68 Willow Road Residences

Menlo Park, CA

NOISE IMPACT STUDY

10 October 2025

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Salter Project 25-0020

INTRODUCTION

This report summarizes our noise study for the 68 Willow Road residential project (the "Project") located at 68 Willow Road in Menlo Park, California. Our analysis is based on the Resubmittal Set dated 27 December 2024, the Project Trip Generation Estimates memo dated 19 November 2024 with supporting information, and construction information provided by the design team. In summary, the project would not result in a significant impact with respect to noise.

The Project proposes to replace the existing office building on the site with an eight-building 3-story townhome development including an outdoor use space at the southeast portion of the 2.5-acre site. The Project will include a total of 50 townhome units. In addition to this report, we also prepared an Environmental Noise Study for the Project, the results of which are summarized in a separate report dated 10 October 2025. Readers less familiar with the fundamental concepts of environmental noise, please refer to Appendix A attached.

ACOUSTICAL CRITERIA

Menlo Park General Plan

The Noise Goals, Policies, and Programs section of the Menlo Park General Plan includes the following policies which pertain to noise:

- Policy N1.4: Protect existing residential neighborhoods and noise sensitive uses from unacceptable noise levels and vibration impacts. Noise sensitive uses include, but are not limited to, hospitals, schools, religious facilities, convalescent homes and businesses with highly sensitive equipment. Discourage having noise-sensitive uses in areas in excess of 65 dB DNL without appropriate mitigation and locate noise sensitive uses away from noise sources unless mitigation measures are included in development plans.
- Policy N1.5: Design residential developments to minimize the transportation-related noise impacts to adjacent residential areas and encourage new development to be site planned and architecturally designed to minimize noise impacts on noise sensitive spaces. Proper site planning can be effective in reducing noise impacts.
- Policy N1.6: Encourage the use of construction methods, state-of-the-art noise abating materials and technology and creative site design including, but not limited to, open space, earthen berms, parking, accessory buildings, and landscaping to buffer new and existing development from noise and to reduce potential conflicts between ambient noise levels and noise-sensitive land uses. Use sound walls only when other methods are not practical or when recommended by an acoustical expert.
- Policy N1.8: Preclude the generation of annoying or harmful noise on stationary noise sources, such as construction and property maintenance activity and mechanical equipment.
- Policy N-1.10: Nuisance Noise. Minimize impacts from noise levels that exceed community sound levels through enforcement of the City's Noise Ordinance. Control unnecessary, excessive, and

annoying noises within the City where not preempted by Federal and State control through implementation and updating of the Noise Ordinance.

- Policy N-1.D: Minimize Construction Activity Noise. Minimize the exposure of nearby properties to excessive noise levels from construction-related activity through CEQA [California Environmental Quality Act] review, conditions of approval and enforcement of the City's Noise Ordinance.

Menlo Park Municipal Code

Section 8.06 of the Menlo Park Municipal Code states the following:

- Section 8.06.030 sets maximum noise levels for all sources of sound measured from any residential property to any receiving residential property to a maximum of 60 dB during the daytime hours between 7:00 a.m. to 10:00 p.m., and to 50 dB during the nighttime hours between 10:00 p.m. and 7:00 a.m.
- Section 8.06.040 includes exceptions for construction activities (a) and powered equipment (b), summarized as follows:
  - Construction Activities
    - Construction activities are exempt from the noise ordinance between the hours of 8:00 a.m. and 6:00 p.m. Monday through Friday.
    - A sign, containing the permitted hours of construciton activities exceeding the noise limits set forth in Section 8.06.030, shall be posted at all entrances to a construction site upon the commencement of construction, for the purpose of informing contractors and subcontractors and all other persons at the construction site of the basic requirements of this chapter. The sign shall be at least five (5) feet above ground level and shall consist of a white background with black letters.
    - Notwithstanding any other provision set forth above, all powered equipment shall comply with the limits set forth in Section 8.06.040 (b).
  - Powered Equipment
    - Powered equipment used on a temporary, occasional or infrequent basis operated between the hours of 8:00 a.m. and 6:00 p.m. Monday through Friday. No piece of equipment shall generate noise in excess of eighty-five (85) dB at fifty (50) feet.

Section 16.08.095 of the Menlo Park Municipal Code states the following which applies to roof-mounted mechanical equipment:

- Mechanical equipment, such as air conditioning equipment, ventilation fans, vents, ducting, or similar equipment, may be placed on the roof of a building; provided, that such equipment shall be screened from view as observed at an eye level horizontal to the top of the roof-mounted equipment, except for the SP-ECR/D district which has unique screening requirements, and all sounds emitted by such equipment shall not exceed fifty (50) decibels at a distance of fifty (50) feet from such equipment.

California Environmental Quality Act (CEQA)

The CEQA Guidelines contain a checklist intended to determine whether the project would result in a significant noise impact. The checklist items ask whether a project would:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies
- Generate excessive ground-borne vibration or ground-borne noise levels
- 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, would the project expose people residing or working in the project area to excessive noise levels

NOISE ENVIRONMENT

The project is located at the intersection of Willow Road and Willow Place in Menlo Park, CA. The noise environment at the site is predominantly controlled by vehicular traffic from Willow Road.

To quantify the existing noise environment, we conducted three continuous long-term noise measurements from 28 to 30 January 2025. The monitors were at a height of 12 feet above grade.

Table 1: Existing Noise Environment

Monitor	Location	Date	DNL
LT-1	Southeast corner of the project site	28-30 January 2025	54
LT-2	Willow Place		56
LT-3	Intersection of Willow Place and Willow Road		60

See Figure 1 for the measurement locations and measured noise levels.

NOISE ANALYSES

Overall changes to the noise environment, attributable to the Project, include the following:

- Project-Generated Traffic Increases (Permanent)
- Operational Stationary Noise due to Mechanical Equipment (Permanent)
- Short-Term Construction Noise (Temporary)

These items are detailed further below.

Note that the project is not located within two miles of the Palo Alto Airport, San Carlos Airport, San Francisco International Airport, Oakland International Airport, San Jose Mineta International Airport, or Moffett Federal Airfield. Therefore, this report does not detail potential airport noise impacts to the project.

Project-Generated Traffic Increases (Permanent)

Fehr & Peers prepared a Transportation Analysis for the project, summarized in a memo dated 19 November 2024 and included in Appendix B. Supporting information they provided includes peak hour traffic volume data for 68 Willow Road. The volumes are provided for existing and future conditions of the Project, as well as project-generated data. The data shows that Project-generated traffic is expected to enter and exit the site via Willow Road.

The Project will increase traffic volumes by 25 new daily trips, from 371 existing trips to 396 future trips. We measured traffic noise to be approximately DNL 60 along Willow Road. Noise increase from the project generated traffic is calculated to be less than DNL 1 dB along this road.

Finding: The estimated increase in traffic noise due to the project is less than DNL 1 dB, which would be considered a less-than-significant impact.

Operational Stationary Noise due to Mechanical Equipment (Permanent)

The Project will locate outdoor air condensing units at the front porch areas of the townhouses. While conceptual locations are identified on the plans, specific equipment will be selected and located during the design phase. Initial standard specifications have been provided for preliminary noise estimates to the neighboring property lines. The preliminary mechanical equipment layout and mechanical equipment noise data is provided in Appendix C.

The Resubmittal Set dated 27 December 2024 shows conceptual locations for outdoor heat pumps. In addition to the locations, we have included the following information in our calculations:

- Mechanical sound data, provided on 5 February 2025
- Shielding provided by the 6-foot-tall solid wood fence, indicated in the landscape drawings
- Nearby receivers would be located at ground level

As shown in Appendix C, noise levels at the surrounding property lines are expected to be below 50 dB.

Finding: The noise levels to the surrounding property lines are estimated to be below the 50 dB criteria in the Noise Ordinance, which would be considered a less-than-significant impact.

Short-Term Construction Noise (Temporary)

Noise levels from construction activities will vary, depending on the type of equipment being used, the process, and the location. The loudest phases of construction are expected to be demolition, grading, and excavation. Construction will not include pile driving. Table 2, below, provides a list of construction equipment expected to be used during each phase and Table 3 provides reference sound levels for construction equipment at a distance of 50 feet.

Table 2: Construction Equipment

Phase	Start Month	Approx. Duration	Equipment
Demolition	1	Three weeks	Excavator, Loader, Dump Truck, Cold Planer/Milling Machine, Water Truck
Grading	1	Three weeks	Bulldozer, Loader, Scraper, Compactor/Roller, Grader, Dump Truck, Water Truck
Underground Utilities/Excavation	2	Three months	Excavator, Loader, Backhoe, Air Compressor
Paving	5	One month	Carpentry Tools, Concrete Delivery Trucks, Dump Truck, Grader, Compactor, Roller, Asphalt Paver
Vertical Construction	5	Fourteen months	Concrete Delivery Trucks, Concrete Pump Truck, Gradall, Air Compressor

Table 3: Typical Construction Equipment Noise Levels

Construction Equipment	Typical Noise Level (dB) at 50 feet
Air Compressor	80 dB
Backhoe	80 dB
Bulldozer	85 dB
Compactor	80 dB
Concrete Trucks	85 dB
Excavator	85 dB
Generator	82 dB
Gradall	85 dB
Grader	85 dB
Loader	80 dB
Paver	85 dB
Pneumatic Tool	85 dB
Pump	77 dB
Roller	85 dB
Scraper	85 dB
Truck	84 dB
Other > 5 HP	85 dB

Equipment noise levels in Table 3 are from the FHWA Construction Noise Handbook, Table 9.1.

