May 15, 2013

Tim Wittmann, PE
Davel Engineering & Environmental, Inc.
1811 Racine St
Menasha, WI 54952

RE: Bud Drive Mini Storage II, Site Plan Comments

Dear Mr. Wittmann:

A review of the site plan was done for the proposed Bud Drive Mini Storage II. The following items are currently deficient as proposed or lacking in information, and need to be addressed before the Site Plan can be recommended for approval:

1. Site Plan Submission Fee; $150 was submitted; total fee is $200 based on a developed area ration of .78 and a site size of 99,705, per the fee schedule in the City's Site Plan Review Guide. Please remit an additional $50.

2. Landscaping is required at the foundation of each building on the facade adjacent to the public street. Please see Section 13-1-12(g)(3) for requirements. All landscaping adjacent to the building must be protected by concrete curbing.

3. Submit cut sheets for each style of light fixture so staff can verify compliance with the City's lighting standards.

4. It appears that the lower treatment of several buildings are shy of the 1/3 required masonry, architectural composite aluminum or steel panels, glass or a combination thereof. We calculate this by taking lower treatment height divided by the average height of the building. Please adjust the lower treatment accordingly. In addition, we request that you submit illustrations of the proposed building materials (material specification sheet or physical sample) for review by staff and Plan Commission.

5. Lots must be combined via CSM as proposed building locations would not comply with setback requirements in the I-1 District. Alternatively, buildings can be realigned and cross-access easements prepared and recorded.

Sincerely,

Kara Homan, AICP
Principal Planner

C: Greg Keil, CDD

Menasha

May 13, 2013

Tim Wittmann
Davel Engineering & Environmental, Inc.
1811 Racine Street
Menasha, WI 54952

RE: Bud Drive Mini Storage II

Dear Tim:

A review of the erosion control plan was done for the proposed Bud Drive Mini Storage. The submitted erosion control plan is approved contingent upon changes listed below.

1. **Adjust Note 3 of Drainage & Grading Notes** "Tracking of mud on exiting streets shall be cleaned up at a minimum of daily or upon request."

2. **Add note** "The contractor shall notify the City of Menasha Erosion control inspector at least 3 days prior to the start of soil disturbing activities. 920-967-3610

3. **Add note** "All off-site sediment deposits occurring as a result of construction work or a storm event shall be cleaned up at a minimum of the end of each day or as necessary. Flushing shall not be allowed."

4. Submit final copy of plans containing changes.

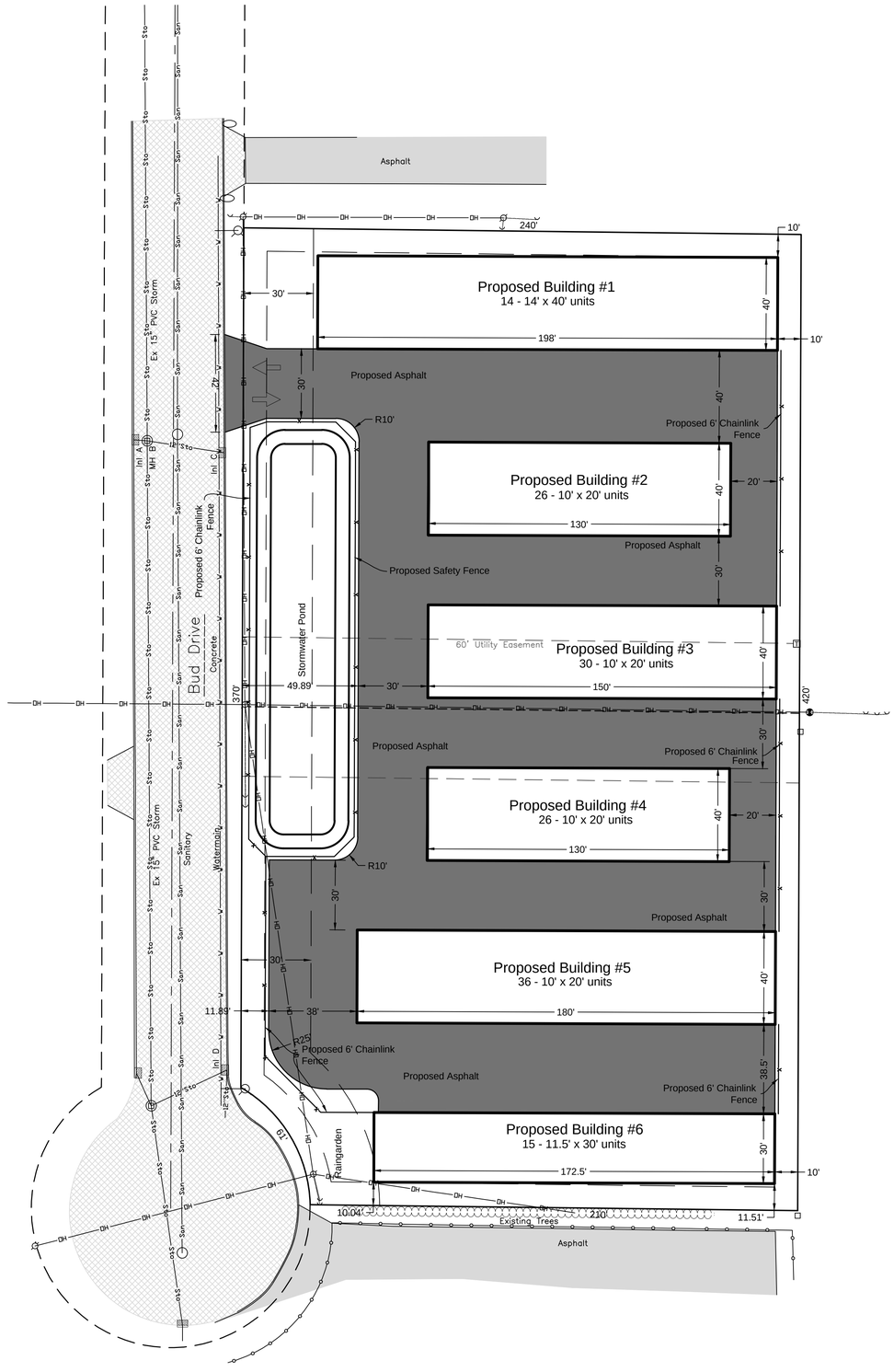
5. Submit a copy of NOI permit.

Please have Owner/Contractor fill out the included forms and return them to the City prior to construction. If there are any questions please call the Engineering Department at 920-967-3610.

Sincerely,

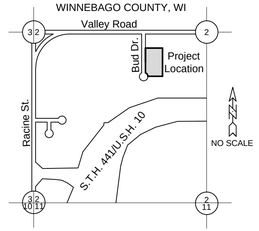
Corey Gordon

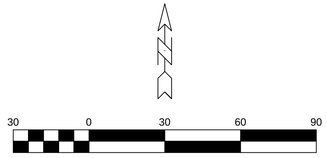
Corey Gordon
Engineering Aide
CG/MR/cs



LOCATION MAP

SW 1/4 SEC 2, T 20 N, R 17 E,
CITY OF MENASHA
WINNEBAGO COUNTY, WI





LEGEND

CATV	Underground Cable TV		Sanitary MH / Tank / Base		CATV Pedestal
FO	Underground Fiber Optic		Clean Out / Curb Stop / Pull Box		Gas Regulator
OH	Overhead Electric Lines		Storm Manhole		Sign
	Utility Guy Wire		Inlet		Post / Guard Post
San	Sanitary Sewer		Catch Basin / Yard Drain		Large Rock
Sto	Storm Sewer		Hydrant		Flag Pole
E	Underground Electric		Utility Valve		Deciduous Tree
G	Underground Gas Line		Utility Meter		Coniferous Tree
T	Underground Telephone		Utility Pole		Bush / Hedge
W	Water Main		Light Pole / Signal		Benchmark
	Fence - Steel		Guy Wire / Pump		Soil Boring
	Fence - Wood		Electric Pedestal		Asphalt Pavement
	Treeline		Air Conditioner		Concrete Pavement
800	Index Contour		Telephone Pedestal		
799	Intermediate Contour	+799.9	Ex Spot Elevation		
	Proposed Fence				Proposed Pavement

SITE PLAN NOTES:

Site Information
Proposed 1 story Storage Buildings
1825 Bud Drive & 1845 Bud Drive
Parcel 740076107 & Parcel 740076108
Lot 6 & 7 of J.O. Johnson Industrial Park
Zoning: I-1 Heavy Industrial
Property is currently vacant
adjoining parcels are zoned I-1, currently warehousing and commercial buildings.

Total Development Impervious Area = 77.5% (77,319 SF)
Proposed Disturbed Area = 99,000± SF

Proposed Conditions:

Building coverage	36,695 SF
Pavement	40,624 SF
Lawn and Landscaping	22,386 SF
Total Site Area	99,705 SF (2.2889 Acres)

No fire protection system is proposed.

Setbacks:
Front: Building = 30'
Parking = 10'
Sides: 10'
Rear: 10'

Owner
Minimax Properties LLC
1820 Bud Drive
Menasha, WI 54952

SHEET INDEX:

SUBMITTAL 5/06/2013

DAVEL ENGINEERING & ENVIRONMENTAL, INC.
CIVIL ENGINEERING CONSULTANTS
1811 Racine Street Menasha, WI 54952
Ph: 920-991-1666 Fax: 920-830-9595
www.davel.pro

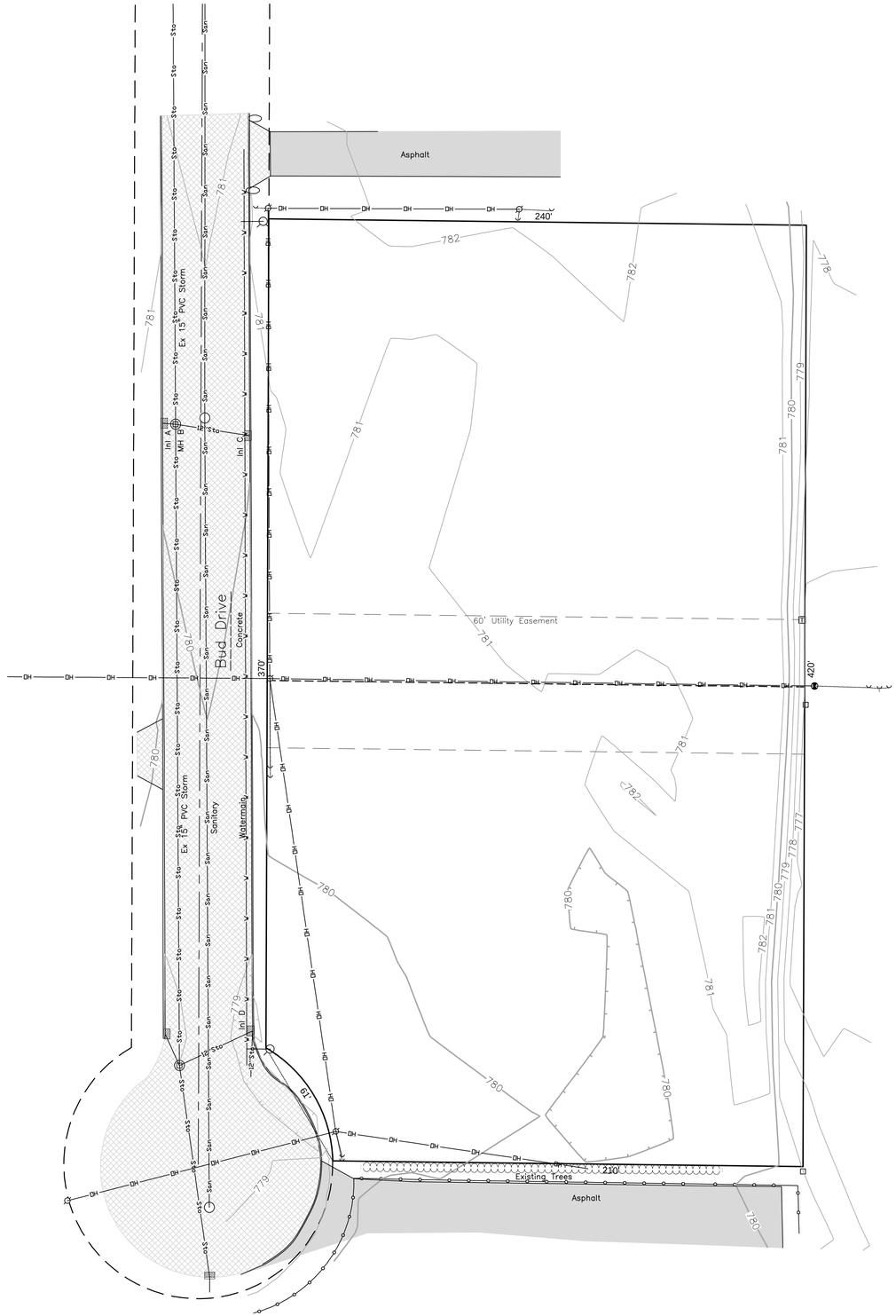
5/6/2013 2:38 PM J:\Projects\3993min\dwg\Civil 3D\3993Engr.dwg Printed by: katie

SITE PLAN

Bud Drive Mini Storage II

City of Menasha, Winnebago County, WI
For: Minimax Storage, LLC

Date: 05/6/2013
Filename: 3993Engr.dwg
Author: TNW
Last Saved by: katie
Page 1.0



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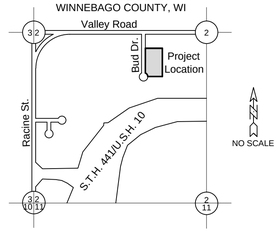

STRUCTURE TABLE
Storm

INL A	Rim	780.14
	8" PVC W	775.44
	12" PVC E	775.14
MH B	Rim	780.39
	12" PVC E	774.39
	12" PVC W	774.59
	15" PVC N	774.29
	15" PVC S	774.14
INL C	Rim	780.07
	12" PVC W	775.27
INL D	Rim	778.72
	12" PVC W	774.02
	12" PVC S	774.52

BENCHMARKS (USGS per Town of Menasha Records)

BM 1 Nail in Powerpole
SE cor of intersection Bud dr. and Valley Rd.
Elev 783.50

BM 2 Nail in Powerpole
±215' N of SE cor of property.
Elev 778.88

30 0 30 60 90

LEGEND

CATV CATV	Underground Cable TV	Sanitary MH / Tank / Base	CATV Pedestal
FO FO	Underground Fiber Optic	Clean Out / Curb Stop / Pull Box	Gas Regulator
OH OH	Overhead Electric Lines	Storm Manhole	Sign
	Utility Guy Wire	Inlet	Post / Guard Post
San San	Sanitary Sewer	Catch Basin / Yard Drain	Large Rock
Sto Sto	Storm Sewer	Hydrant	Flag Pole
E E	Underground Electric	Utility Valve	Deciduous Tree
G G	Underground Gas Line	Utility Meter	Coniferous Tree
T T	Underground Telephone	Utility Pole	Bush / Hedge
W W	Water Main	Light Pole / Signal	Benchmark
	Fence - Steel	Guy Wire / Pump	Soil Boring
	Fence - Wood	Electric Pedestal	Asphalt Pavement
	Treeline	Air Conditioner	Concrete Pavement
800	Index Contour	Telephone Pedestal	
799	Intermediate Contour	+799.9 Ex Spot Elevation	

SURVEYOR'S CERTIFICATE

I, James R Sehloff, hereby certify that I have surveyed this property and this topographical map is a true representation thereof and shows the size and location of the property and the location of all apparent roadways. I hereby certify that said topographical survey and map were made in accordance with acceptable professional standards and that the information contained thereon is, to the best of my knowledge, information and belief, a true and accurate representation thereof.

