

**\*THIS DRAWING IS PRELIMINARY AND NOT TO BE USED FOR CONSTRUCTION\***

**GENERAL NOTES**

**Preliminary Drawings:**

Preliminary drawings may be provided with a quote to indicate the location of vacuum equipment, piping, and hoses. Drawings may be used in direct coordination with Architects' and Engineers' plans for city/AHJ/client approval. Accurate and complete site plans must be provided to ensure the quality of your vacuum area to coordinate issues such as vacuum parking space width/angle, traffic flow, and hose reach.

Drawings are preliminary until the final system order is signed by the client.

Changes made to a vacuum system without Vacutech's consultation voids all Vacutech responsibility as well as the system warranty.

**INSTALLATION NOTES**

**Installation By Others:**

Installation drawings are provided with each project. Most projects require 2 or more installers and a forklift. Buried pipe, footings and concrete equipment pad(s) should be completed before installing Vacutech systems. J-bolt template kits for footings for vacuum arches and stanchions are available for purchase from Vacutech. Refer to drawings for footing requirements. Changes to vacuum piping, vacuum equipment location, and vacuum equipment enclosure will effect the performance of your system. Changes made to a vacuum system without Vacutech's consultation voids all Vacutech responsibility and the system warranty.

**Vacutech System Install:**

Vacutech offers installation as an option when bidding a project.

Please note that the scope of Vacutech's installation only includes work above ground. Vacutech will install vacuum arches/stanchions to concrete footings, install vacuum piping and set vacuum equipment in place.

Vacutech does not dig trenches, auger footings, dig/backfill/bury pipe or conduit, or provide any work below grade.

Vacutech does not pour footings, install J-bolts, install concrete trenches with covers, pour concrete pads, or do concrete work of any kind. Vacutech does not do core drilling through building walls.

Vacutech does not wire lights, turbines, disconnects, VFDs, starters or any other electrical component. Vacutech does not pull wire through conduits. These items must be done by a Licensed Electrician.

**WARRANTY NOTES**

**CHANGES MADE TO VACUUM SYSTEM WITHOUT VACUTECH CONSULTATION VOIDS ALL VACUTECH RESPONSIBILITY AND SYSTEM WARRANTY**

**Equipment warranty information:** (if applicable)

When vacuum equipment is installed in an enclosure with 4 walls and a roof it must be ventilated. Enclosure door must be louvered and an exhaust fan with thermostat set at 85°F must be installed to turn over air every 15 min. Vacuum turbine must be exhausted outside with metallic pipe no smaller than 6" with exhaust pipe opening protected from elements. Equipment pad must be flat and level.

**Variable frequency drive (VFD) warranty information:** (if applicable)

VFDs must be wired from main distribution panel in separate conduit (sized per code; based on turbine H.P. and voltage) to each VFD and from each VFD to turbine motor.

A separate conduit, sized per code, must also be installed from VFD to vacuum pressure transducer installed on filter separator. If two (2) or more VFD's are installed in one (1) enclosure, a separate conduit must be installed for each VFD. Install separate conduit from enclosure to each turbine motor, and each filter separator if there is more than one (1).

**PIPE NOTES**

**Piping systems above ground**

Piping system shall be schedule 40 (or sch 80) solid core PVC or ABS plastic pipe, with plastic D.W.V. (drain, waste and vent) fittings. Zinc, aluminum, or galvanized tubing, with directional flow zinc fittings of no less than 16 gauge, designed specifically for central vacuum systems are also acceptable.

**Buried piping systems cast iron no-hub**

In-ground piping systems that are subject to ground freeze/thaw conditions or excessive movement shall be cast iron with no-hub fittings and no-hub couplings (w/ stainless steel band).

**Buried piping systems PVC sch 40 (or sch 80)**

In-ground piping systems using PVC pipe shall be sch 40 (or sch 80) solid core, with PVC D.W.V. (drain, waste, and vent) fittings. Plastic pipe installed in-ground has a potential of possible cracking and wear. All plastic pipe systems in-ground must be below freeze line.

**System notes:**

All interior surfaces shall be free of burrs and obstructions for a non-restrictive air flow. ABS and PVC piping shall be cut straight and removed of burrs. Piping shall be attached together using a primer, and a cement (clear PVC cement for PVC/ black abs cement for abs) for a 100% tight seal.

Overhead piping systems shall be supported by means of approved pipe hangers, and shall be installed at a maximum of six feet O.C. when using abs or PVC pipe and ten feet when using zinc or aluminum tubing. All fittings supporting vacuum drop/hose assemblies shall be supported within one foot on each side of fitting connection.

