

**SPECIFICATIONS
TREE TRIMMING/REMOVAL
FIFTH DIVISON – DISTRICT FOUR
BIBB & CHILTON COUNTIES**

SNAP REQ# #: 1508810 .

1.0 CONTRACTOR REQUIREMENTS – GENERAL

1.1 PURSUANT TO SECTION 34-8-1 (A) OF THE CODE OF ALABAMA, EACH VENDOR MUST SUBMIT WITH THEIR BID PROOF OF LICENSING THROUGH THE ALABAMA STATE BOARD OF LICENSING FOR GENERAL CONTRACTORS, WITH APPROVED MAXIMUM BID LIMITS SUFFICIENT TO COVER THE BID RELATED TO THIS SPECIFICATION. **FAILURE TO COMPLY WILL BE CAUSE FOR REJECTION OF THE BID.** A COPY OF THE VENDOR'S CURRENT YEAR'S LICENSE WILL EXPEDITE THE EVALUATION PROCESS.

*** APPLIES TO BIDS IN EXCESS OF \$50,000 ONLY***

1.2 EACH VENDOR MUST SUBMIT WITH THEIR BID PROOF OF LIABILITY INSURANCE IN THE MINIMUM AMOUNT OF \$1,000,000 PER OCCURRENCE, \$2,000,000 AGGREGATE. EACH VENDOR SHALL FURTHER PROVIDE PROOF OF WORKMAN'S COMPENSATION INSURANCE SUFFICIENT TO SATISFY ALL LEGAL REQUIREMENTS OF THE STATE OF ALABAMA. **FAILURE TO PROVIDE THIS DOCUMENTATION WITH THE BID PACKAGE WILL BE CAUSE FOR REJECTION OF THE BID.**

1.3 IN ACCORDANCE WITH SECTION 41-16-59 OF THE CODE OF ALABAMA, THE SUCCESSFUL BIDDER ON THIS SOLICITATION IS RESTRAINED FROM ASSIGNING OR SUBCONTRACTING ANY PORTION OF THE WORK UNDER THIS CONTRACT WITHOUT PRIOR WRITTEN APPROVAL OF THE TRANSPORTATION DIRECTOR AND THE DIRECTOR OF PURCHASING.

1.4 DUE TO THE NATURE OF THE PRODUCT, AWARD WILL BE MADE ON "**ALL OR NONE**" BASIS TO THE RECOMMENDED VENDOR, WHO DURING THE COURSE OF OUR BID EVALUATION IS FOUND TO BE THE LOWEST RESPONSIBLE BIDDER. BID PRICE EVALUATION WILL BE CALCULATED AS A SUM TOTAL OF ALL WORK ITEMS. EACH LINE ITEM OF WORK TO BE CALCULATED AS A PRODUCT OF UNIT PRICE TIMES ESTIMATED ANNUAL USAGE.

1.5 THE VENDOR SHALL INDEMNIFY AND SAVE HARMLESS THE STATE, THE DEPARTMENT, THE OFFICERS AND EMPLOYEES FROM ALL SUITS, ACTIONS, OR CLAIMS OF ANY CHARACTER BROUGHT BECAUSE OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON, PERSONS, OR PROPERTY DUE TO THE

OPERATIONS OF THE SAID VENDOR; OR BECAUSE OF OR IN CONSEQUENCE OF ANY NEGLIGENCE IN SAFEGUARDING THE WORK; OR THROUGH THE USE OF UNACCEPTABLE MATERIALS IN CONSTRUCTING THE WORK; OR BECAUSE OF ANY ACT OR OMISSION, NEGLIGENCE, OR MISCONDUCT OF SAID VENDOR OR BECAUSE OF ANY CLAIMS OR AMOUNTS ARISING OR RECOVERED UNDER THE "WORKMAN'S COMPENSATION ACT" OR ANY OTHER LAW, ORDINANCE, ORDER, OR DECREE; AND SO MUCH OF THE MONEY DUE TO SAID VENDOR UNDER AND BY VIRTUE OF HIS CONTRACT AS MAY BE CONSIDERED NECESSARY BY THE DEPARTMENT FOR SUCH PURPOSE MAY BE RETAINED FOR THE USE OF THE STATE OR IN CASE NO MONEY IS DUE. HIS SURETY WILL BE HELD LIABLE UNTIL SUCH SUIT OR SUITS, ACTION OR ACTIONS, CLAIM OR CLAIMS FOR INJURIES OR DAMAGES AS AFORESAID SHALL HAVE BEEN SETTLED AND SUITABLE EVIDENCE TO THAT EFFECT FURNISHED TO THE DEPARTMENT EXCEPT THAT MONEY IS DUE TO THE VENDOR WILL NOT BE WITHHELD WHEN THE VENDOR PRODUCES SATISFACTORY EVIDENCE THAT HE IS ADEQUATELY PROTECTED BY PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE.

- 1.6 EACH VENDOR MUST BE ABLE TO DOCUMENT ON DEMAND A MINIMUM OF THREE (3) YEARS' EXPERIENCE IN SUCCESSFUL TREE TRIMMING, TREE REMOVAL, TREE SERVICE, OR EQUIVALENT PROCEDURES.
- 1.7 THE VENDOR MUST PROVIDE THE STATE OF ALABAMA WITH A PERFORMANCE BOND IN THE AMOUNT OF THE TOAL BID AS DESCRIBED IN PARAGRAPH 1.4 ABOVE, BEFORE ANY WORK IS STARTED.
- 1.8 THE VENDOR MUST INCLUDE WITH THE BID, A BID BOND IN THE AMOUNT OF 5% OF THE TOTAL BID. **FAILURE TO PROVIDE THIS DOCUMENTATION WITH THE BID PACKAGE WILL BE CAUSE FOR REJECTION OF THIS BID.**

2.0 WORK SCOPE

- 2.1 THE WORK SHALL CONSIST OF TREE TRIMMING, TREE REMOVAL, DISPOSAL OF VEGETATION (TREES, SHRUBS, VINES, STUMPS, ROOTS, ETC.), EROSION SEDIMENT CONTROL, STUMP GRINDING AND STUMP REMOVAL WITHIN THE DESIGNATED LIMITS, AS DIRECTED BY THE DISTRICT MANAGER. MOBILIZATION AND TRAFFIC CONTROL SHALL BE SUBSIDIARY OBLIGATIONS OF THE CONTROLLING ITEM OF WORK PER WORK ORDER.
- 2.2 HOURLY WORK ITEMS SHALL CONSIST OF A MINIMUM OF 3 HOURS OF AT LEAST ONE OF THE LISTED PAY ITEMS PER WORK ORDER OR PER DAY. WORK ITEMS MEASURED BY THE MILE SHALL HAVE A ONE MILE MINIMUM PER WORK ORDER. THIS MAY INCLUDE MULTIPLE SITES OF NO LESS THAN 0.5 MILE INCREMENTS EACH. IF A WORK ORDER CONTAINS MULTIPLE SITES THAT ARE MEASURED BY

THE MILE SHALL HAVE NO MORE THAN TWO CENTERLINE MILES BETWEEN THE ENDING AND BEGINNING POINTS, OTHERWISE ANOTHER WORK ORDER MUST BE GENERATED FOLLOWING THE SAME CRITERIA.

