

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. R. 361	06-00214-08-BR	KANE	50	3
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO.		
		CONTRACT NO. 83978		

SUMMARY OF QUANTITIES						
CODE #	ITEM	UNIT	TOTAL	CONSTRUCTION CODE		
				ROADWAY STA. 587+00 TO STA. 593+00	BRIDGE STR. NO. 045-3165	BRIDGE STR. NO. 045-3167
				1000	X071-2A	X071-2A
20200100	EARTH EXCAVATION	CU YD	1373	1373		
20400800	FURNISHED EXCAVATION	CU YD	1206	1206		
20700300	POROUS GRANULAR EMBANKMENT, SPECIAL	TON	789		419	370
25000210	SEEDING, CLASS 2A	ACRE	0.11	0.11		
25000310	SEEDING, CLASS 4	ACRE	2.23	2.23		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	211	211		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	211	211		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	211	211		
25000700	AGRICULTURAL GROUND LIMESTONE	TON	4.68	4.68		
25100115	MULCH, METHOD 2	ACRE	0.11	0.11		
25100630	EROSION CONTROL BLANKET	SQ YD	8257	8257	Rev 12.17.07	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	928	928		
28000400	PERIMETER EROSION BARRIER	FOOT	6785	6785		
28100205	STONE RIPRAP, CLASS A3	TON	162	162		
28100207	STONE RIPRAP, CLASS A4	TON	815		315	500
28200200	FILTER FABRIC	SQ YD	1640	277	555	808
35101400	AGGREGATE BASE COURSE, TYPE B	TON	412	412		
35501300	HOT-MIX ASPHALT BASE COURSE, 4"	SQ YD	816	816		
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	325	325		
50101600	REMOVAL OF EXISTING SUPERSTRUCTURES	L SUM	1	1		
50105225	PIPE CULVERT REMOVAL (SPECIAL)	FOOT	240	240		
50200100	STRUCTURE EXCAVATION	CU YD	442.6		255.0	187.6
50200300	COFFERDAM EXCAVATION	CU YD	155.0			155.0
50200500	COFFERDAMS	EACH	1			1
50300225	CONCRETE STRUCTURES	CU YD	143.0		47.4	95.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	418.4		190.4	228.0
50300260	BRIDGE DECK GROOVING	SQ YD	1033		471	562
50300265	SEAL COAT CONCRETE	CU YD	58.1			58.1
50300280	CONCRETE ENCASMENT	CU YD	7.7		4.2	3.5
50300300	PROTECTIVE COAT	SQ YD	1388		630	758
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		0.4	0.6
50500505	STUD SHEAR CONNECTORS	EACH	3669		1314	2355
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	100060		42650	57410
50800525	BAR SPLICERS, SPECIAL	EACH	146		86	60

SEE SPECIAL PROVISIONS
* DENOTES SPECIALTY ITEM

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				ROADWAY STA. 587+00 TO STA. 593+00	BRIDGE STR. NO. 045-3165	BRIDGE STR. NO. 045-3167
				1000	X071-2A	X071-2A
50901720	BICYCLE RAILING	FOOT	106		106	
50901750	PARAPET RAILING	FOOT	106		106	
51201610	FURNISHING STEEL PILES HP12X63	FOOT	1090			1090
51201700	FURNISHING STEEL PILES HP12X74	FOOT	460		460	
51202305	DRIVING PILES	FOOT	1550		460	1090
51203610	TEST PILE STEEL HP12X63	EACH	3			3
51203700	TEST PILE STEEL HP12X74	EACH	2		2	
51500100	NAME PLATES	EACH	2		1	1
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	217		122	95
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	5		2	3
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	341		181	160
67100100	MOBILIZATION	L SUM	1		1	
XX004981	DEGRADING ROADWAY	SQ YD	4088	4088		
XX005916	TEMPORARY CONCRETE BARRIER, FURNISH AND INSTALL	FOOT	180	180		
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	5726	5726		
Z0013300	CONCRETE REMOVAL (SPECIAL)	SQ YD	95	95		
Z0013798	CONSTRUCTION LAYOUT	L SUM	1		1	