James R Sehloff, Wisconsin Registered Land Surveyor No. S-2692 Date

NOTES

Existing utilities shown are indicated in accordance with available records and field measurements. The contractor shall be responsible for obtaining exact locations & elevations of all utilities, including sewer & water from the the property owners of the respective utilities. All utility the property owners shall be notified by the contractor 72 hours prior to excavation. Contact Digger's Hotline (1-800-242-8511) for exact utility locations.

This is not a boundary survey.

May 06, 2013 - 02:35 PM J:\Projects\3993min\dwg\Civil 3D\3993Topo.dwg Printed by: katie

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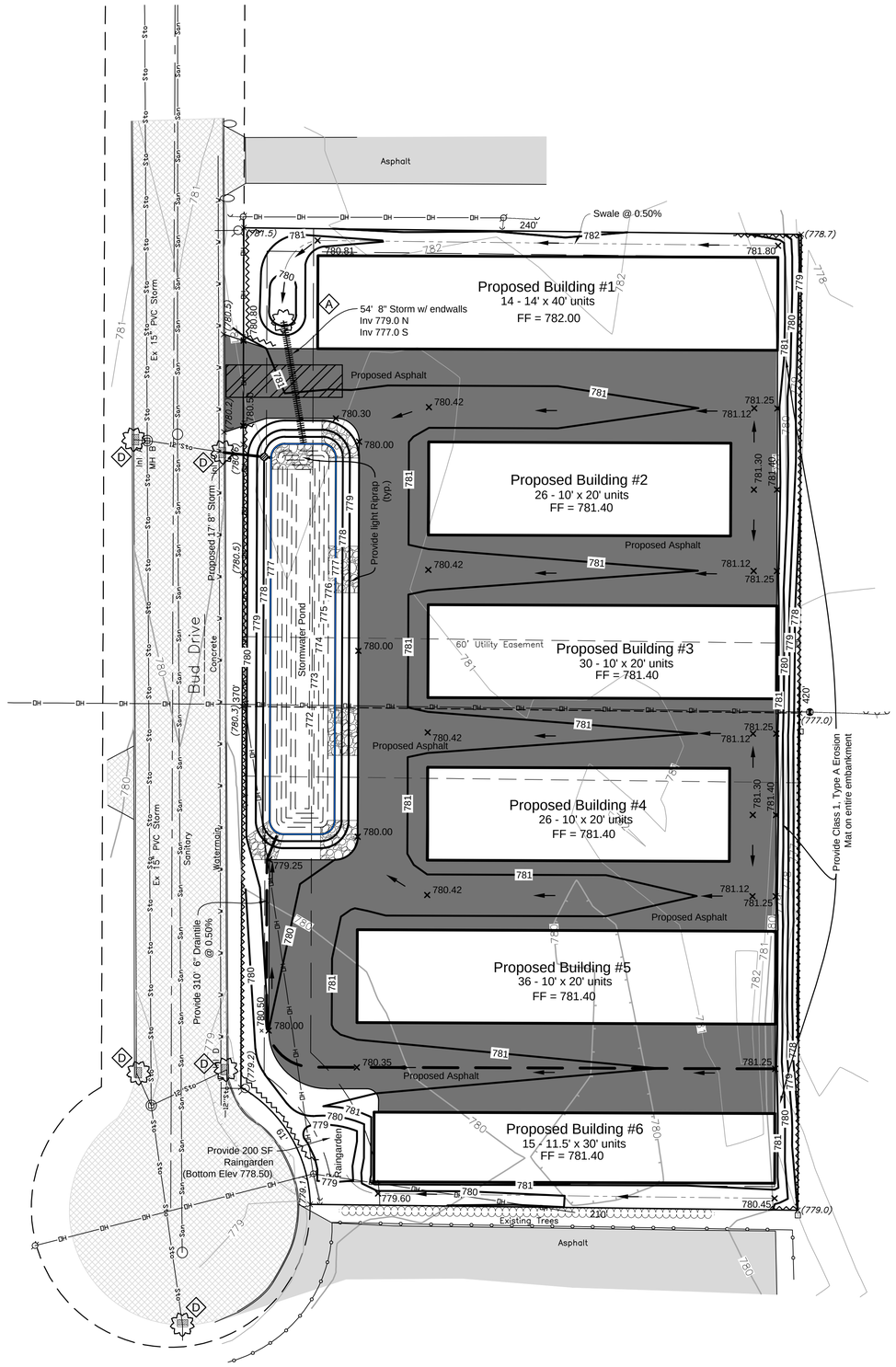
TOPOGRAPHIC SURVEY

Bud Drive Mini Storage II

City of Menasha, Winnebago County, WI
For: Minimax Storage, LLC

Date: 05/6/2013
Filename: 3993Topo.dwg
Author: JRS
Last Saved by: katie
Page 1.1



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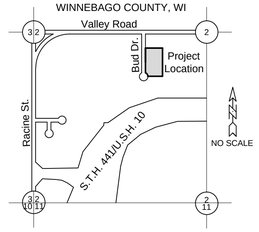

DRAINAGE & GRADING NOTES:

1. Existing utilities shown are indicated in accordance with available records and field measurements. The contractor shall be responsible for obtaining exact locations & elevations of all utilities, including sewer and water from the the property owners of the respective utilities. All utility the property owners shall be notified by the contractor 72 hours prior to excavation. Contact Digger's Hotline (1-800-242-8511) for exact utility locations.
2. The Contractor shall verify all staking and field layout against the plan and field conditions prior to constructing the work and immediately notify the Engineer of any discrepancies.
3. Tracking of mud on existing streets shall be cleaned up daily. Vegetation beyond slopes shall remain.
4. The contractor shall minimize the area disturbed by construction as the project is constructed. Disturbed areas shall be seeded as soon as final grade is established. Contractor shall replace topsoil and then seed, fertilize and mulch all lawn areas within 1 week of topsoil placement.
5. Contractor shall remove all excess materials from the site. Earthwork contractors shall verify topsoil depth.
6. All sediment and erosion control devices and methods shall be in accordance with the Wisconsin DNR Technical Standards.
7. Updated survey and title search have not been authorized and the boundary and easements shown may be inaccurate or incomplete.

BENCHMARKS (USGS per Town of Menasha Records)

BM 1 Nail in Powerpole
SE cor of intersection Bud dr. and Valley Rd.
Elev 783.50

BM 2 Nail in Powerpole
±215' N of SE cor of property.
Elev 778.88

30 0 30 60 90

LEGEND

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Fence - Wood	Electric Pedestal	Asphalt Pavement
Treeline	Air Conditioner	Concrete Pavement
Index Contour	Telephone Pedestal	
Intermediate Contour	+799.9 Ex Spot Elevation	
Proposed Storm Sewer	Proposed Storm Manhole	Proposed Sanitary Manhole
Proposed Sanitary Sewer	Proposed Curb Inlet	Proposed Hydrant
Proposed Watermain	Prop. Catch Basin / Yard Drain	Proposed Reducer
Proposed Contour	Proposed Endwall	Proposed Plug
Proposed Swale	Proposed Rip Rap	Proposed Valve
Proposed Culvert	×608.73 Prop. Flowline Spot Elev.	Proposed Curb Stop
Proposed Silt Fence	×608.73 TW Prop. Top of Walk Elev.	Proposed Tee
Prop. Drainage Direction	+(608.7) Existing Grade	Proposed 90° Bend
Proposed Ditch Check	Proposed Inlet Protection 12"Ø Sediment Log	Proposed 45° Bend
Proposed Tracking Pad	A Type of Inlet Protection	Proposed 22.5° Bend

Planned Sediment and Erosion Control Practices

All erosion control practices shall be in place prior to disturbing the site. All sediment and erosion control devices and methods shall be in accordance with DNR Technical Standards and the WisDOT Erosion Control product acceptability lists (PAL). It is the responsibility of the Contractor to minimize the area disturbed and the duration of the disturbance. Erosion & sediment control measures shall be maintained on a continuing basis until the site is permanently stabilized. All applicable controls must be in place at the end of each work day with all off-site sediments being cleaned daily or as necessary as no sediment flushing is allowed.

1) Diverting Flow
   a) Permanent Diversion - Intended to divert runoff around disturbed areas to a location where the water can be discharged without adversely impacting the receiving area or channel. Permanent diversions will be used to route runoff to the pond.
   b) Temporary Diversion - Intended to divert runoff around disturbed areas to a location where the water can be discharged without adversely impacting the receiving area or channel. Unlike a permanent diversion, the temporary diversion will be removed upon the completion of the project. Temporary diversions will be used upslope of any soil piles to reduce the amount of sediment transported. **All diversions shall be installed and maintained in accordance with DNR Technical Standard 1066.**

2) Overland Flow
   a) Silt Fence - Intended to provide a temporary barrier to the transportation of sediment offsite. Silt fence also reduces the velocity of sheet flow; thereby reducing the erosion potential of flowing water. Silt fencing is not to be used in areas of channelized flow and sediment deposits shall be removed when a 6 inch depth is reached. The silt fence shall be repaired or replaced as necessary to maintain a barrier. **All Silt Fence shall be installed and maintained in accordance with DNR Technical Standard 1056** . It will be placed at the following locations:
      i) along the site boundary where runoff will leave the site,
      ii) and at the toe of soil piles if the pile will remain in place for more than seven (7) days.
   b) Sediment Bale Barrier - Intended to intercept and detain small amounts of sediment from construction operations to prevent sediment from leaving the site. Sediment Bale Barriers are not to be used in areas of channelized flow. **All Sediment Bale Barriers shall be installed and maintained in accordance with DNR Technical Standard 1055** . Sediment Bale Barriers may be used in place of silt fence around soil stockpiles.
   c) Mulching and Erosion Mat - Intended to reduce the amount of erosion caused by raindrop impact, high overland and concentrated flow velocities and assist the establishment of both temporary and permanent vegetation. **All Erosion Mat shall be installed and maintained in accordance with DNR Technical Standards 1052 and 1053 and all Mulching with DNR Technical Standard 1058** . In addition to mulching, Erosion Mat may be required if field conditions warrant.
   d) Seeding - Intended to provide a reduction of overland flow velocities and stabilize disturbed areas. Seeding will be used on all disturbed areas within seven days of the completion of the activity that will disturb the area. **All seeding shall be in accordance with DNR Technical Standard 1059** . Seed mixture 40 (per WisDOT Specifications, Section 630) or equivalent shall be applied at 5 pounds per 1000 square feet for permanent seeding prior to September 15th. If required, temporary seeding shall consist of Oats, Rye, Winter Wheat, and/or Annual Ryegrass applied at rates and during the season specified by the Technical Standard but no later than November 1st. Sod placement may occur at anytime sod is available and the sod and soil are not frozen.

3) Inlet Protection Barriers - Intended to prevent the sedimentation of storm water conveyance structures. **All Inlet Protection Barriers shall be installed and maintained in accordance with DNR Technical Standard 1060** . As required, inlet protection barriers will be used at all storm sewer inlets as indicated on the plans.

4) Stone Tracking Pad - Intended to reduce the amount of sediment transported onto public roads. **The Tracking Pad shall be installed and maintained in accordance with DNR Technical Standard 1057** . A tracking pad will be constructed at the site entrances as indicated on the plan.

5) Dust Control - Intended to reduce surface to air transport of dust during construction. **Dust control shall be implemented with use of methods provided in DNR Technical Standard 1068.** These methods include the use of polymers, seeding, and mulch.

6) Dewatering BMP - Intended to reduce the amount of sediment conveyed due to dewatering practices. **Dewatering practices require compliance with DNR Technical Standard 1061.** The use of geotextile bags is required to prevent sedimentation with discharge to the adjacent storm water pond. The bags shall meet the requirements of Technical Standard 1061. Upon completion of the dewatering operation, all materials must be disposed of properly in accordance with all state and local requirements.

7) Waste Material - All onsite waste and construction materials shall be handled and disposed of properly. No pavement material, runoff from concrete washout, or other waste material is allowed to enter the storm sewer system or receiving waters.

Sequence of Construction

1) Obtain plan approval and other applicable permits
2) Install & maintain all erosion & sediment control measures: May 2013
3) Site Work and Pond Construction: May-June 2013
4) Grade and Gravel Construction: June 2013
5) Building Construction: July-September 2013
6) Stabilize lawn and ditch areas no later than one week after final grade is established. No later than September 15, 2013
7) Remove all temporary measures, topsoil critical areas, and establish vegetation. Water if necessary to establish healthy and well rooted vegetation.

