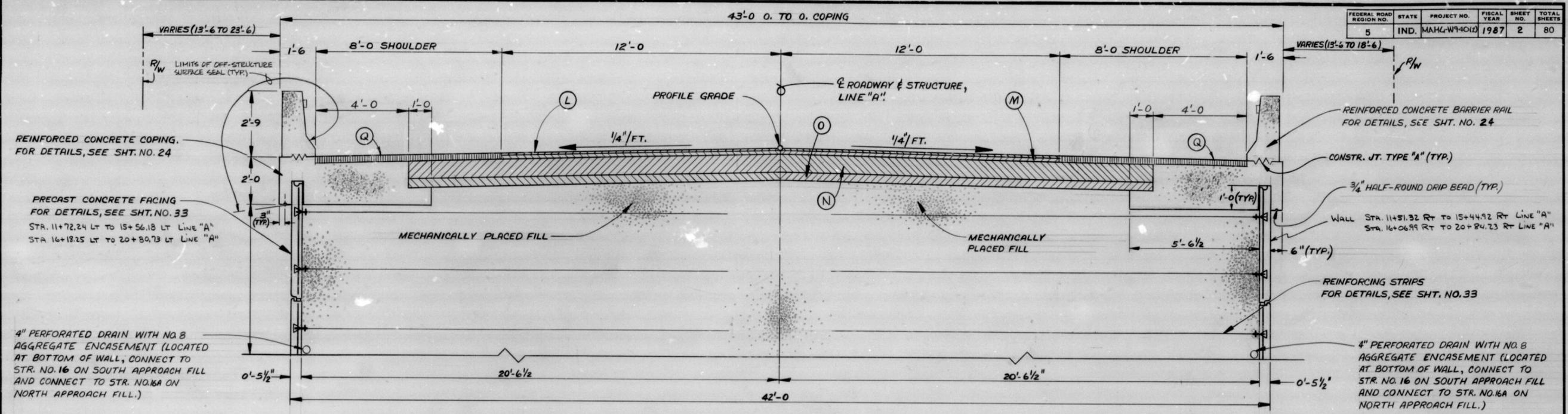
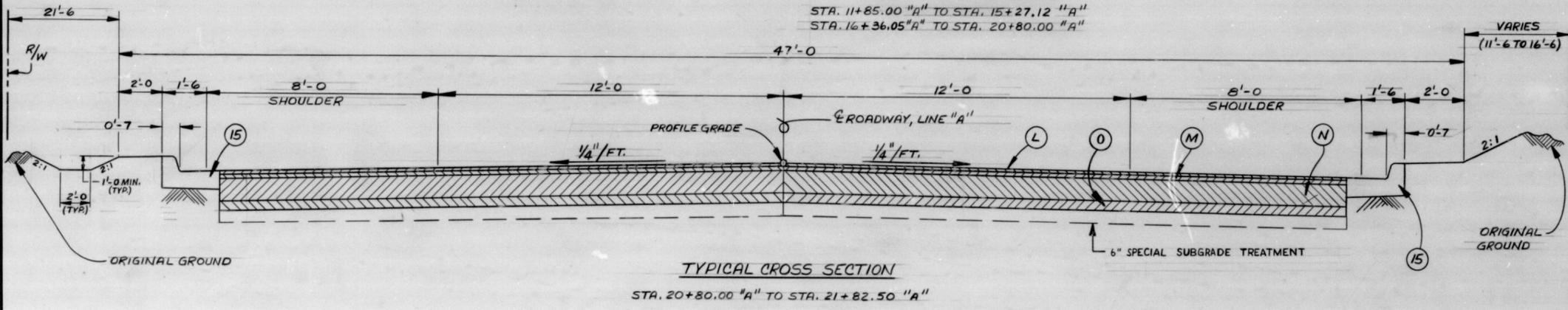


FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	MAHL-W740(2)	1987	2	80



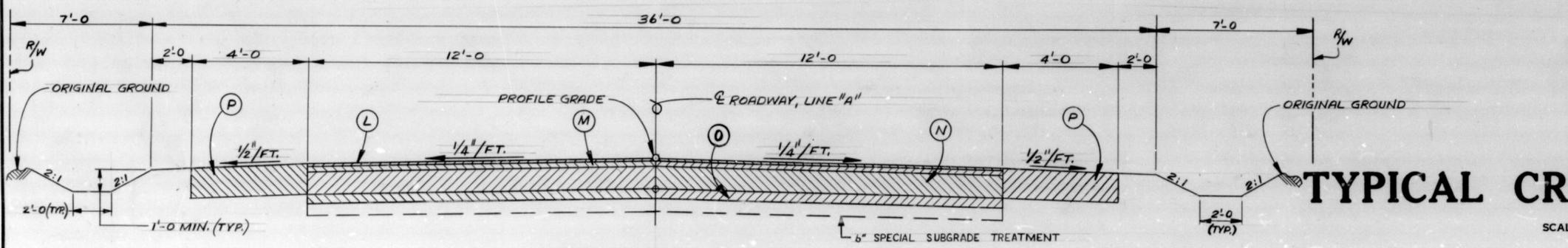
TYPICAL CROSS SECTION

STA. 11+85.00 "A" TO STA. 15+27.12 "A"
 STA. 16+36.05 "A" TO STA. 20+80.00 "A"



TYPICAL CROSS SECTION

STA. 20+80.00 "A" TO STA. 21+82.50 "A"



TYPICAL CROSS SECTION

STA. 9+83.00 "A" TO STA. 11+85.00 "A"

NOTE: ALL CUT AND FILL SLOPES, DITCHES, AND DISTURBED AREAS TO BE SODDED.

LEGEND

- (L) 110 LBS. PER S.Y. BITUMINOUS SURFACE, TYPE #11, MV
- (M) 220 LBS. PER S.Y. BITUMINOUS BINDER, MV
- (N) 880 LBS. PER S.Y. BITUMINOUS BASE, MV
- (O) 440 LBS. PER S.Y. BITUMINOUS BASE 5 D, MV
- (P) 1210 LBS. PER S.Y. BITUMINOUS BASE 5 D, MV, WITH TYPE 2 SEAL COAT FOR SHOULDERS
- (Q) 330 LBS. PER S.Y. BITUMINOUS BASE, MV, WITH TYPE 2 SEAL COAT FOR SHOULDERS
- (15) COMBINED CONCRETE CURB & GUTTER

TYPICAL CROSS SECTIONS

SCALE: 1/2" = 1'-0"

RECOMMENDED FOR APPROVAL 2-1-90

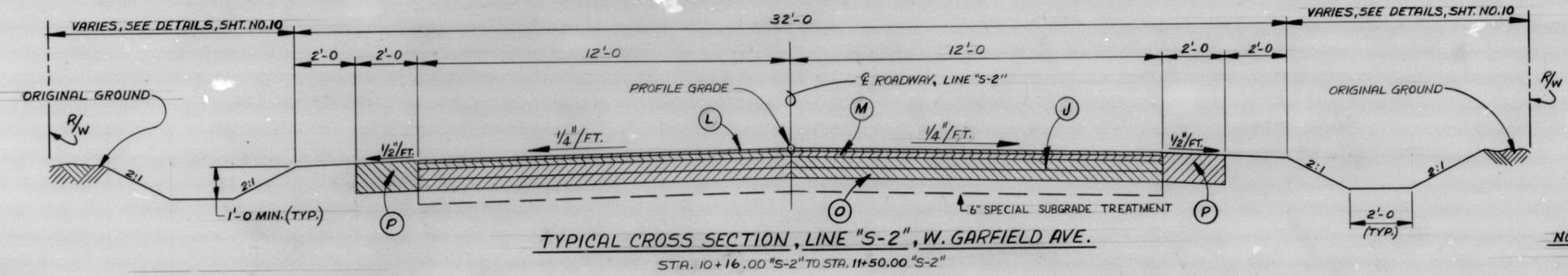
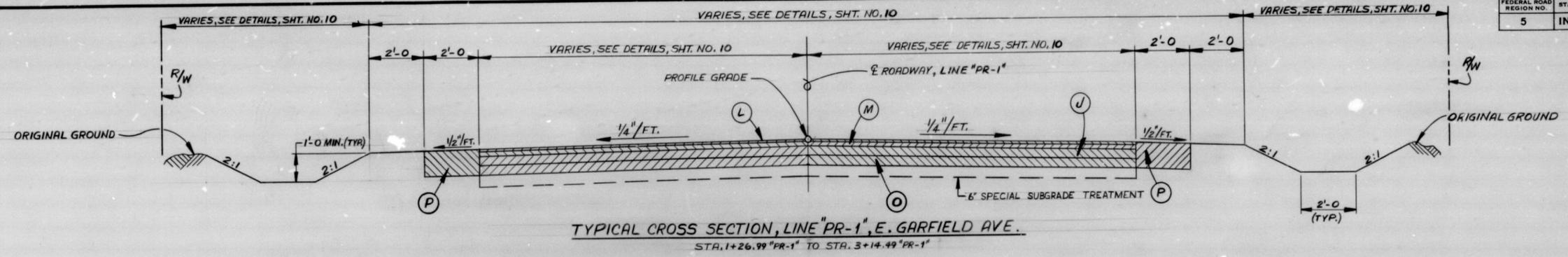
James Bee



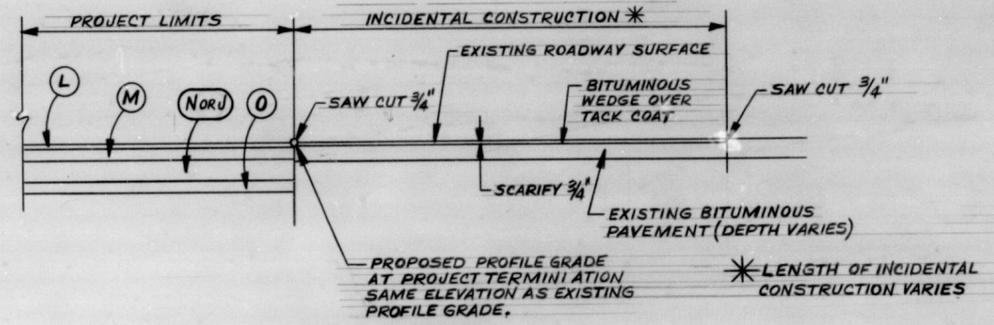
B-18986

PROJECT NO.	LINE NO.	SHEET NO.	TOTAL SHEETS	FILE
MAHL-W740(2)	A	2	80	GIBSON102F8

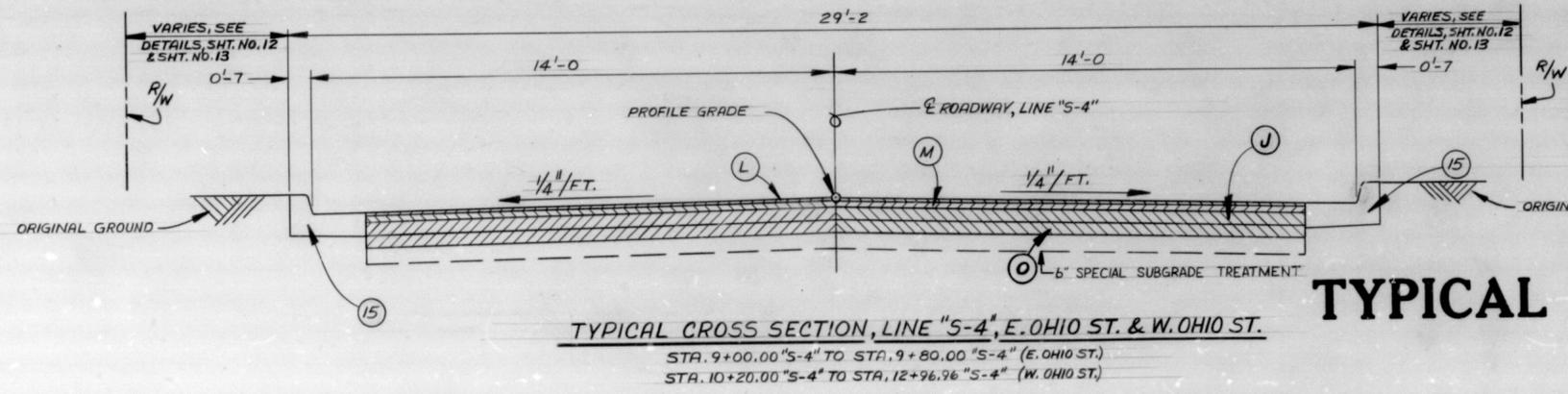
FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	MAM2-W140(2)	1987	3	80



NOTE: ALL CUT AND FILL SLOPES, DITCHES, AND ALL DISTURBED AREAS TO BE SODDED.



- LEGEND**
- (L) 110 LBS. PER S.Y. BITUMINOUS SURFACE, TYPE #11, MV
 - (M) 220 LBS. PER S.Y. BITUMINOUS BINDER, MV
 - (J) 440 LBS. PER S.Y. BITUMINOUS BASE, MV
 - (O) 440 LBS. PER S.Y. BITUMINOUS BASE 5D, MV
 - (P) 1210 LBS. PER S.Y. BITUMINOUS BASE 5D, MV, WITH TYPE 2 SEAL COAT FOR SHOULDERS
 - (Q) 330 LBS. PER S.Y. BITUMINOUS BASE, MV, WITH TYPE 2 SEAL COAT FOR SHOULDERS
 - (15) COMBINED CONCRETE CURB & GUTTER



TYPICAL CROSS SECTIONS

SCALE: - 1/2" = 1'-0"

RECOMMENDED FOR APPROVAL 2-1-90

James M. Rice



B-18786

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
MAM2-W140(2)	AS NOTED	3	80	GIBSON 10288

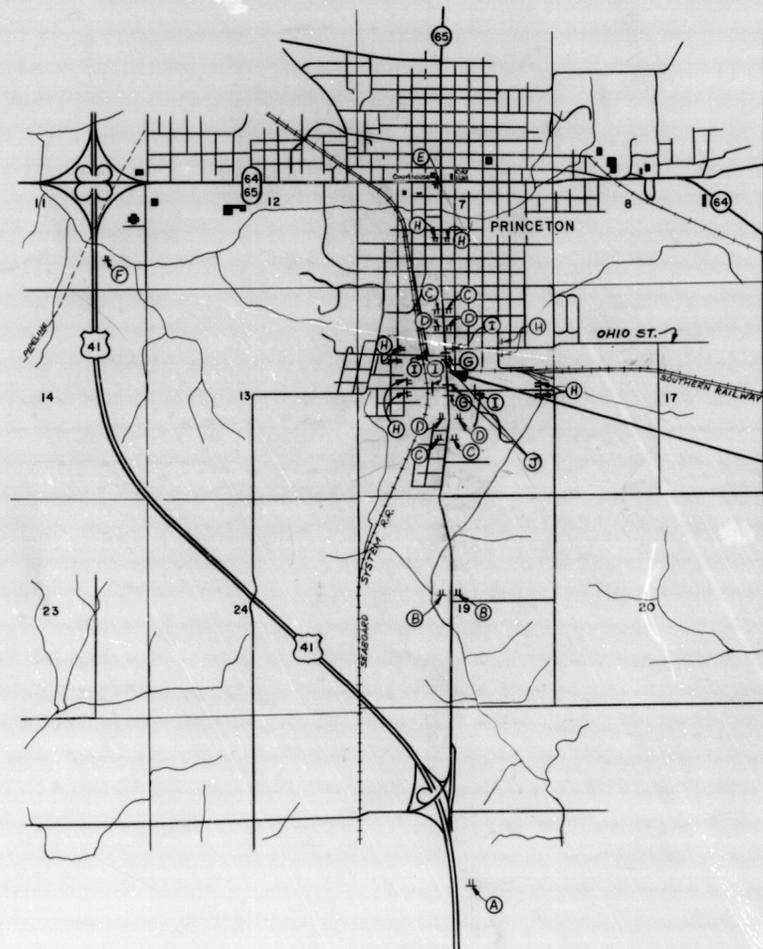
NOTES

1. NO DIRECT PAYMENT FOR SETTLEMENT STAKES WILL BE MADE. COST OF SETTLEMENT STAKES WILL BE INCLUDED IN THE COST OF SETTLEMENT PLATES.
2. FOR SETTLEMENT STAKES AND PLATES DETAILS, SEE SHT. NOS. 15 & 16.

SETTLEMENT STAKES & PLATES TABLE		
STATION/ITEM	LOCATION LT. OR RT. OF LINE "A"	QUANTITY
12+49 / TOE STAKE	25' RT.	1
12+51 / TOE STAKE	25' LT.	1
12+55 / SETTLE.STAKE	CL	1
12+60 / SETTLE.PLATE	CL	1
13+40 / TOE STAKE	25' RT.	1
13+48 / SETTLE.STAKE	CL	1
13+51 / TOE STAKE	25' LT.	1
14+40 / TOE STAKE	25' RT.	1
14+49 / SETTLE.STAKE	CL	1
14+53 / TOE STAKE	25' LT.	1
15+39 / TOE STAKE	25' RT.	1
15+47 / SETTLE.PLATE	CL	1
15+50 / TOE STAKE	19' RT.	1
15+53 / TOE STAKE	2' RT.	1
15+54 / TOE STAKE	25' LT.	1
15+61 / TOE STAKE	18' LT.	1
16+00 / TOE STAKE	19' RT.	1
16+06 / TOE STAKE	2' LT.	1
16+08 / TOE STAKE	25' RT.	1
16+11 / TOE STAKE	19' LT.	1
16+17 / SETTLE.STAKE	CL	1
16+22 / TOE STAKE	25' LT.	1
17+09 / TOE STAKE	25' RT.	1
17+13 / SETTLE.STAKE	CL	1
17+22 / TOE STAKE	25' LT.	1
18+06 / TOE STAKE	25' RT.	1
18+12 / SETTLE.STAKE	CL	1
18+22 / TOE STAKE	25' LT.	1
19+06 / SETTLE.STAKE	CL	1
19+08 / TOE STAKE	25' RT.	1
19+11 / TOE STAKE	25' LT.	1

LEGEND

- A ROAD CLOSED, 2 MILES AHEAD, LOCAL TRAFFIC ONLY (R11-3, 60"x30") AND DETOUR (XM4-9(L), 30"x24")
NOTE: THESE SIGNS TO BE PLACED ON EXISTING EXIT RAMP SIGN FOR PRINCETON.
- B ROAD CLOSED, 1 MILE AHEAD, LOCAL TRAFFIC ONLY (R11-3, 60"x30") WITH LOW INTENSITY FLASHING YELLOW LIGHT (TYPE "A").
- C ROAD CLOSED 1000 FT. (XW 20-3, 48"x48") WITH LOW INTENSITY FLASHING YELLOW LIGHT (TYPE "A").
- D ROAD CLOSED 500 FT. (XW 20-3, 48"x48") WITH LOW INTENSITY FLASHING YELLOW LIGHT (TYPE "A").
- E ROAD CLOSED, 0.8 MILES AHEAD, LOCAL TRAFFIC ONLY (R11-3, 60"x30") AND DETOUR (XM4-9(R), 30"x24").
- F DETOUR (XM4-9(R), 30"x24")
NOTE: THIS SIGN TO BE PLACED ON EXISTING EXIT RAMP SIGN FOR S.R.64 EAST (PRINCETON)
- G 3-TYPE III-B BARRICADES WITH PORTABLE CONSTRUCTION SIGN SUPPORT WITH "ROAD CLOSED" SIGN (R11-2)
- H ROAD CLOSED AHEAD (XW 20-3, 48"x48") WITH LOW INTENSITY FLASHING YELLOW LIGHT (TYPE "A").
- I 2-TYPE III-B BARRICADES WITH PORTABLE CONSTRUCTION SIGN SUPPORT WITH "ROAD CLOSED" SIGN (R11-2).
- J TYPE III-A BARRICADES.



PROJECT LOCATION

SCALE: 1" = 2000'

**TRAFFIC CONTROL PLAN
INDIANA DEPARTMENT OF HIGHWAYS**

GIBSON COUNTY

SCALE: AS NOTED

DATE: 2-1-90

James A. Rice

SHEET: 5 OF 80

PROJECT: MAM4-W940 (2) STATION: 15+81.5834 "A"
BRIDGE CONTRACT NO. B-18986
BRIDGE FILE: GIBSON 10288

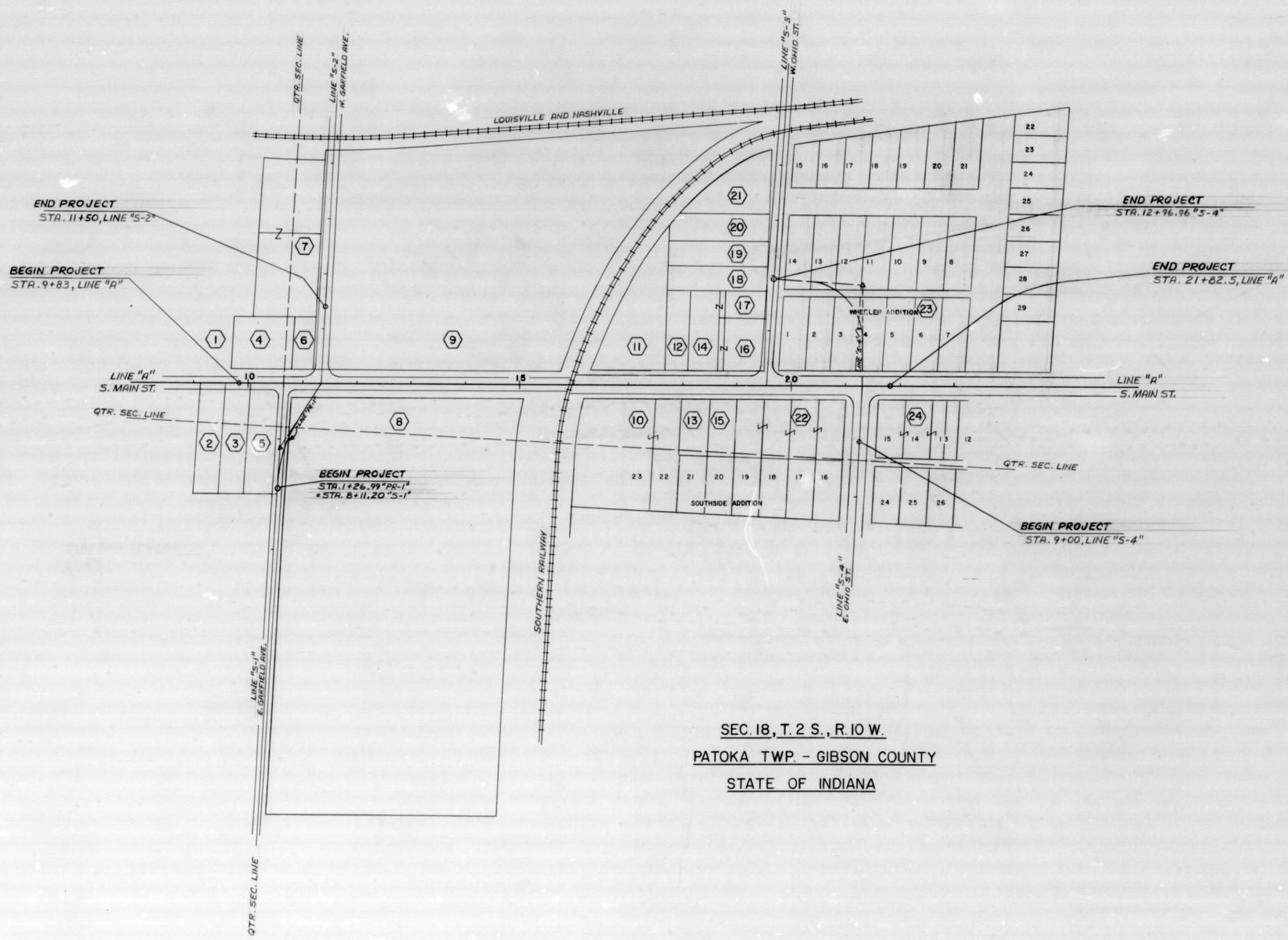


DESIGNED: CKD
DRAWN: CKD
TRACED: CKD

SF-22317

Rev. 11/2/90 Added J TYPE III-A BARRICADES.

FEDERAL REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IN.	MA-MC-W9400	1987	6	80



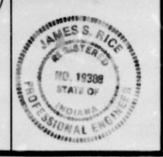
SEC.	INDEX NO.	OWNER
18	①	JAMES D. & GLORIA PAYNE
18	②	DENNIS HUX
18	③	DONALD & JUNE BROSHEARS
18	④	BILLY W. & VIRGINIA CARPENTER
18	⑤	FAYE THOMPSON
18	⑥	ERMAL WILDER
18	⑦	CAROL JEAN MASON
18	⑧	GIBSON COUNTY FARM BUREAU
18	⑨	JOE I. & EDITH M. RANKIN
18	⑩	HAHN OIL COMPANY
18	⑪	LESTER J. MASON
18	⑫	DENNIS & ROBERTA HAYS
18	⑬	EVERETT M ^C DANIEL
18	⑭	RALPH & JOANN DAVIS
18	⑮	SYLVIA ALVIS
18	⑯	ALVA T. SHANKS ESTATE
18	⑰	RUSSELL & RUTH DAVIS
18	⑱	BILLY G. & SUSAN CORDREY
18	⑲	DONALD & JEANNETTE CARLISLE
18	⑳	PAUL ED & LORETTA J. MEADOWS
18	㉑	EARL J. & WANDA WOODS
18	㉒	MOOSE LODGE NO. 354
18	㉓	(WHEELER ADDITION) JAY D. CANIFF
18	㉔	WALTER & DEBORAH BLAKE

SEC. 18, T. 2 S., R. 10 W.
 PATOKA TWP. - GIBSON COUNTY
 STATE OF INDIANA

PLAT NO. 1

SCALE: 1" = 100'

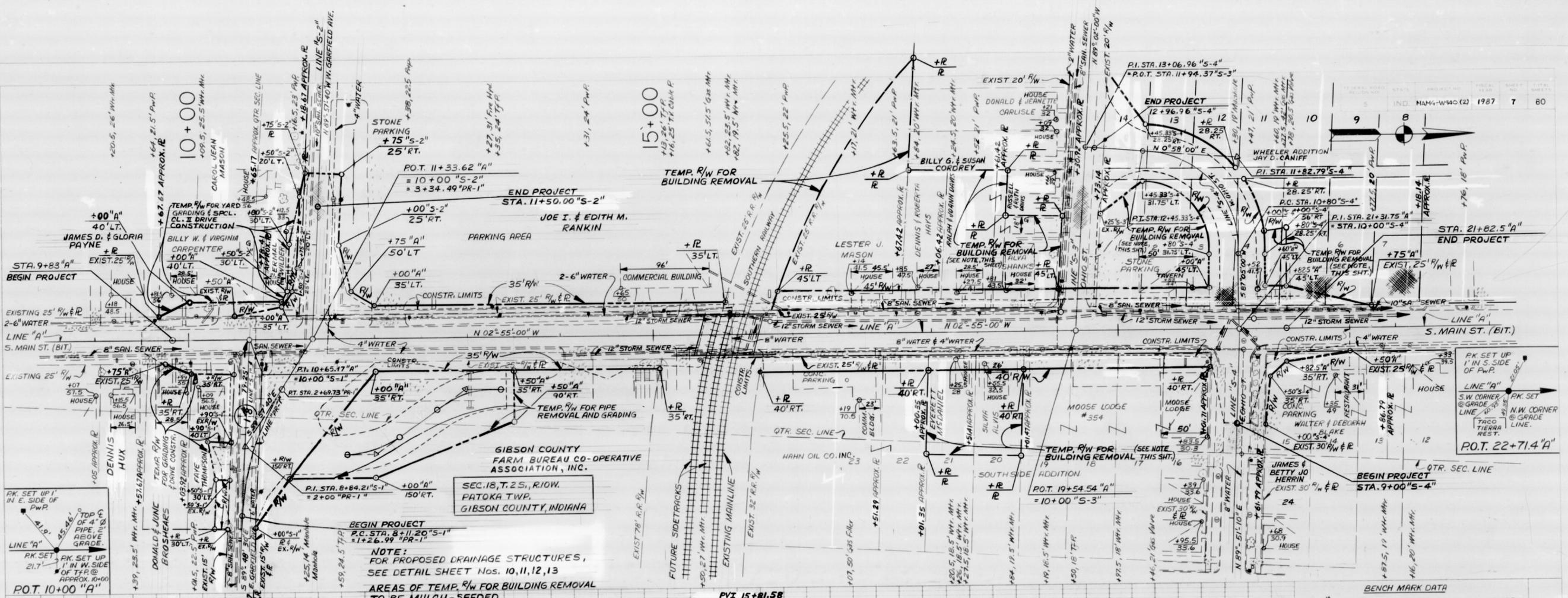
2-1-90
James S. Rice



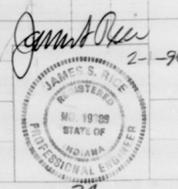
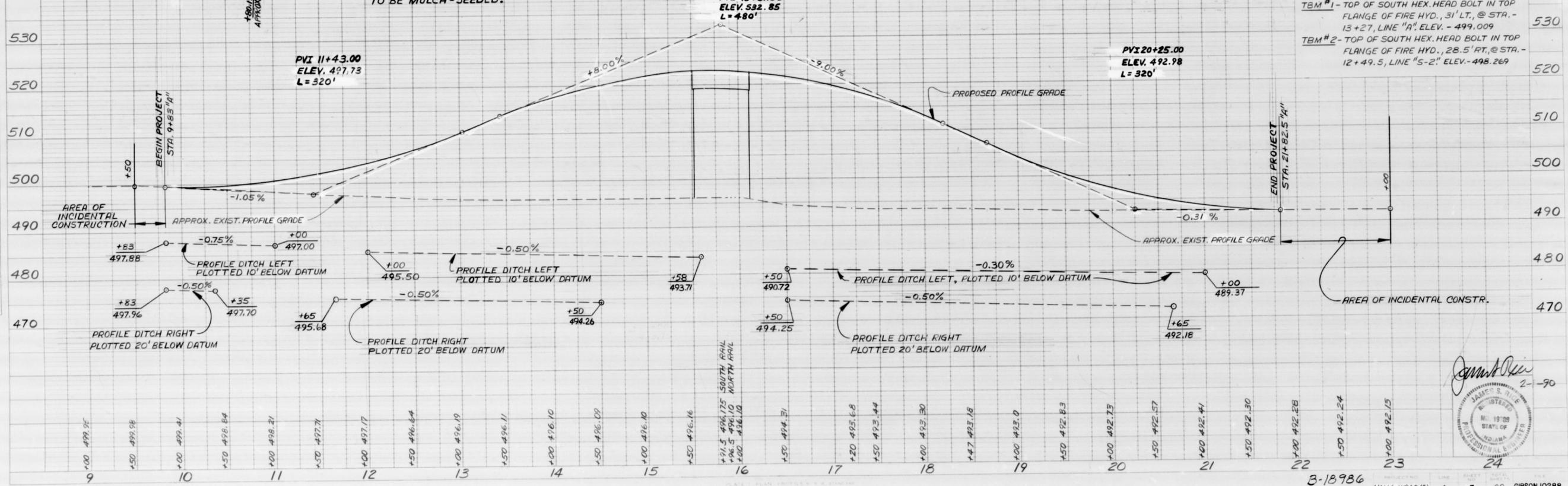
B-18986

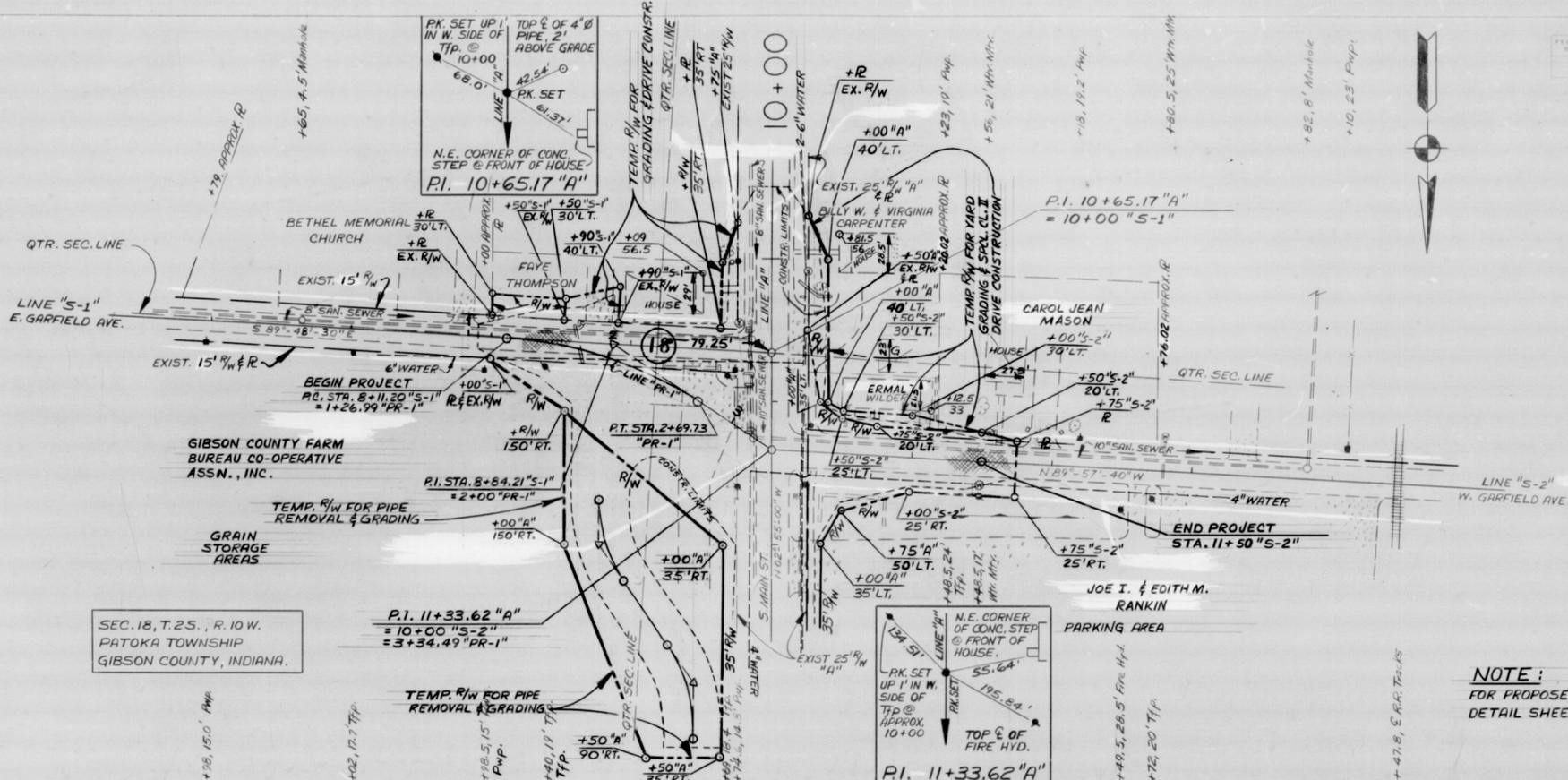
PLAN
 SURVEYED AND PLOTTED
 NOTE BOOK, GRADE CHECKED
 NO. OF WAY CHECKED

PROFILE
 SURVEYED AND PLOTTED
 NOTE BOOK, GRADE CHECKED
 NO. OF STRUCTURE INSPECTIONS CHECKED



NOTE:
 FOR PROPOSED DRAINAGE STRUCTURES,
 SEE DETAIL SHEET NOS. 10, 11, 12, 13
 AREAS OF TEMP. R/W FOR BUILDING REMOVAL
 TO BE MULCH-SEEDDED.