SEE SPECIAL PROVISIONS
* DENOTES SPECIALTY ITEM

EARTHWORK SCHEDULE						
LOCATION	EARTH EXCAVATION	SHRINKAGE FACTOR	PERCENT USED	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE AVAILABLE*	EMBANKMENT REQUIRED	EARTHWORK BALANCE
	CU.YD.			CU.YD.	CU.YD.	CU.YD.
MAINLINE						
STA. 587+00 TO STA. 589+49.69	233	15.00%	0.00%	0	455	-455
STA. 590+55.94 TO STA. 593+00	202	15.00%	0.00%	0	751	-751
TEMPORARY ACCESS ROAD	938	15.00%	60.00%	478	465	0
TOTAL	1373			478	1671	-1206

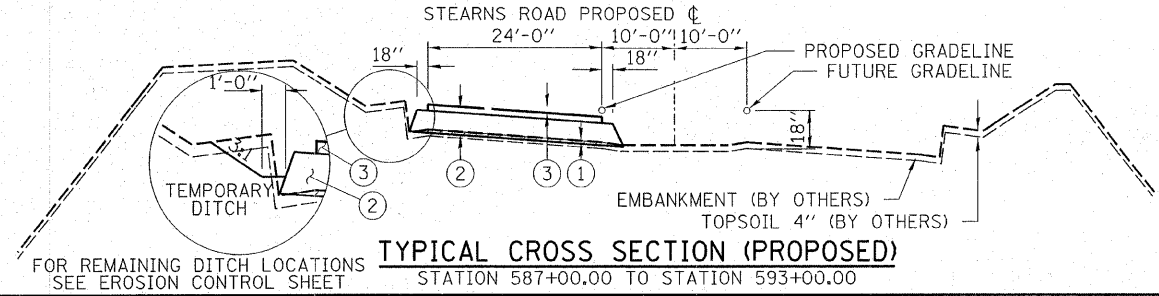
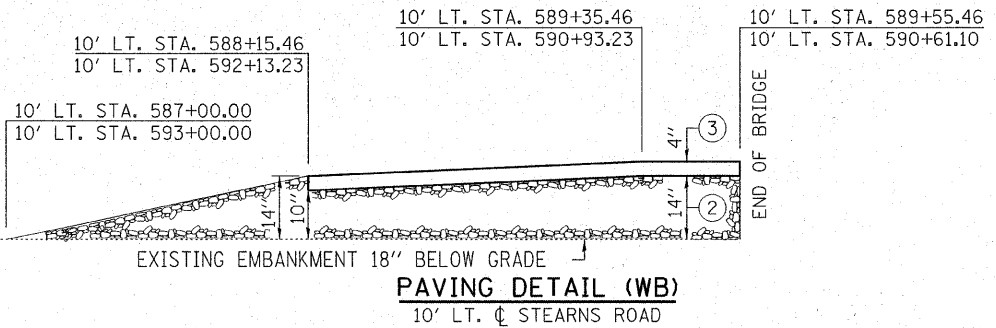
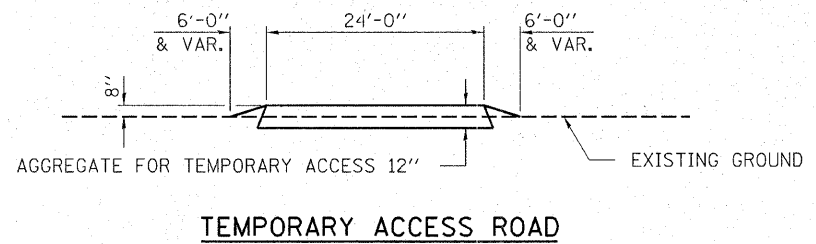
* AVAILABLE EXCAVATION = EARTH EXCAVATION X SHRINKAGE FACTOR X % USED

