



CITY OF LONE TREE

Site Improvement Plan Project Narrative & Statement of Design Intent Template

Planning Division

9220 Kimmer Drive, Lone Tree, Colorado 80124

303.708.1818 | www.cityoflonetree.com

Project Name Super Star Car Wash- Lincoln & Yosemite

Project # TBD

Project Location 9804 S YOSEMITE ST, LONE TREE, CO 80124

Date 07/16/2021

Project Narrative

[ARTICLE XXVII - Site Improvement Plan \(SIP\) Project Narrative](#). The SIP process is intended to provide for development that enhances the quality of life in the City by promoting high-quality design and a strong economy, and by fostering a sustainable and healthy community. The SIP process is required to ensure the development will be in conformance with the [Comprehensive Plan](#), the [Design Guidelines](#), applicable chapters of [Municipal Code](#) and applicable [Planned Developments](#) and Sub-Area Plans.

Using this form or a separate page(s), the applicant shall provide a written narrative describing their project. Use the following outline (Sec. 16-27-60) as a guide when formulating your narrative – please disregard sections that do not apply to your project:

1. General information.

- a. Provide the subdivision name, filing number, planning area number when located in a Planned Development, lot and block number or street address and section, township and range if not in a subdivision, and name of project.

LOT 6, BLOCK 1 OF HERITAGE HILLS FILING NO. 1-C
HERITAGE HILLS PLANNED DEVELOPMENT
PLANNING AREA 11

- b. Indicate zoning of the site and the zoning and current uses of adjacent land.

Site is currently zoned "Planned Development"

Adjacent properties:

North- Planned Development- Restaurant

East- Planned Development- Shopping Center

South- Planned Development- Retail/Service Business

West- S Yosemite St

2. Development impacts. Describe overall impacts of the proposed development on adjacent lands and methods for mitigating those impacts.

Adjacent properties will not be impacted by the noise from the car wash due to the adjacent Discount Tire having a larger noise impact. Door widths and heights have been shrunk down to mitigate noise coming from car wash tunnel.

3. Compliance with Intent and Approval Standards. Describe how the development complies with the Intent (Section 16-27-10) and Approval Standards (Subsection 16-27-90(a)) of Municipal Code.

Development of a car wash complies with Section 16-27-10 and with Subsection 16-27-90(a) by ensuring development is in conformance with requirements of the Heritage Hills Planned Development as well as the Lone Tree Municipal Code.

4. Development phasing. Describe the proposed development schedule and phases of development for all proposed construction.

Phasing for the development will include demolition of the previous site, then construction of the proposed Super Star Car Wash.

5. Other project data.

- a. Total number of employees on maximum shift when known (for parking purposes).

3 employees on maximum shift.

- b. Square footage of building.

3,870 square ft GFA

- c. Lot area.

39,398 sf (0.90 ac)

- d. Anticipated opening date.

Spring 2022

6. Sustainability. Highlight ways in which the project furthers the City's environmental goals regarding sustainability. This may include a general description of the project location relative to other uses, public transit and trails; ease of travel to key destinations on foot or bicycle; water conservation and water quality measures; site layout; green building practices; or operational aspects of the use such as waste reduction, recycling or commuter trip reduction programs.

The proposed development will utilize a sand/oil interceptor and water reclamation system to recycle up to 80% of the water used on site and to reduce waste. The car wash will utilize 3 separate sanitary discharge lines coming from the building. One of the lines will come from the trench drain and into the water reclamation system where it will remove waste and be reused back in the building to reduce water use. The second line will also come from the trench drain, but contain only unusable discharge which will go directly into the sand/oil interceptor. The third and final line will come from the restroom and tie into the sanitary service after the sand/oil interceptor. Details have been included in the plan set. If there are any additional questions on how the water reclamation system works and promotes sustainability, please reach out to Tim Varley at tvarley@sscwaz.com or 801-651-1748.

7. Variances if applicable. For those SIPs for which a variance from the standards in this Chapter, the Design Guidelines or Sub-Area Plans is requested, the narrative shall also explain the need for the variance. (Public notice may be required, see Section 16-26-60).

N/A

Statement of Design Intent

Please describe how the project meets the intent of the [City of Lone Tree Design Guidelines](#), including the city's Core Design Principles (p. 11). If the project is located within a Planned Development that is governed by additional design standards or guidelines, please address how the project satisfies the intent of those standards and guidelines as well.

Please use the outline below as a guide in formulating your response. You may also use this opportunity describe particular strengths, unique features, sustainable practices, or innovations that distinguish the design of the project, as well as any particular opportunities or challenges that should be considered. This Statement of Design Intent is intended to encourage thoughtful consideration of design guidelines and to give project reviewers and decision makers a more thorough understanding of the project.

1. Overall Design Concept. Briefly describe the use and overall concept for the project as a whole.

The proposed development will include the complete demolition of the existing QSR and all pavement and hardscape on site. Proposed improvements include the addition of a single tunnel car wash, 21 parking spaces and associated drive aisles, vacuum stations and landscape area. In addition there will be a three lane queuing line for the pay stations of the car wash.

2. **Context and Site.** Describe how the project relates functionally and visually to the context of the surrounding area. Consider issues of form and character, the natural environment, vehicular and pedestrian access and circulation, etc.

The project team worked with the city to develop a facade of the proposed building to ensure that the building relates well to the surrounding area. Additionally, the layout is designed to enhance vehicular access and circulation throughout the site. The project is not a pedestrian oriented use and it will keep existing conditions for pedestrian access and circulation. See Last page for additional information on queuing and hours of operation.

3. **Public Realm.** Describe how the project contributes to an inviting, safe and functional public realm. Consider public spaces, street/sidewalk – level experience, lighting, landscaping, and signage.

The project will promote a new and clean inviting space to the public while also providing a needed service in the area. Additionally, the proposed lighting is designed to conform with the municipal code as to provide a safe environment around the site.

4. **Architectural Design.** Describe how the architectural design contributes to the unique qualities of the area and how design concepts result in a unified, functional and high-quality design. Consider building form and composition, façade composition and articulation, and materials, colors, and lighting.

The project team worked with the city to determine which architectural options for the building will best contribute to the surrounding area and create a unified, functional and high quality design. The entrances of the tunnel are oriented to face away from public area to minimize unwanted mechanical views and noise.

Applicant/Preparer Contact Information

Name: Thomas Pannell

Business: Bowman

Address: 1526 Cole Blvd. Suite 100
Lakewood, CO 80401

Phone: 303-801-2917

Email: tpannell@bowman.com

Owner Contact Information if Different from Applicant

Name: Tim Varley

Business: Super Star Car Wash

Address: 1830 N 95th Ave, Suite 106
Phoenix, AZ 85037

Phone: 805-651-1748

Email: tvarley@sscwaz.com



This Super Star Car facility will provide Top Tier automated car washing service to the surrounding community in a State-of-the-Art building enhanced with beautiful landscaping and will use the latest technology and car wash equipment to satisfy the consumer's desire for a Fast and Thorough car wash experience. This Express Exterior Model is able to process a high volume of cars washed without any backup at the car wash entrance through the use of the following tools and processes.

1. Xpress Pay Terminal (XPT) and Queueing Lanes

There will be 3 XPT Terminal lanes available. Each XPT terminal is capable of processing up to 80 cars per hour.

Customers will enter the XPT lanes to select the level of wash service desired and complete the payment transaction. There will be attendants to assist the customer through this process.

We are projecting that this location is expected to process 50 vehicles per hour at weekday peak hour and 75 vehicles per hour at Saturday peak hour. Due to the capacity and speed at which our equipment can process cars as stated below, we do not anticipate having an issue with the driveway/entrance into our XPT lanes being blocked or backed up to the street or common drive at any time.

(Additional information on Attendants)

Adding to all this technology, we always have 1 or 2 attendants positioned at the XPT Terminals to ensure the smooth and quick process of getting the cars into the wash tunnel. Our attendants also help those customers that do not understand how to operate the XPT and those who need help with processing their payment with cash or credit card.

Additionally, Super Star Car Wash sells Unlimited Car Wash Monthly plans. Our experience at other existing locations is that nearly 60% of our customers purchase and use these plans. When these plan members come in to receive their car wash, the payment process is sped up dramatically as all they have to do is pull into a lane, the LPR automatically reads their License Plate and the XPT terminal issues their wash and opens the gate with the customer never having to reach for their wallet or purse or even open their window significantly increasing the speed of vehicles through the queuing process.

Once the lane gate opens and allows the customer to move forward to enter the wash tunnel, there are vehicle sensors built into the concrete that monitor the order of the cars as they leave the XPT terminals and merge into the car wash tunnel. This keeps cars entering the wash tunnel in the order of which they have paid making for a smooth and seamless transition into the wash tunnel. This Queueing process helps eliminate traffic pileups and keeps everyone moving quickly.

