



PLANNING COMMISSION MEETING AGENDA
REGULAR MEETING
TUESDAY, JUNE 20, 2017

6:30 PM Regular Meeting

1. Call to Order
2. Roll Call
3. Approval of Minutes:
 - a. May 16, 2017 Planning Commission Meeting
 - b. May 9, 2017 City Council Meeting Minutes (For Information Only)
4. **PUBLIC HEARING:** Gary and Lynda Ostberg (Applicants) request that the City consider the following actions for the property identified by (PID No. 33-118-24-14-0003) and located on the south side of CSAH 6 and west of Game Farm Road N. in Independence, MN:
 - a. A conditional use permit allowing the following:
 - i. A commercial riding stable.
 - ii. A bunkhouse.
 - iii. An accessory building which is greater than 5,000 square feet.
5. **PUBLIC HEARING:** A proposed text amendment to the City of Independence Ordinances as follows:
 - a. Chapter 5, Section 520.21 Definitions, Subd. 2 Accessory Dwelling Units – Amending/adding language that will allow a basement or mechanical/utility room as a part of an accessory dwelling unit without being counted towards the total square footage.
4. Meeting Schedule Update
5. Open/Misc.
6. Adjourn.

MINUTES OF A REGULAR MEETING OF THE
INDEPENDENCE PLANNING COMMISSION
TUESDAY, MAY 16, 2017 – 6:30 P.M.

1. CALL TO ORDER

Pursuant to due call and notice thereof, a regular meeting of the Independence Planning Commission was called to order by Chair Phillips at 6:30 p.m.

2. ROLL CALL

PRESENT: Chair Phillips, Commissioners Dumas, Gardner, Thompson and Palmquist
STAFF: City Administrative Assistant Horner, City Administrator Kaltsas
ABSENT: None
VISITORS: Jan Gardner, Sally Simpson, Dean Fowser

3. Approval of minutes from the April 18, 2017 Planning Commission Meeting.

Motion by Gardner, to approve the minutes of the April 18, 2017 Planning Commission Meeting, second by Palmquist. Ayes: Phillips, Gardner, Thompson, Dumas and Palmquist. Nays: None. Absent: None. Abstain: None. Motion approved.

4. **PUBLIC HEARING:** Dean Fowser (Applicant/Owner) requests that the City consider the following actions for the property located at 8875 Highway 12 (PID No. 18-118-24-11-0001) in Independence, MN:

- a. An amendment to the conditional use permit to expand the commercial building located on the property.

Proposed: to reconstruct and expand the commercial building located on the property.

Kaltsas said the subject property is located on the south side of Highway 12 and just west of Copeland Road at 8875 Highway 12. There is an existing residence and three detached accessory buildings.

The subject property was granted a conditional use permit to allow a dog kennel in 1977. In 1993, the City amended the conditional use permit to allow an outside dog run in association with the conditional use permit. The conditional use permit has the following key conditions:

1. Metal pole building can be up to 36'x 82.5'. Expansion of the building can occur without further City Council review.
2. 55-60 dogs.
3. Boarding and impounding of dogs from 8:00am-7:00pm 7 days a week.
4. An outdoor fenced exercise area up to 2,400 square feet is permitted.

The Cities definition of a kennel is: any structure or premises on which four or more dogs over six months of age are kept.

The applicant/owner (Dean Fowser) contacted the City last year to discuss the possibility of expanding the existing building. Dean currently leases the building to Abby Lake Kennel. The current building is about 36'x40'. The kennel would like to improve the existing

facility in order to stay competitive and potentially attract new clients. The existing kennel currently houses approximately 15-30 dogs at any given time. Abby Lakes has noted that they are not expecting to increase the number of dogs kept on the premise, but rather improve the facilities for their current clients.

The original conditional use permit allows for 55-60 dogs to be kept on the premise and an expansion of the building up to 36'x 80'. He would also like to add some storage on one side of the accessory building. When discussing the expansion of the building with the owner, he noted he would like to turn the building 90 degrees and construct a new building rather than trying to expand the existing building. The City informed him that this would require an amendment to the conditional use permit. Turning the building appears to fit better on the property and would avoid potential conflicts with the adjacent wetlands. There would be a small 12'x12' vestibule in addition to the 36'x80' building which would provide a better entrance area. The proposed building would be a one-story metal pole building similar in design to the existing building. It would have the interior kennel space, a grooming area, reception area and then a separate storage garage.

In order to accommodate the turn of the building, they would have to reconfigure the gravel driveway to accommodate the new building. Based on the setback from the Highway 12 property line, there is adequate space to modify the parking area. The City will require one (1) handicap accessible parking space to be signed and delineated in the parking lot. Paving a portion of this is being considered to help alleviate mud when going in and out of the kennel.

They may need to reconfigure the dog run in the back also. It's right in the neighborhood of what's permitted. They'd run it length-wise behind the building.

The applicant just recently updated the on-site septic system. The newly installed system will accommodate the proposed new building with no further modifications necessary. They'd be adding one bathroom which the existing system is designed to handle.

The City has not received any oral or written comments regarding the proposed amendment to the conditional use permit. The conditions approved in 1977 would remain the same. The applicant would need to modify the parking lot-add one handicap accessible parking spot per the building code and would have to be signed accordingly. The owner is also open to paving the gravel parking lot.

Public Hearing Open

Palmquist asked the owner how waste would be handled. Fowser explained the pet waste goes to a holding tank. In comparison, human waste goes into a drain field.

Dumas mentioned the vestibule on Highway 12, and questioned if it meets the setbacks since. It's a 12' vestibule and the building setback is 40'. Kaltsas explained they're going to drop the building 3-4' back from where it sits now (south), so set back is 85' to the center of road. They actually exceed that. We can confirm that, but I think they're right-on. They could probably move it 15-20' if needed.

Motion by Gardner to close the Public Hearing.

Public Hearing Closed

Thompson felt it was straightforward. It only came up because they're replacing and not expanding it.

Motion by Gardner, to approve an amendment to the conditional use permit to reconstruct and expand the commercial building located on the property, second by Palmquist. Ayes: Gardner, Palmquist, Dumas, Thompson and Phillips. Nays: None. Absent: None. Abstain: None. Motion approved.

5. Accessory Dwelling Unit Ordinance-Draft Amendment to Clarify Basements and Mechanical Rooms in Ordinance.

Kaltsas noted we had previously talked about revisiting and prioritizing certain Ordinances. The first priority identified was to 'clean up' the accessory dwelling unit ordinance. The ordinance prescribes a total area permitted for accessory dwelling units. The question is whether or not mechanical rooms and or unfinished basements are calculated into the total square footage permitted. Since 2011 there's been discussion of people wanting basements in the accessory dwelling units (i.e. Mother-in-Law) due to weather related issues or a mechanical room in basement. The question has been does that square footage count towards the 33% or 1,200 square feet max. We've agreed that it does not count towards the total square footage. It's in the provision for size and exception, that the total square footage shall not include a designated mechanical room or unfinished basement area below the accessory dwelling unit. Phillips wondered if we're creating a slippery slope for finishing a basement. Kaltsas said we get somewhere accessory dwelling unit is next to a 'finished man cave', and they have to have a physical separation. Kaltsas said we'd have to have a separation and having the mechanical room in its own room that's not calculated in the 1200 square feet. Thompson asked if there's a mechanical room definition, to which Kaltsas responded there is not. We could have a cleaner definition so it's not left up to interpretation. Gardner wondered whether we care if it's finished or not. Kaltsas noted they could have the workshop and still have an accessory dwelling unit as long as there's a door between. He used the example of Jim and Lynda Franklin because they were going to have a separate new detached accessory structure for an accessory dwelling unit. They were looking for their max size. By them putting a door up made the mechanical room not part of the space. Closet, water heater and furnace-does that all count towards space? We've said not if it's not a mechanical room. They could have a workshop next to their accessory dwelling unit with a clear wall separation. Thompson felt it is straightforward. The intent is not to include a mechanical room. It's permitted now to build a detached unit as long as it doesn't have a bedroom or stove-those are the defining factors for Mother-in-Law apartment. If we want to limit size or add on more language, that'd be fine. Gardner said 1200 square feet above the basement, and nothing changes on the outside. Worrying about finishing doesn't change anything and seems irrelevant. Kaltsas said we capped the size so it's subordinate to the principal structure. Phillips asked what is next, and Kaltsas state that if the language seems good, we'll have a public hearing. Gardner mentioned it at least allows a basement which the previous sidestepped.

6. Open/Misc.

7. Adjourn.

Motion by Gardner, second by Palmquist to adjourn at 7:00 p.m. Ayes: Phillips, Gardner, Thompson, Dumas and Palmquist. Nays: None. Absent: None. Abstain: None. Motion approved.

Respectfully Submitted,

Beth Horner
Recording Secretary

DRAFT

MINUTES OF A REGULAR MEETING OF THE
INDEPENDENCE CITY COUNCIL
TUESDAY, MAY 9, 2017 –7:30 P.M.

1. CALL TO ORDER.

Pursuant to due call and notice thereof, a regular meeting of the Independence City Council was called to order by Mayor Johnson at 7:30 p.m.

2. PLEDGE OF ALLEGIANCE.

Mayor Johnson led the group in the Pledge of Allegiance.

3. ROLL CALL

PRESENT: Mayor Johnson, Councilors Betts, Grotting, Spencer and McCoy

ABSENT: None

STAFF: City Administrative Assistant Horner, City Administrator Kaltsas, City Attorney Kyle Hartnett
(in for Bob Vose)

VISITORS: Sarah Borchers, Jason Sievers, Richard Sievers

4. ****Consent Agenda****

All items listed under Consent Agenda are considered to be routine by Council and will be acted on by one motion. There will be no separate discussion of these items. If discussion is desired, that item will be removed from the Consent Agenda and will be considered separately.

- a. Approval of City Council minutes from the April 25, 2017 Regular City Council Meeting.
- b. Approval of minutes from the April 25, 2017 Board of Appeal and Equalization Meeting.
- c. Approval of Accounts Payable; Checks Numbered 17103-17139.
- d. Approval of MnDOT Master Partnership Contract for the Highway 12 Light Maintenance.
 - a. **RESOLUTION NO. 17-0509-01.**

Motion by McCoy, second by Betts to approve the Consent Agenda. Ayes: Johnson, Grotting, McCoy, Spencer and Betts. Nays: None. Absent: None. MOTION DECLARED CARRIED.

5. SET AGENDA – ANYONE NOT ON THE AGENDA CAN BE PLACED UNDER OPEN/MISC.

6. REPORTS OF BOARDS AND COMMITTEES BY COUNCIL AND STAFF

Spencer attended the following meetings:

- Highway 12 Coalition Meeting
- City Clean Up Day

Grotting attended the following meetings:

- Highway 12 Coalition

- City Clean Up Day

McCoy attended the following meetings:

Betts attended the following meetings:

Johnson attended the following meetings:

- Sensible Land Use Committee Meeting
- WeCan Community Action Partnership Board Meeting
- Mayors Conference in Brainerd
- Loretto Fire Department Breakfast
- Hamel Prayer Breakfast
- Orono Healthy Youth Committee Meeting
- Highway 12 Coalition Meeting
- MN Watershed Meeting
- Regional Council of Mayors Meeting
- Orono School Board Meeting
- West Hennepin Chamber of Commerce Meeting
- Senior Center Volunteer Appreciation Dinner

Horner attended the following meetings:

- MCFOA training
- City Clean-Up Day

Kaltsas attended the following meetings:

7. DIRECTOR GARY KROELLS, WEST HENNEPIN PUBLIC SAFETY - ACTIVITY REPORT FOR THE MONTH OF MARCH, 2017.

Kroells said March was a very busy month with lots of crashes due to weather. Kroells highlighted a few incidents.

For a complete report see the City Council packet

Kroells noted everyone did a great job controlling the large swamp fire. The properties surrounding the area were well protected. Kroells said it burned out by the time it hit Pioneer Creek. Kroells noted there are various theories as to how the fire started. He said they may never know but he does not believe it was intentional.

Grotting noted the changes being proposed to make the intersection at County Road 90 and Highway 12 safer. He wanted to know if there was anything the City should be communicating to MnDOT to help those efforts. Kroells said it was announced that the funding for that intersection has been approved and is part of their plan for 2021.

Grotting asked about the relationship between WHPS and the Vinland Center. Kroells noted WHPS works with them and because they are a treatment facility there are quite a few calls from them. He noted the Vinland Center is charged \$90/ hour for police services which is billed on a quarterly basis.

8. **PUBLIC HEARING: JASON SIEVERS (APPLICANT/OWNER) REQUESTS THAT THE CITY CONSIDER THE FOLLOWING ACTIONS FOR THE PROPERTY LOCATED AT 1180 COUNTY ROAD 83 (PID NO. 25-118-24-32-0001) IN INDEPENDENCE, MN:**

- a. **RESOLUTION NO. 17-0509-02** - recommending denial of a variance to allow a reduced side yard setback for the subject property.

Kaltsas stated the subject property is located at 1180 County Road 83. The property is on the east side of County Road 83 and south of the intersection of Timber Trail and County Road 83. There is an existing home and one small detached accessory structure on the subject property.

Kaltsas said the applicant is seeking approval to construct an addition onto the existing home. The addition includes living space as well as a larger garage. The applicant is proposing to remove a portion of the existing house which includes the existing garage. It was noted by the applicant that the existing garage was connected to the home via an enclosed space at some point and used to be a detached garage. The applicant would like to construct an addition (new garage and living space) onto the portion of the existing home to remain. The existing home is currently in compliance with all applicable setbacks for this property (the existing home is setback 30 feet from the north property line).

The applicant is asking the City to consider granting a variance from the side yard setback (north property line) to allow expansion of the existing home. The City requires a side yard setback of 30 feet for properties zoned RR-Rural Residential. The applicant is proposing to construct the home addition so that it is setback 17.6 feet from the side property line rather than 30 feet as required.

There are several factors to consider relating to granting a variance. The City's ordinance has established criteria for consideration in granting a variance.

520.21. Standards for granting variances. Subdivision 1. The City Council may grant a variance from the terms of this zoning code, including restrictions placed on nonconformities, in cases where: 1) the variance is in harmony with the general purposes and intent of this zoning code; 2) the variance is consistent with the comprehensive plan; and 3) the applicant establishes that there are practical difficulties in complying with the zoning code (Amended, Ord. 2011-08)

Subd. 2. An applicant for a variance must demonstrate that there are practical difficulties in complying with the zoning code. For such purposes, "practical difficulties" means:

- (a) The property owner proposes to use the property in a reasonable manner not permitted by the zoning code;*
- (b) the plight of the property owner is due to circumstances unique to the property not created by the landowner;*
- (c) the variance, if granted, will not alter the essential character of the locality.*

Economic considerations alone do not constitute practical difficulties. Practical difficulties include, but are not limited to, inadequate access to direct sunlight for solar energy systems. (Amended, Ord. 2011-08)

Subd. 3. The City Council shall not grant a variance to permit a use that is not allowed under the zoning code based on the zoning classification of the affected property. (Amended, Ord. 2011-08)

520.23. Conditions and restrictions. The board of adjustments may recommend and the City Council may impose conditions on a variance. Conditions must be directly related to and must bear a rough proportionality to the impact created by the variance. (Amended, Ord. 2011-08)

Consideration of the criteria for granting a variance:

- a. Residential use of the property is consistent with the Rural Residential District.
- b. The City would need to find that the plight of the property owner is due to circumstances unique to the property that are not created by the landowner.
- c. The character of the surrounding area is residential. There are several properties in the vicinity that do not meet all applicable building setbacks. The proposed expansion for a single-family home is in keeping with the City's comprehensive plan.

Kaltsas noted there are several additional items that could be considered by the City:

1. The required detached accessory structure setback from the side yard is 15 feet. The applicant could locate a detached accessory structure on this property and meet applicable setbacks.
2. The property directly north of this property has several detached accessory buildings which do not meet applicable setbacks. The owner of the property directly north did provide a note to the City stating that they found the requested variance to be acceptable.
3. The applicant could rotate the proposed addition 90 degrees and meet all applicable setbacks.
4. There are many properties in the City of Independence that have similar conditions to that of the subject property. The City would need to find that the property has unique conditions that can be noted as the basis for granting the variance.
5. Several properties directly west of the subject property appear to have reduced front yard setbacks.
6. The proposed home/garage addition is a two-story addition which will be taller than the portion of the existing structure that is being removed.

Kaltsas said ultimately the City will need to find that the criteria for granting a variance have been met by the applicant. Commissioners reviewed the requested variance and asked questions of staff and the applicant. Commissioners reviewed the proposed setback and asked for clarification relating to the portion of the home that was going to remain versus the portion of the home that was going to be removed. Commissioners confirmed that the existing home meets applicable setbacks. Commissioners reviewed the criteria for granting a variance. Planning Commissioners asked for clarification relating to the criteria for granting a variance and whether or not all criteria needed to be considered. Commissioners discussed that the City has many similarly sized parcels with existing homes. Commissioners discussed the characteristics of the subject parcel and noted that there was a substantial amount of area that could accommodate a home/garage expansion. There was an initial motion to approve the variance request as presented. That motion did not receive a second and did not proceed. There was then a motion to deny the variance as requested. That

motion did not initially receive a second until there was additional discussion. Commissioners ultimately recommended denial of the variance to the City Council with the following findings:

1. *Commissioners could not make the finding that the plight of the property owner is due to circumstances unique to the property not created by the landowner. Commissioners did not find unique circumstances or characteristics of the property that warranted a variance. Commissioners noted that this property is similar to many others in the City and that granting a variance without unique characteristics would establish a precedent for allowing reduced setbacks.*

The City received a letter from the neighboring property owner located at 1212 County Road 83 supporting the requested variance. The Planning Commission recommended denial of the requested variance with the following findings and conditions:

1. The proposed Variance request does not meet all applicable conditions and restrictions stated in Chapter V, Section 520.19, Procedures on variances, in the City of Independence Zoning Ordinance.
2. The Applicant's variance request is denied because it does not meet the criteria established for granting a variance due to the lack of unique conditions or characteristics of the subject property.
3. The Applicant shall pay for all costs associated with the City's review of the requested variance.

Sievers said it will be difficult to turn into the proposed area with the setbacks. Betts asked if the breezeway would disappear. Sievers said it would not. Spencer said the point was that in order to be granted a variance the applicant would have to show hardship concerns and design challenges are not that. Sievers said he wants it to be attached. Kaltsas asked if Sievers would be willing to look at a smaller variance. Johnson said it could be tabled for 60 days so Sievers had an opportunity to think about it.

Motion by Spencer, second by Betts to table pending a letter from the applicant for 60 days. Ayes: Johnson, Grotting, McCoy, Spencer and Betts. Nays: None. Absent: None. MOTION DECLARED CARRIED.

9. Consideration of Adopting an Ordinance Amendment Pertaining to Public Safety:

- a. **ORDINANCE NO. 2017-01** – Adoption of a predatory offender dwelling location restriction ordinance.

Kaltsas noted many metropolitan area cities have recently contemplated adopting certain residency location restrictions for predatory offenders. Cities that have adopted local legislation have typically found that such residency location restrictions would be prudent to protect the local health, safety and welfare of their residents.

Cities have adopted a relatively standard and consistent model ordinance language as an amendment to local zoning codes.

- Most ordinances restrict Level II and III offenders.

- The model ordinance defines “protected areas” such as schools, playgrounds, parks, and other places children are known to regularly congregate.
- Level II and III predatory offenders would be prohibited from living a certain distance from those protected areas (e.g. 750 feet measured lot line to lot line).
- Ordinances exempt residences which were established by Level II and III offenders prior to adoption of the ordinance.
- Typically, an offender is also allowed to move into a residence with certain relatives (e.g. parents, siblings, spouses, children etc.) regardless of the proximity to a protected location.

The City of Independence Attorney has prepared an ordinance based on the model language used by other similar communities. While these residency restriction ordinances can be further customized by cities, there are two factors that typically need to pertain to the specific city. Independence will need to consider the type of protected area (i.e. parks, daycare facilities, schools, etc.) and the restricted distance that offenders will be prohibited from living from protected areas.

Types of Protected Areas:

The types of protected areas are typically those areas where children commonly congregate. Most cities identify schools, public parks and licensed daycare facilities. Some cities have found other similarly used areas as needing to be defined in the ordinance. Staff did not identify any similar use areas that appear to need further definition in the ordinance.

Motion by Spencer, second by McCoy to approve Ordinance No. 2017-01 with the recommended changes to II and III being noted. Ayes: Johnson, Grotting, McCoy, Spencer and Betts. Nays: None. Absent: None. MOTION DECLARED CARRIED.

10. Discussion of City Council Meeting Dates/Times.

Discussion around ongoing meeting dates and times. It was decided that the next May City Council meeting will be May 30th instead of May 23rd due to schedule conflicts.

Motion by McCoy, second by Betts to move the next May City Council meeting to May 30th instead of May 23rd. Ayes: Johnson, Grotting, McCoy, Spencer and Betts. Nays: None. Absent: None. MOTION DECLARED CARRIED.

11. Open/Misc.

12. Adjourn.

Motion by McCoy, second by Spencer to adjourn at 8:30 p.m. Ayes: Johnson, Grotting, McCoy, Spencer and Betts. Nays: None. Absent: None. MOTION DECLARED CARRIED.

