# SECTION I - BARRIER

# SECTION I - BARRIER (CONT'D)



# SECTION II - CURB & GUTTER



# SECTION III - DRAINAGE

# SECTION III - DRAINAGE (CONT'D)



# SECTION IV - EROSION

# SECTION V - LANDSCAPING

SHEET NO. NAME



# SECTION VI - MISCELLANEOUS

SHEET NO. NAME



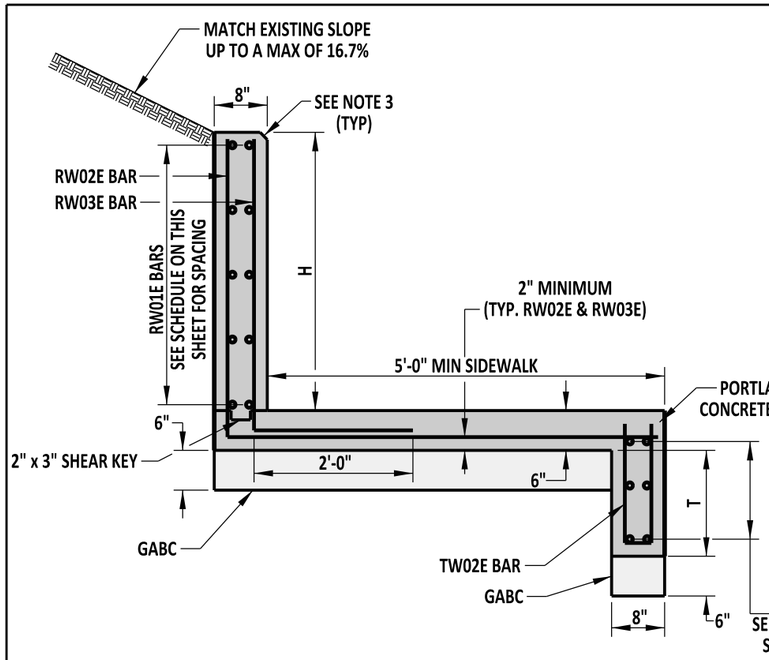
# SECTION VII - PAVEMENT

SHEET NO. NAME

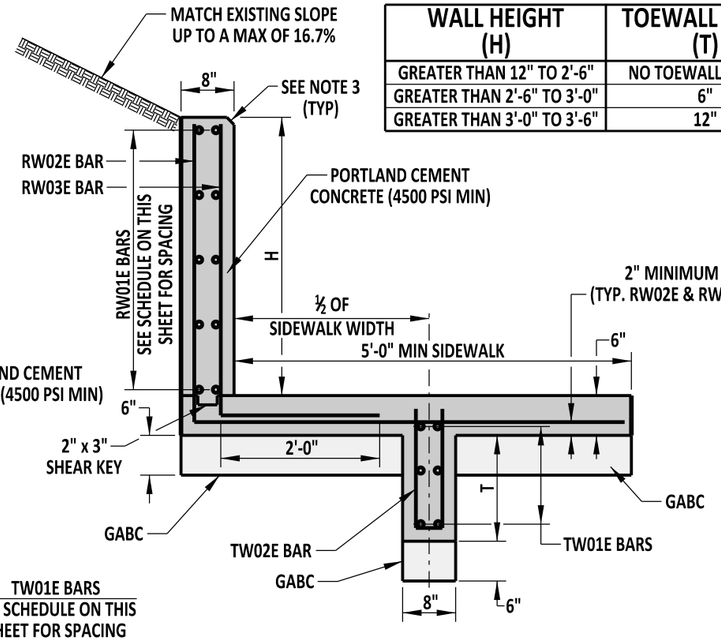
# SECTION VIII - TRAFFIC

| WALL HEIGHT (H) | TOEWALL DEPTH (T) | REQUIRED TRANSVERSE REINFORCEMENT | REQUIRED LONGITUDINAL REINFORCEMENT |
|---|---|---|---|
| GREATER THAN 12" TO 2'-6" | NO TOEWALL NEEDED | #4 BARS @ 6" (RW02E, & RW03E) | #4 BARS @ 12" (RW01E & TW01E) |
| GREATER THAN 2'-6" TO 3'-0" | 6" | #4 BARS @ 6" (RW02E, RW03E, & TW02E) | #4 BARS @ 12" (RW01E & TW01E) |
| GREATER THAN 3'-0" TO 3'-6" | 12" | #5 BARS @ 6" (RW02E, RW03E, & TW02E) | #4 BARS @ 12" (RW01E & TW01E) |

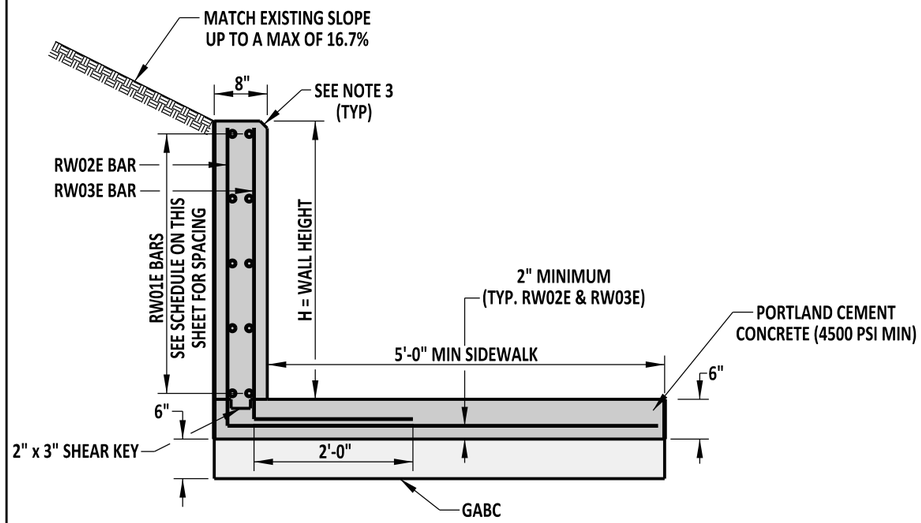
SCALE : NTS




## CURB RETAINING WALL SECTION
FOR H GREATER THAN 2'-6"



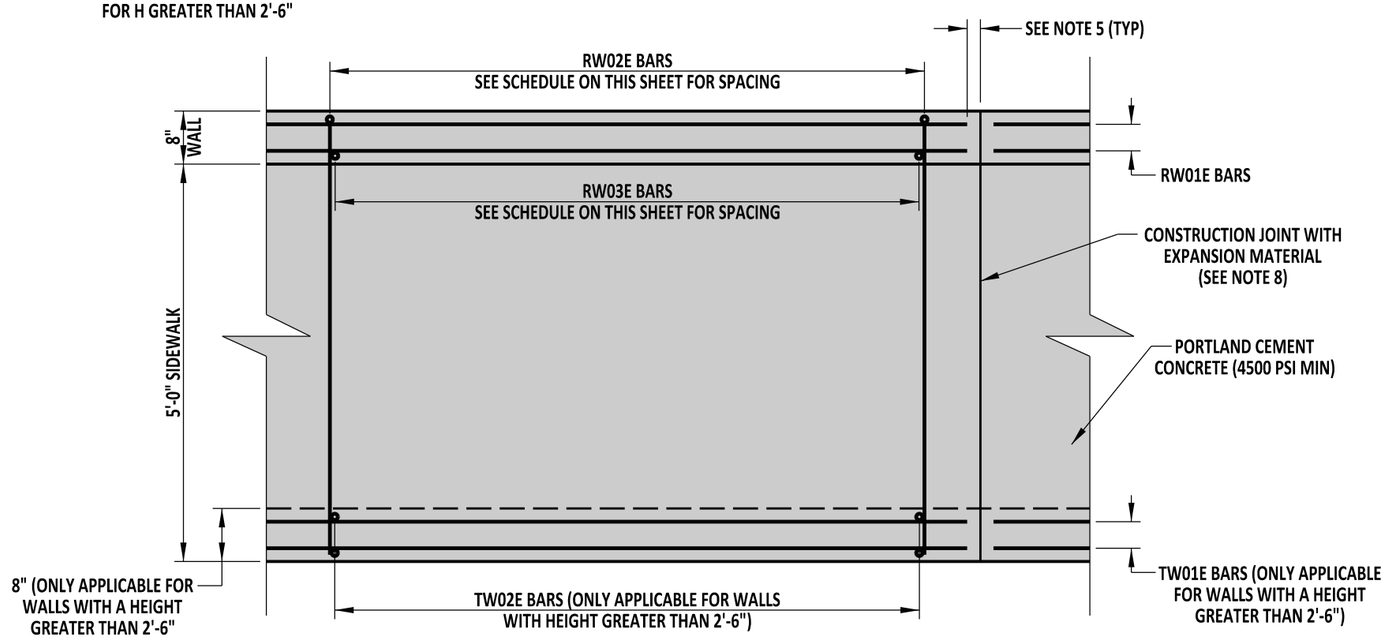

## OPTIONAL TOEWALL PLACEMENT CURB RETAINING WALL SECTION
FOR H GREATER THAN 2'-6"




## CURB RETAINING WALL SECTION
FOR HEIGHTS GREATER THAN 12" BUT LESS THAN OR EQUAL TO 2'-6"

**NOTES:**

1). THE CURB RETAINING WALL DETAILS ARE FOR QUICK FIELD CHANGES WITH APPROVAL OF THE ENGINEER. MODULAR BLOCK WALLS OR ANY OTHER SMALL RETAINING WALLS ARE THE PREFERRED CHOICE DURING PLAN DEVELOPMENT.
2). WHEN H IS GREATER THAN 2'-6", CAST THE CURB RETAINING WALLS IN PLACE. WHEN H IS GREATER THAN 12" AND LESS THAN 2'-6", THE WALLS CAN BE EITHER PRECAST OR CAST-IN-PLACE.
3). CHAMFER EDGES ¾" AT THE TOP OF WALL. PLACE A ¼" ROUND EDGE AT THE FRONT OF SIDEWALK.
4). THE RETAINING WALL HAS BEEN DESIGNED TO RESIST EARTH PRESSURE ONLY. ADDITIONAL REINFORCEMENT MAY BE REQUIRED IF ANY SURCHARGE IS APPLIED BEHIND THE RETAINING WALL WITHIN A DISTANCE EQUAL TO 2 TIMES H AND WOULD REQUIRE AN APPROVED SHOP DRAWING.
5). MINIMUM BAR COVER IS 2" UNLESS OTHERWISE SPECIFIED ON THIS SHEET.
6). BEND THE RW02E AND RW03E BARS INTO ONE CONTINUOUS L-SHAPED BAR.
7). BEND THE TW02E BARS INTO 1 CONTINUOUS U-SHAPED BAR.
8). SEE DETAIL M-3 FOR SIDEWALK DETAILS AND NOTES, INCLUDING CONSTRUCTION JOINTS AND EXPANSION MATERIAL.
9). DO NOT PLACE RW01E AND TW01E BARS THROUGH EXPANSION JOINTS. STOP REINFORCEMENT AND MAINTAIN MINIMUM BAR COVER AS SPECIFIED IN PREVIOUS NOTES.
10). THE TOEWALL CAN OPTIONALLY BE PLACED AT MIDPOINT OF THE SIDEWALK.
11). ALL REINFORCING STEEL MUST BE EPOXY COATED.
12). IF A CURB IS CONSTRUCTED ADJACENT TO THE STRUCTURE, COAT THE FRONT FACE OF THE SIDEWALK/TOEWALL WITH AN APPROVED BOND BREAKER AGENT PRIOR TO THE PLACEMENT OF CONCRETE FOR THE CURB.
13). FOR CURB RETAINING WALLS WHERE H IS 12" OR LESS, A MODIFIED P.C.C. CURB TYPE 1-8 CAN BE USED.
14). CURB HAS BEEN OMITTED FROM THESE DETAILS FOR CLARITY PURPOSES. FOR INSTALLATIONS WHERE THE TOE WALL IS PLACED AT THE EDGE OF THE SIDEWALK, THE TOEWALL IS NOT A REPLACEMENT FOR CURB.




## PLAN VIEW

DELAWARE
DEPARTMENT OF TRANSPORTATION

CURB RETAINING WALL

STANDARD NO. C-6 (2014) | SHT. 1 OF 1

APPROVED SIGNATURE ON FILE — CHIEF ENGINEER — 12/30/2014 DATE

RECOMMENDED SIGNATURE ON FILE — DESIGN ENGINEER — 12/11/2014 DATE

11/20/2014

SCALE : NTS

| INLET BOX SIZE | | COVER SLAB SIZE (L X W) | DRAINAGE INLET TOP UNIT | INLET TOP UNIT REBAR LENGTH | INLET TOP UNIT LIMIT OF PAYMENT | INLET TOP UNIT BAR BENDING DIAGRAM | FRAME & GRATE (FOUND ON DETAIL D-5, SHEET 2) SEE NOTE 6 | MAXIMUM PIPE SIZE (SEE NOTE 1) | | MAXIMUM HEIGHT (TO TOP OF BOX) |
|---|---|---|---|---|---|---|---|---|---|---|
| L | W | | | | | | | L | W | |
| 17⅝" | 11⅝" | NO COVER SLAB | TYPE 5 (FRAME & GRATE COMBO) | N/A | N/A | N/A | TYPE 5 (FRAME & GRATE COMBO) | N/A | N/A | 4'-0" |
| 24" | 24" | NO COVER SLAB | TYPE 6 (FRAME & GRATE COMBO) | N/A | N/A | N/A | TYPE 6 (FRAME & GRATE COMBO) | 15" | 15" | 4'-0" |
| | | | | | | | | | | |
| 34" | 18" | NO COVER SLAB | TYPES A, C, D, & E (DETAIL D-5, SHEET 7) | 79" | 82" | S504 (DETAIL D-5, SHEET 7) | TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME | 24" | 12" | 11'-4" |
| 34" | 24" | NO COVER SLAB | TYPES A, B, C, D, E, & S (SEE NOTE 4) | 79" | 82" | S501 (SEE NOTE 5) | TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME | 24" | 15" | 11'-4" |
| 48" | 30" | 60" x 42" (DETAIL D-5, SHEET 4) | TYPES A, B, C, D, E & S (SEE NOTE 5) | 93" | 96" | S501 (SEE NOTE 5) | TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME | 36" | 21" | 11'-4" |
| 48" | 48" | 60" x 60" (DETAIL D-5, SHEET 4) | TYPES A, B, C, D, E & S (SEE NOTE 5) | 93" | 96" | S501 (SEE NOTE 5) | TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME | 36" | 36" | 11'-4" |
| 66" | 30" | 78" x 42" (DETAIL D-4, SHEET 4) | TYPES A, B, C, D, E & S (SEE NOTE 5) | 111" | 114" | S501 (SEE NOTE 5) | TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME | 48" | 21" | 11'-4" |
| 66" | 48" | 78" x 60" (DETAIL D-5, SHEET 4) | TYPES A, B, C, D, E & S (SEE NOTE 5) | 111" | 114" | S501 (SEE NOTE 5) | TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME | 48" | 36" | 11'-4" |
| 66" | 66" | 78" x 78" (DETAIL D-5, SHEET 4) | TYPES A, B, C, D, E & S (SEE NOTE 5) | 111" | 114" | S501 (SEE NOTE 5) | TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME | 48" | 48" | 11'-4" |
| 72" | 24" | 84" x 36" DETAIL D-5, SHEET 5) | TYPES A, B, C, D, E & S (SEE NOTE 5) | 117" | 120" | S501 (SEE NOTE 5) | TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME | 54" | 15" | 11'-4" |
| 72" | 48" | 84" x 60" (DETAIL D-5, SHEET 5) | TYPES A, B, C, D, E & S (SEE NOTE 5) | 117" | 120" | S501 (SEE NOTE 5) | TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME | 54" | 36" | 11'-4" |
| 72" | 72" | 84" x 84" (DETAIL D-5, SHEET 5) | TYPES A, B, C, D, E & S (SEE NOTE 5) | 117" | 120" | S501 (SEE NOTE 5) | TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME | 54" | 54" | 11'-4" |

NOTES :

1). MAXIMUM PIPE SIZES ARE CALCULATED USING REINFORCED CONCRETE PIPE PERPENDICULAR TO THE BOX WALL. FOR OTHER PIPE SIZES, TYPES AND SKEW ANGLES OTHER THAN PERPENDICULAR, SEE CHART ON DELDOT DESIGN RESOURCE CENTER.

2). STEPS ARE REQUIRED ON ALL BOXES WHOSE DEPTH IS GREATER THAN 4'-0".

3). SEE DETAIL D-4 OR APPROPRIATE DETAIL SHEET FOR ADDITIONAL NOTES.

4). FOR A 34" X 24" DRAINAGE INLET, SEE DETAIL D-5, SHEET 6 FOR INLET TOP UNIT TYPES A, B, C, D, & E. FOR INLET TOP UNIT TYPE S, SEE DETAIL D-5, SHEET 8.

5). FOR MORE INFORMATION ON DRAINAGE INLET TOP UNIT TYPES A, B, C, D, & E SEE DETAIL D-5, SHEET 3 AND FOR DRAINAGE INLET TOP UNIT, TYPE S, SEE DETAIL D-5, SHEET 8.

6). ONLY USE THE TYPE 7 DRAINAGE INLET GRATE WHEN SPECIFIED ON THE PLANS OR AFTER APPROVAL BY THE ENGINEER.

DELAWARE
DEPARTMENT OF TRANSPORTATION

DRAINAGE INLET REFERENCE SHEET

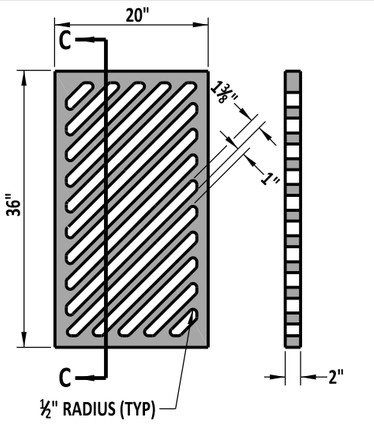
STANDARD NO. D-R (2014) | SHT. 1 OF 1

APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE)

RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE)

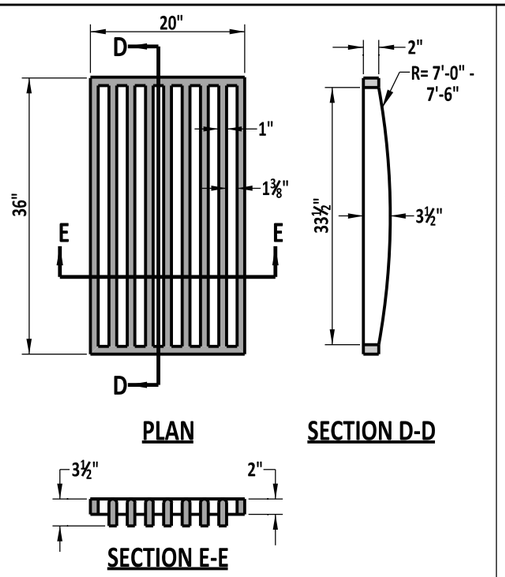
11/19/2014

SCALE : NTS




PLAN SECTION C-C

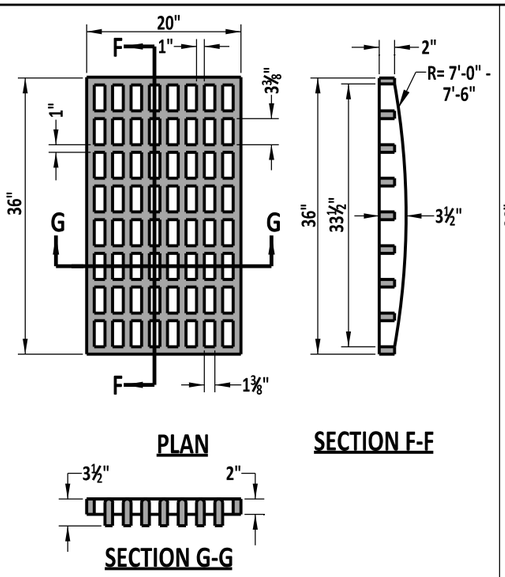
TYPE 1




PLAN SECTION D-D

SECTION E-E

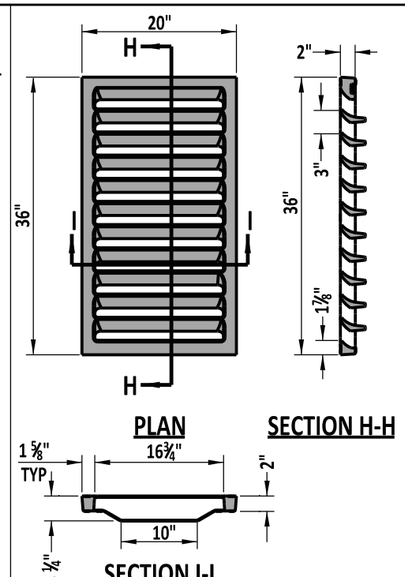
TYPE 2




PLAN SECTION F-F

SECTION G-G

TYPE 3

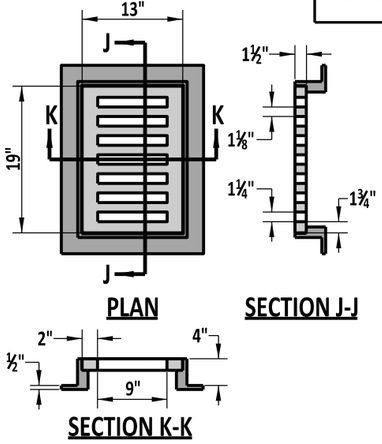



PLAN SECTION H-H




SECTION I-J

TYPE 4




PLAN SECTION J-J

SECTION K-K

TYPE 5




PLAN




SECTION L-L




SECTION M-M

TYPE 6

NOTE: THIS INLET GRATE IS ONLY TO BE USED WHEN SPECIFIED ON THE PLANS AND SHOULD NOT BE RETROFITTED WITHOUT APPROVAL BY THE ENGINEER.

TYPE 7




SECTION N-N




SECTION O-O




SECTION B-B







SECTION A-A

**DRAINAGE INLET FRAME**
THIS FRAME IS TO BE USED WITH TYPES 1 THROUGH 4 GRATES ONLY




DRAINAGE GRATE LABELING EXAMPLE DETAIL

NOTES:

1). ONLY INSTALL THE TYPE 2 DRAINAGE INLET GRATE WHERE BICYCLE TRAFFIC IS NOT EXPECTED TO BE PRESENT.
2). LABEL THE TOP OF ALL DRAINAGE INLET GRATES, EXCEPT TYPE 7, WITH "ONLY RAIN DOWN THE STORM DRAIN". ALSO, LABEL DRAINAGE INLET GRATES TYPE 1 AND TYPE 4 WITH "WATER FLOW" AND AN ARROW INDICATING FLOW DIRECTION AS SHOWN IN THE EXAMPLE DETAIL.
3). LABEL THE TOP AND BOTTOM OF THE TYPE 1 DRAINAGE INLET GRATE WITH "CURBSIDE" AS SHOWN ON THE EXAMPLE DETAIL.
4). ONLY USE THE TYPES 5 & 6 DRAINAGE INLET FRAME AND GRATE COMBINATIONS ON LAWN INLET DRAINAGE BOXES. SEE SCHEDULE ON DETAIL D-4, SHEET 1 FOR WHICH BOX SIZES ARE CONSIDERED LAWN INLET DRAINAGE BOXES.
5). THE TYPE 6 DRAINAGE INLET FRAME AND GRATE COMBINATION SHOWN IS THE NEENAH FOUNDRY FRAME AND GRATE COMBINATION MODEL NF-1878-A5G, AN ACCEPTABLE ALTERNATIVE IS THE EAST JORDAN IRON WORKS FRAME AND GRATE COMBINATION MODEL V-5622.

