EAU CLAIRE COUNTY
Highway Department
2016 Space Needs Study

June 14, 2016
FINAL REPORT

AYRES ASSOCIATES

BARRIENTOS design & consulting

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SECTION 1
EXECUTIVE SUMMARY

SCOPE OF STUDY

The focus of this study is to assess the capital costs required to maintain the Altoona Highway facility over 10 years, document the spatial deficiencies, identify the optimal spatial needs versus current capacity, explore options to expand and rebuild at Altoona and finally to identify what a new site's criteria will be.

FACILITY CONDITION INDEXING

A methodical audit was conducted of each of the 10 buildings at Altoona which broke down the repair and maintenance needs by building system. These systems include the enclosure, building services, life safety, interior finishes and site issues. The overall Facility Condition Index, (FCI) for the Altoona campus is 45.6 which indicate the overall facility is in poor condition and that many of the buildings do not merit further repair investments. Instead, monies would be better spent on reconstructing new buildings.

10-YEAR CAPITAL COSTS TO MAINTAIN

While the County-led study concluded that the Altoona campus would require $1,360,000 over 10 years to repair and maintain, this study concluded that the capital costs would be $3,292,067. The primary difference is that the architect-led team determined various code compliance, life-safety issues that needed to be addressed and noted that many structural and wall systems needed repair. Moreover, this study included site infrastructure facilities into the equation which include paving, stormwater, zoning compliance, access drives, lighting and parking lots. Of particular concern is that any redevelopment of the Altoona Yard will require re-paving most of the Yard, creating a new storm-water management system and complying with the City of Altoona engineering requirements.

EXISTING SPACE COMPOSITION

The existing Altoona Garage has 58,240 SF of heated and cold buildings and another 8,400 SF in salt storage sheds. The current space is inadequate to store all the patrol/construction vehicles required, store all the field equipment, house maintenance operations, quarter and support the crews effectively, office all

the administrative/engineering personnel and to assemble people into a County Committee level meeting. There are 67 major pieces of rolling/drivable equipment that requires a mix of cold and heated storage. Of these approximately 58 need heated storage so they can be started up in sub-freezing weather to conduct snow event operations. Currently the patrol trucks are stored in three separate buildings and some are parked outside exposed to the weather.

OPTIMAL SPACE RECOMMENDED

Based on our expertise with other County Highway Garages and our Industry Benchmarking, we determined that the Altoona Shop needs to have a new Main Shop of 119,370 SF along with detached storage garages of 40,000 SF (includes Sheriff Impound) 32,000 of Salt Shed storage for total of 191,370 SF of covered facilities.

OPTIONS TO IMPROVE ALTOONA

The study explored four options expand or rebuild at Altoona and one option to build a new parcel. The options of remodeling, demolition and expansion all resulted in facilities that fell far short of the recommended 119,370 SF Main Shop. Moreover, when trying to place the 119,370 SF footprint on the Altoona Yard, there is no room left for other Yard function or storage buildings.

- Option 1: Minor additions and new repair garage
  - $7,413,654
- Option 2: Add to repair garage, new parking garages
  - $9,759,826
- Option 3: Maximum allowable new build
  - $12,845,892
- Option 4: Optimal square footage shop
  - $15,494,114
- Option 5: Hypothetical 40 acre site, pull-in repair garage
  - $19,233,125
- Option 6: Hypothetical 40 acre site, drive-thru repair garage
  - $19,551,498

SUMMARY & RECOMMEMDATIONS

The last major expansion of the Altoona Shop was in 1980, 36 years ago, and at that time the new structures added maxed out use of the Yard. That is, no further expansion footprint was left available since 1980 but the fleet has grown, stockpiles have grown, the amount of salt storage has increased and Yard

functions have increased in complexity. Moreover, DNR and stormwater rules have increased the treatment of sediments rendering the current stormwater system ineffective.

As the study consultants, we judge that further investment in repair or attempting to expand the builds not to be in the County's best interest. If the County just adds a few more sheds here and there, they will not address the long-term issue facing the Highway Department; and that is that the Altoona Yard of 12 acres is too small to house their current operations.

While rebuilding could be done along with some demolition, there is not enough building footprint to adequately house all the desired functions. Particularly if larger salt tonnage and Sheriff impound storage is desired on site.

We therefore conclude that for the Highway Department's long term (50+ years) needs, that the County explores rebuilding the complex at a new parcel with at least 30 acres.

SECTION 2
STUDY SCOPE AND METHODOLOGY

Following the 2015 internal study of facilities the Altoona Highway Garage ranked highest in terms of improvement needs. This new study is an independent review of the past assessment assessment along with a space needs study of what is required for the Central Highway Garage's operations.

Given the facility deficiencies, a range of options exist for the County ranging from renovation, expansion, demolish and re-build, relocate and build new or some combination thereof.

Primarily, this Highway Facilities Space Needs study will examine and document existing conditions, operational needs, spatial deficiencies and conceptually what possible improvement alternatives exist. For this effort Barrientos Design, along with Ayres Associates, provided architectural and engineering planning services and tasks as listed below.

Facilities Conditions Assessment & Space Needs methodology:

1. Tour all buildings and yard structures and document their facilities conditions. Conduct a facilities conditions assessment where we identify improvement or replacement needs of building components. Conduct the same for the Cold Storage buildings and Yard facilities
2. Intake existing building and site plans for development of a base plan. In plan form identify building footprints, paved areas, yard structures, visible utilities and drainage patterns.
3. Write up a narrative on each building's conditions noting repair needs, capital improvements needed, spatial deficiencies, code compliance, worker safety and convenience items, life safety requirements, HVAC system condition and general electrical and plumbing system conditions.
4. Develop a cost estimate to maintain and repair the buildings as is over the next 20 years
5. Review and update County developed capital improvement assessment for Altoona.
6. Intake fleet count and composition. Segregate vehicles into parking stall sizes and if heated storage is needed.
7. Develop a fleet tabulation and a fleet graphic illustrating all the major road and construction vehicles.
8. Chart out all the staff at each building and group by function.

9. Create a table summarizing the building sizes, number of trucks housed, personnel stationed, salt tonnage and fueling quantities.
10. Review Vehicle Repair and Welding activities. Document heavy and fixed equipment, types of repair activities, rate or usage of each bay, and optimal sizing of bays. Recommend the number of repairs bays and type that the Highway Department needs.
11. Meet with staff and observe the flow of operations, the movement of vehicles, material and personnel. Recommend the best relationship network the rooms should have to each other. Similarly identify the best relationship of building to Yard functions and map out the ideal traffic flow.
12. Develop an Optimal Room Tabulation Program that identifies the needed space and configuration for each major room. Compare recommended square feet against existing square feet. Provide justification as to why the facilities need to increase in space.
13. Assess the site plan for: Yard access points, configuration of the Yard, utility locations and existing grades so to identify where expansion footprints can happen
14. Size up the needs for the Sheriff Impound facility.
15. Develop four building improvement options by creating diagrammatic floor and site plans of:
    a. Building additions and modifications to existing spaces
    b. Partial demolition of existing buildings along with new construction infilling and expanding the facility
    c. Total demolition of the buildings and starting over with a complete new set of buildings
    d. A hypothetical new building and site plan – this option does not include new site selection and analysis.
    e. Some combination of all of the above, one option developed.
        i. For all of the above the location of the Sheriff Impound will be shown as an alternate location.
16. For each of the five options, develop site relationship diagrams illustrating the flow of vehicles, material and personnel on site and recommend where facility components should be best located.
17. Review local zoning ordinances and City planning objectives that may will impact the future Garage expansion.
18. Develop conceptual cost estimates for each alternative

19. Develop operational costs over a 20 year period for each option. Compare this with baseline of just maintaining facilities.
20. Compare each option with a numerical decision matrix ranking the alternatives.
21. Develop a technical narrative assessing the benefits and drawbacks of each option.
22. Prepare a final report document and a PowerPoint presentation.
23. Provide up to five progress/review meetings and two executive/board level presentations.

The scope did not include the following:

1. Identifying and assessing new sites
2. Combining the other Satellite Shops into this program
3. Combining other County Department functions beyond the Sheriff Impound
4. 3D renderings of the site concepts
5. Detailed site design including grading, stormwater, utilities and lighting
6. Wetland identification and permitting
7. Traffic studies
8. Environmental studies
9. Landscape Architecture
10. Brownfield development analysis
11. Extensive engineering reviews
12. Detailed existing condition drawings of the building or site features
13. Meeting with City planning officials

SECTION 3
TEAM PARTICIPANTS

The creation of this study was conducted with the participation of the following team members:

Architect: Barrientos Design & Consulting, Inc.
Norman Barrientos, AIA Lead Planner/Principal

Engineer: Ayres Associates,
Michael Stoffel, PE, Civil Engineer Sr. Project Manager

EC Highway Commissioner: Jon Johnson

EC Facilities Director: Matt Theisen

EC Highway Patrol Supt.: Rich Walthers

EC Sheriff's Department: Dan Bresina

SECTION 4
EXISTING CONDITION PLANS

BARRIENTOS
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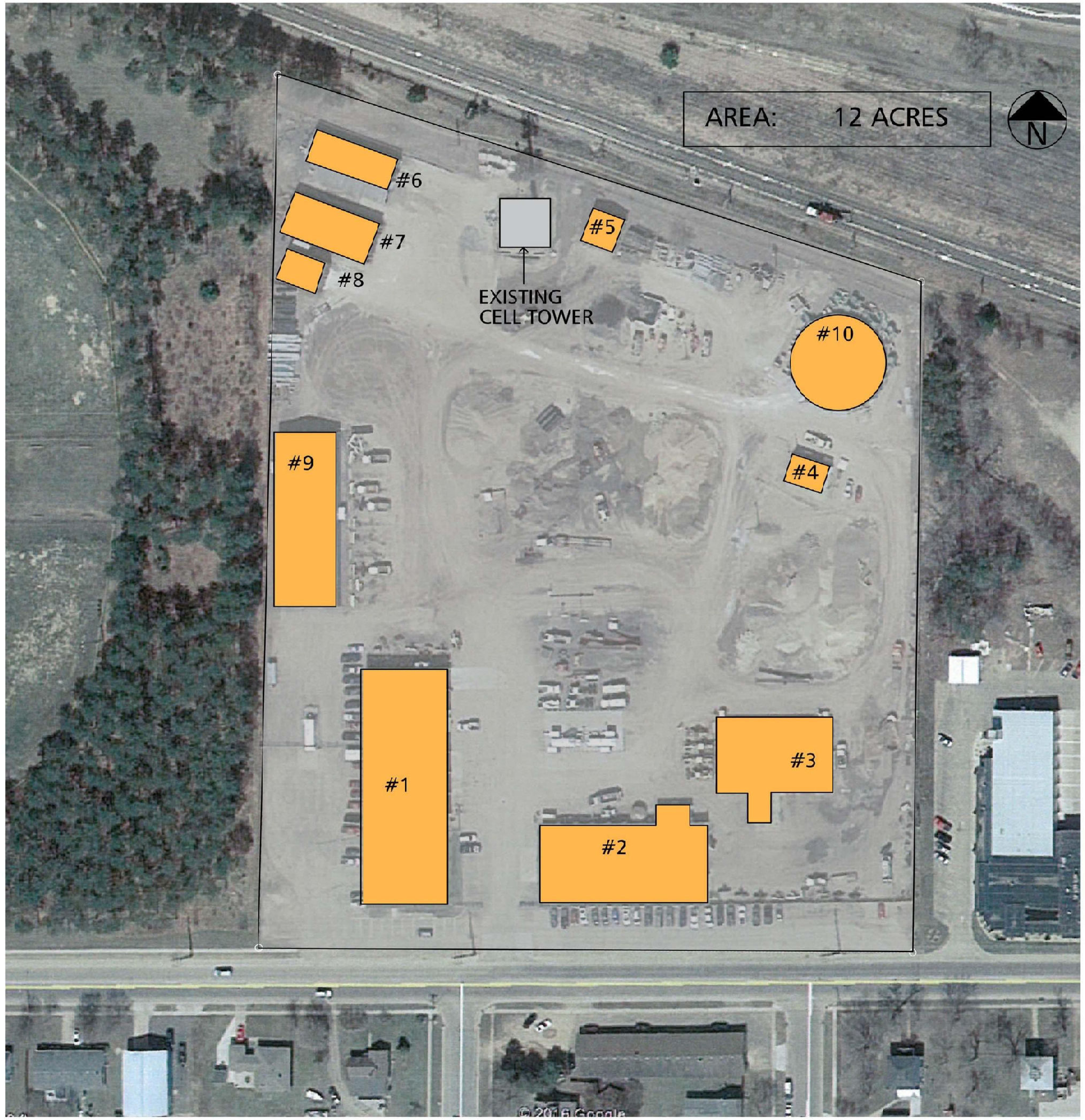

			BUILT
1.	SHOP/OFFICE	18,387 SQ FT	1967
2.	PARKING GARAGE	13,361 SQ FT	1967
3.	STORAGE GARAGE	7,460 SQ FT	1913
4.	SIGN SHOP	792 SQ FT	1990
5.	COLD STORAGE 1	1,100 SQ FT	1960
6.	STATE SALT SHED	2,520 SQ FT	1987
7.	STATE SALT SHED	3,520 SQ FT	2005
8.	COUNTY SALT SHED	1,200 SQ FT	1986
9.	COLD STORAGE 2	10,140 SQ FT	1980
10.	SALT DOME	1,200 SQ FT	1980

PROJECT NAME

FACILITY SPACE NEEDS REPORT

PREPARED FOR

EAU CLAIRE COUNTY HIGHWAY DEPARTMENT

SHEET TITLE

EXISTING SITE PLAN

BARRIENTOS
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205 West Highland Avenue, Suite 303
Milwaukee, WI 53203
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PROJECT NAME

FACILITY SPACE NEEDS REPORT

PREPARED FOR

EAU CLAIRE COUNTY HIGHWAY DEPARTMENT

SHEET TITLE

EXISTING UTILITIES PLAN

BARRIENTOS
design & consulting

205 West Highland Avenue, Suite 303
Milwaukee, WI 53203
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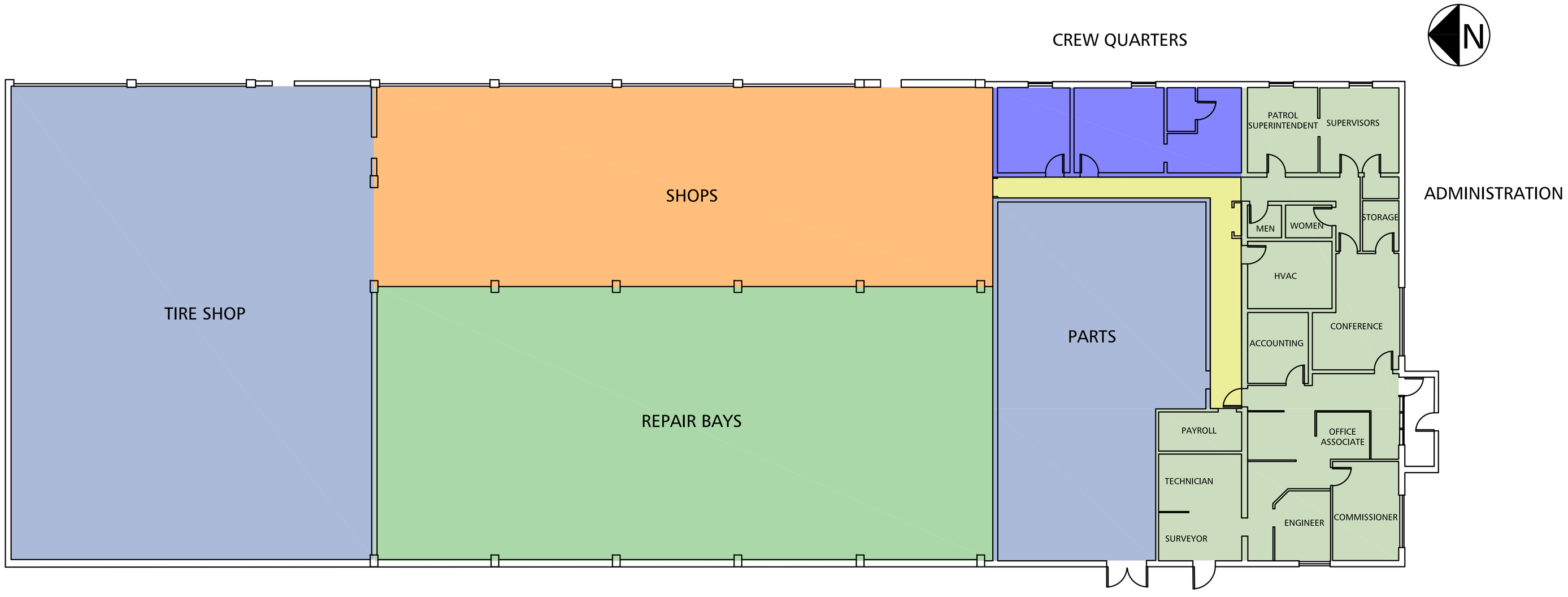


ADMINISTRATION	2,305 SQ FT
SHOPS	4,680 SQ FT
REPAIR GARAGE	3,345 SQ FT
PARTS STORAGE	1,820 SQ FT
CREW QUARTERS	566 SQ FT
STORAGE	4,670 SQ FT
TOTAL	17,386 SQ FT

PROJECT NAME

FACILITY SPACE NEEDS REPORT

PREPARED FOR

EAU CLAIRE COUNTY HIGHWAY DEPARTMENT

SHEET TITLE

EXISTING BUILDING PLAN
SHOP AND OFFICES BUILDING

SECTION 5
FACILITIES CONDITION ASSESSMENT

4.3 Facility Condition Assessment Process & Audit

During a day visit, a Facilities Condition Audit was initiated that focused on a tour of the building and grounds to gain an understanding of the current condition of the facilities and physical environment.

The primary purpose of the Facilities Condition Audit is to provide a comprehensive and systematic review of the existing building and grounds, while the Assessment Evaluation is intended to provide a more holistic perspective of the existing building and grounds. This Facilities Condition Audit and Assessment is not intended to be an in-depth building code check, hazardous material study, or ADA-compliance survey.

Facility Condition Assessment Process

The *Facilities Condition Assessment* identifies major maintenance needs and produces the total known corrective maintenance work. This assessment examines conditions in each building on a system-by-system basis. These systems are organized into major categories of:

- Primary Structure & Enclosure Systems
- Service Systems
- Safety & Functional Standards
- Interior Finishes
- Site Issues

Each building system is reviewed to determine its current condition, projected useful life, and any required corrective action. All information is consolidated into a Facilities Condition Audit Table, which provides a summary of repair costs and condition for both the building and its systems.

The major goals of the Facility Condition Assessment are:

- Quantify known Repair and Replacement needs.
- Identify and prioritize buildings and systems needing critical repairs.
- Establish budget allocations to deal with Repairs and Replacement.

- Determine the order-of-magnitude of dollars for the corrective maintenance backlog.
- Integrate the corrective maintenance planning with the implementation intentions of County facility master planning and capital improvements planning.

A Condition Index has been calculated for each building system, as well as for the entire building, and expresses the corresponding budget allocation as a percentage of the current replacement value (CRV) of the existing building. Facility Condition Indexes fall in these ranges of building condition:

FCI =10 or less, Good Condition
FCI = 10 to 30,Fair Condition
FCI =30 or more, Poor Condition
FCI = 40 or more, Replace Building

Repair priorities on an A, B, C, & D basis and their corresponding time frames and criteria are defined as follows:

A *High Priority.* Indicates a system, or portion thereof, which has failed. Repair action should be undertaken within the next 12-18 months. Typically, this priority also includes any preventive maintenance work required to extend the life of the overall system.

B Mid Priority. Indicates a system, or portion thereof, which is near failure. Repair action should be undertaken within the next 1.5-3 years.

C *Low priority.* Failure does not appear to be imminent; however, repair should be undertaken in the next 3-5 years.

D *Long-Range Issue or System Upgrade.* Useful life of system is expected to extend beyond a 5-year time frame. However, repair action is recommended to comply with current standards (codes, ADA, energy efficiency, etc.) or functional needs

Facility Condition Assessment Terms and Concepts

To establish a baseline for the objective comparison of buildings of diverse age, size and construction, a current facility replacement value is calculated for each building. This allows repair costs to be put into the context of the building's overall value to the County. Terms are defined as follows:

- *Current Replacement Value* (CRV) is the estimated cost (in current 2016 dollars) to construct a new building of comparable size, massing and function. The CRV does not include costs for items such as demolition, site improvements, land acquisition, project "soft" costs such as professional services, or fixtures, furnishings, and equipment.

- *Component Weight* expresses a building component as a percentage of the total building based on Means 2014 construction cost data.

- *Repair Factor* is the magnitude of deficiency for building components on a 0-100 scale. This factor represents the percent of total system replacement or upgrades that is necessary.

- *Budget Allocation* is the approximate repair cost (in current 2016 dollars) for repairs anticipated over the next five years. These values do not include any funds for contingencies or project "soft" costs such as professional services, or fixtures, furnishings, and equipment.

- *Condition Index* expresses the budget allocation as a percentage of the current replacement value. This index is calculated for each building as well as for each individual building system. A high condition index (in comparison to other condition indexes) indicates repairs of that system are more critical to the overall integrity of the facility.

It is important to note that budget allocations reflect all repairs, which should ideally be accomplished over the next five years. While this represents the total corrective maintenance backlog, it does not (necessarily) reflect total deferred maintenance. Only the portion of the total budget allocation, which cannot reasonably be funded over the next five years, should be considered as deferred maintenance.

Building Name: **Altoona Campus Summary**
Gross Area: $ 61,480 sf
Approx. cost/sf: -
Replacement Value: $ 7,218,330

Built: -
Type of Construction: -
Occupancy: -
Date of FCA February 2016

Building Component	Component Weight	Priority A Repair Factor	Priority A Budget Allocation	Priority B Repair Factor	Priority B Budget Allocation	Priority C Repair Factor	Priority C Budget Allocation	Priority D Repair Factor	Priority D Budget Allocation	Total Condition Index	Total Budget Allocation
100.00 Primary Structure & Enclosure Systems											
.01 Foundations	0.035		$ 200,449		$ 44,596		$ 43,805		$ 30,864	4.4	$ 319,714
.02 Superstructure	0.170		$ 280,765		$ -		$ -		$ 213,360	6.8	$ 494,125
.03 Roof System	0.025		$ 283,692		$ -		$ 22,714		$ 26,880	4.6	$ 333,286
.04 Exterior Walls	0.135		$ 550,304		$ 65,664		$ 41,371		$ -	9.1	$ 657,339
.05 Windows/Doors	0.025		$ 24,272		$ 107,078		$ 19,469		$ 25,086	2.4	$ 175,905
Subtotal Primary Structure			$ 1,339,482		$ 217,338		$ 127,358		$ 296,190	27.4	$ 1,980,368
200.00 Service Systems											
.01 Plumbing System	0.020		$ 19,163		$ 62,615		$ 12,586		$ 44,310	1.9	$ 138,674
.02 HVAC System	0.100		$ 229,617		$ 65,267		$ -		$ -	4.1	$ 294,884
.03 Electrical Distribution	0.030		$ 27,006		$ 17,026		$ -		$ -	0.6	$ 44,032
.04 Lighting/Power Systems	0.080		$ 14,563		$ 31,014		$ 44,629		$ 49,739	1.9	$ 139,944
.05 Tel/Data/Security Systems	0.030		$ -		$ -		$ 10,944		$ 33,890	0.6	$ 44,834
.06 Conveying System	0.060		$ -		$ -		$ -		$ 41,852	0.6	$ 41,852
Subtotal Service System			$ 290,349		$ 175,920		$ 68,159		$ 169,792		$ 704,220
300.00 Safety & Functional Standards											
.01 Fire Protection & Safety	0.030		$ -		$ -		$ -		$ 74,796	1.0	$ 74,796
.02 Egress System	0.025		$ -		$ -		$ -		$ 22,348	0.3	$ 22,348
.03 Accessibility	0.020		$ -		$ -		$ -		$ 3,648	0.1	$ 3,648
.04 Regulated Materials	0.010		$ -		$ -		$ -		$ 42,282	0.6	$ 42,282
Subtotal Safety/Functional			$ -		$ -		$ -		$ 143,073	2.0	$ 143,073
400.00 Interior Finishes											
.01 Ceilings	0.043		$ -		$ 24,882		$ 10,458		$ -	0.5	$ 35,340
.02 Int. Doors & Hardware	0.030		$ 15,104		$ 1,470		$ 11,399		$ 2,517	0.4	$ 30,490
.03 Floor Finishes	0.030		$ -		$ 45,529		$ 19,627		$ 2,517	0.9	$ 67,673
.04 Wall Finishes	0.015		$ -		$ 28,853		$ 9,120		$ -	0.5	$ 37,973
.05 Specialties	0.010		$ -		$ -		$ 15,555		$ 9,503	0.3	$ 25,058
Subtotal Interior Finishes			$ 15,104		$ 100,734		$ 66,158		$ 14,538	2.7	$ 196,533
500.00 Site Issues											
.01 Parking/Roads	0.022		$ 99,129		$ 60,567		$ 21,402		$ 1,605	2.5	$ 182,703
.02 Landscaping	0.015		$ -		$ -		$ -		$ -	-	$ -
.03 Site Lighting	0.010		$ -		$ 3,034		$ 11,409		$ 14,408	0.4	$ 28,851
.04 Utility Infrastructure	0.020		$ 45,806		$ 10,512		$ -		$ -	0.8	$ 56,318
Subtotal Site Issues			$ 144,935		$ 74,113		$ 32,811		$ 16,013	3.7	$ 267,872
Total all Building Components			$ 1,789,870		$ 568,106		$ 294,486		$ 639,606	45.6	$ 3,292,067

Facility Condition Summary

The overall condition of the Altoona campus is fair to poor condition with many of the buildings not meriting further investment and instead full replacement. A summary of the buildings' conditions are as follows:

Office Building #1
Condition Index: 43.7
Assessment: Poor condition, replace facility

The Office building at the Altoona Shop is in fair condition and is identified as needing rehabilitation and code compliance upgrades. The precast tee and column structure are showing signs of structural degradation. In particular the concrete columns are shearing right at the point where the tee's rest on them creating a precarious supports condition.

Repair Garage Building #1
Condition Index: 42.7
Assessment: Poor condition

The Repair Garage at the Altoona Shop is in poor condition and is identified as needing moderate to major rehabilitation and modernization. The existing HVAC system requires significant overhaul and modernization to provide proper ventilation for the employees working in the repair garage. In addition, if the building is continued to be used for an extended time frame, the insulation of the existing roof and walls should be modernized to provide increased energy efficiency. Even with the repairs and upgrades listed below undertaken, the repair garage will not provide adequate repair bays and sizing along with equipment locations.

At the Administrative Offices three support posts on the south side of the building and three support posts in the repair garage have cracked concrete at the top bearing corners near the beam locations. Repair of these columns will be required to provide long term performance of the column/beam connection. Repair will consist of removal of cracked concrete, patching removal areas, with steel support brackets

Truck Storage #2
Condition Index: 56.6
Assessment: Very Poor condition, replace the building

The tempered Truck Storage #2 Building is in obsolete condition and is identified as needing heavy rehabilitation and

modernization. While the wood glue-lam beams are in good condition, the load bearing wall and masonry between the piers are in very poor condition. There are numerous cracks through the masonry units that run both along course joints and straight through the block unit. The condition of the masonry concrete block is deteriorated in particular at the base and at the parapets. The paint finish is peeled away and is easily flicked off by hand.

Warm Storage #3
Condition Index: 73.5
Assessment: Poor condition, replace the building

The Warm Storage #3 Building is in obsolete condition and is identified as needing heavy rehabilitation and modernization. While the steel/wood joists are in good condition, the load bearing wall and masonry between the piers are in very poor condition. There are numerous cracks through the masonry units that run both along course joints and straight through the block unit. The condition of the masonry concrete block is deteriorated in particular at the base and at the parapets. The paint finish is peeled away and is easily flicked off by hand.

Sign Shop #4
Condition Index: 17.1
Assessment: Good to Fair Condition

The Sign Shop is a residential-grade construction from the 1910's and it was designed to maintain stockyard activities and likely house the onsite manager. As such, it was never designed to house shop operations so it does not have the proper height clearances, service doors, flooring material, storage facilities, ventilation nor plumbing suitable for sign shop activities. At best it this building provides adequate office space and storage area for records. It does not provide adequate storage layout for metal signs, sign-making equipment and the movement of signs in and out of the building. Moreover, signs are stored in the basement and there is no elevator and the stairwell is of minimum width.

Storage Shed #5
Condition Index: 50.9
Assessment: Poor Condition, Replace building

This was originally constructed as a Salt Shed but being of modest size and deteriorating condition has been converted to being used for field storage items such as signs, barricades, palletized storage items and the like. There is no power, heating, ventilation provided. The building enclosure or heavy

wood is highly deteriorated and showing signs of pulling off from the frame. The enclosure also has many gaps and allows for wind and rain to enter and thus is providing minimal enclosure functions. Being a pole barn type structure it has neither foundation wall nor floor slab.

State Salt Shed #6
Condition Index: 50.9
Assessment: Poor Condition, Replace

The smaller of the two State Salt Sheds is of pole barn construction and has no foundation or floor slab. The wood siding is bulging outward some 10 inches in places and steel bracing has been put up to hold back the expansion forces. It is apparent that the structure cannot hold back the force of the salt tonnage stored here. This could be due to deterioration over time or that the building was under designed in the first place. Or it could be the County is stocking more salt in it beyond its posted capacity .The wood enclosure has many gaps and allows for wind and rain to enter and thus is providing minimal enclosure functions.

State Salt Shed #7
Condition Index: 50.9
Assessment: Poor Conditions, Replace Building

This is the larger of the Salt Sheds and it is of pole barn construction thus has no foundation or floor slab. The wood siding is bulging outward some 10 inches in places and steel bracing has been put up to hold back the expansion forces. It is apparent that the structure cannot hold back the force of the salt tonnage stored here. This could be due to deterioration over time
Or that the building was under designed in the first place. Or it could be the County is stocking more salt in it beyond its posted capacity .The wood enclosure has many gaps and allows for wind and rain to enter and thus is providing minimal enclosure functions.

