

MEMORANDUM

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CONRAIL



TO DISTRIBUTION

DATE September 24, 1986

FROM

J. R. Clark

Chief Engineer-M.W.

P - 1634

SUBJECT

Revised and New Standard
Maintenance of Way Plans

PHONE

Attached are the following new and revised standard plans:

70051-C Minimum Clearances
 70700-B Security Gate
 75101-D Replacement Bolts for RBM Frogs
 73167-G 16'-6" Straight Split Switch
 73178-G 26' Curved Split Switch
 73179-F 39' Curved Split Switch
 73180-H 16'-6" Straight Split Switch (No. 8)
 73181-H 16'-6" Straight Split Switch (No. 10)
 73182-F 26' Curved Split Switch
 73183-F 39' Curved Split Switch
 73184-H Sh.1 No. 8 Welded Turnout
 73184-D Sh.2 Bill of Material
 73185-G No. 10 Welded Turnout
 73186-G No. 15 Welded Turnout
 73187-G No. 20 Welded Turnout
 73192-E No. 8 Bolted Turnout
 73193-E No. 10 Bolted Turnout
 73194-E No. 15 Bolted Turnout
 73195-E No. 20 Bolted Turnout
 73514-E Vertical Switch Rods - 39'-0" Switch
 73516-E Vertical Switch Rods - 26'-0" Switch
 73518-E Vertical Switch Rods - 16'-6" Switch
 74160-D No. 8 RBM Frog
 74161-D No. 10 RBM Frog
 74162-D No. 15 RBM Frog
 74163-D No. 20 RBM Frog
 74164-A Sh.1 Reinforcing Sections
 74164-A Sh.2 Reinforcing Sections
 77403-C Drift Pin and Round Track Punch
 78600-A Cable Marker Placement

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HARRISBURG, PA.
DIVISION ENGINEERS
OFFICE

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SUBJECT

Conrail Standard Maintenance of Way Plans
Standard Plan Check List, September, 1986

PHONE

The plans listed comprise a complete MofW Standard Plan Book. Original plans carry the letter suffix "A". Revisions are indicated alphabetically by letter suffix. Date of each revision is noted in the upper left hand corner of the plan.

Attached to the check list are the Revised Remark Sheets which describe by note the revisions made to date on each plan.

The check list should be used to ensure that you have a complete and up-to-date standard plan book. Check list and remarks should be inserted in the standard plan book.

MW PLANS

REMARKS

- Note 1 - Rev. B, 11-79
Reference 2 revised from "on one side only" to read "on one side of such tracks only".
- Rev. C, 5-86 thru bridge dimensions changed to AREA recommendations 3rd rail and trolley wires removed.
- Note 2 - Rev. B, 4-79
Install bolts with heads in alternate position. Section of Allegheny Drop Forge Co. added. "Manufactured by Portec" deleted from title block. Huck fastener approved in lieu of A490 bolt in Allegheny Drop Forge Joint.
- Rev. C. 8-79
Insulated "D" Bar changed to Bonded Joint Bar. "When spiking joint place head in reverse position" taken from beneath both section views and made Note 5.
- Rev. D, 9-81
5¼" bolt length added. 2¼" thread length added.
- Rev. E, 2-84
Added Note 1
- Note 3 - Bolt hole spacing of 6" on end of rail drilling corrected to 7".
- Rev. B, 10-80
- Note 4 - 7/8" x 5½" bolt changed to 7/8" x 5" with Account and Reference No. changed to 01-226347. Dimension "L" extended to under side of bolt head.
- Rev. C, 8-84
Added Conrail MW Spec. Numbers
- Note 5 - Rev. B, 10-80
Dimension "L" on Elliptical Neck extended to underside of bolt head.
- Rev. C, 10-82
Notes 1 and 2 Revised.
- Rev. D, 9-85
Note 1 added.
- 1" x 4¼" bolt changed to 1" x 4 1/8"

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- Note 6 - Rev. B, 3-78
Notes 1-2-3 added. Dimension for 119 and 132 removed from bottom of Section A-A.

