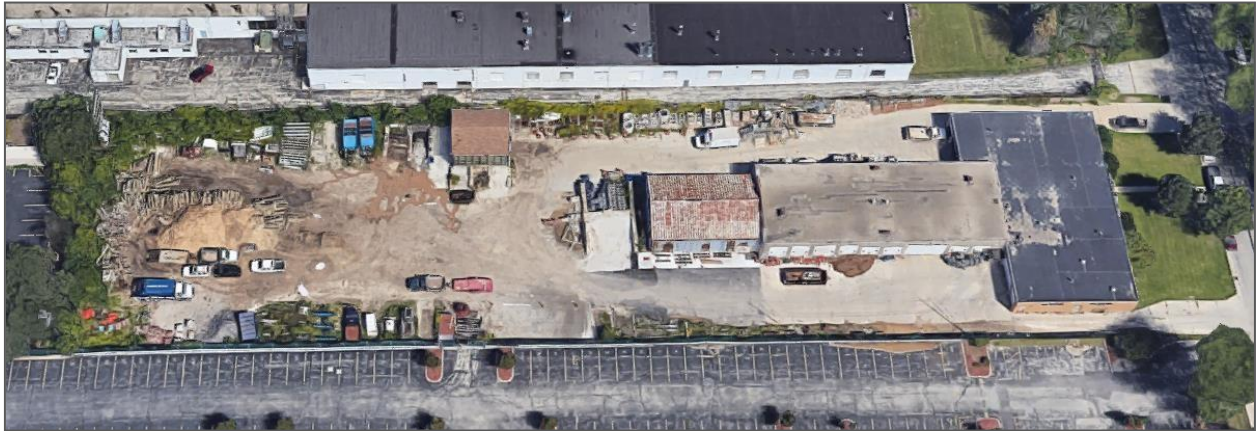


Village of Whitefish Bay, Wisconsin
Public Works Department
Preliminary Architecture and Engineering Design Services
Work Element #2 - Existing Building Repair Planning

5111 N. Lydell Avenue



PREPARED BY
THE SIGMA
Single Source. Sound Solutions. GROUP

Project Number #22059

Report Date: August 9, 2024

Handwritten signature of Corey T. DeToro in black ink.

Corey T. DeToro
Staff Engineer

Handwritten signature of Robert J. Gosse in black ink.

Robert J. Gosse, AIA
Facility Services Group Leader

Handwritten signature of Christopher T. Carr in blue ink.

Christopher T. Carr, PE
Vice President

Handwritten signature of John Edlebeck in blue ink.

John Edlebeck, P.E.
Municipal Group Leader

1. Introduction

The Sigma Group Inc. (Sigma) was contracted in 2023 by the Village of Whitefish Bay to provide Due Diligence and Planning Services for the existing Whitefish Bay Department of Public Works (DPW) service yard site located at 5111 N. Lydell Avenue. This scope of work entailed:

- Focused Phase 1 Environmental Site Assessment
- Condensed Property Condition Assessment
- Space Planning DPW Yard

This work was completed in late 2023, submitted for review and accepted by the Village.

Sigma is now currently under contract with the Village to provide professional services for the Preliminary Architecture and Engineering Design of the Whitefish Bay Department of Public Works (DPW) service yard located at 5111 N. Lydell Avenue (Site). That contract consists of:

- Work Element #1: Site Survey
- Work Element #2: Existing Building Repair Planning
- Work Element #3: Preliminary Architectural Design Development of Salt Storage Facility
- Work Element #4: Preliminary Site Planning / Civil Engineering / Landscaping

Work Element #1 has been completed. This report relates to **Work Element #2 - Existing Building Repair Planning**. The work scope of this element consists of:

- Evaluating the rehabilitation of existing buildings in comparison to new construction, specifically the cold storage building.
- Preparing design development documents for required building improvements as detailed in previous reports.
- Preparing cost estimates based on design development plans

2. Project Scope

This vital Public Works facility, over 70 years old, is in need of improvements to provide for its successful continued use by the Public Works Department. During this phase Sigma identified recommended site and facility improvements along with estimated associated costs, designed to improve the longevity, functionality, and efficiency of Whitefish Bay's Public Works Department service yard site. Both an existing cold storage building remodel option as well as a new cold storage building replacement option have been prepared. We have also developed and summarized the associated estimated costs for each option. Both options will provide for the efficient continued use of the site for Public Works operations.

