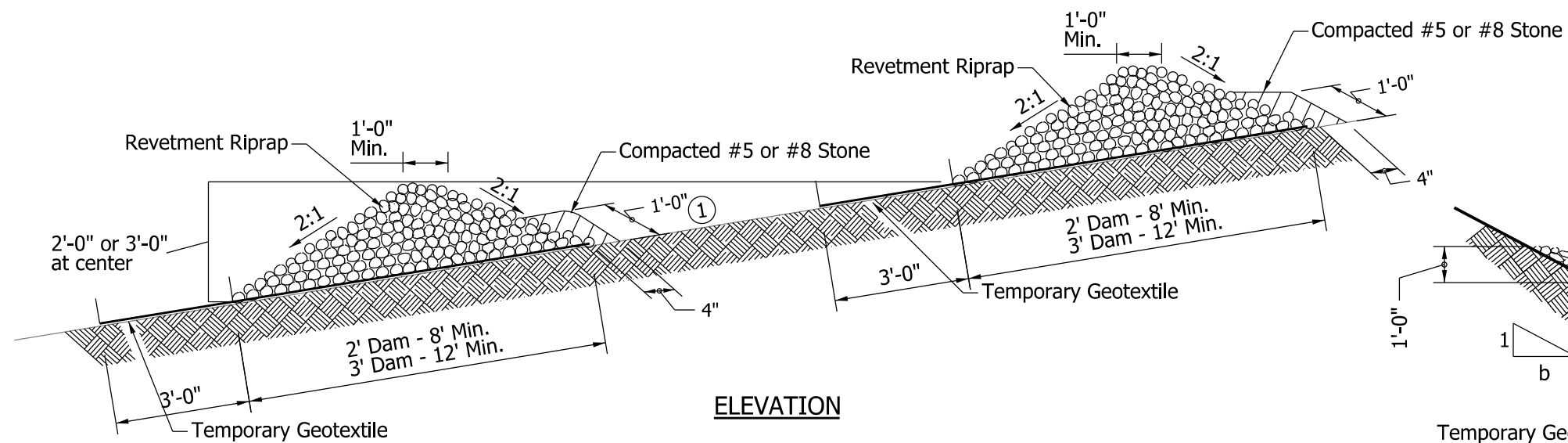


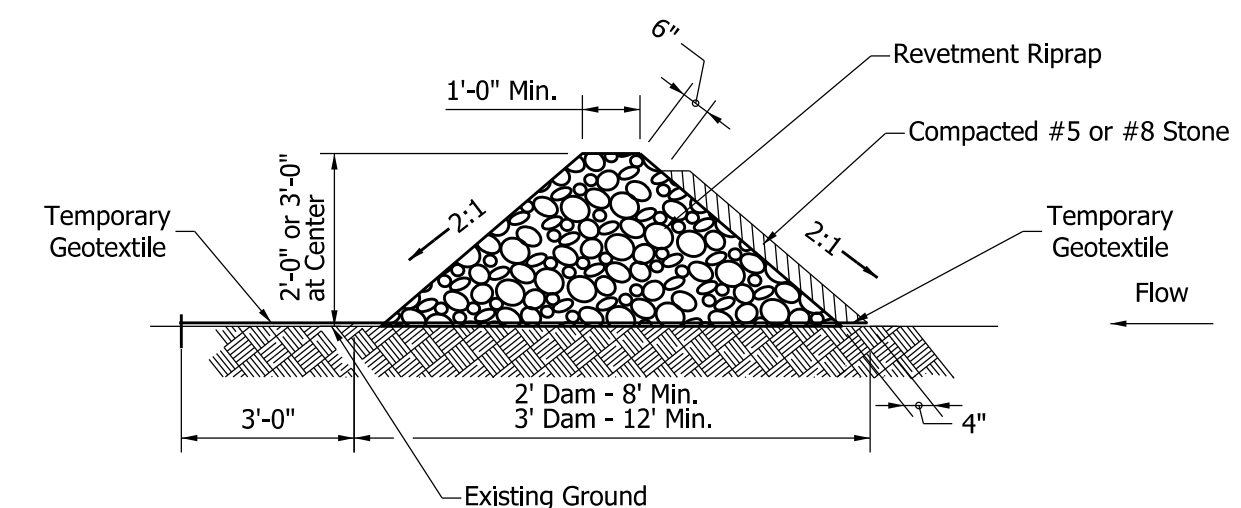
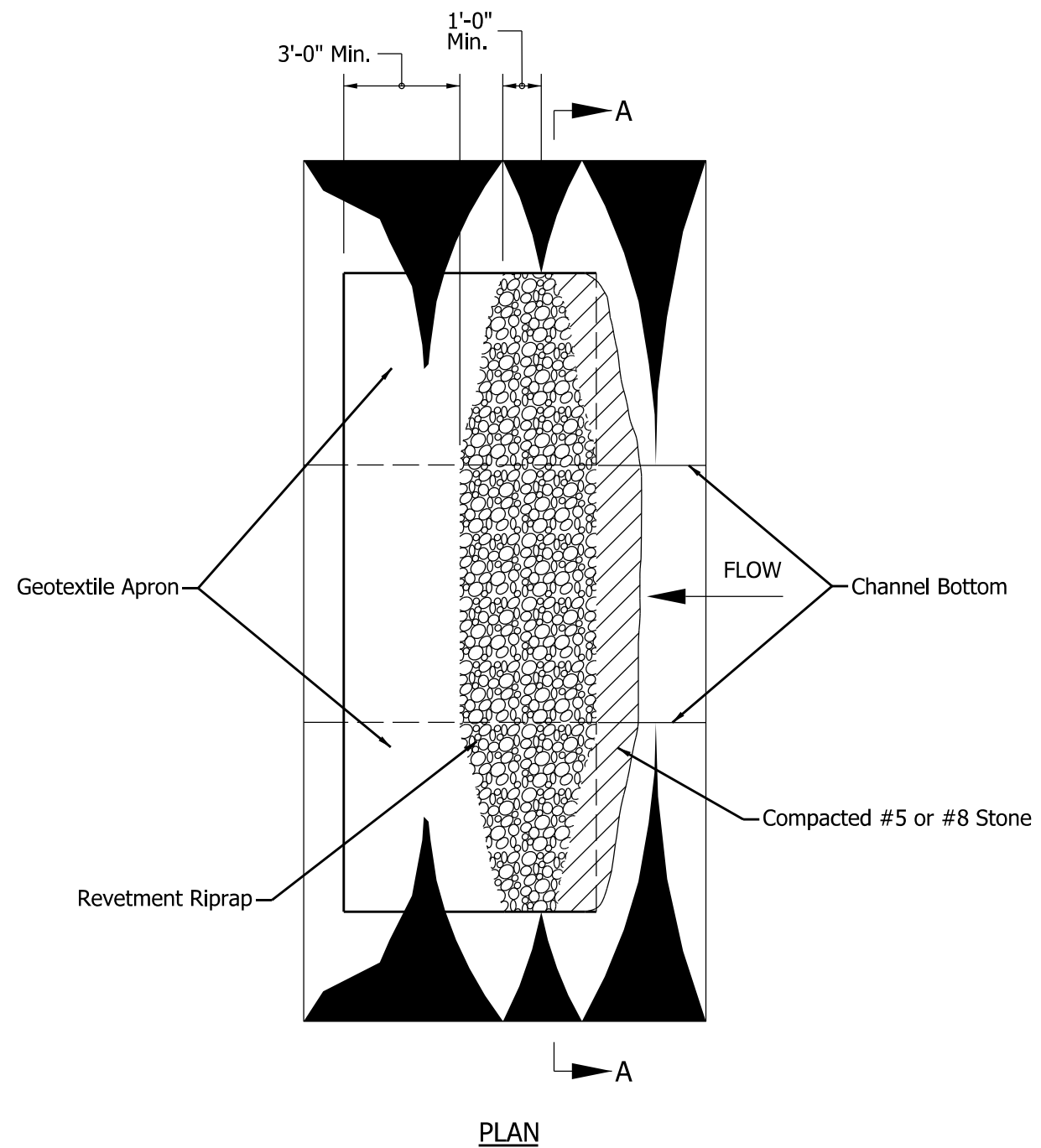
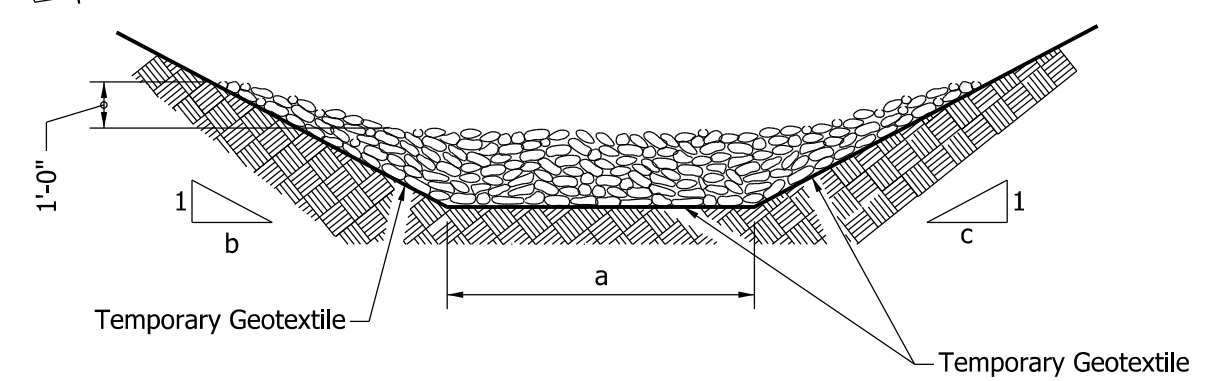
**METHOD FOR DETERMINING QUANTITIES**  
**WITHIN STRUCTURE LIMITS**

|                                      |  |
|--------------------------------------|--|
| INDIANA DEPARTMENT OF TRANSPORTATION |  |
| ROAD & BRIDGE                        |  |
| CONTRACT LIMITS                      |  |
| SEPTEMBER 2000                       |  |
| STANDARD DRAWING NO. E 105-RBCL-01   |  |
|                                      | /s/ Anthony L. Uremovich 9-01-00<br>DESIGN STANDARDS ENGINEER DATE |
|                                      | /s/ Firooz Zandi 9-01-00<br>CHIEF HIGHWAY ENGINEER DATE            |
| DESIGN STANDARDS ENGINEER            |  |

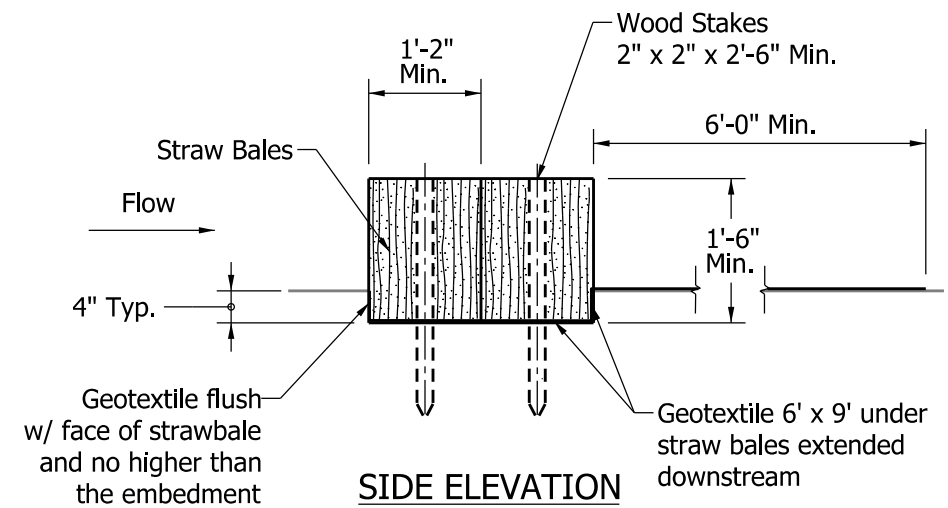


**NOTES:**

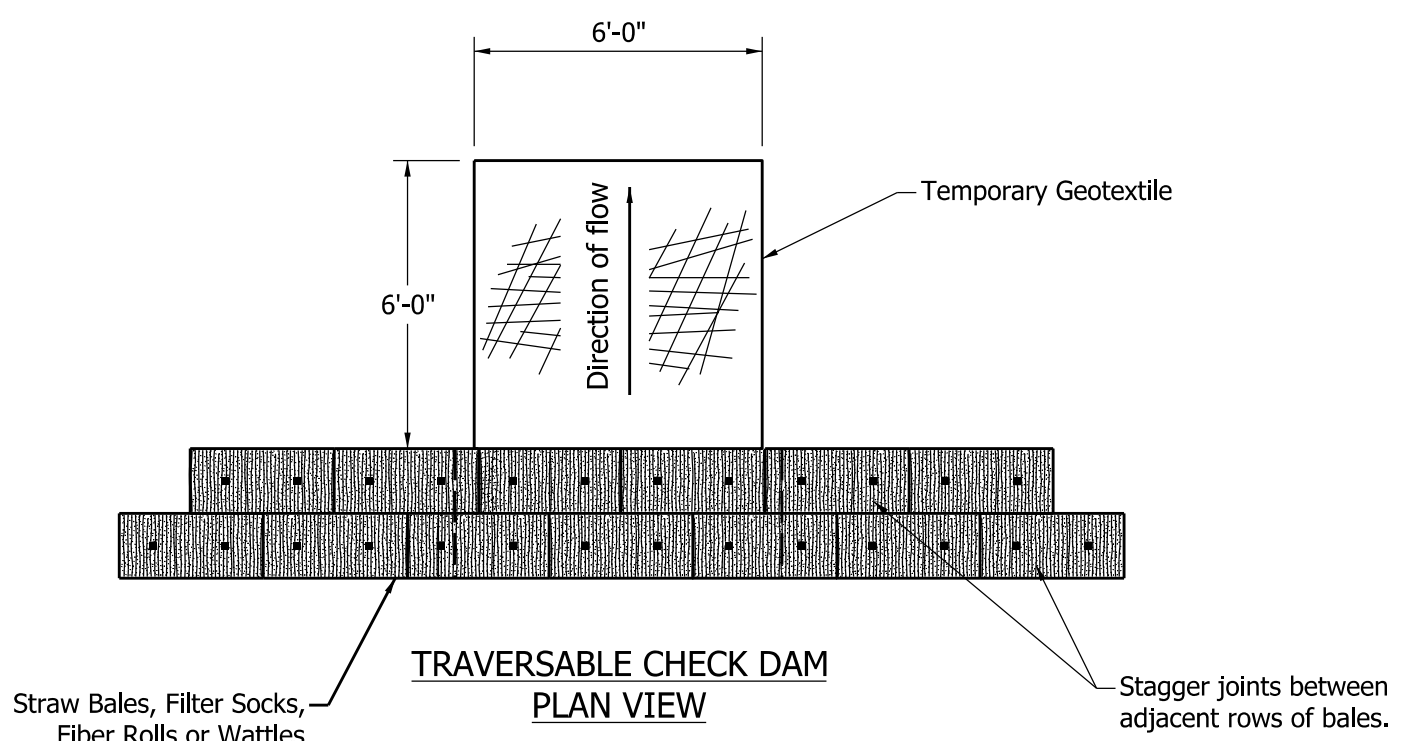
① Riprap ditch check dams shall be spaced such that the top of the downstream check dam is at the same elevation as the toe of the adjacent upstream check dam.