Rev. C, 1-83
- Note 7 - Rev. B, 4-78
Title block changed to indicate for 132RE rail.

Rev. C, 3-79
Bearing area on tie changed from 114.3 sq. in. to 110.17 sq. in.

Rev. D, 8-84
Added Conrail MW Spec Numbers
- Note 8 - 132RE added to title block and elsewhere.
- Note 9 - Notes were rearranged and closure length dimensions added. 119RE added to title block. Sheet 2, which showed offsets for 119re housed switch was deleted, housed switches no longer used. On 73010-B to C revision Point of Switch to P.C. dimension changed from 19'-6-15/15" to 19'-7".
- Note 10 - Radius designation changed from outer rail to center line of track Note 2 revised.
- Note 11 - Rev. B, 3-80
Inside radius, tangent distance and offsets changed.

Rev. C, 5-80
Note 2 revised to indicate fully heat treated rail.

Rev. D, 5-81
Note 2 revised to include 119 lb. rail. Note 4 revised.

Rev. E, 6-83
Note 5 revised. Distances ahead of point revised.
- Note 12 - Rev. B, 2-81
Note 6 added indicating fully heat treated stock and switch rail.

Rev. C, 5-81
119 lb. rail added to note 6.

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- Note 13 - Rev. B, 2-81
Note added indicating fully heat treated 132 lb. stock and switch rail. Note added indicating switch to be used only in Lap Turnout.
- Rev. C, 5-81
119 lb. rail added to Note 7
- Note 14 - Rev. B, 3-79
Offsets for curved portion of stock rail removed and notes giving offset, rail and tie layout plan numbers put in same location. Tie spacing revised.
- 73167-A and 73189-A were the same, except one was for 140RE and the other for 132RE. They were combined into 73167-B and 73189-A was then designed to a #10 crossover plan, issued 9-10-79.
- Rev. C, 5-80
Note added indicating stock and switch rails to be fully heat treated. 15' headblock tie eliminated.
- Rev. D, 7-81
Tie spacing corrected.
- Rev. E, 11-83
Distances ahead of point revised.
- Rev. F, 2-84
140RE added to Note 2. Spring Washer identified.
- Rev. G, 5-86 Note 2 - All rails fully heat treated.
- Note 15 - Rev. B, 2-79
Offsets for curved portion of stock rail removed and notes giving offset, rail and tie layout plan numbers put in same location. Tie spacing revised.
- Rev. C, 7-81
Tie spacing corrected.
- Note 16 - Rev. B, 3-79
132RE added to title block. 60' stock rails replaced 39' stock rails. Added drilling for 132RE rail.
- Rev. C, 8-79
In Bill of Material last item changed to read 4 altered standard tie plates instead of 4 ft. plates.
- Rev. D, 5-80
Note 2 changed to indicate stock and switch rails to be fully heat treated. 15' Headblock Tie eliminated.

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Note 16 (Cont'd)

73178-A and 73190-B were the same except one was for 140RE and the other for 132RE. They were combined into 73178-B and 73190-A was assigned to a #15 crossover plan, issued 9-10-79.

Rev. E, 11-83
Distances ahead of point revised

Rev. F, 2-84.
140RE added to Note 2. Spring Washer identified.

Rev. G, 5-86.
Note 2 - All rails fully heat treated. Switch offsets 73182-().

Note 17 - Rev. B, 8-79

Note added to leave 2 front holes on switch rail open in shipment for use by Conrail C&S Department.

Rev. C, 5-80
Note 2 changed to indicate stock and switch rail to be fully heat treated. 15' headblock tie eliminated. Plan 73179-A and 73191-B were the same except one was for 140RE and the other for 132RE. They were combined into Plan 73179-A and 73191-B was changed to 73191-A and assigned to #20 crossover plan issued 9-10-79.

