



GCCC ICE ARENA

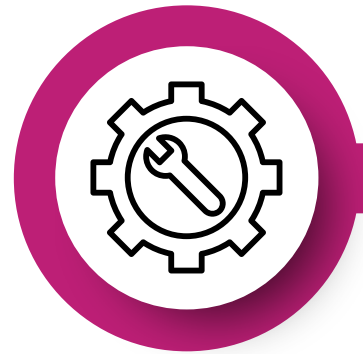
PRESENTATION

**BRIAN STINETT - RECREATION DIVISION DIRECTOR
MARIA SANCHEZ TUCKER - COMMUNITY SERVICES DIRECTOR**

8/6/25



30,000 FEET OVERVIEW



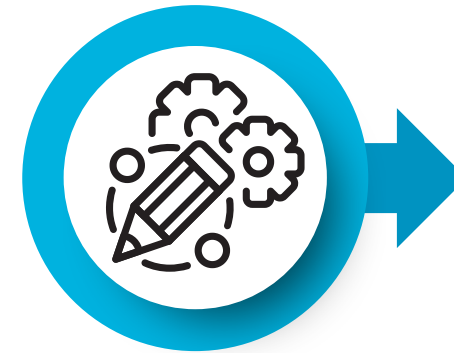
Deferred Maintenance



Rink Specific Knowledge and Expertise



Budget & Procurement Constraints



Engineering and Rink Design



Geography and Location of the Rink

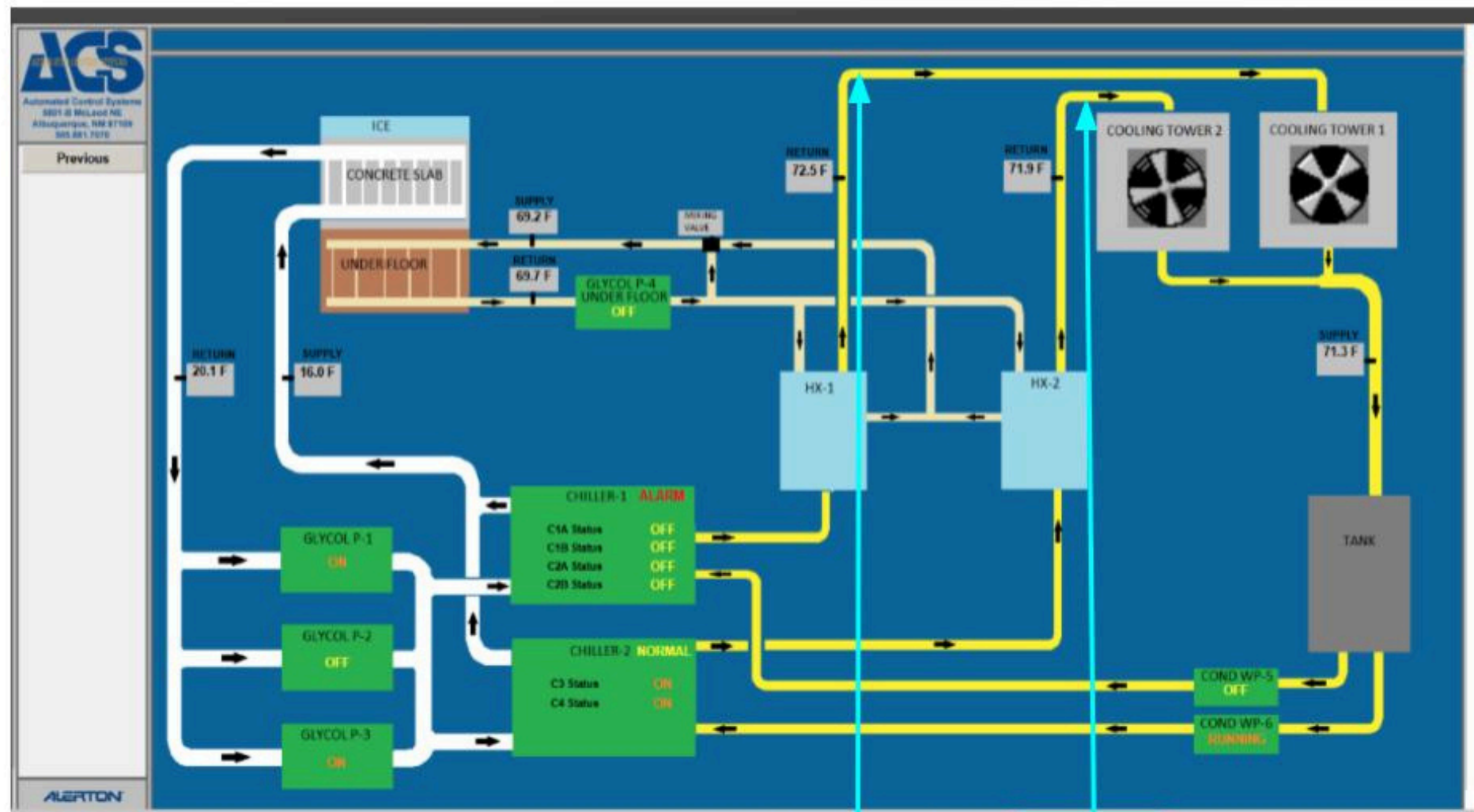


Staffing Continuity and Positions

STATE OF THE RINK PAST | PRESENT | FUTURE

A BRIEF OVERVIEW - HOW THINGS WORK

GCCC Plant Diagram

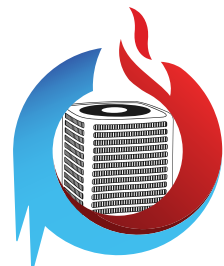


★ High Pressure Cutout
 Condenser Fan Control
 Condenser Pump Control
 Low Suction Pressure Gauge