DELAWARE
DEPARTMENT OF TRANSPORTATION

DRAINAGE INLET FRAME AND GRATES

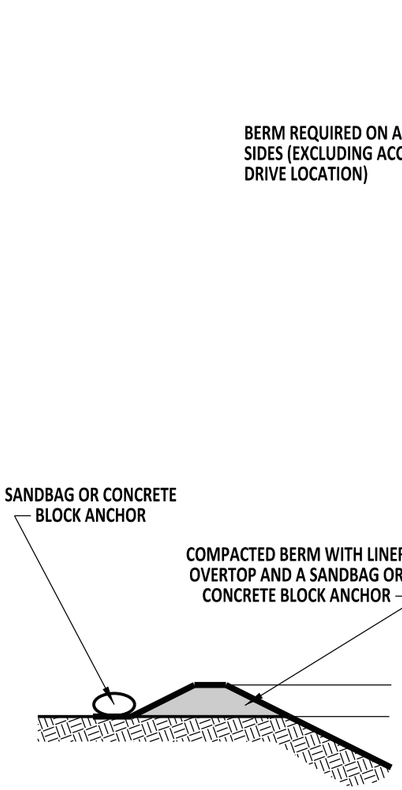
STANDARD NO. D-5 (2014) | SHT. 2 OF 9

APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE)

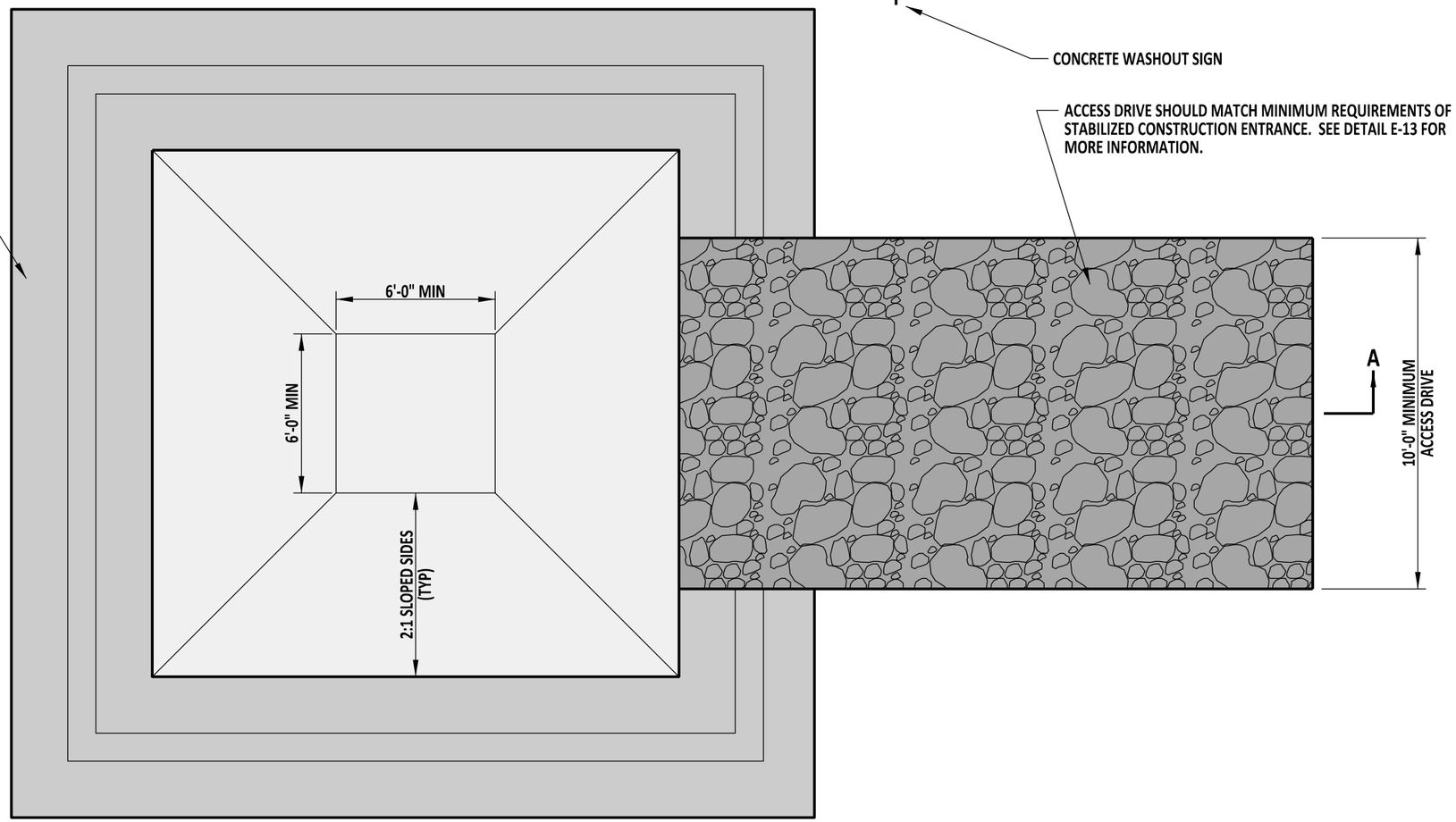
RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE)

12/4/2014

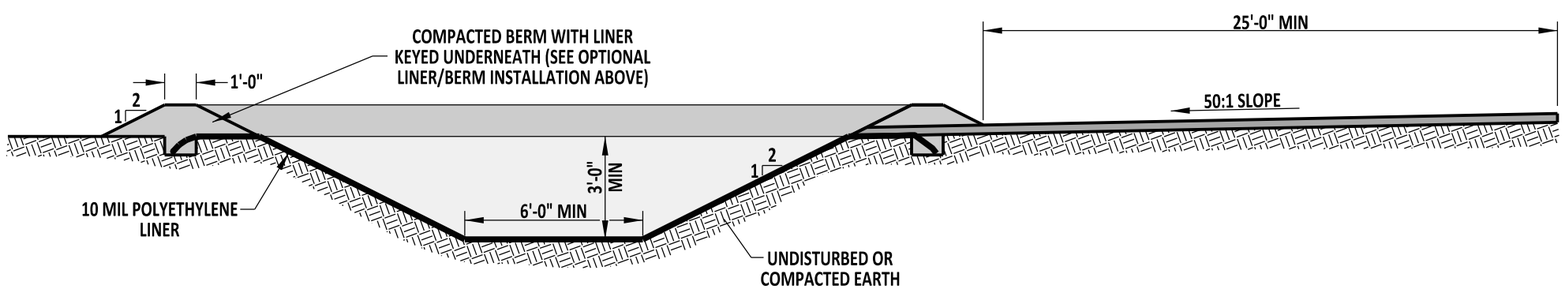
SCALE : NTS




**OPTIONAL LINER/BERM INSTALLATION**




**PLAN VIEW**




**SECTION A-A**

**NOTES:**

1). A PREFABRICATED CONCRETE WASHOUT UNIT MAY BE USED IN LIEU OF THE DESIGN SHOWN ON THIS DETAIL. THE DIMENSIONS ARE 4'-0" x 4'-0" x 1'-0" DEEP WITH A 4 MIL POLYETHYLENE PLASTIC LINER. FOLLOW THE DIMENSIONS IN THIS DETAIL FOR CONSTRUCTED CONCRETE WASHOUT AREAS.

2). THE LINER MUST BE FREE OF TEARS OR HOLES AND PLACED OVER SMOOTH SURFACES TO PREVENT PUNCTURING. FOR EXCAVATED WASHOUTS, ANCHOR THE LINER UNDERNEATH THE BERM OR OVERTOP WITH SANDBAGS OR CONCRETE BLOCKS TO HOLD IN PLACE, AS DIRECTED ON THIS DETAIL.

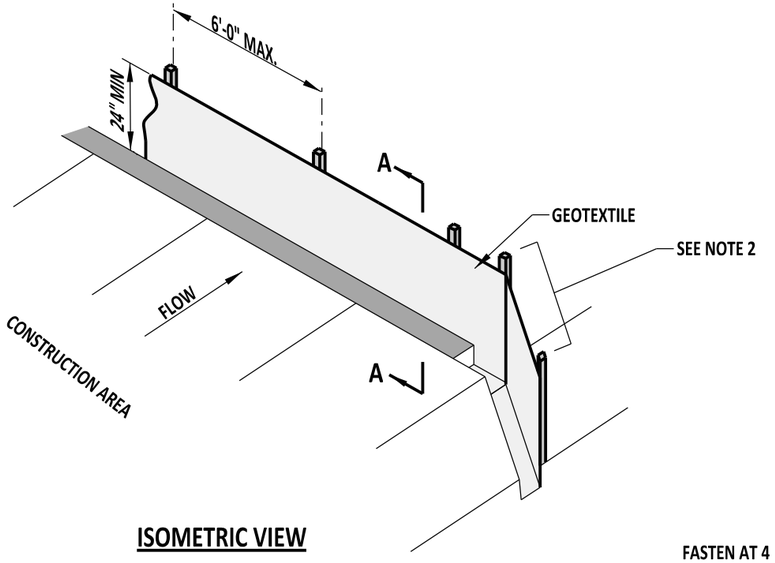
3). ALLOW WASHED OUT CONCRETE MIXTURE TO HARDEN THROUGH EVAPORATION OF THE WASTEWATER. ONCE THE FACILITY HAS REACHED 75% OF ITS CAPACITY, REMOVE THE HARDENED CONCRETE BY REUSING THE BROKEN AGGREGATE ON SITE, RECYCLING, OR DISPOSING OFFSITE. THE HARDENED MATERIAL CAN BE BURIED ON SITE WITH A MINIMUM OF 1'-0" OF CLEAN, COMPACTED FILL.

4). APPLY A NEW LINER BEFORE REUSING THE STATION FOR ADDITIONAL WASHOUTS AFTER MAINTENANCE HAS OCCURRED.

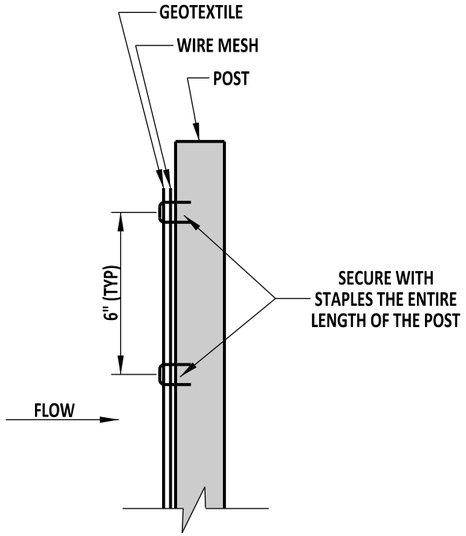
| | | | |
|---|---|---|---|
| DELAWARE<br>DEPARTMENT OF TRANSPORTATION | CONCRETE WASHOUT | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. E-1 (2014) | SHT. 1 OF 1 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

10/24/2014

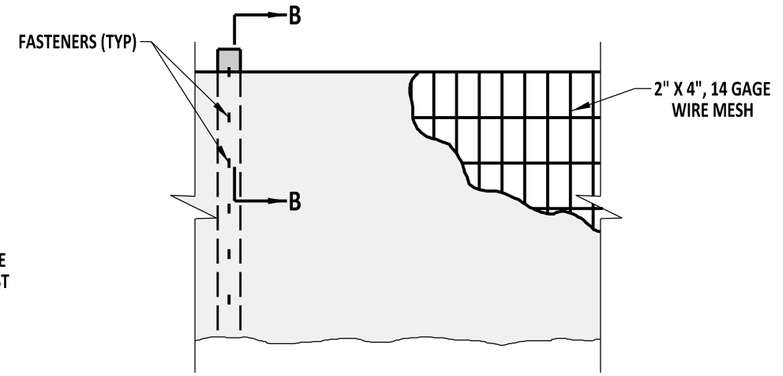
SCALE : NTS




ISOMETRIC VIEW

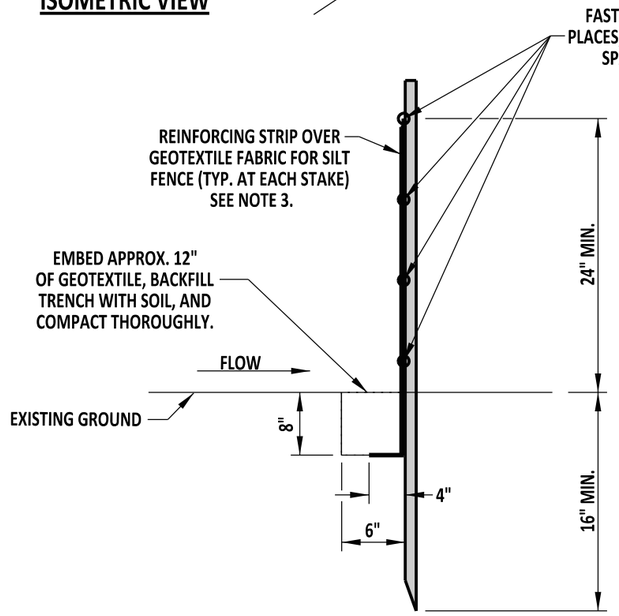



SECTION B-B

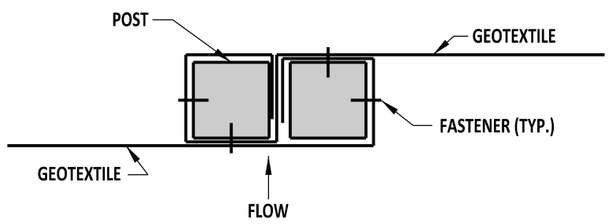



ELEVATION

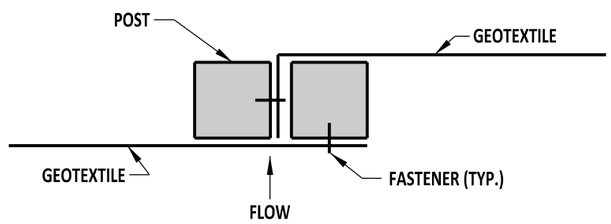
WIRE MESH DETAIL
(REINFORCED SILT FENCE ONLY)




SECTION A-A




SILT FENCE
CONNECTON DETAIL




REINFORCED SILT FENCE
CONNECTON DETAIL

NOTES:
1). THIS DEVICE IS INTENDED TO CONTROL SHEET FLOW ONLY AND IS NOT TO BE USED IN AREAS OF CONCENTRATED FLOW.
2). TURN ENDS OF SILT FENCE UPSLOPE TO CONTAIN RUNOFF.
3). REINFORCING STRIP IS TO BE ONE COMPLETE STRIP COVERING ALL GEOTEXTILE FABRIC AT POST.

DELAWARE
DEPARTMENT OF TRANSPORTATION

SILT FENCE

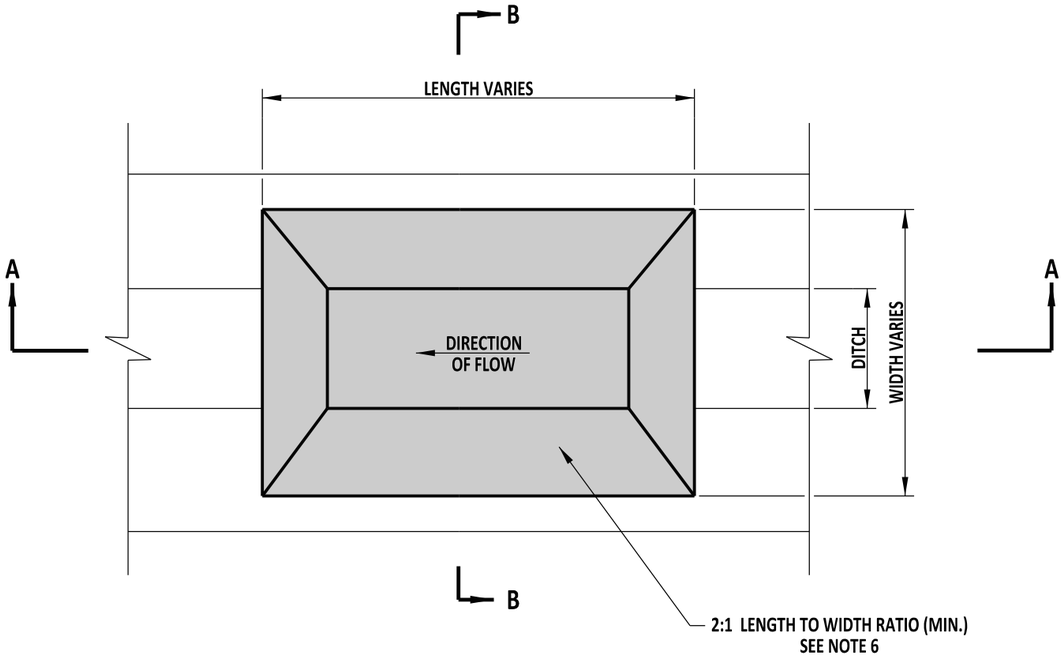
STANDARD NO. E-2 (2014) | SHT. 1 OF 1

APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE)

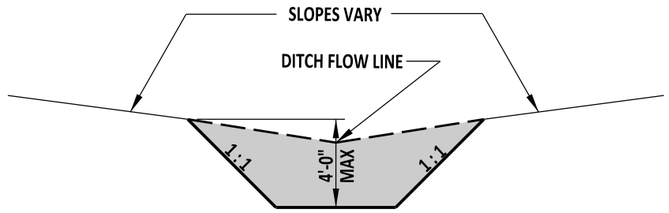
RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE)

10/24/2014

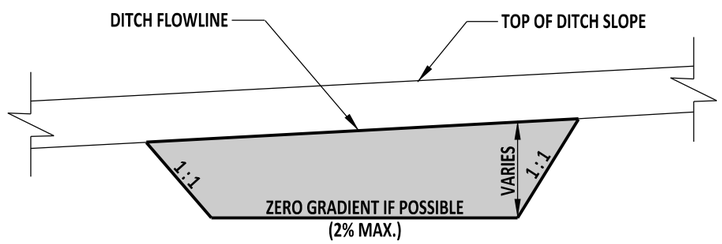
SCALE : NTS




PLAN




SECTION B-B




SECTION A-A

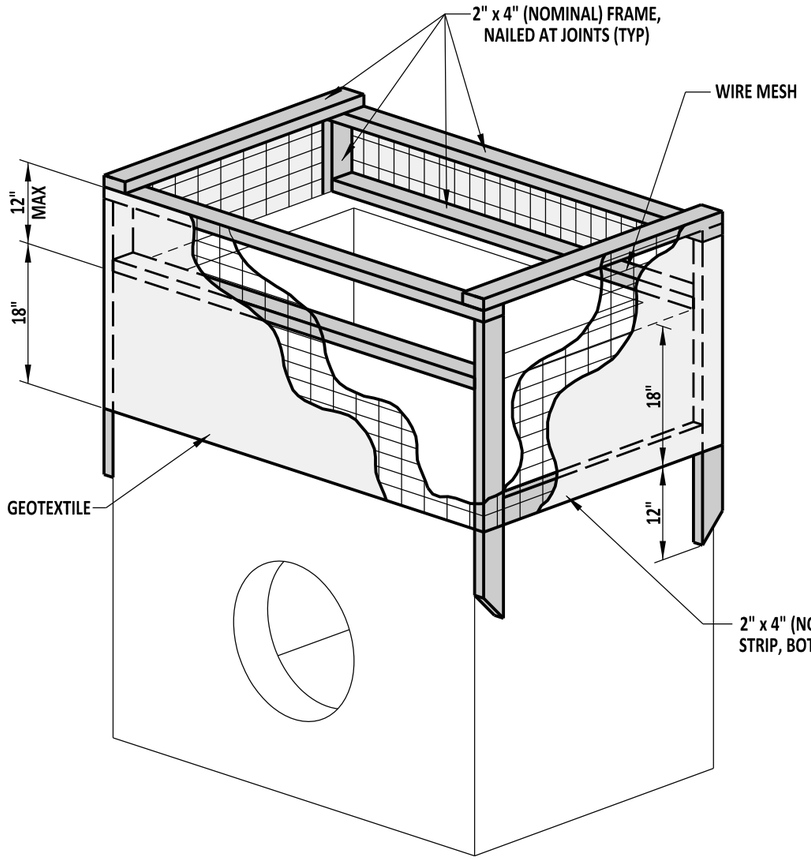
NOTES:

1). SEDIMENT TRAPS ARE INTENDED FOR USE IN EXISTING, PROPOSED, AND TEMPORARY DITCHES OF ALL TYPES WITH A MAXIMUM DRAINAGE AREA OF 15 ACRES, AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.
2). STABILIZE SIDE SLOPES WITH TEMPORARY GRASS SEEDING AS PER SPECIFICATIONS.
3). AN OUTLET STRUCTURE IS REQUIRED AND IS NOTED ON THE PLANS.
4). FOR SIZE, LOCATION, ETC. OF SEDIMENT TRAP, SEE PLANS.
5). ALL FILL SLOPES ARE TO HAVE A SLOPE OF 2:1.
6). THE SEDIMENT TRAP LENGTH TO WIDTH RATIO IS TO BE 2:1. SPECIAL DESIGNS ARE PERMITTED TO INCREASE THE FLOW TIME AFTER APPROVAL BY THE STORMWATER ENGINEER.

