

LETTING DATE
4/20/04

STANDARD ROAD PLANS

105-4
12-03-96

The following Standard Road Plans shall be considered applicable to construction work on this project.

NUMBER	DATE	NUMBER	DATE	NUMBER	DATE
RA-63	2/11/00	RF-1	4/30/01	RS-1	10/27/98
RA-66A	10/21/03	RF-3	10/3/00	RS-2	10/27/98
RB-3	1/12/99	RF-5	10/3/00	RS-3	12/3/96
RC-16A	4/20/04	RF-7	4/15/03	RS-4	10/2/01
RC-16B	4/20/04	RF-14	4/25/00	RS-5A	4/20/04
RE-2B	4/3/01	RF-19C	4/20/04	RS-12	4/30/96
RE-7	4/15/03	RF-19E	10/3/00	RS-13	4/30/96
RE-12A	10/2/01	RF-19F	4/25/00	RS-17A	10/2/01
RE-12B	10/2/01	RF-30A	3/28/95	RS-17B	10/2/01
RE-12C	4/3/01	RF-30C	4/30/02	RS-17C	10/2/01
RE-37	4/3/01	RF-43	10/3/00		
RE-47	4/20/04	RH-50	4/20/04		
RE-48A	10/21/03	RH-56	4/20/04		
RE-48B	4/3/01	RL-7	12/3/96		
RE-54B	4/30/02	RL-14	1/12/99		
RE-65A	10/29/02	RM-49	10/21/03		
RE-68	4/20/04	RR-10	4/30/02		
RE-69A	10/29/02				
RE-69B	10/29/02				
RE-69C	10/29/02				
RE-76	10/21/03				

THESE PLANS INCLUDE
STPN-3-5(66)--2J-12
MB-003-2(500)197--77-12



Iowa Department of Transportation
Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM
BUTLER COUNTY

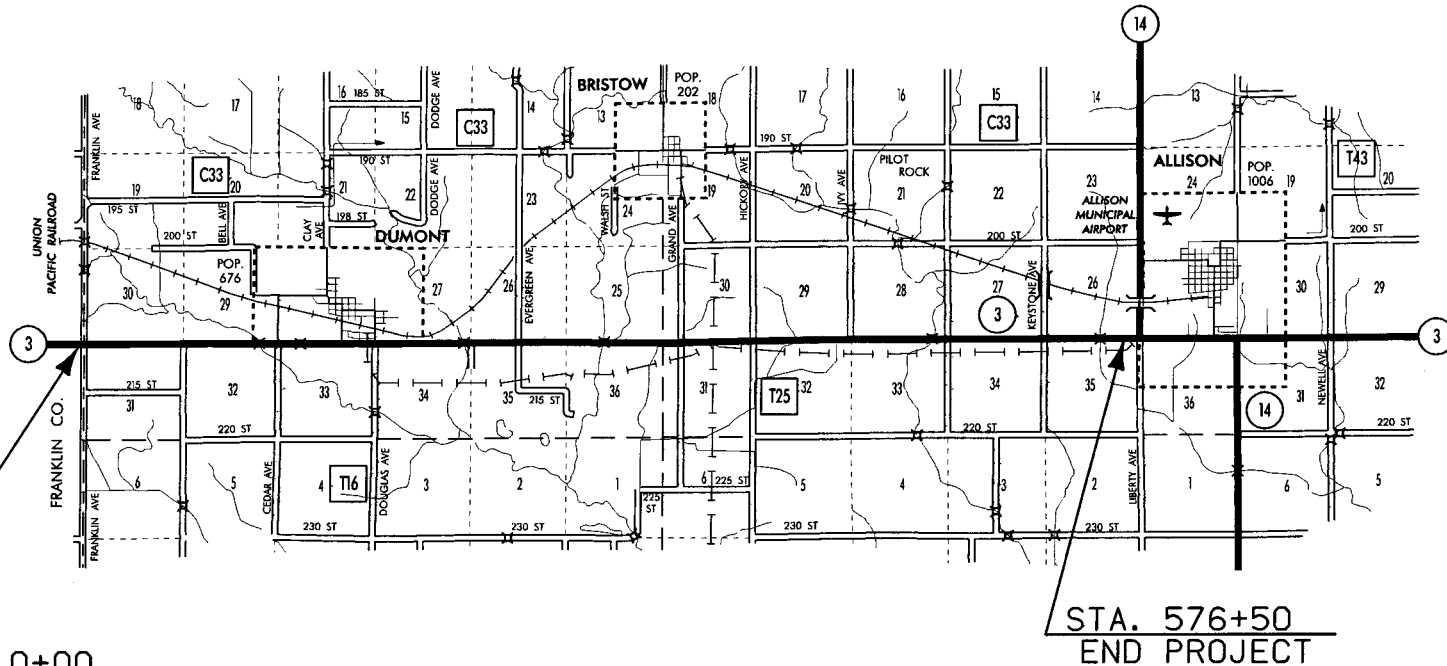
HMA PAVEMENT WIDENING WITH HMA RESURFACING