Respectfully Submitted,

Trish Bemmels/ Recording Secretary

City of Independence

Request for a Conditional Use Permit to Allow a Commercial Riding Stable and Bunkhouse and Accessory Structure Larger than 5,000 SF on the Property located on CSAH 6 and Identified by PID 3311824140003

<i>To:</i>	Planning Commission
<i>From:</i>	Mark Kaltsas, City Planner
<i>Meeting Date:</i>	June 20, 2017
<i>Applicant:</i>	Gary and Linda Ostberg
<i>Property Owner:</i>	James Block
<i>Location:</i>	County Road 6 (PID 3311824140003)

Request:

Gary and Linda Ostberg (Applicant) request that the City consider the following actions for the property located on County Road 6 (PID No. 29-118-24-31-0001) in Independence, MN:

- a. A conditional use permit to allow a Commercial Riding Stable with Bunkhouse.
- b. A conditional use permit to allow an accessory structure that exceeds 5,000 SF.

Property/Site Information:

The property is located on the south side of CSAH 6 and just west of Game Farm Road N. The property has no existing structures and is comprised of open pasture, a woodland area and wetlands. The property has the following characteristics:

Property Information: County Road 6 (PID 3311824140003)
Zoning: *Agriculture*
Comprehensive Plan: *Agriculture*
Acreage: *39.92 acres*

Subject Property



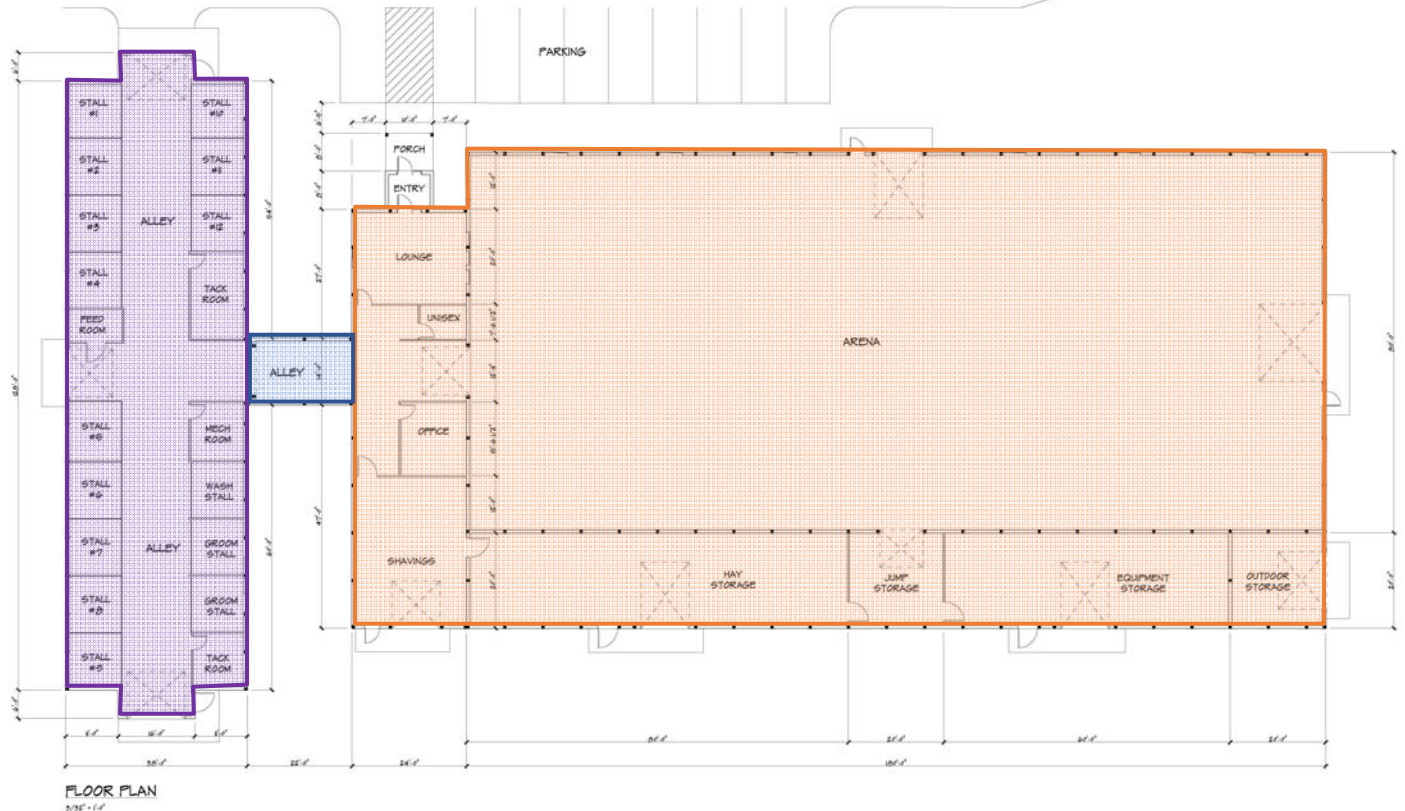
Discussion:

The applicants have a purchase agreement in place to acquire the property subject to the City's approval of a conditional use permit. The applicants are seeking approval to construct a new home, stable and associated indoor and outdoor riding arenas, paddocks, pastures and future caretaker apartment on the subject property. The proposed accessory structure (barn and riding arena) would exceed 5,000 square feet and therefore, also requires a conditional use permit.

The proposed horse farm would be used as a commercial riding stable. The horse barn would house 12 stalls. The applicant anticipates that they would have between 8-12 horses on the property. 2-4 horses would be their own animals with 8-10 horses boarded on the property. The applicants have noted that their daughter is a trainer and would be providing lessons and riding her horses on the property. The proposed accessory structure is comprised of the horse barn, alley connection and indoor riding arena. The square footage of the proposed accessory building breaks down as follows:

Horse Barn -	4,902 SF
Alley Connection -	308 SF
Arena -	18,000 SF
TOTAL SF	23,210 SF

Proposed Accessory Structure



In addition to the indoor riding arena, the applicant is seeking a conditional use permit to allow a bunkhouse within the proposed riding arena to house a property caretaker. The applicant has prepared a proposed site plan which delineates the location of the proposed accessory structure, paddocks, pastures and principle residence. The layout of the buildings and site features takes advantage of the natural topography and maintains separation from the existing wetlands and farmed wetlands. The proposed accessory building would be constructed of pre-finished metal. The City is waiting for the on-site septic report confirming the availability of a primary and secondary on-site septic location. It is anticipated that this information will be provided prior to City Council consideration of the application.

The applicant has had the property evaluated for potential wetlands. It was noted that there are two farmed wetlands located on the farmed portions of the property. There is one located just south of CSAH 6 along the west property line and one located nearly in the center of the property. The applicant has designed the property to fully avoid conflict with the subject wetlands. The applicant has prepared a storm water plan

which includes details for the construction of two water quality ponds in the location of both farmed wetlands.

Commercial riding stables are a conditional use in the Agriculture zoning district. The subject property is zoned Agriculture. The existing property is currently vacant with no existing structures. The property has historically been farmed. The City generally allows 1 animal unit on the first two acres and then 1 additional animal unit for each additional acre of property. The subject property is comprised of approximately 39 acres. Of the 39 acres, approximately 25 acres is useable upland. Applying the City's typical standard, the site would accommodate 38 animals using the gross acreage or 24 animals using the upland acreage. The City has historically required that the applicants maintain a manure management plan, maintain all applicable permits relating to the management of manure on this property and maintain 1/3 acre of open space per animal unit. The 12 horses proposed by the applicant would fit within the allowable number of animal units on the property.

The following notes provides additional detail relating to the commercial riding stable operation:

1. The owners of the 8-10 horses will be visiting the site three to four times per week for 2-3 hours at a time to ride their horses.
2. Deliveries and farriers will be on site periodically once every few weeks.
3. Horse trailers will occasionally be brought on site to pick up or drop off horses going to horse shows, the veterinarian, etc.
4. The manure will be hauled off-site once every few weeks.
5. Standard garbage removal will occur once per week.
6. Landscaping, including new trees, will be provided around the buildings. No trees will be planted within pastures or paddocks.
7. The pastures and larger paddocks will be seeded with a pasture seed mix.
8. The applicant will have a designated parking area for 10 vehicles, including one accessible parking space, located adjacent to the proposed accessory structure and just off of the main access road.

The criteria for granting a conditional use permit are clearly delineated in the City's Zoning Ordinance (Section 520.11 subd. 1, a-i) as follows:

1. The conditional use will not adversely affect the health, safety, morals and general welfare of occupants of surrounding lands.
2. The proposed use will not have a detrimental effect on the use and enjoyment of other property in the immediate vicinity for the proposes already permitted or on the normal and orderly development and improvement of surrounding vacant property for uses predominant in the area.
3. Existing roads and proposed access roads will be adequate to accommodate anticipated traffic.
4. Sufficient off-street parking and loading space will be provided to serve the proposed use.
5. The proposed conditional use can be adequately serviced by public utilities or on-site sewage treatment, and sufficient area of suitable soils for on-site sewage treatment is available to protect the city form pollution hazards.

6. The proposal includes adequate provision for protection of natural drainage systems, natural topography, tree growth, water courses, wetlands, historic sites and similar ecological and environmental features.
7. The proposal includes adequate measures to prevent or control offensive odor, fumes, dust, noise, or vibration so that none of these will constitute a nuisance.
8. The proposed condition use is consistent with the comprehensive plan of the City of Independence.
9. The proposed use will not stimulate growth incompatible with prevailing density standards.

The City has visited the site and discussed the operation of the proposed commercial riding stable with the applicant. Given the location of the property off of CSAH 6, the orientation of the buildings and their relationship to the surrounding properties, it appears that the proposed application can be found to meet the requirements for granting a conditional use permit to allow a commercial riding stable, accessory structure larger than 5,000 square feet and a bunkhouse for a caretaker on the property.

Neighbor Comments:

The City has not received any written or oral comments regarding the proposed amendment to the conditional use permit.

Recommendation:

Staff is seeking a recommendation from the Planning Commission pertaining to the request for a conditional use permit with the following findings and conditions:

1. The proposed conditional use permit request meets all applicable conditions and restrictions stated in Chapter V, Section 510, Zoning, in the City of Independence Zoning Ordinance.
2. The conditional use permit will include the following conditions:
 - a) The conditional use permit will be reviewed annually by the City to ensure conformance with the conditions set forth in the resolution.
 - b) Any new signage shall comply with all applicable standards of the City's ordinance.
 - c) No more than 12 horses shall be boarded on the property.
 - d) The applicant and facility must operate in compliance with manure management permit from MPCA. A copy of the valid MPCA permit is to be attached to and become a part of the conditional use permit.
 - e) A minimum of 1/3 acre or green covered open space, excluding wetland, is required within the horse facility, for each horse allowed by this permit. Grass shall be maintained and be the primary groundcover in all pasture areas.

- f) The hours of operation are: summer 7:00am-10:00pm.
 - g) Horse shows or training clinics with more than 50 attendees will require special approval from the City
 - h) No renting of hack horses.
 - i) No riding on private land unless authorized by owners.
 - j) No parking on public roads.
 - k) Utilize appropriate management practices to control flies and odor.
 - l) The bunkhouse is for the caretaker of the owners of the property only. The bunkhouse shall not be rented to anyone not employed on the property.
 - m) No future expansion of the barn and riding arena shall be permitted on the property without the further review and approval by the City through the conditional use permit amendment process.
3. The applicant shall pay for all costs associated with the review and recording of the resolution.

Attachments:

- 1. Property Pictures
- 2. Applicants Narrative
- 3. Storm Water Plan
- 4. Site Plan/Survey
- 5. Building Floor Plan
- 6. Building Elevations

Attachments

Subject Property (Looking north)



Subject Property (Looking south)



City of Independence

The Independence City Code was established to protect both current and future residents from the negative impacts of improper development and to ensure a positive future for the city. The land use application review is the mechanism that allows the city to examine proposed uses to ensure compatibility with the surrounding environment, natural or otherwise. It is important to understand that a proposed use may be acceptable in some circumstances, but unacceptable in others—all applications are viewed on a case-by-case basis.

- ☐ *Appeal*

☐ *Comprehensive Plan Amendment*

☐ *Concept Plan*

☒ *Conditional Use Permit*

☐ Residential

☐ Commercial/Light Industrial

☐ Telecommunications

☒ Agriculture

☐ Home Occupation

☐ Non-Conforming Use

☐ Guest/Bunk House

☐ Institutional

☐ CUP Amendment

☐ *Extension Request*

☐ *Final Plat*

☐ *Interim Use Permit*

☐ *Lot Consolidation*

☐ *Minor Subdivision (Survey)*

☐ Lot Subdivision

☐ Lot Combination

☐ Lot Line Rearrangement

☐ *Moving Buildings*

☐ *Preliminary Plat*

☐ *Rezoning*

☐ *Site Plan Review (Commercial)*

☐ *Vacation*

☐ *Variance*

☐ Subdivision Regulations

☐ Zoning

☐ Road Frontage

☐ *Zoning Text Amendment*

**Please check all that apply*

Request: Conditional Use Permit to operate a small
horse boarding and training farm and for a future
caretaker apartment. The property will also be our
residence.

Site Address or Property Identification Number(s):

PID #3311824140003

NOTE: Minnesota State Statute 15.99 requires local governments to review an application within 15 days of its submission to determine if an application is complete and/or if additional information is needed to adequately review the subject request. ***To ensure an expedited review, applicants shall schedule a pre-application meeting with the City Planner/Administrator at least one week prior to submittal.*** Most applications have a review period of 60 days, with the City's ability to extend an additional 60 days if necessary due to insufficient information or schedule.

Office Use Only

Date

Application Amount

Application Check #

Escrow Paid

Escrow Check #

Date Accepted by Planner

Accepted By

City Planner

*****Note:** All parties with a fee interest in the real estate must sign this application before the City will review for consideration!

Applicant Information:


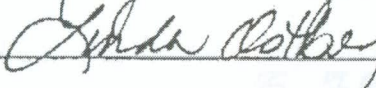
Name: Gary and Linda Ostberg

Address: 621 Montcalm Place

City, State, Zip: Saint Paul, MN 55116

Phone: 651-647-9682

Email: Gary@ostbergarchitects.com

Signature: 


Owner Information (if different than applicant)

Name: James Block

Address: 125 Ingerson Rd.

City, State, Zip: Maple Plain, Mn 55357

Phone: 952.270.9928

Email: drjamesblock@gmail.com

Signature: 
5/4/2017 1:34:12 PM CDT

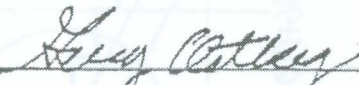

Checklist: Please review the checklist that goes with the request(s) as all materials in the checklist unless waived by the City.

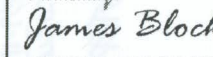
Review Deadline and Timeline: All applications must be received by the deadline according to the schedule attached hereto. Failure to submit by the date shown will result in a delay in the scheduling of the application review by Planning Commission and City Council.

Application for Planning Consideration Fee Statement

The City of Independence has set forth a fee schedule for the year 2014 by City Ordinance. However, projects of large scope that include two or more requests will be required to provide a larger deposit than the resolution sets forth as set by the City Administrator. The fees collected for land use projects are collected as deposits. All invoices associated with each land employ application will be billed to the applicant within 30 days upon receipt by the City for each project. The City of Independence often utilizes consulting firms to assist in the review of projects. The consultant and City rates are shown at the bottom of this form. By signing this form, the applicant recognizes that he/she is solely responsible for any and all fees associated with the land use application from the plan review stage to the construction monitoring stage through to the release of any financial guarantee for an approved project. If a project is denied by the City Council or withdrawn by the applicant, the fees associated for the project until such denial or withdrawal, remain the applicant's responsibility.

I UNDERSTAND THE FEE STATEMENT AND RESPONSIBILITIES ASSOCIATED WITH THIS LAND USE APPLICATION:

Applicant Signature:  
 Date: May 4, 2017

Owner Signature (if different): 
 Date: 5/4/2017

The Ostberg Architects

475 Cleveland Avenue North
Suite 202
Saint Paul, Minnesota 55104

e-mail Linda@ostbergarchitects.com
651-647-9682
www.ostbergarchitects.com

May 9, 2017

City of Independence
1920 County Road 90
Independence, MN 55359

Re: Conditional Use Permit: Additional Information

3a. Contact Information

Current Property Owner:
James C Block Trustee
11601 Minnetonka Mills Road
Minnetonka, MN 55305

Proposed Property Owners:
Donald K Rockenbach Trust
Gary and Linda Ostberg, Trustees
621 Montcalm Place
Saint Paul, MN 55116
651-647-9682

Architects:
The Ostberg Architects
475 Cleveland Avenue North, Suite 202
Saint Paul, MN 55104
651-647-9682

General Contractor:
RAM Construction Services
Rollie Radtke
592 Industrial Drive
Winsted, MN 55395
320-485-2844

Civil Engineer:
MM Engineering
Michael Mayer, PE
830 26th Avenue North
St. Cloud, MN 56303
320-656-9073

Ecologist/Wetland Specialist
Kjolhaug Environmental Services Company
Ben Carlson, WDC
26105 Wild Rose Lane
Shorewood, MN 55331
952-401-8757

Surveyor:
Gronberg & Associates
Mark Gronberg, LS
445 Willow Drive North
Long Lake, MN 55356
952-473-4141

3b. Site data

Address Unassigned. PID Number 3311824140003. Zoned: Agriculture Preserve. 39.92 acres, 1,738,952 square feet.

Legal Description:

That part of the following described property: The Southeast Quarter of the Northeast Quarter of Section 33, Township 118 North, Range 24 West of the 5th Principal Meridian, EXCEPT the East 400 feet of said Southeast Quarter of the Northeast Quarter; ALSO the Southwest Quarter of the Northeast Quarter of said Section 33; ALSO that part of the Northeast Quarter of the Northeast Quarter of said Section 33 lying West of the East 400 feet of said Northeast Quarter of the Northeast Quarter and lying South of the Southerly right of way line of County Road No. 6, which lies southeasterly of the following described line and its extensions:
Commencing at the Southwest corner of said Southwest Quarter of the Northeast Quarter; thence on an assumed bearing of North 1 degree 13 minutes 30 seconds West along the West line of said

Southwest Quarter of the Northeast Quarter a distance of 655.00 feet to the point of beginning of the line being described; thence North 89 degrees 28 minutes 30 seconds East a distance of 1545.00 feet; thence along a tangential curve concave to the Northwest with a central angle of 77 degrees and a radius of 300.00 feet a distance of 403.17 feet; thence North 12 degrees 28 minutes 30 seconds East to its intersection with the Southerly right of way line of County Road No. 6, and said line there ending.

Much of the land is currently being farmed. There are no buildings on the property.

3c. Proposed use:

Horse farm with a 12-stall barn, indoor and outdoor riding rings, paddocks and pastures, future caretaker apartment, house and garage. 2 to 4 stalls will be used for our own horses, 8 to 10 stalls will be for boarders' horses. Our daughter is a trainer and will be riding and providing lessons to the boarders; there will be no lesson horses. We anticipate one additional employee to assist with barn and horse chores.

The 8 to 10 horse owners will be coming on site approximately 3 to 4 times per week for 2 to 3 hours each time to ride their horses; either in a lesson or to exercise. Deliveries and farriers will be on site periodically once every few weeks. Occasionally, a horse trailer will be on site to pick up or drop off horses going to horse shows, veterinarian, and so on. Manure removal will be once every few weeks, garbage removal once a week.

There will be a new driveway from County Road 6 which will extend south to the building areas. The drive will be closer to the east property line in order to not interfere with a small farmed wet land area. Building areas are located within a part of the farmed land where there are no trees.

Landscaping, including new trees, will be provided around the buildings. No trees will be planted within pastures or paddocks; pastures and larger paddocks will be seeded with a pasture mix seed.

3d. Impact on community:

Proposed use will not have a detrimental effect on the use and enjoyment of other property in the immediate vicinity or on the normal development of surrounding property. Existing roads and new drive will be adequate to accommodate anticipated traffic. There will be sufficient off-street parking adjacent to the barn to serve this use. The proposed use can be adequately serviced by local gas and power utilities. There will be on-site sewage treatment for waste water, manure will be hauled off site. There should be no pollution hazards. Natural drainage, tree growth, and wetlands will be maintained. Natural topography will be maintained as much as possible with slight modifications as necessary at buildings. There should be no offensive odors, fumes, dust, noise or vibration that would constitute a nuisance. The use is consistent with the comprehensive plan of Independence and will not stimulate incompatible growth.

**STORM WATER POLLUTION PREVENTION PLAN
FOR
GARY & LINDA OSTBERG**

SECTION 33, TOWNSHIP 118N RANGE 32W
CITY OF INDEPENDENCE, HENNEPIN COUNTY

PREPARED BY
MICHAEL M. MAYER, PE
830 26TH AVENUE NORTH
SAINT CLOUD MN 56303
320-656-9073

MAY 2017

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED
BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.



MICHAEL M. MAYER, PE

DATE:

5/13/2017

REG. NO. 15043

**STORM WATER POLLUTION PREVENTION PLAN
FOR
GARY & LINDA OSTBERG**

May 12, 2017

Project Location:

The project site is located in the NE ¼ of Section 33, Township 118N, Range 24W, City of Independence, Hennepin County, Minnesota. Location: latitude 44.9894, longitude -93.7089. Parcel ID# 3311824140003

Existing Conditions:

The Ostberg site is a 40.2 acre parcel that is currently used for crop production. Row crops and hay are the primary crops grown on the site. The site has four delineated wetlands. The property is surrounded by rural residential properties and agricultural land. County Road 6 (Watertown Road) is the north boundary and Game Farm Rd is 400' to the east.

Soils within the site are identified in the published Hennepin County Soil Survey as L22C2 and L22D2 Lester, L23A Cordova, L24A Glencoe, L36A Hamel, L37B Angus and L50A Muskego and Houghton Complex.. The site is all C and D soils as defined by NRCS. See the attached Hydrologic Soil Group listing.

Runoff from the site flows in several different directions, with the runoff ending up in the wetlands. See the attached Drainage Exhibit.

The project site receives a small amount of offsite runoff from the adjacent property to the east.

