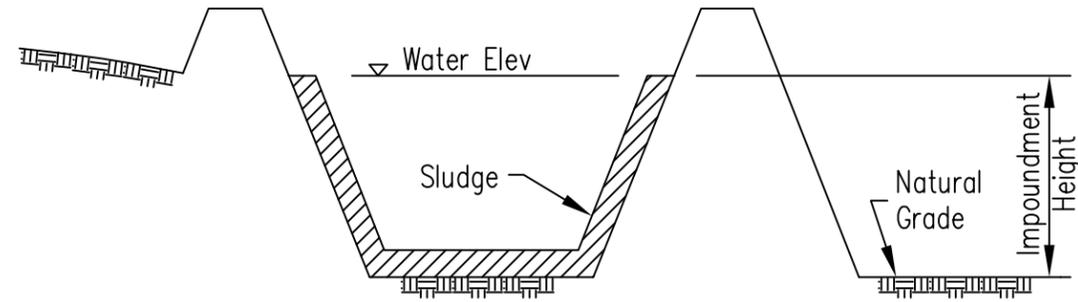
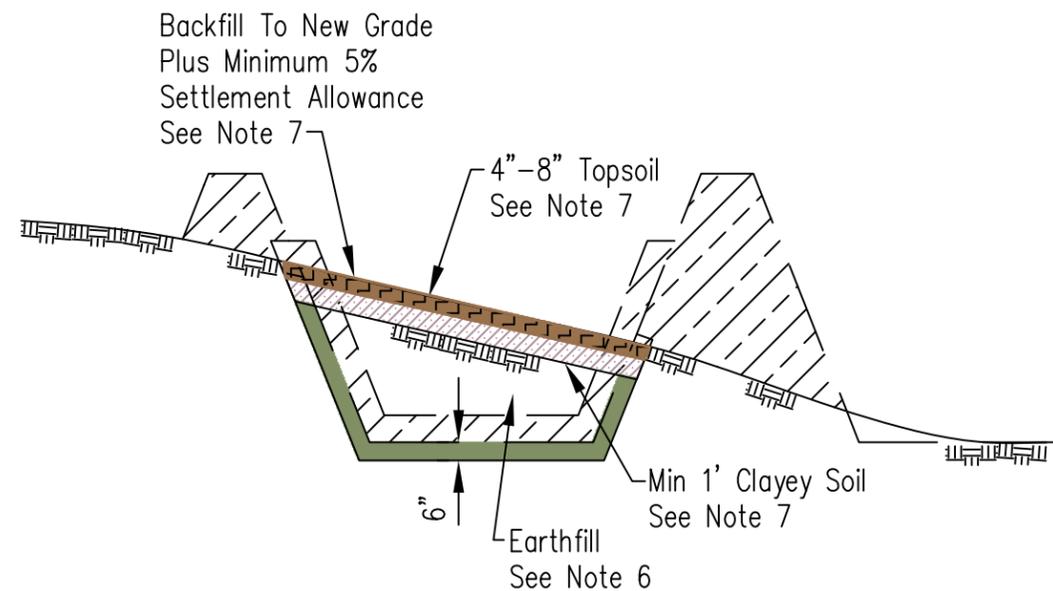


# TYPICAL CROSS SECTION OF EARTHEN WASTE IMPOUNDING STRUCTURE



**EXISTING STRUCTURE**

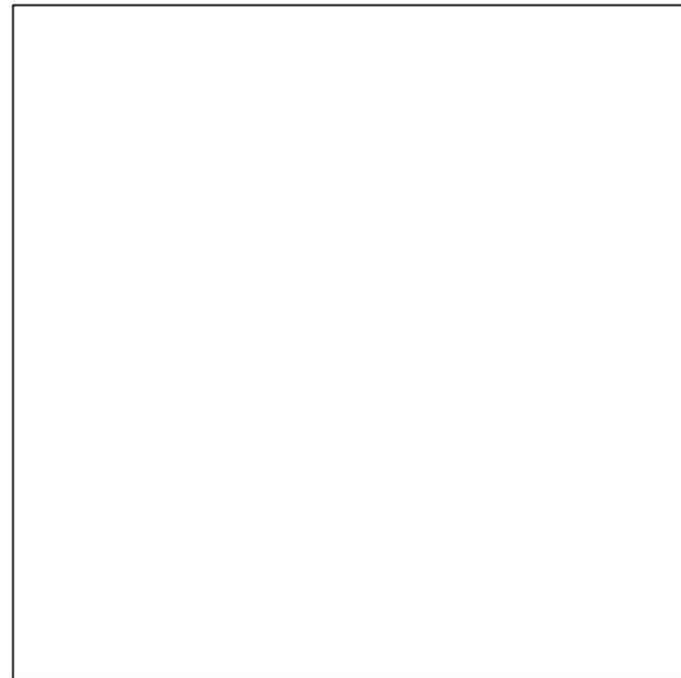


**STRUCTURE REMOVED**

- Remove See Note 2
- Remove As Required See Note 2
- TopSoil See Note 7
- Clayey Soil See Note 7

