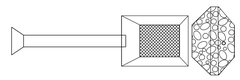
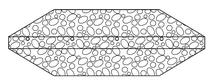
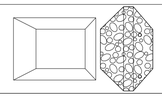
| BEST MANAGEMENT PRACTICE (BMP) | SPECIAL DRAWING NUMBER | PLAN SYMBOL | MATERIALS REQUIREMENT REFERENCES | CONSTRUCTION REQUIREMENT REFERENCES | USAGE GUIDELINES |
|---|---|---|---|---|---|
| TEMPORARY SLOPE DRAIN PIPE WITH ROCK DITCH CHECK AND SUMP EXCAVATION | ESC-200-2 |  | 665.02, 801, 810, 814 ALDOT LIST II-3 | 665.03, 665.04, 665.05 | A TEMPORARY SLOPE DRAIN WITH RIPRAP DITCH CHECK AND SUMP EXCAVATION IS CONSTRUCTED WITH A FLEXIBLE PIPE OR CONDUIT EXTENDING FROM THE TOP OF A CUT OR FILL SLOPE INTO AN EXCAVATED SEDIMENT TRAPPING SUMP WITH A ROCK DITCH CHECK DOWN SLOPE OF THE SUMP. THE PURPOSE OF THE TEMPORARY SLOPE DRAIN IS TO CONVEY STORMWATER RUNOFF DOWN THE FACE OF THE SLOPE WITHOUT CAUSING EROSION ON THE SLOPE. |
| TEMPORARY EARTH BERM | ESC-200-2 |  | 665.02 | 665.03, 665.04, 665.05 | A TEMPORARY EARTH BERM CONSISTS OF A CHANNEL CONSTRUCTED ACROSS A SLOPE AND BACKED ON THE LOWER SIDE BY AN EARTHEN RIDGE. THE TEMPORARY EARTH BERM IS USED TO REDUCE SLOPE LENGTH AND DIVERT RUNOFF TO STABILIZED OUTLETS SUCH AS A TEMPORARY SLOPE DRAIN PIPE. |
| BRUSH BARRIER | ESC-200-3 |  | 665.02 | 665.03, 665.04, 665.05 | BRUSH BARRIERS ARE TEMPORARY SEDIMENT TRAPPING STRUCTURES CONSTRUCTED AT THE PERIMETER OF DISTURBED AREAS THAT ARE MADE FROM RESIDUE OF LAND CLEARING AND GRUBBING. BRUSH BARRIERS CONTROL OFF SITE TRANSPORT OF SEDIMENTS UNTIL STABILIZATION OF DISTURBED AREAS CAN BE ACHIEVED. |
| SILT FENCE SEDIMENT BARRIER | ESC-200-3 ESC-200-4 |  | 665.02, AASHTO M288 ALDOT LIST II-3 | 665.03, 665.04, 665.05 | A SILT FENCE SEDIMENT BARRIER CONSIST OF AN ENTRENCHED FILTER FABRIC STRETCHED ACROSS A WIRE BACKING THAT IS SUPPORTED BY POSTS. THE PURPOSE OF SILT FENCE SEDIMENT BARRIERS IS TO INTERCEPT AND TRAP SEDIMENT AS WELL AS DECREASE RUNOFF VELOCITIES OF SHEET FLOW AND MODERATE CHANNEL FLOWS. |
| SEDIMENT RETENTION BARRIER | ESC-200-5 |  | 665.02 ASHTO M288 ALDOT LIST-3 | 665.03 665.04 665.05 | SEDIMENT RETENTION BARRIERS ARE USED AS A PERIMITER CONTROL MEASURE TO PROVIDE PROTECTION TO CLEAN WATER RUNNING THROUGH THE PROJECT OR OTHER CRITICAL AREAS. |
| DITCH CHECK STRUCTURES | ESC-300-1 | SEE SYMBOLS BELOW FOR EACH CHECK STRUCTURE | 665.02 | 665.03, 665.04, 665.05 | DITCH CHECKS ARE INSTALLED TO CONTROL RUNOFF VELOCITY AND THUS REDUCE EROSION AND PROVIDE FOR TRAPPING OF SEDIMENTS. SELECTION OF THE APPROPRIATE DITCH CHECK IS A FUNCTION OF DRAINAGE AREA, DITCH GRADIENT AND SOIL TYPE. |
| HAY BALE DITCH CHECK | ESC-300-2 |  | 665.02 | 665.03, 665.04, 665.05 | HAY BALES ARE USED TO INTERCEPT LOW VOLUME FLOWS IN LOW TO MODERATE GRADIENT DITCHES. |
| SAND BAG DITCH CHECK | ESC-300-3 |  | 665.02, 801 | 665.03, 665.04, 665.05 | SAND BAG DITCH CHECKS ARE USED FOR VELOCITY REDUCTION AND MINIMAL SEDIMENT TRAPPING IN CONCRETE PAVED DITCHES OR IN DITCHES THAT HAVE ROCKY BOTTOMS. SAND BAGS MAY ALSO BE USED AS A SEDIMENT BARRIER ON HARD SURFACES. |
| WATTLE DITCH CHECK | ESC-300-4 |  | 665.02, ALDOT LIST II-24 | 665.03, 665.04, 665.05, MANUFACTURER LITERATURE | WATTLE DITCH CHECKS ARE APPROPRIATE FOR VELOCITY REDUCTION AND CONTROL OF SEDIMENT TRANSPORT UNDER LOW TO MEDIUM FLOW CONDITIONS. |
| SILT DIKE DITCH CHECK | ESC-300-5 |  | 665.02, MANUFACTURER LITERATURE | 665.03, 665.04, 665.05, MANUFACTURER LITERATURE | SILT DIKE DITCH CHECKS CAN BE USED IN DITCHES WITH CONCENTRATED FLOWS WITHIN THE CLEAR ZONE WHERE RIPRAP CAN NOT BE USED. |
| ROCK DITCH CHECK | ESC-300-6 |  | 665.02, 801, 810, 814, PLAN NOTE ALDOT LIST II-3 | 665.03, 665.04, 665.05 | ROCK DITCH CHECKS ARE USED PRIMARILY IN HIGH VELOCITY AND LARGE VOLUME DITCH FLOW CONDITIONS TO REDUCE EROSION AND TRAP MINIMAL VOLUMES OF SEDIMENT. AGGREGATE DITCH CHECKS CAN BE USED ONLY IN LOW VELOCITY FLOWS AND SERVE AS EFFECTIVE SEDIMENT TRAPS. SIZES OF ROCK WILL BE DESIGNATED ON THE PLANS. |
| ROCK DITCH CHECK WITH SUMP EXCAVATION | ESC-300-7 |  | 665.02, 801, 810, 814, PLAN NOTE ALDOT LIST II-3 | 665.03, 665.04, 665.05 | ROCK DITCH CHECK WITH SUMP EXCAVATION CAN BE PLACED IN DITCHES FOR ON-SITE SEDIMENT TRAPPING. |

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Updated Chart on 8-23-2011 by J.F.T.
2. Revised and Updated Chart on 10-20-2014 by J.F.T.
3. Removed "SILT FENCE DITCH CHECK, ESC-300 (SHT 8 OF 8)" and inserted "SEDIMENT RETENTION BARRIER, ESC-200 (SHT 5 OF 5)" on 8-10-2016 by J.F.T.
4. Updated Special Drawing No. from ESC-100 (SHEET 1 OF 2) to ESC-100-1 and others using same pattern by J.F.T. & J.M.M.

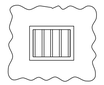
Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE: 7-7-2021

DESIGN BUREAU SPECIAL DRAWING

BEST MANAGEMENT PRACTICE REFERENCE MATRIX

SPECIAL DRAWING NO: ESC-100-1

INDEX NO: 66501

| BEST MANAGEMENT PRACTICE (BMP) | SPECIAL DRAWING NUMBER | PLAN SYMBOL | MATERIALS REQUIREMENT REFERENCES | CONSTRUCTION REQUIREMENT REFERENCES | USAGE GUIDELINES |
|---|---|---|---|---|---|
| SILT FENCE DITCH CHECK | ESC-300-8 |  | 665.02, AASHTO M288 ALDOT LIST II-3 | 665.03, 665.04, 665.05 | SILT FENCE DITCH CHECKS ARE USED TO INTERCEPT LOW VOLUME FLOWS IN LOW TO MODERATE GRADIENT DITCHES. |
| INLET PROTECTION | ESC-400-1 |  | 665.02 | 665.03, 665.04, 665.05 | CONFIGURATIONS MAY BE ADJUSTED WITH APPROVAL OF THE ENGINEER FOR TRAVELWAY SAFETY, WATER FLOW, SOIL OR INSTALLATION CHALLENGES. |
| AGGREGATE INLET PROTECTION | ESC-400-2 | ✳ | 665.02, 801 | 665.03, 665.04, 665.05 | THE ELEVATION OF THE TOP OF THE REQUIRED STONE BERM SHALL BE A MINIMUM OF 1.5 FEET ABOVE THE ELEVATION OF THE INLET WORKING POINT AND A MINIMUM OF 6 INCHES BELOW THE ELEVATION OF THE OUTSIDE EDGE OF THE INSIDE SHOULDER. |
| WATTLE INLET PROTECTION | ESC-400-3 | ✳ | 665.02, ALDOT LIST II-24 | 665.03, 665.04, 665.05, | WATTLE INLET PROTECTION PROVIDES SEDIMENT TRAPPING BY PONDING STORMWATER TO A DEPTH EQUAL TO OR LESS THAN THE WATTLE DIAMETER. |
| SAND BAG INLET PROTECTION | ESC-400-4 | ✳ | 665.02, 801 | 665.03, 665.04, 665.05 | SAND BAG INLET PROTECTION PROVIDES SEDIMENT TRAPPING BY PONDING STORMWATER TO A DEPTH EQUAL TO OR LESS THAN THE STACKED HEIGHT. |
| FLOATING BASIN BOOM | ESC-501 |  | 665.02, MANUFACTURER LITERATURE | 665.03, 665.04, 665.05, MANUFACTURER LITERATURE | A FLOATING BASIN BOOM IS A FLOATING IMPERMEABLE TEXTILE BARRIER WHICH MINIMIZES SEDIMENT TRANSPORT WITHIN A WATERBODY AND MAY BE USED FOR UPLAND SEDIMENT CONTROL REDUNDANCY. |
| STABILIZED CONSTRUCTION ENTRANCE | ESC-502 |   | 665.02, 801 | 665.03, 665.04, 665.05 | STABILIZED CONSTRUCTION ENTRANCES ARE INSTALLED AT POINTS OF VEHICULAR INGRESS AND EGRESS. THE STABILIZED CONSTRUCTION ENTRANCES REDUCE THE AMOUNT OF SEDIMENT TRANSPORTED ONTO PAVED PUBLIC TRAVEL WAYS BY CONSTRUCTION EQUIPMENT AND OTHER MOTOR VEHICLES. |
| TEMPORARY DEWATERING STRUCTURE | ESC-503 | ✳✳ | 107.13, CONTRACTOR DISCRETION | 107.13, 524.03 MANUFACTURER LITERATURE | TEMPORARY DEWATERING STRUCTURES ARE USED TO CAPTURE SEDIMENT THAT MAY BE PRESENT IN DEWATERING DISCHARGES AND TO REDUCE DISCHARGE VELOCITY SUFFICIENTLY TO PROTECT DOWN SLOPE AREAS FROM EROSION. FILTER BAGS ARE USED WHEN DISCHARGING POTENTIALLY SEDIMENT LADEN WATER TO SENSITIVE WATER BODIES OR IN URBAN AREAS. |
| TEMPORARY CULVERT STREAM CROSSING | ESC-504 | ✳✳ | 107.13, CONTRACTOR DISCRETION | 107.13, 107.21 | A TEMPORARY STREAM CROSSING PROVIDES A MEANS FOR VEHICLES AND HEAVY EQUIPMENT TO SAFELY CROSS A WATERCOURSE WHILE MINIMIZING DAMAGE TO STREAMS AND WETLANDS. AN EXAMPLE IS PROVIDED WHICH MAY BE MODIFIED OR ADOPTED BY THE CONTRACTOR. |
| TEMPORARY DIVERSIONS | ESC-505 ESC-506 | ✳✳ | 107.13, CONTRACTOR DISCRETION | 107.13, 107.21, 524.03 | TEMPORARY DIVERSIONS ARE USED TO DIVERT STREAM FLOW AROUND CONSTRUCTION WORK UNTIL PERMANENT DRAINAGE STRUCTURES ARE COMPLETED. |
| SEDIMENTATION BASIN | ESC-507 | ✳✳✳ | 665.02, 659.02, 860.11 ALDOT LIST II-11 ALDOT LIST II-24 | 665.03, 665.04, 665.05, MANUFACTURER LITERATURE | SEDIMENTATION BASINS ARE USED TO REDUCE TURBIDITY OF CONSTRUCTION STORMWATER RUNOFF DURING GRADING. |
| FLOCCULANT | ESC-508 | ✳✳✳✳ | 665.02, 672.02 ALDOT LIST II-24 | 665.03, 672.03, MANUFACTURER LITERATURE | FLOCCULANT IS USED TO REDUCE TURBIDITY OF CONSTRUCTION STORMWATER RUNOFF DURING GRADING. |
| EROSION CONTROL PRODUCTS | ESC-509 |  | 659.02, 860.11, ALDOT LIST II-11 | 659.03, 659.04, 659.05 | EROSION CONTROL PRODUCTS ARE USED TO PROTECT SLOPES AND CHANNELS. EROSION CONTROL PRODUCTS ARE USED TO CREATE CONDITIONS THAT ASSIST THE ESTABLISHMENT OF VEGETATION. LOCATIONS SHOWN ON PLANS SHOULD BE BASED ON GRADIENT, SOIL, LONGEVITY AND HYDROLOGY. EROSION CONTROL PRODUCTS WILL GENERALLY BE REQUIRED ON 2H:1V OR STEEPER SLOPE LENGTHS MORE THAN 15 FEET. |

NOTE:

✳ 1. ONLY ONE INLET PROTECTION SYMBOL IS SHOWN ON THE PLANS. CONSTRUCTION PHASING AND SITE CONDITIONS WILL DICTATE WHICH TYPE OF INLET PROTECTION SHOULD BE INSTALLED.

NOTE:

✳✳ 1. TEMPORARY DEWATERING STRUCTURE, TEMPORARY STREAM CROSSING, AND TEMPORARY DIVERSIONS USE AND LOCATION WILL BE AT CONTRACTOR DISCRETION UNLESS SPECIFICALLY MADE A PART OF THE CONTRACT.

NOTE:

✳✳✳ 1. SEDIMENTATION BASINS ARE DRAWN TO SCALE ON THE PLANS.

NOTE:

✳✳✳✳ 1. FLOCCULANT TO BE APPLIED AT THE DIRECTION OF THE ENGINEER.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Updated Chart on 8-23-2011 by J.F.T.
2. Updated Chart line positioning on 9-24-2012 by J.F.T.
3. Updated, Revised Chart and added **** Note on 10-20-2014 by J.F.T.
4. Added Sediment Retention Barrier to matrix on 10-2-2015 by L.V.S.
5. Replaced "SEDIMENT RETENTION BARRIER, ESC-200 (SHT 5 0F 5)" and inserted "SILT FENCE DITCH CHECK, ESC-300 (SHT 8 OF 8)" on 8-10-2016 by J.F.T.
6. Updated Special Drawing No. from ESC-100 (SHEET 2 OF 2) to ESC-100-2 and others usins same pattern J.F.T. & J.M.M.

| | |
|---|---|
| Bureau Std Engr: | D.J.W. |
| DRAWN BY: | |
| DATE DRAWN: | 2006 |
| REVISED DATE: | 7-7-2021 |

DESIGN BUREAU SPECIAL DRAWING

BEST MANAGEMENT PRACTICE REFERENCE MATRIX

| SPECIAL DRAWING NO | INDEX NO |
|---|---|
| ESC-100-2 | 66502 |

NOTES:

1. "J HOOK" CONFIGURATION SILT FENCE APPLICATIONS ARE TO BE USED IN CONJUNCTION WITH PERIMETER SILT FENCE WHEN STORMWATER RUNOFF IS IN TWO DIRECTIONS (DOWN A FILL SLOPE AND DOWN GRADIENT ALONG THE RIGHT-OF-WAY).

2. "SMILE CONFIGURATION" APPLICATIONS ARE TO BE USED AS PERIMETER SILT FENCE WHEN THERE IS ONE-DIRECTIONAL FLOW DOWN A SLOPE.

3. SAND BAGS CAN BE USED AS DIVERSION BERMS TO PREVENT SEDIMENT FROM BEING WASHED ONTO OR ACROSS HARD SURFACES. OR TO HELP SLOW SHEET FLOW VELOCITY WHEN DRAINING AWAY FROM HARD SURFACES.

4. FOR SHORTER SLOPES AND/OR SLOPES THAT ARE LESS STEEP, DIVERSION BERMS CAN BE USED TO SAFELY CONVEY STROMWATER AWAY FROM OR AROUND A DENUNDED AREA. THEY CAN BE THEY CAN BE CONSTRUCTED USING A MANUFACTURED SILT DIKE OR BY CONSTRUCTING A TEMPORARY EARTH AND TRENCH WITH GEOTEXTILE OR POLYETHYLENE SHEETING PROTECTION.

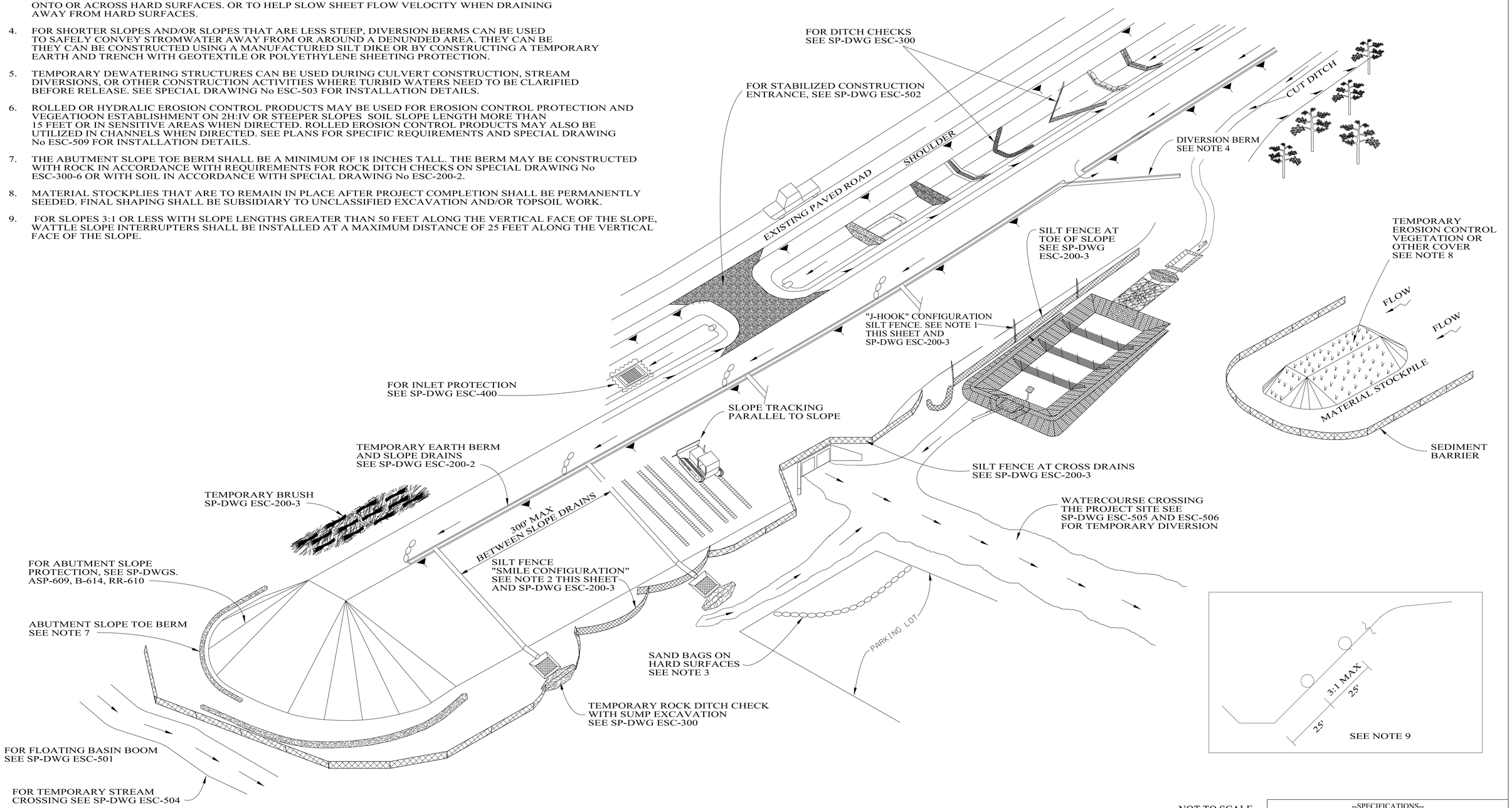
5. TEMPORARY DEWATERING STRUCTURES CAN BE USED DURING CULVERT CONSTRUCTION, STREAM DIVERSIONS, OR OTHER CONSTRUCTION ACTIVITIES WHERE TURBID WATERS NEED TO BE CLARIFIED BEFORE RELEASE. SEE SPECIAL DRAWING No ESC-503 FOR INSTALLATION DETAILS.

6. ROLLED OR HYDRALIC EROSION CONTROL PRODUCTS MAY BE USED FOR EROSION CONTROL PROTECTION AND VEGEATIOON ESTABLISHMENT ON 2H:1V OR STEEPER SLOPES SOIL SLOPE LENGTH MORE THAN 15 FEET OR IN SENSITIVE AREAS WHEN DIRECTED. ROLLED EROSION CONTROL PRODUCTS MAY ALSO BE UTILIZED IN CHANNELS WHEN DIRECTED. SEE PLANS FOR SPECIFIC REQUIREMENTS AND SPECIAL DRAWING No ESC-509 FOR INSTALLATION DETAILS.

7. THE ABUTMENT SLOPE TOE BERM SHALL BE A MINIMUM OF 18 INCHES TALL. THE BERM MAY BE CONSTRUCTED WITH ROCK IN ACCORDANCE WITH REQUIREMENTS FOR ROCK DITCH CHECKS ON SPECIAL DRAWING No ESC-300-6 OR WITH SOIL IN ACCORDANCE WITH SPECIAL DRAWING No ESC-200-2.

8. MATERIAL STOCKPLIES THAT ARE TO REMAIN IN PLACE AFTER PROJECT COMPLETION SHALL BE PERMANENTLY SEEDED. FINAL SHAPING SHALL BE SUBSIDIARY TO UNCLASSIFIED EXCAVATION AND/OR TOPSOIL WORK.

9. FOR SLOPES 3:1 OR LESS WITH SLOPE LENGTHS GREATER THAN 50 FEET ALONG THE VERTICAL FACE OF THE SLOPE, WATTLE SLOPE INTERRUPTERS SHALL BE INSTALLED AT A MAXIMUM DISTANCE OF 25 FEET ALONG THE VERTICAL FACE OF THE SLOPE.




NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION


ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



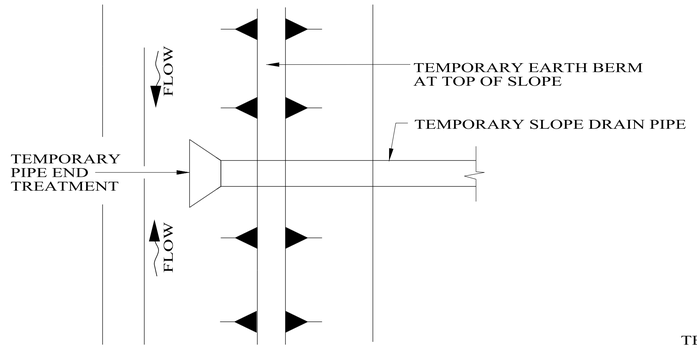

REVISIONS:
1. Revised Note 6 and added Note 8 & "TEMPORARY SEDIMENTATION BASIN". Attached "SEE SP-DWG ESC-400" to "FOR INLET PROTECTION" on 8-23-2011 by J.F.T.
2. Revised Note 6 and Adjusted graphics of "TEMPORARY ROCK DITCH CHECK on 10-20-2014 by J.F.T.
3. Revised Note 7 from "SHEET 2 OF 4" to "SHEET 2 OF 5" on 8-10-2016 by J.F.T.
4. Updated Special Drawing No. from ESC-200 (SHEET 1 OF 5) to ESC-200-1 and others using same pattern on 10-31-2016 by J.F.T. & J.M.M.
5. Moved the stockpile details further from the stream on 7-13-2021 by D.J.W.
6. Added Note 9 and detail showing 3:1 max detail in bottom right area on 06-21-2022 by J.F.T.

| | |
|---|---|
| Bureau Std Engr: | G.L.D. |
| DRAWN BY: | |
| DATE DRAWN: | 2006 |
| REVISED DATE: | 6-21-2022 |

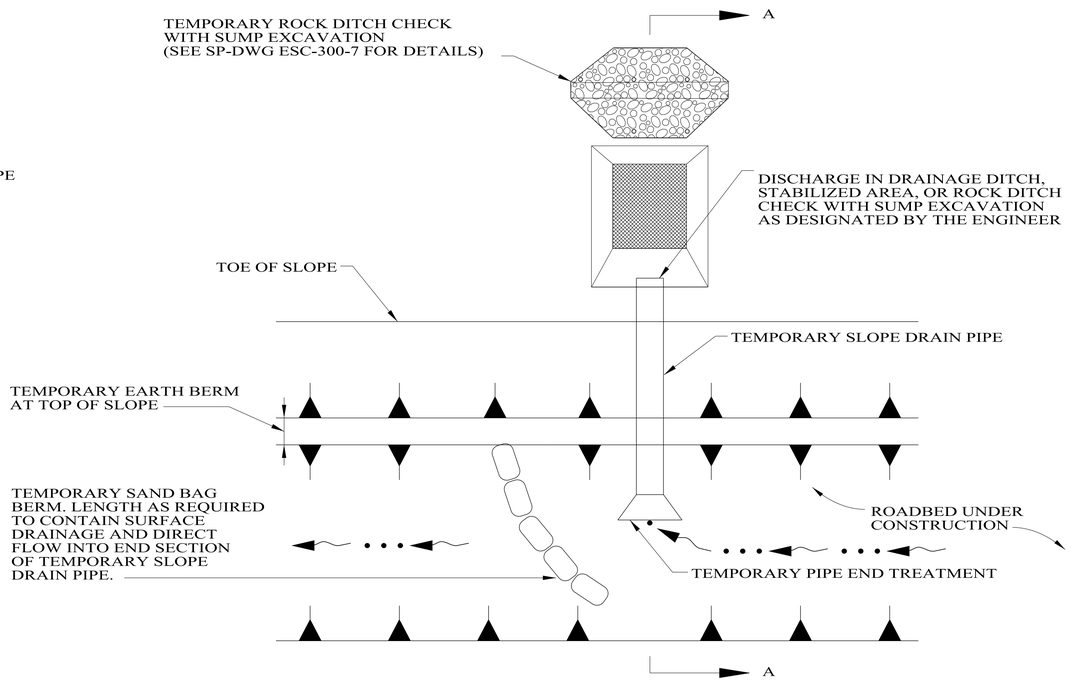
DESIGN BUREAU SPECIAL DRAWING

TYPICAL TEMPORARY EROSION/
SEDIMENT CONTROL APPLICATIONS

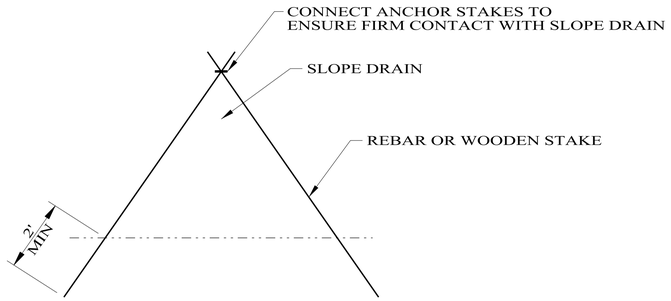
| SPECIAL DRAWING NO | INDEX NO |
|---|---|
| ESC-200-1 | 66505 |




PLAN AT LOW POINT

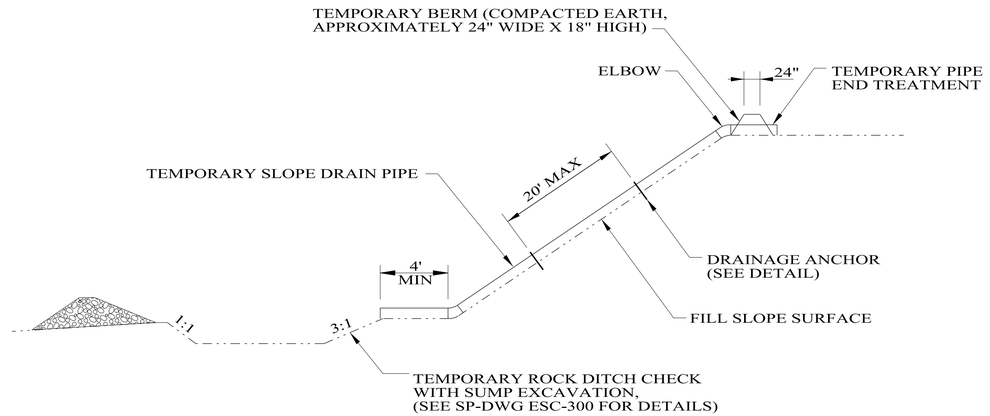



PLAN




RECOMMENDED ANCHOR DETAIL

NOTE:
CONTRACTOR MAY PROPOSE ALTERNATE ANCHORING DETAIL.
ENGINEERS APPROVAL WILL BE BASED ON PERFORMANCE.




