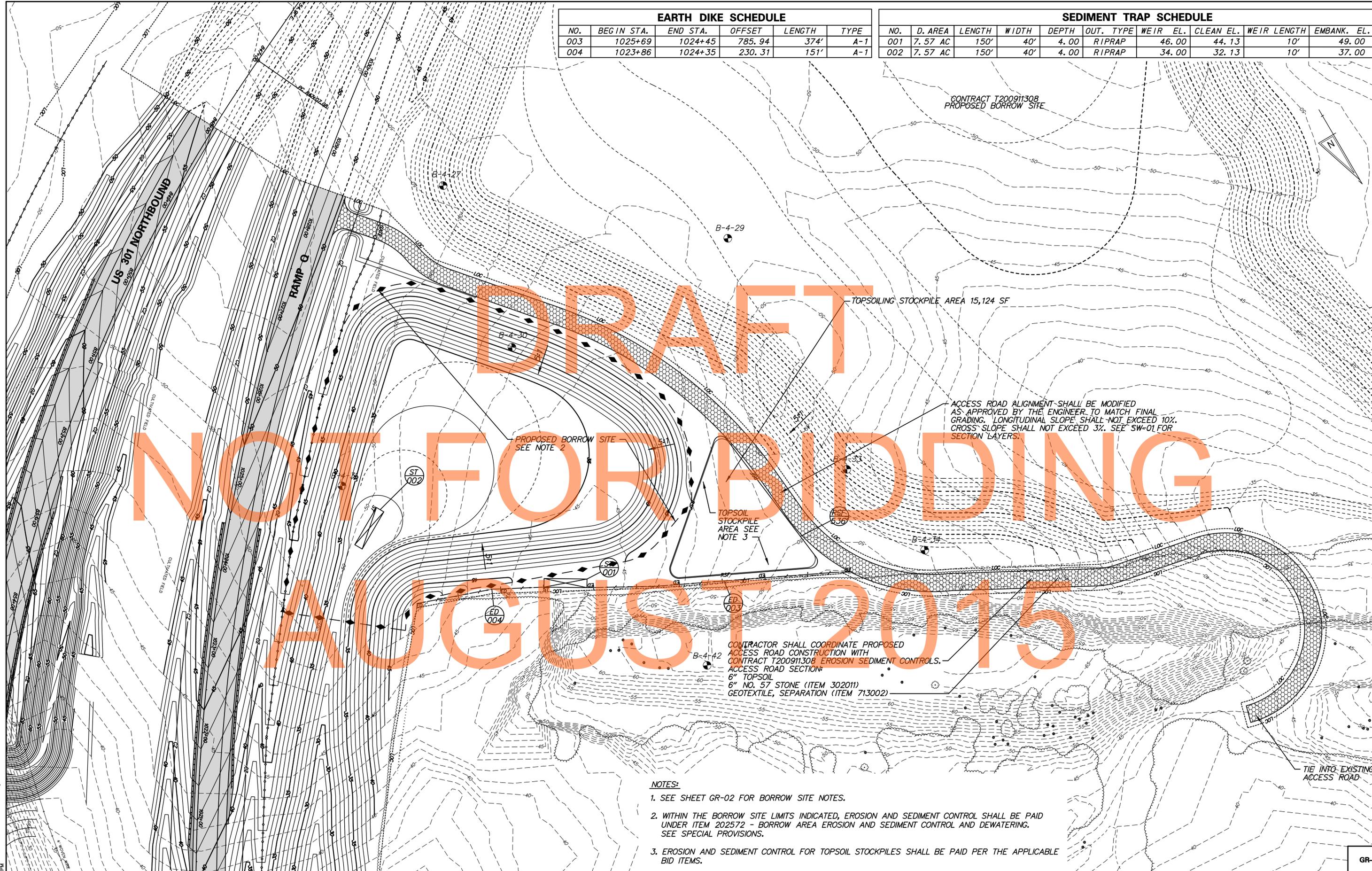


EARTH DIKE SCHEDULE					
NO.	BEGIN STA.	END STA.	OFFSET	LENGTH	TYPE
003	1025+69	1024+45	785.94	374'	A-1
004	1023+86	1024+35	230.31	151'	A-1