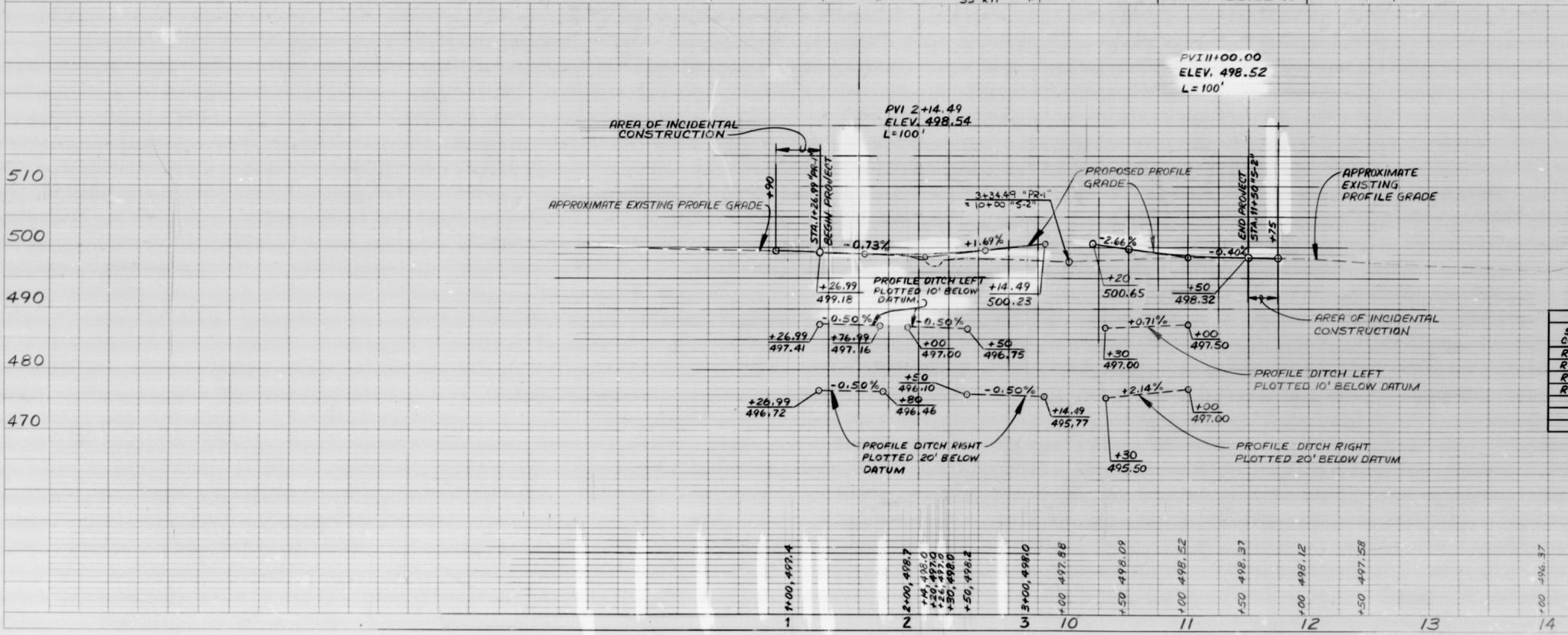


NOTE:
FOR PROPOSED DRAINAGE STRUCTURES, SEE
DETAIL SHEET NOS. 10, 11, 12, 13

SHEET SIGN SUMMARY					
SIGN CODE	SIGN DESCRIPTION	NO. OF SIGNS	SHEETING THICKNESS (INCHES)	TOT. AREA (SQ. FT.)	
R-1A	STOP	1	II	0.08	
R-1A	STOP	1	II	0.08	
R-1A	STOP	1	II	0.08	
R-1A	STOP	1	II	0.08	
TOTAL		4	II	0.08	25.0

NOTE: SIGN LOCATIONS AND POST LENGTHS ARE APPROXIMATE. EXACT LOCATIONS AND LENGTHS TO BE DETERMINED IN THE FIELD BY PROJECT ENGINEER.

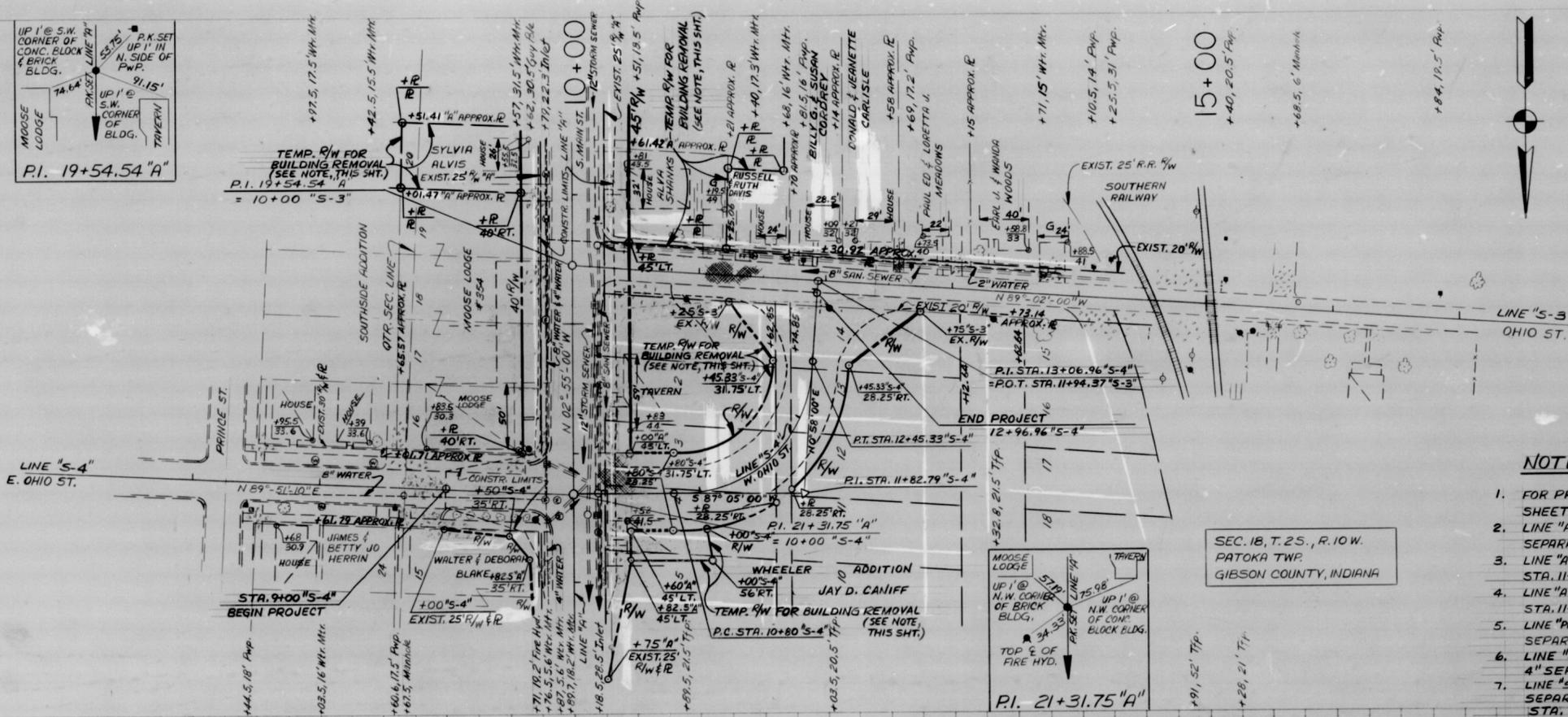
SIGN POST SUMMARY					
SIGN CODE	LOCATION		NO. OF POSTS	POST TYPE	TOT. LEN. (L.F.T.)
	STATION AND LINE	LT. / RT.			
R-1A	3+10 "PR-1"	RT.	1	B	14'
R-1A	10+20 "S-2"	LT.	1	B	14'
R-1A	10+30 "S-4"	LT.	1	B	14'
R-1A	9+80 "S-4"	RT.	1	B	14'
TOTAL			4	B	56'



PLAN
DATE: _____
BY: _____
CHECKED: _____
NO. _____

PROFILE
DATE: _____
BY: _____
CHECKED: _____
NO. _____

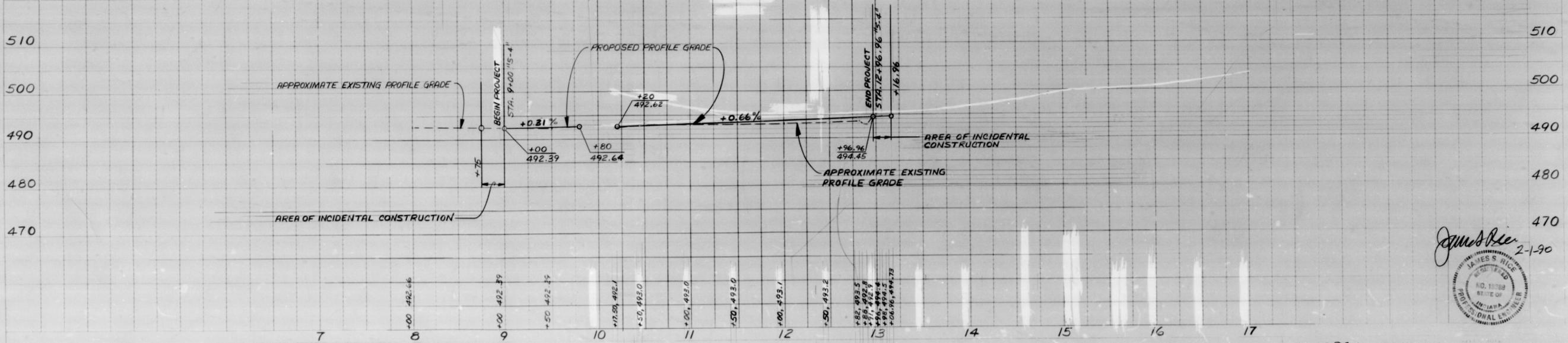
James S. R...
2-1-90
Professional Engineer
No. 10329
State of Indiana



NOTES:

1. FOR PROPOSED DRAINAGE STRUCTURES, SEE SHEET NOS. 10, 11, 12, 13.
2. LINE "A", BEGIN DOUBLE YELLOW (2-4" LINES, 4" SEPARATION) STA. 9+83 TO 21+00.
3. LINE "A", EDGE LINE 11.5 FT. LT. STA. 9+83 TO STA. 10+75, STA. 11+72 TO 20+80.
4. LINE "A", EDGE LINE 11.5 FT. RT. STA. 9+83 TO STA. 10+20, STA. 11+50 TO 20+84.
5. LINE "PR-1", BEGIN DOUBLE YELLOW (2-4" LINES, 4" SEPARATION) STA. 1+26.99 TO 3+14.49.
6. LINE "S-2" BEGIN DOUBLE YELLOW (2-4" LINES, 4" SEPARATION) STA. 10+20 TO STA. 11+40.
7. LINE "S-4" BEGIN DOUBLE YELLOW (2-4" LINES, 4" SEPARATION) STA. 9+00 TO 9+80, AND STA. 10+20 TO STA. 12+56.96.
8. PLACE STOP BAR (24" WIDE HOT THERMOPLASTIC) AT STA. 3+14.49 "PR-1", 30 FEET LONG.
9. PLACE STOP BAR (24" WIDE HOT THERMOPLASTIC) AT STA. 10+20 "S-2", 30 FEET LONG.
10. PLACE STOP BAR (24" WIDE HOT THERMOPLASTIC) AT STA. 10+20 "S-4", 30 FEET LONG.
11. PLACE STOP BAR (24" WIDE HOT THERMOPLASTIC) AT STA. 9+80 "S-4", 30 FEET LONG.
12. AREAS OF TEMP. R/W FOR BUILDING REMOVAL TO BE MULCH-SEEDED.

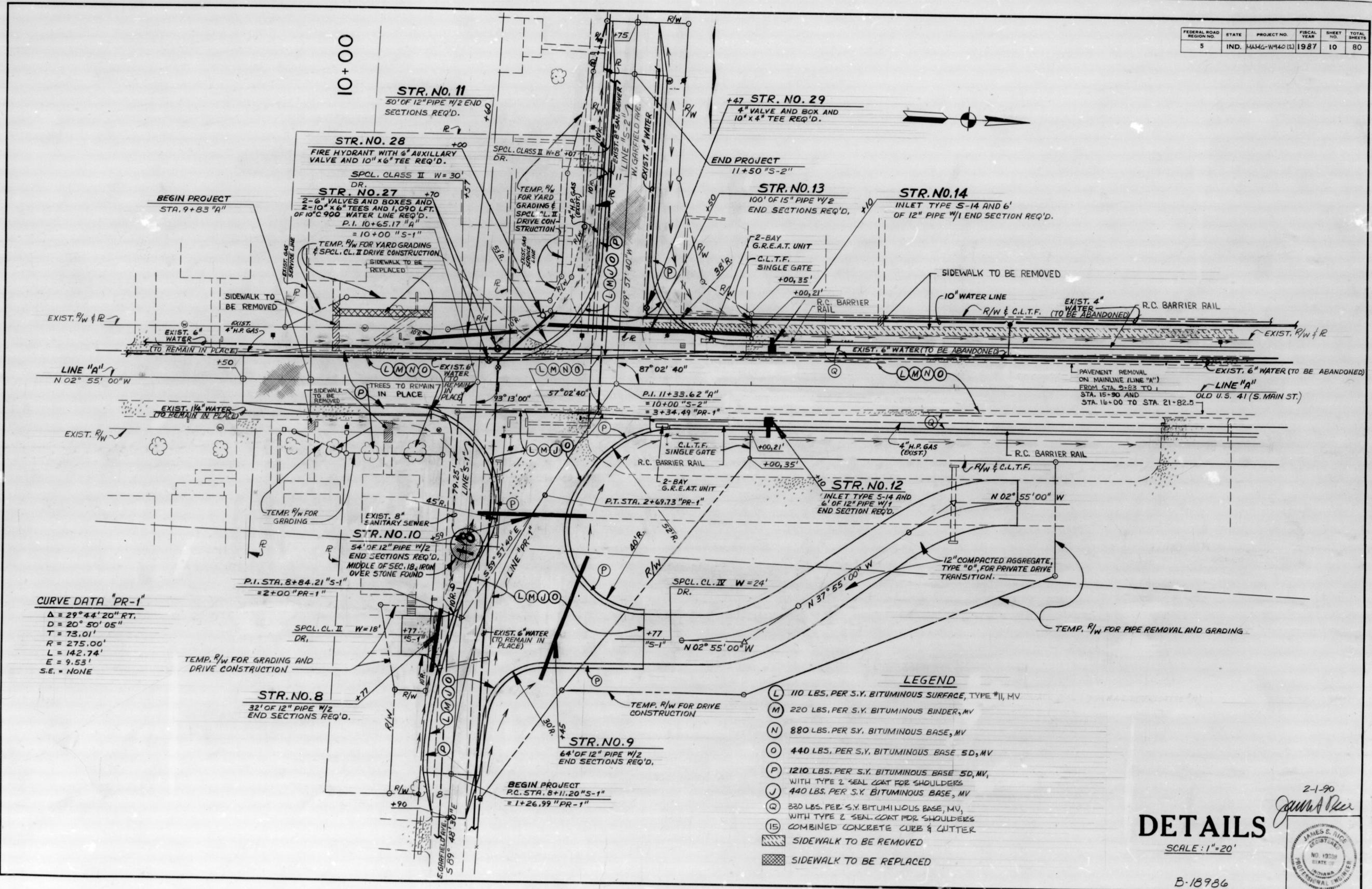
SEC. 18, T. 25., R. 10 W.
PATOKA TWP.
GIBSON COUNTY, INDIANA



James Rice
2-1-90



FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	4444-W440 (2)	1987	10	80



CURVE DATA "PR-1"
 $\Delta = 29^{\circ}44'20''$ RT.
 $D = 20^{\circ}50'05''$
 $T = 73.01'$
 $R = 275.00'$
 $L = 142.74'$
 $E = 9.53'$
 S.E. = NONE

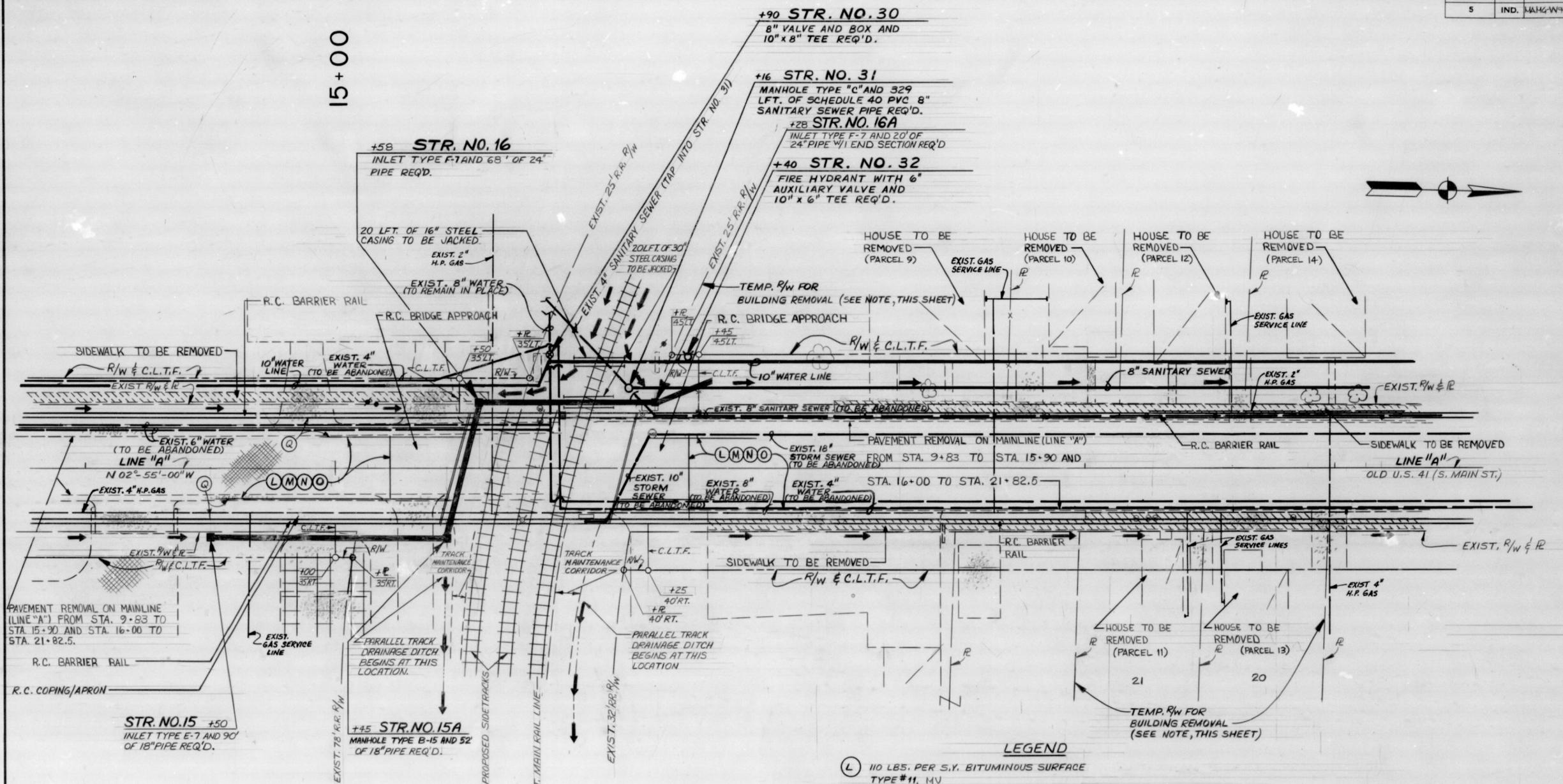
- LEGEND**
- (L) 110 LBS. PER S.Y. BITUMINOUS SURFACE, TYPE #II, MV
 - (M) 220 LBS. PER S.Y. BITUMINOUS BINDER, MV
 - (N) 880 LBS. PER S.Y. BITUMINOUS BASE, MV
 - (O) 440 LBS. PER S.Y. BITUMINOUS BASE SD, MV
 - (P) 1210 LBS. PER S.Y. BITUMINOUS BASE SD, MV, WITH TYPE 2 SEAL COAT FOR SHOULDERS
 - (J) 440 LBS. PER S.Y. BITUMINOUS BASE, MV
 - (Q) 330 LBS. PER S.Y. BITUMINOUS BASE, MV, WITH TYPE 2 SEAL COAT FOR SHOULDERS
 - (15) COMBINED CONCRETE CURB & CUTTER
 - [Hatched Box] SIDEWALK TO BE REMOVED
 - [Cross-hatched Box] SIDEWALK TO BE REPLACED

DETAILS
 SCALE: 1"=20'
 B-18986

2-1-90
James E. Rice
 REGISTERED PROFESSIONAL ENGINEER
 NO. 19259
 STATE OF INDIANA

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	WAM4-VV940(2)	1987	11	80

15+00



- LEGEND**
- (L) 110 LBS. PER S.Y. BITUMINOUS SURFACE TYPE #11, MV
 - (M) 220 LBS. PER S.Y. BITUMINOUS BINDER, MV
 - (N) 880 LBS. PER S.Y. BITUMINOUS BASE, MV
 - (O) 440 LBS. PER S.Y. BITUMINOUS BASE 5D, MV
 - (P) 1210 LBS. PER S.Y. BITUMINOUS BASE 5D, MV, WITH TYPE 2 SEAL COAT FOR SHOULDERS
 - (Q) 330 LBS. PER S.Y. BITUMINOUS BASE, MV, WITH TYPE 2 SEAL COAT FOR SHOULDERS
 - (15) COMBINED CONCRETE CURB & GUTTER
 - ▨ SIDEWALK TO BE REMOVED
 - ▩ SIDEWALK TO BE REPLACED

NOTE: AREAS OF TEMP. R/W FOR BUILDING REMOVAL TO BE MULCH SEEDED

DETAILS
SCALE: 1" = 20'

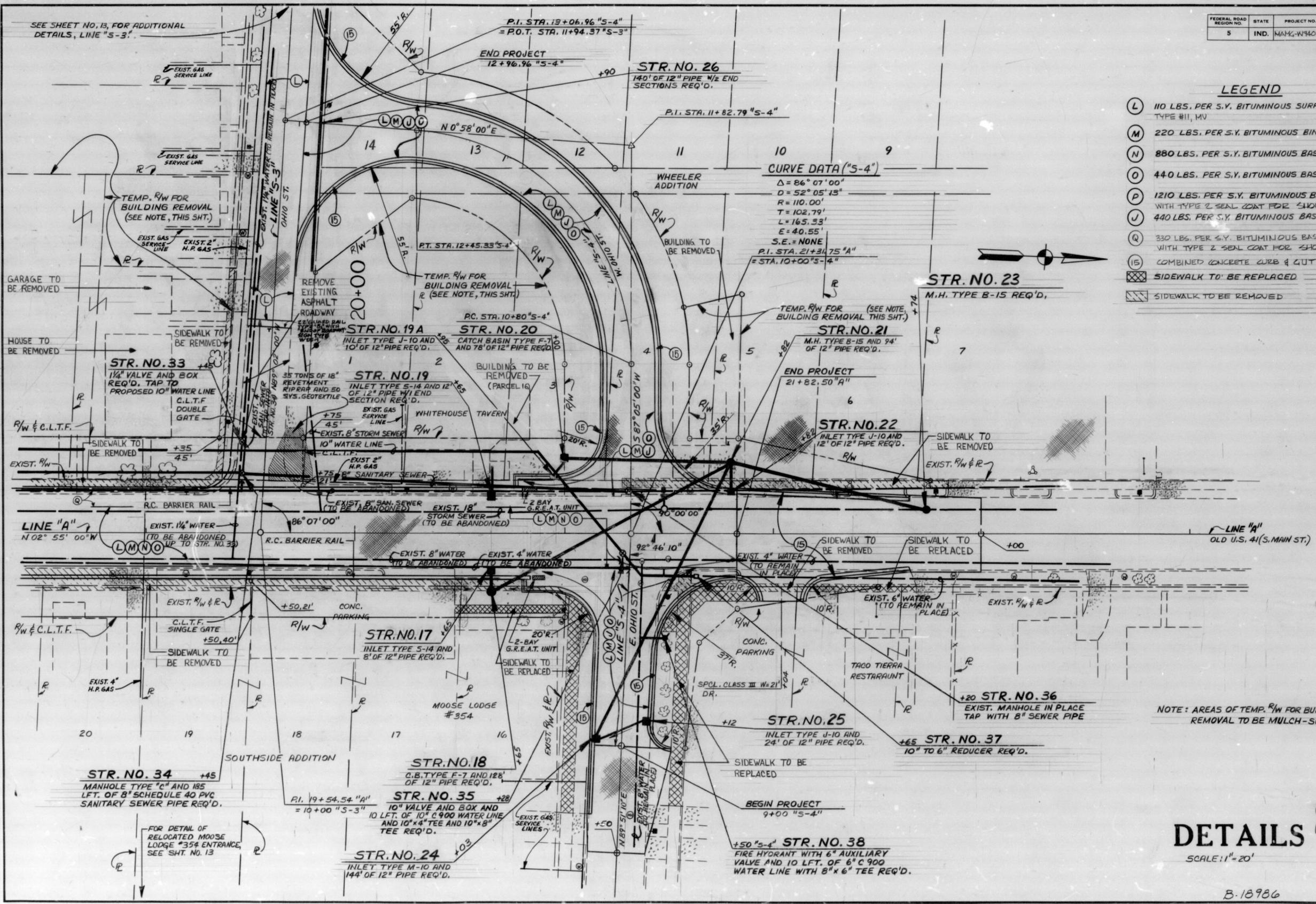
2-1-90
James S. Rice
JAMES S. RICE
REGISTERED
NO. 15388
STATE OF
INDIANA
PROFESSIONAL ENGINEER

B-18986

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	MAHC-W9400	1987	12	80

LEGEND

- (L) 110 LBS. PER S.Y. BITUMINOUS SURFACE, TYPE #11, MV
- (M) 220 LBS. PER S.Y. BITUMINOUS BINDER, MV
- (N) 880 LBS. PER S.Y. BITUMINOUS BASE, MV
- (O) 440 LBS. PER S.Y. BITUMINOUS BASE 5D, MV
- (P) 1210 LBS. PER S.Y. BITUMINOUS BASE 5D, MV WITH TYPE 2 SEAL COAT FOR SHOULDERS
- (J) 440 LBS. PER S.Y. BITUMINOUS BASE, MV
- (Q) 330 LBS. PER S.Y. BITUMINOUS BASE, MV, WITH TYPE 2 SEAL COAT FOR SHOULDERS
- (15) COMBINED CONCRETE CURB & GUTTERS
- [Hatched Box] SIDEWALK TO BE REPLACED
- [Cross-hatched Box] SIDEWALK TO BE REMOVED



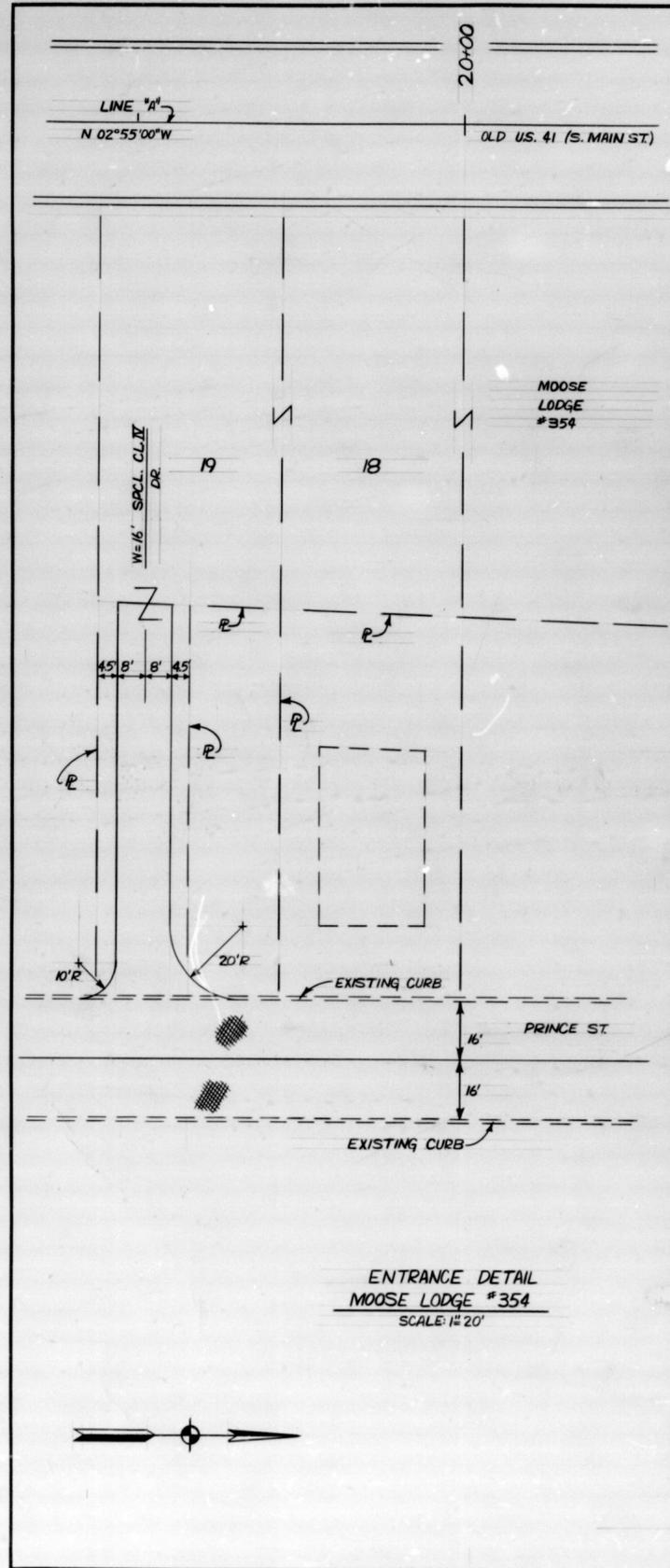
NOTE: AREAS OF TEMP. R/W FOR BUILDING REMOVAL TO BE MULCH-SEEDED

DETAILS
SCALE: 1" = 20'

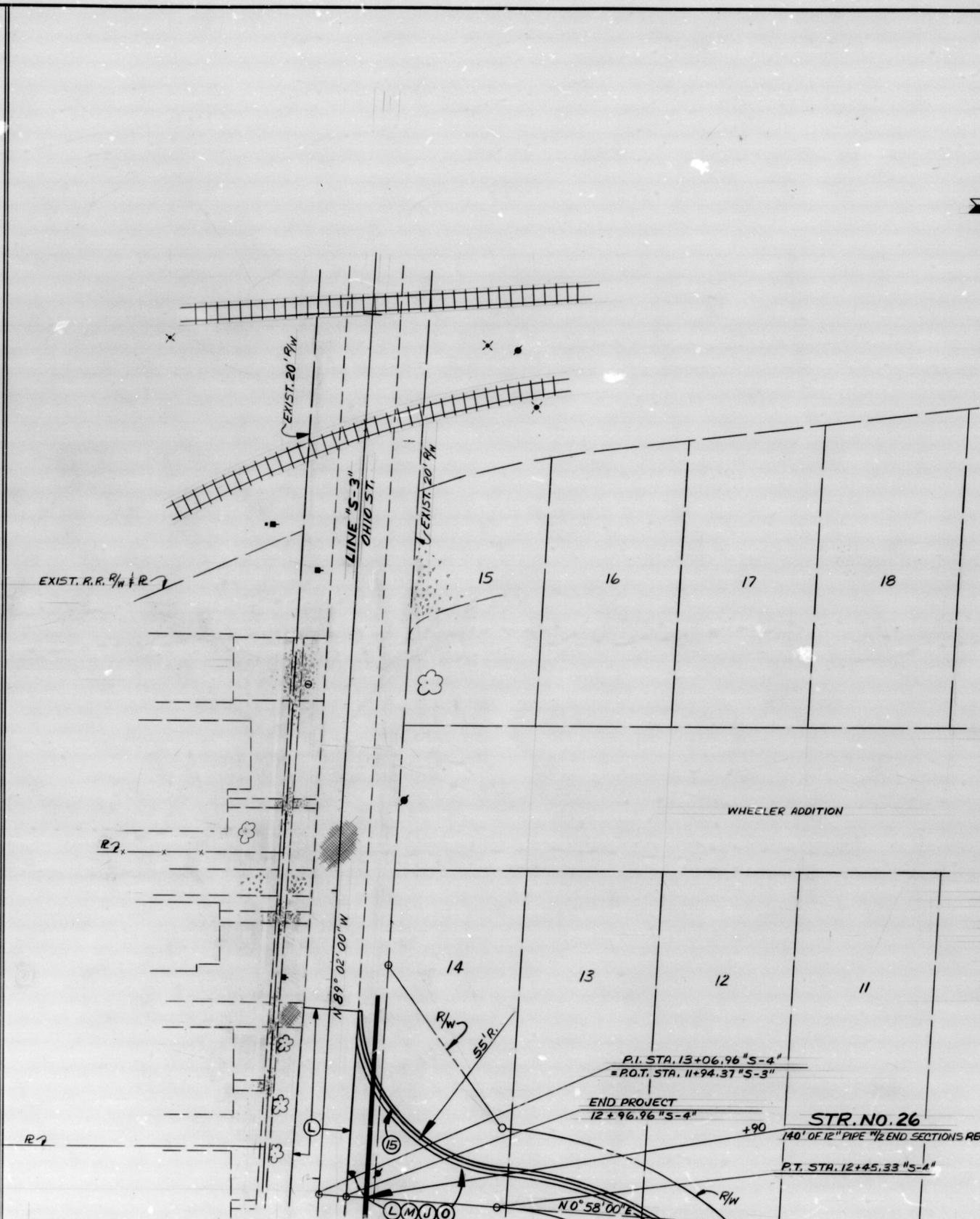
2-1-90
James S. Rice
Professional Engineer
No. 10363
State of Indiana
Original Engineering

B-18986

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	M&M-2-W9402	1987	15	80



ENTRANCE DETAIL
MOOSE LODGE #354
SCALE: 1/2" = 20'



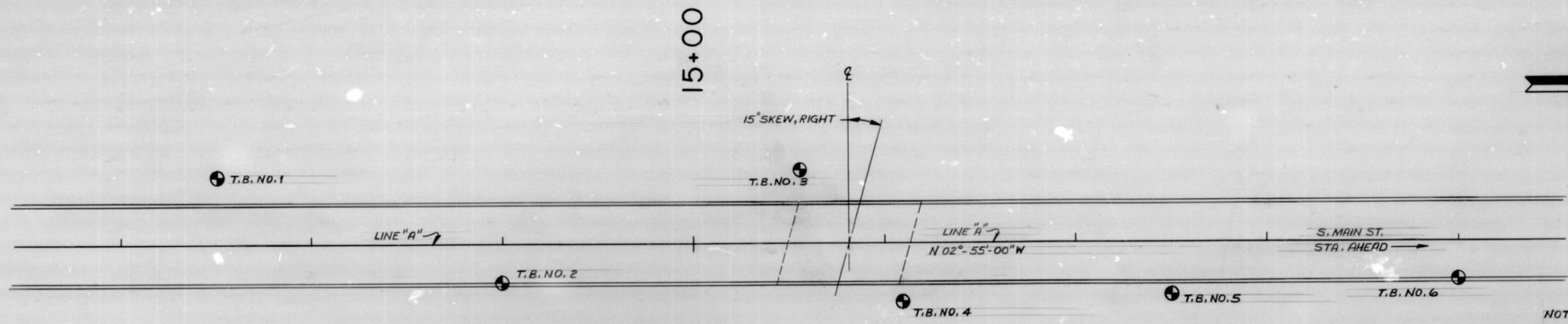
LEGEND

- (L) 110 LBS. PER S.Y. BITUMINOUS SURFACE, TYPE #11, MV
- (M) 220 LBS. PER S.Y. BITUMINOUS BINDER, MV
- (N) 880 LBS. PER S.Y. BITUMINOUS BASE, MV
- (O) 440 LBS. PER S.Y. BITUMINOUS BASE 50, MV
- (P) 1210 LBS. PER S.Y. BITUMINOUS BASE 50, MV WITH TYPE 2 SEAL COAT FOR SHOULDERS
- (J) 440 LBS. PER S.Y. BITUMINOUS BASE, MV
- (Q) 330 LBS PER S.Y. BITUMINOUS BASE, MV, WITH TYPE 2 SEAL COAT FOR SHOULDERS
- (15) COMBINED CONCRETE CURB & GUTTER
- ▨ SIDEWALK TO BE REPLACED
- ▨ SIDEWALK TO BE REMOVED

DETAILS
SCALE: 1" = 20'

2-1-90
James S. Rice
JAMES S. RICE
NO. 19238
STATE OF INDIANA
PROFESSIONAL ENGINEER

B-18986



PLAN
SCALE: 1" = 30'

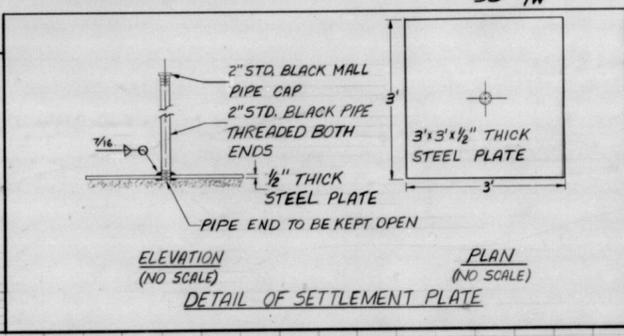
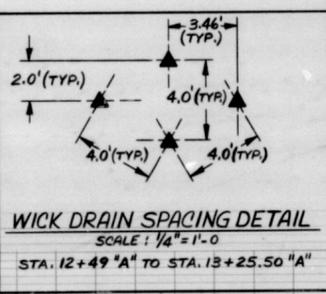
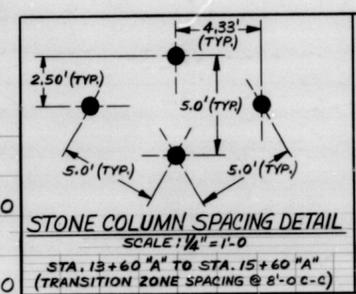
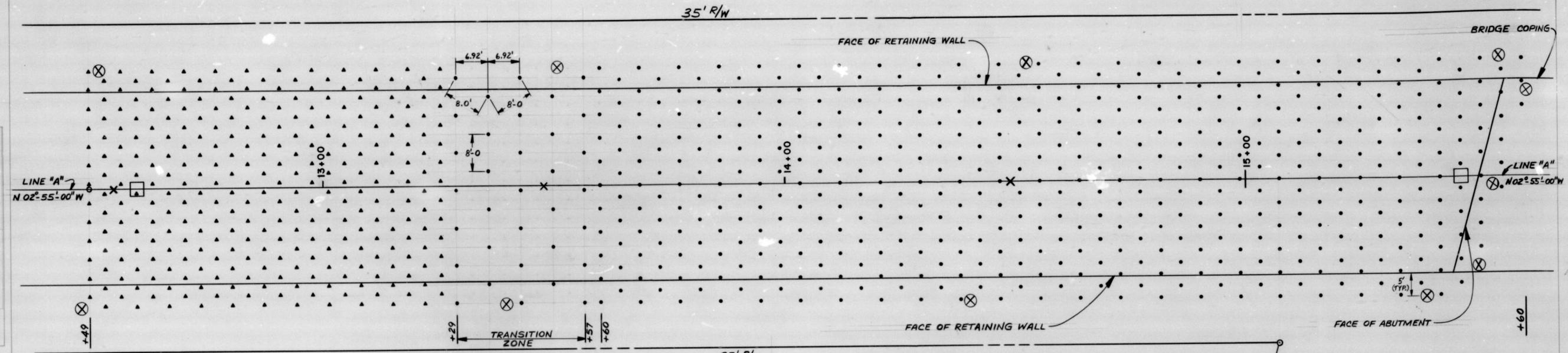
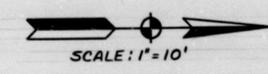
NOTES:
 ▼ INDICATES GROUND WATER TABLE.
 N INDICATES THE NUMBER OF BLOWS REQUIRED TO DRIVE A 1 3/8" I.D., 2" O.D. SPLIT SPOON SAMPLER 12" BY MEANS OF A 140 LB. WEIGHT FALLING 30".
 SEE DRAWING C.3 FOR GENERAL NOTES.

