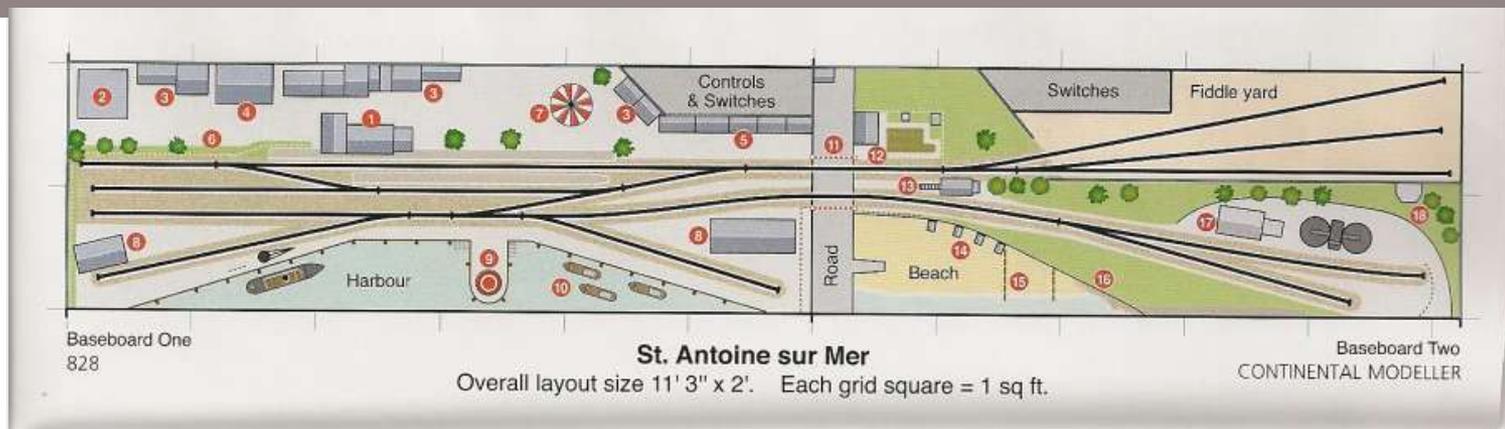


# Designing small shelf Layouts for operating fun



Clinic for NMRA MCR “Thoroughbred Limited” Convention  
May 13-18, 2015 - Lexington, Kentucky  
Philip Gliebe

# Clinic Outline – Small Shelf Layouts

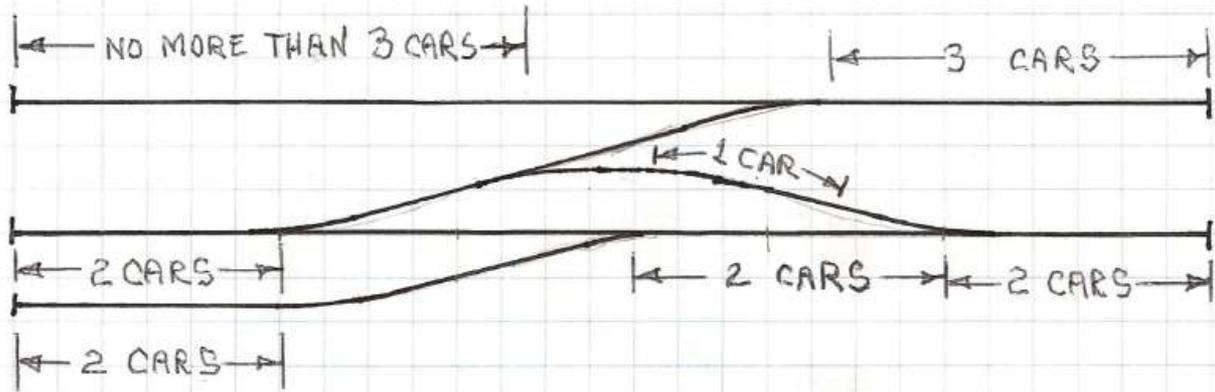
- Introduction - Motivation
- The John Allen “Timesaver” and Inglenook
- The British Scene
- Examples of British Shelf Layouts
- Examples of American Shelf Layouts
- Back to the Timesaver and the Inglenook!
- What Makes A Good Shelf Layout
- Summary
- Some Good References
- Acknowledgements
- Demonstration (If there is time!)

# Introduction - Motivation

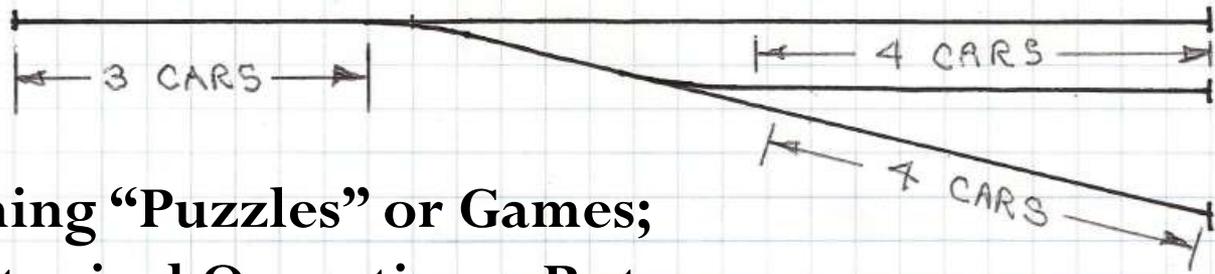
- “No Room for a Layout”
- Want more than just a diorama
- Possibly a start to a future large(r) Layout
- Want something that can be “finished” in a reasonable amount of time and money
- A small layout can be detailed more easily
- Desire Operating Realism even for a small footprint
- Experimenting with: a “new” scale or gauge, track or scenery technique
- Etc., etc., etc.....

# Simple Historical Designs

## 1. The Time Saver



## 2. The Inglenook



**These are Switching “Puzzles” or Games;  
They Lack Prototypical Operation – But  
wait, There’s More!**

# The British Scene

- The British (and European) Model Railroading Scene has developed the small shelf layout concept to a high degree
- Motivated by little living space for a large layout
- Emphasis on exhibition Layouts that can be brought to Model Railroad Exhibitions and Shows
- Focus on modeling one scene, specific place and time
- Operational capability very important to keep the observers' attention
- Lots of good examples published in *Hornby*, *Railway Modeler* and *Continental Modeler* Magazines
- We can learn from them!