County Salt Shed #8
Condition Index: 50.9
Assessment: Poor Condition, Replace Building

This County Salt Shed is of pole barn construction and has no foundation or floor slab. The wood enclosure has many gaps and allows for wind and rain to enter and thus is providing minimal enclosure functions.

The 500 ton capacity of the Shed is below optimal operational needs but there is no room to expand without demolishing other buildings. The height of the trusses inside are minimal and don't allow for larger loaders or trucks to enter and maneuver inside. There is no power, lighting nor ventilation provided.

Truck Storage #9
Condition Index: 24.3
Assessment: Fair Condition

This Truck Storage building is of pole barn construction and has no foundation or floor slab. The siding is metal panel without insulation and some have been dented by equipment. In general the walls and roofing are in good shape. The overhead door was in good shape as well.

There is no heating or ventilation in the building so trucks need to be heated up before operation. Being a soil floor, there is no floor drainage for melting now or cleaning activities. A trench drain and oil/water separator should be provided to separate oils and sediments prior to sanitary line discharge.

State Salt Dome #10
Condition Index: 16.5
Assessment: Good Condition

The Dome houses 4500 tons of salt and is fed by a conveyor. The State Salt dome is in good condition and needs minor to moderate maintenance. The foundation ring and the arched wood structure are in good shape. The most extensive repairs will be replacing asphalt shingles and repairing the ferrous overhead door tracks as needed with age. At one side of the door, the concrete wall is deteriorating and needs a steel corner guard. With the maintenance activities listed below undertaken, the salt sheds can continue to serve the county well for the storage of salt.

Site Facilities

Within the 12-acre site there are ten building structures and various support facilities. While these are not building facilities, they are essential for the function of the Shop. Many of these items will require some improvements over the next 10 years and should be considered in the full facilities condition assessment.

If the Spooner Street site is redeveloped where buildings are expanded or reconstructed, then the current City of Altoona Planning and Zoning ordinances will kick in. As the current Shop was built prior to these ordinances, redevelopment will be imposing significant spatial and civil requirements on the new design. These will definitely result in great setbacks, more paving, more landscaping, distinct parking lots and a landscape buffer along the Spooner Street.

Site/Civil Compliance

The existing site would not meet current stormwater quality or quantity regulations. Currently there are very small sediment containment areas which will collect much of the large sediment discharges, but due to the large areas of open sediment storage on the side, in order to function at all, need to be cleaned on a very frequent basis due to their small size. These basins do not come close to meeting state and/or local stormwater quality standards. For a 12 acre site, a realistic stormwater pond would need to be approximately 1 acre in size and have a permanent water pool depth of a minimum 5 feet plus additional depth for stormwater quantity requirements. Also with the external washing of vehicles, containment facilities/separators for oils, greases and chemicals are part of a required overall stormwater management plan for a facility of this nature.

Overhead power lines cross the site in numerous locations. The relatively low height of these lines combined with the locations in high traffic areas cause great concern for vehicles utilizing the facility. A truck with its box in the air or a pay loader with its bucket in the air, could and have previously struck some of these lines. The burying of these lines or at a minimum raising of these lines to reduce the chance of knockdown is a must for safety reasons.

Much of the site has no pavement and areas of tracked equipment that do have pavement, much of these areas have asphalt pavement which is prone to damage by this equipment. Pavement, although increasing the quantity of stormwater is essential to reducing the amount of total suspended solids.

Areas utilizing tracked vehicles should be paved in concrete for longevity reasons.

Brownfield Environmental Considerations

A Brownfield site is one that has "perceived" contamination, not necessarily real or proven contamination. Due to the time in which the current facility has acted as a highway shop, this facility would be considered a brownfield site. The first step in determining the environmental considerations for the site is to prepare a Phase I ESA. This will search historical information and current visual information as well as interview people familiar with the site to determine the potential of environmental issues if any. If this Phase I ESA, finds concerning items, the next step would be to proceed to a Phase II site investigation. This typically involves a soils exploration program to sample and try to determine whether or not there are any actual environmental issues with the site. The next step should actual environmental issues be found would be a Phase III investigation which attempts to quantify the limits and extents of the environmental conditions found in the Phase II. At this point, depending on the severity of the environmental issues found, there are a number of potential solutions, depending on the severity of the environmental issue or the proposed use for the property. It could be as simple as covering the facility with clean soils, seeding them down and making the site green space, it could be sealed by making it a parking lot, or worst case, the environmental condition may require a full clean up.

All of these considerations come into play when/if demolition, renovation or expansion of the existing facilities are undertaken. The only scenario where this does not come into play, is when there nothing done.

Office Building #1

Condition Index: 43.7
Assessment: Poor condition, replace facility

The Office building at the Altoona Shop is in fair condition and is identified as needing rehabilitation and code compliance upgrades. The precast tee and column structure are showing signs of structural degradation. In particular the concrete columns are shearing right at the point where the tee's rest on them creating a precarious support condition.

Extensive modernization to the HVAC service systems are required to properly balance the heating and ventilation flow. Code violations exist with the corridors dead-ending without a means of exterior exit. And at the Repair Garage door, the corridor empties people into an area of greater hazard instead of providing an immediate exterior exit.

Even with the repairs listed below undertaken, the office building cannot continue to serve the County well as an office building. There is insufficient office space to house all the staff and equipment assigned in particular for the Patrol supervisors and the administrative staff is crammed in the front lobby where there should be proper receptioning and security barriers. The engineering staff offices are built into the Storage area and as such suffer from poor heating and ventilation. Overflow offices have been created into rooms that are meant to closets or storage rooms.

With there being little insulation in the masonry infill wall, most of the inside of the exterior walls should be furred out with insulation and provided a gypsum board wall panel.

Gross Area: 6,400 sf **Current Replacement Value:** $1,216,000
Year Built: 1967 **Occupancy:** Offices, Parts storage, Mechanical

Corrective Maintenance Issues

100.00 Primary Structure & Enclosure
Repair capitals of pre-cast columns where they have sheared off
A Reattach roof-edge pre-cast beam along front of Office
A Masonry repairs to infill brick, tuck-pointing, caulking

Replace membrane roofing and flashings.

B Insulate walls with interior furring

D Install new fire-rated window in Shop looking out to Repair Garage

D Provide sealed 1 hour-rated wall between Engineering Offices and Parts Storage

D Replace residential quality doors in Shop with commercial and fire rated doors.

D Provide proper means of egress of corridor that ends at clerical office

D Provide proper means of egress of corridor ending at Repair Garage.

200.00 Service Systems

A Balance out HVAC distribution so all portions of Office heated evenly

A Clean-out and repair sanitary lines

B New Gas Fired-furnace, 1 of 3

B Replace existing one branch circuit panel

C Change out T8 fixtures with LED's

C Provide shade and sun control at windows

D Provide additional women's toilets and new showers.

D Provide ADA compliant lavatories and water fountains

D Replace exit lights with new LED models

D Add complex-wide security system including closed-circuit cameras.

300.00 Life Safety & Functional Standards

D Install automatic sprinkler system throughout building.

D Verify existence of asbestos in the ceiling tiles. Abate and replace all hazardous materials.

400.00 Interior Finishes

C Refinish concrete floors with epoxy

C Furr out interior wall over uninsulated CMU

C Replace carpeting

C Provide window shades

D Add ADA compliant interior signage at all doors.

D Upgrade existing door hardware to lever-style door handles.

500.00 Site Issues

C Provide new parking paving, once City zoning pushes back paving line to within the property line.

C Provide new light poles

Administration Building #1

Facility Condition Audit

Building Name:	**Administration Building #1**	Built:	1967
Gross Area:	6,400 sf	Type of Construction:	Precast columns & Tee roofing with CMU infill
Approx. cost/sf:	$ 190.00	Occupancy:	County Highway Dept. Office Building
Replacement Value:	$ 1,216,000	Date of FCA	March 2016

Building Component	Component Weight	Priority A Repair Factor	Priority A Budget Allocation	Priority B Repair Factor	Priority B Budget Allocation	Priority C Repair Factor	Priority C Budget Allocation	Priority D Repair Factor	Priority D Budget Allocation	Total Condition Index	Total Budget Allocation
100.00 Primary Structure & Enclosure Systems											
.01 Foundations	0.035	10	$ 4,256		$ -		$ -		$ -	0.4	$ 4,256
.02 Superstructure	0.170	40	$ 82,688		$ -		$ -	20	$ 41,344	10.2	$ 124,032
.03 Roof System	0.025	80	$ 24,320		$ -		$ -		$ -	2.0	$ 24,320
.04 Exterior Walls	0.135		$ -	40	$ 65,664		$ -		$ -	5.4	$ 65,664
.05 Windows/Doors	0.025		$ -		$ -		$ -	10	$ 3,040	0.3	$ 3,040
Subtotal Primary Structure			$ 111,264		$ 65,664		$ -		$ 44,384	18.2	$ 221,312
200.00 Service Systems											
.01 Plumbing System	0.020		$ -		$ -		$ -	50	$ 12,160	1.0	$ 12,160
.02 HVAC System	0.100	30	$ 36,480	15	$ 18,240		$ -		$ -	4.5	$ 54,720
.03 Electrical Distribution	0.030		$ -	40	$ 14,592		$ -		$ -	1.2	$ 14,592
.04 Lighting/Power Systems	0.080		$ -		$ -	20	$ 19,456	33	$ 32,102	4.2	$ 51,558
.05 Tel/Data/Security Systems	0.030		$ -		$ -	30	$ 10,944	20	$ 7,296	1.5	$ 18,240
.06 Conveying System	0.060		$ -		$ -		$ -	45	$ 32,832	2.7	$ 32,832
Subtotal Service System			$ 36,480		$ 32,832		$ 30,400		$ 84,390	15.1	$ 184,102
300.00 Safety & Functional Standards											
.01 Fire Protection & Safety	0.030		$ -		$ -		$ -	85	$ 31,008	2.6	$ 31,008
.02 Egress System	0.025		$ -		$ -		$ -	20	$ 6,080	0.5	$ 6,080
.03 Accessibility	0.020		$ -		$ -		$ -	15	$ 3,648	0.3	$ 3,648
.04 Regulated Materials	0.010		$ -		$ -		$ -	80	$ 9,728	0.8	$ 9,728
Subtotal Safety/Functional			$ -		$ -		$ -		$ 50,464	4.2	$ 50,464
400.00 Interior Finishes											
.01 Ceilings	0.043		$ -		$ -	20	$ 10,458		$ -	0.9	$ 10,458
.02 Int. Doors & Hardware	0.030		$ -		$ -	20	$ 7,296		$ -	0.6	$ 7,296
.03 Floor Finishes	0.030		$ -		$ -	40	$ 14,592		$ -	1.2	$ 14,592
.04 Wall Finishes	0.015		$ -		$ -	50	$ 9,120		$ -	0.8	$ 9,120
.05 Specialties	0.010		$ -		$ -		$ -	50	$ 6,080	0.5	$ 6,080
Subtotal Interior Finishes			$ -		$ -		$ 41,466		$ 6,080	3.9	$ 47,546
500.00 Site Issues											
.01 Parking/Roads	0.022		$ -		$ -	80	$ 21,402	6	$ 1,605	1.9	$ 23,007
.02 Landscaping	0.015		$ -		$ -		$ -		$ -	-	$ -
.03 Site Lighting	0.010		$ -		$ -	40	$ 4,864		$ -	0.4	$ 4,864
.04 Utility Infrastructure	0.020		$ -		$ -		$ -		$ -	-	$ -
Subtotal Site Issues			$ -		$ -		$ 26,266		$ 1,605	2.3	$ 27,871
Total all Building Components			$ 147,744		$ 98,496		$ 98,131		$ 186,924	43.7	$ 531,295

Repair Garage Building #1

Condition Index: 42.7
Assessment: Poor condition

The Repair Garage at the Altoona Shop is in poor condition and is identified as needing moderate to major rehabilitation and modernization. The existing HVAC system requires significant overhaul and modernization to provide proper ventilation for the employees working in the repair garage. In addition, if the building is continued to be used for an extended time frame, the insulation of the existing roof and walls should be modernized to provide increased energy efficiency. Even with the repairs and upgrades listed below undertaken, the repair garage will not provide adequate repair bays and sizing along with equipment locations.

Gross Area: 11,987 sf **Current Replacement Value:** $1,678,180
Year Built: 1967, Tire Shop Addition in ?
Occupancy: Repair Garage

Corrective Maintenance Issues

100.00 Primary Structure & Enclosure

Repair capitals of pre-cast columns where they have sheared off
A Masonry repairs to infill brick, tuck-pointing, caulking
Replace membrane roofing and flashings.
Provide R-38 fiberglass insulation at roof.
A Remove Dryvit insulation facing off CMU and apply masonry veneer along with 2" rigid insulation.
B Remove and replace portions of existing concrete floor to replace floor drains. Acid bath concrete floors and new epoxy finish.
B Replace all overhead doors
C Replace existing glazed block windows with new windows including insulated glazing.
D Provide enclosed lunchroom
D Provide spill containment and separate room for bulk fluids

200.00 Service Systems
A Provide 3 new Make-up Air Units (MUA) to provide recommended air changes per hour.
A Provide ceiling exhaust fans, replace window exhaust fans
A Repair leaking exhaust systems from floor level intakes

A Provide new Welding exhaust hood

A Provide new plumbing distribution; water bibs and lines throughout Garage

A Provide plumbing for Bulk-fluid spill containment system.

B Provide waste oil pumps and vacuum system.

C Replace existing trench drains.

C Convert light fixtures to LED

D Provide ADA drinking fountains are ADA complaint.

D Add complex-wide security system including closed-circuit cameras.

300.00 Life Safety & Functional Standards

D Install automatic sprinkler system throughout building.

D Verify existence of asbestos in the building. Abate and replace all hazardous materials.

D Replace exit lights with new LED models.

400.00 Interior Finishes

A Upgrade all interior man-doors and windows from repair garage to adjacent occupancies, including parking garage, parts storage, and shop foreman's office.

B Clean CMU wall surface. Provide new wall paint.

B Clean ceiling and roof structure. Provide new dry-fall paint to ceiling and structure.

C Refinish concrete floors with epoxy, acid wash concrete

D Upgrade existing door hardware to lever-style door handles.

500.00 Site Issues

B Provide new apronway for track equipment

C Upgrade exterior lighting

Repair Garage #1

Facility Condition Audit

Building Name:	**Repair Garage #1**	Built:	1967
Gross Area:	11,987 sf	Type of Construction:	Precast columns & Tees with Masonry Infill
Approx. cost/sf:	$ 140.00	Occupancy:	Highway Dept. Vehicle Repair Garage
Replacement Value:	$ 1,678,180	Date of FCA	February 2016

Building Component	Component Weight	Priority A		Priority B		Priority C		Priority D		Total	
		Repair Factor	Budget Allocation	Repair Factor	Budget Allocation	Repair Factor	Budget Allocation	Repair Factor	Budget Allocation	Condition Index	Budget Allocation
100.00 Primary Structure & Enclosure Systems											
.01 Foundations	0.160		$ -	15	$ 40,276		$ -		$ -	2.4	$ 40,276
.02 Superstructure	0.180	20	$ 60,414		$ -		$ -	20	$ 60,414	7.2	$ 120,829
.03 Roof System	0.055	80	$ 73,840		$ -		$ -		$ -	4.4	$ 73,840
.04 Exterior Walls	0.140	50	$ 117,473		$ -		$ -		$ -	7.0	$ 117,473
.05 Windows/Doors	0.060		$ -	60	$ 60,414		$ -		$ -	3.6	$ 60,414
Subtotal Primary Structure			$ 251,727		$ 100,691		$ -		$ 60,414	24.6	$ 412,832
200.00 Service Systems											
.01 Plumbing System	0.030	30	$ 15,104	60	$ 30,207	25	$ 12,586		$ -	3.5	$ 57,897
.02 HVAC System	0.080	80	$ 107,404		$ -		$ -		$ -	6.4	$ 107,404
.03 Electrical Distribution	0.011		$ -		$ -		$ -		$ -	-	$ -
.04 Lighting/Power Systems	0.060		$ -		$ -	25	$ 25,173		$ -	1.5	$ 25,173
.05 Tel/Data/Security Systems	0.022		$ -		$ -		$ -	20	$ 7,384	0.4	$ 7,384
.06 Conveying System	0.055		$ -		$ -		$ -		$ -	-	$ -
Subtotal Service System			$ 122,507		$ 30,207		$ 37,759		$ 7,384	11.8	$ 197,857
300.00 Safety & Functional Standards											
.01 Fire Protection & Safety	0.010		$ -		$ -		$ -	100	$ 16,782	1.0	$ 16,782
.02 Egress System	0.007		$ -		$ -		$ -	25	$ 2,937	0.2	$ 2,937
.03 Accessibility	0.010		$ -		$ -		$ -		$ -	-	$ -
.04 Regulated Materials	0.010		$ -		$ -		$ -	40	$ 6,713	0.4	$ 6,713
Subtotal Safety/Functional			$ -		$ -		$ -		$ 26,431	1.6	$ 26,431
400.00 Interior Finishes											
.01 Ceilings	0.007		$ -	50	$ 5,874		$ -		$ -	0.4	$ 5,874
.02 Int. Doors & Hardware	0.015	60	$ 15,104		$ -		$ -	10	$ 2,517	1.1	$ 17,621
.03 Floor Finishes	0.010		$ -	50	$ 8,391	30	$ 5,035	15	$ 2,517	1.0	$ 15,943
.04 Wall Finishes	0.018		$ -	30	$ 9,062		$ -		$ -	0.5	$ 9,062
.05 Specialties	0.017		$ -		$ -		$ -	12	$ 3,423	0.2	$ 3,423
Subtotal Interior Finishes			$ 15,104		$ 23,327		$ 5,035		$ 8,458	3.1	$ 51,923
500.00 Site Issues											
.01 Parking/Roads	0.018		$ -	70	$ 21,145		$ -		$ -	1.3	$ 21,145
.02 Landscaping	0.002		$ -		$ -		$ -		$ -	-	$ -
.03 Site Lighting	0.013		$ -		$ -	30	$ 6,545		$ -	0.4	$ 6,545
.04 Utility Infrastructure	0.015		$ -		$ -		$ -		$ -	-	$ -
Subtotal Site Issues			$ -		$ 21,145		$ 6,545		$ -	1.7	$ 27,690
Total all Building Components			$ 389,338		$ 175,370		$ 49,338		$ 102,688	42.7	$ 716,734

Truck Storage #2

Condition Index: 56.6
Assessment: Very Poor condition, replace the building

The tempered Truck Storage #2 Building is in obsolete condition and is identified as needing heavy rehabilitation and modernization. While the wood glue-lam beams are in good condition, the load bearing wall and masonry between the piers are in very poor condition. There are numerous cracks through the masonry units that run both along course joints and straight through the block unit. The condition of the masonry concrete block is deteriorated in particular at the base and at the parapets. The paint finish is peeled away and is easily flicked off by hand.

The concrete flooring of the Truck Storage needs repair, replacement in portions and and re-sloping for proper drainage of water and snow melt.

The existing HVAC system requires significant overhaul and modernization to provide proper ventilation of the space to remove the humidity caused by melting snow. If the building is continued to be used for an extended time frame, the insulation of the existing roof, walls and windows should be upgraded to provide energy efficiency.

Even with facility improvements, this parking garage is undersized with little maneuvering room for the plow trucks. In addition the arched glue-lams are not of sufficient height and trucks with their bed extended have hit the beams. There are significant code violations in that lockerooms and lunch activities are housed in a vehicle storage classification and these personnel areas are in an unhealthy and hazardous environment.

Off to the north side are located storage rooms for bulk fluids along with various exterior storage areas for waste oil, field tools and the emergency generator.

This portion of the facility condition audit does not address the additional space that would be required to provide the proper maneuvering clearances needed for the modern patrol trucks to maneuver at peak productivity.

Gross Area: 13,361 sf **Current**
Replacement Value: $1,229,212
Year Built: 1913 **Occupancy:**
Parking Garage, Crew Quarters

Corrective Maintenance Issues

100.00 Primary Structure & Enclosure

A Remove infill concrete masonry and fill in with a concrete masonry backup, insulation boards and a concrete masonry veneer

A Repair roof conditions: parapet, gutter, roofing membrane

A Remove and replace portions of existing concrete floor and provide a new trench drain system.
Provide R-38 insulation at roof.

B Provide new overhead doors.

B Provide new windows

D Provide fuel/fluid spill containment for Bulk Fluids.

D Provide new Locker room, lunchroom, bathroom

200.00 Service Systems

A Upgrade ventilation system including automatic activation on toxic fumes and including new Make-up Air Unit providing current minimum air changes per day.

A Provide new, larger de-stratification fans in parking garage to provide better airflow.

A Provide new electrical distribution panel boards

B Replace existing trench drains.

B Replace existing light fixtures with new energy efficient LED light fixtures.

D Provide new plumbing fixtures for bathrooms, drinking fountains, handwash sink, hose bibs

D Add complex-wide security system including closed-circuit cameras.

300.00 Life Safety & Functional Standards

D Install automatic sprinkler system throughout building.

D Verify existence of asbestos in the building. Abate and replace all hazardous materials.

D Replace exit lights with new LED models.

400.00 Interior Finishes

B Clean CMU wall surface. Provide new wall paint.

B Clean ceiling. Provide new dry-fall paint to ceiling and structure.

B Reseal existing concrete floor.

C Upgrade man-doors

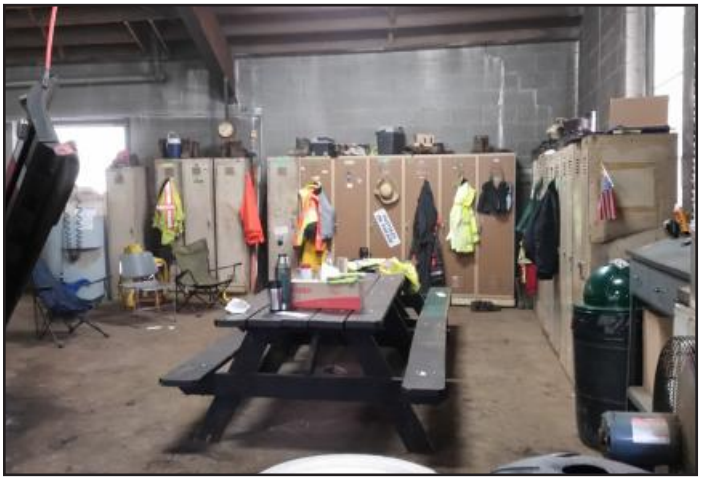
C Provide counters for lunch and timeclock activity

500.00 Site Issues

A Provide new concrete apron and drainage at each overhead door

A Pave surrounding building with asphalt and stormwater system
A Upgrade water, sanitary and sewer lines to Truck Wash
D Replace existing exterior light fixtures with energy efficient LED fixtures.
D Replace existing exterior light fixtures with energy efficient LED fixtures.

Parking Garage #2



Facility Condition Audit

Building Name:	**Truck Storage #2**	Built:	1967
Gross Area:	13,361 sf	Type of Construction:	Loading Bearing Masonry & Glue-Lam roof beams
Approx. cost/sf:	$ 110.00	Occupancy:	Highway Dept. Vehicle Storage Garage
Replacement Value:	$ 1,469,710	Date of FCA	March 2016

Building Component	Component Weight	Priority A		Priority B		Priority C		Priority D		Total	
		Repair Factor	Budget Allocation	Repair Factor	Budget Allocation	Repair Factor	Budget Allocation	Repair Factor	Budget Allocation	Condition Index	Budget Allocation
100.00 Primary Structure & Enclosure Systems											
.01 Foundations	0.210	20	$ 61,728		$ -		$ -	10	$ 30,864	6.3	$ 92,592
.02 Superstructure	0.170	20	$ 49,970		$ -		$ -		$ -	3.4	$ 49,970
.03 Roof System	0.150	40	$ 88,183		$ -		$ -		$ -	6.0	$ 88,183
.04 Exterior Walls	0.210	80	$ 246,911		$ -		$ -		$ -	16.8	$ 246,911
.05 Windows/Doors	0.015		$ -	100	$ 22,046		$ -	100	$ 22,046	3.0	$ 44,091
Subtotal Primary Structure			$ 446,792		$ 22,046		$ -		$ 52,910	35.5	$ 521,747
200.00 Service Systems											
.01 Plumbing System	0.015		$ -	80	$ 17,637		$ -	90	$ 19,841	2.6	$ 37,478
.02 HVAC System	0.040	90	$ 52,910		$ -		$ -		$ -	3.6	$ 52,910
.03 Electrical Distribution	0.010	100	$ 14,697		$ -		$ -		$ -	1.0	$ 14,697
.04 Lighting/Power Systems	0.040		$ -		$ -		$ -	30	$ 17,637	1.2	$ 17,637
.05 Tel/Data/Security Systems	0.010		$ -		$ -		$ -	60	$ 8,818	0.6	$ 8,818
.06 Conveying System	0.000		$ -		$ -		$ -		$ -	-	$ -
Subtotal Service System			$ 67,607		$ 17,637		$ -		$ 46,296	9.0	$ 131,539
300.00 Safety & Functional Standards											
.01 Fire Protection & Safety	0.005		$ -		$ -		$ -	200	$ 14,697	1.0	$ 14,697
.02 Egress System	0.005		$ -		$ -		$ -	100	$ 7,349	0.5	$ 7,349
.03 Accessibility	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Regulated Materials	0.005		$ -		$ -		$ -	200	$ 14,697	1.0	$ 14,697
Subtotal Safety/Functional			$ -		$ -		$ -		$ 36,743	2.5	$ 36,743
400.00 Interior Finishes											
.01 Ceilings	0.020		$ -	20	$ 5,879		$ -		$ -	0.4	$ 5,879
.02 Int. Doors & Hardware	0.005		$ -	20	$ 1,470		$ -		$ -	0.1	$ 1,470
.03 Floor Finishes	0.020		$ -	70	$ 20,576		$ -		$ -	1.4	$ 20,576
.04 Wall Finishes	0.010		$ -	70	$ 10,288		$ -		$ -	0.7	$ 10,288
.05 Specialties	0.010		$ -		$ -	50	$ 7,349		$ -	0.5	$ 7,349
Subtotal Interior Finishes			$ -		$ 38,212		$ 7,349		$ -	3.1	$ 45,561
500.00 Site Issues											
.01 Parking/Roads	0.020	200	$ 58,788		$ -		$ -		$ -	4.0	$ 58,788
.02 Landscaping	0.002		$ -		$ -		$ -		$ -	-	$ -
.03 Site Lighting	0.010		$ -		$ -		$ -	50	$ 7,349	0.5	$ 7,349
.04 Utility Infrastructure	0.010	200	$ 29,394		$ -		$ -		$ -	2.0	$ 29,394
Subtotal Site Issues			$ 88,183		$ -		$ -		$ 7,349	6.5	$ 95,531
Total all Building Components			$ 602,581		$ 77,895		$ 7,349		$ 143,297	56.6	$ 831,121

0.997

Warm Storage #3

Condition Index: 73.5
Assessment: Poor condition, replace the building

The Warm Storage #3 Building is in obsolete condition and is identified as needing heavy rehabilitation and modernization. While the steel/wood joists are in good condition, the load bearing wall and masonry between the piers are in very poor condition. There are numerous cracks through the masonry units that run both along course joints and straight through the block unit. The condition of the masonry concrete block is deteriorated in particular at the base and at the parapets. The paint finish is peeled away and is easily flicked off by hand.

The concrete flooring of the Warm Storage needs repair, replacement in portions and and re-sloping for proper drainage of water and snow melt. With the truck washing activities taking place in this building, the floor drains need to be enlarged to allow for frequent clean-outs.

The existing HVAC system is moderated condition but needing updating. While there is sufficient heat provided there is insufficient ventilation provided along with no barriers into the crew quarters. If the building is continued to be used for an extended time frame, the insulation of the existing roof, walls and windows should be upgraded to provide energy efficiency.

The crew quarters consist of the lunchroom and some locker areas and this area needs significant modernization and upgrade to plumbing fixtures.

On the north side is a lean-to structure and this area to store vehicle implements.

Significant sitework is needed to accommodate the pre-washing of trucks outside.

Gross Area: 7,460 sf **Current**
Replacement Value: $820,600
Year Built: 1913 **Occupancy:**
Parking Garage, Crew Quarters

Corrective Maintenance Issues

100.00 Primary Structure & Enclosure

A Remove infill concrete masonry and fill in with a concrete masonry backup, insulation boards and a concrete masonry veneer

A Repair roof conditions: parapet, gutter, roofing membrane

A Remove and replace portions of existing concrete floor and provide a new trench drain system.

A Provide R-38 insulation at roof.

B Provide new overhead doors.

B Provide new windows

D Provide new Locker room, lunchroom, bathrooms

200.00 Service Systems

A Upgrade ventilation system including automatic activation on toxic fumes and including new Make-up Air Unit providing current minimum air changes per day.

A Provide new, larger de-stratification fans in parking garage to provide better airflow.

A Provide new electrical distribution panel boards

B Replace existing trench drains.

B Replace existing light fixtures with new energy efficient LED light fixtures.

D Provide new plumbing fixtures for bathrooms, drinking fountains, handwash sink, hose bibs

D Add complex-wide security system including closed-circuit cameras.

300.00 Life Safety & Functional Standards

D Install automatic sprinkler system throughout building.

D Verify existence of asbestos in the building. Abate and replace all hazardous materials.

D Replace exit lights with new LED models.

400.00 Interior Finishes

B Clean CMU wall surface. Provide new wall paint.

B Clean ceiling. Provide new dry-fall paint to ceiling and structure.

B Reseal existing concrete floor.

B Provide new interior walls furred out from masonry

C Provide counters for lunch and timeclock activity

500.00 Site Issues

A Provide new concrete apron and drainage at each overhead door

A Pave surrounding building with asphalt and stormwater system

A Upgrade water, sanitary and sewer lines to Truck Wash

D Replace existing exterior light fixtures with energy efficient LED fixtures.