Project Description:

The owners are proposing to construct a home, two garages, a horse stall barn, indoor arena, outdoor ring, eight grass horse paddocks and an entrance drive. There will be no public roads or residential lots associated with this project.

The project will disturb approximately 7 acres for preparing the site for the building and driveway. Existing drainage patterns will be maintained. The project will be completed in one phase. Existing impervious area is none. Proposed impervious area is 1.69 acres.

There are no Impaired or Special waters, as defined by MPCA, within one mile of the site. There are no other lakes or rivers within 1/2 mile of the site. Runoff flows to the south, through several large wetland complexes, eventually entering Deer Creek, Ox Yoke Lake and Pioneer Creek.

The project is not located in a Karst area and no additional measures are required to protect drinking water.

Temporary & Permanent Sedimentation Basins:

Since the project will not be disturbing more than 10 acres that drains to one point temporary sediment basins are not required. Temporary BMP's including silt fence, bio logs, rock checks and temporary seeding/mulching will be used to contain sediment within the disturbed area of the site.

Water quality volume required for this project as required by the Watershed District is 6748 cubic feet (73616 sf x 1.1"/12) and will be provided in the constructed basin. Approximately 8,000 cubic feet of water quality volume will be created.

Converting the site from primarily ag production to a combination of lawn and pasture, plus the buildings and drives, will reduce the runoff and water volume.

Runoff rates for pre-settlement and proposed conditions have been calculated for the 2, 10 & 100-year storm events. See the attached HydroCad printouts for rates and volumes. Runoff will be routed through two water quality ponds or directed overland for a minimum of 75' before being released back to natural flow paths and property lines. One storm water pond is planned adjacent to the north wetland, along the entrance drive, to accept and treat driveway runoff. The runoff from the remainder of the site will be directed to a water quality pond, south of the grass paddocks. Sand filters will be used to treat the runoff and release it back to the wetlands.

Knowledgeable Person:

Gary & Linda Ostberg have retained the following person to prepare the SWPPP. Implementation of the SWPPP before & during construction and the long term operation and maintenance of the storm water management system will be performed by the owner and subcontractors.

Michael M. Mayer, P.E.
830-26th Avenue North
St. Cloud MN 56303
320-656-9073

Gary & Linda Ostberg
475 Cleveland Ave S
St. Paul MN 55104
651-647-9682

RAM Buildings Inc., will complete installation and maintenance of the erosion control measures outlined in the plan. Contact: Rollie Radtke 320-212-9414

The Permittee, or any subcontractor, must keep the SWPPP, all changes to it, and inspection and maintenance records at the site during construction. The SWPPP can be kept in either the field office or in an on site vehicle.

Project Sequencing:

A) Pre-Construction Phase

Install silt fence as shown on the project plans or downstream from any disturbed area.

B) Construction Phase

Salvaged topsoil is to be pushed or stockpiled away from critical areas (flowage areas, wetlands and property lines). As the wetland area is filled and graded, silt fence, rock check dams or fabric barriers are to be installed and maintained. Special attention will be required on areas where the proposed grade is over 3:1 or concentrated flow grades are over 5% (confined ditch or waterway). After completion of the grading, the area will be seeded and have disc-anchored mulch, erosion blankets and sediment barriers installed promptly and as necessary to reduce sediment movement.

Erosion blanket or disc anchored mulch is required upon final grading and seeding to stabilize the disturbed areas. Seed shall be MNDOT mix 150 (application rate 40#/ac), Board of Water & Soil Resources (BWSR) UT1 or an approved equal for temporary cover. Final seeding of road ditches and disturbed areas shall be MNDOT mix 240 or 260 (application rate varies 100-120 #/ac). For

areas not to be maintained, seed mix 240 or 250 is recommended or an approved equal. Mulch shall be MNDOT Type 3, weed free, applied at approximately 2000#/ac.

Disturbed area for this project will be as shown on the site plan. The disturbed area will be defined by the location of silt fence and property lines. The owner shall delineate the construction site with silt fence on the north and east sides.

There will be disturbed or created slopes on the project that will be over 12%. These areas will have erosion blanket installed after seeding.

Soil stockpiles are to be located away from runoff flow paths and contained with silt fence.

The normal wetted perimeter of any temporary or permanent drainage ditch that drains water from a construction site, or diverts water around a site, must be stabilized within 200 lineal feet from the property edge, or from the point of discharge to any surface water. Stabilization must be completed within 24 hours of connecting to a surface water.

There will be two driveway culverts planned for this project. Outlet protection will be provided.

Establish a rain gauge location onsite.

Inspections and Maintenance:

The Permittee(s) (either the owner or operator, whoever is identified in the SWPPP) must routinely inspect the entire construction site at least once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours. Following an inspection which occurs within 24 hours after a rainfall event, the next inspection must be conducted within seven (7) days after that.

All inspections and maintenance conducted during construction must be recorded in writing and these records must be retained with the SWPPP in accordance with Part III.D. Records of each inspection and maintenance activity shall include:

Date and time of inspections;

Name of person(s) conducting inspections;

Findings of inspections, including recommendations for corrective actions;

Corrective actions taken (including dates, times, and party completing maintenance activities);

Date and amount of all rainfall events greater than 1/2 inch (0.5 inches) in 24 hours;

Documentation of changes made to the SWPPP as required in Part III.A.4; and

Where parts of the construction site have permanent cover, but work remains on other parts of the site, inspections of the areas with permanent cover may be reduced to once per month. Where construction sites have permanent cover on all exposed soil areas and no construction activity is occurring anywhere on the site, the site must be inspected for a period of twelve (12) months (the inspections may be ceased during frozen ground conditions). Following the twelfth month of permanent cover and no construction activity, inspections may be terminated until construction activity is once again initiated or sooner if notified in writing by the MPCA. Where work has been suspended due to frozen ground conditions, the required inspections and maintenance schedule must begin within 24 hours after runoff occurs at the site or prior to resuming construction, whichever comes first.

All erosion prevention and sediment control BMPs must be inspected to ensure integrity and effectiveness. All nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs within 24 hours after discovery, or as soon as field conditions allow access unless another time frame is specified below. The Permittee(s) must investigate and comply with the following inspection and maintenance requirements:

All silt fences must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches 1/3 of the height of the fence. These repairs must be made within 24 hours of discovery, or as soon as field conditions allow access.

Temporary and permanent sedimentation basins must be drained and the sediment removed when the depth of sediment collected in the basin reaches 1/2 the storage volume. Drainage and removal must be completed within 72 hours of discovery, or as soon as field conditions allow access (see Part IV.D.).

Sediment shall be removed from ponds when the depth is 8" or greater.

Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of erosion and sediment deposition. The Permittee(s) must remove all deltas and sediment deposited in surface waters, including drainage ways, catch basins, and other drainage systems, and restabilize the areas where sediment removal results in exposed soil. The removal and stabilization must take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints.

The Permittee shall use all reasonable efforts to obtain access. If precluded, removal and stabilization must take place within seven (7) calendar days of obtaining access. The Permittee is responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work.

Construction site vehicle exit locations must be inspected for evidence of off-site sediment tracking onto paved surfaces. Tracked sediment must be removed from all paved surfaces, within 24 hours of discovery, or if applicable, within a shorter time to comply with Part IV.C.6.

The Permittee(s) are responsible for the operation and maintenance of temporary and permanent water quality management BMPs, as well as all erosion prevention and sediment control BMPs, for the duration of the construction work at the site. The Permittee(s) are responsible until another Permittee has assumed control according to Part II.B.5 over all areas of the site that have not been finally stabilized or the site has undergone Final Stabilization, and a NOT has been submitted to the MPCA.

If sediment escapes the construction site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts (e.g., fugitive sediment in streets could be washed into storm sewers by the next rain and/or pose a safety hazard to users of public streets).

All infiltration areas must be inspected to ensure that no sediment from ongoing construction activity is reaching the infiltration area and these areas are protected from compaction due to construction equipment driving across the infiltration area.

Pollution Prevention Management Measures:

Solid Waste: Collected sediment, asphalt and concrete millings, floating debris, paper, plastic,

fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal requirements.

Hazardous Materials: Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations. Gasoline, motor oil, lubricants and similar products used with construction equipment shall be contained in a locked storage structure on site or transported to and from the site daily.

External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of.

Concrete washout onsite: All liquid and solid wastes generated by concrete washout operations must be contained in a leak-proof containment facility or impermeable liner. A compacted clay liner that does not allow washout liquids to enter ground water is considered an impermeable liner. The liquid and solid wastes must not contact the ground, and there must not be runoff from the concrete washout operations or areas. Liquid and solid wastes must be disposed of properly and in compliance with MPCA regulations. A sign must be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.

Equipment Washing & Equipment Cleaning: There will be no earthen material trucked to the site, so equipment cleaning or street cleaning will not be a concern. If truck washing is required a location shall be agreed upon with the owner. Water & sediment shall be contained. No engine degreasing is allowed on site. A rock construction entrance shall be provided from Schulz Road during road construction. See detail attached.

SWPPP Changes or Revisions:

The Permittee(s) must amend the SWPPP as necessary to include additional requirements, such as additional or modified BMPs, designed to correct problems identified or address situations whenever:

- a. There is a change in design, construction, operation, maintenance, weather or seasonal conditions that has a significant effect on the discharge of pollutants to surface waters or underground waters;
- b. Inspections or investigations by site operators, local, state or federal officials indicate the SWPPP is not effective in eliminating or significantly minimizing the discharge of pollutants to surface waters or underground waters or that the discharges are causing water quality standard exceedances (e.g. nuisance conditions as defined in Minn. R. 7050.0210, subp. 2); or
- c. The SWPPP is not achieving the general objectives of minimizing pollutants in stormwater discharges associated with construction activity, or the SWPPP is not consistent with the terms and conditions of this permit.

At any time after permit coverage is effective, the MPCA may determine that the project's stormwater discharges may cause, have reasonable potential to cause, or contribute to non-attainment of any applicable water quality standard, or that the SWPPP does not incorporate the applicable requirements in Part III.A.9, Discharges to Impaired Waters and TMDLs. If MPCA makes such determination(s) or any of the determinations

in Parts III.A.5.a.-c., MPCA will notify the Permittee(s) in writing. In response, the Permittee(s) must develop a supplemental BMP action plan or appropriate SWPPP amendments describing SWPPP modifications to address the identified concerns and submit information requested by MPCA, which may include an individual permit application. If MPCA's written notification requires a response, failure to respond within the specified timeframe constitutes a permit violation.

Final Stabilization:

The Permittee(s) must ensure Final Stabilization of the site. Final Stabilization requires all of Parts IV.G.1-5 or Part IV.G.6:

Final Stabilization requires that all soil disturbing activities at the site have been completed and all soils must be stabilized by a uniform perennial vegetative cover with a density of 70% over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions.

The Permittee(s) must ensure that the permanent stormwater treatment system meets all requirements in Part III, C. This includes but is not limited to, a final clean out of temporary or permanent sedimentation basins that are to be used as permanent water quality management basins and final construction or maintenance of infiltration basins. All sediment must be removed from conveyance systems and ditches must be stabilized with permanent cover.

Prior to submission of the NOT, all temporary synthetic and structural erosion prevention and sediment control BMPs (such as silt fence) must be removed on the portions of the site for which the Permittee is responsible. BMPs designed to decompose on site (such as some compost logs) may be left in place.

For residential construction only, individual lots are considered finally stabilized if the structure(s) are finished & temporary erosion protection and down gradient perimeter control has been completed and the residence has been sold to the homeowner. Additionally, the Permittee must distribute the MPCA's "Homeowner Fact Sheet" to the homeowner to inform the homeowner of the need for, and benefits of, permanent cover.

For construction projects on land used for agricultural purposes (e.g., pipelines across crop or range land) Final Stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use.

A Permittee may terminate permit coverage prior to completion of all construction activity if all of the following conditions are met in addition to Part IV.G.2 through Part IV.G.3 and where applicable, Part IV.G.4 or Part IV.G.5.

Construction activity has ceased for at least 90 days.

At least 90% (by area) of all originally proposed construction activity has been completed and permanent cover established on those areas.

On areas where construction activity is not complete, permanent cover has been established.

After 30 days from the seeding date and the vegetation has been established, remove silt fence, sediment logs or other temporary BMP's used to control erosion

Records Retention

The SWPPP (original or copies) including, all changes to it, and inspections and maintenance records must be kept at the site during construction by the Permittee who has operational control of that portion of the site. The SWPPP can be kept in either the field office or in an on site vehicle during normal working hours.

All owner(s) must keep the SWPPP, along with the following additional records, on file for three (3) years after submittal of the NOT as outlined in Part II.C. This does not include any records after submittal of the NOT.

Any other permits required for the project;

Records of all inspection and maintenance conducted during construction (see Part IV.E.Inspections and Maintenance);

All permanent operation and maintenance agreements that have been implemented, including all right of way, contracts, covenants and other binding requirements regarding perpetual maintenance; and

All required calculations for design of the temporary and Permanent Stormwater Management Systems.

C) Post Construction Phase:

Sediment shall be removed from ponds when the depth is 8" or greater. Sediment shall be removed from a rain garden when over 25% of the original volume has been displaced.

Individual basins are designed to infiltrate runoff. If runoff tends to pond in the basin and does not soak away in 78 hours corrective action needs to be completed. Moving the basin or expanding its size are options to be considered.

Storm Water Runoff:

A summary of storm water runoff rates and volumes is included in this report. Several exhibits are included showing the existing and proposed drainage patterns, disturbed areas, retention/detention areas and runoff curve number comparisons.

Specifications:

Temporary Erosion Control During Construction:

A) Use, where possible, horizontal slope grading, construction phasing and other construction practices that minimize erosion.

B) Unless precluded by snow cover, all exposed soil areas with a continuous positive slope from a water of the state or from a curb, gutter, storm drain inlet, temporary or permanent drainage ditch or other storm water system shall have temporary or permanent cover for the exposed soil areas within the following time frame:

Slope Temporary or permanent cover where area has not been, or will not be worked by the contractor for:

Steeper than 3:1 (H:V) 14 days
10:1 to 3:1 14 days
Flatter than 10:1 14 days

For the purpose of this provision, exposed soil areas do not include stockpiles or surcharge area of sand, gravel, aggregate, concrete or bituminous.

C) The bottom of any temporary or permanent drainage ditch constructed to drain water from the construction site must be stabilized within 200 feet of a water of the state. Stabilization must be initiated within 24 hours of connecting the drainage ditch to the wetland, existing gutter, storm drain inlet, drainage ditch, or other storm water conveyance system which discharges to waters of the state and completed within 24 hours.

D) Prior to connecting any pipe to a water of the state or drainage ditch, the pipe's outlet must be provided with temporary or permanent energy dissipation to prevent erosion.

“Water of the State” means all streams, lakes, ponds, marshes, wetlands, water courses, drainage systems and all other bodies or accumulations of water natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof. Waters of the state do not include storm water detention basins or wetlands constructed for the purposes of treating storm water, which do not discharge to surface waters.

“Temporary Cover” means methods employed to prevent erosion. Examples include: seeding of oats or rye, wood fiber or straw erosion control blanket, wood chips, straw mulch and erosion netting.

“Permanent Cover” means final stabilization. Examples include grass cover, gravel or rock, asphalt and concrete.

Exhibits:

The following exhibits, details and standard plates are made a part of this plan:

Site Plan
Soils Map
HydroCad 2, 10 & 100-yr storm event printouts (existing and proposed conditions)
Sediment Control- Silt Fence, Rock Checks and Biologs/Wattles
MNDOT Erosion Control Details
MNDOT Standard Plate-Outlet Protection at CMP Culverts
North American Green-Erosion Control Blanket Installation Detail
Inspection Log Form
Work & Materials List

Although not made a part of this plan, a good reference for erosion control is MnDOT Standard Specifications, Section 2573 and related sections for Bale Checks, Silt Fence, Inlet Protection, Sandbags and Sediment Mat.

SWPPP Training Information:

Designer: Michael M. Mayer, PE., Certification expires 2016

Training Course: U of M Erosion and Sediment Control Program, Design Of Construction

SWPPP, October 14-15, 2009, St. Cloud MN; Re-certification October 30, 2012, Shoreview MN

Re-certification April 7, 2016, St. Cloud MN

Mass Grading Contractor:_____

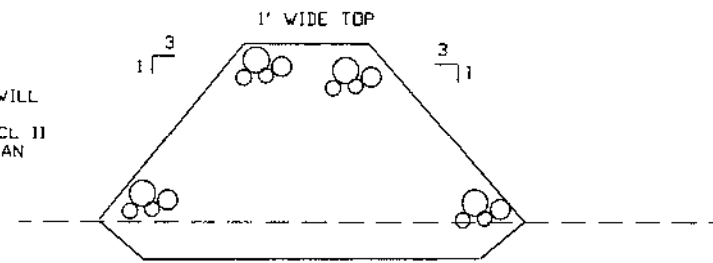
Contractor SWPPP Installer/Inspector:_____

Training/Certification:_____

Individual Lot SWPPP Installer/Inspector:_____

Training/Certification:_____

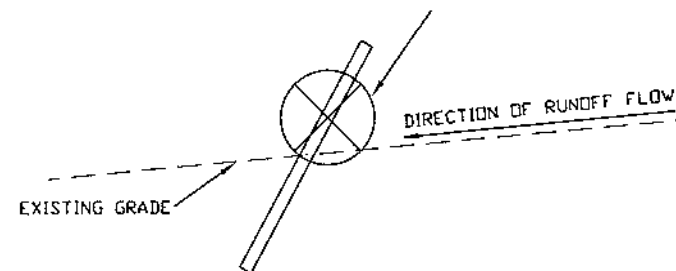
CHECK DAM HEIGHT WILL VARY, 1' MINIMUM ROCK TO BE MNDOT CL II OR AS SHOWN ON PLAN



CUT INTO EXISTING GRADE
INSTALL FILTER FABRIC
UNDER FILTER DAM

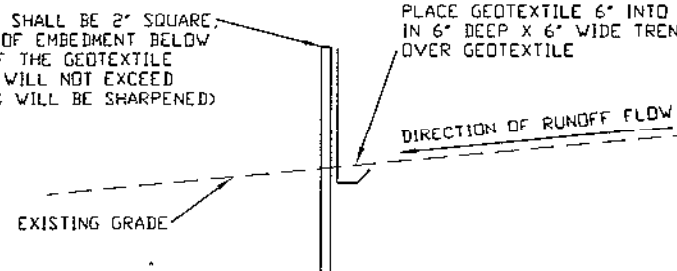
ROCK CHECK DAM SECTION

6" STRAW OR COCONUT FIBER WATTLE
1" X 2" X 15" WOOD STAKES
WRAP ENDS OF WATTLE UP GRADE
TO TRAP SEDIMENT



TYPICAL STRAW WATTLE X-SECTION

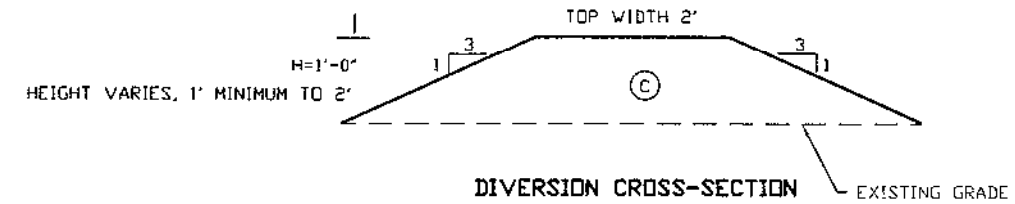
WOODEN POSTS SHALL BE 2" SQUARE
PROTRUDE 1.5' OF EMBEDMENT BELOW
THE BOTTOM OF THE GEOTEXTILE
POST SPACING WILL NOT EXCEED
8 FEET (POSTS WILL BE SHARPENED)



TYPICAL SILT FENCE X-SECTION

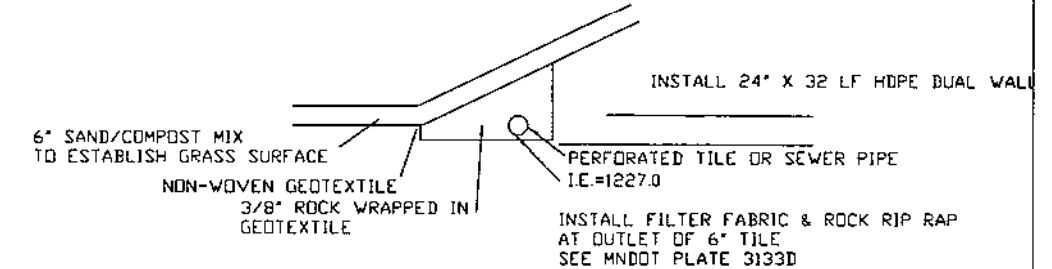
FOR LONGER DURATION INSTALLATIONS USE HEAVY
DUTY FABRIC (WOVEN MONOFILAMENT-130# GRAB TENSILE)
AFTER INSTALLATION, PLACE A 3/8" LATHE OR WOOD STRIP
OVER THE FABRIC AND SECURE TO EACH POST
WITH NAILS OR WOOD SCREWS

GEOTEXTILE TO BE PLACED ON UPSTREAM SIDE OF POSTS
PLACE GEOTEXTILE 6" INTO GROUND 6" UPSTREAM
IN 6" DEEP X 6" WIDE TRENCH, REPLACE AND COMPACT FILL
OVER GEOTEXTILE

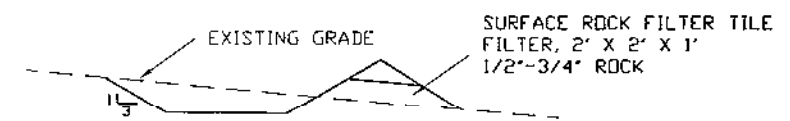


DIVERSION CROSS-SECTION

CONSTRUCT 2 OUTLET STRUCTURES
30" RISER INLET, W/ GRATE, ELEV 1230.6
24" INV=1224.4, 24" OUTLET TO WETLAND 1223.5



WATER QUALITY FILTER OUTLET



WATER QUALITY POND

FILTER TRENCH & WATER QUALITY POND DETAILS

CONSTRUCTION NOTES:
WATER QUALITY BASIN ALONG DRIVEWAY REQUIRES 700 CF OF VOLUME.
USE 230 LF DIVERSION, MINIMUM 1' TALL AND 15 FT OF RETENTION AREA
MAXIMUM SLOPE 6.7% (15:1) TO CREATE STORAGE VOLUME
OUTLET WQ POND WITH FILTER AS SHOWN ABOVE.