SEDIMENT TRAP SCHEDULE									
NO.	D. AREA	LENGTH	WIDTH	DEPTH	OUT. TYPE	WEIR EL.	CLEAN EL.	WEIR LENGTH	EMBANK. EL.
001	7.57 AC	150'	40'	4.00	RIPRAP	46.00	44.13	10'	49.00
002	7.57 AC	150'	40'	4.00	RIPRAP	34.00	32.13	10'	37.00



CONTRACT T200911308  
PROPOSED BORROW SITE

TOPSOILING STOCKPILE AREA 15,124 SF

ACCESS ROAD ALIGNMENT SHALL BE MODIFIED AS APPROVED BY THE ENGINEER TO MATCH FINAL GRADING. LONGITUDINAL SLOPE SHALL NOT EXCEED 10%. CROSS SLOPE SHALL NOT EXCEED 3%. SEE SW-01 FOR SECTION LAYERS.

PROPOSED BORROW SITE  
SEE NOTE 2

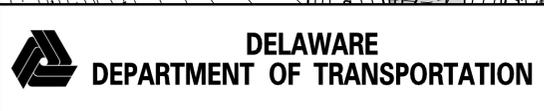
TOPSOIL STOCKPILE AREA  
SEE NOTE 3

CONTRACTOR SHALL COORDINATE PROPOSED ACCESS ROAD CONSTRUCTION WITH CONTRACT T200911308 EROSION SEDIMENT CONTROLS.  
ACCESS ROAD SECTION:  
6" TOPSOIL  
6" NO. 57 STONE (ITEM 302011)  
GEOTEXTILE, SEPARATION (ITEM 713002)

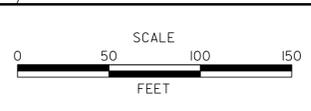
**NOTES:**

- SEE SHEET GR-02 FOR BORROW SITE NOTES.
- WITHIN THE BORROW SITE LIMITS INDICATED, EROSION AND SEDIMENT CONTROL SHALL BE PAID UNDER ITEM 202572 - BORROW AREA EROSION AND SEDIMENT CONTROL AND DEWATERING. SEE SPECIAL PROVISIONS.
- EROSION AND SEDIMENT CONTROL FOR TOPSOIL STOCKPILES SHALL BE PAID PER THE APPLICABLE BID ITEMS.

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ADDENDUMS / REVISIONS



**US 301 & SR 1 INTERCHANGE**

CONTRACT T200911302	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: KAH
	CHECKED BY: BRT

**VILLAGE OF SCOTT RUN EAST BORROW SITE GRADING PLAN**

GR-01
SHEET NO. 82
TOTAL SHTS. 491

SR 1 NORTHBOUND

**SEDIMENT TRAP SCHEDULE**

NO.	D. AREA	LENGTH	WIDTH	DEPTH	OUT. TYPE	WEIR EL.	CLEAN EL.	WEIR LENGTH	EMBANK. EL.
010	10.47 AC	145'	60'	4.0	RIPRAP	36.00	34.00	14'	39.00