Warm Storage #3

Facility Condition Audit

Building Name:	**Truck Storage #3**	Built:	1913
Gross Area:	7,460 sf	Type of Construction:	Loading Bearing Masonry & Steel Truss Roof
Approx. cost/sf:	$ 110.00	Occupancy:	County Public Works Dept. Vehicle Storage Garage
Replacement Value:	$ 820,600	Date of FCA	March 2016

Building Component	Component Weight	Priority A		Priority B		Priority C		Priority D		Total	
		Repair Factor	Budget Allocation	Repair Factor	Budget Allocation	Repair Factor	Budget Allocation	Repair Factor	Budget Allocation	Condition Index	Budget Allocation
100.00 Primary Structure & Enclosure Systems											
.01 Foundations	0.210	40	$ 68,930		$ -		$ -		$ -	8.4	$ 68,930
.02 Superstructure	0.170	20	$ 27,900		$ -		$ -	80	$ 111,602	17.0	$ 139,502
.03 Roof System	0.150	40	$ 49,236		$ -		$ -		$ -	6.0	$ 49,236
.04 Exterior Walls	0.210	60	$ 103,396		$ -		$ -		$ -	12.6	$ 103,396
.05 Windows/Doors	0.015		$ -	200	$ 24,618		$ -		$ -	3.0	$ 24,618
Subtotal Primary Structure			$ 249,462		$ 24,618		$ -		$ 111,602	47.0	$ 385,682
200.00 Service Systems											
.01 Plumbing System	0.015		$ -	120	$ 14,771		$ -	100	$ 12,309	3.3	$ 27,080
.02 HVAC System	0.040	100	$ 32,824		$ -		$ -		$ -	4.0	$ 32,824
.03 Electrical Distribution	0.010	150	$ 12,309		$ -		$ -		$ -	1.5	$ 12,309
.04 Lighting/Power Systems	0.040		$ -	50	$ 16,412		$ -		$ -	2.0	$ 16,412
.05 Tel/Data/Security Systems	0.010		$ -		$ -		$ -	90	$ 7,385	0.9	$ 7,385
.06 Conveying System	0.000		$ -		$ -		$ -		$ -	-	$ -
Subtotal Service System			$ 45,133		$ 31,183		$ -		$ 19,694	11.7	$ 96,010
300.00 Safety & Functional Standards											
.01 Fire Protection & Safety	0.005		$ -		$ -		$ -	300	$ 12,309	1.5	$ 12,309
.02 Egress System	0.005		$ -		$ -		$ -	100	$ 4,103	0.5	$ 4,103
.03 Accessibility	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Regulated Materials	0.005		$ -		$ -		$ -	180	$ 7,385	0.9	$ 7,385
Subtotal Safety/Functional			$ -		$ -		$ -		$ 23,797	2.9	$ 23,797
400.00 Interior Finishes											
.01 Ceilings	0.020		$ -	80	$ 13,130		$ -		$ -	1.6	$ 13,130
.02 Int. Doors & Hardware	0.005		$ -		$ -	100	$ 4,103		$ -	0.5	$ 4,103
.03 Floor Finishes	0.020		$ -	70	$ 11,488		$ -		$ -	1.4	$ 11,488
.04 Wall Finishes	0.010		$ -	70	$ 5,744		$ -		$ -	0.7	$ 5,744
.05 Specialties	0.010		$ -		$ -	100	$ 8,206		$ -	1.0	$ 8,206
Subtotal Interior Finishes			$ -		$ 30,362		$ 12,309		$ -	5.2	$ 42,671
500.00 Site Issues											
.01 Parking/Roads	0.020	200	$ 32,824		$ -		$ -		$ -	4.0	$ 32,824
.02 Landscaping	0.002		$ -		$ -		$ -		$ -	-	$ -
.03 Site Lighting	0.010		$ -		$ -		$ -	70	$ 5,744	0.7	$ 5,744
.04 Utility Infrastructure	0.010	200	$ 16,412		$ -		$ -		$ -	2.0	$ 16,412
Subtotal Site Issues			$ 49,236		$ -		$ -		$ 5,744	6.7	$ 54,980
Total all Building Components			$ 343,831		$ 86,163		$ 12,309		$ 160,838	73.5	$ 603,141

Sign Shop #4

Condition Index: 17.1
Assessment: Good to Fair Condition

The Sign Shop is a residential-grade construction from the 1910's and it was designed to maintain stockyard activities and likely house the onsite manager. As such, it was never designed to house shop operations so it does not have the proper height clearances, service doors, flooring material, storage facilities, ventilation nor plumbing suitable for sign shop activities. At best it this building provides adequate office space and storage area for records. It does not provide adequate storage layout for metal signs, sign-making equipment and the movement of signs in and out of the building. Moreover, signs are stored in the basement and there is no elevator and the stairwell is of minimum width.

Overall the building frame, siding and interior finishes are in good shape and it appears that much of the exterior finish work has been replaced over the last ten years. The flooring on the first flooring appears to be a vinyl floor but it may also be a vinyl with asbestos in it.

Gross Area: 2,592 **Current**
Replacement Value: $374,840
Year Built: 1910 **Occupancy:** Parking Garage and Crew Quarters

Corrective Maintenance Issues

100.00 Primary Structure & Enclosure
- A Provide new roof shingles
- A Provide loading area and door sizes to match activity

200.00 Service Systems
- A Provide water service with sufficient flow for toilets
- A Provide new plumbing fixtures along with hot water heater
- B Provide central air conditioning and ventilation
- D Provide new ADA compliant toilets, and lavatories.
- D Add complex-wide security system including closed-circuit cameras.
- D Provide elevator or conveyance for moving signs up floors

300.00 Life Safety & Functional Standards
- D Replace exit lights with new LED models.

D Verify existence of asbestos in the building, particularly the flooring. Abate and replace all hazardous materials.
D Provide and ADA and accessible ramp for entrance to the workplace

400.00 Interior Finishes
B Repair walls and woodworking that have been damaged from shop activities.
B Replace flooring with new higher grade flooring

500.00 Site Issues
A Pave over and provide stormwater management system
D Replace existing exterior light fixtures with energy efficient LED fixtures.

Sign Shop #4

Facility Condition Audit

Building Name:	**Sign Shop # 4**	Built:	1910
Gross Area:	2,592 sf	Type of Construction:	Wood frame, residential quality construction
Approx. cost/sf:	$ 145.00	Occupancy:	County Public Works Dept. Vehicle Storage Garage
Replacement Value:	$ 375,840	Date of FCA	March, 2016

Building Component	Component Weight	Priority A Repair Factor	Priority A Budget Allocation	Priority B Repair Factor	Priority B Budget Allocation	Priority C Repair Factor	Priority C Budget Allocation	Priority D Repair Factor	Priority D Budget Allocation	Total Condition Index	Total Budget Allocation
100.00 Primary Structure & Enclosure Systems											
.01 Foundations	0.130		$ -		$ -		$ -		$ -	-	$ -
.02 Superstructure	0.190	20	$ 14,282		$ -		$ -		$ -	3.8	$ 14,282
.03 Roof System	0.150	10	$ 5,638		$ -		$ -		$ -	1.5	$ 5,638
.04 Exterior Walls	0.120		$ -		$ -		$ -		$ -	-	$ -
.05 Windows/Doors	0.030		$ -		$ -		$ -		$ -	-	$ -
Subtotal Primary Structure			$ 19,920		$ -		$ -		$ -	5.3	$ 19,920
200.00 Service Systems											
.01 Plumbing System	0.027	40	$ 4,059		$ -		$ -		$ -	1.1	$ 4,059
.02 HVAC System	0.130		$ -	10	$ 4,886		$ -		$ -	1.3	$ 4,886
.03 Electrical Distribution	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Lighting/Power Systems	0.065		$ -		$ -		$ -		$ -	-	$ -
.05 Tel/Data/Security Systems	0.020		$ -		$ -		$ -	40	$ 3,007	0.8	$ 3,007
.06 Conveying System	0.060		$ -		$ -		$ -	40	$ 9,020	2.4	$ 9,020
Subtotal Service System			$ 4,059		$ 4,886		$ -		$ 12,027	5.6	$ 20,972
300.00 Safety & Functional Standards											
.01 Fire Protection & Safety	0.005		$ -		$ -		$ -		$ -	-	$ -
.02 Egress System	0.005		$ -		$ -		$ -	100	$ 1,879	0.5	$ 1,879
.03 Accessibility	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Regulated Materials	0.005		$ -		$ -		$ -	200	$ 3,758	1.0	$ 3,758
Subtotal Safety/Functional			$ -		$ -		$ -		$ 5,638	1.5	$ 5,638
400.00 Interior Finishes											
.01 Ceilings	0.005		$ -		$ -		$ -		$ -	-	$ -
.02 Int. Doors & Hardware	0.005		$ -		$ -		$ -		$ -	-	$ -
.03 Floor Finishes	0.015		$ -	90	$ 5,074		$ -		$ -	1.4	$ 5,074
.04 Wall Finishes	0.010		$ -	100	$ 3,758		$ -		$ -	1.0	$ 3,758
.05 Specialties	0.013		$ -		$ -		$ -		$ -	-	$ -
Subtotal Interior Finishes			$ -		$ 8,832		$ -		$ -	2.4	$ 8,832
500.00 Site Issues											
.01 Parking/Roads	0.025	80	$ 7,517		$ -		$ -		$ -	2.0	$ 7,517
.02 Landscaping	0.002		$ -		$ -		$ -		$ -	-	$ -
.03 Site Lighting	0.010		$ -		$ -		$ -	35	$ 1,315	0.4	$ 1,315
.04 Utility Infrastructure	0.010		$ -		$ -		$ -		$ -	-	$ -
Subtotal Site Issues			$ 7,517		$ -		$ -		$ 1,315	2.4	$ 8,832
Total all Building Components			$ 31,495		$ 13,718		$ -		$ 18,980	17.1	$ 64,193

Storage Shed #5

Condition Index: 50.9
Assessment: Poor Condition, Replace building

This was originally constructed as a Salt Shed but being of modest size and deteriorating condition has been converted to being used for field storage items such as signs, barricades, palletized storage items and the like. There is no power, heating, ventilation provided. The building enclosure or heavy wood is highly deteriorated and showing signs of pulling off from the frame. The enclosure also has many gaps and allows for wind and rain to enter and thus is providing minimal enclosure functions. Being a pole barn type structure it has neither foundation wall nor floor slab.

Because of its small size, directly outside are numerous field pieces that are stocked outside exposed to the elements. Moreover, the lack of pavement and an engineered storm drainage system create a yard with standing water, sediment piles, rutted tire tracks and likely seepage and run-off salt, sand and gravel sediments. The building is placed with its rear right up against the property/fence line so there is no room for expansion, maneuvering of vehicles behind it and the area to load in front of it congested with stockpiles.

Stormwater is a significant problem here. The run-off flows right off the property, as evidenced by wet, eroded and sediment filled areas on adjacent properties. There is a make-shift detention pond adjacent to this Shed it is highly eroded and there are piles of sediments on the edges. At this point all the stormwater just exits right out to the RR property.

Gross Area: 1,100 sf **Current**
Replacement Value: $88,000
Year Built: 1960 **Occupancy:**
Parts Storage

Corrective Maintenance Issues

100.00 Primary Structure & Enclosure
- A Provide new sliding door
- A Repair or replace the majority of the wood siding panels
- A Structurally brace the walls with X bracing for wind.
- A Provide a floor slab or engineered fill and gravel

200.00 Service Systems
- A Provide an exterior light and one interior light. Run power line to building

B Provide ceiling fan to keep air moving

300.00 Life Safety & Functional Standards
No maintenance issues

400.00 Interior Finishes
No maintenance issues.

500.00 Site Issues
B Provide exterior light fixtures.
B Pave area around building, provide structured apron at sliding door so heavy vehicles can be sustained.
B Provide engineered and structured stormwater system

Storage Shed #5

Facility Condition Audit

Building Name:	**Storage #5**	Built:	1960
Gross Area:	1,100 sf	Type of Construction:	Timber Pole Barn, Wood siding
Approx. cost/sf:	$ 80.00	Occupancy:	Storage Shed
Replacement Value:	$ 88,000	Date of FCA	March, 2016

Building Component	Component Weight	Priority A Repair Factor	Priority A Budget Allocation	Priority B Repair Factor	Priority B Budget Allocation	Priority C Repair Factor	Priority C Budget Allocation	Priority D Repair Factor	Priority D Budget Allocation	Total Condition Index	Total Budget Allocation
100.00 Primary Structure & Enclosure Systems											
.01 Foundations	0.180	60	$ 9,504		$ -		$ -		$ -	10.8	$ 9,504
.02 Superstructure	0.150	50	$ 6,600		$ -		$ -		$ -	7.5	$ 6,600
.03 Roof System	0.140	50	$ 6,160		$ -		$ -		$ -	7.0	$ 6,160
.04 Exterior Walls	0.170	80	$ 11,968		$ -		$ -		$ -	13.6	$ 11,968
.05 Windows/Doors	0.040	100	$ 3,520		$ -		$ -		$ -	4.0	$ 3,520
Subtotal Primary Structure			$ 37,752		$ -		$ -		$ -	42.9	$ 37,752
200.00 Service Systems											
.01 Plumbing System	0.027		$ -		$ -		$ -		$ -	-	$ -
.02 HVAC System	0.130		$ -	20	$ 2,288		$ -		$ -	2.6	$ 2,288
.03 Electrical Distribution	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Lighting/Power Systems	0.060	40	$ 2,112		$ -		$ -		$ -	2.4	$ 2,112
.05 Tel/Data/Security Systems	0.015		$ -		$ -		$ -		$ -	-	$ -
.06 Conveying System	0.000		$ -		$ -		$ -		$ -	-	$ -
Subtotal Service System			$ 2,112		$ 2,288		$ -		$ -	5.0	$ 4,400
300.00 Safety & Functional Standards											
.01 Fire Protection & Safety	0.005		$ -		$ -		$ -		$ -	-	$ -
.02 Egress System	0.005		$ -		$ -		$ -		$ -	-	$ -
.03 Accessibility	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Regulated Materials	0.005		$ -		$ -		$ -		$ -	-	$ -
Subtotal Safety/Functional			$ -				$ -		$ -	-	$ -
400.00 Interior Finishes											
.01 Ceilings	0.000		$ -		$ -		$ -		$ -	-	$ -
.02 Int. Doors & Hardware	0.005		$ -		$ -		$ -		$ -	-	$ -
.03 Floor Finishes	0.010		$ -		$ -		$ -		$ -	-	$ -
.04 Wall Finishes	0.005		$ -		$ -		$ -		$ -	-	$ -
.05 Specialties	0.015		$ -		$ -		$ -		$ -	-	$ -
Subtotal Interior Finishes			$ -		$ -		$ -		$ -	-	$ -
500.00 Site Issues											
.01 Parking/Roads	0.025		$ -	100	$ 2,200		$ -		$ -	2.5	$ 2,200
.02 Landscaping	0.002		$ -		$ -		$ -		$ -	-	$ -
.03 Site Lighting	0.010		$ -	50	$ 440		$ -		$ -	0.5	$ 440
.04 Utility Infrastructure	0.010		$ -		$ -		$ -		$ -	-	$ -
Subtotal Site Issues			$ -		$ 2,640		$ -		$ -	3.0	$ 2,640
Total all Building Components			$ 39,864		$ 4,928		$ -		$ -	50.9	$ 44,792

State Salt Shed #6

Condition Index: 50.9
Assessment: Poor Condition, Replace

The smaller of the two State Salt Sheds is of pole barn construction and has no foundation or floor slab. The wood siding is bulging outward some 10 inches in places and steel bracing has been put up to hold back the expansion forces. It is apparent that the structure cannot hold back the force of the salt tonnage stored here. This could be due to deterioration over time or that the building was under designed in the first place. Or it could be the County is stocking more salt in it beyond its posted capacity .The wood enclosure has many gaps and allows for wind and rain to enter and thus is providing minimal enclosure functions.

The 1,100 ton capacity of the Shed is below optimal operational needs but there is no room to expand without demolishing other buildings. The height of the trusses inside are minimal and don't allow for larger loaders or trucks to enter and maneuver inside. There is no power, lighting nor ventilation provided.

A lean-to structure exists on the south side and provides equipment storage.

Directly outside are numerous field pieces that are stocked outside exposed to the elements. The lack of pavement and an engineered storm drainage system create a yard with standing water, sediment piles, rutted tire tracks and likely seepage and run-off salt, sand and gravel sediments. The building is placed with its rear right up against the property/fence line so there is no room for expansion, maneuvering of vehicles behind it and the area to load in front of it is hampered by an overhead power line which trucks with beds up have hit.

There is no stormwater or sediment (salts) runoff control and with current DNR regulations this would need to be brought into compliance.

Gross Area: 2,520 sf **Current Replacement Value:** $176,400
Year Built: 1980 **Occupancy:** Salt storage

Corrective Maintenance Issues

100.00 Primary Structure & Enclosure
A Provide new sliding door

A Repair or replace the majority of the wood siding panels
A Structurally brace the walls with X bracing for wind.
A Provide a floor slab or engineered fill and gravel

200.00 Service Systems
A Provide an exterior light and one interior light. Run power line to building
B Provide ceiling fan to keep air moving

300.00 Life Safety & Functional Standards
No maintenance issues

400.00 Interior Finishes
No maintenance issues.

500.00 Site Issues
B Provide exterior light fixtures
B Pave area around building, provide structured apron at sliding door so heavy vehicles can be sustained.
B Provide engineered and structured stormwater system
B Relocate overhead power so out of the way of salt loading activities

State Salt Shed #6

Building Name:	**State Salt Shed #6**	Built:	1980
Gross Area:	2,520 sf	Type of Construction:	Timber Pole Barn, Wood siding
Approx. cost/sf:	$ 70.00	Occupancy:	Salt Storage Shed
Replacement Value:	$ 176,400	Date of FCA	March, 2016

Building Component	Component Weight	Priority A Repair Factor	Priority A Budget Allocation	Priority B Repair Factor	Priority B Budget Allocation	Priority C Repair Factor	Priority C Budget Allocation	Priority D Repair Factor	Priority D Budget Allocation	Total Condition Index	Total Budget Allocation
100.00 Primary Structure & Enclosure Systems											
.01 Foundations	0.180	60	$ 19,051		$ -		$ -		$ -	10.8	$ 19,051
.02 Superstructure	0.150	50	$ 13,230		$ -		$ -		$ -	7.5	$ 13,230
.03 Roof System	0.140	50	$ 12,348		$ -		$ -		$ -	7.0	$ 12,348
.04 Exterior Walls	0.170	80	$ 23,990		$ -		$ -		$ -	13.6	$ 23,990
.05 Windows/Doors	0.040	100	$ 7,056		$ -		$ -		$ -	4.0	$ 7,056
Subtotal Primary Structure			$ 75,676		$ -		$ -		$ -	42.9	$ 75,676
200.00 Service Systems											
.01 Plumbing System	0.027		$ -		$ -		$ -		$ -	-	$ -
.02 HVAC System	0.130		$ -	20	$ 4,586		$ -		$ -	2.6	$ 4,586
.03 Electrical Distribution	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Lighting/Power Systems	0.060	40	$ 4,234		$ -		$ -		$ -	2.4	$ 4,234
.05 Tel/Data/Security Systems	0.015		$ -		$ -		$ -		$ -	-	$ -
.06 Conveying System	0.000		$ -		$ -		$ -		$ -	-	$ -
Subtotal Service System			$ 4,234		$ 4,586		$ -		$ -	5.0	$ 8,820
300.00 Safety & Functional Standards											
.01 Fire Protection & Safety	0.005		$ -		$ -		$ -		$ -	-	$ -
.02 Egress System	0.005		$ -		$ -		$ -		$ -	-	$ -
.03 Accessibility	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Regulated Materials	0.005		$ -		$ -		$ -		$ -	-	$ -
Subtotal Safety/Functional			$ -				$ -		$ -	-	$ -
400.00 Interior Finishes											
.01 Ceilings	0.000		$ -		$ -		$ -		$ -	-	$ -
.02 Int. Doors & Hardware	0.005		$ -		$ -		$ -		$ -	-	$ -
.03 Floor Finishes	0.010		$ -		$ -		$ -		$ -	-	$ -
.04 Wall Finishes	0.005		$ -		$ -		$ -		$ -	-	$ -
.05 Specialties	0.015		$ -		$ -		$ -		$ -	-	$ -
Subtotal Interior Finishes			$ -		$ -		$ -		$ -	-	$ -
500.00 Site Issues											
.01 Parking/Roads	0.025		$ -	100	$ 4,410		$ -		$ -	2.5	$ 4,410
.02 Landscaping	0.002		$ -		$ -		$ -		$ -	-	$ -
.03 Site Lighting	0.010		$ -	50	$ 882		$ -		$ -	0.5	$ 882
.04 Utility Infrastructure	0.010		$ -		$ -		$ -		$ -	-	$ -
Subtotal Site Issues			$ -		$ 5,292		$ -		$ -	3.0	$ 5,292
Total all Building Components			$ 79,909		$ 9,878		$ -		$ -	50.9	$ 89,788

State Salt Shed #7

Condition Index: 50.9
Assessment: Poor Conditions, Replace Building

This is the larger of the Salt Sheds and it is of pole barn construction thus has no foundation or floor slab. The wood siding is bulging outward some 10 inches in places and steel bracing has been put up to hold back the expansion forces. It is apparent that the structure cannot hold back the force of the salt tonnage stored here. This could be due to deterioration over time
Or that the building was under designed in the first place. Or it could be the County is stocking more salt in it beyond its posted capacity .The wood enclosure has many gaps and allows for wind and rain to enter and thus is providing minimal enclosure functions.

The 1800 ton capacity of the Shed is below optimal operational needs but there is no room to expand without demolishing other buildings. The height of the trusses inside are minimal and don't allow for larger loaders or trucks to enter and maneuver inside. There is no power, lighting nor ventilation provided.

Directly outside are numerous field pieces that are stocked outside exposed to the elements. The lack of pavement and an engineered storm drainage system create a yard with standing water, sediment piles, rutted tire tracks and likely seepage and run-off salt, sand and gravel sediments. The building is placed with its rear right up against the property/fence line so there is no room for expansion, maneuvering of vehicles behind it and the area to load in front of it is hampered by an overhead power line which trucks with beds up have hit.

There is no stormwater or sediment (salts) runoff control and with current DNR regulations this would need to be brought into compliance.

Gross Area: 3,520 sf **Current Replacement Value:** $246,400
Year Built: 1980 **Occupancy:** Salt Storage

Corrective Maintenance Issues

100.00 Primary Structure & Enclosure
- A Provide new sliding door
- A Repair or replace the majority of the wood siding panels

A Structurally brace the walls with X bracing for wind.
A Provide a floor slab or engineered fill and gravel

200.00 Service Systems
A Provide an exterior light and one interior light. Run power line to building
B Provide ceiling fan to keep air moving

300.00 Life Safety & Functional Standards
No maintenance issues

400.00 Interior Finishes
No maintenance issues.

500.00 Site Issues
B Provide exterior light fixtures
B Pave area around building, provide structured apron at sliding door so heavy vehicles can be sustained.
B Provide engineered and structured stormwater system
B Relocate overhead power so out of the way of salt loading activities

State Salt Shed #7

Facility Condition Audit

Building Name:	**State Salt Shed #7**	Built:	1980
Gross Area:	3,520 sf	Type of Construction:	Timber Pole Barn, Wood siding
Approx. cost/sf:	$ 70.00	Occupancy:	Salt Storage Shed
Replacement Value:	$ 246,400	Date of FCA	March, 2016

Building Component	Component Weight	Priority A Repair Factor	Priority A Budget Allocation	Priority B Repair Factor	Priority B Budget Allocation	Priority C Repair Factor	Priority C Budget Allocation	Priority D Repair Factor	Priority D Budget Allocation	Total Condition Index	Total Budget Allocation
100.00 Primary Structure & Enclosure Systems											
.01 Foundations	0.180	60	$ 26,611		$ -		$ -		$ -	10.8	$ 26,611
.02 Superstructure	0.150	50	$ 18,480		$ -		$ -		$ -	7.5	$ 18,480
.03 Roof System	0.140	50	$ 17,248		$ -		$ -		$ -	7.0	$ 17,248
.04 Exterior Walls	0.170	80	$ 33,510		$ -		$ -		$ -	13.6	$ 33,510
.05 Windows/Doors	0.040	100	$ 9,856		$ -		$ -		$ -	4.0	$ 9,856
Subtotal Primary Structure			$ 105,706		$ -		$ -		$ -	42.9	$ 105,706
200.00 Service Systems											
.01 Plumbing System	0.027		$ -		$ -		$ -		$ -	-	$ -
.02 HVAC System	0.130		$ -	20	$ 6,406		$ -		$ -	2.6	$ 6,406
.03 Electrical Distribution	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Lighting/Power Systems	0.060	40	$ 5,914		$ -		$ -		$ -	2.4	$ 5,914
.05 Tel/Data/Security Systems	0.015		$ -		$ -		$ -		$ -	-	$ -
.06 Conveying System	0.000		$ -		$ -		$ -		$ -	-	$ -
Subtotal Service System			$ 5,914		$ 6,406		$ -		$ -	5.0	$ 12,320
300.00 Safety & Functional Standards											
.01 Fire Protection & Safety	0.005		$ -		$ -		$ -		$ -	-	$ -
.02 Egress System	0.005		$ -		$ -		$ -		$ -	-	$ -
.03 Accessibility	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Regulated Materials	0.005		$ -		$ -		$ -		$ -	-	$ -
Subtotal Safety/Functional			$ -				$ -		$ -	-	$ -
400.00 Interior Finishes											
.01 Ceilings	0.000		$ -		$ -		$ -		$ -	-	$ -
.02 Int. Doors & Hardware	0.005		$ -		$ -		$ -		$ -	-	$ -
.03 Floor Finishes	0.010		$ -		$ -		$ -		$ -	-	$ -
.04 Wall Finishes	0.005		$ -		$ -		$ -		$ -	-	$ -
.05 Specialties	0.015		$ -		$ -		$ -		$ -	-	$ -
Subtotal Interior Finishes			$ -		$ -		$ -		$ -	-	$ -
500.00 Site Issues											
.01 Parking/Roads	0.025		$ -	100	$ 6,160		$ -		$ -	2.5	$ 6,160
.02 Landscaping	0.002		$ -		$ -		$ -		$ -	-	$ -
.03 Site Lighting	0.010		$ -	50	$ 1,232		$ -		$ -	0.5	$ 1,232
.04 Utility Infrastructure	0.010		$ -		$ -		$ -		$ -	-	$ -
Subtotal Site Issues			$ -		$ 7,392		$ -		$ -	3.0	$ 7,392
Total all Building Components			$ 111,619		$ 13,798		$ -		$ -	50.9	$ 125,418

County Salt Shed #8

Condition Index: 50.9
Assessment: Poor Condition, Replace Building

This County Salt Shed is of pole barn construction and has no foundation or floor slab. The wood enclosure has many gaps and allows for wind and rain to enter and thus is providing minimal enclosure functions.

The 500 ton capacity of the Shed is below optimal operational needs but there is no room to expand without demolishing other buildings. The height of the trusses inside are minimal and don't allow for larger loaders or trucks to enter and maneuver inside. There is no power, lighting nor ventilation provided.

Directly outside are numerous field pieces that are stocked outside exposed to the elements. The lack of pavement and an engineered storm drainage system create a yard with standing water, sediment piles, rutted tire tracks and likely seepage and run-off salt, sand and gravel sediments. The building is placed with its rear right up against the property/fence line so there is no room for expansion, maneuvering of vehicles behind it and the area to load in front of it is hampered by an overhead power line which trucks with beds up have hit.

There is no stormwater or sediment (salts) runoff control and with current DNR regulations this would need to be brought into compliance.