WATER QUALITY BASIN ALONG SOUTH LINE OF GRASS PADDocks REQUIRES 7000 CF OF VOLUME.
USE 340 LF DIVERSION, MINIMUM 2' TALL AND 45 FT OF RETENTION AREA
MAXIMUM SLOPE 4.5% (22:1) TO CREATE STORAGE VOLUME
OUTLET WQ POND WITH FILTER AS SHOWN ABOVE.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION
OR REPORT WAS PREPARED BY ME OR UNDER MY
DIRECT SUPERVISION AND THAT I AM A DULY
LICENSED PROFESSIONAL ENGINEER UNDER THE
LAWS OF THE STATE OF MINNESOTA.
MICHAEL H. HAYER DATE: 5/13/17 REG. NO. 15043

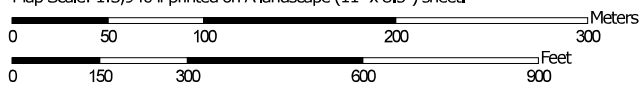
SURVEY:		GARY & LINDA OSTBERG
DRAWN:		
DESIGN: MM		
5/2/2017		
DRAWN: MM		
5/2/2017		
CHECKED: MM		
5/2/2017		
REVISED: MM		
5/12/2017		
DRAWING FILE: OSTBERG2	PLAN SHEET 2 OF 2	33

Soil Map—Hennepin County, Minnesota
(OSTBERG SITE)



Soil Map may not be valid at this scale.

Map Scale: 1:3,940 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84



Natural Resources
Conservation Service


Web Soil Survey
National Cooperative Soil Survey

5/9/2017
Page 1 of 3

Soil Map—Hennepin County, Minnesota
(OSTBERG SITE)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Hennepin County, Minnesota

Survey Area Data: Version 12, Sep 19, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 16, 2012—Apr 6, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Hennepin County, Minnesota (MN053)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
L22C2	Lester loam, 6 to 10 percent slopes, moderately eroded	C	13.0	33.9%
L22D2	Lester loam, 10 to 16 percent slopes, moderately eroded	C	1.8	4.7%
L23A	Cordova loam, 0 to 2 percent slopes	C/D	5.8	15.1%
L24A	Glencoe clay loam, 0 to 1 percent slopes	C/D	3.1	8.2%
L36A	Hamel, overwash-Hamel complex, 0 to 3 percent slopes	C/D	0.7	1.8%
L37B	Angus loam, 2 to 6 percent slopes	C	9.1	23.7%
L50A	Muskego and Houghton soils, 0 to 1 percent slopes	C/D	4.8	12.6%
Totals for Area of Interest			38.4	100.0%

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

OSTBERG*MSE 24-hr 3 Rainfall=2.56"*

Prepared by {enter your company name here}

Printed 5/13/2017

HydroCAD® 10.00-19 s/n 04655 © 2016 HydroCAD Software Solutions LLC

Page 1

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: EXISTING SITE

Runoff Area=40.200 ac 0.00% Impervious Runoff Depth>0.98"
Flow Length=1,152' Tc=21.5 min CN=81 Runoff=41.53 cfs 3.295 af

Subcatchment2S: PROPOSED SITE

Runoff Area=40.200 ac 4.13% Impervious Runoff Depth>0.83"
Tc=0.0 min CN=78 Runoff=68.97 cfs 2.771 af

Total Runoff Area = 80.400 ac Runoff Volume = 6.066 af Average Runoff Depth = 0.91"
97.94% Pervious = 78.740 ac 2.06% Impervious = 1.660 ac

OSTBERG

MSE 24-hr 3 Rainfall=2.56"

Prepared by {enter your company name here}

Printed 5/13/2017

HydroCAD® 10.00-19 s/n 04655 © 2016 HydroCAD Software Solutions LLC

Page 2

Summary for Subcatchment 1S: EXISTING SITE

Runoff = 41.53 cfs @ 12.33 hrs, Volume= 3.295 af, Depth> 0.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 Rainfall=2.56"

Area (ac)	CN	Description
25.000	81	Row crops, C + CR, Good, HSG C
1.300	73	Woods, Fair, HSG C
6.100	79	Woods, Fair, HSG D
* 7.300	85	Wetland 50% Ponded
0.500	78	Meadow, non-grazed, HSG D
40.200	81	Weighted Average
40.200		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	150	0.0330	0.42		Sheet Flow, Cultivated: Residue<=20% n= 0.060 P2= 2.56"
5.5	500	0.0280	1.51		Shallow Concentrated Flow, Cultivated Straight Rows Kv= 9.0 fps
10.0	502	0.0280	0.84		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
21.5	1,152	Total			

Summary for Subcatchment 2S: PROPOSED SITE

Runoff = 68.97 cfs @ 12.05 hrs, Volume= 2.771 af, Depth> 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 Rainfall=2.56"

Area (ac)	CN	Description
* 0.680	98	Roof
* 0.490	98	Paved Drive
* 0.490	98	Gravel drive
* 1.040	85	Sand outdoor ring
16.740	74	Pasture/grassland/range, Good, HSG C
5.560	74	>75% Grass cover, Good, HSG C
* 7.300	85	Wetland
* 0.500	78	meadow
* 1.300	73	Woods, C
* 6.100	79	Woods, D
40.200	78	Weighted Average
38.540		95.87% Pervious Area
1.660		4.13% Impervious Area

OSTBERG

MSE 24-hr 3 Rainfall=4.26"

Prepared by {enter your company name here}

Printed 5/13/2017

HydroCAD® 10.00-19 s/n 04655 © 2016 HydroCAD Software Solutions LLC

Page 1

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: EXISTING SITE

Runoff Area=40.200 ac 0.00% Impervious Runoff Depth>2.34"
Flow Length=1,152' Tc=21.5 min CN=81 Runoff=101.30 cfs 7.834 af

Subcatchment2S: PROPOSED SITE

Runoff Area=40.200 ac 4.13% Impervious Runoff Depth>2.10"
Tc=0.0 min CN=78 Runoff=176.30 cfs 7.022 af

Total Runoff Area = 80.400 ac Runoff Volume = 14.856 af Average Runoff Depth = 2.22"
97.94% Pervious = 78.740 ac 2.06% Impervious = 1.660 ac

OSTBERG

MSE 24-hr 3 Rainfall=7.32"

Prepared by {enter your company name here}

Printed 5/13/2017

HydroCAD® 10.00-19 s/n 04655 © 2016 HydroCAD Software Solutions LLC

Page 1

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: EXISTING SITE

Runoff Area=40.200 ac 0.00% Impervious Runoff Depth>5.10"
Flow Length=1,152' Tc=21.5 min CN=81 Runoff=217.78 cfs 17.076 af

Subcatchment2S: PROPOSED SITE

Runoff Area=40.200 ac 4.13% Impervious Runoff Depth>4.77"
Tc=0.0 min CN=78 Runoff=389.12 cfs 15.966 af

Total Runoff Area = 80.400 ac Runoff Volume = 33.042 af Average Runoff Depth = 4.93"
97.94% Pervious = 78.740 ac 2.06% Impervious = 1.660 ac

OSTBERG2

MSE 24-hr 3 Rainfall=2.56"

Prepared by {enter your company name here}

Printed 5/13/2017

HydroCAD® 10.00-19 s/n 04655 © 2016 HydroCAD Software Solutions LLC

Page 1

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: EXISTINGSECorner Runoff Area=19.050 ac 0.00% Impervious Runoff Depth>0.93"
Flow Length=1,152' Tc=21.5 min CN=80 Runoff=18.45 cfs 1.475 af

Subcatchment2S: ProposedSE Runoff Area=19.050 ac 7.24% Impervious Runoff Depth>0.82"
Flow Length=1,780' Tc=46.6 min CN=78 Runoff=10.18 cfs 1.307 af

Total Runoff Area = 38.100 ac Runoff Volume = 2.781 af Average Runoff Depth = 0.88"
96.38% Pervious = 36.720 ac 3.62% Impervious = 1.380 ac

OSTBERG2

MSE 24-hr 3 Rainfall=2.56"

Prepared by {enter your company name here}

Printed 5/13/2017

HydroCAD® 10.00-19 s/n 04655 © 2016 HydroCAD Software Solutions LLC

Page 2

Summary for Subcatchment 1S: EXISTINGSECorner

Runoff = 18.45 cfs @ 12.33 hrs, Volume= 1.475 af, Depth> 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 Rainfall=2.56"

Area (ac)	CN	Description
11.650	81	Row crops, C + CR, Good, HSG C
1.300	73	Woods, Fair, HSG C
6.100	79	Woods, Fair, HSG D
19.050	80	Weighted Average
19.050		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	150	0.0330	0.42		Sheet Flow, Cultivated: Residue<=20% n= 0.060 P2= 2.56"
5.5	500	0.0280	1.51		Shallow Concentrated Flow, Cultivated Straight Rows Kv= 9.0 fps
10.0	502	0.0280	0.84		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
21.5	1,152	Total			

Summary for Subcatchment 2S: ProposedSE

Runoff = 10.18 cfs @ 12.69 hrs, Volume= 1.307 af, Depth> 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 Rainfall=2.56"

Area (ac)	CN	Description
* 0.680	98	Roof
* 0.700	98	Paved Drive
* 1.040	85	Sand Paddock
9.230	74	Pasture/grassland/range, Good, HSG C
* 1.300	73	Woods, C
* 6.100	79	Woods, D
19.050	78	Weighted Average
17.670		92.76% Pervious Area
1.380		7.24% Impervious Area

OSTBERG2*MSE 24-hr 3 Rainfall=2.56"*

Prepared by {enter your company name here}

Printed 5/13/2017

HydroCAD® 10.00-19 s/n 04655 © 2016 HydroCAD Software Solutions LLC

Page 3

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	150	0.0330	0.20		Sheet Flow, Grass: Short n= 0.150 P2= 2.56"
6.7	400	0.0200	0.99		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.7	280	0.0350	2.81		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
8.7	350	0.0020	0.67		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
17.1	600	0.0070	0.59		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
46.6	1,780	Total			

OSTBERG2

MSE 24-hr 3 Rainfall=4.26"

Prepared by {enter your company name here}

Printed 5/13/2017

HydroCAD® 10.00-19 s/n 04655 © 2016 HydroCAD Software Solutions LLC

Page 1

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: EXISTINGSECorner Runoff Area=19.050 ac 0.00% Impervious Runoff Depth>2.26"
Flow Length=1,152' Tc=21.5 min CN=80 Runoff=46.28 cfs 3.580 af

Subcatchment2S: ProposedSE Runoff Area=19.050 ac 7.24% Impervious Runoff Depth>2.09"
Flow Length=1,780' Tc=46.6 min CN=78 Runoff=27.24 cfs 3.315 af

Total Runoff Area = 38.100 ac Runoff Volume = 6.895 af Average Runoff Depth = 2.17"
96.38% Pervious = 36.720 ac 3.62% Impervious = 1.380 ac

OSTBERG2

MSE 24-hr 3 Rainfall=7.32"

Prepared by {enter your company name here}

Printed 5/13/2017

HydroCAD® 10.00-19 s/n 04655 © 2016 HydroCAD Software Solutions LLC

Page 1

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points

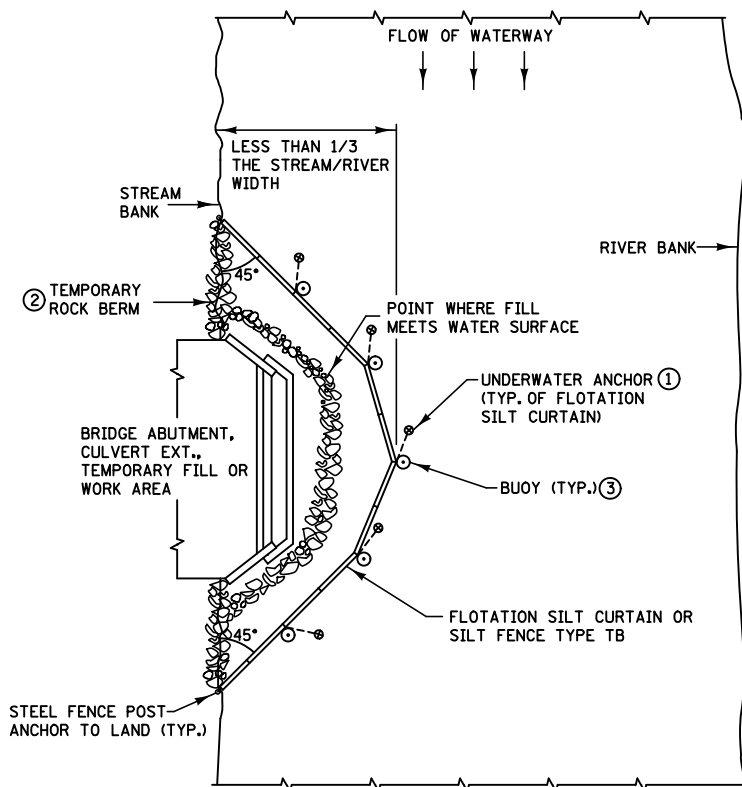
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

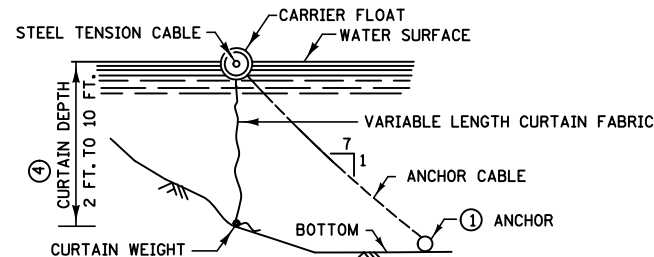
Subcatchment1S: EXISTINGSECorner Runoff Area=19.050 ac 0.00% Impervious Runoff Depth>4.98"
Flow Length=1,152' Tc=21.5 min CN=80 Runoff=101.20 cfs 7.913 af

Subcatchment2S: ProposedSE Runoff Area=19.050 ac 7.24% Impervious Runoff Depth>4.75"
Flow Length=1,780' Tc=46.6 min CN=78 Runoff=62.20 cfs 7.541 af

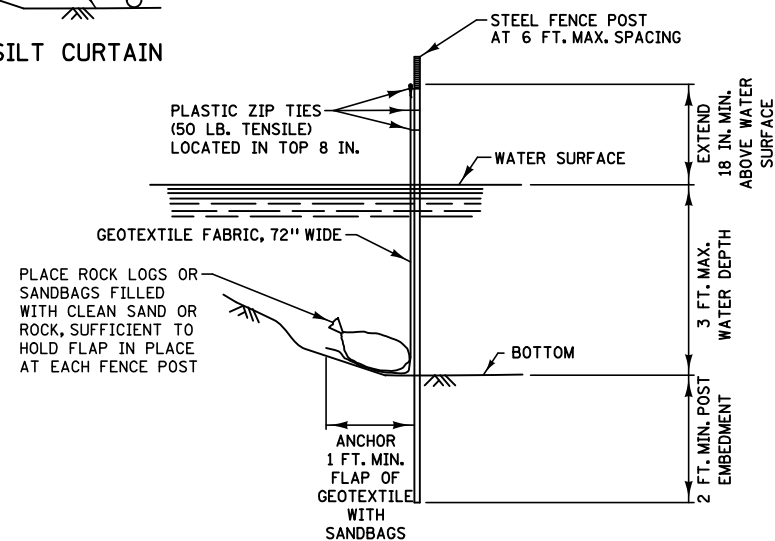
Total Runoff Area = 38.100 ac Runoff Volume = 15.454 af Average Runoff Depth = 4.87"
96.38% Pervious = 36.720 ac 3.62% Impervious = 1.380 ac



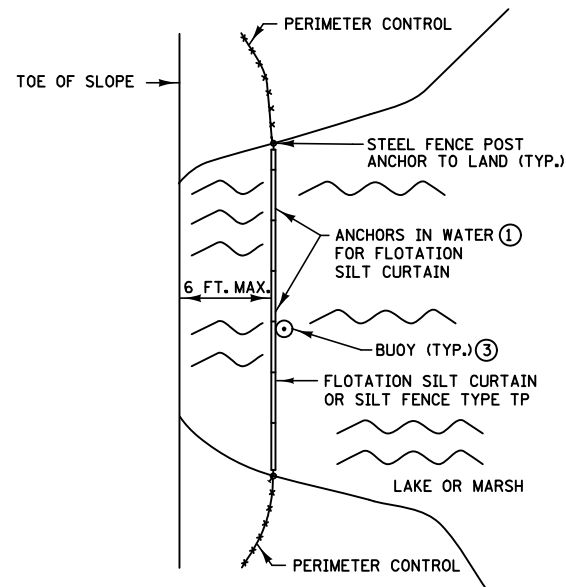
PLAN VIEW FOR STREAM ⑤



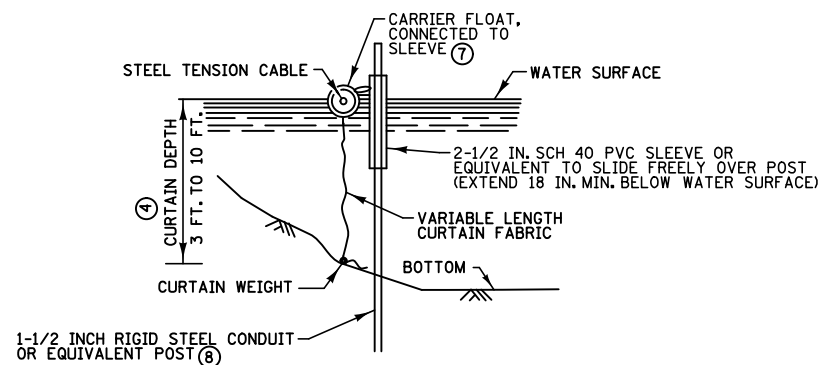
FLOTATION SILT CURTAIN



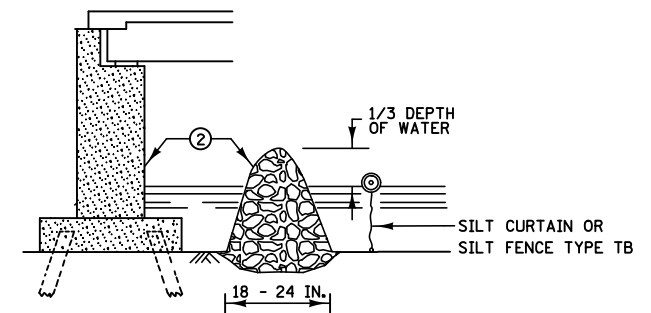
SILT FENCE TYPE TB ⑥



PLAN VIEW FOR LAKE OR MARSH ⑤



ALTERNATE FLOTATION SILT CURTAIN

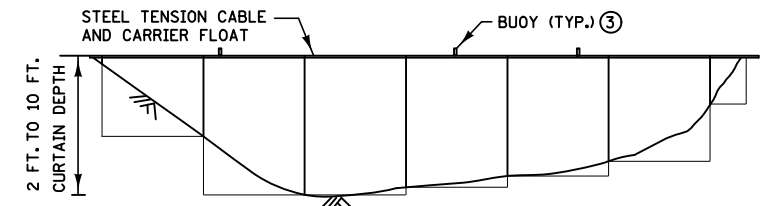


TEMPORARY ROCK BERM FOR SEDIMENT CONTROL

INSTALLATION GUIDELINES
SILT FENCE TYPE TB
MINIMUM WATER DEPTH: 1 FT.
MAXIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER VELOCITY: 5 FT./SEC.

INSTALLATION GUIDELINES ④
FLOTATION SILT CURTAIN
TYPE: STILL WATER
MINIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER DEPTH: 10 FT.
MAXIMUM WATER VELOCITY: 2 FT./SEC.
MAXIMUM WAVE HEIGHT: 1 FT

INSTALLATION GUIDELINES ④
FLOTATION SILT CURTAIN
TYPE: MOVING WATER
MINIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER DEPTH: 10 FT.
MAXIMUM WATER VELOCITY: 5 FT./SEC.
MAXIMUM WAVE HEIGHT: 2 FT.



FRONT VIEW FOR FLOTATION SILT CURTAIN

NOTES:

SEE SPECS. 2573, 3886, 3887 & 3893.