**NOTES:**

1. The waste impoundment closure shall comply with all Federal, State, and local laws, rules and regulations including pollutant discharge elimination system (NPDES) requirements and the Illinois Department of Agriculture Livestock Management Facilities Act.
2. All accumulated livestock waste, including sludge and for earthen impoundment at least the first 6" of soil shall be removed from throughout the interior of the storage structure. IF an earthen structure can be proven NOT to be a lagoon, then the 6" of soil does not have to be removed.
3. The waste removed from the impoundment shall be utilized in accordance with a nutrient management plan meeting IL NRCS Conservation Practice Standard 633, Waste Utilization.
4. Provisions shall be made to prevent the accumulation of precipitation within the impoundment structure during and after closure, by filling in an excavated structure by breaching, by removing the embankment of an embankment structure, and/or by disassembly or removal of a fabricated structure, as applicable. Note: Lagoons must be filled in and the topography of the site must be restored to pre-construction conditions.
5. The slopes of a breached embankment shall be stable for the soil material involved, and no steeper than a 3:1 slope.
6. Earthfill shall be fairly uniform in nature and contain no vegetation or rocks larger than six inches in diameter. Earthfill shall be placed in maximum 9 inch thick lifts prior to compaction. Compaction shall be by one complete pass over the surface by the wheels of loaded, rubber-tired hauling equipment, or two complete passes of a tamping type roller exerting a minimum of 100 psi.
7. Compacted earthfill shall be placed as specified in Note 6 in the filled impoundment. The top 1 foot of compacted fill shall be the most clayey material available. Four to eight inches of topsoil shall be placed on top of the compacted fill. The constructed fill, including topsoil, shall exceed the design grade by at least 5% for settlement, and the surface shall be mounded to shed rainfall runoff.
8. All structures used to convey waste to waste impoundments or to provide drainage from the impoundment area shall be removed and replaced with compacted earth material or otherwise rendered unable to convey waste.
9. Demolished structures shall be handled in accordance with state and local law. If buried on-site, material shall be covered with soil to a settled depth of at least one foot, and the backfill shall be sufficiently mounded to shed rainfall runoff.
10. Any monitoring wells shall be properly decommissioned according to Illinois Administrative Code 920.120. Reference IL-ENG-212.
11. All disturbed areas not returned to crop production shall be revegetated according to conservation practice standard IL342 Critical Area Planting, or otherwise stabilized to control erosion.
12. A structure that is converted to fresh water storage shall meet requirements of the appropriate NRCS practice standard for the intended purpose. The State of Illinois has further requirements for converted structures.



**LOCATION AREA MAP**

Date	9/1/13
Designed	M. QUINONES
Drawn	
Checked	
Approved	

**CLOSURE OF WASTE IMPOUNDMENT STRUCTURE**



File No. IL ENG-158

Drawing No.

Page 1 of 2

Sheet of

Landowner		Location	
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**ESTIMATED QUANTITIES & DATA**

Type of Facilities to be Closed (check all that apply):

- Waste Impoundment Facility Appurtenances
- Fabricated Structure       \_\_\_\_" Transfer Pipe
  - Lagoon                               Concrete Access Ramp(s)
  - Earth Storage Pond       Concrete Pad\_\_\_\_ft x \_\_\_\_ft
  - Embankment                       \_\_\_\_\_
  - Excavated                               \_\_\_\_\_

Type of Appurtenance to be Removed (check all that apply)

- Remove at least 6" of soil  
(if not checked, document facility is not a lagoon)
- Decommission Monitoring Well(s)

Volume of Waste to be Removed, cu yd\_\_\_\_\_ and/or gal\_\_\_\_\_ (Attach Nutrient Management Plan)

Volume of Excavation, cu yd\_\_\_\_\_

Volume of Earthfill, cu yd\_\_\_\_\_

Area to be seeded, acres\_\_\_\_\_

VEGETATION ESTABLISHMENT			
Materials	Kind	Rate Per Acre	Total
Lime			
Nitrogen (N)			
Phosphorous P <sub>2</sub> O <sub>5</sub>			
Potassium (K <sub>2</sub> O)			
Companion Crop			
Seed (PLS#/Ac.)			
Mulch			
Anchor			
Seeding Dates:			

Seed must meet requirements of Illinois Seed Laws.

- Seed lots must be labeled with purity and germination, the tests must have been performed within the last nine months of seeding.
- Introduced seed must have at least 80% Pure Live Seed (PLS), Native Grass seed shall be at least 50% PLS.

$$PLS \% = \frac{(\% \text{ Germination} + \% \text{ Dormant}) \times \% \text{ Purity}}{100}$$

$$\text{Bulk seed needed} = \frac{PLS \text{ Seeding Rate}}{PLS \%}$$

**RECORD OF IMPLEMENTATION**

Type of Facilities Closed (check all that apply):

- Waste Impoundment Facility Appurtenances
- Concrete Structure       \_\_\_\_" Transfer Pipe
  - Lagoon                               Concrete Access Ramp(s)
  - Earth Storage Pond       Concrete Pad\_\_\_\_ft x \_\_\_\_ft
  - Embankment                       \_\_\_\_\_
  - Excavated                               \_\_\_\_\_

Volume of Waste Removed, cu yd\_\_\_\_\_ and/or gal\_\_\_\_\_

- Yes     No    Sludge removed
- Yes     No     N/A    At least 6" of soil removed
- Yes     No    Area in and around the closed facility left in such a way as to prevent accumulation of precipitation

Volume of Excavation, cu yd\_\_\_\_\_

Volume of Earthfill, cu yd\_\_\_\_\_

Area Seeded, acres\_\_\_\_\_ (Attach Seed Tags)

I certify that this practice has been completed in accordance with this plan and specifications and the above Record of Implementation.

Contractor\_\_\_\_\_ Date\_\_\_\_\_

I certify that this as built practice meets NRCS standard & specifications

(NRCS Representative)\_\_\_\_\_ Date\_\_\_\_\_

Date \_\_\_\_\_ 9/1/13  
 M. QUINONES  
 Designed \_\_\_\_\_  
 Drawn \_\_\_\_\_  
 Checked \_\_\_\_\_  
 Approved \_\_\_\_\_

**CLOSURE OF WASTE IMPOUNDMENT STRUCTURE**