IA 3 From the Franklin County Line
East to the West with IA 14

SCALES: As Noted

The Iowa Department of Transportation English Standard Specifications for Highway and Bridge Construction, series of 2001, plus current supplemental specifications and special provisions shall apply to construction work on this project.

Value Engineering Saves. Refer to Standard Notation 203-4 on Sheet C.03

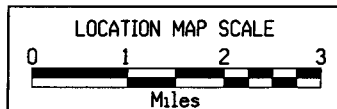
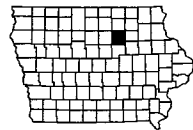


STA. 0+00
BEGIN PROJECT

STA. 576+50
END PROJECT

084/085
src

150



04-30-02		101-4	
DESIGN DATA RURAL			
2003	AADT	<u>3,200</u>	V.P.D.
2023	AADT	<u>3,800</u>	V.P.D.
2023	DHV	<u>410</u>	V.P.H.
TRUCKS		<u>20</u>	%
Total			
Design ESALs		<u>1,870,080</u>	

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.01	MARK CALLAHAN	Primary Signature Block
V.01-V.02	GORDON L. PORT	Structural Signature Block
V.03-V.04	DAVID R. CLAMAN	Hydraulic Signature Block
V.05-V.06	DAVID R. CLAMAN	Hydraulic Signature Block



I hereby certify that this plan was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature: *Mark Callahan* 2-24-04
Date: 2-24-04
Printed or Typed Name: MARK R. CALLAHAN

My license renewal date is December 31, 20 05.

Pages or sheets covered by this seal: A.01, B.01-B.07, C.01-C.12, L.01-L.03, and U.01-U.06

REVISIONS

TOTAL
35

PROJECT IDENTIFICATION NUMBER	
03-12-003-010	PROJECT NUMBER
STPN-3-5(66)--2J-12	R.O.W. PROJECT NUMBER
NONE	DIR #1200301003
DGN #21200366	

INDEX OF SHEETS

105-3
07-21-87

NO.	DESCRIPTION
A.01	TITLE SHEET
B.01-B.07	TYPICAL CROSS SECTIONS
C.01-C.12	ESTIMATE QUANTITIES, TABS AND GENERAL INFORMATION
L.01-L.03	TURN LANE INFORMATION
U.01-U.06	BRIDGE APPROACH REPLACEMENT INFORMATION
V.01-V.06	BRIDGE RETROFIT, BRIDGE SCOUR REPAIR INFORMATION.

MILEAGE SUMMARY

105-1
09-27-94

DIV.	LOCATION	LIN. FT.	MILES
	Sta. 0+00 to Sta. 576+50	57,650.0	10.92
	Bridge at Sta. 97+51.65	-278.0	
	Bridge at Sta. 119+51.97	-33.0	
	Bridge at Sta. 208+71.63	-346.0	
	Bridge at Sta. 285+20.08	-127.5	
	Total project length	56,865.5	10.77

GENERAL NOTES:

THIS DESIGN IS FOR REPAIRS TO THE EXISTING 33' X 30' CONCRETE SLAB BRIDGE ON IA 3 OVER HARTGRAVES CREEK, EAST OVERFLOW. COPIES OF THE ORIGINAL DESIGN PLANS WILL BE MADE AVAILABLE TO THE CONTRACTOR. CONTACT THE OFFICE OF CONTRACTS - HIGHWAY DIVISION -IOWA D.O.T. - AMES.

REPAIR SHALL CONSIST OF:

- 1. INSTALLATION OF FABRIC FORMED CONCRETE REVETMENT.

REMOVAL OF SCHEDULED ITEMS SHALL BE IN ACCORDANCE WITH SECTION 2401 OF THE SPECIFICATIONS. ANY DAMAGE TO MATERIAL NOT TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND REPAIRED AT NO EXTRA COST TO THE STATE.