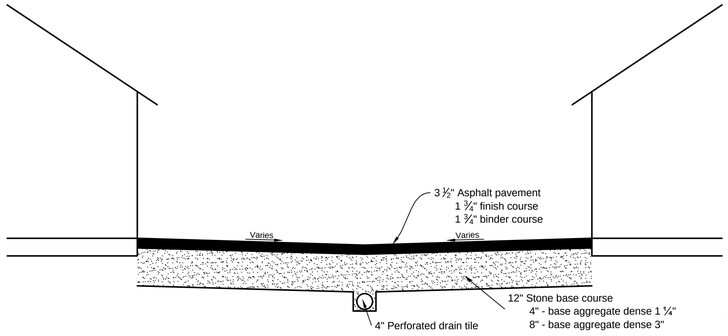
Note: The dates provided are approximate and subject to weather conditions and overall project schedule. Several work items as listed above may occur simultaneously with others.

Maintenance Plan

The contractor is responsible for inspection and maintenance of sediment and erosion control measures until the project is completed. The inspections shall be made every seven days or within 24-hours of a rainfall event of 0.50-inch or greater. Any practices that are damaged or not working properly shall be repaired by the end of the day. Accumulated sediment shall be removed when it has reached a height of one-half the height of the structure. In addition, the following measures shall be taken:

1) All seeded areas will be re-seeded and mulched as necessary according to the specifications in the planned practices to maintain a vigorous, dense vegetated cover.
2) Remove silt fence and temporary structures only after final stabilization and vegetative cover is established.
3) Avoid the use of fertilizers and pesticides in or adjacent to channels or ditches.
4) Construction and waste materials shall be properly disposed.

Weekly inspection reports shall be maintained by the contractor. These reports shall document inspections and maintenance performed. The date and time of the inspections, the inspector's name, and the status of construction and any maintenance performed. Refer to Appendix C or the DNR website for a template; http://dnr.wi.gov/runoff/stormwater/constrforms.htm#forms . Upon request, the inspection reports shall be made available to the owner, the engineer, the Wisconsin Department of Natural Resources, or the City of Menasha.



PAVEMENT SECTION

DRAINAGE PLAN CERTIFICATION:

I, Timothy N. Wittmann, Professional Engineer, hereby certify that this Drainage Plan will meet or exceed the requirements of the City of Menasha.

Timothy N. Wittmann, P.E. E-40111 Date

SUBMITTAL 5/06/2013

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DRAINAGE, GRADING & EROSION CONTROL PLAN

Bud Drive Mini Storage II

City of Menasha, Winnebago County, WI
For: Minimax Storage, LLC

Date: 05/6/2013
Filename: 3993Engr.dwg
Author: TNW
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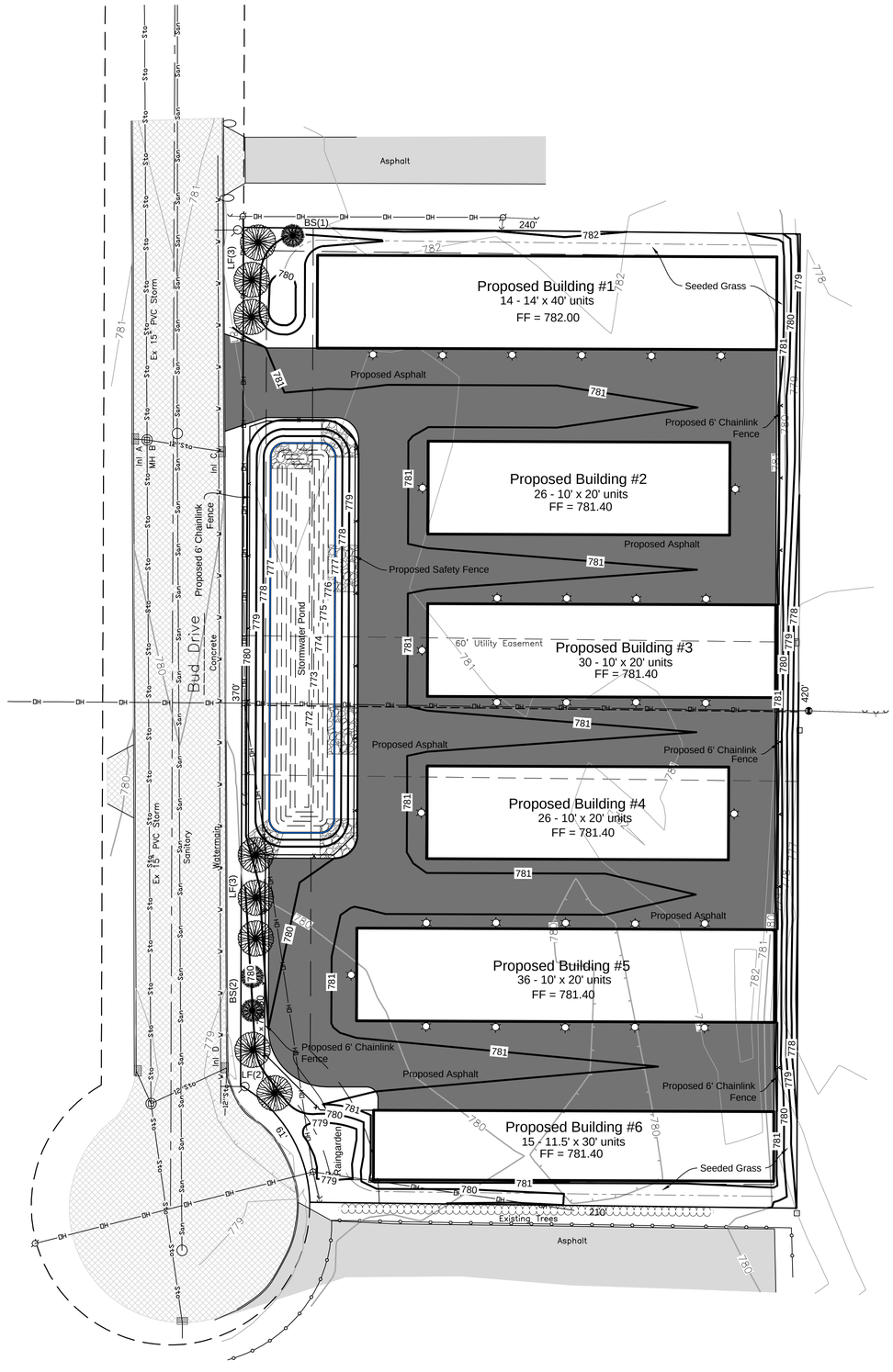
Page 1.2



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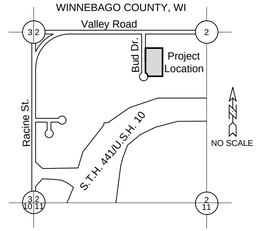

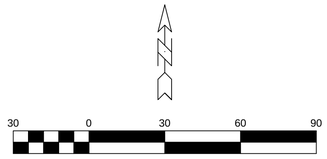

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799	Intermediate Contour	+799.9	Ex Spot Elevation		
	Proposed Fence				Proposed Pavement

Lighting Plan:

1. Lighting will be limited to Wall Packs on building as shown:

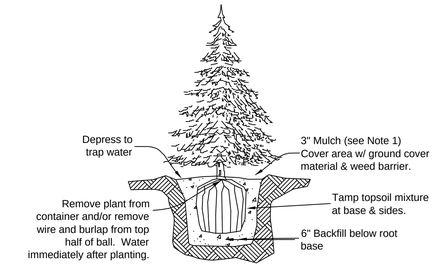
☼ Cooper Lighting
70 Watt high pressure sodium Wall Pack

Rain Garden Plant Schedule:

1. Provide mixture of Native Plantings to include but not limited to Smooth Blue Aster, Virginia Wild Rye, Reed Mana Grass, Early Sunflower, Wild Bergamot, Yellow Coneflower, and Dark Green Bulrush with seeding to occur between mid March to end of May or after mid September to November. Seeding rates may vary, use supplier recommendations. Plant plugs may also be used.

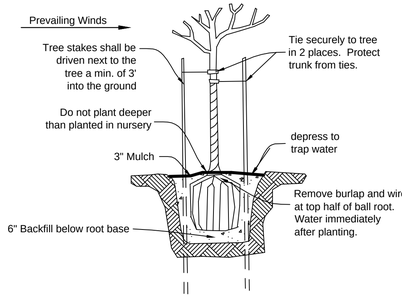
Perimeter Tree Schedule

I.D.	Common Name	Latin Name	Planting Size	Mature Size	Qty.
LF	Frontyard American Linden	Tilia Americana 'Frontyard'	1.5" Cal min.	40'x70'	8
BS	Black Hills Spruce	Picea Glauca 'Densata'	4' Hgt	14'x40'	3



Shrub Planting Details

For: PF, AR, SP and JC Type Shrub



Tree Planting Details

For: BS, and LF Type Trees

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LIGHTING & LANDSCAPE PLAN

Bud Drive Mini Storage II

City of Menasha, Winnebago County, WI
For: Minimax Storage, LLC

SUBMITTAL 5/06/2013

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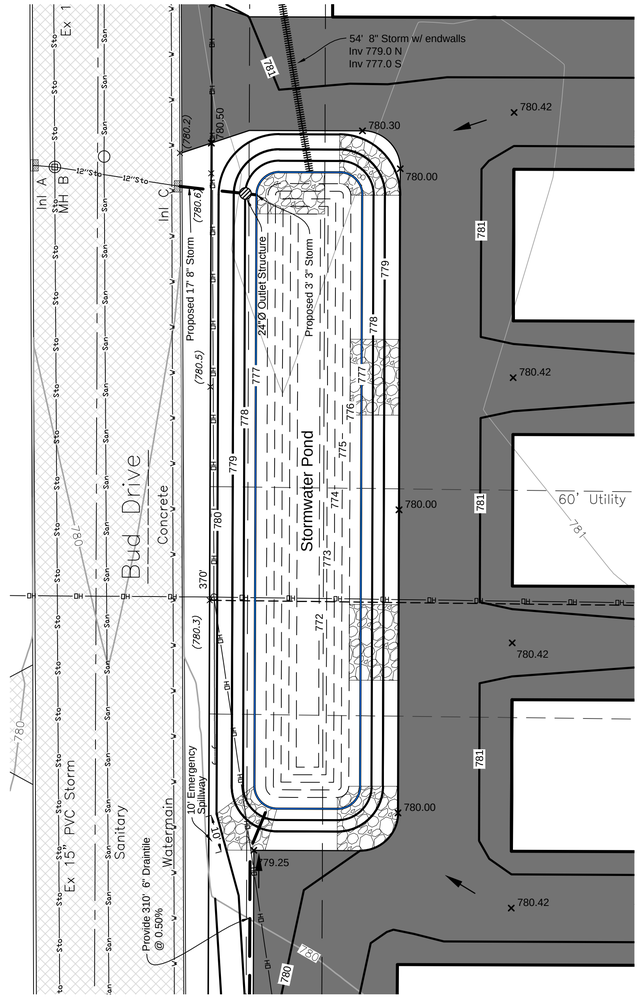
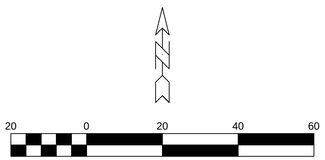


POND DETAIL



Pond Notes:

1. The base of the embankment shall be stripped of all vegetation, stumps, topsoil and other matter. Stripping shall be to a minimum of 6 inches.
2. Embankments shall be constructed with non-organic soils and compacted to 90% standard proctor according to the procedures outlined in ASTM D-698. No tree stumps, or other organic material shall be buried in the embankment. The constructed embankment height shall be increased a minimum of 5% to account for settling.
3. All pipes extending through the embankment shall be bedded and backfilled with embankment or equivalent soils. The bedding and backfill shall be compacted in lifts and to the same standard as the original embankment. Excavation through a completed embankment shall have a side slope of 1:1 or flatter.
4. Topsoil shall be spread on all disturbed areas, except for elevations below the safety shelf, as work is completed. The minimum depth of topsoil shall be 4 inches.
5. All areas disturbed by pond construction shall be seeded as work is completed. Pond side slopes above permanent pool shall be temporarily seeded with annual rye or oats immediately after pond is "roughed in." This will require topsoil application. Slopes steeper than 10:1 but less than 4:1 will require properly anchored mulch in accordance with Section 627.1 of the DOT Standard Specifications for Highway and Structure Construction. DOT Class I, Type B erosion mat will be required on slopes steeper than 4:1 (Section 628.2 & 628.3).
6. Riprap at all inflow points shall extend a minimum of 18 vertical inches below the permanent pool. (Section 606.2 & 606.3)
7. Any rock encountered shall be excavated to a depth two feet deeper than the proposed pond grade.
8. The pond shall be constructed with a Type B Liner with the following WDNR specifications (Wet Detention Pond Technical Standard 1001). Liners include; Clay, High Density Polyethylene (HDPE), Polyethylene Pond Liner (PPL) or any liner satisfying Type A Liner criteria.

Clay liners specifications are as follows:

- 50% fines (200 sieve) or more.
- Hydraulic conductivity of 1 x 10-6 cm/sec or less.
- Average liquid limit of 16 or greater, with no value less than 14.
- Average PI of 7 or more, with no values less than 5.
- Clay compaction and documentation as specified in NRCS Wisconsin Construction Specification 204, Earthfill for Waste Storage Facilities.
- Minimum thickness of 2 feet.
- If in-situ soils meet the above requirements of the specification for a Type B Clay Liner, including a minimum saturated hydraulic conductivity of 1 x 10-6 cm/sec to a depth of 4 feet below the pond bottom, the in-situ soils then satisfy the pond liner requirements.