- 2.3 THE REQUIREMENTS FOR THE CONTROL OF EROSION AND STORMWATER RUNOFF ARE GIVEN IN ARTICLE 107.21 AND SECTION 665.01 THROUGH 665.03 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION. THESE REQUIREMENTS SHALL BE IMPLEMENTED PRIOR TO THE INITIAL OPERATIONS AND MAINTAINED THROUGHOUT THE WORK PERIOD. ALL WORK REQUIRED UNDER THIS SECTION SHALL BE A SUBSIDIARY OBLIGATION OF THE CONTROLLING ITEM OF WORK PER WORK ORDER.
- 2.4 THE ALDOT DISTRICT MANAGER OR REPRESENTATIVE WILL DESIGNATE THE LOCATION AND EXTENT OF RIGHT-OF-WAY LINES, AND/OR EASEMENT LINES.
- 2.5 THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, AND ORDINANCES PERTAINING TO DISPOSAL WHEN MATERIAL IS BEING REMOVED FROM RIGHT-OF-WAY. CONTRACTOR SHALL ATTACH TO EACH INVOICE COPIES OF DISPOSAL TICKETS FROM A CERTIFIED LANDFILL DISPOSAL FACILITY OR A COPY OF A LETTER OF AGREEMENT FOR DISPOSAL ON PRIVATE PROPERTY SIGNED AND NOTARIZED BY THE PROPERTY OWNER.
- 2.6 TREE TRUNKS AND LIMBS FOUR (4) INCHES OR GREATER IN DIAMETER SHALL BE REMOVED FROM THE DESIGNATED SITE BY THE END OF THE WORKDAY ON WHICH THEY ARE CUT UNLESS OTHERWISE APPROVED BY THE DISTRICT MANAGER.
- 2.7 STUMPS, WHEN REQUIRED BY THE DISTRICT MANAGER, SHALL BE REMOVED TO THE GROUND LINE OR BELOW. REMOVAL SHALL BE ACCOMPLISHED BY CUTTING OR GRINDING. ADDITIONALLY HARDWOOD TREE STUMPS SHALL BE REMOVED TO A MINIMUM DEPTH OF ONE (1) FOOT BELOW THE GROUND LINE.
- 2.8 THE CONTRACTOR SHALL NOT DAMAGE VEGETATION AND TERRAIN THAT THE DISTRICT MANAGER DESIGNATES TO REMAIN UNDISTURBED. DAMAGE SHALL BE REPAIRED WITHOUT ADDITIONAL COMPENSATION AS DIRECTED BY THE DISTRICT MANAGER.
- 2.9 TREE TRIMMING/REMOVAL WILL BE PAID FOR AT THE BID PRICE WHICH SHALL BE FULL COMPENSATION FOR TRAFFIC CONTROL, MOBILIZATION, CUTTING, AND REMOVAL OF DEBRIS WHEN REQUESTED BY THE DISTRICT MANAGER, REPAIRING DAMAGE TO THE EXISTING GROUND SURFACE (INCLUDING BLADING, TOPSOIL, SEEDING, ETC.) AND FOR FURNISHING ALL MATERIALS, EQUIPMENT, TOOLS,

LABOR, AND INCIDENTALS NECESSARY TO COMPLETE AND MAINTAIN THE WORK UNTIL ACCEPTANCE BY THE DISTRICT MANAGER.

- 2.10 STUMP GRINDING WILL BE PAID FOR AT THE BID PRICE WHICH SHALL BE FULL COMPENSATION FOR TRAFFIC CONTROL, MOBILIZATION, GRINDING, REMOVAL OF ALL DEBRIS, REPAIRING DAMAGE TO THE EXISTING GROUND SURFACE (INCLUDING BLADING, TOPSOIL, SEEDING, ETC.) AND FOR FURNISHING ALL MATERIALS, EQUIPMENT, TOOLS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE AND MAINTAIN THE WORK UNTIL ACCEPTANCE BY THE DISTRICT MANAGER.
- 2.11 TREE BASE REMOVAL WILL BE PAID FOR AT THE BID PRICE WHICH SHALL BE FULL COMPENSATION FOR TRAFFIC CONTROL, MOBILIZATION, CUTTING, STUMP & ROOT EXCAVATION, REMOVAL OF DEBRIS, REPAIRING DAMAGE TO THE EXISTING GROUND SURFACE (INCLUDING BLADING, TOPSOIL, SEEDING, ETC.) AND FOR FURNISHING ALL MATERIALS, EQUIPMENT, TOOLS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE AND MAINTAIN THE WORK UNTIL ACCEPTANCE BY THE DISTRICT MANAGER.
- 2.12 BRUSH CUTTING SHALL INCLUDE CUTTING AND TRIMMING BRUSH AND TREES WITHIN THE RIGHT-OF-WAY USING POWER AND/OR HAND TOOLS TO IMPROVE SIGHT DISTANCES AND REMOVE OFFENSIVE ENCROACHING VEGETATION AS DIRECTED BY THE DISTRICT MANAGER OR HIS DESIGNEE. IT SHALL INCLUDE HAND TRIMMING WITH THE USE OF CHAINSAWS, STRING CUTTERS, OR SLING BLADES AROUND BRIDGE ENDS, DRAINAGE SITES, AND OTHER PLACES WHERE MACHINE MOWING IS NOT POSSIBLE.

BRUSH AND TREE TRUNKS SIX (6) INCHES AND SMALLER SHALL BE REMOVED AT THE GROUND LINE OR NO MORE THAN TWO (2) INCHES ABOVE THE SURROUNDING SURFACE WHEN THE BRUSH CUTTING IS DESIGNATED BY THE DISTRICT MANAGER OR HIS DESIGNEE. ALL STUMPS MUST BE CUT PARALLEL WITH THE GROUND SURFACE.

BRUSH CUTTING WILL BE PAID FOR AT THE BID PRICE WHICH SHALL BE FULL COMPENSATION FOR TRAFFIC CONTROL, MOBILIZATION, CUTTING, AND , REMOVAL OF DEBRIS WHEN REQUIRED BY THE DISTRICT MANAGER, REPAIRING DAMAGE TO THE EXISTING GROUND SURFACE (INCLUDING BLADING, TOPSOIL, SEEDING, MULCHING, ETC.) AND FOR FURNISHING ALL MATERIALS, EQUIPMENT, TOOLS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE AND MAINTAIN THE WORK UNTIL ACCEPTANCE BY THE ENGINEER.

- 2.13 BOOM CUTTING SHALL INCLUDE CUTTING AND TRIMMING BRUSH AND TREES WITHIN THE RIGHT-OF-WAY TO PREDETERMINED NEAT LINES BY USING A

MECHANICAL BOOM SAW TO ELIMINATE CANOPIES, IMPROVE SIGHT DISTANCES, AND REMOVE OFFENSIVE ENCROACHING VEGETATION AS DIRECTED BY THE DISTRICT MANAGER OR HIS DESIGNEE. LIMBS SHALL NOT BE LEFT HANGING OR PARTIALLY CUT BY THE CUTTING OPERATION. THE MECHANICAL SAW MUST BE CAPABLE OF SAFELY EXTENDING 70 FEET FROM THE BASE OF THE MACHINE. IT WILL ONLY BE UTILIZED WHEN REMOVING VEGETATION PARALLEL TO THE ROADWAY ON SLOPES FLATTER THAN 25 DEGREES.

BOOM CUTTING WILL BE PAID FOR AT THE BID PRICE WHICH SHALL BE FULL COMPENSATION FOR TRAFFIC CONTROL, MOBILIZATION, CUTTING, AND REMOVAL OF DEBRIS WHEN REQUIRED BY THE DISTRICT MANAGER REPAIRING DAMAGE TO THE EXISTING GROUND SURFACE (INCLUDING BLADING, TOPSOIL, SEEDING, MULCHING, ETC.) AND FOR FURNISHING ALL MATERIALS, EQUIPMENT, TOOLS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE AND MAINTAIN THE WORK UNTIL ACCEPTANCE BY THE DISTRICT MANAGER.

