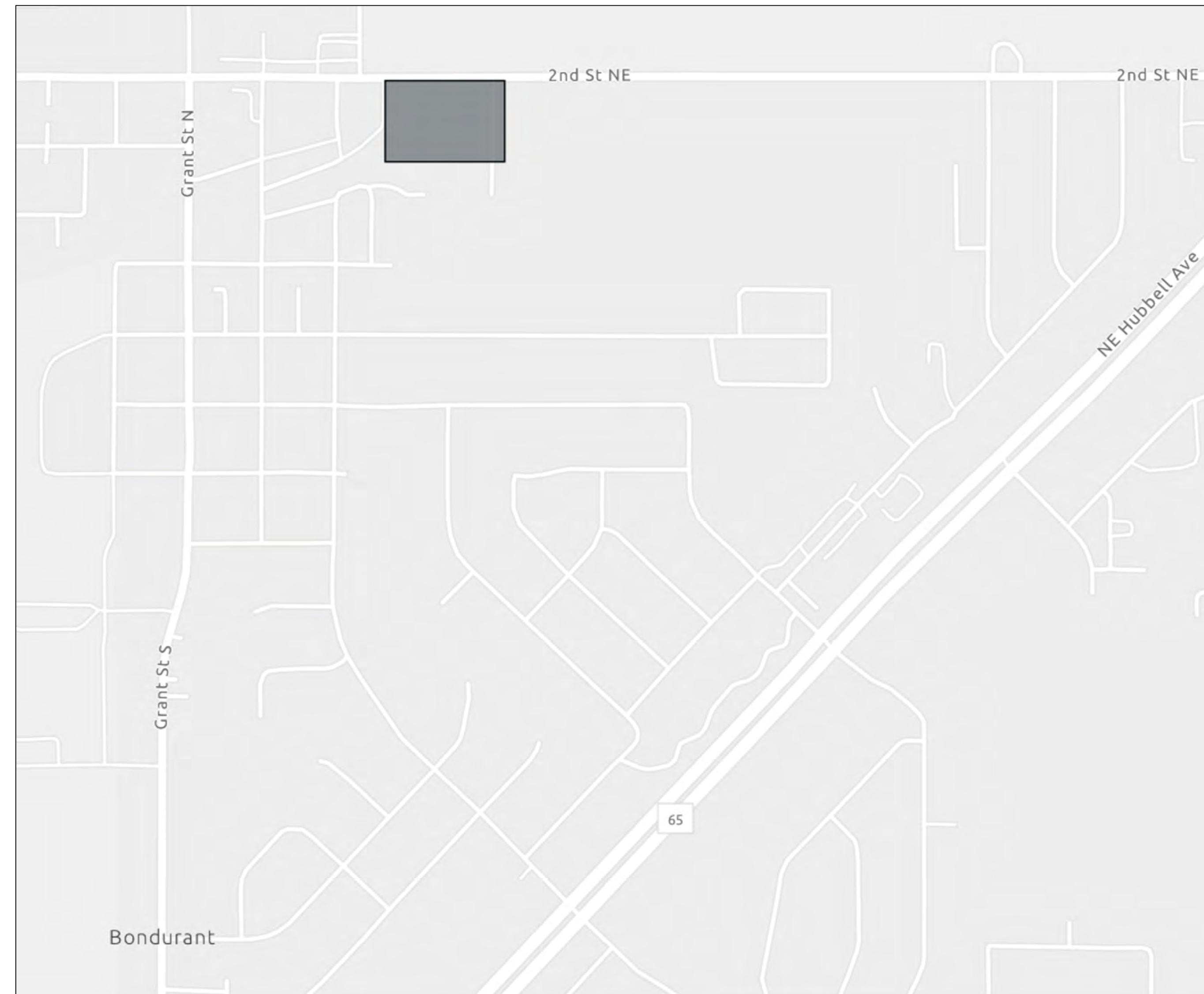
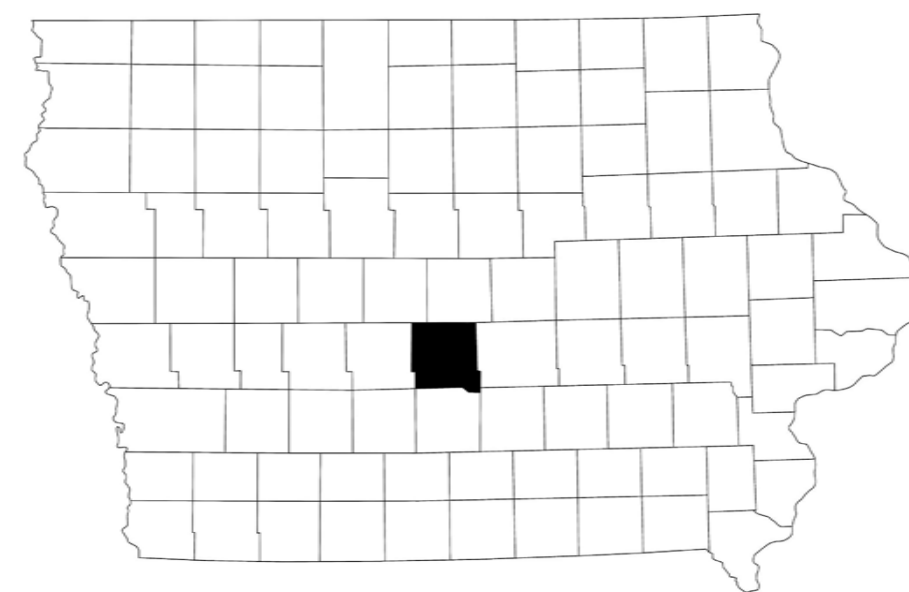


Grain Silo Adaptive Reuse

101 Lincoln St. NE
Bondurant, Iowa



Site Plan



Location Plan

Index of Sheets

G-001	Title
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C-101	Existing Site Conditions
C-102	Site Demo
C-103-104	Site Design
C-105	Landscaping
S-001	Structural Notes
SD001-005	Demolition
S-101-107	Structural
S501-502	Structural Details
A-001-002	Egress
A-101-104	Architectural
A-501	Architectural Detail

PROJECT:	CEE: 4850
DATE :	04/06/2026
DRAWN BY:	Jack Müller
REVISION:	

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EDUCATIONAL - NOT
FOR CONSTRUCTION

Grain Silo Reuse

101 Lincoln St NE
Bondurant, IA 50035

SHEET NAME

Title Sheet

SHEET NO.

1

GRAIN SILO ADAPTIVE REUSE

101 LINCOLN ST NE BONDURANT, IA, 50035

INDEX OF DRAWINGS

- 01 TITLE SHEET
- CIVIL
 - C01 EXISTING SITE PLAN
 - C-02 SITE DEMOLITION
 - C-03 GRADING PLAN
 - C-04 SITE PLAN
 - C-05 LANDSCAPE PLAN
- STRUCTURAL
 - S00 STRUCTURAL NOTES
 - S1 SUBSTRUCTURE DEMO PLAN
 - S2 ROOF DEMOLITION PLAN
 - S3 ARIAL ROOF DEMO PLAN
 - S4 FACADE DEMO PLAN
 - S5 NEW DOORWAY DEMOLITION
 - S6 FACADE REPAIR PLAN
 - S7 LEVEL 0 FOUNDATION REINFORCEMENT
 - S8 LEVEL 1 STRUCTURAL FRAMING
 - S9 LEVEL 2 STRUCTURAL FRAMING
 - S10 LEVEL 3 STRUCTURAL FRAMING
 - S11 LEVEL 4 STRUCTURAL FRAMING
 - S12 LEVEL 5 STRUCTURAL FRAMING
 - S13 LEVEL 6 STRUCTURAL FRAMING
 - S14 PENTHOUSE ROOF FRAMING PLAN
- ARCHITECTURAL
 - A01 MEANS OF EGRESS FOR PENTHOUSE
 - A02 MEANS OF EGRESS FOR LEVEL 2A-1 LEVEL 1
 - ARCHITECTURAL
 - A-2 LEVEL 2 ARCHITECTURAL
 - A-3 LEVEL 4 ARCHITECTURAL
 - A-4 LEVEL 5 ARCHITECTURAL
 - A-7 WALL FRAMING

GENERAL NOTES

1. THIS PROJECT IS FOR EDUCATIONAL AND CONCEPTUAL DESIGN PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION.
2. THE PROJECT CONSISTS OF THE ADAPTIVE REUSE OF TWO EXISTING SIX-PACK GRAIN SILO STRUCTURES LOCATED AT 101 LINCOLN ST. NE IN BONDURANT, IOWA.
3. THE PROPOSED DESIGN CONVERTS EXISTING AGRICULTURAL STORAGE STRUCTURES INTO MIXED-USE SPACES, INCLUDING RESTAURANT, RETAIL, ENTERTAINMENT, HOTEL LOBBY, CONFERENCE, AND RESIDENTIAL/PENTHOUSE USES.
4. ALL WORK SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING THE 2021 INTERNATIONAL BUILDING CODE, IOWA AMENDMENTS, ADA REQUIREMENTS, AND CITY OF BONDURANT ORDINANCES.
5. FINAL OCCUPANCY CLASSIFICATIONS SHALL BE VERIFIED DURING FUTURE DESIGN PHASES AND APPROVED BY THE AUTHORITY HAVING JURISDICTION.
6. EXISTING BUILDING DIMENSIONS, SITE CONDITIONS, STRUCTURAL CONDITIONS, AND SILO WALL THICKNESSES SHALL BE FIELD VERIFIED BEFORE FINAL DESIGN OR CONSTRUCTION.
7. THE EXISTING AGRICULTURAL CHARACTER AND EXTERIOR APPEARANCE OF THE SILO STRUCTURES SHALL BE PRESERVED TO THE GREATEST EXTENT PRACTICAL.
8. ANY NEW WALL OPENINGS, FLOOR PENETRATIONS, OR STRUCTURAL MODIFICATIONS TO THE EXISTING SILO SHELLS SHALL BE REVIEWED BY A LICENSED STRUCTURAL ENGINEER.
9. MEANS OF EGRESS, OCCUPANT LOAD, TRAVEL DISTANCE, EXIT ACCESS, AND EXIT DISCHARGE SHALL BE VERIFIED FOR EACH OCCUPIED SPACE.
10. ACCESSIBLE ENTRANCES, ACCESSIBLE ROUTES, DOOR CLEARANCES, AND RESTROOMS SHALL BE PROVIDED WHERE REQUIRED BY ADA STANDARDS.
11. FIRE PROTECTION SYSTEMS, FIRE SEPARATIONS, AND RATED ASSEMBLIES SHALL BE PROVIDED WHERE REQUIRED BY CODE.
12. MECHANICAL, ELECTRICAL, PLUMBING, STRUCTURAL, ARCHITECTURAL, AND FIRE PROTECTION SYSTEMS SHALL BE COORDINATED DURING FUTURE DESIGN DEVELOPMENT.
13. INTERIOR INSULATION, VAPOR CONTROL, AND ACOUSTIC TREATMENT SHALL BE CONSIDERED DUE TO THE EXISTING CONCRETE SILO CONSTRUCTION AND IOWA CLIMATE.
14. DRAWINGS SHALL NOT BE SCALED. WRITTEN DIMENSIONS AND VERIFIED FIELD MEASUREMENTS SHALL GOVERN.
15. THE FINAL DESIGN SHALL BE REVIEWED, PERMITTED, AND APPROVED BY LICENSED PROFESSIONALS PRIOR TO CONSTRUCTION.
- 16.

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL CONFORM TO THE APPLICABLE BUILDING CODES, LOCAL ORDINANCES, AND PROJECT REQUIREMENTS.
2. THIS PROJECT IS FOR EDUCATIONAL AND CONCEPTUAL DESIGN PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION.
3. EXISTING SILO DIMENSIONS, WALL THICKNESSES, STRUCTURAL CONDITIONS, AND SITE CONDITIONS SHALL BE FIELD VERIFIED PRIOR TO FINAL DESIGN OR CONSTRUCTION.
4. CONTRACTOR SHALL NOT SCALE DRAWINGS. WRITTEN DIMENSIONS AND APPROVED CONSTRUCTION DOCUMENTS SHALL GOVERN.
5. ANY DISCREPANCIES, CONFLICTS, OR OMISSIONS IN THE DRAWINGS OR DOCUMENTS SHALL BE REPORTED TO THE DESIGN TEAM BEFORE WORK PROCEEDS.
6. ALL NEW WALL OPENINGS, DOOR OPENINGS, WINDOW OPENINGS, AND STRUCTURAL PENETRATIONS IN THE EXISTING SILO WALLS SHALL BE REVIEWED AND REINFORCED AS REQUIRED BY A LICENSED STRUCTURAL ENGINEER.
7. NEW STRUCTURAL FRAMING SHALL BE COORDINATED WITH THE EXISTING CONCRETE SILO SHELL TO ENSURE PROPER LOAD TRANSFER AND STRUCTURAL STABILITY.
8. ALL STEEL FRAMING, ANCHORAGE, WELDING, AND CONNECTION DETAILS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH APPLICABLE STRUCTURAL STANDARDS.
9. FIRE-RESISTANCE-RATED ASSEMBLIES, FIRE SEPARATIONS, AND FIRESTOPPING SHALL BE PROVIDED WHERE REQUIRED BY CODE.
10. ALL PENETRATIONS THROUGH RATED WALLS, FLOORS, OR CEILINGS SHALL BE SEALED WITH APPROVED FIRESTOPPING SYSTEMS.
11. ACCESSIBLE ENTRANCES, ACCESSIBLE ROUTES, RESTROOM LAYOUTS, AND DOOR CLEARANCES SHALL COMPLY WITH ADA REQUIREMENTS.
12. MEANS OF EGRESS, EXIT ACCESS, EXIT DOORS, TRAVEL DISTANCES, AND EMERGENCY PATHWAYS SHALL BE MAINTAINED AS REQUIRED BY THE APPLICABLE BUILDING CODE.
13. MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS SHALL BE COORDINATED WITH THE INTERIOR LAYOUT AND EXISTING SILO GEOMETRY.
14. INTERIOR INSULATION AND VAPOR CONTROL STRATEGIES SHALL BE PROVIDED TO ADDRESS CONDENSATION RISK WITHIN THE EXISTING CONCRETE SILO STRUCTURES.
15. CONSTRUCTION ACTIVITIES SHALL PROTECT EXISTING SILO WALLS, FOUNDATIONS, AND EXTERIOR CHARACTER-DEFINING FEATURES TO PRESERVE THE AGRICULTURAL APPEARANCE OF THE SITE.