Construction of the Project is expected to occur over an approximately 20-month period starting in January 2026, with phases as shown in **Table 2**. Construction will occur between 8:00 am and 6:00 pm on weekdays. Signs will be posted at all entrances to the site, per the Municipal Code.

The Project, which is located on a Housing Element site, also must comply with the City's standard conditions of approval and measures for projects on such sites, which include the following noise reduction measures[2]:

Standard Condition of Approval	Project Proposed Noise Reduction Strategy
Construction activities will generally be limited to between 8:00 am and 6:00 pm Monday through Friday. – Noise from individual pieces of equipment shall not exceed 85 dB at 50 feet. – Any construction activities taking place outside these hours shall comply with the general Municipal Code criteria of Leq 60 dB between the hours of 7:00 am and 8:00 am, and 50 dB between the hours of 6:00 am and 7:00 am. Combined construction noise shall be limited to 10 dB above the ambient for any hour, as measured at nearby sensitive receivers (i.e., the adjacent residences). This will be evaluated by the developer or contactor on a case-by-case basis when the need for specific construction activities outside standard construction hours is needed. A note shall be included in development plans indicating the developer or contractor will be responsible for ensuring that construction activities are consistent with these noise reduction measures. If needed, the Project may consider alternative means and methods, construction equipment, and/or temporary barriers to help reduce noise transfer.	Construction will occur between the hours of 8:00 am and 6:00 pm, Monday through Friday. As shown in **Table 3**, all construction equipment is expected to meet the 85 dB at 50 feet criterion from the Noise Ordinance.
All internal combustion engines on construction equipment and trucks shall be fitted with properly maintained mufflers, air intake silencers, and/or engine shrouds that are no less effective than as originally equipped by the manufacturer.	All equipment will utilize manufacturer's standard mufflers, air intake silencers and engine shrouds.

[2] See the Mitigation Monitoring and Reporting Program for the Housing Element Update, dated January 2024.

Locate stationary noise-generating equipment, such as air compressors or portable power generators, as far as possible from sensitive receptors as feasible.	Air compressors and portable power generators will be located as far as feasible from sensitive receptors.
Construction staging areas, including truck loading and unloading operations, shall be scheduled and located so they minimize the noise impact on adjacent off-site residences.	Construction staging areas will be scheduled and located to minimize noise at off-site residences.
Unnecessary idling of internal combustion engines should be strictly prohibited.	As required by the air district rules regarding construction emissions, idling times of diesel equipment will be limited to 5 minutes or less.
Limit the use of public address systems.	Use of public address systems will be limited.
Construction traffic shall be limited to the haul routes established by the City of Menlo Park.	Construction traffic haul routes will be limited to those established by the City of Menlo Park.

Finding: The project will comply with the standard conditions of approval noted above, which would be considered a less-than-significant impact.

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Approx. Scale:
1" = 160-ft

68 WILLOW ROAD RESIDENCES
MEASUREMENT LOCATIONS AND MEASURED NOISE LEVELS

FIGURE 1

Salter #	MDH/VCS
25-0020	10.10.2025

APPENDIX A: FUNDAMENTALS OF ENVIRONMENTAL NOISE

This section provides background information to aid in understanding the technical aspects of this report.

Three dimensions of environmental noise are important in determining subjective response. These are:

- The intensity or level of the sound
- The frequency spectrum of the sound
- The time-varying character of the sound

Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB), with 0 dB corresponding roughly to the threshold of hearing.

The "frequency" of a sound refers to the number of complete pressure fluctuations per second in the sound. The unit of measurement is the cycle per second (cps) or hertz (Hz). Most of the sounds, which we hear in the environment, do not consist of a single frequency, but of a broad band of frequencies, differing in level. The name of the frequency and level content of a sound is its sound spectrum. A sound spectrum for engineering purposes is typically described in terms of octave bands, which separate the audible frequency range (for human beings, from about 20 to 20,000 Hz) into ten segments.

Many rating methods have been devised to permit comparisons of sounds having quite different spectra. Surprisingly, the simplest method correlates with human response practically as well as the more complex methods. This method consists of evaluating all of the frequencies of a sound in accordance with a weighting that progressively de-emphasizes the importance of frequency components below 1000 Hz and above 5000 Hz. This frequency weighting reflects the fact that human hearing is less sensitive at low frequencies and at extreme high frequencies relative to the mid-range.

The weighting system described above is called "A"-weighting, and the level so measured is called the "A-weighted sound level" or "A-weighted noise level." The unit of A-weighted sound level is sometimes abbreviated "dB." In practice, the sound level is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting characteristic. All U.S. and international standard sound level meters include such a filter. Typical sound levels found in the environment and in industry are shown in Figure A-1.

Although a single sound level value may adequately describe environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise is a conglomeration of distant noise sources, which results in a relatively steady background noise having no identifiable source. These distant sources may include traffic, wind in trees, industrial activities, etc. and are relatively constant from moment to moment. As natural forces change or as human activity follows its daily cycle, the sound level may vary slowly from hour to hour. Superimposed on this slowly varying background is a succession of identifiable noisy events of brief duration. These may include nearby activities such as single vehicle pass-bys, aircraft flyovers, etc. which cause the environmental noise level to vary from instant to instant.

To describe the time-varying character of environmental noise, statistical noise descriptors were developed. "L10" is the A-weighted sound level equaled or exceeded during 10 percent of a stated time period. The L10 is considered a good measure of the maximum sound levels caused by discrete noise events. "L50" is the A-weighted sound level that is equaled or exceeded 50 percent of a stated time period; it represents the median sound level. The "L90" is the A-weighted sound level equaled or exceeded during 90 percent of a stated time period and is used to describe the background noise.

As it is often cumbersome to quantify the noise environment with a set of statistical descriptors, a single number called the average sound level or "L_{eq}" is now widely used. The term "L_{eq}" originated from the concept of a so-called equivalent sound level which contains the same acoustical energy as a varying sound level during the same time period. In simple but accurate technical language, the L_{eq} is the average A-weighted sound level in a stated time period. The L_{eq} is particularly useful in describing the subjective change in an environment where the source of noise remains the same but there is change in the level of activity. Widening roads and/or increasing traffic are examples of this kind of situation.

In determining the daily measure of environmental noise, it is important to account for the different response of people to daytime and nighttime noise. During the nighttime, exterior background noise levels are generally lower than in the daytime; however, most household noise also decreases at night, thus exterior noise intrusions again become noticeable. Further, most people trying to sleep at night are more sensitive to noise. To account for human sensitivity to nighttime noise levels, a special descriptor was developed. The descriptor is called the L_{dn} (Day/Night Average Sound Level), which represents the 24-hour average sound level with a penalty for noise occurring at night. The L_{dn} computation divides the 24-hour day into two periods: daytime (7:00 am to 10:00 pm); and nighttime (10:00 pm to 7:00 am). The nighttime sound levels are assigned a 10 dB penalty prior to averaging with daytime hourly sound levels.

For highway noise environments, the average noise level during the peak hour traffic volume is approximately equal to the L_{dn}.

The effects of noise on people can be listed in three general categories:

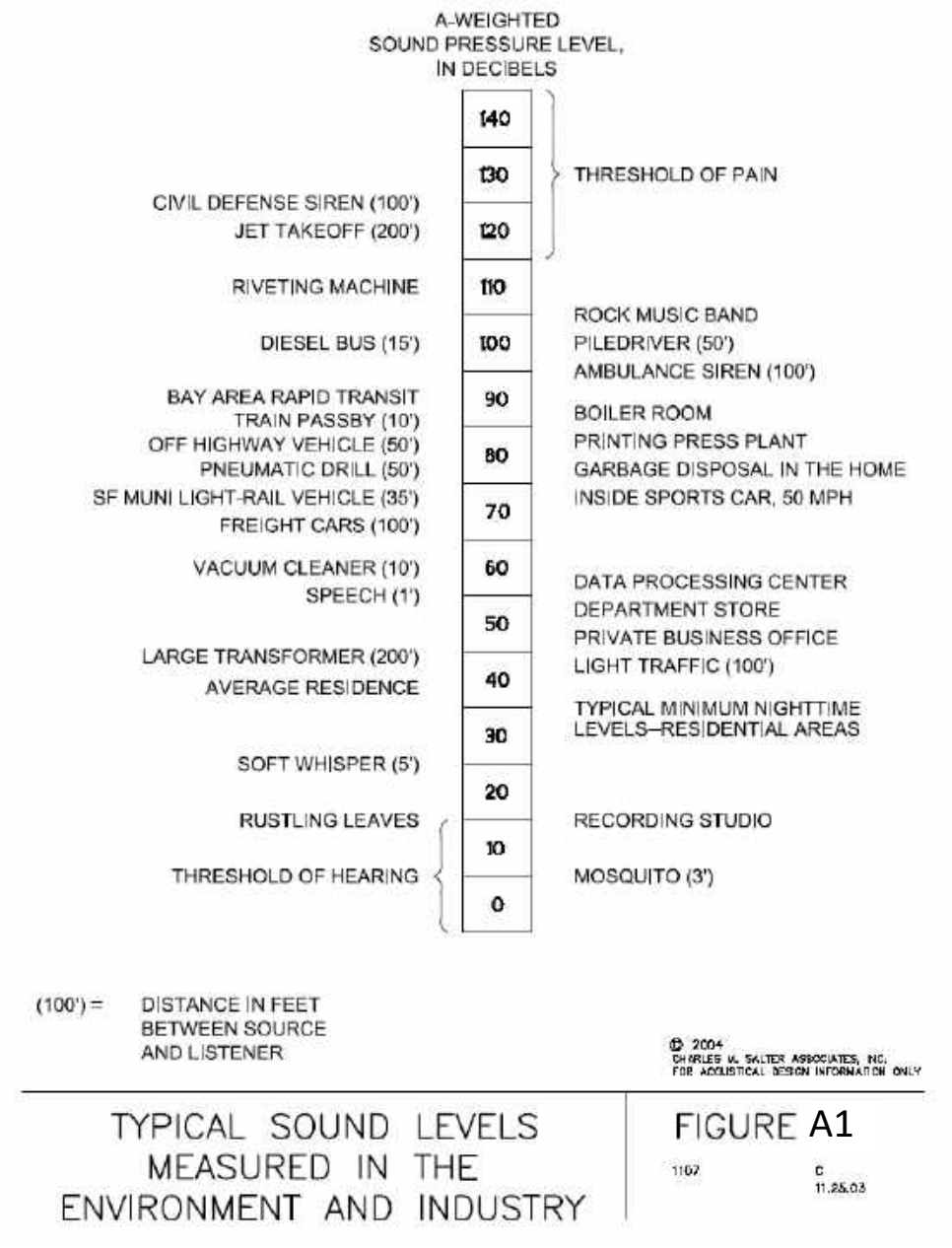
- Subjective effects of annoyance, nuisance, dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as startle, hearing loss

The sound levels associated with environmental noise usually produce effects only in the first two categories. Unfortunately, there has never been a completely predictable measure for the subjective effects of noise nor of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and habituation to noise over time.

Thus, an important factor in assessing a person's subjective reaction is to compare the new noise environment to the existing noise environment. In general, the more a new noise exceeds the existing, the less acceptable the new noise will be judged.

With regard to increases in noise level, knowledge of the following relationships will be helpful in understanding the quantitative sections of this report:

Except in carefully controlled laboratory experiments, a change of only 1 dB in sound level cannot be perceived. Outside of the laboratory, a 3 dB change is considered a just-noticeable difference. A change in level of at least 5 dB is required before any noticeable change in community response would be expected. A 10 dB change is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse community response.



APPENDIX B: TRAFFIC STUDY INFORMATION

FEHR PEERS

Memorandum

Date: November 19, 2024

To: Chase Rapp, Jimmy Keane, 68 Willow LLC.

From: Valerie Tan, Franziska Church, Fehr & Peers

Subject: Project Trip Generation Estimates for 68 Willow Road

SJ24-2333

This memorandum documents the trip generation estimates for the proposed residential development ("Project") at 68 Willow Road, Menlo Park, California. The Project proposes to construct a three-story, 50-unit townhome development and demolish the existing 27,000 square-foot office building. In accordance with the City of Menlo Park's ("City") Transportation Analysis Guidelines (City Council Policy #CC-20-012), this Project can be exempt from conducting a vehicle miles traveled (VMT) and level of service (LOS) analysis because it will not generate more than 100 daily vehicle trips.

Project Description

The Project proposes the construction of a three-story, 50-unit townhouse development on land currently occupied as an office building. Located in the Linfield Oaks neighborhood of Menlo Park, the Project site is located in the southeast portion of Willow Road and Willow Place. The Project site is accessible via driveways along Willow Road and Willow Place and connects to US-101 via Willow Road. The Project site is approximately one-mile from Downtown Palo Alto and one-mile from the Menlo Park Caltrain Station.

There are SamTrans bus stops within a half mile of the Project site, providing access to Menlo Park, Palo Alto, San Francisco, and Redwood City via SamTrans routes 81, 83, 296, and 397. Bus stops at Willow Road & East Creek Drive and Willow Road & Waverley Street are served by school-oriented SamTrans routes 81 and 83, which operate on weekdays. The bus stop at Willow Road & Middlefield Road is served by Samtrans routes 296 and 397.

There are City of Menlo Park Shuttle bus stops at Linfield Drive & Waverley Street served by the M1 Crosstown Shuttle and M4 Willow Road Shuttle. M1 shuttle providing access to Menlo Park Caltrain Station, Palo Alto Caltrain Station, and Stanford Shopping Center. M4 shuttle provides

access to Menlo Park Caltrain Station and Veterans Affairs Medical Center. The bus stop at Willow Road & Middlefield Road is also served by the Dumbarton Express, offering regional connections to the East Bay via the Dumbarton Bridge.

Vehicle Trip Generation

The Project's trip generation represents the amount of new vehicular traffic a project would add to the surrounding roadway system. Project trip generation is prepared for a 24-hour weekday period as well as the one-hour weekday morning and evening commute peak periods.

Methodology

Trip generation involves estimating the amount of additional vehicle traffic a project will introduce to the surrounding road network. Estimates for project trip generation are calculated for a 24-hour weekday, as well as morning and evening peak hour when adjacent street traffic is typically at its highest. The Institute of Transportation Engineers (ITE) provides weekday daily, morning peak hour, and evening peak hour trip generation rates in the *Trip Generation Manual, 11th Edition*. ITE's *Trip Generation Manual* is a comprehensive national resource with data from trip generation surveys conducted for a numerous land use types and varying site contexts throughout the United States or from local trip generation surveys. ITE recognizes the limitations of using national rates that have been collected over several decades and recommends the use of validated local data when the data sources are not representative of local conditions.

From ITE's *Trip Generation Manual*, we applied standard residential trip generation equations from Multi-Family Housing Low-Rise (ITE Code 220) for the proposed Project and trip generation equations from General Office Building (ITE Code 710) for the existing office land uses. The fitted curve equation was used to estimate the residential and office trip generation for daily, AM peak hour, and PM peak hour.

Project Vehicle Trip Estimates

Since there is an existing occupied office building at the Project site, trip generation is estimated for both the proposed residential development and the existing office land use. The net new vehicle trips are estimated by subtracting the estimated trips for the existing office land use from the proposed residential development trip estimates. **Table 1** presents the results of the trip generation estimates for the Project.

Table 1: Project Trip Generation Estimates

ITE Land Use	Size/Units	Direction	Vehicle Trips		
			Daily	AM	PM
Proposed Residential Development					
ITE 220: Multi-family Housing (Low-Rise)	50 Dwelling Units	In	198	9	26
		Out	198	29	16
		Total [a]	*396*	*38*	*42*
Existing Office Land Use					
ITE 710: General Office Building	27,000 KSF	In	186	48	10
		Out	185	6	46
		Total [b]	*371*	*54*	*56*
Comparison					
68 Willow Road Net New Project Trips = [a] – [b]			25	-16	-14

Notes:
ITE 220 Multi-family Housing (Low-Rise) Trip Generation Calculations:
Daily: T = 6.41(X) + 75.31
AM Peak Hour: T = 0.31(X) + 22.85; 24% inbound, 76% outbound
PM Peak Hour: T = 0.43(X) + 20.55; 63% inbound, 37% exiting
ITE 710: General Office Building Trip Generation Calculations:
Daily: T= 0.87(X) + 3.05
AM Peak Hour: Ln(T) = 0.86 Ln(X) + 1.16; 88% inbound, 12% outbound
PM Peak Hour: Ln(T) = 0.83 Ln(X) + 1.29; 17% inbound, 83% outbound
Source: ITE Trip Generation Manual, 11th Edition, 2021; Fehr & Peers, 2024.

As shown in **Table 1**, the proposed residential development is estimated to generate 396 daily trips, 38 morning peak hour trips and 42 evening peak hour trips without existing trip credit. The existing office land use is estimated to generate 371 daily trips, 54 morning peak hour trips, and 56 evening peak hour trips. After subtracting the existing trip estimates from the existing office land use, the Project is estimated to generate 25 net new daily trips, -16 net new AM peak hour trips, and -14 PM peak hour trips.

The City's Transportation Analysis Guidelines (City Council Policy #CC-20-012) defines guidelines for analysis of development related to transportation on local streets, pedestrian, bicycle and transit circulation. The guidelines include exemption criteria for both VMT and LOS analysis. Projects with less than 100 daily vehicle trips are generally exempt from VMT and LOS analysis.

Since the Project generates 25 net new daily vehicle trips, it meets the exemption criteria and can be exempt from a VMT and LOS analysis in accordance with the City's guidelines.

68 Willow Road
2/9/2025
Salter proj: 25-0020
Project Calculations

TRAFFIC NOISE INCREASES	Speed	Truck Percentage*	Traffic Volume			Leq(h) at 50 ft from Roadway		dB increase
			Time	Existing	Proposed	Existing	Proposed	
Willow Road	35	3%	AM	54	38	54.5	53.0	-1.5
			PM	56	42	54.7	53.4	-1.2
			Daily	371	396	62.9	63.2	0.3

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Source: ITE Trip Generation Manual, 11th Edition, 2021; Fehr & Peers, 2024.