- 2.14 THE ALDOT RIGHT-OF-WAY FENCE SHALL NOT BE DISTURBED UNLESS PRIOR APPROVAL IS GIVEN BY THE DISTRICT MANAGER. IF DAMAGED, THE CONTRACTOR SHALL REPLACE IN KIND IMMEDIATELY. THE CONTRACTOR SHALL IN NO CASE LEAVE A DISTURBED OR DAMAGED ALDOT RIGHT-OF-WAY FENCE DOWN OVERNIGHT OR WHILE CREWS ARE NOT WORKING. IF THE DENIED ACCESS FENCE IS APPROVED BY THE DISTRICT MANAGER TO BE CUT, IT SHALL BE CLOSED AT THE OF EACH DAY'S WORK. WHEN WORK IS COMPLETED, THE DENIED ACCESS FENCE SHALL BE RESTORED TO ITS ORIGINAL CONDITION.
- 2.15 CONTRACTOR SHALL SUBMIT MONTHLY INVOICES IN ARREARS DETAILING EACH TYPE OF SERVICE PERFORMED, QUANTITIES AS VERIFIED BY INSPECTOR/DISTRICT MANAGER, UNIT PRICES, AND MONTHLY TOTALS AS INDICATED ELSEWHERE IN THESE SPECIFICATIONS, UNIT BID PRICES ON THE INDIVIDUAL ITEMS OF WORK BY COUNTY SHALL CONSTITUTE PAYMENT IN ENTIRETY FOR ALL WORK INCLUDING CONSEQUENTIAL WORK SUCH AS, BUT NOT LIMITED TO, TRAFFIC CONTROL AND TEMPORARY SOIL EROSION AND SEDIMENT CONTROL.

3.0 **PERFORMANCE REQUIREMENTS**

- 3.1 ALL WORKMANSHIP SHALL BE OF A PROFESSIONAL QUALITY AND STANDARD AS GENERALLY ACCEPTED IN THE TRADE. ALL WORKMANSHIP IS SUBJECT TO INSPECTION AND APPROVAL BY THE DISTRICT MANAGER OR HIS DESIGNEE, AND MUST BE IN ACCORDANCE WITH THE ALDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION, APPLICABLE SPECIAL PROVISIONS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND THE ALDOT STANDARD AND SPECIAL DRAWINGS, LATEST EDITION.

- 3.2 IN THE EVENT THE CONTRACTOR IS REQUIRED TO PERFORM WORK OUTSIDE RIGHT-OF-WAY, A RIGHT-OF-ENTRY PERMIT WILL BE ACQUIRED THROUGH THE DISTRICT OFFICE AND THE DIVISION RIGHT-OF-WAY MANAGER. THEREFORE, ALL RIGHT-OF-ENTRY AGREEMENTS SHALL BE OBTAINED BY ALDOT PRIOR TO GENERATING WORK ORDERS FOR THE CONTRACTOR.

AS OUTLINED IN SECTION 107.12 OF THE STANDARD SPECIFICATIONS, THE CONTRACTOR SHALL NOT ENTER UPON PRIVATE PROPERTY FOR ANY PURPOSE WITHOUT PERMISSION FIRST BEING OBTAINED FROM THE OWNERS AND LEASEES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVATION OF ALL PUBLIC AND PRIVATE PROPERTY. HE SHALL NOT REMOVE, INJURE, OR DESTROY WITHOUT PROPER AUTHORITY TREES OR PLANTS THAT ARE ORDERED BY THE DISTRICT MANAGER OR HIS DESIGNEE TO REMAIN ON OR ADJACENT TO THE RIGHT-OF-WAY. THE CONTRACTOR SHALL BE SOLELY AND EXCLUSIVELY RESPONSIBLE FOR ANY AND ALL RESTORATION, REPAIR, OR REPLACEMENT OF PUBLIC AND PRIVATE PROPERTY DUE TO, CAUSED BY, OR AS A RESULT OF ANY ACT, OMISSION, NEGLIGENCE OR MISCONDUCT OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE AN APPROPRIATE REMEDY AS APPROVED BY THE DISTRICT MANAGER.

- 3.3 ATTENTION IS DRAWN TO THE FACT THAT THIS WORK MAY BE PERFORMED UNDER TRAFFIC CONDITIONS THAT REQUIRE SPECIAL CARE TO EXPEDITE THE WORK AND PREVENT UNDUE HAZARDOUS CONDITIONS. TRAFFIC CONTROL WILL BE THE RESPONSIBILITY OF THE VENDOR IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND CHAPTER VI OF THE MOST CURRENT EDITION OF THE STANDARDS AND GUIDES FOR TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE, UTILITY, AND INCIDENTAL MANAGEMENT OPERATIONS. FURTHER ATTENTION IS DRAWN TO SUB-ARTICLE 107.07 OF THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE DISTRICT MANAGER FOR APPROVAL PRIOR TO WORKING ON, OR WITHIN TWO (2) FEET OF, THE EDGE OF SHOULDER.

TRAFFIC CONTROL SHALL BE A SUBSIDIARY OBLIGATION OF THE CONTROLLING ITEM OF WORK PER WORK ORDER.

ANY CONTRACTOR PERSONNEL WORKING OUTSIDE THEIR VEHICLE IN A WORK ZONE SHALL WEAR APPROPRIATE REFLECTIVE ATTIRE, I.E. VESTS MEETING CURRENT ANSI CLASS III STANDARDS, WHILE PERFORMING WORK IN PROXIMITY TO MOVING TRAFFIC.

DELIBERATE VIOLATIONS OF ESTABLISHED SAFETY PROTOCOL, WHEN OBSERVED AND DOCUMENTED BY ALDOT PERSONNEL, MAY BE GROUNDS FOR IMMEDIATE RECOMMENDATION FOR CANCELLATION OF THIS CONTRACT.

- 3.4 PRICES ARE TO INCLUDE ALL EQUIPMENT, TOOLS, LABOR, AND OTHER NECESSARY INCIDENTALS FOR THE COMPLETION OF THIS WORK TO AN APPROVED AND SATISFACTORY CONDITION. NO WORK WILL BE DONE AT THE LOCATIONS DESIGNATED WITHOUT PRIOR APPROVAL AND NOTIFICATION BY THE DISTRICT MANAGER.
- 3.5 PERIOD TO COVER FROM DATE OF AWARD THROUGH TWELVE (12) CONSECUTIVE MONTHS. THIS CONTRACT MAY BE RENEWED AT ORIGINAL BID PRICES UNDER ORIGINAL BID TERMS, CONDITIONS, AND SPECIFICATIONS, WITH THE MUTUAL CONSENT OF BOTH CONTRACTOR AND ALDOT, NOT TO EXCEED FOUR (4) ADDITIONAL 12-MONTH CONTRACT TERMS.
- 3.6 AS REQUIRED IN ALL PHASES OF WORK, A BEST MANAGEMENT PLAN (BMP) SHALL, AT A MINIMUM, RETURN ALL EXPOSED AND DISTURBED AREAS TO ORIGINAL CONDITION OR BETTER WITH AT LEAST A GOOD STAND OF GRASS AND/OR SOD. ANY ADDITIONAL EROSION CONTROL MATERIALS AND/OR PROCEDURES REQUIRED BY THE DISTRICT MANAGER THAT ARE NOT COVERED WITHIN THE CONTRACT SHALL BE CONSIDERED A SUBSIDIARY OBLIGATION OF THE CONTROLLING BID ITEM BEING UTILIZED AT THE TIME OF DISTURBANCE.
- 3.7 THERE SHALL BE A MINIMUM 72 HOUR RESPONSE TIME FOR MOBILIZATION ONCE THE WRITTEN REQUEST IS MADE BY THE DISTRICT MANAGER.
- 3.8 NO WORK SHALL BE CONDUCTED DURING THE FOLLOWING HOLIDAYS, AND/OR ANY SPECIAL EVENTS DEEMED APPROPRIATE BY THE ALDOT DIVISION ENGINEER UNLESS WRITTEN APPROVAL IS PROVIDED:

MEMORIAL DAY
INDEPENDENCE DAY (JULY 4TH)
LABOR DAY
THANKSGIVING
CHRISTMAS

SPECIAL EVENTS AS DEEMED BY THE ALDOT DIVISION ENGINEER

- 3.9 DEPENDING ON LOCATION AND ROUTE TYPE, THE DIVISION ENGINEER MAY REQUIRE MEDIA ADVISORIES 48 HOURS PRIOR TO COMMENCING WORK. IN THIS EVENT, THE ALDOT DISTRICT MANAGER SHALL COORDINATE WITH THE

CONTRACTOR AND DIVISION OFFICE IN NOTIFYING THE MEDIA OF THE INTENDED WORK SCHEDULE.