ZONING REVIEW

FINAL ZONING CLASSIFICATION, PARKING REQUIREMENTS, SETBACKS, SIGNAGE, LANDSCAPING, AND SITE ACCESS SHALL BE VERIFIED WITH THE CITY OF BONDURANT DURING FUTURE DESIGN AND PERMITTING

CODES & STANDARDS

- 2021 INTERNATIONAL BUILDING CODE
- ADA STANDARDS
- ASCE-7
- AISC 360-22
- ACI 318-25
- CITY OF BONDURANT ORDINANCES
- SUDAS

PROJECT NOTES

THE WORK OF THIS PROJECT IS TO EVALUATE THE ADAPTIVE REUSE OF TWO EXISTING SIX-PACK GRAIN SILO STRUCTURES LOCATED AT 101 LINCOLN ST. NE IN BONDURANT, IOWA. THE PROPOSED REDEVELOPMENT CONVERTS THE FORMER AGRICULTURAL STORAGE STRUCTURES INTO MIXED-USE COMMUNITY, COMMERCIAL, CONFERENCE, HOSPITALITY, AND RESIDENTIAL SPACES WHILE PRESERVING THE HISTORIC AGRICULTURAL CHARACTER OF THE SILOS.

THE PROJECT INCLUDES RESTAURANT AND RETAIL SPACES, A CHILDREN'S PLAY AREA, INTERCHANGEABLE ENTERTAINMENT SPACE, HOTEL LOBBY/SUPPORT SPACES, COFFEE SHOP/BAKERY, SPEAKEASY, CONFERENCE LEVEL, AND UPPER-LEVEL PENTHOUSE SUITE. THE DESIGN IS INTENDED TO SUPPORT FUTURE ECONOMIC DEVELOPMENT, COMMUNITY GATHERING, AND INTEGRATION WITH THE LARGER GRAIN DISTRICT REDEVELOPMENT PLAN.

BECAUSE THE EXISTING SILOS WERE NOT ORIGINALLY DESIGNED FOR PUBLIC OCCUPANCY, THE PROJECT REQUIRES REVIEW FOR CHANGE OF OCCUPANCY, STRUCTURAL FEASIBILITY, FIRE PROTECTION, MEANS OF EGRESS, ACCESSIBILITY, AND CODE COMPLIANCE. MAJOR DESIGN CONSIDERATIONS INCLUDE MAINTAINING THE EXTERIOR APPEARANCE OF THE SILOS, REINFORCING NEW WALL OPENINGS, PROVIDING SAFE EXIT ACCESS, INCORPORATING ACCESSIBLE ROUTES AND RESTROOMS, AND ADDRESSING INSULATION, VAPOR CONTROL, AND INTERIOR BUILD-OUT REQUIREMENTS.

THE PROPOSED DESIGN IS PLANNING-LEVEL AND EDUCATIONAL IN NATURE AND IS NOT INTENDED FOR CONSTRUCTION. FINAL DESIGN, PERMITTING, STRUCTURAL VERIFICATION, AND CODE REVIEW SHALL BE COMPLETED BY LICENSED PROFESSIONALS BEFORE CONSTRUCTION.

IBC CODE REVIEW

CODE REQUIREMENT	REFERENCE	ALLOWABLE/REQUIRED	PROJECT RESPONSE/NOTES
APPLICABLE CODE	2021 IBC	BUILDING SHALL COMPLY WITH APPLICABLE IBC REQUIREMENTS	2021 IBC USED AS PRIMARY BUILDING CODE REFERENCE
PROJECT TYPE	IBC/ IEBC	ADAPTIVE REUSE / CHANGE OF OCCUPANCY REVIEW REQUIRED	EXISTING AGRICULTURAL GRAIN SILOS ARE BEING CONVERTED INTO OCCUPIED MIXED-USE SPACES
EXISTING OCCUPANCY	CHAPTER 3	EXISTING AGRICULTURAL/ STORAGE USE	EXISTING SILO STRUCTURES WERE ORIGINALLY USED FOR GRAIN STORAGE
PROPOSED OCCUPANCY	CHAPTER 3	MIXED USE OCCUPANCY	PROPOSED USES INCLUDE RESTAURANT, RETAIL, ENTERTAINMENT, HOTEL LOBBY, CONFERENCE, AND RESIDENTIAL/PENTHOUSE SPACES
OCCUPANCY GROUPS	CHAPTER 3	A-2, B, M, R, AND/OR ACCESSORY USES TO BE VERIFIED	RESTAURANT AREAS MAY BE A-2, CONFERENCE/OFFICE MAY BE B OR A-3, RETAIL MAY BE M, PENTHOUSE MAY BE R
CONSTRUCTION TYPE	CHAPTER 6	TO BE VERIFIED BASED ON EXISTING STRUCTURE	EXISTING REINFORCED CONCRETE SILO SHELL WITH NEW STEEL INTERIOR FRAMING
SPRINKLER SYSTEM	CHAPTER 9	SPRINKLER REQUIREMENTS TO BE VERIFIED BY OCCUPANCY AND AREA	FULL SPRINKLER SYSTEM SHOULD BE ASSUMED FOR PLANNING DUE TO PUBLIC MIXED-USE OCCUPANCY
BUILDING HEIGHT/STORIES	TABLES 504.3 & 504.4	HEIGHT AND STORY LIMITS DEPEND ON OCCUPANCY AND CONSTRUCTION TYPE	PROPOSED MULTI-LEVEL SILO REUSE INCLUDES PUBLIC LOWER LEVELS, CONFERENCE LEVEL, AND UPPER PENTHOUSE LEVELS
ALLOWABLE AREA	TABLE 506.2	ALLOWABLE AREA DEPENDS ON OCCUPANCY, CONSTRUCTION TYPE, FRONTAGE, AND SPRINKLER SYSTEM	FINAL ALLOWABLE AREA SHALL BE VERIFIED ONCE OCCUPANCY GROUPS AND CONSTRUCTION TYPE ARE CONFIRMED
FIRE RESISTANCE RATINGS	TABLE 601/ TABLE 602	RATINGS DEPEND ON CONSTRUCTION TYPE AND OCCUPANCY SEPARATION	FIRE-RATED ASSEMBLIES MAY BE REQUIRED BETWEEN MIXED-USE AREAS, MECHANICAL AREAS, AND RESIDENTIAL/HOSPITALITY SPACES
MIXED OCCUPANCIES	CHAPTER 5	OCCUPANCY SEPARATION OR NON-SEPARATED OR NON-SEPARATED MIXED-USE APPROACH REQUIRED	FINAL DESIGN SHALL DETERMINE WHETHER SILOS ARE TREATED AS SEPARATED OR NON-SEPARATED MIXED OCCUPANCIES
OCCUPANT LOAD	TABLE 1004.5	OCCUPANT LOAD IS FLOOR AREA OVER OCCUPANT LOAD FACTOR	RESTAURANTS, CONFERENCE AREAS, AND PUBLIC SPACES WILL LIKELY CONTROL OCCUPANT LOAD
NUMBER OF EXITS	SECTION 1006	EXIT COUNT BASED ON OCCUPANT LOAD AND TRAVEL DISTANCE	PUBLIC RESTAURANT/CONFERENCE SPACES WILL LIKELY REQUIRE TWO REMOTE EXITS
EXIT ACCESS TRAVEL DISTANCE	TABLE 1017.2	MAXIMUM DISTANCE DEPENDS ON OCCUPANCY AND SPRINKLER SYSTEM	CIRCULAR SILO LAYOUTS MUST BE CHECKED CAREFULLY FOR TRAVEL DISTANCE AND DEAD-END CONDITIONS
EXIT WIDTH/ CAPACITY	SECTION 1005	EGRESS WIDTH BASED ON OCCUPANT LOAD	FINAL EXIT DOOR AND STAIR WIDTHS SHALL BE SIZED BASED ON CALCULATED OCCUPANT LOADS
CORRIDORS/DEAD ENDS	CHAPTER 10	CORRIDOR WIDTH AND DEAD-END LIMITS APPLY WHERE CORRIDORS ARE USED	CIRCULAR GEOMETRY SHALL BE REVIEWED TO AVOID DEAD-END CONDITIONS
ACCESSIBILITY	CHAPTER 11/ ADA	ACCESSIBLE ENTRANCE, ROUTE, RESTROOMS, AND VERTICAL ACCESS REQUIRED	ADA-COMPLIANT ROUTES, RESTROOMS, DOOR CLEARANCES, AND ELEVATOR ACCESS SHALL BE PROVIDED WHERE REQUIRED
STRUCTURAL DESIGN LOADS	CHAPTER 16/ ASCE 7-22	DESIGN LOADS REQUIRED FOR FLOORS, ROOF, WIND, AND SNOW	STEEL FRAMING DESIGNED USING ASCE 7-22 LOAD CONSIDERATIONS
EXISTING STRUCTURE MODIFICATIONS	IBC/ IEBC	STRUCTURAL REVIEW REQUIRED FOR ALTERED EXISTING STRUCTURES	NEW WALL OPENINGS, ANCHORS, AND FRAMING CONNECTIONS REQUIRE STRUCTURAL VERIFICATION

PROJECT: CEE: 4850
 DATE : 05/07/2026
 DRAWN BY: ALEXIS ISENBERG
 REVISION:

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CEE Page 06 - schedule

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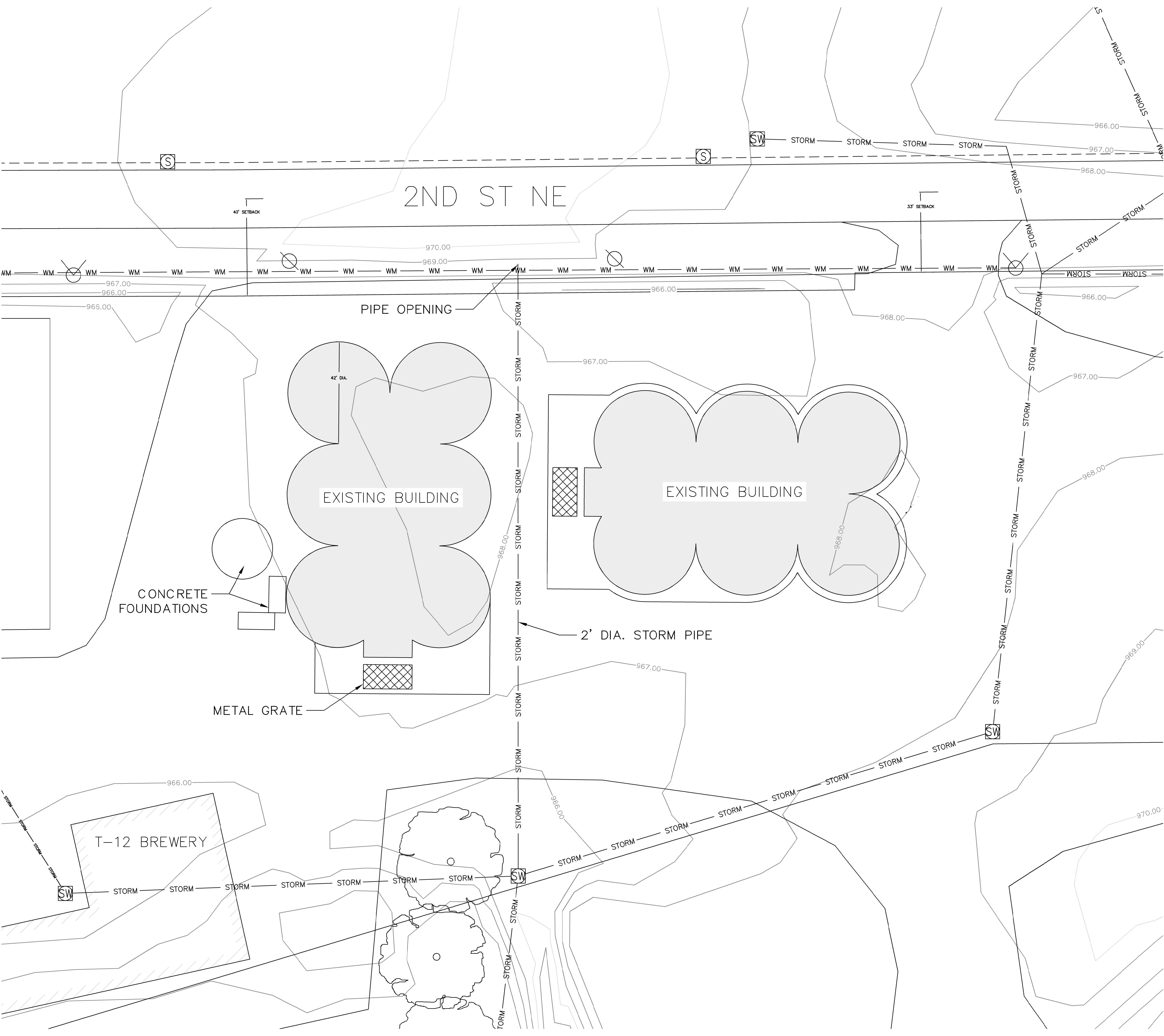
Grain Silo Adaptive Reuse
 101 Lincoln St NE
 Bondurant, IA, 50035

SHEET NAME

CODE REVIEW

SHEET NO.