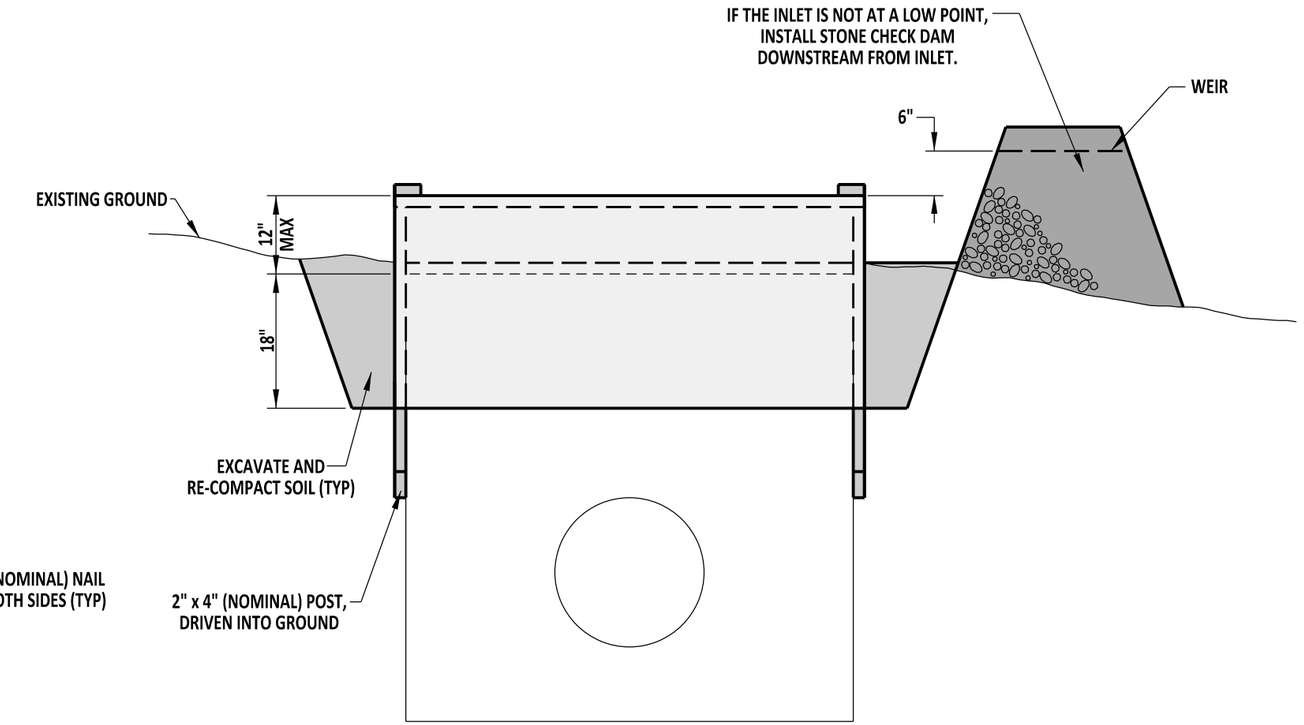
| | | | |
|---|---|---|---|
| DELAWARE<br>DEPARTMENT OF TRANSPORTATION | SEDIMENT TRAP | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. E-3 (2014) | SHT. 1 OF 1 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

10/24/2014

SCALE : NTS




ISOMETRIC VIEW

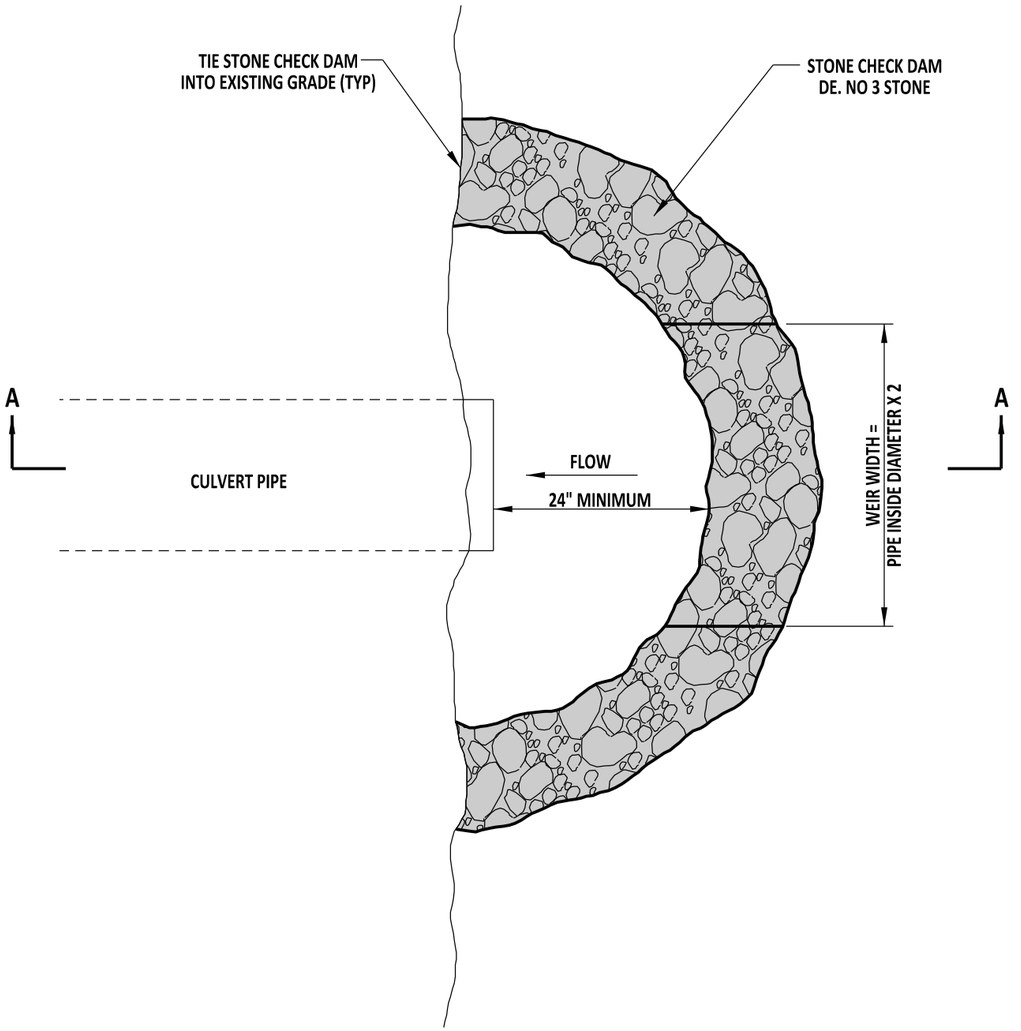



ELEVATION VIEW

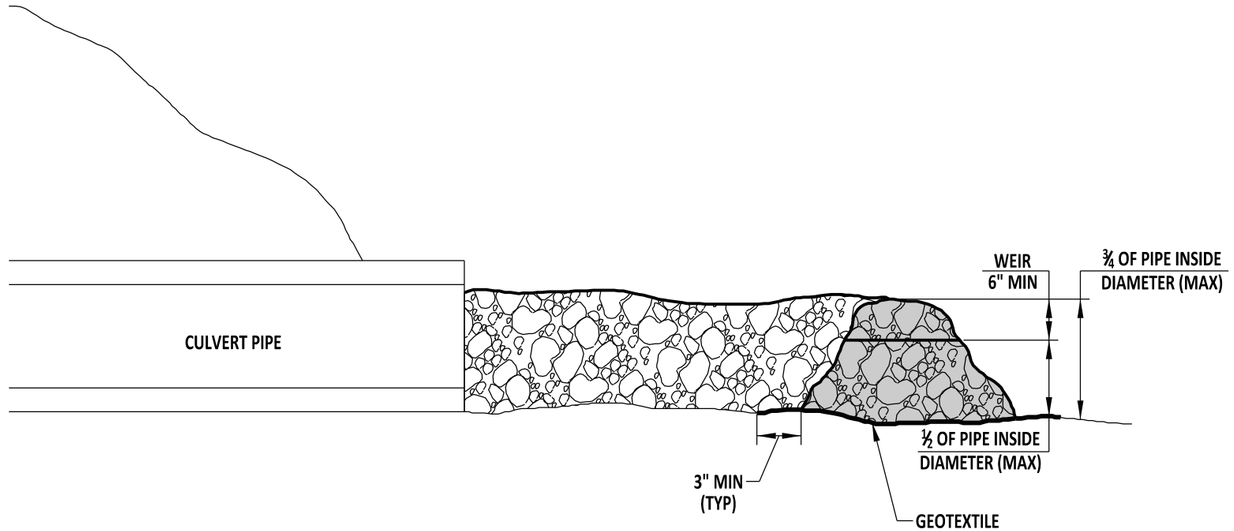
| DELAWARE DEPARTMENT OF TRANSPORTATION | INLET SEDIMENT CONTROL, DRAINAGE INLET | | APPROVED | SIGNATURE ON FILE (CHIEF ENGINEER) | 12/30/2014 (DATE) |
|---|---|---|---|---|---|
| | STANDARD NO. E-4 (2014) | SHT. 1 OF 1 | RECOMMENDED | SIGNATURE ON FILE (DESIGN ENGINEER) | 12/11/2014 (DATE) |

10/24/2014

SCALE : NTS




PLAN VIEW



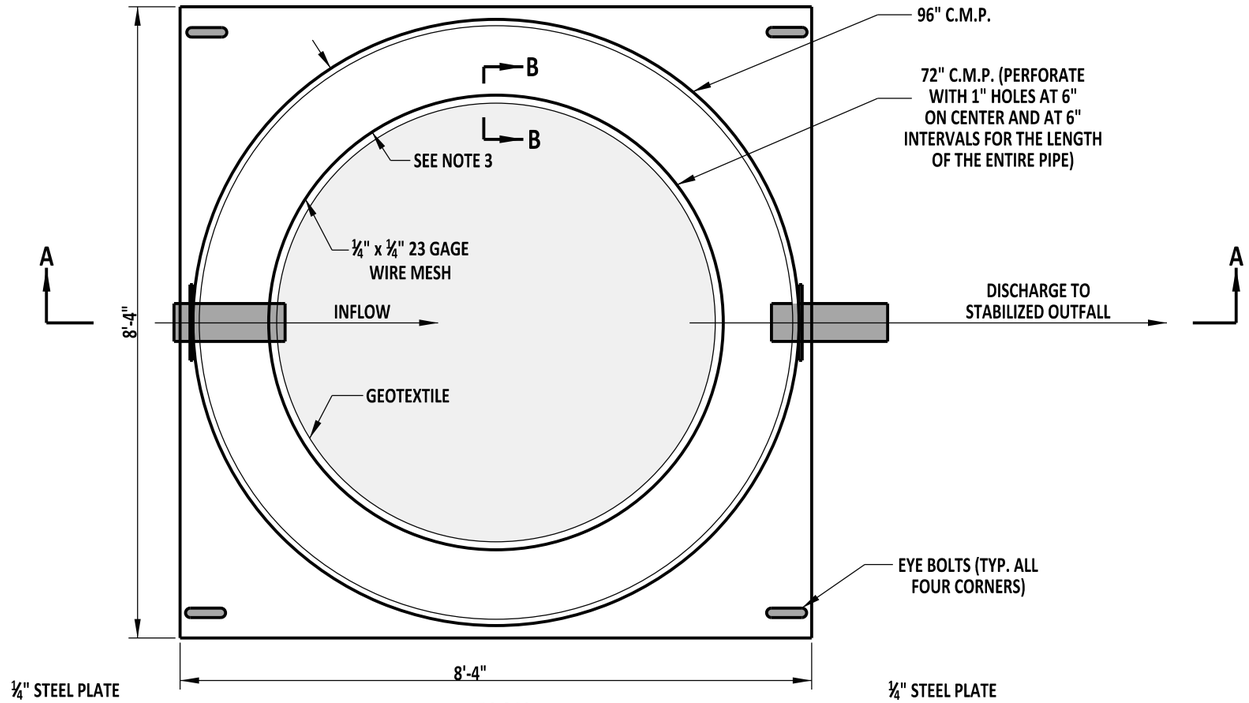

SECTION A-A

NOTE:
1). THE ENGINEER WILL ADAPT SIZE AND SHAPE OF THE STONE CHECK DAM TO MEET FIELD CONDITIONS. INTERCEPTING SWALES AND GRADES NEED TO BE CONSIDERED AS WELL.

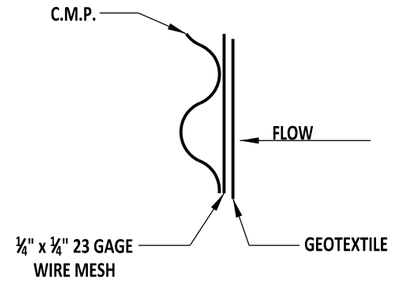
| | | | |
|---|---|---|---|
| DELAWARE<br>DEPARTMENT OF TRANSPORTATION | INLET SEDIMENT CONTROL, CULVERT INLET | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. E-5 (2014) | SHT. 1 OF 1 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

10/24/2014

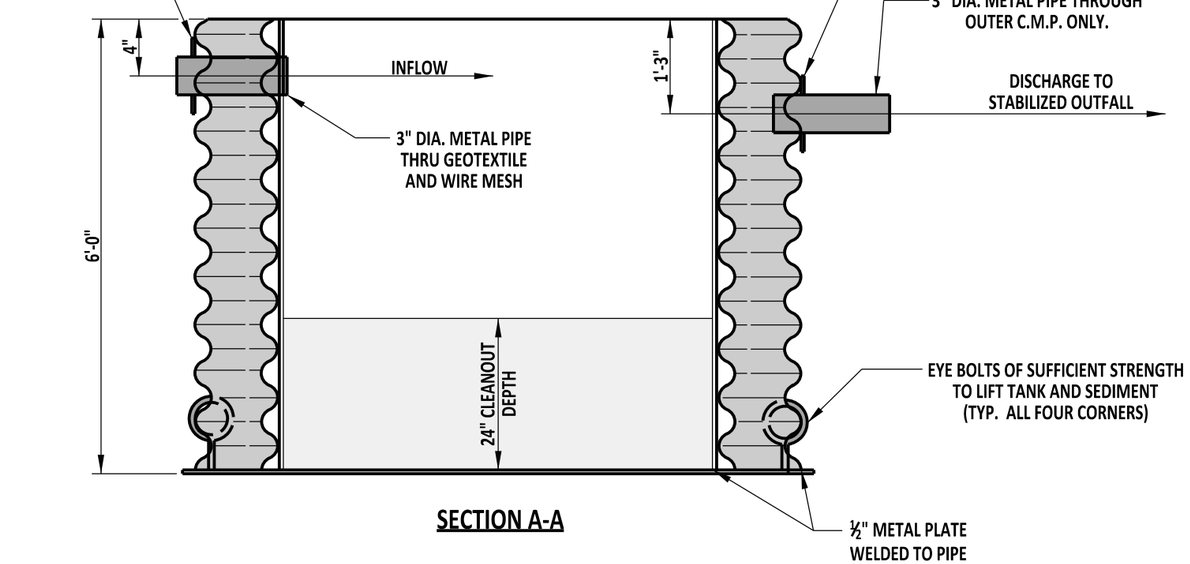
SCALE : NTS




PLAN




SECTION B-B




SECTION A-A

NOTES:

1). THE MAXIMUM PUMP DISCHARGE IN THIS TYPICAL PORTABLE SEDIMENT TANK IS 125 GALLONS PER MINUTE. REPLACE THE GEOTEXTILE WHEN THE PORTABLE SEDIMENT TANK CAN NO LONGER ALLOW THIS FLOW RATE, WHEN THERE IS A TEAR, OR WHEN DIRECTED BY THE ENGINEER.
2). SEVERAL UNCONNECTED OR CONNECTED IN PARALLEL PORTABLE SEDIMENT TANKS MAY BE USED WHEN A HIGHER FLOW RATE IS NEEDED TO DEWATER THE JOB.
3). PLACE 72" C.M.P. SO THAT IT IS CENTERED IN THE 96" C.M.P. AND THERE IS AN EQUAL AMOUNT OF SPACE BETWEEN THE TWO PIPES.

DELAWARE
DEPARTMENT OF TRANSPORTATION

PORTABLE SEDIMENT TANK

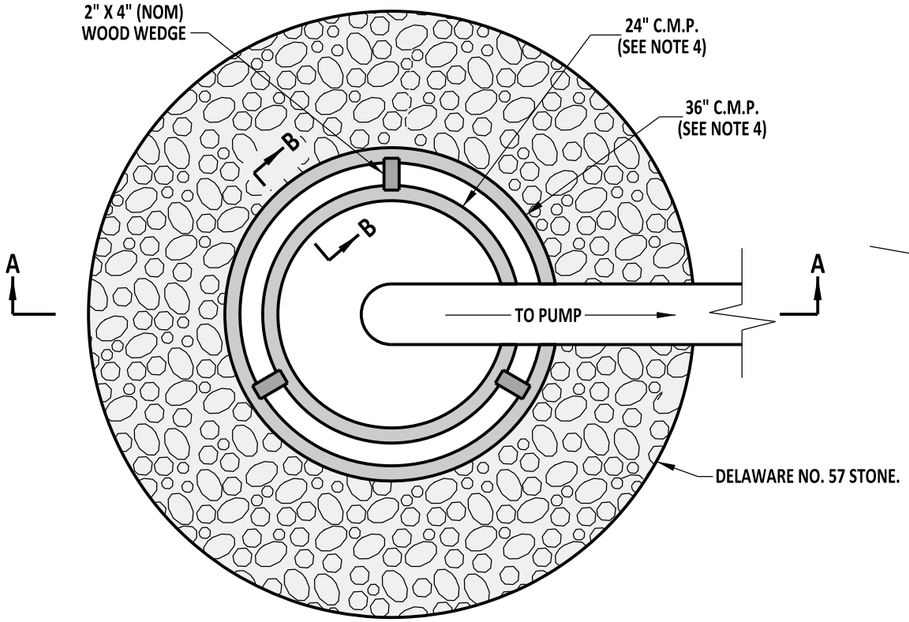
STANDARD NO. E-6 (2014) | SHT. 1 OF 1

APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE)

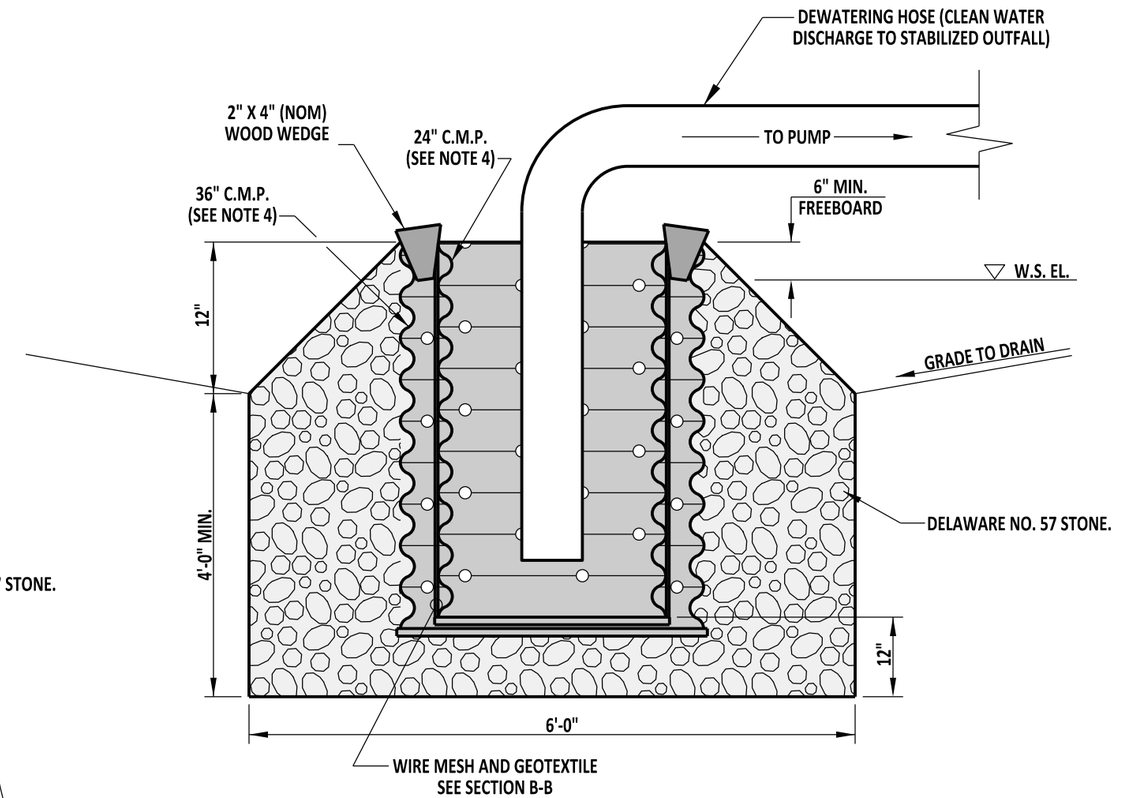
RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE)

10/24/2014

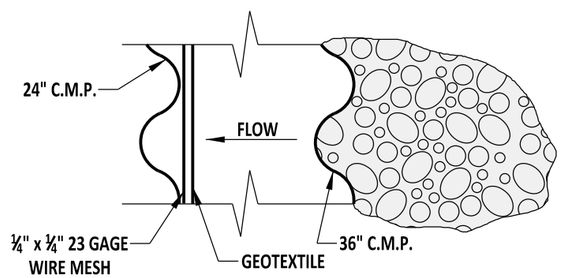
SCALE : NTS




PLAN




SECTION A-A




SECTION B-B

NOTES:
1). ALL PERFORATIONS ARE 1" IN DIAMETER AND 12" ON CENTER IN ALL DIRECTIONS.
2). PLACE WIRE MESH AROUND THE REMOVABLE 24" C.M.P. BEFORE ATTACHING THE GEOTEXTILE TO INCREASE FLOW THROUGH THE GEOTEXTILE.
3). WELD PERFORATED CAP TO THE BOTTOM OF BOTH PIPES.
4). REPLACE GEOTEXTILE FOR THE 24" C.M.P. WHEN CLOGGED WITH SEDIMENT.

