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# LETTER OF TRANSMITTAL

DATE: 07/12/23	JOB NO. 202-6727
ATTENTION: Mr. Benjamin DeClue	
RE: Glendale Jeep	
Special Use Permit Modification Submittal	

**TO:** City of Glendale  
424 North Sappington Road  
Glendale, MO 63122

**WE ARE SENDING YOU:**  Attached  Under Separate cover via Deliver the following items:

- Shop Drawings       Prints       Plans       Samples       Specifications  
 Copy of Letter       Change Order       \_\_\_\_\_

Copies	Date	No.	Description
10	07-11/23	14 pgs	Site Plan, Photometric Plan, Landscape Plan, Architectural Elevation and Architectural Floor Plans
10	07/11/23	3 pgs	Project Narrative
10	06/13/22	25 pgs	Car Wash Sound Study
10	07/11/23	8 pgs	Renderings from Neighboring Yards and Manchester Road
10	-	6 pgs	B16-23 – Draft SUP Red-Lines

**REMARKS:**

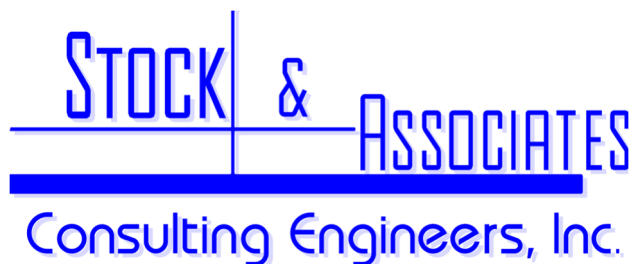
Mr. DeClue,  
Enclosed is the updated submittal package for the above project. We have included a red-line of the Draft SUP B16-23 relative to the request. Thank you.

**SIGNED:** Josh Barcus

**COPY TO:**

Josh Barcus, P.E., Senior Associate

- George M. Stock, P.E., President
- Jenni Belding, General Manager (via email)
- Kristopher Merhtens, ACI Boland (via email)
- Doug Loveland, ACI Boland (via email)
- Rusty Saunders, Loomis Associates (via email)
- Gary Brown, McClure Engineering (via email)
- Mark Halleman, Halleman Construction (via email)



July 11, 2023

City of Glendale  
424 North Sappington Road  
Glendale, MO 63122

Attention: Mr. Benjamin DeClue

Re: Glendale Chrysler Jeep Dodge Ram – 10070 Manchester Road – Glendale, MO 63122  
(Stock Project No. 2020-6727)

Dear Mr. DeClue,

In accordance with the Site Plan package and request for an Amendment to the existing Special Use Permits previously issued for this property (B02-11 & B07-14), below is an outline of the current request for consideration by the City of Glendale following the June 19<sup>th</sup> Board of Alderman Meeting held at Glendale City Hall.

1. Request for a 70' x 74.24' addition to the east side of the existing service building to accommodate up to fourteen (14) interior service bays for the purpose of operation of a repair garage in concert with the existing car dealership. Note: No body shop or paint shop will be included with this request for additional vehicle service bays. The services that will take place within this proposed addition, are those that currently take place within the existing service building and include, but are not limited to the following:
  - a. Tire: mount, balance, rotate, install and repair tires
  - b. Engine: repair, replace, install all automotive engine work
  - c. Transmission: repair, replace, install all automotive transmission work
  - d. Suspension: repair, replace, install all automotive suspension work
  - e. Missouri State Inspections: safety and emissions
  - f. Lube, oil, and filter changes
  - g. Automotive interior and trim work
  - h. Routine automotive maintenance
  
2. The existing chain link fence is proposed to be removed and replaced with a new Bufftech Galvenston Style site proof fence, Sierra Blend in color, along the southern property line to provide additional screening and sound attenuation beyond the proposed landscape. This fence is proposed to be 8' in height along the 815 and 825 Brookside Drive properties, and 7' in height along the 835, 845 and 855 Brookside Drive properties.

3. Five (5) existing trees are shown to be removed. Of these, three (3) are in poor condition or dead, and two (2) are invasive species. To help screen views from the neighbors to the south, twenty-six (26) evergreen trees and six (6) shade trees are shown to be planted in the existing green area and around the proposed storage building. As these new trees mature, they will provide evergreen screening above the height of the site-proof fence and provided woodland canopy. Glendale Jeep will continue to maintain this buffer-yard. Site sections have been cut thru the site to each of the neighboring properties.
4. Request for a 50' x 75' Vehicle Wash/Prep Station Building to be located adjacent to the south side of the service building. The building will include:
  - a. 10' x 75' storage/equipment storage room
  - b. 16' x 75' single lane car wash; with prep and drip areas with 10' wide overhead doors on east and west ends of the building that includes:
    - i. 16' x 19' Prep Station
    - ii. 16' x 38' Car wash/dryer; whereby the wash equipment moves along the vehicle, versus the vehicle driving or being pulled through a wash bay; including 3' of dryers
    - iii. 16' x 18' of drip space after exiting the was and dryer station, which allows for the proposed dryers to be located further from the exiting door
  - c. 14' x 17' single hand dry lane with 10' wide overheard doors on east and west end of building
  - d. Included in this submittal is a Sound Study for the proposed car wash as prepared by McClure Engineering.
  - e. Car wash is to be used solely by Glendale employees during the normal business operation hours and will not be open to the public.
5. As part of the overall project, the intention of the interior renovation and conversion of the existing 5,000 square feet service area on the west side of the building along with the renovation of the 7,400 square feet of existing showroom space is to provide a new updated showroom space, sales offices, new car delivery area and customer service drop off areas. The western side of the existing north elevation of the building will also be updated to include a series of smooth finish aluminum composite metal (ACM) panels along the front side, ACM accent panels will frame the five large window openings also. The new front entry of the Jeep showroom will have ACM accent panels over the canopy and entry doors. Both the interior and exterior renovations of this portion of the building will be to help support the growing business of Glendale Chrysler Jeep Dodge Ram and bring the appearance of facility in-line to reflect the new "Hometown" standards of the Jeep brand.
6. The existing lighting located along Manchester Road is proposed to include new downlights pointed at the north face of the facility to provide more lighting in this area. New wall packs are proposed along the new car wash, service building and storage building. The remainder of the site lighting will be used in placed. A photometric plan has been included in this submittal.

7. Pursuant to discussions with the Fire Department, included in this submittal is an Autoturn Exhibit for the Glendale Fire Department Pumper Truck. This shows the proposed maneuvers through the site after all improvements are completed. It is noted that the final fire lane markings to be submitted to the Glendale Fire Department for review/approval at the time of permit submittal.

Sincerely,

*Josh Barcus*

Joshuah Barcus, P.E.,

Senior Associate

Cc: George Stock, P.E., President  
Jenni Belding, General Manager (via email)  
Kristopher Merhtens, ACI Boland (via email)  
Doug Loveland, ACI Boland (via email)  
Rusty Saunders, Loomis Associates (via email)  
Mark Hallemann, Hallemann Construction (via email)  
Bill Hoagland, D&S (via email)

AN ORDINANCE AUTHORIZING THE ISSUANCE OF A MODIFIED SPECIAL USE PERMIT TO GLENDALE CHRYSLER-JEEP, INC. FOR THE EXPANSION OF A NEW CAR SALES DEALERSHIP AND USED CAR SALES AGENCY IN CONJUNCTION THEREWITH AT 10070 MANCHESTER ROAD AND A REPAIR GARAGE AND OFFICE SPACE AT 10058 MANCHESTER ROAD

**WHEREAS**, the City of Glendale has, by Chapter 400 of the Municipal Code, divided the city into districts and established regulations governing the use of land and the location of buildings therein, and

**WHEREAS**, Section 400.420 of Chapter 400 of the Municipal Code of the City of Glendale, Missouri, provides that the Board of Aldermen by Special Use Permit, may authorize the location and operation of a new and used car dealership and in conjunction therewith a repair garage, and an outdoor new and used car sales and display lot within the C-2 Commercial District of the City; and

**WHEREAS**, Chrysler Corporation (formerly referred to as Chrysler Motors Corporation) was previously issued a Special Use Permit by ordinance No. 1359, and as amended by Ordinance Nos. 1442, 1473, 6-79 and 5-88, for the location of a New Car Dealership, Repair Shop, Body and Paint Shop and used Car Sales Lot in the C-2 Commercial District and storage in the S-1 District on the property located at 10070 Manchester as more fully described below; and

**WHEREAS**, Merlo Automotive Group, Inc., a wholly owned subsidiary of the Chrysler Corporation, was previously sold to H. Carlo Merlo and Shirley A. Merlo and the special use permit for 10070 Manchester Road, as amended from time to time, was transferred to the new ownership; and

**WHEREAS**, Merlo Automotive Group, Inc. previously applied for and was issued a special use permit by Ordinance Number 07-14 for a repair and body shop located at 10058 Manchester Road; and

**WHEREAS**, Merlo Automotive Group, Inc., currently operates a new and used car dealership and a repair shop located at 10070 and 10058 Manchester Road under special use permits pursuant to Ordinance Numbers 02-11 and 07-14; and.

**WHEREAS**, Merlo Automotive Group, Inc. has filed an application for a modification to its existing special use permits to allow for the construction of a 70' x 74' addition to its service and repair operations, a new 50' x 75' vehicle wash/prep station, a new 19' x 60' free standing storage building, and a new 8' Bufftech Galveston style fence; and

**WHEREAS**, the application for a modified special use permit for 10058 and 10070 Manchester Road was referred to the City Plan Commission for review, and, at its May 31, 2023 meeting, the City Plan Commission issued its recommendation to approve the issuance of the proposed modified special use permit subject to conditions;

**WHEREAS**, the Board of Aldermen called a Public Hearing on such proposed modified special use permit for the 19<sup>th</sup> day of June, 2023, and a notice of such Public Hearing was published on the City's website on June 07, 2023, published on June 15, 2023, in the Webster-Kirkwood Times, a newspaper of general circulation in the City of Glendale, and copies of such notice were mailed via First Class Mail to all property owners shown by the City's tax records within three hundred (300) feet of the boundaries of the subject property;

**WHEREAS**, a Public Hearing was held before the Board of Aldermen of the City of Glendale on June 19, 2023, at 7:00 P.M. with respect to this application.

**WHEREAS**, the Board of Aldermen of the City, after due and careful deliberation, has concluded that the issuance of said modified special use permit would meet the requirements of the Zoning Code of the City of Glendale, Missouri and would not: (a) substantially increase traffic hazards or congestion; (b) substantially increase fire hazards; (c) adversely affect the character of the neighborhood; (d) adversely affect the general welfare of the community; or (e) overtax public utilities.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF GLENDALE, MISSOURI, AS FOLLOWS:

**SECTION ONE:**

The Board of Aldermen of the City of Glendale, after due and careful deliberation, does hereby conclude that the issuance of an amended special use permit for Merlo Automotive, Inc. for the use of the premises at 10058 and 10070 Manchester Road, for purposes of operating a new car dealership and in conjunction therewith a repair shop, new and used car sales and display lot, subject to compliance with the conditions set forth in Section Three below, meets the requirements of the Zoning Code of the City of Glendale, Missouri and would not (a) substantially increase traffic hazards or congestions; (b) substantially increase fire hazards; (c) adversely affect the character of the neighborhood; (d) adversely affect the general welfare of the community; or (e) overtax public utilities.

**SECTION TWO:**

Subject to the conditions hereinafter provided, the Special Use Permits issued by Ordinance Numbers 02-11 and 07-14 are hereby voided and reissued as a single permit in amended form to Merlo Automotive Group, Inc., and such corporation is authorized to continue to operate a new car dealership and in conjunction therewith, a repair shop and new and used car sales and display lot, on the following terms and conditions at 10058 and 10070 Manchester Road:

- (A) To continue to locate and operate a new car dealership and in conjunction therewith a repair shop, new and used car sales and display lot, and in connection with the operation of such dealership to construct a 70' x 74' addition to its facility to house the dealership's expanded service and repair operations, a new 50' x 75' car wash, ~~a new 19' x 60' free standing storage building~~, and a new 8' Bufftech Galveston style fence in Sierra Blend color **along the 815 and 825 Brookside Drive Properties and 7' Bufftech Galveston style fence in Sierra Blend color along the 835, 845 and 855 Brookside Drive Properties**, pursuant to the detailed final development plan as submitted to the City for 10070 and 10058 Manchester Road, Glendale, Missouri 63122 stamped as "Received" by the City on **July, 12 2023**.

**SECTION THREE:**

The Special Use Permit herein granted shall be conditioned and shall become and remain in force and effect only under the following terms and conditions:

- (A) The special use permit granted herein shall run to Merlo Automotive Group, Inc., and said special use permit may not be transferred or assigned to any subsequent owner or tenant of said premises without the express approval of the Board of Aldermen of the City of Glendale, which approval shall not be unreasonably withheld. No such transfer will be approved, however, unless it is to a new car agency enfranchised by the manufacturer of such cars for the operation of a new car agency.
- (B) The used car business and repair shop, as authorized herein, in conjunction with said enfranchised new car dealership, shall, at all times be owned, operated and managed by the person, firm or corporation operating said new car dealership.
- (C) No signs of any nature shall be erected or installed on the subject property except in compliance with Chapter 530 of the Glendale City Code, unless specifically authorized by variance under 530.120 of the Glendale City Code.

- (D) All lights not necessary for reasonable security lighting of the area shall be extinguished no later than the hour of 10:00 p.m. official local time and shall not be relighted until the following daylight hours. Any addition, removal or replacement of exterior light fixtures on the subject property shall require approval by the City of Glendale Building Commissioner to ensure that such change will not adversely impact adjoining properties.
- (E) Any public address system on the exterior portion of any of the buildings on the dealership premises shall not be directed toward any of the abutting residential property to the south and shall not be used to transmit or broadcast music. The public address system shall only be used for the purpose of calling employees and/or other people on the dealership premises.
- (F) ~~Excepting the 19' x 60' storage building shown on the approved site plan,~~ the south 75 feet of the eastern 418 feet of 10070 Manchester shall remain as an undeveloped buffer zone to screen the Dealership from the residential properties to the south. The Merlo Automotive Group, Inc shall maintain the buffer zone and, in addition to normal maintenance and replacement of shrubs, plants and trees as needed, Merlo Automotive Group, Inc shall install the following trees in the locations identified on the site plan: two (2) 2.5" caliper red oaks, two (2) 2.5" caliper red maples, two (2) 2.5" caliper valley forge elms, ~~twenty (20)~~ **eleven (11)** 8' tall white pines, and ~~twenty-two (22)~~ **fifteen (15)** 8' tall green giant arborvitae. Merlo Automotive Group, Inc. will ensure that no trash or other material is allowed to remain on such grounds other than the growing bushes, trees, grasses and other plants. Merlo Automotive Group, Inc will keep the grass trimmed on such grounds and will replace any plants, bushes and/or trees as needed with comparable plants, bushes and/or trees. Removal and replacement of plants, bushes, and trees in the buffer zone is subject to the approval of the Building Commissioner.
- (G) An 8' tall Bufftech Galveston style fence, Sierra Blend in color, shall be erected along the ~~eastern 418 feet of~~ the southern boundary line of the 10070 Manchester property ~~adjacent to 815 and 825 Brookside Drive properties and a 7' tall Bufftech Galveston style fence, Sierra Blend in color, shall be erected along the south boundary line adjacent to the 835, 845 and 855 Brookside Drive properties.~~
- (H) The existing 6' solid privacy fence shall be maintained and remain in place and in good repair along the west 250 feet of the south property line and the west property line adjacent to Glendale Gardens Condominiums.



- (I) The car wash may only be used by employees of Merlo Automotive Group Inc. when servicing vehicles or preparing a vehicle for sale. Non-employees, customers, and prospective customers are prohibited from using the car wash at all times. ~~Neither the car wash nor the blowers shall be operated without both car wash bay doors closed. The automated car wash bay shall be programmed only to function while both automated garage doors are closed, and all blower activity must cease before the doors open. The hours of operation of the automated car wash bay shall be restricted to XX AM to XX PM, DAYS OF THE WEEK.~~ The car wash shall use no announcing or automated voice system. ~~The car wash shall be in compliance with the applicable St. Louis County Noise Ordinance at all times.~~
- (J) The new and used cars displayed on said premises shall be stored or parked in neat and regular lines or aisles.
- (K) Repair shop operations shall be conducted only between the hours of 7:00 a.m. and 6:00 p.m., official local time, Monday through Saturday.
- (L) Except for those vehicles awaiting immediate repair on the premises, no wrecked, damaged, or inoperable vehicles shall be stored on the subject property.
- (M) All car repair and garage work must be performed within the buildings designated for car repairs on the subject properties as identified on the approved site plan stamped as “Received” by the City on ~~June~~, July, 12 2023.
- (N) All refuse, trash, and any other items being disposed of, or thrown away, will be stored in covered containers suitably screened.
- (O) The existing primary structure at 10070 Manchester may be remodeled and expanded in accordance with the drawings submitted to the City of Glendale as the final development plan stamped as “Received” by the City on ~~June~~, July, 12 2023, which drawings are incorporated herein by reference.
- (P) Approval of the final development plan is contingent upon approval of plans by St. Louis Metropolitan Sewer District (MSD). Documentation of said approval shall be provided to the City Building Commissioner.
- (Q) Any future proposed buildings or change in the buildings shown on the attached drawings or their use requires approval of an amended Special Use Permit.

**SECTION FOUR:**

This Special Use Permit shall remain in full force and effect so long as Merlo Automotive Group Inc. (“Permitee”) shall comply with all the terms and conditions thereof. In the event that the Permitee shall breach any of these conditions, Permitee shall be given a written notice of such breach by the City of Glendale, delivered to any person in charge of the office of Permitee. If such condition is not corrected within a reasonable time and in any event within thirty (30) days of the delivery of such notice, it is agreed that the City of Glendale shall have the right to close down the operations, under the Special Permit, until such time as Permitee shall comply with all terms and conditions of said permit or permits.

**SECTION FIVE:**

The permit issued hereby shall become and be in full force and effect at such time as the City of Glendale has received an acknowledgement from Merlo Automotive Group, Inc. accepting the terms of this ordinance.

**SECTION SIX:**

This Ordinance shall be effective immediately on its passage and approval.

This Ordinance passed and approved this 17<sup>th</sup> day of July, 2023.

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Michael A. Wilcox  
Mayor

ATTEST:

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Benjamin DeClue  
City Administrator/City Clerk

June 14, 2023

*The revision of this report is to incorporate our original report with all addendums and add more information that was requested during the permitting process.*

Via Email: [jbelding@goodcars.com](mailto:jbelding@goodcars.com)

Ms. Jenni Belding  
Glendale Chrysler  
10070 Manchester Road  
Glendale, MO 63122

Re: Glendale Chrysler – Car Wash Sound  
Study  
McClure Engineering No. 104271.000

Dear Ms. Belding,

This is our revised acoustical analysis for a new Carwash at the Glendale Chrysler lot at 10070 Manchester located in The City of Glendale, MO. A summary of our findings is included in this report.

Both The City of Glendale and St. Louis County noise code were utilized for this sound study. These noise codes are provided in **Appendix A**. **Appendix B** is supplemental information about sound levels. The primary differences between these noise codes are that the City of Glendale uses the term “nuisance” to determine compliance, and no sound level limit is provided. St. Louis County uses the overall Sound Pressure Level and duration of time the source operates for a 1-hour period.

### **Carwash Sound Levels vs The County Noise Code**

It is estimated that the time to complete a single wash and dry cycle takes less than six (6) minutes or approximately a maximum of 10 to 12 cars per hour. The primary sound source is produced by the dryer system. The dryers used in this facility will be discussed in detail later in this report. Our analysis looked at a 6-foot fence vs. an 8-foot fence with doors closed and doors opened. The conclusion from our acoustical analysis is summarized as follows:

- 1) All the receiving locations will have a sound level from the carwash only in the range of 39 to 49 dBA with door open.
- 2) The sound levels at the nearest property line using either 6’ or 8’ fence will be less than 50 dBA.
- 3) Current background or ambient daytime sound levels are in the range of 50 to 55 dBA.
- 4) The sound source of the car wash only operates when in use.

- 5) The carwash will only operate during daytime hours according to St. Louis County Noise Code (7am to 10pm), the one-hour sound level limit of 55 dBA daytime is used to compare sound level limits.

The properties that are most likely to be impacted from the car wash are zoned “R-1” (Single Family Residential), Glendale Chrysler is zoned “C-3” (Commercial).

**Project Summary**

The sound from the operation of a new carwash at the proposed location (**Figure 1**) is the primary focus of this sound study. It was determined from on-site noise monitoring that current background sound levels from Manchester Road is near the 55 dBA daytime Sound Level Limit set by St. Louis County. The most prevalent sounds produced from the car wash only were determined in our acoustical model of the site. Therefore, sound produced by the car wash without background sound levels have been calculated to estimate sound level impact on adjacent residents. Our results are summarized in **Table 1**.

**Table 1**

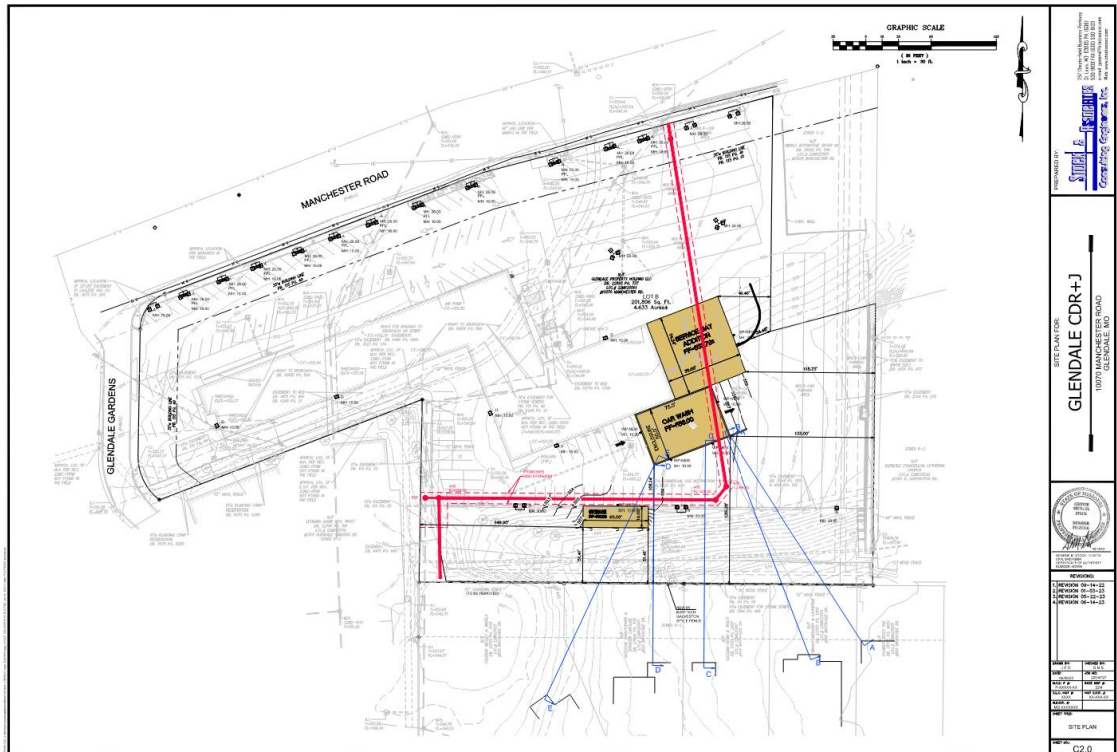
Measured Property Line Scenario	SPL Day, dBA			
Leq Daytime (7am to 10pm) Average Ambient Sound Level	54.7			
	52.2			
Calculated Leq Daytime Property Line Scenario with Fence – All data is dryer Sound only (No Background Sounds Added)	Doors Open		Doors Closed	
	6'	8'	6'	8'
815 Brookside Dr. South PL	45.2	44.0	31.8	32.0
825 Brookside Dr. South PL	39.3	39.4	36.7	36.5
835 Brookside Dr. South PL	39.8	39.3	37.7	36.9
845 Brookside Dr. South PL	44.5	42.5	35.2	35.0
855 Brookside Dr. South PL	43.2	41.6	29.6	29.4
865 Brookside Dr. South PL	40.2	39.6	25.1	25.1
Glendale Gardens Condos - West PL	43.0			
Church East PL	49.0			
St Louis County Daytime Noise Limit	Property Line		55	

The sound from the operation of a new car wash at the proposed location (**Figure 1**) is the primary focus of this sound study. However, secondary sound sources will be present and a few of these

sound sources are represented in the background measurements obtained. The most prevalent sounds have been noted in this report.

Two sets of sound data were utilized for this study:

1. Background sound levels were taken over a five-day period from July 13 to July 17, 2022, at Location one (1) and six-days from July 14 to July 19, 2022, at Location two (2). These locations are shown in **Figure 1**. The primary purpose of this data is to establish background sound levels for this project site. The hours of operation for the new car wash are 7am to 9pm. The relative data for this study is primarily from 7am to 10pm during daytime hours. The daytime average Leq sound level was determined to be in the range of 52 to 55 dBA.



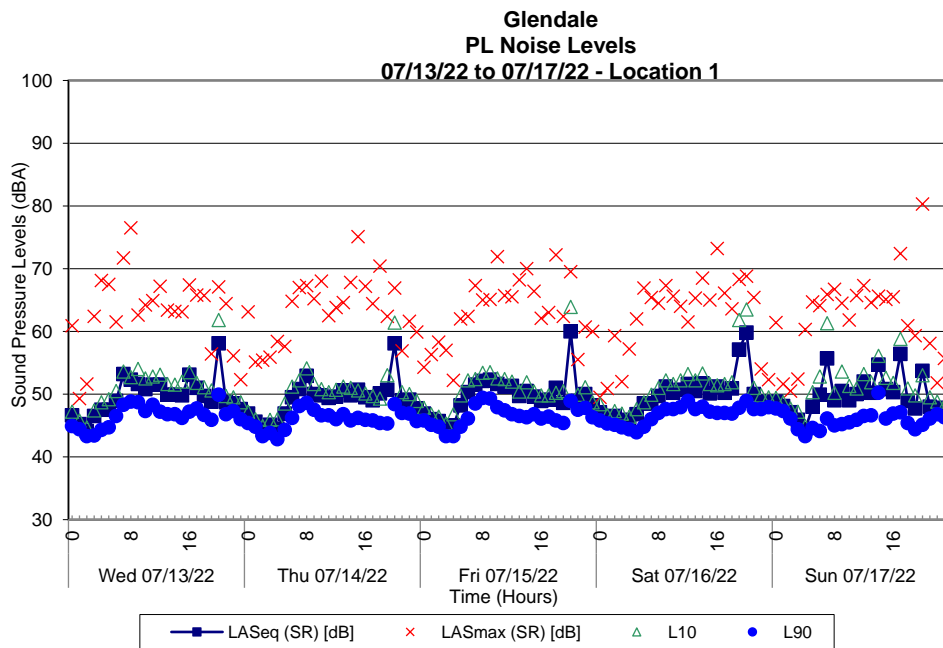
**Figure 1** – Proposed carwash site with Monitor Location 1 & 2

2. Sound data was provided by the dryer manufacture (Premier). The dryer system indicated that the sound level will vary based on the conditions of the carwash operation, such as multiple dryers and with doors open and closed (this data is provided in **Table 2**). Only (1) one set of dryers will be used. The dryer data was extrapolated to a sound power level at a point source in the approximant point location in the car wash building to create an acoustical model using SoundPlan®.

