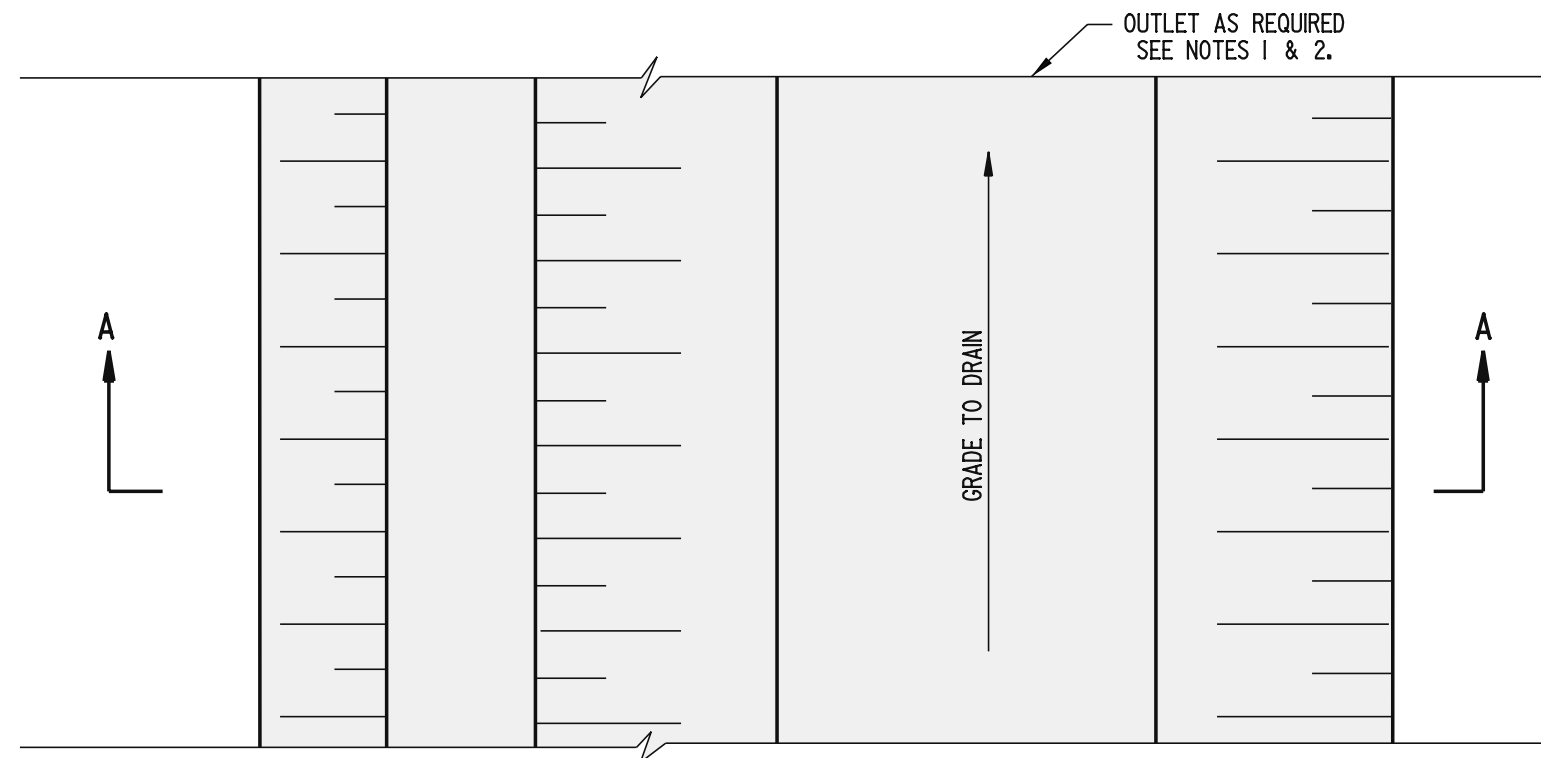


**SECTION A-A**

CHART A - SWALE STABILIZATION		
SYMBOL	SWALE GRADE	TYPE OF TREATMENT
A-1	0.5-2.0%	SEED AND EROSION CONTROL BLANKET
A-2	2.1-8.0%	LINED R-4 RIPRAP
A-3	8.1-20%	ENGINEERED DESIGN

MAXIMUM DRAINAGE AREA: 2 ACRES (0.8 ha)



**PLAN**

- NOTES:**
- 1). DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
  - 2). DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
  - 3). IF PERIMETER DIKE SWALES ARE TO BE OPERATIONAL FOR MORE THAN 14 DAYS, THEY SHALL BE STABILIZED IN ACCORDANCE WITH CHART A PRIOR TO BECOMING OPERATIONAL.
  - 4). IF TEMPORARY SWALES OR CLEAN WATER DIVERSIONS ARE TO BE OPERATIONAL FOR LESS THAN 14 DAYS, THEY SHALL BE STABILIZED WITH GEOTEXTILE IN ACCORDANCE WITH THE STANDARD DETAIL, "GEOTEXTILE-LINED CHANNEL DIVERSION".



DELAWARE  
DEPARTMENT OF TRANSPORTATION

PERIMETER DIKE / SWALE

STANDARD NO.

E-12 (2005)

SHT. 1

OF 1

APPROVED *Carolann Wick* 12/5/05  
CHIEF ENGINEER DATE  
RECOMMENDED *James M. O'Brien* 11/29/05  
DESIGN ENGINEER DATE

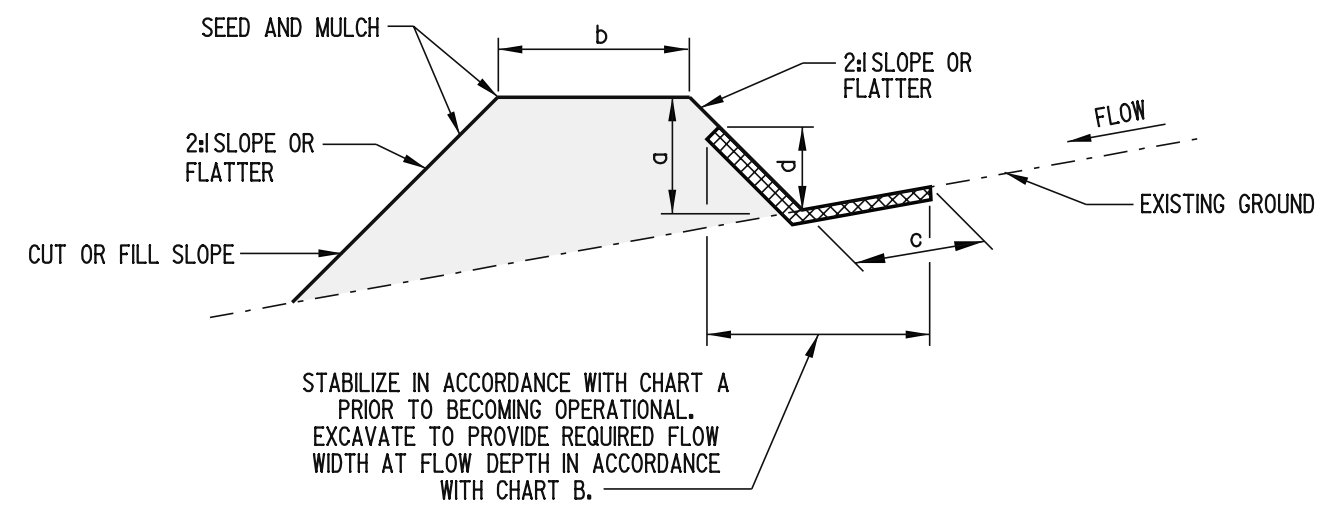


CHART A - FLOW CHANNEL STABILIZATION		
TYPE	CHANNEL GRADE	TYPE OF TREATMENT
1	0.5-2.0%	SEED AND EROSION CONTROL BLANKET
2	2.1-8.0%	R-4 RIPRAP
3	8.1-20%	ENGINEERED DESIGN

SECTION A-A

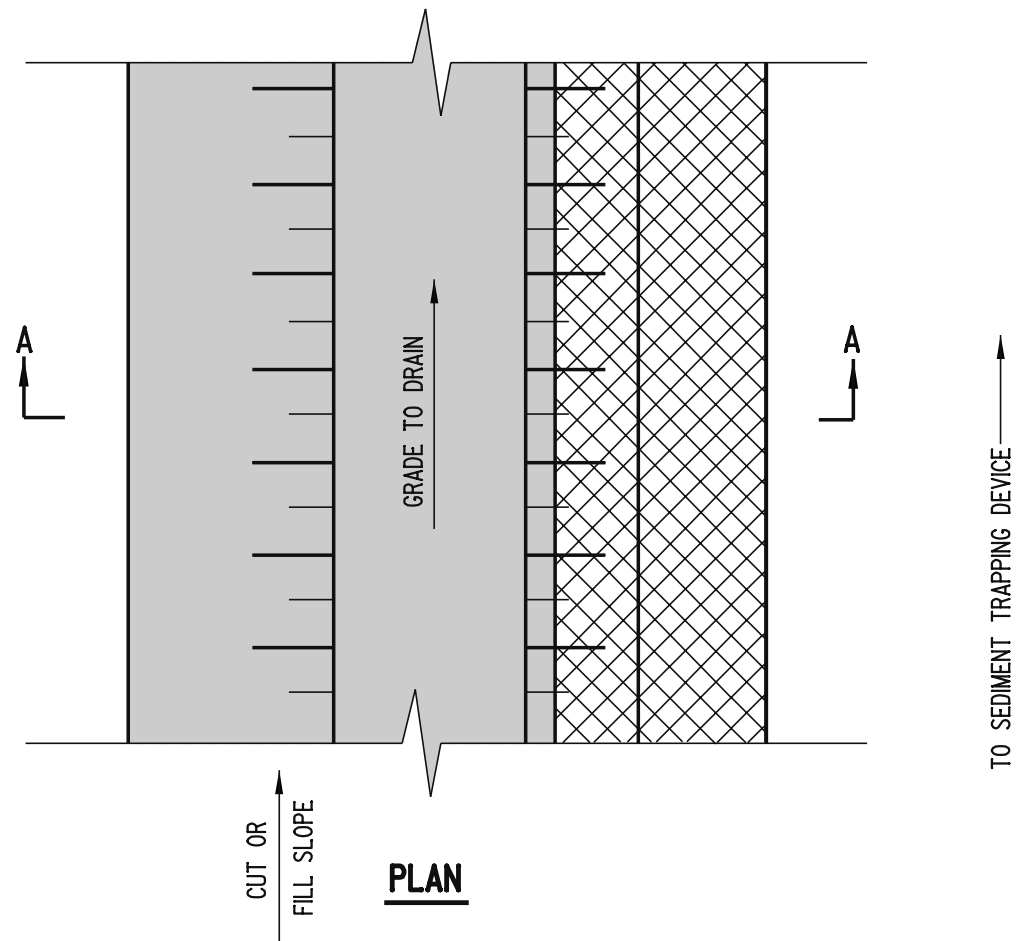
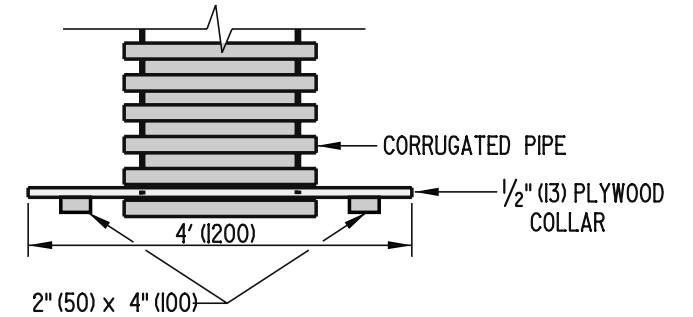
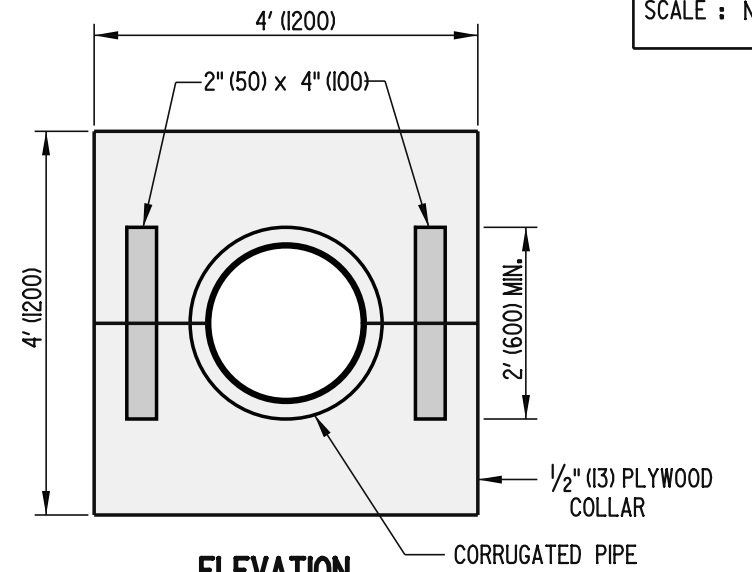
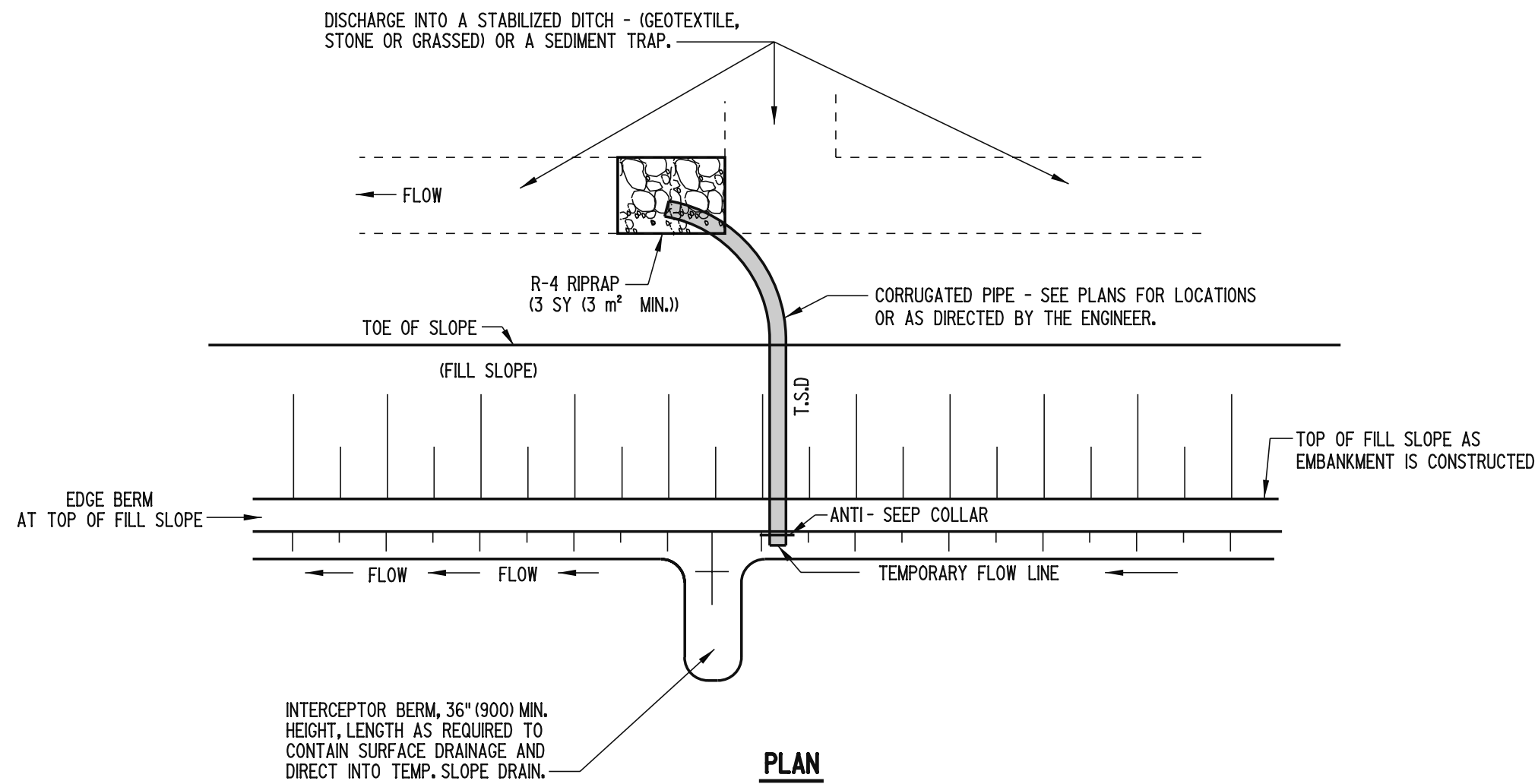


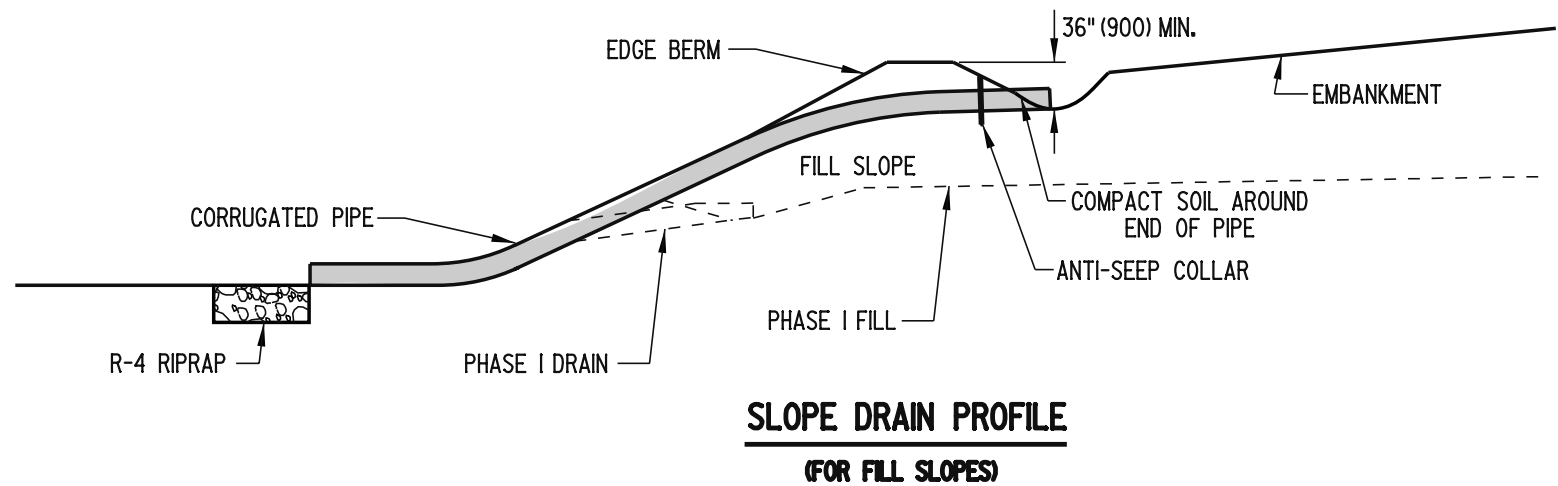
CHART B - EARTH DIKE DIMENSIONS		
SYMBOL	DIKE A (5 ac (2 ha) or less)	DIKE B (5-10ac(2-4 ha))
a-DIKE HEIGHT	12" (300)	18" (450)
b-DIKE WIDTH	12" (300)	24" (600)
c-FLOW WIDTH	48" (1200)	72" (1800)
d-FLOW DEPTH	14" (350)	27" (680)

- NOTES:
- 1). IF DESIRED, TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
  - 2). FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO INSURE A STABILIZED OUTFALL.


SCALE : N.T.S.

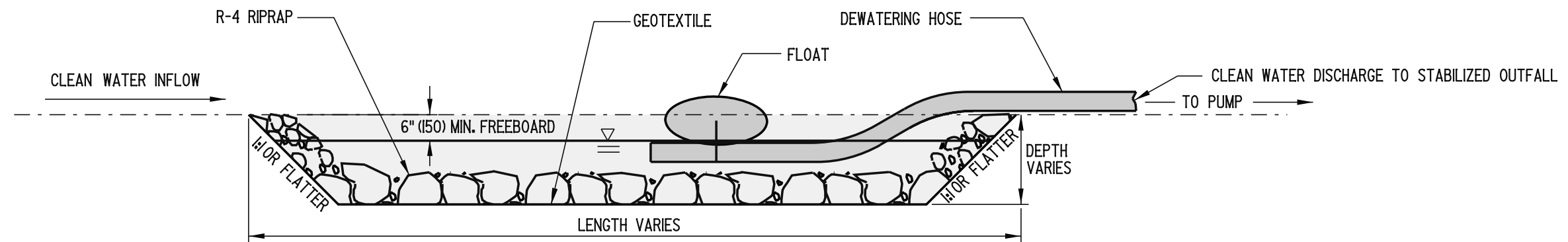


**ANTI-SEEP COLLAR**



- NOTES:**
- 1). ALL TEMPORARY SLOPE DRAINS SHALL DISCHARGE INTO THE BACK OF SEDIMENT TRAPS, INTO SEDIMENT BASINS OR DITCHES DISCHARGING INTO TRAPS OR BASINS.
  - 2). TEMPORARY SLOPE DRAINS SHALL BE USED AT THE TOP OF FILL SLOPES AS EMBANKMENT IS CONSTRUCTED, TO PREVENT EXCESSIVE EROSION UNTIL SHOULDERS ARE CONSTRUCTED AND THE SLOPES ARE SEEDED AND MULCHED.

 <b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY SLOPE DRAIN</b>			<b>APPROVED</b> <i>Carolann Wick</i> <b>12/5/05</b>
	<b>STANDARD NO.</b> E-14 (2005)	<b>SHT.</b> 1	<b>OF</b> 1	<b>RECOMMENDED</b> <i>James M. O'Brien</i> <b>11/29/05</b>
				<small>CHIEF ENGINEER</small> <small>DESIGN ENGINEER</small> <small>DATE</small>



- NOTES:**
- 1). THE WORK SHALL CONSIST OF CONSTRUCTING A STILLING WELL FOR THE PURPOSE OF PUMPING CLEAN WATER AROUND A DISTURBED CONSTRUCTION AREA TO A STABILIZED OUTFALL.
  - 2). THE DIMENSIONS OF THE STILLING WELL SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.



DELAWARE  
DEPARTMENT OF TRANSPORTATION

STILLING WELL

STANDARD NO.

E-15 (2005)

SHT. 1

OF 1

APPROVED

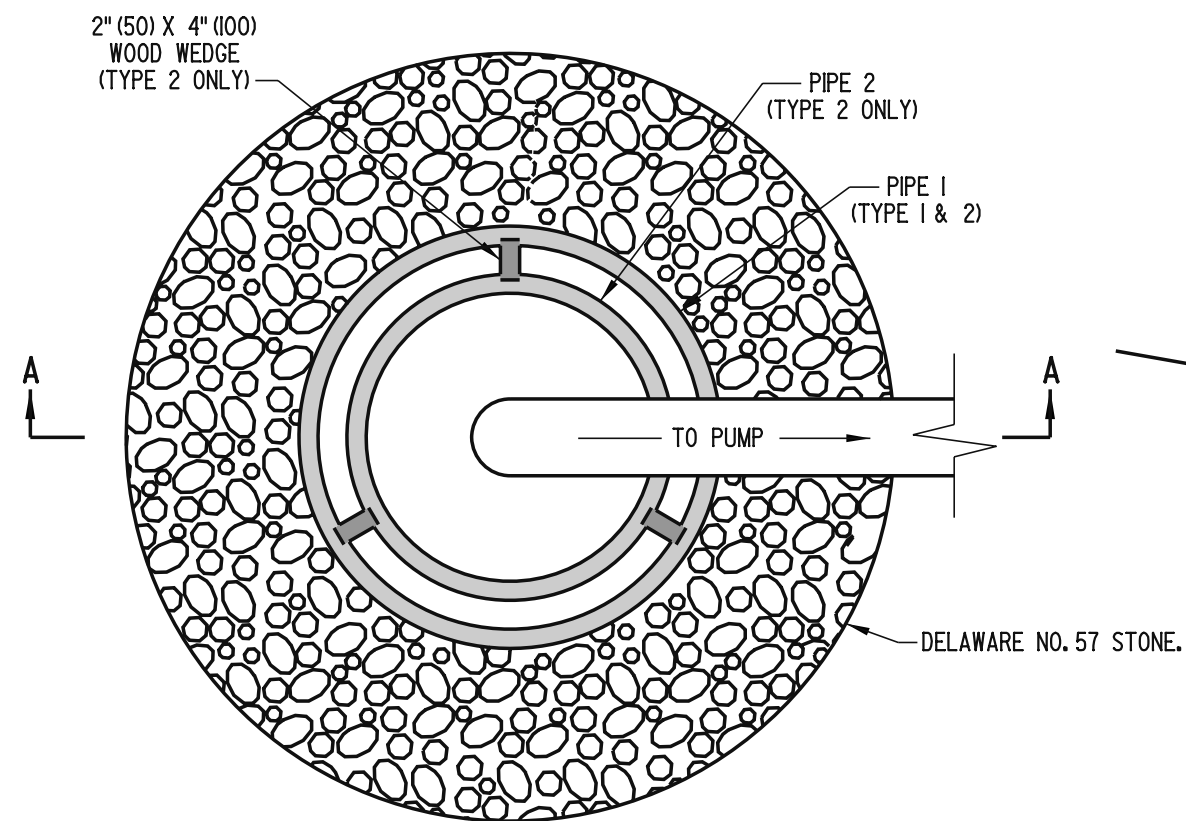
*Carolann Wick*  
CHIEF ENGINEER

12/5/05  
DATE

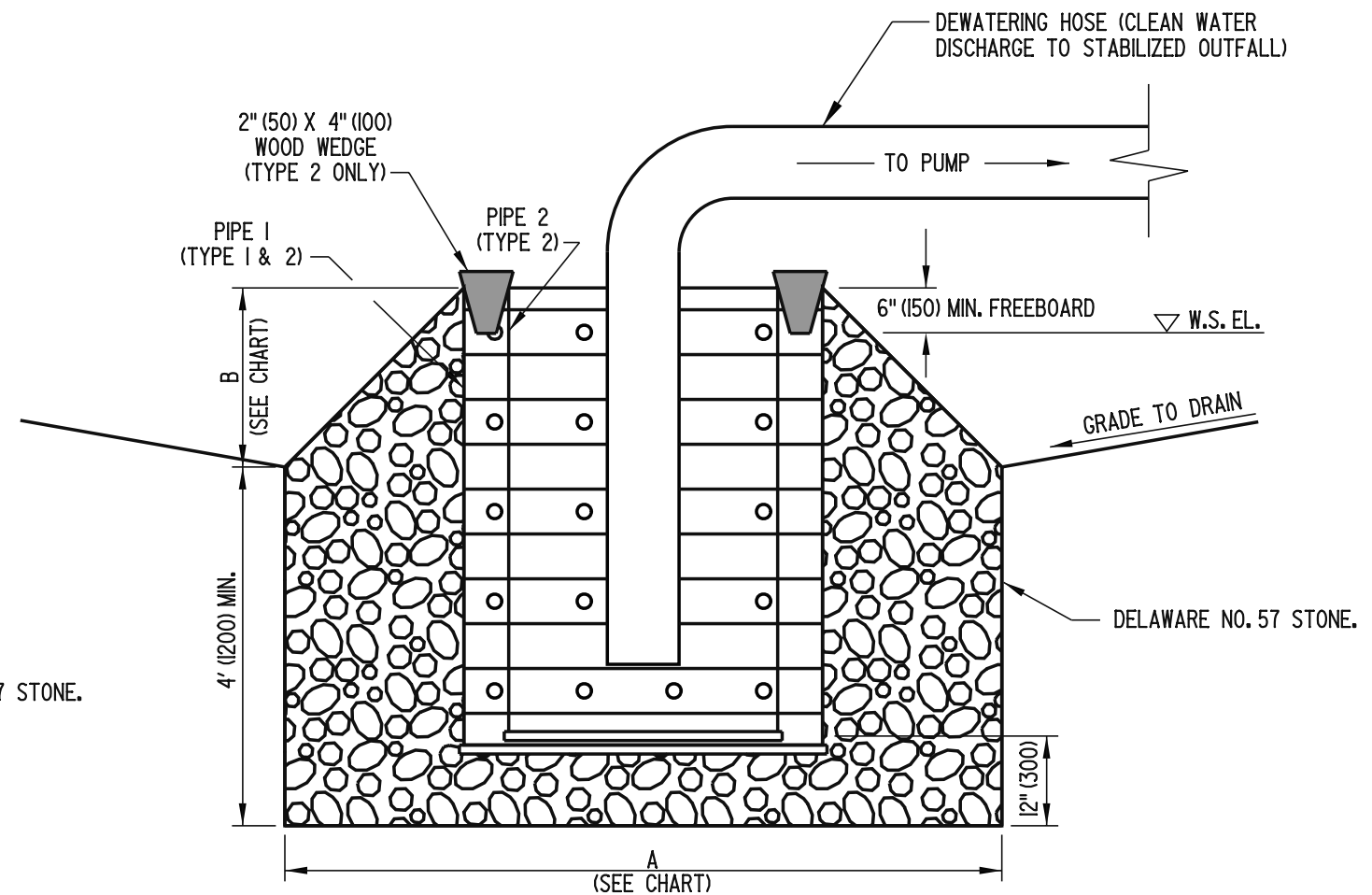
RECOMMENDED

*James M. O'Brien*  
DESIGN ENGINEER

11/29/05  
DATE



**PLAN**



**SECTION A-A**

- NOTES:**
- 1). THE WORK SHALL CONSIST OF CONSTRUCTING A SUMP PIT FOR THE PURPOSE OF FILTERING AND PUMPING WATER TO A STABILIZED OUTFALL.
  - 2). GEOTEXTILE FOR THE 36" (900) CMP SHALL BE REPLACED WHEN CLOGGED WITH SEDIMENT.
  - 3).  $\frac{1}{2}" \times \frac{1}{2}"$  (13 x 13) 19 GAGE (1.1) WIRE MESH SHALL BE PLACED AROUND THE REMOVABLE 36" (900) CMP BEFORE ATTACHING THE GEOTEXTILE TO INCREASE FLOW THROUGH THE GEOTEXTILE.
  - 4). ALL PERFORATIONS SHALL BE 1" (25) IN DIAMETER AND 12" (300) ON CENTER IN ALL DIRECTIONS.
  - 5). TYPE I SUMP PIT SHALL BE USED ONLY WHEN PUMPING IS NEEDED FOR LESS THAN 7 DAYS.