Finally, because of the speed and efficiency of our XPT and LPR process we do not anticipate having an issue with our queuing lanes blocking and/or backing up to the street or common drive at any time. However, in the extremely rare occasion that the car wash volume reaches maximum capacity or has a mechanical issue and vehicle stacking becomes a problem, one of our attendants will post a moveable sign in front of the carwash queuing entrance that says, "Wash Full". They will send those customers into our free vacuum bays to perform their vacuuming while or ask them to come back later. The sign is only removed once the stack of cars dissipates, or mechanical issue is resolved.

2. Automated Wash Tunnel

The automated wash tunnel is capable of processing up to 180 vehicles per hour while still delivering our desired optimal washing quality. The conveyor speed can be increased to process more vehicles per hour, however we do not anticipate ever increasing the speed of the car wash conveyor beyond 180 vehicles per hour based on the volume of vehicles projected for this location. There is an attendant at the tunnel entrance to guide the customer onto the conveyor and to give proper instructions to the customer for a safe and easy loading of the vehicle onto wash tunnel conveyor with the customer still inside the car. The automated tunnel conveyor will take the vehicles through the tunnel completing the wash chosen by the customer at the XPT. Vehicles are automatically discharged at the end of the tunnel where a green light will notify them to put their vehicle in drive and proceed to the exit(s) or free vacuum bays.

3. Vacuum area

After exiting the wash tunnel the customer has the option to park at the vacuum stations to vacuum their car and wipe any remaining water drops still on the car's surface with soft, clean microfiber towels that are provided by Super Star Car Wash at no cost to the customer. There will be attendants in this area to guide the customer in and out of the vacuum stations safely. In the car wash Industry's Express model, approximately 25% of customers that go through the wash tunnel will stop and vacuum their cars.

4. Operation Hours and Staffing

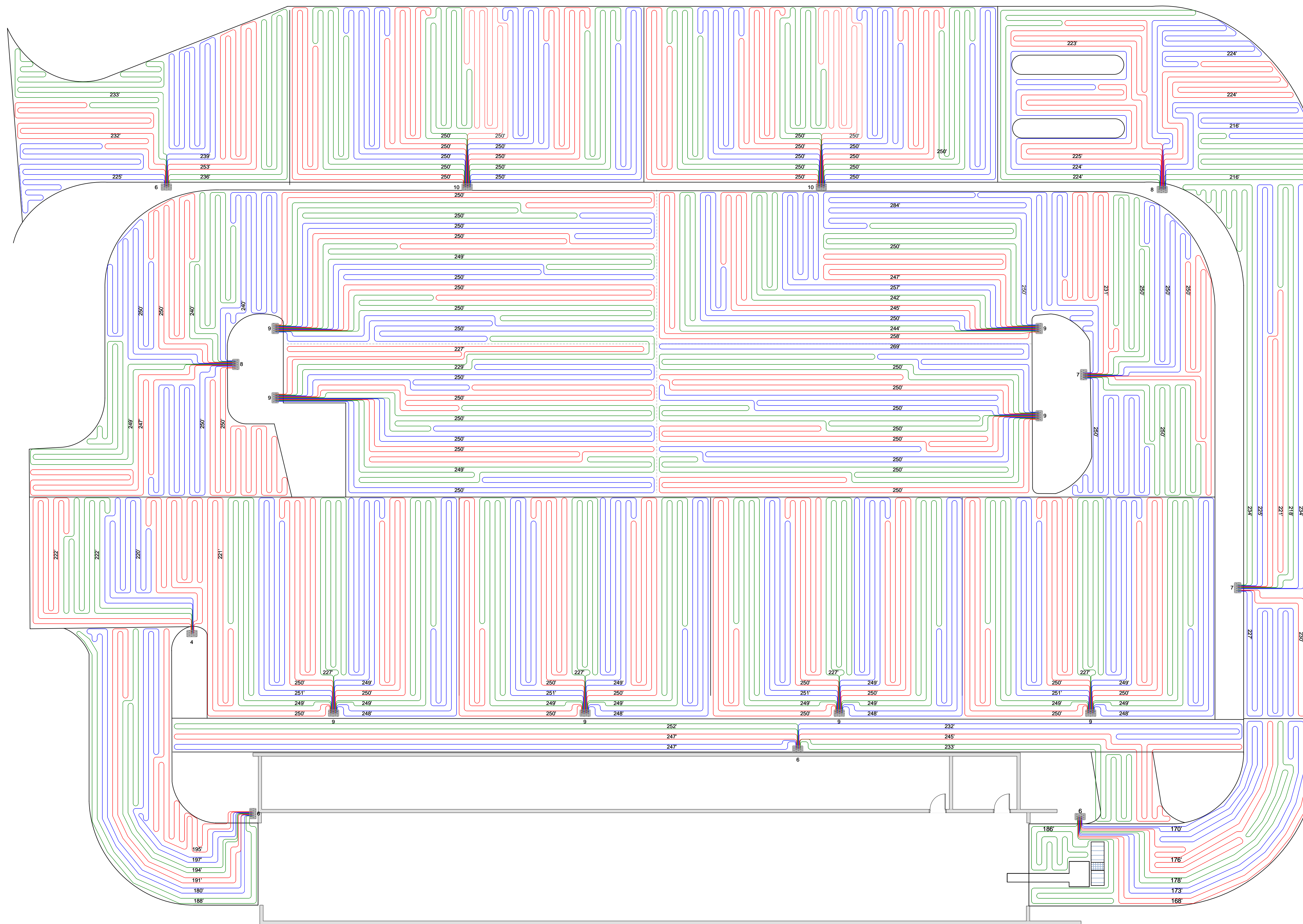
We will operate this facility from 7 am to 8 pm seven days a week. During slow to moderate business traffic we will have a minimum of 3 employees on staff and at our busiest times we will have 5 employees on staff. We pride ourselves on maintaining a clean and safe environment with well-maintained facilities at all times for our customers and neighbors.

5. Concrete Heating System

The proposed site includes the use of a concrete heating system. 2 – 850,000 boilers heat glycol that runs through tubing in the concrete. That heated tubing heats the concrete and melts the snow and ice. The entire paving, walkway and drive thru's will be heated. Sample tubing layout for a typical site is attached to the narrative.

6. Delivery Area

Super Star deliveries are made at 5 am as needed by means of our local pickup truck and driver from our local DC. The pickup truck backs up into any parking stall adjacent to the building and our Staff unloads the materials into our equipment room.



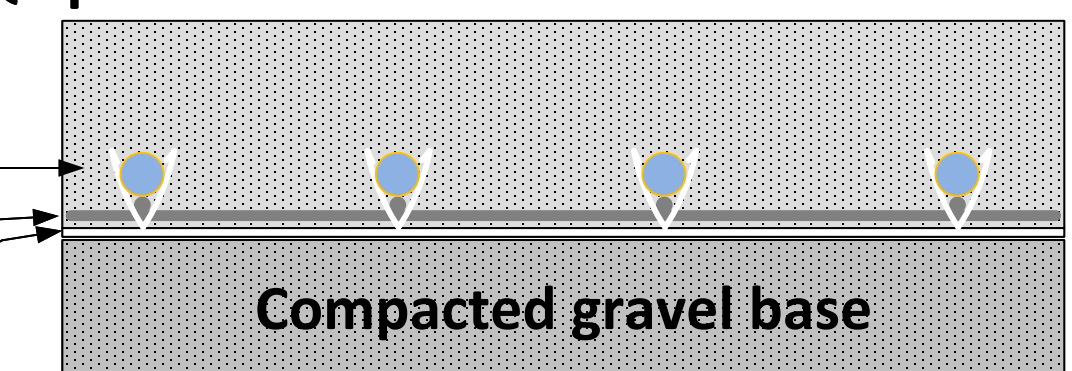
- 1.) 170' - 168' - 178' - 176' - 173'
- 2.) 186' - 195' - 180' - 194' - 191'
- 3.) 197' - 188' -
- 1.) 250' - 247'
- 2.) 245' - 247'
- 3.) 234' - 221'
- 4.) 225' - 230'
- 5.) 234' - 227'
- 6.) 224' - 225'
- 7.) 224' - 224'
- 8.) 224' - 216'
- 9.) 227' - 249'
- 10.) 234' - 251'
- 11.) 249' - 249'
- 12.) 250' - 222'
- 13.) 220' - 222'
- 14.) 227' - 249'
- 15.) 250' - 234'
- 16.) 249' - 249'
- 17.) 248' - 250'
- 18.) 249' - 250'
- 19.) 234' - 251'
- 20.) 249' - 248'
- 21.) 250' - 227'
- 22.) 250' - 234'
- 23.) 251' - 249'
- 24.) 248' - 250'
- 25.) 250' - 250'
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- 27.) 250' - 250'
- 28.) 250' - 250'
- 29.) 250' - 250'
- 30.) 250' - 250'
- 31.) 250' - 250'
- 32.) 233' - 239'
- 33.) 232' - 253'
- 34.) 236' - 249'
- 35.) 250' - 247'
- 36.) 250' - 240'
- 37.) 227' - 240'
- 38.) 250' - 250'
- 39.) 231' - 250'
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- 44.) 269' - 250'
- 45.) 242' - 257'
- 46.) 247' - 250'
- 47.) 250' - 244'
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- 61.) 250' - 245'
- 62.) 249' - 251'
- 63.) 250' - 249'
- 64.) 248' - 252'
- 65.) 233' - 249'
- 66.) 223' - 225'
- 67.) 218' - 232'
- 68.) 227' - 221'
- 69.) 284' - 216'

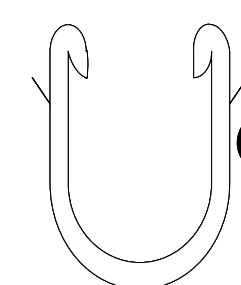
2500' of 1/2" PEX

34,500' of 3/4" PEX

PEX- attached to mesh with Quips

Wire Mesh, 6x6 10 gauge, -
FIELD SUPPLIED
Insulation



 QUIP Attaches to 6" x 6" 10 gauge wire mesh every 4'. Snap tubing to QUIP

Lengths may vary once on site -
LAY TUBING BEFORE CUTTING FROM ROLL. BURY 2-4" DEPTH.

