MONON STUDY

SUPPLEMENTAL APPENDICES

ENGINEERING REPORT

January 1986

VOLUME # I

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Indianapolis, Indiana

MONON
THE HOOSIER LINE

WILLIAM - LYNN - JAMES, INC.

This segment of the report includes supplemental field information pertaining to the engineering portion of the Monon Study. This information is provided to establish a base upon which the methodology was derived in developing the assessments found in the Monon Study.

TABLE OF CONTENTS

TABLE OF CONTENTS

APPENDIX I

TRACK INSPECTION DATA SHEETS

APPENDIX I

RQAW	MADE BY SPG	DATE 9-12-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 1

FOR TRACK INSPECTION

MILE POST: 171 PHOTO No's: A-3, 4, 5

TRACK GAGE: 4'-8½" TRACK LINE: GOOD

TRACK SURFACE: OK

RAIL SIZE & TYPE: 115# BONDED

RAIL LENGTH: 39' RAIL CONDITION: GOOD

TIE SIZE: 9" x 7" x 8½' TIE SPACING: 24 / 39'

DEFECTIVE TIES: 7 PER 39'

BALLAST TYPE: #4 STONE CONDITION: GOOD

TIE PLATE TYPE: DOUBLE SHOULDER 7¾" x 5" (7¾" x 13")

TIE PLATE CONDITION: GOOD % TIE PLATED: 100

SPIKE SIZE: 5/4" x 6" SPIKING CONDITION:

#SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 6-BOLT STRAIGHT ANGLE BARS 1" x ⅞" BOLTS

JOINT CONDITION: GOOD

ANCHOR TYPE: FERROL

#ANCHOR / RAIL: 2 / 39' ANCHOR CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: CO- BRUSH & GRASS

TURNOUT SIZE: TYPE:

SWITCH CONDITION:

FROG CONDITION:

OTHER: REPLACE 4 TIES (MIN.) FOR CLASS 2 & 3 (40mph)
REPLACE 6 TIES (MIN.) FOR CLASS 3 (60mph)

RQAW	MADE BY SPG	DATE 9-12-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 2

FOR TRACK INSPECTION

MILE POST: 170 PHOTO No's: A-9, 10 & 11

TRACK GAGE: 56½" TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 112#

RAIL LENGTH: 39' RAIL CONDITION: GOOD

TIE SIZE: 7"x9"x8½' TIE SPACING: 24/39'

DEFECTIVE TIES: 9 PER 39'

BALLAST TYPE: #4 STONE CONDITION: OK

TIE PLATE TYPE: DOUBLE SHOULDER 7¾"x5" (7¾"x13")

TIE PLATE CONDITION: GOOD % TIE PLATED: 100

SPIKE SIZE: 5/8"x6" SPIKING CONDITION: 25% PLATES NOT SPIKED

#SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 6-BOLT STRAIGHT ANGLE BARS

JOINT CONDITION: GOOD

ANCHOR TYPE: FERPOL

#ANCHOR/RAIL: 12/39' ANCHOR CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: NEED TO TRIM TREES BACK. STRIPED RECENTLY

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: REPLACE 4 TIES (MIN.) FOR CLASS 2&3 (40mph)
REPLACE 6 TIES (MIN.) FOR CLASS 3 (60mph)

WEED GROWTH DEVELOPING

RQAW	MADE BY SPG	DATE 9-12-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 3

FOR TRACK INSPECTION

MILE POST: 169 PHOTO No's: A-17, 18 & 19

TRACK GAGE: 56 1/2" TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 100#, BONDED

RAIL LENGTH: 39' RAIL CONDITION: GOOD

SOME: 6"x8"x8'

TIE SIZE: 7"x9"x8 1/2' TIE SPACING: 24/39'

DEFECTIVE TIES: 14 PER 39'

BALLAST TYPE: #4 STONE CONDITION: GOOD

TIE PLATE TYPE: SINGLE SHOULDER 7"x10"

TIE PLATE CONDITION: GOOD % TIE PLATED: 1 TIE NOT PLATED

SPIKE SIZE: 5/8"x6 SPIKING CONDITION: x 25% LOOSE

#SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 4-BOLT STRAIGHT BARS

JOINT CONDITION: GOOD

ANCHOR TYPE: FERROL

#ANCHOR/RAIL: 8/39' ANCHOR CONDITION: OK

DRAINAGE: GOOD

VEGETATION: CLEAR BRUSH BACK

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: REPLACE 5 TIES (MIN.) FOR CLASS 2&3 (40mph)

REPLACE 8 TIES (MIN.) FOR CLASS 3 (60mph)

RQAW	MADE BY SPG	DATE 9-12-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 4

FOR TRACK INSPECTION

MILE POST: 164 PHOTO No.'s: A-26, 27&28

TRACK GAGE: 56 5/8" TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 112#, BONDED (SIDING 90#)

RAIL LENGTH: 39' RAIL CONDITION: GOOD

6"x8"x8'

TIE SIZE: 7"x9"x 8½' TIE SPACING: _____

DEFECTIVE TIES: 10 PER 39'

BALLAST TYPE: #4 STONE CONDITION: GOOD

TIE PLATE TYPE: DOUBLE SHOULDER PLATE 7¾" x 13"

TIE PLATE CONDITION: GOOD % TIE PLATED: 100

SPIKE SIZE: STD SPIKING CONDITION: 20% LOOSE

SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 6-HOLE STRAIGHT ANGLE BARS

JOINT CONDITION: GOOD

ANCHOR TYPE: FERROL

ANCHOR/RAIL: 12/39' ANCHOR CONDITION: OK

DRAINAGE: AVG

VEGETATION: WEED GROWTH

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: REPLACE 4 TIES (MIN.) FOR CLASS 2 & 3 (40mph)

REPLACE 6 TIES (MIN.) FOR CLASS 3 (60 mph)

FAIR TRAIN ON STORAGE SIDING TRACK

RQAW

MADE BY	DATE	JOB NO.
SPG	9-13-85	2229
CHECKED BY	DATE	SHEET NO.
		5

FOR TRACK INSPECTION

MILE POST: 167 PHOTO No's: D-29, 30 & 31

TRACK GAGE: 56 3/8" TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 100#, BONDED

RAIL LENGTH: 39 RAIL CONDITION: GOOD

TIE SIZE: BOTH TIE SPACING: 24/39'

DEFECTIVE TIES: 15 PER 39'

BALLAST TYPE: #4 STONE CONDITION: GOOD

TIE PLATE TYPE: 7" X 10" SINGLE SHOULDER

TIE PLATE CONDITION: OK % TIE PLATED: ALL

SPIKE SIZE: 5/8" X 6" SPIKING CONDITION: 43/48 LOOSE OR MISSING

SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 4-HOLE STRAIGHT ANGLE

JOINT CONDITION: GOOD

ANCHOR TYPE: FEDROL

ANCHOR / RAIL: 12/39' ANCHOR CONDITION: OK

DRAINAGE: OK

VEGETATION: OK

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: REPLACE 4 TIES (MIN.) FOR CLASS 2&3 (40mph)
REPLACE 7 TIES (MIN.) FOR CLASS 3 (60mph)

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 6

FOR TRACK INSPECTION

MILE POST: 165.0 PHOTO No's: E-1, 263

TRACK GAGE: 56 3/8" TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 112#, BONDED

RAIL LENGTH: 39' RAIL CONDITION: GOOD

TIE SIZE: BOTH TIE SPACING: 24/39'

DEFECTIVE TIES: 4 PER 39

BALLAST TYPE: #4 STONE (↙ LITTLE BIGGER THAN) CONDITION: GOOD

TIE PLATE TYPE: 7X10 SINGLE SHOULDER

TIE PLATE CONDITION: GOOD % TIE PLATED: ALL

SPIKE SIZE: 5/8" X 6" SPIKING CONDITION: 23/48 LOOSE

SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 4-HOLE STRAIGHT ANGLE

JOINT CONDITION: GOOD

ANCHOR TYPE: FERROC

ANCHOR/RAIL: 4/39' ANCHOR CONDITION: GOOD

DRAINAGE: OK

VEGETATION: NONE

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: REPLACE 1 TIE (MIN.) FOR CLASS 2&3 (40mph)
REPLACE 3 TIES (MIN.) FOR CLASS 3 (60mph)
SHOULD HAVE MIN 12 ANCHORS PER RAIL
& MONON STD & FRA STD
(L&N STD = 16 ANCHOR = / RAIL)

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 7

FOR TRACK INSPECTION

MILE POST: 163 PHOTO No's: E - 13, 14, 15, 16 & 17

TRACK GAGE: 56 5/8" MAIN, 56 3/4" FOR SIDING TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 112#, BONDED 75# ON SIDE TRACK

RAIL LENGTH: 39' RAIL CONDITION: GOOD

TIE SIZE: BOTH TIE SPACING: 24/39'

DEFECTIVE TIES: 9 PER 39'

SIDING - CINDERS

BALLAST TYPE: #4 STONE CONDITION: GOOD ON MAIN, SIDING FOULED

TIE PLATE TYPE: 7 3/4 x 13 DOUBLE SHOULDER

TIE PLATE CONDITION: GOOD % TIE PLATED: 1 MISSING

SPIKE SIZE: 5/8" x 6 SPIKING CONDITION: 23,48 LOOSE OR MISSING

SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 6-HOLE STRAIGHT ANGLE

JOINT CONDITION: GOOD

ANCHOR TYPE: FERROL

ANCHOR / RAIL: 6 / 39' ANCHOR CONDITION: OK

DRAINAGE: OK

VEGETATION: BAD ON SIDE TRACK, OK ON MAIN

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: SIDE TRACK TIES IN POOR CONDITION BUT RAIL OK

REPLACE 2 TIES (MIN.) FOR CLASS 2 & 3 (40mph)

REPLACE 5 TIES (MIN.) FOR CLASS 3 (60mph)

SIDING HAS 2-HOLE STRAIGHT L JOINTS

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 8

FOR TRACK INSPECTION

MILE POST: 161 PHOTO No's: E-22+23

TRACK GAGE: 56½" TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 112#, BONDED

RAIL LENGTH: 39' RAIL CONDITION: GOOD

TIE SIZE: BOTH TIE SPACING: _____

DEFECTIVE TIES: 7 PER 39'

BALLAST TYPE: #4 STONE CONDITION: GOOD

TIE PLATE TYPE: 7"X10" SINGLE SHOULDER

TIE PLATE CONDITION: GOOD % TIE PLATED: ALL

SPIKE SIZE: 5/8" x 6" SPIKING CONDITION: 28/48 LOOSE OR MISSING

SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 4-HOLE STRAIGHT ANGLE

JOINT CONDITION: LOOSE NUT ON ONE JOINT

ANCHOR TYPE: FERROL

ANCHOR/RAIL: 8/39' ANCHOR CONDITION: OK

DRAINAGE: GOOD

VEGETATION: LOT OF WEEDS ALONG EDGE OF BALLAST

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: REPLACE 2 TIES (MIN.) FOR CLASS 2&3 (40mph)
REPLACE 3 TIES (MIN.) FOR CLASS 3 (60mph)

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 9

FOR TRACK INSPECTION

MILE POST: 159 PHOTO No's: E-32, 33 & 34

TRACK GAGE: 56 3/4" TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 100 #, BONDED

RAIL LENGTH: 39' RAIL CONDITION: OK

TIE SIZE: BOTH TIE SPACING: 24/39'

DEFECTIVE TIES: 6 PER 39'

BALLAST TYPE: #4 CONDITION: GOOD

TIE PLATE TYPE: 7"X10" SINGLE SHOULDER

TIE PLATE CONDITION: GOOD % TIE PLATED: ALL

SPIKE SIZE: 5/8" X 6" SPIKING CONDITION: 27/48 LOOSE

SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 4-HOLE STRAIGHT ANGLE

JOINT CONDITION: BROKEN BOND

ANCHOR TYPE: FERROL

ANCHOR/RAIL: 12/39' ANCHOR CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: PLENTY OF WEEDS

TURNOUT SIZE: TYPE:

SWITCH CONDITION:

FROG CONDITION:

OTHER: REPLACE 1 TIES FOR CLASS 263 (40mph)

REPLACE 3 " " " 3 (60 mph)

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 10

FOR TRACK INSPECTION

MILE POST: 157 PHOTO No.'s: F-768

TRACK GAGE: 56 3/4" TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 100#, BONDED

RAIL LENGTH: 39 RAIL CONDITION: GOOD

TIE SIZE: BOTH TIE SPACING: 23/39'

DEFECTIVE TIES: 13 PER 39'

BALLAST TYPE: #4 STONE CONDITION: FAIR (AVG)

TIE PLATE TYPE: 7"x10" SINGLE SHOULDER

TIE PLATE CONDITION: GOOD % TIE PLATED: ALL

SPIKE SIZE: 5/8" x 6" SPIKING CONDITION: 40/46 LOOSE OR MISSING

SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 4-HOLE STRAIGHT ANGLE

JOINT CONDITION: GOOD

ANCHOR TYPE: FERROL

ANCHOR/RAIL: 11/39' ANCHOR CONDITION: OK

DRAINAGE: GOOD

VEGETATION: PLENTY OF WEEDS & SOME BRUSH

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: REPLACE 5 TIES (MIN.) FOR CLASS 2&3 (40 mph)

REPLACE 8 TIES (MIN.) FOR CLASS 3 (60 mph)

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 11

FOR TRACK INSPECTION

MILE POST: 155 PHOTO No's: F-31, 32, & 33

TRACK GAGE: 56 3/4" TRACK LINE: OK

TRACK SURFACE: ?

RAIL SIZE & TYPE: 112# - MAIN, 90# SIDING

RAIL LENGTH: 39' RAIL CONDITION: OK

TIE SIZE: BOTH TIE SPACING: 23/39'

DEFECTIVE TIES: 15 PER 39'

BALLAST TYPE: #4 STONE CONDITION: FAIR

TIE PLATE TYPE: 7 3/4" x 13" DOUBLE SHOULDER

TIE PLATE CONDITION: OK % TIE PLATED: 3 OFF @ BAD TIES

SPIKE SIZE: 5/8" x 6" SPIKING CONDITION: 31/46 LOOSE OR MISSING

#SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 6-HOLE STRAIGHT ANGLE

JOINT CONDITION: OK

ANCHOR TYPE: FERROL

#ANCHOR/RAIL: 9/39' ANCHOR CONDITION: OK - SOME LOOSE

DRAINAGE: OK

VEGETATION: SHORT WEED GROWTH OVER TRACKS

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: REPLACE 5 TIES (MIN.) FOR CLASS 2&3 (40mph)

REPLACE 8 TIES (MIN.) FOR CLASS 3 (60 mph)

50 % OF TIES ON SIDING ARE BAD

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 12

FOR TRACK INSPECTION

MILE POST: 153 PHOTO No's: G-788

TRACK GAGE: 56½" TRACK LINE: OK

TRACK SURFACE: FAIR - JOINT DOWN ABOUT 1"

RAIL SIZE & TYPE: 100#, BONDED

RAIL LENGTH: 39' RAIL CONDITION:

TIE SIZE: BOTH TIE SPACING: 24/39'

DEFECTIVE TIES: 13 PER 39'

BALLAST TYPE: #4 STONE CONDITION: FAIR

TIE PLATE TYPE: 7"X10" SINGLE SHOULDER

TIE PLATE CONDITION: OK % TIE PLATED: ALL

SPIKE SIZE: 5/8"X6" SPIKING CONDITION: 35/48 LOOSE & MISSING

#SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 4-HOLE STRAIGHT ANGLE

JOINT CONDITION: OK

ANCHOR TYPE: FERROC

#ANCHOR/RAIL: 10/39' ANCHOR CONDITION: OK

DRAINAGE: GOOD

VEGETATION: PLENTY OF WEEDS @ BALLAST EDGE & SOME BRUSH

TURNOUT SIZE: TYPE:

SWITCH CONDITION:

FROG CONDITION:

OTHER: REPLACE 5 TIES FOR CLASS 2&3 (40 mph)

" 4 " " " 3 (60 mph)

RQAW	MADE BY SP6	DATE 9-13-95	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 13

FOR TRACK INSPECTION

MILE POST: 151 PHOTO No's: 6-16 & 17

TRACK GAGE: 56 5/8" TRACK LINE: OK

TRACK SURFACE: UNLEVEL AT BAD JOINT TIE

RAIL SIZE & TYPE: 100#, BONDED

RAIL LENGTH: 39' RAIL CONDITION: GOOD

TIE SIZE: BOTH TIE SPACING: 24/39'

DEFECTIVE TIES: 14 PER 39'

BALLAST TYPE: #4 STONE CONDITION: GOOD

TIE PLATE TYPE: 7" X 10" SINGLE SHOULDER

TIE PLATE CONDITION: GOOD % TIE PLATED: ALL

SPIKE SIZE: 5/8" X 6" SPIKING CONDITION: 27/48 LOOSE OR MISSING

SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 4-HOLE STRAIGHT ANGLE

JOINT CONDITION: LOOSE BOLT

ANCHOR TYPE: FERROL

ANCHOR/RAIL: 14/39' ANCHOR CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: HIGH WEEDS ON BOTH SIDES OF BALLAST

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: REPLACE 5 TIES FOR CLASS 2 & 3 (40 mph)