Gross Area: 1,200 sf **Current**
Replacement Value: $96,000
Year Built: 1980 **Occupancy:**
Salt storage

Corrective Maintenance Issues

100.00 Primary Structure & Enclosure
- A Provide new sliding door
- A Repair or replace the majority of the wood siding panels
- A Structurally brace the walls with X bracing for wind.
- A Provide a floor slab or engineered fill and gravel

200.00 Service Systems
- A Provide an exterior light and one interior light. Run power line to building
- B Provide ceiling fan to keep air moving

300.00 Life Safety & Functional Standards

No maintenance issues

400.00 Interior Finishes
No maintenance issues.

500.00 Site Issues
- B Provide exterior light fixtures
- B Pave area around building, provide structured apron at sliding door so heavy vehicles can be sustained.
- B Provide engineered and structured stormwater system
- B Relocate overhead power so out of the way of salt loading activities

County Salt Shed #8

Facility Condition Audit

Building Name:	**County Salt Shed #8**	Built:	1980
Gross Area:	1,200 sf	Type of Construction:	Timber Pole Barn, Wood siding
Approx. cost/sf:	$ 80.00	Occupancy:	Salt Storage Shed
Replacement Value:	$ 96,000	Date of FCA	March, 2016

Building Component	Component Weight	Priority A Repair Factor	Priority A Budget Allocation	Priority B Repair Factor	Priority B Budget Allocation	Priority C Repair Factor	Priority C Budget Allocation	Priority D Repair Factor	Priority D Budget Allocation	Total Condition Index	Total Budget Allocation
100.00 Primary Structure & Enclosure Systems											
.01 Foundations	0.180	60	$ 10,368		$ -		$ -		$ -	10.8	$ 10,368
.02 Superstructure	0.150	50	$ 7,200		$ -		$ -		$ -	7.5	$ 7,200
.03 Roof System	0.140	50	$ 6,720		$ -		$ -		$ -	7.0	$ 6,720
.04 Exterior Walls	0.170	80	$ 13,056		$ -		$ -		$ -	13.6	$ 13,056
.05 Windows/Doors	0.040	100	$ 3,840		$ -		$ -		$ -	4.0	$ 3,840
Subtotal Primary Structure			$ 41,184		$ -		$ -		$ -	42.9	$ 41,184
200.00 Service Systems											
.01 Plumbing System	0.027		$ -		$ -		$ -		$ -	-	$ -
.02 HVAC System	0.130		$ -	20	$ 2,496		$ -		$ -	2.6	$ 2,496
.03 Electrical Distribution	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Lighting/Power Systems	0.060	40	$ 2,304		$ -		$ -		$ -	2.4	$ 2,304
.05 Tel/Data/Security Systems	0.015		$ -		$ -		$ -		$ -	-	$ -
.06 Conveying System	0.000		$ -		$ -		$ -		$ -	-	$ -
Subtotal Service System			$ 2,304		$ 2,496		$ -		$ -	5.0	$ 4,800
300.00 Safety & Functional Standards											
.01 Fire Protection & Safety	0.005		$ -		$ -		$ -		$ -	-	$ -
.02 Egress System	0.005		$ -		$ -		$ -		$ -	-	$ -
.03 Accessibility	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Regulated Materials	0.005		$ -		$ -		$ -		$ -	-	$ -
Subtotal Safety/Functional			$ -				$ -		$ -	-	$ -
400.00 Interior Finishes											
.01 Ceilings	0.000		$ -		$ -		$ -		$ -	-	$ -
.02 Int. Doors & Hardware	0.005		$ -		$ -		$ -		$ -	-	$ -
.03 Floor Finishes	0.010		$ -		$ -		$ -		$ -	-	$ -
.04 Wall Finishes	0.005		$ -		$ -		$ -		$ -	-	$ -
.05 Specialties	0.015		$ -		$ -		$ -		$ -	-	$ -
Subtotal Interior Finishes			$ -		$ -		$ -		$ -	-	$ -
500.00 Site Issues											
.01 Parking/Roads	0.025		$ -	100	$ 2,400		$ -		$ -	2.5	$ 2,400
.02 Landscaping	0.002		$ -		$ -		$ -		$ -	-	$ -
.03 Site Lighting	0.010		$ -	50	$ 480		$ -		$ -	0.5	$ 480
.04 Utility Infrastructure	0.010		$ -		$ -		$ -		$ -	-	$ -
Subtotal Site Issues			$ -		$ 2,880		$ -		$ -	3.0	$ 2,880
Total all Building Components			$ 43,488		$ 5,376		$ -		$ -	50.9	$ 48,864

Truck Storage #9

Condition Index: 24.3
Assessment: Fair Condition

This Truck Storage building is of pole barn construction and has no foundation or floor slab. The siding is metal panel without insulation and some have been dented by equipment. In general the walls and roofing are in good shape. The overhead door was in good shape as well.

There is no heating or ventilation in the building so trucks need to be heated up before operation. Being a soil floor, there is no floor drainage for melting now or cleaning activities. A trench drain and oil/water separator should be provided to separate oils and sediments prior to sanitary line discharge.

The entry approaches need concrete aprons to sustain the heavy truck turning activity.
Around the building paving is need to control stormwater and sediment (salts) runoff control and with current DNR regulations this would need to be brought into compliance.

Gross Area: 10,140 sf **Current Replacement Value:** $811,200
Year Built: 1980 **Occupancy:** Vehicle Storage

Corrective Maintenance Issues

100.00 Primary Structure & Enclosure
C Replace overhead doors
C Insulate metal panels and roofing
C Pave flooring, install trench drain, oil water separator

200.00 Service Systems
B Provide unit heaters to reach 55’ inside
B Provide an exterior light and one interior light. Run power line to building
B Provide ceiling fan to keep air moving
B Replace light fixtures with LED’s

300.00 Life Safety & Functional Standards
No maintenance issues

400.00 Interior Finishes
No maintenance issues.

500.00 Site Issues

B Pave area around building, provide structured apron at overhead doors so heavy vehicles can be sustained.
B Provide engineered and structured stormwater system

Truck Storage #9

Facility Condition Audit

Building Name:	**Truck Storage #9**	Built:	1980
Gross Area:	10,140 sf	Type of Construction:	Wood Pole Barn with Metal Panel
Approx. cost/sf:	$ 80.00	Occupancy:	Truck Storage, Not heated
Replacement Value:	$ 811,200	Date of FCA	March, 2016

Building Component	Component Weight	Priority A		Priority B		Priority C		Priority D		Total	
		Repair Factor	Budget Allocation	Repair Factor	Budget Allocation	Repair Factor	Budget Allocation	Repair Factor	Budget Allocation	Condition Index	Budget Allocation
100.00 Primary Structure & Enclosure Systems											
.01 Foundations	0.180		$ -		$ -	30	$ 43,805		$ -	5.4	$ 43,805
.02 Superstructure	0.150		$ -		$ -		$ -		$ -	-	$ -
.03 Roof System	0.140		$ -		$ -	20	$ 22,714		$ -	2.8	$ 22,714
.04 Exterior Walls	0.170		$ -		$ -	30	$ 41,371		$ -	5.1	$ 41,371
.05 Windows/Doors	0.040		$ -		$ -	60	$ 19,469		$ -	2.4	$ 19,469
Subtotal Primary Structure			$ -		$ -		$ 127,358		$ -	15.7	$ 127,358
200.00 Service Systems											
.01 Plumbing System	0.027		$ -		$ -		$ -		$ -	-	$ -
.02 HVAC System	0.130		$ -	25	$ 26,364		$ -		$ -	3.3	$ 26,364
.03 Electrical Distribution	0.005		$ -	60	$ 2,434		$ -		$ -	0.3	$ 2,434
.04 Lighting/Power Systems	0.060		$ -	30	$ 14,602		$ -		$ -	1.8	$ 14,602
.05 Tel/Data/Security Systems	0.015		$ -		$ -		$ -		$ -	-	$ -
.06 Conveying System	0.000		$ -		$ -		$ -		$ -	-	$ -
Subtotal Service System			$ -		$ 43,399		$ -		$ -	5.4	$ 43,399
300.00 Safety & Functional Standards											
.01 Fire Protection & Safety	0.005		$ -		$ -		$ -		$ -	-	$ -
.02 Egress System	0.005		$ -		$ -		$ -		$ -	-	$ -
.03 Accessibility	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Regulated Materials	0.005		$ -		$ -		$ -		$ -	-	$ -
Subtotal Safety/Functional			$ -				$ -		$ -	-	$ -
400.00 Interior Finishes											
.01 Ceilings	0.000		$ -		$ -		$ -		$ -	-	$ -
.02 Int. Doors & Hardware	0.005		$ -		$ -		$ -		$ -	-	$ -
.03 Floor Finishes	0.010		$ -		$ -		$ -		$ -	-	$ -
.04 Wall Finishes	0.005		$ -		$ -		$ -		$ -	-	$ -
.05 Specialties	0.015		$ -		$ -		$ -		$ -	-	$ -
Subtotal Interior Finishes			$ -		$ -		$ -		$ -	-	$ -
500.00 Site Issues											
.01 Parking/Roads	0.025		$ -	90	$ 18,252		$ -		$ -	2.3	$ 18,252
.02 Landscaping	0.002		$ -		$ -		$ -		$ -	-	$ -
.03 Site Lighting	0.010		$ -		$ -		$ -		$ -	-	$ -
.04 Utility Infrastructure	0.010		$ -	100	$ 8,112		$ -		$ -	1.0	$ 8,112
Subtotal Site Issues			$ -		$ 26,364		$ -		$ -	3.3	$ 26,364
Total all Building Components			$ -		$ 69,763		$ 127,358		$ -	24.3	$ 197,122

State Salt Dome #10

Condition Index: 16.5
Assessment: Good Condition

The State Salt dome is in good condition and needs minor to moderate maintenance. The foundation ring and the arched wood structure are in good shape. The most extensive repairs will be replacing asphalt shingles and repairing the ferrous overhead door tracks as needed with age. At one side of the door, the concrete wall is deteriorating and needs a steel corner guard. With the maintenance activities listed below undertaken, the salt sheds can continue to serve the county well for the storage of salt.

The Dome houses 4500 tons of salt and is fed by a conveyor.

The siting of the Dome is located very close to the rear property line and as such many implements are stored between the structure and the fence line, making for a crowded perimeter. In additions, there is no paving nor stormwater control so salt and soils from the Stockpile runoff directly to the RR property. There is a drainage swale on the east side of the property line and makeshift drainage structures have been erected but they appear to lack neither engineering nor compliance.

Gross Area: 6,360 sf **Current Replacement Value:** $240,000
Year Built: 1980 **Occupancy:** Salt storage

Corrective Maintenance Issues

100.00 Primary Structure & Enclosure
- B Install cornerguard at foundation ring and overhead door.
- D Replace asphalt shingle roof

200.00 Service Systems
None

300.00 Life Safety & Functional Standards
None

400.00 Interior Finishes
No interior finishes present.

500.00 Site Issues

B Pave area surrounding Dome, provide apron at overhead door
B Provide engineered stormwater system

State Salt Dome #10

Facility Condition Audit

Building Name:	**State Salt Shed #10**	Built:	1980
Gross Area:	1,200 sf	Type of Construction:	Timber Pole Barn, Wood siding
Approx. cost/sf:	$ 200.00	Occupancy:	Salt Storage Shed
Replacement Value:	$ 240,000	Date of FCA	March, 2016

Building Component	Component Weight	Priority A Repair Factor	Priority A Budget Allocation	Priority B Repair Factor	Priority B Budget Allocation	Priority C Repair Factor	Priority C Budget Allocation	Priority D Repair Factor	Priority D Budget Allocation	Total Condition Index	Total Budget Allocation
100.00 Primary Structure & Enclosure Systems											
.01 Foundations	0.180		$ -	10	$ 4,320		$ -		$ -	1.8	$ 4,320
.02 Superstructure	0.150		$ -		$ -		$ -		$ -	-	$ -
.03 Roof System	0.140		$ -		$ -		$ -	80	$ 26,880	11.2	$ 26,880
.04 Exterior Walls	0.170		$ -		$ -		$ -		$ -	-	$ -
.05 Windows/Doors	0.040		$ -		$ -		$ -		$ -	-	$ -
Subtotal Primary Structure			$ -		$ 4,320		$ -		$ 26,880	13.0	$ 31,200
200.00 Service Systems											
.01 Plumbing System	0.027		$ -		$ -		$ -		$ -	-	$ -
.02 HVAC System	0.130		$ -		$ -		$ -		$ -	-	$ -
.03 Electrical Distribution	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Lighting/Power Systems	0.060		$ -		$ -		$ -		$ -	-	$ -
.05 Tel/Data/Security Systems	0.015		$ -		$ -		$ -		$ -	-	$ -
.06 Conveying System	0.000		$ -		$ -		$ -		$ -	-	$ -
Subtotal Service System			$ -		$ -		$ -		$ -	-	$ -
300.00 Safety & Functional Standards											
.01 Fire Protection & Safety	0.005		$ -		$ -		$ -		$ -	-	$ -
.02 Egress System	0.005		$ -		$ -		$ -		$ -	-	$ -
.03 Accessibility	0.005		$ -		$ -		$ -		$ -	-	$ -
.04 Regulated Materials	0.005		$ -		$ -		$ -		$ -	-	$ -
Subtotal Safety/Functional			$ -				$ -		$ -	-	$ -
400.00 Interior Finishes											
.01 Ceilings	0.000		$ -		$ -		$ -		$ -	-	$ -
.02 Int. Doors & Hardware	0.005		$ -		$ -		$ -		$ -	-	$ -
.03 Floor Finishes	0.010		$ -		$ -		$ -		$ -	-	$ -
.04 Wall Finishes	0.005		$ -		$ -		$ -		$ -	-	$ -
.05 Specialties	0.015		$ -		$ -		$ -		$ -	-	$ -
Subtotal Interior Finishes			$ -		$ -		$ -		$ -	-	$ -
500.00 Site Issues											
.01 Parking/Roads	0.025		$ -	100	$ 6,000		$ -		$ -	2.5	$ 6,000
.02 Landscaping	0.002		$ -		$ -		$ -		$ -	-	$ -
.03 Site Lighting	0.010		$ -		$ -		$ -		$ -	-	$ -
.04 Utility Infrastructure	0.010		$ -	100	$ 2,400		$ -		$ -	1.0	$ 2,400
Subtotal Site Issues			$ -		$ 8,400		$ -		$ -	3.5	$ 8,400
Total all Building Components			$ -		$ 12,720		$ -		$ 26,880	16.5	$ 39,600

Site Facilities

Within the 12-acre site there are ten building structures and various support facilities. While these are not building facilities, they are essential for the function of the Shop. Many of these items will require some improvements over the next 10 years and should be considered in the full facilities condition assessment.

If the Spooner Street site is redeveloped where buildings are expanded or reconstructed, then the current City of Altoona Planning and Zoning ordinances will kick in. As the current Shop was built prior to these ordinances, redevelopment will be imposing significant spatial and civil requirements on the new design. These will definitely result in great setbacks, more paving, more landscaping, distinct parking lots and a landscape buffer along the Spooner Street.

The Yard facilities description and facility assessment are as follows:

1. Fueling Station – Diesel, tank above grade with one dispenser set, located in the middle of the Yard. In good working condition.
2. Fueling Station #2 – Unleaded gas, for non-Patrol related vehicles. Located on edge of security fence. In good condition.
3. Patrol Truck Parking Stalls. These are mainly located alongside the truck Storage #9 and electric hookups for engine heaters are provided. The trucks show advanced and accelerated deterioration of finishes and stiffening of joints. Moreover, in the winter, the trucks take time to warm up and need to be shoveled off of snow. This parking area should be replaced with a structured parking garage.
4. Truck Wash-down. This is located outside the Truck Wash Bay but in planning terms this should be a specific site facility. Provide a concrete apron with a catch basin and separation system.
5. Water filling dispenser. Located next to the Sign Storage. Good condition.
6. Bed Activator dispenser. Located next the Diesel Fuel Station. Good condition.

7. Stockpiles. Various piles ranging from sand/salt, cold patch, gravels. Requires sufficient area for truck loading and surfaces that control sediment runoff. The area is tight for circulation and insufficient for the volume of storage required. Provide engineered fill and gravel topping and increase for truck loading.
8. Stockpile Bins. The one bin is insufficient in size and needs shelter. Provide larger structured bins with a canopy or lean-to.
9. Frame & Plow Storage. Storing these items is accelerating corrosion and paint loss. Currently these are stored along the perimeter of the fence and are a poor method for inventory control. Provide indoor storage area, could be placed on industrial shelving.
10. Culverts. The storage is insufficient in size, particular the larger concrete pipes. Need structured soil to support concrete pipes. Provide larger area on asphalt or gravel.
11. Sign posts and heavy lumber. These are currently stored outside along the fence. The sun and weather dries out and warps the lumber. Also a poor method of inventory control. Provide indoor storage area.
12. Personnel Parking Stalls. Employees and visitors park along the street-facing side of the property and directly up against the buildings. Immediately behind the back-up area of the parking stalls is the property line. Meaning that if the site was redeveloped the City of Altoona will likely required that the proper ROW facilities be established; 5' grass strip, 5' sidewalk, 5' grass strip and then a setback for where the parking lot can begin. Adding these in will effectively eliminate the Personnel Parking area and require that a zoning compliant parking lot be placed within the Yard. It will be difficult to fit in ADA parking stalls so visitors/personnel can access the Administration offices. Provide a new asphalt parking lot that is compliant with zoning and ADA regulations.
13. Yard Access Drives. The two access curb –cuts off Spooner are compliant and in good condition. If, however, the parking is eliminated, the access drives will need to be modified. The curb-cuts are also both just off center from the City streets across the way. Further redevelopment of the site would likely move these curb-cuts to be in line

with the City streets. In good condition but if site redeveloped, considering realigning.

14. Site Paving and Circulation. While the front third of the Yard is paved, the back portion is a mix of deteriorated asphalt, gravel and soil. There is considerable tire rutting, ponding, and sediment wash and poorly defined storage areas. Major circulation routes, loading areas and washing areas should be paved with heavy duty asphalt courses.
15. Stormwater facilities. All stormwater is handled via on-surface drainage ways. The water flows toward the north, (RR land) but also some flows toward the City Fire/Police Station. There is a major swale just outside the property line with the Police/Fire Station and a visual walk-through noted a lot of debris and sediment flowing offsite. On the north side, there are two drainage swales that have been calculated in size but their construction is to regulation standards. In general, if the site was redeveloped, a whole new stormwater system, involving below collection and with above grade detention/treatment would be needed.
16. Perimeter Security Fence. This surrounds the entire Yard except the Personnel Parking lot it is in good order.
17. Site lighting. Observation of the Yard at night was not made.
18. Site Signage. No structured yard signage exists.
19. Flagpole. None exists. Most governmental facilities have one to help citizens recognize its function.
20. Landscaping. No ornamental or screening landscaping exists. Typically, when a site is redeveloped, cities will require some level of screening and tree planting.

SECTION 6
5-Year Capital Plan Review

This study effort concluded that a $3,292,067 investment over five years is necessary to maintain the Altoona complex as is and in working order. With the replacement value of the current buildings being at $7, 218,330, the repair investment is 45.6 percent of this replacement value.

While the County's internal analysis from 2015 concluded an investment of $1,360, 000, the architect/engineer team of Barrientos Design and Ayres concluded a higher cost primarily due to these factors:

1. Building code violations were identified that need rectification
2. Stormwater management system and the paving around the buildings need to be incorporated into the repairs.
3. Structural repairs to the 1964 building's pre-cast system.

Following this section are excerpts of the County study from 2015 for reference.

Based on this $3.3 million capital outlay, our Facilities Condition Assessment prioritized the costs based on items needing immediate repair to those that could be implemented in a few years, such as code violations. As such, the capital outlay for repairing the Altoona Shop would be as follows:

2017	Priority A items	$1,789,870
2018	Priority B items	$568,106
2019	Priority C items	$294,486
2020, 21	Priority D items	$639,606
Total Capital Outlay		$3,292,067

Merit of Investments

The Architect of this study, Barrientos Design, does not recommend the County continue to invest further monies into this complex. Particularly the buildings that are pre-1960 or

those that were built with minimal cost investment in the first place, such as the Salt Sheds. The following is a breakdown by building and our recommendation to repair or demolish:

Building #1, Shop & Administration: Repair and reuse. Generally the structural and foundation are in good condition and thus merits renovation or reuse for other Garage functions. The building though has the inherent deficiencies of minimal insulation and vapor/water barriers systems in the walls and that should be addressed with future renovations

Building #2, Parking Garage: demolish. Being built in the 1910's the level of wall deterioration has far exceeded the ability to reasonably repair them. The floor slab and drainage is also need of repair and the ventilation system needs upgrades.

Building #3, Storage Garage: demolish. Also built 100 years ago, this building requires significant architectural and mechanical repairs to become safe, efficient and code compliant.

Building #4, Sign Shop: demolish. The oldest building on site and well over 100 years old, this was constructed as a residence and small office for a stockyard. The wood-frame, residential style construction and sizing is not suited for Highway Shop operations.

Building #5, Cold Storage Shed: demolish. This was built as a salt shed initially but has since deteriorated too much to house salt without water leaking in. It is now just used for items needing nominal weather protection.

Building #6 State Salt Shed: demolish. Wood structure pole barn style structure that is deflecting outward from salt load.

Building #7 State Salt Shed: demolish. Wood structure pole barn style structure that is deflecting outward from salt load.

Building #8 County Salt Shed: demolish. Wood structure pole barn style structure that is deflecting outward from salt load.

Building #9 Cold Storage: repair, maintain. Being a basic pole barn with metal siding the building can still be used for cold storage for another 20 years.

Building #10 Salt Dome: repair and maintain. The foundation needs some minor repairs and the roof will need the shingles

replaced but otherwise the structure is in good shape for maintaining.

The above recommendations are solely based on the cost of maintaining the buildings and their facility condition assessment. This does not take into account the sizing, relationships and features of the buildings and how effectively they meet the Highway Department's facility needs currently and twenty years out. This is addressed in the following sections.

STRUCTURE	Existing SF	FC Index	Repair Costs	Recommended Potential
Administration #1	6,400	43.7	$ 531,295	Repair & Reuse
Repair #1	11,987	42.7	$ 716,734	Repair & Reuse
Parking Garage #2	13,361	56.6	$ 831,121	Demolish
Warm Storage #3	7,460	73.5	$ 603,141	Demolish
Sign Shop #4	2,592	17.1	$ 64,193	Demolish
Cold Storage 1 #5	1,100	50.9	$ 44,792	Demolish
Salt Storage - State #6	2,520	50.9	$ 89,788	Demolish
Salt Storage - State #7	3,520	50.9	$ 125,418	Demolish
Salt Storage - County #8	1,200	50.9	$ 46,864	Demolish
Cold Storage 2 #9	10,140	24.3	$ 197,122	Repair & Maintain
Salt Dome #10	6,360	16.5	$ 39,600	Repair & Maintain
Grand Totals	**66,640**		**$ 3,292,067**	

DEPARTMENTS DOCUMENTATION

Highway Department Narrative:

The Highway Department consists of a main office located in Altoona since the early 1900s, and two satellite facilities, one in Augusta and one in Foster, which have been in operation since the mid to late 1950's. With the current age, size, and condition of all of the highways facilities, the approach to maintenance, due to a shortage of funds, has been reactive rather than proactive. Of all the facility locations, the Altoona facility has the largest need for substantial repairs, upgrades, and improvements. Foster and Augusta facilities are in need of minor repairs and maintenance. The estimated five-year repair cost to the shell and HVAC of the facilities is estimated at $1,360,000 for Altoona, $26,000 for Augusta and $14,000 for Foster. In the next ten years the estimated repair and maintenance costs are $1,590,000. The repairs range from roof and wall repairs to the complete replacement of a salt shed. In addition to all needed repairs, upgrades, and improvements, Altoona's facilities size and layout do not allow for the department to efficiently perform day-to-day operations. The inefficiency of the facilities will continue to be an issue even if the repairs are made. Inadequate employee work space is causing staff to share the same space. The lack of inside and outside storage space has restricted the department's ability to purchase supplies in large quanities, thereby resulting in higher costs. The Highway Departmet has 143 major pieces of equipment that should be shore inside and out of inclement weather. On average the department stores 66 pieces of this equipment outside due to the lack of space resulting in the premature degradation of equipment and higher maintenance costs.

Eau Claire County Highway Department
10-Year Facilities Analysis

Building Name and Address	Building Specifications	Current Insurance Building Replacement Value	Current Insurance Content Replacement Value	Estimated Shell Repair Cost	Estimated Shell Replacement Cost
Office & Shop #1 ***2000 Spooner Ave*** ***Altoona WI***	Floors 1 Square Ft. 18,387 Built 1,967	$ 2,113,776	$ 304,896	$ 491,600 **cost per square foot**	$ 2,666,115 $ 145

Ten-Year Capital Plan	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	$ -	$ -	$ 276,000	$ 117,600	$ 98,000	$ -	$ -	$ -	$ -	$ -

Current Condition:

The facility is in need of extensive exterior and interior repairs from the cracks in the walls to the HVAC/ventilation systems.

Areas that Currently Meets Needs:

This facility provides enough room for up to nine pieces of equipment in the shop for repairs at one time.

Area that Currently Do Not Meet Needs:

Office space is congested and does not provide space to efficiently perform day-to-day operations. Shop space is limited and does not provide adequate area to perform efficient and productive equipment repairs. There is a one-stall women's restroom in the building that is not adequate for the number of female employees and the public. With no breakroom in this facility, employees take breaks at their desks or in the shop area. There is a men's locker room attached to the men's restroom. The yard does not allow enough material storage.

Truck Storage #2 ***2000 Spooner Ave*** ***Altoona WI***	Floors 1 Square Ft. 13,361 Built 1913 est. Warm Storage	$ 734,416	$ 158,996	$ 278,790 **cost per square foot**	$ 1,937,345 $ 145

Ten-Year Capital Plan	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	$ -	$ 229,000	$ -	$ -	$ 49,790	$ -	$ -	$ -	$ -	$ -

Current Condition:

The facility is in need of extensive exterior and interior repairs from the cracks in the walls to the HVAC/ventilation systems.

Areas that Currently Meets Needs:

This facility provides enough space to houses 15 to 17 pieces of equipment, a small sign inventory, chainsaws, and a minor parts inventory.

Area that Currently Do Not Meet Needs:

This facility is limited on the amount of space to store equipment. Women's and men's lockers are co-located in this open area. There is a single stall uni-sex restroom in this building.

Warm Storage #3 ***2000 Spooner Ave*** ***Altoona WI***	Floors 2 Square Ft. 7,460 Built 1913 est.	$ 383,083	$ 88,743	$ 295,830 **cost per square foot**	$ 1,081,700 $ 145

Ten-Year Capital Plan	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	$ 159,000	$ -	$ -	$ 91,000	$ 45,830	$ -	$ -	$ -	$ -	$ -

Current Condition:

This facility is in need of extensive exterior and interior repairs to the cracks in the walls to the HVAC/ventilation systems.

Areas that Currently Meets Needs:

This facility provide enough space to house four pieces of equipment, salt brine and construction equipment and supplies, tire storage, and a small second floor storage for construction supplies and miscellaneous parts.

Area that Currently Do Not Meet Needs:

This facility houses Altoona's only pressure washer that is used outside in the winter months due to a lack of inside space. It needs to be upgraded to meet current requirements. There is no room to expand the salt brine system as needs increase. There is a single stall uni-sex restroom with a few lockers in this building.

Sign Shop #4 ***2000 Spooner Ave*** ***Altoona WI***	Floors 1 Square Ft. 2,592 Built 1910 est.	$ 154,225	$ 75,831	$ 6,200 **cost per square foot**	$ 375,840 $ 145

Ten-Year Capital Plan	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	$ -	$ -	$ -	$ -	$ 4,200	$ -	$ -	$ 2,000	$ -	$ -

Building Name and Address	Building Specifications	Current Insurance Building Replacement Value	Current Insurance Content Replacement Value	Estimated Shell Repair Cost	Estimated Shell Replacement Cost
Current Condition: This facility has had recent updates and only requires minor repairs at this time. ***Areas that Currently Meets Needs:*** This facility currently does not meet the needs of the department. ***Area that Currently Do Not Meet Needs:*** This facility lacks storage, preventing large quantity purchases driving costs up. Our staff is forced to store roads signs and supplies in the basement in order to protect them from the environment. There are safety concerns with the narrow winding stairway. There is no a functional restroom or lockers in the facility.					
Storage Shed #5 ***2000 Spooner Ave*** ***Altoona WI***	Floors 1 Square Ft. 1,100 Built 1960 est.	$ 61,197	$ 3,168	$ 16,000 **cost per square foot**	$ 159,500 $ 145

Ten-Year Capital Plan	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	$ -	$ -	$ -	$ -	$ -	$ 16,000	$ -	$ -	$ -	$ -

Current Condition: This facility is an old salt shed that requires repairs. ***Areas that Currently Meets Needs:*** This facility is utilized for sign storage, minor equipment, and construction supplies ***Area that Currently Do Not Meet Needs:*** The size of this facility requires that supplies are not ordered in large quantities which increases costs.					
State Salt Shed #6 ***2000 Spooner Ave*** ***Altoona WI***	Floors 1 Square Ft. 2,520 Built 1,980	$ 102,332	$ 6,557	$ 291,300 **cost per square foot**	$ 289,800 $ 115

Ten-Year Capital Plan	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	$ 289,800	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,500	$ -	$ -

Current Condition: This facility is in need of complete replacement as recommended by Market & Johnson. It has a lean-to that is used to store landscaping supplies. ***Areas that Currently Meets Needs:*** It houses up to 1100 tons of State salt. ***Area that Currently Do Not Meet Needs:*** The size of this facility requires that supplies are not ordered in large quantities which increases costs. We have products that need to be store inside.					
State Salt Shed #7 ***2000 Spooner Ave*** ***Altoona WI***	Floors 1 Square Ft. 3,520 Built 1,980	$ 124,634	$ 7,810	$ 32,400 **cost per square foot**	$ 404,800 $ 115

Ten-Year Capital Plan	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,400	$ 5,500	$ -	$ 1,500

Current Condition: This facility is in need of extensive exterior and interior repairs and upgrades. The walls are pushing outwards to the point where you can see outside through the corners if the building. ***Areas that Currently Meets Needs:*** It houses up to 1800 tons of State salt. ***Area that Currently Do Not Meet Needs:*** The size of this facility requires that supplies are not ordered in large quantities which increases costs. We have products that need to be store inside.					
Co. Salt Shed #8 ***2000 Spooner Ave*** ***Altoona WI***	Floors 1 Square Ft. 1,200 Built 1980 est.	$ 86,590	$ 3,419	$ 8,000 **cost per square foot**	$ 138,000 $ 115

Ten-Year Capital Plan	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,000	$ -	$ -	$ -

Building Name and Address	Building Specifications	Current Insurance Building Replacement Value	Current Insurance Content Replacement Value	Estimated Shell Repair Cost	Estimated Shell Replacement Cost
Current Condition: This facility is in need of exterior and interior repairs and upgrades. The walls are pushing outwards to the point where you can see outside through the corners of the building. ***Areas that Currently Meets Needs:*** It houses up to 500 tons of County salt. ***Area that Currently Do Not Meet Needs:*** The size of this facility requires that supplies are not ordered in large quantities which increases costs. We have product that needs to be stored inside.					
Truck Storage #9 ***2000 Spooner Ave*** ***Altoona WI***	Floors 1 Square Ft. 10,140 Built 1980 est. Cold Storage	$ 379,449	$ 122,019	$ -	$ 719,940 **cost per square foot** $ 71
Ten-Year Capital Plan	**2016** $ -	**2017** $ -	**2018** $ -	**2019** $ -	**2020** $ -
	2021 $ -	**2022** $ -	**2023** $ -	**2024** $ -	**2025** $ -
Current Condition: Currently there are no immediate repair needs. ***Areas that Currently Meets Needs:*** The facility currently houses several pieces of equipment, tools, and landscaping materials. ***Area that Currently Do Not Meet Needs:*** This facility is limited on the amount of space to store equipment, tools and supplies. We are unable to use this building to melt snow and ice off trucks and equipment for needed/required inspections.					
State Salt Dome ***2000 Spooner Ave*** ***Altoona WI***	Floors 1 Square Ft. 6,360 Built 1980 est.	$ 477,056	$ 17,125	$ -	$ 922,200 **cost per square foot** $ 145
Ten-Year Capital Plan	**2016** $ -	**2017** $ -	**2018** $ -	**2019** $ -	**2020** $ -
	2021 $ -	**2022** $ -	**2023** $ -	**2024** $ -	**2025** $ -
Current Condition: Currently there are no immediate repair needs. ***Areas that Currently Meets Needs:*** This facility currently houses 4500 tons of salt. ***Area that Currently Do Not Meet Needs:*** The facility is adequate at this time.					
Office & Shop ***513 E Grant St*** ***Augusta WI***	Floors 2 Square Ft. 8,000 Built 1,954	$ 1,072,766	$ 230,124	$ 128,000	$ 1,160,000 **cost per square foot** $ 145
Ten-Year Capital Plan	**2016** $ -	**2017** $ -	**2018** $ 26,000	**2019** $ -	**2020** $ -
	2021 $ 83,500	**2022** $ 1,500	**2023** $ -	**2024** $ 7,000	**2025** $ 10,000
Current Condition: The facility is in need of exterior and interior repairs to include insulation separating from the ceiling to the HVAC/ventilation system. ***Areas that Currently Meets Needs:*** The facility provides enough space to house nine pieces of equipment and other supplies. It has a small parts rooms, office, single-stall women's restroom, men's restroom with lockers, and a second floor storage area in a small area of the shop. ***Area that Currently Do Not Meet Needs:*** Additional equipment and supply storage is needed. There is no women's locker room in this building. The yard does not allow for enough product storage.					
State Salt Shed ***513 E Grant St*** ***Augusta WI***	Floors 1 Square Ft. 1,456 Built 1980 est.	$ 52,346	$ 4,035	$ 1,500	$ 167,440 **cost per square foot** $ 115
Ten-Year Capital Plan	**2016** $ -	**2017** $ -	**2018** $ -	**2019** $ -	**2020** $ -
	2021 $ -	**2022** $ 1,500	**2023** $ -	**2024** $ -	**2025** $ -

Building Name and Address	Building Specifications	Current Insurance Building Replacement Value	Current Insurance Content Replacement Value	Estimated Shell Repair Cost	Estimated Shell Replacement Cost
Current Condition:					
This facility is in need of exterior and interior repairs and upgrades. The walls are pushing outward. It has lean-to use to store landscaping supplies.					
Areas that Currently Meets Needs:					
The facility currently does not meet the needs of the department.					
Area that Currently Do Not Meet Needs:					
The size of this facility requires that supplies are not ordered in large quantity which increases costs. We have product that needs to be store inside.					
Office & Shop *CTH HH/Wren Dr.* *Foster WI*	Floors 1 Square Ft. 7,160 Built 1,958	$ 658,388	$ 212,546	$ 31,700	$ 1,038,200 **cost per square foot** $ 145

Ten-Year Capital Plan	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	$ -	$ -	$ -	$ -	$ 5,000	$ 16,700	$ -	$ 10,000	$ -	$ -

Current Condition:					
The facility is in need of exterior and interior repairs including HVAC/ventilation systems.					
Areas that Currently Meets Needs:					
This facility provides enough space to house seven to nine pieces of equipment and other supplies. It has an office and uni-sex restroom.					
Area that Currently Do Not Meet Needs:					
Additional equipment and supply storage is needed. It has a very small parts room.					
State Salt Shed *CTH HH/Wren Dr.* *Foster WI*	Floors 1 Square Ft. 1,800 Built 1970 est.	$ 71,743	$ 4,475	$ 10,500	$ 207,000 **cost per square foot** $ 115

Ten-Year Capital Plan	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	$ 9,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,500

Current Condition:					
This facility is in need of exterior and interior repairs and upgrades. The walls are pushing outwards.					
Areas that Currently Meets Needs:					
This facility currently does not meet the needs of the department.					
Area that Currently Do Not Meet Needs:					
The size of the facility requires that supplies are not ordered in large quantities which increases costs. We have product that should be stored inside.					

