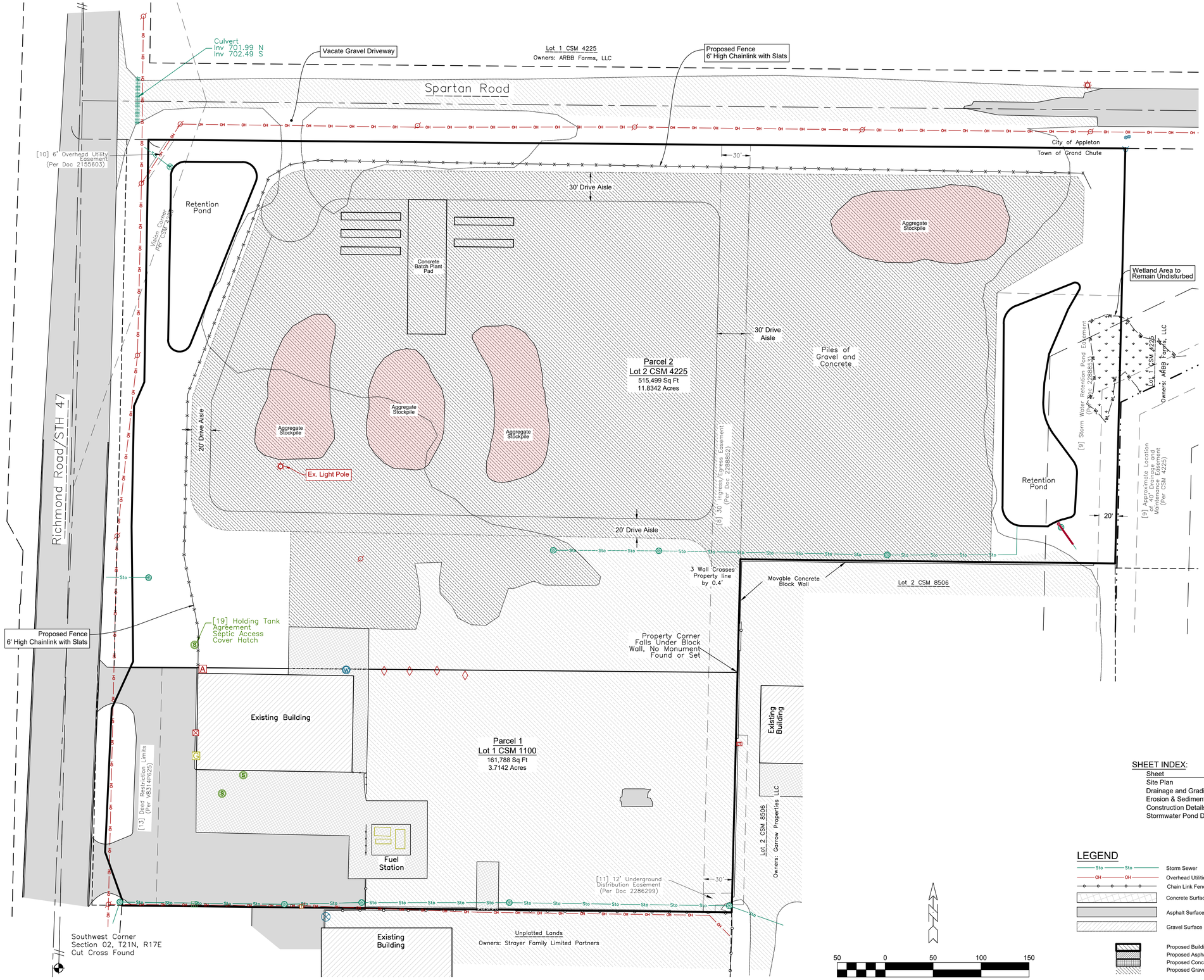
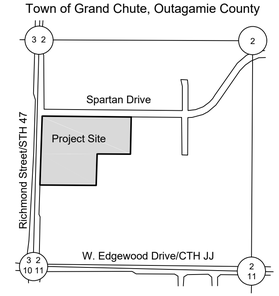


Location Map

SW 1/4 Section 2, T21N R17E
Town of Grand Chute, Outagamie County



SHEET INDEX:

LEGEND

- Storm Sewer
- Overhead Utilities
- Chain Link Fence
- Concrete Surface
- Asphalt Surface
- Gravel Surface
- Proposed Building
- Proposed Asphalt
- Proposed Concrete
- Proposed Gravel
- Monitoring Well
- Well
- Sanitary Manhole
- Storm Inlet
- Storm Catch Basin
- Utility Pole
- Light Pole
- Telephone Pedestal
- Air Conditioner
- Electrical Hook up
- Utility Meter
- Gas Regulator
- 1.3" OD x 18" Iron Pipe Set
- 1" Iron Pipe Found
- 3/4" Rebar Found
- Section Corner As Noted

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Civil Engineers and Land Surveyors
1164 Province Terrace, Menasha, WI 54952
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SITE PLAN

5514 N. Richmond Street

Town of Grand Chute, Outagamie County, WI
For: Vinton Construction Co., Inc.

Date: 02/13/2025
Filename: 8627Engr.dwg
Author: TNW
Last Saved by: tony
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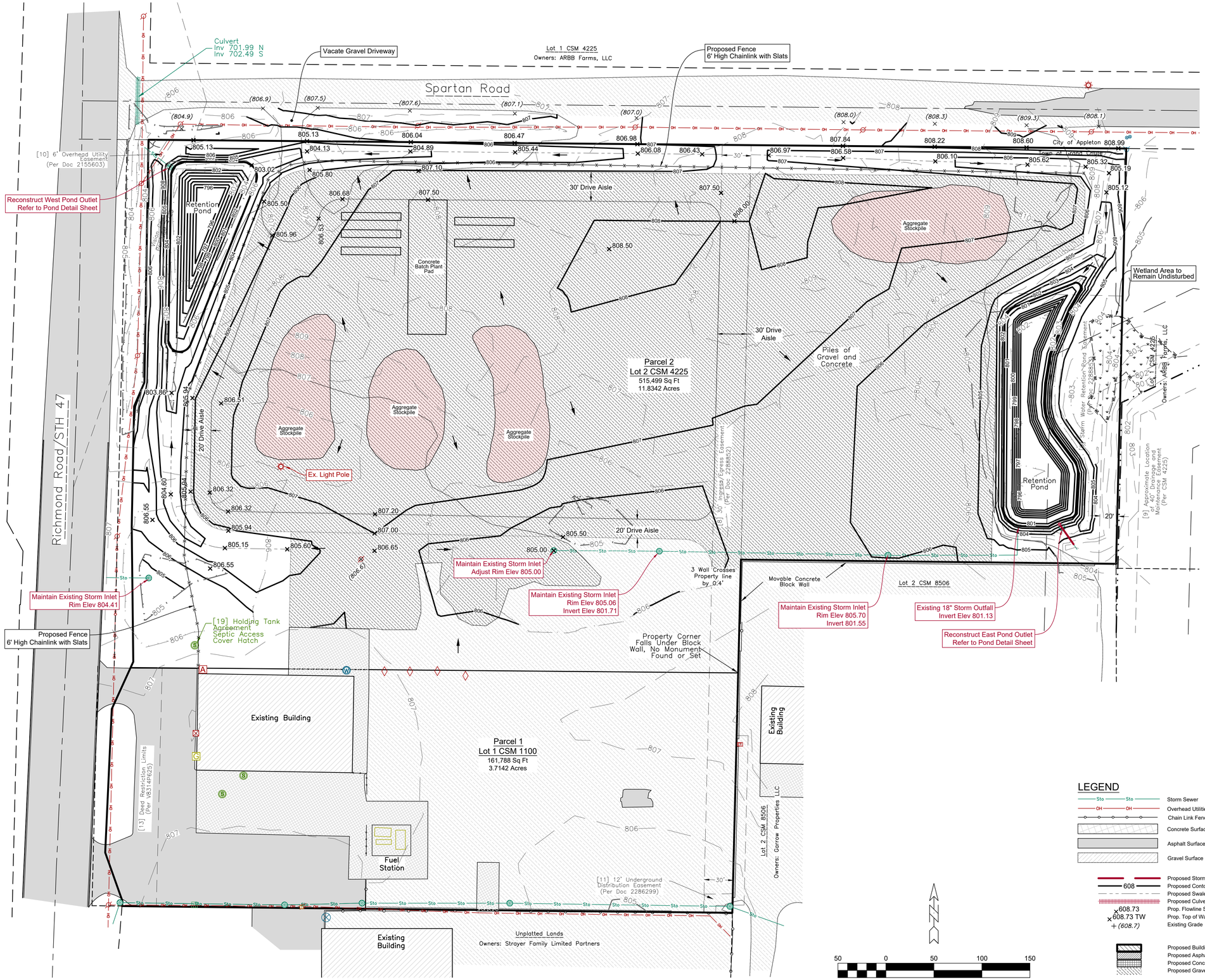