" 8 " " " 3 (60 mph)

SALVAGE VALUE OF BAD WHITE TIES

ABOUT $1.00

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 14

FOR TRACK INSPECTION

MILE POST: 149 PHOTO No's: G-20 & 21

TRACK GAGE: 56 1/2" TRACK LINE: GOOD

TRACK SURFACE: GOOD

RAIL SIZE & TYPE: 100#, BONDED

RAIL LENGTH: 39' RAIL CONDITION: GOOD

TIE SIZE: BOTH TIE SPACING: 25/39'

DEFECTIVE TIES: 17 PER 39'

BALLAST TYPE: #4 STONE CONDITION: FAIR

TIE PLATE TYPE: 7"X10" SINGLE SHOULDER

TIE PLATE CONDITION: GOOD % TIE PLATED: ALL

SPIKE SIZE: 5/8" x 6" SPIKING CONDITION: 38/50 LOOSE

SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 4-HOLE STRAIGHT ANGLE

JOINT CONDITION: GOOD

ANCHOR TYPE: FERROL

ANCHOR/RAIL: 10/39' * ANCHOR CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: WEEDS & LITTLE BRUSH ON BOTH SIDES

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: REPLACE 6 TIES FOR CLASS 2 & 3 (40 mph)
11 10 11 11 11 3 (60 mph)

* ANCHORS ARE BOXED IN AROUND TIE (BOTH SIDES)

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 15

FOR TRACK INSPECTION

MILE POST: 147 PHOTO No's: C-25 & 26

TRACK GAGE: 56 1/2" TRACK LINE: GOOD

TRACK SURFACE: DROPPED AT JOINT

RAIL SIZE & TYPE: 100#, BONDED

RAIL LENGTH: 39' RAIL CONDITION: GOOD

TIE SIZE: BOTH TIE SPACING: 25/39'

DEFECTIVE TIES: 15 PER 39'

BALLAST TYPE: #4 STONE CONDITION: GOOD

TIE PLATE TYPE: 7" X 10" SINGLE SHOULDER

TIE PLATE CONDITION: GOOD % TIE PLATED: ALL

SPIKE SIZE: 5/8" x 6" SPIKING CONDITION: 35/50 LOOSE OR MISSING

#SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 4-HOLE STRAIGHT ANGLE

JOINT CONDITION: GOOD

ANCHOR TYPE: FEPROL

#ANCHOR/RAIL: 11/39' ANCHOR CONDITION: GOOD

DRAINAGE: FAIR

VEGETATION: WEEDS ACROSS ROADBED

TURNOUT SIZE: _____ TYPE: _____

SWITCH. CONDITION: _____

FROG CONDITION: _____

OTHER: REPLACE 5 TIES FOR CLASS 2&3 (40 MPH)
" 8 " " " 3 (60 MPH

V. NESBITT RECOMMENDS RESURFACING ENTIRE LENGTH OF TRACK & THEN TIGHTENING ALL SPIKES

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 16

FOR TRACK INSPECTION

MILE POST: 145 PHOTO No's: 6-33, 34, 35 & 36

TRACK GAGE: 56 3/8" TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 100# WELDED 36' SECTIONS

RAIL LENGTH: 1440' RAIL CONDITION: GOOD

TIE SIZE: BOTH TIE SPACING: 22/36'

* DEFECTIVE TIES: 10 PER 36'

BALLAST TYPE: #4 STONE CONDITION: GOOD

TIE PLATE TYPE: 7" X 10" SINGLE SHOULDER

TIE PLATE CONDITION: GOOD % TIE PLATED: ALL

SPIKE SIZE: 5/8" x 6" SPIKING CONDITION: 32/44 LOOSE OR MISSING

#SPIKES PER PLATE - GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: NO JOINTS

JOINT CONDITION: —

ANCHOR TYPE: FERROL

#ANCHOR/RAIL: 2, EVERY OTHER TIE ANCHOR CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: PLENTY WEEDS & LITTLE BRUSH

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: REPLACE 5 TIES FOR CLASS 2 & 3 (40 mph)

" 8 " " " 3 (60 mph)

- PER 36' LENGTH

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 17

FOR TRACK INSPECTION

MILE POST: 143 PHOTO No's: H-0, 162

TRACK GAGE: 56 3/4" TRACK LINE: OK

TRACK SURFACE: FAIR

RAIL SIZE & TYPE: 100 # WELDED

RAIL LENGTH: — RAIL CONDITION: GOOD

TIE SIZE: BOTH TIE SPACING: 22/36'

DEFECTIVE TIES: 10 PER 36'

BALLAST TYPE: #4 STONE CONDITION: GOOD

TIE PLATE TYPE: 7"X10" SINGLE SHOULDER

TIE PLATE CONDITION: GOOD % TIE PLATED: ALL

SPIKE SIZE: 5/8" x 6" SPIKING CONDITION: 27/44 LOOSE OR MISSING

SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: WELDED

JOINT CONDITION: —

ANCHOR TYPE: FERROL

ANCHOR/RAIL: 2 EVERY OTHER TIE ANCHOR CONDITION: SKEWED, NEED TO REINSTALL

DRAINAGE: GOOD

VEGETATION: HIGH WEEDS & BRUSH

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: 1. ANCHORS START OUT 2 ON EVERY TIE (BOXED IN) FOR 20 RAIL LENGTHS (36') PAST JOINT.

2. DEFECTIVE RAIL, SO 2 JOINTS CUT IN AT MP 143 ON E. RAIL.

REPLACE 6 FOR CLASS 2 & 3 (40 mph)

" 8 " " 3 (60 mph)

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 18

FOR TRACK INSPECTION

MILE POST: 141 PHOTO No's: H-586

TRACK GAGE: 56 3/8" TRACK LINE: FAIR

TRACK SURFACE: FAIR

RAIL SIZE & TYPE: 90# RAIL, BONDED

RAIL LENGTH: 33' RAIL CONDITION: FAIR

TIE SIZE: BOTH TIE SPACING: 19/33'

DEFECTIVE TIES: 9 PER 33

BALLAST TYPE: #4 STONE CONDITION: GOOD

TIE PLATE TYPE: 7X10 SINGLE SHOULDER, COMPOSITE

TIE PLATE CONDITION: OK % TIE PLATED: ALL

SPIKE SIZE: 5/8" x 6" SPIKING CONDITION: 24/38 LOOSE OR MISSING

#SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 4-HOLE STRAIGHT ANGLE

JOINT CONDITION: GOOD

ANCHOR TYPE: NO

#ANCHOR/RAIL: — ANCHOR CONDITION: —

DRAINAGE: GOOD

VEGETATION: WEEDS & BRUSH

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: REPLACE 4 TIES FOR CLASS 2 & 3 (90MPH)

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 14

FOR TRACK INSPECTION

MILE POST: 139 PHOTO No's: H - 7, 8, 9, 10 & 11

TRACK GAGE: 56½" TRACK LINE: FAIR

TRACK SURFACE: BAD

RAIL SIZE & TYPE: 90#, BONDED

RAIL LENGTH: 33' RAIL CONDITION: FAIR

TIE SIZE: BOTH TIE SPACING: 19/33'

DEFECTIVE TIES: 7 PER 33'

BALLAST TYPE: #4 CONDITION: GOOD

TIE PLATE TYPE: 7 X 10 SINGLE SHOULDER COMPOSITE

TIE PLATE CONDITION: GOOD % TIE PLATED: ALL

SPIKE SIZE: 5/8" x 6" SPIKING CONDITION: ALL LOOSE

#SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 4-HOLE STRAIGHT ANGLE

JOINT CONDITION: LOOSE

ANCHOR TYPE: NONE

#ANCHOR/RAIL: — ANCHOR CONDITION: —

DRAINAGE: GOOD

VEGETATION: HIGH WEEDS & BRUSH ALONG BALLAST EDGE

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: LOOSE JOINTS FROM 140.5 NORTH TO ≈ 138.7
(100* RAIL AT 138.7)

REPLACE 3 TIES FOR CLASS 2 & 3 (40 mph)

" 6 " " " 3 (60 mph)

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 20

FOR TRACK INSPECTION

MILE POST: 138 PHOTO No.'s: H-12, 13, 14 & 15

TRACK GAGE: 56 1/8" TRACK LINE: BAD

TRACK SURFACE: BAD

RAIL SIZE & TYPE: 100#

RAIL LENGTH: 39' RAIL CONDITION: FAIR

TIE SIZE: BOTH TIE SPACING: 25/39'

DEFECTIVE TIES: 20 PER 39'

BALLAST TYPE: #4 STONE CONDITION: GOOD

TIE PLATE TYPE: 7 X 10 SINGLE SHOULDER COMPOSITE

TIE PLATE CONDITION: GOOD % TIE PLATED: ALL

SPIKE SIZE: 5/8" x 6" SPIKING CONDITION: 47/50 LOOSE OR MISSI

#SPIKES PER PLATE - GAGE SIDE: 1 FIELD SIDE: 1

JOINT TYPE: 4-HOLE STRAIGHT ANGLE

JOINT CONDITION: FAIR - SOME BOLTS LOOSE

ANCHOR TYPE: FERROL

#ANCHOR/RAIL: 12/39' ANCHOR CONDITION: SOME LOOSE

DRAINAGE: GOOD

VEGETATION: HIGH WEEDS & BRUSH

TURNOUT SIZE: _____ TYPE: _____

SWITCH CONDITION: _____

FROG CONDITION: _____

OTHER: REPLACE 8 TIES FOR CLASS 263 (45 mph)

11 12 11 11 11 3 (65 mph)

TIES CUT BY DERAILED TRAIN AT BRIDGE AT MP 137.7

APPENDIX II

TURNOUT INSPECTION DATA SHEETS

APPENDIX II

RQAW	MADE BY SPG	DATE 9-12-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 1

FOR TRACK INSPECTION — TURNOUT

MILE POST: 168.5 PHOTO No's: _____

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100# _____

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: 7"x9"x16' UNDER FROG TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

#SPIKES PER PLATE – GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

#ANCHOR /RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

16'-6" HEEL TO FROG

TURNOUT SIZE: #10 TYPE: RIGID FROG (RBM)

SWITCH CONDITION: GOOD, BANNER BENT BY BRUSH CUTTER

FROG CONDITION: GOOD

OTHER: RH TO SOUTH

RQAW	MADE BY SPC	DATE 9-12-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 2

FOR TRACK INSPECTION – TURNOUT

MILE POST: 168.1 PHOTO No's: _____

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE – GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: RIGHT HAND TO NORTH, RIGID FROG (RBM)

SWITCH CONDITION: GOOD, TIES FAIR

FROG CONDITION: GOOD

OTHER: FOR SIDING TRACK THAT FAIR TRAIN USES

RQAW	MADE BY SPG	DATE 9-12-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 3

FOR TRACK INSPECTION — TURNOUT

MILE POST: 167.72 PHOTO No.'s: A-31

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE — GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: SPRING-RAIL FROG

SWITCH CONDITION: GOOD

FROG CONDITION: GOOD

OTHER: RH TO SOUTH

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 4

FOR TRACK INSPECTION – TURNOUT

MILE POST: 167.6 PHOTO No.'s: _____

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: SIDING - 90# MAIN - 112# _____

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE – GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: RIGID (RBM), FROG

SWITCH CONDITION: OK

FROG CONDITION: OK

OTHER: FOR SIDING TRACK THAT STATE FAIR TRAIN USES LH TO SOUTH

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 5

FOR TRACK INSPECTION — TURNOUT

MILE POST: 164.3 PHOTO No's: _____

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 115# — THRU SWITCH & FROG ONLY

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE — GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: RIGID FROG (RBM)

SWITCH CONDITION: GOOD, INSTALLED ABOUT 5-6 YEARS AGO

FROG CONDITION: GOOD " " "

OTHER: BY WICKES LUMBER CO.

TIES IN GOOD CONDITION

RH TO NORTH

RQAW	MADE BY SPG	DATE 9-13-95	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 6

FOR TRACK INSPECTION - TURNOUT

MILE POST: 163.7 PHOTO No's: _____

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112# _____

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE - GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: RIGID FROG (RDM)

SWITCH CONDITION: GOOD, TIES GOOD (ABOUT 10 YEARS OLD)

FROG CONDITION: GOOD

OTHER: TURNOUT TO TRUSS MFG.

LH TO SOUTH

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 7

FOR TRACK INSPECTION - TURNOUT

MILE POST: 163.27 PHOTO No's: _____

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112 #

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE - GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: RIGID FROG (RBM)

SWITCH CONDITION: GOOD, TIES OK IN TURNOUT, SOME BAD AFTER

FROG CONDITION: GOOD

OTHER: SWITCH FOR SIDING

LH TO NORTH

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 8

FOR TRACK INSPECTION – TURNOUT

MILE POST: 162.8 PHOTO No's: _____

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE – GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: SPRING – RAIL FROG

SWITCH CONDITION: GOOD, TIES OK

FROG CONDITION: GOOD

OTHER: TURNOUT TO LOWES LUMBER

RH TO NORTH

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 9

FOR TRACK INSPECTION - TURNOUT

MILE POST: 162.76 PHOTO No's: _____

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112 # _____

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE - GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: SPRING - RAIL, RIGHT HAND TO SOUTH

SWITCH CONDITION: GOOD, TIES GOOD

FROG CONDITION: GOOD

OTHER: SWITCH FOR SIDING

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 10

FOR TRACK INSPECTION – TURNOUT

MILE POST: 159.6 PHOTO No's: _____

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112# _____

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE – GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: RH TO SOUTH, RIGID FROG (RBM)

SWITCH CONDITION: GOOD, GOOD TIES

FROG CONDITION: GOOD

OTHER: SIDING FOR GRAIN ELEVATOR

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 11

FOR TRACK INSPECTION – TURNOUT

MILE POST : 155.8 PHOTO No.'s: _____

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112# _____

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE : _____ TIE SPACING: _____

DEFECTIVE TIES : _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE : _____ SPIKING CONDITION: _____

SPIKES PER PLATE – GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE : _____

JOINT CONDITION: _____

ANCHOR TYPE : _____

ANCHOR /RAIL : _____ ANCHOR CONDITION: _____

DRAINAGE : _____

VEGETATION : _____

TURNOUT SIZE: #10 TYPE: SPRING – RAIL FROG

SWITCH CONDITION: GOOD, ABOUT 75% TIES BAD

FROG CONDITION : GOOD

OTHER : LH TO NORTH

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 12

FOR TRACK INSPECTION - TURNOUT

MILE POST: 155.4 LOCATION ~~PHOTO No's~~: PARK AVE

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112# _____

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE - GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: SPRING-RAIL FROG

SWITCH CONDITION: GOOD

FROG CONDITION: GOOD

OTHER: TIES ARE FAIR ± 50% BAD

TIE SIZES & NO. FOR #10 TURNOUT:

X-SECTION = 7"X9"	9 - 9'	5 - 13'
	10 - 10'	6 - 14'
59 SPECIAL	11 - 11'	7 - 15'
SIZE TIES	15 - 12'	6 - 16'

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 13

FOR TRACK INSPECTION – TURNOUT

MILE POST: 154.6 PHOTO No's: _____

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100# - MAIN, 90# SIDING

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE – GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: RIGID FROG (RRM)

SWITCH CONDITION: GOOD

FROG CONDITION: GOOD

OTHER: ABOUT 90% TIES BAD

RH TO SOUTH

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 14

FOR TRACK INSPECTION - TURNOUT

MILE POST: 151.7 PHOTO No's: _____

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE - GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: SPRING - RAIL FROG

SWITCH CONDITION: GOOD

FROG CONDITION: GOOD

OTHER: SIDING FOR ELEVATOR

TIES PUT IN DURING LAST 10 YEARS

- GOOD TIES

LH TO NORTH

RQAW

MADE BY	DATE	JOB NO.
SPG	9-13-85	2229
CHECKED BY	DATE	SHEET NO.
		15

FOR TRACK INSPECTION - TURNOUT

MILE POST : 146.9 PHOTO No's: _____

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE : _____ TIE SPACING: _____

DEFECTIVE TIES : _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE : _____ SPIKING CONDITION: _____

SPIKES PER PLATE - GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE : _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR /RAIL : _____ ANCHOR CONDITION: _____

DRAINAGE : _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: RIGID FROG (RBM)

SWITCH CONDITION: GOOD

FROG CONDITION: GOOD

OTHER : TIES IN TURNOUT GOOD

LH TO SOUTH

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 16

FOR TRACK INSPECTION – TURNOUT

MILE POST: 146.6 PHOTO No's: G-27 (SPRING FROG)

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 115 #

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE – GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: SPRING-RAIL FROG

SWITCH CONDITION: GOOD

FROG CONDITION: GOOD

OTHER: TIES ARE FAIR (50% BAD)

LH TO NORTH

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 17

FOR TRACK INSPECTION - TURNOUT

MILE POST: 1463 PHOTO No's: G-31 & 32

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE - GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: RIGID FROG (RBM)

SWITCH CONDITION: GOOD

FROG CONDITION: GOOD

OTHER: TIES GOOD, TURNOUT ABOUT 12 YEARS OLD

RH TO SOUTH

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 18

FOR TRACK INSPECTION - TURNOUT

MILE POST: 142.6 PHOTO No's: _____

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100 #

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ TIE SPACING: _____

DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

TIE PLATE TYPE: _____

TIE PLATE CONDITION: _____ % TIE PLATED: _____

SPIKE SIZE: _____ SPIKING CONDITION: _____

SPIKES PER PLATE - GAGE SIDE: _____ FIELD SIDE: _____

JOINT TYPE: _____

JOINT CONDITION: _____

ANCHOR TYPE: _____

ANCHOR / RAIL: _____ ANCHOR CONDITION: _____

DRAINAGE: _____

VEGETATION: _____

TURNOUT SIZE: #10 TYPE: RIGID FROG (RBM)

SWITCH CONDITION: GOOD

FROG CONDITION: GOOD

OTHER: ABOUT 40% BAD TIES

RH TO NORTH

APPENDIX III

ROAD CROSSING INSPECTION DATA SHEETS

APPENDIX IV

TRACK REHABILITATION COST ESTIMATES BASED ON 1984 HNTB REPORT UNIT COSTS AND ASSUMPTIONS

APPENDIX III

RQAW	MADE BY SPG	DATE 9-12-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 1

FOR ROAD CROSSING INSPECTION

MILEPOST: ≈171.4 ROAD: 96TH ST (COUNTY LINE)

TYPE: ASPHALT WITH FLANGE TIMBERS

CONDITION: ROUGH

TRACK GAGE: 56 1/4" TRACK LINE:

TRACK SURFACE:

RAIL SIZE & TYPE: 115#, BONDED

RAIL LENGTH: 39' RAIL CONDITION: GOOD

TIE SIZE: # DEFECTIVE TIES: PER

BALLAST TYPE: #4 STONE CONDITION:

CROSSING PROTECTION: 2 X-BUCKS & 2 STOP SIGNS

CROSSING PROTECTION CONDITION: OK

DRAINAGE: GOOD

VEGETATION: NO PROBLEM

CROSSING SIZE: x 22'

PHOTO No's: A-0, 1 & 2

OTHER: 2-LANE ASPHALT RD.