TEST BORING NO.	T.B. No. 1			T.B. No. 2			T.B. No. 3			T.B. No. 4			T.B. No. 5			T.B. No. 6			
STATION	12+50 "A"			14+00 "A"			15+55 "A"			16+25 "A"			17+50 "A"			19+00 "A"			
OFFSET	35' LT.			20' RT.			38' LT.			30' RT.			27' RT.			20' RT.			
GROUND ELEV.	497.0			495.0			496.0			493.5			493.5			493.0			
SAMPLE No.	Elev.	N	DESCRIPTION	SAMPLE No.	Elev.	N	DESCRIPTION	SAMPLE No.	Elev.	N	DESCRIPTION	SAMPLE No.	Elev.	N	DESCRIPTION	SAMPLE No.	Elev.	N	DESCRIPTION
	497.0		GROUND LEVEL TOPSOIL		495.0		GROUND LEVEL		496.0		GROUND LEVEL		493.5		GROUND LEVEL TOPSOIL		493.5		GROUND LEVEL TOPSOIL
1	496.7	11	BROWN MOIST STIFF SILTY CLAY LOAM	1	495.0	10	BROWN MOTTLED GRAY MOIST MEDIUM STIFF TO SOFT SILTY CLAY LOAM	1	494.0	6	TOPSOIL	1	493.1	11	▼ GRAY MOIST MEDIUM STIFF TO STIFF SILTY CLAY LOAM	1	492.9	12	BROWN MOTTLED GRAY MOIST STIFF SILTY CLAY LOAM
2	491.0	13	BROWN MOIST SOFT TO STIFF SILTY LOAM	2	489.0	3	GRAY MOIST MEDIUM STIFF SILTY CLAY LOAM	2	490.0	9	BROWN MOIST MEDIUM STIFF SILTY CLAY LOAM WITH COAL ASH	2	487.0	10	▼ GRAY MOIST MEDIUM STIFF TO STIFF SILTY CLAY LOAM	2	487.0	13	▼ BROWN MOTTLED GRAY MOIST STIFF SILTY CLAY LOAM
3	487.0	11	BROWN MOIST SOFT TO STIFF SILTY LOAM	3	486.0	6	GRAY MOIST MEDIUM STIFF SILTY CLAY LOAM	3	487.5	8	▼ BROWN MOTTLED GRAY MOIST MEDIUM STIFF SILTY CLAY LOAM	3	485.0	7	GRAY MOTTLED BROWN MOIST VERY SOFT SILTY LOAM	3	484.5	6	GRAY MOTTLED BROWN SOFT SILTY LOAM
4	487.0	11	BROWN MOIST SOFT TO STIFF SILTY LOAM	4	486.0	5	GRAY MOIST SOFT CLAY LOAM	4	482.5	5	BROWN MOIST SOFT SILTY LOAM	4	480.0	3	GRAY MOTTLED BROWN MOIST VERY SOFT SILTY LOAM	4	480.0	5	GRAY MOTTLED BROWN SOFT SILTY LOAM
			END OF BORING DEPTH OF BORING 10'	5	481.5	7	BROWN MOTTLED GRAY MOIST MEDIUM STIFF CLAY LOAM	5	482.5	8	BROWN MOTTLED GRAY MEDIUM STIFF TO STIFF CLAY LOAM	5	480.0	7	GRAY MOIST MEDIUM STIFF CLAY LOAM	5	478.0	8	GRAY MOIST MEDIUM STIFF CLAY LOAM
			END OF BORING DEPTH OF BORING 10'	6	479.0	7	LIGHT GRAY WET MEDIUM DENSE SAND WITH SOME SILT	6	474.0	11	BROWN WET MEDIUM DENSE SAND	6	474.0	9	GRAY MOIST MEDIUM STIFF CLAY LOAM	6	474.5	9	LIGHT GRAY MOIST DENSE SAND
			END OF BORING DEPTH OF BORING 20'	7	475.0	16	END OF BORING DEPTH OF BORING 20'	7	474.0	8	BROWN WET MEDIUM DENSE SAND	7	469.0	8	BROWN WET LOOSE SAND	7	473.5	10	BROWN MOIST MEDIUM STIFF SILTY CLAY
			END OF BORING DEPTH OF BORING 20'	8	469.0	8	BROWN WET MEDIUM DENSE SAND	8	469.0	8	BROWN WET MEDIUM DENSE SAND	8	469.0	3	BROWN WET LOOSE SAND	8	469.0	3	BROWN WET LOOSE SAND
			END OF BORING DEPTH OF BORING 20'	9	462.5	18	GRAY VERY MOIST SOFT SILTY CLAY	9	462.5	18	GRAY VERY MOIST SOFT SILTY CLAY	9	460.0	3	GRAY MOIST SOFT SILTY CLAY	9	460.0	3	GRAY MOIST SOFT SILTY CLAY
			END OF BORING DEPTH OF BORING 20'	10	454.5	46	GRAY WET MEDIUM DENSE TO DENSE SAND	10	454.5	46	GRAY WET MEDIUM DENSE TO DENSE SAND	10	460.0	10	BROWN WET LOOSE TO MEDIUM DENSE SAND	10	460.0	10	BROWN WET LOOSE TO MEDIUM DENSE SAND
			END OF BORING DEPTH OF BORING 20'	11	452.5	8	BROWN WET DENSE SAND	11	452.5	8	BROWN WET DENSE SAND	11	449.5	12	GRAY MOIST MEDIUM STIFF SILTY CLAY	11	449.5	12	GRAY MOIST MEDIUM STIFF SILTY CLAY
			END OF BORING DEPTH OF BORING 20'	12	448.0	24	GRAY MOIST MEDIUM STIFF SILTY CLAY	12	448.0	24	GRAY MOIST MEDIUM STIFF SILTY CLAY	12	444.5	30	GRAY MOIST MEDIUM STIFF SILTY CLAY	12	444.5	30	GRAY MOIST MEDIUM STIFF SILTY CLAY
			END OF BORING DEPTH OF BORING 20'	13	448.0	34	GRAY WET MEDIUM DENSE TO DENSE SAND	13	448.0	34	GRAY WET MEDIUM DENSE TO DENSE SAND	13	444.5	30	GRAY MOIST MEDIUM STIFF SILTY CLAY	13	444.5	30	GRAY MOIST MEDIUM STIFF SILTY CLAY
			END OF BORING DEPTH OF BORING 20'	14	436.0	45	END OF BORING DEPTH OF BORING 60'	14	436.0	45	END OF BORING DEPTH OF BORING 60'	14	434.0	42	END OF BORING DEPTH OF BORING 60'	14	434.0	42	END OF BORING DEPTH OF BORING 60'

SOIL BORINGS
 SCALES: HORIZ. 1" = 30' VERT. 1" = 10' DATE: 2-1-90
 RECOMMENDED FOR APPROVAL: *[Signature]*
 PROJECT: MAMG-W940(2)
 CONTRACT NO. B-18986
 BRIDGE FILE: GIBSON 10288



FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	MAMG-W940(2)	1987	15	80

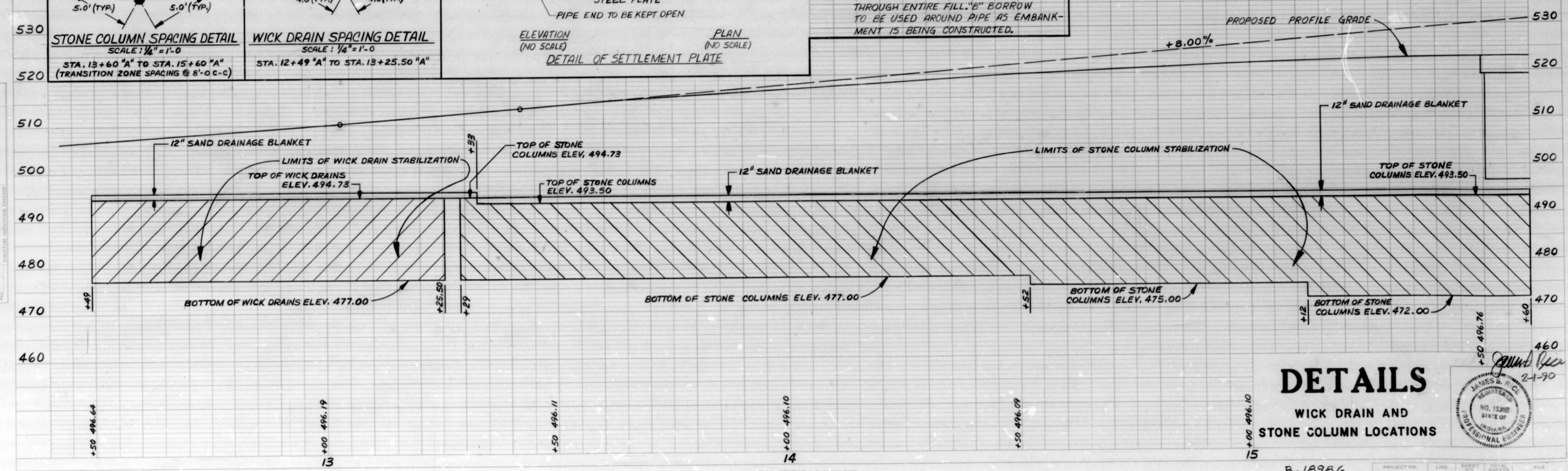


- INDICATES SETTLEMENT PLATE
- ▲ INDICATES WICK DRAIN LOCATIONS
- INDICATES STONE COLUMN LOCATIONS
- × INDICATES SETTLEMENT STAKES AT GRADE
- ⊗ INDICATES TOE STAKES

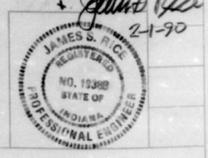
NOTE: CONTRACTOR TO FURNISH MATERIALS AND LABOR TO EXTEND PIPE UP THROUGH ENTIRE FILL. "B" BORROW TO BE USED AROUND PIPE AS EMBANKMENT IS BEING CONSTRUCTED.

NOTES

1. 12" SAND DRAINAGE BLANKET TO BE PLACED ON ALL AREAS OF WICK DRAIN AND STONE COLUMN STABILIZATION.
2. FOR SETTLEMENT STAKES & PLATES TABLE, SEE SHT. NO. 5.



DETAILS
WICK DRAIN AND STONE COLUMN LOCATIONS



B-18986

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
MAMG-W940(2)	A	15	80	GIBSON 10288

PLAN
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 NOTE BOOK: [blank]
 ASSIGNMENT CHECKED BY: [blank]
 NO. OF WAYS CHECKED: [blank]

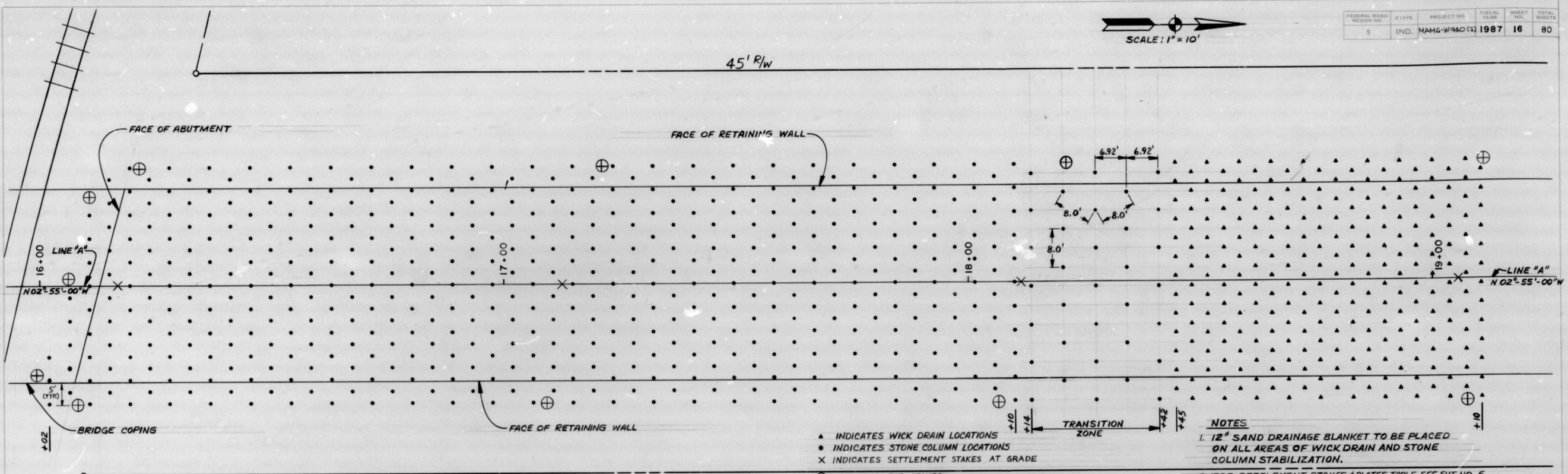
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 NO. OF WAYS CHECKED: [blank]

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	MAMG-W940(2)	1987	16	80



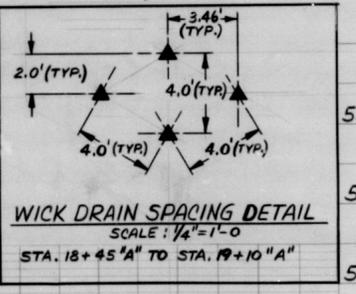
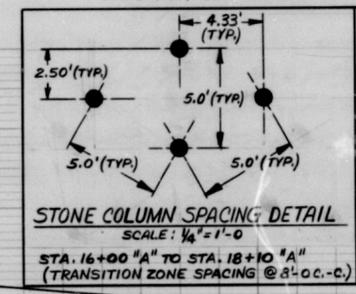
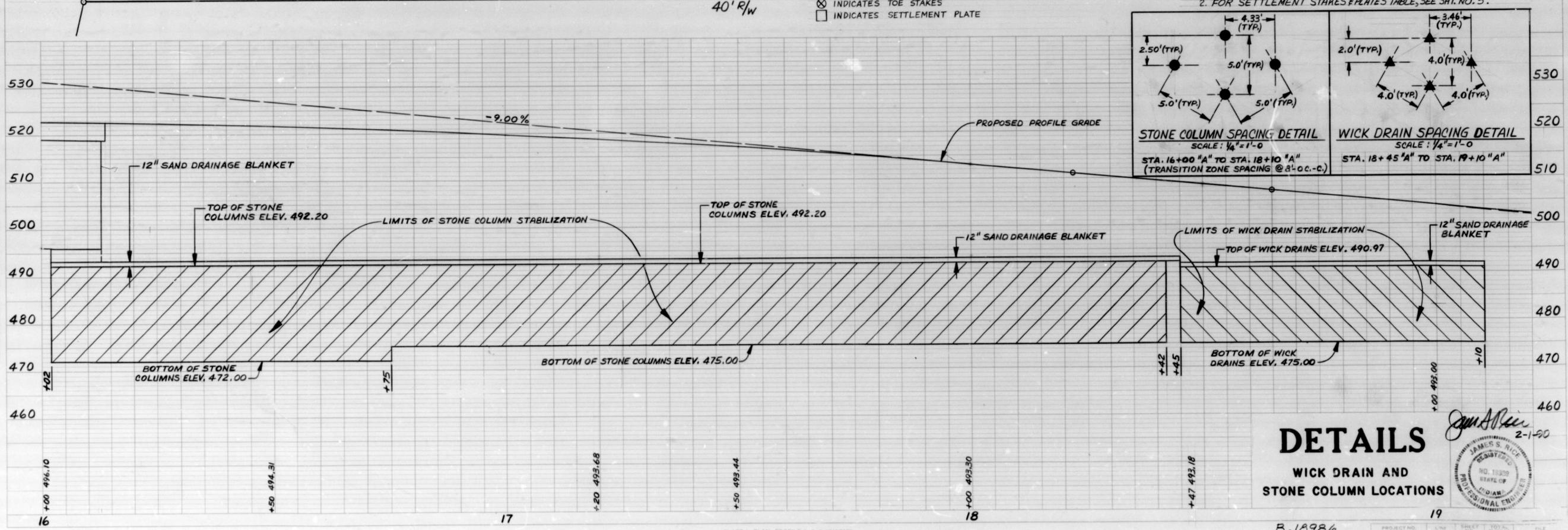
PLAN
 SURVEYED BY
 PHOTOGRAPHED BY
 NOTE BOOK NO.
 BY
 DATE

PROFILE
 SURVEYED BY
 PHOTOGRAPHED BY
 NOTE BOOK NO.
 BY
 DATE



- ▲ INDICATES WICK DRAIN LOCATIONS
- INDICATES STONE COLUMN LOCATIONS
- × INDICATES SETTLEMENT STAKES AT GRADE
- ⊗ INDICATES TOE STAKES
- INDICATES SETTLEMENT PLATE

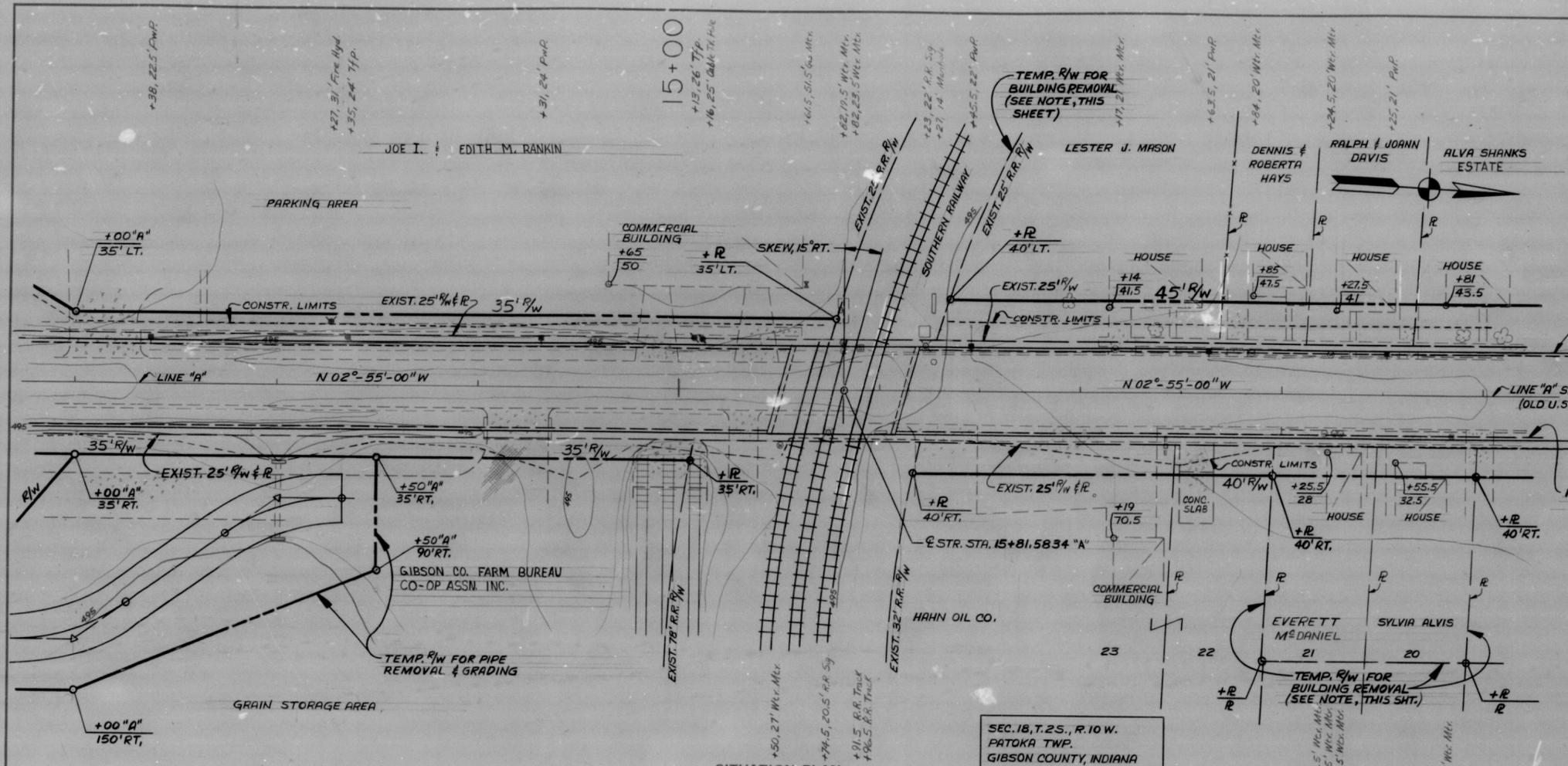
- NOTES**
- 12" SAND DRAINAGE BLANKET TO BE PLACED ON ALL AREAS OF WICK DRAIN AND STONE COLUMN STABILIZATION.
 - FOR SETTLEMENT STAKES & PLATES TABLE, SEE SHT. NO. 5.



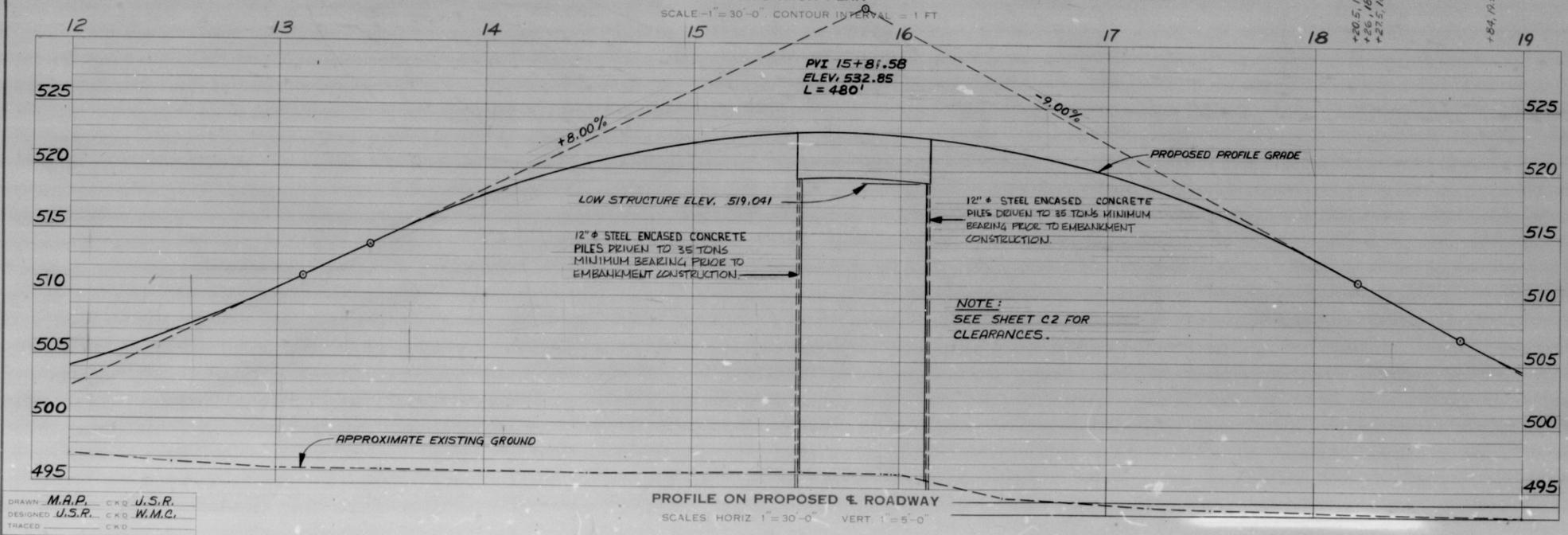
DETAILS

WICK DRAIN AND STONE COLUMN LOCATIONS

James S. Rice
 2-1-80
 REGISTERED PROFESSIONAL ENGINEER
 NO. 13399
 STATE OF INDIANA

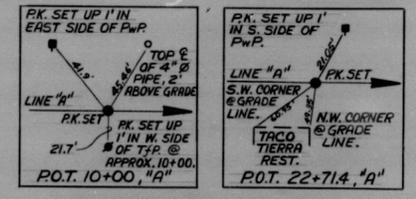


UTILITIES	
PUBLIC SERVICE INDIANA HIGHWAY 64 WEST P.O. BOX 550 PRINCETON, IN 47670 PH. 812/385-2551	PRINCETON WATER DEPT. NORTH SEMINARY ST. P.O. BOX 15 PRINCETON, IN 47670 PH. 812/385-2650
CONTINENTAL TELEPHONE OF IND., INC. P.O. BOX 730 JASPER, IN 47547 PH. 812/482-2605	PRINCETON SEWER DEPT. SOUTH RICHLAND CREEK DRIVE PRINCETON, IN 47670 PH. 812/385-3343
TCI OF INDIANA 101 WEST BROADWAY P.O. BOX 327 PRINCETON, IN 47670 PH. 812/386-7066	HOOSIER GAS CORP. 111 WEST BROADWAY P.O. BOX 7 PRINCETON, IN 47670 PH. 812/385-5027



DRAWN **M.A.P.** CKD **J.S.R.**
DESIGNED **J.S.R.** CKD **W.M.C.**
TRACED _____ CKD _____

PROFILE ON PROPOSED ROADWAY
SCALE: HORIZ. 1"=30'-0" VERT. 1"=5'-0"



PRECAST PRESTRESSED CONCRETE BOX BEAM BRIDGE
1 SPAN: **65'-2"**
SKEW: **15° RIGHT**
40'-0" CLEAR ROADWAY
ON OLD U.S. 41 (S. MAIN ST.) OVER
THE SOUTHERN RAILWAY

LAYOUT
INDIANA DEPARTMENT OF HIGHWAYS
GIBSON COUNTY
SCALE: AS NOTED DATE: 2-1-90
RECOMMENDED FOR APPROVAL: *Jim A. Beer*
DRAWING **C1** OF **C7** SHEET-**17** OF **80**
PROJECT: **MAM4-W940 (2)** STATION: **15+81.5834**"A"
BRIDGE CONTRACT NO. **B-18986**
BRIDGE FILE: **GIBSON 10288**



DESIGN DATA

LIVE LOAD: DESIGNED FOR HS 20-44 LOADING IN ACCORDANCE WITH 1983 A.A.S.H.T.O. SPECIFICATIONS AND ALL SUBSEQUENT INTERIMS, CHECKED FOR SPECIAL LOADING OF 2-24,000# AXLES, SPACED AT 4'-0" CENTERS.
 DEAD LOAD: ACTUAL PLUS 35 LBS. PER SQUARE FOOT FUTURE WEARING SURFACE.

NOTES

- FOR HORIZONTAL AND VERTICAL CLEARANCES OF GRADE SEPARATION STRUCTURE, SEE DRAWING C2, SHT. NO. 18.
- THE CITY OF PRINCETON SHALL MAINTAIN, OR PROVIDE FOR THE MAINTENANCE OF THE BRIDGE STRUCTURE, APPROACH GRADES, AND ALL OTHER HIGHWAY FACILITIES.
- THE RAILROAD SHALL MAINTAIN ITS OWN ROADWAY AND TRACK, THE STRUCTURES SUPPORTING THE SAME, THE DRAINAGE THEREOF AND ALL OTHER RAILROAD FACILITIES.

GENERAL NOTES

- NO PRESENT STRUCTURE AT PROPOSED BRIDGE SITE.
- PILES SHALL HAVE MINIMUM BEARING VALUE SHOWN ON DETAIL DRAWINGS. DETERMINE PILE LENGTHS BY ARTICLE 701 OF THE STANDARD SPECIFICATIONS.
- TOLERANCE IN POSITION OF PILE HEAD MAXIMUM 2" IN END BENTS.
- PILES SHALL BE DRIVEN TO ELEVATION SHOWN ON DETAIL DRAWINGS OR BELOW IF NECESSARY TO OBTAIN REQUIRED BEARINGS. FOR DETAILS OF STEEL ENCASED CONCRETE PILES, OR PRESTRESSED PILES. SEE BRIDGE STANDARD C1, AND C4, AND APPLICABLE ARTICLES IN THE STANDARD SPECIFICATIONS.
- PILES TO BE DRIVEN BEFORE EMBANKMENT CONSTRUCTION AND THE "B" BORROW EMBANKMENT CONSTRUCTED AROUND PILES. PILES SHOULD BE COATED WITH BITUMINOUS MATERIAL TO PREVENT CORROSION DURING EMBANKMENT CONSTRUCTION (SEE SPECIAL PROVISIONS).
- DEPTH OF FOOTINGS TO BE EXTENDED IF FOUND NECESSARY. SEE ARTICLE 206.11 (c) OF STANDARD SPECIFICATIONS.
- REINFORCING STEEL IN DECK TO BE EPOXY COATED.
- REINFORCING STEEL COVER SHALL BE 1 1/2" IN TOP OF FLOOR SLAB; 2" IN ALL OTHER PARTS UNLESS OTHERWISE NOTED.
- CONCRETE IN SUPERSTRUCTURE AND BARRIER RAILINGS TO BE CLASS "C".
- CONCRETE IN BENT CAPS TO BE CLASS "A".
- CONTINUOUS CONCRETE POURS SHALL BE REQUIRED BETWEEN CONSTRUCTION JOINTS AS SHOWN ON DETAIL DRAWINGS.
- CHAMFER EXPOSED EDGES 1" UNLESS OTHERWISE NOTED.
- TOP OF MUDWALLS, FRONT FACE OF MUDWALLS, TOP OF BRIDGE SEATS, FRONT FACE OF BENT CAPS, ALL EXPOSED FACES OF BENT COPINGS (WINGS), BRIDGE DECK, ALL FACES OF BARRIER RAILING, FACE OF COPINGS, UNDERSIDE OF COPINGS TO BE SURFACE SEALED. ESTIMATED QUANTITY = 15,362 SQ. FT.
- SEE SHEET NOS. 2 & 3 FOR TYPICAL CROSS SECTIONS.