**EARTH DIKE SCHEDULE**

NO.	BEGIN STA.	END STA.	OFFSET	LENGTH	TYPE
007	1829+90	1831+26	666.17	358'	A-2
008	1835+70	1831+59	1042.00	558'	A-1

**BORROW SITE NOTES (SEE GR-01):**

- THE LIMITS OF GRADING FOR THE BORROW SITES AS SHOWN ON GR-01 SHALL BE CONSIDERED THE MAXIMUM LIMITS OF FINAL GRADING FOR THE BORROW SITE. SHOULD LESS BORROW MATERIAL BE REQUIRED, THE SITE SHALL BE EXCAVATED TO A SHALLOWER ELEVATION OR THE LIMITS OF GRADING SHALL BE REDUCED. THE CONTRACTOR SHALL SUBMIT A REVISED FINAL GRADING PLAN TO THE ENGINEER FOR APPROVAL.
- EXCAVATION OR DEWATERING SHALL NOT AFFECT THE LOCAL GROUND WATER TABLE. THE BOTTOM LIMIT OF EXCAVATION OR ANY OTHER WORK CANNOT EXCEED 12" BELOW THE FINAL GRADING SHOWN ON GR-01, OR ELEVATION 27, WHICHEVER IS LESS, IN ACCORDANCE WITH STIPULATIONS CONTAINED IN THE PROJECT'S BIOLOGICAL ASSESSMENT, PERMITS, AND RECORD OF DECISION. TRENCHING FOR CONSTRUCTION OF UTILITIES OR PIPES INCLUDED IN THE CONTRACT DOCUMENTS IS EXCLUDED FROM THIS REQUIREMENT. TRENCHING OR OTHER METHODS FOR DEWATERING THE BORROW SITES IS INCLUDED IN THIS REQUIREMENT.
- NO EXCAVATION IS TO OCCUR WITHIN 50 FEET OF ANY WOODS LINE OR PROPERTY LINE, EXCEPT AS SHOWN ON GR-01. HEDGEROWS AND OLD FIELDS ARE NOT CONSIDERED TO BE WOODS LINES.
- EXISTING BORROW SITE TOPSOIL AND AGRICULTURAL SOIL SHALL BE STRIPPED, STOCKPILED, AND QUARANTINED FOR RE-USE ON THE BORROW SITE. AGRICULTURAL SOIL IS DEFINED AS THE TOP 9-INCHES OF SOIL OBTAINED FROM AN ACTIVE FARM FIELD OR RECENTLY ABANDONED FARM FIELD (LESS THAN 2 YEARS FALLOW OR ABANDONED). AGRICULTURAL SOILS SHALL BE TREATED AS TOPSOIL AS DESCRIBED IN SECTION 202. THE SOURCE OF THE AGRICULTURAL SOIL MUST HAVE BEEN IN CROP. NO TOPSOIL OR AGRICULTURAL SOIL REMOVED FROM THE BORROW SITE SHALL BE PLACED IN ANOTHER LOCATION. ALL OF THE TOPSOIL AND AGRICULTURAL SOIL SHALL BE RE-USED ON THE SITE.
- FINAL INTERNAL BORROW SITE SIDE SLOPE GRADES SHALL BE A MAXIMUM OF 5:1. WITH THE APPROVAL OF THE ENGINEER, SLOPES MAY BE OVEREXCAVATED TO 3:1 AND BACKFILLED WITH TOPSOIL, AGRICULTURAL SOIL, ROOTMAT, OR UNSUITABLE SOILS TO CREATE A FINAL SLOPE OF 5:1. OVEREXCAVATED SLOPES SHALL ALSO INCLUDE A BENCH AS APPROVED BY THE ENGINEER TO PREVENT SLIPPAGE OF MATERIALS SUBSEQUENTLY PLACED. UNSUITABLE SOIL IS DEFINED AS A-4, A-5, A-6, OR A-7 SOILS, AASHTO CLASSIFICATION. AGRICULTURAL SOIL, ROOTMAT AND UNSUITABLE SOILS MAY BE IMPORTED TO THE BORROW SITE FROM WITHIN THE CONTRACT LIMITS AND PLACED ABOVE THE MAXIMUM EXCAVATION LIMITS AS DEFINED IN NOTE 2. UNSUITABLE SOILS AND ROOTMAT SHALL BE BURIED A MINIMUM OF 18 INCHES BELOW FINAL GRADE WITH THE 18 INCHES CONSISTING OF TOPSOIL OR AGRICULTURAL SOILS. UNSUITABLE SOILS AND ROOTMAT SHALL BE PLACED SUCH THAT INTERNAL SLOPES AND GRADING WITHIN THE BORROW SITES SHALL BE CONTINUOUS SMOOTH LINES AND GRADES REPRESENTING A NATURALIZED CONDITION AND SHALL NOT APPEAR DISTURBED, MOUNDED, OR PILED, AS SOLELY DETERMINED BY THE ENGINEER. MATERIALS PLACED IN THESE OVER-EXCAVATED AREAS SHALL BE APPROVED BY THE ENGINEER AND COMPACTED AS DIRECTED BY