NOTES:

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 owners of the respective utilities. All utility 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. 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.
4. Contractor shall remove all excess materials from the site. Earthwork contractors shall verify topsoil depth.
5. Contractor is responsible for compliance with Department of Safety & Professional Services, Chapter SPS 382, for lateral construction and cleanout locations.
6. ALTA survey provided by TNT Surveyors, Inc., refer to separate document.
7. Proposed elevations along the north property line are based on the City of Appleton's established grade plan for Spartan Drive.
8. Existing elevations and topography provided by Vinton Construction Company.

LEGEND

- Storm Sewer
- Overhead Utilities
- Chain Link Fence
- Concrete Surface
- Asphalt Surface
- Gravel Surface
- Proposed Storm Sewer
- 608 Proposed Contour
- Proposed Swale
- Proposed Culvert
- ×608.73 Prop. Flowline Spot Elev.
- ×608.73 TW + (608.7) Prop. Top of Walk Elev. / Existing Grade
- Proposed Building
- Proposed Asphalt
- Proposed Concrete
- Proposed Gravel
- Monitoring Well
- Well
- Sanitary Manhole
- Storm Inlet
- Storm Catch Basin
- Utility Pole
- Light Pole
- Telephone Pedestal
- Proposed Storm Manhole
- Proposed Curb Inlet
- Prop. Catch Basin / Yard Drain
- Proposed Endwall
- Proposed Rip Rap
- Prop. Drainage Direction
- FF=000.0 Prop. Finished Floor Elev.
- Emergency Overflow for Runoff
- Air Conditioner
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- 1.3" OD x 18" Iron Pipe Set
- 1" Iron Pipe Found
- 3/4" Rebar Found
- Section Corner As Noted

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DRAINAGE & GRADING PLAN

5514 N. Richmond Street

Town of Grand Chute, Outagamie County, WI
For: Vinton Construction Co., Inc.

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EROSION & SEDIMENT CONTROL PLAN

5514 N. Richmond Street

Town of Grand Chute, Outagamie County, WI

For: Vinton Construction Co., Inc.

Date: 02/21/2025

Filename: 8627Engr.dwg

Author: TNW

Last Saved by: tony

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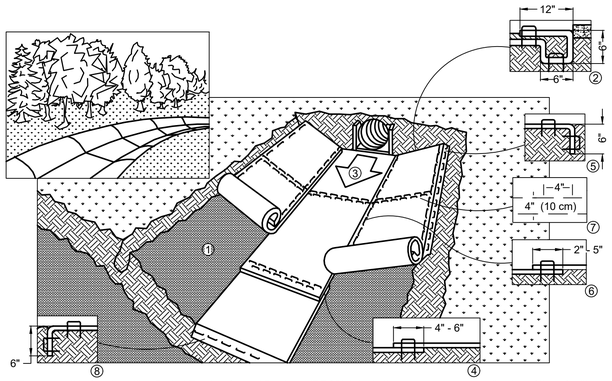