SECTION A-A

NOTES:

1. TEMPORARY SLOPE DRAINS (BERMS, DRAINS AND ROCK, IF NECESSARY) SHALL BE USED AS THE EMBANKMENT IS CONSTRUCTED. MAXIMUM SPACING OF THE DRAIN ASSEMBLY SHALL BE 300 FEET, OR AS DESIGNATED BY THE ENGINEER. THE DRAIN ASSEMBLIES SHALL BE USED UNTIL THE SLOPES ARE PROTECTED WITH PERMANENT SOIL EROSION CONTROL MEASURES.
2. TEMPORARY BERMS SHALL ALSO BE CONSTRUCTED AT THE TOP OF ALL ERODIBLE CUT SLOPES DESIGNATED OR PERMITTED BY THE ENGINEER. THE GRADIENT OF THE BERMS SHALL BE THE MINIMUM POSSIBLE THAT CONDITIONS PERMIT.
3. IN SOME CASES IT MAY BE NECESSARY TO EMBED METAL OR PLASTIC PIPE INTO THE FILL SLOPE TO ENSURE PROPER ANCHORAGE.
4. THE CONTRACTOR SHALL SELECT THE SIZE OF SLOPE DRAIN PIPE.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT
OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Adjusted and revised PLAN to PLAN AT LOW POINT, deleted "OR "T" SECTION" and deleted "T SECTION DETAIL" on 8-24-2011 by J.F.T.
2. Replaced all "FLARE END SECTION" text with "TEMPORARY PIPE END SECTION" on 9-24-2012 by J.F.T.
3. Updated Special Drawing No. from ESC-200 (SHEET 2 OF 5) to ESC-200-2 on 10-31-2016 by J.F.T. & J.M.M.

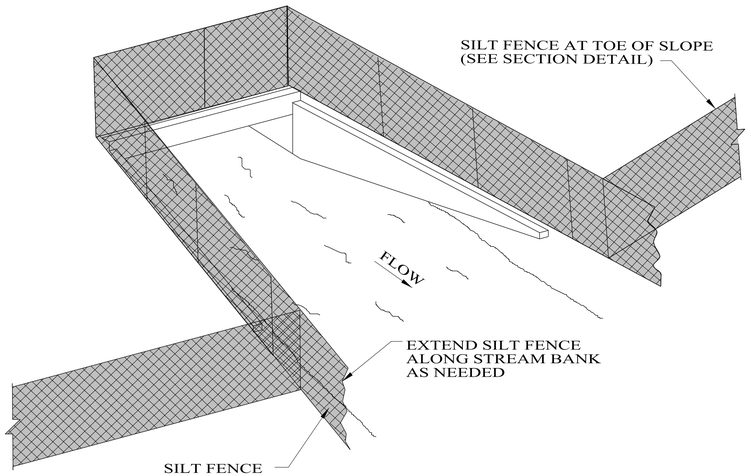
Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE: 10-31-2016

DESIGN BUREAU SPECIAL DRAWING

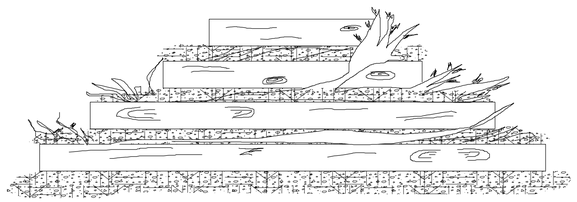
DETAILS OF TEMPORARY SLOPE DRAIN, BERMS AND ENERGY DISSIPATOR

SPECIAL DRAWING NO: ESC-200-2

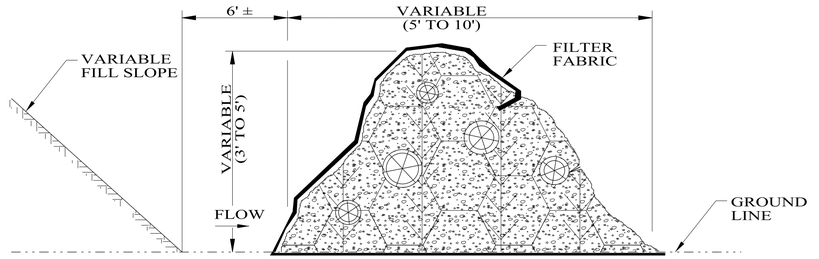
INDEX NO: 66506




SEDIMENT BARRIER AT CROSS DRAIN



REAR ELEVATION



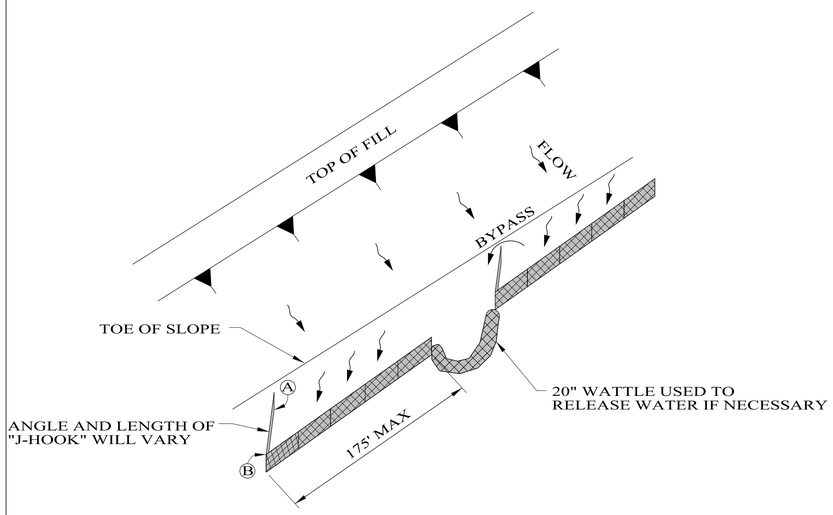

SIDE ELEVATION

## TEMPORARY BRUSH BARRIER

NOTES:

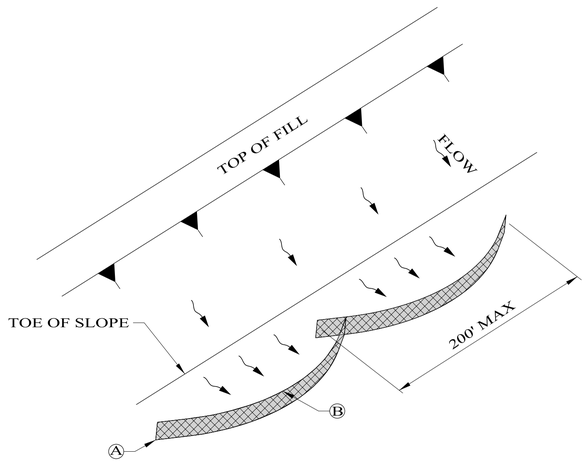
1. BRUSH BARRIER MAY BE USED WHERE NATURAL GROUND IS LEVEL OR SLOPING AWAY FROM PROJECT.
2. PLACE BRUSH, LOG AND TREE LAPS APPROXIMATELY PARALLEL TO TOE OF FILL SLOPE WITH SOME OF THE HEAVIER MATERIALS BEING PLACED ON TOP TO PROPERLY SECURE THE BARRIER AS DETAILED AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED OR PERMITTED BY THE ENGINEER.
3. TO ALLOW WATER TO SEEP THROUGH BRUSH BARRIER, INTERMINGLE THE BRUSH, LOG AND TREE LAPS SO AS NOT TO FORM A SOLID DAM.
4. THE BRUSH BARRIER SHALL BE CHOKED WITH FILTER FABRIC.

NOTE:
ANCHOR AND INSTALL SILT FENCE PER DETAILS SHOWN ON SPECIAL DRAWING No. ESC-200-4.



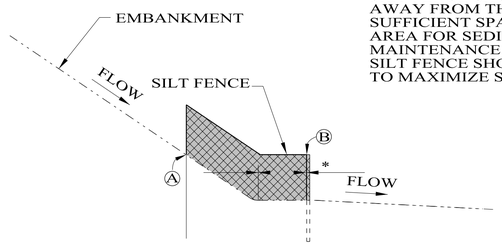

"J-HOOK" SILT FENCE APPLICATION

NOTE:
THE ELEVATION AT THE BOTTOM OF THE DISTANT END OF THE J-HOOK" Ⓐ SHOULD BE THE SAME AS THE LOWEST POINT ALONG THE TOP OF SILT FENCE Ⓑ.




"SMILE-CONFIGURATION" SILT FENCE APPLICATION

NOTE:
EL Ⓐ = EL Ⓑ TO MAXIMIZE STORAGE.




* SILT FENCE SHOULD BE LOCATED AT LEAST 6' AWAY FROM THE TOE OF THE SLOPE TO PROVIDE SUFFICIENT SPACE TO ALLOW A BROAD, FLAT AREA FOR SEDIMENT ACCUMULATION AND MAINTENANCE ACTIVITIES. THE ENDS OF THE SILT FENCE SHOULD BE TURNED UP GRADIENT TO MAXIMIZE STORAGE.

SILT FENCE SECTION AT TOE OF SLOPE

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



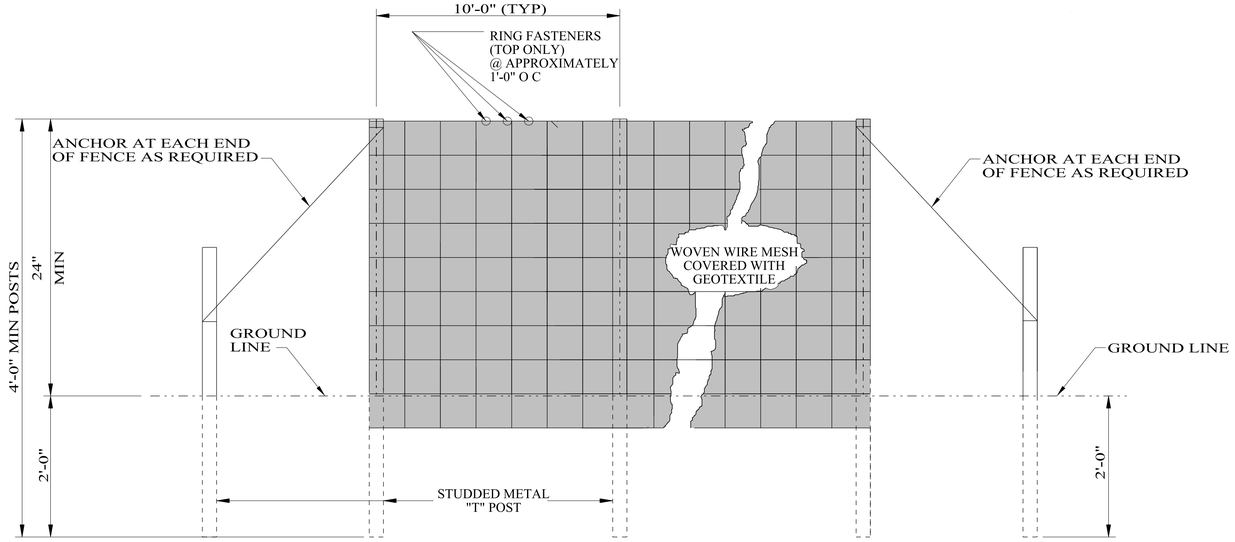
REVISIONS:
1. Revised "SIDE ELEVATION" to show Geotextile Filter and Underlayment. Edited and repositioned text on 9-24-2012 by J.F.T.
2. Updated Special Drawing No. from ESC-200 (SHEET 3 OF 5) to ESC-200-3 on 10-31-2016 by J.F.T. & J.M.M.
3. Changed "fill" to "slope" in several callouts, removed "Type A" designation for silt fence, and added 6' distance to * note on 8-11-2020 by D.J.W.

| | |
|---|---|
| Bureau Std Engr: | D.J.W. |
| DRAWN BY: | |
| DATE DRAWN: | 2006 |
| REVISED DATE: | 8-11-2020 |

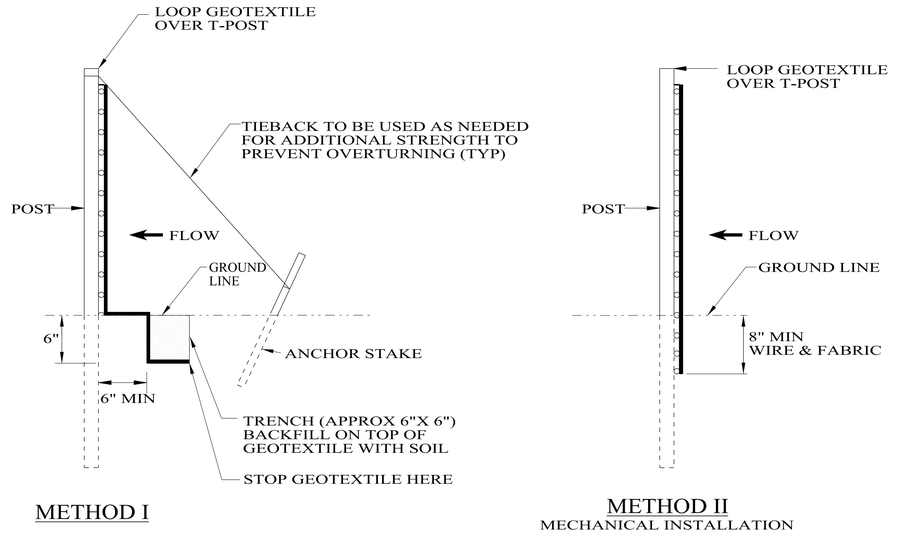
DESIGN BUREAU SPECIAL DRAWING

DETAILS OF SEDIMENT BARRIER APPLICATIONS

| SPECIAL DRAWING NO | INDEX NO |
|---|---|
| ESC-200-3 | 66507 |



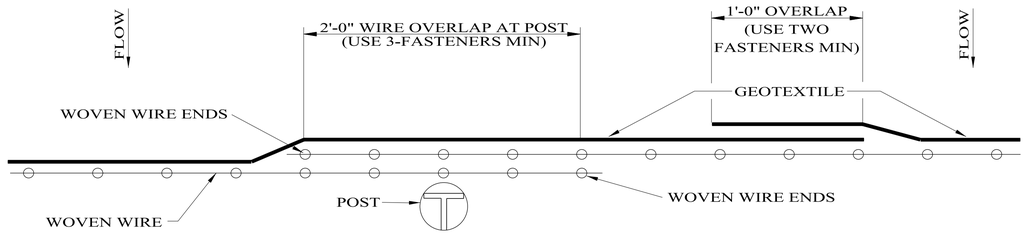

ELEVATION VIEW




METHOD I

METHOD II
MECHANICAL INSTALLATION

SIDE VIEW

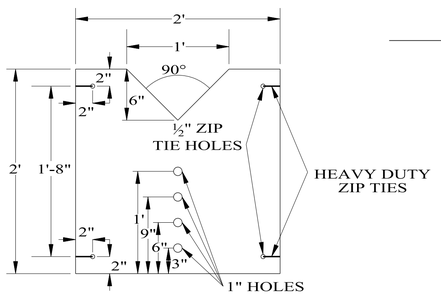



PLAN VIEW

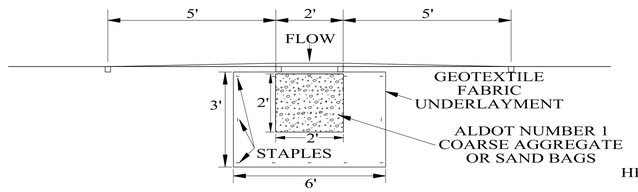
REQUIRED LAPPING

NOTES:

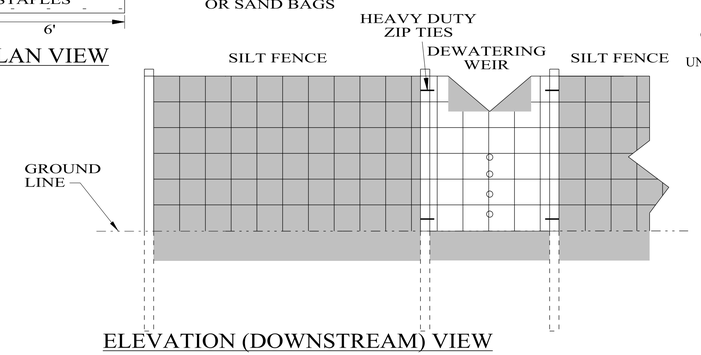
1. METHOD II FENCE INSTALLATION ALSO TO INCLUDE ANCHORS AND TIEBACKS AS REQUIRED.
2. SILT FENCE SHALL BE USED IN AREAS WHERE FLOW IS LOW TO MODERATE OR AS DIRECTED BY THE ENGINEER.
3. SILT FENCES ARE TEMPORARY SEDIMENT CONTROL ITEMS THAT SHALL BE ERECTED DOWN GRADE OF ERODIBLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STREAMS AND CHANNELS.
4. SILT FENCE SHOULD BE PLACED WELL INSIDE RIGHT-OF-WAY AND ALONG EDGE OF CLEARING LIMITS. THIS WILL ALLOW ROOM FOR ADDITIONAL BEST MANAGEMENT PRACTICES SUCH AS VEGATATED BUFFERS.
5. WHEREVER POSSIBLE SILT FENCES SHALL BE CONSTRUCTED ACROSS A LEVEL AREA IN THE SHAPE OF A SMILE. THIS AIDS IN PONDING OF RUNOFF AND FACILITATE SEDIMENTATION.
6. FOR AREAS OF CONCENTRATED IMPOUNDMENT, T-POST SPACING SHOULD BE REDUCED TO 5 FT WITH THE INCORPORATION OF A DEWATERING WEIR.
7. THE CONTRACTOR MAY ELECT TO USE EITHER INSTALLATION METHOD I OR METHOD II.
8. METHOD II INSTALLATION SHALL BE ACCOMPLISHED USING AN IMPLEMENT THAT IS MANUFACTURED FOR THE APPLICATION AND PROVIDES A CONFIGURATION MEETING THE REQUIREMENTS OF THE DETAIL.
9. SEE ALDOT LIST II-3 FOR APPROVED SILT FENCE GEOTEXTILES.
10. THE DEWATERING WEIR AND ALL ASSOCIATED ITEMS AND LABOR SHALL BE A SUBSIDIARY OBLIGATION OF THE SILT FENCE.



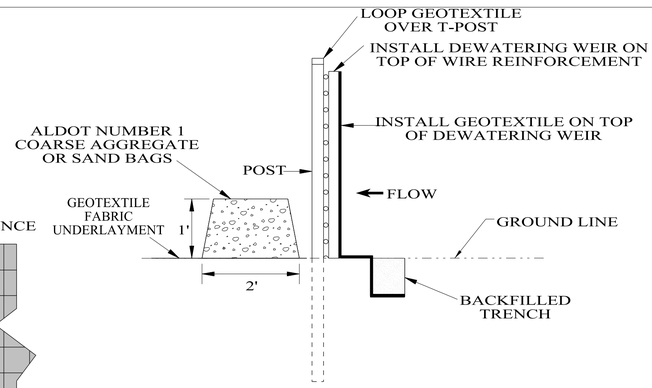

WEIR DETAIL
CONSTRUCTED OF ¾" PLYWOOD




PLAN VIEW




ELEVATION (DOWNSTREAM) VIEW




SIDE VIEW

DEWATERING WEIR

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Revised Fence height and deleted (Type A) from the Silt Fence description on 7-12-2007 by W.W.A.
2. Revised Notes 2, 3, 4, 6 and added 8 on 8-24-2011 by J.F.T.
3. Updated Special Drawing No. from ESC-200 (SHEET 4 OF 5) to ESC-200-4 on 10-31-2016 by J.F.T. AND J.M.M.
4. Revised Elevation View and Method I view. Added new Note 6 and renumbered rest accordingly. Added dewatering weir and installation details on 9-2-2020 by D.J.W.
5. Revised Side View of Method I in upper right measurement from 6" to 6" MIN on 06-22-2022 by J.F.T.

| | |
|---|---|
| Bureau Std Engr: | G.L.D. |
| DRAWN BY: | |
| DATE DRAWN: | 2006 |
| REVISED DATE: | 6-22-2022 |

DESIGN BUREAU SPECIAL DRAWING

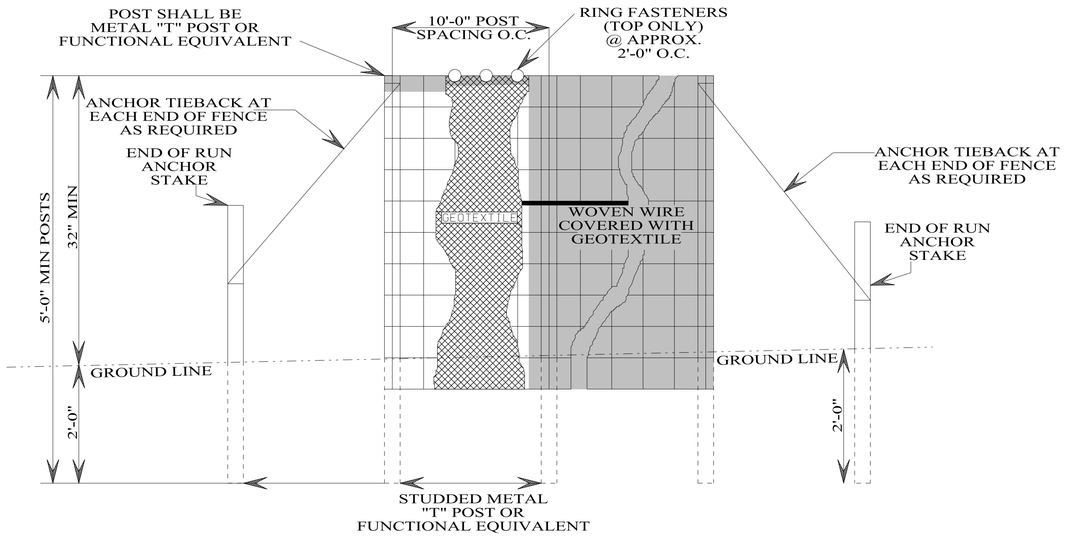
DETAILS OF SILT FENCE INSTALLATION

SPECIAL DRAWING NO

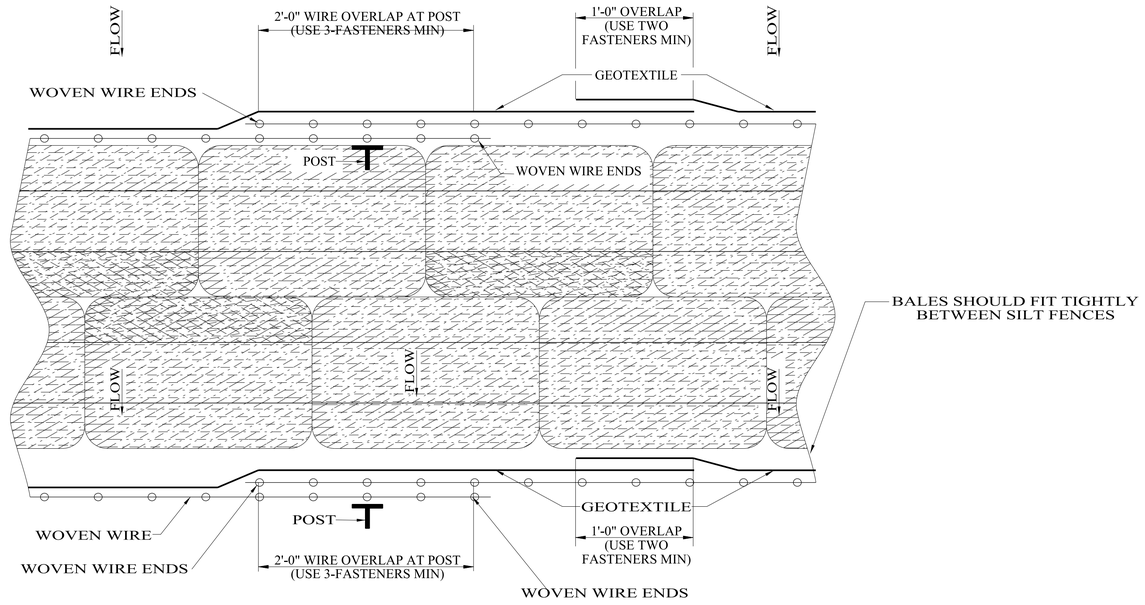
ESC-200-4

INDEX NO

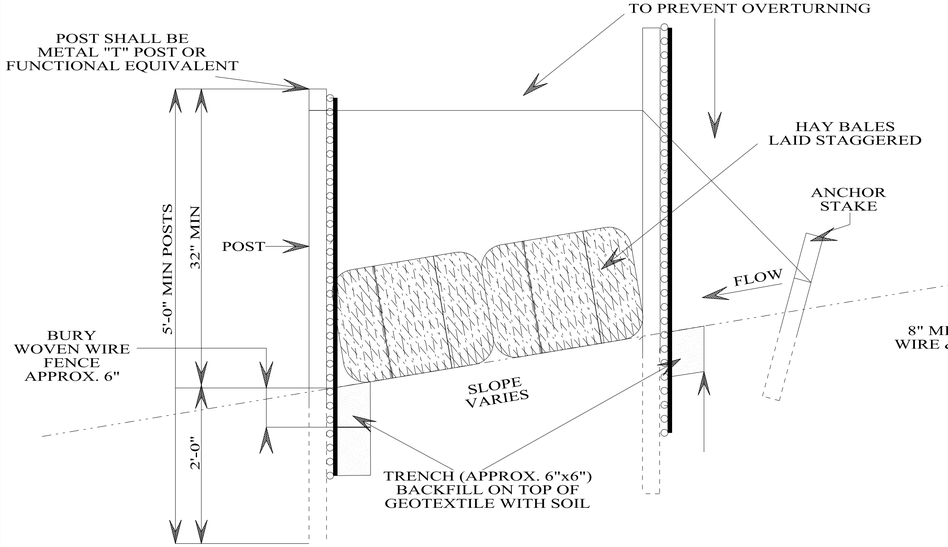
66508



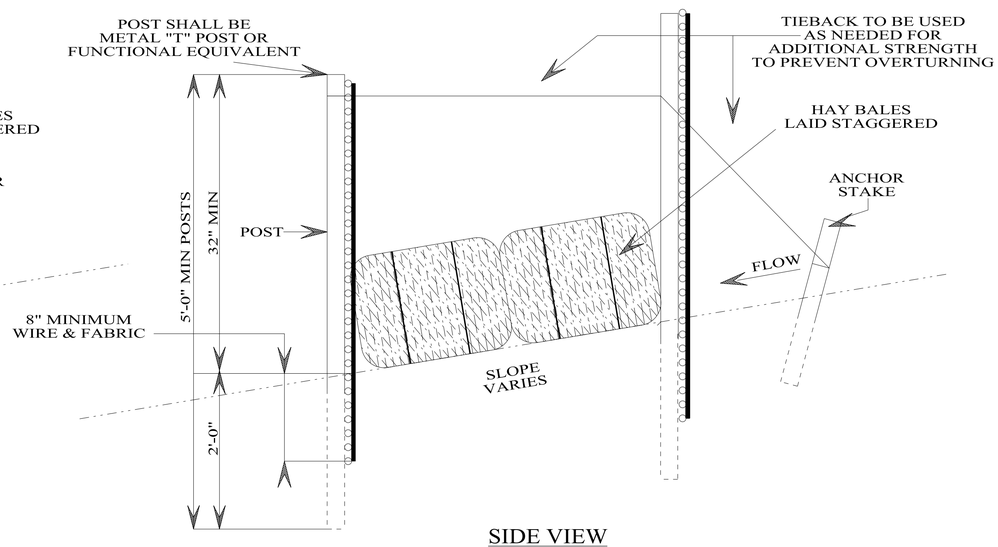

ELEVATION VIEW




PLAN VIEW
REQUIRED LAPPING




SIDE VIEW
SECTION A-A
METHOD I




SIDE VIEW
SECTION A-A
METHOD II
MECHANICAL INSTALLATION

NOTES:

1. METHOD II FENCE INSTALLATION ALSO TO INCLUDE ANCHORS AND TIEBACKS AS REQUIRED.
2. SEDIMENT RETENTION BARRIER SHALL BE USED IN AREAS WHERE FLOW IS LOW TO MODERATE OR AS DIRECTED BY THE ENGINEER.
3. SEDIMENT RETENTION BARRIERS ARE TEMPORARY SEDIMENT CONTROL ITEMS THAT SHALL BE ERECTED DOWN GRADE OF ERODIBLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STREAMS AND CHANNELS.
4. SEDIMENT RETENTION BARRIERS SHOULD BE PLACED WELL INSIDE RIGHT-OF-WAY AND ALONG EDGE OF CLEARING LIMITS IF POSSIBLE. THIS WILL ALLOW ROOM FOR ADDITIONAL BEST MANAGEMENT PRACTICES SUCH AS VEGETATED BUFFERS.
5. WHEREVER POSSIBLE SEDIMENT RETENTION BARRIERS SHALL BE CONSTRUCTED ALONG A CONTOUR WITH THE ENDS TURNED. THIS AIDS IN PONDING OF RUNOFF AND FACILITATES SEDIMENTATION.
6. THE CONTRACTOR MAY ELECT TO USE EITHER INSTALLATION METHOD I OR METHOD II.
7. METHOD II INSTALLATION SHALL BE ACCOMPLISHED USING AN IMPLEMENT THAT IS MANUFACTURED FOR THE APPLICATION AND PROVIDES A CONFIGURATION MEETING THE REQUIREMENTS OF THE DETAIL.
8. SEE ALDOT LIST II-3 FOR APPROVED SILT FENCE GEOTEXTILES.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Updated Special Drawing No. ESC-200 (SHEET 5 OF 5) to ESC-200-5 on 10-31-2016 by J.F.T. & J.M.M.