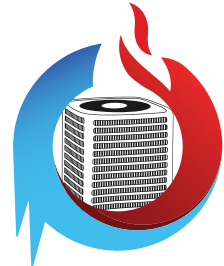
5 Major Systems

1. Compressors
 - a. Skid 1 & Skid 2
2. Glycol Pumps and Motors
3. HVAC
4. Cooling Towers
5. Dehumidifiers

HVAC 6



HVAC 7



Dehumidifier

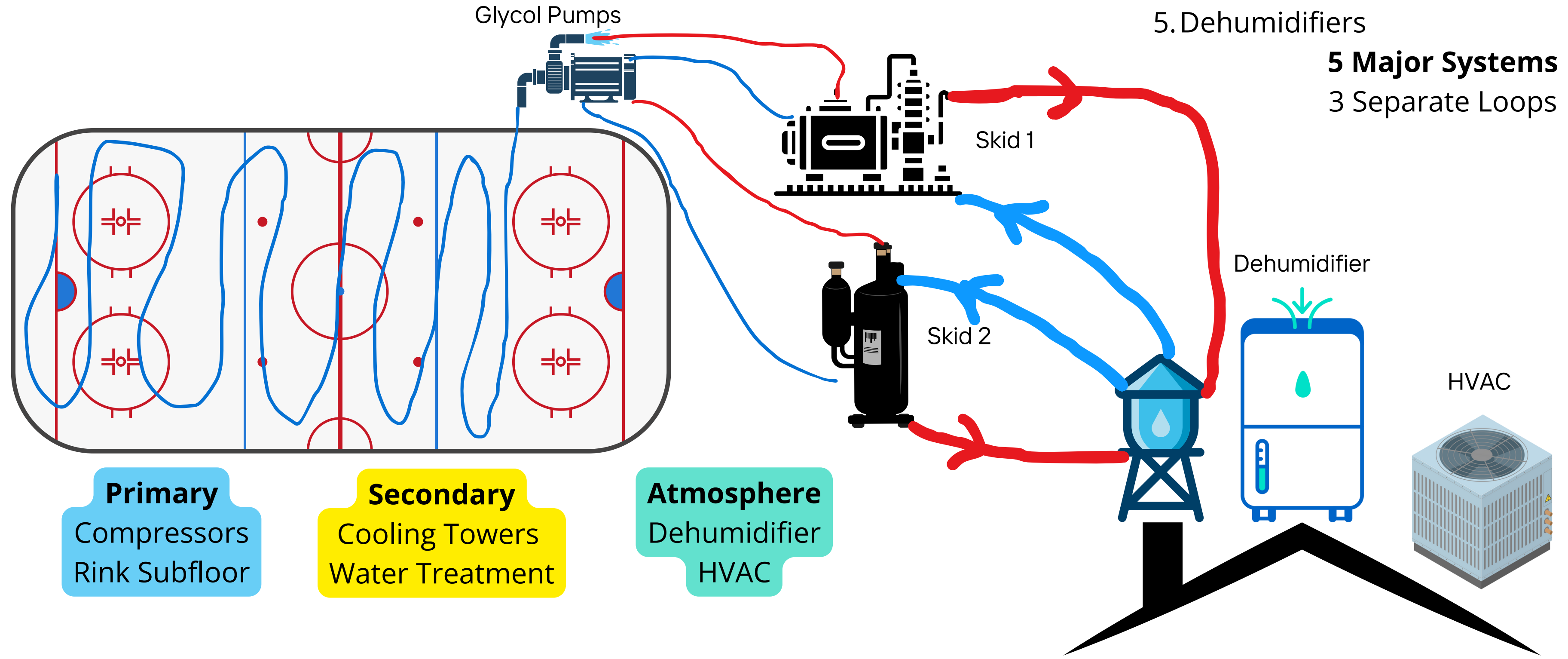


A BRIEF OVERVIEW - HOW THINGS WORK

5 Major Systems

1. Compressors
 - a. Skid 1 & Skid 2
2. Glycol Pumps and Motors
3. HVAC
4. Cooling Towers
5. Dehumidifiers

5 Major Systems 3 Separate Loops

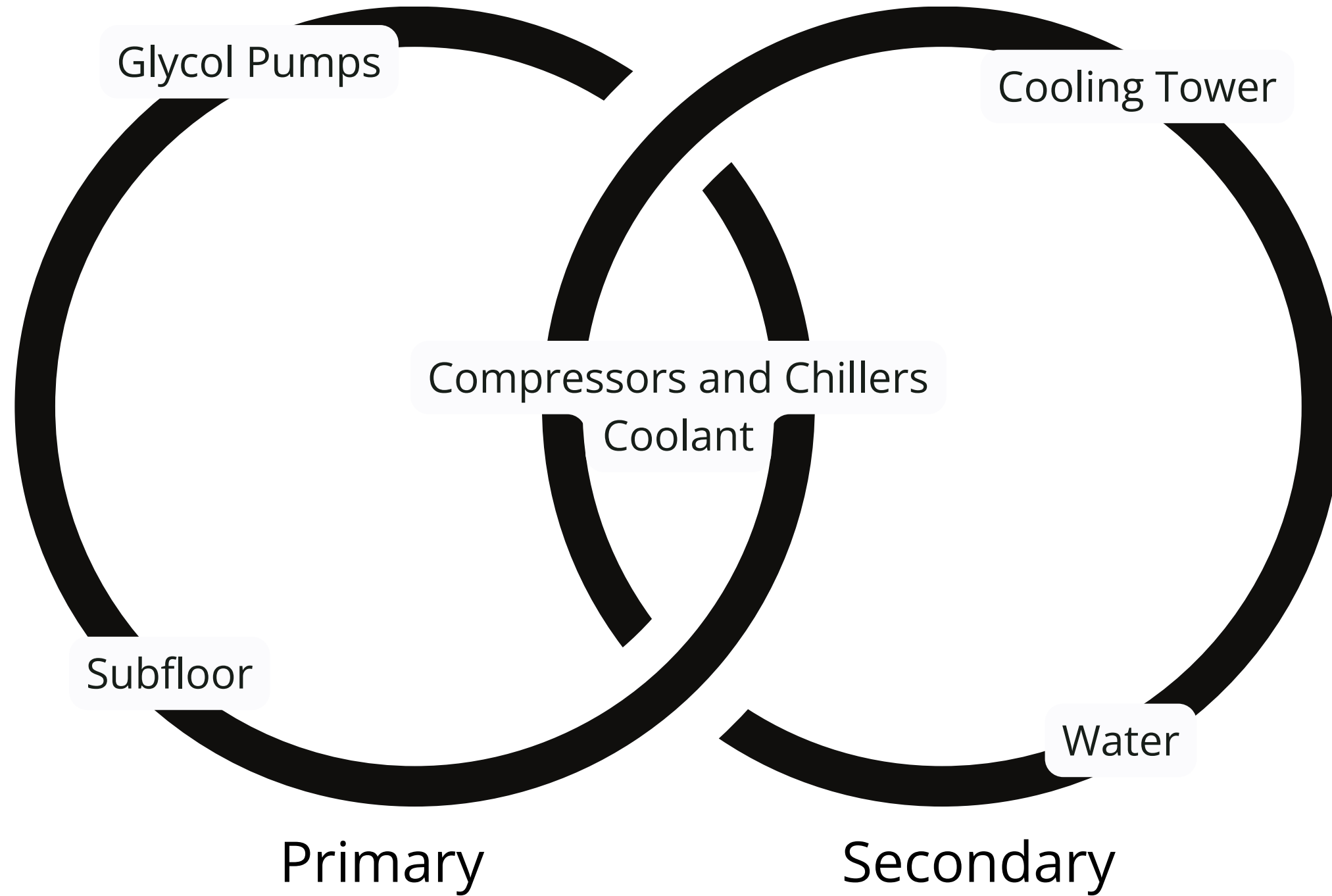


Primary
Compressors
Rink Subfloor

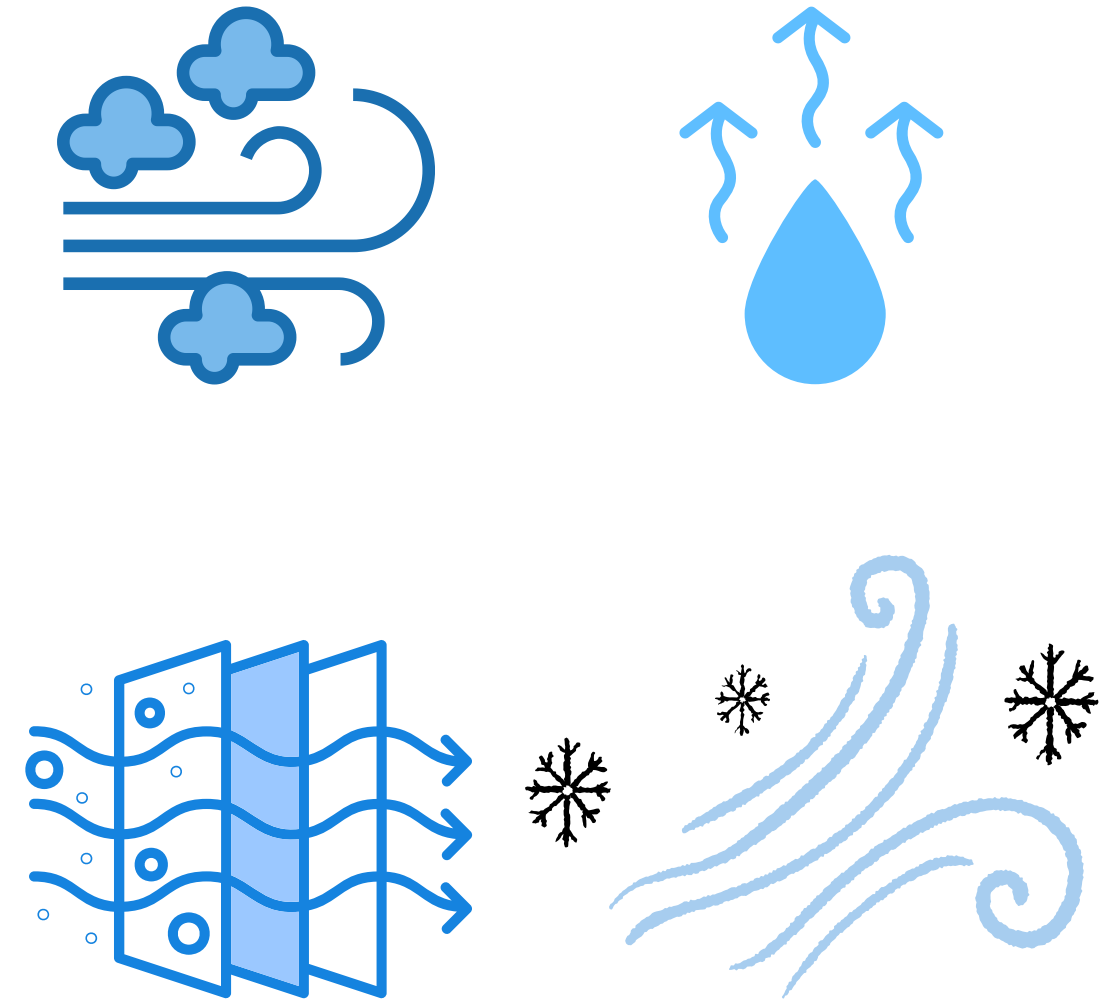
Secondary
Cooling Towers
Water Treatment

Atmosphere
Dehumidifier
HVAC

TWO LOOPS & ATMOSPHERE



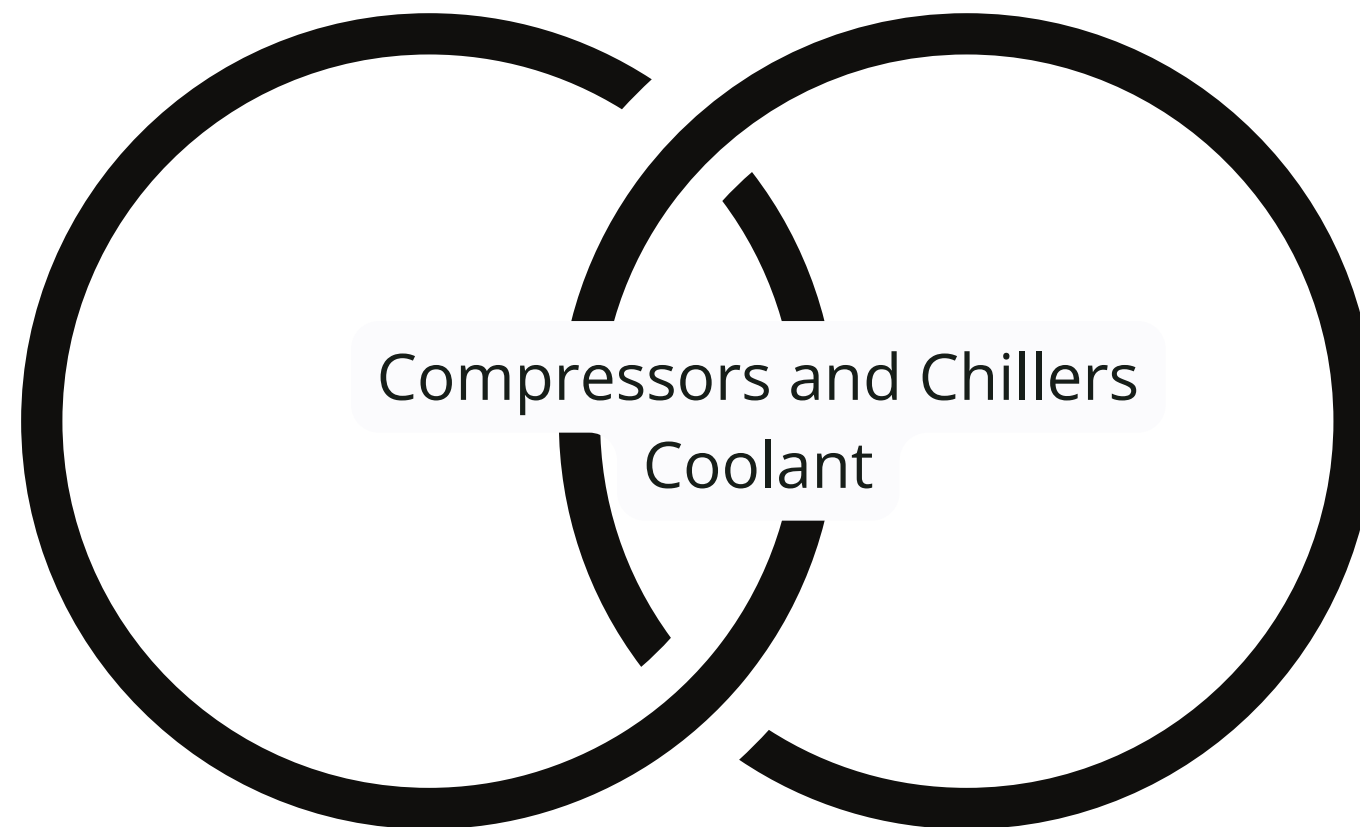
Climate



A BRIEF OVERVIEW - HOW THINGS WORK

A BRIEF OVERVIEW - HOW THINGS WORK

KEY CONNECTING SYSTEM AND MECHANISM IN OUR PLANT



Thermodynamics rules 1 & 2

- Heat cannot be created or destroyed
 - ONLY TRANSFERED
- Heat always moves from Higher Temp to Lower Temp
 - Rink floor absorbs Heat
 - Transfers it out through Primary and Secondary Systems