- 3.10 WORK TIME RESTRICTIONS ON THIS CONTRACT WILL VARY BASED ON ROUTES AND PEAK HOUR TRAFFIC VOLUMES. THE ALDOT DISTRICT MANAGER SHALL DETERMINE THESE WORK TIME RESTRICTIONS AS SITES ARE GENERATED.
- 3.11 EVIDENCE OF A CONTRACTOR'S INABILITY TO COMPLETE WORK IN A TIMELY MANNER, IN ACCORDANCE WITH ALL TERMS, CONDITIONS, AND SPECIFICATIONS WILL BE CAUSE FOR CANCELLATION OF THE CONTRACT.
- 3.12 UPON REQUEST, CONTRACTOR MUST BE PREPARED TO PROVIDE LEGAL IDENTIFICATION (STATE-ISSUED DRIVER'S LICENSE OR NON-DRIVER'S IDENTIFICATION CARD) AND A USCIS FORM I-9 FOR ANY CONTRACTOR EMPLOYEE WORKING ON AN ALDOT CONTRACT.
- 3.13 ANY CONTRACTOR EQUIPMENT LEFT ON THE RIGHT-OF-WAY OVERNIGHT OR THROUGH WEEKENDS AND HOLIDAYS MUST BE PARKED IN A LOCATION AND MANNER AS DETERMINED BY THE INSPECTOR OR THE DISTRICT MANAGER OR HIS DESIGNEE IN ACCORDANCE WITH ANY CONTROLLING ALDOT STANDARD SPECIFICATIONS OR MUTCD GUIDELINES. THE SECURITY AND RISK OF CONSEQUENTIAL LOSS FOR ANY CONTRACTOR EQUIPMENT LEFT ON THE RIGHT-OF-WAY OVERNIGHT, OR THROUGH A WEEKEND OR HOLIDAYS, WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ALDOT WILL BEAR NO LIABILITY THERETO.

4.0 INSPECTION

- 4.1 THE DISTRICT MANAGER MAY APPOINT SUCH INSPECTORS, ASSISTANTS, OR REPRESENTATIVES AS HE DEEMS NECESSARY AND THEY SHALL BE GRANTED FULL ACCESS TO THE WORK UNDER THE CONTRACT.
- 4.2 DUTIES OF THE INSPECTOR:
INSPECTORS WILL BE AUTHORIZED TO INSPECT ALL WORK DONE AND MATERIALS FURNISHED. SUCH INSPECTION MAY EXTEND TO ALL OR ANY PART OF THE WORK AND TO THE PREPARATION, FABRICATION, OR MANUFACTURE OF THE MATERIALS TO BE USED. THE INSPECTOR WILL NOT BE AUTHORIZED TO ALTER OR WAIVE THE PROVISIONS OF THE CONTRACT. THE INSPECTOR WILL NOT BE AUTHORIZED TO ISSUE INSTRUCTIONS CONTRARY TO THE PLANS AND SPECIFICATIONS OR TO ACT AS FOREMAN FOR THE CONTRACTOR; HOWEVER, HE SHALL HAVE THE AUTHORITY TO REJECT WORK OR MATERIALS UNTIL ANY QUESTIONS AT ISSUE CAN BE REFERRED TO AND DECIDED BY THE DISTRICT MANAGER.

THE INSPECTOR SHALL BE AUTHORIZED TO ENFORCE WORK SITE SAFETY REQUIREMENTS.

4.3 ALL WORK SHALL BE DONE DURING DAYLIGHT HOURS.

ALABAMA DEPARTMENT OF TRANSPORTATION

STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION

2012 EDITION

SECTION 107: LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107.07 Public Convenience and Safety.

(a) CARE OF TRAFFIC.

The Contractor shall at all times conduct his work so as to insure the least possible obstruction to traffic. The safety and convenience of the general public and residents along the highway shall be provided for by the Contractor as specified under Article 104.04.

The Contractor shall have no greater length or amount of work under construction than he can prosecute properly with due regard to the rights of the public.

The Contractor shall immediately clean up any spillage resulting from hauling operations along or across any public traveled way.

The Contractor shall notify the Engineer before starting any construction work that might inconvenience or endanger traffic and shall make such arrangements for the safety and convenience of traffic as may be required by the Engineer.

(b) GENERAL PUBLIC.

In general, vehicles of the traveling public shall have preference over those of the Contractor to the end that vehicles of the traveling public shall not be unduly delayed for the convenience of the Contractor. When so directed the Contractor shall station flagmen, whose sole duties shall consist of directing traffic safely and expeditiously through or around the work.

Materials and equipment on the right of way shall be so placed as to insure minimum danger to the traveling public.

Where traffic passes through construction, a suitable width shall be maintained level and smooth to provide satisfactory passage. This width shall be watered or treated with dust control agents as directed to prevent dust nuisance. Soil aggregate, aggregate, or other suitable material shall be spread where and as directed by the Engineer to facilitate movement of traffic over soft portions of this width. Traffic shall be maintained over or around structures and culverts.

(c) COOPERATION WITH FIRE DEPARTMENT.

The Contractor shall arrange his work so that there will be no undue or prolonged blocking of business establishments. Fire hydrants shall be kept accessible at all times. In the absence of local ordinances, no obstruction shall be placed within 15 feet {5 m} of a fire hydrant. The Contractor shall notify the Chief of the Fire Department in writing 24 hours before it becomes necessary to block a cross street.

(d) COMPENSATION.

The Contractor shall comply with all the requirements for public safety and convenience listed in this Article without extra compensation, except for the items of temporary surface material, Section 430, which shall be paid for at the contract unit price, or as extra work if the contract does not contain unit prices for these items.

107.12 Protection and Restoration of Property, Landscape and Utility Facilities.

(a) PROPERTY AND LANDSCAPE.

The Contractor shall not enter upon private property for any purpose without permission first being obtained from the owners and lessees. The Contractor shall be responsible for preservation of all public and private property, utilities, monuments, highway signs, etc. on or adjacent to the highway. He shall not remove, injure, or destroy without proper authority trees or plants that are shown on the plans or ordered by the Engineer to remain on or adjacent to the right of way. The Contractor shall protect from disturbance all land markers until an authorized agent has witnessed or referenced the locations and shall not move them until directed. The Contractor shall notify the Engineer immediately upon discovery of artifacts or other articles of possible archeological value revealed by his operations, and shall carefully preserve them and prevent disturbance of the site until the Engineer has had opportunity to arrange appropriate disposal. Highway signs and markers shall be carefully removed as the grading operations progress and stored in a manner to keep them clean and dry.

When the work affects the foundation support of any building along the work, the Contractor shall give property owners and lessees direct and sufficient notice to support such buildings. The Contractor and his surety shall hold the State, the County, the Municipality, the Director, and the Engineer harmless from any damage resulting from undercutting any such buildings.

The Contractor shall be solely and exclusively responsible for any and all restoration, repair or replacement of public and private property due to, caused by, or as a result of any act, omission, negligence or misconduct of the Contractor. The Contractor shall provide an appropriate remedy as approved by the Engineer.

Failure on the part of the Contractor to satisfy the requirements given in this Subarticle, shall result in the Engineer affecting an appropriate remedy at the Contractor's expense.

(b) UTILITIES.

1. Where the Contractor's operations are adjacent to utilities or other property, damage to which might result in expense, loss, or inconvenience, work shall not be begun until all arrangements necessary for property protection has been made.