The recommended site improvements that are common to both Cold Storage Building options are:

- Concrete block repairs, fire alarm and sprinkler system installation in the finished tenant section of the building
- Vehicle fuel storage and dispensing pump system
- Topsoil storage building repairs (trusses, siding, roofing)
- New salt shed building
- Concrete pavement installation on east half of site
- Driveway access improvements
- Perimeter fence repairs
- Site lighting
- Storm drainage upgrade with green infrastructure stormwater management
- Concrete bin block storage

It should also be noted that for any of the above-mentioned improvements that would require the site soil to be disturbed, it is likely some degree of soil remediation will be required as a result of the findings outlined in the previous 2023 Focused Phase 1 Environmental Site Assessment (ESA). The full extent of any soil remediation efforts cannot be determined until a Phase II ESA is performed.

3. Costs

Sigma developed the following Tables of Costs for each option, utilizing a variety of sources that include but are not limited to: information and estimates from third party contractors and vendors, RS Means local construction cost data, experience with local historical construction costs, and owner provided estimates. The below costs represent estimated costs as described below:

Cost Summary

Only Cold Storage Building Remodel	\$ 832,650
Only Cold Storage Building Replacement	\$1,258,400
Total Project Cost with Cold Storage Building Remodel	\$2,163,200
Total Project Cost with Cold Storage Building Replacement	\$2,588,950

3.1 Overall Cost Breakdown

Year	Existing Building Remodel Option	Cost
Design	Environmental Assessment of Overall Site and Phase I Design Services	\$ 150,000
Phase I	Stormwater Management, Storm Sewer, Salt Storage, Block Bin Storage, Pavement (50%) & Phase II Design	\$ 800,000
Phase II	Cold Storage, Topsoil Building, Tenant Building (Not including fire suppression), Driveway Access & Phase III Design	\$ 900,000
Phase III	Fueling System, Pavement (Remaining 50%), Fence, Lighting & Phase IV Design	\$ 220,000
Phase IV	Tenant Building Fire Suppression	\$ 100,000
Total		\$ 2,170,000

Year	Existing Building Replacement Option	Cost
Design	Environmental Assessment of Overall Site and Phase I Design Services	\$ 150,000
Phase I	Stormwater Management, Storm Sewer, Salt Storage, Block Bin Storage, Pavement (50%) & Phase II Design	\$ 800,000
Phase II	Cold Storage, Topsoil Building, Tenant Building (Not including fire suppression), Driveway Access & Phase III Design	\$ 1,330,000
Phase III	Fueling System, Pavement (Remaining 50%), Fence, Lighting & Phase IV Design	\$ 220,000
Phase IV	Tenant Building Fire Suppression	\$ 100,000
Total		\$ 2,600,000