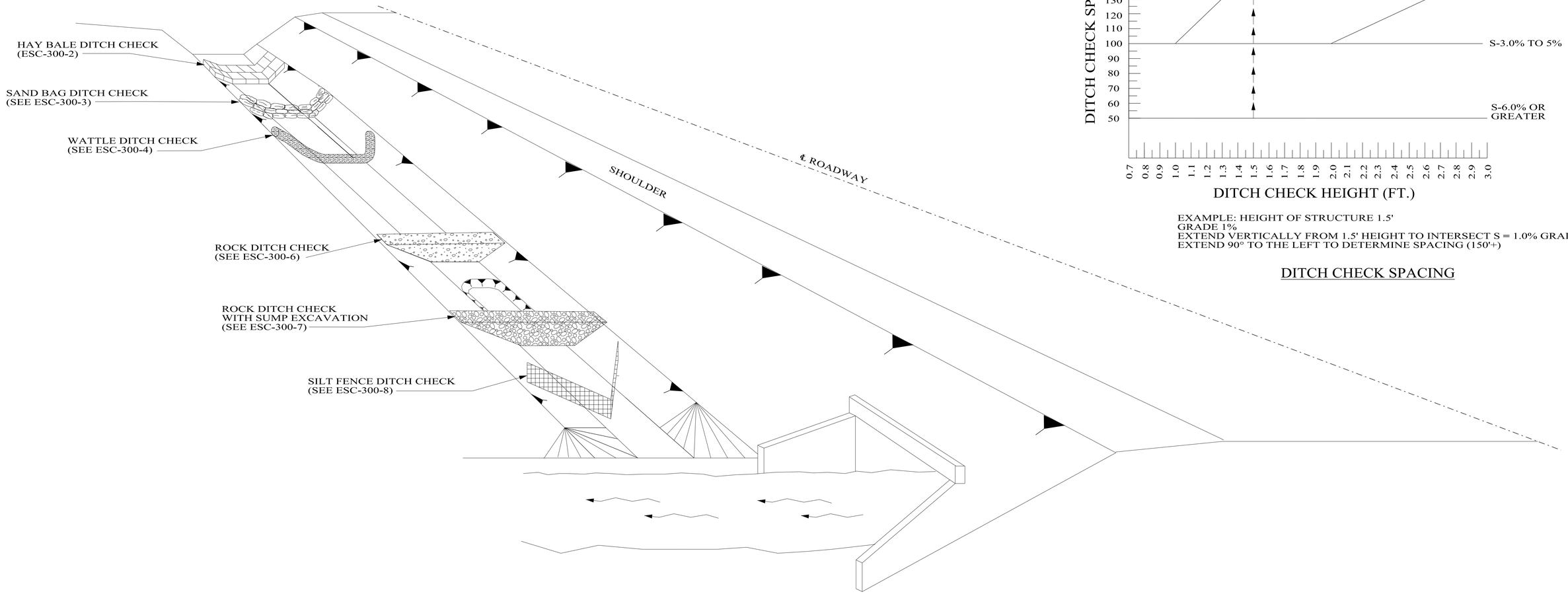
| | |
|---|---|
| Bureau Std Engr: | D.J.W. |
| DRAWN BY: | W.D.H. |
| DATE DRAWN: | 9-22-2015 |
| REVISED DATE: | 10-31-2016 |

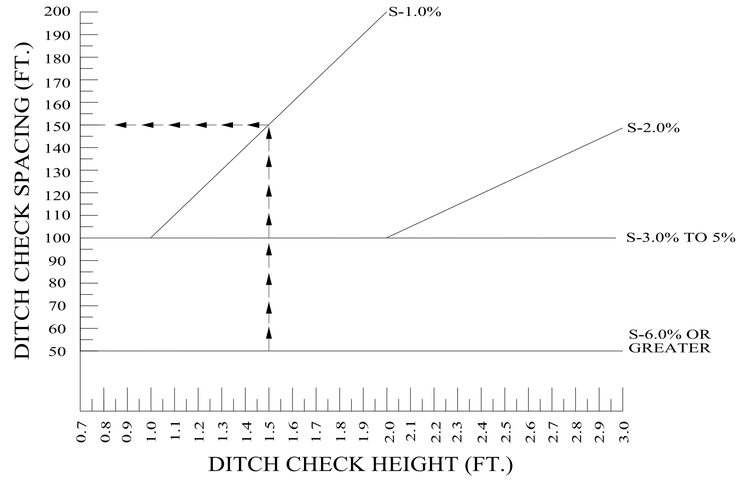
DESIGN BUREAU SPECIAL DRAWING

DETAILS OF SEDIMENT RETENTION BARRIER

SPECIAL DRAWING NO: ESC-200-5

INDEX NO: 66509




EXAMPLE: HEIGHT OF STRUCTURE 1.5'
GRADE 1%
EXTEND VERTICALLY FROM 1.5' HEIGHT TO INTERSECT S = 1.0% GRADE
EXTEND 90° TO THE LEFT TO DETERMINE SPACING (150'+)

DITCH CHECK SPACING

NOTES:

1. THE DITCH CHECK PERSPECTIVE ILLUSTRATES A TOOL BOX OF TEMPORARY PRACTICES THAT MAY BE DIRECTED OR PERMITTED BY THE ENGINEER. DITCH CHECKS ARE INSTALLED TO CONTROL RUNOFF VELOCITY AND THUS REDUCE EROSION AND PROVIDE FOR TRAPPING OF SEDIMENTS.
2. SELECTION OF THE APPROPRIATE DITCH CHECK SHOULD BE A FUNCTION OF CONSTRUCTION PHASE, DRAINAGE AREA, DITCH GRADIENT, SOIL TYPE, ECONOMY AND SAFETY.
3. DITCH CHECKS CAN BE REMOVED FOR MAINTENANCE AND/OR REPLACEMENT BUT MUST REMAIN IN PLACE UNTIL UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED. MAINTENANCE INCLUDES REMOVAL OF SEDIMENT BEGINNING WHEN SEDIMENT ACCUMULATION REACHES 1/3 THE CAPACITY OR HEIGHT OF THE STRUCTURE AND NEVER ALLOWING FOR SEDIMENT TO ACCUMULATE MORE THAN ½ THE VOLUME OR HEIGHT OF THE DITCH CHECK STRUCTURE.
4. HAY BALES ARE USED TO INTERCEPT LOW VOLUME FLOWS IN LOW TO MODERATE GRADIENT DITCHES.
5. SAND BAG DITCH CHECKS ARE USED FOR VELOCITY REDUCTION AND MINIMAL SEDIMENT TRAPPING IN CONCRETE PAVED DITCHES OR IN DITCHES THAT HAVE ROCKY BOTTOMS.
6. WATTLE DITCH CHECKS ARE APPROPRIATE FOR VELOCITY REDUCTION AND CONTROL OF SEDIMENT TRANSPORT UNDER LOW TO MEDIUM FLOW CONDITIONS NOT EXCEEDING 1.0 CU FT/SEC.
7. THE TYPE AND SIZE OF ROCK USED TO CONSTRUCT ROCK DITCH CHECKS WILL BE SELECTED BY THE DESIGNER AND SHOWN ON THE PLANS. THE SIZE OF ROCK CHOSEN SHOULD BE PROPORTIONAL TO EXPECTED FLOWS AND VELOCITIES. SEDIMENT TRAPPING EFFECTIVENESS MAY BE ADJUSTED BY CHOKING.
8. ROCK DITCH CHECK WITH SUMP EXCAVATION CAN BE PLACED IN DITCHES TO FACILITATE ON-SITE SEDIMENT TRAPPING. DITCH CHECK WITH SUMP EXCAVATION IS USED WHEN DITCHES IS USED RECEIVE DRAINAGE FROM CUT OR FILL SLOPES OR OTHER CRITICAL AREAS WHERE SOIL EROSION IS EXPECTED. DRAINAGE AREA FOR A TEMPORARY SEDIMENT TRAP SHALL NOT EXCEED 3 ACRES. THEY CAN BE USED IN SERIES TO INCREASE ON-SITE SEDIMENT TRAPPING EFFICIENCY.
9. DITCH CHECKS SHALL NOT BE PLACED IN LIVE STREAMS.
10. CONFIGURATION AND SPACING MAY BE ADJUSTED IF APPROVED BY THE ENGINEER TO ACCOMODATE TRAVELWAY SAFETY, WATER FLOW, OR SOIL AND INSTALLATION CHALLENGES.
11. SILT FENCE DITCH CHECKS ARE USED WHERE IT HAS BEEN DETERMINED THAT HAY BALE CHECKS ARE INADEQUATE, OR SILT FENCE DITCH CHECKS CAN BE JUSTIFIED BASED ON COST. SILT FENCE DITCH CHECKS ARE USED TO INTERCEPT LOW VOLUME FLOWS IN LOW TO MODERATE GRADIENT DITCHES.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT
OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Previous Note No. 5 deleted and renumbered. In Note No. 12 "DITCH CHECK SPACING" chart was and a second row of HAYBALES was added on 8-24-2011 by J.F.T.
2. Adjusted Note No. 6 on 9-24-2012 by J.F.T.
3. Adjusted and Rearranged Ditch Check sheeting order on 10-20-2014 by J.F.T.
4. Updated ESC-300-1 (SHEET 1 OF 8) to ESC-300-1 on 10-31-2016 by J.F.T. & J.M.M.
5. Removed "SILT DIKE DITCH CHECK (ESC-300-5) from drawing (ESC-300-1) and Note 7 concerning the "SILT DIKE DITCH CHECK" on 09-11-2023 by J.F.T.

Bureau Std Engr: G.L.D.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE: 09-11-2023

DESIGN BUREAU SPECIAL DRAWING

DITCH CHECK STRUCTURES,
TYPICAL APPLICATIONS AND DETAILS

SPECIAL DRAWING NO: ESC-300-1

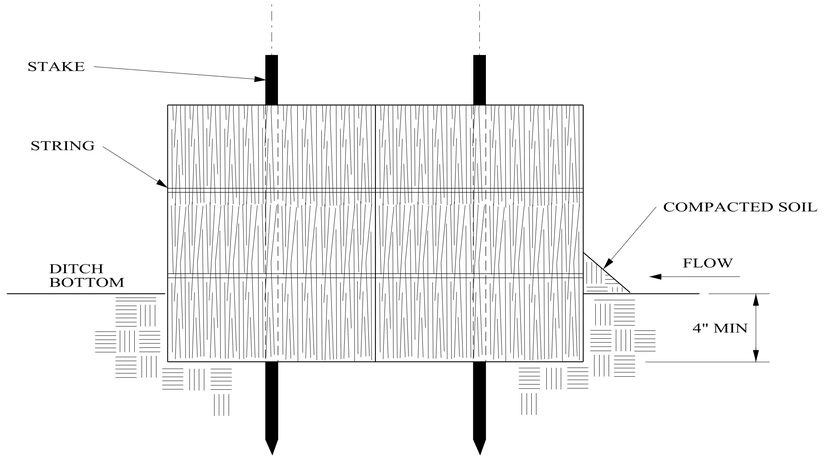
INDEX NO: 66512

NOTES:

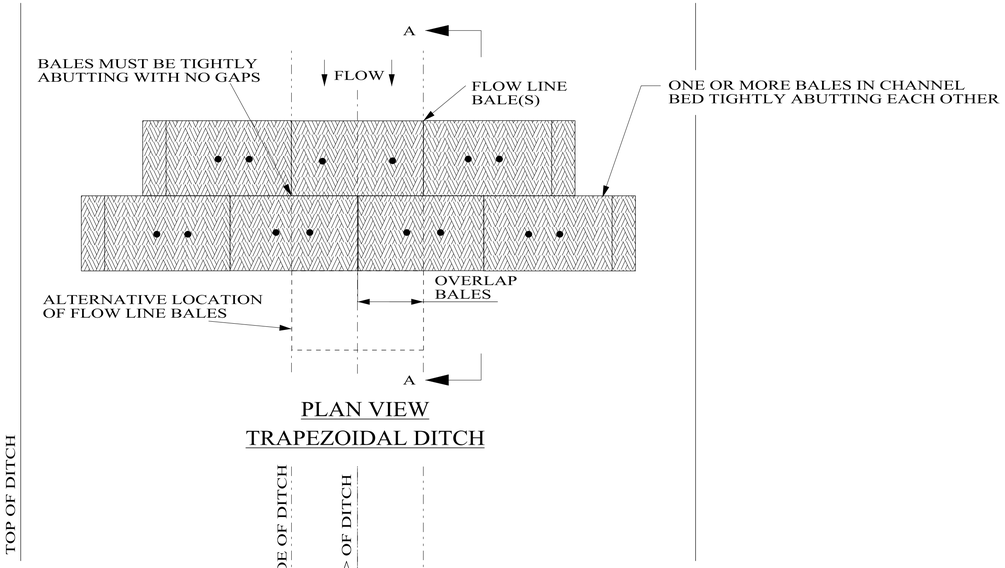
1. MINIMUM RECOMMENDED CHECK SPACING IS 100 FEET UNLESS SHOWN OTHERWISE ON THE PLANS OR APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON ESC-300-1.
2. ANCHORING STAKES SHALL BE SIZED, SPACED, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE CHECK. A MINIMUM OF TWO STAKES PER BALE IS REQUIRED. ALL NON-DEGRADABLE MATERIALS SHALL BE REMOVED WHEN NO LONGER NEEDED.
3. BALES SHALL BE EMBEDDED IN THE SOIL A MIN OF 4 INCHES.
4. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. THE BALES SHALL BE PLACED WITH BINDINGS PARALLEL TO THE GROUND.
5. SOIL IS COMPACTED ALONG THE BASE OF THE UPSTREAM FACE TO PREVENT PIPING.
6. MULTIPLE ADJACENT ROWS OF BALES ARE REQUIRED AS SHOWN.

## HAY BALE DITCH CHECK SELECTION GUIDELINES

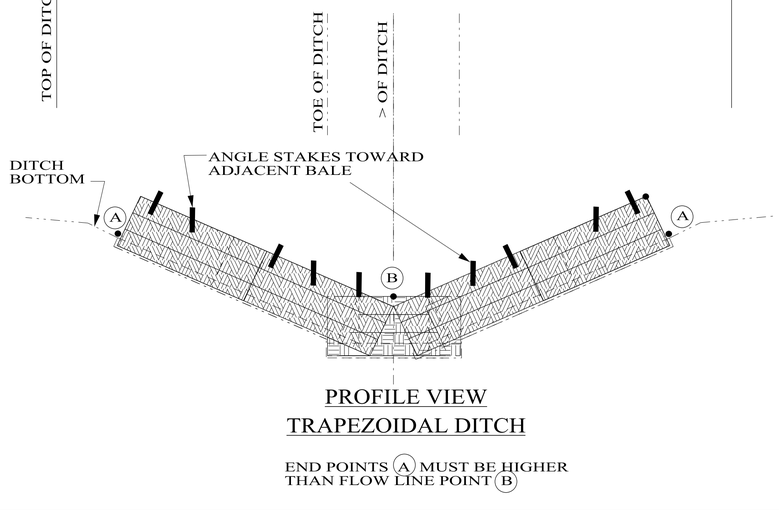
HAY BALES ARE USED TO INTERCEPT LOW VOLUME FLOWS IN LOW TO MODERATE GRADIENT DITCHES.




SECTION A-A




PLAN VIEW
TRAPEZOIDAL DITCH




PROFILE VIEW
TRAPEZOIDAL DITCH

END POINTS (A) MUST BE HIGHER THAN FLOW LINE POINT (B)

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Revised "PROFILE VIEW" on 8-24-2011 by J.F.T.
2. Eliminated void on Hay Bale Plan & Trapezoid Views on 9-2-2011 by J.F.T.
3. Repositioned and revised text on 9-24-2012 by J.F.T.
4. Revised Notes 1 & 3 and Profile View Trapezoidal Ditch and deleted Plan View, Notes and Silt Fence Ditch Check Selection Guidelines. Revised Drawing Description Block on 7-29-2014 by J.F.T.
5. Updated Special Drawing No. from ESC-300 (SHEET 2 OF 8) to ESC-300-2 on 10-31-2016 by J.F.T. & J.M.M.

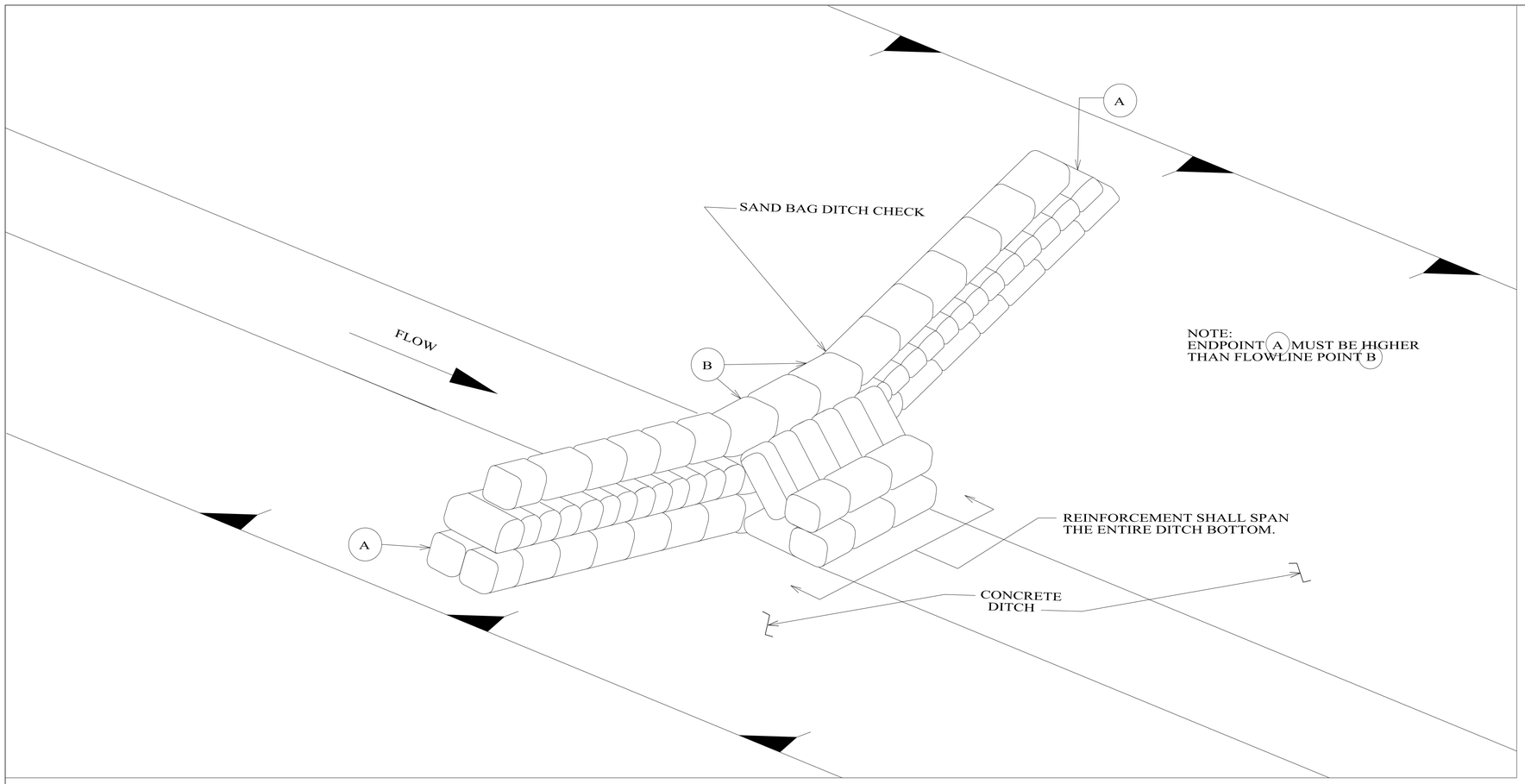
Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE: 10-31-2016

DESIGN BUREAU SPECIAL DRAWING

DETAILS OF HAY BALE DITCH CHECKS

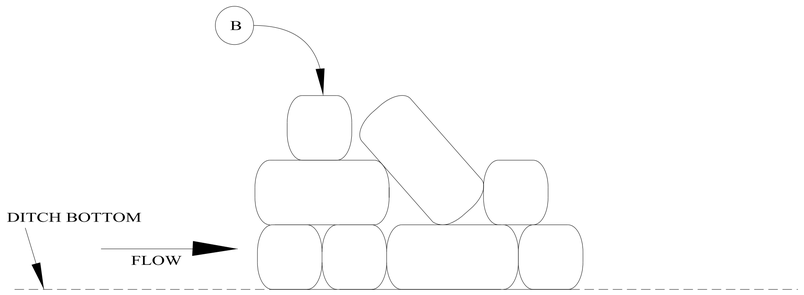
SPECIAL DRAWING NO: ESC-300-2

INDEX NO: 66513




NOTE:
ENDPOINT (A) MUST BE HIGHER
THAN FLOWLINE POINT (B)

DETAIL (DITCH CHECK)




SIDE VIEW
(IN DITCH BOTTOM)

NOTES:

1. MINIMUM RECOMMENDED PLACEMENT INTERVAL BETWEEN SAND BAG DITCH CHECK IS 100' UNLESS SHOWN OTHERWISE ON THE PLANS OR APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON SHT ESC-300-1.
2. PREVENTING SEDIMENT FROM ENTERING A PAVED DITCH IS PREFERABLE TO CAPTURING SEDIMENT WITHIN PAVED DITCH.

## SAND BAG DITCH CHECK SELECTION GUIDELINES

SAND BAG DITCH CHECKS ARE USED FOR VELOCITY REDUCTION AND MINIMAL SEDIMENT TRAPPING IN CONCRETE PAVED DITCHES OR IN DITCHES THAT HAVE ROCKY BOTTOMS.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT
OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



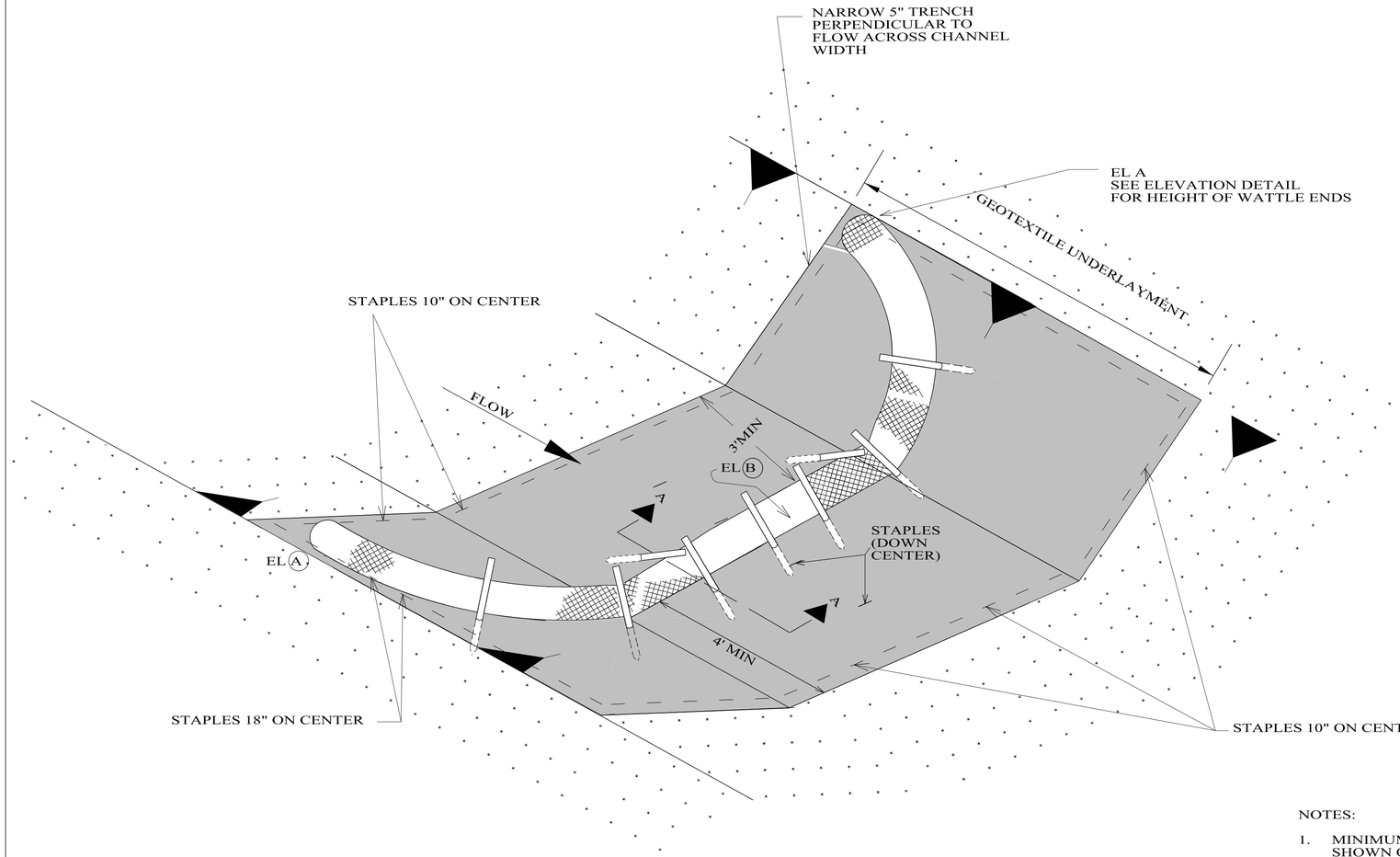
REVISIONS:
1. Added to CADD on 7-02-2014 by J.F.T.
2. Revised "DETAIL (DITCH CHECK)" and "SIDE VIEW (IN DITCH BOTTOM. Revised Description Box on 10-20-2014 by J.F.T.
3. Updated Special Drawing No. from ESC-300 )SHEET 3 OF 8) to ESC-300-3 on 10-31-1016 by J.F.T. and J.M.M.

| | |
|---|---|
| Bureau Std Engr: | D.J.W. |
| DRAWN BY: | J.F.T. |
| DATE DRAWN: | 7-2-2014 |
| REVISED DATE: | 10-31-2016 |

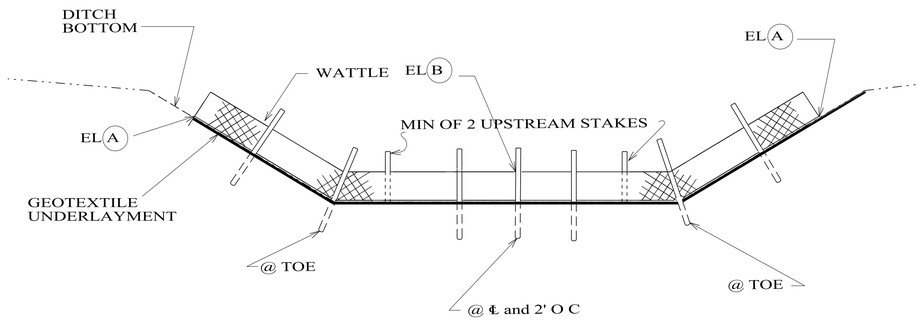
DESIGN BUREAU SPECIAL DRAWING

DETAILS OF SANDBAG
DITCH CHECK

| SPECIAL DRAWING NO | INDEX NO |
|---|---|
| ESC-300-3 | 66514 |

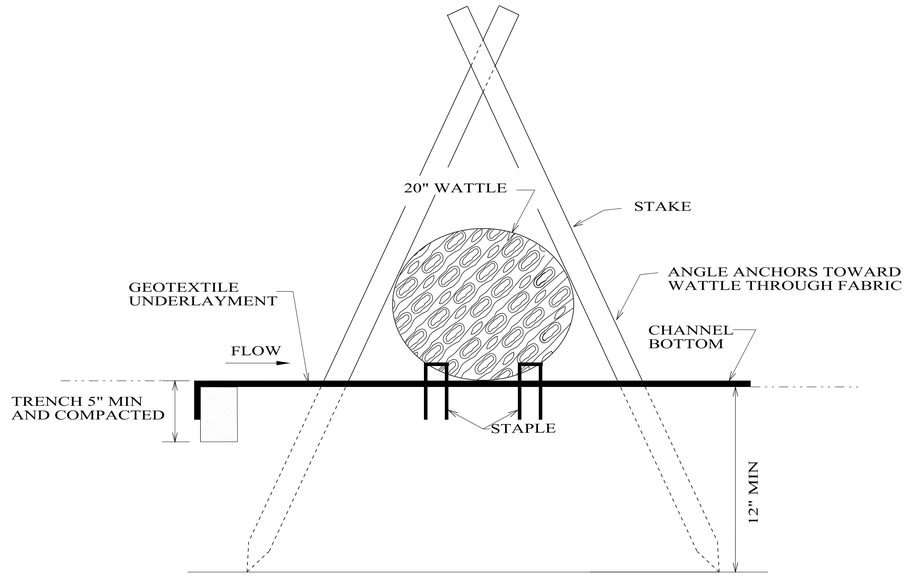



## DETAIL (DITCH CHECK)




## ELEVATION DETAIL

NOTE:
END POINTS (A) MUST BE HIGHER
THAN FLOWLINE POINT (B)




## SECTION A-A

NOTES:

1. MINIMUM RECOMMENDED PLACEMENT INTERVAL BETWEEN WATTLE DITCH CHECK IS 100 FEET UNLESS SHOWN OTHERWISE ON THE PLANS OR APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON ESC-300-1.
2. ANCHORING STAKES SHALL BE SIZED, SPACED, DRIVEN, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE CHECK. STAKE SPACING SHALL BE A MAXIMUM OF TWO FEET.
3. WATTLES SHOULD NOT BE USED IN HARD BOTTOM CHANNELS.
4. STAPLES SPACED 18 INCHES APART, ALONG THE CHANNEL EDGES AND DOWN THE CENTER OF THE CHANNEL.STAPLES SPACED 10 INCHES APART, ACROSS THE UPSTREAM AND DOWNSTREAM EDGES.
5. STAPLES SHALL BE PLACED THROUGH THE BOTTOM NETTING OF THE WATTLE ON THE UPSTREAM AND DOWNSTREAM SIDES TO CREATE A SOLID INTERFACE BETWEEN THE WATTLE AND THE GEOTEXTILE UNDERLAYMENT STAPLES SHALL BE PLACED 6" ON CENTER.