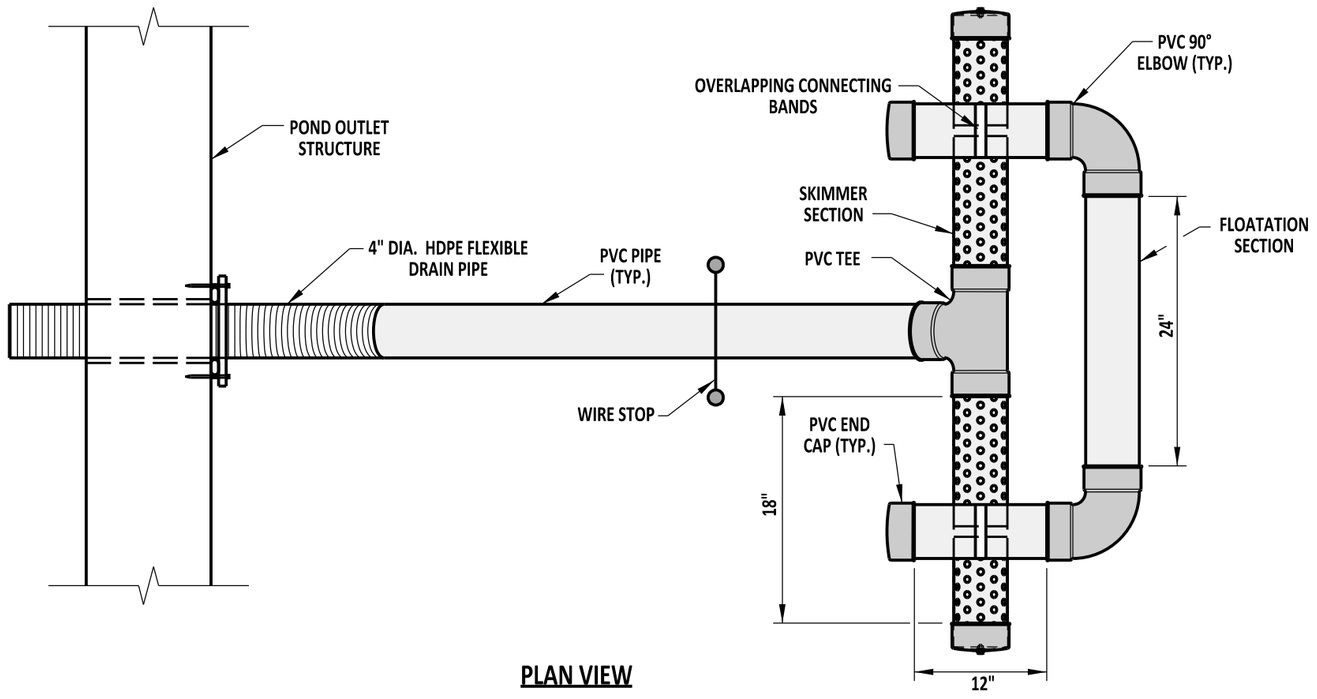
| | | | |
|---|---|---|---|
| DELAWARE<br>DEPARTMENT OF TRANSPORTATION | SUMP PIT | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. E-7 (2014) | SHT. 1 OF 1 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

10/30/2014

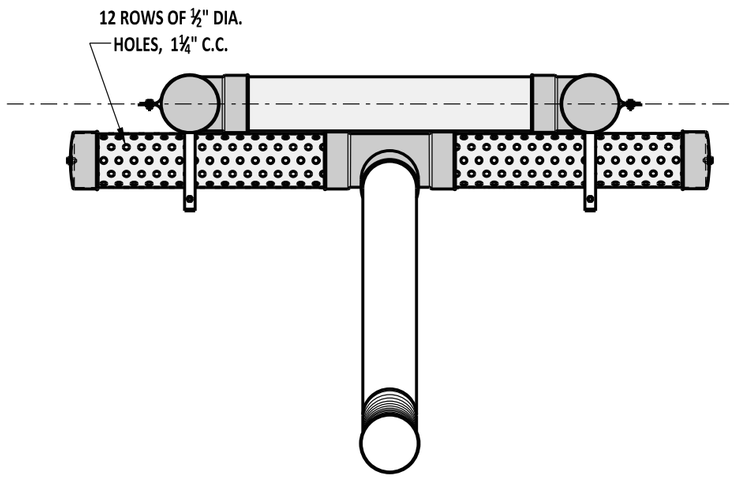
SCALE : NTS

NOTES:

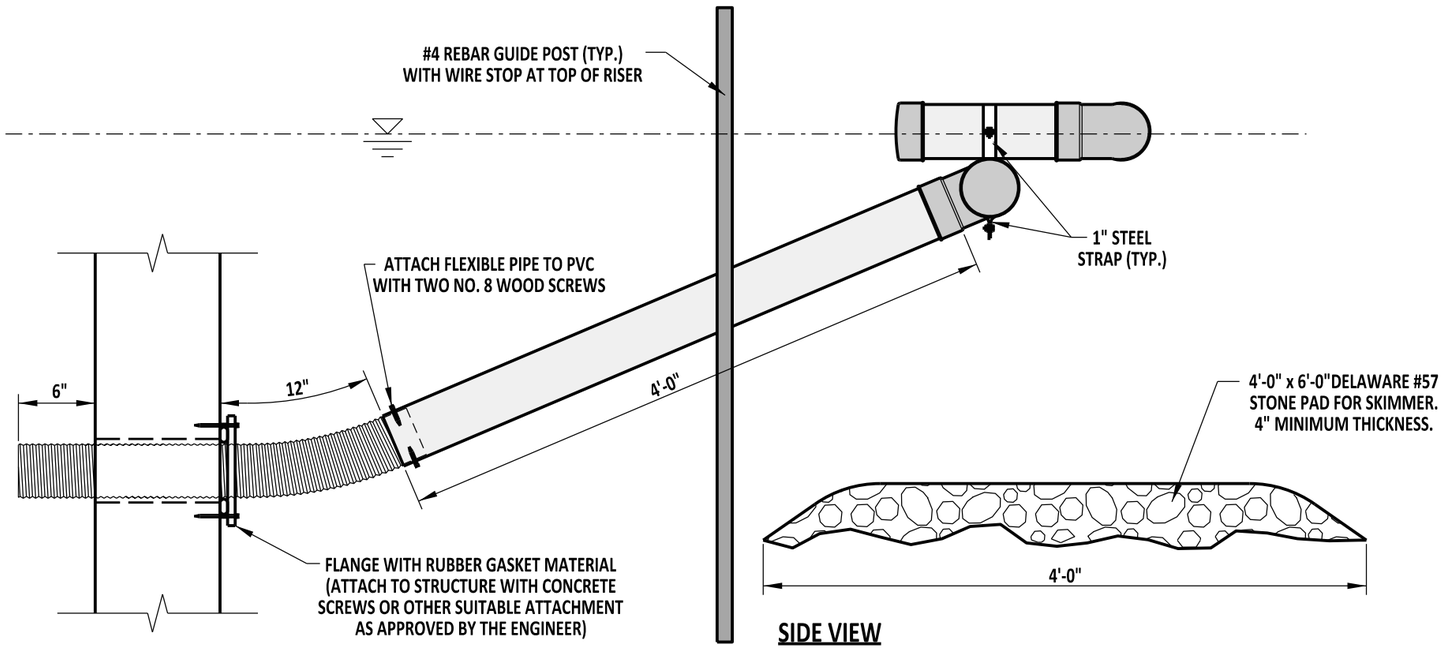
1). ALL PVC PIPES ARE 4" I.D., SCHEDULE 40.
2). SOLVENT WELD ALL JOINTS OF THE FLOTATION SECTION..
3). ATTACH A 4" HDPE FLEXIBLE DRAIN PIPE TO THE POND OUTLET STRUCTURE USING WATER TIGHT CONNECTIONS.




PLAN VIEW




FRONT VIEW

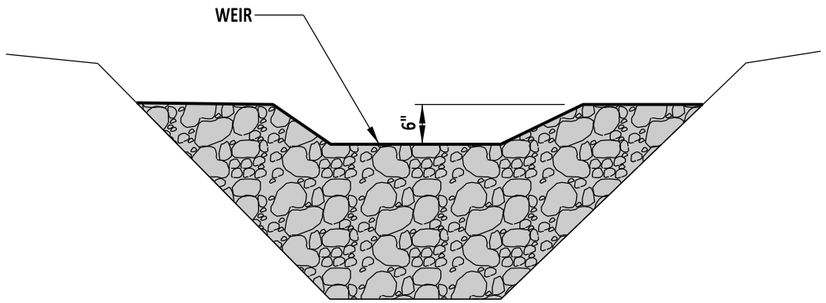



SIDE VIEW

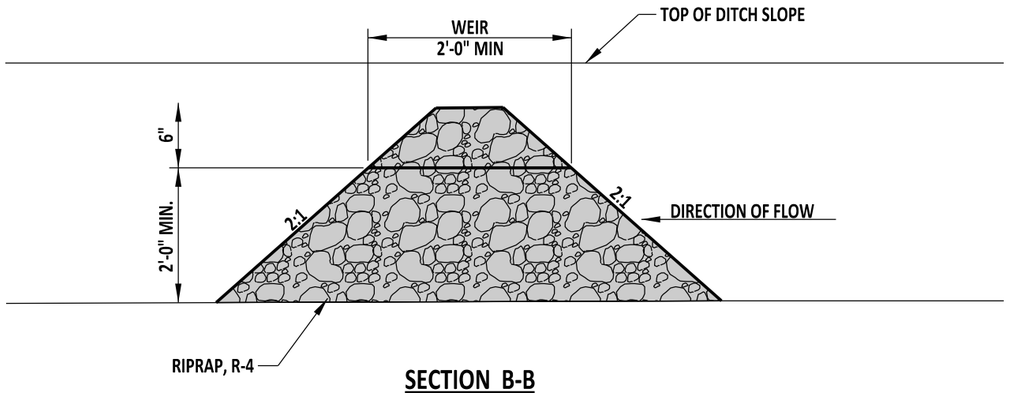
| | | | |
|---|---|---|---|
| DELAWARE DEPARTMENT OF TRANSPORTATION | SKIMMER DEWATERING DEVICE | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. E-8 (2014) | SHT. 1 OF 1 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

10/24/2014

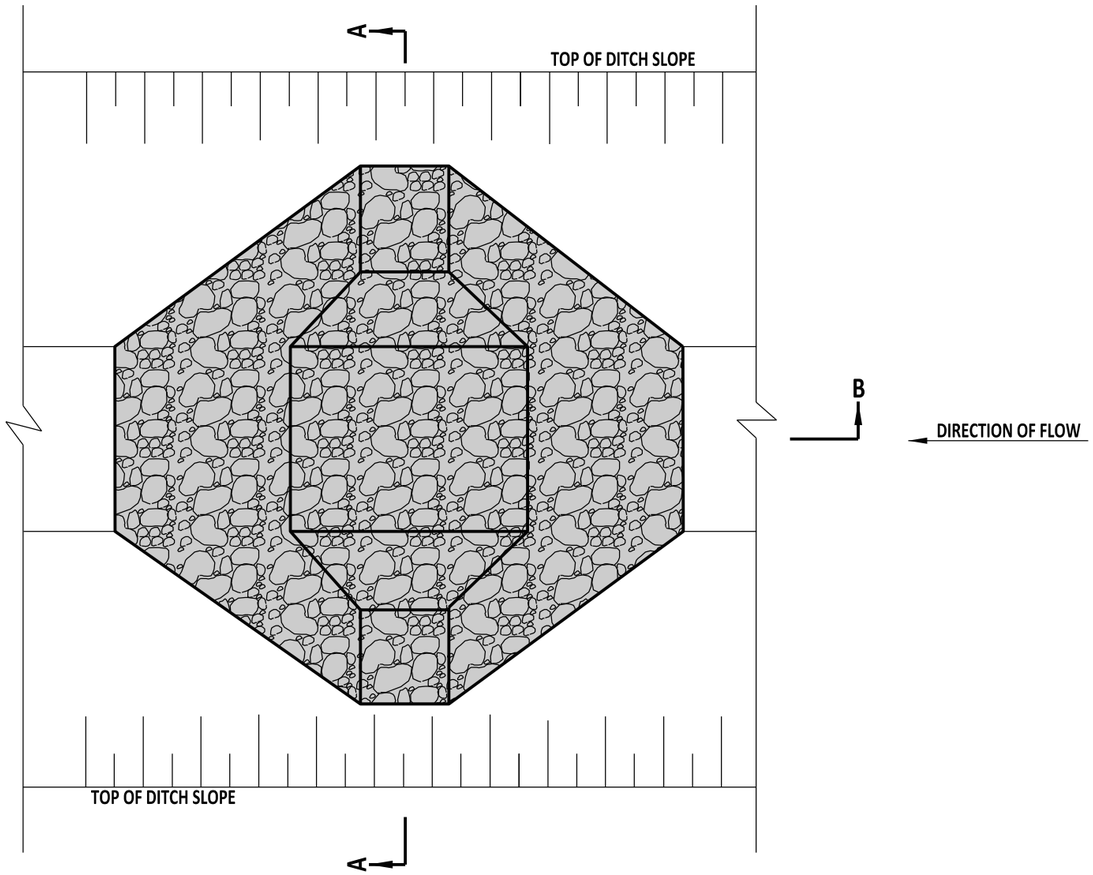
SCALE : NTS



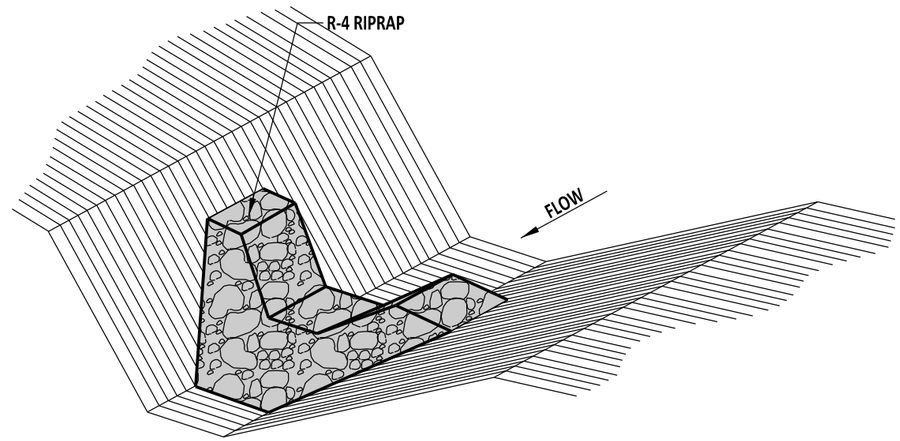

## SECTION A-A




## SECTION B-B




## PLAN




## ISOMETRIC VIEW

**NOTES:**

1). THE MAXIMUM HEIGHT OF THE CHECK DAM IS 2'-0" AT THE CENTER OF THE WEIR.
2). CONSTRUCT CHECK DAM SO THAT THE CENTER OF THE DAM IS 6" LOWER THAN THE OUTER EDGES, FORMING A WEIR THAT WATER CAN FLOW ACROSS.
3). INSTALL GEOTEXTILE FABRIC UNDERNEATH RIPRAP ON PERMANENT CHECK DAMS ONLY.
4). SPACE DAMS SO THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE WIER OF THE DOWNSTREAM DAM. PLACE DAMS NO FURTHER THAN 200'-0" APART WHEN THE SLOPE IS LESS THAN 1%.

DELAWARE
DEPARTMENT OF TRANSPORTATION

STONE CHECK DAM

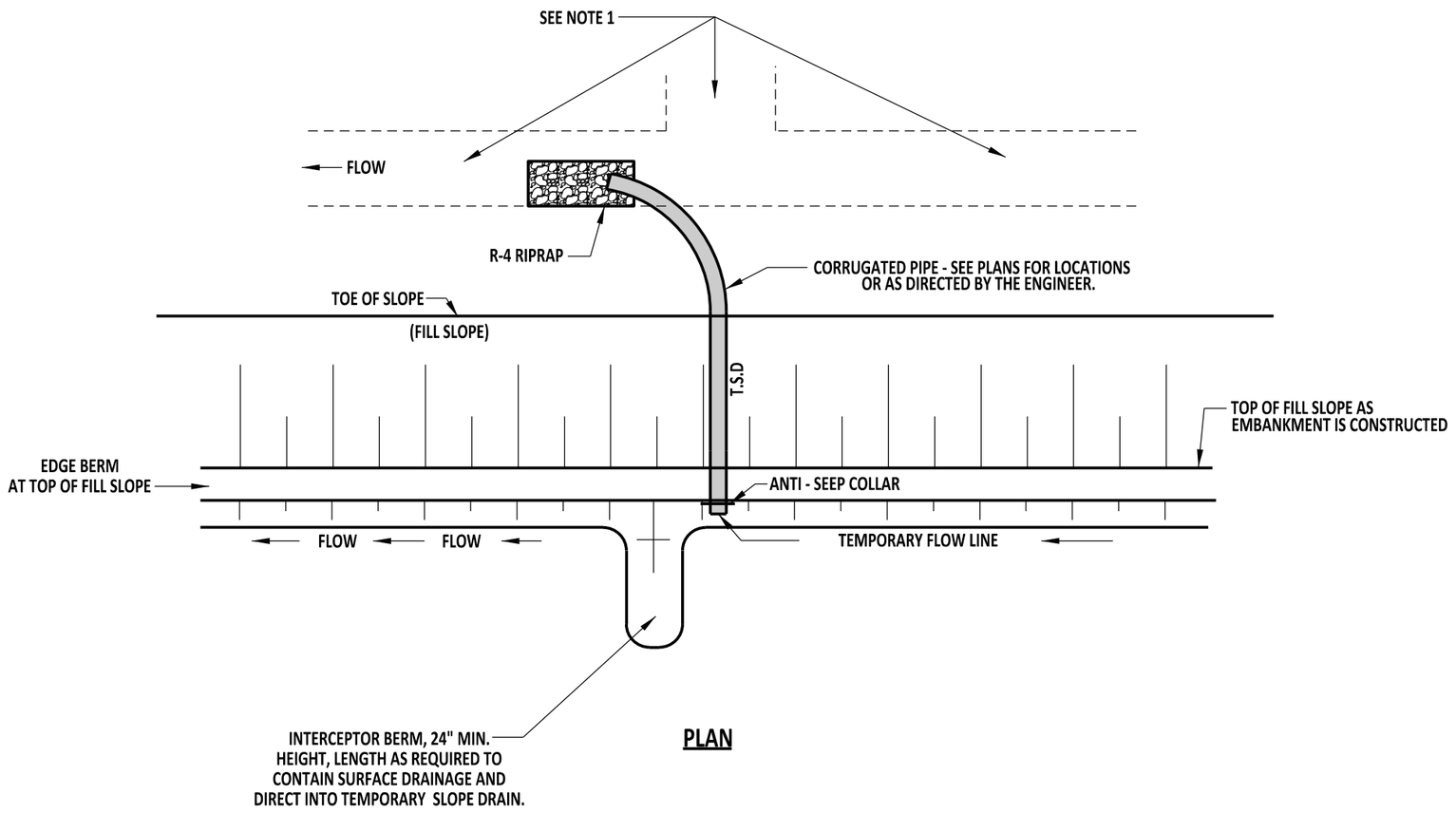
STANDARD NO. E-9 (2014) | SHT. 1 OF 1

APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE)

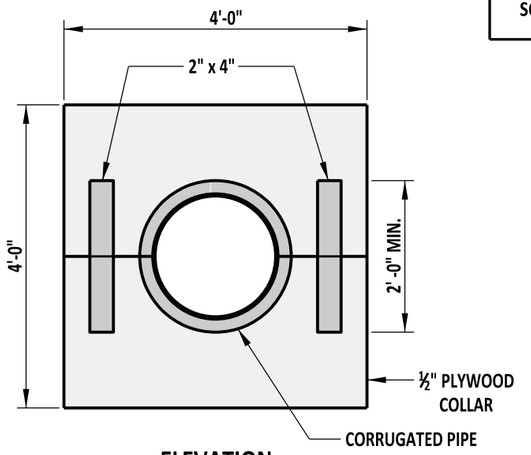
RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE)

10/24/2014

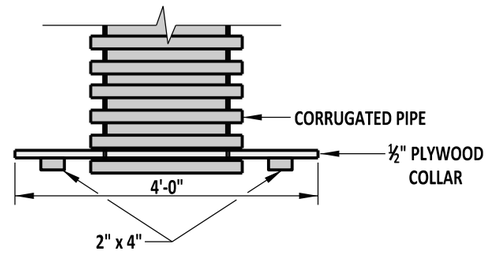
SCALE : NTS




PLAN

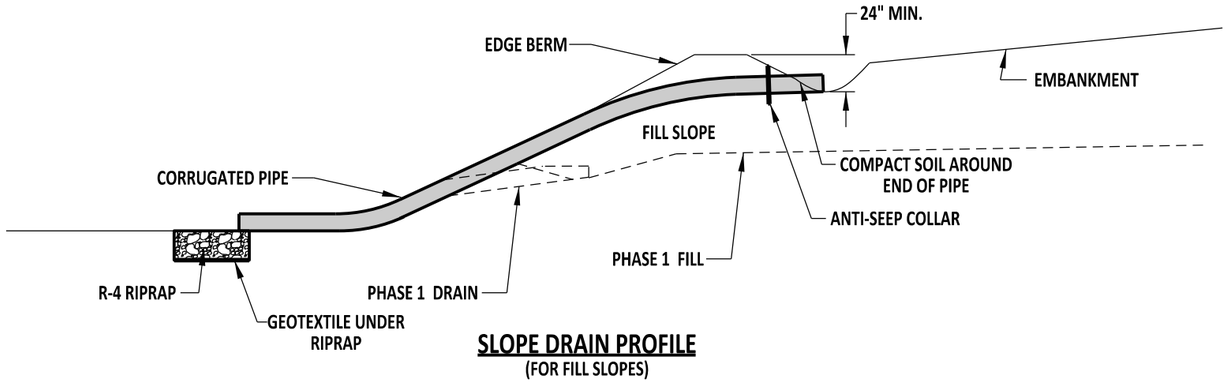



ELEVATION




PLAN

ANTI-SEEP COLLAR




SLOPE DRAIN PROFILE
(FOR FILL SLOPES)

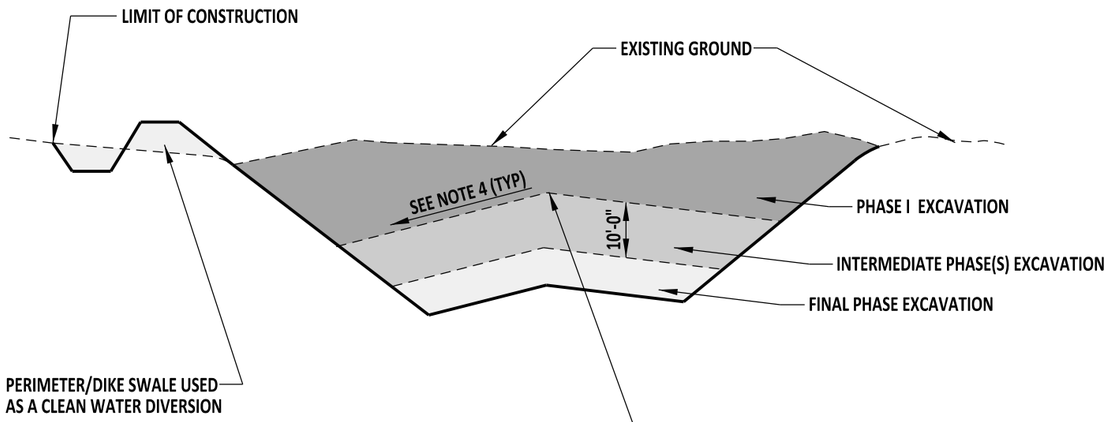
NOTES:

1). DISCHARGE ALL TEMPORARY SLOPE DRAINS ONTO A STABILIZED OUTFALL AND THEN INTO A SEDIMENT TRAPPING DEVICE.
2). USE TEMPORARY SLOPE DRAINS AT THE TOP OF FILL SLOPES AS EMBANKMENT IS CONSTRUCTED TO PREVENT EXCESSIVE EROSION UNTIL SHOULDERS ARE CONSTRUCTED AND THE SLOPES ARE SEEDED AS PER SPECIFICATIONS.
3). RESTRICT MOVEMENT OF SLOPE DRAINS TO THE SLOPE BY A METHOD APPROVED BY THE ENGINEER.