SEEDING SCHEDULE								
LOCATION	TEMPORARY EROSION CONTROL SEEDING	SEEDING CLASS 2A	SEEDING CLASS 4	NITROGEN FERTILIZER NUTRIENT 90 LBS/ACRE	PHOSPHORUS FERTILIZER NUTRIENT 90 LBS/ACRE	POTASSIUM FERTILIZER NUTRIENT 90 LBS/ACRE	AGRICULTURAL GROUND LIMESTONE 2 TONS/ACRE	MULCH METHOD 2
	POUND*	ACRES	ACRES	LBS	LBS	LBS	TONS	ACRES
STA 587+00 TO STA 589+49.69	26	0.06		6	6	6	0.12	0.06
STA 590+55.94 TO STA 593+00	18	0.05		4	4	4	0.1	0.05
TEMPORARY ACCESS ROAD	884		2.23	201	201	201	4.46	
TOTAL	928	0.11	2.23	211	211	211	4.68	0.11

* 100 LBS/ACRE FOR 4 APPLICATIONS

ROADWAY SCHEDULE				
LOCATION	H.M.A. BASE COURSE 4"	AGGREGATE BASE COURSE, TYPE B	BITUMINOUS MATERIAL PRIME COAT	AGGREGATE FOR TEMPORARY ACCESS
	SQ YD	TON	GAL	TON
STA 587+00 TO STA 589+49.69	410	215	163	
STA 590+55.94 TO STA 593+00	406	197	162	
TEMPORARY ACCESS ROAD				5726
TOTAL	816	412	325	5726

EROSION CONTROL		
LOCATION	PERIMETER EROSION BARRIER	EROSION CONTROL BLANKET
	FOOT	SQ YD.
STA 587+00 TO STA 589+49.69	310	315
STA 590+55.94 TO STA 593+00	189	220
TEMPORARY ACCESS ROAD	6286	7722
TOTAL	6785	8257



- LEGEND**
- ① EARTH EXCAVATION
 - ② AGGREGATE BASE COURSE, TYPE B (14" THICKNESS)
 - ③ HOT-MIX ASPHALT BASE COURSE, (4" THICKNESS)

HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400 ELGIN • SPRINGFIELD	SUMMARY OF QUANTITIES AND PROPOSED TYPICAL SECTION SECTION 06-00214-08-BR F.A.U. ROUTE 361 / NEW STEARNS ROAD OVER THE NORTH ARM OF BREWSTER CREEK KANE COUNTY STRUCTURE NO. 045-3167 (E.B.) / STATION 590+50.50 STRUCTURE NO. 045-3165 (W.B.) / STATION 590+18.15

DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:

1. DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED. THE CONTRACTOR SHALL NOT USE THIS AREA FOR STAGING (EXCEPT AS DESCRIBED ON THE PLANS AND DIRECTED BY THE ENGINEER), PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.
 - (a.) WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.
 - (b.) EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS. STOCKPILES MAY NOT BE LOCATED IN THE FLOODPLAIN.
 - (c.) AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL INSTITUTE THE FOLLOWING AS DIRECTED BY THE ENGINEER:
 - I. PLACE TEMPORARY EROSION CONTROL FACILITIES AT LOCATIONS SHOWN ON THE PLANS.
 - II. TEMPORARILY SEED ERODIBLE BARE EARTH ON A WEEKLY BASIS TO MINIMIZE THE AMOUNT OF ERODIBLE SURFACE AREA WITHIN THE CONTRACT LIMITS.
 - III. CONSTRUCT ROADSIDE DITCHES AND PROVIDE TEMPORARY EROSION CONTROL SYSTEMS.
 - IV. INSTALL COFFERDAMS TO DIVERT WATER AROUND CONSTRUCTION AREAS.
 - V. CONTINUE BUILDING UP THE EMBANKMENT TO THE PROPOSED GRADE WHILE AT THE SAME TIME, PLACING PERMANENT EROSION CONTROL SUCH AS RIPRAP DITCH LINING AND CONDUCTING FINAL SHAPING TO THE SLOPES.
 - (d.) EXCAVATED AREAS AND EMBANKMENT SHALL BE PERMANENTLY SEEDED IMMEDIATELY AFTER FINAL GRADING. IF NOT, THEY SHALL BE TEMPORARILY SEEDED IF NO CONSTRUCTION ACTIVITY IN THE AREA IS PLANNED FOR 7 DAYS.
 - (e.) CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNATED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR OTHER POLLUTANT IN ACCORDANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.
 - (f.) THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT DAILY DURING CONSTRUCTION ACTIVITIES. INSPECTION SHALL ALSO BE DONE WEEKLY AND AFTER RAINS OF 1/2 INCH OR GREATER OR EQUIVALENT SNOWFALL AND DURING THE WINTER SHUTDOWN PERIOD. THE PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE CONSTRUCTION FIELD ENGINEER ON A BI-WEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER EROSION CONTROL WORK IS NECESSARY.
 - (g.) THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING. THE COST OF THE REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR VARIOUS TEMPORARY EROSION CONTROL PAY ITEMS.

DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING:

1. TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDED AND ESTABLISHED.
2. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP, AND DISTURBED TURF AREA SEEDED.

MAINTENANCE AFTER CONSTRUCTION:

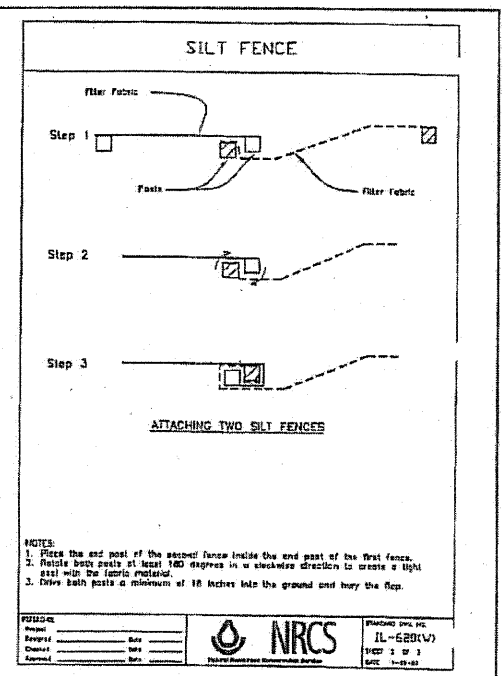
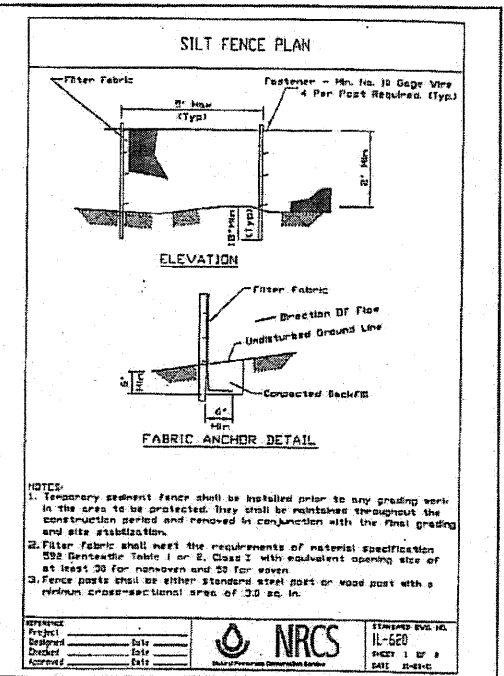