GENERAL PLAN

PRECAST PRESTRESSED CONCRETE BOX BEAM BRIDGE
 1 SPAN: 65'-2"
 SKEW: 15° RIGHT
 40'-0" CLEAR ROADWAY
 ON OLD U.S. 41 (S. MAIN ST.)
 OVER THE SOUTHERN RAILWAY

INDIANA DEPARTMENT OF HIGHWAYS
 GIBSON COUNTY

SCALE: AS NOTED

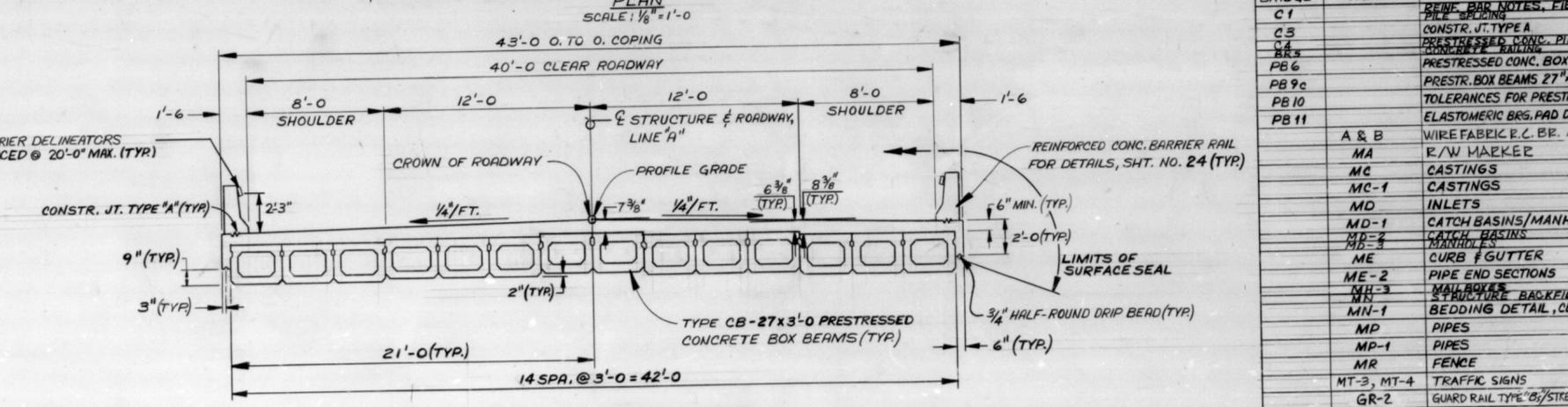
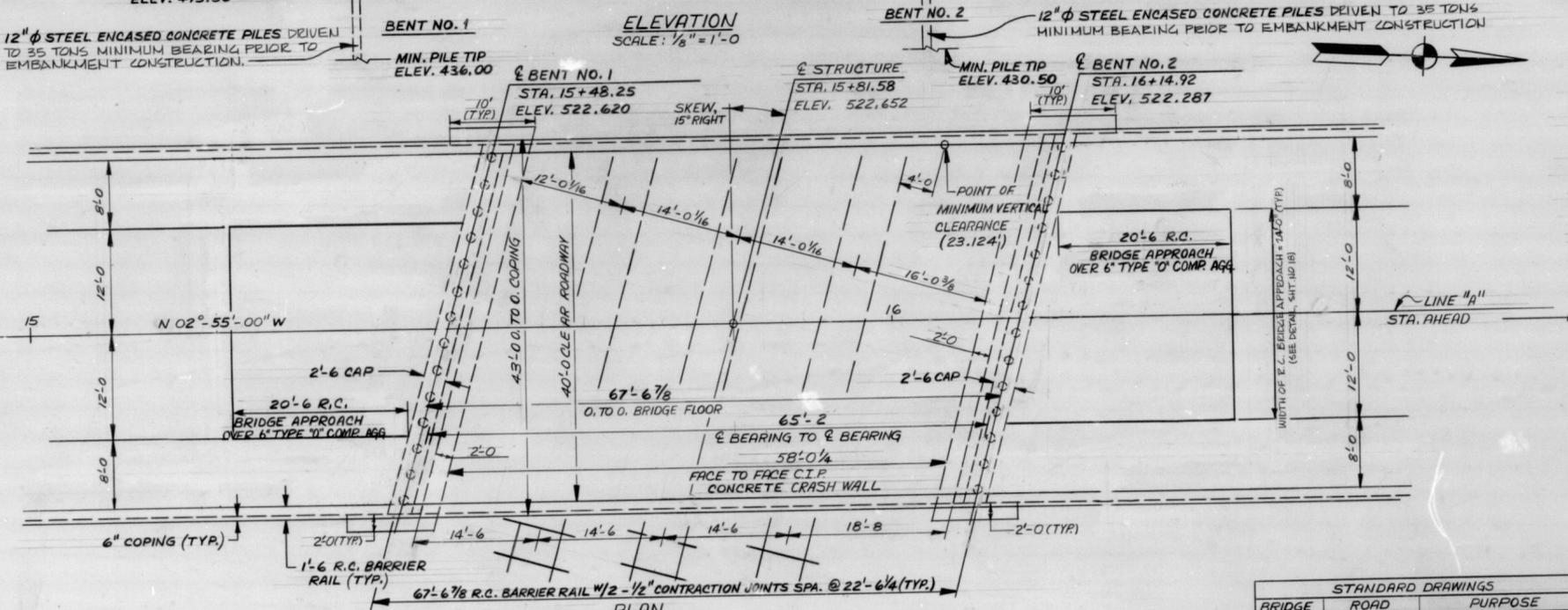
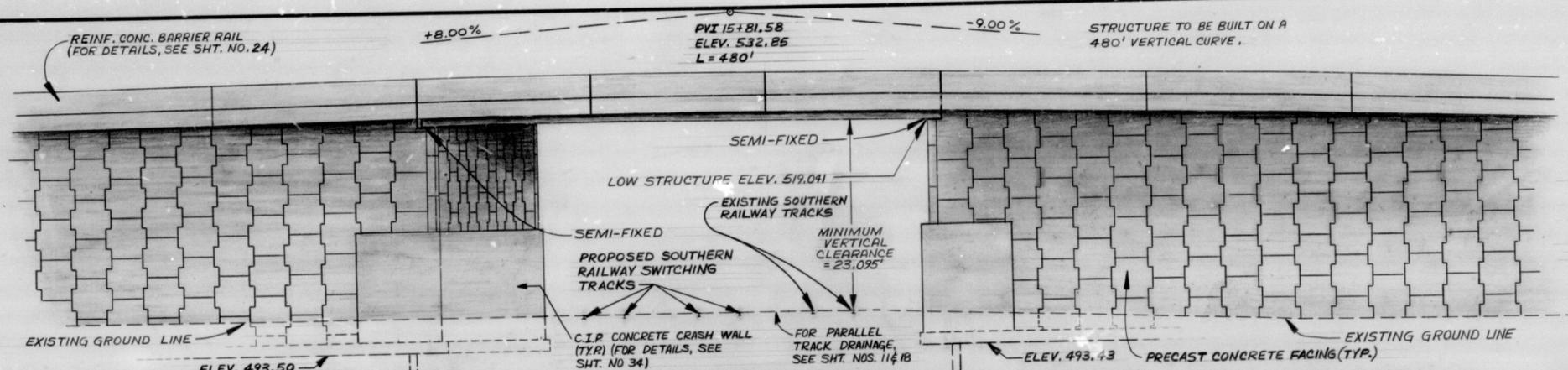
DATE: 2-1-90

James A. Rice

DRAWING: C3 OF C7 SHEET: 19 OF 80
 PROJECT: MAM4-W940 (2)
 CONTRACT NO. B-18986
 BRIDGE FILE: GIBSON 10288



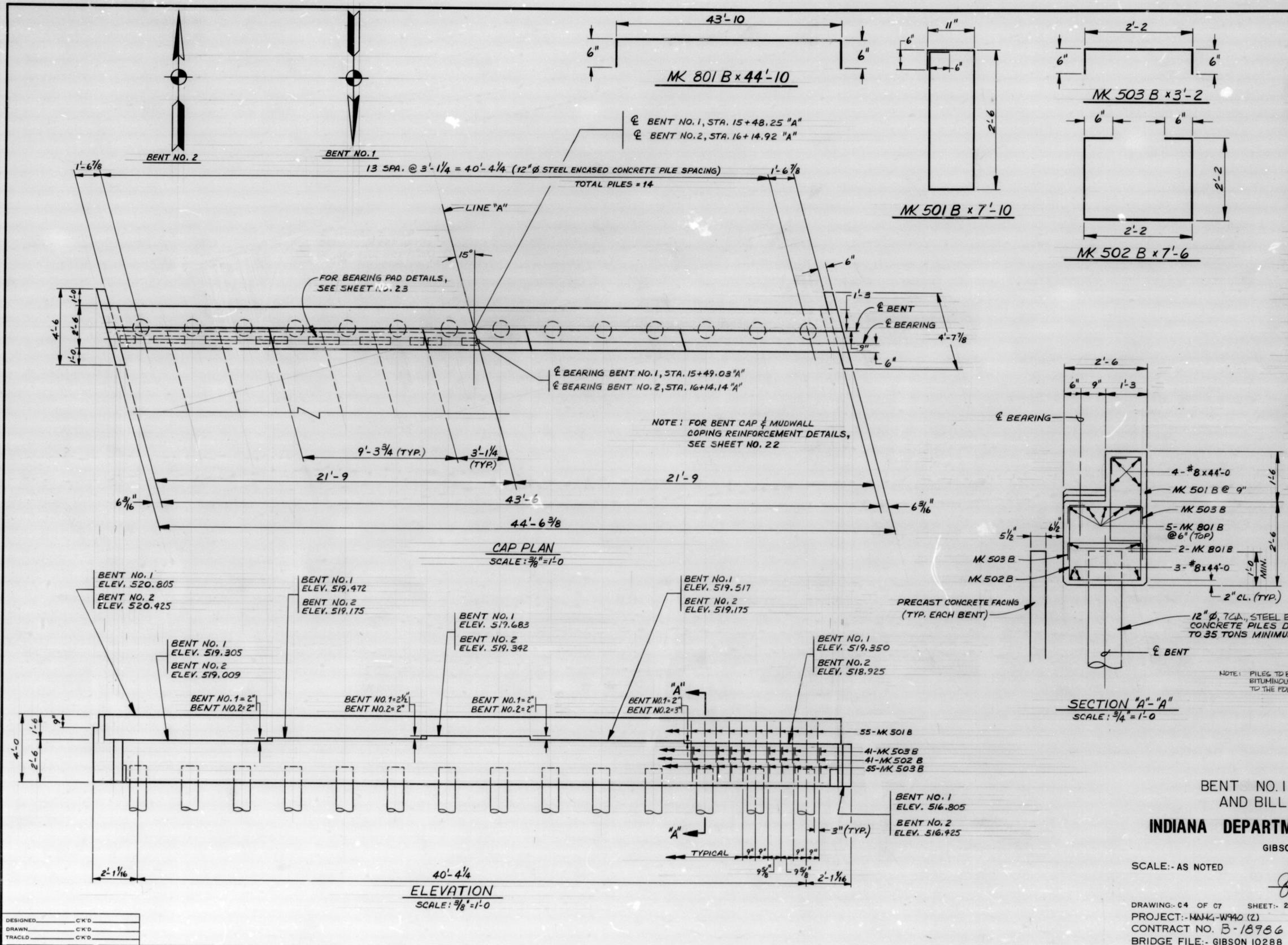
REV. 12-12-90, C-B1 TO GR-2 and Guard Rail Type A to B1*



SECTION 1 @ STRUCTURE
 SCALE: 1/4" = 1'-0"

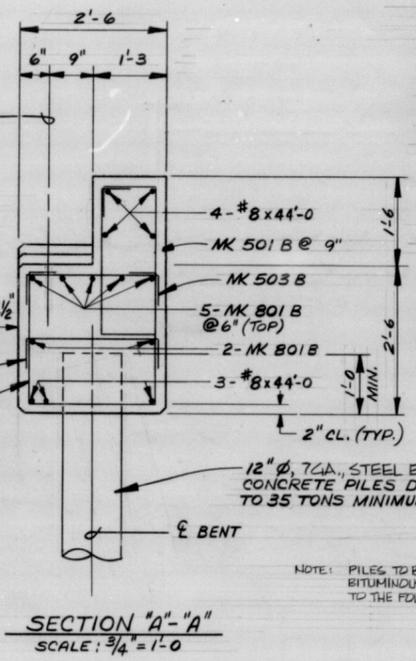
STANDARD DRAWINGS		
BRIDGE	ROAD	PURPOSE
C1		REIN. BAR NOTES, FIELD
C2		PILE SPACING
C3		CONSTR. JT. TYPE A
C4		PRESTRESSED CONC. PILES
BR3		NON-REF. RAILING
PB6		PRESTRESSED CONC. BOX BEAMS
PB9c		PRESTR. BOX BEAMS 27"x3'-0 WIDE
PB10		TOLERANCES FOR PRESTR. BEAMS
PB11		ELASTOMERIC BRG. PAD DETAILS
A & B		WIRE FABRIC E.C. BE. APP.
MA		E/W MARKER
MC		CASTINGS
MC-1		CASTINGS
MD		INLETS
MD-1		CATCH BASINS/MANHOLES
MD-2		CATCH BASINS
MD-3		MANHOLES
ME		CURB & GUTTER
ME-2		PIPE END SECTIONS
MH-3		MAIL BOXES
MB		STRUCTURE BACKFILL
MB-1		BEDDING DETAIL, CLASS "B"
MP		PIPES
MP-1		PIPES
MR		FENCE
MT-3, MT-4		TRAFFIC SIGNS
GR-2		GUARD RAIL TYPE "B"/STREET CLOSURE
STD. DET. SHT. 1,2,3,4 & 5		STANDARD DETOUR SIGNS FOR MARKING URBAN DETOUR

DESIGNED: J.S.P. C.K.D. W.M.C.
 DRAWN: M.A.P. C.K.D. J.S.R.
 TRACED: C.K.D.



**BILL OF MATERIALS
ONE BENT ONLY**

SIZE OR MK	NO. OF PIECES	LENGTH	WEIGHT
#4	2	11"	1.2
#4	2	1'-10"	2.5
#4	6	4'-0"	16.0
#4	2	2'-10"	3.8
#4	4	3'-8"	9.8
#4	6	2'-0"	8.0
TOTAL #4			41.3
MK 501 B	55	7'-10"	449.4
MK 502 B	41	7'-6"	320.7
MK 503 B	96	3'-2"	317.1
TOTAL #5			1,087.2
#8	7	44'-0"	822.4
MK 801 B	7	44'-10"	837.9
TOTAL #8			1,660.3
TOTAL REINFORCING			2,788.8
CONCRETE			
CLASS 'A' IN SUBSTRUCTURE 14.0 CYS.			
MISCELLANEOUS			
12" Ø, 7GA, STEEL ENCASED CONCRETE PILES			
BENT NO. 1 14 x 82'		1,148 LFT.	
BENT NO. 2 14 x 87'		1,218 LFT.	
SURFACE SEAL			327 SF.



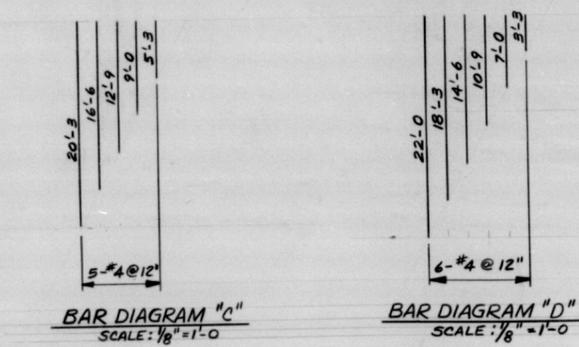
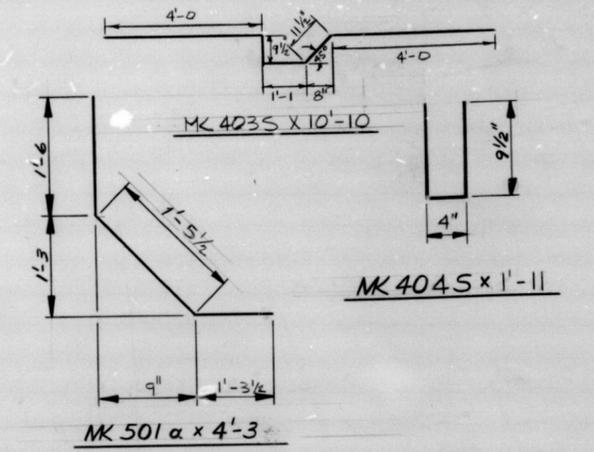
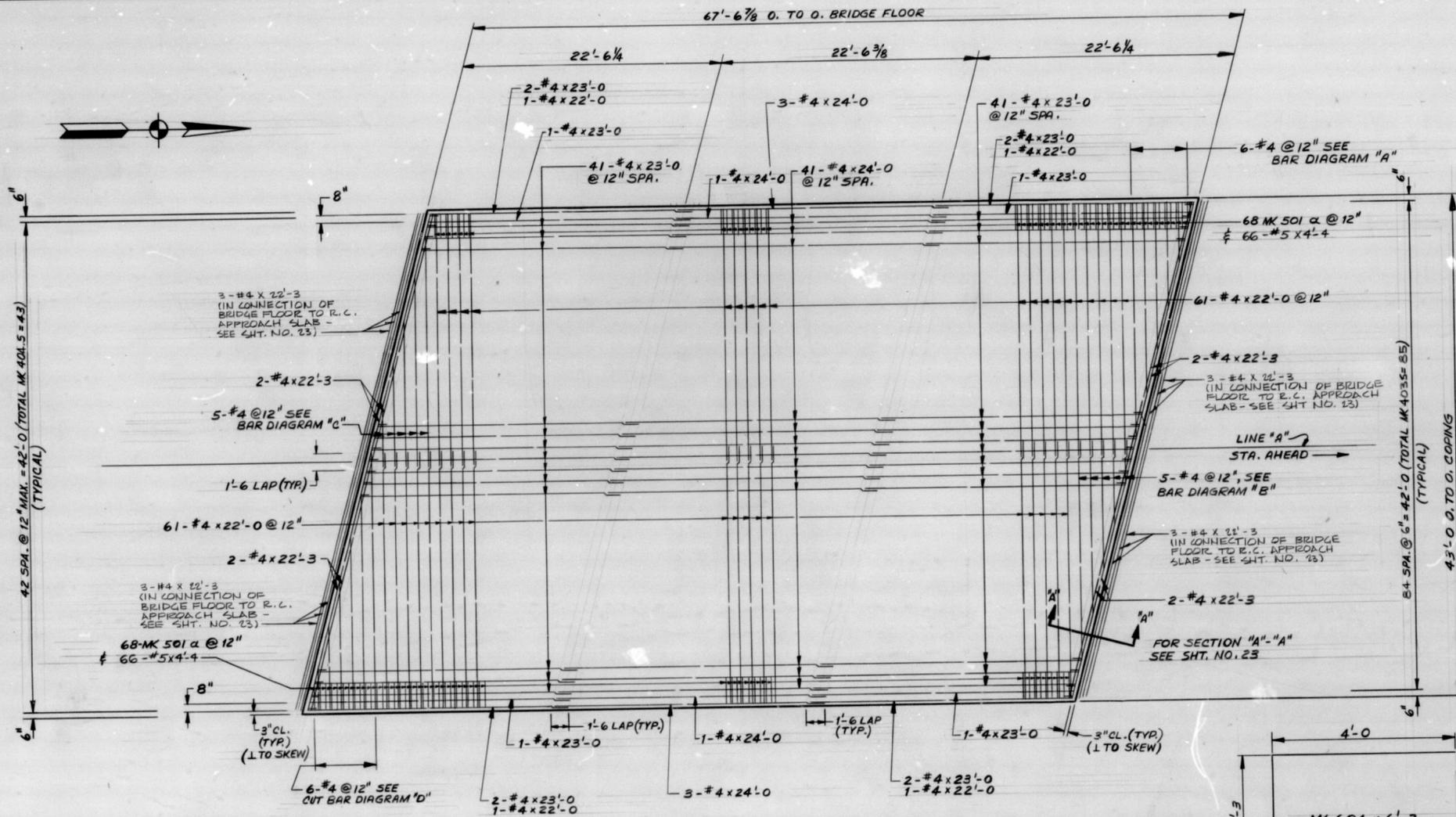
**BENT NO. 1 & NO. 2 DETAILS
AND BILL OF MATERIALS
INDIANA DEPARTMENT OF HIGHWAYS**

SCALE: AS NOTED DATE: 2-1-90

DRAWING: C4 OF C7 SHEET: 20 OF 80
PROJECT: MANK-W940 (2)
CONTRACT NO. B-18986
BRIDGE FILE: GIBSON 10288

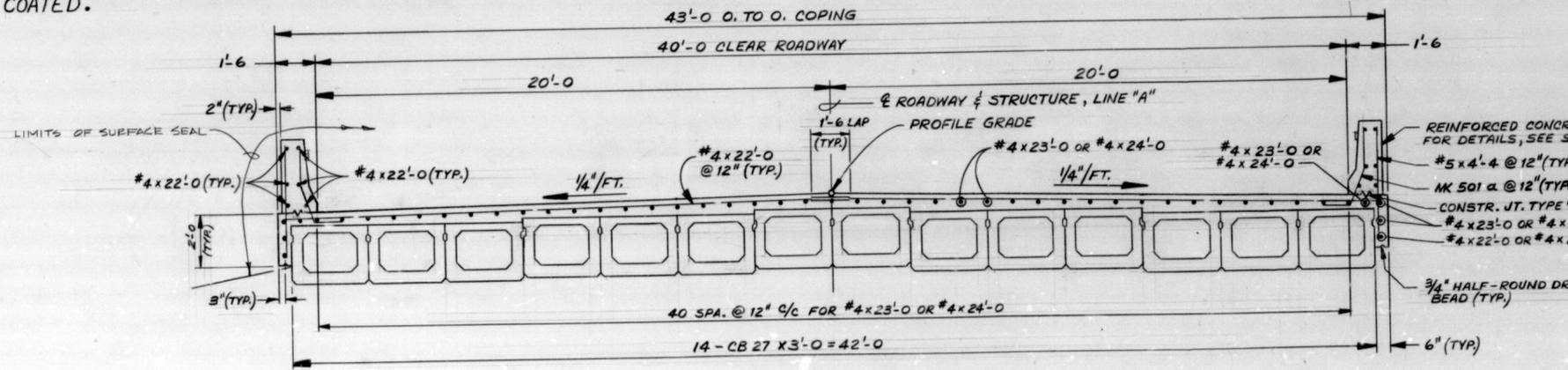


DESIGNED: C.K.D.
DRAWN: C.K.D.
TRACED: C.K.D.



NOTE: ALL REINFORCING STEEL IN DECK, DECK COPING, SPANDREL BEAMS, AND BARRIER RAIL TO BE EPOXY COATED.

PLAN
SCALE: 3/16" = 1'-0"



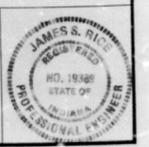
SECTION 1 OF STRUCTURE
SCALE: 3/8" = 1'-0"

SUPERSTRUCTURE DETAILS
INDIANA DEPARTMENT OF HIGHWAYS

SCALE: AS NOTED

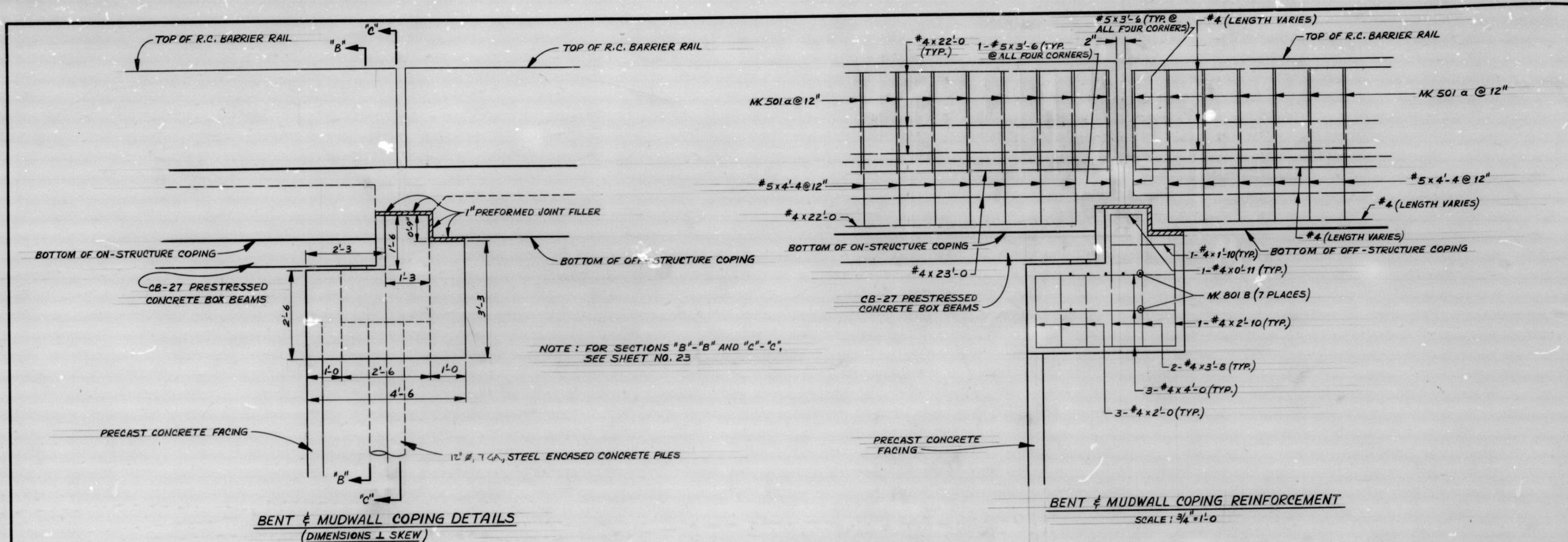
DATE: 2-1-90
James S. Rice

DRAWING: C5 OF C7 SHEET: 21 OF 80
PROJECT: MAMZ-W940 (2) STATION: 15+81.5834 "A"
BRIDGE CONTRACT NO. B-18986
BRIDGE FILE: GIBSON 10288



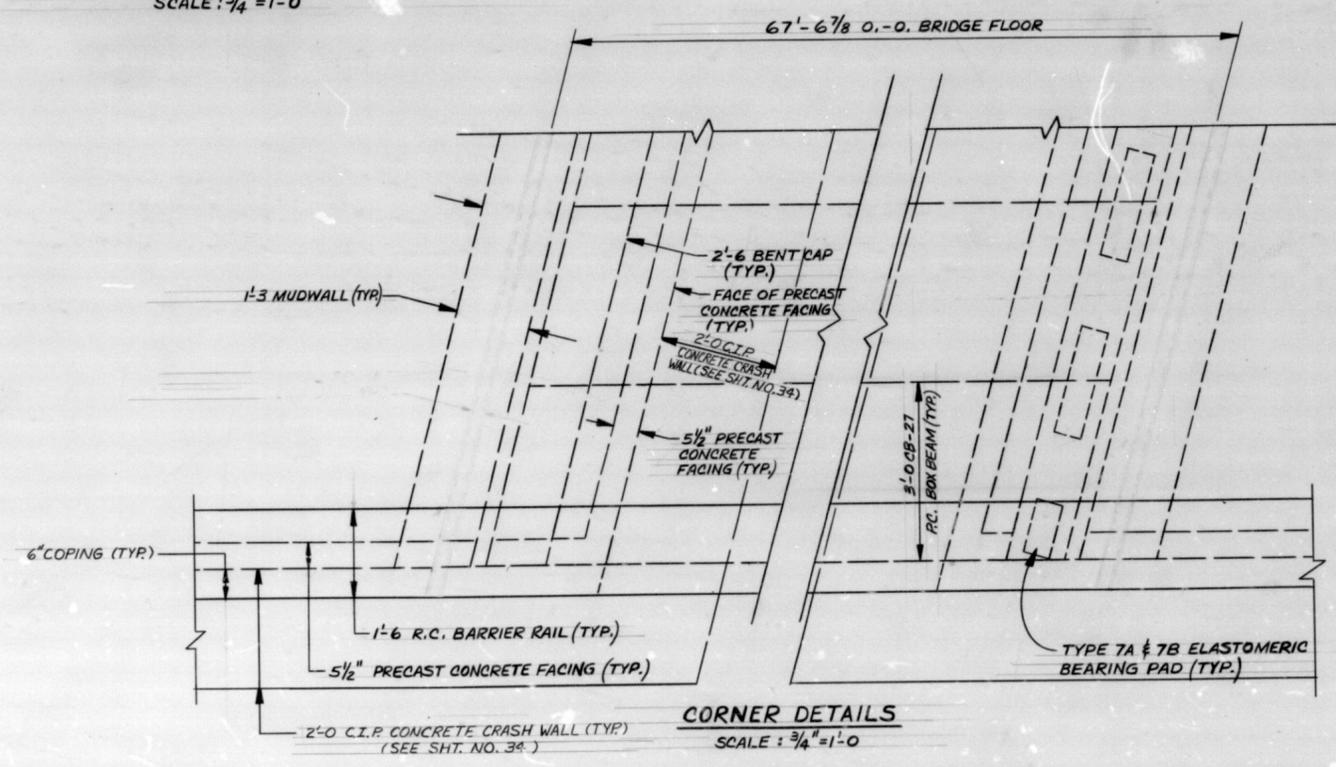
DESIGNED	CKD
DRAWN	CKD
TRACED	CKD

SF-22317



BENT & MUDWALL COPING DETAILS
(DIMENSIONS ⊥ SKEW)
SCALE: 3/4"=1'-0"

BENT & MUDWALL COPING REINFORCEMENT
SCALE: 3/4"=1'-0"



CORNER DETAILS
SCALE: 3/4"=1'-0"

NOTE: ALL REINFORCING STEEL IN DECK, DECK COPING, SPANDREL BEAMS, AND BARRIER RAIL TO BE EPOXY COATED.

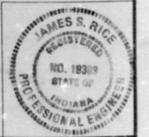
SUPERSTRUCTURE DETAILS
INDIANA DEPARTMENT OF HIGHWAYS
GIBSON COUNTY

SCALE: AS NOTED

DATE: 2-1-90

James S. Rice

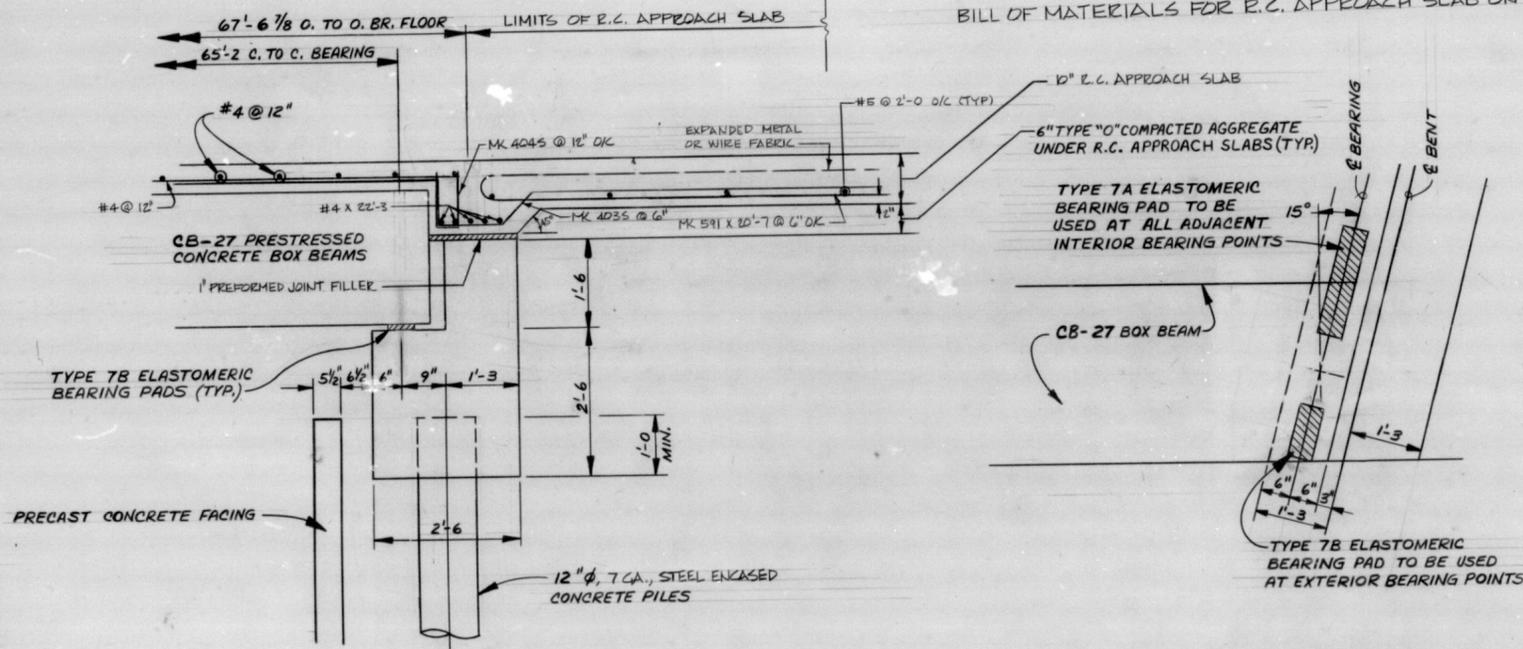
DRAWING: C6 OF C7 SHEET: 22 OF 80
PROJECT: MAMC₃-W940 (2) STATION: 15-81.5834 "A"
BRIDGE CONTRACT NO. B-18986
BRIDGE FILE: GIBSON 10288



DESIGNED	C.K.D.
DRAWN	C.K.D.
TRACED	C.K.D.

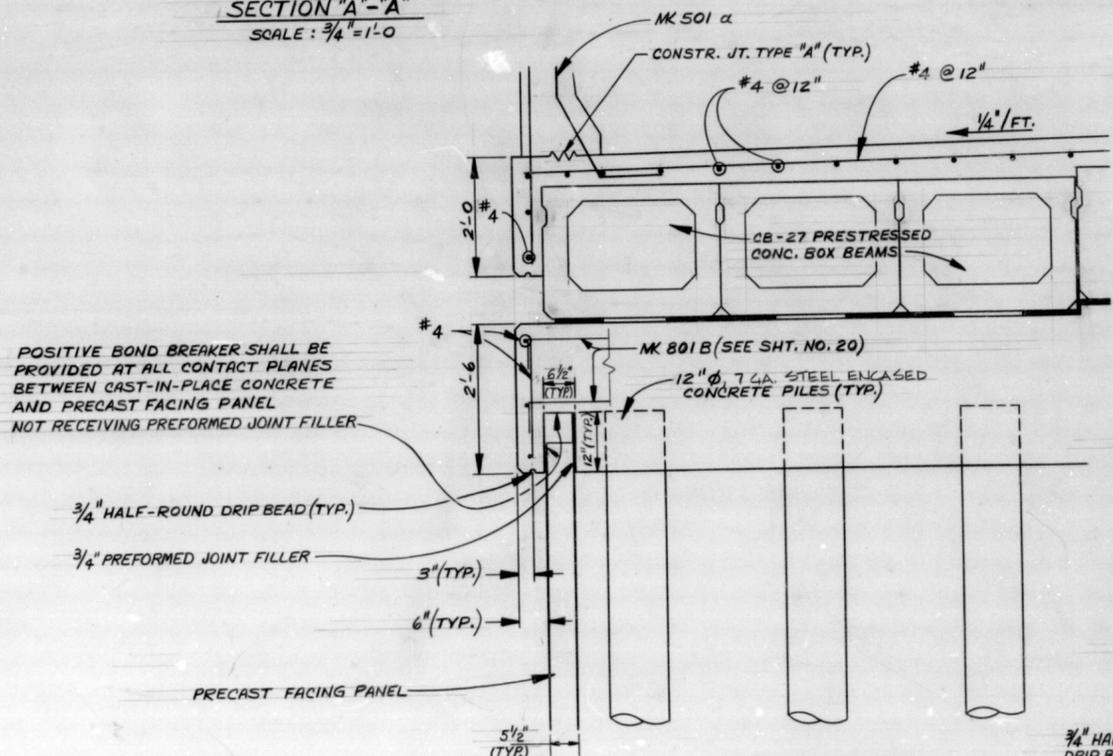
SF-22317

NOTE: ALL REINFORCING STEEL IN DECK, DECK COPING, SPANDREL BEAMS, AND BARRIER RAIL TO BE EPOXY COATED.
BILL OF MATERIALS FOR R.C. APPROACH SLAB ON SHEET 18.

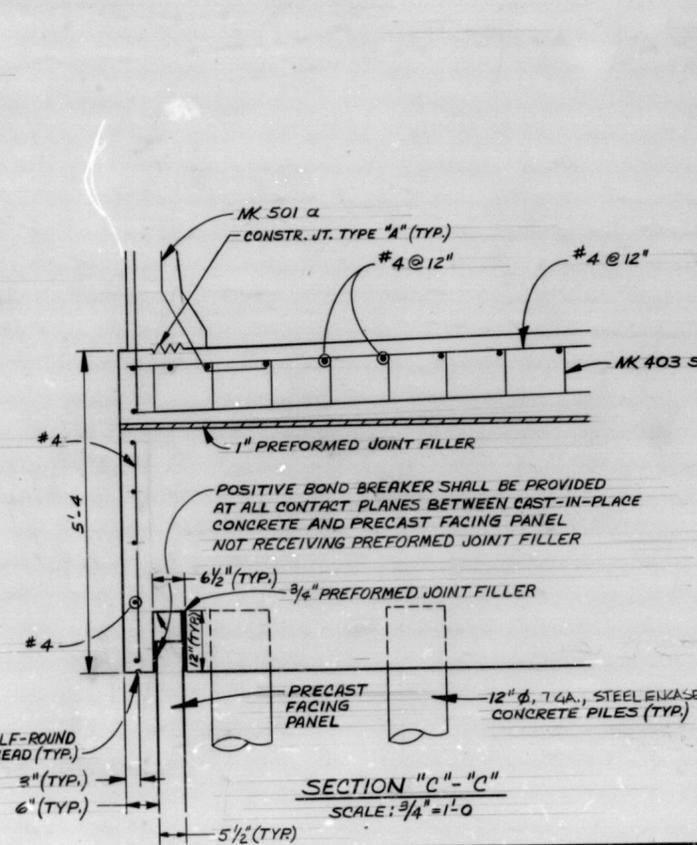


BEARING PAD DETAILS
SCALE: 3/4" = 1'-0"

SECTION "A"- "A"
SCALE: 3/4" = 1'-0"



SECTION "B"- "B"
SCALE: 3/4" = 1'-0"



SECTION "C"- "C"
SCALE: 3/4" = 1'-0"

BILL OF MATERIALS
SUPERSTRUCTURE

SIZE OR MK	NO. OF PIECES	LENGTH	WEIGHT
#4	1	1'-6"	1.0
#4	2	3'-3"	4.3
#4	2	5'-3"	7.0
#4	2	7'-0"	9.4
#4	2	9'-0"	12.0
#4	2	10'-9"	14.4
#4	2	12'-9"	17.0
#4	2	14'-6"	19.4
#4	2	16'-6"	22.0
#4	2	18'-3"	24.4
#4	2	20'-3"	27.1
#4	162	22'-0"	2,380.8
#4	20	22'-3"	297.3
#4	94	23'-0"	1,444.2
#4	49	24'-0"	785.6
MK 403 S	172	10'-10"	1,244.7
MK 404 S	86	1'-11"	110.1
TOTAL #4			6,420.7

#5	4	3'-6"	14.6
#5	132	4'-4"	596.6
MK 501 a	136	4'-3"	602.9
TOTAL #5			1,214.1

TOTAL EPOXY COATED REINFORCING 7,634.8

CONCRETE	
CLASS "C" IN SUPERSTRUCTURE	69.7 CYS.
CLASS "C" IN BARRIER RAIL	13.2 CYS.

MISCELLANEOUS	
PRECAST PRESTRESSED CONCRETE BOX BEAMS (CB 27 X 36")	2779 SFT.
SURFACE SEAL	3,927 SFT.