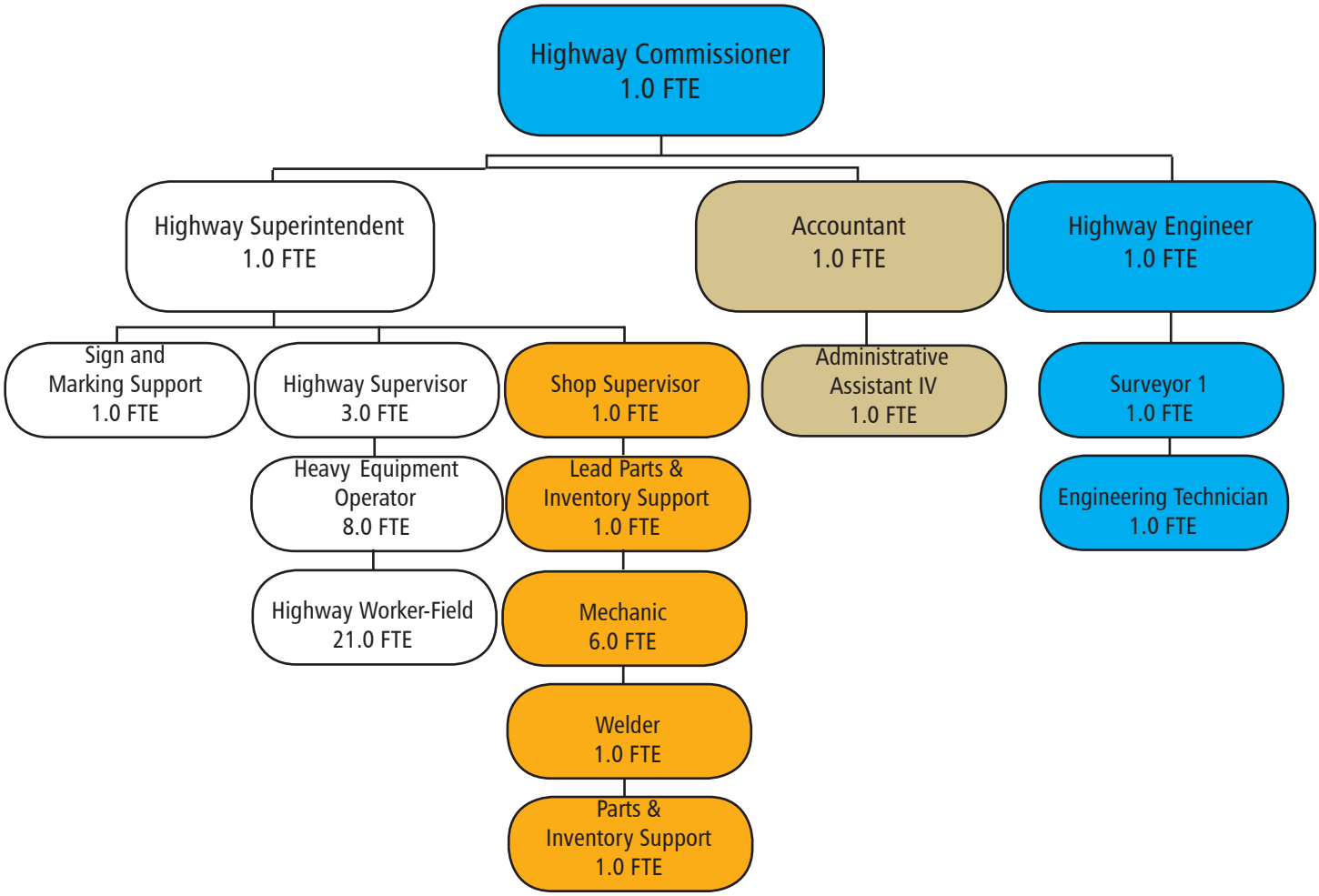
	Current Insurance Building Replacement Value	Current Insurance Content Replacement Value	Estimated Shell Repair Cost	Estimated Shell Replacement Cost
	$ 6,472,001	$ 1,239,744	$ 1,591,820	$ 11,267,880

Ten-Year Capital Plan	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	$ 457,800	$ 229,000	$ 302,000	$ 208,600	$ 202,820	$ 116,200	$ 36,400	$ 19,000	$ 7,000	$ 13,000

SECTION 7

Existing Space Composition of Altoona Garage

Staffing Organization

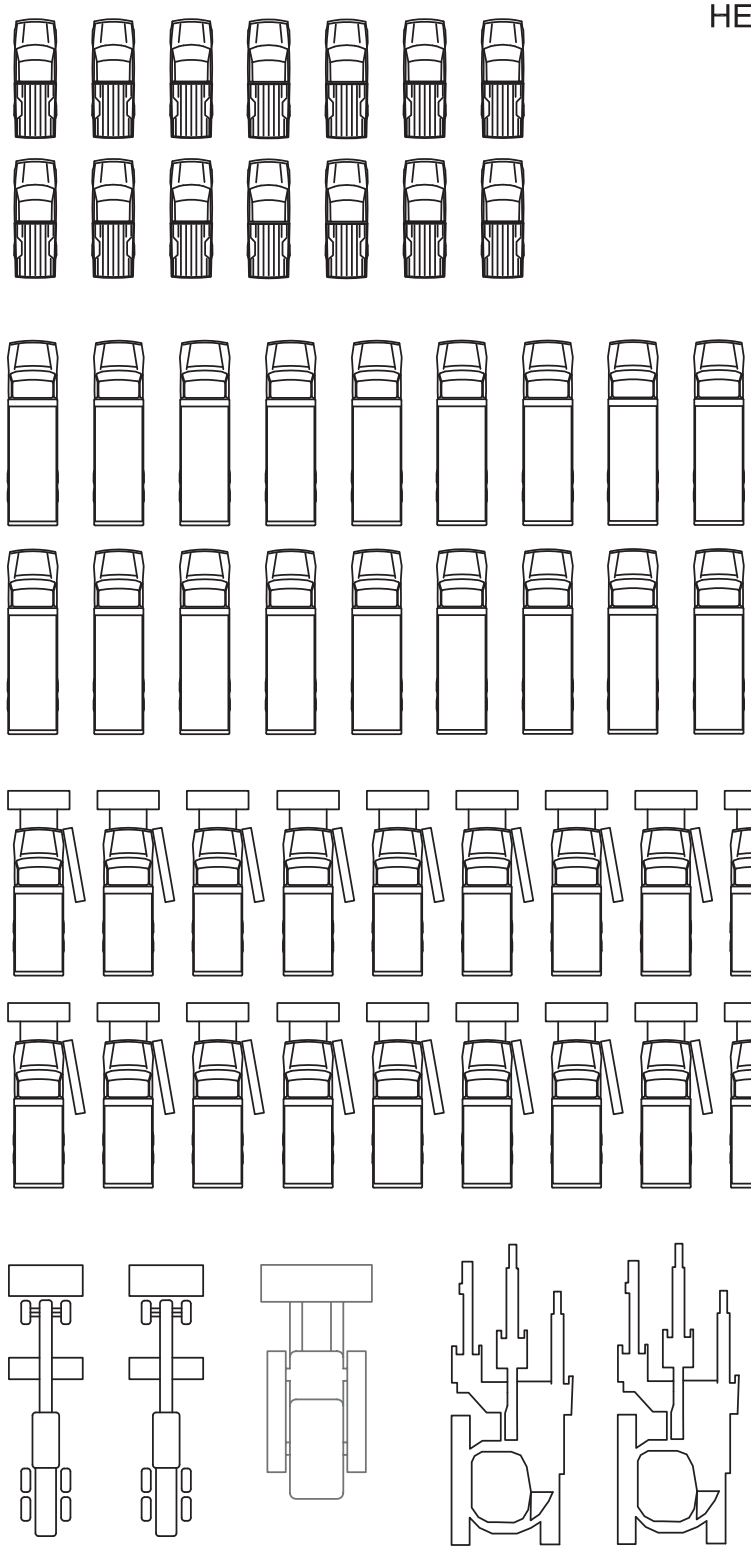


YEAR	2011	2012	2013	2014	2015
FTE	62.00	63.00	62.00	63.00	62.00

Existing Square Footage by Building

STRUCTURE	Existing SF	Year Built
Administration #1	6,400	1964
Repair #1	11,987	1964
Parking Garage #2	13,361	1913
Warm Storage #3	7,460	1913
Sign Shop #4	2,592	1910
Cold Storage 1 #5	1,100	1960
Salt Storage - State #6	2,520	1980
Salt Storage - State #7	3,520	1980
Salt Storage - County #8	1,200	1980
Cold Storage 2 #9	10,140	1980
Salt Dome #10	6,360	1980
Grand Totals	**66,640**	

Fleet Composition



HEATED STORAGE VEHICLES

LIGHT: 14
MEDIUM: 22
HEAVY: 22

SUBTOTAL: 58

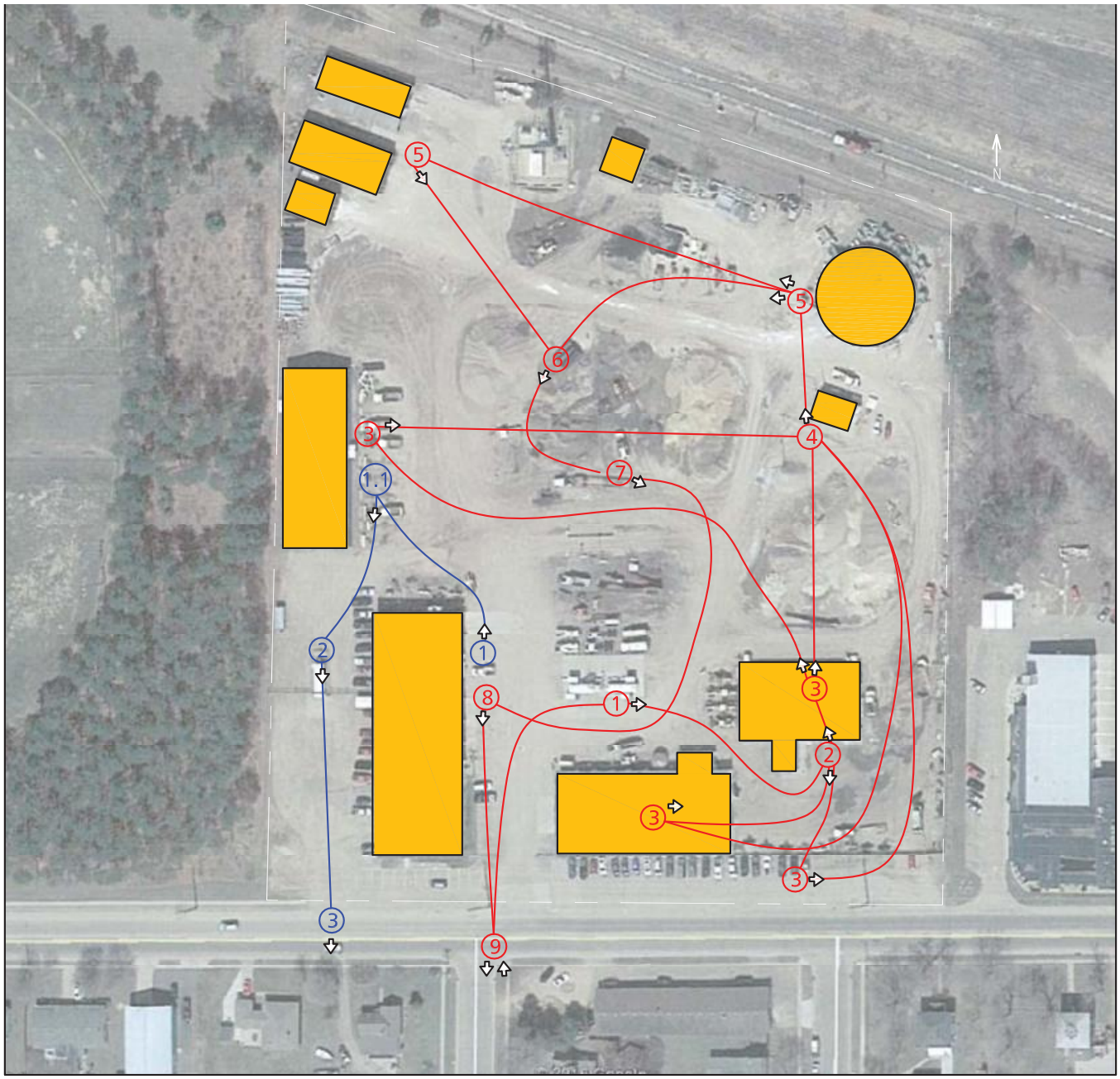
GRADERS: 2

DOZERS: 1

EXCAVATORS: 2

TOTAL: 63

Site Circulation & Traffic Flow



PETROL TRUCK
1. FUEL
2. WASH
3. PARK
4. LOADING-SIGN
5. LOADING-SALT
6. LOADING-STOCKPILE
7. SCALE
8. FIELD EQUIPMENT
9. EXIT

REPAIR
1. REPAIR SHOP
   1.1. PARK
2. FUEL
3. EXIT

Equipment Status and Location

Model	Unit #	Avail	FALL	SPRING	Location	Maintenance and Repairs Required
2008 Cat Loader	203	Yes			Foster	
2006 Case Loader	205	Yes		YES	State	
2012 Volvo Loader	215	Yes		YES	Altoona	
1998 Volvo loader	221	Yes		YES	Altoona	
1996 Case Loader	228	Yes			Augusta	
2011 BobCat	401	Yes			Altoona	
1998 BobCat	402	Yes			Altoona	
2013 Bobcat	409	Yes			Altoona	
2001 Cat Grader	307	NO		YES	Altoona	
2015 Cat Grader	308	Yes		YES	Altoona	
2015 Cat Grader	309	Yes		YES	Augusta	
2001 J/D Dozer	413	Yes		YES	Altoona	PM SERVICE IS DUE
2004 J/D Excavator	435	Yes		YES	Altoona	
2008 Komatsu Exc.	432	Yes		YES	Altoona	
1980 Galion Roller	508	Yes		YES	Altoona	
1995 Rosco Roller	518	Yes			Altoona	
2004 WRT Roller	524	Yes		YES	Altoona	
2004 Hamm Roller	520	Yes		YES	Altoona	
1999 Ingersoll Roller	541	NO		YES	Altoona	Needs Drive pump and roller rubbers
1998 ingersoll Roller	560	Yes		YES	Altoona	
1987 Chip Spreader	590	Yes		YES	Altoona	
1992 Morbark chip	483	Yes	Yes		Altoona	
2011 Vermeer chip	484	Yes	Yes		Augusta	Service due
2009 Vermeer chip	489	Yes	Yes		Altoona	
2005 Woodman chip	493	Yes	Yes	YES	Altoona	
1995 Morbark chip	494	Yes	Yes		Altoona	
2005 Case Tractor	204	Yes			Altoona	
2011 J/D Tractor	218	Yes		YES	Altoona	
2007 J/D Tractor	219	NO			Augusta	WAITING ON HYD VALVE
2006 J/D Tractor	222	Yes			Altoona	
2006 J/D Tractor	223	Yes			Foster	
2006 J/D Tractor	224	Yes			Altoona	
2006 J/D Tractor	225	Yes			Altoona	
2006 J/D Tractor	226	Yes			Augusta	
2002 J/D Mower	555	Yes			Altoona	
2002 J/D Mower	557	Yes			Altoona	
1997 J/D Mower	571	Yes			Altoona	
2008 Kubota Mower	573	Yes			Altoona	
2003 HONDA ATV	406	Yes			Altoona	
1981 DIETZ ARROW	487	Yes			Altoona	
2007 SOLAR TECH	503	Yes			Altoona	
2007 ARROW BOARD	525	Yes		YES	Altoona	LIGHTS INOPERATIVE
2004 WANCO ARROW	527	Yes			Altoona	
1990 FLEX O LITE	532	Yes			Altoona	

2002 SOLAR TECH	536	Yes		YES	Altoona	
2002 SOLAR TECH	537	Yes		YES	Altoona	
2004 SOLAR TECH	538	Yes		YES	Altoona	
2009 ARROW BOARD	563	Yes			Altoona	
2001 ENERGY ABSORP	505	Yes		YES	altoona	
2000 ENERGY ABSORP	506	Yes			Foster	
2004 ENERGY ABSORP	507	Yes			Altoona	
BOBCAT BREAKER	400J	Yes			Altoona	
BOBCAT AUGER	401A	Yes			Altoona	
BOBCAT FENCE INSTAL	401S	Yes			Altoona	
BOBCAT PLANNER	401P	Yes			Altoona	
BOBCAT BROOM	401B	Yes			Altoona	
2012 CRACK SEALER	384	Yes			Altoona	
1982 HADER JACK	534				Altoona	
1982 HADER JACK	535				Altoona	
2011 PACK BLOWER	NC604				Altoona	
2011 PACK BLOWER	NC605				Altoona	
2011 PACK BLOWER	NC606				Altoona	
2011 PACK BLOWER	NC607				Altoona	
1996 JACK HAMMER	412				Altoona	
1997 JACK HAMMER	415				Altoona	
1990 SULLAIR DRILL	486				Altoona	
2008 ATLAS COMPRES	481				Altoona	
1996 I/R COMPRESSOR	485				Altoona	
2010 AIR COMPRESSO	620				Altoona	
2013 CONCRETE SAW	512				Altoona	
2004 CONCRETE SAW	513				Altoona	
2013 CONCRETE SAW	516				Altoona	
2002 DEICE SPRAYER	392				Altoona	
2000 DEICE SPRAYER	394				Altoona	
1992 SALT CONVEYOR	529				Altoona	
1996 STEP DISTRIB.	545				Altoona	
2006 GAS DRILL	NC416				Altoona	
1997 FORKLIFT	436				Altoona	
1997 HONDA GEN	424				Altoona	
1999 HONDA GEN	443				Altoona	
2008 HONDA GEN	473				Altoona	
2005 HONDA GEN	501				Foster	
2005 HONDA GEN	502				Augusta	
1996 HONDA GEN	515				Altoona	
2004 HONDA GEN	NC446				Altoona	
2007 HONDA GEN	NC447				Altoona	
1983 HOT END GATE	547				Altoona	
1983 HOT END GATE	548				Altoona	
2000 HYDRO SEEDER	441				Altoona	
1999 ICE BAN DISP	472				Altoona	
1995 AESCO BOARD	528				Altoona	

1960 CONCRETE MIX	300				Altoona	
2007 MORTAR MIX	301				Altoona	
2007 BOOM MOWER	219R	NO			Augusta	Parts are here , Rick picking up 3-15-16
2003 DIAMOND	417R	Yes			Altoona	
2003 BUSH HOG	453R	Yes			Altoona	
2005 J/D FLAIL	454F	Yes			Altoona	
2012 DISC MOWER	455D	Yes			Altoona	
2007 SCHULTE	456R	Yes			Altoona	
2007 SCHULTE	457R	Yes			Altoona	
2013 SCHULTE	458R	Yes			Foster	
2013 SCHULTE	459R	Yes			Altoona	
2008 LAND PRIDE	574R	Yes			Altoona	
MULCH SPREADER	380				Altoona	
1992 LANCE WAND	556				Altoona	
2007 HOT MIX PATCH	478				Augusta	
2003 BOMAG RECYLE	434	Yes			Altoona	
2007 CRAFCO ROUT	510				Altoona	
2013 KOHLER ROUT	521				Altoona	
2013 PAVE ROUTER	522				Altoona	
2001 CAT PAVER	550	NO	NO	NO	Altoona	AT FABIC
1981 POST DRIVER	491				Altoona	
1993 RHINO DRIVER	514				Altoona	
2007 PRESS WASHER	405				Foster	
1999 SOUIX STEAMER	411				Altoona	
1999 MUDJACK PUMP	410				Altoona	
1994 HONDA PUMP	449				Altoona	
2013 TRASH PUMP	NC440				Altoona	
2010 HONDA TRASH	NC587				Altoona	
2015 KLEEMAN SCR	474	Yes	YES		Altoona	
2001 FINLAY CONVE	499S	Yes	YES		Altoona	
1981 POWER SCREED	490				Altoona	
2007 ADJ PWR SCREED	492				Altoona	
2004 SHOULDERING	482				Altoona	IN SHOP NOW
2007 SNOW BLOWER	418				Altoona	
1998 RECLAIMER	381				Altoona	
2007 RECLAIMER	382	Yes			Altoona	
2014 SPRAYPATCHER	378				Altoona	
2014 SPRAYPATCHER	379				Altoona	
2011 SPRAYPATCHER	383				Altoona	
1996 SWEEPSTER	523				Altoona	
2014 ROAD WIZARD	558			YES	Altoona	
2005 BELLY BROOM	559	NO			Altoona	HYDROSTATIC PUMP
1986 BOMAG TAMP	469				Altoona	
2007 PLATE COMPACT	496				Altoona	
2007 PLATE COMPACT	497				Altoona	
1986 AIR TAMPER	500				Altoona	
1983 WYCO VIRBRAT	552				Altoona	

SPARE PLOW	8-005T				Augusta	
SPARE PLOW	8-788				Augusta	
SPARE PLOW	8-702				Altoona	
SPARE PLOW	8-104				Altoona	
SPARE PLOW	8-121				Altoona	
SPARE PLOW	8-113S				Altoona	
SPARE PLOW	8-715				Altoona	
SPARE PLOW	8-725				Altoona	
SPARE PLOW	8-147				Altoona	
SPARE PLOW	8-002				Altoona	
SPARE PLOW	8-703				Altoona	
SPARE PLOW	8-115				Altoona	
SPARE PLOW	8-003				Altoona	
SPARE PLOW	8-722				Altoona	
SPARE PLOW	8-719				Altoona	
2013 TOW PLOW	8-005T				Altoona	
GRADER V PLOW					Altoona	
GRADER PUSH PLOW					Altoona	
GRADER V PLOW					Augusta	
GRADER PUSH PLOW					Augusta	
2011 TRAILER	439				Altoona	
2003 TRAILER	442				Altoona	
1992 TRAILER	467				Altoona	
1997 TRAILER	526				Altoona	
1989 TRAILER	580				Altoona	
1989 TRAILER	583				Altoona	
2000 TRAILER	584				Altoona	
2000 TRAILER	586				Altoona	
2002 TRAILER	593				Altoona	
2004 TRAILER	595				Altoona	
2008 TRAILER	596				Altoona	
2008 TRAILER	597				Altoona	
2007 TRAILER	598				Altoona	
2005 TRAILER	599				Altoona	
WELDING TRAILER	488				Altoona	

Chain Saw Status and Location

2016 2015 2016

Model	Unit #	Avail	FALL	SPRING	Location	Maintenance and Repairs Required
1992 Brush saw	430	YES			Augusta	
1992 Brush saw	431	YES			Augusta	
1992 STIHL	433	YES		YES	Altoona	
1991 Brush Saw	437	YES			Foster	
2008 STIHL	NC403	YES		YES	Altoona	
2006 W/Eater	NC410	YES			Foster	
2006 W/Eater	NC411	YES			Foster	
2006 W/Eater	NC412				Altoona	
2006 STIHL	NC413	YES		YES	Altoona	
2006 STIHL	NC414	YES			Altoona	
2007 STIHL	NC418	YES		YES	Altoona	
2007 STIHL	NC419	YES		YES	Altoona	
2007 STIHL	NC420				Altoona	
2008 STIHL	NC422	YES		YES	Altoona	
2008 STIHL	NC423	YES		YES	Altoona	
2008 STIHL	NC426	YES		YES	Altoona	
2008 STIHL	NC427	YES		YES	Altoona	
2008 STIHL	NC428	YES		YES	Altoona	
2003 STIHL	NC443				Altoona	
2003 STIHL	NC444	YES			Foster	
2008 STIHL	NC448	YES		YES	Altoona	
2001 BRUSH SAW	NC520	YES		YES	Altoona	
2005 BRUSH SAW	NC521	YES		YES	Altoona	
2005 BRUSH SAW	NC522				Altoona	
2002 STIHL	NC523	YES			Altoona	
2006 LIMB SAW	NC530	YES		YES	Altoona	
STIHL SAW	NC541	YES		YES	Altoona	
1996 STIHL	NC547				Altoona	
2004 STIHL	NC548	YES		YES	Altoona	
1998 STIHL	NC549	YES		YES	Altoona	
1997 STIHL	NC551	NO		JUNK	Altoona	JUNK USING FOR SPARE PARTS
2006 STIHL	NC561	YES		YES	Altoona	
2012 LIMB SAW	NC564	YES			Augusta	
2012 LIMB SAW	NC565				Altoona	
2011 STIHL	NC575	YES			Altoona	
2011 LIMB SAW	NC576				Altoona	
2011 LIMB SAW	NC577	YES			Augusta	
2011 STIHL	NC578	YES		YES	Altoona	
2011 STIHL	NC579	YES			Augusta	
2010 STIHL	NC581	YES		YES	Altoona	
2010 STIHL	NC585	YES		YES	Altoona	
2010 STIHL	NC588	YES		YES	Altoona	
2010 STIHL	NC589	YES		YES	Altoona	

2010 STIHL	NC591	YES		YES	Altoona	
2010 STIHL	NC594	YES			Unit 150	
2003 LIMB SAW	NC601				Altoona	
2011 BLOWER	NC604	YES			Foster	
2011 BLOWER	NC605	YES			Augusta	
2011 BLOWER	NC606	YES		YES	Altoona	
2011 BLOWER	NC607				Altoona	
2013 LIMB SAW	NC608	YES		YES	Altoona	
2013 LIMB SAW	NC609	YES		YES	Altoona	
2013 STIHL	NC610	YES		YES	Altoona	
2013 STIHL	NC611	NO		YES	Altoona	
2013 STIHL	NC612	YES			Augusta	
2013 STIHL	NC613	YES			Augusta	
2013 STIHL	NC614	YES			Augusta	
2013 STIHL	NC615	YES			Augusta	
2013 STIHL	NC616	YES			Unit 702	
2013 STIHL	NC617	YES			Foster	