Piping systems shall be tested to hold 10 psi for a minimum of 24 hours.

When vacuum system is installed in potentially explosive environment, the following may be required as a minimum: Explosion proof motor Class I - Group D & Class II - Group E, F & G. Aluminum piping with zinc fittings. Primary and filtered separators and hose assemblies require special grounding. Verify all conditions.

PVC and ABS plastic pipe are not U.V. rated and will discolor and soften/cause bowing when exposed to direct sunlight. It is recommended that all exposed plastic pipe and fittings be primed and painted to help prevent this. It is recommended to use zinc, or aluminum tubing and zinc fittings be used when exposed to sun.

**Plastic pipe exposed to elements:**

PVC pipe will become brittle at 40° f and can crack/split when moving debris collides with it, it is recommended to use cast iron, zinc, or aluminum tubing for colder conditions.

**ADDITIONAL NOTES**

**VFD Systems:**

Instructions for wiring VFD to Turbine and Filter Separator are available for your electrician. After wiring is complete, call our customer service to complete programming.

**Arch Systems: How Awnings are ordered (Coolaroo/Weblon)**

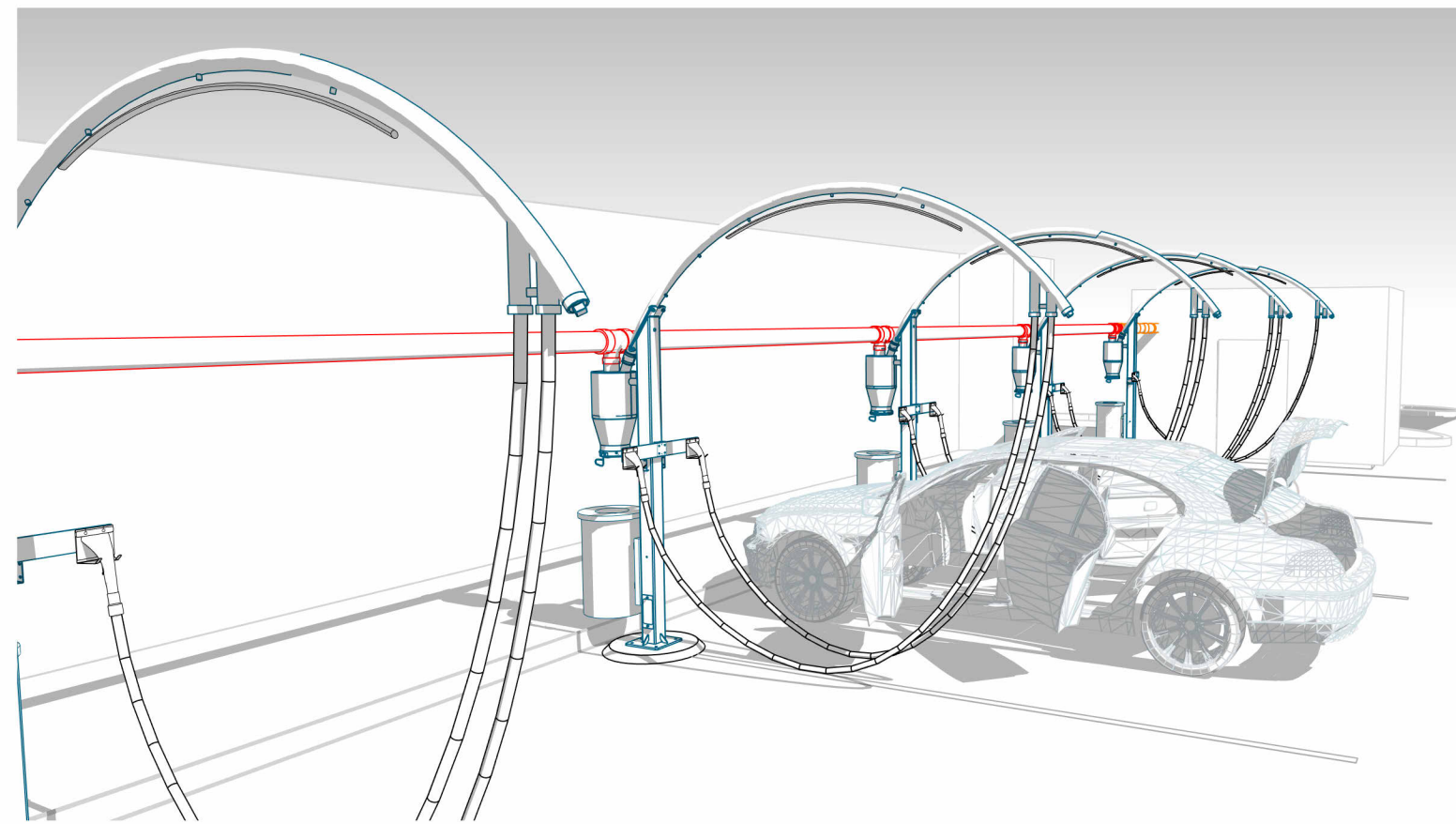
**Step 1:** Arches are to be completely installed on site.  
**Step 2:** After installation, Vacutech will send an awning measurement form to be filled out with instructions on how and where to measure. The awning form must be filled out entirely, signed, dated, and faxed or emailed to Vacutech for production.  
**Step 3:** Awnings are shipped to site w/ instructions.