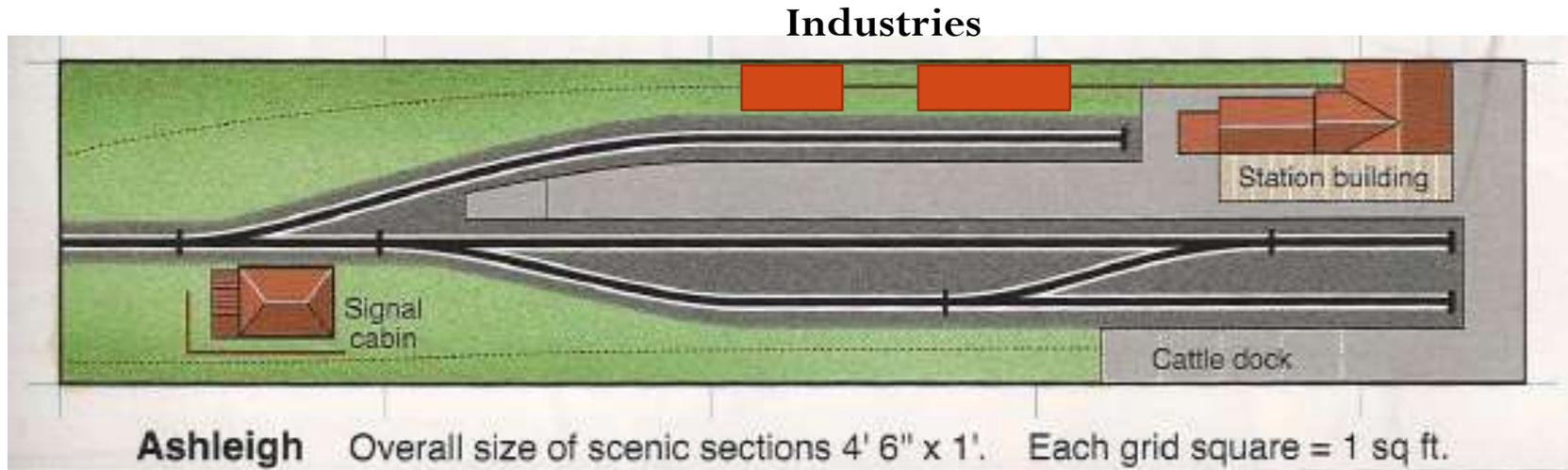
# Some Examples of British Shelf Layouts

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Let's Look at various Types with various features:

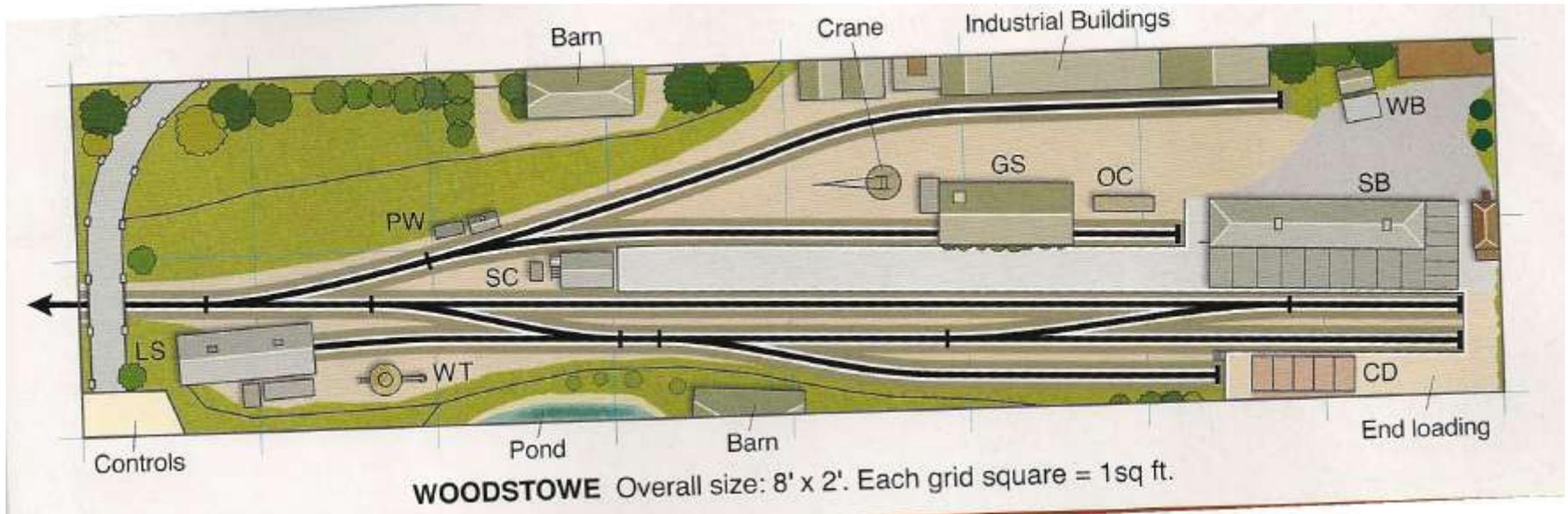
- **Simple Shelf Layouts**
- **Small, Medium and Large Shelf Layouts**
- **Staging and Fiddle Yards**

# Ashleigh – 00/H0



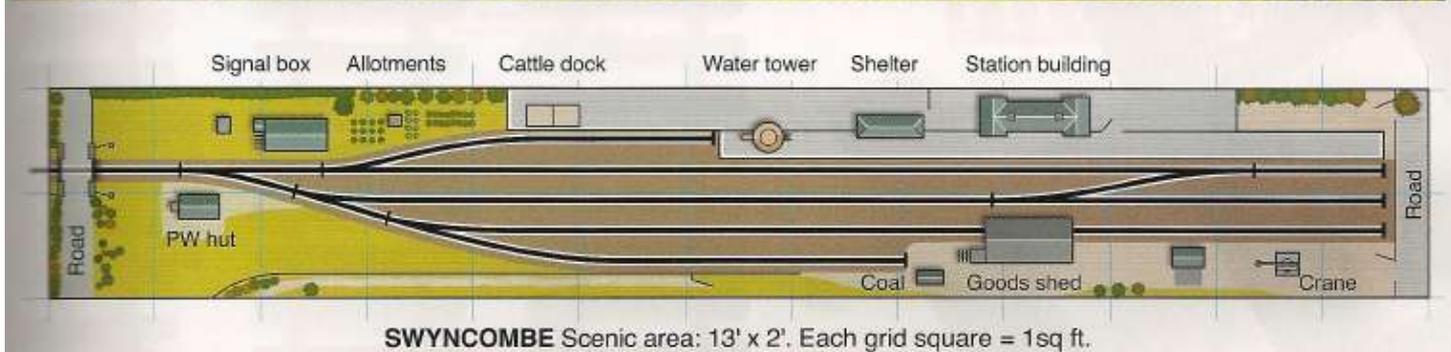
- 4.5 ft. by 12" Shelf Layout plus staging or fiddle yard
- It doesn't get much simpler or smaller than this!
- Does have both passenger and freight operating potential
- Could be up and running in a short time
- Best served as a display layout for rolling stock and locomotives
- From Railway Modeller, 09-12 (used with permission)