RQAW	MADE BY SPG	DATE 9-12-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 2

FOR ROAD CROSSING INSPECTION

MILEPOST: 170.6 ROAD: HOMEPLACE, 2-LANE ASPHALT

TYPE: ASPHALT WITH TIMBER FLANGES & GUARDS

CONDITION: ROUGH - PATCH LOW SPOT

TRACK GAGE: 57" TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 115#

RAIL LENGTH: 1 RAIL CONDITION: OK

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: #4 STONE CONDITION: _____

CROSSING PROTECTION: 2 FLASHERS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: WEED GROWTH - RECENTLY SPRAYED

CROSSING SIZE: 21' LONG

PHOTO No's: A-6, 7, 8

OTHER: _____

RQAW	MADE BY SPG	DATE 9-12-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 3

FOR ROAD CROSSING INSPECTION

MILEPOST: 169.7 ROAD: 126 TH ST., 2 LANE ASPHALT

TYPE: ASPHALT WITH FLANGE TIMBERS

CONDITION: OK

TRACK GAGE: 56½' TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 112#

RAIL LENGTH: 39' RAIL CONDITION: OK

TIE SIZE: 5"x7"-8½' # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: #4 STONE CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS & 2 STOP SIGNS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: WEED GROWTH - SPRAYED RECENTLY

CROSSING SIZE: 18'

PHOTO No's: A-12 & 13

OTHER: _____

RQAW	MADE BY SPG	DATE 9-12-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 4

FOR ROAD CROSSING INSPECTION

MILEPOST: 169.3 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: ROUGH

TRACK GAGE: 57 1/4" TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: #4 CONDITION: _____

CROSSING PROTECTION: 2 FLASHERS

CROSSING PROTECTION CONDITION: OK

DRAINAGE: OK

VEGETATION: OK

CROSSING SIZE: 22' - LONG

PHOTO NO'S: A-14 & 15

OTHER: IN A CURVE

REBUILT 15 YEARS AGO

RQAW

MADE BY	DATE	JOB NO.
SPG	9-12-95	2229
CHECKED BY	DATE	SHEET NO.
		5

FOR ROAD CROSSING INSPECTION

MILEPOST: 168.9 ROAD: CARMEL DRIVE, 4-LANE ASPHALT

TYPE: ASPHALT W/ TIMBER FLANGES & GUARDS + CONCRETE HEADERS

CONDITION: GOOD

TRACK GAGE: 57" TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: #4 STONE CONDITION: _____

CROSSING PROTECTION: 2 - SIGNS PLUS STOP LIGHT

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: NONE

CROSSING SIZE: 63'

PHOTO No's: A-20, 21, 22 & 23

OTHER: HEED ON RAILS SLIGHTLY MASHING IN A CURVE

RQAW	MADE BY SPG	DATE 9-12-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 6

FOR ROAD CROSSING INSPECTION

MILEPOST: 168.8 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT WITH TIMBER FLANGES & GUARDS

CONDITION: ROUGH - REPLACE TIMBERS & REASPHALT

TRACK GAGE: 56½ TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 100# MAIN, SIDING?

RAIL LENGTH: _____ RAIL CONDITION: EAST RAIL HAS JOINT IN X-ING

TIE SIZE: 7X9 # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: #4 STONE CONDITION: _____

CROSSING PROTECTION: 2 SIGNS

CROSSING PROTECTION CONDITION: OK

DRAINAGE: GOOD

VEGETATION: NONE

CROSSING SIZE: 32' TO EDGE OF FLANGES, 24' ROAD WIDTH

PHOTO NO'S: A-23, 24 & 25

OTHER: GREASER ON SOUTH SIDE OF X-ING

JOINT IN X-ING SHOULD BE REMOVED

RQAW	MADE BY SPG	DATE 9-12-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 7

FOR ROAD CROSSING INSPECTION

MILEPOST: 162.8 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT WITH TIMBER FLANGES & GUARDS

CONDITION: OK

TRACK GAGE: 57" TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 112# MAIN & 2 SIDINGS (BOTH 90#?)

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: #4 CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: OK

VEGETATION: NONE

CROSSING SIZE: 27½' LONG

PHOTO NO'S: A-29 & 30

OTHER: 2 SIDE TRACKS + MAIN

RQAW	MADE BY SPG	DATE 9-12-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 8

FOR ROAD CROSSING INSPECTION

MILEPOST: 167.7 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT - MAIN ; ASPHALT & FLANGE TIMBERS IN SIDING

CONDITION: ROUGH, PATCH POTHOLES & REPLACE TIMBERS

TRACK GAGE: 56½" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112# MAIN, 90# SIDING

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 1- FLASHER

CROSSING PROTECTION CONDITION: OK

DRAINAGE: NOWHERE TO GO

VEGETATION: OK

CROSSING SIZE: 29' LONG

PHOTO No's: A-32, 33

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 9

FOR ROAD CROSSING INSPECTION

MILEPOST: 167.65 ROAD: MAIN ST, 2-LANE ASPHALT

TYPE: RUBBER, SIDEWALK IS ASPHALT W/ TIMBER FLANGES & GUARDS

CONDITION: GOOD

TRACK GAGE: 56 3/4 TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 112#, WELDED IN X-ING, 90# SIDING?

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 FLASHERS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: OK

VEGETATION: OK

CROSSING SIZE: 40'-7"

PHOTO NO'S: D-23 624

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 10

FOR ROAD CROSSING INSPECTION

MILEPOST: 167.6 ROAD: 1ST NW, 1½-LANE ASPHALT

TYPE: ASPHALT

CONDITION: DETERIORATING

TRACK GAGE: 56 5/8" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: ALL POOR PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: OK

DRAINAGE: OK

VEGETATION: OK

CROSSING SIZE: 15'

PHOTO NO'S: D-25626

OTHER: _____

RQAW

MADE BY	DATE	JOB NO.
SPG	9-13-85	2229
CHECKED BY	DATE	SHEET NO.
		11

FOR ROAD CROSSING INSPECTION

MILEPOST: 167.2 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: SLIGHT DETERIORATION

TRACK GAGE: 56 7/8 TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS & 2 STOPSIGNS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: OK

CROSSING SIZE: 19 1/2'

PHOTO No's: D-27 & 28

OTHER: IN A CURVE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 12

FOR ROAD CROSSING INSPECTION

MILEPOST: 166.4 ROAD: 146TH ST, 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: GOOD, BUT NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 56 3/4" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCK SIGNS & 2 STOP SIGNS

CROSSING PROTECTION CONDITION: 1 GOOD 1 LEANING

DRAINAGE: GOOD

VEGETATION: NONE

CROSSING SIZE: 19' LONG

PHOTO NO'S: D-32 & 33

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 13

FOR ROAD CROSSING INSPECTION

MILEPOST: 165.6 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: SLIGHT DETERIORATION

TRACK GAGE: 56 3/4' TRACK LINE: OK

TRACK SURFACE: OK

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 4 FLASHERS (2 OH) & 1 STOP SIGN

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: OK

VEGETATION: NONE

CROSSING SIZE: 41' LONG, ROAD WIDTH 27 1/2'

PHOTO No's: D-34635

OTHER: EAST CULVERT (12" DIAM) IS SMASHED ON BOTH ENDS.

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 14

FOR ROAD CROSSING INSPECTION

MILEPOST: 165.3 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: SLIGHTLY DETERIORATING, NEED TO CUT OUT JOINT & PUT IN WELDED RAIL

TRACK GAGE: 57" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS & 1 STOP SIGN

CROSSING PROTECTION CONDITION: OK

DRAINAGE: OK

VEGETATION: SOME - SPRAYED RECENTLY

CROSSING SIZE: 18'-10" LONG

PHOTO NO'S: D-36 & E-0

OTHER: NEED TO CLEAN ALONG FLANGES

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 15

FOR ROAD CROSSING INSPECTION

MILEPOST: 169.5 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: SLIGHT DETERIORATION

TRACK GAGE: 56 3/8" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: NOTHING

CROSSING PROTECTION CONDITION: _____

DRAINAGE: OK, EAST CULVERT 1/2 FULL

VEGETATION: VERY LITTLE, OK

CROSSING SIZE: 19 1/2' LONG

PHOTO No's: E-465

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 16

FOR ROAD CROSSING INSPECTION

MILEPOST: 163.9 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: SOME DETERIORATION, NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 57" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS & 2 STOP SIGNS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: OK

VEGETATION: NONE

CROSSING SIZE: 20'-8" LONG

PHOTO NO'S: E-667

OTHER: NEED TO CUT JOINT OUT OF EAST RAIL & PUT IN WELDED RAIL

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 17

FOR ROAD CROSSING INSPECTION

MILEPOST: 163.4 ROAD: PRIVATE TO WAITT ELEVATOR CO.

TYPE: GRAVEL

CONDITION: FAIR - REMOVE GRAVEL ALONG FLANGES

TRACK GAGE: 57" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 1 - CROSS BUCK

CROSSING PROTECTION CONDITION: FAIR

DRAINAGE: OK

VEGETATION: NONE

CROSSING SIZE: 14'-6"

PHOTO NO'S: E-869

OTHER: 1 - LAIE GRAVEL ROAD

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 18

FOR ROAD CROSSING INSPECTION

MILEPOST: 163.2 ROAD: SR 32, 2-LANE CONCRETE

TYPE: ASPHALT WITH TIMBER FLANGES & GUARDS, MAIN & SIDE TRACK

CONDITION: NEED TO RESURFACE & REPLACE TIMBER FLANGES

TRACK GAGE: 57" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112# MAIN, SIDING 75# ?

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 FLASHERS

CROSSING PROTECTION CONDITION: OK

DRAINAGE: FAIR

VEGETATION: SOME WEED GROWTH

CROSSING SIZE: 32' LONG

PHOTO No's: E-10, 11 & 12

OTHER: NEED TO REMOVE CONCRETE PAVEMENT FROM EDGE OF TIES

NESBITT COMMENT:

FRA ALLOWS 57 3/4 GAGE FOR 40 MPH

57 1/4 " FOR 60 MPH

RQAW

MADE BY	DATE	JOB NO.
SPG	9-13-85	2229
CHECKED BY	DATE	SHEET NO.
		19

FOR ROAD CROSSING INSPECTION

MILEPOST: 162.7 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: SLIGHTLY DETERIORATED, NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 56½" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS & 2 STOP SIGNS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: OK

VEGETATION: WEEDS ON SIDES

CROSSING SIZE: 17' LONG

PHOTO NO'S: E-14 & 19

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-95	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 20

FOR ROAD CROSSING INSPECTION

MILEPOST: 161.7 ROAD: 2 LANE ROAD, ASPHALT

TYPE: ASPHALT

CONDITION: SLIGHTLY DETERIORATED

TRACK GAGE: 56 5/8" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 - X BUCKS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: WEEDS ALONG SIDES

CROSSING SIZE: 21'-10' LONG, ROAD ABOUT 12' WIDE

PHOTO NO'S: E-20-21

OTHER: ROAD CROSSES AT AN ANGLE

JOINT ON BOTH ENDS OF X-ING

NEED TO CLEAN ALONG FLANGES

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 21

FOR ROAD CROSSING INSPECTION

MILEPOST: 160.7 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: SLIGHT DETERIORATION, NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 56 3/4' TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS & 2 STOP SIGNS

CROSSING PROTECTION CONDITION: 1 STOP SIGN BENT & X-BUCK HAVE SOME BULLET HOLES

DRAINAGE: GOOD

VEGETATION: WEEDS ON BOTH SIDES OF BALLAST

CROSSING SIZE: 18' LONG, ROAD ABOUT 14 1/2' W

PHOTO No's: E-24 & 25

OTHER: JOINT ON BOTH ENDS OF X-ING

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 22

FOR ROAD CROSSING INSPECTION

MILEPOST: 159.9 ROAD: 1-LANE ASPHALT

TYPE: ASPHALT

CONDITION: OK - RECENTLY PATCHED, NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 56½" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: OK

VEGETATION: WEEDS ON BOTH SIDES OF BALLAST

CROSSING SIZE: 13'-6" LONG, ROAD 12' WIDE

PHOTO NO'S: E-26627

OTHER: IN A SLIGHT CURVE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 23

FOR ROAD CROSSING INSPECTION

MILEPOST: 159.8 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: RECENTLY PATCHED, NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 57¼" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS & 1 STOP SIGN

CROSSING PROTECTION CONDITION: ↑ 1 BENT ↑ 1 STOLEN

DRAINAGE: OK

VEGETATION: PLENTY OF WEEDS

CROSSING SIZE: 22' LONG, ROAD x 18'-8" W

PHOTO NO'S: E-2829

OTHER: JOINT ON SOUTH SIDE NEEDS TO BE TIGHTENED-UP OR TAKEN OUT & REPLACED

ROAD CROSSES @ AN ANGLE STILL IN CURVE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2221
	CHECKED BY	DATE	SHEET NO. 24

FOR ROAD CROSSING INSPECTION

MILEPOST: 159.6 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: POTHOLES & NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 56 3/4" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112# MAIN, SIDING ?