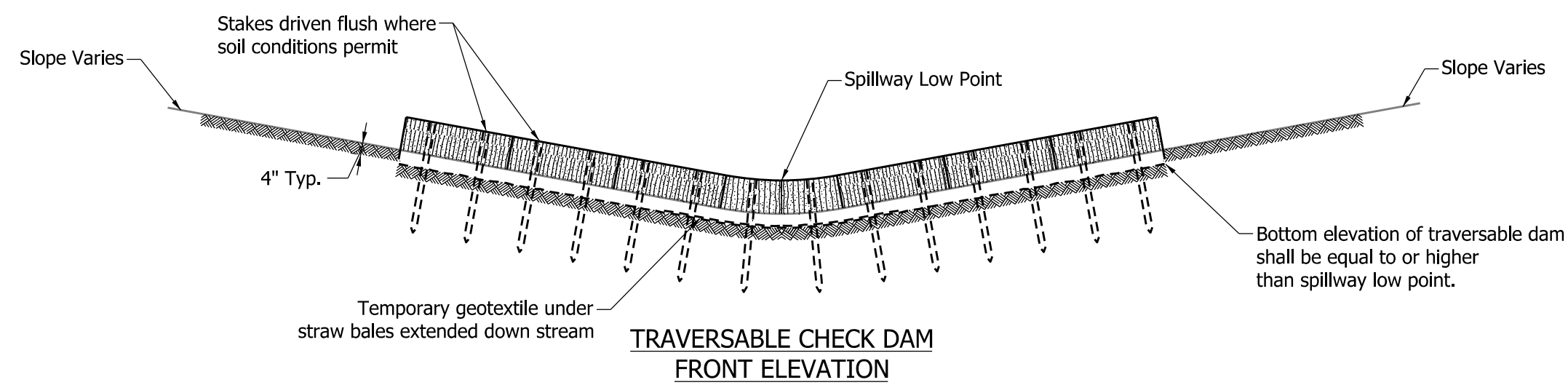
|  |  |
|--|--|
| INDIANA DEPARTMENT OF TRANSPORTATION   |  |
| TEMPORARY CHECK DAM<br>REVTMENT RIPRAP |  |
| SEPTEMBER 2012                         |  |
| STANDARD DRAWING NO.                   | E 205-TECD-01                            |
|  | /s/ <i>Richard L. VanCleave</i> 09/04/12 |
|  | SUPERVISOR, ROADWAY STANDARDS DATE       |
|  | /s/ <i>Mark A. Miller</i> 09/04/12       |
|  | CHIEF ENGINEER DATE                      |



**SIDE ELEVATION  
STRAW BALE INSTALLATION**



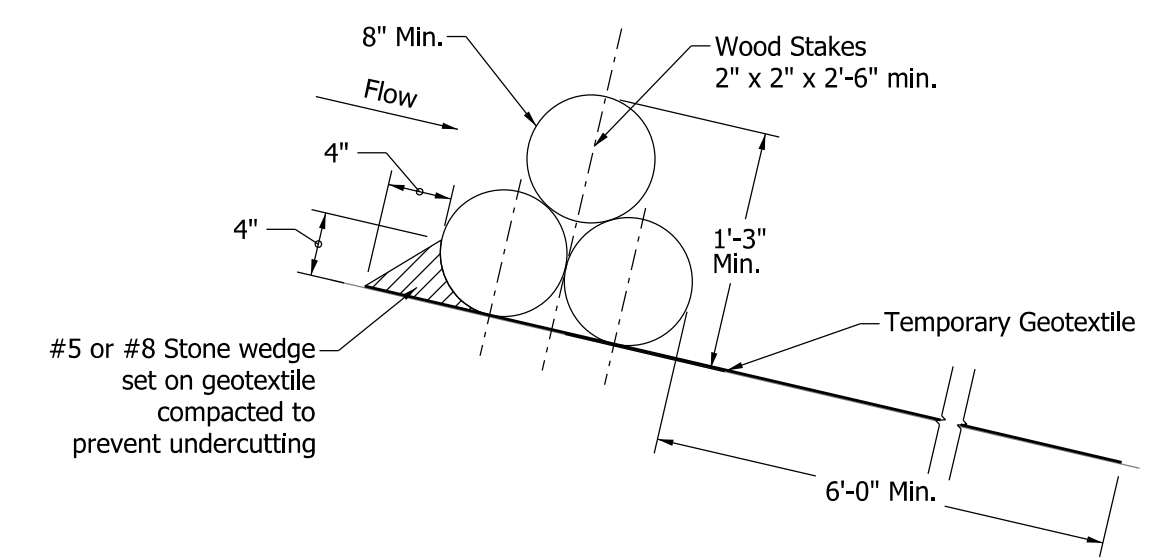
**TRAVERSABLE CHECK DAM  
PLAN VIEW**



**TRAVERSABLE CHECK DAM  
FRONT ELEVATION**

**NOTES:**

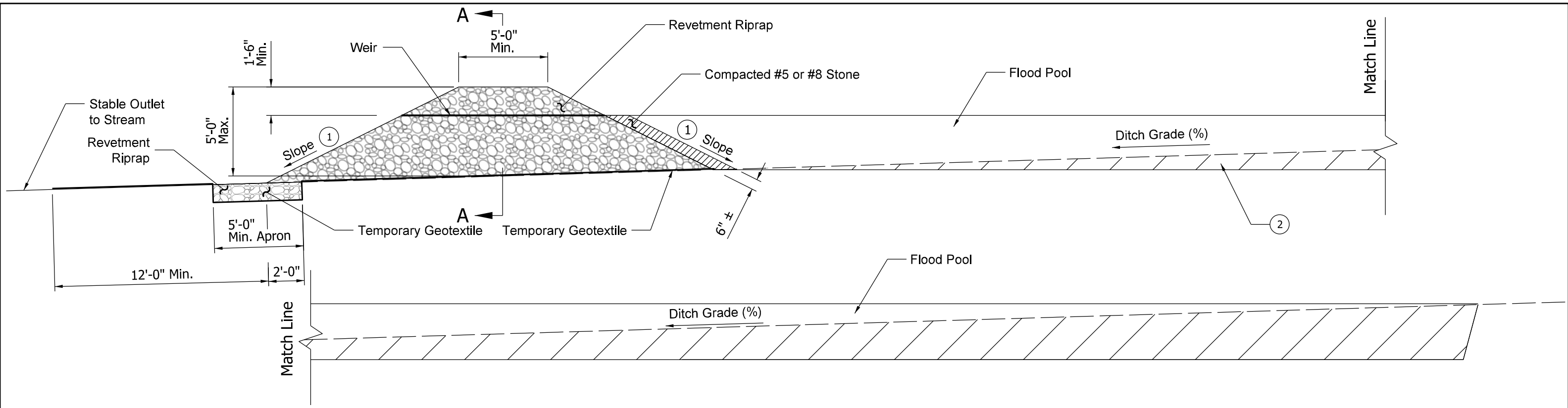
1. Ditch check dams shall be spaced such that the top of the downstream check dam is at the same elevation as the toe of the adjacent upstream check dam.



**SIDE ELEVATION  
ROLLED EROSION CONTROL PRODUCT OPTION**

Stacking Method:  
Filter Socks, Fiber Rolls or Wattle Installation

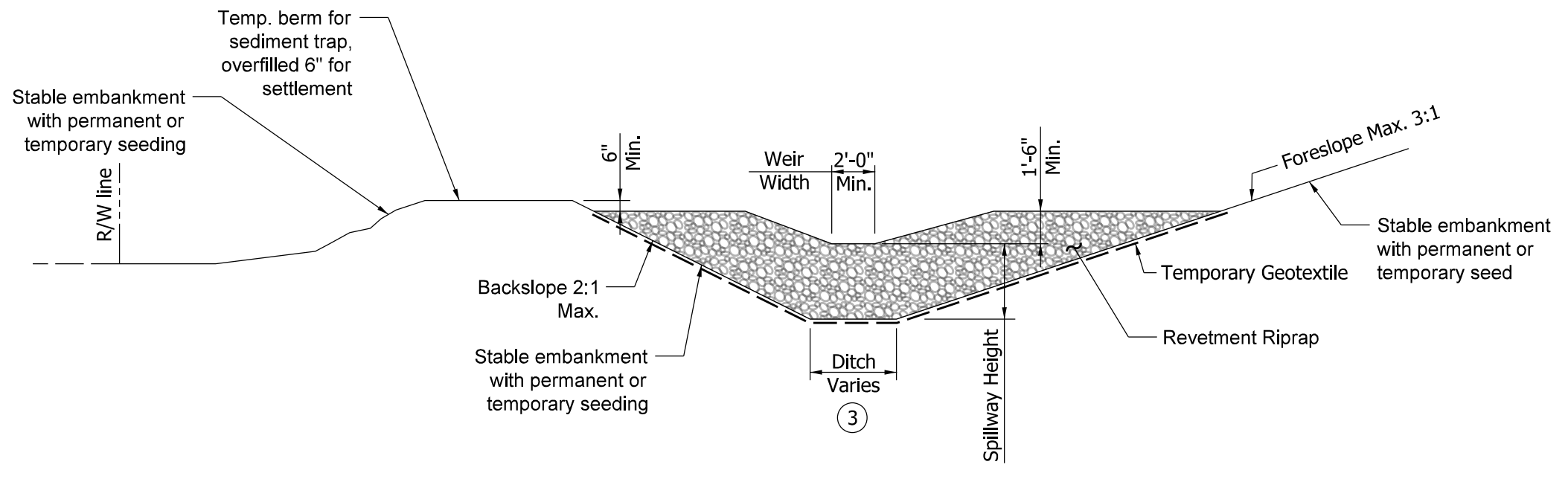
|  |  |
|--|--|
| INDIANA DEPARTMENT OF TRANSPORTATION               |  |
| TEMPORARY CHECK DAM, TRAVERSABLE<br>FOR CLEAR ZONE |  |
| SEPTEMBER 2012                                     |  |
| STANDARD DRAWING NO.                               | E-205-TECD-02  |
|  | /s/ <i>Richard L. VanCleave</i> 09/04/12<br>SUPERVISOR, ROADWAY STANDARDS DATE |
|  | /s/ <i>Mark A. Miller</i> 09/04/12<br>CHIEF ENGINEER DATE                      |



ELEVATION VIEW

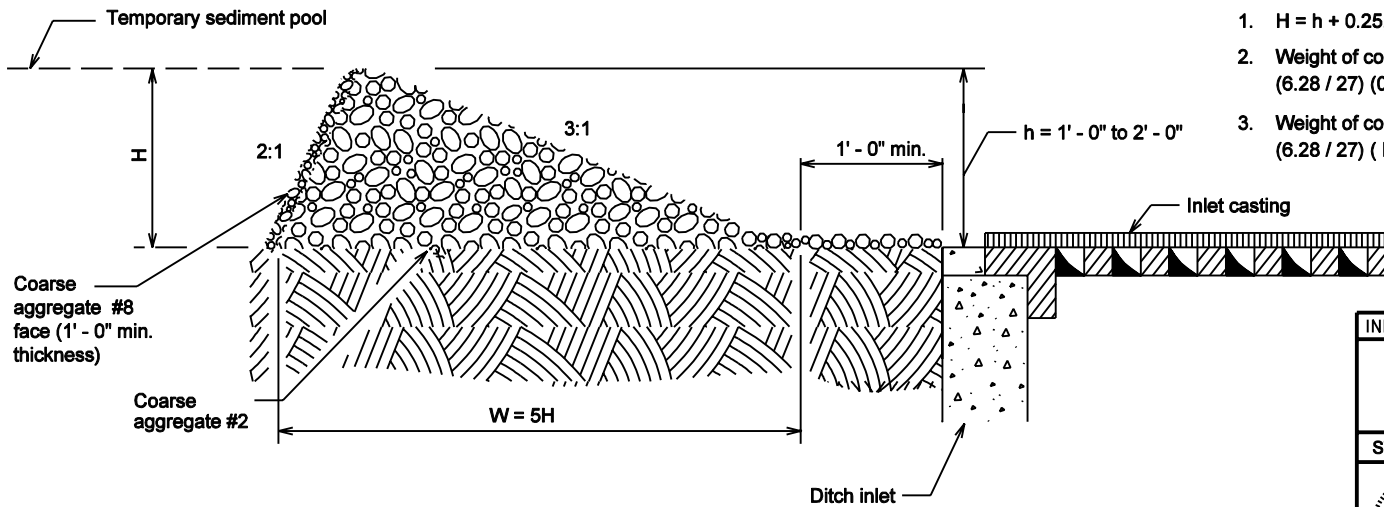
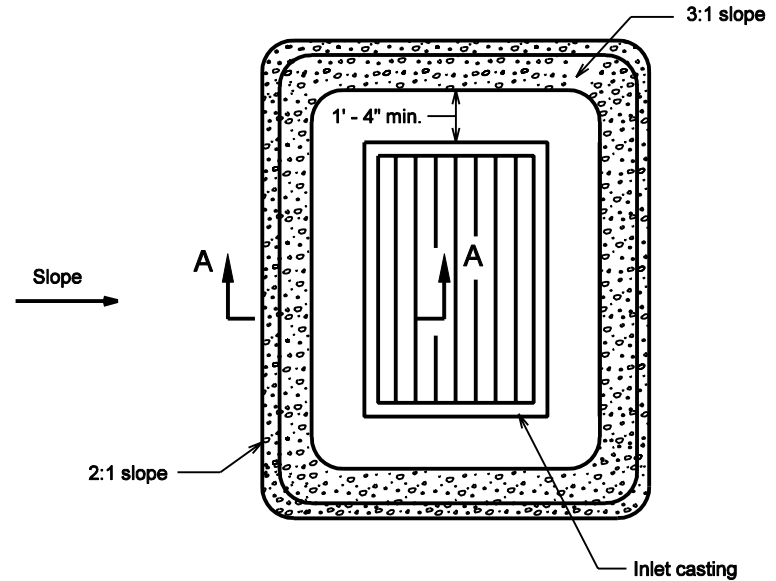
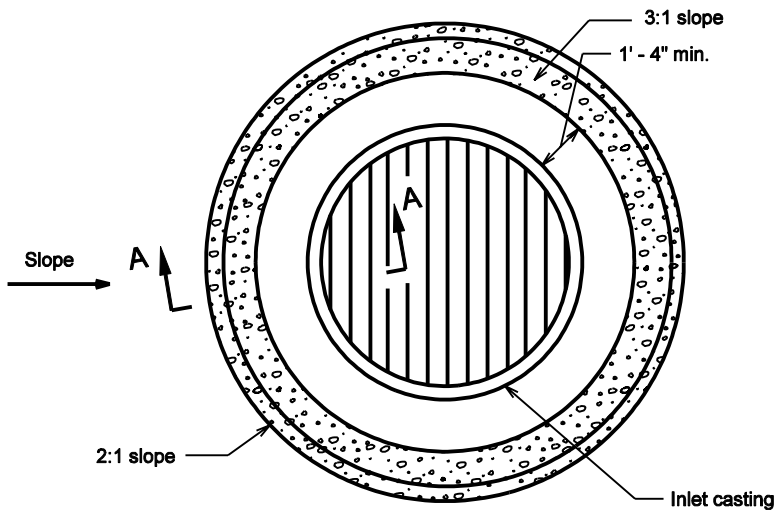
NOTES:

- ① Slope should be 3:1 maximum on the near side with respect to the direction of traffic while the far side slope may be 2:1 maximum.
- ② This area may be excavated below planned ditch grade to achieve sediment trap capacity. It shall not be excavated to below the bottom elevation of sediment trap riprap. However, over-excavation does not count toward trap capacity of 2-year 24-hour storm event.
- ③ Spillway width equals ditch bottom width, min. 2 ft.



SECTION A-A

|   |   |
|---|---|
| <b>INDIANA DEPARTMENT OF TRANSPORTATION</b> |   |
| <b>TEMPORARY SEDIMENT TRAP</b>              |   |
| <b>SEPTEMBER 2012</b>                       |   |
| <b>STANDARD DRAWING NO. E 205-TECD-03</b>   |   |
|   | <i>/s/ Richard L. VanCleave</i> 09/04/12<br>SUPERVISOR, ROADWAY STANDARDS      DATE |
|   | <i>/s/ Mark A. Miller</i> 09/04/12<br>CHIEF ENGINEER      DATE                      |



**SECTION A-A**

**GENERAL NOTES**

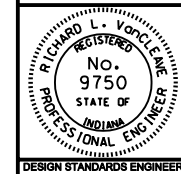
1.  $H = h + 0.25$ , ft
2. Weight of coarse aggregate #2, Tons:  
 $(6.28 / 27) (0.67^2 + 2.5H) (1 + 3H + 1/2 \text{ inlet width}) (0.6)$
3. Weight of coarse aggregate #8, Tons:  
 $(6.28 / 27) (H) (1 + 4H + 1/2 \text{ inlet width}) (0.6)$

INDIANA DEPARTMENT OF TRANSPORTATION

**TEMPORARY DITCH INLET PROTECTION, GRAVEL RING**

MARCH 2002

STANDARD DRAWING NO. E 205-TECI-01



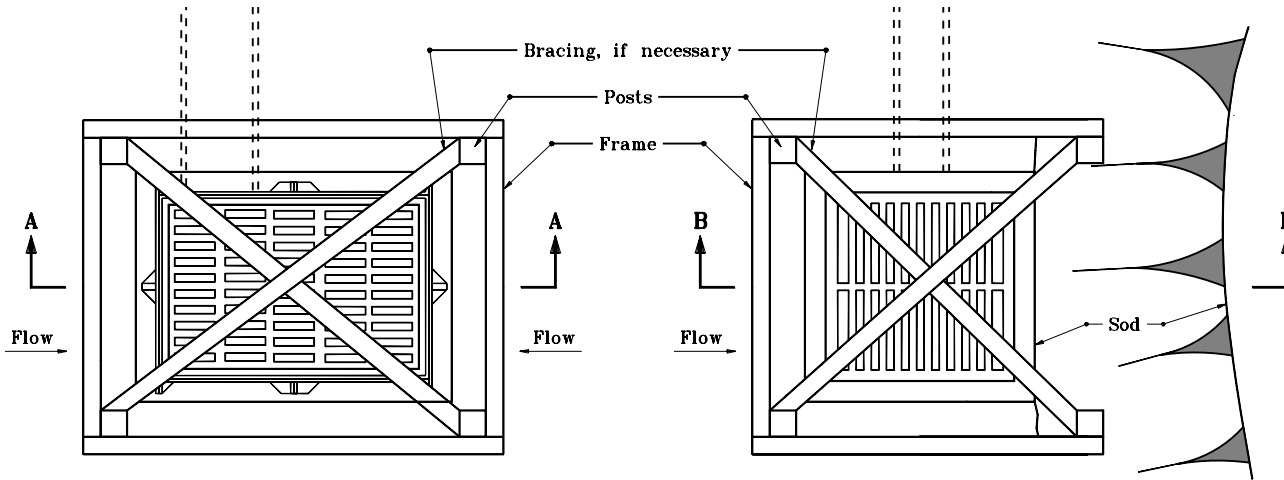
/s/ Richard L. VanCleave 3-01-02  
 DESIGN STANDARDS ENGINEER DATE