G-002



LEGEND	
HYDRANT	
STORM MANHOLE	
SANITARY MANHOLE	
STORM PIPE	
SANITARY PIPE	
WATER MAIN	
POWER POLE	

PROJECT:	CEE: 4850
DATE :	4/9/2026
DRAWN BY:	ARY
REVISION:	

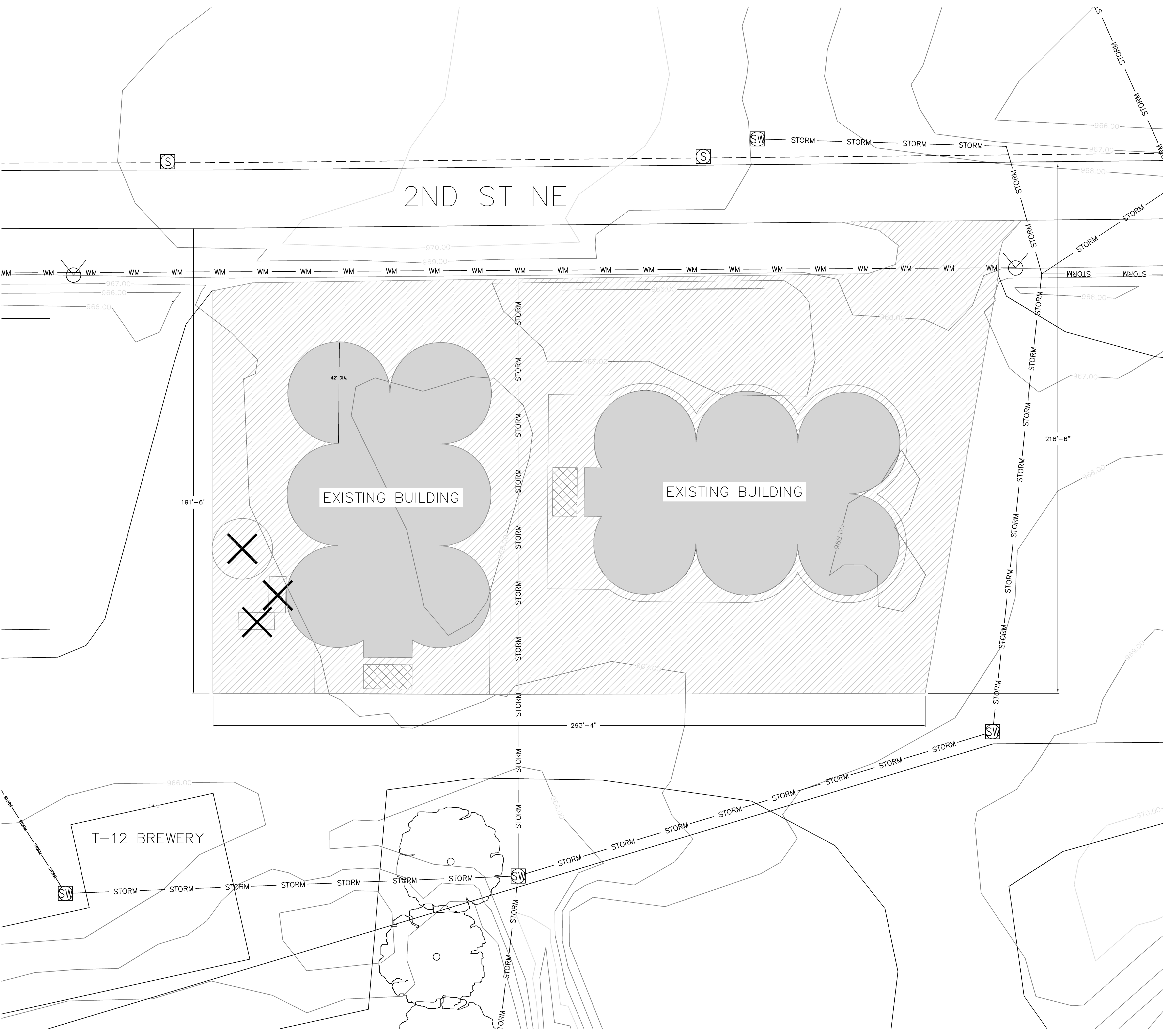
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GRAIN SILO REUSE
 NE 78TH AVE
 BONDURANT, IOWA

SHEET NAME
 EX. SITE PLAN

SHEET NO.
C-101



LEGEND	
REMOVE EXISTING PAVEMENT INCLUDING GRAVEL SURFACING TO A DEPTH OF 8" APPROX. 1,330 C Y	
REMOVE METAL GRATE AND UNDERGROUND MECHANICAL EQUIPMENT	
REMOVE PCC PAVEMENT	

SEE STRUCTURAL DEMO SHEETS FOR MECHANICAL EQUIPMENT DETAILS

APPROX. 296 C Y FILL NEEDED FOR MECHANICAL EQUIPMENT SITES

PROJECT:	CEE: 4850
DATE :	4/9/2026
DRAWN BY:	ARY
REVISION:	

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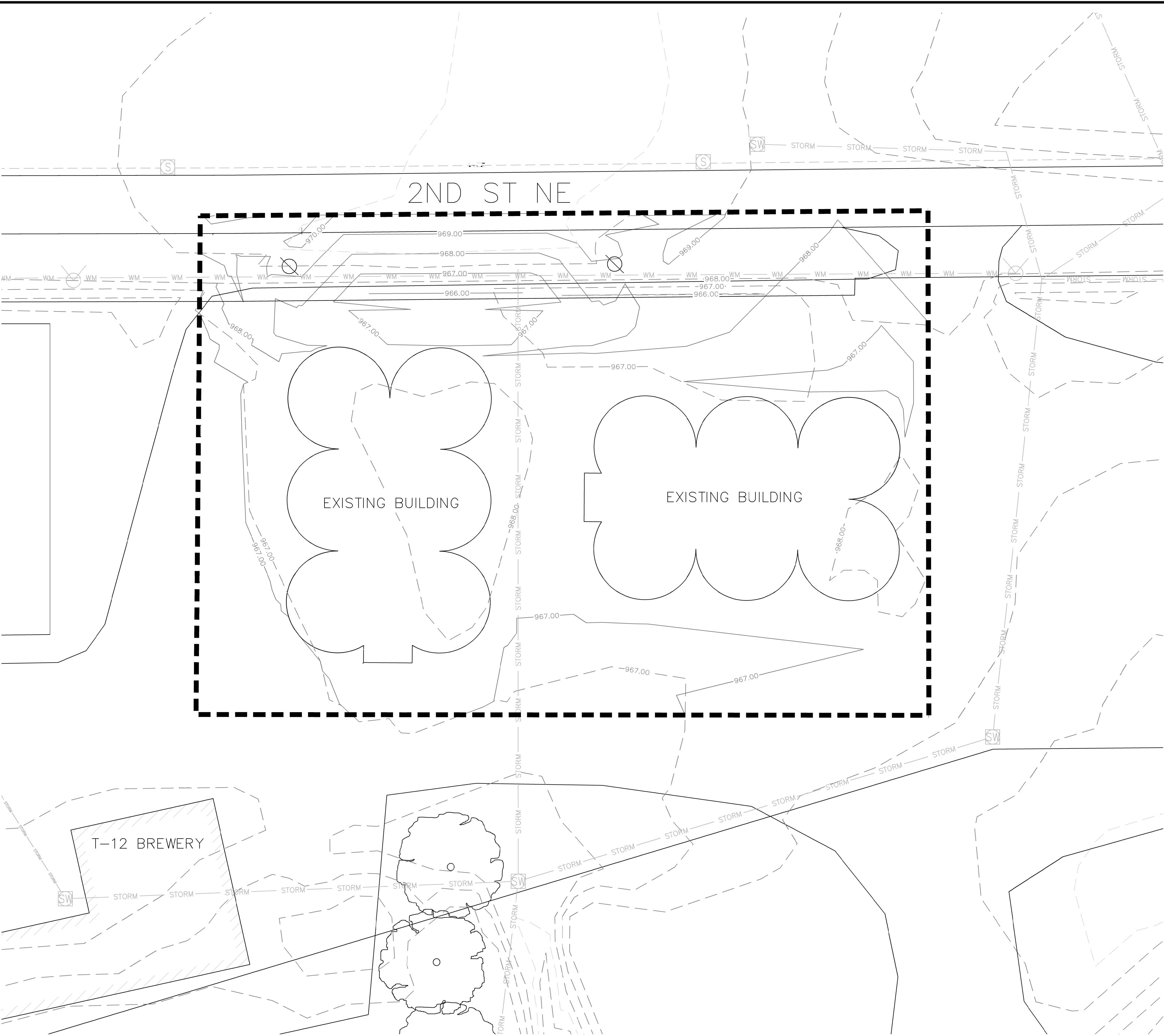
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GRAIN SILO REUSE

NE 78TH AVE
 BONDURANT, IOWA

SHEET NAME
 SITE DEMOLITION

SHEET NO.
C-102



LEGEND	
GRADING LIMITS	— — — —
EXISTING CONTOURS	- - - -
PROPOSED CONTOURS	————

NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING BEST MANAGEMENT PRACTICES TO ELIMINATE POLLUTANT DISCHARGE TO THE PUBLIC STREETS AND STORM RAIN SYSTEM, PRIOR TO COMMENCEMENT OF ANY GRADING OR CONSTRUCTION ON THE SITE.
2. THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES AND TAKE REMEDIAL AND PREVENTATIVE ACTION IMMEDIATELY WHEN POLLUTANT DISCHARGE OCCURS AND/OR AS DIRECTED BY THE CITY ENGINEER OF BUILDING OFFICIAL. THE CONTRACTOR SHALL BE REQUIRED TO PLACE ADDITIONAL EROSION CONTROL MATERIALS AS THE SITE CONDITION WARRANTS.

PROJECT:	CEE: 4850
DATE :	4/09/2026
DRAWN BY:	ARY
REVISION:	

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GRAIN SILO REUSE
 NE 78TH AVE
 BONDURANT, IOWA