Lay 12" on Center - 6" from side walls, drains. Piping from Boiler to manifolds supplied by others. PEX or meet local codes

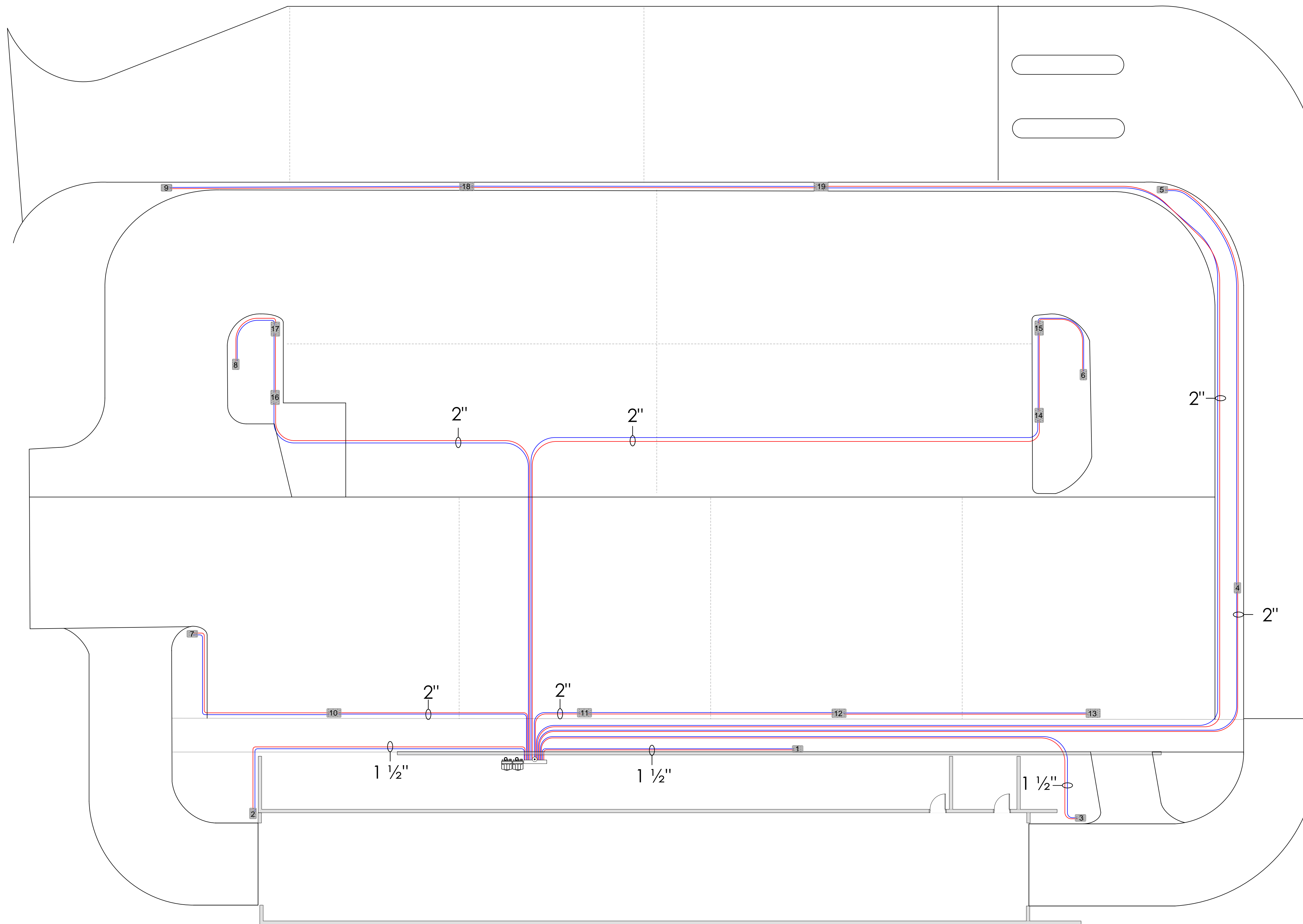
NOT RESPONSIBLE FOR SYSTEM OPERATION IF NOT INSTALLED AS SHOWN.

Total Heated Area: ~35,102 sq. ft.
Design: 30 Degree DELTA T @ 0 deg. F
Flow Rate: 273.0/ Head Loss: 25.7
Boiler Load: 3,726,003 btu/h TOTAL LOAD- Not SIZED to DESIGN
Volume: 1008 gal. approx. (Propylene Glycol & H2O- 50/50 mix)

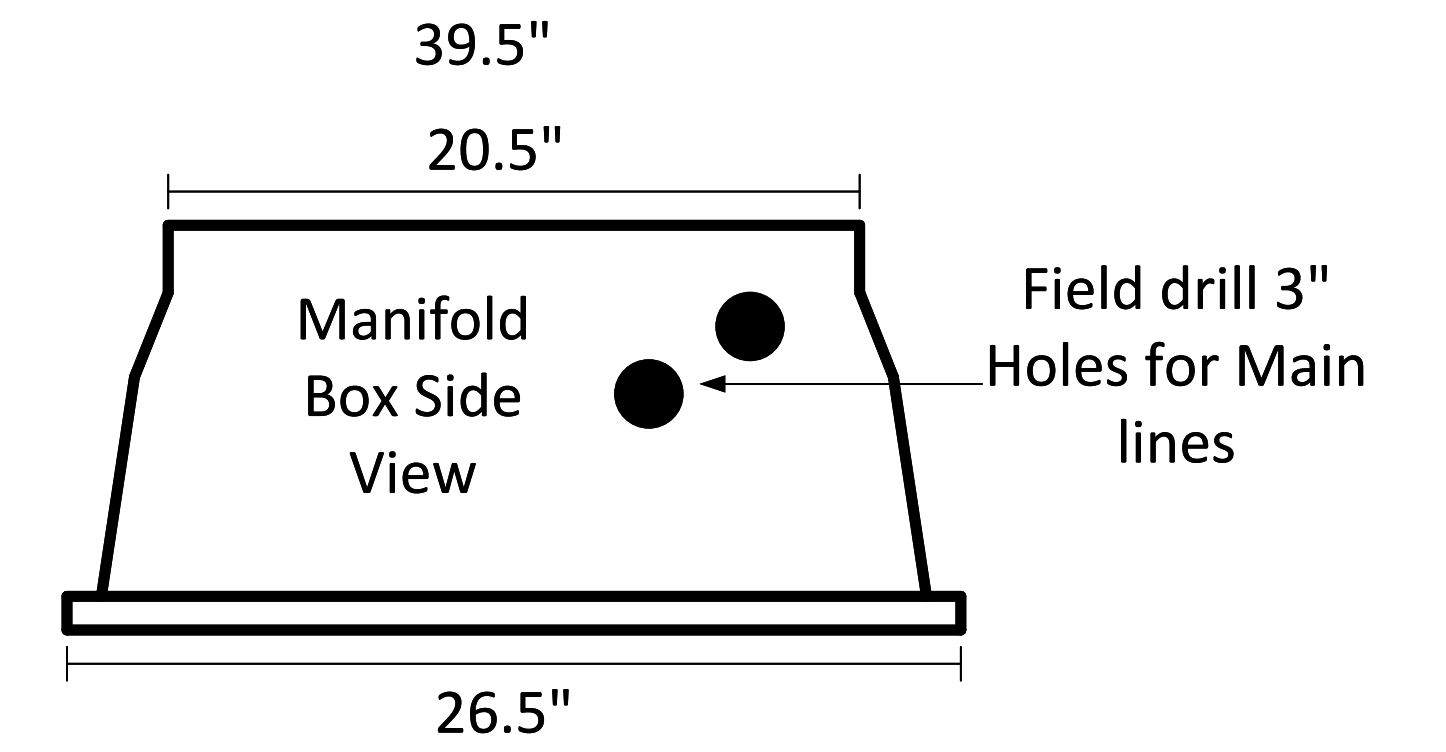
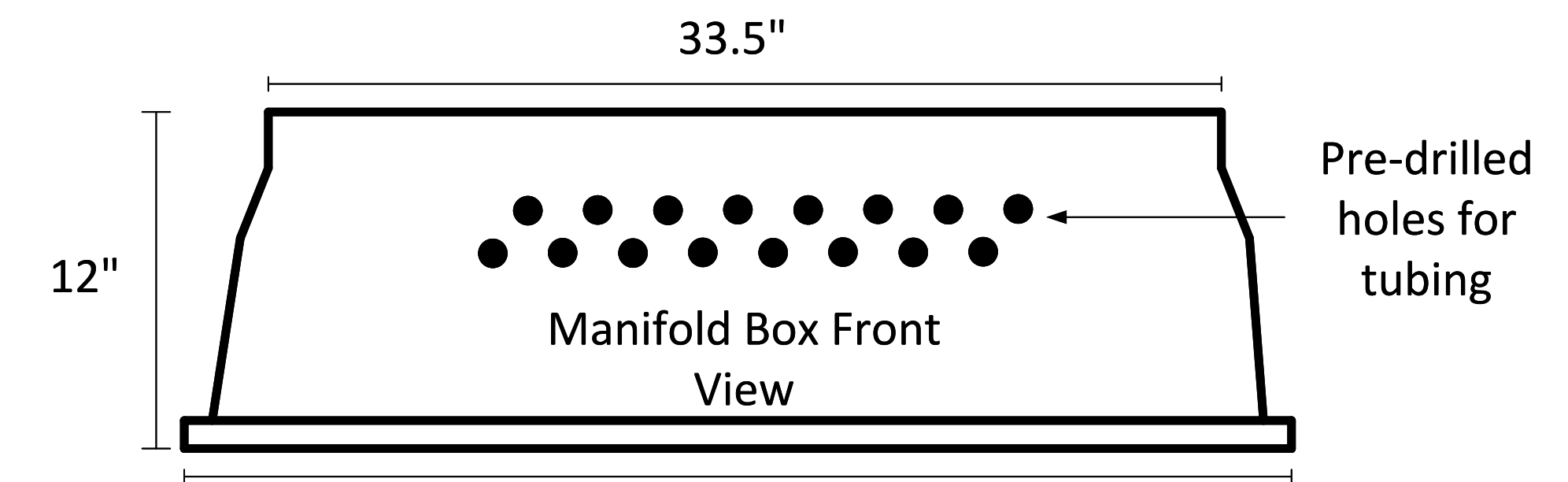
For:
Carwash Services of AZ