# Woodstowe – H0 Scale



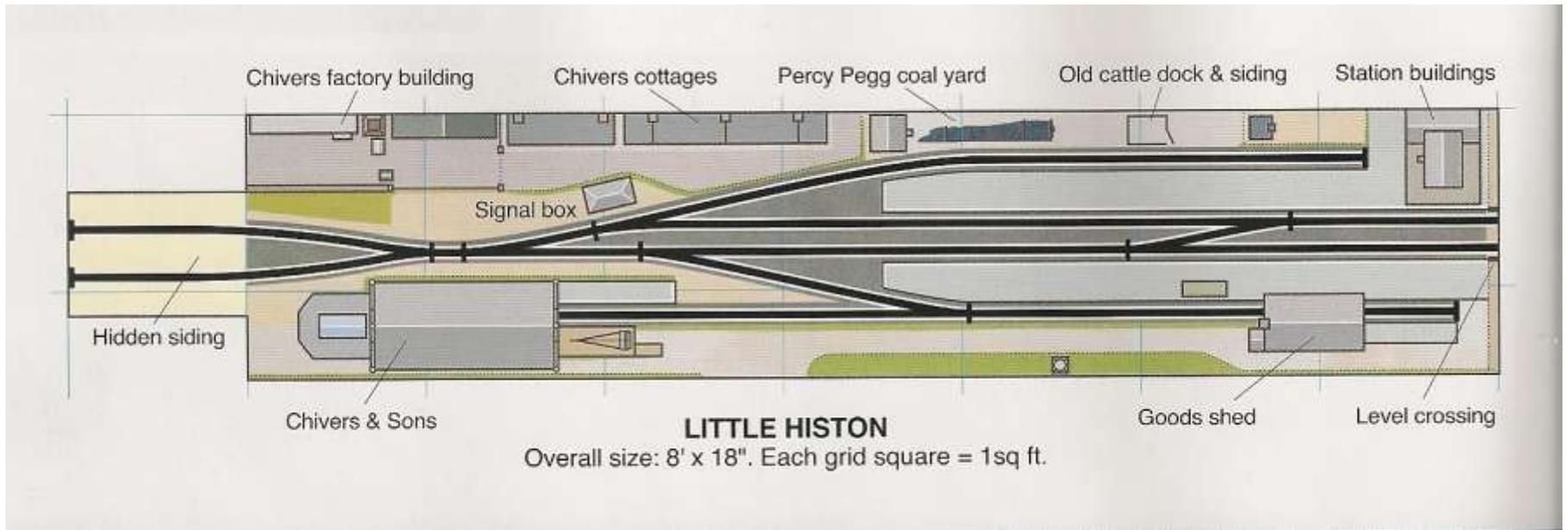
- 8 ft. by 2 ft shelf plus fiddle yard off to the left
- Typical “end of the line” terminus
- Both passenger station and freight facilities
- Includes small engine house/shed
- From Railway Modeller, 05/2012 (used with permission)

# Swyncombe – 0 Scale



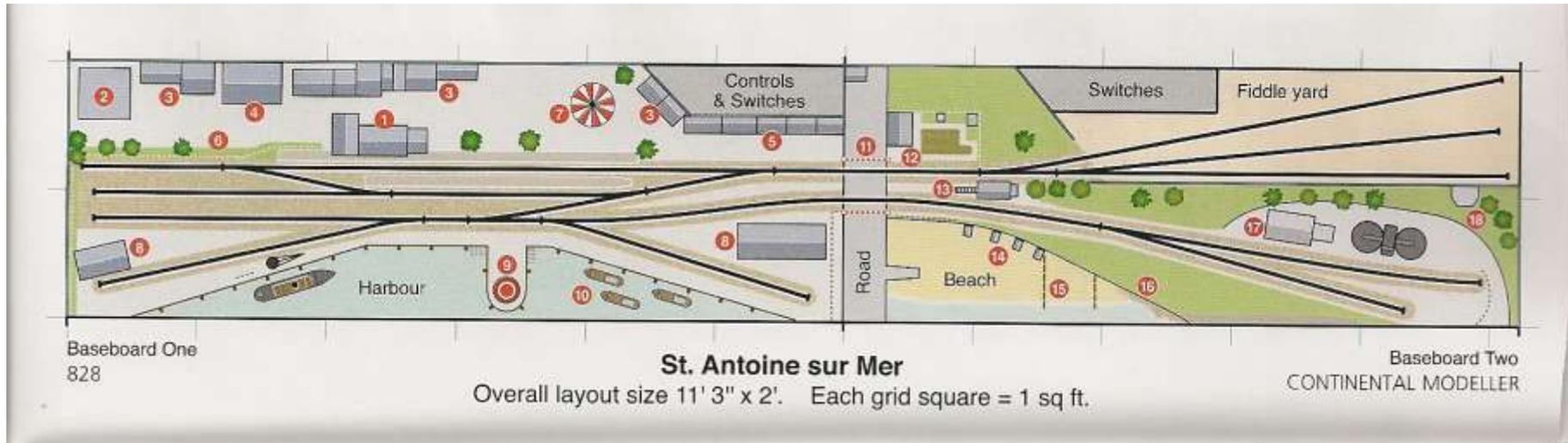
- Similar to Woodstowe – Fiddle yard off to the left
- End of the line terminus – Both freight and passenger traffic
- From Railway Modeller 2012 Annual ( used with permission)

# Little Histon – H0 (00)



- **Branch Line Terminus** – almost like a “Time-saver” plan
- **Fiddle yard off to the left** – can be a detachable cassette
- **Both passenger and freight activity** in a small space
- **8 ft. by 1.5 ft. Shelf plus fiddle yard**
- **From Railway Modeller, Oct. 2012 (used with permission)**

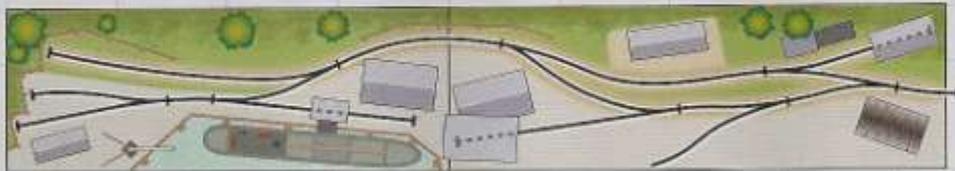
# St. Antoine sur Mer – H0 Scale



- **End-of-the-Line Terminus**
- **Fiddle Yard behind a backdrop – no need to extend the total length of the layout**
- **Sea side wharf/port scene – includes rail-water interchange!**
- **From Continental Modeller, Dec. 2012 (used with permission)**

**One of My Favorites!**

# Hook Basin – Gn18 (1:25 scale, HO Track)



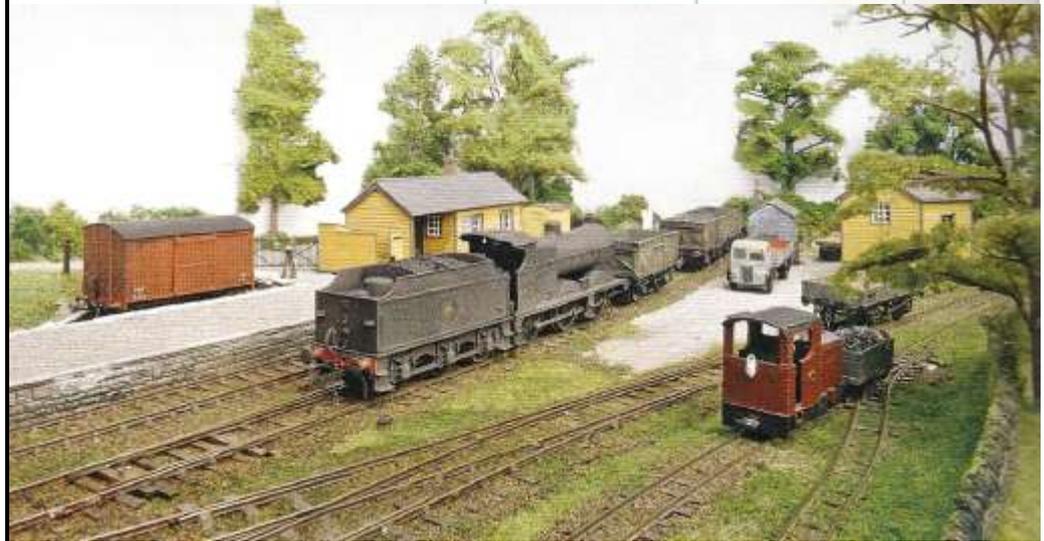
Hook Basin Size of scenic section 8'6" x 1'6". Each grid square = 1 sq ft.