SUPERSTRUCTURE DETAILS
AND BILL OF MATERIALS
INDIANA DEPARTMENT OF HIGHWAYS
GIBSON COUNTY

SCALE: AS NOTED

DATE: 2-1-90

DRAWING: C7 OF C7 SHEET: 25 OF 80
PROJECT: MAM4-W140 (2) STATION: 15+81.5634"A
BRIDGE CONTRACT NO. B-18986
BRIDGE FILE: GIBSON 10288

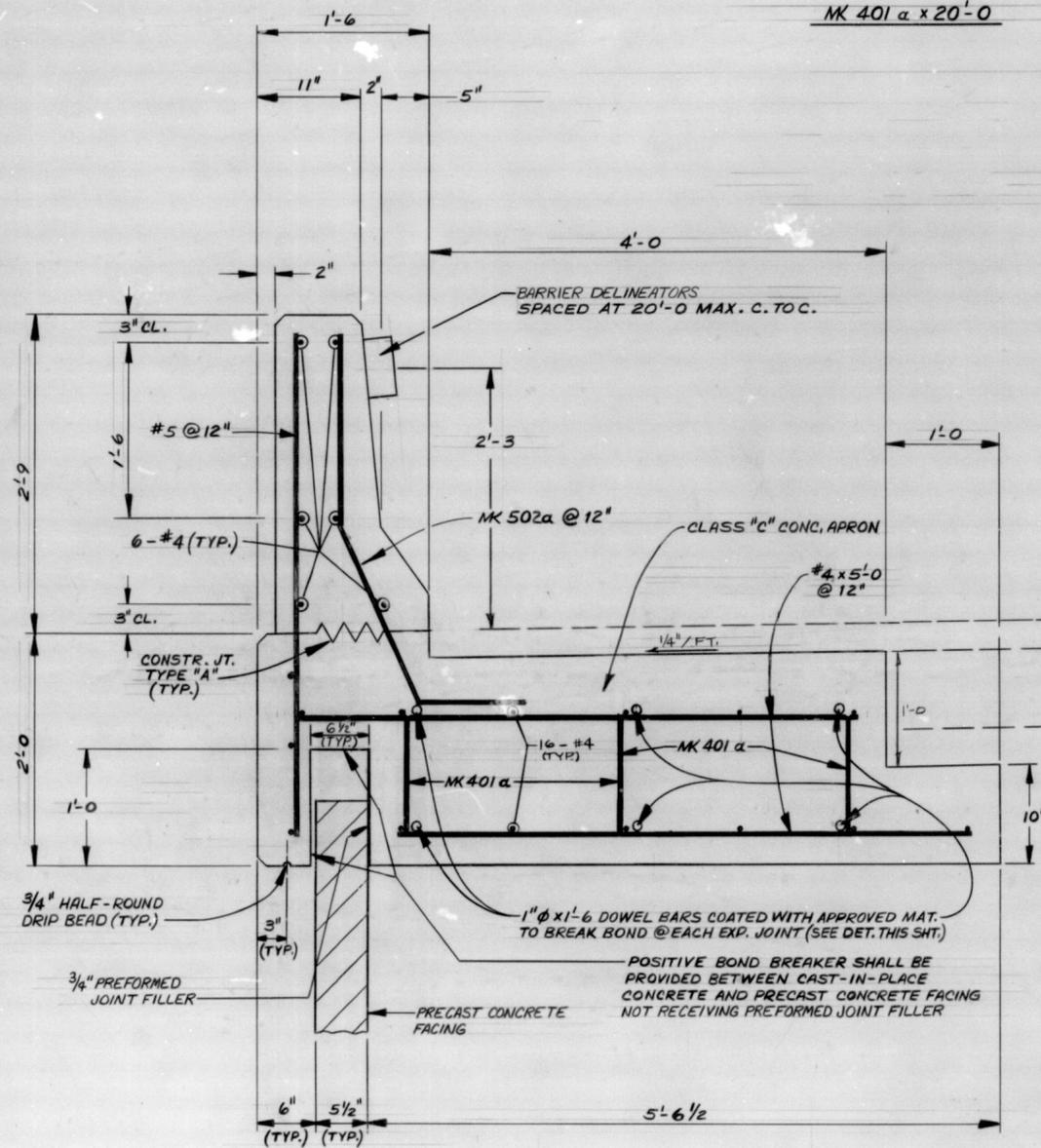
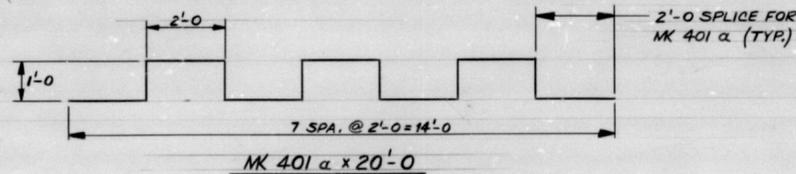


DESIGNED: C.K.D.
DRAWN: C.K.D.
TRACED: C.K.D.

SF-22317

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	MAH4-N940 (2)	1987	24	80

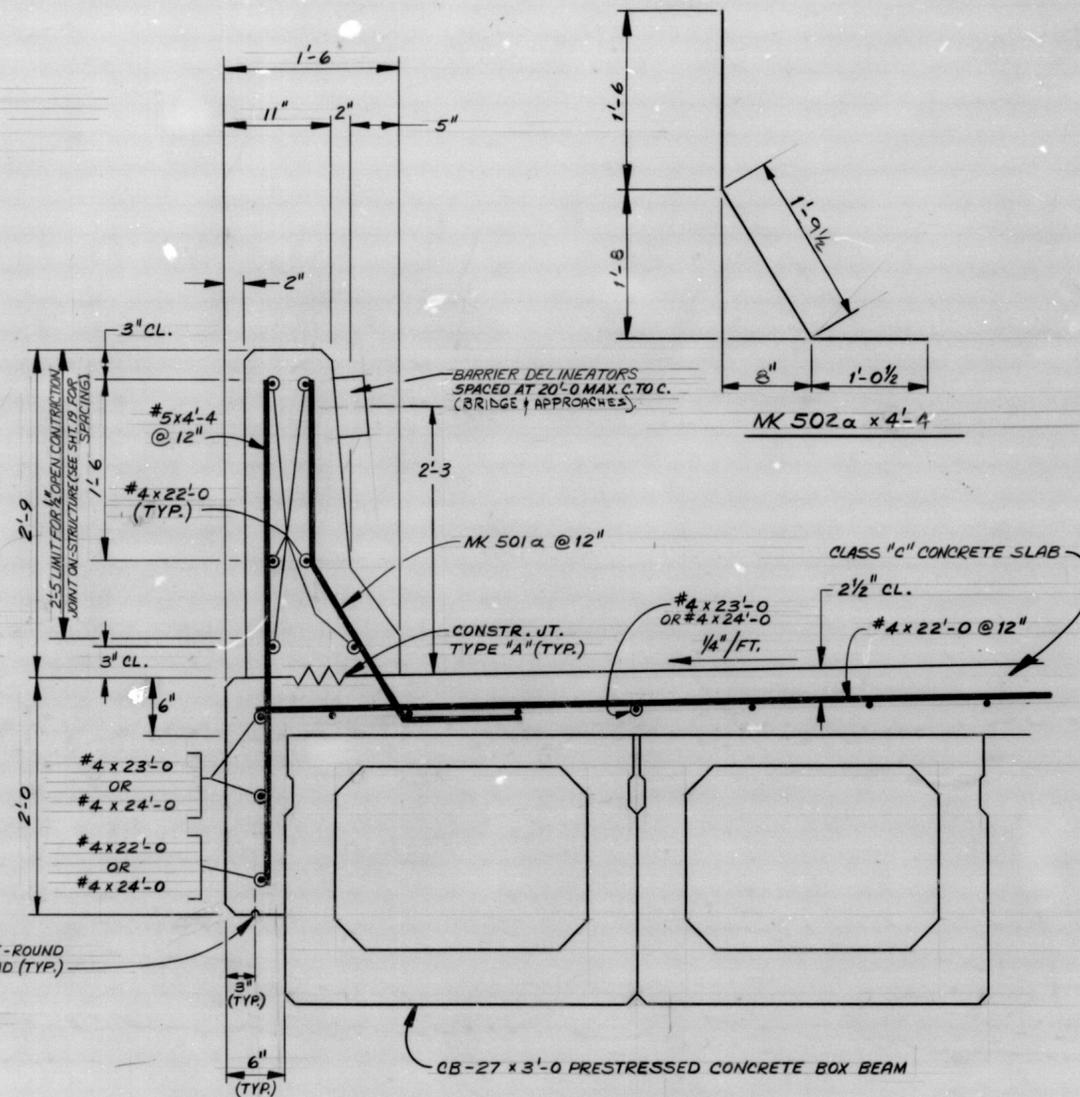
NOTE: ALL REINFORCING STEEL IN DECK, DECK COPING, APRON, AND BARRIER RAIL TO BE EPOXY COATED.



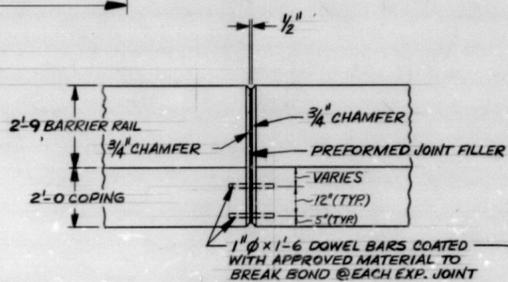
**BARRIER RAIL & COPING/APRON DETAIL
OFF-STRUCTURE**
SCALE: 1/2" = 1'-0"

JOINT NOTES:

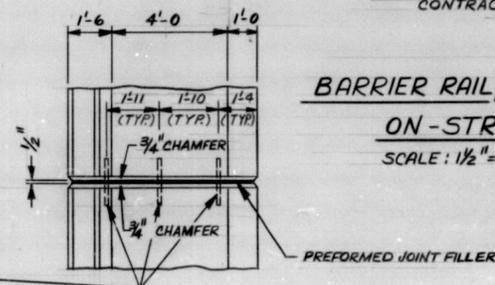
1. 1" DEEP SAWED GROOVE TYPE CONTRACTION JOINT TO BE PROVIDED FOR OFF-STRUCTURE BARRIER RAIL AND COPING/APRON AT 25' INTERVALS.
2. EXPANSION JOINT TO BE PROVIDED FOR OFF-STRUCTURE BARRIER RAIL AND COPING/APRON AT 100' INTERVALS.



**BARRIER RAIL/COPING DETAIL
ON-STRUCTURE**
SCALE: 1/2" = 1'-0"



EXPANSION JOINT DETAIL
SCALE: 3/8" = 1'-0"



PLAN

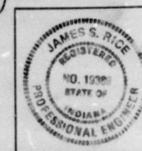
NOTE: SEE SHT. 19 FOR ON-STRUCTURE BARRIER RAIL CONTRACTION JOINT SPACING

REINFORCED CONCRETE BARRIER RAIL

DETAILS

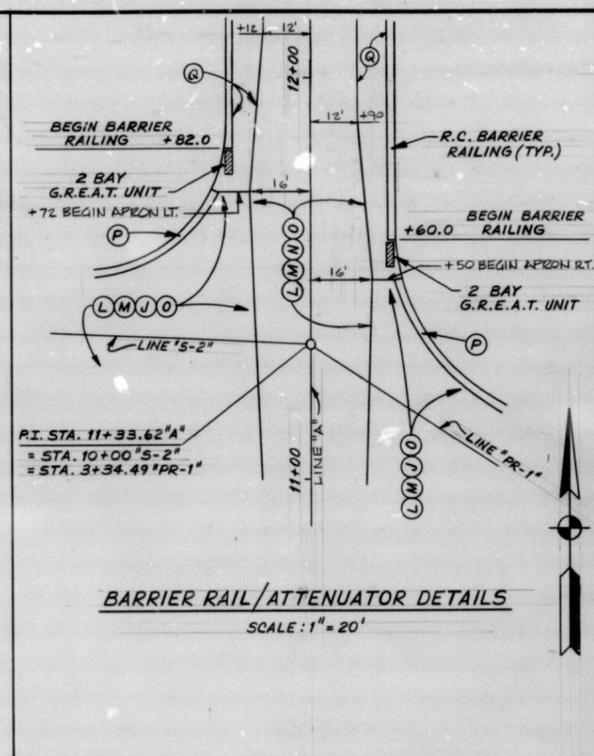
B-18986

2-1-90
James A. Rice

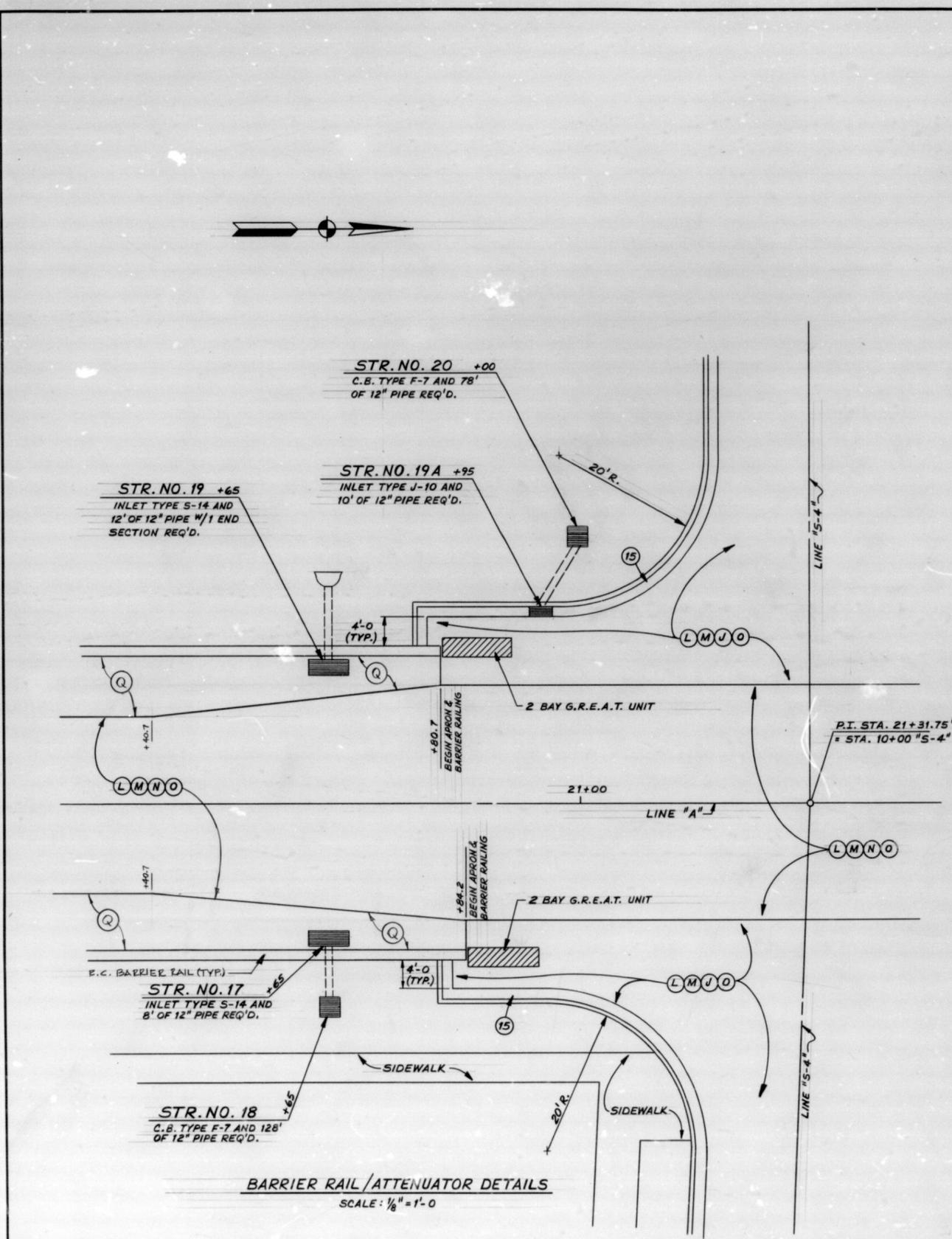


FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	MAH4-W940 (2)	1987	25	80

BILL OF MATERIALS OFF-STRUCTURE COPING/APRON				BILL OF MATERIALS OFF-STRUCTURE BARRIER RAIL			
SIZE OR MK	NO. OF PCS.	LENGTH	WEIGHT	SIZE OR MK	NO. OF PCS.	LENGTH	WEIGHT
STA. 11+72.0 LT. TO 15+52.5 LT.				STA. 11+82.0 LT. TO 15+52.5 LT.			
#4	762	5'-0	2,545.1	#4	6	20'-6	82.2
#4	1	19'-6	13.0	#4	24	21'-8	347.4
#4	15	20'-6	205.4	#4	6	30'-0	120.2
#4	64	21'-8	926.3	#4	36	40'-0	961.9
#4	112	40'-0	2,992.6	TOTAL #4			1,511.7
MK 401a	84	20'-0	1,122.2	#5	1	3'-6	3.7
TOTAL #4			7,804.6	#5	370	4'-4	1,672.3
DOWELS 1"Ø x 1'-6			18 EA.	TOTAL #5			3352.8
				Total Epoxy Coated			4864.5
STA. 16+20.3 LT. TO 20+80.7 LT.				STA. 16+20.3 LT. TO 20+80.7 LT.			
#4	922	5'-0	3,079.5	#4	6	21'-0	84.2
#4	1	20'-0	13.4	#4	24	21'-8	347.4
#4	15	21'-0	210.4	#4	54	40'-0	1,442.9
#4	64	21'-8	926.3	TOTAL #4			1,874.5
#4	144	40'-0	3,847.7	#5	1	3'-6	3.7
MK 401a	125	20'-0	1,402.8	#5	460	4'-4	2,079.0
TOTAL #4			9,480.1	MK 502a	461	4'-4	2,083.6
DOWELS 1"Ø x 1'-6			24 EA.	TOTAL #5			4166.3
				Total Epoxy Coated			6040.8
STA. 11+50.0 RT. TO 15+42.8 RT.				STA. 11+60.0 RT. TO 15+42.8 RT.			
#4	788	5'-0	2,631.9	#4	6	14'-5	57.8
#4	1	13'-5	9.0	#4	18	21'-8	260.5
#4	15	14'-5	144.5	#4	6	30'-0	120.2
#4	48	21'-8	694.7	#4	42	40'-0	1,122.2
#4	125	40'-0	3,420.2	TOTAL #4			1,560.7
MK 401a	84	20'-0	1,122.2	#5	1	3'-6	3.7
TOTAL #4			8,022.5	#5	383	4'-4	1,731.0
DOWELS 1"Ø x 1'-6			18 EA.	MK 502a	384	4'-4	1,735.5
				TOTAL #5			3470.2
				Total Epoxy Coated			5030.9
STA. 16+10.7 RT. TO 20+84.2 RT.				STA. 16+10.7 RT. TO 20+84.2 RT.			
#4	948	5'-0	3,160.3	#4	24	21'-8	347.4
#4	64	21'-8	926.3	#4	6	34'-2	136.9
#4	1	33'-2	22.2	#4	54	40'-0	1,442.9
#4	15	34'-2	342.4	TOTAL #4			1,927.2
#4	144	40'-0	3,847.7	#5	1	3'-6	3.7
MK 401a	105	20'-0	1,402.8	#5	473	4'-4	2,137.8
TOTAL #4			9,707.7	MK 502a	474	4'-4	2,142.3
DOWELS 1"Ø x 1'-6			24 EA.	TOTAL #5			4283.8
				Total Epoxy Coated			6211.0
TOTAL EPOXY COATED REINFORCING 35,014.9 LBS.				TOTAL EPOXY COATED REINFORCING 22,147.2 LBS.			
CONCRETE				CONCRETE			
CLASS "C" IN OFF-STRUCTURE COPING/APRON 651 CYS.				CLASS "C" IN OFF-STRUCTURE BARRIER RAIL SURFACE SEAL 165 CYS. 10781 SFT.			



- LEGEND**
- (L) 110 LBS. PER S.Y. BITUMINOUS SURFACE, MV TYPE #11, MV
 - (M) 220 LBS. PER S.Y. BITUMINOUS BINDER, MV
 - (N) 880 LBS. PER S.Y. BITUMINOUS BASE, MV
 - (O) 440 LBS. PER S.Y. BITUMINOUS BASE 5D, MV
 - (J) 440 LBS. PER S.Y. BITUMINOUS BASE, MV
 - (P) 1210 LBS. PER S.Y. BITUMINOUS BASE 5D, MV FOR SHOULDERS
 - (Q) 330 LBS. PER S.Y. BITUMINOUS BASE, MV, WITH TYPE 2 SEAL COAT FOR SHOULDERS
 - (15) COMBINED CONCRETE CURB & GUTTER



REINFORCED CONCRETE BARRIER RAIL

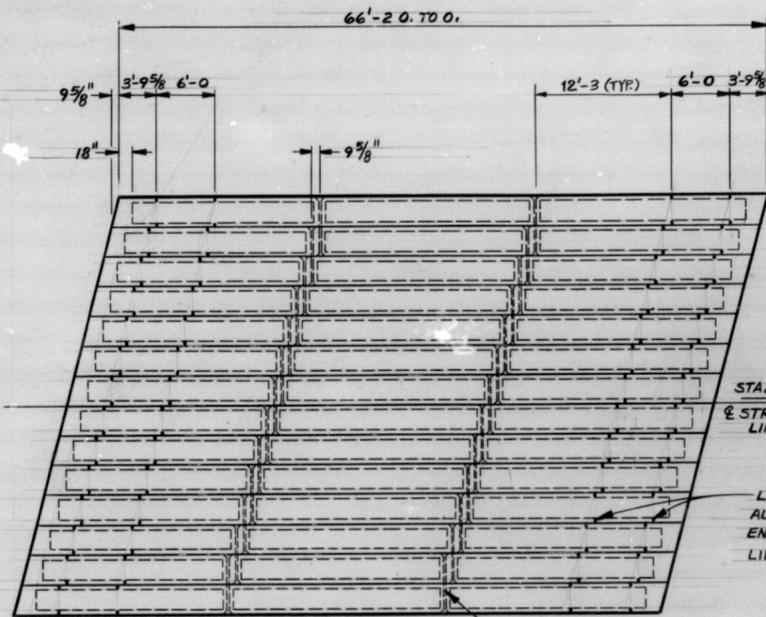
DETAILS

2-1-90

James S. Rice

JAMES S. RICE
REGISTERED
NO. 10330
STATE OF
INDIANA
PROFESSIONAL ENGINEER

B-18986



PRESTRESSED CONCRETE BEAM DATA

CAMBER AS ERECTED TO BE 0.92"
 DEAD LOAD DEFLECTION DUE TO SLAB TO BE 0.51"
 RESIDUAL CAMBER TO BE 0.41"

SEE IDOH BRIDGE STANDARDS SHEET PB 90 FOR ADDITIONAL BEAM DETAILS. BEAMS TO BE CB-27 PRESTRESSED CONCRETE BOX BEAMS (COMPOSITE).

THE COST OF ELASTOMERIC BEARING PADS, 1" DIAMETER THREADED RODS, WASHERS, NUTS, LIFTING INSERTS, SEALING OF BEAMS, STYROFOAM JOINT FILLER, GROUT FOR SHEAR KEYS AND CAVITIES, AND THE PRESTRESSED BOX BEAMS TO BE INCLUDED IN THE LUMP SUM BID FOR "CONCRETE STRUCTURAL MEMBERS". THE TOP OF ALL BEAMS AND THE OUTSIDE FACE OF EXTERIOR BEAMS TO BE SEALED. BEAMS TO BE CONSTRUCTED A MINIMUM OF 15 DAYS BEFORE SLAB IS POURED

CAST PRESTRESSED BOX BEAMS 7/8" LONGER THAN DETAILED BELOW TO ACCOUNT FOR BEAM SHORTENING (0. TO 0. CAST BEAM = 66'-2 7/8", 0.70 0. ERECTED BEAM = 66'-2)

THE BEAM MANUFACTURER HAS THE OPTION TO REDESIGN THE BEAMS DETAILED IN THIS PROJECT. (SEE SPECIAL PROVISIONS.)

GENERAL MATERIALS NOTES

PRESTRESSING STRANDS TO BE SEVEN-WIRE, 1/2" ϕ , $f'_s = 270,000$ PSI STRESS-RELIEVED STRAND WHICH CONFORMS TO THE REQUIREMENTS OF "STANDARD SPECIFICATIONS FOR UNCOATED SEVEN-WIRE STRESS-RELIEVED STRAND FOR PRESTRESSED CONCRETE" (ASTM DESIGNATION A 416) AND WILL BE PULLED TO 28,900 LBS. EACH. (STRAND $A_s = .153$ in²)

REINFORCING STEEL (NON-PRESTRESSED) TO BE GRADE 40 (ASTM DESIGNATION A 615) AS INDICATED.

PRESTRESSED CONCRETE
 MINIMUM 28-DAY CYLINDER COMPRESSIVE STRENGTH TO BE 5,000 PSI
 MINIMUM CYLINDER COMPRESSIVE STRENGTH AT PRESTRESSING TO BE 4,000 PSI

REINFORCED CONCRETE
 MINIMUM 28-DAY CYLINDER COMPRESSIVE STRENGTH TO BE 3,000 PSI

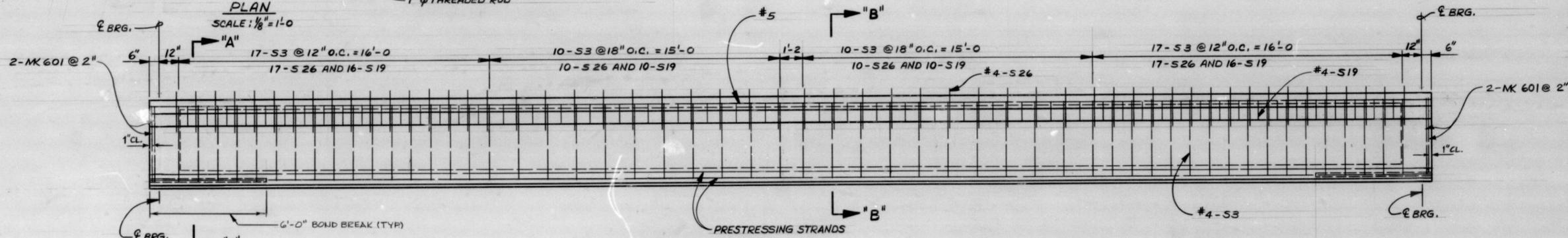
DESIGN DATA

LIVE LOADS: HS 20-44 LOADING WITH IMPACT AND DISTRIBUTION OF LOADS IN ACCORDANCE WITH CURRENT AASHTO SPECIFICATIONS

DEAD LOADS: ACTUAL WEIGHT WHICH INCLUDES PROVISION FOR FUTURE WEARING SURFACE (35 PSF)

UNIT STRESSES: ALLOWABLE STRESSES TO BE IN ACCORDANCE WITH CURRENT AASHTO SPECIFICATIONS

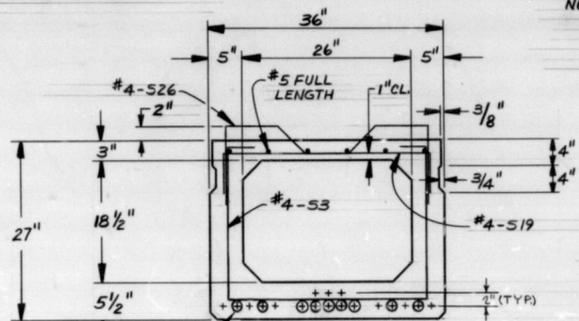
PLAN
 SCALE: 1/8" = 1'-0"



SINGLE SPAN

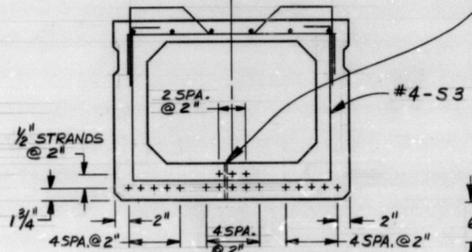
SCALE: HORIZ. - 3/8" = 1'-0 VERT. - 3/4" = 1'-0

NOTE: ALL NON-PRESTRESSED REINFORCING STEEL TO BE GRADE 60

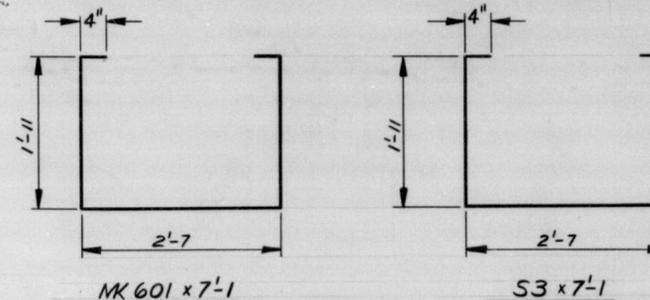


SECTION "A"- "A"
 SCALE: 1" = 1'-0

NOTE: LOCATE STRANDS SYMMETRICALLY ABOUT VERTICAL
 1/2" ϕ DRAIN PLACE IN CENTER (BETWEEN ENDS) OF VOIDS. TYPE OF INSTALLATION TO BE SHOWN ON SHOP DRAWINGS



SECTION "B"- "B"
 SCALE: 1" = 1'-0



BEAM DETAILS AND ERECTION PLAN

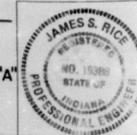
INDIANA DEPARTMENT OF HIGHWAYS

SCALE: - AS NOTED

DATE: 2-1-90

SHEET: 26 OF 80

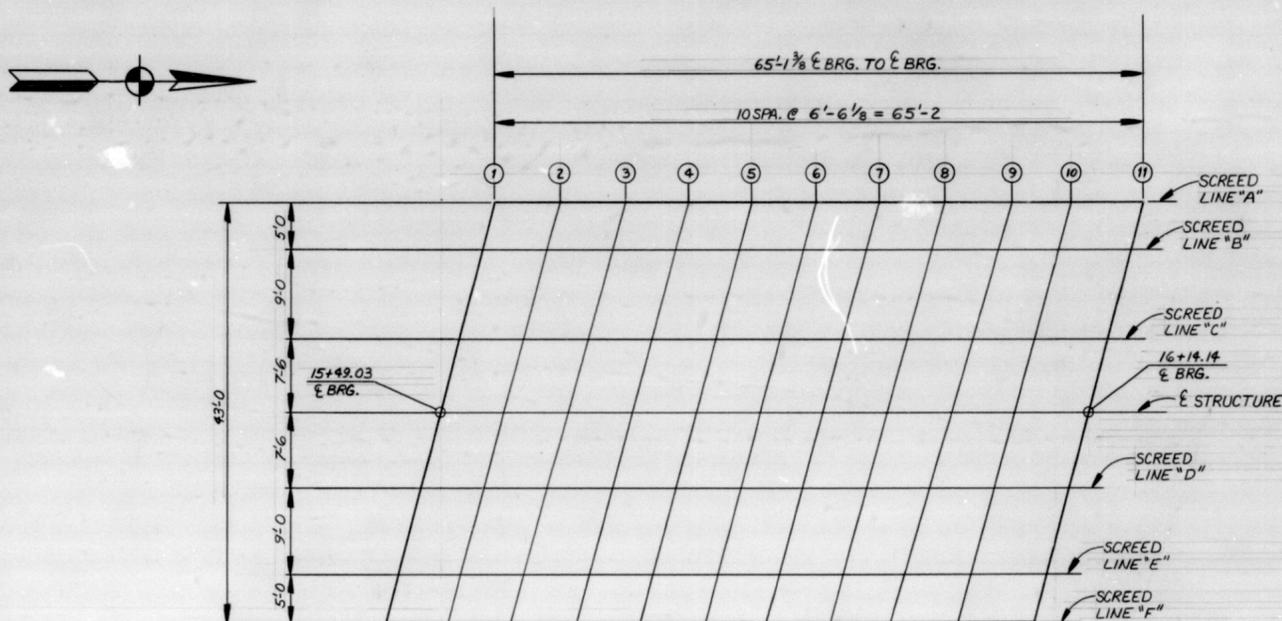
PROJECT: - MAMC-W940 (2) STATION: - 15-81.5834 "A"
 BRIDGE CONTRACT NO. B-18986
 BRIDGE FILE: - GIBSON 10288



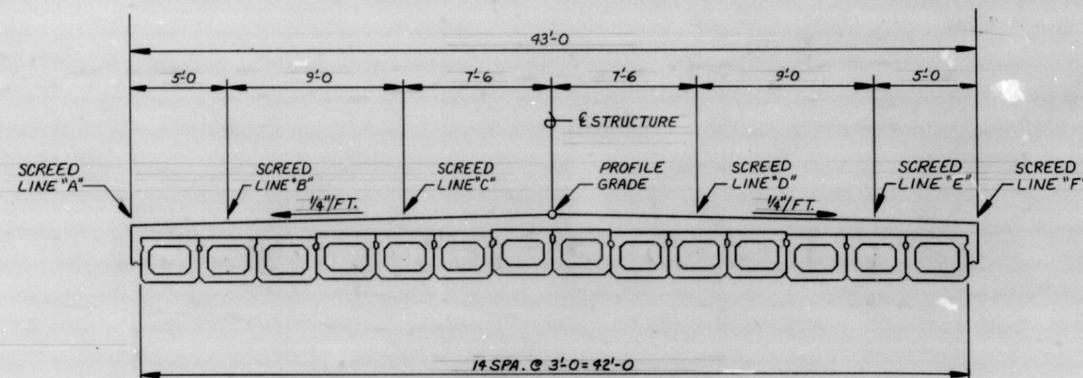
DESIGNED: C.K'D
 DRAWN: C.K'D
 TRACED: C.K'D
 SF-22317

TABLE OF SCREED ELEVATIONS

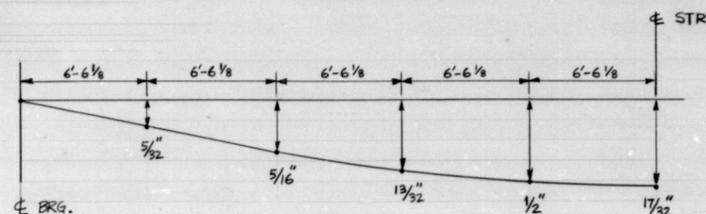
SCREED LINE	POINT →	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
	A	ELEV.-TOP OF COPING FORM	522.2120	522.2470	522.2657	522.2667	522.2492	522.2129	522.1575	522.0833	521.9906	521.8802
	ELEV.-℄ TOP OF OUTSIDE BEAM											
	DIST.-TOP OF BEAM TO TOP OF COPING FORM											
B	ELEV.-TOP OF SCREED	522.3099	522.3480	522.3697	522.3738	522.3594	522.3262	522.2739	522.2028	522.1132	522.0059	521.8823
	ELEV.-℄ TOP OF ADJACENT BEAM											
	DIST.-TOP OF BEAM TO TOP OF SCREED											
C	ELEV.-TOP OF SCREED	522.4644	522.5280	522.5554	522.5650	522.5562	522.5285	522.4818	522.4162	522.3322	522.2304	522.1124
	ELEV.-℄ TOP OF ADJACENT BEAM											
	DIST.-TOP OF BEAM TO TOP OF SCREED											
D	ELEV.-TOP OF SCREED	522.4581	522.510	522.5477	522.5666	522.5670	522.5486	522.5112	522.4548	522.3801	522.2876	522.1788
	ELEV.-℄ TOP OF ADJACENT BEAM											
	DIST.-TOP OF BEAM TO TOP OF SCREED											
E	ELEV.-TOP OF SCREED	522.2521	522.3106	522.3528	522.3773	522.3833	522.3704	522.3386	522.2878	522.2186	522.1317	522.0284
	ELEV.-℄ TOP OF ADJACENT BEAM											
	DIST.-TOP OF BEAM TO TOP OF SCREED											
F	ELEV.-TOP OF COPING FORM	522.1368	522.1984	522.2436	522.2712	522.2803	522.2705	522.2417	522.1941	522.1279	522.0441	521.9440
	ELEV.-℄ TOP OF OUTSIDE BEAM											
	DIST.-TOP OF BEAM TO TOP OF COPING FORM											



PLAN OF SCREEDS
SCALE: 1/8" = 1'-0"



SECTION 1 ℄ STRUCTURE
SCALE: 1/4" = 1'-0"



D.L. DEFLECTION DIAGRAM
NO SCALE

BEAM DETAILS AND ERECTION PLAN

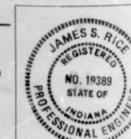
INDIANA DEPARTMENT OF HIGHWAYS

SCALE: - AS NOTED

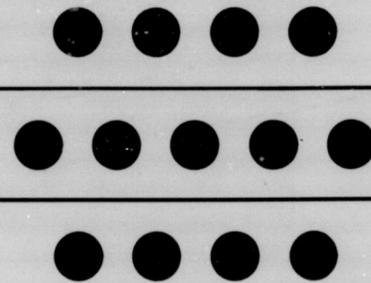
DATE: 2-1-90

SHEET: 26A OF 80

PROJECT: MAMC-W940 (2) STATION: 15-81.5834 "A"
BRIDGE CONTRACT NO. B-18986
BRIDGE FILE: GIBSON 10288



DESIGNED: CKD
DRAWN: CKD
TRACED: CKD
SF-22317



reinforced earth

ARLINGTON DIVISION - 1700 N. MOORE ST. ARLINGTON, VA. 22209 (703) 527-3434

REINFORCED EARTH WALLS ARE IN ACCORDANCE WITH INDOT
"PLAN DEVELOPMENT GUIDELINES FOR EARTH RETAINING SYSTEMS"
DATED MARCH, 1989.