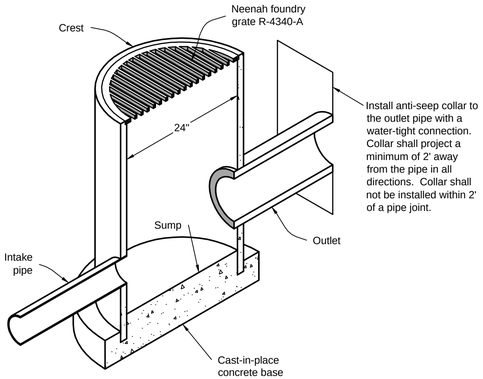
HDPE liner specifications are as follows:

- Minimum thickness of 40 mils.
- Design according to the criteria in Table 3 of NRCS 313, Waste Storage Facility Technical Standard.
- Install according to NRCS Wisconsin Construction Specification 202, Polyethylene Geomembrane Lining.

PPL liner Specifications are as follows:

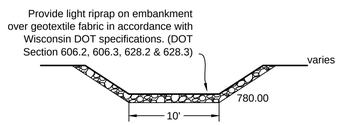
- Minimum thickness of 30 mils.
- Design according to the criteria in Table 3 of NRCS 313, Waste Storage Facility Technical Standard.
- Install according to NRCS Wisconsin Construction Specification 202, Polyethylene Geomembrane Lining.

9. All liners must extend above the permanent pool up to the elevation of the 2-year, 24-hour rainfall event.

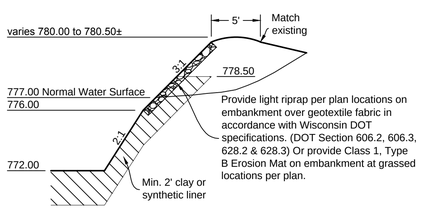


STAND PIPE DETAIL

Outlet	
Size, in	8
Invert	777.00
Slope (%)	10.00
Intake pipe	
Size, in	3
Invert	777.00
Length, ft	3.00
Crest	
Elevation	778.50
Sump	
Elevation	776.00
Base	
Elevation	774.00



EMERGENCY SPILLWAY DETAIL



TYPICAL EMBANKMENT SECTION

DAVEL ENGINEERING & ENVIRONMENTAL, INC.
CIVIL ENGINEERING CONSULTANTS
1811 Racine Street Menasha, WI 54952
Ph: 920-991-1666 Fax: 920-830-9395
www.davel.pro

STORM WATER POND DETAILS

Bud Drive Mini Storage II

City of Menasha, Winnebago County, WI
For: Minimax Storage, LLC

SUBMITTAL 5/06/2013

Date:	05/6/2013
Filename:	3993Engr.dwg
Author:	TNW
Last Saved by:	katie
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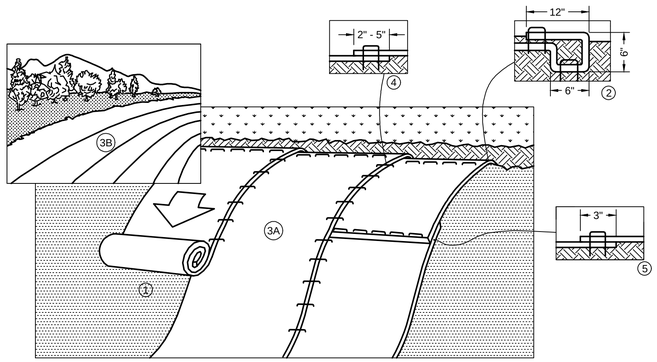
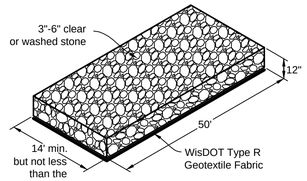
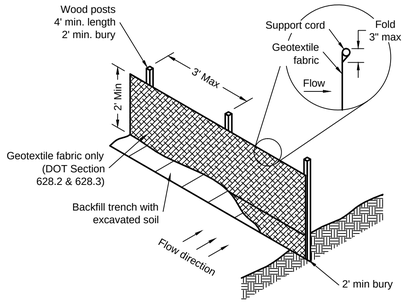


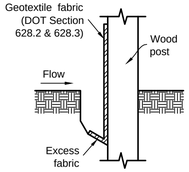
1. Prepare soil before installing Rolled Erosion Control Products (RECP's), including any necessary application of lime, fertilizer, and seed.
Note: When using cell-o-seed do not seed prepared area. Cell-o-seed must be installed with paper side down.
2. Begin at the top of the slope by anchoring the RECP's in a 6" (15 cm) deep x 6" (15 cm) wide trench with approximately 12" (30 cm) of RECP's extended beyond the up-slope portion of the trench. Anchor the RECP's with a row of staples/stakes approximately 12" (30 cm) apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to compacted soil and fold remaining 12" (30 cm) portion of RECP's back over seed and compacted soil. Secure RECP's over compacted soil with a row of staples/stakes spaced approximately 12" (30 cm) apart across the width of the RECP's.
3. Roll the RECP's (A.) down or (B.) horizontally across the slope. RECP's will unroll with appropriate side against the soil surface. All RECP's must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple pattern guide. When using the Dot system, staples/stakes should be placed through each of the colored Dots corresponding to the appropriate staple pattern.
4. The edges of parallel RECP's must be stapled with approximately 2" - 5" (5 cm - 12.5 cm) overlap depending on RECP's type.
5. Consecutive RECP's spliced down the slope must be placed end over end (shingle style) with an approximate 3" (7.5 cm) overlap. Staple through overlapped area, approximately 12" (30 cm) apart across entire RECP's width.
Note: * In loose soil conditions, the use of staple or stake lengths greater than 6" (30 cm) may be necessary to properly secure the RECP's.
6. Detail provided by North American Green (www.nagreen.com)
7. Turf Reinforcement Mats (TRM's) shall be installed in accordance with the above specifications for all RECP's. Anchoring size and pattern is to be installed per manufacturer specifications for clay soils having 4:1 slope. All TRM's shall be topsoil filled, seeded, and covered with a Class 2, Type B erosion mat in accordance with all manufacturer specifications.

EROSION/TURF REINFORCEMENT MAT SLOPE INSTALLATION



TRACKING PAD DETAIL

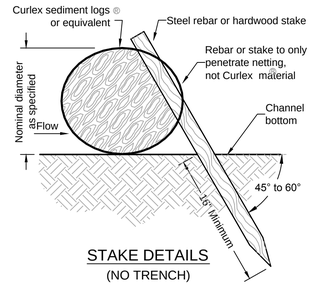




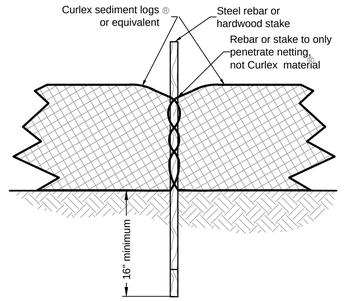
TRENCH DETAIL

Silt fence notes:
1. Detail of construction not shown on this drawings shall conform to criteria set by authorities having jurisdiction and by DNR Technical Standard 1056.
2. When possible, the silt fence should be constructed in an arc or horseshoe shape with the ends pointing upslope to maximize both strength and effectiveness.
3. Attach the fabric to the posts with wire staples or wooden lath and nails.
4. 8'-0" post spacing allowed if a woven geotextile fabric is used.
5. Trench shall be a minimum of 4" wide and 6" deep to bury and anchor the geotextile fabric. Fold material to fit trench and backfill and compact trench with excavated soil.
6. Geotextile fabric shall be reinforced with an industrial polypropylene netting with a maximum mesh spacing of 3/4" or equal. A heavy-duty nylon top support chord or equivalent is required.
7. Steel posts shall be studded "tee" or "u" type with a minimum weight of 128 lbs/lineal foot (without anchor). Fin anchors shall be a minimum size of 4" diameter or 1 1/2" x 3 1/2", except wood posts for geotextile fabric reinforced with netting shall be a minimum size of 1 1/8" x 1 1/8" oak or hickory.

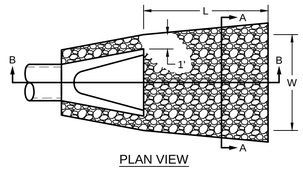
SILT FENCE INSTALLATION



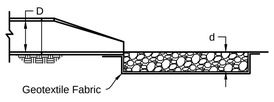
STAKE DETAILS
(NO TRENCH)



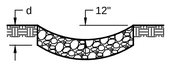
STAKE DETAIL
(FRONT VIEW)



PLAN VIEW



SECTION B-B

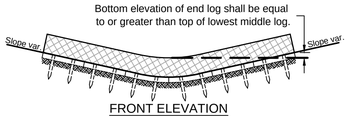


SECTION A-A

D	12"	15"	18"	21"	24"	30"	36"	42"	48"	54"	60"
L	10'	12'	18'	20'	20'	25'	28'	33'	37'	40'	45'
W	11'	13'	20'	22'	24'	28'	32'	38'	42'	45'	50'
d	12"	12"	12"	18"	18"	18"	24"	24"	24"	24"	24"
Riprap	Light	Light	Light	Med.	Med.	Med.	Heavy	Heavy	Heavy	Heavy	Heavy
cu yds	2.6	3.6	7.8	14.3	15.6	22.6	38.4	53.2	65.8	76.3	95.0

Notes:
1. Excavate below channel outlet and widen channel outlet to the required riprap thickness for each apron. Foundation to be set to zero grade and smoothed.
2. Place geotextile fabric on bottom and sides of prepared foundation. Fabric shall extend under endwall in accordance with DOT specifications. (DOT Section 628.2 & 628.3)
3. Exercise care in placement of riprap to avoid damage to filter fabric.
4. Use riprap conforming to Wisconsin DOT specifications. (DOT Section 606.2 & 606.3)
5. Use DOT Type R geotextile fabric for light riprap. Use Type HR for medium and heavy riprap. (DOT Section 606.2, 606.3, 628.2 & 628.3)
6. Use 12" dimension for pipes less than 12" in diameter.

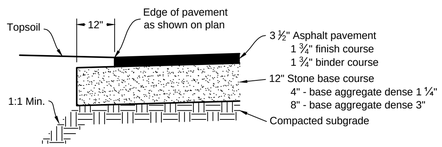
OUTLET PROTECTION



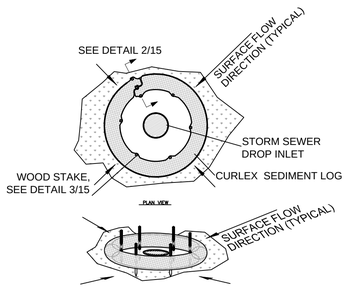
FRONT ELEVATION

NOTE:
Stake installation shall meet manufacturer's requirements in regard to spacing, material, size, and bury depth.

SEDIMENT LOG DETAIL



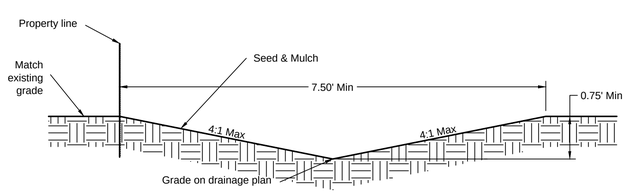
PAVEMENT SECTION



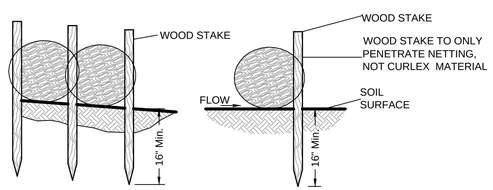
GENERAL NOTES:
Inlet protection devices shall be maintained or replaced at the direction of the engineer.

Manufactured alternatives approved and listed on the DOT Erosion Control Product Acceptability list may be substituted.

When removing or maintaining inlet protection, care shall be taken so that the sediment trapped on the geotextile fabric does not fall into the inlet. Any material falling into the inlet shall be removed immediately.

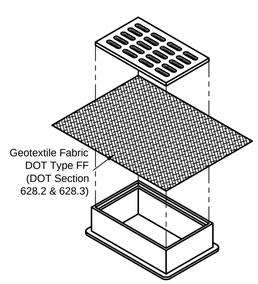


TYPICAL DRAINAGE SWALE SECTION



DETAIL 2/15 DETAIL 3/15

INLET PROTECTION, TYPE A



INLET PROTECTION, TYPE B
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)

GENERAL NOTES:
Inlet protection devices shall be maintained or replaced at the direction of the engineer.

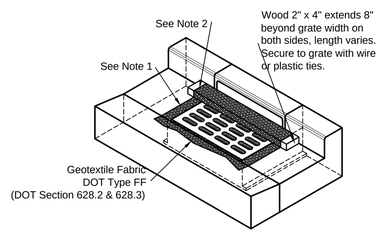
Manufactured alternatives approved and listed on the DOT Erosion Control Product Acceptability list may be substituted.

When removing or maintaining inlet protection, care shall be taken so that the sediment trapped on the geotextile fabric does not fall into the inlet. Any material falling into the inlet shall be removed immediately.

1. Finished size, including flap pockets where required, shall extend a minimum of 10" around the perimeter to facilitate maintenance or removal.

2. For inlet protection, Type C (with curb box), an additional 10" of fabric is wrapped around the wood and secured with staples. The wood shall not block the entire height of the curb box opening.

3. Flap pockets shall be large enough to accept wood 2x4.



INLET PROTECTION, TYPE C

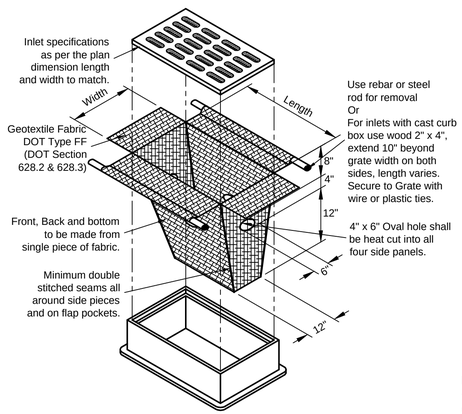
INSTALLATION NOTES:
Inlet protection Type A shall be utilized around field inlets until permanent stabilization methods have been established. Inlet protection Type A shall be utilized on pavement inlets prior to installation of curb and gutter or pavement.

Inlet protection Type B shall be utilized on street inlets without curb heads, once surrounding surface is in place.

Inlet protection Type C shall be utilized on street inlets with curb heads.