/s/ Richard K. Smutzer 3-01-02  
 CHIEF HIGHWAY ENGINEER DATE

DESIGN STANDARDS ENGINEER

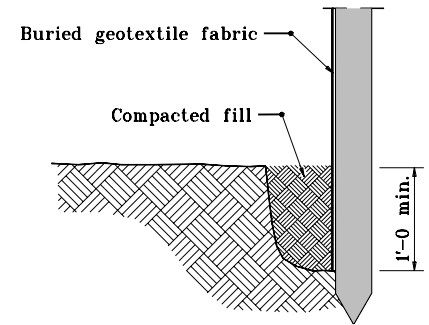
**NOTES:**

1. The frame shall be wrapped with one continuous piece of geotextile fabric, and a 2'-0" overlap shall be provided.

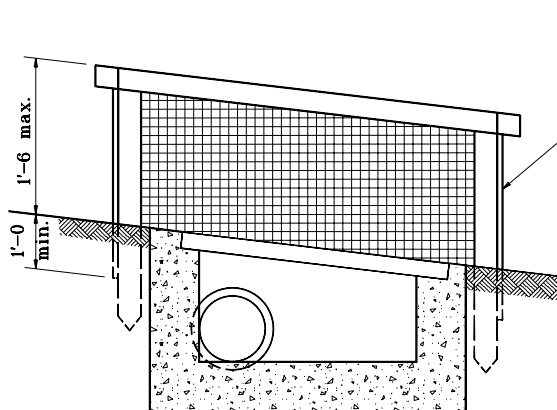


**PLAN VIEW**

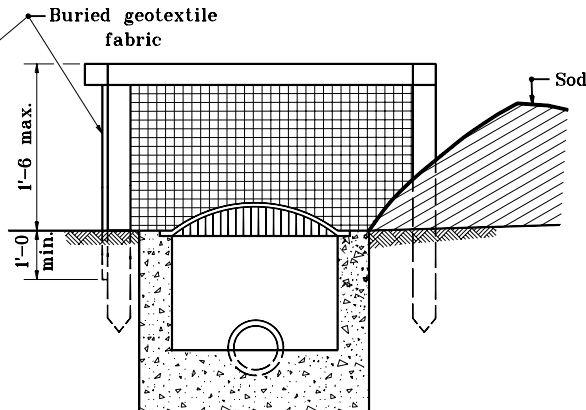
**PLAN VIEW**



**TRENCH DETAIL**

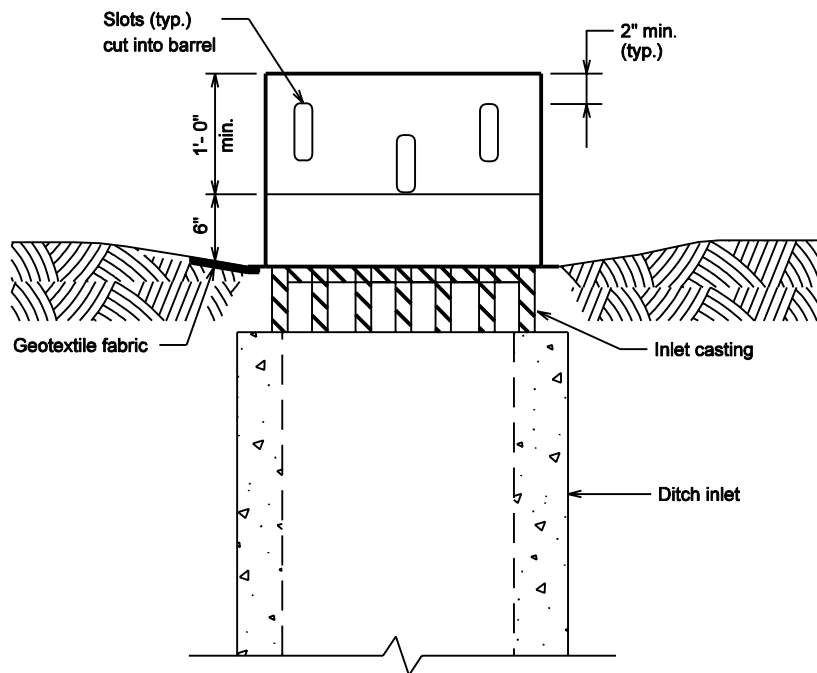
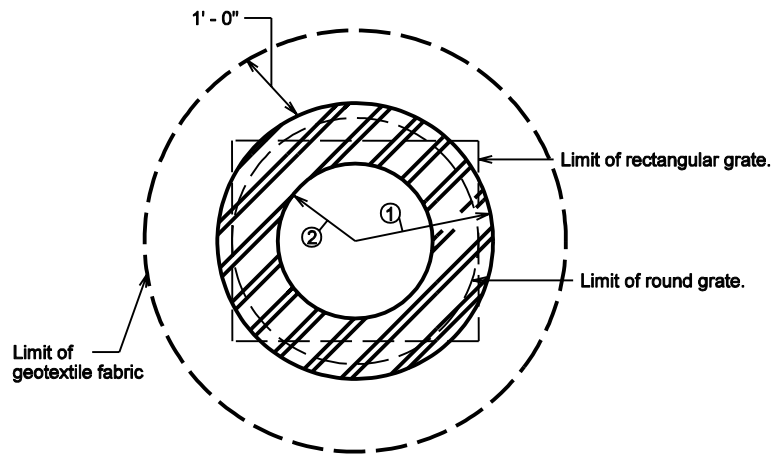


**SECTION A-A**



**SECTION B-B**

|   |  |
|---|--|
| INDIANA DEPARTMENT OF TRANSPORTATION                        |  |
| <b>TEMPORARY DITCH INLET<br/>PROTECTION, GEOTEXTILE BOX</b> |  |
| MARCH 2002  |  |
| <b>STANDARD DRAWING NO. E 205-TECI-02</b>                   |  |
|   | /s/ Richard L. VanCleave 3-01-02<br>DESIGN STANDARDS ENGINEER DATE |
|   | /s/ Richard Smutzer 3-01-02<br>CHIEF HIGHWAY ENGINEER DATE         |



**GENERAL NOTES**

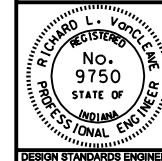
- ① Radius shall be equal to or greater than that of a round casting grate, or equal to, or greater than half of the longer length of a rectangular grate.
- ② Distance shall be greater than half of the radius of a round grate, or greater than one-quarter of the shorter length of a rectangular grate.
- 3 Slots shall be 5" min. height by 1" min. width.

INDIANA DEPARTMENT OF TRANSPORTATION

**TEMPORARY DITCH INLET PROTECTION SLOTTED BARREL**

MARCH 2002

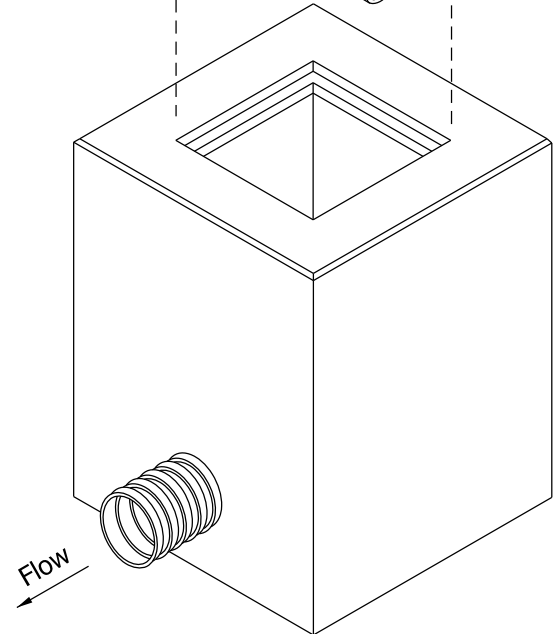
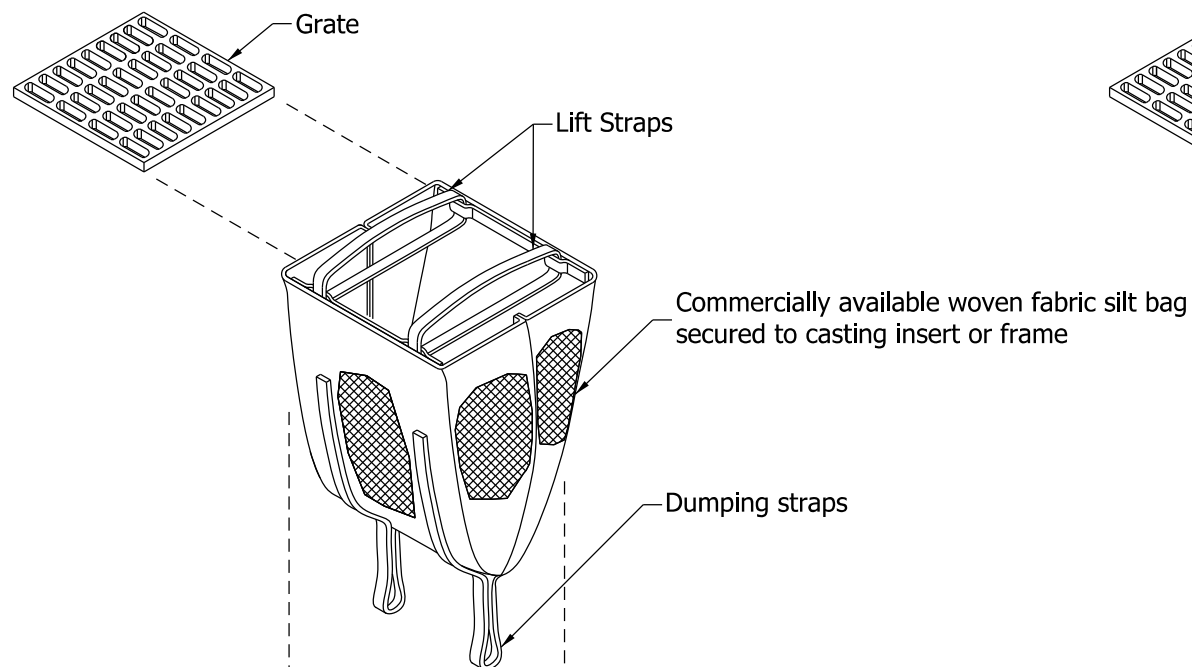
STANDARD DRAWING NO. E 205-TECI-03



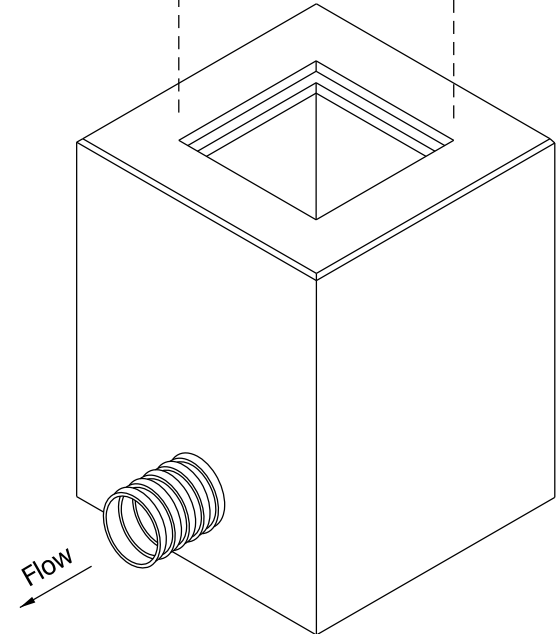
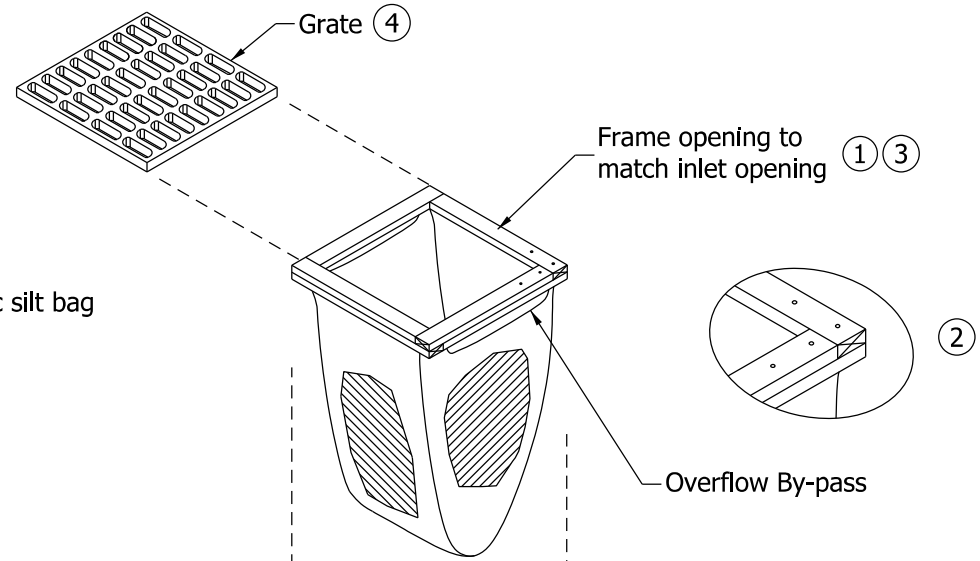
/s/ Richard L. VanCleave 3-01-02  
DESIGN STANDARDS ENGINEER DATE

/s/ Richard K. Smutzer 3-01-02  
CHIEF HIGHWAY ENGINEER DATE

DESIGN STANDARDS ENGINEER



MANUFACTURED



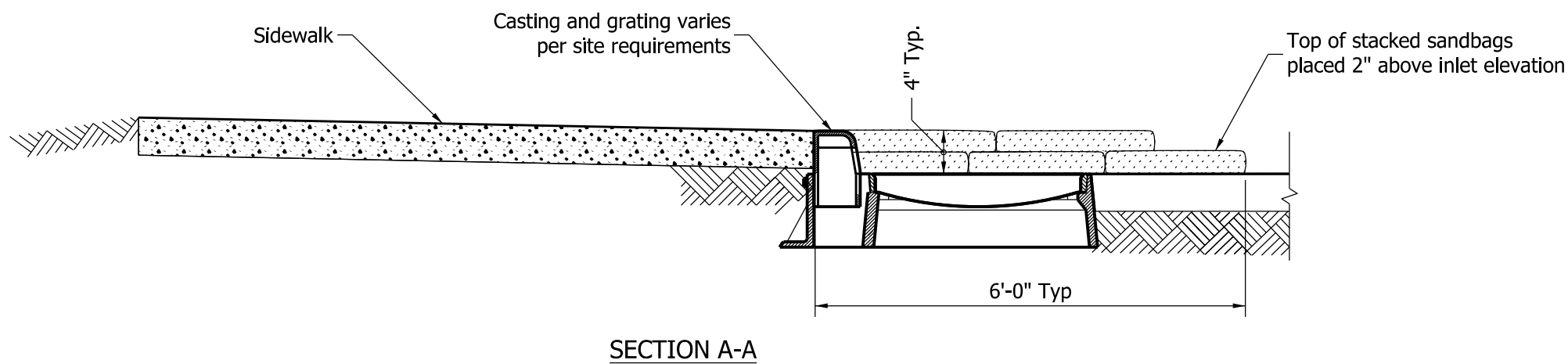
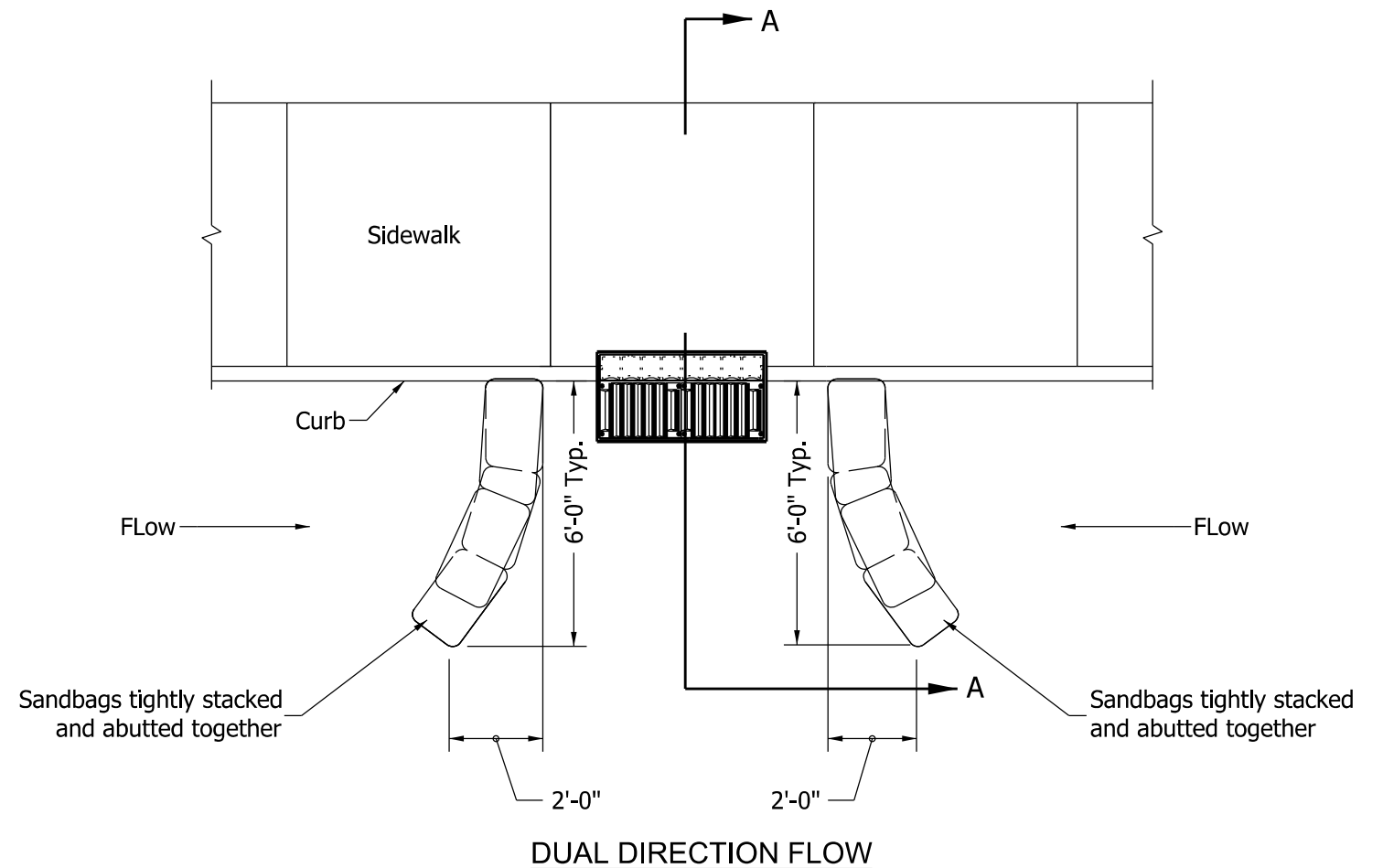
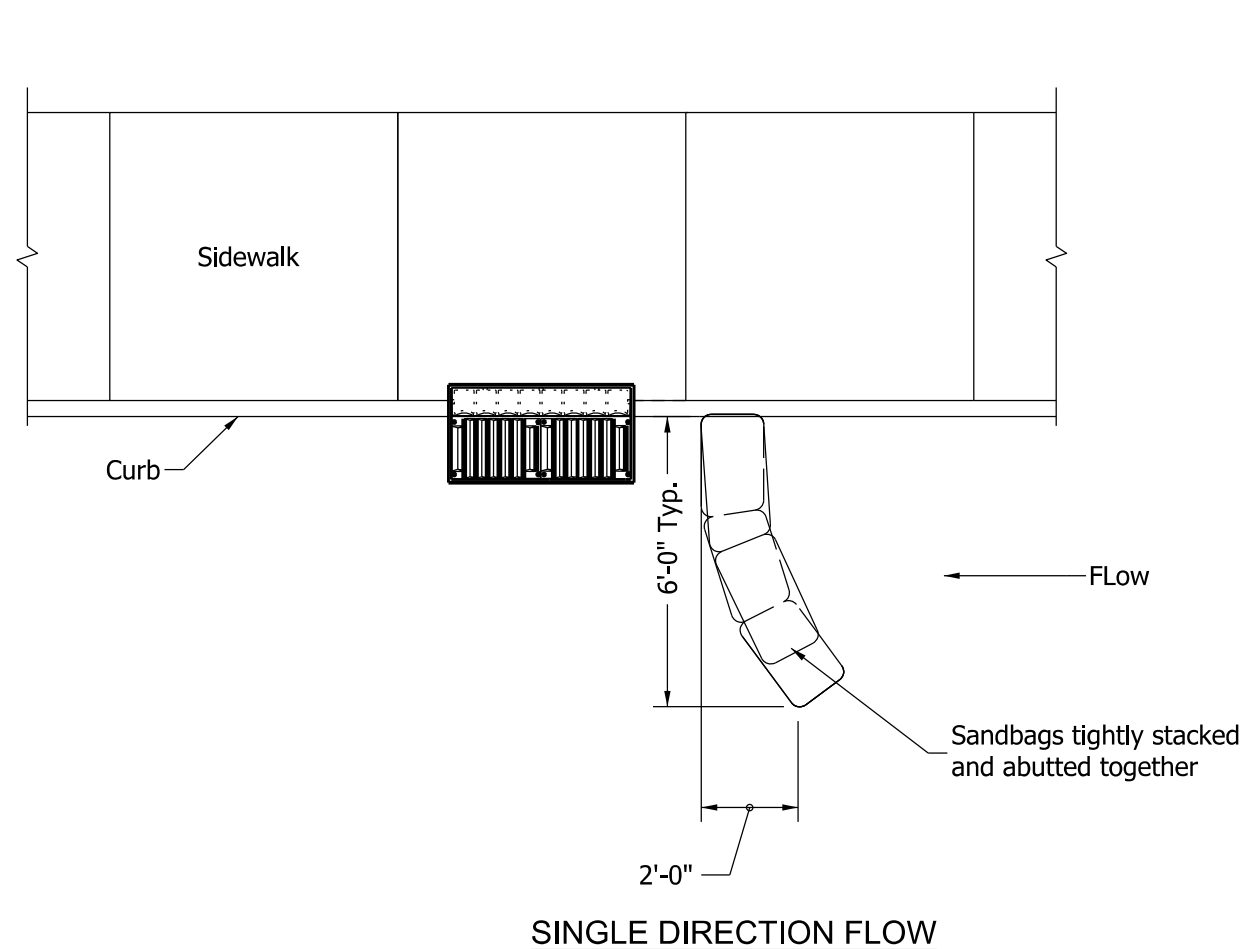
BUILT IN FIELD