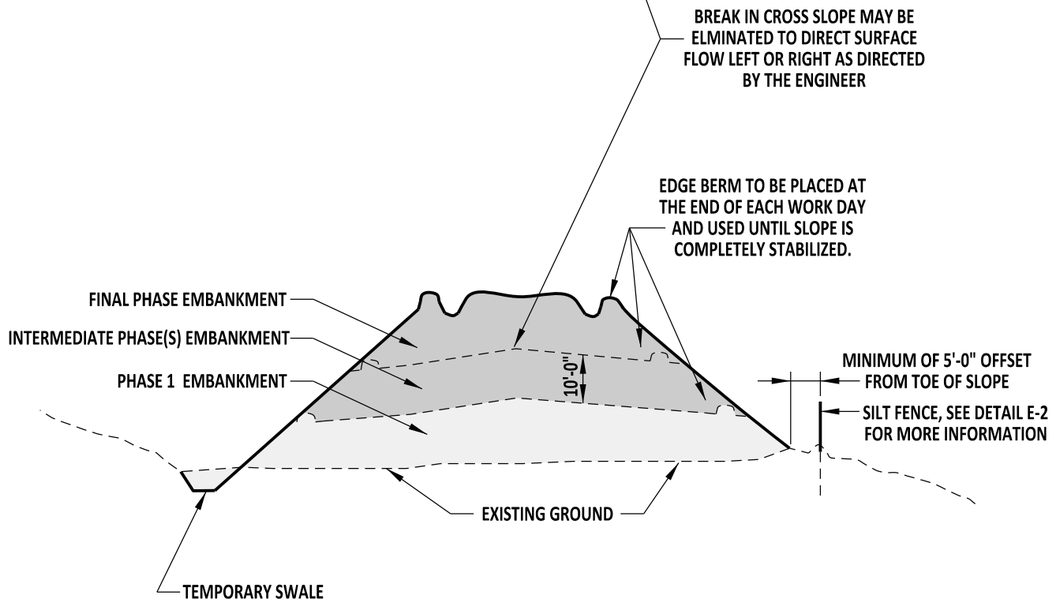
| | | | |
|---|---|---|---|
| DELAWARE DEPARTMENT OF TRANSPORTATION | TEMPORARY SLOPE DRAIN | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. E-10 (2014) | SHT. 1 OF 1 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

10/24/2014

SCALE : NTS




**CUT SECTION**




**FILL SECTION**

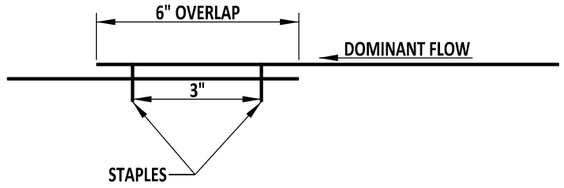
**NOTES:**

1). CONSTRUCT EDGE BERMS AND TEMPORARY SLOPE DRAINS ALONG THE TOP OF ALL SLOPES TO INTERCEPT RUNOFF AND CONVEY IT DOWN THE SLOPE FACES WITHOUT CREATING GULLIES OR WASHOUTS.
2). TRACK SLOPE FACES WITH CLEATED EQUIPMENT SUCH THAT THE CLEAT MARKS ARE ORIENTED HORIZONTALLY.
3). STABILIZE ALL CUT AND FILL SLOPES OF THE HIGHWAY EMBANKMENT WITH TEMPORARY OR PERMANENT SEED AS WORK PROGRESSES IN INCREMEMENTS NOT TO EXCEED 10'-0" OF EMBANKMENT HEIGHT.
4). CONSTRUCT EMBANKMENT CROSS SLOPES SO THAT THEY ARE NO FLATTER THAN 2% AND NO STEEPER THAN 6%.

| | | | |
|---|---|---|---|
| DELAWARE<br>DEPARTMENT OF TRANSPORTATION | INCREMENTAL STABILIZATION | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. E-11 (2014) | SHT. 1 OF 1 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

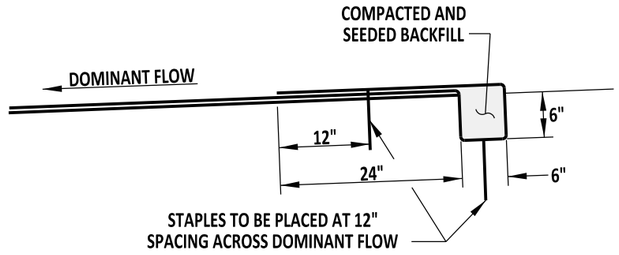
11/19/2014

SCALE : NTS



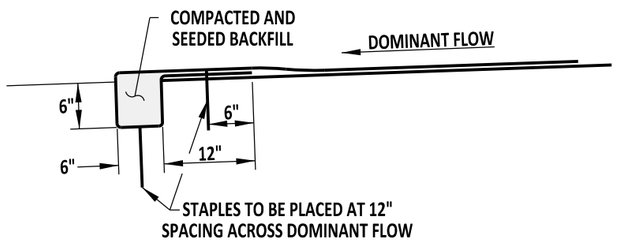

## OVERLAP DETAIL

STAPLES TO BE STAGGERED AT 6" SPACING.



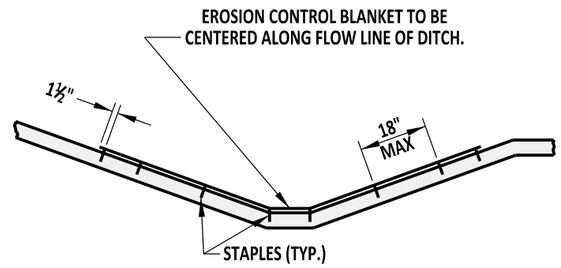

## TERMINAL TRENCH ANCHOR DETAIL

APPLIED AT THE UPSTREAM END OF DITCH

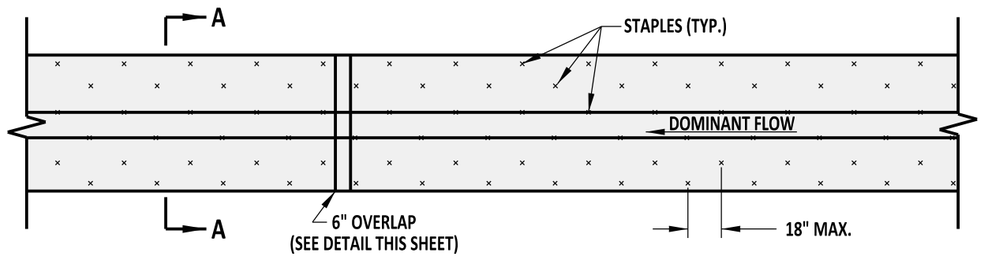



## INITIAL TRENCH ANCHOR DETAIL

APPLIED AT THE DOWNSTREAM END OF DITCH




## SECTION A-A




## PLAN

## STABILIZATION OF DITCHES

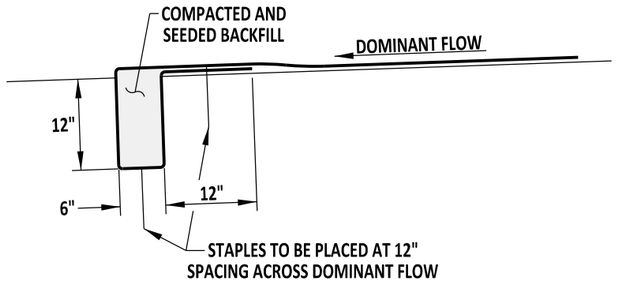
**NOTES:**

1). TRACK AND SEED TOPSOIL UNDER EROSION CONTROL BLANKET.
2). ADDITIONAL STAPLES ARE REQUIRED AT OVERLAPS. SEE OVERLAP DETAIL ON THIS SHEET FOR STAPLE PLACEMENT.
3). STAGGER ALL STAPLES ACROSS EROSION CONTROL BLANKET AS SHOWN.

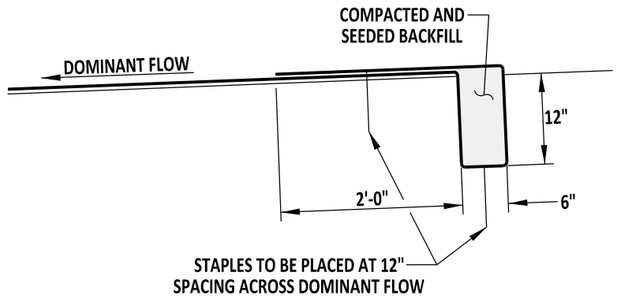
| DELAWARE DEPARTMENT OF TRANSPORTATION | EROSION CONTROL BLANKET APPLICATIONS | | APPROVED | SIGNATURE ON FILE (CHIEF ENGINEER) | 12/30/2014 (DATE) |
|---|---|---|---|---|---|
| | STANDARD NO. E-12 (2014) | SHT. 1 OF 1 | RECOMMENDED | SIGNATURE ON FILE (DESIGN ENGINEER) | 12/11/2014 (DATE) |

10/24/2014

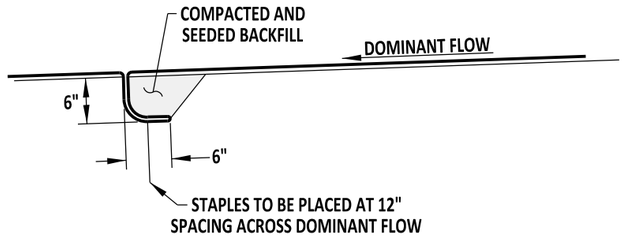
SCALE : NTS



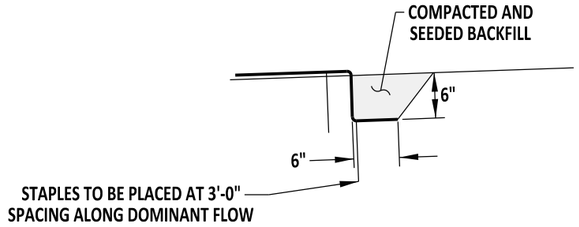

**INITIAL TRENCH ANCHOR DETAIL**
APPLIED AT THE DOWNSTREAM END OF DITCH



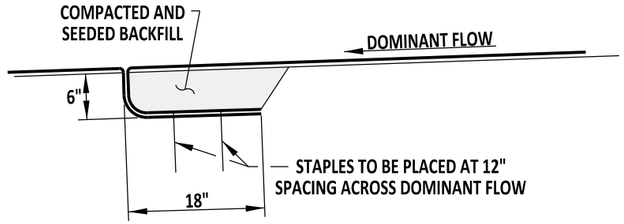

**TERMINAL TRENCH ANCHOR DETAIL**
APPLIED AT THE UPSTREAM END OF DITCH



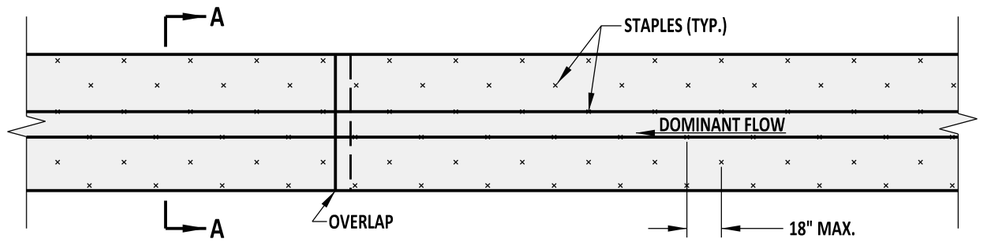

**CHECK SLOT DETAIL**
(PLACE AS PER MANUFACTURER)



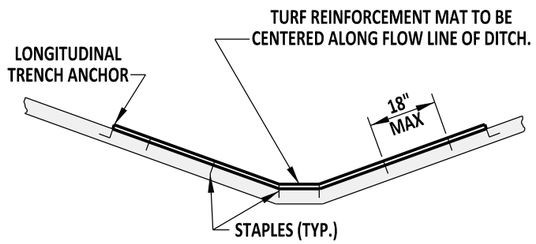

**LONGITUDINAL TRENCH ANCHOR DETAIL**




**OVERLAP DETAIL**




**STABILIZATION OF DITCHES**
**PLAN**




**STABILIZATION OF DITCHES**
**SECTION A-A**

| DESIGN SHEAR STRESS | |
|---|---|
| TYPE 1 | GREATER THAN 2 lb/sf BUT LESS THAN 6 lb/sf |
| TYPE 2 | GREATER THAN 6 lb/sf BUT LESS THAN 8 lb/sf |

NOTES:
1). TRACK AND SEED TOPSOIL UNDER TURF REINFORCEMENT.
2). ADDITONAL STAPLES ARE REQUIRED AT OVERLAPS, ENDS, CHECK SLOTS, AND EDGES AS DETAILED ON THIS SHEET.
3). STAGGER ALL STAPLES AS SHOWN ON THIS SHEET.

DELAWARE
DEPARTMENT OF TRANSPORTATION

TURF REINFORCEMENT MAT APPLICATIONS

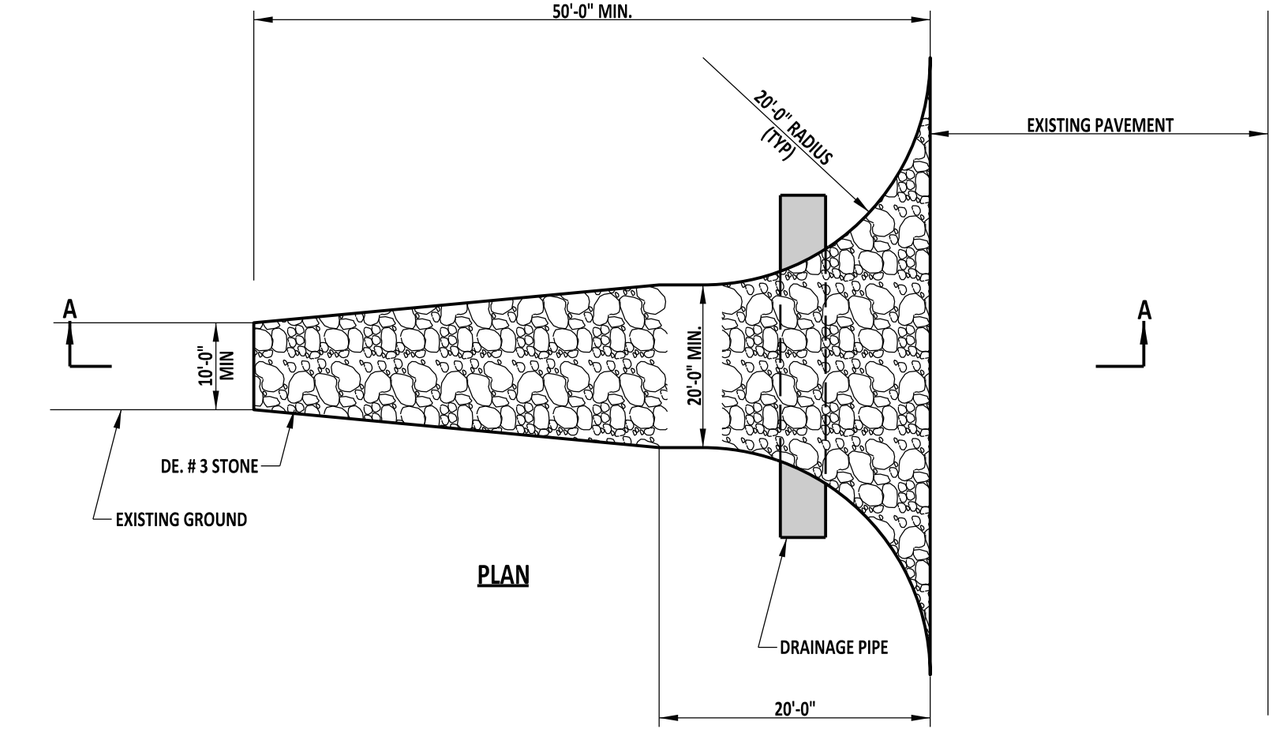
STANDARD NO. E-13 (2014) | SHT. 1 OF 1

APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE)

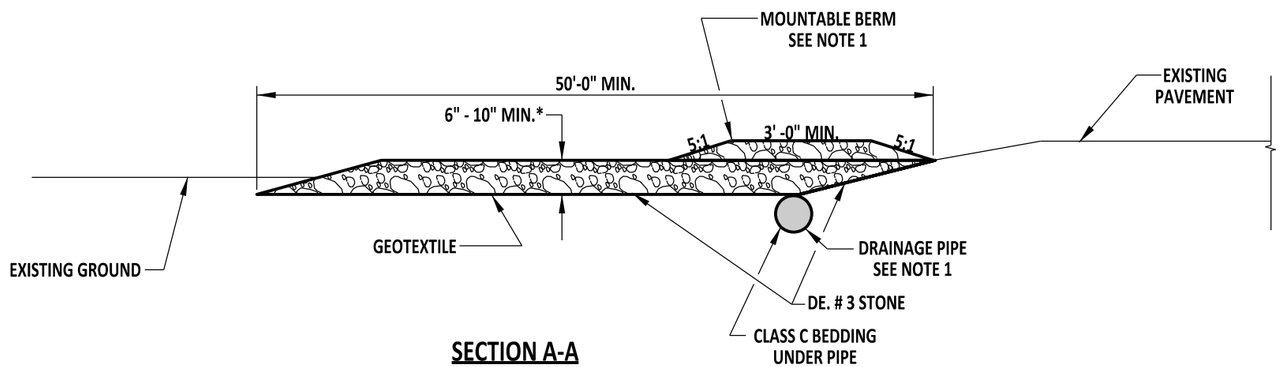
RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE)

10/24/2014

SCALE : NTS




**PLAN**




**SECTION A-A**

* - 6" MIN (< 3 AXLE) - 10" MIN (> 3 AXLE)

NOTES:

1). PIPE ALL SURFACE WATER THAT IS FLOWING OR DIVERTED TOWARDS THE CONSTRUCTION ENTRANCE UNDER THE ENTRANCE. A MOUNTABLE BERM AS SHOWN ON THIS DETAIL, IS PERMITTED TO FACILITATE PLACEMENT OF PIPES IN SHALLOW CONDITIONS.

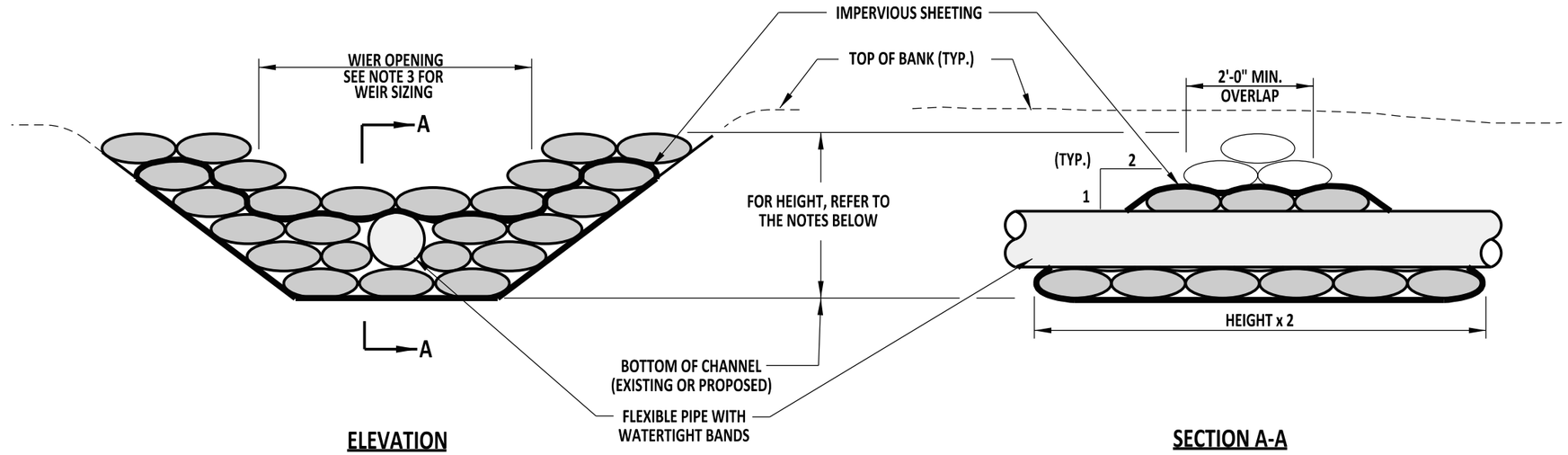
2). SEE PLANS FOR LOCATION AND NUMBER OF STABILIZED CONSTRUCTION ENTRANCES. PRIOR APPROVAL BY THE ENGINEER IS REQUIRED FOR ANY CHANGE IN LOCATION OR NUMBER OF ENTRANCES.