- ① FOR ANCHOR SPACING AND WEIGHT REQUIREMENTS, SEE SPEC. 2573.
- ② IN AREAS WHERE THE PLAN CALLS FOR RIPRAP AT A BRIDGE, CULVERT, OR SLOPE, A TEMPORARY ROCK BERM CONSTRUCTED FROM THE RIPRAP CAN BE USED TO PROVIDE ADDITIONAL PROTECTION. WHEN THE WORK IS COMPLETE THE RIPRAP CAN THEN BE MOVED TO THE PERMANENT LOCATION INDICATED IN THE PLANS. THE TEMPORARY ROCK BERM IS INCIDENTAL.
- ③ ON U.S. COAST GUARD OR OTHER MOTORIZED WATERWAYS, BUOYS ARE REQUIRED TO MARK THE ENDS AND SPECIAL AREAS FOR VISIBILITY. PLACE BUOYS AS REQUIRED FOR NAVIGATIONAL PURPOSES.
- ④ MINIMUM WATER DEPTH APPLIES TO THE DEEPEST POINT ALONG THE FLOTATION SILT CURTAIN OR SILT FENCE TYPE TB FOR DETERMINING APPLICABILITY OF FLOTATION SILT CURTAIN OR SILT FENCE TYPE TB.
- ⑤ SILT CURTAIN SHOULD BE REMOVED WHEN THE AREA CONTRIBUTING DIRECT RUNOFF HAS BEEN TEMPORARILY OR PERMANENTLY STABILIZED. SILT CURTAIN SHOULD ALSO BE REMOVED BEFORE WINTER IF ICE UP OR ICE FLOW IS ANTICIPATED.
- ⑥ EMBED POST INTO BOTTOM A MINIMUM OF 40% OF THE WATER DEPTH (INCLUDING WAVE HEIGHT), BUT IN NO CASE SHALL EMBEDMENT BE LESS THAN 2 FEET.
- ⑦ ANCHOR FLOAT MUST BE CONNECTED SECURELY TO SLEEVE WITH A MINIMUM TENSILE STRENGTH OF 100 LBS. CONNECTION METHOD MUST ALLOW FOR SLEEVE TO MOVE FREELY ON POST.
- ⑧ PROVIDE SUFFICIENT NUMBER OF POST ANCHORS TO MAINTAIN SILT CURTAIN POSITION.

REVISION:

APPROVED: 8-6-2014

Chief Environmental Officer
CHIEF ENVIRONMENTAL OFFICER



STATE DESIGN ENGINEER

REVISED:

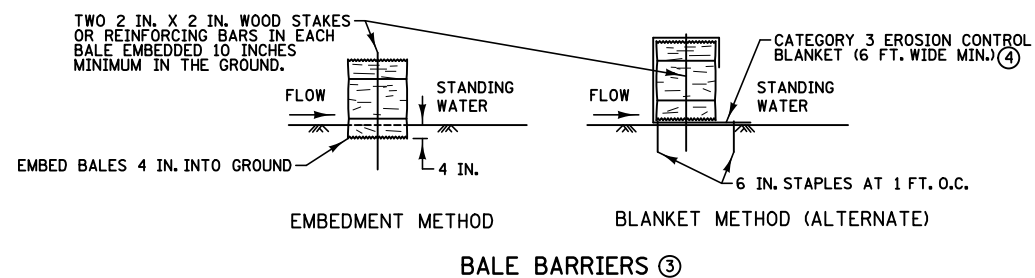
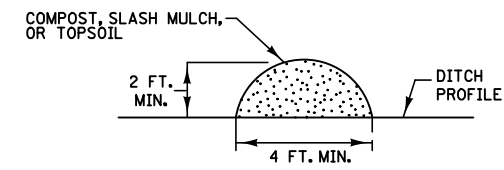
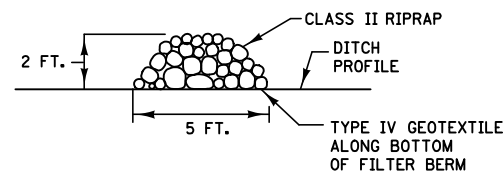
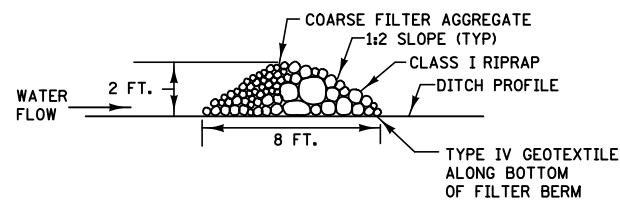
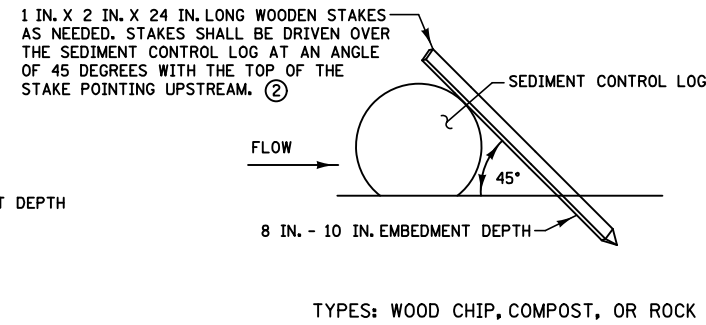
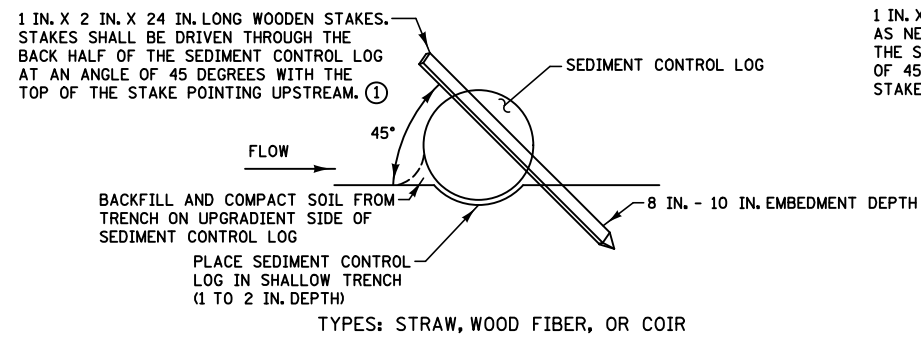
APPROVED:

8-6-2014

TEMPORARY SEDIMENT CONTROL
SILT CURTAIN OR SILT FENCE TYPE TB

STANDARD PLAN 5-297.405

1 OF 7




NOTES:

SEE SPECS. 2573, 3149, 3874, 3882, 3886, & 3897.


- ① SPACE BETWEEN STAKES SHALL BE A MAXIMUM OF 1 FOOT FOR DITCH CHECKS OR 2 FEET FOR OTHER APPLICATIONS.
- ② PLACE STAKES AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS. STAKES SHALL BE INCIDENTAL.
- ③ TO BE USED FOR CRITICAL PERIMETER CONTROL AREAS WHERE STANDING WATER OCCURS (6 INCH MAX. DEPTH), BALES SHALL CONSIST OF TYPE 1 MULCH OF APPROXIMATELY 14 IN. X 18 IN. X 36 IN. LONG. BALES SHALL BE PLACED ON EDGE AND BUTTED TIGHT TO ADJACENT BALES.
- ④ INSTEAD OF TRENCHING, PLACE BALE ON THE BLANKET AND WRAP BLANKET AROUND THE BALE. PLACE STAKE THROUGH BALE AND BLANKET.

REVISION:

APPROVED: 8-6-2014



CHIEF ENVIRONMENTAL OFFICER



Christy *By*

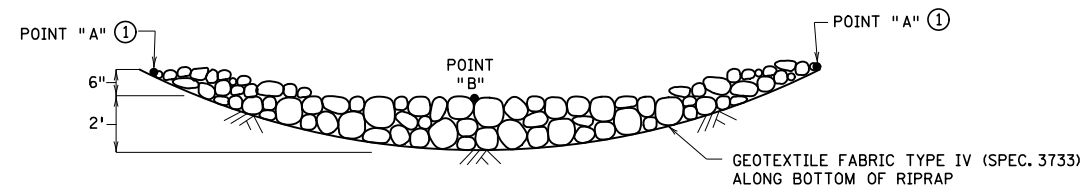
STATE DESIGN ENGINEER

REVISED:

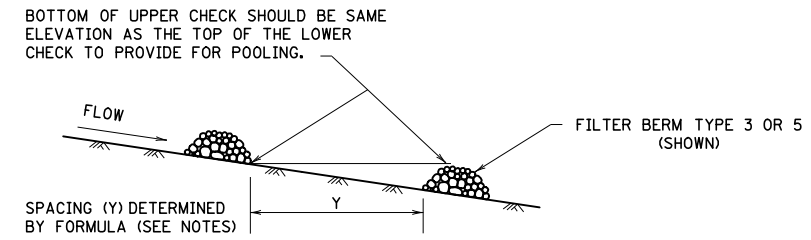
APPROVED:

8-6-2014

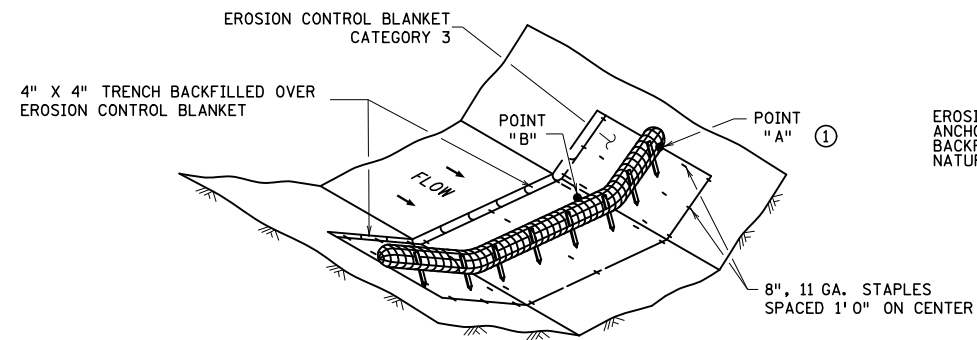
TEMPORARY SEDIMENT CONTROL FILTER BERMS, SEDIMENT CONTROL LOGS, AND BALE BARRIERS	
STANDARD PLAN 5-297.405	2 OF 7



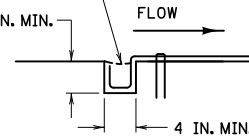
ROCK DITCH CHECKS
FILTER BERMS TYPE 3 (ROCK WEEPER) OR FILTER TYPE 5 (ROCK) ②③
(FOR USE ON ROUGH GRADED AREAS)



DITCH CHECK SPACING
(FOR ALL FILTER BERM TYPES)



EROSION CONTROL BLANKET
ANCHORAGE TRENCH,
BACKFILL WITH TAMPED
NATURAL SOIL.



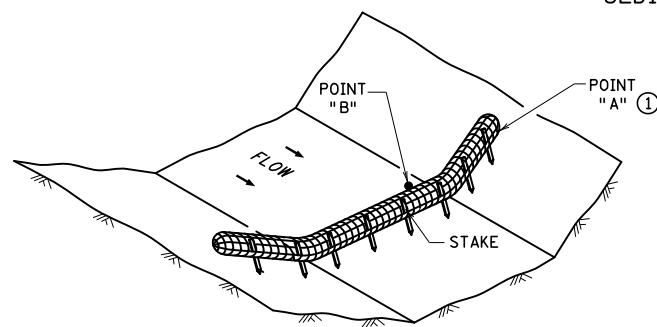
1 IN. X 2 IN. X 24 IN. LONG WOODEN STAKES AT 1 FT. MAXIMUM
SPACING. STAKES SHALL BE DRIVEN THROUGH THE BACK HALF
OF THE SEDIMENT CONTROL LOG AT AN ANGLE OF 45
DEGREES WITH THE TOP OF THE STAKE POINTING UPSTREAM.

SEDIMENT CONTROL LOG TYPE WOOD FIBER

EROSION CONTROL BLANKET
CATEGORY 3 (8 FT. MIN. WIDTH)

STAPLE BLANKET IN ROWS WITH 6 IN. STAPLES AT 18 IN.
MAX. SPACING WITHIN ROWS AND 2 FT. MAX. SPACING
BETWEEN ROWS. LEADING AND TRAILING EDGE SHALL BE
STAPLED APPROX. 6 IN. FROM EDGE (TYP.)

SEDIMENT CONTROL LOG TYPE BLANKET SYSTEM ④



SEDIMENT CONTROL LOG TYPE WOOD FIBER, OR TYPE COMPOST ⑤
(FOR USE ON ROUGH GRADED AREAS)

NOTES:

SEE SPECS. 2573, 3601, 3733, 3885, 3886 & 3889.

FOR DITCH CHECKS, PLACE SEDIMENT CONTROL LOG PERPENDICULAR TO FLOW AND IN A CRESCENT SHAPE WITH
THE ENDS FACING UPSTREAM.

APPROXIMATE SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM THE FOLLOWING SPACING FORMULA:

$$\text{APPROXIMATE SPACING OF DITCH CHECKS (FT.)} = Y = \frac{\text{DITCH CHECK HEIGHT (FT)}}{\% \text{ CHANNEL SLOPE}} \times 100$$

① POINT "A" MUST BE A MINIMUM OF 6 INCHES HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE
DIKE AND NOT AROUND THE ENDS.

② PERMANENT ROCK DITCH CHECKS PLACED WITHIN THE CLEAR ZONE ARE TO BE 18" OR LESS IN HEIGHT. A 1:6
APPROACH AND DEPARTURE SLOPE SHALL BE PROVIDED.

③ DITCH GRADE 3% - 5%, MAX. FLOW VELOCITY 12 FT./SEC..

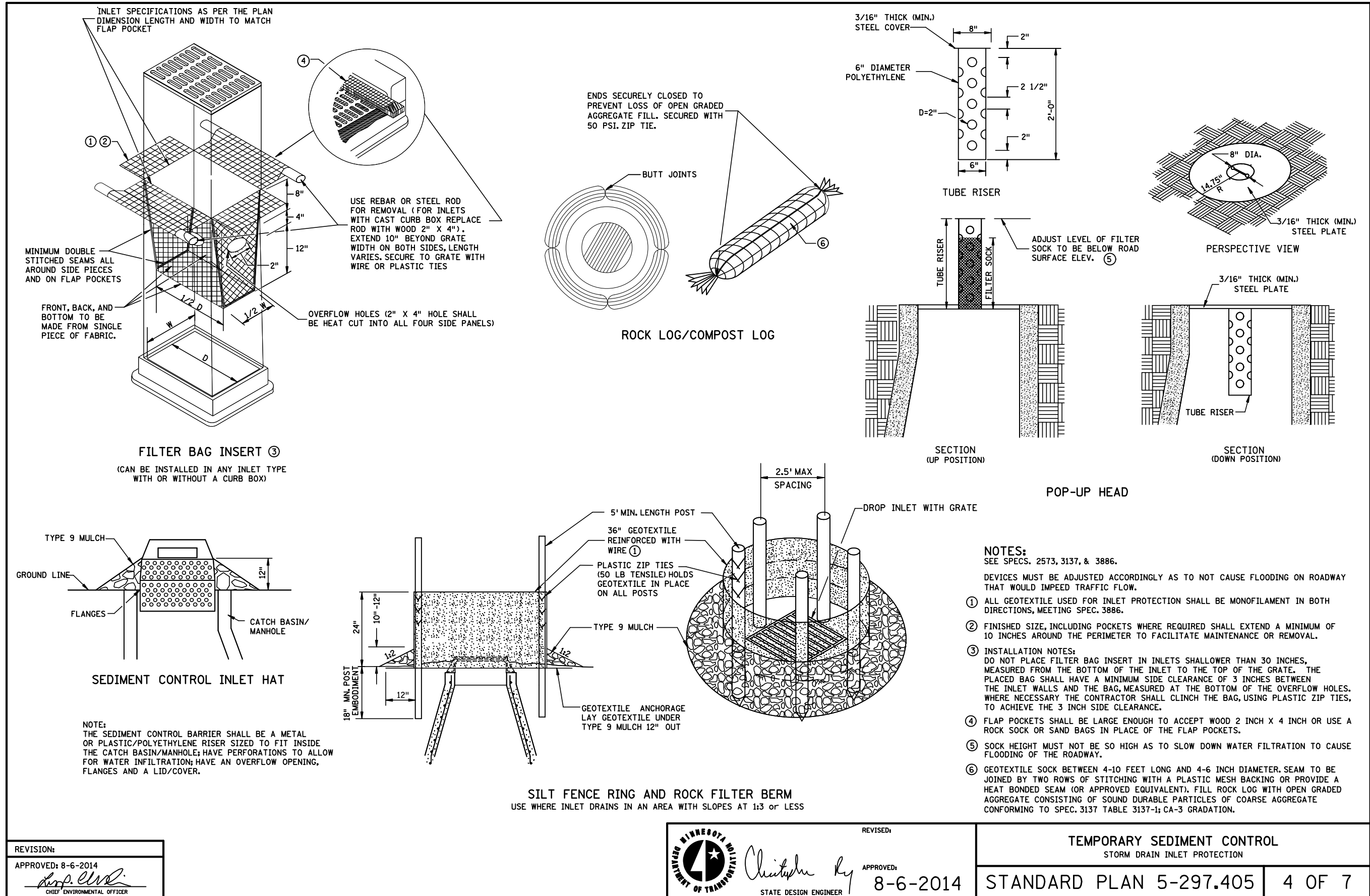
④ DITCH GRADE 1.5% - 3%, MAX. FLOW VELOCITY 4.5 FT./SEC..

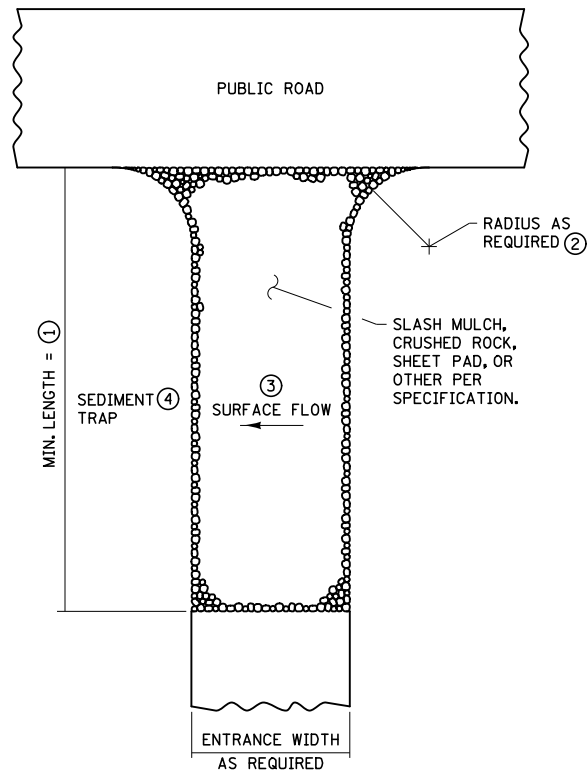
⑤ DITCH GRADE 1.5% - 3%, MAX. FLOW VELOCITY 1.5 FT./SEC..

REVISION:
APPROVED: 8-6-2014
[Signature]
CHIEF ENVIRONMENTAL OFFICER

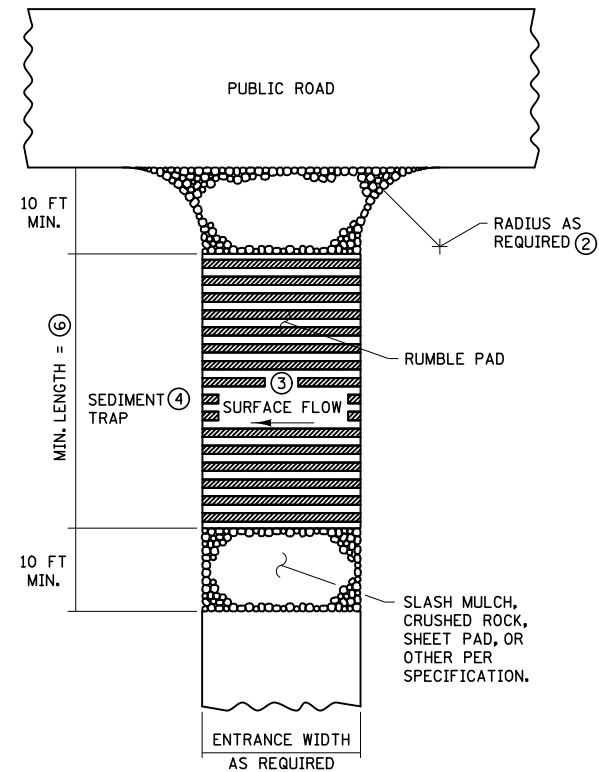
MINNESOTA
DEPARTMENT OF TRANSPORTATION
REVISED:
[Signature] *[Signature]*
APPROVED:
8-6-2014
STATE DESIGN ENGINEER

TEMPORARY SEDIMENT CONTROL
DITCH CHECK
STANDARD PLAN 5-297.405
3 OF 7

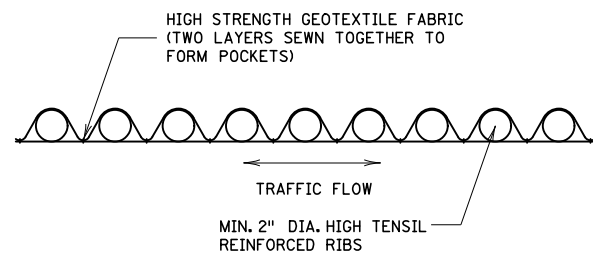
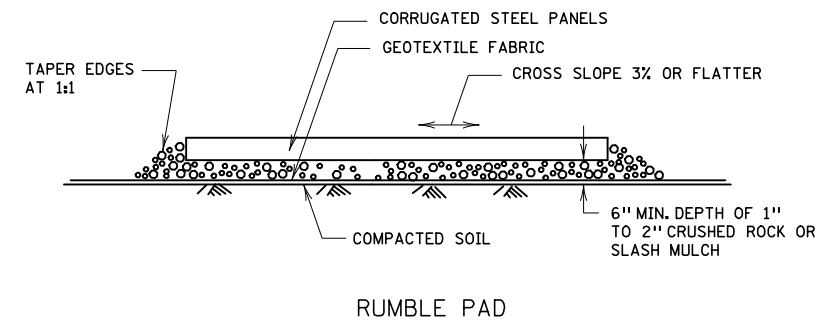




