5	45	Yes	76.2	60	Yes	69.7	55	Yes	68.4	45	Yes	75.0	60	Yes	-1.2	-1.1	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
28	Residential	County	LT-5	58.1	72.0	55	Yes	70.7	45	Yes	77.3	60	Yes	70.7	55	Yes	69.4	45	Yes	76.1	60	Yes	-1.3	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
29	Residential	County	LT-4	66.1	68.8	55	Yes	67.4	45	Yes	74.1	60	Yes	68.3	55	Yes	67.0	45	Yes	73.6	60	Yes	-0.5	-0.4	-0.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
30	Residential	County	LT-4	66.1	73.4	55	Yes	72.0	45	Yes	78.7	60	Yes	73.3	55	Yes	72.1	45	Yes	78.7	60	Yes	-0.1	0.1	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
31	Residential	County	LT-4	66.1	73.3	55	Yes	72.0	45	Yes	78.6	60	Yes	73.2	55	Yes	71.9	45	Yes	78.6	60	Yes	-0.1	-0.1	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
32	Residential	County	LT-4	66.1	73.3	55	Yes	71.9	45	Yes	78.6	60	Yes	73.1	55	Yes	71.9	45	Yes	78.5	60	Yes	-0.2	0.0	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
33	Residential	County	LT-4	66.1	70.8	55	Yes	69.4	45	Yes	76.1	60	Yes	70.4	55	Yes	69.1	45	Yes	75.7	60	Yes	-0.4	-0.3	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
34	Residential	County	LT-4	66.1	70.8	55	Yes	69.5	45	Yes	76.1	60	Yes	70.4	55	Yes	69.2	45	Yes	75.8	60	Yes	-0.4	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
35	Residential	County	LT-4	66.1	70.9	55	Yes	69.6	45	Yes	76.2	60	Yes	70.5	55	Yes	69.3	45	Yes	75.9	60	Yes	-0.4	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	73.5	55	Yes	72.2	-	No	78.8	60	Yes	73.3	55	Yes	72.1	-	No	78.7	60	Yes	-0.2	-0.1	-0.1	Yes	5.0	No	No	5.0	No	Yes	5.0	No
37	Residential	County	LT-4	66.1	69.6	55	Yes	68.3	45	Yes	74.9	60	Yes	69.1	55	Yes	67.9	45	Yes	74.5	60	Yes	-0.5	-0.4	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
38	Residential	County	LT-4	66.1	69.2	55	Yes	67.8	45	Yes	74.5	60	Yes	68.7	55	Yes	67.5	45	Yes	74.1	60	Yes	-0.5	-0.3	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
39	Residential	County	LT-4	66.1	71.6	55	Yes	70.3	45	Yes	76.9	60	Yes	71.3	55	Yes	70.1	45	Yes	76.7	60	Yes	-0.3	-0.2	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
40	Residential	County	LT-4	66.1	71.4	55	Yes	70.0	45	Yes	76.7	60	Yes	71.2	55	Yes	69.9	45	Yes	76.6	60	Yes	-0.2	-0.1	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
41	Residential	County	LT-4	66.1	66.5	55	Yes	65.2	45	Yes	71.8	60	Yes	66.1	55	Yes	64.9	45	Yes	71.5	60	Yes	-0.4	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
42	Residential	County	LT-4	66.1	65.9	55	Yes	64.5	45	Yes	71.1	60	Yes	65.5	55	Yes	64.3	45	Yes	70.9	60	Yes	-0.4	-0.2	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
43	Residential	County	LT-4	66.1	65.2	55	Yes	63.8	45	Yes	70.5	60	Yes	64.8	55	Yes	63.7	45	Yes	70.3	60	Yes	-0.4	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
44	Residential	County	LT-4	66.1	64.6	55	Yes	63.3	45	Yes	69.9	60	Yes	64.3	55	Yes	63.2	45	Yes	69.8	60	Yes	-0.3	-0.1	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
45	Residential	County	LT-4	66.1	65.3	55	Yes	63.9	45	Yes	70.6	60	Yes	65.0	55	Yes	63.8	45	Yes	70.4	60	Yes	-0.3	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
46	Residential	County	LT-4	66.1	64.5	55	Yes	63.2	45	Yes	69.8	60	Yes	64.2	55	Yes	63.1	45	Yes	69.7	60	Yes	-0.3	-0.1	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
47	Residential	County	LT-4	66.1	63.8	55	Yes	62.5	45	Yes	69.1	60	Yes	63.6	55	Yes	62.5	45	Yes	69.1	60	Yes	-0.2	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
48	Residential	County	LT-4	66.1	63.5	55	Yes	62.1	45	Yes	68.7	60	Yes	63.3	55	Yes	62.3	45	Yes	68.8	60	Yes	-0.2	0.2	0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
49	Residential	County	LT-4	66.1	62.2	55	Yes	60.9	45	Yes	67.5	60	Yes	62.3	55	Yes	61.3	45	Yes	67.9	60	Yes	0.1	0.4	0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
50	Residential	County	LT-4	66.1	61.9	55	Yes	60.6	45	Yes	67.2	60	Yes	62.1	55	Yes	61.2	45	Yes	67.7	60	Yes	0.2	0.6	0.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
51	Residential	County	LT-4	66.1	61.6	55	Yes	60.2	45	Yes	66.9	60	Yes	62.0	55	Yes	61.1	45	Yes	67.7	60	Yes	0.4	0.9	0.8	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
52	Residential	County	LT-1	61.2	55.6	55	Yes	54.3	45	Yes	60.9	60	Yes	54.0	55	No	53.7	45	Yes	60.1	60	Yes	-1.6	-0.6	-0.8	No	3.0	No	Yes	3.0	No	Yes	3.0	No
53	Residential	County	LT-1	61.2	54.8	55	No	53.5	45	Yes	60.1	60	Yes	54.2	55	No	54.0	45	Yes	60.4	60	Yes	-0.6	0.5	0.3	No	3.0	No	Yes	3.0	No	Yes	3.0	No
54	Residential	County	LT-2	77.2	66.8	55	Yes	65.4	45	Yes	72.1	60	Yes	65.6	55	Yes	64.4	45	Yes	71.0	60	Yes	-1.2	-1.0	-1.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
55	Residential	County	LT-2	77.2	71.1	55	Yes	69.8	45	Yes	76.4	60	Yes	69.7	55	Yes	68.5	45	Yes	75.1	60	Yes	-1.4	-1.3	-1.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
56	Residential	County	LT-2	77.2	72.3	55	Yes	71.0	45	Yes	77.6	60	Yes	68.8	55	Yes	67.5	45	Yes	74.1	60	Yes	-3.5	-3.5	-3.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
57	Residential	County	LT-2	77.2	71.6	55	Yes	70.3	45	Yes	76.9	60	Yes	67.0	55	Yes	65.7	45	Yes	72.4	60	Yes	-4.6	-4.6	-4.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
58	Residential	County	LT-2	77.2	72.3	55	Yes	71.0	45	Yes	77.6	60	Yes	67.4	55	Yes	66.1	45	Yes	72.7	60	Yes	-4.9	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
59	Residential	County	LT-2	77.2	71.2	55	Yes	69.9	45	Yes	76.5	60	Yes	66.3	55	Yes	64.9	45	Yes	71.6	60	Yes	-4.9	-5.0	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
60	Residential	County	LT-2	77.2	69.4	55	Yes	68.1	45	Yes	74.7	60	Yes	64.5	55	Yes	63.2	45	Yes	69.8	60	Yes	-4.9	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
61	Residential	County	LT-2	77.2	73.9	55	Yes	72.6	45	Yes	79.2	60	Yes	68.9	55	Yes	67.6	45	Yes	74.2	60	Yes	-5.0	-5.0	-5.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
62	Residential	County	LT-2	77.2	75.2	55	Yes	73.8	45	Yes	80.5	60	Yes	70.1	55	Yes	68.7	45	Yes	75.4	60	Yes	-5.1	-5.1	-5.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
63	Residential	County	LT-2	77.2	69.4	55	Yes	68.0	45	Yes	74.7	60	Yes	64.5	55	Yes	63.2	45	Yes	69.8	60	Yes	-4.9	-4.8	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
64	Residential	County	LT-2	77.2	71.2	55	Yes	69.9	45	Yes	76.5	60	Yes	66.3	55	Yes	65.0	45	Yes	71.6	60	Yes	-4.9	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	65.1	55	Yes	63.7	-	No	70.4	60	Yes	64.2	55	Yes	63.0	-	No	69.6	60	Yes	-0.9	-0.7	-0.8	Yes	5.0	No	No	5.0	No	Yes	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	61.4	55	Yes	60.1	-	No	66.7	60	Yes	60.9	55	Yes	59.7	-	No	66.3	60	Yes	-0.5	-0.4	-0.4	Yes	5.0	No	No	5.0	No	Yes	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	62.7	55	Yes	61.4	-	No	68.0	60	Yes	62.2	55	Yes	61.0	-	No	67.6	60	Yes	-0.5	-0.4	-0.4	Yes	5.0	No	No	5.0	No	Yes	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	58.5	55	Yes	57.1	-	No	63.8	60	Yes	58.3	55	Yes	57.2	-	No	63.8	60	Yes	-0.2	0.1	0.0	Yes	5.0	No	No	5.0	No	Yes	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	56.4	55	Yes	55.1	-	No	61.7	65	No	56.5	55	Yes	55.4	-	No	62.0	65	No	0.1	0.3	0.3	Yes	3.0	No	No	3.0	No	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	54.0	55	No	52.7	-	No	59.3	60	No	55.2	55	Yes	54.4	-	No	60.9	60	Yes	1.2	1.7	1.6	Yes	3.0	No	No	3.0	No	Yes	3.0	No
71	Residential	County	LT-2	77.2	67.5	55	Yes	66.1	45	Yes	72.8	60	Yes	62.7	55	Yes	61.4	45	Yes	68.0	60	Yes	-4.8	-4.7	-4.8	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
72	Residential	County	LT-2	77.2	67.1	55	Yes	65.7	45	Yes	72.4	60	Yes	62.4	55	Yes	61.1	45	Yes	67.7	60	Yes	-4.7	-4.6	-4.7	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
73	Residential	County	LT-2	77.2	66.5	55	Yes	65.1	45	Yes	71.7	60	Yes	61.9	55	Yes	60.6	45	Yes	67.2	60	Yes	-4.6	-4.5	-4.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
74	Residential	County	LT-2	77.2	72.9	55	Yes	71.6	45	Yes	78.2	60	Yes	68.5	55	Yes	67.1	45	Yes	73.8	60	Yes	-4.4	-4.5	-4.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
75	Residential	County	LT-2	77.2	74.0	55	Yes	72.7	45	Yes	79.3	60	Yes	69.8	55	Yes	68.5	45	Yes	75.1	60	Yes	-4.2	-4.2	-4.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
76	Residential	County	LT-2	77.2	78.7	55	Yes	77.4	45	Yes	84.0	60	Yes	78.9	55	Yes	77.5	45	Yes	84.1	60	Yes	0.2	0.1	0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
77	Residential	County	LT-2	77.2	64.1	55	Yes	62.7	45	Yes	69.4	60	Yes	62.0	55	Yes	60.6	45	Yes	67.3	60	Yes	-2.1	-2.1	-2.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
78	Residential	County	LT-2	77.2	61.9	55	Yes	60.6	45	Yes	67.2	60	Yes	62.1	55	Yes	60.7	45	Yes	67.3	60	Yes	0.2	0.1	0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
79	Residential	County	LT-2	77.2	67.1	55	Yes	65.7	45	Yes	72.4	60	Yes	67.4	55	Yes	66.0	45	Yes	72.6	60	Yes	0.3	0.3	0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
80	Residential	County	LT-2	77.2	67.8	55	Yes	66.5	45	Yes	73.1	60	Yes	68.2	55	Yes	66.8	45	Yes	73.4	60	Yes	0.4	0.3	0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
81	Residential	County	LT-2	77.2	63.6	55	Yes	62.3	45	Yes	68.9	60	Yes	64.0	55	Yes	62.6	45	Yes	69.2	60	Yes	0.4	0.3	0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
82	Residential	County	LT-2	77.2	66.8	55	Yes	65.5	45	Yes	72.1	60	Yes	67.2	55	Yes	65.8	45	Yes	72.4	60	Yes	0.4	0.3	0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
83	Residential	City	LT-3	66.5	47.3	65	No	45.9	65	No	52.6	65	No	57.6	65	No	57.6	65	No	64.0	65	No	10.3	11.7	11.4	No	1.5	No	No	1.5	No	No	1.5	Yes
84	Residential	City	LT-3	66.5	46.2	65	No	44.9	65	No	51.5	65	No	57.7	65	No	57.7	65	No	64.1	65	No	11.5	12.8	12.6	No	1.5	No	No	1.5	No	No	1.5	Yes
85	Residential	City	LT-3	66.5	66.7	65	Yes	65.4	65	Yes	72.0	65	Yes	66.2	65	Yes	64.9	65	No	71.5	65	Yes	-0.5	-0.5	-0.5	Yes	1.5	No	No	1.5	No	Yes	1.5	No

Opening Year 2028 Exterior Absolute Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT										COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
					Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn			Daytime	Nighttime	Ldn	Daytime			Nighttime			Ldn		
				Measured Ambient Noise Level (L_{eq}, L_{eq})	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?				Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
86	Residential	City	LT-3	66.5	46.7	65	No	45.4	65	No	52.0	65	No	54.6	65	No	54.4	65	No	60.9	65	No	7.9	9.0	8.9	No	1.5	No	No	1.5	No	No	1.5	Yes
87	Residential	City	LT-3	66.5	45.0	65	No	43.6	65	No	50.3	65	No	56.4	65	No	56.0	65	No	62.5	65	No	11.4	12.4	12.2	No	1.5	No	No	1.5	No	No	1.5	Yes
88	Residential	City	LT-3	66.5	45.5	65	No	44.2	65	No	50.8	65	No	57.0	65	No	56.8	65	No	63.2	65	No	11.5	12.6	12.4	No	1.5	No	No	1.5	No	No	1.5	Yes
89	Residential	City	LT-3	66.5	45.6	65	No	44.2	65	No	50.9	65	No	57.1	65	No	56.9	65	No	63.3	65	No	11.5	12.7	12.4	No	1.5	No	No	1.5	No	No	1.5	Yes
90	Residential	City	LT-3	66.5	45.1	65	No	43.8	65	No	50.4	65	No	58.3	65	No	58.2	65	No	64.6	65	No	13.2	14.4	14.2	No	1.5	No	No	1.5	No	No	1.5	Yes

Opening Year 2028 Exterior Incremental Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
1	Residential	County	59.5	58.1	64.7	57.7	57.4	63.8	-1.8	-0.7	-0.9	1.5	No	1.5	No	1.5	No
2	Residential	County	58.4	57.0	63.7	57.4	57.2	63.6	-1.0	0.2	-0.1	1.5	No	1.5	No	1.5	No
3	Residential	County	59.6	58.2	64.8	57.0	56.7	63.2	-2.6	-1.5	-1.6	1.5	No	1.5	No	1.5	No
4	Residential	City	57.0	55.6	62.3	56.9	56.6	63.0	-0.1	1.0	0.7	1.5	No	1.5	No	1.5	No
5	Residential	City	58.7	57.4	64.0	58.8	58.6	65.0	0.1	1.2	1.0	1.5	No	1.5	No	1.5	No
6	Residential	City	53.1	51.7	58.3	56.9	56.6	63.2	3.8	4.9	4.9	5.0	No	5.0	No	5.0	No
7	Residential	City	62.2	60.8	67.4	61.6	60.9	67.4	-0.6	0.1	0.0	5.0	No	5.0	No	5.0	No
8	Residential	County	65.0	63.6	70.2	63.9	62.8	69.4	-1.1	-0.8	-0.8	5.0	No	5.0	No	5.0	No
9	Residential	County	66.3	65.0	71.6	65.3	64.2	70.8	-1.0	-0.8	-0.8	5.0	No	5.0	No	5.0	No
10	Residential	County	66.6	65.3	71.9	65.7	64.5	71.1	-0.9	-0.8	-0.8	5.0	No	5.0	No	5.0	No
11	Residential	County	66.9	65.6	72.2	66.0	64.8	71.4	-0.9	-0.8	-0.8	5.0	No	5.0	No	5.0	No
12	Residential	County	67.3	65.9	72.6	66.4	65.2	71.8	-0.9	-0.7	-0.8	5.0	No	5.0	No	5.0	No
13	Residential	County	67.7	66.4	73.0	66.8	65.5	72.1	-0.9	-0.9	-0.9	5.0	No	5.0	No	5.0	No
14	Residential	County	70.7	69.4	76.0	69.5	68.3	74.9	-1.2	-1.1	-1.1	5.0	No	5.0	No	5.0	No
15	Residential	County	72.5	71.2	77.8	71.3	70.0	76.6	-1.2	-1.2	-1.2	5.0	No	5.0	No	5.0	No
16	Residential	County	70.4	69.0	75.7	69.0	67.8	74.4	-1.4	-1.2	-1.3	5.0	No	5.0	No	5.0	No
17	Residential	County	70.4	69.1	75.7	69.1	67.8	74.4	-1.3	-1.3	-1.3	5.0	No	5.0	No	5.0	No
18	Residential	County	68.5	67.2	73.8	67.4	66.1	72.7	-1.1	-1.1	-1.1	5.0	No	5.0	No	5.0	No
19	Residential	County	69.1	67.8	74.4	68.0	66.7	73.3	-1.1	-1.1	-1.1	5.0	No	5.0	No	5.0	No
20	Residential	County	69.3	68.0	74.6	68.2	66.9	73.6	-1.1	-1.1	-1.0	5.0	No	5.0	No	5.0	No
21	Residential	County	70.2	68.9	75.5	69.1	67.8	74.4	-1.1	-1.1	-1.1	5.0	No	5.0	No	5.0	No
22	Residential	County	70.0	68.6	75.3	68.8	67.6	74.2	-1.2	-1.0	-1.1	5.0	No	5.0	No	5.0	No
23	Residential	County	69.6	68.2	74.9	68.5	67.2	73.8	-1.1	-1.0	-1.1	5.0	No	5.0	No	5.0	No
24	Residential	County	71.1	69.7	76.4	69.9	68.6	75.2	-1.2	-1.1	-1.2	5.0	No	5.0	No	5.0	No
25	Residential	County	71.1	69.8	76.4	70.0	68.6	75.3	-1.1	-1.2	-1.1	5.0	No	5.0	No	5.0	No
26	Residential	County	71.2	69.9	76.5	70.1	68.7	75.4	-1.1	-1.2	-1.1	5.0	No	5.0	No	5.0	No
27	Residential	County	70.9	69.5	76.2	69.7	68.4	75.0	-1.2	-1.1	-1.2	5.0	No	5.0	No	5.0	No
28	Residential	County	72.0	70.7	77.3	70.7	69.4	76.1	-1.3	-1.3	-1.2	5.0	No	5.0	No	5.0	No
29	Residential	County	68.8	67.4	74.1	68.3	67.0	73.6	-0.5	-0.4	-0.5	1.5	No	1.5	No	1.5	No
30	Residential	County	73.4	72.0	78.7	73.3	72.1	78.7	-0.1	0.1	0.0	1.5	No	1.5	No	1.5	No
31	Residential	County	73.3	72.0	78.6	73.2	71.9	78.6	-0.1	-0.1	0.0	1.5	No	1.5	No	1.5	No
32	Residential	County	73.3	71.9	78.6	73.1	71.9	78.5	-0.2	0.0	-0.1	1.5	No	1.5	No	1.5	No
33	Residential	County	70.8	69.4	76.1	70.4	69.1	75.7	-0.4	-0.3	-0.4	1.5	No	1.5	No	1.5	No
34	Residential	County	70.8	69.5	76.1	70.4	69.2	75.8	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No
35	Residential	County	70.9	69.6	76.2	70.5	69.3	75.9	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No
36 (Jasper Park)	Park/Recreation	County	73.5	72.2	78.8	73.3	72.1	78.7	-0.2	-0.1	-0.1	5.0	No	5.0	No	5.0	No
37	Residential	County	69.6	68.3	74.9	69.1	67.9	74.5	-0.5	-0.4	-0.4	1.5	No	1.5	No	1.5	No
38	Residential	County	69.2	67.8	74.5	68.7	67.5	74.1	-0.5	-0.3	-0.4	1.5	No	1.5	No	1.5	No
39	Residential	County	71.6	70.3	76.9	71.3	70.1	76.7	-0.3	-0.2	-0.2	1.5	No	1.5	No	1.5	No
40	Residential	County	71.4	70.0	76.7	71.2	69.9	76.6	-0.2	-0.1	-0.1	1.5	No	1.5	No	1.5	No
41	Residential	County	66.5	65.2	71.8	66.1	64.9	71.5	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No
42	Residential	County	65.9	64.5	71.1	65.5	64.3	70.9	-0.4	-0.2	-0.2	1.5	No	1.5	No	1.5	No

Opening Year 2028 Exterior Incremental Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
43	Residential	County	65.2	63.8	70.5	64.8	63.7	70.3	-0.4	-0.1	-0.2	1.5	No	1.5	No	1.5	No
44	Residential	County	64.6	63.3	69.9	64.3	63.2	69.8	-0.3	-0.1	-0.1	1.5	No	1.5	No	1.5	No
45	Residential	County	65.3	63.9	70.6	65.0	63.8	70.4	-0.3	-0.1	-0.2	1.5	No	1.5	No	1.5	No
46	Residential	County	64.5	63.2	69.8	64.2	63.1	69.7	-0.3	-0.1	-0.1	1.5	No	1.5	No	1.5	No
47	Residential	County	63.8	62.5	69.1	63.6	62.5	69.1	-0.2	0.0	0.0	1.5	No	1.5	No	1.5	No
48	Residential	County	63.5	62.1	68.7	63.3	62.3	68.8	-0.2	0.2	0.1	1.5	No	1.5	No	1.5	No
49	Residential	County	62.2	60.9	67.5	62.3	61.3	67.9	0.1	0.4	0.4	1.5	No	1.5	No	1.5	No
50	Residential	County	61.9	60.6	67.2	62.1	61.2	67.7	0.2	0.6	0.5	1.5	No	1.5	No	1.5	No
51	Residential	County	61.6	60.2	66.9	62.0	61.1	67.7	0.4	0.9	0.8	1.5	No	1.5	No	1.5	No
52	Residential	County	55.6	54.3	60.9	54.0	53.7	60.1	-1.6	-0.6	-0.8	3.0	No	3.0	No	3.0	No
53	Residential	County	54.8	53.5	60.1	54.2	54.0	60.4	-0.6	0.5	0.3	3.0	No	3.0	No	3.0	No
54	Residential	County	66.8	65.4	72.1	65.6	64.4	71.0	-1.2	-1.0	-1.1	1.5	No	1.5	No	1.5	No
55	Residential	County	71.1	69.8	76.4	69.7	68.5	75.1	-1.4	-1.3	-1.3	1.5	No	1.5	No	1.5	No
56	Residential	County	72.3	71.0	77.6	68.8	67.5	74.1	-3.5	-3.5	-3.5	1.5	No	1.5	No	1.5	No
57	Residential	County	71.6	70.3	76.9	67.0	65.7	72.4	-4.6	-4.6	-4.5	1.5	No	1.5	No	1.5	No
58	Residential	County	72.3	71.0	77.6	67.4	66.1	72.7	-4.9	-4.9	-4.9	1.5	No	1.5	No	1.5	No
59	Residential	County	71.2	69.9	76.5	66.3	64.9	71.6	-4.9	-5.0	-4.9	1.5	No	1.5	No	1.5	No
60	Residential	County	69.4	68.1	74.7	64.5	63.2	69.8	-4.9	-4.9	-4.9	1.5	No	1.5	No	1.5	No
61	Residential	County	73.9	72.6	79.2	68.9	67.6	74.2	-5.0	-5.0	-5.0	1.5	No	1.5	No	1.5	No
62	Residential	County	75.2	73.8	80.5	70.1	68.7	75.4	-5.1	-5.1	-5.1	1.5	No	1.5	No	1.5	No
63	Residential	County	69.4	68.0	74.7	64.5	63.2	69.8	-4.9	-4.8	-4.9	1.5	No	1.5	No	1.5	No
64	Residential	County	71.2	69.9	76.5	66.3	65.0	71.6	-4.9	-4.9	-4.9	1.5	No	1.5	No	1.5	No
65 (Lenwood Elementary School)	School	County	65.1	63.7	70.4	64.2	63.0	69.6	-0.9	-0.7	-0.8	5.0	No	5.0	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	61.4	60.1	66.7	60.9	59.7	66.3	-0.5	-0.4	-0.4	5.0	No	5.0	No	5.0	No
67 (Missionary Baptist Church)	Church	County	62.7	61.4	68.0	62.2	61.0	67.6	-0.5	-0.4	-0.4	5.0	No	5.0	No	5.0	No
68 (Saint Phillip Church)	Church	County	58.5	57.1	63.8	58.3	57.2	63.8	-0.2	0.1	0.0	5.0	No	5.0	No	5.0	No
69 (Ingels School)	School	County	56.4	55.1	61.7	56.5	55.4	62.0	0.1	0.3	0.3	3.0	No	3.0	No	3.0	No
70 (Grandview Baptist Church)	Church	County	54.0	52.7	59.3	55.2	54.4	60.9	1.2	1.7	1.6	3.0	No	3.0	No	3.0	No
71	Residential	County	67.5	66.1	72.8	62.7	61.4	68.0	-4.8	-4.7	-4.8	1.5	No	1.5	No	1.5	No
72	Residential	County	67.1	65.7	72.4	62.4	61.1	67.7	-4.7	-4.6	-4.7	1.5	No	1.5	No	1.5	No
73	Residential	County	66.5	65.1	71.7	61.9	60.6	67.2	-4.6	-4.5	-4.5	1.5	No	1.5	No	1.5	No
74	Residential	County	72.9	71.6	78.2	68.5	67.1	73.8	-4.4	-4.5	-4.4	1.5	No	1.5	No	1.5	No
75	Residential	County	74.0	72.7	79.3	69.8	68.5	75.1	-4.2	-4.2	-4.2	1.5	No	1.5	No	1.5	No
76	Residential	County	78.7	77.4	84.0	78.9	77.5	84.1	0.2	0.1	0.1	1.5	No	1.5	No	1.5	No
77	Residential	County	64.1	62.7	69.4	62.0	60.6	67.3	-2.1	-2.1	-2.1	1.5	No	1.5	No	1.5	No
78	Residential	County	61.9	60.6	67.2	62.1	60.7	67.3	0.2	0.1	0.1	1.5	No	1.5	No	1.5	No
79	Residential	County	67.1	65.7	72.4	67.4	66.0	72.6	0.3	0.3	0.2	1.5	No	1.5	No	1.5	No
80	Residential	County	67.8	66.5	73.1	68.2	66.8	73.4	0.4	0.3	0.3	1.5	No	1.5	No	1.5	No
81	Residential	County	63.6	62.3	68.9	64.0	62.6	69.2	0.4	0.3	0.3	1.5	No	1.5	No	1.5	No
82	Residential	County	66.8	65.5	72.1	67.2	65.8	72.4	0.4	0.3	0.3	1.5	No	1.5	No	1.5	No
83	Residential	City	47.3	45.9	52.6	57.6	57.6	64.0	10.3	11.7	11.4	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
84	Residential	City	46.2	44.9	51.5	57.7	57.7	64.1	11.5	12.8	12.6	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Opening Year 2028 Exterior Incremental Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
85	Residential	City	66.7	65.4	72.0	66.2	64.9	71.5	-0.5	-0.5	-0.5	1.5	No	1.5	No	1.5	No
86	Residential	City	46.7	45.4	52.0	54.6	54.4	60.9	7.9	9.0	8.9	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
87	Residential	City	45.0	43.6	50.3	56.4	56.0	62.5	11.4	12.4	12.2	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
88	Residential	City	45.5	44.2	50.8	57.0	56.8	63.2	11.5	12.6	12.4	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
89	Residential	City	45.6	44.2	50.9	57.1	56.9	63.3	11.5	12.7	12.4	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
90	Residential	City	45.1	43.8	50.4	58.3	58.2	64.6	13.2	14.4	14.2	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Interim Year 2033 Absolute Exterior Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	WITH PROJECT									COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
				Daytime			Nighttime			Ldn						Daytime			Nighttime			Ldn		
				Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Daytime	Nighttime	Ldn	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	61.7	55	Yes	60.9	45	Yes	67.5	60	Yes	1.9	2.5	2.5	Yes	1.5	Yes	Yes	1.5	Yes	Yes	1.5	Yes
2	Residential	County	LT-3	59.3	55	Yes	58.9	45	Yes	65.4	60	Yes	0.6	1.6	1.4	Yes	1.5	No	Yes	1.5	Yes	Yes	1.5	No
3	Residential	County	LT-3	59.8	55	Yes	59.2	45	Yes	65.7	60	Yes	-0.1	0.7	0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
4	Residential	City	LT-3	59.3	65	No	58.7	65	No	65.2	65	Yes	2.0	2.8	2.6	No	1.5	Yes	No	1.5	Yes	Yes	1.5	Yes
5	Residential	City	LT-3	64.0	65	No	63.8	65	No	70.2	65	Yes	4.9	6.1	5.9	No	1.5	Yes	No	1.5	Yes	Yes	1.5	Yes
6	Residential	City	LT-5	59.7	65	No	59.5	65	No	66.0	65	Yes	6.3	7.5	7.4	No	5.0	Yes	No	5.0	Yes	Yes	5.0	Yes
7	Residential	City	LT-5	62.5	65	No	61.6	65	No	68.2	65	Yes	0.0	0.5	0.5	No	5.0	No	No	5.0	No	Yes	5.0	No
8	Residential	County	LT-5	64.4	55	Yes	63.1	45	Yes	69.7	60	Yes	-0.9	-0.8	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
9	Residential	County	LT-5	65.8	55	Yes	64.4	45	Yes	71.0	60	Yes	-0.9	-0.9	-0.9	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
10	Residential	County	LT-5	66.1	55	Yes	64.7	45	Yes	71.4	60	Yes	-0.9	-0.9	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
11	Residential	County	LT-5	66.5	55	Yes	65.0	45	Yes	71.7	60	Yes	-0.8	-0.9	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
12	Residential	County	LT-5	66.8	55	Yes	65.3	45	Yes	72.0	60	Yes	-0.8	-0.9	-0.9	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
13	Residential	County	LT-5	67.2	55	Yes	65.7	45	Yes	72.4	60	Yes	-0.9	-0.9	-0.9	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
14	Residential	County	LT-5	69.9	55	Yes	68.4	45	Yes	75.1	60	Yes	-1.2	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
15	Residential	County	LT-5	71.7	55	Yes	70.1	45	Yes	76.8	60	Yes	-1.2	-1.3	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
16	Residential	County	LT-5	69.4	55	Yes	67.9	45	Yes	74.6	60	Yes	-1.3	-1.4	-1.4	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
17	Residential	County	LT-5	69.5	55	Yes	68.0	45	Yes	74.6	60	Yes	-1.3	-1.4	-1.4	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
18	Residential	County	LT-5	67.8	55	Yes	66.3	45	Yes	72.9	60	Yes	-1.1	-1.2	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
19	Residential	County	LT-5	68.4	55	Yes	66.8	45	Yes	73.5	60	Yes	-1.1	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
20	Residential	County	LT-5	68.6	55	Yes	67.1	45	Yes	73.7	60	Yes	-1.1	-1.2	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
21	Residential	County	LT-5	69.5	55	Yes	67.9	45	Yes	74.6	60	Yes	-1.1	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
22	Residential	County	LT-5	69.3	55	Yes	67.7	45	Yes	74.4	60	Yes	-1.0	-1.2	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
23	Residential	County	LT-5	68.9	55	Yes	67.3	45	Yes	74.0	60	Yes	-1.0	-1.2	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
24	Residential	County	LT-5	70.3	55	Yes	68.7	45	Yes	75.4	60	Yes	-1.1	-1.3	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
25	Residential	County	LT-5	70.4	55	Yes	68.8	45	Yes	75.5	60	Yes	-1.1	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
26	Residential	County	LT-5	70.5	55	Yes	68.9	45	Yes	75.6	60	Yes	-1.1	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
27	Residential	County	LT-5	70.1	55	Yes	68.5	45	Yes	75.2	60	Yes	-1.1	-1.3	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
28	Residential	County	LT-5	71.2	55	Yes	69.6	45	Yes	76.3	60	Yes	-1.2	-1.4	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
29	Residential	County	LT-4	68.7	55	Yes	67.1	45	Yes	73.8	60	Yes	-0.5	-0.6	-0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
30	Residential	County	LT-4	73.7	55	Yes	72.2	45	Yes	78.8	60	Yes	0.0	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
31	Residential	County	LT-4	73.6	55	Yes	72.0	45	Yes	78.7	60	Yes	-0.1	-0.2	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
32	Residential	County	LT-4	73.5	55	Yes	71.9	45	Yes	78.6	60	Yes	-0.1	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
33	Residential	County	LT-4	70.8	55	Yes	69.2	45	Yes	75.9	60	Yes	-0.3	-0.5	-0.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
34	Residential	County	LT-4	70.8	55	Yes	69.3	45	Yes	75.9	60	Yes	-0.4	-0.5	-0.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
35	Residential	County	LT-4	70.9	55	Yes	69.4	45	Yes	76.0	60	Yes	-0.4	-0.5	-0.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	73.7	55	Yes	72.1	-	No	78.8	60	Yes	-0.2	-0.3	-0.3	Yes	5.0	No	No	5.0	No	Yes	5.0	No
37	Residential	County	LT-4	69.5	55	Yes	68.0	45	Yes	74.6	60	Yes	-0.5	-0.5	-0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
38	Residential	County	LT-4	69.1	55	Yes	67.5	45	Yes	74.2	60	Yes	-0.4	-0.6	-0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
39	Residential	County	LT-4	71.7	55	Yes	70.1	45	Yes	76.8	60	Yes	-0.3	-0.4	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
40	Residential	County	LT-4	71.6	55	Yes	70.0	45	Yes	76.7	60	Yes	-0.1	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
41	Residential	County	LT-4	66.5	55	Yes	65.0	45	Yes	71.7	60	Yes	-0.4	-0.4	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
42	Residential	County	LT-4	65.9	55	Yes	64.4	45	Yes	71.1	60	Yes	-0.3	-0.4	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
43	Residential	County	LT-4	65.2	55	Yes	63.8	45	Yes	70.4	60	Yes	-0.3	-0.3	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
44	Residential	County	LT-4	64.7	55	Yes	63.3	45	Yes	70.0	60	Yes	-0.3	-0.2	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
45	Residential	County	LT-4	65.4	55	Yes	63.9	45	Yes	70.6	60	Yes	-0.2	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
46	Residential	County	LT-4	64.6	55	Yes	63.2	45	Yes	69.8	60	Yes	-0.3	-0.2	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
47	Residential	County	LT-4	64.0	55	Yes	62.6	45	Yes	69.3	60	Yes	-0.2	-0.1	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
48	Residential	County	LT-4	63.7	55	Yes	62.4	45	Yes	69.0	60	Yes	-0.1	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
49	Residential	County	LT-4	62.6	55	Yes	61.4	45	Yes	68.0	60	Yes	0.0	0.3	0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
50	Residential	County	LT-4	62.4	55	Yes	61.3	45	Yes	67.9	60	Yes	0.1	0.4	0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
51	Residential	County	LT-4	62.3	55	Yes	61.3	45	Yes	67.8	60	Yes	0.4	0.8	0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
52	Residential	County	LT-1	54.1	55	No	53.7	45	Yes	60.2	60	Yes	-1.9	-0.9	-1.0	No	3.0	No	Yes	3.0	No	Yes	3.0	No
53	Residential	County	LT-1	54.3	55	No	54.0	45	Yes	60.4	60	Yes	-0.9	0.2	0.0	No	3.0	No	Yes	3.0	No	Yes	3.0	No
54	Residential	County	LT-2	66.0	55	Yes	64.5	45	Yes	71.1	60	Yes	-1.1	-1.2	-1.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
55	Residential	County	LT-2	70.1	55	Yes	68.6	45	Yes	75.2	60	Yes	-1.4	-1.4	-1.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
56	Residential	County	LT-2	69.2	55	Yes	67.7	45	Yes	74.4	60	Yes	-3.5	-3.5	-3.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
57	Residential	County	LT-2	67.4	55	Yes	66.0	45	Yes	72.7	60	Yes	-4.6	-4.5	-4.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
58	Residential	County	LT-2	67.7	55	Yes	66.4	45	Yes	73.0	60	Yes	-5.0	-4.8	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
59	Residential	County	LT-2	66.6	55	Yes	65.3	45	Yes	71.9	60	Yes	-5.0	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
60	Residential	County	LT-2	64.9	55	Yes	63.5	45	Yes	70.1	60	Yes	-4.9	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
61	Residential	County	LT-2	69.2	55	Yes	67.9	45	Yes	74.5	60	Yes	-5.1	-4.9	-5.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
62	Residential	County	LT-2	70.4	55	Yes	69.1	45	Yes	75.7	60	Yes	-5.1	-5.0	-5.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No

Interim Year 2033 Absolute Exterior Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	WITH PROJECT									COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
				Daytime			Nighttime			Ldn						Daytime			Nighttime			Ldn		
				Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Daytime	Nighttime	Ldn	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
63	Residential	County	LT-2	64.8	55	**Yes**	63.5	45	**Yes**	70.1	60	**Yes**	-4.9	-4.8	-4.9	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
64	Residential	County	LT-2	66.6	55	**Yes**	65.3	45	**Yes**	71.9	60	**Yes**	-5.0	-4.9	-4.9	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	64.6	55	**Yes**	63.1	-	No	69.8	60	**Yes**	-0.8	-0.9	-0.9	**Yes**	5.0	No	No	5.0	No	**Yes**	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	61.3	55	**Yes**	59.9	-	No	66.5	60	**Yes**	-0.5	-0.5	-0.5	**Yes**	5.0	No	No	5.0	No	**Yes**	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	62.6	55	**Yes**	61.1	-	No	67.8	60	**Yes**	-0.5	-0.6	-0.5	**Yes**	5.0	No	No	5.0	No	**Yes**	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	58.7	55	**Yes**	57.5	-	No	64.1	60	**Yes**	-0.1	0.1	0.0	**Yes**	5.0	No	No	5.0	No	**Yes**	5.0	No
69 (Ingels School)	School	County	LT-6	56.9	55	**Yes**	55.6	-	No	62.2	65	No	0.1	0.2	0.2	**Yes**	3.0	No	No	3.0	No	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	55.5	55	**Yes**	54.5	-	No	61.1	60	**Yes**	1.1	1.5	1.5	Yes	3.0	No	No	3.0	No	**Yes**	3.0	No
71	Residential	County	LT-2	63.1	55	**Yes**	61.7	45	**Yes**	68.3	60	**Yes**	-4.7	-4.7	-4.8	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
72	Residential	County	LT-2	62.7	55	**Yes**	61.4	45	**Yes**	68.0	60	**Yes**	-4.7	-4.6	-4.7	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
73	Residential	County	LT-2	62.2	55	**Yes**	60.9	45	**Yes**	67.5	60	**Yes**	-4.6	-4.5	-4.5	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
74	Residential	County	LT-2	68.8	55	**Yes**	67.5	45	**Yes**	74.1	60	**Yes**	-4.5	-4.4	-4.4	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
75	Residential	County	LT-2	70.1	55	**Yes**	68.8	45	**Yes**	75.4	60	**Yes**	-4.3	-4.2	-4.2	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
76	Residential	County	LT-2	78.9	55	**Yes**	77.5	45	**Yes**	84.1	60	**Yes**	-0.2	-0.2	-0.2	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
77	Residential	County	LT-2	62.1	55	**Yes**	60.7	45	**Yes**	67.4	60	**Yes**	-2.3	-2.3	-2.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
78	Residential	County	LT-2	62.1	55	**Yes**	60.7	45	**Yes**	67.3	60	**Yes**	-0.2	-0.1	-0.2	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
79	Residential	County	LT-2	67.4	55	**Yes**	66.0	45	**Yes**	72.7	60	**Yes**	0.0	0.0	0.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
80	Residential	County	LT-2	68.2	55	**Yes**	66.8	45	**Yes**	73.4	60	**Yes**	0.0	0.0	0.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
81	Residential	County	LT-2	64.0	55	**Yes**	62.6	45	**Yes**	69.2	60	**Yes**	0.0	0.0	0.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
82	Residential	County	LT-2	67.2	55	**Yes**	65.8	45	**Yes**	72.4	60	**Yes**	0.0	0.0	0.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
83	Residential	City	LT-3	59.8	65	No	59.7	65	No	66.2	65	**Yes**	12.2	13.5	13.3	No	1.5	Yes	No	1.5	Yes	**Yes**	1.5	**Yes**
84	Residential	City	LT-3	59.8	65	No	59.8	65	No	66.2	65	**Yes**	13.2	14.6	14.4	No	1.5	Yes	No	1.5	Yes	**Yes**	1.5	**Yes**
85	Residential	City	LT-3	66.6	65	**Yes**	65.0	65	No	71.7	65	**Yes**	-0.5	-0.7	-0.6	**Yes**	1.5	No	No	1.5	No	**Yes**	1.5	No
86	Residential	City	LT-3	55.4	65	No	55.2	65	No	61.7	65	No	8.3	9.5	9.4	No	1.5	Yes	No	1.5	Yes	No	1.5	No
87	Residential	City	LT-3	58.2	65	No	58.0	65	No	64.4	65	No	12.9	14.1	13.8	No	1.5	Yes	No	1.5	Yes	No	1.5	No
88	Residential	City	LT-3	59.3	65	No	59.1	65	No	65.5	65	**Yes**	13.4	14.6	14.4	No	1.5	Yes	No	1.5	Yes	**Yes**	1.5	**Yes**
89	Residential	City	LT-3	59.8	65	No	59.7	65	No	66.1	65	**Yes**	13.9	15.2	15.0	No	1.5	Yes	No	1.5	Yes	**Yes**	1.5	**Yes**
90	Residential	City	LT-3	61.6	65	No	61.5	65	No	67.9	65	**Yes**	16.1	17.5	17.2	No	1.5	Yes	No	1.5	Yes	**Yes**	1.5	**Yes**

Interim Year 2033 Exterior Incremental Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
1	Residential	County	59.8	58.4	65.0	61.7	60.9	67.5	1.9	2.5	2.5	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
2	Residential	County	58.7	57.3	64.0	59.3	58.9	65.4	0.6	1.6	1.4	1.5	No	1.5	**Yes**	1.5	No
3	Residential	County	59.9	58.5	65.1	59.8	59.2	65.7	-0.1	0.7	0.6	1.5	No	1.5	No	1.5	No
4	Residential	City	57.3	55.9	62.6	59.3	58.7	65.2	2.0	2.8	2.6	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
5	Residential	City	59.1	57.7	64.3	64.0	63.8	70.2	4.9	6.1	5.9	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
6	Residential	City	53.4	52.0	58.6	59.7	59.5	66.0	6.3	7.5	7.4	5.0	**Yes**	5.0	**Yes**	5.0	**Yes**
7	Residential	City	62.5	61.1	67.7	62.5	61.6	68.2	0.0	0.5	0.5	5.0	No	5.0	No	5.0	No
8	Residential	County	65.3	63.9	70.5	64.4	63.1	69.7	-0.9	-0.8	-0.8	5.0	No	5.0	No	5.0	No
9	Residential	County	66.7	65.3	71.9	65.8	64.4	71.0	-0.9	-0.9	-0.9	5.0	No	5.0	No	5.0	No
10	Residential	County	67.0	65.6	72.2	66.1	64.7	71.4	-0.9	-0.9	-0.8	5.0	No	5.0	No	5.0	No
11	Residential	County	67.3	65.9	72.5	66.5	65.0	71.7	-0.8	-0.9	-0.8	5.0	No	5.0	No	5.0	No
12	Residential	County	67.6	66.2	72.9	66.8	65.3	72.0	-0.8	-0.9	-0.9	5.0	No	5.0	No	5.0	No
13	Residential	County	68.1	66.6	73.3	67.2	65.7	72.4	-0.9	-0.9	-0.9	5.0	No	5.0	No	5.0	No
14	Residential	County	71.1	69.7	76.3	69.9	68.4	75.1	-1.2	-1.3	-1.2	5.0	No	5.0	No	5.0	No
15	Residential	County	72.9	71.4	78.1	71.7	70.1	76.8	-1.2	-1.3	-1.3	5.0	No	5.0	No	5.0	No
16	Residential	County	70.7	69.3	76.0	69.4	67.9	74.6	-1.3	-1.4	-1.4	5.0	No	5.0	No	5.0	No
17	Residential	County	70.8	69.4	76.0	69.5	68.0	74.6	-1.3	-1.4	-1.4	5.0	No	5.0	No	5.0	No
18	Residential	County	68.9	67.5	74.1	67.8	66.3	72.9	-1.1	-1.2	-1.2	5.0	No	5.0	No	5.0	No
19	Residential	County	69.5	68.1	74.7	68.4	66.8	73.5	-1.1	-1.3	-1.2	5.0	No	5.0	No	5.0	No
20	Residential	County	69.7	68.3	74.9	68.6	67.1	73.7	-1.1	-1.2	-1.2	5.0	No	5.0	No	5.0	No
21	Residential	County	70.6	69.2	75.8	69.5	67.9	74.6	-1.1	-1.3	-1.2	5.0	No	5.0	No	5.0	No
22	Residential	County	70.3	68.9	75.6	69.3	67.7	74.4	-1.0	-1.2	-1.2	5.0	No	5.0	No	5.0	No
23	Residential	County	69.9	68.5	75.2	68.9	67.3	74.0	-1.0	-1.2	-1.2	5.0	No	5.0	No	5.0	No
24	Residential	County	71.4	70.0	76.7	70.3	68.7	75.4	-1.1	-1.3	-1.3	5.0	No	5.0	No	5.0	No
25	Residential	County	71.5	70.1	76.7	70.4	68.8	75.5	-1.1	-1.3	-1.2	5.0	No	5.0	No	5.0	No
26	Residential	County	71.6	70.2	76.8	70.5	68.9	75.6	-1.1	-1.3	-1.2	5.0	No	5.0	No	5.0	No
27	Residential	County	71.2	69.8	76.5	70.1	68.5	75.2	-1.1	-1.3	-1.3	5.0	No	5.0	No	5.0	No
28	Residential	County	72.4	71.0	77.6	71.2	69.6	76.3	-1.2	-1.4	-1.3	5.0	No	5.0	No	5.0	No
29	Residential	County	69.2	67.7	74.4	68.7	67.1	73.8	-0.5	-0.6	-0.6	1.5	No	1.5	No	1.5	No
30	Residential	County	73.7	72.3	79.0	73.7	72.2	78.8	0.0	-0.1	-0.2	1.5	No	1.5	No	1.5	No
31	Residential	County	73.7	72.2	78.9	73.6	72.0	78.7	-0.1	-0.2	-0.2	1.5	No	1.5	No	1.5	No
32	Residential	County	73.6	72.2	78.9	73.5	71.9	78.6	-0.1	-0.3	-0.3	1.5	No	1.5	No	1.5	No
33	Residential	County	71.1	69.7	76.4	70.8	69.2	75.9	-0.3	-0.5	-0.5	1.5	No	1.5	No	1.5	No
34	Residential	County	71.2	69.8	76.4	70.8	69.3	75.9	-0.4	-0.5	-0.5	1.5	No	1.5	No	1.5	No
35	Residential	County	71.3	69.9	76.5	70.9	69.4	76.0	-0.4	-0.5	-0.5	1.5	No	1.5	No	1.5	No
36 (Jasper Park)	Park/Recreation	County	73.9	72.4	79.1	73.7	72.1	78.8	-0.2	-0.3	-0.3	5.0	No	5.0	No	5.0	No
37	Residential	County	70.0	68.5	75.2	69.5	68.0	74.6	-0.5	-0.5	-0.6	1.5	No	1.5	No	1.5	No
38	Residential	County	69.5	68.1	74.8	69.1	67.5	74.2	-0.4	-0.6	-0.6	1.5	No	1.5	No	1.5	No
39	Residential	County	72.0	70.5	77.2	71.7	70.1	76.8	-0.3	-0.4	-0.4	1.5	No	1.5	No	1.5	No
40	Residential	County	71.7	70.3	77.0	71.6	70.0	76.7	-0.1	-0.3	-0.3	1.5	No	1.5	No	1.5	No
41	Residential	County	66.9	65.4	72.1	66.5	65.0	71.7	-0.4	-0.4	-0.4	1.5	No	1.5	No	1.5	No
42	Residential	County	66.2	64.8	71.4	65.9	64.4	71.1	-0.3	-0.4	-0.3	1.5	No	1.5	No	1.5	No

Interim Year 2033 Exterior Incremental Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
43	Residential	County	65.5	64.1	70.8	65.2	63.8	70.4	-0.3	-0.3	-0.4	1.5	No	1.5	No	1.5	No
44	Residential	County	65.0	63.5	70.2	64.7	63.3	70.0	-0.3	-0.2	-0.2	1.5	No	1.5	No	1.5	No
45	Residential	County	65.6	64.2	70.9	65.4	63.9	70.6	-0.2	-0.3	-0.3	1.5	No	1.5	No	1.5	No
46	Residential	County	64.9	63.4	70.1	64.6	63.2	69.8	-0.3	-0.2	-0.3	1.5	No	1.5	No	1.5	No
47	Residential	County	64.2	62.7	69.4	64.0	62.6	69.3	-0.2	-0.1	-0.1	1.5	No	1.5	No	1.5	No
48	Residential	County	63.8	62.4	69.0	63.7	62.4	69.0	-0.1	0.0	0.0	1.5	No	1.5	No	1.5	No
49	Residential	County	62.6	61.1	67.8	62.6	61.4	68.0	0.0	0.3	0.2	1.5	No	1.5	No	1.5	No
50	Residential	County	62.3	60.9	67.5	62.4	61.3	67.9	0.1	0.4	0.4	1.5	No	1.5	No	1.5	No
51	Residential	County	61.9	60.5	67.2	62.3	61.3	67.8	0.4	0.8	0.6	1.5	No	1.5	No	1.5	No
52	Residential	County	56.0	54.6	61.2	54.1	53.7	60.2	-1.9	-0.9	-1.0	3.0	No	3.0	No	3.0	No
53	Residential	County	55.2	53.8	60.4	54.3	54.0	60.4	-0.9	0.2	0.0	3.0	No	3.0	No	3.0	No
54	Residential	County	67.1	65.7	72.4	66.0	64.5	71.1	-1.1	-1.2	-1.3	1.5	No	1.5	No	1.5	No
55	Residential	County	71.5	70.0	76.7	70.1	68.6	75.2	-1.4	-1.4	-1.5	1.5	No	1.5	No	1.5	No
56	Residential	County	72.7	71.2	77.9	69.2	67.7	74.4	-3.5	-3.5	-3.5	1.5	No	1.5	No	1.5	No
57	Residential	County	72.0	70.5	77.2	67.4	66.0	72.7	-4.6	-4.5	-4.5	1.5	No	1.5	No	1.5	No
58	Residential	County	72.7	71.2	77.9	67.7	66.4	73.0	-5.0	-4.8	-4.9	1.5	No	1.5	No	1.5	No
59	Residential	County	71.6	70.2	76.8	66.6	65.3	71.9	-5.0	-4.9	-4.9	1.5	No	1.5	No	1.5	No
60	Residential	County	69.8	68.4	75.0	64.9	63.5	70.1	-4.9	-4.9	-4.9	1.5	No	1.5	No	1.5	No
61	Residential	County	74.3	72.8	79.5	69.2	67.9	74.5	-5.1	-4.9	-5.0	1.5	No	1.5	No	1.5	No
62	Residential	County	75.5	74.1	80.8	70.4	69.1	75.7	-5.1	-5.0	-5.1	1.5	No	1.5	No	1.5	No
63	Residential	County	69.7	68.3	75.0	64.8	63.5	70.1	-4.9	-4.8	-4.9	1.5	No	1.5	No	1.5	No
64	Residential	County	71.6	70.2	76.8	66.6	65.3	71.9	-5.0	-4.9	-4.9	1.5	No	1.5	No	1.5	No
65 (Lenwood Elementary School)	School	County	65.4	64.0	70.7	64.6	63.1	69.8	-0.8	-0.9	-0.9	5.0	No	5.0	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	61.8	60.4	67.0	61.3	59.9	66.5	-0.5	-0.5	-0.5	5.0	No	5.0	No	5.0	No
67 (Missionary Baptist Church)	Church	County	63.1	61.7	68.3	62.6	61.1	67.8	-0.5	-0.6	-0.5	5.0	No	5.0	No	5.0	No
68 (Saint Phillip Church)	Church	County	58.8	57.4	64.1	58.7	57.5	64.1	-0.1	0.1	0.0	5.0	No	5.0	No	5.0	No
69 (Ingels School)	School	County	56.8	55.4	62.0	56.9	55.6	62.2	0.1	0.2	0.2	3.0	No	3.0	No	3.0	No
70 (Grandview Baptist Church)	Church	County	54.4	53.0	59.6	55.5	54.5	61.1	1.1	1.5	1.5	3.0	No	3.0	No	3.0	No
71	Residential	County	67.8	66.4	73.1	63.1	61.7	68.3	-4.7	-4.7	-4.8	1.5	No	1.5	No	1.5	No
72	Residential	County	67.4	66.0	72.7	62.7	61.4	68.0	-4.7	-4.6	-4.7	1.5	No	1.5	No	1.5	No
73	Residential	County	66.8	65.4	72.0	62.2	60.9	67.5	-4.6	-4.5	-4.5	1.5	No	1.5	No	1.5	No
74	Residential	County	73.3	71.9	78.5	68.8	67.5	74.1	-4.5	-4.4	-4.4	1.5	No	1.5	No	1.5	No
75	Residential	County	74.4	73.0	79.6	70.1	68.8	75.4	-4.3	-4.2	-4.2	1.5	No	1.5	No	1.5	No
76	Residential	County	79.1	77.7	84.3	78.9	77.5	84.1	-0.2	-0.2	-0.2	1.5	No	1.5	No	1.5	No
77	Residential	County	64.4	63.0	69.7	62.1	60.7	67.4	-2.3	-2.3	-2.3	1.5	No	1.5	No	1.5	No
78	Residential	County	62.3	60.8	67.5	62.1	60.7	67.3	-0.2	-0.1	-0.2	1.5	No	1.5	No	1.5	No
79	Residential	County	67.4	66.0	72.7	67.4	66.0	72.7	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
80	Residential	County	68.2	66.8	73.4	68.2	66.8	73.4	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
81	Residential	County	64.0	62.6	69.2	64.0	62.6	69.2	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
82	Residential	County	67.2	65.8	72.4	67.2	65.8	72.4	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
83	Residential	City	47.6	46.2	52.9	59.8	59.7	66.2	12.2	13.5	13.3	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
84	Residential	City	46.6	45.2	51.8	59.8	59.8	66.2	13.2	14.6	14.4	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Interim Year 2033 Exterior Incremental Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
85	Residential	City	67.1	65.7	72.3	66.6	65.0	71.7	-0.5	-0.7	-0.6	1.5	No	1.5	No	1.5	No
86	Residential	City	47.1	45.7	52.3	55.4	55.2	61.7	8.3	9.5	9.4	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
87	Residential	City	45.3	43.9	50.6	58.2	58.0	64.4	12.9	14.1	13.8	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
88	Residential	City	45.9	44.5	51.1	59.3	59.1	65.5	13.4	14.6	14.4	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
89	Residential	City	45.9	44.5	51.1	59.8	59.7	66.1	13.9	15.2	15.0	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
90	Residential	City	45.5	44.0	50.7	61.6	61.5	67.9	16.1	17.5	17.2	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Interim Year 2033 Absolute Exterior Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT										COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
				Measured Ambient Noise Level (L_{dn}, L_{eq})	Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn			Daytime	Nighttime	Ldn	Daytime			Nighttime			Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?				Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	59.8	55	Yes	58.4	45	Yes	65.0	60	Yes	57.8	55	Yes	57.4	45	Yes	63.8	60	Yes	-2.0	-1.0	-1.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
2	Residential	County	LT-3	66.5	58.7	55	Yes	57.3	45	Yes	64.0	60	Yes	57.5	55	Yes	57.2	45	Yes	63.6	60	Yes	-1.2	-0.1	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
3	Residential	County	LT-3	66.5	59.9	55	Yes	58.5	45	Yes	65.1	60	Yes	57.1	55	Yes	56.7	45	Yes	63.2	60	Yes	-2.8	-1.8	-1.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
4	Residential	City	LT-3	66.5	57.3	65	No	55.9	65	No	62.6	65	No	57.0	65	No	56.6	65	No	63.0	65	No	-0.3	0.7	0.4	No	1.5	No	No	1.5	No	No	1.5	No
5	Residential	City	LT-3	66.5	59.1	65	No	57.7	65	No	64.3	65	No	58.8	65	No	58.6	65	No	65.0	65	No	-0.3	0.9	0.7	No	1.5	No	No	1.5	No	No	1.5	No
6	Residential	City	LT-5	58.1	53.4	65	No	52.0	65	No	58.6	65	No	57.0	65	No	56.8	65	No	63.2	65	No	3.6	4.8	4.6	No	5.0	No	No	5.0	No	No	5.0	No
7	Residential	City	LT-5	58.1	62.5	65	No	61.1	65	No	67.7	65	Yes	61.9	65	No	60.9	65	No	67.5	65	Yes	-0.6	-0.2	-0.2	No	5.0	No	No	5.0	No	Yes	5.0	No
8	Residential	County	LT-5	58.1	65.3	55	Yes	63.9	45	Yes	70.5	60	Yes	64.3	55	Yes	62.9	45	Yes	69.5	60	Yes	-1.0	-1.0	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
9	Residential	County	LT-5	58.1	66.7	55	Yes	65.3	45	Yes	71.9	60	Yes	65.7	55	Yes	64.3	45	Yes	70.9	60	Yes	-1.0	-1.0	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
10	Residential	County	LT-5	58.1	67.0	55	Yes	65.6	45	Yes	72.2	60	Yes	66.1	55	Yes	64.6	45	Yes	71.3	60	Yes	-0.9	-1.0	-0.9	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
11	Residential	County	LT-5	58.1	67.3	55	Yes	65.9	45	Yes	72.5	60	Yes	66.4	55	Yes	65.0	45	Yes	71.6	60	Yes	-0.9	-0.9	-0.9	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
12	Residential	County	LT-5	58.1	67.6	55	Yes	66.2	45	Yes	72.9	60	Yes	66.7	55	Yes	65.3	45	Yes	71.9	60	Yes	-0.9	-0.9	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
13	Residential	County	LT-5	58.1	68.1	55	Yes	66.6	45	Yes	73.3	60	Yes	67.1	55	Yes	65.7	45	Yes	72.3	60	Yes	-1.0	-0.9	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
14	Residential	County	LT-5	58.1	71.1	55	Yes	69.7	45	Yes	76.3	60	Yes	69.9	55	Yes	68.4	45	Yes	75.1	60	Yes	-1.2	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
15	Residential	County	LT-5	58.1	72.9	55	Yes	71.4	45	Yes	78.1	60	Yes	71.7	55	Yes	70.1	45	Yes	76.8	60	Yes	-1.2	-1.3	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
16	Residential	County	LT-5	58.1	70.7	55	Yes	69.3	45	Yes	76.0	60	Yes	69.4	55	Yes	67.9	45	Yes	74.6	60	Yes	-1.3	-1.4	-1.4	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
17	Residential	County	LT-5	58.1	70.8	55	Yes	69.4	45	Yes	76.0	60	Yes	69.5	55	Yes	68.0	45	Yes	74.6	60	Yes	-1.3	-1.4	-1.4	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
18	Residential	County	LT-5	58.1	68.9	55	Yes	67.5	45	Yes	74.1	60	Yes	67.8	55	Yes	66.3	45	Yes	72.9	60	Yes	-1.1	-1.2	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
19	Residential	County	LT-5	58.1	69.5	55	Yes	68.1	45	Yes	74.7	60	Yes	68.4	55	Yes	66.8	45	Yes	73.5	60	Yes	-1.1	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
20	Residential	County	LT-5	58.1	69.7	55	Yes	68.3	45	Yes	74.9	60	Yes	68.6	55	Yes	67.1	45	Yes	73.7	60	Yes	-1.1	-1.2	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
21	Residential	County	LT-5	58.1	70.6	55	Yes	69.2	45	Yes	75.8	60	Yes	69.5	55	Yes	67.9	45	Yes	74.6	60	Yes	-1.1	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
22	Residential	County	LT-5	58.1	70.3	55	Yes	68.9	45	Yes	75.6	60	Yes	69.2	55	Yes	67.7	45	Yes	74.4	60	Yes	-1.1	-1.2	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
23	Residential	County	LT-5	58.1	69.9	55	Yes	68.5	45	Yes	75.2	60	Yes	68.9	55	Yes	67.3	45	Yes	74.0	60	Yes	-1.0	-1.2	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
24	Residential	County	LT-5	58.1	71.4	55	Yes	70.0	45	Yes	76.7	60	Yes	70.3	55	Yes	68.7	45	Yes	75.4	60	Yes	-1.1	-1.3	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
25	Residential	County	LT-5	58.1	71.5	55	Yes	70.1	45	Yes	76.7	60	Yes	70.4	55	Yes	68.8	45	Yes	75.5	60	Yes	-1.1	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
26	Residential	County	LT-5	58.1	71.6	55	Yes	70.2	45	Yes	76.8	60	Yes	70.5	55	Yes	68.9	45	Yes	75.6	60	Yes	-1.1	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
27	Residential	County	LT-5	58.1	71.2	55	Yes	69.8	45	Yes	76.5	60	Yes	70.1	55	Yes	68.5	45	Yes	75.2	60	Yes	-1.1	-1.3	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
28	Residential	County	LT-5	58.1	72.4	55	Yes	71.0	45	Yes	77.6	60	Yes	71.1	55	Yes	69.6	45	Yes	76.3	60	Yes	-1.3	-1.4	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
29	Residential	County	LT-4	66.1	69.2	55	Yes	67.7	45	Yes	74.4	60	Yes	68.7	55	Yes	67.1	45	Yes	73.8	60	Yes	-0.5	-0.6	-0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
30	Residential	County	LT-4	66.1	73.7	55	Yes	72.3	45	Yes	79.0	60	Yes	73.7	55	Yes	72.2	45	Yes	78.8	60	Yes	0.0	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
31	Residential	County	LT-4	66.1	73.7	55	Yes	72.2	45	Yes	78.9	60	Yes	73.6	55	Yes	72.0	45	Yes	78.7	60	Yes	-0.1	-0.2	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
32	Residential	County	LT-4	66.1	73.6	55	Yes	72.2	45	Yes	78.9	60	Yes	73.5	55	Yes	71.9	45	Yes	78.6	60	Yes	-0.1	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
33	Residential	County	LT-4	66.1	71.1	55	Yes	69.7	45	Yes	76.4	60	Yes	70.8	55	Yes	69.2	45	Yes	75.9	60	Yes	-0.3	-0.5	-0.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
34	Residential	County	LT-4	66.1	71.2	55	Yes	69.8	45	Yes	76.4	60	Yes	70.8	55	Yes	69.3	45	Yes	75.9	60	Yes	-0.4	-0.5	-0.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
35	Residential	County	LT-4	66.1	71.3	55	Yes	69.9	45	Yes	76.5	60	Yes	70.9	55	Yes	69.4	45	Yes	76.0	60	Yes	-0.4	-0.5	-0.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	73.9	55	Yes	72.4	-	No	79.1	60	Yes	73.7	55	Yes	72.1	-	No	78.8	60	Yes	-0.2	-0.3	-0.3	Yes	5.0	No	No	5.0	No	Yes	5.0	No
37	Residential	County	LT-4	66.1	70.0	55	Yes	68.5	45	Yes	75.2	60	Yes	69.5	55	Yes	68.0	45	Yes	74.6	60	Yes	-0.5	-0.5	-0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
38	Residential	County	LT-4	66.1	69.5	55	Yes	68.1	45	Yes	74.8	60	Yes	69.1	55	Yes	67.5	45	Yes	74.2	60	Yes	-0.4	-0.6	-0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
39	Residential	County	LT-4	66.1	72.0	55	Yes	70.5	45	Yes	77.2	60	Yes	71.7	55	Yes	70.1	45	Yes	76.8	60	Yes	-0.3	-0.4	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
40	Residential	County	LT-4	66.1	71.7	55	Yes	70.3	45	Yes	77.0	60	Yes	71.6	55	Yes	70.0	45	Yes	76.7	60	Yes	-0.1	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
41	Residential	County	LT-4	66.1	66.9	55	Yes	65.4	45	Yes	72.1	60	Yes	66.5	55	Yes	65.0	45	Yes	71.7	60	Yes	-0.4	-0.4	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
42	Residential	County	LT-4	66.1	66.2	55	Yes	64.8	45	Yes	71.4	60	Yes	65.8	55	Yes	64.4	45	Yes	71.0	60	Yes	-0.4	-0.4	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
43	Residential	County	LT-4	66.1	65.5	55	Yes	64.1	45	Yes	70.8	60	Yes	65.2	55	Yes	63.8	45	Yes	70.4	60	Yes	-0.3	-0.3	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
44	Residential	County	LT-4	66.1	65.0	55	Yes	63.5	45	Yes	70.2	60	Yes	64.6	55	Yes	63.3	45	Yes	69.9	60	Yes	-0.4	-0.2	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
45	Residential	County	LT-4	66.1	65.6	55	Yes	64.2	45	Yes	70.9	60	Yes	65.3	55	Yes	63.9	45	Yes	70.5	60	Yes	-0.3	-0.3	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
46	Residential	County	LT-4	66.1	64.9	55	Yes	63.4	45	Yes	70.1	60	Yes	64.6	55	Yes	63.2	45	Yes	69.8	60	Yes	-0.3	-0.2	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
47	Residential	County	LT-4	66.1	64.2	55	Yes	62.7	45	Yes	69.4	60	Yes	63.9	55	Yes	62.6	45	Yes	69.2	60	Yes	-0.3	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
48	Residential	County	LT-4	66.1	63.8	55	Yes	62.4	45	Yes	69.0	60	Yes	63.6	55	Yes	62.3	45	Yes	69.0	60	Yes	-0.2	-0.1	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
49	Residential	County	LT-4	66.1	62.6	55	Yes	61.1	45	Yes	67.8	60	Yes	62.6	55	Yes	61.4	45	Yes	68.0	60	Yes	0.0	0.3	0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
50	Residential	County	LT-4	66.1	62.3	55	Yes	60.9	45	Yes	67.5	60	Yes	62.4	55	Yes	61.2	45	Yes	67.8	60	Yes	0.1	0.3	0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
51	Residential	County	LT-4	66.1	61.9	55	Yes	60.5	45	Yes	67.2	60	Yes	62.2	55	Yes	61.2	45	Yes	67.8	60	Yes	0.3	0.7	0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
52	Residential	County	LT-1	61.2	56.0	55	Yes	54.6	45	Yes	61.2	60	Yes	54.1	55	No	53.7	45	Yes	60.2	60	Yes	-1.9	-0.9	-1.0	No	3.0	No	Yes	3.0	No	Yes	3.0	No
53	Residential	County	LT-1	61.2	55.2	55	Yes	53.8	45	Yes	60.4	60	Yes	54.3	55	No	54.0	45	Yes	60.4	60	Yes	-0.9	0.2	0.0	No	3.0	No	Yes	3.0	No	Yes	3.0	No
54	Residential	County	LT-2	77.2	67.1	55	Yes	65.7	45	Yes	72.4	60	Yes	66.0	55	Yes	64.5	45	Yes	71.1	60	Yes	-1.1	-1.2	-1.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
55	Residential	County	LT-2	77.2	71.5	55	Yes	70.0	45	Yes	76.7	60	Yes	70.1	55	Yes	68.6	45	Yes	75.2	60	Yes	-1.4	-1.4	-1.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
56	Residential	County	LT-2	77.2	72.7	55	Yes	71.2	45	Yes	77.9	60	Yes	69.2	55	Yes	67.7	45	Yes	74.4	60	Yes	-3.5	-3.5	-3.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
57	Residential	County	LT-2	77.2	72.0	55	Yes	70.5	45	Yes	77.2	60	Yes	67.4	55	Yes	66.0	45	Yes	72.7	60	Yes	-4.6	-4.5	-4.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
58	Residential	County	LT-2	77.2	72.7	55	Yes	71.2	45	Yes	77.9	60	Yes	67.7	55	Yes	66.4	45	Yes	73.0	60	Yes	-5.0	-4.8	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
59	Residential	County	LT-2	77.2	71.6	55	Yes	70.2	45	Yes	76.8	60	Yes	66.6	55	Yes	65.3	45	Yes	71.9	60	Yes	-5.0	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
60	Residential	County	LT-2	77.2	69.8	55	Yes	68.4	45	Yes	75.0	60	Yes	64.9	55	Yes	63.5	45	Yes	70.1	60	Yes	-4.9	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
61	Residential	County	LT-2	77.2	74.3	55	Yes	72.8	45	Yes	79.5	60	Yes	69.2	55	Yes	67.9	45	Yes	74.5	60	Yes	-5.1	-4.9	-5.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
62	Residential	County	LT-2	77.2	75.5	55	Yes	74.1	45	Yes	80.8	60	Yes	70.4	55	Yes	69.1	45	Yes	75.7	60	Yes	-5.1	-5.0	-5.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
63	Residential	County	LT-2	77.2	69.7	55	Yes	68.3	45	Yes	75.0	60	Yes	64.8	55	Yes	63.5	45	Yes	70.1	60	Yes	-4.9	-4.8	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
64	Residential	County	LT-2	77.2	71.6	55	Yes	70.2	45	Yes	76.8	60	Yes	66.6	55	Yes	65.3	45	Yes	71.9	60	Yes	-5.0	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	65.4	55	Yes	64.0	-	No	70.7	60	Yes	64.6	55	Yes	63.1	-	No	69.7	60	Yes	-0.8	-0.9	-1.0	Yes	5.0	No	No	5.0	No	Yes	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	61.8	55	Yes	60.4	-	No	67.0	60	Yes	61.2	55	Yes	59.8	-	No	66.5	60	Yes	-0.6	-0.6	-0.5	Yes	5.0	No	No	5.0	No	Yes	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	63.1	55	Yes	61.7	-	No	68.3	60	Yes	62.6	55	Yes	61.1	-	No	67.7	60	Yes	-0.5	-0.6	-0.6	Yes	5.0	No	No	5.0	No	Yes	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	58.8	55	Yes	57.4	-	No	64.1	60	Yes	58.6	55	Yes	57.3	-	No	63.9	60	Yes	-0.2	-0.1	-0.2	Yes	5.0	No	No	5.0	No	Yes	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	56.8	55	Yes	55.4	-	No	62.0	65	No	56.9	55	Yes	55.6	-	No	62.2	65	No	0.1	0.2	0.2	Yes	3.0	No	No	3.0	No	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	54.4	55	No	53.0	-	No	59.6	60	No	55.5	55	Yes	54.5	-	No	61.0	60	Yes	1.1	1.5	1.4	Yes	3.0	No	No	3.0	No	Yes	3.0	No
71	Residential	County	LT-2	77.2	67.8	55	Yes	66.4	45	Yes	73.1	60	Yes	63.1	55	Yes	61.7	45	Yes	68.3	60	Yes	-4.7	-4.7	-4.8	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
72	Residential	County	LT-2	77.2	67.4	55	Yes	66.0	45	Yes	72.7	60	Yes	62.7	55	Yes	61.4	45	Yes	68.0	60	Yes	-4.7	-4.6	-4.7	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
73	Residential	County	LT-2	77.2	66.8	55	Yes	65.4	45	Yes	72.0	60	Yes	62.2	55	Yes	60.9	45	Yes	67.5	60	Yes	-4.6	-4.5	-4.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
74	Residential	County	LT-2	77.2	73.3	55	Yes	71.9	45	Yes	78.5	60	Yes	68.8	55	Yes	67.5	45	Yes	74.1	60	Yes	-4.5	-4.4	-4.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
75	Residential	County	LT-2	77.2	74.4	55	Yes	73.0	45	Yes	79.6	60	Yes	70.1	55	Yes	68.8	45	Yes	75.4	60	Yes	-4.3	-4.2	-4.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
76	Residential	County	LT-2	77.2	79.1	55	Yes	77.7	45	Yes	84.3	60	Yes	78.9	55	Yes	77.5	45	Yes	84.1	60	Yes	-0.2	-0.2	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
77	Residential	County	LT-2	77.2	64.4	55	Yes	63.0	45	Yes	69.7	60	Yes	62.1	55	Yes	60.7	45	Yes	67.4	60	Yes	-2.3	-2.3	-2.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
78	Residential	County	LT-2	77.2	62.3	55	Yes	60.8	45	Yes	67.5	60	Yes	62.1	55	Yes	60.7	45	Yes	67.3	60	Yes	-0.2	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
79	Residential	County	LT-2	77.2	67.4	55	Yes	66.0	45	Yes	72.7	60	Yes	67.4	55	Yes	66.0	45	Yes	72.6	60	Yes	0.0	0.0	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
80	Residential	County	LT-2	77.2	68.2	55	Yes	66.8	45	Yes	73.4	60	Yes	68.2	55	Yes	66.8	45	Yes	73.4	60	Yes	0.0	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
81	Residential	County	LT-2	77.2	64.0	55	Yes	62.6	45	Yes	69.2	60	Yes	64.0	55	Yes	62.6	45	Yes	69.2	60	Yes	0.0	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
82	Residential	County	LT-2	77.2	67.2	55	Yes	65.8	45	Yes	72.4	60	Yes	67.2	55	Yes	65.8	45	Yes	72.4	60	Yes	0.0	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No