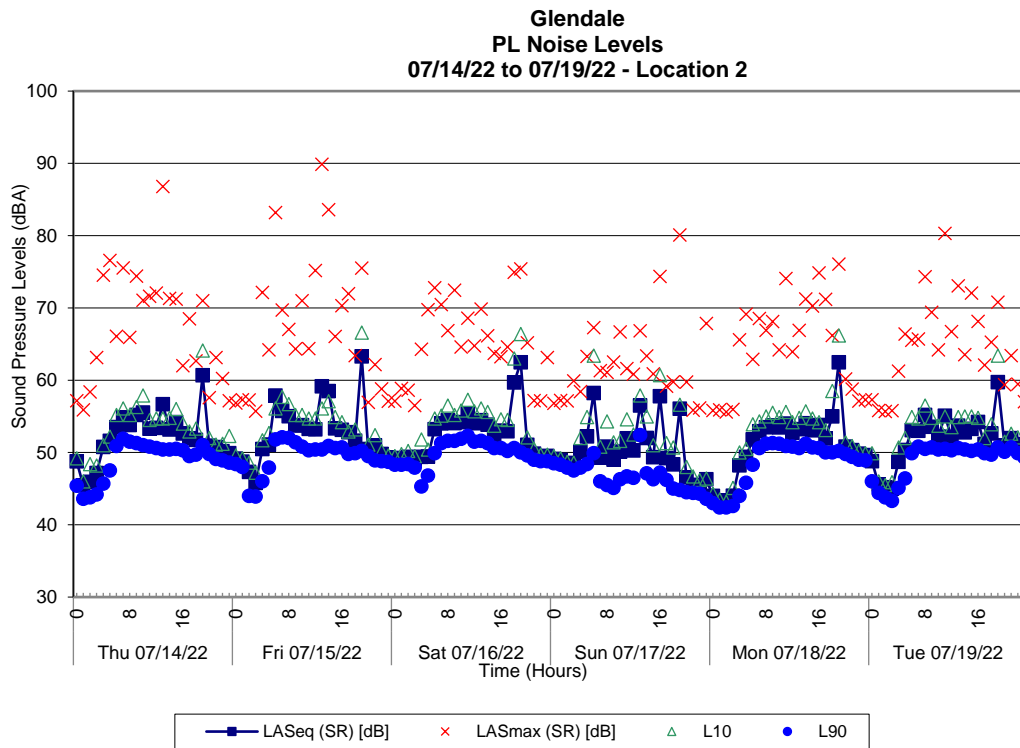
Our acoustical model indicates that calculated sound level at the property line 133ft to the East and 135 ft to the South will be 40 to 49 dBA, respectively. An 8 ft site proof fence is planned along the property line. This fence will provide 2 to 3 dB attenuation but was not included in our model. On occasions these sounds from the car wash operation may be heard, but the current background sound will dominate the soundscape. With the doors open the sound level will be below the St. Louis County Noise Code (**Appendix A**) day-time limits of 55 dBA when the car wash operates continuously for 1-hour periods. The measured background sound levels during daytime hours were determined to be in the range of 52 to 55 dBA, based on our measured 1-hour Leq sound data.

### Background Sound Level Measurements

As noted, at times the area can be very active with other environmental sound sources. To quantify the background sound level, two noise monitors were set-up for several days at the site. The monitor continuously ran from July 13 to July 17, 2022, at Location one (1) and on July 14 to July 19, 2022, at Location two (2). Monitor Location 1 and 2 data is provided in **Figure 2 and 3**.



**Figure 2** – Property Line Sound Monitor Data- Loc 1 (July 2022)



**Figure 3** – *Property Line Sound Monitor Data- Loc 2 (July 2022)*

These sound measurements were primarily obtained to establish background/ambient sound levels.

A SVAN Model 307 (s/n 102956 and 102957) sound level monitor was used for the measurements. The instrument was capable of recording and storing the following A-weighted quantities for 1-minute time increments of the measurement period:

- 1) Energy equivalent sound level [Leq] for 1-Hour Intervals.
- 2) The maximum sound level [Lmax].
- 3) The sound level exceeded ten percent (10%) of the time [L10].
- 4) The sound level exceeded ninety percent (90%) of the time [L90].

All measurements were A-weighted per ANSI S1.4 and are designated as dBA.

Each monitor measured the A-weighted sound levels at the site (**Location 1 and 2**) for a period of approximately five (5) to six (6) days including a full weekend. Eighty percent (80%) of the time, the sound fluctuated between the L10 and L90 curves. The noise floor of the monitors is at 25 dBA and the L90 is in a range of near 48 to 52 dBA during daytime hours, with the dominate sound due to traffic from Manchester Road, which was as high at 57 dBA.

**Carwash Sound Level Data (Dryers vs. No Dryers)**

Manufacture (Premier) sound pressure data (SPL) for 3-15HP dryers is summarized in **Table 2**. The primary distance of the measured sound levels is from the carwash exit was between 10 to 50 ft (this is nearfield of the exit door). The second to last columns in **Table 1** show the estimated sound level at the Property Line with each scenario of doors opened and closed and with the dryers this wash will be used. Please note the manufacture sound data is not a-weighted, **Table 2** indicate the sound level will decrease by 6 dB per doubling the distance from the sound source. As the measurement point moves to the side of the sound from these dryers will reduce significantly, because the dryers being interior of the building. Our acoustical model accounts for this shield of effect of the dryers.

**Table 2 – Manufacturer Sound Levels of Carwash Dryers**

Decibel Readings 2022				
Inside Door Closed				
Distance from Wash Bay	90hp = 6-15's	60hp = 4-15hp	45hp = 3-15hp	10hp = 1-10hp
10'	102 db	101 db	100 db	94 db
20'	100 db	99 db	98 db	92 db
30'	98 db	98 db	98 db	91 db
Outside Door Open				
Distance from Wash Bay	90hp= 6-15's	60hp = 4-15hp	45hp = 3-15hp	10hp = 1-10hp
10'	98 db	95 db	96 db	90 db
20'	92 db	90 db	89 db	84 db
30'	88 db	86 db	85 db	79 db
40'	84 db	82 db	82 db	76 db
50'	80 db	80 db	79 db	74 db
STREET TRAFFIC 20' SINGLE CAR 68db BUSY 73db				

**Acoustical Summary**

The approximate distance from the exit of the car wash to the nearest property line is 133 ft. We have calculated the sound levels and these results are shown in **Table 1**. An 8 ft. sight proof fence is proposed to be installed along the south property line. The effect of this fence will vary but will reduce the sound impact to neighbors by 2 dB or more. The sound level values along the south property with the fence, dryers further inside the building and doors open was calculated to be in the range of 39 to 49 dBA. The current sound level (with no car wash) near the property line is in the range of 48 to 55 dBA. The lowest sound level for the area has a Leq daytime average of 48 dBA during the day.

The sound maps shown in **Figure 4** thru **Figure 7** shows the calculated sound levels from the carwash with doors open and closed with an 8ft fence versus an 6ft fence without background sound levels.



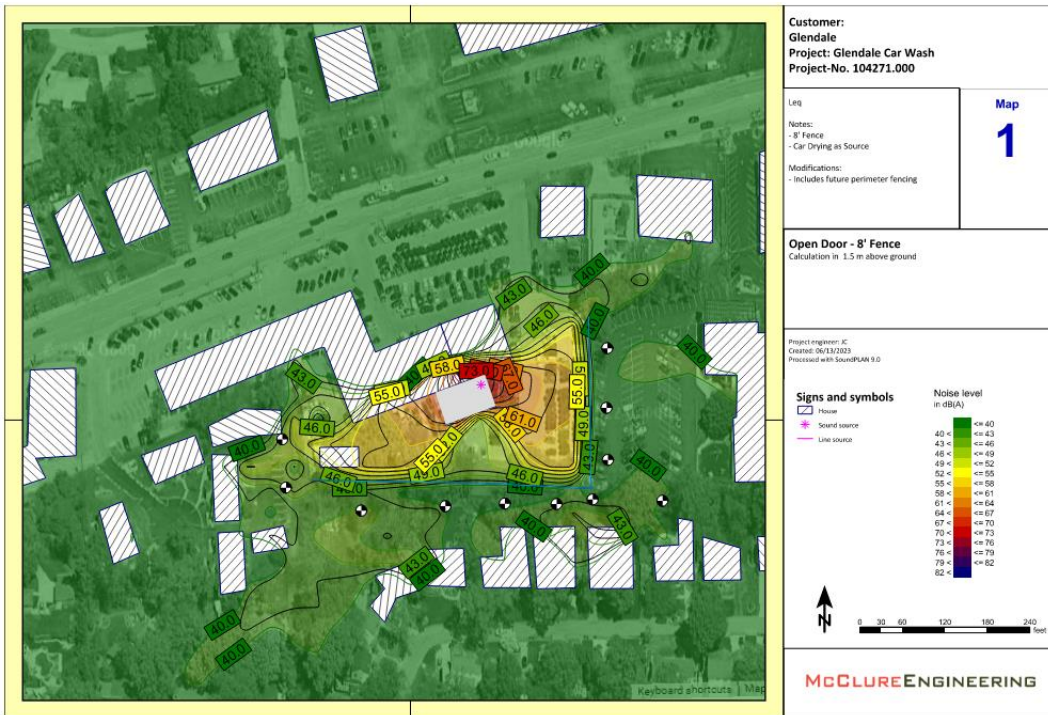


Figure 4 – Sound Map of Carwash Doors Open (8' fence at PL)– No Background Sound



Figure 5 – Sound Map of Carwash Doors Closed (8' fence at PL)– No Background Sound

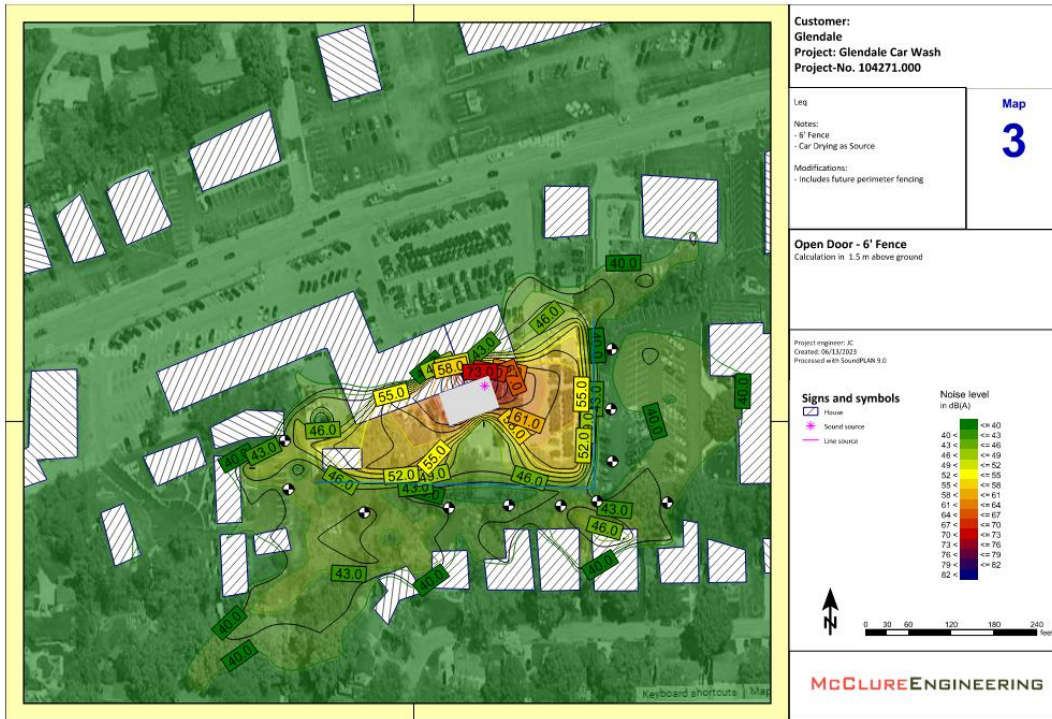


Figure 6 – Sound Map of Carwash Doors Open (6' fence at PL)– No Background Sound



Figure 7 – Sound Map of Carwash Doors Closed (6' fence at PL)– No Background Sound

Ms. Jenni Belding  
June 14, 2023  
Page 9 of 25

### **Conclusion**

With the planned 8 ft. height sight proof fence along the south property line and doors open, all the sound produced by the dryers will be below 50 dBA at all locations along the south property line. With our predicted scenarios, the calculated sound level will be in the range of 39 to 49 dBA along the south property line. The current background sound level is in the range of 48 to 55 dBA, with no carwash. The sound level at the nearest property line will be less than St Louis County Daytime Noise Limits of 55 dBA.

Please contact me if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Gary Brown".

Gary Brown

## **Appendix A – Noise Codes**

### **City of Glendale, MO**

The creation of any unreasonably loud, disturbing or unnecessary noise in the City is hereby deemed a nuisance and prohibited.

The following acts, among others, are declared to be loud, disturbing and unnecessary noises in violation of Sections 220.060 and 215.200, but this enumeration shall not be deemed to be exclusive:

1.

The sounding of any horn or signal device on any motorbus, motorcycle, automobile or other vehicle while not in motion, except as a danger signal if another vehicle is approaching apparently out of control, or if in motion, the excessive or prolonged sounding, except only as a danger signal after or as brakes are being applied and deceleration of the vehicle is intended; the creation by means of any such signal device of any unreasonably loud or harsh sound; and the sounding of such device for any unnecessary or unreasonable period of time.

2.

The playing of any radio, phonograph or other musical instrument or instruments in such a manner or with such volume particularly during the hours between 11:00 P.M. and 7:00 A.M., as to tend to annoy or disturb the quiet, comfort or repose of persons in any dwelling, hotel or other type of residence; provided, that any such noise that can be distinctly heard at a distance of more than one hundred (100) feet from its source shall be deemed excessive.

3.

The keeping of any animal, bird or fowl which, by causing frequent or long continued noise, shall tend to disturb the comfort and repose of any person in the vicinity; provided, that any such noise that can be distinctly heard at a distance of more than one hundred (100) feet from its source shall be deemed excessive.

4.

The use of any automobile, motorcycle or vehicle so out of repair, so loaded or in such manner as to create loud and unnecessary grating, grinding, rattling or other noise.

5.

The blowing of any steam whistle attached to any stationary boiler, or any other whistle or siren, except to give notice of the time to begin or stop work, or as a warning of danger.

6.

The discharge into the open air of the blow-down of any steam engine or of the exhaust of any stationary, internal combustion engine or motor vehicle, or of the escape valve from the unloader of any air compressor, except through a muffler or other device which will effectively prevent loud or explosive noises therefrom.

7.

The creation of any excessive or unnecessary noise within one hundred fifty (150) feet of any portion of the grounds and premises on which is located a hospital or other institution reserved for the sick, or any church or any school or other institution of learning or any court, while the same are in session, which unreasonably interferes with the proper functioning of any such place

above-mentioned; provided, that conspicuous signs are placed in the public highways indicating the zones within which such noises are prohibited. The Chief of Police is hereby authorized and directed to cause to be placed as many signs as he/she may deem necessary to properly indicate such quiet zones and to call attention to the prohibition against excessive or unnecessary noises within such zones.

8.

The creation of a loud and excessive noise in connection with the loading or unloading of any vehicle or the opening or destruction of bales, boxes, crates or containers in the vicinity of any dwelling or other human habitation.

9.

The shouting or crying of peddlers, hawkers or vendors, including any person selling or attempting to sell any product which disturbs the peace and quiet of the neighborhood.

10.

The use of any drum, loudspeaker or other instrument or device for the purpose of attracting attention by creation of noise, or for advertising purposes.

11.

The use of calliopes, mechanical loudspeakers or amplifiers on any vehicle used for advertising or other purposes except when a permit for such use over a specified route is issued by the Board of Aldermen and except within the time specified in the permit.

12.

The operation of any exhaust or ventilating fan which creates a noise that tends to disturb or annoy the quiet, comfort and repose of persons in the vicinity, between the hours of 9:00 P.M. and 7:00 A.M.; provided, that any such noise that can be distinctly heard at a distance of more than one hundred (100) feet from its source shall be deemed excessive.

## **St Louis County Noise Code**

St. Louis County, Missouri  
Noise Related Ordinance  
CHAPTER 625 - NOISE CONTROL CODE  
625.020 – Definitions

For purposes of this chapter the following words and phrases are herein defined:

- (1) A-weighted sound pressure level: A weighted sound pressure level as measured with the A-weighting network of a sound level meter. The unit of measurement is dB(A).
- (2) Ambient noise level: The A-weighted sound pressure level of all the encompassing noise associated with a given environment, being usually a composite of sounds from many sources.
- (3) A.N.S.I: The American National Standards Institute or its successor bodies.
- (4) Board: The Appeal Board established by Section 612.070 SLCRO 1974, as amended.
- (5) Boundary: The line of demarcation which separates the real property owned by one person from that owned by another person.
- (6) Commercial land use category: Any activity which exists on or is applied to land or structures on the land wherein goods, services or commodities are provided, exchanged or purchased and sold at wholesale or retail. The commercial land use category shall include facilities for the repair or servicing of new and used automobiles, trucks, trailers, construction equipment, agricultural equipment and boats, and public or private utility facilities.
- (7) Construction activity: Any or all activity necessary or incidental to the erection, demolition, assembling, repairing, altering, installing or equipping of public or private buildings, private or public parks, premises, utility lines, and private or public highways, roads or streets, including land clearing, grading, excavating and filling.
- (8) Construction device: Any device used in construction including, but not limited to, any air compressor, pile driver, manual tool, bulldozer, pneumatic hammer, steam shovel, derrick, crane, steam or electric hoist.
- (9) Daytime hours: 7:00 o'clock a.m. to 10:00 o'clock p.m., prevailing local time.
- (10) Director: The Director of the Department of Community Health and Medical Care or his duly authorized agents.
- (11) Discrete tone: A noise measured on a one-third octave band analyzer which is ten (10) decibels greater than each of the adjacent one-third octave bands.
- (12) Emergency work: Work necessary to restore property to a safe condition following a public calamity, or work required to protect person or property from an imminent exposure to danger.
- (13) Emergency signal device: Any gong, siren, whistle or any air horn or similar device when used on any vehicle designated as an emergency vehicle by ordinance or by Missouri statute, or used in connection with an emergency warning system, or used in connection with a warning system intended to produce a sound signal upon unauthorized entrance by a person into a building or motor vehicle.
- (14) Heavy industrial land use category: Any activity which exists on or is applied to land or structures on the land which pertains to the mining or extraction of raw materials from the earth and the processing thereof, salvage yards, junkyards, steel mills, foundries, smelters, automobile, truck construction equipment or agricultural equipment assembly plants, sulphur plants, rubber

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reclamation plants, cement plants, sanitary landfills, railroad switching yards, metal fabrication plants and chemical processing plants.

(15) Impulsive noise: A noise, containing excursions usually of no more than one second, the A-weighted sound pressure level of which exceeds the ambient noise level by more than twenty (20) dB(A), when measured by the fast meter characteristic of a sound level meter.

(16) Light industrial land use category: Any activity which exists on or is applied to land or structures on the land wherein the activities of manufacturing, fabrication, processing or assembly are utilized to produce a semifinished or finished product. The light industrial land use category shall include the warehousing, storing and distributing of semifinished or finished products.

(17) Motor vehicle: Any self-propelled vehicle not operated exclusively on rails.

(18) Nighttime hours: 10:00 o'clock p.m., to 7:00 o'clock a.m., prevailing local time.

(19) Perception threshold: The minimum vibrational motion necessary to cause awareness of the existence of the vibration by direct means, including but not limited to, sensation by touch or visual observations. Any vibration which produces more than five-tenths (0.5) inch/second root mean square vertical velocity shall be deemed sufficient to cause the awareness of the existence of the vibration by direct means.

(20) Period of measurement: Any continuous sixty-minute period during which observations of stationary noise sources are made and measurements of noise levels are taken.

(21) Person: Any human being, firm, association, organization, partnership, business, trust, corporation, company, contractor, supplier, installer, user, owner, or operator and shall include any municipal corporation or its officers or employees.

(22) Residential land use category: Any activity which exists on or is applied to land or structures on the land wherein persons occupy single-family or multiple-family dwellings, or other structures containing units with facilities which are used or are intended to be used for living or sleeping and which may include facilities for cooking and eating. The residential land use category shall include schools, churches, hospitals, libraries, public or private parks and other similar land uses.

(23) Sound: An audible oscillation of pressure in air.

(24) Sound level meter: Any instrument including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement of sound pressure levels in a specified manner which complies with Type 2 or better standards established in the A.N.S.I. S1.4-1971 "Specification for Sound Level Meters."

(25) Sound pressure level: Twenty times the logarithm to the base 10 of the ratio of the root mean square pressure of a sound to the standard reference pressure which is twenty (20) micropascals. The unit of measurement is the decibel (dB).

(26) Stationary noise source: Any equipment, motor vehicle, aircraft, or facility, fixed or movable, capable of emitting audible sound.

(27) Vehicular way: A paved or unpaved area used by motor vehicles including, but not limited to, roads, streets, highways, alleys and parking lots.

(28) Vibration: A spatial oscillation of displacement, velocity or acceleration in a solid material.  
625.030 - Scope.

In order to enhance the public health and prevent the entrance of noise pollution and excessive vibration into the atmosphere and environment of St. Louis County, which will tend to interfere with the health and welfare of the citizens of St. Louis County, the provisions of this Code shall

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be in effect in all unincorporated parts of St. Louis County and in all cities, towns, and villages within the corporate limits of St. Louis County except in those cities, towns, and villages with a population of seventy-five thousand (75,000) or over having an organized Health Department and which have adopted and are enforcing ordinances and resolutions pertaining to noise pollution and the generation of vibrations which have established standards that are no less stringent than the provisions set forth in this chapter.

#### 625.040 - Applicability of Standards Established by A.N.S.I.

Unless otherwise specified herein, or specified in regulations promulgated by the Director under this Code, the acoustical terminology, the reference pressure, instrument specifications, and calibrations and methods for measurement of sound pressure levels shall be in conformance with the definitions and provisions contained in the documents designated as A.N.S.I. S1.1-1971, S.4-1971, S1.11-1966 (R 1971) and S1.13-1971, of which one copy of each document is filed in the office of the Administrative Director of St. Louis County, Missouri.

#### 625.050 - Permissible Noise Levels—Standards.

1. No person shall operate or permit to be operated and stationary noise source which emits noise in such a manner that the level of the noise emitted, when measured at any point outside the boundary of the property upon which the stationary noise source is located using the slow meter characteristic and the A-weighting network of the sound level meter, exceeds the levels set forth in Table I below or exceeds the limit set forth in Section 626.050.6. When the noise emitted is measured upon property which is located in a different land use category than the property upon which the stationary noise source is located, the levels applicable to the property where the noise emitted is measured shall be used to determine if a violation exists. If more than one use exists on the property where the noise emitted is measured such that more than one land use category would be applicable to the property, then the levels set forth in the least restrictive applicable land use category of Table I shall be used to determine if a violation exists.
2. If the stationary noise source emits noise containing a discrete tone, the permissible levels shall be 5dB lower than the applicable levels of Table I.
3. If the stationary noise source emits impulsive noise the levels of Table I shall be lowered by 5dB. A violation of this Code shall exist if the level of the impulsive noise emitted exceeds the applicable levels of Table I, as modified by this subsection, when the measurement is made using the fast meter characteristic and the A-weighting network of the sound level meter or if the level of the impulsive noise emitted exceeds the limit set forth in Section 625.0550.6.
4. In the event the stationary noise source emits impulsive noise containing a discrete tone, the modifications of Table I set forth in subsections 2. and 3. herein shall be cumulative.
5. If the ambient noise level exceeds the level of the noise emitted from the stationary noise source for one or more periods of time during the period of measurement, then for any such period of time the level of the noise emitted from the stationary noise source shall be deemed to be lower than the level which is permitted for sixty (60) minutes during the period of measurement in the applicable land use category and for the applicable time of day.



6. If, during the period of measurement, noise shall be emitted from a stationary noise source for periods of time at two (2) or more different levels, a violation of this Code shall exist if the sum of the following fractions  $C1/T1 + C2/T2 + \dots Cn/Tn$  exceeds the unit number 1. For purposes of this calculation  $Cn$  shall equal the actual time period that noise is emitted at each measured noise level and  $Tn$  shall equal the period of time that noise is permitted under Table I to be

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emitted at each measured noise level. Provided, however, if: (1) the ambient noise level exceeds the level of noise emitted from the stationary noise source for one or more periods of time during the period of measurement; or, (2) the level of the noise emitted from the stationary noise source is lower than the level of noise which is permitted in Table I for sixty (60) minutes during the period of measurement in the applicable land use category and for the applicable time of day for one or more periods of time during the period of measurement, then for the purpose of the calculation set forth in this subsection, for each such period of time, the term  $Cn$  shall be deemed to be zero (0) and the fraction  $Cn/Tn$  shall be zero (0).

Table I

A. Residential Land Use Category

Daytime Hours

$Tn^*$  (dB(A))\*\*

60 55 or less

30 56-58

15 59-61

8 62-64

4 65-67

2 68-70

5

0 71 or greater

Nighttime Hours

60 50 or less

30 51-53

15 54-56

8 57-59

4 60-62

2 63-65

0 66 or greater

\*Total Duration of Time Noise To Be Emitted From Noise Source During Period of Measurement (Minutes).

\*\*A-Weighted Sound Pressure Level.

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B. Commercial Land Use Category

Daytime Hours

$Tn^*$  (dB(A))\*\*

60 65 or less

30 66-68

15 69-71  
8 72-74  
4 75-77  
2 78-80  
0 81 or greater  
Nighttime Hours  
7

60 60 or less  
30 61-63  
15 64-66  
8 67-69  
4 70-72  
2 73-75  
0 76 or greater

\*Total Duration of Time Noise To Be Emitted From Noise Source During Period of Measurement (Minutes).

\*\*A-Weighted Sound Pressure Level.

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C. Light Industrial Land Use Category

All Hours

Tn\* (dB(A))\*\*

60 70 or less  
30 71-73  
15 74-76  
8 77-79  
4 80-82  
2 83-85  
0 86 or greater

\*Total Duration of Time Noise To Be Emitted From Noise Source During Period of Measurement (Minutes).

\*\*A-Weighted Sound Pressure Level.

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D. Heavy Industrial Land Use Category

All Hours

Tn\* (dB(A))\*\*

60 80 or less  
30 81-83  
15 84-86  
8 87-89  
4 90-92  
2 93-95  
0 96 or greater

\*Total Duration of Time Noise To Be Emitted From Noise Source During Period of

Measurement (Minutes).

\*\*A-Weighted Sound Pressure Level.

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#### 625.060 - Vibration Standards

No person shall cause or allow any operation nor engage in any activity causing vibrations to be generated which are greater than the perception threshold at any point outside of the boundary of the property where the source of the vibrations is located; provided, however, vibrations caused by blasting operations conducted in accordance with the requirements of Chapter 711, SLCRO 1974, as amended, The Explosives Code, shall not be subject to the provisions of this section.

#### 625.070 - Exceptions.

To the extent provided in this section the provisions of this chapter shall not apply to:

- (1) The operation of construction devices, with sound control devices equivalent to or better than the original equipment, used in construction activities during daytime hours.
- (2) The repair, maintenance or construction of public facilities of the state, county or municipal governments, or such public or quasi-public municipal corporations as may be established under the constitution or laws of the State of Missouri.
- (3) Emergency work to repair or maintain private utility facilities.
- (4) Emergency work to repair equipment or facilities damaged or rendered inoperable as a direct result of unavoidable upset conditions providing such occurrence is reported to the Director within twenty-four (24) hours after the occurrence.
- (5) The operation of motor vehicles on a vehicular way with such control devices equivalent to or better than the original equipment.
- (6) The operation of railway equipment and vehicles operated exclusively on rails.
- (7) The inflight operation of aircraft, including the pre-takeoff run-up of aircraft engines; provided, however, with the exception of the pre-takeoff run-up of aircraft engines, the provisions of this chapter shall apply to the run-up of aircraft engines, mounted or unmounted, for maintenance or test purposes during nighttime hours.
- (8) The necessary operation of emergency signal devices.
- (9) Electric power distribution transformers within a distance of fifty (50) feet from the base of the support pole or from the fence line. In addition, electric power distribution transformers shall not be subject to the provisions of Section 625.050.2.
- (10) The operation of lawn care maintenance equipment with sound control devices equivalent to or better than original equipment from 7:00 a.m., prevailing local time to sunset.
- (11) Up to six (6) turkey/meet shoots per group or entity between January 1 and May 31 of each year and eight (8) turkey/meet shoots per group or entity between June 1 and December 31 of each year, so long as:
  - a. A minimum of six (6) weeks is allowed to pass between the end of one series and the start of a second series by the same group or entity; and
  - b. The turkey/meet show is authorized by the issuance of an amusement permit by the St. Louis County Department of Public Works.

#### 625.080 - Notice of Violation.

Whenever the Director determines that a violation of any provision of this Code exists, he shall issue a written notification to the person responsible for the alleged violation. The notification

shall set forth the nature of the violation and shall direct that the violation must be abated within the time period specified by the Director, which time period shall not exceed sixty (60) days from the date the notice is sent; provided, however, if the violation cannot be abated within the time period specified by the Director, the Director may extend the time period for compliance for 11

a reasonable period of time upon submission of an acceptable abatement plan by the person responsible for the violation. In determining whether the abatement plan is acceptable, the Director's consideration shall include, but shall not be limited to:

- (a) the sufficiency of all construction plans to reduce noise or vibration levels; and
- (b) the sufficiency of the design criteria for any equipment changes to reduce noise or vibration levels; and
- (c) the length of time necessary to perform all work to abate the violation.

#### 625.090 - Duties of the Board.

In addition to any other duties imposed by law or County ordinance, the duties of the Board shall include but shall not be limited to the following:

1. Review appeals from orders of the Director or from any other actions or determinations of the Director hereunder for which provision is made for appeal.
2. Grant, deny or revoke variance applications.
3. File an annual report with the County Council reviewing the activities of the Board together with recommendations concerning fees, variance applications, enforcement and procedures.