Carwash Boilers, Inc.
632 Sovereign Lane
Medina, OH 44256
330-623-0036

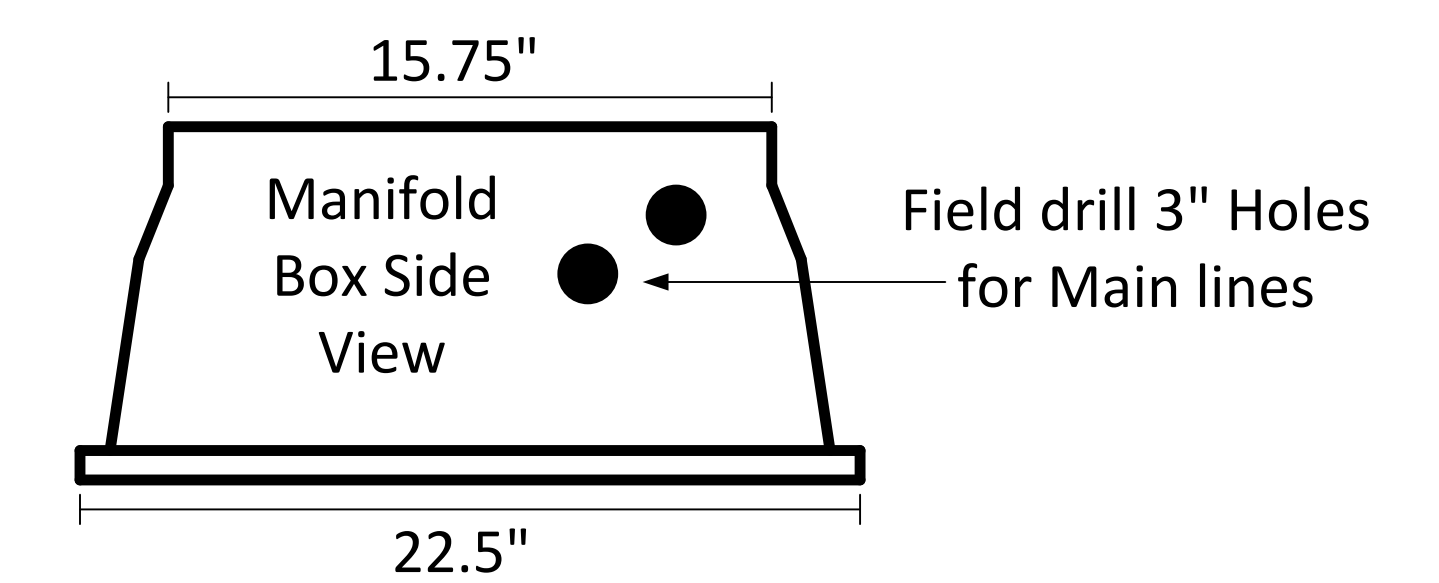
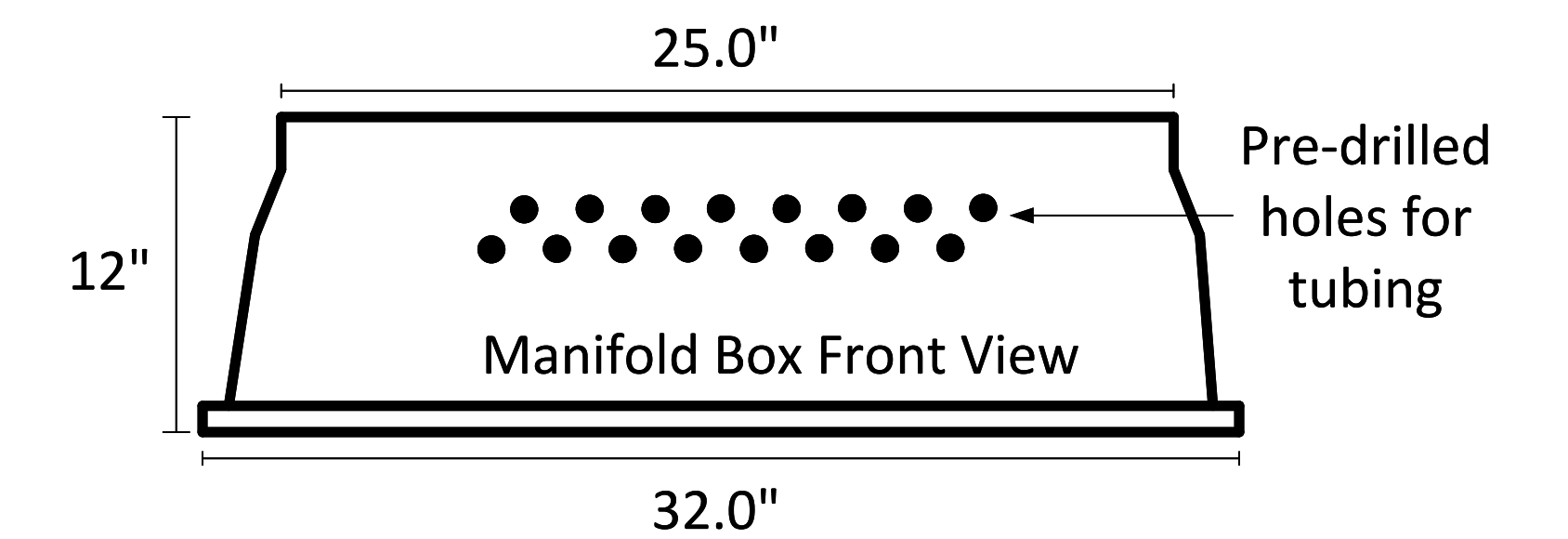
Eng.	Project	DWG NO	REV
CJR	Star Wash-Denver	P8212	1
SCALE	3/32" = 1'-0"	DATE	7-29-21
		SHEET	1