**NOTES:**

- ① Frame opening sized to match inlet opening.
- ② Geotextile bag shall be fabricated from piece of geotextile 2 times the opening size pushed through opening to form weephole. Secured by nails.
- ③ Frame with bag to be placed over inlet opening.
- ④ Bag frame shall be secured in place by weight of inlet grate. Grate may be rotated 45 degrees to the bag's frame.

|   |   |                                 |          |                               |      |                           |          |                |      |
|---|---|---------------------------------|----------|-------------------------------|------|---------------------------|----------|----------------|------|
| INDIANA DEPARTMENT OF TRANSPORTATION              |   |                                 |          |                               |      |                           |          |                |      |
| TEMPORARY EROSION CONTROL INLET<br>BAG PROTECTION |   |                                 |          |                               |      |                           |          |                |      |
| SEPTEMBER 2012                                    |   |                                 |          |                               |      |                           |          |                |      |
| STANDARD DRAWING NO.                              | E 205-TECI-04   |                                 |          |                               |      |                           |          |                |      |
|   | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%; border-bottom: 1px solid black;">/s/ <i>Richard L. VanCleave</i></td> <td style="width: 30%; border-bottom: 1px solid black;">09/04/12</td> </tr> <tr> <td style="font-size: small;">SUPERVISOR, ROADWAY STANDARDS</td> <td style="font-size: small;">DATE</td> </tr> <tr> <td style="border-bottom: 1px solid black;">/s/ <i>Mark A. Miller</i></td> <td style="border-bottom: 1px solid black;">09/04/12</td> </tr> <tr> <td style="font-size: small;">CHIEF ENGINEER</td> <td style="font-size: small;">DATE</td> </tr> </table> | /s/ <i>Richard L. VanCleave</i> | 09/04/12 | SUPERVISOR, ROADWAY STANDARDS | DATE | /s/ <i>Mark A. Miller</i> | 09/04/12 | CHIEF ENGINEER | DATE |
| /s/ <i>Richard L. VanCleave</i>                   | 09/04/12  |                                 |          |                               |      |                           |          |                |      |
| SUPERVISOR, ROADWAY STANDARDS                     | DATE  |                                 |          |                               |      |                           |          |                |      |
| /s/ <i>Mark A. Miller</i>                         | 09/04/12  |                                 |          |                               |      |                           |          |                |      |
| CHIEF ENGINEER                                    | DATE  |                                 |          |                               |      |                           |          |                |      |

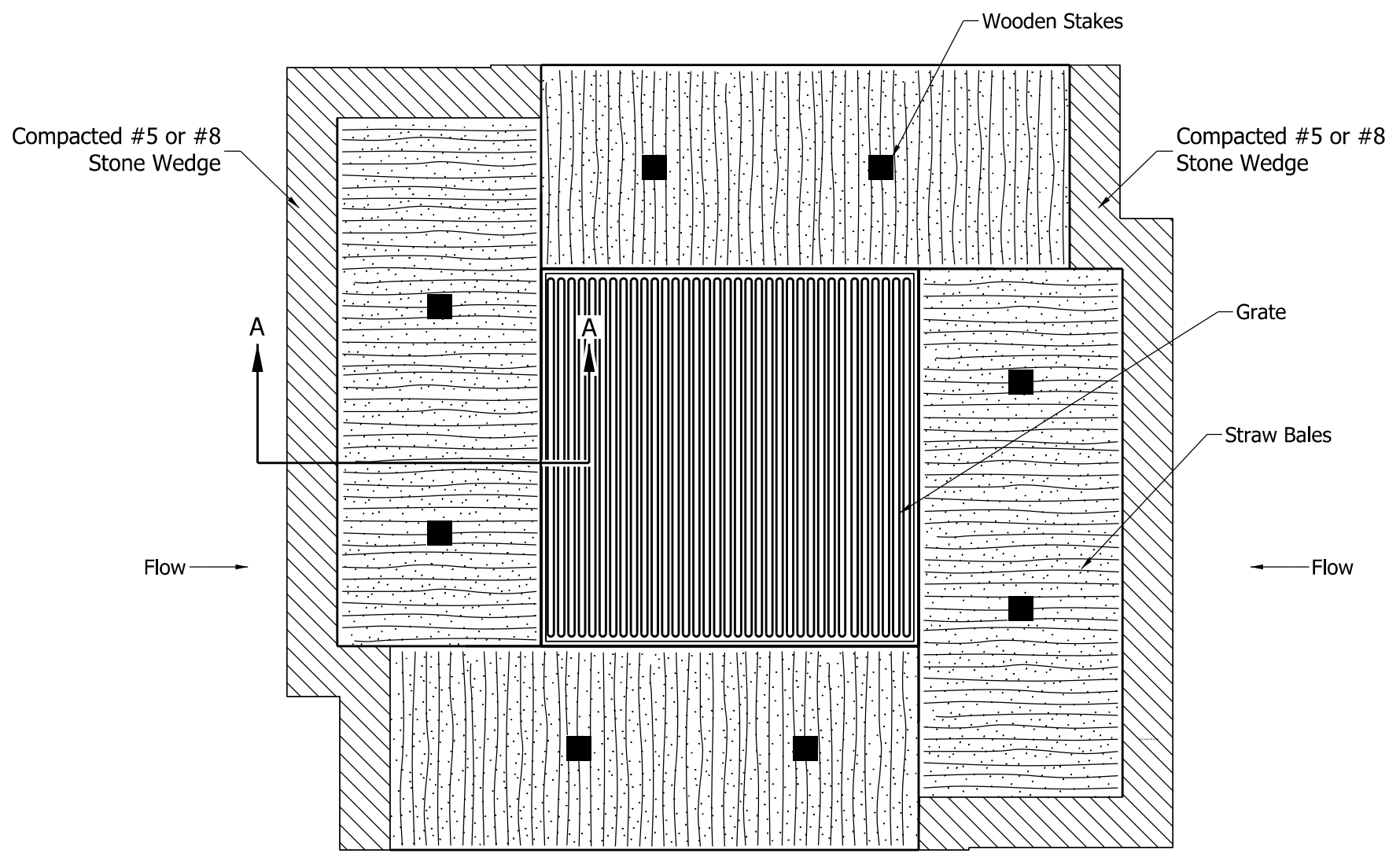




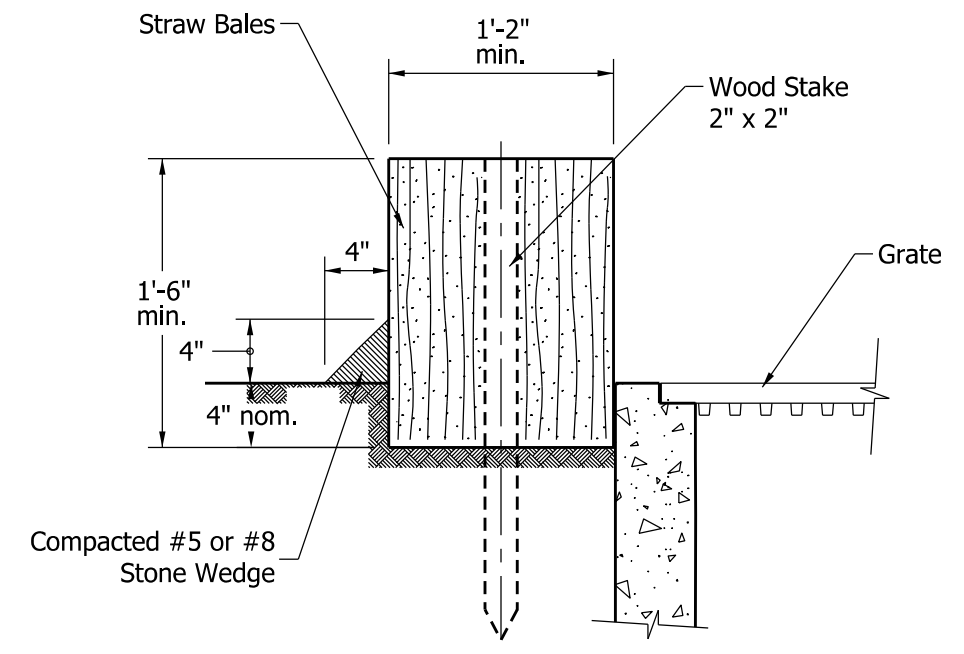
|  |   |
|--|---|
| INDIANA DEPARTMENT OF TRANSPORTATION                             |   |
| TEMPORARY EROSION CONTROL INLET<br>SANDBAG CURB INLET PROTECTION |   |
| SEPTEMBER 2012   |   |
| STANDARD DRAWING NO.   | E 205-TECI-05   |
|  | /s/ <i>Richard L. VanCleave</i> 09/04/12<br>SUPERVISOR, ROADWAY STANDARDS      DATE |
|  | /s/ <i>Mark A. Miller</i> 09/04/12<br>CHIEF ENGINEER      DATE                      |

**NOTE:**

① For use with inlets of up to 3' x 3'.

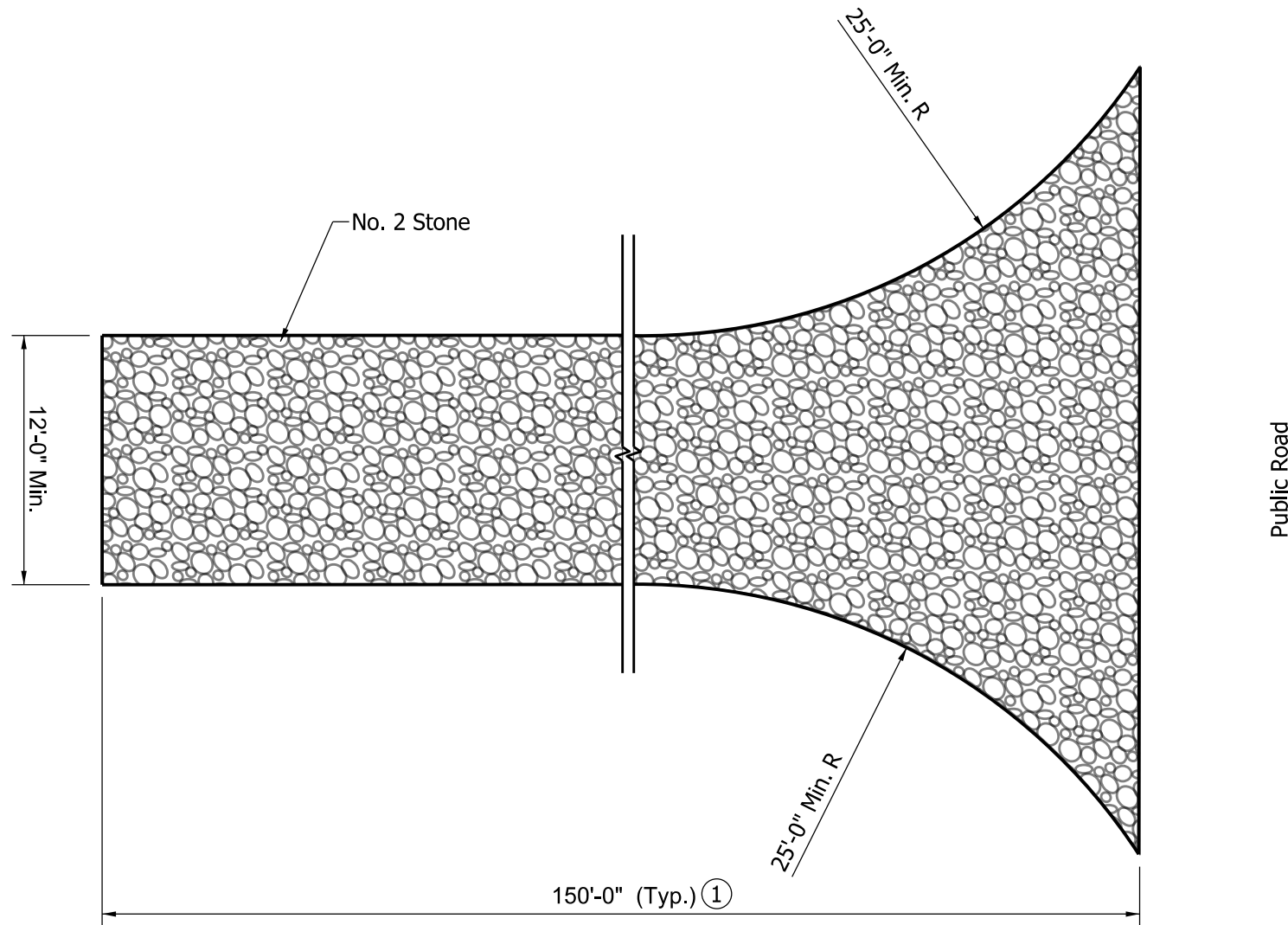


PLAN VIEW ①

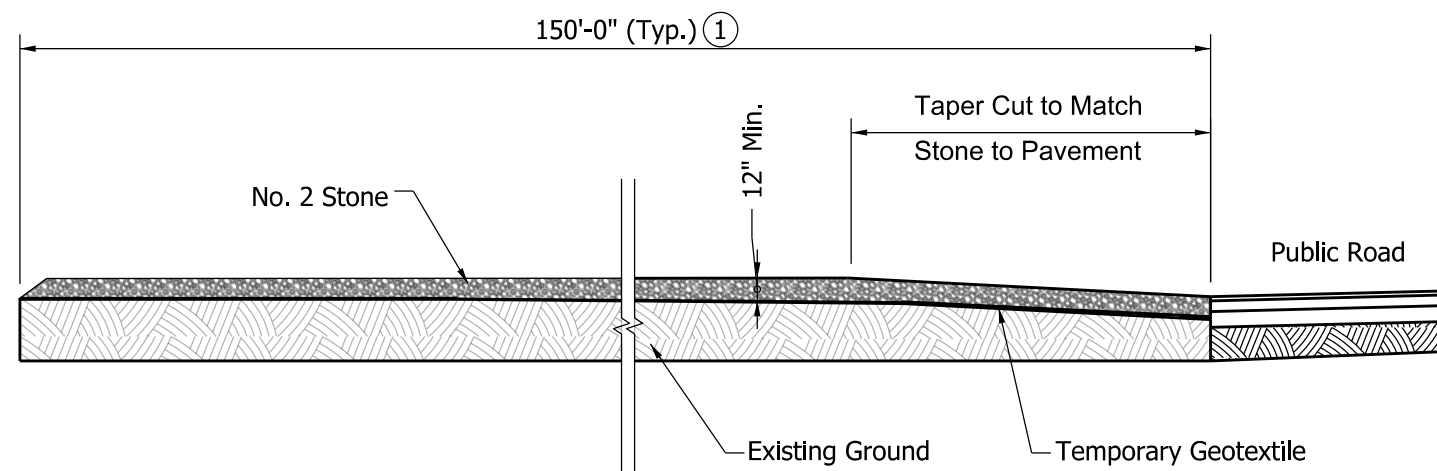


SECTION A-A

|  |   |
|--|---|
| INDIANA DEPARTMENT OF TRANSPORTATION                           |   |
| TEMPORARY EROSION CONTROL INLET<br>STRAW BALE INLET PROTECTION |   |
| SEPTEMBER 2012   |   |
| STANDARD DRAWING NO.   | E 205-TECI-06   |
|  | /s/ <i>Richard L. VanCleave</i> 09/04/12<br>SUPERVISOR, ROADWAY STANDARDS      DATE |
|  | /s/ <i>Mark A. Miller</i> 09/04/12<br>CHIEF ENGINEER      DATE                      |