Interim Year 2033 Absolute Exterior Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT									COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
				Measured Ambient Noise Level (L_{dn}, L_{eq})	Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn			Daytime	Nighttime	Ldn	Daytime			Nighttime			Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?				Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
83	Residential	City	LT-3	66.5	47.6	65	No	46.2	65	No	52.9	65	No	57.7	65	No	57.6	65	No	64.0	65	No	10.1	11.4	11.1	No	1.5	No	No	1.5	No	No	1.5	Yes
84	Residential	City	LT-3	66.5	46.6	65	No	45.2	65	No	51.8	65	No	57.7	65	No	57.7	65	No	64.1	65	No	11.1	12.5	12.3	No	1.5	No	No	1.5	No	No	1.5	Yes
85	Residential	City	LT-3	66.5	67.1	65	**Yes**	65.7	65	**Yes**	72.3	65	**Yes**	66.6	65	**Yes**	65.0	65	No	71.7	65	**Yes**	-0.5	-0.7	-0.6	**Yes**	1.5	No	No	1.5	No	**Yes**	1.5	No
86	Residential	City	LT-3	66.5	47.1	65	No	45.7	65	No	52.3	65	No	54.7	65	No	54.4	65	No	60.9	65	No	7.6	8.7	8.6	No	1.5	No	No	1.5	No	No	1.5	No
87	Residential	City	LT-3	66.5	45.3	65	No	43.9	65	No	50.6	65	No	56.5	65	No	56.0	65	No	62.5	65	No	11.2	12.1	11.9	No	1.5	No	No	1.5	No	No	1.5	No
88	Residential	City	LT-3	66.5	45.9	65	No	44.5	65	No	51.1	65	No	57.1	65	No	56.8	65	No	63.2	65	No	11.2	12.3	12.1	No	1.5	No	No	1.5	No	No	1.5	Yes
89	Residential	City	LT-3	66.5	45.9	65	No	44.5	65	No	51.1	65	No	57.2	65	No	56.9	65	No	63.3	65	No	11.3	12.4	12.2	No	1.5	No	No	1.5	No	No	1.5	Yes
90	Residential	City	LT-3	66.5	45.5	65	No	44.0	65	No	50.7	65	No	58.4	65	No	58.2	65	No	64.6	65	No	12.9	14.2	13.9	No	1.5	No	No	1.5	No	No	1.5	Yes

Interim Year 2033 Exterior Incremental Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
1	Residential	County	59.8	58.4	65.0	57.8	57.4	63.8	-2.0	-1.0	-1.2	1.5	No	1.5	No	1.5	No
2	Residential	County	58.7	57.3	64.0	57.5	57.2	63.6	-1.2	-0.1	-0.4	1.5	No	1.5	No	1.5	No
3	Residential	County	59.9	58.5	65.1	57.1	56.7	63.2	-2.8	-1.8	-1.9	1.5	No	1.5	No	1.5	No
4	Residential	City	57.3	55.9	62.6	57.0	56.6	63.0	-0.3	0.7	0.4	1.5	No	1.5	No	1.5	No
5	Residential	City	59.1	57.7	64.3	58.8	58.6	65.0	-0.3	0.9	0.7	1.5	No	1.5	No	1.5	No
6	Residential	City	53.4	52.0	58.6	57.0	56.8	63.2	3.6	4.8	4.6	5.0	No	5.0	No	5.0	No
7	Residential	City	62.5	61.1	67.7	61.9	60.9	67.5	-0.6	-0.2	-0.2	5.0	No	5.0	No	5.0	No
8	Residential	County	65.3	63.9	70.5	64.3	62.9	69.5	-1.0	-1.0	-1.0	5.0	No	5.0	No	5.0	No
9	Residential	County	66.7	65.3	71.9	65.7	64.3	70.9	-1.0	-1.0	-1.0	5.0	No	5.0	No	5.0	No
10	Residential	County	67.0	65.6	72.2	66.1	64.6	71.3	-0.9	-1.0	-0.9	5.0	No	5.0	No	5.0	No
11	Residential	County	67.3	65.9	72.5	66.4	65.0	71.6	-0.9	-0.9	-0.9	5.0	No	5.0	No	5.0	No
12	Residential	County	67.6	66.2	72.9	66.7	65.3	71.9	-0.9	-0.9	-1.0	5.0	No	5.0	No	5.0	No
13	Residential	County	68.1	66.6	73.3	67.1	65.7	72.3	-1.0	-0.9	-1.0	5.0	No	5.0	No	5.0	No
14	Residential	County	71.1	69.7	76.3	69.9	68.4	75.1	-1.2	-1.3	-1.2	5.0	No	5.0	No	5.0	No
15	Residential	County	72.9	71.4	78.1	71.7	70.1	76.8	-1.2	-1.3	-1.3	5.0	No	5.0	No	5.0	No
16	Residential	County	70.7	69.3	76.0	69.4	67.9	74.6	-1.3	-1.4	-1.4	5.0	No	5.0	No	5.0	No
17	Residential	County	70.8	69.4	76.0	69.5	68.0	74.6	-1.3	-1.4	-1.4	5.0	No	5.0	No	5.0	No
18	Residential	County	68.9	67.5	74.1	67.8	66.3	72.9	-1.1	-1.2	-1.2	5.0	No	5.0	No	5.0	No
19	Residential	County	69.5	68.1	74.7	68.4	66.8	73.5	-1.1	-1.3	-1.2	5.0	No	5.0	No	5.0	No
20	Residential	County	69.7	68.3	74.9	68.6	67.1	73.7	-1.1	-1.2	-1.2	5.0	No	5.0	No	5.0	No
21	Residential	County	70.6	69.2	75.8	69.5	67.9	74.6	-1.1	-1.3	-1.2	5.0	No	5.0	No	5.0	No
22	Residential	County	70.3	68.9	75.6	69.2	67.7	74.4	-1.1	-1.2	-1.2	5.0	No	5.0	No	5.0	No
23	Residential	County	69.9	68.5	75.2	68.9	67.3	74.0	-1.0	-1.2	-1.2	5.0	No	5.0	No	5.0	No
24	Residential	County	71.4	70.0	76.7	70.3	68.7	75.4	-1.1	-1.3	-1.3	5.0	No	5.0	No	5.0	No
25	Residential	County	71.5	70.1	76.7	70.4	68.8	75.5	-1.1	-1.3	-1.2	5.0	No	5.0	No	5.0	No
26	Residential	County	71.6	70.2	76.8	70.5	68.9	75.6	-1.1	-1.3	-1.2	5.0	No	5.0	No	5.0	No
27	Residential	County	71.2	69.8	76.5	70.1	68.5	75.2	-1.1	-1.3	-1.3	5.0	No	5.0	No	5.0	No
28	Residential	County	72.4	71.0	77.6	71.1	69.6	76.3	-1.3	-1.4	-1.3	5.0	No	5.0	No	5.0	No
29	Residential	County	69.2	67.7	74.4	68.7	67.1	73.8	-0.5	-0.6	-0.6	1.5	No	1.5	No	1.5	No
30	Residential	County	73.7	72.3	79.0	73.7	72.2	78.8	0.0	-0.1	-0.2	1.5	No	1.5	No	1.5	No
31	Residential	County	73.7	72.2	78.9	73.6	72.0	78.7	-0.1	-0.2	-0.2	1.5	No	1.5	No	1.5	No
32	Residential	County	73.6	72.2	78.9	73.5	71.9	78.6	-0.1	-0.3	-0.3	1.5	No	1.5	No	1.5	No
33	Residential	County	71.1	69.7	76.4	70.8	69.2	75.9	-0.3	-0.5	-0.5	1.5	No	1.5	No	1.5	No
34	Residential	County	71.2	69.8	76.4	70.8	69.3	75.9	-0.4	-0.5	-0.5	1.5	No	1.5	No	1.5	No
35	Residential	County	71.3	69.9	76.5	70.9	69.4	76.0	-0.4	-0.5	-0.5	1.5	No	1.5	No	1.5	No
36 (Jasper Park)	Park/Recreation	County	73.9	72.4	79.1	73.7	72.1	78.8	-0.2	-0.3	-0.3	5.0	No	5.0	No	5.0	No
37	Residential	County	70.0	68.5	75.2	69.5	68.0	74.6	-0.5	-0.5	-0.6	1.5	No	1.5	No	1.5	No
38	Residential	County	69.5	68.1	74.8	69.1	67.5	74.2	-0.4	-0.6	-0.6	1.5	No	1.5	No	1.5	No
39	Residential	County	72.0	70.5	77.2	71.7	70.1	76.8	-0.3	-0.4	-0.4	1.5	No	1.5	No	1.5	No
40	Residential	County	71.7	70.3	77.0	71.6	70.0	76.7	-0.1	-0.3	-0.3	1.5	No	1.5	No	1.5	No
41	Residential	County	66.9	65.4	72.1	66.5	65.0	71.7	-0.4	-0.4	-0.4	1.5	No	1.5	No	1.5	No
42	Residential	County	66.2	64.8	71.4	65.8	64.4	71.0	-0.4	-0.4	-0.4	1.5	No	1.5	No	1.5	No

Interim Year 2033 Exterior Incremental Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
43	Residential	County	65.5	64.1	70.8	65.2	63.8	70.4	-0.3	-0.3	-0.4	1.5	No	1.5	No	1.5	No
44	Residential	County	65.0	63.5	70.2	64.6	63.3	69.9	-0.4	-0.2	-0.3	1.5	No	1.5	No	1.5	No
45	Residential	County	65.6	64.2	70.9	65.3	63.9	70.5	-0.3	-0.3	-0.4	1.5	No	1.5	No	1.5	No
46	Residential	County	64.9	63.4	70.1	64.6	63.2	69.8	-0.3	-0.2	-0.3	1.5	No	1.5	No	1.5	No
47	Residential	County	64.2	62.7	69.4	63.9	62.6	69.2	-0.3	-0.1	-0.2	1.5	No	1.5	No	1.5	No
48	Residential	County	63.8	62.4	69.0	63.6	62.3	69.0	-0.2	-0.1	0.0	1.5	No	1.5	No	1.5	No
49	Residential	County	62.6	61.1	67.8	62.6	61.4	68.0	0.0	0.3	0.2	1.5	No	1.5	No	1.5	No
50	Residential	County	62.3	60.9	67.5	62.4	61.2	67.8	0.1	0.3	0.3	1.5	No	1.5	No	1.5	No
51	Residential	County	61.9	60.5	67.2	62.2	61.2	67.8	0.3	0.7	0.6	1.5	No	1.5	No	1.5	No
52	Residential	County	56.0	54.6	61.2	54.1	53.7	60.2	-1.9	-0.9	-1.0	3.0	No	3.0	No	3.0	No
53	Residential	County	55.2	53.8	60.4	54.3	54.0	60.4	-0.9	0.2	0.0	3.0	No	3.0	No	3.0	No
54	Residential	County	67.1	65.7	72.4	66.0	64.5	71.1	-1.1	-1.2	-1.3	1.5	No	1.5	No	1.5	No
55	Residential	County	71.5	70.0	76.7	70.1	68.6	75.2	-1.4	-1.4	-1.5	1.5	No	1.5	No	1.5	No
56	Residential	County	72.7	71.2	77.9	69.2	67.7	74.4	-3.5	-3.5	-3.5	1.5	No	1.5	No	1.5	No
57	Residential	County	72.0	70.5	77.2	67.4	66.0	72.7	-4.6	-4.5	-4.5	1.5	No	1.5	No	1.5	No
58	Residential	County	72.7	71.2	77.9	67.7	66.4	73.0	-5.0	-4.8	-4.9	1.5	No	1.5	No	1.5	No
59	Residential	County	71.6	70.2	76.8	66.6	65.3	71.9	-5.0	-4.9	-4.9	1.5	No	1.5	No	1.5	No
60	Residential	County	69.8	68.4	75.0	64.9	63.5	70.1	-4.9	-4.9	-4.9	1.5	No	1.5	No	1.5	No
61	Residential	County	74.3	72.8	79.5	69.2	67.9	74.5	-5.1	-4.9	-5.0	1.5	No	1.5	No	1.5	No
62	Residential	County	75.5	74.1	80.8	70.4	69.1	75.7	-5.1	-5.0	-5.1	1.5	No	1.5	No	1.5	No
63	Residential	County	69.7	68.3	75.0	64.8	63.5	70.1	-4.9	-4.8	-4.9	1.5	No	1.5	No	1.5	No
64	Residential	County	71.6	70.2	76.8	66.6	65.3	71.9	-5.0	-4.9	-4.9	1.5	No	1.5	No	1.5	No
65 (Lenwood Elementary School)	School	County	65.4	64.0	70.7	64.6	63.1	69.7	-0.8	-0.9	-1.0	5.0	No	5.0	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	61.8	60.4	67.0	61.2	59.8	66.5	-0.6	-0.6	-0.5	5.0	No	5.0	No	5.0	No
67 (Missionary Baptist Church)	Church	County	63.1	61.7	68.3	62.6	61.1	67.7	-0.5	-0.6	-0.6	5.0	No	5.0	No	5.0	No
68 (Saint Phillip Church)	Church	County	58.8	57.4	64.1	58.6	57.3	63.9	-0.2	-0.1	-0.2	5.0	No	5.0	No	5.0	No
69 (Ingels School)	School	County	56.8	55.4	62.0	56.9	55.6	62.2	0.1	0.2	0.2	3.0	No	3.0	No	3.0	No
70 (Grandview Baptist Church)	Church	County	54.4	53.0	59.6	55.5	54.5	61.0	1.1	1.5	1.4	3.0	No	3.0	No	3.0	No
71	Residential	County	67.8	66.4	73.1	63.1	61.7	68.3	-4.7	-4.7	-4.8	1.5	No	1.5	No	1.5	No
72	Residential	County	67.4	66.0	72.7	62.7	61.4	68.0	-4.7	-4.6	-4.7	1.5	No	1.5	No	1.5	No
73	Residential	County	66.8	65.4	72.0	62.2	60.9	67.5	-4.6	-4.5	-4.5	1.5	No	1.5	No	1.5	No
74	Residential	County	73.3	71.9	78.5	68.8	67.5	74.1	-4.5	-4.4	-4.4	1.5	No	1.5	No	1.5	No
75	Residential	County	74.4	73.0	79.6	70.1	68.8	75.4	-4.3	-4.2	-4.2	1.5	No	1.5	No	1.5	No
76	Residential	County	79.1	77.7	84.3	78.9	77.5	84.1	-0.2	-0.2	-0.2	1.5	No	1.5	No	1.5	No
77	Residential	County	64.4	63.0	69.7	62.1	60.7	67.4	-2.3	-2.3	-2.3	1.5	No	1.5	No	1.5	No
78	Residential	County	62.3	60.8	67.5	62.1	60.7	67.3	-0.2	-0.1	-0.2	1.5	No	1.5	No	1.5	No
79	Residential	County	67.4	66.0	72.7	67.4	66.0	72.6	0.0	0.0	-0.1	1.5	No	1.5	No	1.5	No
80	Residential	County	68.2	66.8	73.4	68.2	66.8	73.4	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
81	Residential	County	64.0	62.6	69.2	64.0	62.6	69.2	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
82	Residential	County	67.2	65.8	72.4	67.2	65.8	72.4	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
83	Residential	City	47.6	46.2	52.9	57.7	57.6	64.0	10.1	11.4	11.1	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
84	Residential	City	46.6	45.2	51.8	57.7	57.7	64.1	11.1	12.5	12.3	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Interim Year 2033 Exterior Incremental Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
85	Residential	City	67.1	65.7	72.3	66.6	65.0	71.7	-0.5	-0.7	-0.6	1.5	No	1.5	No	1.5	No
86	Residential	City	47.1	45.7	52.3	54.7	54.4	60.9	7.6	8.7	8.6	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
87	Residential	City	45.3	43.9	50.6	56.5	56.0	62.5	11.2	12.1	11.9	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
88	Residential	City	45.9	44.5	51.1	57.1	56.8	63.2	11.2	12.3	12.1	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
89	Residential	City	45.9	44.5	51.1	57.2	56.9	63.3	11.3	12.4	12.2	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
90	Residential	City	45.5	44.0	50.7	58.4	58.2	64.6	12.9	14.2	13.9	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Horizon Year 2048 Absolute Exterior Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT										COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
				Measured Ambient Noise Level (L_{dn}, L_{eq})	Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn			Daytime	Nighttime	Ldn	Daytime			Nighttime			Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?				Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	60.9	55	Yes	59.4	45	Yes	66.0	60	Yes	62.2	55	Yes	61.6	45	Yes	68.1	60	Yes	1.3	2.2	2.1	Yes	1.5	No	Yes	1.5	Yes	Yes	1.5	Yes
2	Residential	County	LT-3	66.5	59.8	55	Yes	58.3	45	Yes	64.9	60	Yes	59.7	55	Yes	59.3	45	Yes	65.8	60	Yes	-0.1	1.0	0.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
3	Residential	County	LT-3	66.5	61.0	55	Yes	59.5	45	Yes	66.1	60	Yes	60.1	55	Yes	59.7	45	Yes	66.2	60	Yes	-0.9	0.2	0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
4	Residential	City	LT-3	66.5	58.4	65	No	56.9	65	No	63.6	65	No	59.8	65	No	59.3	65	No	65.8	65	Yes	1.4	2.4	2.2	No	1.5	No	No	1.5	Yes	Yes	1.5	Yes
5	Residential	City	LT-3	66.5	60.1	65	No	58.6	65	No	65.3	65	Yes	64.1	65	No	64.0	65	No	70.4	65	Yes	4.0	5.4	5.1	No	1.5	Yes	No	1.5	Yes	Yes	1.5	Yes
6	Residential	City	LT-5	58.1	54.5	65	No	53.0	65	No	59.6	65	No	59.8	65	No	59.7	65	No	66.1	65	Yes	5.3	6.7	6.5	No	5.0	Yes	No	5.0	Yes	Yes	5.0	Yes
7	Residential	City	LT-5	58.1	63.6	65	No	62.1	65	No	68.7	65	Yes	63.0	65	No	62.4	65	No	68.9	65	Yes	-0.6	0.3	0.2	No	5.0	No	No	5.0	No	Yes	5.0	No
8	Residential	County	LT-5	58.1	66.4	55	Yes	64.9	45	Yes	71.5	60	Yes	65.3	55	Yes	64.1	45	Yes	70.7	60	Yes	-1.1	-0.8	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
9	Residential	County	LT-5	58.1	67.7	55	Yes	66.2	45	Yes	72.9	60	Yes	66.7	55	Yes	65.5	45	Yes	72.1	60	Yes	-1.0	-0.7	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
10	Residential	County	LT-5	58.1	68.0	55	Yes	66.5	45	Yes	73.2	60	Yes	67.1	55	Yes	65.8	45	Yes	72.4	60	Yes	-0.9	-0.7	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
11	Residential	County	LT-5	58.1	68.3	55	Yes	66.9	45	Yes	73.5	60	Yes	67.4	55	Yes	66.1	45	Yes	72.8	60	Yes	-0.9	-0.8	-0.7	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
12	Residential	County	LT-5	58.1	68.7	55	Yes	67.2	45	Yes	73.9	60	Yes	67.7	55	Yes	66.4	45	Yes	73.1	60	Yes	-1.0	-0.8	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
13	Residential	County	LT-5	58.1	69.1	55	Yes	67.6	45	Yes	74.3	60	Yes	68.1	55	Yes	66.8	45	Yes	73.5	60	Yes	-1.0	-0.8	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
14	Residential	County	LT-5	58.1	72.1	55	Yes	70.6	45	Yes	77.3	60	Yes	70.9	55	Yes	69.6	45	Yes	76.2	60	Yes	-1.2	-1.0	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
15	Residential	County	LT-5	58.1	73.9	55	Yes	72.4	45	Yes	79.1	60	Yes	72.7	55	Yes	71.3	45	Yes	78.0	60	Yes	-1.2	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
16	Residential	County	LT-5	58.1	71.8	55	Yes	70.3	45	Yes	77.0	60	Yes	70.5	55	Yes	69.1	45	Yes	75.7	60	Yes	-1.3	-1.2	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
17	Residential	County	LT-5	58.1	71.8	55	Yes	70.4	45	Yes	77.0	60	Yes	70.5	55	Yes	69.1	45	Yes	75.8	60	Yes	-1.3	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
18	Residential	County	LT-5	58.1	69.9	55	Yes	68.5	45	Yes	75.1	60	Yes	68.8	55	Yes	67.4	45	Yes	74.1	60	Yes	-1.1	-1.1	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
19	Residential	County	LT-5	58.1	70.5	55	Yes	69.0	45	Yes	75.7	60	Yes	69.4	55	Yes	68.0	45	Yes	74.7	60	Yes	-1.1	-1.0	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
20	Residential	County	LT-5	58.1	70.7	55	Yes	69.2	45	Yes	75.9	60	Yes	69.6	55	Yes	68.3	45	Yes	74.9	60	Yes	-1.1	-0.9	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
21	Residential	County	LT-5	58.1	71.6	55	Yes	70.1	45	Yes	76.8	60	Yes	70.5	55	Yes	69.1	45	Yes	75.8	60	Yes	-1.1	-1.0	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
22	Residential	County	LT-5	58.1	71.4	55	Yes	69.9	45	Yes	76.5	60	Yes	70.3	55	Yes	68.9	45	Yes	75.5	60	Yes	-1.1	-1.0	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
23	Residential	County	LT-5	58.1	71.0	55	Yes	69.5	45	Yes	76.1	60	Yes	69.9	55	Yes	68.5	45	Yes	75.1	60	Yes	-1.1	-1.0	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
24	Residential	County	LT-5	58.1	72.5	55	Yes	71.0	45	Yes	77.6	60	Yes	71.3	55	Yes	69.9	45	Yes	76.6	60	Yes	-1.2	-1.1	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
25	Residential	County	LT-5	58.1	72.5	55	Yes	71.0	45	Yes	77.7	60	Yes	71.4	55	Yes	70.0	45	Yes	76.6	60	Yes	-1.1	-1.0	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
26	Residential	County	LT-5	58.1	72.7	55	Yes	71.2	45	Yes	77.8	60	Yes	71.5	55	Yes	70.1	45	Yes	76.7	60	Yes	-1.2	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
27	Residential	County	LT-5	58.1	72.3	55	Yes	70.8	45	Yes	77.5	60	Yes	71.1	55	Yes	69.7	45	Yes	76.4	60	Yes	-1.2	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
28	Residential	County	LT-5	58.1	73.4	55	Yes	71.9	45	Yes	78.6	60	Yes	72.2	55	Yes	70.8	45	Yes	77.4	60	Yes	-1.2	-1.1	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
29	Residential	County	LT-4	66.1	70.2	55	Yes	68.7	45	Yes	75.4	60	Yes	69.7	55	Yes	68.3	45	Yes	74.9	60	Yes	-0.5	-0.4	-0.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
30	Residential	County	LT-4	66.1	74.8	55	Yes	73.3	45	Yes	79.9	60	Yes	74.7	55	Yes	73.3	45	Yes	80.0	60	Yes	-0.1	0.0	0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
31	Residential	County	LT-4	66.1	74.7	55	Yes	73.2	45	Yes	79.9	60	Yes	74.6	55	Yes	73.2	45	Yes	79.8	60	Yes	-0.1	0.0	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
32	Residential	County	LT-4	66.1	74.7	55	Yes	73.2	45	Yes	79.8	60	Yes	74.5	55	Yes	73.1	45	Yes	79.7	60	Yes	-0.2	-0.1	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
33	Residential	County	LT-4	66.1	72.2	55	Yes	70.7	45	Yes	77.3	60	Yes	71.8	55	Yes	70.4	45	Yes	77.0	60	Yes	-0.4	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
34	Residential	County	LT-4	66.1	72.2	55	Yes	70.7	45	Yes	77.4	60	Yes	71.8	55	Yes	70.4	45	Yes	77.1	60	Yes	-0.4	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
35	Residential	County	LT-4	66.1	72.3	55	Yes	70.8	45	Yes	77.5	60	Yes	71.9	55	Yes	70.5	45	Yes	77.2	60	Yes	-0.4	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	74.9	55	Yes	73.4	-	No	80.1	60	Yes	74.7	55	Yes	73.3	-	No	80.0	60	Yes	-0.2	-0.1	-0.1	Yes	5.0	No	No	5.0	No	Yes	5.0	No
37	Residential	County	LT-4	66.1	71.0	55	Yes	69.5	45	Yes	76.2	60	Yes	70.5	55	Yes	69.1	45	Yes	75.8	60	Yes	-0.5	-0.4	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
38	Residential	County	LT-4	66.1	70.6	55	Yes	69.1	45	Yes	75.7	60	Yes	70.1	55	Yes	68.7	45	Yes	75.3	60	Yes	-0.5	-0.4	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
39	Residential	County	LT-4	66.1	73.0	55	Yes	71.5	45	Yes	78.2	60	Yes	72.7	55	Yes	71.3	45	Yes	77.9	60	Yes	-0.3	-0.2	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
40	Residential	County	LT-4	66.1	72.8	55	Yes	71.3	45	Yes	77.9	60	Yes	72.6	55	Yes	71.2	45	Yes	77.8	60	Yes	-0.2	-0.1	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
41	Residential	County	LT-4	66.1	67.9	55	Yes	66.4	45	Yes	73.1	60	Yes	67.5	55	Yes	66.1	45	Yes	72.8	60	Yes	-0.4	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
42	Residential	County	LT-4	66.1	67.3	55	Yes	65.8	45	Yes	72.4	60	Yes	66.8	55	Yes	65.5	45	Yes	72.1	60	Yes	-0.5	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
43	Residential	County	LT-4	66.1	66.6	55	Yes	65.1	45	Yes	71.7	60	Yes	66.1	55	Yes	64.8	45	Yes	71.5	60	Yes	-0.5	-0.3	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
44	Residential	County	LT-4	66.1	66.0	55	Yes	64.5	45	Yes	71.2	60	Yes	65.6	55	Yes	64.3	45	Yes	70.9	60	Yes	-0.4	-0.2	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
45	Residential	County	LT-4	66.1	66.7	55	Yes	65.2	45	Yes	71.9	60	Yes	66.3	55	Yes	65.0	45	Yes	71.6	60	Yes	-0.4	-0.2	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
46	Residential	County	LT-4	66.1	65.9	55	Yes	64.4	45	Yes	71.1	60	Yes	65.5	55	Yes	64.2	45	Yes	70.9	60	Yes	-0.4	-0.2	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
47	Residential	County	LT-4	66.1	65.2	55	Yes	63.7	45	Yes	70.4	60	Yes	64.8	55	Yes	63.6	45	Yes	70.2	60	Yes	-0.4	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
48	Residential	County	LT-4	66.1	64.9	55	Yes	63.4	45	Yes	70.0	60	Yes	64.5	55	Yes	63.4	45	Yes	70.0	60	Yes	-0.4	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
49	Residential	County	LT-4	66.1	63.6	55	Yes	62.1	45	Yes	68.8	60	Yes	63.4	55	Yes	62.3	45	Yes	68.9	60	Yes	-0.2	0.2	0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
50	Residential	County	LT-4	66.1	63.3	55	Yes	61.8	45	Yes	68.5	60	Yes	63.2	55	Yes	62.2	45	Yes	68.7	60	Yes	-0.1	0.4	0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
51	Residential	County	LT-4	66.1	63.0	55	Yes	61.5	45	Yes	68.2	60	Yes	63.0	55	Yes	62.1	45	Yes	68.6	60	Yes	0.0	0.6	0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
52	Residential	County	LT-1	61.2	57.0	55	Yes	55.5	45	Yes	62.2	60	Yes	54.4	55	No	54.0	45	Yes	60.5	60	Yes	-2.6	-1.5	-1.7	No	3.0	No	Yes	3.0	No	Yes	3.0	No
53	Residential	County	LT-1	61.2	56.2	55	Yes	54.8	45	Yes	61.4	60	Yes	54.6	55	No	54.3	45	Yes	60.7	60	Yes	-1.6	-0.5	-0.7	No	3.0	No	Yes	3.0	No	Yes	3.0	No
54	Residential	County	LT-2	77.2	68.2	55	Yes	66.7	45	Yes	73.3	60	Yes	67.0	55	Yes	65.9	45	Yes	72.4	60	Yes	-1.2	-0.8	-0.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
55	Residential	County	LT-2	77.2	72.5	55	Yes	71.0	45	Yes	77.7	60	Yes	71.1	55	Yes	69.9	45	Yes	76.5	60	Yes	-1.4	-1.1	-1.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
56	Residential	County	LT-2	77.2	73.7	55	Yes	72.2	45	Yes	78.9	60	Yes	70.1	55	Yes	68.8	45	Yes	75.5	60	Yes	-3.6	-3.4	-3.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
57	Residential	County	LT-2	77.2	73.0	55	Yes	71.5	45	Yes	78.2	60	Yes	68.4	55	Yes	66.9	45	Yes	73.6	60	Yes	-4.6	-4.6	-4.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
58	Residential	County	LT-2	77.2	73.7	55	Yes	72.2	45	Yes	78.9	60	Yes	68.7	55	Yes	67.3	45	Yes	73.9	60	Yes	-5.0	-4.9	-5.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
59	Residential	County	LT-2	77.2	72.7	55	Yes	71.2	45	Yes	77.8	60	Yes	67.6	55	Yes	66.1	45	Yes	72.8	60	Yes	-5.1	-5.1	-5.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
60	Residential	County	LT-2	77.2	70.8	55	Yes	69.3	45	Yes	76.0	60	Yes	65.9	55	Yes	64.4	45	Yes	71.0	60	Yes	-4.9	-4.9	-5.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
61	Residential	County	LT-2	77.2	75.3	55	Yes	73.8	45	Yes	80.5	60	Yes	70.2	55	Yes	68.8	45	Yes	75.4	60	Yes	-5.1	-5.0	-5.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
62	Residential	County	LT-2	77.2	76.6	55	Yes	75.1	45	Yes	81.7	60	Yes	71.4	55	Yes	69.9	45	Yes	76.6	60	Yes	-5.2	-5.2	-5.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
63	Residential	County	LT-2	77.2	70.8	55	Yes	69.3	45	Yes	75.9	60	Yes	65.8	55	Yes	64.4	45	Yes	71.0	60	Yes	-5.0	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
64	Residential	County	LT-2	77.2	72.6	55	Yes	71.2	45	Yes	77.8	60	Yes	67.6	55	Yes	66.2	45	Yes	72.8	60	Yes	-5.0	-5.0	-5.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	66.5	55	Yes	65.0	-	No	71.6	60	Yes	65.6	55	Yes	64.2	-	No	70.8	60	Yes	-0.9	-0.8	-0.8	Yes	5.0	No	No	5.0	No	Yes	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	62.8	55	Yes	61.3	-	No	68.0	60	Yes	62.2	55	Yes	60.9	-	No	67.5	60	Yes	-0.6	-0.4	-0.5	Yes	5.0	No	No	5.0	No	Yes	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	64.1	55	Yes	62.6	-	No	69.3	60	Yes	63.6	55	Yes	62.2	-	No	68.8	60	Yes	-0.5	-0.4	-0.5	Yes	5.0	No	No	5.0	No	Yes	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	59.9	55	Yes	58.4	-	No	65.1	60	Yes	59.5	55	Yes	58.4	-	No	65.0	60	Yes	-0.4	0.0	-0.1	Yes	5.0	No	No	5.0	No	Yes	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	57.8	55	Yes	56.3	-	No	63.0	65	No	57.8	55	Yes	56.5	-	No	63.1	65	No	0.0	0.2	0.1	Yes	3.0	No	No	3.0	No	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	55.4	55	Yes	54.0	-	No	60.6	60	Yes	56.2	55	Yes	55.2	-	No	61.8	60	Yes	0.8	1.2	1.2	Yes	3.0	No	No	3.0	No	Yes	3.0	No
71	Residential	County	LT-2	77.2	68.9	55	Yes	67.4	45	Yes	74.0	60	Yes	64.1	55	Yes	62.6	45	Yes	69.3	60	Yes	-4.8	-4.8	-4.7	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
72	Residential	County	LT-2	77.2	68.5	55	Yes	67.0	45	Yes	73.6	60	Yes	63.7	55	Yes	62.2	45	Yes	68.9	60	Yes	-4.8	-4.8	-4.7	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
73	Residential	County	LT-2	77.2	67.9	55	Yes	66.4	45	Yes	73.0	60	Yes	63.2	55	Yes	61.8	45	Yes	68.4	60	Yes	-4.7	-4.6	-4.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
74	Residential	County	LT-2	77.2	74.3	55	Yes	72.9	45	Yes	79.5	60	Yes	69.8	55	Yes	68.3	45	Yes	75.0	60	Yes	-4.5	-4.6	-4.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
75	Residential	County	LT-2	77.2	75.4	55	Yes	74.0	45	Yes	80.6	60	Yes	71.1	55	Yes	69.6	45	Yes	76.3	60	Yes	-4.3	-4.4	-4.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
76	Residential	County	LT-2	77.2	80.1	55	Yes	78.6	45	Yes	85.3	60	Yes	79.9	55	Yes	78.4	45	Yes	85.1	60	Yes	-0.2	-0.2	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
77	Residential	County	LT-2	77.2	65.5	55	Yes	64.0	45	Yes	70.7	60	Yes	63.1	55	Yes	61.7	45	Yes	68.3	60	Yes	-2.4	-2.3	-2.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
78	Residential	County	LT-2	77.2	63.3	55	Yes	61.8	45	Yes	68.5	60	Yes	63.1	55	Yes	61.7	45	Yes	68.3	60	Yes	-0.2	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
79	Residential	County	LT-2	77.2	68.5	55	Yes	67.0	45	Yes	73.6	60	Yes	68.5	55	Yes	67.0	45	Yes	73.6	60	Yes	0.0	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
80	Residential	County	LT-2	77.2	69.2	55	Yes	67.7	45	Yes	74.4	60	Yes	69.2	55	Yes	67.7	45	Yes	74.4	60	Yes	0.0	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
81	Residential	County	LT-2	77.2	65.1	55	Yes	63.6	45	Yes	70.2	60	Yes	65.0	55	Yes	63.6	45	Yes	70.2	60	Yes	-0.1	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
82	Residential	County	LT-2	77.2	68.2	55	Yes	66.7	45	Yes	73.4	60	Yes	68.3	55	Yes	66.8	45	Yes	73.4	60	Yes	0.1	0.1	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No

Horizon Year 2048 Absolute Exterior Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT									COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
				Measured Ambient Noise Level (L_{dn}, L_{eq})	Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn			Daytime	Nighttime	Ldn	Daytime			Nighttime			Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?				Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
83	Residential	City	LT-3	66.5	48.7	65	No	47.2	65	No	53.8	65	No	59.8	65	No	59.8	65	No	66.2	65	**Yes**	11.1	12.6	12.4	No	1.5	No	No	1.5	No	**Yes**	1.5	**Yes**
84	Residential	City	LT-3	66.5	47.6	65	No	46.1	65	No	52.8	65	No	59.8	65	No	59.8	65	No	66.2	65	**Yes**	12.2	13.7	13.4	No	1.5	No	No	1.5	No	**Yes**	1.5	**Yes**
85	Residential	City	LT-3	66.5	68.1	65	**Yes**	66.6	65	**Yes**	73.3	65	**Yes**	67.6	65	**Yes**	66.2	65	**Yes**	72.8	65	**Yes**	-0.5	-0.4	-0.5	**Yes**	1.5	No	Yes	1.5	No	**Yes**	1.5	No
86	Residential	City	LT-3	66.5	48.1	65	No	46.6	65	No	53.3	65	No	55.5	65	No	55.3	65	No	61.8	65	No	7.4	8.7	8.5	No	1.5	No	No	1.5	No	No	1.5	No
87	Residential	City	LT-3	66.5	46.4	65	No	44.9	65	No	51.5	65	No	58.3	65	No	58.0	65	No	64.5	65	No	11.9	13.1	13.0	No	1.5	No	No	1.5	No	No	1.5	No
88	Residential	City	LT-3	66.5	46.9	65	No	45.4	65	No	52.1	65	No	59.3	65	No	59.1	65	No	65.6	65	**Yes**	12.4	13.7	13.5	No	1.5	No	No	1.5	No	**Yes**	1.5	**Yes**
89	Residential	City	LT-3	66.5	47.0	65	No	45.5	65	No	52.1	65	No	59.8	65	No	59.7	65	No	66.1	65	**Yes**	12.8	14.2	14.0	No	1.5	No	No	1.5	No	**Yes**	1.5	**Yes**
90	Residential	City	LT-3	66.5	46.5	65	No	45.0	65	No	51.7	65	No	61.6	65	No	61.5	65	No	67.9	65	**Yes**	15.1	16.5	16.2	No	1.5	No	No	1.5	No	**Yes**	1.5	**Yes**

Horizon Year 2048 Exterior Incremental Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
1	Residential	County	60.9	59.4	66.0	62.2	61.6	68.1	1.3	2.2	2.1	1.5	No	1.5	**Yes**	1.5	**Yes**
2	Residential	County	59.8	58.3	64.9	59.7	59.3	65.8	-0.1	1.0	0.9	1.5	No	1.5	No	1.5	No
3	Residential	County	61.0	59.5	66.1	60.1	59.7	66.2	-0.9	0.2	0.1	1.5	No	1.5	No	1.5	No
4	Residential	City	58.4	56.9	63.6	59.8	59.3	65.8	1.4	2.4	2.2	1.5	No	1.5	**Yes**	1.5	**Yes**
5	Residential	City	60.1	58.6	65.3	64.1	64.0	70.4	4.0	5.4	5.1	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
6	Residential	City	54.5	53.0	59.6	59.8	59.7	66.1	5.3	6.7	6.5	5.0	**Yes**	5.0	**Yes**	5.0	**Yes**
7	Residential	City	63.6	62.1	68.7	63.0	62.4	68.9	-0.6	0.3	0.2	5.0	No	5.0	No	5.0	No
8	Residential	County	66.4	64.9	71.5	65.3	64.1	70.7	-1.1	-0.8	-0.8	5.0	No	5.0	No	5.0	No
9	Residential	County	67.7	66.2	72.9	66.7	65.5	72.1	-1.0	-0.7	-0.8	5.0	No	5.0	No	5.0	No
10	Residential	County	68.0	66.5	73.2	67.1	65.8	72.4	-0.9	-0.7	-0.8	5.0	No	5.0	No	5.0	No
11	Residential	County	68.3	66.9	73.5	67.4	66.1	72.8	-0.9	-0.8	-0.7	5.0	No	5.0	No	5.0	No
12	Residential	County	68.7	67.2	73.9	67.7	66.4	73.1	-1.0	-0.8	-0.8	5.0	No	5.0	No	5.0	No
13	Residential	County	69.1	67.6	74.3	68.1	66.8	73.5	-1.0	-0.8	-0.8	5.0	No	5.0	No	5.0	No
14	Residential	County	72.1	70.6	77.3	70.9	69.6	76.2	-1.2	-1.0	-1.1	5.0	No	5.0	No	5.0	No
15	Residential	County	73.9	72.4	79.1	72.7	71.3	78.0	-1.2	-1.1	-1.1	5.0	No	5.0	No	5.0	No
16	Residential	County	71.8	70.3	77.0	70.5	69.1	75.7	-1.3	-1.2	-1.3	5.0	No	5.0	No	5.0	No
17	Residential	County	71.8	70.4	77.0	70.5	69.1	75.8	-1.3	-1.3	-1.2	5.0	No	5.0	No	5.0	No
18	Residential	County	69.9	68.5	75.1	68.8	67.4	74.1	-1.1	-1.1	-1.0	5.0	No	5.0	No	5.0	No
19	Residential	County	70.5	69.0	75.7	69.4	68.0	74.7	-1.1	-1.0	-1.0	5.0	No	5.0	No	5.0	No
20	Residential	County	70.7	69.2	75.9	69.6	68.3	74.9	-1.1	-0.9	-1.0	5.0	No	5.0	No	5.0	No
21	Residential	County	71.6	70.1	76.8	70.5	69.1	75.8	-1.1	-1.0	-1.0	5.0	No	5.0	No	5.0	No
22	Residential	County	71.4	69.9	76.5	70.3	68.9	75.5	-1.1	-1.0	-1.0	5.0	No	5.0	No	5.0	No
23	Residential	County	71.0	69.5	76.1	69.9	68.5	75.1	-1.1	-1.0	-1.0	5.0	No	5.0	No	5.0	No
24	Residential	County	72.5	71.0	77.6	71.3	69.9	76.6	-1.2	-1.1	-1.0	5.0	No	5.0	No	5.0	No
25	Residential	County	72.5	71.0	77.7	71.4	70.0	76.6	-1.1	-1.0	-1.1	5.0	No	5.0	No	5.0	No
26	Residential	County	72.7	71.2	77.8	71.5	70.1	76.7	-1.2	-1.1	-1.1	5.0	No	5.0	No	5.0	No
27	Residential	County	72.3	70.8	77.5	71.1	69.7	76.4	-1.2	-1.1	-1.1	5.0	No	5.0	No	5.0	No
28	Residential	County	73.4	71.9	78.6	72.2	70.8	77.4	-1.2	-1.1	-1.2	5.0	No	5.0	No	5.0	No
29	Residential	County	70.2	68.7	75.4	69.7	68.3	74.9	-0.5	-0.4	-0.5	1.5	No	1.5	No	1.5	No
30	Residential	County	74.8	73.3	79.9	74.7	73.3	80.0	-0.1	0.0	0.1	1.5	No	1.5	No	1.5	No
31	Residential	County	74.7	73.2	79.9	74.6	73.2	79.8	-0.1	0.0	-0.1	1.5	No	1.5	No	1.5	No
32	Residential	County	74.7	73.2	79.8	74.5	73.1	79.7	-0.2	-0.1	-0.1	1.5	No	1.5	No	1.5	No
33	Residential	County	72.2	70.7	77.3	71.8	70.4	77.0	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No
34	Residential	County	72.2	70.7	77.4	71.8	70.4	77.1	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No
35	Residential	County	72.3	70.8	77.5	71.9	70.5	77.2	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No
36 (Jasper Park)	Park/Recreation	County	74.9	73.4	80.1	74.7	73.3	80.0	-0.2	-0.1	-0.1	5.0	No	5.0	No	5.0	No
37	Residential	County	71.0	69.5	76.2	70.5	69.1	75.8	-0.5	-0.4	-0.4	1.5	No	1.5	No	1.5	No
38	Residential	County	70.6	69.1	75.7	70.1	68.7	75.3	-0.5	-0.4	-0.4	1.5	No	1.5	No	1.5	No
39	Residential	County	73.0	71.5	78.2	72.7	71.3	77.9	-0.3	-0.2	-0.3	1.5	No	1.5	No	1.5	No
40	Residential	County	72.8	71.3	77.9	72.6	71.2	77.8	-0.2	-0.1	-0.1	1.5	No	1.5	No	1.5	No
41	Residential	County	67.9	66.4	73.1	67.5	66.1	72.8	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No
42	Residential	County	67.3	65.8	72.4	66.8	65.5	72.1	-0.5	-0.3	-0.3	1.5	No	1.5	No	1.5	No

Horizon Year 2048 Exterior Incremental Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
43	Residential	County	66.6	65.1	71.7	66.1	64.8	71.5	-0.5	-0.3	-0.2	1.5	No	1.5	No	1.5	No
44	Residential	County	66.0	64.5	71.2	65.6	64.3	70.9	-0.4	-0.2	-0.3	1.5	No	1.5	No	1.5	No
45	Residential	County	66.7	65.2	71.9	66.3	65.0	71.6	-0.4	-0.2	-0.3	1.5	No	1.5	No	1.5	No
46	Residential	County	65.9	64.4	71.1	65.5	64.2	70.9	-0.4	-0.2	-0.2	1.5	No	1.5	No	1.5	No
47	Residential	County	65.2	63.7	70.4	64.8	63.6	70.2	-0.4	-0.1	-0.2	1.5	No	1.5	No	1.5	No
48	Residential	County	64.9	63.4	70.0	64.5	63.4	70.0	-0.4	0.0	0.0	1.5	No	1.5	No	1.5	No
49	Residential	County	63.6	62.1	68.8	63.4	62.3	68.9	-0.2	0.2	0.1	1.5	No	1.5	No	1.5	No
50	Residential	County	63.3	61.8	68.5	63.2	62.2	68.7	-0.1	0.4	0.2	1.5	No	1.5	No	1.5	No
51	Residential	County	63.0	61.5	68.2	63.0	62.1	68.6	0.0	0.6	0.4	1.5	No	1.5	No	1.5	No
52	Residential	County	57.0	55.5	62.2	54.4	54.0	60.5	-2.6	-1.5	-1.7	3.0	No	3.0	No	3.0	No
53	Residential	County	56.2	54.8	61.4	54.6	54.3	60.7	-1.6	-0.5	-0.7	3.0	No	3.0	No	3.0	No
54	Residential	County	68.2	66.7	73.3	67.0	65.9	72.4	-1.2	-0.8	-0.9	1.5	No	1.5	No	1.5	No
55	Residential	County	72.5	71.0	77.7	71.1	69.9	76.5	-1.4	-1.1	-1.2	1.5	No	1.5	No	1.5	No
56	Residential	County	73.7	72.2	78.9	70.1	68.8	75.5	-3.6	-3.4	-3.4	1.5	No	1.5	No	1.5	No
57	Residential	County	73.0	71.5	78.2	68.4	66.9	73.6	-4.6	-4.6	-4.6	1.5	No	1.5	No	1.5	No
58	Residential	County	73.7	72.2	78.9	68.7	67.3	73.9	-5.0	-4.9	-5.0	1.5	No	1.5	No	1.5	No
59	Residential	County	72.7	71.2	77.8	67.6	66.1	72.8	-5.1	-5.1	-5.0	1.5	No	1.5	No	1.5	No
60	Residential	County	70.8	69.3	76.0	65.9	64.4	71.0	-4.9	-4.9	-5.0	1.5	No	1.5	No	1.5	No
61	Residential	County	75.3	73.8	80.5	70.2	68.8	75.4	-5.1	-5.0	-5.1	1.5	No	1.5	No	1.5	No
62	Residential	County	76.6	75.1	81.7	71.4	69.9	76.6	-5.2	-5.2	-5.1	1.5	No	1.5	No	1.5	No
63	Residential	County	70.8	69.3	75.9	65.8	64.4	71.0	-5.0	-4.9	-4.9	1.5	No	1.5	No	1.5	No
64	Residential	County	72.6	71.2	77.8	67.6	66.2	72.8	-5.0	-5.0	-5.0	1.5	No	1.5	No	1.5	No
65 (Lenwood Elementary School)	School	County	66.5	65.0	71.6	65.6	64.2	70.8	-0.9	-0.8	-0.8	5.0	No	5.0	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	62.8	61.3	68.0	62.2	60.9	67.5	-0.6	-0.4	-0.5	5.0	No	5.0	No	5.0	No
67 (Missionary Baptist Church)	Church	County	64.1	62.6	69.3	63.6	62.2	68.8	-0.5	-0.4	-0.5	5.0	No	5.0	No	5.0	No
68 (Saint Phillip Church)	Church	County	59.9	58.4	65.1	59.5	58.4	65.0	-0.4	0.0	-0.1	5.0	No	5.0	No	5.0	No
69 (Ingels School)	School	County	57.8	56.3	63.0	57.8	56.5	63.1	0.0	0.2	0.1	3.0	No	3.0	No	3.0	No
70 (Grandview Baptist Church)	Church	County	55.4	54.0	60.6	56.2	55.2	61.8	0.8	1.2	1.2	3.0	No	3.0	No	3.0	No
71	Residential	County	68.9	67.4	74.0	64.1	62.6	69.3	-4.8	-4.8	-4.7	1.5	No	1.5	No	1.5	No
72	Residential	County	68.5	67.0	73.6	63.7	62.2	68.9	-4.8	-4.8	-4.7	1.5	No	1.5	No	1.5	No
73	Residential	County	67.9	66.4	73.0	63.2	61.8	68.4	-4.7	-4.6	-4.6	1.5	No	1.5	No	1.5	No
74	Residential	County	74.3	72.9	79.5	69.8	68.3	75.0	-4.5	-4.6	-4.5	1.5	No	1.5	No	1.5	No
75	Residential	County	75.4	74.0	80.6	71.1	69.6	76.3	-4.3	-4.4	-4.3	1.5	No	1.5	No	1.5	No
76	Residential	County	80.1	78.6	85.3	79.9	78.4	85.1	-0.2	-0.2	-0.2	1.5	No	1.5	No	1.5	No
77	Residential	County	65.5	64.0	70.7	63.1	61.7	68.3	-2.4	-2.3	-2.4	1.5	No	1.5	No	1.5	No
78	Residential	County	63.3	61.8	68.5	63.1	61.7	68.3	-0.2	-0.1	-0.2	1.5	No	1.5	No	1.5	No
79	Residential	County	68.5	67.0	73.6	68.5	67.0	73.6	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
80	Residential	County	69.2	67.7	74.4	69.2	67.7	74.4	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
81	Residential	County	65.1	63.6	70.2	65.0	63.6	70.2	-0.1	0.0	0.0	1.5	No	1.5	No	1.5	No
82	Residential	County	68.2	66.7	73.4	68.3	66.8	73.4	0.1	0.1	0.0	1.5	No	1.5	No	1.5	No
83	Residential	City	48.7	47.2	53.8	59.8	59.8	66.2	11.1	12.6	12.4	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
84	Residential	City	47.6	46.1	52.8	59.8	59.8	66.2	12.2	13.7	13.4	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Horizon Year 2048 Exterior Incremental Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
85	Residential	City	68.1	66.6	73.3	67.6	66.2	72.8	-0.5	-0.4	-0.5	1.5	No	1.5	No	1.5	No
86	Residential	City	48.1	46.6	53.3	55.5	55.3	61.8	7.4	8.7	8.5	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
87	Residential	City	46.4	44.9	51.5	58.3	58.0	64.5	11.9	13.1	13.0	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
88	Residential	City	46.9	45.4	52.1	59.3	59.1	65.6	12.4	13.7	13.5	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
89	Residential	City	47.0	45.5	52.1	59.8	59.7	66.1	12.8	14.2	14.0	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
90	Residential	City	46.5	45.0	51.7	61.6	61.5	67.9	15.1	16.5	16.2	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Horizon Year 2048 Absolute Exterior Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT										COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
					Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn						Daytime			Nighttime			Ldn		
				Measured Ambient Noise Level (L_{dn}, L_{eq})	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Daytime	Nighttime	Ldn	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	60.9	55	Yes	59.4	45	Yes	66.0	60	Yes	58.2	55	Yes	57.8	45	Yes	64.2	60	Yes	-2.7	-1.6	-1.8	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
2	Residential	County	LT-3	66.5	59.8	55	Yes	58.3	45	Yes	64.9	60	Yes	57.8	55	Yes	57.5	45	Yes	64.0	60	Yes	-2.0	-0.8	-0.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
3	Residential	County	LT-3	66.5	61.0	55	Yes	59.5	45	Yes	66.1	60	Yes	57.4	55	Yes	57.1	45	Yes	63.6	60	Yes	-3.6	-2.4	-2.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
4	Residential	City	LT-3	66.5	58.4	65	No	56.9	65	No	63.6	65	No	57.3	65	No	56.9	65	No	63.4	65	No	-1.1	0.0	-0.2	No	1.5	No	No	1.5	No	No	1.5	No
5	Residential	City	LT-3	66.5	60.1	65	No	58.6	65	No	65.3	65	Yes	59.0	65	No	58.8	65	No	64.9	65	No	-1.1	0.2	-0.4	No	1.5	No	No	1.5	No	No	1.5	No
6	Residential	City	LT-5	58.1	54.5	65	No	53.0	65	No	59.6	65	No	57.2	65	No	57.0	65	No	63.4	65	No	2.7	4.0	3.8	No	5.0	No	No	5.0	No	No	5.0	No
7	Residential	City	LT-5	58.1	63.6	65	No	62.1	65	No	68.7	65	Yes	62.5	65	No	61.8	65	No	68.3	65	Yes	-1.1	-0.3	-0.4	No	5.0	No	No	5.0	No	Yes	5.0	No
8	Residential	County	LT-5	58.1	66.4	55	Yes	64.9	45	Yes	71.5	60	Yes	65.2	55	Yes	64.0	45	Yes	70.6	60	Yes	-1.2	-0.9	-0.9	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
9	Residential	County	LT-5	58.1	67.7	55	Yes	66.2	45	Yes	72.9	60	Yes	66.7	55	Yes	65.4	45	Yes	72.0	60	Yes	-1.0	-0.8	-0.9	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
10	Residential	County	LT-5	58.1	68.0	55	Yes	66.5	45	Yes	73.2	60	Yes	67.0	55	Yes	65.7	45	Yes	72.4	60	Yes	-1.0	-0.8	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
11	Residential	County	LT-5	58.1	68.3	55	Yes	66.9	45	Yes	73.5	60	Yes	67.4	55	Yes	66.1	45	Yes	72.7	60	Yes	-0.9	-0.8	-0.8	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
12	Residential	County	LT-5	58.1	68.7	55	Yes	67.2	45	Yes	73.9	60	Yes	67.7	55	Yes	66.4	45	Yes	73.0	60	Yes	-1.0	-0.8	-0.9	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
13	Residential	County	LT-5	58.1	69.1	55	Yes	67.6	45	Yes	74.3	60	Yes	68.1	55	Yes	66.8	45	Yes	73.4	60	Yes	-1.0	-0.8	-0.9	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
14	Residential	County	LT-5	58.1	72.1	55	Yes	70.6	45	Yes	77.3	60	Yes	70.9	55	Yes	69.6	45	Yes	76.2	60	Yes	-1.2	-1.0	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
15	Residential	County	LT-5	58.1	73.9	55	Yes	72.4	45	Yes	79.1	60	Yes	72.7	55	Yes	71.3	45	Yes	78.0	60	Yes	-1.2	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
16	Residential	County	LT-5	58.1	71.8	55	Yes	70.3	45	Yes	77.0	60	Yes	70.4	55	Yes	69.1	45	Yes	75.7	60	Yes	-1.4	-1.2	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
17	Residential	County	LT-5	58.1	71.8	55	Yes	70.4	45	Yes	77.0	60	Yes	70.5	55	Yes	69.1	45	Yes	75.8	60	Yes	-1.3	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
18	Residential	County	LT-5	58.1	69.9	55	Yes	68.5	45	Yes	75.1	60	Yes	68.8	55	Yes	67.4	45	Yes	74.1	60	Yes	-1.1	-1.1	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
19	Residential	County	LT-5	58.1	70.5	55	Yes	69.0	45	Yes	75.7	60	Yes	69.4	55	Yes	68.0	45	Yes	74.7	60	Yes	-1.1	-1.0	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
20	Residential	County	LT-5	58.1	70.7	55	Yes	69.2	45	Yes	75.9	60	Yes	69.6	55	Yes	68.3	45	Yes	74.9	60	Yes	-1.1	-0.9	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
21	Residential	County	LT-5	58.1	71.6	55	Yes	70.1	45	Yes	76.8	60	Yes	70.5	55	Yes	69.1	45	Yes	75.8	60	Yes	-1.1	-1.0	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
22	Residential	County	LT-5	58.1	71.4	55	Yes	69.9	45	Yes	76.5	60	Yes	70.3	55	Yes	68.9	45	Yes	75.5	60	Yes	-1.1	-1.0	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
23	Residential	County	LT-5	58.1	71.0	55	Yes	69.5	45	Yes	76.1	60	Yes	69.9	55	Yes	68.5	45	Yes	75.1	60	Yes	-1.1	-1.0	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
24	Residential	County	LT-5	58.1	72.5	55	Yes	71.0	45	Yes	77.6	60	Yes	71.3	55	Yes	69.9	45	Yes	76.6	60	Yes	-1.2	-1.1	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
25	Residential	County	LT-5	58.1	72.5	55	Yes	71.0	45	Yes	77.7	60	Yes	71.4	55	Yes	70.0	45	Yes	76.6	60	Yes	-1.1	-1.0	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
26	Residential	County	LT-5	58.1	72.7	55	Yes	71.2	45	Yes	77.8	60	Yes	71.5	55	Yes	70.1	45	Yes	76.7	60	Yes	-1.2	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
27	Residential	County	LT-5	58.1	72.3	55	Yes	70.8	45	Yes	77.5	60	Yes	71.1	55	Yes	69.7	45	Yes	76.4	60	Yes	-1.2	-1.1	-1.1	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
28	Residential	County	LT-5	58.1	73.4	55	Yes	71.9	45	Yes	78.6	60	Yes	72.2	55	Yes	70.8	45	Yes	77.4	60	Yes	-1.2	-1.1	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
29	Residential	County	LT-4	66.1	70.2	55	Yes	68.7	45	Yes	75.4	60	Yes	69.7	55	Yes	68.3	45	Yes	74.9	60	Yes	-0.5	-0.4	-0.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
30	Residential	County	LT-4	66.1	74.8	55	Yes	73.3	45	Yes	79.9	60	Yes	74.7	55	Yes	73.3	45	Yes	80.0	60	Yes	-0.1	0.0	0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
31	Residential	County	LT-4	66.1	74.7	55	Yes	73.2	45	Yes	79.9	60	Yes	74.6	55	Yes	73.2	45	Yes	79.8	60	Yes	-0.1	0.0	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
32	Residential	County	LT-4	66.1	74.7	55	Yes	73.2	45	Yes	79.8	60	Yes	74.5	55	Yes	73.1	45	Yes	79.7	60	Yes	-0.2	-0.1	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
33	Residential	County	LT-4	66.1	72.2	55	Yes	70.7	45	Yes	77.3	60	Yes	71.8	55	Yes	70.4	45	Yes	77.0	60	Yes	-0.4	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
34	Residential	County	LT-4	66.1	72.2	55	Yes	70.7	45	Yes	77.4	60	Yes	71.8	55	Yes	70.4	45	Yes	77.1	60	Yes	-0.4	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
35	Residential	County	LT-4	66.1	72.3	55	Yes	70.8	45	Yes	77.5	60	Yes	71.9	55	Yes	70.5	45	Yes	77.2	60	Yes	-0.4	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	74.9	55	Yes	73.4	-	No	80.1	60	Yes	74.7	55	Yes	73.3	-	No	80.0	60	Yes	-0.2	-0.1	-0.1	Yes	5.0	No	No	5.0	No	Yes	5.0	No
37	Residential	County	LT-4	66.1	71.0	55	Yes	69.5	45	Yes	76.2	60	Yes	70.5	55	Yes	69.1	45	Yes	75.8	60	Yes	-0.5	-0.4	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
38	Residential	County	LT-4	66.1	70.6	55	Yes	69.1	45	Yes	75.7	60	Yes	70.1	55	Yes	68.7	45	Yes	75.3	60	Yes	-0.5	-0.4	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
39	Residential	County	LT-4	66.1	73.0	55	Yes	71.5	45	Yes	78.2	60	Yes	72.7	55	Yes	71.3	45	Yes	77.9	60	Yes	-0.3	-0.2	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
40	Residential	County	LT-4	66.1	72.8	55	Yes	71.3	45	Yes	77.9	60	Yes	72.6	55	Yes	71.2	45	Yes	77.8	60	Yes	-0.2	-0.1	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
41	Residential	County	LT-4	66.1	67.9	55	Yes	66.4	45	Yes	73.1	60	Yes	67.4	55	Yes	66.1	45	Yes	72.7	60	Yes	-0.5	-0.3	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
42	Residential	County	LT-4	66.1	67.3	55	Yes	65.8	45	Yes	72.4	60	Yes	66.8	55	Yes	65.5	45	Yes	72.1	60	Yes	-0.5	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
43	Residential	County	LT-4	66.1	66.6	55	Yes	65.1	45	Yes	71.7	60	Yes	66.1	55	Yes	64.8	45	Yes	71.4	60	Yes	-0.5	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
44	Residential	County	LT-4	66.1	66.0	55	Yes	64.5	45	Yes	71.2	60	Yes	65.5	55	Yes	64.3	45	Yes	70.9	60	Yes	-0.5	-0.2	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
45	Residential	County	LT-4	66.1	66.7	55	Yes	65.2	45	Yes	71.9	60	Yes	66.3	55	Yes	65.0	45	Yes	71.6	60	Yes	-0.4	-0.2	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
46	Residential	County	LT-4	66.1	65.9	55	Yes	64.4	45	Yes	71.1	60	Yes	65.5	55	Yes	64.2	45	Yes	70.8	60	Yes	-0.4	-0.2	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
47	Residential	County	LT-4	66.1	65.2	55	Yes	63.7	45	Yes	70.4	60	Yes	64.8	55	Yes	63.6	45	Yes	70.2	60	Yes	-0.4	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
48	Residential	County	LT-4	66.1	64.9	55	Yes	63.4	45	Yes	70.0	60	Yes	64.5	55	Yes	63.3	45	Yes	69.9	60	Yes	-0.4	-0.1	-0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
49	Residential	County	LT-4	66.1	63.6	55	Yes	62.1	45	Yes	68.8	60	Yes	63.4	55	Yes	62.3	45	Yes	68.9	60	Yes	-0.2	0.2	0.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
50	Residential	County	LT-4	66.1	63.3	55	Yes	61.8	45	Yes	68.5	60	Yes	63.2	55	Yes	62.1	45	Yes	68.7	60	Yes	-0.1	0.3	0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
51	Residential	County	LT-4	66.1	63.0	55	Yes	61.5	45	Yes	68.2	60	Yes	63.0	55	Yes	62.0	45	Yes	68.6	60	Yes	0.0	0.5	0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
52	Residential	County	LT-1	61.2	57.0	55	Yes	55.5	45	Yes	62.2	60	Yes	54.4	55	No	54.0	45	Yes	60.5	60	Yes	-2.6	-1.5	-1.7	No	3.0	No	Yes	3.0	No	Yes	3.0	No
53	Residential	County	LT-1	61.2	56.2	55	Yes	54.8	45	Yes	61.4	60	Yes	54.6	55	No	54.3	45	Yes	60.7	60	Yes	-1.6	-0.5	-0.7	No	3.0	No	Yes	3.0	No	Yes	3.0	No
54	Residential	County	LT-2	77.2	68.2	55	Yes	66.7	45	Yes	73.3	60	Yes	67.0	55	Yes	65.9	45	Yes	72.4	60	Yes	-1.2	-0.8	-0.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
55	Residential	County	LT-2	77.2	72.5	55	Yes	71.0	45	Yes	77.7	60	Yes	71.1	55	Yes	69.9	45	Yes	76.5	60	Yes	-1.4	-1.1	-1.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
56	Residential	County	LT-2	77.2	73.7	55	Yes	72.2	45	Yes	78.9	60	Yes	70.1	55	Yes	68.8	45	Yes	75.5	60	Yes	-3.6	-3.4	-3.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
57	Residential	County	LT-2	77.2	73.0	55	Yes	71.5	45	Yes	78.2	60	Yes	68.4	55	Yes	66.9	45	Yes	73.6	60	Yes	-4.6	-4.6	-4.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
58	Residential	County	LT-2	77.2	73.7	55	Yes	72.2	45	Yes	78.9	60	Yes	68.7	55	Yes	67.3	45	Yes	73.9	60	Yes	-5.0	-4.9	-5.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
59	Residential	County	LT-2	77.2	72.7	55	Yes	71.2	45	Yes	77.8	60	Yes	67.6	55	Yes	66.1	45	Yes	72.8	60	Yes	-5.1	-5.1	-5.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
60	Residential	County	LT-2	77.2	70.8	55	Yes	69.3	45	Yes	76.0	60	Yes	65.9	55	Yes	64.4	45	Yes	71.0	60	Yes	-4.9	-4.9	-5.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
61	Residential	County	LT-2	77.2	75.3	55	Yes	73.8	45	Yes	80.5	60	Yes	70.2	55	Yes	68.8	45	Yes	75.4	60	Yes	-5.1	-5.0	-5.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
62	Residential	County	LT-2	77.2	76.6	55	Yes	75.1	45	Yes	81.7	60	Yes	71.4	55	Yes	69.9	45	Yes	76.6	60	Yes	-5.2	-5.2	-5.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
63	Residential	County	LT-2	77.2	70.8	55	Yes	69.3	45	Yes	75.9	60	Yes	65.8	55	Yes	64.4	45	Yes	71.0	60	Yes	-5.0	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
64	Residential	County	LT-2	77.2	72.6	55	Yes	71.2	45	Yes	77.8	60	Yes	67.6	55	Yes	66.2	45	Yes	72.8	60	Yes	-5.0	-5.0	-5.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	66.5	55	Yes	65.0	-	No	71.6	60	Yes	65.5	55	Yes	64.2	-	No	70.8	60	Yes	-1.0	-0.8	-0.8	Yes	5.0	No	No	5.0	No	Yes	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	62.8	55	Yes	61.3	-	No	68.0	60	Yes	62.2	55	Yes	60.9	-	No	67.5	60	Yes	-0.6	-0.4	-0.5	Yes	5.0	No	No	5.0	No	Yes	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	64.1	55	Yes	62.6	-	No	69.3	60	Yes	63.6	55	Yes	62.2	-	No	68.8	60	Yes	-0.5	-0.4	-0.5	Yes	5.0	No	No	5.0	No	Yes	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	59.9	55	Yes	58.4	-	No	65.1	60	Yes	59.5	55	Yes	58.3	-	No	64.9	60	Yes	-0.4	-0.1	-0.2	Yes	5.0	No	No	5.0	No	Yes	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	57.8	55	Yes	56.3	-	No	63.0	65	No	57.8	55	Yes	56.5	-	No	63.1	65	No	0.0	0.2	0.1	Yes	3.0	No	No	3.0	No	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	55.4	55	Yes	54.0	-	No	60.6	60	Yes	56.2	55	Yes	55.2	-	No	61.8	60	Yes	0.8	1.2	1.2	Yes	3.0	No	No	3.0	No	Yes	3.0	No
71	Residential	County	LT-2	77.2	68.9	55	Yes	67.4	45	Yes	74.0	60	Yes	64.1	55	Yes	62.6	45	Yes	69.3	60	Yes	-4.8	-4.8	-4.7	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
72	Residential	County	LT-2	77.2	68.5	55	Yes	67.0	45	Yes	73.6	60	Yes	63.7	55	Yes	62.2	45	Yes	68.9	60	Yes	-4.8	-4.8	-4.7	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
73	Residential	County	LT-2	77.2	67.9	55	Yes	66.4	45	Yes	73.0	60	Yes	63.2	55	Yes	61.8	45	Yes	68.4	60	Yes	-4.7	-4.6	-4.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
74	Residential	County	LT-2	77.2	74.3	55	Yes	72.9	45	Yes	79.5	60	Yes	69.8	55	Yes	68.3	45	Yes	75.0	60	Yes	-4.5	-4.6	-4.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
75	Residential	County	LT-2	77.2	75.4	55	Yes	74.0	45	Yes	80.6	60	Yes	71.1	55	Yes	69.6	45	Yes	76.3	60	Yes	-4.3	-4.4	-4.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
76	Residential	County	LT-2	77.2	80.1	55	Yes	78.6	45	Yes	85.3	60	Yes	79.9	55	Yes	78.4	45	Yes	85.1	60	Yes	-0.2	-0.2	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
77	Residential	County	LT-2	77.2	65.5	55	Yes	64.0	45	Yes	70.7	60	Yes	63.1	55	Yes	61.7	45	Yes	68.3	60	Yes	-2.4	-2.3	-2.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
78	Residential	County	LT-2	77.2	63.3	55	Yes	61.8	45	Yes	68.5	60	Yes	63.1	55	Yes	61.7	45	Yes	68.3	60	Yes	-0.2	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
79	Residential	County	LT-2	77.2	68.5	55	Yes	67.0	45	Yes	73.6	60	Yes	68.5	55	Yes	67.0	45	Yes	73.6	60	Yes	0.0	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
80	Residential	County	LT-2	77.2	69.2	55	Yes	67.7	45	Yes	74.4	60	Yes	69.2	55	Yes	67.7	45	Yes	74.4	60	Yes	0.0	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
81	Residential	County	LT-2	77.2	65.1	55	Yes	63.6	45	Yes	70.2	60	Yes	65.0	55	Yes	63.6	45	Yes	70.2	60	Yes	-0.1	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
82	Residential	County	LT-2	77.2	68.2	55	Yes	66.7	45	Yes	73.4	60	Yes	68.3	55	Yes	66.8	45	Yes	73.4	60	Yes	0.1	0.1	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No