The Contractor shall be responsible to the owners and operators of such property for any damage, loss, or inconvenience. He and his surety shall defend any suits, actions, or claims of any character brought due to injuries or damages resulting from performance of the work under this contract. If required by the Director, he shall furnish a certificate of his public liability and property damage insurance to each utility company or individual owning or operating any of the properties affected in the guarantee of this responsibility.

2. The Contractor shall cooperate with the owners of any utilities in their removal and rearrangement operations so that the utility companies may conduct their operations in a reasonable manner with a minimum of duplication of the work and interruption of services. The Contractor will be furnished by the Department information that is reasonably available in regard to existing or proposed new utilities, but the accuracy of such information is not guaranteed by the Department. It shall be the Contractor's responsibility to secure information necessary for proper handling and coordination of utility work. He shall give at least 48 hours written notice to owners or operators of all properties that may be affected by his operations before beginning such operations. He shall not hinder or interfere with utilities in protection or operations of the properties. When such properties are endangered, the Contractor at his own expense shall maintain flagmen or watchmen and other necessary precautions to avoid interruption of service or danger to life or property. He shall promptly replace, restore, or make good in an acceptable manner any injury or damage caused by his operations.

3. In event of interruption to water or utility services as a result of the Contractor's operations, he shall notify promptly the proper authority and cooperate with the said authority in restoration of service as promptly as possible.

107.21 Stormwater Management.

(a) PROTECTION OF PROJECT SITE AND ADJACENT PROPERTY.

The Contractor shall perform the work while protecting the project site and adjacent property from contaminated stormwater runoff. The requirements given in Section 665 shall apply to all work regardless of whether or not any of the pay items of Section 665 are included in the contract. When a pay item is not in the contract for an item of temporary erosion control, and the work is deemed necessary by the Engineer, the work will be paid for as Extra Work. It is the contractor's responsibility to minimize the introduction of and facilitate the removal of sediment, nutrients, and other pollutants in stormwater runoff originating within the ALDOT right of way. The quality of waters originating off of the right of way and entering the project site shall not be diminished as they flow through and leave the site.

(b) BEST MANAGEMENT PRACTICES.

The Contractor shall implement and maintain appropriate structural and nonstructural Best Management Practices (BMPs) for the prevention and control of nonpoint sources of pollutants, e.g., sediment, oil & grease, chemicals, etc., during project construction. The Contractor shall abide by the regulations given in the Alabama Department of Environmental Management (ADEM) Administrative Code applicable to construction stormwater and the National Pollutant Discharge Elimination System (NPDES) General Permit.

(c) NPDES NOTICE OF INTENT.

A Project Note will be shown on the plans to indicate that a Notice of Intent (NOI) for NPDES permit coverage has been filed with ADEM and the availability of a Construction Best Management Practices Plan (CBMPP) for the project. The NOI is an application filed with ADEM requesting NPDES registration. When a NOI is required, the Alabama Department of Transportation will be the OWNER of record with ADEM for the NOI. The Contractor shall be the OPERATOR and shall comply with all requirements of the NOI. When the project is sponsored by a Local Public Agency (LPA), the Contractor shall be the OPERATOR and the LPA will be the OWNER of record.

The Contractor shall be responsible for obtaining applicable NPDES permit coverage through ADEM for all material pits, waste areas, plant sites, haul roads and other off-site areas selected by the Contractor to construct the project. Copies of the written acknowledgement from ADEM verifying that permit coverage has been obtained shall be forwarded to the Engineer as part of the Contractor's Stormwater Management Plan before ground is disturbed in these areas.

(d) INSPECTIONS AND CORRECTIVE ACTIONS

1. DAILY OBSERVATIONS.

The Contractor's Qualified Credentialed Inspector (QCI) and the Project QCI shall perform daily observations of discharge points and areas of the project where the ground is disturbed and record rainfall measurements and weather information. If any previously undocumented BMP deficiencies or a substantial visual contrast between stormwater discharge and the receiving water is observed, then a formal inspection report is required.

2. SITE INSPECTIONS.

When a NOI has been filed for the project, formal inspections shall be made by the Contractor's and the Department's QCIs. Project site inspections of the BMPs shall be made by the QCIs at least once per week or after the accumulation of 3/4 inch {75 mm} of rainfall within 24 hours, whichever occurs first. These project site inspections shall be initiated as soon as possible and within 24 hours of resuming work on the project and shall be completed no later than 5 days after the rain event. Inspection Certification Reports and Noncompliance Notification Reports (if warranted) will be entered into the Department's Stormwater Permit Tracking System by the Department's QCI.

Water sampling and testing will be performed by Department personnel when directed by the Engineer or as required by the NPDES General Permit.

For projects where ALDOT is not the OWNER of the NOI, such as those sponsored by a LPA, project site inspections shall be made after the accumulation of 3/4 inch {75 mm} rainfall within 24 hours or as required by the LPA. Any required water sampling and testing for such projects shall not be the responsibility of nor performed by ALDOT.

3. QCP SITE EVALUATIONS.

The Project Qualified Credential Professional (QCP) shall perform a site evaluation every six months or more frequently if necessary. This evaluation shall be an onsite inspection of all erosion and sediment control best management practices being implemented for adequacy and consistency with site conditions and shall be a review of the CBMPP to ensure proper maintenance.

4. CORRECTIVE ACTIONS.

If an inspection reveals a "needs improvement" or "sediment loss" condition, immediate corrective action shall be taken by the Contractor and completed prior to the next storm event but no later than 5 days after the inspection unless prevented by unsafe weather conditions. Additional inspections shall be performed as needed until the observed deficiency can be documented as being corrected and in compliance with the ADEM permit. This corrective action may require a suspension of all operations until the project is in compliance.

Any damage to properties adjacent to the project site due to the Contractor's acts, omissions, misconduct, or negligence in the area of stormwater management shall be restored in accordance with the requirements given in Article 107.12. Any fines assessed the OWNER ("OWNER" as defined in Subarticle 107.21(c)) by ADEM due to the Contractor's contractor acts, omissions, misconduct, or negligence shall be reimbursed to the OWNER by the Contractor.

(e) NPDES PERMIT TERMINATION.

The Contractor shall be responsible for stormwater runoff control on the project until the stormwater permit is terminated or 30 calendar days after the OWNER's request for termination has been processed, whichever is less. The OWNER will request termination of the permit within 10 days of acceptance of the project for maintenance.

SECTION 665 TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

665.01 Description.

The Contractor shall provide and maintain temporary soil erosion and sediment control to protect the project site from erosion and adjacent property and waters from damage by sediment transport and deposition during construction. "Best Management Practices" (BMPs) shall be provided and maintained to control soil erosion and sediment transport. A BMP is any procedure, process, technique, plan or device that can be utilized to enhance the control of soil erosion and sediment transport.

665.02 Materials.

(a) TEMPORARY SEEDING.

Seeds shall be furnished in accordance with the requirements given in Item 860.01(a)1. Seed mixes used for temporary seeding shall be in accordance with the following table:

TEMPORARY SEEDING	
September through December	
Annual Ryegrass	25 pounds per acre {28 kg per hectare}
Kentucky 31 Fescue	30 pounds per acre {34 kg per hectare}
Reseeding Crimson Clover	10 pounds per acre {11 kg per hectare}
January through April 15	
Kentucky 31 Fescue	30 pounds per acre {34 kg per hectare}
Reseeding Crimson Clover	30 pounds per acre {34 kg per hectare}
Annual Ryegrass	15 pounds per acre {18 kg per hectare}
April 16 through August	
Brown Top Millet	30 pounds per acre {34 kg per hectare}
Kentucky 31 Fescue	30 pounds per acre {34 kg per hectare}
Hulled Bermuda Grass	10 pounds per acre {11 kg per hectare}

(b) TEMPORARY MULCHING.

Temporary mulching materials shall conform to the requirements given in Article 860.03 for Mulching Material.

(c) TEMPORARY PIPE.