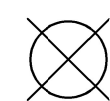
SHEET NAME	GRADING PLAN
SHEET NO.	C-103

LEGEND

PROJECT LIMITS



LIGHT POLE



AUTUMN BLAZE MAPLE



ARBORVITAE



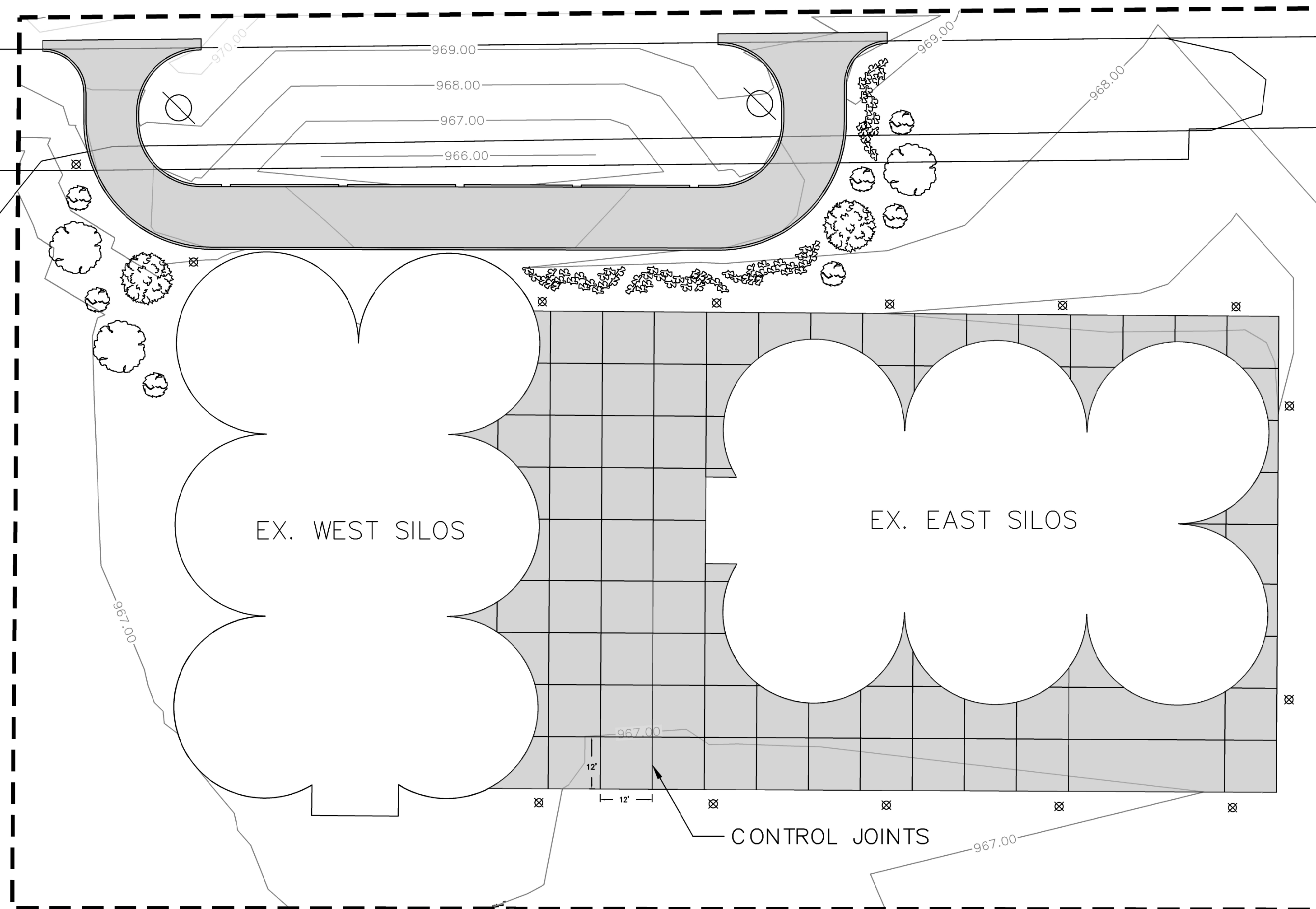
BOXWOOD



NINEBARK



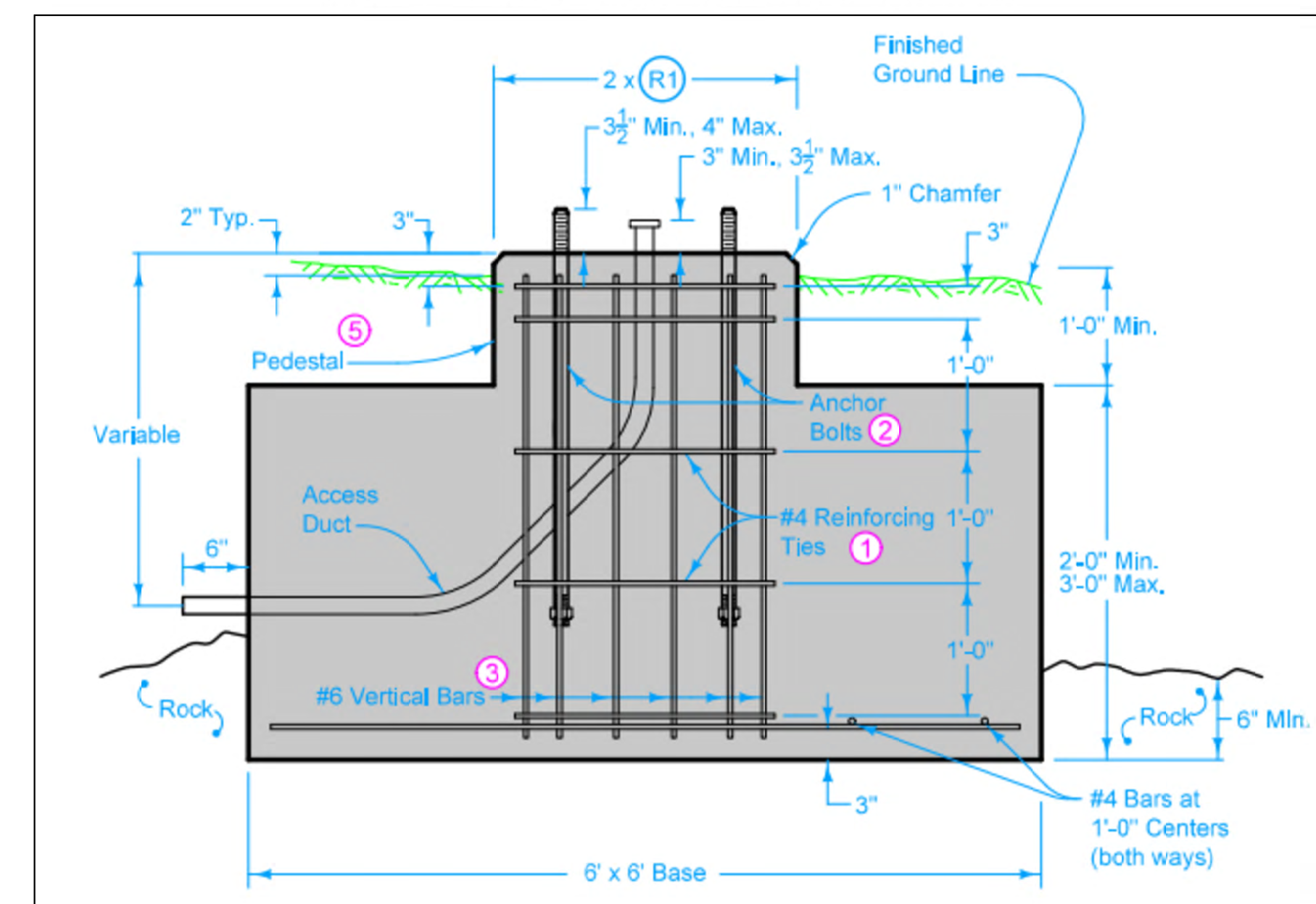
2ND ST NE



NOTES:

1. ALL GRADED AREAS NOT PAVED SHALL BE SEEDED WITH NATIVE GRASSES UPON PROJECT COMPLETION.
2. LIGHT POLE TYPE SHALL BE SELECTED BY CLIENT.
3. LIGHT POLE FOUNDATION SHALL BE IOWA DOT TYPE B FOUNDATION. STANDARD ROAD PLAN LI-201. SEE DETAIL.

LIGHT POLE FOUNDATION DETAIL



LIGHT POLE KEYNOTES

- ① #4 bars lapped a minimum of 1'-6" as indicated. Ties may be welded to vertical bars.
- ② Use full length galvanized anchor bolts: four for Transformer Base, three for Slip Base. Refer to the light pole manufacturer's requirements for anchor bolt, nut, and plate dimensions. Obtain a template from the light pole manufacturer for anchor bolt placement. Do not weld anchor bolts.
- ③ Place 12 equally spaced bars. Use #6 bars for 27 inch diameter drilled shaft, Use #7 bars for 30 inch diameter drilled shaft. Use #8 bars for 36 inch diameter drilled shaft.
- ⑤ Foundation base may be thickened and pedestal omitted at the contractor's option.

PROJECT: CEE: 4850
 DATE: 4/09/2026
 DRAWN BY: ARV
 REVISION:
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GRAIN SILO REUSE

NE 78TH AVE
 BONDURANT, IOWA

SHEET NAME
 LANDSCAPE PLAN

SHEET NO.
C-105

T-12 BREWERY

General Structural Notes

1.0 General

1. STRUCTURAL DESIGN AND CONSTRUCTION MUST BE IN ACCORDANCE WITH THE FOLLOWING
 - 1.1. AISC 360-22 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (16TH EDITION MANUAL, LRFD)
 - 1.2. ASCE 7-22 MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES
 - 1.3. ACI 318-25 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
 - 1.4. IBC-2021 2021 INTERNATIONAL BUILDING CODE
2. THESE GENERAL NOTES APPLY TO ALL STRUCTURAL WORK EXCEPT WHERE THEY CONFLICT WITH DETAILS OR NOTES SPECIFICALLY SHOWN
3. RESOLVE CONFLICTS ON DRAWINGS AND SPECIFICATIONS WITH THE CONTRACTING OFFICER BEFORE PROCEEDING WITH CONSTRUCTION.
4. THE STRUCTURAL DRAWINGS SHOW ONLY THE BASIC STRUCTURE. THEREFORE, REFER TO ARCHITECTURAL AND CIVIL DRAWINGS FOR NON-STRUCTURAL ITEMS WHICH REQUIRE SPECIAL PROVISIONS DURING CONSTRUCTION
5. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN ON STRUCTURAL PLANS.
6. REFER TO ARCHITECTURAL FOR SLEEVES, OPENINGS, ANCHOR BOLTS AND INSERTS, EMBEDDED ITEMS OTHER THAN REINFORCING STEEL, AND ANCHORAGES FOR ATTACHMENT OF NON-STRUCTURAL ITEMS WHICH ARE NOT SHOWN ON STRUCTURAL DRAWINGS
7. THE CONTRACTOR MUST VERIFY ALL CONDITIONS AND DIMENSIONS OF EXISTING CONSTRUCTION PRIOR TO FABRICATION OF STRUCTURAL AND REINFORCING STEEL ITEMS ATTACHED TO OR BUILT ADJACENT TO EXISTING CONSTRUCTION. REPORT SIGNIFICANT DEVIATIONS TO THE ENGINEER AND ARCHITECT OF RECORD PRIOR TO FABRICATION OR INSTALLATION OF THE NEW CONSTRUCTION.

2.0 Design Loads

1. DEAD LOADS
 - 1.1. LEVEL 1
 - 1.1.1. COMPOSITE FLOOR DECK - 74.9 PSF
 - 1.1.2. STEEL FRAMING
 - 1.1.2.1. W30X108 - 108 PLF
 - 1.1.2.2. C15X33.9 - 33.9 PLF
 - 1.2. LEVEL 2
 - 1.2.1. COMPOSITE FLOOR DECK - 63.1 PSF
 - 1.2.2. STEEL FRAMING
 - 1.2.2.1. W24X76 - 76 PLF
 - 1.2.2.2. C12X30 - 30 PLF
 - 1.3. LEVEL 3
 - 1.3.1. ACOUSTIC ROOF DECK - 4 PSF
 - 1.3.2. STEEL FRAMING
 - 1.3.2.1. W14X43 - 43 PLF
 - 1.3.2.2. C12X30 - 30 PLF
 - 1.3.2.3. ROOF PANEL SHEATHING - 2 PSF
 - 1.4. LEVEL 4
 - 1.4.1. COMPOSITE FLOOR DECK - 63.1 PSF
 - 1.4.2. STEEL FRAMING
 - 1.4.2.1. W24X76 - 76 PLF
 - 1.4.2.2. C12X30 - 30 PLF
 - 1.5. LEVEL 5
 - 1.5.1. COMPOSITE FLOOR DECK - 63.1 PSF
 - 1.5.2. STEEL FRAMING
 - 1.5.2.1. W24X76 - 76 PLF
 - 1.5.2.2. HSS2X2X $\frac{1}{4}$ - 5.41 PLF
 - 1.5.2.3. C12X30 - 30 PLF
 - 1.5.3. TEMPERED GLASS DOME - 13 PSF
- 1.6. APPLIED AT EACH LEVEL
 - 1.6.1. MECHANICAL, ELECTRICAL, PLUMBING - 4 PSF
 - 1.6.2. GYPSUM WALL SHEATHING - 2 PSF PER $\frac{1}{2}$ "
 - 1.6.3. POLYURETHANE INSULATION - 0.2 PSF
2. LIVE LOADS (WORST CASE TAKEN ON EACH LEVEL)
 - 2.1. LEVEL 1 (BAKERY, COMMERCIAL KITCHEN) - 150 PSF
 - 2.2. LEVEL 2 (OFFICE) - 100 PSF
 - 2.3. LEVEL 4 (RESIDENTIAL) - 40 PSF
 - 2.4. LEVEL 5 (RESIDENTIAL) - 40 PSF

3. WIND LOADS
 - 3.4. WIND SPEED - 110 MPH
 - 3.5. DESIGN WIND PRESSURE - 31.5 PSF
4. SNOW LOADS
 - 4.1. GROUND & SLOPED SNOW LOAD - 35 PSF
5. SEISMIC LOADS
 - 5.1. NONE
6. FUTURE LOADS
 - 6.1. NONE.

3.0 Reinforcing Steel

1. Welded wire mesh will be used to reinforce composite corrugated metal deck
2. 6x6-W2.1xW2.1
 - 2.1. $F_y = 50$ ksi

4.0 STRUCTURAL STEEL

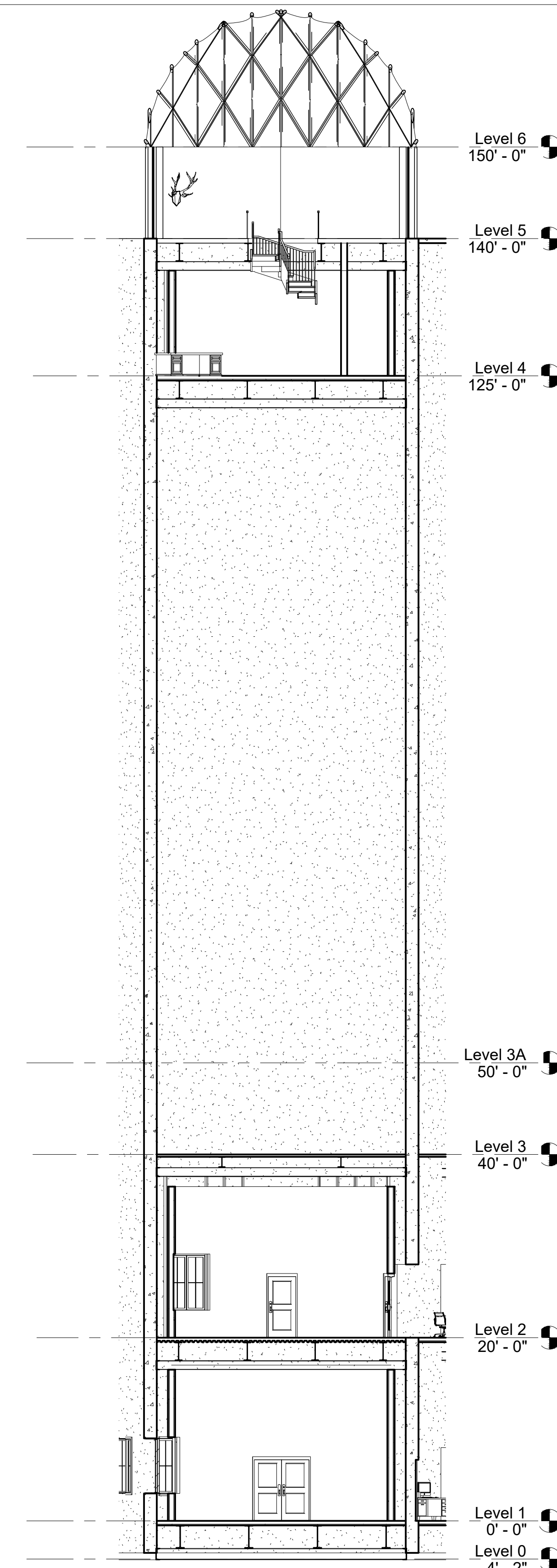
1. DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL MUST BE IN ACCORDANCE WITH AISC 360, SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (LRFD DESIGN) AND THE AISC AND THE AISC "STEEL CONSTRUCTION MANUAL", 16TH EDITION.
2. STEEL GRADES:
 - 2.1. ANGLES AND MISC PLATES - ASTM A36 ($F_y = 36$ ksi)
 - 2.2. STRUCTURAL TUBING (SQ.) - ASTM A500 GRADE C ($F_y = 50$ ksi)
 - 2.3. CHANNELS - ASTM A572, GRADE 50 ($F_y = 50$ ksi)
 - 2.4. W SHAPES - ASTM A992 ($F_y = 50$ ksi)
3. ALL ANCHORS AND BOLTS WILL BE SPECIFIED IN STRUCTURAL DRAWINGS, HIGH STRENGTH, ASTM F1554 GRADE 55 ($F_y = 55$ ksi)
4. ALL WELDING MUST BE IN ACCORDANCE WITH AWS STRUCTURAL WELDING CODE
5. MINIMUM WELD SIZE MUST BE $\frac{3}{16}$ " FILLET WELDS ALL AROUND, UNLESS INDICATED OTHERWISE.