- Industrial Narrow Gauge
- 8.5 X 1.5 ft
- Has Run-around
- Several sidings for Switching
- Railway Modeller, Oct. 2012  
(used with permission)

# Chewton-Mendip – 00/H0 and 009

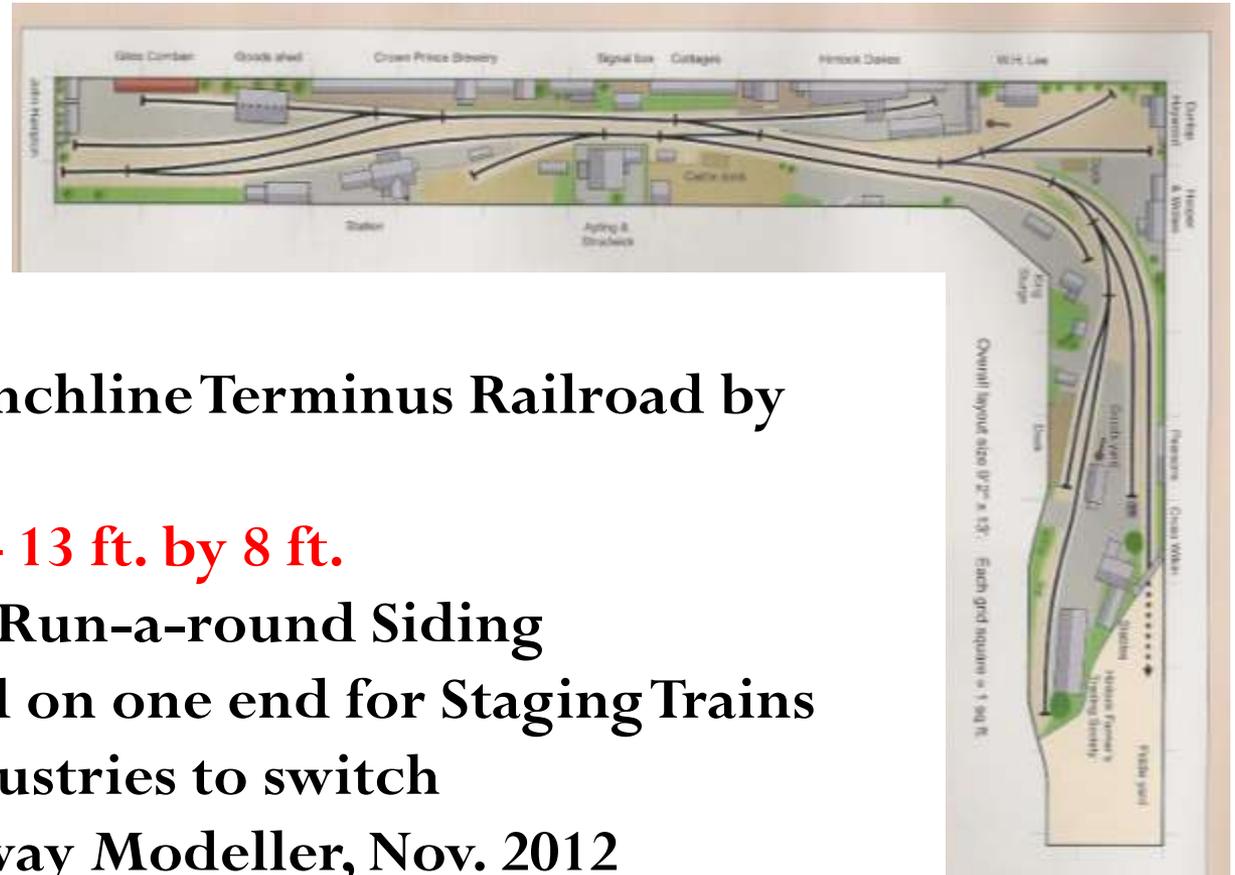


- 7.5 ft. by 18 to 22 in.
- Both standard gauge and narrow gauge (HOn30)
- Fiddle yard on left is a 3-track sector plate
- Narrow gauge industrial Ry. transfers loads to standard gauge Ry.
- From RM 12-12 (used with permission)