GENERAL NOTES

DESIGN CRITERIA

- 1. DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE REINFORCED EARTH VOLUME, METHODS OF CONSTRUCTION AND QUALITY OF PREFABRICATED MATERIAL SHALL CONFORM TO THE CONTRACTING AGENCY'S TECHNICAL SPECIFICATIONS FOR REINFORCED EARTH WALLS.
- 2. ASSUMED SOILS CHARACTERISTICS:
 - SELECT GRANULAR BACKFILL
φ = 34 degrees, c = 0 p.s.f., γ = 125 p.c.f.
 - RANDOM BACKFILL
φ = 30 degrees, c = 0 p.s.f., γ = 125 p.c.f.
 - FOUNDATION MATERIAL
φ = 30 degrees, c = 0 p.s.f.

IF THE ACTUAL CHARACTERISTICS OF THE SOIL MATERIALS DIFFER FROM THOSE ABOVE, THE REINFORCED EARTH COMPANY SHOULD BE NOTIFIED PRIOR TO CONSTRUCTION TO EVALUATE THE NEED FOR REDESIGN OF THE WALL.
- 3. THE MAXIMUM APPLIED BEARING PRESSURE AT THE FOUNDATION LEVEL IS AS SHOWN ON THE WALL ELEVATIONS FOR EACH DESIGN CASE.
- 4. ANY UNSUITABLE FOUNDATION MATERIAL BELOW THE REINFORCED EARTH VOLUME, AS DETERMINED BY THE ENGINEER, SHALL BE EXCAVATED AND REPLACED WITH SUITABLE MATERIAL OR OTHERWISE STABILIZED AS DIRECTED BY THE ENGINEER.
- 5. REINFORCING STRIPS FOR REINFORCED EARTH WALLS SHALL BE 50MM WIDE AND 4MM THICK AND SHALL CONFORM TO THE PHYSICAL AND MECHANICAL PROPERTIES OF ASTM A-572, GRADE 65.

WALL CONSTRUCTION

- 1. STATIONS SHOWN ARE ALONG CENTERLINE OF ROADWAY.
- 2. REINFORCED EARTH WALLS, IN CURVES, WILL FORM A SERIES OF SHORT CHORDS OF 4.92' EACH TO MATCH DESIRED WALL ALIGNMENT.
- 3. FOR LOCATION AND ALIGNMENT OF REINFORCED EARTH WALLS, SEE CONTRACT DRAWINGS.
- 4. MANHOLES AND DROP INLETS SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS.
- 5. PILES WITHIN THE REINFORCED EARTH VOLUME SHALL BE DRIVEN PRIOR TO THE CONSTRUCTION OF THE REINFORCED EARTH WALL.
- 6. BACKFILL MATERIAL SHALL BE COMPACTED, IN ACCORDANCE WITH THE SPECIFICATIONS FOR REINFORCED EARTH WALLS, TO A LEVEL OF 2" (x) ABOVE THE TIE STRIPS EMBEDDED IN THE PANELS. INSTALLATION OF REINFORCING STRIPS SHALL BE PERMITTED ONLY AFTER PLACEMENT AND COMPACTION OF THE BACKFILL MATERIAL HAS REACHED THE REQUIRED LEVEL.
- 7. COMPACTION AND OPERATION EQUIPMENT SHALL BE KEPT A MINIMUM DISTANCE OF 3'-0" FROM BACK FACE OF REINFORCED EARTH PANEL. COMPACTION WITHIN 3'-0" OF THE REINFORCED EARTH PANELS SHALL BE ACHIEVED WITH AT LEAST THREE (3) PASSES OF A LIGHTWEIGHT MECHANICAL TAMPER, ROLLER OR VIBRATORY SYSTEM.
- 8. FOR STRUCTURES IN EXCESS OF 20' IN HEIGHT, THE FINISHED GRADE IN FRONT OF THE WALL SHALL BE PLACED AND COMPACTED BEFORE WALL CONSTRUCTION EXCEEDS A HEIGHT OF 20'. FINISHED GRADE BACKFILL SHALL BE COMPACTED TO 95% OF ASTM D-698, METHODS 'C' OR 'D', UNLESS OTHERWISE DIRECTED BY ENGINEER.
- 9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF GUARDRAIL POSTS BEHIND THE REINFORCED EARTH PANELS, PRIOR TO PLACEMENT OF THE TOP LAYER OF REINFORCING STRIPS. INDIVIDUAL STRIPS MAY BE SKEWED, IF AUTHORIZED BY THE REINFORCED EARTH COMPANY, PRIOR TO PLACEMENT. ANY DAMAGE DONE TO THE REINFORCING STRIPS DUE TO THE INSTALLATION OF THE GUARDRAIL SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- 10. IF STRUCTURES WITHIN THE REINFORCED EARTH VOLUME INTERFERE WITH THE NORMAL PLACEMENT OF REINFORCING STRIPS, THE CONTRACTOR SHALL NOTIFY THE REINFORCED EARTH COMPANY TO DETERMINE THE EFFECT ON THE DESIGN OF THE WALL BY SKEWING THESE STRIPS.
- 11. ALL DETAILING AND CHECKING OF REINFORCING STEEL FOR ANY C.I.P. CONCRETE WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 12. FOR CIP CONC. CRASH WALL DETAILS SEE SH. NO. 34

BILL OF MATERIALS

CONCRETE LEVELLING PAD (3'-6" x 1'-0")	119 LFT
CONCRETE LEVELLING PAD (1'-0" x 0'-6")	1,686 LFT
4" PVC FOUNDATION DRAIN	1,830 LFT
AGGREGATE ENCASUREMENT FOR FDN. DRAIN, SIZE NO. 8	110 TON
CONCRETE FACE PANELS	29,930 SFT
WALL ERECTION	29,930 SFT
"B" BORROW FOR STRUCTURE BACKFILL	20,275 CYS

SPECIAL NOTES

- 1. NO FUTURE EXCAVATION SHOULD BE PERMITTED IN THE MECHANICALLY STABILIZED EMBANKMENT WITHOUT AUTHORIZATION.

NOTE APPLIES TO THIS PROJECT

NOTE DOES NOT APPLY TO THIS PROJECT

DESIGNED: CKD
DRAWN: CKD
TRACED: CKD

The Reinforced Earth Company
Rosslyn Center, 1700 North Moore Street, Arlington, Virginia 22209
(703) 527-3434

DESIGNED BY: WAW
PROJ ENGR:
CHECKED BY: DJP
DATE: 4/8/89

"REINFORCED EARTH" IS THE REGISTERED TRADEMARK OF THE REINFORCED EARTH COMPANY.

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INDIANA DEPARTMENT OF HIGHWAYS
U.S. RTE 41 OVER SOUTHERN RAILROAD
GIBSON CO, INDIANA

SCALE: AS NOTED

DATE: 2-1-90

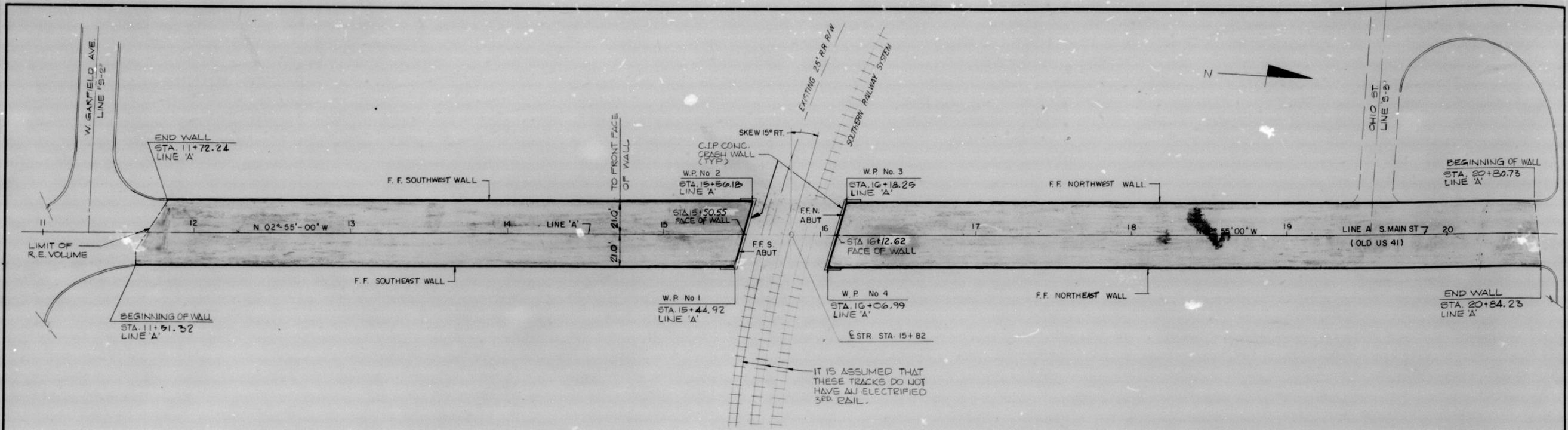
SHEET: 26 OF 80

PROJECT: MAMG-W940 (2)
CONTRACT NO. B-18986
BRIDGE FILE: GIBSON 10288

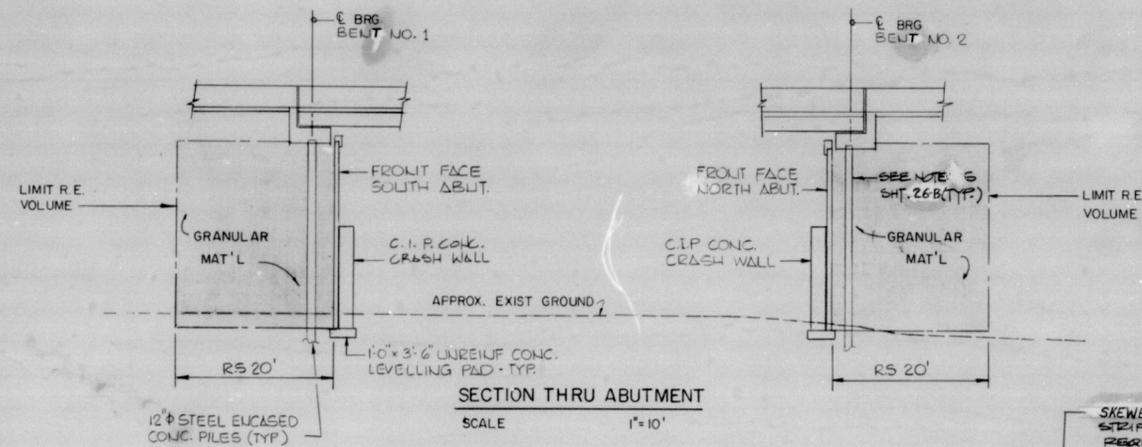
RE 1767

916189

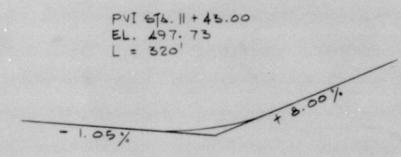




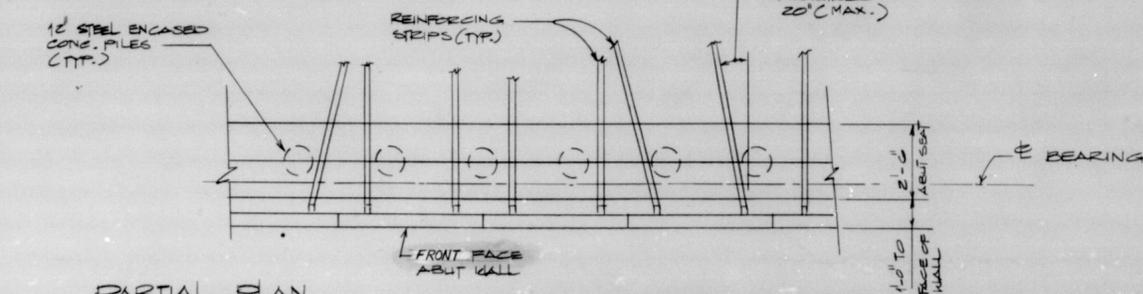
KEY PLAN
SCALE: 1" = 30'



SECTION THRU ABUTMENT
SCALE 1" = 10'



VERTICAL CURVE DATA
N.T.S.



PARTIAL PLAN
REINFORCING STRIP LAYOUT AROUND PILE CAP
N.T.S.

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DESIGNED	CKD
DRAWN	CKD
TRACED	CKD

The Reinforced Earth Company
 Roslyn Center, 1700 North Moore Street, Arlington, Virginia 22209
 (703) 527-3434

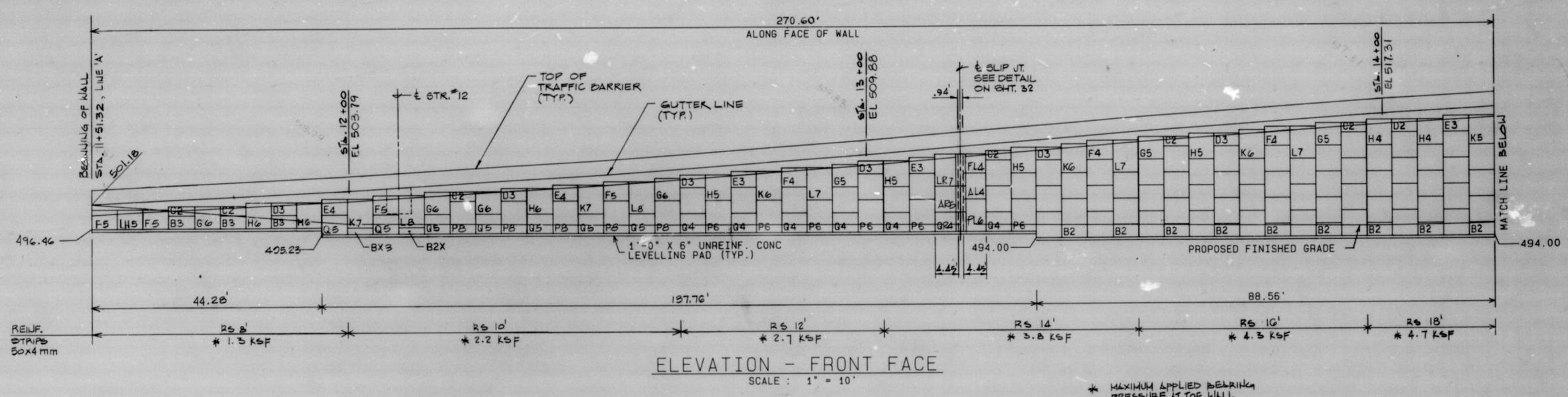
DESIGNED BY	WAW	DATE	
PROJ. ENGR.			
CHECKED BY	ANP		6/8/89

INDIANA DEPARTMENT OF HIGHWAYS
 U.S. RTE. 41 OVER SOUTHERN RAILROAD
 GIBSON CO., INDIANA

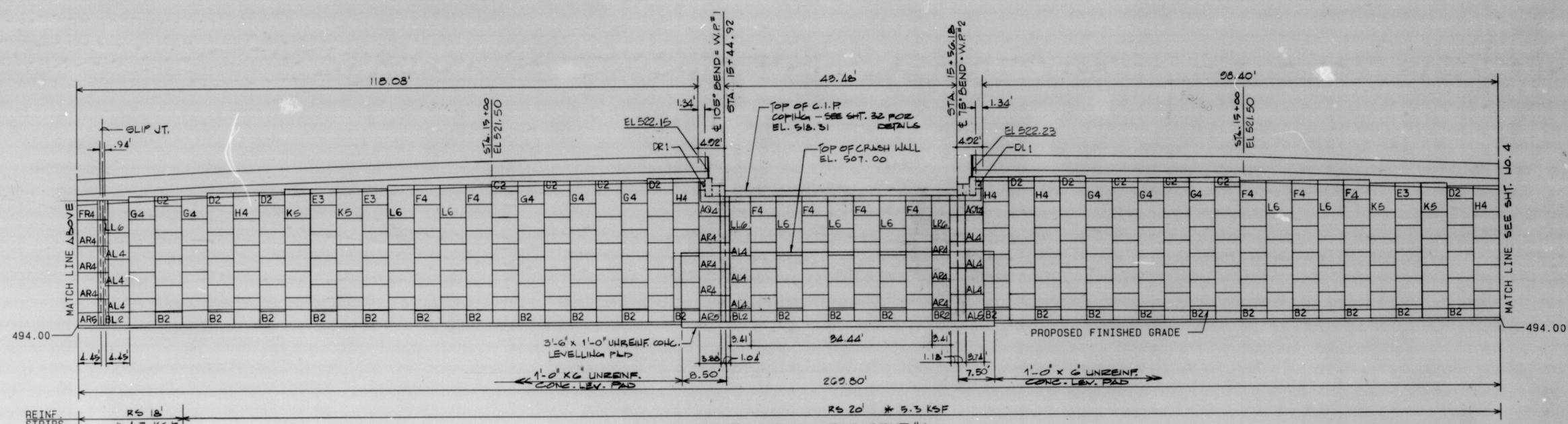
SCALE: AS NOTED DATE: 2-1-90

PROJECT: MAM4-W940 (2)
 CONTRACT NO. B-18986
 BRIDGE FILE: GIBSON 10288





ELEVATION - FRONT FACE
SCALE: 1" = 10'



SOUTH WALL - END BENT #1
ELEVATION - FRONT FACE
SCALE: 1" = 10'

INDIANA DEPARTMENT OF HIGHWAYS
U.S. RTE. 41 OVER SOUTHERN RAILROAD
GIBSON CO., INDIANA

SCALE: AS NOTED

DATE: 2-1-90

SHEET: 28 OF 30

PROJECT: HAM4-W940 (2)
CONTRACT NO. B-18986
BRIDGE FILE: GIBSON 10288



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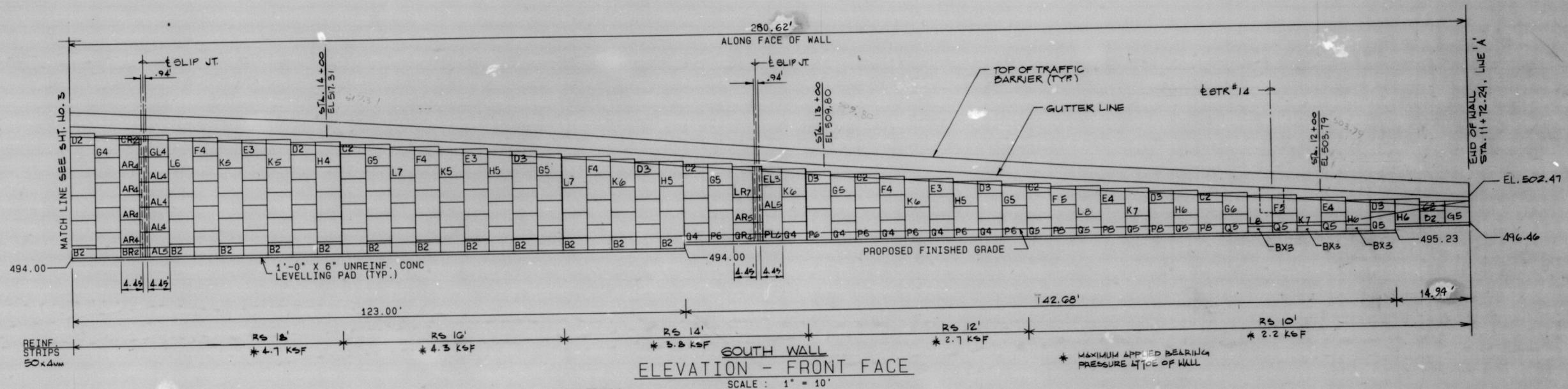
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The Reinforced Earth Company Rosalyn Center, 1700 North Moore Street, Arlington, Virginia 22209 (703) 527-3434		DESIGNED BY: <i>WJW</i> PROJ. ENGR.: CHECKED BY: <i>AJP</i>	DATE: 11-9-89
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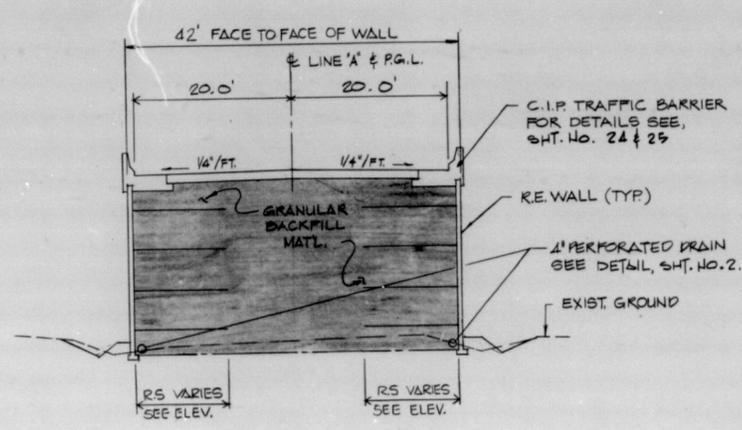
DESIGNED: CKD
DRAWN: CKD
TRACED: CKD

RE 1767 11/9/89

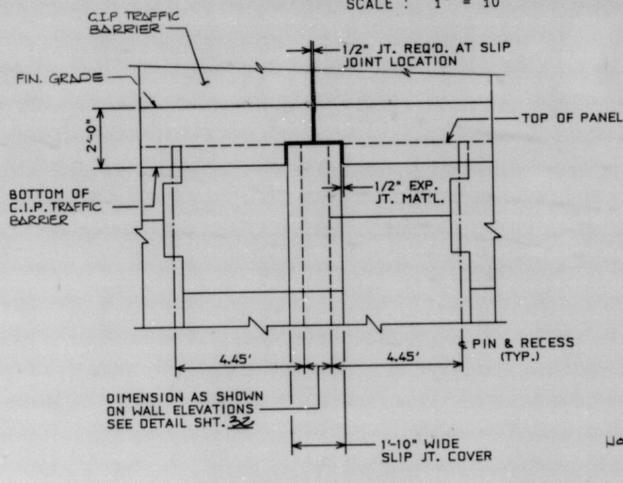
111-167



**SOUTH WALL
ELEVATION - FRONT FACE**
SCALE: 1" = 10'



TYPICAL SECTION
SCALE: 1" = 10'-0"



**PARTIAL ELEVATION
TYPICAL DETAIL - TOP OF SLIP JOINT COVER**
SCALE: 1/2" = 1'0"

NOTE: C.I.P. CONCRETE CRASH WALL DETAILS SEE SHT. 34

INDIANA DEPARTMENT OF HIGHWAYS
U.S. RTE. 41 OVER SOUTHERN RAILROAD
GIBSON CO., INDIANA

SCALE: AS NOTED DATE: 2-1-90

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PROJECT: MAM4-W940 (2)
CONTRACT NO. B-18986
BRIDGE FILE: GIBSON 10288

SHEET: 29 OF 80

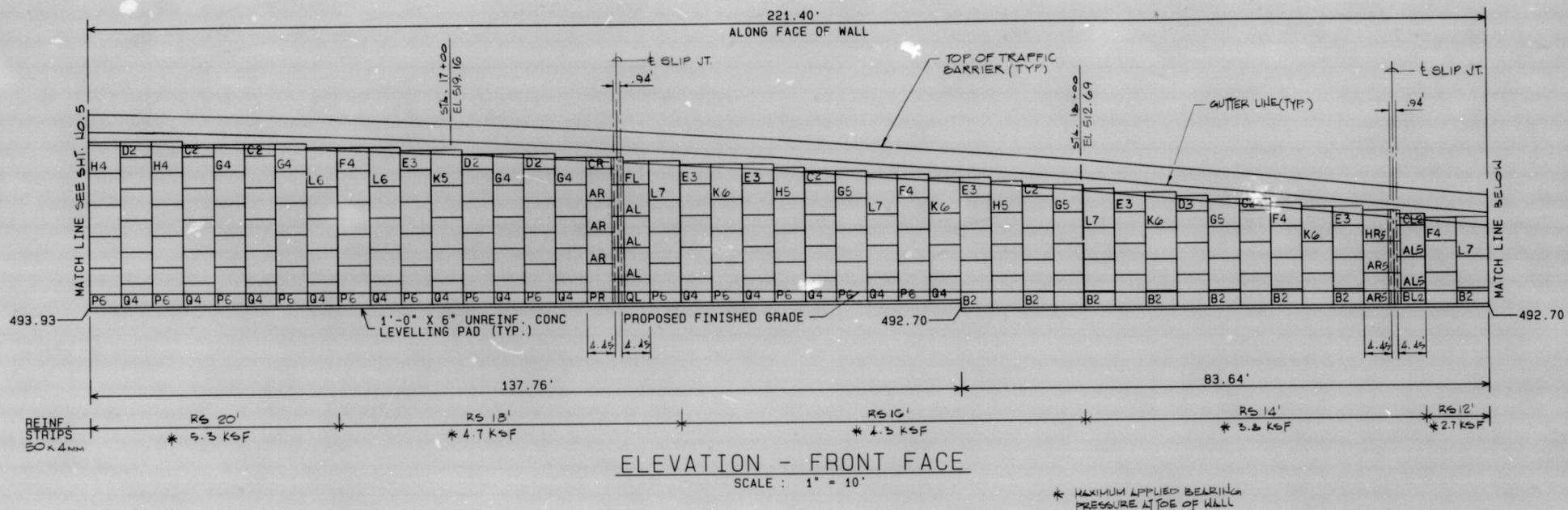


The Reinforced Earth Company
Rosslyn Center, 1750 North Moore Street, Arlington, Virginia 22209
(703) 527-3434

DESIGNED BY: WAW DATE: 11-9-89
PROJ. ENGR.: DATE:
CHECKED BY: AJP

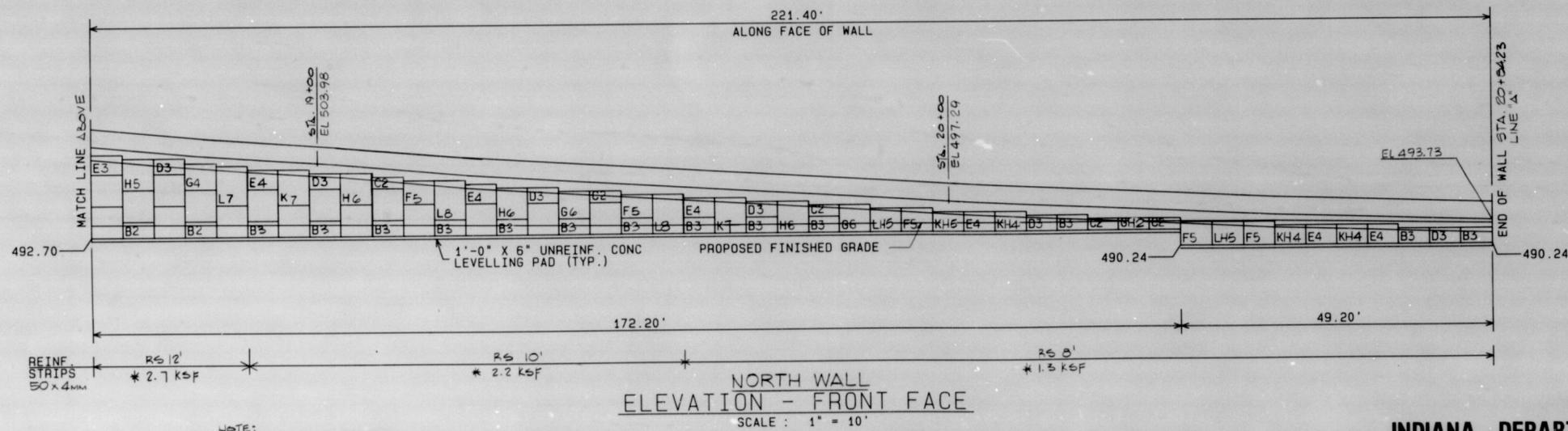
DESIGNED: C.K.D.
DRAWN: C.K.D.
TRACED: C.K.D.

RE 1707 11/9/89



ELEVATION - FRONT FACE
SCALE: 1" = 10'

* MAXIMUM APPLIED BEARING PRESSURE AT TOE OF WALL



NORTH WALL
ELEVATION - FRONT FACE
SCALE: 1" = 10'

NOTE:
FOR C.I.P. CONCRETE
CRASH WALL DETAILS,
SEE SHT. No. 54

DESIGNED	CKD
DRAWN	CKD
TRACED	CKD

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Roslyn Center, 1700 North Moore Street, Arlington, Virginia 22209
(703) 527-3434

DESIGNED BY	WJK	DATE	
PROJ ENGR			
CHECKED BY	AJP		6-8-89

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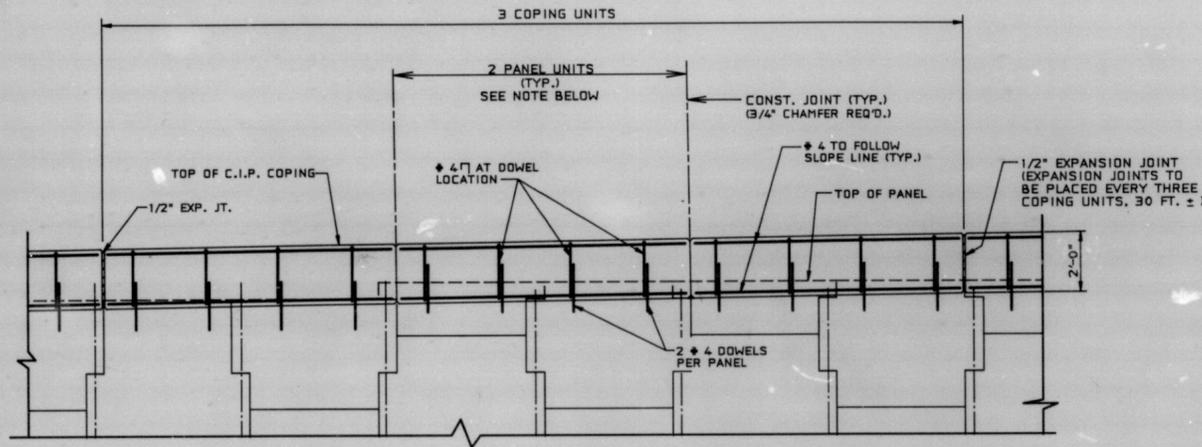
INDIANA DEPARTMENT OF HIGHWAYS
U.S. RTE. 41 OVER SOUTHERN RAILROAD
GIBSON CO., INDIANA

SCALE: AS NOTED DATE: 2-1-90
James S. Rice

SHEET: 31 OF 80
PROJECT: MAMC-W940 (2)
CONTRACT NO. B-18986
BRIDGE FILE: GIBSON 10286

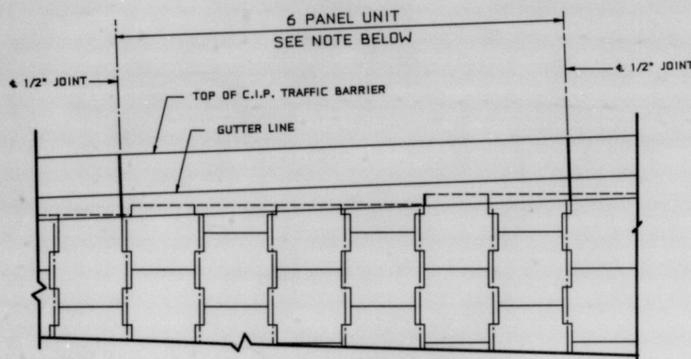


RE 1767 9/6/89



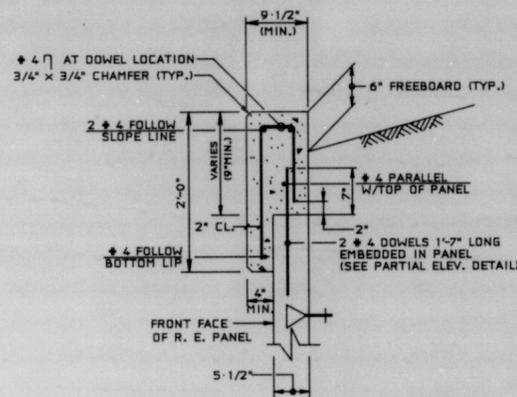
NOTE:
CONST. JT. IN C.I.P. COPING SHALL BE AT 2 PANEL INTERVALS. COPING JOINTS MUST COINCIDE WITH PANEL JOINTS, ON FRONT FACE, WHERE BOTTOM OF 4" LIP INTERSECTS WITH JOINT. REINFORCING STEEL SHALL BE STOPPED 2" SHORT OF EITHER SIDE OF THE CONSTRUCTION JOINTS AND EXPANSION JOINTS.

C.I.P. COPING
PARTIAL ELEVATION
SCALE: 3/8" = 1'-0"

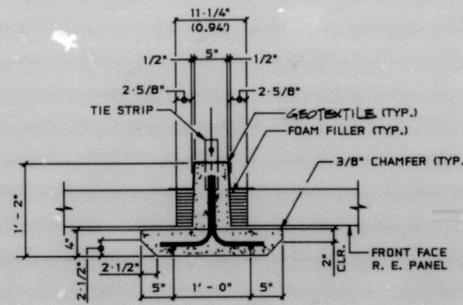


NOTE:
ALL JOINTS SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS AND MUST COINCIDE WITH PANEL JOINT ON FRONT FACE WHERE BOTTOM OF LIP INTERSECTS WITH PANEL JOINT.

C.I.P. TRAFFIC BARRIER
PARTIAL ELEVATION
SCALE: 3/16" = 1'

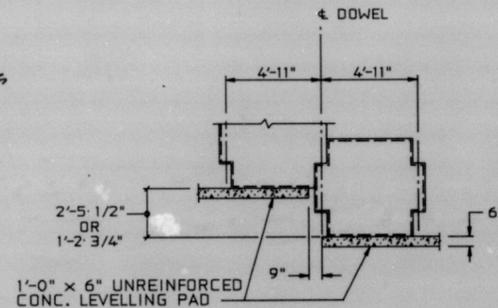


C.I.P. CONC. COPING DETAIL
SCALE: 1" = 1'-0"



SLIP JOINT DETAIL
SCALE: 1" = 1'-0"

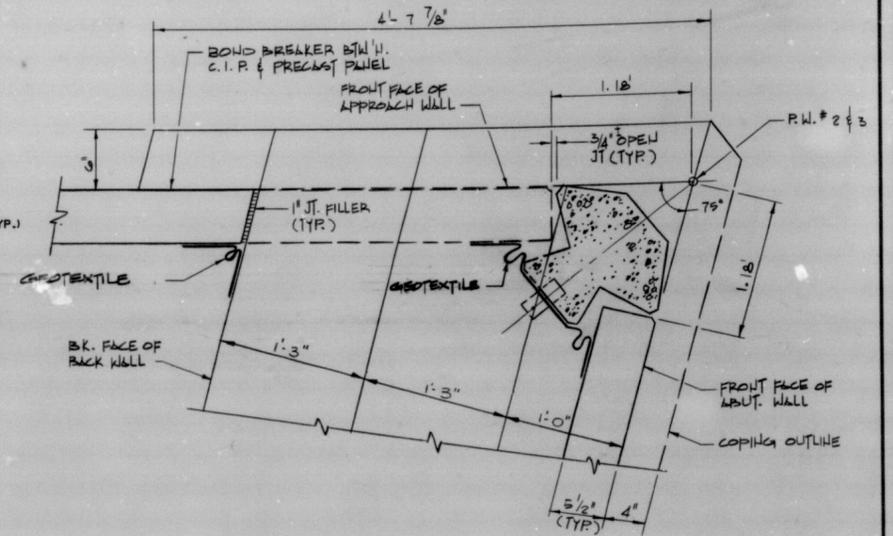
* FOR DETAILS OF TRAFFIC BARRIER SEE SHT. NO. 24 & 25



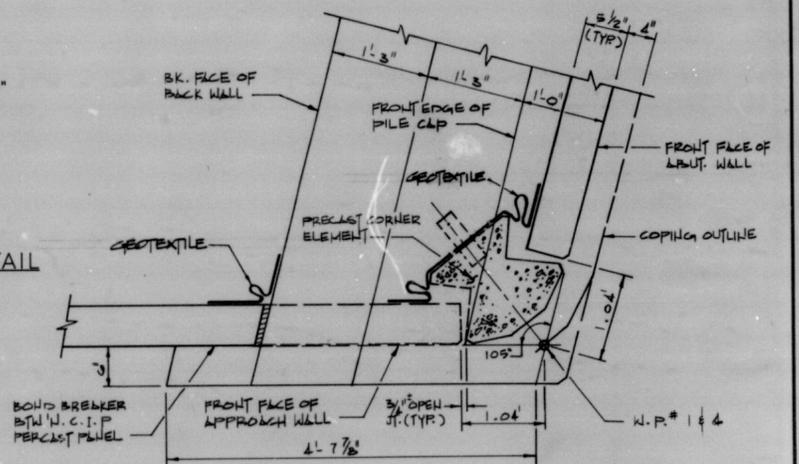
TYPICAL LEVELLING PAD STEP DETAIL
SCALE: 1/4" = 1'-0"

NOTE:
LEVELLING PAD MUST BE POURED TO THE DESIGN ELEVATIONS AS SHOWN ON THE WALL ELEVATION VIEWS. THE ALLOWABLE ELEVATION TOLERANCES ARE 0.01' (+) AND 0.02' (-). PRECAST PANEL JOINT FILLER MATERIAL IS NOT PERMITTED BETWEEN PRECAST PANEL AND LEVELLING PAD UNLESS AUTHORIZED IN WRITING BY THE REINFORCED EARTH COMPANY.