THE ENGINEER. TOPOGRAPHIC SURVEY ON THE FINAL OVEREXCAVATED SLOPES FOR MEASUREMENT OF FINAL EXCAVATED QUANTITIES SHALL BE PERFORMED BEFORE PLACING ANY UNSUITABLE MATERIALS OR ROOTMAT. TOPOGRAPHIC SURVEY ON THE FINAL SLOPES OF THE UNSUITABLE MATERIALS OR ROOTMAT PLACED SHALL BE PERFORMED PRIOR TO PLACING ANY TOPSOIL OR AGRICULTURAL SOIL TO ENSURE THAT THESE MATERIALS ARE BURIED A MINIMUM OF 18" BELOW FINAL GRADES. THE CONTRACTOR SHALL SUBMIT A REVISED GRADING PLAN TO THE ENGINEER FOR APPROVAL.
- TRASH, CONSTRUCTION DEBRIS, PILE CUTOFFS, ASPHALT MILLINGS, ROCKS AND STONES AND OTHER CONSTRUCTION WASTE GENERATED ON THE CONTRACT SHALL NOT BE BURIED IN THE BORROW SITE OR THE SIDE SLOPES OF THE BORROW SITE. WITH PERMISSION AND UNDER THE DIRECTION OF THE ENGINEER, TREE STUMPS AND LARGE SECTIONS OF TREE TRUNKS CAN BE PLACED ON THE FINAL SOIL SURFACE. THE MINIMUM DISTANCE BETWEEN THE PLACED STUMPS/TRUNKS SHALL BE 35 FEET. STUMPS AND TRUNKS SHALL NOT BE PLACED IN PILES. TREE STUMP PLACEMENT IS OPTIONAL AND NOT MANDATORY.
- UNDER FINAL CONDITIONS THE BORROW SITE SHALL BE GRADED TO DRAIN. WATER SHOULD NOT STAND ON THE FOLLOWING RAIN EVENTS BUT SHALL BE CONVEYED VIA STABLE CHANNELS, SWALES, OR STABLE OVERLAND FLOW TO ADJACENT WETLANDS AND FORESTED AREAS. THE CONTRACTOR SHALL NOT CHANGE THE BORROW SITE OUTFALL LOCATION.
- FOLLOWING EXTRACTION OF BORROW, AND PRIOR TO SECTION 733 - TOPSOILING, SUBSOILS SHALL BE TILLED AS SPECIFIED IN SPECIAL PROVISION 202555 - SUBSOIL TILLAGE, THROUGHOUT THE EXTENT OF THE BORROW SITE.
- A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE PLACED OVER ALL EXCAVATED AND DISTURBED AREAS IN CONFORMANCE WITH SECTION 733 - TOPSOILING. LOCAL AGRICULTURAL SOILS GENERATED WITHIN THE CONTRACT LIMITS SHALL BE CONSIDERED ACCEPTABLE TOPSOIL MATERIAL. WITH THE PERMISSION OF THE ENGINEER, THE TOPSOILING DEPTH MAY EXCEED THE MINIMUM 6-INCH DEPTH, BUT THE FINAL ELEVATION AT ANY LOCATION SHALL NOT EXCEED THE ORIGINAL GROUND ELEVATION AT THE START OF THE PROJECT. FOLLOWING THE FINAL TOPSOILING, INTERNAL SLOPES AND GRADING WITHIN THE BORROW SITE SHALL BE CONTINUOUS SMOOTH LINES AND GRADES REPRESENTING A NATURALIZED CONDITION AND SHALL NOT APPEAR DISTURBED, MOUNDED, OR PILED, AS SOLELY DETERMINED BY THE ENGINEER. NO INTERNAL GRADE SHALL EXCEED 5:1.
- AT THE CONCLUSION OF ALL GRADING AND TOPSOIL PLACEMENT OPERATIONS, ALL DISTURBED AREAS SHALL BE SEEDED WITH ITEM 734551 - NATIVE GRASS SEEDING - NO MOW MIX. TIMING FOR THE SEEDING OPERATIONS SHALL BE PER THE SPECIFICATION, SEPTEMBER 1ST TO NOVEMBER 15TH. SEED SHALL BE DISCED INTO THE SOIL A MINIMUM OF 6 INCHES DEEP IN THREE PASSES WITH EACH PASS 90 DEGREES TO THE PREVIOUS PASS. THE COST OF DISCING SHALL BE INCIDENTAL TO ITEM 734551 \* NATIVE GRASS SEEDING; NO MOW MIX.