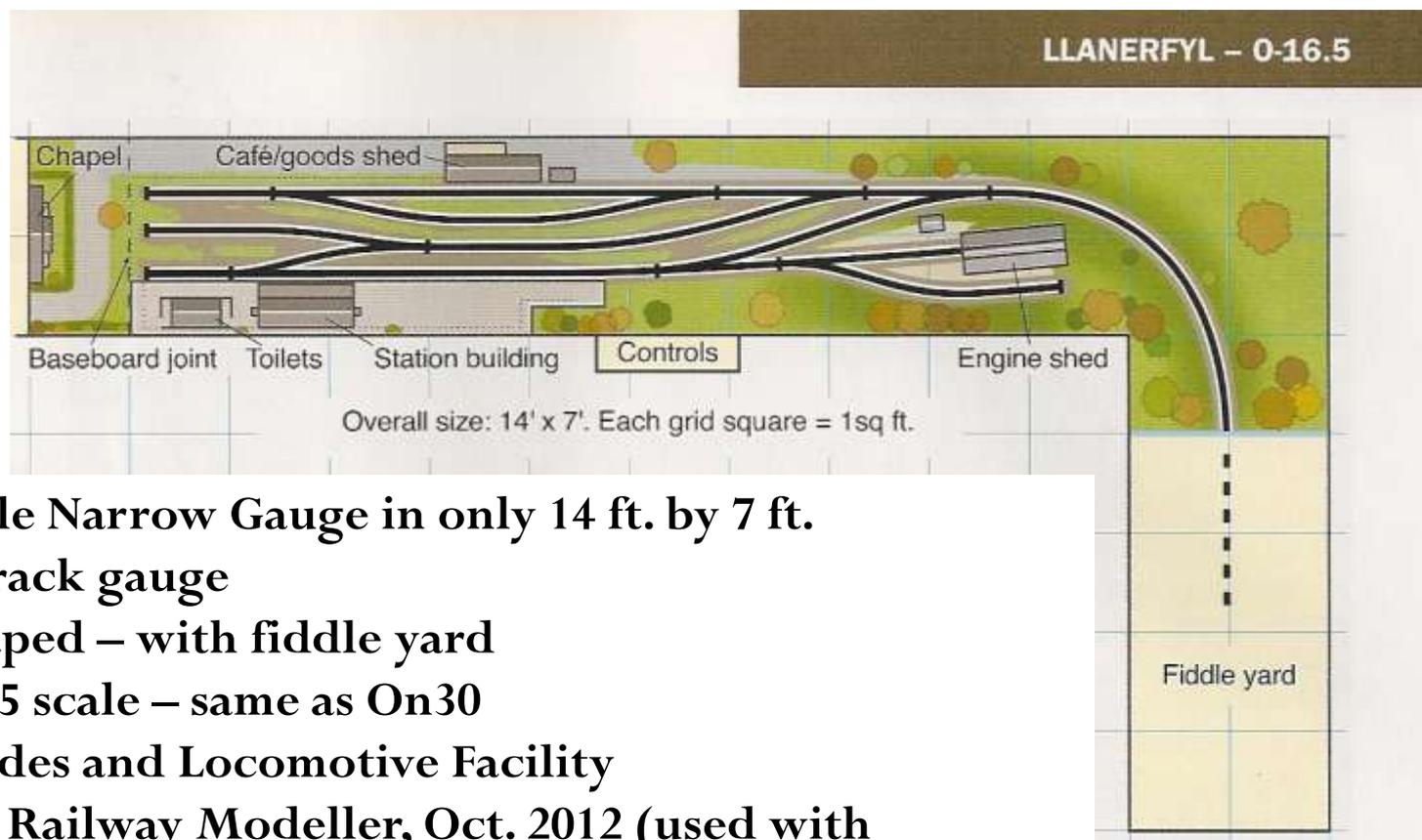
**One of My Favorites!**

# Sheepcroft Yard – H0 (OO)



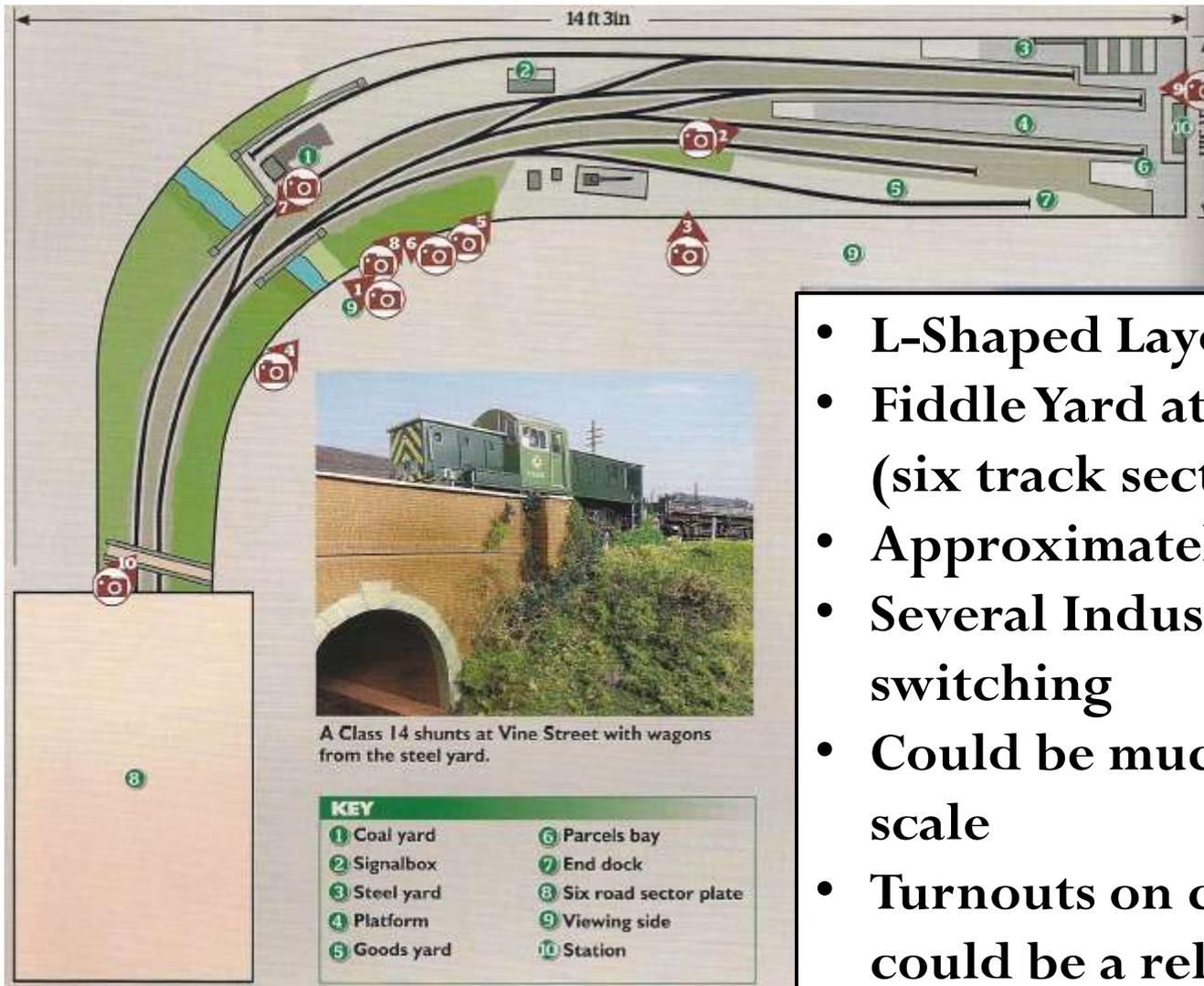
- End of Branchline Terminus Railroad by John Flann
- **L-Shaped – 13 ft. by 8 ft.**
- Includes a Run-a-round Siding
- Fiddle yard on one end for Staging Trains
- Lots of Industries to switch
- From Railway Modeller, Nov. 2012  
(Used with permission)

# Llanerfyl – Welsh Narrow Gauge



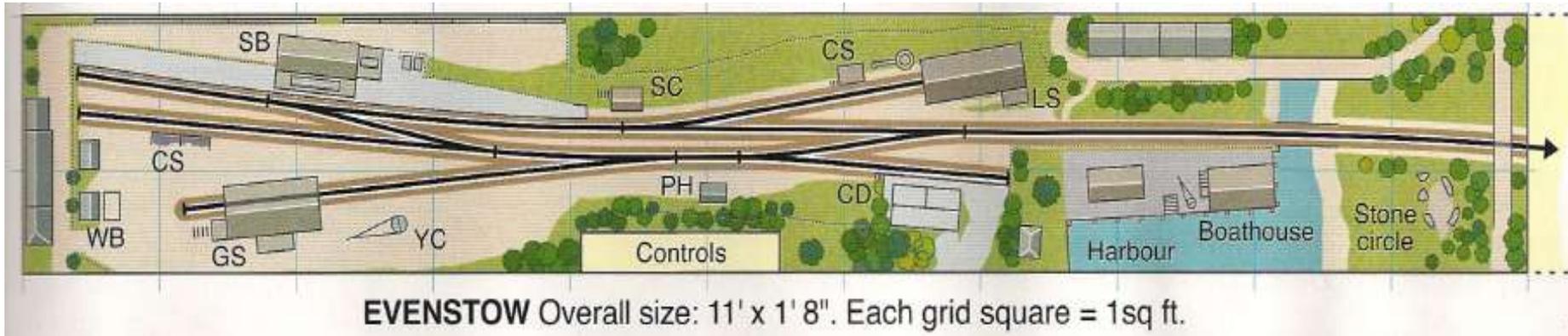
- **O scale Narrow Gauge in only 14 ft. by 7 ft.**
- **HO track gauge**
- **L-Shaped – with fiddle yard**
- **O-16.5 scale – same as On30**
- **Includes and Locomotive Facility**
- **From Railway Modeller, Oct. 2012 (used with permission)**