SUMP PIT CHART				
TYPE	PIPE 1	PIPE 2	A	B
1	PERFORATED 24" (600) CMP WITH PERFORATED CAP WELDED ON BOTTOM AND COMPLETELY WRAPPED WITH GEOTEXTILE.	N/A	4' (1200) MIN.	12" (300)
2	PERFORATED 48" (1200) CMP WITH PERFORATED CAP WELDED ON BOTTOM	REMOVABLE PERFORATED 36" (900) CMP WITH PERFORATED CAP WELDED ON BOTTOM AND COMPLETELY WRAPPED WITH GEOTEXTILE.	8' (2400) MIN.	24" (600)



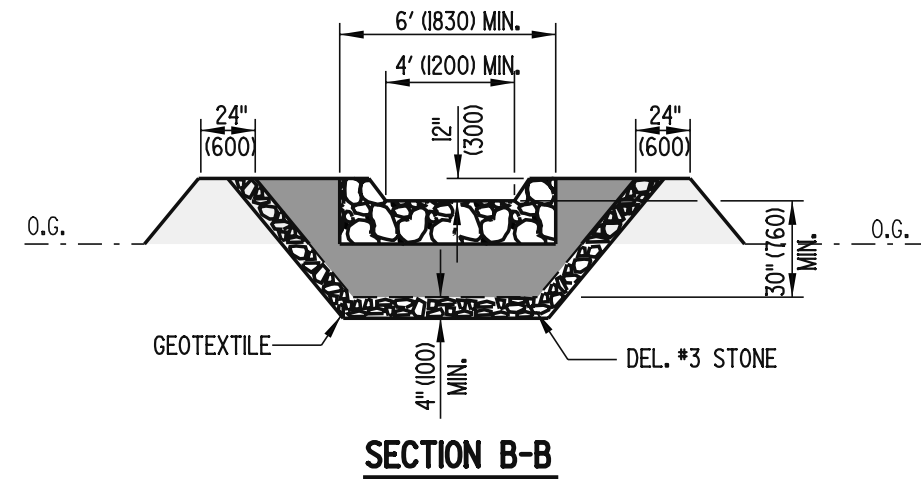
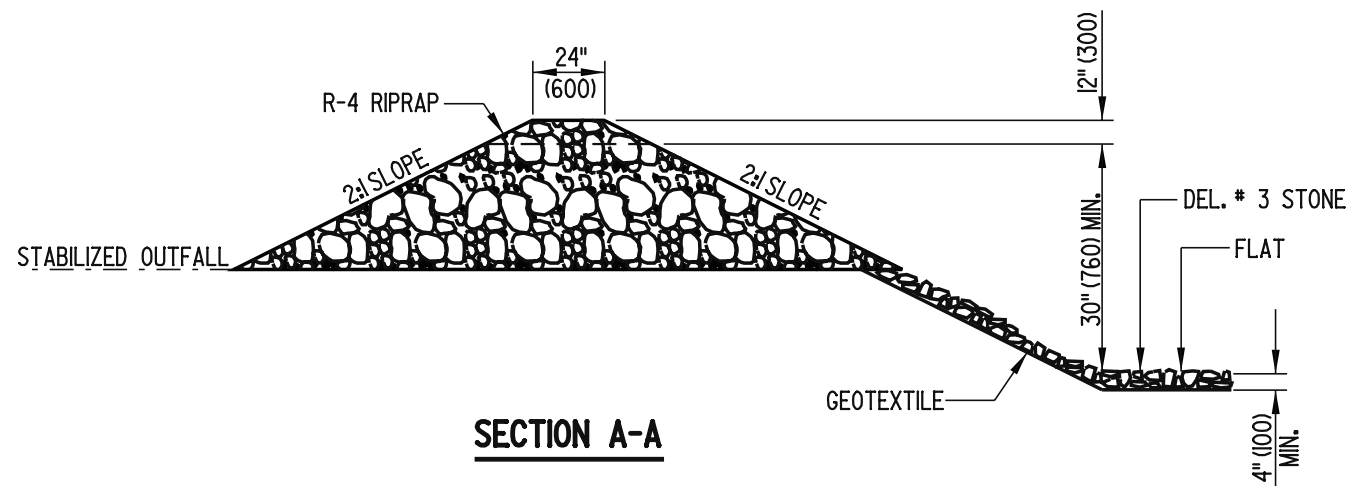
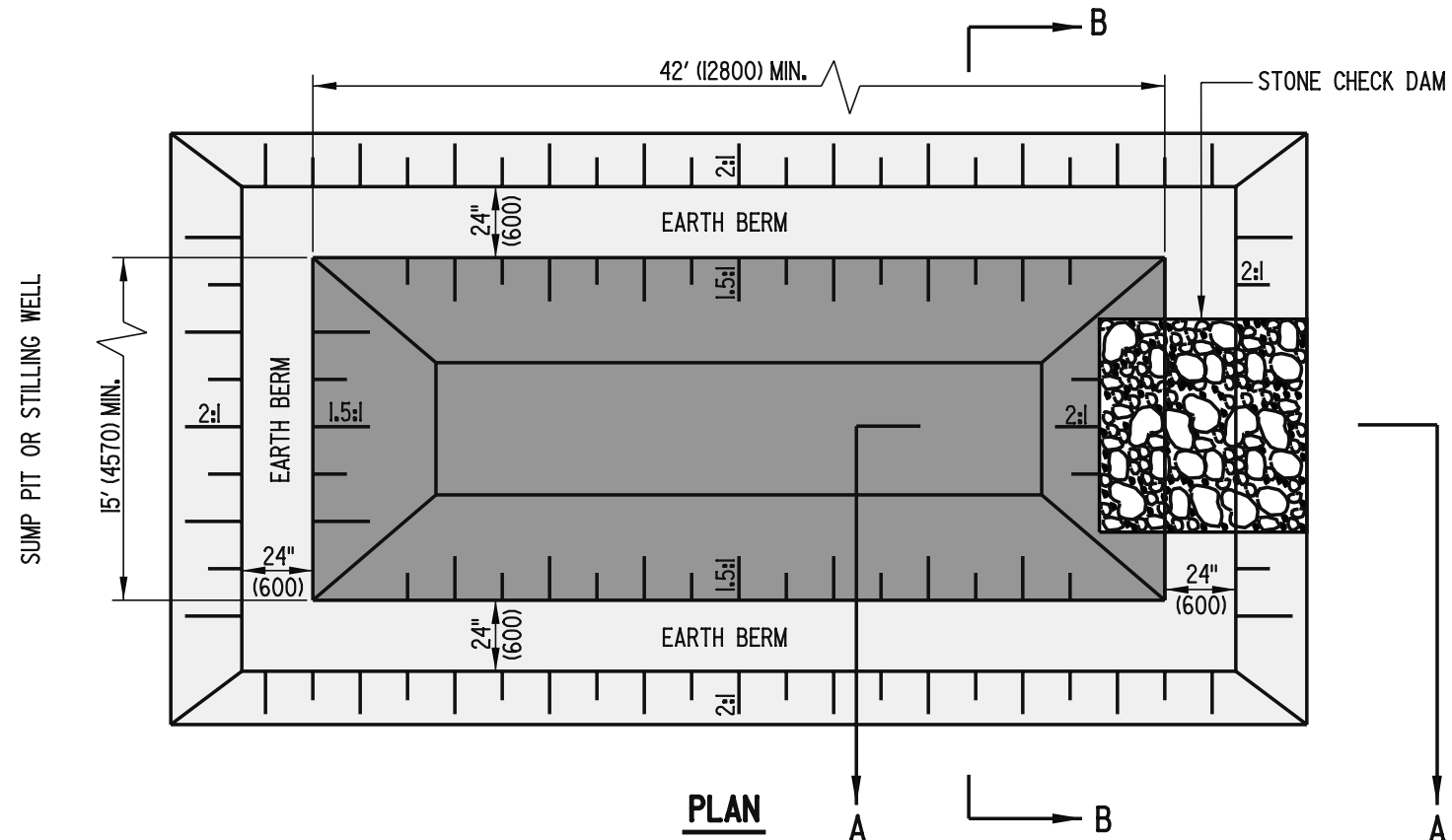
**DELAWARE  
DEPARTMENT OF TRANSPORTATION**

**SUMP PIT, TYPE 1 & 2**

STANDARD NO. E-16 (2005)

SHT. 1 OF 1

APPROVED *Carolann Wick* 12/5/05  
CHIEF ENGINEER DATE  
RECOMMENDED *James M. O'Brien* 11/29/05  
DESIGN ENGINEER DATE



- NOTES:**
- 1.) A DEWATERING BASIN (DWB) IS USED TO REMOVE SEDIMENT FROM SEDIMENT-LADEN WATER PUMPED FROM A CONSTRUCTION SITE BEFORE THE WATER RE-ENTERS THE WATERWAY. THE DWB SHALL HAVE A MINIMUM TOP WIDTH OF 15' (4570) AND A MINIMUM DEPTH OF 3.5' (1065). THE MINIMUM TOP LENGTH SHOWN IN THE PLAN IS USED ONLY FOR QUANTITY CALCULATIONS BY THE ENGINEER. THE ACTUAL TOP LENGTH IN THE FIELD SHALL BE CALCULATED BY THE EQUATION:  
 US CUSTOMARY : TOP LENGTH (FEET) =  $26' + .01 \times Y$   
 METRIC : TOP LENGTH (mm) =  $7930 + 48300 \times Y$   
 WHERE Y IS THE MAXIMUM CAPACITY IN GALLONS PER MINUTE (CUBIC METERS PER SECOND) OF THE DEWATERING PUMP.
  - 2.) THE OUTFALL FROM THE BASIN TO THE RECEIVING WATERS SHALL BE STABILIZED. PUMPING INTO THE DWB SHALL CEASE WHEN THE EFFLUENT FROM THE BASIN BECOMES SEDIMENT-LADEN.
  - 3.) A SUMP PIT OR STILLING WELL (SEE STANDARD SHEETS) SHALL BE USED IN CONJUNCTION WITH A DWB. THE BASIN MAY BE BYPASSED INTO THE STABILIZED OUTFALL IF THE WATER BEING PUMPED IS NON-SEDIMENT-LADEN. DIRECT DISCHARGE TO THE RECEIVING WATERS SHALL CEASE AND BE REDIRECTED TO THE DWB WHEN EFFLUENT FROM THE PUMP BECOMES SEDIMENT-LADEN.
  - 4.) MAINTENANCE MUST BE PERFORMED IN ORDER FOR THE DWB TO FUNCTION PROPERLY. ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED DISPOSAL AREA WHEN THE BASIN IS FILLED TO WITHIN 12" (300) FROM THE CREST.
  - 5.) WHEN USED IN CONJUNCTION WITH A COFFERDAM, DEWATERING SHALL BEGIN NO SOONER THAN 12 HOURS AFTER COFFERDAM INSTALLATION IN ORDER TO ALLOW SEDIMENT PRODUCED DURING INSTALLATION TO SETTLE COMPLETELY.



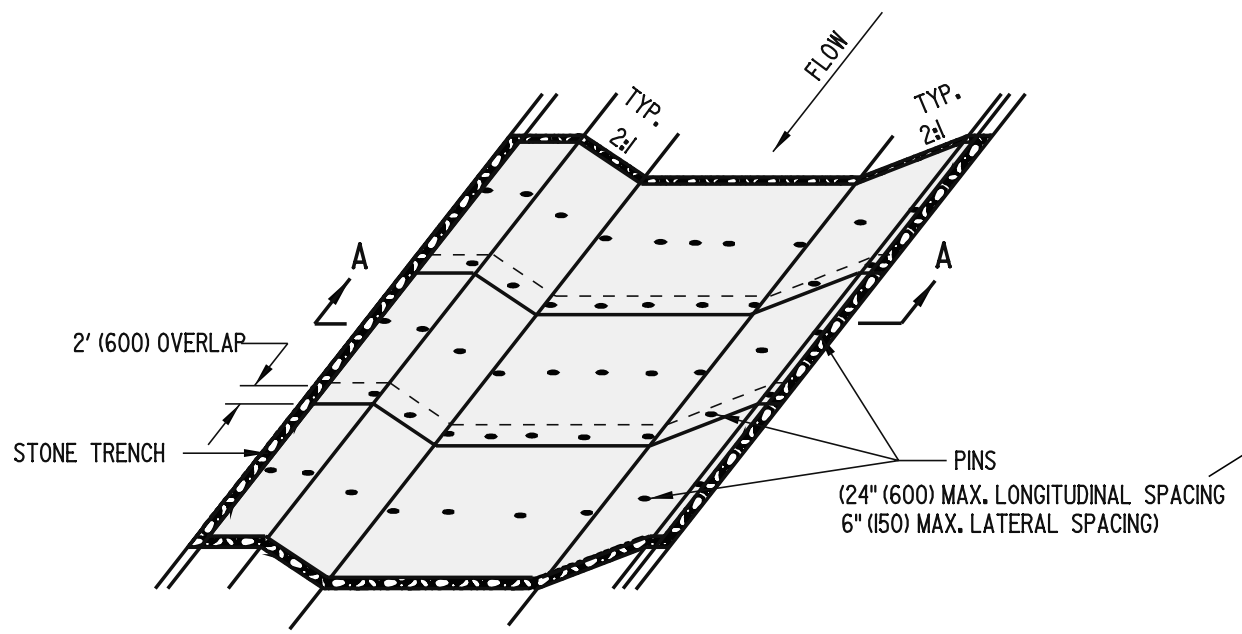
DELAWARE  
DEPARTMENT OF TRANSPORTATION

DEWATERING BASIN

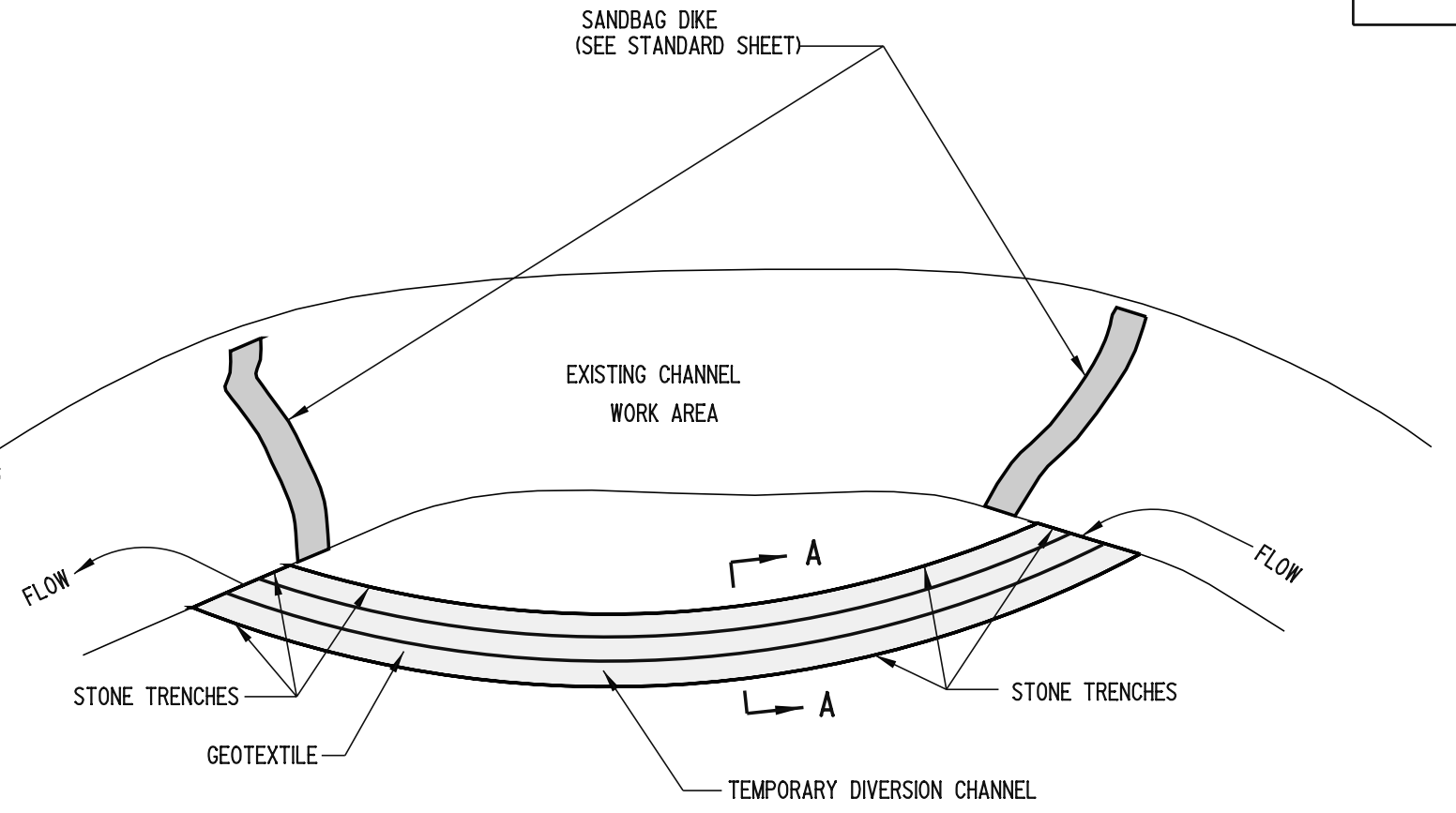
STANDARD NO. E-17 (2005)

SHT. 1 OF 1

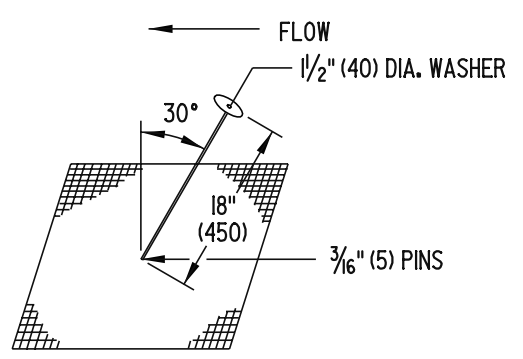
APPROVED *Carolann Wick* 12/15/05  
CHIEF ENGINEER DATE  
 RECOMMENDED *James M. O'Brien* 11/29/05  
DESIGN ENGINEER DATE



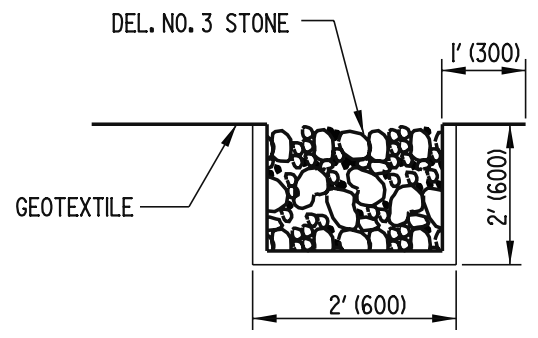
**OBLIQUE VIEW**



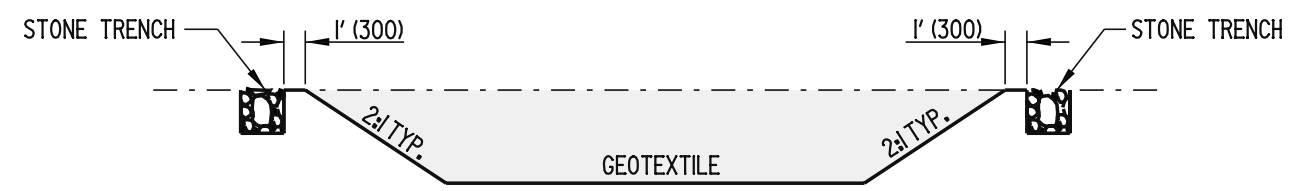
**PLAN**



**FASTENING DETAIL**




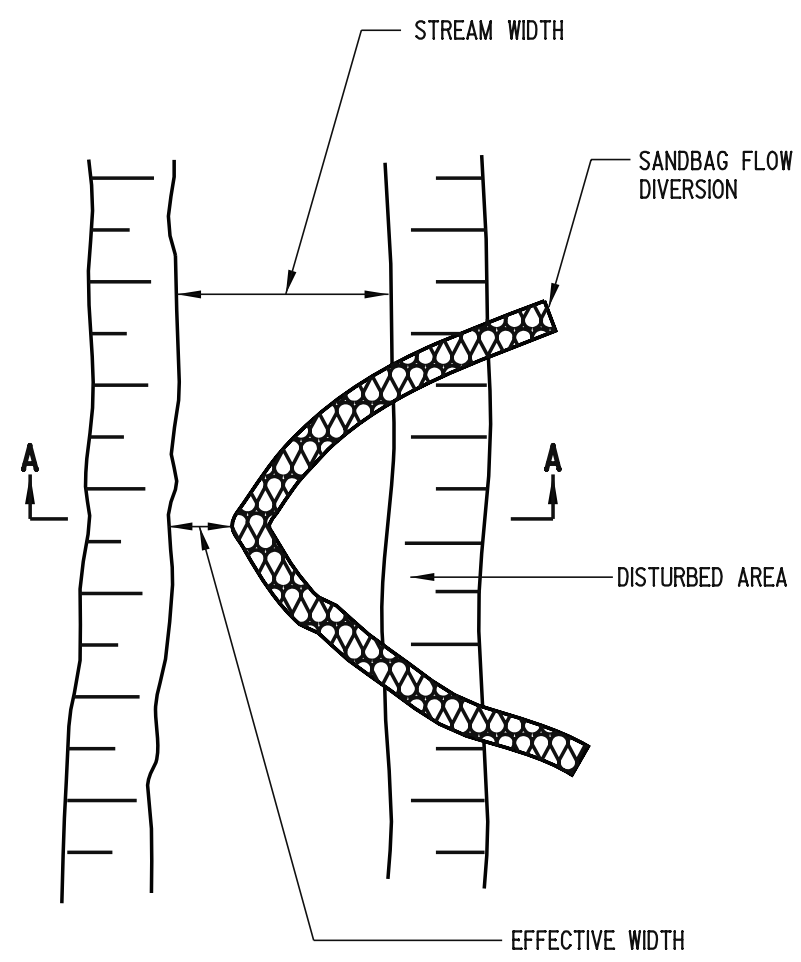
**TRENCHING DETAIL**



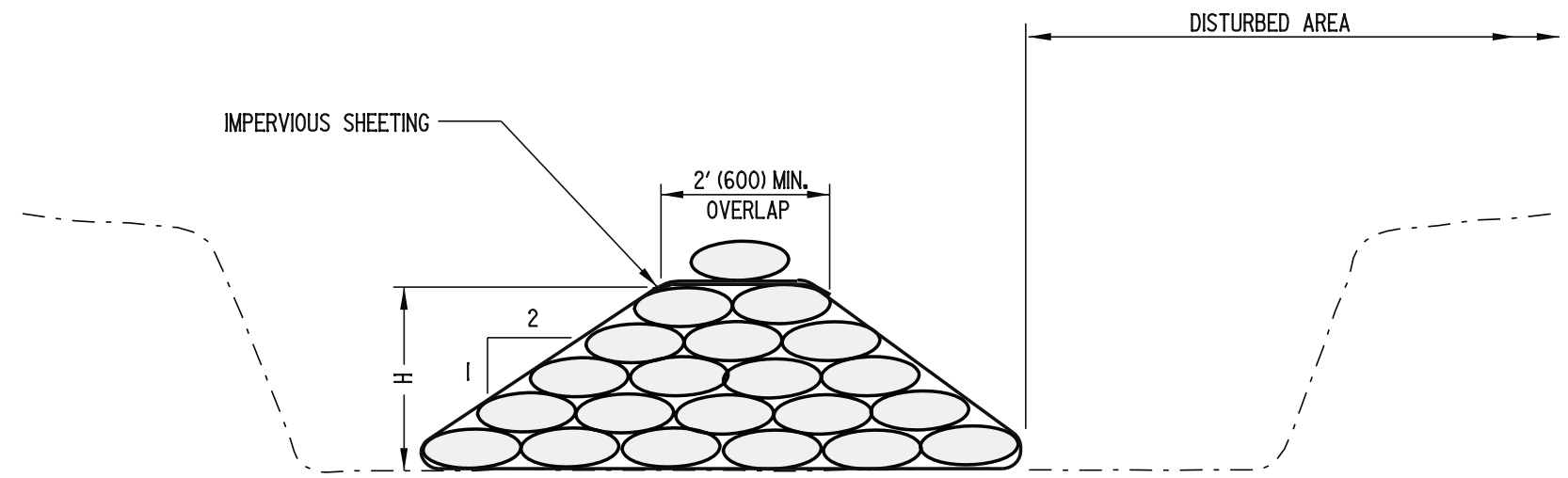
**SECTION A-A**

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

 DELAWARE DEPARTMENT OF TRANSPORTATION	GEOTEXTILE-LINED CHANNEL DIVERSION			APPROVED <i>Carolann Wick</i> 12/5/05 CHIEF ENGINEER DATE
	STANDARD NO. E-18 (2005)	SHT. 1	OF 1	RECOMMENDED <i>James M. O'Brien</i> 11/29/05 DESIGN ENGINEER DATE



**PLAN**



**SECTION A-A**

- NOTES:**
- 1). THE WORK SHALL CONSIST OF INSTALLING FLOW DIVERSIONS FOR THE PURPOSE OF EROSION CONTROL WHEN CONSTRUCTION ACTIVITIES TAKE PLACE WITHIN THE STREAM CHANNEL SUCH AS BANK STABILIZATION OR BRIDGE ABUTMENT CONSTRUCTION.
  - 2). THE DIVERSION STRUCTURE SHALL BE INSTALLED FROM UPSTREAM TO DOWNSTREAM.
  - 3). THE EFFECTIVE CHANNEL WIDTH SHALL BE SIZED TO PASS A ONE YEAR STORM EVENT PEAK FLOW, OR 1/3 OF STREAM WIDTH, WHICHEVER IS GREATER.
  - 4). THE SANDBAG DIVERSION HEIGHT (H) SHALL BE 1' (300) ABOVE THE PEAK ELEVATION OF THE ONE YEAR STORM.

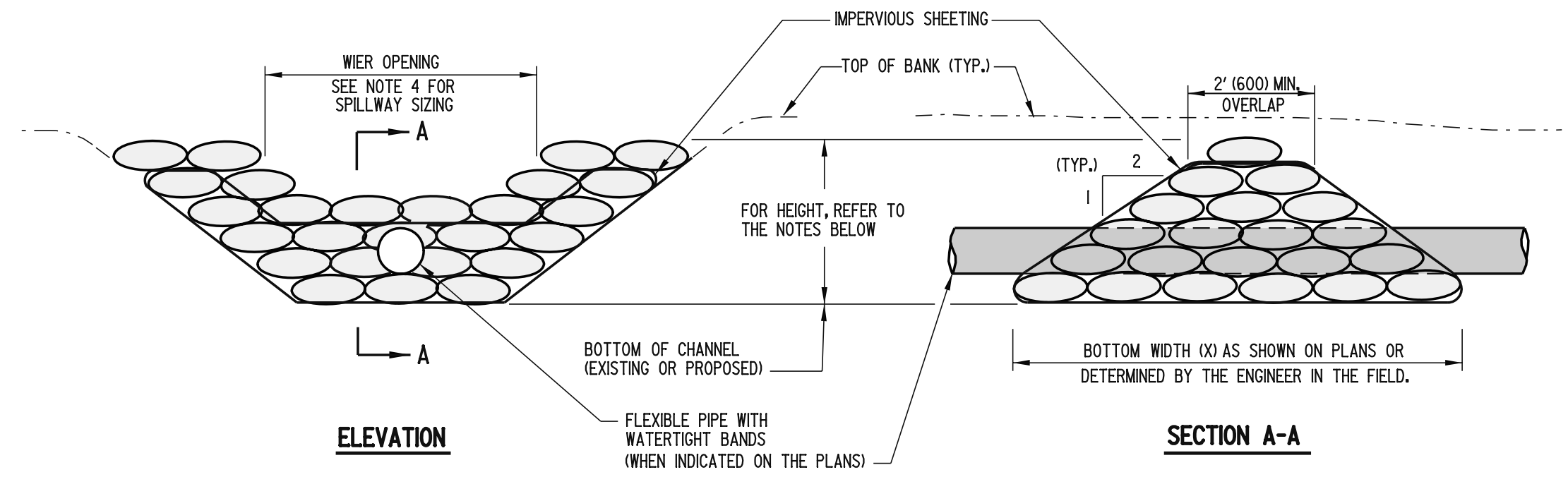


DELAWARE  
DEPARTMENT OF TRANSPORTATION

SANDBAG DIVERSION			
STANDARD NO.	E-19 (2005)	SHT.	1 OF 1

APPROVED	<i>Carolann Wick</i>	12/5/05
	CHIEF ENGINEER	DATE
RECOMMENDED	<i>James M. O'Brien</i>	11/29/05
	DESIGN ENGINEER	DATE





- NOTES:**
- 1). THE WORK SHALL CONSIST OF INSTALLING A SANDBAG DIKE FOR THE PURPOSE OF EROSION CONTROL WHEN CONSTRUCTION ACTIVITIES TAKE PLACE WITHIN THE STREAM CHANNEL SUCH AS BANK STABILIZATION OR BRIDGE ABUTMENT CONSTRUCTION.
  - 2). THE SANDBAG DIKE SHALL BE INSTALLED AT THE UPSTREAM LOCATION FIRST.
  - 3). THE HEIGHT OF THE SANDBAG DIKE SHALL BE 1' (300) ABOVE THE PEAK ELEVATION OF THE ONE YEAR STORM, OR EQUAL WITH THE TOP OF BANK, WHICHEVER IS LESS. SEE PLANS FOR INFORMATION.
  - 4). THE SPILLWAY SHALL BE SIZED TO PASS A (1) ONE YEAR STORM EVENT PEAK FLOW, SEE PLANS.
  - 5). THE PIPE, WHEN UTILIZED, SHALL BE SIZED TO PASS THE STREAM BASE FLOW.