Temporary pipe may be constructed of any type of material that will be suitable for the required work. The inside diameter of the pipe shall be selected by the Contractor based on expected flows and shall be a minimum of 12 inches {300 mm} or as shown on the plans. End treatments, joint sections, and tees shall also be of materials and sizes that are suitable for the required work. Anchors shall be installed when required to keep the pipe in place.

(d) POLYETHYLENE.

Polyethylene sheets may be of any size or color capable of serving the purpose intended provided it is of at least 4 mil {0.1 mm} in thickness.

(e) TEMPORARY COARSE AGGREGATE.

Temporary coarse aggregate shall be either stone or concrete from the demolition of structures on the Right of Way.

Stone aggregate for stabilized construction entrances shall meet the requirements for ALDOT Number 1 coarse aggregate given in Section 801. Concrete from the demolition of structures shall meet the gradation requirements for ALDOT Number 1 coarse aggregate given in Section 801. Reinforcing steel shall be removed from the concrete used for temporary coarse aggregate. Stone aggregate for other erosion and sediment control purposes shall be the size shown on the plans and shall meet the requirements given in Section 801.

(f) TEMPORARY RIPRAP.

Unless shown otherwise on the plans, temporary riprap shall be either stone or concrete from the demolition of structures on the Right of Way. Stone riprap shall meet the requirements for Class 2 riprap given in Section 814. Concrete from the demolition of structures shall meet the size and weight requirements given for Class 2 riprap in Section 814. Reinforcing steel shall be cut flush with the surfaces of the demolished concrete.

(g) HAY BALES.

Bales may be either hay or straw containing 5 cubic feet {0.14 m³} of material and having a weight {mass} of not less than 35 pounds {16 kg} with a minimum length of 3 feet {0.9 m}.

(h) SAND BAGS.

Bags may be cotton, burlap, woven polypropylene, polyethylene, polyamide fabric or other material that will adequately confine the aggregate content for the duration of the use of the bag. Bags shall be filled with sand, limestone screenings or aggregate that is smaller than ALDOT #78. Fill material shall be selected by the Contractor based on the required bag application. Each filled bag shall have minimum dimensions of 18" x 12" x 3" {450 mm x 305 mm x 75 mm} and shall have a minimum weight {mass} of 30 pounds {13 kg}.

(i) SILT FENCE.

Silt fence shall be a geotextile filter supported between posts with a wire mesh backing as shown on the plans. Posts shall be strong enough to provide and retain the fence configuration shown on the plans while being subjected to loading of silt, water and debris.

Silt fence shall meet the requirements given in Section 810 and AASHTO M 288 as supplemented by the following requirements:

- The support backing for the geotextile shall be 14 gage steel wire mesh. The vertical spacing of the wire in the mesh shall be 6 {150 mm} inches. The minimum horizontal spacing of the wires shall be 6 inches {150 mm} and the maximum horizontal spacing shall be 12 inches {300 mm}.
- The geotextile filter shall be either a non-woven geotextile or a woven geotextile composed of monofilament yarns.

A list of geotextile materials acceptable for use in this application (List II-3 "GEOTEXTILES") is given in the ALDOT manual titled "Materials, Sources, and Devices with Special Acceptance Requirements".

(j) WATTLES.

A wattle shall be a tubular shaped product specifically manufactured for erosion and sediment control. Biodegradable wattles shall be manufactured using interwoven biodegradable plant material such as straw, coir, or wood shavings in biodegradable or photodegradable netting that is of sufficient strength to resist damage during handling, installation and use. Wattles manufactured using non-biodegradable materials shall be completely removed from the project when no longer required or useful. Disposal shall be in accordance with recommendations from the wattle manufacturer.

The required minimum diameter of the wattle shall be determined based upon its intended application and shall be as follows unless shown otherwise on the plans. When installed for the purposes of slowing sheet flow or by interrupting the lengths of longer slopes (slopes longer than 50 feet {15 m}), the minimum diameter of the wattle shall be 9 inches {230 mm}. For all other applications including

perimeter sediment barriers the minimum diameter of the wattle shall be 20 inches {500 mm}. Wattles of smaller than required diameter may be provided as a stacked installation in accordance with manufacturer recommendations for stacking if the total height of the installation is at least 20 inches {500 mm}. The diameter or height will be verified by measuring the wattle after installation.

A list of acceptable manufactured wattle products (LIST II-24 "TEMPORARY EROSION AND SEDIMENT CONTROL PRODUCTS") is given in the ALDOT manual titled "Materials, Sources, and Devices with Special Acceptance Requirements".

(k) SILT DIKES.

Silt dikes shall be a triangular shaped cross section with a height of at least 8" {200 mm} in the center with equal length sides and a 16" to 20" {400 mm to 500 mm} base. The triangular shape shall be urethane foam. The outer cover shall be a woven geotextile fabric placed around the urethane foam. The geotextile shall also extend beyond both sides of the triangle at least 2 feet {600 mm}. Dikes shall be attached to the ground with wire staples in accordance with the silt dike manufacturer's recommendations.

(l) BRUSH BARRIER.

Brush Barriers shall be constructed of selected brush, limbs and small trees from the clearing operations. The filter fabric shall meet the material requirements of Section 610.

(m) MANUFACTURED INLET PROTECTION DEVICE.

Manufactured Inlet Protection Devices shall be provided in accordance with requirements shown on the plans. Manufactured inlet protection devices shall consist of filter fabric held in place by a rigid frame. The frame shall be strong enough to support the stormwater flow and weight of any sediment that accumulates on the filter. The manufactured inlet protection device shall have an overflow feature to allow the passage of water during high flow conditions. The filter fabric shall have the following properties:

- Minimum Tensile Strength (Machine Direction) of 80 pounds {355 Newtons} (ASTM D 4632);
- Minimum Permittivity of 0.05 sec-1 (ASTM D 4491);
- Maximum Apparent Opening Size of US Std #30 sieve {0.60 mm} (ASTM D 4751);
- Minimum UV Stability of 70% (ASTM D 4355 at 500 hours).

A list of acceptable manufactured inlet protection devices (LIST II-24 "TEMPORARY EROSION AND SEDIMENT CONTROL PRODUCTS") is given in the ALDOT manual titled "Materials, Sources, and Devices with Special Acceptance Requirements".

(n) FLOATING BASIN BOOM.

Floating basin booms shall consist of a reinforced fabric attached on the upper side to floatation members and ballasted on the lower side with chains or weights to form a bottom-tensioned floating curtain boom. Floating basin booms shall be devices manufactured specifically for use in containing sediment suspended in water.

All materials used in the floating basin boom shall comply with the requirements shown on the plan details and the manufacturer's recommendations for the intended application.

The floatation members shall be made of foam with a minimum diameter of 6 inches {150 mm} or as shown on the plans. The skirt depth below the foam floatation shall be a minimum of 5 feet {1.5 meters} or as shown on the plans. The ballast shall be galvanized proof coil chains or other acceptable weights capable of retaining the skirt in a vertical position. The boom shall be Yellow or International Orange in color.

Anchors capable of holding the floating basin boom in place shall be made of a material recommended by the manufacturer.

(o) SEDIMENTATION BASINS.

Components of sedimentation basins shall meet the requirements shown on the plans. Materials for the construction of the sedimentation basins shall be selected from the lists in the Department's "Materials, Sources and Devices with Special Acceptance Requirements" if lists are available for the materials. If lists are not available, materials shall be provided in accordance with all applicable Department specifications and shall be of a quality that enables the sedimentation basin to function as intended for the duration of the need of the sedimentation basin.

The Contractor shall submit a description of all of the materials proposed for the construction of the sedimentation basins. The proposed list of materials shall be submitted with the submittal of the Stormwater Management Plan (SWMP) that is described in Subarticle 108.04(b).

(p) FLOCCULANT.