COMPRESSORS & PRIMARY COOLANT

- **SYSTEMS THAT COST THE MOST TO REPAIR**
- **FIRST POINT OF DISCOVERY IN DIAGNOSING RINK EFFICACY**



PREVIOUS CLOSURES: ALL SEPARATE FAILURES & DIFFERENT SYSTEMS

Summer **2023**

Compressor Safety Systems
Chiller Maintenance

HVAC Failure

2024 Summer

Summer **2025**

Cooling Tower & Dehumidifier Failure

- Consistent - Prolonged Deferred Maintenance
- 25+ year old equipment
- Insufficient Knowledge from Contractors
- Contractor Availability in NM for Ice Rinks
- Previous Maintenance Company Turnover

CONDITIONS NEEDED FOR ICE

Dry Atmosphere

Cold Subfloor

Cold Air Temps

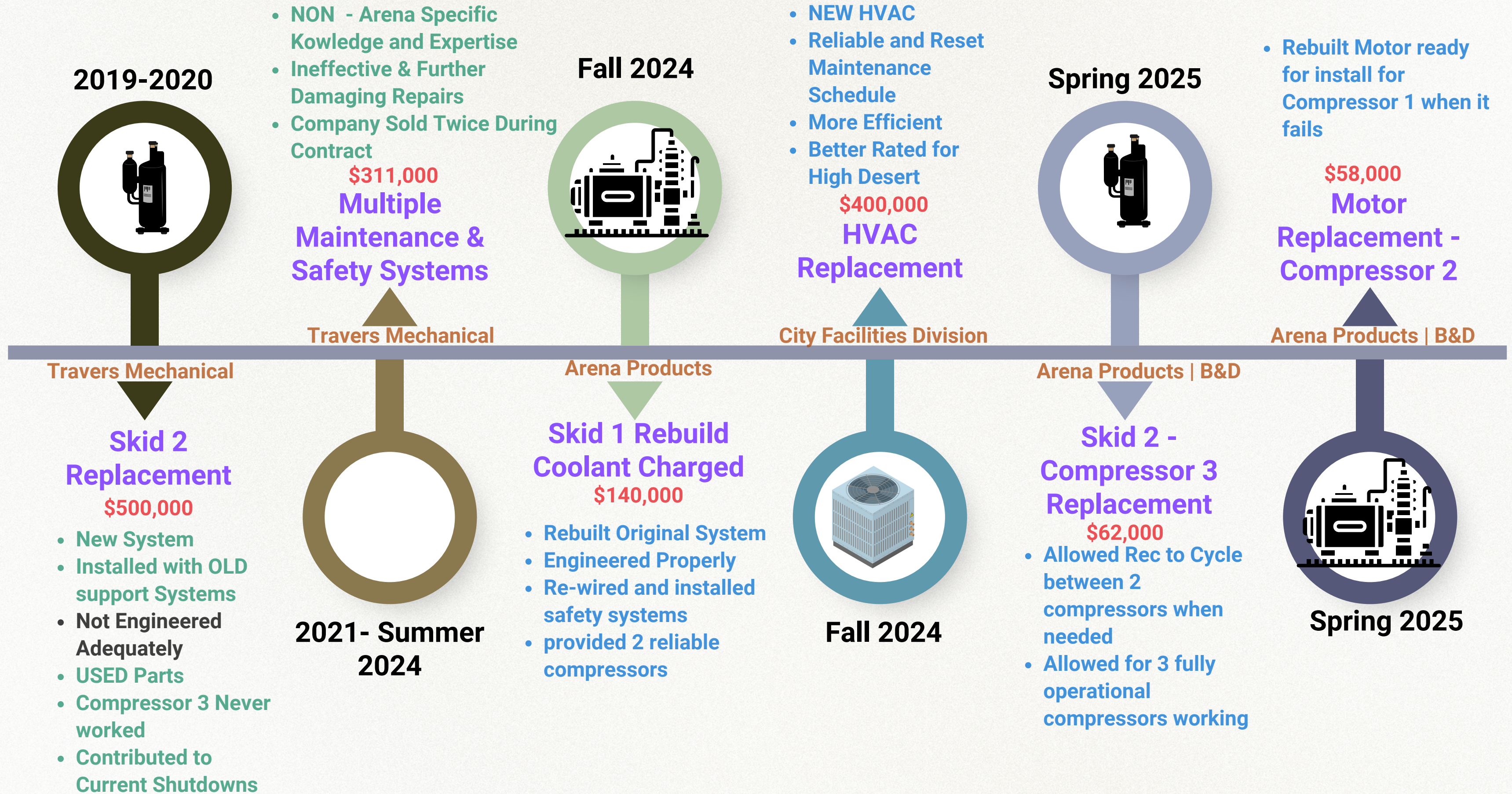
Compressors
Functional

Support Systems
Operational

Clean Water

TIMELINE - SUCCESSES- PROJECT(S)- ISSUES - COST - VENDOR

Projects - Repair - Replacement



CITY INVESTMENT

2019-2025

\$1,427,000.00

- \$660,000 since Summer 2024

- **Costly Systems Repaired and Replaced**
 - **Compressors**
 - **HVAC**
- **Routine Maintenance and Safety Systems**
- **Established NEW Maintenance and Schedule for Critical Systems in 2024.**

WHY IS THE RINK DOWN SUMMER 2025?

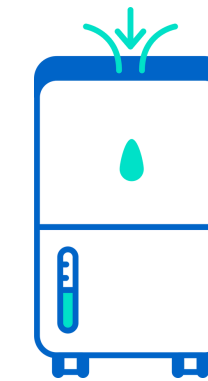


FAILED COOLING TOWERS

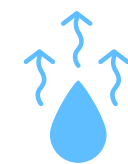


- 25 Years Old
- Corrosion
- Rust
- Scaling
- Bio Material
- Clogged Systems In the Secondary Coolant Loop
- Safety Systems Shutdown of Compressors
- Could lead to damages to previously repaired equipment
- **NOT Engineered adequately for Skid 2**
- Re-plumbed during 2019 Skid 2 Replacement

FAILED DEHUMIDIFIER



- 25 Years Old
- Warped Drum
- Motor Seized
- Bearings and Wheels
- Heavy Rainfall in Early June
 - unable to meet the demand of dehumidification
 - decreased quality of ice over time
- **Soft Ice** due to moisture in the rink
- Issue would persist and continue in late summer during monsoon season.



REPAIR SCHEDULE AND PLAN

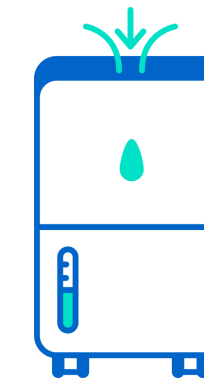


COOLING TOWERS



- Replacement
- NEW Design
- Lifespan of Cooling Towers is 10 years (or rebuild)
- NEW Design is rated for High Desert Climate
- Improved Efficacy
- Air Cooled
- Higher Capacity - HTO pressure and compressor compatibility
 - ESSENTIAL for Skid 2

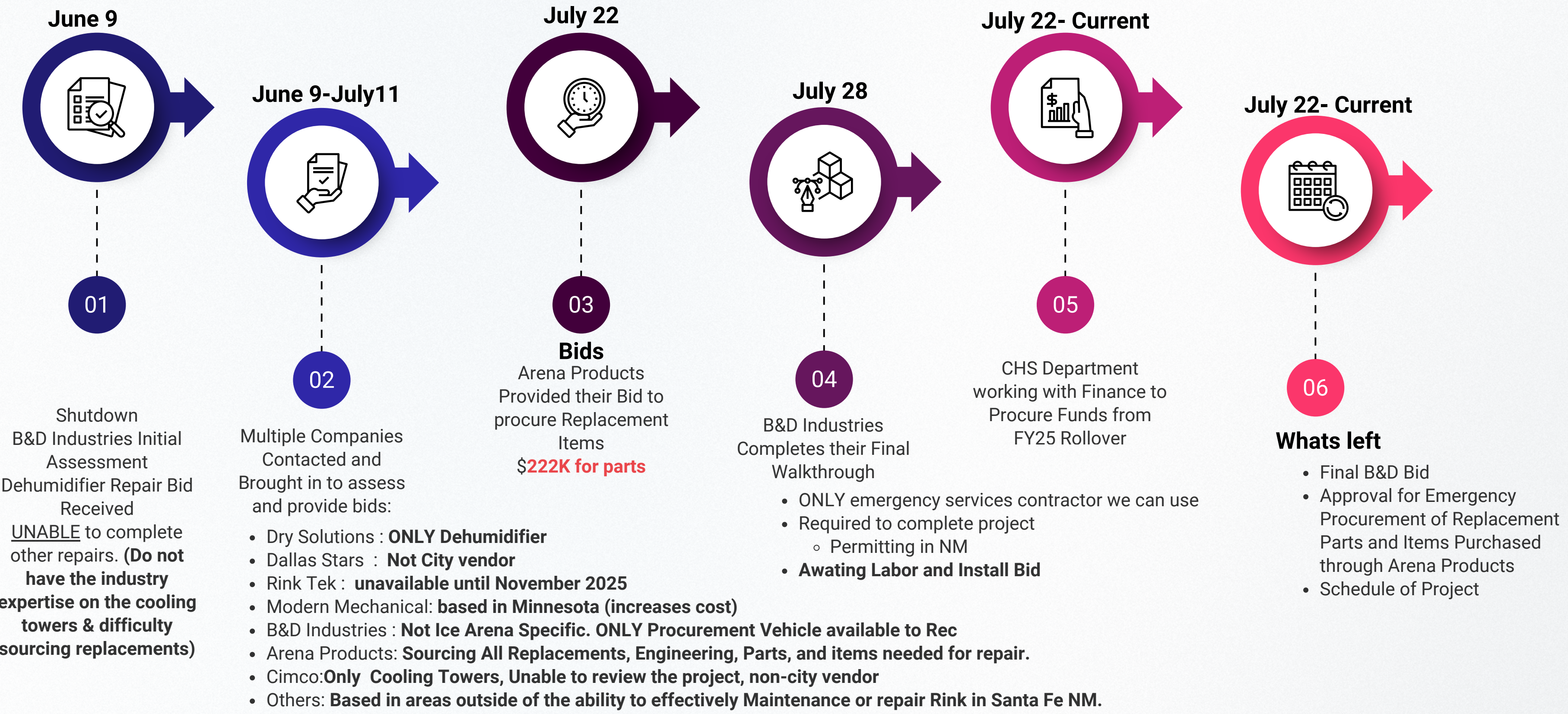
DEHUMIDIFIER



- Repair
- Review of Heating Element
 - Good working order
 - maintained recently
- New Drum
- Wheel belt and Motor
- Bearings and Moving Parts
- Work with NEW HVAC to effectively Dehumidify the Rink