TYPE B & C
Trim excess fabric in the flow line to within 3" of the grate.

The contractor shall demonstrate a method of maintenance, using a sewn flap, hand holds, or other method to prevent accumulated sediment from entering the inlet.



INLET PROTECTION, TYPE D
(CAN BE INSTALLED IN ANY INLET WITH OR WITHOUT A CURB BOX)

INSTALLATION NOTES:
Do not install inlet protection type D in inlets shallower than 30", measured from the bottom of the inlet to the top of the grate.

Trim excess fabric in the flow line to within 3" of the grate.

The installed bag shall have a minimum side clearance between the inlet walls and the bag measured at the bottom of the overflow holes of 3". Where necessary, the contractor shall cinch the bag using plastic zip ties to achieve the 3" clearance. The ties shall be placed at a minimum of 4" from the bottom of the bag.

DAVEL ENGINEERING & ENVIRONMENTAL, INC.
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www.davel.pro

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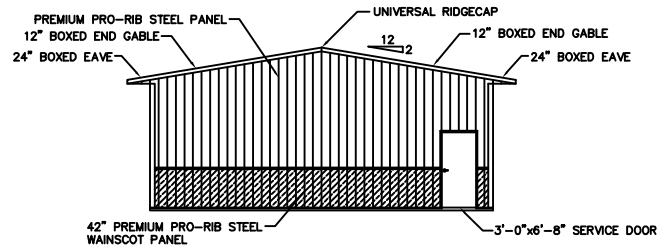
CONSTRUCTION DETAILS

Bud Drive Mini Storage II

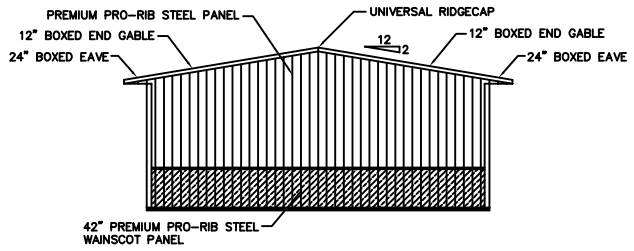
City of Menasha, Winnebago County, WI
For: Minimax Storage, LLC

SUBMITTAL 5/06/2013

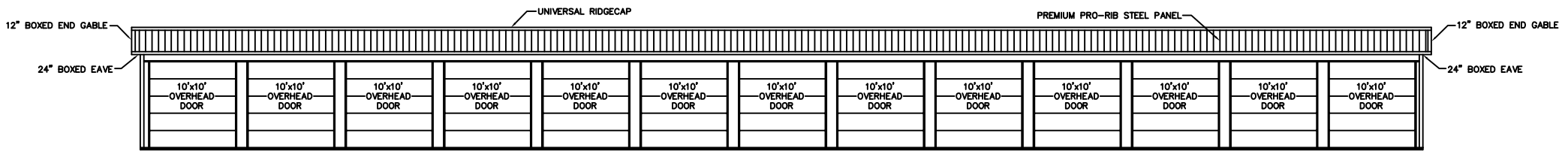
Date: 05/6/2013
Filename: 3993Engr.dwg
Author: TNW
Last Saved by: katie
Page 2.2



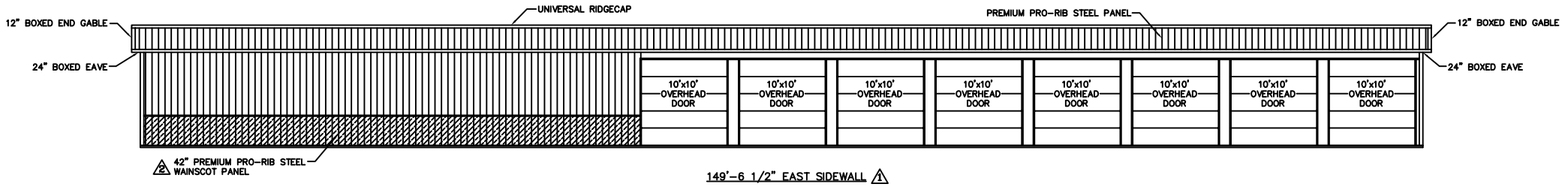
30' NORTH ENDWALL



30' SOUTH ENDWALL

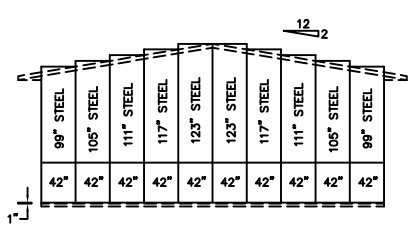


149'-6 1/2" WEST SIDEWALL (1)

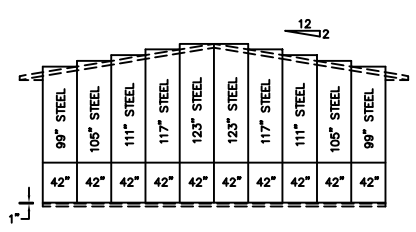


149'-6 1/2" EAST SIDEWALL (1)

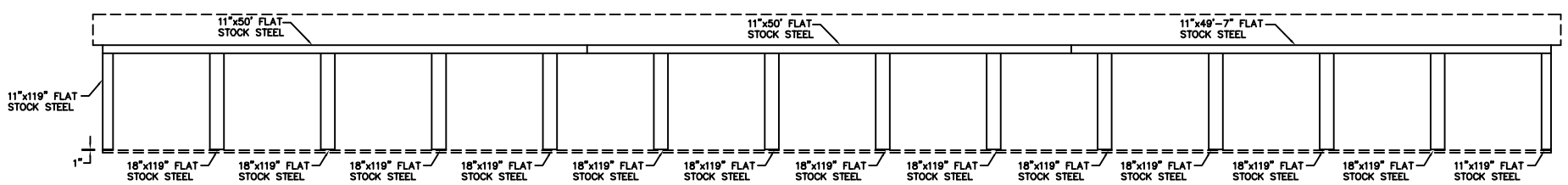
ELEVATIONS
SCALE: 1/8"=1'-0"



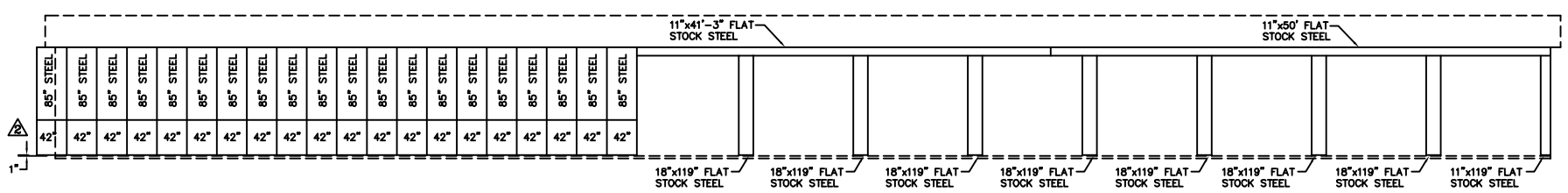
30' NORTH ENDWALL



30' SOUTH ENDWALL



149'-6 1/2" WEST SIDEWALL (1)



149'-6 1/2" EAST SIDEWALL (1)

STEEL LAYOUTS
SCALE: 1/8"=1'-0"

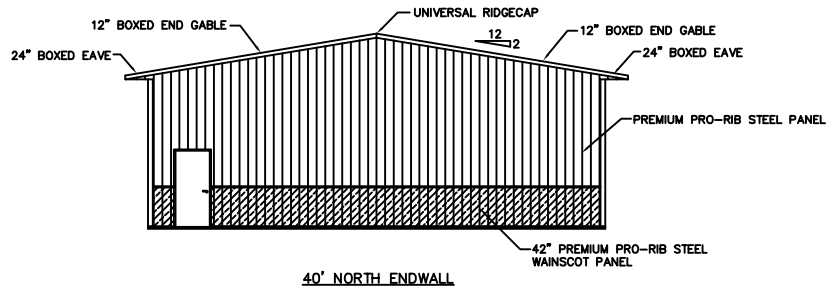
ENGINEERING SERVICES
5311 KANE RD. EAU CLAIRE, WI 54703 (715) 876-5555

PROJECT TITLE:
MINIMAX STORAGE
MENASHA, WI

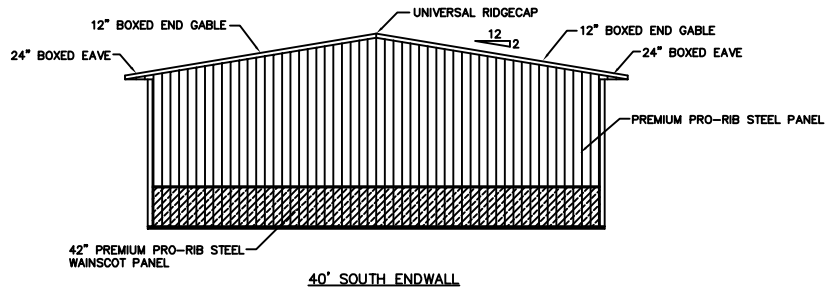
SHEET TITLE:
ELEVATIONS & STEEL LAYOUTS

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1	5-06-11	SHORTEN BUILDING 11'-0 1/2"	LVN
2	5-20-11	ADD WAINSCOT TO EAST SIDE	LVN
3			
4			

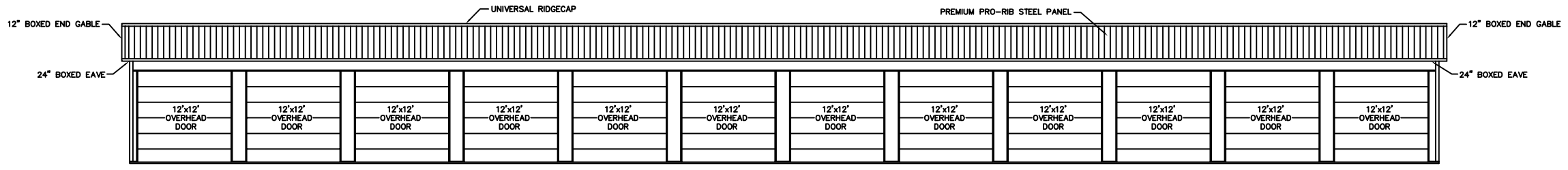
PROFESSIONAL ENGINEER: JEFF MURRAY
PLAN DESIGNER: JEFF MURRAY
DRAWN BY: LANCE NIELSEN
FILE NAME: M08711W102R
DATE: 04-12-11
SCALE: AS NOTED
SHEET NO. 2 OF 7



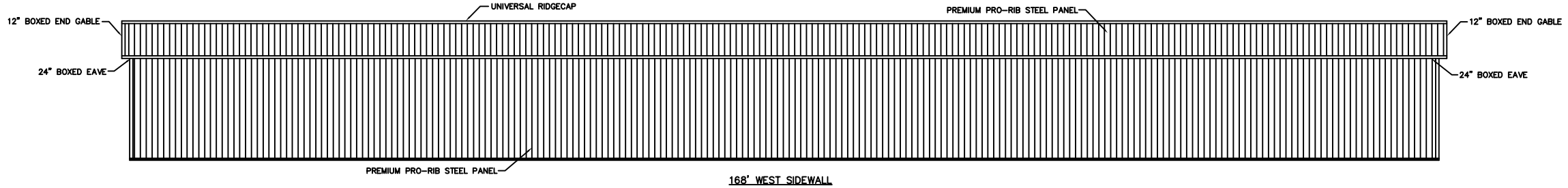
40' NORTH ENDWALL



40' SOUTH ENDWALL

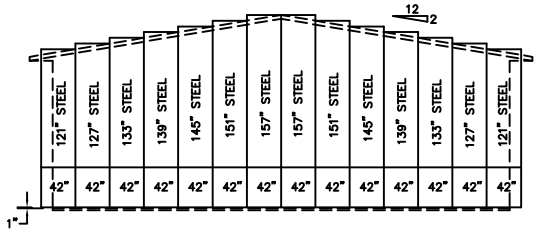


168' EAST SIDEWALL

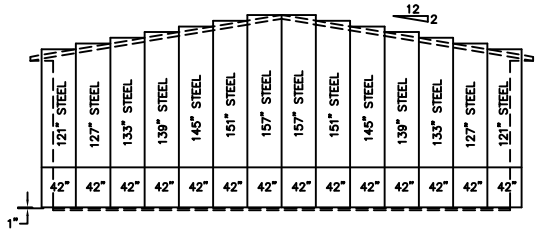


168' WEST SIDEWALL

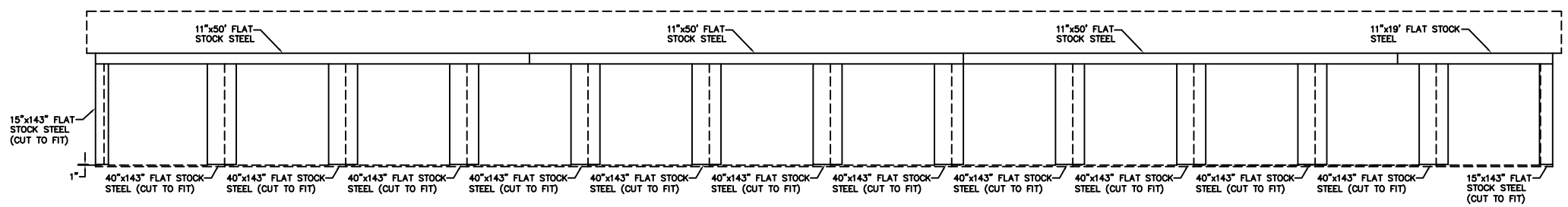
ELEVATIONS
SCALE: 1/8"=1'-0"