4. Exhibits

Exhibit 1: Site Survey

Exhibit 2: Cold Storage Building Remodel Option – existing facility remodel

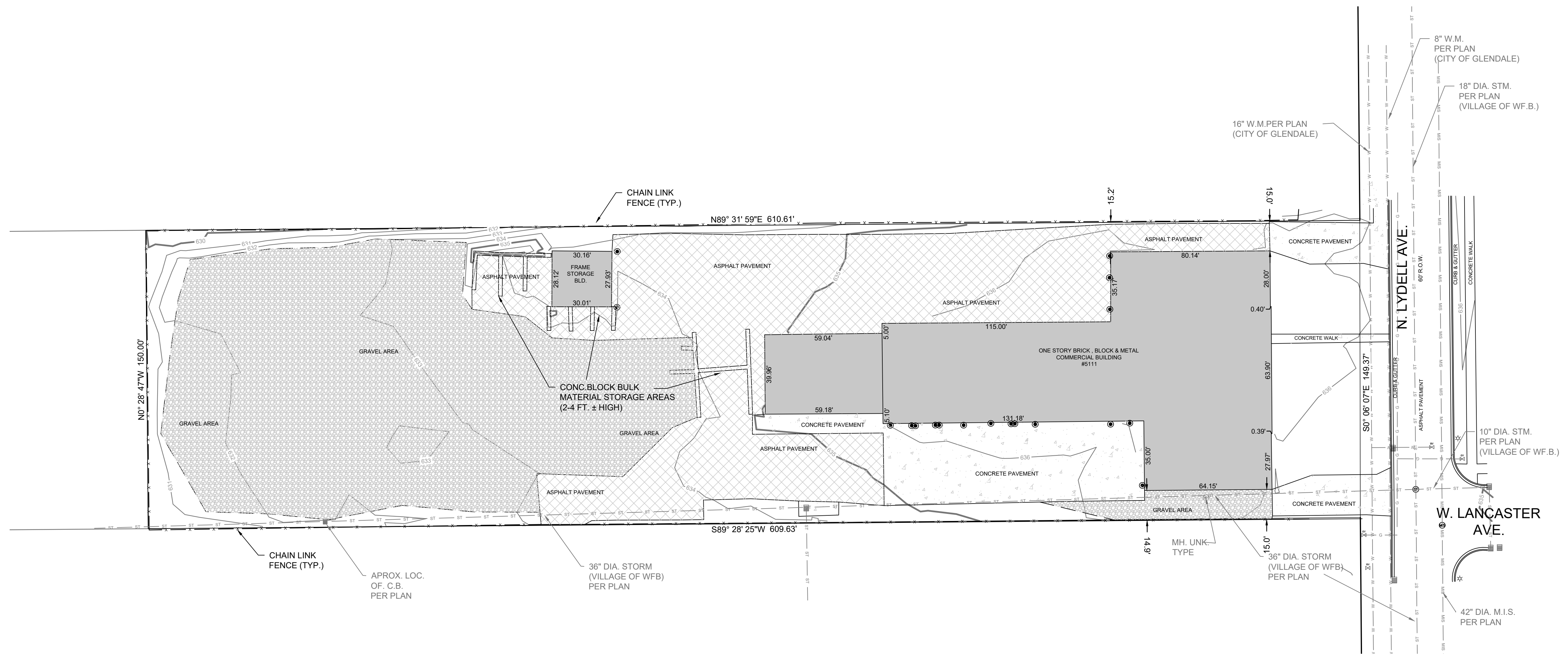
Exhibit 3: Cold Storage Building Replacement Option -construct a new metal frame and siding cold storage building

Exhibit 4: Detailed Cost Breakdown Tables

Exhibit 1

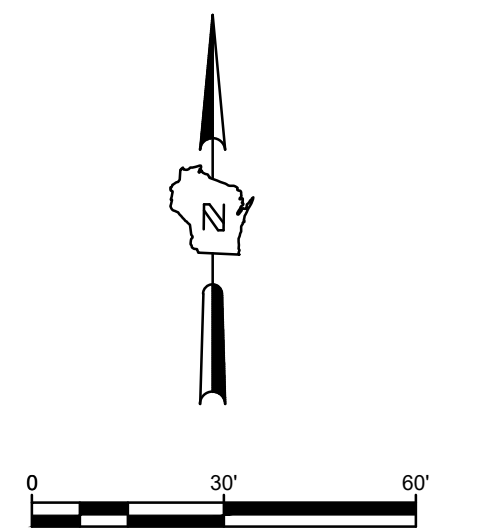
LEGEND

--- SECTION 1/4 SECTION LINE	--- PROPERTY LINE
--- EASEMENT	--- CHAIN LINK FENCE
--- GUARD RAIL	--- METAL FENCE
--- WOOD FENCE	--- TREE LINE
--- OVERHEAD UTILITY LINE	--- ELECTRIC
--- TELEPHONE	--- FIBER OPTIC
--- CABLE TV	--- SANITARY SEWER
--- FORCE MAIN	--- METERHOUSE INTERCEPTOR SEWER
--- COMBINED SANITARY & STORM SEWER	--- STORM SEWER
--- WATER MAIN	--- GAS
--- WETLAND	--- EXISTING MAJOR CONTOUR
--- EXISTING MINOR CONTOUR	--- UNKNOWN MANHOLE
--- SANITARY MANHOLE	--- REBAR FOUNDSET
--- STORM MANHOLE	--- CHISELED CROSS FOUNDSET
--- ELECTRIC MANHOLE	--- SIGNAL
--- MISC MANHOLE	--- MONUMENT
--- TELEPHONE MANHOLE	--- BENCHMARK
--- SIGN	--- SIGN
--- CATCH BASIN	--- DECIDUOUS TREE (Diameter)
--- ROOF DRAIN	--- CONIFEROUS TREE (Diameter)
--- HYDRANT	--- BUSH
--- WATER VALVE	--- POST
--- GAS VALVE	--- SOIL BORING
--- UTILITY POLE	--- MONITORING WELL
--- GUY WIRE	--- CULVERT END
--- GUY POLE	--- LIGHT POLE
--- GAS METER	--- FLAG POLE
--- ELECTRIC METER	--- PARKING METER
--- UTILITY PEDESTAL	--- FLAG POLE
--- HANDHOLE	--- TRAFFIC SIGNAL