5.0 COLD-FORMED STEEL

1. DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL MUST BE IN ACCORDANCE WITH AISC 360, SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (LRFD DESIGN) AND THE AISC AND THE AISC "STEEL CONSTRUCTION MANUAL", 16TH EDITION.
2. CALCULATIONS AND SHOP DRAWINGS MUST BE PRODUCED, SEALED, AND SIGNED BY A LICENSED PROFESSIONAL ENGINEER. INCLUDE DESIGN OF CONNECTIONS TO PRIMARY SUPPORTING STEEL STRUCTURE.
3. FRAMING MEMBERS MUST HAVE THE MINIMUM STRUCTURAL PROPERTIES INDICATED ON THE STRUCTURAL AND/OR ARCHITECTURAL DRAWINGS AND SPECIFICATIONS SECTION 05 40 00. MAXIMUM SPACING OF MEMBERS MUST BE 16". MINIMUM REQUIREMENTS FOR PERIMETER WALLS ARE 18 GAUGE C-SHAPED STUDS, 2.5" AND 6" DEEP X 1.625" WIDE WITH $\frac{1}{2}$ " WIDE RETURN LIPS. ALL WELDING MUST BE IN ACCORDANCE WITH AWS STRUCTURAL WELDING CODE
4. DEFLECTION OF FRAMING (STUD WALLS) MUST NOT EXCEED $L/240$ UNDER LOAD FROM INDICATED WIND SPEED
5. SUBMIT SHOP DRAWINGS AND CALCULATIONS STAMPED BY A LICENSED PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL OF COLD-FORMED STEEL MEMBERS AND ASSEMBLIES PRIOR TO FABRICATION. INCLUDE DESIGN OF CONNECTIONS TO PRIMARY SUPPORTING STEEL STRUCTURE.

6.0 CONCRETE

1. CONCRETE FOR BUILDING AND SITE STRUCTURES MUST BE NORMAL WEIGHT ($W=145$ PCF) WITH 4000 PSI 28-DAY COMPRESSIVE STRENGTH (f'_c)
2. CONCRETE EXPOSED TO WEATHER MUST HAVE A TOTAL AIR CONTENT BETWEEN 4.5% AND 7.5%
3. FURNISH MATERIALS, MIX, PLACE, FINISH, AND CURE ALL CONCRETE IN ACCORDANCE WITH ACI 301 AND ACI 318.
4. CONCRETE REINFORCING BAR COVER MUST BE AS INDICATED IN TABLE "CAST IN PLACE CONCRETE COVER FOR REINFORCING BARS".
5. NO PIPING OR ELECTRICAL CONDUITS ARE ALLOWED TO BE EMBEDDED HORIZONTALLY WITHIN THE THICKNESS OF CONCRETE SLABS.
6. DETAILING OF REINFORCING MUST BE IN ACCORDANCE WITH ACI 318 AND ACI 315.



STORY POLE

PROJECT:	CEE: 4850
DATE :	04/06/2026
DRAWN BY:	BRADY ADAMS
REVISION:	

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Grain Silo Adaptive Reuse

101 Lincoln St NE
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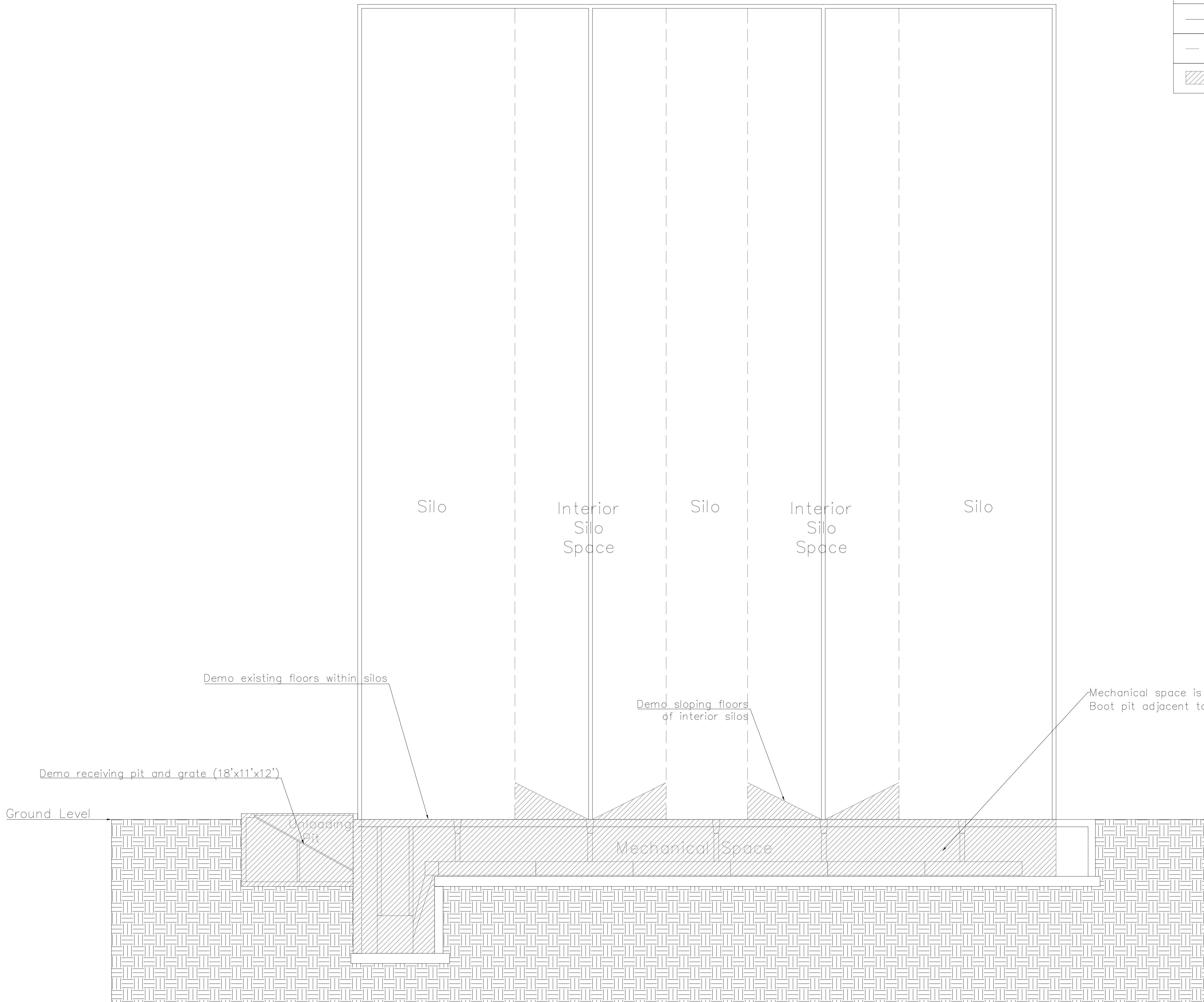
SHEET NAME

STRUCTURAL
NOTES

SHEET NO.

S-001

Legend	
————	Items to remain
-----	Interior silo walls
▨▨▨▨▨	Items to demolish



PROJECT: CEE: 4850
 DATE : 3/24/2026
 DRAWN BY: Jack Muller
 REVISION:

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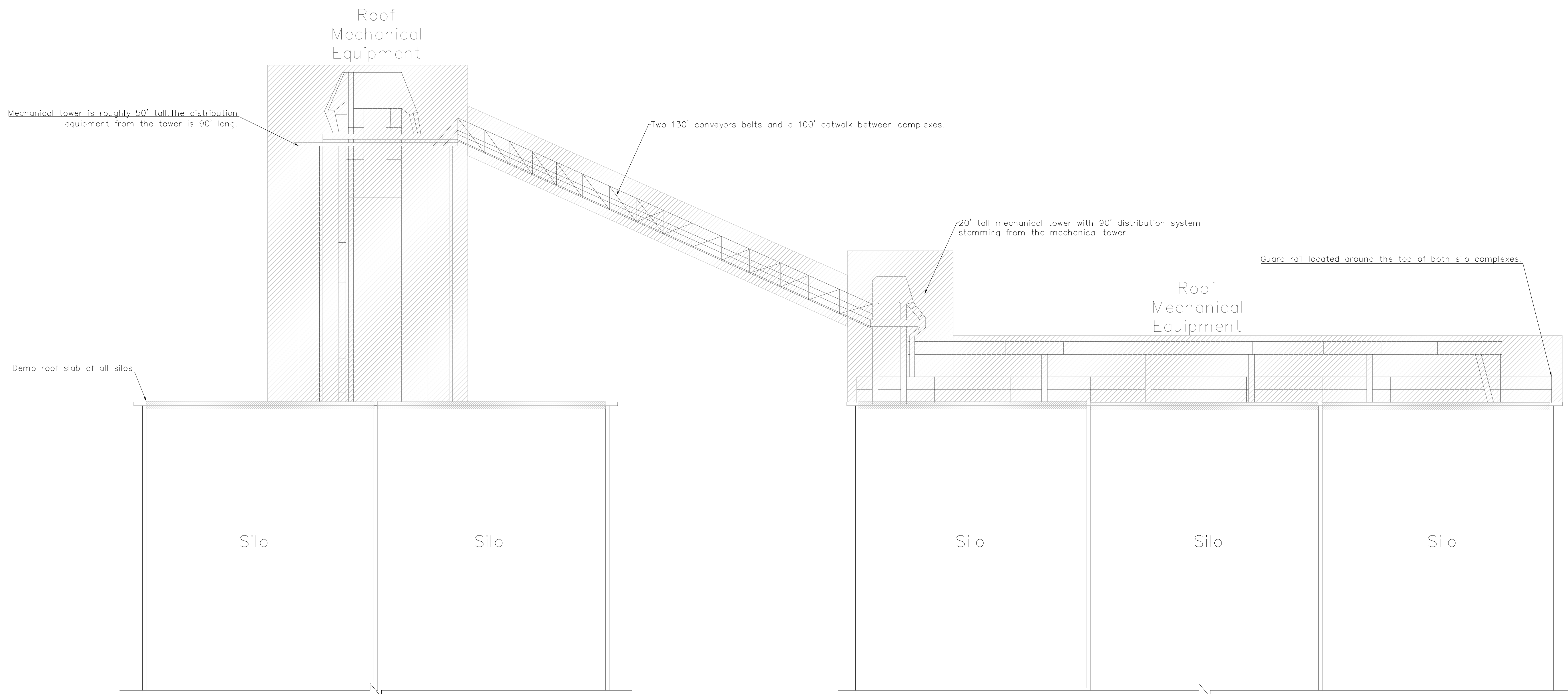
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Grain Silo Reuse

101 Lincoln St NE
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SHEET NAME
 Substructure Demo Plan

SHEET NO.
SD-001



Legend	
	Items to remain
	Items to demolish

PROJECT:	CEE: 4850
DATE :	3/24/2026
DRAWN BY:	Jack Muller
REVISION:	

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SHEET NAME
 Roof Demolition Plan

SHEET NO.
SD-002

PROJECT: CEE: 4850
 DATE : 3/24/2026
 DRAWN BY: Jack Muller
 REVISION:

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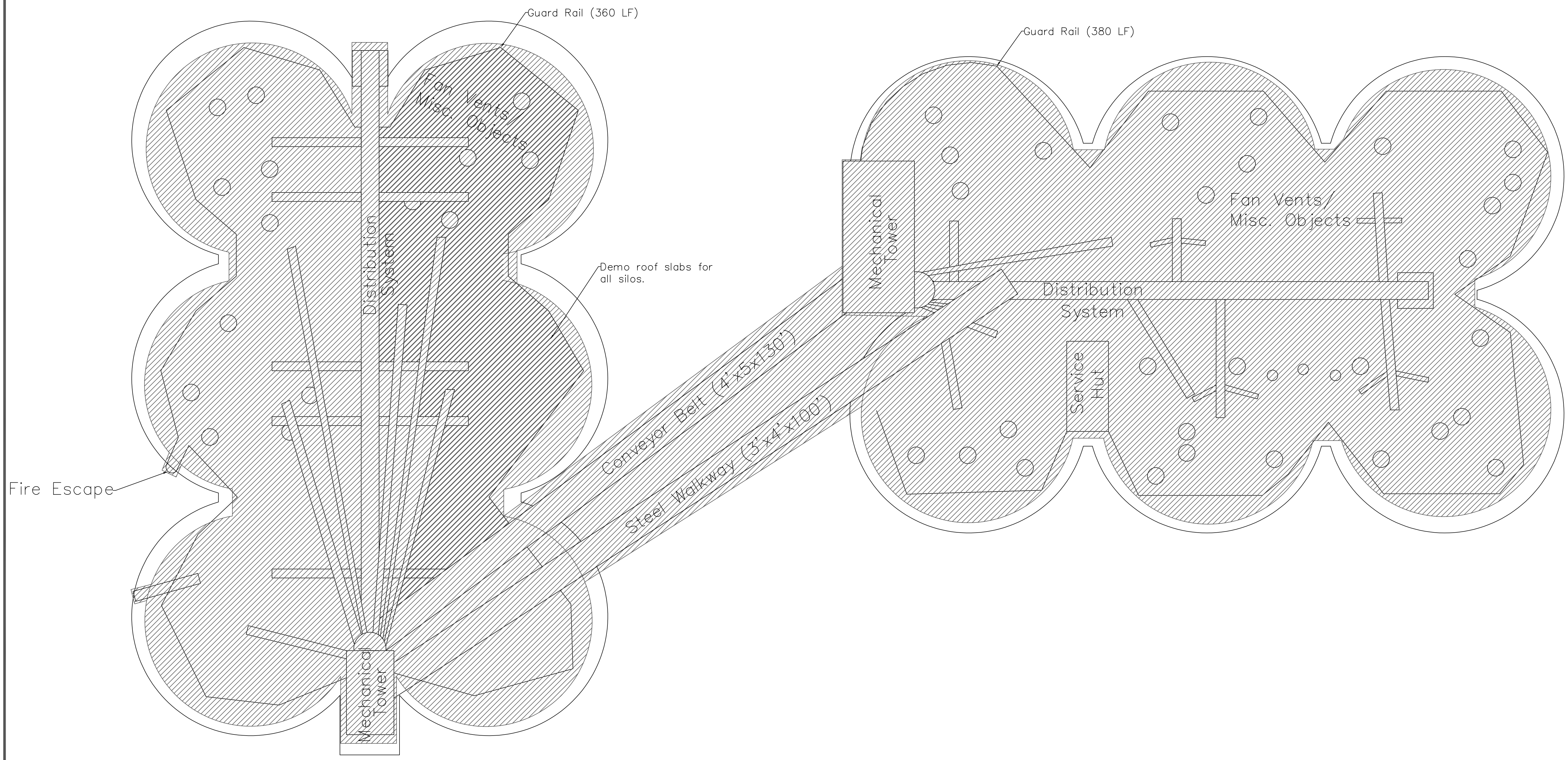
Grain Silo Reuse