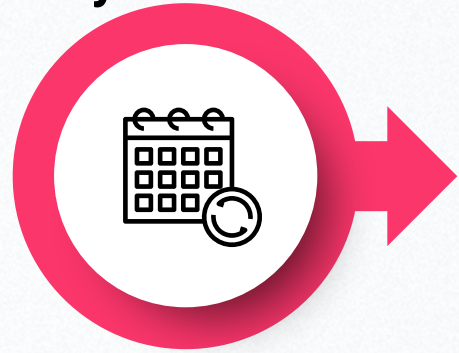


SHUT DOWN - PROCESS - PROGRESS



SHUT DOWN - PROCESS - PROGRESS

July 22- Present



- Final B&D Bid
- Approval for Emergency Procurement of Replacement Parts and Items purchased through Arena Products **COMPLETE 8/4/25**
 - Funds requested and received Spring 2025 (**More on Next Slide**)
- Schedule of Project

HURDLES

- B&D is the only emergency procurement company we can use for repair,
 - **3 bids were unattainable, despite efforts for traditional procurement**
- Arena Products is the company with expertise
 - NM Licensing is taking from *2 months* to *1 year* to obtain a Mechanical License
- Arena Products is procuring items to speed up timelines, & supervising the projects
 - Replacement Cooling Towers
 - Parts for Dehumidifiers
 - Chiller Cleaning and Heat Exchange Plates
 - No longer licensed in NM for Mechanical Work
 - Reciprocity does not apply in NM. They have license reciprocity in CO, TX, AZ, UT, CA, OK
- B&D has to Engineer, Obtain Permit, and perform labor and installation

CAPITAL | MID YEAR APPROPRIATIONS

- **Fall 2024:** Arena Products made Recreation Aware of the need for Repair to the Cooling Towers and Dehumidifier
 - **Completed maintenance and believed they would hold until we could get them replaced.**
- **November 2024:** CHS and Recreation Requested funds to address the needs for:
 - Cooling Tower Repair/Replacement **\$140,000**
 - **Unable to complete in FY25 (rollover required)**
 - Compressor 3 Replacement **\$40,000** (**Completed in 4/25**) 1st step to address **Primary systems. Industry knowledge is to complete Primary Systems 1st**
 - Munters Repair & Replacement **\$50,000**
 - **Unable to complete in FY25 (rollover required)**
 - **\$20,000 of 50K was used to complete wiring and electrical damage from previous repairs from previous services provider during the motor replacement of Compressor 2**

\$170,000 REMAINING:

\$170,000 REMAINING:

FY25 FUNDS



\$52,000 Remaining to Procure Items for Current Repairs and Replacements



Bid Forthcoming from B&D for Labor and Install: **AMOUNT TBD**



Recreation Budget to address Repairs is Available:

- **Aquatics Mid Year Appropriation**
- **Community Room Floors**
- **Therapy Pool Deck Repairs**

OUR GOAL IS TO NOT USE FUNDS FROM OTHER SECTIONS IF POSSIBLE: REQUESTS PENDING

PROJECTED TIMELINES

CITY PROCUREMENT & FUND APPROVAL



FY25 Carryover Funds
Final B&D Bid

8-10 Weeks DELIVERABLES



Manufacturer Timelines for Cooling Towers. Dehumidifier expected earlier

1-2 Weeks INSTALL AND LABOR



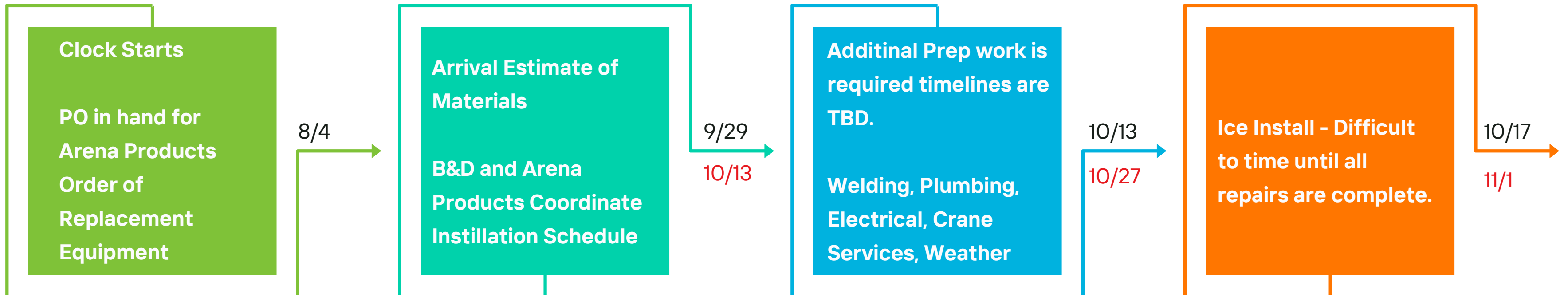
1-2 weeks Depending on Multiple Variables

- Crane Access
- Replumbing
- Electrical Connection
- Others

2-3 Days ICE BUILD



Rec Team has sourced Dallas Stars to provide manpower, and training to expedite Ice Installation



PROJECTED WINDOW

OCTOBER 17 THROUGH OCTOBER 31

- B&D is ready to schedule instillation when final deliverables are confirmed
- Arena Products is providing 2 experts to supervise the project
 - Recend Munters (Dehumidifier) Repair in Texas, identical to ours.
- Dallas Stars Procured to Expedite Ice Instillation when Systems are Operational
 - Providing 2 days of Zamboni Training for all staff
 - All staff will be able to resurface and complete ice maintenance
- Current Staffing 80% full. TWO - PT Technician position is left
 - Increased Programming Hours to recoup lost programming and time.

OTHER RECENT DEVELOPMENTS

July 30 2025 Window Project Complete. Rainstorm on 7/30 confirmed only 2 small leaks, Not near the Clearspan.

Water Test and Leak Tracking
Facilities Scheduled Leak Repairs to Follow

2025 **August 4-8th**

July 7 2025 NEW HVAC Failure
Inoperable Since July 7, 2025

Replacement Parts Failed again
Timeline TBD. **Facilities Led Project**

2025 **July 25**

**Summer
Fall 2025** HVAC under warranty
Repairs expected to be completed before Cooling Towers and Dehumidifier work is done.
B&D contracted for work. (Same project manager as cooling tower/dehumidifiers)

AFTER REPAIRS WHATS LEFT?

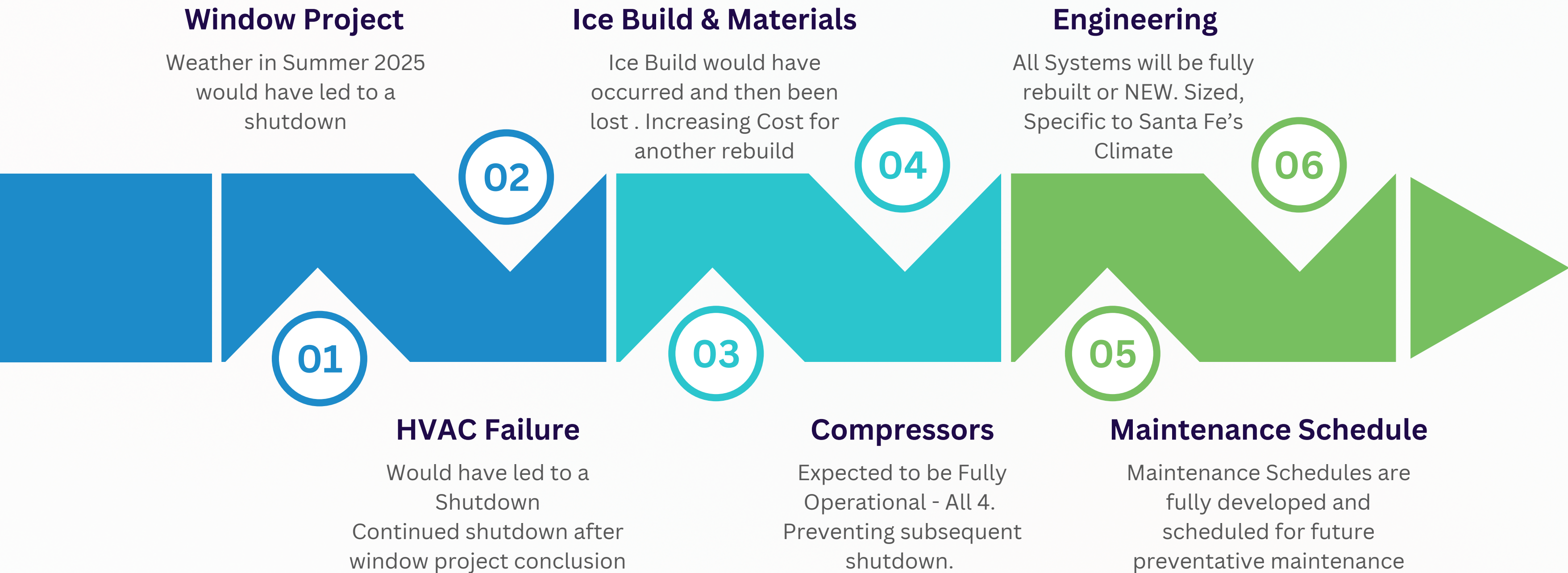
ADDITIONAL PROJECTS

After Repairs
Conclude



- Glycol Pump Valves
- Glycol Pump Repair/Replacement
 - Allows for cycling and repairs to be completed without Shutdown
- New Water Treatment Contract
 - Includes Maintenance and Cleaning of Cooling Towers and Secondary Coolant System
- NEWLY Developed Maintenance Plan
- **Budget for Maintenance**
 - Key Systems Scheduled and budgeted in advance to be repaired, replaced, rebuilt according to manufacturer guidelines.