**Maintenance:**

System longevity under continuous operation is extended by regular maintenance. Issues commonly result from failure to remove obstructions in the piping system, replace damaged or worn parts, or not regularly changing filter bags. Refer to Vacutech maintenance instructions

**Assign a person to central vacuum maintenance:**

To ensure continued trouble free central vacuum system operation and to avoid downtime during periods of heavy use, assign an employee to follow a strict maintenance schedule. Refer to Vacutech recommended maintenance schedule.



Elevation: 200' ASL

SHEET INDEX		
NO.	NAME	REV.
V001	COVER SHEET	
V101	OVERALL SITE PLAN	
V111	VACUUM SITE PLAN	
V121	VACUUM SITE ISOMETRIC	

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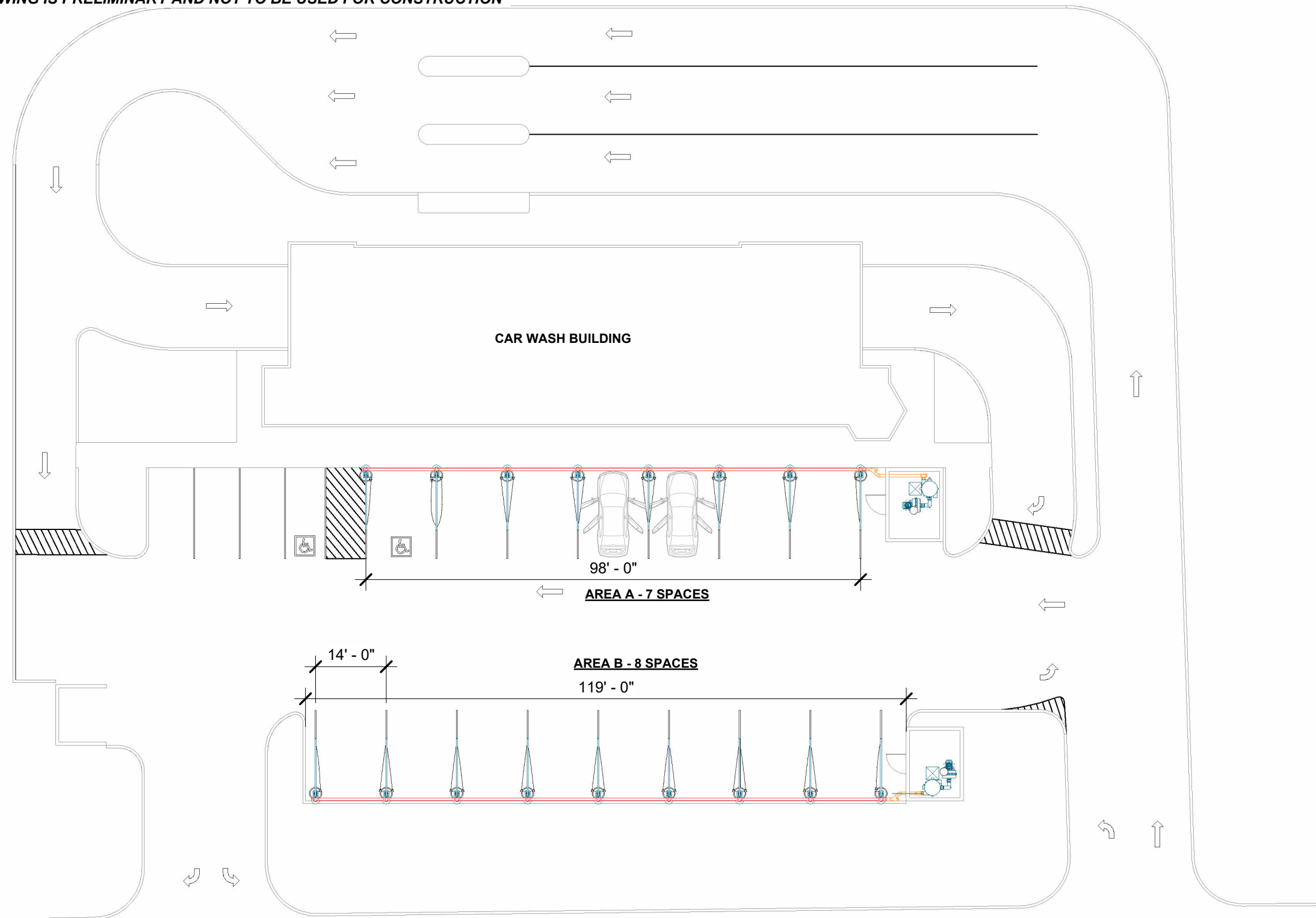
**WASHVILLE CAR WASH**  
 991-995 WEST MAIN ROAD  
 MIDDLETOWN, RHODE ISLAND 02842

