#### Plan Submittal Process:

Union Pacific requires plan submissions at the levels identified in the table below. Plans will progress through these milestones at Union Pacific's sole discretion. Please note that projects typically require multiple submissions at each milestone. Plans shall be mark with the appropriate level as requested by UPRR.

**10% Plans** - Based on survey and include detailed horizontal geometry per Public Project Checklist.

25% Plans - Plans include profiles, typical sections, phasing plans, cross sections and detailed quantity summary per Public Project Checklist. The agency shall submit a draft of their project specs for work off of UPRR ROW (UPRR specs will be used for all work on UPRR property). A site visit will be scheduled once the horizontal geometry, vertical geometry and phasing plans are at an acceptable level for the 25% site visit by UPRR.

**30% Plans** - Plans are updated to include 25% site review comments.

**90% Plans** - All UPRR significant comments have been incorporated into plans. Project specs and special conditions are finalized or nearly finalized. Site visit is scheduled (as needed).

**100% Plans** – Minor comments remain. Plans will be updated from 100% to "Issued for Construction" once final approval has been given by UPRR. Once UPRR has issued an approval of the plans, no further changes to the plans shall be made during design or construction unless revisions are submitted to UPRR for review and subsequently approved.

#### **General Notes:**

- 1. This document is subject to revisions at any time.
- 2. Allow 6-8 weeks for each plan review and ensure that your projects schedule accounts for all of the multiple submittals for each milestone based on the above table.
- 3. Public Project Checklist must be used and submitted with plans.
- 4. Plans must use UPRR line styles, and drawing symbology. A .Zip file is available (UPRR Standards.zip) with seed files, cell library, fonts, title blocks etc. Please contact your projects MIPP to obtain these files.
- 5. UPRR General Conditions and Specifications will be provided to the agency when the plans reach 25% or higher. UPRR requires these to be included in the projects bid package and used for all work on UPRR ROW. The provided specifications must be

used in their original format. Editing, merging or modifying UPRR Specifications is prohibited.

- 6. Required plans size is 11x17 at 1"=100 or 1"=200'.
- 7. For a full updated copy of the Union Pacific Track Standards, please contact:
  - i. Alex Nigro 402-898-6435 alex.nigro@taylorcommunications.com

### **Shoofly Plan Format**

- Plan &Profile
  - Detailed Plan and profile sheets for each major phase.
    - Typically this involves 2 sets of plan & Profiles or more.
      - First is the construction of the shoofly and shift to the new track.
      - Second is the shift back to existing mainline.
- Phasing Plans (See Exhibit-A at for example plan)
  - Include a basic schematic of the track for each phase as well as a breakdown of the construction activities and who is doing each activity on complex projects (UPRR or Contractor).
  - Each construction step should be noted
  - Linework should show existing track, track shifts, removals and proposed track for that phase.

#### **General Items to Include in Plans:**

- Plans must incorporate UPRRs General Notes. A cad file is available with the notes for easy reference.
- Scale, North Arrow, Revision Block should be present on each sheet.
- The Title block should include Subdivision, Milepost Limits, City, State, Project Description, Sheet Contents, Sheet Numbers shown on each sheet
- Quantity Summary Table shall be included. Template is available on the <u>UPRR website</u>.
  See example below:

Quantity Summary Table - Work by Contractor					
Task/ Item Description	Quantity	Unit	Material Source		
Clearing and Grubbing	9.2	Acre	Contractor		
Hydro Seading	5	Acre	Contractor		
Excavation	23,052	CY	Contractor		
Sub-Excavation (Unsuitable Material)	6,365	CY	Contractor		
Replace Subexcavation with Approved Compacted Fill Material	6,365	CY	Contractor		
Fabric - Geotextile - furnish & place	4,000	SY	Contractor		
"B" Stone - furnish & place	800	CY	Contractor		
Subballast - Furnish, Place and Compact	11,880	CY	Contractor		
Hot Mix Asphalt - Furnish & place	75	Ton	Contractor		
Storm Water Pollution Prevention and Erosion Control (SWPPP)	1	LS	Contractor		
Traffic Control - Signs & Barricades	1	LS	Contractor		
Grading - Earthen Bumper	1	EA	Contractor		
24" CMP	45	LF	Contractor		
Removal of 24" RCP	255	LF	Contractor		
Walkway Ballast	36	CL	Contractor		
Siding Track - 136# CWR ISHH, Wood ties	2683	TF	Contractor		
Remove TO: #9	1	EA	Contractor		
Remove Track	4359	TF	Contractor		