The type of Flocculant that is furnished shall be the type that is manufactured for use in controlling erosion and sediment. Flocculant shall be in the form of blocks, powder, or sock sets as shown to be required on the plans. With the exception of sock sets, the exact chemical makeup of the Flocculant shall be selected by the manufacturer based on testing of the soil and potential sediment at the site of construction. Flocculant placement and application rates shown on the plans shall be verified by the Flocculant manufacturer to be effective for the type of soil and sedimentation that must be controlled. Three copies of the documentation of the effectiveness of the Flocculant and of the manufacturer's testing shall be submitted as an attachment to the Stormwater Management Plan that is described in Subarticle 108.04(b).

A list of acceptable flocculants (LIST II-24 "TEMPORARY EROSION AND SEDIMENT CONTROL PRODUCTS") is given in the ALDOT manual titled "Materials, Sources, and Devices with Special Acceptance Requirements".

(q) FLOW BAFFLES.

Flow Baffles shall be a rolled erosion control product supported between posts with a wire mesh backing as shown on the plans. The posts and wire mesh shall meet the same requirements as given for silt fence. The rolled erosion control product shall consist of 100 % coconut (coir) fibers and meet the following requirements:

- Minimum Weight of 20 ounces per square yard {678 grams per square meter} (ASTM D 5261);
- Open Area of 50% as determined by physical measurement.

A list of materials acceptable for use in this application (List II-24 "TEMPORARY EROSION AND SEDIMENT CONTROL PRODUCTS") is given in the ALDOT manual titled "Materials, Sources, and Devices with Special Acceptance Requirements".

(r) BASIN DEWATERING DEVICES.

Basin Dewatering Devices shall be a product or structure that withdraws water from the surface of the basin and meets the requirements that are shown on the plans.

(s) CONTRACTOR RETAINED TURBIDIMETERS.

Turbidimeters shall be a device capable of measuring the nephelometric turbidity units (NTU) of construction stormwater that meets the following requirements:

- Portable waterproof device that meets USEPA Method 180.1 with a 0-1000 NTU range;
- Sample Tubes, Calibration Kit, and Protective Carrying Case;
- Rechargeable Battery, USB Interface, Cable, and Computer Software.

A list of equipment acceptable for use in this application (List II-24 "TEMPORARY EROSION AND SEDIMENT CONTROL PRODUCTS") is given in the ALDOT manual titled "Materials, Sources, and Devices with Special Acceptance Requirements".

665.03 Construction Requirements.

(a) EROSION CONTROL AND RUNOFF CONVEYANCE.

1. TEMPORARY SEEDING AND MULCHING.

a. Inspection to Evaluate Temporary Stabilization.

The project shall be inspected in accordance with the requirements given in Item 107.21(d)2. Areas of the project not undergoing active construction shall be evaluated for temporary stabilization requirements.

b. Temporary Mulching Only.

At locations where final grading should be completed within 60 calendar days, all bare ground shall be stabilized with temporary mulching applied by either hydraulic or conventional methods at a rate of no less than 3.0 tons per acre.

c. Temporary Seeding and Mulching.

At locations where final grading will not be completed within 60 calendar days, all bare ground shall be stabilized with temporary seeding and mulching.

Ground preparation will not be required for temporary seeding and temporary mulching except as follows. Areas to be seeded temporarily shall be left in a rough graded condition. Areas that are smooth or hard shall be lightly scarified with scarifying teeth or some other acceptable method, running perpendicular to the direction of water flow. The intent of this scarifying is to obtain a rough area to hold seed and prevent the formation of rills and gulleys. Areas where sight distances must be maintained shall be bladed smooth. All debris in these areas shall be removed to allow mowing. Application of 1000 pounds {1120 kg} of 8-8-8 fertilizer per acre {hectare} shall be applied by either hydraulic or conventional methods. Seeding and mulching shall also be applied by either hydraulic or conventional methods at a rate of no less than 2.0 tons per acre, separately or concurrently with fertilizer.

d. Anchoring of Temporary Mulching near Traffic and Streams.

Temporary mulch within 10 feet {3 meters} of traffic or live streams shall be anchored by either crimping, the application of a tackifier adhesive, or the installation of a mulch control netting in accordance with the requirements given in Section 656.

e. Acceptance of Temporary Seeding and Mulching.

Full payment for Temporary Mulching will be made after application of the mulch in accordance with the requirements given in Section 656. Payment for Temporary Seeding will be made in full upon satisfactory application. Acceptance of the Temporary Seeding item requires a cover of living plants capable of effectively preventing soil erosion until such time that permanent soil erosion prevention measures can be installed.

2. POLYETHELENE.

Polyethylene sheets shall be placed to eliminate soil erosion on the surfaces of slopes, berms, ditches, and at other locations shown on the plans, accepted SWMP, or as directed by the Engineer. The sheets shall be installed flat and securely anchored to the ground after the ground has been cleared of all objects that may tear the sheets. Upstream sheets shall overlap downstream sheets a minimum of 6 inches {150 mm}. Anchors are considered incidental to this work.

3. TEMPORARY EARTH BERMS.

Temporary earth berms shall be constructed at the top of cut or fill sections and at other locations where the diversion of water is required. Stream diversion is addressed in Sections 107 and 524. Temporary earth berms shall be constructed at locations shown on the plans, the approved SWMP or as directed by the Engineer. Temporary earth berms may be plated with polyethylene or aggregate. The height of the berms shall be a minimum of 2 feet {600 mm} after compaction. The width of the top of the berm shall be 2 feet {600 mm} with 2:1 side slopes. The construction of berms is encouraged and berms of a very temporary nature may be constructed by the windrowing of material. There will be no direct payment for berms not meeting requirements given in this Section and the requirements shown in the plans. If Pay Item 665-T is not included in the contract, the cost of constructing Temporary Earth Berms will be considered incidental to the grading operation.

4. TEMPORARY PIPE.

Temporary Pipe shall be sized to carry the anticipated volumes of flow and shall be installed as permitted by the Engineer or as shown on the plans. The length shall be as determined by the Engineer. Temporary pipes may be placed without the bedding requirements required for the installation of permanent pipe. Pipes shall be securely anchored. Any required tees or joint sections are considered incidental to the work. End treatments shall be installed in a manner to allow the pipe to function effectively.

5. STABILIZED CONSTRUCTION ENTRANCE.

Stabilized construction entrances shall be constructed of materials, at the locations, and to the dimensions shown on the plans, as modified in the accepted SWMP or as directed by the Engineer. The Contractor shall be responsible for maintaining the construction entrance to prevent sediment tracking.

6. DUST CONTROL.

The contractor shall prevent visible dust from leaving the project site by effective means as approved and directed by the Engineer. Dust control shall be considered ineffective where dust creates a potentially unsafe condition, public nuisance or condition endangering the value, utility or appearance of any property.

7. SLOPE TRACKING.

Slope tracking or the surface roughening of slopes shall be accomplished by the walking of tracked equipment upslope and downslope (not along the slope) over the entire erodible area. Slope tracking shall be performed on slopes that are 4:1 or steeper and longer than 20 feet. Slope tracking shall be performed immediately after the final shaping of the slope.

(b) SEDIMENT CONTROL.

1. PLACEMENT OF SEDIMENT CONTROL BMPs IN STREAMS.

Sediment control BMPs shall not be placed in a live stream for the purpose of capturing upland sediment. Additionally, no live stream shall be dammed or ponded for the purpose of water access and usage. Secondary sediment control BMPs in the form of Floating Basin Booms may be placed in live streams parallel to the flow along the bank only as shown in the plans or at the direction of the Engineer.

2. DITCH CHECKS.

Ditch checks shall be constructed at locations shown on the plans, the accepted SWMP or as directed by the Engineer. Materials and products used to construct ditch checks may include sand bags, hay bales, wattles, silt fence, silt dikes, or rock. The materials used shall be installed in accordance with the requirements given in this Section, the requirements shown on the plans and the manufacturer's recommendations for manufactured products.