3). REMOVE AND REPLACE TOP 2" OF STONE WITH 2" OF CLEAN STONE WHEN VOIDS ARE FILLED OR AS DIRECTED BY THE ENGINEER.

| | | | |
|---|---|---|---|
| DELAWARE<br>DEPARTMENT OF TRANSPORTATION | STABILIZED CONSTRUCTION ENTRANCE | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. E-14 (2014) | SHT. 1 OF 1 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

10/24/2014

SCALE : NTS




**ELEVATION**

**SECTION A-A**

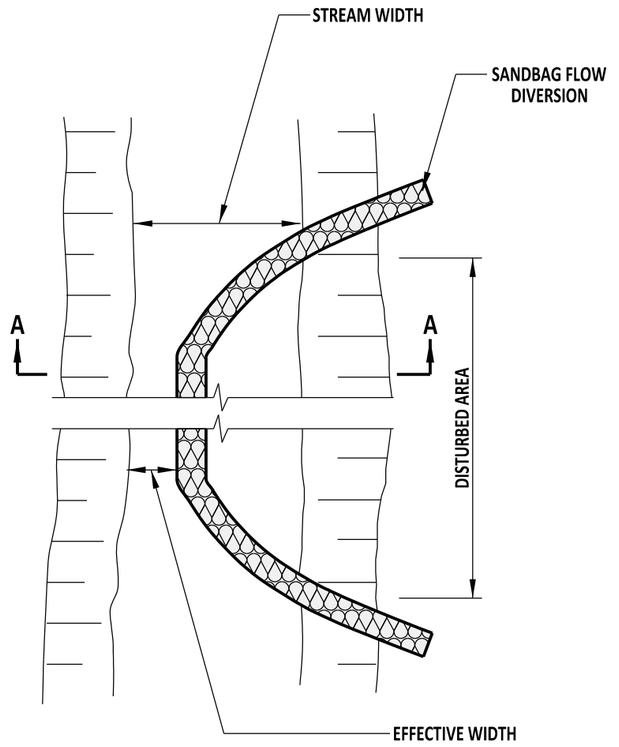
**NOTES:**

1). INSTALL SANDBAG DIKE IN UPSTREAM LOCATION FIRST.
2). CONSTRUCT SANDBAG DIKE SUCH THAT THE HEIGHT IS 1'-0" ABOVE THE PEAK ELEVATION OF THE 1 YEAR STORM, OR 1'-0" BELOW THE TOP OF THE BANK, WHICHEVER IS LESS. SEE PLANS FOR MORE INFORMATION.
3). CONSTRUCT WEIR SUCH THAT IT WILL PASS A 1 YEAR STORM EVENT PEAK FLOW. SEE PLANS FOR MORE INFORMATION.
4). SIZE THE PIPE SUCH THAT IT WILL ALLOW PASSAGE OF THE STREAM BASE FLOW.

| | | |
|---|---|---|
| DELAWARE<br>DEPARTMENT OF TRANSPORTATION | SANDBAG DIKE | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. E-15 (2014) SHT. 1 OF 1 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

10/24/2014

SCALE : NTS




PLAN



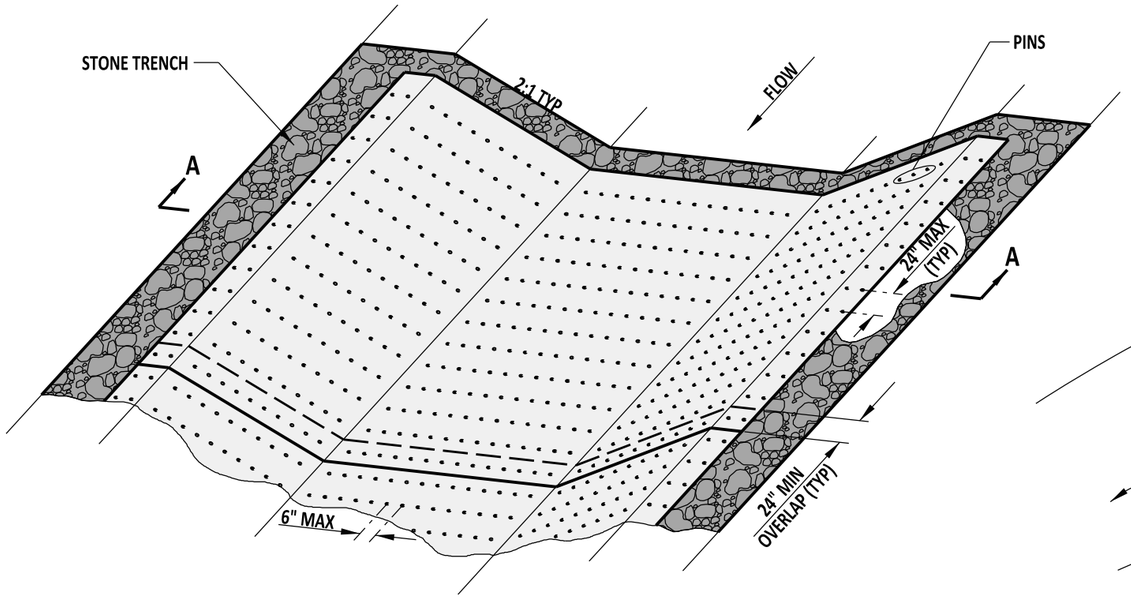

SECTION A-A

NOTES:
1). INSTALL DIVERSION STRUCTURE FROM UPSTREAM TO DOWNSTREAM.
2). SIZE EFFECTIVE CHANNEL WIDTH SO THAT IT WILL PASS A 1 YEAR STORM EVENT PEAK FLOW, OR ⅓ OF STREAM WIDTH, WHICHEVER IS GREATER.
3). CONSTRUCT SANDBAG DIVERSION HEIGHT SUCH THAT TOP OF THE DIVERSION STRUCTURE IS 1'-0" ABOVE THE 1 YEAR STORM PEAK ELEVATION.

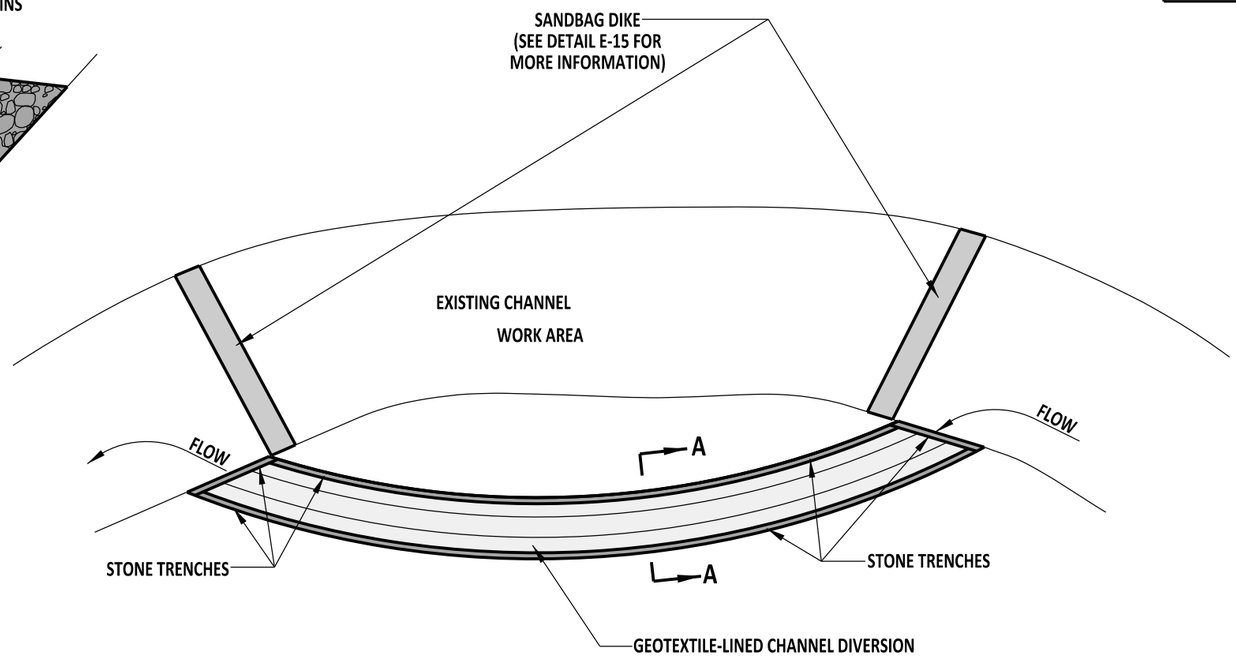
| | | | |
|---|---|---|---|
| DELAWARE<br>DEPARTMENT OF TRANSPORTATION | SANDBAG DIVERSION | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. E-16 (2014) | SHT. 1 OF 1 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

10/24/2014

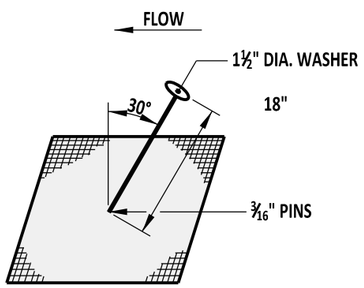
SCALE : NTS



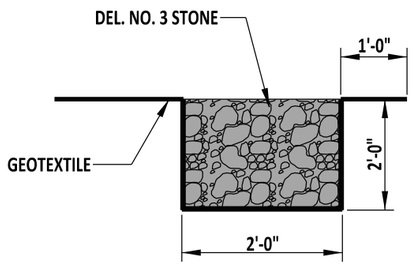

ISOMETRIC VIEW



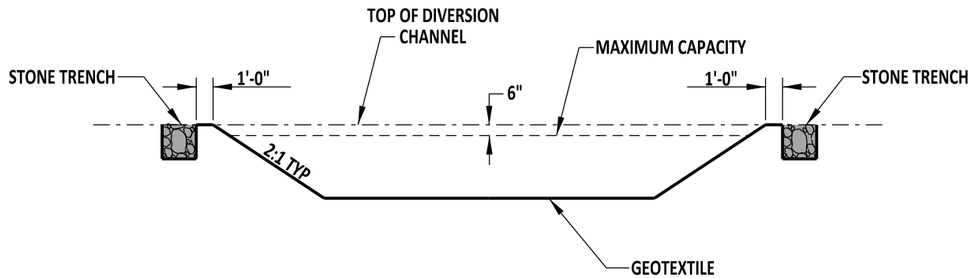

PLAN




FASTENING DETAIL




TRENCHING DETAIL



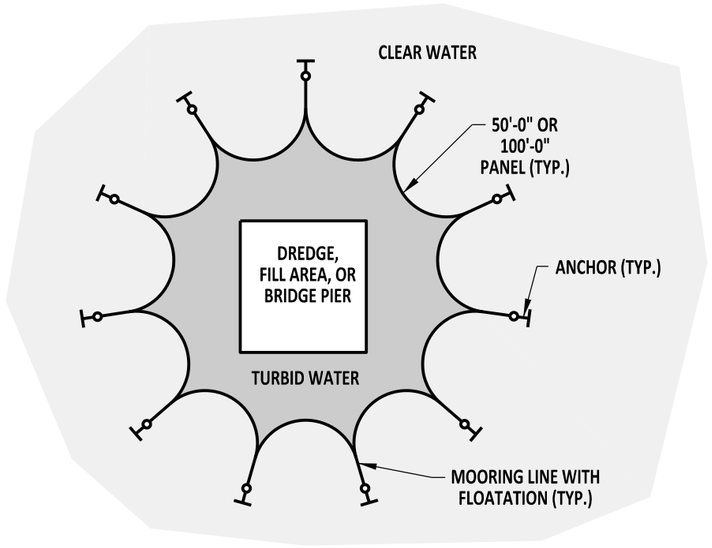

SECTION A-A

**NOTE:**
SEE PLANS FOR LOCATION, DIMENSIONS, GRADES, ETC.

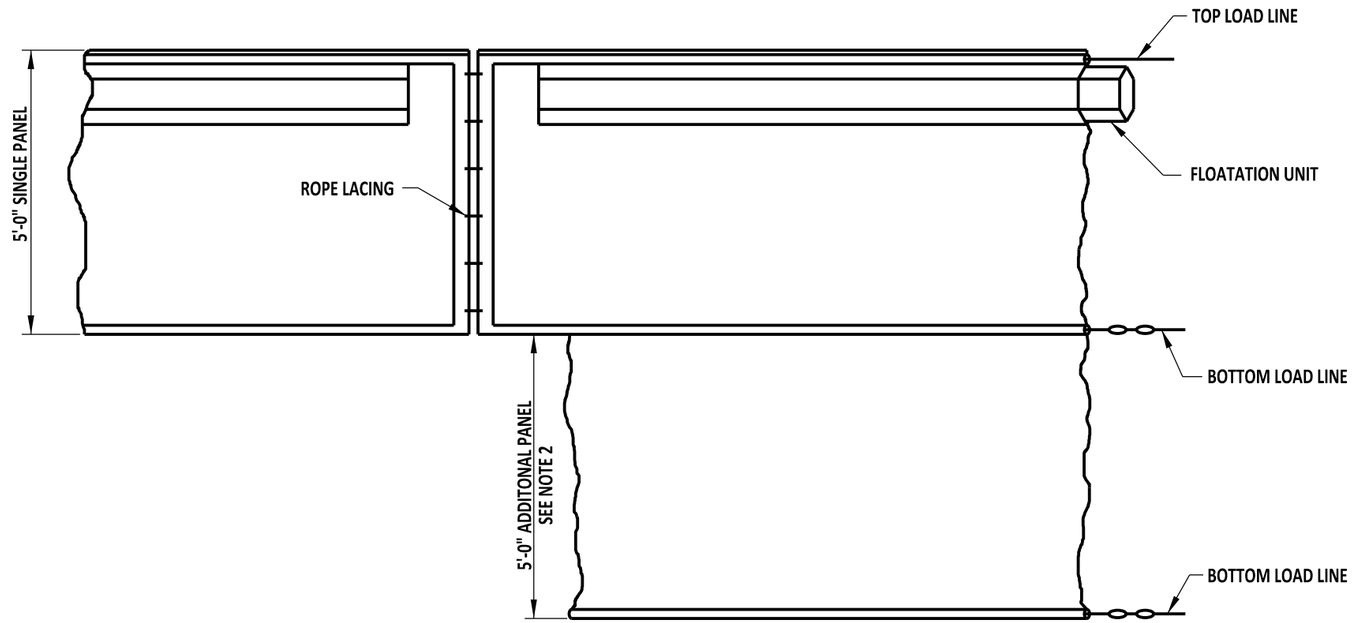
| | | | |
|---|---|---|---|
| DELAWARE<br>DEPARTMENT OF TRANSPORTATION | GEOTEXTILE-LINED CHANNEL DIVERSION | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. E-17 (2014) | SHT. 1 OF 1 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

10/24/2014

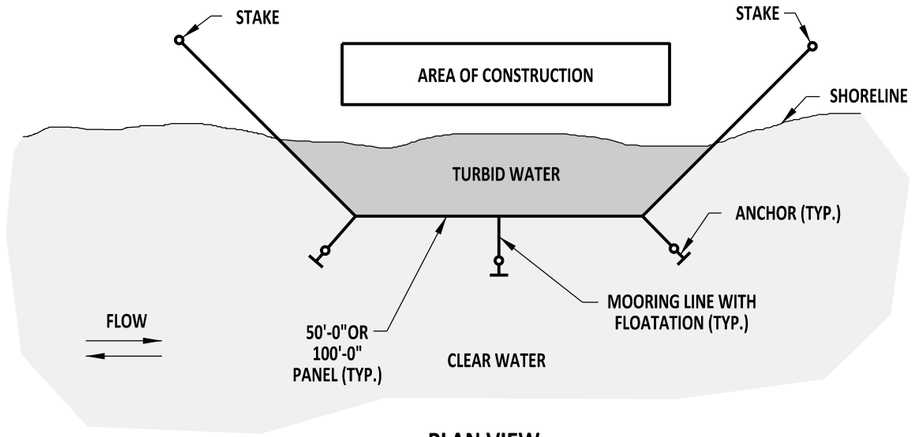
SCALE : NTS




**PLAN VIEW**
OPEN WATER APPLICATION




**ELEVATION**




**PLAN VIEW**
SHORELINE APPLICATION

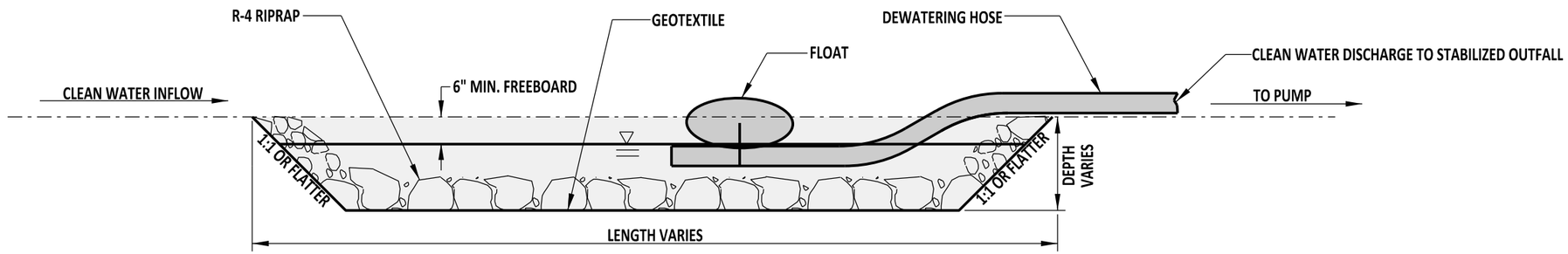
**FLOATING TURBIDITY CURTAIN**

**NOTE:**
1). ADDITIONAL PANEL REQUIRED FOR DEPTHS GREATER THAN 5'-0".
2). USE 2 TURBIDITY CURTAIN PANELS TO REACH BOTTOM DEPTHS OF 10'-0". SPECIAL DEPTH TURBIDITY CURTAIN PANELS ARE REQUIRED FOR DEPTHS GREATER THAN 10'-0" AND THEIR USE WITH BE CALLED OUT IN THE PLANS OR DIRECTED BY THE ENGINEER.

| | | | |
|---|---|---|---|
| DELAWARE<br>DEPARTMENT OF TRANSPORTATION | TURBIDITY CURTAIN | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. E-18 (2014) | SHT. 1 OF 1 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

11/19/2014

SCALE : NTS

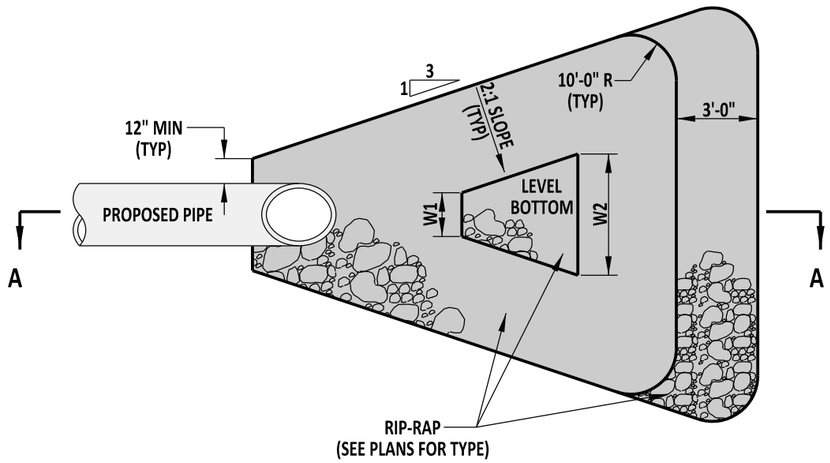



**NOTE:**
THE DIMENSIONS OF THE STILLING WELL ARE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. THE MINIMUM SIZE OF THE STILLING WELL IS 5'-0" x 5'-0".

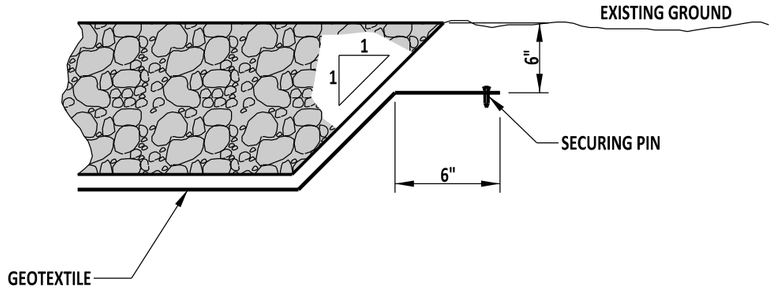
| | | | |
|---|---|---|---|
| DELAWARE<br>DEPARTMENT OF TRANSPORTATION | STILLING WELL | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. E-19 (2014) | SHT. 1 OF 1 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

10/24/2014

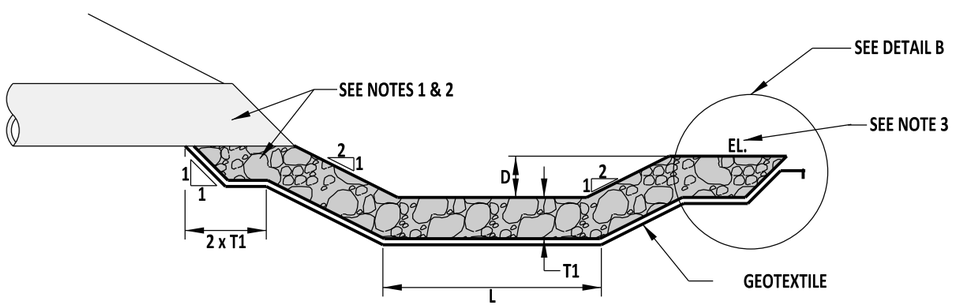
SCALE : NTS




PLAN VIEW




DETAIL B



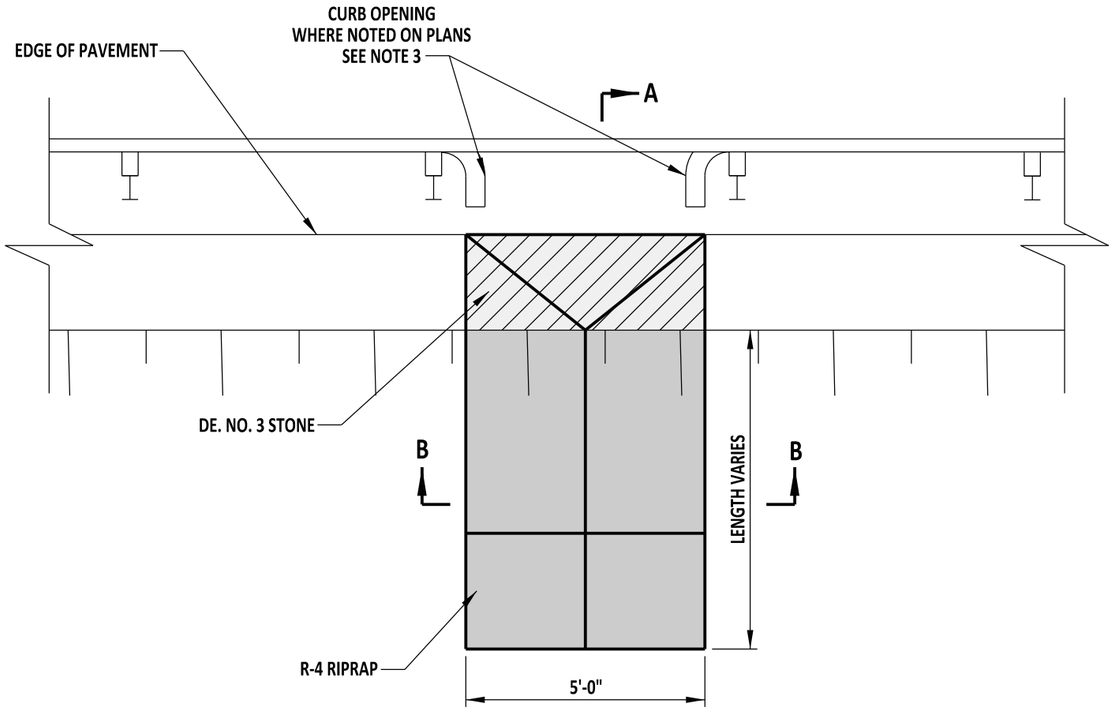

SECTION A-A

NOTES:
1). PLACE RIPRAP PRIOR TO PLACING PIPE.
2). PLACE DELAWARE NO. 3 STONE UNDER PIPE.
3). CONSTRUCT DISSIPATOR SUCH THAT THE ELEVATION (EL.) IS LOWER THAN PIPE INVERT.
4). REFER TO THE PIPE ENERGY DISSIPATOR SCHEDULE ON THE PLANS FOR THE VALUE OF DIMENSION VARIABLES.