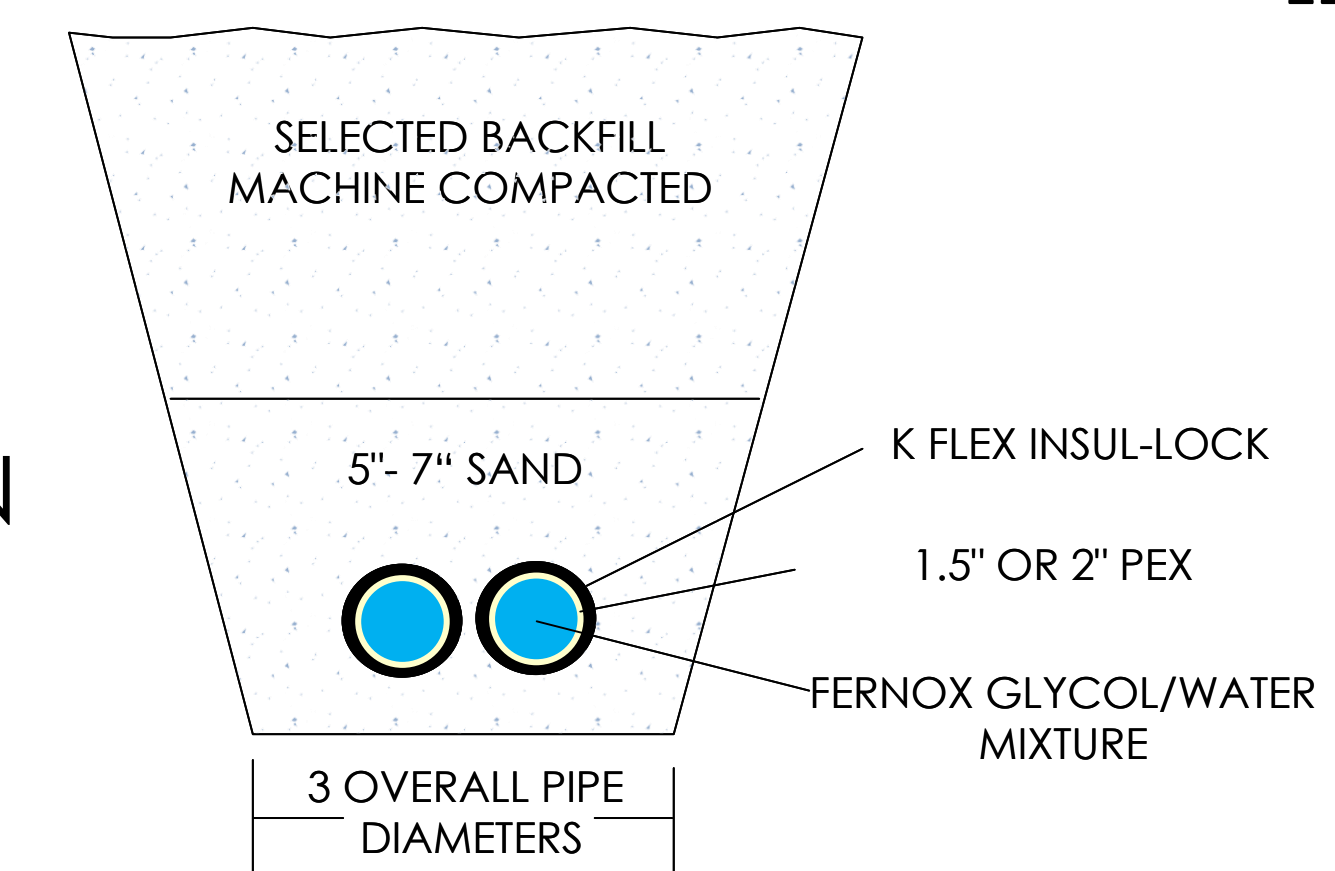
BOXES 10-19



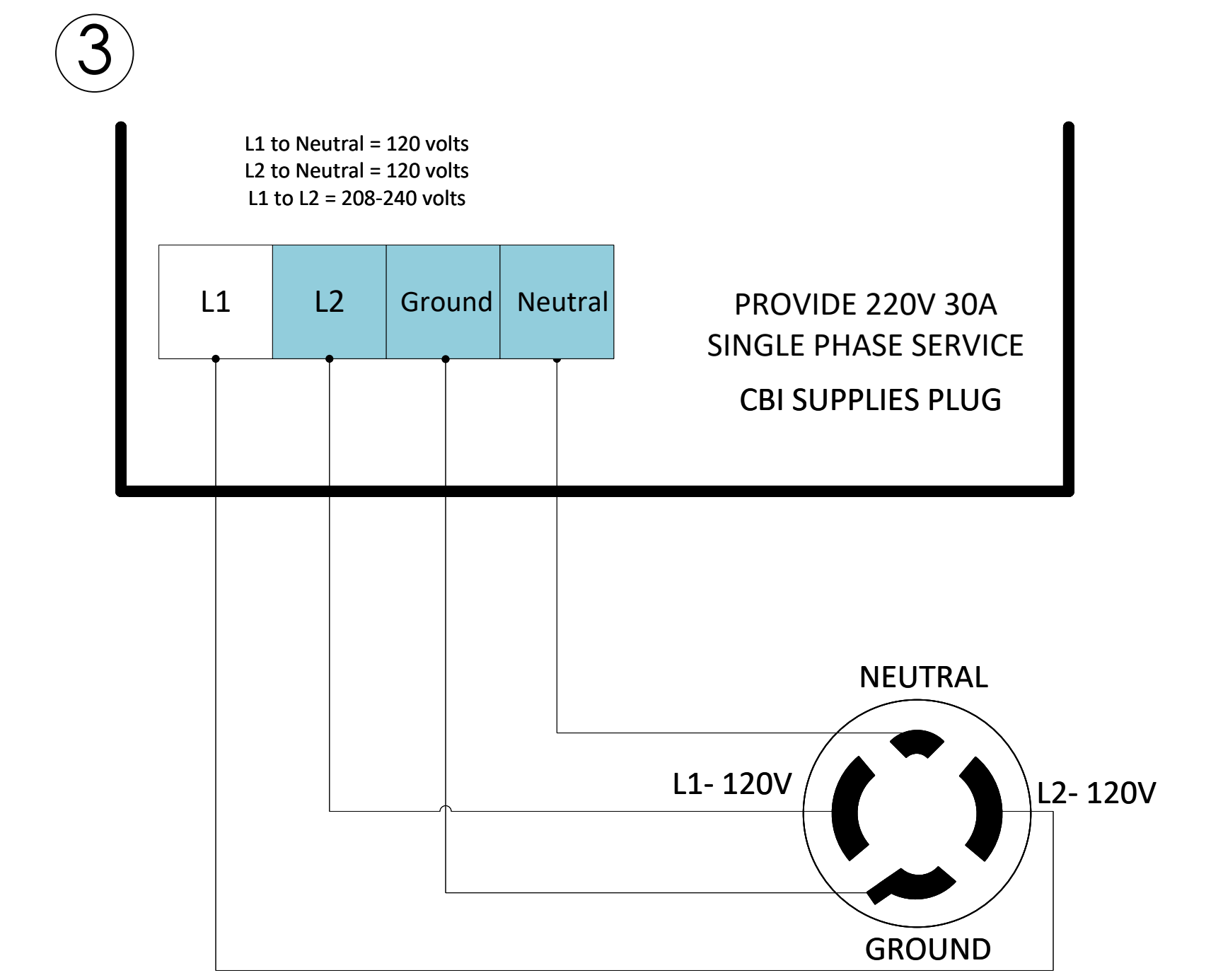
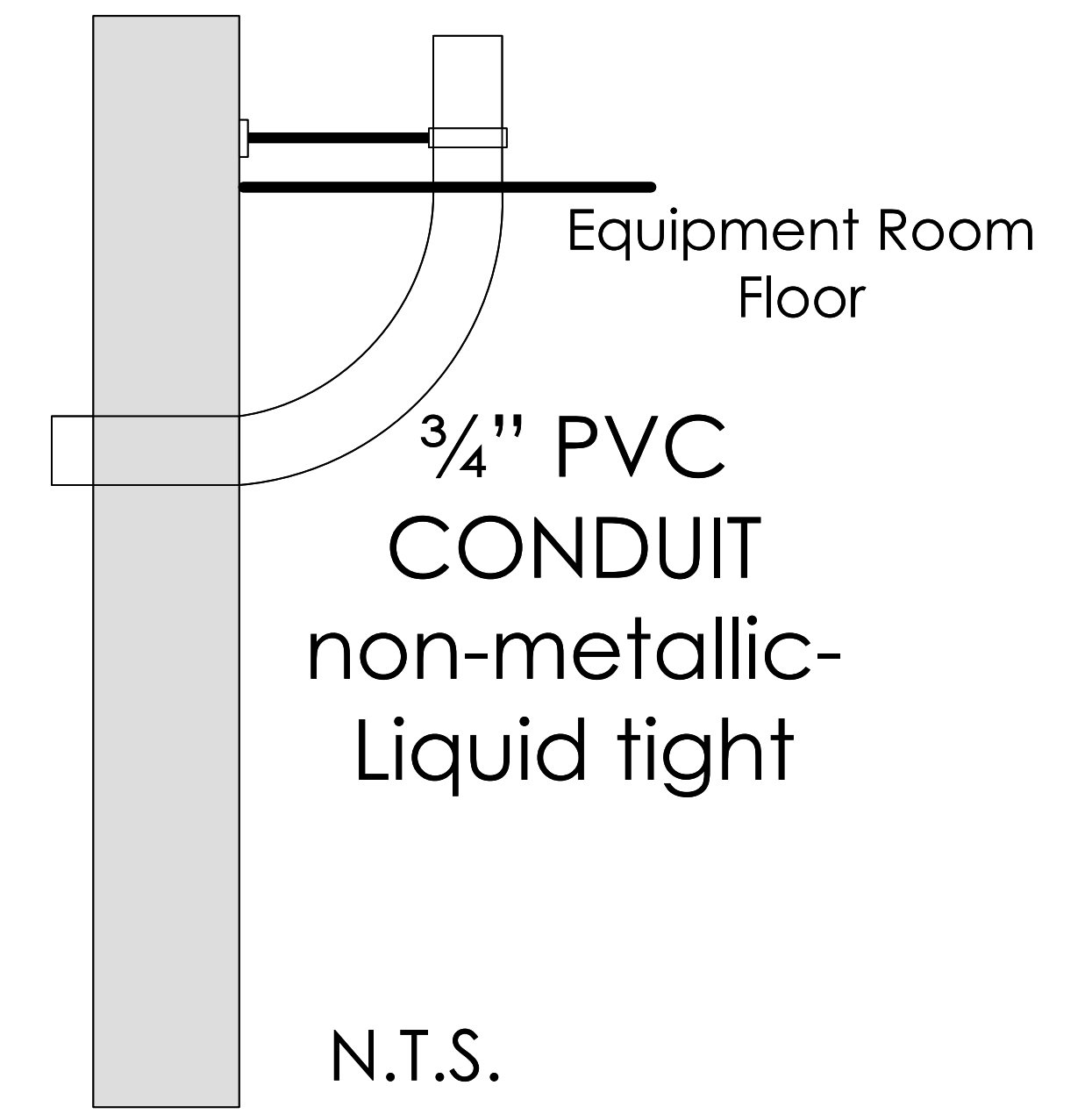
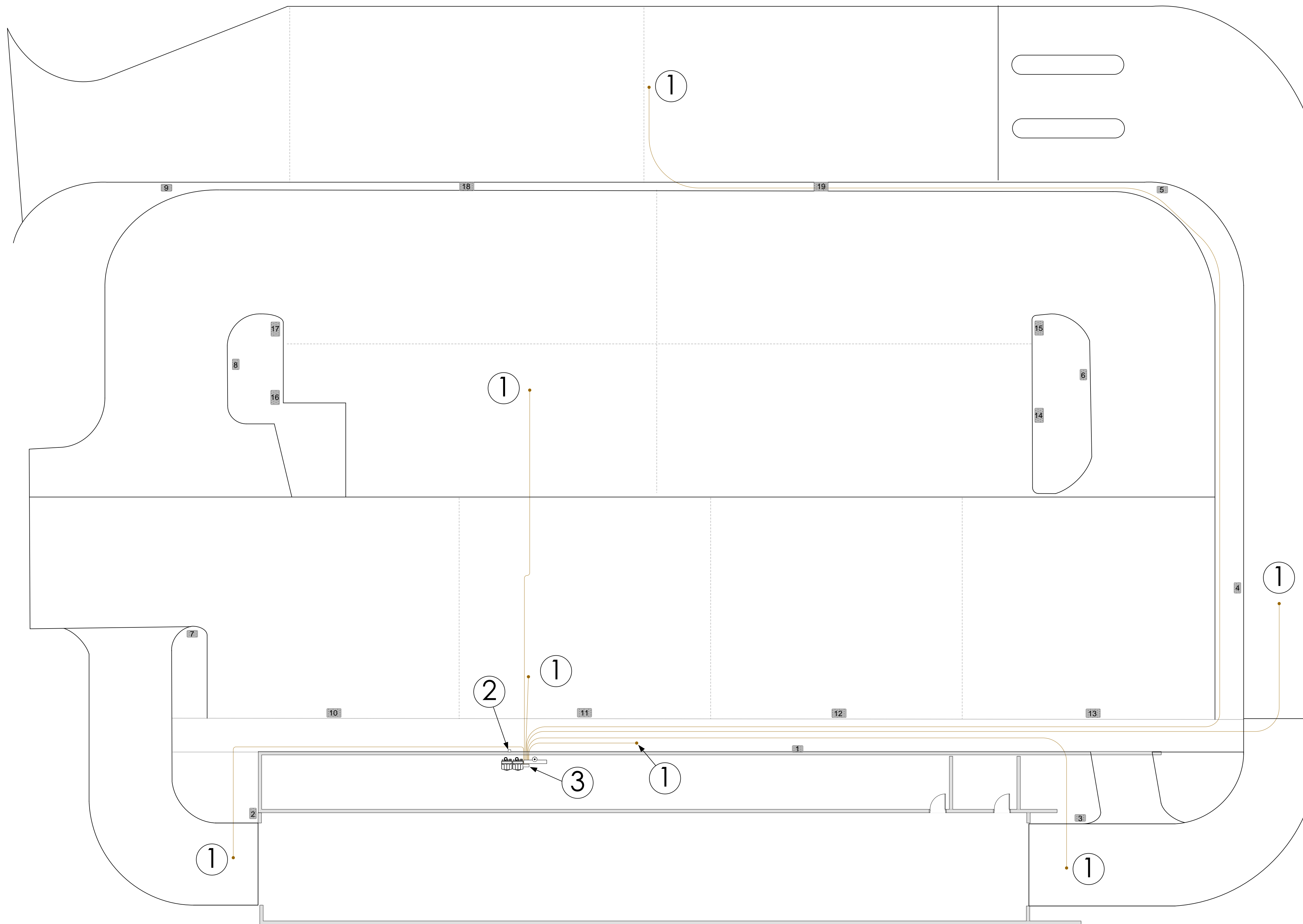
