



TOWN OF TRURO NEW PUBLIC WORKS FACILITY



Schematic Design Project Update
May 8, 2025

FULL SCHEDULE

PHASE	Study	Concept Design	Schematic Design	Design Development	Construction Documents	Bidding	Annual Town Meeting April 2026
Start Date	✓	✓	March 1, 2025	Early June 2025	Early October 2025	Early March 2026	
Deadline	✓	✓	May 30, 2025	End of September 2025	End of February 2026	End of April 2026	

A Look Back & Ahead

Since we last meet on 3/27:

- Geotechnical borings and stormwater test pits completed
- Zoning / permitting analysis completed
- Design review meetings with DPW Users
- Industrial equipment inventory & layout review with DPW users
- Energy Analysis; use, production and incentives research
- Met with BoH to confirm existing septic conditions and discuss criteria for new septic
- Met with HRP to coordinate proposed DPW Facility with PFAS Capping effort
- Submitted the Schematic Design Pricing Set to cost estimators 5/2

Next 3 weeks:

- Hazardous building material investigation 5/9
- Independent cost estimating & reconciliation +/- 5/27
- Final Schematic Design Package submission to client 5/30
- Coordinate electrical service from Route 6

Site Plan & Turning Templates

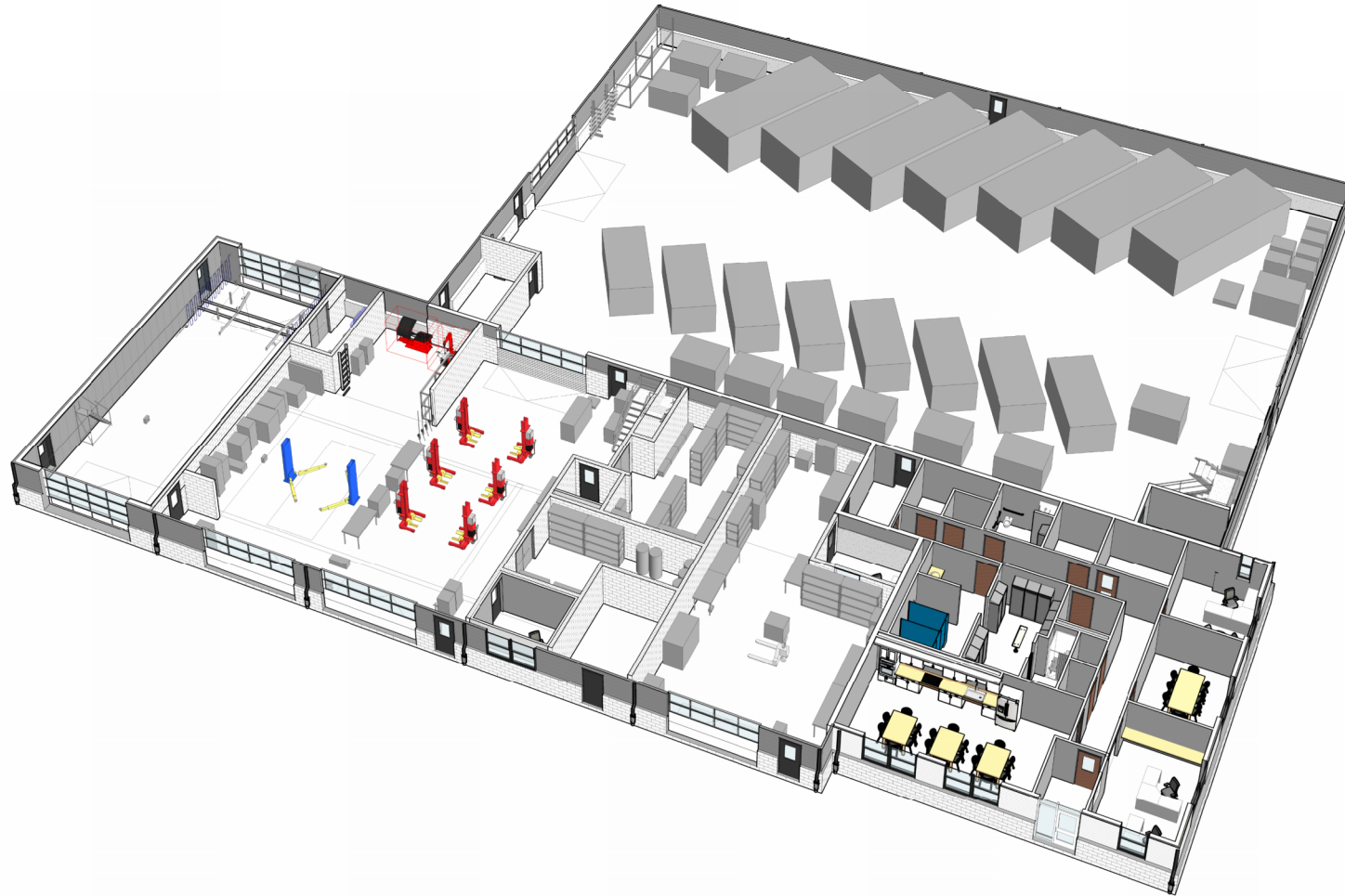


Schematic Floor Plan

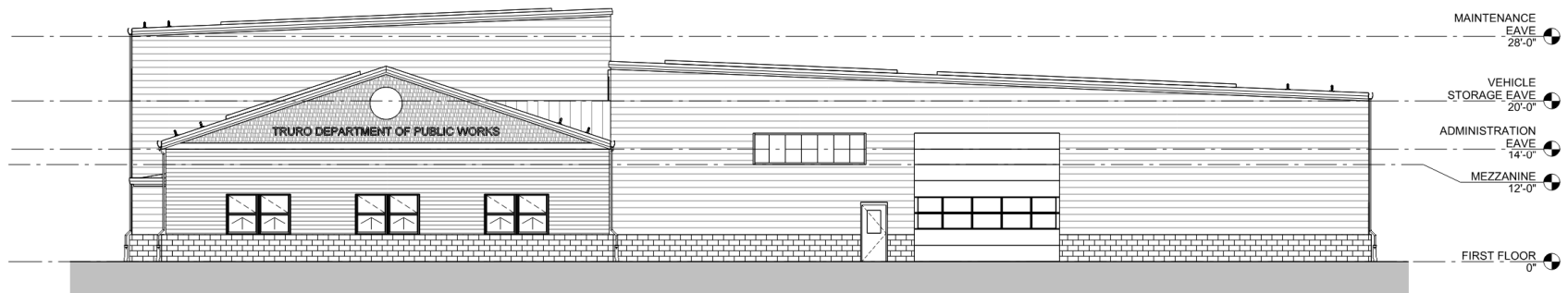
- EMPLOYEE FACILITIES
- FLEET STORAGE
- MAINTENANCE BAYS
- MAINTENANCE SUPPORT
- OFFICE SUPPORT
- OFFICES
- SHOP OPERATIONS
- UTILITIES
- WASH OPERATIONS