Rev. D, 11-83
Distances ahead of point revised.

Rev. E, 2-84
140-RE added to Note 2.
Spring Washer identified.

Rev. F, 5-86 Note 2 - All rails fully heat treated. Switch offsets 73183-().

Note 18 - Rev. B, 3-79

On Plan 73180-A for No. 8 T.O. radius behind floating heel block changed from 460.3717' to 443.81'.
On Plan 73181-A for No. 10 T.O. radius behind floating heel block changed from 722.80' to 704.611'.

Rev. C, 1-80
Added 3rd switch rod. Distance of vertical bend from heel of switch rail changed to 2'-3½" from end of rail.

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Note 18 (Cont'd)

Rev. D, 5-80

Note 8 changed to indicate stock and switch rails to be fully heat treated. Words "straight" and "curved" deleted from 27' RH or LH Switch Rail. Side planing added. On Plan 73180 the dimension 2'-10-3/8" tangent from floating heel block to the P.C. changed to 2'-10½".

Rev. E, 12-81

Note 11 added 140RE removed.

Rev. F, 6-83

Stock Rail Distances ahead of point changed to 5'-0" and 10'-0". Max. and min. removed.

Rev. G, 9-85

Note 12 added.

Rev. H, 5-86

Notes - All rails fully heat treated. Added switch offsets on Plan 73181-(). Reference note on Plan 73180-(). Additional dimensions added to heel block on Plan 73180-().

Note 19 - Rev. B, 5-80 Note 8 changed to indicate stock and switch rails to be fully heat treated. Side planing added.

Rev. C, 12-81

Note 11 added 140RE removed.

Rev. D, 6-83

Stock Rail Distances ahead of point changed to 5'-0" and 10'-0". Max. and Min. removed.

Rev. E, 9-85

Note 12 added.

Rev. F, 5-86. Note 8 - All rails fully heat treated. Added switch offsets.

Note 20 - Rev. B, 8-78

Note 11 added. Notes under legend changed concerning rails to be furnished by manufacturer.

Rev. C, 1-80

Number of FT plates required corrected.

Rev. D, 5-80

Note 1 changed to indicate stock and switch rails to be fully heat treated and all other rails end hardened.

Rev. E, 12-81

Note 12 added. "Sheet 1 of 2" added to title block. 140RE removed.

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Note 20 (Cont'd)

Rev. F, 6-83

Stock Rail Distances ahead of point changed to 5'-0" and 10'-0". Added bonded insulated joints. Revised insulated joint stagger.

Rev. G, 2-84.

"Glued Joint" changed to "Bonded".

Rev. H, 5-86. Note 1 - All rails fully heat treated.

Note 21 - Rev. B, 8-78

Radius corrected on Plan 73185. Note 11 added. Notes under legend changed concerning rails to be furnished by manufacturer.

Rev. C, 5-80

Note 1 changed to indicate stock and switch rails to be fully heat treated and all other rails to be end hardened.

Rev. D, 12-81

Note 12 added. 140RE removed.

Rev. E, 6-83

Stock rail distances ahead of point changed to 5'-0" and 10'0". Added bonded insulated joints. Revised insulated joint stagger.

Rev. F, 2-84.

Note 11 removed.

Rev. G, 5-86.

Note 1 - All rails fully heat treated.

Note 22 - This number 73188-A was for 16'-6" switch for No. 8 or No. 10 T.O., housed for 132RE. Housed switches no longer used. Number reassigned to a No. 8 crossover tie layout. Issued on 9-10-79.

Note 23 - This number 73189-A was for a 16'-6" switch for No. 8 or No. 10 T.O., undercut, for 132RE. Plan 73167-A was same except for 140RE. On 4-6-79 Plan 73167-A was revised to 73167-B to include the 132RE. Number 73189-A was re-assigned to a No. 10 crossover tie layout and issued on 9-10-79.