APPENDIX C: STATIONARY EQUIPMENT INFORMATION AND ANALYSIS

GH5SAN5
Single-Stage Heat Pump with Puron Advance™ Refrigerant 1-1/2 To 5 Tons

Carrier
Turn to the experts

Product Data

Puron ADVANCE™

This unit has been designed utilizing Carrier's non-ozone depleting and low global warming potential Puron Advance™ refrigerant.
Heat pumps with Puron Advance™ refrigerant provide a collection of features unmatched by any other family of equipment.

Industry leading Features / Benefits

Efficiency

- 14.3 - 16.0 SEER2 / 10.0 - 12.5 EER2 / 7.5 - 7.8 HSPF2 (depending on unit size and indoor combination installed)
- Microtube technology refrigeration system
- Indoor air quality accessories available

Comfort

- System supports programmable or standard thermostat controls

Sound

- Sound levels as low as 70 dBA

Reliability

- Non-ozone depleting and low global warming potential Puron Advance™ refrigerant
- Scroll compressor
- Internal pressure relief valve
- Internal thermal overload
- Loss of charge switch
- Filter drier
- Balanced refrigeration system for maximum reliability

Durability

Protection Package:

- Solid, durable sheet metal construction
- Dense wire coil guard

Applications

- Long-line - up to 250 feet (76.20 m) total equivalent length, up to 200 feet (60.96 m) condenser above evaporator, or up to 80 ft. (24.38 m) evaporator above condenser (See Longline Guide for more information.)
- Low ambient cooling (down to 0°F/-17.8°C) with approved low ambient accessory kits

Limited Warranty

- 5-year parts limited warranty (including compressor and coil)
  10-year parts limited warranty (including compressor and coil) with timely registration*
  – Equipment must be registered within 90 days of original installation, except in jurisdictions where warranty benefits cannot be conditioned on registration.
  * Applies to original purchaser/homeowner and not available to subsequent owners except in jurisdictions where applicable laws dictate otherwise.

See warranty certificate for complete details and restrictions.

Dimensions

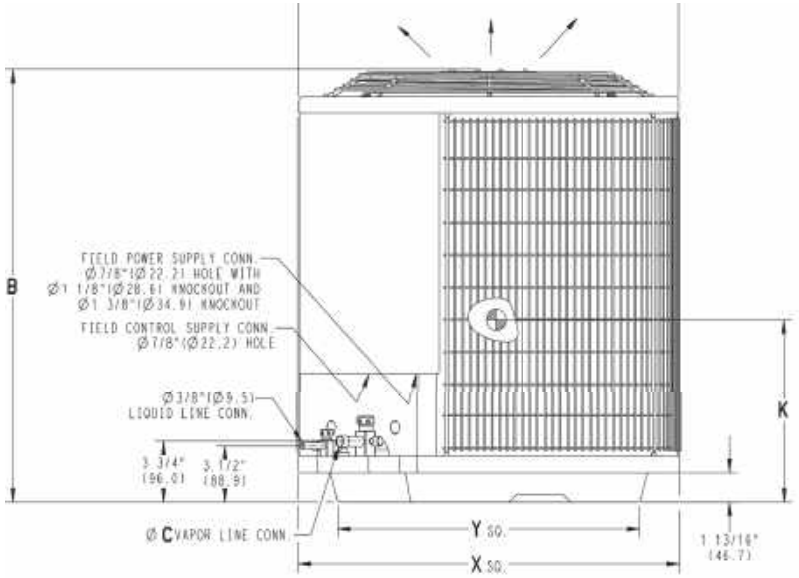
UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A		B		C		D		E		F		G		H		I		J		K		OPERATING WEIGHT		SHIPPING WEIGHT		SHIPPING LENGTH / WIDTH (Sq.)		SHIPPING HEIGHT	
						INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	Lbs	Kgs	Lbs	Kgs	INCH	MM	INCH	MM
GH5SA*51800A	A	Y	N	N	N	31 3/16	792.5	31 11/16	804.3	5/8	15.9	6 9/16	166.1	24 11/16	626.3	9 1/8	231.3	1 1/8	28.2	3 13/16	97.4	12 1/2	317.5	11	279.4	11 3/4	298.5	147	66.7	167	75.7	32 3/16	817.9	33 1/4	844.9
GH5SA*52400A	A	Y	N	N	N	31 3/16	792.5	35 1/16	890.7	5/8	15.9	6 9/16	166.1	24 11/16	626.3	9 1/8	231.3	1 1/8	28.2	3 13/16	97.4	13	330.2	15 1/8	384.2	16 1/2	419.1	175	79.4	195	88.5	32 3/16	817.9	36 11/16	931.3
GH5SA*53000A	A	Y	N	N	N	31 3/16	792.5	38 7/16	977.1	3/4	19.1	6 9/16	166.1	24 11/16	626.3	9 1/8	231.3	1 1/8	28.2	3 13/16	97.4	14	355.6	14 3/4	374.7	15 1/2	393.7	167	75.7	188	85.3	32 3/16	817.9	40 1/16	1017.7
GH5SA*53600A	A	Y	N	N	N	31 3/16	792.5	31 11/16	804.3	3/4	19.1	6 9/16	166.1	24 11/16	626.3	9 1/8	231.3	1 1/8	28.2	3 13/16	97.4	12	304.8	14 1/8	358.8	16 1/4	412.8	172	78.0	192	87.1	32 3/16	817.9	33 1/4	844.9
GH5SA*54200A	A	Y	N	N	N	31 3/16	792.5	31 11/16	804.3	7/8	22.2	6 9/16	166.1	24 11/16	626.3	9 1/8	231.3	1 1/8	28.2	3 13/16	97.4	13 1/2	342.9	14 1/4	362.0	15	381.0	203	92.1	223	101.2	32 3/16	817.9	33 1/4	844.9
GH5SA*54800A	A	Y	N	N	N	31 3/16	792.5	38 7/16	977.1	7/8	22.2	6 9/16	166.1	24 11/16	626.3	9 1/8	231.3	1 1/8	28.2	3 13/16	97.4	15	381.0	17 1/4	438.2	19 1/2	495.3	231	104.8	252	114.3	32 3/16	817.9	40 1/16	1017.7
GH5SA*56000A	A	Y	N	N	N	35	889.0	35 1/2	901.4	7/8	22.2	6 9/16	166.1	28 7/16	722.8	9 1/8	231.3	1 1/8	28.2	3 13/16	97.4	13	330.2	15 1/2	393.7	16 3/4	425.5	233	105.7	254	115.2	36	914.9	37 3/16	944.0

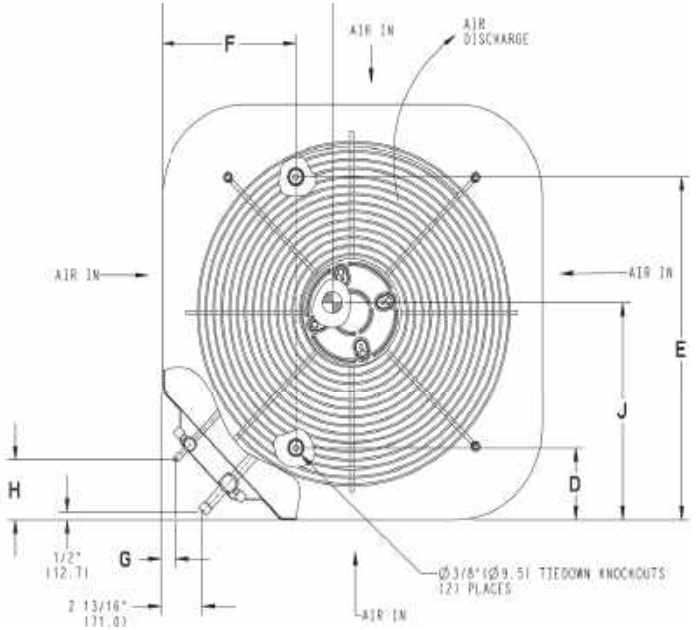
208-230-1-60	208/230-3-60	460-3-60	575-3-60

Y=YES
N=NO

NOTES:

1. CENTER OF GRAVITY .





UNIT SIZE	"X" MINIMUM GROUND MOUNTING PAD APPLICATION DIMENSIONS		"Y" MINIMUM ROOF-TOP MOUNTING PAD APPLICATION DIMENSIONS	
-	23 1/8	587.3	17 7/8	454.6
-	25 3/4	654.0	20 7/16	518.5
18,24,30,36,42,48	31 3/16	792.5	22 15/16	583.2
60	35	889.0	26 3/4	679.7

NOTE: ALL DIMENSIONS IN INCH (MM)

U.S. ECCN: Not Subject to Regulation (N.S.R.)

GH5SANSD5922-4 REV. -

Electrical Data

UNIT SIZE	V/PH	OPER VOLTS*		COMPR		FAN	MCA	MAX FUSE† or CKT BRK AMPS
		MAX	MIN	LRA	RLA	FLA		
18	208/230/1	253	197	45.1	8.3	0.50	10.9	15
24				64.4	10.3	0.60	13.5	20
30				67.0	12.5	0.70	16.3	25
36				86.0	14.4	1.20	19.2	30
42				123.0	19.0	1.05	24.9	40
48				126.0	22.4	1.40	29.4	50
60				157.0	23.7	1.50	31.1	50

*.Permissible limits of the voltage range at which the unit will operate satisfactorily
†.Time-Delay fuse.

