

# WASHBURN UNIVERSITY

## 1901 SW MULVANE ST.

### ELECTRICAL WORK AT PETRO ATHLETIC STORAGE BUILDING

TOPEKA, KANSAS

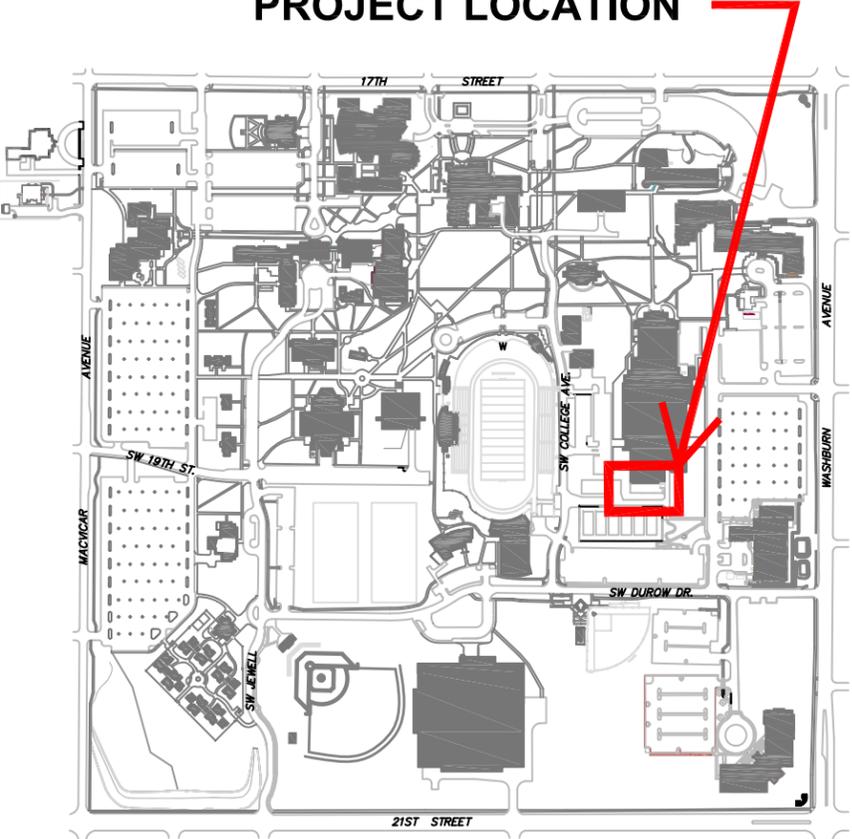
MAY 2024



LOCATION OF  
PETRO ATHLETIC  
STORAGE BUILDING



#### PROJECT LOCATION



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- A-100 PETRO LAYOUT
- A-101 STORAGE BUILDING DIMENSIONS & SCHEMATIC

**WASHBURN CONTACTS**

- WASHBURN POLICE.....785-670-1153
- FACILITIES SERVICES.....785-670-1149
- PURCHASING.....785-670-2333
- PROJECT COORDINATOR
- LYNN CRIPPEN.....785-670-1552

**ELECTRICAL WORK AT PETRO ATHLETIC STORAGE BUILDING**

DEPARTMENT OF FACILITIES SERVICES  
**WASHBURN UNIVERSITY**  
1901 SW MULVANE ST.

DRAWN BY: HRA 5-24  
COVER & LOCATION MAP  
SHEET:  
**G-001**

**Scope of Services**

Tax Exempt: Yes

Timeline of Project: Contractor to Provide schedule with all RFP's. Work to be completed prior to July 15, 2024.