#	Revision	By	Chk	Date

COVER SHEET		
Project Number	135885	V001
Date	6/15/22	
Drawn By	GS	
Checked By	TD	

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**CONSTRUCTION NOTES**

**GENERAL NOTES:**

- a. ALL DIMENSIONS TO BE FIELD VERIFIED BY OWNER
- b. IF VACUUM EQUIPMENT IS ENCLOSED WITH ROOF/CEILING, REFER TO VENTILATION REQUIREMENTS UNDER EQUIPMENT WARRANTY INFORMATION
- c. PIER DESIGN AND REINFORCEMENT FOR CONCEPTUAL USE ONLY. CONSULT STRUCTURAL ENGINEER IN YOUR AREA FOR SPECIFIC DESIGN CRITERIA.
- d. COMPLY WITH ALL STATE/ COUNTY BUILDING CODES IN YOUR AREA

**EQUIPMENT & MATERIAL:**

- a. RUN COMPRESSED AIR TO AIR COMPRESSOR LOCATION (BY OTHERS)
- b. WALL PENETRATION: CORE DRILLING MAY BE REQUIRED FIELD VERIFY HEIGHT
- c. **9'Lx9"Wx4"H MINIMUM FLAT AND LEVEL CONCRETE FLOOR SPACE REQUIRED FOR VACUUM EQUIPMENT VERIFY SEPARATOR WILL FIT THROUGH DOOR (48" CLEAR OPENING WIDTH RECOMMENDED)**

**VACUUM & PLUMBING:**

- a. SUPPORT SCHEDULE 40 PVC OVERHEAD DRY/WET VACUUM PIPE EVERY 6' MAXIMUM; USE UNISTRUT & CLAMP OR OTHER SUPPORT (PROVIDED BY OTHERS)
- b. ALL FITTINGS TO BE 'DWV'

**1 OVERALL SITE PLAN**

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#	Revision	By	Chk	Date

OVERALL SITE PLAN		V101
Project Number	135885	
Date	6/15/22	
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**VACUUM AREA A**

QTY	ITEM
2	SINGLE USER QUICK ARCH
6	DUAL USER QUICK ARCH
14	CLAW VACUUM TOOL & HOLDER
2	ADA TOOL BRACKET
9	CLAW TOOL EXTENSION BRACKET
14	1-1/2"x15' RAPIDLOCK HOSE
8	30 GALLON WASTE RECEPTACLE W/ HINGE
8	6' LED LIGHT

**VACUUM AREA B**

QTY	ITEM
2	SINGLE USER QUICK ARCH
7	DUAL USER QUICK ARCH
16	CLAW VACUUM TOOL & HOLDER
9	CLAW TOOL EXTENSION BRACKET
16	1-1/2"x15' RAPIDLOCK HOSE
9	30 GALLON WASTE RECEPTACLE W/ HINGE
9	6' LED LIGHT