BOXES 1-9



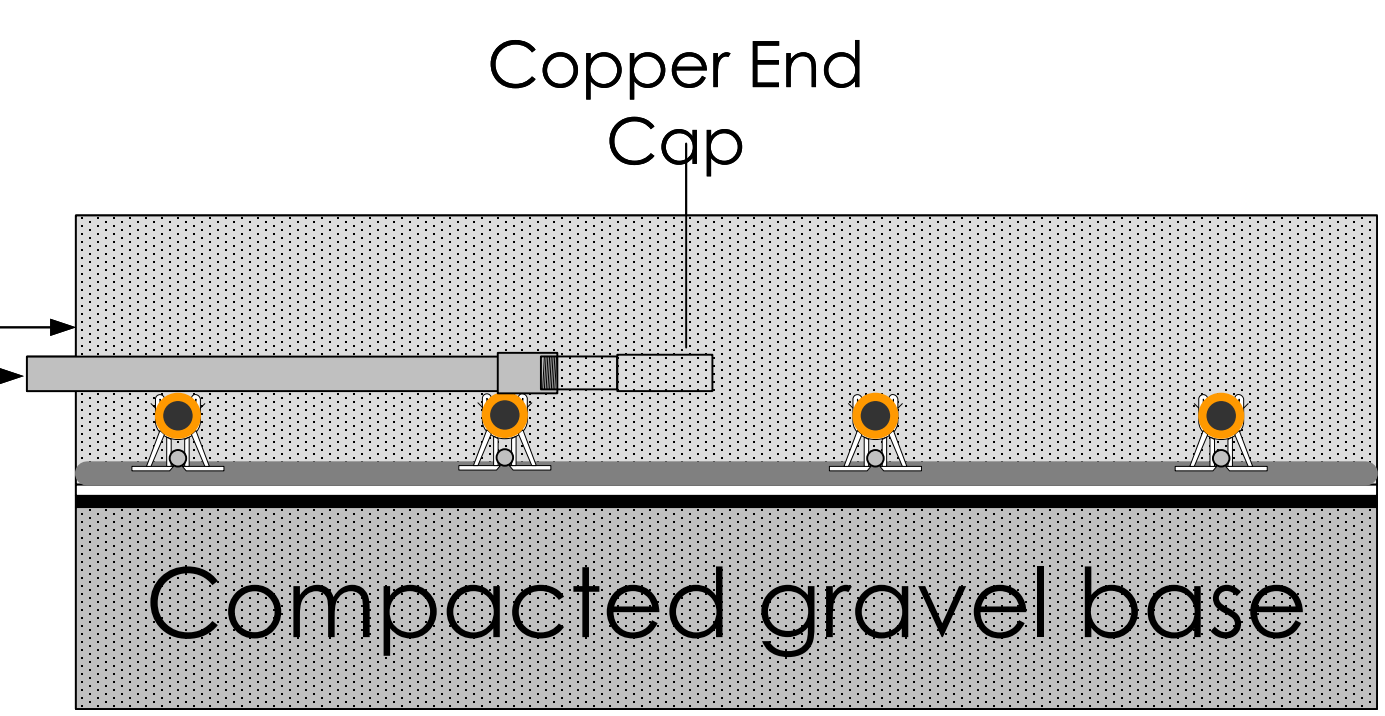
MAIN SUPPLY/RETURN PEX routed underground in sub base. INSULATE AND BURY IN 5-7" SAND BEFORE BACKFILLING (typical)