## WATTLE DITCH CHECK SELECTION GUIDELINES

WATTLE DITCH CHECKS ARE APPROPRIATE FOR VELOCITY REDUCTION AND CONTROL OF SEDIMENT TRANSPORT UNDER LOW TO MEDIUM FLOW CONDITIONS NOT EXCEEDING 1.0 CU FT/SEC.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT
OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



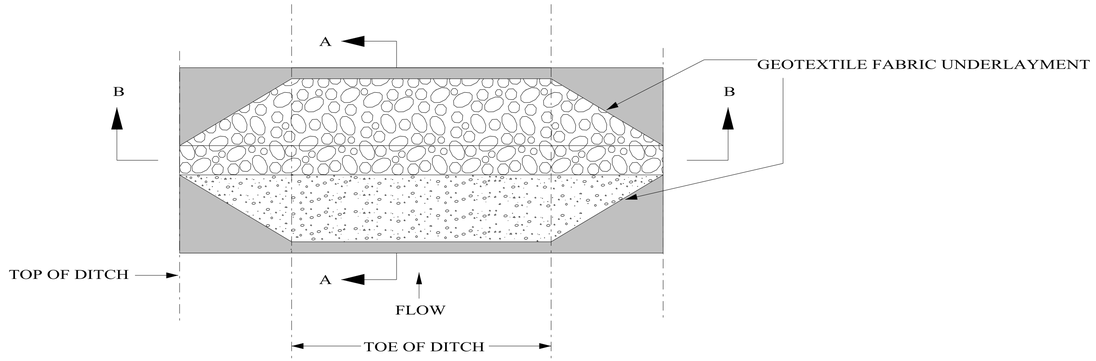
REVISIONS:
1. Added in "SECTION A-A" REQUIRED TRENCHING and deleted Note 5. Deleted "FLOCCULANT ZONE (SEE NOTE 5) on 8-24-2011 by J.F.T.
2. Revised and updated " DETAIL (DITCH CHECK) and "ELEVATION DETAIL". Revised text of "WATTLE DITCH CHECH SELECTION GUIDELINES" and adjusted and revised "SECTION A-A" on 9-24-2012 by J.F.T.
3. Revised Notes 1 and 4 on 10-20-2014 by J.F.T.
4. Updated Special Drawing No. from ESC-300 (SHEET 4 OF 8) to ESC-300-4 on 10-31-2016 by J.F.T. & J.M.M.
5. Added 4' MIN dimension from wattle to downstream edge of underlayment on 7-13-2021 by D.J.W.
6. Modified and Added Note 5 concerning "Staples shall be placed through the bottom netting... on 8-03-2022 by J.F.T.

| | |
|---|---|
| Bureau Std Engr: | G.L.D. |
| DRAWN BY: | |
| DATE DRAWN: | 2006 |
| REVISED DATE: | 8-03-2022 |

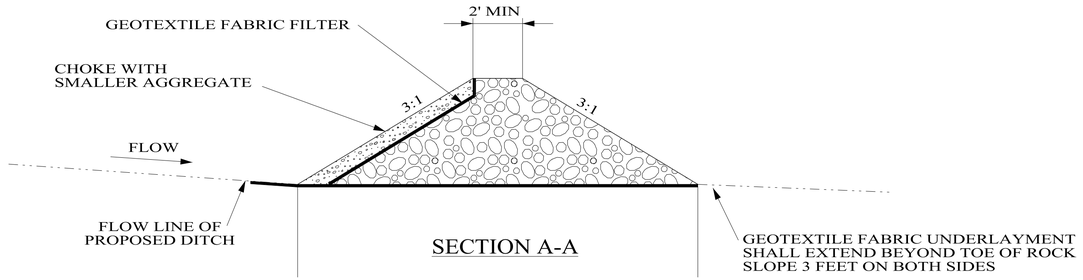
DESIGN BUREAU SPECIAL DRAWING

DETAILS OF EROSION CONTROL
WATTLE DITCH CHECKS

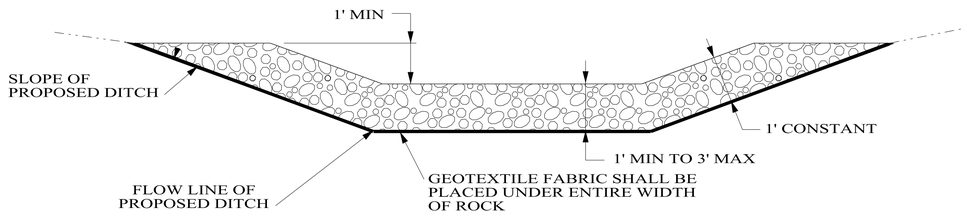
| SPECIAL DRAWING NO | INDEX NO |
|---|---|
| ESC-300-4 | 66515 |




PLAN VIEW
DETAIL FOR TRAPEZOIDAL DITCH

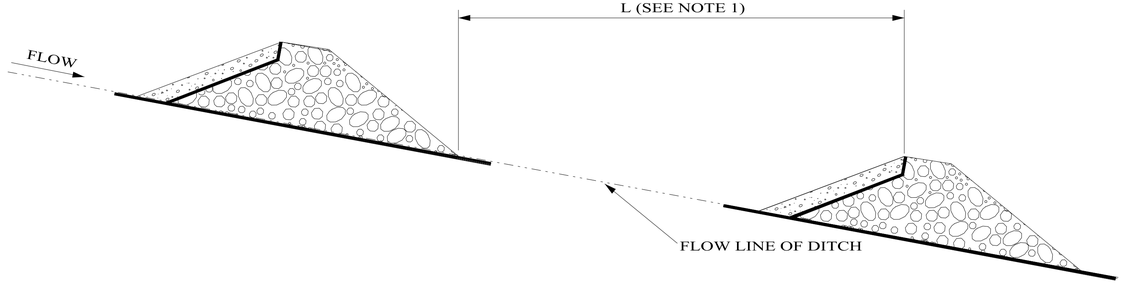



SECTION A-A




SECTION B-B

TEMPORARY ROCK DITCH CHECKS IN ROADSIDE DITCHES




DETAIL FOR SPACING BETWEEN DITCH CHECKS

NOTES:

1. MINIMUM SPACING FOR ROCK DITCH CHECKS SHALL BE 50 FEET OR AS DIRECTED BY THE ENGINEER. SEE SPACING GUIDANCE ON SP-DWG ESC-300-1.
2. ROCK DITCH CHECKS SHALL BE CHOKED WITH FILTER FABRIC.
3. SEE LIST II-3 FOR APPROVED GEOTEXTILES.

## ROCK DITCH CHECK SELECTION GUIDELINES

THE TYPE AND SIZE OF ROCK USED TO CONSTRUCT THE CHECK WILL BE SELECTED BY THE DESIGNER AND SHOWN ON THE PLANS. THE SIZE OF ROCK CHOSEN WILL BE PROPORTIONAL TO EXPECTED FLOWS AND VELOCITIES.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT
OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Added smaller aggregate on slopes on "PLAN VIEW" and "DETAIL FOR SPACING BETWEEN DITCH CHECKS". Added Note 3 on 8-24-2011 by J.F.T.
2. Revised "SECTION A-A" and "DETAIL FOR SPACING BETWEEN DITCH CHECKS" on 9-24-2012 by J.F.T.
3. Added Geotextile Underlayment on "PLAN VIEW", "SECTION A-A extended Note, "DETAIL FOR SPACING BETWEEN DITCH CHECK" Geotextile Fabric extension both sides and revised Description Box on 7-30-2014 by J.F.T.
4. Updated Special Drawing No. from ESC-300 (SHEET 6 OF 8) to ESC-300-6 on 10-31-2016 by J.F.T. & J.M.M.

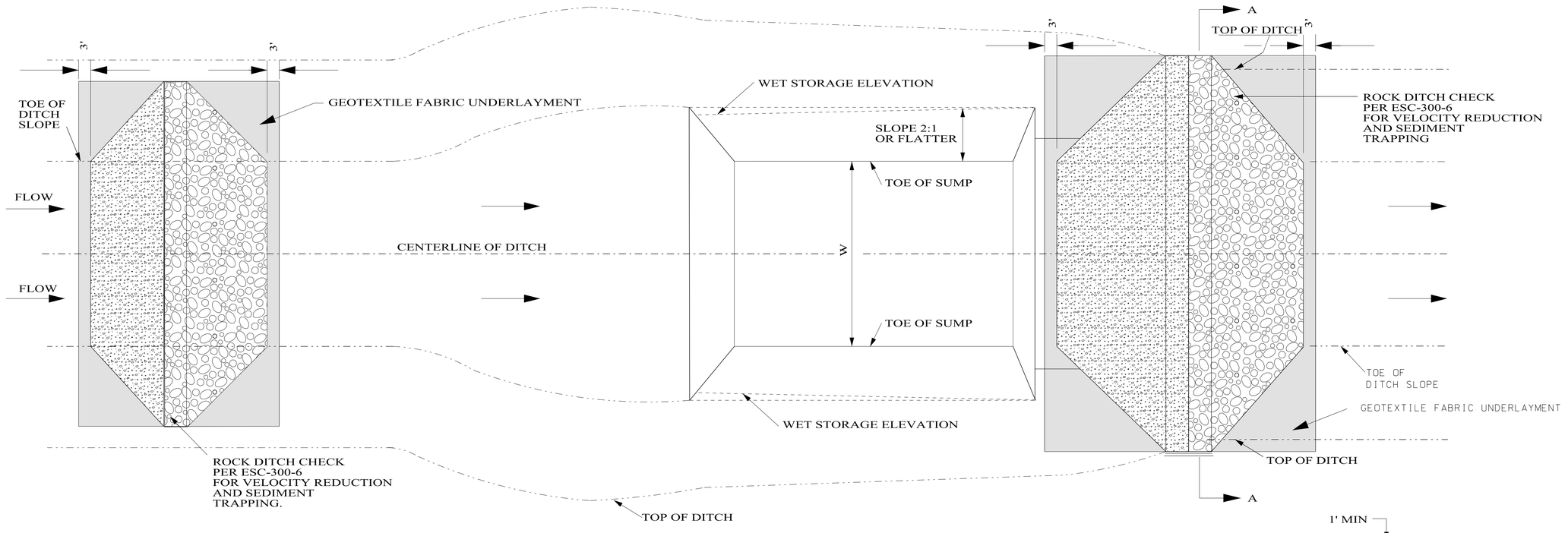
Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE: 10-31-2016

DESIGN BUREAU SPECIAL DRAWING

DETAILS OF
ROCK DITCH CHECKS

SPECIAL DRAWING NO: ESC-300-6

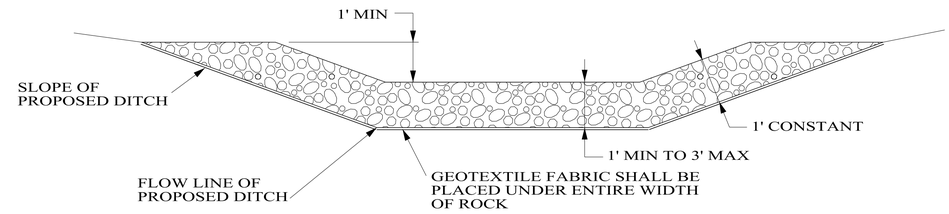
INDEX NO: 66517



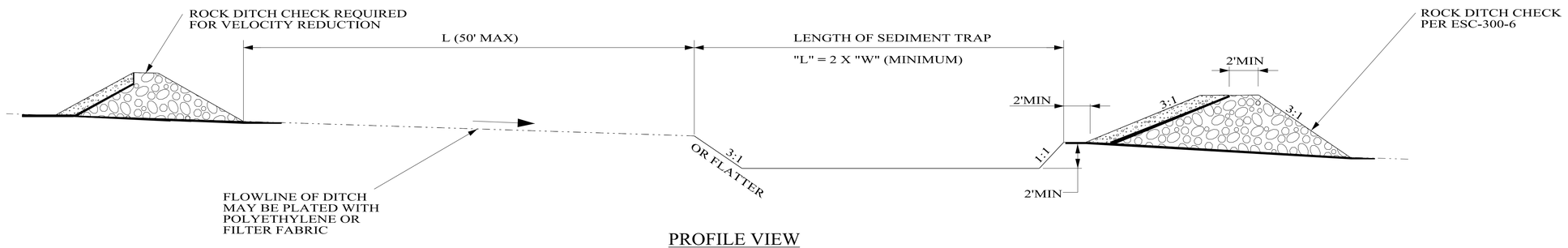

PLAN VIEW

## ROCK DITCH CHECK WITH SUMP EXCAVATION SELECTION GUIDELINES

THE TYPE AND SIZE OF ROCK USED TO CONSTRUCT THE CHECK WILL BE SELECTED BY THE DESIGNER AND SHOWN ON THE PLANS. THE SIZE OF ROCK CHOSEN WILL BE PROPORTIONAL TO EXPECTED FLOWS AND VELOCITIES.




SECTION A-A




PROFILE VIEW
DITCH CENTERLINE

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



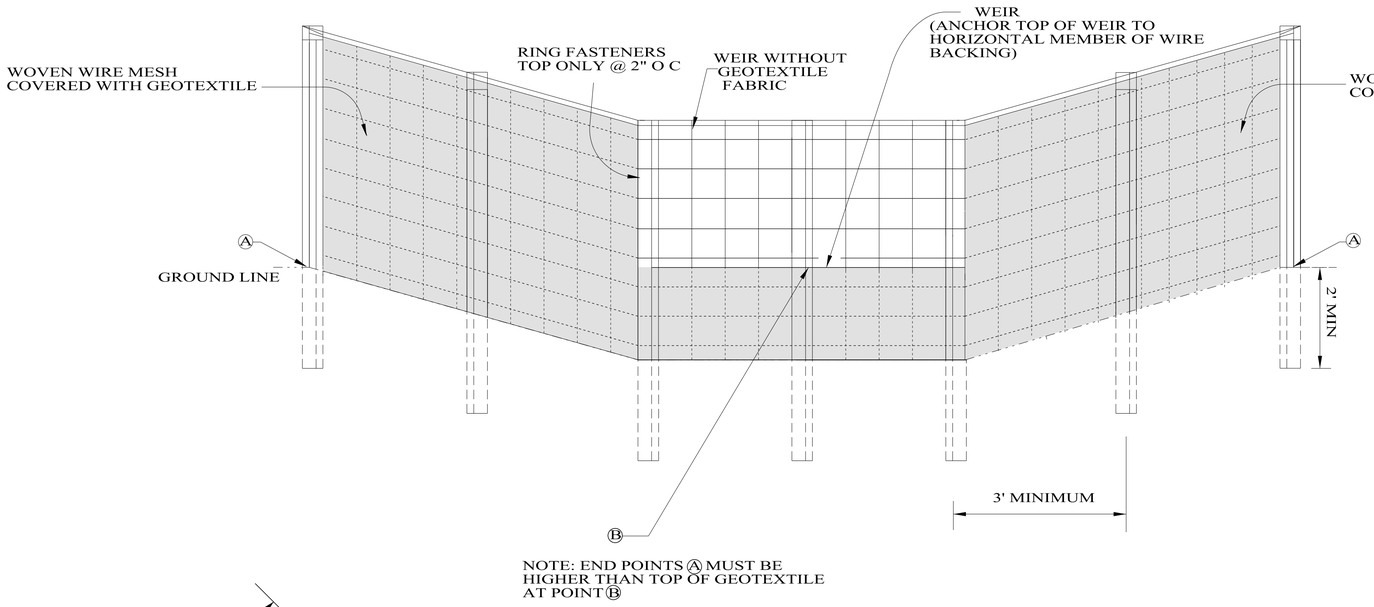
REVISIONS:
1. Removed Dry & Storage Elevation graphic from the Profile View on 7-12-2007 by W.W.A.
2. Revised "PLAN VIEW" and "PROFILE VIEW" to show small aggregate choker. Deleted portion of text in "ROCK DITCH CHECH WITH SUMP EXCAVATION SELECTION GUIDELINES" and edited text also removed DITCH CHECK descriptors on 10-11-2012 by J.F.T.
3. Revised "PLAN VIEW" and "PROFILE VIEW" to show Geotextile Fabric in "PLAN VIEW" and extension of fabric (Geotextile) on both sides in "PROFILE VIEW". Revised and updated "Description Box" on 8-01-2014 by J.F.T.
4. Updated Special Drawing No. from ESC-300 (SHEET 7 OF 8) to ESC-300-7 on 10-31-2016 by J.F.T. & J.M.M.

Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE: 10-31-2016

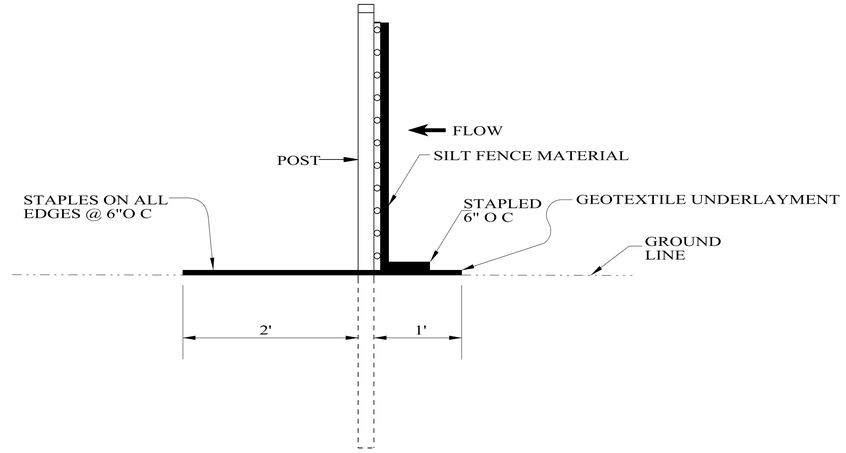
DESIGN BUREAU SPECIAL DRAWING
DETAILS OF ROCK DITCH CHECKS WITH SUMP EXCAVATION

SPECIAL DRAWING NO
ESC-300-7

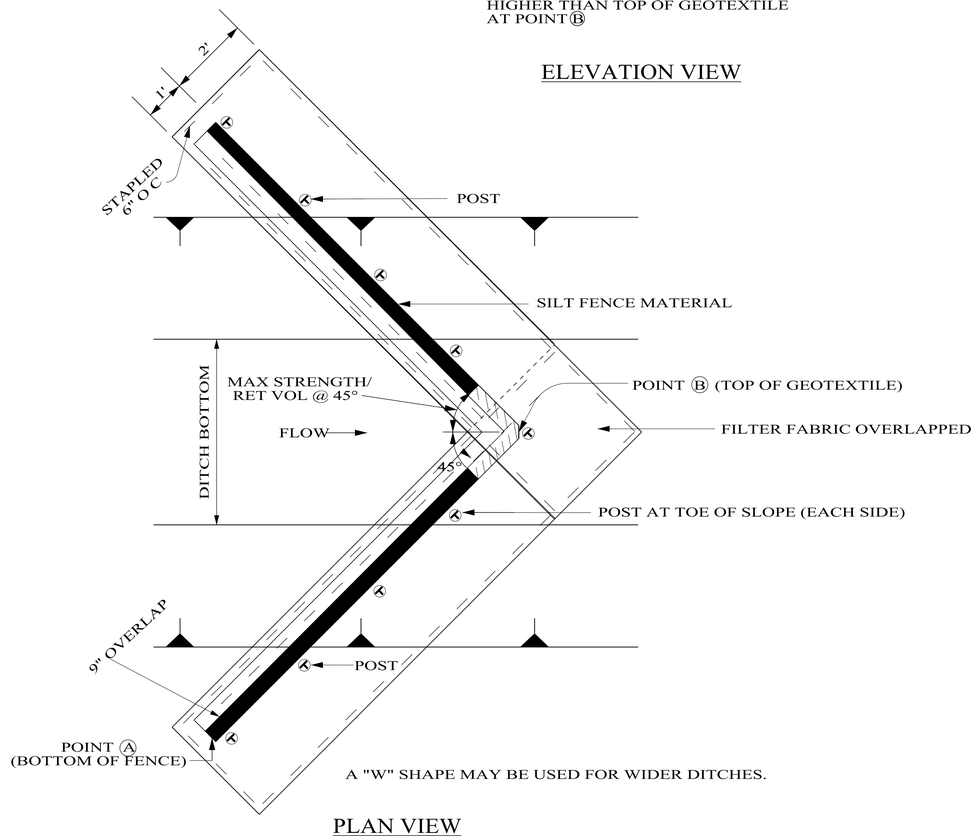
INDEX NO
66518




ELEVATION VIEW




SIDE VIEW




A "W" SHAPE MAY BE USED FOR WIDER DITCHES.

PLAN VIEW

NOTES:

1. SILT FENCE SHALL BE USED IN AREAS WHERE FLOW IS MODERATE TO HIGH OR AS DIRECTED BY THE ENGINEER.
2. SILT FENCES ARE TEMPORARY EROSION CONTROL ITEMS THAT SHALL BE ERECTED DOWN GRADE OF ERODIBLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STREAMS AND CHANNELS.
3. IF THE TOP OF THE GEOTEXTILE AT POINT Ⓑ IS HIGHER THAN THE BOTTOM OF THE FENCE AT POINT Ⓐ THEN NO WEIR IS REQUIRED.
4. SEE ALDOT LIST II-3 FOR APPROVED SILT FENCE GEOTEXTILES.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT
OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Revised "ELEVATION VIEW", SIDE VIEW" and "PLAN VIEW". Revised Description Box. Revised and Rearranged Notes 3 and 4. Deleted Notes 5 and 6 on 10-30-2014 by J.F.T.
2. Updated Special Drawing No. ESC-300 (SHEET 8 OF 8) to ESC-300-8 on 10-31-2016 by J.F.T. & J.M.M.

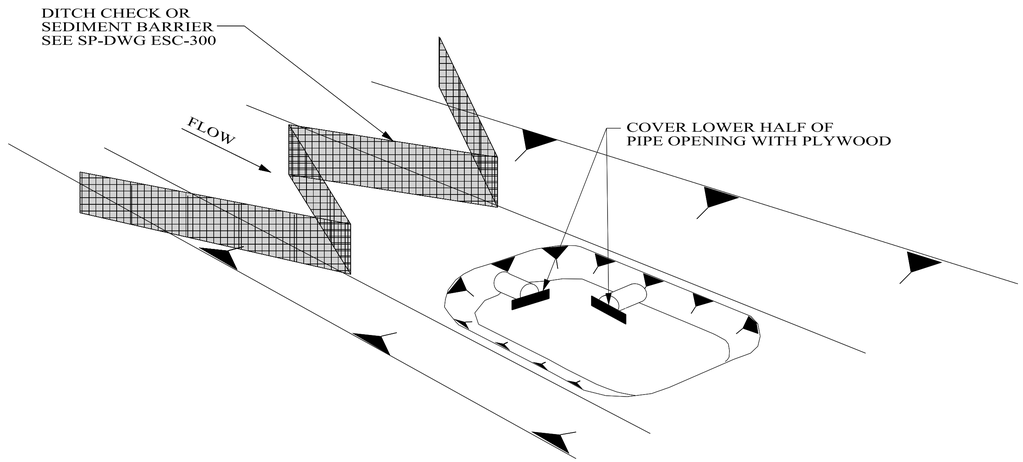
Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE: 10-31-2016

DESIGN BUREAU SPECIAL DRAWING

DETAILS OF SILT FENCE
DITCH CHECKS

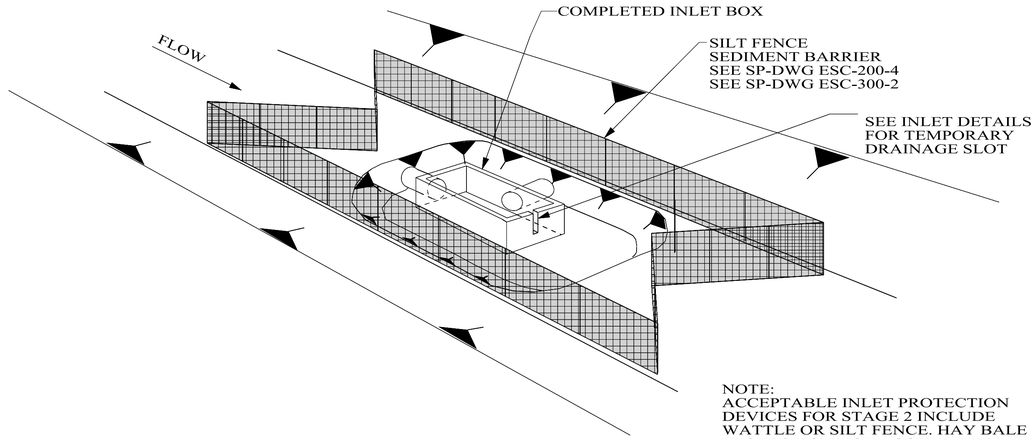
SPECIAL DRAWING NO: ESC-300-8

INDEX NO: 66519




## STAGE 1

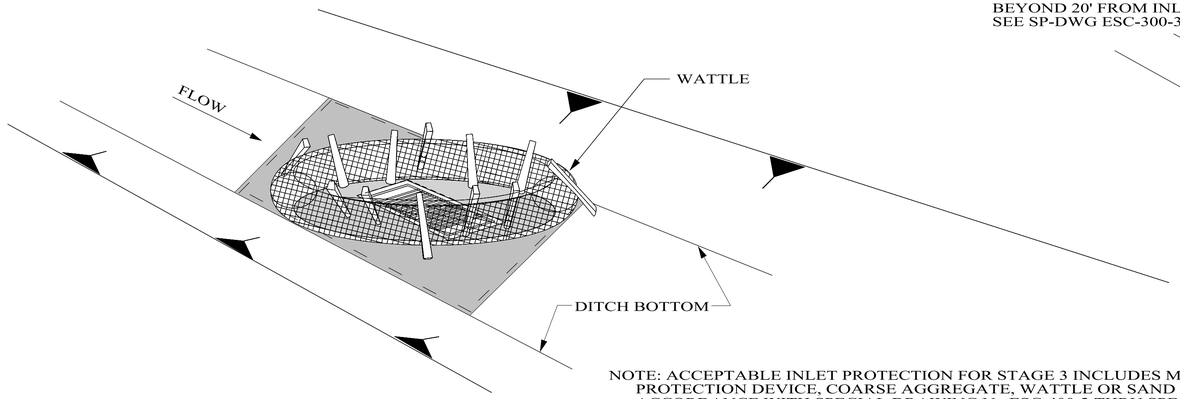
INLET/JUNCTION BOX LOCATION EXCAVATED




NOTE:
ACCEPTABLE INLET PROTECTION DEVICES FOR STAGE 2 INCLUDE WATTLE OR SILT FENCE. HAY BALE PROTECTION NOT ACCEPTABLE DURING THIS PHASE.

## STAGE 2

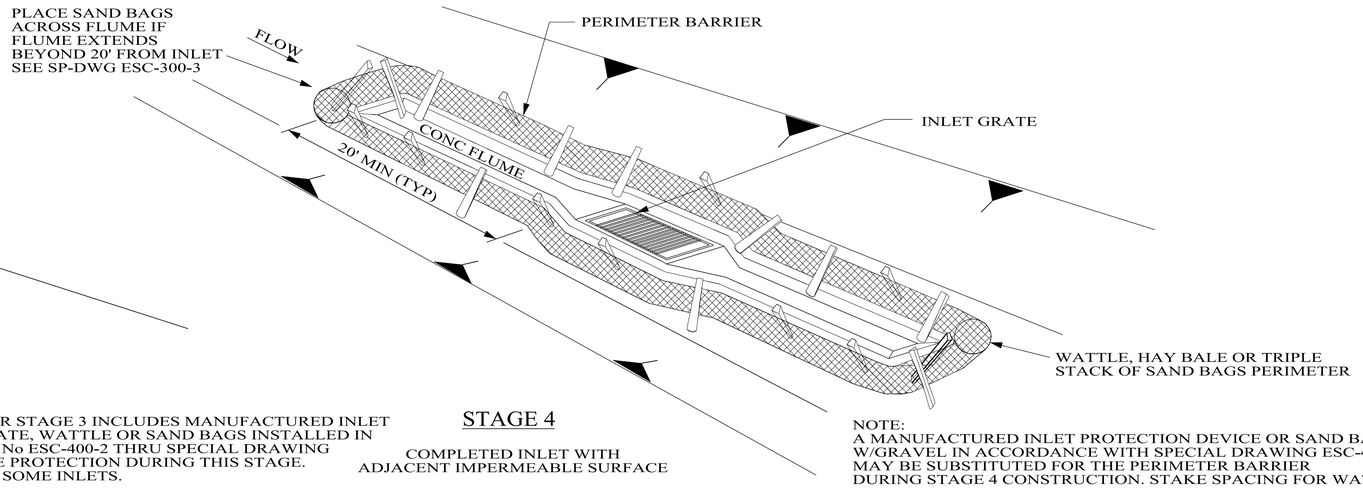
INLET/JUNCTION BOX
CONSTRUCTED BUT NOT BACKFILLED




NOTE: ACCEPTABLE INLET PROTECTION FOR STAGE 3 INCLUDES MANUFACTURED INLET PROTECTION DEVICE, COARSE AGGREGATE, WATTLE OR SAND BAGS INSTALLED IN ACCORDANCE WITH SPECIAL DRAWING No ESC-400-2 THRU SPECIAL DRAWING ESC-400-5. HAY BALES NOT ACCEPTABLE PROTECTION DURING THIS STAGE. STAGE 3 MAY BE THE COMPLETION FOR SOME INLETS.

## STAGE 3

INLET CONSTRUCTED AND BACKFILLED




NOTE:
A MANUFACTURED INLET PROTECTION DEVICE OR SAND BAGS W/GRAVEL IN ACCORDANCE WITH SPECIAL DRAWING ESC-400-5 MAY BE SUBSTITUTED FOR THE PERIMETER BARRIER DURING STAGE 4 CONSTRUCTION. STAKE SPACING FOR WATTLES SHOULD BE A MAXIMUM OF 2 FEET.

## STAGE 4

COMPLETED INLET WITH
ADJACENT IMPERMEABLE SURFACE

# DITCH INLET CONSTRUCTION STAGES

NOTES:

1. FOUNDATION BACKFILL SHOULD BE PLACED IN STAGE 1 IMMEDIATELY AFTER PIPE INSTALLATION. INLET CONSTRUCTION SHOULD COMMENCE AS SOON AS POSSIBLE AND BE CONTINUOUS THROUGH COMPLETION.
2. CONFIGURATIONS MAY BE ADJUSTED WITH APPROVAL OF THE ENGINEER FOR TRAVELWAY SAFETY, WATER FLOW, SOIL OR INSTALLATION CHALLENGES.
3. DURING STAGE 1 AND STAGE 2, SILT SENCE MAY BE REQUIRED UPSLOPE OF THE INLET EXCAVATION AS DIRECTED BY THE ENGINEER.
4. IF SILT FENCING IS INSTALLED AROUND THE INLET EXCAVATION IT SHOULD BE PLACED IN A CONFIGURATION THAT WILL ALLOW INLET CONSTRUCTION.
5. FOR CURB INLET PROTECTION SEE SPECIAL DRAWING No ESC-400-3 AND SPECIAL DRAWING No ESC 400-5.
6. SEE ALDOT LIST II-24 FOR APPROVED MANUFACTURED INLET PROTECTION DEVICES.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT
OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Revised Note 5 from "SHT 3 OF 5 AND SHT 4 OF 5" to "SHT 3 OF 4 AND SHT 4 OF 4 and removed Notes 3, 4, 5, 6 renumbered & added new No. 6 on 9-2-2011 by J.F.T.
2. Revised and updated "STAGE 3" and "STAGE 4" with new staking on 9-24-2012 by J.F.T.
3. Revised and updated "STAGE 3" note and adjusted "STAGE 4" note. Revised Note 6 on 10-24-2014 by J.F.T.
4. Updated Special Drawing No. from ESC-400 (SHEET 1 OF 5) to ESC-400-1 and others using same pattern on 10-31-2016 by J.F.T. & J.M.M.