FLA—Full Load Amps
LRA—Locked Rotor Amps
MCA—Minimum Circuit Amps
RLA—Rated Load Amps
NOTE: Control circuit is 24-V on all units and requires external power source. Copper wire must be used from service disconnect to unit.
All motors/compressors contain internal overload protection.
Short Circuit Current Rating (SCCR): 5kA rms

Used for Salter Analysis

Sound Power Level without Sound Shield

UNIT SIZE	STANDARD RATING (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dB, without tone adjustment)						
		125	250	500	1000	2000	4000	8000
18	72	63.9	65.8	66.6	68.3	63.3	59.7	54.6
24	71	66.3	64.7	64.2	64.4	59.2	55.6	54.7
30	70	64.6	64.4	65.7	63.9	60.5	55.6	53.7
36	76	70.6	69.9	68.5	66.0	63.1	59.0	53.2
42	76	70.2	71.3	71.2	72.1	64.9	62.7	59.5
48	76	70.1	72.2	69.7	68.0	62.7	61.7	60.9
60	74	66.6	68.6	69.2	70.8	62.9	60.8	62.7

NOTE: Tested in compliance with AHRI 270 but not listed with AHRI.

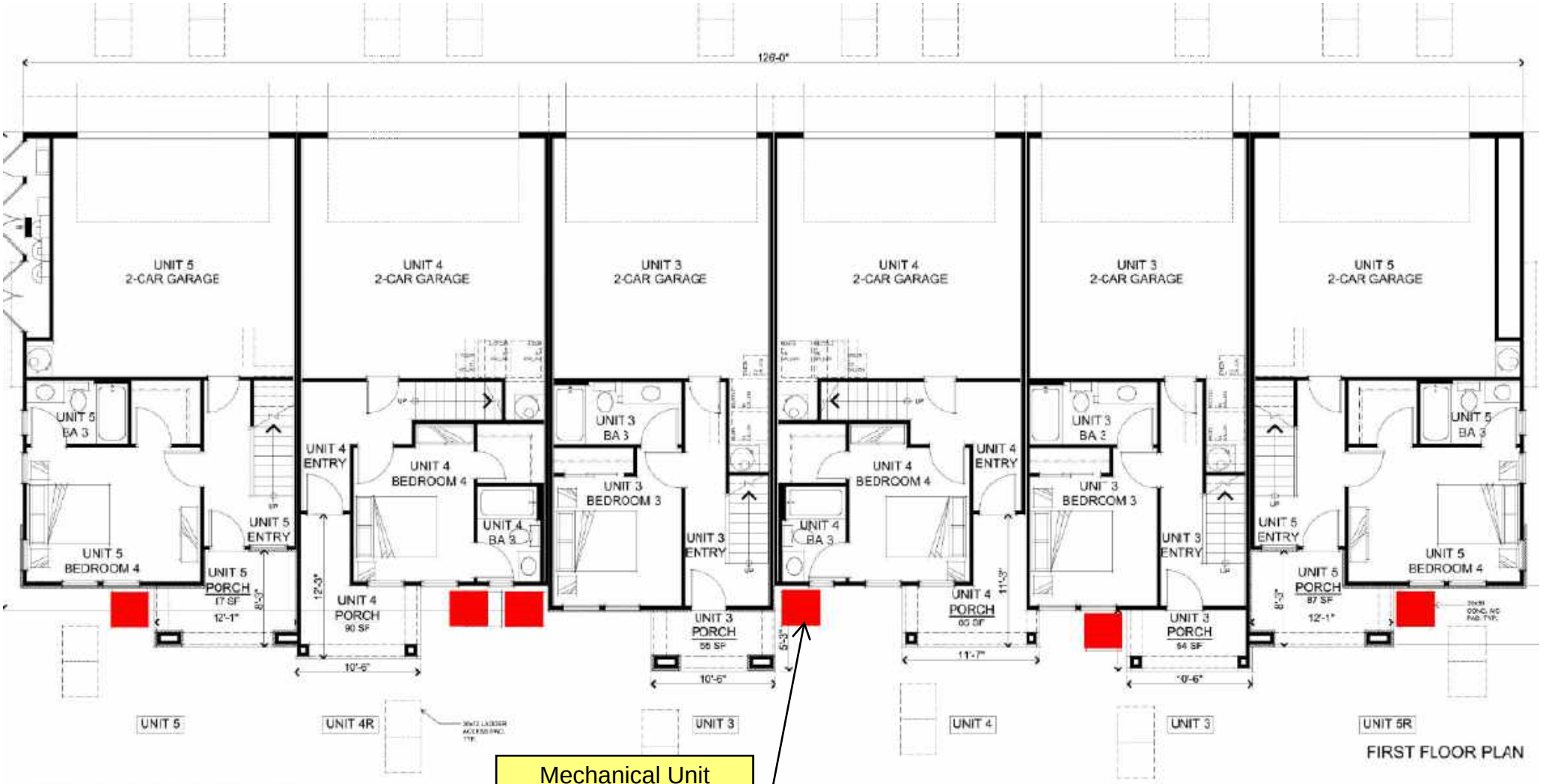
Sound Power Level with Accessory Sound Shield

UNIT SIZE	STANDARD RATING (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dB, without tone adjustment)						
		125	250	500	1000	2000	4000	8000
18	70	64.3	65.9	66.4	67.4	62.1	59.0	53.2
24	68	66.8	64.7	64.1	64.6	60.3	53.9	50.2
30	67	65.3	65.1	65.1	62.4	58.7	53.6	50.8
36	75	70.0	68.9	68.3	65.4	62.0	57.6	50.7
42	74	70.5	72.0	71.2	70.4	63.9	62.1	58.1
48	75	70.7	72.2	69.5	67.3	62.1	60.1	56.1
60	72	68.9	68.1	69.6	69.4	61.0	58.4	58.9

NOTE: Tested in compliance with AHRI 270 but not listed with AHRI.

Charging Subcooling (TXV-Type Expansion Device)

UNIT SIZE-VOLTAGE	REQUIRED SUBCOOLING °F (°C)
18	6 (3.3)
24	6 (3.3)
30	12 (6.7)
36	10 (5.6)
42	12 (6.7)
48	13 (7.2)
60	7 (3.9)