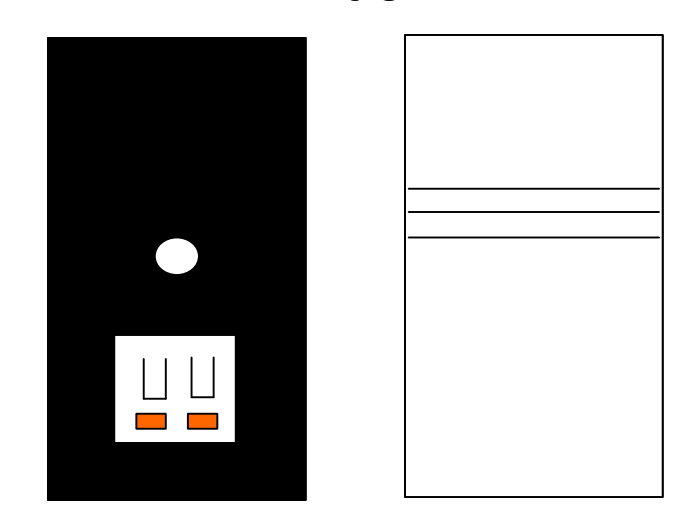
TYPICAL DETAIL OF BURIED SUPPLY/RETURN DE-ICING LINES (NOT TO SCALE)



① Concrete Pour
3/4" electrical conduit running to inside building



② Outdoor Air Sensor TST2311- Connect to "Outdoor Air Sensor" on boiler. Install OUTSIDE on North facing wall under soffit



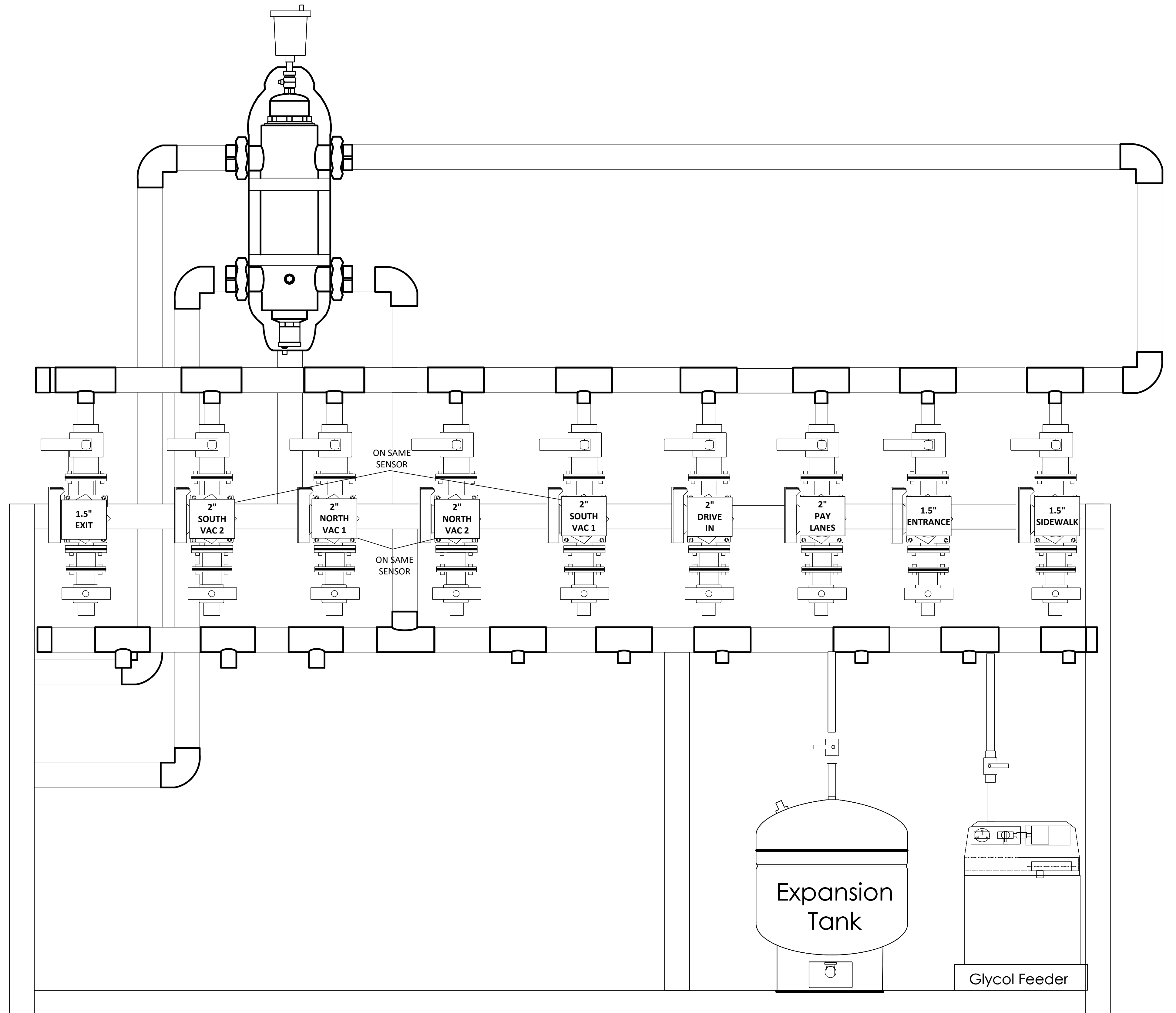
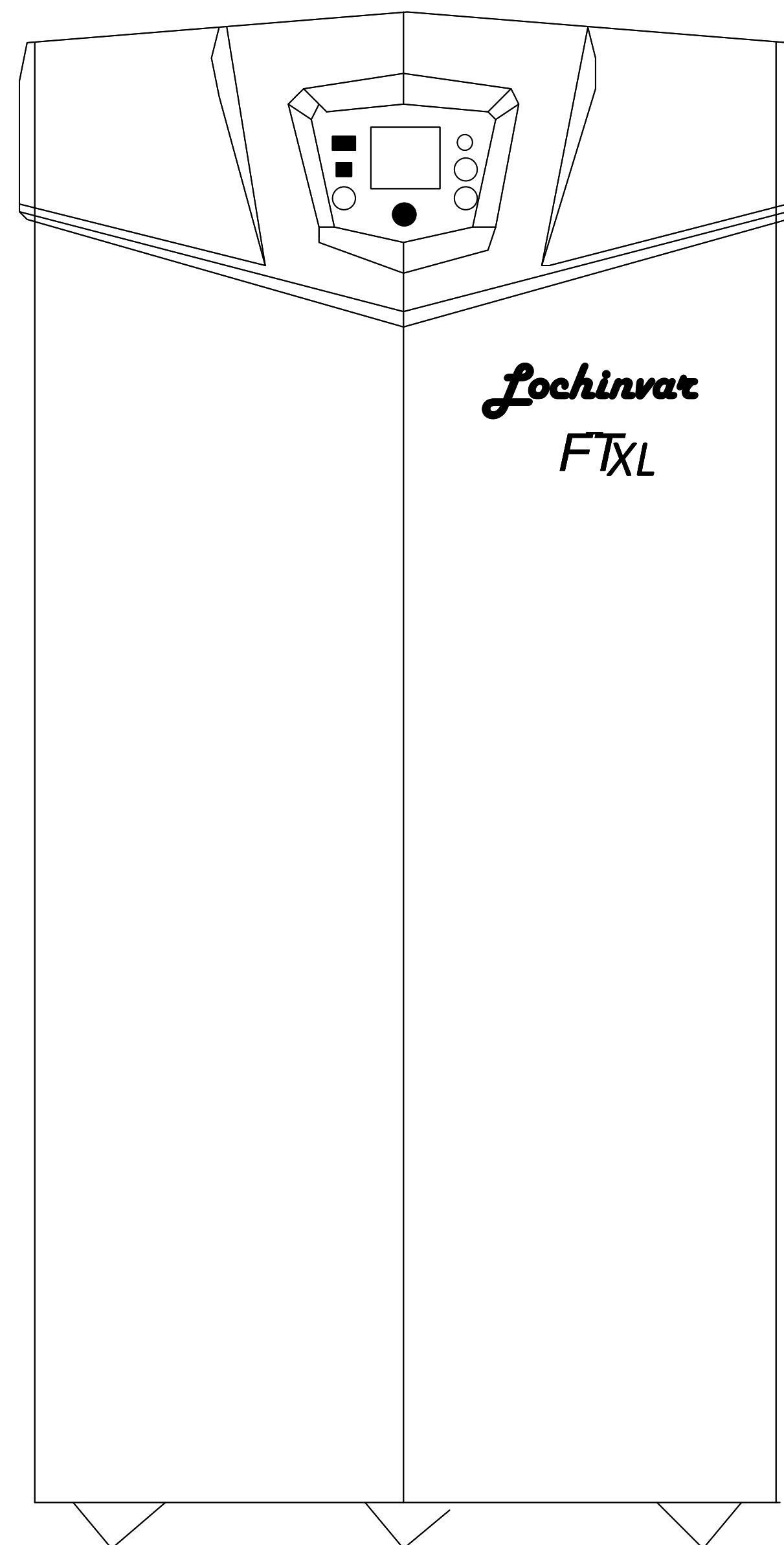
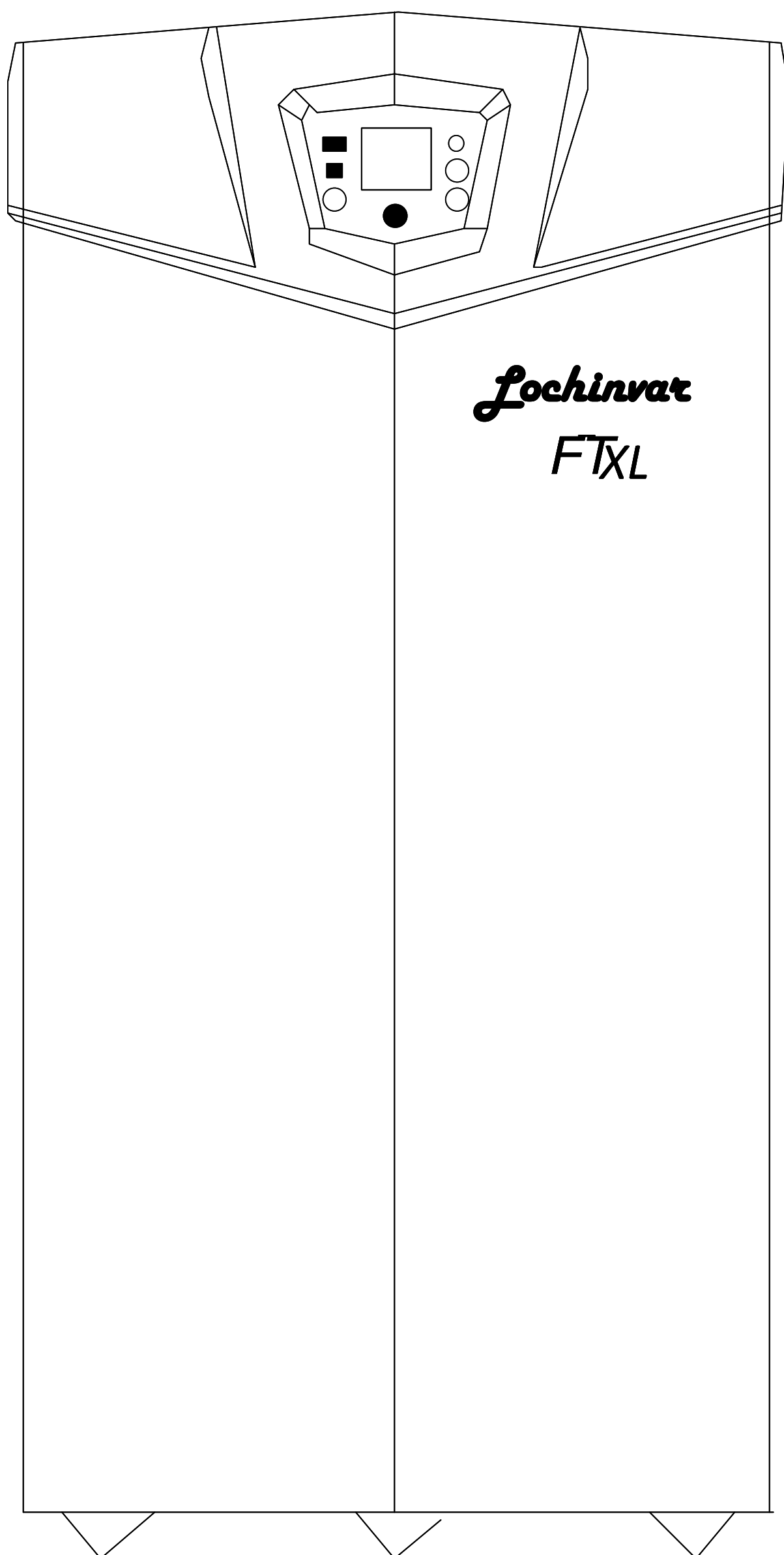
① **IMPORTANT**
Slab Sensor- ran in PVC conduit- Use Copper End Caps for slab sensors. Fish sensor to end of copper cap (supplied). Sensor should rest 2"-3" from surface of slab AND 6" BETWEEN TUBES- Reinforced end is 15' long. Terminate to control box using RTD wire supplied.
Floor may be poured without sensors in conduit, but conduit must be laid to accommodate sensors at later date.