Schematic 3D Section Cut



Schematic Building Elevations



South Building Elevation



West Building Elevation

Proposed Site Plan vs. Existing

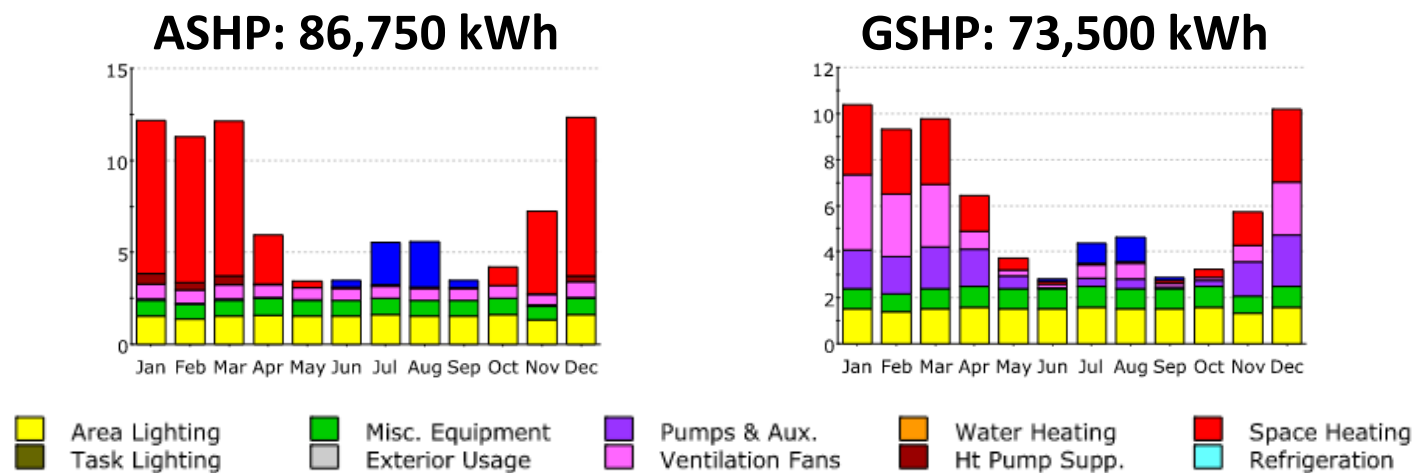


3D Rendering from Town Hall Road



Energy Use, Production & Incentives

Energy modeling was conducted for the proposed DPW Facility.
Estimated annual electricity energy usage as follows:

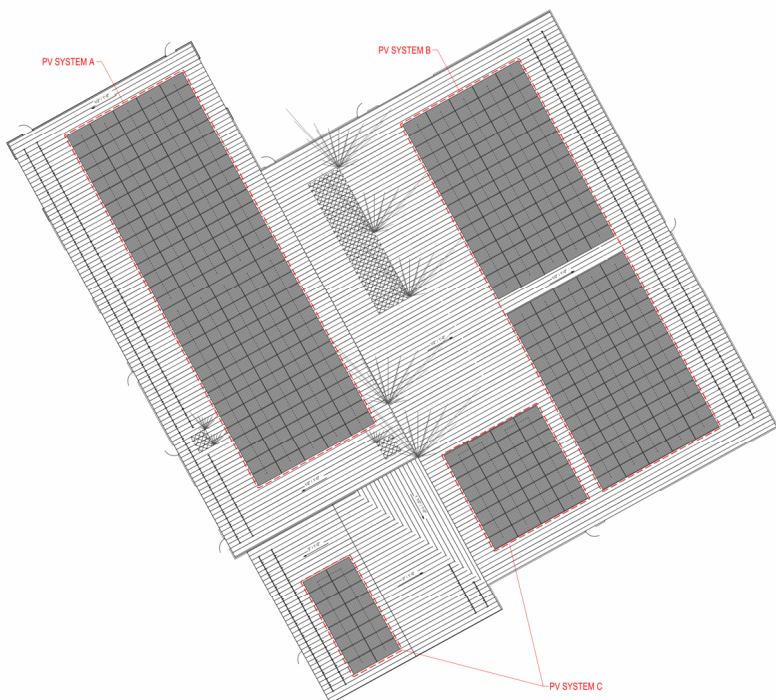


* based on a set of assumptions / inputs.

Includes heating, cooling, ventilation, and standard office equipment and LED lighting.

Does not include air compressor, vehicle wash machine, lifts and other related equipment.

