

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE: X081-2A

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 11	08-00022	PUTNAM	23	2
F.A.S. 254	-00-BR			

ILLINOIS CONTRACT NO. 89434

NUMBER	ITEM	UNIT	QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	6
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	18
20200100	EARTH EXCAVATION	CU YD	2,048
20300100	CHANNEL EXCAVATION	CU YD	440
20400800	FURNISHED EXCAVATION	CU YD	1,268
* 25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	1.2
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	160
28000300	TEMPORARY DITCH CHECKS	EACH	23
28000400	PERIMETER EROSION BARRIER	FOOT	2,717
28000500	INLET AND PIPE PROTECTION	EACH	3
* 28101700	RIPRAP, SPECIAL	TON	138
* 28102600	STONE RIPRAP DITCH	TON	595
35101400	AGGREGATE BASE COURSE, TYPE B	TON	1,706
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	31
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	1,174
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	306
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	214
44000100	PAVEMENT REMOVAL	SQ YD	1,000
48101200	AGGREGATE SHOULDERS, TYPE B	TON	272
* 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	22.7
50300280	CONCRETE ENCASEMENT	CU YD	3.5
* 50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	2,400
50800105	REINFORCEMENT BARS	POUND	2,750
50900205	STEEL RAILING, TYPE S1	FOOT	164
51201400	FURNISHING STEEL PILES HP10X42	FOOT	320
51202305	DRIVING PILES	FOOT	320
51203400	TEST PILE STEEL HP10X42	EACH	2
51500100	NAME PLATES	EACH	1
54010604	PRECAST CONCRETE BOX CULVERT 6' X 4'	FOOT	78
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	80
54200439	PIPE CULVERTS, TYPE 1 RCCP 24"	FOOT	48
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	2
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	267
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	720
Δ 63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	25
Δ 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	2
Δ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)	EACH	2
63200310	GUARDRAIL REMOVAL	FOOT	150
67100100	MOBILIZATION	L SUM	1
* 70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1
Δ * 78201000	TERMINAL MARKER-DIRECT APPLIED	EACH	4
* XX007390	PRECOATED GALVANIZED CORRUGATED STEEL CULVERT PIPE TYPE 1 18"	FOOT	20

*SEE SPECIAL PROVISIONS Δ SPECIALTY ITEMS

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE(25%)	SUITABLE CHANNEL EXCAVATION	CHANNEL EXCAVATION REDUCED FOR SHRINKAGE	EMBANKMENT (INFORMATION ONLY)	BALANCE (+) WASTE (-) FURNISHED EXCAVATION
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
STA. 21+00 TO STA. 27+03	280	210			2,123	-1,913
STA. 27+83 TO STA. 30+75	239	179			681	-502
*STA. 30+75 TO STA. 39+00	1,529	1,147			45	1,102
CHANNEL EXCAVATION			300	225	91	134
ENTRANCES						
RT. STA. 21+95 P.E.					46	-46
LT. STA. 26+02 P.E.					43	-43
TOTAL	2,048	1,536	300	225	3,029	-1,268

*TO BE USED IN THE BRIDGE APPROACH EMBANKMENTS.

GENERAL NOTES

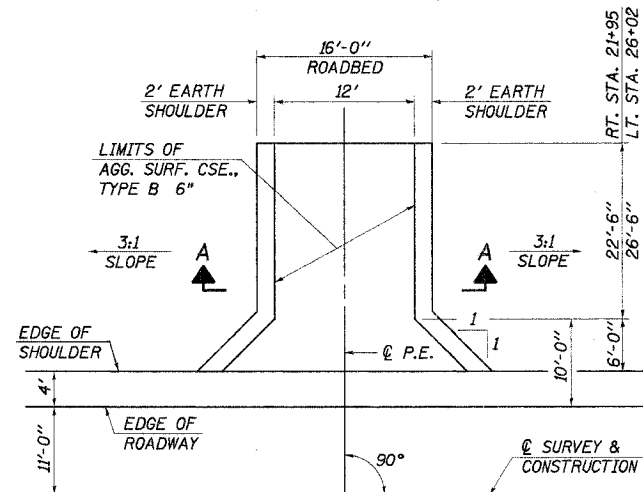
WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY, AS DIRECTED BY THE ENGINEER.