Sensor slid into 3/4" PVC conduit

Copper End Cap- Conducts heat and cold much better than PVC

(2) Lochinvar models FTX850.
27"W X 23"D X 54"H.
850,000 btu input each.
6" vent & 4" Air inlet. 1" gas
connection. Requires 4.0"-14"
w.c. NAT GAS.



Notes: FLOOR HEAT INSTALL

(CBI stands for CarWash Boilers Inc.)

Installers' scope of work and materials for Floor Heat

(CBI stands for CarWash Boilers Inc.)

1. Insulation- Cut and lay BLANKET OR FOAM BOARD insulation. **Supplied by others.**
2. Manifold & Box placement- Mount manifolds (supplied by CBI) in supplied box (supplied by CBI) per or on wall install drawing. Box is 12" in height. Will need to bury to make flush with grade or in landscape.
3. Boiler/Manifold connection- Connect boiler supply & Return line to boiler pipe terminations. Bury and Insulate pipe. **FITTINGS/PIPE AND INSULATION SUPPLIED BY OTHERS.**
4. Tubing- lay 3/4" or 1/2" PEX tubing in concrete pads according to layout print provided by CBI. Slide tubing through PVC sleeves for concrete transitions. Tubing is snapped to **field supplied, 10 gauge 6x6 wire mesh** using Quips supplied by CBI. Zip tie to mesh is an acceptable substitute. Attach to wire mesh every 3-4 feet. PEX connections to manifolds are made with compression nuts on ends of nickel-plated mini ball valves (CBI Supplied). Concrete spacers under the wire mesh are also acceptable to raise tubing in slab.
5. Slab Sensors- Install CBI supplied copper end cap ~6" between any tubing in shaded area of slab per drawing. **Supply 3/4" electrical conduit** to inside of equipment room. Fish RTD slab sensors (15' reinforced wire) to end of copper cap supplied by CBI. CBI supplies 3 conductor for RTD sensors.
6. Pressure Test- Perform pressure test (kit supplied by CBI) on tubing to 50PSI. Allow to sit for several hours. If good, maintain pressure on tubing while concrete is poured.
7. Outdoor Air Sensor- Mount OAS on North facing wall under soffit. Run 2 conductor communication wire (**field supplied**) from sensor to floor heat boiler location.
8. Boiler Skid placement- Set CBI Boiler skid in place. (CBI to provide dimensions)
9. Gas Line connection- **Supply and thread pipe and any elbows** along with drip leg. Need gas regulator minimum 10' feet away from units. REFER TO I&O MANUAL FOR PROPER SIZING OF MAIN GAS LINE.
10. PVC Vent and intake – **Supply PVC** through a sidewall or up through roof. **Contractor will supply** any necessary straight pipe and any elbows for both vent and intake.
11. Neutralization Kit- **Supply and run 3/4" PVC** from boiler to drain for condensation.
12. Power Connection-Provide wall outlet near boiler- 220VAC 30amp circuit near boiler. Boiler comes with proper wire and plug.
13. Ethernet Connection- Provide network cable from office router to boiler. Each boiler is also WIFI capable.
14. Glycol- Add glycol to system. (Supplied by OTHERS. USE ONLY PROPER HYDRONIC GLYCOL. **DO NOT USE** AUTOMOTIVE OR RV ANTIFREEZE. Connect Glycol Feeder to system AFTER filling

Boiler: Each Lochinvar model FTX850-8647, 850,000 btu input EACH. 6" vent & 4" Air inlet. 1" gas connection. Requires 4.0"-14.0" w.c. NAT GAS. Boiler pump provided. Boiler and Pumps are skid mounted and wired.