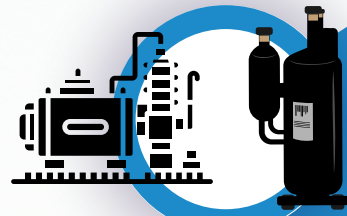
What We know & Plan Forward



Maintenance Schedule

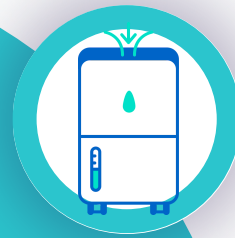
Compressors

Every 2 years (Minor Top End Replacement)
Every 5 years (Major Full Replacement)



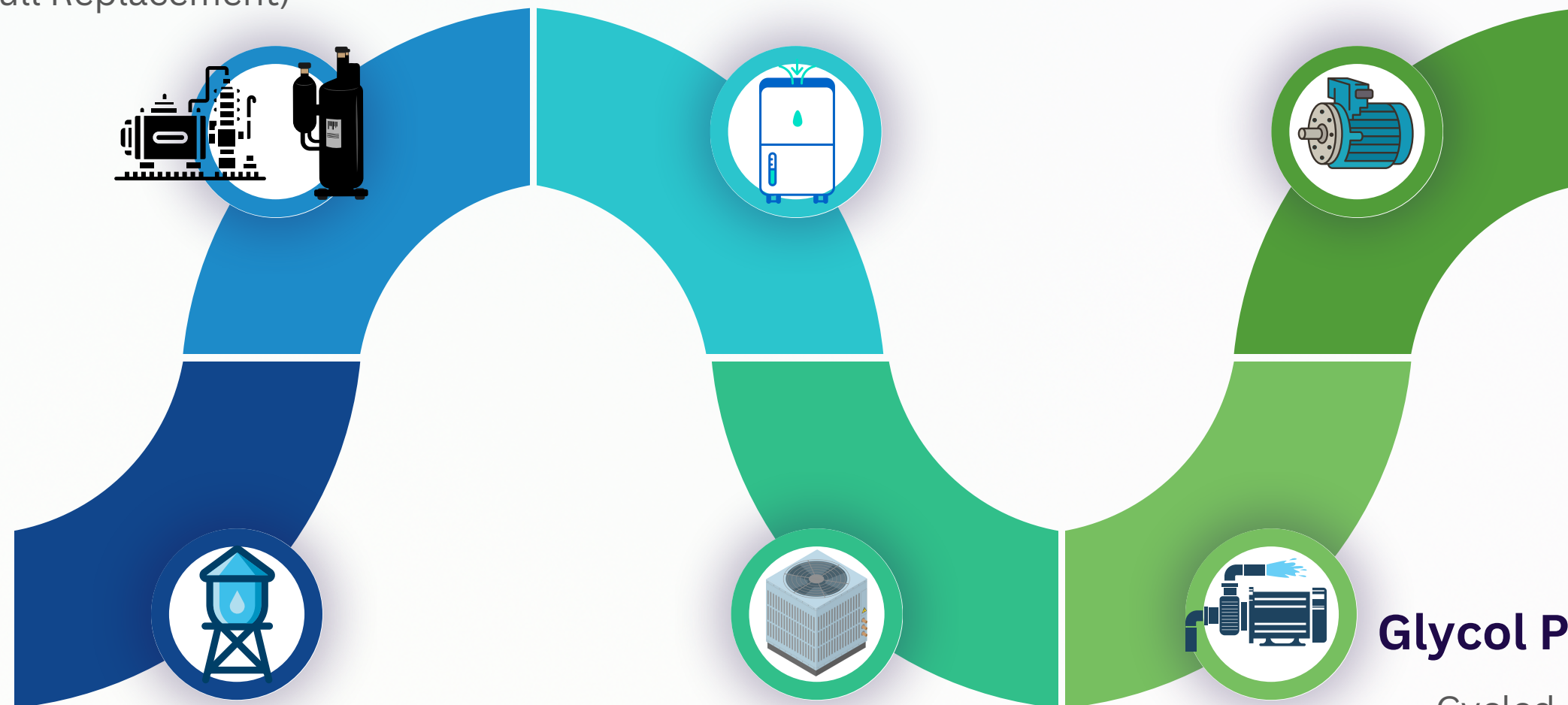
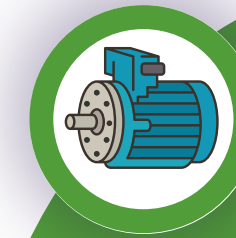
Dehumidifiers

2 year scheduled Drum, Bearings,
Motor Repair/Replacement



Motors and Pumps

Floor pumps
Cooling pumps
Secondary movers
Quarterly maintained
Replacement every 3 years
or as needed
Replacements procured for
emergency repair required



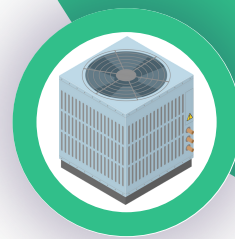
Cooling Towers

Annual Cleaning and Descaling
Cycled repair that will not
cause interruption of Ice Time



HVAC

Annual Maintenance and
Preventative Maintenance Bi -
annually



Glycol Pumps

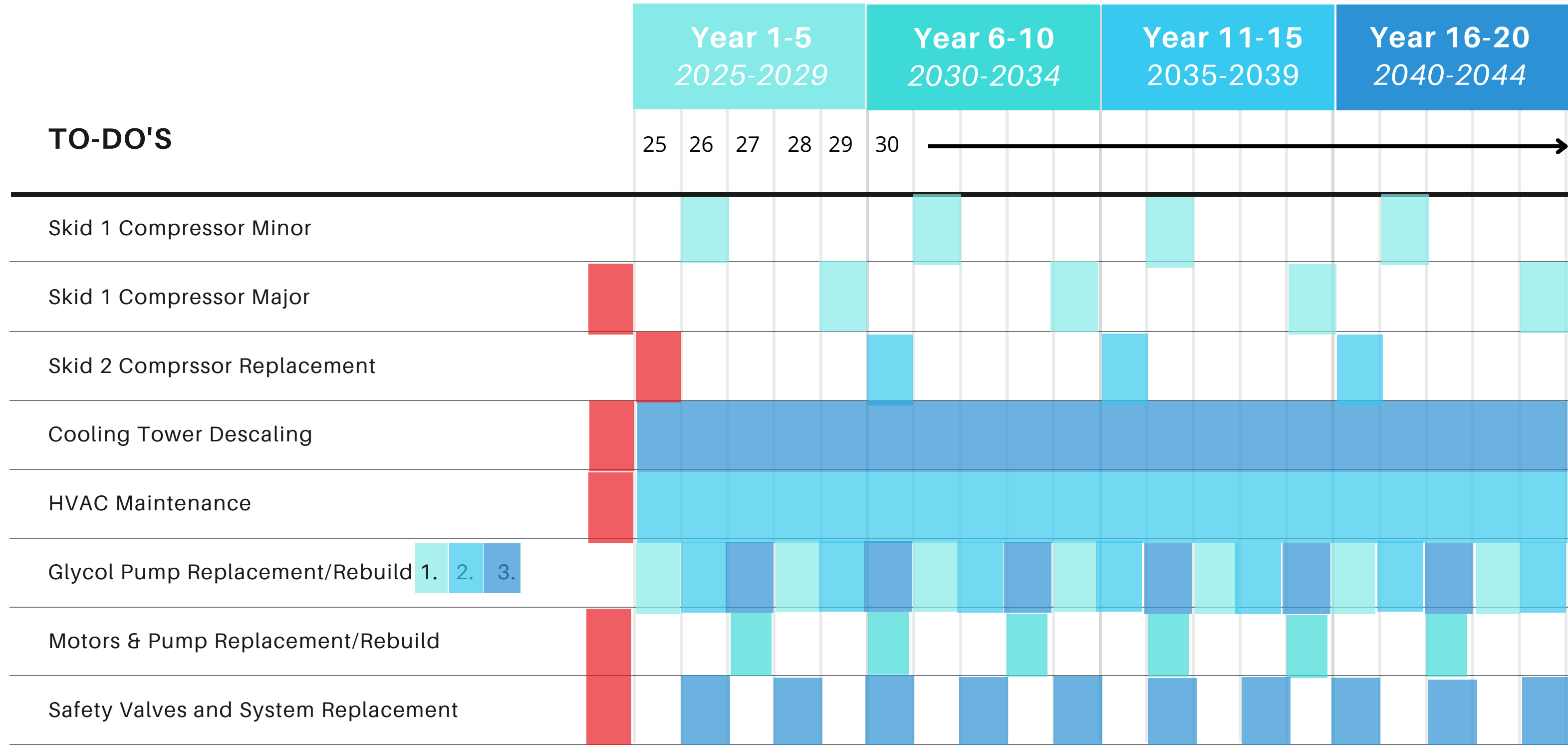
Cycled off once a year and
valved for Motor Maintenance
every 3 years
Preventative Maintenance
quarterly while in operation



Maintenance Schedule 20 - year

What to Do.