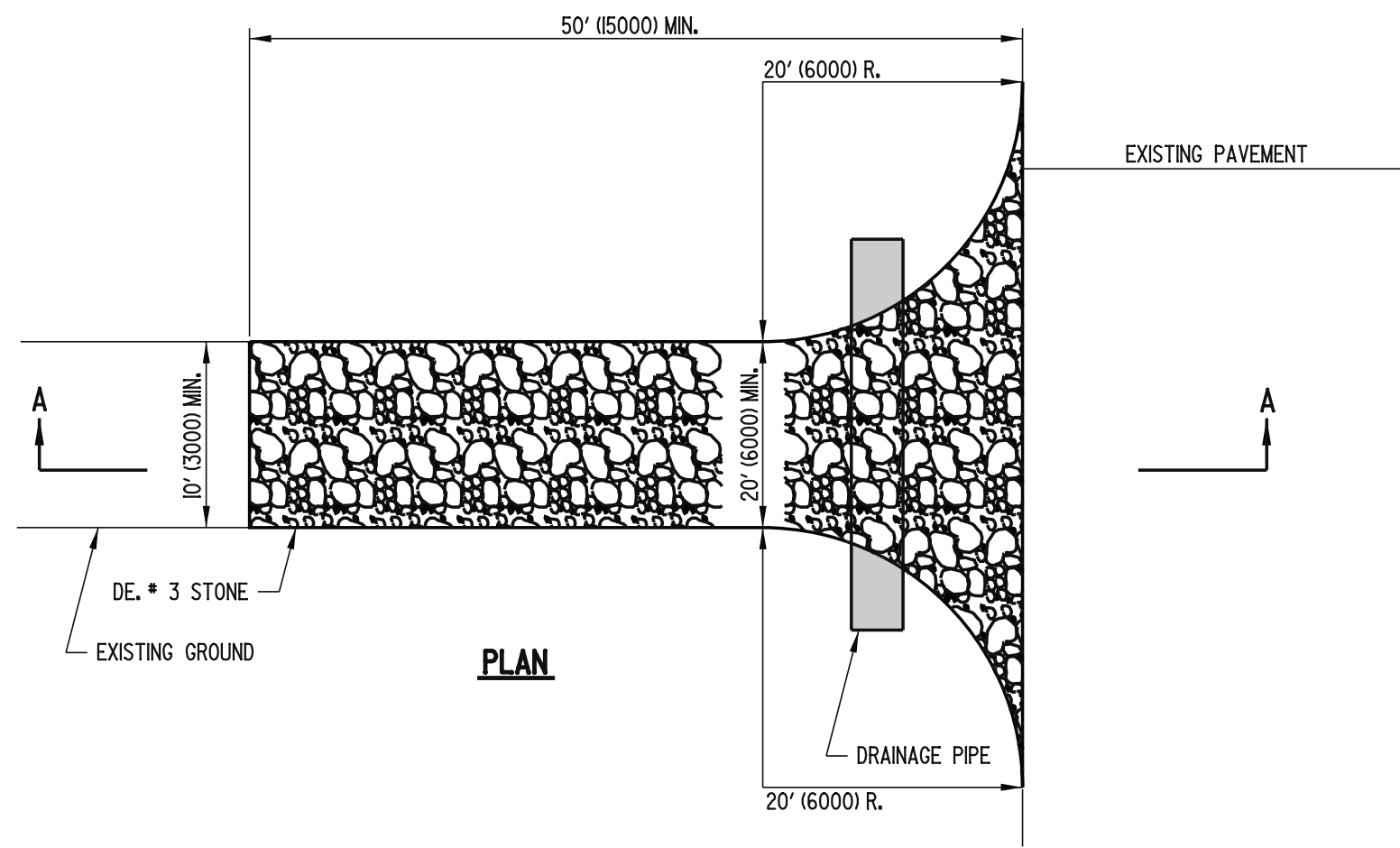


DELAWARE  
DEPARTMENT OF TRANSPORTATION

SANDBAG DIKE			
STANDARD NO.	E-20 (2005)	SHT.	1 OF 1

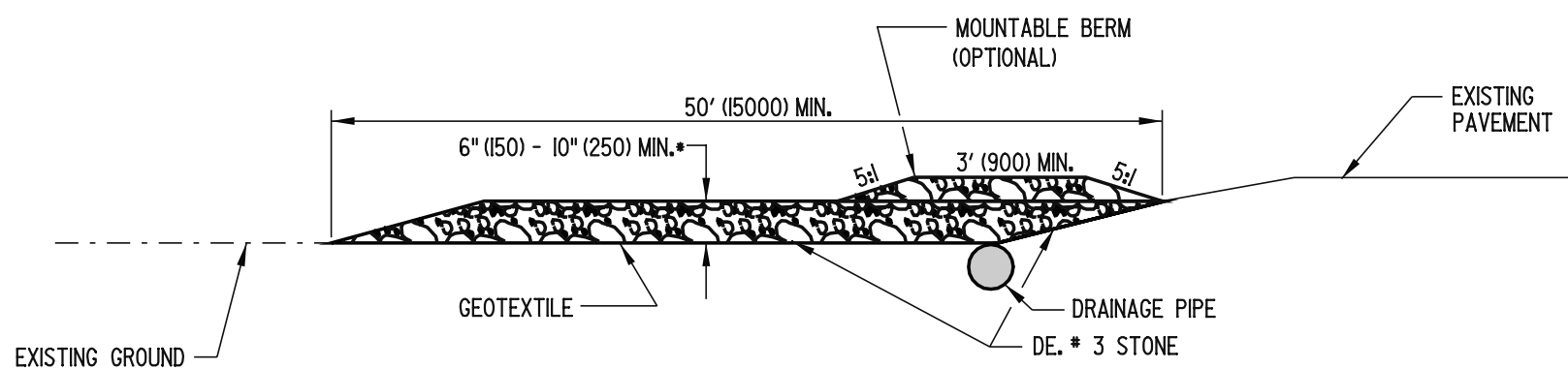
APPROVED *Carolann Wick* 12/5/05  
CHIEF ENGINEER DATE

RECOMMENDED *James M. O'Brien* 11/29/05  
DESIGN ENGINEER DATE



**PLAN**

- NOTES:**
- 1). ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED UNDER THE ENTRANCE. IF NECESSARY, A MOUNTABLE BERM WITH 5:1 SLOPES SHALL BE ALLOWED TO FACILITATE PLACEMENT OF PIPES IN SHALLOW CONDITIONS.
  - 2). THE LOCATION AND NUMBER OF STABILIZED CONSTRUCTION ENTRANCES SHALL BE AS INDICATED ON THE PLANS. ANY CHANGE IN LOCATION, ADDITION, OR DELETION OF AN ENTRANCE SHALL BE APPROVED IN ADVANCE BY THE ENGINEER.
  - 3). DRAINAGE PIPE, IF UTILIZED, SHALL BE PAID FOR SEPARATELY UNDER THE APPROPRIATE BID ITEM.
  - 4). THE TOP 2" (50) OF STONE SHALL BE REMOVED AND REPLACED WITH 2" (50) OF CLEAN STONE WHEN VOIDS ARE FILLED OR AS DIRECTED BY THE ENGINEER.



**SECTION A-A**

\* 6" (150) MIN. (< 3 AXLE)  
10" (250) MIN. (> 3 AXLE)



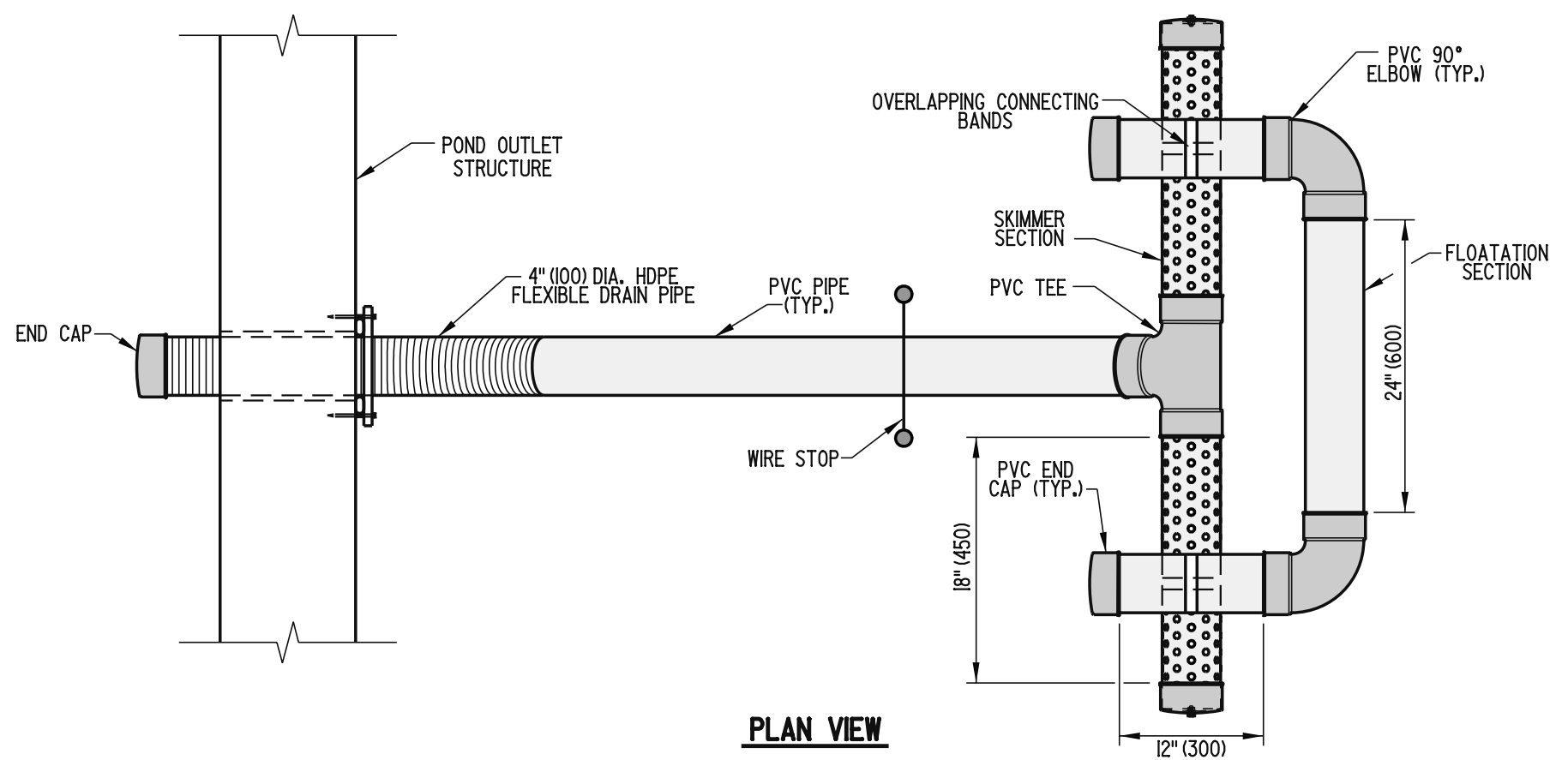
DELAWARE  
DEPARTMENT OF TRANSPORTATION

STABILIZED CONSTRUCTION ENTRANCE

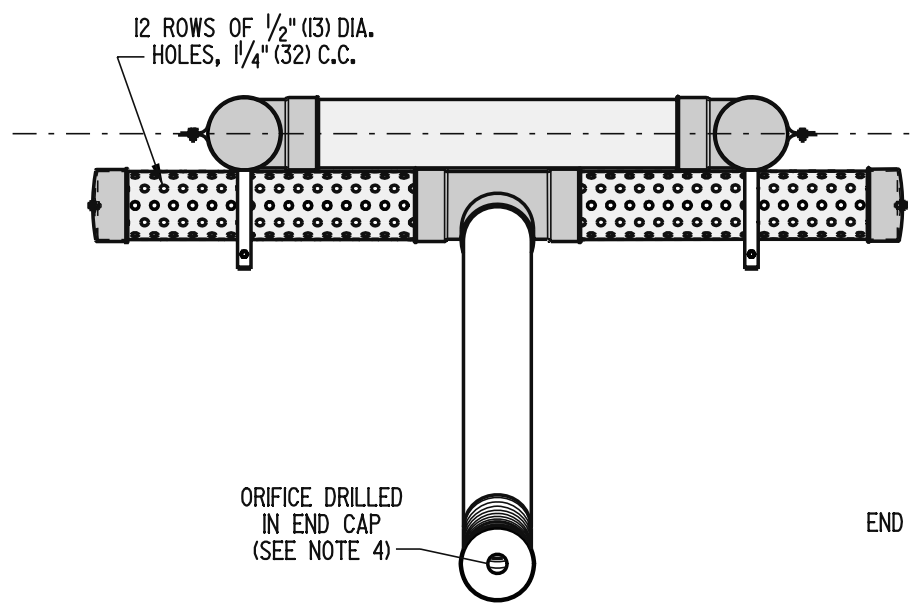
STANDARD NO. E-21 (2005) SHT. 1 OF 1

APPROVED *Carolann Wick* 12/5/05  
CHIEF ENGINEER DATE  
RECOMMENDED *James M. O'Brien* 11/29/05  
DESIGN ENGINEER DATE

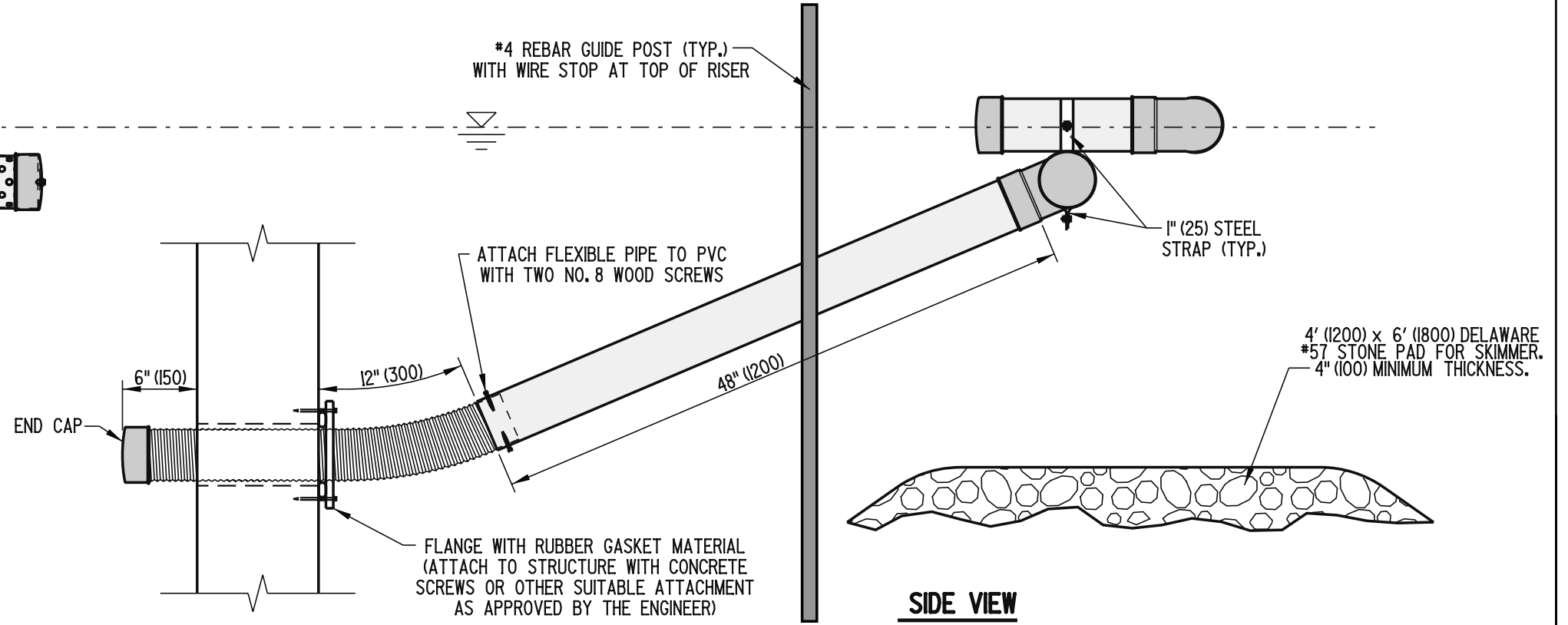
- NOTES:**
- 1). ALL P.V.C. PIPES ARE TO BE 4" (100) I.D., SCHEDULE 40
  - 2). ALL JOINTS OF THE FLOATATION SECTION SHALL BE SOLVENT WELDED. JOINTS OF SKIMMER SECTION NEED NOT BE WATER-TIGHT.
  - 3). 4" (100) HDPE FLEXIBLE DRAIN PIPE IS TO BE ATTACHED TO THE POND OUTLET STRUCTURE WITH WATER-TIGHT CONNECTIONS.
  - 4). ORIFICE IS TO BE SIZED ACCORDING TO STORAGE VOLUME AND TO SLOWLY RELEASE 1" (25) RUNOFF FOR AT LEAST 24-HOURS.






**PLAN VIEW**

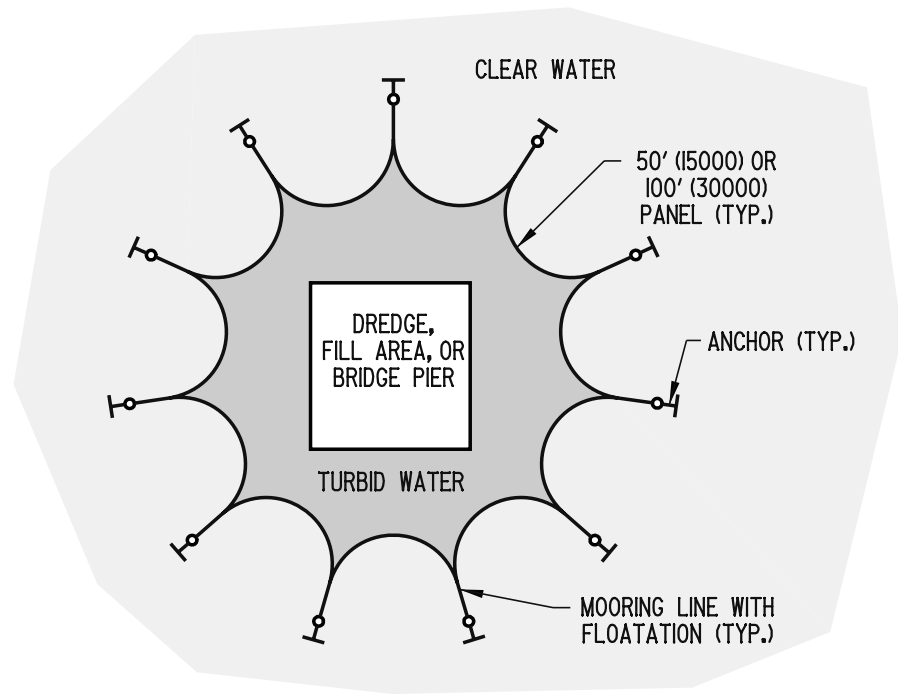


**FRONT VIEW**

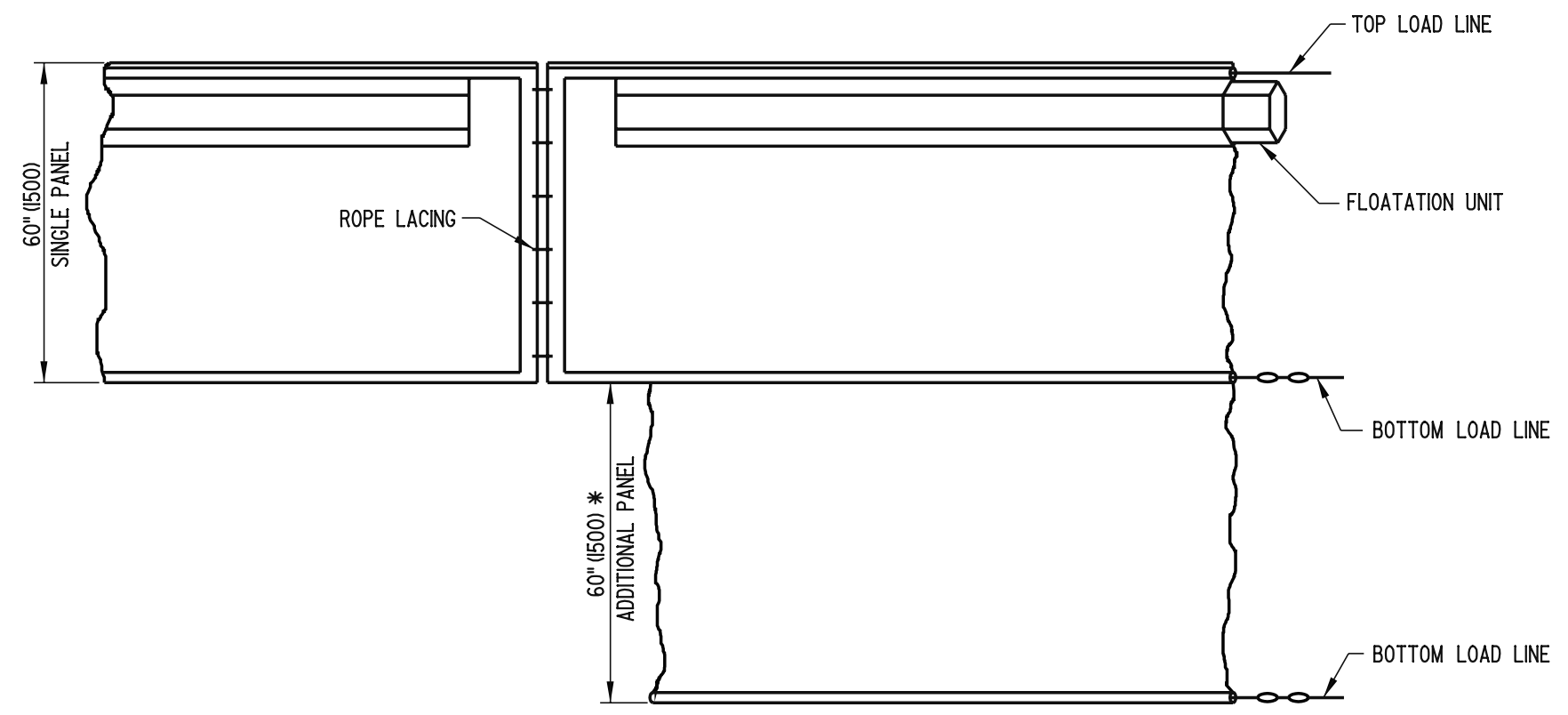


**SIDE VIEW**

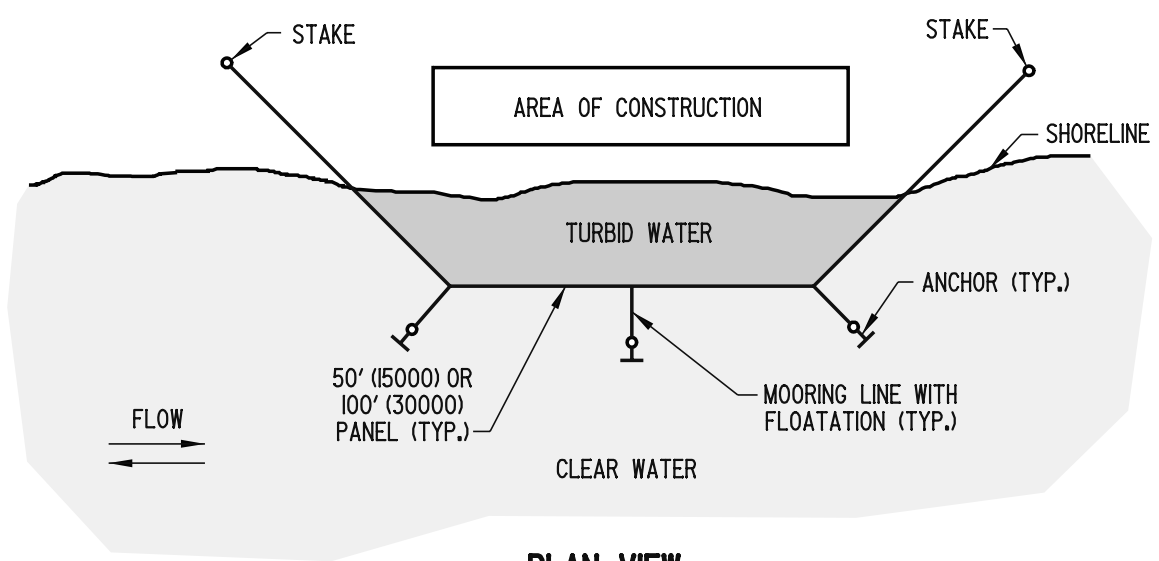
 <b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>	<b>SKIMMER DEWATERING DEVICE</b>			<b>APPROVED</b>  <b>10/10/06</b> CHIEF ENGINEER DATE
	<b>STANDARD NO. E-22 (2006)</b>	<b>SHT. 1 OF 1</b>	<b>RECOMMENDED</b>  <b>10/13/06</b> DESIGN ENGINEER DATE	



**PLAN VIEW**  
**OPEN WATER APPLICATION**



**ELEVATION**



**PLAN VIEW**  
**SHORELINE APPLICATION**

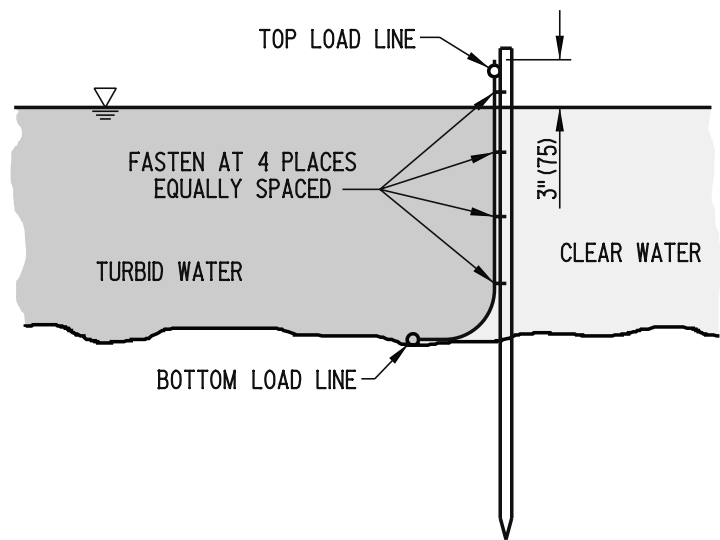
**FLOATING TURBIDITY CURTAIN**

- NOTE:** 1.) ADDITIONAL PANEL REQUIRED FOR DEPTHS GREATER THAN 5' (1500).  
2.) FLOATING TURBIDITY CURTAIN SHALL REACH BOTTOM UP TO DEPTHS OF 10' (3000) BY USING TWO PANELS. DEPTHS GREATER THAN 10' (3000) SHALL REQUIRE SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

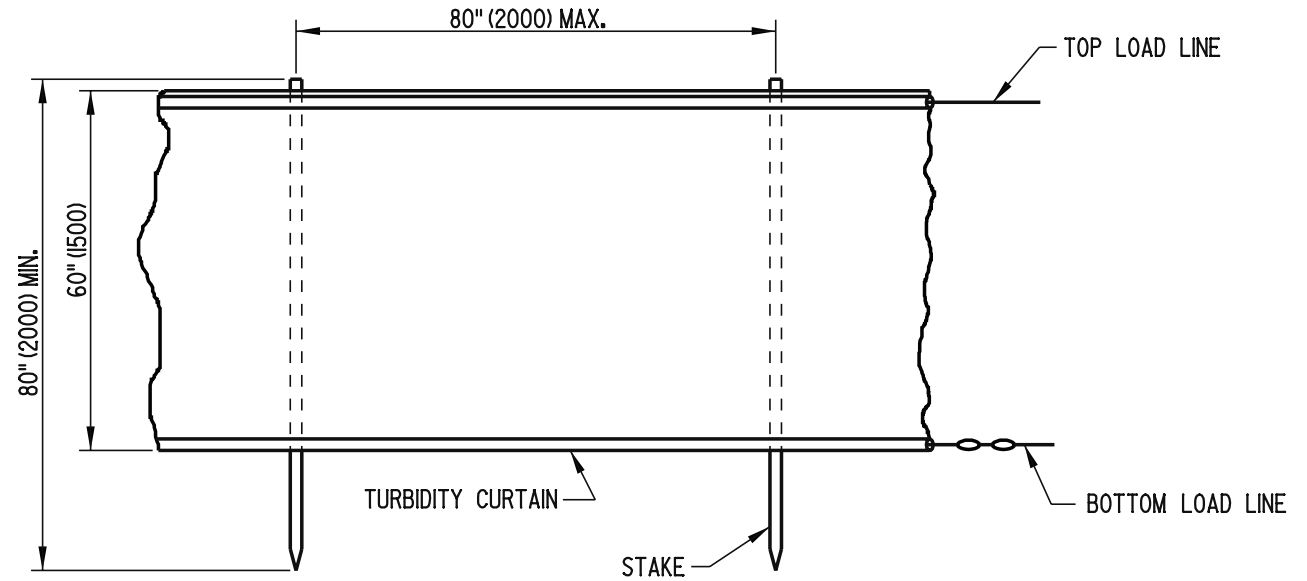


DELAWARE  
DEPARTMENT OF TRANSPORTATION

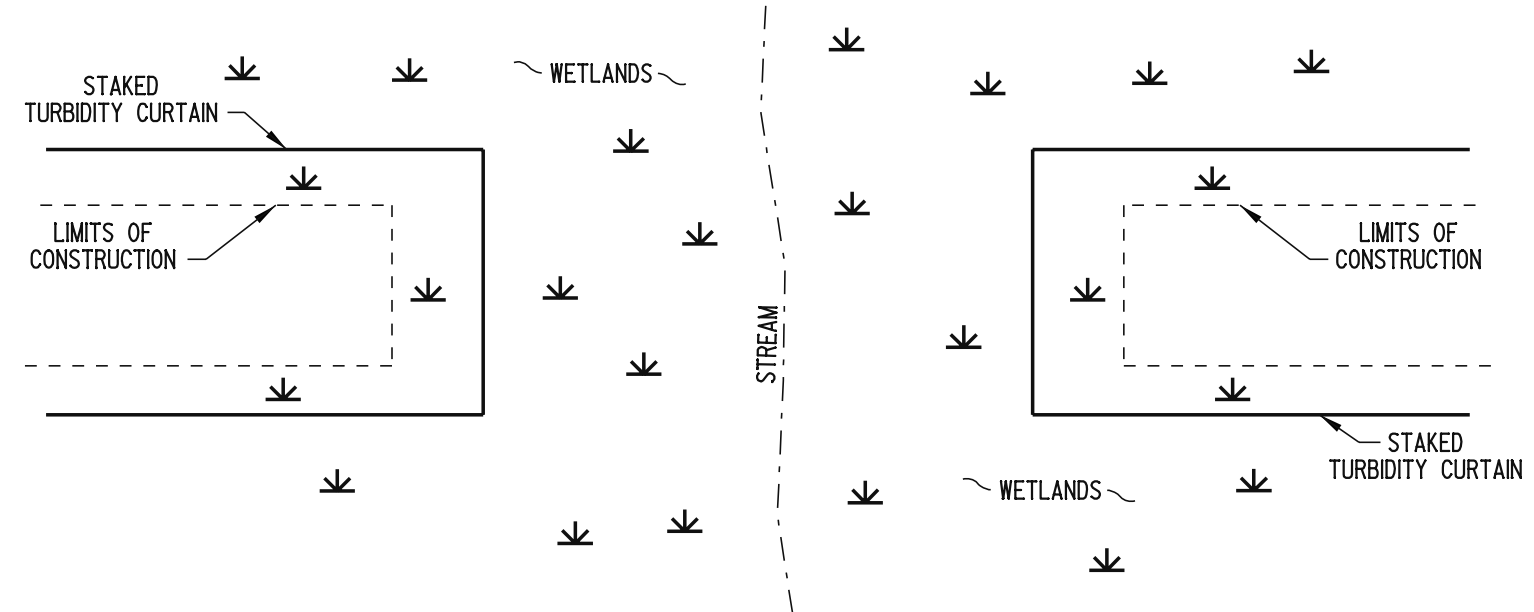
TURBIDITY CURTAIN				APPROVED <i>Carolann Wick</i> CHIEF ENGINEER	12/5/05 DATE
STANDARD NO.	E-23 (2005)	SHT.	1 OF 2	RECOMMENDED <i>James M. O'Brien</i> DESIGN ENGINEER	11/29/05 DATE