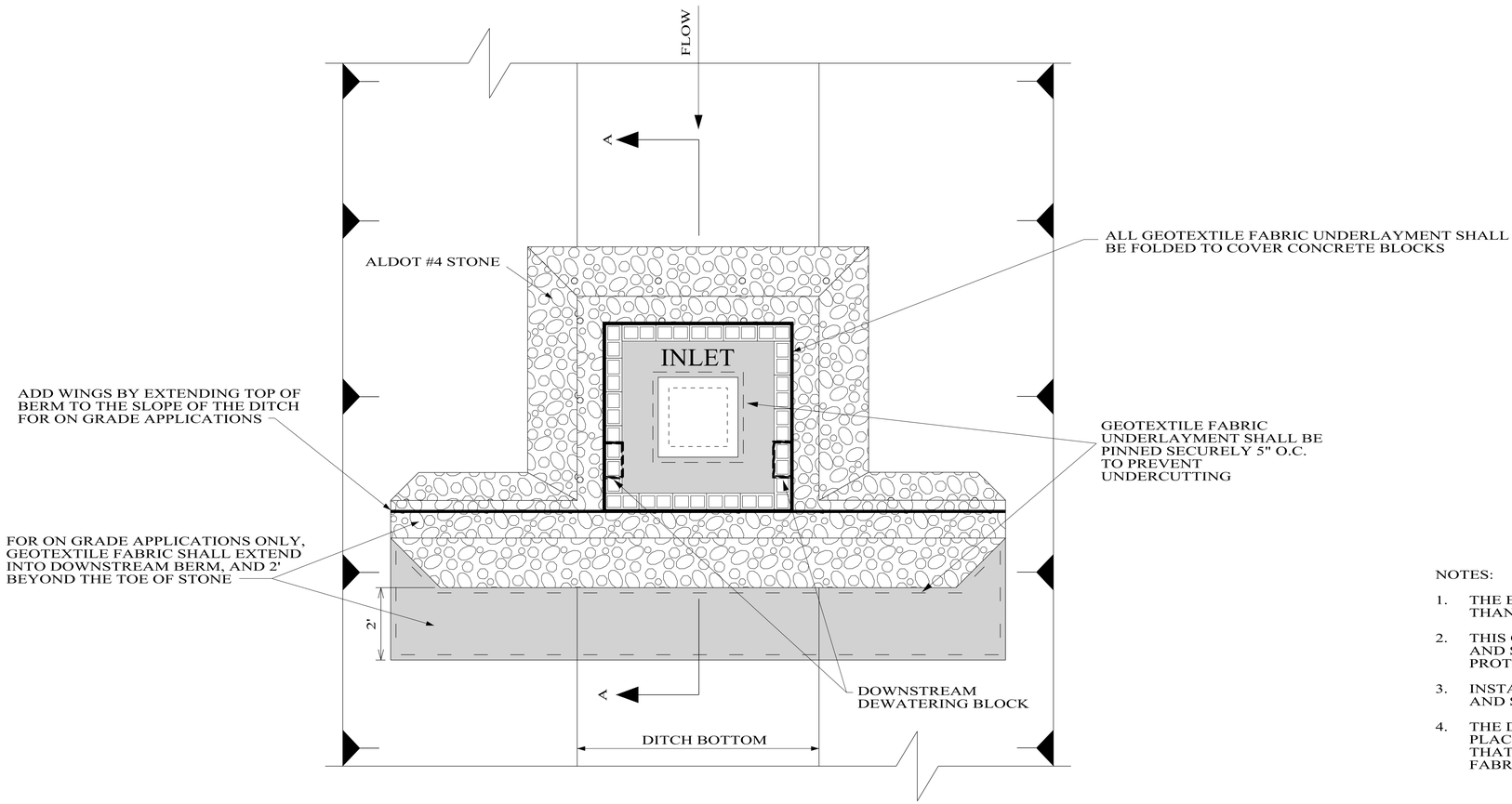
Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE: 10-31-2016

DESIGN BUREAU SPECIAL DRAWING

INLET PROTECTION
TYPICAL APPLICATIONS AND DETAILS

SPECIAL DRAWING NO: ESC-400-1

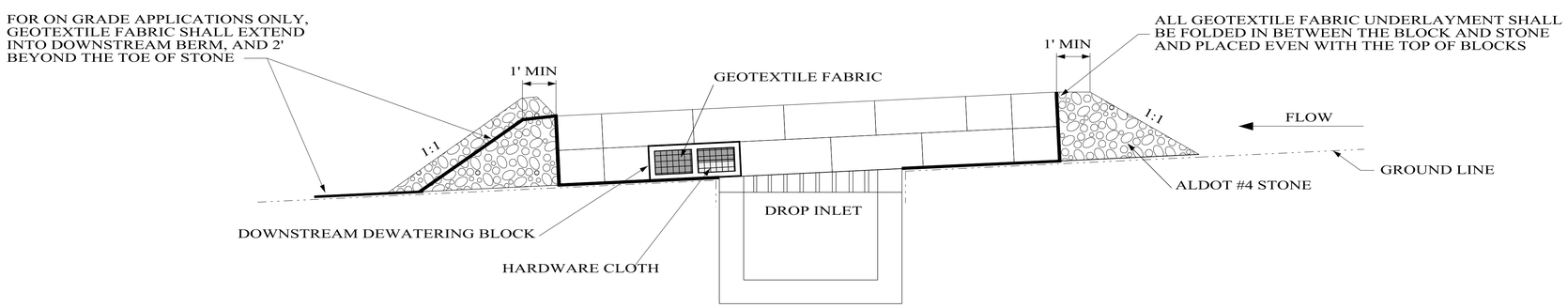
INDEX NO: 66522




PLAN VIEW

NOTES:

1. THE ELEVATION OF THE TOP OF THE REQUIRED STONE BERM SHALL BE LOWER THAN THE TOP OF THE DITCH.
2. THIS COARSE AGGREGATE INLET PROTECTION MAY ONLY BE UTILIZED DURING STAGE 3 AND STAGE 4 INLET CONSTRUCTION. SEE SPECIAL DRAWING No ESC-400-1 FOR INLET PROTECTION TYPICAL APPLICATIONS AND DETAILS.
3. INSTALL LOOSE CONCRETE BLOCKS UPRIGHT IN A STAGGERED CONFIGURATION FOR FIRST AND SECOND LAYER, WITH THE EXCEPTION OF THE DEWATERING BLOCK.
4. THE DEWATERING BLOCKS SHALL BE CONSTRUCTED BY OVERTURNING CONCRETE BLOCK. PLACE HARDWARE CLOTH BETWEEN GEOTEXTILE AND THE OVERTURNED BLOCK SO THAT BOTH HOLES ARE COVERED. REMOVE 3" RECTANGULAR SECTION OF GETEXTILE FABRIC FROM LOWER RIGHT PORTION TO ALLOW DEWATERING WIHTIN 48 HOURS.




SECTION A-A

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



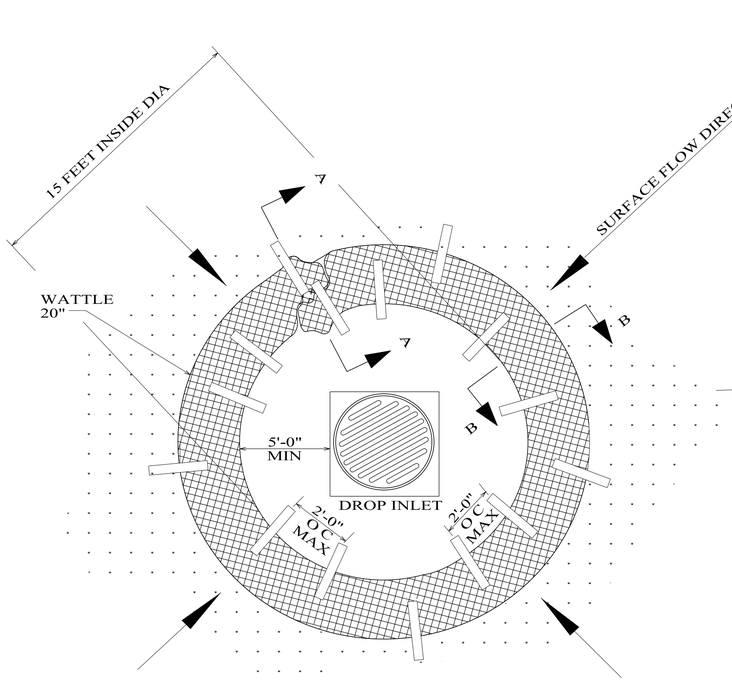
REVISIONS:
1. Revised Note No 2 on 8-6-2014 by J.F.T.
2. Changed PLAN - ON GRADE to PLAN VIEW. Omitted PLAN - IN SAG, and SECTION B-B. Revised PLAN VIEW, and SECTION A-A to depict new PLAN VIEW cross section. Also made revisions to notes 1 through 3 and added 4 on 10-31-2016 by J.M.M.
3. Updated Special Drawing No. from ESC-400 (SHEET 2 OF 5) to ESC-400-2 on 10-31-2016 by J.F.T. & J.M.M.

| | |
|---|---|
| Bureau Std Engr: | D.J.W. |
| DRAWN BY: | |
| DATE DRAWN: | 2006 |
| REVISED DATE: | 10-31-2016 |

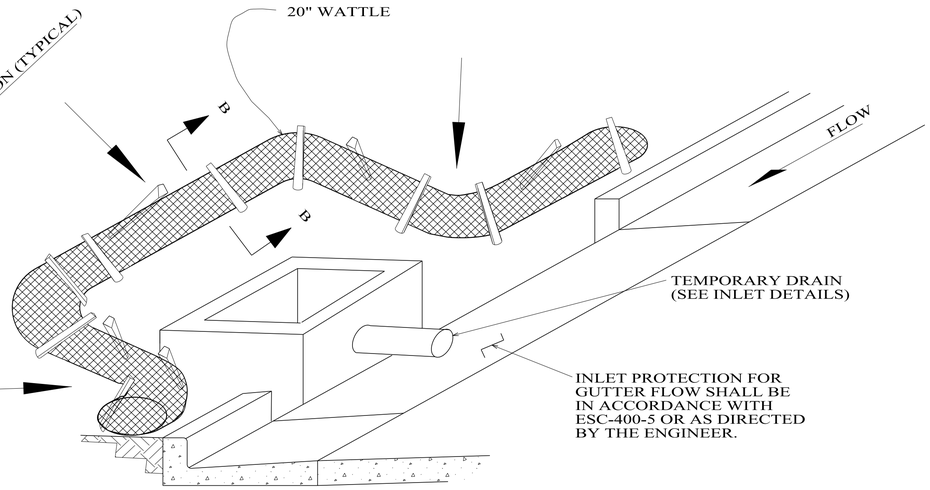
DESIGN BUREAU SPECIAL DRAWING

# INLET PROTECTION DETAILS FOR COARSE AGGREGATE ON GRADES & SAGS

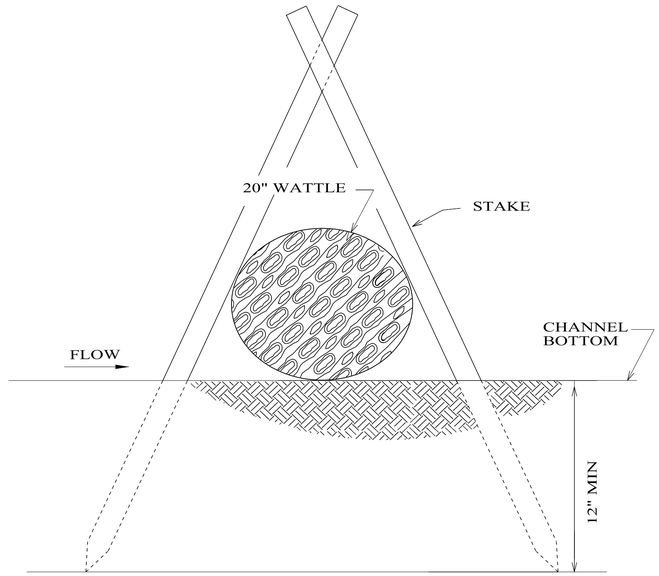
| SPECIAL DRAWING NO | INDEX NO |
|---|---|
| ESC-400-2 | 66523 |



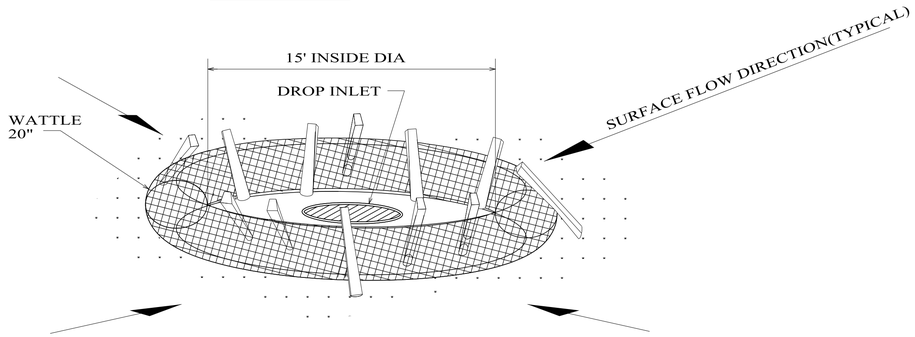

PLAN VIEW



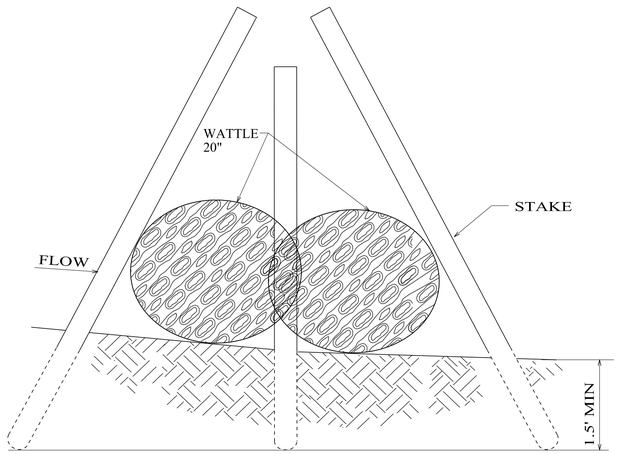

CURB INLET PROTECTION (STAGE 2)
SINGLE OR DOUBLE WING INLET




SECTION B-B




DROP INLET PROTECTION




SECTION A-A

NOTES:

1. ANCHORING STAKES SHALL BE SIZED, SPACED, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE WATTLE. STAKE SPACING SHALL BE A MAXIMUM OF TWO FEET.
2. OVERLAP ENDS OF WATTLES PER MANUFACTURERS RECOMMENDATIONS (1'MIN,3'MAX).
3. SEE ALDOT LIST II-24 FOR APPROVED WATTLES.
4. SILT FENCE OR SAND BAGS MAY ALSO BE USED FOR THIS APPLICATION. HAY BALES NOT ACCEPTABLE DURING THIS STAGE.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT
OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Revised note on "CURB INLET PROTECTION (STAGE 2)" from "5 OF 5" to "4 OF 4" and added "REQUIRED TRENCHING" on SECTION A-A and "SECTION B-B" on 8-24-2011 by J.F.T.
2. Revised and updated "CURB INLET PROTECTION (STAGE 2)", "DROP INLET PROTECTION", "SECTION A-A" and "SECTION B-B" to show new staking w/o trenching on 9-24-2012 by J.F.T.
3. Deleted a "NOTE" and replaced and revised Note 4. Revised and updated "PLAN VIEW" on 7-11-2013 by J.F.T.
4. Updated Special Drawing No. from ESC-400 (SHEET 3 OF 5) to ESC-400-3 on 10-31-2016 by J.F.T. & J.M.M.

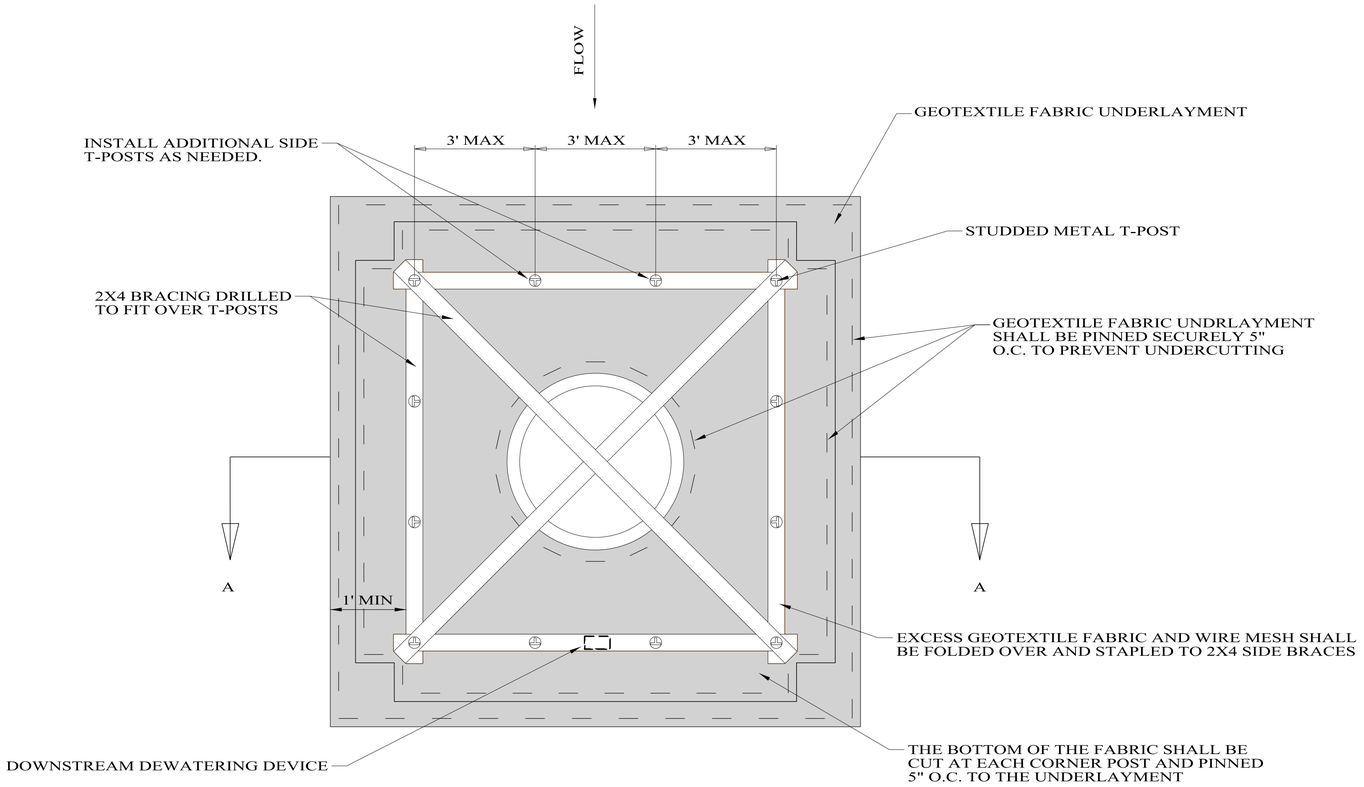
Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE: 10-31-2016

DESIGN BUREAU SPECIAL DRAWING

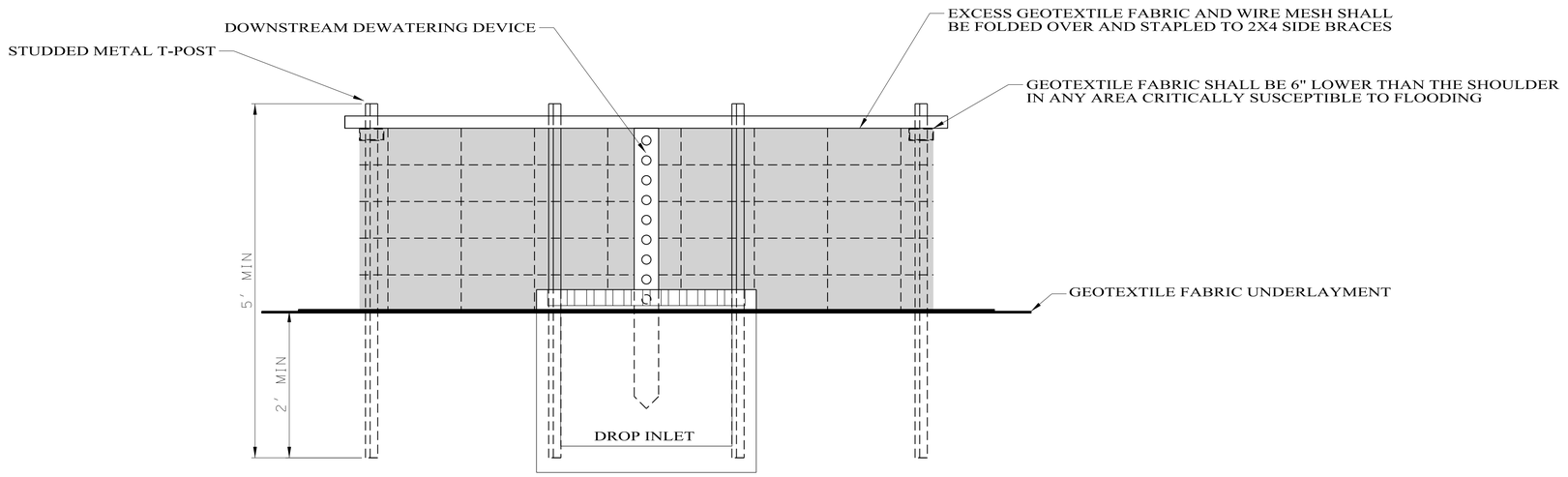
INLET PROTECTION DETAILS
OF WATTLES

SPECIAL DRAWING NO
ESC-400-3

INDEX NO
66524




PLAN VIEW




SECTION A-A

NOTES:

1. THE TOP OF THE REQUIRED GEOTEXTILE FABRIC SHALL BE 6" LOWER THAN THE SHOULDER ELEVATION IN ANY AREA CRITICALLY SUSCEPTIBLE TO FLOODING.
2. DEWATERING HOLES SHALL BE 1" - 1.5" IN DIAMETER AND SPACED 2" - 3" APART TO ALLOW FOR DEWATERING IN NO MORE THAN 48 HOURS.
3. FASTEN DEWATERING DEVICE TO THE 2X4 SIDE BRACE.
4. STAPLE GEOTEXTILE FABRIC TO DEWATERING DEVICE AND CUT CROSS SLITS IN THE FILTER FABRIC AT THE HOLE LOCATIONS TO ALLOW WATER TO FLOW THROUGH.
5. INLET PROTECTION DEVICE SHALL ONLY BE PAID AS INLET PROTECTION STAGE 3 OR 4.
6. SILT FENCE INLET PROTECTION SHALL NOT BE UTILIZED DURING STAGE 1 AND STAGE 2 INLET CONSTRUCTION. SEE SPECIAL DRAWING No ESC-400-1 FOR INLET PROTECTION TYPICAL APPLICATIONS AND DETAILS.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1.

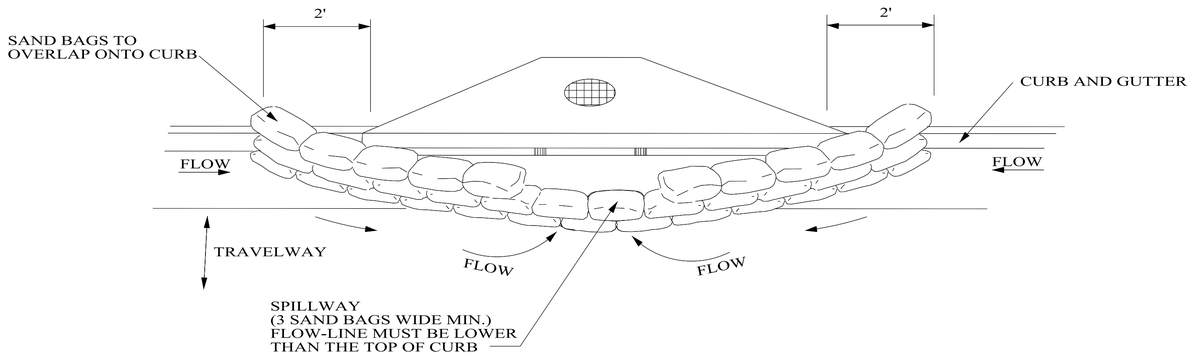
Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2016
REVISED DATE:

DESIGN BUREAU SPECIAL DRAWING

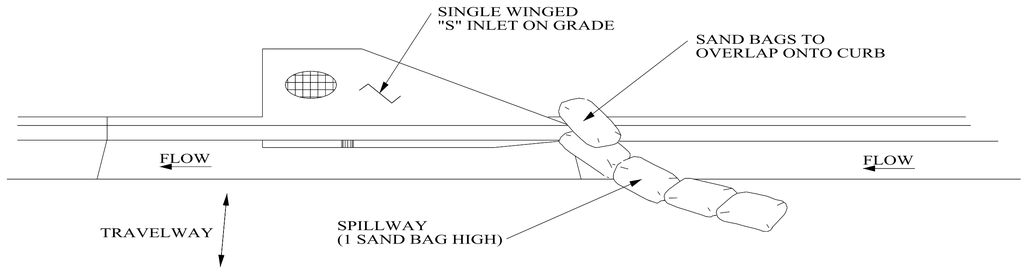
INLET PROTECTION
DETAILS OF SILT FENCE

SPECIAL DRAWING NO
ESC-400-4

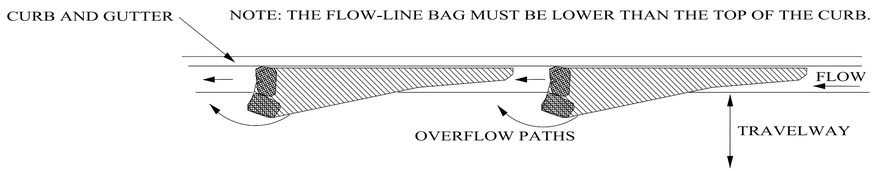
INDEX NO
66525



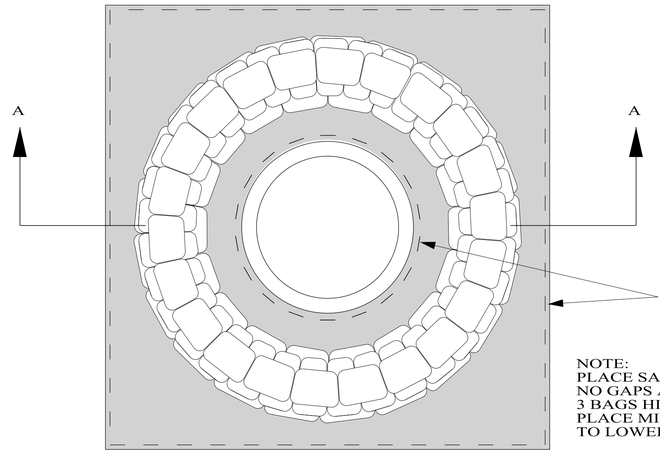

TYPICAL (SAND BAG) PROTECTION FOR INLET IN SAG



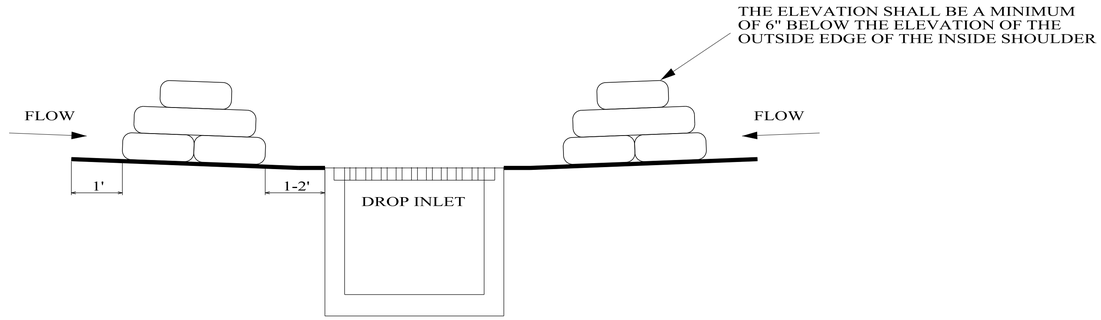

TYPICAL (SAND BAG) PROTECTION FOR INLET ON GRADE




CURB AND GUTTER SEDIMENT
CONTAINMENT SYSTEM




DROP INLET
PLAN VIEW




SECTION A-A
SAND BAG BARRIER

NOTES:

1. CURB INLET PROTECTION CAN ALSO BE USED AT OTHER EDGE-OF-PAVEMENT TYPE INLETS SUCH AS TYPE "E" INLETS AT MEDIAN BARRIER LOCATIONS.
2. SEE SHT ESC-400-3 FOR INLET PROTECTION WHERE INLET CONSTRUCTION HAS NOT BEEN COMPLETED.
3. THIS CURB INLET PROTECTION METHOD CAN BE USED DURING ANY STAGE OF BASE AND PAVEMENT CONSTRUCTION.
4. BAG HEIGHT AND NUMBER OF BAGS SHOULD BE BASED ON CURB HEIGHT AND USE OF TRAVELWAY.
5. SEDIMENT SHOULD BE CONTROLLED PRIOR TO ENTERING GUTTER. GUTTER CHECKS AND INLET PROTECTION ARE FOR SECONDARY CONTROL.
6. REMOVE ACCUMULATED SEDIMENT AFTER EVERY RAINFALL. SWEEP SEDIMENT FROM HARD SURFACES AND DISPOSE OF APPROPRIATELY AWAY FROM INLETS AND/OR WATER BODIES.
7. IF DENUDED AREAS EXIST BEHIND THE INLET, A SEDIMENT BARRIER SHOULD BE INSTALLED AROUND IT'S PERIMETER TO CONTROL SEDIMENT. SEE SHT ESC-400-3.
8. PAYMENT FOR CURB INLET PROTECTION FOR WORK REQUIRED BEYOND STAGE 2 (SEE SHT ESC-400-3) WILL BE MADE AS APPROPRIATE FOR ITEMS USED.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT
OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Changes Notes No's 2, 7, and 8 from "SHT. 3 OF 5" to read "SHT. 3 OF 4" on 8-23-2011 by J.F.T.
2. Revised Note and Description Block on 8-6-2014 by J.F.T.
3. Changed Notes No's 2, 7, and 8 from "SHT. 3 OF 5" to read "ESC-400-3" on 10-31-2016 by J.M.M.
4. Changed PLAN VIEW, SECTION A-A, and note at lower right corner of PLAN VIEW, also added two callouts on 10-31-2016 by J.M.M.
5. Updated Special Drawing No. from ESC-400 (SHEET 5 OF 5) to ESC-400-5 and others using same pattern on 10-31-2016 by J.F.T. & J.M.M.