This project includes 100a single phase service fed from 200a disconnect (100a fuse reducers required) located at SE entrance exterior of Petro, wire sized per NEC code for 100a service. Conduit shall be 2" rigid installed low on the exterior of east wall of Petro to the south corner of the building where it will then be installed underground in PVC the remaining distance to inside the Storage Building. Before underground installation, a junction box or LB shall be installed for convenience on existing wall. Install a 1-1/4" PVC spare conduit underground from Petro building to storage building for a spare future conduit. Spare PVC shall be stubbed up above concrete a minimum of 10 inches, with a PVC cap and a pull string in conduit. Provide a new 100a single phase 24 circuit panel (Location verified with owner inside the building). Provide 10, 20a duplex receptacles evenly spaced throughout the building on walls (locations verified by owner). Provide 5, 20a duplex receptacles on ceiling for light fixtures (locations verified by owner). Mount 5, LED round UFO style light fixtures throughout building (lighting supplied by owner). Provide switching & emergency/exit lights at each walkthrough door, switches to operate all lighting with 3 way & 4 way switching. All concrete removal and reinstall by contractors. All electrical installation shall comply with the current NEC Electrical code. All electrical inside of the building shall be installed in emt piping with 2-1/4" deep 4 square boxes and raised metal covers (RS Covers). All panels, junction boxes, and receptacles shall be labeled with panel number and circuit number. (verify exact labeling with owner). Follow Washburn Electrical Specifications below.

**Owner Provided Items:**

- Light Fixtures
- Emergency Exit Lights

**Contractors Provided:**

- All material and labor outside of owner provided items.

**Washburn University Electrical Specifications:**

**General Electrical Installation**

- All branch circuit homeruns shall be installed with hard pipe conduit suited for specified areas according to NEC electrical codes (ex. EMT, Rigid.) No MC cable for branch circuit homeruns.
- 1 circuit MC Cable shall be allowed in stud walls between devices on same circuit. (ex. Hard pipe EMT to first electrical device on circuit & MC cable is allowed after first device in walls to other devices on same circuit.)
- MC Cable shall be allowed to be fished into existing

walls for remodels or the addition of electrical to existing walls.

- MC Cable shall be allowed to be installed for fixture whips in compliance with NEC electrical codes.
- Flexible conduit shall be allowed in areas for connections to equipment & furniture that needs flexibility for movement or vibrations. (Ex. Office furniture, motor connections, movable walls.) (Conduit Ex. MC cable, flex, liquid tight.)
- All switching in shall be installed with hard piped to device boxes (switches & controls) in walls. No MC Cable allowed unless fit exception.
- All lighting homeruns & switching shall be installed with hard pipe.
- All individual Electrical circuits shall have their own individual neutral per circuit. (1 circuit, 1 neutral)
- All exterior light poles & shall have a minimum of 1" PVC installed to each light pole base with one spare stubbed out of concrete base for future. All light pole bases should be considered for possible data during design phases.
- Install surge protectors on individual control cabinets. Ex. Trane control cabinets.
- No Double pole breakers for single pole 120 or 277v circuits.
- All low voltage cabling shall be installed in cable tray, hard pipe, & or data rings. No cable shall be allowed to be laid on ceiling systems or lights fixtures. Secured & fastened in a neat & workman like manner.
- All exterior light poles shall be black, tapered, tenon top poles. Match existing poles & lights to surrounding area.
- No exterior ground lights shall be installed on campus. Flagpole & sign lighting shall be installed with an above ground light fixture. (ex. Concrete base with flood light on top or light from nearby building to illuminate area or signs. Light can be built into the sign itself.)
- No can lighting shall be smaller than 6" can lights.
- Campus standard for interior lighting color 4000K unless discussed & approved by Facilities Services for banquet or specified areas.
- Campus standard for exterior lighting color 5000K.
- No battery backup emergency lights shall be installed in individual normal light fixtures. All emergency lighting shall be wall mounted "bug Eye" type. Other than lighting powered by generator or inverter systems. Inverter & generator systems shall operate normal light fixtures.
- All track lighting shall be normal sockets for fixtures with LED lamps. No LED track light fixtures.