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS & 1 STOP SIGN

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: OK

VEGETATION: WEED GROWTH

CROSSING SIZE: 31'-6" LONG, 17 1/2' WIDE ROAD

PHOTO NO'S: E-30 & 31

OTHER: ROAD CROSSES AT AN ANGLE

JOINT IN ROAD X-ING SHOULD BE REMOVED

SIDING TO WEST IS ABANDONED

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 25

FOR ROAD CROSSING INSPECTION

MILEPOST: 158.7 ROAD: 1-LANE GRAVEL

TYPE: ASPHALT THRU X-ING, GRAVEL ROAD

CONDITION: OK, NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 57" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS & 2 STOP SIGNS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: PLENTY OF WEEDS

CROSSING SIZE: 17' LONG & ROAD 12½' W

PHOTO No's: E-35, 36 & 37

OTHER: AT END OF CURVE & ROAD CROSSES AT AN ANGLE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 26

FOR ROAD CROSSING INSPECTION

MILEPOST: 158.2 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: POTHOLES

TRACK GAGE: 57" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS & 2 STOP SIGNS

CROSSING PROTECTION CONDITION: OK

DRAINAGE: GOOD

VEGETATION: PLENTY OF WEEDS

CROSSING SIZE: 22'-6" LONG, ROAD 17'-8" W

PHOTO No's: F-0, 162

OTHER: JOINT IN CENTER OF W RAIL SHOULD BE REMOVED

ROAD CROSSES AT AN ANGLE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 27

FOR ROAD CROSSING INSPECTION

MILEPOST: 158.0 ROAD: _____

TYPE: ASPHALT WITH WOOD TIMBER FLANGES, GRAVEL ROAD

CONDITION: POTHOLES WITH GRAVEL IN, NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 57" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS & 2 STOP SIGNS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: OK

VEGETATION: PLENTY OF WEEDS

CROSSING SIZE: 23' LONG, ROAD 13' W

PHOTO No's: F-364

OTHER: ROAD CROSSES AT AN ANGLE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 28

FOR ROAD CROSSING INSPECTION

MILEPOST: 157.2 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: OK, JOINT ON WEST RAIL WEEDS TO BE REMOVED

TRACK GAGE: 56 1/4" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: ONE BENT

DRAINAGE: GOOD

VEGETATION: SOME WEEDS

CROSSING SIZE: 25' LONG & ROAD 15' W

PHOTO NO'S: F-5 & 6

OTHER: ROAD CROSSES AT AN ANGLE

NEED TO CLEAN ALONG FLANGES

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 24

FOR ROAD CROSSING INSPECTION

MILEPOST: 156.3 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: GOOD, NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 56 1/4" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS & 2 STOP SIGNS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: OK

VEGETATION: WEED GROWTH COMPLETLY OVER TRACKS

CROSSING SIZE: 23' LONG, ROAD 17' W

PHOTO NO'S: F-9, 10 & 11

OTHER: JOINT ON EAST RAIL @ SOUTH END SHOULD BE REMOVED

ROAD CROSSES AT AN ANGLE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 30

FOR ROAD CROSSING INSPECTION

MILEPOST: 155.75 ROAD: SR 47

TYPE: ASPHALT - 2 TRACKS

CONDITION: NEED TO RESURFACE - POTHOLES

TRACK GAGE: 57" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112# MAIN, 90# SIDING ?

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 FLASHERS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: OK

VEGETATION: WEEDS PRESENT

CROSSING SIZE: 31' LONG, ROAD 20' W

PHOTO NO'S: F-12, 13 & 14

OTHER: NEED TO CLEAN ALONG FLANGES

JOINT ON WEST RAIL OF MAIN AND ON EAST RAIL (BAD PROBLEM) ON SIDING SHOULD BE REMOVED

ROAD CROSSES AT AN ANGLE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 31

FOR ROAD CROSSING INSPECTION

MILEPOST: 155.5 (SIDE TRACK IS ASPHALT ONLY) ROAD: GEORGIA ST, 2-LANE ASPHALT

TYPE: ASPHALT WITH TIMBER FLANGES

CONDITION: POT HOLES AT SIDE TRACK, NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 56 5/8" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112# - MAIN, 90# SIDING

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 FLASHERS

CROSSING PROTECTION CONDITION: OK

DRAINAGE: FLAT

VEGETATION: SHORT GRASS & WEEDS

CROSSING SIZE: 50' LONG, ROAD ≈ 24' W

PHOTO NO'S: P-15, 16, 17 & 18

OTHER: MIDDLE TRACK REMOVED OUTSIDE OF X-ING
2 TRACKS AT X-1116

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 32

FOR ROAD CROSSING INSPECTION

NORTH OF SWITCH

MILEPOST: 155.4 ROAD: 2-LANE ASPHALT

SIDING - ASPHALT

TYPE: MAIN - ASPHALT WITH TIMPER FLANGES

CONDITION: POTHOLES IN BOTH TRACKS & NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 56 3/4" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112# - MAIN, 90# - SIDING

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 FLASHERS

CROSSING PROTECTION CONDITION: OK

DRAINAGE: FLAT - WATER WILL STAND

VEGETATION: SHORT WEEDS

CROSSING SIZE: 40' LONG, 30' W ROAD WITH 4' W SIDEWALK

PHOTO NO'S: F-19, 20 & 21

OTHER: ROAD CROSSES AT AN ANGLE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 33

FOR ROAD CROSSING INSPECTION

(SHERIDAN)

MILEPOST: 155.3 ROAD: MAIN ST., 2-LANE ASPHALT

TYPE: ASPHALT FOR BOTH MAIN & SIDING

CONDITION: POTHOLES & NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 57 3/8" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112# MAIN, 90# SIDING

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 3 FLASHER POLES

CROSSING PROTECTION CONDITION: OK

DRAINAGE: FAIR

VEGETATION: SHORT WEEDS

CROSSING SIZE: 73' LONG, ROAD 48' W WITH 12' SIDEWALK ON NORTH SIDE

PHOTO NO'S: F-22, 23 & 24

OTHER: WEST RAIL OF MAIN HAS A JOINT IN THE X-ING WHICH NEEDS TO BE REMOVED

JOINTS IN SIDING, BUT NO PROBLEM

ROAD CROSSES AT AN ANGLE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 34

FOR ROAD CROSSING INSPECTION

MILEPOST: 155.2 ROAD: OHIO ST, 2-LANE ASPHALT

TYPE: ASPHALT - MAIN & SIDING

CONDITION: SOME DETERIORATION ALONG SIDING

TRACK GAGE: 56 3/4" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112# MAIN & 90# SIDING

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 FLASHER POLES

CROSSING PROTECTION CONDITION: OK

DRAINAGE: FAIR

VEGETATION: SHORT WEEDS

CROSSING SIZE: 30' LONG & 22' WIDE ROAD

PHOTO NO'S: F-25 & 26

OTHER: ROAD CROSSES @ ANGLE

NEED TO CLEAN ALONG FLANGES

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 35

FOR ROAD CROSSING INSPECTION

MILEPOST: 155.1 ROAD: S. CALIFORNIA ST

SIDING - ASPHALT

TYPE: ASPHALT WITH TIMBER PLANKS - MAIN

CONDITION: NEED TO REPLACE TIMBERS, PATCH POTHOLES & CLEAN ALONG FLANGES

TRACK GAGE: 57 1/8" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112# - MAIN 90# - SIDING

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 FLASHER POLES - ANGLED FOR 4 DIRECTIONS

CROSSING PROTECTION CONDITION: OK

DRAINAGE: OK

VEGETATION: WEED GROWTH

CROSSING SIZE: 45' LONG, ROAD 21 1/2' W

PHOTO NO'S: F-27, 28, 29 & 30

OTHER: ROAD CROSSES AT AN ANGLE

2-LANE ASPHALT ROAD

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 36

FOR ROAD CROSSING INSPECTION

MILEPOST: 154.56 ROAD: W 2ND ST, 2-LANE ASPHALT

TYPE: MAIN - ASPHALT WITH TIMBER FLANGES SIDING - ASPHALT

CONDITION: POTHOLES, NEED TO REPLACE TIMBERS & CLEAN ALONG FLANGES

TRACK GAGE: 56 3/4" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112# MAIN & 90 # SIDING

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: 14 PER 39

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 FLASHERS

CROSSING PROTECTION CONDITION: OK

DRAINAGE: OK

VEGETATION: SHORT WEED GROWTH

CROSSING SIZE: 53' LONG & 24' W ROAD - SIDE WALKS ON BOTH SIDES

PHOTO No's: F-34, 35, 36 & 37

OTHER: ROAD CROSSES AT AN ANGLE

NOTE ALL CROSSINGS SHOULD HAVE ADVANCE WARNING SIGNS

TIES IN SHERIDAN ARE IN BAD SHAPE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 37

FOR ROAD CROSSING INSPECTION

MILEPOST: 153.7 ROAD: BOONE - HAMILTON CO LINE RD

TYPE: ASPHALT

CONDITION: ROUGH, SHOULD BE RAISED UP WITH ROAD

TRACK GAGE: 56½" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 1 CROSS BUCK

CROSSING PROTECTION CONDITION: OK

DRAINAGE: OK

VEGETATION: PLENTY OF WEEDS

CROSSING SIZE: 22' LONG, 18½' W ROAD

PHOTO No's: G-1, 2 & 3

OTHER: NEED ANOTHER X-BUCK

ROAD CROSSES AT AN ANGLE

2-LANE ASPHALT ROAD

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 38

FOR ROAD CROSSING INSPECTION

MILEPOST: 153.1 ROAD: 2-LANE GRAVEL

TYPE: ASPHALT

CONDITION: BAD - WITH POTHOLES, NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 57" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: OK

DRAINAGE: OK

VEGETATION: PLENTY OF WEEDS

CROSSING SIZE: 29' LONG, ROAD ± 14½' W

PHOTO No's: 6-4, 5 & 6

OTHER: ROAD CROSSES AT AN ANGLE

RQAW	MADE BY SP6	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 39

FOR ROAD CROSSING INSPECTION

MILEPOST: 151.5 ROAD: MAIN ST – TERHUNE

TYPE: ASPHALT

CONDITION: ROUGH WITH POTHOLES, NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 56 3/4" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: MAIN – 100#, SIDING – 75#

RAIL LENGTH: _____ RAIL CONDITION: SEE NOTE *

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 1 X-BUCK, 1 FLASHER POLE (2 WAYS) & 1 BELL POLE

CROSSING PROTECTION CONDITION: OK, SIGN ON X-BUCK POLE DAMAGED

DRAINAGE: FLAT – BAD

VEGETATION: WEEDS OVER TRACKS ON BOTH SIDES

CROSSING SIZE: 22' LONG & ROAD 18' W

PHOTO NO'S: 6-9, 10, 11, 12 & 13

OTHER: 2-LANE ASPHALT ROAD

* JOINT ON WEST RAIL OF MAIN HAS DROPPED & SHOULD BE REMOVED.

ROAD CROSSES AT AN ANGLE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 40

FOR ROAD CROSSING INSPECTION

PRIVATE X-ING @ 151.2

MILEPOST: 151.1 ROAD: 1½-LANE ASPHALT

TYPE: ASPHALT

CONDITION: ROUGH - NEED TO PATCH

TRACK GAGE: 56 3/4" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: HIGH WEEDS ON BOTH SIDES

CROSSING SIZE: 27' LONG & 13' W ROAD

PHOTO NO'S: G-14 & 15

OTHER: ROAD CROSSES AT AN ANGLE

RQAW

MADE BY	DATE	JOB NO.
SPG	9-13-85	2229
CHECKED BY	DATE	SHEET NO.
		41

FOR ROAD CROSSING INSPECTION

MILEPOST: 150.9 ROAD: 1-LANE GRAVEL

TYPE: ASPHALT

CONDITION: VERY ROUGH & NEED TO CLEAN ALONG FLANGES

TRACK GAGE: 56 3/8" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100 #

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: HIGH WEEDS

CROSSING SIZE: 14' LONG & 11' W ROAD

PHOTO NO'S: G-18 & 19

OTHER: ROAD CROSSES AT AN ANGLE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 42

FOR ROAD CROSSING INSPECTION

MILEPOST: 150.3 ROAD: 1-LANE

TYPE: ASPHALT W/ TIMBER FLANGES

CONDITION: SOME DETERIORATION

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: OK

DRAINAGE: GOOD

VEGETATION: WEEDS

CROSSING SIZE: _____

PHOTO NO'S: _____

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 93

FOR ROAD CROSSING INSPECTION

MILEPOST: 149.1 ROAD: _____

TYPE: ASPHALT - SINGLE LANE ROAD

CONDITION: ROUGH

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: _____

DRAINAGE: GOOD

VEGETATION: WEEDS

CROSSING SIZE: _____

PHOTO NO'S: _____

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 41

FOR ROAD CROSSING INSPECTION

MILEPOST: 148.1 ROAD: _____

TYPE: ASPHALT - GRAVEL ROAD, SINGLE LANE

CONDITION: ROUGH

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100# - WELDED

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: WEEDS

CROSSING SIZE: _____

PHOTO NO'S: _____

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 45

FOR ROAD CROSSING INSPECTION

MILEPOST: 147.6 ROAD: SR 38, 2-LANE ASPHALT

TYPE: ASPHALT WITH TIMBER FLANGES & GUARDS

CONDITION: ROUGH - NEED TO REPAIR

TRACK GAGE: 57 1/8" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 115# THRU X-ING

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 FLASHER POLES

CROSSING PROTECTION CONDITION: OK

DRAINAGE: OK

VEGETATION: WEEDS

CROSSING SIZE: 72' LONG & 18' W ROAD

PHOTO No's: 6-22, 23 & 24

OTHER: ROAD CROSSES AT AN ANGLE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 46

FOR ROAD CROSSING INSPECTION

MILEPOST: 196.9 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT W/ TIMBER FLANGES

CONDITION: ROUGH - NEED TO REPLACE TIMBERS

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

90# ON SIDE TRACK - CAN BE REMOVED

RAIL SIZE & TYPE: 115# MAIN THRU X-ING

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: OK

DRAINAGE: FAIR

VEGETATION: WEEDS

CROSSING SIZE: _____

PHOTO No's: _____

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 47

FOR ROAD CROSSING INSPECTION

MILEPOST: 146.8 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT

CONDITION: ROUGH - POTHOLES

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 90# - 2 SIDINGS
115# - MAIN

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: OK

VEGETATION: WEEDS

CROSSING SIZE: _____

PHOTO NO'S: _____

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 48

FOR ROAD CROSSING INSPECTION

MILEPOST: 146.6 ROAD: _____

TYPE: ASPHALT WITH TIMBER FLANGES, 2 TRACKS

CONDITION: ROUGH - REPLACE TIMBERS

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 115# SIDING 115# - MAIN, WELDED

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 4 X-BUCKS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: FAIR

VEGETATION: SHORT WEEDS

CROSSING SIZE: 2-LANES, ASPHALT ROAD

PHOTO NO'S: G-27

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 49

FOR ROAD CROSSING INSPECTION

MILEPOST: 146.5 ROAD: 1- LANE ASPHALT

TYPE: ASPHALT WITH TIMBER FLANGES

CONDITION: ROUGH

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 115# WELDED

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: FAIR

VEGETATION: SHORT WEEDS

CROSSING SIZE: _____

PHOTO NO'S: _____

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 50

FOR ROAD CROSSING INSPECTION

MILEPOST: 146.45 ROAD: 1-LANE ASPHALT

TYPE: ASPHALT WITH TIMBER FLANGES

CONDITION: ROUGH

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 115# STRAIGHT JT

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: FAIR

VEGETATION: SHORT WEEDS

CROSSING SIZE: 1 LANE

PHOTO NO'S: _____

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 51

FOR ROAD CROSSING INSPECTION

MILEPOST: 146.4 ROAD: SR 421, 2-LANE ASPHALT

TYPE: ASPHALT W/ TIMBER FLANGES & GUARDS PLUS CONCRETE & RAIL HEADER ALONG TIE EDGES.

CONDITION: ROUGH, NEED TO RAISE, BAD TIMBERS

TRACK GAGE: 57 1/4" TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 115# WELDED

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 FLASHERS

CROSSING PROTECTION CONDITION: OK

DRAINAGE: POOR

VEGETATION: SHORT WEEDS

CROSSING SIZE: 52'-6" LONG & 39' W (2 LANES)

PHOTO NO'S: 6-28, 29 & 30

OTHER: ROAD CROSSES @ ANGLE

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 52

FOR ROAD CROSSING INSPECTION

MILEPOST: 145.2 ROAD: 2-LANE GRAVEL

TYPE: ASPHALT W/ TIMBER FLANGES

CONDITION: ROUGH

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100# - WIDED

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: BOTH SHOT-UP

DRAINAGE: FAIR

VEGETATION: WEEDS

CROSSING SIZE: _____

PHOTO NO'S: _____

OTHER: NEED TO CLEAN ALONG FLANGES

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 53

FOR ROAD CROSSING INSPECTION

MILEPOST: 144.4 ROAD: 1½-LANE GRAVEL

TYPE: ASPHALT W/ TIMBER FLANGES

CONDITION: ROUGH

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100# WELDED

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: BOTH SIGNS BENT

DRAINAGE: OK

VEGETATION: WEEDS

CROSSING SIZE: 1½ LANES

PHOTO No's: _____

OTHER: NEED TO CLEAN ALONG FLANGES

RQAW	MADE BY SPG	DATE 9-13-95	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 54

FOR ROAD CROSSING INSPECTION

MILEPOST : 193.6. ROAD : _____

TYPE : ASPHALT WITH TIMBER FLANGES

CONDITION : BAD - REPLACE

TRACK GAGE : _____ TRACK LINE : _____

TRACK SURFACE : _____

RAIL SIZE & TYPE : 100# WELDED

RAIL LENGTH : _____ RAIL CONDITION : _____

TIE SIZE : _____ # DEFECTIVE TIES : _____ PER _____

BALLAST TYPE : _____ CONDITION : _____

CROSSING PROTECTION : 2 X-BUCKS

CROSSING PROTECTION CONDITION : GOOD

DRAINAGE : GOOD

VEGETATION : HIGH WEEDS

CROSSING SIZE : 1 LANE

PHOTO NO'S : _____

OTHER : _____

RQAW

MADE BY	DATE	JOB NO.
SPG	9-13-85	2229
CHECKED BY	DATE	SHEET NO.
		55

FOR ROAD CROSSING INSPECTION

MILEPOST: 142.5 ROAD: _____
SIDING - ASPHALT

TYPE: MAIN - ASPHALT W/ TIMBER FLANGES, GRAVEL ROAD

CONDITION: NEED TO REPLACE TIMBERS & RESURFACE

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 75# SIDING ? 100# WELDED - MAIN

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: SHORT WEEDS

CROSSING SIZE: _____

PHOTO No's: _____

OTHER: 2 TRACKS

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 56

FOR ROAD CROSSING INSPECTION

MILEPOST: 142.3 ROAD: 400 E

TYPE: ASPHALT W/ TIMBER FLANGES

CONDITION: ROUGH - REPLACE TIMBERS & RESURFACE

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100# WELDED

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 FLASHER POLES

CROSSING PROTECTION CONDITION: OK

DRAINAGE: GOOD

VEGETATION: SHORT WEEDS

CROSSING SIZE: 2 LANES, ASPHALT?