**SECTION**




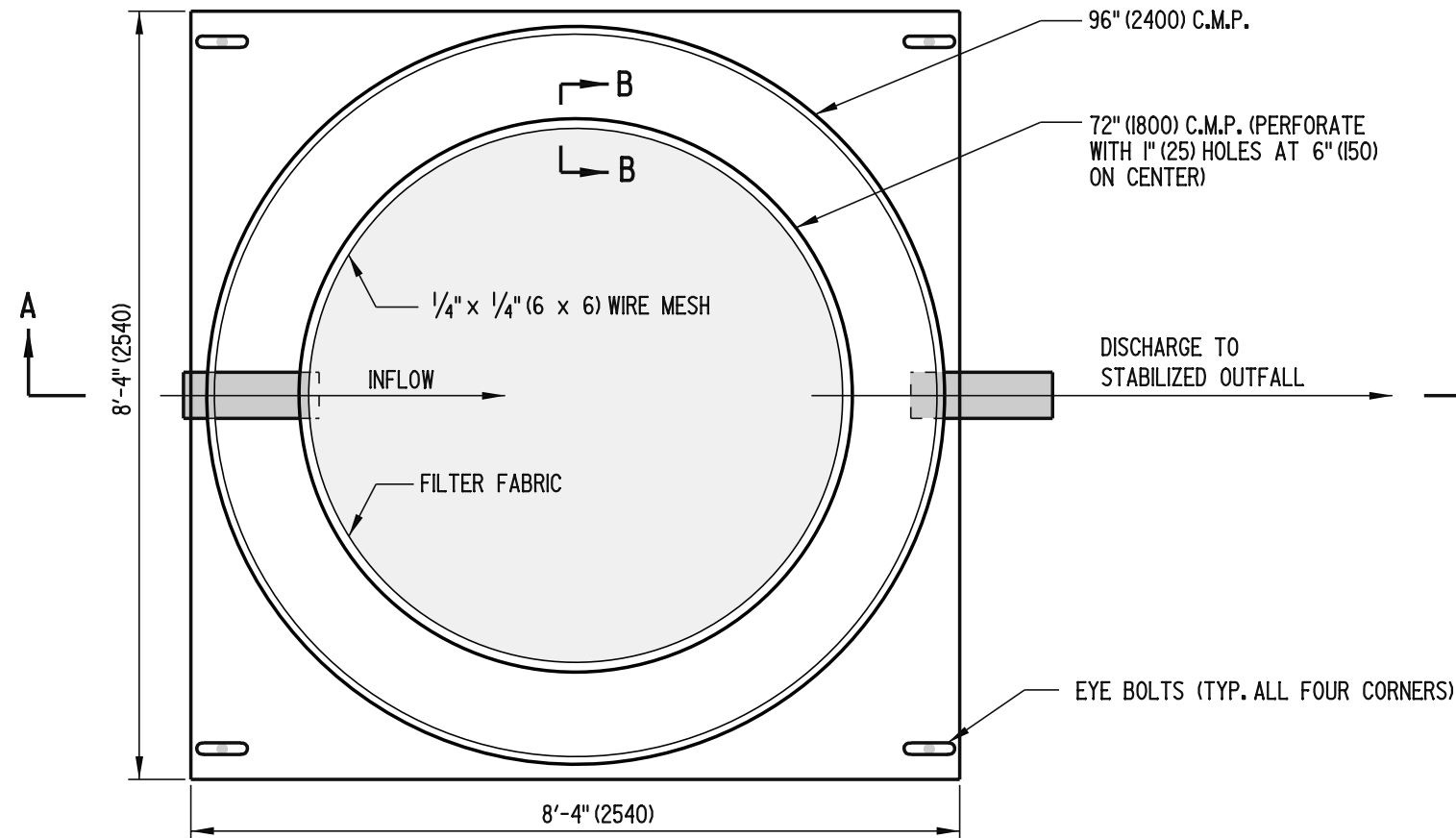
**ELEVATION**



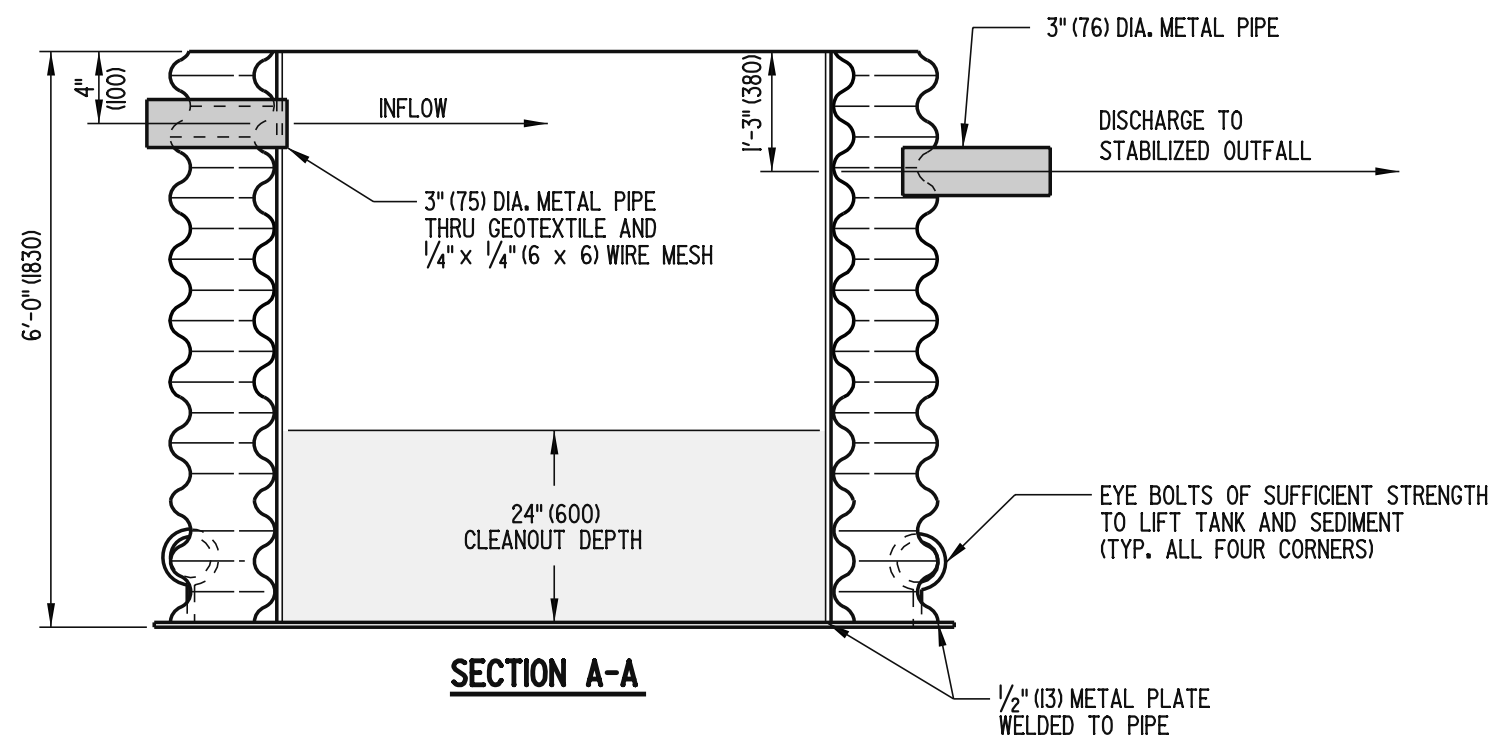
**PLAN VIEW**  
SHALLOW WATER/MARSH APPLICATION

**STAKED TURBIDITY CURTAIN**

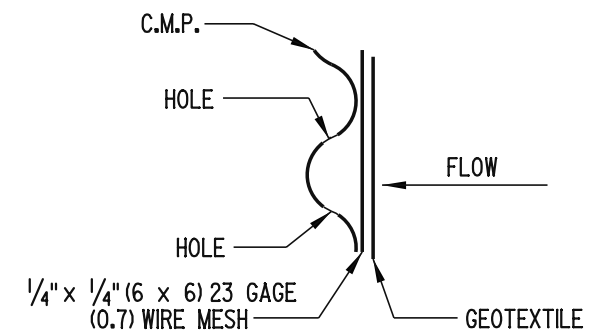
 DELAWARE DEPARTMENT OF TRANSPORTATION	TURBIDITY CURTAIN			APPROVED <i>Carolann Wick</i> 12/5/05 CHIEF ENGINEER DATE
	STANDARD NO. E-23 (2005)	SHT. 2	OF 2	RECOMMENDED <i>James M. O'Brien</i> 11/29/05 DESIGN ENGINEER DATE



**PLAN**



**SECTION A-A**



**SECTION B-B**

- NOTES:**
- 1). THE PORTABLE SEDIMENT TANK SHOWN MAY BE USED IN SITES WHERE SPACE IS LIMITED TO CONSTRUCT A DEWATERING BASIN.
  - 2). THE MAXIMUM PUMP DISCHARGE INTO THIS TYPICAL PORTABLE SEDIMENT TANK SHALL BE 425 GALLONS PER MINUTE (26 LITERS PER SECOND). THE FILTER FABRIC SHALL BE REPLACED WHEN THE PORTABLE SEDIMENT TANK CAN NO LONGER ALLOW THIS FLOW RATE, WHEN THERE IS A TEAR, OR WHEN DIRECTED BY THE ENGINEER.
  - 3). SEVERAL UN-CONNECTED OR CONNECTED IN PARALLEL PORTABLE SEDIMENT TANKS MAY BE USED WHEN A HIGHER FLOW RATE IS NEEDED TO DE-WATER THE JOB.
  - 4). OTHER DESIGNS MAY BE USED PROVIDED THE HYDRAULIC DESIGN IS SUBMITTED TO AND APPROVED BY THE STORMWATER ENGINEER.



DELAWARE  
DEPARTMENT OF TRANSPORTATION

PORTABLE SEDIMENT TANK

STANDARD NO.

E-24 (2005)

SHT. 1

OF 1

APPROVED

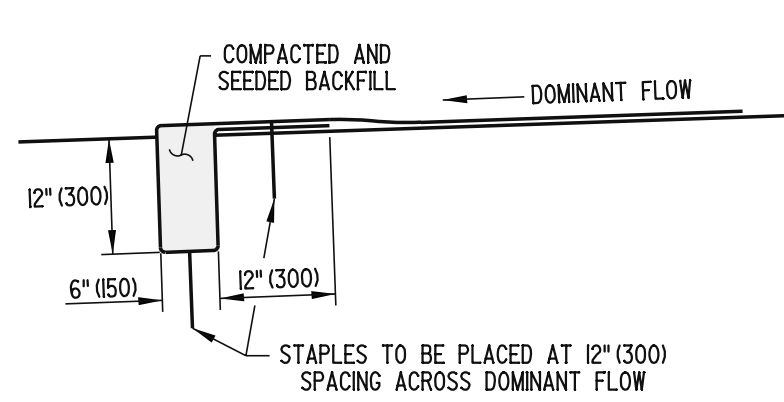
*Carolann Wick*  
CHIEF ENGINEER

12/5/05  
DATE

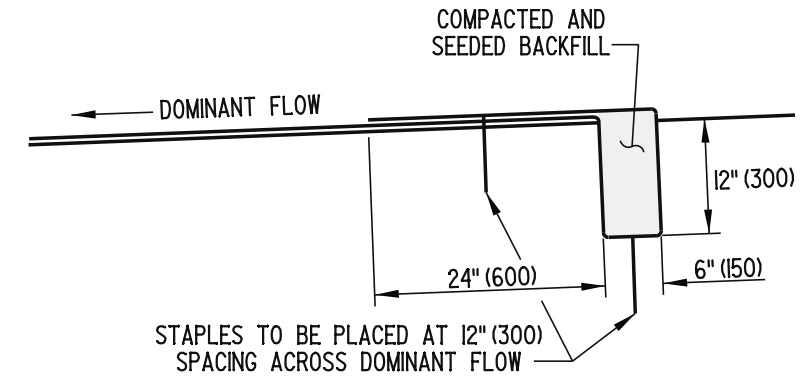
RECOMMENDED

*James M. O'Brien*  
DESIGN ENGINEER

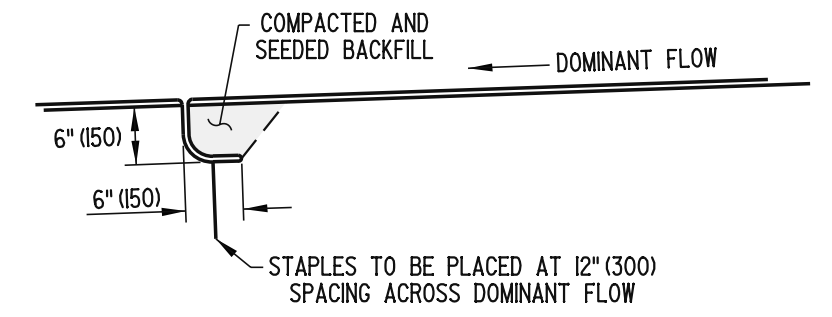
11/29/05  
DATE



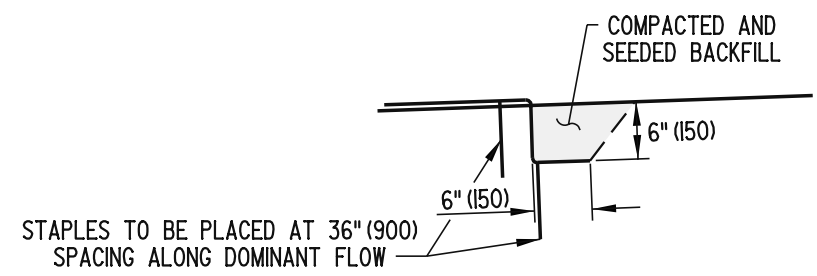
**INITIAL TRENCH ANCHOR DETAIL**  
APPLIED AT THE DOWNSTREAM END OF DITCH



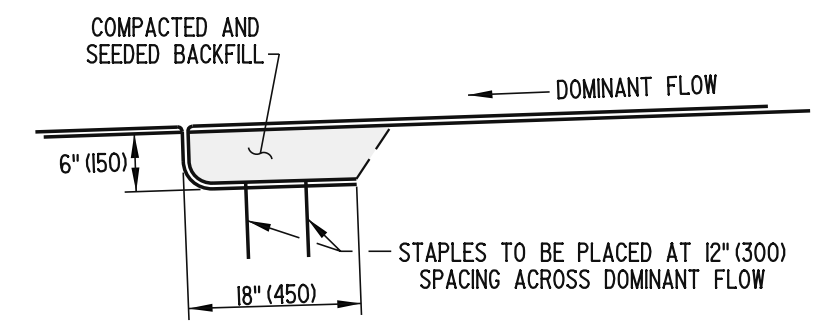
**TERMINAL TRENCH ANCHOR DETAIL**  
APPLIED AT THE UPSTREAM END OF DITCH



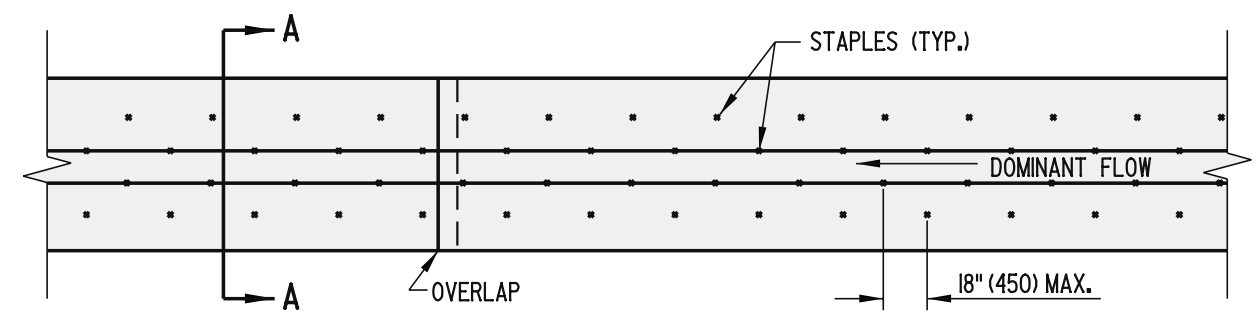
**CHECK SLOT DETAIL**  
(AS NEEDED PER PLANS)



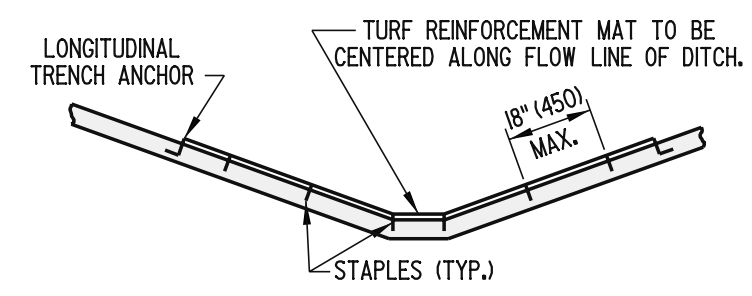
**LONGITUDINAL TRENCH ANCHOR DETAIL**



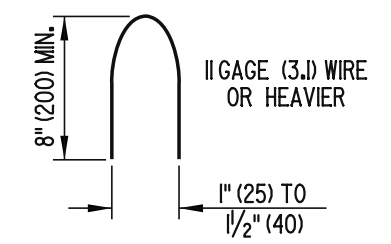
**OVERLAP DETAIL**



**STABILIZATION OF DITCHES  
PLAN**




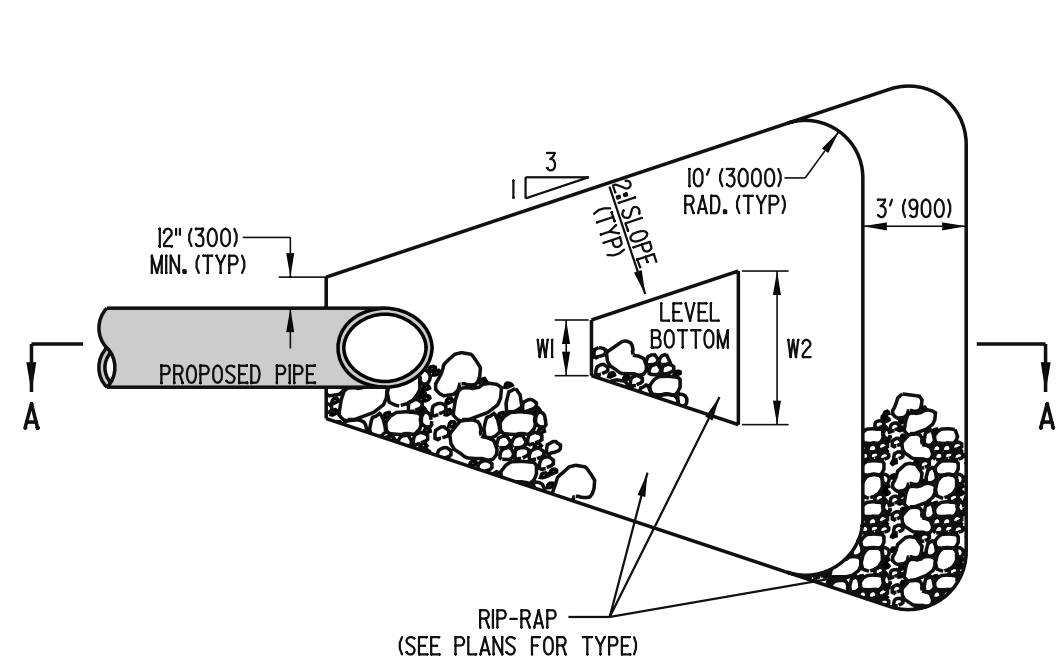
**STABILIZATION OF DITCHES  
SECTION A-A**



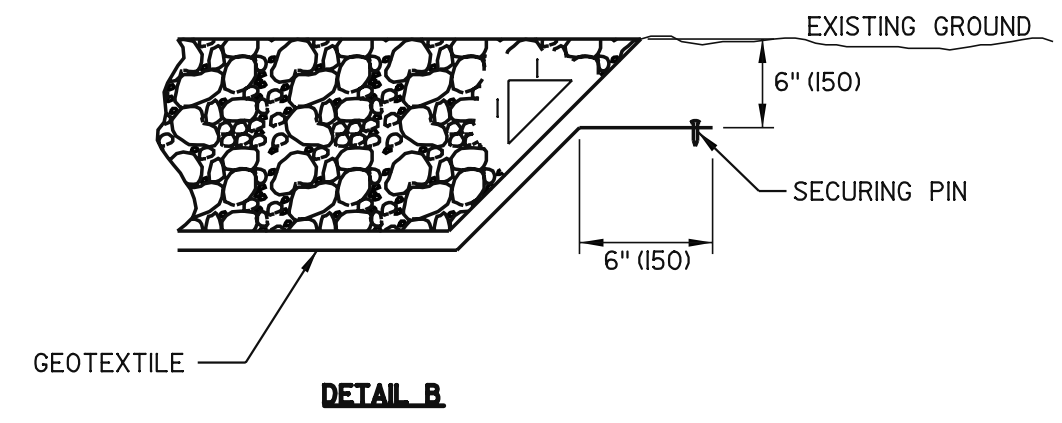
**STAPLE DETAIL**

- NOTES: 1. ADDITIONAL STAPLES NOT SHOWN ARE REQUIRED AT OVERLAPS, ENDS, CHECK SLOTS AND EDGES. SEE APPROPRIATE DETAILS FOR STAPLE PLACEMENT.  
2. STAPLES ARE TO BE STAGGERED.  
3. TOPSOIL UNDER TURF REINFORCEMENT MAT IS TO BE TRACKED AND SEEDED.

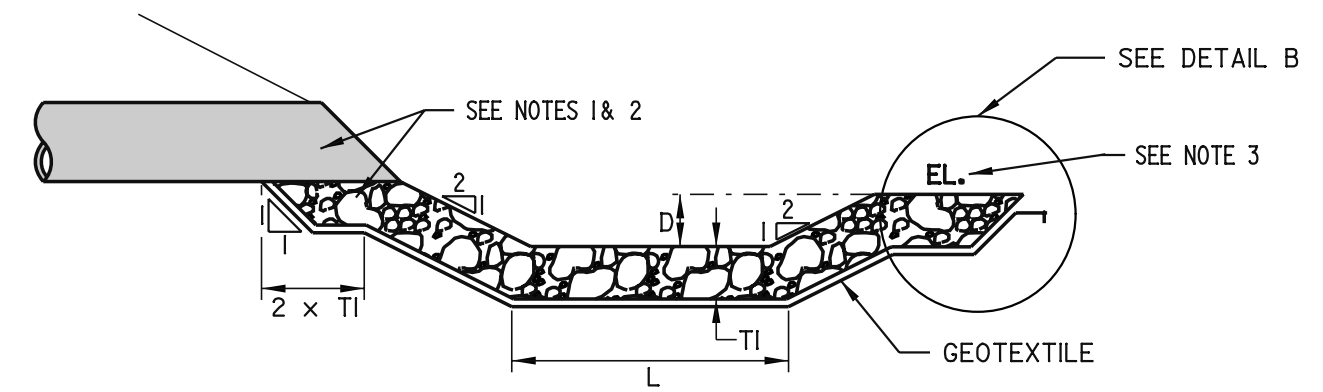
 <b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>	<b>TURF REINFORCEMENT MAT APPLICATIONS</b>			<b>APPROVED</b> <i>Carolann Wick</i> <b>12/15/05</b> CHIEF ENGINEER DATE
	<b>STANDARD NO.</b> E-25 (2005)	<b>SHT.</b> 1	<b>OF</b> 1	<b>RECOMMENDED</b> <i>James M. O'Brien</i> <b>11/29/05</b> DESIGN ENGINEER DATE



PLAN VIEW



DETAIL B



SECTION A-A

- NOTES:
1. RIPRAP IS TO BE PLACED PRIOR TO PLACING PIPE.
  2. PLACE DELAWARE NO. 3 STONE UNDER PIPE.
  3. ELEVATION (EL.) SHOULD NOT BE HIGHER THAN PIPE INVERT.
  4. REFER TO THE PIPE ENERGY DISSIPATOR SCHEDULE ON THE CONSTRUCTION PLANS FOR THE VALUE OF DIMENSION VARIABLES.



DELAWARE  
DEPARTMENT OF TRANSPORTATION

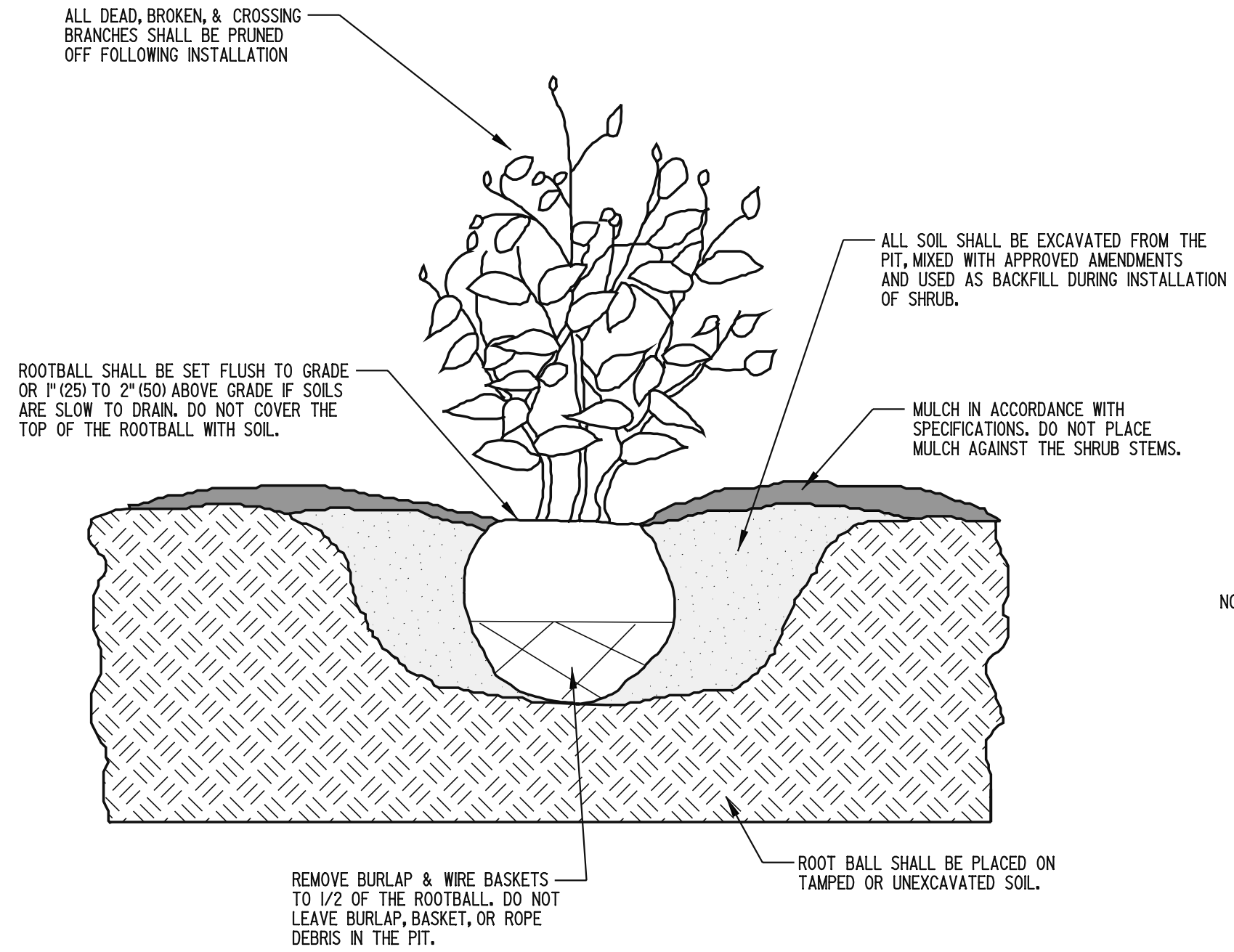
RIPRAP ENERGY DISSIPATOR DETAIL

STANDARD NO. E-26 (2006)

SHT. 1 OF 1




APPROVED *[Signature]* 10/10/06  
CHIEF ENGINEER DATE  
RECOMMENDED *[Signature]* 10/13/06  
DESIGN ENGINEER DATE

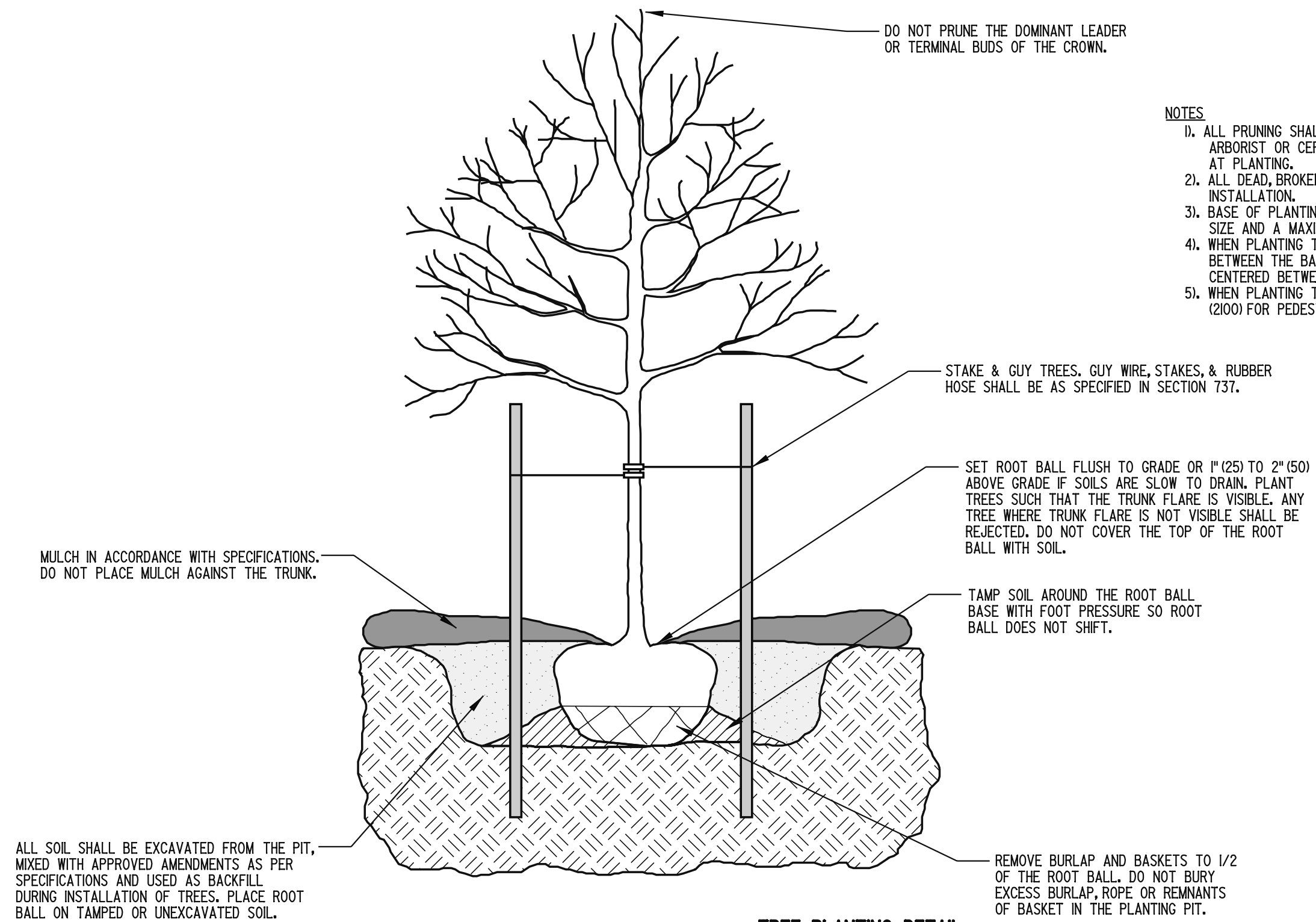




- NOTES:
- 1). BASE OF PLANTING PIT SHALL BE A MINIMUM WIDTH OF TWICE THE ROOT BALL SIZE AND A MAXIMUM OF THREE TIMES THE ROOT BALL SIZE.
  - 2). SHRUBS SHALL BE INSTALLED IN MASSES OF NO LESS THAN 3 PLANTS. A MINIMUM OF 6' (1800) WIDTH IS REQUIRED FROM THE BACK OF CURB TO THE EDGE OF SIDEWALK FOR INSTALLATION OF SHRUBS.
  - 3). ALL PRUNING SHALL BE DONE BY AN I.S.A. CERTIFIED ARBORIST, CERTIFIED NURSERY PROFESSIONAL, OR UNDER THE DIRECTION THEREOF. DO NOT HEAVILY PRUNE SHRUBS AT PLANTING.
  - 4). AUGERED HOLES SHALL BE HAND DUG TO FINAL WIDTH AND TO ELIMINATE GLAZING.
  - 5). ALL SHRUB MASSES SHALL BE MULCHED AS ONE CONTINUOUS BED.