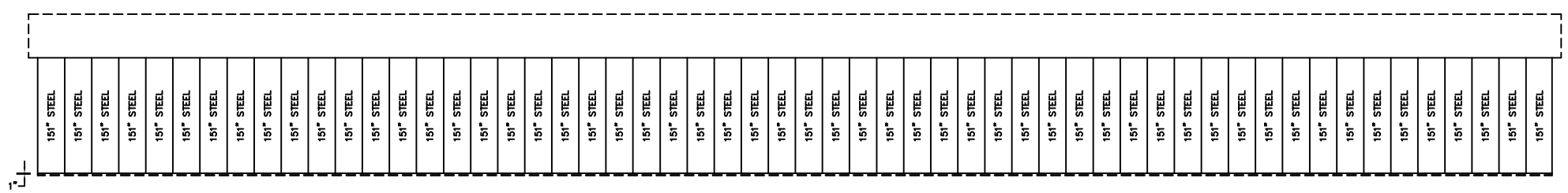
40' NORTH ENDWALL



40' SOUTH ENDWALL



168' EAST SIDEWALL



168' WEST SIDEWALL

STEEL LAYOUTS
SCALE: 1/8"=1'-0"

ENGINEERING SERVICES
5231 KANE RD. EAU CLAIRE, WI 54703 (715) 876-5555

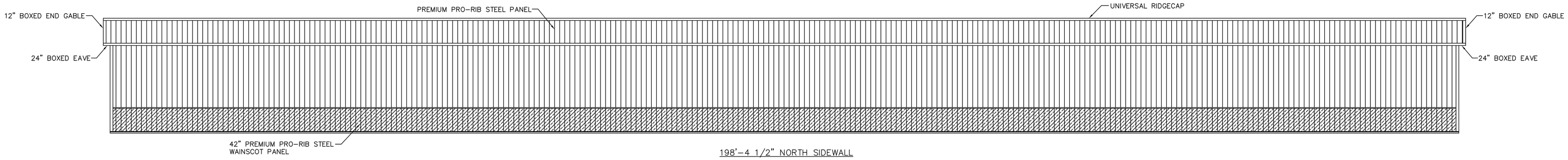
PROJECT TITLE:
MINIMAX STORAGE
MENASHA, WI

SHEET TITLE:
ELEVATIONS & STEEL LAYOUTS

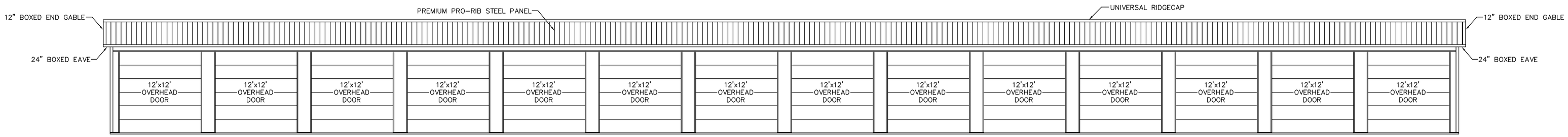
REVISIONS			
NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			

PROFESSIONAL ENGINEER: JEFF MURRAY
PLAN DESIGNER: JEFF MURRAY
DRAWN BY: LANCE NIELSEN
FILE NAME: M08911WI02
DATE: 04-15-11
SCALE: AS NOTED

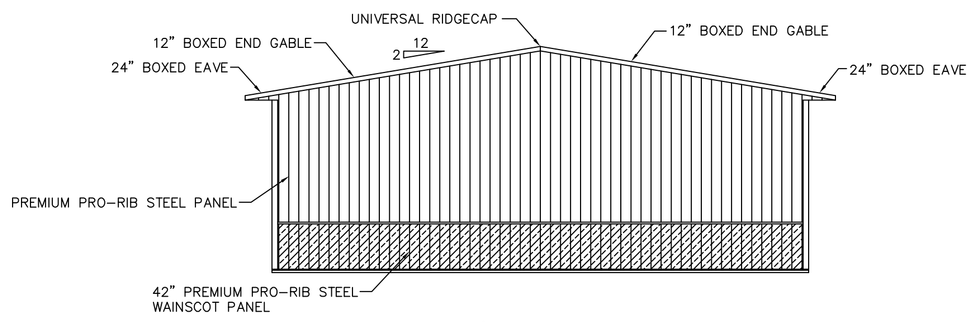
SHEET NO. 2 OF 7



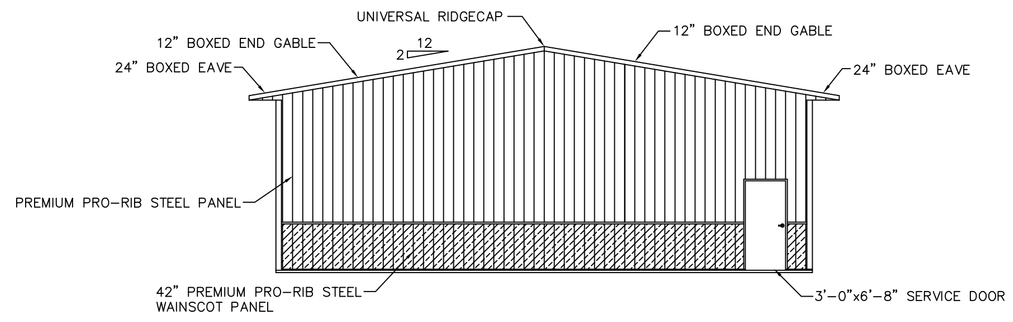
198'-4 1/2" NORTH SIDEWALL



198'-4 1/2" SOUTH SIDEWALL



40' EAST ENDWALL



40' WEST ENDWALL

ELEVATIONS

SCALE: 1/8"=1'-0"

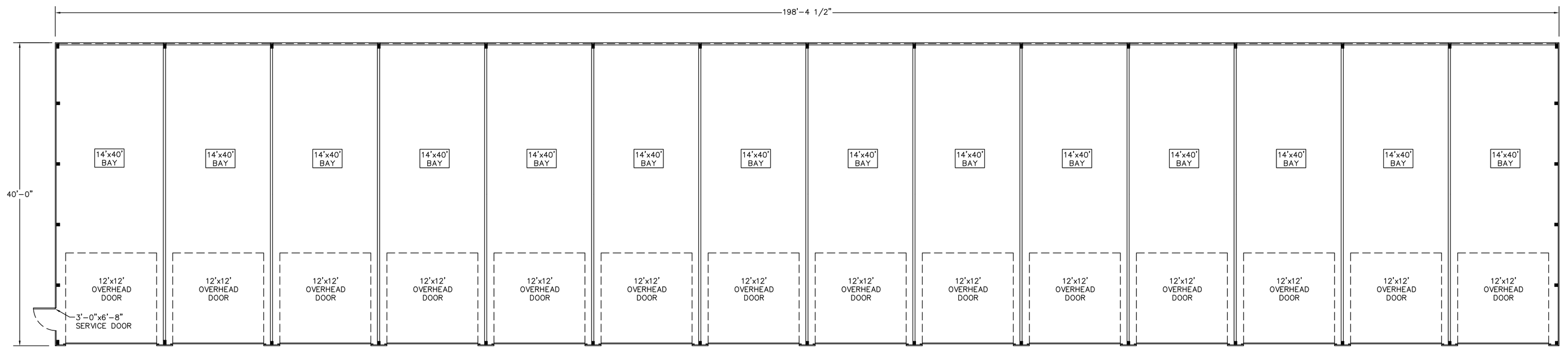
ENGINEERING SERVICES
5231 KANE RD. EAU CLAIRE, WI 54703 (715) 876-5555

PROJECT TITLE:
MINIMAX STORAGE
BUD DRIVE ANNEX BUILDING #1
MENASHA, WI

SHEET TITLE:
ELEVATIONS

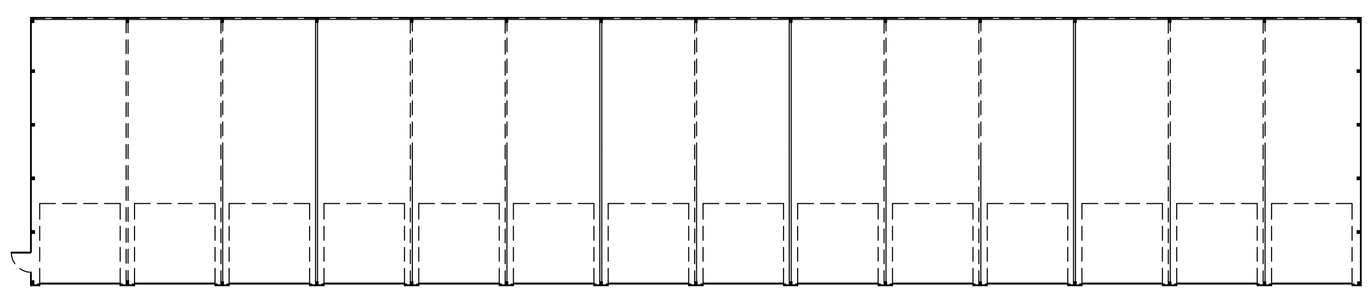
REVISIONS			
NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			

PROFESSIONAL ENGINEER: JEFF MURRAY
PLAN DESIGNER: JEFF MURRAY
DRAWN BY: LANCE NIELSEN
FILE NAME: M11113WI02
DATE: 06-07-13
SCALE: AS NOTED
SHEET NO. 2 OF 8



FLOOR PLAN
SCALE: 1/8"=1'-0"

N



INTERIOR WALL DIAGRAM
SCALE: 1/16"=1'-0"

WALL TYPE
REQUIRED SHEARWALL
OPTIONAL INTERIOR WALL

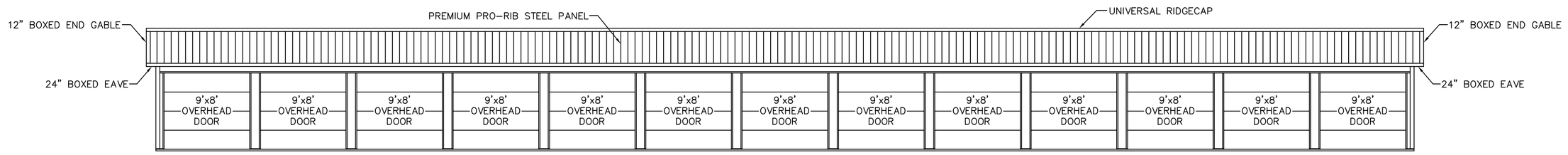
ENGINEERING SERVICES
5231 KANE RD. EAU CLAIRE, WI 54703 (715) 876-5555

PROJECT TITLE:
MINIMAX STORAGE
BUD DRIVE ANNEX BUILDING #1
MENASHA, WI

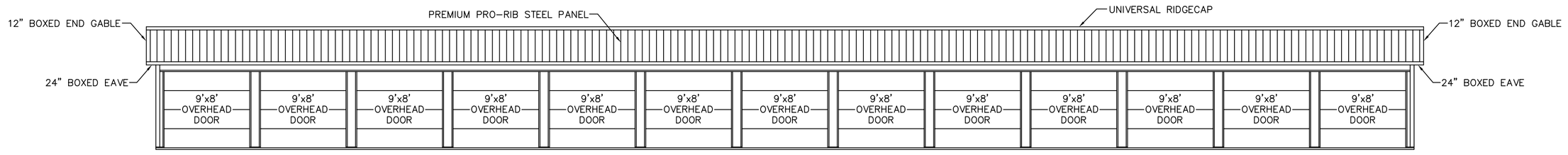
SHEET TITLE:
FLOOR PLAN & INTERIOR WALL DIAGRAM

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			

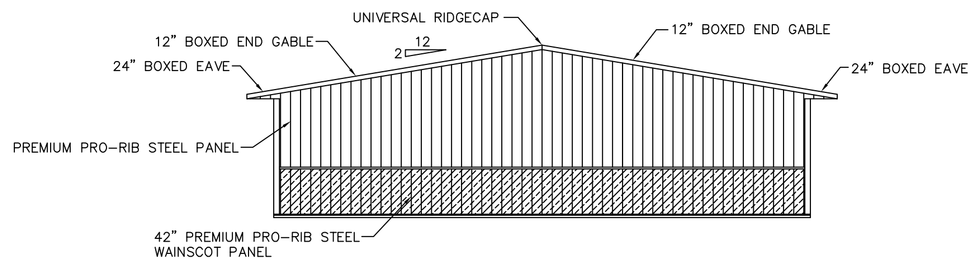
PROFESSIONAL ENGINEER: JEFF MURRAY
PLAN DESIGNER: JEFF MURRAY
DRAWN BY: LANCE NIELSEN
FILE NAME: M11113WI03
DATE: 06-07-13
SCALE: AS NOTED
SHEET NO. 3 OF 8



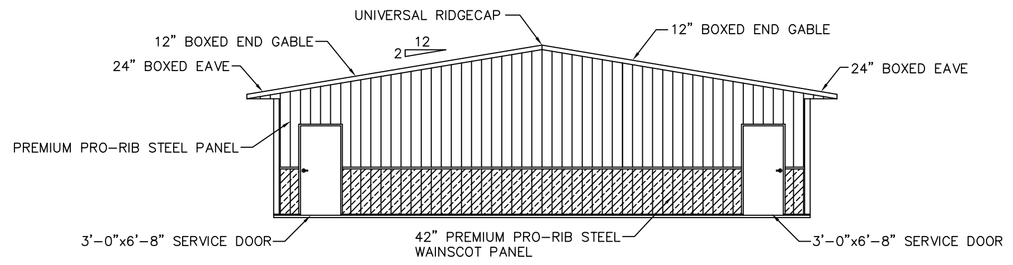
132'-3" NORTH SIDEWALL



132'-3" SOUTH SIDEWALL



40' EAST ENDWALL



40' WEST ENDWALL

ELEVATIONS

SCALE: 1/8"=1'-0"