PHOTO No's: _____

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2279
	CHECKED BY	DATE	SHEET NO. 57

FOR ROAD CROSSING INSPECTION

MILEPOST: 141.4 ROAD: 1-LANE ASPHALT

TYPE: ASPHALT W/ TIMBER FLANGES

CONDITION: FAIR, OK FOR NOW

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 112 #?

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: PLENTY WEEDS

CROSSING SIZE: 1 LANE

PHOTO No's: _____

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2221
	CHECKED BY	DATE	SHEET NO. 58

FOR ROAD CROSSING INSPECTION

MILEPOST: 140.4 ROAD: 1-LANE GRAVEL

TYPE: ASPHALT

CONDITION: ROUGH

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 90#

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: SHORT WEEDS

CROSSING SIZE: 1 LANE

PHOTO NO'S: _____

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 59

FOR ROAD CROSSING INSPECTION

MILEPOST: 139.6 ROAD: 1½-LANE GRAVEL

TYPE: ASPHALT

CONDITION: ROUGH

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 100# JOINTED THRU X-ING

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: GOOD - 1 BULLET HOLE

DRAINAGE: GOOD

VEGETATION: HIGH WEEDS

CROSSING SIZE: 1½ LANES

PHOTO NO'S: _____

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2227
	CHECKED BY	DATE	SHEET NO. 60

FOR ROAD CROSSING INSPECTION

MILEPOST: 139.4 ROAD: 1-LANE ASPHALT

TYPE: ASPHALT

CONDITION: ROUGH - RESURFACE

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 90# - JOINTED (NONE IN X-ING)

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: GOOD

DRAINAGE: GOOD

VEGETATION: WEEDS

CROSSING SIZE: 1 LANE

PHOTO NO'S: _____

OTHER: _____

RQAW	MADE BY SPG	DATE 9-13-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 61

FOR ROAD CROSSING INSPECTION

MILEPOST: 137.6 ROAD: 2-LANE ASPHALT

TYPE: ASPHALT W/ TIMBER FLANGES

CONDITION: OK

TRACK GAGE: _____ TRACK LINE: _____

TRACK SURFACE: _____

RAIL SIZE & TYPE: 115# WELDED THRU Y-ING

RAIL LENGTH: _____ RAIL CONDITION: _____

TIE SIZE: _____ # DEFECTIVE TIES: _____ PER _____

BALLAST TYPE: _____ CONDITION: _____

CROSSING PROTECTION: 2 X-BUCKS

CROSSING PROTECTION CONDITION: NEED NEW POSTS TO RAISE BOTH X-BUCKS

DRAINAGE: FAIR

VEGETATION: HIGH WEED

CROSSING SIZE: 2 LANES

PHOTO No's: H-16, 17, 18, 19, 20, 21 & 22

OTHER: STOP SIGN AT M.P. 137.5 ON TRACK

APPENDIX IV

RQAW	MADE BY SP GRESS	DATE 10-23-85	JOB NO. 2221
	CHECKED BY	DATE	SHEET NO. 1/3

FOR COST ESTIMATE TO REHAB TRACK TO FRA CLASS 2 USING 1984 REPORT COSTS

A. DETERMINE TRACK REHAB COSTS FOR 33.9 MILES OF MAIN LINE TRACK & 2.1 MILES OF SIDING:

ITEM	AMOUNT	UNIT COST	ITEM COST
1. CROSSTIE REPLACEMENT (REPLACE 1/3 OF TIES)	1/3 x 116,300 = 38,800	$50/ea	$1,940,000
2. RAIL REPLACEMENT	3.06 mi	$250,000/mi	$765,000
3. SURFACE	36 mi	$10,000/mi	$360,000
4. REHAB TURNOUTS	6	$8000/ea	$48,000
		SUBTOTAL	$3,113,000
		+20%	623,000
		TOTAL	$3,736,000

B. DETERMINE CROSSING REHAB COSTS

ITEM	AMOUNT	UNIT COST	ITEM COST
1. CROSSING REPLACEMENT	2506 ft	$720/ft	$1,804,000
2. REHAB EXISTING FLASHERS	15 sets	$5300/set	$80,000
3. ADD FLASHERS	3 sets	$50,000/set	$150,000
		TOTAL	$2,034,000

GRAND TOTAL $5,770,000

RQAW	MADE BY SP GRESS	DATE 10-23-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 2/3

FOR COST ESTIMATE TO REHAB TRACK TO FRA CLASS 3 (40 mph max) USING 1984 REPORT COSTS

A. DETERMINE TRACK REHAB COSTS FOR 33.9 MILES OF MAIN LINE TRACK & 2.1 MILES OF SIDING:

ITEM	AMOUNT	UNIT COST	ITEM COST
1. CROSSTIE REPLACEMENT (REPLACE 2/3 OF TIES)	$\frac{2}{3} \times 116{,}300 =$ 77,600	$50/ea	$3,880,000
2. RAIL REPLACEMENT	3.56 mi	$250,000/mi	$890,000
3. SURFACE	36 mi	$10,000/mi	$360,000
4. REHAB TURNOUTS	6	$8000/ea	$48,000
		SUBTOTAL	$5,178,000
		+20%	$1,036,000
		TOTAL	$6,214,000

B. DETERMINE CROSSING REHAB COSTS:

ITEM	AMOUNT	UNIT COST	ITEM COST
1. CROSSING REHAB	2506 ft	$720/ft	$1,804,000
2. ADD FLASHERS	11 sets	$50,000/set	$550,000
3. ADD AUTOMATIC GATES	1 set	$90,000/set	$90,000
4. REHAB EXISTING FLASHERS	15 sets	$5300/set	$80,000
		TOTAL	$2,524,000

C. DETERMINE WAYSIDE SIGNAL SYSTEM COSTS:

ITEM	AMOUNT	UNIT COST	ITEM COST
1. WAYSIDE SIGNAL SYSTEM FOR WHERE COMMUTER TRAINS TRAVEL	8.65 mi	$300,000/mi	$2,595,000

GRAND TOTAL $11,333,000

RQAW	MADE BY SP GRESS	DATE 10-23-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 3/3

FOR COST ESTIMATE TO REHAB TRACK TO FRA CLASS 3 (60mph max) USING 1984 REPORT COSTS

A. DETERMINE TRACK REHAB COSTS FOR 33.9 MILES OF MAIN LINE TRACK & 2.1 MILES OF SIDING (8.4 MILES FOR 60mph)

ITEM	AMOUNT	UNIT COST	ITEM COST
1. CROSSTIE REPLACEMENT (8.4 x 3249) + (.667 x 27.6 x 3249)	87,100	$50/ea	$4,355,000
2. RAIL REPLACEMENT (3.06 + .50 + 1.77 + 2.89)	8.22 mi	$250,000/mi	$2,055,000
3. SURFACE	36 mi	$10,000/mi	$ 360,000
4. REHAB TURNOUTS	6	$8000/ea	$ 48,000
		SUBTOTAL	$6,818,000
		+20%	$1,364,000
		TOTAL	$8,182,000

B. DETERMINE CROSSING REHAB. COSTS:

ITEM	AMOUNT	UNIT COST	ITEM COST
1. CROSSING REHAB	2506 ft	$720/ft	$1,804,000
2. ADD FLASHERS	12 sets	$50,000/SET	$ 600,000
3. ADD AUTOMATIC GATES	3 sets	$90,000/SET	$ 270,000
4. REHAB EXISTING FLASHERS	13 sets	$5300/set	$ 69,000
		TOTAL	$2,743,000

C. DETERMINE WAYSIDE SIGNAL SYSTEM COSTS:

ITEM	AMOUNT	UNIT COST	ITEM COST
1. WAYSIDE SIGNAL SYSTEM FOR WHERE COMMUTER TRAINS TRAVEL	8.65 mi	$300,000/mi	$2,595,000
		GRAND TOTAL	$13,520,000

APPENDIX V

CROSSTIE REPLACEMENT CALCULATIONS

APPENDIX V

RQAW	MADE BY SP Gress	DATE 10-17-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 1

FOR MONON STUDY TIE REPLACEMENT CALC'S FOR MAIN TRACK

Milepost	Tie Spacing	% Ties Defect.	Recommended Min. Tie Replacement Per Rail Length 40 MPH No.	%	60 MPH No.	%
171	24/39'	29	4	17	6	25
170	24/39'	38	4	17	6	25
169	24/39'	58	5	21	8	33
168	24/39'	42	4	17	6	25
167	24/39'	62	4	17	7	29
165	24/39'	17	1	4	3	12
163	24/39'	38	2	8	5	21
161	24/39'	29	2	8	3	12
159	24/39'	25	1	4	3	12
157	23/39'	57	5	22	8	35
155	23/39'	65	5	22	8	35
153	24/39'	54	5	21	8	33

RQAW	MADE BY SP GRESS	DATE 10-17-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 2

FOR MONON STUDY TIE REPLACEMENT CALC'S FOR MAIN TRACK

MILEPOST	TIE SPACING	% TIES DEFECT.	RECOMMENDED MIN. TIE REPLACEMENT PER RAIL LENGTH 40 MPH No.	40 MPH %	60 MPH No.	60 MPH %
151	24/39'	58	5	21	8	33
149	25/39'	68	6	24	10	40
147	25/39'	60	5	20	8	32
145	22/36'	45	5	23	8	36
143	22/36	45	6	27	8	36
141	19/33	47	4	21	—	
139	19/33	37	3	16	6	32
138	25/39	80	8	32	12	48
		46.7		17.4		28.5
		47.7		18.1		29.2
		41.0		15.5		24.8
		50.6		19.2		

3.06 MILES OF 90# RAIL
ADD 1.31 TIES PER 33'
TO GET 24/39' SPACING

ODD MP STA AVG

ALL MP STA AVG

MP 171 — 165 ALL

MP 163 — 138 ALL

RQAW	MADE BY SP GRESS	DATE 10-18-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 3

FOR MONON STUDY TIE REPLACEMENT CALC'S FOR MAIN TRACK

A. ESTIMATE TIE REPLACEMENT FOR REHABING MAIN TRACK TO CLASS 2 STANDARD'S BETWEEN MP 171.4 & 137.5

ASSUMPTIONS:

1. REPLACEMENT THE SAME AS FOR CLASS 3 (40mph) EXCEPT THAT ONLY 1 TIE AT CENTER OR EITHER SIDE OF A SUPPORTED JOINT NEEDS TO BE GOOD FOR MINIMUM FRA STD'S. THEREFORE, ASSUME 1 LESS TIE TO BE REPLACED PER 39' RAIL LENGTH THAN FOR CLASS 3 (40mph). (1tie/39' = 4.2% ties)
2. REPLACE ADDITIONAL TIES ABOVE REQUIRED MINIMUM FOR FRA STD'S SUCH THAT NO TIES WILL HAVE TO BE REPLACED FOR 5 YEARS AFTER TRACK REHAB. WORK.
3. ASSUME THAT TIES HAVE AN APPROXIMATE LIFE SPAN OF 25 YEARS OR 20% WILL HAVE TO BE REPLACED EVERY 5 YEARS (20% x 24 TIES PER 39' RAIL LENGTH = 4.8 TIES)
4. ADD 1.31 TIES PER 33' RAIL SECTION FOR 90# RAIL TO GET 19.5" TIE SPACING (3.06 MILES OF 90# RAIL = 642 TIES TO ADD)
5. TOTAL TRACK LENGTH = 171.4 - 137.5 = 33.9 MILES
6. MIN. TIE REPLACEMENT FOR CLASS 3 (40mph) FRA STD'S = 17.4%

CALCS:

1. EST. NO. OF EXISTING TIES ON 33.9 MILES OF TRACK = (33.9 - 3.06 miles) x 3249 ties/mile + 3.06 x 3,040 ties/mile
   = 109,502 ties
2. EST. NO. OF TIES TO REPLACE OR ADD
   = (.174 - .042 + .20) x 109,502 + 642 ties
   = 36,997 TIES

ASSUME THAT 37,000 TIES ARE NEEDED FOR CLASS 2

RQAW	MADE BY SP GRESS	DATE 10-18-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 4

FOR MONON STUDY TIE REPLACEMENT CALC'S FOR MAIN TRACK

B. ESTIMATE TIE REPLACEMENT FOR REHABING MAIN TRACK TO CLASS 3 (40mph) STD'S BETWEEN MP 171.4 & 137.5

ASSUMPTIONS:

1. MIN. TIE REPLACEMENT FOR CLASS 3 (40mph) FRA STD'S = 17.4%
2. TOTAL TRACK LENGTH = 33.9 MILES
3. REPLACE ADDITIONAL TIES ABOVE REQUIRED MINIMUM FOR FRA STD'S SUCH THAT NO TIES WILL HAVE TO BE REPLACED FOR 5 YEARS AFTER TRACK REHAB WORK.
4. ASSUME THAT TIES HAVE AN APPROXIMATE LIFE SPAN OF 25 YEARS OR 20% WILL HAVE TO BE REPLACED EVERY 5 YEARS.
5. ADD 1.31 TIES PER 33' RAIL SECTION FOR 90# RAIL TO GET 19.5" TIE SPACING (3.06 MILES OF 90# RAIL = 642 TIES TO ADD).

CALCS:

1. EST. NO. OF EXISTING TIES ON 33.9 MILES OF TRACK = (33.9 - 3.06 miles) x 3249 ties/mile + 3.06 miles x 3,040 ties/mile
   = 109,502 TIES
2. EST. NO. OF TIES TO REPLACE OR ADD
   = (.174 + .20) x 109,502 + 642 ties
   = 41,596 TIES

ASSUME 41,600 TIES ARE NEEDED FOR CLASS 3 (40mph)

RQAW	MADE BY SP GRESS	DATE 10-18-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 5
FOR MONON STUDY TIE REPLACEMENT CALC'S FOR MAIN TRACK			

C. ESTIMATE TIE REPLACEMENT FOR REHABING MAIN TRACK TO CLASS 3 (60mph) BETWEEN MP 171.4 & 163 AND TO CLASS 3 (40mph) BETWEEN MP 163 & 137.5

ASSUMPTIONS:

1. MIN. TIE REPLACEMENT FOR CLASS 3 (60mph) FRA STD'S BETWEEN MP 171.4 & 163 = 24.8 %
2. MIN TIE REPLACEMENT FOR CLASS 3 (40mph) FRA STD'S BETWEEN MP 163 & 137.5 = 19.2 %
3. REPLACE ADDITIONAL TIES ABOVE REQUIRED MINIMUM FOR FRA STD'S SUCH THAT NO TIES WILL HAVE TO BE REPLACED FOR 5 YEARS AFTER TRACK REHAB. WORK.
4. ASSUME THAT TIES HAVE AN APPROXIMATE LIFE SPAN OF 25 YEARS OR 20 % WILL HAVE TO BE REPLACED EVERY 5 YEARS.
5. ADD 1.31 TIES PER 33' RAIL SECTION FOR 90# RAIL TO GET 19.5" TIE SPACING (3.06 MILES OF 90# RAIL = 642 TIES TO ADD).

CALCS:

1. EST. NO. OF TIES FROM MP 171.4 TO 163

   # TIES = (171.4 − 163) x 3249 TIES/MILE

   = 27,292 TIES

2. EST NO. OF TIES FROM MP 163 TO 137.5

   # TIES = (163 − 137.5 − 3.06) x 3249 TIES/MILE + 3.06 x 3040 TIES/MILE

   = 82,210 TIES

3. EST NO. OF TIES TO REPLACE BETWEEN MP 171.4 & 163

   # TIES TO REPLACE = (.248 + .20) x 27,292

   = 12,227 TIES

4. EST NO. OF TIES TO REPLACE OR ADD BETWEEN MP 163 & 137.5

   # TIES = (.192 + .20) x 82,210 + 642 ties

   = 32,868

5. TOTAL NO. OF TIES TO REPLACE OR ADD = 12,227 + 32,868 = 45,095, USE 45,100

RQAW	MADE BY SP GRESS	DATE 10-23-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 6

FOR MONON STUDY TIE REPLACEMENT . CALC'S FOR SIDING TRACKS

ASSUMPTIONS:

1. ALMOST ALL TIES IN SIDINGS ARE DEFECTIVE
2. MIN TIE REPLACEMENT FOR MEETING FRA CLASS 1 = 21%.
3. INCLUDE ALL TIES FROM POINT OF SWITCH (P.S.). DOUBLE COUNTING OF TIES IN TURNOUT WILL ACCOMODATE ADDITIONAL COST OF REPLACING OVERSIZE TIES IN TURNOUT THAT ARE SHARED WITH MAIN LINE TRACK.
4. REPLACE AN ADDITIONAL 20% OF TIES ABOVE REQUIRED MINIMUM SUCH THAT NO ADDITIONAL TIES HAVE TO BE REPLACED FOR 5 YEARS.