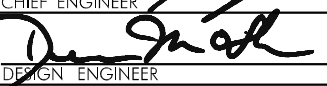
**ROADSIDE SHRUB PLANTING DETAIL**

 <b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>	<b>PLANTING DETAILS</b>			<b>APPROVED</b>  <b>10/10/06</b> <small>CHIEF ENGINEER DATE</small>
	<b>STANDARD NO.</b> L-1 (2006)	<b>SHT.</b> 1	<b>OF</b> 3	<b>RECOMMENDED</b>  <b>10/13/06</b> <small>DESIGN ENGINEER DATE</small>

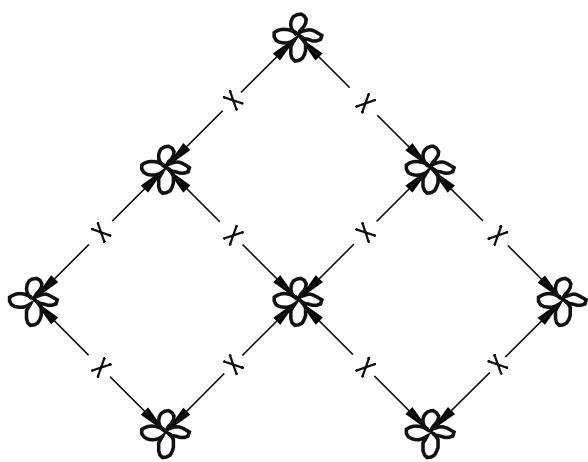


- NOTES**
- 1). ALL PRUNING SHALL BE DONE BY OR UNDER THE DIRECTION OF, AN I.S.A. CERTIFIED ARBORIST OR CERTIFIED NURSERY PROFESSIONAL. DO NOT HEAVILY PRUNE TREES AT PLANTING.
  - 2). ALL DEAD, BROKEN, & CROSSING BRANCHES SHALL BE PRUNED OFF FOLLOWING INSTALLATION.
  - 3). BASE OF PLANTING PIT SIZE SHALL BE A MINIMUM WIDTH OF TWICE THE ROOT BALL SIZE AND A MAXIMUM OF THREE TIMES THE ROOT BALL SIZE.
  - 4). WHEN PLANTING TREES ALONG STREETS, THERE MUST BE A MINIMUM OF 6' (1800) BETWEEN THE BACK OF CURB AND THE EDGE OF SIDEWALK AND SHALL BE CENTERED BETWEEN THE BACK OF CURB AND THE EDGE OF SIDEWALK.
  - 5). WHEN PLANTING TREES ALONG SIDEWALKS, THE TREE SHALL BE LIMBED TO 7' (2100) FOR PEDESTRIAN CLEARANCE.

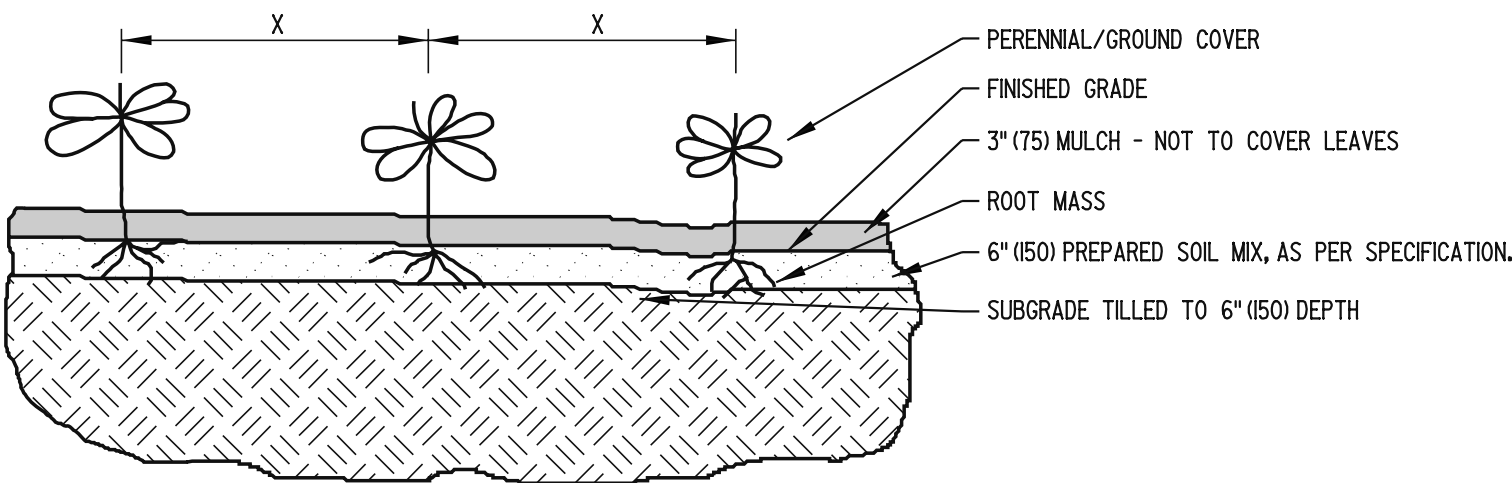
**TREE PLANTING DETAIL**

 <b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>	<b>PLANTING DETAILS</b>			<b>APPROVED</b>  <b>10/10/06</b> <small>CHIEF ENGINEER DATE</small>
	<b>STANDARD NO.</b> L-1 (2006)	<b>SHT.</b> 2	<b>OF</b> 3	<b>RECOMMENDED</b>  <b>10/13/06</b> <small>DESIGN ENGINEER DATE</small>

NOTE:  
1). SEE PLANT LIST FOR SPACING (X).






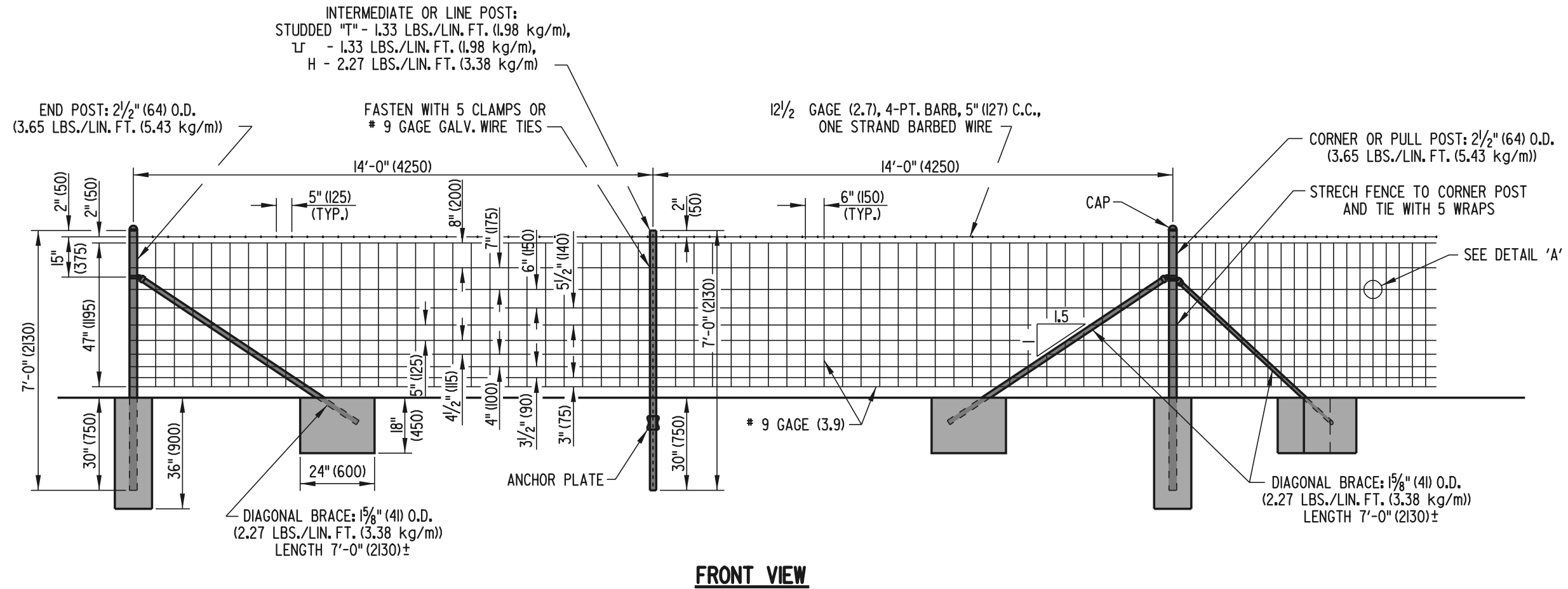
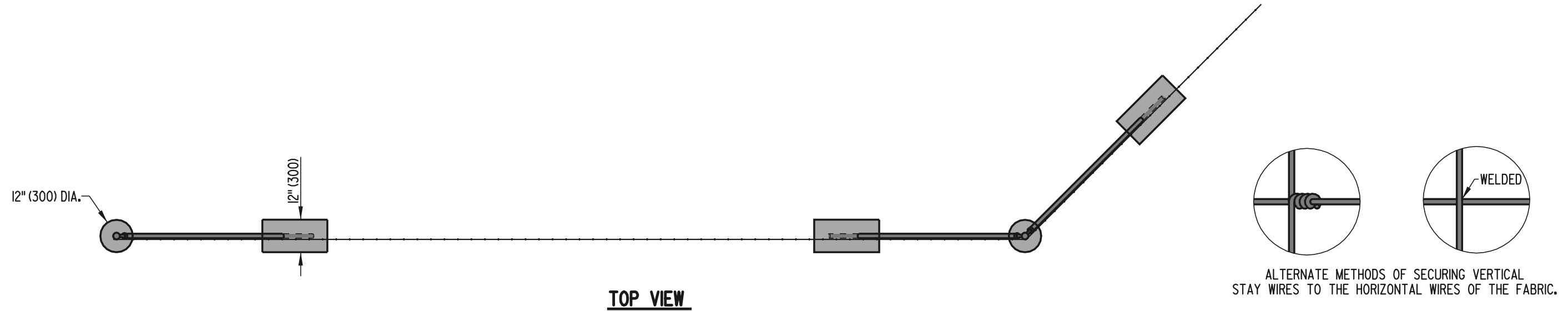
PLAN VIEW



SECTION VIEW

PERENNIAL/GROUNDCOVER PLANTING DETAIL

 DELAWARE DEPARTMENT OF TRANSPORTATION	PLANTING DETAILS			APPROVED  10/10/06
	STANDARD NO. L-1 (2006)	SHT. 3	OF 3	RECOMMENDED  10/13/06



DELAWARE  
DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY FENCE

STANDARD NO.

M-1 (2001)

SHT. 1

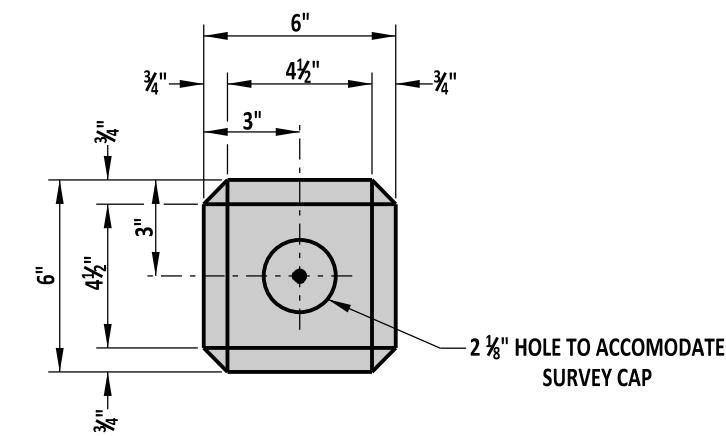
OF 1

APPROVED

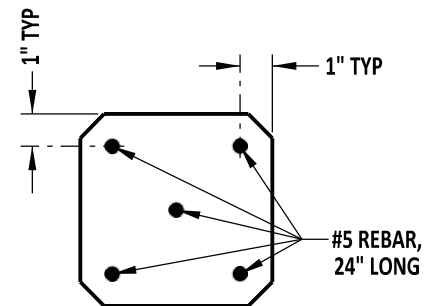
*Ryan M. Harkness* 6/18/01  
CHIEF ENGINEER DATE

RECOMMENDED

*Michael J. Gotsch* 6/18/01  
DESIGN ENGINEER DATE



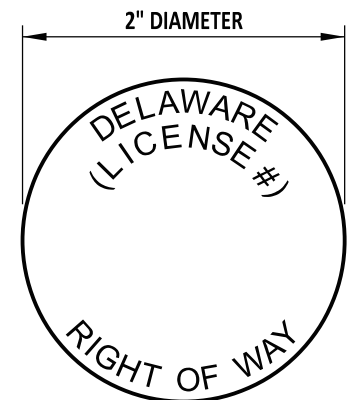
TOP



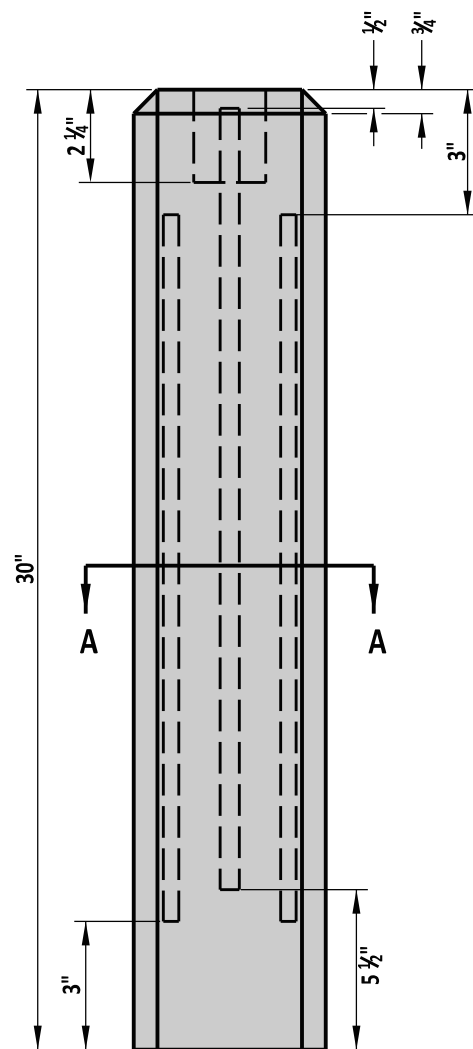
SECTION A-A

- NOTES : 1). LONGITUDINAL STEEL SHALL BE HELD IN PLACE BY CRADLES.
- 2). LETTERS ON CONCRETE MONUMENT TO BE COUNTERSUNK IN TOP OF MARKER 1/4".
- 3). FLEXIBLE DELINEATORS ARE ONLY TO BE USED ON ROADS WITH A SPECIFIED DENIAL OF ACCESS OR CLASSIFIED AS MINOR ARTERIALS OR HIGHER. ON ALL OTHER ROAD CLASSIFICATIONS, A WOODEN STAKE SHALL BE PLACED WITH "ROW" HANDWRITTEN VERTICALLY IN 1" TALL LETTERS.
- 4). PLACE CAP ON CONCRETE MONUMENT SO THAT TOP OF CAP IS FLUSH WITH THE TOP OF THE CONCRETE MONUMENT.

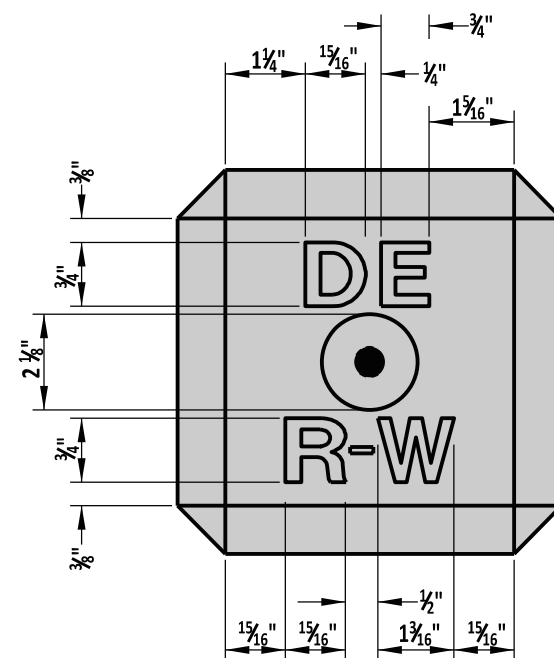
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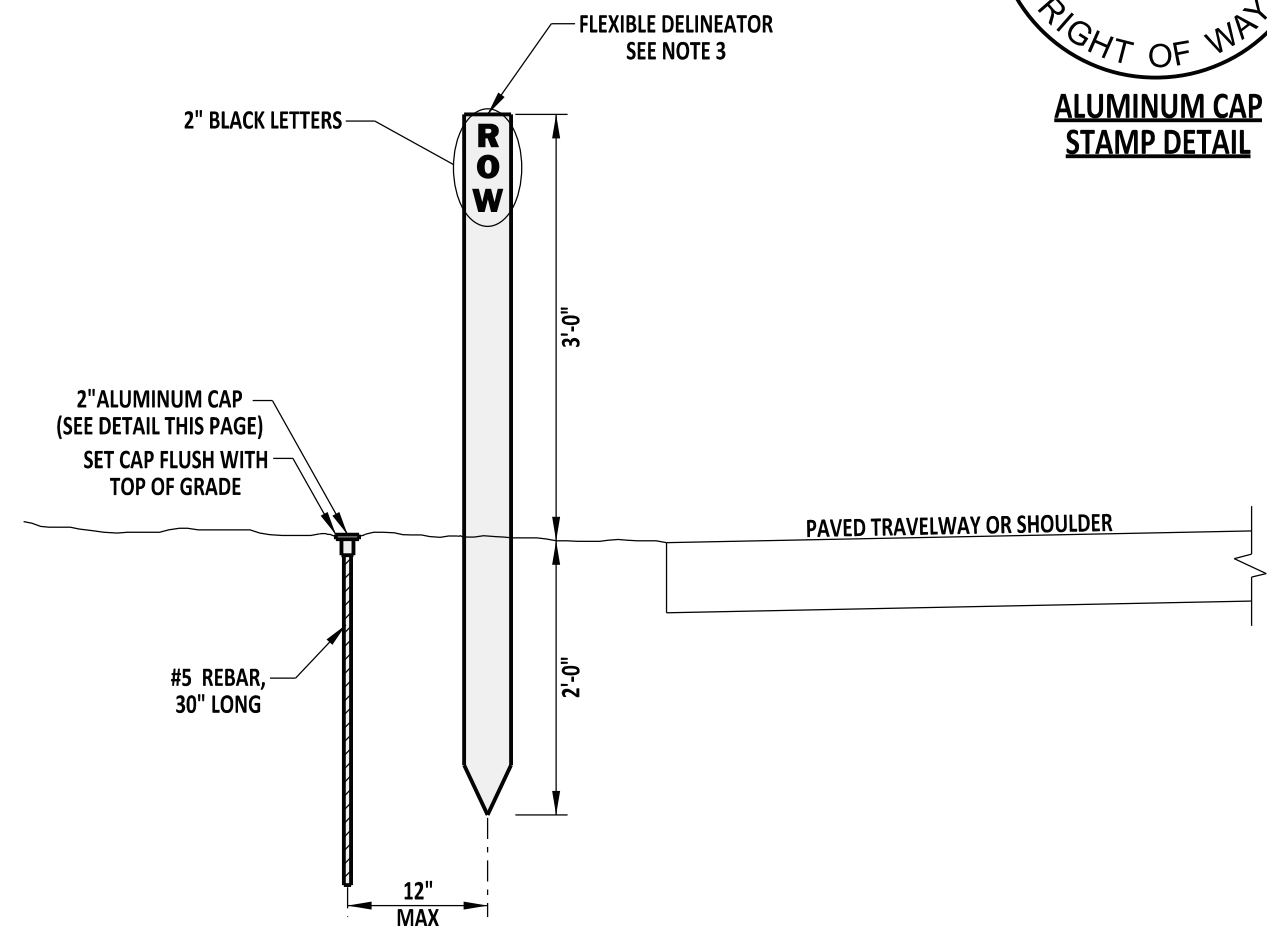
ALUMINUM CAP  
STAMP DETAIL



ELEVATION



TOP DETAIL



REBAR AND CAP WITH  
FLEXIBLE DELINEATOR DETAIL



DELAWARE  
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY MONUMENTATION

STANDARD NO.

M-2 (2011)

SHT. 1

OF 1

APPROVED

SIGNATURE ON FILE  
CHIEF ENGINEER

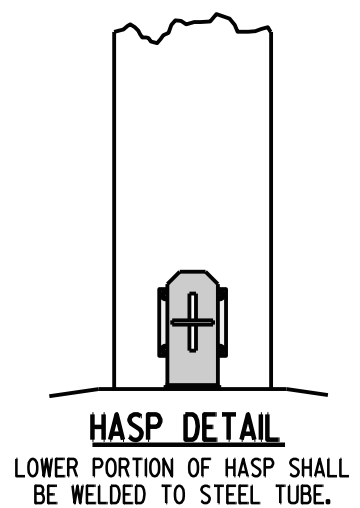
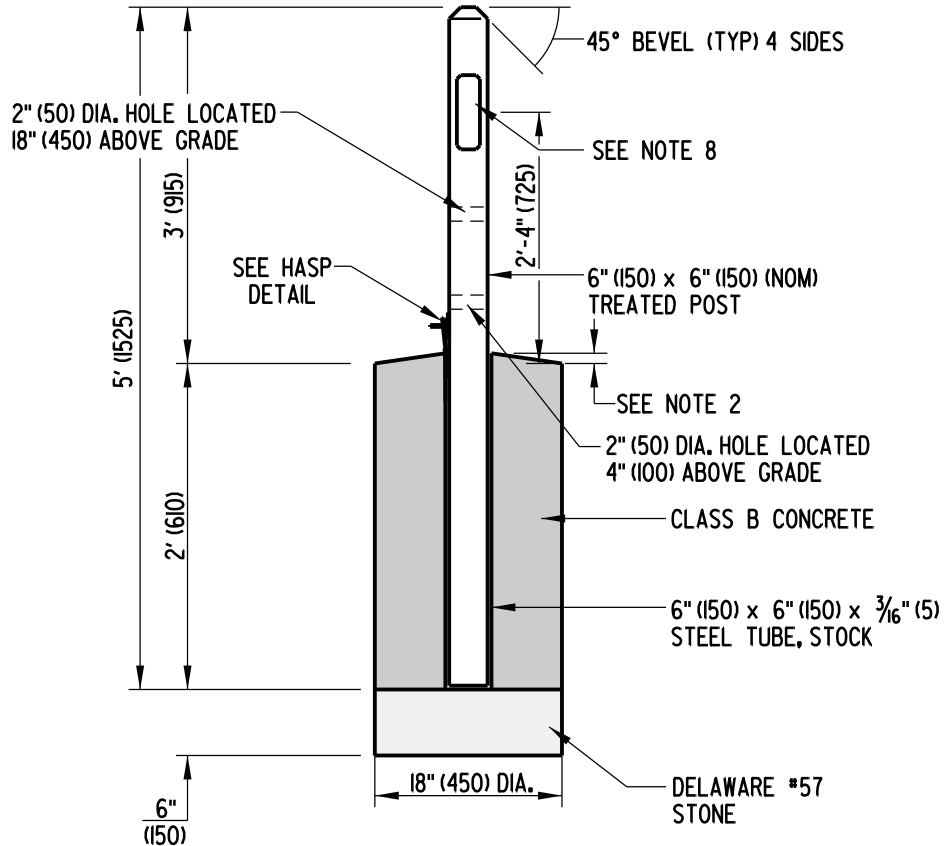
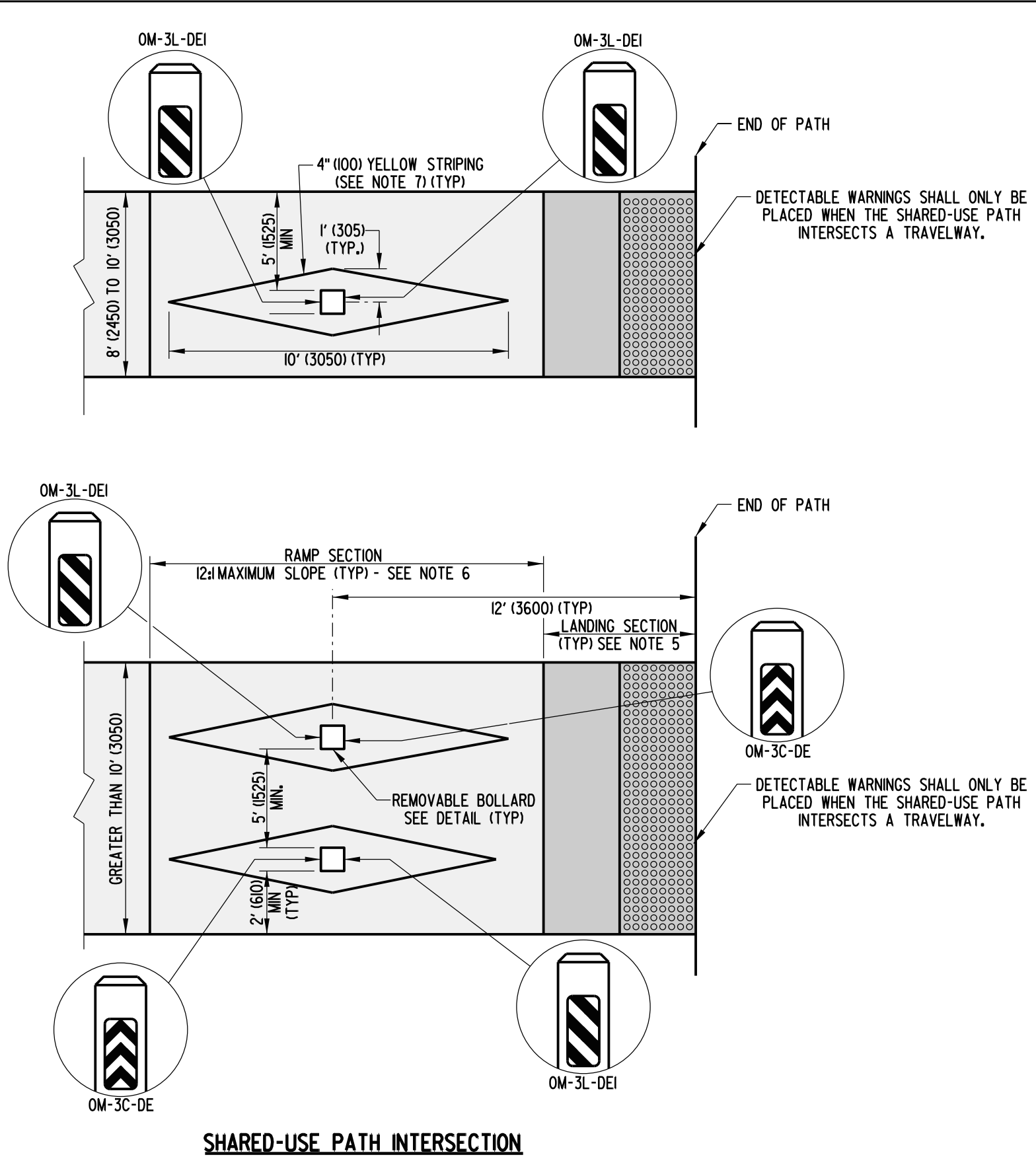
12/22/2011  
DATE

RECOMMENDED


SIGNATURE ON FILE  
DESIGN ENGINEER

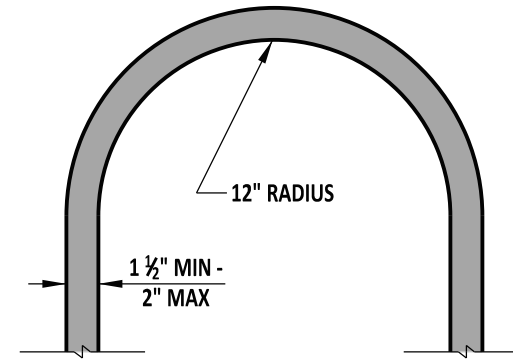
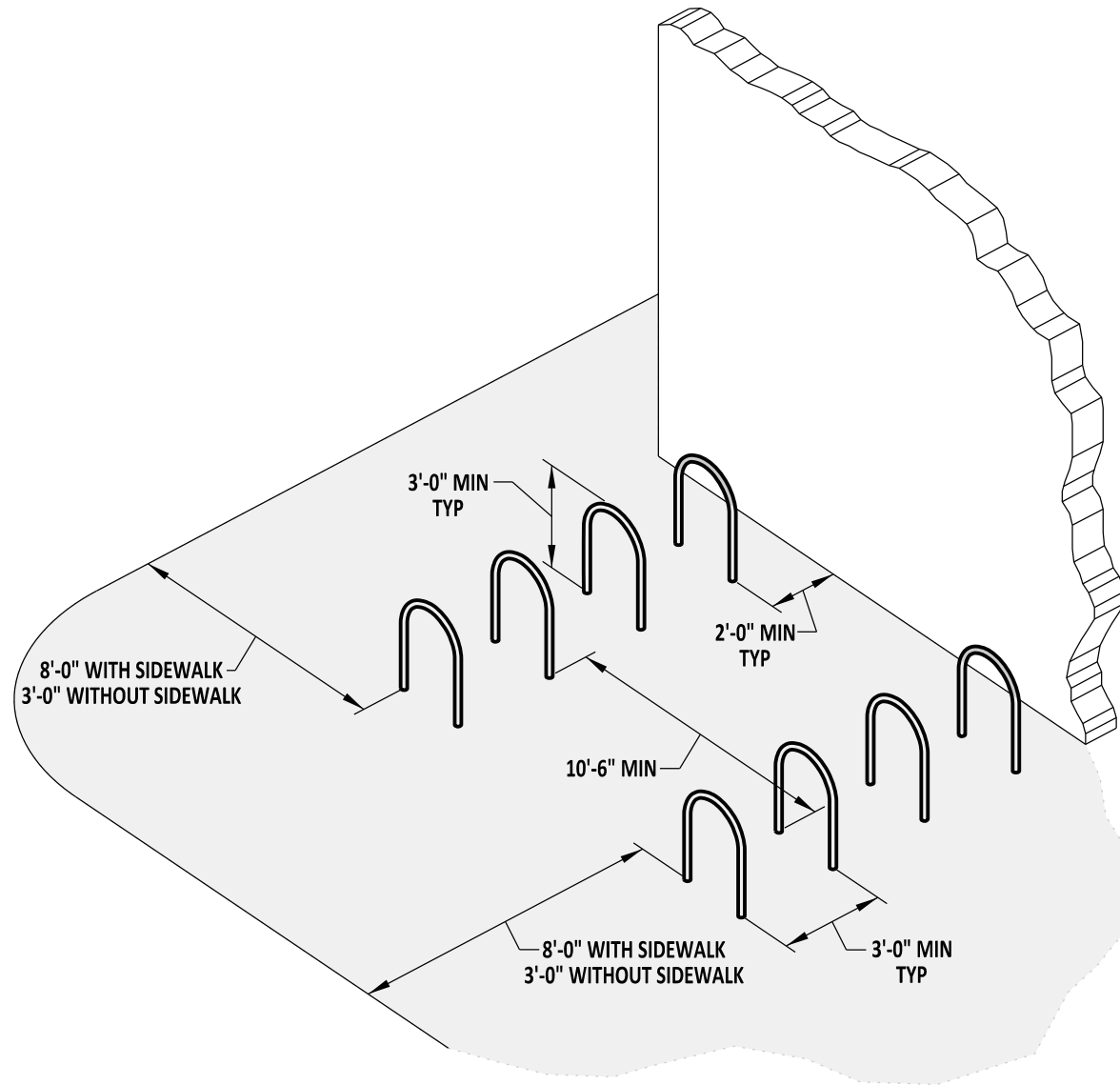
12/21/2011  
DATE

SCALE : N.T.S.