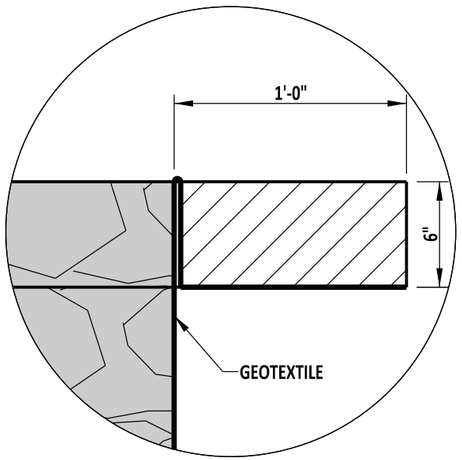
| | | | |
|---|---|---|---|
| DELAWARE<br>DEPARTMENT OF TRANSPORTATION | RIPRAP ENERGY DISSIPATOR | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. E-20 (2014) | SHT. 1 OF 1 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

10/24/2014

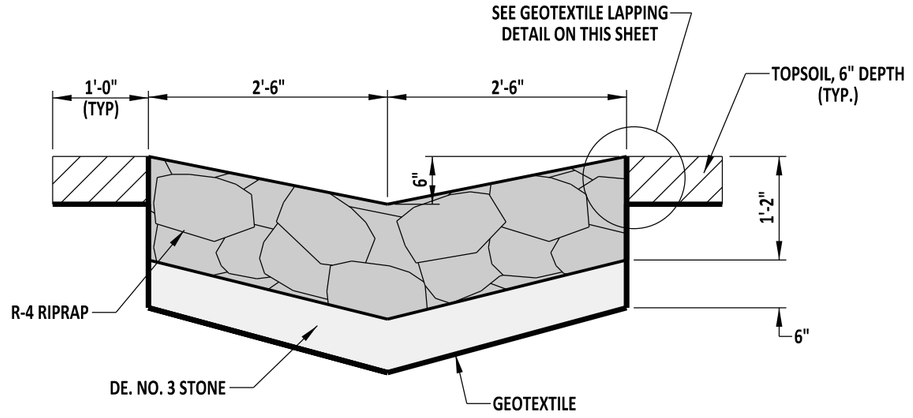
SCALE : NTS



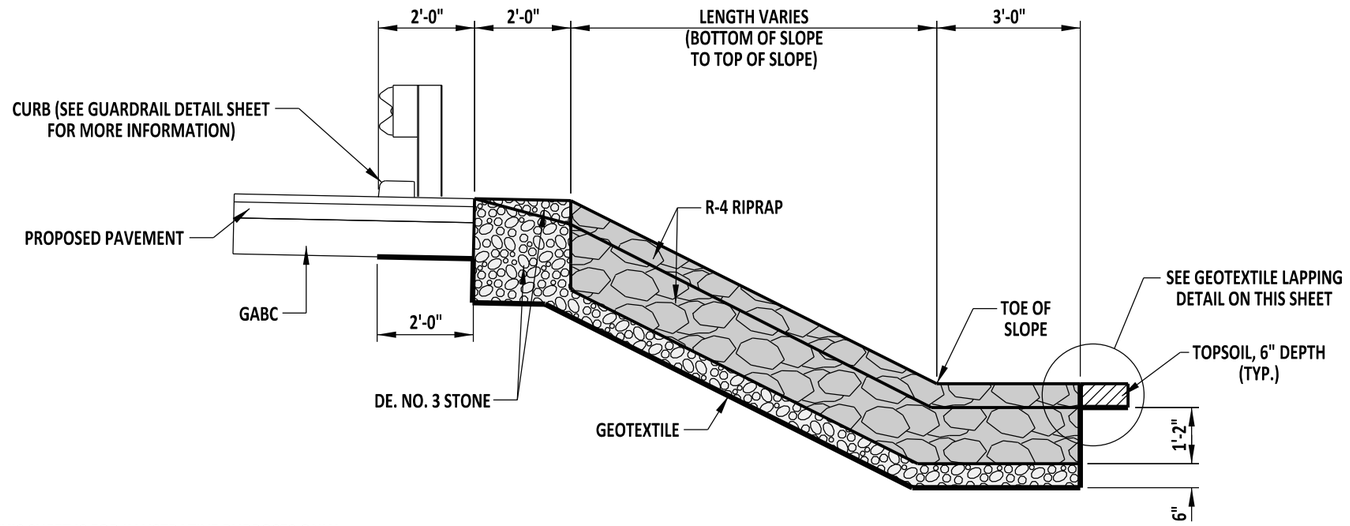

PLAN




GEOTEXTILE LAPPING DETAIL




SECTION B-B




SECTION A-A

NOTES:

1). GUARDRAIL DEPICTED ON THIS SHEET IS FOR ILLUSTRATIVE PURPOSES ONLY. REFER TO THE GUARDRAIL DETAILS FOR ACTUAL PLACEMENT. PLACEMENT OF SLOPE DRAIN MAY NEED TO BE ADJUSTED TO AVOID CONFLICT WITH GUARDRAIL POSTS.
2). PLACE CURB OPENING AT EACH SLOPE DRAIN LOCATION.
3). SEE DETAILS C-4 AND C-5 FOR MORE INFORMATION.

DELAWARE
DEPARTMENT OF TRANSPORTATION

STONE OUTLET DETAIL

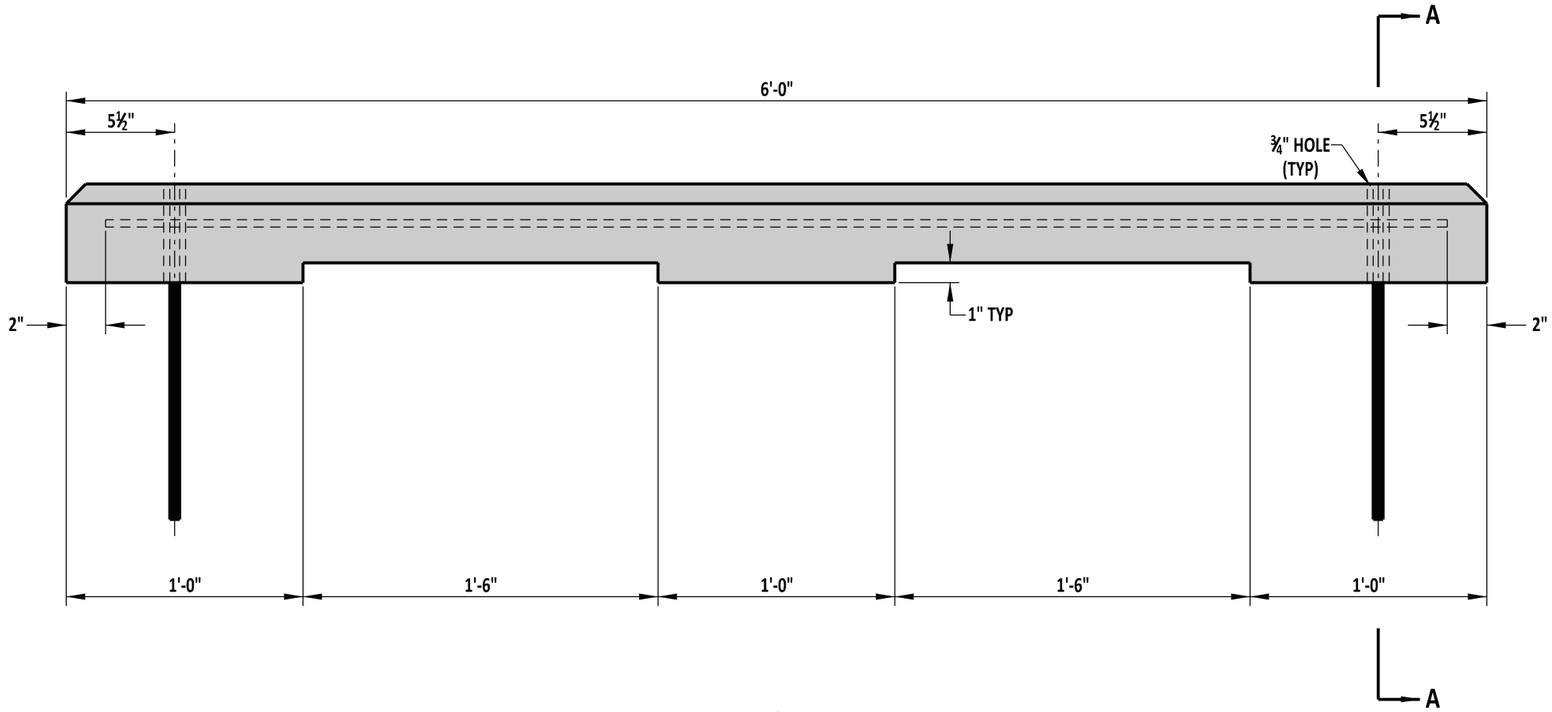
STANDARD NO. E-21 (2014) | SHT. 1 OF 1

APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE)

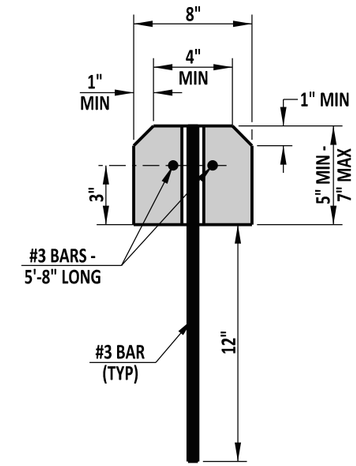
RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE)

11/19/2014

SCALE : NTS




ELEVATION VIEW

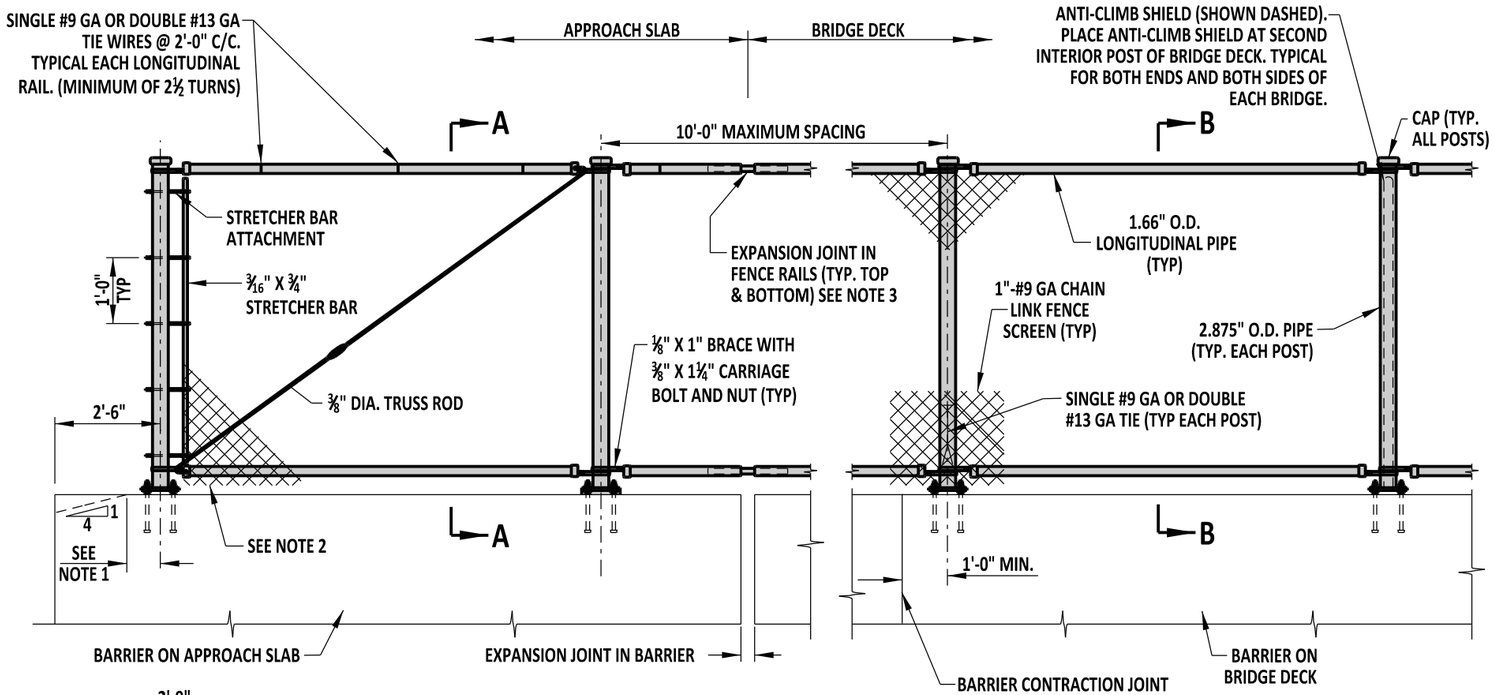



SECTION A-A

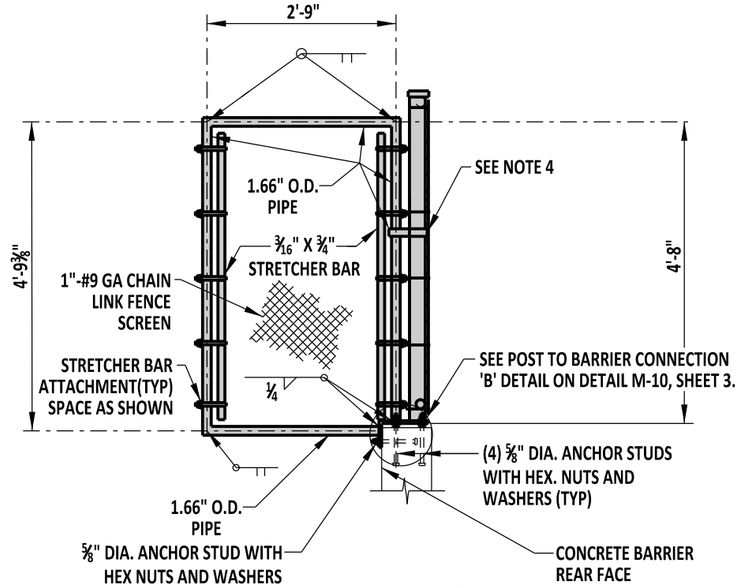
| | | | | | |
|---|---|---|---|---|---|
| DELAWARE<br>DEPARTMENT OF TRANSPORTATION | P.C.C. PARKING BUMPER | | | APPROVED | SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. M-8 (2014) | SHT. 1 OF 1 | | RECOMMENDED | SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

10/27/2014

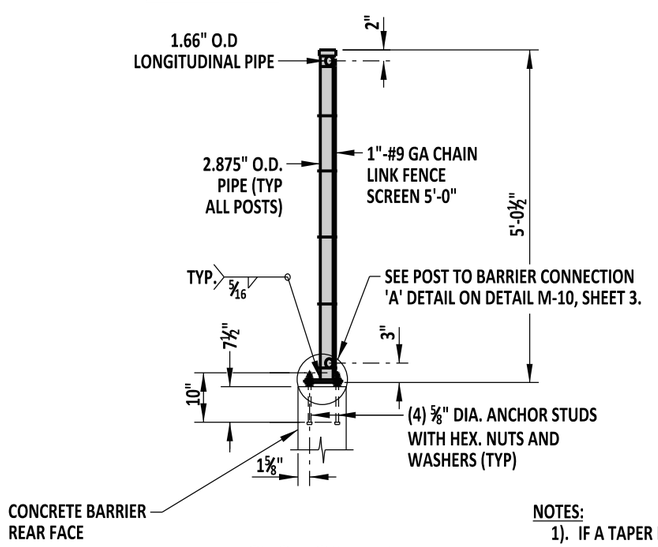
SCALE : NTS




## ELEVATION




## SECTION B-B




## SECTION A-A

# BRIDGE SAFETY FENCE, TYPE 1

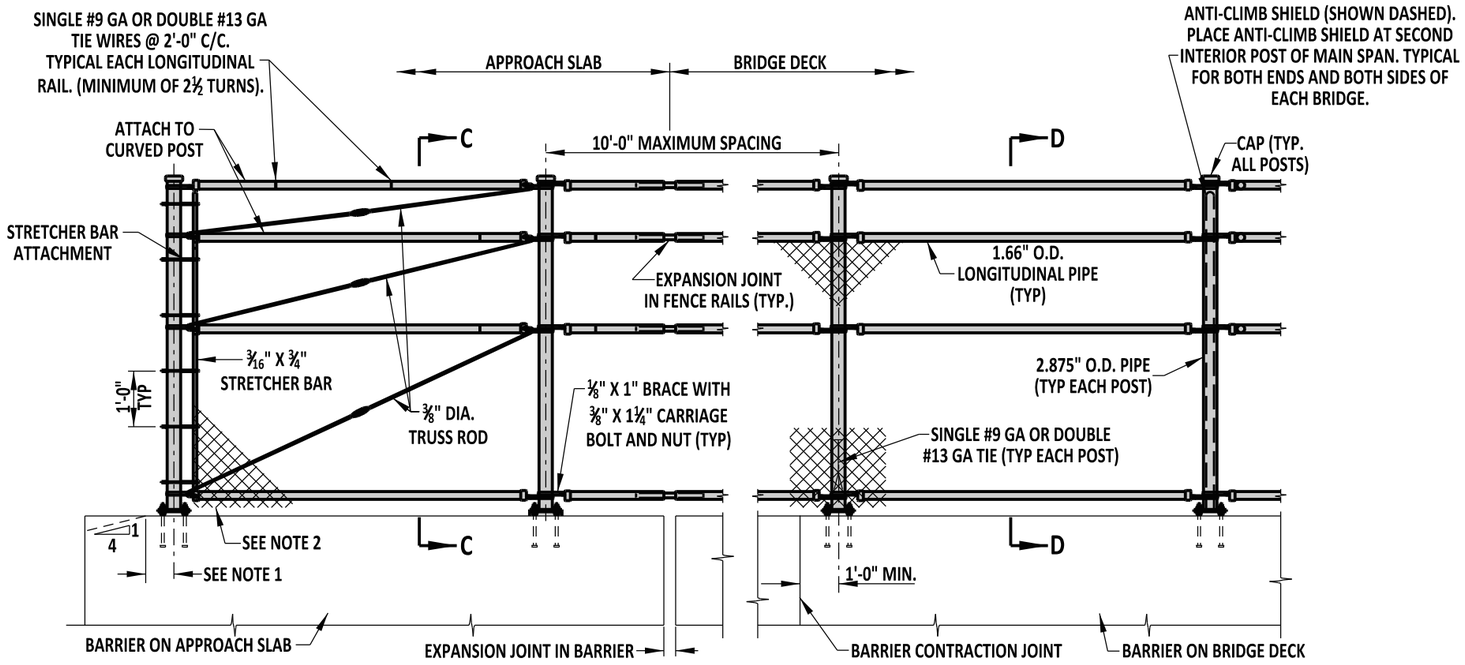
NOTES:

1). IF A TAPER EXISTS AT THE END OF THE BARRIER, PLACE POST 6" FROM THE TOP OF TAPER.
2). MINIMUM ½" TO MAXIMUM 1" OF CLEARANCE BETWEEN TOP OF BARRIER AND BOTTOM OF CHAIN LINK FENCE SCREEN.
3). LINE UP EXPANSION JOINTS IN TOP AND BOTTOM FENCE RAILS WITH EXPANSION JOINTS IN BARRIER.
4). ATTACH ANTI-CLIMB SHIELD TO FENCE POST BY SMALL SECTION OF PIPE TO EACH VERTICAL POST WITH ¼" FILLET WELD. SHAPE PIPE CONNECTOR TO HAVE FULL CONTACT WITH EACH POST.

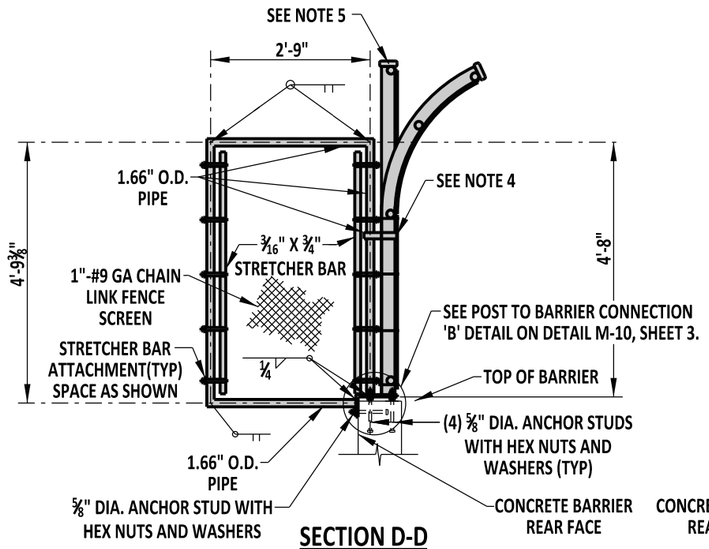
| | | | | | |
|---|---|---|---|---|---|
| DELAWARE DEPARTMENT OF TRANSPORTATION | BRIDGE SAFETY FENCE | | | APPROVED | SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. M-10 (2014) | SHT. 1 | OF 3 | RECOMMENDED | SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

11/19/2014

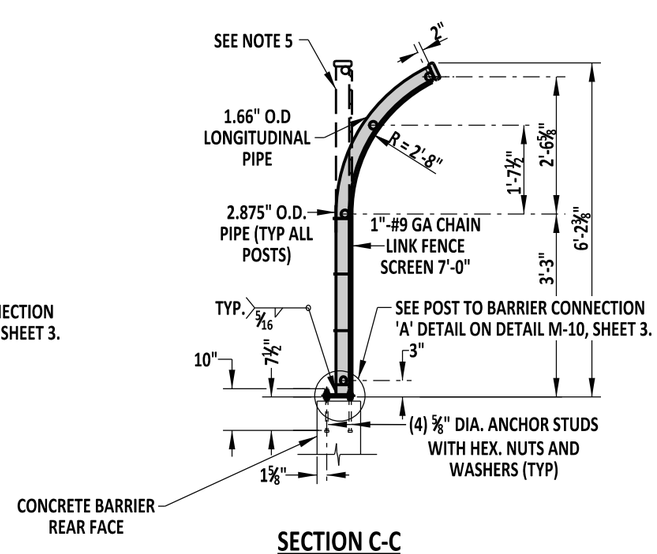
SCALE : NTS




## ELEVATION




## SECTION D-D




## SECTION C-C

## BRIDGE SAFETY FENCE, TYPE 2

DESIGNER NOTE: BRIDGE SAFETY FENCE, TYPE 2 SHOULD BE USED WHEN A SIDEWALK EXISTS ADJACENT TO THE BARRIER. OTHERWISE, USE BRIDGE SAFETY FENCE, TYPE 1.

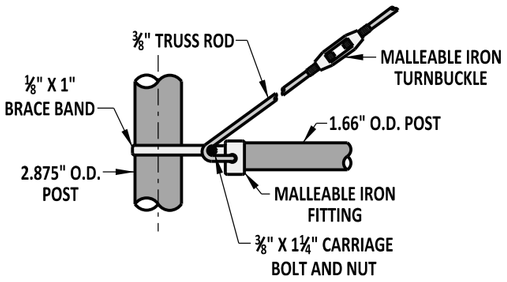
NOTES:

1). IF A TAPER EXISTS AT THE END OF THE BARRIER, PLACE POST 6" FROM THE TOP OF TAPER.
2). MINIMUM ½" TO MAXIMUM 1" OF CLEARANCE BETWEEN TOP OF BARRIER AND BOTTOM OF CHAIN LINK FENCE SCREEN.
3). LINE UP EXPANSION JOINTS IN TOP AND BOTTOM FENCE RAILS WITH EXPANSION JOINTS IN BARRIER.
4). ATTACH ANTI-CLIMB SHIELD TO FENCE POST BY SMALL SECTION OF PIPE TO EACH VERTICAL POST WITH ¼" FILLET WELD. SHAPE PIPE CONNECTOR TO HAVE FULL CONTACT WITH EACH POST.
5). WELD ADDITIONAL STRAIGHT POST TO CURVED POST AT SECOND INTERIOR POST OF MAIN SPAN. (TYPICAL FOR BOTH ENDS OF THE BRIDGE.)