- BAS shall not control exterior lighting controls. Simple Astro timer/dusk to dawn timeclock with lighting contactors if needed.
- All in ground exterior junction boxes shall have 12-16" of rock for drainage under box
- All exterior in ground junction boxes with conduits that leave j-box & penetrate building envelope shall have conduits sealed at J-box & building around wires to prevent water from entering building. Spare conduits shall have caps or plugs installed.
- All spare conduit in ground shall have a pull string installed in conduit for future use.
- Labeling:
  - o All junction boxes shall be labeled on exterior covers with voltages, circuit numbers, & panel numbers. (Magic Marker or label maker is adequate) (i.e., 120v, P#2, #16).
  - o Label all receptacle circuits on receptacle faceplates. Panel#/Name & Circuit#. (Clear label w/ blk text) (i.e., P#2, #16).
  - o Electrical Panels & disconnects shall be per NEC code.
    - § Electrical Panels- Panel #, Voltage, Wire color per phase, where panel is fed from. (i.e., Panel P2, 120/208v, A Phase-Blk, B Phase-Red, C Phase-Blue, Fed from Panel Name)
    - § Disconnects- Panel # fed from, Circuit Number, Voltage.
- Electrical Panels, Switch Gear, Disconnects VFD's & Equipment:
  - o Square D or Eaton (No equivalents, Manufacturer & type specific. Unless approved by WU for specific circumstances.)
  - o All Electrical Panels shall be type door in door with hinged trim.
  - o All electrical panels shall be bolt-in type breakers.

END OF SECTION

**Washburn University General Specifications:**

**General**

- It is It is not expected that hazardous materials will be encountered in the Work. If hazardous materials are encountered, do not disturb; immediately notify Owner. Hazardous materials will be removed by Owner under a separate contract.
- Owner will occupy portions of building immediately adjacent to construction areas. Conduct construction activities so Owner's operations will not be disrupted.
- Provide not less than 72 hours' notice to Project Coordinator of activities that will affect Owner's operations.
- Comply with EPA regulations and with hauling and disposal regulations of authorities having jurisdiction.
- Promptly dispose of any waste materials. Do not allow materials to accumulate on-site.
- Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
- Do not close or obstruct corridors, walks, driving paths, entrances, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed areas.