Energy Use, Production & Incentives



SOLAR PHOTOVOLTAIC (PV) SYSTEM SUMMARY				
	SYSTEM A	SYSTEM B	SYSTEM C	NOTES
MODULE QTY	150±	150±	48±	348±
MODULE POWER	550 WATT	550 WATT	550 WATT	---
DC NAMEPLATE	82.5± KW DC	82.5± KW DC	26.4± KW DC	191.4± KW DC (TOTAL)
INVERTER QTY	2	2	1	---
INVERTER RATING	25 KW & 36 KW	25 KW & 36 KW	20 KW	---
AC NAMEPLATE	61± KW AC	61± KW AC	20± KW AC	142± KW AC (TOTAL)
SYSTEM AZIMUTH	241°±	61°±	61°± / 241°±	BLDG. ORIENTATION
SYSTEM TILT	1/2" / 1'-0"	1/2" / 1'-0"	3" / 1'-0" & 1/2" / 1'-0"	FLUSH (ROOF PITCH)
RACKING	RAIL/CLAMPED	RAIL/CLAMPED	RAIL/CLAMPED	---
ENERGY PRODUCTION	±90 - ±110 MWH/YR	±85 - ±105 MWH/YR	±25 - ±35 MWH/YR	±200 - ±250 MWH/YR

200 mWh = 200,000 kWh

Energy Use, Production & Incentives

PATH 1: NET ZERO/LOW EUI BUILDINGS

Customer Incentives

Construction Incentive	up to \$2.00/sf
Post Occupancy Incentive	\$1.50/sf
Space Heating Heat Pump Adder*	
• Air Source Heat Pumps:	\$800/ton
• Variable Refrigerant Flow (VRF):	\$1,200/ton
• Ground Source Heat Pumps:	\$4,500/ton
ZNE Or PH Certification Incentive	\$3,000
Technical Assistance For Net Zero Expert Consultant Services	50% of fee up to \$10,000
Verification Incentive	50% of fee up to \$10,000

Why 100 tons vs 45 ton?

Answer:

- ❖ GSHP can put out full capacity all year;
ASHP has more equipment requirements to operate during winter

Example Heat Pump Adder Calcs:

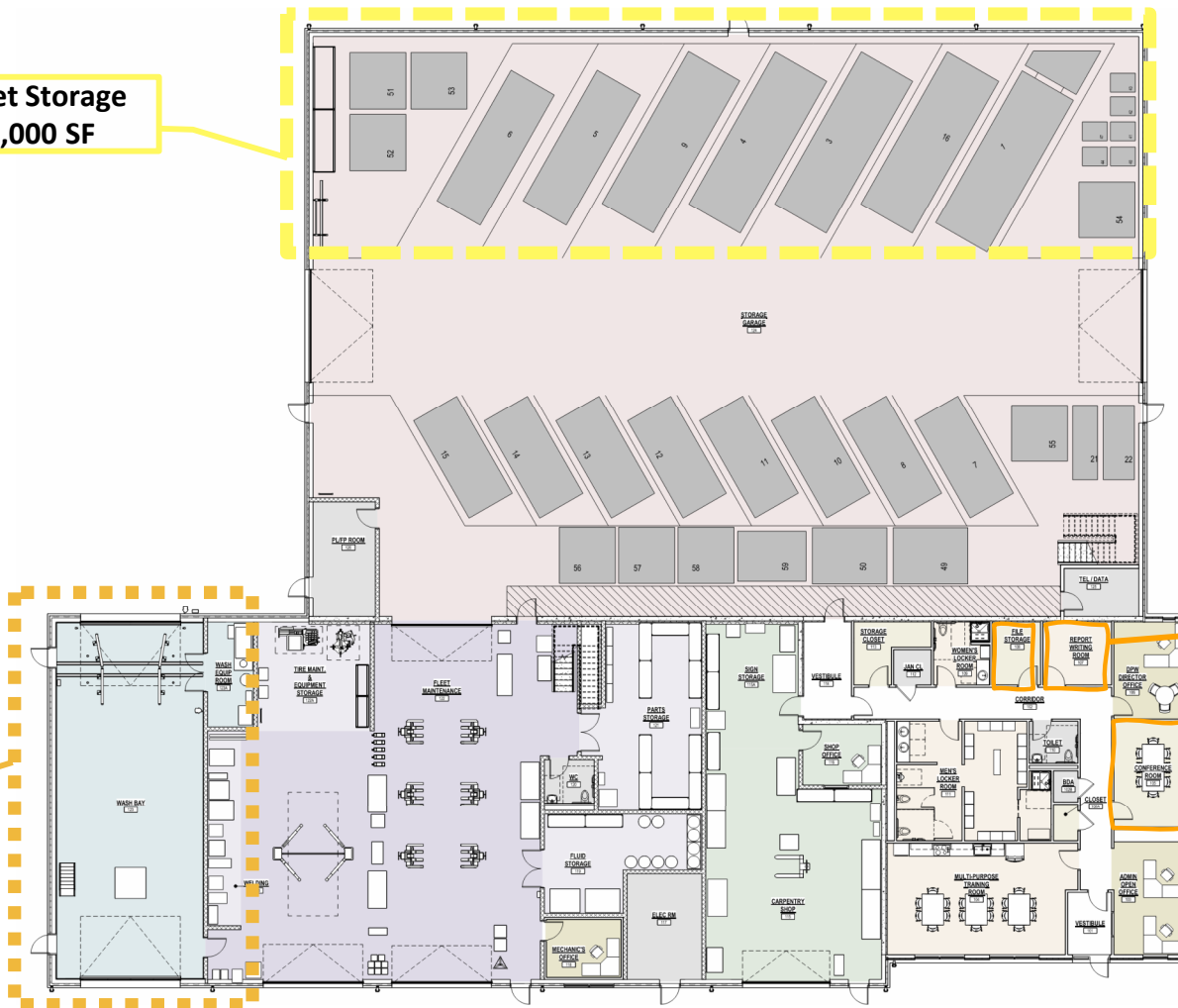
- ASHP: 100 tons x \$800/ton = \$80,000
- GSHP: 45 tons x \$4,500/ton = \$202,500

Potential Cost Reduction Efforts / Bid Alternates

**Fleet Storage
5,000 SF**

**Wash Bay
Finishes &
Equipment**

**File Storage
Report Writing Room
Conference Room
Approx. 388 SF**



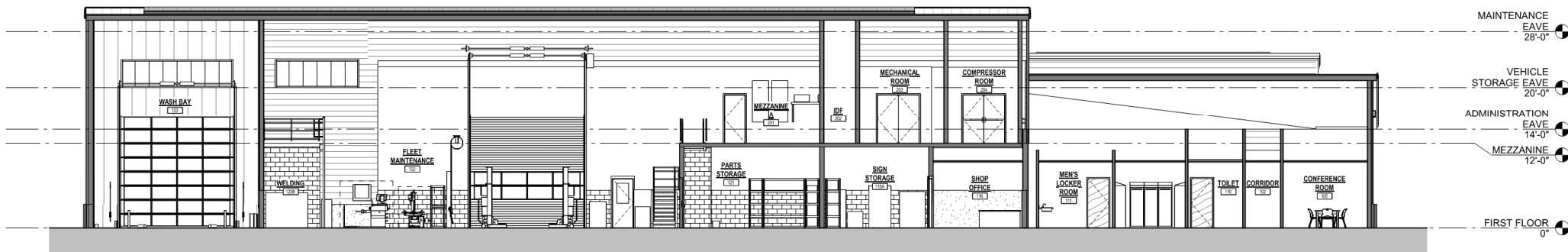
Weston & SampsonSM

transform your environment

Schematic Building Sections



Building Section Thru Fleet Storage & Maintenance



Building Section Thru Wash Bay, Maintenance & Admin