Horizon Year 2048 Absolute Exterior Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT									COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
				Measured Ambient Noise Level (L_{eq}, L_{eq})	Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn			Daytime	Nighttime	Ldn	Daytime			Nighttime			Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?				Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
83	Residential	City	LT-3	66.5	48.7	65	No	47.2	65	No	53.8	65	No	57.7	65	No	57.6	65	No	64.1	65	No	9.0	10.4	10.3	No	1.5	No	No	1.5	No	No	1.5	**Yes**
84	Residential	City	LT-3	66.5	47.6	65	No	46.1	65	No	52.8	65	No	57.8	65	No	57.7	65	No	64.1	65	No	10.2	11.6	11.3	No	1.5	No	No	1.5	No	**No**	1.5	**Yes**
85	Residential	City	LT-3	66.5	68.1	65	**Yes**	66.6	65	**Yes**	73.3	65	**Yes**	67.6	65	**Yes**	66.2	65	**Yes**	72.8	65	Yes	-0.5	-0.4	-0.5	**Yes**	1.5	No	Yes	1.5	No	**Yes**	1.5	No
86	Residential	City	LT-3	66.5	48.1	65	No	46.6	65	No	53.3	65	No	54.9	65	No	54.6	65	No	61.1	65	No	6.8	8.0	7.8	No	1.5	No	No	1.5	No	No	1.5	No
87	Residential	City	LT-3	66.5	46.4	65	No	44.9	65	No	51.5	65	No	56.6	65	No	56.1	65	No	62.6	65	No	10.2	11.2	11.1	No	1.5	No	No	1.5	No	No	1.5	No
88	Residential	City	LT-3	66.5	46.9	65	No	45.4	65	No	52.1	65	No	57.1	65	No	56.9	65	No	63.3	65	No	10.2	11.5	11.2	No	1.5	No	No	1.5	No	**No**	1.5	**Yes**
89	Residential	City	LT-3	66.5	47.0	65	No	45.5	65	No	52.1	65	No	57.2	65	No	57.0	65	No	63.4	65	No	10.2	11.5	11.3	No	1.5	No	No	1.5	No	**No**	1.5	**Yes**
90	Residential	City	LT-3	66.5	46.5	65	No	45.0	65	No	51.7	65	No	58.4	65	No	58.3	65	No	64.7	65	No	11.9	13.3	13.0	No	1.5	No	No	1.5	No	**No**	1.5	**Yes**

Horizon Year 2048 Exterior Incremental Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
1	Residential	County	60.9	59.4	66.0	58.2	57.8	64.2	-2.7	-1.6	-1.8	1.5	No	1.5	No	1.5	No
2	Residential	County	59.8	58.3	64.9	57.8	57.5	64.0	-2.0	-0.8	-0.9	1.5	No	1.5	No	1.5	No
3	Residential	County	61.0	59.5	66.1	57.4	57.1	63.6	-3.6	-2.4	-2.5	1.5	No	1.5	No	1.5	No
4	Residential	City	58.4	56.9	63.6	57.3	56.9	63.4	-1.1	0.0	-0.2	1.5	No	1.5	No	1.5	No
5	Residential	City	60.1	58.6	65.3	59.0	58.8	64.9	-1.1	0.2	-0.4	1.5	No	1.5	No	1.5	No
6	Residential	City	54.5	53.0	59.6	57.2	57.0	63.4	2.7	4.0	3.8	5.0	No	5.0	No	5.0	No
7	Residential	City	63.6	62.1	68.7	62.5	61.8	68.3	-1.1	-0.3	-0.4	5.0	No	5.0	No	5.0	No
8	Residential	County	66.4	64.9	71.5	65.2	64.0	70.6	-1.2	-0.9	-0.9	5.0	No	5.0	No	5.0	No
9	Residential	County	67.7	66.2	72.9	66.7	65.4	72.0	-1.0	-0.8	-0.9	5.0	No	5.0	No	5.0	No
10	Residential	County	68.0	66.5	73.2	67.0	65.7	72.4	-1.0	-0.8	-0.8	5.0	No	5.0	No	5.0	No
11	Residential	County	68.3	66.9	73.5	67.4	66.1	72.7	-0.9	-0.8	-0.8	5.0	No	5.0	No	5.0	No
12	Residential	County	68.7	67.2	73.9	67.7	66.4	73.0	-1.0	-0.8	-0.9	5.0	No	5.0	No	5.0	No
13	Residential	County	69.1	67.6	74.3	68.1	66.8	73.4	-1.0	-0.8	-0.9	5.0	No	5.0	No	5.0	No
14	Residential	County	72.1	70.6	77.3	70.9	69.6	76.2	-1.2	-1.0	-1.1	5.0	No	5.0	No	5.0	No
15	Residential	County	73.9	72.4	79.1	72.7	71.3	78.0	-1.2	-1.1	-1.1	5.0	No	5.0	No	5.0	No
16	Residential	County	71.8	70.3	77.0	70.4	69.1	75.7	-1.4	-1.2	-1.3	5.0	No	5.0	No	5.0	No
17	Residential	County	71.8	70.4	77.0	70.5	69.1	75.8	-1.3	-1.3	-1.2	5.0	No	5.0	No	5.0	No
18	Residential	County	69.9	68.5	75.1	68.8	67.4	74.1	-1.1	-1.1	-1.0	5.0	No	5.0	No	5.0	No
19	Residential	County	70.5	69.0	75.7	69.4	68.0	74.7	-1.1	-1.0	-1.0	5.0	No	5.0	No	5.0	No
20	Residential	County	70.7	69.2	75.9	69.6	68.3	74.9	-1.1	-0.9	-1.0	5.0	No	5.0	No	5.0	No
21	Residential	County	71.6	70.1	76.8	70.5	69.1	75.8	-1.1	-1.0	-1.0	5.0	No	5.0	No	5.0	No
22	Residential	County	71.4	69.9	76.5	70.3	68.9	75.5	-1.1	-1.0	-1.0	5.0	No	5.0	No	5.0	No
23	Residential	County	71.0	69.5	76.1	69.9	68.5	75.1	-1.1	-1.0	-1.0	5.0	No	5.0	No	5.0	No
24	Residential	County	72.5	71.0	77.6	71.3	69.9	76.6	-1.2	-1.1	-1.0	5.0	No	5.0	No	5.0	No
25	Residential	County	72.5	71.0	77.7	71.4	70.0	76.6	-1.1	-1.0	-1.1	5.0	No	5.0	No	5.0	No
26	Residential	County	72.7	71.2	77.8	71.5	70.1	76.7	-1.2	-1.1	-1.1	5.0	No	5.0	No	5.0	No
27	Residential	County	72.3	70.8	77.5	71.1	69.7	76.4	-1.2	-1.1	-1.1	5.0	No	5.0	No	5.0	No
28	Residential	County	73.4	71.9	78.6	72.2	70.8	77.4	-1.2	-1.1	-1.2	5.0	No	5.0	No	5.0	No
29	Residential	County	70.2	68.7	75.4	69.7	68.3	74.9	-0.5	-0.4	-0.5	1.5	No	1.5	No	1.5	No
30	Residential	County	74.8	73.3	79.9	74.7	73.3	80.0	-0.1	0.0	0.1	1.5	No	1.5	No	1.5	No
31	Residential	County	74.7	73.2	79.9	74.6	73.2	79.8	-0.1	0.0	-0.1	1.5	No	1.5	No	1.5	No
32	Residential	County	74.7	73.2	79.8	74.5	73.1	79.7	-0.2	-0.1	-0.1	1.5	No	1.5	No	1.5	No
33	Residential	County	72.2	70.7	77.3	71.8	70.4	77.0	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No
34	Residential	County	72.2	70.7	77.4	71.8	70.4	77.1	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No
35	Residential	County	72.3	70.8	77.5	71.9	70.5	77.2	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No
36 (Jasper Park)	Park/Recreation	County	74.9	73.4	80.1	74.7	73.3	80.0	-0.2	-0.1	-0.1	5.0	No	5.0	No	5.0	No
37	Residential	County	71.0	69.5	76.2	70.5	69.1	75.8	-0.5	-0.4	-0.4	1.5	No	1.5	No	1.5	No
38	Residential	County	70.6	69.1	75.7	70.1	68.7	75.3	-0.5	-0.4	-0.4	1.5	No	1.5	No	1.5	No
39	Residential	County	73.0	71.5	78.2	72.7	71.3	77.9	-0.3	-0.2	-0.3	1.5	No	1.5	No	1.5	No
40	Residential	County	72.8	71.3	77.9	72.6	71.2	77.8	-0.2	-0.1	-0.1	1.5	No	1.5	No	1.5	No
41	Residential	County	67.9	66.4	73.1	67.4	66.1	72.7	-0.5	-0.3	-0.4	1.5	No	1.5	No	1.5	No
42	Residential	County	67.3	65.8	72.4	66.8	65.5	72.1	-0.5	-0.3	-0.3	1.5	No	1.5	No	1.5	No

Horizon Year 2048 Exterior Incremental Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
43	Residential	County	66.6	65.1	71.7	66.1	64.8	71.4	-0.5	-0.3	-0.3	1.5	No	1.5	No	1.5	No
44	Residential	County	66.0	64.5	71.2	65.5	64.3	70.9	-0.5	-0.2	-0.3	1.5	No	1.5	No	1.5	No
45	Residential	County	66.7	65.2	71.9	66.3	65.0	71.6	-0.4	-0.2	-0.3	1.5	No	1.5	No	1.5	No
46	Residential	County	65.9	64.4	71.1	65.5	64.2	70.8	-0.4	-0.2	-0.3	1.5	No	1.5	No	1.5	No
47	Residential	County	65.2	63.7	70.4	64.8	63.6	70.2	-0.4	-0.1	-0.2	1.5	No	1.5	No	1.5	No
48	Residential	County	64.9	63.4	70.0	64.5	63.3	69.9	-0.4	-0.1	-0.1	1.5	No	1.5	No	1.5	No
49	Residential	County	63.6	62.1	68.8	63.4	62.3	68.9	-0.2	0.2	0.1	1.5	No	1.5	No	1.5	No
50	Residential	County	63.3	61.8	68.5	63.2	62.1	68.7	-0.1	0.3	0.2	1.5	No	1.5	No	1.5	No
51	Residential	County	63.0	61.5	68.2	63.0	62.0	68.6	0.0	0.5	0.4	1.5	No	1.5	No	1.5	No
52	Residential	County	57.0	55.5	62.2	54.4	54.0	60.5	-2.6	-1.5	-1.7	3.0	No	3.0	No	3.0	No
53	Residential	County	56.2	54.8	61.4	54.6	54.3	60.7	-1.6	-0.5	-0.7	3.0	No	3.0	No	3.0	No
54	Residential	County	68.2	66.7	73.3	67.0	65.9	72.4	-1.2	-0.8	-0.9	1.5	No	1.5	No	1.5	No
55	Residential	County	72.5	71.0	77.7	71.1	69.9	76.5	-1.4	-1.1	-1.2	1.5	No	1.5	No	1.5	No
56	Residential	County	73.7	72.2	78.9	70.1	68.8	75.5	-3.6	-3.4	-3.4	1.5	No	1.5	No	1.5	No
57	Residential	County	73.0	71.5	78.2	68.4	66.9	73.6	-4.6	-4.6	-4.6	1.5	No	1.5	No	1.5	No
58	Residential	County	73.7	72.2	78.9	68.7	67.3	73.9	-5.0	-4.9	-5.0	1.5	No	1.5	No	1.5	No
59	Residential	County	72.7	71.2	77.8	67.6	66.1	72.8	-5.1	-5.1	-5.0	1.5	No	1.5	No	1.5	No
60	Residential	County	70.8	69.3	76.0	65.9	64.4	71.0	-4.9	-4.9	-5.0	1.5	No	1.5	No	1.5	No
61	Residential	County	75.3	73.8	80.5	70.2	68.8	75.4	-5.1	-5.0	-5.1	1.5	No	1.5	No	1.5	No
62	Residential	County	76.6	75.1	81.7	71.4	69.9	76.6	-5.2	-5.2	-5.1	1.5	No	1.5	No	1.5	No
63	Residential	County	70.8	69.3	75.9	65.8	64.4	71.0	-5.0	-4.9	-4.9	1.5	No	1.5	No	1.5	No
64	Residential	County	72.6	71.2	77.8	67.6	66.2	72.8	-5.0	-5.0	-5.0	1.5	No	1.5	No	1.5	No
65 (Lenwood Elementary School)	School	County	66.5	65.0	71.6	65.5	64.2	70.8	-1.0	-0.8	-0.8	5.0	No	5.0	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	62.8	61.3	68.0	62.2	60.9	67.5	-0.6	-0.4	-0.5	5.0	No	5.0	No	5.0	No
67 (Missionary Baptist Church)	Church	County	64.1	62.6	69.3	63.6	62.2	68.8	-0.5	-0.4	-0.5	5.0	No	5.0	No	5.0	No
68 (Saint Phillip Church)	Church	County	59.9	58.4	65.1	59.5	58.3	64.9	-0.4	-0.1	-0.2	5.0	No	5.0	No	5.0	No
69 (Ingels School)	School	County	57.8	56.3	63.0	57.8	56.5	63.1	0.0	0.2	0.1	3.0	No	3.0	No	3.0	No
70 (Grandview Baptist Church)	Church	County	55.4	54.0	60.6	56.2	55.2	61.8	0.8	1.2	1.2	3.0	No	3.0	No	3.0	No
71	Residential	County	68.9	67.4	74.0	64.1	62.6	69.3	-4.8	-4.8	-4.7	1.5	No	1.5	No	1.5	No
72	Residential	County	68.5	67.0	73.6	63.7	62.2	68.9	-4.8	-4.8	-4.7	1.5	No	1.5	No	1.5	No
73	Residential	County	67.9	66.4	73.0	63.2	61.8	68.4	-4.7	-4.6	-4.6	1.5	No	1.5	No	1.5	No
74	Residential	County	74.3	72.9	79.5	69.8	68.3	75.0	-4.5	-4.6	-4.5	1.5	No	1.5	No	1.5	No
75	Residential	County	75.4	74.0	80.6	71.1	69.6	76.3	-4.3	-4.4	-4.3	1.5	No	1.5	No	1.5	No
76	Residential	County	80.1	78.6	85.3	79.9	78.4	85.1	-0.2	-0.2	-0.2	1.5	No	1.5	No	1.5	No
77	Residential	County	65.5	64.0	70.7	63.1	61.7	68.3	-2.4	-2.3	-2.4	1.5	No	1.5	No	1.5	No
78	Residential	County	63.3	61.8	68.5	63.1	61.7	68.3	-0.2	-0.1	-0.2	1.5	No	1.5	No	1.5	No
79	Residential	County	68.5	67.0	73.6	68.5	67.0	73.6	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
80	Residential	County	69.2	67.7	74.4	69.2	67.7	74.4	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
81	Residential	County	65.1	63.6	70.2	65.0	63.6	70.2	-0.1	0.0	0.0	1.5	No	1.5	No	1.5	No
82	Residential	County	68.2	66.7	73.4	68.3	66.8	73.4	0.1	0.1	0.0	1.5	No	1.5	No	1.5	No
83	Residential	City	48.7	47.2	53.8	57.7	57.6	64.1	9.0	10.4	10.3	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
84	Residential	City	47.6	46.1	52.8	57.8	57.7	64.1	10.2	11.6	11.3	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Horizon Year 2048 Exterior Incremental Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	NO PROJECT			WITH PROJECT			COMPARISON (With BIG Minus Without BIG)			FICAN Incremental Increase Impact Analysis					
			Daytime	Nighttime	Ldn	Daytime	Nighttime	Ldn				Daytime		Nighttime		Ldn	
			Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Modeled Noise Level	Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
85	Residential	City	68.1	66.6	73.3	67.6	66.2	72.8	-0.5	-0.4	-0.5	1.5	No	1.5	No	1.5	No
86	Residential	City	48.1	46.6	53.3	54.9	54.6	61.1	6.8	8.0	7.8	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
87	Residential	City	46.4	44.9	51.5	56.6	56.1	62.6	10.2	11.2	11.1	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
88	Residential	City	46.9	45.4	52.1	57.1	56.9	63.3	10.2	11.5	11.2	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
89	Residential	City	47.0	45.5	52.1	57.2	57.0	63.4	10.2	11.5	11.3	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
90	Residential	City	46.5	45.0	51.7	58.4	58.3	64.7	11.9	13.3	13.0	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Existing Absolute Interior Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Exterior Noise	Interior Noise					
				Windows Open			Windows Closed		
			Ldn	Ldn			Ldn		
			Modeled Noise Level	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?
1	Residential	County	64.5	54.5	45	**Yes**	36.5	45	No
2	Residential	County	63.4	53.4	45	**Yes**	35.4	45	No
3	Residential	County	64.6	54.6	45	**Yes**	36.6	45	No
4	Residential	City	62.0	52.0	45	**Yes**	34.0	45	No
5	Residential	City	63.7	53.7	45	**Yes**	35.7	45	No
6	Residential	City	58.1	48.1	45	**Yes**	30.1	45	No
7	Residential	City	67.2	57.2	45	**Yes**	39.2	45	No
8	Residential	County	70.0	60.0	45	**Yes**	42.0	45	No
9	Residential	County	71.3	61.3	45	**Yes**	43.3	45	No
10	Residential	County	71.6	61.6	45	**Yes**	43.6	45	No
11	Residential	County	71.9	61.9	45	**Yes**	43.9	45	No
12	Residential	County	72.3	62.3	45	**Yes**	44.3	45	No
13	Residential	County	72.7	62.7	45	**Yes**	44.7	45	No
14	Residential	County	75.7	65.7	45	**Yes**	47.7	45	**Yes**
15	Residential	County	77.5	67.5	45	**Yes**	49.5	45	**Yes**
16	Residential	County	75.4	65.4	45	**Yes**	47.4	45	**Yes**
17	Residential	County	75.4	65.4	45	**Yes**	47.4	45	**Yes**
18	Residential	County	73.5	63.5	45	**Yes**	45.5	45	**Yes**
19	Residential	County	74.1	64.1	45	**Yes**	46.1	45	**Yes**
20	Residential	County	74.3	64.3	45	**Yes**	46.3	45	**Yes**
21	Residential	County	75.2	65.2	45	**Yes**	47.2	45	**Yes**
22	Residential	County	75.0	65.0	45	**Yes**	47.0	45	**Yes**
23	Residential	County	74.6	64.6	45	**Yes**	46.6	45	**Yes**
24	Residential	County	76.1	66.1	45	**Yes**	48.1	45	**Yes**
25	Residential	County	76.1	66.1	45	**Yes**	48.1	45	**Yes**
26	Residential	County	76.2	66.2	45	**Yes**	48.2	45	**Yes**

Existing Absolute Interior Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Exterior Noise	Interior Noise					
				Windows Open			Windows Closed		
			Ldn	Ldn			Ldn		
			Modeled Noise Level	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?
27	Residential	County	75.9	65.9	45	**Yes**	47.9	45	**Yes**
28	Residential	County	77.0	67.0	45	**Yes**	49.0	45	**Yes**
29	Residential	County	73.8	63.8	45	**Yes**	45.8	45	**Yes**
30	Residential	County	78.4	68.4	45	**Yes**	50.4	45	**Yes**
31	Residential	County	78.3	68.3	45	**Yes**	50.3	45	**Yes**
32	Residential	County	78.3	68.3	45	**Yes**	50.3	45	**Yes**
33	Residential	County	75.8	65.8	45	**Yes**	47.8	45	**Yes**
34	Residential	County	75.8	65.8	45	**Yes**	47.8	45	**Yes**
35	Residential	County	75.9	65.9	45	**Yes**	47.9	45	**Yes**
36 (Jasper Park)	Park/Recreation	County	78.5	68.5	-	No	50.5	-	No
37	Residential	County	74.6	64.6	45	**Yes**	46.6	45	**Yes**
38	Residential	County	74.2	64.2	45	**Yes**	46.2	45	**Yes**
39	Residential	County	76.6	66.6	45	**Yes**	48.6	45	**Yes**
40	Residential	County	76.4	66.4	45	**Yes**	48.4	45	**Yes**
41	Residential	County	71.5	61.5	45	**Yes**	43.5	45	No
42	Residential	County	70.9	60.9	45	**Yes**	42.9	45	No
43	Residential	County	70.2	60.2	45	**Yes**	42.2	45	No
44	Residential	County	69.6	59.6	45	**Yes**	41.6	45	No
45	Residential	County	70.3	60.3	45	**Yes**	42.3	45	No
46	Residential	County	69.5	59.5	45	**Yes**	41.5	45	No
47	Residential	County	68.8	58.8	45	**Yes**	40.8	45	No
48	Residential	County	68.5	58.5	45	**Yes**	40.5	45	No
49	Residential	County	67.2	57.2	45	**Yes**	39.2	45	No
50	Residential	County	66.9	56.9	45	**Yes**	38.9	45	No
51	Residential	County	66.6	56.6	45	**Yes**	38.6	45	No
52	Residential	County	60.6	50.6	45	**Yes**	32.6	45	No

Existing Absolute Interior Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Exterior Noise	Interior Noise					
				Windows Open			Windows Closed		
			Ldn	Ldn			Ldn		
			Modeled Noise Level	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?
53	Residential	County	59.8	49.8	45	**Yes**	31.8	45	No
54	Residential	County	71.8	61.8	45	**Yes**	43.8	45	No
55	Residential	County	76.1	66.1	45	**Yes**	48.1	45	**Yes**
56	Residential	County	77.3	67.3	45	**Yes**	49.3	45	**Yes**
57	Residential	County	76.6	66.6	45	**Yes**	48.6	45	**Yes**
58	Residential	County	77.3	67.3	45	**Yes**	49.3	45	**Yes**
59	Residential	County	76.2	66.2	45	**Yes**	48.2	45	**Yes**
60	Residential	County	74.4	64.4	45	**Yes**	46.4	45	**Yes**
61	Residential	County	78.9	68.9	45	**Yes**	50.9	45	**Yes**
62	Residential	County	80.2	70.2	45	**Yes**	52.2	45	**Yes**
63	Residential	County	74.4	64.4	45	**Yes**	46.4	45	**Yes**
64	Residential	County	76.2	66.2	45	**Yes**	48.2	45	**Yes**
65 (Lenwood Elementary School)	School	County	70.1	60.1	45	**Yes**	42.1	45	No
66 (Lenwood Park)	Park/Recreation	County	66.4	56.4	-	No	38.4	-	No
67 (Missionary Baptist Church)	Church	County	67.7	57.7	45	**Yes**	39.7	45	No
68 (Saint Phillip Church)	Church	County	63.5	53.5	45	**Yes**	35.5	45	No
69 (Ingels School)	School	City	61.4	51.4	45	**Yes**	33.4	45	No
70 (Grandview Baptist Church)	Church	County	59.0	49.0	45	**Yes**	31.0	45	No
71	Residential	County	72.5	62.5	45	**Yes**	44.5	45	No
72	Residential	County	72.1	62.1	45	**Yes**	44.1	45	No
73	Residential	County	71.5	61.5	45	**Yes**	43.5	45	No
74	Residential	County	77.9	67.9	45	**Yes**	49.9	45	**Yes**
75	Residential	County	79.0	69.0	45	**Yes**	51.0	45	**Yes**
76	Residential	County	83.7	73.7	45	**Yes**	55.7	45	**Yes**
77	Residential	County	69.1	59.1	45	**Yes**	41.1	45	No
78	Residential	County	66.9	56.9	45	**Yes**	38.9	45	No

Existing Absolute Interior Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Exterior Noise	Interior Noise					
				Windows Open			Windows Closed		
			Ldn	Ldn			Ldn		
			Modeled Noise Level	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?
79	Residential	County	72.1	62.1	45	**Yes**	44.1	45	No
80	Residential	County	72.8	62.8	45	**Yes**	44.8	45	No
81	Residential	County	68.6	58.6	45	**Yes**	40.6	45	No
82	Residential	County	71.8	61.8	45	**Yes**	43.8	45	No
83	Residential	City	52.3	42.3	45	No	24.3	45	No
84	Residential	City	51.2	41.2	45	No	23.2	45	No
85	Residential	City	71.7	61.7	45	**Yes**	43.7	45	No
86	Residential	City	51.7	41.7	45	No	23.7	45	No
87	Residential	City	50.0	40.0	45	No	22.0	45	No
88	Residential	City	50.5	40.5	45	No	22.5	45	No
89	Residential	City	50.6	40.6	45	No	22.6	45	No
90	Residential	City	50.1	40.1	45	No	22.1	45	No

Construction Year 2026 (South Mainlines) Absolute Interior Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN INCREMENTAL INCREASE IMPACT ANALYSIS			NO PROJECT			WITH PROJECT			Comparison	FICAN INCREMENTAL INCREASE IMPACT ANALYSIS		
					Ldn			Ldn				Ldn			Ldn			Ldn				Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Ldn	Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Ldn	Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	54.5	45	**Yes**	53.3	45	**Yes**	-1.2	**Yes**	1.5	No	36.5	45	No	35.3	45	No	-1.2	No	1.5	No
2	Residential	County	LT-3	66.5	53.4	45	**Yes**	49.4	45	**Yes**	-4.0	**Yes**	1.5	No	35.4	45	No	31.4	45	No	-4.0	No	1.5	No
3	Residential	County	LT-3	66.5	54.6	45	**Yes**	49.8	45	**Yes**	-4.8	**Yes**	1.5	No	36.6	45	No	31.8	45	No	-4.8	No	1.5	No
4	Residential	City	LT-3	66.5	52.0	45	**Yes**	47.3	45	**Yes**	-4.7	**Yes**	1.5	No	34.0	45	No	29.3	45	No	-4.7	No	1.5	No
5	Residential	City	LT-3	66.5	53.7	45	**Yes**	46.3	45	**Yes**	-7.4	**Yes**	1.5	No	35.7	45	No	28.3	45	No	-7.4	No	1.5	No
6	Residential	City	LT-5	58.1	48.1	45	**Yes**	45.4	45	**Yes**	-2.7	**Yes**	5.0	No	30.1	45	No	27.4	45	No	-2.7	No	5.0	No
7	Residential	City	LT-5	58.1	57.2	45	**Yes**	55.2	45	**Yes**	-2.0	**Yes**	5.0	No	39.2	45	No	37.2	45	No	-2.0	No	5.0	No
8	Residential	County	LT-5	58.1	60.0	45	**Yes**	60.1	45	**Yes**	0.1	**Yes**	5.0	No	42.0	45	No	42.1	45	No	0.1	No	5.0	No
9	Residential	County	LT-5	58.1	61.4	45	**Yes**	61.5	45	**Yes**	0.1	**Yes**	5.0	No	43.4	45	No	43.5	45	No	0.1	No	5.0	No
10	Residential	County	LT-5	58.1	61.6	45	**Yes**	61.7	45	**Yes**	0.1	**Yes**	5.0	No	43.6	45	No	43.7	45	No	0.1	No	5.0	No
11	Residential	County	LT-5	58.1	62.0	45	**Yes**	62.0	45	**Yes**	0.0	**Yes**	5.0	No	44.0	45	No	44.0	45	No	0.0	No	5.0	No
12	Residential	County	LT-5	58.1	62.3	45	**Yes**	62.3	45	**Yes**	0.0	**Yes**	5.0	No	44.3	45	No	44.3	45	No	0.0	No	5.0	No
13	Residential	County	LT-5	58.1	62.7	45	**Yes**	62.7	45	**Yes**	0.0	**Yes**	5.0	No	44.7	45	No	44.7	45	No	0.0	No	5.0	No
14	Residential	County	LT-5	58.1	65.7	45	**Yes**	65.8	45	**Yes**	0.1	**Yes**	5.0	No	47.7	45	**Yes**	47.8	45	**Yes**	0.1	**Yes**	5.0	No
15	Residential	County	LT-5	58.1	67.5	45	**Yes**	67.5	45	**Yes**	0.0	**Yes**	5.0	No	49.5	45	**Yes**	49.5	45	**Yes**	0.0	**Yes**	5.0	No
16	Residential	County	LT-5	58.1	65.4	45	**Yes**	65.4	45	**Yes**	0.0	**Yes**	5.0	No	47.4	45	**Yes**	47.4	45	**Yes**	0.0	**Yes**	5.0	No
17	Residential	County	LT-5	58.1	65.5	45	**Yes**	65.5	45	**Yes**	0.0	**Yes**	5.0	No	47.5	45	**Yes**	47.5	45	**Yes**	0.0	**Yes**	5.0	No
18	Residential	County	LT-5	58.1	63.6	45	**Yes**	63.6	45	**Yes**	0.0	**Yes**	5.0	No	45.6	45	**Yes**	45.6	45	**Yes**	0.0	**Yes**	5.0	No
19	Residential	County	LT-5	58.1	64.1	45	**Yes**	64.2	45	**Yes**	0.1	**Yes**	5.0	No	46.1	45	**Yes**	46.2	45	**Yes**	0.1	**Yes**	5.0	No
20	Residential	County	LT-5	58.1	64.4	45	**Yes**	64.4	45	**Yes**	0.0	**Yes**	5.0	No	46.4	45	**Yes**	46.4	45	**Yes**	0.0	**Yes**	5.0	No
21	Residential	County	LT-5	58.1	65.2	45	**Yes**	65.3	45	**Yes**	0.1	**Yes**	5.0	No	47.2	45	**Yes**	47.3	45	**Yes**	0.1	**Yes**	5.0	No
22	Residential	County	LT-5	58.1	65.0	45	**Yes**	65.0	45	**Yes**	0.0	**Yes**	5.0	No	47.0	45	**Yes**	47.0	45	**Yes**	0.0	**Yes**	5.0	No
23	Residential	County	LT-5	58.1	64.6	45	**Yes**	64.6	45	**Yes**	0.0	**Yes**	5.0	No	46.6	45	**Yes**	46.6	45	**Yes**	0.0	**Yes**	5.0	No
24	Residential	County	LT-5	58.1	66.1	45	**Yes**	66.1	45	**Yes**	0.0	**Yes**	5.0	No	48.1	45	**Yes**	48.1	45	**Yes**	0.0	**Yes**	5.0	No
25	Residential	County	LT-5	58.1	66.2	45	**Yes**	66.2	45	**Yes**	0.0	**Yes**	5.0	No	48.2	45	**Yes**	48.2	45	**Yes**	0.0	**Yes**	5.0	No
26	Residential	County	LT-5	58.1	66.3	45	**Yes**	66.3	45	**Yes**	0.0	**Yes**	5.0	No	48.3	45	**Yes**	48.3	45	**Yes**	0.0	**Yes**	5.0	No
27	Residential	County	LT-5	58.1	65.9	45	**Yes**	66.0	45	**Yes**	0.1	**Yes**	5.0	No	47.9	45	**Yes**	48.0	45	**Yes**	0.1	**Yes**	5.0	No
28	Residential	County	LT-5	58.1	67.0	45	**Yes**	67.1	45	**Yes**	0.1	**Yes**	5.0	No	49.0	45	**Yes**	49.1	45	**Yes**	0.1	**Yes**	5.0	No
29	Residential	County	LT-4	66.1	63.8	45	**Yes**	63.8	45	**Yes**	0.0	**Yes**	1.5	No	45.8	45	**Yes**	45.8	45	**Yes**	0.0	**Yes**	1.5	No
30	Residential	County	LT-4	66.1	68.4	45	**Yes**	68.3	45	**Yes**	-0.1	**Yes**	1.5	No	50.4	45	**Yes**	50.3	45	**Yes**	-0.1	**Yes**	1.5	No
31	Residential	County	LT-4	66.1	68.3	45	**Yes**	68.2	45	**Yes**	-0.1	**Yes**	1.5	No	50.3	45	**Yes**	50.2	45	**Yes**	-0.1	**Yes**	1.5	No
32	Residential	County	LT-4	66.1	68.3	45	**Yes**	68.2	45	**Yes**	-0.1	**Yes**	1.5	No	50.3	45	**Yes**	50.2	45	**Yes**	-0.1	**Yes**	1.5	No
33	Residential	County	LT-4	66.1	65.8	45	**Yes**	65.7	45	**Yes**	-0.1	**Yes**	1.5	No	47.8	45	**Yes**	47.7	45	**Yes**	-0.1	**Yes**	1.5	No
34	Residential	County	LT-4	66.1	65.9	45	**Yes**	65.8	45	**Yes**	-0.1	**Yes**	1.5	No	47.9	45	**Yes**	47.8	45	**Yes**	-0.1	**Yes**	1.5	No
35	Residential	County	LT-4	66.1	65.9	45	**Yes**	65.9	45	**Yes**	0.0	**Yes**	1.5	No	47.9	45	**Yes**	47.9	45	**Yes**	0.0	**Yes**	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	68.5	-	No	68.5	-	No	0.0	No	5.0	No	50.5	-	No	50.5	-	No	0.0	No	5.0	No
37	Residential	County	LT-4	66.1	64.6	45	**Yes**	64.6	45	**Yes**	0.0	**Yes**	1.5	No	46.6	45	**Yes**	46.6	45	**Yes**	0.0	**Yes**	1.5	No
38	Residential	County	LT-4	66.1	64.2	45	**Yes**	64.2	45	**Yes**	0.0	**Yes**	1.5	No	46.2	45	**Yes**	46.2	45	**Yes**	0.0	**Yes**	1.5	No
39	Residential	County	LT-4	66.1	66.6	45	**Yes**	66.6	45	**Yes**	0.0	**Yes**	1.5	No	48.6	45	**Yes**	48.6	45	**Yes**	0.0	**Yes**	1.5	No
40	Residential	County	LT-4	66.1	66.4	45	**Yes**	66.4	45	**Yes**	0.0	**Yes**	1.5	No	48.4	45	**Yes**	48.4	45	**Yes**	0.0	**Yes**	1.5	No
41	Residential	County	LT-4	66.1	61.5	45	**Yes**	61.5	45	**Yes**	0.0	**Yes**	1.5	No	43.5	45	No	43.5	45	No	0.0	No	1.5	No
42	Residential	County	LT-4	66.1	60.9	45	**Yes**	60.9	45	**Yes**	0.0	**Yes**	1.5	No	42.9	45	No	42.9	45	No	0.0	No	1.5	No
43	Residential	County	LT-4	66.1	60.2	45	**Yes**	60.2	45	**Yes**	0.0	**Yes**	1.5	No	42.2	45	No	42.2	45	No	0.0	No	1.5	No
44	Residential	County	LT-4	66.1	59.6	45	**Yes**	59.6	45	**Yes**	0.0	**Yes**	1.5	No	41.6	45	No	41.6	45	No	0.0	No	1.5	No
45	Residential	County	LT-4	66.1	60.3	45	**Yes**	60.3	45	**Yes**	0.0	**Yes**	1.5	No	42.3	45	No	42.3	45	No	0.0	No	1.5	No
46	Residential	County	LT-4	66.1	59.5	45	**Yes**	59.5	45	**Yes**	0.0	**Yes**	1.5	No	41.5	45	No	41.5	45	No	0.0	No	1.5	No
47	Residential	County	LT-4	66.1	58.8	45	**Yes**	58.8	45	**Yes**	0.0	**Yes**	1.5	No	40.8	45	No	40.8	45	No	0.0	No	1.5	No
48	Residential	County	LT-4	66.1	58.5	45	**Yes**	58.4	45	**Yes**	-0.1	**Yes**	1.5	No	40.5	45	No	40.4	45	No	-0.1	No	1.5	No
49	Residential	County	LT-4	66.1	57.2	45	**Yes**	57.1	45	**Yes**	-0.1	**Yes**	1.5	No	39.2	45	No	39.1	45	No	-0.1	No	1.5	No
50	Residential	County	LT-4	66.1	56.9	45	**Yes**	56.8	45	**Yes**	-0.1	**Yes**	1.5	No	38.9	45	No	38.8	45	No	-0.1	No	1.5	No
51	Residential	County	LT-4	66.1	56.6	45	**Yes**	56.4	45	**Yes**	-0.2	**Yes**	1.5	No	38.6	45	No	38.4	45	No	-0.2	No	1.5	No
52	Residential	County	LT-1	61.2	50.6	45	**Yes**	43.0	45	No	-7.6	No	3.0	No	32.6	45	No	25.0	45	No	-7.6	No	3.0	No
53	Residential	County	LT-1	61.2	49.9	45	**Yes**	42.6	45	No	-7.3	No	3.0	No	31.9	45	No	24.6	45	No	-7.3	No	3.0	No

Construction Year 2026 (South Mainlines) Absolute Interior Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN INCREMENTAL INCREASE IMPACT ANALYSIS			NO PROJECT			WITH PROJECT			Comparison	FICAN INCREMENTAL INCREASE IMPACT ANALYSIS		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
54	Residential	County	LT-2	77.2	61.8	45	**Yes**	63.0	45	**Yes**	1.2	**Yes**	1.5	No	43.8	45	No	45.0	45	No	1.2	No	1.5	No
55	Residential	County	LT-2	77.2	66.1	45	**Yes**	67.4	45	**Yes**	1.3	**Yes**	1.5	No	48.1	45	**Yes**	49.4	45	**Yes**	1.3	**Yes**	1.5	No
56	Residential	County	LT-2	77.2	67.3	45	**Yes**	68.0	45	**Yes**	0.7	**Yes**	1.5	No	49.3	45	**Yes**	50.0	45	**Yes**	0.7	**Yes**	1.5	No
57	Residential	County	LT-2	77.2	66.6	45	**Yes**	66.9	45	**Yes**	0.3	**Yes**	1.5	No	48.6	45	**Yes**	48.9	45	**Yes**	0.3	**Yes**	1.5	No
58	Residential	County	LT-2	77.2	67.3	45	**Yes**	67.4	45	**Yes**	0.1	**Yes**	1.5	No	49.3	45	**Yes**	49.4	45	**Yes**	0.1	**Yes**	1.5	No
59	Residential	County	LT-2	77.2	66.3	45	**Yes**	66.2	45	**Yes**	-0.1	**Yes**	1.5	No	48.3	45	**Yes**	48.2	45	**Yes**	-0.1	**Yes**	1.5	No
60	Residential	County	LT-2	77.2	64.4	45	**Yes**	64.4	45	**Yes**	0.0	**Yes**	1.5	No	46.4	45	**Yes**	46.4	45	**Yes**	0.0	**Yes**	1.5	No
61	Residential	County	LT-2	77.2	68.9	45	**Yes**	68.9	45	**Yes**	0.0	**Yes**	1.5	No	50.9	45	**Yes**	50.9	45	**Yes**	0.0	**Yes**	1.5	No
62	Residential	County	LT-2	77.2	70.2	45	**Yes**	70.2	45	**Yes**	0.0	**Yes**	1.5	No	52.2	45	**Yes**	52.2	45	**Yes**	0.0	**Yes**	1.5	No
63	Residential	County	LT-2	77.2	64.4	45	**Yes**	64.4	45	**Yes**	0.0	**Yes**	1.5	No	46.4	45	**Yes**	46.4	45	**Yes**	0.0	**Yes**	1.5	No
64	Residential	County	LT-2	77.2	66.3	45	**Yes**	66.3	45	**Yes**	0.0	**Yes**	1.5	No	48.3	45	**Yes**	48.3	45	**Yes**	0.0	**Yes**	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	60.1	45	**Yes**	60.1	45	**Yes**	0.0	**Yes**	5.0	No	42.1	45	No	42.1	45	No	0.0	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	56.5	-	No	56.5	-	No	0.0	No	5.0	No	38.5	-	No	38.5	-	No	0.0	No	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	57.7	45	**Yes**	57.8	45	**Yes**	0.1	**Yes**	5.0	No	39.7	45	No	39.8	45	No	0.1	No	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	53.5	45	**Yes**	53.5	45	**Yes**	0.0	**Yes**	5.0	No	35.5	45	No	35.5	45	No	0.0	No	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	51.4	45	**Yes**	51.4	45	**Yes**	0.0	**Yes**	3.0	No	33.4	45	No	33.4	45	No	0.0	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	49.1	45	**Yes**	49.2	45	**Yes**	0.1	**Yes**	3.0	No	31.1	45	No	31.2	45	No	0.1	No	3.0	No
71	Residential	County	LT-2	77.2	62.5	45	**Yes**	62.5	45	**Yes**	0.0	**Yes**	1.5	No	44.5	45	No	44.5	45	No	0.0	No	1.5	No
72	Residential	County	LT-2	77.2	62.1	45	**Yes**	62.1	45	**Yes**	0.0	**Yes**	1.5	No	44.1	45	No	44.1	45	No	0.0	No	1.5	No
73	Residential	County	LT-2	77.2	61.5	45	**Yes**	61.5	45	**Yes**	0.0	**Yes**	1.5	No	43.5	45	No	43.5	45	No	0.0	No	1.5	No
74	Residential	County	LT-2	77.2	68.0	45	**Yes**	68.0	45	**Yes**	0.0	**Yes**	1.5	No	50.0	45	**Yes**	50.0	45	**Yes**	0.0	**Yes**	1.5	No
75	Residential	County	LT-2	77.2	69.1	45	**Yes**	69.1	45	**Yes**	0.0	**Yes**	1.5	No	51.1	45	**Yes**	51.1	45	**Yes**	0.0	**Yes**	1.5	No
76	Residential	County	LT-2	77.2	73.7	45	**Yes**	73.7	45	**Yes**	0.0	**Yes**	1.5	No	55.7	45	**Yes**	55.7	45	**Yes**	0.0	**Yes**	1.5	No
77	Residential	County	LT-2	77.2	59.1	45	**Yes**	59.1	45	**Yes**	0.0	**Yes**	1.5	No	41.1	45	No	41.1	45	No	0.0	No	1.5	No
78	Residential	County	LT-2	77.2	56.9	45	**Yes**	56.9	45	**Yes**	0.0	**Yes**	1.5	No	38.9	45	No	38.9	45	No	0.0	No	1.5	No
79	Residential	County	LT-2	77.2	62.1	45	**Yes**	62.1	45	**Yes**	0.0	**Yes**	1.5	No	44.1	45	No	44.1	45	No	0.0	No	1.5	No
80	Residential	County	LT-2	77.2	62.9	45	**Yes**	62.9	45	**Yes**	0.0	**Yes**	1.5	No	44.9	45	No	44.9	45	No	0.0	No	1.5	No
81	Residential	County	LT-2	77.2	58.7	45	**Yes**	58.7	45	**Yes**	0.0	**Yes**	1.5	No	40.7	45	No	40.7	45	No	0.0	No	1.5	No
82	Residential	County	LT-2	77.2	61.8	45	**Yes**	61.8	45	**Yes**	0.0	**Yes**	1.5	No	43.8	45	No	43.8	45	No	0.0	No	1.5	No
83	Residential	City	LT-3	66.5	42.3	45	No	39.5	45	No	-2.8	No	1.5	No	24.3	45	No	21.5	45	No	-2.8	No	1.5	No
84	Residential	City	LT-3	66.5	41.2	45	No	38.6	45	No	-2.6	No	1.5	No	23.2	45	No	20.6	45	No	-2.6	No	1.5	No
85	Residential	City	LT-3	66.5	61.7	45	**Yes**	61.7	45	**Yes**	0.0	**Yes**	1.5	No	43.7	45	No	43.7	45	No	0.0	No	1.5	No
86	Residential	City	LT-3	66.5	41.8	45	No	37.2	45	No	-4.6	No	1.5	No	23.8	45	No	19.2	45	No	-4.6	No	1.5	No
87	Residential	City	LT-3	66.5	40.0	45	No	36.7	45	No	-3.3	No	1.5	No	22.0	45	No	18.7	45	No	-3.3	No	1.5	No
88	Residential	City	LT-3	66.5	40.5	45	No	37.4	45	No	-3.1	No	1.5	No	22.5	45	No	19.4	45	No	-3.1	No	1.5	No
89	Residential	City	LT-3	66.5	40.6	45	No	37.5	45	No	-3.1	No	1.5	No	22.6	45	No	19.5	45	No	-3.1	No	1.5	No
90	Residential	City	LT-3	66.5	40.1	45	No	37.2	45	No	-2.9	No	1.5	No	22.1	45	No	19.2	45	No	-2.9	No	1.5	No

Opening Year 2028 Absolute Interior Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	54.7	45	**Yes**	57.4	45	**Yes**	2.7	**Yes**	1.5	**Yes**	36.7	45	No	39.4	45	No	2.7	No	1.5	**Yes**
2	Residential	County	LT-3	66.5	53.7	45	**Yes**	55.3	45	**Yes**	1.6	**Yes**	1.5	**Yes**	35.7	45	No	37.3	45	No	1.6	No	1.5	**Yes**
3	Residential	County	LT-3	66.5	54.8	45	**Yes**	55.7	45	**Yes**	0.9	**Yes**	1.5	No	36.8	45	No	37.7	45	No	0.9	No	1.5	No
4	Residential	City	LT-3	66.5	52.3	45	**Yes**	55.2	45	**Yes**	2.9	**Yes**	1.5	**Yes**	34.3	45	No	37.2	45	No	2.9	No	1.5	**Yes**
5	Residential	City	LT-3	66.5	54.0	45	**Yes**	60.2	45	**Yes**	6.2	**Yes**	1.5	**Yes**	36.0	45	No	42.2	45	No	6.2	No	1.5	**Yes**
6	Residential	City	LT-5	58.1	48.3	45	**Yes**	56.0	45	**Yes**	7.7	**Yes**	5.0	**Yes**	30.3	45	No	38.0	45	No	7.7	No	5.0	**Yes**
7	Residential	City	LT-5	58.1	57.4	45	**Yes**	58.1	45	**Yes**	0.7	**Yes**	5.0	No	39.4	45	No	40.1	45	No	0.7	No	5.0	No
8	Residential	County	LT-5	58.1	60.2	45	**Yes**	59.5	45	**Yes**	-0.7	**Yes**	5.0	No	42.2	45	No	41.5	45	No	-0.7	No	5.0	No
9	Residential	County	LT-5	58.1	61.6	45	**Yes**	60.9	45	**Yes**	-0.7	**Yes**	5.0	No	43.6	45	No	42.9	45	No	-0.7	No	5.0	No
10	Residential	County	LT-5	58.1	61.9	45	**Yes**	61.2	45	**Yes**	-0.7	**Yes**	5.0	No	43.9	45	No	43.2	45	No	-0.7	No	5.0	No
11	Residential	County	LT-5	58.1	62.2	45	**Yes**	61.5	45	**Yes**	-0.7	**Yes**	5.0	No	44.2	45	No	43.5	45	No	-0.7	No	5.0	No
12	Residential	County	LT-5	58.1	62.6	45	**Yes**	61.8	45	**Yes**	-0.8	**Yes**	5.0	No	44.6	45	No	43.8	45	No	-0.8	No	5.0	No
13	Residential	County	LT-5	58.1	63.0	45	**Yes**	62.2	45	**Yes**	-0.8	**Yes**	5.0	No	45.0	45	No	44.2	45	No	-0.8	No	5.0	No
14	Residential	County	LT-5	58.1	66.0	45	**Yes**	64.9	45	**Yes**	-1.1	**Yes**	5.0	No	48.0	45	**Yes**	46.9	45	**Yes**	-1.1	**Yes**	5.0	No
15	Residential	County	LT-5	58.1	67.8	45	**Yes**	66.6	45	**Yes**	-1.2	**Yes**	5.0	No	49.8	45	**Yes**	48.6	45	**Yes**	-1.2	**Yes**	5.0	No
16	Residential	County	LT-5	58.1	65.7	45	**Yes**	64.4	45	**Yes**	-1.3	**Yes**	5.0	No	47.7	45	**Yes**	46.4	45	**Yes**	-1.3	**Yes**	5.0	No
17	Residential	County	LT-5	58.1	65.7	45	**Yes**	64.4	45	**Yes**	-1.3	**Yes**	5.0	No	47.7	45	**Yes**	46.4	45	**Yes**	-1.3	**Yes**	5.0	No
18	Residential	County	LT-5	58.1	63.8	45	**Yes**	62.7	45	**Yes**	-1.1	**Yes**	5.0	No	45.8	45	**Yes**	44.7	45	No	-1.1	No	5.0	No
19	Residential	County	LT-5	58.1	64.4	45	**Yes**	63.3	45	**Yes**	-1.1	**Yes**	5.0	No	46.4	45	**Yes**	45.3	45	**Yes**	-1.1	**Yes**	5.0	No
20	Residential	County	LT-5	58.1	64.6	45	**Yes**	63.6	45	**Yes**	-1.0	**Yes**	5.0	No	46.6	45	**Yes**	45.6	45	**Yes**	-1.0	**Yes**	5.0	No
21	Residential	County	LT-5	58.1	65.5	45	**Yes**	64.4	45	**Yes**	-1.1	**Yes**	5.0	No	47.5	45	**Yes**	46.4	45	**Yes**	-1.1	**Yes**	5.0	No
22	Residential	County	LT-5	58.1	65.3	45	**Yes**	64.2	45	**Yes**	-1.1	**Yes**	5.0	No	47.3	45	**Yes**	46.2	45	**Yes**	-1.1	**Yes**	5.0	No
23	Residential	County	LT-5	58.1	64.9	45	**Yes**	63.8	45	**Yes**	-1.1	**Yes**	5.0	No	46.9	45	**Yes**	45.8	45	**Yes**	-1.1	**Yes**	5.0	No
24	Residential	County	LT-5	58.1	66.4	45	**Yes**	65.2	45	**Yes**	-1.2	**Yes**	5.0	No	48.4	45	**Yes**	47.2	45	**Yes**	-1.2	**Yes**	5.0	No
25	Residential	County	LT-5	58.1	66.4	45	**Yes**	65.3	45	**Yes**	-1.1	**Yes**	5.0	No	48.4	45	**Yes**	47.3	45	**Yes**	-1.1	**Yes**	5.0	No
26	Residential	County	LT-5	58.1	66.5	45	**Yes**	65.4	45	**Yes**	-1.1	**Yes**	5.0	No	48.5	45	**Yes**	47.4	45	**Yes**	-1.1	**Yes**	5.0	No
27	Residential	County	LT-5	58.1	66.2	45	**Yes**	65.0	45	**Yes**	-1.2	**Yes**	5.0	No	48.2	45	**Yes**	47.0	45	**Yes**	-1.2	**Yes**	5.0	No
28	Residential	County	LT-5	58.1	67.3	45	**Yes**	66.1	45	**Yes**	-1.2	**Yes**	5.0	No	49.3	45	**Yes**	48.1	45	**Yes**	-1.2	**Yes**	5.0	No
29	Residential	County	LT-4	66.1	64.1	45	**Yes**	63.6	45	**Yes**	-0.5	**Yes**	1.5	No	46.1	45	**Yes**	45.6	45	**Yes**	-0.5	**Yes**	1.5	No
30	Residential	County	LT-4	66.1	68.7	45	**Yes**	68.7	45	**Yes**	0.0	**Yes**	1.5	No	50.7	45	**Yes**	50.7	45	**Yes**	0.0	**Yes**	1.5	No
31	Residential	County	LT-4	66.1	68.6	45	**Yes**	68.6	45	**Yes**	0.0	**Yes**	1.5	No	50.6	45	**Yes**	50.6	45	**Yes**	0.0	**Yes**	1.5	No
32	Residential	County	LT-4	66.1	68.6	45	**Yes**	68.5	45	**Yes**	-0.1	**Yes**	1.5	No	50.6	45	**Yes**	50.5	45	**Yes**	-0.1	**Yes**	1.5	No
33	Residential	County	LT-4	66.1	66.1	45	**Yes**	65.7	45	**Yes**	-0.4	**Yes**	1.5	No	48.1	45	**Yes**	47.7	45	**Yes**	-0.4	**Yes**	1.5	No
34	Residential	County	LT-4	66.1	66.1	45	**Yes**	65.8	45	**Yes**	-0.3	**Yes**	1.5	No	48.1	45	**Yes**	47.8	45	**Yes**	-0.3	**Yes**	1.5	No
35	Residential	County	LT-4	66.1	66.2	45	**Yes**	65.9	45	**Yes**	-0.3	**Yes**	1.5	No	48.2	45	**Yes**	47.9	45	**Yes**	-0.3	**Yes**	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	68.8	-	No	68.7	-	No	-0.1	No	5.0	No	50.8	-	No	50.7	-	No	-0.1	No	5.0	No
37	Residential	County	LT-4	66.1	64.9	45	**Yes**	64.5	45	**Yes**	-0.4	**Yes**	1.5	No	46.9	45	**Yes**	46.5	45	**Yes**	-0.4	**Yes**	1.5	No
38	Residential	County	LT-4	66.1	64.5	45	**Yes**	64.1	45	**Yes**	-0.4	**Yes**	1.5	No	46.5	45	**Yes**	46.1	45	**Yes**	-0.4	**Yes**	1.5	No
39	Residential	County	LT-4	66.1	66.9	45	**Yes**	66.7	45	**Yes**	-0.2	**Yes**	1.5	No	48.9	45	**Yes**	48.7	45	**Yes**	-0.2	**Yes**	1.5	No
40	Residential	County	LT-4	66.1	66.7	45	**Yes**	66.6	45	**Yes**	-0.1	**Yes**	1.5	No	48.7	45	**Yes**	48.6	45	**Yes**	-0.1	**Yes**	1.5	No
41	Residential	County	LT-4	66.1	61.8	45	**Yes**	61.6	45	**Yes**	-0.2	**Yes**	1.5	No	43.8	45	No	43.6	45	No	-0.2	No	1.5	No
42	Residential	County	LT-4	66.1	61.1	45	**Yes**	60.9	45	**Yes**	-0.2	**Yes**	1.5	No	43.1	45	No	42.9	45	No	-0.2	No	1.5	No
43	Residential	County	LT-4	66.1	60.5	45	**Yes**	60.3	45	**Yes**	-0.2	**Yes**	1.5	No	42.5	45	No	42.3	45	No	-0.2	No	1.5	No
44	Residential	County	LT-4	66.1	59.9	45	**Yes**	59.8	45	**Yes**	-0.1	**Yes**	1.5	No	41.9	45	No	41.8	45	No	-0.1	No	1.5	No
45	Residential	County	LT-4	66.1	60.6	45	**Yes**	60.4	45	**Yes**	-0.2	**Yes**	1.5	No	42.6	45	No	42.4	45	No	-0.2	No	1.5	No
46	Residential	County	LT-4	66.1	59.8	45	**Yes**	59.7	45	**Yes**	-0.1	**Yes**	1.5	No	41.8	45	No	41.7	45	No	-0.1	No	1.5	No
47	Residential	County	LT-4	66.1	59.1	45	**Yes**	59.1	45	**Yes**	0.0	**Yes**	1.5	No	41.1	45	No	41.1	45	No	0.0	No	1.5	No
48	Residential	County	LT-4	66.1	58.7	45	**Yes**	58.9	45	**Yes**	0.2	**Yes**	1.5	No	40.7	45	No	40.9	45	No	0.2	No	1.5	No
49	Residential	County	LT-4	66.1	57.5	45	**Yes**	57.9	45	**Yes**	0.4	**Yes**	1.5	No	39.5	45	No	39.9	45	No	0.4	No	1.5	No
50	Residential	County	LT-4	66.1	57.2	45	**Yes**	57.8	45	**Yes**	0.6	**Yes**	1.5	No	39.2	45	No	39.8	45	No	0.6	No	1.5	No
51	Residential	County	LT-4	66.1	56.9	45	**Yes**	57.7	45	**Yes**	0.8	**Yes**	1.5	No	38.9	45	No	39.7	45	No	0.8	No	1.5	No
52	Residential	County	LT-1	61.2	50.9	45	**Yes**	50.1	45	**Yes**	-0.8	**Yes**	3.0	No	32.9	45	No	32.1	45	No	-0.8	No	3.0	No
53	Residential	County	LT-1	61.2	50.1	45	**Yes**	50.4	45	**Yes**	0.3	**Yes**	3.0	No	32.1	45	No	32.4	45	No	0.3	No	3.0	No