Note 24 - This number 73190-A was for a 26'-0" switch for No. 15 T.O., undercut, for 132RE Plan 73178-A was same except for 140RE. On 4-6-79 Plan 73178-A was revised to 73178-B to include the 132RE. Number 73190-A was reassigned to a No. 15 crossover tie layout and issued on 9-10-79.

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- Note 25 - This number 73191-A was for a 39'-0" switch for No. 20 T.O., undercut, for 132RE. Plan 73179-A was same except for 140RE. On 4-6-79 Plan 73179-A was revised to 73179-B to include the 132RE. Number 73191-A was re-assigned to No. 20 crossover tie layout and issued on 9-10-79.
- Note 26 - Rev. B, 10-79
Note added that insulated joints must be ordered separately. Conrail Plan number 73189-() in first line of "Material included in Panel T.O., Panel Switch or Packaged Switch" changed to 73167-() on Plan 73193-A.
- Rev. C, 5-80
Note 5 changed to indicate stock and switch rails to be fully heat treated and all other rails to be end hardened.
- Rev. D, 9-83
FTH 23 Mod. changed to FT 23 Mod. Plan number and reference number added for abrasion plate. Plan rearranged reference numbers for turnouts revised.
- Rev. E, 5-86. Note 5 - All rails fully heat treated.
- Note 27 - Rev. B, 10-79
Note added that insulated joints must be ordered separately. Conrail Plan number 73190-() in first line of "Material included in Panel or Packaged Switch" changed to 73178-().
- Rev. C, 5-80
Note 5 added to indicate stock and switch rails to be fully heat treated; all other rails to be end hardened.
- Rev. D, 9-83
Reference Numbers for turnouts revised. Plan rearranged.
- Rev. E, 5-86.
Note 5 - All rails fully heat treated.
- Note 28 - Rev. B, 10-79
Conrail Plan number 73191-() in first line of "Material Included in Panel or Packaged Switch" changed to 73179-().
- Rev. C, 5-80
Note 5 changed to indicate stock and switch rails to be fully heat treated and all other rails to be end hardened. Reference number for 0-G Plate changed to same as for 26'-0" Switch 01-504024.
- Rev. D, 9-83
Reference numbers for turnouts revised. Plan rearranged.
- Rev. D, 9-83.
Note 5 - All rails fully heat treated.

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- Note 29 - Rev. B, 10-79
On Plan 73196-A Radius changed from 443.6801, to 443.808'. On Plan 73197-A Radius changed from 704.5501 to 704.611'.
- Rev. C, 7-81
Note 5 revised to indicate heat treating of stock and switch rails.
- Note 30 - Rev. B, 7-79
Plates 3H-4H and 5H eliminated. Replaced with SH Plates (under heel of switch). Note 2 changed to indicate this change.
- Rev. C, 12-81
Cone neck drive spike note added. Rail and plate holding spike holes reversed on heel plate. Plate marking note added.
- Note 31 - Rev. B, 1-78
Title block changed to include 132RE rail.
- Rev. C, 3-80
OG-1G and 2G Plate dimensions (gage to gage and center to gage) added and revised. Same OG Plate can be used on either 26' or 39' switch.
- Rev. D, 12-81
Cone neck drive spike note added. Rail and plate holding spike holes reversed on heel plates. 140Re removed.
- Note 32 - Rev. B, 1-78
Title block changed to include 132RE rail.
- Rev. C, 3-80
Note 4 added. Serration length changed from 7" to 8". Mounting hole in clip changed from 1-1/16" dia. to 1-7/16" dia. 3-5/8" dimension on clip changed to 3 1/4".
- Rev. D, 10-83
Rod dimensions revised to conform to Beth.Steel Co.
- Rev. E, 5-86. 3 1/8" dim. added to rocker clip.
- Note 33 - Rev. B, 1-78
132RE added to title block.
- Rev. C, 8-78
Heel block dimensions added. Length of shoulder bolt changed from 13 1/2" to 13-3/4".
- Rev. D, 5-80
Shoulder bolt changed from 13-3/4" to 13 1/2".