FABRIC FORMED REVETMENT DIMENSIONS SHOWN REFLECT THE FINISHED SIZE FOLLOWING FILLING WITH CONCRETE GROUT AND ARE EXCLUSIVE OF FORM MATERIAL IN ANCHOR, TERMINAL OR TOE TRENCHES UNLESS NOTED OTHERWISE.

FOR FABRIC FORM DIMENSIONS MARKED AS 'VERIFY' THE CONTRACTOR SHALL VERIFY THE DIMENSIONS PRIOR TO ORDERING FORMS, OR THE FORMS SHALL BE FABRICATED TO ALLOW FOR FIELD ADJUSTMENT AT NO ADDITIONAL COST.

LABOR, EQUIPMENT AND MATERIALS REQUIRED TO ANCHOR FABRIC FORMS DURING PLACEMENT AND CURING OF GROUT SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.

SOIL BACKFILL PERFORMED UNDER BANK SHAPING SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE 2402.09, BACKFILLING. MATERIAL USED FOR BACKFILL SHALL BE FREE FROM ORGANIC MATERIALS, BOULDERS OR BROKEN CONCRETE OVER 8 INCHES IN THE GREATEST DIMENSION, OR FROZEN MATERIAL.

EXCESS EXCAVATED MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR OFF OF THE PROJECT SITE.

SPECIFICATIONS:

CONSTRUCTION: IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES OF 2001, PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT INCLUDING "DEVELOPMENTAL SPECIFICATIONS FOR FABRIC FORMED CONCRETE STRUCTURE REVETMENT".

TOTAL ESTIMATED BRIDGE QUANTITIES

ITEM NO.	ITEM CODE	ITEM	UNIT	QUANTITY	AS BUILT QUANTITY
1	2507-3250005	ENGINEERING FABRIC	SQ. YD.	250.000	
2	2507-6799000	BANK SHAPING	L.S.	1.000	
3	2507-8029000	EROSION STONE	TON	26.000	
4	2507-8500040	FFC REVET, ARTICULATING BLOCK MAT, 4"	SQ. YD.	303.000	
5	2507-8501100	CONC GROUT-FABRIC FORMED CONC REVETMENT	C.Y.	30.000	
6	2533-4980005	MOBILIZATION	L.S.	1.000	

ESTIMATE REFERENCE INFORMATION

ITEM NO.

- 2 INCLUDES ALL WORK IN PREPARATION OF GRADE FOR PLACEMENT OF REVETMENT INCLUDING EXCAVATION, SOIL BACKFILL UTILIZING EXCAVATED MATERIAL, AND DISPOSAL OF EXCESS EXCAVATED MATERIAL. ESTIMATED EXCAVATION QUANTITY 36 CY (30 CY EXCESS).
- 4, 5 BASED ON UNFILLED FABRIC FORM DIMENSIONS WITH FORM LAID FLAT AND INCLUDES THE FORM AREA IN TRENCHES SHOWN ON THE PLAN AND ALL FORM LAYERS IN OVERLAPS SHOWN ON THE PLAN. PLAN FINISHED DIMENSIONS WERE INCREASED BY 10% TO ESTIMATE FABRIC FORM QUANTITY.

THIS PROJECT IS TO BE LET WITH:
PROJECT NO. STPN-003-5(66)--2J-12

DESIGN HISTORY
AT THIS SITE

DES. NO.	TYPE OF WORK
257	ORIGINAL DESIGN
480	OVERLAY, RETRO. RAIL
103	RETRO. RAIL ENDS
104	REVTMENT

NOTE:
ROADWAY QUANTITIES SHOWN
ELSEWHERE IN THESE PLANS.