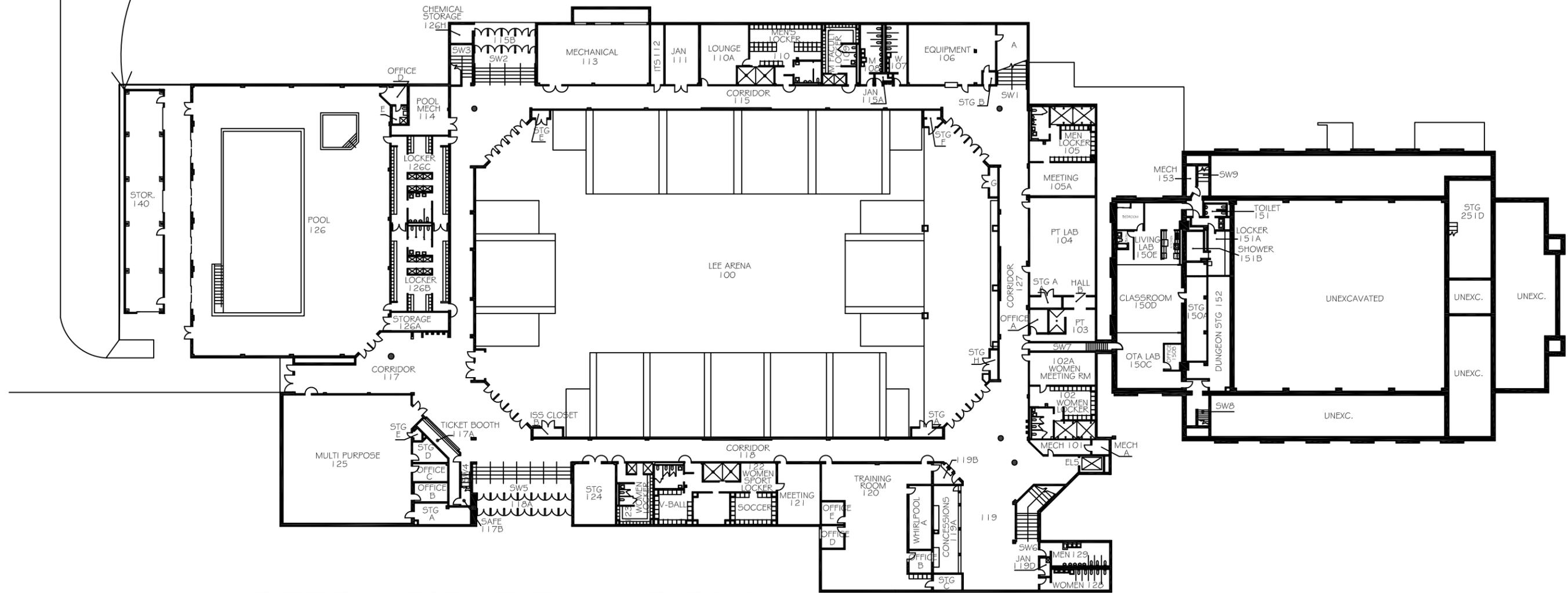
**Execution**

- Protect existing site improvements, appurtenances, facilities, walls, ceilings, floors and other existing finish work that are to remain.
- Neatly cut openings and holes plumb and square. Use cutting methods least likely to damage construction to remain and adjoining construction.
- Perform installation without marring visible surfaces.
- Remove demolition, excess and waste materials from Project site. Do not burn demolished materials.
- Clean adjacent structures and improvements of dust, dirt, debris caused by selective demolition operations. Return adjacent areas to condition existing before operations began.

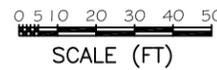
END OF SECTION

<b>ELECTRICAL WORK AT PETRO ATHLETIC STORAGE BUILDING</b>	
DEPARTMENT OF FACILITIES SERVICES <b>WASHBURN UNIVERSITY</b> 1901 SW MULVANE ST.	DRAWN BY: HRA 4-24
	PROJECT SCOPE & SPECIFICATIONS
	SHEET: <b>G100</b>

PETRO ATHLETIC STORAGE BUILDING



PETRO FIRST FLOOR PLAN



ELECTRICAL WORK AT PETRO ATHLETIC STORAGE BUILDING

DEPARTMENT OF FACILITIES SERVICES  
**WASHBURN**  
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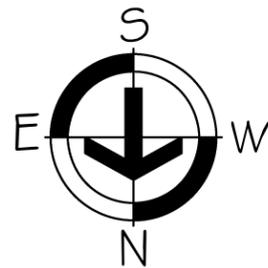
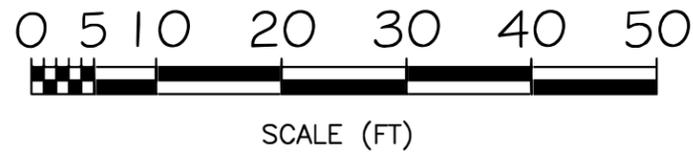
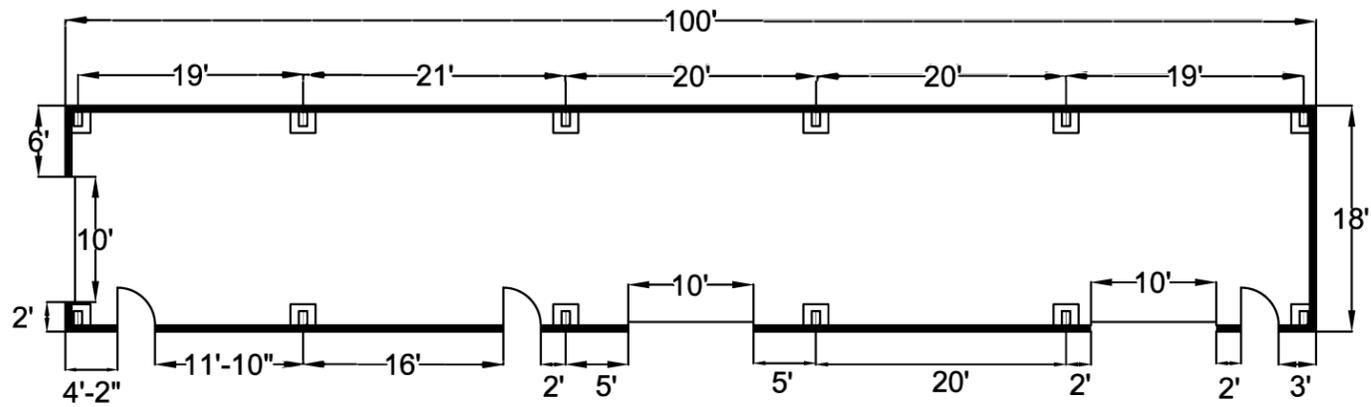
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PETRO LAYOUT