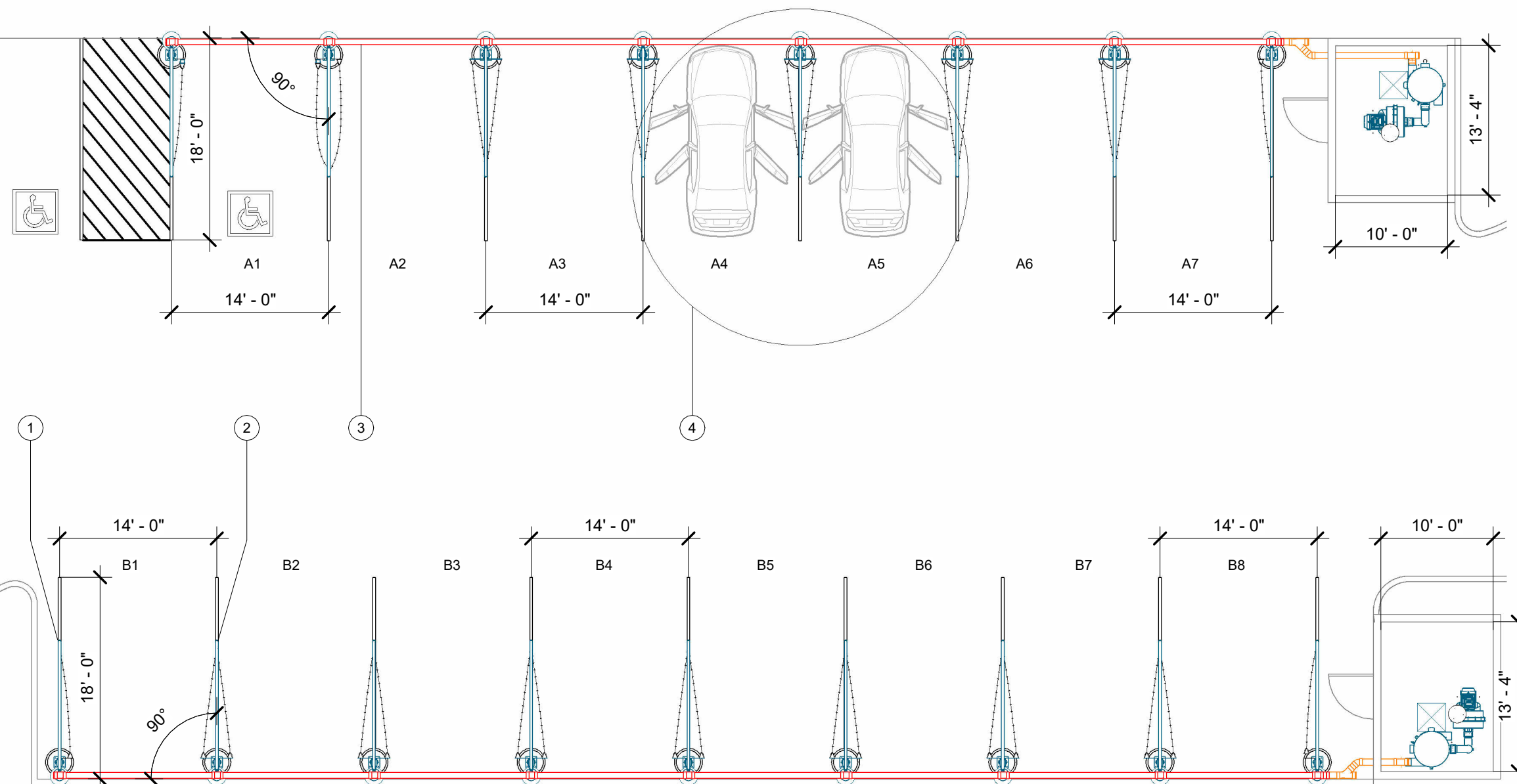
**VACUUM EQUIPMENT A**

QTY	ITEM
1	40HP T4 DIRECT DRIVE TURBINE
1	8" T4 OUTDOOR EXHAUST SILENCER
1	38x88 FILTER SEPARATOR
1	3" PRESSURE RELIEF VALVE

**VACUUM EQUIPMENT B**

QTY	ITEM
1	40HP T4 DIRECT DRIVE TURBINE
1	8" T4 OUTDOOR EXHAUST SILENCER
1	38x88 FILTER SEPARATOR
1	3" PRESSURE RELIEF VALVE

SITE PLAN	
ITEM	DESCRIPTION
1	SINGLE USER QUICK ARCH AT ENDS OF VACUUM SPACES
2	DUAL USER QUICK ARCH BETWEEN VACUUM SPACES
3	6" OVERHEAD ALUMINUM VACUUM TUBE BETWEEN ARCHES
4	15' HOSE REACH