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- Note 33 (Cont'd)
Rev. E, 12-81
Cone neck drive spike note added. Dia. of round holes added.
- Rev. F, 2-84.
Dimensions for 11'0" heel block added.
- Rev. G, 1-85
Brace altered to provide clearance for snow melter.
- Note 34 - 132RE added to title block. "X" dimension for drilling rods for 132RE added to table.
- Note 35 - Rev. B, 5-80
Cotter pin hole changed 5/16" dia.
- Rev. C, 12-81
Cone neck drive spike note added. Dia. of round holes added.
- Note 36 - Sheet 1 of 2
Note added for location of switch stands. Section C-C of target adapter removed. Target adapter changed to target support. Top view of target support on left deleted.
- Sheet 2 of 2
"Model 50-B" added under Target Adapter. "For Models 50-A and 50-B" added after Throw Lever.
- Note 37 - Note No. 5 added. Smutco No. 1 changed to Oakite 33. Proper manufacturer's description of Scotchlite for Targets added.
- Note 38 - Rev. B, 3-78
132RE added to title block and to the notes. 132RE drilling added.
- Rev. C, 5-83
FTH 23 Mod. Plate replaced by FT 23 Mod. and FTH 27 Mod. replaced by FT 27 Mod. and FT 20 Mod. replaced by FT 23 Mod.
- Rev. D, 9-85
FTH-23 plate changed to FT-23 Mod.
- Note 39 - Rev. B, 6-78
Note 4 revised. Frog plate requirements revised.
- Rev. C, 1-82
Note 1 added.

- Note 40 - Reference to groove in filler block as an alternate at Section G-G deleted.
- Note 41 - Rev. B, 6-78
On Plan 74160-A Section J-J revised to indicate depth of groove for bonding.
- Rev. C, 10-80
Note 6 added indicating casting to be Explosive Depth Hardened. Quantity FT-23 plates changed from 4 to 6 and FT-27 changed from 12 to 10.
- Rev. D, 5-86. Heat treat wing and heel rails - Note 6.
- Note 42 - Rev. B, 6-78
Reference to groove in filler block as an alternate in Section G-G (Plan 74162-A) and Section J-J (Plan 74163-A) deleted.
- Rev. C, 10-80
Note 6 added indicating casting to be Explosive Depth hardened. Wall thickness changed to 1½" on various sections and vertical rib added to Section F-F (Plan 74162-C) and H-H (Plan 74163-C).
- Rev. D, 5-86. Heat treat wing and heel rails - Note 6
- Note 43 - Rev. B, 10-80
All references to thickness of sign plate changed from 0.125" to 0.081".
- Rev. C, 7-82
6'-0" sign post changed to 4'-0".
- Note 44 - Rev. B, 1-80
Approach speed sign changed from Figure A-1 to A.
Speed limit sign changed from Figure B-1 to C.
Resume speed sign changed from Figure C-1 to D.
Approach Speed Sign Figure D changed to Diverting Approach Speed Sign Figure B.
- Rev. C, 10-80
Sign plate thickness changed from 0.125" to 0.081".
- Note 45 - Rev. B, 10-80
Sign plate thickness changed from 0.125" to 0.081".
Note 5 added. Black Disc and Border added. Bottom bolt height changed from 2-11/16" to 1-11/16".
- Rev. C, 7-82
Note 2 revised.
- Rev. D, 6-83
Note 5 revised. Black Disc and Border removed.