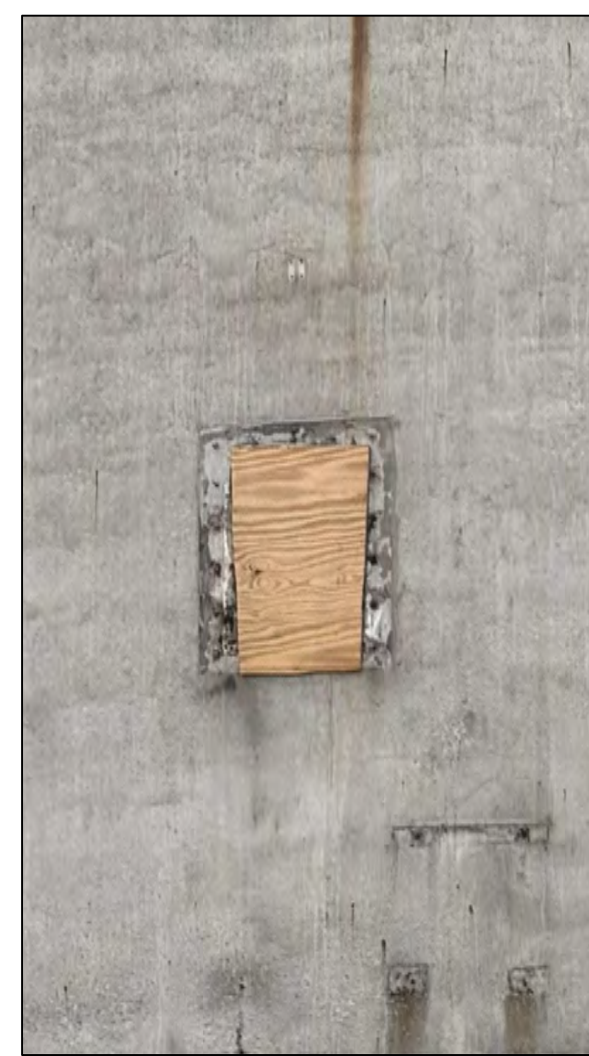
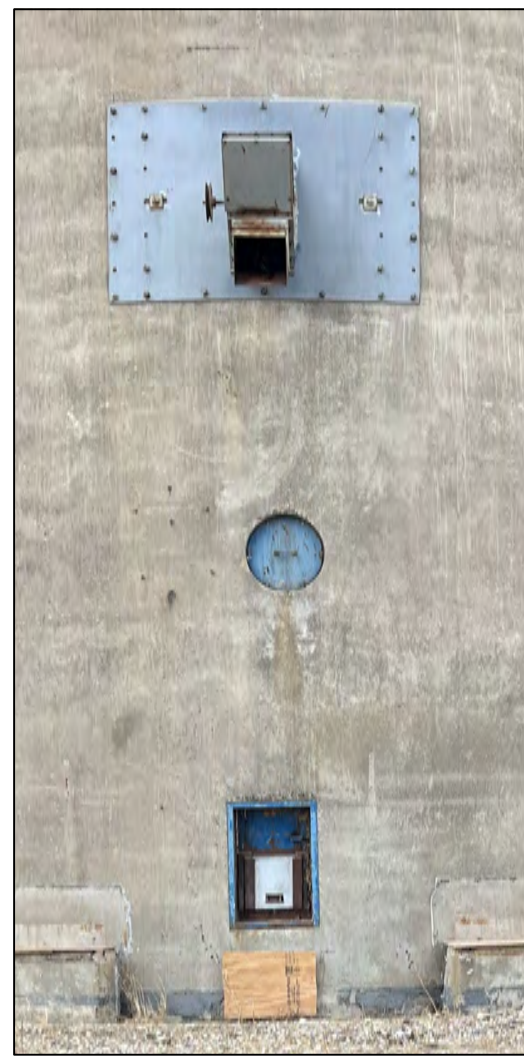
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SHEET NAME
 Arial Roof Demo Plan

SHEET NO.
SD-003

Legend	
	Items to remain
	Items to demolish

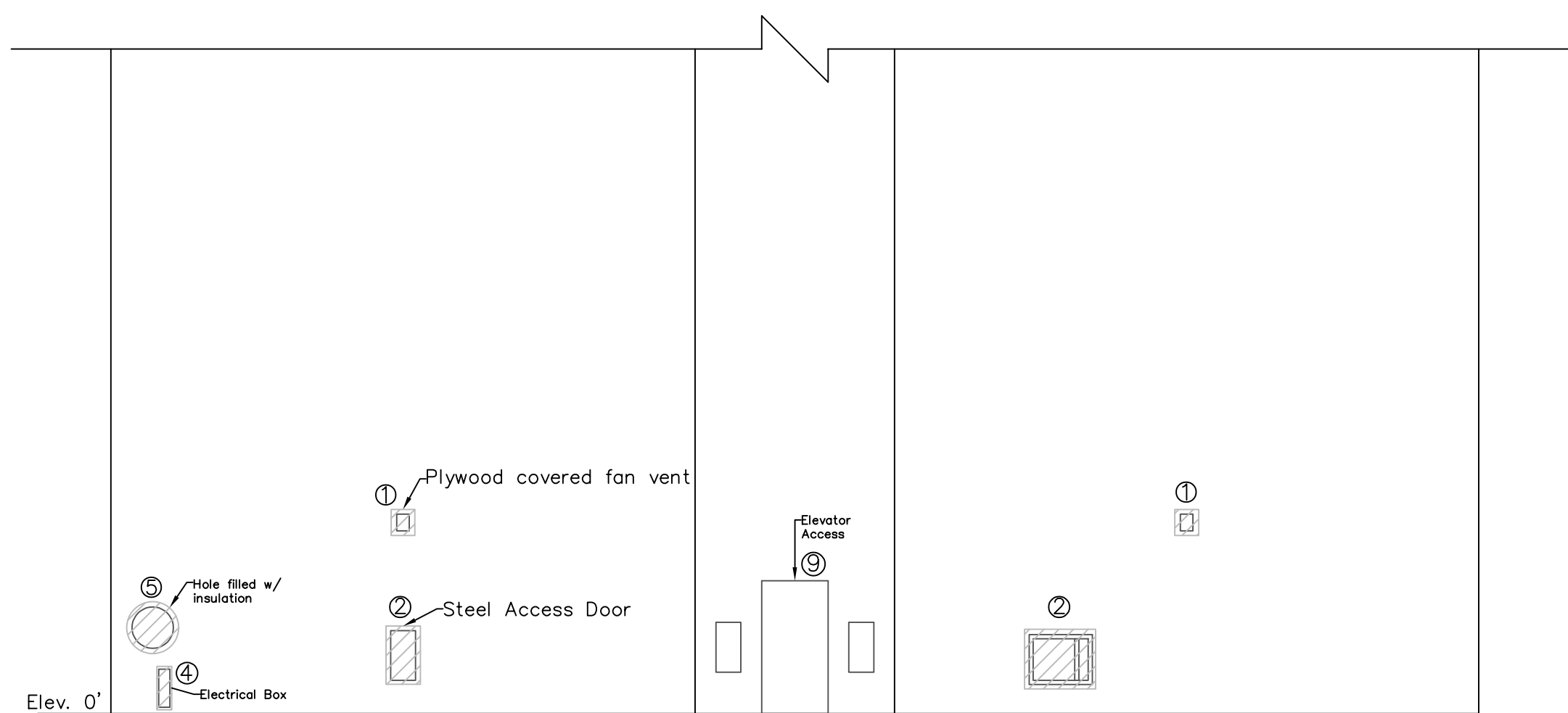




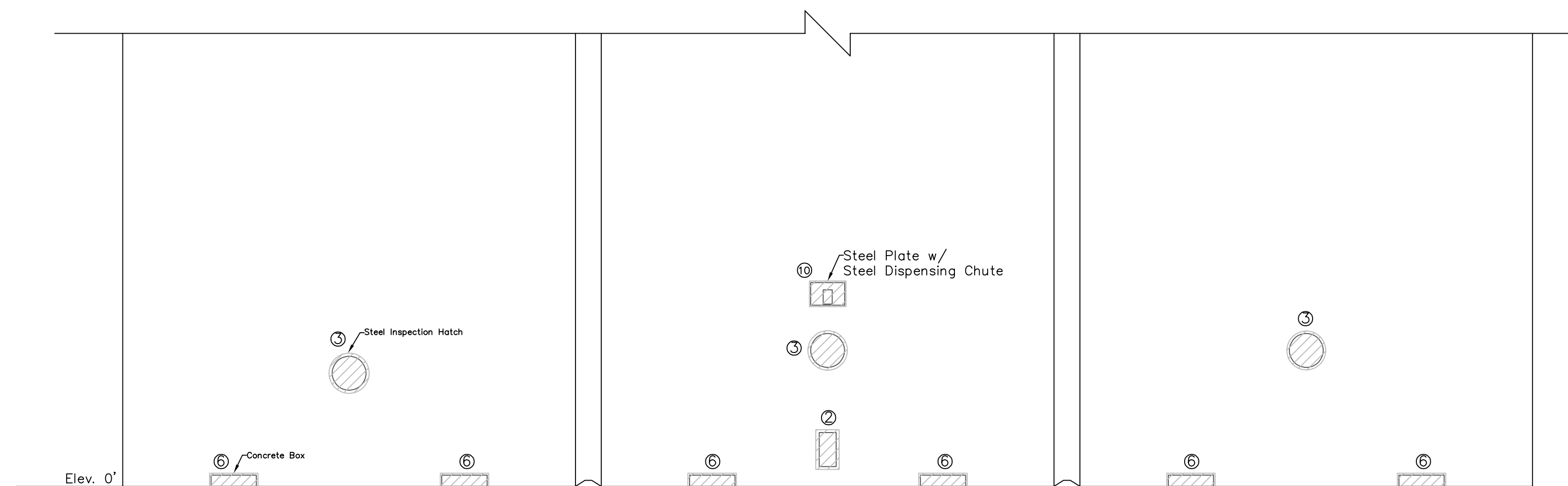
Repair Quantities	
#1 (0.75'x1'): Qty. 12	#5 (2.5' DIA.): Qty. 1
#2 (1.5'x3'): Qty. 12	#6 (4'x1'): Qty. 24
#3 (3' DIA.): Qty. 12	#10 (3'x2'): Qty. 2
#4 (0.67'x2.3'): Qty. 4	#11 (14" DIA.): Qty. 2

Legend	
	Items to remain
	Items to demolish

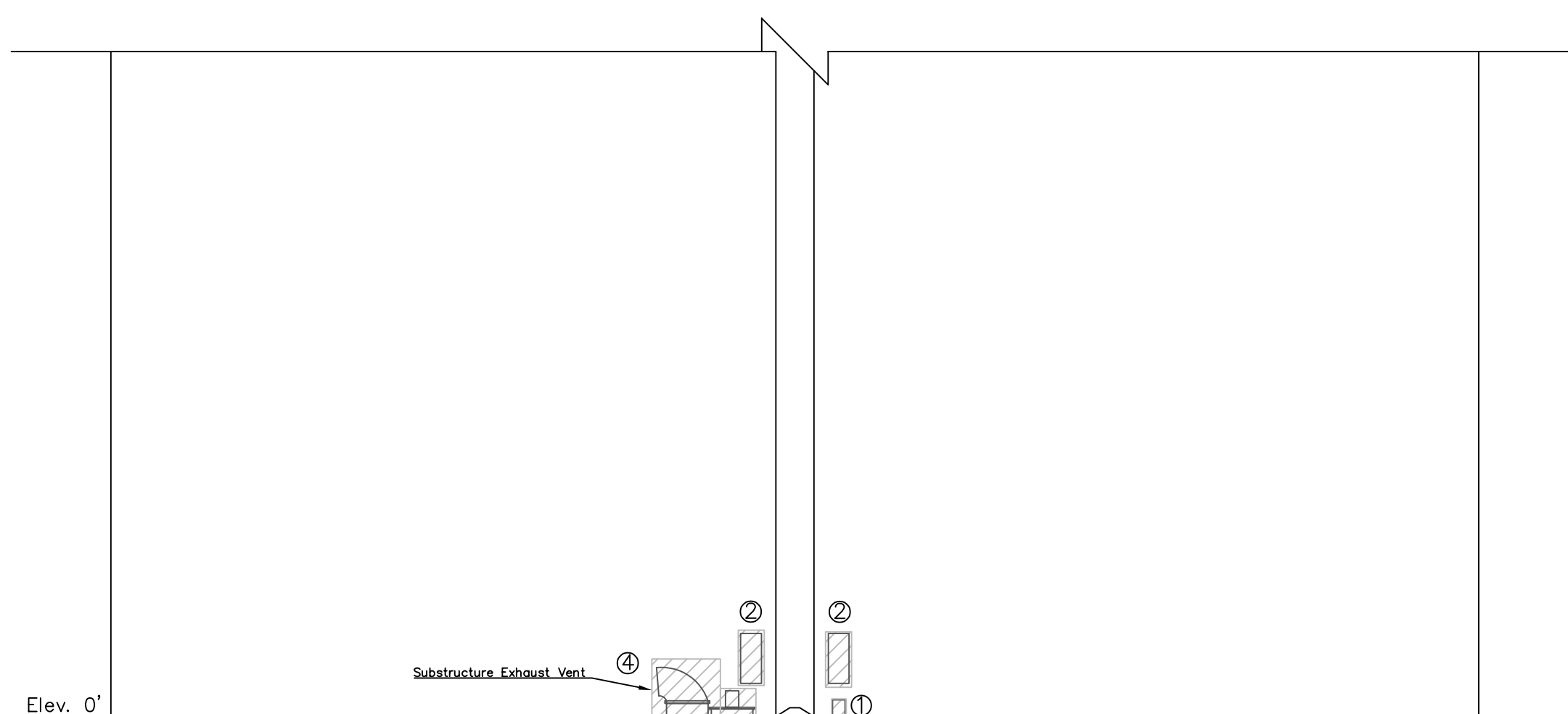
Key Notes	
1,2,3,5,10	Demo back to bare concrete.
4,6,7,8	Demo existing conditions.