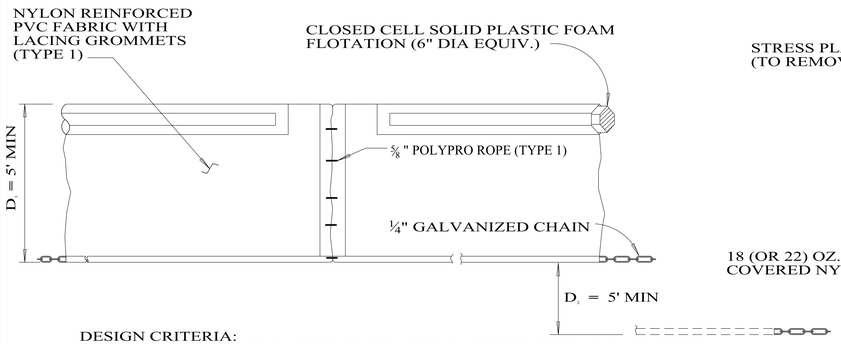
Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE: 10-31-2016

DESIGN BUREAU SPECIAL DRAWING

INLET PROTECTION
DETAILS OF SAND BAGS

SPECIAL DRAWING NO: ESC-400-5

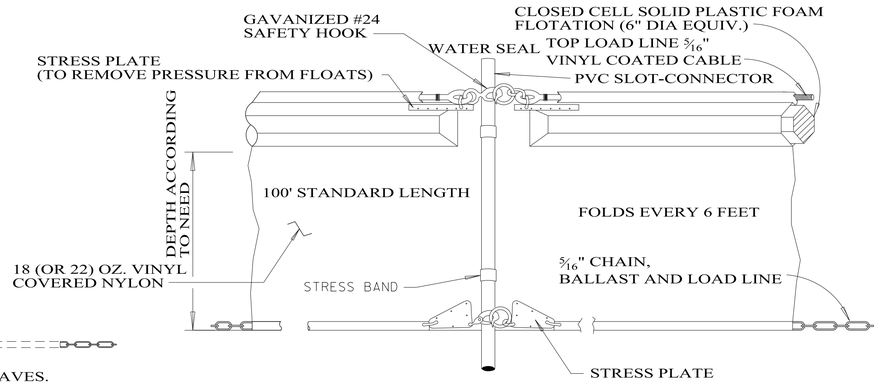
INDEX NO: 66526




DESIGN CRITERIA:
TYPE 1 CONFIGURATION SHOULD BE USED IN PROTECTED AREAS WHERE THERE IS NO CURRENT AND THE AREA IS SHELTERED FROM WIND AND WAVES.

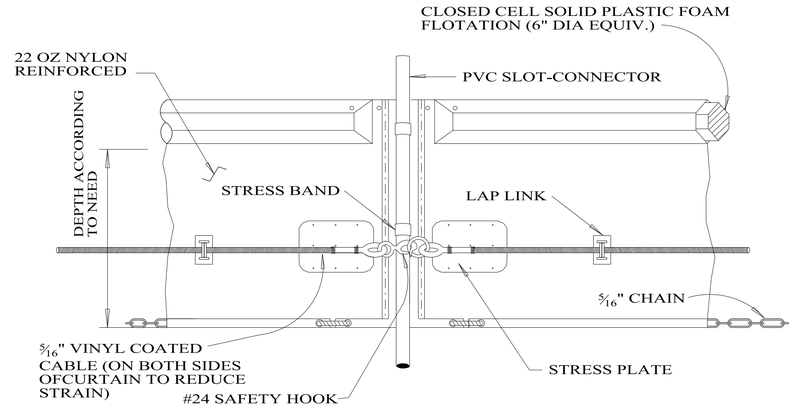
$D_1$ = (SINGLE PANEL FOR DEPTHS 5' OR LESS).
$D_2$ = (ADDITIONAL PANEL FOR DEPTHS > 5' ).
CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO(2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

TYPE 1




TYPE 2 CONFIGURATION SHOULD BE USED IN PROTECTED AREAS WHERE THERE MAY BE SMALL TO MODERATE CURRENT RUNNING (≤ 3.5' PER SECOND) AND/OR WIND AND WAVE ACTION CAN AFFECT THE CURTAIN.

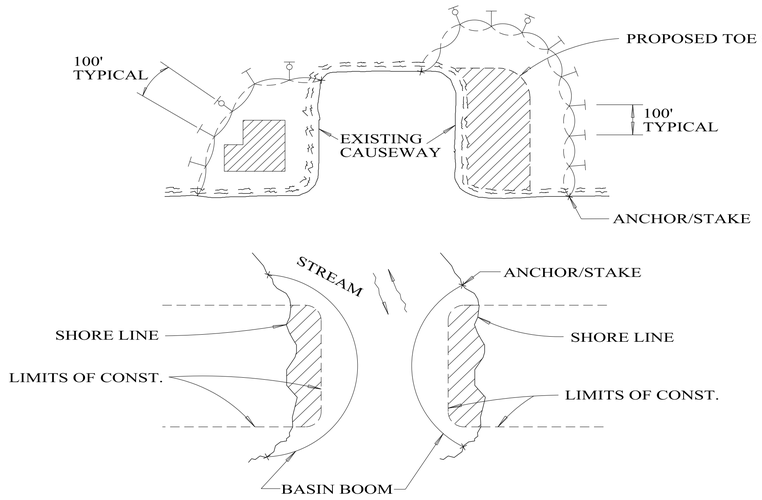
TYPE 2




TYPE 3 CONFIGURATION SHOULD BE USED IN AREAS WHERE CONSIDERABLE CURRENT (≤ 5' PER SECOND) MAY BE PRESENT, WHERE TIDAL ACTION MAY BE PRESENT, AND/OR WHERE THE CURTAIN IS POTENTIALLY SUBJECT TO WIND AND WAVE ACTION.

TYPE 3

# TYPICAL FLOATING BASIN BOOM INSTALLATION




## LEGEND

- DREDGE, FILL OR WORK AREA
- MOORING BOUY W/ ANCHOR
- ANCHOR

NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR SELECTION OF THE APPROPRIATE TYPE OF FLOATING BASIN BOOM AND INSTALLATION METHODS BASED ON WATER BODY CONDITIONS.
2. FLOATING BASIN BOOMS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS DIRECTIONS.
3. FLOATING BASIN BOOMS CAN BE STAKED AND/OR ANCHORED IN STILL OR MOVING WATERS.
4. FLOATING BASIN BOOMS ARE INTENDED TO PREVENT SEDIMENT MIGRATION WITHIN THE WATER BODY. THEY ARE NOT INTENDED TO BE INSTALLED AS THE PRIMARY SEDIMENT CONTROL METHOD, OR TO CAPTURE SEDIMENT FROM UPLAND AREAS AS A PRIMARY FUNCTION. OTHER UPLAND EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE INCORPORATED AS PROVIDED IN THE PLANS AND STANDARD DRAWINGS.
5. FLOATING BASIN BOOM SHOWN MAY BE SIMILAR TO PROPRIETARY DESIGNS. FUNCTIONALLY EQUIVALENT DESIGNS MEETING CONTRACT REQUIREMENTS MAY ALSO BE USED.

# FLOATING BASIN BOOM APPLICATIONS

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

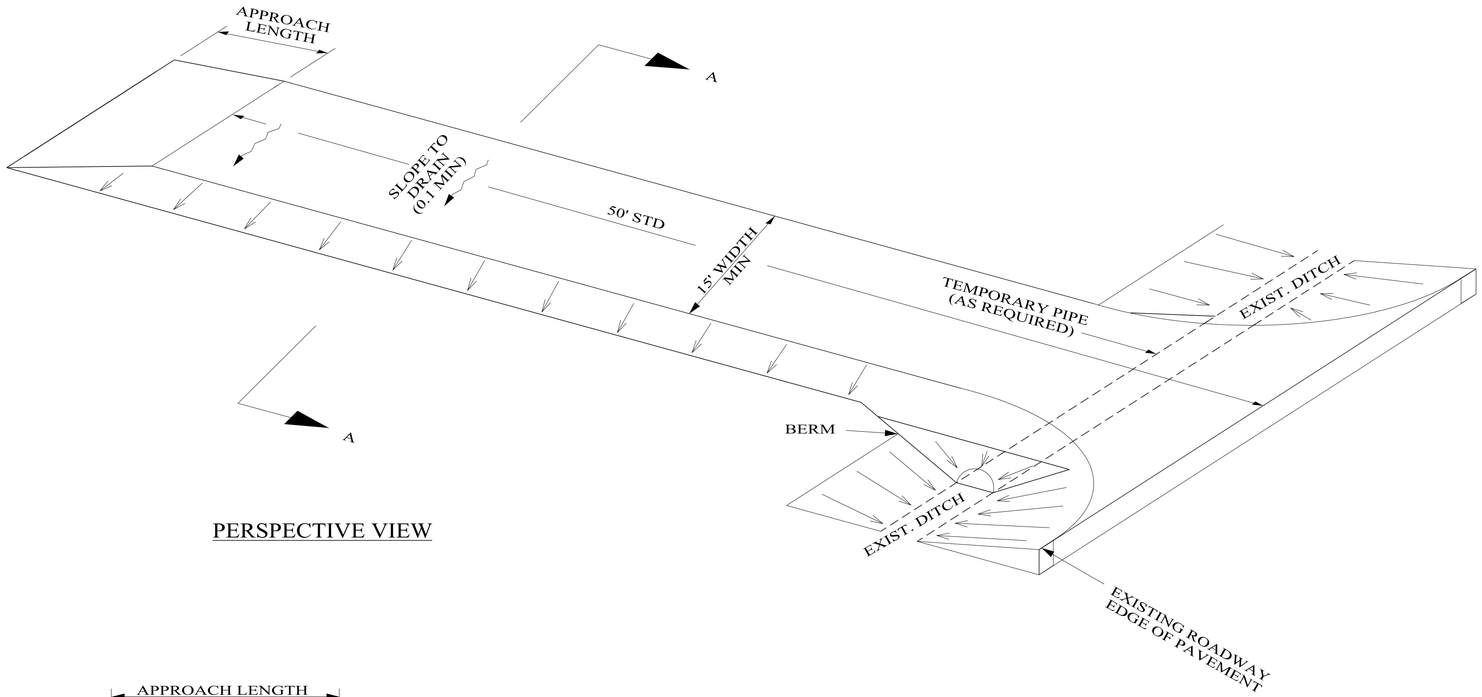
ALABAMA DEPARTMENT
OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1.

Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE:

| DESIGN BUREAU SPECIAL DRAWING | SPECIAL DRAWING NO | INDEX NO |
|---|---|---|
| FLOATING BASIN BOOM | ESC-501 | 66529 |




PERSPECTIVE VIEW

NOTES:

1. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT LOCATIONS SHOWN ON THE EROSION SEDIMENT CONTROL SHEETS OR AS APPROVED BY THE ENGINEER BASED ON SAFETY, ECONOMY AND CONSTRUCTION SEQUENCE. THESE ENTRANCES ARE POINTS OF EGRESS FROM UNSTABILIZED AREAS OF THE PROJECT TO PUBLIC ROADS WHERE OFFSITE TRACKING OF MUD COULD OCCUR. TRAFFIC FROM UNSTABILIZED AREAS OF THE PROJECT SHALL BE DIRECTED THRU THE STABILIZED ENTRANCE. BARRIERS, FLAGGING, OR OTHER POSITIVE MEANS SHALL BE USED AS REQUIRED TO LIMIT AND DIRECT VEHICULAR EGRESS ACROSS THE STABILIZED ENTRANCE.

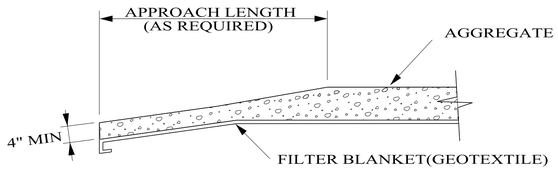
2. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE TECHNIQUE TO MINIMIZE OFFSITE TRACKING OF SEDIMENT. THE ALTERNATIVE MUST BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO IT'S USE.

3. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE STABILIZED CONSTRUCTION ENTRANCE AGGREGATE AND CONSTRUCTION MUD) SHALL BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER.

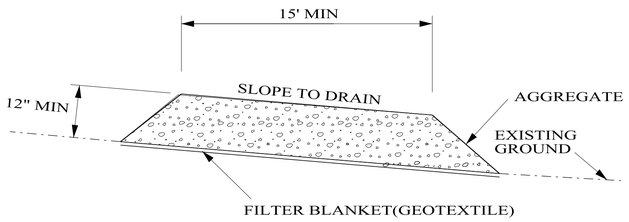
4. AGGREGATES SHALL BE ALDOT SIZE #1. SIZES CONTAINING EXCESSIVE SMALL AGGREGATE WILL TRACK OFF THE PROJECT AND ARE UNSUITABLE.

5. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM IT'S FUNCTION TO PREVENT OFFSITE TRACKING, THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE RINSED WHEN NECESSARY TO MOVE ACCUMULATED MUD DOWNWARD THRU THE STONE. ADDITIONAL STABILIZATION OF THE VEHICULAR ROUTE LEADING TO THE STABILIZED ENTRANCE MAY BE REQUIRED TO LIMIT THE MUD TRACKED.

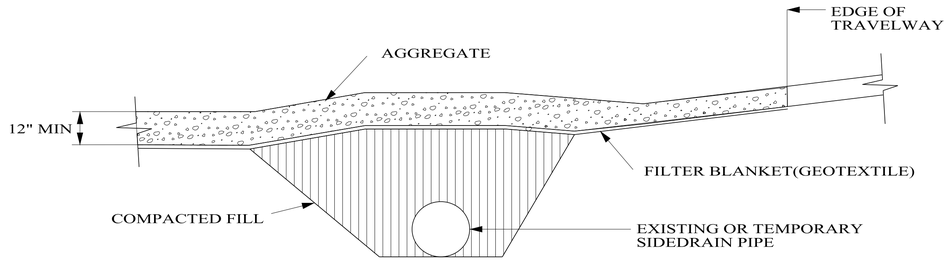
6. THE NOMINAL SIZE OF A STANDARD STABILIZED CONSTRUCTION ENTRANCE IS 15' X 50' UNLESS OTHERWISE SHOWN IN THE PLANS. IF THE VOLUME OF ENTERING AND EXITING VEHICLES WARRANT, A 30' WIDTH MAY BE USED IF APPROVED BY THE ENGINEER.




TRANSITION DETAIL




SECTION A-A




RURAL CONNECTION DETAIL

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Changed Plan View to Perspective View & revised Note 1 on 8-24-2011 by J.F.T.

Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE: 8-24-2011

DESIGN BUREAU SPECIAL DRAWING

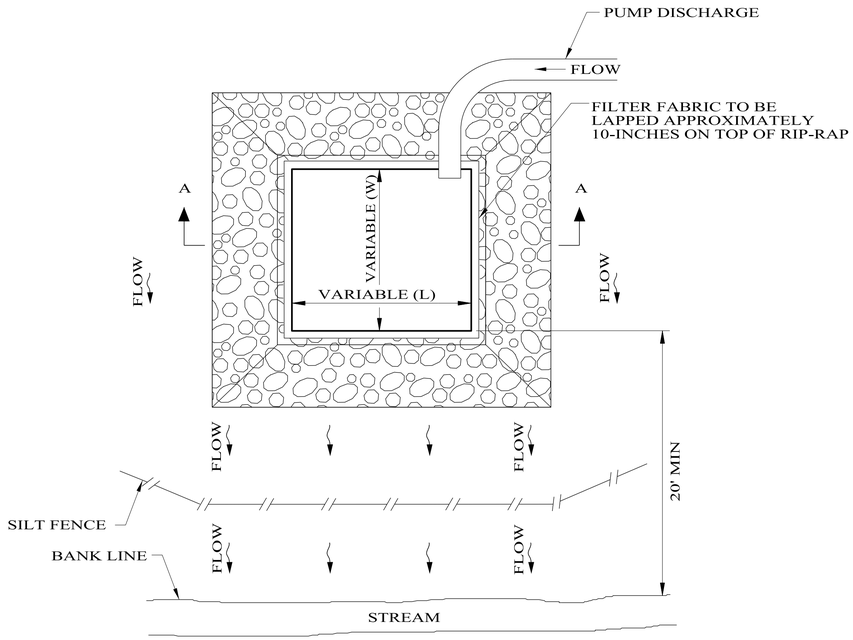
STABILIZED CONSTRUCTION ENTRANCE

SPECIAL DRAWING NO

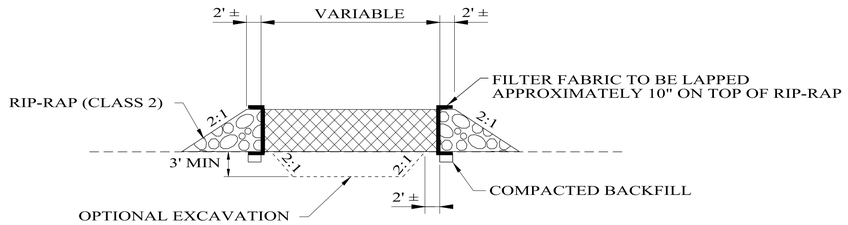
ESC-502

INDEX NO

66532




PLAN VIEW

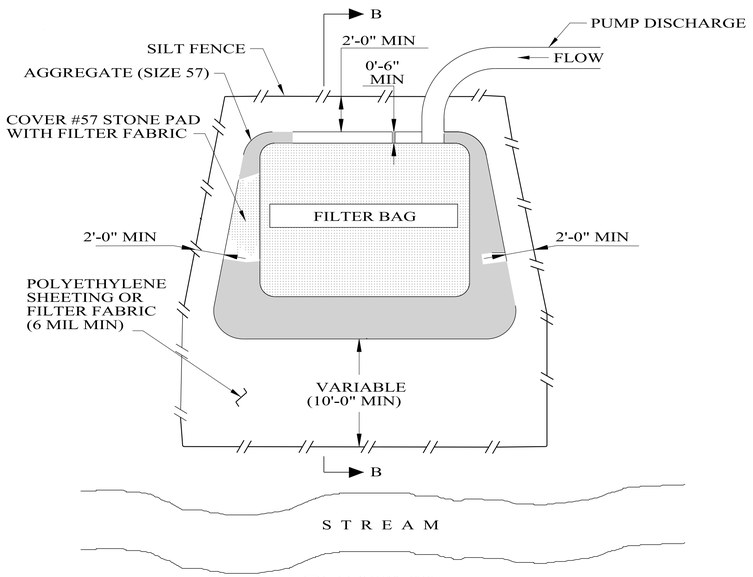



SECTION A-A

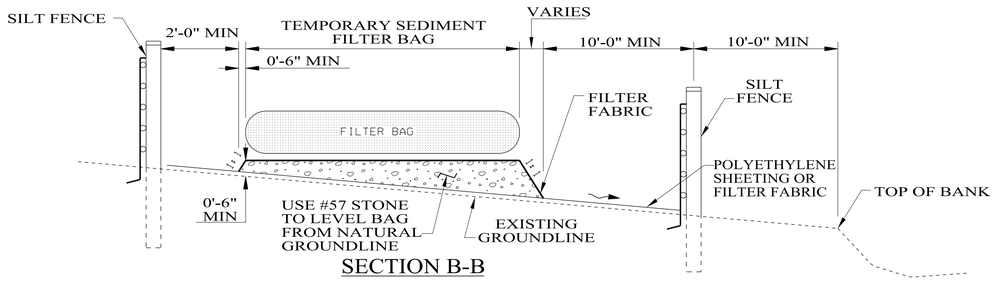
## TEMPORARY DEWATERING STRUCTURE (BERM AND FABRIC)

NOTES:

1. THE PRIMARY USE OF THE TEMPORARY DEWATERING STRUCTURE IS FOR DEWATERING COFFERDAMS, TRENCHES, SPREAD FOOTINGS, ENCLOSED DITCHES, ETC.
2. THE ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE BASIN IS HALF FULL.
3. DIVERT ANY STORMWATER AWAY FROM THE TEMPORARY DEWATERING STRUCTURES.
4. THE USE OF SOCKS TO COLLECT SEDIMENT WHEN PUMPING FROM TEMPORARY DEWATERING STRUCTURE INTO AN ADJACENT STREAM MAY BE USED WHEN APPROVED BY THE ENGINEER.
5. INSTALL SILT FENCE BETWEEN STREAM AND/OR DRAINAGE DITCH AND THE TEMPORARY DEWATERING STRUCTURE.
6. TRENCH FILTER FABRIC INTO GROUND, 6" MIN.
7. THE DETAILS SHOWN ARE OPTIONAL RECOMMENDATIONS, BUT NOT MANDATORY.




PLAN VIEW




SECTION B-B

## TEMPORARY DEWATERING STRUCTURE (FILTER BAG)

NOTES:

1. FILTER BAGS ARE TYPICALLY USED FOR DEWATERING COFFER DAMS, TRENCHES, SPREAD FOOTINGS AND ENCLOSED DITCHES ETC. IN URBAN AREAS AND NEAR SENSITIVE WATER BODIES.
2. THE CONTRACTOR SHALL EXERCISE NOT TO BURST OR DAMAGE THE TEMPORARY SEDIMENT FILTER BAG WHEN PUMPING.
3. SEDIMENT SHOULD BE DISPOSED OF IN UPLAND AREAS AWAY FROM WATER BODIES. AFTER REMOVAL OF ACCUMULATED SEDIMENT. DISPOSE OF THE FILTER FABRIC BAG WITH OTHER ITEMS OF CONSTRUCTION DEBRIS.
4. FILTER BAGS MAY ALSO BE PLACED IN AN EXCAVATED PIT FOR REDUNDANCY.
5. THE DETAILS SHOWN ARE OPTIONAL RECOMMENDATIONS, BUT NOT MANDATORY.

| TEMPORARY DEWATERING STRUCTURE VOLUMES | | | | |
|---|---|---|---|---|
| PUMP | | RATE | | STUCTURE VOLUME REQUIRED (CUBIC FEET) |
| TYPE | (DIA.) | MANUF. CAPACITY | GPM (GALLONS PER MINUTE) | |
| CONSTRUCTION | | | | |
| | 2 IN | 8,400 GPH | 140 GPM | 2,240 CF |
| | 3 IN | 15,600 GPH | 260 GPM | 4,160 CF |
| | 4 IN | 30,000 GPH | 500 GPM | 8,000 CF |
| | 6 IN | 66,000 GPH | 1,100 GPM | 17,600 CF |
| | | | | |

VOLUME OF DEWATERING STRUCTURE SHOWN IN EROSION AND SEDIMENT CONTROL PLANS IS TO BE BASED ON USE OF 4 INCH CONSTRUCTION PUMP SHOWN IN THE ABOVE TABLE.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Corrected Silt Fence line style on 8-23-2011 by J.F.T.

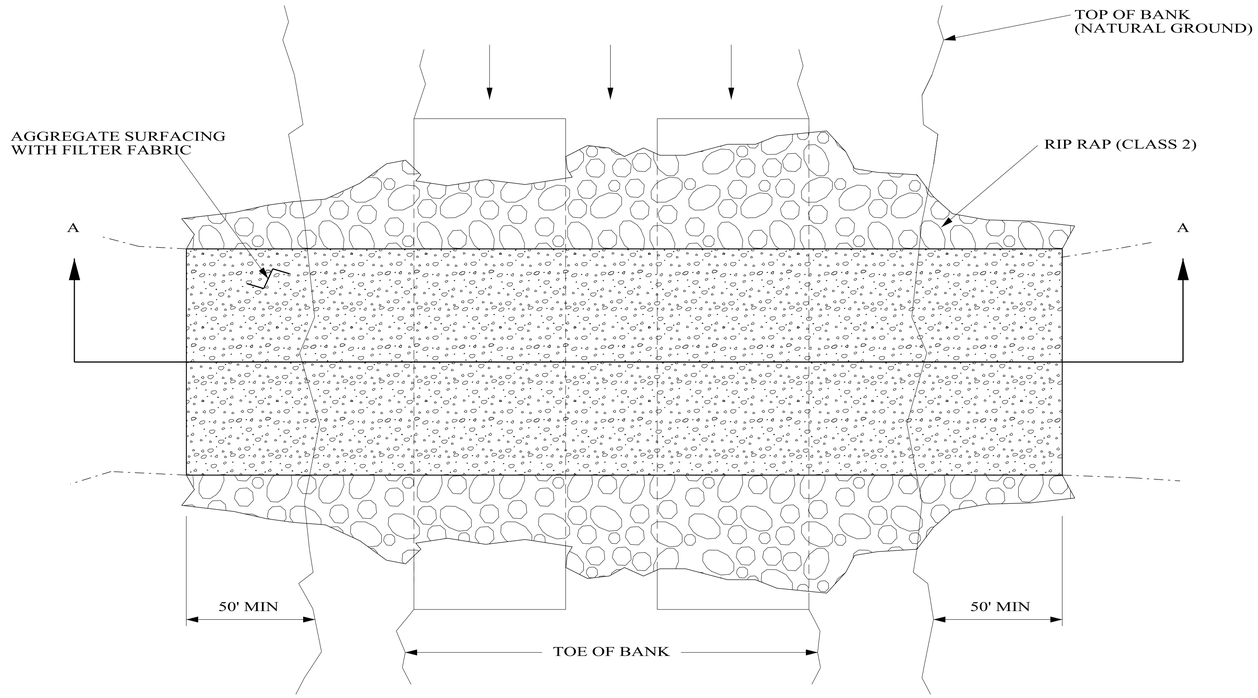
Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE: 8-23-2011

DESIGN BUREAU SPECIAL DRAWING

TEMPORARY DEWATERING STRUCTURES

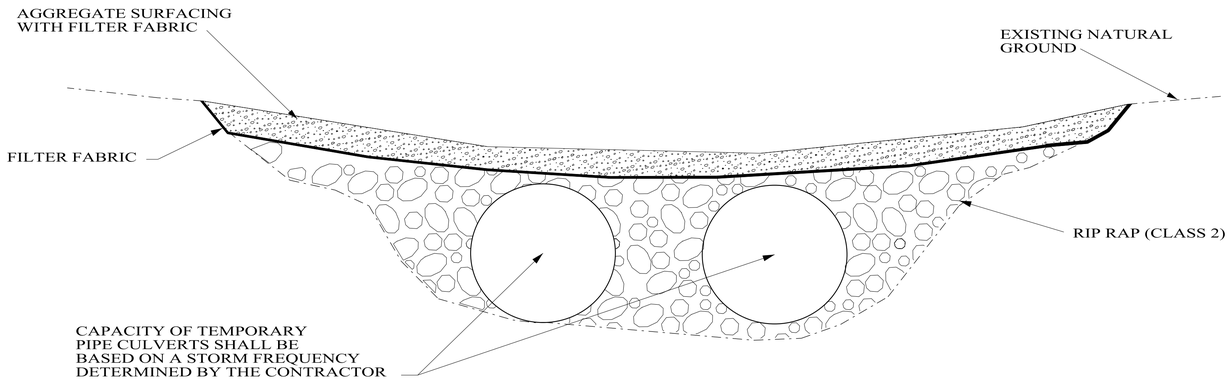
SPECIAL DRAWING NO: ESC-503

INDEX NO: 66535




PLAN VIEW

TEMPORARY CULVERT STREAM CROSSING




SECTION A-A

NOTES:

1. TEMPORARY CULVERT STREAM CROSSINGS PROVIDE A MEANS FOR VEHICLES AND EQUIPMENT TO SAFELY CROSS A WATERCOURSE WHILE MINIMIZING DAMAGE TO THE CHANNEL AND/OR BANKS.
2. TEMPORARY CULVERT STREAM CROSSINGS, WHEN PERMITTED BY THE ENGINEER, SHALL BE CONSTRUCTED TO SAFELY PASS EXPECTED MEAN WATER FLOW OF THE STREAM FOR THE TIME OF YEAR AND LENGTH OF TIME THAT THEY ARE INSTALLED.
3. TEMPORARY STREAM CROSSINGS SHALL BE DESIGNED TO ENSURE STRUCTURAL INTEGRITY AND STABILITY, AND MAINTAIN NORMAL DOWNSTREAM FLOWS. THE USE OF INSTREAM CROSSINGS AND INSTREAM AGGREGATE FILL SHALL BE MINIMIZED TO THE EXTENT PRACTICABLE.
4. A CONTINUOUS PROGRAM OF EFFECTIVE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO AND CONCURRENT WITH ANY TYPE OF CONSTRUCTION ACTIVITY WITHIN THE BANKS OF A STREAM. WHEN A CROSSING IS NO LONGER NEEDED, THE STREAMBED AND STREAM BANKS SHALL BE RESTORED TO PRE-DISTURBANCE CONDITIONS, OR SUCH A CONDITION THAT PROVIDES SUBSTANTIALLY EQUIVALENT PROTECTION OF WATER QUALITY.
5. LOCATIONS OR TYPES OF TEMPORARY CULVERT STREAM CROSSINGS WILL NOT BE SHOWN ON THE PLANS AS REQUIRED ITEMS NOR WILL REQUIREMENTS FOR MATERIALS OR CONSTRUCTION BE FOUND IN THE STANDARD SPECIFICATIONS.
6. THE CONTRACTOR MAY PROPOSE OTHER OPTIONS FOR TEMPORARY STREAM CROSSINGS SUCH AS STEEL/TIMBER BRIDGE, FORD OR MATS.
7. THE DETAILS PROVIDED DEPICT A TYPICAL TEMPORARY CULVERT STREAM CROSSING. THE DETAILS SHOWN ARE OPTIONAL RECOMMENDATIONS, BUT NOT MANDATORY. PERMITTING APPROVAL REQUIREMENTS MAY PROHIBIT THE PLACEMENT OF MATERIAL WITHIN STREAM BANKS.
8. CONTRACTOR SHALL SUBMIT DETAILED STREAM CROSSING PLAN IN ACCORDANCE WITH ALDOT SPECIFICATION SECTION 107.23.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT
OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



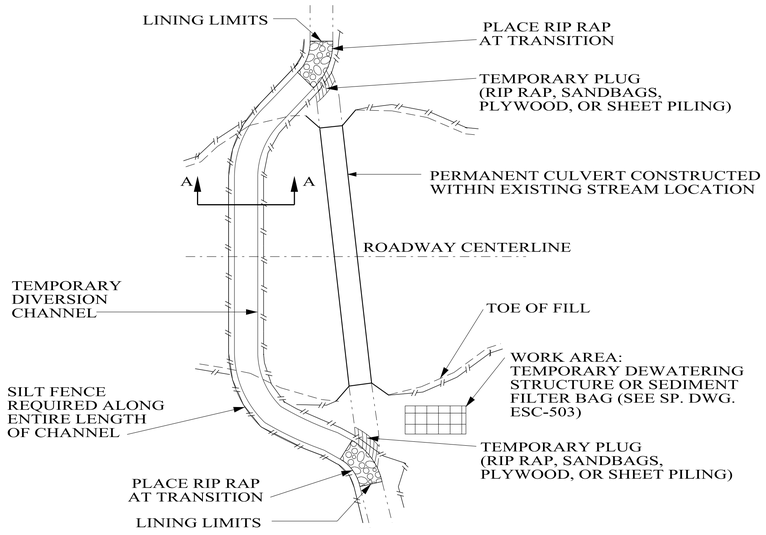
REVISIONS:
1. Corrected Section A-A to show the low point in the center of the Channel and expanded Note No. 7 on 7-12-2007 by W.W.A.
2. Added Note 8 on 8-23-2011 by J.F.T.

Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE: 8-23-2011

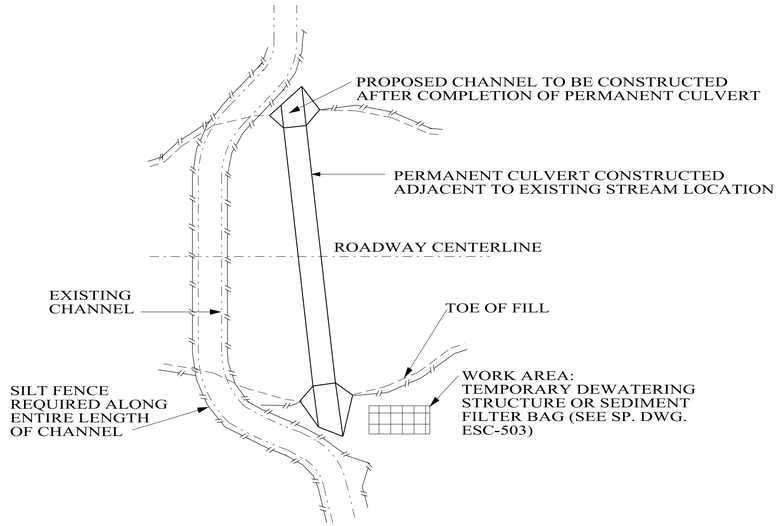
DESIGN BUREAU SPECIAL DRAWING

TEMPORARY CULVERT
STREAM CROSSING

| SPECIAL DRAWING NO | INDEX NO |
|---|---|
| ESC-504 | 66538 |



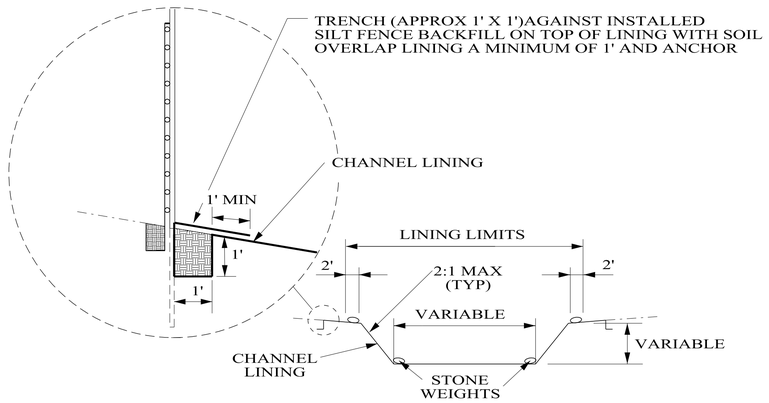

CULVERT CONSTRUCTED
WITHIN EXISTING STREAM




CULVERT CONSTRUCTED
OUTSIDE EXISTING STREAM

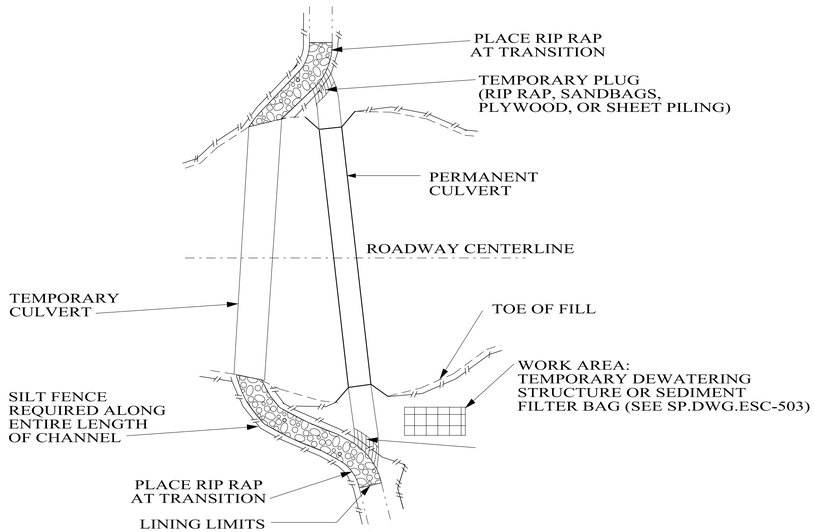
NOTES:

1. TEMPORARY DIVERSION CHANNELS MAY BE USED TO DIVERT NORMAL STREAM PATH FLOW FROM AN ERODIBLE AREA UNTIL SUCH AREAS CAN BE STABILIZED.
2. CONTRACTOR SHALL DETERMINE CULVERT AND DIVERSION CHANNEL SIZES, CONSTRUCTION METHODS AND MATERIALS FOR TEMPORARY CULVERT CROSSINGS.
3. FILTER FABRIC OR SUITABLE PLASTIC SHEETING MAY BE USED WITHOUT RIP-RAP FOR CHANNEL FLOW VELOCITIES OF LESS THAN 3.0 FPS.
4. RIP-RAP WITH FILTER FABRIC MAY BE USED FOR CHANNEL FLOW VELOCITIES OF 3.0 FPS TO 9.0 FPS. THE RIP-RAP SHALL BE SIZED USING FHWA HEC-15 DESIGN OF ROADSIDE CHANNELS WITH FLEXIBLE LININGS.
5. LOCATIONS OR TYPES OF TEMPORARY DIVERSION WILL NOT BE SHOWN ON THE PLANS AS REQUIRED ITEMS NOR WILL REQUIREMENTS FOR MATERIALS OR CONSTRUCTION BE FOUND IN THE STANDARD SPECIFICATIONS.
6. DIVERSION CHANNEL SHALL BE STABILIZED AND INSPECTED BY THE ENGINEER BEFORE FLOW IS DIVERTED.
7. DURING CONSTRUCTION OF DIVERSION CHANNEL, DAMAGE TO THE EXISTING STREAM, CANOPY REMOVAL, AND DEPTH OF THE CHANNEL CONSTRUCTION SHALL BE MINIMIZED.
8. NEW CHANNEL CONSTRUCTION SHALL BE COMPLETED IN THE DRY BEFORE DIVERTING WATER FROM THE EXISTING CHANNEL. WHERE THIS IS NOT FEASIBLE, TEMPORARY FLOW DIVERSION STRUCTURES CAN BE USED UNTIL WORK IS COMPLETE. THESE STRUCTURES CAN BE ANY NON-ERODIBLE MATERIAL.
9. CONSTRUCTION OF THE CHANNEL RELOCATIONS AND CULVERTS SHALL PROCEED AS FOLLOWS:
   - 9.1. CONSTRUCT A MEANDERING TEMPORARY CHANNEL CHANGE ADJACENT TO THE PROPOSED CULVERT TO DIVERT WATER TEMPORARILY DURING THE CULVERT CONSTRUCTION. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
   - 9.2. RELOCATE CHANNEL AND CONSTRUCT CULVERT SIMULTANEOUSLY.
   - 9.3. SOD AND/OR RIP-RAP RECONSTRUCTED BANKS AT TRANSITIONS. THE UPPER CHANNEL PLUG IS TO REMAIN IN PLACE UNTIL SUBNOTE (9.1) THROUGH (9.4) UNDER THIS HEADING ARE COMPLETED TO INSURE THAT ALL CONSTRUCTION IS IN THE DRY.
   - 9.4. IF AN EARTH PLUG IS NECESSARY AT THE DOWNSTREAM END OF THE CHANNEL IT SHOULD BE REMOVED FIRST, THEN REMOVE THE UPPER PLUG TO RELEASE WATER INTO THE RECONSTRUCTED CHANNEL.
   - 9.5. PLUGS SHOULD REMAIN IN PLACE UNTIL PERMANENT STABILIZATION OF THE NEW WATER COURSE IS COMPLETED. REMOVAL OF PLUGS SHOULD ONLY BE PERFORMED FOLLOWING ACCEPTANCE OF ALL STABILIZATION WORK BY THE ENGINEER.
10. THE DETAILS PROVIDED DEPICT TYPICAL TEMPORARY DIVERSION CHANNELS. THE DETAILS SHOWN ARE OPTIONAL RECOMMENDATIONS, BUT NOT MANDATORY.
11. THE CONTRACTOR MAY PROPOSE THE USE OF OTHER DIVERSION OPTIONS SUCH AS PIPING, PUMPING OR STAGED CONSTRUCTION.
12. WITH THE EXCEPTION OF SILT FENCE, ALL ITEMS AND WORK ASSOCIATED WITH STREAM DIVERSIONS ARE SUBSIDIARY TO THE CULVERT CONSTRUCTION AND SHALL NOT BE PAID DIRECTLY.




SECTION A-A

TEMPORARY DIVERSION CHANNEL
WITH GEOTEXTILE FABRIC OR PLASTIC LINING




TEMPORARY CULVERT
USED DURING CONSTRUCTION

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Updated "SECTION A-A" and deleted original Note No.'s 9 & 10 then renumbered on 8-24-2011 by J.F.T.

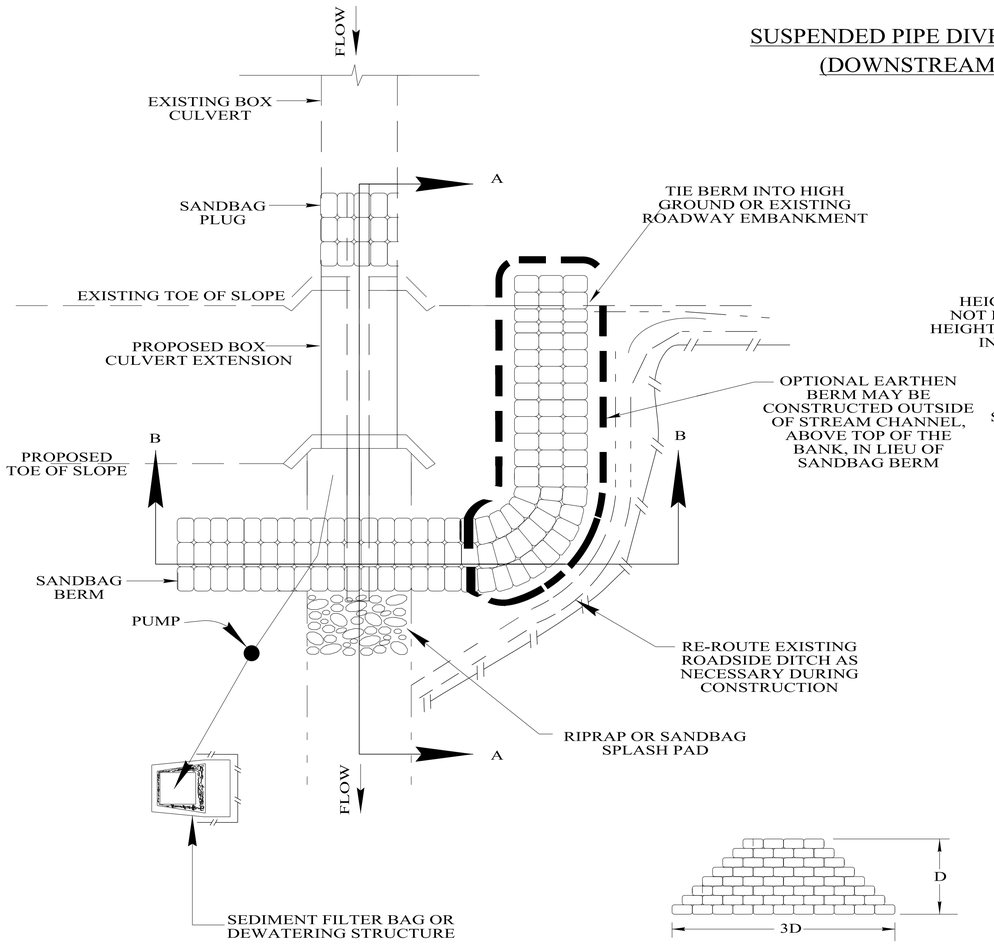
Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 2006
REVISED DATE: 8-24-2011

DESIGN BUREAU SPECIAL DRAWING
TEMPORARY STREAM DIVERSION

SPECIAL DRAWING NO
ESC-505

INDEX NO
66541

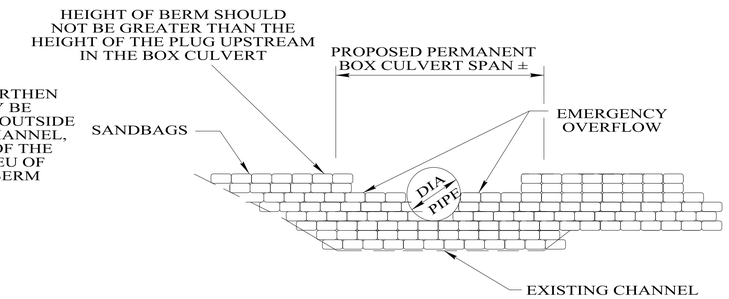
# SUSPENDED PIPE DIVERSION
# (DOWNSTREAM)




## PLAN VIEW



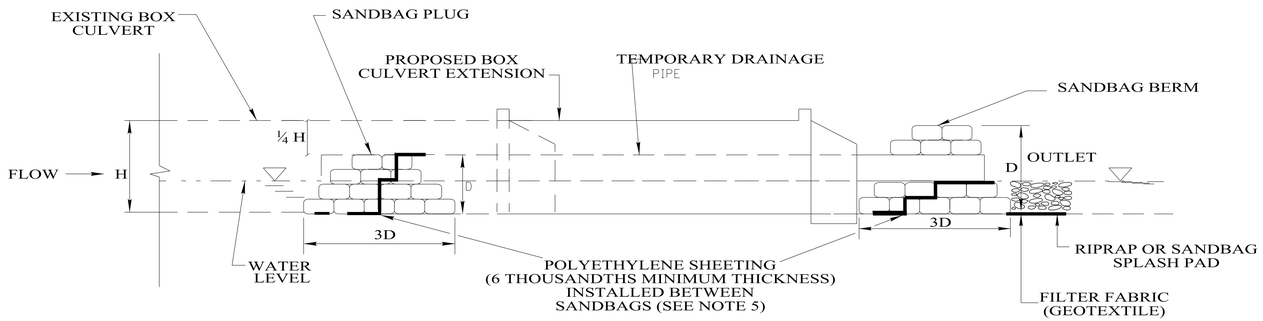

## SAND BAG PLUG & BERM CROSS SECTION
(SEE NOTE 5)




## SECTION B-B

| MAXIMUM SPAN FOR PIPE SUPPORTS, FEET | | | | | |
|---|---|---|---|---|---|
| DIAMETER OF PIPE (IN) | STEEL THICKNESS (IN) | | | | |
| | 0.064 | 0.079 | 0.109 | 0.138 | 0.168 |
| | 2" X ½" CORRUGATION | | | | |
| 24 | 13' | 15' | 20' | | |
| 36 | 12' | 15' | 20' | 25' | |
| 48 | 11' | 14' | 19' | 25' | 30' |
| 60 | | 14' | 19' | 24' | 29' |
| 72 | | | 18' | 24' | 29' |
| 5" X 1" or 3" X 1" CORRUGATION | | | | | |
| 36 | 9' | 11' | | | |
| 48 | 9' | 11' | 15' | | |
| 60 | 8' | 10' | 14' | 18' | |
| 72 | 8' | 10' | 14' | 18' | 22' |

FOR PIPE SIZES NOT SHOWN, REFER TO NEXT LARGER SIZE




## SECTION A-A

### SUSPENDED PIPE DIVERSION (DOWNSTREAM) GENERAL NOTES

1. SUSPENDED PIPE DIVERSIONS MAY BE USED TO ALLOW BOX CULVERT EXTENSIONS TO BE CONSTRUCTED WHILE SEPARATED FROM FLOWING WATER, IN THE DRY, THUS REDUCING SEDIMENTATION. FLEXIBLE PIPE DIVERSION MAY BE UTILIZED ON STREAMS WITH INTERMITTANT FLOW WHERE THE DURATION OF CONSTRUCTION IS EXPECTED TO BE BRIEF.
2. THE CONTRACTOR SHALL DETERMINE THE SIZE OF THE SUSPENDED PIPE WHICH SHALL BE DESIGNED USING A 2-YEAR STORM FREQUENCY FLOW RATE.
3. SUSPENDED PIPE DIVERSIONS MAY BE USED WHERE ADVERSE IMPACTS WILL NOT BE CAUSED BY WATER PONDED UPSTREAM OF THE PIPE.
4. THE SANDBAG PLUG AT THE DOWNSTREAM END OF THE SUSPENDED PIPE DIVERSIONS SHOULD BE CONSTRUCTED TO A HEIGHT EQUAL TO THREE QUARTERS OF THE RISE OF THE BOX CULVERT.
5. POLYETHYLENE SHEETING (6 THOUSANDTHS MINIMUM THICKNESS) SHALL BE PLACED INSIDE THE SANDBAG PLUG IN THE BOX CULVERT AND THE SANDBAG BERM WITHIN THE CHANNEL IN ORDER TO PROVIDE THE BEST POSSIBLE SEAL. SANDBAGS ON THE DOWNSTREAM SIDE OF THE SHEETING SHOULD BE PLACED FIRST, AND THEN SHEETING PLACED ON THESE BAGS. AS MUCH AS POSSIBLE, THE SHEETING SHOULD BE FITTED AROUND THE PIPE. THE REMAINING SANDBAGS WOULD THEN BE PLACED ON THE SHEETING. WHERE MULTIPLE SHEETS ARE USED, THEY SHOULD OVERLAP A MINIMUM OF 18 INCHES.
6. THE PROPOSED CULVERT CONSTRUCTION SHALL BE SEALED FROM THE EXISTING STREAM BY MEANS OF A SANDBAG BERM WHICH WILL BE TIED INTO EITHER HIGH GROUND BESIDE THE CHANNEL OR THE EXISTING ROADWAY EMBANKMENT, UP TO THE 2-YEAR FLOOD LEVEL.
7. THE TEMPORARY DRAINAGE PIPE WILL BE SUPPORTED AT ALL JOINTS AND AT INTERVALS NOT TO EXCEED THE VALUES SPECIFIED IN THE TABLE "MAXIMUM SPAN FOR PIPE SUPPORTS." SUPPORTS MAY CONSIST OF SANDBAGS, CONCRETE BLOCKS, WOODEN FRAMES, OR ANY OTHER MATERIAL SUFFICIENT TO SUPPORT THE WEIGHT OF THE PIPE WHEN IT IS FLOWING FULL. SUPPORTS AT JOINT SHALL BE A MINIMUM OF 18 INCHES IN LENGTH, ALONG THE TEMPORARY DRAINAGE PIPE AND CENTERED ON THE JOINT. SUPPORTS SHOULD "CRADLE" THE TEMPORARY DRAINAGE PIPE TO ENSURE THAT IT WILL NOT ROLL DURING CONSTRUCTION OF THE BOX CULVERT.
8. ALL PIPE JOINTS SHALL BE PROPERLY BANDED OR OTHERWISE PROVIDED WITH A REASONABLE SEAL AGAINST LEAKAGE.
9. FOR DETAILS OF THE OPTIONAL FLEXIBLE PIPE DIVERSION USING PUMPS, SEE SUSPENDED PIPE DIVERSION (UPSTREAM) DETAIL.
10. CONSTRUCTION SHALL PROCEED AS FOLLOWS:
    - * INSTALL TEMPORARY DRAINAGE PIPE ON ITS SUPPORTS INSIDE THE CULVERT TO BE EXTENDED.
    - * CONSTRUCT THE SANDBAG BERM AT THE UPSTREAM END OF THE SUSPENDED PIPE DIVERSIONS.
    - * CONSTRUCT THE SANDBAG PLUG AT THE DOWNSTREAM END OF THE SUSPENDED PIPE DIVERSIONS.
    - * ONCE THE BOX CULVERT EXTENSION HAS BEEN COMPLETED, REMOVE THE DOWNSTREAM SANDBAG STRUCTURE, EXCEPT THOSE BAGS NEEDED TO SUPPORT THE END OF THE PIPE. THE UPSTREAM SANDBAG STRUCTURE SHOULD THEN BE REMOVED GRADUALLY, IN ORDER TO ALLOW THE UPSTREAM WATER LEVEL TO DRAWDOWN AT A SAFE RATE.
    - * REMOVE THE TEMPORARY DRAINAGE PIPE, SUPPORTS AND ANY REMAINING SANDBAGS.
11. TEMPORARY DRAINAGE PIPE, SANDBAG PLUGS, BERMS, AND SUPPORTS SHALL BE INSPECTED WEEKLY OR AFTER EVERY RAIN EVENT. ANY NEEDED REPAIRS SHALL BE DONE IMMEDIATELY. ANY DEBRIS WHICH HAS ACCUMULATED AT THE INLET OF THE SUSPENDED PIPE DIVERSIONS SHALL BE IMMEDIATELY REMOVED.
12. LOCATIONS OR TYPES OF TEMPORARY DIVERSION WILL NOT BE SHOWN ON THE PLANS AS REQUIRED ITEMS OF WORK NOR WILL REQUIREMENTS FOR MATERIALS OR CONSTRUCTION BE FOUND IN THE STANDARD SPECIFICATIONS.
13. THE DETAILS PROVIDED DEPICT TYPICAL SUSPENDED PIPE DIVERSION (UPSTREAM). THE DETAILS SHOWN ARE OPTIONAL RECOMMENDATIONS, BUT ARE NOT MANDATORY.
14. THE CONTRACTOR MAY PROPOSE THE USE OF OTHER DIVERSION OPTIONS.
15. IT IS THE CONTRACTOR'S CHOICE WHICH METHOD OF DIVERSION THEY USE. ALL COST SHALL BE BORNE BY THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE QUALITY OF THE WATERS ORIGINATING OFF OF THE RIGHT-OF-WAY AND ENTERING THE PROJECT SITE ARE NOT TO BE DIMINISHED AS THE WATER FLOWS THROUGH AND LEAVES THE SITE.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Added to CADD on 3-29-2010 by J.F.T.
2. Corrrected Silt Fence linestyle on 8-24-2011 by J.F.T.
3. Updated Special Drawing No. from ESC-506 (SHEET 1 OF 2) to ESC-506-1 on 11-1-2016 by J.F.T. & J.M.M.

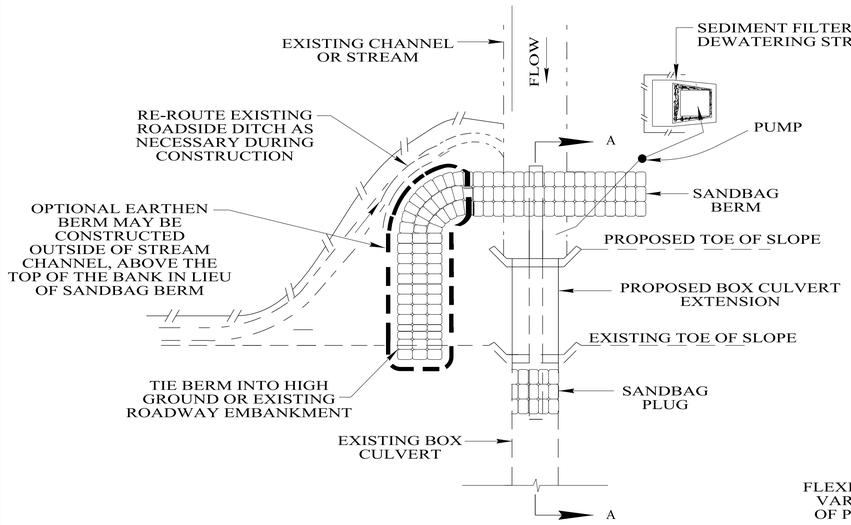
Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN:
REVISED DATE: 11-1-2016

DESIGN BUREAU SPECIAL DRAWING
SUSPENDED PIPE DIVERSION (DOWNSTREAM)

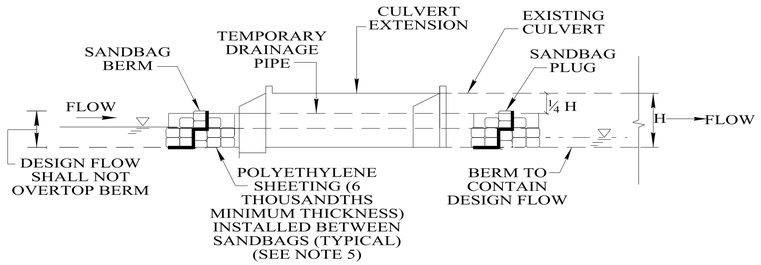
SPECIAL DRAWING NO
ESC-506-1

INDEX NO
66544

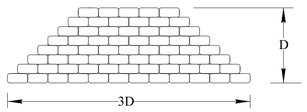
# SUSPENDED PIPE DIVERSION (UPSTREAM)




PLAN VIEW




SECTION A-A



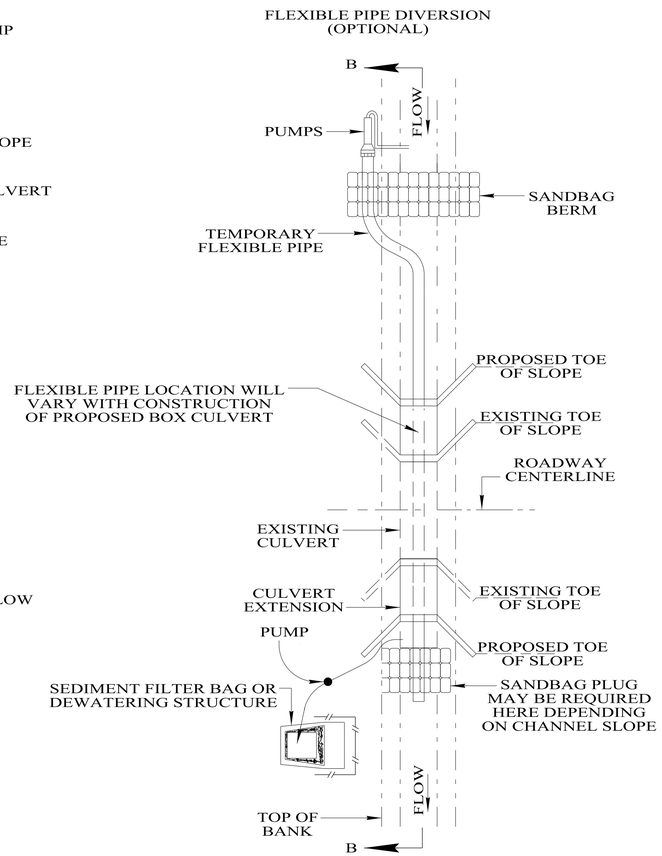

SAND BAG PLUG & BERM CROSS SECTION

(SEE NOTE 5)

| MAXIMUM SPAN FOR PIPE SUPPORTS, FEET | | | | | |
|---|---|---|---|---|---|
| DIAMETER OF PIPE (IN) | STEEL THICKNESS (IN) | | | | |
| | 0.064 | 0.079 | 0.109 | 0.138 | 0.168 |
| | 2" X ½" CORRUGATION | | | | |
| 24 | 13' | 15' | 20' | | |
| 36 | 12' | 15' | 20' | 25' | |
| 48 | 11' | 14' | 19' | 25' | 30' |
| 60 | | 14' | 19' | 24' | 29' |
| 72 | | | 18' | 24' | 29' |
| 5" X 1" or 3" X 1" CORRUGATION | | | | | |
| 36 | 9' | 11' | | | |
| 48 | 9' | 11' | 15' | | |
| 60 | 8' | 10' | 14' | 18' | |
| 72 | 8' | 10' | 14' | 18' | 22' |

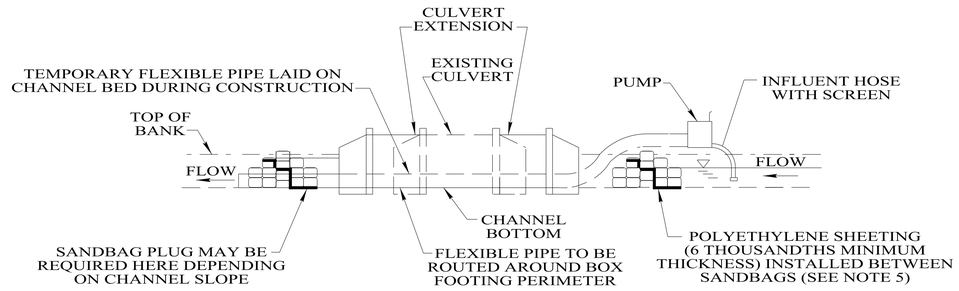
FOR PIPE SIZES NOT SHOWN, REFER TO NEXT LARGER SIZE

FLEXIBLE PIPE DIVERSION (OPTIONAL)




(SHOWN WITH UPSTREAM & DOWNSTREAM EXTENSIONS)