# Vine Street – 0 Scale



- L-Shaped Layout
- Fiddle Yard at Lower Left (six track sector plate)
- Approximately 14ft. by 13 ft.
- Several Industries for switching
- Could be much smaller in HO scale
- Turnouts on curved track could be a reliability issue
- From Hornby Magazine 09-12

# Evenstowe -00/H0



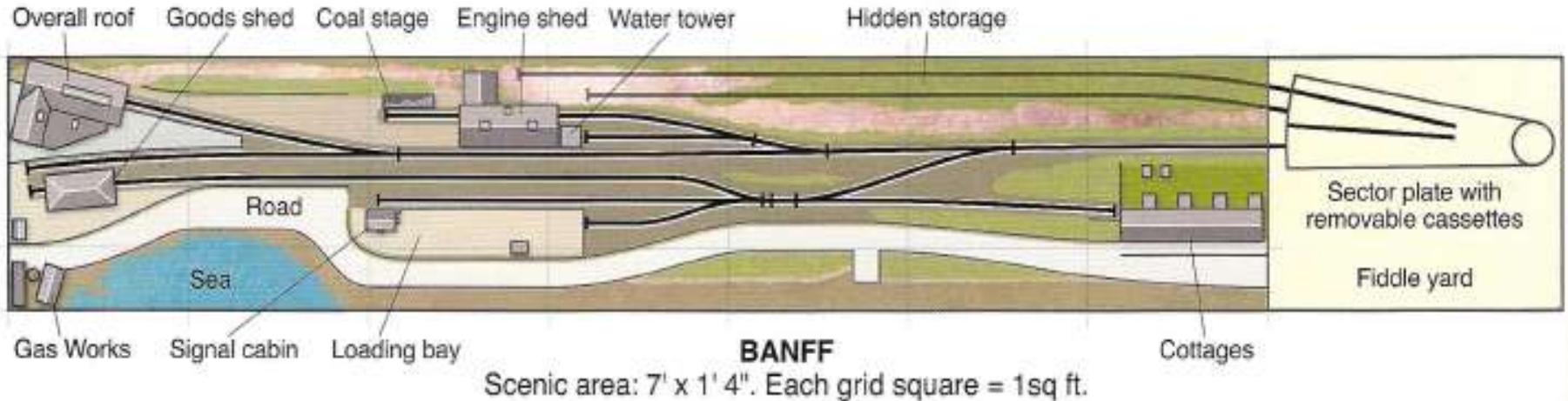
- 11 ft. by 20" Shelf
- End-of-the-line terminus
- Fiddle yard on the right – can be either a multi-track yard or sector plate or cassettes
- Harbor scene adds interest, looks like inbound trains come from somewhere else!
- Passenger and Freight operations
- Several industries – coal, cattle, general freight, etc.
- Fiddle yard additions makes it pretty long – could wrap it around in an L-Shape Footprint
- From Railway Modeller 07-12 (used with permission)

# West Harptree - TT



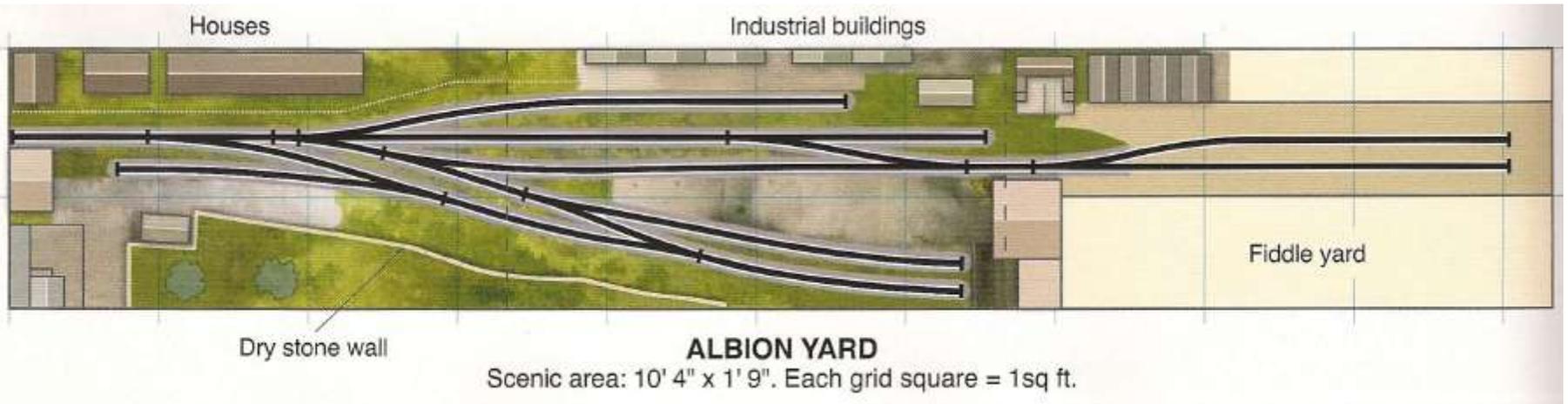
- 13.5 ft. by 22" – includes 2 ft. long cassette fiddle yard
- Lots of green space – tradeoff between siding length and scenery
- TT gauge – unusual in the U.S., half-way between HO and N scale
- Could make this in N scale, reduce length by 75% to ~ 10 ft.
- From Railway Modeller 07-12 (used with permission)

# Banff – N Scale



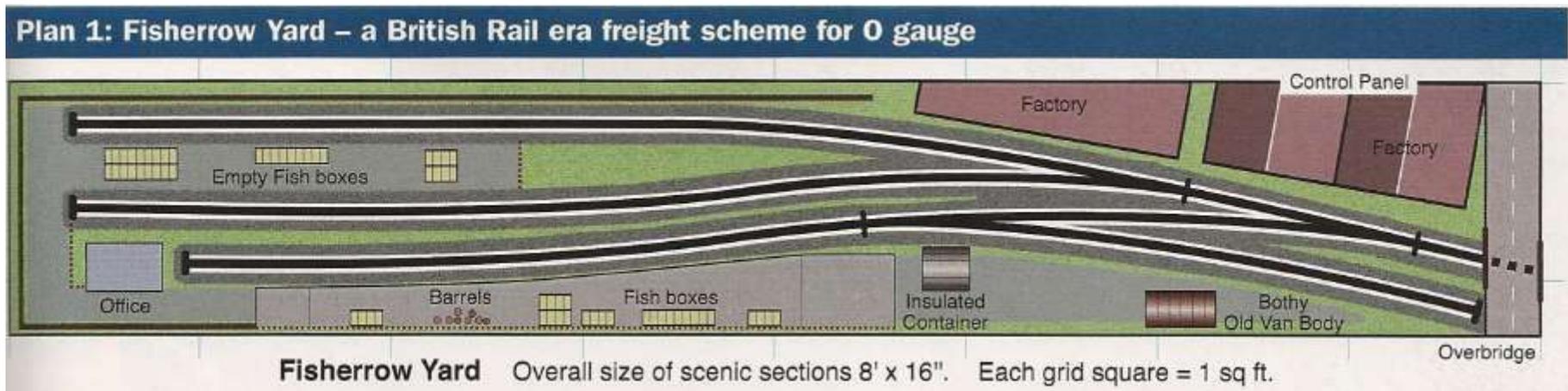
- 7 ft. by 16" Shelf Layout – end-of-the-line terminus
- Sector Plate fiddle yard – adds another 2 ft.
- Hidden storage feature (tracks behind the scenery) in combination with sector plate provides opportunity for many more trains to run in a given operating session
- Has Locomotive facilities, passenger and freight operations
- From Railway Modeller 07-12 (used with permission)