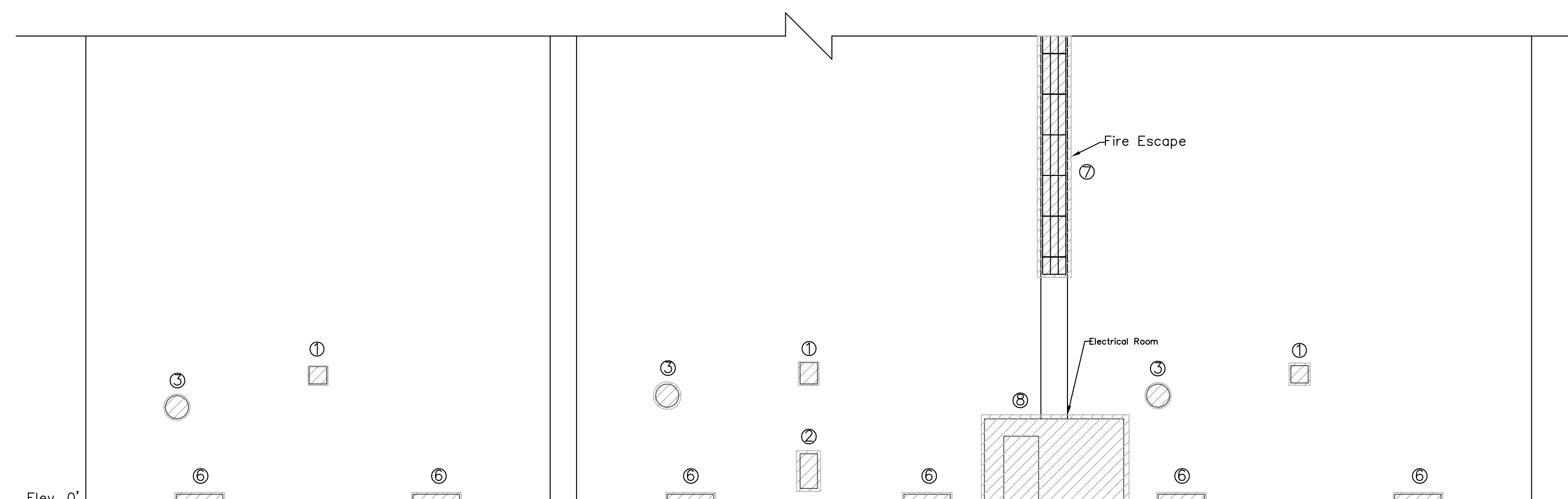
South Side



East Side



North Side



West Side

PROJECT: CEE: 4850
 DATE: 3/24/2026
 DRAWN BY: Jack Müller
 REVISION:

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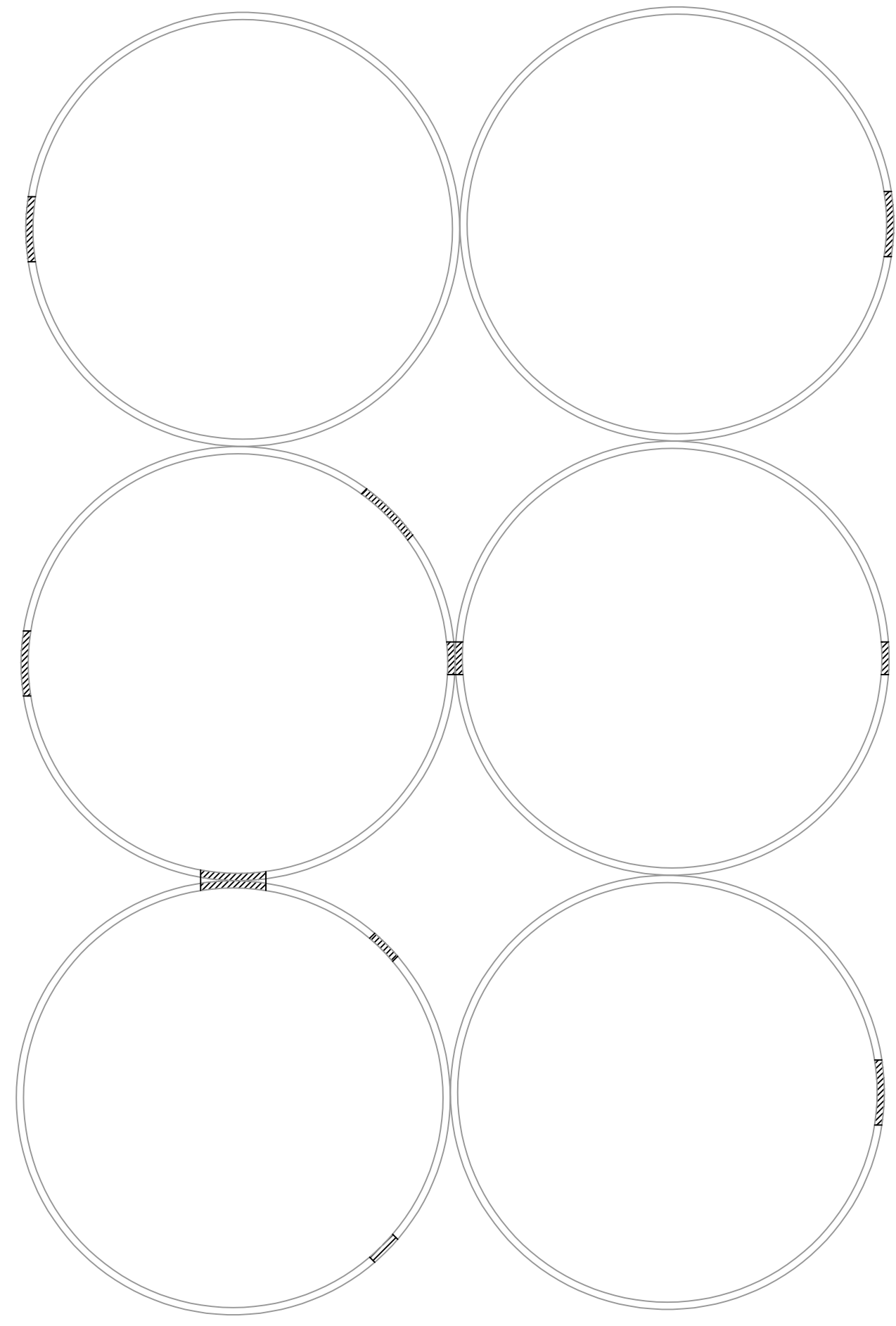


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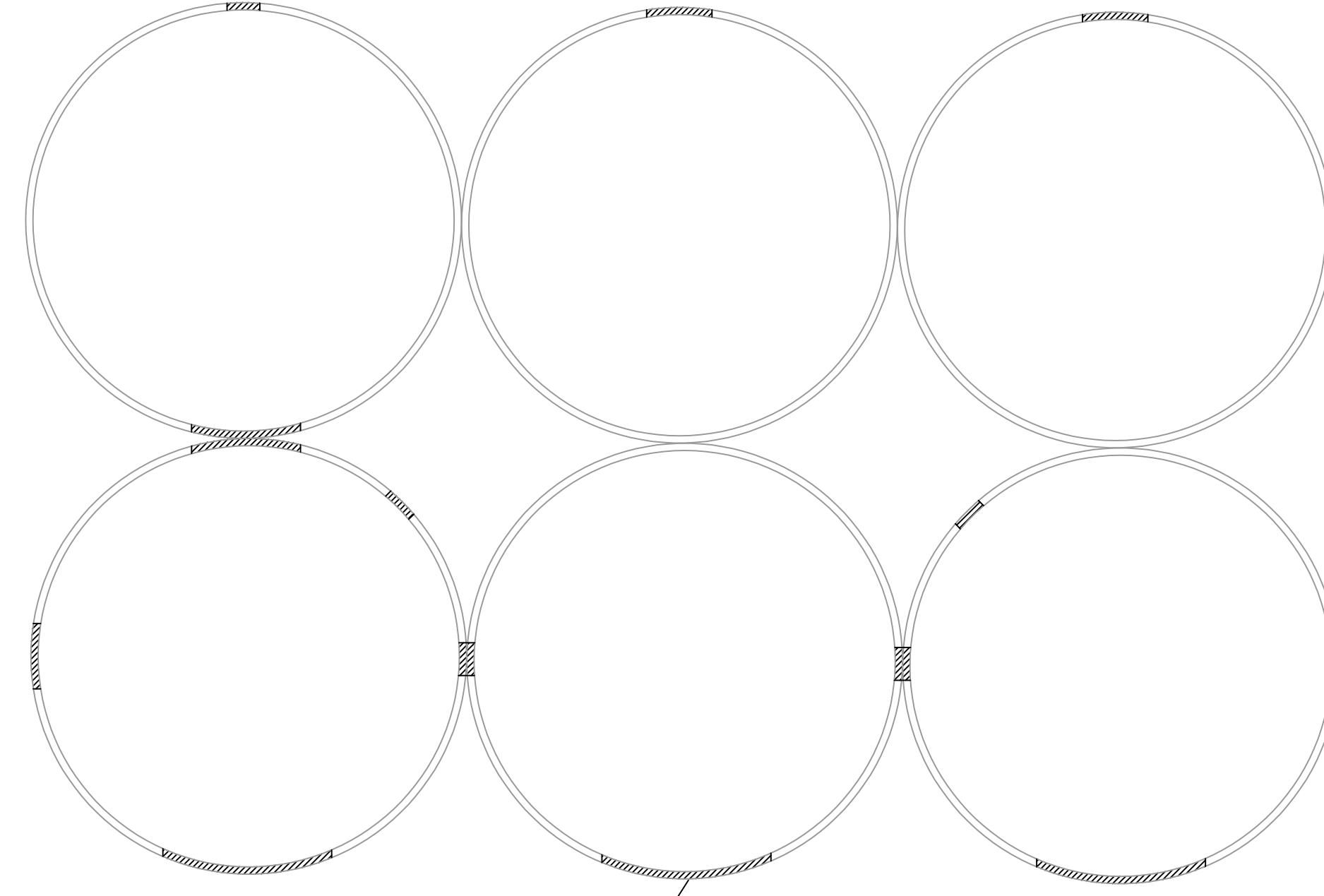
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SHEET NAME
 Facade Demo Plan

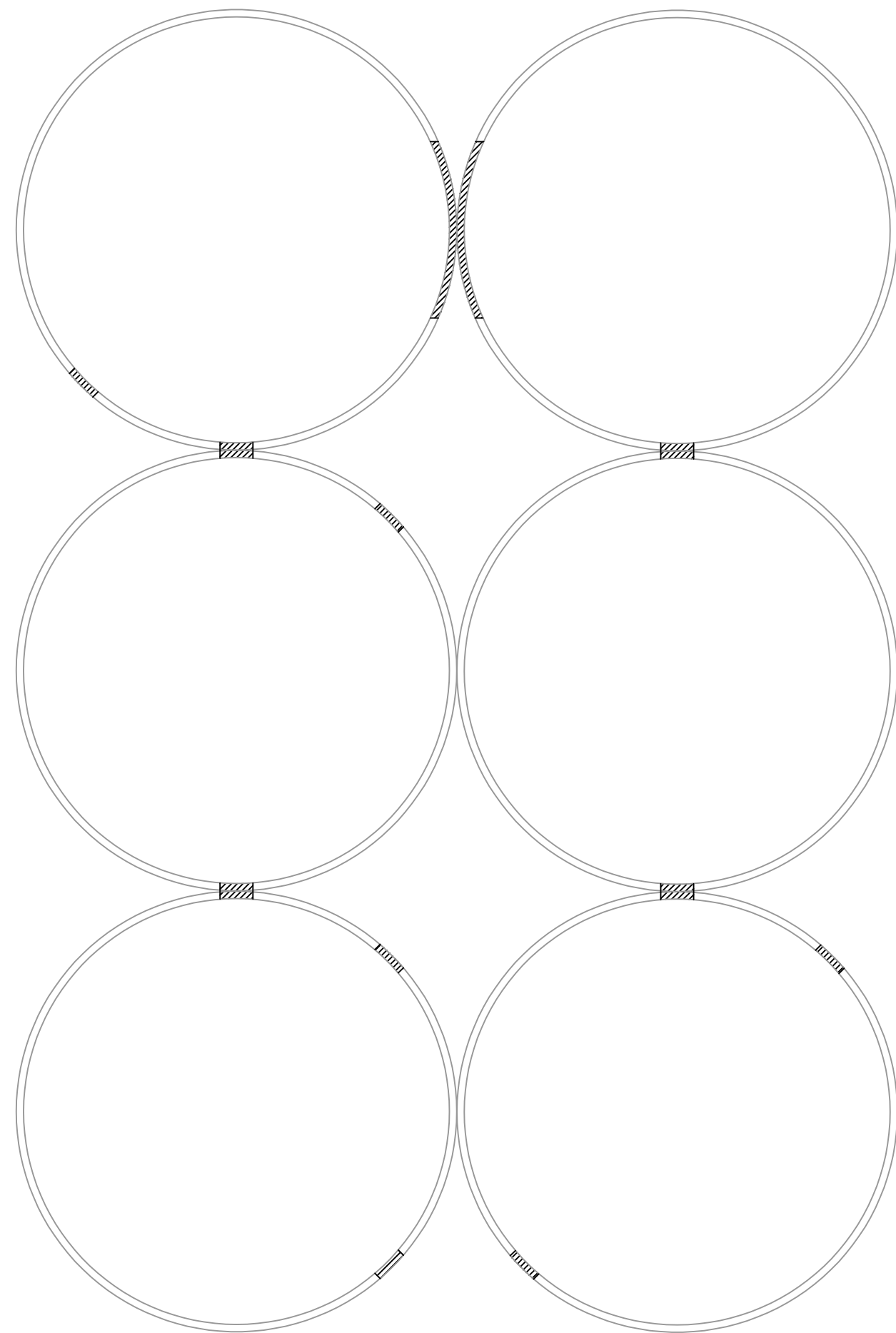
SHEET NO.
SD-004



Level 1



New openings to cut into silos



Level 2

Legend	
—————	Items to remain
▨▨▨▨▨▨	Items to demo

PROJECT:	CEE: 4850
DATE :	5/4/2026
DRAWN BY:	Jack Muller
REVISION:	