Vehicle Status and Location

Model	Unit #	Avail	FALL	SPRING	Location	Maintenance and Repairs Required
2011 TAHOE	1	YES	YES	YES	Altoona	
2011 TAHOE	2	YES	YES	YES	Altoona	
2008 CHEVY 1500	4	YES		YES	Altoona	
2008 CHEVY 1500	5	YES		YES	Altoona	
2006 FORD F150	8	NO			Altoona	LOSSING OIL PRESSURE
2008 FORD F250	13	YES			Altoona	
2006 RAM 2500	14	YES			Altoona	has a recall from dodge
2012 FORD F450	16	YES			Altoona	
2011 RAM 2500	23	YES		YES	Altoona	
2011 RAM 2500	24	YES		YES	Augusta	
2012 CHEVY 2500	26	YES			Altoona	
2015 FORD F250	27				Altoona	
2008 GMC EXTEND	28	YES			Altoona	
2006 FORD F350	30	YES			Altoona	
2011 RAM 2500	38	YES		YES	Foster	
2006 INT. TRACTOR	51	YES		YES	Altoona	
1999 FREIGHT SING	101				Altoona	SCHEDULED FOR POSS TRADE
1999 FREIGHT SING	102				Altoona	SCHEDULED FOR POSS TRADE
1995 FORD CRASH	104	YES			Altoona	
2003 GMC FLATBED	105	YES			Altoona	
1995 FORD SINGLE	106				Altoona	SCHEDULED FOR POSS TRADE
2004 FORD CRASH	107	YES			Foster	
1999 FREIGHT SING	108				Altoona	SCHEDULED FOR POSS TRADE
2005 INT SINGLE	110	YES		YES	Augusta	
2005 INT SINGLE	111	YES			Altoona	
2009 INT SINGLE	113	YES			Altoona	
1997 FORD SINGLE	116	YES		YES	Altoona	
1997 FREIGHT SINGL	117	YES			Altoona	
2001 FREIGHT SINGL	118	YES			Altoona	
2003 STERL SINGLE	119	NO			Augusta	HYD RAM BROKEN
2003 STERL SINGLE	120	YES			Altoona	
2004 GMC UTILITY	121	YES			Altoona	IN SHOP NOW
2014 FREIGHT SINGL	122	YES			Altoona	
2002 FORD F350	144	YES			Augusta	
2008 FORD F350	145	YES			Altoona	
2004 INT SIGN TRK	150	YES			Altoona	
2000 FORD SINGLE	165	YES			Altoona	
2000 FORD SINGLE	166	YES			Altoona	
2000 FORD SINGLE	167	YES		YES	Altoona	
2000 FORD SINGLE	168	YES			Altoona	IN SHOP NOW
1995 FORD FUEL TR	199	YES		YES	Altoona	
2004 STERL SINGLE	701	YES			Foster	
2006 INT TANDEM	702	YES			Foster	
2006 INT TANDEM	703	YES		YES	Augusta	

2014 FREIGHT TAND	704	YES			Altoona	
2014 FREIGHT TAND	705	YES			Foster	
1991 CHEVY CRASH	706	YES			Altoona	
2014 FREIGHT TAND	707	YES			Altoona	
1993 FORD TRI AXLE	708				Altoona	SCHEDULED FOR POSS TRADE
2014 FREIGHT TAND	709	YES			Altoona	
2015 MACK GRANIT	710	YES		YES	Altoona	
2010 FREIGHT TAND	711	YES			Altoona	
2010 FREIGHT TAND	712	YES			Altoona	
2010 FREIGHT TAND	713	YES			Augusta	
2015 MACK GRANIT	714	YES		YES	Augusta	
1992 FORD TRI AXLE	715	YES			Altoona	
2010 FREIGHT TAND	716	YES			Altoona	
1993 FORD SINGLE	717				Altoona	SCHEDULED FOR POSS TRADE
1993 FORD SINGLE	719	YES			Altoona	
1993 FORD SINGLE	720				Altoona	SCHEDULED FOR POSS TRADE
1995 FORD TRI AXLE	723				Altoona	SCHEDULED FOR POSS TRADE
1997 FORD TRI AXLE	724				Altoona	SCHEDULED FOR POSS TRADE
1997 FORD TRI AXLE	725	YES			Altoona	
2000 STERL TRI AXLE	726	YES		YES	Altoona	
2000 STERL TRI AXLE	727				State Shed	SCHEDULED FOR POSS TRADE
2003 STERL TRI AXLE	728	YES		YES	Altoona	
2015 MACK QUAD	792	YES		YES	Altoona	
2010 FREIGHT QUAD	793	YES		YES	Augusta	
2008 STERL QUAD	794	YES		YES	Altoona	
2003 STERL QUAD	795	YES		YES	Foster	
2005 STERL QUAD	796	YES		YES	Augusta	
2010 INT QUAD	797	YES		YES	Altoona	

SECTION 8

Optimal Square Footage Recommended

OPTIMAL FACILITY DESIGN CRITERIA NARRATIVE

General Facility Functions

The Altoona Highway Garage acts as the central Shop for the County's Highway Department building facilities. The main functions that are performed here are grouped as follows:

Parking Garage: Parking of fleet vehicles including tri-axle plow trucks, single-axle plow trucks, specialized trucks, graders, loaders, one-ton trucks with a drive-thru configuration.

Repair Garage: Repair and preparation of all Highway vehicles and equipment.

Welding and Fabrication: Metals welding and fabrication shop adjacent to repair garage including material storage and equipment area.

Repair Shops: including shops for Tires, Hydraulic/Hoses, Sign/Carpentry Shop, Sign & Marking Shop and Stock Storage.

Wash Bay: Truck and other vehicle wash bay, drive-through approach.

Shop Offices and Parts Storage: Workstations for Shop and Parts staff, loading area, vehicle parts, field equipment, tool storage, parts ordering and vendor vestibule.

Crew Quarters: Vehicle operator and mechanics locker rooms, lunch room, assembly and safety training.

Administrative and Engineering Offices: Reception, accounting, Commissioner, engineering and records storage and public meeting rooms.

Highway Operations: Offices for Patrol Superintendents, record storage and control center.

Facility Area

119,370 GSF required to house all these functions. See Optimal Room Program tabulation for SF breakdown of the above functions and for each room

Staff and Vehicle Count

Fleet Vehicle Stall Count:

1. Heavy parking stalls, #22
2. Medium parking stalls, #22
3. Light duty parking stalls, #14
4. Graders, Loads, #5
5. Tractors, Chippers, Rollers, #5

Department Staffing Count

1. Operators & Field Crew, Sign Marking, #30

2. Highway Patrol Supervisors, #4
3. Shop Supervisor & Parts Clerks, #4
4. Mechanics & Welders, #7
5. Highway Engineering staff, #3
6. Commissioner and Administrative, #3
   Total Altoona staff, #51

Lockers needed for Operators, field crews, sign marking, Patrol Supervisors, Shop Supervisors, Parts Clerks, Mechanics and Welder. Total locker count, #45.

Site Facilities

1. Salt Storage Buildings: one 8,000 ton County, one 8,000 ton State Salt.
2. Salt Brine Mixing Facility.
3. Tempered Heated Storage Buildings, heated to 55' minimum
4. Cold Storage Building, no heating
5. Sheriff Storage Building – segregated and secured from Highway functions
6. Fueling Stations, Diesel, Unleaded, dispensing stations for each with canopies.
7. Truck Scale.
8. Bed Spray
9. Water Tank Fill
10. Wash Pad, at entry and exit of Truck Wash
11. Material Storage Bins with concrete surrounds.
12. Stockpile Area with Gravel Base.
13. Culvert Storage Area with Gravel Base.
14. Miscellaneous equipment parking
15. Visitor Parking.
16. Staff Parking.
17. Perimeter Fencing and entry gates.
18. Stormwater detention system
19. Entry landscaping and Flagpole

Exterior Personnel Vehicle Parking

Provide parking for Altoona staff of 51 plus 12 Committee/Public Visitors and 6 for visiting Satellite Shop staff. Total of 67 parking stalls outside

Allowance for Future Growth

Factors that will affect the mix of staff, fleet and repair equipment are driven by any changes in lane miles or level of services for particular road segments. To a lesser degree population counts and road traffic counts can also affect the Highway Department operations.

Through discussions with County Highway personnel, it was gathered the number of lane miles and level of service will not change significantly for the next two decades. On the other hand population and traffic counts will rise over the next two decades. Based on Wisconsin DOA projections, Eau Claire County will see a population increase of 21% over twenty years. This continues the steady growth trend seen in the County. Today's population is around 98,000 while

in 1960 it was around 58,000 and in 1980 it was around 76,000 people.

As the main shop, Building #1, was built when the population was 58,000, the same shop facility is handling a county that will shortly be doubled in population.

Regarding the mix of fleet and staff, what we are seeing is lean staffing that is leveraged with more equipment to perform a greater variety of tasks. Not only have patrol trucks grown in size but the there is a greater variety of vehicles and equipment pieces to perform specific functions. To allow for these future changes, it is best to have flexible vehicle parking space combined with a mix of cold storage space.

We believe that a parking garage designed to hold 58 pieces of equipment will handle future growth and allow for flexible parking arrangements. For the equipment storage needs, we recommend the County provide 35,000 SF of storage space, with 20,000 SF being tempered heated storage and 15,000 SF being cold storage.

Optimal Room Program for Altoona Highway Garage

Eau Claire County Highway Department

MAIN SHOP BUILDING

FUNCTION AREA/ Room	Station X'	Con Y'	Net SF/Station	# of Sta.	Net Useable SF	30% Circulation & Wall Allow.	Gross SF	Occupancy Notes Room Configuration X'	Y'
HEATED VEHICLE GARAGE						20%			
Heavy Parking Stall	40	16	640	22	14,080				
Medium Parking Stall	32	16	512	22	11,264				
Light Parking Stall	24	12	288	14	4,032				
Graders, Loaders	40	15	600	5	3,000			4 others in Tempered Storage	
Tractors, Chippers, Rollers	24	12	288	5	1,440			15 Pieces in Tempered Storage	
Drive Aisle	28	300	8400	1	8,400				
Cold Patch Bin	20	20	400	1	400				
Truck Wash	80	30	2400	2	4,800				
SUBTOTAL				**72**	47,416	9,483	**56,899**	200	284
REPAIR GARAGE						30%			
Heavy Duty Service Bays	40	28	1120	6	6,720				
Light Duty Service Bays	40	28	1120	4	4,480				
Parts Washer	14	14	196	1	196				
Drive/Walking Aisles	12	80	960	1	960				
Work Bench	12	144	1728	1	1,728				
SUBTOTAL				**13**	14,084	4,225	**18,309**	130	141
REPAIR SHOPS						30%			
Welding/Metal Fabrication	60	30	1800	2	3,600				
Tire Shop	60	30	1800	1	1,800				
Hydraulics & Hose Repair	30	20	600	1	600				
Sign/Carpentry Shop	60	36	2160	1	2,160				
Sign & Marking Shop	60	30	1800	1	1,800				
Stock Storage	30	20	600	1	600				
SUBTOTAL				**7**	10,560	3,168	**13,728**	160	86
SHOP OFFICES & PARTS STORAGE									
Shop Supervisor	14	14	196	1	196				
Lead Parts Support	14	12	168	1	168				
Parts Catalog	12	10	120	1	120				
Parts & Inventory Support	12	10	120	1	120				
Parts Counter	8	6	48	2	96				
Parts Storage Ground Level	50	40	2000	1	2,000				
Parts Storage Mezzanine	40	28	1120	1	1,120				
Tire Storage	30	20	600	1	600				
Power Tools & Secured Equipment	20	16	320	1	320				
Bulk Fluids	24	20	480	1	480				
SUBTOTAL				**11**	5,220	1,566	**6,786**	90	75

CREW QUARTERS									
Men's Locker Rooms	40	24	960	1	960			34 lockers, 2 showers	
Women's Locker Rooms	18	14	252	1	252			6 lockers, 1 shower	
Lunch Room	40	30	1200	1	1,200			Seat 60 ppl, 4 PC's, 3 Vending	
Janitor's Closet/Supplies	12	10	120	1	120				
Training/Public Meeting Room	60	36	2160	1	2,160			120 People	
SUBTOTAL				**5**	4,692	1,408	**6,100**	80	76

Administration & Engineering						40%			
Highway Commissioner	16	14	224	1	224			Private	
Accountant	12	10	120	1	120			Open	
Admin Associate	12	10	120	2	240			Open	
Highway Engineer	12	10	120	2	240			Open	
Surveyor	12	10	120	2	240			Open	
Engineering Tech	12	10	120	2	240			Open	
Copy, Office Equipment, Files	12	12	144	1	144				
Records Annual	16	12	192	2	384				
Plan & Record Archives	20	16	320	1	320				
Network, Communications Closet	12	10	120	1	120				
Reception, Entry Vestibule	16	12	192	1	192				
Committee Meeting Room	30	24	720	1	720				
Kitchenette/Break	12	10	120	1	120				
Men's Restroom	10	8	80	1	80				
Women's Restroom	10	8	80	1	80				
			0	0	0				
SUBTOTAL				**20**	3,464	1,386	**4,850**	90	54

HIGHWAY OPERATIONS						40%			
Highway Supt.	14	14	196	1	196			Private	
Highway Supervisors	12	10	120	3	360			Open	
Team Collaboration Area	16	14	224	1	224			Open	
Roadway Monitoring Consoles	12	14	168	1	168			Open	
Field Equipment Storage	12	8	96	1	96				
Files, Record Storage	12	8	96	1	96				
SUBTOTAL				**8**	1,140	456	**1,596**	50	32

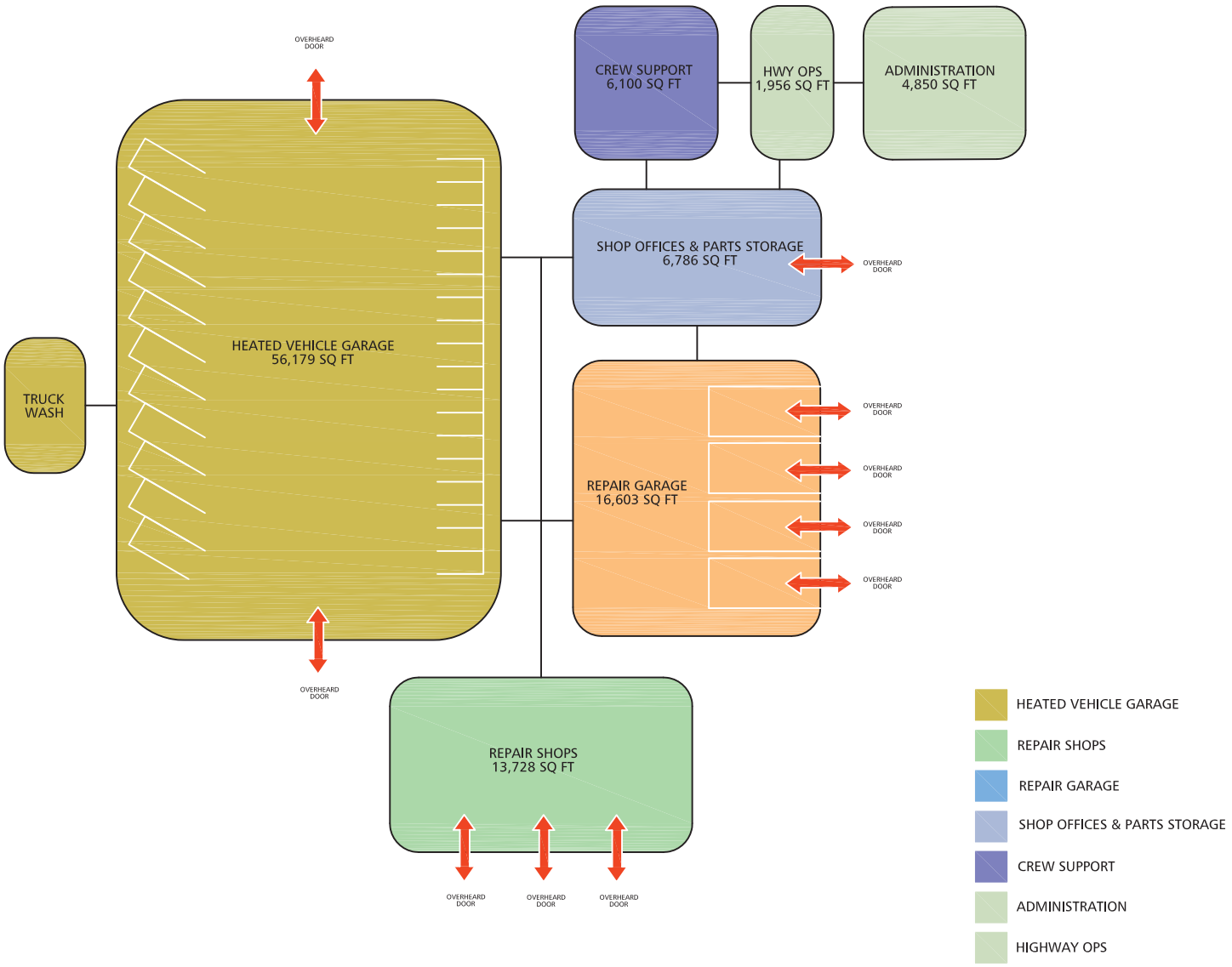
BUILDING SERVICES									
Mechanical Room	18	14	252	1	252				
Electrical Panel, Closets	12	12	144	1	144				
Water, Fire Protection	12	10	120	1	120				
SUBTOTAL				**3**	516	155	**671**	20	34
								X'	Y'
Total Main Shop Building Square Footage							**108,938**	400	272

YARD BUILDINGS

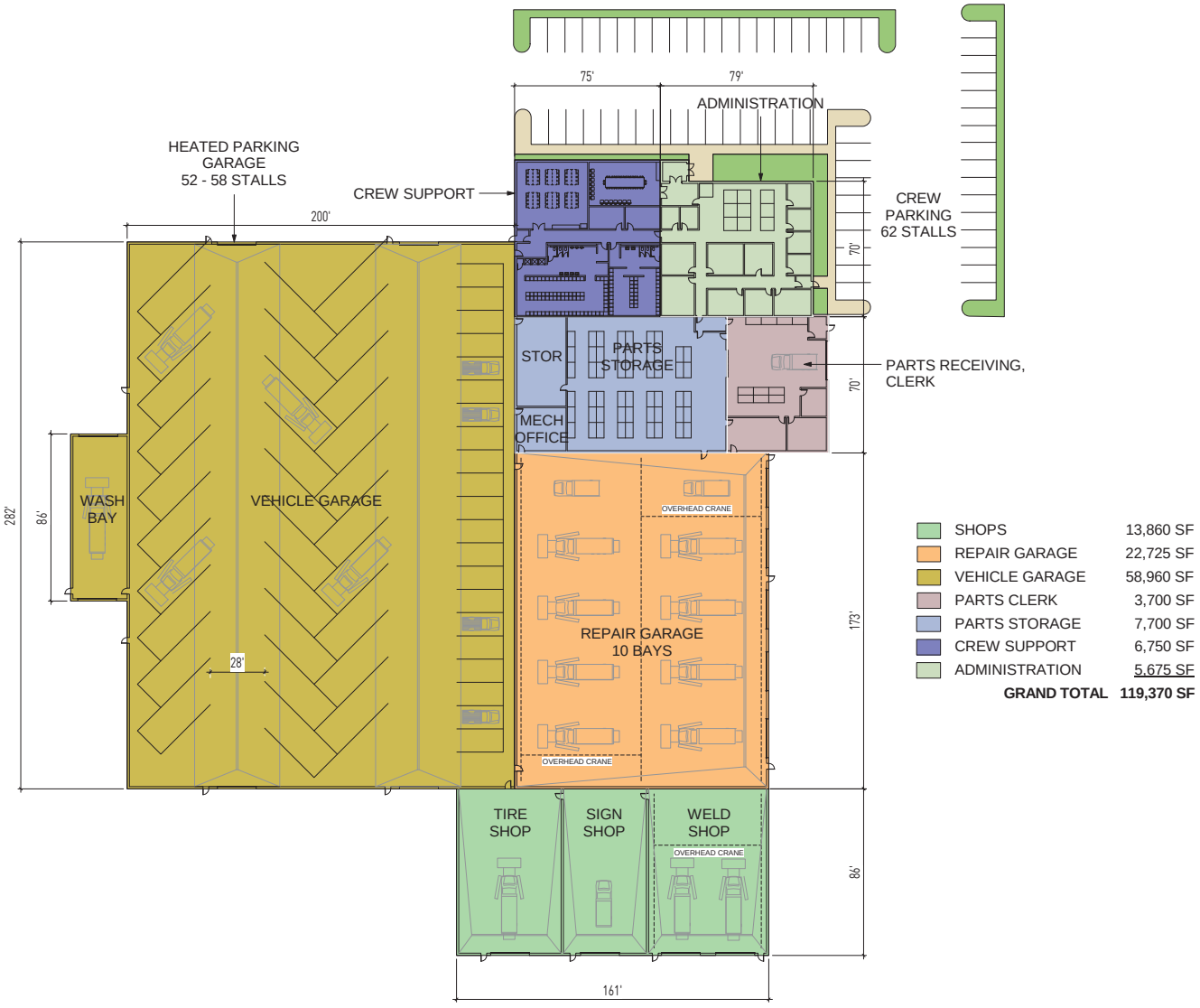
FUNCTION AREA/ Room	Station Config. X'	Y'	SF/Station	# of Stations	SF for Stations	Internal Circulation SF	Room Total SF	Room Config. X'	Y'
UTILITY BUILDINGS									
County Salt Shed	160	100	16000	1	16,000			8000 Tons	
State Salt Shed	160	100	16000	1	16,000			8000 Tons	
Fuel Station & Canopy	0	0	0	1	0				
			0	0	0				
SUBTOTAL			0	3	32,000	9,600	**41,600**		
COLD STORAGE BUILDING - Split in Two Structures									
Tempered Heated Storage	200	100	20000	1	20,000				
Non-Heated Storage	150	100	15000	1	15,000				
SUBTOTAL			35000	2	35,000		**35,000**		

TOTAL SQUARE FOOT BUILDING SPACE **185,538**

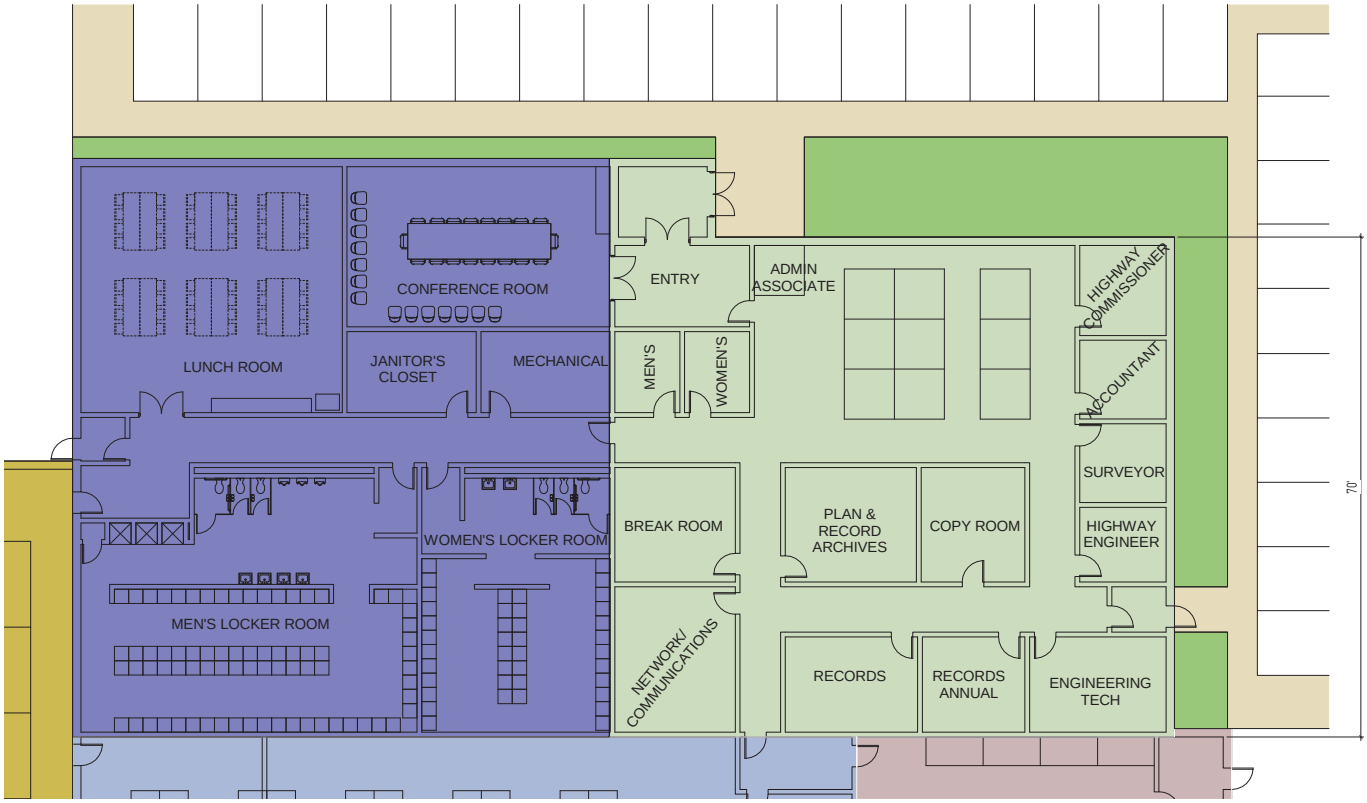
Relationship Diagram



Optimal Shop Floor Plan



Optimal Shop Floor Plan-Crew Support & Administration



Comparison of Existing Square Footage to Optimal Square Footage

MAIN SHOP BUILDING - COMPARISON CHART			
FUNCTIONAL AREA	Existing SF	Optimal SF	% of Change
Heated Vehicle Storage	17,515	56,179	220.75%
Repair Garage*	11,987	16,063	34.00%
Specialty Shops**	2,592	13,728	429.63%
Shops Offices & Parts Storage***	2,921	6,786	132.32%
Crew Quarters	385	6,100	1484.42%
Admin & Highway Ops	6,400	6,446	0.72%
Cold Storage	11,240	35,000	211.39%
County Salt Sheds	1,200	16,000	1233.33%
State Salt Sheds	12,400	16,000	29.03%
Grand Totals †	**66,640**	**172,302**	158.56%

* Existing SF includes current repair shops (welding, etc), repair bays, tire shop
** Existing SF only includes current sign shop (#4)
*** Existing SF includes parts storage within Admin. bldg (#1), and storage building (#5)

† Grand Total of existing SF does not include existing salt dome (#10)

Industry Benchmarking

Industry Benchmarking

Highway Garage Operations Only - Does not include other County Departments such as Sheriff's & Parks

Eau Claire County

Barrientos Design & Consulting, Inc. 5/23/2016 5/23/2016

Year Built:	1964	1976	2014	1998	2002	2004	2014 Recommended	
Operational Criteria	**Eau Claire**	**Walworth Co.**	**Jefferson Co.**	**Winnebago Co.**	**Manitowoc Co.**	**Door Co.**	**Fond Du Lac Co.**	**Average minus Col B**
Maintenance Service Criteria								
Lane Miles Maintained	1,470	1,150	1,065	1,112	914	808	1,288	1,037.4
Patrol Trucks, Cars, Graders, Dozers	66	91	62	71	80	61	78	70.4
Patrol, Construction, Supt. Staff FTE	34	33	48	50	43	38	43	44.4
No. of Service Bays (not welding)	8	12	8	12	8	5	6	7.8
Patrol Vehicles/Service Bay Ratio	8.3	7.6	7.8	5.9	10.0	12.2	13.0	9.8

Facility Size Criteria								**Average**
Central Shop Useable Acreage	8.8	12.0	35.5	18.0	13.0	12.0	40.0	23.7
Main Shop Overall-Heated SF	53,040	147,000	95,188	90,000	68,000	59,258	92,518	80,992.8
Repair Garage Only SF	11,987	35,784	21,758	18,000	18,952	15,200	16,528	18,087.6
Vehicle Parking SF	26,501	81,798	49,046	72,000	34,520	27,720	39,122	44,481.6
Cold/Equipment Storage SF	2,000	20,000	32,000	9,600	6,000	20,000	20,250	17,570.0
Satellite Building Storage SF	15,160		28,000	6,000	38,000	17,154	32,880	24,406.8
Total Building Storage: Cold and Heated, Not Salt Sheds	**70,200**	**167,000**	**123,188**	**96,000**	**106,000**	**76,412**	**125,398**	105,399.6

Facility Ratio Analysis, based on Lane Miles	**Eau Claire**	**Walworth Co.**	**Jefferson Co.**	**Winnebago Co.**	**Manitowoc Co.**	**Door Co.**	**Fond Du Lac Co.**	**Average**
Acreage to Lane Miles	0.006	0.010	0.033	0.016	0.014	0.015	0.031	0.020
Main Shop to Lane Miles	36.082	127.826	89.378	80.935	74.398	73.339	71.831	86.285
Repair Garage to Lane Miles	8.154	31.117	20.430	16.187	20.735	18.812	12.832	20.019
Vehicle Parking to Lane Miles	18.028	71.129	46.053	64.748	37.768	34.307	30.374	47.396
Cold Storage to Lane Miles	1.361	17.391	30.047	8.633	6.565	24.752	15.722	17.185
Satellite Building to Lane Miles	10.313	0.000	26.291	5.396	41.575	21.230	25.528	20.003
Total Building SF to Lane Miles	**47.755**	**145.217**	**115.669**	**86.331**	**115.974**	**94.569**	**97.359**	109.187

Using Average Ratio's, the Garage would be sized accordingly	Recommended Size	Current Size	Recommended Net Increase	Recommended Increase in SF
Main Shop Acreage	29.4	8.8	236%	20.7
Main Shop Overall-Heated SF	**126,838**	53,040	139%	**73,798**
Repair Garage Only SF	29,428	11,987	145%	17,441
Vehicle Parking SF	69,673	26,501	163%	43,172
Cold/Equipment Storage SF	25,262	2,000	1163%	23,262
Satellite Building Storage	29,405	15,160	94%	14,245
Total Building Storage: Cold and Heated	**181,505**	**70,200**	**159%**	**111,305**

SECTION 8.e

Sheriff Storage Facility Needs

Sheriff Storage Facility Needs

The function of this proposed Storage Facility is to; centralize the Sheriff's specialty vehicles, provide a place to store long term evidence vehicle and large seized items, conduct briefing/debriefing for tactical events, utilize an area for accident reconstruction, and have a satellite office for report writing.