#### 625.100 - Board To Consider Appeal.

1. Any person aggrieved by any decision, ruling or order of the Director may appeal to the Board. Appeals shall be taken within ten (10) days of the time the parties have been notified in writing of the Director's decision, and the appeal shall act as a stay of the decision. Such notice of appeal shall be filed in writing with the Director and directed to the Board specifying the grounds therefor and the relief prayed for. The Director shall forthwith transmit to the Board of papers constituting the record upon which the decision, ruling or order appealed from is taken.

The Board, upon hearing such appeal, shall either affirm, modify or set aside the decision, ruling, or order, but no action of the Board may be at variance with any of the provisions of this Code or any other ordinance of St. Louis County. Any final decision of the Board may be appealed by either party to the Circuit Court under provisions of the Missouri Administrative Procedure Act, Chapter 536, RSMo 1969.

2. Fifty dollars (\$50.00) shall accompany each Notice of Appeal which shall be paid to the Director for deposit with the County Treasurer.

3. Notice of a hearing held under Section 625.100 shall be given by the Director to the petitioner in writing at least seven (7) days prior to the date the hearing is set. Service of the notice shall be in accordance with Section 625.120 of this Code.

4. When the Board schedules a matter for hearing under Section 625.100, each party to the proceeding may file written arguments and may appear at the hearing in person or by representative with or without counsel, and may make oral arguments, offer testimony or cross examine witnesses, or take any combination of such actions.

5. The County Council may subpoena and compel the attendance of such witnesses as the Director or the party filing the appeal may designate and may require for examination the

production of any books, papers, or records relating to the matter under investigation at the hearing.

6. All hearings held under Section 625.100 shall be held before a majority of all members of the Board and any final order or decision or other final action by the Board shall be approved by at least a majority of the Board's members hearing the matter.

7.  
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The decision of the Board shall be in writing served and filed within fifteen (15) days after hearing and shall contain a brief statement of facts found to be true, the determination of the issues presented, and the order of the Board. A copy of the decision shall be served by the Director on the petitioner and to every person who has appeared as a party in person or by counsel at the hearing. Service shall be in accordance with Section 625.120 of this Code.

8. Upon application by the petitioner, at least five (5) days prior to the date of the hearing held under Section 625.100, the Chairman or any two (2) members of the Board may grant a continuance of the hearing. A continuance may be granted without a meeting of the Board and without prior notice.

9. A summary record of the hearing held under Section 625.100 shall be kept by the Director and shall be made available to any party to the proceeding. Any party to the hearing may at his expense take and record a verbatim record of the proceedings.

10. The decision of the Board shall be effective ten (10) days after service on the petitioner unless otherwise provided by the Board.

625.110 - Variances.

1. The Board may grant individual variances beyond the sound pressure levels or vibration level limitations prescribed in this Code whenever it finds, upon presentation of adequate proof, that compliance with any provision of this Code will result in an arbitrary and unreasonable taking of property or in the practical closing and elimination of any lawful business, occupation or activity, in either case without sufficient corresponding benefit or advantage to the people; except that no variance shall be granted where the effect of the variance will permit the continuance of a health hazard; and except, also that any variance so granted shall not be construed as to relieve the person who received the variance from any liability imposed by other law for the commission or maintenance of a nuisance.

2. In determining under what conditions and to what extent a variance may be granted, the Board shall exercise a wide discretion in weighing the equities involved and the advantages and disadvantages to the applicant and to those affected by the noise and vibrations emitted by the applicant.

3. Variances shall be granted for such periods of time and under such terms and conditions as shall be specified by the Board in its order. The variance may be extended by affirmative action of the Board.

4. Any person seeking a variance shall do so by filing a petition for variance with the Director. The Director shall promptly investigate the petition and make a written recommendation to the Board as to the disposition thereof. Upon receiving the recommendation of the Director, the Board shall hold a public hearing in accordance with the procedures set forth in this section.

5.

(a) Notice of public hearing shall be given by the Director to the petitioner in writing at least thirty (30) days prior to the date the hearing is set. Service of the notice shall be made in accordance with Section 625.120 of this Code.

(b) Notice of public hearing shall also be given by public advertisements setting forth the date, time and place of hearing. The Director shall include in such notice the name of the petitioner for the variance, the location of the premises for which the variance is sought, a brief description of the variance requested and the recommendation of the Director. The notice shall be published in a newspaper of general circulation in St. Louis County. Such publication shall take place for two (2) days within a four-day period, and the second day

13 of publication shall be at least thirty (30) days prior to the date the hearing is set. The cost of publication shall be borne by the petitioner, and shall be in addition to any charges imposed upon the petitioner under subsection 15 herein.

(c) The Director shall send a copy of the notice of public hearing to all persons who are not parties to the proceeding who have filed a written request for notification with the Director.

6. The Director shall maintain a copy of the recommendation at the offices of the Department of Community Health and Medical Care, and said recommendation shall be available for public inspection.

7. The County Council may subpoena and compel the attendance of such witnesses as the Director or the party requesting the variance may designate and may require for examination the production of any books, papers or records relating to the matter under investigation at the hearing.

8. All hearings shall be held before a majority of all the members of the Board, and any final order or decision or other final action by the Board shall be approved by at least a majority of the members of the Board hearing the matter.

9. At any public hearing, the Board shall maintain a record of the name and address of each witness appearing and all testimony taken before the Board shall be under oath and recorded stenographically. Copies of the transcript so recorded may be obtained by any member of the public or any party to the hearing upon payment of the usual charges therefor.

10. Upon application by the petitioner, at least five (5) days prior to the date of the hearing, the Chairman or any two (2) members of the Board may grant a continuance of the hearing. A continuance may be granted without a meeting of the Board and without prior notice. Notice of a public hearing for which a continuance has been granted shall be given in accordance with the provisions of subsection 5.

11. At any public hearing held by the Board the burden of proof shall be on the person petitioning for the variance. Each party to the proceeding may appear at the hearing in person or by representative, with or without counsel, and may make oral arguments, offer testimony or cross-examine witnesses, or take any combination of such actions. In addition any party to the proceeding or any person who may be directly affected by the subject matter thereof may submit, within seven (7) days subsequent to the hearings, written arguments setting forth their views.

12. The decision of the Board shall be in writing and filed within twenty-one (21) days after hearing and shall contain a brief statement of facts found to be true, the determination of the issues presented and the order of the Board. The decision of the Board shall be effective ten (10)

days after service on the petitioner unless otherwise provided by the Board. The decision shall include a certification that the public hearing was held in accordance with the notice requirements of subsection 5. Any final decision of the Board may be appealed by either party to the Circuit Court under provisions of the Missouri Administrative Procedure Act, RSMo Chapter 536.

13. A copy of the decision shall be served by the Director on the petitioner and to every person who has appeared as a party in person or by counsel at the hearing. Service shall be in accordance with Section 612.120 of this Code. In addition, any person making written request therefor shall be sent a copy of the decision of the Board.

14. Upon failure to comply with the terms and conditions of any variances specified by the Board, the variance may be revoked or modified by the Board after a public hearing held in accordance with the provisions set forth in this section. Notice shall be served upon the person to 14

whom the variance was granted and all persons who have filed with the Director a written request for notification.

15. One hundred fifty dollars (\$150.00) shall accompany each request for variance, which shall be paid to the Director for deposit with the County Treasurer.

#### 625.120 - Service of Notice

1. Service of any written notice required by this Code shall be made in person or by registered or certified mail directed to the petitioner, his agent or attorney of record at the last known address, such service to be effective upon the date of service shown on the postal return receipt in the event of service by registered or certified mail.

2. Service of any written notice required by this Code to be made on the Board of Directors shall be by registered or certified mail addressed to the Director of the Division of Environmental Protection, 111 South Meramee, Clayton, Missouri 63105.

#### 625.130 - Disclosure of Secret Processes and Production Levels Prohibited.

Information concerning secret processes or production levels which may be required, ascertained or discovered by the Director shall not be disclosed by the Director, except that the information may be disclosed by the Director if he is subpoenaed for the information or if in the course of a court proceeding or hearing the information is relevant to the proceeding or hearing.

#### 625.140 - Disclosure of Secret Processes—Penalty.

Any person who knowingly discloses any secret process or production level in violation of the provisions of Section 625.130 of this Code shall be punished by a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment in the County Jail for a term of one (1) year or by both such fine and imprisonment. Each disclosure shall constitute a separate offense.

#### 625.150 - Regulations for Measurement Procedures.

The Director may, after public notice and opportunity for public hearing, promulgate regulations pertaining to the manner in which the measurement of sound pressure levels or vibration levels shall be performed. In determining the procedures to be used for the measurement of sound pressure levels or vibration levels the Director shall take into consideration the testing and measurement procedures of the A.N.S.I.

#### 625.160 - Enforcement, by Whom.

The Director shall enforce the provisions of this Code.

625.170 - Right of Entry.

The Director, upon presentation of proper credentials, may enter at all reasonable times, upon any private or public property for the purpose of inspecting and investigating any condition or equipment he shall have cause to believe to be a source of noise exceeding the maximum levels or source of vibration exceeding the maximum level permitted by the provisions of this Code. If entry is refused, the Director shall notify the County Counselor of such fact and request that a warrant to search the premises believed to be in violation be obtained from the appropriate Magistrate.

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625.180 - Penalties for Violation.

1. Any person convicted of violating any provision of this Code shall be punished by a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment in the County Jail for a term not to exceed one (1) year or both such fine and imprisonment.
2. The County Counselor shall be empowered to seek equitable relief in the Circuit Court to require the person in violation of the provisions of this Code to comply with the standards set forth in this Code.
3. Each day upon which any violation of this Code takes place shall constitute a separate offense.

625.190 - Construction.

This Code shall be liberally construed for the protection of health, safety and welfare of the people of St. Louis County.

625.200 - Conflicting Laws

Nothing herein contained shall be deemed to amend or nullify any provision of any other ordinance of St. Louis County, Missouri.



## Appendix B – Additional Information Related Sound Levels

### What is Sound?

Sound may be defined as any pressure variation that the human ear can detect. Just like dominoes, a wave motion is set off when an element sets the nearest particle of air into motion. This motion gradually spreads to adjacent air particles further away from the source. Depending on the medium, sound propagates at different speeds. In air, sound propagates at a speed of approximately 340 m/s. In liquids and solids, the propagation velocity is greater – 1500 m/s in water and 5000 m/s in steel.

### Typical Noise Levels

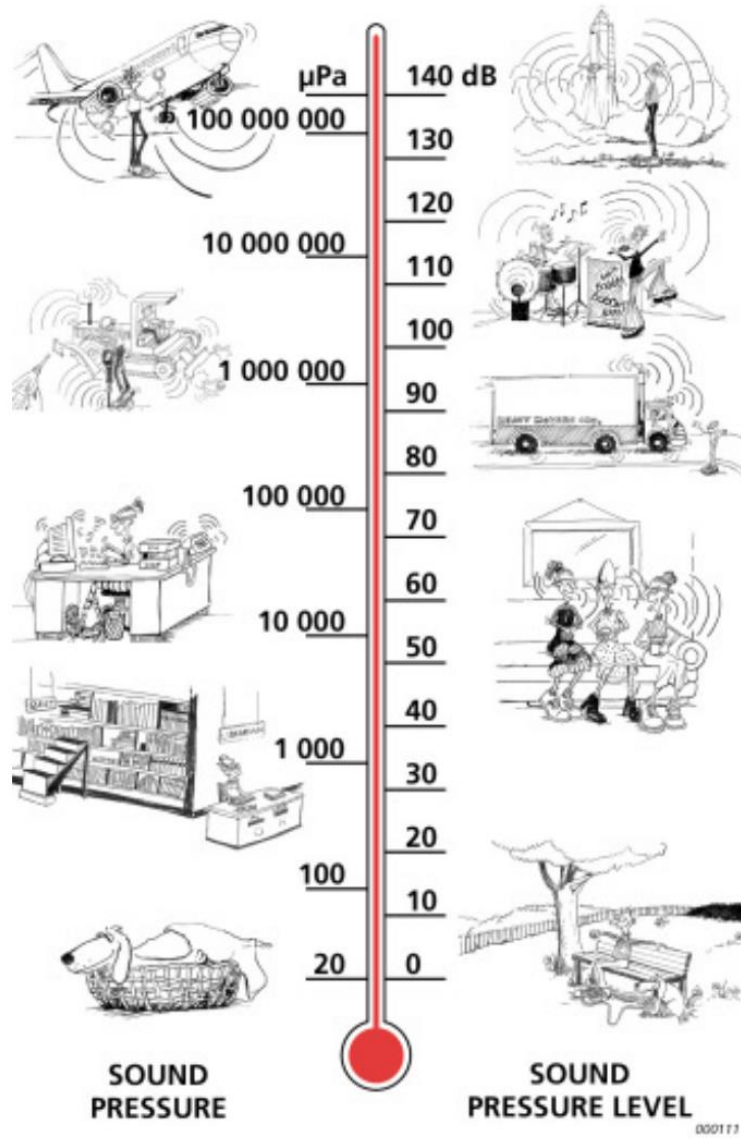
Compared to the static air pressure ( $10^5$  Pa), the audible sound pressure variations are very small ranging from about  $20\ \mu\text{Pa}$  ( $20 \times 10^{-6}$  Pa) to 100 Pa.

$20\ \mu\text{Pa}$  corresponds to the average person's threshold of hearing. It is therefore called the threshold of hearing. A sound pressure of approximately 100 Pa is so loud that it causes pain and is therefore called the threshold of pain. The ratio between these two extremes is more than a million to one.

A direct application of linear scales (in Pa) to the measurement of sound pressure leads to large and unwieldy numbers. And, as the ear responds logarithmically rather than linearly to stimuli, it is more practical to express acoustic parameters as a logarithmic ratio of the measured value to a reference value. This logarithmic ratio is called a decibel or dB. The advantage of using dB can be clearly seen in the illustration on the next page. Here, the linear scale with its large numbers is converted into a manageable scale from 0 dB at the threshold of hearing ( $20\ \mu\text{Pa}$ ) to 130 dB at the threshold of pain ( $\sim 100$  Pa).

# What is Sound?

*Our hearing covers a surprisingly wide range of sound pressures – a ratio of over a million to one. The dB scale makes the numbers manageable*



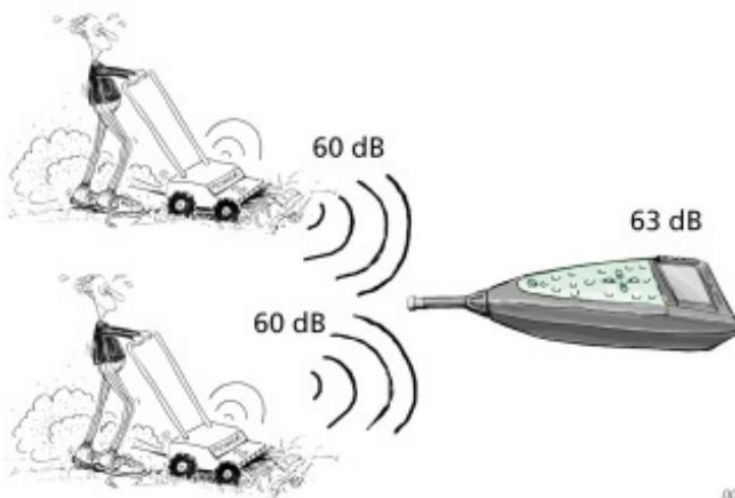
### Adding and Subtracting Sound Levels

#### Adding Sound Levels

If the sound levels from two or more sound sources have been measured separately, and you want to know the combined sound pressure level of the sound sources, the sound levels must be added together. However, due to the fact that dBs are logarithmic values they cannot just be simply added together.

One way to add dBs is to convert the individual dB values to linear values, add those together, and convert back to dB using the following equation:

$$L_{result} = 10 \cdot \log \left( 10^{\frac{L_{p1}}{10}} + 10^{\frac{L_{p2}}{10}} + 10^{\frac{L_{p3}}{10}} + \dots + 10^{\frac{L_{pn}}{10}} \right)$$



000131



David Ruiz Art

815 BROOKSIDE BACK YARD



815 BROOKSIDE DECK



825 BROOKSIDE PATIO VIEW

David R. ...



825 BROOKSIDE UPSTAIRS VIEW



835 BROOKSIDE BACK YARD

David Ruiz Art





*David B. Art*  
**845 BROOKSIDE BACK YARD**



David Ruiz Art



# GLENDALE CDR&J

A TRACT OF LAND BEING LOT B OF SCHWARTZ PINKUS MANOR AS RECORDED IN PLAT BOOK 188 PAGE 36  
 LOCATED IN SECTION 31, TOWNSHIP 45 NORTH, RANGE 6 EAST OF THE 5TH PRINCIPAL MERIDIAN  
 CITY OF GLENDALE, ST. LOUIS COUNTY, MISSOURI

## SITE PLAN

### SHEET INDEX

C1.0	TITLE SHEET
C2.0	SITE PLAN
C3.0	SITE SECTIONS
C4.0	SITE PHOTOMETRIC PLAN
C5.0	SITE DETAILS
C6.0	FIRE TRUCK EXHIBIT
TC	TREE CENSUS
L1.01	LANDSCAPE PLAN
L2.01	LANDSCAPE SECTIONS
1 of 3	ARCHITECTURAL ELEVATIONS
2 of 3	ARCHITECTURAL ELEVATIONS
3 of 3	ARCHITECTURAL ELEVATIONS
A2.1	FIRST FLOOR DIMENSION PLAN
A2.2	ENLARGED PLANS

#### GENERAL NOTES:

1) Subject property is Zoned C-2  
 Note: The above zoning provided by the City of Glendale, and to verify the client should obtain a zoning endorsement from their title company.  
 Front: There shall be a front yard in a "C-2" District of not less than thirty-five (35) feet. Where a lot is located at the intersection of two (2) or more streets, there shall be a front yard on each street side of such corner lot of not less than thirty-five (35) feet. No main building or accessory building shall project beyond the front yard line on either side.

Side: There shall be a side yard in a "C-2" District of not less than ten (10) feet.

Rear: There shall be a rear yard in a "C-2" District having a minimum depth of fifty (50) feet in that portion of the "C-2" zone which has a depth of two hundred fifty (250) feet south of Manchester Road and a rear yard having a minimum depth of thirty (30) feet in that portion of the "C-2" District which has a maximum depth of one hundred seventy-five (175) feet south of Manchester Road. There shall be a rear yard having a minimum depth of twenty-five (25) feet in that portion of the "C-2" District which has a maximum depth of one hundred twenty feet (120) south of Manchester Road. Any property in this zone abutting any residential property shall have either a wall or fence along the rear of such lot or a screening belt ten (10) feet in width along the rear of the lot which shall be planted with trees and shrubbery. Such wall or fence or planted belt shall provide a screen of such height and character as is necessary to screen the commercial usage from such residential area; the plans for such screening shall be submitted to the Plan Commission for its advice and must be approved by the Board of Aldermen in accordance with the provisions of this Chapter before such property can be used for such purposes. No structures or buildings of any kind shall be erected in such rear yard.

Height: No building shall exceed 35'

2) Subject property lies within Flood Zone X (Areas of minimal flood hazard) according to the National Flood Insurance Rate Map Number 29189C0307K with and effective date of 02/04/2015.

3) There are 129 regular, 1 handicapped and many unmarked parking stalls onsite.

4) Utilities shown hereon are shown from record and/or survey information. Any location, size and type information should be considered as approximate only. It is the Contractors responsibility to call Dig-Rite to verify utility locations.

5) The subject property(ies) described in the above commitment are contiguous to each other and the adjoining properties, without any gaps, gores or overlaps.

6) Square footage of the building has been calculated from dimensions approximately 5 foot above grade for the first floor only.

LEGEND			
	BENCH MARK		FIRE HYDRANT
	FOUND IRON ROD		FIRE DEPARTMENT CONNECTION
	FOUND IRON PIPE		WATER MANHOLE
	RIGHT OF WAY MARKER		WATER METER
	UTILITY POLE		WATER VALVE
	SUPPORT POLE		POST INDICATOR VALVE
	UTILITY POLE WITH LIGHT		CLEAN OUT
	LIGHT STANDARD		STORM MANHOLE
	ELECTRIC METER		GRATED MANHOLE
	ELECTRIC MANHOLE		STORMWATER INLET
	ELECTRIC PEDESTAL		GRATED STORMWATER INLET
	ELECTRIC SPLICE BOX		SANITARY MANHOLE
	GAS DRIP		TREE
	GAS METER		BUSH
	GAS VALVE		TRAFFIC SIGNAL
	TELEPHONE MANHOLE		PARKING METER
	TELEPHONE PEDESTAL		STREET SIGN
	TELEPHONE SPLICE BOX		SPRINKLER
	CABLE TV PEDESTAL		MAIL BOX

ABBREVIATIONS	
C.O.	— CLEANOUT
DB.	— DEED BOOK
E.	— ELECTRIC
FL.	— FLOWLINE
FT.	— FEET
FND.	— FOUND
G.	— GAS
M.H.	— MANHOLE
N/F.	— NOW OR FORMERLY
PB.	— PLAT BOOK
PG.	— PAGE
P.V.C.	— POLYVINYL CHLORIDE PIPE
R.B.	— RADIAL BEARING
R.C.P.	— REINFORCED CONCRETE PIPE
SQ.	— SQUARE
T.	— TELEPHONE CABLE
V.C.P.	— VETRIFIED CLAY PIPE
W.	— WATER
(86'W)	— RIGHT-OF-WAY WIDTH



### PERTINENT DATA

OWNER	=	GLENDALE PROPERTY HOLDING LLC
ADDRESS	=	10070 MANCHESTER ROAD
SITE ACREAGE	=	±4.63 Ac (201,806 Sq Ft)
LOCATOR No.	=	22M620561
FIRE DISTRICT	=	GLENDALE
SEWER DISTRICT	=	METROPOLITAN SEWER DISTRICT
WATER SERVICE	=	MISSOURI-AMERICAN WATER CO
GAS SERVICE	=	LACLEDE GAS CO
ELECTRIC SERVICE	=	AMEREN UE ELECTRIC
PHONE SERVICE	=	AT&T
ZIP CODE	=	63122
FLOOD MAP	=	29189C0307K

STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC. AND THE UNDERSIGNED ENGINEER HAVE NO RESPONSIBILITY FOR SERVICES PROVIDED BY OTHERS TO IMPLEMENT THE IMPROVEMENTS SHOWN ON THIS PLAN AND ALL OTHER DRAWINGS WHERE THE UNDERSIGNED ENGINEER'S SEAL APPEARS. THE CONSTRUCTION MEANS AND METHODS ARE THE SOLE RESPONSIBILITY OF THE OWNER AND CONTRACTOR. STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC. HAS NO RESPONSIBILITY TO VERIFY FINAL IMPROVEMENTS AS SHOWN ON THIS PLAN UNLESS SPECIFICALLY ENGAGED.

### UTILITY NOTE

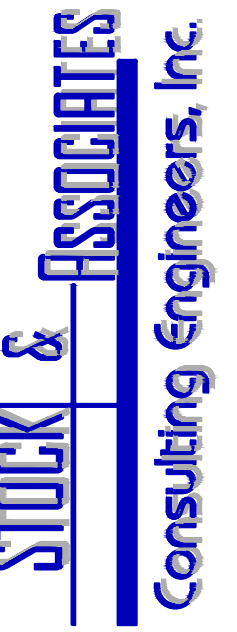
UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS, RECORDS AND INFORMATION, AND, THEREFORE DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NON-EXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE FACILITIES, STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMo..



MISSOURI ONE-CALL: 1-800-344-7483  
 ST. LOUIS COUNTY:  
 SIGNALS & LIGHTING: (314) 615-0215

PREPARED FOR:  
 GLENDALE CHRYSLER JEEP DODGE & RAM  
 10070 MANCHESTER RD.  
 ST. LOUIS, MO. 63122  
 ATTN: MS. JENNI BELDING - GENERAL MANAGER

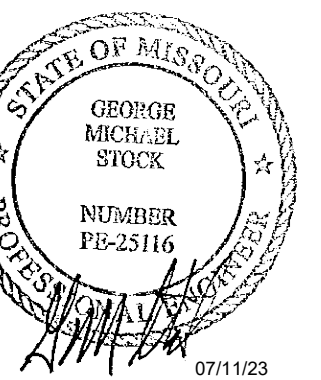
PREPARED BY:



PRELIMINARY SITE PLAN FOR:

**GLENDALE CDR+J**

10070 MANCHESTER ROAD  
 GLENDALE, MO



GEORGE M. STOCK E-25116  
 CIVIL ENGINEER  
 CERTIFICATE OF AUTHORITY  
 NUMBER: 000996

#### REVISIONS:

1.	REVISION	09-14-22
2.	REVISION	01-03-23
3.	REVISION	05-22-23
4.	REVISION	06-14-23
5.	REVISION	07-11-23

DRAWN BY: J.E.B. CHECKED BY: G.M.S.