# Albion Yard – 00/H0



- 10.3 ft. by 21" shelf layout – includes two-track staging fiddle yard
- Car storage tracks for make-up and break-down of trains
- Might need a detachable cassette at left end to provide a switching lead for yard tracks
- From Railway Modeller, 09-12 (used with permission)

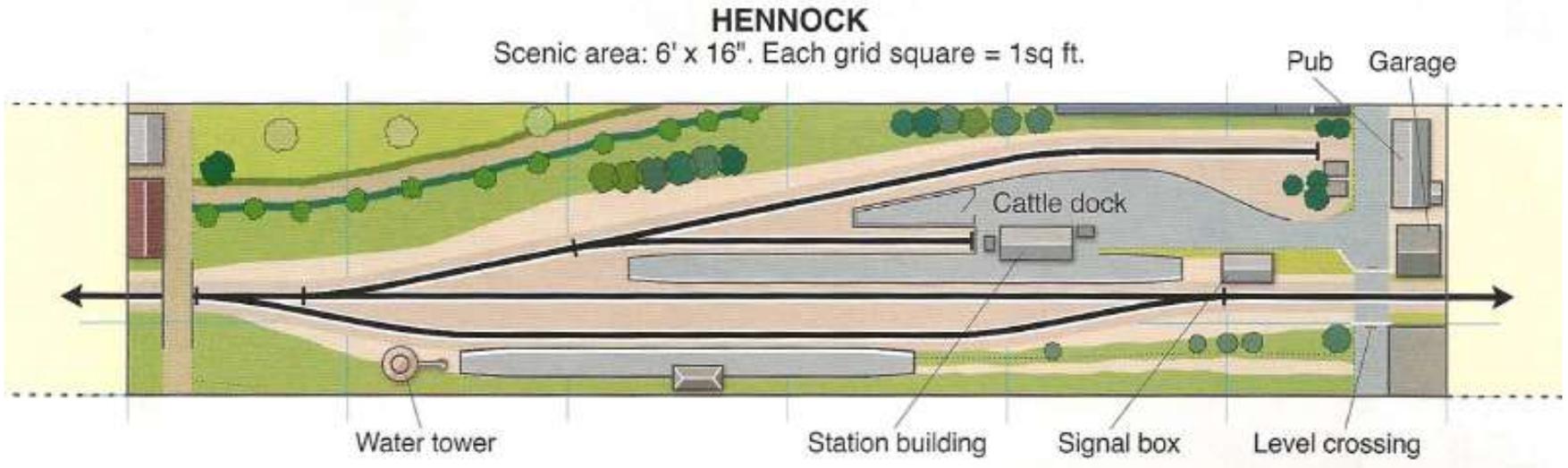
# Fisherrow Yard – O Scale



- 8 ft. by 16" (O-Scale) – plus staging or fiddle yard on the right
- A “Sea Side Scene” - Fishing Industry
- Looks too simple - but looks are deceiving!
- Designed for two locomotive operation – Don’t need a runaround track!
- Great scheme for exploring O Scale or On30
- From Railway Modeller, 09-12 (used with permission)

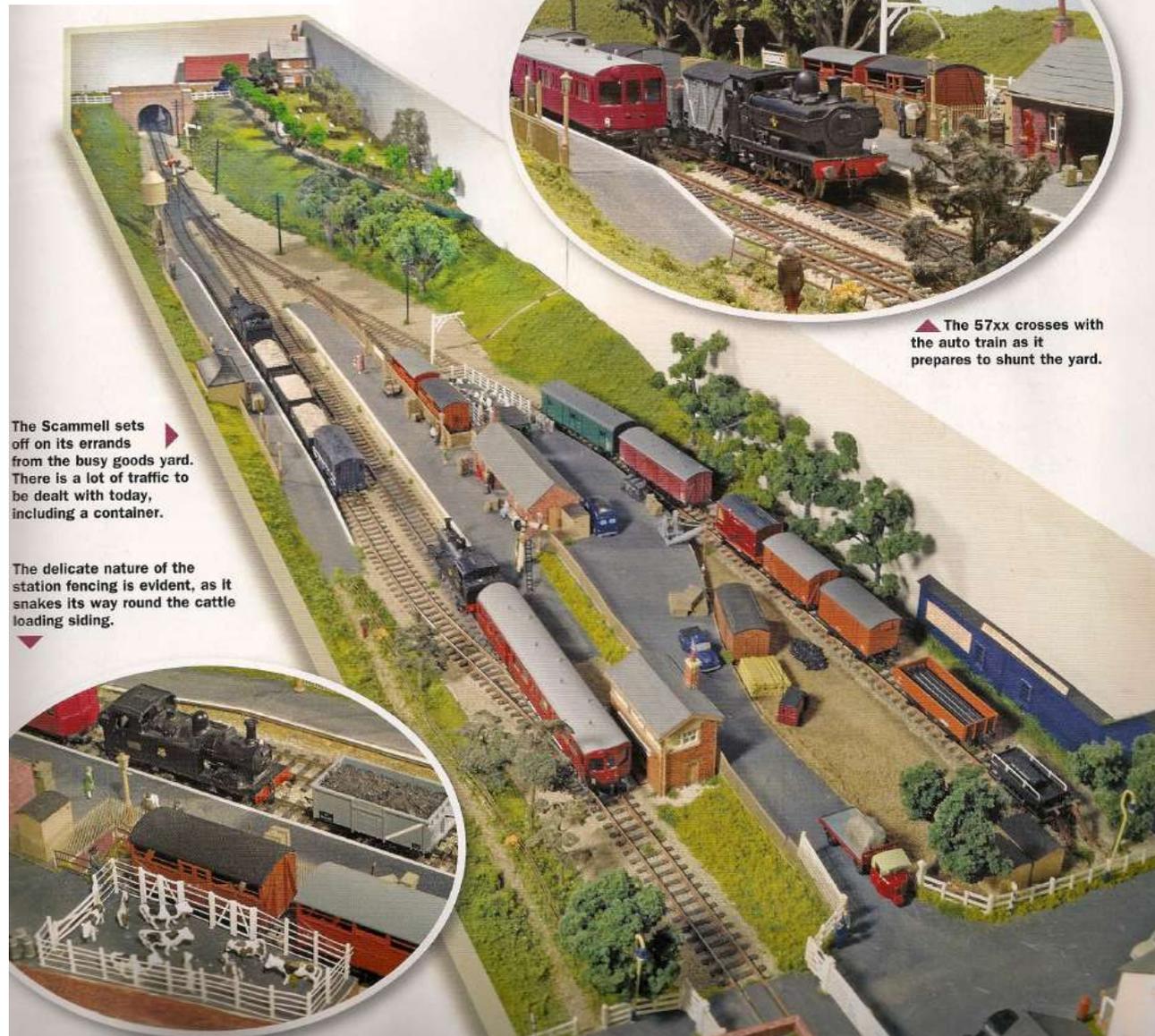
**One of My Favorites!**

# Hennock - TT



- **Also A Through Station/Town**
- **6 ft. by 16" in TT Scale, about 8 ft. by 22" in HO Scale**
- **Needs two staging/fiddle yards, one on each end**
- **More interesting operating possibilities – “East and West bound” trains can exchange cars**
- **From Railway Modeller, 09-12 (used with permission)**