SHEET:

A100

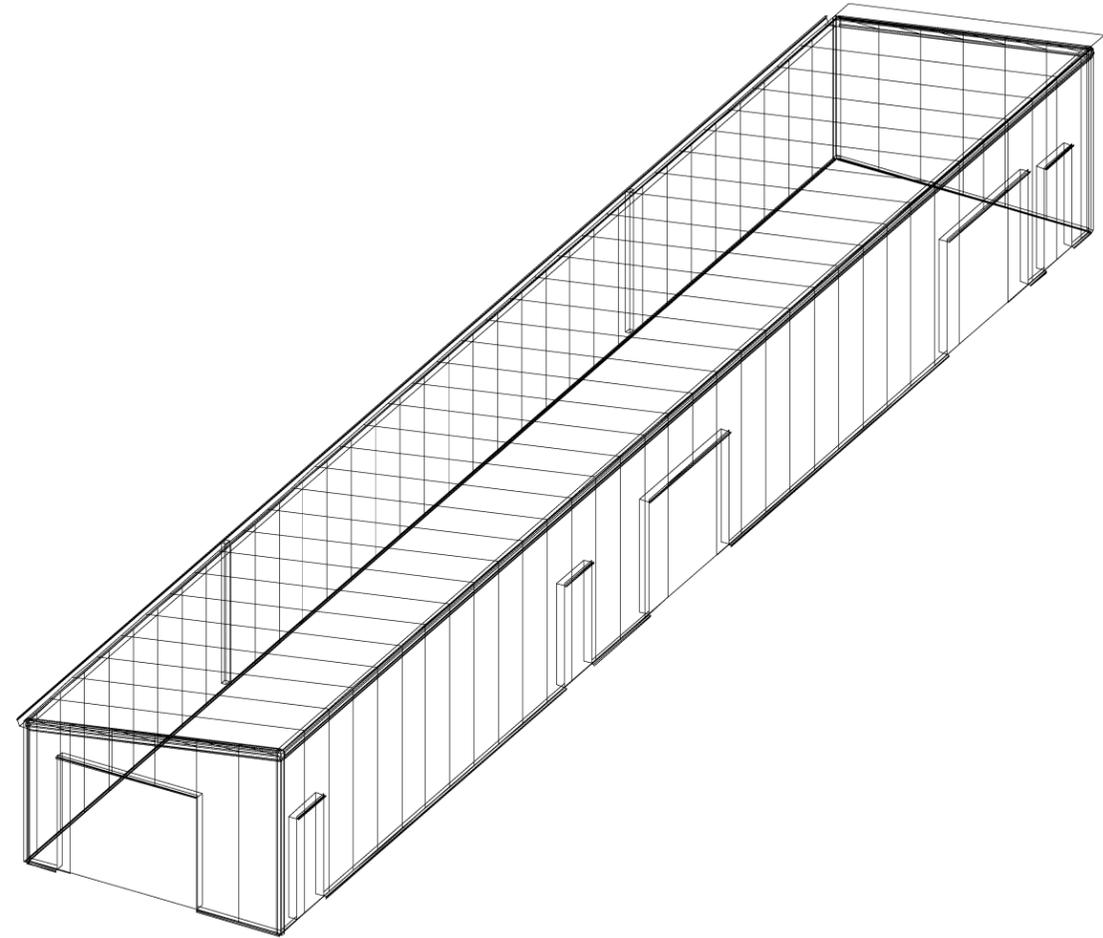
# STORAGE BUILDING DIMENSIONS



## NOTES:

ALL COMPONENT PLACEMENT TO BE AT LOCATIONS VERIFIED BY OWNER.

# STORAGE BUILDING VIEW SOUTHWEST



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BUILDING DIMENSIONS & SCHEMATIC

SHEET:

A101