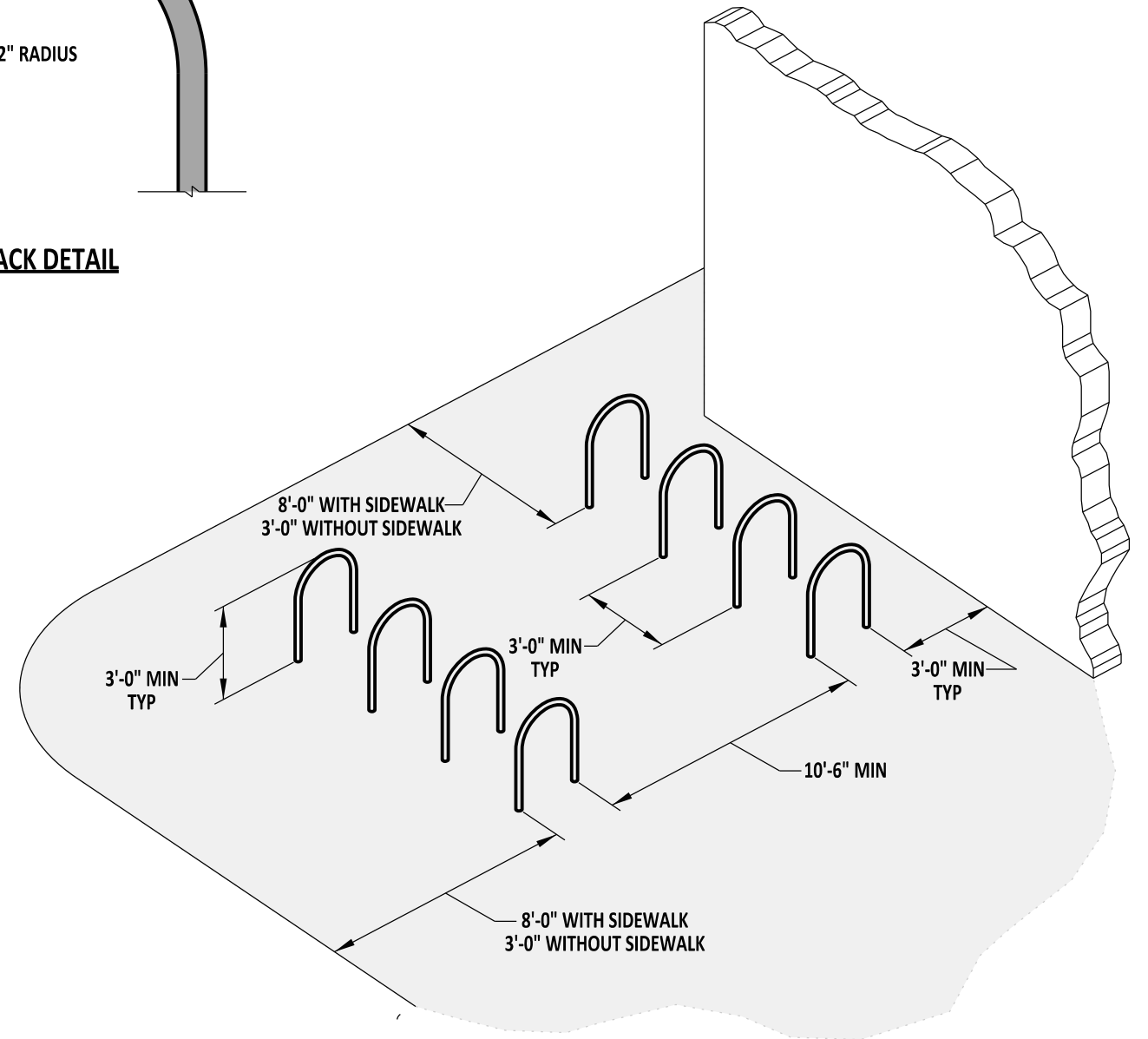


- NOTES:**
- 1). IF THE SHARED-USE PATH ENDS AT A ROADWAY OR RAILROAD CROSSING, THEN DETECTABLE WARNING TRUNCATED DOMES 24" (600) LONG AND THE FULL WIDTH OF THE PATH SHALL BE INSTALLED. SEE DETAIL C-2.
  - 2). STEEL TUBE TO EXTEND 1/2" (13) ABOVE GROUND WITH CONCRETE TO SLOPE AWAY FROM TUBE TO KEEP WATER AND SEDIMENT FROM DRAINING INTO TUBE.
  - 3). BOLLARDS ARE NOT REQUIRED FOR A SHARED-USE PATH LESS THAN 8' (2450) WIDE.
  - 4). SHAPE THE POST AS NECESSARY SO THAT IT WILL FIT IN THE STEEL TUBE.
  - 5). THE LANDING SECTION SHALL BE A MINIMUM OF 5' (1525) IN LENGTH AND SHALL HAVE A MAXIMUM CROSS SLOPE AND RUNNING SLOPE OF 2%. THE ENTIRE LANDING SECTION MUST ALSO BE CONCRETE.
  - 6). THE RAMP SECTION SHALL HAVE A MAXIMUM CROSS SLOPE OF 2%. IT SHALL ALSO HAVE A MAXIMUM RUNNING SLOPE OF 12:1. HOWEVER, IF A 12:1 RUNNING SLOPE DOES NOT ALLOW THE RAMP TO MEET EXISTING GRADE WITHIN 15' (4200), THE RUNNING SLOPE MAY EXCEED 12:1.
  - 7). STRIPING MATERIAL TO BE DETERMINED BY THE ENGINEER BASED ON THE MATERIAL THAT THE STRIPING IS BEING PLACED ON.
  - 8). THE APPROPRIATE TYPE 3 OBJECT MARKER SHALL BE PLACED ON THE FRONT AND BACK OF EACH BOLLARD AS PER THIS DETAIL.

 <b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>	<b>BOLLARD &amp; SHARED-USE PATH DETAILS</b>			<b>APPROVED</b> _____ <b>SIGNATURE ON FILE</b> _____ <b>01/19/2010</b> CHIEF ENGINEER DATE
	<b>STANDARD NO.</b> <b>M-3 (2009)</b>	<b>SHT.</b> <b>1</b>	<b>OF</b> <b>1</b>	<b>RECOMMENDED</b> _____ <b>SIGNATURE ON FILE</b> _____ <b>01/14/2010</b> DESIGN ENGINEER DATE



**BIKE RACK DETAIL**



**NOTES:**

- 1). BIKE RACK SHALL BE ANCHORED AS PER MANUFACTURER'S RECOMMENDATIONS AFTER APPROVAL FROM ENGINEER IN THE FIELD.
- 2). DETAIL SHOWN WITH P.C.C. CURB TYPE 1-8, HOWEVER ACTUAL CURB VARIES AND SHOULD BE PLACED AS SHOWN ON PLANS.
- 3). SPECIAL CONSIDERATIONS SHOULD BE TAKEN WHEN PLACING BIKE RACKS NEAR CURB RAMPS AND MAY REQUIRE A DETAIL ON THE PLANS.



**DELAWARE**  
**DEPARTMENT OF TRANSPORTATION**

**BIKE RACK LAYOUT DETAILS**

STANDARD NO.

M-4 (2011)

SHT. 1

OF 1

**APPROVED**

SIGNATURE ON FILE  
CHIEF ENGINEER

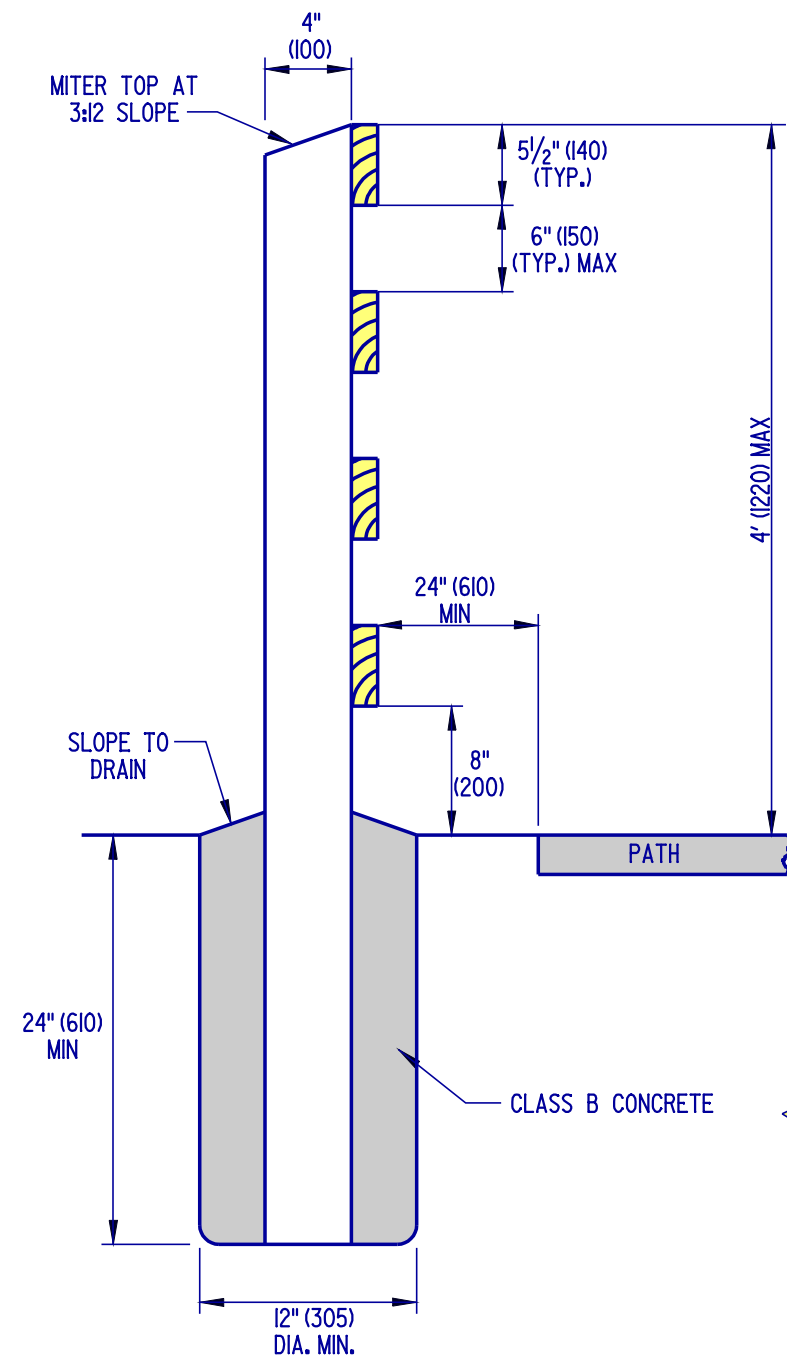
12/22/2011  
DATE

**RECOMMENDED**

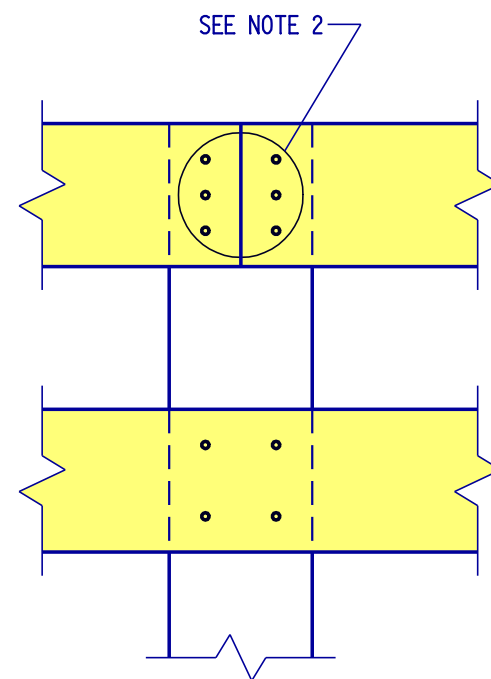
SIGNATURE ON FILE  
DESIGN ENGINEER

12/21/2011  
DATE

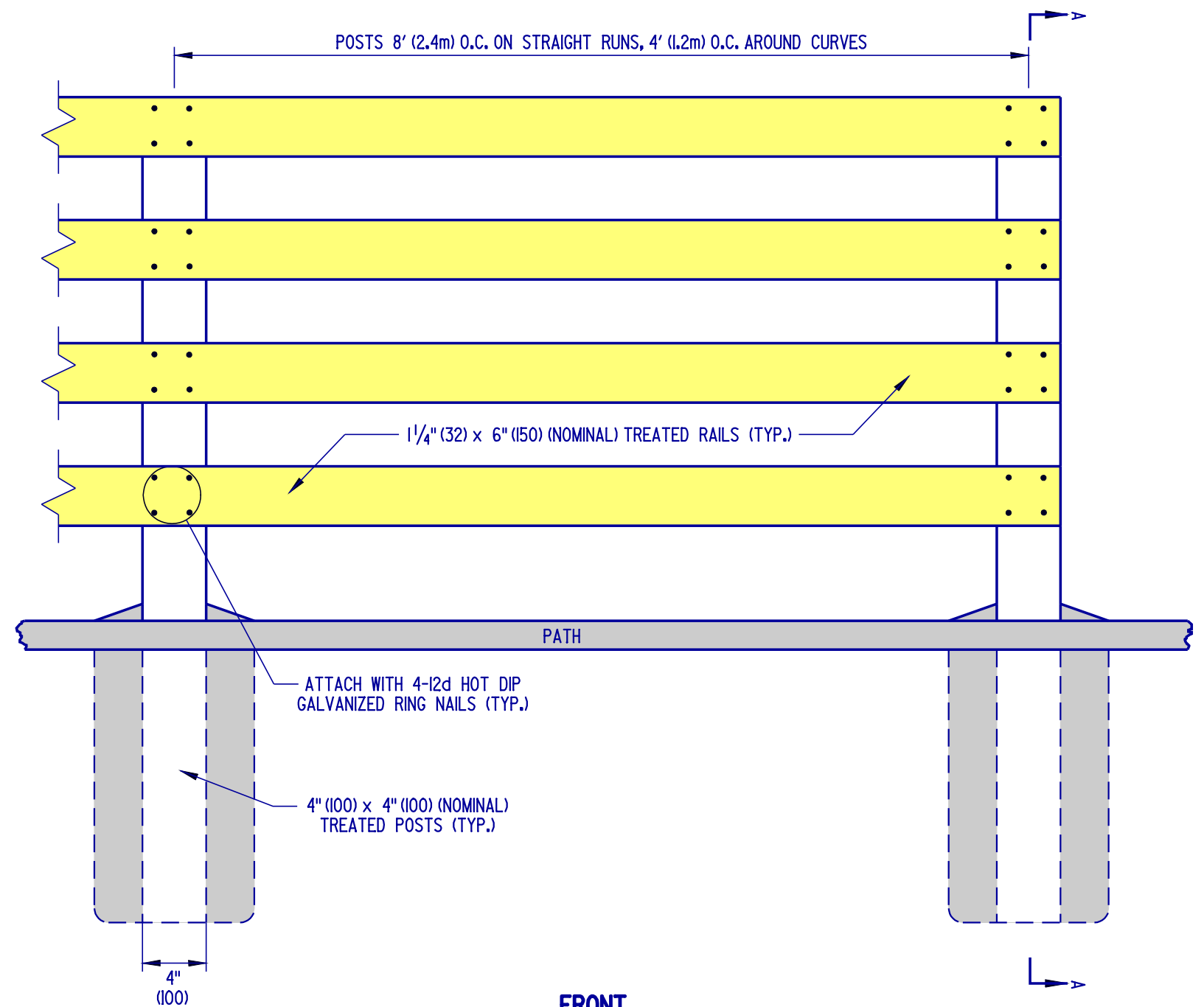
SCALE : N.T.S.



**SECTION A-A**



## TYPICAL JOINT DETAIL



FRONT

NOTES:

1. ALL RAIL JOINTS SHALL BE CENTERED AT THE POSTS.
2. ALL JOINTS SHALL BE ATTACHED WITH 3 - 12d NAILS AND TWO ADJACENT RAILS SHALL NOT END ON THE SAME POST.
3. RAILS SHALL BE FLUSH TO THE POSTS AT THE END POSTS.



**DELAWARE  
DEPARTMENT OF TRANSPORTATION**

## WOOD RAIL FENCE DETAILS

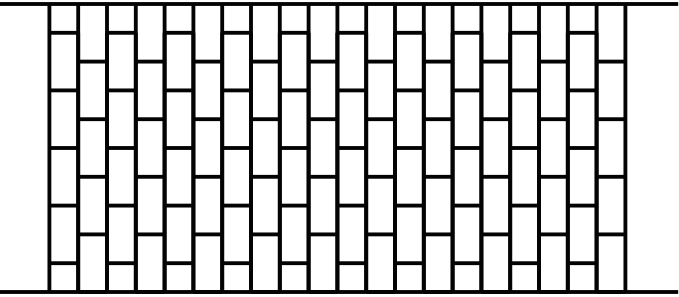
STANDARD NO. M-5 (2004)

**SHT. 1 OF 1**

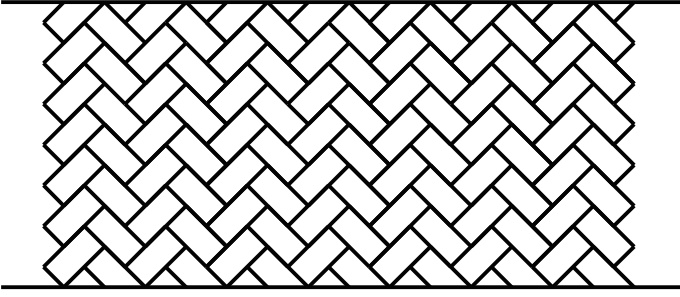
APPROVED Carolann Wicks 1/10/05  
CHIEF ENGINEER DATE

RECOMMENDED	<i>Dennis M. O'Flaherty</i>	1/3/05
	DESIGN ENGINEER	DATE



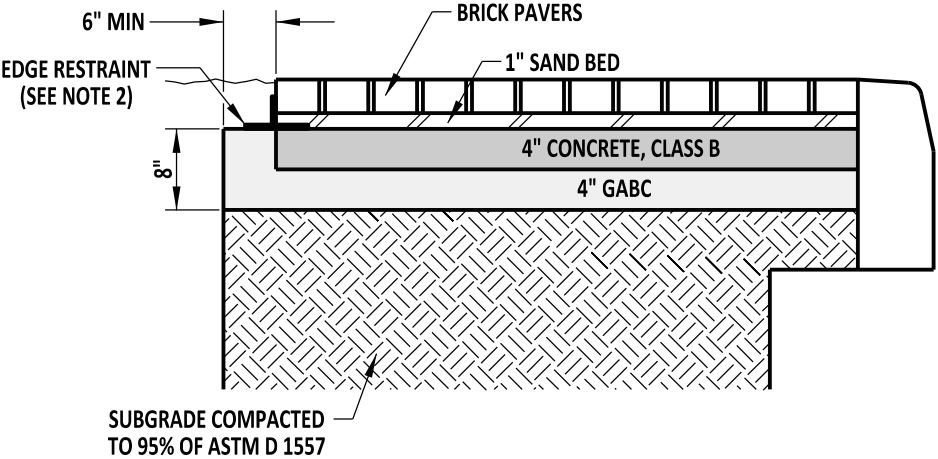


4" x 8" RUNNING BOND PATTERN



4" x 8" HERRINGBONE PATTERN

- NOTES:**
- 1. ACTUAL PATTERN TO BE USED SHALL BE SPECIFIED ON THE PLANS. COLOR IS TO BE "BRICK RED" UNLESS OTHERWISE NOTED ON THE PLANS.
  - 2. MATERIALS AND PAVEMENT BOX VARY DEPENDING ON PLANS.
  - 3. FOR CROSSWALK APPLICATIONS, REFER TO THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STRIPING WIDTH.
  - 4. THE PATTERNS ABOVE ARE THE PREFERRED PATTERNS AVAILABLE FOR SIDEWALK OR CROSSWALK APPLICATIONS.



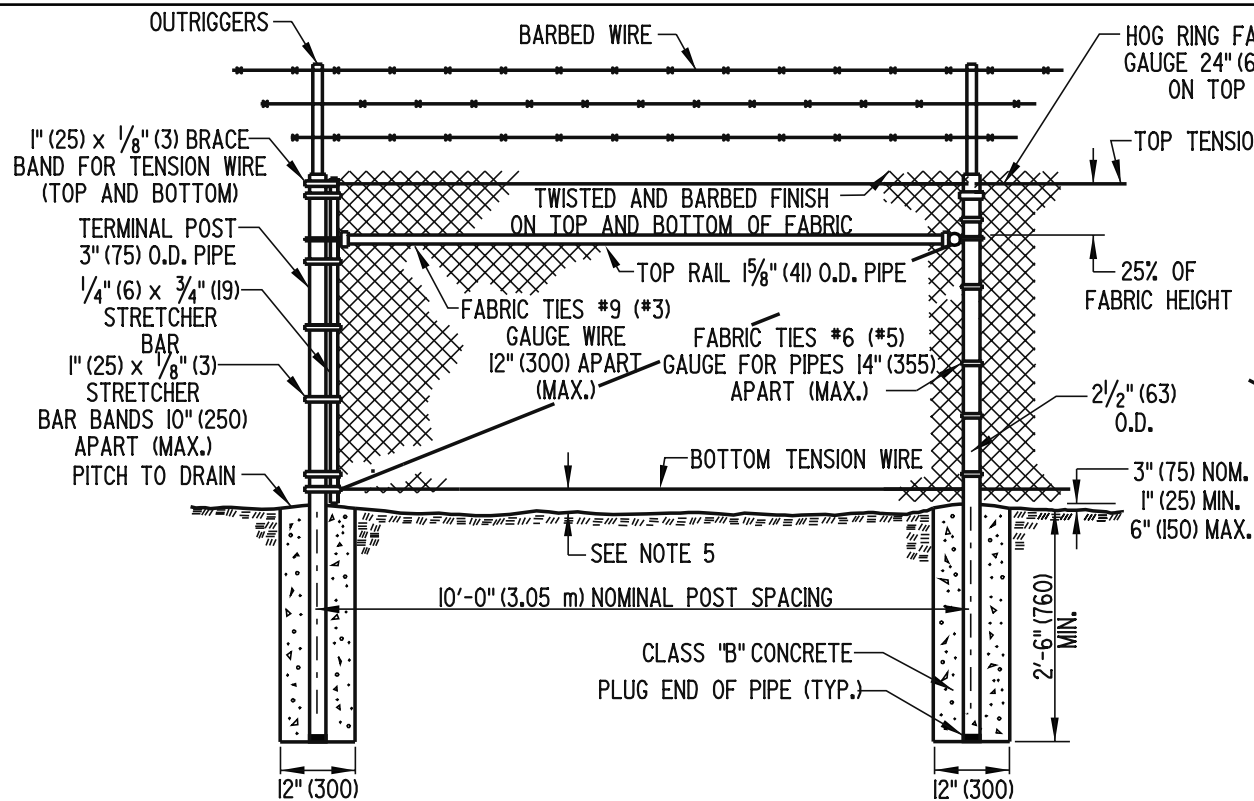
BRICK PAVER SIDEWALK DETAIL

- NOTES:**
- 1. WHEN SIDEWALK IS CONFINED BY A RIGID STRUCTURE ON BOTH SIDES, EXPANSION JOINT MATERIAL SHALL BE USED FROM TOP OF BRICK TO BOTTOM OF CONCRETE BASE ON AT LEAST ONE SIDE OF THE SIDEWALK.
  - 2. EDGE RESTRAINT MUST BE APPROVED BY THE ENGINEER IN THE FIELD AND SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.



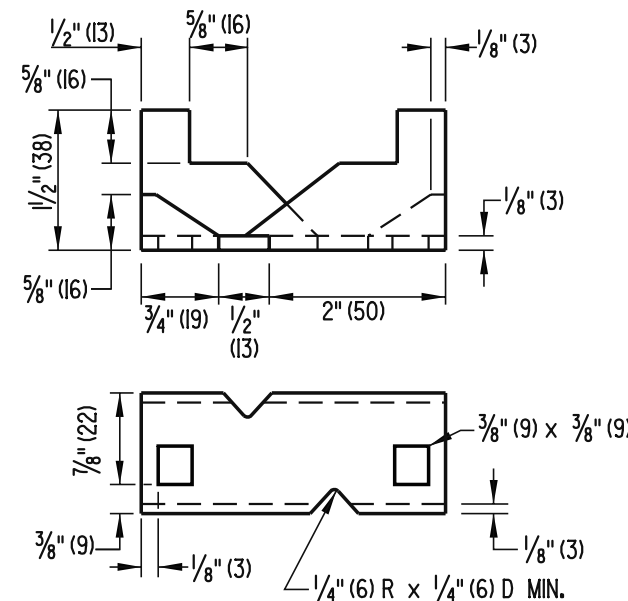
DELAWARE  
DEPARTMENT OF TRANSPORTATION

PATTERNED HOT-MIX OR CONCRETE & BRICK PAVER DETAILS				APPROVED	SIGNATURE ON FILE	01/17/2012
					CHIEF ENGINEER	DATE
STANDARD NO.	M-6 (2011)	SHT.	1	OF	1	RECOMMENDED
					SIGNATURE ON FILE	01/17/2012
					DESIGN ENGINEER	DATE

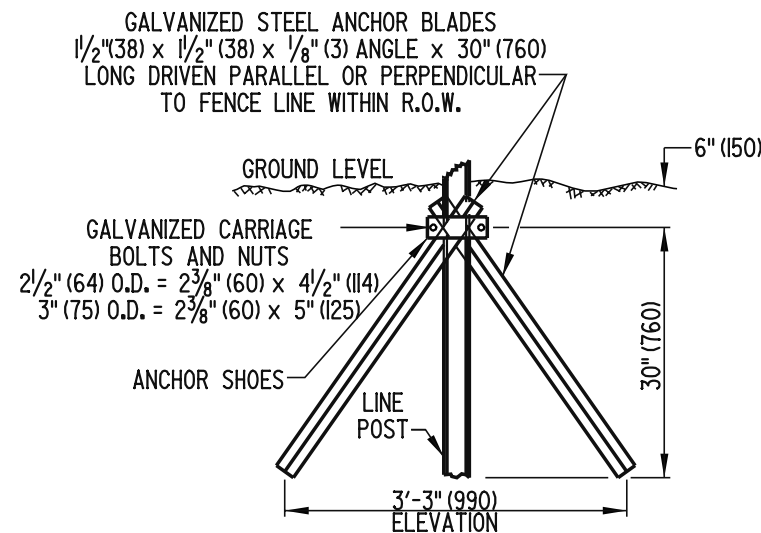


**CHAIN-LINK FENCE**

**TENSION WIRE CONNECTION AT ROUND INTERMEDIATE OR CORNER POST**

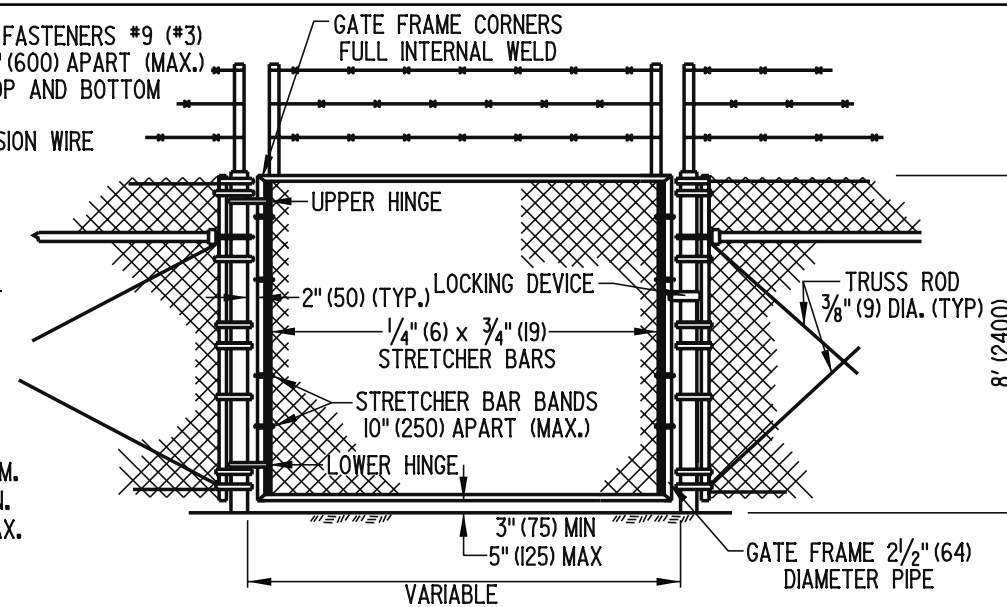


**ANCHOR SHOE**

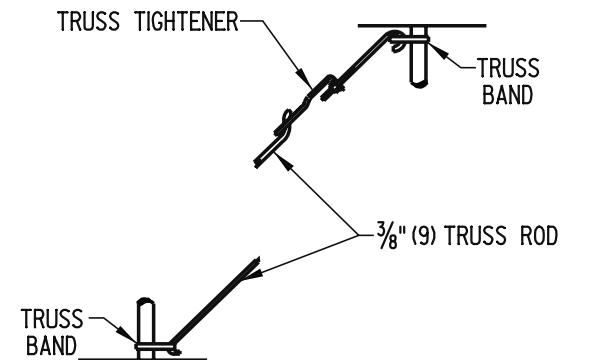


**DRIVE ANCHOR SHOE ASSEMBLY**

(SEE NOTE 4)



**GATES, CHAIN-LINK FENCE**



**3/8" (9) TRUSS ROD ASSEMBLY**

**CHAIN-LINK FENCE ASSEMBLIES**

**GENERAL NOTES**

**1). POSTS**

	TERMINAL, CORNER AND GATE POSTS	LINE POSTS	TOP OR BRACE RAIL
	3" (75) O.D. PIPE	2 1/2" (64) O.D. PIPE	1 5/8" (41) O.D. PIPE
AASHTO TYPE	1 OR II	1 OR II	1 OR II
AASHTO GRADE	1 OR 2	1 OR 2	1 OR 2
MINIMUM LENGTH OF POST:	10'-8" (3250)	10'-8" (3250)	N/A
ACTUAL OUTSIDE DIAMETER	2 7/8" (73)	2 3/8" (60)	1.660" (42)
WALL THICKNESS	GRADE 1 = .203" (5.2) GRADE 2 = .160" (4)	GRADE 1 = .154" (3.9) GRADE 2 = .120" (3)	GRADE 1 = .140" (3.5) GRADE 2 = .111" (2.8)

- 2). THE DEPTH OF CONCRETE FOOTERS IN SOLID ROCK MAY BE REDUCED TO 12" (300) BELOW THE TOP OF ROCK AND THE DIAMETER OF THE HOLE IN ROCK MAY BE REDUCED TO 6" (150).
- 3). BRACE BANDS AND STRETCHER BAR BANDS SHALL BE FURNISHED WITH 3/16" (8) DIA. CARRIAGE BOLTS AND ELASTIC STOP NUTS.
- 4). DRIVE ANCHOR SHOE ASSEMBLY ONLY TO BE USED IN WET AREAS AND WITH PRIOR APPROVAL OF THE ENGINEER.
- 5). THE BOTTOM OF THE FENCE SHALL BE 2" (50) MAX ABOVE HARD GROUND OR PAVEMENT. WHERE THERE IS SOFT GROUND, THE BOTTOM OF THE FENCE SHALL EXTEND INTO THE GROUND IN ORDER TO BE FIRM DUE TO SHIFTING SOIL OR SAND.
- 6). NUTS AND BOLTS SHALL BE TACK WELDED OR BURRED TO PREVENT REMOVAL.
- 7). IF THERE ARE ANY OPENINGS IN THE FENCE LARGER THAN 96 SQ. IN. (620 sq. cm) DUE TO UTILITIES OR GRADED TERRAIN, THE OPENINGS SHALL BE SECURED WITH A METAL GRILL THAT IS LOCKED OR PERMANENTLY WELDED.
- 8). VEGETATION AND PERMANENT STRUCTURES (SUCH AS BUILDINGS, LIGHT POLES, AND UTILITY POLES) SHALL BE AT LEAST 14' (4.2 m) FROM THE FENCE. ANY EXCEPTIONS SHALL REQUIRE THE CONSTRUCTION OF TOP GUARDS.