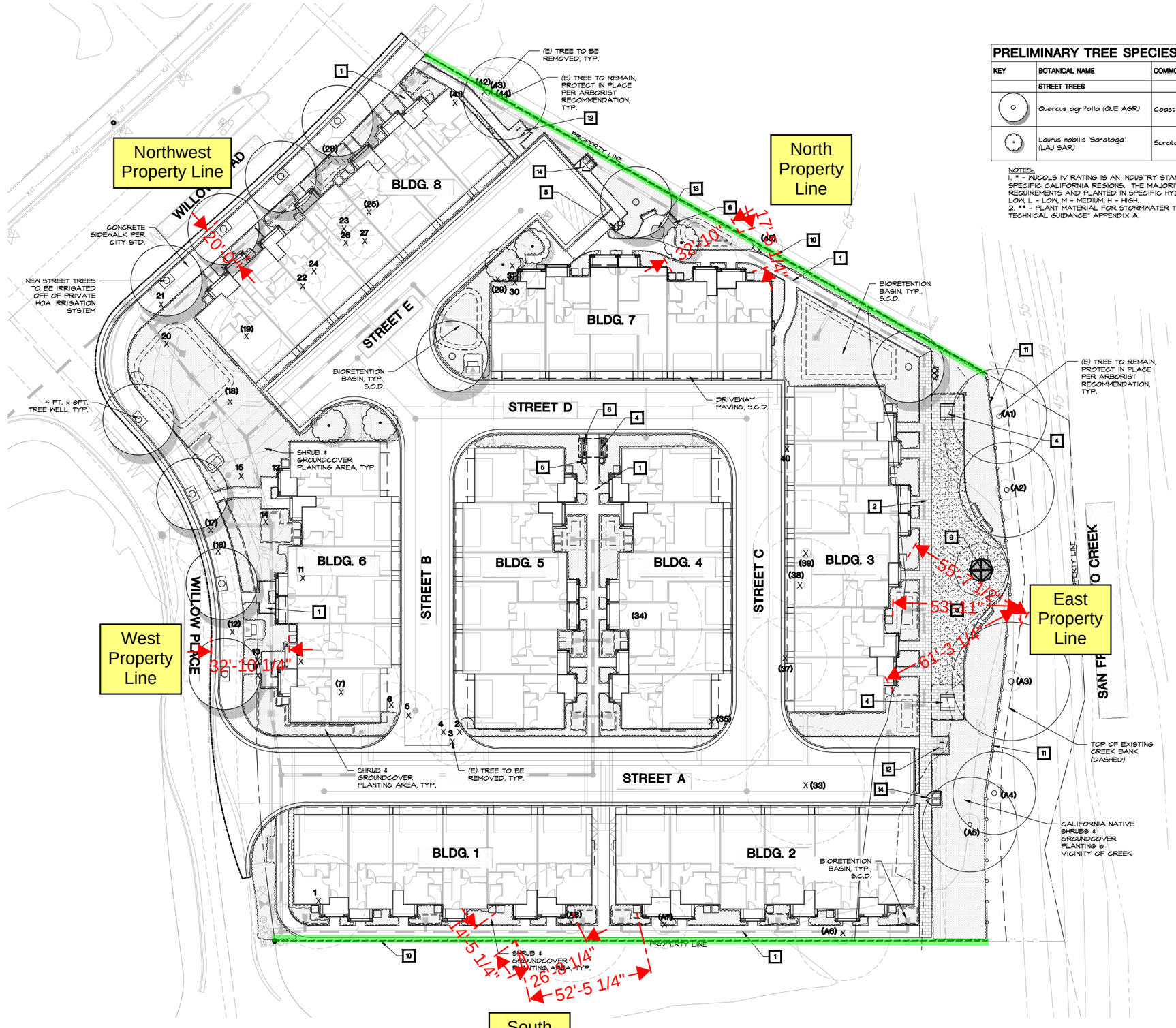


FIRST FLOOR PLAN

BUILDING FACADE MODULATION DOES NOT COMPLY WITH 16.30.040.2.A AND 16.30.040.2.B

399.264 68 Willow
Menlo Park, CA
October 18, 2024

BLDG TYPE 6B FIRST FLOOR PLAN
A11



PRELIMINARY TREE SPECIES KEY

KEY	BOTANICAL NAME	COMMON NAME	CONTAINER SIZE	SPACING	QTY.	WUCOLS*	SIZE @ PLANTING	MATURE SIZE
	STREET TREES							
○	Quercus agrifolia (QUE AGR)	Coast Live Oak	48" BOX -STD.	SEE PLANS	11	VL	10' H x 6' W	40' H x 40' W
○	Laurus nobilis 'Saratoga' (LAU SAR)	Saratoga Sweet Bay	48" BOX -STD.	SEE PLANS	5	L	8' H x 5' W	25' H x 18' W

NOTES:
1. * - WUCOLS IV RATING IS AN INDUSTRY STANDARD FOR IRRIGATION WATER NEEDS OF LANDSCAPE PLANTINGS IN SPECIFIC CALIFORNIA REGIONS. THE MAJORITY OF PLANTS FOR THIS REGION ARE VERY LOW (VL) TO Medium (M) WATER REQUIREMENTS AND PLANTED IN SPECIFIC HYDROZONES. ABBREVIATIONS FOR WUCOLS WATER NEEDS ARE: VL - VERY LOW, L - LOW, M - MEDIUM, H - HIGH.
2. ** - PLANT MATERIAL FOR STORMWATER TREATMENT PLANTERS PER SAN MATEO COUNTY'S "C.3 STORM WATER TECHNICAL GUIDANCE" APPENDIX A.

PRELIMINARY MATERIALS SCHEDULE

SYMBOL	DESCRIPTION	DETAIL/SHEET
1	CONCRETE PAVING INTEGRAL COLOR: 'NO COLOR'	1 L-3
2	PERMEABLE CONCRETE UNIT PAVERS	2 L-3
3	SYNTHETIC TURF	
4	WOOD & STEEL TRELLIS 9'-0" OVERALL HT., DOWN LIGHTING MOUNTED @ BEAMS	14 L-3
5	TRASH & RECYCLING RECEPTACLES	8 L-3
6	BENCH	3 L-3
7	BOLLARD LIGHT	7 L-3
8	CLUSTER MAILBOXES BOXES:	13 L-3
9	PLAY STRUCTURE: 5-12 YEAR OLD	9 L-3
10	6 FT. HT. SOLID WOOD FENCE:	6 L-3
11	6 FT. HT. MESH VIEW FENCE (@ CREEK):	5 L-3
12	BIKE RACKS: (4) TOTAL (8 PARKING SPOTS)	10 L-3
13	SEATING NOOK: CONTEMPORARY BOX SEAT, BENCHES & DECOMPOSED GRANITE PAVING	4 L-3
14	3'-6" FT. HT. SOLID WOOD ENCLOSURE FENCE W/ DOUBLE GATES (GREEN WASTE):	11 L-3

NOTES:
1. CONTRACTOR TO CONFIRM ALL COLORS & FINISHES W/ OWNER PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROVIDE PAINT & STAIN FINISH SAMPLES FOR REVIEW & APPROVAL.
2. PAINT FINISHES TO HAVE 1 COAT OF PRIMER & 2 COATS OF PAINT TYP.

IRRIGATION/MWELO DESIGN NOTE

A FULLY-AUTOMATIC, HYDROZONED IRRIGATION SYSTEM DESIGN COMPLIANT WITH THE CITY OF MENLO PARK's MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO) REQUIREMENTS, SHALL BE PROVIDED DURING THE BUILDING PERMIT APPROVAL PROCESS.

PROTECTED HERITAGE TREES

PROTECTED HERITAGE TREES ARE IDENTIFIED ON THIS SHEET W/ THE ARBORIST TREE # IN PARENTHESES, EX: (25). SEE SHEET L-1 FOR MORE INFO. ON EXISTING TREES.

0 10 20 40 FT.

REVISIONS	BY

ENVIRONMENTAL FORESIGHT, INC.
Landscape Architecture
2065 N. Broadway, Suite 203
Walnut Creek, CA 94596
T (925) 945-0300
www.environmentalforesight.com

PRELIMINARY LANDSCAPE PLAN
Willow Road Townhomes
68 Willow Road
Menlo Park, California

LICENSED LANDSCAPE ARCHITECT — SCOTT C. Feuer No. 4668 — EXPIRATION 08/31/2025 — RENEWAL DATE — STATE OF CALIFORNIA

Scale:	AS SHOWN
Drawn by:	KP
Date:	12/19/24
Job:	24006.01
Sheet	L-2
Of	00 Sheets

16 TENANT DOORS & 2 PARCEL LOCKERS ('M' ON PLANS)
MODEL: '16 DOOR FLORENCE CLUSTER MAILBOX CBU'
COLOR: 'BRONZE'
DIMENSIONS: 62"H X 30-1/2"W X 17-7/8" DEEP USPS APPROVED

4 DOOR PARCEL LOCKER ('P' ON PLANS)
MODEL: '8 DOOR UNIT CBU MAILBOX'
COLOR: 'BRONZE'
DIMENSIONS: 62"H X 30-1/2"W X 17-7/8" DEEP USPS APPROVED

MOUNTING EXPANSION ANCHOR BOLTS PER MANU.:
MANU.: HILTI (AVAIL. www.hilti.com)
TYPE: KWIK BOLT II (GALV.)
SIZE: 1/2" DIA. x 5-1/2" LONG
EMBED.: MIN. 3-1/2"
INSTALL. W/ RUBBER PAD BELOW PLATE PER MANU.
MOUNT TO 5" THICK CONCRETE PAD

NOTES:
1. MOUNT/INSTALL TO CONCRETE PAD PER MANUFACTURER'S SPECIFICATIONS.
2. REFER TO LAYOUT PLANS FOR QUANTITY AND LOCATIONS.
3. CLUSTER MAILBOX UNITS AND PARCEL LOCKER UNITS AVAILABLE AT CUSTOM HOME ACCESSORIES (800) 265-0041 OR www.store.mailboxes.info

13 CLUSTER MAILBOXES

SCALE: NTS 1/1 DT-Mailbox-02.dwg

WOOD & STEEL TRELLIS:
SEE MATERIAL SCHED. FOR INFO.

14 WOOD & STEEL TRELLIS

SCALE: NTS 1/1 DT-Trellis.dwg

BENCH:
MANU.: PLAY AND PARK STRUCTURES.
SEE MATERIAL SCHED. FOR INFO.

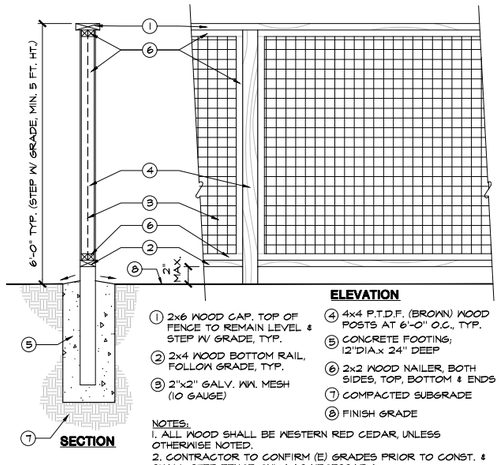
9 PLAY STRUCTURE (5-12 YR)

1/1 DT-PlayStruct.dwg
SCALE: NTS

BIKE RACK:
MANU.: DERO
SEE MATERIAL SCHED. FOR INFO.