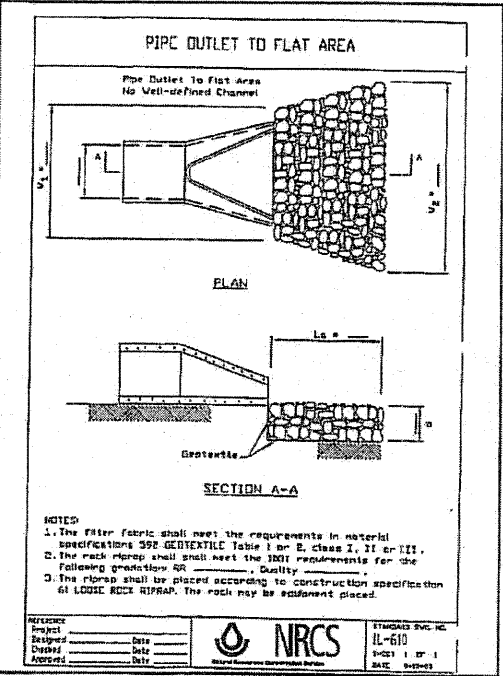
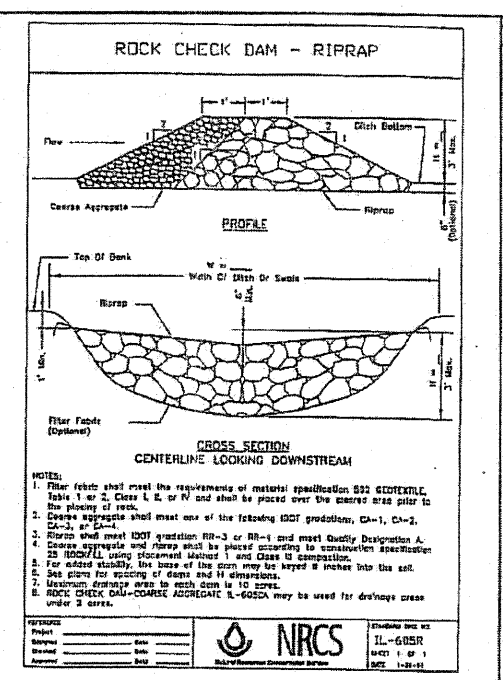
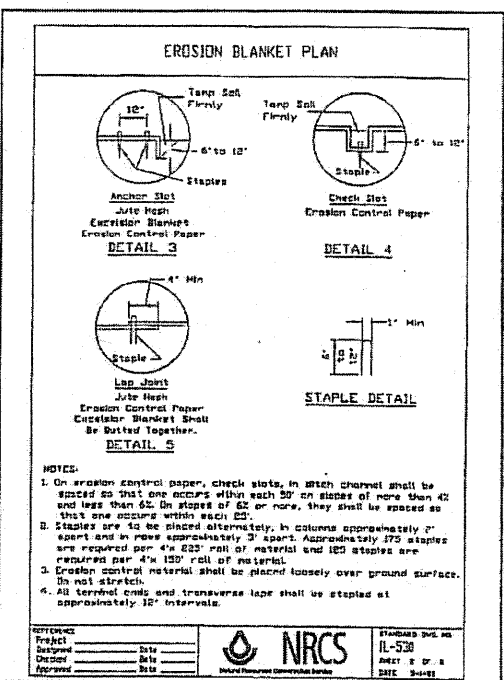
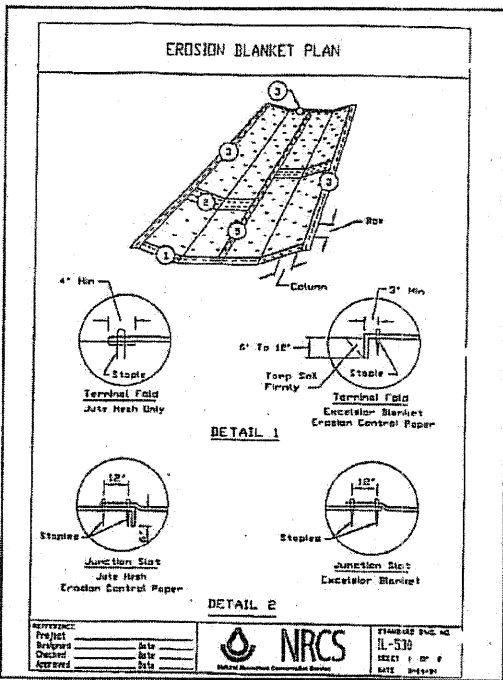
1. CONSTRUCTION IS COMPLETE AFTER ACCEPTANCE BY I.D.O.T. & K.D.O.T. FINAL INSPECTION. MAINTENANCE UP TO THIS DATE WILL BE BY THE CONTRACTOR.