NOTE: C.I.P. CONCRETE CRASH WALL DETAILS, SEE SHT. NO. 24.



PRECAST CORNER ELEMENT - 75°
SCALE: 1/2" = 1'-0"



PRECAST CORNER ELEMENT - 105°
SCALE: 1/2" = 1'-0"

INDIANA DEPARTMENT OF HIGHWAYS
U.S. RTE. 41 OVER SOUTHERN RAILROAD
GIBSON CO., INDIANA

SCALE: AS NOTED DATE: 2-1-90

SHEET: 32 OF 80

PROJECT: MAMC-W940 (2)
CONTRACT NO. B-18986
BRIDGE FILE: GIBSON 10288



RE 1767

9/6/89

DESIGNED BY: WAW DATE: 6-8-89
PROJ ENGR: DATE:
CHECKED BY: AJP

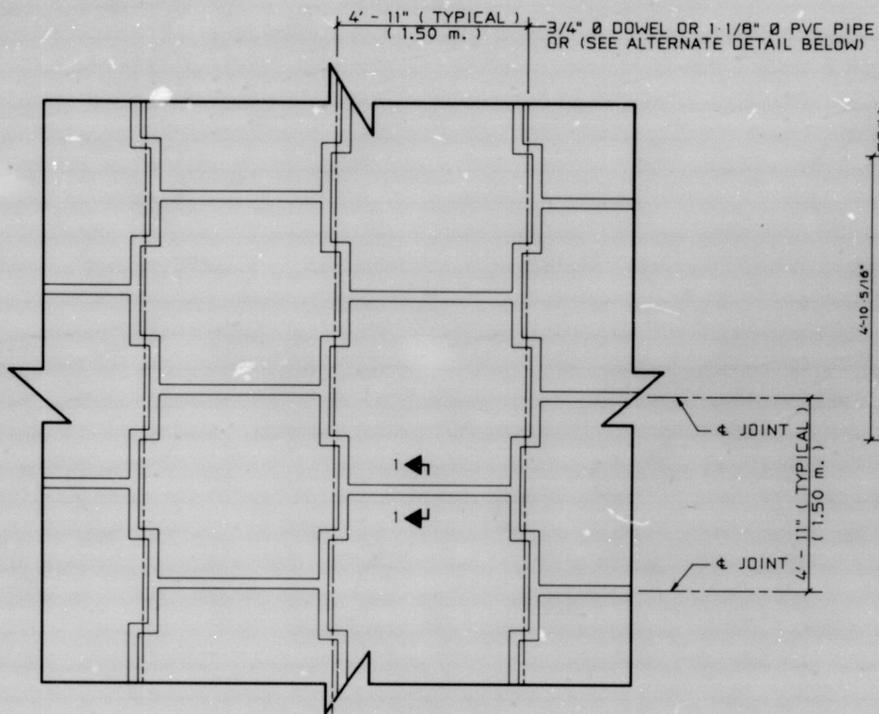
The Reinforced Earth Company
Roanoke Center, 1700 North Moore Street, Arlington, Virginia 22209
(703) 527-3444

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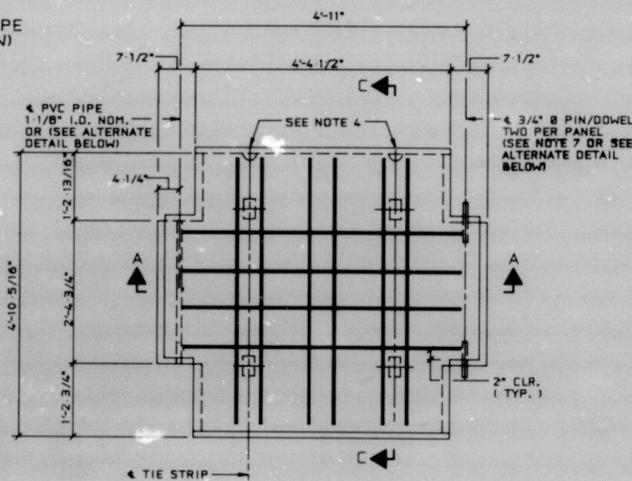
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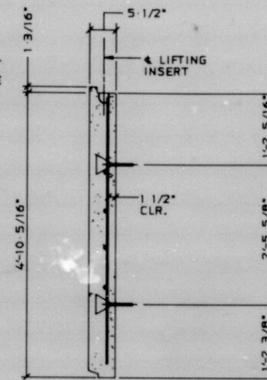
DESIGNED: C/K/D
DRAWN: C/K/D
TRACED: C/K/D



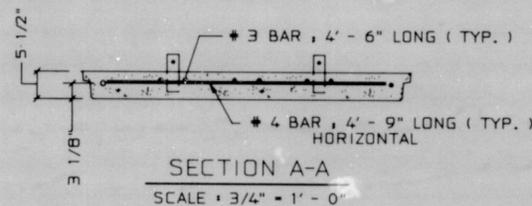
TYPICAL PANEL LAYOUT
PARTIAL ELEVATION - FRONT FACE
SCALE: 1/2" = 1' - 0"



PANEL TYPE "A"
WITH R6 REINFORCEMENT
FRONT VIEW
SCALE: 3/4" = 1' - 0"



SECTION C-C
SCALE: 3/4" = 1' - 0"

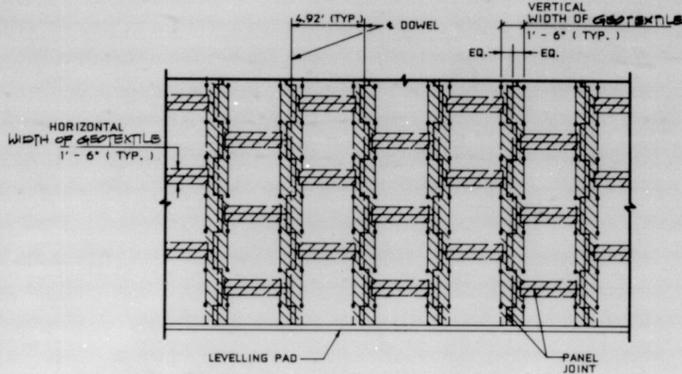


SECTION A-A
SCALE: 3/4" = 1' - 0"

PANEL THICKNESS	REINFORCEMENT DESIGNATION	PANEL REINFORCEMENT A_s (IN ²)	MAXIMUM ALLOWABLE HORIZONTAL STRESS AT FACING (KSF)
5 1/2"	R4	0.44 VERTICAL 0.58 HORIZONTAL	1.01
	R6	0.66 VERTICAL 0.78 HORIZONTAL	1.33
	R7	1.18 VERTICAL 1.77 HORIZONTAL	2.58

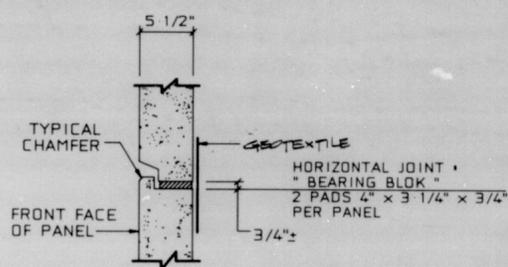
NOTES:

1. REINFORCING STEEL TO BE A615 GRADE 60.
2. 3/8" x 3/8" CHAMFER SHALL BE PROVIDED ON ALL EXPOSED EDGES (FRONT FACE ONLY).
3. ALL PANEL TYPES AND OTHER RELATED ELEMENTS WILL BE DETAILED ON SHOP DRAWINGS.
4. ALL PANELS SHALL HAVE TWO LIFTING INSERTS OF ONE TON CAPACITY EACH.
5. PANEL DESIGN THICKNESS IS 5 1/2". THICKNESS OF CONCRETE MUST INCREASE TO ACCOMMODATE ANY ARCHITECTURAL SURFACE FINISH THAT MAY BE SPECIFIED.
6. ACTUAL PANEL REINFORCEMENT FOR ALL PANEL TYPES ON THIS PROJECT IS DESIGNATED ABOVE. R6 ILLUSTRATED FOR INFORMATION ONLY.
7. EACH 3/4" Ø DOWEL SHALL HAVE A MIN. LENGTH OF 10". DOWELS MAY BE GALVANIZED STEEL OR PVC ROD. A SINGLE FULL LENGTH DOWEL MAY BE USED AT THE DISCRETION OF THE MANUFACTURER.

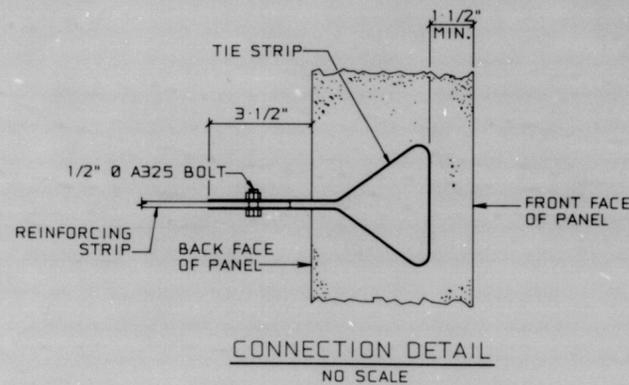


GEOTEXTILE DETAIL
PARTIAL ELEVATION - BACK FACE
SCALE: 3/16" = 1' - 0"

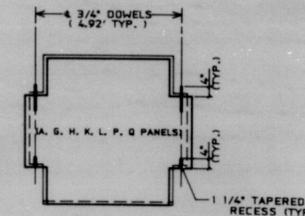
NOTE:
STRIPS OF GEOTEXTILE SHALL BE PLACED ON BACK FACE OF PANEL OVER PANEL JOINTS. FILTER CLOTH SHALL BE ADHERED TO BACK FACE OF PANELS USING AN ADHESIVE COMPOUND SUPPLIED BY THE REINFORCED EARTH COMPANY.



SECTION 1-1



CONNECTION DETAIL
NO SCALE



ALTERNATE DOWEL/RECESS
PLACEMENT DETAIL
SCALE: 3/8" = 1' - 0"

INDIANA DEPARTMENT OF HIGHWAYS

U.S. RTE. 41 OVER SOUTHERN RAILROAD
GIBSON CO., INDIANA

SCALE - AS NOTED

DATE: 2-1-90

James S. Rice

SHEET: 33 OF 80

PROJECT: MAM4-W940 (2)
CONTRACT NO. B-18786
BRIDGE FILE: GIBSON 10288

RE. 1767

9/6/89



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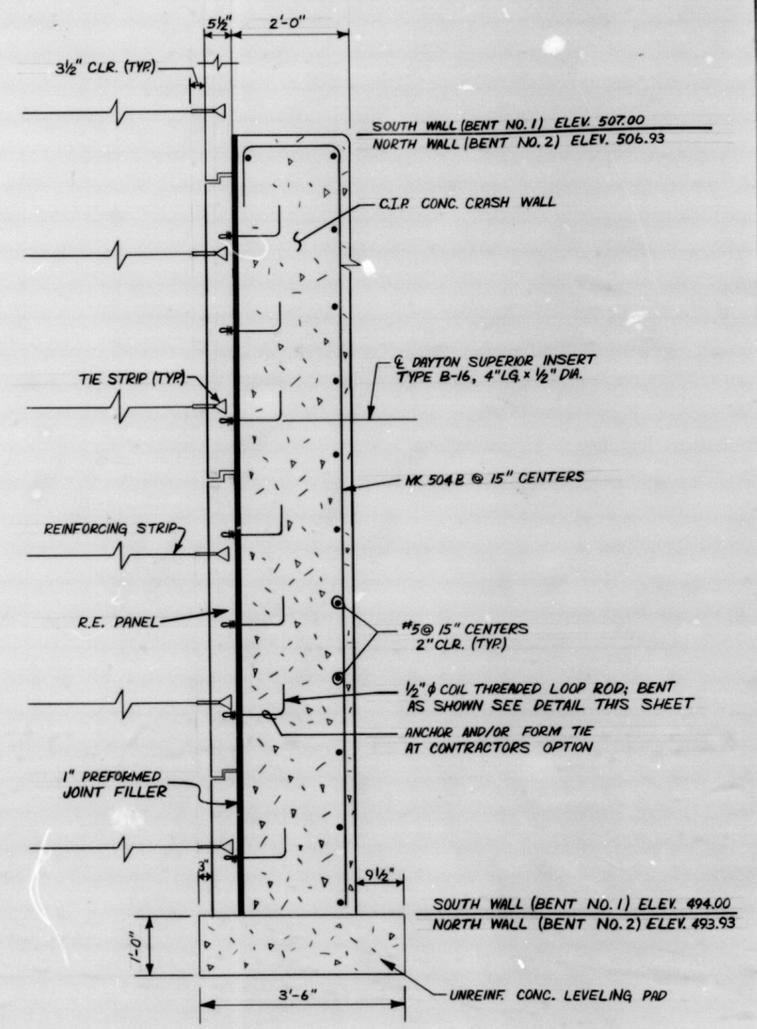
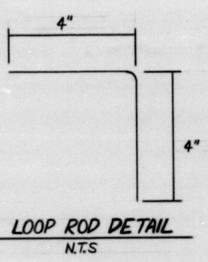
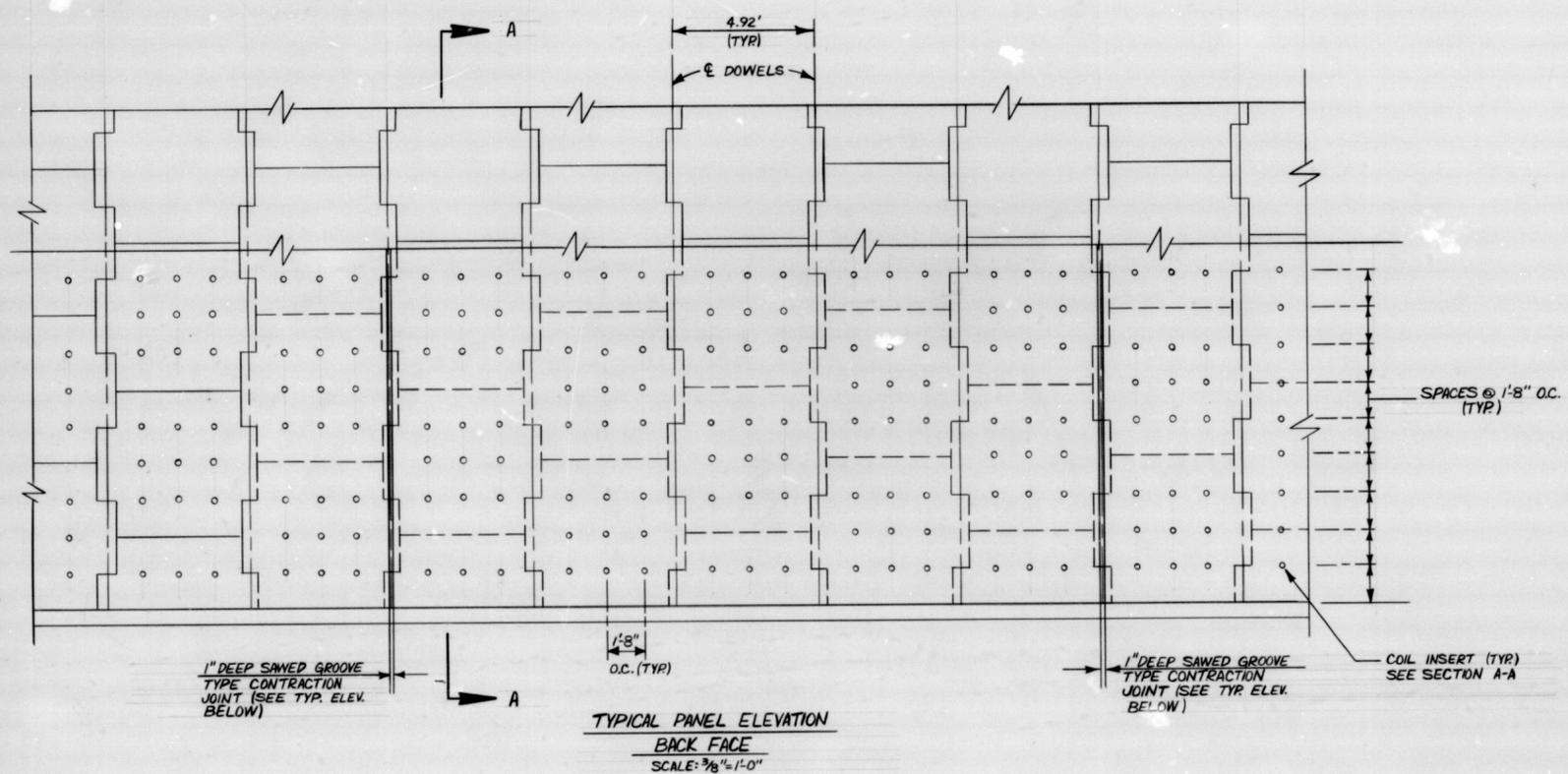
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DESIGNED: C.K.D.
DRAWN: C.K.D.
TRACED: C.K.D.

The Reinforced Earth Company
Roanoke Center, 1706 North Moore Street, Arlington, Virginia 22209
(703) 527-3434

DESIGNED BY: WAW
PROJ. ENGR.:
CHECKED BY: AJP
DATE: 6/2/89

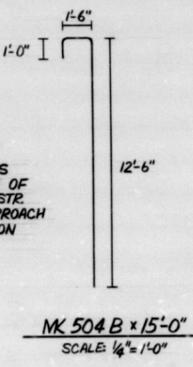
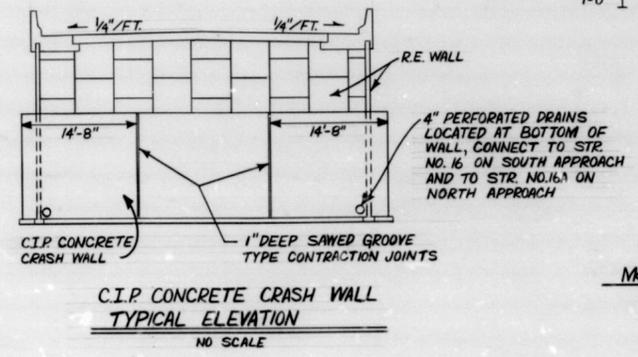
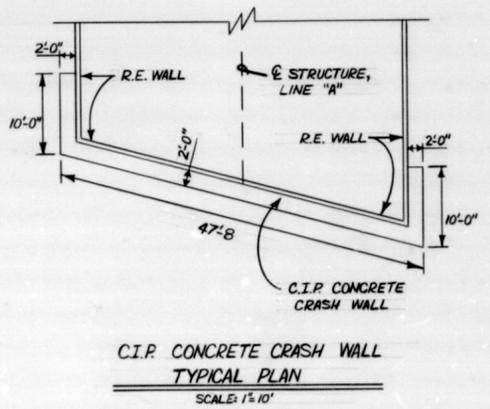
FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	14AMG-11740(2)	1987	34	80



NOTES:

- UNREINFORCED CONCRETE LEVELING PAD (3'-6" x 1'-0") TO BE POURED MONOLITHICALLY PRIOR TO SETTING R.E. FACE PANELS.
- C.I.P. CONCRETE CRASH WALL TO BE CONSTRUCTED AFTER R.E. WALL COMPLETED.
- THE COST FOR THE COIL INSERTS AND COIL THREADED LOOP RODS TO BE INCLUDED IN PRICE FOR CONCRETE FACE PANELS.
- FOR GENERAL NOTES SEE DRAWING C3 OF C7, SHT. NO. 19
- ALL REINFORCING STEEL IN C.I.P. CONCRETE CRASH WALL TO BE EPOXY-COATED.

BILL OF MATERIALS			
C.I.P. CONCRETE CRASH WALLS			
(INCLUDES CRASH WALLS AT BOTH BENTS)			
SIZE OR MK	NO. OF PIECES	LENGTH	WEIGHT
#5	48	24'-7"	1,230.7
#5	48	9'-6"	475.6
MK 504 B	110	15'-0"	1,721.0
TOTAL #5			3,427.3#
TOTAL EPOXY-COATED REINFORCING			3,427.3#
— CONCRETE —			
CLASS "A" IN CRASH WALLS			123.3 CYS.
CONCRETE LEVELING PAD, 3'-6" WIDE			119.0 LFT.

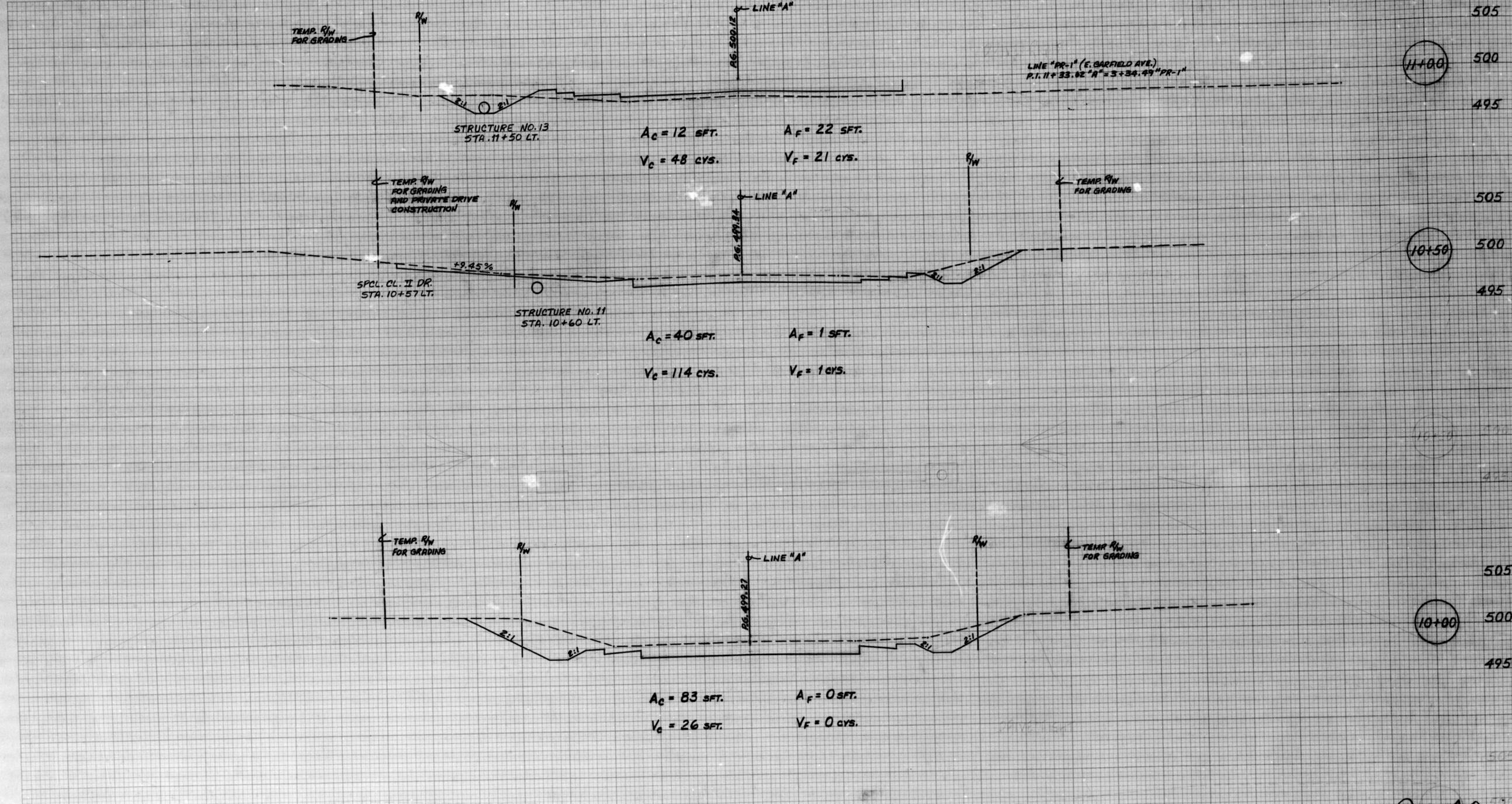


DETAILS

2-1-90
James S. Rice



B-18986

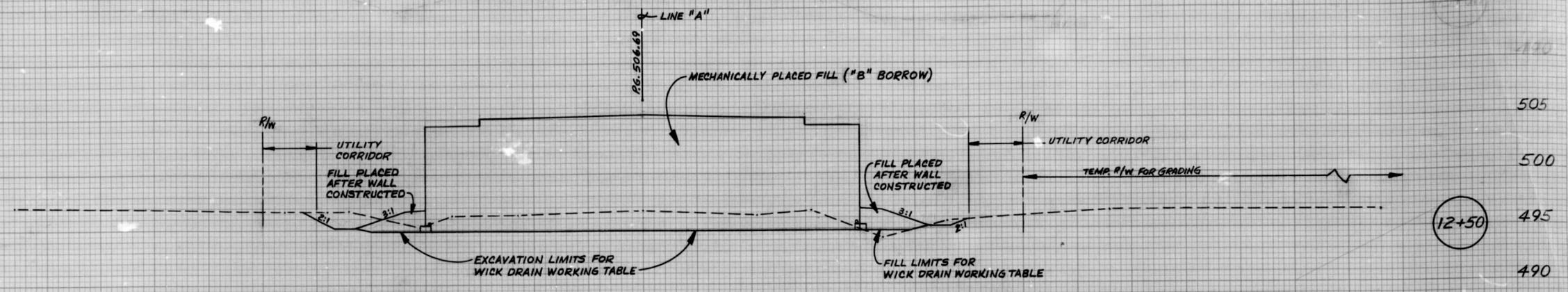


BEGIN PROJECT 9+83.00 "A"
 AC = 0 SFT. AF = 0 SFT.

James S. Rice
 REGISTERED PROFESSIONAL ENGINEER
 NO. 19308
 STATE OF INDIANA

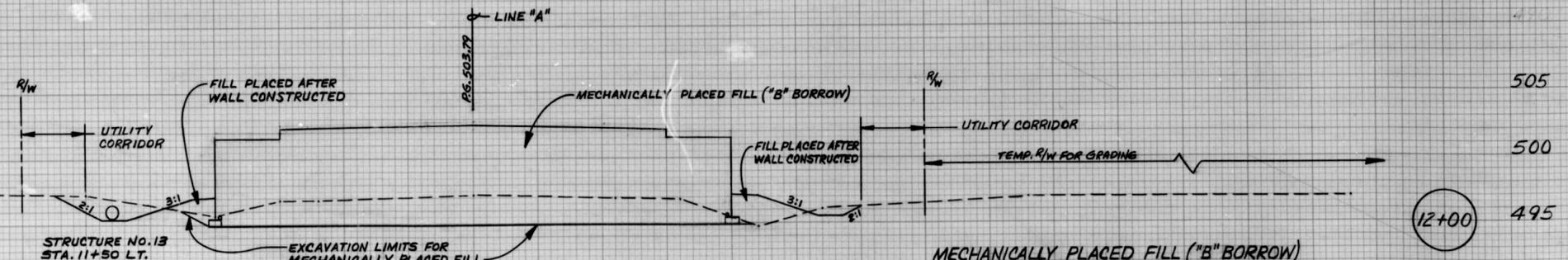
B-18986

LEVEL BOOK NO.		STATE		PROJECT NO.		FISCAL YEAR		SHEET NO.		TOTAL SHEETS	
5		IND.		HANE-WR062		1987		36		80	
LINE "A"											



$A_C = 70$ SFT. $A_F = 15$ SFT.
 $V_C = 142$ CYS. $V_F = 25$ CYS.

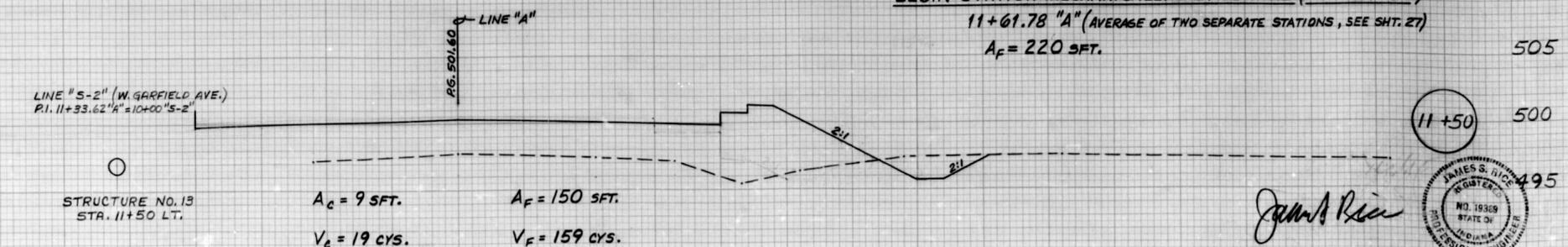
MECHANICALLY PLACED FILL ("B" BORROW)
 $A_F = 405$ SFT.
 $V_F = 644$ CYS.



$A_C = 83$ SFT. $A_F = 12$ SFT.
 $V_C = 85$ CYS. $V_F = 150$ CYS.

MECHANICALLY PLACED FILL ("B" BORROW)
 $A_F = 290$ SFT.
 $V_F = 361$ CYS.

BEGIN STATION MECHANICALLY PLACED FILL ("B" BORROW)
 11+61.78 "A" (AVERAGE OF TWO SEPARATE STATIONS, SEE SHT. 27)
 $A_F = 220$ SFT.



$A_C = 9$ SFT. $A_F = 150$ SFT.
 $V_C = 19$ CYS. $V_F = 159$ CYS.

James S. Rice
 REGISTERED PROFESSIONAL ENGINEER
 No. 19369
 STATE OF INDIANA

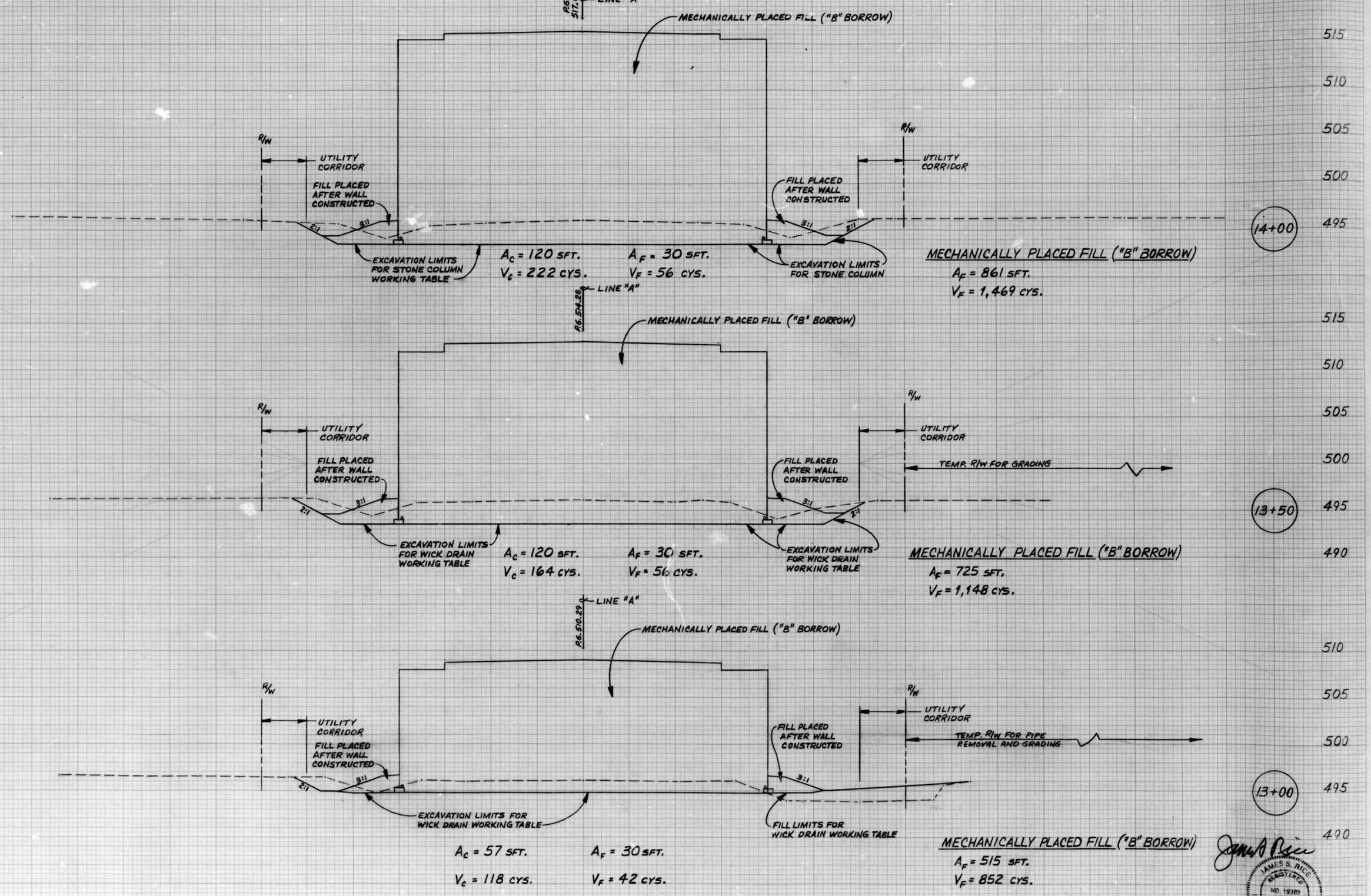
LEVEL BOOK NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	IND.	MANE-WMA-1	1987	37	80