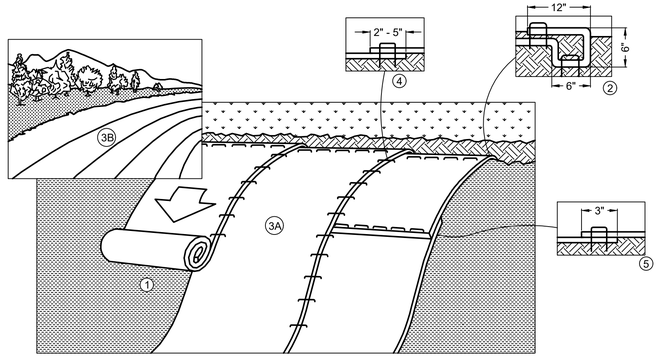
1. Prepare soil before installing Rolled Erosion Control Products (RECP's), including any necessary application of lime, fertilizer, and seed.
Note: When using cell-o-seed do not seed prepared area. Cell-o-seed must be installed with paper side down.
2. Begin at the top of the channel by anchoring the 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) across the width of the RECP's.
3. Roll center RECP's in direction of water flow in bottom of channel. 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. Place consecutive RECP's end over end (shingle style) with a 4" - 6" (10 cm - 15 cm) overlap. Use a double row of staples staggered 4" (10 cm) apart and 4" (10 cm) on center to secure RECP's.
5. Full length edge of RECP's at top of side slopes must be anchored with a row of staples/stakes approximately 12" (30 cm) apart in a 6" (15 cm) deep x 6" (15 cm) wide trench. Backfill and compact the trench after stapling.
6. Adjacent RECP's must be overlapped approximately 2" - 5" (5cm - 12.5 cm) (depending on RECP's type) and stapled.
7. In high flow channel applications a staple check slot is recommended at 30 to 40 foot (9 M - 12 M) intervals. Use a double row of staples staggered 4" (10 cm) apart and 4" (10 cm) on center over entire width of the channel.
8. The terminal end of the RECP's must be anchored with a row of staples.stakes approximately 12" (30 cm) apart in a 6" (15 cm) deep x 6" (15 cm) wide trench. Backfill and compact the trench after stapling.
Note:
* In loose soil conditions, the use of staple or stake lengths greater than 6" (15 cm) may be necessary to properly anchor the RECP's.
9. Detail provided by North American Green (www.nagreen.com)

Critical Points
A. Overlaps and seams
B. Projected Water line
C. Channel Bottom/side slope vertices

Note:
* Horizontal staple spacing should be altered if necessary to allow staples to secure the critical points along the channel surface.

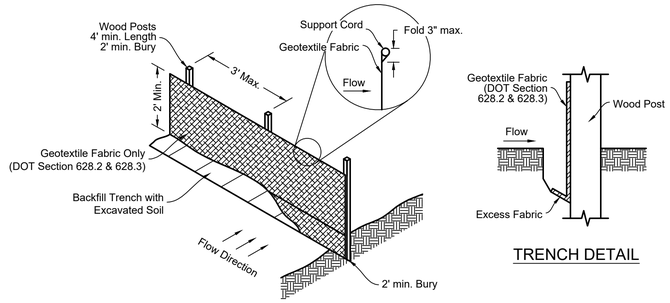
** In loose soil conditions, the use of staple or stake lengths greater than 6" (15 cm) may be necessary to properly anchor the RECP's.

EROSION MAT CHANNEL INSTALLATION
DNR TECHNICAL STANDARD 1053



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.

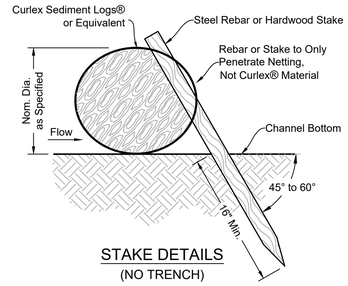
EROSION/TURF REINFORCEMENT MAT SLOPE INSTALLATION
DNR TECHNICAL STANDARD 1052



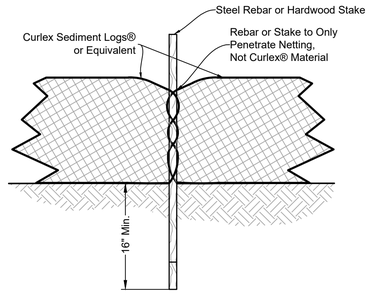
TRENCH DETAIL

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.

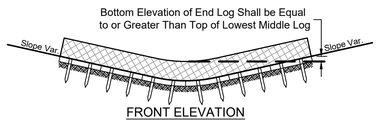
SILT FENCE INSTALLATION
DNR TECHNICAL STANDARD 1056



STAKE DETAILS
(NO TRENCH)



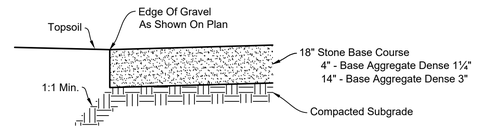
STAKE DETAIL
(FRONT VIEW)