- GENERAL NOTES:**
1. THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
 2. VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
 3. DRAWING IS BASED ON FIELD SURVEY COMPLETED BY S.F.Z. ON 3/15/2024.

SITE SURVEY - VILLAGE OF WHITEFISH BAY D.P.W.
 5111 N. LYDELL AVENUE
 GLENDALE, WI



NO. REVISION	
DRAWN BY:	J.M.B.
DATE:	3/29/2024
PROJECT NO.:	22059
CHECKED BY:	K.A.S.
SHEET NO.:	

Exhibit 2

- (A) Tenant Building**
1. Replace Damaged Lintels & Tuckpointing
 2. Install Roof Access Ladder
 3. New Fire Alarm & Sprinkler System
 4. Exterior Paint
 5. Demo Salt Brine Garage

- (B) Cold Storage Building**
1. Roof Replacement
 2. Structural Analysis on Roof Trusses (Can a Solar Array be Supported)
 3. Repair & Tuckpoint CMU Walls, Fill in North Side Overhead Door Openings
 4. Replace Corroded Metal Doors & Frames
 5. Repair Damaged Overhead Door Lintels
 6. Repair Cracking Concrete Slab
 7. Prep & Paint Corroding Metal
 8. New Fire Alarm & Sprinkler System
 9. Exterior Paint
 10. New Overhead Doors (South Facade)
 11. Add Ventilation

- (C) Fuel Pumps**
1. Add (2) Fuel Pumps and Fuel Storage Tanks With Overflow Containment

- (D) Topsoil Storage Building**
1. Replace Broken Truss
 2. Repair Asphalt Shingles
 3. Replace Damaged Wood Siding
 4. Exterior Paint












- (E) Salt Storage Building**
1. Build New Salt Storage Building

- (F) Storage Yard**
1. New Pavement
 2. Fence Upgrade
 3. New Site Lighting
 4. New Storm Sewers & Drainage Plan
 5. Stormwater Management
 6. New Driveway & Entrance Gate

- (G) Concrete Bin Block Storage**
1. Replace Concrete Blocks

- Village Crews**
1. Demolish Metal Building
 2. Remove Weeds & Overgrown Vegetation
 3. Update Tenant Building Landscaping
 4. Solar Panel Array System

Key

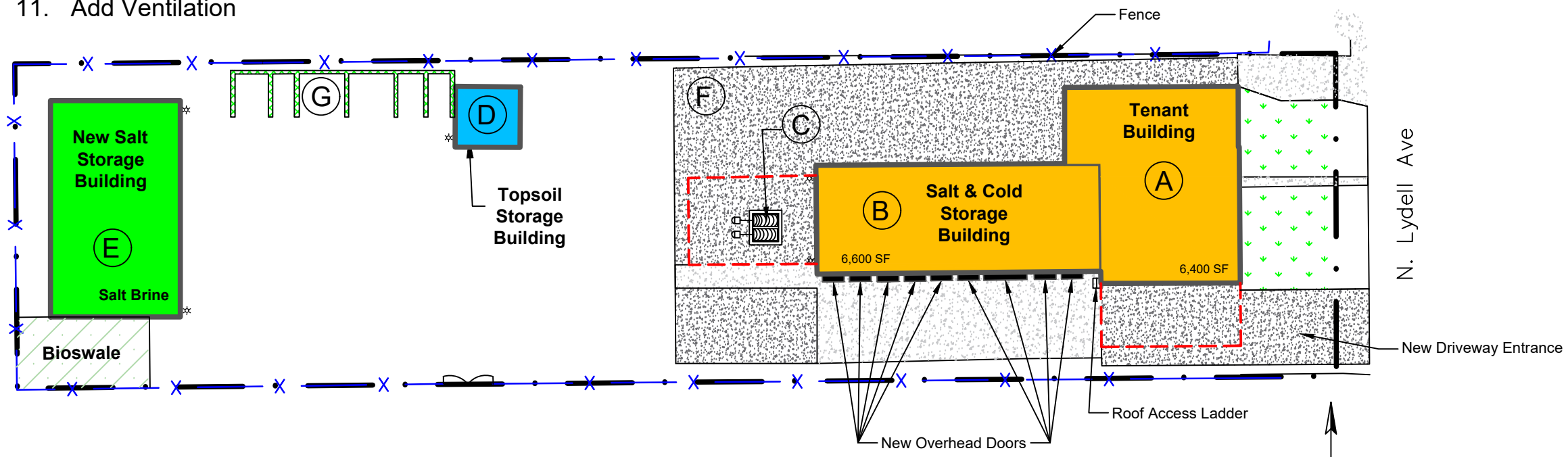
-  Existing Building to be Demolished
-  Existing Building to be Remodeled
-  Existing Building to Remain
-  New Building
-  Existing Concrete
-  New Concrete
-  Property Line
-  Fence
-  Bioswale
-  Landscaping/Grass
-  Exterior Lighting