CALCS:

1. CALCULATE TOTAL LENGTH OF SIDINGS

CARMEL SIDING (MP 168.1 - 167.7) = 2198'
WESTFIELD SIDING (MP 163.27 - 162.76) = 2669'
SHERIDIAN SIDING (MP 155.8 - 154.6) = 6332'
TOTAL = 11,199'

2. TOTAL NO OF TIES FROM P.S. IN SIDINGS
= 11,199 x 1 TIE/1.65'
= 6787

3. NO. OF DEFECTIVE TIES TO REPLACE
= 6787 (.21+.20)
= 2850

APPENDIX VI

TRACK REHABILITATION COST ESTIMATES BASED ON UNIT COSTS, ASSUMPTIONS AND CRITERIA DEVELOPED IN THIS STUDY

RQAW	MADE BY SP GRESS	DATE 10-27-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 1/6
FOR MONON STUDY COST ESTIMATE FOR TRACK REHAB. TO FRA CLASS 2			

A. DETERMINE TRACK REHAB COSTS FOR 33.9 MILES OF MAIN LINE TRACK & 2.1 MILES OF STORAGE TRACK SIDINGS:

ITEM	AMOUNT	UNIT COST	ITEM COST
1. CUT BRUSH W/ MECHANICAL BRUSH CUTTER FOR A DISTANCE OF 10' FROM TRACK CENTERLINE EACH DIRECTION	50% = 18.0 miles	$500/mi	$9000
2. SPRAY WEEDS	36 mi	$250/mi	$9000
3. MAIN LINE TIE REPLACEMENT	37,000	$40.50/ea	$1,498,500
4. SIDING TIE REPLACEMENT (6"x8")	2850	$35.50/ea	$101,200
5. TRACK REGAGE (36 mi - 3.06 mi OF 90# RAIL ON MAIN LINE TO REPLACE)	32.94 mi	$2570/mi	$84,700
6. CLEAN OUT DITCH LINE W/ JORDAN SPREADER	36 mi	$2220/mi	$79,900
7. BALLAST SHOULDER CLEANING	—	$1890/mi	—
8. LIGHT DITCHING	10% = 3.6 mi	$8960/mi	$32,300
9. TAMP & LINE	36 mi	$4,000/mi	$144,000
10. TURNOUT UPGRADE	6	$7500/ea	$45,000
11. RAIL REPLACEMENT (USE 105# RELAY FOR 90#)	3.06 mi	$63,400/mi	$194,000
12. RAIL JOINT RENEWAL (271/mi)	(36-3.06-3.68) x 271 = 7929	$7.50/ea	$59,500
13. RAIL JOINT REPLACEMENT	3.06 x 271 = 829	$37/ea	$30,700
14. ANCHOR ADDITION/REPLACEMENT [2.2/RAIL x 271 RAILS/mi x (36 mi - 3.06 mi/90# RAIL - 3.68 mi/CWR) + (3040 x 3.06) + 37,000 + 2850 - (.332 x 3.06 x 3040) + (.332 x 3.68 x 3249)]	67,500	$1.90/ea	$128,200

SUBTOTAL	$2,416,000
10% CONTINGENCY	$241,600
TOTAL	$2,657,600

RQAW	MADE BY S P GRESS	DATE 10-25-85	JOB NO 2229
	CHECKED BY	DATE	SHEET NO. 216

FOR MONON STUDY COST ESTIMATE FOR TRACK REHAB. TO FRA CLASS 2

B. DETERMINE ROAD CROSSING REHAB. COSTS:

ITEM	AMOUNT	UNIT COST	ITEM COST
1. REPLACE ROAD CROSSINGS W/ NEW ASPHALT & TIMBER X-ING (105# RAIL)	1573 ft	$500/ft	$786,500
2. CONCRETE HEADERS ON BOTH SIDES OF CROSSINGS	110 ft	$70/ft	$ 7,700
3. CLEAN TRACK FLANGEWAYS	600 ft	$4/ft	$ 2400
4. TRACK REMOVAL & ROAD REPAIR THRU CROSSING	64 ft	$52/ft	$ 3300
5. FLASHER REHAB.	15 SETS	$3800/SET	$ 57,000
6. INSTALL NEW FLASHERS, SINGLE TRK	2 SETS	$16,900/SET	$ 33,800
7. INSTALL NEW FLASHERS, DOUBLE TRACK	1 SET	$19,700/SET	$ 19,700
8 INSTALL X-BUCK SIGNS & POSTS	7	$100/ea	$ 700
9. REPLACE X-BUCK SIGNS	7	$40/ea	$ 300
		SUBTOTAL	$911,400
		10% CONTINGENCY	$ 91,100
		TOTAL	$1,002,500

C. WAYSIDE SIGNAL SYSTEM COSTS:

- NO SYSTEM RECOMMENDED FOR CLASS 2 REHAB.

GRAND TOTAL	$3,660,100
USE:	$3,660,000

RQAW	MADE BY SP GRESS	DATE 10-22-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 3/6

FOR MONON STUDY COST ESTIMATE FOR TRACK REHAB. TO FRA CLASS 3 (40mph)

A. DETERMINE TRACK REHAB. COSTS FOR 33.9 MILES OF MAIN LINE TRACK & 2.1 MILES OF SIDING:

ITEM	AMOUNT	UNIT COST	ITEM COST
1. CUT BRUSH W/ MECHANICAL BRUSH CUTTER	50% = 18.0 mi	$500/mi	$ 9000
2. SPRAY WEEDS	36 mi	$250/mi	$ 9000
3. MAIN LINE TIE REPLACEMENT (7"x9")	41,600	$40.50/eq	$1,684,800
4. SIDING TIE REPLACEMENT (6"x8")	2850	$35.50/eq	$ 101,200
5. TRACK REGAGING (36 mi - 3.06 mi/90# - .50 mi/75# SIDING)	32.44 mi	$2570/mi	$ 83,400
6. CLEAN OUT DITCH WITH JORDAN SPREADER	36 mi	$2220/mi	$ 79,900
7. BALLAST SHOULDER CLEANING	—	$1880/mi	—
8. LIGHT DITCHING	10% = 3.6mi	$8960/mi	$ 32,300
9. TAMP & LINE	36 mi	$4000/mi	$ 144,000
10. TURNOUT UPGRADE	6	$7500/eq	$ 45,000
11. RAIL REPLACEMENT (USE 105# RELAY) (3.06mi + .50mi)	3.56	$63,400/mi	$ 225,700
12. RAIL JOINT RENEWAL	(36-3.56-3.68) x271 = 7794	$7.50/eq	$ 58,500
13. RAIL JOINT REPLACEMENT	3.56 x271 = 965	$37/eq	$ 35,700
14. ANCHOR ADDITION/REPLACEMENT [2.2 x 271 x (36-3.06-3.68) + (3040 x 3.06) + 41,600 + 2850 - (.374 x 3.06 x 3040) + (.374 x 3.68 x 3249) + (.59 x .50 x 3249)	73,100	$1.90/eq	$ 138,900

SUBTOTAL	$2,647,400
10% CONTINGENCY	$ 264,700
TOTAL	$2,912,100

RQAW	MADE BY SP GRESS	DATE 10-28-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 4/6

FOR MONON STUDY COST ESTIMATE FOR TRACK REHAB TO FRA CLASS 3 (40mph)

B. DETERMINE ROAD CROSSING REHAB. COSTS:

ITEM	AMOUNT	UNIT COST	ITEM COST
1. REPLACE ROAD CROSSING W/ NEW ASPHALT & TIMBER X-ING (105# RAIL)	1845 ft	$500/ft	$922,500
2. CONCRETE HEADERS ON BOTH SIDES OF CROSSINGS	110 ft	$70/ft	$7,700
3. CLEAN TRACK FLANGEWAYS	370 ft	$4/ft	$1,500
4. TRACK REMOVAL & ROAD REPAIR THRU CROSSING	64 ft	$52/ft	$3300
5. FLASHER REHAB.	15 sets	$3800/set	$57,000
6. INSTALL NEW FLASHERS, SINGLE TRACK	7 sets	$16,900/set	$118,300
7. INSTALL NEW FLASHERS, DOUBLE TRACK	3 sets	$19,700/set	$59,100
8. INSTALL NEW FLASHERS, TRIPLE TRACK	1 set	$22,500/set	$22,500
9. INSTALL NEW GATE & FLASHER SYSTEM — SINGLE TRACK	1 set	$26,300/set	$26,300
10. INSTALL NEW X-BUCKS & POSTS	5	$100/ea	$500
11. REPLACE X-BUCK SIGNS	7	$40/ea	$300
		SUBTOTAL	$1,219,000
		10% CONTINGENCY	$121,900
		TOTAL	$1,340,900

C. WAYSIDE SIGNAL SYSTEM COSTS:

ITEM	AMOUNT	UNIT COSTS	ITEM COST
1. WAYSIDE SIGNAL SYSTEM	8.65 mi	$238,000/mi	$2,059,700
		10% CONTINGENCY	$205,900
		TOTAL	$2,264,600

GRAND	TOTAL	$6,517,600
	USE	$6,518,000

RQAW	MADE BY SP GRESS	DATE 10-22-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 5/6

FOR MONON STUDY COST ESTIMATE FOR TRACK REHAB. TO FRA CLASS 3 (60 mph TO M.P. 163)

A. DETERMINE TRACK REHAB. COSTS FOR 33.9 MILES OF MAINLINE TRACK & 2.1 MILES OF SIDING (8.4 MILES TO BE SUITABLE FOR 60 mph):

ITEM	AMOUNT	UNIT COST	ITEM COST
1. CUT BRUSH W/ MECHANICAL BRUSH CUTTER	50% = 18.0 mi	$500/mi	$9000
2. SPRAY WEEDS	36 mi	$250/mi	$9000
3. MAIN LINE TIE REPLACEMENT (7"x9")	45,100	$40.50/ea	$1,826,600
4. SIDING TIE REPLACEMENT (6"x8")	2850	$35.50/ea	$101,200
5. TRACK REGAGING (36mi - 3.06mi - .50mi - 4.66 mi)	27.78	$2570/mi	$71,400
6. CLEAN OUT DITCH LINE W/ JORDAN SPREADER	36 mi	$2220/mi	$79,900
7. BALLAST SHOULDER CLEANING	9.6 mi	$1880/mi	$18,000
8. LIGHT DITCHING	10% = 3.6mi	$8960/mi	$32,300
9. SURFACE (3" LIFT)	9.6 mi	$12,900/mi	$123,800
10. TURNOUT UPGRADE	6	$7500/ea	$45,000
11. RAIL REPLACEMENT (115# CWR) 1.77+2.89 = 4.66mi		$207,000/mi	$964,600
12. RAIL REPLACEMENT (105# RELAY)	3.56 mi	$63,400/mi	$225,700
13. RAIL JOINT RENEWAL (36-4.66-3.56-3.68) x271 = 6530		$7.50/ea	$49,000
14. RAIL JOINT REPLACEMENT	3.56x271 = 965	$37/ea	$35,700
15. ANCHOR ADDITION / REPLACEMENT [2.2 x 271 (36 - 3.06 - 3.68) + (3040 x 3.06) + (2-.448) x 4.66 x 3249 + 45,100 + 2850 - (.392 x 3.06 x 3240) + (.392 x 3.68 x 3249) + (.59 x .50 x 3249)]	100,000	$1.90/ea	$190,000
16. TAMP & LINE	26.4mi	$4000/mi	$105,600

SUBTOTAL	$3,886,800
10% CONTINGENCY	$ 388,700
TOTAL	$4,275,500

RQAW	MADE BY SP GRESS	DATE 10-28-85	JOB NO. 2229
	CHECKED BY	DATE	SHEET NO. 6/6

FOR MONON STUDY COST ESTIMATE FOR TRACK REHAB. TO FRA CLASS 3 (60mph TO MP. 163)

B. DETERMINE ROAD CROSSING REHAB. COSTS:

ITEM	AMOUNT	UNIT COST	ITEM COST
1. REPLACE ROAD CROSSINGS W/ NEW ASPHALT & TIMBER X-INGS (115# CWR)	651 ft	$530/ft	$345,000
2. REPLACE ROAD CROSSINGS W/ NEW ASPHALT & TIMBER X-INGS (105# RAIL)	1477 ft	$500/ft	$738,500
3. NEW CONCRETE HEADERS ON BOTH SIDES OF CROSSINGS	110 ft	$70/ft	$7,700
4. CLEAN TRACK FLANGEWAYS	290 ft	$4/ft	$1,200
5. TRACK REMOVAL & ROAD REPAIR THRU CROSSING	64 ft	$52/ft	$3,300
6. FLASHER REHAB.	13 sets	$3800/set	$49,400
7. INSTALL NEW FLASHERS, SINGLE TRACK	8 sets	$16,900/set	$135,200
8. INSTALL NEW FLASHERS, DOUBLE TRACK	3 sets	$19,700/set	$59,100
9. INSTALL NEW FLASHERS, TRIPLE TRACK	1 set	$22,500/set	$22,500
10. INSTALL NEW GATE & FLASHER SYSTEM — SINGLE TRACK	1 set	$26,300/set	$26,300
11. INSTALL NEW GATE & FLASHER SYSTEM — DOUBLE TRACK	2 sets	$29,100/set	$58,200
12. INSTALL NEW X-BUCKS & POSTS	5	$100/ea	$500
13. REPLACE X-BUCK SIGNS	7	$40/ea	$300
		SUBTOTAL	$1,447,200
		10% CONTINGENCY	$144,700
		TOTAL	$1,591,900

C. WAYSIDE SIGNAL SYSTEM COSTS:

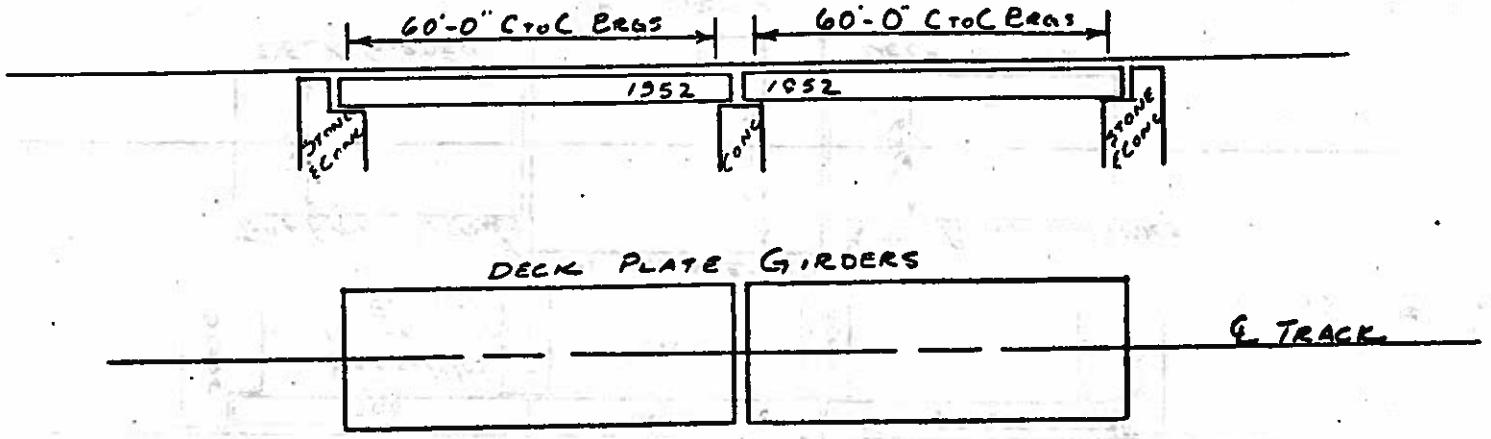
ITEM	AMOUNT	UNIT COSTS	ITEM COST
1. WAYSIDE SIGNAL SYSTEM	8.65 mi	$238,000/mi	$2,058,700
		10% CONTINGENCY	$205,900
		TOTAL	$2,264,600
GRAND TOTAL			$8,132,000

APPENDIX VII

BRIDGE SKETCHES AND RATING CALCULATIONS FROM THE SEABOARD SYSTEM RAILROAD

Br# B133.7 over
South Fork Wildcat Creek

Monon Division
Monon to Indianapolis
E-1105



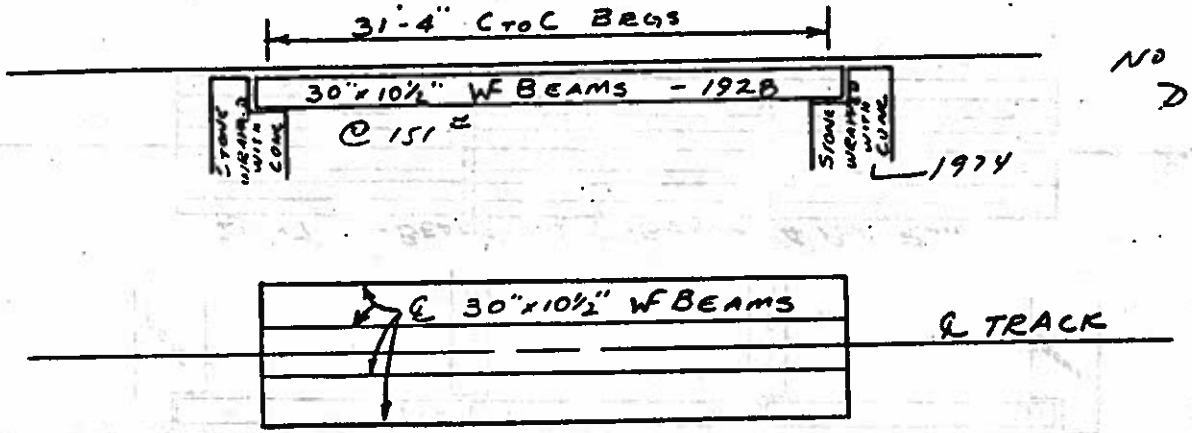
LF - 41030 - 140
Align - Tangent
Bents - Stone & Concrete

Open Deck
8"x10" Oak Ties (Good)

SIGR

Br# B137.8

Monon Division
Monon to Indianapolis
E-74



No Laterals or Diaphrams

LF 41030 - 141
Align - Tangent
Bents - Stone Wrapped with Conc.