HYDRAULIC DESIGN



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature: *David R. Claman* Date: 12-4-03
Printed or Typed Name: David R. Claman

My license renewal date is December 31, 2004

Pages or sheets covered by this seal: DESIGN SHEETS 1 AND 2 OF 2

DESIGN FOR REPAIRS TO 0° SKEW

33'-0 x 30'-0 CONCRETE SLAB
BRIDGE

33'-0 SPAN

QUANTITIES AND NOTES
STATION: 119+46.4 DEC. 2003
BUTLER COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 1 OF 2 FILE NO. 29979 DESIGN NO. 0104

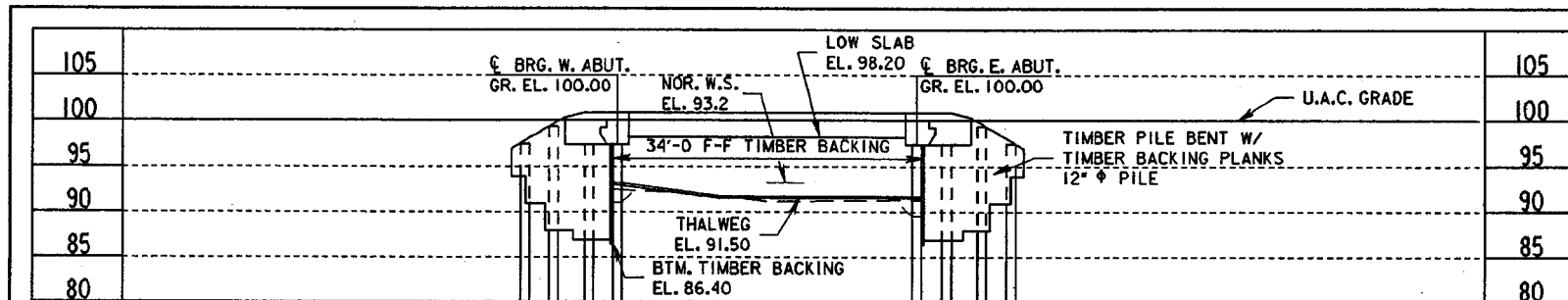
DESIGNED BY W. KAUFMAN CHECKED BY
DETAILED BY CADD FILE HI20104.V03

BUTLER COUNTY

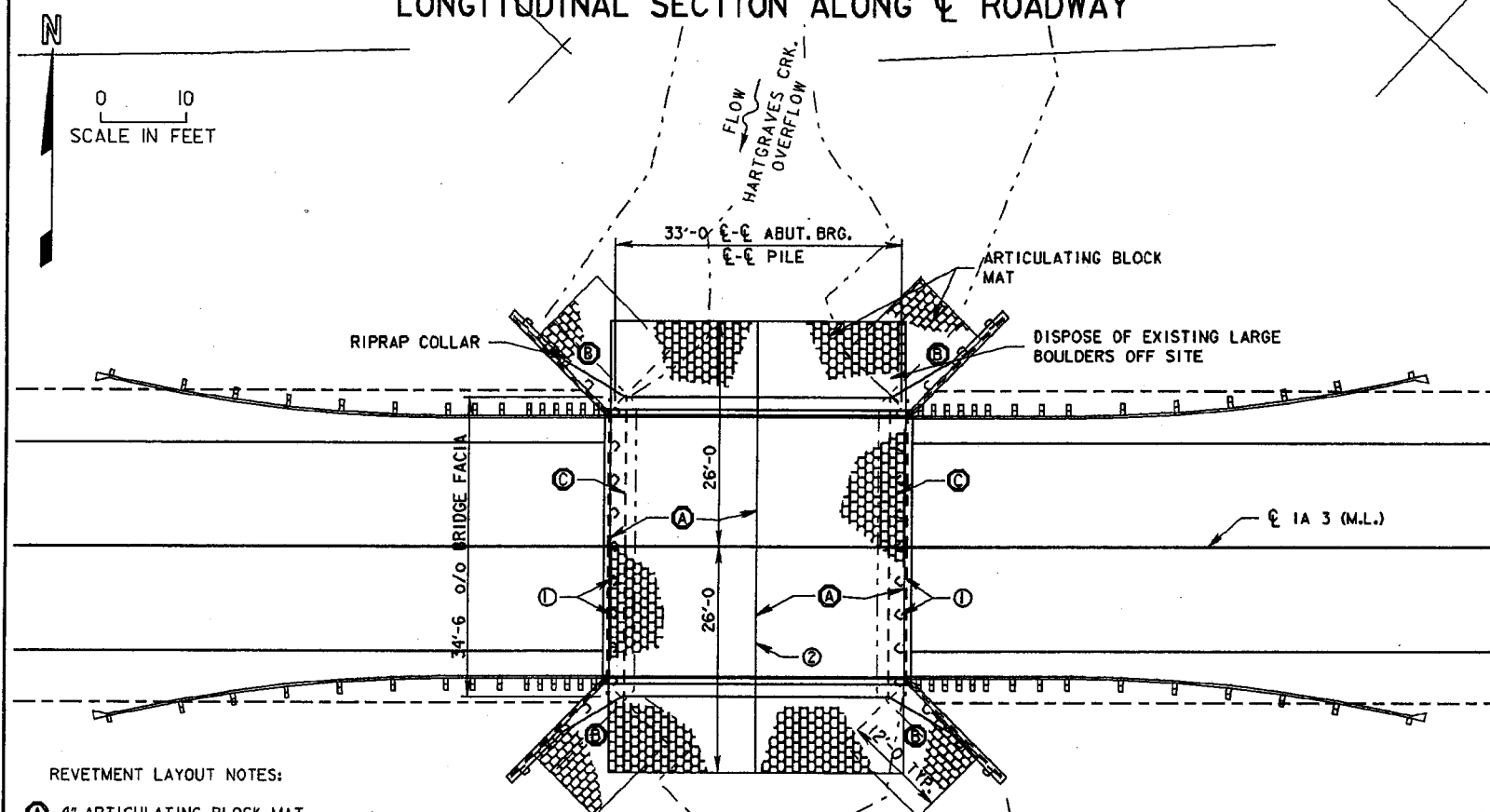
PROJECT NUMBER

MB-003-2(500)197--77-12

SHEET NUMBER V.03



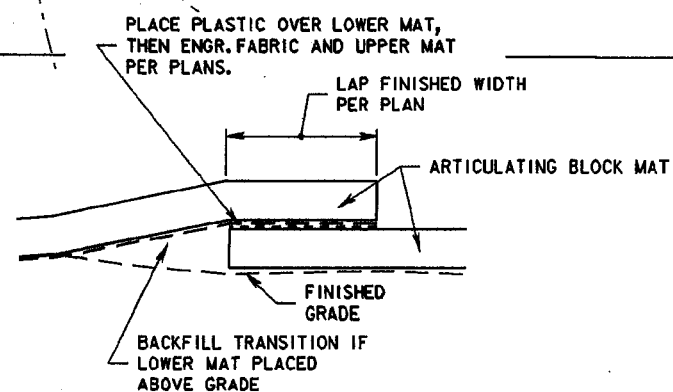
LONGITUDINAL SECTION ALONG C ROADWAY



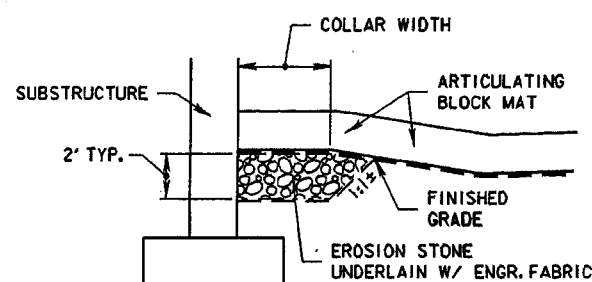
REVTMENT LAYOUT NOTES:

- (A) 4\"/>

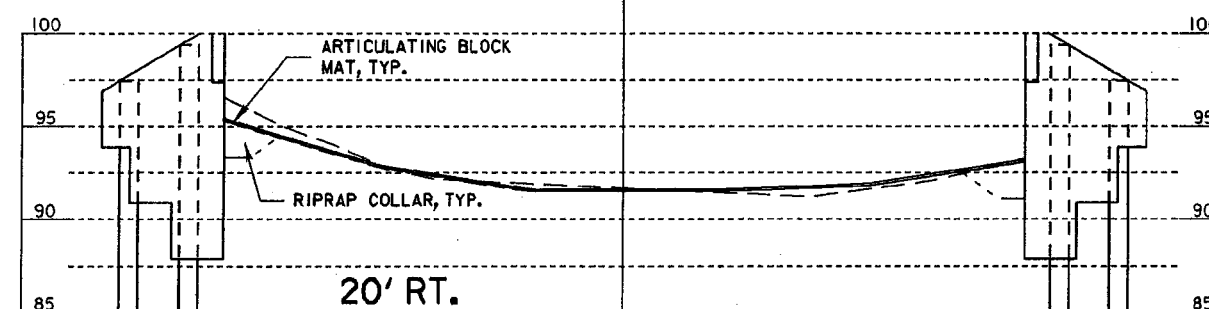
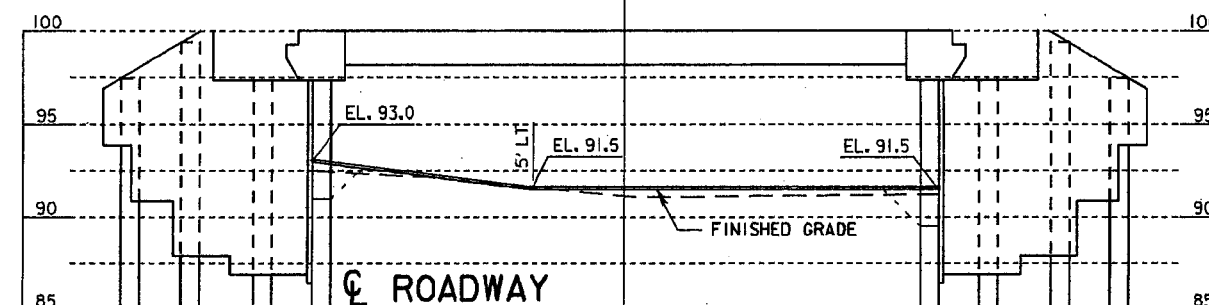
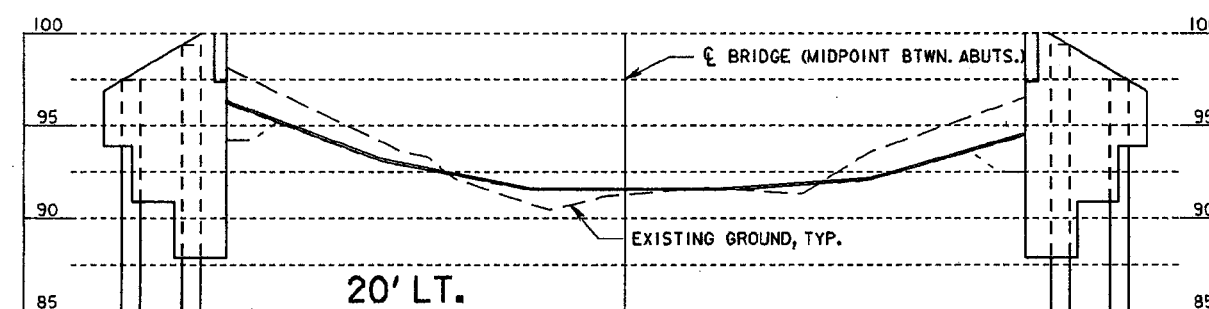
SITUATION/PLAN



MAT LAP DETAIL



RIPRAP COLLAR DETAIL



GRADING NOTES:

GRADING BENEATH BRIDGE (BETWEEN FACIAS) WILL BE AS SHOWN FOR THE C ROADWAY SECTION ABOVE. FINISHED GRADE MAY BE 1.5' LOWER THAN THAT SHOWN TO MINIMIZE FILL UNDER THE BRIDGE. WARP GRADING BEYOND BRIDGE FACIA TO TRANSITION TO EXISTING GROUND AT END OF MAT.

HYDRAULIC DATA

DRAINAGE AREA = 180.0 SQ. MI. (OVERFLOW)
STREAM SLOPE = 3.7 FT./MI.

QOT = < 50 YR.
STAGE = EL. 95.0
OF BRIDGE Q = 940 CFS
OF BRIDGE VELOCITY = 8.3 FPS
CALCULATED SCOUR = EL. 81.6

Q50 = 11,800 CFS
STAGE = EL. 98.2

Q100 = 14,000 CFS
STAGE = EL. 98.8

LOCATION

IA 3 OVER HARTGRAVES CREEK,
EAST OVERFLOW
T 92 N R 18 W
SECTION 28
PITTSFORD TOWNSHIP
BUTLER COUNTY
BRIDGE MAINT. NO. 1294.1S003
FHWA NO. 016490

DESIGN FOR REPAIRS TO 0° SKEW
**33'-0 x 30'-0 CONCRETE SLAB
BRIDGE**

33'-0 SPAN

**SITUATION PLAN
BUTLER COUNTY**

STATION: 119+46.4

DEC. 2003

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 2 OF 2 FILE NO. 29979 DESIGN NO. 0104

DESIGNED BY W. KAUFMAN CHECKED BY
DETAILED BY CADD FILE H120104.V04

BUTLER COUNTY

PROJECT NUMBER

MB-003-2(500)197--77-12

SHEET NUMBER V.04