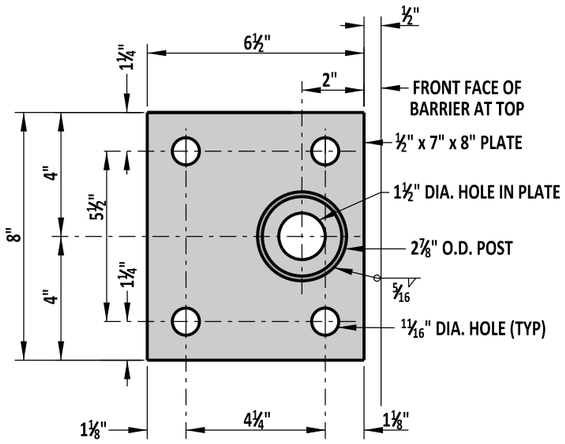
| | | | | | |
|---|---|---|---|---|---|
| DELAWARE DEPARTMENT OF TRANSPORTATION | BRIDGE SAFETY FENCE | | | APPROVED | SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. M-10 (2014) | SHT. 2 | OF 3 | RECOMMENDED | SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

11/19/2014

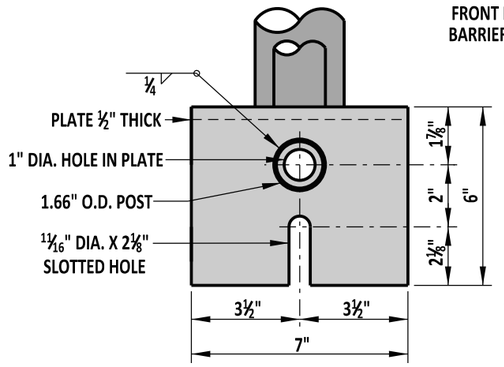
SCALE : NTS



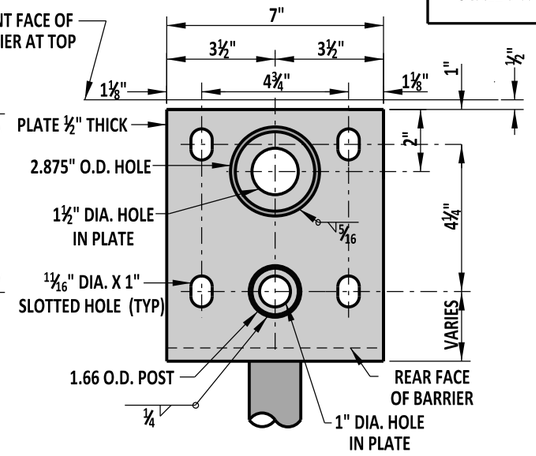

## TRUSS ROD ATTACHMENT



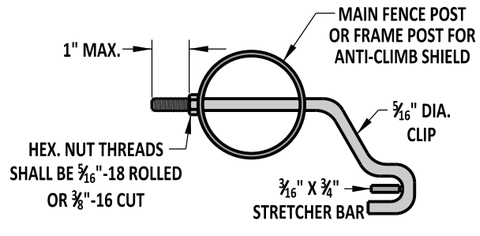

## DETAIL 'A'



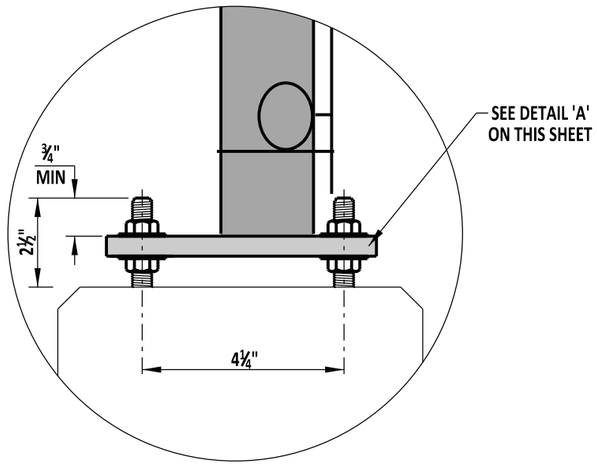

## SIDE VIEW




## PLAN VIEW



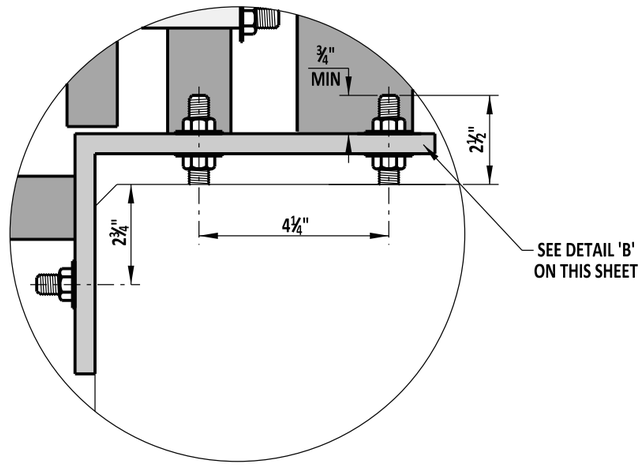

## STRETCHER BAR ATTACHMENT




## POST TO BARRIER CONNECTION 'A'

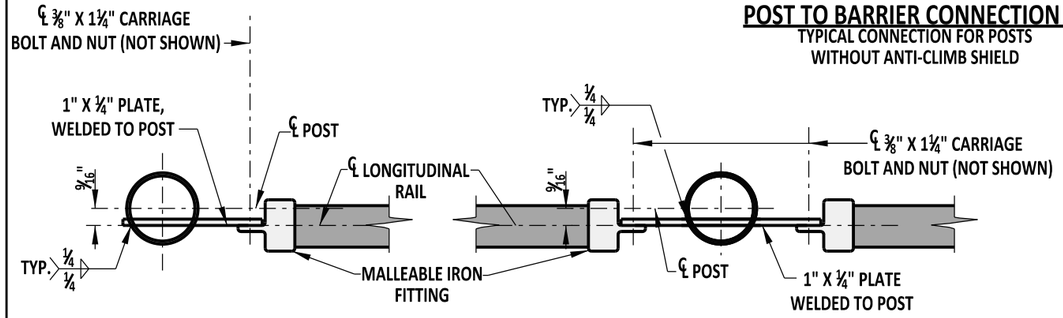
TYPICAL CONNECTION FOR POSTS WITHOUT ANTI-CLIMB SHIELD

## DETAIL 'B'




## POST TO BARRIER CONNECTION 'B'

TYPICAL CONNECTION FOR POSTS WITH ANTI-CLIMB SHIELD




## TOP LONGITUDINAL RAIL-POST ATTACHMENT

NOTES:

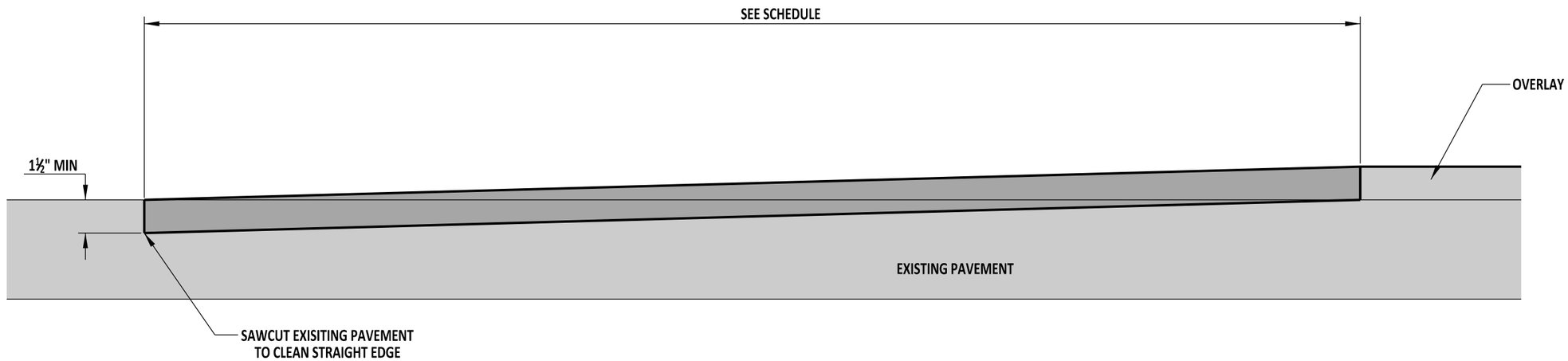
1). POST SPACING - POST SPACING TO BE DETERMINED BY THE CONTRACTOR AND INCLUDED IN THE WORKING DRAWINGS. EACH POST MUST BE A MINIMUM OF 1'-0" FROM ANY PARAPET JOINT.

2). WORKING DRAWINGS - CONTRACTOR SHALL SUBMIT WORKING DRAWINGS FOR THE FENCE FOR REVIEW BY THE ENGINEER

| | | | |
|---|---|---|---|
| DELAWARE DEPARTMENT OF TRANSPORTATION | BRIDGE SAFETY FENCE | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. M-10 (2014) | SHT. 3 OF 3 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

10/28/2014

SCALE : NTS




NOTES:

1). ADJUST THE PROFILE OF THE OVERLAY PAVING TO ASSURE A SMOOTH TRANSITION THROUGH THE BUTT JOINT.
2). CRACK SEAL THE JOINT BETWEEN THE BUTT JOINT AND THE EXISTING PAVEMENT.

| CONDITION | SLOPE FEET:INCHES |
|---|---|
| GREATER THAN OR EQUAL TO 55 MPH | 40:1 |
| LESS THAN 55MPH | 30:1 |
| STOP CONTROLLED INTERSECTION | 15:1 |

DELAWARE
DEPARTMENT OF TRANSPORTATION

BUTT JOINTS

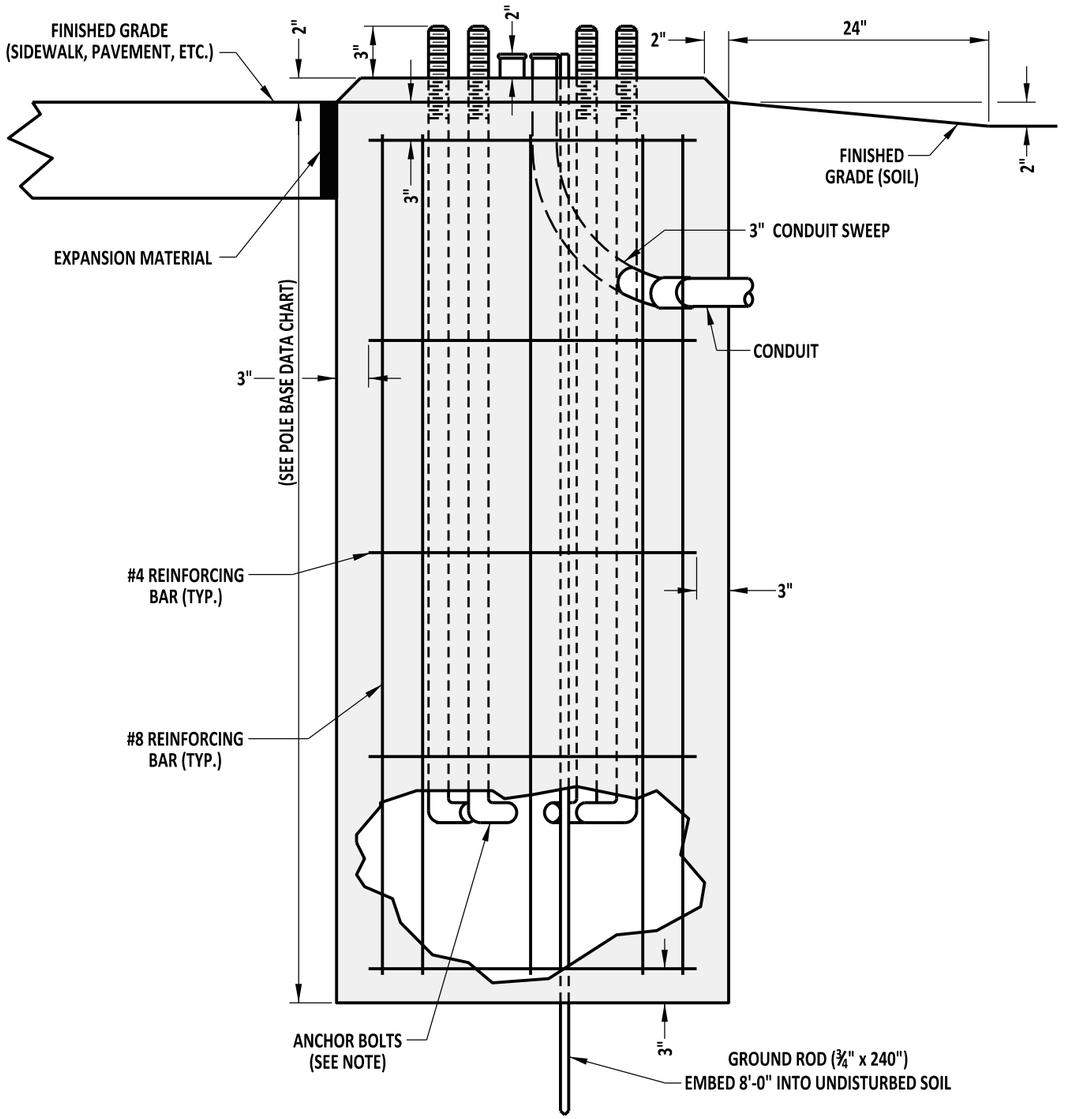
STANDARD NO. P-3 (2014) | SHT. 1 OF 1

APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE)

RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE)

10/28/2014

SCALE : NTS




**TYPICAL SECTION (BASE 6)**

**POLE BASE DATA CHART**

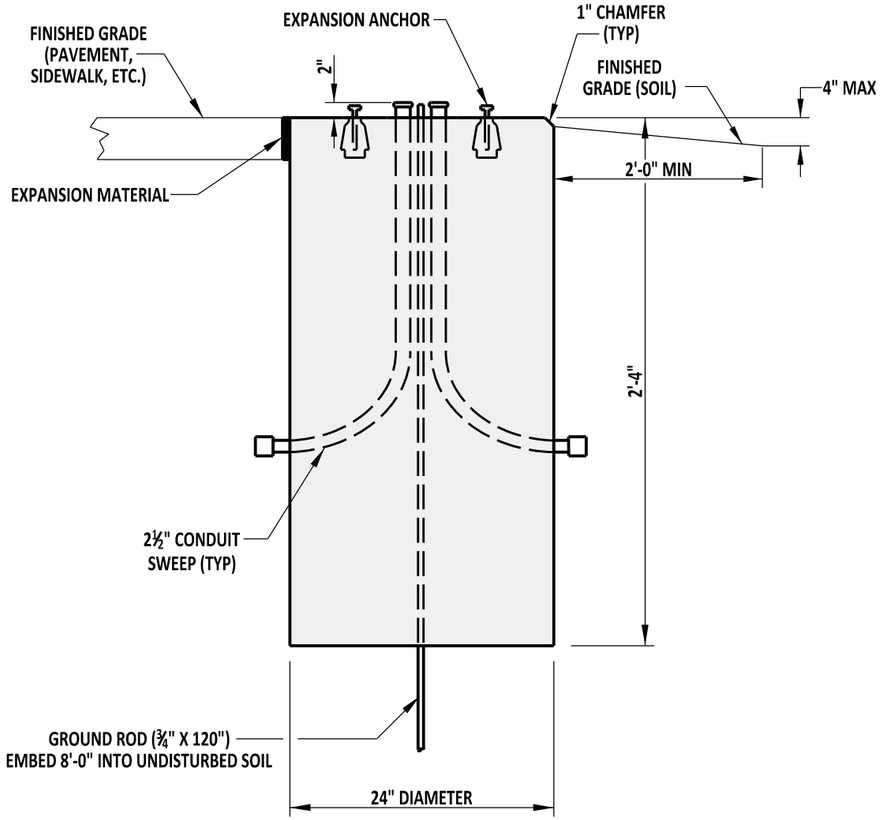
| POLE BASE TYPE # | DIAMETER | DEPTH | #4 HORIZONTAL REINFORCING BARS | #8 VERTICAL REINFORCING BARS | CONDUITS |
|---|---|---|---|---|---|
| 1 | 36" | 7'-0" | 5 | 8 | 2 - 3" |
| 2 | 36" | 10'-0" | 6 | 8 | 2 - 3" |
| 2A | 48" | 8'-0" | 5 | 8 | 2 - 3" |
| 2B | 60" | 7'-0" | 5 | 8 | 2 - 3" |
| 3 | 48" | 10'-0" | 14 | 17 | 2 - 3" |
| 3A | 48" | 12'-0" | 17 | 17 | 2 - 3" |
| 3B | 48" | 15'-0" | 21 | 17 | 2 - 3" |
| 3C | 48" | 20'-0" | 27 | 17 | 2 - 3" |
| 4A & 4B | 24" | 2'-4" | NONE | NONE | 2 - 2.5" |
| 6 | 24" | 6'-0" | 4 | 8 | 2 - 3" |

**NOTE:**
ANCHOR BOLTS AND BOLT PATTERN FOR TYPES 5, 6, & 7 POLE BASES TO BE PROVIDED BY THE MANUFACTURER.

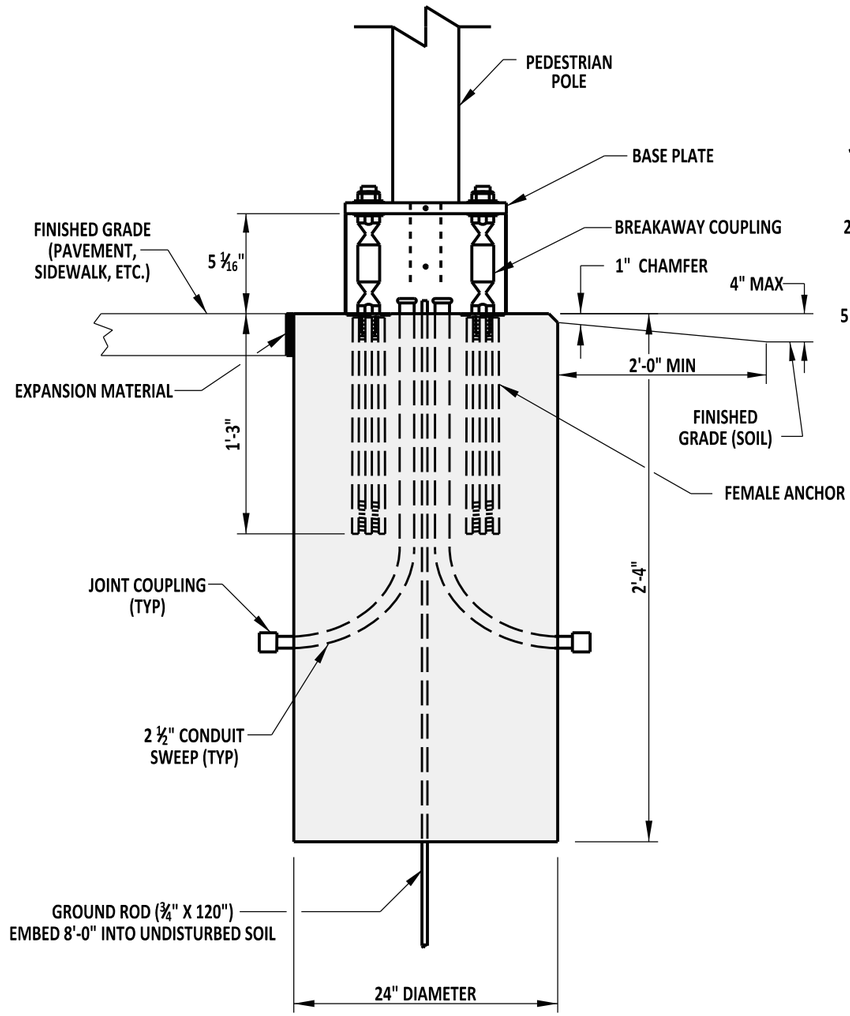
| | | | |
|---|---|---|---|
| DELAWARE<br>DEPARTMENT OF TRANSPORTATION | POLE BASES | | APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE) |
| | STANDARD NO. T-5 (2014) | SHT. 3 OF 4 | RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE) |

12/4/2014

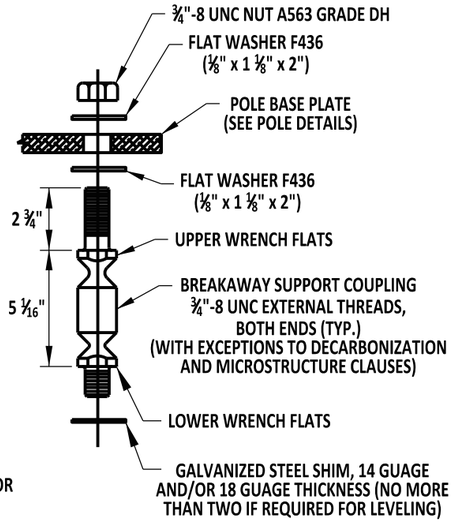
SCALE : NTS



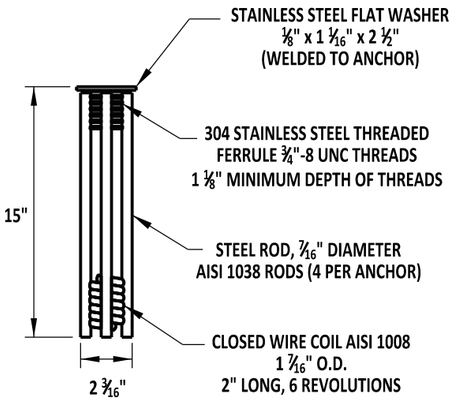

**TYPICAL SECTION (BASE 4A)**




**TYPICAL SECTION (BASE 4B)**




**BREAKAWAY COUPLING DETAIL**




**ANCHOR DETAIL**

**NOTE:**
BOLT PATTERN TO BE PROVIDED BY DELDOT'S SIGNAL CONSTRUCTION INSPECTOR.

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DELAWARE
DEPARTMENT OF TRANSPORTATION

POLE BASES

STANDARD NO. T-5 (2014) | SHT. 4 OF 4

APPROVED SIGNATURE ON FILE (CHIEF ENGINEER) 12/30/2014 (DATE)

RECOMMENDED SIGNATURE ON FILE (DESIGN ENGINEER) 12/11/2014 (DATE)

10/28/2014