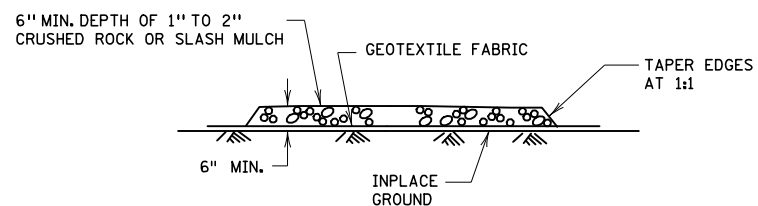
SLASH MULCH, CRUSHED ROCK, OR SHEET PAD CONSTRUCTION EXIT ⑤⑦



RUMBLE PAD CONSTRUCTION EXIT ⑤⑦



SHEET PAD



SLASH MULCH OR CRUSHED ROCK

NOTES:

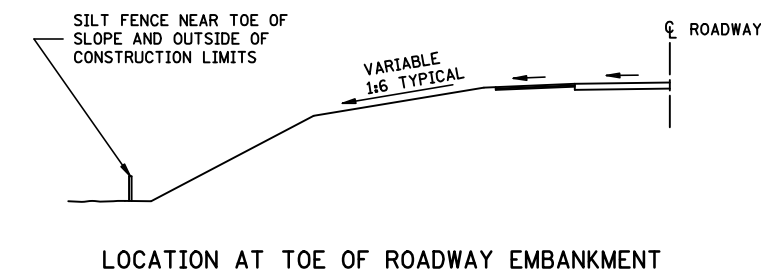
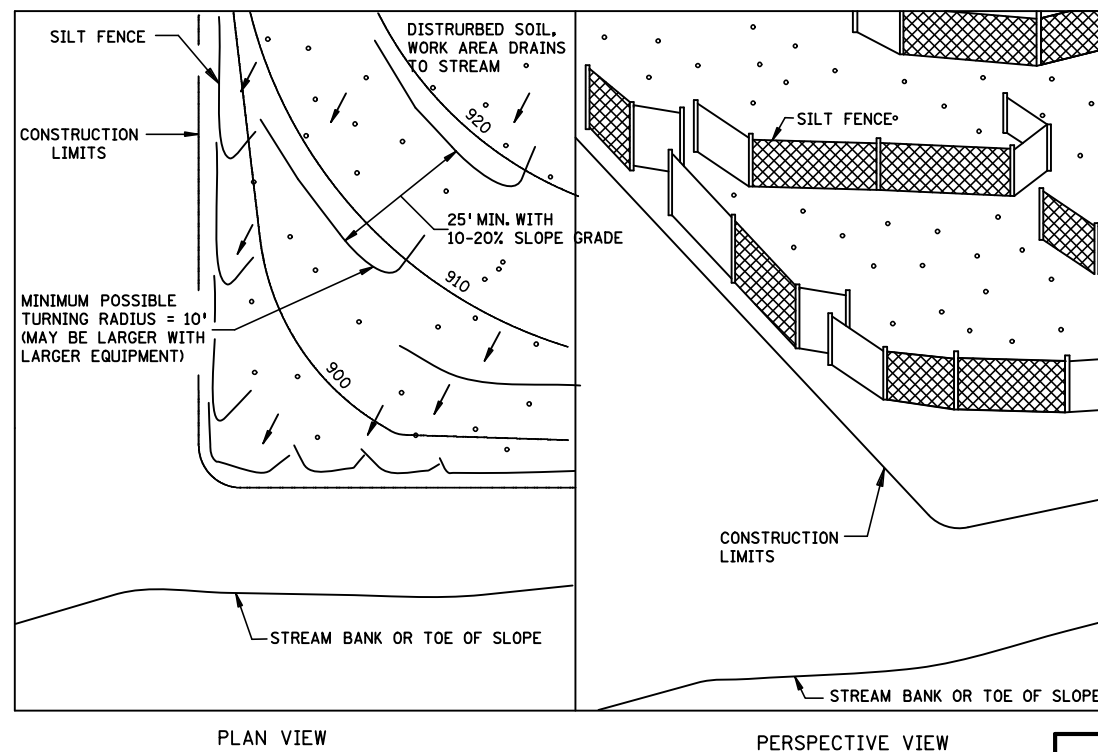
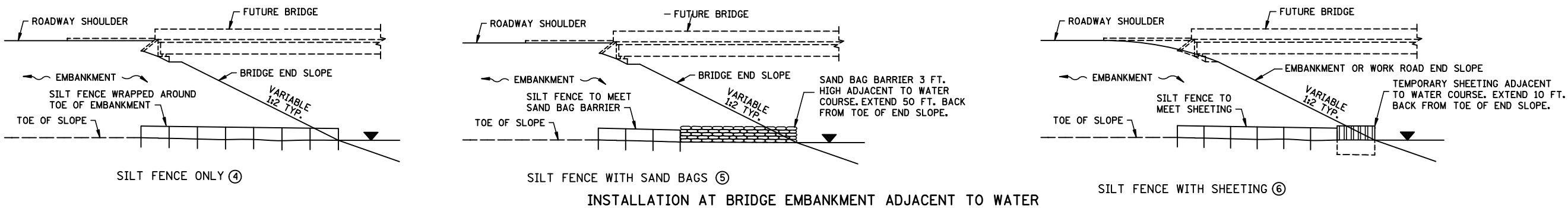
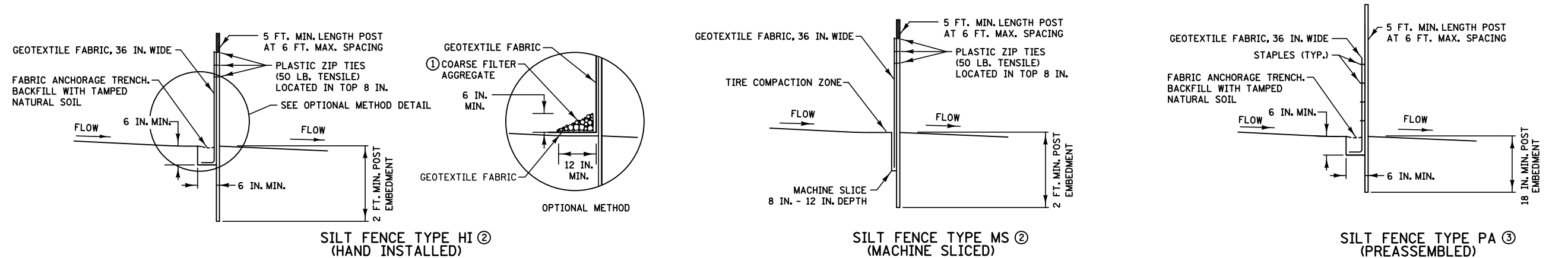
SEE SPECS. 2573 & 3882.

- ① MINIMUM LENGTH SHALL BE THE GREATER OF 50 FEET OR A LENGTH SUFFICIENT TO ALLOW A MINIMUM OF 5 TIRE ROTATIONS ON THE PROVIDED PAD. MINIMUM LENGTH SHALL BE CALCULATED USING THE LARGEST TIRE WHICH WILL BE USED IN TYPICAL OPERATIONS.
- ② PROVIDE RADIUS OR WIDEN PAD SUFFICIENTLY TO PREVENT VEHICLE TIRES FROM TRACKING OFF OF PAD WHEN LEAVING SITE.
- ③ IF RUNOFF FROM DISTURBED AREAS FLOWS TOWARD CONSTRUCTION EXITS, PREVENT RUNOFF FROM DRAINING DIRECTLY TO PUBLIC ROAD OVER CONSTRUCTION EXIT BY CROWNING THE EXIT OR SLOPING TO ONE SIDE. IF SURFACE GRADING IS INSUFFICIENT, PROVIDE OTHER MEANS OF INTERCEPTING RUNOFF.
- ④ IF RUNOFF FROM CONSTRUCTION EXITS WILL DRAIN OFF OF PROJECT SITE, PROVIDE SEDIMENT TRAP WITH STABILIZED OVERFLOW.
- ⑤ IF A TIRE WASH OFF IS REQUIRED THE CONSTRUCTION EXITS SHALL BE GRADED TO DRAIN THE WASH WATER TO A SEDIMENT TRAP.
- ⑥ MINIMUM LENGTH OF RUMBLE PAD SHALL BE 20 FEET, OR AS REQUIRED TO REMOVE SEDIMENT FROM TIRES. IF SIGNIFICANT SEDIMENT IS TRACKED FROM THE SITE, THE RUMBLE PAD SHALL BE LENGTHENED OR THE DESIGN MODIFIED TO PROVIDE ADDITIONAL VIBRATION. WASH-OFF LENGTH SHALL BE AS REQUIRED TO EFFECTIVELY REMOVE CONSTRUCTION SEDIMENT FROM VEHICLE TIRES.
- ⑦ MAINTENANCE OF CONSTRUCTION EXITS SHALL OCCUR WHEN THE EFFECTIVENESS OF SEDIMENT REMOVAL HAS BEEN REDUCED. MAINTENANCE SHALL CONSIST OF REMOVING SEDIMENT AND CLEANING THE MATERIALS OR PLACING ADDITIONAL MATERIAL (SLASH MULCH OR CRUSHED ROCK) OVER SEDIMENT FILLED MATERIAL TO RESTORE EFFECTIVENESS.

REVISION:
APPROVED: 8-6-2014
[Signature]
CHIEF ENVIRONMENTAL OFFICER

REVISED:
[Signature] *[Signature]*
STATE DESIGN ENGINEER
APPROVED: 8-6-2014

TEMPORARY SEDIMENT CONTROL
CONSTRUCTION EXITS
STANDARD PLAN 5-297.405 5 OF 7



- NOTES:**
- SEE SPECS. 2573, 3149 & 3886.
- ① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.
- ② TO PROTECT AREAS FROM SHEET FLOW, MAXIMUM CONTRIBUTING AREA: 1 ACRE.
- ③ TO PROTECT AREAS FROM SHEET FLOW, MAXIMUM CONTRIBUTING AREA: 0.25 ACRE.
- ④ WATER COURSE FLOW VELOCITY: STANDING. CONTRIBUTING SLOPE AREA: 1/2 ACRE.
- ⑤ WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC. CONTRIBUTING SLOPE AREA: 1 ACRE.
- ⑥ WATER COURSE FLOW VELOCITY: 8 TO 15 FT./SEC. CONTRIBUTING SLOPE AREA: 3 ACRES.

REVISION:

APPROVED: 8-6-2014

[Signature]

CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

REVISOR:

APPROVED: 8-6-2014

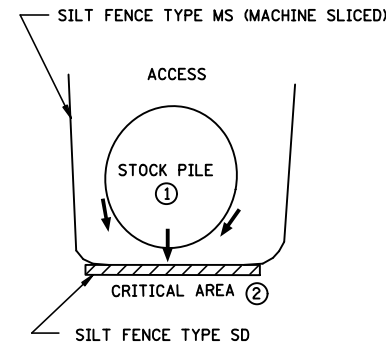
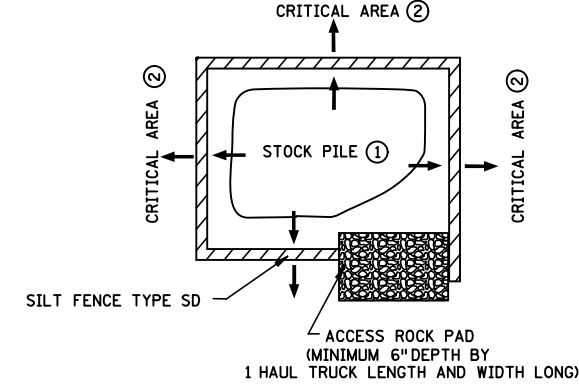
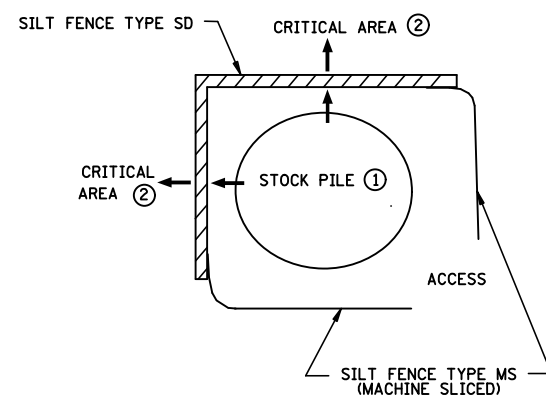
STATE DESIGN ENGINEER

TEMPORARY SEDIMENT CONTROL

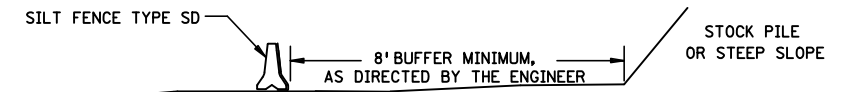
SILT FENCE

STANDARD PLAN 5-297.405

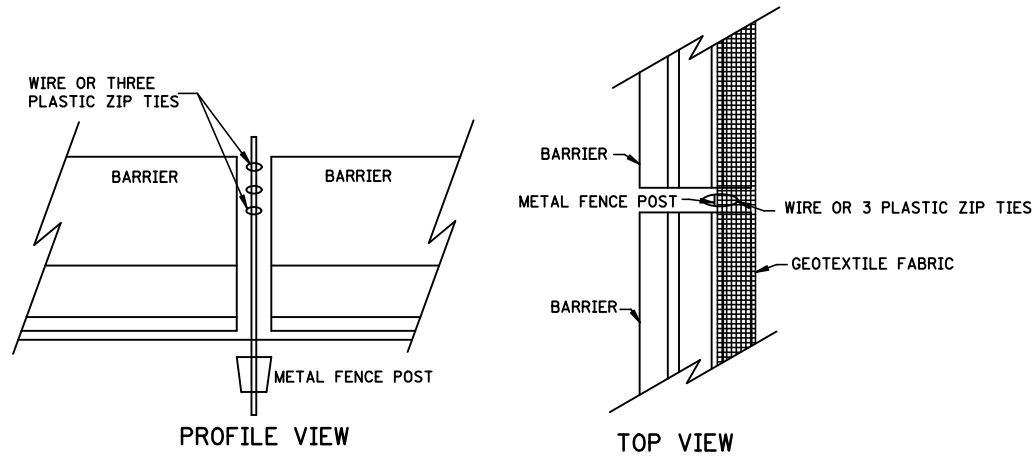
6 OF 7



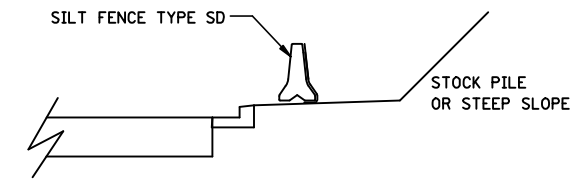
STOCK PILE CONTAINMENT



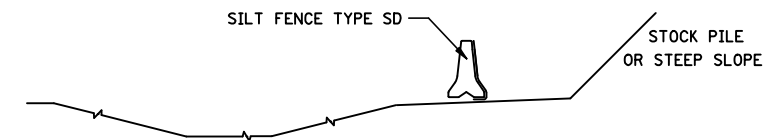
STOCKPILE SEDIMENT CONTROL



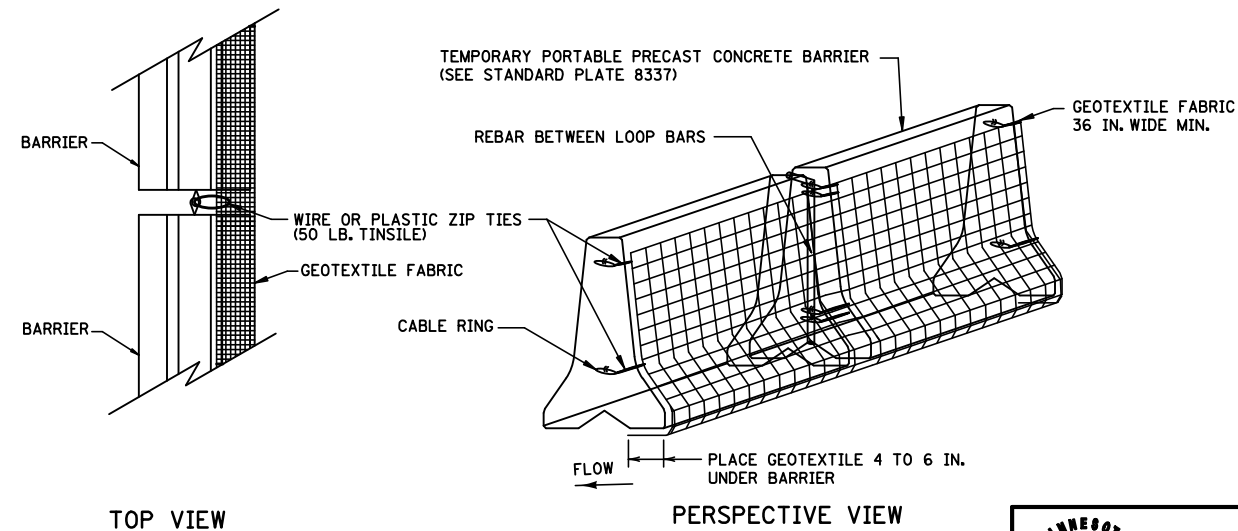
SILT FENCE TYPE SD (SUPER DUTY) BARRIER WITHOUT LOOP BARS



CURB AND GUTTER PROTECTION SYSTEM



DITCH PROTECTION SYSTEM



SILT FENCE TYPE SD (SUPER DUTY) BARRIER WITH LOOP BARS

NOTES:

SEE SPECS. 2533, 2573 & 3886.

SILT FENCE TYPE SD USED TO PROTECT CRITICAL AREAS FROM SHEET FLOW, AND AREAS WHERE OTHER SILT FENCES CANNOT BE PLACED. MAXIMUM CONTRIBUTING AREA: 1 ACRE.

PLACE SILT FENCE TYPE SD ALONG A CONSTANT ELEVATION.

SILT FENCE TYPE SD CAN UTILIZE EITHER A CONCRETE, OR WATER FILLED, TEMPORARY MEDIAN BARRIER.

① PLACING STOCK PILES NEXT TO AN ENVIRONMENTALLY SENSITIVE AREA IS NOT RECOMMENDED. WHEN THERE ARE NO FEASIBLE ALTERNATIVES, PLACE SILT FENCE SD AS SHOWN OR AS DIRECTED BY THE ENGINEER.

② CRITICAL AREAS INCLUDE WETLANDS, JUDICIAL DITCHES, STREAMS, WATER BODIES, AND OTHER AREAS REQUIRING PROTECTION.

REVISION:

APPROVED: 8-6-2014

[Signature]

CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

REVISOR:

APPROVED: 8-6-2014

[Signature]

STATE DESIGN ENGINEER

TEMPORARY SEDIMENT CONTROL

SUPER DUTY SILT FENCE

STANDARD PLAN 5-297.405

7 OF 7

APPROVED MARCH 17, 1997

Gerald J. Rohrer

STATE DESIGN ENGINEER

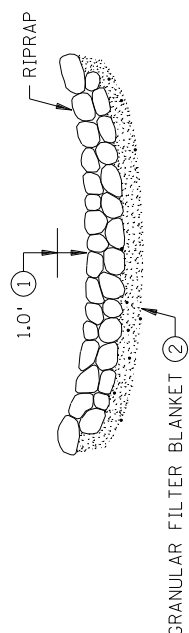
STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION

RIPRAP AT CMP OUTLETS

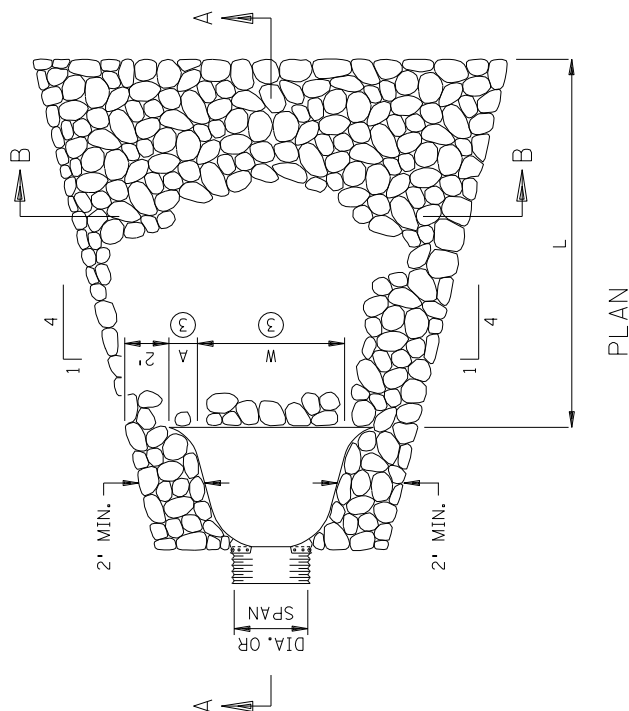
SPECIFICATION
REFERENCE
3601
3733

REVISED
3-25-2000 A.K.J.