Opening Year 2028 Absolute Interior Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
54	Residential	County	LT-2	77.2	62.1	45	**Yes**	61.0	45	**Yes**	-1.1	**Yes**	1.5	No	44.1	45	No	43.0	45	No	-1.1	No	1.5	No
55	Residential	County	LT-2	77.2	66.4	45	**Yes**	65.1	45	**Yes**	-1.3	**Yes**	1.5	No	48.4	45	**Yes**	47.1	45	**Yes**	-1.3	**Yes**	1.5	No
56	Residential	County	LT-2	77.2	67.6	45	**Yes**	64.1	45	**Yes**	-3.5	**Yes**	1.5	No	49.6	45	**Yes**	46.1	45	**Yes**	-3.5	**Yes**	1.5	No
57	Residential	County	LT-2	77.2	66.9	45	**Yes**	62.4	45	**Yes**	-4.5	**Yes**	1.5	No	48.9	45	**Yes**	44.4	45	No	-4.5	No	1.5	No
58	Residential	County	LT-2	77.2	67.6	45	**Yes**	62.7	45	**Yes**	-4.9	**Yes**	1.5	No	49.6	45	**Yes**	44.7	45	No	-4.9	No	1.5	No
59	Residential	County	LT-2	77.2	66.5	45	**Yes**	61.6	45	**Yes**	-4.9	**Yes**	1.5	No	48.5	45	**Yes**	43.6	45	No	-4.9	No	1.5	No
60	Residential	County	LT-2	77.2	64.7	45	**Yes**	59.8	45	**Yes**	-4.9	**Yes**	1.5	No	46.7	45	**Yes**	41.8	45	No	-4.9	No	1.5	No
61	Residential	County	LT-2	77.2	69.2	45	**Yes**	64.2	45	**Yes**	-5.0	**Yes**	1.5	No	51.2	45	**Yes**	46.2	45	**Yes**	-5.0	**Yes**	1.5	No
62	Residential	County	LT-2	77.2	70.5	45	**Yes**	65.4	45	**Yes**	-5.1	**Yes**	1.5	No	52.5	45	**Yes**	47.4	45	**Yes**	-5.1	**Yes**	1.5	No
63	Residential	County	LT-2	77.2	64.7	45	**Yes**	59.8	45	**Yes**	-4.9	**Yes**	1.5	No	46.7	45	**Yes**	41.8	45	No	-4.9	No	1.5	No
64	Residential	County	LT-2	77.2	66.5	45	**Yes**	61.6	45	**Yes**	-4.9	**Yes**	1.5	No	48.5	45	**Yes**	43.6	45	No	-4.9	No	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	60.4	45	**Yes**	59.6	45	**Yes**	-0.8	**Yes**	5.0	No	42.4	45	No	41.6	45	No	-0.8	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	56.7	-	No	56.4	-	No	-0.3	No	5.0	No	38.7	-	No	38.4	-	No	-0.3	No	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	58.0	45	**Yes**	57.6	45	**Yes**	-0.4	**Yes**	5.0	No	40.0	45	No	39.6	45	No	-0.4	No	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	53.8	45	**Yes**	53.9	45	**Yes**	0.1	**Yes**	5.0	No	35.8	45	No	35.9	45	No	0.1	No	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	51.7	45	**Yes**	52.0	45	**Yes**	0.3	**Yes**	3.0	No	33.7	45	No	34.0	45	No	0.3	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	49.3	45	**Yes**	51.0	45	**Yes**	1.7	**Yes**	3.0	No	31.3	45	No	33.0	45	No	1.7	No	3.0	No
71	Residential	County	LT-2	77.2	62.8	45	**Yes**	58.0	45	**Yes**	-4.8	**Yes**	1.5	No	44.8	45	No	40.0	45	No	-4.8	No	1.5	No
72	Residential	County	LT-2	77.2	62.4	45	**Yes**	57.7	45	**Yes**	-4.7	**Yes**	1.5	No	44.4	45	No	39.7	45	No	-4.7	No	1.5	No
73	Residential	County	LT-2	77.2	61.7	45	**Yes**	57.2	45	**Yes**	-4.5	**Yes**	1.5	No	43.7	45	No	39.2	45	No	-4.5	No	1.5	No
74	Residential	County	LT-2	77.2	68.2	45	**Yes**	63.8	45	**Yes**	-4.4	**Yes**	1.5	No	50.2	45	**Yes**	45.8	45	**Yes**	-4.4	**Yes**	1.5	No
75	Residential	County	LT-2	77.2	69.3	45	**Yes**	65.1	45	**Yes**	-4.2	**Yes**	1.5	No	51.3	45	**Yes**	47.1	45	**Yes**	-4.2	**Yes**	1.5	No
76	Residential	County	LT-2	77.2	74.0	45	**Yes**	74.1	45	**Yes**	0.1	**Yes**	1.5	No	56.0	45	**Yes**	56.1	45	**Yes**	0.1	**Yes**	1.5	No
77	Residential	County	LT-2	77.2	59.4	45	**Yes**	57.3	45	**Yes**	-2.1	**Yes**	1.5	No	41.4	45	No	39.3	45	No	-2.1	No	1.5	No
78	Residential	County	LT-2	77.2	57.2	45	**Yes**	57.3	45	**Yes**	0.1	**Yes**	1.5	No	39.2	45	No	39.3	45	No	0.1	No	1.5	No
79	Residential	County	LT-2	77.2	62.4	45	**Yes**	62.7	45	**Yes**	0.3	**Yes**	1.5	No	44.4	45	No	44.7	45	No	0.3	No	1.5	No
80	Residential	County	LT-2	77.2	63.1	45	**Yes**	63.4	45	**Yes**	0.3	**Yes**	1.5	No	45.1	45	**Yes**	45.4	45	**Yes**	0.3	**Yes**	1.5	No
81	Residential	County	LT-2	77.2	58.9	45	**Yes**	59.2	45	**Yes**	0.3	**Yes**	1.5	No	40.9	45	No	41.2	45	No	0.3	No	1.5	No
82	Residential	County	LT-2	77.2	62.1	45	**Yes**	62.4	45	**Yes**	0.3	**Yes**	1.5	No	44.1	45	No	44.4	45	No	0.3	No	1.5	No
83	Residential	City	LT-3	66.5	42.6	45	No	56.2	45	**Yes**	13.6	**Yes**	1.5	**Yes**	24.6	45	No	38.2	45	No	13.6	No	1.5	**Yes**
84	Residential	City	LT-3	66.5	41.5	45	No	56.2	45	**Yes**	14.7	**Yes**	1.5	**Yes**	23.5	45	No	38.2	45	No	14.7	No	1.5	**Yes**
85	Residential	City	LT-3	66.5	62.0	45	**Yes**	61.5	45	**Yes**	-0.5	Yes	1.5	No	44.0	45	No	43.5	45	No	-0.5	No	1.5	No
86	Residential	City	LT-3	66.5	42.0	45	No	51.7	45	**Yes**	9.7	**Yes**	1.5	**Yes**	24.0	45	No	33.7	45	No	9.7	No	1.5	**Yes**
87	Residential	City	LT-3	66.5	40.3	45	No	54.4	45	**Yes**	14.1	**Yes**	1.5	**Yes**	22.3	45	No	36.4	45	No	14.1	No	1.5	**Yes**
88	Residential	City	LT-3	66.5	40.8	45	No	55.5	45	**Yes**	14.7	**Yes**	1.5	**Yes**	22.8	45	No	37.5	45	No	14.7	No	1.5	**Yes**
89	Residential	City	LT-3	66.5	40.9	45	No	56.1	45	**Yes**	15.2	**Yes**	1.5	**Yes**	22.9	45	No	38.1	45	No	15.2	No	1.5	**Yes**
90	Residential	City	LT-3	66.5	40.4	45	No	57.9	45	**Yes**	17.5	**Yes**	1.5	**Yes**	22.4	45	No	39.9	45	No	17.5	No	1.5	**Yes**

Opening Year 2028 Absolute Interior Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	54.7	45	**Yes**	53.8	45	**Yes**	-0.9	**Yes**	1.5	No	36.7	45	No	35.8	45	No	-0.9	No	1.5	**No**
2	Residential	County	LT-3	66.5	53.7	45	**Yes**	53.6	45	**Yes**	-0.1	**Yes**	1.5	No	35.7	45	No	35.6	45	No	-0.1	No	1.5	**No**
3	Residential	County	LT-3	66.5	54.8	45	**Yes**	53.2	45	**Yes**	-1.6	**Yes**	1.5	No	36.8	45	No	35.2	45	No	-1.6	No	1.5	No
4	Residential	City	LT-3	66.5	52.3	45	**Yes**	53.0	45	**Yes**	0.7	**Yes**	1.5	No	34.3	45	No	35.0	45	No	0.7	No	1.5	**No**
5	Residential	City	LT-3	66.5	54.0	45	**Yes**	55.0	45	**Yes**	1.0	**Yes**	1.5	No	36.0	45	No	37.0	45	No	1.0	No	1.5	**No**
6	Residential	City	LT-5	58.1	48.3	45	**Yes**	53.2	45	**Yes**	4.9	**Yes**	5.0	No	30.3	45	No	35.2	45	No	4.9	No	5.0	**No**
7	Residential	City	LT-5	58.1	57.4	45	**Yes**	57.4	45	**Yes**	0.0	**Yes**	5.0	No	39.4	45	No	39.4	45	No	0.0	No	5.0	No
8	Residential	County	LT-5	58.1	60.2	45	**Yes**	59.4	45	**Yes**	-0.8	**Yes**	5.0	No	42.2	45	No	41.4	45	No	-0.8	No	5.0	No
9	Residential	County	LT-5	58.1	61.6	45	**Yes**	60.8	45	**Yes**	-0.8	**Yes**	5.0	No	43.6	45	No	42.8	45	No	-0.8	No	5.0	No
10	Residential	County	LT-5	58.1	61.9	45	**Yes**	61.1	45	**Yes**	-0.8	**Yes**	5.0	No	43.9	45	No	43.1	45	No	-0.8	No	5.0	No
11	Residential	County	LT-5	58.1	62.2	45	**Yes**	61.4	45	**Yes**	-0.8	**Yes**	5.0	No	44.2	45	No	43.4	45	No	-0.8	No	5.0	No
12	Residential	County	LT-5	58.1	62.6	45	**Yes**	61.8	45	**Yes**	-0.8	**Yes**	5.0	No	44.6	45	No	43.8	45	No	-0.8	No	5.0	No
13	Residential	County	LT-5	58.1	63.0	45	**Yes**	62.1	45	**Yes**	-0.9	**Yes**	5.0	No	45.0	45	No	44.1	45	No	-0.9	No	5.0	No
14	Residential	County	LT-5	58.1	66.0	45	**Yes**	64.9	45	**Yes**	-1.1	**Yes**	5.0	No	48.0	45	**Yes**	46.9	45	**Yes**	-1.1	**Yes**	5.0	No
15	Residential	County	LT-5	58.1	67.8	45	**Yes**	66.6	45	**Yes**	-1.2	**Yes**	5.0	No	49.8	45	**Yes**	48.6	45	**Yes**	-1.2	**Yes**	5.0	No
16	Residential	County	LT-5	58.1	65.7	45	**Yes**	64.4	45	**Yes**	-1.3	**Yes**	5.0	No	47.7	45	**Yes**	46.4	45	**Yes**	-1.3	**Yes**	5.0	No
17	Residential	County	LT-5	58.1	65.7	45	**Yes**	64.4	45	**Yes**	-1.3	**Yes**	5.0	No	47.7	45	**Yes**	46.4	45	**Yes**	-1.3	**Yes**	5.0	No
18	Residential	County	LT-5	58.1	63.8	45	**Yes**	62.7	45	**Yes**	-1.1	**Yes**	5.0	No	45.8	45	**Yes**	44.7	45	No	-1.1	No	5.0	No
19	Residential	County	LT-5	58.1	64.4	45	**Yes**	63.3	45	**Yes**	-1.1	**Yes**	5.0	No	46.4	45	**Yes**	45.3	45	**Yes**	-1.1	**Yes**	5.0	No
20	Residential	County	LT-5	58.1	64.6	45	**Yes**	63.6	45	**Yes**	-1.0	**Yes**	5.0	No	46.6	45	**Yes**	45.6	45	**Yes**	-1.0	**Yes**	5.0	No
21	Residential	County	LT-5	58.1	65.5	45	**Yes**	64.4	45	**Yes**	-1.1	**Yes**	5.0	No	47.5	45	**Yes**	46.4	45	**Yes**	-1.1	**Yes**	5.0	No
22	Residential	County	LT-5	58.1	65.3	45	**Yes**	64.2	45	**Yes**	-1.1	**Yes**	5.0	No	47.3	45	**Yes**	46.2	45	**Yes**	-1.1	**Yes**	5.0	No
23	Residential	County	LT-5	58.1	64.9	45	**Yes**	63.8	45	**Yes**	-1.1	**Yes**	5.0	No	46.9	45	**Yes**	45.8	45	**Yes**	-1.1	**Yes**	5.0	No
24	Residential	County	LT-5	58.1	66.4	45	**Yes**	65.2	45	**Yes**	-1.2	**Yes**	5.0	No	48.4	45	**Yes**	47.2	45	**Yes**	-1.2	**Yes**	5.0	No
25	Residential	County	LT-5	58.1	66.4	45	**Yes**	65.3	45	**Yes**	-1.1	**Yes**	5.0	No	48.4	45	**Yes**	47.3	45	**Yes**	-1.1	**Yes**	5.0	No
26	Residential	County	LT-5	58.1	66.5	45	**Yes**	65.4	45	**Yes**	-1.1	**Yes**	5.0	No	48.5	45	**Yes**	47.4	45	**Yes**	-1.1	**Yes**	5.0	No
27	Residential	County	LT-5	58.1	66.2	45	**Yes**	65.0	45	**Yes**	-1.2	**Yes**	5.0	No	48.2	45	**Yes**	47.0	45	**Yes**	-1.2	**Yes**	5.0	No
28	Residential	County	LT-5	58.1	67.3	45	**Yes**	66.1	45	**Yes**	-1.2	**Yes**	5.0	No	49.3	45	**Yes**	48.1	45	**Yes**	-1.2	**Yes**	5.0	No
29	Residential	County	LT-4	66.1	64.1	45	**Yes**	63.6	45	**Yes**	-0.5	**Yes**	1.5	No	46.1	45	**Yes**	45.6	45	**Yes**	-0.5	**Yes**	1.5	No
30	Residential	County	LT-4	66.1	68.7	45	**Yes**	68.7	45	**Yes**	0.0	**Yes**	1.5	No	50.7	45	**Yes**	50.7	45	**Yes**	0.0	**Yes**	1.5	No
31	Residential	County	LT-4	66.1	68.6	45	**Yes**	68.6	45	**Yes**	0.0	**Yes**	1.5	No	50.6	45	**Yes**	50.6	45	**Yes**	0.0	**Yes**	1.5	No
32	Residential	County	LT-4	66.1	68.6	45	**Yes**	68.5	45	**Yes**	-0.1	**Yes**	1.5	No	50.6	45	**Yes**	50.5	45	**Yes**	-0.1	**Yes**	1.5	No
33	Residential	County	LT-4	66.1	66.1	45	**Yes**	65.7	45	**Yes**	-0.4	**Yes**	1.5	No	48.1	45	**Yes**	47.7	45	**Yes**	-0.4	**Yes**	1.5	No
34	Residential	County	LT-4	66.1	66.1	45	**Yes**	65.8	45	**Yes**	-0.3	**Yes**	1.5	No	48.1	45	**Yes**	47.8	45	**Yes**	-0.3	**Yes**	1.5	No
35	Residential	County	LT-4	66.1	66.2	45	**Yes**	65.9	45	**Yes**	-0.3	**Yes**	1.5	No	48.2	45	**Yes**	47.9	45	**Yes**	-0.3	**Yes**	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	68.8	-	No	68.7	-	No	-0.1	No	5.0	No	50.8	-	No	50.7	-	No	-0.1	No	5.0	No
37	Residential	County	LT-4	66.1	64.9	45	**Yes**	64.5	45	**Yes**	-0.4	**Yes**	1.5	No	46.9	45	**Yes**	46.5	45	**Yes**	-0.4	**Yes**	1.5	No
38	Residential	County	LT-4	66.1	64.5	45	**Yes**	64.1	45	**Yes**	-0.4	**Yes**	1.5	No	46.5	45	**Yes**	46.1	45	**Yes**	-0.4	**Yes**	1.5	No
39	Residential	County	LT-4	66.1	66.9	45	**Yes**	66.7	45	**Yes**	-0.2	**Yes**	1.5	No	48.9	45	**Yes**	48.7	45	**Yes**	-0.2	**Yes**	1.5	No
40	Residential	County	LT-4	66.1	66.7	45	**Yes**	66.6	45	**Yes**	-0.1	**Yes**	1.5	No	48.7	45	**Yes**	48.6	45	**Yes**	-0.1	**Yes**	1.5	No
41	Residential	County	LT-4	66.1	61.8	45	**Yes**	61.5	45	**Yes**	-0.3	**Yes**	1.5	No	43.8	45	No	43.5	45	No	-0.3	No	1.5	No
42	Residential	County	LT-4	66.1	61.1	45	**Yes**	60.9	45	**Yes**	-0.2	**Yes**	1.5	No	43.1	45	No	42.9	45	No	-0.2	No	1.5	No
43	Residential	County	LT-4	66.1	60.5	45	**Yes**	60.3	45	**Yes**	-0.2	**Yes**	1.5	No	42.5	45	No	42.3	45	No	-0.2	No	1.5	No
44	Residential	County	LT-4	66.1	59.9	45	**Yes**	59.8	45	**Yes**	-0.1	**Yes**	1.5	No	41.9	45	No	41.8	45	No	-0.1	No	1.5	No
45	Residential	County	LT-4	66.1	60.6	45	**Yes**	60.4	45	**Yes**	-0.2	**Yes**	1.5	No	42.6	45	No	42.4	45	No	-0.2	No	1.5	No
46	Residential	County	LT-4	66.1	59.8	45	**Yes**	59.7	45	**Yes**	-0.1	**Yes**	1.5	No	41.8	45	No	41.7	45	No	-0.1	No	1.5	No
47	Residential	County	LT-4	66.1	59.1	45	**Yes**	59.1	45	**Yes**	0.0	**Yes**	1.5	No	41.1	45	No	41.1	45	No	0.0	No	1.5	No
48	Residential	County	LT-4	66.1	58.7	45	**Yes**	58.8	45	**Yes**	0.1	**Yes**	1.5	No	40.7	45	No	40.8	45	No	0.1	No	1.5	No
49	Residential	County	LT-4	66.1	57.5	45	**Yes**	57.9	45	**Yes**	0.4	**Yes**	1.5	No	39.5	45	No	39.9	45	No	0.4	No	1.5	No
50	Residential	County	LT-4	66.1	57.2	45	**Yes**	57.7	45	**Yes**	0.5	**Yes**	1.5	No	39.2	45	No	39.7	45	No	0.5	No	1.5	No
51	Residential	County	LT-4	66.1	56.9	45	**Yes**	57.7	45	**Yes**	0.8	**Yes**	1.5	No	38.9	45	No	39.7	45	No	0.8	No	1.5	No
52	Residential	County	LT-1	61.2	50.9	45	**Yes**	50.1	45	**Yes**	-0.8	**Yes**	3.0	No	32.9	45	No	32.1	45	No	-0.8	No	3.0	No
53	Residential	County	LT-1	61.2	50.1	45	**Yes**	50.4	45	**Yes**	0.3	**Yes**	3.0	No	32.1	45	No	32.4	45	No	0.3	No	3.0	No

Opening Year 2028 Absolute Interior Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
54	Residential	County	LT-2	77.2	62.1	45	**Yes**	61.0	45	**Yes**	-1.1	**Yes**	1.5	No	44.1	45	No	43.0	45	No	-1.1	No	1.5	No
55	Residential	County	LT-2	77.2	66.4	45	**Yes**	65.1	45	**Yes**	-1.3	**Yes**	1.5	No	48.4	45	**Yes**	47.1	45	**Yes**	-1.3	**Yes**	1.5	No
56	Residential	County	LT-2	77.2	67.6	45	**Yes**	64.1	45	**Yes**	-3.5	**Yes**	1.5	No	49.6	45	**Yes**	46.1	45	**Yes**	-3.5	**Yes**	1.5	No
57	Residential	County	LT-2	77.2	66.9	45	**Yes**	62.4	45	**Yes**	-4.5	**Yes**	1.5	No	48.9	45	**Yes**	44.4	45	No	-4.5	No	1.5	No
58	Residential	County	LT-2	77.2	67.6	45	**Yes**	62.7	45	**Yes**	-4.9	**Yes**	1.5	No	49.6	45	**Yes**	44.7	45	No	-4.9	No	1.5	No
59	Residential	County	LT-2	77.2	66.5	45	**Yes**	61.6	45	**Yes**	-4.9	**Yes**	1.5	No	48.5	45	**Yes**	43.6	45	No	-4.9	No	1.5	No
60	Residential	County	LT-2	77.2	64.7	45	**Yes**	59.8	45	**Yes**	-4.9	**Yes**	1.5	No	46.7	45	**Yes**	41.8	45	No	-4.9	No	1.5	No
61	Residential	County	LT-2	77.2	69.2	45	**Yes**	64.2	45	**Yes**	-5.0	**Yes**	1.5	No	51.2	45	**Yes**	46.2	45	**Yes**	-5.0	**Yes**	1.5	No
62	Residential	County	LT-2	77.2	70.5	45	**Yes**	65.4	45	**Yes**	-5.1	**Yes**	1.5	No	52.5	45	**Yes**	47.4	45	**Yes**	-5.1	**Yes**	1.5	No
63	Residential	County	LT-2	77.2	64.7	45	**Yes**	59.8	45	**Yes**	-4.9	**Yes**	1.5	No	46.7	45	**Yes**	41.8	45	No	-4.9	No	1.5	No
64	Residential	County	LT-2	77.2	66.5	45	**Yes**	61.6	45	**Yes**	-4.9	**Yes**	1.5	No	48.5	45	**Yes**	43.6	45	No	-4.9	No	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	60.4	45	**Yes**	59.6	45	**Yes**	-0.8	**Yes**	5.0	No	42.4	45	No	41.6	45	No	-0.8	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	56.7	-	No	56.3	-	No	-0.4	No	5.0	No	38.7	-	No	38.3	-	No	-0.4	No	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	58.0	45	**Yes**	57.6	45	**Yes**	-0.4	**Yes**	5.0	No	40.0	45	No	39.6	45	No	-0.4	No	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	53.8	45	**Yes**	53.8	45	**Yes**	0.0	**Yes**	5.0	No	35.8	45	No	35.8	45	No	0.0	No	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	51.7	45	**Yes**	52.0	45	**Yes**	0.3	**Yes**	3.0	No	33.7	45	No	34.0	45	No	0.3	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	49.3	45	**Yes**	50.9	45	**Yes**	1.6	**Yes**	3.0	No	31.3	45	No	32.9	45	No	1.6	No	3.0	No
71	Residential	County	LT-2	77.2	62.8	45	**Yes**	58.0	45	**Yes**	-4.8	**Yes**	1.5	No	44.8	45	No	40.0	45	No	-4.8	No	1.5	No
72	Residential	County	LT-2	77.2	62.4	45	**Yes**	57.7	45	**Yes**	-4.7	**Yes**	1.5	No	44.4	45	No	39.7	45	No	-4.7	No	1.5	No
73	Residential	County	LT-2	77.2	61.7	45	**Yes**	57.2	45	**Yes**	-4.5	**Yes**	1.5	No	43.7	45	No	39.2	45	No	-4.5	No	1.5	No
74	Residential	County	LT-2	77.2	68.2	45	**Yes**	63.8	45	**Yes**	-4.4	**Yes**	1.5	No	50.2	45	**Yes**	45.8	45	**Yes**	-4.4	**Yes**	1.5	No
75	Residential	County	LT-2	77.2	69.3	45	**Yes**	65.1	45	**Yes**	-4.2	**Yes**	1.5	No	51.3	45	**Yes**	47.1	45	**Yes**	-4.2	**Yes**	1.5	No
76	Residential	County	LT-2	77.2	74.0	45	**Yes**	74.1	45	**Yes**	0.1	**Yes**	1.5	No	56.0	45	**Yes**	56.1	45	**Yes**	0.1	**Yes**	1.5	No
77	Residential	County	LT-2	77.2	59.4	45	**Yes**	57.3	45	**Yes**	-2.1	**Yes**	1.5	No	41.4	45	No	39.3	45	No	-2.1	No	1.5	No
78	Residential	County	LT-2	77.2	57.2	45	**Yes**	57.3	45	**Yes**	0.1	**Yes**	1.5	No	39.2	45	No	39.3	45	No	0.1	No	1.5	No
79	Residential	County	LT-2	77.2	62.4	45	**Yes**	62.6	45	**Yes**	0.2	**Yes**	1.5	No	44.4	45	No	44.6	45	No	0.2	No	1.5	No
80	Residential	County	LT-2	77.2	63.1	45	**Yes**	63.4	45	**Yes**	0.3	**Yes**	1.5	No	45.1	45	**Yes**	45.4	45	**Yes**	0.3	**Yes**	1.5	No
81	Residential	County	LT-2	77.2	58.9	45	**Yes**	59.2	45	**Yes**	0.3	**Yes**	1.5	No	40.9	45	No	41.2	45	No	0.3	No	1.5	No
82	Residential	County	LT-2	77.2	62.1	45	**Yes**	62.4	45	**Yes**	0.3	**Yes**	1.5	No	44.1	45	No	44.4	45	No	0.3	No	1.5	No
83	Residential	City	LT-3	66.5	42.6	45	No	54.0	45	**Yes**	11.4	**Yes**	1.5	**Yes**	24.6	45	No	36.0	45	No	11.4	No	1.5	**Yes**
84	Residential	City	LT-3	66.5	41.5	45	No	54.1	45	**Yes**	12.6	**Yes**	1.5	**Yes**	23.5	45	No	36.1	45	No	12.6	No	1.5	**Yes**
85	Residential	City	LT-3	66.5	62.0	45	**Yes**	61.5	45	**Yes**	-0.5	Yes	1.5	No	44.0	45	No	43.5	45	No	-0.5	No	1.5	No
86	Residential	City	LT-3	66.5	42.0	45	No	50.9	45	**Yes**	8.9	**Yes**	1.5	**Yes**	24.0	45	No	32.9	45	No	8.9	No	1.5	**Yes**
87	Residential	City	LT-3	66.5	40.3	45	No	52.5	45	**Yes**	12.2	**Yes**	1.5	**Yes**	22.3	45	No	34.5	45	No	12.2	No	1.5	**Yes**
88	Residential	City	LT-3	66.5	40.8	45	No	53.2	45	**Yes**	12.4	**Yes**	1.5	**Yes**	22.8	45	No	35.2	45	No	12.4	No	1.5	**Yes**
89	Residential	City	LT-3	66.5	40.9	45	No	53.3	45	**Yes**	12.4	**Yes**	1.5	**Yes**	22.9	45	No	35.3	45	No	12.4	No	1.5	**Yes**
90	Residential	City	LT-3	66.5	40.4	45	No	54.6	45	**Yes**	14.2	**Yes**	1.5	**Yes**	22.4	45	No	36.6	45	No	14.2	No	1.5	**Yes**

Interim Year 2033 Absolute Interior Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	55.0	45	**Yes**	57.5	45	**Yes**	2.5	**Yes**	1.5	**Yes**	37.0	45	No	39.5	45	No	2.5	No	1.5	**Yes**
2	Residential	County	LT-3	66.5	54.0	45	**Yes**	55.4	45	**Yes**	1.4	**Yes**	1.5	No	36.0	45	No	37.4	45	No	1.4	No	1.5	**No**
3	Residential	County	LT-3	66.5	55.1	45	**Yes**	55.7	45	**Yes**	0.6	**Yes**	1.5	No	37.1	45	No	37.7	45	No	0.6	No	1.5	No
4	Residential	City	LT-3	66.5	52.6	45	**Yes**	55.2	45	**Yes**	2.6	**Yes**	1.5	**Yes**	34.6	45	No	37.2	45	No	2.6	No	1.5	**Yes**
5	Residential	City	LT-3	66.5	54.3	45	**Yes**	60.2	45	**Yes**	5.9	**Yes**	1.5	**Yes**	36.3	45	No	42.2	45	No	5.9	No	1.5	**Yes**
6	Residential	City	LT-5	58.1	48.6	45	**Yes**	56.0	45	**Yes**	7.4	**Yes**	5.0	**Yes**	30.6	45	No	38.0	45	No	7.4	No	5.0	**Yes**
7	Residential	City	LT-5	58.1	57.7	45	**Yes**	58.2	45	**Yes**	0.5	**Yes**	5.0	No	39.7	45	No	40.2	45	No	0.5	No	5.0	No
8	Residential	County	LT-5	58.1	60.5	45	**Yes**	59.7	45	**Yes**	-0.8	**Yes**	5.0	No	42.5	45	No	41.7	45	No	-0.8	No	5.0	No
9	Residential	County	LT-5	58.1	61.9	45	**Yes**	61.0	45	**Yes**	-0.9	**Yes**	5.0	No	43.9	45	No	43.0	45	No	-0.9	No	5.0	No
10	Residential	County	LT-5	58.1	62.2	45	**Yes**	61.4	45	**Yes**	-0.8	**Yes**	5.0	No	44.2	45	No	43.4	45	No	-0.8	No	5.0	No
11	Residential	County	LT-5	58.1	62.5	45	**Yes**	61.7	45	**Yes**	-0.8	**Yes**	5.0	No	44.5	45	No	43.7	45	No	-0.8	No	5.0	No
12	Residential	County	LT-5	58.1	62.9	45	**Yes**	62.0	45	**Yes**	-0.9	**Yes**	5.0	No	44.9	45	No	44.0	45	No	-0.9	No	5.0	No
13	Residential	County	LT-5	58.1	63.3	45	**Yes**	62.4	45	**Yes**	-0.9	**Yes**	5.0	No	45.3	45	Yes	44.4	45	No	-0.9	No	5.0	No
14	Residential	County	LT-5	58.1	66.3	45	**Yes**	65.1	45	**Yes**	-1.2	**Yes**	5.0	No	48.3	45	**Yes**	47.1	45	**Yes**	-1.2	**Yes**	5.0	No
15	Residential	County	LT-5	58.1	68.1	45	**Yes**	66.8	45	**Yes**	-1.3	**Yes**	5.0	No	50.1	45	**Yes**	48.8	45	**Yes**	-1.3	**Yes**	5.0	No
16	Residential	County	LT-5	58.1	66.0	45	**Yes**	64.6	45	**Yes**	-1.4	**Yes**	5.0	No	48.0	45	**Yes**	46.6	45	**Yes**	-1.4	**Yes**	5.0	No
17	Residential	County	LT-5	58.1	66.0	45	**Yes**	64.6	45	**Yes**	-1.4	**Yes**	5.0	No	48.0	45	**Yes**	46.6	45	**Yes**	-1.4	**Yes**	5.0	No
18	Residential	County	LT-5	58.1	64.1	45	**Yes**	62.9	45	**Yes**	-1.2	**Yes**	5.0	No	46.1	45	**Yes**	44.9	45	No	-1.2	No	5.0	No
19	Residential	County	LT-5	58.1	64.7	45	**Yes**	63.5	45	**Yes**	-1.2	**Yes**	5.0	No	46.7	45	**Yes**	45.5	45	**Yes**	-1.2	**Yes**	5.0	No
20	Residential	County	LT-5	58.1	64.9	45	**Yes**	63.7	45	**Yes**	-1.2	**Yes**	5.0	No	46.9	45	**Yes**	45.7	45	**Yes**	-1.2	**Yes**	5.0	No
21	Residential	County	LT-5	58.1	65.8	45	**Yes**	64.6	45	**Yes**	-1.2	**Yes**	5.0	No	47.8	45	**Yes**	46.6	45	**Yes**	-1.2	**Yes**	5.0	No
22	Residential	County	LT-5	58.1	65.6	45	**Yes**	64.4	45	**Yes**	-1.2	**Yes**	5.0	No	47.6	45	**Yes**	46.4	45	**Yes**	-1.2	**Yes**	5.0	No
23	Residential	County	LT-5	58.1	65.2	45	**Yes**	64.0	45	**Yes**	-1.2	**Yes**	5.0	No	47.2	45	**Yes**	46.0	45	**Yes**	-1.2	**Yes**	5.0	No
24	Residential	County	LT-5	58.1	66.7	45	**Yes**	65.4	45	**Yes**	-1.3	**Yes**	5.0	No	48.7	45	**Yes**	47.4	45	**Yes**	-1.3	**Yes**	5.0	No
25	Residential	County	LT-5	58.1	66.7	45	**Yes**	65.5	45	**Yes**	-1.2	**Yes**	5.0	No	48.7	45	**Yes**	47.5	45	**Yes**	-1.2	**Yes**	5.0	No
26	Residential	County	LT-5	58.1	66.8	45	**Yes**	65.6	45	**Yes**	-1.2	**Yes**	5.0	No	48.8	45	**Yes**	47.6	45	**Yes**	-1.2	**Yes**	5.0	No
27	Residential	County	LT-5	58.1	66.5	45	**Yes**	65.2	45	**Yes**	-1.3	**Yes**	5.0	No	48.5	45	**Yes**	47.2	45	**Yes**	-1.3	**Yes**	5.0	No
28	Residential	County	LT-5	58.1	67.6	45	**Yes**	66.3	45	**Yes**	-1.3	**Yes**	5.0	No	49.6	45	**Yes**	48.3	45	**Yes**	-1.3	**Yes**	5.0	No
29	Residential	County	LT-4	66.1	64.4	45	**Yes**	63.8	45	**Yes**	-0.6	**Yes**	1.5	No	46.4	45	**Yes**	45.8	45	**Yes**	-0.6	**Yes**	1.5	No
30	Residential	County	LT-4	66.1	69.0	45	**Yes**	68.8	45	**Yes**	-0.2	**Yes**	1.5	No	51.0	45	**Yes**	50.8	45	**Yes**	-0.2	**Yes**	1.5	No
31	Residential	County	LT-4	66.1	68.9	45	**Yes**	68.7	45	**Yes**	-0.2	**Yes**	1.5	No	50.9	45	**Yes**	50.7	45	**Yes**	-0.2	**Yes**	1.5	No
32	Residential	County	LT-4	66.1	68.9	45	**Yes**	68.6	45	**Yes**	-0.3	**Yes**	1.5	No	50.9	45	**Yes**	50.6	45	**Yes**	-0.3	**Yes**	1.5	No
33	Residential	County	LT-4	66.1	66.4	45	**Yes**	65.9	45	**Yes**	-0.5	**Yes**	1.5	No	48.4	45	**Yes**	47.9	45	**Yes**	-0.5	**Yes**	1.5	No
34	Residential	County	LT-4	66.1	66.4	45	**Yes**	65.9	45	**Yes**	-0.5	**Yes**	1.5	No	48.4	45	**Yes**	47.9	45	**Yes**	-0.5	**Yes**	1.5	No
35	Residential	County	LT-4	66.1	66.5	45	**Yes**	66.0	45	**Yes**	-0.5	**Yes**	1.5	No	48.5	45	**Yes**	48.0	45	**Yes**	-0.5	**Yes**	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	69.1	-	No	68.8	-	No	-0.3	No	5.0	No	51.1	-	No	50.8	-	No	-0.3	No	5.0	No
37	Residential	County	LT-4	66.1	65.2	45	**Yes**	64.6	45	**Yes**	-0.6	**Yes**	1.5	No	47.2	45	**Yes**	46.6	45	**Yes**	-0.6	**Yes**	1.5	No
38	Residential	County	LT-4	66.1	64.8	45	**Yes**	64.2	45	**Yes**	-0.6	**Yes**	1.5	No	46.8	45	**Yes**	46.2	45	**Yes**	-0.6	**Yes**	1.5	No
39	Residential	County	LT-4	66.1	67.2	45	**Yes**	66.8	45	**Yes**	-0.4	**Yes**	1.5	No	49.2	45	**Yes**	48.8	45	**Yes**	-0.4	**Yes**	1.5	No
40	Residential	County	LT-4	66.1	67.0	45	**Yes**	66.7	45	**Yes**	-0.3	**Yes**	1.5	No	49.0	45	**Yes**	48.7	45	**Yes**	-0.3	**Yes**	1.5	No
41	Residential	County	LT-4	66.1	62.1	45	**Yes**	61.7	45	**Yes**	-0.4	**Yes**	1.5	No	44.1	45	No	43.7	45	No	-0.4	No	1.5	No
42	Residential	County	LT-4	66.1	61.4	45	**Yes**	61.1	45	**Yes**	-0.3	**Yes**	1.5	No	43.4	45	No	43.1	45	No	-0.3	No	1.5	No
43	Residential	County	LT-4	66.1	60.8	45	**Yes**	60.4	45	**Yes**	-0.4	**Yes**	1.5	No	42.8	45	No	42.4	45	No	-0.4	No	1.5	No
44	Residential	County	LT-4	66.1	60.2	45	**Yes**	60.0	45	**Yes**	-0.2	**Yes**	1.5	No	42.2	45	No	42.0	45	No	-0.2	No	1.5	No
45	Residential	County	LT-4	66.1	60.9	45	**Yes**	60.6	45	**Yes**	-0.3	**Yes**	1.5	No	42.9	45	No	42.6	45	No	-0.3	No	1.5	No
46	Residential	County	LT-4	66.1	60.1	45	**Yes**	59.8	45	**Yes**	-0.3	**Yes**	1.5	No	42.1	45	No	41.8	45	No	-0.3	No	1.5	No
47	Residential	County	LT-4	66.1	59.4	45	**Yes**	59.3	45	**Yes**	-0.1	**Yes**	1.5	No	41.4	45	No	41.3	45	No	-0.1	No	1.5	No
48	Residential	County	LT-4	66.1	59.0	45	**Yes**	59.0	45	**Yes**	0.0	**Yes**	1.5	No	41.0	45	No	41.0	45	No	0.0	No	1.5	No
49	Residential	County	LT-4	66.1	57.8	45	**Yes**	58.0	45	**Yes**	0.2	**Yes**	1.5	No	39.8	45	No	40.0	45	No	0.2	No	1.5	No
50	Residential	County	LT-4	66.1	57.5	45	**Yes**	57.9	45	**Yes**	0.4	**Yes**	1.5	No	39.5	45	No	39.9	45	No	0.4	No	1.5	No
51	Residential	County	LT-4	66.1	57.2	45	**Yes**	57.8	45	**Yes**	0.6	**Yes**	1.5	No	39.2	45	No	39.8	45	No	0.6	No	1.5	No
52	Residential	County	LT-1	61.2	51.2	45	**Yes**	50.2	45	**Yes**	-1.0	**Yes**	3.0	No	33.2	45	No	32.2	45	No	-1.0	No	3.0	No
53	Residential	County	LT-1	61.2	50.4	45	**Yes**	50.4	45	**Yes**	0.0	**Yes**	3.0	No	32.4	45	No	32.4	45	No	0.0	No	3.0	No

Interim Year 2033 Absolute Interior Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
54	Residential	County	LT-2	77.2	62.4	45	**Yes**	61.1	45	**Yes**	-1.3	**Yes**	1.5	No	44.4	45	No	43.1	45	No	-1.3	No	1.5	No
55	Residential	County	LT-2	77.2	66.7	45	**Yes**	65.2	45	**Yes**	-1.5	**Yes**	1.5	No	48.7	45	**Yes**	47.2	45	**Yes**	-1.5	**Yes**	1.5	No
56	Residential	County	LT-2	77.2	67.9	45	**Yes**	64.4	45	**Yes**	-3.5	**Yes**	1.5	No	49.9	45	**Yes**	46.4	45	**Yes**	-3.5	**Yes**	1.5	No
57	Residential	County	LT-2	77.2	67.2	45	**Yes**	62.7	45	**Yes**	-4.5	**Yes**	1.5	No	49.2	45	**Yes**	44.7	45	No	-4.5	No	1.5	No
58	Residential	County	LT-2	77.2	67.9	45	**Yes**	63.0	45	**Yes**	-4.9	**Yes**	1.5	No	49.9	45	**Yes**	45.0	45	No	-4.9	No	1.5	No
59	Residential	County	LT-2	77.2	66.8	45	**Yes**	61.9	45	**Yes**	-4.9	**Yes**	1.5	No	48.8	45	**Yes**	43.9	45	No	-4.9	No	1.5	No
60	Residential	County	LT-2	77.2	65.0	45	**Yes**	60.1	45	**Yes**	-4.9	**Yes**	1.5	No	47.0	45	**Yes**	42.1	45	No	-4.9	No	1.5	No
61	Residential	County	LT-2	77.2	69.5	45	**Yes**	64.5	45	**Yes**	-5.0	**Yes**	1.5	No	51.5	45	**Yes**	46.5	45	**Yes**	-5.0	**Yes**	1.5	No
62	Residential	County	LT-2	77.2	70.8	45	**Yes**	65.7	45	**Yes**	-5.1	**Yes**	1.5	No	52.8	45	**Yes**	47.7	45	**Yes**	-5.1	**Yes**	1.5	No
63	Residential	County	LT-2	77.2	65.0	45	**Yes**	60.1	45	**Yes**	-4.9	**Yes**	1.5	No	47.0	45	**Yes**	42.1	45	No	-4.9	No	1.5	No
64	Residential	County	LT-2	77.2	66.8	45	**Yes**	61.9	45	**Yes**	-4.9	**Yes**	1.5	No	48.8	45	**Yes**	43.9	45	No	-4.9	No	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	60.7	45	**Yes**	59.8	45	**Yes**	-0.9	**Yes**	5.0	No	42.7	45	No	41.8	45	No	-0.9	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	57.0	-	No	56.5	-	No	-0.5	No	5.0	No	39.0	-	No	38.5	-	No	-0.5	No	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	58.3	45	**Yes**	57.8	45	**Yes**	-0.5	**Yes**	5.0	No	40.3	45	No	39.8	45	No	-0.5	No	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	54.1	45	**Yes**	54.1	45	**Yes**	0.0	**Yes**	5.0	No	36.1	45	No	36.1	45	No	0.0	No	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	52.0	45	**Yes**	52.2	45	**Yes**	0.2	**Yes**	3.0	No	34.0	45	No	34.2	45	No	0.2	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	49.6	45	**Yes**	51.1	45	**Yes**	1.5	**Yes**	3.0	No	31.6	45	No	33.1	45	No	1.5	No	3.0	No
71	Residential	County	LT-2	77.2	63.1	45	**Yes**	58.3	45	**Yes**	-4.8	**Yes**	1.5	No	45.1	45	Yes	40.3	45	No	-4.8	No	1.5	No
72	Residential	County	LT-2	77.2	62.7	45	**Yes**	58.0	45	**Yes**	-4.7	**Yes**	1.5	No	44.7	45	No	40.0	45	No	-4.7	No	1.5	No
73	Residential	County	LT-2	77.2	62.0	45	**Yes**	57.5	45	**Yes**	-4.5	**Yes**	1.5	No	44.0	45	No	39.5	45	No	-4.5	No	1.5	No
74	Residential	County	LT-2	77.2	68.5	45	**Yes**	64.1	45	**Yes**	-4.4	**Yes**	1.5	No	50.5	45	**Yes**	46.1	45	**Yes**	-4.4	**Yes**	1.5	No
75	Residential	County	LT-2	77.2	69.6	45	**Yes**	65.4	45	**Yes**	-4.2	**Yes**	1.5	No	51.6	45	**Yes**	47.4	45	**Yes**	-4.2	**Yes**	1.5	No
76	Residential	County	LT-2	77.2	74.3	45	**Yes**	74.1	45	**Yes**	-0.2	**Yes**	1.5	No	56.3	45	**Yes**	56.1	45	**Yes**	-0.2	**Yes**	1.5	No
77	Residential	County	LT-2	77.2	59.7	45	**Yes**	57.4	45	**Yes**	-2.3	**Yes**	1.5	No	41.7	45	No	39.4	45	No	-2.3	No	1.5	No
78	Residential	County	LT-2	77.2	57.5	45	**Yes**	57.3	45	**Yes**	-0.2	**Yes**	1.5	No	39.5	45	No	39.3	45	No	-0.2	No	1.5	No
79	Residential	County	LT-2	77.2	62.7	45	**Yes**	62.7	45	**Yes**	0.0	**Yes**	1.5	No	44.7	45	No	44.7	45	No	0.0	No	1.5	No
80	Residential	County	LT-2	77.2	63.4	45	**Yes**	63.4	45	**Yes**	0.0	**Yes**	1.5	No	45.4	45	**Yes**	45.4	45	**Yes**	0.0	**Yes**	1.5	No
81	Residential	County	LT-2	77.2	59.2	45	**Yes**	59.2	45	**Yes**	0.0	**Yes**	1.5	No	41.2	45	No	41.2	45	No	0.0	No	1.5	No
82	Residential	County	LT-2	77.2	62.4	45	**Yes**	62.4	45	**Yes**	0.0	**Yes**	1.5	No	44.4	45	No	44.4	45	No	0.0	No	1.5	No
83	Residential	City	LT-3	66.5	42.9	45	No	56.2	45	**Yes**	13.3	**Yes**	1.5	**Yes**	24.9	45	No	38.2	45	No	13.3	No	1.5	**Yes**
84	Residential	City	LT-3	66.5	41.8	45	No	56.2	45	**Yes**	14.4	**Yes**	1.5	**Yes**	23.8	45	No	38.2	45	No	14.4	No	1.5	**Yes**
85	Residential	City	LT-3	66.5	62.3	45	**Yes**	61.7	45	**Yes**	-0.6	Yes	1.5	No	44.3	45	No	43.7	45	No	-0.6	No	1.5	No
86	Residential	City	LT-3	66.5	42.3	45	No	51.7	45	**Yes**	9.4	**Yes**	1.5	**Yes**	24.3	45	No	33.7	45	No	9.4	No	1.5	**Yes**
87	Residential	City	LT-3	66.5	40.6	45	No	54.4	45	**Yes**	13.8	**Yes**	1.5	**Yes**	22.6	45	No	36.4	45	No	13.8	No	1.5	**Yes**
88	Residential	City	LT-3	66.5	41.1	45	No	55.5	45	**Yes**	14.4	**Yes**	1.5	**Yes**	23.1	45	No	37.5	45	No	14.4	No	1.5	**Yes**
89	Residential	City	LT-3	66.5	41.1	45	No	56.1	45	**Yes**	15.0	**Yes**	1.5	**Yes**	23.1	45	No	38.1	45	No	15.0	No	1.5	**Yes**
90	Residential	City	LT-3	66.5	40.7	45	No	57.9	45	**Yes**	17.2	**Yes**	1.5	**Yes**	22.7	45	No	39.9	45	No	17.2	No	1.5	**Yes**

Interim Year 2033 Absolute Interior Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	55.0	45	**Yes**	53.8	45	**Yes**	-1.2	**Yes**	1.5	No	37.0	45	No	35.8	45	No	-1.2	No	1.5	No
2	Residential	County	LT-3	66.5	54.0	45	**Yes**	53.6	45	**Yes**	-0.4	**Yes**	1.5	No	36.0	45	No	35.6	45	No	-0.4	No	1.5	No
3	Residential	County	LT-3	66.5	55.1	45	**Yes**	53.2	45	**Yes**	-1.9	**Yes**	1.5	No	37.1	45	No	35.2	45	No	-1.9	No	1.5	No
4	Residential	City	LT-3	66.5	52.6	45	**Yes**	53.0	45	**Yes**	0.4	**Yes**	1.5	**No**	34.6	45	No	35.0	45	No	0.4	No	1.5	**No**
5	Residential	City	LT-3	66.5	54.3	45	**Yes**	55.0	45	**Yes**	0.7	**Yes**	1.5	**No**	36.3	45	No	37.0	45	No	0.7	No	1.5	**No**
6	Residential	City	LT-5	58.1	48.6	45	**Yes**	53.2	45	**Yes**	4.6	**Yes**	5.0	**No**	30.6	45	No	35.2	45	No	4.6	No	5.0	**No**
7	Residential	City	LT-5	58.1	57.7	45	**Yes**	57.5	45	**Yes**	-0.2	**Yes**	5.0	No	39.7	45	No	39.5	45	No	-0.2	No	5.0	No
8	Residential	County	LT-5	58.1	60.5	45	**Yes**	59.5	45	**Yes**	-1.0	**Yes**	5.0	No	42.5	45	No	41.5	45	No	-1.0	No	5.0	No
9	Residential	County	LT-5	58.1	61.9	45	**Yes**	60.9	45	**Yes**	-1.0	**Yes**	5.0	No	43.9	45	No	42.9	45	No	-1.0	No	5.0	No
10	Residential	County	LT-5	58.1	62.2	45	**Yes**	61.3	45	**Yes**	-0.9	**Yes**	5.0	No	44.2	45	No	43.3	45	No	-0.9	No	5.0	No
11	Residential	County	LT-5	58.1	62.5	45	**Yes**	61.6	45	**Yes**	-0.9	**Yes**	5.0	No	44.5	45	No	43.6	45	No	-0.9	No	5.0	No
12	Residential	County	LT-5	58.1	62.9	45	**Yes**	61.9	45	**Yes**	-1.0	**Yes**	5.0	No	44.9	45	No	43.9	45	No	-1.0	No	5.0	No
13	Residential	County	LT-5	58.1	63.3	45	**Yes**	62.3	45	**Yes**	-1.0	**Yes**	5.0	No	45.3	45	Yes	44.3	45	No	-1.0	No	5.0	No
14	Residential	County	LT-5	58.1	66.3	45	**Yes**	65.1	45	**Yes**	-1.2	**Yes**	5.0	No	48.3	45	**Yes**	47.1	45	**Yes**	-1.2	**Yes**	5.0	No
15	Residential	County	LT-5	58.1	68.1	45	**Yes**	66.8	45	**Yes**	-1.3	**Yes**	5.0	No	50.1	45	**Yes**	48.8	45	**Yes**	-1.3	**Yes**	5.0	No
16	Residential	County	LT-5	58.1	66.0	45	**Yes**	64.6	45	**Yes**	-1.4	**Yes**	5.0	No	48.0	45	**Yes**	46.6	45	**Yes**	-1.4	**Yes**	5.0	No
17	Residential	County	LT-5	58.1	66.0	45	**Yes**	64.6	45	**Yes**	-1.4	**Yes**	5.0	No	48.0	45	**Yes**	46.6	45	**Yes**	-1.4	**Yes**	5.0	No
18	Residential	County	LT-5	58.1	64.1	45	**Yes**	62.9	45	**Yes**	-1.2	**Yes**	5.0	No	46.1	45	**Yes**	44.9	45	No	-1.2	No	5.0	No
19	Residential	County	LT-5	58.1	64.7	45	**Yes**	63.5	45	**Yes**	-1.2	**Yes**	5.0	No	46.7	45	**Yes**	45.5	45	**Yes**	-1.2	**Yes**	5.0	No
20	Residential	County	LT-5	58.1	64.9	45	**Yes**	63.7	45	**Yes**	-1.2	**Yes**	5.0	No	46.9	45	**Yes**	45.7	45	**Yes**	-1.2	**Yes**	5.0	No
21	Residential	County	LT-5	58.1	65.8	45	**Yes**	64.6	45	**Yes**	-1.2	**Yes**	5.0	No	47.8	45	**Yes**	46.6	45	**Yes**	-1.2	**Yes**	5.0	No
22	Residential	County	LT-5	58.1	65.6	45	**Yes**	64.4	45	**Yes**	-1.2	**Yes**	5.0	No	47.6	45	**Yes**	46.4	45	**Yes**	-1.2	**Yes**	5.0	No
23	Residential	County	LT-5	58.1	65.2	45	**Yes**	64.0	45	**Yes**	-1.2	**Yes**	5.0	No	47.2	45	**Yes**	46.0	45	**Yes**	-1.2	**Yes**	5.0	No
24	Residential	County	LT-5	58.1	66.7	45	**Yes**	65.4	45	**Yes**	-1.3	**Yes**	5.0	No	48.7	45	**Yes**	47.4	45	**Yes**	-1.3	**Yes**	5.0	No
25	Residential	County	LT-5	58.1	66.7	45	**Yes**	65.5	45	**Yes**	-1.2	**Yes**	5.0	No	48.7	45	**Yes**	47.5	45	**Yes**	-1.2	**Yes**	5.0	No
26	Residential	County	LT-5	58.1	66.8	45	**Yes**	65.6	45	**Yes**	-1.2	**Yes**	5.0	No	48.8	45	**Yes**	47.6	45	**Yes**	-1.2	**Yes**	5.0	No
27	Residential	County	LT-5	58.1	66.5	45	**Yes**	65.2	45	**Yes**	-1.3	**Yes**	5.0	No	48.5	45	**Yes**	47.2	45	**Yes**	-1.3	**Yes**	5.0	No
28	Residential	County	LT-5	58.1	67.6	45	**Yes**	66.3	45	**Yes**	-1.3	**Yes**	5.0	No	49.6	45	**Yes**	48.3	45	**Yes**	-1.3	**Yes**	5.0	No
29	Residential	County	LT-4	66.1	64.4	45	**Yes**	63.8	45	**Yes**	-0.6	**Yes**	1.5	No	46.4	45	**Yes**	45.8	45	**Yes**	-0.6	**Yes**	1.5	No
30	Residential	County	LT-4	66.1	69.0	45	**Yes**	68.8	45	**Yes**	-0.2	**Yes**	1.5	No	51.0	45	**Yes**	50.8	45	**Yes**	-0.2	**Yes**	1.5	No
31	Residential	County	LT-4	66.1	68.9	45	**Yes**	68.7	45	**Yes**	-0.2	**Yes**	1.5	No	50.9	45	**Yes**	50.7	45	**Yes**	-0.2	**Yes**	1.5	No
32	Residential	County	LT-4	66.1	68.9	45	**Yes**	68.6	45	**Yes**	-0.3	**Yes**	1.5	No	50.9	45	**Yes**	50.6	45	**Yes**	-0.3	**Yes**	1.5	No
33	Residential	County	LT-4	66.1	66.4	45	**Yes**	65.9	45	**Yes**	-0.5	**Yes**	1.5	No	48.4	45	**Yes**	47.9	45	**Yes**	-0.5	**Yes**	1.5	No
34	Residential	County	LT-4	66.1	66.4	45	**Yes**	65.9	45	**Yes**	-0.5	**Yes**	1.5	No	48.4	45	**Yes**	47.9	45	**Yes**	-0.5	**Yes**	1.5	No
35	Residential	County	LT-4	66.1	66.5	45	**Yes**	66.0	45	**Yes**	-0.5	**Yes**	1.5	No	48.5	45	**Yes**	48.0	45	**Yes**	-0.5	**Yes**	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	69.1	-	No	68.8	-	No	-0.3	No	5.0	No	51.1	-	No	50.8	-	No	-0.3	No	5.0	No
37	Residential	County	LT-4	66.1	65.2	45	**Yes**	64.6	45	**Yes**	-0.6	**Yes**	1.5	No	47.2	45	**Yes**	46.6	45	**Yes**	-0.6	**Yes**	1.5	No
38	Residential	County	LT-4	66.1	64.8	45	**Yes**	64.2	45	**Yes**	-0.6	**Yes**	1.5	No	46.8	45	**Yes**	46.2	45	**Yes**	-0.6	**Yes**	1.5	No
39	Residential	County	LT-4	66.1	67.2	45	**Yes**	66.8	45	**Yes**	-0.4	**Yes**	1.5	No	49.2	45	**Yes**	48.8	45	**Yes**	-0.4	**Yes**	1.5	No
40	Residential	County	LT-4	66.1	67.0	45	**Yes**	66.7	45	**Yes**	-0.3	**Yes**	1.5	No	49.0	45	**Yes**	48.7	45	**Yes**	-0.3	**Yes**	1.5	No
41	Residential	County	LT-4	66.1	62.1	45	**Yes**	61.7	45	**Yes**	-0.4	**Yes**	1.5	No	44.1	45	No	43.7	45	No	-0.4	No	1.5	No
42	Residential	County	LT-4	66.1	61.4	45	**Yes**	61.0	45	**Yes**	-0.4	**Yes**	1.5	No	43.4	45	No	43.0	45	No	-0.4	No	1.5	No
43	Residential	County	LT-4	66.1	60.8	45	**Yes**	60.4	45	**Yes**	-0.4	**Yes**	1.5	No	42.8	45	No	42.4	45	No	-0.4	No	1.5	No
44	Residential	County	LT-4	66.1	60.2	45	**Yes**	59.9	45	**Yes**	-0.3	**Yes**	1.5	No	42.2	45	No	41.9	45	No	-0.3	No	1.5	No
45	Residential	County	LT-4	66.1	60.9	45	**Yes**	60.5	45	**Yes**	-0.4	**Yes**	1.5	No	42.9	45	No	42.5	45	No	-0.4	No	1.5	No
46	Residential	County	LT-4	66.1	60.1	45	**Yes**	59.8	45	**Yes**	-0.3	**Yes**	1.5	No	42.1	45	No	41.8	45	No	-0.3	No	1.5	No
47	Residential	County	LT-4	66.1	59.4	45	**Yes**	59.2	45	**Yes**	-0.2	**Yes**	1.5	No	41.4	45	No	41.2	45	No	-0.2	No	1.5	No
48	Residential	County	LT-4	66.1	59.0	45	**Yes**	59.0	45	**Yes**	0.0	**Yes**	1.5	No	41.0	45	No	41.0	45	No	0.0	No	1.5	No
49	Residential	County	LT-4	66.1	57.8	45	**Yes**	58.0	45	**Yes**	0.2	**Yes**	1.5	No	39.8	45	No	40.0	45	No	0.2	No	1.5	No
50	Residential	County	LT-4	66.1	57.5	45	**Yes**	57.8	45	**Yes**	0.3	**Yes**	1.5	No	39.5	45	No	39.8	45	No	0.3	No	1.5	No
51	Residential	County	LT-4	66.1	57.2	45	**Yes**	57.8	45	**Yes**	0.6	**Yes**	1.5	No	39.2	45	No	39.8	45	No	0.6	No	1.5	No
52	Residential	County	LT-1	61.2	51.2	45	**Yes**	50.2	45	**Yes**	-1.0	**Yes**	3.0	No	33.2	45	No	32.2	45	No	-1.0	No	3.0	No
53	Residential	County	LT-1	61.2	50.4	45	**Yes**	50.4	45	**Yes**	0.0	**Yes**	3.0	No	32.4	45	No	32.4	45	No	0.0	No	3.0	No

Interim Year 2033 Absolute Interior Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
54	Residential	County	LT-2	77.2	62.4	45	**Yes**	61.1	45	**Yes**	-1.3	**Yes**	1.5	No	44.4	45	No	43.1	45	No	-1.3	No	1.5	No
55	Residential	County	LT-2	77.2	66.7	45	**Yes**	65.2	45	**Yes**	-1.5	**Yes**	1.5	No	48.7	45	**Yes**	47.2	45	**Yes**	-1.5	**Yes**	1.5	No
56	Residential	County	LT-2	77.2	67.9	45	**Yes**	64.4	45	**Yes**	-3.5	**Yes**	1.5	No	49.9	45	**Yes**	46.4	45	**Yes**	-3.5	**Yes**	1.5	No
57	Residential	County	LT-2	77.2	67.2	45	**Yes**	62.7	45	**Yes**	-4.5	**Yes**	1.5	No	49.2	45	**Yes**	44.7	45	No	-4.5	No	1.5	No
58	Residential	County	LT-2	77.2	67.9	45	**Yes**	63.0	45	**Yes**	-4.9	**Yes**	1.5	No	49.9	45	**Yes**	45.0	45	No	-4.9	No	1.5	No
59	Residential	County	LT-2	77.2	66.8	45	**Yes**	61.9	45	**Yes**	-4.9	**Yes**	1.5	No	48.8	45	**Yes**	43.9	45	No	-4.9	No	1.5	No
60	Residential	County	LT-2	77.2	65.0	45	**Yes**	60.1	45	**Yes**	-4.9	**Yes**	1.5	No	47.0	45	**Yes**	42.1	45	No	-4.9	No	1.5	No
61	Residential	County	LT-2	77.2	69.5	45	**Yes**	64.5	45	**Yes**	-5.0	**Yes**	1.5	No	51.5	45	**Yes**	46.5	45	**Yes**	-5.0	**Yes**	1.5	No
62	Residential	County	LT-2	77.2	70.8	45	**Yes**	65.7	45	**Yes**	-5.1	**Yes**	1.5	No	52.8	45	**Yes**	47.7	45	**Yes**	-5.1	**Yes**	1.5	No
63	Residential	County	LT-2	77.2	65.0	45	**Yes**	60.1	45	**Yes**	-4.9	**Yes**	1.5	No	47.0	45	**Yes**	42.1	45	No	-4.9	No	1.5	No
64	Residential	County	LT-2	77.2	66.8	45	**Yes**	61.9	45	**Yes**	-4.9	**Yes**	1.5	No	48.8	45	**Yes**	43.9	45	No	-4.9	No	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	60.7	45	**Yes**	59.7	45	**Yes**	-1.0	**Yes**	5.0	No	42.7	45	No	41.7	45	No	-1.0	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	57.0	-	No	56.5	-	No	-0.5	No	5.0	No	39.0	-	No	38.5	-	No	-0.5	No	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	58.3	45	**Yes**	57.7	45	**Yes**	-0.6	**Yes**	5.0	No	40.3	45	No	39.7	45	No	-0.6	No	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	54.1	45	**Yes**	53.9	45	**Yes**	-0.2	**Yes**	5.0	No	36.1	45	No	35.9	45	No	-0.2	No	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	52.0	45	**Yes**	52.2	45	**Yes**	0.2	**Yes**	3.0	No	34.0	45	No	34.2	45	No	0.2	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	49.6	45	**Yes**	51.0	45	**Yes**	1.4	**Yes**	3.0	No	31.6	45	No	33.0	45	No	1.4	No	3.0	No
71	Residential	County	LT-2	77.2	63.1	45	**Yes**	58.3	45	**Yes**	-4.8	**Yes**	1.5	No	45.1	45	Yes	40.3	45	No	-4.8	No	1.5	No
72	Residential	County	LT-2	77.2	62.7	45	**Yes**	58.0	45	**Yes**	-4.7	**Yes**	1.5	No	44.7	45	No	40.0	45	No	-4.7	No	1.5	No
73	Residential	County	LT-2	77.2	62.0	45	**Yes**	57.5	45	**Yes**	-4.5	**Yes**	1.5	No	44.0	45	No	39.5	45	No	-4.5	No	1.5	No
74	Residential	County	LT-2	77.2	68.5	45	**Yes**	64.1	45	**Yes**	-4.4	**Yes**	1.5	No	50.5	45	**Yes**	46.1	45	**Yes**	-4.4	**Yes**	1.5	No
75	Residential	County	LT-2	77.2	69.6	45	**Yes**	65.4	45	**Yes**	-4.2	**Yes**	1.5	No	51.6	45	**Yes**	47.4	45	**Yes**	-4.2	**Yes**	1.5	No
76	Residential	County	LT-2	77.2	74.3	45	**Yes**	74.1	45	**Yes**	-0.2	**Yes**	1.5	No	56.3	45	**Yes**	56.1	45	**Yes**	-0.2	**Yes**	1.5	No
77	Residential	County	LT-2	77.2	59.7	45	**Yes**	57.4	45	**Yes**	-2.3	**Yes**	1.5	No	41.7	45	No	39.4	45	No	-2.3	No	1.5	No
78	Residential	County	LT-2	77.2	57.5	45	**Yes**	57.3	45	**Yes**	-0.2	**Yes**	1.5	No	39.5	45	No	39.3	45	No	-0.2	No	1.5	No
79	Residential	County	LT-2	77.2	62.7	45	**Yes**	62.6	45	**Yes**	-0.1	**Yes**	1.5	No	44.7	45	No	44.6	45	No	-0.1	No	1.5	No
80	Residential	County	LT-2	77.2	63.4	45	**Yes**	63.4	45	**Yes**	0.0	**Yes**	1.5	No	45.4	45	**Yes**	45.4	45	**Yes**	0.0	**Yes**	1.5	No
81	Residential	County	LT-2	77.2	59.2	45	**Yes**	59.2	45	**Yes**	0.0	**Yes**	1.5	No	41.2	45	No	41.2	45	No	0.0	No	1.5	No
82	Residential	County	LT-2	77.2	62.4	45	**Yes**	62.4	45	**Yes**	0.0	**Yes**	1.5	No	44.4	45	No	44.4	45	No	0.0	No	1.5	No
83	Residential	City	LT-3	66.5	42.9	45	No	54.0	45	**Yes**	11.1	**Yes**	1.5	**Yes**	24.9	45	No	36.0	45	No	11.1	No	1.5	**Yes**
84	Residential	City	LT-3	66.5	41.8	45	No	54.1	45	**Yes**	12.3	**Yes**	1.5	**Yes**	23.8	45	No	36.1	45	No	12.3	No	1.5	**Yes**
85	Residential	City	LT-3	66.5	62.3	45	**Yes**	61.7	45	**Yes**	-0.6	Yes	1.5	No	44.3	45	No	43.7	45	No	-0.6	No	1.5	No
86	Residential	City	LT-3	66.5	42.3	45	No	50.9	45	**Yes**	8.6	**Yes**	1.5	**Yes**	24.3	45	No	32.9	45	No	8.6	No	1.5	**Yes**
87	Residential	City	LT-3	66.5	40.6	45	No	52.5	45	**Yes**	11.9	**Yes**	1.5	**Yes**	22.6	45	No	34.5	45	No	11.9	No	1.5	**Yes**
88	Residential	City	LT-3	66.5	41.1	45	No	53.2	45	**Yes**	12.1	**Yes**	1.5	**Yes**	23.1	45	No	35.2	45	No	12.1	No	1.5	**Yes**
89	Residential	City	LT-3	66.5	41.1	45	No	53.3	45	**Yes**	12.2	**Yes**	1.5	**Yes**	23.1	45	No	35.3	45	No	12.2	No	1.5	**Yes**
90	Residential	City	LT-3	66.5	40.7	45	No	54.6	45	**Yes**	13.9	**Yes**	1.5	**Yes**	22.7	45	No	36.6	45	No	13.9	No	1.5	**Yes**