DATE: 06/06/22 JOB NO: 220-6727

M.S.D. P #: BASE MAP #

P:XXXX-XX 224

S.L.C. H&T #: H&T S.U.P. #

XXXX XX-XXX-XX

M.D.N.R. #

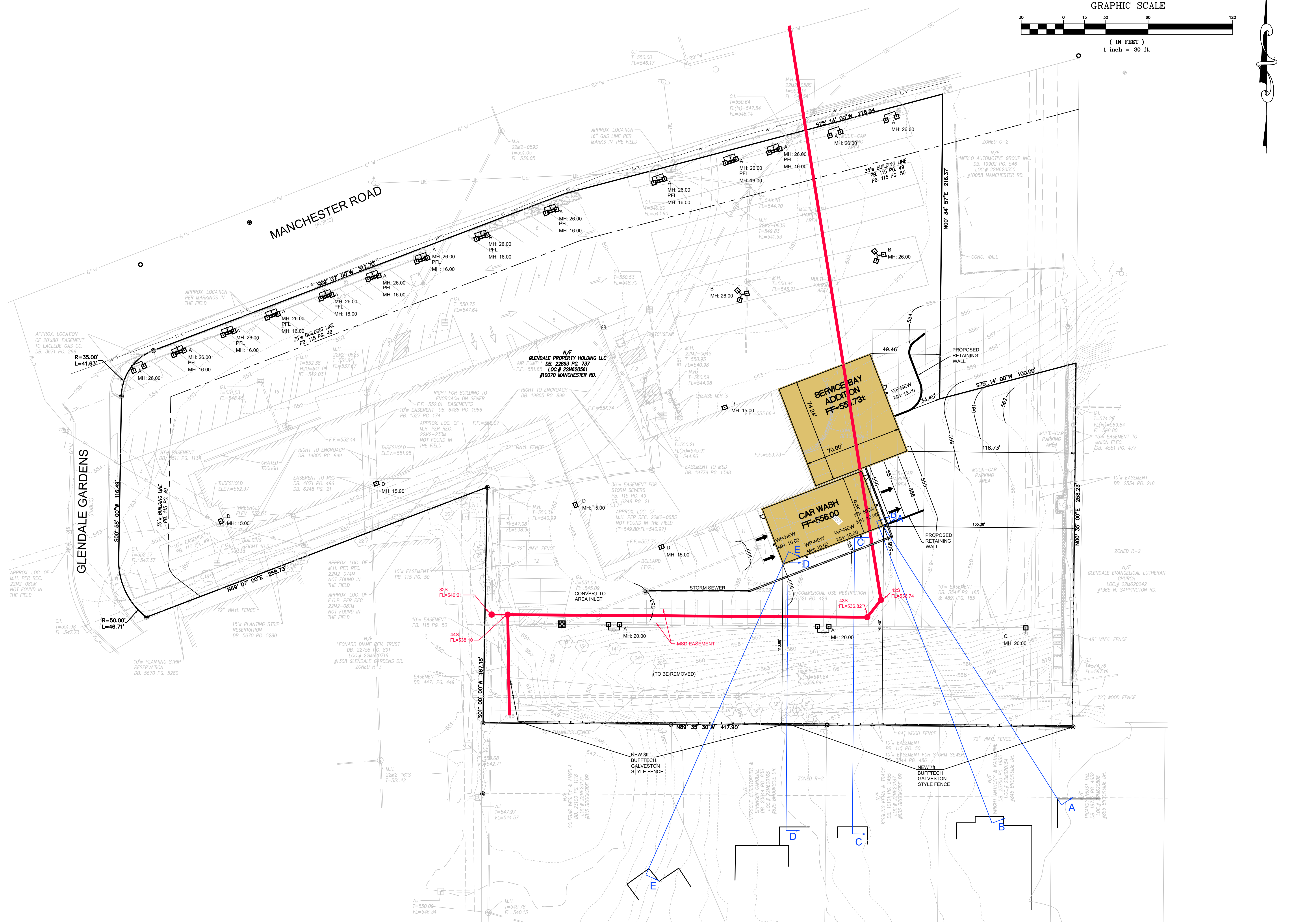
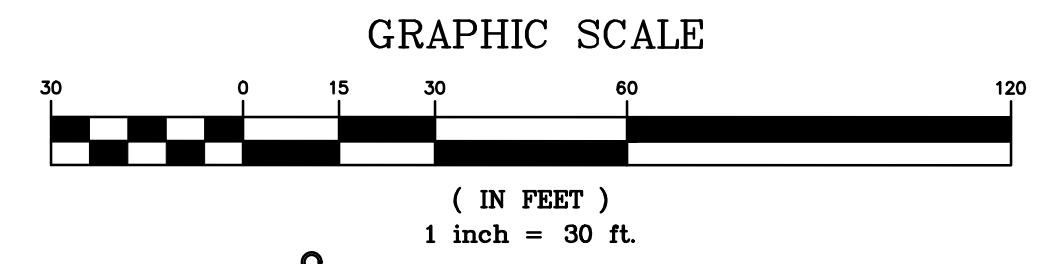
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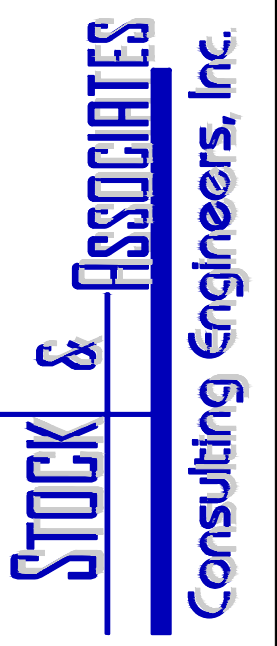
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SHEET NO.:

C1.0

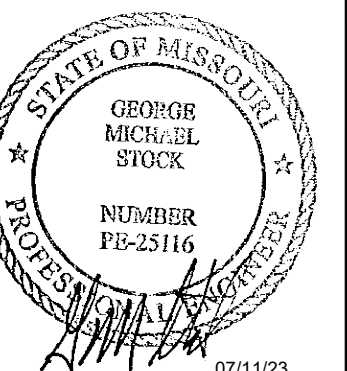


PREPARED BY:



SITE PLAN FOR:  
**GLENDALE CDR+J**

10070 MANCHESTER ROAD  
GLENDALE, MO



GEORGE M. STOCK E-25116  
CIVIL ENGINEER  
CERTIFICATE OF AUTHORITY  
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REVISIONS:

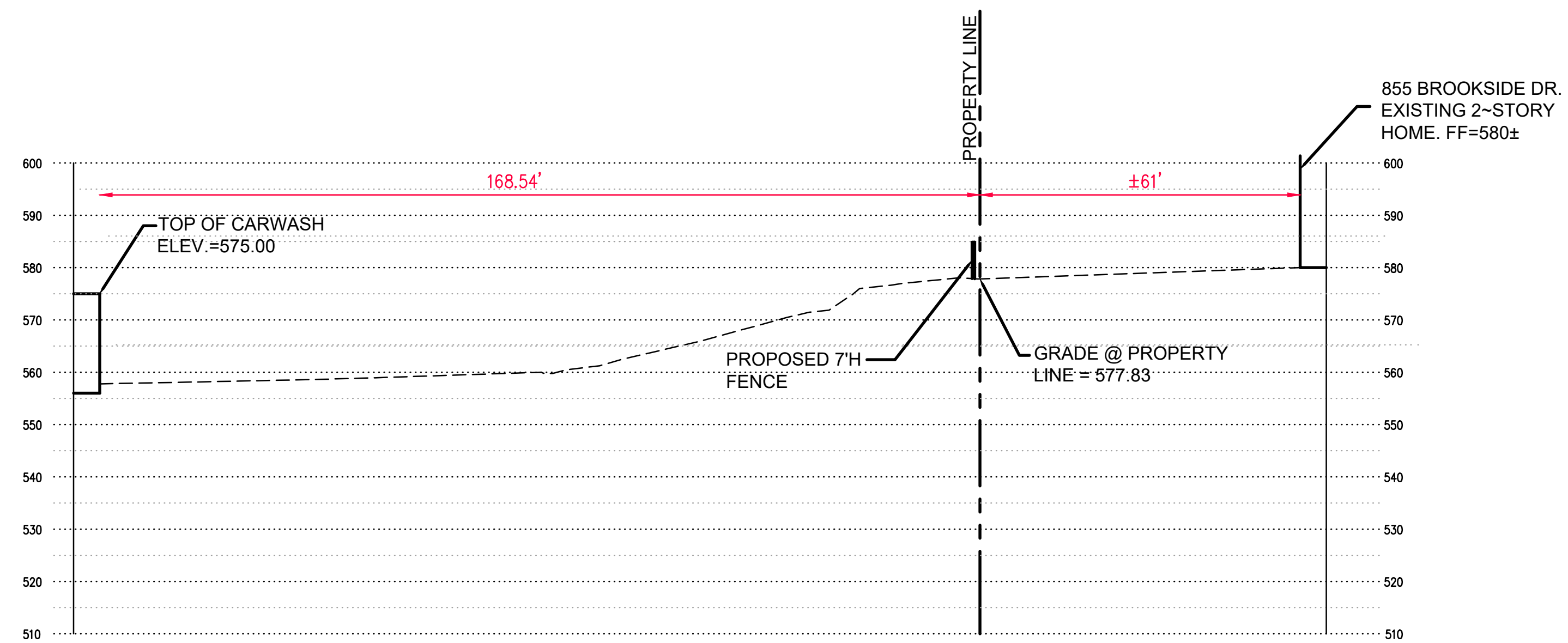
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2. REVISION 01-03-23
3. REVISION 05-22-23
4. REVISION 06-14-23
5. REVISION 07-11-23

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DATE: 06/06/22	JOB NO: 220-6727
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M.D.N.R. # MO-XXXXXX	

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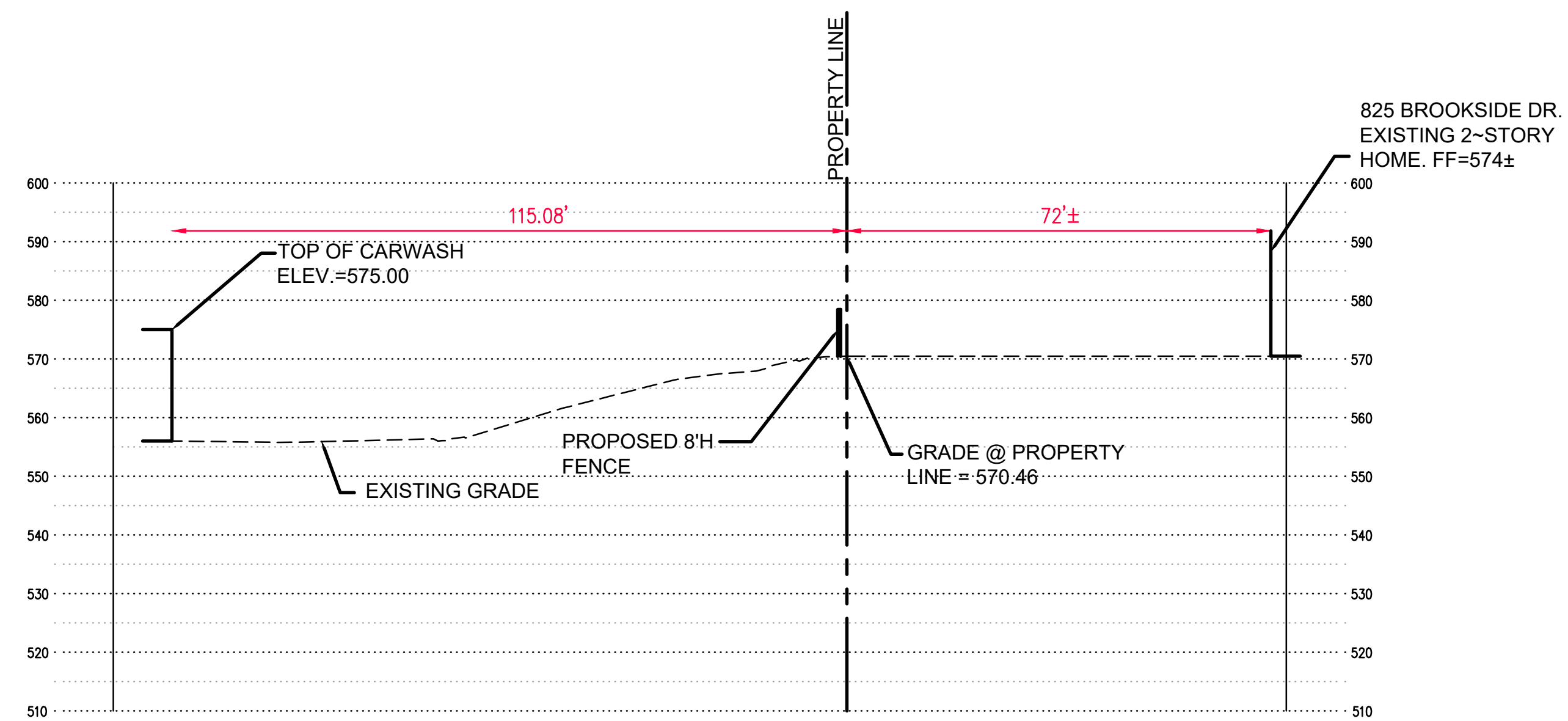
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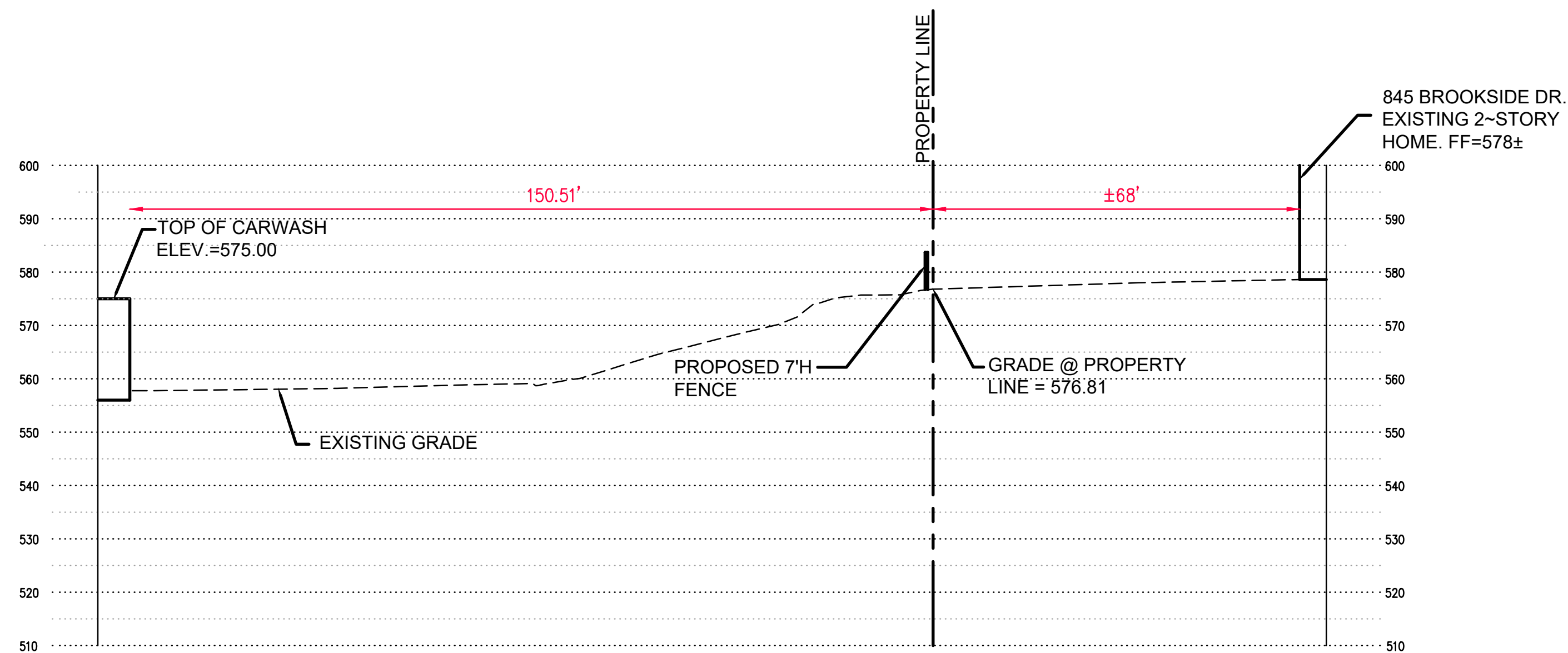
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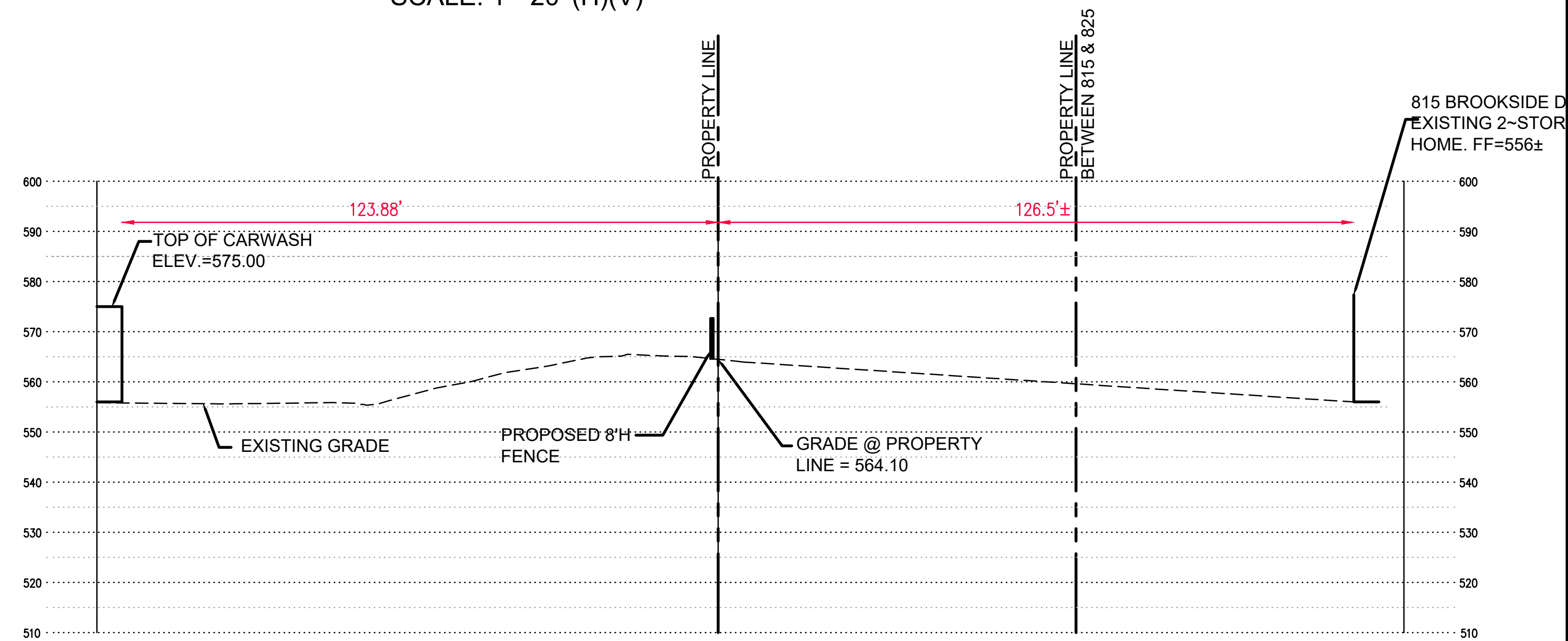
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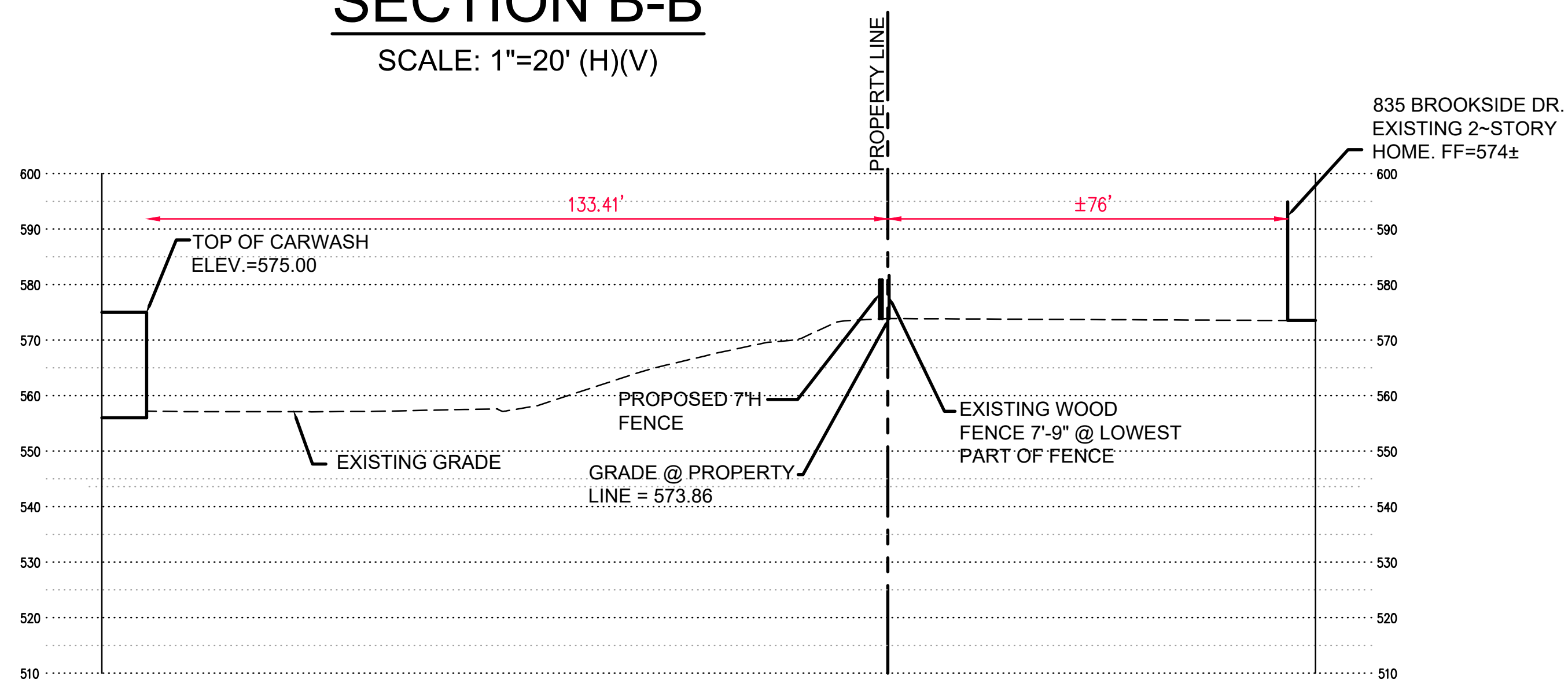
**SECTION B-B**

SCALE: 1"=20' (H)(V)



**SECTION E-E**

SCALE: 1"=20' (H)(V)



**SECTION C-C**

SCALE: 1"=20' (H)(V)

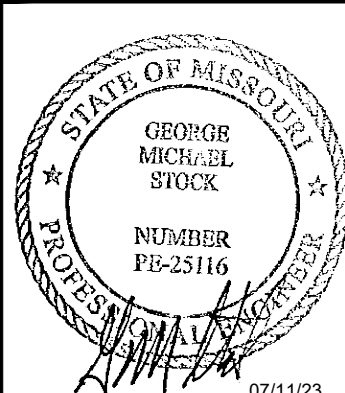
PREPARED BY:

**STOCK & ASSOCIATES**  
Consulting Engineers, Inc.

257 Chesterfield Business Parkway  
St. Louis, MO 63015 PH: (636) 530-9100 FAX: (636) 530-9130  
e-mail: general@stockassoc.com  
Web: www.stockassoc.com

SITE PLAN FOR:

**GLENDALE CDR+J**  
10070 MANCHESTER ROAD  
GLENDALE, MO



GEORGE M. STOCK E-25116  
CIVIL ENGINEER  
CERTIFICATE OF AUTHORITY  
NUMBER: 000998

- REVISIONS:
1. REVISION 09-14-22
  2. REVISION 01-03-23
  3. REVISION 05-22-23
  4. REVISION 06-14-23
  5. REVISION 07-11-23

DRAWN BY: J.E.B.	CHECKED BY: G.M.S.
DATE: 06/06/22	JOB NO: 220-6727
M.S.D. P #: P-XXXX-XX	BASE MAP #: 224
S.L.C. H&T #: XXXX	H&T S.U.P. #: XX-XXX-XX
M.D.N.R. #: MO-XXXXXX	

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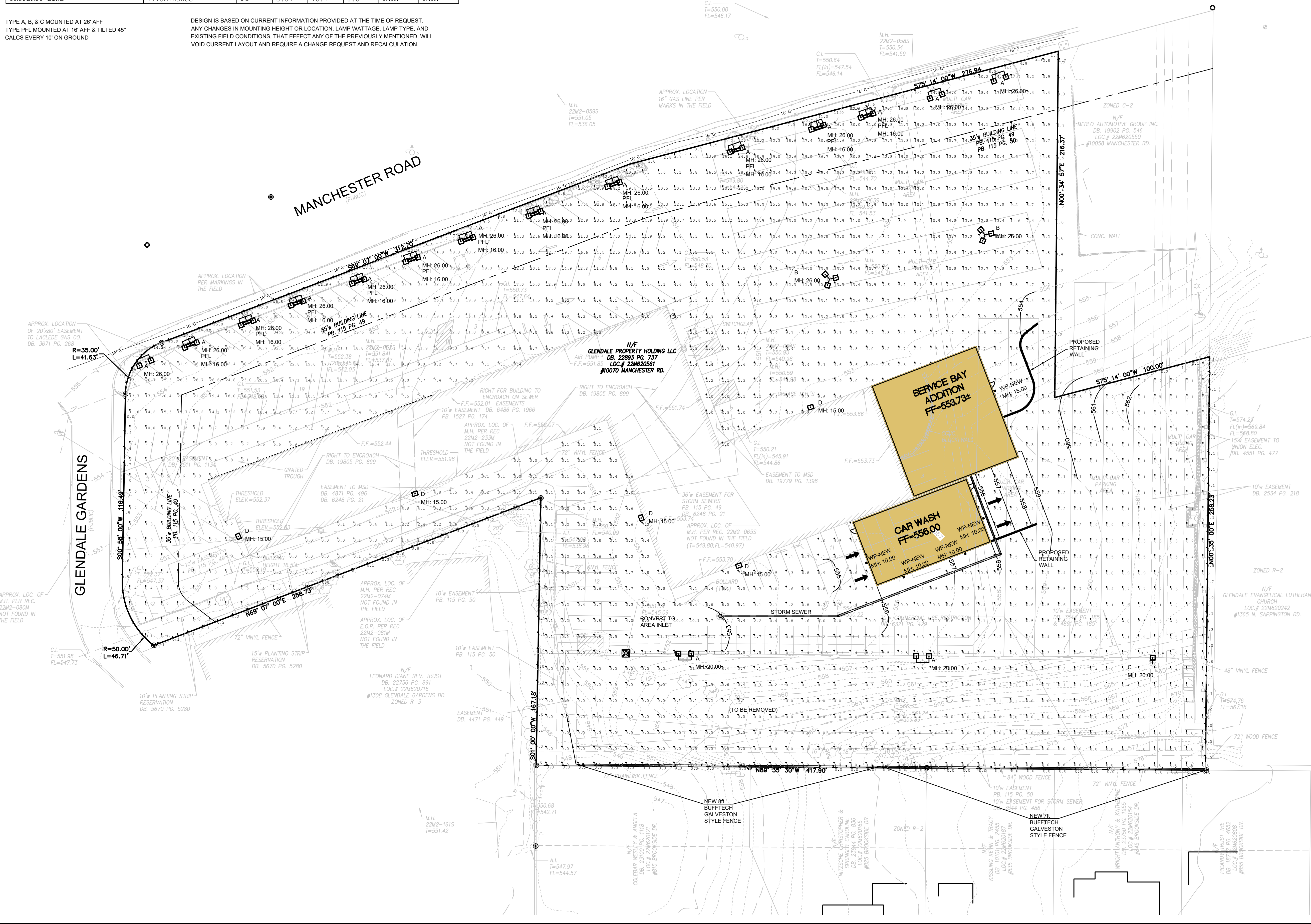
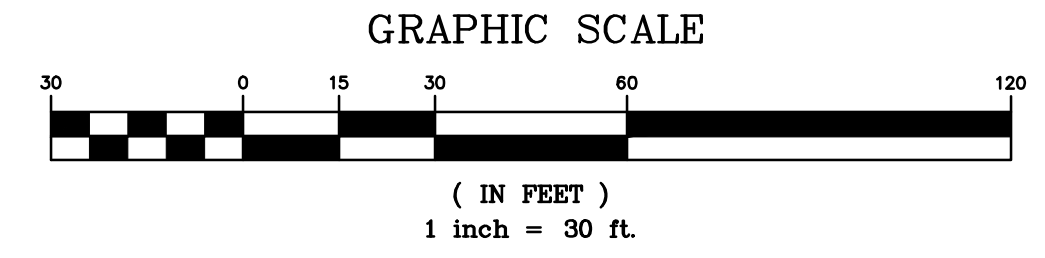
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Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	Total Watts
☐	16	A-EXISTING	Twin	0.950	XGBM-PTA-LED-HO-CW-HSS	287.5	9200
☐	2	B-EXISTING	3 @ 120 Degrees	0.950	XGBM-5-LED-HO-CW	300	1800
☐	1	C-EXISTING	Single	0.950	XGBM-PT-LED-HO-CW-HSS	287.6	287.6
☐	5	D-EXISTING	Single	0.950	XGBM3-FT-LED-48-450-CW-UE	72	360
☐	11	PFL-NEW	Single	0.950	GLEON-SA0D-750-U-SL4	640	7040
☐	5	WP-NEW	Single	0.900	XTOR6BRL	58	348

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
BUILDING FRONT Side 22	Illuminance	Fc	12.98	17.1	8.0	1.62	2.14
CalcPts 1	Illuminance	Fc	6.77	39.4	0.0	N.A.	N.A.
PROPERTY LINE	Illuminance	Fc	3.64	18.7	0.0	N.A.	N.A.

TYPE A, B, & C MOUNTED AT 26' AFF  
TYPE PFL MOUNTED AT 16' AFF & TILTED 45°  
CALCS EVERY 10' ON GRID

DESIGN IS BASED ON CURRENT INFORMATION PROVIDED AT THE TIME OF REQUEST.  
ANY CHANGES IN MOUNTING HEIGHT OR LOCATION, LAMP WATTAGE, LAMP TYPE, AND  
EXISTING FIELD CONDITIONS, THAT AFFECT ANY OF THE PREVIOUSLY MENTIONED, WILL  
VOID CURRENT LAYOUT AND REQUIRE A CHANGE REQUEST AND RECALCULATION.