Open Deck
8"x10" Oak Ties (Good)

SIGR

900-3-12

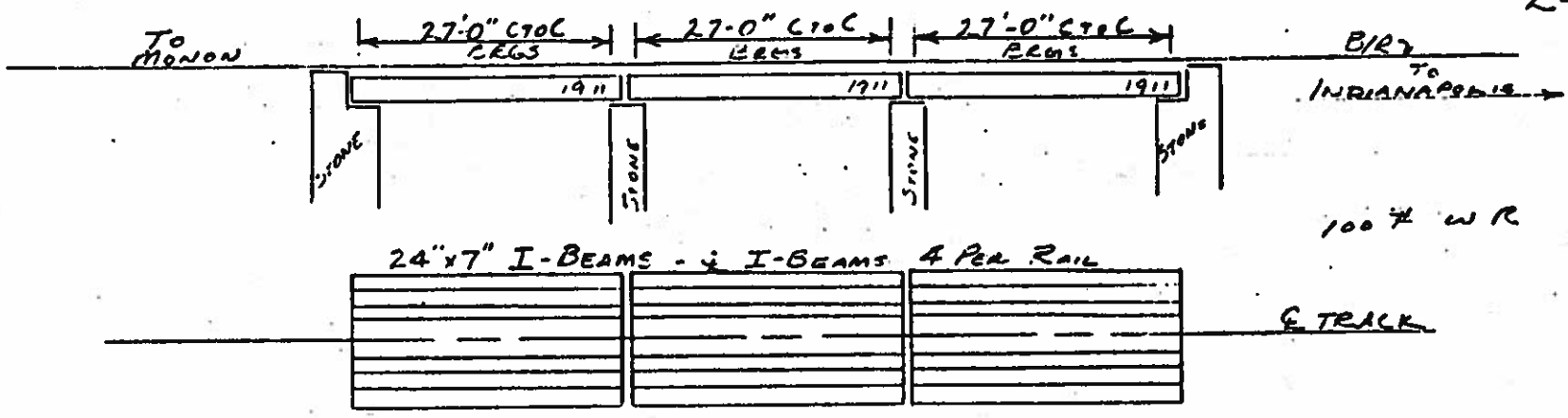
APPENDIX VII

Br# B145.1

OPEN DECK

MONON DIVISION
MONON TO INDIANAPOLIS

E-



LF - 41030 - 142
ALIGN - TANGENT
BENTS - STONE

Open Deck
53 8x10 OAK TIES (GOOD)

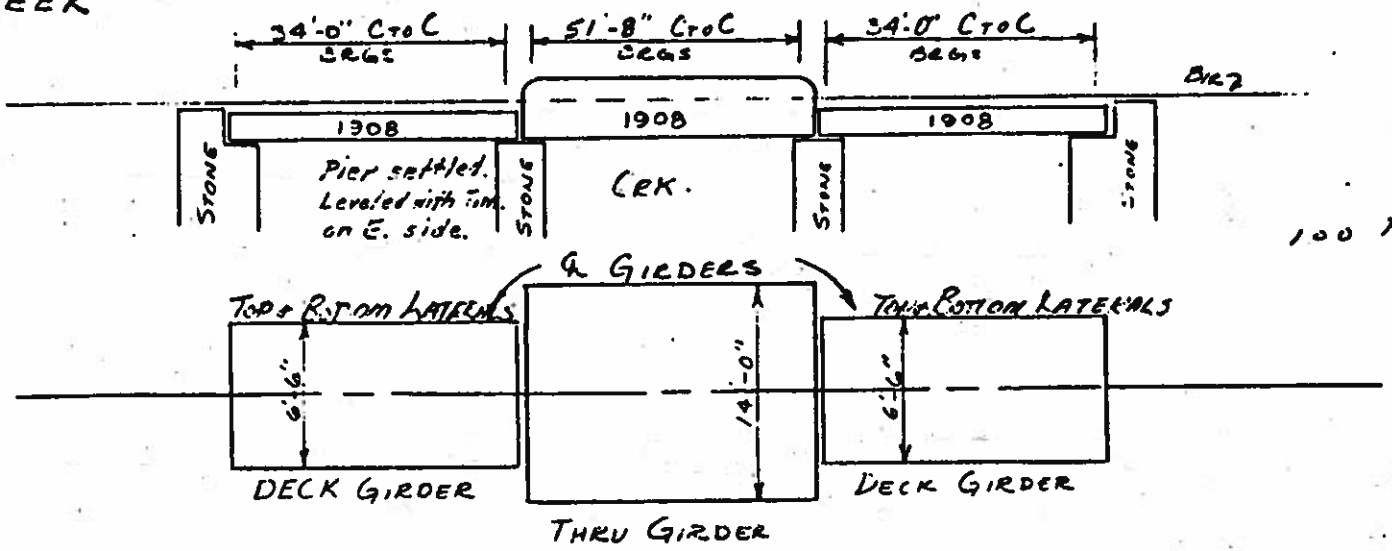
SIGR

Br# B145.6
SUGAR CREEK

122' E to E

MONON DIVISION
MONON TO INDIANAPOLIS

E-



LF - 41030 - 143
ALIGN - TANGENT
BENTS - STONE

Open Deck
53 8'-0" OAK TIES (GOOD)

SIGR

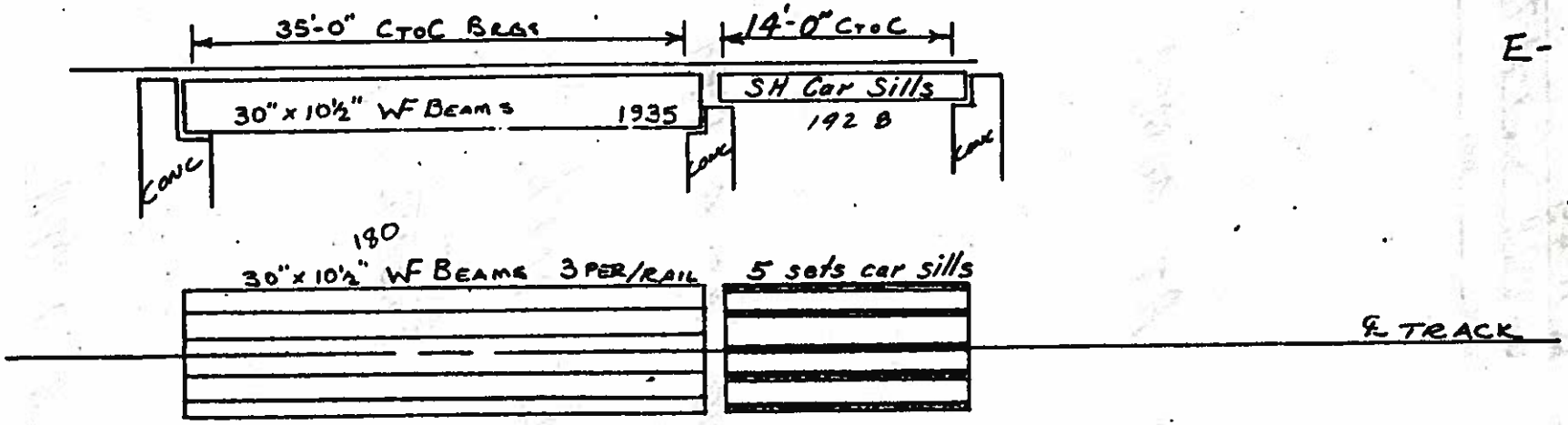
900-3-13

Br# B145.9

Ballast Deck

Monon Division
Monon to Indianapolis

E-



LF - 41030 - 144
Align - 1° Curve Left
Bents - Conc

Ballast Deck
8" Floor Planks

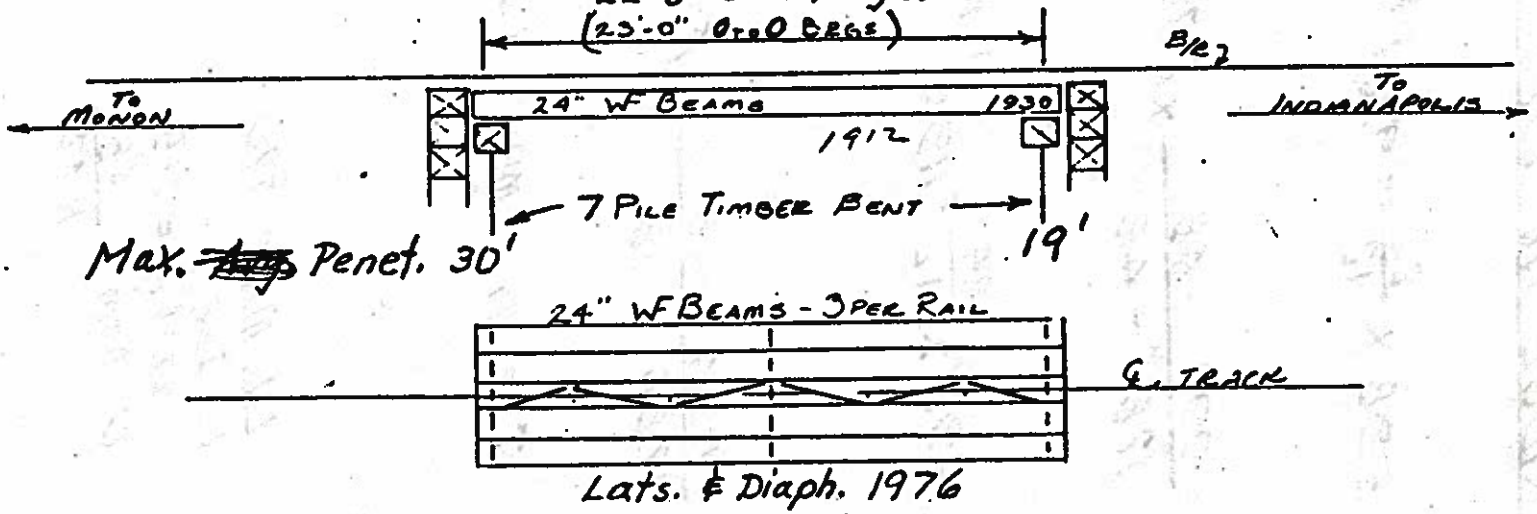
Br# B150.6

Ballast Deck

22'-0 C-C Brgs.
(23'-0" O to O Brgs)

Monon Division
Monon to Indianapolis

E-



Pile Penet. 9' to 30'

LF 41030 - 145
Align - Tangent
Bents - Timber Hle 1976

Std. Ballast Deck AFE 70127
4"x8" Floor Planks 1976

900-3-13

$598 \times \frac{20}{12} = 996.7^{1-K}$

$\frac{998 - 48}{1280 - 48} \times E\text{-}72 = E\text{-}55.52$ AT 40 MPH

$598 \times \frac{24}{12} = 1196^{1-K}$

$\frac{1196 - 48}{1280 - 48} \times E\text{-}72 = E\text{-}67.09$ AT 40 MPH

IMP AT 10 MPH $= \left(40 - \frac{3(31)^2}{1600}\right)(.2) =$ 7.64%

$\frac{100}{5} = \frac{20.00}{27.64\%}$

L.L. Mom = 779
L.L. IMP
27.64% = 215
D.L. Mom = $\frac{48}{1042}$

$\frac{998 - 48}{1042 - 48} \times E\text{-}72 = E\text{-}68.81$ AT 10MPH

$\frac{1196 - 48}{1042 - 48} \times E\text{-}72 = E\text{-}83.15$ AT 10MPH

LUMB, TUCKETT AND HUBBARD

Project:

Subject: For # B145.1

Sheet B.145.1.1 of

Job # 1001

Comp. FS. Date 6-23-65

Ch'k'd. A.B. Date 6-27-65

26'-0" c to c of Bearing

32 x 0.8 = 25.6

Imp $40 - \frac{3(26)^2}{160} = 35.73$

100 / 5

$= \frac{200}{55.73}$

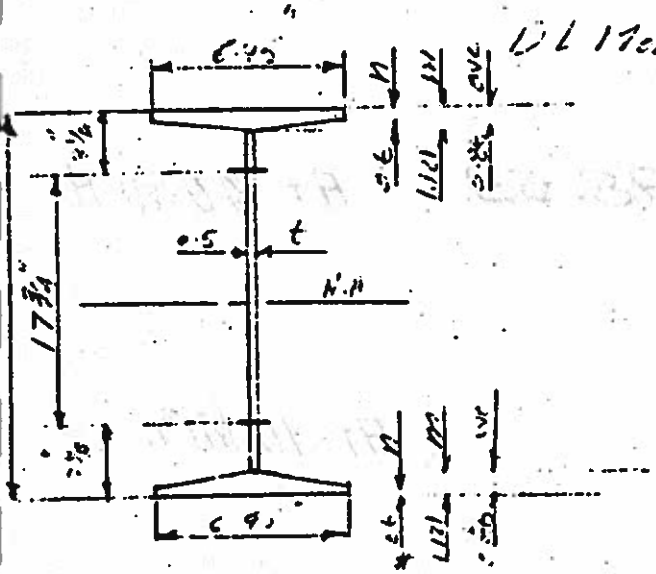
E-72

"Open deck"

LL Mom = 5516

LL Imp (35%) = 343.0

DL Mom = $\frac{ca(a)}{8} = \frac{50.6}{476.2}$



(A-24 I & E.C.)

Gross I = [illegible] in⁴

" " = 20.13 x 4 = 5225

" " = [illegible] in⁴

Hole out

(2)(0.5 x 8.5)² = 78.5

78.5 x 4 = 314 in⁴

Gross I = 5225

Hole out = 315

Net I = 7910 in⁴

$SM = \frac{7910}{12} = 660 \times \frac{26.4}{12} = 1450$

$\frac{1450 - 50}{478 - 30} \times E\text{-}72 = E\text{-}108$

PLUMB, TUCKETT AND HUBBARD, INC.

Project: L & N. R.R.