Horizon Year 2048 Absolute Interior Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	56.0	45	**Yes**	58.1	45	**Yes**	2.1	**Yes**	1.5	**Yes**	38.0	45	No	40.1	45	No	2.1	No	1.5	**Yes**
2	Residential	County	LT-3	66.5	54.9	45	**Yes**	55.8	45	**Yes**	0.9	**Yes**	1.5	No	36.9	45	No	37.8	45	No	0.9	No	1.5	**No**
3	Residential	County	LT-3	66.5	56.1	45	**Yes**	56.2	45	**Yes**	0.1	**Yes**	1.5	No	38.1	45	No	38.2	45	No	0.1	No	1.5	No
4	Residential	City	LT-3	66.5	53.6	45	**Yes**	55.8	45	**Yes**	2.2	**Yes**	1.5	**Yes**	35.6	45	No	37.8	45	No	2.2	No	1.5	**Yes**
5	Residential	City	LT-3	66.5	55.3	45	**Yes**	60.4	45	**Yes**	5.1	**Yes**	1.5	**Yes**	37.3	45	No	42.4	45	No	5.1	No	1.5	**Yes**
6	Residential	City	LT-5	58.1	49.6	45	**Yes**	56.1	45	**Yes**	6.5	**Yes**	5.0	**Yes**	31.6	45	No	38.1	45	No	6.5	No	5.0	**Yes**
7	Residential	City	LT-5	58.1	58.7	45	**Yes**	58.9	45	**Yes**	0.2	**Yes**	5.0	No	40.7	45	No	40.9	45	No	0.2	No	5.0	No
8	Residential	County	LT-5	58.1	61.5	45	**Yes**	60.7	45	**Yes**	-0.8	**Yes**	5.0	No	43.5	45	No	42.7	45	No	-0.8	No	5.0	No
9	Residential	County	LT-5	58.1	62.9	45	**Yes**	62.1	45	**Yes**	-0.8	**Yes**	5.0	No	44.9	45	No	44.1	45	No	-0.8	No	5.0	No
10	Residential	County	LT-5	58.1	63.2	45	**Yes**	62.4	45	**Yes**	-0.8	**Yes**	5.0	No	45.2	45	Yes	44.4	45	No	-0.8	No	5.0	No
11	Residential	County	LT-5	58.1	63.5	45	**Yes**	62.8	45	**Yes**	-0.7	**Yes**	5.0	No	45.5	45	Yes	44.8	45	No	-0.7	No	5.0	No
12	Residential	County	LT-5	58.1	63.9	45	**Yes**	63.1	45	**Yes**	-0.8	**Yes**	5.0	No	45.9	45	Yes	45.1	45	Yes	-0.8	Yes	5.0	No
13	Residential	County	LT-5	58.1	64.3	45	**Yes**	63.5	45	**Yes**	-0.8	**Yes**	5.0	No	46.3	45	Yes	45.5	45	Yes	-0.8	Yes	5.0	No
14	Residential	County	LT-5	58.1	67.3	45	**Yes**	66.2	45	**Yes**	-1.1	**Yes**	5.0	No	49.3	45	**Yes**	48.2	45	**Yes**	-1.1	**Yes**	5.0	No
15	Residential	County	LT-5	58.1	69.1	45	**Yes**	68.0	45	**Yes**	-1.1	**Yes**	5.0	No	51.1	45	**Yes**	50.0	45	**Yes**	-1.1	**Yes**	5.0	No
16	Residential	County	LT-5	58.1	67.0	45	**Yes**	65.7	45	**Yes**	-1.3	**Yes**	5.0	No	49.0	45	**Yes**	47.7	45	**Yes**	-1.3	**Yes**	5.0	No
17	Residential	County	LT-5	58.1	67.0	45	**Yes**	65.8	45	**Yes**	-1.2	**Yes**	5.0	No	49.0	45	**Yes**	47.8	45	**Yes**	-1.2	**Yes**	5.0	No
18	Residential	County	LT-5	58.1	65.1	45	**Yes**	64.1	45	**Yes**	-1.0	**Yes**	5.0	No	47.1	45	**Yes**	46.1	45	Yes	-1.0	Yes	5.0	No
19	Residential	County	LT-5	58.1	65.7	45	**Yes**	64.7	45	**Yes**	-1.0	**Yes**	5.0	No	47.7	45	**Yes**	46.7	45	**Yes**	-1.0	**Yes**	5.0	No
20	Residential	County	LT-5	58.1	65.9	45	**Yes**	64.9	45	**Yes**	-1.0	**Yes**	5.0	No	47.9	45	**Yes**	46.9	45	**Yes**	-1.0	**Yes**	5.0	No
21	Residential	County	LT-5	58.1	66.8	45	**Yes**	65.8	45	**Yes**	-1.0	**Yes**	5.0	No	48.8	45	**Yes**	47.8	45	**Yes**	-1.0	**Yes**	5.0	No
22	Residential	County	LT-5	58.1	66.5	45	**Yes**	65.5	45	**Yes**	-1.0	**Yes**	5.0	No	48.5	45	**Yes**	47.5	45	**Yes**	-1.0	**Yes**	5.0	No
23	Residential	County	LT-5	58.1	66.1	45	**Yes**	65.1	45	**Yes**	-1.0	**Yes**	5.0	No	48.1	45	**Yes**	47.1	45	**Yes**	-1.0	**Yes**	5.0	No
24	Residential	County	LT-5	58.1	67.6	45	**Yes**	66.6	45	**Yes**	-1.0	**Yes**	5.0	No	49.6	45	**Yes**	48.6	45	**Yes**	-1.0	**Yes**	5.0	No
25	Residential	County	LT-5	58.1	67.7	45	**Yes**	66.6	45	**Yes**	-1.1	**Yes**	5.0	No	49.7	45	**Yes**	48.6	45	**Yes**	-1.1	**Yes**	5.0	No
26	Residential	County	LT-5	58.1	67.8	45	**Yes**	66.7	45	**Yes**	-1.1	**Yes**	5.0	No	49.8	45	**Yes**	48.7	45	**Yes**	-1.1	**Yes**	5.0	No
27	Residential	County	LT-5	58.1	67.5	45	**Yes**	66.4	45	**Yes**	-1.1	**Yes**	5.0	No	49.5	45	**Yes**	48.4	45	**Yes**	-1.1	**Yes**	5.0	No
28	Residential	County	LT-5	58.1	68.6	45	**Yes**	67.4	45	**Yes**	-1.2	**Yes**	5.0	No	50.6	45	**Yes**	49.4	45	**Yes**	-1.2	**Yes**	5.0	No
29	Residential	County	LT-4	66.1	65.4	45	**Yes**	64.9	45	**Yes**	-0.5	**Yes**	1.5	No	47.4	45	**Yes**	46.9	45	**Yes**	-0.5	**Yes**	1.5	No
30	Residential	County	LT-4	66.1	69.9	45	**Yes**	70.0	45	**Yes**	0.1	**Yes**	1.5	No	51.9	45	**Yes**	52.0	45	**Yes**	0.1	**Yes**	1.5	No
31	Residential	County	LT-4	66.1	69.9	45	**Yes**	69.8	45	**Yes**	-0.1	**Yes**	1.5	No	51.9	45	**Yes**	51.8	45	**Yes**	-0.1	**Yes**	1.5	No
32	Residential	County	LT-4	66.1	69.8	45	**Yes**	69.7	45	**Yes**	-0.1	**Yes**	1.5	No	51.8	45	**Yes**	51.7	45	**Yes**	-0.1	**Yes**	1.5	No
33	Residential	County	LT-4	66.1	67.3	45	**Yes**	67.0	45	**Yes**	-0.3	**Yes**	1.5	No	49.3	45	**Yes**	49.0	45	**Yes**	-0.3	**Yes**	1.5	No
34	Residential	County	LT-4	66.1	67.4	45	**Yes**	67.1	45	**Yes**	-0.3	**Yes**	1.5	No	49.4	45	**Yes**	49.1	45	**Yes**	-0.3	**Yes**	1.5	No
35	Residential	County	LT-4	66.1	67.5	45	**Yes**	67.2	45	**Yes**	-0.3	**Yes**	1.5	No	49.5	45	**Yes**	49.2	45	**Yes**	-0.3	**Yes**	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	70.1	-	No	70.0	-	No	-0.1	No	5.0	No	52.1	-	No	52.0	-	No	-0.1	No	5.0	No
37	Residential	County	LT-4	66.1	66.2	45	**Yes**	65.8	45	**Yes**	-0.4	**Yes**	1.5	No	48.2	45	**Yes**	47.8	45	**Yes**	-0.4	**Yes**	1.5	No
38	Residential	County	LT-4	66.1	65.7	45	**Yes**	65.3	45	**Yes**	-0.4	**Yes**	1.5	No	47.7	45	**Yes**	47.3	45	**Yes**	-0.4	**Yes**	1.5	No
39	Residential	County	LT-4	66.1	68.2	45	**Yes**	67.9	45	**Yes**	-0.3	**Yes**	1.5	No	50.2	45	**Yes**	49.9	45	**Yes**	-0.3	**Yes**	1.5	No
40	Residential	County	LT-4	66.1	67.9	45	**Yes**	67.8	45	**Yes**	-0.1	**Yes**	1.5	No	49.9	45	**Yes**	49.8	45	**Yes**	-0.1	**Yes**	1.5	No
41	Residential	County	LT-4	66.1	63.1	45	**Yes**	62.8	45	**Yes**	-0.3	**Yes**	1.5	No	45.1	45	Yes	44.8	45	No	-0.3	No	1.5	No
42	Residential	County	LT-4	66.1	62.4	45	**Yes**	62.1	45	**Yes**	-0.3	**Yes**	1.5	No	44.4	45	No	44.1	45	No	-0.3	No	1.5	No
43	Residential	County	LT-4	66.1	61.7	45	**Yes**	61.5	45	**Yes**	-0.2	**Yes**	1.5	No	43.7	45	No	43.5	45	No	-0.2	No	1.5	No
44	Residential	County	LT-4	66.1	61.2	45	**Yes**	60.9	45	**Yes**	-0.3	**Yes**	1.5	No	43.2	45	No	42.9	45	No	-0.3	No	1.5	No
45	Residential	County	LT-4	66.1	61.9	45	**Yes**	61.6	45	**Yes**	-0.3	**Yes**	1.5	No	43.9	45	No	43.6	45	No	-0.3	No	1.5	No
46	Residential	County	LT-4	66.1	61.1	45	**Yes**	60.9	45	**Yes**	-0.2	**Yes**	1.5	No	43.1	45	No	42.9	45	No	-0.2	No	1.5	No
47	Residential	County	LT-4	66.1	60.4	45	**Yes**	60.2	45	**Yes**	-0.2	**Yes**	1.5	No	42.4	45	No	42.2	45	No	-0.2	No	1.5	No
48	Residential	County	LT-4	66.1	60.0	45	**Yes**	60.0	45	**Yes**	0.0	**Yes**	1.5	No	42.0	45	No	42.0	45	No	0.0	No	1.5	No
49	Residential	County	LT-4	66.1	58.8	45	**Yes**	58.9	45	**Yes**	0.1	**Yes**	1.5	No	40.8	45	No	40.9	45	No	0.1	No	1.5	No
50	Residential	County	LT-4	66.1	58.5	45	**Yes**	58.7	45	**Yes**	0.2	**Yes**	1.5	No	40.5	45	No	40.7	45	No	0.2	No	1.5	No
51	Residential	County	LT-4	66.1	58.2	45	**Yes**	58.6	45	**Yes**	0.4	**Yes**	1.5	No	40.2	45	No	40.6	45	No	0.4	No	1.5	No
52	Residential	County	LT-1	61.2	52.2	45	**Yes**	50.5	45	**Yes**	-1.7	**Yes**	3.0	No	34.2	45	No	32.5	45	No	-1.7	No	3.0	No
53	Residential	County	LT-1	61.2	51.4	45	**Yes**	50.7	45	**Yes**	-0.7	**Yes**	3.0	No	33.4	45	No	32.7	45	No	-0.7	No	3.0	No

Horizon Year 2048 Absolute Interior Noise Impact Analysis - Without Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
54	Residential	County	LT-2	77.2	63.3	45	**Yes**	62.4	45	**Yes**	-0.9	**Yes**	1.5	No	45.3	45	Yes	44.4	45	No	-0.9	No	1.5	No
55	Residential	County	LT-2	77.2	67.7	45	**Yes**	66.5	45	**Yes**	-1.2	**Yes**	1.5	No	49.7	45	**Yes**	48.5	45	**Yes**	-1.2	**Yes**	1.5	No
56	Residential	County	LT-2	77.2	68.9	45	**Yes**	65.5	45	**Yes**	-3.4	**Yes**	1.5	No	50.9	45	**Yes**	47.5	45	**Yes**	-3.4	**Yes**	1.5	No
57	Residential	County	LT-2	77.2	68.2	45	**Yes**	63.6	45	**Yes**	-4.6	**Yes**	1.5	No	50.2	45	**Yes**	45.6	45	Yes	-4.6	Yes	1.5	No
58	Residential	County	LT-2	77.2	68.9	45	**Yes**	63.9	45	**Yes**	-5.0	**Yes**	1.5	No	50.9	45	**Yes**	45.9	45	Yes	-5.0	Yes	1.5	No
59	Residential	County	LT-2	77.2	67.8	45	**Yes**	62.8	45	**Yes**	-5.0	**Yes**	1.5	No	49.8	45	**Yes**	44.8	45	No	-5.0	No	1.5	No
60	Residential	County	LT-2	77.2	66.0	45	**Yes**	61.0	45	**Yes**	-5.0	**Yes**	1.5	No	48.0	45	**Yes**	43.0	45	No	-5.0	No	1.5	No
61	Residential	County	LT-2	77.2	70.5	45	**Yes**	65.4	45	**Yes**	-5.1	**Yes**	1.5	No	52.5	45	**Yes**	47.4	45	**Yes**	-5.1	**Yes**	1.5	No
62	Residential	County	LT-2	77.2	71.7	45	**Yes**	66.6	45	**Yes**	-5.1	**Yes**	1.5	No	53.7	45	**Yes**	48.6	45	**Yes**	-5.1	**Yes**	1.5	No
63	Residential	County	LT-2	77.2	65.9	45	**Yes**	61.0	45	**Yes**	-4.9	**Yes**	1.5	No	47.9	45	**Yes**	43.0	45	No	-4.9	No	1.5	No
64	Residential	County	LT-2	77.2	67.8	45	**Yes**	62.8	45	**Yes**	-5.0	**Yes**	1.5	No	49.8	45	**Yes**	44.8	45	No	-5.0	No	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	61.6	45	**Yes**	60.8	45	**Yes**	-0.8	**Yes**	5.0	No	43.6	45	No	42.8	45	No	-0.8	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	58.0	-	No	57.5	-	No	-0.5	No	5.0	No	40.0	-	No	39.5	-	No	-0.5	No	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	59.3	45	**Yes**	58.8	45	**Yes**	-0.5	**Yes**	5.0	No	41.3	45	No	40.8	45	No	-0.5	No	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	55.1	45	**Yes**	55.0	45	**Yes**	-0.1	**Yes**	5.0	No	37.1	45	No	37.0	45	No	-0.1	No	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	53.0	45	**Yes**	53.1	45	**Yes**	0.1	**Yes**	3.0	No	35.0	45	No	35.1	45	No	0.1	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	50.6	45	**Yes**	51.8	45	**Yes**	1.2	**Yes**	3.0	No	32.6	45	No	33.8	45	No	1.2	No	3.0	No
71	Residential	County	LT-2	77.2	64.0	45	**Yes**	59.3	45	**Yes**	-4.7	**Yes**	1.5	No	46.0	45	Yes	41.3	45	No	-4.7	No	1.5	No
72	Residential	County	LT-2	77.2	63.6	45	**Yes**	58.9	45	**Yes**	-4.7	**Yes**	1.5	No	45.6	45	Yes	40.9	45	No	-4.7	No	1.5	No
73	Residential	County	LT-2	77.2	63.0	45	**Yes**	58.4	45	**Yes**	-4.6	**Yes**	1.5	No	45.0	45	No	40.4	45	No	-4.6	No	1.5	No
74	Residential	County	LT-2	77.2	69.5	45	**Yes**	65.0	45	**Yes**	-4.5	**Yes**	1.5	No	51.5	45	**Yes**	47.0	45	**Yes**	-4.5	**Yes**	1.5	No
75	Residential	County	LT-2	77.2	70.6	45	**Yes**	66.3	45	**Yes**	-4.3	**Yes**	1.5	No	52.6	45	**Yes**	48.3	45	**Yes**	-4.3	**Yes**	1.5	No
76	Residential	County	LT-2	77.2	75.3	45	**Yes**	75.1	45	**Yes**	-0.2	**Yes**	1.5	No	57.3	45	**Yes**	57.1	45	**Yes**	-0.2	**Yes**	1.5	No
77	Residential	County	LT-2	77.2	60.7	45	**Yes**	58.3	45	**Yes**	-2.4	**Yes**	1.5	No	42.7	45	No	40.3	45	No	-2.4	No	1.5	No
78	Residential	County	LT-2	77.2	58.5	45	**Yes**	58.3	45	**Yes**	-0.2	**Yes**	1.5	No	40.5	45	No	40.3	45	No	-0.2	No	1.5	No
79	Residential	County	LT-2	77.2	63.6	45	**Yes**	63.6	45	**Yes**	0.0	**Yes**	1.5	No	45.6	45	Yes	45.6	45	Yes	0.0	Yes	1.5	No
80	Residential	County	LT-2	77.2	64.4	45	**Yes**	64.4	45	**Yes**	0.0	**Yes**	1.5	No	46.4	45	**Yes**	46.4	45	**Yes**	0.0	**Yes**	1.5	No
81	Residential	County	LT-2	77.2	60.2	45	**Yes**	60.2	45	**Yes**	0.0	**Yes**	1.5	No	42.2	45	No	42.2	45	No	0.0	No	1.5	No
82	Residential	County	LT-2	77.2	63.4	45	**Yes**	63.4	45	**Yes**	0.0	**Yes**	1.5	No	45.4	45	Yes	45.4	45	Yes	0.0	Yes	1.5	No
83	Residential	City	LT-3	66.5	43.8	45	No	56.2	45	**Yes**	12.4	**Yes**	1.5	**Yes**	25.8	45	No	38.2	45	No	12.4	No	1.5	**Yes**
84	Residential	City	LT-3	66.5	42.8	45	No	56.2	45	**Yes**	13.4	**Yes**	1.5	**Yes**	24.8	45	No	38.2	45	No	13.4	No	1.5	**Yes**
85	Residential	City	LT-3	66.5	63.3	45	**Yes**	62.8	45	**Yes**	-0.5	Yes	1.5	No	45.3	45	Yes	44.8	45	No	-0.5	No	1.5	No
86	Residential	City	LT-3	66.5	43.3	45	No	51.8	45	**Yes**	8.5	**Yes**	1.5	**Yes**	25.3	45	No	33.8	45	No	8.5	No	1.5	**Yes**
87	Residential	City	LT-3	66.5	41.5	45	No	54.5	45	**Yes**	13.0	**Yes**	1.5	**Yes**	23.5	45	No	36.5	45	No	13.0	No	1.5	**Yes**
88	Residential	City	LT-3	66.5	42.1	45	No	55.6	45	**Yes**	13.5	**Yes**	1.5	**Yes**	24.1	45	No	37.6	45	No	13.5	No	1.5	**Yes**
89	Residential	City	LT-3	66.5	42.1	45	No	56.1	45	**Yes**	14.0	**Yes**	1.5	**Yes**	24.1	45	No	38.1	45	No	14.0	No	1.5	**Yes**
90	Residential	City	LT-3	66.5	41.7	45	No	57.9	45	**Yes**	16.2	**Yes**	1.5	**Yes**	23.7	45	No	39.9	45	No	16.2	No	1.5	**Yes**

Horizon Year 2048 Absolute Interior Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	56.0	45	**Yes**	54.2	45	**Yes**	-1.8	**Yes**	1.5	**No**	38.0	45	No	36.2	45	No	-1.8	No	1.5	No
2	Residential	County	LT-3	66.5	54.9	45	**Yes**	54.0	45	**Yes**	-0.9	**Yes**	1.5	No	36.9	45	No	36.0	45	No	-0.9	No	1.5	No
3	Residential	County	LT-3	66.5	56.1	45	**Yes**	53.6	45	**Yes**	-2.5	**Yes**	1.5	No	38.1	45	No	35.6	45	No	-2.5	No	1.5	No
4	Residential	City	LT-3	66.5	53.6	45	**Yes**	53.4	45	**Yes**	-0.2	**Yes**	1.5	**No**	35.6	45	No	35.4	45	No	-0.2	No	1.5	No
5	Residential	City	LT-3	66.5	55.3	45	**Yes**	54.9	45	**Yes**	-0.4	**Yes**	1.5	**No**	37.3	45	No	36.9	45	No	-0.4	No	1.5	No
6	Residential	City	LT-5	58.1	49.6	45	**Yes**	53.4	45	**Yes**	3.8	**Yes**	5.0	**No**	31.6	45	No	35.4	45	No	3.8	No	5.0	No
7	Residential	City	LT-5	58.1	58.7	45	**Yes**	58.3	45	**Yes**	-0.4	**Yes**	5.0	No	40.7	45	No	40.3	45	No	-0.4	No	5.0	No
8	Residential	County	LT-5	58.1	61.5	45	**Yes**	60.6	45	**Yes**	-0.9	**Yes**	5.0	No	43.5	45	No	42.6	45	No	-0.9	No	5.0	No
9	Residential	County	LT-5	58.1	62.9	45	**Yes**	62.0	45	**Yes**	-0.9	**Yes**	5.0	No	44.9	45	No	44.0	45	No	-0.9	No	5.0	No
10	Residential	County	LT-5	58.1	63.2	45	**Yes**	62.4	45	**Yes**	-0.8	**Yes**	5.0	No	45.2	45	**Yes**	44.4	45	No	-0.8	No	5.0	No
11	Residential	County	LT-5	58.1	63.5	45	**Yes**	62.7	45	**Yes**	-0.8	**Yes**	5.0	No	45.5	45	**Yes**	44.7	45	No	-0.8	No	5.0	No
12	Residential	County	LT-5	58.1	63.9	45	**Yes**	63.0	45	**Yes**	-0.9	**Yes**	5.0	No	45.9	45	**Yes**	45.0	45	No	-0.9	No	5.0	No
13	Residential	County	LT-5	58.1	64.3	45	**Yes**	63.4	45	**Yes**	-0.9	**Yes**	5.0	No	46.3	45	**Yes**	45.4	45	**Yes**	-0.9	**Yes**	5.0	No
14	Residential	County	LT-5	58.1	67.3	45	**Yes**	66.2	45	**Yes**	-1.1	**Yes**	5.0	No	49.3	45	**Yes**	48.2	45	**Yes**	-1.1	**Yes**	5.0	No
15	Residential	County	LT-5	58.1	69.1	45	**Yes**	68.0	45	**Yes**	-1.1	**Yes**	5.0	No	51.1	45	**Yes**	50.0	45	**Yes**	-1.1	**Yes**	5.0	No
16	Residential	County	LT-5	58.1	67.0	45	**Yes**	65.7	45	**Yes**	-1.3	**Yes**	5.0	No	49.0	45	**Yes**	47.7	45	**Yes**	-1.3	**Yes**	5.0	No
17	Residential	County	LT-5	58.1	67.0	45	**Yes**	65.8	45	**Yes**	-1.2	**Yes**	5.0	No	49.0	45	**Yes**	47.8	45	**Yes**	-1.2	**Yes**	5.0	No
18	Residential	County	LT-5	58.1	65.1	45	**Yes**	64.1	45	**Yes**	-1.0	**Yes**	5.0	No	47.1	45	**Yes**	46.1	45	Yes	-1.0	Yes	5.0	No
19	Residential	County	LT-5	58.1	65.7	45	**Yes**	64.7	45	**Yes**	-1.0	**Yes**	5.0	No	47.7	45	**Yes**	46.7	45	**Yes**	-1.0	**Yes**	5.0	No
20	Residential	County	LT-5	58.1	65.9	45	**Yes**	64.9	45	**Yes**	-1.0	**Yes**	5.0	No	47.9	45	**Yes**	46.9	45	**Yes**	-1.0	**Yes**	5.0	No
21	Residential	County	LT-5	58.1	66.8	45	**Yes**	65.8	45	**Yes**	-1.0	**Yes**	5.0	No	48.8	45	**Yes**	47.8	45	**Yes**	-1.0	**Yes**	5.0	No
22	Residential	County	LT-5	58.1	66.5	45	**Yes**	65.5	45	**Yes**	-1.0	**Yes**	5.0	No	48.5	45	**Yes**	47.5	45	**Yes**	-1.0	**Yes**	5.0	No
23	Residential	County	LT-5	58.1	66.1	45	**Yes**	65.1	45	**Yes**	-1.0	**Yes**	5.0	No	48.1	45	**Yes**	47.1	45	**Yes**	-1.0	**Yes**	5.0	No
24	Residential	County	LT-5	58.1	67.6	45	**Yes**	66.6	45	**Yes**	-1.0	**Yes**	5.0	No	49.6	45	**Yes**	48.6	45	**Yes**	-1.0	**Yes**	5.0	No
25	Residential	County	LT-5	58.1	67.7	45	**Yes**	66.6	45	**Yes**	-1.1	**Yes**	5.0	No	49.7	45	**Yes**	48.6	45	**Yes**	-1.1	**Yes**	5.0	No
26	Residential	County	LT-5	58.1	67.8	45	**Yes**	66.7	45	**Yes**	-1.1	**Yes**	5.0	No	49.8	45	**Yes**	48.7	45	**Yes**	-1.1	**Yes**	5.0	No
27	Residential	County	LT-5	58.1	67.5	45	**Yes**	66.4	45	**Yes**	-1.1	**Yes**	5.0	No	49.5	45	**Yes**	48.4	45	**Yes**	-1.1	**Yes**	5.0	No
28	Residential	County	LT-5	58.1	68.6	45	**Yes**	67.4	45	**Yes**	-1.2	**Yes**	5.0	No	50.6	45	**Yes**	49.4	45	**Yes**	-1.2	**Yes**	5.0	No
29	Residential	County	LT-4	66.1	65.4	45	**Yes**	64.9	45	**Yes**	-0.5	**Yes**	1.5	No	47.4	45	**Yes**	46.9	45	**Yes**	-0.5	**Yes**	1.5	No
30	Residential	County	LT-4	66.1	69.9	45	**Yes**	70.0	45	**Yes**	0.1	**Yes**	1.5	No	51.9	45	**Yes**	52.0	45	**Yes**	0.1	**Yes**	1.5	No
31	Residential	County	LT-4	66.1	69.9	45	**Yes**	69.8	45	**Yes**	-0.1	**Yes**	1.5	No	51.9	45	**Yes**	51.8	45	**Yes**	-0.1	**Yes**	1.5	No
32	Residential	County	LT-4	66.1	69.8	45	**Yes**	69.7	45	**Yes**	-0.1	**Yes**	1.5	No	51.8	45	**Yes**	51.7	45	**Yes**	-0.1	**Yes**	1.5	No
33	Residential	County	LT-4	66.1	67.3	45	**Yes**	67.0	45	**Yes**	-0.3	**Yes**	1.5	No	49.3	45	**Yes**	49.0	45	**Yes**	-0.3	**Yes**	1.5	No
34	Residential	County	LT-4	66.1	67.4	45	**Yes**	67.1	45	**Yes**	-0.3	**Yes**	1.5	No	49.4	45	**Yes**	49.1	45	**Yes**	-0.3	**Yes**	1.5	No
35	Residential	County	LT-4	66.1	67.5	45	**Yes**	67.2	45	**Yes**	-0.3	**Yes**	1.5	No	49.5	45	**Yes**	49.2	45	**Yes**	-0.3	**Yes**	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	70.1	-	No	70.0	-	No	-0.1	No	5.0	No	52.1	-	No	52.0	-	No	-0.1	No	5.0	No
37	Residential	County	LT-4	66.1	66.2	45	**Yes**	65.8	45	**Yes**	-0.4	**Yes**	1.5	No	48.2	45	**Yes**	47.8	45	**Yes**	-0.4	**Yes**	1.5	No
38	Residential	County	LT-4	66.1	65.7	45	**Yes**	65.3	45	**Yes**	-0.4	**Yes**	1.5	No	47.7	45	**Yes**	47.3	45	**Yes**	-0.4	**Yes**	1.5	No
39	Residential	County	LT-4	66.1	68.2	45	**Yes**	67.9	45	**Yes**	-0.3	**Yes**	1.5	No	50.2	45	**Yes**	49.9	45	**Yes**	-0.3	**Yes**	1.5	No
40	Residential	County	LT-4	66.1	67.9	45	**Yes**	67.8	45	**Yes**	-0.1	**Yes**	1.5	No	49.9	45	**Yes**	49.8	45	**Yes**	-0.1	**Yes**	1.5	No
41	Residential	County	LT-4	66.1	63.1	45	**Yes**	62.7	45	**Yes**	-0.4	**Yes**	1.5	No	45.1	45	**Yes**	44.7	45	No	-0.4	No	1.5	No
42	Residential	County	LT-4	66.1	62.4	45	**Yes**	62.1	45	**Yes**	-0.3	**Yes**	1.5	No	44.4	45	No	44.1	45	No	-0.3	No	1.5	No
43	Residential	County	LT-4	66.1	61.7	45	**Yes**	61.4	45	**Yes**	-0.3	**Yes**	1.5	No	43.7	45	No	43.4	45	No	-0.3	No	1.5	No
44	Residential	County	LT-4	66.1	61.2	45	**Yes**	60.9	45	**Yes**	-0.3	**Yes**	1.5	No	43.2	45	No	42.9	45	No	-0.3	No	1.5	No
45	Residential	County	LT-4	66.1	61.9	45	**Yes**	61.6	45	**Yes**	-0.3	**Yes**	1.5	No	43.9	45	No	43.6	45	No	-0.3	No	1.5	No
46	Residential	County	LT-4	66.1	61.1	45	**Yes**	60.8	45	**Yes**	-0.3	**Yes**	1.5	No	43.1	45	No	42.8	45	No	-0.3	No	1.5	No
47	Residential	County	LT-4	66.1	60.4	45	**Yes**	60.2	45	**Yes**	-0.2	**Yes**	1.5	No	42.4	45	No	42.2	45	No	-0.2	No	1.5	No
48	Residential	County	LT-4	66.1	60.0	45	**Yes**	59.9	45	**Yes**	-0.1	**Yes**	1.5	No	42.0	45	No	41.9	45	No	-0.1	No	1.5	No
49	Residential	County	LT-4	66.1	58.8	45	**Yes**	58.9	45	**Yes**	0.1	**Yes**	1.5	No	40.8	45	No	40.9	45	No	0.1	No	1.5	No
50	Residential	County	LT-4	66.1	58.5	45	**Yes**	58.7	45	**Yes**	0.2	**Yes**	1.5	No	40.5	45	No	40.7	45	No	0.2	No	1.5	No
51	Residential	County	LT-4	66.1	58.2	45	**Yes**	58.6	45	**Yes**	0.4	**Yes**	1.5	No	40.2	45	No	40.6	45	No	0.4	No	1.5	No
52	Residential	County	LT-1	61.2	52.2	45	**Yes**	50.5	45	**Yes**	-1.7	**Yes**	3.0	No	34.2	45	No	32.5	45	No	-1.7	No	3.0	No
53	Residential	County	LT-1	61.2	51.4	45	**Yes**	50.7	45	**Yes**	-0.7	**Yes**	3.0	No	33.4	45	No	32.7	45	No	-0.7	No	3.0	No

Horizon Year 2048 Absolute Interior Noise Impact Analysis - With Noise Barriers

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
54	Residential	County	LT-2	77.2	63.3	45	**Yes**	62.4	45	**Yes**	-0.9	**Yes**	1.5	No	45.3	45	Yes	44.4	45	No	-0.9	No	1.5	No
55	Residential	County	LT-2	77.2	67.7	45	**Yes**	66.5	45	**Yes**	-1.2	**Yes**	1.5	No	49.7	45	**Yes**	48.5	45	**Yes**	-1.2	**Yes**	1.5	No
56	Residential	County	LT-2	77.2	68.9	45	**Yes**	65.5	45	**Yes**	-3.4	**Yes**	1.5	No	50.9	45	**Yes**	47.5	45	**Yes**	-3.4	**Yes**	1.5	No
57	Residential	County	LT-2	77.2	68.2	45	**Yes**	63.6	45	**Yes**	-4.6	**Yes**	1.5	No	50.2	45	**Yes**	45.6	45	**Yes**	-4.6	**Yes**	1.5	No
58	Residential	County	LT-2	77.2	68.9	45	**Yes**	63.9	45	**Yes**	-5.0	**Yes**	1.5	No	50.9	45	**Yes**	45.9	45	**Yes**	-5.0	**Yes**	1.5	No
59	Residential	County	LT-2	77.2	67.8	45	**Yes**	62.8	45	**Yes**	-5.0	**Yes**	1.5	No	49.8	45	**Yes**	44.8	45	No	-5.0	No	1.5	No
60	Residential	County	LT-2	77.2	66.0	45	**Yes**	61.0	45	**Yes**	-5.0	**Yes**	1.5	No	48.0	45	**Yes**	43.0	45	No	-5.0	No	1.5	No
61	Residential	County	LT-2	77.2	70.5	45	**Yes**	65.4	45	**Yes**	-5.1	**Yes**	1.5	No	52.5	45	**Yes**	47.4	45	**Yes**	-5.1	**Yes**	1.5	No
62	Residential	County	LT-2	77.2	71.7	45	**Yes**	66.6	45	**Yes**	-5.1	**Yes**	1.5	No	53.7	45	**Yes**	48.6	45	**Yes**	-5.1	**Yes**	1.5	No
63	Residential	County	LT-2	77.2	65.9	45	**Yes**	61.0	45	**Yes**	-4.9	**Yes**	1.5	No	47.9	45	**Yes**	43.0	45	No	-4.9	No	1.5	No
64	Residential	County	LT-2	77.2	67.8	45	**Yes**	62.8	45	**Yes**	-5.0	**Yes**	1.5	No	49.8	45	**Yes**	44.8	45	No	-5.0	No	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	61.6	45	**Yes**	60.8	45	**Yes**	-0.8	**Yes**	5.0	No	43.6	45	No	42.8	45	No	-0.8	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	58.0	-	No	57.5	-	No	-0.5	No	5.0	No	40.0	-	No	39.5	-	No	-0.5	No	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	59.3	45	**Yes**	58.8	45	**Yes**	-0.5	**Yes**	5.0	No	41.3	45	No	40.8	45	No	-0.5	No	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	55.1	45	**Yes**	54.9	45	**Yes**	-0.2	**Yes**	5.0	No	37.1	45	No	36.9	45	No	-0.2	No	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	53.0	45	**Yes**	53.1	45	**Yes**	0.1	**Yes**	3.0	No	35.0	45	No	35.1	45	No	0.1	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	50.6	45	**Yes**	51.8	45	**Yes**	1.2	**Yes**	3.0	No	32.6	45	No	33.8	45	No	1.2	No	3.0	No
71	Residential	County	LT-2	77.2	64.0	45	**Yes**	59.3	45	**Yes**	-4.7	**Yes**	1.5	No	46.0	45	**Yes**	41.3	45	No	-4.7	No	1.5	No
72	Residential	County	LT-2	77.2	63.6	45	**Yes**	58.9	45	**Yes**	-4.7	**Yes**	1.5	No	45.6	45	**Yes**	40.9	45	No	-4.7	No	1.5	No
73	Residential	County	LT-2	77.2	63.0	45	**Yes**	58.4	45	**Yes**	-4.6	**Yes**	1.5	No	45.0	45	No	40.4	45	No	-4.6	No	1.5	No
74	Residential	County	LT-2	77.2	69.5	45	**Yes**	65.0	45	**Yes**	-4.5	**Yes**	1.5	No	51.5	45	**Yes**	47.0	45	**Yes**	-4.5	**Yes**	1.5	No
75	Residential	County	LT-2	77.2	70.6	45	**Yes**	66.3	45	**Yes**	-4.3	**Yes**	1.5	No	52.6	45	**Yes**	48.3	45	**Yes**	-4.3	**Yes**	1.5	No
76	Residential	County	LT-2	77.2	75.3	45	**Yes**	75.1	45	**Yes**	-0.2	**Yes**	1.5	No	57.3	45	**Yes**	57.1	45	**Yes**	-0.2	**Yes**	1.5	No
77	Residential	County	LT-2	77.2	60.7	45	**Yes**	58.3	45	**Yes**	-2.4	**Yes**	1.5	No	42.7	45	No	40.3	45	No	-2.4	No	1.5	No
78	Residential	County	LT-2	77.2	58.5	45	**Yes**	58.3	45	**Yes**	-0.2	**Yes**	1.5	No	40.5	45	No	40.3	45	No	-0.2	No	1.5	No
79	Residential	County	LT-2	77.2	63.6	45	**Yes**	63.6	45	**Yes**	0.0	**Yes**	1.5	No	45.6	45	**Yes**	45.6	45	Yes	0.0	**Yes**	1.5	No
80	Residential	County	LT-2	77.2	64.4	45	**Yes**	64.4	45	**Yes**	0.0	**Yes**	1.5	No	46.4	45	**Yes**	46.4	45	**Yes**	0.0	**Yes**	1.5	No
81	Residential	County	LT-2	77.2	60.2	45	**Yes**	60.2	45	**Yes**	0.0	**Yes**	1.5	No	42.2	45	No	42.2	45	No	0.0	No	1.5	No
82	Residential	County	LT-2	77.2	63.4	45	**Yes**	63.4	45	**Yes**	0.0	**Yes**	1.5	No	45.4	45	**Yes**	45.4	45	**Yes**	0.0	**Yes**	1.5	No
83	Residential	City	LT-3	66.5	43.8	45	No	54.1	45	**Yes**	10.3	**Yes**	1.5	**Yes**	25.8	45	No	36.1	45	No	10.3	No	1.5	**Yes**
84	Residential	City	LT-3	66.5	42.8	45	No	54.1	45	**Yes**	11.3	**Yes**	1.5	**Yes**	24.8	45	No	36.1	45	No	11.3	No	1.5	**Yes**
85	Residential	City	LT-3	66.5	63.3	45	**Yes**	62.8	45	**Yes**	-0.5	Yes	1.5	No	45.3	45	**Yes**	44.8	45	No	-0.5	No	1.5	No
86	Residential	City	LT-3	66.5	43.3	45	No	51.1	45	**Yes**	7.8	**Yes**	1.5	**Yes**	25.3	45	No	33.1	45	No	7.8	No	1.5	**Yes**
87	Residential	City	LT-3	66.5	41.5	45	No	52.6	45	**Yes**	11.1	**Yes**	1.5	**Yes**	23.5	45	No	34.6	45	No	11.1	No	1.5	**Yes**
88	Residential	City	LT-3	66.5	42.1	45	No	53.3	45	**Yes**	11.2	**Yes**	1.5	**Yes**	24.1	45	No	35.3	45	No	11.2	No	1.5	**Yes**
89	Residential	City	LT-3	66.5	42.1	45	No	53.4	45	**Yes**	11.3	**Yes**	1.5	**Yes**	24.1	45	No	35.4	45	No	11.3	No	1.5	**Yes**
90	Residential	City	LT-3	66.5	41.7	45	No	54.7	45	**Yes**	13.0	**Yes**	1.5	**Yes**	23.7	45	No	36.7	45	No	13.0	No	1.5	**Yes**

Mitigated SoundPLAN Modeling Results (BAR-2 and BAR-3)

OPENING YEAR 2028					INTERIM YEAR 2033					HORIZON YEAR 2048				
WITH PROJECT					WITH PROJECT					WITH PROJECT				
Receiver	Land Use	Day	Night	Ldn	Receiver	Land Use	Day	Night	Ldn	Receiver	Land Use	Day	Night	Ldn
		Level w/ NP					Level w/ NP					Level w/ NP		
		dB(A)					dB(A)					dB(A)		
1	Residential	61.5	60.9	67.4	1	Residential	61.7	60.9	67.5	1	Residential	62.2	61.6	68.1
2	Residential	59.2	58.9	65.3	2	Residential	59.3	58.9	65.4	2	Residential	59.7	59.3	65.7
3	Residential	59.6	59.2	65.7	3	Residential	59.7	59.2	65.7	3	Residential	60.1	59.7	66.1
4	Residential	59.1	58.6	65.1	4	Residential	59.2	58.6	65.1	4	Residential	59.7	59.2	65.7
5	Residential	60.3	60.0	66.4	5	Residential	60.4	60.0	66.4	5	Residential	60.4	60.1	66.6
6	Residential	57.4	57.2	63.6	6	Residential	57.4	57.2	63.6	6	Residential	57.6	57.4	63.8
7	Residential	61.7	61.0	67.5	7	Residential	61.9	61.0	67.5	7	Residential	62.6	61.8	68.3
8	Residential	63.9	62.8	69.4	8	Residential	64.3	62.9	69.5	8	Residential	65.2	64.0	70.6
9	Residential	65.3	64.2	70.8	9	Residential	65.7	64.3	70.9	9	Residential	66.7	65.4	72.0
10	Residential	65.7	64.5	71.1	10	Residential	66.1	64.6	71.3	10	Residential	67.0	65.7	72.4
11	Residential	66.0	64.8	71.4	11	Residential	66.4	65.0	71.6	11	Residential	67.4	66.1	72.7
12	Residential	66.4	65.2	71.8	12	Residential	66.7	65.3	71.9	12	Residential	67.7	66.4	73.0
13	Residential	66.8	65.5	72.1	13	Residential	67.1	65.7	72.3	13	Residential	68.1	66.8	73.4
14	Residential	69.5	68.3	74.9	14	Residential	69.9	68.4	75.1	14	Residential	70.9	69.6	76.2
15	Residential	71.3	70.0	76.6	15	Residential	71.7	70.1	76.8	15	Residential	72.7	71.3	78.0
16	Residential	69.0	67.8	74.4	16	Residential	69.4	67.9	74.6	16	Residential	70.4	69.1	75.7
17	Residential	69.1	67.8	74.4	17	Residential	69.5	68.0	74.6	17	Residential	70.5	69.1	75.8
18	Residential	67.4	66.1	72.7	18	Residential	67.8	66.3	72.9	18	Residential	68.8	67.4	74.1
19	Residential	68.0	66.7	73.3	19	Residential	68.4	66.8	73.5	19	Residential	69.4	68.0	74.7
20	Residential	68.2	66.9	73.6	20	Residential	68.6	67.1	73.7	20	Residential	69.6	68.3	74.9
21	Residential	69.1	67.8	74.4	21	Residential	69.5	67.9	74.6	21	Residential	70.5	69.1	75.8
22	Residential	68.8	67.6	74.2	22	Residential	69.2	67.7	74.4	22	Residential	70.3	68.9	75.5
23	Residential	68.5	67.2	73.8	23	Residential	68.9	67.3	74.0	23	Residential	69.9	68.5	75.1
24	Residential	69.9	68.6	75.2	24	Residential	70.3	68.7	75.4	24	Residential	71.3	69.9	76.6
25	Residential	70.0	68.6	75.3	25	Residential	70.4	68.8	75.5	25	Residential	71.4	70.0	76.6
26	Residential	70.1	68.7	75.4	26	Residential	70.5	68.9	75.6	26	Residential	71.5	70.1	76.7
27	Residential	69.7	68.4	75.0	27	Residential	70.1	68.5	75.2	27	Residential	71.1	69.7	76.4
28	Residential	70.7	69.4	76.1	28	Residential	71.1	69.6	76.3	28	Residential	72.2	70.8	77.4
29	Residential	68.3	67.0	73.6	29	Residential	68.7	67.1	73.8	29	Residential	69.7	68.3	74.9
30	Residential	73.3	72.1	78.7	30	Residential	73.7	72.2	78.8	30	Residential	74.7	73.3	80.0
31	Residential	73.2	71.9	78.6	31	Residential	73.6	72.0	78.7	31	Residential	74.6	73.2	79.8
32	Residential	73.1	71.9	78.5	32	Residential	73.5	71.9	78.6	32	Residential	74.5	73.1	79.7
33	Residential	70.4	69.1	75.7	33	Residential	70.8	69.2	75.9	33	Residential	71.8	70.4	77.0
34	Residential	70.4	69.2	75.8	34	Residential	70.8	69.3	75.9	34	Residential	71.8	70.4	77.1
35	Residential	70.5	69.3	75.9	35	Residential	70.9	69.4	76.0	35	Residential	71.9	70.5	77.2
36	Residential	73.3	72.1	78.7	36	Residential	73.7	72.1	78.8	36	Residential	74.7	73.3	80.0
37	Park	69.1	67.9	74.5	37	Park	69.5	68.0	74.6	37	Park	70.5	69.1	75.8
38	Residential	68.7	67.5	74.1	38	Residential	69.1	67.5	74.2	38	Residential	70.1	68.7	75.3
39	Residential	71.3	70.1	76.7	39	Residential	71.7	70.1	76.8	39	Residential	72.7	71.3	77.9
40	Residential	71.2	69.9	76.6	40	Residential	71.6	70.0	76.7	40	Residential	72.6	71.2	77.8
41	Residential	66.1	64.9	71.5	41	Residential	66.5	65.0	71.7	41	Residential	67.4	66.1	72.7
42	Residential	65.5	64.3	70.9	42	Residential	65.8	64.4	71.0	42	Residential	66.8	65.5	72.1
43	Residential	64.8	63.7	70.3	43	Residential	65.2	63.8	70.4	43	Residential	66.1	64.8	71.4
44	Residential	64.3	63.2	69.8	44	Residential	64.6	63.3	69.9	44	Residential	65.5	64.3	70.9
45	Residential	65.0	63.8	70.4	45	Residential	65.3	63.9	70.5	45	Residential	66.3	65.0	71.6
46	Residential	64.2	63.1	69.7	46	Residential	64.6	63.2	69.8	46	Residential	65.5	64.2	70.8
47	Residential	63.6	62.5	69.1	47	Residential	63.9	62.6	69.2	47	Residential	64.8	63.6	70.2
48	Residential	63.3	62.3	68.8	48	Residential	63.6	62.3	69.0	48	Residential	64.5	63.3	69.9
49	Residential	62.3	61.3	67.9	49	Residential	62.6	61.4	68.0	49	Residential	63.4	62.3	68.9
50	Residential	62.1	61.2	67.7	50	Residential	62.4	61.3	67.8	50	Residential	63.2	62.1	68.7
51	Residential	62.0	61.1	67.7	51	Residential	62.3	61.2	67.8	51	Residential	63.0	62.0	68.6
52	Residential	54.0	53.7	60.1	52	Residential	54.1	53.7	60.2	52	Residential	54.4	54.0	60.5
53	Residential	54.2	54.0	60.4	53	Residential	54.3	54.0	60.4	53	Residential	54.6	54.3	60.7
54	Residential	65.6	64.4	71.0	54	Residential	66.0	64.5	71.1	54	Residential	67.0	65.9	72.4
55	Residential	69.7	68.5	75.1	55	Residential	70.1	68.6	75.2	55	Residential	71.1	69.9	76.5
56	Residential	68.8	67.5	74.1	56	Residential	69.2	67.7	74.4	56	Residential	70.1	68.8	75.5
57	Residential	67.0	65.7	72.4	57	Residential	67.4	66.0	72.7	57	Residential	68.4	66.9	73.6
58	Residential	67.4	66.1	72.7	58	Residential	67.7	66.4	73.0	58	Residential	68.7	67.3	73.9
59	Residential	66.3	64.9	71.6	59	Residential	66.6	65.3	71.9	59	Residential	67.6	66.1	72.8
60	Residential	64.5	63.2	69.8	60	Residential	64.9	63.5	70.1	60	Residential	65.9	64.4	71.0
61	Residential	68.9	67.6	74.2	61	Residential	69.2	67.9	74.5	61	Residential	70.2	68.8	75.4

Mitigated SoundPLAN Modeling Results (BAR-2 and BAR-3)

OPENING YEAR 2028					INTERIM YEAR 2033					HORIZON YEAR 2048				
WITH PROJECT					WITH PROJECT					WITH PROJECT				
Receiver	Land Use	Day	Night	Ldn	Receiver	Land Use	Day	Night	Ldn	Receiver	Land Use	Day	Night	Ldn
		Level w/ NP					Level w/ NP					Level w/ NP		
		dB(A)					dB(A)					dB(A)		
62	Residential	70.1	68.7	75.4	62	Residential	70.4	69.1	75.7	62	Residential	71.4	69.9	76.6
63	Residential	64.5	63.2	69.8	63	Residential	64.8	63.5	70.1	63	Residential	65.8	64.4	71.0
64	Residential	66.3	65.0	71.6	64	Residential	66.6	65.3	71.9	64	Residential	67.6	66.2	72.8
65	Residential	64.2	63.0	69.6	65	Residential	64.6	63.1	69.7	65	Residential	65.5	64.2	70.8
66	School	60.9	59.7	66.3	66	School	61.2	59.8	66.5	66	School	62.2	60.9	67.5
67	Park	62.2	61.0	67.6	67	Park	62.6	61.1	67.7	67	Park	63.6	62.2	68.8
68	Church	58.3	57.2	63.8	68	Church	58.6	57.3	63.9	68	Church	59.5	58.3	64.9
69	Church	56.5	55.4	62.0	69	Church	56.9	55.6	62.2	69	Church	57.8	56.5	63.1
70	School	55.2	54.4	60.9	70	School	55.5	54.5	61.0	70	School	56.2	55.2	61.8
71	Church	62.7	61.4	68.0	71	Church	63.1	61.7	68.3	71	Church	64.1	62.6	69.3
72	Residential	62.4	61.1	67.7	72	Residential	62.7	61.3	68.0	72	Residential	63.7	62.2	68.9
73	Residential	61.9	60.6	67.2	73	Residential	62.2	60.9	67.5	73	Residential	63.2	61.8	68.4
74	Residential	68.5	67.1	73.8	74	Residential	68.8	67.5	74.1	74	Residential	69.8	68.3	75.0
75	Residential	69.8	68.5	75.1	75	Residential	70.1	68.8	75.4	75	Residential	71.1	69.6	76.3
76	Residential	78.9	77.5	84.1	76	Residential	78.9	77.5	84.1	76	Residential	79.9	78.4	85.1
77	Residential	62.0	60.6	67.3	77	Residential	62.1	60.7	67.4	77	Residential	63.1	61.7	68.3
78	Residential	62.1	60.7	67.3	78	Residential	62.1	60.7	67.3	78	Residential	63.1	61.7	68.3
79	Residential	67.4	66.0	72.7	79	Residential	67.4	66.0	72.7	79	Residential	68.5	67.0	73.6
80	Residential	68.2	66.8	73.4	80	Residential	68.2	66.8	73.4	80	Residential	69.2	67.7	74.4
81	Residential	64.0	62.6	69.2	81	Residential	64.0	62.6	69.2	81	Residential	65.0	63.6	70.2
82	Residential	67.2	65.8	72.4	82	Residential	67.2	65.8	72.4	82	Residential	68.3	66.8	73.4
83	Residential	57.4	57.4	63.8	83	Residential	57.5	57.4	63.8	83	Residential	57.5	57.4	63.9
84	Residential	57.5	57.4	63.8	84	Residential	57.5	57.4	63.8	84	Residential	57.5	57.5	63.9
85	Residential	66.2	64.9	71.5	85	Residential	66.6	65.0	71.7	85	Residential	67.6	66.2	72.8
86	Residential	54.5	54.3	60.8	86	Residential	54.5	54.3	60.8	86	Residential	54.6	54.4	60.9
87	Residential	56.3	55.9	62.4	87	Residential	56.4	55.9	62.4	87	Residential	56.4	56.0	62.5
88	Residential	56.9	56.7	63.1	88	Residential	57.0	56.7	63.1	88	Residential	57.0	56.8	63.2
89	Residential	57.0	56.8	63.3	89	Residential	57.1	56.8	63.3	89	Residential	57.1	56.9	63.3
90	Residential	58.3	58.2	64.6	90	Residential	58.3	58.2	64.6	90	Residential	58.3	58.2	64.6

Mitigated (BAR-2 and BAR-3) BIG Operational Exterior Noise Impact Analysis - Opening Year 2028

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT									COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
					Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn						Daytime			Nighttime			Ldn		
				Measured Ambient Noise Level (L_{dn}, L_{eq})	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Daytime	Nighttime	Ldn	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	59.5	55	**Yes**	58.1	45	**Yes**	64.7	60	**Yes**	61.5	55	**Yes**	60.9	45	**Yes**	67.4	60	**Yes**	2.0	2.8	2.7	**Yes**	1.5	Yes	**Yes**	1.5	Yes	**Yes**	1.5	**Yes**
2	Residential	County	LT-3	66.5	58.4	55	**Yes**	57.0	45	**Yes**	63.7	60	**Yes**	59.2	55	**Yes**	58.9	45	**Yes**	65.3	60	**Yes**	0.8	1.9	1.6	**Yes**	1.5	No	**Yes**	1.5	Yes	**Yes**	1.5	**Yes**
3	Residential	County	LT-3	66.5	59.6	55	**Yes**	58.2	45	**Yes**	64.8	60	**Yes**	59.6	55	**Yes**	59.2	45	**Yes**	65.7	60	**Yes**	0.0	1.0	0.9	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
4	Residential	City	LT-3	66.5	57.0	65	No	55.6	65	No	62.3	65	No	59.1	65	No	58.6	65	No	65.1	65	**Yes**	2.1	3.0	2.8	No	1.5	Yes,	No	1.5	**Yes**	Yes	1.5	**Yes**
5	Residential	City	LT-3	66.5	58.7	65	No	57.4	65	No	64.0	65	No	60.3	65	No	60.0	65	No	66.4	65	**Yes**	1.6	2.6	2.4	No	1.5	Yes,	No	1.5	**Yes**	**Yes**	1.5	**Yes**
6	Residential	City	LT-5	58.1	53.1	65	No	51.7	65	No	58.3	65	No	57.4	65	No	57.2	65	No	63.6	65	No	4.3	5.5	5.3	No	5.0	No	No	5.0	**Yes**	**No**	5.0	**Yes**
7	Residential	City	LT-5	58.1	62.2	65	No	60.8	65	No	67.4	65	**Yes**	61.7	65	No	61.0	65	No	67.5	65	**Yes**	-0.5	0.2	0.1	No	5.0	No	No	5.0	No	**Yes**	5.0	No
8	Residential	County	LT-5	58.1	65.0	55	**Yes**	63.6	45	**Yes**	70.2	60	**Yes**	63.9	55	**Yes**	62.8	45	**Yes**	69.4	60	**Yes**	-1.1	-0.8	-0.8	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
9	Residential	County	LT-5	58.1	66.3	55	**Yes**	65.0	45	**Yes**	71.6	60	**Yes**	65.3	55	**Yes**	64.2	45	**Yes**	70.8	60	**Yes**	-1.0	-0.8	-0.8	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
10	Residential	County	LT-5	58.1	66.6	55	**Yes**	65.3	45	**Yes**	71.9	60	**Yes**	65.7	55	**Yes**	64.5	45	**Yes**	71.1	60	**Yes**	-0.9	-0.8	-0.8	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
11	Residential	County	LT-5	58.1	66.9	55	**Yes**	65.6	45	**Yes**	72.2	60	**Yes**	66.0	55	**Yes**	64.8	45	**Yes**	71.4	60	**Yes**	-0.9	-0.8	-0.8	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
12	Residential	County	LT-5	58.1	67.3	55	**Yes**	65.9	45	**Yes**	72.6	60	**Yes**	66.4	55	**Yes**	65.2	45	**Yes**	71.8	60	**Yes**	-0.9	-0.7	-0.8	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
13	Residential	County	LT-5	58.1	67.7	55	**Yes**	66.4	45	**Yes**	73.0	60	**Yes**	66.8	55	**Yes**	65.5	45	**Yes**	72.1	60	**Yes**	-0.9	-0.9	-0.9	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
14	Residential	County	LT-5	58.1	70.7	55	**Yes**	69.4	45	**Yes**	76.0	60	**Yes**	69.5	55	**Yes**	68.3	45	**Yes**	74.9	60	**Yes**	-1.2	-1.1	-1.1	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
15	Residential	County	LT-5	58.1	72.5	55	**Yes**	71.2	45	**Yes**	77.8	60	**Yes**	71.3	55	**Yes**	70.0	45	**Yes**	76.6	60	**Yes**	-1.2	-1.2	-1.2	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
16	Residential	County	LT-5	58.1	70.4	55	**Yes**	69.0	45	**Yes**	75.7	60	**Yes**	69.0	55	**Yes**	67.8	45	**Yes**	74.4	60	**Yes**	-1.4	-1.2	-1.3	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
17	Residential	County	LT-5	58.1	70.4	55	**Yes**	69.1	45	**Yes**	75.7	60	**Yes**	69.1	55	**Yes**	67.8	45	**Yes**	74.4	60	**Yes**	-1.3	-1.3	-1.3	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
18	Residential	County	LT-5	58.1	68.5	55	**Yes**	67.2	45	**Yes**	73.8	60	**Yes**	67.4	55	**Yes**	66.1	45	**Yes**	72.7	60	**Yes**	-1.1	-1.1	-1.1	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
19	Residential	County	LT-5	58.1	69.1	55	**Yes**	67.8	45	**Yes**	74.4	60	**Yes**	68.0	55	**Yes**	66.7	45	**Yes**	73.3	60	**Yes**	-1.1	-1.1	-1.1	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
20	Residential	County	LT-5	58.1	69.3	55	**Yes**	68.0	45	**Yes**	74.6	60	**Yes**	68.2	55	**Yes**	66.9	45	**Yes**	73.6	60	**Yes**	-1.1	-1.1	-1.0	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
21	Residential	County	LT-5	58.1	70.2	55	**Yes**	68.9	45	**Yes**	75.5	60	**Yes**	69.1	55	**Yes**	67.8	45	**Yes**	74.4	60	**Yes**	-1.1	-1.1	-1.1	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
22	Residential	County	LT-5	58.1	70.0	55	**Yes**	68.6	45	**Yes**	75.3	60	**Yes**	68.8	55	**Yes**	67.6	45	**Yes**	74.2	60	**Yes**	-1.2	-1.0	-1.1	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
23	Residential	County	LT-5	58.1	69.6	55	**Yes**	68.2	45	**Yes**	74.9	60	**Yes**	68.5	55	**Yes**	67.2	45	**Yes**	73.8	60	**Yes**	-1.1	-1.0	-1.1	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
24	Residential	County	LT-5	58.1	71.1	55	**Yes**	69.7	45	**Yes**	76.4	60	**Yes**	69.9	55	**Yes**	68.6	45	**Yes**	75.2	60	**Yes**	-1.2	-1.1	-1.2	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
25	Residential	County	LT-5	58.1	71.1	55	**Yes**	69.8	45	**Yes**	76.4	60	**Yes**	70.0	55	**Yes**	68.6	45	**Yes**	75.3	60	**Yes**	-1.1	-1.2	-1.1	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
26	Residential	County	LT-5	58.1	71.2	55	**Yes**	69.9	45	**Yes**	76.5	60	**Yes**	70.1	55	**Yes**	68.7	45	**Yes**	75.4	60	**Yes**	-1.1	-1.2	-1.1	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
27	Residential	County	LT-5	58.1	70.9	55	**Yes**	69.5	45	**Yes**	76.2	60	**Yes**	69.7	55	**Yes**	68.4	45	**Yes**	75.0	60	**Yes**	-1.2	-1.1	-1.2	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
28	Residential	County	LT-5	58.1	72.0	55	**Yes**	70.7	45	**Yes**	77.3	60	**Yes**	70.7	55	**Yes**	69.4	45	**Yes**	76.1	60	**Yes**	-1.3	-1.3	-1.2	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
29	Residential	County	LT-4	66.1	68.8	55	**Yes**	67.4	45	**Yes**	74.1	60	**Yes**	68.3	55	**Yes**	67.0	45	**Yes**	73.6	60	**Yes**	-0.5	-0.4	-0.5	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
30	Residential	County	LT-4	66.1	73.4	55	**Yes**	72.0	45	**Yes**	78.7	60	**Yes**	73.3	55	**Yes**	72.1	45	**Yes**	78.7	60	**Yes**	-0.1	0.1	0.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
31	Residential	County	LT-4	66.1	73.3	55	**Yes**	72.0	45	**Yes**	78.6	60	**Yes**	73.2	55	**Yes**	71.9	45	**Yes**	78.6	60	**Yes**	-0.1	-0.1	0.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
32	Residential	County	LT-4	66.1	73.3	55	**Yes**	71.9	45	**Yes**	78.6	60	**Yes**	73.1	55	**Yes**	71.9	45	**Yes**	78.5	60	**Yes**	-0.2	0.0	-0.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
33	Residential	County	LT-4	66.1	70.8	55	**Yes**	69.4	45	**Yes**	76.1	60	**Yes**	70.4	55	**Yes**	69.1	45	**Yes**	75.7	60	**Yes**	-0.4	-0.3	-0.4	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
34	Residential	County	LT-4	66.1	70.8	55	**Yes**	69.5	45	**Yes**	76.1	60	**Yes**	70.4	55	**Yes**	69.2	45	**Yes**	75.8	60	**Yes**	-0.4	-0.3	-0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
35	Residential	County	LT-4	66.1	70.9	55	**Yes**	69.6	45	**Yes**	76.2	60	**Yes**	70.5	55	**Yes**	69.3	45	**Yes**	75.9	60	**Yes**	-0.4	-0.3	-0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	73.5	55	**Yes**	72.2	-	No	78.8	60	**Yes**	73.3	55	**Yes**	72.1	-	No	78.7	60	**Yes**	-0.2	-0.1	-0.1	**Yes**	5.0	No	No	5.0	No	**Yes**	5.0	No
37	Residential	County	LT-4	66.1	69.6	55	**Yes**	68.3	45	**Yes**	74.9	60	**Yes**	69.1	55	**Yes**	67.9	45	**Yes**	74.5	60	**Yes**	-0.5	-0.4	-0.4	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
38	Residential	County	LT-4	66.1	69.2	55	**Yes**	67.8	45	**Yes**	74.5	60	**Yes**	68.7	55	**Yes**	67.5	45	**Yes**	74.1	60	**Yes**	-0.5	-0.3	-0.4	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
39	Residential	County	LT-4	66.1	71.6	55	**Yes**	70.3	45	**Yes**	76.9	60	**Yes**	71.3	55	**Yes**	70.1	45	**Yes**	76.7	60	**Yes**	-0.3	-0.2	-0.2	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
40	Residential	County	LT-4	66.1	71.4	55	**Yes**	70.0	45	**Yes**	76.7	60	**Yes**	71.2	55	**Yes**	69.9	45	**Yes**	76.6	60	**Yes**	-0.2	-0.1	-0.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
41	Residential	County	LT-4	66.1	66.5	55	**Yes**	65.2	45	**Yes**	71.8	60	**Yes**	66.1	55	**Yes**	64.9	45	**Yes**	71.5	60	**Yes**	-0.4	-0.3	-0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
42	Residential	County	LT-4	66.1	65.9	55	**Yes**	64.5	45	**Yes**	71.1	60	**Yes**	65.5	55	**Yes**	64.3	45	**Yes**	70.9	60	**Yes**	-0.4	-0.2	-0.2	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
43	Residential	County	LT-4	66.1	65.2	55	**Yes**	63.8	45	**Yes**	70.5	60	**Yes**	64.8	55	**Yes**	63.7	45	**Yes**	70.3	60	**Yes**	-0.4	-0.1	-0.2	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
44	Residential	County	LT-4	66.1	64.6	55	**Yes**	63.3	45	**Yes**	69.9	60	**Yes**	64.3	55	**Yes**	63.2	45	**Yes**	69.8	60	**Yes**	-0.3	-0.1	-0.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
45	Residential	County	LT-4	66.1	65.3	55	**Yes**	63.9	45	**Yes**	70.6	60	**Yes**	65.0	55	**Yes**	63.8	45	**Yes**	70.4	60	**Yes**	-0.3	-0.1	-0.2	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
46	Residential	County	LT-4	66.1	64.5	55	**Yes**	63.2	45	**Yes**	69.8	60	**Yes**	64.2	55	**Yes**	63.1	45	**Yes**	69.7	60	**Yes**	-0.3	-0.1	-0.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
47	Residential	County	LT-4	66.1	63.8	55	**Yes**	62.5	45	**Yes**	69.1	60	**Yes**	63.6	55	**Yes**	62.5	45	**Yes**	69.1	60	**Yes**	-0.2	0.0	0.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
48	Residential	County	LT-4	66.1	63.5	55	**Yes**	62.1	45	**Yes**	68.7	60	**Yes**	63.3	55	**Yes**	62.3	45	**Yes**	68.8	60	**Yes**	-0.2	0.2	0.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
49	Residential	County	LT-4	66.1	62.2	55	**Yes**	60.9	45	**Yes**	67.5	60	**Yes**	62.3	55	**Yes**	61.3	45	**Yes**	67.9	60	**Yes**	0.1	0.4	0.4	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
50	Residential	County	LT-4	66.1	61.9	55	**Yes**	60.6	45	**Yes**	67.2	60	**Yes**	62.1	55	**Yes**	61.2	45	**Yes**	67.7	60	**Yes**	0.2	0.6	0.5	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
51	Residential	County	LT-4	66.1	61.6	55	**Yes**	60.2	45	**Yes**	66.9	60	**Yes**	62.0	55	**Yes**	61.1	45	**Yes**	67.7	60	**Yes**	0.4	0.9	0.8	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
52	Residential	County	LT-1	61.2	55.6	55	**Yes**	54.3	45	**Yes**	60.9	60	**Yes**	54.0	55	No	53.7	45	**Yes**	60.1	60	**Yes**	-1.6	-0.6	-0.8	No	3.0	No	**Yes**	3.0	No	Yes	3.0	No
53	Residential	County	LT-1	61.2	54.8	55	No	53.5	45	**Yes**	60.1	60	**Yes**	54.2	55	No	54.0	45	**Yes**	60.4	60	**Yes**	-0.6	0.5	0.3	No	3.0	No	**Yes**	3.0	No	**Yes**	3.0	No
54	Residential	County	LT-2	77.2	66.8	55	**Yes**	65.4	45	**Yes**	72.1	60	**Yes**	65.6	55	**Yes**	64.4	45	**Yes**	71.0	60	**Yes**	-1.2	-1.0	-1.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
55	Residential	County	LT-2	77.2	71.1	55	**Yes**	69.8	45	**Yes**	76.4	60	**Yes**	69.7	55	**Yes**	68.5	45	**Yes**	75.1	60	**Yes**	-1.4	-1.3	-1.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
56	Residential	County	LT-2	77.2	72.3	55	**Yes**	71.0	45	**Yes**	77.6	60	**Yes**	68.8	55	**Yes**	67.5	45	**Yes**	74.1	60	**Yes**	-3.5	-3.5	-3.5	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
57	Residential	County	LT-2	77.2	71.6	55	**Yes**	70.3	45	**Yes**	76.9	60	**Yes**	67.0	55	**Yes**	65.7	45	**Yes**	72.4	60	**Yes**	-4.6	-4.6	-4.5	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
58	Residential	County	LT-2	77.2	72.3	55	**Yes**	71.0	45	**Yes**	77.6	60	**Yes**	67.4	55	**Yes**	66.1	45	**Yes**	72.7	60	**Yes**	-4.9	-4.9	-4.9	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
59	Residential	County	LT-2	77.2	71.2	55	**Yes**	69.9	45	**Yes**	76.5	60	**Yes**	66.3	55	**Yes**	64.9	45	**Yes**	71.6	60	**Yes**	-4.9	-5.0	-4.9	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
60	Residential	County	LT-2	77.2	69.4	55	**Yes**	68.1	45	**Yes**	74.7	60	**Yes**	64.5	55	**Yes**	63.2	45	**Yes**	69.8	60	**Yes**	-4.9	-4.9	-4.9	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
61	Residential	County	LT-2	77.2	73.9	55	**Yes**	72.6	45	**Yes**	79.2	60	**Yes**	68.9	55	**Yes**	67.6	45	**Yes**	74.2	60	**Yes**	-5.0	-5.0	-5.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
62	Residential	County	LT-2	77.2	75.2	55	**Yes**	73.8	45	**Yes**	80.5	60	**Yes**	70.1	55	**Yes**	68.7	45	**Yes**	75.4	60	**Yes**	-5.1	-5.1	-5.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
63	Residential	County	LT-2	77.2	69.4	55	**Yes**	68.0	45	**Yes**	74.7	60	**Yes**	64.5	55	**Yes**	63.2	45	**Yes**	69.8	60	**Yes**	-4.9	-4.8	-4.9	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
64	Residential	County	LT-2	77.2	71.2	55	**Yes**	69.9	45	**Yes**	76.5	60	**Yes**	66.3	55	**Yes**	65.0	45	**Yes**	71.6	60	**Yes**	-4.9	-4.9	-4.9	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	65.1	55	**Yes**	63.7	-	No	70.4	60	**Yes**	64.2	55	**Yes**	63.0	-	No	69.6	60	**Yes**	-0.9	-0.7	-0.8	**Yes**	5.0	No	No	5.0	No	**Yes**	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	61.4	55	**Yes**	60.1	-	No	66.7	60	**Yes**	60.9	55	**Yes**	59.7	-	No	66.3	60	**Yes**	-0.5	-0.4	-0.4	**Yes**	5.0	No	No	5.0	No	**Yes**	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	62.7	55	**Yes**	61.4	-	No	68.0	60	**Yes**	62.2	55	**Yes**	61.0	-	No	67.6	60	**Yes**	-0.5	-0.4	-0.4	**Yes**	5.0	No	No	5.0	No	**Yes**	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	58.5	55	**Yes**	57.1	-	No	63.8	60	**Yes**	58.3	55	**Yes**	57.2	-	No	63.8	60	**Yes**	-0.2	0.1	0.0	**Yes**	5.0	No	No	5.0	No	**Yes**	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	56.4	55	**Yes**	55.1	-	No	61.7	65	No	56.5	55	**Yes**	55.4	-	No	62.0	65	No	0.1	0.3	0.3	**Yes**	3.0	No	No	3.0	No	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	54.0	55	No	52.7	-	No	59.3	60	No	55.2	55	**Yes**	54.4	-	No	60.9	60	**Yes**	1.2	1.7	1.6	Yes	3.0	No	No	3.0	No	**Yes**	3.0	No
71	Residential	County	LT-2	77.2	67.5	55	**Yes**	66.1	45	**Yes**	72.8	60	**Yes**	62.7	55	**Yes**	61.4	45	**Yes**	68.0	60	**Yes**	-4.8	-4.7	-4.8	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
72	Residential	County	LT-2	77.2	67.1	55	**Yes**	65.7	45	**Yes**	72.4	60	**Yes**	62.4	55	**Yes**	61.1	45	**Yes**	67.7	60	**Yes**	-4.7	-4.6	-4.7	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
73	Residential	County	LT-2	77.2	66.5	55	**Yes**	65.1	45	**Yes**	71.7	60	**Yes**	61.9	55	**Yes**	60.6	45	**Yes**	67.2	60	**Yes**	-4.6	-4.5	-4.5	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
74	Residential	County	LT-2	77.2	72.9	55	**Yes**	71.6	45	**Yes**	78.2	60	**Yes**	68.5	55	**Yes**	67.1	45	**Yes**	73.8	60	**Yes**	-4.4	-4.5	-4.4	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
75	Residential	County	LT-2	77.2	74.0	55	**Yes**	72.7	45	**Yes**	79.3	60	**Yes**	69.8	55	**Yes**	68.5	45	**Yes**	75.1	60	**Yes**	-4.2	-4.2	-4.2	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
76	Residential	County	LT-2	77.2	78.7	55	**Yes**	77.4	45	**Yes**	84.0	60	**Yes**	78.9	55	**Yes**	77.5	45	**Yes**	84.1	60	**Yes**	0.2	0.1	0.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
77	Residential	County	LT-2	77.2	64.1	55	**Yes**	62.7	45	**Yes**	69.4	60	**Yes**	62.0	55	**Yes**	60.6	45	**Yes**	67.3	60	**Yes**	-2.1	-2.1	-2.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
78	Residential	County	LT-2	77.2	61.9	55	**Yes**	60.6	45	**Yes**	67.2	60	**Yes**	62.1	55	**Yes**	60.7	45	**Yes**	67.3	60	**Yes**	0.2	0.1	0.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
79	Residential	County	LT-2	77.2	67.1	55	**Yes**	65.7	45	**Yes**	72.4	60	**Yes**	67.4	55	**Yes**	66.0	45	**Yes**	72.7	60	**Yes**	0.3	0.3	0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
80	Residential	County	LT-2	77.2	67.8	55	**Yes**	66.5	45	**Yes**	73.1	60	**Yes**	68.2	55	**Yes**	66.8	45	**Yes**	73.4	60	**Yes**	0.4	0.3	0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
81	Residential	County	LT-2	77.2	63.6	55	**Yes**	62.3	45	**Yes**	68.9	60	**Yes**	64.0	55	**Yes**	62.6	45	**Yes**	69.2	60	**Yes**	0.4	0.3	0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
82	Residential	County	LT-2	77.2	66.8	55	**Yes**	65.5	45	**Yes**	72.1	60	**Yes**	67.2	55	**Yes**	65.8	45	**Yes**	72.4	60	**Yes**	0.4	0.3	0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No