COMPLETED
*2024-25 ALL MAJOR
 STSYEMS COMPLETED*



2025 \$3,500-\$5,000
Minimal with all NEW Equipment
Glycol Pump (1) Replacement



\$125,000 - \$150,000 2030

Skid 2 Compressor Replacement
Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (3)
Safety Valve Replacement

2026 \$45,000-\$55,000
Skid 1 Minor
Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (2)
Safety Valve Replace



\$45,000-\$55,000 2031

Skid 1 Minor
Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (1)

**2025-2034
Cost Projection
ESTIMATE
Annual Maintenance
contract 15-20K**

2027 \$40,000 - \$50,000
Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (3)
Motor & Pump Replace/Rebuild



\$50,000 - \$60,000 2032

Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (2)
Safety Valve Replacement

2028 \$25,000 - \$35,000
Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (1)
Safety Valve Replacement

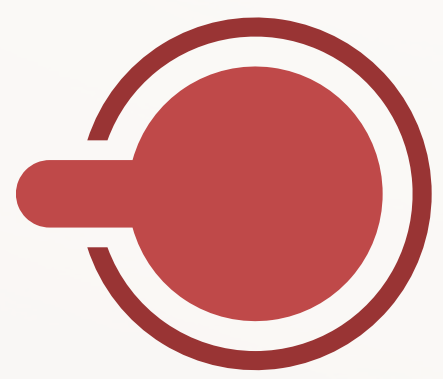


\$40,000 - \$50,000 2033

Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (3)
Motor Pump
Replacement/Rebuild

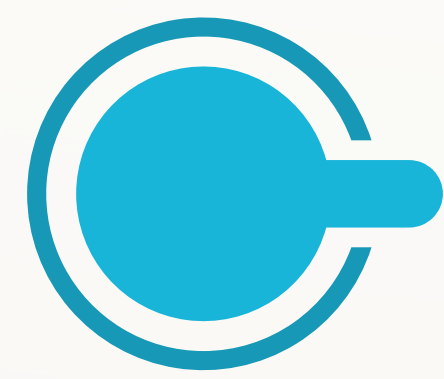
2029 \$80,000-\$100,000

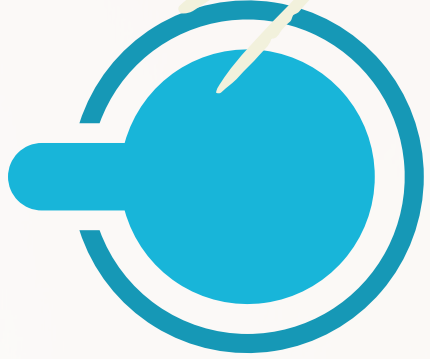
Skid 1 Major
Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (2)



\$90,000 - \$100,000 2034

Skid 1 Minor
Tower Descale
HVAC Maintenance
Safety Valve Replacement

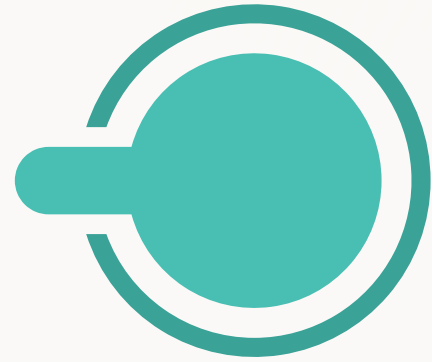




2035 Skid 1 Replacement

\$500,000 - \$750,000

R22 Coolant Phased Out. Projected 10 years left of coolant.
Parts and rebuild difficult to source



2036 \$300,000 - \$400,000

HVAC & Cooling Tower Lifespan End
Dehumidifier Replacement
Rebuild or Replacement Potential



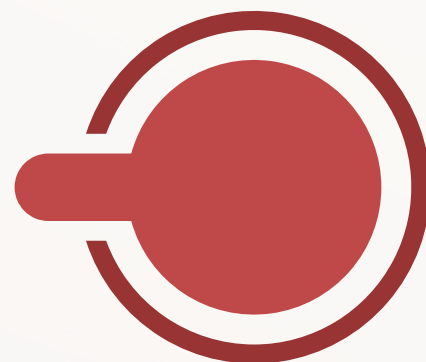
2037 \$40,000 - \$50,000

Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (3)
Motor & Pump Replace/Rebuild



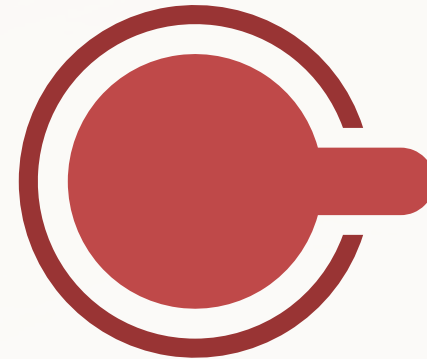
2038 \$25,000 - \$35,000

Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (1)
Safety Valve Replacement



2039 \$125,000 - \$150,000

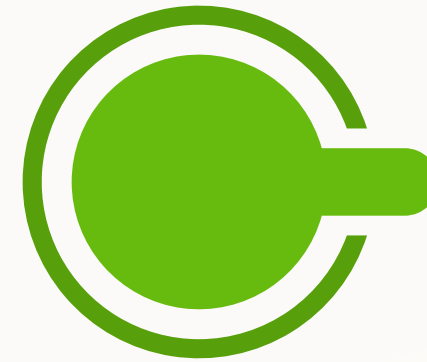
Skid 1 Compressor Replacement
Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (2)



\$125,000 - \$150,000

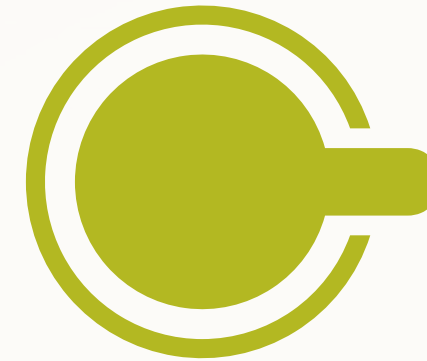
2040

Skid 2 Compressor Replacement
Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (3)
Safety Valve Replacement



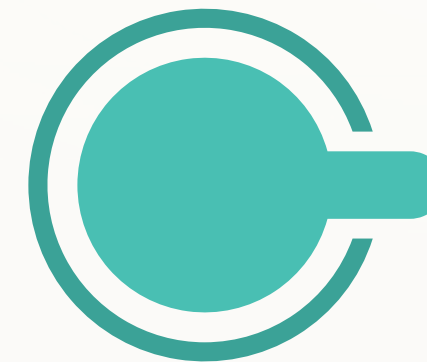
\$45,000-\$55,000 2041

Skid 1 Maintenance
Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (1)



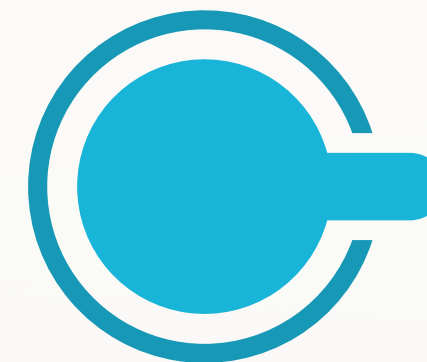
\$50,000 - \$60,000 2042

Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (2)
Safety Valve Replacement



\$40,000 - \$50,000 2023

Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (3)
Motor Pump
Replacement/Rebuild



\$125,000 - \$150,000

2044

Skid 1 Compressor Replacement
Tower Descale
HVAC Maintenance
Glycol Pump Rebuild/Replace (2)

2035-2044 Cost Projection ESTIMATE
Annual Maintenance contract 15-20K

Foward Thinking BUDGET and MAINTENANCE

Peaks and Valleys - 3 years Low cost | yr 4-5 high cost

2026-2028

Average \$51,000 - \$66,000
Annual Maintenance

2031-2033

Average \$60,000 - \$75,000
Annual Maintenance

2036-2038

Cooling Tower Potential
Replacement
Average \$51,000-\$66,000
Annual Maintenance

2041-2044

Average \$60,000 -
\$75,000
Annual Maintenance

2029-2030

Major Maintenance
Estimate
\$205,000 - \$250,000

2034-2035

Major Maintenance
Estimate
\$600,000 - \$850,000

2039-2040

Major Maintenance
Estimate
\$205,000 - \$250,000



ANNUAL BUDGET PROBLEMS | MAINTENANCE DILINEATION

**GCCC & AQUATICS ARE UNIQUE IN ITS DESIGN AND SYSTEMS
THEY ARE NOT APPLIES TO APPLIES WITH OTHER CITY FACILITIES**

- **3 YEAR AVERAGE BUDGET WILL NOT ADDRESS PROPER PREVENTATIVE MAINTENANCE SCHEDULES AND MAIN COMPONENT REPLACEMENT/REPAIRS**
 - **THIS IS THE MAIN CONTRIBUTING FACTOR** THAT HAS LED PREDECESORS AND STEWARDS OF THE ICE RINK TO FAIL AND SET IN MOTION A PATTERN OF DEFFERRED MAINTENANCE THAT HAS GOTTEN US WHERE WE ARE TODAY
 - **UNIQUE BUDGETING FOR MAJOR SYSTEM AND MANUFACTURER RECOMMENDATIONS MUST BE A PRIORITY**
- **PUBLIC WORKS (FACILITIES) DOES NOT HAVE RESPONSIBILITY OR GCCC ICE RINK OR ANY AQUATIC SYSTEMS**
 - RECREATIONS ICE RINK BUDGET IS INSUFFICIENT YEAR TO YEAR TO ASSESS MAJOR ISSUES
 - PROCUREMENT IS LIMITED TO 20K PER VENDOR OR UNDER 60K
 - **3 BIDS ARE NEARLY IMPOSSIBLE** GIVEN GCCC GEOGRAPHIC LOCATION AND SPECIALTY CONTRACTORS AVAILABLE TO SANTA FE
 - BUDGET ALLOCATION DOES NOT SUFFICIENTLY ADDRESS LONG TERM MAINTENANCE SUCCESS AND GOALS
 - PREVIOUS MAINTENANCE **POSITIONS** WERE **MOVED TO PUBLIC WORKS (FACILITIES)** THUS ELIMINATING THE A PROFESSIONAL IN HOUSE TO PERFORM ROUTINE MAINTENANCE AND MAINTAIN KNOWLEDGE AND EXECUTE REPAIR AND MAINTENANCE PLANS
 - RECREATION **DOES NOT HAVE PROJECT MANAGEMENT OR TOOLS NECESSARY** TO EFFECTIVELY DEAL WITH A CRISIS SITUATION.
 - **BUDGET LIMIT - PROCUREMENT GUIDELINES RESTRICTIVE - CAPITAL TO ADDRESS MAJOR REPAIRS - EXPERTISE IN PROJECT MANAGEMENT**
- **PREVIOUS COMP AND CLASS STUDY**
 - ELIMINATED RINK TECHNICIAN POSITIONS (CIT - CERTIFIED RINK TECH)
 - REDUCED COMPENSATION FOR RINK EMPLOYEES
 - ELIMINATED CAREER DEVELOPMENT AND TRAINING FOR ICE RINK AND AQUATIC PROFESSIONALS

More Work To Do

Currently Underway

Director Stinett: 2 of 3 legs of CIT Training Complete

Complex Manager Spurlin: beginning CIT Certification

Ice Manager Cisneros: 1 of 3 legs of CIT Training Complete

Rink Lead Trigg: beginning CIT Certification

New Water Treatment Contract

Programming and Operations Assessment

- Dallas Stars Training
- Zamboni
 - Ice Instillation
 - Skate Sharpening

Completing Sole Source Agreement for Maintenance with Arena Products (once license is complete in NM)