**PLAN VIEW**



**PROFILE VIEW**

**NOTE:**

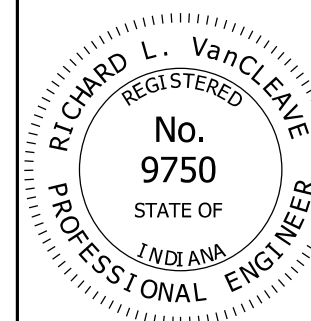
- ① May be reduced as justified by site conditions, but shall not be less than 50 ft.

INDIANA DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION CONTROL PERIMETER  
CONSTRUCTION ENTRANCE

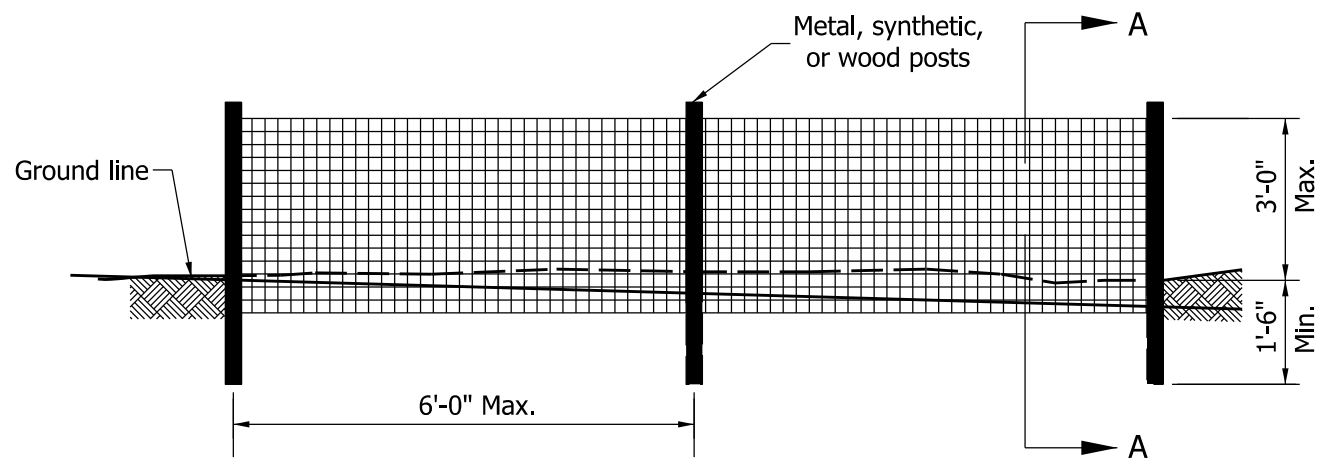
SEPTEMBER 2013

STANDARD DRAWING NO. E 205-TECP-01

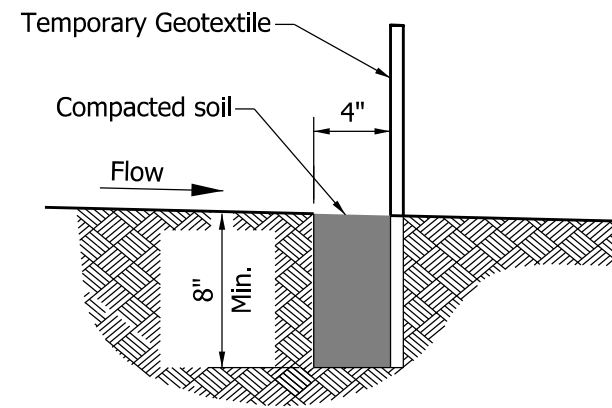


/s/ Richard L. VanCleave 06/12/13  
DESIGN STANDARDS ENGINEER DATE

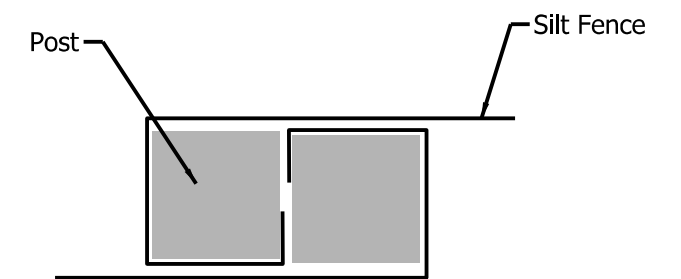
/s/ Mark A. Miller 06/13/13  
CHIEF ENGINEER DATE



SILT FENCE ELEVATION



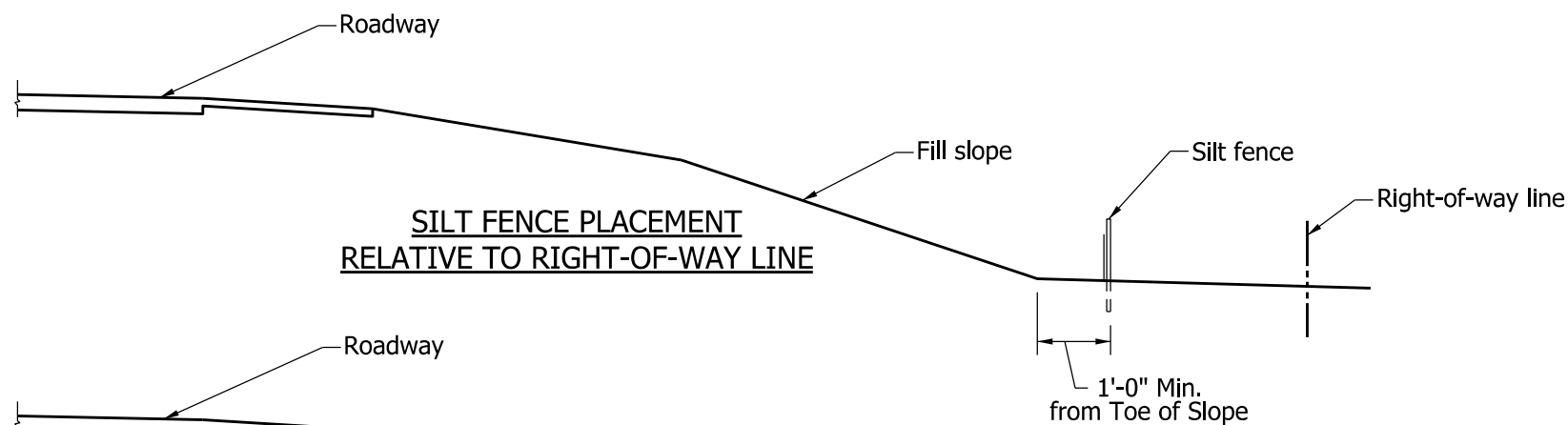
SECTION A-A



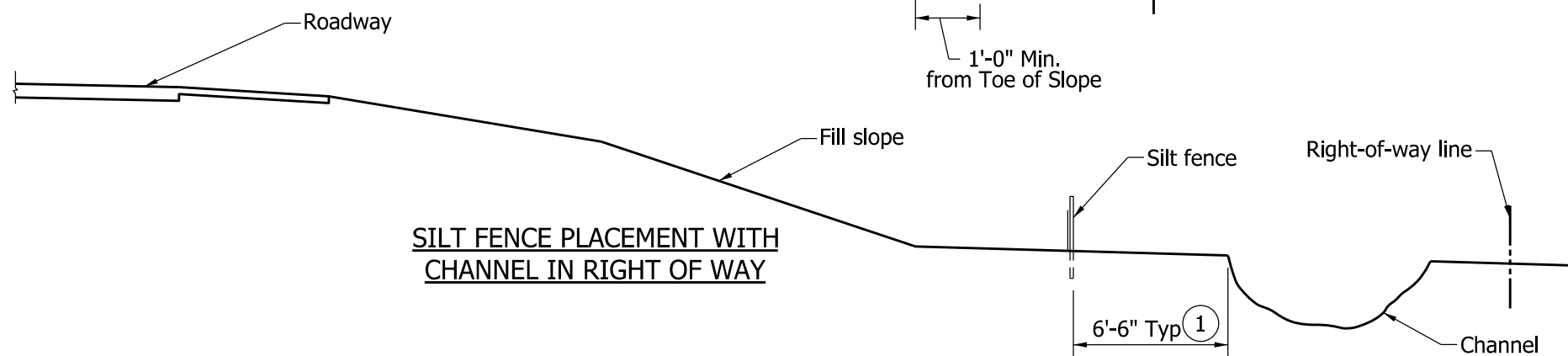
JOINT DETAIL  
PLAN VIEW

NOTES:

- ① Dimension can vary based on right of way availability. Silt fence shall be placed as close as possible to edge of construction limits.
2. Silt fence may be placed by plowing if minimum embedment of 8 in. is maintained.



SILT FENCE PLACEMENT  
RELATIVE TO RIGHT-OF-WAY LINE



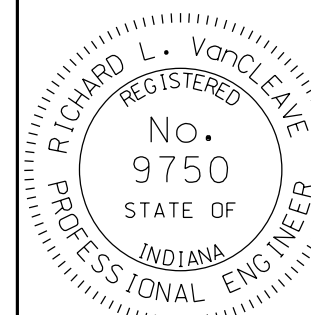
SILT FENCE PLACEMENT WITH  
CHANNEL IN RIGHT OF WAY

INDIANA DEPARTMENT OF TRANSPORTATION

TEMPORARY  
SILT FENCE

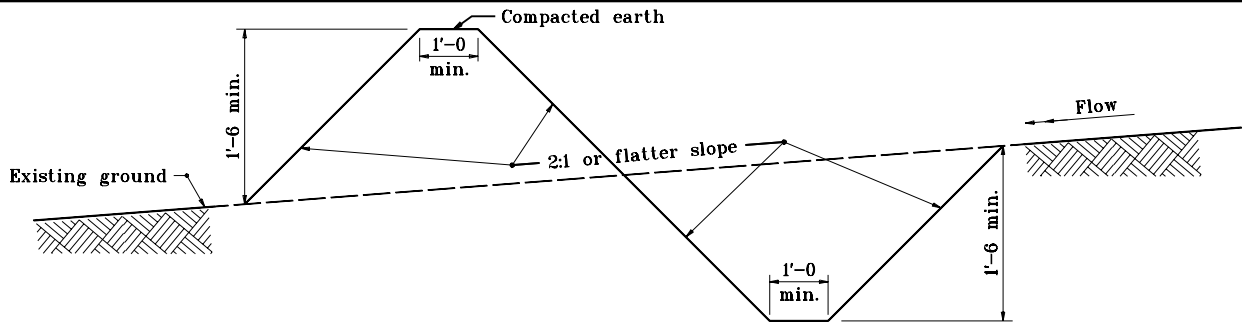
SEPTEMBER 2012

STANDARD DRAWING NO. E 205-TECP-02

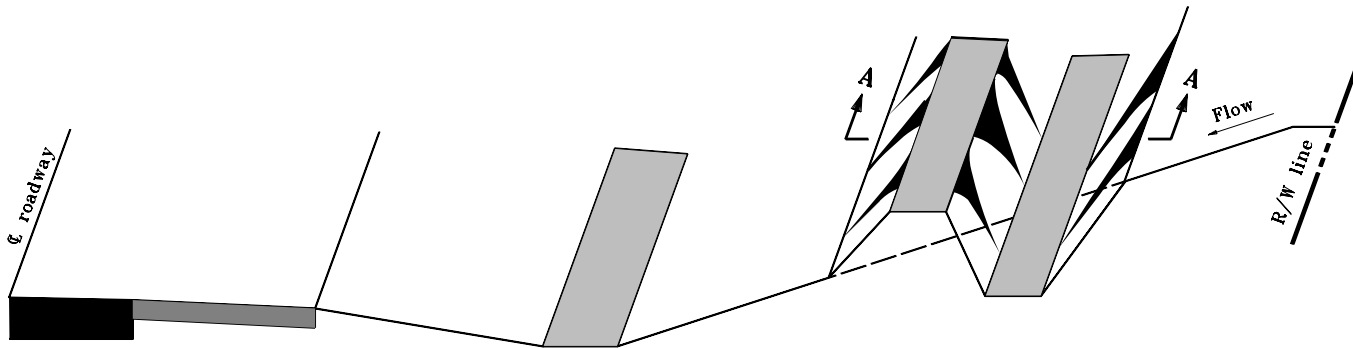


/s/ *Richard L. VanCleave* 09/04/12  
SUPERVISOR, ROADWAY STANDARDS DATE

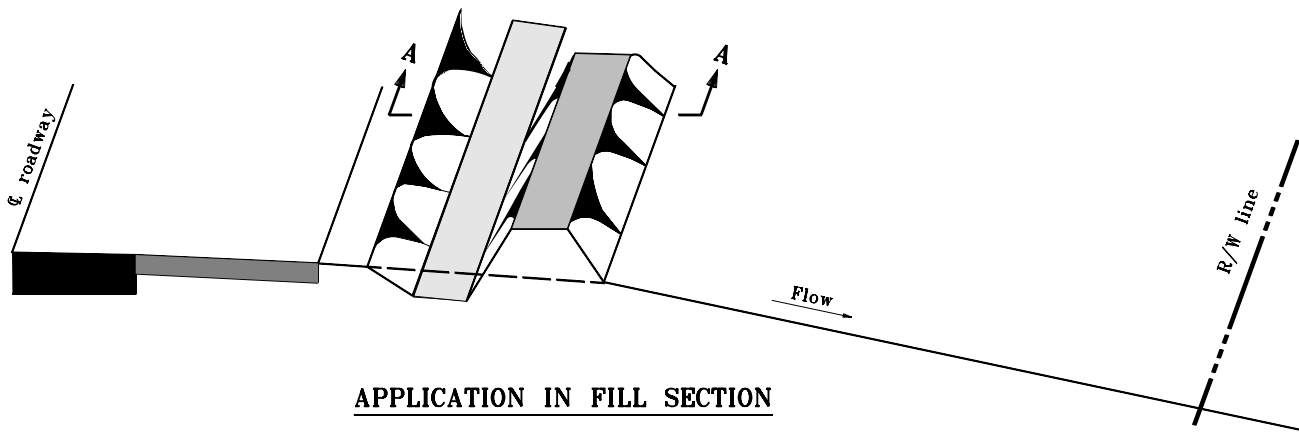
/s/ *Mark A. Miller* 09/04/12  
CHIEF ENGINEER DATE