PLAN VIEW




SECTION B-B

## SUSPENDED PIPE DIVERSION (UPSTREAM) GENERAL NOTES

1. SUSPENDED PIPE DIVERSIONS MAY BE USED TO ALLOW BOX CULVERT EXTENSIONS TO BE CONSTRUCTED WHILE SEPARATED FROM FLOWING WATER, IN THE DRY, THUS REDUCING SEDIMENTATION. FLEXIBLE PIPE DIVERSION MAY BE UTILIZED ON STREAMS WITH INTERMITTANT FLOW WHERE THE DURATION OF CONSTRUCTION IS EXPECTED TO BE BRIEF.
2. THE CONTRACTOR SHALL DETERMINE THE SIZE OF THE SUSPENDED PIPE WHICH SHALL BE DESIGNED USING A 2-YEAR STORM FREQUENCY FLOW RATE.
3. SUSPENDED PIPE DIVERSIONS MAY BE USED WHERE ADVERSE IMPACTS WILL NOT BE CAUSED BY WATER PONDED UPSTREAM OF THE PIPE.
4. THE SANDBAG PLUG AT THE DOWNSTREAM END OF THE SUSPENDED PIPE DIVERSIONS SHOULD BE CONSTRUCTED TO A HEIGHT EQUAL TO THREE QUARTERS OF THE RISE OF THE BOX CULVERT.
5. POLYETHYLENE SHEETING (6 THOUSANDTHS MINIMUM THICKNESS) SHALL BE PLACED INSIDE THE SANDBAG BERM IN THE CHANNEL AND THE SANDBAG PLUG IN THE BOX CULVERT IN ORDER TO PROVIDE THE BEST POSSIBLE SEAL. SANDBAGS ON THE DOWNSTREAM SIDE OF THE SHEETING SHOULD BE PLACED FIRST, AND THEN SHEETING PLACED ON THESE BAGS. AS MUCH AS POSSIBLE, THE SHEETING SHOULD BE FITTED AROUND THE PIPE. THE REMAINING SANDBAGS WOULD THEN BE PLACED ON THE SHEETING. WHERE MULTIPLE SHEETS ARE USED, THEY SHOULD OVERLAP A MINIMUM OF 18 INCHES.
6. THE PROPOSED CULVERT CONSTRUCTION SHALL BE SEALED FROM THE EXISTING STREAM BY MEANS OF A SANDBAG BERM WHICH WILL BE TIED INTO EITHER HIGH GROUND BESIDE THE CHANNEL OR THE EXISTING ROADWAY EMBANKMENT, UP TO THE 2-YEAR FLOOD LEVEL.
7. THE TEMPORARY DRAINAGE PIPE WILL BE SUPPORTED AT ALL JOINTS AND AT INTERVALS NOT TO EXCEED THE VALUES SPECIFIED IN THE TABLE "MAXIMUM SPAN FOR PIPE SUPPORTS," SUPPORTS MAY CONSIST OF SANDBAGS, CONCRETE BLOCKS, WOODEN FRAMES, OR ANY OTHER MATERIAL SUFFICIENT TO SUPPORT THE WEIGHT OF THE PIPE WHEN IT IS FLOWING FULL. SUPPORTS AT JOINTS SHALL BE A MINIMUM OF 18 INCHES IN LENGTH, ALONG THE TEMPORARY DRAINAGE PIPE AND CENTERED ON THE JOINT. SUPPORTS SHOULD "CRADLE" THE TEMPORARY DRAINAGE PIPE TO ENSURE THAT IT WILL NOT ROLL DURING CONSTRUCTION OF THE BOX CULVERT.
8. ALL PIPE JOINTS SHALL BE PROPERLY BANDED OR OTHERWISE PROVIDED WITH A REASONABLE SEAL AGAINST LEAKAGE.
9. CONSTRUCTION SHALL PROCEED AS FOLLOWS:
   * INSTALL TEMPORARY DRAINAGE PIPE ON ITS SUPPORTS INSIDE THE CULVERT TO BE EXTENDED.
   * CONSTRUCT THE SANDBAG BERM AT THE UPSTREAM END OF THE SUSPENDED PIPE DIVERSIONS.
   * CONSTRUCT THE SANDBAG PLUG AT THE DOWNSTREAM END OF THE SUSPENDED PIPE DIVERSIONS.
   * ONCE THE BOX CULVERT EXTENSION HAS BEEN COMPLETED, REMOVE THE DOWNSTREAM SANDBAG STRUCTURE, EXCEPT THOSE BAGS NEEDED TO SUPPORT THE END OF THE PIPE. THE UPSTREAM SANDBAG STRUCTURE SHOULD THEN BE REMOVED GRADUALLY, IN ORDER TO ALLOW THE UPSTREAM WATER LEVEL TO DRAWDOWN AT A SAFE RATE.
   * REMOVE THE TEMPORARY DRAINAGE PIPE, SUPPORTS AND ANY REMAINING SANDBAGS.
10. TEMPORARY DRAINAGE PIPE, SANDBAG PLUGS, BERMS, AND SUPPORTS SHALL BE INSPECTED WEEKLY OR AFTER EVERY RAIN EVENT. ANY NEEDED REPAIRS SHALL BE DONE IMMEDIATELY. ANY DEBRIS WHICH HAS ACCUMULATED AT THE INLET OF THE SUSPENDED PIPE DIVERSIONS SHALL BE IMMEDIATELY REMOVED.
11. LOCATIONS OR TYPES OF TEMPORARY DIVERSION WILL NOT BE SHOWN ON THE PLANS AS REQUIRED ITEMS OF WORK NOR WILL REQUIREMENTS FOR MATERIALS OR CONSTRUCTION BE FOUND IN THE STANDARD SPECIFICATIONS.
12. THE DETAILS PROVIDED DEPICT TYPICAL SUSPENDED PIPE DIVERSION (UPSTREAM). THE DETAILS SHOWN ARE OPTIONAL RECOMMENDATIONS, BUT ARE NOT MANDATORY.
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14. IT IS THE CONTRACTOR'S CHOICE WHICH METHOD OF DIVERSION THEY USE. ALL COST SHALL BE BORNE BY THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE QUALITY OF THE WATERS ORIGINATING OFF OF THE RIGHT-OF-WAY AND ENTERING THE PROJECT SITE ARE NOT TO BE DIMINISHED AS THE WATER FLOWS THROUGH AND LEAVES THE SITE.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Added to CADD on 3-29-2010 by J.F.T.
2. Corrected Silt Fence linestyle on 8-24-2011 by J.F.T.
3. Updated Special Drawing No. from ESC-506 (SHEET 2 OF 2) to ESC-506-2 on 11-1-2016 by J.F.T. & J.M.M.

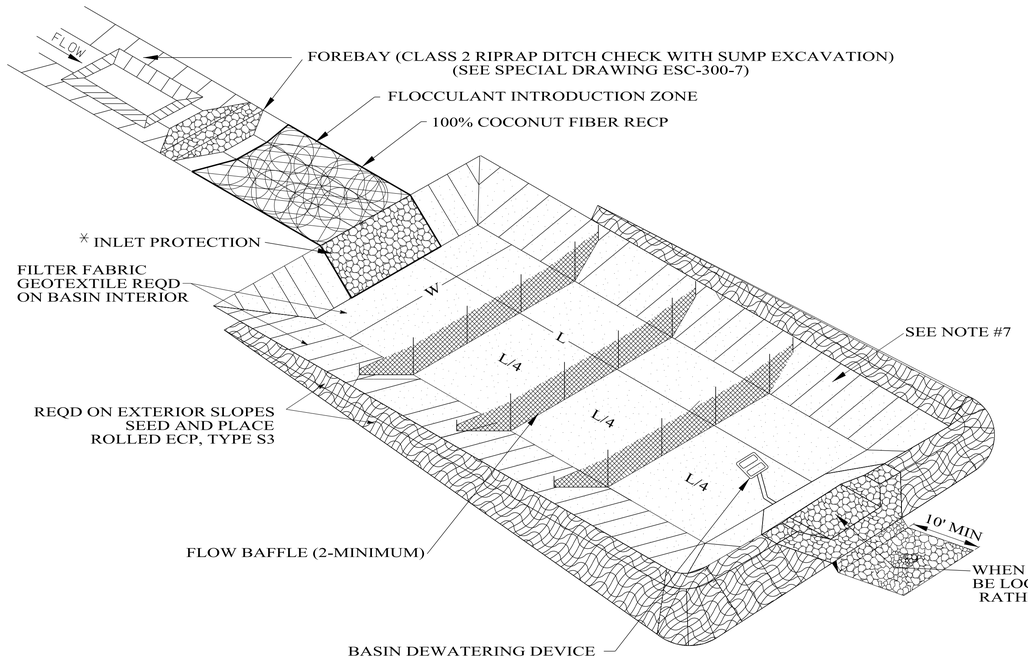
Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN:
REVISED DATE: 1-1-2016

DESIGN BUREAU SPECIAL DRAWING

SUSPENDED PIPE DIVERSION (UPSTREAM)

SPECIAL DRAWING NO: ESC-506-2

INDEX NO: 66545




PERSPECTIVE VIEW

NOTES:

1. INLET AND SPILLWAY LOCATIONS TO BE ADJUSTED TO FIT EXISTING SITE CONTOURS. (BASIN IS NOT NECESSARILY RECTANGULAR SHAPED)

2. BAFFLES SHALL BE CONSTRUCTED OF 100% COCONUT (COIR) FIBER MATERIAL SUPPORTED BETWEEN POSTS WITH A WIRE MESH BACKING AS SHOWN BELOW. ROWS SHALL BE EVENLY SPACED THROUGH THE BASIN.

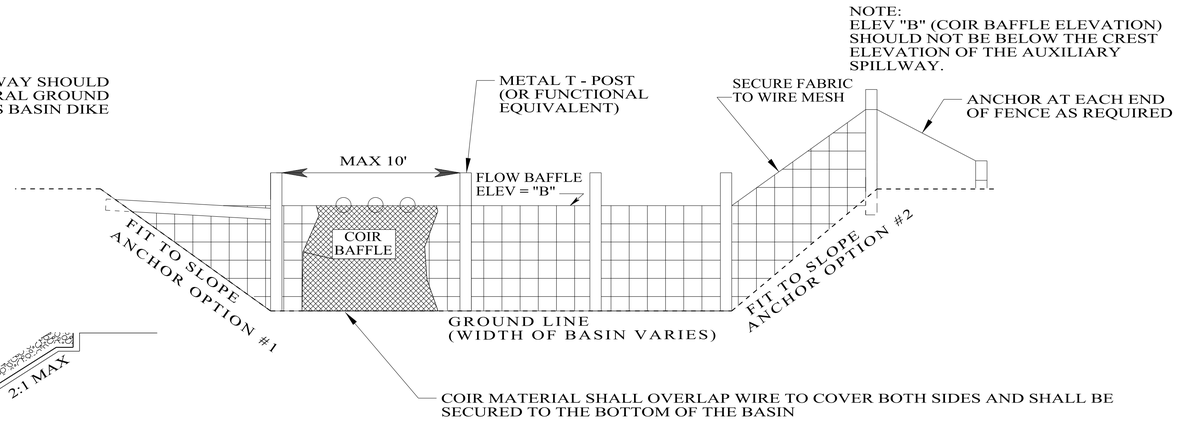
3. THE FLOCCULANT INTRODUCTION ZONE AND BASIN ENTRY SHALL BE TOPPED WITH 100% COCONUT (COIR) FIBER MATERIAL RECP THAT EXTENDS TO THE TOE OF THE SLOPE. MATERIAL PROPERTIES SHALL MEET THE SAME REQIREMENTS AS GIVEN FOR FLOW BAFFLES.

4. FLOCCULANT SHALL BE PLACED AT THE INLET END OF THE BASIN IN THE FLOCCULANT INTRODUCTION ZONE. FLOCCULANT CONDITION SHALL BE MONITORED AND SHALL BE REPLACED WHEN IT NO LONGER APPEARS TO BE EFFECTIVE.

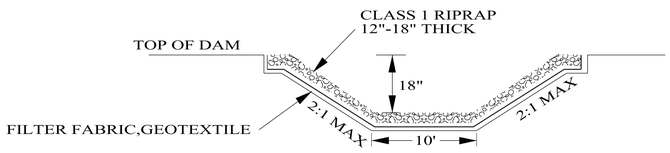
5. DO NOT CONSTRUCT TEMPORARY SEDIMENTATION BASIN IN FLOODWAY.

6. TEMPORARY SEDIMENT BASINS SHALL BE CONSTRUCTED UTILIZING EXISTING GROUND SURFACE WHERE POSSIBLE TO MINIMIZED DISTURBANCE.

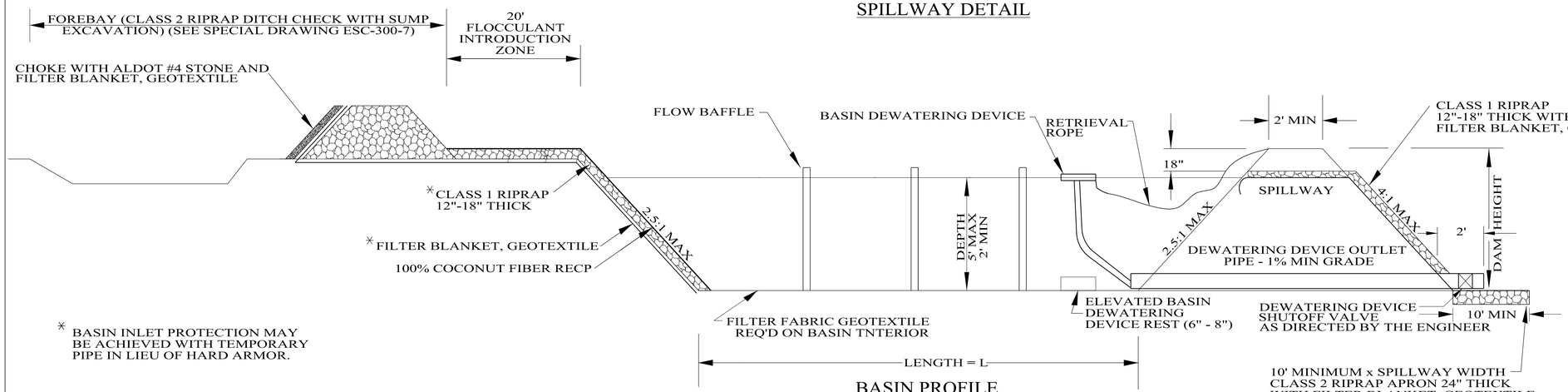
7. SIDE SLOPES SHOULD BE 2.5:1 OR FLATTER.




FLOW BAFFLE DETAIL




SPILLWAY DETAIL




* BASIN INLET PROTECTION MAY BE ACHIEVED WITH TEMPORARY PIPE IN LIEU OF HARD ARMOR.

BASIN PROFILE
ALONG THE CENTERLINE

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT
OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



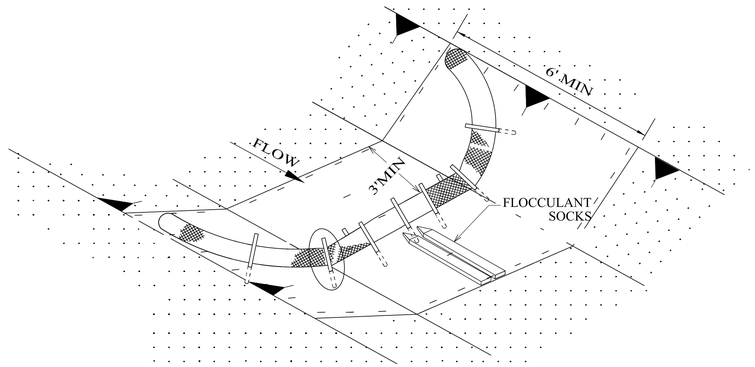
REVISIONS:
1. Changed hatching to show change in material and revised text in "PERSPECTIVE VIEW" on 9-24-2012 by J.F.T.
2. Revised "FLOW BAFFLE DETAIL" on 10-24-2014 by J.F.T.
3. Correct sheet reference "ESC-300, sheet 7 of 8" to "ESC-300-7" on 12-6-2016 by L.V.S.
4. Added coconut fiber callouts. Added new Note 3 and renumbered others accordingly on 8-20-2020 by D.J.W.
5. Changed "SPILLWAY DETAIL" slopes from 3:1 to 2:1 MAX and changed slopes on "BASIN PROFILE ALONG THE CENTERLINE" from 3:1 to 2.5:1 MAX and 4:1 to 4:1 MAX. Added Note 7 concerning "Side Slopes" on 7-12-2022 by J.F.T.

| | |
|---|---|
| Bureau Std Engr: | G.L.D. |
| DRAWN BY: | |
| DATE DRAWN: | 1-15-2009 |
| REVISED DATE: | 7-12-2022 |

DESIGN BUREAU SPECIAL DRAWING

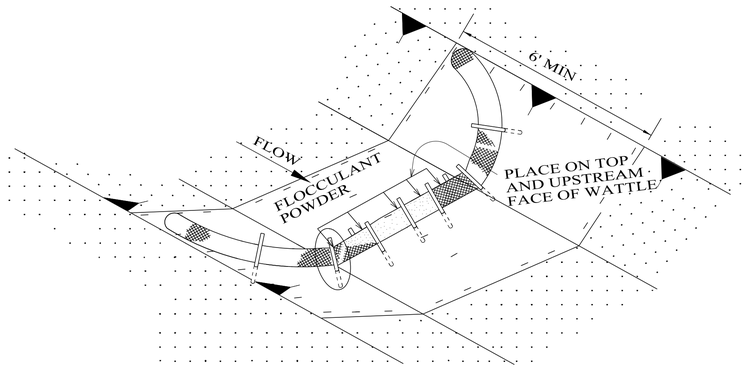
TEMPORARY SEDIMENTATION BASIN

| SPECIAL DRAWING NO | INDEX NO |
|---|---|
| ESC-507 | 66548 |



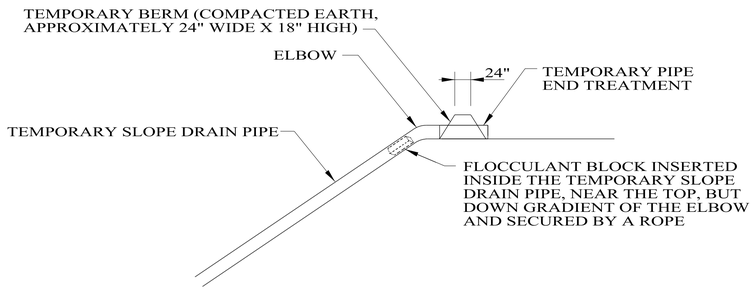

## FLOCCULANT SOCK USE WITH WATTLE DITCH CHECK

(SEE SPECIAL DRAWING ESC-300-4)



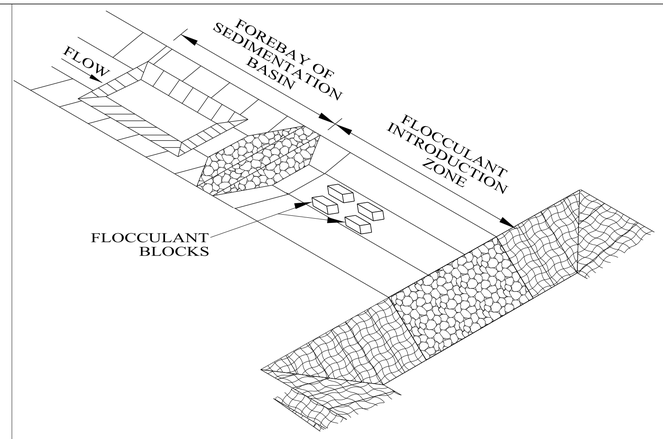

## FLOCCULANT POWDER USE WITH WATTLE DITCH CHECK

(SEE SPECIAL DRAWING ESC-300-4)



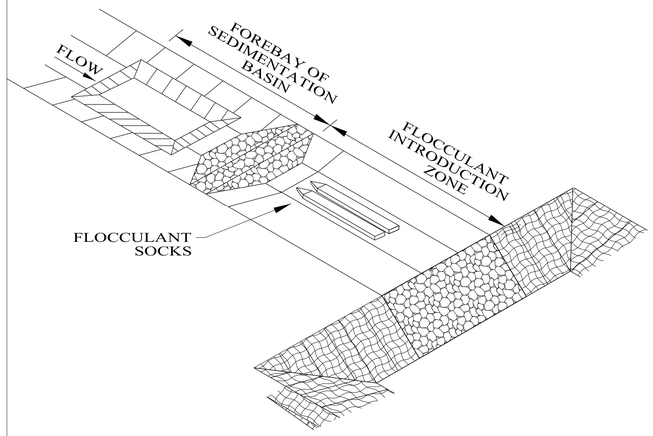

## FLOCCULANT BLOCK USE WITH TEMPORARY SLOPE DRAIN

(SEE SPECIAL DRAWING ESC-200-2)




## FLOCCULANT BLOCK USE WITH SEDIMENTATION BASIN

(SEE SPECIAL DRAWING ESC-507)




## FLOCCULANT SOCK USE WITH SEDIMENTATION BASIN

(SEE SPECIAL DRAWING ESC-507)

NOTES:

1. AN ALDOT LIST OF APPROVED FLOCCULANTS CAN BE FOUND IN THE MSDSAR MANUAL LIST II-24 "TEMPORARY EROSION AND SEDIMENT CONTROL PRODUCTS."
2. FLOCCULANTS ARE SOIL SPECIFIC AND MUST BE SELECTED BASED ON SOIL AND RUNOFF TESTING.
3. HEAVY SEDIMENT AND SAND SHOULD BE REMOVED PRIOR TO THE LOCATION OF FLOCCULANT APPLICATION.
4. PASSIVE DOSING OF FLOCCULANTS REQUIRES FLOWING WATER WITH A MODERATE VELOCITY.
5. FLOCCULANTS REQUIRE AN INITIAL PERIOD OF MIXING/AGITATION FOLLOWED BY A PERIOD OF LOW VELOCITY TO ALLOW THE SETTLING OF PARTICLES.
6. SEDIMENT CONTROL MEASURES MUST BE UTILIZED TO CAPTURE THE FLOCCULATED MATERIAL AND PREVENT RE-SUSPENSION PRIOR TO DISCHARGE.
7. FLOCCULANT SHOULD NEVER BE APPLIED DIRECTLY TO LIVE STREAMS OR WATERS OF THE STATE.
8. FLOCCULANT BLOCKS CAN DRY OUT PREVENTING DISSOLUTION, BLOCKS MUST BE PROTECTED FROM THE SUN AND SHOULD REMAIN HYDRATED IF POSSIBLE.
9. FLOCCULANT SOCKS SHALL BE INSTALLED IN THE CORRECT ORDER AND ORIENTATION AS PER MANUFACTURER'S INSTRUCTIONS. FLOCCULANT SOCKS WILL FLATTEN WHEN EMPTY INDICATING THE NEED FOR REPLACEMENT.
10. POWDER FORMS OF FLOCCULANT TYPICALLY MUST BE REAPPLIED AFTER EACH RAIN EVENT.
11. FLOCCULANTS SHOWN ON DRAWINGS ARE FOR ILLUSTRATIVE PURPOSES TO INDICATE LOCATION OF APPLICATION. DOSING SHALL BE APPLIED AS PER MANUFACTURER'S RECOMMENDATIONS.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-3050



REVISIONS:
1. Revised Sheet Numbers of "FLOCCULANT SOCK USE WITH WATTLE DITCH CHECK" and "FLOCCULANT POWDER USE WITH WATTLE DITCH CHECK" on 10-20-2014 by J.P.
2. Corrected Sheet References from "ECS-300, Sheet 4 of 8" & "...Sheet 2 of 8" to "ESC-300-4" & "ESC-300-2" on 12-6-2016 by L.V.S.
3. Modified Note 9 and added Note 11. Deleted quantity requirements for all flocculant items on 8-31-2020 by D.J.W.

Bureau Std Engr: D.J.W.
DRAWN BY:
DATE DRAWN: 9-24-2012
REVISED DATE: 8-31-2020

DESIGN BUREAU SPECIAL DRAWING

FLOCCULANT USAGE GUIDE

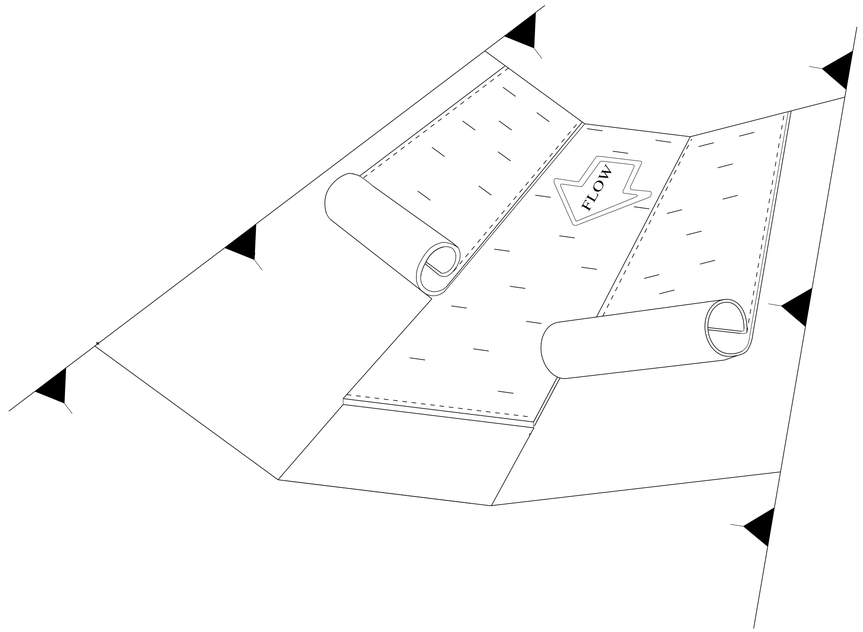
SPECIAL DRAWING NO

ESC-508

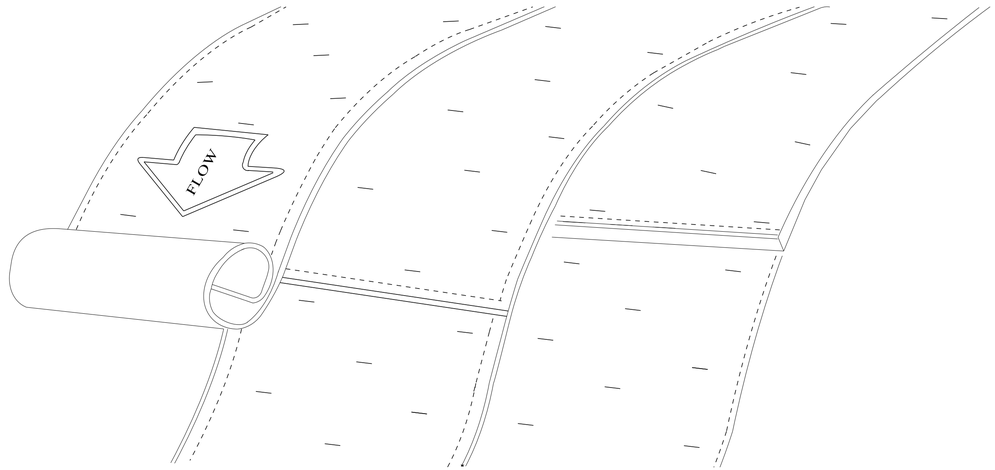
INDEX NO

67201

## CHANNEL INSTALLATION DETAIL



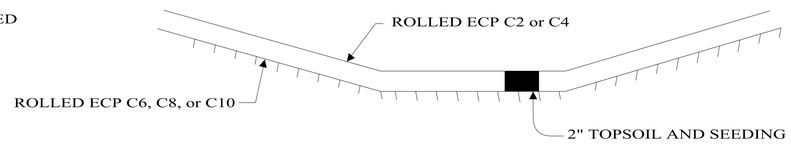

## SLOPE INSTALLATION DETAIL



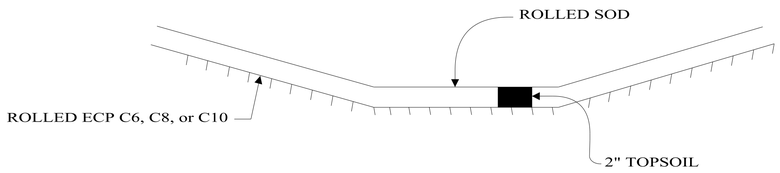

## CROSS SECTION

### OPTION A (SEE NOTE 5)

NOTE:
ONLY TO BE USED WHERE FLOW CAN BE DIVERTED UNTIL VEGETATION HAS BEEN ESTABLISHED




### OPTION B (SEE NOTE 5)




NOTES:

1. ROLLED EROSION CONTROL PRODUCTS SHALL BE INSTALLED PARALLEL TO THE DIRECTION OF FLOW. THERE SHALL BE AN ANCHOR TRENCH AT THE UPSTREAM EDGE OF THE INSTALLATION. UPSTREAM RECPs SHALL OVERLAP ANY DOWNSTREAM RECPs. ADJACENT RECPs SHALL ALSO BE OVERLAPPED.
2. STAPLES SHALL BE PLACED ON OVERLAPS, AT THE TOE OF THE RECP, AND THROUGHOUT THE RECP INSTALLATION IN ACCORDANCE WITH MANUFACTURER'S RECOMMEDATIONS TO ENSURE THE RECP IS IN CONTACT WITH THE UNDERLYING SOIL.
3. HYDRAULIC EROSION CONTROL PRODUCTS SHALL BE INSTALLED BY SPRAYING IN OPPOSING DIRECTIONS TO PROVIDE A SOLID BLANKET OF PRODUCT. HECPs SHALL BE APPLIED BY EQUIPMENT AND AT A RATE THAT MEETS THE RECOMMENDATIONS OF THE PRODUCT MANUFACTURER SPECIFIC TO THE SLOPE.
4. HYDRAULIC EROSION CONTROL PRODUCTS SHOULD NOT BE INSTALLED IN AREAS SUBJECT TO CHANNELIZED FLOW OR AREAS HAVING A POTENTIAL TO FLOOD DURING A LOCAL 2 YEAR, 24 HOUR STORM EVENT.
5. RECP TYPE C2 AND C4 ARE TO BE PLACED ON TOP OF SEEDING. RECP TYPE C6, C8 AND C10 ARE TO BE PLACED BELOW THE TOPSOIL AND SEEDING. THE TOPSOIL AND SEEDING MUST BE COVERED BY EITHER SOD OR RECP TYPE C2 OR C4 (SEE OPTIONS A AND B). ONLY USE OPTION A IF WATER CAN BE KEPT OUT OF THE CHANNEL UNTIL VEGETATED. IF NOT, USE OPTION B.
6. SEE ALDOT LIST II-11 FOR APPROVED ROLLED AND HYDRAULIC EROSION CONTROL PRODUCTS.

NOT TO SCALE

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

ALABAMA DEPARTMENT OF TRANSPORTATION
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MONTGOMERY, AL 36130-3050



REVISIONS:
1. Added to CADD on 10-21-2014 by J.F.T.

Bureau Std Engr: D.J.W.
DRAWN BY: J.F.T.
DATE DRAWN: 10-17-2014
REVISED DATE: 10-21-2014

DESIGN BUREAU SPECIAL DRAWING

DETAILS OF ROLLED AND HYDRAULIC EROSION CONTROL PRODUCT INSTALLATION

SPECIAL DRAWING NO

ESC-509

INDEX NO

65901