FILE G/BS/010238

CROSS SECTIONS
Scale 1 inch = 5 feet

CUT FILL

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85



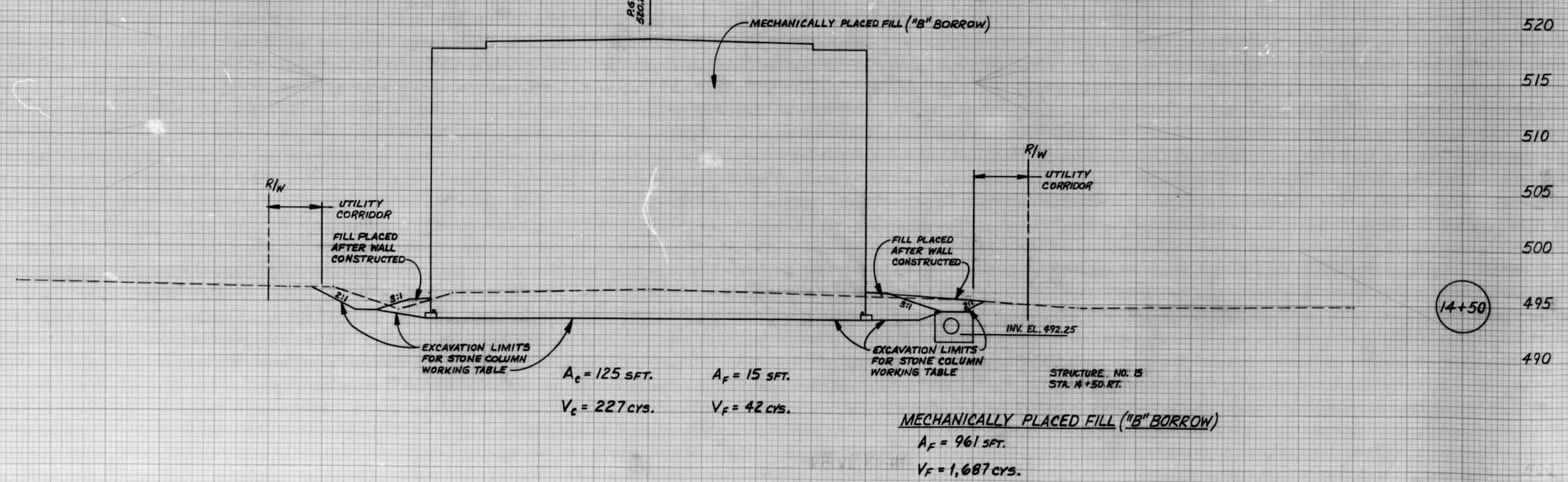
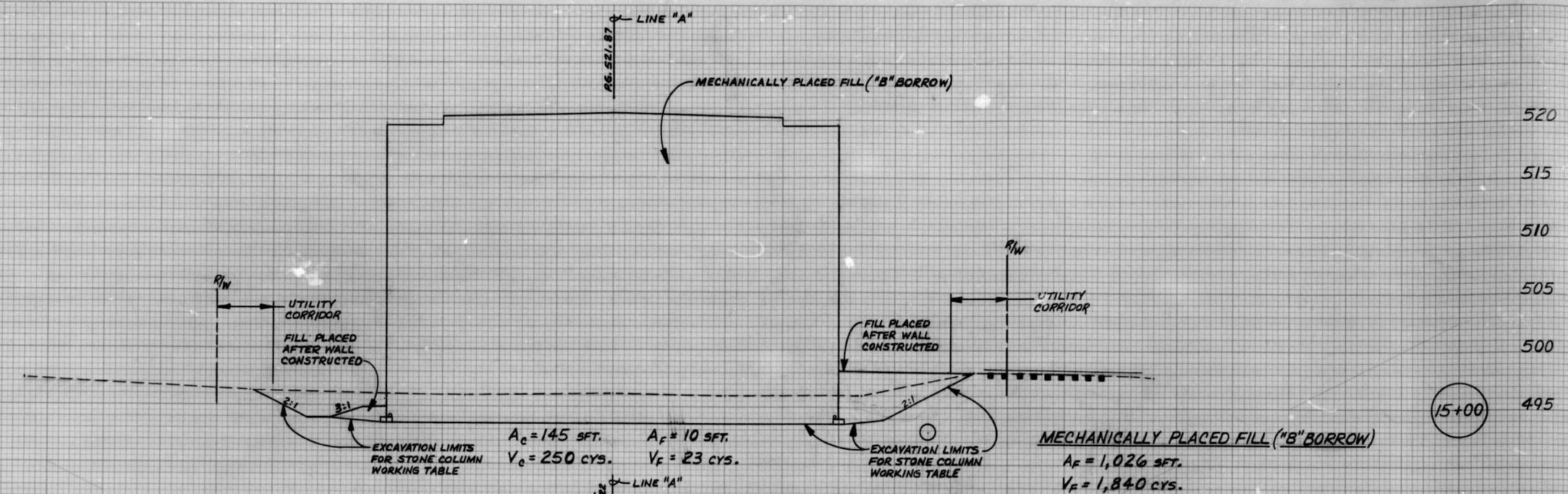
James S. Rice
 REGISTERED
 NO. 19398
 STATE OF INDIANA
 PROFESSIONAL ENGINEER

B-18986

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND. MARK-19406	1987	38	80	
LINE "A"					

CROSS SECTIONS
Scale 1 inch = 5 feet

80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85



James S. Rice

JAMES S. RICE
REGISTERED
NO. 15388
STATE OF
INDIANA
PROFESSIONAL ENGINEER

B-13986

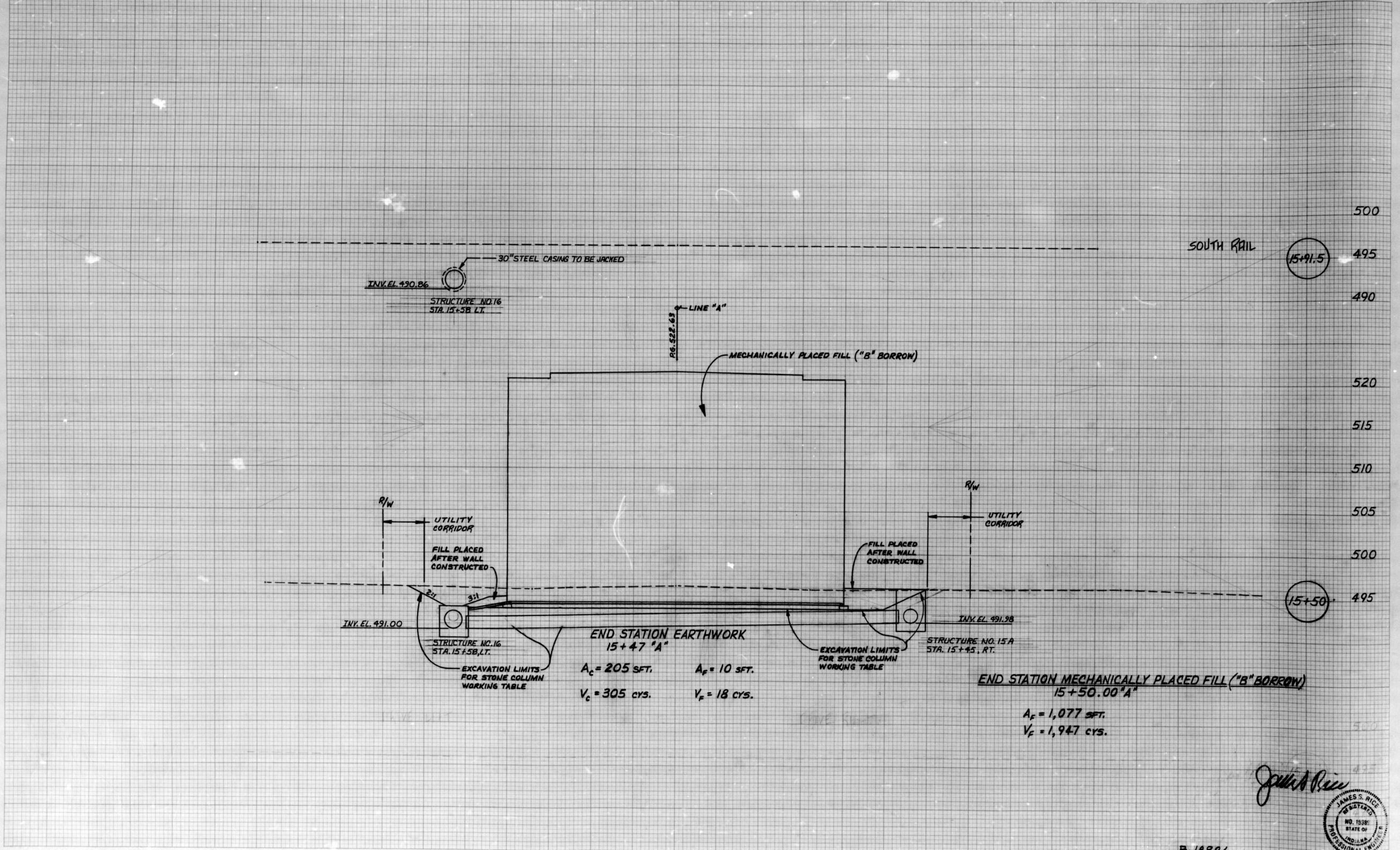
LEVEL BOOK NO.	FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	5	IND.	MANA-W40(2)	1987	39	80

FILE GIBSON 10288

LINE "A"

CROSS SECTIONS
Scale 1 inch = 5 feet

CUT FILL



END STATION EARTHWORK
15+47 'A'

$A_c = 205$ SFT.	$A_F = 10$ SFT.
$V_c = 305$ CYS.	$V_F = 18$ CYS.

END STATION MECHANICALLY PLACED FILL ("B" BORROW)
15+50.00 "A"

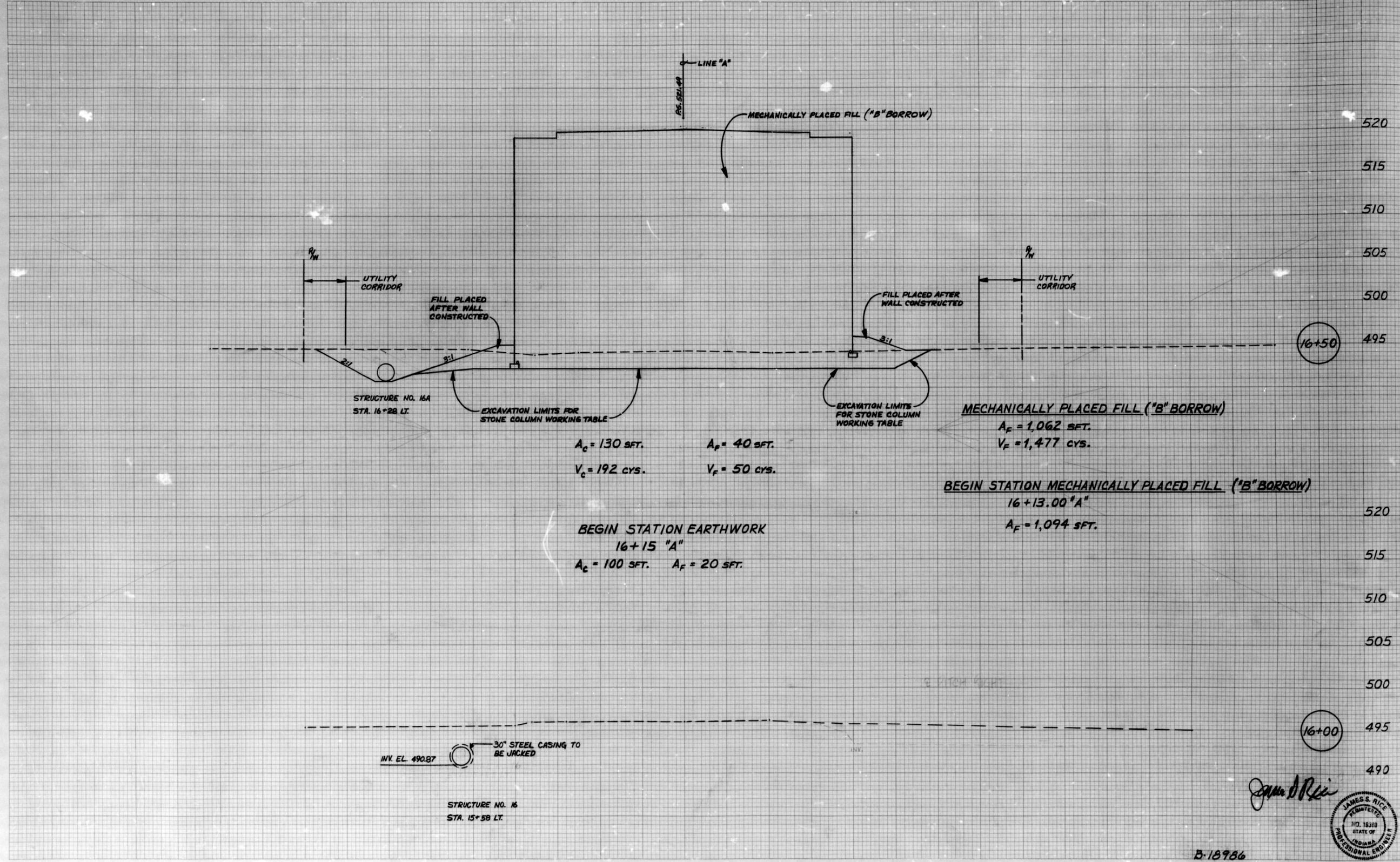
$A_F = 1,077$ SFT.
$V_F = 1,947$ CYS.



B-18986

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	MM4-1940/1987	40	90	90

LINE "A"

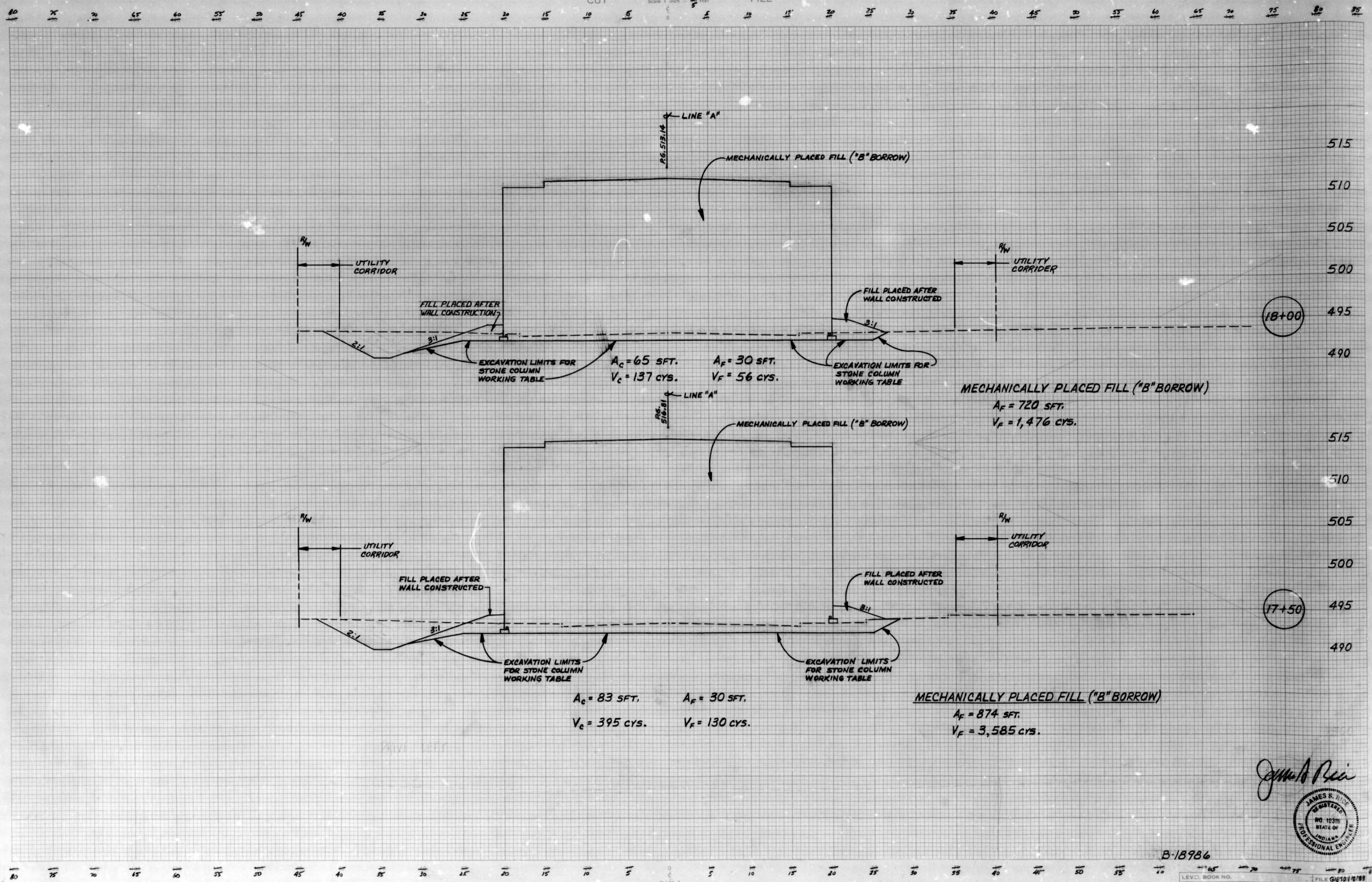


James S. Rice

B-18986



CROSS SECTIONS
Scale 1 inch = 5 feet



James S. Rice



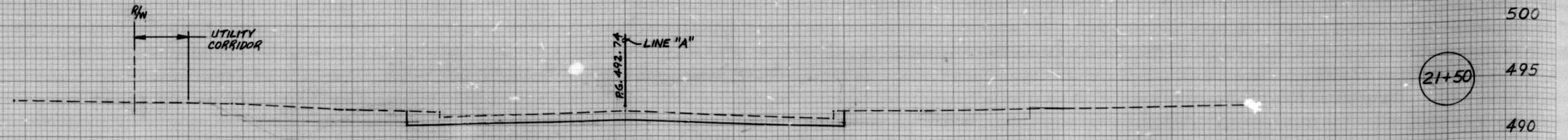
B-18986

LEV. BOOK NO.	STATE	PROJECT NO.	FISCAL YEAR	FILE	SHEET NO.	TOTAL SHEETS
	IND.	M&L-W9000/1987		G16501/0789	42	80

LINE "A"

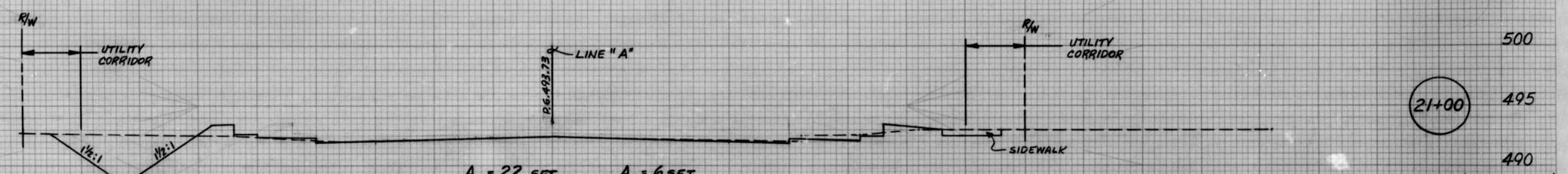
CROSS SECTIONS
Scale 1 inch = 10 feet

CUT FILL



$A_c = 32$ SFT. $A_f = 0$ SFT.
 $V_c = 50$ CYS. $V_f = 6$ CYS.

21+50

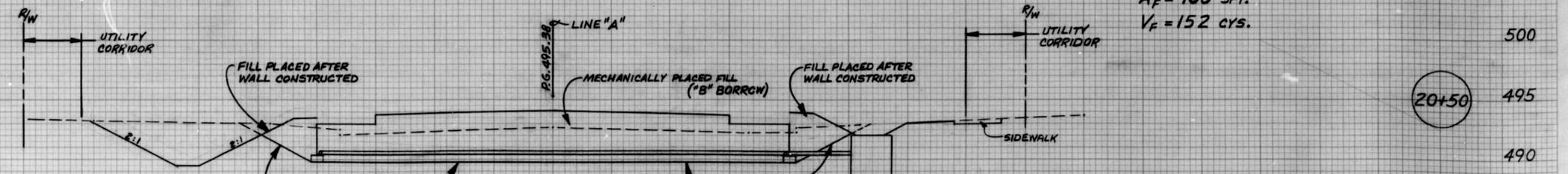


$A_c = 22$ SFT. $A_f = 6$ SFT.
 $V_c = 170$ CYS. $V_f = 33$ CYS.

END STATION MECHANICALLY PLACED FILL ("B" BORROW)
20+82.48 "A" (AVERAGE OF TWO SEPARATE STATIONS,
SEE SHT. 27)

$A_f = 100$ SFT.
 $V_f = 152$ CYS.

21+00



$A_c = 162$ SFT. $A_f = 30$ SFT.
 $V_c = 294$ CYS. $V_f = 51$ CYS.

MECHANICALLY PLACED FILL ("B" BORROW)

$A_f = 153$ SFT.
 $V_f = 330$ CYS.

20+50

John A. [Signature]



B-18786

LEVEL BOOK NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	IND.	IND. HMA-1100(1)	1987	44	90

CROSS SECTIONS
Scale 1 inch = 5 feet

END STATION 3+15 "PR-1"
 $A_c = 10$ SFT. $A_f = 100$ SFT.
 $V_c = 33$ CYS. $V_f = 129$ CYS.

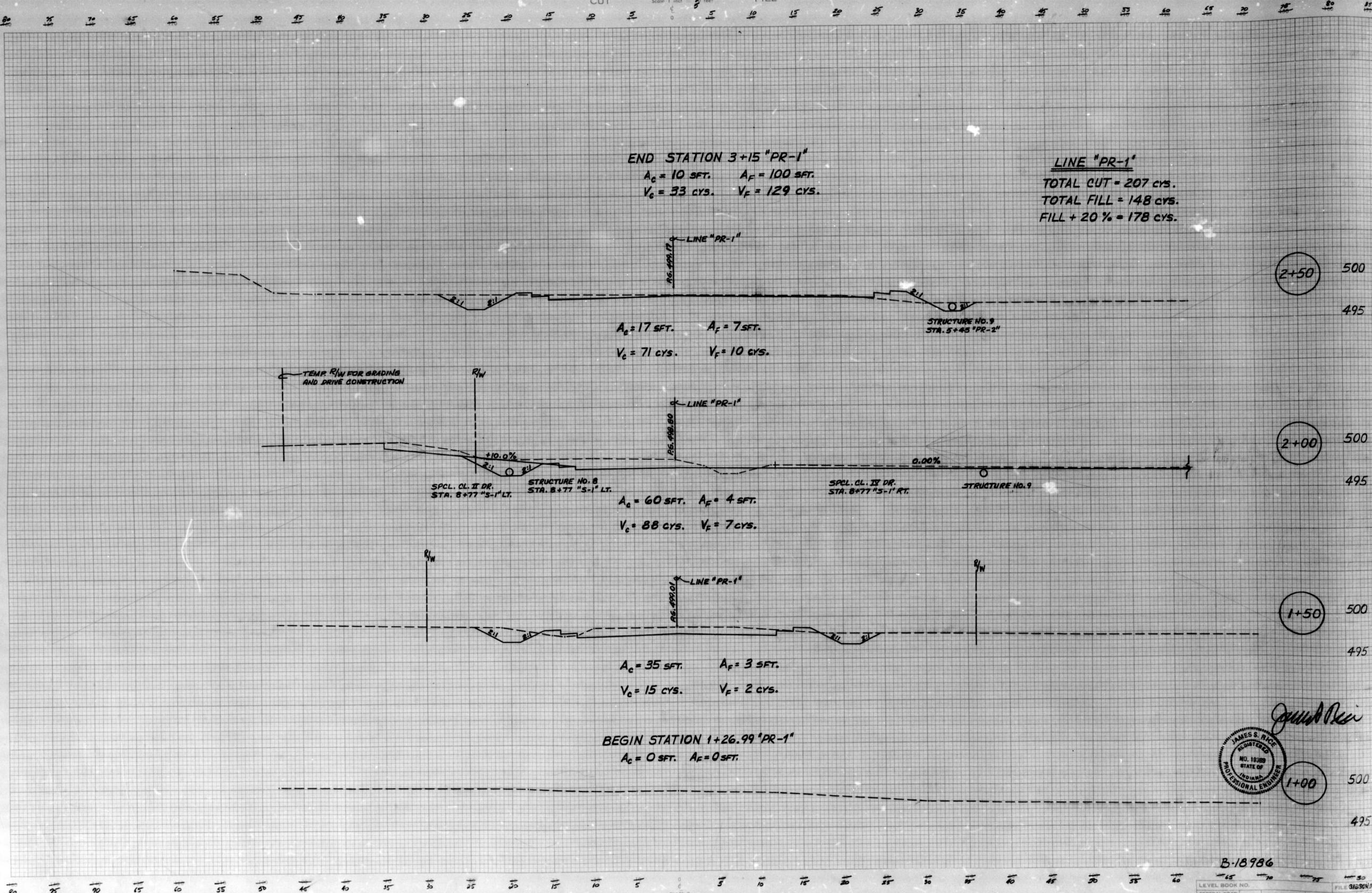
LINE "PR-1"
 TOTAL CUT = 207 CYS.
 TOTAL FILL = 148 CYS.
 FILL + 20% = 178 CYS.

$A_c = 17$ SFT. $A_f = 7$ SFT.
 $V_c = 71$ CYS. $V_f = 10$ CYS.

$A_c = 60$ SFT. $A_f = 4$ SFT.
 $V_c = 88$ CYS. $V_f = 7$ CYS.

$A_c = 35$ SFT. $A_f = 3$ SFT.
 $V_c = 15$ CYS. $V_f = 2$ CYS.

BEGIN STATION 1+26.99 "PR-1"
 $A_c = 0$ SFT. $A_f = 0$ SFT.



James S. Rice
 REGISTERED PROFESSIONAL ENGINEER
 NO. 15089
 STATE OF INDIANA
 1+00

B-18986

LEVEL BOOK NO.		PROJECT NO.		FISCAL YEAR		FILE NO.	
FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	FILE NO.	SHEET NO.	TOTAL SHEETS	DATE
5	IND	18986	1987	46	80		

CROSS SECTIONS
Scale 1 inch = 5 feet

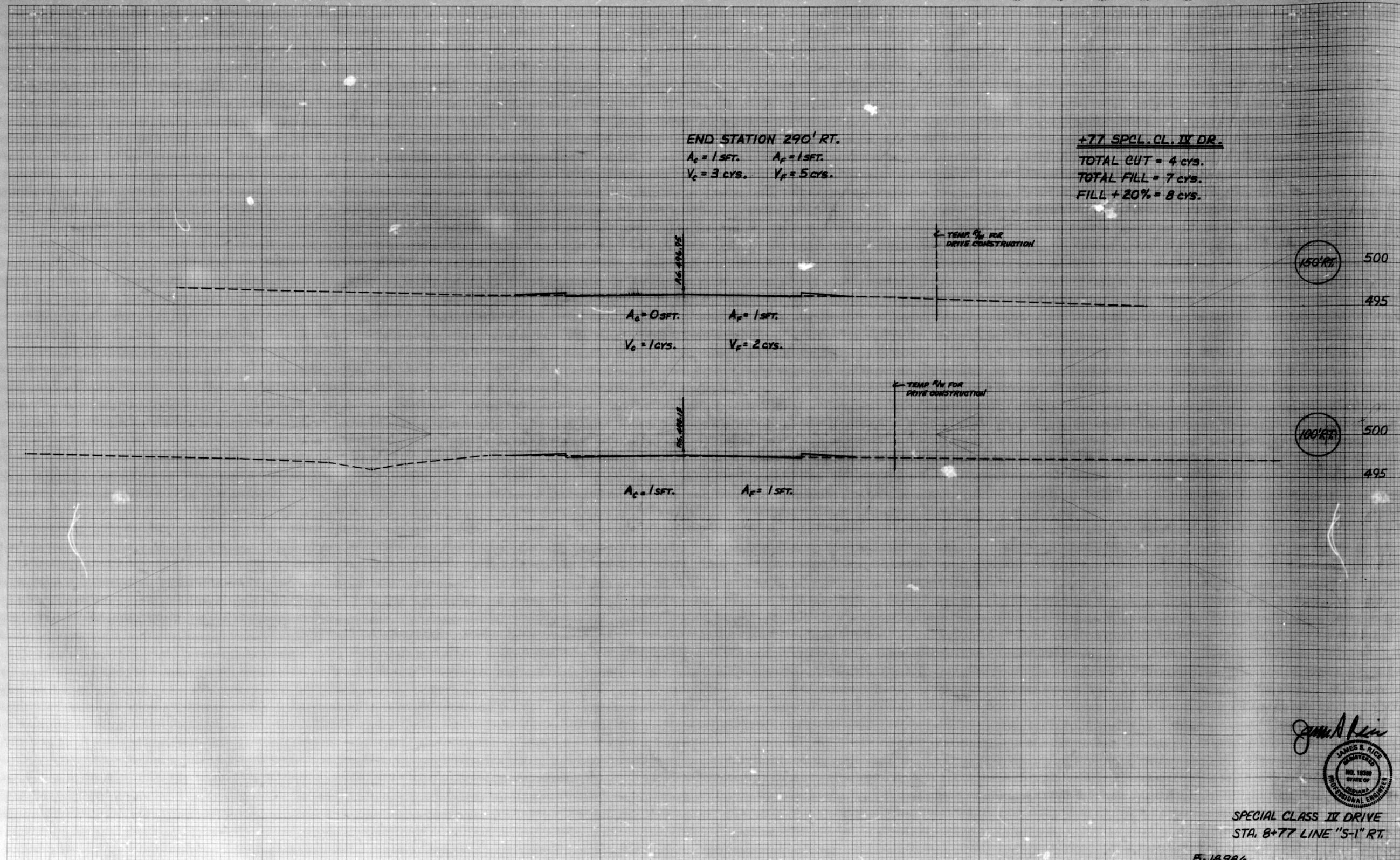
CUT 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85
FILL 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85

END STATION 290' RT.

$A_C = 1 \text{ SFT.}$ $A_F = 1 \text{ SFT.}$
 $V_C = 3 \text{ CYS.}$ $V_F = 5 \text{ CYS.}$

+77 SPCL. CL. IX DR.

TOTAL CUT = 4 cys.
TOTAL FILL = 7 cys.
FILL + 20% = 8 cys.



$A_C = 0 \text{ SFT.}$ $A_F = 1 \text{ SFT.}$
 $V_C = 1 \text{ CYS.}$ $V_F = 2 \text{ CYS.}$

$A_C = 1 \text{ SFT.}$ $A_F = 1 \text{ SFT.}$

James E. Rice
JAMES E. RICE
REGISTERED
MAY 1930
STATE OF
INDIANA
PROFESSIONAL ENGINEER

SPECIAL CLASS IX DRIVE
STA. 8+77 LINE "S-1" RT.

E-18986

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	FILE NO.	TOTAL SHEETS
5	IND.	MARKETWOOD 1987	1987	47	80

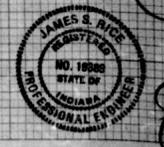
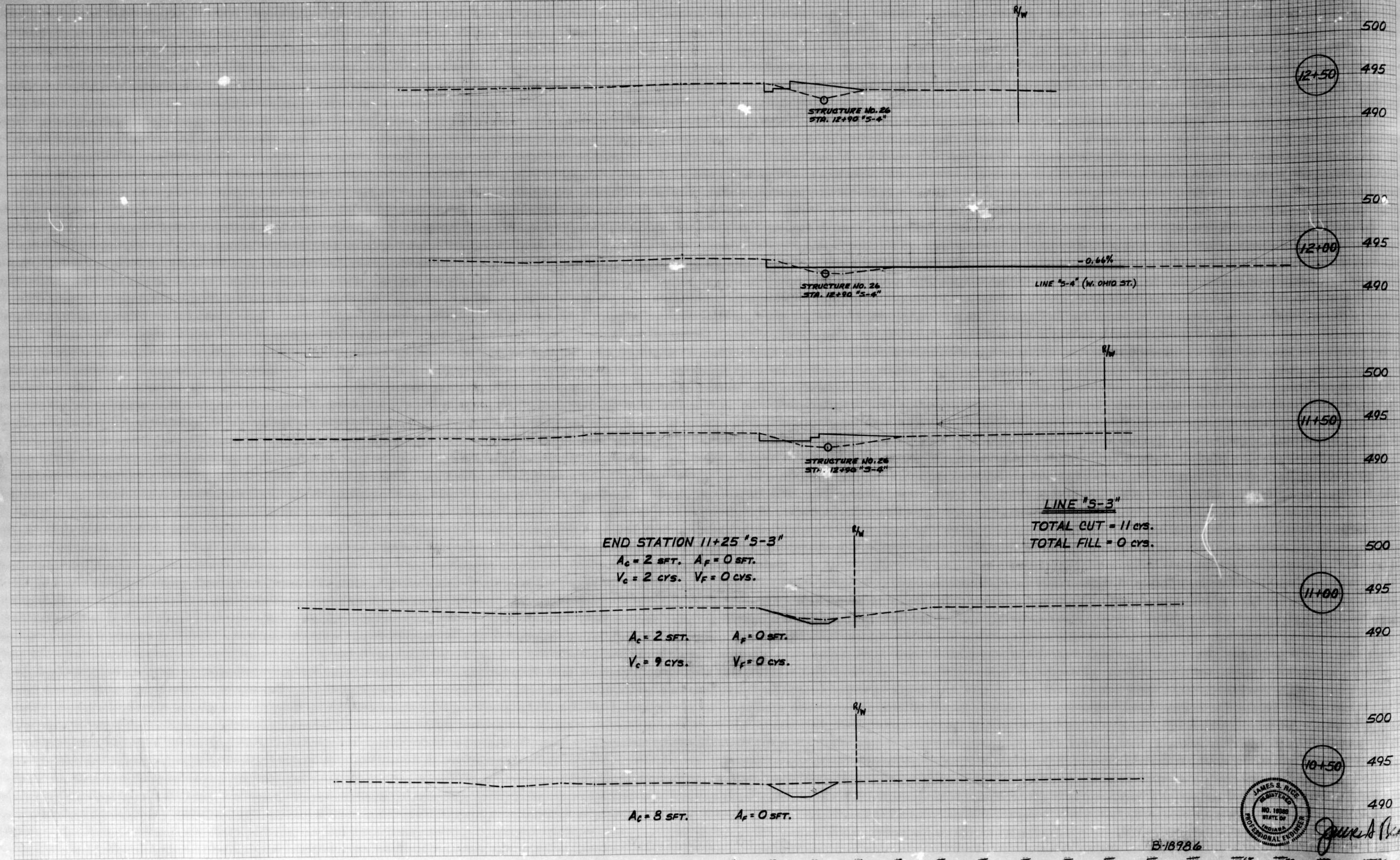
CROFS SECTIONS

Scale 1 inch = 5 feet

CUT

FILL

140 135 130 125 120 115 110 105 100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140



James S. Rice

B-1898.6

LEVEL BOOK NO.	FILE (GIBSON) 10162				
FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	MANA-WMA-1987	49	90	90

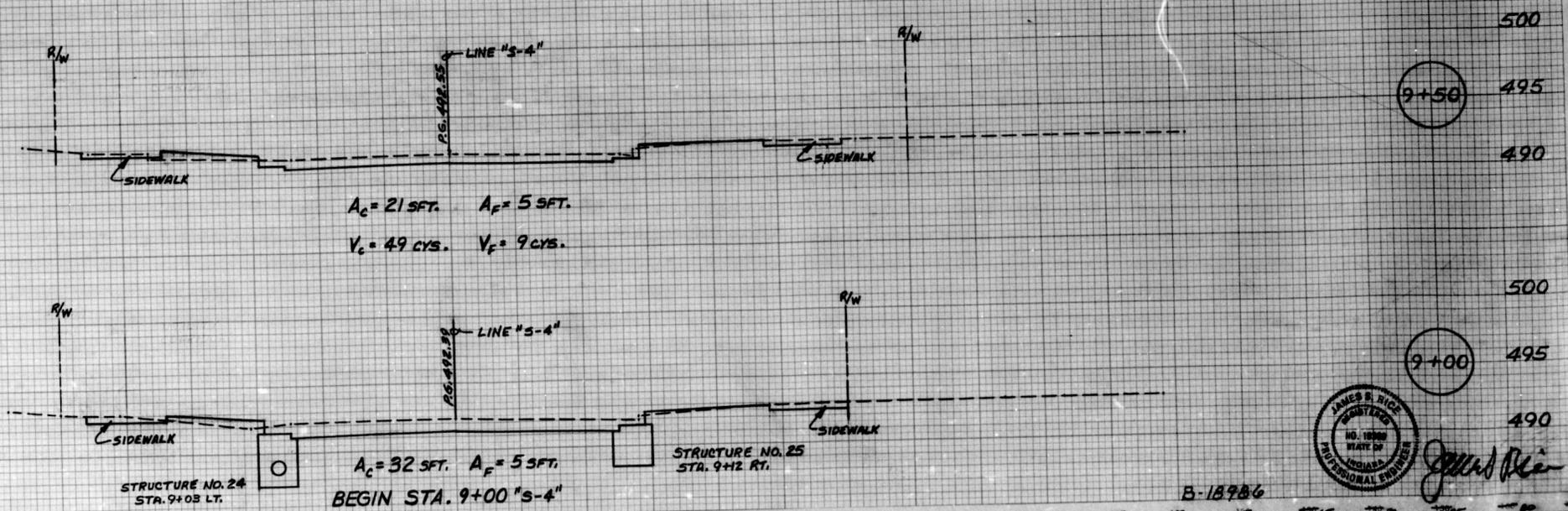
LINE "5-3"

CROSS SECTIONS
 Scale 1 inch = 5 feet
 CUT FILL

END STA. 9+80 "S-4"
 $A_c = 60$ SFT. $A_f = 10$ SFT.
 $V_c = 45$ CYS. $V_f = 8$ CYS.

$A_c = 21$ SFT. $A_f = 5$ SFT.
 $V_c = 49$ CYS. $V_f = 9$ CYS.

$A_c = 32$ SFT. $A_f = 5$ SFT.
 BEGIN STA. 9+00 "S-4"



James B. Rice

B-18986

LEVEL BOOK NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	IND.	MANA...	1987	50	80

LINE "S-4"