Quantity Summary Table - Work by UPRR				
Task/ Item Description	Quantity	Unit	Material Source	
Mainline Track - 136# CWR ISHH, Wood ties	3213	TF	UPRR	
Siding Track - 136# CWR ISHH, Wood ties	254	TF	Contractor	
Shift Siding Track - 50% Tie Replacement	318	TF	UPRR	
Turnout - #9 HTTO 136# ISHH, Wood ties, SMSG FROG	6	EA	Contractor	
Derail - 136# Hayes sliding w/ crowder	1	EA	Contractor	
Transition Rail - 136# new to 136# worn	4	PR	UPRR	
Transition Rail - 136# new to 141# worn	2	PR	UPRR	
Concrete Crossing 136# (9W)	32	TF	UPRR	
Remove Crossing (9W)	24	TF	UPRR	
Remove TO: #7	1	EA	UPRR	
Remove Track	251	TF	UPRR	

### Plan:

- Refer to the "UPRR Standards.zip" for linestyles, symbols, drawing symbology etc.
  Plans need to be printed and submitted in color (No photocopies).
- The following labels must appear on the plan sheets, including but not limited to:
  - Track numbers
  - Time table direction and station
  - Stationing along main track
  - Named utilities
  - Right-of-Way dimensioned to
    Main Track 1

- o Mileposts
- o Rail weights& tie type
- Track center dimensions
- Horizontal clearances
- o Construction notes

Plan requirements continued on the following page...

 Items that would impact the grading or track design should be located and labeled to include station, description and if directly track-related include MP. See example below.

Turnout: Sta. 137+87.22 No.15 RH POTO

MP 589.88

Culvert: Sta. 133+60.00 3-60"x80' SSP

MP 581.02

Crossing: Sta. 132+87.37 CL Private Crossing

24' Timber DOT# 596512V

MP 581.78

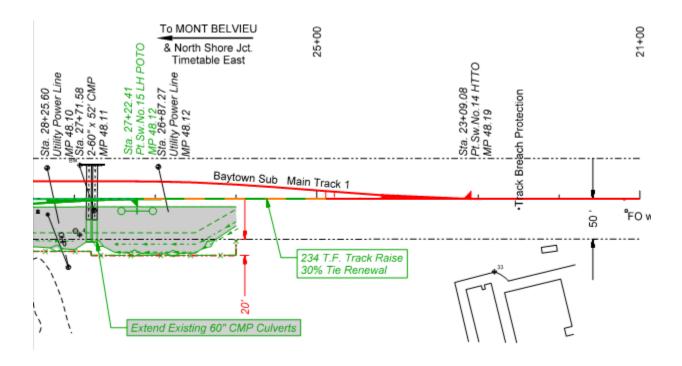
○ <u>Bridge:</u> Sta. 72+84.47 NBW TPGOD – 50'

MP 580.64

Utility Xing: Sta. 180+65 Underground Telephone

o Alignment: Cardinal Point (PC, PT, PS,PSC, PCS, etc.), Station

 Horizontal Curve Data (Degree of Curve, Curve Length Total Delta, Spiral length, Super-elevation, Design Speed)



 Construction Notes required for track plans. All track items require material, quantity, and By UPRR/Contractor. It is preferred that the note color correspond with the color of the element. Use a shaded construction note for Contractor work, unshaded box for UPRR work. See example below.