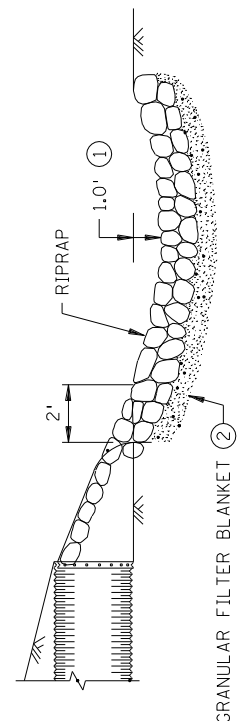
STANDARD
PLATE
NO.
3134C



SECTION B-B



PLAN



SECTION A-A

TABLE OF QUANTITIES
RIPRAP AT CMP OUTLETS

DIA. OF ROUND PIPE (IN.)	L (FT.)	CLASS II d ₅₀ = 6"			CLASS III d ₅₀ = 9"			CLASS IV d ₅₀ = 12"		
		12" DEPTH RIPRAP (CU. YD.)	6" DEPTH GRANULAR FILTER (CU. YD.)	18" DEPTH RIPRAP (CU. YD.)	18" DEPTH GRANULAR FILTER (CU. YD.)	9" DEPTH GRANULAR FILTER (CU. YD.)	24" DEPTH RIPRAP (CU. YD.)	12" DEPTH GRANULAR FILTER (CU. YD.)	24" DEPTH RIPRAP (CU. YD.)	12" DEPTH GRANULAR FILTER (CU. YD.)
12	8	3.2	1.6	4.7	2.4	2.4	6.3	3.2	6.3	3.2
15	8	3.5	1.8	5.2	2.6	2.6	6.9	3.5	6.9	3.5
18	10	4.7	2.4	7.0	3.5	3.5	9.4	4.7	9.4	4.7
21	10	5.5	2.8	8.2	4.1	4.1	10.9	5.5	10.9	5.5
24	12	6.5	3.3	9.8	4.9	4.9	13.0	6.5	13.0	6.5
30	14	8.6	4.3	12.8	6.4	6.4	17.1	8.6	17.1	8.6
36	16	10.9	5.5	16.3	8.2	8.2	21.8	10.9	21.8	10.9
42	18	13.5	6.8	20.3	10.2	10.2	27.0	13.5	27.0	13.5
48	20	16.0	8.0	24.0	12.0	12.0	32.0	16.0	32.0	16.0

TABLE OF QUANTITIES
RIPRAP AT CMP-A OUTLETS

SPAN OF PIPE ARCH (IN.)	L (FT.)	CLASS II d ₅₀ = 6"			CLASS III d ₅₀ = 9"			CLASS IV d ₅₀ = 12"		
		12" DEPTH RIPRAP (CU. YD.)	6" DEPTH GRANULAR FILTER (CU. YD.)	18" DEPTH RIPRAP (CU. YD.)	18" DEPTH GRANULAR FILTER (CU. YD.)	9" DEPTH GRANULAR FILTER (CU. YD.)	24" DEPTH RIPRAP (CU. YD.)	12" DEPTH GRANULAR FILTER (CU. YD.)	24" DEPTH RIPRAP (CU. YD.)	12" DEPTH GRANULAR FILTER (CU. YD.)
17	8	3.4	1.7	5.0	2.5	2.5	6.7	3.4	6.7	3.4
21	10	4.6	2.3	6.8	3.4	3.4	9.1	4.6	9.1	4.6
24	10	5.2	2.6	7.6	3.8	3.8	10.1	5.1	10.1	5.1
28	12	6.3	3.2	9.5	4.8	4.8	12.6	6.3	12.6	6.3
35	14	8.3	4.2	12.4	6.2	6.2	16.5	8.3	16.5	8.3
42	16	10.8	5.4	16.2	8.1	8.1	21.5	10.8	21.5	10.8
49	18	13.0	6.5	19.5	9.8	9.8	26.0	13.0	26.0	13.0
57	20	16.2	8.1	24.3	12.2	12.2	32.4	16.2	32.4	16.2

NOTES:

REQUIREMENTS FOR RIPRAP SIZE AND THICKNESS AND FILTER BLANKET
WILL BE DESIGNATED IN THE PLANS.

- FOR PIPES GREATER THAN OR EQUAL TO 30", USE 1.5'.
- THE CONTRACTOR, AT HIS OPTION, MAY SUBSTITUTE A GEOTEXTILE
FABRIC, SPEC. 3733, FOR THE GRANULAR FILTER BLANKET UNLESS
OTHERWISE SPECIFIED IN THE PLANS. THE FABRIC SHOULD COVER
THE AREA OF THE RIPRAP AND EXTEND UNDER THE CULVERT APRON 3 FT.
- DIMENSIONS W AND A ARE GIVEN ON STANDARD PLATES 3122 AND 3123.

54



Channel Installation Instructions EXCEL R-1™

Step 1 - Site Preparation

Prepare site to design profile and grade. Remove debris, rocks, clods, etc.. Ground surface should be smooth prior to installation to ensure blanket remains in contact with slope.

Step 2 - Seeding

Seeding of site should be conducted to design requirements or to follow local or state seeding requirements as necessary.

Step 3 - Staple Selection

At a minimum, 6 in. long by 1 in. crown, 11 gauge staples are to be used to secure the blanket to the ground surface. Installation in rocky, sandy or other loose soil may require longer staples.

Step 4 - Excavate Anchor Trench and Secure Blanket

Excavate a trench along the top of the channel side slopes and the upstream terminal end of the channel to secure the edges of the blanket. The trench should run along the length and width of the installation, be 6 in. wide and 6 in. deep. Staple blanket along bottom of trench, fill with compacted soil, overlap blanket towards toe of slope and secure with row of staples (shown in Figures A, E and F).

Step 5 - Secure Body of Blanket

Roll blanket down slope from anchor trench. Staple body of blanket following the pattern shown in Figure D. Leave end of blanket unstapled to allow for overlap shown in Figure B. Place downstream blanket underneath upstream blanket to form shingle pattern. Staple seam as shown in Figure E. Secure downstream blanket with stapling pattern shown in Figure D. Stapling pattern shown in Figure D reflects minimum staples to be used. More staples may be required to ensure blanket is sufficiently secured to resist mowers and foot traffic and to ensure blanket is in contact with soil surface over the entire area of blanket. Further, critical points require additional staples. Critical points are identified in Figure G.

Step 6 - Continue Along Slope - Complete Installation

Overlap adjacent blankets as shown in Figure C and repeat Step 5. Secure toe of slope using stapling pattern shown in Figure E. Secure edges of installation by stapling at 1.0' intervals along the terminal edge.

* Drawings Not to Scale

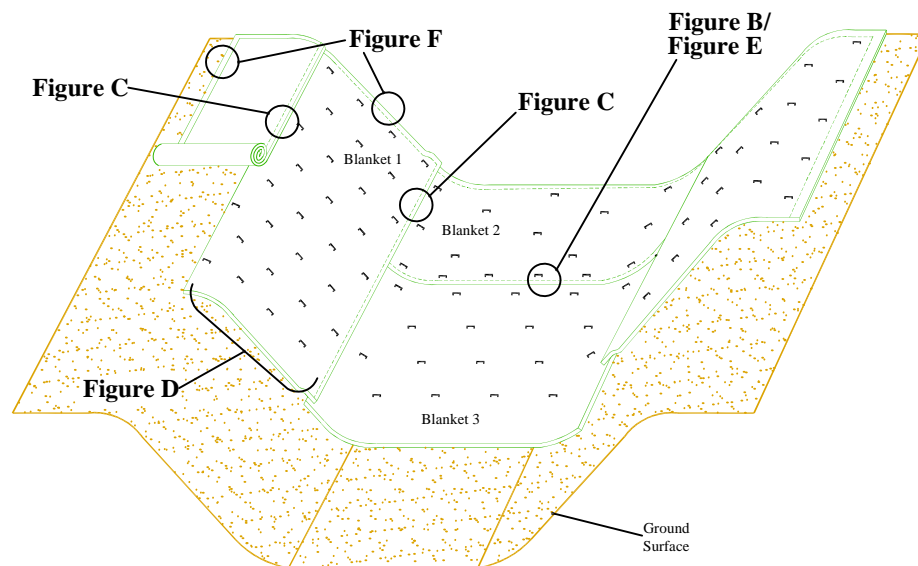


Figure A

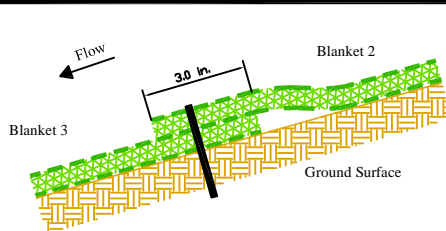


Figure B - Profile View

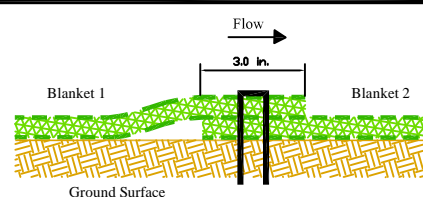


Figure C - Cross Section View

Product Application/Equivalency Specifications

Excel R-1 is produced by Western Excelsior and consists of a temporary Rolled Erosion Control Product (RECP) comprised of an excelsior matrix mechanically (stitch) bound to a single, photodegradable synthetic net (top). The expected longevity of Excel R-1 is approximately 18 months (actual longevity dependent on field and climatic conditions). Excel R-1 is manufactured to include physical properties sufficient to provide the intended longevity and performance. Product specifications may be found on document WE_EXCEL_R1_SPEC and performance information may be found on document WE_EXCEL_R1_PERF. All documents are available from Western Excelsior Technical Support or www.westernexcelsior.com. Additional to above, equivalent products to Excel R-1 must meet identical criteria as Excel R-1 as follows:

1. Consist of machine produced, weed and debris free excelsior bound to a single, synthetic, photodegradable net.
2. Sufficient tensile strength, thickness and coverage to maintain integrity during installation and ensure material performance.
3. Listing within AASHTO NTPEP database.
4. Meet ECTC specification for category 2C product.

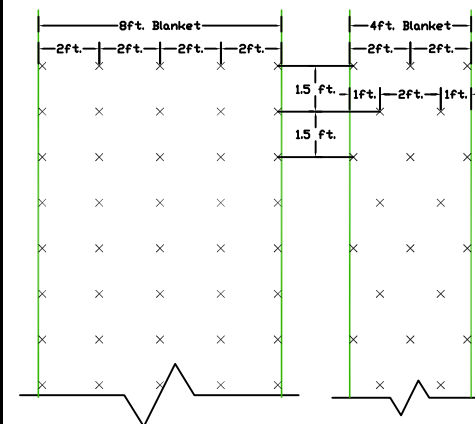


Figure D - Plan View

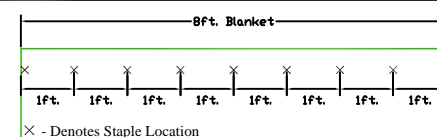


Figure E -
Plan View

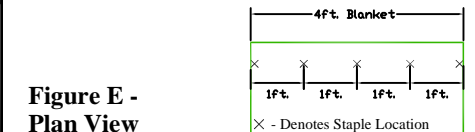


Figure F - Profile View

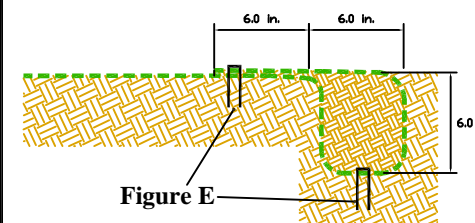


Figure G - Critical Point Securing

[illegible]

INSPECTORS LOG FOR MPCA STORM WATER PERMIT	INSPECTORS INITIALS	TYPE OF INSPECTION		DATE OF INSPECTION			TIME OF INSPECTION		ADDITIONAL COMMENTS:	
		ROUTINE WEEKLY	24HRS AFTER A RAIN EVENT	MONTH	DAY	YEAR		AM		PM

GRONBERG & ASSOCIATES, INC.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS
445 NORTH WILLOW DRIVE LONG LAKE, MN 55356
952-473-4141

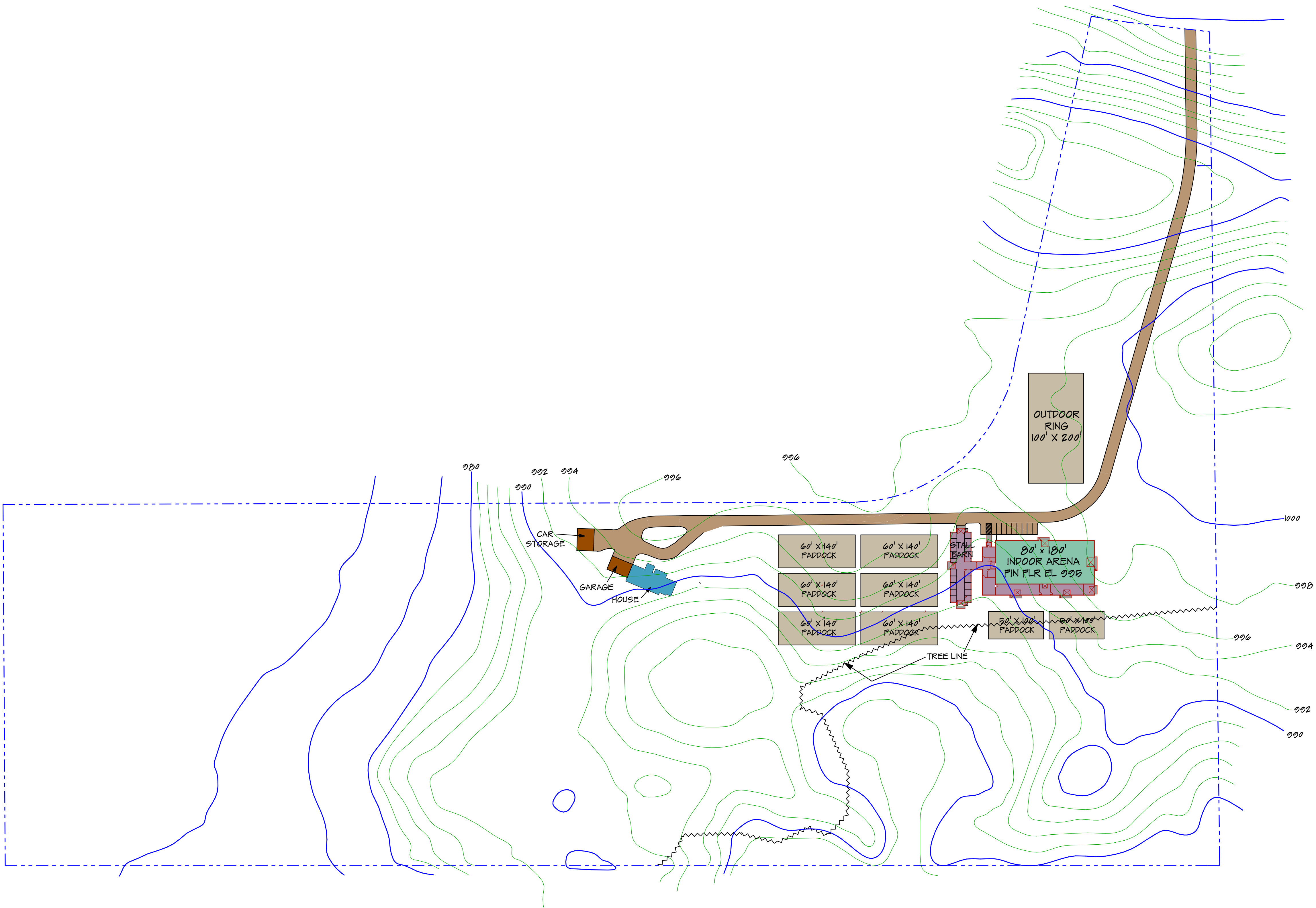
The logo of the National Bureau of Standards (NBS) is a circular emblem. It features a central shield with a stylized 'N' and 'B' inside. The shield is surrounded by a circular border. Above the shield is a vertical line with a small triangle at the top. Below the shield is a horizontal line. The entire logo is rendered in black and white.

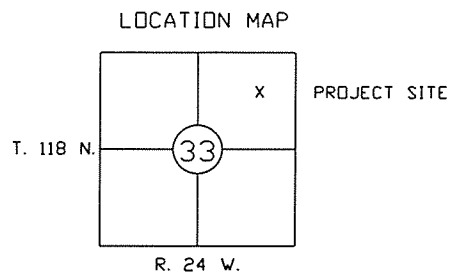
PROJECT

I hereby certify that this plan, specification, or report was prepared by me, or under my direct supervision, and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

Michael J. DeGasperis

Mark S. Gronberg Minnesota License Number 12755

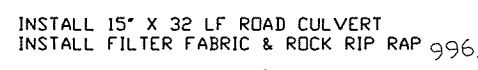




CONTOUR ELEVATION 90
SOIL BORING TH#1
PROPOSED TILE
EXISTING TILE
EXISTING FENCE
PROPOSED FENCE
DIVERSION
EXISTING/PROPOSED GRADE 92.1
SILT FENCE - SF - SF -
FLOW DIRECTION

A horizontal number line with arrows at both ends. It has three major tick marks labeled 0, 80, and 160. The line is divided into two equal segments by the tick mark at 80.

SILT FENCE	3530 LF
EARTHEN DIVERSION	630 LF
STRAW /WOOD CHIP WATTLE	420 LF
EROSION BLANKET	1350 SY
15" CULVERT	88 LF
FILTER FABRIC, MNDOT TYPE III	20 SY
ROCK RIP RAP, MNDOT CL II	4 CY
SEEDING	5 ACRES
STRAW MULCH	14000 SY
FILTER OUTLET (2 LOCATIONS)	
FILTER FABRIC	10 SY
3/8" ROCK & WASHED SAND	3 CY EACH
6" CPE TILE	40 LF



SALVAGE & RESPREAD TOP
FROM CONSTRUCTION AREA

INSTALL 1926 LF SILT FENCE
SEE DETAIL IN SWPPP

CONSTRUCT STORM WATER QUALITY POND
SEE SHEET 2 FOR DETAIL
WATER QUALITY POND UPGRADE FROM WETLAND
7000 OF STORAGE, ROCK FILTER OUTLET TO WEST

CONSTRUCT 630 LF EARTHEN
DIVERSION SEE DETAIL SHEET 2 OF 2

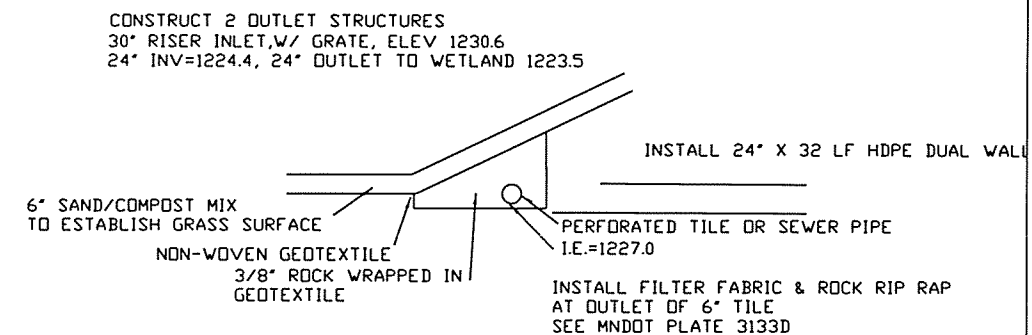
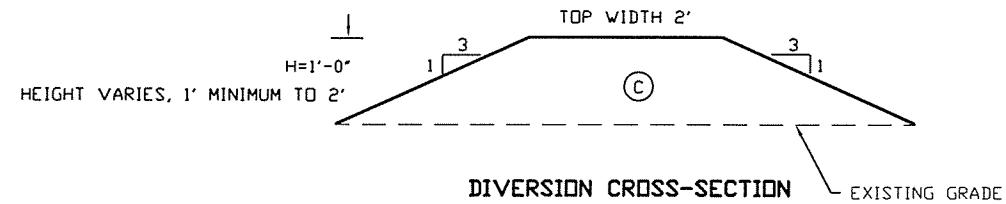
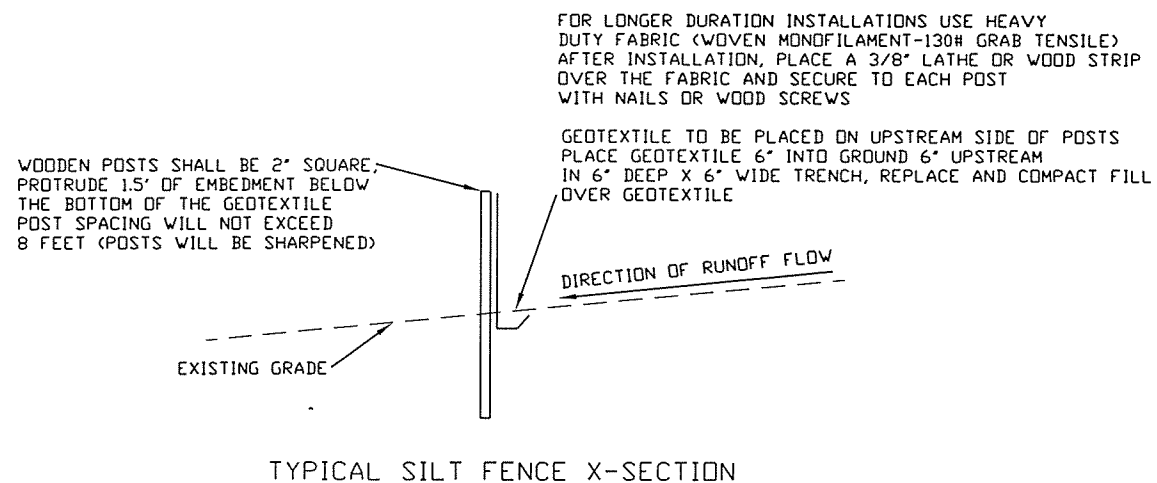
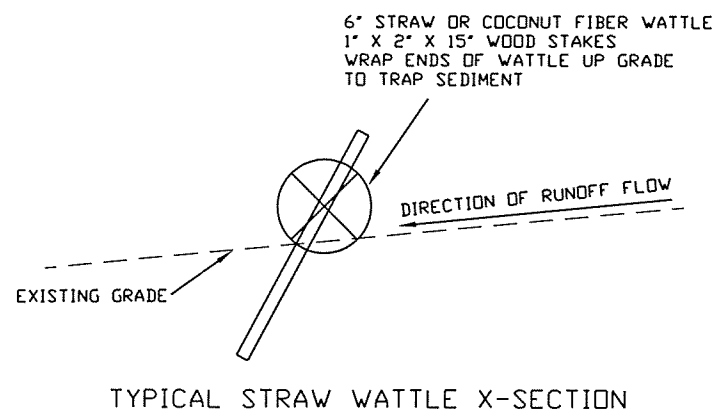
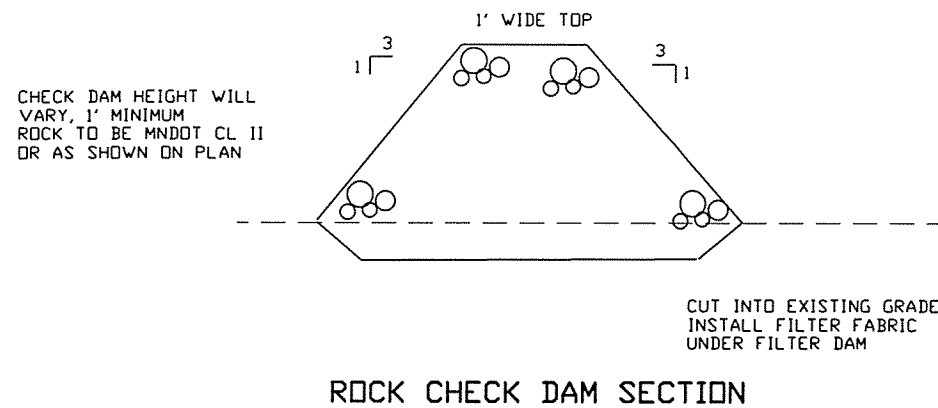
INSTALL 1200 LF SILT FENCE
SEE DETAIL IN SWPPP