**SECTION A-A**

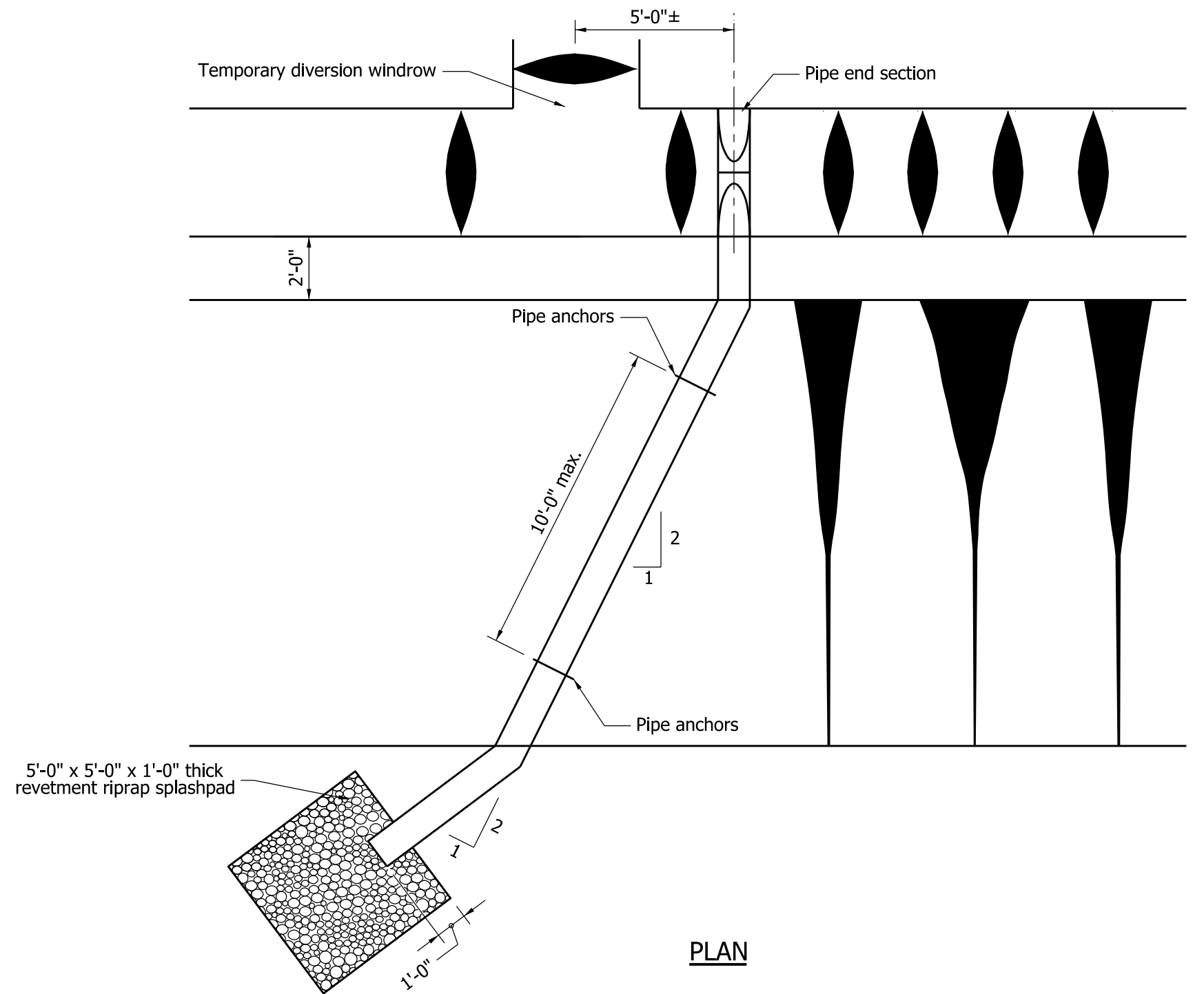


**APPLICATION IN CUT SECTION**

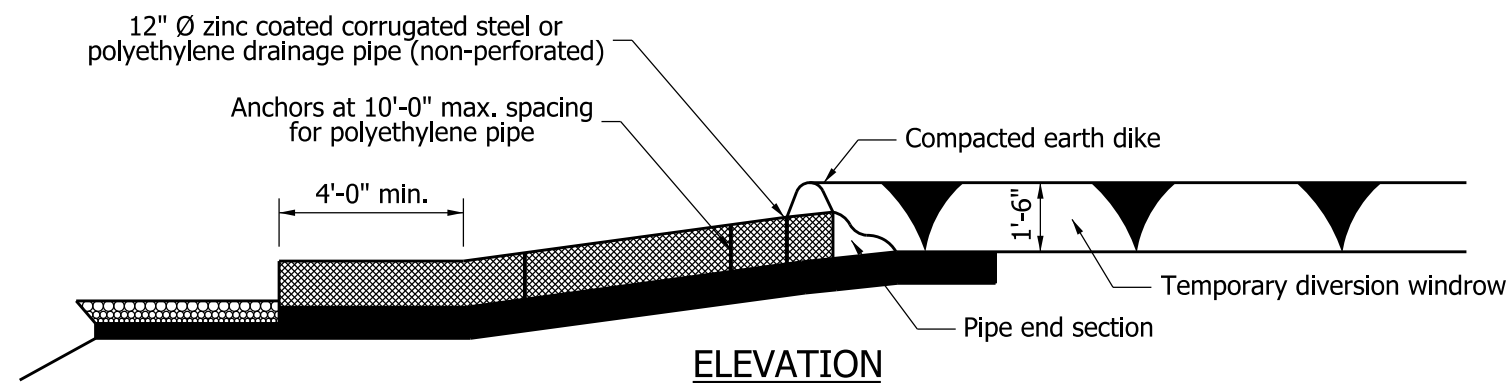


**APPLICATION IN FILL SECTION**

|   |  |
|---|--|
| INDIANA DEPARTMENT OF TRANSPORTATION      |  |
| <b>TEMPORARY INTERCEPTOR DITCH</b>        |  |
| MARCH 2002                                |  |
| <b>STANDARD DRAWING NO. E 205-TECS-01</b> |  |
|   | /s/ Richard L. VanCleave 3-01-02<br>DESIGN STANDARDS ENGINEER DATE |
|   | /s/ Richard K. Smutzer 3-01-02<br>CHIEF HIGHWAY ENGINEER DATE      |
| DESIGN STANDARDS ENGINEER                 |  |



**PLAN**



**ELEVATION**

**NOTES:**

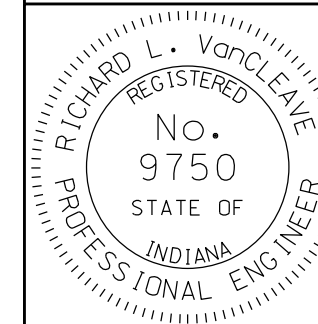
1. Length of slope drain shall be extended as required as fill slope is constructed.
2. The maximum drainage area for a 12" dia. pipe is 1 acre.
3. The required revetment riprap weight is 1.4 tons.

INDIANA DEPARTMENT OF TRANSPORTATION

TEMPORARY SLOPE DRAIN

SEPTEMBER 2010

STANDARD DRAWING NO. E 205-TECS-02



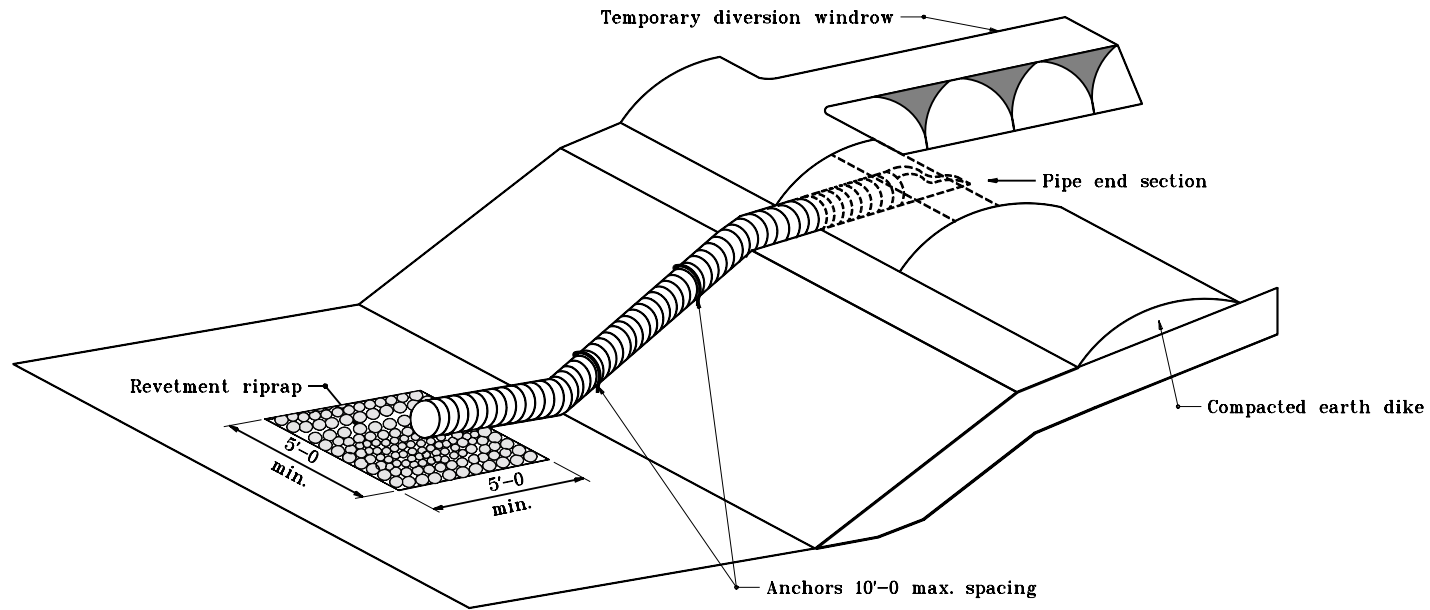
/s/ *Richard L. VanCleave* 09/01/10  
DESIGN STANDARDS ENGINEER DATE

/s/ *Mark A. Miller* 09/01/10  
CHIEF HIGHWAY ENGINEER DATE

DESIGN STANDARDS ENGINEER

**NOTES:**

1. See Standard Drawing E 205-TECS-02 for Notes.



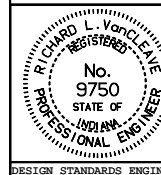
**ISOMETRIC**

INDIANA DEPARTMENT OF TRANSPORTATION

**TEMPORARY  
SLOPE DRAIN**

SEPTEMBER 2001

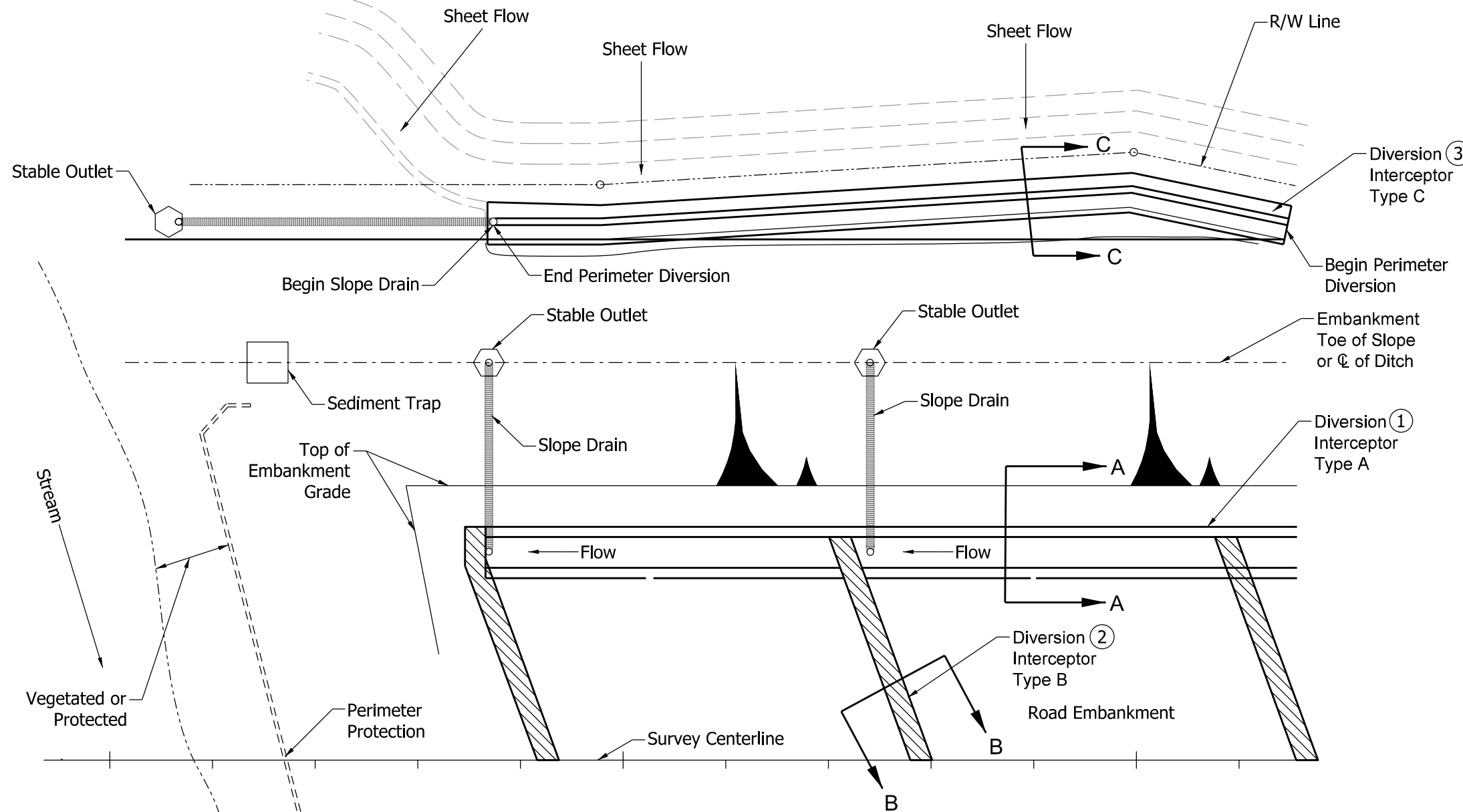
STANDARD DRAWING NO. **E 205-TECS-03**



*/s/ Richard L. VanCleave* 9-04-01  
DESIGN STANDARDS ENGINEER DATE

*/s/ Firooz Zandi* 9-04-01  
CHIEF HIGHWAY ENGINEER DATE

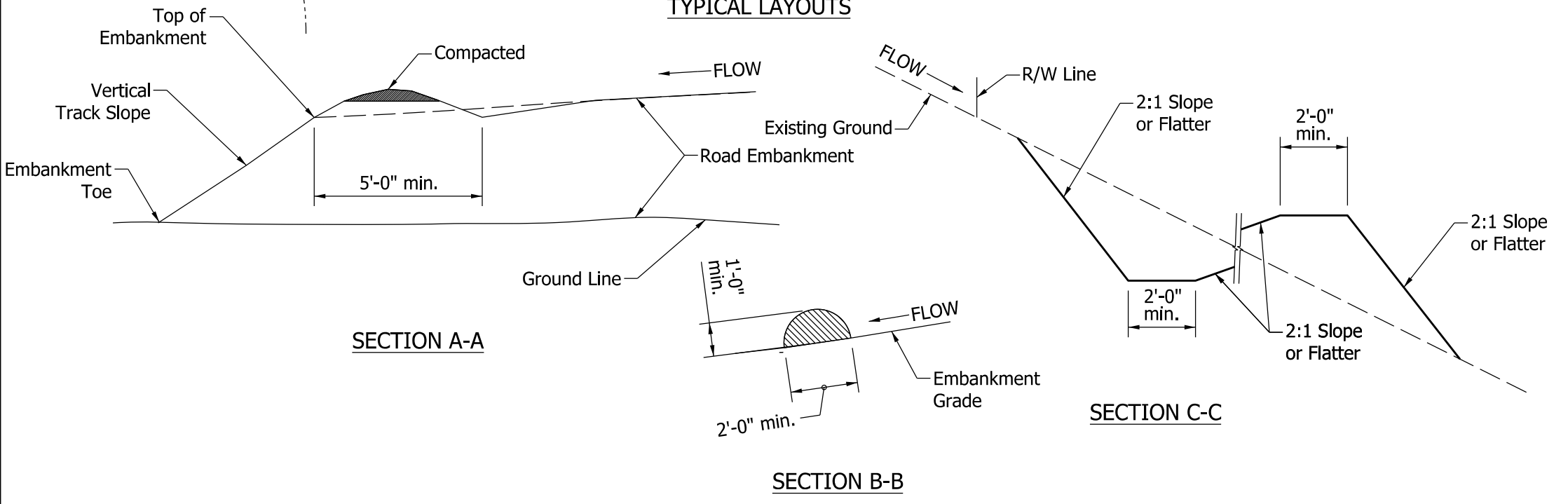
DESIGN STANDARDS ENGINEER



**NOTES:**

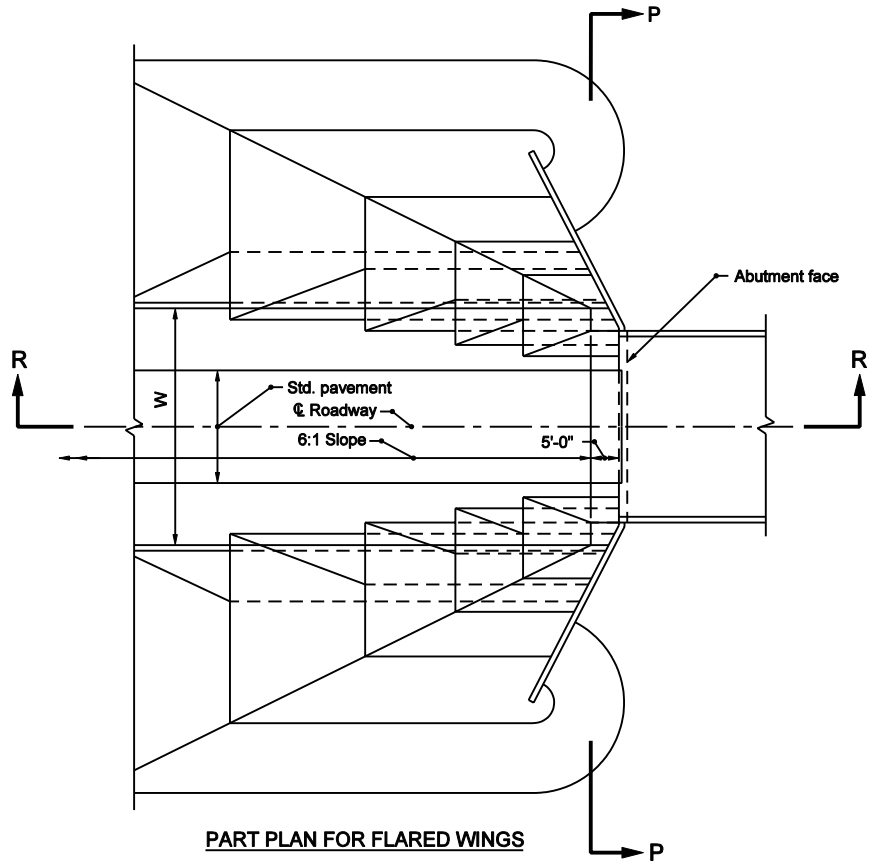
- ① Diversion Interceptor Type A shall be used to control embankment runoff to slope drains during grading operations.
- ② Diversion Interceptor Type B shall be a series of ridges used to divert runoff from long narrow corridor. Maximum length of the ridges shall not exceed 100 ft. Ridges shall be used for dividing grades and haul roads.
- ③ Diversion Interceptor Type C shall be used to collect offsite runoff before entering the disturbed portion of project site. Maximum allowed runoff captured from offsite drainage area is 5 acres.