**Village of Whitefish Bay
Department of Public Works
Storage Yard**

5111 N Lydell Ave
Milwaukee, Wisconsin

SIGMA
Single Source. Sound Solutions. GROUP

Project	#22059
Date	6/24/2024
Scale	1" = 60'



DPW YARD SITE PLAN
EXISTING COLD STORAGE BUILDING REMODEL

Exhibit 3

- (A) Tenant Building**
1. Replace Damaged Lintels & Tuckpointing
 2. Install Roof Access Ladder
 3. New Fire Alarm & Sprinkler System
 4. Exterior Paint
 5. Demo Salt Brine Garage

- (B) Cold Storage Building**
1. Demolish Building
 2. Build New Cold Storage Building

- (C) Fuel Pumps**
1. Add (2) Fuel Pumps and Fuel Storage Tanks With Overflow Containment

- (D) Topsoil Storage Building**
1. Replace Broken Truss
 2. Repair Asphalt Shingles
 3. Replace Damaged Wood Siding
 4. Exterior Paint

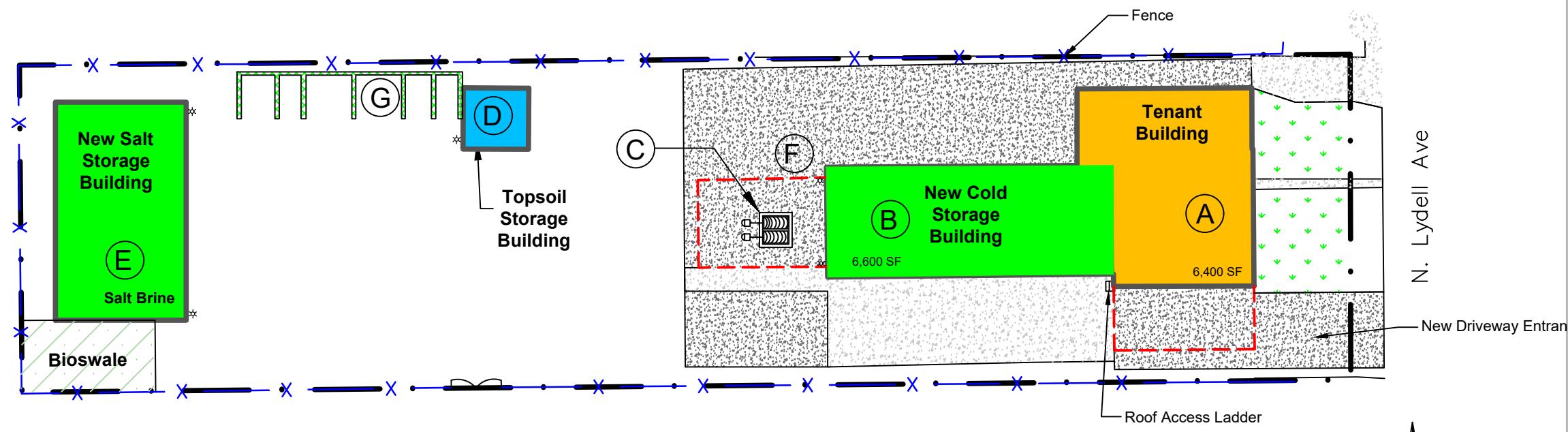
- (E) Salt Storage Building**
1. Build New Salt Storage Building