Subject: BRIDGE NO. B145.1

Sheet 104 of

Job 71-49

Comp. D.L.M Date 8-27-71

Ch'k'd. W.H Date 9-15-71

$660 \times \frac{20}{12} = 1099.99$

$\frac{1100-50}{978-50} \times E\text{-}72\text{-}E\text{-}\ 81.46$ AT 40 MPH

$660 \times \frac{24}{12} = 1320$

$\frac{1320-50}{978-50} \times E\text{-}72\text{-}E\text{-}\ 98.53$ AT 40 MPH

$\frac{1100-50}{798-50} \times E\text{-}72 = E\text{-}101$ AT 10 MPH

$\frac{1320-50}{798-50} \times E\text{-}72 = E\text{-}122$ AT 10 MPH

PLUMB, TUCKETT AND HUBBARD

Project

Subject Br. B. 145.6

Sheet B-145.6-1 of

Job #1001

Comp. A.B. Date 6-24-65

Ch'k'd. E.S. Date 6-30-65

34'-0" C to C. Girder (33)(.8) = 26.4

$$Imp. = 40 - \frac{3(34)^2}{1600} = 37.84$$

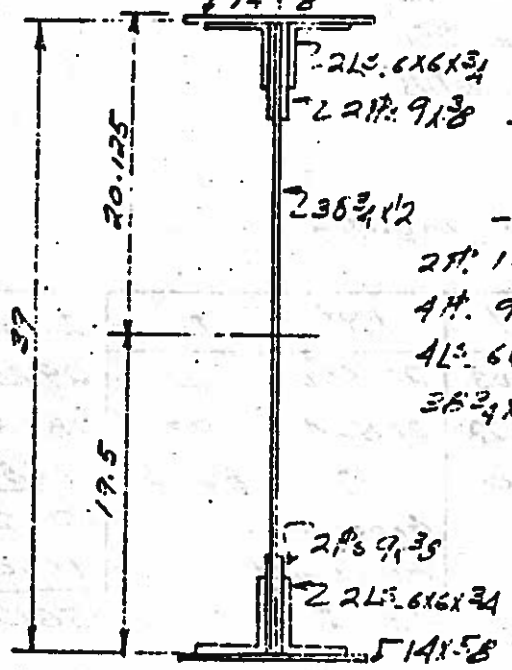
$$100/6.5 = \frac{15.35}{55.22}$$

L.L. Mom. = 900

L.L. Imp. 53.22% = 479

D.L. Mom $\frac{.5(34)^2}{8}$ = 72

1451



Mom. of Inertia

	A	Y	Ay^2	I_o	I_T
2 PL. 14 x 5/8	17.5	19.81	6867	—	6867
4 PL. 9 x 3/8	13.5	15	3037	92	3129
4 L's 6 x 6 x 3/4	33.76	17.72	10600	113	10713
3 PL 3/4 x 1/2	—	0	0	2426	2426
			Gross		23135
			Holes		4000
			Net		19,135

$$S.M. \frac{19,135}{20.125} = 951$$

$$951 \times \frac{26.4}{12} = 2092$$

$$\frac{2092 - 72}{1451 - 72} \times E - 72 = E - 105 \quad \text{Full Section}$$

Allow Comp.

$$\frac{26.4}{18}\left[18,000 - 5\frac{(62)^2}{(14)^2}\right] = 26.2$$

PLUMB, TUCKETT AND HUBBARD

Project:

Subject: Br. B-145.6

Sheet B-145.6-2 of

Job #1001

Comp. A.B. Date 6-28-65

Ch'k'd. F.S. Date 6-30-65

50'-0" Girder

(33)(.8) = 26.4

Imp. $40 - \frac{3(50)^2}{1600} = 35.32$

$100/114$: $\frac{7.15}{42.47}$

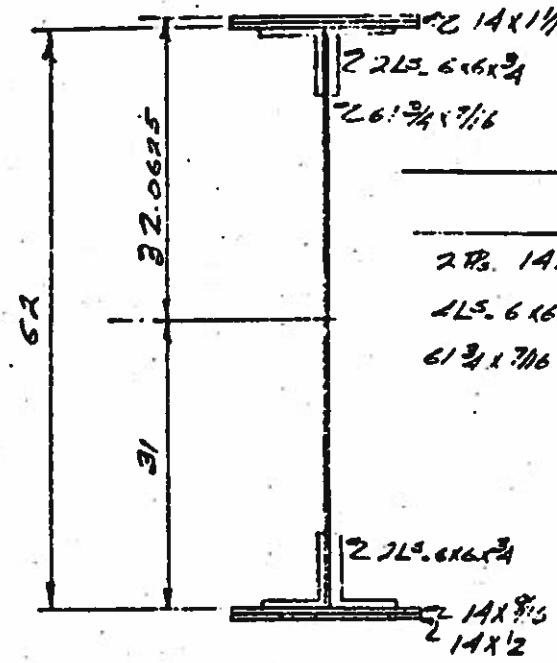
E-72

L.L. Mom. = 1711

L.L. Imp. 42.47 = -726

D.L. Mom. $\frac{.9(50)^2}{8}$ = 281

2718



Mom. of Inertia

	A	Y	AY^2	I_o	I TOTAL
2 Pls. 14x1 1/16	24.76	31.03	29600	—	29,600
4 Ls. 6x6x3/4	35.76	29.22	26524	113	28937
6 3/4 x 7/16	—	0	0	65.86	56
			Gross I		67123
			Holes I		11,000
			Net I		56123

S.M. = $\frac{56123}{31.0625}$ = 1760

$1760 \times \frac{26.4}{12} = 3870$

$\frac{3870 - 281}{2718 - 281} \times E\text{-}72 = E\text{-}106$

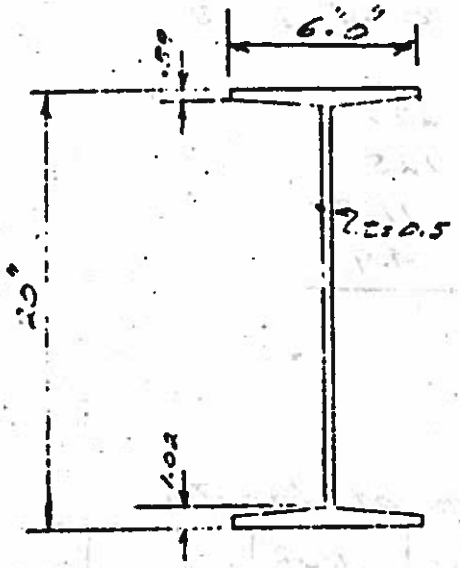
Full Section

Stringers.

10'-0"

Imp. $= 40 - \frac{3(10)^2}{100} = 39.82$

100/6.5 $= \frac{15.35}{55.20}$



20" I Beam @ 65#

E-72

L.L. Mom. = 101
L.L. Imp. 55.20 % = 56
D.L. Mom. $\frac{3(10)^2}{8}$ = 4
161

S.M. = 115

$115 \times \frac{26.4}{12} = 253$

$\frac{253-4}{161-4} \times E-72 = E-114$

Full Section

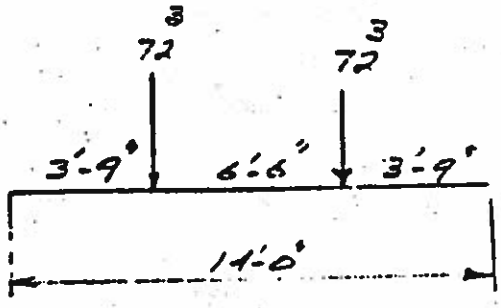
Floor Beams.

14'-0"

$$\text{Imp} - \frac{40-3(14)^2}{1600} = 39.43$$

100/14 = 7.15

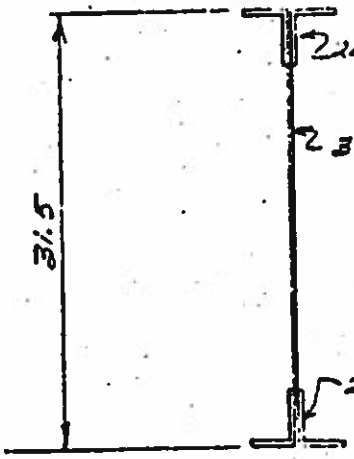
46.58



10 X .3 = 3

E-72

L.L. Mom.	(72)(3.75)	= 270
L.L. Imp.	46.58 %	= 125
D.L. Mom.	3(3.75)	= 11.25
D.L. Mom.	$\frac{.2(14)^2}{.8}$	= 4.9
		411



Mom. of Inertia

Mem.	A	Y	AY^2	I_o	I. Total
4L 5x4x5/8	20.92	14.13	4175	50	4225
3 1/4 x 1/2	—	0	0	1272	272
		Gross I			5497
		Add'l cont			1800
		N.A. I			3697

$$S.M. = \frac{3697}{15.75} = 284$$

$$284 \times \frac{26.1}{12} = 515$$

$$\frac{515-16}{411-16} \times E\text{-}72 = E\text{-}90$$

Full Section

10 M.P.H.

$$\frac{515-16}{329-16} \times E\text{-}72 : E\text{-}116$$

PLUMB, TUCKETT AND HUBBARD

Project

Subject Br. # B-145.6

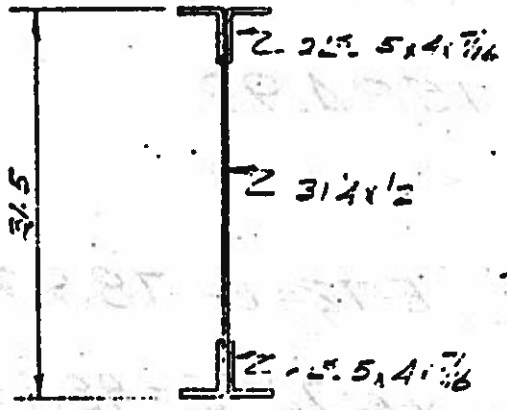
Sheet B-145.6-5 of

Job #1001

Comp. A.B. Date 6-25-65

Ch'k'd. E.S. Date 6-27-65

Floor Beam.



Main

L.L. - 54 x 3.75 . 202

Imp. 46.6 % - 95

D.L. 3 x 3.75 = 11

D.L. 2 (14) : 5

313

Mom. of Inertia

Mem.	A.	Y	Ay^2	I.	$I_{comp.}$
4 L's 5 x 4 x 7/16	15.0	14.20	3020	36	3056
31½ x ½	—	0	0	1272	1272
					4328
					1600
					2728

$$S.M. = \frac{2728}{15.75} = 174$$

$$174 \times \frac{26.4}{12} = 382$$

$$\frac{382 - 16}{313 - 16} \times E - 72 = E - 89$$

Full Section

10 M.P.H.

$$\frac{382 - 16}{248 - 16} \times E - 72 = E - 114$$

LUMB, TUCKETT AND HUBBARD, INC.

Project L.&N. R.R

Subject BRIDGE NO. B145.6

Sheet 105 of

Job 71-49

Comp. D.L.M. Date 8-27-71

Ch'k'd. W.J.H. Date 9-15-71

34'-0 SPAN

FULL SECTION

$951 \times \frac{20}{12} = 1584.99$

$\frac{1585-72}{1451-72} \times E\text{-}72 = E\text{-}78.99$ AT 40 MPH

$\frac{1585-72}{1178-72} \times E\text{-}72 = E\text{-}98.49$ AT 10 MPH

$951 \times \frac{24}{12} = 1902$

$\frac{1902-72}{1451-72} \times E\text{-}72 = E\text{-}95.54$ AT 40 MPH

$\frac{1902-72}{1178-72} \times E\text{-}72 = E\text{-}119.13$ AT 10 MPH

50'-0 SPAN

$1760 \times \frac{20}{12} = 2933.32$

$\frac{2933-281}{2718-281} \times E\text{-}72 = E\text{-}78.35$ AT 40 MPH

$1760 \times \frac{24}{12} = 3520$

$\frac{3520-281}{2718-281} \times E\text{-}72 = E\text{-}95.68$ AT 40 MPH

$\frac{2933-281}{2237-291} \times E\text{-}72 = E\text{-}97.62$ AT 10 MPH

$\frac{3520-281}{2237-291} \times E\text{-}72 = E\text{-}119.2$ AT 10 MPH

10'-0 SPAN

$115 \times \frac{20}{12} = 191.66$

$\frac{192-4}{161-4} \times E\text{-}72 = E\text{-}86.21$ AT 40 MPH

$\frac{192-4}{129-4} \times E\text{-}72 = 108.29$ AT 10 MPH

$115 \times \frac{24}{12} = 230$

$\frac{230-4}{161-4} \times E\text{-}72 = E\text{-}103.63$ AT 40 MPH

$\frac{230-4}{129-4} \times E\text{-}72 = E\text{-}130.18$ AT 10 MPH

14'-0 SPAN (5/8" THK. LG.

$234 \times \frac{20}{12} = 389.99$

$\frac{390-16}{411-16} \times E\text{-}72 = E\text{-}68.16$ AT 40 M.P.H.

$\frac{390-16}{327-16} \times E\text{-}72 = E\text{-}86.58$ AT 10 M.P.H.

$234 \times \frac{24}{12} = 468$

$\frac{468-16}{411-16} \times E\text{-}72 = E\text{-}82.38$ AT 40 MPH

$\frac{468-16}{327-16} \times E\text{-}72 = E\text{-}104.63$ AT 10 M.P.H

LUMB, TUCKETT AND HUBBARD, INC.

Project L. & N. R.R.

Subject BRIDGE NO. B145.6 (CONT.)

Sheet 107 of _____

Job 71-49

Comp. D.L.M. Date 8-27-71

Ch'k'd. WJH Date 9-15-71

14'-0 SPAN 7/16". THK. Ls

$174 \times \frac{20}{12} = 289.99$

$\frac{290-16}{313-16} \times E-72 = E-66.42$ AT 40 MPH

$\frac{290-16}{248-16} \times E-72 = E-85.03$ AT 10 MPH

$174 \times \frac{24}{12} = 348$

$\frac{348-16}{313-16} \times E-72 = E-80.48$ AT 40 MPH

$\frac{348-16}{248-16} \times E\,72 = E-103.03$ AT 10 MPH

LUMB, TUCKETT AND HUBBARD

Project

Subject By # L-145.9

Sht. B.145.1 Job # 1001 Comp. E.S. Date 6-23-65 Ch'k'd. A.B. Date 6-30-65

33'-4" C to C Brgs. 33.33'

Imp' = $\frac{4c - \pi(33.33)^2}{1.00}$ = 37.71

$\frac{1000}{75}$ = $\frac{800}{57.91}$

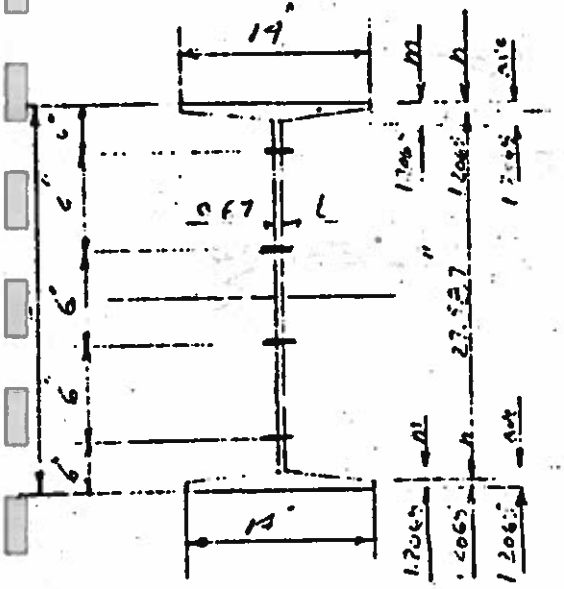
E-72

L.L.M = 873

L.L. Imp' (5791#) = 204

V.L.M = $\frac{1.5(33.33)}{2}$ = $\frac{249}{1587}$

{ 6" x 10-16'-0" timber
Ballast 12" x 16'-0"



30" Carnegie I Beam (1 Ea)

Web out

(2)(0.67)(3)³ = 12

(2)(0.67)(9)³ = 104

117

Gross I 8301

Het out 117

Net I 8184

$\Sigma M = \frac{8184}{15} = 545$

$545 \times \frac{26.9}{12} = 1200$

$1200 \times 12 = 2400$ in.³

$\frac{2400 - 209}{1587 - 209} \times E\text{-}72 = E\text{-}114$

Full Section

PLUMB, TUCKETT AND HUBBARD

Project: Monon R.R.

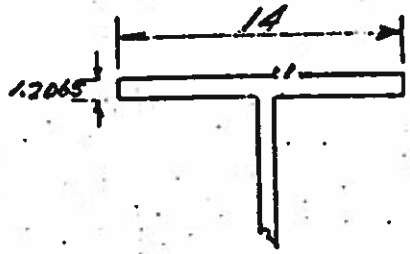
Subject: Re Rating Bridge No. B-145.9

Sheet 13-142.1-101

Job #1001

Comp. A.B. Date 7-19-65

Ck'd. E.S. Date 7-21-65



2-30" WF-180#

(14)(1.2065) = 16.89

16.89 x 25% = 4.23 #/ft

$\frac{4.23 \times 100}{52.93} = 8\%$

100 - 8 = 92%

545 x 92% = 501

$501 \times \frac{26.4}{12} = 1102$

1102 x 2 = 2204

$\frac{2204 - 209}{557 - 209} \times E\text{-}72 = E\text{-}104$ #

$501 \times \frac{20}{12} = 834.99$ $835 \times 2 = 1670$

$\frac{1670 - 209}{1587 - 209} \times E\text{-}72 = E\text{-}76.33$ AT 40 MPH

$501 \times \frac{24}{12} = 1002 \times 2 = 2004$

$\frac{2004 - 209}{1587 - 209} \times E\text{-}72 = E\text{-}93.78$ AT 40 MPH

$\frac{1670 - 209}{1322 - 209} \times E\text{-}72 = E\text{-}94$ AT 10 MPH

$\frac{2004 - 209}{1322 - 209} \times E\text{-}72 = E\text{-}116$ AT 10 MPH