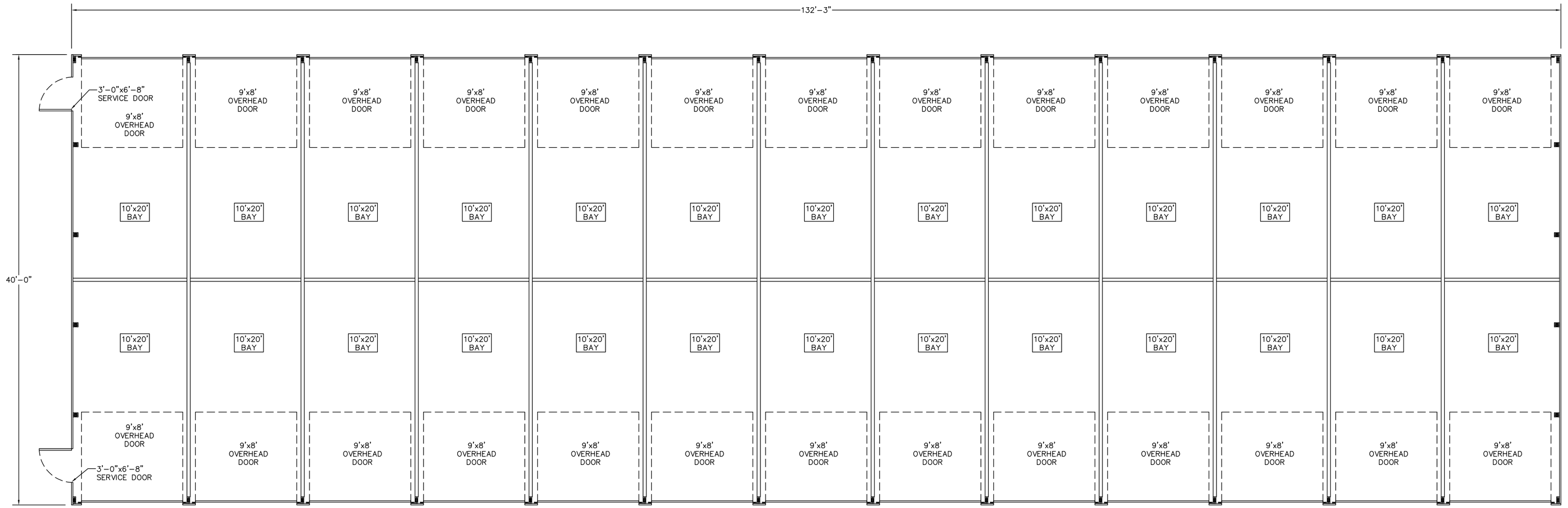
ENGINEERING SERVICES
5231 KANE RD. EAU CLAIRE, WI 54703 (715) 876-5555

PROJECT TITLE:
MINIMAX STORAGE
BUD DRIVE ANNEX BUILDINGS #2 & #4
MENASHA, WI

SHEET TITLE:
ELEVATIONS

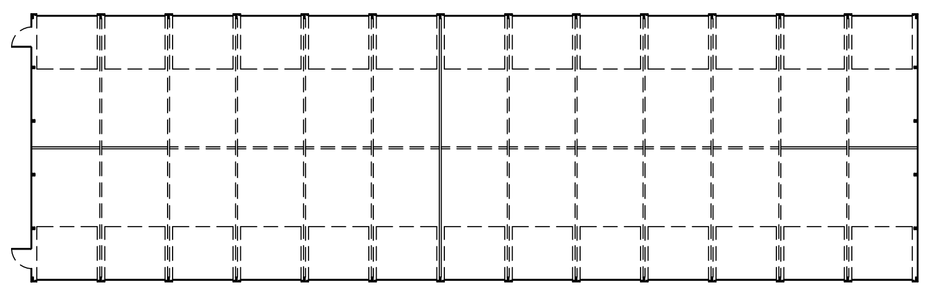
REVISIONS			
NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			

PROFESSIONAL ENGINEER: JEFF MURRAY
PLAN DESIGNER: JEFF MURRAY
DRAWN BY: LANCE NIELSEN
FILE NAME: M11213WI02
DATE: 06-07-13
SCALE: AS NOTED
SHEET NO. 2 OF 8



FLOOR PLAN
SCALE: 3/16"=1'-0"

N



INTERIOR WALL DIAGRAM
SCALE: 1/16"=1'-0"

WALL TYPE
REQUIRED SHEARWALL
OPTIONAL INTERIOR WALL

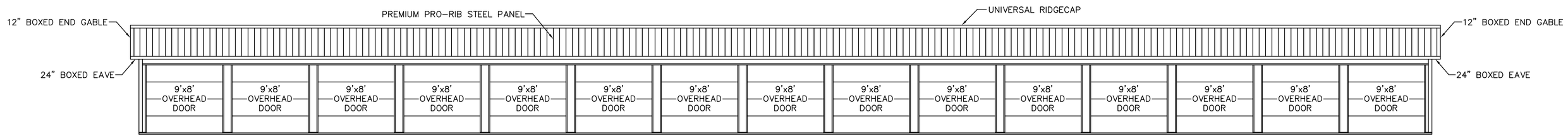
ENGINEERING SERVICES
5231 KANE RD. EAU CLAIRE, WI 54703 (715) 876-5555

PROJECT TITLE:
MINIMAX STORAGE
BUD DRIVE ANNEX BUILDINGS #2 & #4
MENASHA, WI

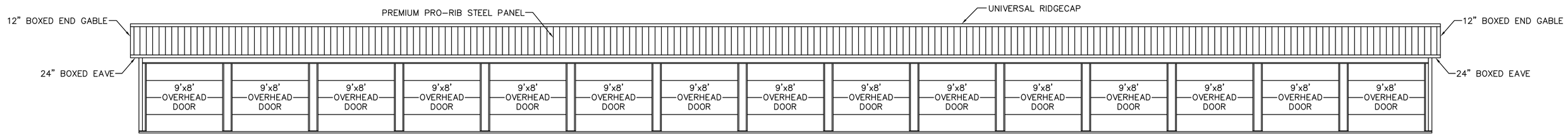
SHEET TITLE:
FLOOR PLAN & INTERIOR WALL DIAGRAM

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			

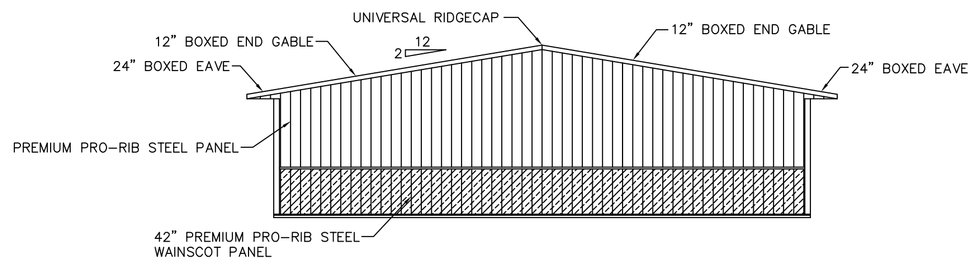
PROFESSIONAL ENGINEER: JEFF MURRAY
PLAN DESIGNER: JEFF MURRAY
DRAWN BY: LANCE NIELSEN
FILE NAME: M11213WI03
DATE: 06-07-13
SCALE: AS NOTED
SHEET NO. 3 OF 8



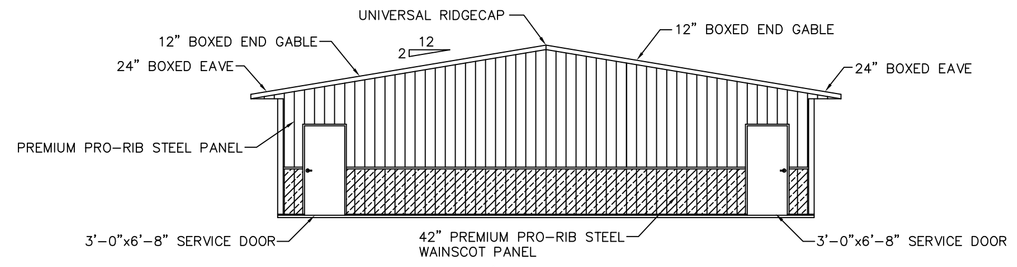
152'-6" NORTH SIDEWALL



152'-6" SOUTH SIDEWALL



40' EAST ENDWALL



40' WEST ENDWALL

ELEVATIONS

SCALE: 1/8"=1'-0"

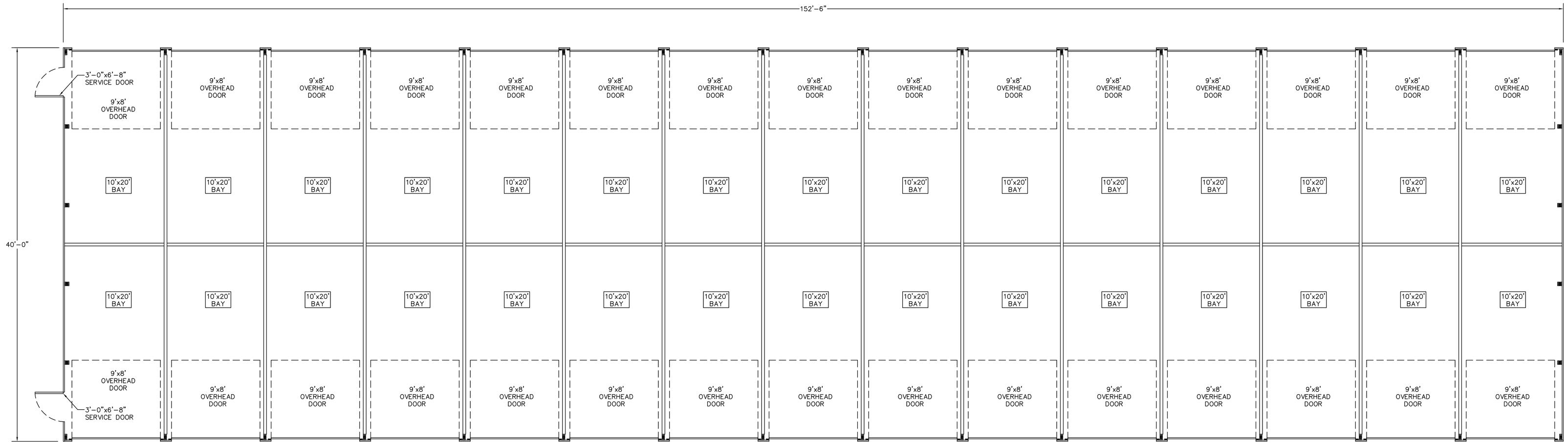
ENGINEERING SERVICES
5231 KANE RD. EAU CLAIRE, WI 54703 (715) 876-5555

PROJECT TITLE:
MINIMAX STORAGE
BUD DRIVE ANNEX BUILDING #3
MENASHA, WI

SHEET TITLE:
ELEVATIONS

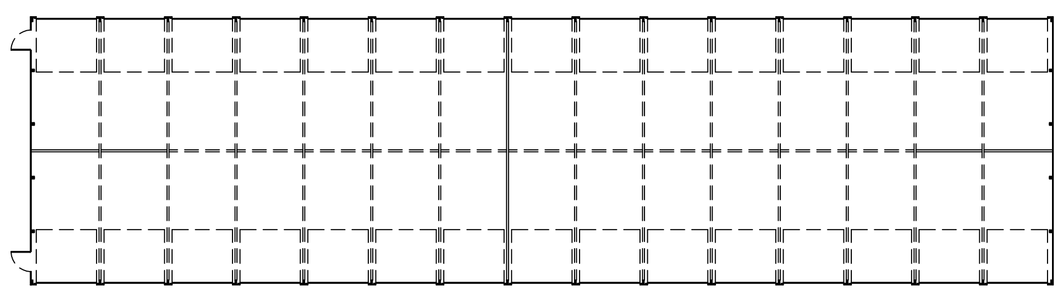
REVISIONS			
NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			

PROFESSIONAL ENGINEER: JEFF MURRAY
PLAN DESIGNER: JEFF MURRAY
DRAWN BY: LANCE NIELSEN
FILE NAME: M11313WI02
DATE: 06-07-13
SCALE: AS NOTED
SHEET NO. 2 OF 8



FLOOR PLAN
SCALE: 3/16"=1'-0"

N



INTERIOR WALL DIAGRAM
SCALE: 1/16"=1'-0"

WALL TYPE
REQUIRED SHEARWALL
OPTIONAL INTERIOR WALL

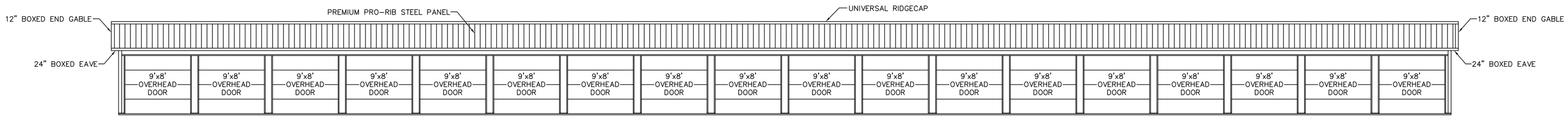
ENGINEERING SERVICES
5231 KANE RD. EAU CLAIRE, WI 54703 (715) 876-5555

PROJECT TITLE:
MINIMAX STORAGE
BUD DRIVE ANNEX BUILDING #3
MENASHA, WI

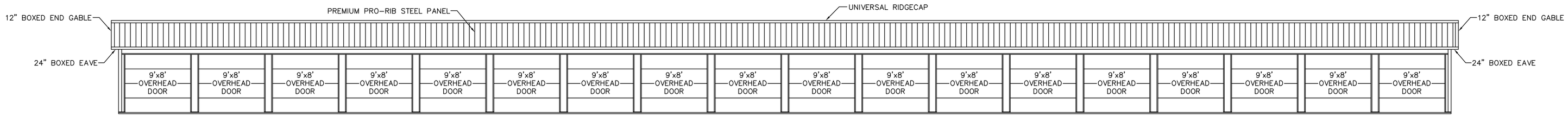
SHEET TITLE:
FLOOR PLAN & INTERIOR WALL DIAGRAM