- (F) Storage Yard**
1. New Pavement
 2. Fence Upgrade
 3. New Site Lighting
 4. New Storm Sewers & Drainage Plan
 5. Stormwater Management
 6. New Driveway & Entrance Gate

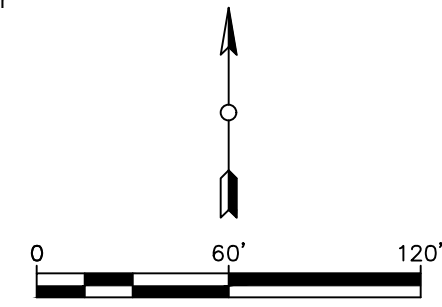
- (G) Concrete Bin Block Storage**
1. Replace Concrete Blocks
- Village Crews**
1. Demolish Metal Building
 2. Remove Weeds & Overgrown Vegetation
 3. Update Tenant Building Landscaping
 4. Solar Panel Array System

Key

- Existing Building to be Demolished
- Existing Building to be Remodeled
- Existing Building to Remain
- New Building
- Existing Concrete
- New Concrete
- Property Line
- Fence
- Bioswale
- Landscaping/Grass
- Exterior Light



DPW YARD SITE PLAN
EXISTING COLD STORAGE BUILDING REPLACE



Village of Whitefish Bay
 Department of Public Works
 Storage Yard

5111 N Lydell Ave
 Milwaukee, Wisconsin

SIGMA
 Single Source. Sound Solutions. GROUP

Project	#22059
Date	6/24/2024
Scale	1" = 60'

Exhibit 4

Table 1: Only Cold Storage Building Remodel – see exhibit #2

Item ID	Existing Building Remodel Option	Cost
A.5	Demo Salt Brine Garage	\$ 46,000
B.1	Replace Cold Storage Building Roof With Mechanically Fastened EPDM Membrane	\$ 132,000
B.2	Structural Analysis on Roof Trusses	\$ 2,500
B.3	Tuckpoint CMU Walls, Replace Damaged CMU Blocks, & Fill in North Overhead Door Openings	\$ 86,000
B.4	Replace or Prep & Paint Corroding Metal Doors and Frames	\$ 14,000
B.5	Repair Damaged Overhead Door Lintels	\$ 95,000
B.6	Repair Concrete Slab at Cold Storage	\$ 16,000
B.7	Prep and Paint Corroding Structural Metal in Cold Storage Building	\$ 12,000
B.8	Fire Alarm & Sprinkler Upgrade	\$ 95,000
B.9	Prep, Prime, Paint CMU Exterior Walls	\$ 7,000
B.10	New Overhead Doors (South Façade)	\$ 95,000
B.11	Add Ventilation	\$ 40,000
	Cold Storage Building Remodel Subtotal	\$ 640,500
	Design & Construction Administration (15%)	\$ 96,075
	Contingency (15%)	\$ 96,075
	Estimated Total:	\$ 832,650

Table 2: Only Cold Storage Building Replacement – see exhibit #3

Item ID	Existing Cold Storage Building Replace Option	Cost
A.5	Demo Salt Brine Garage	\$ 46,000
B.1	Demolish Building	\$ 85,000
B.2	Build New Cold Storage Building	\$ 837,000
	Hazardous Soil Mitigation	Unknown
	Cold Storage Building Replace Subtotal	\$ 968,000
	Design & Construction Administration (15%)	\$ 145,200
	Contingency (15%)	\$ 145,200
	Estimated Total:	\$ 1,258,400