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- Note 46 - Rev. B, 3-79
Prescribed bolt sizes for each rail section and rail drilling added. Page 1 through 7.
- Rev. C, 6-79
Notes and catalog references for prescribed bolts added to Page 7.
- Rev. D, 9-80
Bolt size changed from 7/8" x 5½" to 7/8" x 5" for following rail sections:
- Page 2 - RDG 90# ASCE, NYNH&H 100#, NYC 100# DY
 - Page 3 - NYC 105# DY, NYNH&H 100#
 - Page 4 - NYC 115# DY, NYC 127# DY
 - Page 7 - Catalog reference changed to 01-226347
- Note 47 - Rev. B, 7-81
Note added about special requirements in Indiana and Illinois.
- Note 48 - Rev. B, 8-81
Note 3 changed to read: "Lettering to be as shown on Plan 78010-(), for the vertical sign and in the condensed form for the horizontal sign".
- Note 49 - Rev. B, 8-81
140RE removed from title block.
- Note 50 - Rev. B, 1-78
132RE added to title block.
- Rev. C, 10-81
Length of adjustable brace slide plates changed to 26" 140RE removed.
- Note 51 - Rev. B, 11-81
Timber length changed to 8' - 1½". Location of drive spikes changed. Header timber removed. Section A-A added and bevel note added. End view of Timber C added. Dimensions changed on end view of Timber A. Dowel location changed. "Z" dimensions removed and "H" revised. Part of Note 3 removed.
- Rev. C, 8-82
Notes 1, 6 and 10 revised. Rail section table revised. Location of drive spike holes changed. Bevel note revised.
- Rev. D, 2-84.
Note 9 removed. Ballast note added. Table for minimum widths added.
- Note 52 - Rev. B, 7-82
Sign mounting note revised.

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- Note 53 - Rev. B, 7-82
1st note revised. Account & reference numbers added.
Additional lengths added.
- Note 54 - Rev. B, 1-83
Reference No. 4A revised. 2" dimension removed
from end view of header and Section A-A. Gage
dimension added to Section X-X.
- Note 55 - Rev. B, 10-82
Notes 1 and 2 revised.
- Rev. C, 9-85
Note 1 added.
- Rev. D, 5-86. 9" bolt added.
- Note 56 - Rev. B, 7-83
Note 7 revised
FTH 23 Mod. Plate replaced with FT 23 Mod.
- Note 57 - Rev. B, 8-83
"Panels to be fastened by Lewis Dome Head Drive
Spikes" added to Plan.
- Rev. C, 2-84.
Tie pad note added.
- Note 58 - Rev. B, 9-83
Account and reference numbers revised. Frogs and Frog
Tie Plates included under material furnished by
manufacturer.
- Rev. C, 6-84.
Bonded Ins. Jt. note added for 15 & 20 turnouts.
- Rev. D, 5-86. Numbers revised in Notes 4, 5 & 6.
- Note 59 - Rev. B, 10-83
Switch stand location table revised to agree with
MW 4. Reference to Bethlehem Steel removed.
Padlock Pedestal added.
"A" removed from "22-A" in title.

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- Note 60 - Rev. B, 12-83.
18" Stone ballast changed to "minimum".
- Note 61 - Rev. B, 8-84.
Added Conrail MW Specs. Numbers.
- Note 62 - Rev. B, 1-85
Length and diameter of Drift Pin revised
Acc't. and Ref. Nos. added.

Rev. C, 5-86. 1/2" dia. dimensions added.
- Note 63 - Rev. B, 1-85
Acc't. and Ref. Nos. added.
- Note 64 - Rev. B, 1-85
Hot Cutter dimensions revised. Note 7 revised.
Acc't. and Ref. Nos. added.
- Note 65 - Rev. B, 1-85
Contour dimensions revised for Drift Pin and
Hot Cutter.
- Note 66 - Rev. B, 8-86.
Fabrication - Notes 1 and 5 revised. 3/8" dimension
on lock bolt changed to 3/4". "Rust Proof Welded Area"
Note added.