MISCELLANEOUS:

1. TEMPORARY DITCH CHECKS SHALL BE LOCATED AT EVERY 1.5 FT. FALL / RISE IN DITCH GRADE.
2. TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLIED AT A RATE OF 100 LBS. / ACRE.
3. STRAW BALES, HAY BALES, PERIMETER EROSION BARRIER AND SILT FENCES WILL NOT BE PERMITTED FOR TEMPORARY OR PERMANENT DITCH CHECKS. DITCH CHECKS SHALL BE COMPOSED OF AGGREGATE, SILT PANELS, ROLLED EXCELSTOR, URETHANE FOAM / GEOTEXTILE (SILT WEDGES), AND / OR ANY OTHER MATERIAL APPROVED BY THE EROSION AND SEDIMENT CONTROL COORDINATOR.
4. SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS, AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR EARTH EXCAVATION FOR EROSION CONTROL.
5. ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO THE APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND THAT THE PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE MANUFACTURER INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

COFFERDAMS:

1. COFFERDAMS SHALL BE CONSTRUCTED OF NON-ERODIBLE MATERIAL AND SHALL BE CONSTRUCTED TO WITHSTAND EXPECTED HIGH FLOWS. PRIOR TO INSTALLATION OF THE COFFERDAMS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OBTAIN APPROVAL OF THE MATERIAL TO BE UTILIZED.
2. THE COFFERDAMS WILL BE INSTALLED TO PROHIBIT THE RELEASE OF SEDIMENT INTO THE WATERWAY.
3. THE COFFERDAMS SHALL NOT BE INSTALLED IN A MANNER WHICH COMPLETELY BLOCKS FLOW IN THE STREAM OR INHIBITS MOVEMENT OF AQUATIC SPECIES.
4. THE CONTRACTOR WILL NOT BE ALLOWED TO OPERATE, MOVE OR MAINTAIN CONSTRUCTION EQUIPMENT FROM THE STREAM BOTTOM.



5. DURING DE-WATERING OPERATIONS, WATER SHALL BE PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. THE SIZING OF THE TRAP/BASIN SHOULD BE IN ACCORDANCE WITH ILM STANDARDS, AND THE COST OF THE TRAP/BASIN IS INCLUDED IN THE COST OF THE COFFERDAM.

REV. 12/17/07

HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

HLR

3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 848-3400

ELGIN # SPRINGFIELD

PROJECT NUMBER: 12 05 0077 1 DATE: 09/20/07
 DESIGNED: T.P.L. CHECKED: J.L.R. DRAWN: P.J.L.