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			

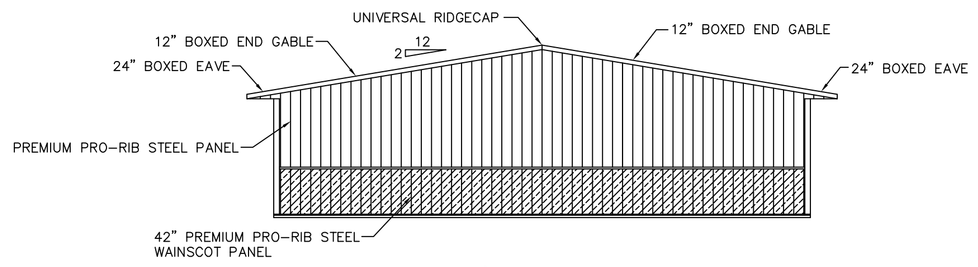
PROFESSIONAL ENGINEER: JEFF MURRAY
PLAN DESIGNER: JEFF MURRAY
DRAWN BY: LANCE NIELSEN
FILE NAME: M11313WI03
DATE: 06-07-13
SCALE: AS NOTED
SHEET NO. 3 OF 8



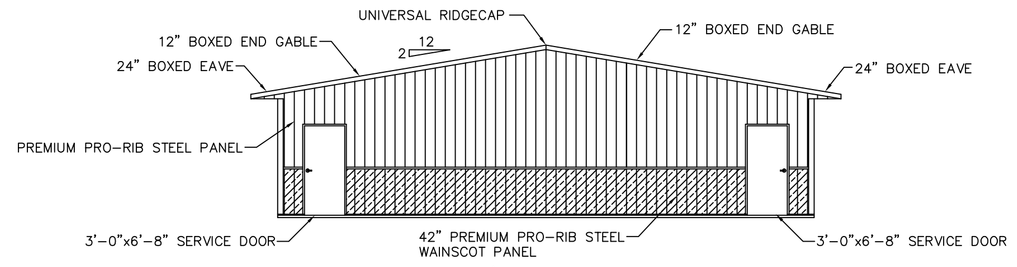
182'-10 1/2" NORTH SIDEWALL



182'-10 1/2" SOUTH SIDEWALL



40' EAST ENDWALL



40' WEST ENDWALL

ELEVATIONS
SCALE: 1/8"=1'-0"

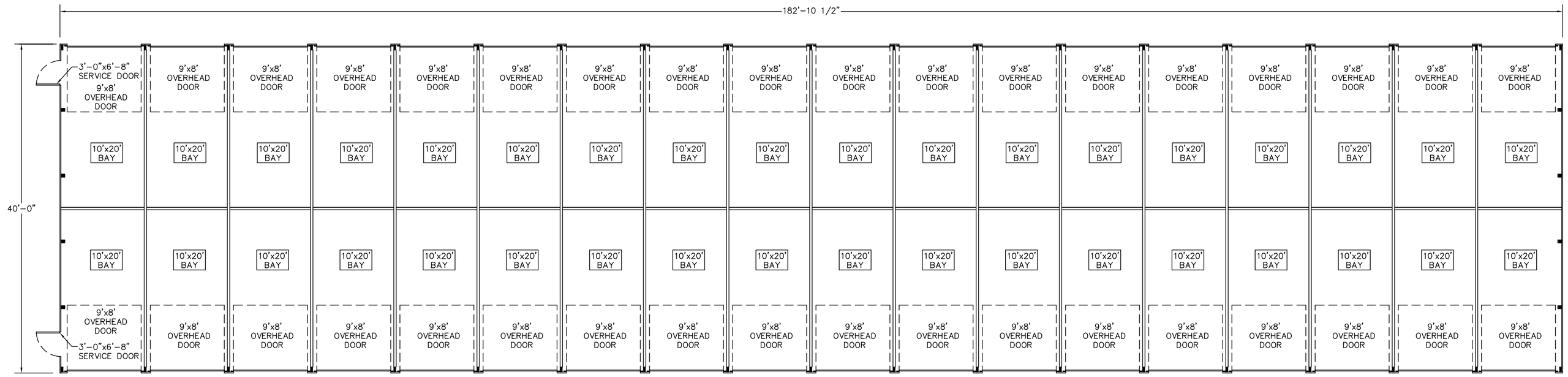
ENGINEERING SERVICES
5231 KANE RD. EAU CLAIRE, WI 54703 (715) 876-5555

PROJECT TITLE:
MINIMAX STORAGE
BUD DRIVE ANNEX BUILDING #5
MENASHA, WI

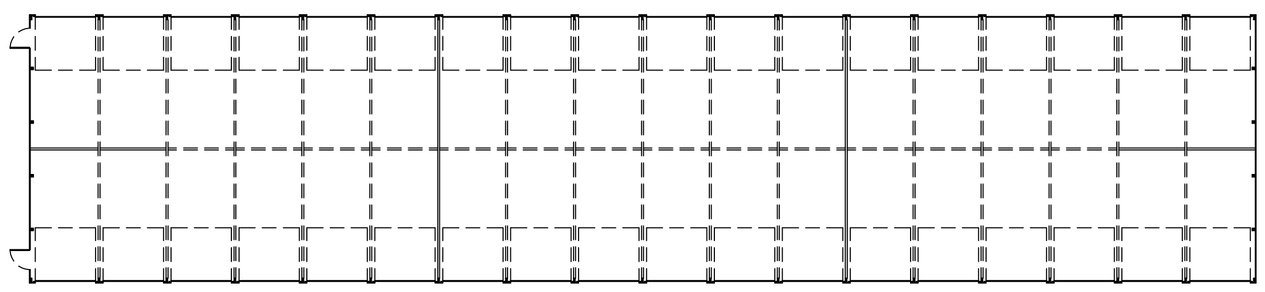
SHEET TITLE:
ELEVATIONS

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			

PROFESSIONAL ENGINEER: JEFF MURRAY
PLAN DESIGNER: JEFF MURRAY
DRAWN BY: LANCE NIELSEN
FILE NAME: M11513WI02
DATE: 06-07-13
SCALE: AS NOTED
SHEET NO. 2 OF 8



FLOOR PLAN
SCALE: 1/8"=1'-0"



INTERIOR WALL DIAGRAM
SCALE: 1/16"=1'-0"

WALL TYPE
REQUIRED SHEARWALL
OPTIONAL INTERIOR WALL

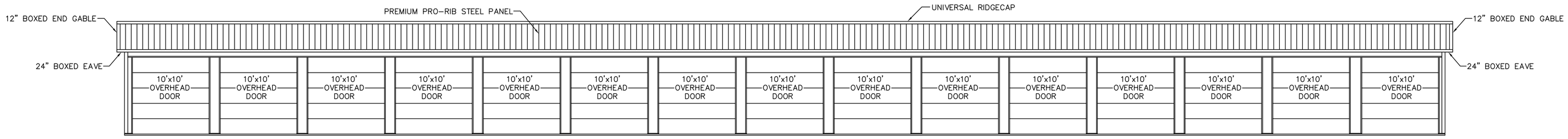
ENGINEERING SERVICES
5231 KANE RD. EAU CLAIRE, WI 54703 (715) 876-5555

PROJECT TITLE:
MINIMAX STORAGE
BUD DRIVE ANNEX BUILDING #5
MENASHA, WI

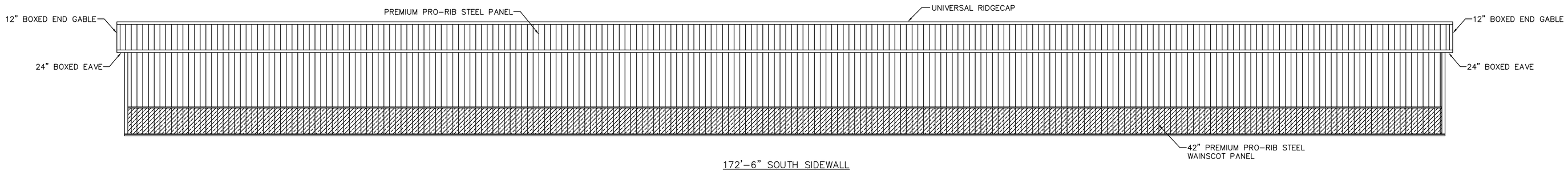
SHEET TITLE:
FLOOR PLAN & INTERIOR WALL DIAGRAM

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			

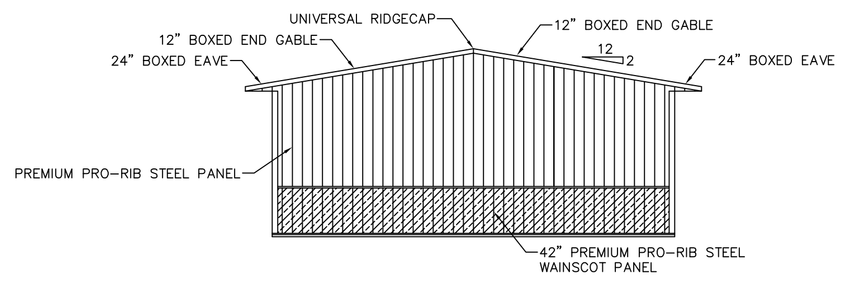
PROFESSIONAL ENGINEER: JEFF MURRAY
PLAN DESIGNER: JEFF MURRAY
DRAWN BY: LANCE NIELSEN
FILE NAME: M11513WI03
DATE: 06-07-13
SCALE: AS NOTED
SHEET NO. 3 OF 8



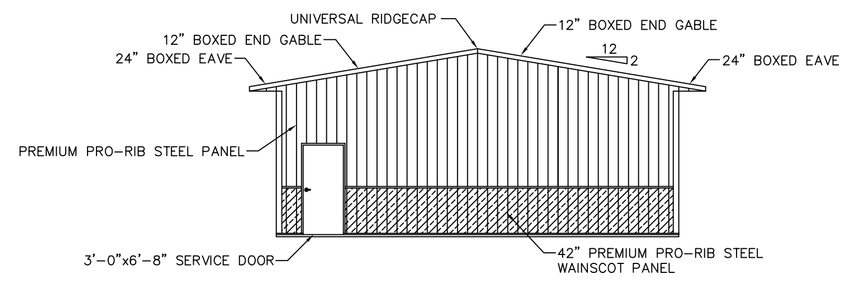
172'-6" NORTH SIDEWALL



172'-6" SOUTH SIDEWALL



30' EAST ENDWALL



30' WEST ENDWALL

ELEVATIONS

SCALE: 1/8"=1'-0"

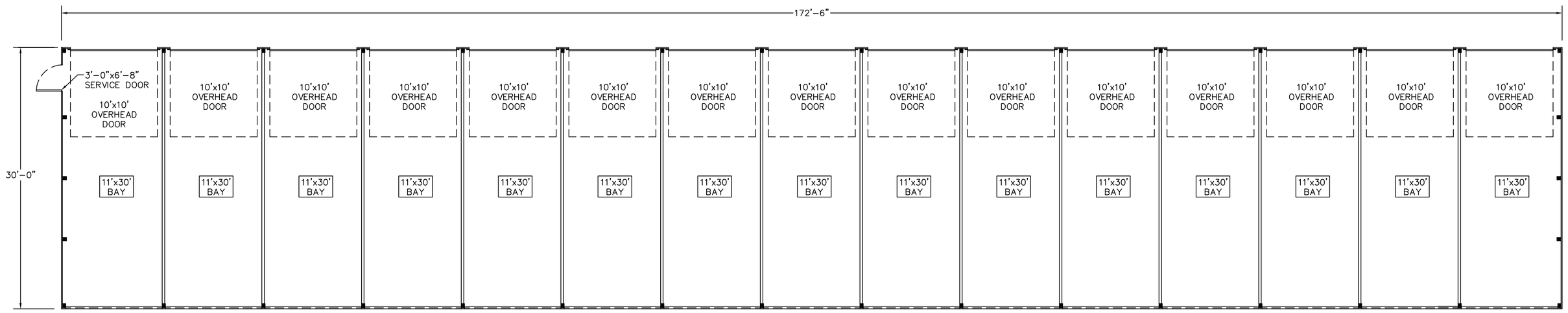
ENGINEERING SERVICES
5231 KANE RD. EAU CLAIRE, WI 54703 (715) 876-5555

PROJECT TITLE:
MINIMAX STORAGE
BUD DRIVE ANNEX BUILDING #6
MENASHA, WI

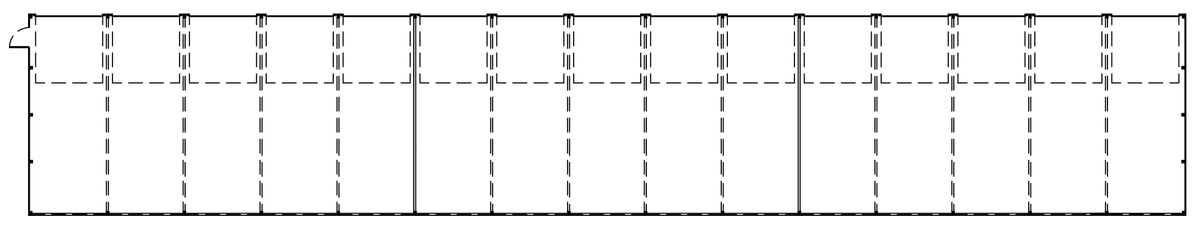
SHEET TITLE:
ELEVATIONS

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			

PROFESSIONAL ENGINEER: JEFF MURRAY
PLAN DESIGNER: JEFF MURRAY
DRAWN BY: LANCE NIELSEN
FILE NAME: M11613WI02
DATE: 06-07-13
SCALE: AS NOTED
SHEET NO. 2 OF 8



FLOOR PLAN
SCALE: 1/8"=1'-0"



INTERIOR WALL DIAGRAM
SCALE: 1/16"=1'-0"

WALL TYPE
REQUIRED SHEARWALL
OPTIONAL INTERIOR WALL

ENGINEERING SERVICES
5231 KANE RD. EAU CLAIRE, WI 54703 (715) 876-5555

PROJECT TITLE:
MINIMAX STORAGE
BUD DRIVE ANNEX BUILDING #6
MENASHA, WI

SHEET TITLE:
FLOOR PLAN & INTERIOR WALL DIAGRAM

REVISIONS

NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			

PROFESSIONAL ENGINEER: JEFF MURRAY
PLAN DESIGNER: JEFF MURRAY
DRAWN BY: LANCE NIELSEN
FILE NAME: M11613WI03
DATE: 06-07-13
SCALE: AS NOTED
SHEET NO. 3 OF 8