Repair and Maintenance Dilemation

Critical: Who is responsible for Rink and Aquatic Systems: **Rec or Facilities?**

Recreation Maintenance Position

Restored to Project Manager and Maintain continuity in Ice and Aquatics



Set Ice Rink up for Continued Success

Unique Budgeting

3 year average utilized needs to be addressed and mapped to address major repairs/replacements

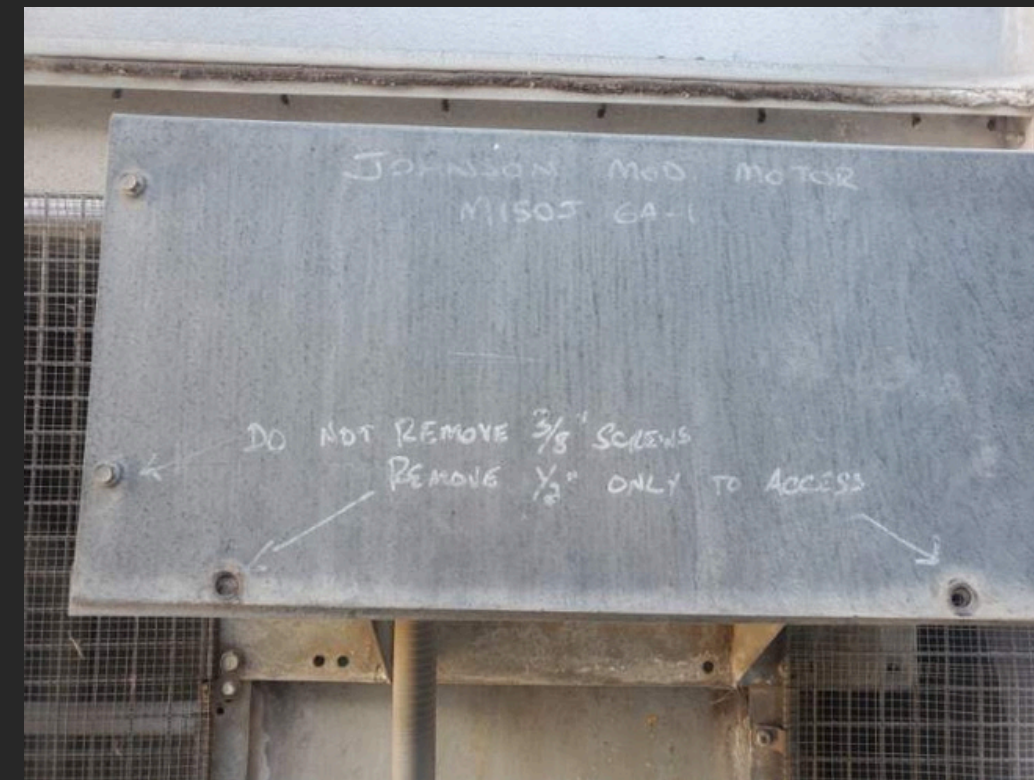
We need a dynamic Budget to properly plan for Maintenance and eliminate shutdowns.

Rink Professionals Positions

Professional Development
Career Advancement
Opportunity to elevate



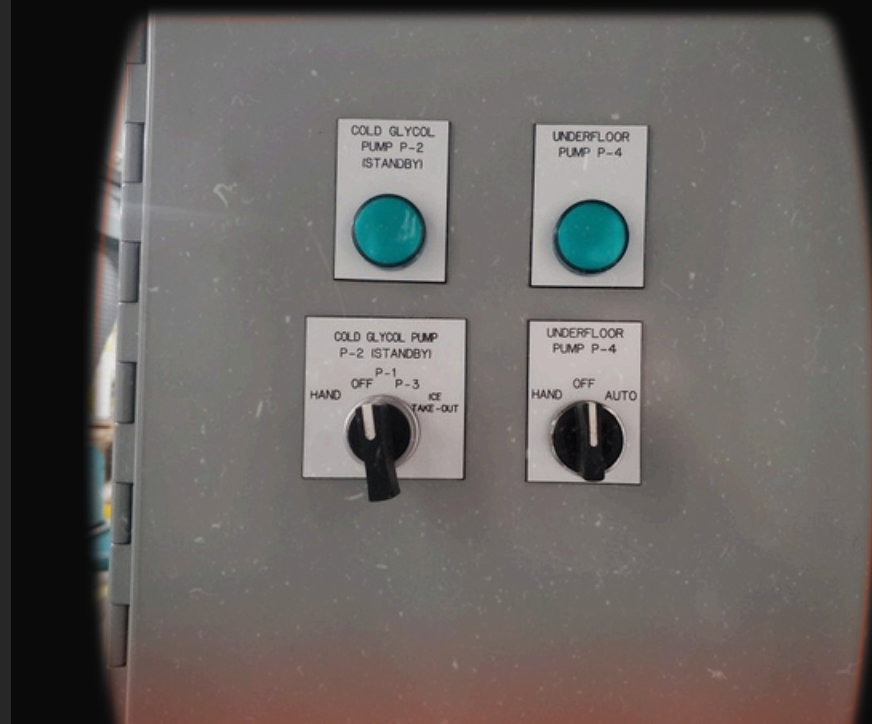
Photos of Projects: Cooling Towers



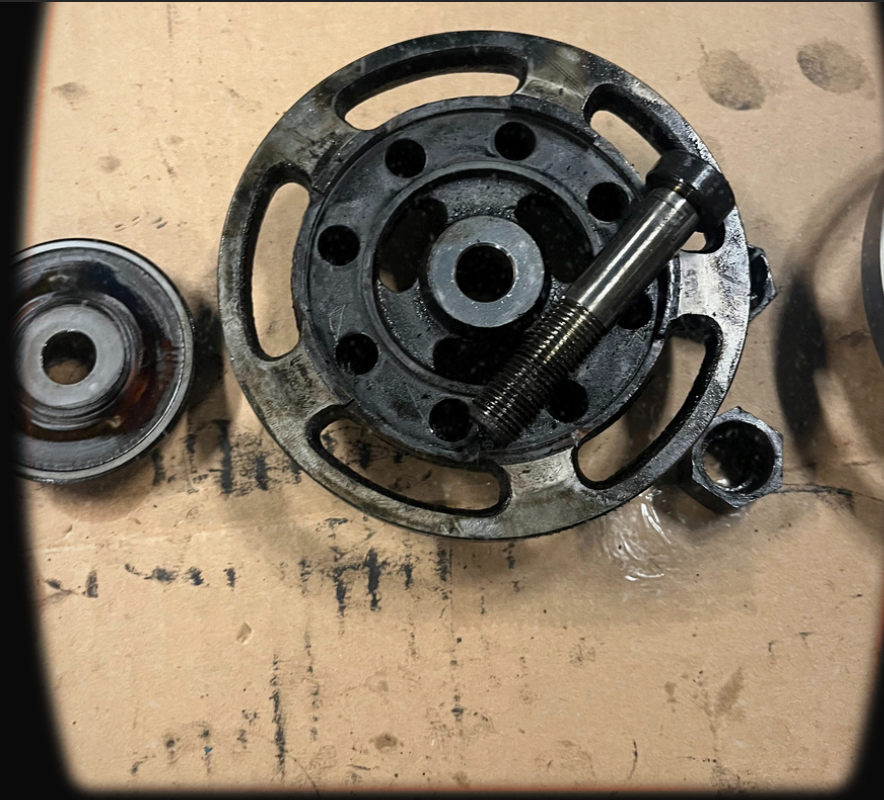
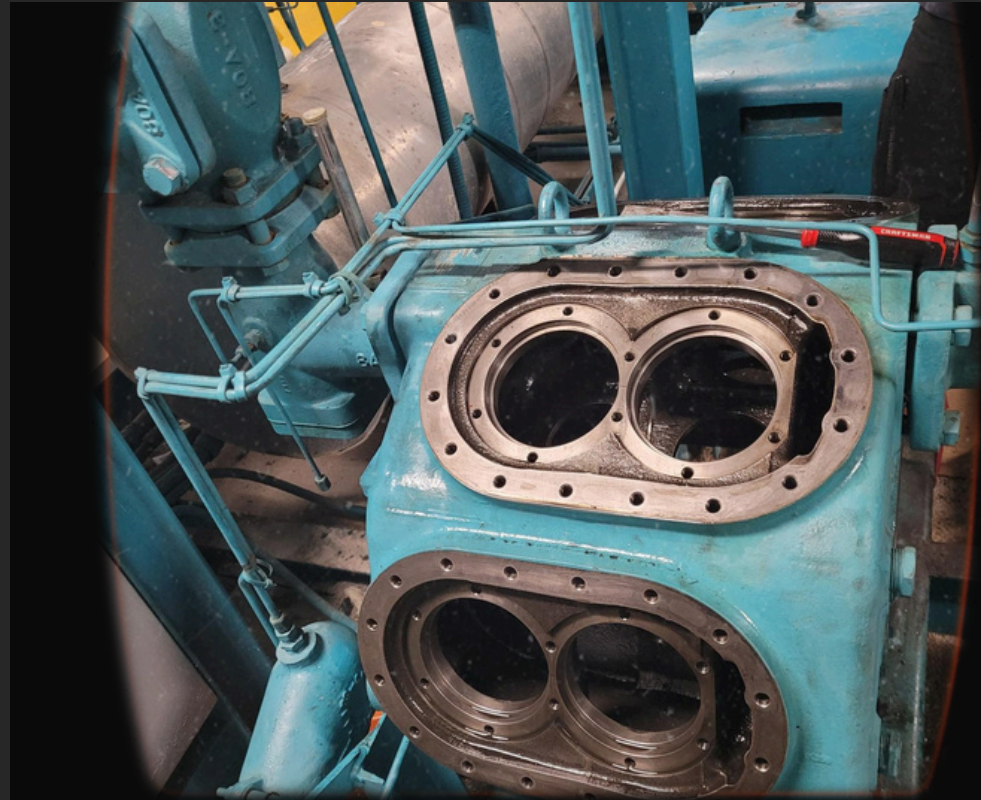
Photos of Projects: Dehumidifier