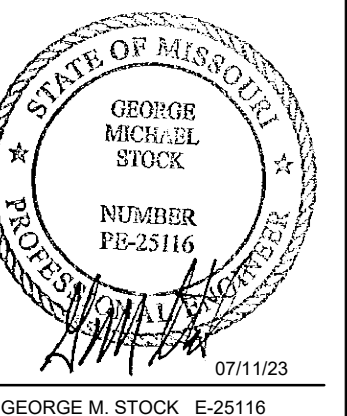


PREPARED BY:

**STOCK & ASSOCIATES**  
Consulting Engineers, Inc.

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St. Louis, MO 63015 PH: (636) 530-9100 FAX (636) 530-9100  
e-mail: general@stockinc.com  
Web: www.stockinc.com

SITE PLAN FOR:  
**GLENDALE CDR+J**  
10070 MANCHESTER ROAD  
GLENDALE, MO



GEORGE M. STOCK E-25116  
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DATE: 06/06/22	JOB NO: 220-6727
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M.D.N.R. #: MO-XXXXXX	

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SITE  
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PLAN

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C4.0

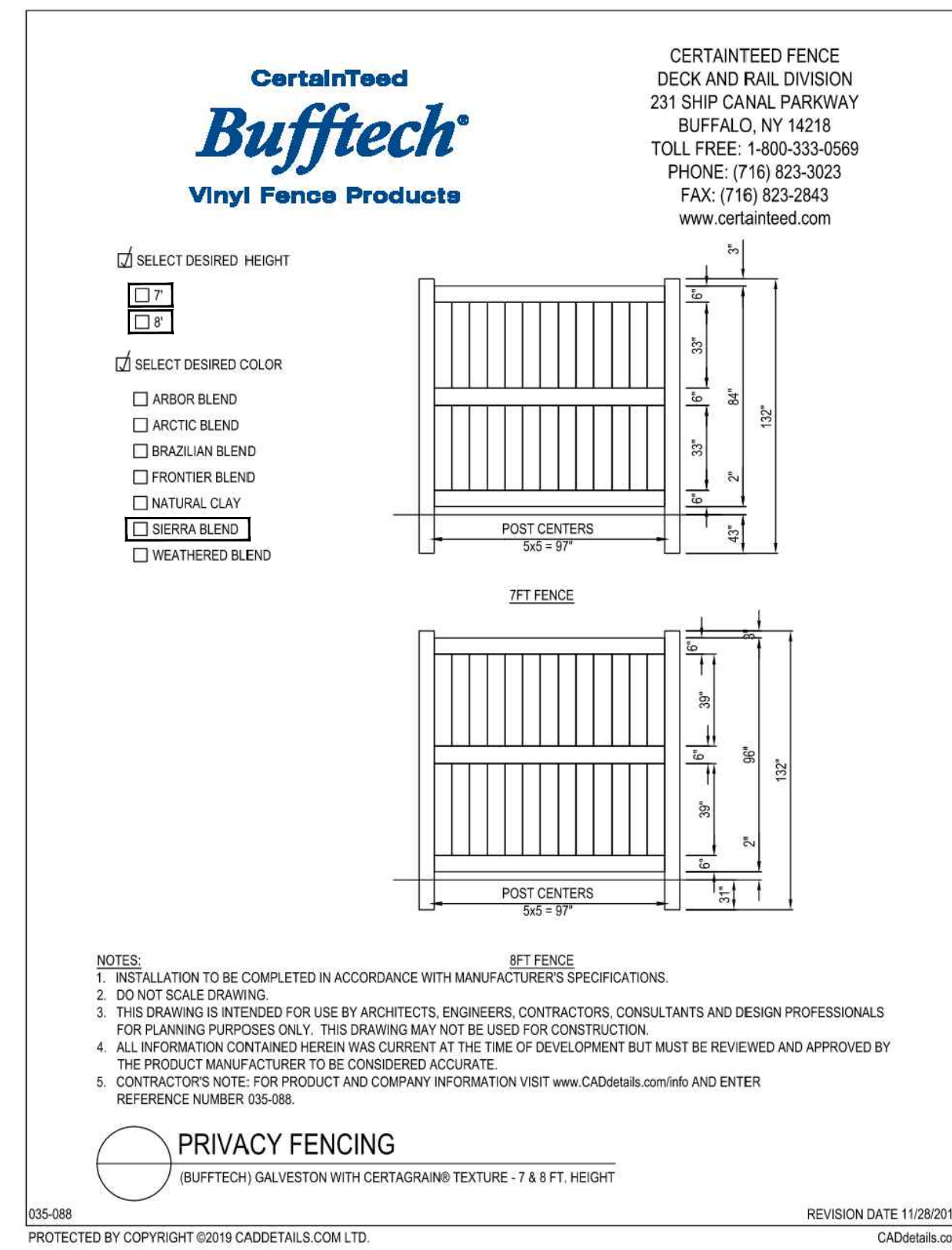
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**GALVESTON CERTAGRAIN® TEXTURE  
IN SIERRA BLEND**

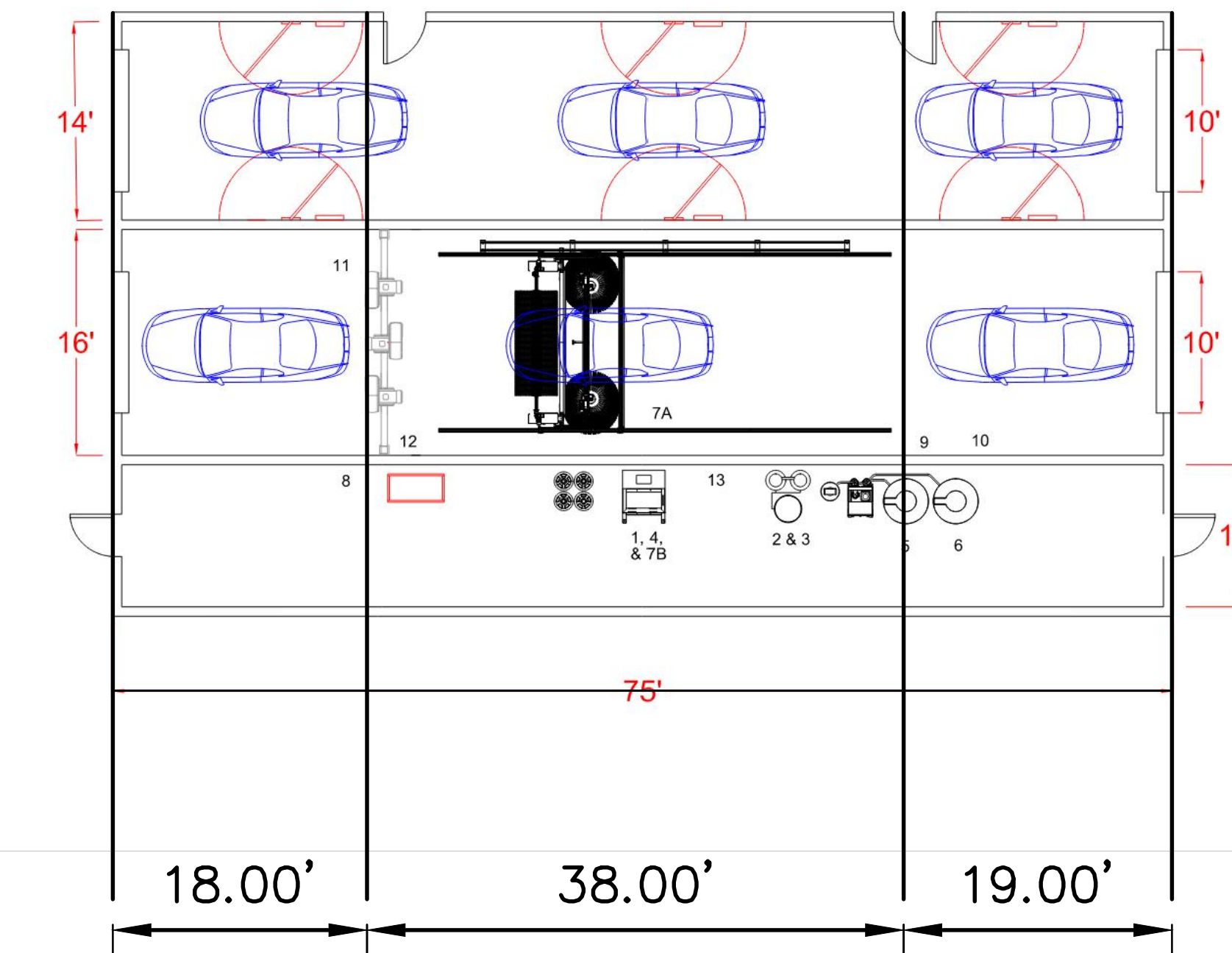
Bufftech leads the vinyl fence industry with realistic woodgrain textures and rich, authentic shades that replicate the look of natural wood. The Galveston privacy fence with CertaGrain texture features our exclusive ColorLast® fade protection, an acrylic formulation that provides superior protection from the harsh rays of the sun. Available in 7' and 8' heights, Galveston is Bufftech's tallest fence and the perfect choice for complete privacy.

[VIEW PRODUCT CATALOG](#)

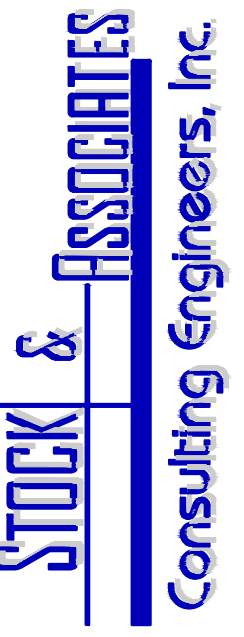


**PRIVACY FENCE  
DETAILS**  
SCALE: N.T.S.

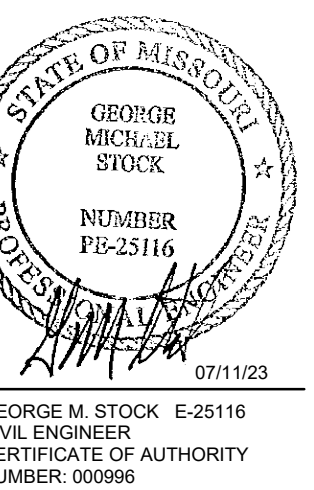
Glendale Chrysler, Dodge, Jeep, Ram Car Wash							
EQ.	SMARTER, CLEANER, GREENER	SIZE	ELECTRICAL	WATER	DRAIN	AIR	REMARKS
1	DC MOTOR REMOTE ACCESS		110V SAMP		3" ON 3/4" LINE		LOCATED IN PUMP STAND
2	WATER SOFTENER W/CARBON		120 110V 20AMP		1" MIN SCHED P.V.C. DRAIN		EXTENDED UP 54" A.T.F.
3	BRINE TANK			FILL & DRAIN TUBE FROM SOFTENER	1/2" line		OverFlow only from Brine Tank
4	R.O. UNIT (W/REGENERATED)			LINE ATTACHED VIA LOW WASH TECH			
5	R.O. STORAGE TANK	35" DIA. 300 GAL.		FROM R.O. UNIT			CAN EITHER DRAIN TO THE FLOOR, OR INTO A 3" PIPE DRAIN
6	R.O. REJECT TANK	35" DIA. 300 GAL.		FROM R.O. UNIT			
7A, B	1/2 SOFT TOUCH	30" X 24" PUMP STAND	120 CARBON, 208/240V 20AMP 3PH 20 AMP STAND 7B 110V 20AMP 3WIRE 3PH CORDED 208/240V 30 AMP 6WIRE 3PH	FROM PUMP STAND			1/2" LINE 90' MIN TO CARRIAGE
8	AUTO DRIVER STARTER BOX		FROM 3 - 60 AMP BREAKERS TO STARTER BOX				MILL ALSO NEED CONTROL WIRE CONDUIT FROM PUMP STAND TO THE STARTER PANEL
9	STOP/ID LIGHT		110V SAMP				TO TERMINAL ON PUMPING UNIT
10	WASH LEVEL ACTIVATION BOX		3/4" CONDUIT TO CARRY 8 CONDUCTOR WIRE	LOW VOLTAGE			TERMINATE AT PUMP STAND
11	AUTO DRIVER	10.15.112	110V 60 AMP 208 3PH				TO AUTO DRIVER STARTER BOX
12	STOP/ID/CARLUP LIGHT		110V FROM PUMP STAND TO LIGHT MOUNT				3/4" CONDUIT TO CARRY 110 VAC FROM PUMP STAND TO LIGHT
13	DRAIN FOR SOFTENER						1" STAND PIPE DRAIN



PREPARED BY:



SITE PLAN FOR:  
**GLENDALE CDR+J**  
10070 MANCHESTER ROAD  
GLENDALE, MO



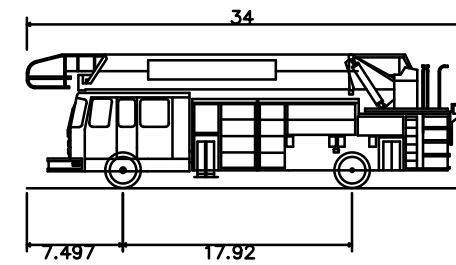
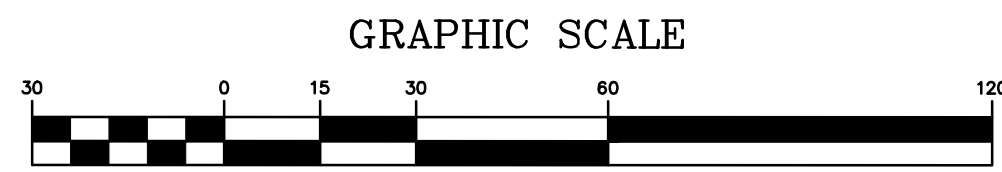
- REVISIONS:
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DRAWN BY: J.E.B.	CHECKED BY: G.M.S.
DATE: 06/06/22	JOB NO: 220-6727
M.S.D. P #: P-XXXX-XX	BASE MAP #: 224
S.L.C. H&T #: XXXX	H&T S.U.P. #: XX-XXX-XX
M.D.N.R. #: MO-XXXXXX	

SHEET TITLE:  
SITE DETAILS

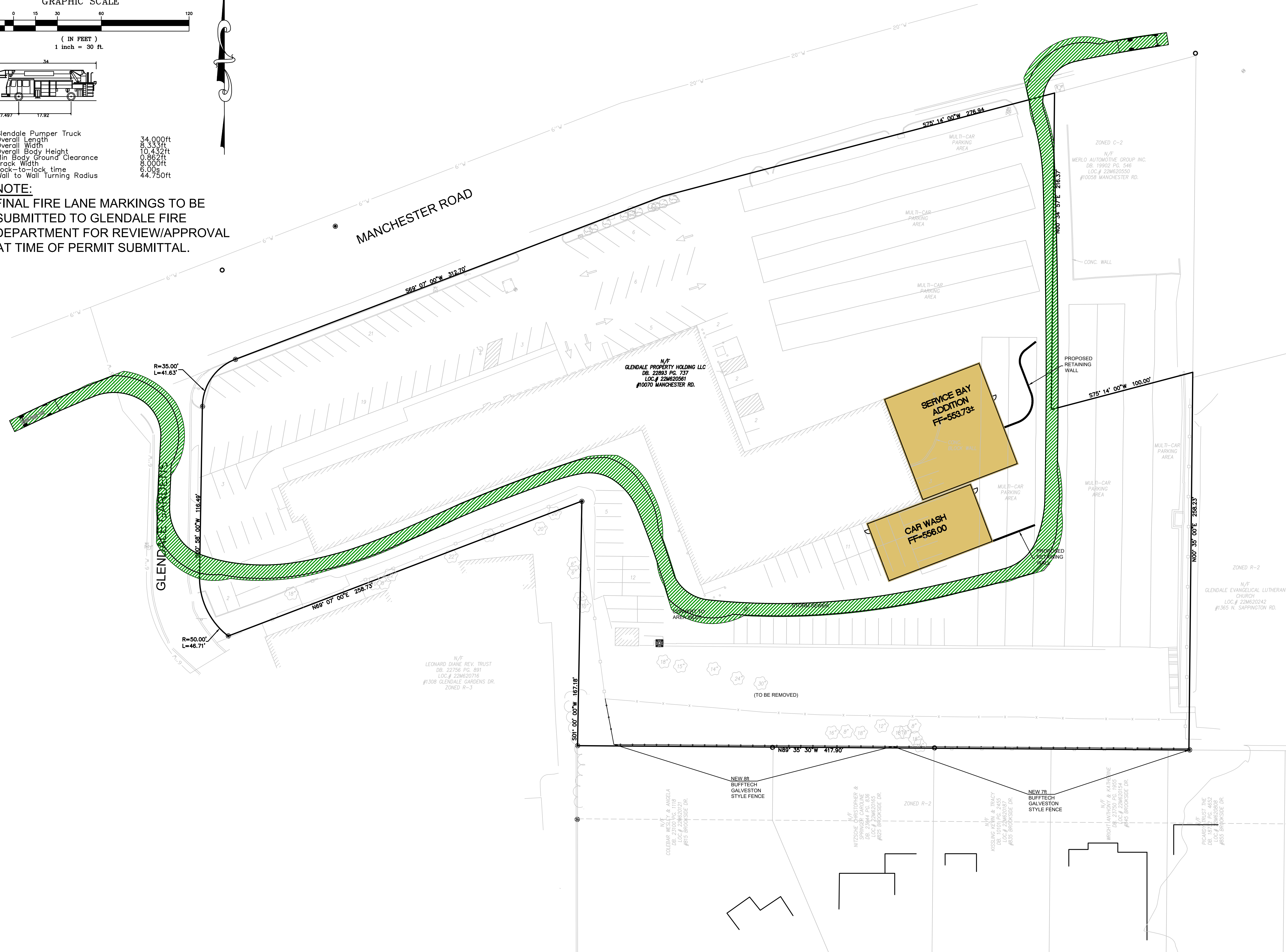
SHEET NO.:  
C5.0



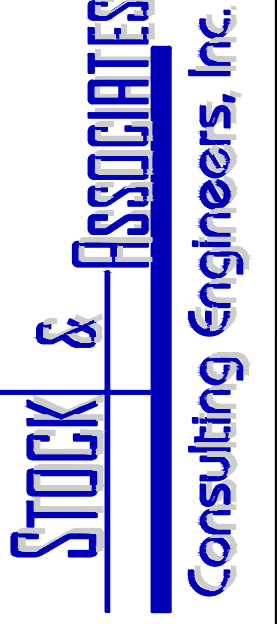


Glendale Pumper Truck  
 Overall Length 34.000ft  
 Overall Width 7.497ft  
 Overall Body Height 17.92ft  
 Min Body Ground Clearance 0.862ft  
 Track Width 6.000ft  
 Lock-to-lock time 6.00s  
 Wall to Wall Turning Radius 44.750ft

**NOTE:**  
 FINAL FIRE LANE MARKINGS TO BE  
 SUBMITTED TO GLENDALE FIRE  
 DEPARTMENT FOR REVIEW/APPROVAL  
 AT TIME OF PERMIT SUBMITTAL.

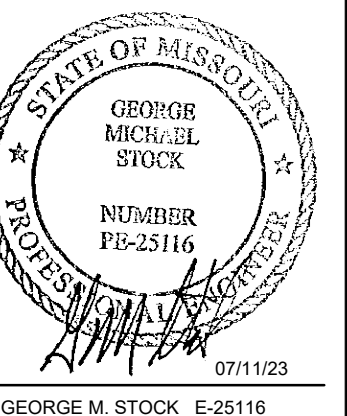


PREPARED BY:



SITE PLAN FOR:  
**GLENDALE CDR+J**

10070 MANCHESTER ROAD  
 GLENDALE, MO



GEORGE M. STOCK E-25116  
 CIVIL ENGINEER  
 CERTIFICATE OF AUTHORITY  
 NUMBER: 000998

- REVISIONS:
1. REVISION 09-14-22
  2. REVISION 01-03-23
  3. REVISION 05-22-23
  4. REVISION 06-14-23
  5. REVISION 07-11-23

DRAWN BY: J.E.B.	CHECKED BY: G.M.S.
DATE: 06/06/22	JOB NO: 220-6727
M.S.D. P. #: P-XXXX-XX	BASE MAP #: 224
S.L.C. H&T #: XXXX	H&T S.U.P. #: XX-XXX-XX
M.D.N.R. #: MO-XXXXXX	

SHEET TITLE:  
 AUTOTURN EXHIBIT  
 GLENDALE PUMPER

SHEET NO.:  
 C6.0

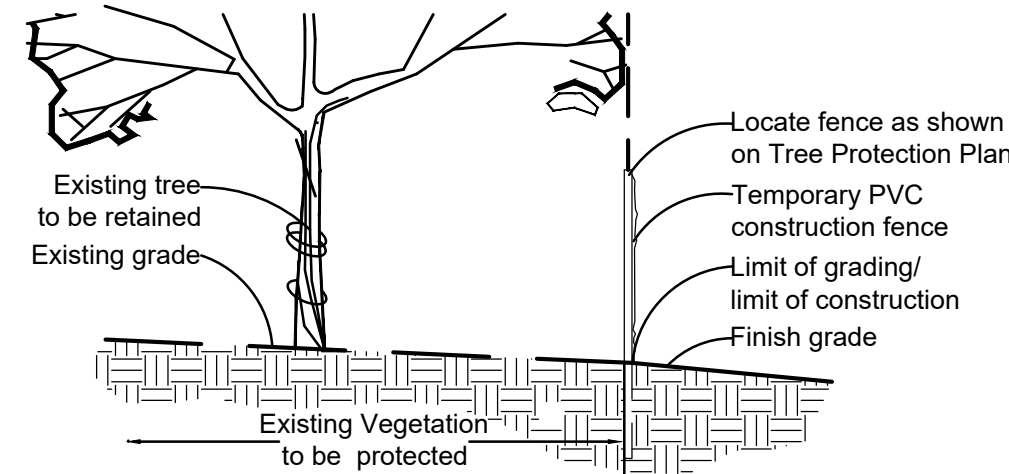
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**Tree Protection Notes:**

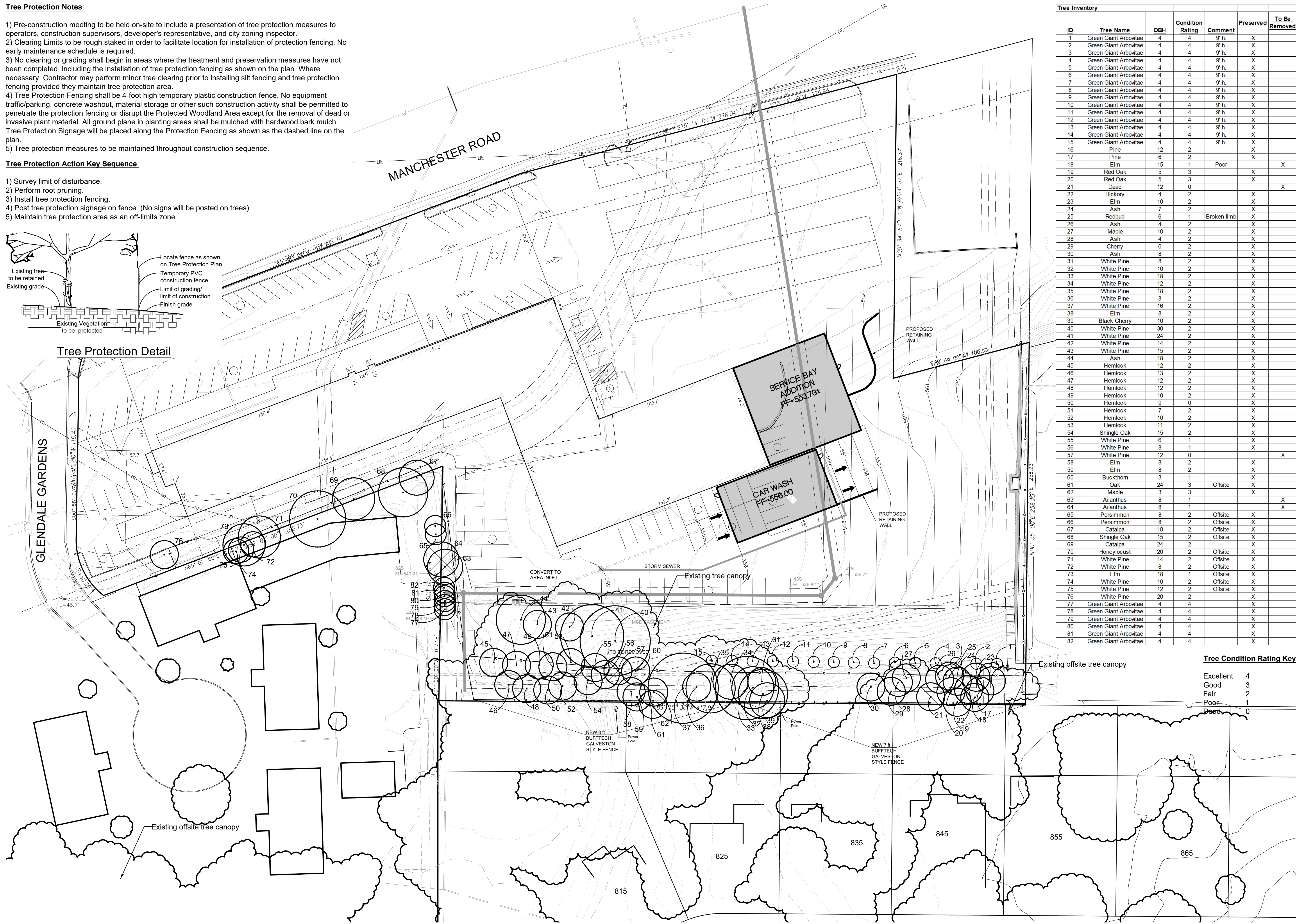
- 1) Pre-construction meeting to be held on-site to include a presentation of tree protection measures to operators, construction supervisors, developer's representative, and city zoning inspector.
- 2) Clearing Limits to be rough staked in order to facilitate location for installation of protection fencing. No early maintenance schedule is required.
- 3) No clearing or grading shall begin in areas where the treatment and preservation measures have not been completed, including the installation of tree protection fencing as shown on the plan. Where necessary, Contractor may perform minor tree clearing prior to installing silt fencing and tree protection fencing provided they maintain tree protection area.
- 4) Tree Protection Fencing shall be 4-foot high temporary plastic construction fence. No equipment traffic/parking, concrete washout, material storage or other such construction activity shall be permitted to penetrate the protection fencing or disrupt the Protected Woodland Area except for the removal of dead or invasive plant material. All ground plane in planting areas shall be mulched with hardwood bark mulch. Tree Protection Signage will be placed along the Protection Fencing as shown as the dashed line on the plan.
- 5) Tree protection measures to be maintained throughout construction sequence.

**Tree Protection Action Key Sequence:**

- 1) Survey limit of disturbance.
- 2) Perform root pruning.
- 3) Install tree protection fencing.
- 4) Post tree protection signage on fence (No signs will be posted on trees).
- 5) Maintain tree protection area as an off-limits zone.