SEEDING, CLASS 2 (SPECIAL) = 1.2 ACRE

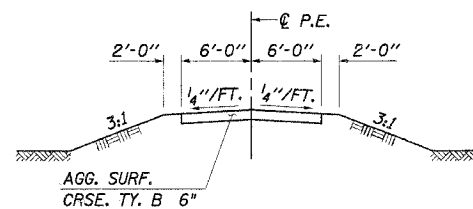
PAVEMENT REMOVAL

STA. 21+00 TO STA. 23+00 = 533 SQ YD
 STA. 29+00 TO STA. 30+75 = 467
 TOTAL = 1,000 SQ YD



ENTRANCE DETAIL

P.E. RT. STA. 21+95
 F.E. LT. STA. 26+02



SECTION A-A

APPLICATION RATES USED IN QUANTITY CALCULATIONS

STONE RIPRAP DITCH & RIPRAP (SPECIAL)	1.65 TON/CU YD
AGGREGATE BASE	2.05 TON/CU YD
AGGREGATE SURFACE AND AGGREGATE SHOULDERS	2.05 TON/CU YD
BITUMINOUS MATERIALS (PRIME COAT) - ON AGG. BASE	0.40 GAL/SQ YD
BITUMINOUS MATERIALS (PRIME COAT) - ON BINDER CSE.	0.10 GAL/SQ YD
BITUMINOUS CONCRETE (BINDER & SURFACE COURSE)	112#/SQ YD/IN

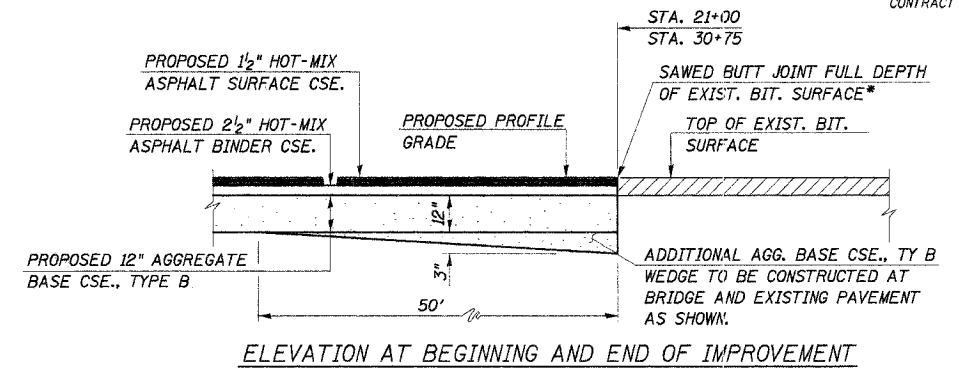
PAVEMENT DESIGN (80,000 LBS.)

Structural Design Traffic (S.D.T.): Year 2017; P.V. = 865, S.U. = 56, M.U. = 21
 Class III Road

Minimum Soil Support: $E_{R1} = 3$ k.s.f. (Assumed)

Percent of S.D.T. in Design Lane: P = 50%, S = 50%, M = 50%
 T.F. = 0.135

Temp. = 74.5° F.; $E_{AC} = 690$ (AC-10); Design Strain = 265



JOINT DETAILS

*COST INCLUDED IN "PAVEMENT REMOVAL".

BITUMINOUS MIXTURE REQUIREMENTS

MIXTURE USE(S)	SURFACE COURSE	BINDER COURSE
AC/PG:	64-22	64-22
RAP %: (MAX)	15%	25%
DESIGN AIR VOIDS:	4.0% @ $N_{des} = 50$	4.0% @ $N_{des} = 50$
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL 9.5	IL 19.0
FRICION AGGREGATE:	MIXTURE C	N/A

TREE REMOVAL

ALL TREES WHICH INTERFERE WITH THE CONSTRUCTION WITHIN THE LIMITS OF THE R.O.W. SHALL BE REMOVED ONLY AT THE DIRECTION OF THE ENGINEER.

TREE REMOVAL (6 TO 15 UNITS DIAMETER)

38' RT. STA. 21+52 = 6 UNITS DIAMETER

TREE REMOVAL (OVER 15 UNITS DIAMETER)

31' RT. STA. 28+59 = 18 UNITS DIAMETER

LOCATION	AGGREGATE BASE COURSE, TYPE B	AGGREGATE SURFACE COURSE, TYPE B	BITUMINOUS MATERIALS (PRIME COAT)	HMA BINDER COURSE IL-19.0,N50	HMA SURFACE COURSE MIX "C", N50
	TON	TON	GALLON	TON	TON
STA. 21+00 TO STA. 27+03	1121		790	206	124
STA. 27+83 TO STA. 30+75	555		394	100	60
BRIDGE SURFACE					30
A.R. CULVERT, RT. STA. 31+93	30				
ENTRANCES					
RT. STA. 21+95 P.E.		15			
LT. STA. 26+02 P.E.		16			
TOTAL	1706	31	1174	306	214

SUMMARY OF QUANTITIES, GENERAL NOTES AND DETAILS

SECTION 08-00022-00-BR
 PUTNAM COUNTY
 COUNTY HIGHWAY 11
 STATION 27+43

4440 ASH GROVE
 SPRINGFIELD, IL 62711
 (217) 793-8600
 www.fehr-graham.com

FEHR-GRAHAM & ASSOCIATES, LLC
 ENGINEERING AND SCIENCE CONSULTANTS

DRAWN: S.A.P.
 DATE: 02/05/07

CHECKED: G.J.C.
 DATE: 03/02/07

JOB NO.: 46856
 FILE: 0423SUMTYP.DGN
 DATE: 04/17/07