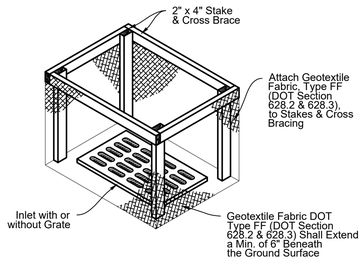
FRONT ELEVATION

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

SEDIMENT LOG DETAIL



GRAVEL DRIVE AISLE SECTION
(All Other Gravel Areas Min. 12" Stone Depth)



INLET PROTECTION, TYPE A

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

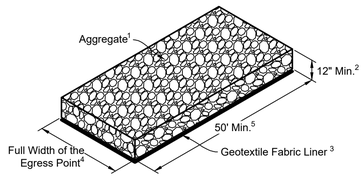
Manufactured alternatives approved and listed on the DOT Erosion Control Product Acceptability list may be substituted.

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.



TRACKING PAD DETAIL
DNR TECHNICAL STANDARD 1057

Note 1 Use hard, durable, angular stone or recycled concrete meeting the gradation in Table 1. Where this gradation is not available, meet the gradation in Wisconsin Department of Transportation (DOT) 2022 Standard Specification, Section 312, Select Crushed Material.

Note 2 Slope the stone tracking pad in a manner to direct runoff to an approved treatment practice.

Note 3 Select fabric type based on soil conditions and vehicles loading.

Note 4 Install tracking pad across full width of the access point, or restrict existing traffic to a dedicated egress lane at least 12 feet wide across the top of the pad.

Note 5 If a 50' pad length is not possible due to site geometry, install the maximum length practicable and supplement with additional practices as needed.

TABLE 1: GRADATION FOR STONE TRACKING PADS

Sieve Size	Percent by weight passing
3"	100
2-1/2"	90-100
1-1/2"	25-60
3/4"	0-20
3/8"	0-5

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CONSTRUCTION DETAILS

5514 N. Richmond Street
Town of Grand Chute, Outagamie County, WI
For: Vinton Construction Co., Inc.

Date: 01/30/2025
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Author: TNW
Last Saved by: jennifer
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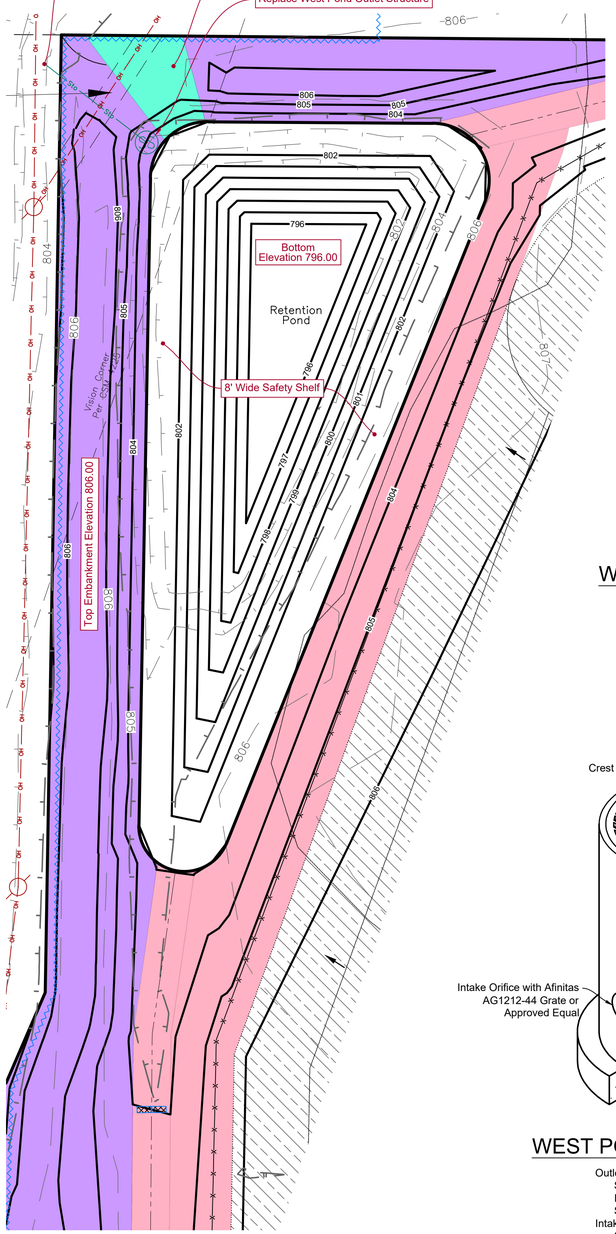
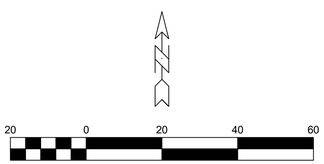
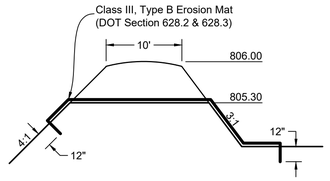
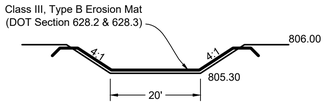