1 SITE PLAN

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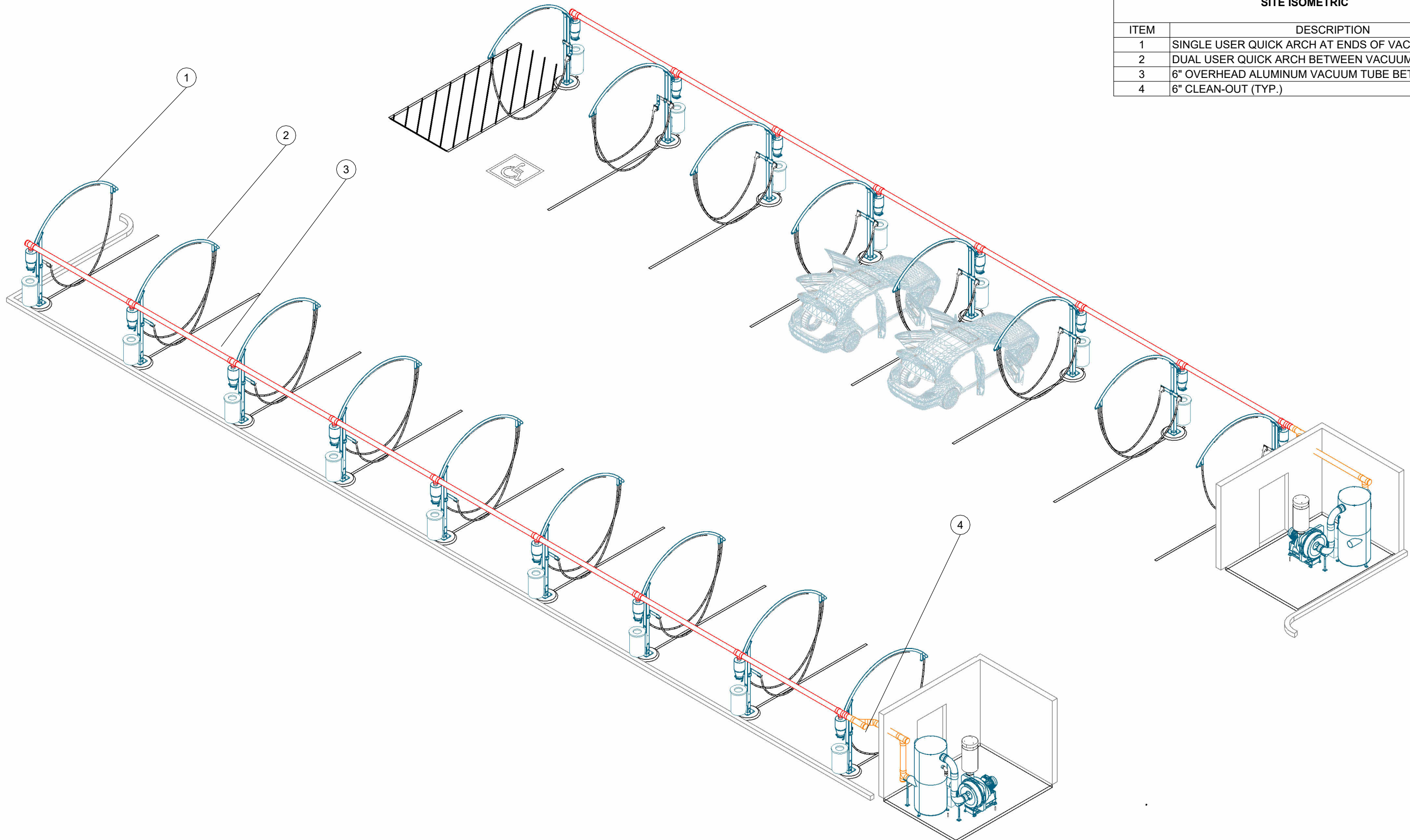
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#	Revision	By	Chk	Date

VACUUM SITE PLAN		V111
Project Number	135885	
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Drawn By	GS	
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SITE ISOMETRIC	
ITEM	DESCRIPTION
1	SINGLE USER QUICK ARCH AT ENDS OF VACUUM SPACES
2	DUAL USER QUICK ARCH BETWEEN VACUUM SPACES
3	6" OVERHEAD ALUMINUM VACUUM TUBE BETWEEN ARCHES
4	6" CLEAN-OUT (TYP.)

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#	Revision	By	Chk	Date

VACUUM SITE ISOMETRIC		V121
Project Number	135885	
Date	6/15/22	
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