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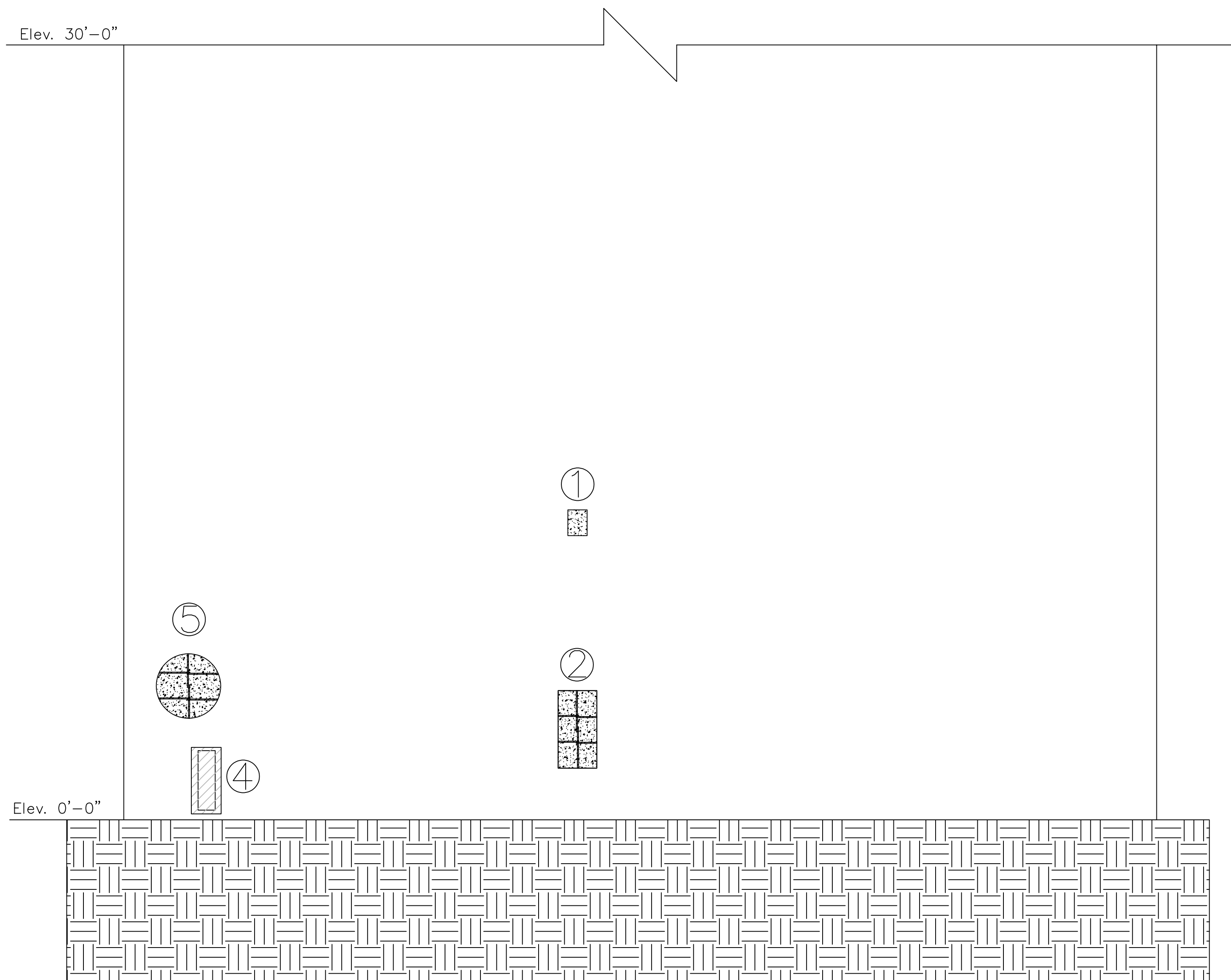
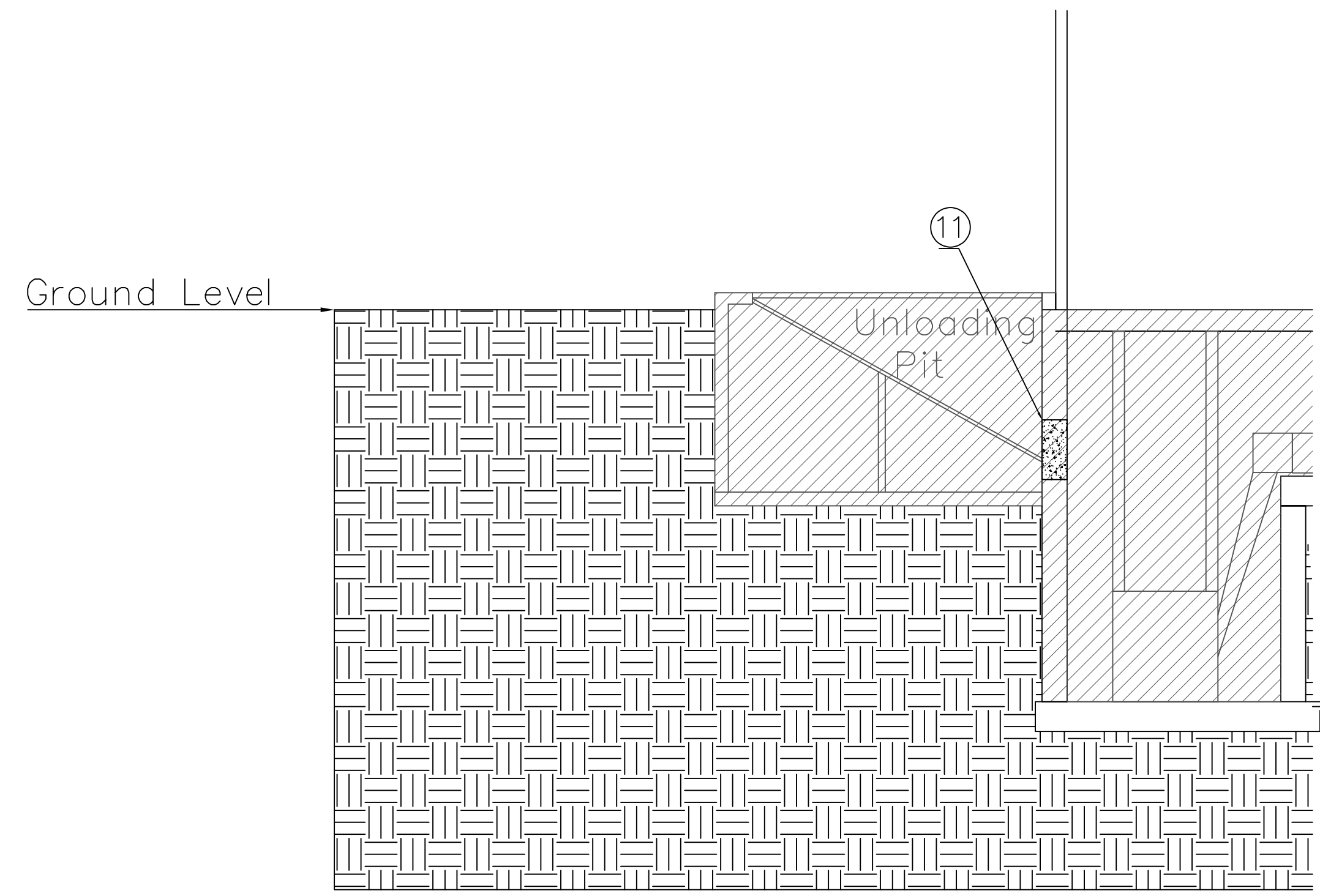
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Grain Silo Reuse

101 Lincoln St NE
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SHEET NAME
 New Doorway Demolition

SHEET NO.
SD-005



Legend	
	Object to demo
	#4 rebar
	4000 psi concrete

Procedure	
1	Patch plywood covered vents with 4000 psi concrete.
2	Demo steel access doors and frames. Embed #4 rebar 0'-6" into existing walls. Fill with 4000 psi concrete.
3	Demo steel inspection hatch and framing. Embed #4 rebar 0'-6" into existing walls. Fill with 4000 psi concrete.
4	Demo existing electrical boxes and substructure exhaust vents.
5	Remove insulation and steel framing. Embed #4 rebar 0'-6" into existing walls. Fill with 4000 psi concrete.
6	Demo existing concrete boxes around bases of silos.
7	Demo existing fire escape on western side of the western complex.
8	Demo existing electrical building on western side of the western complex.
9	Weld L3x3x $\frac{3}{8}$ steel angles on the inside of elevator shaft doors and access points.
10	Demo steel plate and dispensing chute. Patch opening with 4000 psi concrete.
11	After removing mechanical equipment below silos patch existing hole between receiving pit and boot pit with 4000 psi concrete.

PROJECT: CEE: 4850
 DATE : 3/26/2026
 DRAWN BY: Jack Muller
 REVISION:

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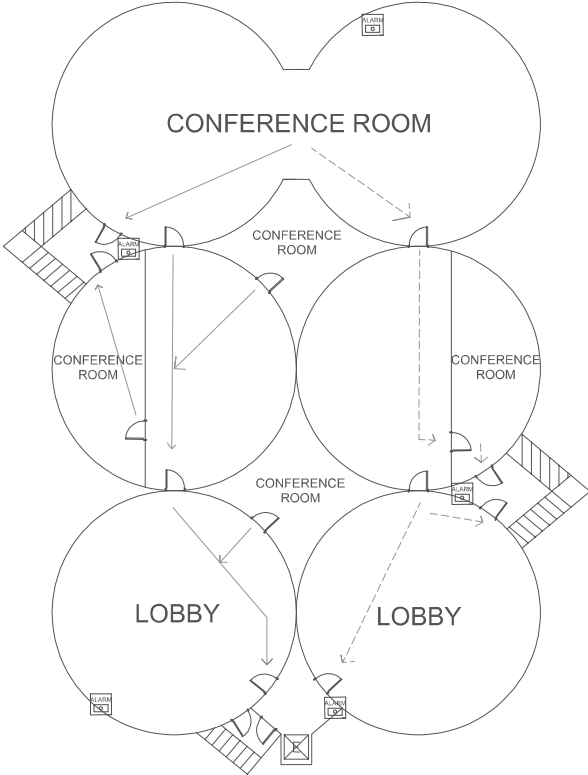
Grain Silo Reuse

101 Lincoln St NE
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SHEET NAME
 Facade Repair Plan

SHEET NO.
S-501

CONFERENCE LEVEL



LEGEND	
	ELEVATOR
	STAIRS
	DOOR
	SPIRAL STAIR CASE
	FIRE ALARM
	SMOKE DETECTOR
	PRIMARY EXIT ROUTE
	SECONDARY EXIT ROUTE

PROJECT: CEE:4850
 DATE: 04/06/2026
 DRAWN BY: ALEXIS ISENBERG
 REVISION:

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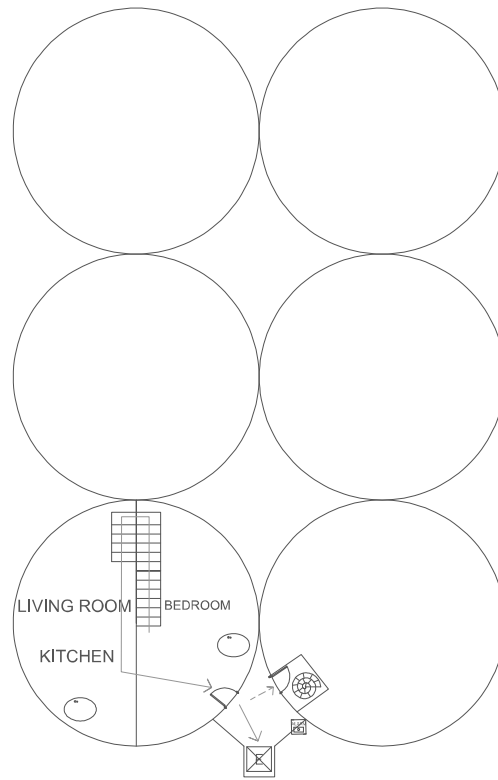
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Grain Silo Adaptive Reuse
 101 Lincoln Street
 Burlington, IA, 50035

SHEET NAME: CONFERENCE LEVEL EGRESS
 SHEET NO.:

A-00

PENTHOUSE LEVEL



LEGEND	
	ELEVATOR
	STAIRS
	DOOR
	SPIRAL STAIR CASE
	FIRE ALARM
	SMOKE DETECTOR
	PRIMARY EXIT ROUTE
	SECONDARY EXIT ROUTE

PROJECT: CEE-4850
 DATE: 04/06/2026
 DRAWN BY: ALEXIS ISENBERG
 REVISION:

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Grain Silo Adaptive Reuse
 101 Lincoln St NE
 Burlington, IA, 50035

SHEET NAME: PENTHOUSE LEVEL EGRESS
 SHEET NO.:

A-00