WEST POND

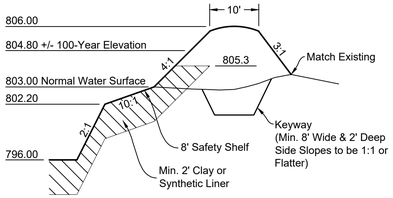




EMERGENCY SPILLWAY SECTION



EMERGENCY SPILLWAY DETAIL



WEST POND EMBANKMENT SECTION

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.

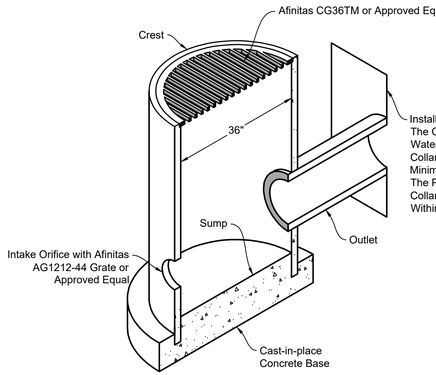
HDPE liner specifications are as follows:

- 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.

10. All liners must extend above the permanent pool up to the elevation of the 2-year, 24-hour rainfall event.
11. Any pond fountain or aeration device shall comply with conditions of DNR Technical Standard 1001 Section V.B.2.k.



WEST POND OUTLET DETAIL

Outlet	
Size, in	12
Invert	803.00
Slope (%)	0.50
Intake orifice	
Size, in	3
Invert	803.00
Crest	
Elevation	804.50
Sump	
Elevation	802.50
Base	
Elevation	800.00

LEGEND

- Storm Sewer
- Overhead Utilities
- Chain Link Fence
- Concrete Surface
- Asphalt Surface
- Gravel Surface
- Proposed Storm Sewer
- 608 Proposed Contour
- Proposed Swale
- Proposed Culvert
- Proposed Silt Fence
- Prop. Drainage Direction
- Proposed Tracking Pad
- Proposed Ditch Check
- Proposed Building
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- Utility Pole
- Light Pole
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- Proposed Storm Manhole
- Proposed Curb Inlet
- Prop. Catch Basin / Yard Drain
- Proposed Endwall
- Proposed Rip Rap
- Proposed Urban Type B Erosion Mat
- Proposed Class I Type B Erosion Mat
- Proposed Class III Type B Erosion Mat
- Proposed Inlet Protection
- Type of Inlet Protection
- Air Conditioner
- Electrical Hook up
- Utility Meter
- Gas Regulator
- 1.3" OD x 18" Iron Pipe Set
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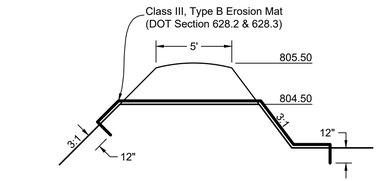
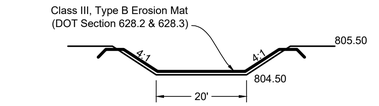