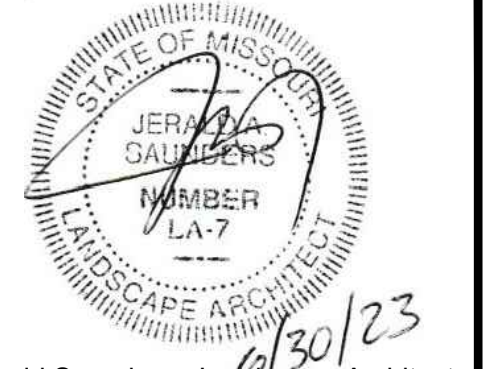
**Tree Protection Detail**



ID	Tree Name	DBH	Condition Rating	Comment	Preserved	To Be Removed
1	Green Giant Arbutae	4	4	9'h.	X	
2	Green Giant Arbutae	4	4	9'h.	X	
3	Green Giant Arbutae	4	4	9'h.	X	
4	Green Giant Arbutae	4	4	9'h.	X	
5	Green Giant Arbutae	4	4	9'h.	X	
6	Green Giant Arbutae	4	4	9'h.	X	
7	Green Giant Arbutae	4	4	9'h.	X	
8	Green Giant Arbutae	4	4	9'h.	X	
9	Green Giant Arbutae	4	4	9'h.	X	
10	Green Giant Arbutae	4	4	9'h.	X	
11	Green Giant Arbutae	4	4	9'h.	X	
12	Green Giant Arbutae	4	4	9'h.	X	
13	Green Giant Arbutae	4	4	9'h.	X	
14	Green Giant Arbutae	4	4	9'h.	X	
15	Green Giant Arbutae	4	4	9'h.	X	
16	Pine	12	2		X	
17	Pine	6	2		X	
18	Elm	15	1	Poor		X
19	Red Oak	5	3		X	
20	Red Oak	5	3		X	
21	Dead	12	0			X
22	Hickory	4	2		X	
23	Elm	10	2		X	
24	Ash	7	2		X	
25	Redbud	6	1	Broken limb	X	
26	Ash	4	2		X	
27	Maple	10	2		X	
28	Ash	4	2		X	
29	Cherry	6	2		X	
30	Ash	8	2		X	
31	White Pine	8	2		X	
32	White Pine	10	2		X	
33	White Pine	18	2		X	
34	White Pine	12	2		X	
35	White Pine	18	2		X	
36	White Pine	8	2		X	
37	White Pine	16	2		X	
38	Elm	8	2		X	
39	Black Cherry	10	2		X	
40	White Pine	30	2		X	
41	White Pine	24	2		X	
42	White Pine	14	2		X	
43	White Pine	15	2		X	
44	Ash	18	2		X	
45	Hemlock	12	2		X	
46	Hemlock	13	2		X	
47	Hemlock	12	2		X	
48	Hemlock	12	2		X	
49	Hemlock	10	2		X	
50	Hemlock	9	0		X	
51	Hemlock	7	2		X	
52	Hemlock	10	2		X	
53	Hemlock	11	2		X	
54	Shingle Oak	15	2		X	
55	White Pine	6	1		X	
56	White Pine	8	1		X	
57	White Pine	12	0			X
58	Elm	8	2		X	
59	Elm	8	2		X	
60	Buckthorn	3	1		X	
61	Oak	24	3	Offsite	X	
62	Maple	3	3		X	
63	Ailanthus	8	1			X
64	Ailanthus	8	1			X
65	Persimmon	8	2	Offsite	X	
66	Persimmon	8	2	Offsite	X	
67	Catalpa	18	2	Offsite	X	
68	Shingle Oak	15	2	Offsite	X	
69	Catalpa	24	2		X	
70	Honeylocust	20	2	Offsite	X	
71	White Pine	14	2	Offsite	X	
72	White Pine	8	2	Offsite	X	
73	Elm	18	1	Offsite	X	
74	White Pine	10	2	Offsite	X	
75	White Pine	12	2	Offsite	X	
76	White Pine	20	2	Offsite	X	
77	Green Giant Arbutae	4	4		X	
78	Green Giant Arbutae	4	4		X	
79	Green Giant Arbutae	4	4		X	
80	Green Giant Arbutae	4	4		X	
81	Green Giant Arbutae	4	4		X	
82	Green Giant Arbutae	4	4		X	

**Tree Condition Rating Key:**

Excellent	4
Good	3
Fair	2
Poor	1
Dead	0



Jerald Saunders - Landscape Architect  
MO License # LA-007

Consultants:

# Glendale Chrysler Jeep Dodge Ram

10070 Manchester Road  
Glendale, Missouri 63122

**Revisions:**

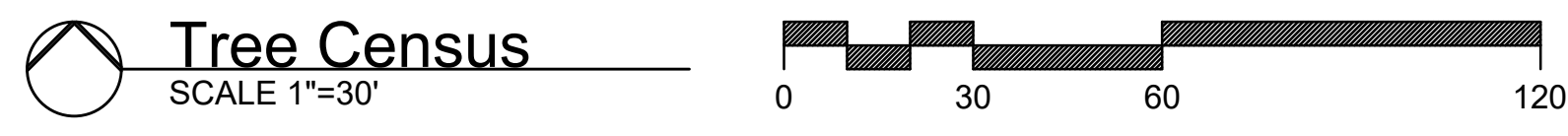
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11/1/22	Plan Changes	1
3/16/23	Chart Correction	2
5/10/23	Plan Changes	3
6/6/23	Plan Changes	4
6/30/23	Plan Changes	5

Drawn: KP  
Checked: RS

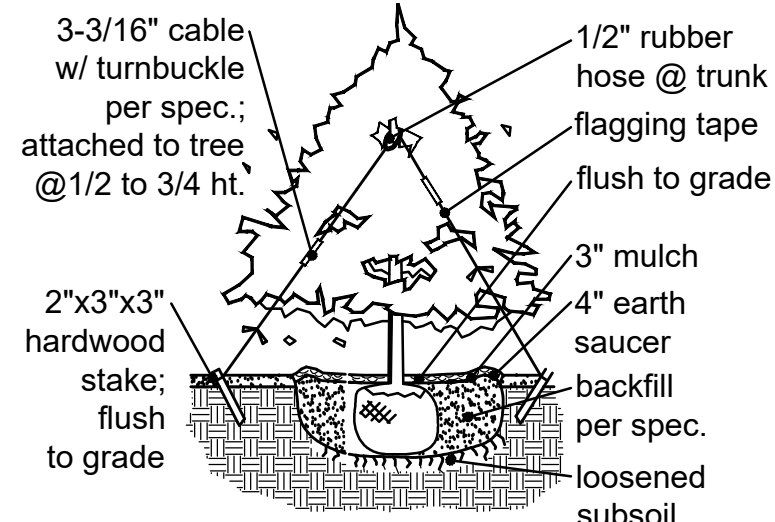
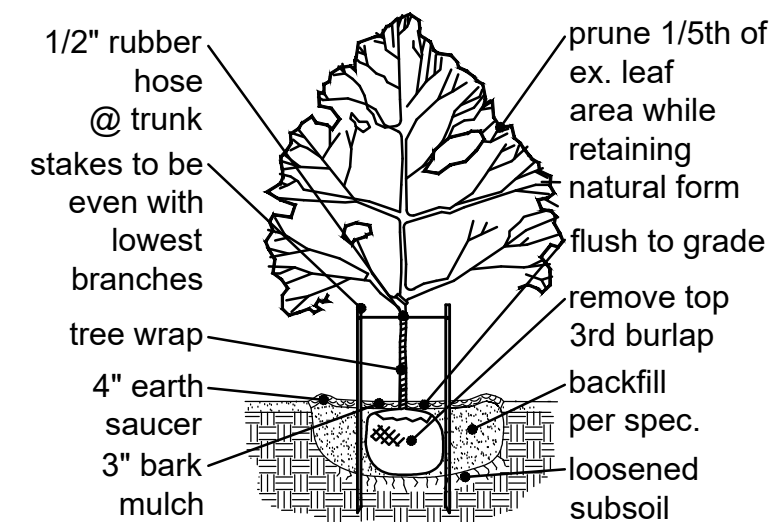
**LOOMIS ASSOCIATES**  
landscape architects + planners  
750 spirit of park drive, chesterfield, missouri 63005  
t. 636-519-8668 www.loomis-associates.com

Loomis Associates Inc.  
Missouri State Certificate of Authority #: LAC #000191

Sheet Title:	Tree Census
Sheet No.:	TC
Date:	6/3/22
Job #:	813.093

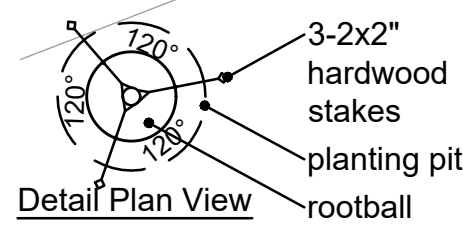


PLANTING SCHEDULE					
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
<b>CANOPY-SHADE TREES</b>					
A	2	Quercus rubra	Red Oak	2.5" cal.	B&B
B	2	Acer rubrum	Red Maple	2.5" cal.	B&B
C	2	Ulmus americana 'Valley Forge Elm'	Valley Forge Elm	2.5" cal.	B&B
<b>EVERGREEN TREES</b>					
P	11	Pinus strobus	White Pine	8' h.	B&B
Q	15	Thuja 'Green Giant'	Green Giant Arborvitae	8' h.	B&B

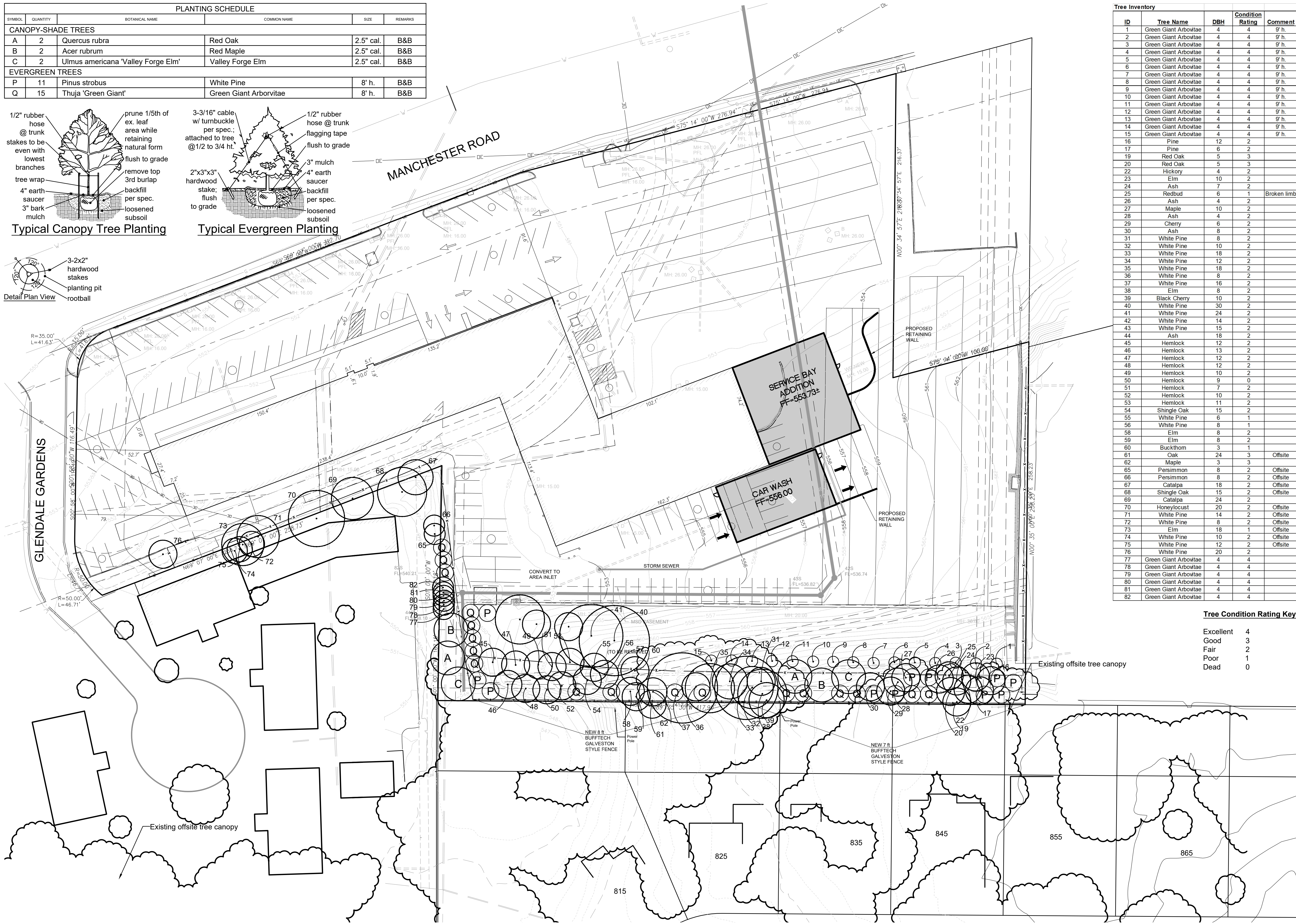


Typical Canopy Tree Planting

Typical Evergreen Planting



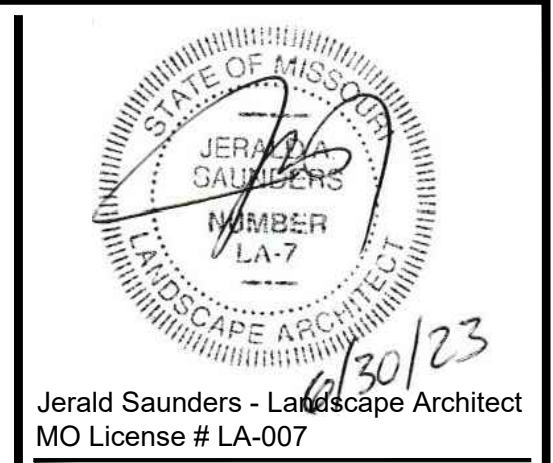
Detail Plan View



Tree Inventory					
ID	Tree Name	DBH	Condition Rating	Comment	
1	Green Giant Arborvitae	4	4	9' h.	
2	Green Giant Arborvitae	4	4	9' h.	
3	Green Giant Arborvitae	4	4	9' h.	
4	Green Giant Arborvitae	4	4	9' h.	
5	Green Giant Arborvitae	4	4	9' h.	
6	Green Giant Arborvitae	4	4	9' h.	
7	Green Giant Arborvitae	4	4	9' h.	
8	Green Giant Arborvitae	4	4	9' h.	
9	Green Giant Arborvitae	4	4	9' h.	
10	Green Giant Arborvitae	4	4	9' h.	
11	Green Giant Arborvitae	4	4	9' h.	
12	Green Giant Arborvitae	4	4	9' h.	
13	Green Giant Arborvitae	4	4	9' h.	
14	Green Giant Arborvitae	4	4	9' h.	
15	Green Giant Arborvitae	4	4	9' h.	
16	Pine	12	2		
17	Pine	6	2		
19	Red Oak	5	3		
20	Red Oak	5	3		
22	Hickory	4	2		
23	Elm	10	2		
24	Ash	7	2		
25	Redbud	6	1	Broken limb	
26	Ash	4	2		
27	Maple	10	2		
28	Ash	4	2		
29	Cherry	6	2		
30	Ash	8	2		
31	White Pine	8	2		
32	White Pine	10	2		
33	White Pine	18	2		
34	White Pine	12	2		
35	White Pine	18	2		
36	White Pine	8	2		
37	White Pine	16	2		
38	Elm	8	2		
39	Black Cherry	10	2		
40	White Pine	30	2		
41	White Pine	24	2		
42	White Pine	14	2		
43	White Pine	15	2		
44	Ash	18	2		
45	Hemlock	12	2		
46	Hemlock	13	2		
47	Hemlock	12	2		
48	Hemlock	12	2		
49	Hemlock	10	2		
50	Hemlock	9	0		
51	Hemlock	7	2		
52	Hemlock	10	2		
53	Hemlock	11	2		
54	Shingle Oak	15	2		
55	White Pine	6	1		
56	White Pine	8	1		
58	Elm	8	2		
59	Elm	8	2		
60	Buckthorn	3	1		
61	Oak	24	3	Offsite	
62	Maple	3	3	Offsite	
65	Persimmon	8	2	Offsite	
66	Persimmon	8	2	Offsite	
67	Catalpa	18	2	Offsite	
68	Shingle Oak	15	2	Offsite	
69	Catalpa	24	2	Offsite	
70	Honeylocust	20	2	Offsite	
71	White Pine	14	2	Offsite	
72	White Pine	8	2	Offsite	
73	Elm	18	1	Offsite	
74	White Pine	10	2	Offsite	
75	White Pine	12	2	Offsite	
76	White Pine	20	2	Offsite	
77	Green Giant Arborvitae	4	4		
78	Green Giant Arborvitae	4	4		
79	Green Giant Arborvitae	4	4		
80	Green Giant Arborvitae	4	4		
81	Green Giant Arborvitae	4	4		
82	Green Giant Arborvitae	4	4		

**Tree Condition Rating Key:**

Excellent	4
Good	3
Fair	2
Poor	1
Dead	0



Jerald Saunders - Landscape Architect  
MO License # LA-007

Consultants:

# Glendale Chrysler Jeep Dodge Ram

10070 Manchester Road  
Glendale, Missouri 63122

Revisions:

Date	Description	No.
11/1/22	Plan Changes	1
5/10/23	Plan Changes	3
6/6/23	Plan Changes	4
6/30/23	Plan Changes	5

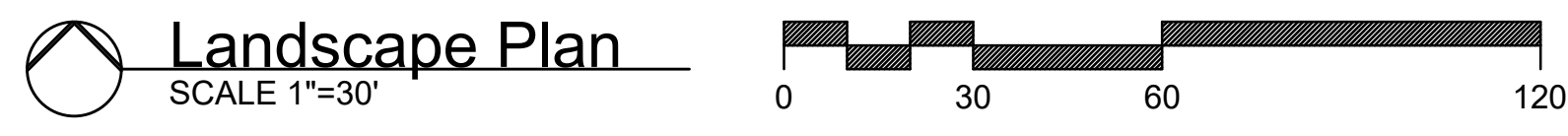
Drawn: KP  
Checked: RS

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t. 636-519-8668 www.loomis-associates.com

Loomis Associates Inc.  
Missouri State Certificate of Authority #: LAC #000191

Sheet Title: Landscape Plan  
Sheet No: **L1.01**

Date: 6/3/22  
Job #: 813.093





Jerald Saunders - Landscape Architect  
MO License # LA-007

Consultants:

# Glendale Chrysler Jeep Dodge Ram

10070 Manchester Road  
Glendale, Missouri 63122

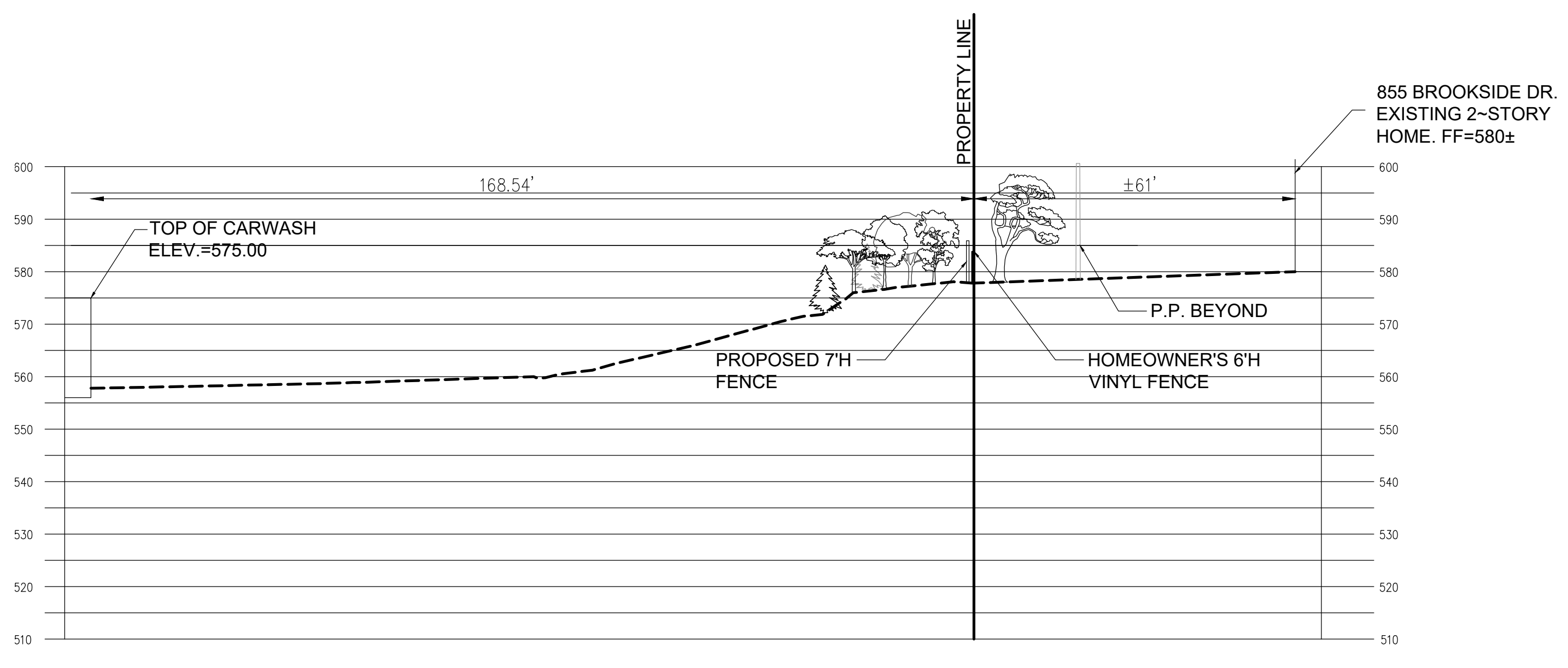
Revisions:

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6/6/23	Plan Changes	4
6/30/23	Plan Changes	5

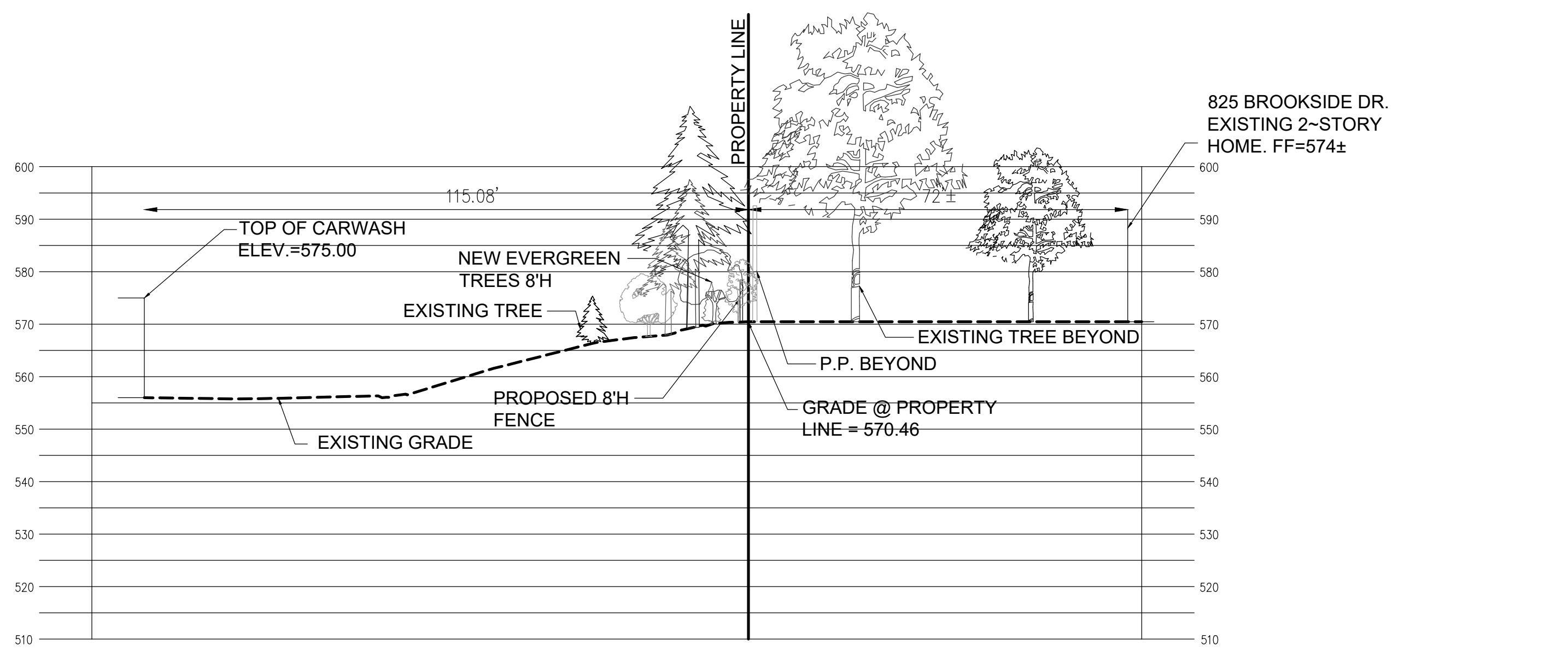
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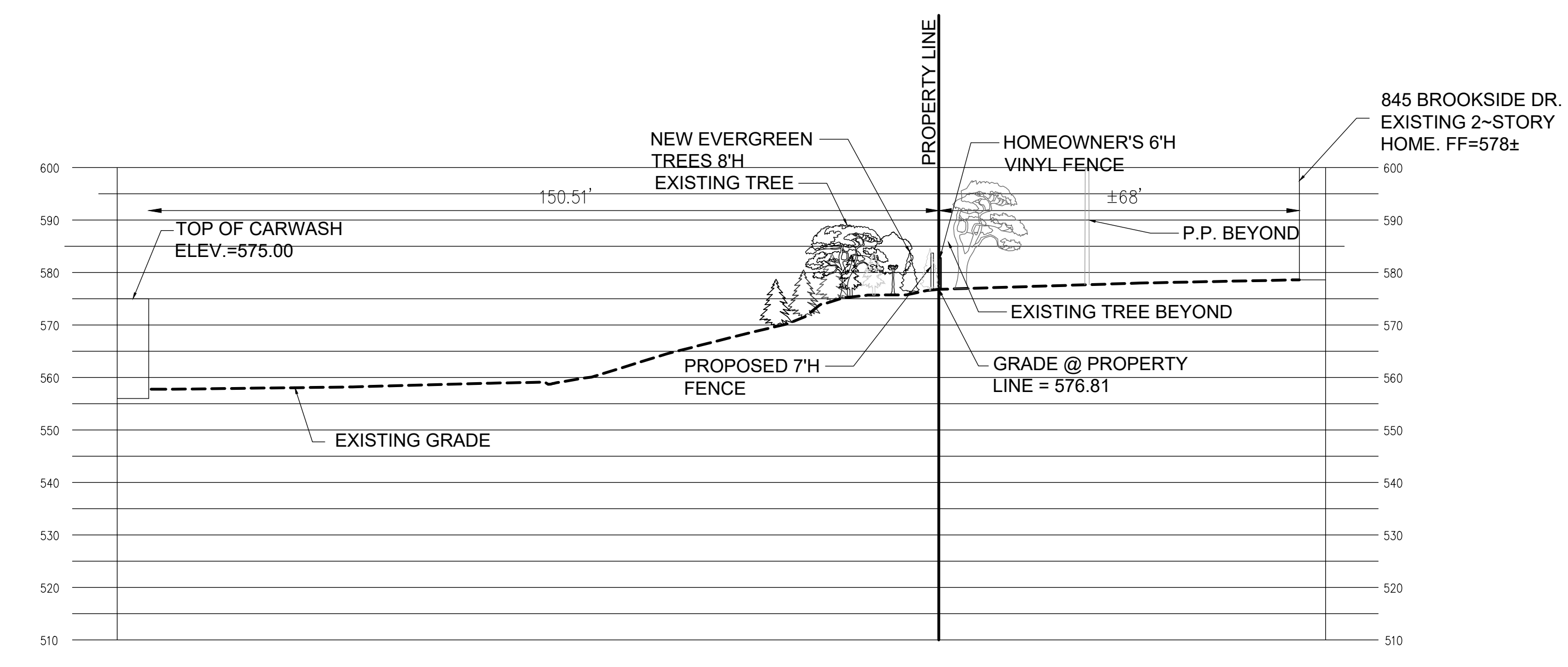
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Sheet No.:	L2.01
Date:	11/1/22
Job #:	813.093



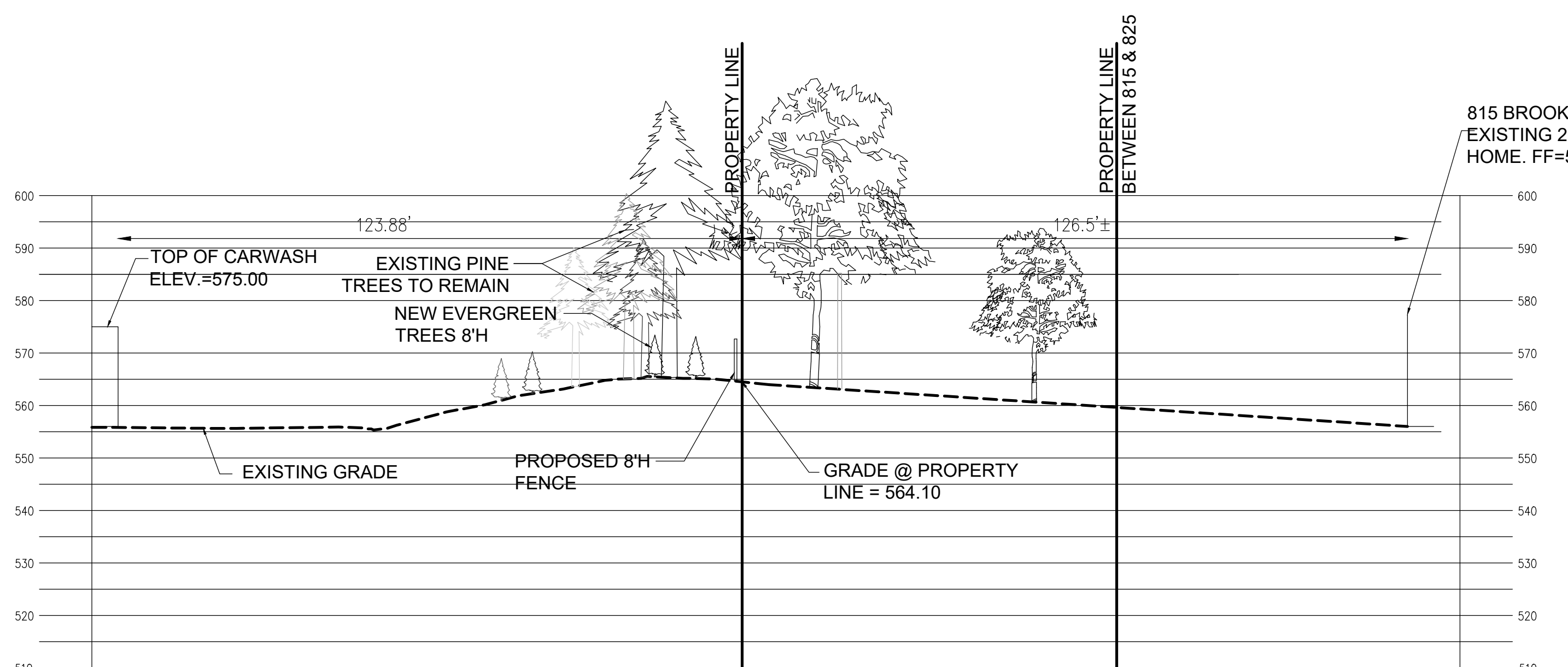
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SCALE 1"=20'