Mitigated (BAR-2 and BAR-3) BIG Operational Exterior Noise Impact Analysis - Opening Year 2028

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT									COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
				Measured Ambient Noise Level (L_{dn}, L_{eq})	Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn			Daytime	Nighttime	Ldn	Daytime			Nighttime			Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?				Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
83	Residential	City	LT-3	66.5	47.3	65	No	45.9	65	No	52.6	65	No	57.4	65	No	57.4	65	No	63.8	65	No	10.1	11.5	11.2	No	1.5	No	No	1.5	No	**No**	1.5	**Yes**
84	Residential	City	LT-3	66.5	46.2	65	No	44.9	65	No	51.5	65	No	57.5	65	No	57.4	65	No	63.8	65	No	11.3	12.5	12.3	No	1.5	No	No	1.5	No	**No**	1.5	**Yes**
85	Residential	City	LT-3	66.5	66.7	65	**Yes**	65.4	65	**Yes**	72.0	65	**Yes**	66.2	65	**Yes**	64.9	65	No	71.5	65	**Yes**	-0.5	-0.5	-0.5	**Yes**	1.5	No	No	1.5	No	**Yes**	1.5	No
86	Residential	City	LT-3	66.5	46.7	65	No	45.4	65	No	52.0	65	No	54.5	65	No	54.3	65	No	60.8	65	No	7.8	8.9	8.8	No	1.5	No	No	1.5	No	No	1.5	**Yes**
87	Residential	City	LT-3	66.5	45.0	65	No	43.6	65	No	50.3	65	No	56.3	65	No	55.9	65	No	62.4	65	No	11.3	12.3	12.1	No	1.5	No	No	1.5	No	No	1.5	**Yes**
88	Residential	City	LT-3	66.5	45.5	65	No	44.2	65	No	50.8	65	No	56.9	65	No	56.7	65	No	63.1	65	No	11.4	12.5	12.3	No	1.5	No	No	1.5	No	No	1.5	**Yes**
89	Residential	City	LT-3	66.5	45.6	65	No	44.2	65	No	50.9	65	No	57.0	65	No	56.8	65	No	63.3	65	No	11.4	12.6	12.4	No	1.5	No	No	1.5	No	No	1.5	**Yes**
90	Residential	City	LT-3	66.5	45.1	65	No	43.8	65	No	50.4	65	No	58.3	65	No	58.2	65	No	64.6	65	No	13.2	14.4	14.2	No	1.5	No	No	1.5	No	No	1.5	**Yes**

Mitigated (BAR-2 and BAR-3) Opening Year 2028 Exterior Incremental Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	COMPARISON			FICAN Incremental Increase Impact Analysis					
							Daytime		Nighttime		Ldn	
				Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
1	Residential	County	LT-3	2.0	2.8	2.7	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
2	Residential	County	LT-3	0.8	1.9	1.6	1.5	No	1.5	**Yes**	1.5	**Yes**
3	Residential	County	LT-3	0.0	1.0	0.9	1.5	No	1.5	No	1.5	No
4	Residential	City	LT-3	2.1	3.0	2.8	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
5	Residential	City	LT-3	1.6	2.6	2.4	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
6	Residential	City	LT-5	4.3	5.5	5.3	5.0	No	5.0	**Yes**	5.0	**Yes**
7	Residential	City	LT-5	-0.5	0.2	0.1	5.0	No	5.0	No	5.0	No
8	Residential	County	LT-5	-1.1	-0.8	-0.8	5.0	No	5.0	No	5.0	No
9	Residential	County	LT-5	-1.0	-0.8	-0.8	5.0	No	5.0	No	5.0	No
10	Residential	County	LT-5	-0.9	-0.8	-0.8	5.0	No	5.0	No	5.0	No
11	Residential	County	LT-5	-0.9	-0.8	-0.8	5.0	No	5.0	No	5.0	No
12	Residential	County	LT-5	-0.9	-0.7	-0.8	5.0	No	5.0	No	5.0	No
13	Residential	County	LT-5	-0.9	-0.9	-0.9	5.0	No	5.0	No	5.0	No
14	Residential	County	LT-5	-1.2	-1.1	-1.1	5.0	No	5.0	No	5.0	No
15	Residential	County	LT-5	-1.2	-1.2	-1.2	5.0	No	5.0	No	5.0	No
16	Residential	County	LT-5	-1.4	-1.2	-1.3	5.0	No	5.0	No	5.0	No
17	Residential	County	LT-5	-1.3	-1.3	-1.3	5.0	No	5.0	No	5.0	No
18	Residential	County	LT-5	-1.1	-1.1	-1.1	5.0	No	5.0	No	5.0	No
19	Residential	County	LT-5	-1.1	-1.1	-1.1	5.0	No	5.0	No	5.0	No
20	Residential	County	LT-5	-1.1	-1.1	-1.0	5.0	No	5.0	No	5.0	No
21	Residential	County	LT-5	-1.1	-1.1	-1.1	5.0	No	5.0	No	5.0	No
22	Residential	County	LT-5	-1.2	-1.0	-1.1	5.0	No	5.0	No	5.0	No
23	Residential	County	LT-5	-1.1	-1.0	-1.1	5.0	No	5.0	No	5.0	No
24	Residential	County	LT-5	-1.2	-1.1	-1.2	5.0	No	5.0	No	5.0	No
25	Residential	County	LT-5	-1.1	-1.2	-1.1	5.0	No	5.0	No	5.0	No
26	Residential	County	LT-5	-1.1	-1.2	-1.1	5.0	No	5.0	No	5.0	No
27	Residential	County	LT-5	-1.2	-1.1	-1.2	5.0	No	5.0	No	5.0	No
28	Residential	County	LT-5	-1.3	-1.3	-1.2	5.0	No	5.0	No	5.0	No
29	Residential	County	LT-4	-0.5	-0.4	-0.5	1.5	No	1.5	No	1.5	No
30	Residential	County	LT-4	-0.1	0.1	0.0	1.5	No	1.5	No	1.5	No
31	Residential	County	LT-4	-0.1	-0.1	0.0	1.5	No	1.5	No	1.5	No
32	Residential	County	LT-4	-0.2	0.0	-0.1	1.5	No	1.5	No	1.5	No
33	Residential	County	LT-4	-0.4	-0.3	-0.4	1.5	No	1.5	No	1.5	No
34	Residential	County	LT-4	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No
35	Residential	County	LT-4	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No

Mitigated (BAR-2 and BAR-3) Opening Year 2028 Exterior Incremental Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	COMPARISON			FICAN Incremental Increase Impact Analysis					
							Daytime		Nighttime		Ldn	
				Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
36 (Jasper Park)	Park/Recreation	County	ST-1	-0.2	-0.1	-0.1	5.0	No	5.0	No	5.0	No
37	Residential	County	LT-4	-0.5	-0.4	-0.4	1.5	No	1.5	No	1.5	No
38	Residential	County	LT-4	-0.5	-0.3	-0.4	1.5	No	1.5	No	1.5	No
39	Residential	County	LT-4	-0.3	-0.2	-0.2	1.5	No	1.5	No	1.5	No
40	Residential	County	LT-4	-0.2	-0.1	-0.1	1.5	No	1.5	No	1.5	No
41	Residential	County	LT-4	-0.4	-0.3	-0.3	1.5	No	1.5	No	1.5	No
42	Residential	County	LT-4	-0.4	-0.2	-0.2	1.5	No	1.5	No	1.5	No
43	Residential	County	LT-4	-0.4	-0.1	-0.2	1.5	No	1.5	No	1.5	No
44	Residential	County	LT-4	-0.3	-0.1	-0.1	1.5	No	1.5	No	1.5	No
45	Residential	County	LT-4	-0.3	-0.1	-0.2	1.5	No	1.5	No	1.5	No
46	Residential	County	LT-4	-0.3	-0.1	-0.1	1.5	No	1.5	No	1.5	No
47	Residential	County	LT-4	-0.2	0.0	0.0	1.5	No	1.5	No	1.5	No
48	Residential	County	LT-4	-0.2	0.2	0.1	1.5	No	1.5	No	1.5	No
49	Residential	County	LT-4	0.1	0.4	0.4	1.5	No	1.5	No	1.5	No
50	Residential	County	LT-4	0.2	0.6	0.5	1.5	No	1.5	No	1.5	No
51	Residential	County	LT-4	0.4	0.9	0.8	1.5	No	1.5	No	1.5	No
52	Residential	County	LT-1	-1.6	-0.6	-0.8	3.0	No	3.0	No	3.0	No
53	Residential	County	LT-1	-0.6	0.5	0.3	3.0	No	3.0	No	3.0	No
54	Residential	County	LT-2	-1.2	-1.0	-1.1	1.5	No	1.5	No	1.5	No
55	Residential	County	LT-2	-1.4	-1.3	-1.3	1.5	No	1.5	No	1.5	No
56	Residential	County	LT-2	-3.5	-3.5	-3.5	1.5	No	1.5	No	1.5	No
57	Residential	County	LT-2	-4.6	-4.6	-4.5	1.5	No	1.5	No	1.5	No
58	Residential	County	LT-2	-4.9	-4.9	-4.9	1.5	No	1.5	No	1.5	No
59	Residential	County	LT-2	-4.9	-5.0	-4.9	1.5	No	1.5	No	1.5	No
60	Residential	County	LT-2	-4.9	-4.9	-4.9	1.5	No	1.5	No	1.5	No
61	Residential	County	LT-2	-5.0	-5.0	-5.0	1.5	No	1.5	No	1.5	No
62	Residential	County	LT-2	-5.1	-5.1	-5.1	1.5	No	1.5	No	1.5	No
63	Residential	County	LT-2	-4.9	-4.8	-4.9	1.5	No	1.5	No	1.5	No
64	Residential	County	LT-2	-4.9	-4.9	-4.9	1.5	No	1.5	No	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	-0.9	-0.7	-0.8	5.0	No	5.0	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	-0.5	-0.4	-0.4	5.0	No	5.0	No	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	-0.5	-0.4	-0.4	5.0	No	5.0	No	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	-0.2	0.1	0.0	5.0	No	5.0	No	5.0	No
69 (Ingels School)	School	County	LT-6	0.1	0.3	0.3	3.0	No	3.0	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	1.2	1.7	1.6	3.0	No	3.0	No	3.0	No

Mitigated (BAR-2 and BAR-3) Opening Year 2028 Exterior Incremental Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	COMPARISON			FICAN Incremental Increase Impact Analysis					
							Daytime		Nighttime		Ldn	
				Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
71	Residential	County	LT-2	-4.8	-4.7	-4.8	1.5	No	1.5	No	1.5	No
72	Residential	County	LT-2	-4.7	-4.6	-4.7	1.5	No	1.5	No	1.5	No
73	Residential	County	LT-2	-4.6	-4.5	-4.5	1.5	No	1.5	No	1.5	No
74	Residential	County	LT-2	-4.4	-4.5	-4.4	1.5	No	1.5	No	1.5	No
75	Residential	County	LT-2	-4.2	-4.2	-4.2	1.5	No	1.5	No	1.5	No
76	Residential	County	LT-2	0.2	0.1	0.1	1.5	No	1.5	No	1.5	No
77	Residential	County	LT-2	-2.1	-2.1	-2.1	1.5	No	1.5	No	1.5	No
78	Residential	County	LT-2	0.2	0.1	0.1	1.5	No	1.5	No	1.5	No
79	Residential	County	LT-2	0.3	0.3	0.3	1.5	No	1.5	No	1.5	No
80	Residential	County	LT-2	0.4	0.3	0.3	1.5	No	1.5	No	1.5	No
81	Residential	County	LT-2	0.4	0.3	0.3	1.5	No	1.5	No	1.5	No
82	Residential	County	LT-2	0.4	0.3	0.3	1.5	No	1.5	No	1.5	No
83	Residential	City	LT-3	10.1	11.5	11.2	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
84	Residential	City	LT-3	11.3	12.5	12.3	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
85	Residential	City	LT-3	-0.5	-0.5	-0.5	1.5	No	1.5	No	1.5	No
86	Residential	City	LT-3	7.8	8.9	8.8	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
87	Residential	City	LT-3	11.3	12.3	12.1	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
88	Residential	City	LT-3	11.4	12.5	12.3	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
89	Residential	City	LT-3	11.4	12.6	12.4	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
90	Residential	City	LT-3	13.2	14.4	14.2	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Mitigated (BAR-2 and BAR-3) BIG Operational Exterior Noise Impact Analysis - Interim Year 2033

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT									COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
				Measured Ambient Noise Level (L_{dn}, L_{eq})	Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn			Daytime	Nighttime	Ldn	Daytime			Nighttime			Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?				Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	59.8	55	Yes	58.4	45	Yes	65.0	60	Yes	61.7	55	Yes	60.9	45	Yes	67.5	60	Yes	1.9	2.5	2.5	Yes	1.5	Yes	Yes	1.5	Yes	Yes	1.5	Yes
2	Residential	County	LT-3	66.5	58.7	55	Yes	57.3	45	Yes	64.0	60	Yes	59.3	55	Yes	58.9	45	Yes	65.4	60	Yes	-	1.6	1.4	Yes	1.5	Yes	Yes	1.5	Yes	Yes	1.5	No
3	Residential	County	LT-3	66.5	59.9	55	Yes	58.5	45	Yes	65.1	60	Yes	59.7	55	Yes	59.2	45	Yes	65.7	60	Yes	-0.2	0.7	0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
4	Residential	City	LT-3	66.5	57.3	65	No	55.9	65	No	62.6	65	No	59.2	65	No	58.6	65	No	65.1	65	Yes	1.9	2.7	2.5	No	1.5	Yes	No	1.5	Yes	Yes	1.5	Yes
5	Residential	City	LT-3	66.5	59.1	65	No	57.7	65	No	64.3	65	No	60.4	65	No	60.0	65	No	66.4	65	Yes	1.3	2.3	2.1	No	1.5	No	No	1.5	Yes	Yes	1.5	Yes
6	Residential	City	LT-5	58.1	53.4	65	No	52.0	65	No	58.6	65	No	57.4	65	No	57.2	65	No	63.6	65	No	4.0	5.2	5.0	No	5.0	No	No	5.0	Yes	No	5.0	No
7	Residential	City	LT-5	58.1	62.5	65	No	61.1	65	No	67.7	65	Yes	61.9	65	No	61.0	65	No	67.5	65	Yes	-0.6	-0.1	-0.2	No	5.0	No	No	5.0	No	Yes	5.0	No
8	Residential	County	LT-5	58.1	65.3	55	Yes	63.9	45	Yes	70.5	60	Yes	64.3	55	Yes	62.9	45	Yes	69.5	60	Yes	-1.0	-1.0	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
9	Residential	County	LT-5	58.1	66.7	55	Yes	65.3	45	Yes	71.9	60	Yes	65.7	55	Yes	64.3	45	Yes	70.9	60	Yes	-1.0	-1.0	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
10	Residential	County	LT-5	58.1	67.0	55	Yes	65.6	45	Yes	72.2	60	Yes	66.1	55	Yes	64.6	45	Yes	71.3	60	Yes	-0.9	-1.0	-0.9	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
11	Residential	County	LT-5	58.1	67.3	55	Yes	65.9	45	Yes	72.5	60	Yes	66.4	55	Yes	65.0	45	Yes	71.6	60	Yes	-0.9	-0.9	-0.9	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
12	Residential	County	LT-5	58.1	67.6	55	Yes	66.2	45	Yes	72.9	60	Yes	66.7	55	Yes	65.3	45	Yes	71.9	60	Yes	-0.9	-0.9	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
13	Residential	County	LT-5	58.1	68.1	55	Yes	66.6	45	Yes	73.3	60	Yes	67.1	55	Yes	65.7	45	Yes	72.3	60	Yes	-1.0	-0.9	-1.0	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
14	Residential	County	LT-5	58.1	71.1	55	Yes	69.7	45	Yes	76.3	60	Yes	69.9	55	Yes	68.4	45	Yes	75.1	60	Yes	-1.2	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
15	Residential	County	LT-5	58.1	72.9	55	Yes	71.4	45	Yes	78.1	60	Yes	71.7	55	Yes	70.1	45	Yes	76.8	60	Yes	-1.2	-1.3	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
16	Residential	County	LT-5	58.1	70.7	55	Yes	69.3	45	Yes	76.0	60	Yes	69.4	55	Yes	67.9	45	Yes	74.6	60	Yes	-1.3	-1.4	-1.4	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
17	Residential	County	LT-5	58.1	70.8	55	Yes	69.4	45	Yes	76.0	60	Yes	69.5	55	Yes	68.0	45	Yes	74.6	60	Yes	-1.3	-1.4	-1.4	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
18	Residential	County	LT-5	58.1	68.9	55	Yes	67.5	45	Yes	74.1	60	Yes	67.8	55	Yes	66.3	45	Yes	72.9	60	Yes	-1.1	-1.2	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
19	Residential	County	LT-5	58.1	69.5	55	Yes	68.1	45	Yes	74.7	60	Yes	68.4	55	Yes	66.8	45	Yes	73.5	60	Yes	-1.1	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
20	Residential	County	LT-5	58.1	69.7	55	Yes	68.3	45	Yes	74.9	60	Yes	68.6	55	Yes	67.1	45	Yes	73.7	60	Yes	-1.1	-1.2	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
21	Residential	County	LT-5	58.1	70.6	55	Yes	69.2	45	Yes	75.8	60	Yes	69.5	55	Yes	67.9	45	Yes	74.6	60	Yes	-1.1	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
22	Residential	County	LT-5	58.1	70.3	55	Yes	68.9	45	Yes	75.6	60	Yes	69.2	55	Yes	67.7	45	Yes	74.4	60	Yes	-1.1	-1.2	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
23	Residential	County	LT-5	58.1	69.9	55	Yes	68.5	45	Yes	75.2	60	Yes	68.9	55	Yes	67.3	45	Yes	74.0	60	Yes	-1.0	-1.2	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
24	Residential	County	LT-5	58.1	71.4	55	Yes	70.0	45	Yes	76.7	60	Yes	70.3	55	Yes	68.7	45	Yes	75.4	60	Yes	-1.1	-1.3	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
25	Residential	County	LT-5	58.1	71.5	55	Yes	70.1	45	Yes	76.7	60	Yes	70.4	55	Yes	68.8	45	Yes	75.5	60	Yes	-1.1	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
26	Residential	County	LT-5	58.1	71.6	55	Yes	70.2	45	Yes	76.8	60	Yes	70.5	55	Yes	68.9	45	Yes	75.6	60	Yes	-1.1	-1.3	-1.2	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
27	Residential	County	LT-5	58.1	71.2	55	Yes	69.8	45	Yes	76.5	60	Yes	70.1	55	Yes	68.5	45	Yes	75.2	60	Yes	-1.1	-1.3	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
28	Residential	County	LT-5	58.1	72.4	55	Yes	71.0	45	Yes	77.6	60	Yes	71.1	55	Yes	69.6	45	Yes	76.3	60	Yes	-1.3	-1.4	-1.3	Yes	5.0	No	Yes	5.0	No	Yes	5.0	No
29	Residential	County	LT-4	66.1	69.2	55	Yes	67.7	45	Yes	74.4	60	Yes	68.7	55	Yes	67.1	45	Yes	73.8	60	Yes	-0.5	-0.6	-0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
30	Residential	County	LT-4	66.1	73.7	55	Yes	72.3	45	Yes	79.0	60	Yes	73.7	55	Yes	72.2	45	Yes	78.8	60	Yes	0.0	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
31	Residential	County	LT-4	66.1	73.7	55	Yes	72.2	45	Yes	78.9	60	Yes	73.6	55	Yes	72.0	45	Yes	78.7	60	Yes	-0.1	-0.2	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
32	Residential	County	LT-4	66.1	73.6	55	Yes	72.2	45	Yes	78.9	60	Yes	73.5	55	Yes	71.9	45	Yes	78.6	60	Yes	-0.1	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
33	Residential	County	LT-4	66.1	71.1	55	Yes	69.7	45	Yes	76.4	60	Yes	70.8	55	Yes	69.2	45	Yes	75.9	60	Yes	-0.3	-0.5	-0.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
34	Residential	County	LT-4	66.1	71.2	55	Yes	69.8	45	Yes	76.4	60	Yes	70.8	55	Yes	69.3	45	Yes	75.9	60	Yes	-0.4	-0.5	-0.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
35	Residential	County	LT-4	66.1	71.3	55	Yes	69.9	45	Yes	76.5	60	Yes	70.9	55	Yes	69.4	45	Yes	76.0	60	Yes	-0.4	-0.5	-0.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	73.9	55	Yes	72.4	-	No	79.1	60	Yes	73.7	55	Yes	72.1	-	No	78.8	60	Yes	-0.2	-0.3	-0.3	Yes	5.0	No	No	5.0	No	Yes	5.0	No
37	Residential	County	LT-4	66.1	70.0	55	Yes	68.5	45	Yes	75.2	60	Yes	69.5	55	Yes	68.0	45	Yes	74.6	60	Yes	-0.5	-0.5	-0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
38	Residential	County	LT-4	66.1	69.5	55	Yes	68.1	45	Yes	74.8	60	Yes	69.1	55	Yes	67.5	45	Yes	74.2	60	Yes	-0.4	-0.6	-0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
39	Residential	County	LT-4	66.1	72.0	55	Yes	70.5	45	Yes	77.2	60	Yes	71.7	55	Yes	70.1	45	Yes	76.8	60	Yes	-0.3	-0.4	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
40	Residential	County	LT-4	66.1	71.7	55	Yes	70.3	45	Yes	77.0	60	Yes	71.6	55	Yes	70.0	45	Yes	76.7	60	Yes	-0.1	-0.3	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
41	Residential	County	LT-4	66.1	66.9	55	Yes	65.4	45	Yes	72.1	60	Yes	66.5	55	Yes	65.0	45	Yes	71.7	60	Yes	-0.4	-0.4	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
42	Residential	County	LT-4	66.1	66.2	55	Yes	64.8	45	Yes	71.4	60	Yes	65.8	55	Yes	64.4	45	Yes	71.0	60	Yes	-0.4	-0.4	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
43	Residential	County	LT-4	66.1	65.5	55	Yes	64.1	45	Yes	70.8	60	Yes	65.2	55	Yes	63.8	45	Yes	70.4	60	Yes	-0.3	-0.3	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
44	Residential	County	LT-4	66.1	65.0	55	Yes	63.5	45	Yes	70.2	60	Yes	64.6	55	Yes	63.3	45	Yes	69.9	60	Yes	-0.4	-0.2	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
45	Residential	County	LT-4	66.1	65.6	55	Yes	64.2	45	Yes	70.9	60	Yes	65.3	55	Yes	63.9	45	Yes	70.5	60	Yes	-0.3	-0.3	-0.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
46	Residential	County	LT-4	66.1	64.9	55	Yes	63.4	45	Yes	70.1	60	Yes	64.6	55	Yes	63.2	45	Yes	69.8	60	Yes	-0.3	-0.2	-0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
47	Residential	County	LT-4	66.1	64.2	55	Yes	62.7	45	Yes	69.4	60	Yes	63.9	55	Yes	62.6	45	Yes	69.2	60	Yes	-0.3	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
48	Residential	County	LT-4	66.1	63.8	55	Yes	62.4	45	Yes	69.0	60	Yes	63.6	55	Yes	62.3	45	Yes	69.0	60	Yes	-0.2	-0.1	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
49	Residential	County	LT-4	66.1	62.6	55	Yes	61.1	45	Yes	67.8	60	Yes	62.6	55	Yes	61.4	45	Yes	68.0	60	Yes	0.0	0.3	0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
50	Residential	County	LT-4	66.1	62.3	55	Yes	60.9	45	Yes	67.5	60	Yes	62.4	55	Yes	61.3	45	Yes	67.8	60	Yes	0.1	0.4	0.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
51	Residential	County	LT-4	66.1	61.9	55	Yes	60.5	45	Yes	67.2	60	Yes	62.3	55	Yes	61.2	45	Yes	67.8	60	Yes	0.4	0.7	0.6	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
52	Residential	County	LT-1	61.2	56.0	55	Yes	54.6	45	Yes	61.2	60	Yes	54.1	55	No	53.7	45	Yes	60.2	60	Yes	-1.9	-0.9	-1.0	No	3.0	No	Yes	3.0	No	Yes	3.0	No
53	Residential	County	LT-1	61.2	55.2	55	Yes	53.8	45	Yes	60.4	60	Yes	54.3	55	No	54.0	45	Yes	60.4	60	Yes	-0.9	0.2	0.0	No	3.0	No	Yes	3.0	No	Yes	3.0	No
54	Residential	County	LT-2	77.2	67.1	55	Yes	65.7	45	Yes	72.4	60	Yes	66.0	55	Yes	64.5	45	Yes	71.1	60	Yes	-1.1	-1.2	-1.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
55	Residential	County	LT-2	77.2	71.5	55	Yes	70.0	45	Yes	76.7	60	Yes	70.1	55	Yes	68.6	45	Yes	75.2	60	Yes	-1.4	-1.4	-1.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
56	Residential	County	LT-2	77.2	72.7	55	Yes	71.2	45	Yes	77.9	60	Yes	69.2	55	Yes	67.7	45	Yes	74.4	60	Yes	-3.5	-3.5	-3.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
57	Residential	County	LT-2	77.2	72.0	55	Yes	70.5	45	Yes	77.2	60	Yes	67.4	55	Yes	66.0	45	Yes	72.7	60	Yes	-4.6	-4.5	-4.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
58	Residential	County	LT-2	77.2	72.7	55	Yes	71.2	45	Yes	77.9	60	Yes	67.7	55	Yes	66.4	45	Yes	73.0	60	Yes	-5.0	-4.8	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
59	Residential	County	LT-2	77.2	71.6	55	Yes	70.2	45	Yes	76.8	60	Yes	66.6	55	Yes	65.3	45	Yes	71.9	60	Yes	-5.0	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
60	Residential	County	LT-2	77.2	69.8	55	Yes	68.4	45	Yes	75.0	60	Yes	64.9	55	Yes	63.5	45	Yes	70.1	60	Yes	-4.9	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
61	Residential	County	LT-2	77.2	74.3	55	Yes	72.8	45	Yes	79.5	60	Yes	69.2	55	Yes	67.9	45	Yes	74.5	60	Yes	-5.1	-4.9	-5.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
62	Residential	County	LT-2	77.2	75.5	55	Yes	74.1	45	Yes	80.8	60	Yes	70.4	55	Yes	69.1	45	Yes	75.7	60	Yes	-5.1	-5.0	-5.1	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
63	Residential	County	LT-2	77.2	69.7	55	Yes	68.3	45	Yes	75.0	60	Yes	64.8	55	Yes	63.5	45	Yes	70.1	60	Yes	-4.9	-4.8	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
64	Residential	County	LT-2	77.2	71.6	55	Yes	70.2	45	Yes	76.8	60	Yes	66.6	55	Yes	65.3	45	Yes	71.9	60	Yes	-5.0	-4.9	-4.9	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	65.4	55	Yes	64.0	-	No	70.7	60	Yes	64.6	55	Yes	63.1	-	No	69.7	60	Yes	-0.8	-0.9	-1.0	Yes	5.0	No	No	5.0	No	Yes	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	61.8	55	Yes	60.4	-	No	67.0	60	Yes	61.2	55	Yes	59.8	-	No	66.5	60	Yes	-0.6	-0.6	-0.5	Yes	5.0	No	No	5.0	No	Yes	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	63.1	55	Yes	61.7	-	No	68.3	60	Yes	62.6	55	Yes	61.1	-	No	67.7	60	Yes	-0.5	-0.6	-0.6	Yes	5.0	No	No	5.0	No	Yes	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	58.8	55	Yes	57.4	-	No	64.1	60	Yes	58.6	55	Yes	57.3	-	No	63.9	60	Yes	-0.2	-0.1	-0.2	Yes	5.0	No	No	5.0	No	Yes	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	56.8	55	Yes	55.4	-	No	62.0	65	No	56.9	55	Yes	55.6	-	No	62.2	65	No	0.1	0.2	0.2	Yes	3.0	No	No	3.0	No	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	54.4	55	No	53.0	-	No	59.6	60	No	55.5	55	Yes	54.5	-	No	61.0	60	Yes	1.1	1.5	1.4	Yes	3.0	No	No	3.0	No	Yes	3.0	No
71	Residential	County	LT-2	77.2	67.8	55	Yes	66.4	45	Yes	73.1	60	Yes	63.1	55	Yes	61.7	45	Yes	68.3	60	Yes	-4.7	-4.7	-4.8	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
72	Residential	County	LT-2	77.2	67.4	55	Yes	66.0	45	Yes	72.7	60	Yes	62.7	55	Yes	61.3	45	Yes	68.0	60	Yes	-4.7	-4.7	-4.7	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
73	Residential	County	LT-2	77.2	66.8	55	Yes	65.4	45	Yes	72.0	60	Yes	62.2	55	Yes	60.9	45	Yes	67.5	60	Yes	-4.6	-4.5	-4.5	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
74	Residential	County	LT-2	77.2	73.3	55	Yes	71.9	45	Yes	78.5	60	Yes	68.8	55	Yes	67.5	45	Yes	74.1	60	Yes	-4.5	-4.4	-4.4	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
75	Residential	County	LT-2	77.2	74.4	55	Yes	73.0	45	Yes	79.6	60	Yes	70.1	55	Yes	68.8	45	Yes	75.4	60	Yes	-4.3	-4.2	-4.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
76	Residential	County	LT-2	77.2	79.1	55	Yes	77.7	45	Yes	84.3	60	Yes	78.9	55	Yes	77.5	45	Yes	84.1	60	Yes	-0.2	-0.2	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
77	Residential	County	LT-2	77.2	64.4	55	Yes	63.0	45	Yes	69.7	60	Yes	62.1	55	Yes	60.7	45	Yes	67.4	60	Yes	-2.3	-2.3	-2.3	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
78	Residential	County	LT-2	77.2	62.3	55	Yes	60.8	45	Yes	67.5	60	Yes	62.1	55	Yes	60.7	45	Yes	67.3	60	Yes	-0.2	-0.1	-0.2	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
79	Residential	County	LT-2	77.2	67.4	55	Yes	66.0	45	Yes	72.7	60	Yes	67.4	55	Yes	66.0	45	Yes	72.7	60	Yes	0.0	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
80	Residential	County	LT-2	77.2	68.2	55	Yes	66.8	45	Yes	73.4	60	Yes	68.2	55	Yes	66.8	45	Yes	73.4	60	Yes	0.0	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
81	Residential	County	LT-2	77.2	64.0	55	Yes	62.6	45	Yes	69.2	60	Yes	64.0	55	Yes	62.6	45	Yes	69.2	60	Yes	0.0	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No
82	Residential	County	LT-2	77.2	67.2	55	Yes	65.8	45	Yes	72.4	60	Yes	67.2	55	Yes	65.8	45	Yes	72.4	60	Yes	0.0	0.0	0.0	Yes	1.5	No	Yes	1.5	No	Yes	1.5	No

Mitigated (BAR-2 and BAR-3) BIG Operational Exterior Noise Impact Analysis - Interim Year 2033

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT									COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
				Measured Ambient Noise Level (L_{dn}, L_{eq})	Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn			Daytime	Nighttime	Ldn	Daytime			Nighttime			Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?				Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
83	Residential	City	LT-3	66.5	47.6	65	No	46.2	65	No	52.9	65	No	57.5	65	No	57.4	65	No	63.8	65	No	9.9	11.2	10.9	No	1.5	No	No	1.5	No	No	1.5	**Yes**
84	Residential	City	LT-3	66.5	46.6	65	No	45.2	65	No	51.8	65	No	57.5	65	No	57.4	65	No	63.8	65	No	10.9	12.2	12.0	No	1.5	No	No	1.5	No	No	1.5	**Yes**
85	Residential	City	LT-3	66.5	67.1	65	**Yes**	65.7	65	**Yes**	72.3	65	**Yes**	66.6	65	**Yes**	65.0	65	No	71.7	65	**Yes**	-0.5	-0.7	-0.6	**Yes**	1.5	No	No	1.5	No	**Yes**	1.5	No
86	Residential	City	LT-3	66.5	47.1	65	No	45.7	65	No	52.3	65	No	54.5	65	No	54.3	65	No	60.8	65	No	7.4	8.6	8.5	No	1.5	No	No	1.5	No	No	1.5	No
87	Residential	City	LT-3	66.5	45.3	65	No	43.9	65	No	50.6	65	No	56.4	65	No	55.9	65	No	62.4	65	No	11.1	12.0	11.8	No	1.5	No	No	1.5	No	No	1.5	No
88	Residential	City	LT-3	66.5	45.9	65	No	44.5	65	No	51.1	65	No	57.0	65	No	56.7	65	No	63.1	65	No	11.1	12.2	12.0	No	1.5	No	No	1.5	No	No	1.5	**Yes**
89	Residential	City	LT-3	66.5	45.9	65	No	44.5	65	No	51.1	65	No	57.1	65	No	56.8	65	No	63.3	65	No	11.2	12.3	12.2	No	1.5	No	No	1.5	No	No	1.5	**Yes**
90	Residential	City	LT-3	66.5	45.5	65	No	44.0	65	No	50.7	65	No	58.3	65	No	58.2	65	No	64.6	65	No	12.8	14.2	13.9	No	1.5	No	No	1.5	No	No	1.5	**Yes**

Mitigated (BAR-2 and BAR-3) Interim Year 2033 Exterior Incremental Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	COMPARISON			FICAN Incremental Increase Impact Analysis					
							Daytime		Nighttime		Ldn	
				Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
1	Residential	County	LT-3	1.9	2.5	2.5	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
2	Residential	County	LT-3	0.6	1.6	1.4	1.5	No	1.5	**Yes**	1.5	No
3	Residential	County	LT-3	-0.2	0.7	0.6	1.5	No	1.5	No	1.5	No
4	Residential	City	LT-3	1.9	2.7	2.5	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
5	Residential	City	LT-3	1.3	2.3	2.1	1.5	No	1.5	**Yes**	1.5	**Yes**
6	Residential	City	LT-5	4.0	5.2	5.0	5.0	No	5.0	**Yes**	5.0	No
7	Residential	City	LT-5	-0.6	-0.1	-0.2	5.0	No	5.0	No	5.0	No
8	Residential	County	LT-5	-1.0	-1.0	-1.0	5.0	No	5.0	No	5.0	No
9	Residential	County	LT-5	-1.0	-1.0	-1.0	5.0	No	5.0	No	5.0	No
10	Residential	County	LT-5	-0.9	-1.0	-0.9	5.0	No	5.0	No	5.0	No
11	Residential	County	LT-5	-0.9	-0.9	-0.9	5.0	No	5.0	No	5.0	No
12	Residential	County	LT-5	-0.9	-0.9	-1.0	5.0	No	5.0	No	5.0	No
13	Residential	County	LT-5	-1.0	-0.9	-1.0	5.0	No	5.0	No	5.0	No
14	Residential	County	LT-5	-1.2	-1.3	-1.2	5.0	No	5.0	No	5.0	No
15	Residential	County	LT-5	-1.2	-1.3	-1.3	5.0	No	5.0	No	5.0	No
16	Residential	County	LT-5	-1.3	-1.4	-1.4	5.0	No	5.0	No	5.0	No
17	Residential	County	LT-5	-1.3	-1.4	-1.4	5.0	No	5.0	No	5.0	No
18	Residential	County	LT-5	-1.1	-1.2	-1.2	5.0	No	5.0	No	5.0	No
19	Residential	County	LT-5	-1.1	-1.3	-1.2	5.0	No	5.0	No	5.0	No
20	Residential	County	LT-5	-1.1	-1.2	-1.2	5.0	No	5.0	No	5.0	No
21	Residential	County	LT-5	-1.1	-1.3	-1.2	5.0	No	5.0	No	5.0	No
22	Residential	County	LT-5	-1.1	-1.2	-1.2	5.0	No	5.0	No	5.0	No
23	Residential	County	LT-5	-1.0	-1.2	-1.2	5.0	No	5.0	No	5.0	No
24	Residential	County	LT-5	-1.1	-1.3	-1.3	5.0	No	5.0	No	5.0	No
25	Residential	County	LT-5	-1.1	-1.3	-1.2	5.0	No	5.0	No	5.0	No
26	Residential	County	LT-5	-1.1	-1.3	-1.2	5.0	No	5.0	No	5.0	No
27	Residential	County	LT-5	-1.1	-1.3	-1.3	5.0	No	5.0	No	5.0	No
28	Residential	County	LT-5	-1.3	-1.4	-1.3	5.0	No	5.0	No	5.0	No
29	Residential	County	LT-4	-0.5	-0.6	-0.6	1.5	No	1.5	No	1.5	No
30	Residential	County	LT-4	0.0	-0.1	-0.2	1.5	No	1.5	No	1.5	No
31	Residential	County	LT-4	-0.1	-0.2	-0.2	1.5	No	1.5	No	1.5	No
32	Residential	County	LT-4	-0.1	-0.3	-0.3	1.5	No	1.5	No	1.5	No
33	Residential	County	LT-4	-0.3	-0.5	-0.5	1.5	No	1.5	No	1.5	No
34	Residential	County	LT-4	-0.4	-0.5	-0.5	1.5	No	1.5	No	1.5	No
35	Residential	County	LT-4	-0.4	-0.5	-0.5	1.5	No	1.5	No	1.5	No

Mitigated (BAR-2 and BAR-3) Interim Year 2033 Exterior Incremental Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	COMPARISON			FICAN Incremental Increase Impact Analysis					
							Daytime		Nighttime		Ldn	
				Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
36 (Jasper Park)	Park/Recreation	County	ST-1	-0.2	-0.3	-0.3	5.0	No	5.0	No	5.0	No
37	Residential	County	LT-4	-0.5	-0.5	-0.6	1.5	No	1.5	No	1.5	No
38	Residential	County	LT-4	-0.4	-0.6	-0.6	1.5	No	1.5	No	1.5	No
39	Residential	County	LT-4	-0.3	-0.4	-0.4	1.5	No	1.5	No	1.5	No
40	Residential	County	LT-4	-0.1	-0.3	-0.3	1.5	No	1.5	No	1.5	No
41	Residential	County	LT-4	-0.4	-0.4	-0.4	1.5	No	1.5	No	1.5	No
42	Residential	County	LT-4	-0.4	-0.4	-0.4	1.5	No	1.5	No	1.5	No
43	Residential	County	LT-4	-0.3	-0.3	-0.4	1.5	No	1.5	No	1.5	No
44	Residential	County	LT-4	-0.4	-0.2	-0.3	1.5	No	1.5	No	1.5	No
45	Residential	County	LT-4	-0.3	-0.3	-0.4	1.5	No	1.5	No	1.5	No
46	Residential	County	LT-4	-0.3	-0.2	-0.3	1.5	No	1.5	No	1.5	No
47	Residential	County	LT-4	-0.3	-0.1	-0.2	1.5	No	1.5	No	1.5	No
48	Residential	County	LT-4	-0.2	-0.1	0.0	1.5	No	1.5	No	1.5	No
49	Residential	County	LT-4	0.0	0.3	0.2	1.5	No	1.5	No	1.5	No
50	Residential	County	LT-4	0.1	0.4	0.3	1.5	No	1.5	No	1.5	No
51	Residential	County	LT-4	0.4	0.7	0.6	1.5	No	1.5	No	1.5	No
52	Residential	County	LT-1	-1.9	-0.9	-1.0	3.0	No	3.0	No	3.0	No
53	Residential	County	LT-1	-0.9	0.2	0.0	3.0	No	3.0	No	3.0	No
54	Residential	County	LT-2	-1.1	-1.2	-1.3	1.5	No	1.5	No	1.5	No
55	Residential	County	LT-2	-1.4	-1.4	-1.5	1.5	No	1.5	No	1.5	No
56	Residential	County	LT-2	-3.5	-3.5	-3.5	1.5	No	1.5	No	1.5	No
57	Residential	County	LT-2	-4.6	-4.5	-4.5	1.5	No	1.5	No	1.5	No
58	Residential	County	LT-2	-5.0	-4.8	-4.9	1.5	No	1.5	No	1.5	No
59	Residential	County	LT-2	-5.0	-4.9	-4.9	1.5	No	1.5	No	1.5	No
60	Residential	County	LT-2	-4.9	-4.9	-4.9	1.5	No	1.5	No	1.5	No
61	Residential	County	LT-2	-5.1	-4.9	-5.0	1.5	No	1.5	No	1.5	No
62	Residential	County	LT-2	-5.1	-5.0	-5.1	1.5	No	1.5	No	1.5	No
63	Residential	County	LT-2	-4.9	-4.8	-4.9	1.5	No	1.5	No	1.5	No
64	Residential	County	LT-2	-5.0	-4.9	-4.9	1.5	No	1.5	No	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	-0.8	-0.9	-1.0	5.0	No	5.0	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	-0.6	-0.6	-0.5	5.0	No	5.0	No	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	-0.5	-0.6	-0.6	5.0	No	5.0	No	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	-0.2	-0.1	-0.2	5.0	No	5.0	No	5.0	No
69 (Ingels School)	School	County	LT-6	0.1	0.2	0.2	3.0	No	3.0	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	1.1	1.5	1.4	3.0	No	3.0	No	3.0	No

Mitigated (BAR-2 and BAR-3) Interim Year 2033 Exterior Incremental Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	COMPARISON			FICAN Incremental Increase Impact Analysis					
							Daytime		Nighttime		Ldn	
				Daytime	Nighttime	Ldn	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
71	Residential	County	LT-2	-4.7	-4.7	-4.8	1.5	No	1.5	No	1.5	No
72	Residential	County	LT-2	-4.7	-4.7	-4.7	1.5	No	1.5	No	1.5	No
73	Residential	County	LT-2	-4.6	-4.5	-4.5	1.5	No	1.5	No	1.5	No
74	Residential	County	LT-2	-4.5	-4.4	-4.4	1.5	No	1.5	No	1.5	No
75	Residential	County	LT-2	-4.3	-4.2	-4.2	1.5	No	1.5	No	1.5	No
76	Residential	County	LT-2	-0.2	-0.2	-0.2	1.5	No	1.5	No	1.5	No
77	Residential	County	LT-2	-2.3	-2.3	-2.3	1.5	No	1.5	No	1.5	No
78	Residential	County	LT-2	-0.2	-0.1	-0.2	1.5	No	1.5	No	1.5	No
79	Residential	County	LT-2	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
80	Residential	County	LT-2	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
81	Residential	County	LT-2	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
82	Residential	County	LT-2	0.0	0.0	0.0	1.5	No	1.5	No	1.5	No
83	Residential	City	LT-3	9.9	11.2	10.9	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
84	Residential	City	LT-3	10.9	12.2	12.0	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
85	Residential	City	LT-3	-0.5	-0.7	-0.6	1.5	No	1.5	No	1.5	No
86	Residential	City	LT-3	7.4	8.6	8.5	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
87	Residential	City	LT-3	11.1	12.0	11.8	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
88	Residential	City	LT-3	11.1	12.2	12.0	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
89	Residential	City	LT-3	11.2	12.3	12.2	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
90	Residential	City	LT-3	12.8	14.2	13.9	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Mitigated (BAR-2 and BAR-3) BIG Operational Exterior Noise Impact Analysis - Horizon Year 2048

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT										COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
					Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn						Daytime			Nighttime			Ldn		
				Measured Ambient Noise Level (L_{dn}, L_{eq})	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Daytime	Nighttime	Ldn	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	60.9	55	**Yes**	59.4	45	**Yes**	66.0	60	**Yes**	62.2	55	**Yes**	61.6	45	**Yes**	68.1	60	**Yes**	1.3	2.2	2.1	**Yes**	1.5	No	**Yes**	1.5	Yes	**Yes**	1.5	**Yes**
2	Residential	County	LT-3	66.5	59.8	55	**Yes**	58.3	45	**Yes**	64.9	60	**Yes**	59.7	55	**Yes**	59.3	45	**Yes**	65.7	60	**Yes**	-0.1	1.0	0.8	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
3	Residential	County	LT-3	66.5	61.0	55	**Yes**	59.5	45	**Yes**	66.1	60	**Yes**	60.1	55	**Yes**	59.7	45	**Yes**	66.1	60	**Yes**	-0.9	0.2	0.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
4	Residential	City	LT-3	66.5	58.4	65	No	56.9	65	No	63.6	65	No	59.7	65	No	59.2	65	No	65.7	65	**Yes**	1.3	2.3	2.1	No	1.5	No	No	1.5	Yes	**Yes**	1.5	**Yes**
5	Residential	City	LT-3	66.5	60.1	65	No	58.6	65	No	65.3	65	**Yes**	60.4	65	No	60.1	65	No	66.6	65	**Yes**	0.3	1.5	1.3	No	1.5	No	No	1.5	No	**Yes**	1.5	No
6	Residential	City	LT-5	58.1	54.5	65	No	53.0	65	No	59.6	65	No	57.6	65	No	57.4	65	No	63.8	65	No	3.1	4.4	4.2	No	5.0	No	No	5.0	No	No	5.0	No
7	Residential	City	LT-5	58.1	63.6	65	No	62.1	65	No	68.7	65	**Yes**	62.6	65	No	61.8	65	No	68.3	65	**Yes**	-1.0	-0.3	-0.4	No	5.0	No	No	5.0	No	**Yes**	5.0	No
8	Residential	County	LT-5	58.1	66.4	55	**Yes**	64.9	45	**Yes**	71.5	60	**Yes**	65.2	55	**Yes**	64.0	45	**Yes**	70.6	60	**Yes**	-1.2	-0.9	-0.9	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
9	Residential	County	LT-5	58.1	67.7	55	**Yes**	66.2	45	**Yes**	72.9	60	**Yes**	66.7	55	**Yes**	65.4	45	**Yes**	72.0	60	**Yes**	-1.0	-0.8	-0.9	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
10	Residential	County	LT-5	58.1	68.0	55	**Yes**	66.5	45	**Yes**	73.2	60	**Yes**	67.0	55	**Yes**	65.7	45	**Yes**	72.4	60	**Yes**	-1.0	-0.8	-0.8	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
11	Residential	County	LT-5	58.1	68.3	55	**Yes**	66.9	45	**Yes**	73.5	60	**Yes**	67.4	55	**Yes**	66.1	45	**Yes**	72.7	60	**Yes**	-0.9	-0.8	-0.8	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
12	Residential	County	LT-5	58.1	68.7	55	**Yes**	67.2	45	**Yes**	73.9	60	**Yes**	67.7	55	**Yes**	66.4	45	**Yes**	73.0	60	**Yes**	-1.0	-0.8	-0.9	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
13	Residential	County	LT-5	58.1	69.1	55	**Yes**	67.6	45	**Yes**	74.3	60	**Yes**	68.1	55	**Yes**	66.8	45	**Yes**	73.4	60	**Yes**	-1.0	-0.8	-0.9	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
14	Residential	County	LT-5	58.1	72.1	55	**Yes**	70.6	45	**Yes**	77.3	60	**Yes**	70.9	55	**Yes**	69.6	45	**Yes**	76.2	60	**Yes**	-1.2	-1.0	-1.1	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
15	Residential	County	LT-5	58.1	73.9	55	**Yes**	72.4	45	**Yes**	79.1	60	**Yes**	72.7	55	**Yes**	71.3	45	**Yes**	78.0	60	**Yes**	-1.2	-1.1	-1.1	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
16	Residential	County	LT-5	58.1	71.8	55	**Yes**	70.3	45	**Yes**	77.0	60	**Yes**	70.4	55	**Yes**	69.1	45	**Yes**	75.7	60	**Yes**	-1.4	-1.2	-1.3	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
17	Residential	County	LT-5	58.1	71.8	55	**Yes**	70.4	45	**Yes**	77.0	60	**Yes**	70.5	55	**Yes**	69.1	45	**Yes**	75.8	60	**Yes**	-1.3	-1.3	-1.2	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
18	Residential	County	LT-5	58.1	69.9	55	**Yes**	68.5	45	**Yes**	75.1	60	**Yes**	68.8	55	**Yes**	67.4	45	**Yes**	74.1	60	**Yes**	-1.1	-1.1	-1.0	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
19	Residential	County	LT-5	58.1	70.5	55	**Yes**	69.0	45	**Yes**	75.7	60	**Yes**	69.4	55	**Yes**	68.0	45	**Yes**	74.7	60	**Yes**	-1.1	-1.0	-1.0	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
20	Residential	County	LT-5	58.1	70.7	55	**Yes**	69.2	45	**Yes**	75.9	60	**Yes**	69.6	55	**Yes**	68.3	45	**Yes**	74.9	60	**Yes**	-1.1	-0.9	-1.0	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
21	Residential	County	LT-5	58.1	71.6	55	**Yes**	70.1	45	**Yes**	76.8	60	**Yes**	70.5	55	**Yes**	69.1	45	**Yes**	75.8	60	**Yes**	-1.1	-1.0	-1.0	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
22	Residential	County	LT-5	58.1	71.4	55	**Yes**	69.9	45	**Yes**	76.5	60	**Yes**	70.3	55	**Yes**	68.9	45	**Yes**	75.5	60	**Yes**	-1.1	-1.0	-1.0	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
23	Residential	County	LT-5	58.1	71.0	55	**Yes**	69.5	45	**Yes**	76.1	60	**Yes**	69.9	55	**Yes**	68.5	45	**Yes**	75.1	60	**Yes**	-1.1	-1.0	-1.0	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
24	Residential	County	LT-5	58.1	72.5	55	**Yes**	71.0	45	**Yes**	77.6	60	**Yes**	71.3	55	**Yes**	69.9	45	**Yes**	76.6	60	**Yes**	-1.2	-1.1	-1.0	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
25	Residential	County	LT-5	58.1	72.5	55	**Yes**	71.0	45	**Yes**	77.7	60	**Yes**	71.4	55	**Yes**	70.0	45	**Yes**	76.6	60	**Yes**	-1.1	-1.0	-1.1	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
26	Residential	County	LT-5	58.1	72.7	55	**Yes**	71.2	45	**Yes**	77.8	60	**Yes**	71.5	55	**Yes**	70.1	45	**Yes**	76.7	60	**Yes**	-1.2	-1.1	-1.1	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
27	Residential	County	LT-5	58.1	72.3	55	**Yes**	70.8	45	**Yes**	77.5	60	**Yes**	71.1	55	**Yes**	69.7	45	**Yes**	76.4	60	**Yes**	-1.2	-1.1	-1.1	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
28	Residential	County	LT-5	58.1	73.4	55	**Yes**	71.9	45	**Yes**	78.6	60	**Yes**	72.2	55	**Yes**	70.8	45	**Yes**	77.4	60	**Yes**	-1.2	-1.1	-1.2	**Yes**	5.0	No	**Yes**	5.0	No	**Yes**	5.0	No
29	Residential	County	LT-4	66.1	70.2	55	**Yes**	68.7	45	**Yes**	75.4	60	**Yes**	69.7	55	**Yes**	68.3	45	**Yes**	74.9	60	**Yes**	-0.5	-0.4	-0.5	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
30	Residential	County	LT-4	66.1	74.8	55	**Yes**	73.3	45	**Yes**	79.9	60	**Yes**	74.7	55	**Yes**	73.3	45	**Yes**	80.0	60	**Yes**	-0.1	0.0	0.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
31	Residential	County	LT-4	66.1	74.7	55	**Yes**	73.2	45	**Yes**	79.9	60	**Yes**	74.6	55	**Yes**	73.2	45	**Yes**	79.8	60	**Yes**	-0.1	0.0	-0.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
32	Residential	County	LT-4	66.1	74.7	55	**Yes**	73.2	45	**Yes**	79.8	60	**Yes**	74.5	55	**Yes**	73.1	45	**Yes**	79.7	60	**Yes**	-0.2	-0.1	-0.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
33	Residential	County	LT-4	66.1	72.2	55	**Yes**	70.7	45	**Yes**	77.3	60	**Yes**	71.8	55	**Yes**	70.4	45	**Yes**	77.0	60	**Yes**	-0.4	-0.3	-0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
34	Residential	County	LT-4	66.1	72.2	55	**Yes**	70.7	45	**Yes**	77.4	60	**Yes**	71.8	55	**Yes**	70.4	45	**Yes**	77.1	60	**Yes**	-0.4	-0.3	-0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
35	Residential	County	LT-4	66.1	72.3	55	**Yes**	70.8	45	**Yes**	77.5	60	**Yes**	71.9	55	**Yes**	70.5	45	**Yes**	77.2	60	**Yes**	-0.4	-0.3	-0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	74.9	55	**Yes**	73.4	-	No	80.1	60	**Yes**	74.7	55	**Yes**	73.3	-	No	80.0	60	**Yes**	-0.2	-0.1	-0.1	**Yes**	5.0	No	No	5.0	No	**Yes**	5.0	No
37	Residential	County	LT-4	66.1	71.0	55	**Yes**	69.5	45	**Yes**	76.2	60	**Yes**	70.5	55	**Yes**	69.1	45	**Yes**	75.8	60	**Yes**	-0.5	-0.4	-0.4	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
38	Residential	County	LT-4	66.1	70.6	55	**Yes**	69.1	45	**Yes**	75.7	60	**Yes**	70.1	55	**Yes**	68.7	45	**Yes**	75.3	60	**Yes**	-0.5	-0.4	-0.4	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
39	Residential	County	LT-4	66.1	73.0	55	**Yes**	71.5	45	**Yes**	78.2	60	**Yes**	72.7	55	**Yes**	71.3	45	**Yes**	77.9	60	**Yes**	-0.3	-0.2	-0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
40	Residential	County	LT-4	66.1	72.8	55	**Yes**	71.3	45	**Yes**	77.9	60	**Yes**	72.6	55	**Yes**	71.2	45	**Yes**	77.8	60	**Yes**	-0.2	-0.1	-0.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
41	Residential	County	LT-4	66.1	67.9	55	**Yes**	66.4	45	**Yes**	73.1	60	**Yes**	67.4	55	**Yes**	66.1	45	**Yes**	72.7	60	**Yes**	-0.5	-0.3	-0.4	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
42	Residential	County	LT-4	66.1	67.3	55	**Yes**	65.8	45	**Yes**	72.4	60	**Yes**	66.8	55	**Yes**	65.5	45	**Yes**	72.1	60	**Yes**	-0.5	-0.3	-0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
43	Residential	County	LT-4	66.1	66.6	55	**Yes**	65.1	45	**Yes**	71.7	60	**Yes**	66.1	55	**Yes**	64.8	45	**Yes**	71.4	60	**Yes**	-0.5	-0.3	-0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
44	Residential	County	LT-4	66.1	66.0	55	**Yes**	64.5	45	**Yes**	71.2	60	**Yes**	65.5	55	**Yes**	64.3	45	**Yes**	70.9	60	**Yes**	-0.5	-0.2	-0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
45	Residential	County	LT-4	66.1	66.7	55	**Yes**	65.2	45	**Yes**	71.9	60	**Yes**	66.3	55	**Yes**	65.0	45	**Yes**	71.6	60	**Yes**	-0.4	-0.2	-0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
46	Residential	County	LT-4	66.1	65.9	55	**Yes**	64.4	45	**Yes**	71.1	60	**Yes**	65.5	55	**Yes**	64.2	45	**Yes**	70.8	60	**Yes**	-0.4	-0.2	-0.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
47	Residential	County	LT-4	66.1	65.2	55	**Yes**	63.7	45	**Yes**	70.4	60	**Yes**	64.8	55	**Yes**	63.6	45	**Yes**	70.2	60	**Yes**	-0.4	-0.1	-0.2	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
48	Residential	County	LT-4	66.1	64.9	55	**Yes**	63.4	45	**Yes**	70.0	60	**Yes**	64.5	55	**Yes**	63.3	45	**Yes**	69.9	60	**Yes**	-0.4	-0.1	-0.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
49	Residential	County	LT-4	66.1	63.6	55	**Yes**	62.1	45	**Yes**	68.8	60	**Yes**	63.4	55	**Yes**	62.3	45	**Yes**	68.9	60	**Yes**	-0.2	0.2	0.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
50	Residential	County	LT-4	66.1	63.3	55	**Yes**	61.8	45	**Yes**	68.5	60	**Yes**	63.2	55	**Yes**	62.1	45	**Yes**	68.7	60	**Yes**	-0.1	0.3	0.2	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
51	Residential	County	LT-4	66.1	63.0	55	**Yes**	61.5	45	**Yes**	68.2	60	**Yes**	63.0	55	**Yes**	62.0	45	**Yes**	68.6	60	**Yes**	0.0	0.5	0.4	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
52	Residential	County	LT-1	61.2	57.0	55	**Yes**	55.5	45	**Yes**	62.2	60	**Yes**	54.4	55	No	54.0	45	**Yes**	60.5	60	**Yes**	-2.6	-1.5	-1.7	No	3.0	No	**Yes**	3.0	No	Yes	3.0	No
53	Residential	County	LT-1	61.2	56.2	55	**Yes**	54.8	45	**Yes**	61.4	60	**Yes**	54.6	55	No	54.3	45	**Yes**	60.7	60	**Yes**	-1.6	-0.5	-0.7	No	3.0	No	**Yes**	3.0	No	**Yes**	3.0	No
54	Residential	County	LT-2	77.2	68.2	55	**Yes**	66.7	45	**Yes**	73.3	60	**Yes**	67.0	55	**Yes**	65.9	45	**Yes**	72.4	60	**Yes**	-1.2	-0.8	-0.9	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
55	Residential	County	LT-2	77.2	72.5	55	**Yes**	71.0	45	**Yes**	77.7	60	**Yes**	71.1	55	**Yes**	69.9	45	**Yes**	76.5	60	**Yes**	-1.4	-1.1	-1.2	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
56	Residential	County	LT-2	77.2	73.7	55	**Yes**	72.2	45	**Yes**	78.9	60	**Yes**	70.1	55	**Yes**	68.8	45	**Yes**	75.5	60	**Yes**	-3.6	-3.4	-3.4	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
57	Residential	County	LT-2	77.2	73.0	55	**Yes**	71.5	45	**Yes**	78.2	60	**Yes**	68.4	55	**Yes**	66.9	45	**Yes**	73.6	60	**Yes**	-4.6	-4.6	-4.6	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
58	Residential	County	LT-2	77.2	73.7	55	**Yes**	72.2	45	**Yes**	78.9	60	**Yes**	68.7	55	**Yes**	67.3	45	**Yes**	73.9	60	**Yes**	-5.0	-4.9	-5.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
59	Residential	County	LT-2	77.2	72.7	55	**Yes**	71.2	45	**Yes**	77.8	60	**Yes**	67.6	55	**Yes**	66.1	45	**Yes**	72.8	60	**Yes**	-5.1	-5.1	-5.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
60	Residential	County	LT-2	77.2	70.8	55	**Yes**	69.3	45	**Yes**	76.0	60	**Yes**	65.9	55	**Yes**	64.4	45	**Yes**	71.0	60	**Yes**	-4.9	-4.9	-5.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
61	Residential	County	LT-2	77.2	75.3	55	**Yes**	73.8	45	**Yes**	80.5	60	**Yes**	70.2	55	**Yes**	68.8	45	**Yes**	75.4	60	**Yes**	-5.1	-5.0	-5.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
62	Residential	County	LT-2	77.2	76.6	55	**Yes**	75.1	45	**Yes**	81.7	60	**Yes**	71.4	55	**Yes**	69.9	45	**Yes**	76.6	60	**Yes**	-5.2	-5.2	-5.1	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
63	Residential	County	LT-2	77.2	70.8	55	**Yes**	69.3	45	**Yes**	75.9	60	**Yes**	65.8	55	**Yes**	64.4	45	**Yes**	71.0	60	**Yes**	-5.0	-4.9	-4.9	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
64	Residential	County	LT-2	77.2	72.6	55	**Yes**	71.2	45	**Yes**	77.8	60	**Yes**	67.6	55	**Yes**	66.2	45	**Yes**	72.8	60	**Yes**	-5.0	-5.0	-5.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	66.5	55	**Yes**	65.0	-	No	71.6	60	**Yes**	65.5	55	**Yes**	64.2	-	No	70.8	60	**Yes**	-1.0	-0.8	-0.8	**Yes**	5.0	No	No	5.0	No	**Yes**	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	62.8	55	**Yes**	61.3	-	No	68.0	60	**Yes**	62.2	55	**Yes**	60.9	-	No	67.5	60	**Yes**	-0.6	-0.4	-0.5	**Yes**	5.0	No	No	5.0	No	**Yes**	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	64.1	55	**Yes**	62.6	-	No	69.3	60	**Yes**	63.6	55	**Yes**	62.2	-	No	68.8	60	**Yes**	-0.5	-0.4	-0.5	**Yes**	5.0	No	No	5.0	No	**Yes**	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	59.9	55	**Yes**	58.4	-	No	65.1	60	**Yes**	59.5	55	**Yes**	58.3	-	No	64.9	60	**Yes**	-0.4	-0.1	-0.2	**Yes**	5.0	No	No	5.0	No	**Yes**	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	57.8	55	**Yes**	56.3	-	No	63.0	65	No	57.8	55	**Yes**	56.5	-	No	63.1	65	No	0.0	0.2	0.1	**Yes**	3.0	No	No	3.0	No	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	55.4	55	Yes	54.0	-	No	60.6	60	Yes	56.2	55	**Yes**	55.2	-	No	61.8	60	**Yes**	0.8	1.2	1.2	**Yes**	3.0	No	No	3.0	No	**Yes**	3.0	No
71	Residential	County	LT-2	77.2	68.9	55	**Yes**	67.4	45	**Yes**	74.0	60	**Yes**	64.1	55	**Yes**	62.6	45	**Yes**	69.3	60	**Yes**	-4.8	-4.8	-4.7	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
72	Residential	County	LT-2	77.2	68.5	55	**Yes**	67.0	45	**Yes**	73.6	60	**Yes**	63.7	55	**Yes**	62.2	45	**Yes**	68.9	60	**Yes**	-4.8	-4.8	-4.7	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
73	Residential	County	LT-2	77.2	67.9	55	**Yes**	66.4	45	**Yes**	73.0	60	**Yes**	63.2	55	**Yes**	61.8	45	**Yes**	68.4	60	**Yes**	-4.7	-4.6	-4.6	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
74	Residential	County	LT-2	77.2	74.3	55	**Yes**	72.9	45	**Yes**	79.5	60	**Yes**	69.8	55	**Yes**	68.3	45	**Yes**	75.0	60	**Yes**	-4.5	-4.6	-4.5	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
75	Residential	County	LT-2	77.2	75.4	55	**Yes**	74.0	45	**Yes**	80.6	60	**Yes**	71.1	55	**Yes**	69.6	45	**Yes**	76.3	60	**Yes**	-4.3	-4.4	-4.3	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
76	Residential	County	LT-2	77.2	80.1	55	**Yes**	78.6	45	**Yes**	85.3	60	**Yes**	79.9	55	**Yes**	78.4	45	**Yes**	85.1	60	**Yes**	-0.2	-0.2	-0.2	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
77	Residential	County	LT-2	77.2	65.5	55	**Yes**	64.0	45	**Yes**	70.7	60	**Yes**	63.1	55	**Yes**	61.7	45	**Yes**	68.3	60	**Yes**	-2.4	-2.3	-2.4	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
78	Residential	County	LT-2	77.2	63.3	55	**Yes**	61.8	45	**Yes**	68.5	60	**Yes**	63.1	55	**Yes**	61.7	45	**Yes**	68.3	60	**Yes**	-0.2	-0.1	-0.2	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
79	Residential	County	LT-2	77.2	68.5	55	**Yes**	67.0	45	**Yes**	73.6	60	**Yes**	68.5	55	**Yes**	67.0	45	**Yes**	73.6	60	**Yes**	0.0	0.0	0.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
80	Residential	County	LT-2	77.2	69.2	55	**Yes**	67.7	45	**Yes**	74.4	60	**Yes**	69.2	55	**Yes**	67.7	45	**Yes**	74.4	60	**Yes**	0.0	0.0	0.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
81	Residential	County	LT-2	77.2	65.1	55	**Yes**	63.6	45	**Yes**	70.2	60	**Yes**	65.0	55	**Yes**	63.6	45	**Yes**	70.2	60	**Yes**	-0.1	0.0	0.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
82	Residential	County	LT-2	77.2	68.2	55	**Yes**	66.7	45	**Yes**	73.4	60	**Yes**	68.3	55	**Yes**	66.8	45	**Yes**	73.4	60	**Yes**	0.1	0.1	0.0	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No

Mitigated (BAR-2 and BAR-3) BIG Operational Exterior Noise Impact Analysis - Horizon Year 2048