3. SEDIMENT BARRIERS.

Sediment barriers shall be constructed at the locations shown on the plans, the accepted SWMP or where directed by the Engineer to intercept sheet flow runoff and to treat concrete washout wastewater. Sediment barriers utilized for sediment control adjacent to the construction limits or a live stream shall be installed prior to beginning any grubbing work in the contributing drainage area. Types of sediment barrier may include silt fence, hay bales, sand bags, silt dikes or wattles. The materials used shall be installed in accordance with the requirements given in this Section, the requirements shown on the plans and the manufacturer's recommendations for manufactured products.

4. BRUSH BARRIERS.

Brush barriers shall be constructed at the locations shown on the plans, the approved SWMP or where directed or permitted by the Engineer. Brush barriers may be constructed in rural areas where natural ground is sloping away from the project. Brush barriers shall be compacted to a relatively dense barrier with uniform heights of between 3 and 5 feet and base widths of between 5 and 10 feet {between 1.5 m and 3.0 m} perpendicular to the flow. If required, filter fabric shall be securely attached to the faces of brush barriers and buried in the ground at least six inches. These barriers shall be removed when no longer needed unless otherwise directed by the Engineer.

5. INLET PROTECTION.

Inlet protection shall be installed at locations and in accordance with requirements shown on the plans for the appropriate stages of construction or as directed by the Engineer. Approved manufactured products shall be installed as per manufacturer's recommendations. Site constructed protection may include wattles, silt fence, sand bags, drainage sumps or other practices shown on the plans or directed by the Engineer. In no case will in-structure protection be allowed.

Stage 1 Inlet Protection shall be installed after the outflow drainage has been installed and prior to the construction of the inlet. Stage 1 Inlet Protection shall be ditch checks and/or sediment barriers and shall allow sufficient access to continue inlet construction.

Stage 2 Inlet Protection shall be installed after the inlet is constructed and prior to backfilling. Stage 2 Inlet Protection shall be a sediment barrier. Hay bales are not acceptable for use during this stage of inlet construction.

Stage 3 Protection is required after inlets are completed through grate installation and prior to complete stabilization of the area surrounding the inlet. Stage 3 Inlet Protection for drop inlets shall be in accordance with requirements and details shown on the plans. Stage 3 Inlet Protection shall be a manufactured inlet protection device or constructed with coarse aggregate, wattles or sand bags. Hay bales are not acceptable for use during this stage of inlet construction.

Stage 4 Inlet Protection for drop inlets shall be in accordance with requirements shown on the plans. Stage 4 Inlet Protection shall be a manufactured inlet protection device or constructed with hay bales, wattles or sandbags stacked at least three bags high. Hay bales, sand bags and wattles shall be used as a barrier along the perimeter of the slope paved apron as shown on the plans for a minimum distance of 20 feet {6.1 m}. If impervious surfaces extend beyond 20 feet {6.1 m}, sand bags shall be used as a barrier across the surface 20 feet {6.1 m} from the inlet. Stage 4 Protection will only be required where there is surrounding impervious surfaces that may receive sediment laden runoff.

All inlet protection installations shall be constructed to ensure that runoff does not bypass the inlet. Components of inlet protection may be reused on future installations provided the condition meets the material requirements given in this Section.

6. OUTLET PROTECTION.

Outlet protection required by the plans or directed by the Engineer shall be installed in accordance with the details shown on the plans as soon as practicable after the completion of the drainage structures.

7. DRAINAGE SUMPS.

Temporary drainage sumps shall be constructed as shown on the plans and in locations directed or permitted by the Engineer using the Erosion and Sediment Control Plan (ESCP) as guidance for the location. In general, the shape should be rectangular at the surface with the longer dimension parallel to the flow of water. The minimum volume shall be that shown on the plans. Sumps may be constructed with larger volumes as directed and permitted by the Engineer.

Construction of the sumps shall be accomplished by methods and equipment suitable for the purpose and acceptable to the Engineer. The sump may be supplemented by the use of a ditch check, temporary pipe, polyethylene or other temporary items shown on the plans or approved by the Engineer.

When the sump is deemed of no further use, it shall be backfilled with suitable material and compacted as directed and the area dressed and shaped to blend with the adjacent natural ground.

8. SEDIMENTATION BASINS.

Sedimentation basins shall be constructed in accordance with the details shown on the plans and at the locations shown on the plans or as directed by the Engineer. Sedimentation basins shall be constructed prior to beginning grading operations in the contributing drainage area. Where sedimentation basins are to be constructed in locations where permanent ditches are required, the required ditch lines and grades shall be utilized for the construction of the sedimentation basins. During removal of the sedimentation basin, aggregate used to construct the sedimentation basin may remain in the ditch as a permanent lining. Sedimentation basins are designed to allow the removal of sediment and turbidity from stormwater runoff by the flocculation and settlement of suspended particles. The removal of sediment and turbidity shall be accomplished by the retention of stormwater runoff in the basin for a period of time before completely draining. In no case shall sediment be allowed to exceed one third of the height of the forebay or drainage sump adjacent to the inlet of the basin.

9. FLOCCULANT.

Flocculant shall be used in accordance with the Flocculant manufacturer's requirements and the requirements shown on the plans for water turbidity control. Flocculant shall be introduced to flowing stormwater prior to retention BMPs. The effectiveness of the Flocculant will be monitored by the Engineer. Additional Flocculant shall be placed as directed by the Engineer if needed for supplemental reduction of turbidity.

10. FLOW BAFFLES.

Flow Baffles shall be installed in sedimentation basins or ditch applications as required by the plans to reduce the velocity of stormwater runoff. They shall be installed in accordance with the details shown on the plans.

11. BASIN DEWATERING DEVICES.

Basin Dewatering Devices shall be installed in sedimentation basins in accordance with the details shown on the plans. Each device shall be capable of dewatering the full capacity of the basin over a period of 72 hours unless otherwise specified in the plans.

12. FLOATING BASIN BOOMS.

Floating basin booms shall be installed only for secondary sediment containment or to prevent the migration of sediment within a water body. Floating Basin Booms shall be installed at the locations shown on the plans, the accepted SWMP or as directed by the Engineer. Installation shall be as shown on the plans and as recommended by the manufacturer. Basin Booms shall not be installed in locations where they will not be effective or in conditions where continuous maintenance is not practical.

(c) CONTRACTOR RETAINED TURBIDIMETERS

When water sampling and testing is required per Item 107.21(d)2., the Contractor shall furnish the required quantity of Turbidimeters for use by the Engineer. The Contractor shall provide documentation of professional calibration of the device prior to delivery to the project and shall maintain annual professional calibration during the time that it is required on the project. Daily calibration shall be performed by the Engineer. The Contractor shall immediately replace any Turbidimeters that are in need of annual professional calibration or are otherwise not properly functioning, without additional compensation. The Contractor shall retain ownership of the device and will be notified once the Engineer determines that the device is no longer needed.

(d) MAINTENANCE AND REMOVAL REQUIREMENTS.

The Contractor shall be responsible for periodic inspection, preventative maintenance and immediate repairs of all temporary soil erosion and sediment control items. The Contractor shall maintain on-site, or have readily available, sufficient erosion and sediment control devices and materials to perform maintenance, repairs, and prepare the site for impending rain events. All BMPs which capture sediment shall be cleaned by the removal and disposal of sediment when the holding capacity reaches one third full and when necessary for the BMP to remain functional. Any offsite sediment loss shall be removed as directed by the Engineer. Any offsite-tracking of sediment onto public roadways shall be removed and construction entrances shall be stabilized as needed.

All temporary soil erosion and sediment control BMPs shall be removed from the project when no longer needed unless shown otherwise on the plans, the SWMP, or directed or permitted by the Engineer. Removal of temporary controls shall be only after permanent controls are in place and functioning properly. The removal of all controls shall be followed by the immediate stabilization of the area as directed by the Engineer.