Many of the Sheriff vehicles need to be placed in a heated facility as they store weather sensitive equipment or need to operate in emergency mode within a short period of time. Having the seized vehicles and evidence items secured is required for chain of custody compliance and would also allow outdoor storage of vehicles within a fenced in area. With one central location, versus the current eight locations, more efficient field and storage operations can then occur.

Currently the Sheriff stores various vehicles in eight locations totaling 7,352 square feet. Some of the space is rented for an annual costs of $5,600 while others are provided free of charge. The listing of a facilities and annual rental costs are:

1. 40 x 90 $4000 2nd Ave Storage
2. 20 x 40 $1600 Airport Storage
3. 24 x 50 free Town of Washington
4. 20 x 24 free Lake Hallie Fire
5. 20 x 24 free Jail Garage
6. 12 x 22 free LE garage
7. 12 x 22 free LE garage
8. 12 x 22 free State Patrol

The Town of Washington facility provides a large space for specialty vehicles and although the Department has been graciously allowed to store items at their location it is anticipated that the Town will need to purchase a new fire truck in the near future. Once this occurs it will displace the Bearcat, equipment trailer, and Radio Command truck

This study proposes consolidating all the vehicle and field operation equipment into one facility of 11,270 SF. The heated storage area is 9,600 and compared to the existing 7,352 SF, this is an increase of 2,248 SF or an increase of 30% storage. This will be exclusively for the Sheriff's operations and end their reliance on the goodwill of community partners. The design establishes the space criteria for both the building and the land and involves new construction at a hypothetical 3 acre site. There is also the option to locate the Storage facility with the Central Highway Garage but it is not operationally necessary to do so.

The building is laid out in two basic sections: a heated parking garage along with a mezzanine for storage; and then a section to house the Accident Reconstruction Bay and field offices.

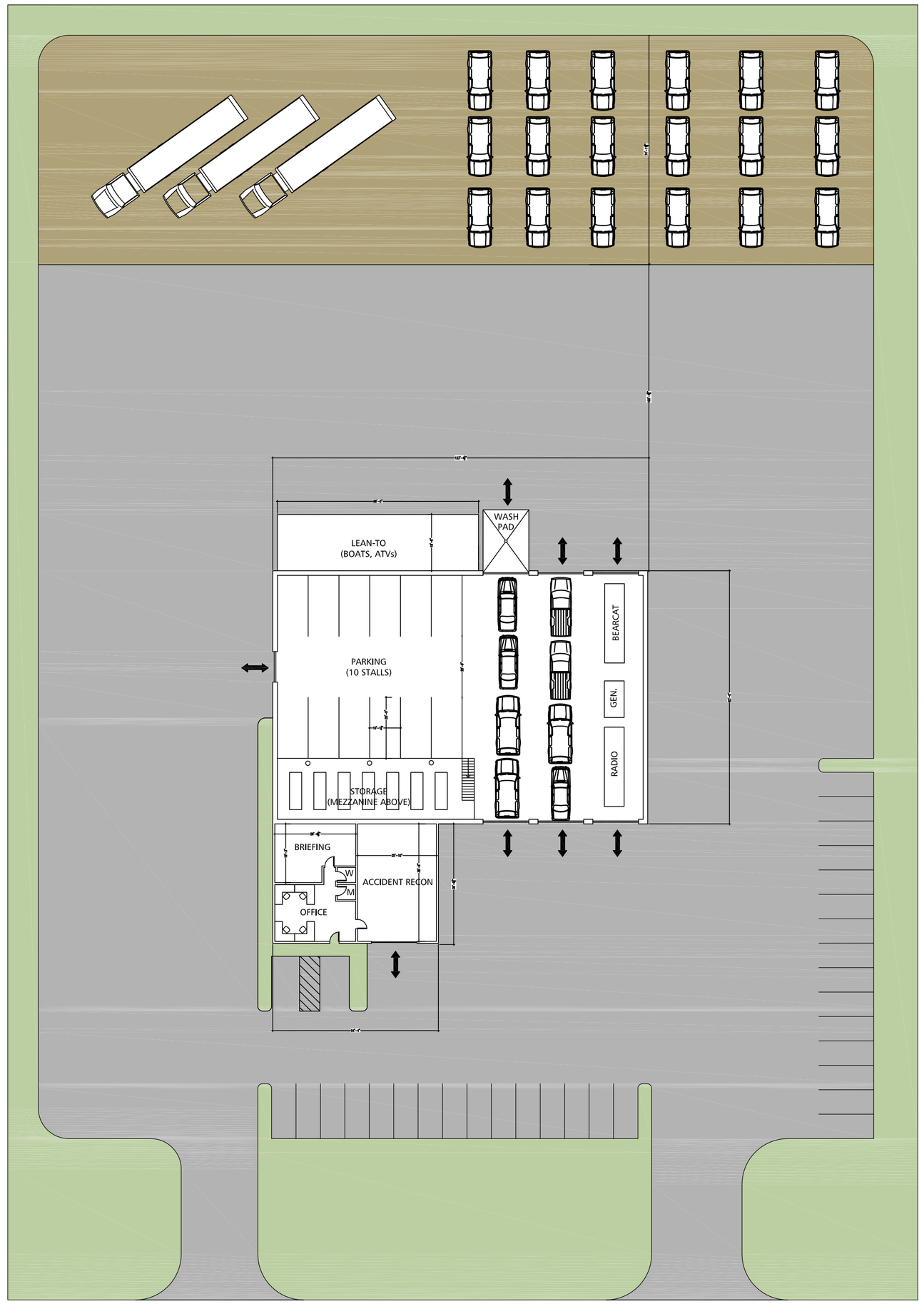
The heated parking room has space for 22 vehicles. There are three sets of doors that allow for pull-through parking and storage, for 10 larger vehicles such as the Bearcat and Radio Command, as well as the squad's SUVs and sedans. Off to the side there are also 10 parking stalls for standard car sizes along with a drive aisle that can park another 2 vehicles . Total parking area is 9,600 SF with the parking for 22 vehicles. Within the parking area is general storage using industrial storage, and a mezzanine above for long-term storage

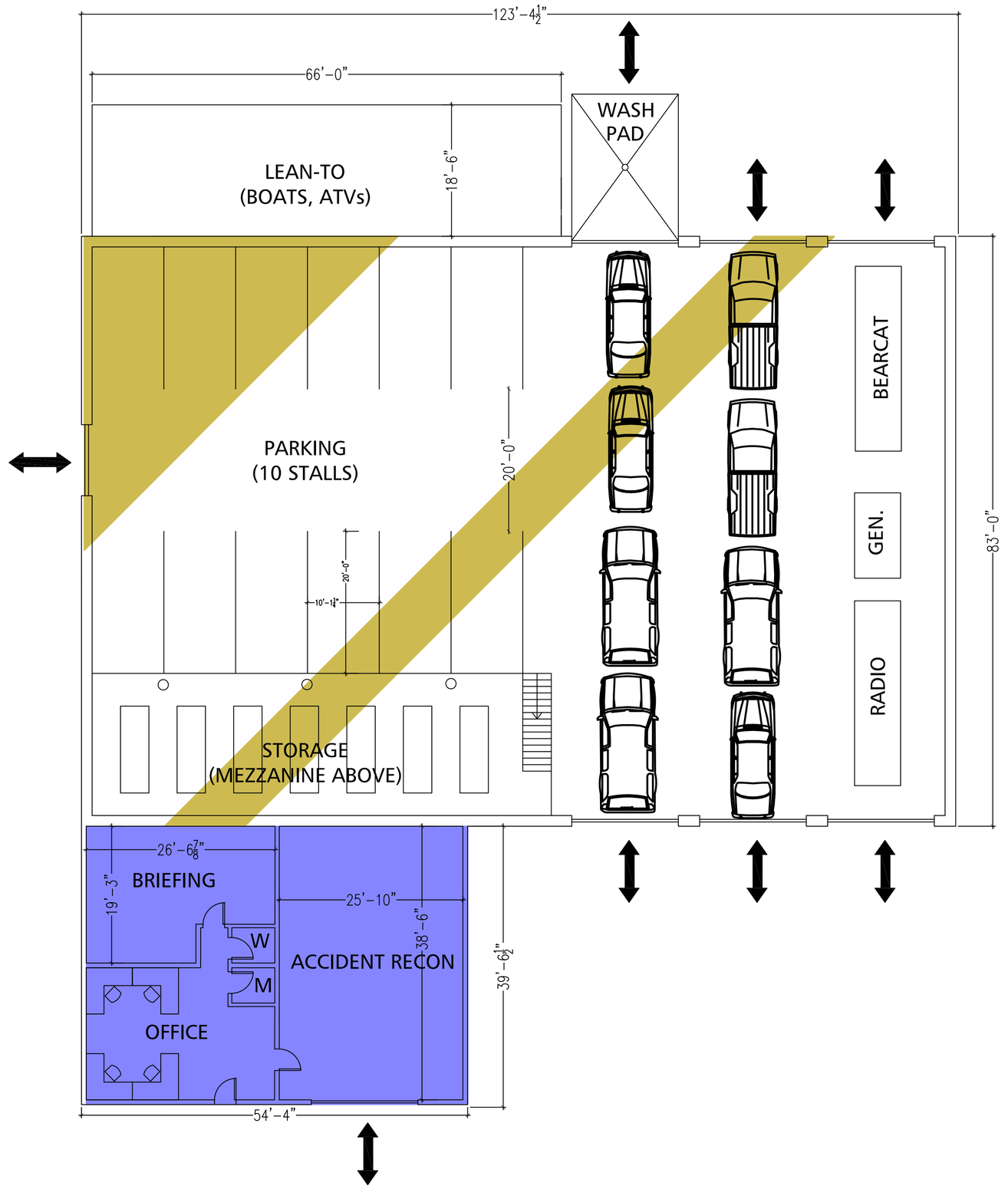
The attached office area includes an accident reconstruction bay, a tactical briefing room, open office space, and bathrooms. 30 staff parking spots are adjacent to this administrative area. The office area totals 2,120 SF. There is a 75' deep gravel parking area at the rear of the site for larger vehicles and yard storage. The whole site is surrounded by a 10' security fence with slats. Rolling gates would secure it from public vehicles.

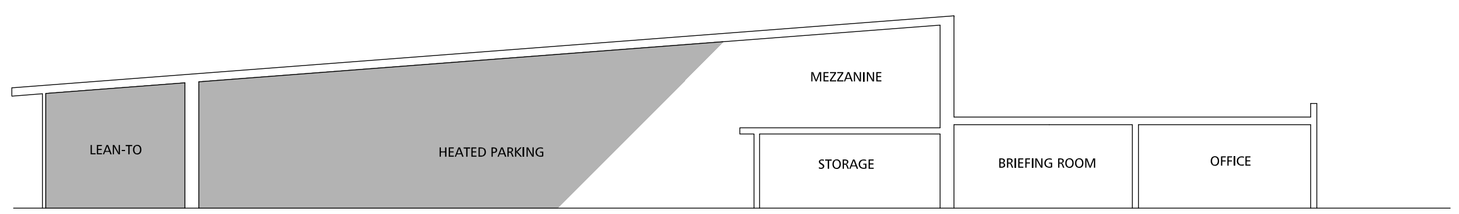
This option provides 11,270 SF of heated vehicle parking and office space. It also provides 1,190 SF of sheltered storage space within a lean-to on the exterior of the building.

Following is a cost estimate for the building and this indicates the construction project would be in the range of $1.4 to 1.5 million. This assumes a pre-engineered metal building system for the main housing. A masonry or pre-cast building would be 25% more expensive. If the County were to pursue this option, it would meet the long-term storage needs of the Sheriff's Department.

10' SECURITY FENCE W/ SLATS







SHERIFF'S IMPOUND BUILDING

HEATED PARKING GARAGE: 9600 SQ FT
OFFICE/ACCIDENT RECON: 2120 SQ FT

TOTAL: 11,720 SQ FT

30 OUTDOOR PARKING SPACES
21 INDOOR PARKING SPACES

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PROJECT NAME

FACILITY SPACE NEEDS REPORT

PREPARED FOR

EAU CLAIRE COUNTY HIGHWAY DEPARTMENT

SHEET TITLE

SHERIFF'S IMPOUND

Eau Claire Sheriff's Department
Schematic Design - Construction Cost Estimate
Impound and Accident Recon Building

	SF/Quantity		Cost per SF		Total
New Construction					
Parking Garage	9,600		65	$	624,000
Mezzanine	1,200		45	$	54,000
Accident Recon	1,000		75	$	75,000
Office/Briefing	1,120		105	$	117,600
Lean-To Storage	1,188		40	$	47,520
	12,920.00		Total	$	918,120
Site Construction					
Utilities / Grading & Paving	3	$	110,000	$	330,000
Security Fencing	675 LF	$	40	$	27,000
			Total	$	357,000
	Total Construction Cost			**$**	**1,275,120**
Soft Costs					
Estimating Contingency			5.0%	$	60,480
Construction Contingency			5.0%	$	60,480
Architecture / Engineering Fees			6.0%	$	72,576
			Total	$	193,536
	GRAND TOTAL			**$**	**1,468,656**

*Estimate does not include furnishings, moving/relocation expenses, or plan approval and review fees

SECTION 9
Improvement Options

Option 1- Minor Additions & New Repair Garage

Option 1 involves extensive renovations at the existing site. The current parking garage (#2), sign shop (#4), and salt dome (#10) will be kept in their current condition. The existing repair garage/administration (#1), will be converted into parts storage, crew support, and administration. A separate building will contain the repair garage and truck wash. Site parking is possible, along the west edge of the site. The state and county salt sheds are combined into one larger building. Stockpiles and a new water retention pond are located at the rear of the site.

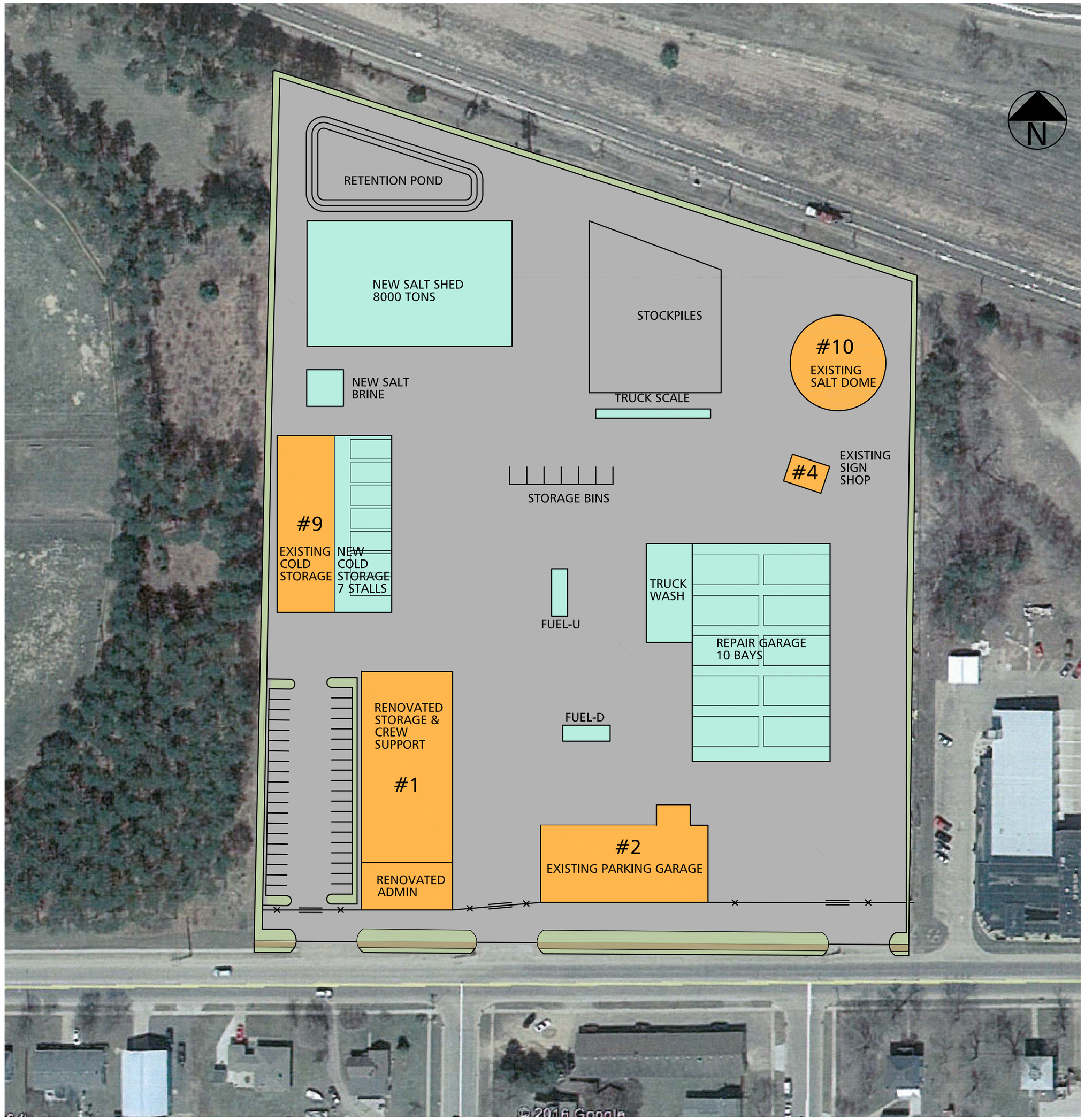
All the existing parking in Building #3 is replaced with an addition off of Building #9. No new net parking is provided. The Repair Garage has 10 service bays and a truck wash. This provides the optimal service bay count but is short parking by 27 stalls.

The optimal Cold Storage for Altoona is 35,000 and this Option provides 8,000 SF in the footprint of what is currently the Repair Garage.

The 8,000 ton Salt Shed is half of the desired 16,000 tons targeted.

This option provides 81,609 SF of which 33,650 SF is renovated and 47,959 SF is new. Based on our recommended square feet of 190,538 SF this layout falls short of building space by 108,929 SF.

If the County were to pursue this option, it would not meet the long-term facility needs of the Highway Department.



OPTIMAL COLD STORAGE	35,000 SF
TOTAL COLD STORAGE	8,000 SF
DEFICIT	27,000 SF
OPTIMAL SALT TONNAGE	16,000 TONS
TOTAL SALT TONNAGE	8,000 TONS
DEFICIT	8,000 TONS
OPTIMAL SQUARE FOOTAGE	190,538 SF
TOTAL SQUARE FOOTAGE	81,609 SF
DEFICIT	108,929 SF
OPTIMAL PARKING STALLS	58
TOTAL HEATED PARKING	31
DEFICIT	27

RENOVATED STORAGE & CREW SUPPORT (1)	11,987 SQ FT
RENOVATED ADMIN	6,400 SQ FT
EXISTING PARKING GARAGE (2)	13,361 SQ FT
EXISTING COLD STORAGE (9)	10,140 SQ FT
NEW COLD STORAGE	7,680 SQ FT
NEW SALT SHED	19,510 SQ FT
NEW SALT BRINE	1,024 SQ FT
NEW REPAIR GARAGE	16,305 SQ FT
NEW TRUCK WASH	3,440 SQ FT
EXISTING SALT DOME (10)	1,200 SQ FT
EXISTING SIGN SHOP (4)	2,592 SQ FT

TOTAL DEMO: 15,800 SQ FT
TOTAL RENO: 33,650 SQ FT
TOTAL NEW: 47,959 SQ FT

TOTAL: 81,609 SQ FT

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PROJECT NAME

FACILITY SPACE NEEDS REPORT

PREPARED FOR

EAU CLAIRE COUNTY HIGHWAY DEPARTMENT

SHEET TITLE

OPTION 1
MINOR ADDITIONS
AND NEW GARAGE

Eau Claire Highway Department
Schematic Design - Construction Cost Estimate
Option 1 - Construction Costs

	SF/Quantity	Cost per SF		Total
Demolition				
Storage Garage	7,460	2.5	$	18,650
Salt Sheds	7,240	2.5	$	18,100
Cold Storage	1,100	4	$	4,400
			$	41,150
Renovation				
Building #1 (Storage and Crew Support)	11,987	15	$	179,805
Building #1 (Administration Offices)	6,400	20	$	128,000
Parking Garage #2	13,361	26	$	347,386
Cold Storage #9	10,140	10	$	101,400
			$	756,591
New Construction				
Repair Garage	16,305	140	$	2,282,700
Truck Wash	3,440	110	$	378,400
Salt Brine	1,024	60	$	61,440
Cold Storage	7,680	60	$	460,800
Salt Storage (8,000 Tons)			$	800,000
		Total	$	3,983,340
Site Construction				
Cost per acre for site reconstruction	7 $	180,000	$	1,260,000
Fuel Island	allow $	350,000	$	350,000
		Total Construction Cost	$	6,391,081
Soft Costs				
Estimating Contingency		5.0%	$	319,554
Construction Contingency		5.0%	$	319,554
Architecture / Engineering Fees		6.0%	$	383,465
		Total	$	1,022,573
		GRAND TOTAL	**$**	**7,413,654**

*Estimate does not include furnishings, moving/relocation expenses, or plan approval and review fees

Option 2 – Add to Repair, New Parking Garages

Option 2 involves demolition of all existing buildings except for the cold storage (#9) and the current repair garage/administration (#1), which will be converted into the new parts storage. The parts storage will become part of a new central building which includes the administration, crew support, and repair garage. Also proposed are a new, separate parking garage and cold storage building. The state and county salt sheds are combined into one larger building. Stockpiles and a new water retention pond are located at the rear of the site. Site parking is possible, along the west and east edges of the site.

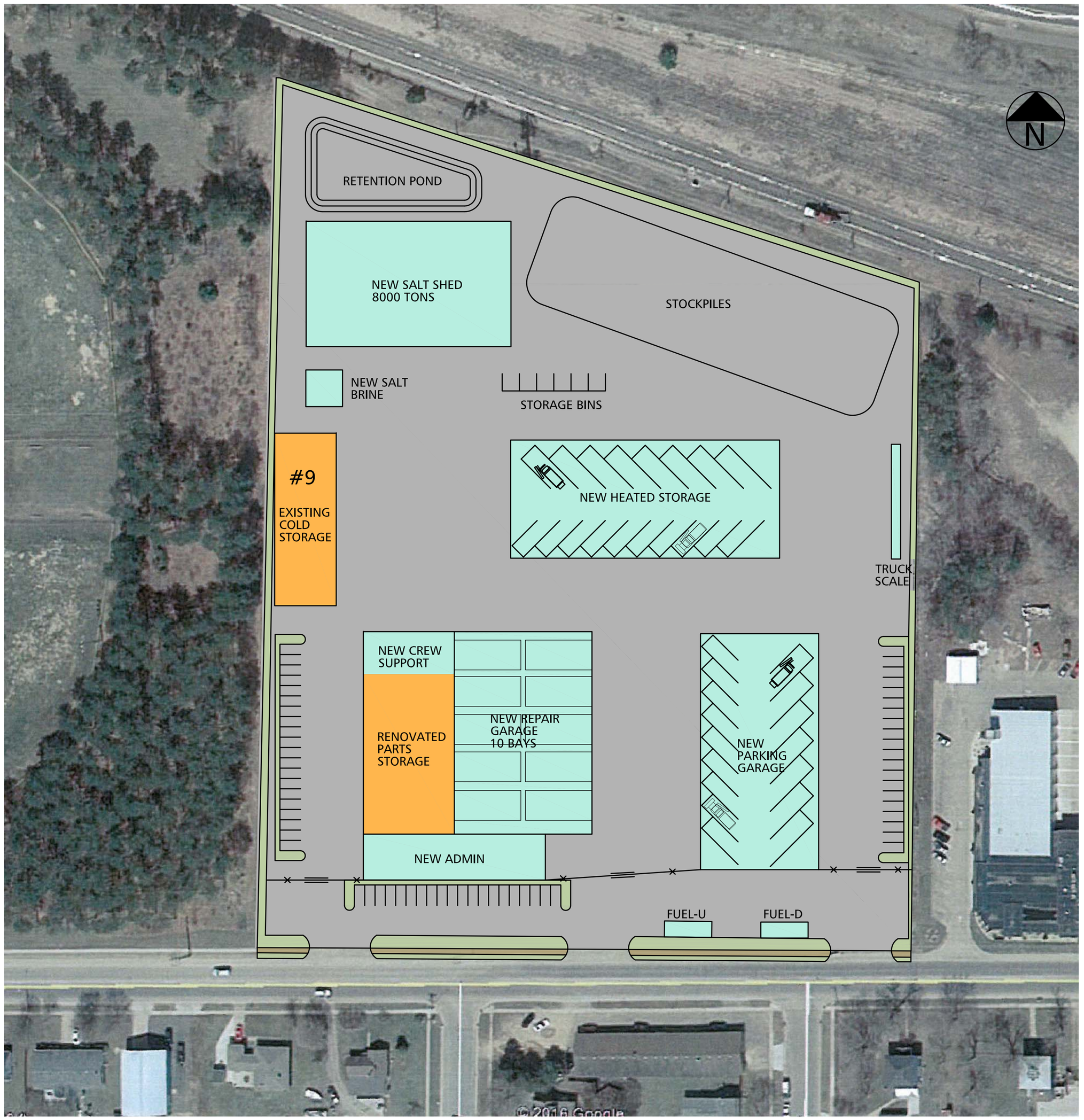
The Repair Garage provides 10 service bays, a truck wash and there are a total of 34 heated parking stalls. This provides the optimal service bay count but is short parking stalls by 24

The optimal Cold Storage for Altoona is 35,000 and this Option provides 10,140 SF, being in the current building #9, and is short by 24,860.

The 8,000 ton Salt Shed is half of the desired 16,000 tons targeted.

This option provides 105,705 SF of which 18,478 SF is renovated and 87,478 SF is new. Based on our recommended square feet of 190,538 SF this layout falls short of building space by 84,833SF.

If the County were to pursue this option, it would not meet the long-term facility needs of the Highway Department.



OPTIMAL COLD STORAGE	35,000 SF
TOTAL COLD STORAGE	10,140 SF
DEFICIT	24,860 SF

OPTIMAL SALT TONNAGE	16,000 TONS
TOTAL SALT TONNAGE	8,000 TONS
DEFICIT	8,000 TONS

OPTIMAL SQUARE FOOTAGE	190,538 SF
TOTAL SQUARE FOOTAGE	105,705 SF
DEFICIT	84,833 SF

OPTIMAL PARKING STALLS	58
TOTAL HEATED PARKING	34
DEFICIT	24

RENOVATED PARTS STORAGE (1)	11,987 SQ FT
NEW CREW SUPPORT	2,936 SQ FT
NEW ADMIN	6,360 SQ FT
EXISTING COLD STORAGE (9)	10,140 SQ FT
NEW REPAIR GARAGE	14,000 SQ FT
NEW PARKING	19,256 SQ FT
NEW SALT SHED	19,510 SQ FT
NEW SALT BRINE	1,024 SQ FT
NEW COLD STORAGE	24,140 SQ FT

TOTAL DEMO: 31,153 SQ FT
TOTAL RENO: 18.478 SQ FT
TOTAL NEW: 87,226 SQ FT

TOTAL: 105,704 SQ FT

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PROJECT NAME

FACILITY SPACE NEEDS REPORT

PREPARED FOR

EAU CLAIRE COUNTY HIGHWAY DEPARTMENT

SHEET TITLE

OPTION 2
ADD TO REPAIR GARAGE
NEW PARKING GARAGES

Eau Claire Highway Department
Schematic Design - Construction Cost Estimate
Option 2 - Construction Costs

	SF/Quantity		Cost per SF		Total
Demolition					
Storage Garage	7,460		2.5	$	18,650
Sign Shop	843		6	$	5,058
Salt Sheds and Domes	8,440		4	$	33,760
Cold Storage	1,100		6	$	6,600
Selective Demo Building #1	6,400		3	$	19,200
				$	83,268
Renovation					
Parts Storage #1	11,987		5	$	59,935
				$	59,935
New Construction					
Crew Support	2,936		120	$	352,320
Administration	6,360		150	$	954,000
Parking Garage	19,256		105	$	2,021,880
Repair Garage	14,000		150	$	2,100,000
Salt Brine	1,024		60	$	61,440
Cold Storage	7,680		60	$	460,800
Salt Storage (8,000 Tons)				$	800,000
			Total	$	6,750,440
Site Construction					
Cost per acre for site reconstruction	6.5	$	180,000	$	1,170,000
Fuel Island	allow	$	350,000	$	350,000
			Total Construction Cost	$	8,413,643
Soft Costs					
Estimating Contingency			5.0%	$	420,682
Construction Contingency			5.0%	$	420,682
Architecture / Engineering Fees			6.0%	$	504,819
			Total	$	1,346,183
			GRAND TOTAL	**$**	**9,759,826**

*Estimate does not include furnishings, moving/relocation expenses, or plan approval and review fees

Option 3 – Maximum Allowable New Build

Option 3 involves demolition of all existing buildings except for the cold storage building (#9). A central building containing built out to the site allowable limits has been laid out. The state and county salt sheds are combined into one larger building. Site parking is possible, along the west and east edges of the site. Stockpiles and a new water retention pond are located at the rear of the site.