Table 3: Total Project - Cold Storage Building Remodel Option- see exhibit #2

Item ID	Existing Building Remodel Option	Cost
A.1	Replace Damaged Lintels & Tuckpointing	\$ 20,000
A.2	Add Roof Ladder on Outside of Tenant Building	\$ 3,500
A.3	Fire Alarm & Sprinkler Upgrade	\$ 87,000
A.4	Prep, Prime, Paint CMU Exterior Walls	\$ 500
A.5	Demo Salt Brine Garage	\$ 46,000
	Tenant Building Improvements Subtotal (A.1 - A.5)	\$ 157,000
B.1	Replace Cold Storage Building Roof With Mechanically Fastened EPDM Membrane	\$ 132,000
B.2	Structural Analysis on Roof Trusses	\$ 2,500
B.3	Tuckpoint CMU Walls, Replace Damaged CMU Blocks, & Fill in North Overhead Door Openings	\$ 86,000
B.4	Replace or Prep & Paint Corroding Metal Doors and Frames	\$ 14,000
B.5	Repair Damaged Overhead Door Lintels	\$ 95,000
B.6	Repair Concrete Slab at Cold Storage	\$ 16,000
B.7	Prep and Paint Corroding Structural Metal in Cold Storage Building	\$ 12,000
B.8	Fire Alarm & Sprinkler Upgrade	\$ 95,000
B.9	Prep, Prime, Paint CMU Exterior Walls	\$ 7,000
B.10	New Overhead Doors (South Façade)	\$ 95,000
B.11	Add Ventilation	\$ 40,000
	Cold Storage Building Remodel Subtotal (B.1-B.11)	\$ 594,500
C.1	Fuel Pumps, Storage Tanks, & Overflow Containment	\$ 50,000
D.1	Repair Broken Truss in Topsoil Building	\$ 3,000
D.2	Repair Asphalt Shingles on topsoil Storage Building	\$ 5,000
D.3	Replace Damaged Wood Siding inside Topsoil Storage Building	\$ 6,000
D.4	Prep, Prime, and (2) Coat paint Wood Topsoil Building	\$ 3,500
E.1	Build New Salt Storage Building	\$ 500,000
F.1	New Pavement	\$ 200,000
F.2	Fence Upgrade	\$ 15,000
F.3	New Site Lighting	\$ 20,000
F.4	New Storm Sewers & Drainage Plan	\$ 50,000
F.5	Stormwater Management (Bioswale)	\$ 15,000
F.6	New Driveway Entrance	\$ 25,000
G.1	New Concrete Bin Block Storage	\$ 20,000
	Site Improvements Subtotal (C.1 - G.1)	\$ 912,500
		\$ 1,664,000
	Design & Construction Administration (15%)	\$ 249,600
	Contingency (15%)	\$ 249,600
	Estimated Total:	\$ 2,163,200

Table 4: Total Project -Cold Storage Building Replacement Option-see exhibit #3

Item ID	Existing Cold Storage Building Replace Option	Cost
A.1	Replace Damaged Lintels & Tuckpointing	\$ 20,000
A.2	Add Roof Ladder on Outside of Tenant Building	\$ 3,500
A.3	Fire Alarm & Sprinkler Upgrade	\$ 87,000
A.4	Prep, Prime, Paint CMU Exterior Walls	\$ 500
A.5	Demo Salt Brine Garage	\$ 46,000
	Tenant Building Improvements Subtotal (A.1 - A.5)	\$ 157,000
B.1	Demolish Building	\$ 85,000
B.2	Build New Cold Storage Building	\$ 837,000
	Cold Storage Building Remodel Subtotal (B.1-B.2)	\$ 922,000
C.1	Fuel Pumps, Storage Tanks, & Overflow Containment	\$ 50,000
D.1	Repair Broken Truss in Topsoil Building	\$ 3,000
D.2	Repair Asphalt Shingles on topsoil Storage Building	\$ 5,000
D.3	Replace Damaged Wood Siding inside Topsoil Storage Building	\$ 6,000
D.4	Prep, Prime, and (2) Coat paint Wood Topsoil Building	\$ 3,500
E.1	Build New Salt Storage Building	\$ 500,000
F.1	New Pavement	\$ 200,000
F.2	Fence Upgrade	\$ 15,000
F.3	New Site Lighting	\$ 20,000
F.4	New Storm Sewers & Drainage Plan	\$ 50,000
F.5	Stormwater Management (Bioswale)	\$ 15,000
F.6	New Driveway Entrance	\$ 25,000
G.1	New Concrete Bin Block Storage	\$ 20,000
	Site Improvements Subtotal (C.1 - G.1)	\$ 912,500
		\$ 1,991,500
	Design & Construction Administration (15%)	\$ 298,725
	Contingency (15%)	\$ 298,725
	Estimated Total:	\$ 2,588,950