**PLAN VIEW  
TYPICAL LAYOUTS**



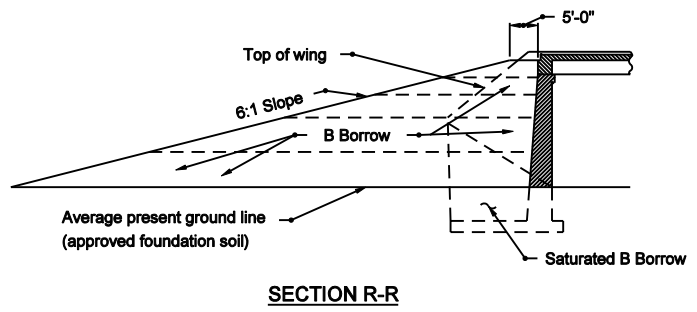
|   |   |                                 |          |                               |      |                           |          |                |      |
|---|---|---------------------------------|----------|-------------------------------|------|---------------------------|----------|----------------|------|
| <b>INDIANA DEPARTMENT OF TRANSPORTATION</b>                       |   |                                 |          |                               |      |                           |          |                |      |
| <b>TEMPORARY EROSION CONTROL SLOPE<br/>DIVERSION INTERCEPTORS</b> |   |                                 |          |                               |      |                           |          |                |      |
| <b>SEPTEMBER 2012</b>   |   |                                 |          |                               |      |                           |          |                |      |
| <b>STANDARD DRAWING NO. E 205-TECS-04</b>                         |   |                                 |          |                               |      |                           |          |                |      |
|   | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; border-bottom: 1px solid black;">/s/ <i>Richard L. VanCleave</i></td> <td style="width: 20%; border-bottom: 1px solid black;">09/04/12</td> </tr> <tr> <td style="font-size: small;">SUPERVISOR, ROADWAY STANDARDS</td> <td style="font-size: small;">DATE</td> </tr> <tr> <td style="border-bottom: 1px solid black;">/s/ <i>Mark A. Miller</i></td> <td style="border-bottom: 1px solid black;">09/04/12</td> </tr> <tr> <td style="font-size: small;">CHIEF ENGINEER</td> <td style="font-size: small;">DATE</td> </tr> </table> | /s/ <i>Richard L. VanCleave</i> | 09/04/12 | SUPERVISOR, ROADWAY STANDARDS | DATE | /s/ <i>Mark A. Miller</i> | 09/04/12 | CHIEF ENGINEER | DATE |
| /s/ <i>Richard L. VanCleave</i>                                   | 09/04/12  |                                 |          |                               |      |                           |          |                |      |
| SUPERVISOR, ROADWAY STANDARDS                                     | DATE  |                                 |          |                               |      |                           |          |                |      |
| /s/ <i>Mark A. Miller</i>   | 09/04/12  |                                 |          |                               |      |                           |          |                |      |
| CHIEF ENGINEER  | DATE  |                                 |          |                               |      |                           |          |                |      |



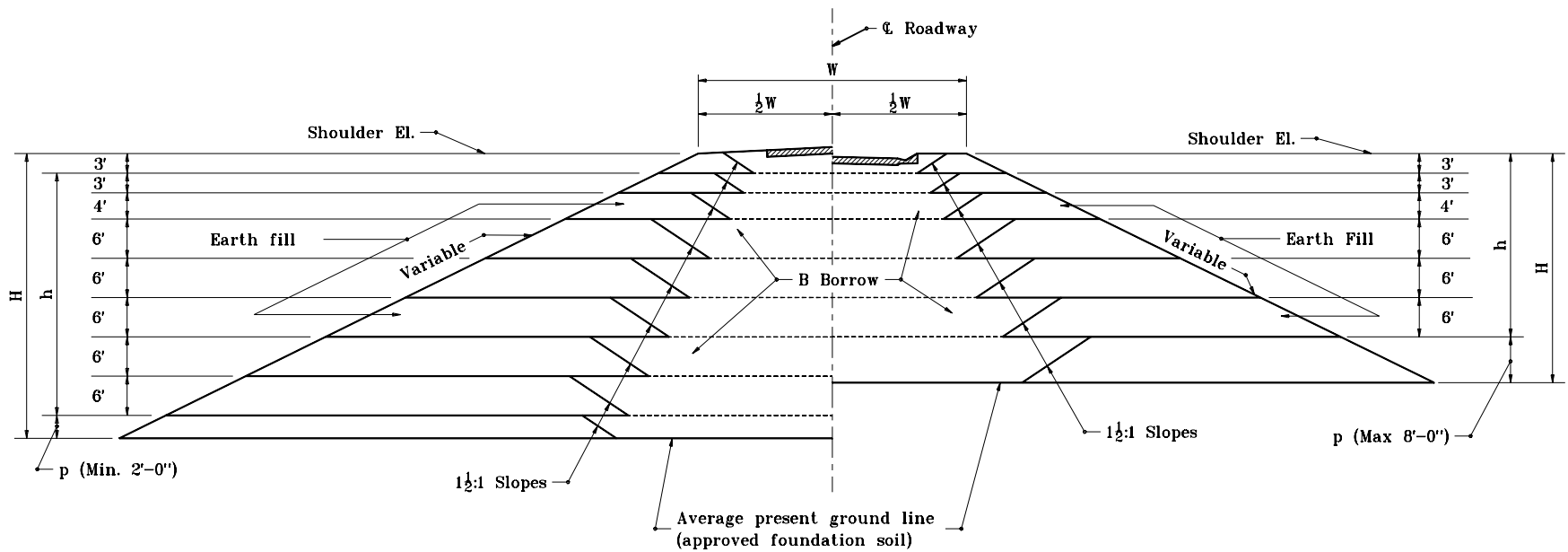


**NOTES**

1. See Standard E 211-BFIL-02 for Section P-P

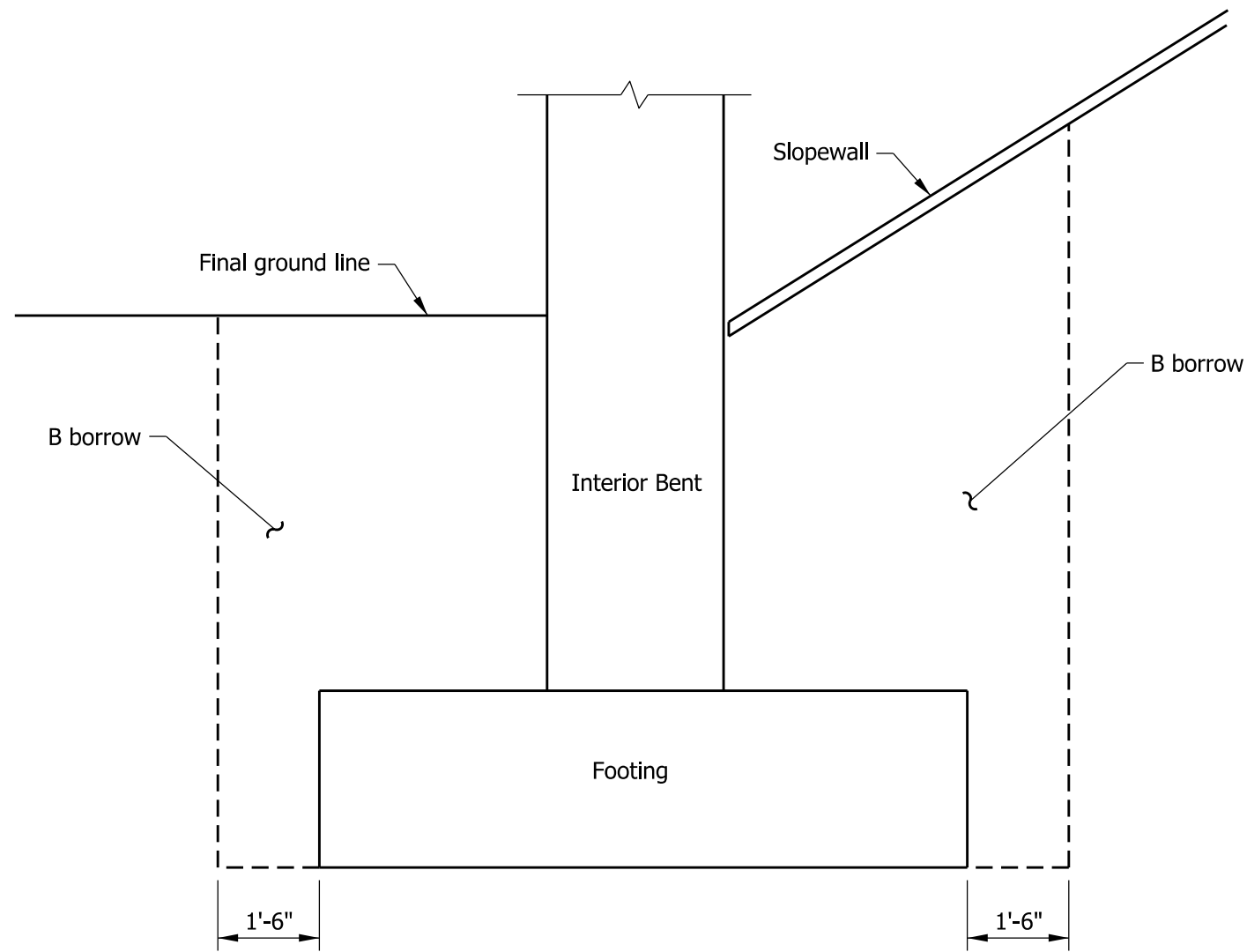


|                                      |   |
|--------------------------------------|---|
| INDIANA DEPARTMENT OF TRANSPORTATION |   |
| <b>PART PLAN FOR FLARED WINGS</b>    |   |
| MARCH 2003                           |   |
| STANDARD DRAWING NO. E 211-BFIL-01   |   |
|                                      | /s/ <i>Richard L. VanCleave</i> 3-03-03<br>DESIGN STANDARDS ENGINEER DATE |
|                                      | /s/ <i>Richard K. Smutzer</i> 3-03-03<br>CHIEF HIGHWAY ENGINEER DATE      |
| DESIGN STANDARDS ENGINEER            |   |

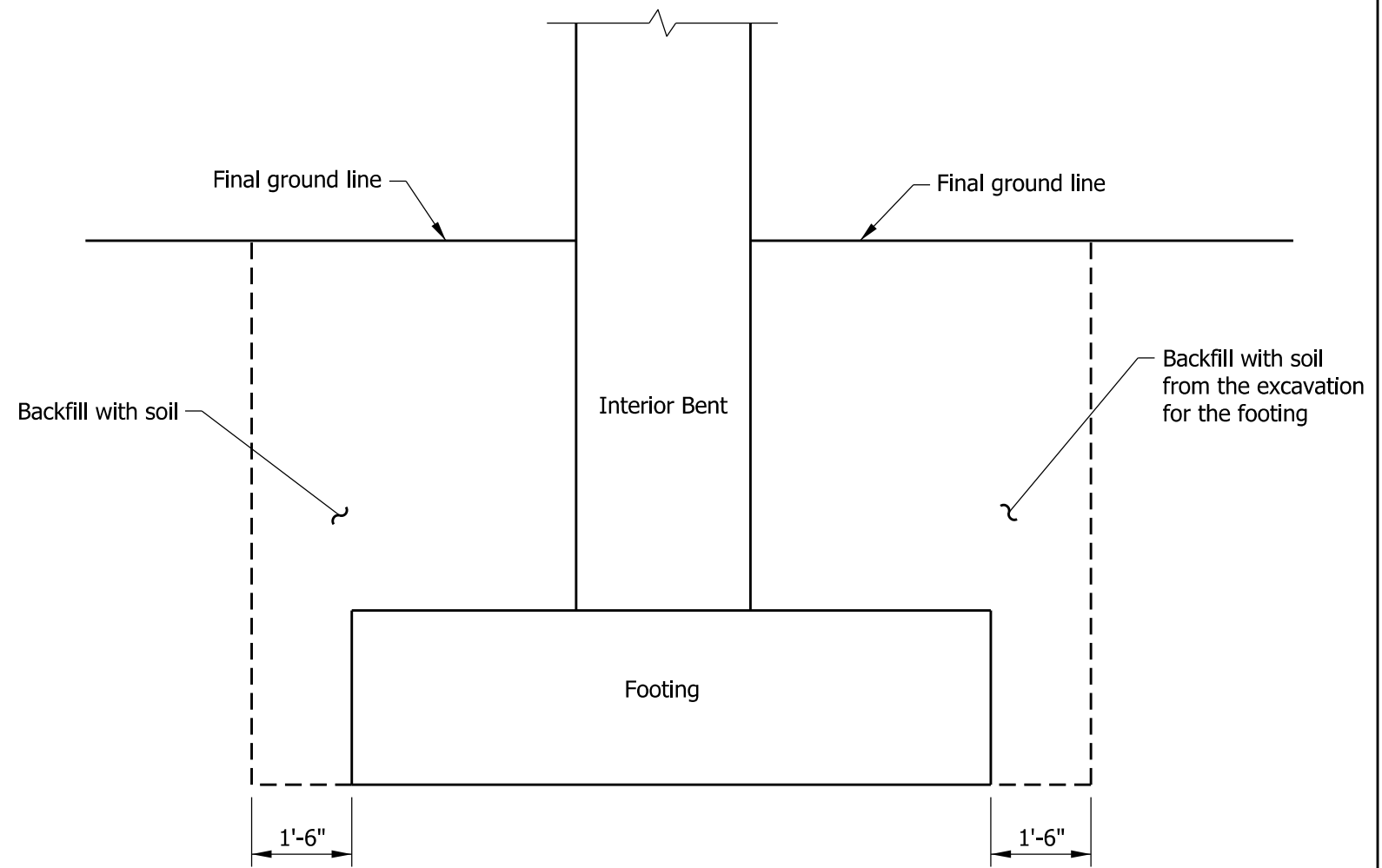


**TYPICAL SECTION P-P**

|                                      |   |
|--------------------------------------|---|
| INDIANA DEPARTMENT OF TRANSPORTATION |   |
| <b>FLARED WINGS</b>                  |   |
| <b>TYPICAL CROSS SECTION</b>         |   |
| SEPTEMBER 1994                       |   |
| STANDARD DRAWING NO. E 211-BFIL-02   |   |
|                                      | DETAILS PLACED IN THIS FORMAT 11-15-99                              |
|                                      | /s/ Anthony L. Uremovich 11-15-99<br>DESIGN STANDARDS ENGINEER DATE |
|                                      | /s/ Firooz Zandi 11-15-99<br>CHIEF HIGHWAY ENGINEER DATE            |
| DESIGN STANDARDS ENGINEER            | ORIGINALLY APPROVED 9-30-94   |



ADJACENT TO RAILROAD OR HIGHWAY



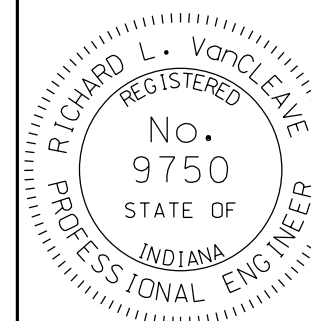
BRIDGE OVER WATERWAY

INDIANA DEPARTMENT OF TRANSPORTATION

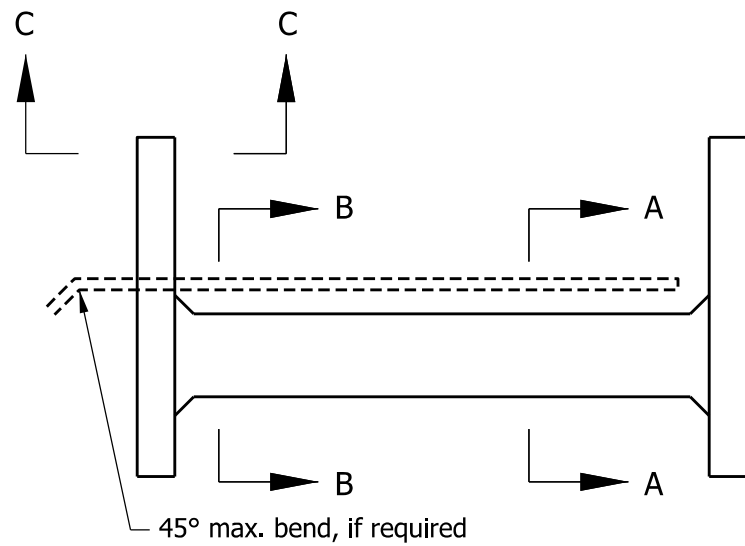
BACKFILL PLACEMENT  
INTERIOR BENT OR PIER