EMERGENCY SPILLWAY SECTION



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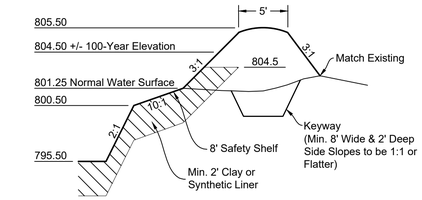
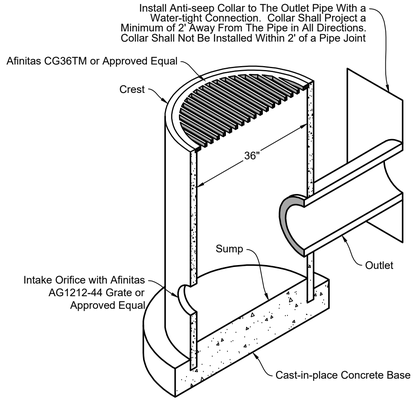
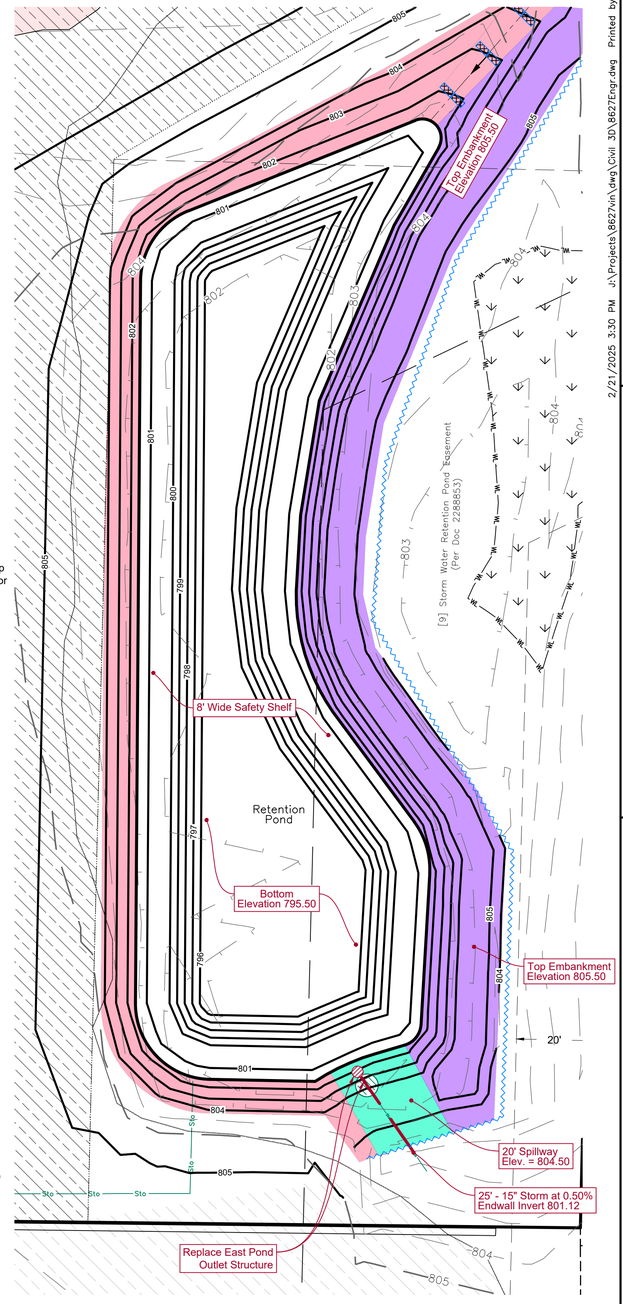


EAST POND EMBANKMENT SECTION

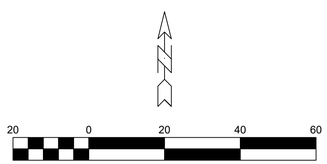


EAST POND OUTLET DETAIL

Outlet	
Size, in	15
Invert	801.25
Slope (%)	0.50
Intake orifice	
Size, in	3
Invert	801.25
Crest	
Elevation	803.75
Sump	
Elevation	800.75
Base	
Elevation	798.00



EAST POND



2/21/2025 3:30 PM J:\Projects\8627vin\dwg\Civil 3D\8627Engr.dwg Printed by: tony

DAVEL ENGINEERING & ENVIRONMENTAL, INC.
Civil Engineers and Land Surveyors
1164 Province Terrace, Menasha, WI 54952
Ph: 920-991-1866 Fax: 920-441-0804
www.davel.pro

STORMWATER POND DETAIL

5514 N. Richmond Street

Town of Grand Chute, Outagamie County, WI
For: Vinton Construction Co., Inc.

Date: 02/21/2025
Filename: 8627Engr.dwg
Author: TNW
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