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	NO PROJECT										WITH PROJECT									COMPARISON (With BIG Minus Without BIG)			Impact Analysis								
				Measured Ambient Noise Level (L_{dn}, L_{eq})	Daytime			Nighttime			Ldn			Daytime			Nighttime			Ldn			Daytime	Nighttime	Ldn	Daytime			Nighttime			Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?				Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?	Exceeds Standard?	Incremental Criteria	Impact?
83	Residential	City	LT-3	66.5	48.7	65	No	47.2	65	No	53.8	65	No	57.5	65	No	57.4	65	No	63.9	65	No	8.8	10.2	10.1	No	1.5	No	No	1.5	No	No	1.5	**Yes**
84	Residential	City	LT-3	66.5	47.6	65	No	46.1	65	No	52.8	65	No	57.5	65	No	57.5	65	No	63.9	65	No	9.9	11.4	11.1	No	1.5	No	No	1.5	No	No	1.5	**Yes**
85	Residential	City	LT-3	66.5	68.1	65	**Yes**	66.6	65	**Yes**	73.3	65	**Yes**	67.6	65	**Yes**	66.2	65	**Yes**	72.8	65	Yes	-0.5	-0.4	-0.5	**Yes**	1.5	No	**Yes**	1.5	No	**Yes**	1.5	No
86	Residential	City	LT-3	66.5	48.1	65	No	46.6	65	No	53.3	65	No	54.6	65	No	54.4	65	No	60.9	65	No	6.5	7.8	7.6	No	1.5	No	No	1.5	No	No	1.5	No
87	Residential	City	LT-3	66.5	46.4	65	No	44.9	65	No	51.5	65	No	56.4	65	No	56.0	65	No	62.5	65	No	10.0	11.1	11.0	No	1.5	No	No	1.5	No	No	1.5	No
88	Residential	City	LT-3	66.5	46.9	65	No	45.4	65	No	52.1	65	No	57.0	65	No	56.8	65	No	63.2	65	No	10.1	11.4	11.1	No	1.5	No	No	1.5	No	No	1.5	**Yes**
89	Residential	City	LT-3	66.5	47.0	65	No	45.5	65	No	52.1	65	No	57.1	65	No	56.9	65	No	63.3	65	No	10.1	11.4	11.2	No	1.5	No	No	1.5	No	No	1.5	**Yes**
90	Residential	City	LT-3	66.5	46.5	65	No	45.0	65	No	51.7	65	No	58.3	65	No	58.2	65	No	64.6	65	No	11.8	13.2	12.9	No	1.5	No	No	1.5	No	No	1.5	**Yes**

Mitigated (BAR-2 and BAR-3) Horizon Year 2048 Exterior Incremental Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	COMPARISON			FICAN Incremental Increase Impact Analysis						
							Daytime			Nighttime		Ldn	
				Daytime	Nighttime	Ldn	Exceeds Standard?	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
1	Residential	County	LT-3	1.3	2.2	2.1	**Yes**	1.5	No	1.5	**Yes**	1.5	**Yes**
2	Residential	County	LT-3	-0.1	1.0	0.8	**Yes**	1.5	No	1.5	No	1.5	No
3	Residential	County	LT-3	-0.9	0.2	0.0	**Yes**	1.5	No	1.5	No	1.5	No
4	Residential	City	LT-3	1.3	2.3	2.1	No	1.5	No	1.5	No	1.5	No
5	Residential	City	LT-3	0.3	1.5	1.3	No	1.5	No	1.5	No	1.5	No
6	Residential	City	LT-5	3.1	4.4	4.2	No	5.0	No	5.0	No	5.0	No
7	Residential	City	LT-5	-1.0	-0.3	-0.4	No	5.0	No	5.0	No	5.0	No
8	Residential	County	LT-5	-1.2	-0.9	-0.9	**Yes**	5.0	No	5.0	No	5.0	No
9	Residential	County	LT-5	-1.0	-0.8	-0.9	**Yes**	5.0	No	5.0	No	5.0	No
10	Residential	County	LT-5	-1.0	-0.8	-0.8	**Yes**	5.0	No	5.0	No	5.0	No
11	Residential	County	LT-5	-0.9	-0.8	-0.8	**Yes**	5.0	No	5.0	No	5.0	No
12	Residential	County	LT-5	-1.0	-0.8	-0.9	**Yes**	5.0	No	5.0	No	5.0	No
13	Residential	County	LT-5	-1.0	-0.8	-0.9	**Yes**	5.0	No	5.0	No	5.0	No
14	Residential	County	LT-5	-1.2	-1.0	-1.1	**Yes**	5.0	No	5.0	No	5.0	No
15	Residential	County	LT-5	-1.2	-1.1	-1.1	**Yes**	5.0	No	5.0	No	5.0	No
16	Residential	County	LT-5	-1.4	-1.2	-1.3	**Yes**	5.0	No	5.0	No	5.0	No
17	Residential	County	LT-5	-1.3	-1.3	-1.2	**Yes**	5.0	No	5.0	No	5.0	No
18	Residential	County	LT-5	-1.1	-1.1	-1.0	**Yes**	5.0	No	5.0	No	5.0	No
19	Residential	County	LT-5	-1.1	-1.0	-1.0	**Yes**	5.0	No	5.0	No	5.0	No
20	Residential	County	LT-5	-1.1	-0.9	-1.0	**Yes**	5.0	No	5.0	No	5.0	No
21	Residential	County	LT-5	-1.1	-1.0	-1.0	**Yes**	5.0	No	5.0	No	5.0	No
22	Residential	County	LT-5	-1.1	-1.0	-1.0	**Yes**	5.0	No	5.0	No	5.0	No
23	Residential	County	LT-5	-1.1	-1.0	-1.0	**Yes**	5.0	No	5.0	No	5.0	No
24	Residential	County	LT-5	-1.2	-1.1	-1.0	**Yes**	5.0	No	5.0	No	5.0	No
25	Residential	County	LT-5	-1.1	-1.0	-1.1	**Yes**	5.0	No	5.0	No	5.0	No
26	Residential	County	LT-5	-1.2	-1.1	-1.1	**Yes**	5.0	No	5.0	No	5.0	No
27	Residential	County	LT-5	-1.2	-1.1	-1.1	**Yes**	5.0	No	5.0	No	5.0	No
28	Residential	County	LT-5	-1.2	-1.1	-1.2	**Yes**	5.0	No	5.0	No	5.0	No
29	Residential	County	LT-4	-0.5	-0.4	-0.5	**Yes**	1.5	No	1.5	No	1.5	No
30	Residential	County	LT-4	-0.1	0.0	0.1	**Yes**	1.5	No	1.5	No	1.5	No
31	Residential	County	LT-4	-0.1	0.0	-0.1	**Yes**	1.5	No	1.5	No	1.5	No
32	Residential	County	LT-4	-0.2	-0.1	-0.1	**Yes**	1.5	No	1.5	No	1.5	No
33	Residential	County	LT-4	-0.4	-0.3	-0.3	**Yes**	1.5	No	1.5	No	1.5	No
34	Residential	County	LT-4	-0.4	-0.3	-0.3	**Yes**	1.5	No	1.5	No	1.5	No
35	Residential	County	LT-4	-0.4	-0.3	-0.3	**Yes**	1.5	No	1.5	No	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	-0.2	-0.1	-0.1	**Yes**	5.0	No	5.0	No	5.0	No
37	Residential	County	LT-4	-0.5	-0.4	-0.4	**Yes**	1.5	No	1.5	No	1.5	No

Mitigated (BAR-2 and BAR-3) Horizon Year 2048 Exterior Incremental Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	COMPARISON			FICAN Incremental Increase Impact Analysis						
							Daytime			Nighttime		Ldn	
				Daytime	Nighttime	Ldn	Exceeds Standard?	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
38	Residential	County	LT-4	-0.5	-0.4	-0.4	**Yes**	1.5	No	1.5	No	1.5	No
39	Residential	County	LT-4	-0.3	-0.2	-0.3	**Yes**	1.5	No	1.5	No	1.5	No
40	Residential	County	LT-4	-0.2	-0.1	-0.1	**Yes**	1.5	No	1.5	No	1.5	No
41	Residential	County	LT-4	-0.5	-0.3	-0.4	**Yes**	1.5	No	1.5	No	1.5	No
42	Residential	County	LT-4	-0.5	-0.3	-0.3	**Yes**	1.5	No	1.5	No	1.5	No
43	Residential	County	LT-4	-0.5	-0.3	-0.3	**Yes**	1.5	No	1.5	No	1.5	No
44	Residential	County	LT-4	-0.5	-0.2	-0.3	**Yes**	1.5	No	1.5	No	1.5	No
45	Residential	County	LT-4	-0.4	-0.2	-0.3	**Yes**	1.5	No	1.5	No	1.5	No
46	Residential	County	LT-4	-0.4	-0.2	-0.3	**Yes**	1.5	No	1.5	No	1.5	No
47	Residential	County	LT-4	-0.4	-0.1	-0.2	**Yes**	1.5	No	1.5	No	1.5	No
48	Residential	County	LT-4	-0.4	-0.1	-0.1	**Yes**	1.5	No	1.5	No	1.5	No
49	Residential	County	LT-4	-0.2	0.2	0.1	**Yes**	1.5	No	1.5	No	1.5	No
50	Residential	County	LT-4	-0.1	0.3	0.2	**Yes**	1.5	No	1.5	No	1.5	No
51	Residential	County	LT-4	0.0	0.5	0.4	**Yes**	1.5	No	1.5	No	1.5	No
52	Residential	County	LT-1	-2.6	-1.5	-1.7	No	3.0	No	3.0	No	3.0	No
53	Residential	County	LT-1	-1.6	-0.5	-0.7	No	3.0	No	3.0	No	3.0	No
54	Residential	County	LT-2	-1.2	-0.8	-0.9	**Yes**	1.5	No	1.5	No	1.5	No
55	Residential	County	LT-2	-1.4	-1.1	-1.2	**Yes**	1.5	No	1.5	No	1.5	No
56	Residential	County	LT-2	-3.6	-3.4	-3.4	**Yes**	1.5	No	1.5	No	1.5	No
57	Residential	County	LT-2	-4.6	-4.6	-4.6	**Yes**	1.5	No	1.5	No	1.5	No
58	Residential	County	LT-2	-5.0	-4.9	-5.0	**Yes**	1.5	No	1.5	No	1.5	No
59	Residential	County	LT-2	-5.1	-5.1	-5.0	**Yes**	1.5	No	1.5	No	1.5	No
60	Residential	County	LT-2	-4.9	-4.9	-5.0	**Yes**	1.5	No	1.5	No	1.5	No
61	Residential	County	LT-2	-5.1	-5.0	-5.1	**Yes**	1.5	No	1.5	No	1.5	No
62	Residential	County	LT-2	-5.2	-5.2	-5.1	**Yes**	1.5	No	1.5	No	1.5	No
63	Residential	County	LT-2	-5.0	-4.9	-4.9	**Yes**	1.5	No	1.5	No	1.5	No
64	Residential	County	LT-2	-5.0	-5.0	-5.0	**Yes**	1.5	No	1.5	No	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	-1.0	-0.8	-0.8	**Yes**	5.0	No	5.0	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	-0.6	-0.4	-0.5	**Yes**	5.0	No	5.0	No	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	-0.5	-0.4	-0.5	**Yes**	5.0	No	5.0	No	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	-0.4	-0.1	-0.2	**Yes**	5.0	No	5.0	No	5.0	No
69 (Ingels School)	School	County	LT-6	0.0	0.2	0.1	**Yes**	3.0	No	3.0	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	0.8	1.2	1.2	Yes	3.0	No	3.0	No	3.0	No
71	Residential	County	LT-2	-4.8	-4.8	-4.7	**Yes**	1.5	No	1.5	No	1.5	No
72	Residential	County	LT-2	-4.8	-4.8	-4.7	**Yes**	1.5	No	1.5	No	1.5	No
73	Residential	County	LT-2	-4.7	-4.6	-4.6	**Yes**	1.5	No	1.5	No	1.5	No
74	Residential	County	LT-2	-4.5	-4.6	-4.5	**Yes**	1.5	No	1.5	No	1.5	No

Mitigated (BAR-2 and BAR-3) Horizon Year 2048 Exterior Incremental Noise Impact Analysis

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	COMPARISON			FICAN Incremental Increase Impact Analysis						
							Daytime			Nighttime		Ldn	
				Daytime	Nighttime	Ldn	Exceeds Standard?	Incremental Criteria	Impact?	Incremental Criteria	Impact?	Incremental Criteria	Impact?
75	Residential	County	LT-2	-4.3	-4.4	-4.3	**Yes**	1.5	No	1.5	No	1.5	No
76	Residential	County	LT-2	-0.2	-0.2	-0.2	**Yes**	1.5	No	1.5	No	1.5	No
77	Residential	County	LT-2	-2.4	-2.3	-2.4	**Yes**	1.5	No	1.5	No	1.5	No
78	Residential	County	LT-2	-0.2	-0.1	-0.2	**Yes**	1.5	No	1.5	No	1.5	No
79	Residential	County	LT-2	0.0	0.0	0.0	**Yes**	1.5	No	1.5	No	1.5	No
80	Residential	County	LT-2	0.0	0.0	0.0	**Yes**	1.5	No	1.5	No	1.5	No
81	Residential	County	LT-2	-0.1	0.0	0.0	**Yes**	1.5	No	1.5	No	1.5	No
82	Residential	County	LT-2	0.1	0.1	0.0	**Yes**	1.5	No	1.5	No	1.5	No
83	Residential	City	LT-3	8.8	10.2	10.1	No	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
84	Residential	City	LT-3	9.9	11.4	11.1	No	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
85	Residential	City	LT-3	-0.5	-0.4	-0.5	**Yes**	1.5	No	1.5	No	1.5	No
86	Residential	City	LT-3	6.5	7.8	7.6	No	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
87	Residential	City	LT-3	10.0	11.1	11.0	No	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
88	Residential	City	LT-3	10.1	11.4	11.1	No	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
89	Residential	City	LT-3	10.1	11.4	11.2	No	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**
90	Residential	City	LT-3	11.8	13.2	12.9	No	1.5	**Yes**	1.5	**Yes**	1.5	**Yes**

Mitigated (BAR-2 and BAR-3) BIG Operational Interior Noise Impact Analysis - Opening Year 2028

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	Impact Analysis		
					Ldn			Ldn				Ldn			Ldn			Ldn				Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Ldn	Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Ldn	Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	54.7	45	**Yes**	57.4	45	**Yes**	2.7	**Yes**	1.5	**Yes**	36.7	45	No	39.4	45	No	2.7	No	1.5	**Yes**
2	Residential	County	LT-3	66.5	53.7	45	**Yes**	55.3	45	**Yes**	1.6	**Yes**	1.5	**Yes**	35.7	45	No	37.3	45	No	1.6	No	1.5	**Yes**
3	Residential	County	LT-3	66.5	54.8	45	**Yes**	55.7	45	**Yes**	0.9	**Yes**	1.5	No	36.8	45	No	37.7	45	No	0.9	No	1.5	No
4	Residential	City	LT-3	66.5	52.3	45	**Yes**	55.1	45	**Yes**	2.8	**Yes**	1.5	**Yes**	34.3	45	No	37.1	45	No	2.8	No	1.5	**Yes**
5	Residential	City	LT-3	66.5	54.0	45	**Yes**	56.4	45	**Yes**	2.4	**Yes**	1.5	**Yes**	36.0	45	No	38.4	45	No	2.4	No	1.5	**Yes**
6	Residential	City	LT-5	58.1	48.3	45	**Yes**	53.6	45	**Yes**	5.3	**Yes**	5.0	**Yes**	30.3	45	No	35.6	45	No	5.3	No	5.0	**Yes**
7	Residential	City	LT-5	58.1	57.4	45	**Yes**	57.5	45	**Yes**	0.1	**Yes**	5.0	No	39.4	45	No	39.5	45	No	0.1	No	5.0	No
8	Residential	County	LT-5	58.1	60.2	45	**Yes**	59.4	45	**Yes**	-0.8	**Yes**	5.0	No	42.2	45	No	41.4	45	No	-0.8	No	5.0	No
9	Residential	County	LT-5	58.1	61.6	45	**Yes**	60.8	45	**Yes**	-0.8	**Yes**	5.0	No	43.6	45	No	42.8	45	No	-0.8	No	5.0	No
10	Residential	County	LT-5	58.1	61.9	45	**Yes**	61.1	45	**Yes**	-0.8	**Yes**	5.0	No	43.9	45	No	43.1	45	No	-0.8	No	5.0	No
11	Residential	County	LT-5	58.1	62.2	45	**Yes**	61.4	45	**Yes**	-0.8	**Yes**	5.0	No	44.2	45	No	43.4	45	No	-0.8	No	5.0	No
12	Residential	County	LT-5	58.1	62.6	45	**Yes**	61.8	45	**Yes**	-0.8	**Yes**	5.0	No	44.6	45	No	43.8	45	No	-0.8	No	5.0	No
13	Residential	County	LT-5	58.1	63.0	45	**Yes**	62.1	45	**Yes**	-0.9	**Yes**	5.0	No	45.0	45	No	44.1	45	No	-0.9	No	5.0	No
14	Residential	County	LT-5	58.1	66.0	45	**Yes**	64.9	45	**Yes**	-1.1	**Yes**	5.0	No	48.0	45	**Yes**	46.9	45	**Yes**	-1.1	**Yes**	5.0	No
15	Residential	County	LT-5	58.1	67.8	45	**Yes**	66.6	45	**Yes**	-1.2	**Yes**	5.0	No	49.8	45	**Yes**	48.6	45	**Yes**	-1.2	**Yes**	5.0	No
16	Residential	County	LT-5	58.1	65.7	45	**Yes**	64.4	45	**Yes**	-1.3	**Yes**	5.0	No	47.7	45	**Yes**	46.4	45	**Yes**	-1.3	**Yes**	5.0	No
17	Residential	County	LT-5	58.1	65.7	45	**Yes**	64.4	45	**Yes**	-1.3	**Yes**	5.0	No	47.7	45	**Yes**	46.4	45	**Yes**	-1.3	**Yes**	5.0	No
18	Residential	County	LT-5	58.1	63.8	45	**Yes**	62.7	45	**Yes**	-1.1	**Yes**	5.0	No	45.8	45	**Yes**	44.7	45	No	-1.1	No	5.0	No
19	Residential	County	LT-5	58.1	64.4	45	**Yes**	63.3	45	**Yes**	-1.1	**Yes**	5.0	No	46.4	45	**Yes**	45.3	45	**Yes**	-1.1	**Yes**	5.0	No
20	Residential	County	LT-5	58.1	64.6	45	**Yes**	63.6	45	**Yes**	-1.0	**Yes**	5.0	No	46.6	45	**Yes**	45.6	45	**Yes**	-1.0	**Yes**	5.0	No
21	Residential	County	LT-5	58.1	65.5	45	**Yes**	64.4	45	**Yes**	-1.1	**Yes**	5.0	No	47.5	45	**Yes**	46.4	45	**Yes**	-1.1	**Yes**	5.0	No
22	Residential	County	LT-5	58.1	65.3	45	**Yes**	64.2	45	**Yes**	-1.1	**Yes**	5.0	No	47.3	45	**Yes**	46.2	45	**Yes**	-1.1	**Yes**	5.0	No
23	Residential	County	LT-5	58.1	64.9	45	**Yes**	63.8	45	**Yes**	-1.1	**Yes**	5.0	No	46.9	45	**Yes**	45.8	45	**Yes**	-1.1	**Yes**	5.0	No
24	Residential	County	LT-5	58.1	66.4	45	**Yes**	65.2	45	**Yes**	-1.2	**Yes**	5.0	No	48.4	45	**Yes**	47.2	45	**Yes**	-1.2	**Yes**	5.0	No
25	Residential	County	LT-5	58.1	66.4	45	**Yes**	65.3	45	**Yes**	-1.1	**Yes**	5.0	No	48.4	45	**Yes**	47.3	45	**Yes**	-1.1	**Yes**	5.0	No
26	Residential	County	LT-5	58.1	66.5	45	**Yes**	65.4	45	**Yes**	-1.1	**Yes**	5.0	No	48.5	45	**Yes**	47.4	45	**Yes**	-1.1	**Yes**	5.0	No
27	Residential	County	LT-5	58.1	66.2	45	**Yes**	65.0	45	**Yes**	-1.2	**Yes**	5.0	No	48.2	45	**Yes**	47.0	45	**Yes**	-1.2	**Yes**	5.0	No
28	Residential	County	LT-5	58.1	67.3	45	**Yes**	66.1	45	**Yes**	-1.2	**Yes**	5.0	No	49.3	45	**Yes**	48.1	45	**Yes**	-1.2	**Yes**	5.0	No
29	Residential	County	LT-4	66.1	64.1	45	**Yes**	63.6	45	**Yes**	-0.5	**Yes**	1.5	No	46.1	45	**Yes**	45.6	45	**Yes**	-0.5	**Yes**	1.5	No
30	Residential	County	LT-4	66.1	68.7	45	**Yes**	68.7	45	**Yes**	0.0	**Yes**	1.5	No	50.7	45	**Yes**	50.7	45	**Yes**	0.0	**Yes**	1.5	No
31	Residential	County	LT-4	66.1	68.6	45	**Yes**	68.6	45	**Yes**	0.0	**Yes**	1.5	No	50.6	45	**Yes**	50.6	45	**Yes**	0.0	**Yes**	1.5	No
32	Residential	County	LT-4	66.1	68.6	45	**Yes**	68.5	45	**Yes**	-0.1	**Yes**	1.5	No	50.6	45	**Yes**	50.5	45	**Yes**	-0.1	**Yes**	1.5	No
33	Residential	County	LT-4	66.1	66.1	45	**Yes**	65.7	45	**Yes**	-0.4	**Yes**	1.5	No	48.1	45	**Yes**	47.7	45	**Yes**	-0.4	**Yes**	1.5	No
34	Residential	County	LT-4	66.1	66.1	45	**Yes**	65.8	45	**Yes**	-0.3	**Yes**	1.5	No	48.1	45	**Yes**	47.8	45	**Yes**	-0.3	**Yes**	1.5	No
35	Residential	County	LT-4	66.1	66.2	45	**Yes**	65.9	45	**Yes**	-0.3	**Yes**	1.5	No	48.2	45	**Yes**	47.9	45	**Yes**	-0.3	**Yes**	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	68.8	-	No	68.7	-	No	-0.1	No	5.0	No	50.8	-	No	50.7	-	No	-0.1	No	5.0	No
37	Residential	County	LT-4	66.1	64.9	45	**Yes**	64.5	45	**Yes**	-0.4	**Yes**	1.5	No	46.9	45	**Yes**	46.5	45	**Yes**	-0.4	**Yes**	1.5	No
38	Residential	County	LT-4	66.1	64.5	45	**Yes**	64.1	45	**Yes**	-0.4	**Yes**	1.5	No	46.5	45	**Yes**	46.1	45	**Yes**	-0.4	**Yes**	1.5	No
39	Residential	County	LT-4	66.1	66.9	45	**Yes**	66.7	45	**Yes**	-0.2	**Yes**	1.5	No	48.9	45	**Yes**	48.7	45	**Yes**	-0.2	**Yes**	1.5	No
40	Residential	County	LT-4	66.1	66.7	45	**Yes**	66.6	45	**Yes**	-0.1	**Yes**	1.5	No	48.7	45	**Yes**	48.6	45	**Yes**	-0.1	**Yes**	1.5	No
41	Residential	County	LT-4	66.1	61.8	45	**Yes**	61.5	45	**Yes**	-0.3	**Yes**	1.5	No	43.8	45	No	43.5	45	No	-0.3	No	1.5	No
42	Residential	County	LT-4	66.1	61.1	45	**Yes**	60.9	45	**Yes**	-0.2	**Yes**	1.5	No	43.1	45	No	42.9	45	No	-0.2	No	1.5	No
43	Residential	County	LT-4	66.1	60.5	45	**Yes**	60.3	45	**Yes**	-0.2	**Yes**	1.5	No	42.5	45	No	42.3	45	No	-0.2	No	1.5	No
44	Residential	County	LT-4	66.1	59.9	45	**Yes**	59.8	45	**Yes**	-0.1	**Yes**	1.5	No	41.9	45	No	41.8	45	No	-0.1	No	1.5	No
45	Residential	County	LT-4	66.1	60.6	45	**Yes**	60.4	45	**Yes**	-0.2	**Yes**	1.5	No	42.6	45	No	42.4	45	No	-0.2	No	1.5	No
46	Residential	County	LT-4	66.1	59.8	45	**Yes**	59.7	45	**Yes**	-0.1	**Yes**	1.5	No	41.8	45	No	41.7	45	No	-0.1	No	1.5	No
47	Residential	County	LT-4	66.1	59.1	45	**Yes**	59.1	45	**Yes**	0.0	**Yes**	1.5	No	41.1	45	No	41.1	45	No	0.0	No	1.5	No
48	Residential	County	LT-4	66.1	58.7	45	**Yes**	58.8	45	**Yes**	0.1	**Yes**	1.5	No	40.7	45	No	40.8	45	No	0.1	No	1.5	No
49	Residential	County	LT-4	66.1	57.5	45	**Yes**	57.9	45	**Yes**	0.4	**Yes**	1.5	No	39.5	45	No	39.9	45	No	0.4	No	1.5	No
50	Residential	County	LT-4	66.1	57.2	45	**Yes**	57.7	45	**Yes**	0.5	**Yes**	1.5	No	39.2	45	No	39.7	45	No	0.5	No	1.5	No
51	Residential	County	LT-4	66.1	56.9	45	**Yes**	57.7	45	**Yes**	0.8	**Yes**	1.5	No	38.9	45	No	39.7	45	No	0.8	No	1.5	No
52	Residential	County	LT-1	61.2	50.9	45	**Yes**	50.1	45	**Yes**	-0.8	**Yes**	3.0	No	32.9	45	No	32.1	45	No	-0.8	No	3.0	No
53	Residential	County	LT-1	61.2	50.1	45	**Yes**	50.4	45	**Yes**	0.3	**Yes**	3.0	No	32.1	45	No	32.4	45	No	0.3	No	3.0	No

Mitigated (BAR-2 and BAR-3) BIG Operational Interior Noise Impact Analysis - Opening Year 2028

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	Impact Analysis		
					Ldn			Ldn				Ldn			Ldn			Ldn				Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Ldn	Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Ldn	Exceeds Standard?	Incremental Criteria	Impact?
54	Residential	County	LT-2	77.2	62.1	45	**Yes**	61.0	45	**Yes**	-1.1	**Yes**	1.5	No	44.1	45	No	43.0	45	No	-1.1	No	1.5	No
55	Residential	County	LT-2	77.2	66.4	45	**Yes**	65.1	45	**Yes**	-1.3	**Yes**	1.5	No	48.4	45	**Yes**	47.1	45	**Yes**	-1.3	**Yes**	1.5	No
56	Residential	County	LT-2	77.2	67.6	45	**Yes**	64.1	45	**Yes**	-3.5	**Yes**	1.5	No	49.6	45	**Yes**	46.1	45	**Yes**	-3.5	**Yes**	1.5	No
57	Residential	County	LT-2	77.2	66.9	45	**Yes**	62.4	45	**Yes**	-4.5	**Yes**	1.5	No	48.9	45	**Yes**	44.4	45	No	-4.5	No	1.5	No
58	Residential	County	LT-2	77.2	67.6	45	**Yes**	62.7	45	**Yes**	-4.9	**Yes**	1.5	No	49.6	45	**Yes**	44.7	45	No	-4.9	No	1.5	No
59	Residential	County	LT-2	77.2	66.5	45	**Yes**	61.6	45	**Yes**	-4.9	**Yes**	1.5	No	48.5	45	**Yes**	43.6	45	No	-4.9	No	1.5	No
60	Residential	County	LT-2	77.2	64.7	45	**Yes**	59.8	45	**Yes**	-4.9	**Yes**	1.5	No	46.7	45	**Yes**	41.8	45	No	-4.9	No	1.5	No
61	Residential	County	LT-2	77.2	69.2	45	**Yes**	64.2	45	**Yes**	-5.0	**Yes**	1.5	No	51.2	45	**Yes**	46.2	45	**Yes**	-5.0	**Yes**	1.5	No
62	Residential	County	LT-2	77.2	70.5	45	**Yes**	65.4	45	**Yes**	-5.1	**Yes**	1.5	No	52.5	45	**Yes**	47.4	45	**Yes**	-5.1	**Yes**	1.5	No
63	Residential	County	LT-2	77.2	64.7	45	**Yes**	59.8	45	**Yes**	-4.9	**Yes**	1.5	No	46.7	45	**Yes**	41.8	45	No	-4.9	No	1.5	No
64	Residential	County	LT-2	77.2	66.5	45	**Yes**	61.6	45	**Yes**	-4.9	**Yes**	1.5	No	48.5	45	**Yes**	43.6	45	No	-4.9	No	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	60.4	45	**Yes**	59.6	45	**Yes**	-0.8	**Yes**	5.0	No	42.4	45	No	41.6	45	No	-0.8	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	56.7	-	No	56.3	-	No	-0.4	No	5.0	No	38.7	-	No	38.3	-	No	-0.4	No	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	58.0	45	**Yes**	57.6	45	**Yes**	-0.4	**Yes**	5.0	No	40.0	45	No	39.6	45	No	-0.4	No	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	53.8	45	**Yes**	53.8	45	**Yes**	0.0	**Yes**	5.0	No	35.8	45	No	35.8	45	No	0.0	No	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	51.7	45	**Yes**	52.0	45	**Yes**	0.3	**Yes**	3.0	No	33.7	45	No	34.0	45	No	0.3	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	49.3	45	**Yes**	50.9	45	**Yes**	1.6	**Yes**	3.0	No	31.3	45	No	32.9	45	No	1.6	No	3.0	No
71	Residential	County	LT-2	77.2	62.8	45	**Yes**	58.0	45	**Yes**	-4.8	**Yes**	1.5	No	44.8	45	No	40.0	45	No	-4.8	No	1.5	No
72	Residential	County	LT-2	77.2	62.4	45	**Yes**	57.7	45	**Yes**	-4.7	**Yes**	1.5	No	44.4	45	No	39.7	45	No	-4.7	No	1.5	No
73	Residential	County	LT-2	77.2	61.7	45	**Yes**	57.2	45	**Yes**	-4.5	**Yes**	1.5	No	43.7	45	No	39.2	45	No	-4.5	No	1.5	No
74	Residential	County	LT-2	77.2	68.2	45	**Yes**	63.8	45	**Yes**	-4.4	**Yes**	1.5	No	50.2	45	**Yes**	45.8	45	**Yes**	-4.4	**Yes**	1.5	No
75	Residential	County	LT-2	77.2	69.3	45	**Yes**	65.1	45	**Yes**	-4.2	**Yes**	1.5	No	51.3	45	**Yes**	47.1	45	**Yes**	-4.2	**Yes**	1.5	No
76	Residential	County	LT-2	77.2	74.0	45	**Yes**	74.1	45	**Yes**	0.1	**Yes**	1.5	No	56.0	45	**Yes**	56.1	45	**Yes**	0.1	**Yes**	1.5	No
77	Residential	County	LT-2	77.2	59.4	45	**Yes**	57.3	45	**Yes**	-2.1	**Yes**	1.5	No	41.4	45	No	39.3	45	No	-2.1	No	1.5	No
78	Residential	County	LT-2	77.2	57.2	45	**Yes**	57.3	45	**Yes**	0.1	**Yes**	1.5	No	39.2	45	No	39.3	45	No	0.1	No	1.5	No
79	Residential	County	LT-2	77.2	62.4	45	**Yes**	62.7	45	**Yes**	0.3	**Yes**	1.5	No	44.4	45	No	44.7	45	No	0.3	No	1.5	No
80	Residential	County	LT-2	77.2	63.1	45	**Yes**	63.4	45	**Yes**	0.3	**Yes**	1.5	No	45.1	45	**Yes**	45.4	45	**Yes**	0.3	**Yes**	1.5	No
81	Residential	County	LT-2	77.2	58.9	45	**Yes**	59.2	45	**Yes**	0.3	**Yes**	1.5	No	40.9	45	No	41.2	45	No	0.3	No	1.5	No
82	Residential	County	LT-2	77.2	62.1	45	**Yes**	62.4	45	**Yes**	0.3	**Yes**	1.5	No	44.1	45	No	44.4	45	No	0.3	No	1.5	No
83	Residential	City	LT-3	66.5	42.6	45	No	53.8	45	**Yes**	11.2	**Yes**	1.5	**Yes**	24.6	45	No	35.8	45	No	11.2	No	1.5	**Yes**
84	Residential	City	LT-3	66.5	41.5	45	No	53.8	45	**Yes**	12.3	**Yes**	1.5	**Yes**	23.5	45	No	35.8	45	No	12.3	No	1.5	**Yes**
85	Residential	City	LT-3	66.5	62.0	45	**Yes**	61.5	45	**Yes**	-0.5	Yes	1.5	No	44.0	45	No	43.5	45	No	-0.5	No	1.5	No
86	Residential	City	LT-3	66.5	42.0	45	No	50.8	45	**Yes**	8.8	**Yes**	1.5	**Yes**	24.0	45	No	32.8	45	No	8.8	No	1.5	**Yes**
87	Residential	City	LT-3	66.5	40.3	45	No	52.4	45	**Yes**	12.1	**Yes**	1.5	**Yes**	22.3	45	No	34.4	45	No	12.1	No	1.5	**Yes**
88	Residential	City	LT-3	66.5	40.8	45	No	53.1	45	**Yes**	12.3	**Yes**	1.5	**Yes**	22.8	45	No	35.1	45	No	12.3	No	1.5	**Yes**
89	Residential	City	LT-3	66.5	40.9	45	No	53.3	45	**Yes**	12.4	**Yes**	1.5	**Yes**	22.9	45	No	35.3	45	No	12.4	No	1.5	**Yes**
90	Residential	City	LT-3	66.5	40.4	45	No	54.6	45	**Yes**	14.2	**Yes**	1.5	**Yes**	22.4	45	No	36.6	45	No	14.2	No	1.5	**Yes**

Mitigated (BAR-2 and BAR-3) BIG Operational Interior Noise Impact Analysis - Interim Year 2033

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	55.0	45	**Yes**	57.5	45	**Yes**	2.5	**Yes**	1.5	**Yes**	37.0	45	No	39.5	45	No	2.5	No	1.5	**Yes**
2	Residential	County	LT-3	66.5	54.0	45	**Yes**	55.4	45	**Yes**	1.4	**Yes**	1.5	No	36.0	45	No	37.4	45	No	1.4	No	1.5	No
3	Residential	County	LT-3	66.5	55.1	45	**Yes**	55.7	45	**Yes**	0.6	**Yes**	1.5	No	37.1	45	No	37.7	45	No	0.6	No	1.5	No
4	Residential	City	LT-3	66.5	52.6	45	**Yes**	55.1	45	**Yes**	2.5	**Yes**	1.5	**Yes**	34.6	45	No	37.1	45	No	2.5	No	1.5	**Yes**
5	Residential	City	LT-3	66.5	54.3	45	**Yes**	56.4	45	**Yes**	2.1	**Yes**	1.5	**Yes**	36.3	45	No	38.4	45	No	2.1	No	1.5	**Yes**
6	Residential	City	LT-5	58.1	48.6	45	**Yes**	53.6	45	**Yes**	5.0	**Yes**	5.0	**Yes**	30.6	45	No	35.6	45	No	5.0	No	5.0	**Yes**
7	Residential	City	LT-5	58.1	57.7	45	**Yes**	57.5	45	**Yes**	-0.2	**Yes**	5.0	No	39.7	45	No	39.5	45	No	-0.2	No	5.0	No
8	Residential	County	LT-5	58.1	60.5	45	**Yes**	59.5	45	**Yes**	-1.0	**Yes**	5.0	No	42.5	45	No	41.5	45	No	-1.0	No	5.0	No
9	Residential	County	LT-5	58.1	61.9	45	**Yes**	60.9	45	**Yes**	-1.0	**Yes**	5.0	No	43.9	45	No	42.9	45	No	-1.0	No	5.0	No
10	Residential	County	LT-5	58.1	62.2	45	**Yes**	61.3	45	**Yes**	-0.9	**Yes**	5.0	No	44.2	45	No	43.3	45	No	-0.9	No	5.0	No
11	Residential	County	LT-5	58.1	62.5	45	**Yes**	61.6	45	**Yes**	-0.9	**Yes**	5.0	No	44.5	45	No	43.6	45	No	-0.9	No	5.0	No
12	Residential	County	LT-5	58.1	62.9	45	**Yes**	61.9	45	**Yes**	-1.0	**Yes**	5.0	No	44.9	45	No	43.9	45	No	-1.0	No	5.0	No
13	Residential	County	LT-5	58.1	63.3	45	**Yes**	62.3	45	**Yes**	-1.0	**Yes**	5.0	No	45.3	45	Yes	44.3	45	No	-1.0	No	5.0	No
14	Residential	County	LT-5	58.1	66.3	45	**Yes**	65.1	45	**Yes**	-1.2	**Yes**	5.0	No	48.3	45	**Yes**	47.1	45	**Yes**	-1.2	**Yes**	5.0	No
15	Residential	County	LT-5	58.1	68.1	45	**Yes**	66.8	45	**Yes**	-1.3	**Yes**	5.0	No	50.1	45	**Yes**	48.8	45	**Yes**	-1.3	**Yes**	5.0	No
16	Residential	County	LT-5	58.1	66.0	45	**Yes**	64.6	45	**Yes**	-1.4	**Yes**	5.0	No	48.0	45	**Yes**	46.6	45	**Yes**	-1.4	**Yes**	5.0	No
17	Residential	County	LT-5	58.1	66.0	45	**Yes**	64.6	45	**Yes**	-1.4	**Yes**	5.0	No	48.0	45	**Yes**	46.6	45	**Yes**	-1.4	**Yes**	5.0	No
18	Residential	County	LT-5	58.1	64.1	45	**Yes**	62.9	45	**Yes**	-1.2	**Yes**	5.0	No	46.1	45	**Yes**	44.9	45	No	-1.2	No	5.0	No
19	Residential	County	LT-5	58.1	64.7	45	**Yes**	63.5	45	**Yes**	-1.2	**Yes**	5.0	No	46.7	45	**Yes**	45.5	45	**Yes**	-1.2	**Yes**	5.0	No
20	Residential	County	LT-5	58.1	64.9	45	**Yes**	63.7	45	**Yes**	-1.2	**Yes**	5.0	No	46.9	45	**Yes**	45.7	45	**Yes**	-1.2	**Yes**	5.0	No
21	Residential	County	LT-5	58.1	65.8	45	**Yes**	64.6	45	**Yes**	-1.2	**Yes**	5.0	No	47.8	45	**Yes**	46.6	45	**Yes**	-1.2	**Yes**	5.0	No
22	Residential	County	LT-5	58.1	65.6	45	**Yes**	64.4	45	**Yes**	-1.2	**Yes**	5.0	No	47.6	45	**Yes**	46.4	45	**Yes**	-1.2	**Yes**	5.0	No
23	Residential	County	LT-5	58.1	65.2	45	**Yes**	64.0	45	**Yes**	-1.2	**Yes**	5.0	No	47.2	45	**Yes**	46.0	45	**Yes**	-1.2	**Yes**	5.0	No
24	Residential	County	LT-5	58.1	66.7	45	**Yes**	65.4	45	**Yes**	-1.3	**Yes**	5.0	No	48.7	45	**Yes**	47.4	45	**Yes**	-1.3	**Yes**	5.0	No
25	Residential	County	LT-5	58.1	66.7	45	**Yes**	65.5	45	**Yes**	-1.2	**Yes**	5.0	No	48.7	45	**Yes**	47.5	45	**Yes**	-1.2	**Yes**	5.0	No
26	Residential	County	LT-5	58.1	66.8	45	**Yes**	65.6	45	**Yes**	-1.2	**Yes**	5.0	No	48.8	45	**Yes**	47.6	45	**Yes**	-1.2	**Yes**	5.0	No
27	Residential	County	LT-5	58.1	66.5	45	**Yes**	65.2	45	**Yes**	-1.3	**Yes**	5.0	No	48.5	45	**Yes**	47.2	45	**Yes**	-1.3	**Yes**	5.0	No
28	Residential	County	LT-5	58.1	67.6	45	**Yes**	66.3	45	**Yes**	-1.3	**Yes**	5.0	No	49.6	45	**Yes**	48.3	45	**Yes**	-1.3	**Yes**	5.0	No
29	Residential	County	LT-4	66.1	64.4	45	**Yes**	63.8	45	**Yes**	-0.6	**Yes**	1.5	No	46.4	45	**Yes**	45.8	45	**Yes**	-0.6	**Yes**	1.5	No
30	Residential	County	LT-4	66.1	69.0	45	**Yes**	68.8	45	**Yes**	-0.2	**Yes**	1.5	No	51.0	45	**Yes**	50.8	45	**Yes**	-0.2	**Yes**	1.5	No
31	Residential	County	LT-4	66.1	68.9	45	**Yes**	68.7	45	**Yes**	-0.2	**Yes**	1.5	No	50.9	45	**Yes**	50.7	45	**Yes**	-0.2	**Yes**	1.5	No
32	Residential	County	LT-4	66.1	68.9	45	**Yes**	68.6	45	**Yes**	-0.3	**Yes**	1.5	No	50.9	45	**Yes**	50.6	45	**Yes**	-0.3	**Yes**	1.5	No
33	Residential	County	LT-4	66.1	66.4	45	**Yes**	65.9	45	**Yes**	-0.5	**Yes**	1.5	No	48.4	45	**Yes**	47.9	45	**Yes**	-0.5	**Yes**	1.5	No
34	Residential	County	LT-4	66.1	66.4	45	**Yes**	65.9	45	**Yes**	-0.5	**Yes**	1.5	No	48.4	45	**Yes**	47.9	45	**Yes**	-0.5	**Yes**	1.5	No
35	Residential	County	LT-4	66.1	66.5	45	**Yes**	66.0	45	**Yes**	-0.5	**Yes**	1.5	No	48.5	45	**Yes**	48.0	45	**Yes**	-0.5	**Yes**	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	69.1	-	No	68.8	-	No	-0.3	No	5.0	No	51.1	-	No	50.8	-	No	-0.3	No	5.0	No
37	Residential	County	LT-4	66.1	65.2	45	**Yes**	64.6	45	**Yes**	-0.6	**Yes**	1.5	No	47.2	45	**Yes**	46.6	45	**Yes**	-0.6	**Yes**	1.5	No
38	Residential	County	LT-4	66.1	64.8	45	**Yes**	64.2	45	**Yes**	-0.6	**Yes**	1.5	No	46.8	45	**Yes**	46.2	45	**Yes**	-0.6	**Yes**	1.5	No
39	Residential	County	LT-4	66.1	67.2	45	**Yes**	66.8	45	**Yes**	-0.4	**Yes**	1.5	No	49.2	45	**Yes**	48.8	45	**Yes**	-0.4	**Yes**	1.5	No
40	Residential	County	LT-4	66.1	67.0	45	**Yes**	66.7	45	**Yes**	-0.3	**Yes**	1.5	No	49.0	45	**Yes**	48.7	45	**Yes**	-0.3	**Yes**	1.5	No
41	Residential	County	LT-4	66.1	62.1	45	**Yes**	61.7	45	**Yes**	-0.4	**Yes**	1.5	No	44.1	45	No	43.7	45	No	-0.4	No	1.5	No
42	Residential	County	LT-4	66.1	61.4	45	**Yes**	61.0	45	**Yes**	-0.4	**Yes**	1.5	No	43.4	45	No	43.0	45	No	-0.4	No	1.5	No
43	Residential	County	LT-4	66.1	60.8	45	**Yes**	60.4	45	**Yes**	-0.4	**Yes**	1.5	No	42.8	45	No	42.4	45	No	-0.4	No	1.5	No
44	Residential	County	LT-4	66.1	60.2	45	**Yes**	59.9	45	**Yes**	-0.3	**Yes**	1.5	No	42.2	45	No	41.9	45	No	-0.3	No	1.5	No
45	Residential	County	LT-4	66.1	60.9	45	**Yes**	60.5	45	**Yes**	-0.4	**Yes**	1.5	No	42.9	45	No	42.5	45	No	-0.4	No	1.5	No
46	Residential	County	LT-4	66.1	60.1	45	**Yes**	59.8	45	**Yes**	-0.3	**Yes**	1.5	No	42.1	45	No	41.8	45	No	-0.3	No	1.5	No
47	Residential	County	LT-4	66.1	59.4	45	**Yes**	59.2	45	**Yes**	-0.2	**Yes**	1.5	No	41.4	45	No	41.2	45	No	-0.2	No	1.5	No
48	Residential	County	LT-4	66.1	59.0	45	**Yes**	59.0	45	**Yes**	0.0	**Yes**	1.5	No	41.0	45	No	41.0	45	No	0.0	No	1.5	No
49	Residential	County	LT-4	66.1	57.8	45	**Yes**	58.0	45	**Yes**	0.2	**Yes**	1.5	No	39.8	45	No	40.0	45	No	0.2	No	1.5	No
50	Residential	County	LT-4	66.1	57.5	45	**Yes**	57.8	45	**Yes**	0.3	**Yes**	1.5	No	39.5	45	No	39.8	45	No	0.3	No	1.5	No
51	Residential	County	LT-4	66.1	57.2	45	**Yes**	57.8	45	**Yes**	0.6	**Yes**	1.5	No	39.2	45	No	39.8	45	No	0.6	No	1.5	No
52	Residential	County	LT-1	61.2	51.2	45	**Yes**	50.2	45	**Yes**	-1.0	**Yes**	3.0	No	33.2	45	No	32.2	45	No	-1.0	No	3.0	No
53	Residential	County	LT-1	61.2	50.4	45	**Yes**	50.4	45	**Yes**	0.0	**Yes**	3.0	No	32.4	45	No	32.4	45	No	0.0	No	3.0	No

Mitigated (BAR-2 and BAR-3) BIG Operational Interior Noise Impact Analysis - Interim Year 2033

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
54	Residential	County	LT-2	77.2	62.4	45	**Yes**	61.1	45	**Yes**	-1.3	**Yes**	1.5	No	44.4	45	No	43.1	45	No	-1.3	No	1.5	No
55	Residential	County	LT-2	77.2	66.7	45	**Yes**	65.2	45	**Yes**	-1.5	**Yes**	1.5	No	48.7	45	**Yes**	47.2	45	**Yes**	-1.5	**Yes**	1.5	No
56	Residential	County	LT-2	77.2	67.9	45	**Yes**	64.4	45	**Yes**	-3.5	**Yes**	1.5	No	49.9	45	**Yes**	46.4	45	**Yes**	-3.5	**Yes**	1.5	No
57	Residential	County	LT-2	77.2	67.2	45	**Yes**	62.7	45	**Yes**	-4.5	**Yes**	1.5	No	49.2	45	**Yes**	44.7	45	No	-4.5	No	1.5	No
58	Residential	County	LT-2	77.2	67.9	45	**Yes**	63.0	45	**Yes**	-4.9	**Yes**	1.5	No	49.9	45	**Yes**	45.0	45	No	-4.9	No	1.5	No
59	Residential	County	LT-2	77.2	66.8	45	**Yes**	61.9	45	**Yes**	-4.9	**Yes**	1.5	No	48.8	45	**Yes**	43.9	45	No	-4.9	No	1.5	No
60	Residential	County	LT-2	77.2	65.0	45	**Yes**	60.1	45	**Yes**	-4.9	**Yes**	1.5	No	47.0	45	**Yes**	42.1	45	No	-4.9	No	1.5	No
61	Residential	County	LT-2	77.2	69.5	45	**Yes**	64.5	45	**Yes**	-5.0	**Yes**	1.5	No	51.5	45	**Yes**	46.5	45	**Yes**	-5.0	**Yes**	1.5	No
62	Residential	County	LT-2	77.2	70.8	45	**Yes**	65.7	45	**Yes**	-5.1	**Yes**	1.5	No	52.8	45	**Yes**	47.7	45	**Yes**	-5.1	**Yes**	1.5	No
63	Residential	County	LT-2	77.2	65.0	45	**Yes**	60.1	45	**Yes**	-4.9	**Yes**	1.5	No	47.0	45	**Yes**	42.1	45	No	-4.9	No	1.5	No
64	Residential	County	LT-2	77.2	66.8	45	**Yes**	61.9	45	**Yes**	-4.9	**Yes**	1.5	No	48.8	45	**Yes**	43.9	45	No	-4.9	No	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	60.7	45	**Yes**	59.7	45	**Yes**	-1.0	**Yes**	5.0	No	42.7	45	No	41.7	45	No	-1.0	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	57.0	-	No	56.5	-	No	-0.5	No	5.0	No	39.0	-	No	38.5	-	No	-0.5	No	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	58.3	45	**Yes**	57.7	45	**Yes**	-0.6	**Yes**	5.0	No	40.3	45	No	39.7	45	No	-0.6	No	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	54.1	45	**Yes**	53.9	45	**Yes**	-0.2	**Yes**	5.0	No	36.1	45	No	35.9	45	No	-0.2	No	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	52.0	45	**Yes**	52.2	45	**Yes**	0.2	**Yes**	3.0	No	34.0	45	No	34.2	45	No	0.2	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	49.6	45	**Yes**	51.0	45	**Yes**	1.4	**Yes**	3.0	No	31.6	45	No	33.0	45	No	1.4	No	3.0	No
71	Residential	County	LT-2	77.2	63.1	45	**Yes**	58.3	45	**Yes**	-4.8	**Yes**	1.5	No	45.1	45	**Yes**	40.3	45	No	-4.8	No	1.5	No
72	Residential	County	LT-2	77.2	62.7	45	**Yes**	58.0	45	**Yes**	-4.7	**Yes**	1.5	No	44.7	45	No	40.0	45	No	-4.7	No	1.5	No
73	Residential	County	LT-2	77.2	62.0	45	**Yes**	57.5	45	**Yes**	-4.5	**Yes**	1.5	No	44.0	45	No	39.5	45	No	-4.5	No	1.5	No
74	Residential	County	LT-2	77.2	68.5	45	**Yes**	64.1	45	**Yes**	-4.4	**Yes**	1.5	No	50.5	45	**Yes**	46.1	45	**Yes**	-4.4	**Yes**	1.5	No
75	Residential	County	LT-2	77.2	69.6	45	**Yes**	65.4	45	**Yes**	-4.2	**Yes**	1.5	No	51.6	45	**Yes**	47.4	45	**Yes**	-4.2	**Yes**	1.5	No
76	Residential	County	LT-2	77.2	74.3	45	**Yes**	74.1	45	**Yes**	-0.2	**Yes**	1.5	No	56.3	45	**Yes**	56.1	45	**Yes**	-0.2	**Yes**	1.5	No
77	Residential	County	LT-2	77.2	59.7	45	**Yes**	57.4	45	**Yes**	-2.3	**Yes**	1.5	No	41.7	45	No	39.4	45	No	-2.3	No	1.5	No
78	Residential	County	LT-2	77.2	57.5	45	**Yes**	57.3	45	**Yes**	-0.2	**Yes**	1.5	No	39.5	45	No	39.3	45	No	-0.2	No	1.5	No
79	Residential	County	LT-2	77.2	62.7	45	**Yes**	62.7	45	**Yes**	0.0	**Yes**	1.5	No	44.7	45	No	44.7	45	No	0.0	No	1.5	No
80	Residential	County	LT-2	77.2	63.4	45	**Yes**	63.4	45	**Yes**	0.0	**Yes**	1.5	No	45.4	45	**Yes**	45.4	45	**Yes**	0.0	**Yes**	1.5	No
81	Residential	County	LT-2	77.2	59.2	45	**Yes**	59.2	45	**Yes**	0.0	**Yes**	1.5	No	41.2	45	No	41.2	45	No	0.0	No	1.5	No
82	Residential	County	LT-2	77.2	62.4	45	**Yes**	62.4	45	**Yes**	0.0	**Yes**	1.5	No	44.4	45	No	44.4	45	No	0.0	No	1.5	No
83	Residential	City	LT-3	66.5	42.9	45	No	53.8	45	**Yes**	10.9	**Yes**	1.5	**Yes**	24.9	45	No	35.8	45	No	10.9	No	1.5	**Yes**
84	Residential	City	LT-3	66.5	41.8	45	No	53.8	45	**Yes**	12.0	**Yes**	1.5	**Yes**	23.8	45	No	35.8	45	No	12.0	No	1.5	**Yes**
85	Residential	City	LT-3	66.5	62.3	45	**Yes**	61.7	45	**Yes**	-0.6	**Yes**	1.5	No	44.3	45	No	43.7	45	No	-0.6	No	1.5	No
86	Residential	City	LT-3	66.5	42.3	45	No	50.8	45	**Yes**	8.5	**Yes**	1.5	**Yes**	24.3	45	No	32.8	45	No	8.5	No	1.5	**Yes**
87	Residential	City	LT-3	66.5	40.6	45	No	52.4	45	**Yes**	11.8	**Yes**	1.5	**Yes**	22.6	45	No	34.4	45	No	11.8	No	1.5	**Yes**
88	Residential	City	LT-3	66.5	41.1	45	No	53.1	45	**Yes**	12.0	**Yes**	1.5	**Yes**	23.1	45	No	35.1	45	No	12.0	No	1.5	**Yes**
89	Residential	City	LT-3	66.5	41.1	45	No	53.3	45	**Yes**	12.2	**Yes**	1.5	**Yes**	23.1	45	No	35.3	45	No	12.2	No	1.5	**Yes**
90	Residential	City	LT-3	66.5	40.7	45	No	54.6	45	**Yes**	13.9	**Yes**	1.5	**Yes**	22.7	45	No	36.6	45	No	13.9	No	1.5	**Yes**

Mitigated (BAR-2 and BAR-3) BIG Operational Interior Noise Impact Analysis - Horizon Year 2048

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
1	Residential	County	LT-3	66.5	56.0	45	**Yes**	58.1	45	**Yes**	2.1	**Yes**	1.5	**Yes**	38.0	45	No	40.1	45	No	2.1	No	1.5	**Yes**
2	Residential	County	LT-3	66.5	54.9	45	**Yes**	55.7	45	**Yes**	0.8	**Yes**	1.5	No	36.9	45	No	37.7	45	No	0.8	No	1.5	No
3	Residential	County	LT-3	66.5	56.1	45	**Yes**	56.1	45	**Yes**	0.0	**Yes**	1.5	No	38.1	45	No	38.1	45	No	0.0	No	1.5	No
4	Residential	City	LT-3	66.5	53.6	45	**Yes**	55.7	45	**Yes**	2.1	**Yes**	1.5	**Yes**	35.6	45	No	37.7	45	No	2.1	No	1.5	**Yes**
5	Residential	City	LT-3	66.5	55.3	45	**Yes**	56.6	45	**Yes**	1.3	**Yes**	1.5	No	37.3	45	No	38.6	45	No	1.3	No	1.5	No
6	Residential	City	LT-5	58.1	49.6	45	**Yes**	53.8	45	**Yes**	4.2	**Yes**	5.0	**Yes**	31.6	45	No	35.8	45	No	4.2	No	5.0	**Yes**
7	Residential	City	LT-5	58.1	58.7	45	**Yes**	58.3	45	**Yes**	-0.4	**Yes**	5.0	No	40.7	45	No	40.3	45	No	-0.4	No	5.0	No
8	Residential	County	LT-5	58.1	61.5	45	**Yes**	60.6	45	**Yes**	-0.9	**Yes**	5.0	No	43.5	45	No	42.6	45	No	-0.9	No	5.0	No
9	Residential	County	LT-5	58.1	62.9	45	**Yes**	62.0	45	**Yes**	-0.9	**Yes**	5.0	No	44.9	45	No	44.0	45	No	-0.9	No	5.0	No
10	Residential	County	LT-5	58.1	63.2	45	**Yes**	62.4	45	**Yes**	-0.8	**Yes**	5.0	No	45.2	45	**Yes**	44.4	45	No	-0.8	No	5.0	No
11	Residential	County	LT-5	58.1	63.5	45	**Yes**	62.7	45	**Yes**	-0.8	**Yes**	5.0	No	45.5	45	**Yes**	44.7	45	No	-0.8	No	5.0	No
12	Residential	County	LT-5	58.1	63.9	45	**Yes**	63.0	45	**Yes**	-0.9	**Yes**	5.0	No	45.9	45	**Yes**	45.0	45	No	-0.9	No	5.0	No
13	Residential	County	LT-5	58.1	64.3	45	**Yes**	63.4	45	**Yes**	-0.9	**Yes**	5.0	No	46.3	45	**Yes**	45.4	45	**Yes**	-0.9	**Yes**	5.0	No
14	Residential	County	LT-5	58.1	67.3	45	**Yes**	66.2	45	**Yes**	-1.1	**Yes**	5.0	No	49.3	45	**Yes**	48.2	45	**Yes**	-1.1	**Yes**	5.0	No
15	Residential	County	LT-5	58.1	69.1	45	**Yes**	68.0	45	**Yes**	-1.1	**Yes**	5.0	No	51.1	45	**Yes**	50.0	45	**Yes**	-1.1	**Yes**	5.0	No
16	Residential	County	LT-5	58.1	67.0	45	**Yes**	65.7	45	**Yes**	-1.3	**Yes**	5.0	No	49.0	45	**Yes**	47.7	45	**Yes**	-1.3	**Yes**	5.0	No
17	Residential	County	LT-5	58.1	67.0	45	**Yes**	65.8	45	**Yes**	-1.2	**Yes**	5.0	No	49.0	45	**Yes**	47.8	45	**Yes**	-1.2	**Yes**	5.0	No
18	Residential	County	LT-5	58.1	65.1	45	**Yes**	64.1	45	**Yes**	-1.0	**Yes**	5.0	No	47.1	45	**Yes**	46.1	45	**Yes**	-1.0	**Yes**	5.0	No
19	Residential	County	LT-5	58.1	65.7	45	**Yes**	64.7	45	**Yes**	-1.0	**Yes**	5.0	No	47.7	45	**Yes**	46.7	45	**Yes**	-1.0	**Yes**	5.0	No
20	Residential	County	LT-5	58.1	65.9	45	**Yes**	64.9	45	**Yes**	-1.0	**Yes**	5.0	No	47.9	45	**Yes**	46.9	45	**Yes**	-1.0	**Yes**	5.0	No
21	Residential	County	LT-5	58.1	66.8	45	**Yes**	65.8	45	**Yes**	-1.0	**Yes**	5.0	No	48.8	45	**Yes**	47.8	45	**Yes**	-1.0	**Yes**	5.0	No
22	Residential	County	LT-5	58.1	66.5	45	**Yes**	65.5	45	**Yes**	-1.0	**Yes**	5.0	No	48.5	45	**Yes**	47.5	45	**Yes**	-1.0	**Yes**	5.0	No
23	Residential	County	LT-5	58.1	66.1	45	**Yes**	65.1	45	**Yes**	-1.0	**Yes**	5.0	No	48.1	45	**Yes**	47.1	45	**Yes**	-1.0	**Yes**	5.0	No
24	Residential	County	LT-5	58.1	67.6	45	**Yes**	66.6	45	**Yes**	-1.0	**Yes**	5.0	No	49.6	45	**Yes**	48.6	45	**Yes**	-1.0	**Yes**	5.0	No
25	Residential	County	LT-5	58.1	67.7	45	**Yes**	66.6	45	**Yes**	-1.1	**Yes**	5.0	No	49.7	45	**Yes**	48.6	45	**Yes**	-1.1	**Yes**	5.0	No
26	Residential	County	LT-5	58.1	67.8	45	**Yes**	66.7	45	**Yes**	-1.1	**Yes**	5.0	No	49.8	45	**Yes**	48.7	45	**Yes**	-1.1	**Yes**	5.0	No
27	Residential	County	LT-5	58.1	67.5	45	**Yes**	66.4	45	**Yes**	-1.1	**Yes**	5.0	No	49.5	45	**Yes**	48.4	45	**Yes**	-1.1	**Yes**	5.0	No
28	Residential	County	LT-5	58.1	68.6	45	**Yes**	67.4	45	**Yes**	-1.2	**Yes**	5.0	No	50.6	45	**Yes**	49.4	45	**Yes**	-1.2	**Yes**	5.0	No
29	Residential	County	LT-4	66.1	65.4	45	**Yes**	64.9	45	**Yes**	-0.5	**Yes**	1.5	No	47.4	45	**Yes**	46.9	45	**Yes**	-0.5	**Yes**	1.5	No
30	Residential	County	LT-4	66.1	69.9	45	**Yes**	70.0	45	**Yes**	0.1	**Yes**	1.5	No	51.9	45	**Yes**	52.0	45	**Yes**	0.1	**Yes**	1.5	No
31	Residential	County	LT-4	66.1	69.9	45	**Yes**	69.8	45	**Yes**	-0.1	**Yes**	1.5	No	51.9	45	**Yes**	51.8	45	**Yes**	-0.1	**Yes**	1.5	No
32	Residential	County	LT-4	66.1	69.8	45	**Yes**	69.7	45	**Yes**	-0.1	**Yes**	1.5	No	51.8	45	**Yes**	51.7	45	**Yes**	-0.1	**Yes**	1.5	No
33	Residential	County	LT-4	66.1	67.3	45	**Yes**	67.0	45	**Yes**	-0.3	**Yes**	1.5	No	49.3	45	**Yes**	49.0	45	**Yes**	-0.3	**Yes**	1.5	No
34	Residential	County	LT-4	66.1	67.4	45	**Yes**	67.1	45	**Yes**	-0.3	**Yes**	1.5	No	49.4	45	**Yes**	49.1	45	**Yes**	-0.3	**Yes**	1.5	No
35	Residential	County	LT-4	66.1	67.5	45	**Yes**	67.2	45	**Yes**	-0.3	**Yes**	1.5	No	49.5	45	**Yes**	49.2	45	**Yes**	-0.3	**Yes**	1.5	No
36 (Jasper Park)	Park/Recreation	County	ST-1	58.8	70.1	-	No	70.0	-	No	-0.1	No	5.0	No	52.1	-	No	52.0	-	No	-0.1	No	5.0	No
37	Residential	County	LT-4	66.1	66.2	45	**Yes**	65.8	45	**Yes**	-0.4	**Yes**	1.5	No	48.2	45	**Yes**	47.8	45	**Yes**	-0.4	**Yes**	1.5	No
38	Residential	County	LT-4	66.1	65.7	45	**Yes**	65.3	45	**Yes**	-0.4	**Yes**	1.5	No	47.7	45	**Yes**	47.3	45	**Yes**	-0.4	**Yes**	1.5	No
39	Residential	County	LT-4	66.1	68.2	45	**Yes**	67.9	45	**Yes**	-0.3	**Yes**	1.5	No	50.2	45	**Yes**	49.9	45	**Yes**	-0.3	**Yes**	1.5	No
40	Residential	County	LT-4	66.1	67.9	45	**Yes**	67.8	45	**Yes**	-0.1	**Yes**	1.5	No	49.9	45	**Yes**	49.8	45	**Yes**	-0.1	**Yes**	1.5	No
41	Residential	County	LT-4	66.1	63.1	45	**Yes**	62.7	45	**Yes**	-0.4	**Yes**	1.5	No	45.1	45	**Yes**	44.7	45	No	-0.4	No	1.5	No
42	Residential	County	LT-4	66.1	62.4	45	**Yes**	62.1	45	**Yes**	-0.3	**Yes**	1.5	No	44.4	45	No	44.1	45	No	-0.3	No	1.5	No
43	Residential	County	LT-4	66.1	61.7	45	**Yes**	61.4	45	**Yes**	-0.3	**Yes**	1.5	No	43.7	45	No	43.4	45	No	-0.3	No	1.5	No
44	Residential	County	LT-4	66.1	61.2	45	**Yes**	60.9	45	**Yes**	-0.3	**Yes**	1.5	No	43.2	45	No	42.9	45	No	-0.3	No	1.5	No
45	Residential	County	LT-4	66.1	61.9	45	**Yes**	61.6	45	**Yes**	-0.3	**Yes**	1.5	No	43.9	45	No	43.6	45	No	-0.3	No	1.5	No
46	Residential	County	LT-4	66.1	61.1	45	**Yes**	60.8	45	**Yes**	-0.3	**Yes**	1.5	No	43.1	45	No	42.8	45	No	-0.3	No	1.5	No
47	Residential	County	LT-4	66.1	60.4	45	**Yes**	60.2	45	**Yes**	-0.2	**Yes**	1.5	No	42.4	45	No	42.2	45	No	-0.2	No	1.5	No
48	Residential	County	LT-4	66.1	60.0	45	**Yes**	59.9	45	**Yes**	-0.1	**Yes**	1.5	No	42.0	45	No	41.9	45	No	-0.1	No	1.5	No
49	Residential	County	LT-4	66.1	58.8	45	**Yes**	58.9	45	**Yes**	0.1	**Yes**	1.5	No	40.8	45	No	40.9	45	No	0.1	No	1.5	No
50	Residential	County	LT-4	66.1	58.5	45	**Yes**	58.7	45	**Yes**	0.2	**Yes**	1.5	No	40.5	45	No	40.7	45	No	0.2	No	1.5	No
51	Residential	County	LT-4	66.1	58.2	45	**Yes**	58.6	45	**Yes**	0.4	**Yes**	1.5	No	40.2	45	No	40.6	45	No	0.4	No	1.5	No
52	Residential	County	LT-1	61.2	52.2	45	**Yes**	50.5	45	**Yes**	-1.7	**Yes**	3.0	No	34.2	45	No	32.5	45	No	-1.7	No	3.0	No
53	Residential	County	LT-1	61.2	51.4	45	**Yes**	50.7	45	**Yes**	-0.7	**Yes**	3.0	No	33.4	45	No	32.7	45	No	-0.7	No	3.0	No

Mitigated (BAR-2 and BAR-3) BIG Operational Interior Noise Impact Analysis - Horizon Year 2048