- SOILS MEETING GRADATION REQUIREMENTS FOR BORROW TYPES A, C, D, AND F ARE AVAILABLE IN THE BORROW SOURCES FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE LOCATION OF QUALIFYING MATERIALS AND SORTING AND STOCKPILING THESE MATERIALS AS NEEDED TO COMPLETE THE WORK. NO COMPENSATION WILL BE PROVIDED FOR ACTIVITIES ASSOCIATED WITH ACQUISITION OF THESE MATERIALS FROM OFF-SITE DUE TO A FAILURE TO USE MATERIAL AVAILABLE ON-SITE. GEOTECHNICAL DATA WILL BE PROVIDED BY THE DEPARTMENT TO ASSIST IN THE LOCATION OF BORROW TYPES, BUT IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE GRADATION OF THE MATERIALS.
- MEASUREMENT AND PAYMENT:
  - ALL EXCAVATION INCLUDING STRIPPING AND STOCKPILING OF TOPSOIL AND AGRICULTURAL SOILS SHALL BE CALCULATED AND PAID FOR UNDER ITEM 202000, EXCAVATION AND EMBANKMENT. DOUBLE HANDLING FOR STOCKPILING AND SORTING OF MATERIAL TYPES FOR USE ON THE PROJECT SHALL NOT BE MEASURED BUT SHALL BE INCIDENTAL TO ITEM 202000. MATERIALS OTHER THAN TOPSOIL, AGRICULTURAL SOILS OR UNSUITABLE MATERIALS EXCAVATED FROM THE BORROW SITES AND NOT USED ELSEWHERE FOR THE CONSTRUCTION OF THE PROJECT SHALL BE INCORPORATED BACK INTO THE BORROW SITE. STOCKPILES OF THE UNUSED MATERIALS SHALL BE MEASURED BY THE ENGINEER BEFORE THE CONTRACTOR MOVES THE MATERIAL BACK INTO THE BORROW SITE AND THE ENGINEER SHALL MEASURE THE FINAL GROUND AT THE STOCKPILE AFTER THE MATERIALS HAVE BEEN REMOVED. THE MEASURED QUANTITY OF THE STOCKPILES SHALL BE DEDUCTED FROM THE FINAL QUANTITY PAID UNDER ITEM 202000. THE UNUSED MATERIALS SHALL BE INCORPORATED INTO THE BORROW SITE IN ACCORDANCE WITH THESE PROJECT NOTES AND AS DIRECTED BY THE ENGINEER.
  - CLEARING AND GRUBBING OF THE BORROW SITE SHALL BE INCIDENTAL TO ITEM 201000. PLACEMENT OF STUMPS AND TREE TRUNKS, IF ELECTED AND APPROVED, SHALL BE INCIDENTAL TO ITEM 201000.
  - EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PAID FOR UNDER ITEM 202572 - BORROW AREA EROSION AND SEDIMENT CONTROL AND DEWATERING.
  - PLACEMENT OF UNSUITABLE SOILS OR ROOTMAT SHALL BE INCIDENTAL TO THE ITEMS FOR THEIR REMOVAL.
  - SUBSOIL TILLAGE SHALL BE MEASURED AND PAID UNDER ITEM 202555.
  - TOPSOILING SHALL BE PAID UNDER ITEM 733002 UNDER SPECIFICATION SECTION 733. THE SURFACE OF THE FINAL TOPSOIL AREA SHALL BE MEASURED ONCE FOR PAYMENT AND PAID UNDER THE SPECIFIED ITEM REGARDLESS OF THE ACTUAL DEPTH PLACED. THE CONTRACTOR SHALL MEET ALL TOPSOILING REQUIREMENTS WITH TOPSOIL OR AGRICULTURAL SOILS REMOVED FROM THE BORROW SITE. TOPSOIL REMOVED FROM ELSEWHERE WITHIN THE CONTRACT LIMITS THAT IS IN EXCESS OF THE TOPSOILING NEEDED FOR THE PROJECT MAY BE DISPOSED OF AT THE BORROW SITE WITH THE PERMISSION OF THE ENGINEER. ANY OTHER TOPSOIL NEEDED AT THE BORROW SITE DUE TO THE CONTRACTOR'S OPERATIONS, SUCH AS BURYING UNSUITABLE MATERIALS, SHALL BE PROVIDED BY THE CONTRACTOR AT NO EXPENSE TO THE DEPARTMENT.
  - NATIVE GRASS SEEDING SHALL BE MEASURED AND PAID UNDER ITEM 734551.
- MONITORING WELLS SHALL BE ABANDONED BY A WELL DRILLER LICENSED IN DELAWARE IN ACCORDANCE WITH THE PROVISIONS IN ITEM 211521 - ABANDONMENT OF WELLS. PHYSICAL REMOVAL AND DISPOSAL OF THE ABANDONED WELLS ENCOUNTERED DURING EXCAVATION SHALL BE INCIDENTAL TO ITEM 202000- EXCAVATION AND EMBANKMENT.
- SEDIMENT REMOVED FROM SEDIMENT CONTROL DEVICES SHALL BE TREATED PER NOTE 5 ABOVE.