10 BIKE RACK

SCALE: NTS 1/1 DT-WoodRoofPaver.dwg



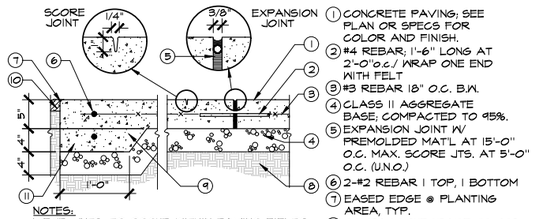
ELEVATION

1. 2x6 WOOD CAP, TOP OF FENCE TO REMAIN LEVEL & STEP W/ GRADE, TYP.
2. 2x4 WOOD BOTTOM RAIL, FOLLOW GRADE, TYP.
3. 2"X2" GALV. W/L MESH (10 GAUGE)
4. 4x4 P.T.D.F. (BROWN) WOOD POSTS AT 6'-0" O.C., TYP.
5. CONCRETE FOOTING; 12"DIA.x 24" DEEP
6. 2x2 WOOD NAILER, BOTH SIDES, TOP, BOTTOM & ENDS
7. COMPACTED SUBGRADE
8. FINISH GRADE

NOTES:
1. ALL WOOD SHALL BE WESTERN RED CEDAR, UNLESS OTHERWISE NOTED.
2. CONTRACTOR TO CONFIRM (E) GRADES PRIOR TO CONST. & SHALL STEP FENCE ONLY AS NECESSARY.
3. SEE MATERIAL SCHED. FOR FINISH.
4. ALL POSTS TO BE STRAIGHT & PLUMB.

5 6' HT. VEIW FENCE

SCALE: 3/4" = 1'-0"
1/16 DT-FenWire01.dwg

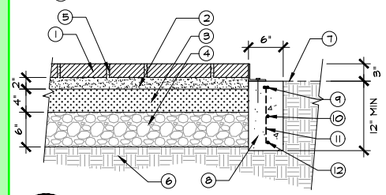


1. CONCRETE PAVING; SEE PLAN OR SPECS FOR COLOR AND FINISH.
2. #4 REBAR; 1'-6" LONG AT 2'-0" O.C./ WRAP ONE END WITH FELT
3. #3 REBAR 18" O.C. B.W.
4. CLASS II AGGREGATE BASE; COMPACTED TO 95%.
5. EXPANSION JOINT W/ PREMOLDED MAT'L AT 15'-0" O.C. MAX. SCORE JTS. AT 5'-0" O.C. (U.N.O.)
6. 2-#2 REBAR | TOP, | BOTTOM
7. EASED EDGE @ PLANTING AREA, TYP.
8. COMPACT SUBGRADE TO 90%
9. THICKENED EDGE, TYP.
10. FINISH GRADE ADJACENT TO PAVEMENT/CURB - REFER TO GENERAL NOTES
11. PAVING TO EXTEND UNDERNEATH DECK STRINGER MIN. 12", SEE LAYOUT PLAN

NOTES:
1. EXP. JNTS. TO OCCUR WITHIN PAVING FIELDS & WHERE PAVING MEETS ANY VERTICAL SURFACE OR STRUCTURE.
2. PAVEMENT SECTION DESIGN & REINFORCING SHOWN FOR BID PURPOSES ONLY. REFER TO STRUCTURAL SOILS REPORT FOR ACTUAL.

1 CONCRETE PAVING (PEDESTRIAN)

SCALE: 1" = 1'-0"
1/12 DT-PavConc02.dwg

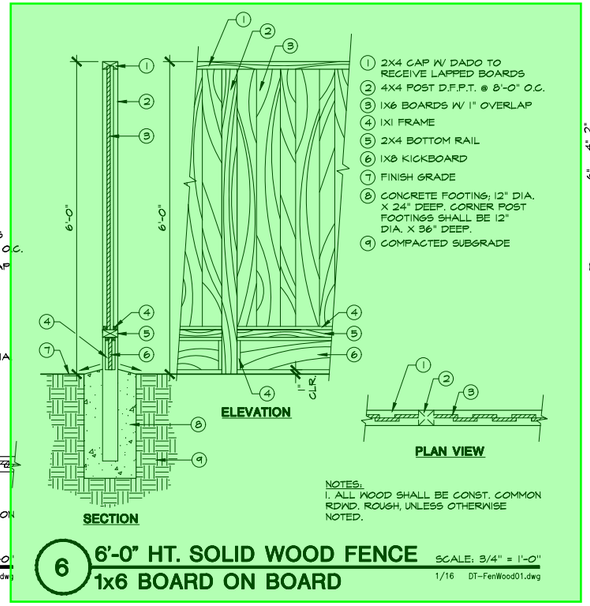


1. PERMEABLE PRECAST CONCRETE PAVERS; MANUFACTURER, TYPE, COLOR, SEE MATERIAL SCHED.
2. TYPE #8 BEDDING COURSE (3/8" CRUSHED)
3. TYPE #57 STONE OPEN GRADED BASE (3/4" CRUSHED)
4. TYPE #2 STONE SUBBASE (2-1/2" CRUSHED)
5. BUTT JNTS., TYP.
6. SUBGRADE COMPACTED TO 90%
7. FINISH GRADE/PLANTING AREA
8. CONCRETE PAVER EDGE RESTRAINT @ PLANTING AREAS ONLY; 1/4"x3"x3" STEEL L BAR ATTACHED TO CONCRETE BASE, PAINT BLACK. (1) #4 REBAR, CONTINUOUS, CENTERED IN BASE. SEE LAYOUT PLAN FOR LOCATIONS
9. (2) #4 BAR @ TOP CONTIN.
10. #4 BAR @ 18" O.C. WHR HT. > 18"
11. #4 BAR @ 18" O.C. VERT. CNTRD.
12. #4 BAR @ BOT. CONTIN.

NOTE:
1. CONTRACTOR TO CONFIRM THICKNESS OF BASE LAYERS W/ GEOTECH. ENG.
2. S.C.D. FOR SUBDRAINAGE.

2 PERMEABLE CONC. PAVERS PEDESTRIAN

SCALE: 1" = 1'-0"
1/12 DT-PavPrecast-conc. edge.dwg

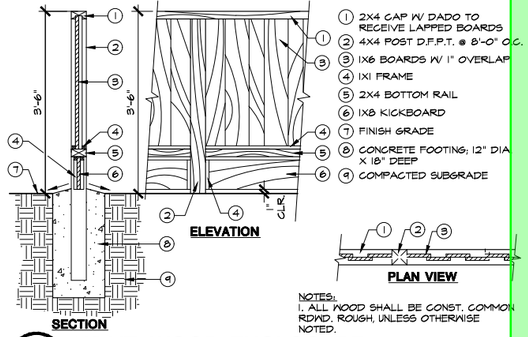


1. 2X4 CAP W/ DADO TO RECEIVE LAPPED BOARDS
2. 4X4 POST D.F.P.T. @ 8'-0" O.C.
3. 1X6 BOARDS W/ 1" OVERLAP
4. 1X1 FRAME
5. 2X4 BOTTOM RAIL
6. 1X8 KICKBOARD
7. FINISH GRADE
8. CONCRETE FOOTING; 12" DIA. X 24" DEEP. CORNER POST FOOTINGS SHALL BE 12" DIA. X 36" DEEP.
9. COMPACTED SUBGRADE

NOTES:
1. ALL WOOD SHALL BE CONST. COMMON RDWD. ROUGH, UNLESS OTHERWISE NOTED.

6 6'-0" HT. SOLID WOOD FENCE 1x6 BOARD ON BOARD

SCALE: 3/4" = 1'-0"
1/16 DT-FenWood01.dwg

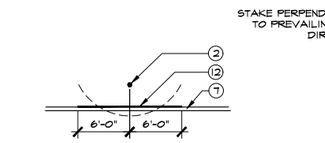


1. 2X4 CAP W/ DADO TO RECEIVE LAPPED BOARDS
2. 4X4 POST D.F.P.T. @ 8'-0" O.C.
3. 1X6 BOARDS W/ 1" OVERLAP
4. 1X1 FRAME
5. 2X4 BOTTOM RAIL
6. 1X8 KICKBOARD
7. FINISH GRADE
8. CONCRETE FOOTING; 12" DIA X 18" DEEP
9. COMPACTED SUBGRADE

NOTES:
1. ALL WOOD SHALL BE CONST. COMMON RDWD. ROUGH, UNLESS OTHERWISE NOTED.

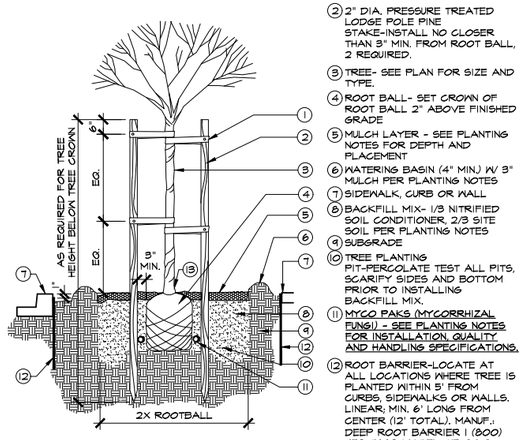
11 42" HT. WOOD ENCLOSURE 1x6 BOARD ON BOARD