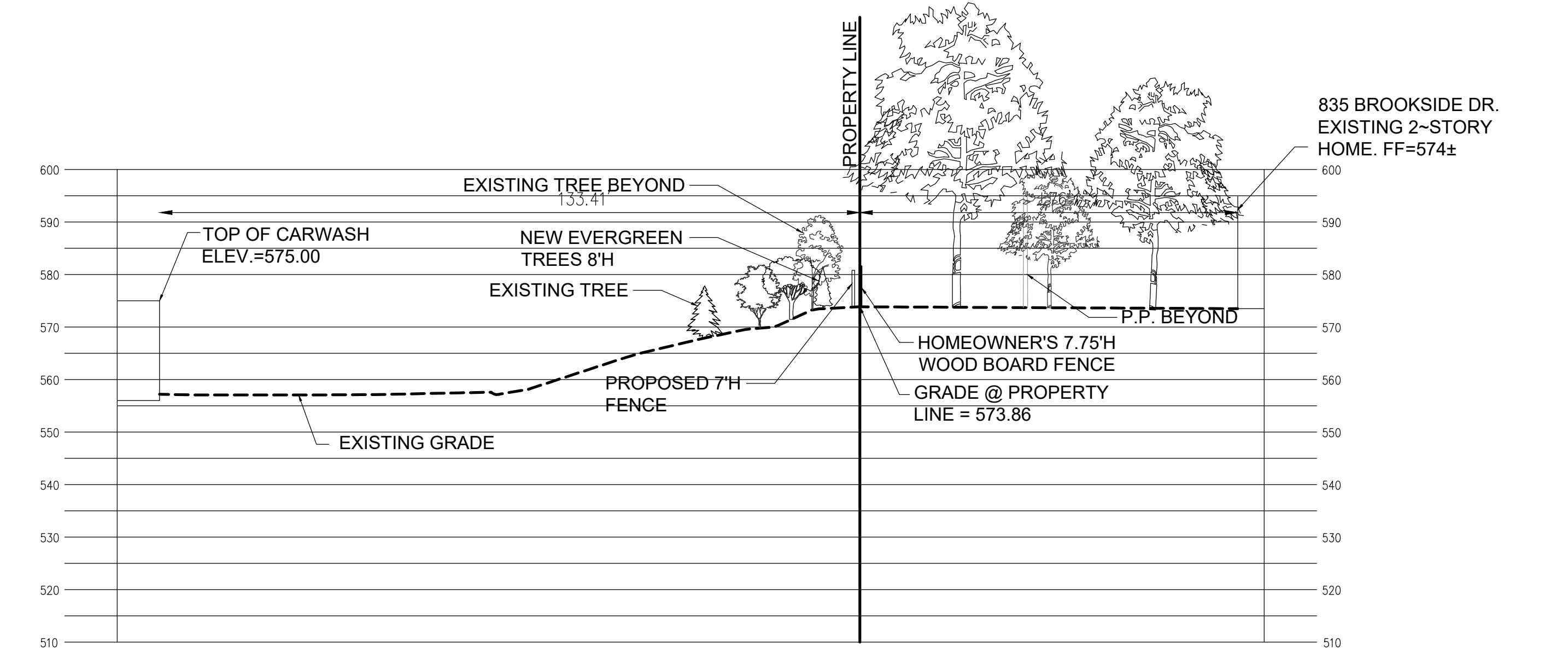
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SCALE 1"=20'



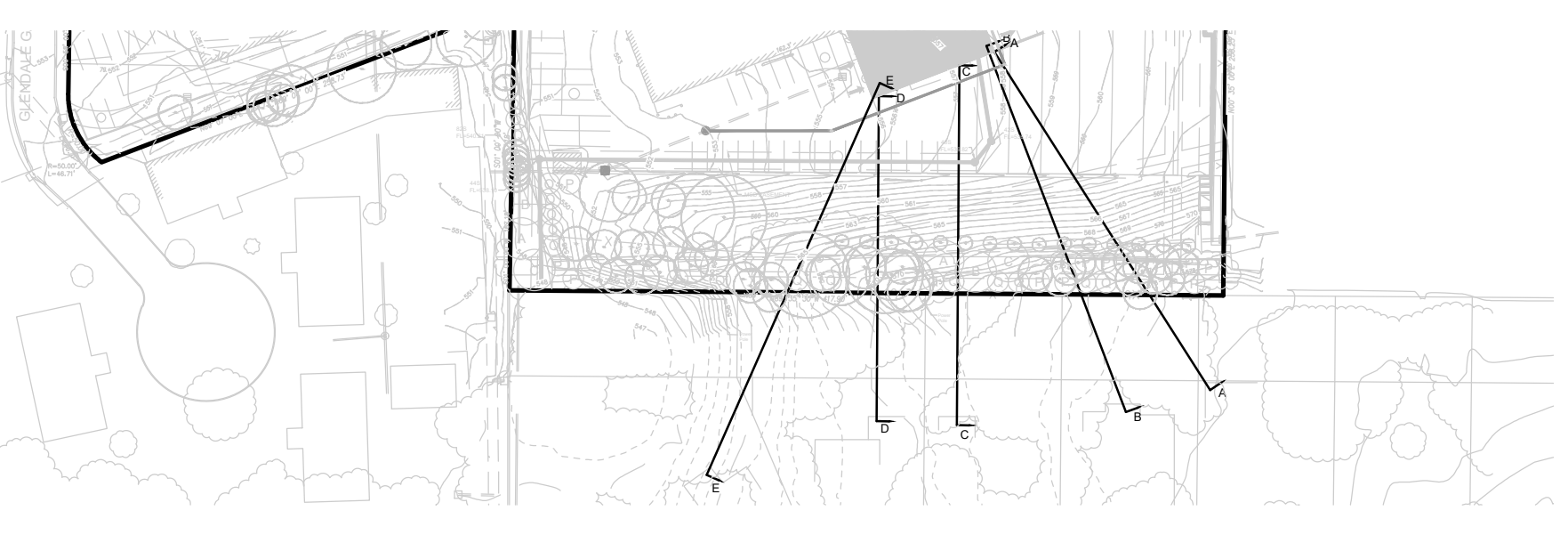
2 Section B-B  
SCALE 1"=20'



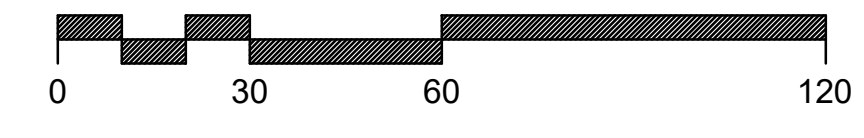
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SCALE 1"=20'

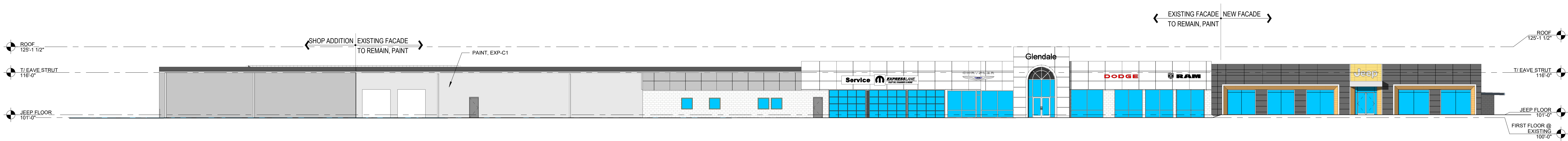


3 Section C-C  
SCALE 1"=20'

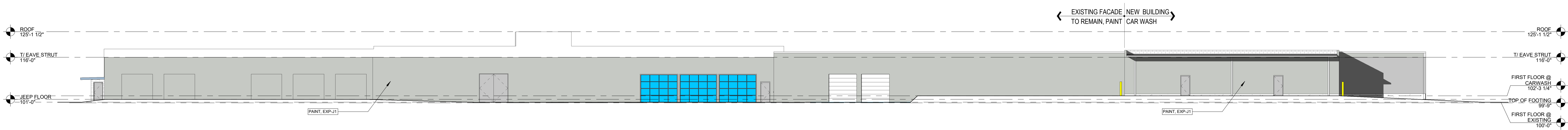


Section Key Plan  
SCALE 1"=30'





**B1** OVERALL BUILDING ELEVATION - NORTH  
1/16" = 1'-0"



**A1** OVERALL BUILDING ELEVATION - SOUTH  
1/16" = 1'-0"

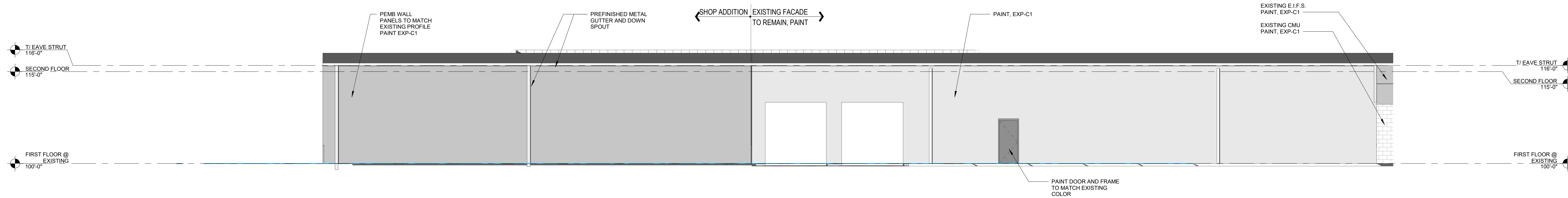
# Showroom Renovation and Service Bay Addition

Glendale Chrysler Jeep Dodge Ram

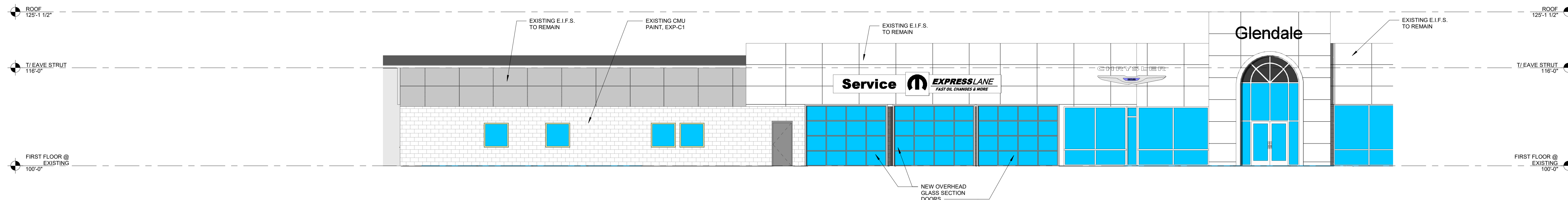
17107 Chesterfield Airport Road | Suite 110  
Chesterfield, Missouri 63005  
314.991.9993  
aciboland.com



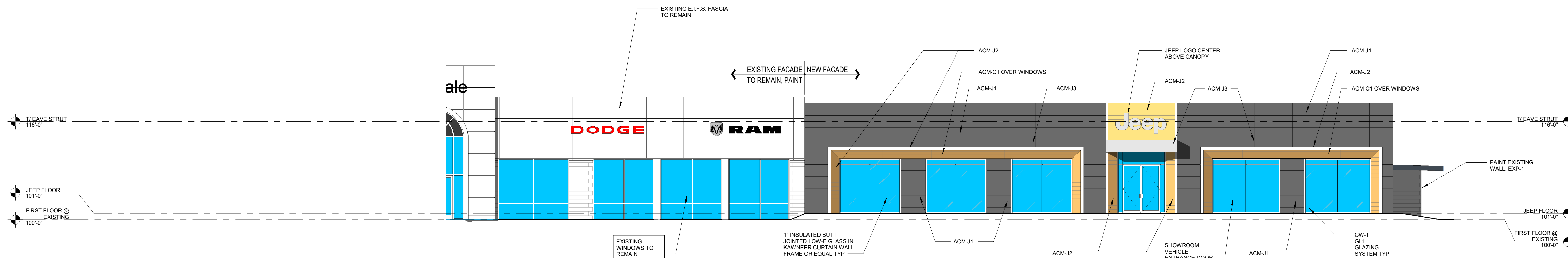
12/14/2022



C1 PARTIAL ELEVATION - NORTH  
1/8" = 1'-0"



B1 PARTIAL ELEVATION - NORTH  
1/8" = 1'-0"



A1 PARTIAL ELEVATION - NORTH  
1/8" = 1'-0"

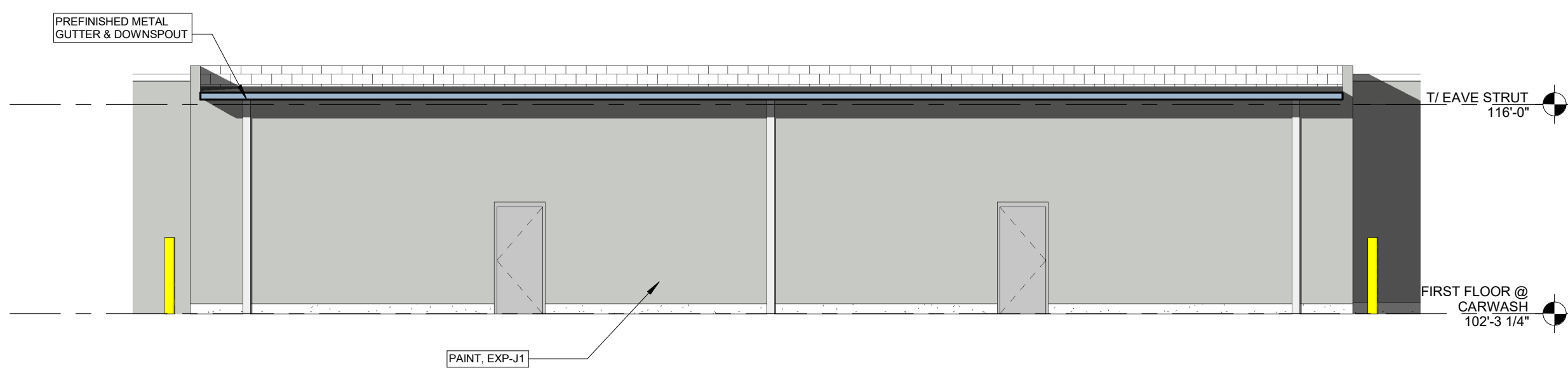
# Showroom Renovation and Service Bay Addition

Glendale Chrysler Jeep Dodge Ram

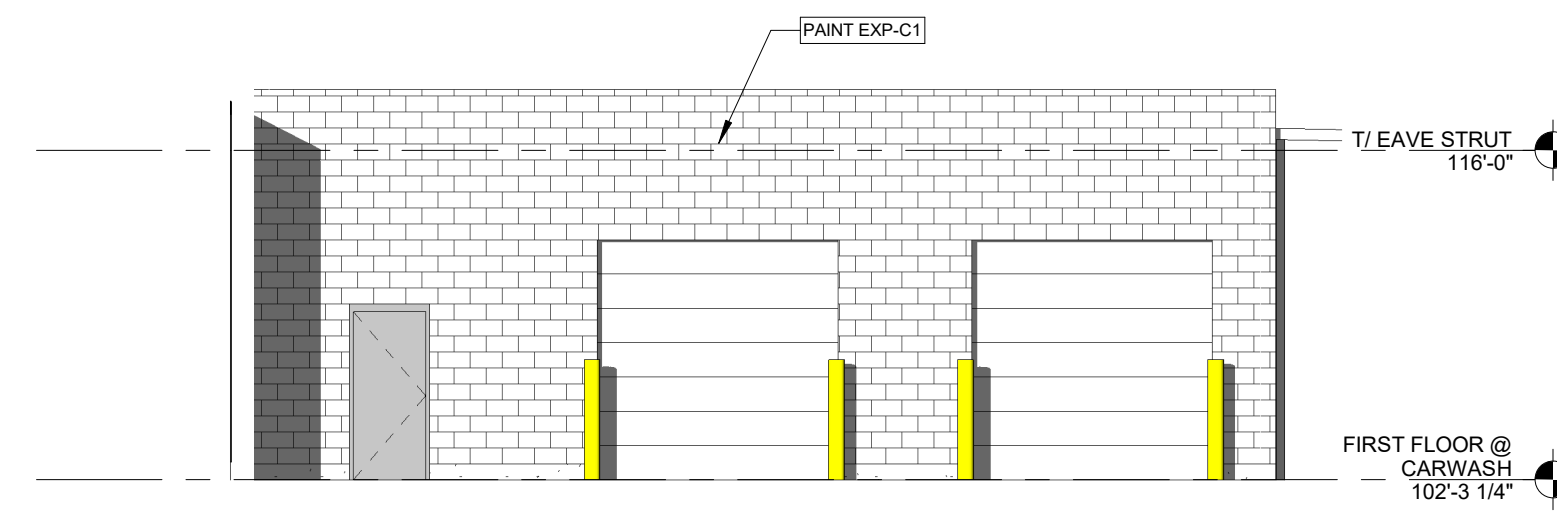
17107 Chesterfield Airport Road | Suite 110  
Chesterfield, Missouri 63005  
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aciboland.com

12/14/2022

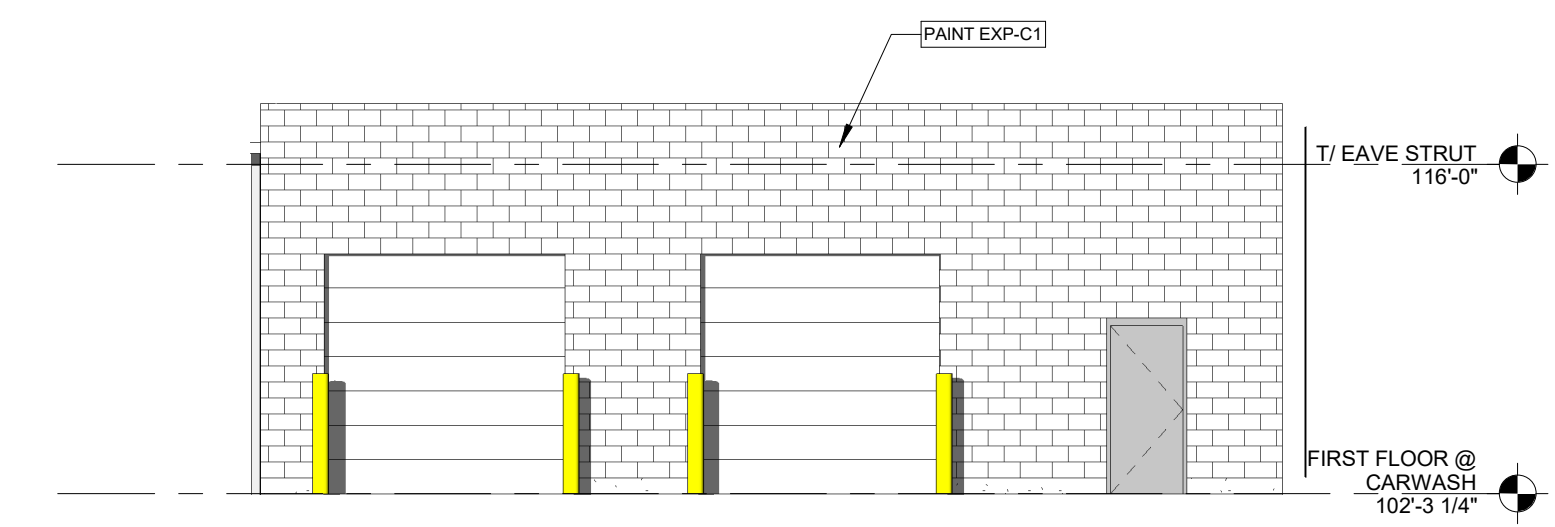




1 CAR WASH - SOUTH  
1/8" = 1'-0"



2 CAR WASH - WEST  
1/8" = 1'-0"



3 CAR WASH - EAST  
1/8" = 1'-0"

# Showroom Renovation and Service Bay Addition

Glendale Chrysler Jeep Dodge Ram

17107 Chesterfield Airport Road | Suite 110  
Chesterfield, Missouri 63005  
314.991.9993  
aciboland.com

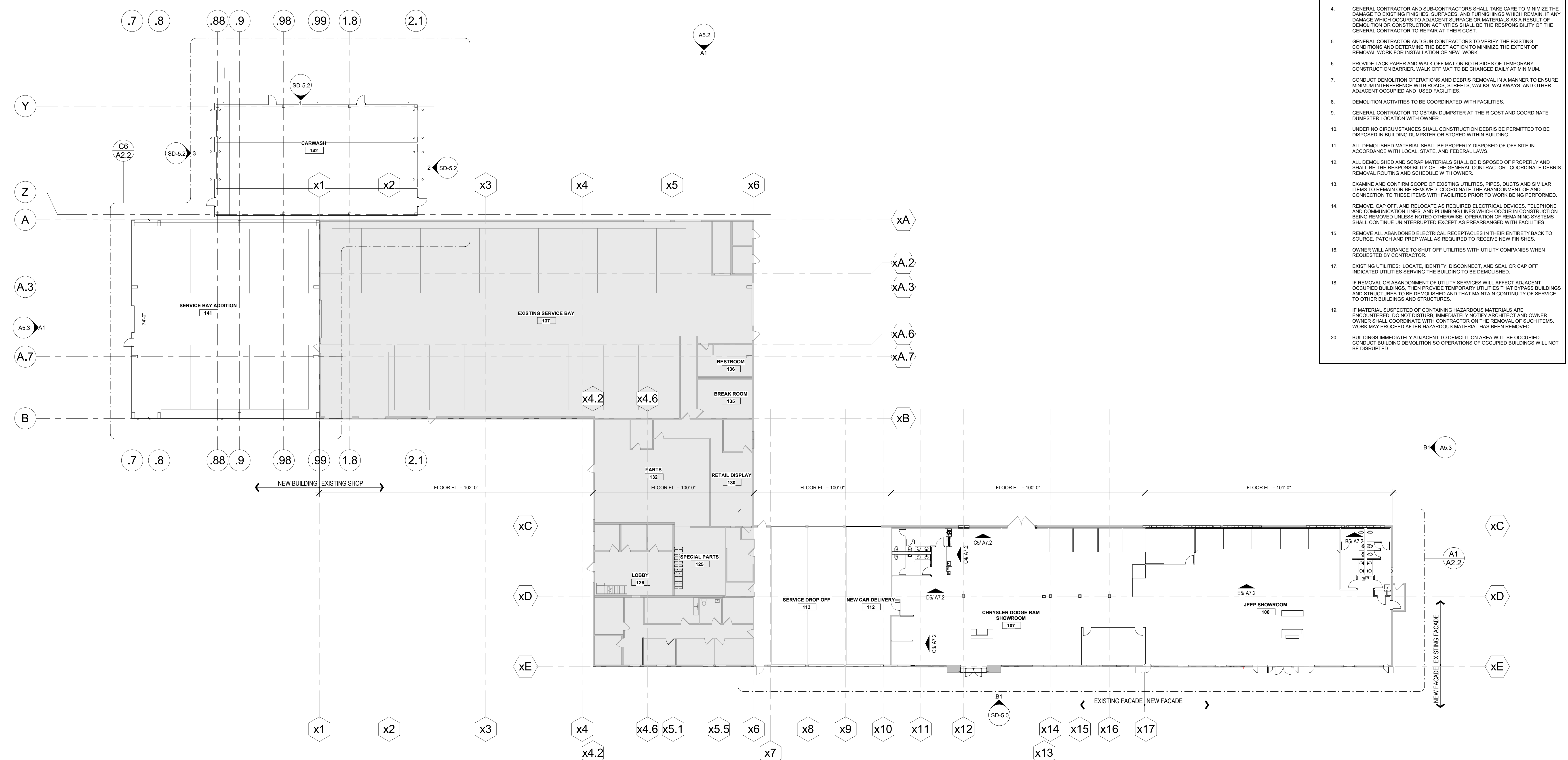
12/14/2022



### FLOOR PLAN LEGEND

	CONCRETE SLAB INFILL		CONCRETE SLAB INFILL
	NEW WALL		EXISTING WALL
	EXPANSION JOINT		EXISTING EXPANSION JOINT
	NEW DOOR		EXISTING DOOR

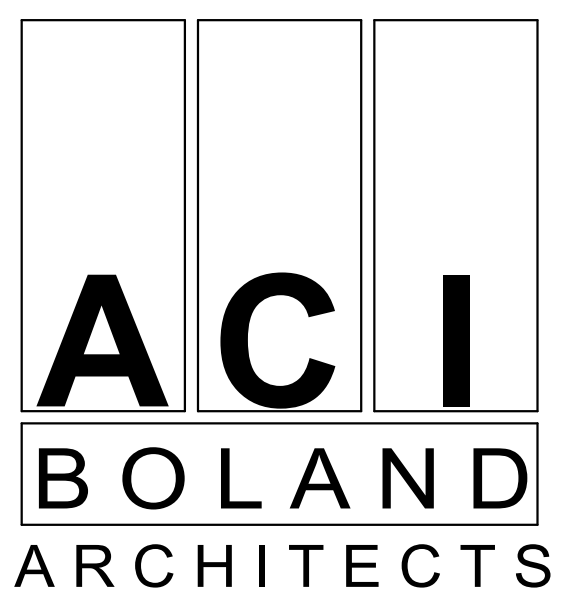
- ### GENERAL PLAN NOTES:
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH A.D.A. REQUIREMENTS AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL BUILDING CODES AND REGULATIONS.
  - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY BUILDING PERMITS.
  - THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ARCHITECT OF ANY INCONSISTENCIES OR DISCREPANCIES WITH THE PROJECT DOCUMENTS. ACCESS TO THE SITE AND/OR SPACE UNDER CONSTRUCTION DURING BIDDING AND CONSTRUCTION SHALL BE COORDINATED WITH THE OWNER.
  - THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING AND CONFIRMING ALL SUBSTRATE CONDITIONS WHERE NEW MATERIALS ARE APPLIED. THE SUBSTRATE SHALL BE SMOOTH AND FREE OF DEFECTS AND SHALL CONFORM TO THE REQUIREMENTS OF THE FINISHED MATERIAL MANUFACTURER'S RECOMMENDATIONS.
  - CONTRACTOR TO PROVIDE ALL REQUIRED LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO MEET AND COMPLETE THE REQUIREMENTS OF THE NEW CONSTRUCTION.
  - ALL EXISTING CONSTRUCTION TO REMAIN SHALL BE PATCHED, REPAIRED, AND PREP AS REQUIRED FOR NEW FINISH APPLICATION.
  - DO NOT CLOSE OR OBSTRUCT WALKWAYS, EXITS, OR OTHER FACILITIES USED BY OCCUPANTS OF BUILDINGS WITHOUT WRITTEN PERMISSION FROM AUTHORITIES HAVING JURISDICTION.
  - CONDUCT ALL OPERATIONS IN A SAFE WORKING MANNER TO PREVENT DAMAGE OR INJURY TO ADJACENT SPACES, BUILDING, STRUCTURE, OTHER FACILITIES, AND PERSONS.
  - SEE FINISH SCHEDULE FOR FINISH LOCATION AND SPECIFICATIONS.
  - SEE DOOR SCHEDULE FOR DOOR SPECIFICATIONS.
- #### DESIGN BUILD NOTES
- ALL ELECTRICAL, DATA, THERMOSTAT, AND TELEPHONE OUTLETS ARE FOR REFERENCE ONLY. COORDINATE WITH OWNER FOR EXACT QUANTITY AND LOCATION OF ALL ITEMS PRIOR TO WORK BEING PERFORMED. COMPLY WITH ALL APPLICABLE CODES.
  - DESIGN/BUILD CONTRACTOR TO PROVIDE FIRE AND LIFE SAFETY DEVICES, EGRESS LIGHTING DEVICES AS REQUIRED TO COMPLY WITH IFC/IFPA STANDARDS AND ALL APPLICABLE BUILDING CODES. SUBMIT SIGNED AND SEALED DRAWINGS TO BUILDING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO WORK BEING PERFORMED.
  - IT IS THE DESIGN BUILDER'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS, AND ANY EXISTING NON-CODE COMPLIANT ITEMS REQUIRING UPGRADES, AS A PART OF PREPARING THEIR DESIGN BUILD PROPOSAL.
  - EXISTING MEPPF DEVICES SHOWN ARE BASED ON EXISTING DRAWINGS AND/OR FIELD OBSERVATIONS. THE OWNER/ARCHITECT DOES NOT GUARANTEE THE ACCURACY/LOCATION OR QUANTITY OF EXISTING DEVICES.
- #### DEMOLITION NOTES
- PLANS REPRESENTS DEMOLITION INTENT. ITEMS MAY BE CONCEALED WITHIN WALL(S) THAT ARE NOT IDENTIFIED ON PLAN.
  - EXIST. CONSTRUCTION (SHOWN DASHED) INDICATES ITEMS TO BE REMOVED UNLESS NOTED OTHERWISE.
  - PRIOR TO DEMOLITION, REMOVAL OF EXISTING EQUIPMENT AND FURNISHING TO BE COORDINATED WITH OWNER ON WHICH ITEMS TO BE SALVAGED.
  - GENERAL CONTRACTOR AND SUB-CONTRACTORS SHALL TAKE CARE TO MINIMIZE THE DAMAGE TO EXISTING FINISHES, SURFACES, AND FURNISHINGS WHICH REMAIN. IF ANY DAMAGE WHICH OCCURS TO ADJACENT SURFACES OR MATERIALS AS A RESULT OF DEMOLITION OR CONSTRUCTION ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO REPAIR AT THEIR COST.
  - GENERAL CONTRACTOR AND SUB-CONTRACTORS TO VERIFY THE EXISTING CONDITIONS AND DETERMINE THE BEST ACTION TO MINIMIZE THE EXTENT OF REMOVAL WORK FOR INSTALLATION OF NEW WORK.
  - PROVIDE TACK PAPER AND WALK OFF MAT ON BOTH SIDES OF TEMPORARY CONSTRUCTION BARRIERS. WALK OFF MAT TO BE CHANGED DAILY AT MINIMUM.
  - CONDUCT DEMOLITION OPERATIONS AND DEBRIS REMOVAL IN A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, WALKWAYS, AND OTHER ADJACENT OCCUPIED AND USED FACILITIES.
  - DEMOLITION ACTIVITIES TO BE COORDINATED WITH FACILITIES.
  - GENERAL CONTRACTOR TO OBTAIN DUMPSTER AT THEIR COST AND COORDINATE DUMPSTER LOCATION WITH OWNER.
  - UNDER NO CIRCUMSTANCES SHALL CONSTRUCTION DEBRIS BE PERMITTED TO BE DISPOSED IN BUILDING DUMPSTER OR STORED WITHIN BUILDING.
  - ALL DEMOLISHED MATERIAL SHALL BE PROPERLY DISPOSED OF OFF SITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS.
  - ALL DEMOLISHED AND SCRAP MATERIALS SHALL BE DISPOSED OF PROPERLY AND SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. COORDINATE DEBRIS REMOVAL ROUTING AND SCHEDULE WITH OWNER.
  - EXAMINE AND CONFIRM SCOPE OF EXISTING UTILITIES, PIPES, DUCTS AND SIMILAR ITEMS TO REMAIN OR BE REMOVED. COORDINATE THE ABANDONMENT OF AND CONNECTION TO THESE ITEMS WITH FACILITIES PRIOR TO WORK BEING PERFORMED.
  - REMOVE, CAP OFF, AND RELOCATE AS REQUIRED ELECTRICAL DEVICES, TELEPHONE AND COMMUNICATION LINES, AND PLUMBING LINES WHICH OCCUR IN CONSTRUCTION BEING REMOVED UNLESS NOTED OTHERWISE. OPERATION OF REMAINING SYSTEMS SHALL CONTINUE UNINTERRUPTED EXCEPT AS PREARRANGED WITH FACILITIES.
  - REMOVE ALL ABANDONED ELECTRICAL RECEPTACLES IN THEIR ENTIRETY BACK TO SOURCE. PATCH AND PREP WALL AS REQUIRED TO RECEIVE NEW FINISHES.
  - OWNER WILL ARRANGE TO SHUT OFF UTILITIES WITH UTILITY COMPANIES WHEN REQUESTED BY CONTRACTOR.
  - EXISTING UTILITIES, LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF INDICATED UTILITIES SERVING THE BUILDING TO BE DEMOLISHED.
  - IF REMOVAL OR ABANDONMENT OF UTILITY SERVICES WILL AFFECT ADJACENT OCCUPIED BUILDINGS, THEN PROVIDE TEMPORARY UTILITIES THAT BYPASS BUILDINGS AND STRUCTURES TO BE DEMOLISHED AND THAT MAINTAIN CONTINUITY OF SERVICE TO OTHER BUILDINGS AND STRUCTURES.
  - IF MATERIAL SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB. IMMEDIATELY NOTIFY ARCHITECT AND OWNER. OWNER SHALL COORDINATE WITH CONTRACTOR ON THE REMOVAL OF SUCH ITEMS. WORK MAY PROCEED AFTER HAZARDOUS MATERIAL HAS BEEN REMOVED.
  - BUILDINGS IMMEDIATELY ADJACENT TO DEMOLITION AREA WILL BE OCCUPIED. CONDUCT BUILDING DEMOLITION SO OPERATIONS OF OCCUPIED BUILDINGS WILL NOT BE DISRUPTED.