CONTRACTOR TO PROVIDE STABILIZED ACCESS FROM FIELD OFFICE TO US 13 CROSSOVER INCIDENTAL TO ITEM 759506 - FIELD OFFICE, TYPE II.22 SPECIAL COMPLEX

SET ASIDE AREA FOR POTENTIAL ITEM 759506 - FIELD OFFICE, TYPE II.22 SPECIAL COMPLEX

CONTRACT T20101302 LAYDOWN AND STOCKPILE AREA

POTENTIAL LAYDOWN AND STOCKPILE AREA

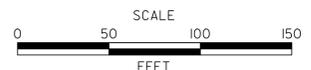
- NOTES:
- ALL AREAS ON THIS PLAN DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO ORIGINAL GRADES AND CONDITIONS UPON COMPLETION OF THE CONTRACT. TOPSOIL STRIPPING AND TOPSOILING AREAS ON THIS PLAN SHALL BE INCIDENTAL TO THE CONTRACT. SEEDING DISTURBED AREAS ON THIS PLAN SHALL BE MEASURED AND PAID UNDER ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND.
  - CONSTRUCTION AND MAINTAINANCE OF STABILIZED CONSTRUCTION ENTRANCE AND ACCESS ROAD TO LAYDOWN AND STOCKPILE AREAS SHALL BE INCIDENTAL TO THE CONTRACT.

DRAFT  
NOT FOR BIDDING  
AUGUST 2010

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ADDENDUMS / REVISIONS	



**US 301 & SR 1 INTERCHANGE**

CONTRACT	BRIDGE NO.
T200911302	
COUNTY	DESIGNED BY: NSP
NEW CASTLE	CHECKED BY: BRT

**ST. GEORGES LAYDOWN AREA/ BORROW SITE NOTES**

<b>GR-02</b>
SHEET NO.
83
TOTAL SHTS.
491