**DELAWARE  
DEPARTMENT OF TRANSPORTATION**

**CHAIN LINK FENCE DETAILS**

**STANDARD NO. M-7 (2006)**

**SHT. 1 OF 1**

**APPROVED**

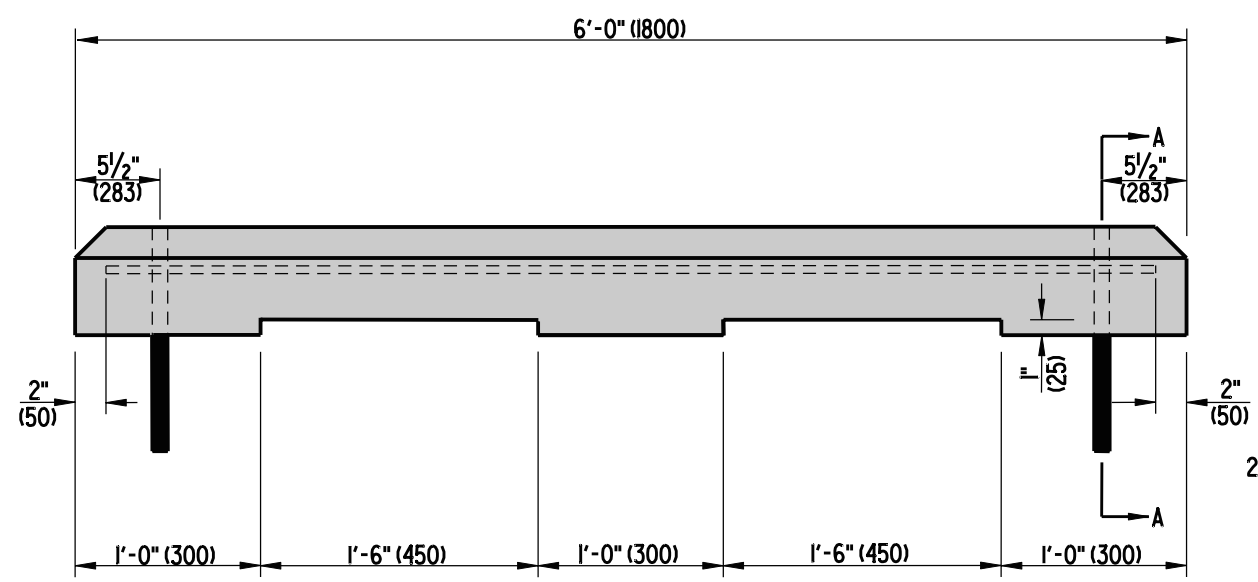
*Frank Taylor*  
CHIEF ENGINEER

*10/10/06*  
DATE

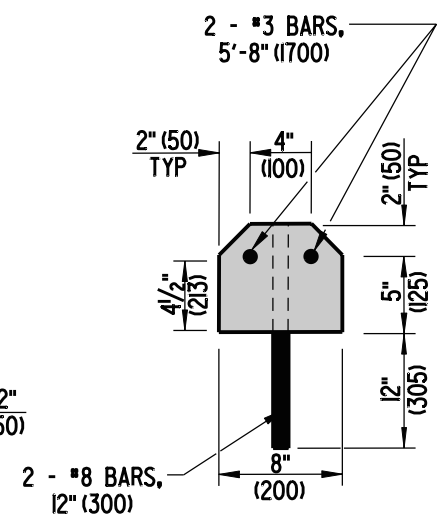
**RECOMMENDED**

*Dan Smith*  
DESIGN ENGINEER




*10/13/06*  
DATE



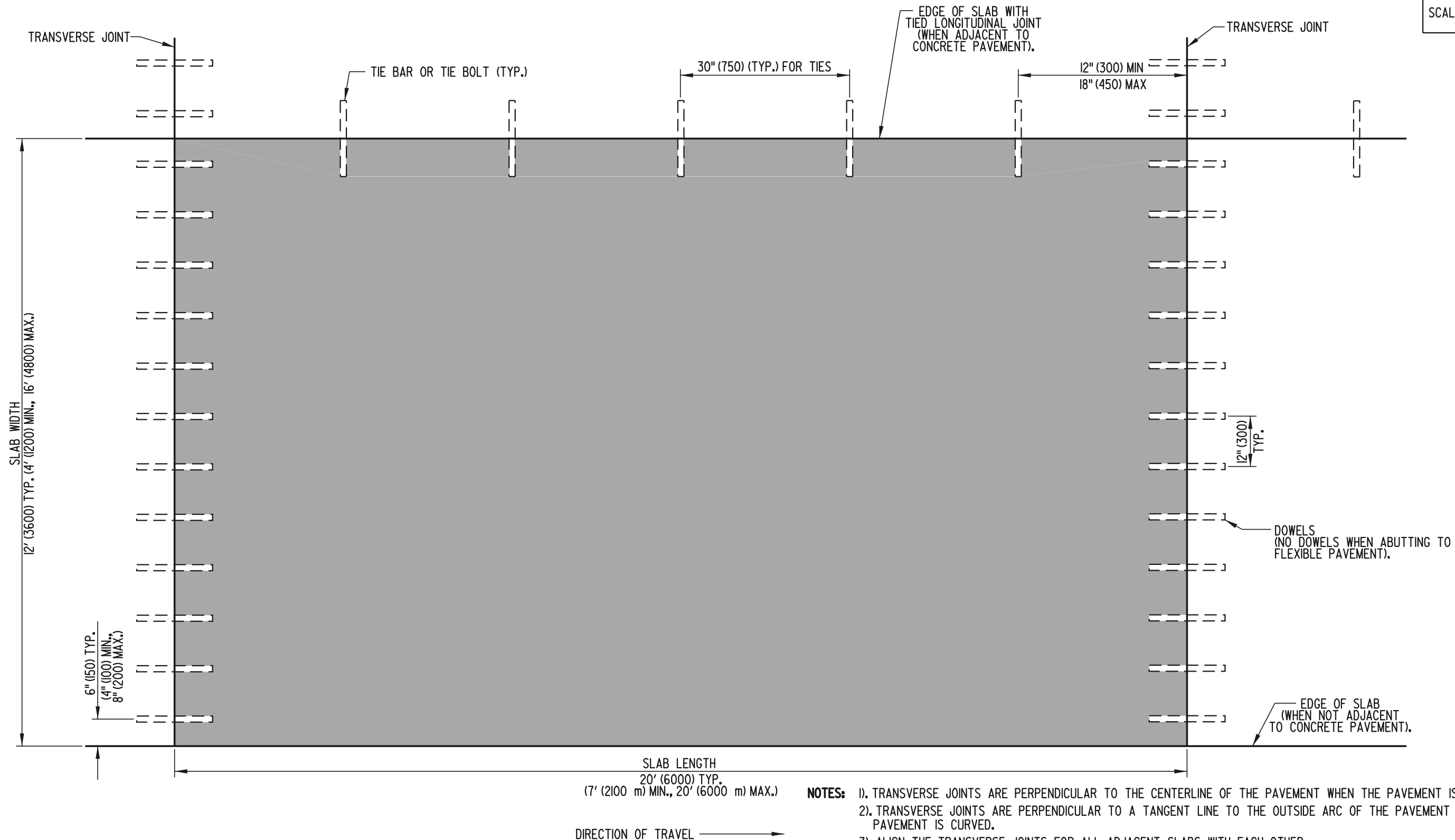
**ELEVATION**



**SECTION A-A**

 <b>DELAWARE</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>P.C.C. PARKING BUMPER</b>			<b>APPROVED</b>  <b>10/24/07</b> CHIEF ENGINEER DATE
	<b>STANDARD NO.</b> <b>M-8 (2007)</b>	<b>SHT.</b> <b>1</b>	<b>OF</b> <b>1</b>	<b>RECOMMENDED</b>  <b>10/23/07</b> DESIGN ENGINEER DATE

SCALE : N.T.S.



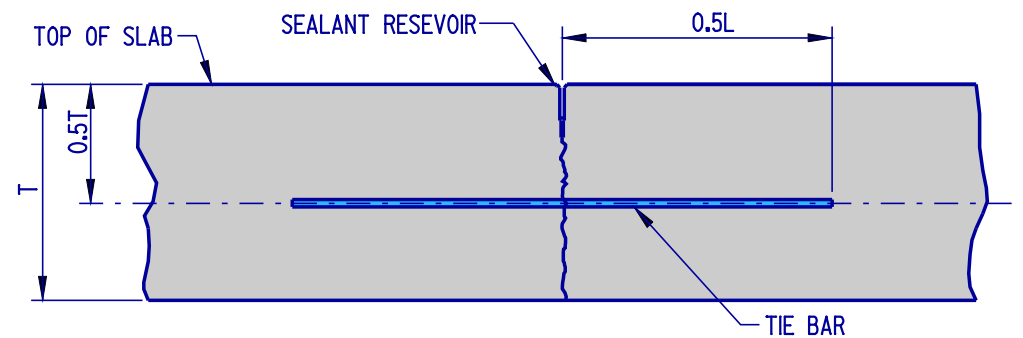
- NOTES:**
- 1). TRANSVERSE JOINTS ARE PERPENDICULAR TO THE CENTERLINE OF THE PAVEMENT WHEN THE PAVEMENT IS STRAIGHT.
  - 2). TRANSVERSE JOINTS ARE PERPENDICULAR TO A TANGENT LINE TO THE OUTSIDE ARC OF THE PAVEMENT WHEN THE PAVEMENT IS CURVED.
  - 3). ALIGN THE TRANSVERSE JOINTS FOR ALL ADJACENT SLABS WITH EACH OTHER.
  - 4). ABRUPT CHANGES IN PAVEMENT WIDTH MAY OCCUR ONLY AT THE TRANSVERSE JOINT LINE; LONGITUDINAL JOINTS SHALL BE CONTINUOUS WHENEVER POSSIBLE.
  - 5). LONGITUDINAL JOINTS SHOULD NOT BE LOCATED WITHIN PROPOSED WHEEL PATHS. THE WHEEL PATH IS GENERALLY LOCATED 2' (600) INSIDE OF THE LANE EDGELINE OR CENTERLINE.

**SLAB PLAN (WITH DOWEL AND TIE LOCATIONS)**

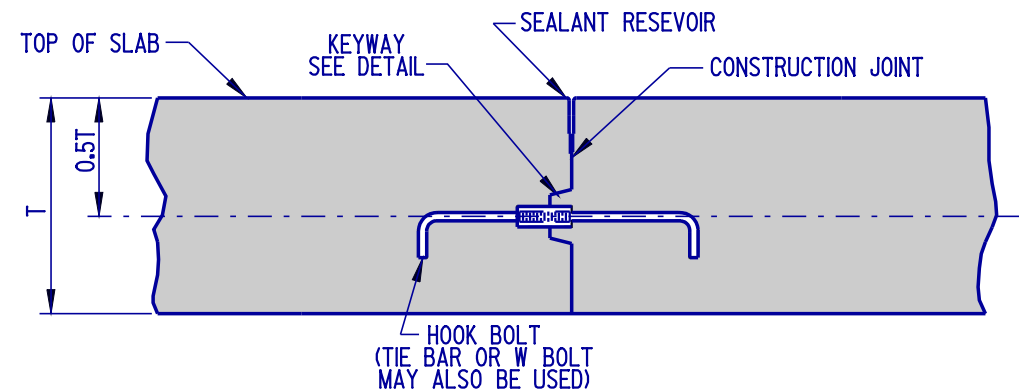


**DELAWARE**  
**DEPARTMENT OF TRANSPORTATION**

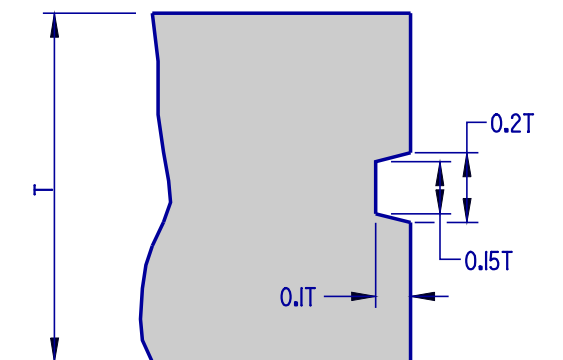
P.C.C. PAVEMENT				APPROVED	6/18/01
STANDARD NO.	P-1 (2001)	SHT.	1	OF	5
				RECOMMENDED	6/18/01



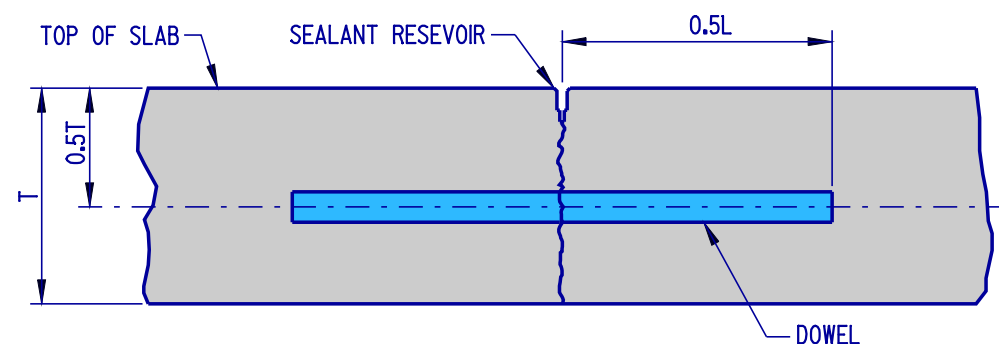
**LONGITUDINAL SAW-CUT JOINT DETAIL**



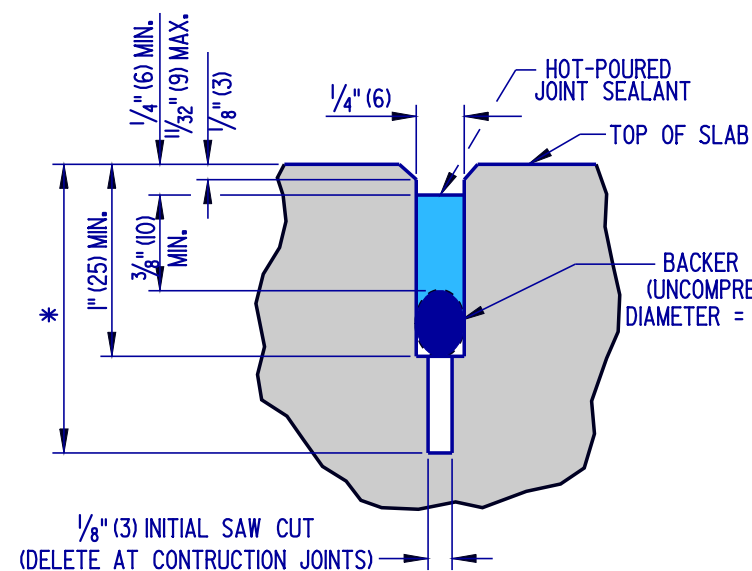
**LONGITUDINAL CONSTRUCTION JOINT DETAIL**



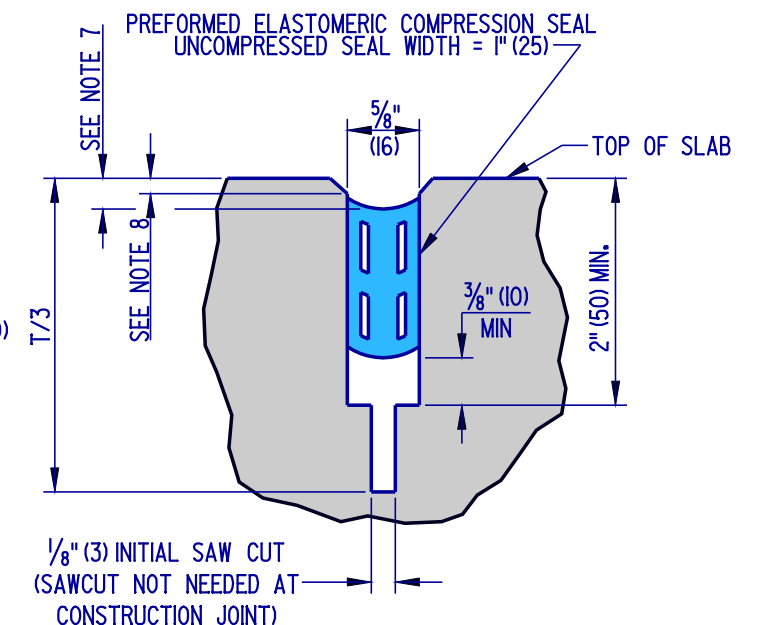
**KEYWAY DETAIL**



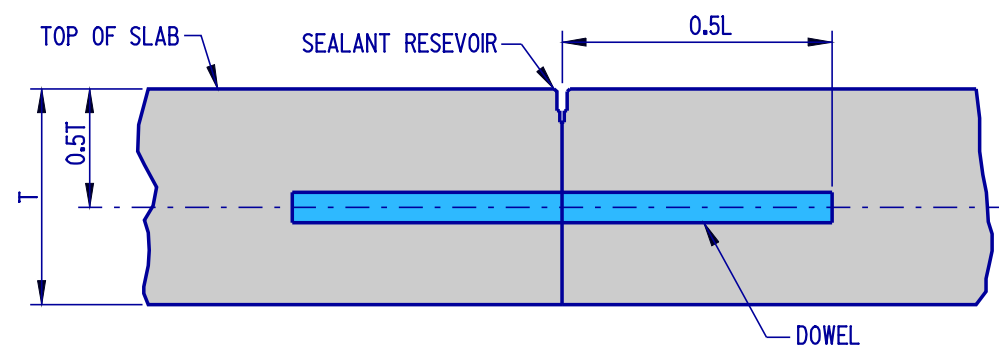
**TRANSVERSE SAW-CUT JOINT DETAIL**



**SEALANT DETAIL-  
LONGITUDINAL JOINT**



**SEALANT DETAIL-  
TRANSVERSE JOINT**



**TRANSVERSE CONSTRUCTION JOINT DETAIL**

\* - 0.3T (10\"/>

**NOTES:**

- 1). AS DIMENSIONED, THE WIDTH OF THE TRANSVERSE SEALANT RESERVOIR IS APPLICABLE WHEN THE TEMPERATURE OF THE PAVEMENT SURFACE IS BETWEEN 60°F (16°C) AND 80°F (27°C). WHEN THE TEMPERATURE IS BELOW 60°F (16°C), THE SEALANT RESERVOIR SHALL BE CUT 1/16\"/>

**JOINT AND SEALANT DETAILS**



**DELAWARE  
DEPARTMENT OF TRANSPORTATION**

STANDARD NO. P-1 (2004)

**P.C.C. PAVEMENT**

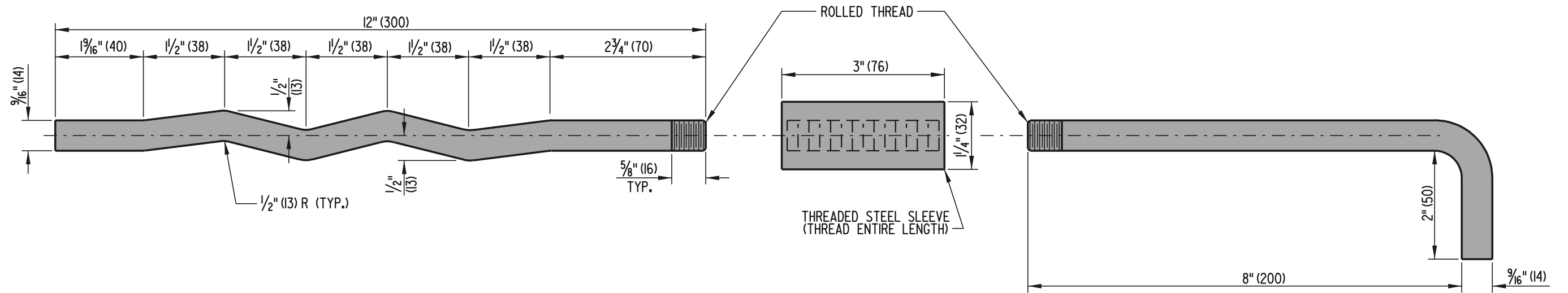
SHT. 2 OF 5

**APPROVED**

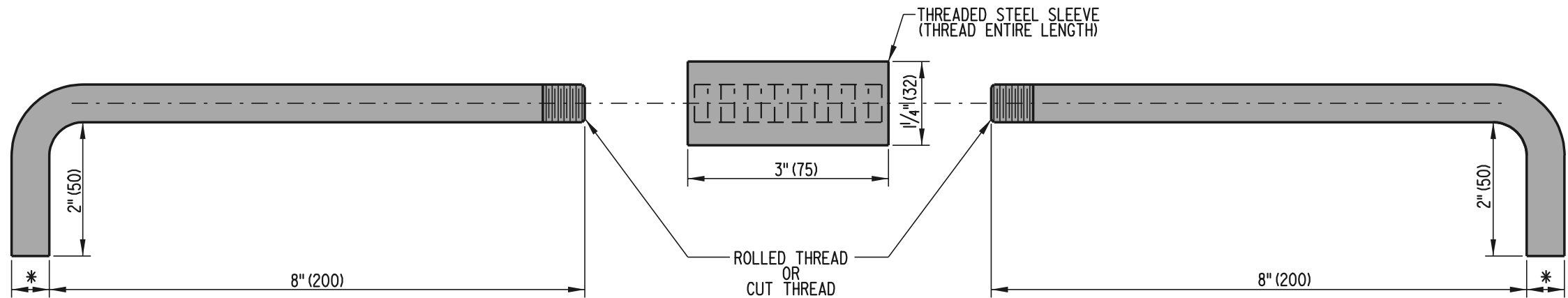
*Carolann Wick* 1/10/05  
CHIEF ENGINEER DATE

**RECOMMENDED**

*Dennis M. O'Flaherty* 1/13/05  
DESIGN ENGINEER DATE

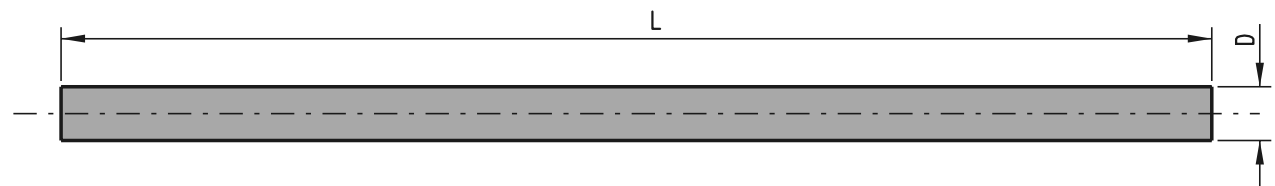


**W BOLT**



**HOOK BOLT**

\* -1 1/16" (17) ROLLED THREADS  
3/4" (19) CUT THREADS



**DOWEL & TIE BAR**

DOWEL & TIE BAR CHART				
SLAB THICKNESS	DOWEL		TIE BAR	
	D	L	D	L
10" (250)	1 1/4" (32)	18" (450)	5/8" (16)	30" (750)
12" (300)	1 1/2" (38)	20" (500)	5/8" (16)	30" (750)



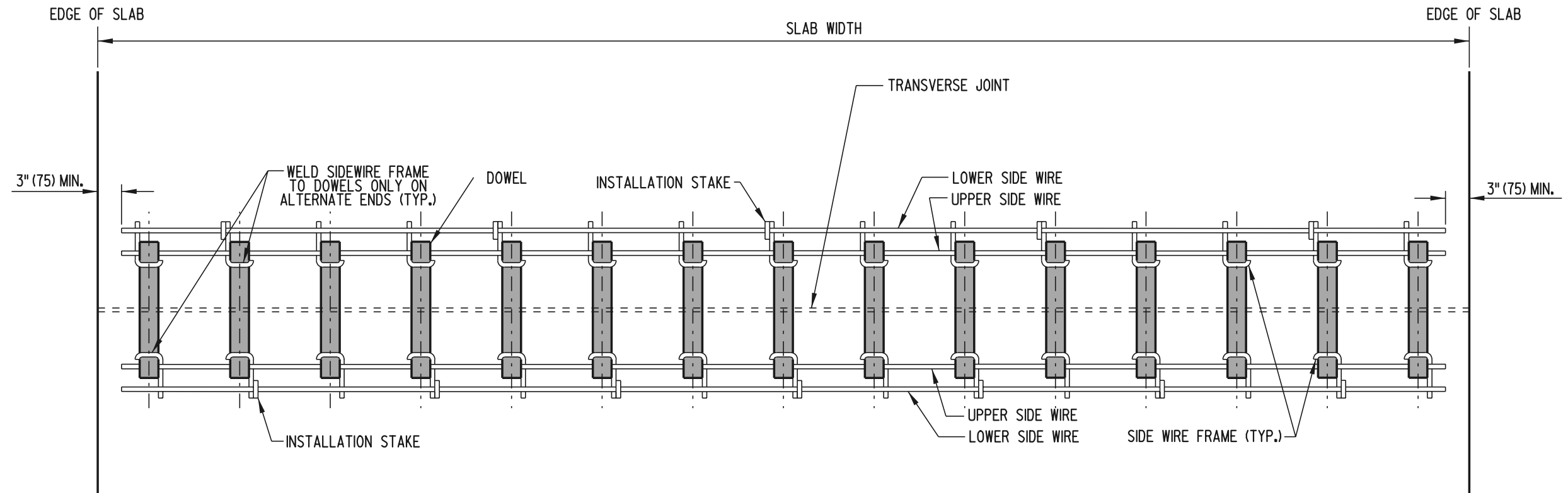
DELAWARE  
DEPARTMENT OF TRANSPORTATION

P.C.C. PAVEMENT  
STANDARD NO. P-1 (2001)

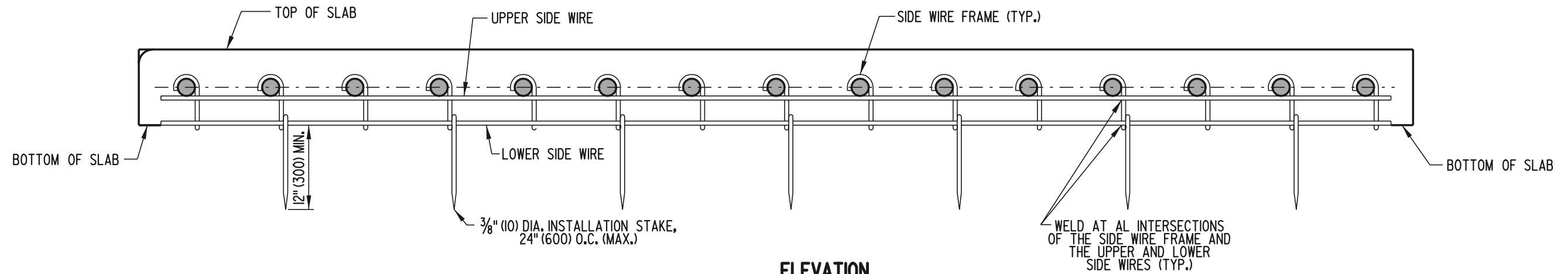
SHT. 3 OF 5

APPROVED *Ryan M. Hershman* 6/18/01  
CHIEF ENGINEER DATE  
RECOMMENDED *Michael J. Gotsch* 6/18/01  
DESIGN ENGINEER DATE

SCALE : N.T.S.