Receptor #	Land Use	Jurisdiction	Representative Measurement Location	Measured Ambient Noise Level (L_{dn}, L_{eq})	WINDOWS OPEN										WINDOWS CLOSED									
					NO PROJECT			WITH PROJECT			Comparison	FICAN Incremental Increase Impact Analysis			NO PROJECT			WITH PROJECT			Comparison	Impact Analysis		
					Ldn			Ldn			Ldn	Ldn			Ldn			Ldn			Ldn	Ldn		
					Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?	Modeled Noise Level	Noise Standard (dBA)	Exceeds Standard?		Exceeds Standard?	Incremental Criteria	Impact?
54	Residential	County	LT-2	77.2	63.3	45	**Yes**	62.4	45	**Yes**	-0.9	**Yes**	1.5	No	45.3	45	**Yes**	44.4	45	No	-0.9	No	1.5	No
55	Residential	County	LT-2	77.2	67.7	45	**Yes**	66.5	45	**Yes**	-1.2	**Yes**	1.5	No	49.7	45	**Yes**	48.5	45	**Yes**	-1.2	**Yes**	1.5	No
56	Residential	County	LT-2	77.2	68.9	45	**Yes**	65.5	45	**Yes**	-3.4	**Yes**	1.5	No	50.9	45	**Yes**	47.5	45	**Yes**	-3.4	**Yes**	1.5	No
57	Residential	County	LT-2	77.2	68.2	45	**Yes**	63.6	45	**Yes**	-4.6	**Yes**	1.5	No	50.2	45	**Yes**	45.6	45	**Yes**	-4.6	**Yes**	1.5	No
58	Residential	County	LT-2	77.2	68.9	45	**Yes**	63.9	45	**Yes**	-5.0	**Yes**	1.5	No	50.9	45	**Yes**	45.9	45	**Yes**	-5.0	**Yes**	1.5	No
59	Residential	County	LT-2	77.2	67.8	45	**Yes**	62.8	45	**Yes**	-5.0	**Yes**	1.5	No	49.8	45	**Yes**	44.8	45	No	-5.0	No	1.5	No
60	Residential	County	LT-2	77.2	66.0	45	**Yes**	61.0	45	**Yes**	-5.0	**Yes**	1.5	No	48.0	45	**Yes**	43.0	45	No	-5.0	No	1.5	No
61	Residential	County	LT-2	77.2	70.5	45	**Yes**	65.4	45	**Yes**	-5.1	**Yes**	1.5	No	52.5	45	**Yes**	47.4	45	**Yes**	-5.1	**Yes**	1.5	No
62	Residential	County	LT-2	77.2	71.7	45	**Yes**	66.6	45	**Yes**	-5.1	**Yes**	1.5	No	53.7	45	**Yes**	48.6	45	**Yes**	-5.1	**Yes**	1.5	No
63	Residential	County	LT-2	77.2	65.9	45	**Yes**	61.0	45	**Yes**	-4.9	**Yes**	1.5	No	47.9	45	**Yes**	43.0	45	No	-4.9	No	1.5	No
64	Residential	County	LT-2	77.2	67.8	45	**Yes**	62.8	45	**Yes**	-5.0	**Yes**	1.5	No	49.8	45	**Yes**	44.8	45	No	-5.0	No	1.5	No
65 (Lenwood Elementary School)	School	County	ST-2	54.9	61.6	45	**Yes**	60.8	45	**Yes**	-0.8	**Yes**	5.0	No	43.6	45	No	42.8	45	No	-0.8	No	5.0	No
66 (Lenwood Park)	Park/Recreation	County	ST-2	54.9	58.0	-	No	57.5	-	No	-0.5	No	5.0	No	40.0	-	No	39.5	-	No	-0.5	No	5.0	No
67 (Missionary Baptist Church)	Church	County	ST-1	58.8	59.3	45	**Yes**	58.8	45	**Yes**	-0.5	**Yes**	5.0	No	41.3	45	No	40.8	45	No	-0.5	No	5.0	No
68 (Saint Phillip Church)	Church	County	ST-3	43.8	55.1	45	**Yes**	54.9	45	**Yes**	-0.2	**Yes**	5.0	No	37.1	45	No	36.9	45	No	-0.2	No	5.0	No
69 (Ingels School)	School	County	LT-6	64.8	53.0	45	**Yes**	53.1	45	**Yes**	0.1	**Yes**	3.0	No	35.0	45	No	35.1	45	No	0.1	No	3.0	No
70 (Grandview Baptist Church)	Church	County	LT-6	64.8	50.6	45	**Yes**	51.8	45	**Yes**	1.2	**Yes**	3.0	No	32.6	45	No	33.8	45	No	1.2	No	3.0	No
71	Residential	County	LT-2	77.2	64.0	45	**Yes**	59.3	45	**Yes**	-4.7	**Yes**	1.5	No	46.0	45	**Yes**	41.3	45	No	-4.7	No	1.5	No
72	Residential	County	LT-2	77.2	63.6	45	**Yes**	58.9	45	**Yes**	-4.7	**Yes**	1.5	No	45.6	45	**Yes**	40.9	45	No	-4.7	No	1.5	No
73	Residential	County	LT-2	77.2	63.0	45	**Yes**	58.4	45	**Yes**	-4.6	**Yes**	1.5	No	45.0	45	No	40.4	45	No	-4.6	No	1.5	No
74	Residential	County	LT-2	77.2	69.5	45	**Yes**	65.0	45	**Yes**	-4.5	**Yes**	1.5	No	51.5	45	**Yes**	47.0	45	**Yes**	-4.5	**Yes**	1.5	No
75	Residential	County	LT-2	77.2	70.6	45	**Yes**	66.3	45	**Yes**	-4.3	**Yes**	1.5	No	52.6	45	**Yes**	48.3	45	**Yes**	-4.3	**Yes**	1.5	No
76	Residential	County	LT-2	77.2	75.3	45	**Yes**	75.1	45	**Yes**	-0.2	**Yes**	1.5	No	57.3	45	**Yes**	57.1	45	**Yes**	-0.2	**Yes**	1.5	No
77	Residential	County	LT-2	77.2	60.7	45	**Yes**	58.3	45	**Yes**	-2.4	**Yes**	1.5	No	42.7	45	No	40.3	45	No	-2.4	No	1.5	No
78	Residential	County	LT-2	77.2	58.5	45	**Yes**	58.3	45	**Yes**	-0.2	**Yes**	1.5	No	40.5	45	No	40.3	45	No	-0.2	No	1.5	No
79	Residential	County	LT-2	77.2	63.6	45	**Yes**	63.6	45	**Yes**	0.0	**Yes**	1.5	No	45.6	45	**Yes**	45.6	45	Yes	0.0	Yes	1.5	No
80	Residential	County	LT-2	77.2	64.4	45	**Yes**	64.4	45	**Yes**	0.0	**Yes**	1.5	No	46.4	45	**Yes**	46.4	45	**Yes**	0.0	**Yes**	1.5	No
81	Residential	County	LT-2	77.2	60.2	45	**Yes**	60.2	45	**Yes**	0.0	**Yes**	1.5	No	42.2	45	No	42.2	45	No	0.0	No	1.5	No
82	Residential	County	LT-2	77.2	63.4	45	**Yes**	63.4	45	**Yes**	0.0	**Yes**	1.5	No	45.4	45	**Yes**	45.4	45	**Yes**	0.0	**Yes**	1.5	No
83	Residential	City	LT-3	66.5	43.8	45	No	53.9	45	**Yes**	10.1	**Yes**	1.5	**Yes**	25.8	45	No	35.9	45	No	10.1	No	1.5	**Yes**
84	Residential	City	LT-3	66.5	42.8	45	No	53.9	45	**Yes**	11.1	**Yes**	1.5	**Yes**	24.8	45	No	35.9	45	No	11.1	No	1.5	**Yes**
85	Residential	City	LT-3	66.5	63.3	45	**Yes**	62.8	45	**Yes**	-0.5	Yes	1.5	No	45.3	45	**Yes**	44.8	45	No	-0.5	No	1.5	No
86	Residential	City	LT-3	66.5	43.3	45	No	50.9	45	**Yes**	7.6	**Yes**	1.5	**Yes**	25.3	45	No	32.9	45	No	7.6	No	1.5	**Yes**
87	Residential	City	LT-3	66.5	41.5	45	No	52.5	45	**Yes**	11.0	**Yes**	1.5	**Yes**	23.5	45	No	34.5	45	No	11.0	No	1.5	**Yes**
88	Residential	City	LT-3	66.5	42.1	45	No	53.2	45	**Yes**	11.1	**Yes**	1.5	**Yes**	24.1	45	No	35.2	45	No	11.1	No	1.5	**Yes**
89	Residential	City	LT-3	66.5	42.1	45	No	53.3	45	**Yes**	11.2	**Yes**	1.5	**Yes**	24.1	45	No	35.3	45	No	11.2	No	1.5	**Yes**
90	Residential	City	LT-3	66.5	41.7	45	No	54.6	45	**Yes**	12.9	**Yes**	1.5	**Yes**	23.7	45	No	36.6	45	No	12.9	No	1.5	**Yes**

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: BIG Barstow
Project Number: 195165003
Scenario: Existing
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

									Vehicle Mix		Distance from Centerline of Roadway		
				Median	ADT	Speed	Alpha	Medium	Heavy	CNEL at	Distance to Contour		
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	%	%	100 Feet	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	2	0	3,610	40	0.5	4.6%	1.9%	57.7	-	32	70	150
2		Country Club Drive to Lenwood Road	2	0	3,610	40	0.5	4.6%	1.9%	57.7	-	32	70	150
3		Lenwood Road to County/City Boundary	4	0	9,650	35	0.5	4.6%	2.9%	61.6	-	59	127	273
4		County/City Boundary to SR 58 Eastbound Ramps	4	0	9,650	40	0.5	4.6%	2.9%	62.6	-	69	149	321
5		SR 58 Eastbound Off Ramps to SR 58 Westbound Ramps	4	0	8,320	40	0.5	4.6%	4.6%	62.8	-	71	154	331
6		SR 58 Westbound Ramps to L Street	4	0	6,990	25	0.5	4.6%	6.9%	61.3	-	57	123	265
7		L Street to Avenue A	2	0	12,800	25	0.5	13.4%	1.2%	61.4	-	57	123	266
8		Avenue A to Barstow Road	2	0	12,190	25	0.5	10.0%	1.4%	60.6	-	51	110	238
9	Barstow Road	Main Street to I-15 Southbound Ramps	2	60	11,070	40	0.5	8.5%	0.7%	63.4	-	79	169	365
10		I-15 Southbound Ramps to I-15 Northbound Ramps	2	60	11,100	40	0.5	7.2%	2.2%	63.9	-	84	182	391
11		I-15 Northbound ramps to Rimrock Road	2	60	11,140	40	0.5	5.9%	3.7%	64.3	-	90	194	417
12	Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	2	0	1,290	55	0.5	10.6%	10.8%	59.7	-	44	96	206
13		Community Boulevard to Agate Road	2	0	1,290	45	0.5	10.6%	10.8%	58.3	-	36	77	166
14		Agate Road to Jasper Road	2	0	3,830	45	0.5	12.8%	2.6%	61.2	-	56	121	260
15		Jasper Road to Main Street	2	0	6,370	45	0.5	13.2%	1.0%	63.0	34	73	158	341
16		Main Street to High Desert Road	2	0	3,610	35	0.5	10.5%	6.7%	60.0	-	47	100	216
17		High Desert Road to I-15 SB Off Ramp	4	0	10,590	50	0.5	8.4%	4.0%	66.2	56	121	260	561
18		I-15 SB Off Ramp to I-15 NB Off Ramp	4	0	8,980	35	0.5	7.0%	3.5%	62.2	-	65	139	300
19	Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	2	0	360	25	0.5	11.4%	3.9%	47.5	-	-	-	-
20		Project Driveway to Main Street[2]	2	0	360	25	0.5	11.4%	3.9%	47.5	-	-	-	-

"-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: BIG Barstow
Project Number: 195165003
Scenario: Opening Year
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

								Vehicle Mix		Distance from Centerline of Roadway			
				Median	ADT	Speed	Alpha	Medium	Heavy	CNEL at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	%	%	100 Feet	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	2	0	5,046	40	0.5	4.4%	11.7%	62.9	34	73	157	337
2		Country Club Drive to Lenwood Road	2	0	4,465	40	0.5	5.0%	10.7%	62.2	-	65	140	301
3		Lenwood Road to County/City Boundary	4	0	9,341	35	0.5	4.9%	3.4%	61.8	-	61	131	283
4		County/City Boundary to SR 58 Eastbound Ramps	4	0	9,341	40	0.5	4.9%	3.4%	62.8	-	71	154	331
5		SR 58 Eastbound Off Ramps to SR 58 Westbound Ramps	4	0	7,902	40	0.5	5.1%	5.5%	63.1	-	75	161	346
6		SR 58 Westbound Ramps to L Street	4	0	6,837	25	0.5	5.1%	8.4%	62.0	-	63	135	292
7		L Street to Avenue A	2	0	12,797	25	0.5	13.4%	1.3%	61.5	-	58	126	271
8		Avenue A to Barstow Road	2	0	12,218	25	0.5	10.0%	1.4%	60.7	-	51	111	239
9	Barstow Road	Main Street to I-15 Southbound Ramps	2	60	11,754	40	0.5	8.1%	0.8%	63.6	-	81	174	374
10		I-15 Southbound Ramps to I-15 Northbound Ramps	2	60	12,399	40	0.5	6.6%	2.4%	64.3	-	90	194	417
11		I-15 Northbound ramps to Rimrock Road	2	60	13,209	40	0.5	5.2%	3.8%	64.9	-	99	213	459
12	Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	2	0	1,202	55	0.5	11.6%	9.3%	59.3	-	41	89	192
13		Community Boulevard to Agate Road	2	0	1,100	45	0.5	13.0%	10.2%	57.8	-	33	71	153
14		Agate Road to Jasper Road	2	0	3,929	45	0.5	13.9%	5.8%	62.4	-	67	145	313
15		Jasper Road to Main Street	2	0	5,930	45	0.5	16.0%	5.5%	64.4	43	92	198	426
16		Main Street to High Desert Road	2	0	5,051	35	0.5	9.3%	20.3%	64.4	43	92	198	426
17		High Desert Road to I-15 SB Off Ramp	4	0	12,735	50	0.5	7.7%	9.5%	68.4	78	168	362	781
18		I-15 SB Off Ramp to I-15 NB Off Ramp	4	0	10,929	35	0.5	6.2%	6.5%	64.2	-	88	190	410
19	Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	2	0	348	25	0.5	12.1%	4.6%	47.9	-	-	-	33
20		Project Driveway to Main Street[2]	2	0	370	25	0.5	11.1%	3.8%	47.5	-	-	-	-

"-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: BIG Barstow
Project Number: 195165003
Scenario: Opening Year Plus Project
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

								Vehicle Mix		Distance from Centerline of Roadway				
				Median	ADT	Speed	Alpha	Medium	Heavy	CNEL at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	%	%	100 Feet	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	2	0	5,396	40	0.5	4.1%	11.0%	63.0	34	73	158	340
2		Country Club Drive to Lenwood Road	2	0	6,942	40	0.5	3.2%	12.6%	64.4	42	91	196	422
3		Lenwood Road to County/City Boundary	4	0	10,645	35	0.5	4.3%	3.4%	62.2	-	65	140	301
4		County/City Boundary to SR 58 Eastbound Ramps	4	0	10,645	40	0.5	4.3%	3.4%	63.2	-	76	163	352
5		SR 58 Eastbound Off Ramps to SR 58 Westbound Ramp	4	0	10,041	40	0.5	4.0%	4.8%	63.6	-	80	173	373
6		SR 58 Westbound Ramps to L Street	4	0	8,583	25	0.5	4.1%	6.7%	62.1	-	64	137	295
7		L Street to Avenue A	2	0	13,670	25	0.5	12.6%	1.3%	61.5	-	59	127	273
8		Avenue A to Barstow Road	2	0	12,917	25	0.5	9.4%	1.3%	60.7	-	52	112	241
9	Barstow Road	Main Street to I-15 Southbound Ramps	2	60	12,191	40	0.5	7.8%	0.7%	63.7	-	81	175	378
10		I-15 Southbound Ramps to I-15 Northbound Ramps	2	60	12,923	40	0.5	6.3%	2.3%	64.4	-	91	195	421
11		I-15 Northbound ramps to Rimrock Road	2	60	13,297	40	0.5	5.1%	3.8%	64.9	-	99	214	460
12	Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	2	0	2,008	55	0.5	6.9%	18.7%	62.5	-	68	146	314
13		Community Boulevard to Agate Road	2	0	2,517	45	0.5	5.7%	14.9%	61.5	-	58	125	270
14		Agate Road to Jasper Road	2	0	6,306	45	0.5	8.6%	7.8%	64.2	41	89	191	411
15		Jasper Road to Main Street	2	0	11,166	45	0.5	8.5%	7.0%	66.5	58	125	269	581
16		Main Street to High Desert Road	2	0	9,179	35	0.5	5.1%	14.3%	65.5	50	108	233	502
17		High Desert Road to I-15 SB Off Ramp	4	0	16,689	50	0.5	5.9%	9.0%	69.1	88	189	407	876
18		I-15 SB Off Ramp to I-15 NB Off Ramp	4	0	12,513	35	0.5	5.4%	6.9%	64.8	45	97	208	448
19	Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	2	0	418	25	0.5	10.0%	3.8%	47.9	-	-	-	34
20		Project Driveway to Main Street[2]	-	-	-	-	-	-	-	-	-	-	-	-

"-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: BIG Barstow
Project Number: 195165003
Scenario: Interim Year
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

								Vehicle Mix		Distance from Centerline of Roadway				
				Median	ADT	Speed	Alpha	Medium	Heavy	CNEL at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	%	%	100 Feet	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	2	0	6,482	40	0.5	4.3%	17.2%	65.2	48	104	223	481
2		Country Club Drive to Lenwood Road	2	0	5,319	40	0.5	5.2%	16.6%	64.4	42	91	195	420
3		Lenwood Road to County/City Boundary	4	0	9,031	35	0.5	5.2%	3.8%	62.0	-	63	135	291
4		County/City Boundary to SR 58 Eastbound Ramps	4	0	9,031	40	0.5	5.2%	3.8%	63.0	-	73	158	340
5		SR 58 Eastbound Off Ramps to SR 58 Westbound Ramp	4	0	7,484	40	0.5	5.7%	6.6%	63.4	-	78	168	361
6		SR 58 Westbound Ramps to L Street	4	0	6,683	25	0.5	5.7%	9.9%	62.5	-	69	148	318
7		L Street to Avenue A	2	0	12,793	25	0.5	13.5%	1.5%	61.6	-	60	128	276
8		Avenue A to Barstow Road	2	0	12,245	25	0.5	10.0%	1.4%	60.7	-	52	111	240
9	Barstow Road	Main Street to I-15 Southbound Ramps	2	60	12,438	40	0.5	7.7%	0.8%	63.8	-	83	178	383
10		I-15 Southbound Ramps to I-15 Northbound Ramps	2	60	13,698	40	0.5	6.1%	2.6%	64.7	-	95	205	442
11		I-15 Northbound ramps to Rimrock Road	2	60	15,277	40	0.5	4.6%	3.9%	65.5	-	108	232	499
12	Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	2	0	1,113	55	0.5	12.7%	7.5%	58.8	-	38	83	178
13		Community Boulevard to Agate Road	2	0	910	45	0.5	16.4%	9.2%	57.2	-	-	65	139
14		Agate Road to Jasper Road	2	0	4,028	45	0.5	14.9%	8.8%	63.4	36	78	168	361
15		Jasper Road to Main Street	2	0	5,489	45	0.5	19.2%	10.7%	65.5	50	108	234	503
16		Main Street to High Desert Road	2	0	6,492	35	0.5	8.6%	27.8%	66.6	59	127	275	592
17		High Desert Road to I-15 SB Off Ramp	4	0	14,880	50	0.5	7.2%	13.5%	69.8	97	209	451	972
18		I-15 SB Off Ramp to I-15 NB Off Ramp	4	0	12,877	35	0.5	5.6%	8.7%	65.6	51	109	235	507
19	Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	2	0	336	25	0.5	12.5%	4.8%	47.8	-	-	-	33
20		Project Driveway to Main Street[2]	2	0	379	25	0.5	10.8%	3.7%	47.5	-	-	-	-

"-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: BIG Barstow
Project Number: 195165003
Scenario: Interim Year + Project
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

								Vehicle Mix		Distance from Centerline of Roadway				
				Median	ADT	Speed	Alpha	Medium	Heavy	CNEL at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	%	%	100 Feet	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	2	0	6,934	40	0.5	4.0%	16.1%	65.3	48	104	224	483
2		Country Club Drive to Lenwood Road	2	0	8,292	40	0.5	3.3%	16.7%	66.1	55	118	255	549
3		Lenwood Road to County/City Boundary	4	0	10,692	35	0.5	4.4%	3.8%	62.5	-	68	146	315
4		County/City Boundary to SR 58 Eastbound Ramps	4	0	10,692	40	0.5	4.4%	3.8%	63.5	-	79	170	366
5		SR 58 Eastbound Off Ramps to SR 58 Westbound Ramp	4	0	10,250	40	0.5	4.2%	5.3%	63.9	-	85	183	395
6		SR 58 Westbound Ramps to L Street	4	0	8,941	25	0.5	4.2%	7.4%	62.6	-	69	150	322
7		L Street to Avenue A	2	0	13,979	25	0.5	12.3%	1.3%	61.7	-	60	129	279
8		Avenue A to Barstow Road	2	0	13,036	25	0.5	9.4%	1.4%	60.7	-	52	112	241
9	Barstow Road	Main Street to I-15 Southbound Ramps	2	60	12,947	40	0.5	7.4%	0.8%	63.8	-	83	180	387
10		I-15 Southbound Ramps to I-15 Northbound Ramps	2	60	14,348	40	0.5	5.8%	2.4%	64.8	-	96	207	447
11		I-15 Northbound ramps to Rimrock Road	2	60	15,390	40	0.5	4.6%	3.9%	65.5	-	108	232	500
12	Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	2	0	2,027	55	0.5	7.0%	20.3%	62.7	33	71	152	328
13		Community Boulevard to Agate Road	2	0	2,558	45	0.5	5.8%	16.1%	61.8	-	61	131	283
14		Agate Road to Jasper Road	2	0	6,861	45	0.5	8.8%	9.9%	65.1	47	102	220	474
15		Jasper Road to Main Street	2	0	12,466	45	0.5	8.4%	9.4%	67.6	69	148	319	687
16		Main Street to High Desert Road	2	0	12,114	35	0.5	4.6%	18.0%	67.5	68	146	314	676
17		High Desert Road to I-15 SB Off Ramp	4	0	19,825	50	0.5	5.4%	12.0%	70.5	108	233	502	1,082
18		I-15 SB Off Ramp to I-15 NB Off Ramp	4	0	14,983	35	0.5	4.8%	8.7%	66.1	55	119	256	552
19	Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	2	0	429	25	0.5	9.8%	3.7%	48.0	-	-	-	34
20		Project Driveway to Main Street[2]	2	0	-	-	-	-	-	-	-	-	-	-

"-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: BIG Barstow
Project Number: 195165003
Scenario: Horizon Year
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

								Vehicle Mix		Distance from Centerline of Roadway				
				Median	ADT	Speed	Alpha	Medium	Heavy	CNEL at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	%	%	100 Feet	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	2	0	10,790	40	0.5	4.1%	24.8%	68.7	82	177	381	822
2		Country Club Drive to Lenwood Road	2	0	7,880	40	0.5	5.6%	26.7%	67.7	71	152	328	706
3		Lenwood Road to County/City Boundary	4	0	8,101	35	0.5	6.4%	5.5%	62.5	-	68	147	317
4		County/City Boundary to SR 58 Eastbound Ramps	4	0	8,101	40	0.5	6.4%	5.5%	63.4	-	79	170	-
5		SR 58 Eastbound Off Ramps to SR 58 Westbound Ramp	4	0	6,229	40	0.5	7.9%	10.5%	64.1	-	87	187	403
6		SR 58 Westbound Ramps to L Street	4	0	6,221	25	0.5	7.5%	15.0%	63.9	-	84	181	390
7		L Street to Avenue A	2	0	12,780	25	0.5	13.6%	1.8%	61.9	-	62	135	290
8		Avenue A to Barstow Road	2	0	12,325	25	0.5	9.9%	1.5%	60.8	-	52	112	242
9	Barstow Road	Main Street to I-15 Southbound Ramps	2	60	14,488	40	0.5	6.7%	0.9%	64.2	-	88	190	410
10		I-15 Southbound Ramps to I-15 Northbound Ramps	2	60	17,594	40	0.5	5.0%	2.9%	65.6	-	110	238	513
11		I-15 Northbound ramps to Rimrock Road	2	60	21,481	40	0.5	3.7%	4.1%	66.8	-	131	283	610
12	Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	2	0	846	55	0.5	17.3%	0.1%	56.7	-	-	61	130
13		Community Boulevard to Agate Road	2	0	339	45	0.5	48.7%	0.1%	54.5	-	-	43	-
14		Agate Road to Jasper Road	2	0	4,323	45	0.5	17.8%	16.9%	65.3	49	105	227	-
15		Jasper Road to Main Street	2	0	4,166	45	0.5	32.9%	32.8%	67.7	71	152	328	706
16		Main Street to High Desert Road	2	0	10,814	35	0.5	7.6%	38.4%	69.9	99	213	460	991
17		High Desert Road to I-15 SB Off Ramp	4	0	21,313	50	0.5	6.3%	20.5%	72.5	146	315	678	1,461
18		I-15 SB Off Ramp to I-15 NB Off Ramp	4	0	18,721	35	0.5	4.7%	12.4%	68.2	75	162	350	754
19	Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	2	0	299	25	0.5	13.7%	4.8%	47.5	-	-	-	-
20		Project Driveway to Main Street[2]	2	0	406	25	0.5	10.1%	3.5%	47.6	-	-	-	-

"-" = contour is located within the roadway right-of-way.

FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels

Project Name: BIG Barstow
Project Number: 195165003
Scenario: Horizon Year Plus Project
Ldn/CNEL: CNEL

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

								Vehicle Mix		Distance from Centerline of Roadway				
				Median	ADT	Speed	Alpha	Medium	Heavy	CNEL at	Distance to Contour			
#	Roadway	Segment	Lanes	Width	Volume	(mph)	Factor	%	%	100 Feet	70 CNEL	65 CNEL	60 CNEL	55 CNEL
1	Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	2	0	11,300	40	0.5	3.9%	23.7%	68.7	82	177	382	824
2		Country Club Drive to Lenwood Road	2	0	11,300	40	0.5	3.9%	23.7%	68.7	82	177	382	824
3		Lenwood Road to County/City Boundary	4	0	10,000	35	0.5	5.2%	5.2%	63.0	-	74	160	344
4		County/City Boundary to SR 58 Eastbound Ramps	4	0	10,000	40	0.5	5.2%	5.2%	64.0	-	85	184	396
5		SR 58 Eastbound Off Ramps to SR 58 Westbound Ramp	4	0	9,400	40	0.5	5.2%	7.7%	64.7	44	95	205	441
6		SR 58 Westbound Ramps to L Street	4	0	8,800	25	0.5	5.3%	10.6%	63.9	-	85	183	395
7		L Street to Avenue A	2	0	14,200	25	0.5	12.2%	1.7%	62.0	-	63	136	293
8		Avenue A to Barstow Road	2	0	13,100	25	0.5	9.3%	1.4%	60.8	-	52	113	244
9	Barstow Road	Main Street to I-15 Southbound Ramps	2	60	15,000	40	0.5	6.5%	0.9%	64.3	-	89	192	414
10		I-15 Southbound Ramps to I-15 Northbound Ramps	2	60	18,300	40	0.5	4.8%	2.8%	65.7	-	111	240	517
11		I-15 Northbound ramps to Rimrock Road	2	60	21,600	40	0.5	3.6%	4.0%	66.8	-	132	283	611
12	Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	2	0	2,100	55	0.5	7.0%	7.9%	60.6	-	51	110	238
13		Community Boulevard to Agate Road	2	0	2,300	45	0.5	7.2%	9.3%	60.0	-	46	100	215
14		Agate Road to Jasper Road	2	0	7,400	45	0.5	10.4%	15.5%	66.8	61	131	283	609
15		Jasper Road to Main Street	2	0	12,400	45	0.5	11.0%	16.8%	69.3	90	193	416	897
16		Main Street to High Desert Road	2	0	17,600	35	0.5	4.7%	26.1%	70.4	107	231	497	1,070
17		High Desert Road to I-15 SB Off Ramp	4	0	26,800	50	0.5	5.0%	18.0%	72.9	157	337	727	1,566
18		I-15 SB Off Ramp to I-15 NB Off Ramp	4	0	21,200	35	0.5	4.1%	12.0%	68.5	80	172	370	798
19	Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	2	0	400	25	0.5	10.3%	3.6%	47.6	-	-	-	32
20		Project Driveway to Main Street[2]	-	-	-	-	-	-	-	-	-	-	-	-

"-" = contour is located within the roadway right-of-way.

Traffic Noise Modeling Results – Project Level

Exterior Impact Analysis - 2028

Roadway	Segment	Opening Year (2028) No Project	Opening Year (2028) No Project at Reciever	Opening Year (2028) Plus Project	Incremental Increase Threshold	Increase	Exceeds Threshold?	Land Use Type	City				County					Notes
									Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Impact?	
Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	62.9	60.7	63.0	3.0	0.0	No	SF Residential	-	-	-	-	140.0	60.8	60.0	**Yes**	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Country Club Drive to Lenwood Road	62.2	61.6	64.4	3.0	2.2	No	SF Residential	110	63.8	65	No	-	-	-	-	No	
	Lenwood Road to County/City Boundary	61.8	65.1	62.2	3.0	0.4	No	SF Residential	60.0	65.5	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	County/City Boundary to SR 58 Eastbound Ramps	62.8	50.6	63.2	3.0	0.4	No	Commercial	650.0	51.0	-	No	-	-		-	No	
	SR 58 Eastbound Off Ramps to SR 58 Westbound Ramps	63.1	N/A	63.6	3.0	0.5	No	N/A	-	-	-	-	-	-	-	-	No	No receivers along this segment
	SR 58 Westbound Ramps to L Street	62.0	65.9	62.1	5.0	0.1	No	SF Residential	55.0	66.0	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	L Street to Avenue A	61.5	65.4	61.5	3.0	0.0	No	MF Residential	55.0	65.4	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Avenue A to Barstow Road	60.7	56.2	60.7	3.0	0.0	No	MF Residential	200.0	56.2	65.0	No	-	-	-	-	No	
Barstow Road	Main Street to I-15 Southbound Ramps	63.6	70.4	63.7	3.0	0.1	No	SF Residential	35.0	70.5	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	I-15 Southbound Ramps to I-15 Northbound Ramps	64.3	56.1	64.4	3.0	0.1	No	SF Residential	350.0	56.2	65.0	No	-	-	-	-	No	
	I-15 Northbound ramps to Rimrock Road	64.9	67.7	64.9	3.0	0.0	No	MF Residential	65.0	67.7	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	59.3	62.6	62.5	5.0	3.2	No	SF Residential	-	-			60.0	65.8	60.0	**Yes**	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Community Boulevard to Agate Road	57.8	48.0	61.5	5.0	3.7	No	SF Residential	-	-			450.0	51.7	60.0	No	No	
	Agate Road to Jasper Road	62.4	63.9	64.2	5.0	1.8	No	SF Residential	-	-			80.0	65.7	60.0	**Yes**	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Jasper Road to National Trails Highway	64.4	52.1	66.5	3.0	2.0	No	SF Residential	-	-			670.0	54.1	60.0	No	No	
	Main Street to High Desert Road	64.4	66.8	65.5	5.0	1.1	No	SF Residential	70.0	67.8	65.0	**Yes**	-				No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	High Desert Road to I-15 SB Off Ramp	68.4	55.3	69.1	1.5	0.8	No	Commercial	750.0	56.0	65.0	No	-				No	
	I-15 SB Off Ramp to I-15 NB Off Ramp	64.2	60.4	64.8	1.5	0.6	No	Commercial	180.0	60.9	-	No	-				No	
Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	47.9	48.9	47.9	5.0	0.1	No	SF Residential	-	-	-	-	85.0	49.0	60.0	No	No	
	Project Driveway to Main Street[2]	47.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No	

Exterior Impact Analysis - 2033

Roadway	Segment	Interim Year (2033) No Project	Interim Year (2033) No Project at Reciever	Interim Year (2033) Plus Project	Incremental Increase Threshold	Increase	Exceeds Threshold?	Land Use Type	City				County					Notes
									Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Impact?	
Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	65.2	63.0	65.3	3.0	0.0	No	SF Residential	-	-	-	-	140.0	63.1	60.0	**Yes**	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Country Club Drive to Lenwood Road	64.4	63.7	66.1	3.0	1.7	No	SF Residential	110	65.5	65	**Yes**	-	-	-		**Yes**	
	Lenwood Road to County/City Boundary	62.0	65.3	62.5	3.0	0.5	No	SF Residential	60	65.8	65	**Yes**		-			No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	County/City Boundary to SR 58 Eastbound Ramps	62.0	49.8	63.5	3.0	1.5	No	Commercial	650.0	51.3	65	No	-	-	-		No	There are no receptors along this segment.
	SR 58 Eastbound Off Ramps to SR 58 Westbound Ramps	63.4	-	63.9	3.0	0.6	No	N/A	-	-			-	-	-		No	
	SR 58 Westbound Ramps to L Street	62.5	66.4	62.6	5.0	0.1	No	SF Residential	55.0	66.5	65	**Yes**	-	--	-		No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	L Street to Avenue A	61.6	65.5	61.7	3.0	0.1	No	MF Residential	55.0	65.6	65	**Yes**	-	-	-		No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Avenue A to Barstow Road	60.7	56.2	60.7	3.0	0.0	No	MF Residential	200.0	56.2	65	No	-	-	-		No	
Barstow Road	Main Street to I-15 Southbound Ramps	63.8	70.6	63.8	3.0	0.1	No	SF Residential	35.0	70.7	65	**Yes**	-	-	-		No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	I-15 Southbound Ramps to I-15 Northbound Ramps	64.7	56.5	64.8	3.0	0.1	No	SF Residential	350.0	56.6	65	No	-	-	-		No	
	I-15 Northbound ramps to Rimrock Road	65.5	68.3	65.5	3.0	0.0	No	MF Residential	65.0	68.3	65	**Yes**	-	-	-		No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	58.8	62.1	62.7	5.0	4.0	No	SF Residential	-	-	-	-	60.0	66.1	60.0	**Yes**	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Community Boulevard to Agate Road	57.2	47.4	61.8	5.0	4.6	No	SF Residential	-	-	-	-	450.0	52.0	60.0	No	No	
	Agate Road to Jasper Road	63.4	64.8	65.1	5.0	1.8	No	SF Residential	-	-	-	-	80.0	66.6	60.0	**Yes**	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Jasper Road to National Trails Highway	65.5	53.1	67.6	3.0	2.0	No	SF Residential	-	-	-	-	670.0	55.2	60.0	No	No	
	Main Street to High Desert Road	66.6	68.9	67.5	5.0	0.9	No	SF Residential	70.0	69.8	65	**Yes**	-	-	-		No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	High Desert Road to I-15 SB Off Ramp	69.8	56.7	70.5	1.5	0.7	No	Commercial	750.0	57.4	65	No	-	-	-		No	
	I-15 SB Off Ramp to I-15 NB Off Ramp	65.6	61.7	66.1	1.5	0.6	No	Commercial	180.0	62.3	-	No	-	-	-		No	
Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	47.8	48.9	48.0	5.0	0.1	No	SF Residential	-	-	-	-	85.0	49.0	60.0	No	No	
	Project Driveway to Main Street[2]	47.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Exterior Impact Analysis - 2048

Roadway	Segment	Horizon Year (2048) No Project	Horizon Year (2048) No Project at Reciever	Horizon Year (2048) Plus Project	Incremental Increase Threshold	Increase	Exceeds Threshold?	Land Use Type	City				County					Notes
									Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Impact?	
Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	68.7	66.5	68.7	3.0	0.0	No	SF Residential	-	-	-	-	140.0	66.5	60.0	Yes	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Country Club Drive to Lenwood Road	67.7	67.1	68.7	3.0	1.0	No	SF Residential	110	68.1	65	**Yes**	-	-		-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Lenwood Road to County/City Boundary	62.5	65.8	63.0	3.0	0.5	No	SF Residential	60	66.4	65	**Yes**					No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	County/City Boundary to SR 58 Eastbound Ramps	62.5	50.3	63.0	3.0	0.5	No	Commercial	650.0	50.8	65.0	No	-	-	-	-	No	
	SR 58 Eastbound Off Ramps to SR 58 Westbound Ramps	64.1	-	64.7	3.0	0.6	No	N/A	-		-	No	-	-	-	-	No	
	SR 58 Westbound Ramps to L Street	63.9	67.8	63.9	5.0	0.1	No	SF Residential	55.0	67.8	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	L Street to Avenue A	61.9	65.8	62.0	3.0	0.1	No	MF Residential	55.0	65.9	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Avenue A to Barstow Road	60.8	56.2	60.8	3.0	0.0	No	MF Residential	200.0	56.3	65.0	No	-	-	-	-	No	
Barstow Road	Main Street to I-15 Southbound Ramps	64.2	71.0	64.3	3.0	0.1	No	SF Residential	35.0	71.1	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	I-15 Southbound Ramps to I-15 Northbound Ramps	65.6	57.5	65.7	3.0	0.1	No	SF Residential	350.0	57.5	65.0	No	-	-	-	-	No	
	I-15 Northbound ramps to Rimrock Road	66.8	69.6	66.8	3.0	0.0	No	MF Residential	65.0	69.6	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	56.7	60.1	60.6	5.0	3.9	No	SF Residential	-		-		60.0	64.0	60.0	**Yes**	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Community Boulevard to Agate Road	54.5	44.7	60.0	5.0	5.5	**Yes**	SF Residential					450.0	50.2	60.0	No	**Yes**	
	Agate Road to Jasper Road	65.3	66.8	66.8	5.0	1.4	No	SF Residential					80.0	68.2	60.0	**Yes**	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Jasper Road to National Trails Highway	67.7	55.3	69.3	3.0	1.6	No	SF Residential	-		-		670.0	56.9	60	No	No	
	Main Street to High Desert Road	69.9	72.3	70.4	5.0	0.5	No	SF Residential	70.0	72.8	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	High Desert Road to I-15 SB Off Ramp	72.5	59.3	72.9	1.5	0.5	No	Commercial	750.0	59.8	65	No	-	-	-	-	No	
	I-15 SB Off Ramp to I-15 NB Off Ramp	68.2	64.3	68.5	1.5	0.4	No	Commercial	180.0	64.7	65.0	No	-	-	-	-	No	
Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	47.5	48.5	47.6	5.0	0.1	No	SF Residential	-		-	-	85.0	48.7	60.0	No	No	
	Project Driveway to Main Street[2]	47.6	-	-	-	-	-	-	-	-	-	-	-		-			

Interior Impact Analysis - 2028

Roadway	Segment	WINDOWS OPEN															WINDOWS CLOSED														
									City				County											City				County			
		Opening Year (2028) No Project	Opening Year (2028) No Project at Recievers	Opening Year (2028) Plus Project	Incremental Increase Threshold	Increase	Exceeds Threshold?	Land Use Type	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Impact?	Opening Year (2028) No Project	Opening Year (2028) No Project at Receivers	Opening Year (2028) Plus Project	Incremental Increase Threshold	Increase	Exceeds Threshold?	Land Use Type	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Impact?
Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	52.9	50.7	53.0	3.0	0.1	No	SF Residential	-	-	-	-	140.0	50.8	45.0	Yes	No	34.9	32.7	35.0	3.0	0.0	No	SF Residential	-	-	-	-	140.0	33.3	45.0	No	No
	Country Club Drive to Lenwood Road	52.2	51.6	54.4	3.0	2.2	No	SF Residential	110	53.8	45	**Yes**	-	-	-	-	No	34.2	33.6	36.4	3.0	2.2	No	SF Residential	110	35.8	45	No	-	-	-	-	No
	Lenwood Road to County/City Boundary	51.8	55.1	52.2	3.0	0.4	No	SF Residential	60	55.5	45	**Yes**					No	33.8	37.1	34.2	4.0	0.4	No	SF Residential	60	37.5	45	No					No
	County/City Boundary to SR 58 Eastbound Ramps	51.8	39.6	52.2	3.0	0.4	No	SF Residential	650.0	40.0	45.0	No	-	-	-	-	No	33.8	21.6	34.2	3.0	0.4	No	Commercial	650.0	22.0	-	No	-	-	-	-	No
	SR 58 Eastbound Off Ramps to SR 58 Westbound Ramps	53.1	N/A	53.6	3.0	0.5	No	N/A	-	-	-	-	-	-	-	-	No	35.1	N/A	35.6	3.0	0.5	No	N/A	-	-	-	-	-	-	-	-	No
	SR 58 Westbound Ramps to L Street	52.0	55.9	52.1	5.0	0.1	No	SF Residential	55.0	56.0	45.0	**Yes**	-	-	-	-	No	34.0	37.9	34.1	5.0	0.1	No	SF Residential	55.0	38.0	45.0	No	-	-	-	-	No
	L Street to Avenue A	51.5	55.4	51.5	3.0	0.0	No	MF Residential	55.0	55.4	45.0	**Yes**	-	-	-	-	No	33.5	37.4	33.5	3.0	0.0	No	MF Residential	55.0	37.4	45.0	No	-	-	-	-	No
	Avenue A to Barstow Road	50.7	46.2	50.7	3.0	0.0	No	MF Residential	200.0	46.2	45.0	**Yes**	-	-	-	-	No	32.7	28.2	32.7	3.0	0.0	No	MF Residential	200.0	28.2	45.0	No	-	-	-	-	No
Barstow Road	Main Street to I-15 Southbound Ramps	53.6	60.4	53.7	3.0	0.1	No	SF Residential	35.0	60.5	45.0	**Yes**	-	-	-	-	No	35.6	42.4	35.7	3.0	0.1	No	SF Residential	35.0	42.5	45.0	No	-	-	-	-	No
	I-15 Southbound Ramps to I-15 Northbound Ramps	54.3	46.1	54.4	3.0	0.1	No	SF Residential	350.0	46.2	45.0	**Yes**	-	-	-	-	No	36.3	28.1	36.4	3.0	0.1	No	SF Residential	350.0	28.2	45.0	No	-	-	-	-	No
	I-15 Northbound ramps to Rimrock Road	54.9	57.7	54.9	3.0	0.0	No	MF Residential	65.0	57.7	45.0	**Yes**	-	-	-	-	No	36.9	39.7	36.9	3.0	0.0	No	MF Residential	65.0	39.7	45.0	No	-	-	-	-	No
Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	49.3	52.6	52.5	5.0	3.2	No	SF Residential	-				60.0	55.8	45.0	**Yes**	No	31.3	34.6	34.5	5.0	3.2	No	SF Residential	-	-	-		60.0	37.8	45.0	No	No
	Community Boulevard to Agate Road	47.8	38.0	51.5	5.0	3.7	No	SF Residential					450.0	41.7	45.0	No	No	29.8	20.0	33.5	5.0	3.7	No	SF Residential					450.0	23.7	45.0	No	No
	Agate Road to Jasper Road	52.4	53.9	54.2	5.0	1.8	No	SF Residential					80.0	55.7	45.0	**Yes**	No	34.4	35.9	36.2	5.0	1.8	No	SF Residential					80.0	37.7	45.0	No	No
	Jasper Road to Main Street	54.4	42.1	56.5	3.0	2.0	No	SF Residential	-		-		670.0	44.1	45.0	No	No	36.4	24.1	38.5	3.0	2.0	No	SF Residential	-	-	-		670.0	26.1	45.0	No	No
	Main Street to High Desert Road	54.4	56.8	55.5	5.0	1.1	No	SF Residential	70.0	57.8	45.0	**Yes**	-		-		No	36.4	38.8	37.5	5.0	1.1	No	SF Residential	70.0	39.8	45.0	No	-		-	-	No
	High Desert Road to I-15 SB Off Ramp	58.4	45.3	59.1	1.5	0.8	No	Commercial	750.0	46.0	50.0	No	-		-		No	40.4	27.3	41.1	1.5	0.8	No	Commercial	750.0	28.0	50.0	No	-		-	-	No
	I-15 SB Off Ramp to I-15 NB Off Ramp	54.2	50.4	54.8	1.5	0.6	No	Commercial	180.0	50.9	50.0	**Yes**	-		-		No	36.2	32.4	36.8	1.5	0.6	No	Commercial	180.0	32.9	50.0	No	-		-	-	No
Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	37.9	38.9	37.9	5.0	0.1	No	SF Residential	-	-	-	-	85.0	39.0	45.0	No	No	19.9	20.9	19.9	5.0	0.1	No	SF Residential	-	-	-	-	85.0	21.0	45.0	-	No
	Project Driveway to Main Street[2]	-		-	-	-	-	-	-	-	-	-	-	-	-	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	

Interior Impact Analysis - 2033

Roadway	Segment	WINDOWS OPEN															WINDOWS CLOSED														
									City				County												City				County				
		Interim Year (2033) No Project	Interim Year (2033) No Project at Reciever	Interim Year (2033) Plus Project	Incremental Increase Threshold	Increase	Exceeds Threshold?	Land Use Type	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Impact?	Interim Year (2033) No Project	Interim Year (2033) No Project At Reciever	Interim Year (2033) Plus Project	Incremental Increase Threshold	Increase	Exceeds Threshold?	Land Use Type	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Impact?
Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	55.2	53.0	55.3	3.0	0.0	No	SF Residential	-	-	-	-	140.0	53.1	45.0	Yes	No	37.2	35.0	37.3	3.0	0.0	No	SF Residential	-	-	-	-	140.0	35.1	45.0	No	No
	Country Club Drive to Lenwood Road	54.4	53.7	56.1	3.0	1.7	No	SF Residential	110	55.5	45	**Yes**	-	-	-	-	No	36.4	35.7	38.1	3.0	1.7	No	SF Residential	110	37.5	45	No	-	-	-	-	No
	Lenwood Road to County/City Boundary	52.0	55.3	52.5	3.0	0.5	No	SF Residential	60	55.8	45	**Yes**	-	-	-	-	No	34.0	37.3	34.5	3.0	0.5	No	SF Residential	60	37.8	45	No					No
	County/City Boundary to SR 58 Eastbound Ramps	52.0	39.8	52.5	3.0	0.5	No	Commercial	650.0	40.3	-	No	-	-	-	-	No	34.0	21.8	34.5	3.0	0.5	No	Commercial	650.0	22.3	-	No	-	-	-	-	No
	SR 58 Eastbound Off Ramps to SR 58 Westbound Ramps	53.4	N/A	53.9	3.0	0.6	No	N/A	-	-	-	No	-	-	-	-	No	35.4	N/A	35.9	3.0	0.6	No	N/A	-	-	-	-	-	-	-	-	No
	SR 58 Westbound Ramps to L Street	52.5	56.4	52.6	5.0	0.1	No	SF Residential	55.0	56.5	45.0	**Yes**	-	-	-	-	No	34.5	38.4	34.6	5.0	0.1	No	SF Residential	55.0	38.5	45.0	No	-	-	-	-	No
	L Street to Avenue A	51.6	55.5	51.7	3.0	0.1	No	MF Residential	55.0	55.6	45.0	**Yes**	-	-	-	-	No	33.6	37.5	33.7	3.0	0.1	No	MF Residential	55.0	37.6	45.0	No	-	-	-	-	No
	Avenue A to Barstow Road	50.7	46.2	50.7	3.0	0.0	No	MF Residential	200.0	46.2	45.0	**Yes**	-	-	-	-	No	32.7	28.2	32.7	3.0	0.0	No	MF Residential	200.0	28.2	45.0	No	-	-	-	-	No
Barstow Road	Main Street to I-15 Southbound Ramps	53.8	60.6	53.8	3.0	0.1	No	SF Residential	35.0	60.7	45.0	**Yes**	-	-	-	-	No	35.8	42.6	35.8	3.0	0.1	No	SF Residential	35.0	42.7	45.0	No	-	-	-	-	No
	I-15 Southbound Ramps to I-15 Northbound Ramps	54.7	46.5	54.8	3.0	0.1	No	SF Residential	350.0	46.6	45.0	**Yes**	-	-	-	-	No	36.7	28.5	36.8	3.0	0.1	No	SF Residential	350.0	28.6	45.0	No	-	-	-	-	No
	I-15 Northbound ramps to Rimrock Road	55.5	58.3	55.5	3.0	0.0	No	MF Residential	65.0	58.3	45.0	**Yes**	-	-	-	-	No	37.5	40.3	37.5	3.0	0.0	No	MF Residential	65.0	40.3	45.0	No	-	-	-	-	No
Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	48.8	52.1	52.7	5.0	4.0	No	SF Residential	-	-	-	-	60.0	56.1	45.0	**Yes**	No	30.8	34.1	34.7	5.0	4.0	No	SF Residential	-	-	-	-	60.0	38.1	45.0	No	No
	Community Boulevard to Agate Road	47.2	37.4	51.8	5.0	4.6	No	SF Residential	-	-	-	-	450.0	42.0	45.0	No	No	29.2	19.4	33.8	5.0	4.6	No	SF Residential					450.0	24.0	45.0	No	No
	Agate Road to Jasper Road	53.4	54.8	55.1	5.0	1.8	No	SF Residential	-	-	-	-	80.0	56.6	45.0	**Yes**	No	35.4	36.8	37.1	5.0	1.8	No	SF Residential					80.0	38.6	45.0	No	No
	Jasper Road to Main Street	55.5	43.1	57.6	3.0	2.0	No	SF Residential	-	-	-	-	670.0	45.2	45.0	**Yes**	**Yes**	37.5	25.1	39.6	3.0	2.0	No	SF Residential	-	-	-	-	670.0	27.2	45.0	No	No
	Main Street to High Desert Road	56.6	58.9	57.5	5.0	0.9	No	SF Residential	70.0	59.8	45.0	**Yes**	-		-		No	38.6	40.9	39.5	5.0	0.9	No	SF Residential	70.0	41.8	45.0	No	-	-	-	-	No
	High Desert Road to I-15 SB Off Ramp	59.8	46.7	60.5	1.5	0.7	No	Commercial	750.0	47.4	50.0	No	-		-		No	41.8	28.7	42.5	1.5	0.7	No	Commercial	750.0	29.4	50.0	No	-	-	-	-	No
	I-15 SB Off Ramp to I-15 NB Off Ramp	55.6	51.7	56.1	1.5	0.6	No	Commercial	180.0	52.3	50.0	**Yes**	-		-		No	37.6	33.7	38.1	1.5	0.6	No	Commercial	180.0	34.3	50.0	No	-	-	-	-	No
Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	37.8	38.9	38.0	5.0	0.1	No	SF Residential	-	-	-	-	85.0	39.0	45.0	No	No	19.8	20.9	20.0	5.0	0.1	No	SF Residential	-	-	-	-	85.0	21.0	45.0	No	No
	Project Driveway to Main Street[2]	-		-	-	-	-	-	-	-	-	-	-	-	-	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	No

Interior Impact Analysis - 2048

Roadway	Segment	WINDOWS OPEN															WINDOWS CLOSED														
									City				County											City				County				
		Horizon Year (2048) No Project	Horizon Year (2048) No Project at Receivers	Horizon Year (2048) Plus Project	Incremental Increase Threshold	Increase	Exceeds Threshold?	Land Use Type	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Impact?	Horizon Year (2048) No Project	Horizon Year (2048) No Project at Receivers	Horizon Year (2048) Plus Project	Incremental Increase Threshold	Increase	Exceeds Threshold?	Land Use Type	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Impact?
Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	58.7	56.5	58.7	3.0	0.0	No	SF Residential	-	-	-	-	140.0	56.5	45.0	Yes	No	40.7	38.5	40.7	3.0	0.0	No	SF Residential	-	-	-	-	140.0	38.5	45.0	No	No
	Country Club Drive to Lenwood Road	57.7	57.1	58.7	3.0	1.0	No	SF Residential	110	58.1	45	**Yes**	-	-	-	-	No	39.7	39.1	40.7	3.0	1.0	No	SF Residential	110	40.1	45	No	-	-	-	-	No
	Lenwood Road to County/City Boundary	52.5	55.8	53.0	3.0	0.5	No	SF Residential	60	56.4	45	**Yes**					No	34.5	37.8	35.0	3.0	0.5		SF Residential	60	38.4	45	No					No
	County/City Boundary to SR 58 Eastbound Ramps	52.5	40.3	53.0	3.0	0.5	No	Commercial	650.0	40.8	-	No	-	-	-	-	No	34.5	22.3	35.0	3.0	0.5	No	Commercial	650.0	22.8	-	No	-	-	-	-	No
	SR 58 Eastbound Off Ramps to SR 58 Westbound Ramps	54.1	N/A	54.7	3.0	0.6	No	N/A	-	-	-	No	-	-	-	-	No	36.1	N/A	36.7	3.0	0.6	No	N/A	-	-	-	-	-	-	-	-	No
	SR 58 Westbound Ramps to L Street	53.9	57.8	53.9	5.0	0.1	No	SF Residential	55.0	57.8	45.0	**Yes**	-	-	-	-	No	35.9	39.8	35.9	5.0	0.1	No	SF Residential	55.0	39.8	45.0	No	-	-	-	-	No
	L Street to Avenue A	51.9	55.8	52.0	3.0	0.1	No	MF Residential	55.0	55.9	45.0	**Yes**	-	-	-	-	No	33.9	37.8	34.0	3.0	0.1	No	MF Residential	55.0	37.9	45.0	No	-	-	-	-	No
	Avenue A to Barstow Road	50.8	46.2	50.8	3.0	0.0	No	MF Residential	200.0	46.3	45.0	**Yes**	-	-	-	-	No	32.8	28.2	32.8	3.0	0.0	No	MF Residential	200.0	28.3	45.0	No	-	-	-	-	No
Barstow Road	Main Street to I-15 Southbound Ramps	54.2	61.0	54.3	3.0	0.1	No	SF Residential	35.0	61.1	45.0	**Yes**	-	-	-	-	No	36.2	43.0	36.3	3.0	0.1	No	SF Residential	35.0	43.1	45.0	No	-	-	-	-	No
	I-15 Southbound Ramps to I-15 Northbound Ramps	55.6	47.5	55.7	3.0	0.1	No	SF Residential	350.0	47.5	45.0	**Yes**	-	-	-	-	No	37.6	29.5	37.7	3.0	0.1	No	SF Residential	350.0	29.5	45.0	No	-	-	-	-	No
	I-15 Northbound ramps to Rimrock Road	56.8	59.6	56.8	3.0	0.0	No	MF Residential	65.0	59.6	45.0	**Yes**	-	-	-	-	No	38.8	41.6	38.8	3.0	0.0	No	MF Residential	65.0	41.6	45.0	No	-	-	-	-	No
Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	46.7	50.1	50.6	5.0	3.9	No	SF Residential	-	-	-	-	60.0	54.0	45.0	**Yes**	No	28.7	32.1	32.6	5.0	3.9	No	SF Residential	-	-	-	-	60.0	36.0	45.0	No	No
	Community Boulevard to Agate Road	44.5	34.7	50.0	5.0	5.5	Yes	SF Residential					450.0	40.2	45.0	No	No	26.5	16.7	32.0	5.0	5.5		SF Residential					450.0	22.2	45.0	No	No
	Agate Road to Jasper Road	55.3	56.8	56.8	5.0	1.4	No	SF Residential					80.0	58.2	45.0	**Yes**	No	37.3	38.8	38.8	5.0	1.4		SF Residential					80.0	40.2	45.0	No	No
	Jasper Road to Main Street	57.7	45.3	59.3	3.0	1.6	No	SF Residential	-	-	-	-	670.0	46.9	45.0	**Yes**	No	39.7	27.3	41.3	3.0	1.6	No	SF Residential	-	-	-	-	670.0	28.9	45.0	No	No
	Main Street to High Desert Road	59.9	62.3	60.4	5.0	0.5	No	SF Residential	70.0	62.8	45.0	**Yes**	-	-	-	-	No	41.9	44.3	42.4	5.0	0.5	No	SF Residential	70.0	44.8	45.0	No	-	-	-	-	**Yes**
	High Desert Road to I-15 SB Off Ramp	62.5	49.3	62.9	1.5	0.5	No	Commercial	750.0	49.8	45.0	**Yes**	-	-	-	-	No	44.5	31.3	44.9	1.5	0.5	No	Commercial	750.0	31.8	45.0	No	-	-	-	-	No
	I-15 SB Off Ramp to I-15 NB Off Ramp	58.2	54.3	58.5	1.5	0.4	No	Commercial	180.0	54.7	45.0	**Yes**	-	-	-	-	No	40.2	36.3	40.5	1.5	0.4	No	Commercial	180.0	36.7	45.0	No	-	-	-	-	No
Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	37.5	38.5	37.6	5.0	0.1	No	SF Residential	-	-	-	-	85.0	38.7	45.0	No	No	19.5	20.5	19.6	5.0	0.1	No	SF Residential	-	-	-	-	85.0	20.7	45.0	No	No
	Project Driveway to Main Street[2]	-		-	-	-	-	-	-	-	-	-	-	-	-	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-

Traffic Noise Modeling Results – Cumulative

Cumulative Exterior Impact Analysis - 2028

Roadway	Segment	Existing No Project	Opening Year (2028) No Project at Reciever	Opening Year (2028) Plus Project	Incremental Increase Threshold	Increase	Exceeds Threshold?	Land Use Type	City				County					Notes
									Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Impact?	
Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	57.7	60.7	63.0	3.0	5.3	**Yes**	SF Residential	-	-	-	-	140.0	60.8	60.0	**Yes**	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Country Club Drive to Lenwood Road	57.7	61.6	64.4	3.0	6.7	**Yes**	SF Residential	110	63.8	65	No	-	-	-	-	**Yes**	
	Lenwood Road to County/City Boundary	61.6	65.1	62.2	3.0	0.6	No	SF Residential	60.0	65.5	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	County/City Boundary to SR 58 Eastbound Ramps	62.6	50.6	63.2	3.0	0.6	No	Commercial	650.0	51.0	-	No	-	-		-	No	
	SR 58 Eastbound Off Ramps to SR 58 Westbound Ramps	62.8	-	63.6	3.0	0.8	No	N/A	-	-	-	-	-	-	-	-	No	
	SR 58 Westbound Ramps to L Street	61.3	65.9	62.1	5.0	0.7	No	SF Residential	55.0	66.0	65.0	**Yes**	-	-	-	-	**Yes**	
	L Street to Avenue A	61.4	65.4	61.5	3.0	0.2	No	MF Residential	55.0	65.4	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Avenue A to Barstow Road	60.6	56.2	60.7	3.0	0.1	No	MF Residential	200.0	56.2	65.0	No	-	-	-	-	No	
Barstow Road	Main Street to I-15 Southbound Ramps	63.4	70.4	63.7	3.0	0.2	No	SF Residential	35.0	70.5	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	I-15 Southbound Ramps to I-15 Northbound Ramps	63.9	56.1	64.4	3.0	0.5	No	SF Residential	350.0	56.2	65.0	No	-	-	-	-	No	
	I-15 Northbound ramps to Rimrock Road	64.3	67.7	64.9	3.0	0.6	No	MF Residential	65.0	67.7	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	59.7	62.6	62.5	5.0	2.8	No	SF Residential	-	-			60.0	65.8	60.0	**Yes**	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Community Boulevard to Agate Road	58.3	48.0	61.5	5.0	3.2	No	SF Residential	-	-			450.0	51.7	60.0	No	No	
	Agate Road to Jasper Road	61.2	63.9	64.2	5.0	3.0	No	SF Residential	-	-			80.0	65.7	60.0	**Yes**	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Jasper Road to National Trails Highway	63.0	52.1	66.5	3.0	3.5	**Yes**	SF Residential	-	-			670.0	54.1	60.0	No	**Yes**	
	Main Street to High Desert Road	60.0	66.8	65.5	5.0	5.5	**Yes**	SF Residential	70.0	67.8	65.0	**Yes**	-				**Yes**	
	High Desert Road to I-15 SB Off Ramp	66.2	55.3	69.1	1.5	2.9	**Yes**	Commercial	750.0	56.0	65.0	No	-				**Yes**	
	I-15 SB Off Ramp to I-15 NB Off Ramp	62.2	60.4	64.8	1.5	2.6	**Yes**	Commercial	180.0	60.9	65.0	No	-				**Yes**	
Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	47.5	48.9	47.9	5.0	0.4	No	SF Residential	-	-	-	-	85.0	49.0	60.0	No	No	
	Project Driveway to Main Street[2]	47.5	-	-	-	-	-	-	-	-	-	-	-	-	-		No	

Cumulative Exterior Impact Analysis - 2033

Roadway	Segment	Existing No Project	Interim Year (2033) No Project at Reciever	Interim Year (2033) Plus Project	Incremental Increase Threshold	Increase	Exceeds Threshold?	Land Use Type	City				County					Notes
									Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Impact?	
Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	57.7	63.0	65.3	3.0	7.6	Yes	SF Residential	-	-	-	-	140.0	63.1	60.0	**Yes**	**Yes**	
	Country Club Drive to Lenwood Road	57.7	63.7	66.1	3.0	8.4	Yes	SF Residential	110	65.5	65	**Yes**	-	-	-		**Yes**	
	Lenwood Road to County/City Boundary	61.6	65.3	62.5	3.0	0.9	No	SF Residential	60	65.8	65	**Yes**		-			No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	County/City Boundary to SR 58 Eastbound Ramps	62.6	49.8	63.5	3.0	0.9	No	Commercial	650.0	51.3	65	No	-	-	-		No	
	SR 58 Eastbound Off Ramps to SR 58 Westbound Ramps	62.8	-	63.9	3.0	1.1	No	N/A	-	-			-	-	-		No	
	SR 58 Westbound Ramps to L Street	61.3	66.4	62.6	5.0	1.3	No	SF Residential	55.0	66.5	65	**Yes**	-	--	-		No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	L Street to Avenue A	61.4	65.5	61.7	3.0	0.3	No	MF Residential	55.0	65.6	65	**Yes**	-	-	-		No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Avenue A to Barstow Road	60.6	56.2	60.7	3.0	0.1	No	MF Residential	200.0	56.2	65	No	-	-	-		No	
Barstow Road	Main Street to I-15 Southbound Ramps	63.4	70.6	63.8	3.0	0.4	No	SF Residential	35.0	70.7	65	**Yes**	-	-	-		No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	I-15 Southbound Ramps to I-15 Northbound Ramps	63.9	56.5	64.8	3.0	0.9	No	SF Residential	350.0	56.6	65	No	-	-	-		No	
	I-15 Northbound ramps to Rimrock Road	64.3	68.3	65.5	3.0	1.2	No	MF Residential	65.0	68.3	65	**Yes**	-	-	-		No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	59.7	62.1	62.7	5.0	3.0	No	SF Residential	-	-	-	-	60.0	66.1	60.0	**Yes**	**Yes**	
	Community Boulevard to Agate Road	58.3	47.4	61.8	5.0	3.5	No	SF Residential	-	-	-	-	450.0	52.0	60.0	No	No	
	Agate Road to Jasper Road	61.2	64.8	65.1	5.0	3.9	No	SF Residential	-	-	-	-	80.0	66.6	60.0	**Yes**	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Jasper Road to National Trails Highway	63.0	53.1	67.6	3.0	4.6	Yes	SF Residential	-	-	-	-	670.0	55.2	60.0	No	**Yes**	
	Main Street to High Desert Road	60.0	68.9	67.5	5.0	7.4	Yes	SF Residential	70.0	69.8	65	**Yes**	-	-	-		**Yes**	
	High Desert Road to I-15 SB Off Ramp	66.2	56.7	70.5	1.5	4.3	Yes	Commercial	750.0	57.4	65	No	-	-	-		**Yes**	
	I-15 SB Off Ramp to I-15 NB Off Ramp	62.2	61.7	66.1	1.5	4.0	Yes	Commercial	180.0	62.3	-	No	-	-	-		**Yes**	
Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	47.5	48.9	48.0	5.0	0.4	No	SF Residential	-	-	-	-	85.0	49.0	60.0	No	No	
	Project Driveway to Main Street[2]	47.5	-	-	-	-	-	-	-	-	-	-	-		-	-	-	

Cumulative Exterior Impact Analysis - 2048

Roadway	Segment	Existing No Project	Horizon Year (2048) No Project at Reciever	Horizon Year (2048) Plus Project	Incremental Increase Threshold	Increase	Exceeds Threshold?	Land Use Type	City				County					Notes
									Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Distance to Nearest Receptor	Traffic Noise Level At Receptor	Noise Standard	Exceeds Standard?	Impact?	
Main Street (National Trails Hwy)	Hinkley Road to Country Club Drive	57.7	66.5	68.7	3.0	11.1	Yes	SF Residential	-	-	-	-	140.0	66.5	60.0	Yes	**Yes**	
	Country Club Drive to Lenwood Road	57.7	67.1	68.7	3.0	11.1	Yes	SF Residential	110	68.1	65	**Yes**	-	-		-	**Yes**	
	Lenwood Road to County/City Boundary	61.6	65.8	63.0	3.0	1.5	No	SF Residential	60	66.4	65	**Yes**					No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	County/City Boundary to SR 58 Eastbound Ramps	62.6	50.3	63.0	3.0	0.4	No	Commercial	650.0	50.8	65.0	No	-	-	-	-	No	
	SR 58 Eastbound Off Ramps to SR 58 Westbound Ramps	62.8	-	64.7	3.0	1.9	No	N/A	-		-	No	-	-	-	-	No	
	SR 58 Westbound Ramps to L Street	61.3	67.8	63.9	5.0	2.6	No	SF Residential	55.0	67.8	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	L Street to Avenue A	61.4	65.8	62.0	3.0	0.6	No	MF Residential	55.0	65.9	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Avenue A to Barstow Road	60.6	56.2	60.8	3.0	0.2	No	MF Residential	200.0	56.3	65.0	No	-	-	-	-	No	
Barstow Road	Main Street to I-15 Southbound Ramps	63.4	71.0	64.3	3.0	0.8	No	SF Residential	35.0	71.1	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	I-15 Southbound Ramps to I-15 Northbound Ramps	63.9	57.5	65.7	3.0	1.8	No	SF Residential	350.0	57.5	65.0	No	-	-	-	-	**Yes**	
	I-15 Northbound ramps to Rimrock Road	64.3	69.6	66.8	3.0	2.5	No	MF Residential	65.0	69.6	65.0	**Yes**	-	-	-	-	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
Lenwood Rd	SR 58 Westbound Ramps to Community Boulevard	59.7	60.1	60.6	5.0	0.9	No	SF Residential	-		-		60.0	64.0	60.0	**Yes**	No	No Impact because existing noise level already exceeds standard, and project increase is below incremental threshold.
	Community Boulevard to Agate Road	58.3	44.7	60.0	5.0	1.7	No	SF Residential					450.0	50.2	60.0	No	**Yes**	
	Agate Road to Jasper Road	61.2	66.8	66.8	5.0	5.5	Yes	SF Residential					80.0	68.2	60.0	**Yes**	**Yes**	
	Jasper Road to National Trails Highway	63.0	55.3	69.3	3.0	6.3	Yes	SF Residential	-		-		670.0	56.9	60	No	**Yes**	
	Main Street to High Desert Road	60.0	72.3	70.4	5.0	10.4	Yes	SF Residential	70.0	72.8	65.0	**Yes**	-	-	-	-	**Yes**	
	High Desert Road to I-15 SB Off Ramp	66.2	59.3	72.9	1.5	6.7	Yes	Commercial	750.0	59.8	65	No	-	-	-	-	**Yes**	
	I-15 SB Off Ramp to I-15 NB Off Ramp	62.2	64.3	68.5	1.5	6.4	Yes	Commercial	180.0	64.7	65.0	No	-	-	-	-	**Yes**	
Hinkley Rd	SR 58 Westbound Ramp to Project Driveway	47.5	48.5	47.6	5.0	0.1	No	SF Residential	-		-	-	85.0	48.7	60.0	No	No	
	Project Driveway to Main Street[2]	47.5	-	47.5	-	-	-	-	-	-	-	-	-		-			

Nearest Receptor - Lead Tracks			
Receptor Distance (ft)	165	**Residence**	
		73.44	from FTA manual PDF page 150
	50 mph	0	
	Total VdB	**73.44**	
Receptor Distance (ft)	600	**School**	
		59.44	from FTA manual PDF page 150
	40 mph	-1.9	
		57.54	

	Events	**FTA Vdb threshold**
and Catgeory 2 (residentia	<30	80
	30-70	75
nd Catgeory 3 (Institutiona	<30	83
	30-70	78