INSTALL EROSION CONTROL BLANKET
ON FILL SLOPE, SOUTH SIDE OF BARN
AS NEEDED

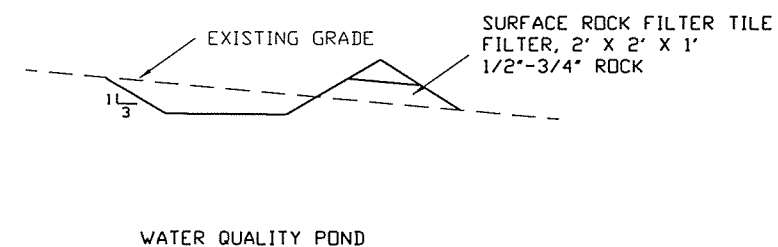
SHEET INDEX:
SITE PLAN
PROFILES & SECTIONS

MICHAEL M. MAYER DATE: 5/3/17 REG. NO. 15043

SECTION 33	T. 118 N.	R. 24 W.	HENNEPIN CO.
DRAWING FILE: OSTRBERG.DWG		PLAN SHEET 1 OF 2	



WATER QUALITY FILTER OUTLET



FILTER TRENCH & WATER QUALITY POND DETAILS

CONSTRUCTION NOTES:
WATER QUALITY BASIN ALONG DRIVEWAY REQUIRES 700 CF OF VOLUME.
USE 230 LF DIVERSION, MINIMUM 1' TALL AND 15 FT OF RETENTION AREA
MAXIMUM SLOPE 6.7% (15:1) TO CREATE STORAGE VOLUME
OUTLET WQ POND WITH FILTER AS SHOWN ABOVE.

WATER QUALITY BASIN ALONG SOUTH LINE OF GRASS PADOCKS REQUIRES 7000 CF OF VOLUME.
USE 340 LF DIVERSION, MINIMUM 2' TALL AND 45 FT OF RETENTION AREA
MAXIMUM SLOPE 4.5% (22:1) TO CREATE STORAGE VOLUME
OUTLET WQ POND WITH FILTER AS SHOWN ABOVE.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

MICHAEL H. MAYER DATE: 5/13/17 REG. NO. 15043

SURVEY:	GARY & LINDA OSTBERG	
DRAWN:	SECTIONS	
DESIGN: MM 5/2017		
DRAWN: MM 5/2017		
CHECKED: MM 5/2017		
REVISED: MM 5/12/2017		
DRAWING FILE: OSTBERG2	PLAN SHEET	2 OF 2

THE
OSTBERG
ARCHITECTS

651 647-9682 voice
linda@ostbergarchitects.com

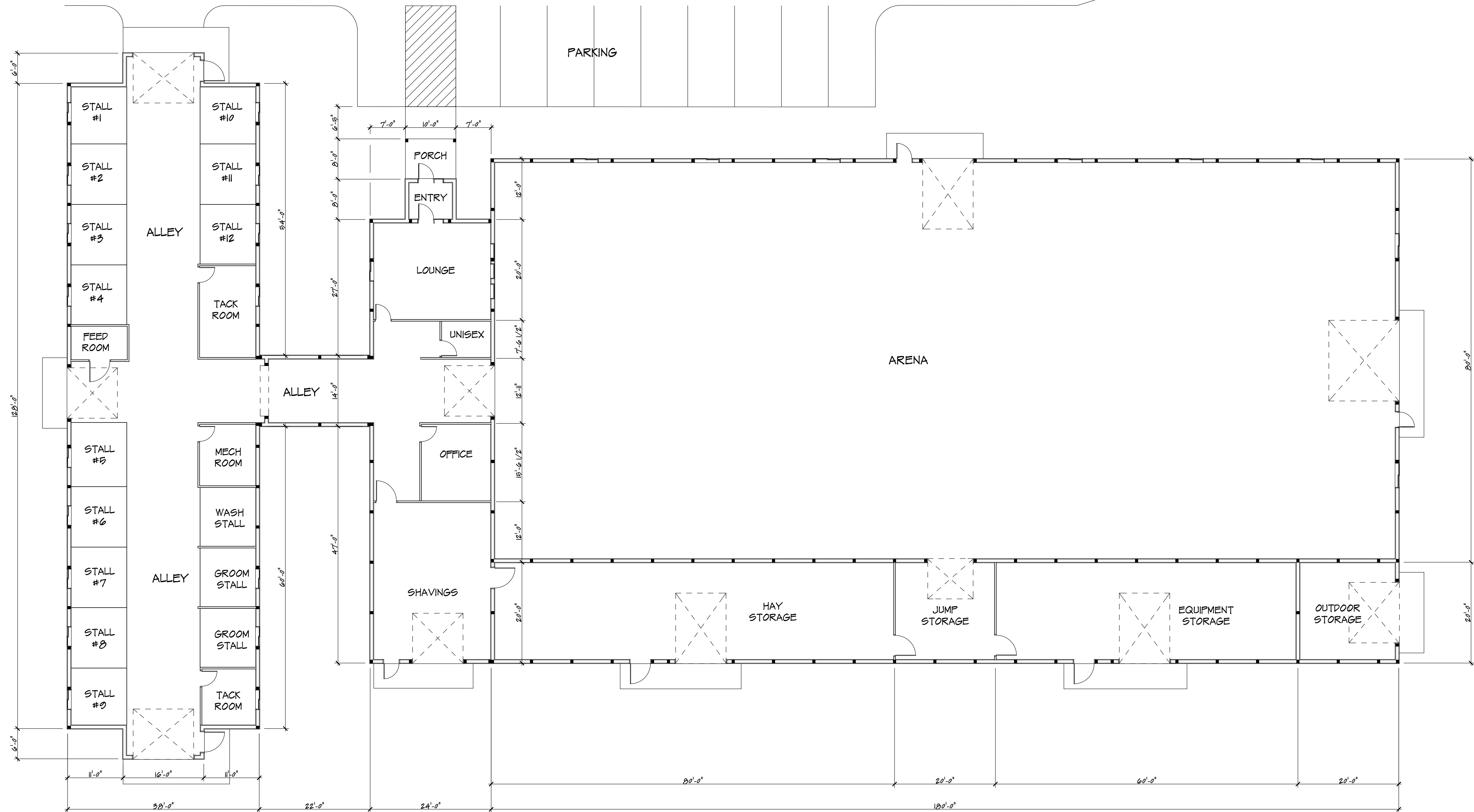
475 Cleveland Avenue North
Suite 202
Saint Paul, MN. 55104

I HEREBY CERTIFY THAT THIS PLAN,
SPECIFICATION OR REPORT WAS
PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY
LICENSED ARCHITECT UNDER THE LAWS
OF THE STATE OF MINNESOTA.

LINDA OSTBERG
DATE 5/1/2017 REG. NO. 13043

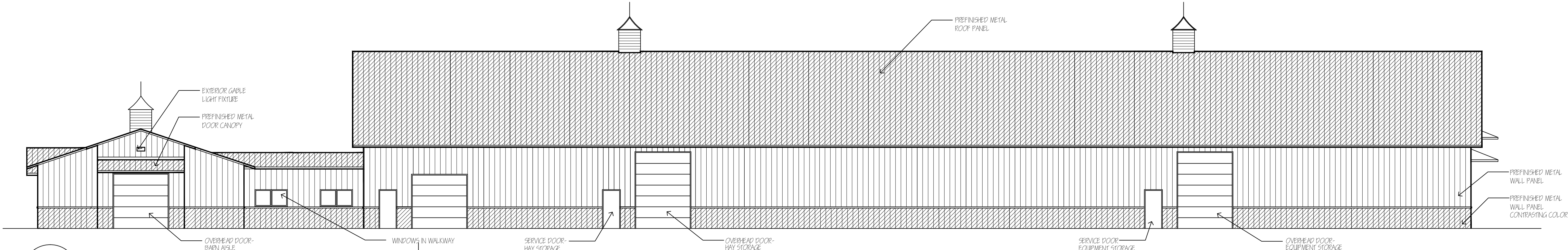
P.I.D. NO. 3311824140003
OSTBERG FAMILY FARM
COUNTY ROAD 6/
GAME FARM ROAD
INDEPENDENCE, MN

DATE: 5/15/2017



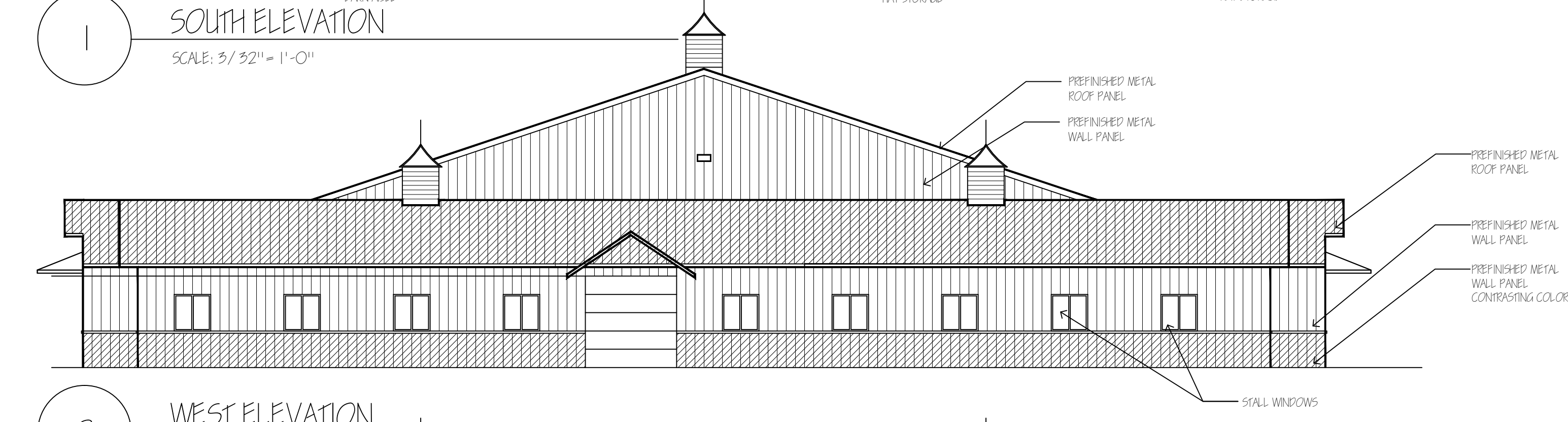
FLOOR PLAN

3/32" = 1'-0"



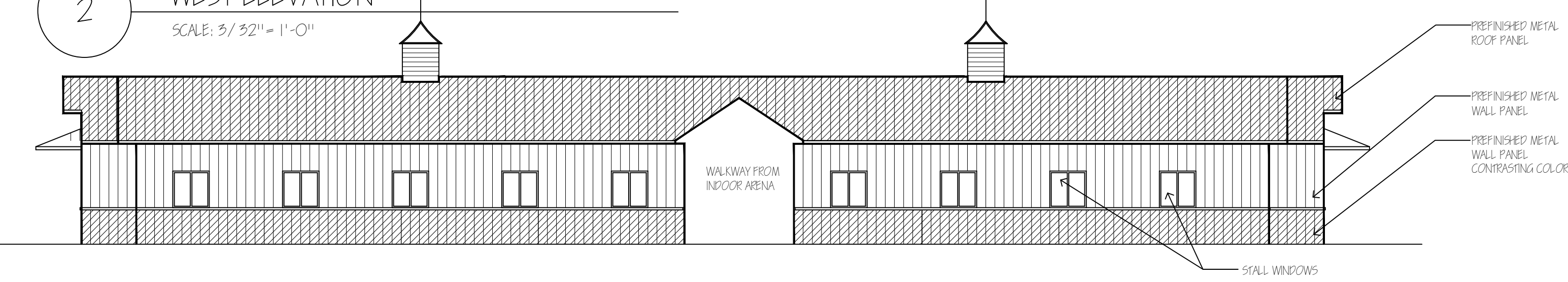
1

SOUTH ELEVATION
SCALE: 3/32" = 1'-0"



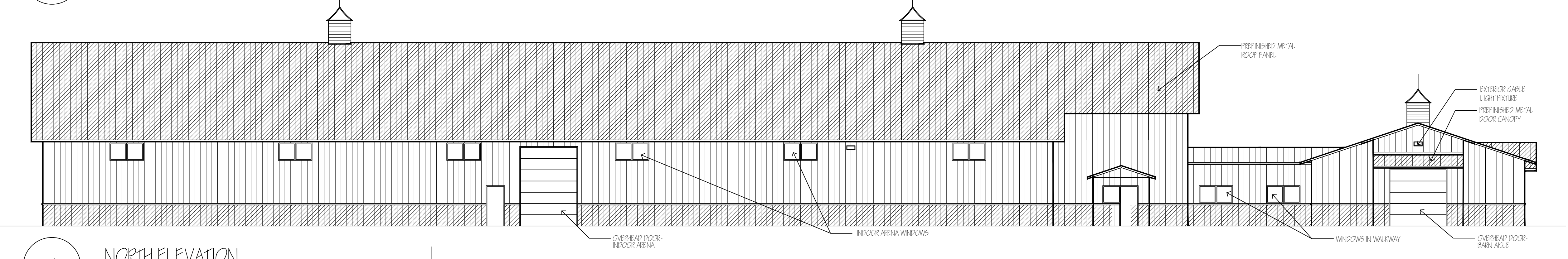
2

WEST ELEVATION
SCALE: 3/32" = 1'-0"



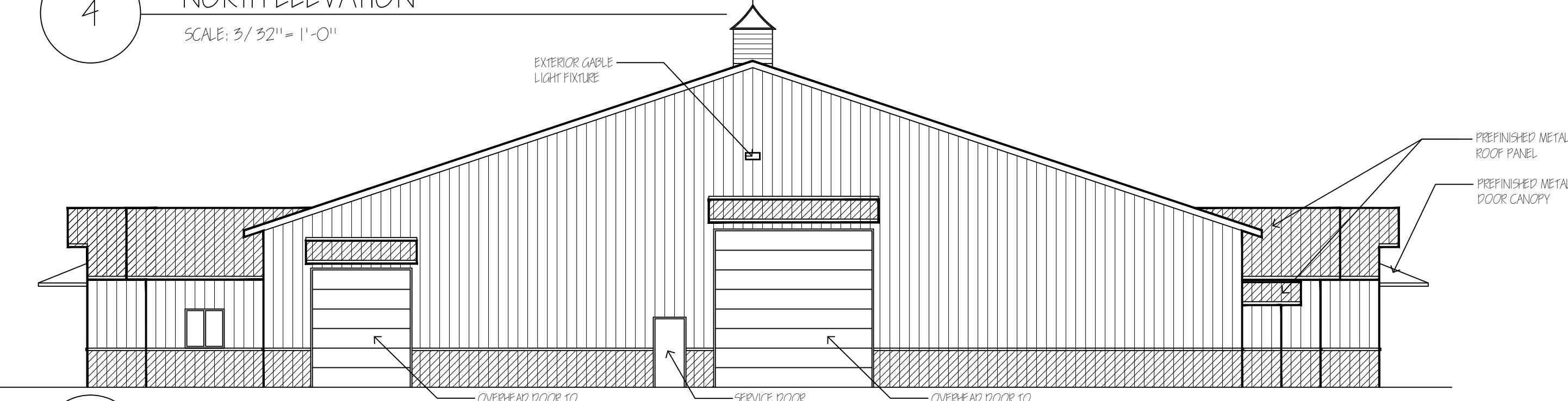
3

PARTIAL EAST ELEVATION
SCALE: 3/32" = 1'-0"



4

NORTH ELEVATION
SCALE: 3/32" = 1'-0"



5

EAST ELEVATION
SCALE: 3/32" = 1'-0"

**THE
OSTBERG
ARCHITECTS**

651 647-9682 voice
linda@ostbergarchitects.com

475 Cleveland Avenue North
Suite 202
Saint Paul, MN. 55104

I HEREBY CERTIFY THAT THIS PLAN,
SPECIFICATION OR REPORT WAS
PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY
LICENSED ARCHITECT UNDER THE LAWS
OF THE STATE OF MINNESOTA.

LINDA OSTBERG
DATE 5/1/2017 REG. NO. 13043

P.I.D. NO. 3311824140003
OSTBERG FAMILY FARM
COUNTY ROAD 6/
GAME FARM ROAD
INDEPENDENCE, MN

BARN ELEVATIONS

DATE: 5/15/2017

City of Independence

A Proposed Text Amendment to Chapter V of the City of Independence Ordinance – Section 510.05, Definitions - Accessory Dwelling Units

To: Planning Commission
From: Mark Kaltsas, City Planner
Meeting Date: June 20, 2017

Discussion:

In January of this year the Planning Commission discussed and prioritized potential ordinance amendments. The first priority identified was to 'clean up' the accessory dwelling unit ordinance. The City has had several questions pertaining to the application of the ordinance over the last several years. The ordinance prescribes a total area permitted for accessory dwelling units. At the May 2017 Planning Commission Meeting, Commissioners recommended adding language to the ordinance which would allow mechanical rooms and or unfinished basements to be excluded from the total square footage permitted in the accessory dwelling unit. The proposed amendment would clearly provide for mechanical rooms and unfinished basements to not be counted towards the total square footage of an accessory dwelling unit.

Staff has prepared an ordinance amendment (attached) for Planning Commission discussion and consideration. The City has noticed this item as a public hearing to formally consider the amendment.

Attachments: Proposed Ordinance Amendment

CITY OF INDEPENDENCE
COUNTY OF HENNEPIN

STATE OF MINNESOTA

ORDINANCE NO. _____

AMENDING SECTION 510.05 OF THE INDEPENDENCE CITY CODE RELATING TO
DEFINITIONS AND SECTION 530.01 AND 530.05 RELATING TO CONDITIONAL USES

THE CITY OF INDEPENDENCE DOES ORDAIN:

Section 1. Section 510.05 of the Independence City Code is hereby amended as follows:

520.21 Definitions. Subdivision 1. The following words and terms, and their derivations have the meanings given in this zoning code.

Subd. 2. "Accessory Dwelling Unit." A secondary dwelling unit that is:

- (a) Physically attached to or within a single family dwelling unit or within a detached^a accessory building that has a principal structure on the parcel; and*
- (b) Subordinate in size to the single family dwelling unit; and*
- (c) Fully separated from the single family dwelling unit by means of a wall or floor, with or without a door; and*
- (d) Architecturally compatible with the principal structure (using similar materials, finishes, style and colors similar to the principal structure); and*
- (e) The lesser of 33% of the above ground living area of the principal structure or 1,200 square feet, and no less than 400 square feet. **The total square footage shall not include a designated mechanical room or unfinished basement below the accessory dwelling unit;** and*
- (f) Not in excess of the maximum square footage for accessory structures as permitted in this code; and*
- (g) Has permanent provisions for cooking, living and sanitation; and*
- (h) Has no more than 2 bedrooms; and*

- (i) *Limited to relatives of the homesteaded owner occupants or the homesteaded owners of the principal structure. The total number of individuals that reside in both the principal dwelling unit and accessory dwelling unit may not exceed the number that is allowed by the building code; and*
- (j) *Uses the existing on-site septic system^b or an approved holding tank; and*
- (k) *Respectful of the future subdivision of the property and the primary and secondary septic sites. The City may require a sketch of the proposed future subdivision of a property; and*
- (l) *In compliance with the adopted building code relating to all aspects of the dwelling unit.*

^a On lots less than 2.5 acres, the accessory dwelling unit must be attached to the principal dwelling unit or located/constructed within an existing detached accessory structure that meets all criteria of this section.

^b The existing on-site septic system will be required to be inspected by the City to ensure compliance with all applicable standards. Any system that does not meet all applicable standards shall be brought into compliance as a part of the approval of the accessory dwelling unit.

Sec. 2. This ordinance shall take effect upon the day of publication.

Adopted this ____ day of _____, 2017.

Marvin D. Johnson, Mayor

ATTEST:

Mark Kaltsas, City Administrator