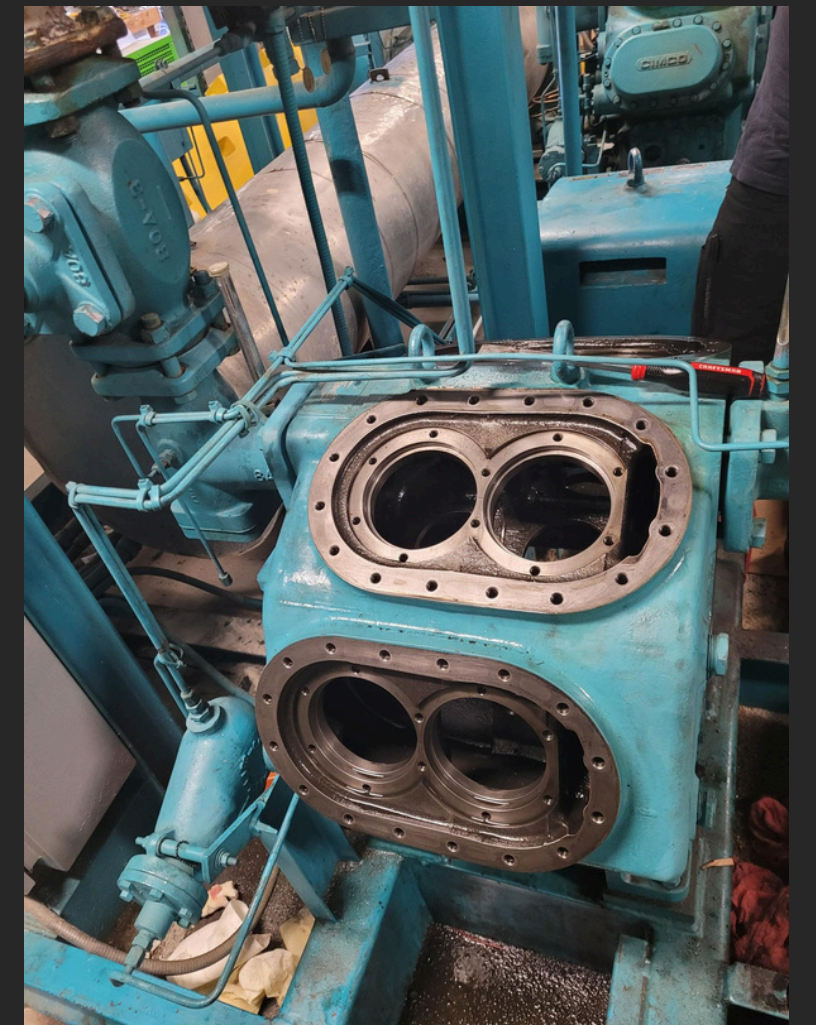
Photos of Projects: Chiller Scrubbing, Heat Exchange plate Replacement, Glycol Pump, Motors and Movers



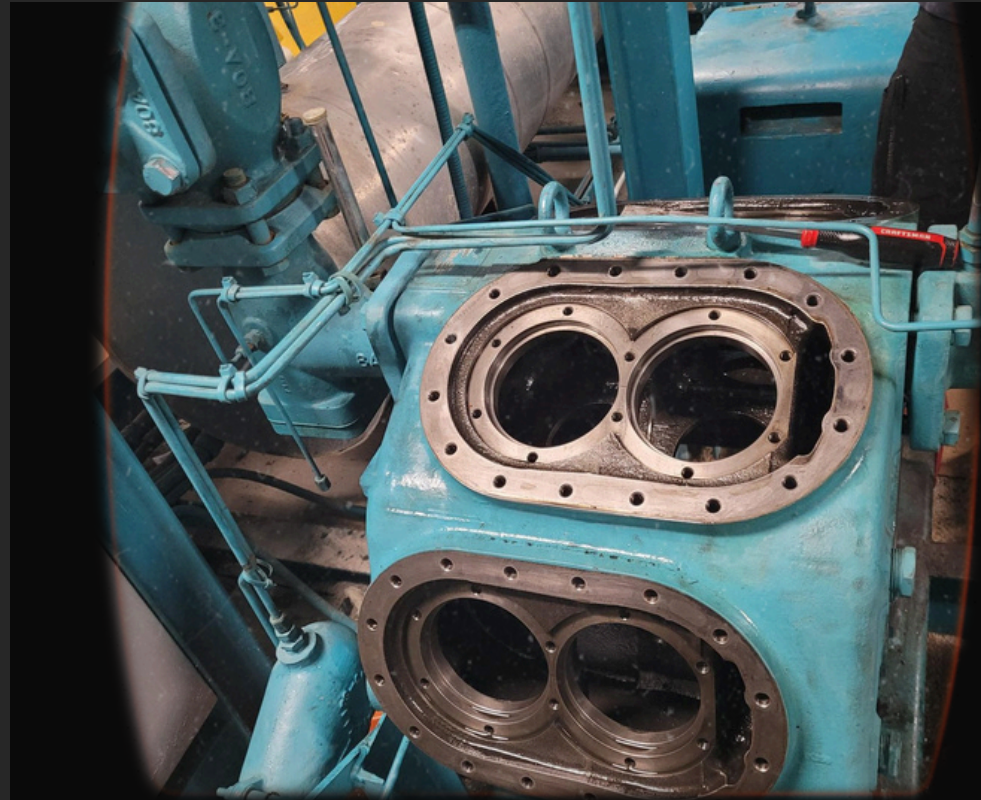
Photos of Projects: Skid 1 Damage



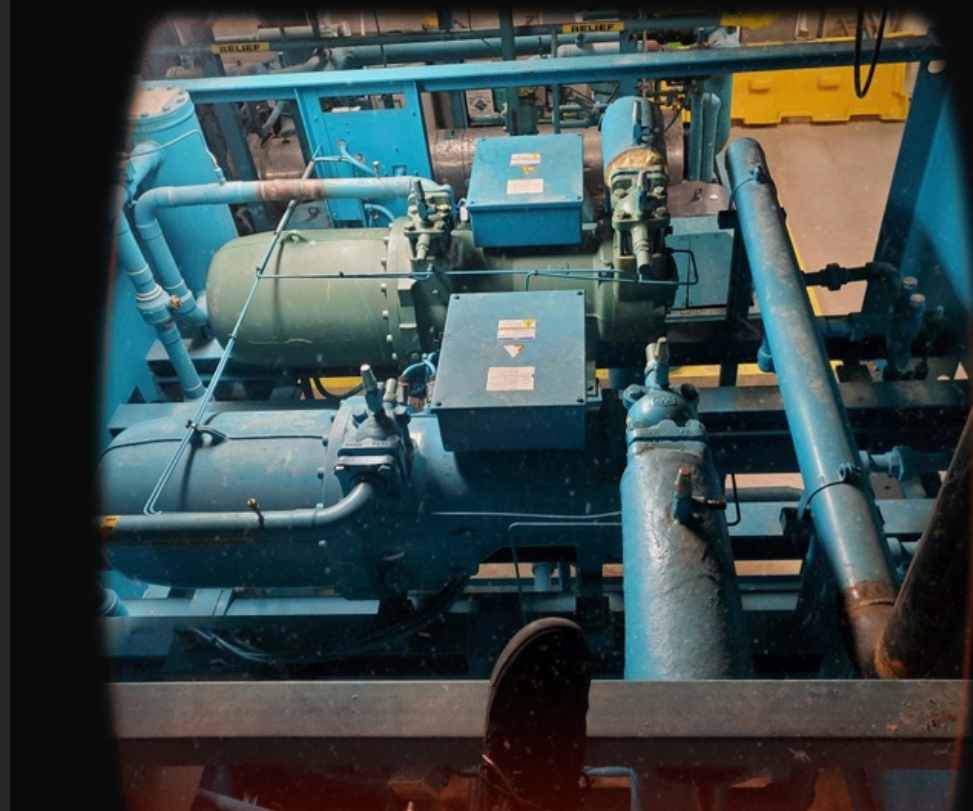
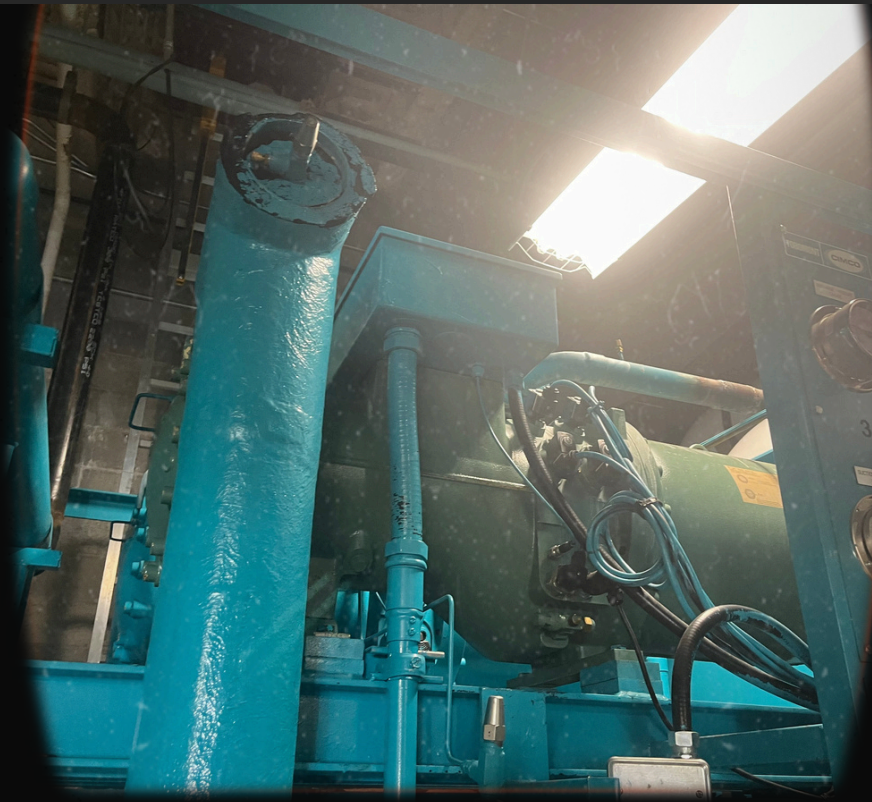
Photos of Projects: Skid 1 Repair



Photos of Projects: Skid 1 Rebuild



Photos of Projects: Skid 2



Projects, Whats Left ?



THANK YOU

2025



**QUESTIONS OR
COMMENTS**

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