SCALE: 3/4" = 1'-0"
1/16 DT-FenWood22.dwg



ROOT BARRIER PLAN VIEW

STAKING PLAN VIEW

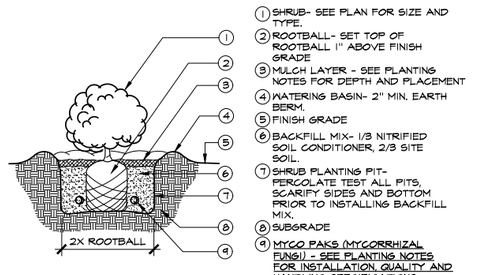


1. 24" CORDED RUBBER TIE-ATTACH TO STAKE W/2 GALVANIZED SCREWS.
2. 2" DIA. PRESSURE TREATED LODGE POLE PINE STAKE-INSTALL NO CLOSER THAN 3' MIN. FROM ROOT BALL, 2 REQUIRED.
3. TREE- SEE PLAN FOR SIZE AND TYPE.
4. ROOT BALL- SET CROWN OF ROOT BALL 2" ABOVE FINISHED GRADE
5. MULCH LAYER - SEE PLANTING NOTES FOR DEPTH AND PLACEMENT
6. WATERING BASIN (4" MIN.) W/ 3" MULCH PER PLANTING NOTES
7. SIDEWALK, CURB OR WALL
8. BACKFILL MIX- 1/3 NITRIFIED SOIL CONDITIONER, 2/3 SITE SOIL PER PLANTING NOTES
9. SUBGRADE
10. TREE PLANTING PIT-PERCOLATE TEST ALL PITS, SCARIFY SIDES AND BOTTOM PRIOR TO INSTALLING BACKFILL MIX.
11. MYCO PAKS (MYCORRHIZAL FUNGI) - SEE PLANTING NOTES FOR INSTALLATION QUALITY AND HANDLING SPECIFICATIONS.
12. ROOT BARRIER-LOCATE AT ALL LOCATIONS WHERE TREE IS PLANTED WITHIN 5' FROM CURBS, SIDEWALKS OR WALLS, LINEAR; MIN. 6' LONG FROM CENTER (12' TOTAL). MANUF.: DEEP ROOT BARRIER 1 (800) 458-7668 MODEL: UB 24-2
13. TREE TRUNK GUARDS AT ALL TREES IN LAWN AREAS. MANUF.: NDS MODEL: TP-128, GREY AVAILABLE: www.ndspro.com

NOTES:
1. SEE PLANTING NOTES AND/OR SPECIFICATIONS FOR ADDITIONAL INFORMATION.

15 TREE PLANTING WITH ROOT BARRIER

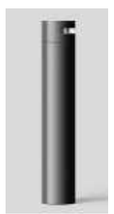
SCALE: N.T.S.
1/1 DT-Tree-Green01.dwg



1. SHRUB- SEE PLAN FOR SIZE AND TYPE.
2. ROOTBALL- SET TOP OF ROOTBALL 1" ABOVE FINISH GRADE
3. MULCH LAYER - SEE PLANTING NOTES FOR DEPTH AND PLACEMENT
4. WATERING BASIN- 2" MIN. EARTH BERM.
5. FINISH GRADE
6. BACKFILL MIX- 1/3 NITRIFIED SOIL CONDITIONER, 2/3 SITE SOIL.
7. SHRUB PLANTING PIT- PERCOLATE TEST ALL PITS, SCARIFY SIDES AND BOTTOM PRIOR TO INSTALLING BACKFILL MIX.
8. SUBGRADE
9. MYCO PAKS (MYCORRHIZAL FUNGI) - SEE PLANTING NOTES FOR INSTALLATION QUALITY AND HANDLING SPECIFICATIONS.

12 SHRUB PLANTING

SCALE: N.T.S.
1/1 DT-Shrub-Green01.dwg



BOLLARD:
MANU.: BEGA
SEE MATERIAL SCHED. FOR INFO.

7 BOLLARD LIGHT

1/1 SCALE: NTS DT-Bollard.dwg

TRASH & RECYCLING RECEPTACLES:
MANU.: FORMS+SURFACES
SEE MATERIAL SCHED. FOR INFO.

8 TRASH/RECYCLING RECEPTACLE

1/1 DT-Trash.dwg
SCALE: NTS

BENCH:
MANU.: FORMS+SURFACES
SEE MATERIAL SCHED. FOR INFO.

3 BENCH

SCALE: NTS
1/1 DT-Bench.dwg

BOX SEAT:
MANU.: LANDSCAPE FORMS
SEE MATERIAL SCHED. FOR INFO.

4 BOX SEAT

SCALE: NTS
1/1 DT-Bench.dwg

REVISIONS	BY

ENVIRONMENTAL FORESIGHT, INC.
Landscape Architecture
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Walnut Creek, CA 94596
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CONCEPTUAL LANDSCAPE DETAILS

Willow Road Townhomes
68 Willow Road
Menlo Park, California

LICENSED LANDSCAPE ARCHITECT — STEVE E. FEUER NO. 4698 — SIGNATURE — 08/31/2025 — RENEWAL DATE — DATE — STATE OF CALIFORNIA

Scale:	AS SHOWN
Drawn by:	KP
Date:	12/19/24
Job:	24006.01

Sheet
L-3
Of 00 Sheets

Project #	25-0020
Project Name:	68 Willow
Date:	2/9/2025
Engineer:	MDH
Calc Title:	Prop Line Summary

Daytime Criteria	60	dB
Nighttime Criteria	50	dB

Meets daytime and nighttime criteria

Meets daytime criterion, but exceeds nighttime criterion

Exceeds daytime and nighttime criteria

		63	125	250	500	1000	2000	4000	8000	dBA	# Units with Direct LOS						
Carrier GH5SAN5	PWL	71	71	70	69	66	63	59	53	71		Source Ht	3.2	ft	Mech Unit Length	3	ft
GH5SAN5-01PD	Rathe	-25	-25	-25	-25	-25	-25	-25	-25			Source Dist	17	ft	Mech Unit Width	2	ft
	Barrier	-5	-6	-8	-9	-11	-13	-16	-19		Num. Units:	Receiver Ht	5	ft	Total Distance	22	ft
North Prop Line	Multiple Units (3)	5	5	5	5	5	5	5	5		3	Receiver Dist	5	ft			
t	Safety Factor	3	3	3	3	3	3	3	3			Barrier Ht	6	ft			
	Total	49	48	45	43	38	33	26	17	**44**		Path Length Diff	0.3	ft			

		63	125	250	500	1000	2000	4000	8000	dBA	# Units with Direct LOS						
Carrier GH5SAN5	PWL	71	71	70	69	66	63	59	53	71		Source Ht	3.2	ft	Mech Unit Length	3	ft
GH5SAN5-01PD	Rathe	-24	-24	-24	-24	-24	-24	-24	-24			Source Dist	20	ft	Mech Unit Width	2	ft
	Barrier	0	0	0	0	0	0	0	0		Num. Units:	Receiver Ht	5	ft	Total Distance	20	ft
Northwest Prop Line	Multiple Units (1)	0	0	0	0	0	0	0	0		1	Receiver Dist	0	ft			
	Safety Factor	3	3	3	3	3	3	3	3			Barrier Ht	0	ft			
	Total	50	50	49	48	45	42	38	32	**50**		Path Length Diff	-5.1	ft			

		63	125	250	500	1000	2000	4000	8000	dBA	# Units with Direct LOS						
Carrier GH5SAN5	PWL	71	71	70	69	66	63	59	53	71		Source Ht	3.2	ft	Mech Unit Length	3	ft
GH5SAN5-01PD	Rathe	-28	-28	-28	-28	-28	-28	-28	-28			Source Dist	32	ft	Mech Unit Width	2	ft
	Barrier	0	0	0	0	0	0	0	0		Num. Units:	Receiver Ht	5	ft	Total Distance	32	ft
West Prop Line	Multiple Units (2)	3	3	3	3	3	3	3	3		2	Receiver Dist	0	ft			
	Safety Factor	3	3	3	3	3	3	3	3			Barrier Ht	0	ft			
	Total	49	49	48	47	44	41	37	31	**49**		Path Length Diff	-5.0	ft			

		63	125	250	500	1000	2000	4000	8000	dBA	# Units with Direct LOS						
Carrier GH5SAN5	PWL	71	71	70	69	66	63	59	53	71		Source Ht	3.2	ft	Mech Unit Length	3	ft
GH5SAN5-01PD	Rathe	-24	-24	-24	-24	-24	-24	-24	-24			Source Dist	15	ft	Mech Unit Width	2	ft
	Barrier	-5	-6	-8	-9	-11	-13	-16	-19		Num. Units:	Receiver Ht	5	ft	Total Distance	20	ft
South Prop Line	Multiple Units (4)	6	6	6	6	6	6	6	6		4	Receiver Dist	5	ft			
	Safety Factor	3	3	3	3	3	3	3	3			Barrier Ht	6	ft			
	Total	51	50	47	45	40	35	28	20	**46**		Path Length Diff	0.3	ft			

		63	125	250	500	1000	2000	4000	8000	dBA	# Units with Direct LOS						
Carrier GH5SAN5	PWL	71	71	70	69	66	63	59	53	71		Source Ht	3.2	ft	Mech Unit Length	3	ft
GH5SAN5-01PD	Rathe	-32	-32	-32	-32	-32	-32	-32	-32			Source Dist	53	ft	Mech Unit Width	2	ft
	Barrier	0	0	0	0	0	0	0	0		Num. Units:	Receiver Ht	5	ft	Total Distance	53	ft
East Prop Line	Multiple Units (4)	6	6	6	6	6	6	6	6		4	Receiver Dist	0	ft			
	Safety Factor	3	3	3	3	3	3	3	3			Barrier Ht	0	ft			
	Total	47	47	47	45	43	40	36	30	**48**		Path Length Diff	-5.0	ft			