**PLAN**



**ELEVATION**

**DOWEL SUPPORT BASKET**



**DELAWARE  
DEPARTMENT OF TRANSPORTATION**

**P.C.C. PAVEMENT**

**STANDARD NO. P-1 (2001)**

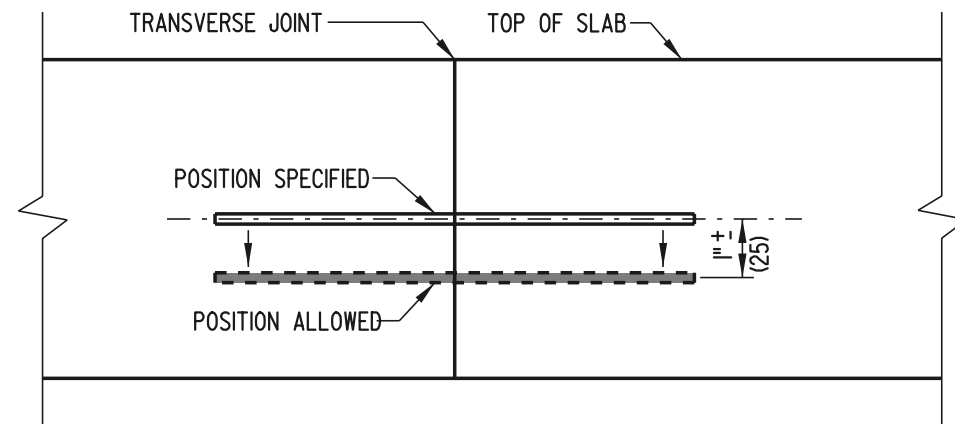
**SHT. 4 OF 5**

**APPROVED**

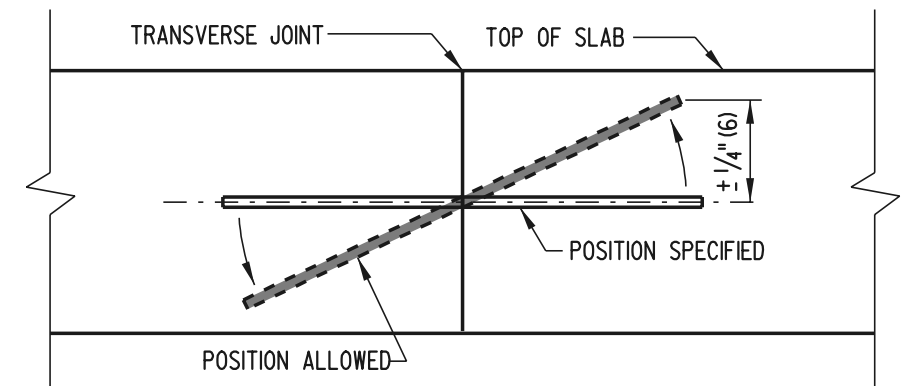
*Ryan M. Harkness* **6/18/01**  
CHIEF ENGINEER DATE

**RECOMMENDED**

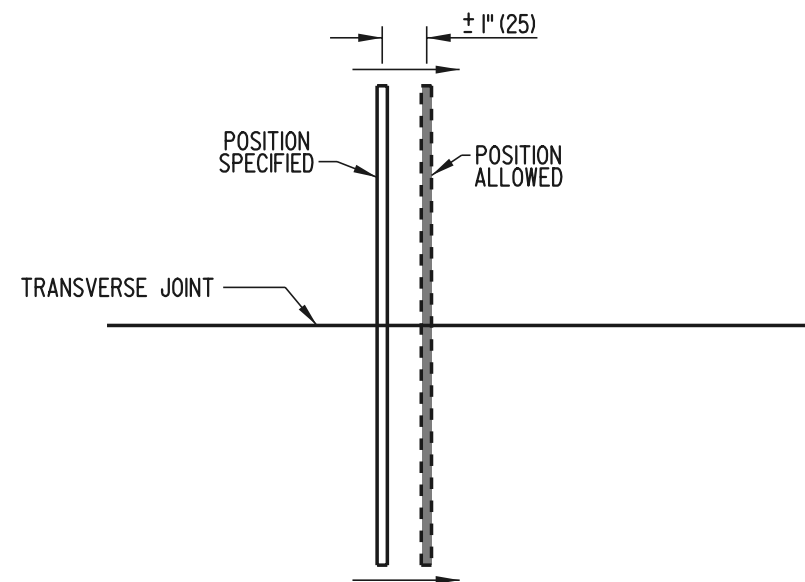
*Mehal Alghamdi* **6/18/01**  
DESIGN ENGINEER DATE



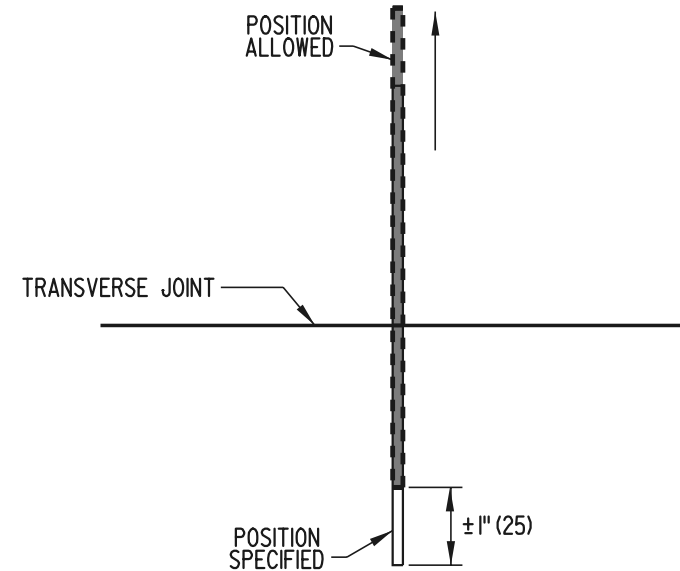
**VERTICAL TRANSLATION**



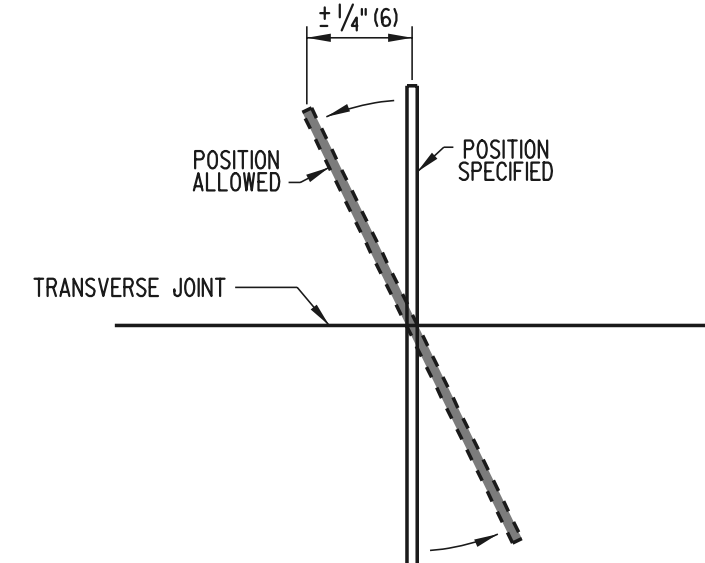
**VERTICAL ROTATION**



**HORIZONTAL TRANSLATION**



**LONGITUDINAL TRANSLATION**



**HORIZONTAL ROTATION**

**DOWEL & TIE BAR PLACEMENT TOLERANCES**



**DELAWARE  
DEPARTMENT OF TRANSPORTATION**

**P.C.C. PAVEMENT**

**STANDARD NO. P-1 (2001)**

**SHT. 5 OF 5**

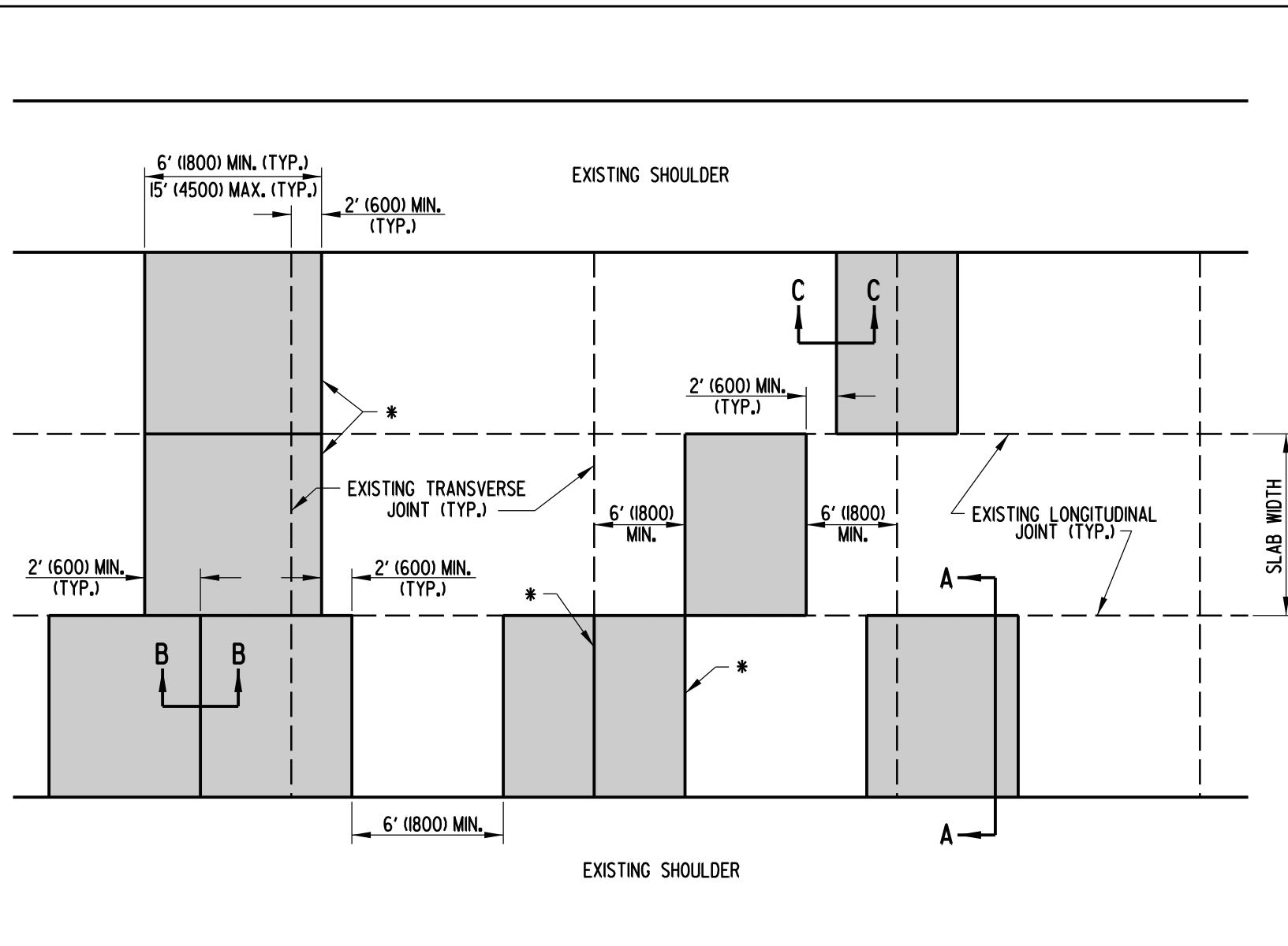
**APPROVED**

*Ryan M. Harkness* **6/18/01**  
CHIEF ENGINEER DATE

**RECOMMENDED**

*Michael R. Gotsch* **6/18/01**  
DESIGN ENGINEER DATE





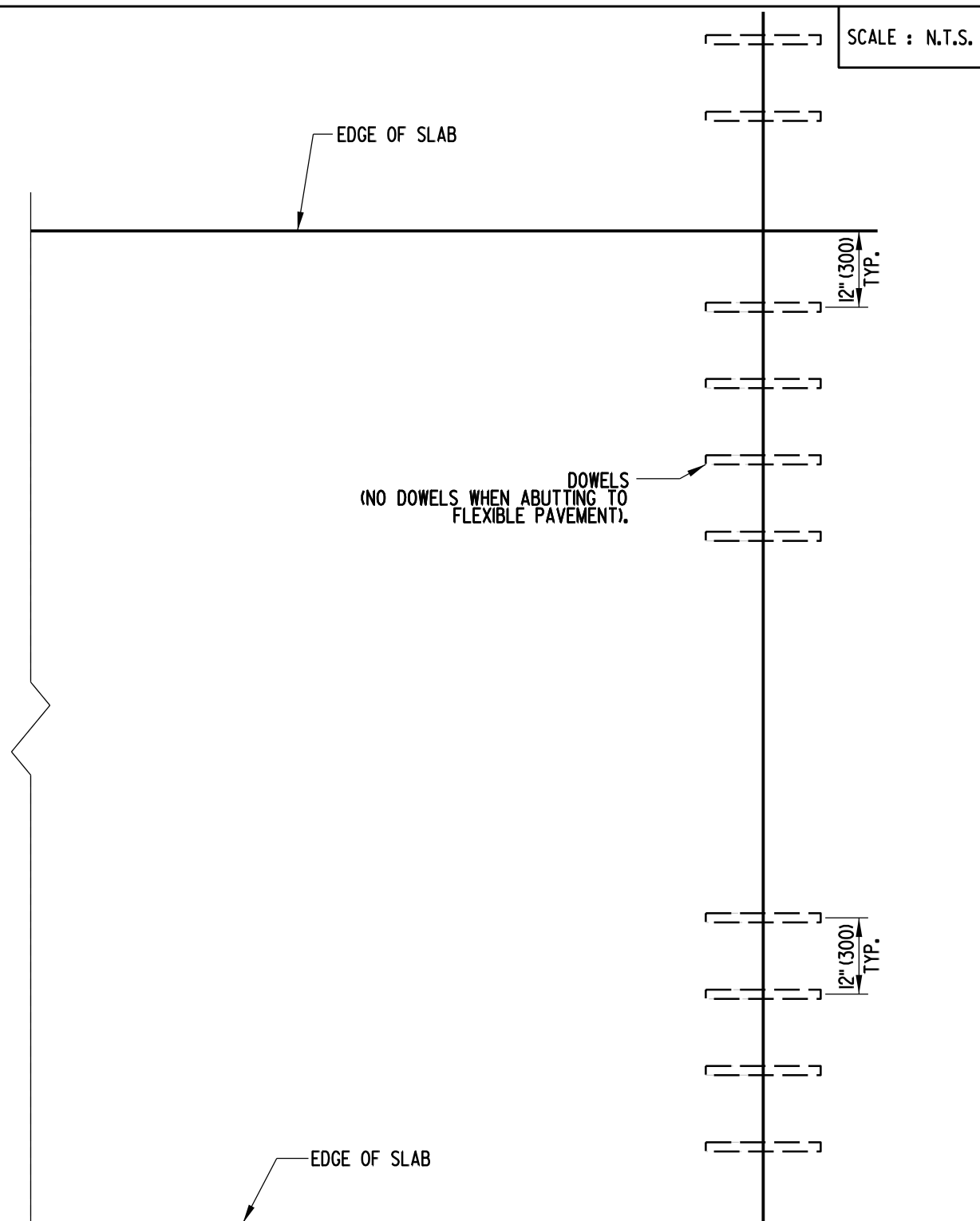
### PLAN

\* - PROPOSED LOCATIONS FOR TRANSVERSE JOINTS SHALL EXACTLY MATCH THE ALIGNMENT OF THE FINAL (EXISTING OR RELOCATED) TRANSVERSE JOINTS IN ALL IMMEDIATELY ADJACENT LANES.

### NOTES:

1. WHEN REPAIRING EXISTING TRANSVERSE JOINTS, THE PATCH SHALL EXTEND A MINIMUM OF 24" (600) THROUGH THE EXISTING JOINT, WHICH WILL RELOCATE THE JOINT.
2. PROPOSED LOCATIONS FOR TRANSVERSE JOINTS, WHEN NOT ALIGNED WITH THE FINAL EXPECTED TRANSVERSE JOINT LOCATIONS IN THE IMMEDIATELY ADJACENT LANES, SHALL BE OFFSET A MINIMUM OF 2' (600) FROM THE AFFORMENTIONED JOINTS.
3. THE LONGITUDINAL JOINT ALIGNMENT SHALL BE STRAIGHT AND CONTINUOUS THROUGH THE REPAIRED AREA.

### FULL DEPTH PATCH



### SLAB PLAN (WITH DOWEL AND TIE LOCATIONS)



**DELAWARE**  
**DEPARTMENT OF TRANSPORTATION**

**P.C.C. PAVEMENT PATCHING**

**STANDARD NO. P-2 (2008)**

**SHT. 1 OF 5**

**APPROVED**

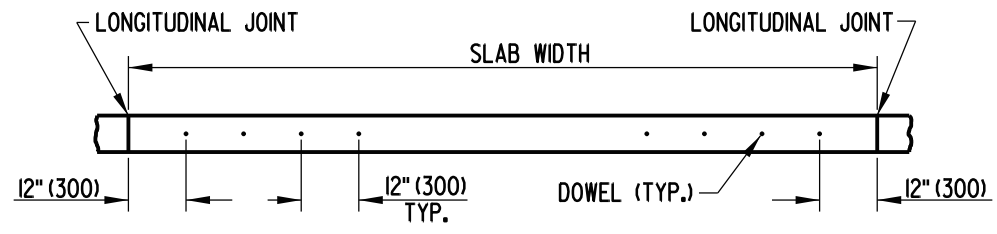
*[Signature]*  
CHIEF ENGINEER

**11/18/08**  
DATE

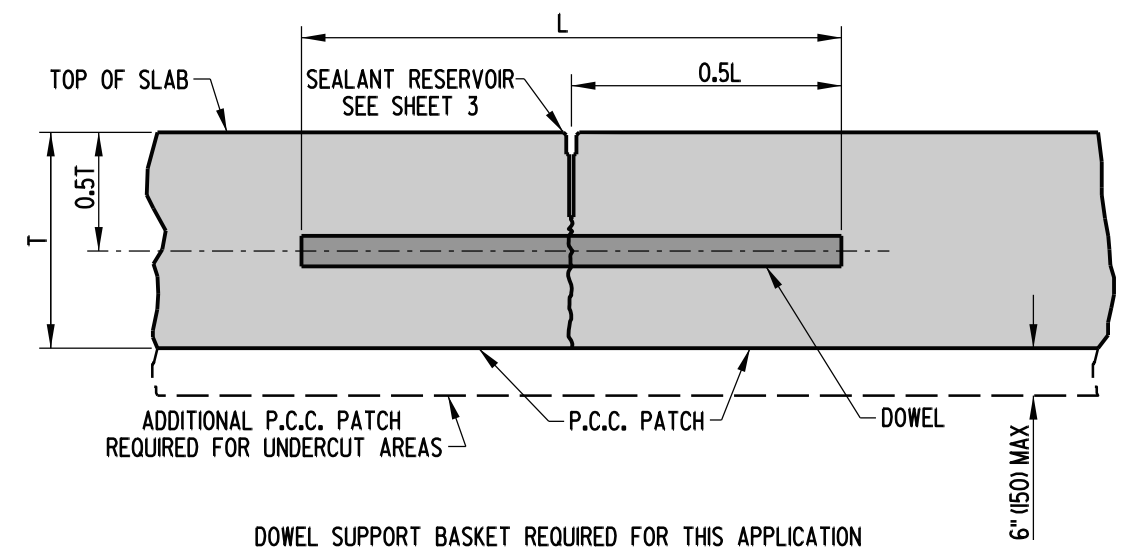
**RECOMMENDED**

*[Signature]*  
DESIGN ENGINEER

**11/17/08**  
DATE



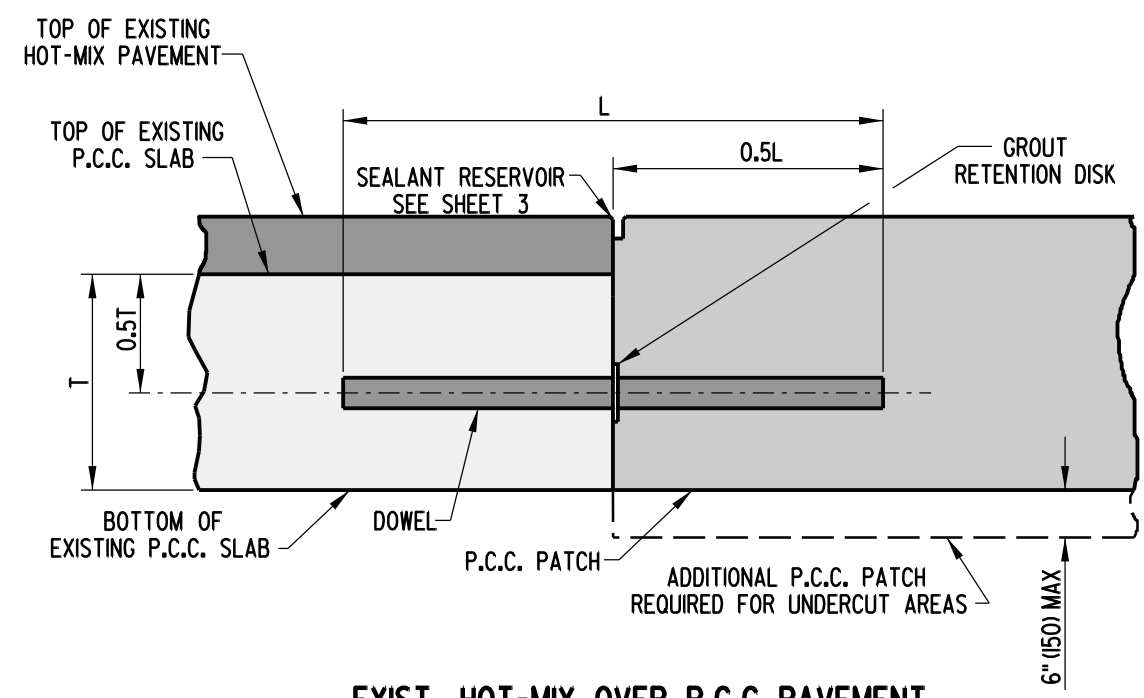
**SECTION A-A**



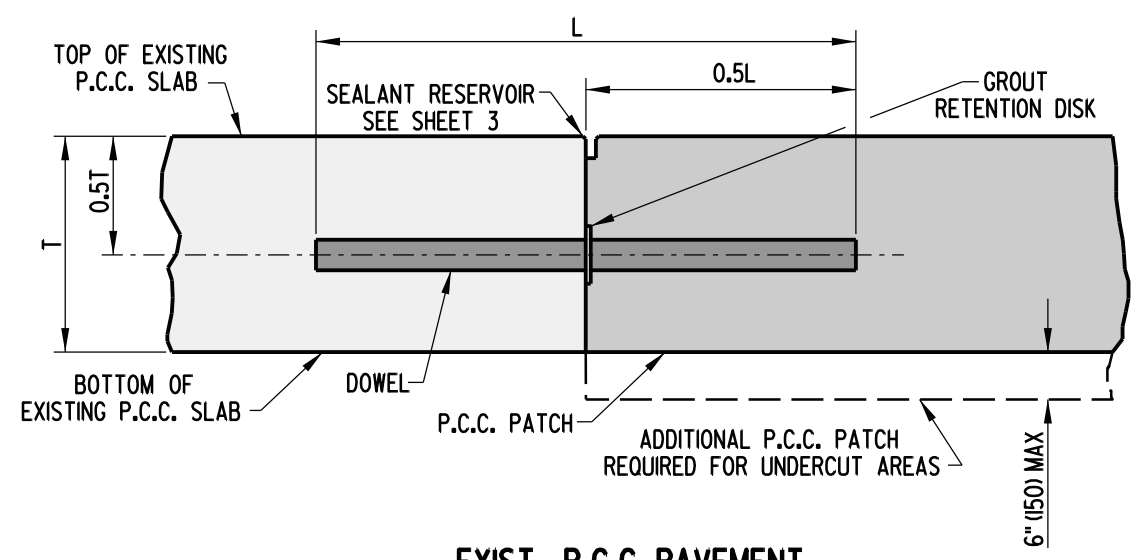
DOWEL SUPPORT BASKET REQUIRED FOR THIS APPLICATION  
(REFER TO STANDARD CONSTRUCTION DETAIL FOR P.C.C. PAVEMENT.)

**SECTION B-B**

TRANSVERSE SAW-CUT USED FOR  
JOINTS LOCATED WITHIN THE PATCH



**EXIST. HOT-MIX OVER P.C.C. PAVEMENT**






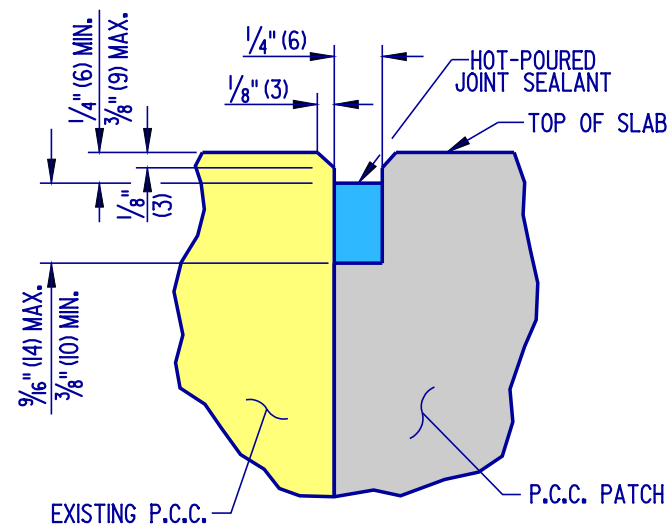
**EXIST. P.C.C. PAVEMENT**

**SECTION C-C**

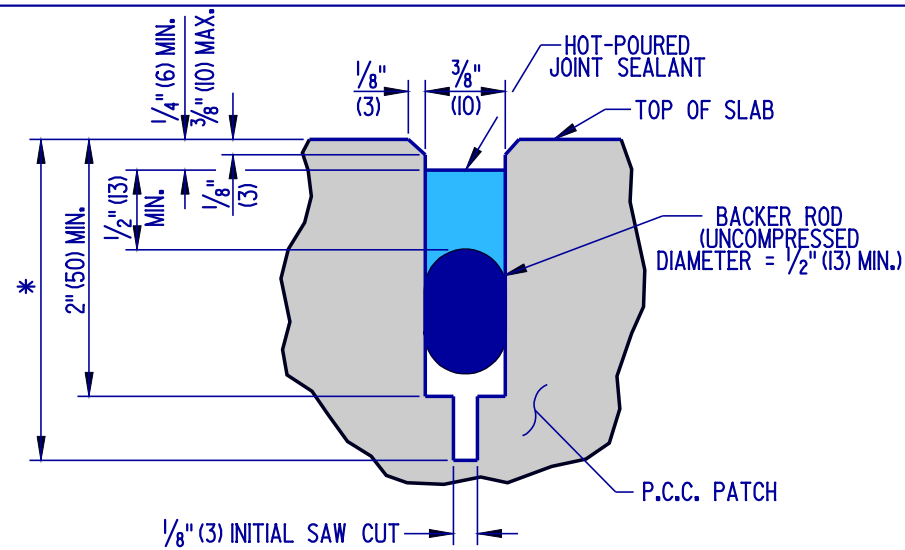
TRANSVERSE CONSTRUCTION JOINT USED ON  
JOINTS BETWEEN EXISTING PAVEMENT AND PATCH

**FULL DEPTH PATCH**

 <b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>	<b>P.C.C.PAVEMENT PATCHING</b>			<b>APPROVED</b>  <b>11/18/08</b> CHIEF ENGINEER DATE
	<b>STANDARD NO. P-2 (2008)</b>	<b>SHT. 2 OF 5</b>		<b>RECOMMENDED</b>  <b>11/17/08</b> DESIGN ENGINEER DATE

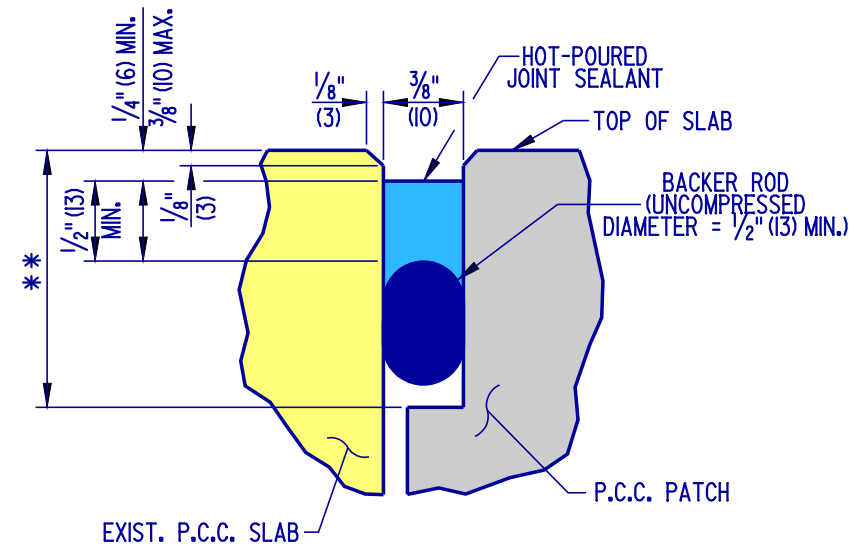


**SEALANT DETAIL-  
LONGITUDINAL JOINT**



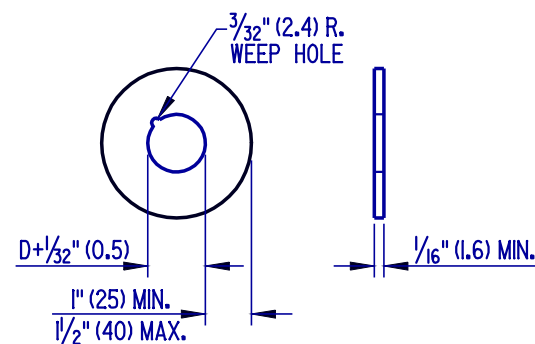
\* - 0.3T (T < 10" (250) P.C.C. PAVEMENT)  
0.4T (T > 10" (250) P.C.C. PAVEMENT)

**SEALANT DETAIL-  
TRANSVERSE SAW-CUT JOINT**



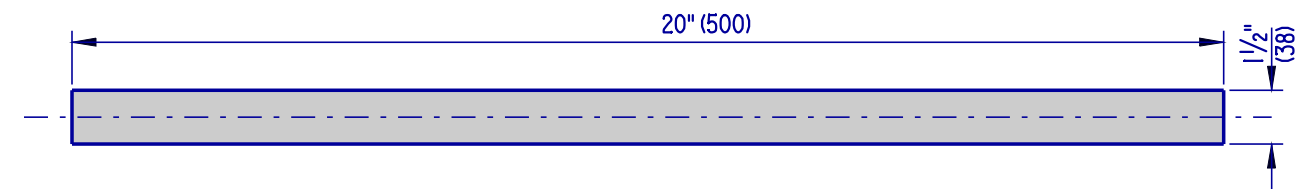
\*\* - 2" (50) MIN. WITH BACKER ROD  
5/8" (16) MIN. WITH BOND BREAKER TAPE

**SEALANT DETAIL-  
TRANSVERSE CONSTRUCTION JOINT**



D - DOWEL DIAMETER (INCLUDING  
PROTECTING COATINGS, IF ANY.)

**GROUT RETENTION DISK**



**DOWEL BAR**

**NOTES:**

1. AS DIMENSIONED, THE WIDTH OF THE TRANSVERSE SEALANT RESERVOIR IS APPLICABLE WHEN THE TEMPERATURE OF THE PAVEMENT SURFACE IS BETWEEN 60°F (16°C) AND 80°F (27°C). WHEN THE TEMPERATURE IS BELOW 60°F (16°C), THE SEALANT RESERVOIR SHALL BE CUT 1/16" (2) WIDER. WHEN THE TEMPERATURE IS ABOVE 80°F (27°C), THE SEALANT RESERVOIR SHALL BE CUT 1/16" (2) NARROWER.
2. "T" REFERS TO THE EXISTING "AS-BUILT" SLAB THICKNESS.
3. TOLERANCE ON ALL JOINT SEALANT DETAIL DIMENSIONS SHOWN WITHOUT RANGES SHALL BE PLUS 1/16" (2), MINUS 0" (0).
4. THE TOP EDGES OF THE CONTACT SURFACES OF THE SEALANT MATERIAL ON BOTH SIDES OF THE JOINT RESERVOIR SHALL BE AT THE SAME ELEVATION.

**FULL DEPTH PATCH**



**DELAWARE  
DEPARTMENT OF TRANSPORTATION**

**P.C.C. PAVEMENT PATCHING**

**STANDARD NO. P-2 (2004)**

**SHT. 3 OF 5**

**APPROVED**

*Carolann Wicks*  
CHIEF ENGINEER  
DATE: 1/10/05

**RECOMMENDED**

*Dennis M. O'Flaherty*  
DESIGN ENGINEER  
DATE: 1/13/05