SEPTEMBER 2003

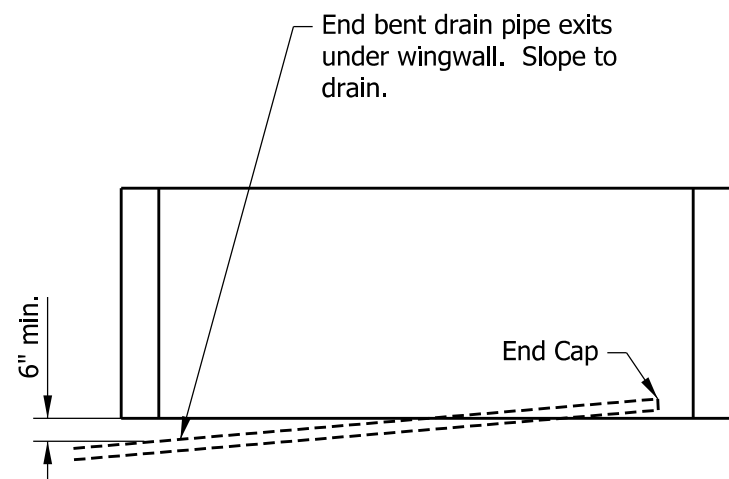
STANDARD DRAWING NO. E 211-BFIL-03



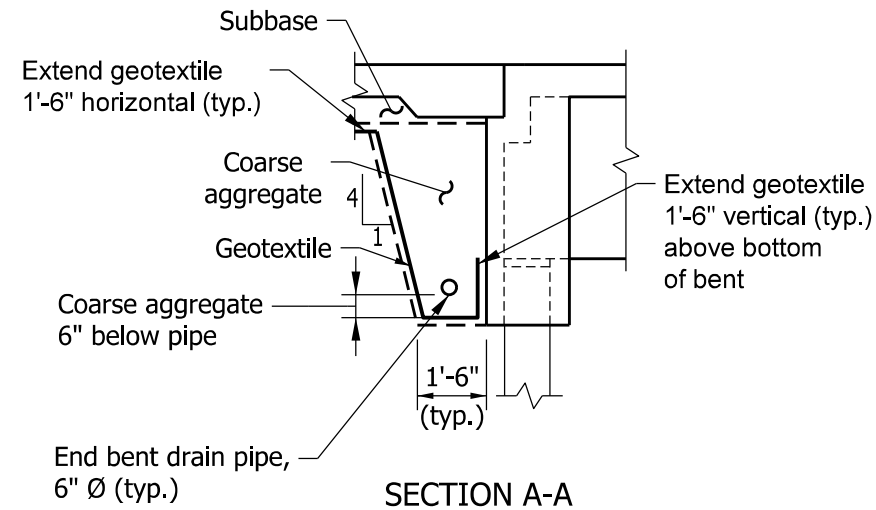
|                                 |          |
|---------------------------------|----------|
| DETAILS PLACED IN THIS FORMAT   | 09/04/12 |
| /s/ <i>Richard L. VanCleave</i> | 09/04/12 |
| SUPERVISOR, ROADWAY STANDARDS   | DATE     |
| /s/ <i>Mark A. Miller</i>       | 09/04/12 |
| CHIEF ENGINEER                  | DATE     |



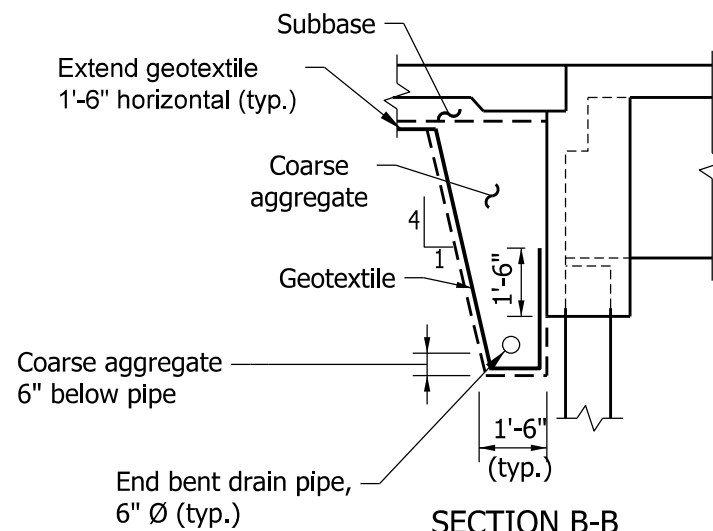
PLAN - END BENT



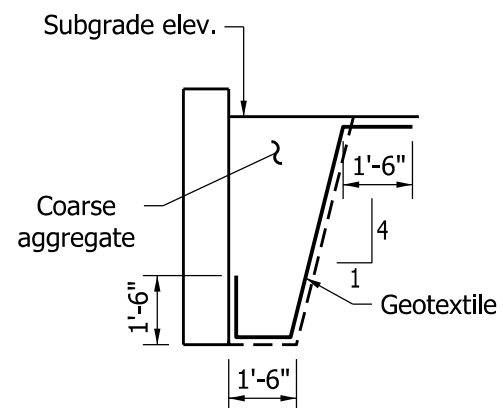
ELEVATION - END BENT




SECTION A-A

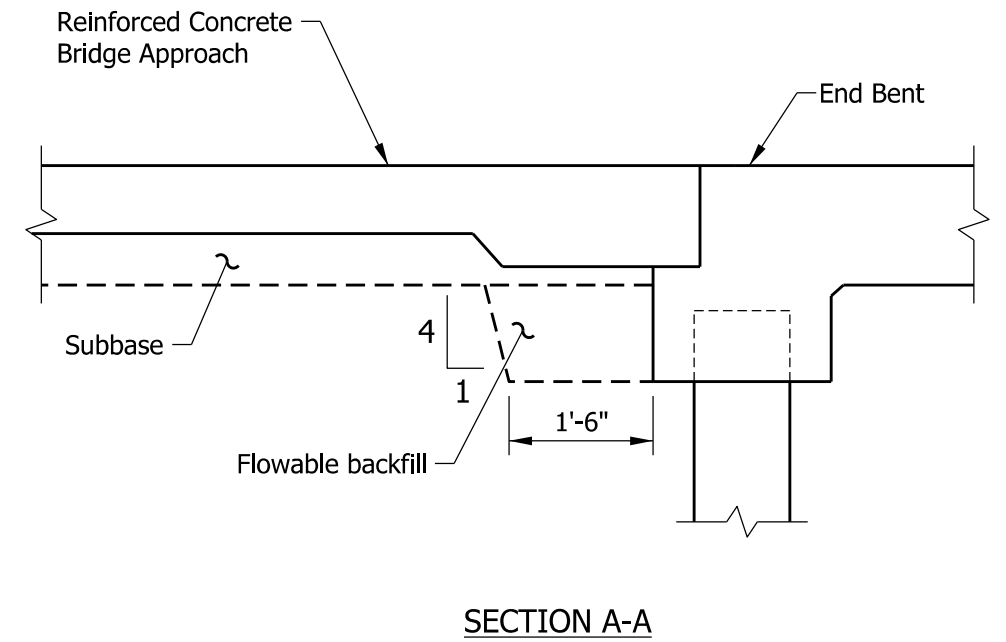
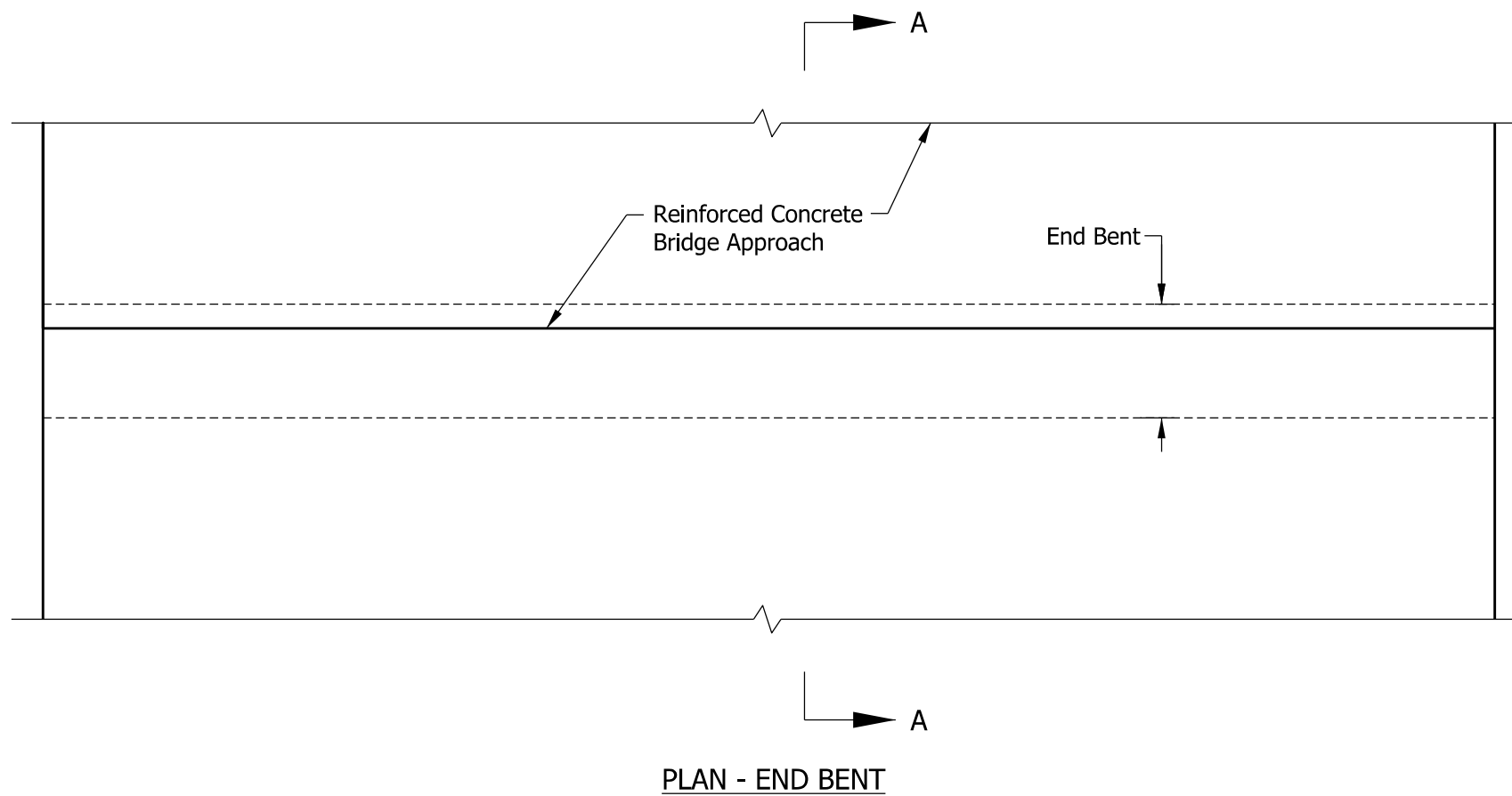


SECTION B-B



SECTION C-C

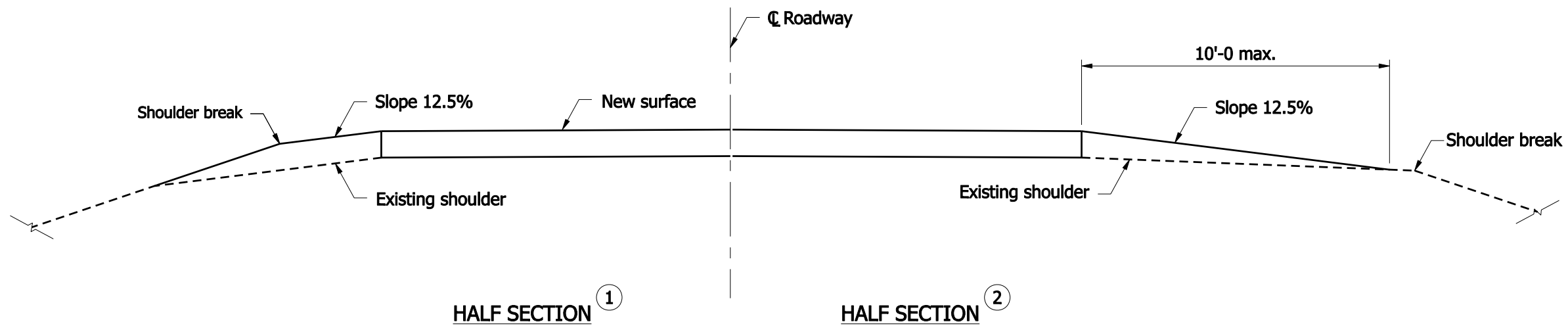
|   |   |
|---|---|
| INDIANA DEPARTMENT OF TRANSPORTATION  |   |
| BACKFILL PLACEMENT BEHIND END BENT<br>BEAM OR GIRDER STRUCTURE                        |   |
| SEPTEMBER 2003  |   |
| STANDARD DRAWING NO.  | E 211-BFIL-04   |
|  | DETAILS PLACED IN THIS FORMAT 09/04/12<br>/s/ <i>Richard L. VanCleave</i> 09/04/12<br>SUPERVISOR, ROADWAY STANDARDS DATE<br>/s/ <i>Mark A. Miller</i> 09/04/12<br>CHIEF ENGINEER DATE |



|   |  |
|---|--|
| INDIANA DEPARTMENT OF TRANSPORTATION                                  |  |
| BACKFILL PLACEMENT BEHIND END BENT<br>REINFORCED-CONCRETE SLAB BRIDGE |  |
| SEPTEMBER 2004  |  |
| STANDARD DRAWING NO.  | E 211-BFIL-05                            |
|   | DETAILS PLACED IN THIS FORMAT 09/04/12   |
|   | /s/ <i>Richard L. VanCleave</i> 09/04/12 |
|   | SUPERVISOR, ROADWAY STANDARDS DATE       |
|   | /s/ <i>Mark A. Miller</i> 09/04/12       |
| CHIEF ENGINEER  | DATE                                     |

**GENERAL NOTES**

- ① This section shall be used when the existing shoulder width is less than 3 ft. or the slope is steeper than 12.5%.
- ② This section shall be used when the existing shoulder slope is flatter than 12.5%.



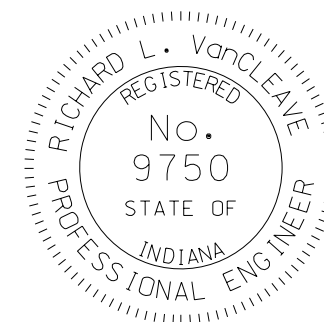
**TYPICAL SECTION FOR SHOULDER TREATMENT**

**INDIANA DEPARTMENT OF TRANSPORTATION**

**SHOULDER TREATMENT FOR  
RESURFACING WORK**

**SEPTEMBER 2007**

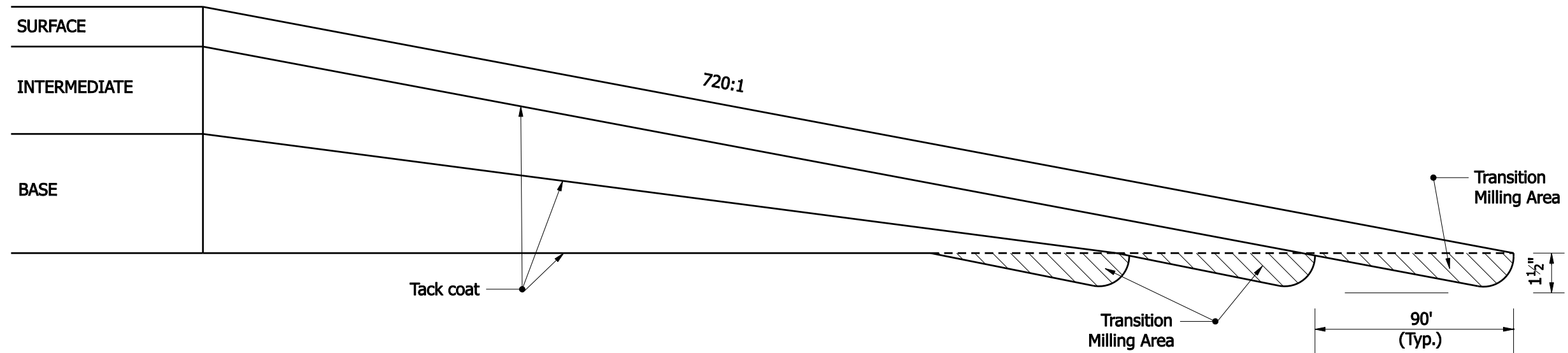
**STANDARD DRAWING NO. E 303-STRW-01**



**DESIGN STANDARDS ENGINEER**

*/s/ Richard L. VanCleave*      **09/04/07**  
DESIGN STANDARDS ENGINEER      DATE

*/s/ Mark A. Miller*      **09/04/07**  
CHIEF HIGHWAY ENGINEER      DATE



|  |   |
|--|---|
| INDIANA DEPARTMENT OF TRANSPORTATION           |   |
| HMA-PAVEMENT WEDGING<br>AND TRANSITION MILLING |   |
| SEPTEMBER 2007                                 |   |
| STANDARD DRAWING NO. E 306-TMPT-01             |   |
|  | <i>/s/ Richard L. VanCleave</i> 9/4/07<br>DESIGN STANDARDS ENGINEER      DATE |
|  | <i>/s/ Mark A. Miller</i> 9/4/07<br>CHIEF HIGHWAY ENGINEER      DATE          |
| DESIGN STANDARDS ENGINEER                      |   |