EROSION CONTROL PLAN

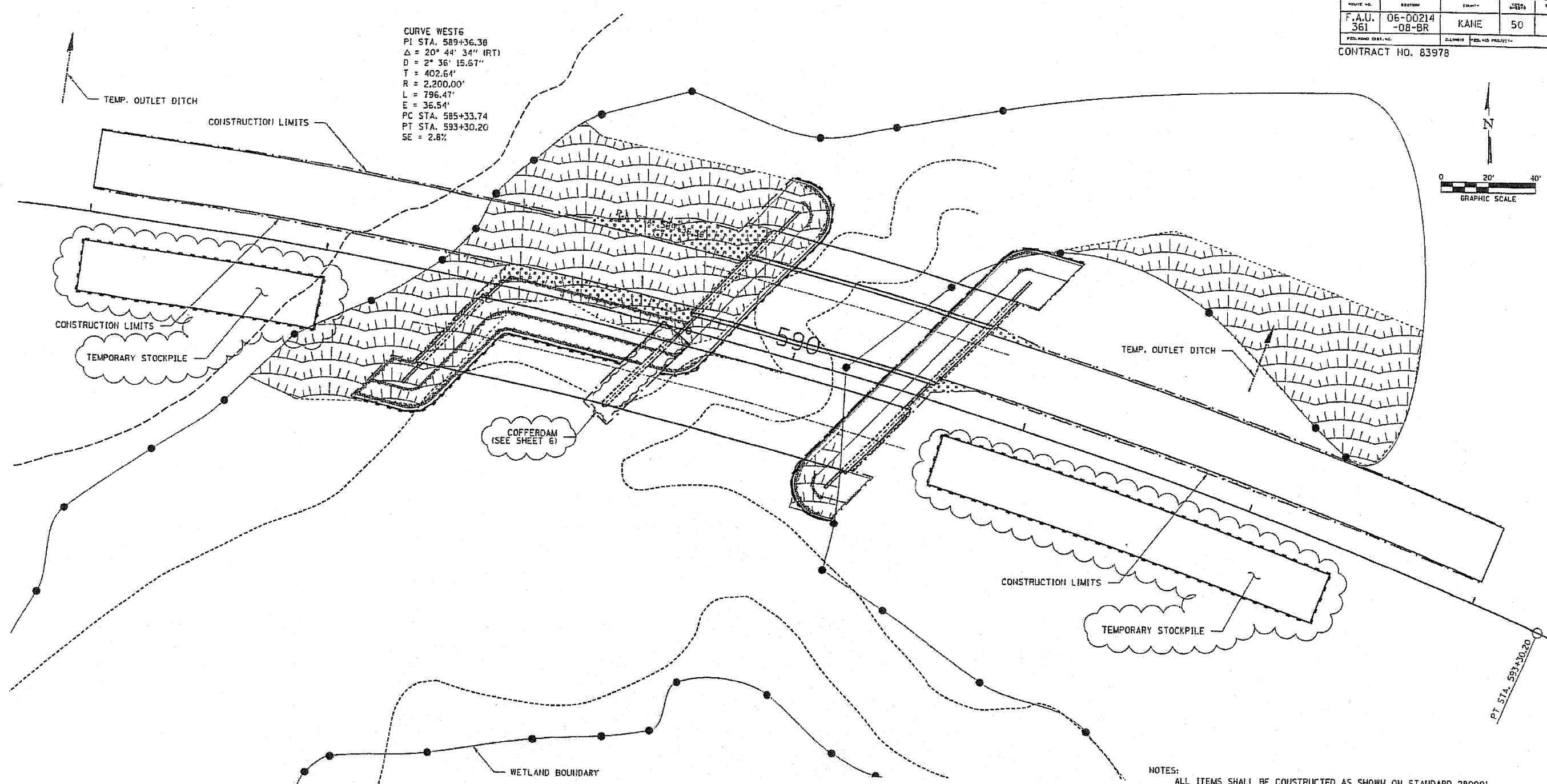
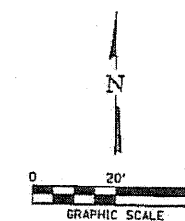
SECTION 06-00214-08-BR
 F.A.U. ROUTE 361 / NEW STEARNS ROAD
 OVER THE NORTH ARM OF BREWSTER CREEK
 KANE COUNTY

STRUCTURE NO. 045-3167 (E.B.) / STATION 590+50.50
 STRUCTURE NO. 045-3165 (W.B.) / STATION 590+18.15

ROUTE NO.	SECTION	DISTRICT	SHEET	TOTAL SHEETS
F.A.U. 361	06-00214-08-BR	KANE	50	7

CONTRACT NO. 83978

CURVE WEST6
 PI STA. 589+36.38
 $\Delta = 20^{\circ} 44' 34''$ (RT)
 $D = 2^{\circ} 36' 15.67''$
 $T = 402.64'$
 $R = 2,200.00'$
 $L = 796.47'$
 $E = 36.54'$
 PC STA. 585+33.74
 PT STA. 593+30.20
 SE = 2.8%



LEGEND

- PERIMETER EROSION BARRIER
- COFFERDAM (SEE SHEET 6)
- SEEDING CLASS 2A, SPECIAL
- RIPRAP (SEE SHEET _ FOR LAYOUT)
- EXISTING EMBANKMENT PLACED IN WETLANDS

NOTES:
 ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

EROSION CONTROL BLANKET SHOULD BE UTILIZED ON THE CREEK BANKS AND SLOPES EQUAL TO OR STEEPER THAN 4H:1V.

REV. 12/17/07

Kane-DuPage
 Soil and Water Conservation District

Project Number: 07e133

Drawings Meet Technical Standards

Signed By: *Kelsey Musich*

Date: 12-7-07

HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS
 3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 548-3400

ELGIN • SPRINGFIELD
 PROJECT NUMBER: 12 05 0077 1 DATE: 09/13/07
 DESIGNED BY: P.L. CHECKED BY: J.J.B. DRAWN BY: P.L.

EROSION CONTROL PLAN
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