**A1 OVERALL FLOOR PLAN**  
1/16" = 1'-0"



PRELIMINARY,  
NOT FOR  
CONSTRUCTION,  
RECORDING,  
PURPOSES, OR  
IMPLEMENTATION  
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License - Missouri RA-2011012130



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Kansas City | St. Louis  
1710 Wyandotte  
Kansas City, MO 64108  
T: 816.763.9600  
Licensee's Certificate of Authority Number:  
Missouri: #000958

**CONSULTANT**  
COMPANY NAME  
123 MAIN STREET  
KANSAS CITY, MO 64105  
T: 000.000.0000  
Licensee's Certificate of Authority Number:  
0000000000

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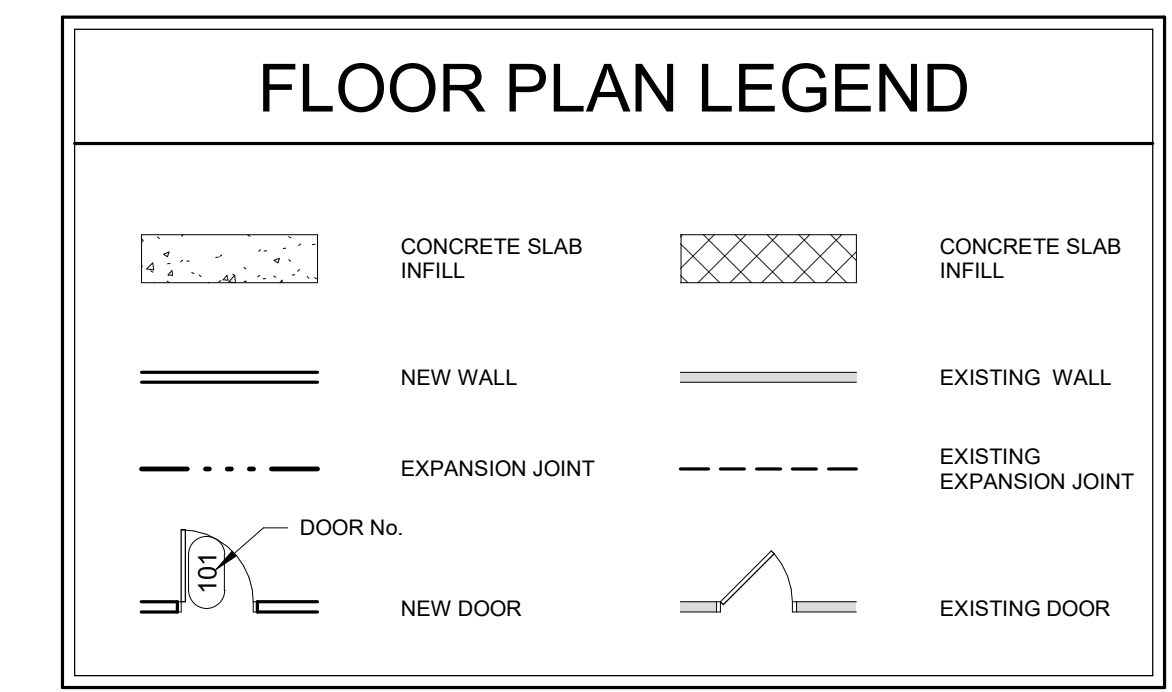
**CONSULTANT**  
COMPANY NAME  
123 MAIN STREET  
KANSAS CITY, MO 64105  
T: 000.000.0000  
Licensee's Certificate of Authority Number:  
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**Glendale Chrysler Jeep Dodge Ram  
Showroom Renovation and Service  
Bay Addition**  
10700 Manchester Road  
St. Louis, Missouri 63122

Date 02-21-22  
Job Number 21117  
Drawn By MPM  
Checked By RAC

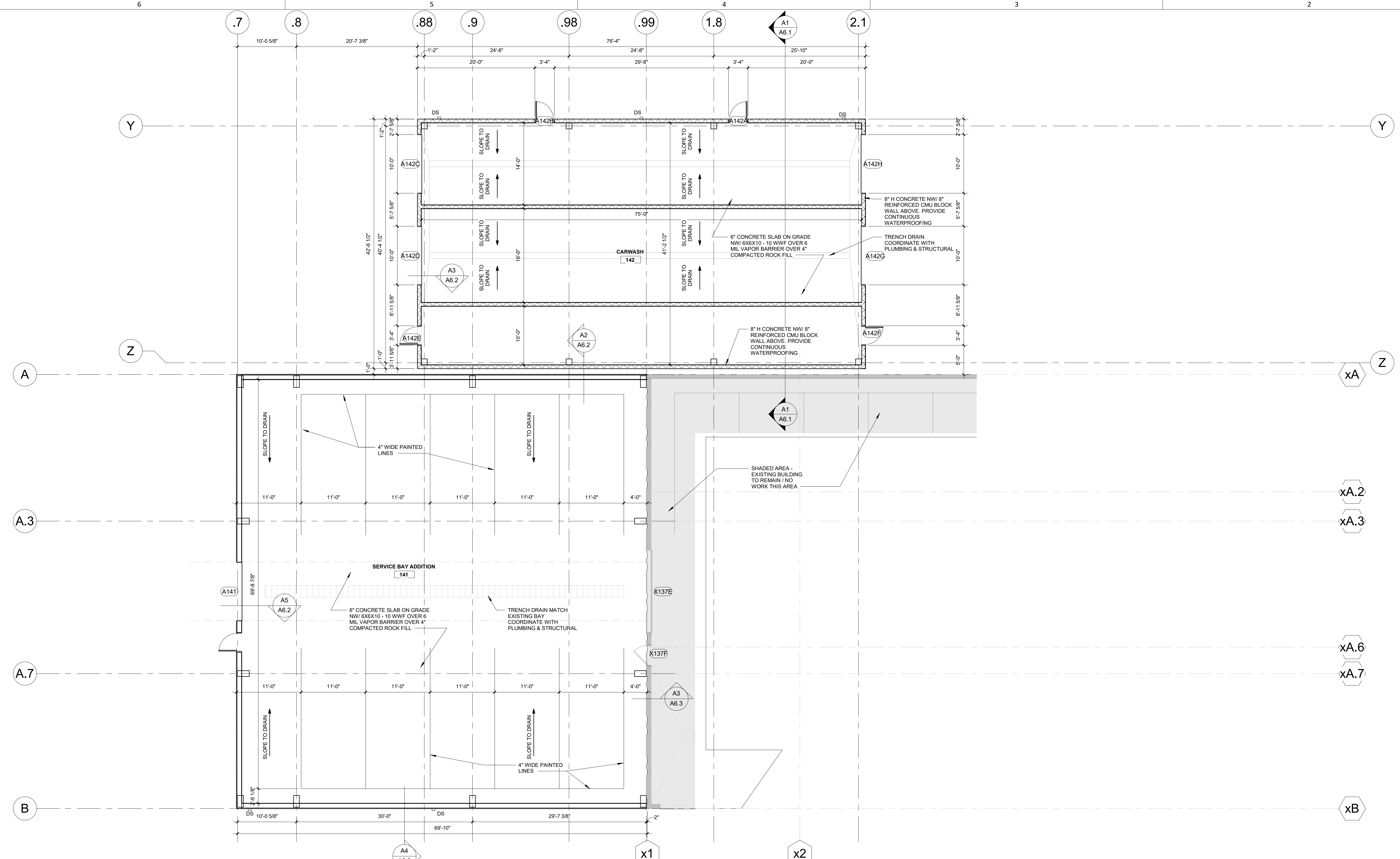
Revision  
Number Date Description



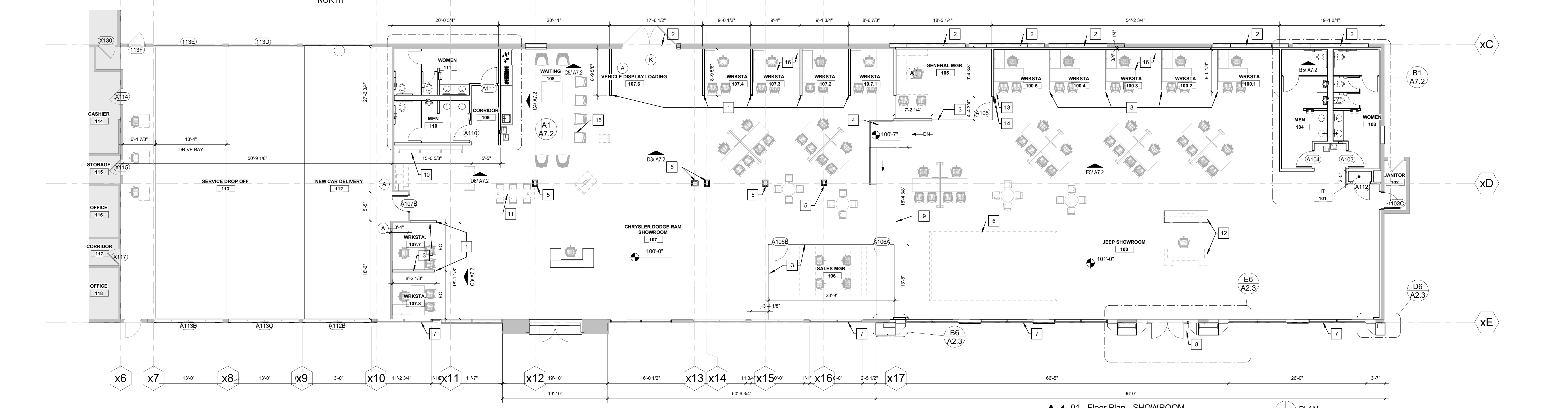


**KEYNOTES - FLOOR PLAN**

NUMBER	COMMENTS
1	ALIGN FACE OF GYP BD.
2	INFILL EXISTING OPENING WITH CMU ALIGN EACH SIDE WITH EXISTING WALL.
3	NEW BUTT GLAZING CLEAR WINDOW SYSTEM. FINISH FLOOR TO CEILING.
4	DRAP.
5	WRAP EXISTING COLUMN WITH PARTITION TYPE K1 HOLD TIGHT TO STRUCTURE.
6	VEHICLE PAD BY OWNER.
7	NEW STOREFRONT WINDOW SYSTEM. MATCH EXISTING WINDOW SYSTEMS.
8	NEW ENTRY SYSTEMS.
9	42" HIGH PARTITION.
10	KEEP TRAIL WALL REQUIRES AN ELECTRIC OUTLET AT 86.75" A.F.F. SEE ELEC. DRAWINGS.
11	KEEP TECH BAR REQUIRES POWER. COORDINATE WITH FURNITURE VENDOR FOR ELEC. REQUIREMENTS. SEE ELEC. DRAWINGS.
12	WELCOME WALL, CREDENTIAL AND RECEPTION DESK REQUIRE POWERS. COORDINATE WITH FURNITURE VENDOR FOR ELEC. REQUIREMENTS. SEE ELEC. DRAWINGS.
13	MILLWORK SURROUND AT THE OPENING. G.C. TO VERIFY OPENING SIZE. SEE DETAIL SHEET FOR MORE INFORMATION.
14	ALIGN WITH ADJACENT WALL.
15	DEALERSHIP FURNITURE WILL BE APPROVED SEPARATELY BY CRE PROJECT MANAGER.
16	ALL CUSTOMER SALES FURNITURE WILL BE BY STELLANTIS APPROVED VENDOR.



C6 01 - Floor Plan - SHOP CARWASH  
1/8" = 1'-0"



A1 01 - Floor Plan - SHOWROOM  
1/8" = 1'-0"

## DESCRIPTION

The patented Lumark Crosstour™ MAXX LED wall pack series of luminaires provides low-profile architectural style with super bright, energy-efficient LEDs. The rugged die-cast aluminum construction, back box with secure lock hinges, stainless steel hardware along with a sealed and gasketed optical compartment make Crosstour impervious to contaminants. The Crosstour MAXX wall luminaire is ideal for wall/surface, inverted mount for facade/canopy illumination, perimeter and site lighting. Typical applications include pedestrian walkways, building entrances, multi-use facilities, industrial facilities, perimeter parking areas, storage facilities, institutions, schools and loading docks.

## SPECIFICATION FEATURES

### Construction

Low-profile LED design with rugged one-piece, die-cast aluminum back box and hinged removable door. Matching housing styles incorporate both a full cutoff and refractive lens design. Full cutoff and refractive lens models are available in 58W, 81W and 102W. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes four 1/2" NPT threaded conduit entry points. The back box is secured by four lag bolts (supplied by others). External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Not recommended for car wash applications.

### Optical

Silicone sealed optical LED chamber incorporates a custom engineered reflector providing high-efficiency illumination. Full cutoff models integrate an impact-resistant molded refractive prism optical lens assembly meeting requirements for Dark Sky compliance. Refractive lens models incorporate a molded lens

assembly designed for maximum forward throw. Solid state LED Crosstour MAXX luminaires are thermally optimized with eight lumen packages in cool 5000K, neutral 4000K, or warm 3000K LED color temperature (CCT).

### Electrical

LED driver is mounted to the die-cast aluminum housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 58W, 81W and 102W models operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C [122°F] models available in 58W and 81W models only. Crosstour MAXX luminaires maintain greater than 89% of initial light output after 72,000 hours of operation. Four half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 120-277V 50/60Hz, 480V 60Hz, or 347V 60Hz electrical operation. 480V is compatible for use with 480V Wye systems only.

### Emergency Egress

Optional integral cold weather battery emergency egress includes emergency operation test switch (available in 58W and 81W models only), an AC-ON indicator light and a premium extended rated sealed maintenance-free nickel-metal hydride battery pack. The separate emergency lighting LEDs are wired to provide redundant emergency lighting. Listed to UL Standard 924, Emergency Lighting.

### Finish

Crosstour MAXX is protected with a super TGIC carbon bronze or summit white polyester powder coat paint. Super TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life. Options to meet Buy American and other domestic preference requirements.

### Warranty

Five-year warranty.



## XTOR CROSSTOUR MAXX LED

APPLICATIONS:  
WALL / SURFACE  
INVERTED  
SITE LIGHTING



### CERTIFICATION DATA

UL/cUL Wet Location Listed  
Dark Sky Approved (Fixed mount, Full cutoff, and 3000K CCT only)  
DesignLights Consortium® Qualified\*  
LM79 / LM80 Compliant  
ROHS Compliant  
NOM Compliant Models  
3G Vibration Tested  
UL924 Listed (CBP Models)  
IP66 Rated

### TECHNICAL DATA

40°C Ambient Temperature  
External Supply Wiring 90°C Minimum

### EPA

Effective Projected Area (Sq. Ft.):  
XTOR6B, XTOR8B, XTOR12B=0.54

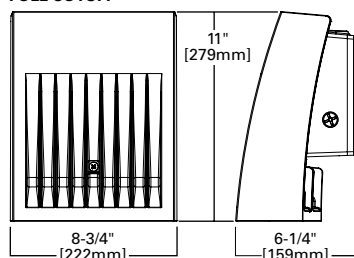
### SHIPPING DATA:

Approximate Net Weight:  
12-15 lbs. [5.4-6.8 kgs.]

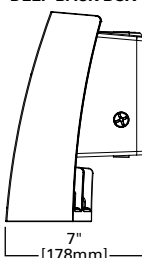
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## DIMENSIONS

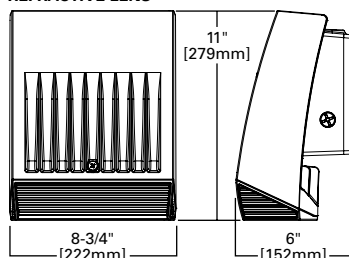
### FULL CUTOFF



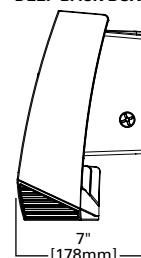
### DEEP BACK BOX



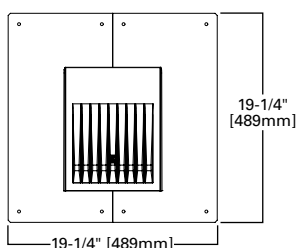
### REFRACTIVE LENS



### DEEP BACK BOX



## ESCUTCHEON PLATES

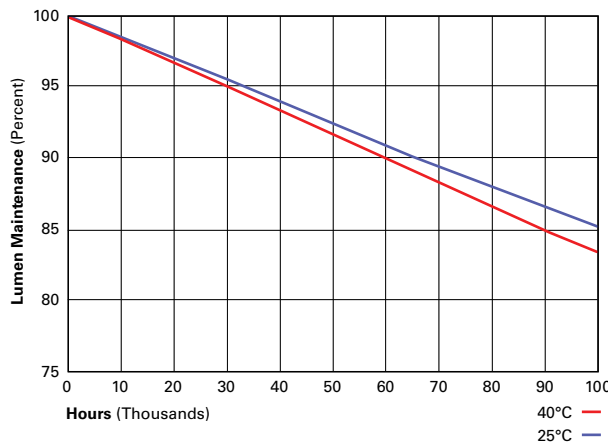


**POWER AND LUMENS BY FIXTURE MODEL**

58W Series						
LED Information	XTOR6B	XTOR6BRL	XTOR6B-W	XTOR6BRL-W	XTOR6B-Y	XTOR6BRL-Y
Delivered Lumens	6,129	6,225	6,038	6,133	5,611	5,826
B.U.G. Rating	B1-U0-G1	B2-U4-G3	B1-U0-G1	B2-U4-G3	B1-U0-G1	B2-U4-G3
CCT (Kelvin)	5000K	5000K	4000K	4000K	3000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70
Power Consumption (Watts)	58W	58W	58W	58W	58W	58W
81W Series						
LED Information	XTOR8B	XTOR8BRL	XTOR8B-W	XTOR8BRL-W	XTOR8B-Y	XTOR8BRL-Y
Delivered Lumens	8,502	8,635	8,373	8,504	7,748	8,079
B.U.G. Rating	B2-U0-G1	B2-U4-G3	B2-U0-G1	B2-U4-G3	B2-U0-G1	B2-U4-G3
CCT (Kelvin)	5000K	5000K	4000K	4000K	3000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70
Power Consumption (Watts)	81W	81W	81W	81W	81W	81W
102W Series						
LED Information	XTOR12B	XTOR12BRL	XTOR12B-W	XTOR12BRL-W	XTOR12B-Y	XTOR12BRL-Y
Delivered Lumens	12,728	13,458	12,539	13,258	11,861	12,595
B.U.G. Rating	B2-U0-G1	B2-U4-G3	B2-U0-G1	B2-U4-G3	B2-U0-G1	B2-U4-G3
CCT (Kelvin)	5000K	5000K	4000K	4000K	3000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70
Power Consumption (Watts)	102W	102W	102W	102W	102W	102W
EGRESS Information	XTOR6B and XTOR8B Full Cutoff CBP Egress LED			XTOR6B and XTOR8B Refractive Lens CBP Egress LED		
Delivered Lumens	509			468		
B.U.G. Rating	N.A.			N.A.		
CCT (Kelvin)	4000K			4000K		
CRI (Color Rendering Index)	65			65		
Power Consumption (Watts)	1.8W			1.8W		

**LUMEN MAINTENANCE**

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
<b>XTOR6B Model</b>		
25°C	> 90%	246,000
40°C	> 88%	217,000
50°C	> 88%	201,000
<b>XTOR8B Model</b>		
25°C	> 89%	219,000
40°C	> 87%	195,000
50°C	> 86%	181,000
<b>XTOR12B Model</b>		
25°C	> 89%	222,000
40°C	> 87%	198,000



**CURRENT DRAW**

Voltage	Model Series				
	XTOR6B	XTOR8B	XTOR12B	XTOR6B-CBP (Fixture/Battery)	XTOR8B-CBP (Fixture/Battery)
120V	0.51	0.71	0.94	0.60/0.25	0.92/0.25
208V	0.25	0.39	0.52	--	--
240V	0.25	0.35	0.45	--	--
277V	0.22	0.31	0.39	0.36/0.21	0.50/0.21
347V	0.19	0.25	0.33		--
480V	0.14	0.19	0.24		--

**ORDERING INFORMATION**

Sample Number: XTOR6B-W-WT-PC1

Domestic Preferences <sup>17</sup>	Series <sup>1</sup>	LED Kelvin Color	Housing Color	Options (Add as Suffix)
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	<b>Full Cutoff</b> XTOR6B=58W XTOR8B=81W XTOR12B=102W  <b>Refractive Lens</b> XTOR6BRL=58W XTOR8BRL=81W XTOR12BRL=102W	[Blank]=Bright White (Standard) 5000K W=Neutral, 4000K Y=Warm, 3000K	[Blank]=Carbon Bronze (Standard) WT=Summit White BK=Black BZ=Bronze AP=Grey GM=Graphite Metallic DP=Dark Platinum	<b>347V</b> =347V <sup>2,3,4,5</sup> <b>480V</b> =480V <sup>2,3,4,5,6</sup> <b>PC1</b> =Photocontrol 120V <sup>7</sup> <b>PC2</b> =Photocontrol 208-277V <sup>7,8</sup> <b>MS-L20</b> =Motion Sensor for ON/OFF Operation <sup>2,3,9,10</sup> <b>MS/DIM-L20</b> =Motion Sensor for Dimming Operation <sup>2,3,9,10,11,12,13</sup> <b>CBP</b> =Cold Weather Battery Pack <sup>2,3,14,15,16</sup> <b>HA</b> =50°C High Ambient <sup>16</sup>
<b>Accessories (Order Separately)<sup>18</sup></b>				
WG-XTORMX=Crosstour MAXX Wire Guard PB120V=Field Installed 120V Photocontrol PB277V BUTTON PC=Field Installed 208-277V Photocontrol <sup>8</sup>			EWP/XTORMX=Escutcheon Wall Plate, Carbon Bronze EWP/XTORMX-WT=Escutcheon Wall Plate, Summit White FSIR-100=Wireless Configuration Tool for Occupancy Sensor <sup>13</sup>	

- NOTES:**
- DesignLights Consortium® Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.
  - Not available with HA option.
  - Deep back box is standard for 347V, 480V, CBP, MS-L20 and MS/DIM-L20.
  - Not available with CBP option.
  - Thru-branch wiring not available with HA option or with 347V.
  - Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
  - Not available with MS-L20 and MS/DIM-L20 options.
  - Use PC2 with 347V or 480V option for photocontrol. Factory wired to 208-277V lead.
  - For use in downlight orientation only. Optimal coverage at mounting heights of 9'-20'.
  - 120V thru 277V only.
  - Factory set to 50% power reduction after 15-minutes of inactivity. Dimming driver included.
  - Includes integral photo sensor.
  - The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff, and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
  - 120V or 277V operation only.
  - Operating temperatures -20°C to 25°C.
  - Not available in XTOR12B or XTOR12BRL models.
  - Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to [DOMESTIC PREFERENCES](#) website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
  - Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

**STOCK ORDERING INFORMATION**

Domestic Preferences <sup>1</sup>	58W Series	81W Series	102W Series
[Blank]=Standard	<b>Full Cutoff</b>		
BAA=Buy American Act	XTOR6B=58W, 5000K, Carbon Bronze	XTOR8B=81W, 5000K, Carbon Bronze	XTOR12B=102W, 5000K, Carbon Bronze
TAA=Trade Agreements Act	XTOR6B-PC1=58W, 5000K, 120V PC, Carbon Bronze	XTOR8B-PC1=81W, 5000K, 120V PC, Carbon Bronze	
	XTOR6B-WT= 58W, 5000K, Summit White	XTOR8B-WT=81W, 5000K, Summit White	
	XTOR6B-W=58W, 4000K, Carbon Bronze	XTOR8B-PC2=81W, 5000K, 208-277V PC, Carbon Bronze	
	XTOR6B-PC2= 58W, 5000K, 208-277V PC, Carbon Bronze	XTOR8B-347V=81W, 5000K, Carbon Bronze, 347V	
	<b>Refractive Lens</b>		
	XTOR6BRL=58W, 5000K, Refractive Lens, Carbon Bronze	XTOR8BRL=81W, 5000K, Refractive Lens, Carbon Bronze	XTOR12BRL=102W, 5000K, Refractive Lens, Carbon Bronze
	XTOR6BRL-PC1=58W, 5000K, Refractive Lens, 120V PC, Carbon Bronze	XTOR8BRL-PC1=81W, 5000K, Refractive Lens, 120V PC, Carbon Bronze	XTOR12BRL-W=102W, 4000K, Refractive Lens, Carbon Bronze
	XTOR6BRL-WT=58W, 5000K, Refractive Lens, Summit White	XTOR8BRL-WT=81W, 5000K, Refractive Lens, Summit White	XTOR12BRL-347V=102W, 5000K, Refractive Lens, Carbon Bronze, 347V
	XTOR6BRL-W=58W, 4000K, Refractive Lens, Carbon Bronze	XTOR8BRL-PC2=81W, 5000K, Refractive Lens, 208-277V PC, Carbon Bronze	
	XTOR6BRL-PC2=58W, 5000K, Refractive Lens, 208-277V PC, Carbon Bronze	XTOR8BRL-W=81W, 4000K, Refractive Lens, Carbon Bronze	
	XTOR6BRL-347V=58W, 5000K, Refractive Lens, Carbon Bronze, 347V	XTOR8BRL-347V = 81W, 5000K, Refractive Lens, Carbon Bronze, 347V	

- NOTES:**
- Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to [DOMESTIC PREFERENCES](#) website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.



Cooper Lighting Solutions  
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Peachtree City, GA 30269  
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www.cooperlighting.com

Specifications and dimensions subject to change without notice.