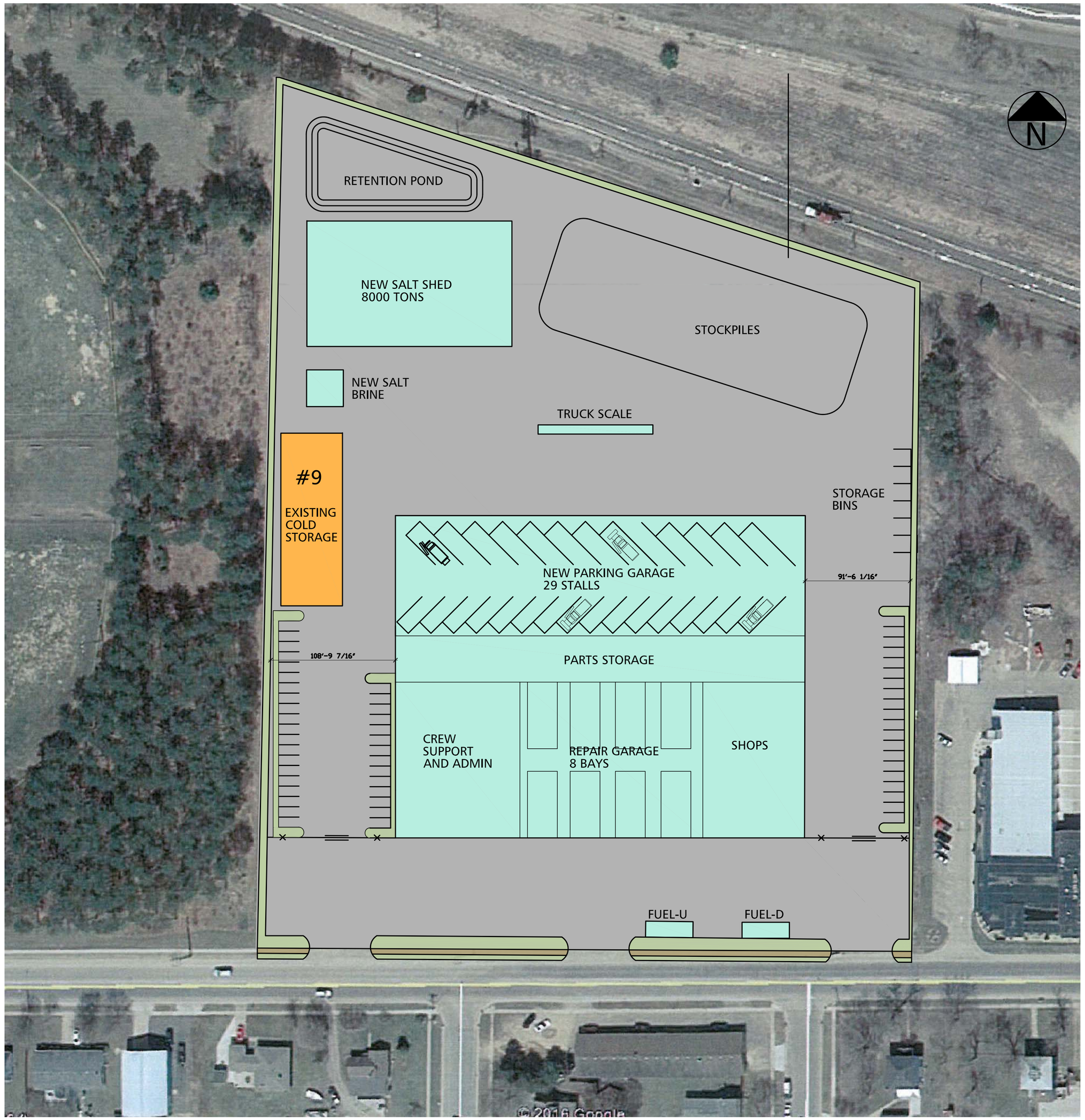
The Repair Garage provides 8 service bays, a truck wash and there are a total of 29 heated parking stalls. The optimal amount of service bays is 10 and the optimal amount of parking is 58 for the patrol vehicles. So this option is short 2 service bays and 29 parking stalls.

The optimal Cold Storage for Altoona is 35,000 and this Option provides 10,140 SF, being in the current building #9, and is short by 24,860.

The 8,000 ton Salt Shed is half of the desired 16,000 tons targeted.

This option provides 113,241 SF of which 7,682 SF is renovated and 87,478 is new. Based on our recommended square feet of 190,538, this layout falls short of building space by 77,297 SF.

If the County were to pursue this option, it would minimally meet the long-term facility needs of the Highway Department.



OPTIMAL COLD STORAGE	35,000 SF
TOTAL COLD STORAGE	10,140 SF
DEFICIT	24,860 SF
OPTIMAL SALT TONNAGE	16,000 TONS
TOTAL SALT TONNAGE	8,000 TONS
DEFICIT	8,000 TONS
OPTIMAL SQUARE FOOTAGE	190,538 SF
TOTAL SQUARE FOOTAGE	113,241 SF
DEFICIT	77,297 SF
OPTIMAL PARKING STALLS	58
TOTAL HEATED PARKING	29
DEFICIT	29

NEW MAIN BUILDING
99,399 SQ FT

NEW ADMIN & CREW SUPPORT	14,704 SQ FT
EXISTING COLD STORAGE (9)	10,140 SQ FT
NEW REPAIR GARAGE	21,594 SQ FT
NEW PARTS STORAGE	14,395 SQ FT
NEW SHOPS	12,020 SQ FT
NEW PARKING GARAGE	36,686 SQ FT
NEW SALT SHED	19,510 SQ FT
NEW SALT BRINE	1,024 SQ FT
TOTAL DEMO:	154,203 SQ FT
TOTAL RENO:	7,682 SQ FT
TOTAL NEW:	127,615 SQ FT
TOTAL:	113,241 SQ FT

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PROJECT NAME

FACILITY SPACE NEEDS REPORT

PREPARED FOR

EAU CLAIRE COUNTY HIGHWAY DEPARTMENT

SHEET TITLE

OPTION 3
MAXIMUM AVAILABLE NEW BUILDING

Eau Claire Highway Department
Schematic Design - Construction Cost Estimate
Option 3 - Construction Costs

	SF/Quantity	Cost per SF	Total
Demolition			
All buildings except Cold Storage 2 (#9)	54,302	2.5	$ 135,755
			$ 135,755
New Construction			
Parking Garage	36,686	105	$ 3,852,030
Repair Garage	21,325	150	$ 3,198,750
Parts Storage	14,395	100	$ 1,439,500
Repair Shops	12,020	150	$ 1,803,000
Crew Support and Admin	14,704	150	$ 2,205,600
Salt Brine	1,024	60	$ 61,440
Salt Storage (8,000 Tons)			$ 800,000
	$ 100,154	Total	$ 9,508,290
Site Construction			
Cost per acre for site reconstruction	6	$ 180,000	$ 1,080,000
Fuel Island	allow	$ 350,000	$ 350,000
		Total Construction Cost	$ 11,074,045
Soft Costs			
Estimating Contingency		5.0%	$ 553,702
Construction Contingency		5.0%	$ 553,702
Architecture / Engineering Fees		6.0%	$ 664,443
		Total	$ 1,771,847
		GRAND TOTAL	**$ 12,845,892**

*Estimate does not include furnishings, moving/relocation expenses, site acquisition costs or plan approval and review fees

Option 4 – Optimal Square Footage Shop

Option 4 focuses taking the optimal square footage for the Main Shop and placing it down onto the Altoona site. All buildings currently on the site would be demolished. Much of the program is condensed into one main building. The state and county salt sheds are combined into one larger building. Parking on site would be limited and not meet zoning requirements. A new cold storage building is proposed at the rear of the site. The Fueling Stations would be moved to the front.

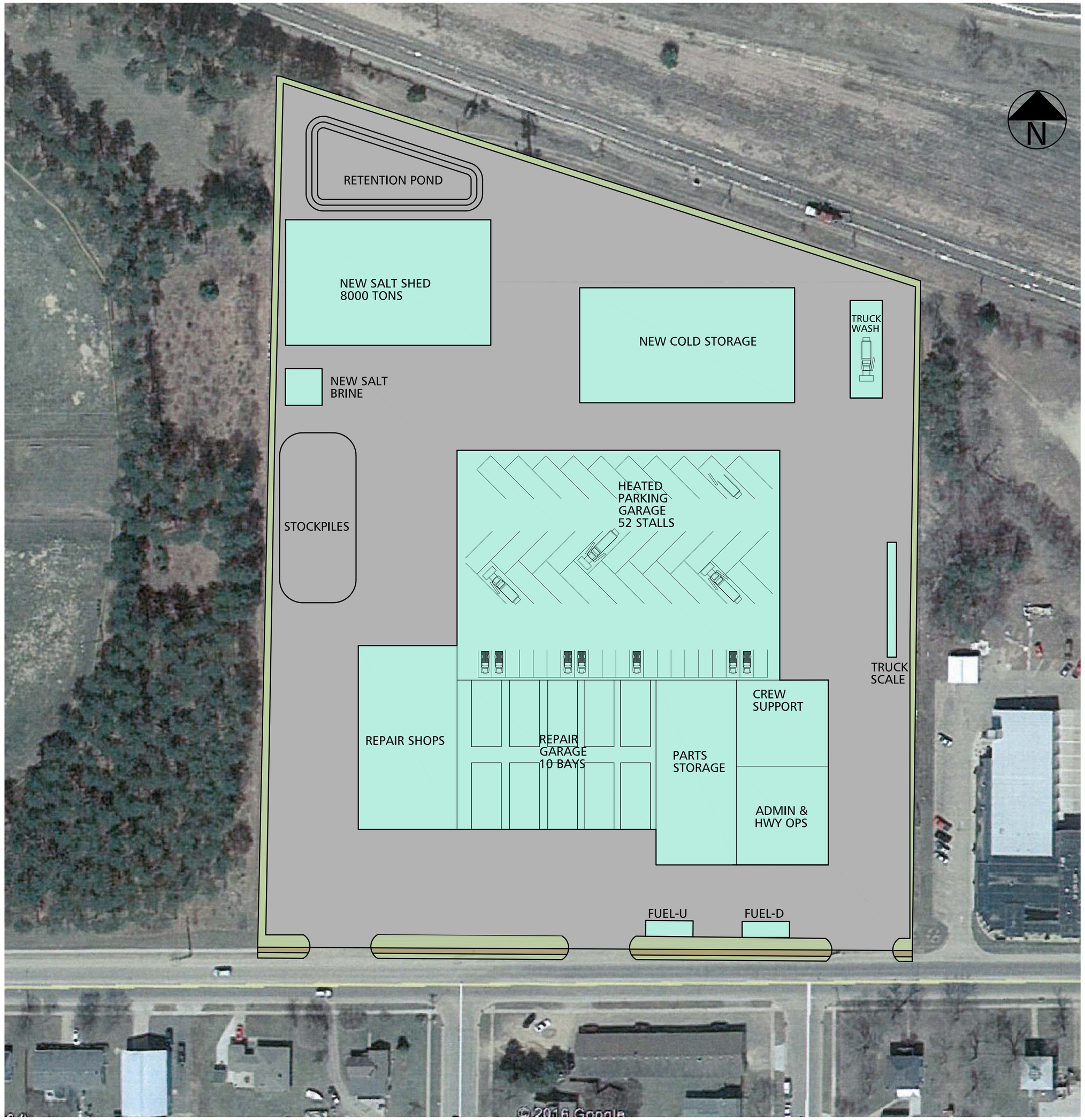
The Repair Garage provides 10 service bays, a truck wash and there are a total of 58 heated parking stalls. This provides the optimal amount of Repair bays and parking stalls.

The optimal Cold Storage for Altoona is 35,000 and this Option provides 18,178 SF and is short by 16,822 SF.

The 8,000 ton Salt Shed is half of the desired 16,000 tons targeted.

This option provides 147,810 SF of which all is new. Based on our recommended square feet of 190,538, this layout falls short of building space by 42,728 SF.

If the County were to pursue this option, the Main Shop would meet the long-term facility needs of the Highway Department but there wouldn't be enough Yard space to house all the functions including stockpiling, employee parking, staging area, access lanes or room for future expansion. Moreover, truck circulation routes would be constricted around the buildings.



OPTIMAL COLD STORAGE	35,000 SF
TOTAL COLD STORAGE	18,178 SF
DEFICIT	16,822 SF

OPTIMAL SALT TONNAGE	16,000 TONS
TOTAL SALT TONNAGE	8,000 TONS
DEFICIT	8,000 TONS

OPTIMAL SQUARE FOOTAGE	190,538 SF
TOTAL SQUARE FOOTAGE	147,810 SF
DEFICIT	42,728 SF

OPTIMAL PARKING STALLS	58
TOTAL HEATED PARKING	52
DEFICIT	6

MAIN BUILDING
116,634 SQ FT

NEW PARTS STORAGE	11,270 SQ FT
NEW CREW SUPPORT	6,000 SQ FT
NEW ADMIN	6,880 SQ FT
NEW REPAIR GARAGE	22,524 SQ FT
NEW REPAIR SHOPS	13,760 SQ FT
NEW HEATED PARKING GARAGE	56,200 SQ FT
NEW SALT SHED	19,510 SQ FT
NEW SALT BRINE	1,024 SQ FT
NEW COLD STORAGE	18,718 SQ FT

TOTAL DEMO: 64,442 SQ FT

TOTAL NEW: 155,436 SQ FT

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PROJECT NAME

FACILITY SPACE NEEDS REPORT

PREPARED FOR

EAU CLAIRE COUNTY HIGHWAY DEPARTMENT

SHEET TITLE

OPTION 4
OPTIMAL SQUARE FOOTAGE SHOP

Eau Claire Highway Department
Schematic Design - Construction Cost Estimate
Option 4 - Construction Costs

	SF/Quantity		Cost per SF		Total
Demolition					
Remove all buildings from the existing site	64,442		2.5	$	161,105
				$	161,105
New Construction					
Parking Garage	56,200		120	$	6,744,000
Repair Garage	22,524		160	$	3,603,840
Parts Storage	13,760		150	$	2,064,000
Repair Shops	13,760		150	$	2,064,000
Crew Support and Admin	10,787		190	$	2,049,530
Salt Brine	1,024		60	$	61,440
Cold Storage	18,718		60	$	1,123,080
Salt Storage (8,000 Tons)	1	$	800,000.00	$	800,000
$	136,774		Total	$	11,765,890
Site Construction					
Cost per acre for site reconstruction	6	$	180,000	$	1,080,000
Fuel Island	allow	$	350,000	$	350,000
			Total Construction Cost	$	13,356,995
Soft Costs					
Estimating Contingency			5.0%	$	667,850
Construction Contingency			5.0%	$	667,850
Architecture / Engineering Fees			6.0%	$	801,420
			Total	$	2,137,119
			GRAND TOTAL	**$**	**15,494,114**

*Estimate does not include furnishings, moving/relocation expenses, or plan approval and review fees

Option 5 – Hypothetical 40 Acre Site, Pull-in Repair Garage

Option 5 is located on a hypothetical 40 acre site, but only requires 34 acres to be functional. The remainder of the site would house the Sheriff's storage facility and be future expansion area. All buildings are new construction. There is ample room for staff parking adjacent to the administration and crew quarters. Stockpiles and a new water retention pond would be located at the rear of the site. Two new salt sheds are proposed, for county and state. Tempered heated storage and cold storage are also proposed, with room for expansion.

The Repair Garage provides 10 service bays, a truck wash and there are a total of 58 heated parking stalls.

The Cold Storage requirements of 35,000 SF are met with this site.

The two 8,000 ton Salt Sheds meet the County's long-term needs.

This option provides the targeted amount of building space.

If the County were to pursue this option, the Main Shop would meet the long-term facility needs of the Highway Department and there would be enough Yard space to house all the functions including stockpiling, employee parking, staging area, access lanes and room for future expansion.

Further, the Sheriff's facility can be constructed on here in its own segregated area.

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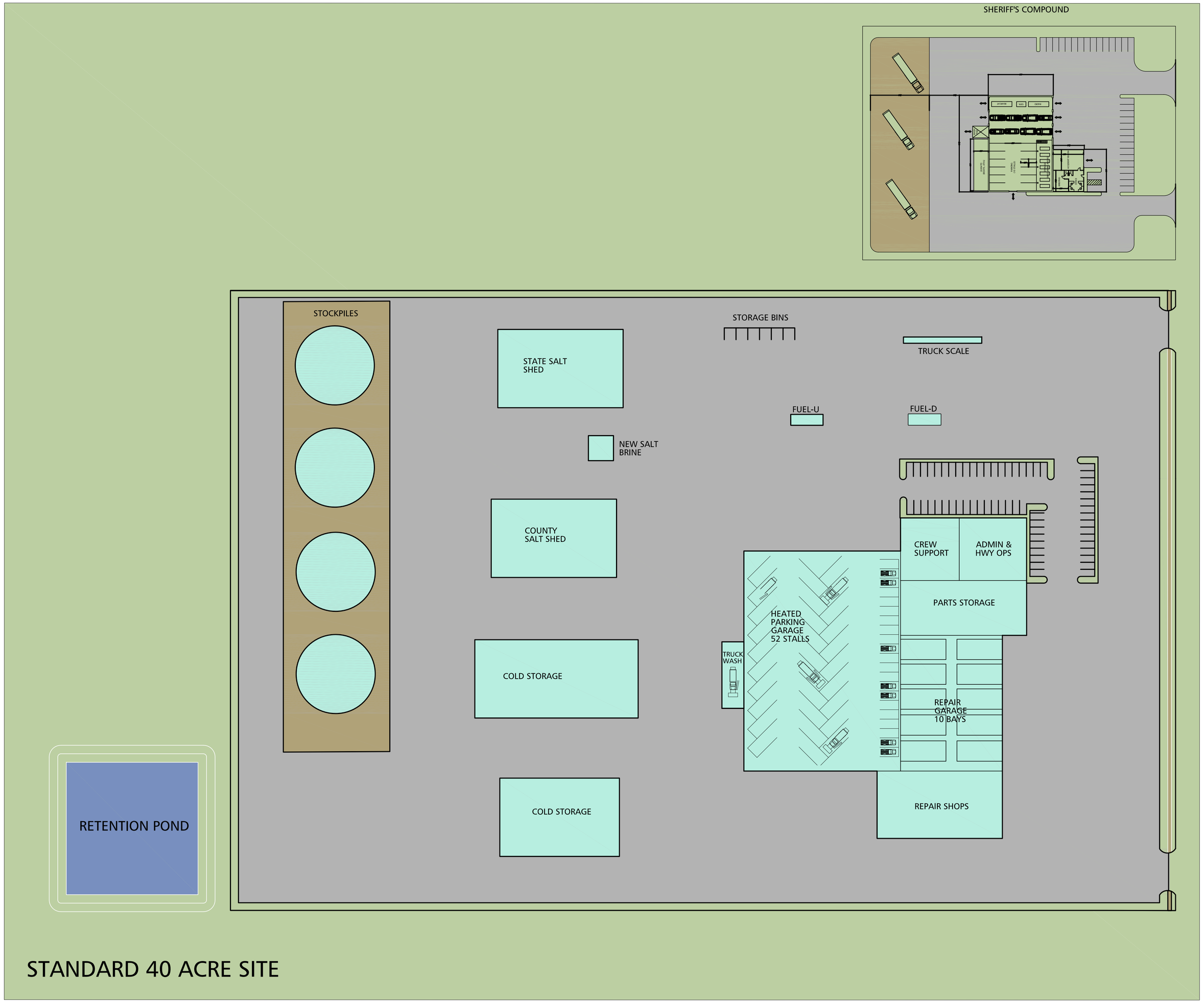

MAIN BUILDING
119,370 SQ FT

NEW PARTS STORAGE	11,270 SQ FT
NEW CREW SUPPORT	6,000 SQ FT
NEW ADMIN	6,880 SQ FT
NEW REPAIR GARAGE	22,524 SQ FT
NEW REPAIR SHOPS	13,760 SQ FT
NEW HEATED PARKING GARAGE	58,960 SQ FT
NEW SALT SHED (COUNTY)	16,000 SQ FT
NEW SALT SHED (STATE)	16,000 SQ FT
NEW SALT BRINE	1,024 SQ FT
NEW COLD STORAGE	15,275 SQ FT
NEW TEMPERED HEATED STORAGE	20,852 SQ FT

TOTAL NEW: 188,595 SQ FT

PROJECT NAME
FACILITY SPACE NEEDS REPORT

PREPARED FOR

EAU CLAIRE COUNTY HIGHWAY DEPARTMENT

SHEET TITLE

OPTION 5
HYPOTHETICAL 40 ACRE SITE
PULL-THRU REPAIR GARAGE

Eau Claire Highway Department
Schematic Design - Construction Cost Estimate
Option 5 - Construction Costs

	SF/Quantity		Cost per SF		Total
Demolition					
Remove all buildings from the existing site	0		2.5	$	-
				$	-
New Construction					
Parking Garage	56,200		120	$	6,744,000
Repair Garage	22,524		160	$	3,603,840
Parts Storage	11,270		140	$	1,577,800
Repair Shops	13,760		150	$	2,064,000
Crew Support and Admin	12,880		190	$	2,447,200
Salt Brine	1,024		60	$	61,440
Cold Storage	36,000		56	$	2,016,000
Salt Storage (8,000 Tons)	2		800000	$	1,600,000
	153,658.00		Total	$	13,370,280
Site Construction					
Ponding & Pipiing	1	$	160,000	$	160,000
Light parking section	2	$	130,000	$	260,000
Heavy Yard Section	12	$	170,000	$	2,040,000
Site Earthwork	40	$	10,000	$	400,000
Fuel Island	allow	$	350,000	$	350,000
			Total	$	3,210,000
			Total Construction Cost	$	16,580,280
Soft Costs					
Estimating Contingency			5.0%	$	829,014
Construction Contingency			5.0%	$	829,014
Architecture / Engineering Fees			6.0%	$	994,817
			Total	$	2,652,845
			GRAND TOTAL	**$**	**19,233,125**

*Estimate does not include furnishings, moving/relocation expenses, or plan approval and review fees

Option 6 – Hypothetical 40 Acre Site, Drive-thru Garage

Option 6 is located on a hypothetical 40 acre site, but only requires 34 acres to be functional. The Option is similar to Option 5 with the only difference being having a Repair Garage with a drive-through aisle.

The remainder of the site would house the Sheriff's storage facility and be future expansion area. All buildings are new construction. There is ample room for staff parking adjacent to the administration and crew quarters. Stockpiles and a new water retention pond would be located at the rear of the site. Two new salt sheds are proposed, for county and state. Tempered heated storage and cold storage are also proposed, with room for expansion.

The Repair Garage provides 10 service bays, a truck wash and there are a total of 58 heated parking stalls.

The Cold Storage requirements of 35,000 SF are met with this site.

The two 8,000 ton Salt Sheds meet the County's long-term needs.

This option provides the targeted amount of building space.

If the County were to pursue this option, the Main Shop would meet the long-term facility needs of the Highway Department and there would be enough Yard space to house all the functions including stockpiling, employee parking, staging area, access lanes and room for future expansion.

Further, the Sheriff's facility can be constructed on here in its own segregated area.

BARRIENTOS
design & consulting

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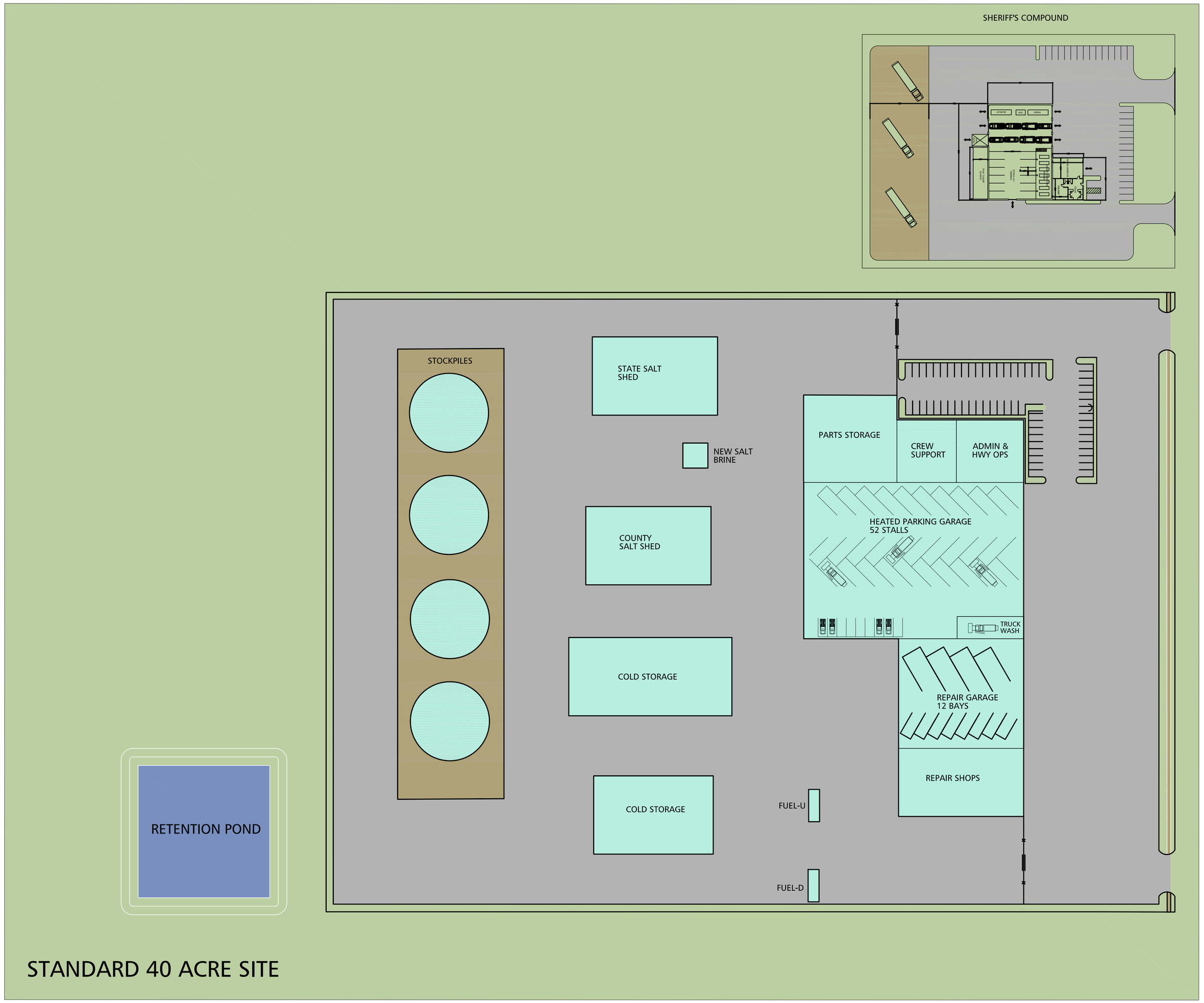

MAIN BUILDING
108,567 SQ FT

NEW PARTS STORAGE	11,270 SQ FT
NEW CREW SUPPORT	6,000 SQ FT
NEW ADMIN	6,880 SQ FT
NEW REPAIR SHOPS	18,720 SQ FT
NEW REPAIR GARAGE	22,395 SQ FT
NEW HEATED PARKING GARAGE	56,200 SQ FT
NEW SALT SHED (COUNTY)	16,000 SQ FT
NEW SALT SHED (STATE)	16,000 SQ FT
NEW SALT BRINE	1,024 SQ FT
NEW COLD STORAGE	15,275 SQ FT
NEW TEMPERED HEATED STORAGE	20,852 SQ FT

TOTAL NEW: 190,616 SQ FT

APRIL 28, 2016

PROJECT NAME
FACILITY SPACE NEEDS REPORT

PREPARED FOR

EAU CLAIRE COUNTY HIGHWAY DEPARTMENT

SHEET TITLE

OPTION 6
HYPOTHETICAL 40 ACRE SITE
DRIVE THRU REPAIR GARAGE

Eau Claire Highway Department
Schematic Design - Construction Cost Estimate
Option 6 - Construction Costs

	SF/Quantity		Cost per SF		Total
Demolition					
Remove all buildings from the existing site	0		2.5	$	-
				$	-
New Construction					
Parking Garage	56,200		120	$	6,744,000
Repair Garage	22,395		160	$	3,583,200
Parts Storage	11,270		150	$	1,690,500
Repair Shops	18,720		120	$	2,246,400
Crew Support and Admin	12,880		190	$	2,447,200
Salt Brine	1,024		60	$	61,440
Cold Storage	36,000		56	$	2,016,000
Salt Storage (8,000 Tons)	2		800000	$	1,600,000
	158,489.00		Total	$	13,644,740
Site Construction					
Ponding & Pipiing	1	$	160,000	$	160,000
Light parking section	2	$	130,000	$	260,000
Heavy Yard Section	12	$	170,000	$	2,040,000
Site Earthwork	40	$	10,000	$	400,000
Fuel Island	allow	$	350,000	$	350,000
			Total	$	3,210,000
	Total Construction Cost			**$**	**16,854,740**
Soft Costs					
Estimating Contingency			5.0%	$	842,737
Construction Contingency			5.0%	$	842,737
Architecture / Engineering Fees			6.0%	$	1,011,284
			Total	$	2,696,758
		GRAND TOTAL		**$**	**19,551,498**

*Estimate does not include furnishings, moving/relocation expenses, or plan approval and review fees

SECTION 10

Decision Matrix Ranking & Recommendations

SELECTION MATRIX

Eau Claire County - Central Highway Facility

Rating: 5 being best, 1 being poor

Option	1	2	3	4	5 & 6
Criteria	**Minor Additions**	**Mix of Additions, New**	**Significant New, some Reuse**	**New on Existing Site**	**New on 40 Acres**
Size	1	2	2	3	5
Configuration	1	2	2	3	5
Operational Efficiency	1.5	1.5	2	3	5
Relationships/Adjacencies	1	1.5	2.5	2	5
Heights/Widths	1	1	3	5	5
Site Circulation	1	1.5	1.5	4	5
Building Systems					
Floor Drainage	1.5	1.5	4.5	5	5
Structural Integrity	3	3	4	5	5
HVAC/Lighting	1.5	1.5	4	5	5
Health & Safety of Personnel	2	2	2.5	3	5
HVAC Air Quality	1	1	4	5	5
Zoning/Public Support	4	4	3	3	5
Neighborhood Compatibility	4	3	2	2	5
Traffic Impact	4	3	2	1	4
Total Rating	**27.5**	**28.5**	**39**	**49**	**69**
Esitmated Added Lifespan	10 years	20 years	20-30 years	25-35 years	70 years