Construct Track: Construct 1,110 TF

136# ISHH CWR, Wood

By UPRR/Contractor

Install Turnout: Install No.15 LH POTO SPRG

136#, Wood, Switch Stand Inside, HST

By UPRR/Contractor

Install Crossing: Install 60' Concrete Crossing (10W)

By UPRR/Contractor

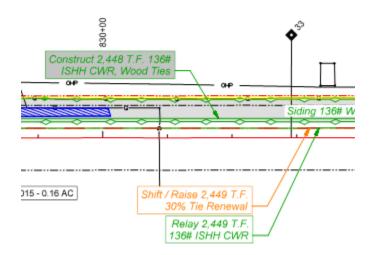
Remove Track: Remove 330 TF

By UPRR/Contractor

o Shift: Shift 92 TF

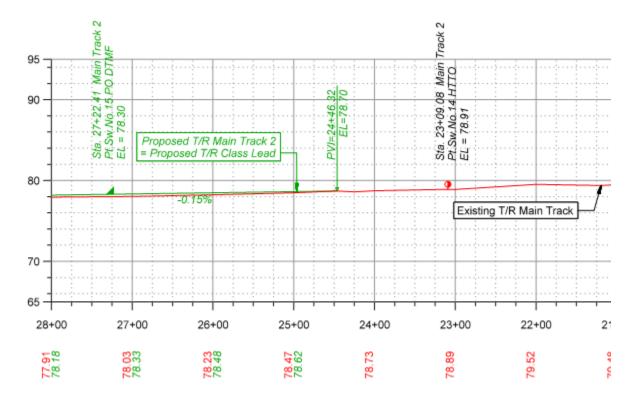
50% Tie Renewal

By UPRR/Contractor



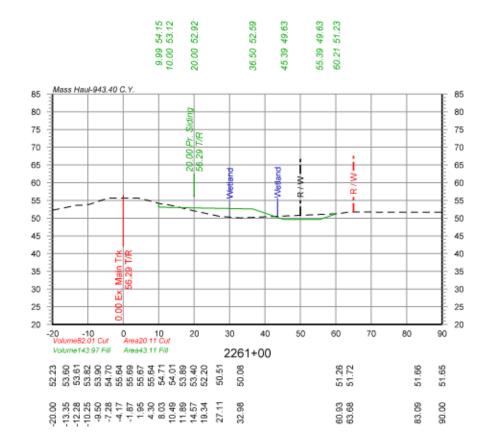
### **Profile:**

- The following items and associated annotation are required to be shown in a top of rail profile:
  - Existing T/R (Red) Elevation every 100', Label Track
  - Proposed T/R (Green) Elevation every 100', Label Track
  - Proposed Vertical Curve Data Crest/Sag, L=XXX', V/L=x.xx, PVI, PVC, PVT
  - Existing ground surface
  - Proposed ditch flowline (if applicable)
  - Turnouts & Derails (Point of Switch) Symbol marking location, Station &
    Elevation
  - Bridge Backwalls Station, T/R Elevation and MP
  - Culverts Station, T/R Elevation and MP (at centerline)
  - Overhead & Underground Utilities Station, T/R Elevation, utility elevation and MP (at centerline)
  - Road Crossings Station, T/R Elevation and MP (at both edges of crossing)
- Existing Top of Rail should be shown and labeled 1000' on each side of structure or 200' past the end of the proposed project. – Whichever is greater.
- See Std Dwg 0016 Vertical Curve Design for UPRR design criteria.



### **Cross Sections:**

- Cross sections should show positive drainage and should represent the standard track section.
- Cross sections should be cut along the main track (0 or center of section is existing track) for the length of the proposed modified grading and 200' beyond in each direction.
- Items that need to be shown include (but not limited to):
  - o Existing Ground Surface Elevation and Offset at Break Points
  - Proposed Subgrade surface Elevation and Offset at Break Points
  - Existing Track Name, Offset, T/R Elevation
  - Proposed Track Name, Offset, T/R Elevation
  - o R/W Feature Line, Offset
  - Utilities Offset, Utility Elevation, T/R Elevation
  - Drainage structures (Culverts, Drains etc.) Offset, Utility Elevation, T/R
    Elevation



### **Typical Sections:**

- Typical Sections should detail the track section and generally show the intended work for the length of the project and should match sections in UPRR Std. drawings 0001, 0002, and 0003 except where deviations are completely necessary.
- See Std Dwg 0001, 0002, and 0003 for Standard Track Sections and UPRR Design Criteria.

## Misc. Details (As needed):

- Grade Crossing Detail, Plan & Profile
- Drainage Details