# Hennock - Photos

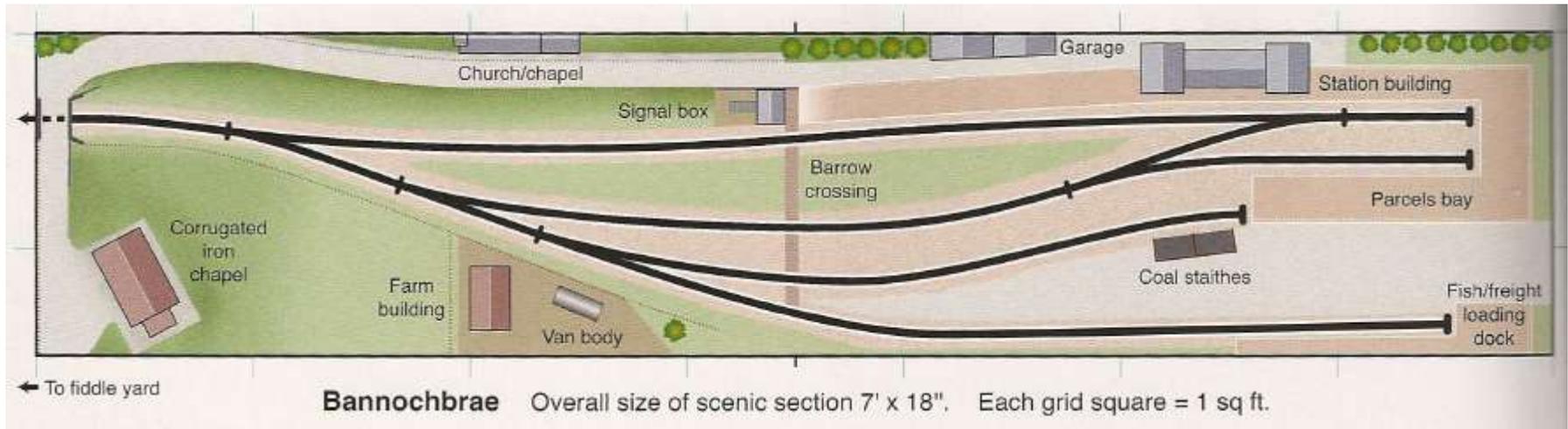


▶ The Scammell sets off on its errands from the busy goods yard. There is a lot of traffic to be dealt with today, including a container.

▶ The delicate nature of the station fencing is evident, as it snakes its way round the cattle loading siding.

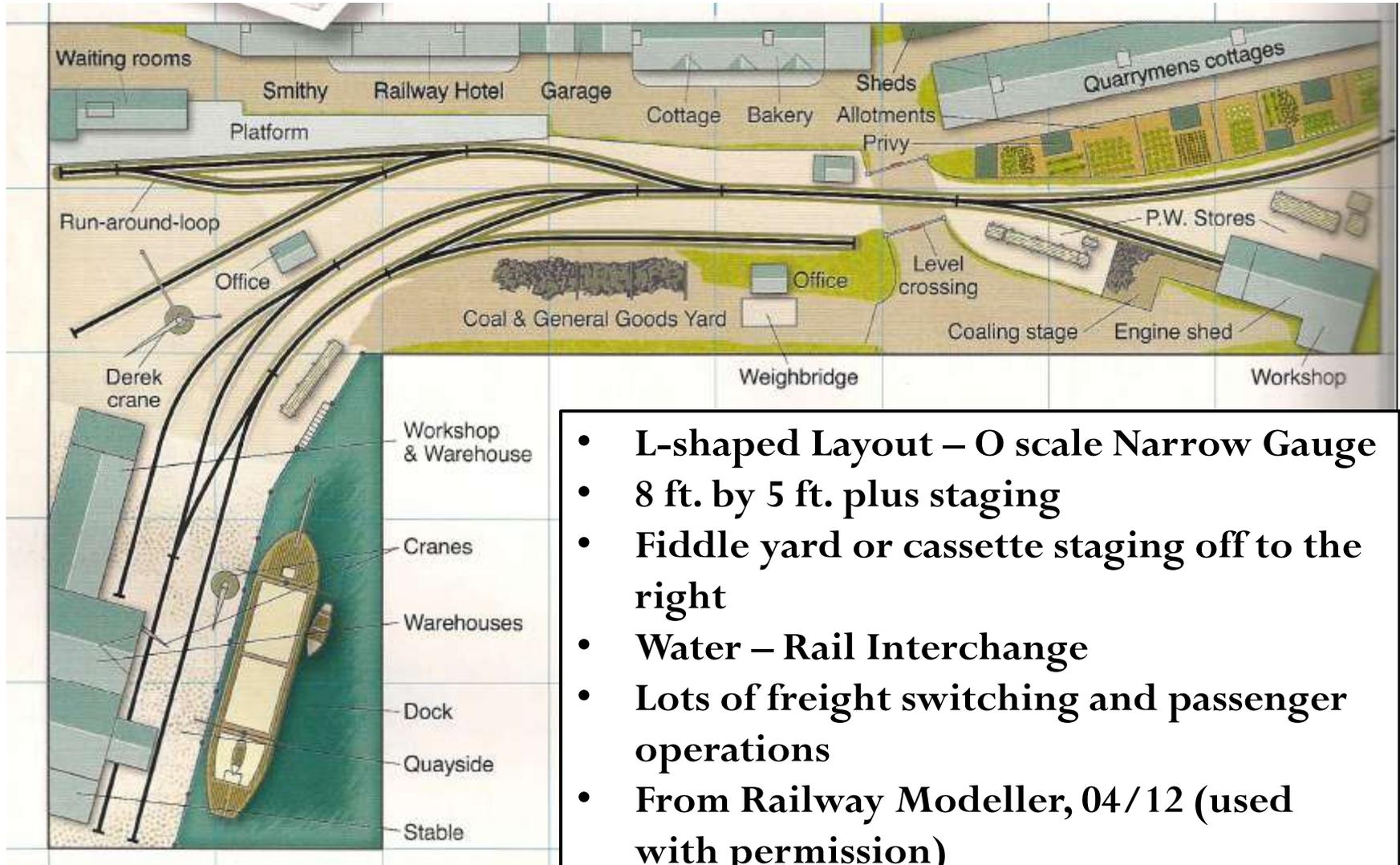
▶ The 57xx crosses with the auto train as it prepares to shunt the yard.

# Bannockbrae – 00/H0

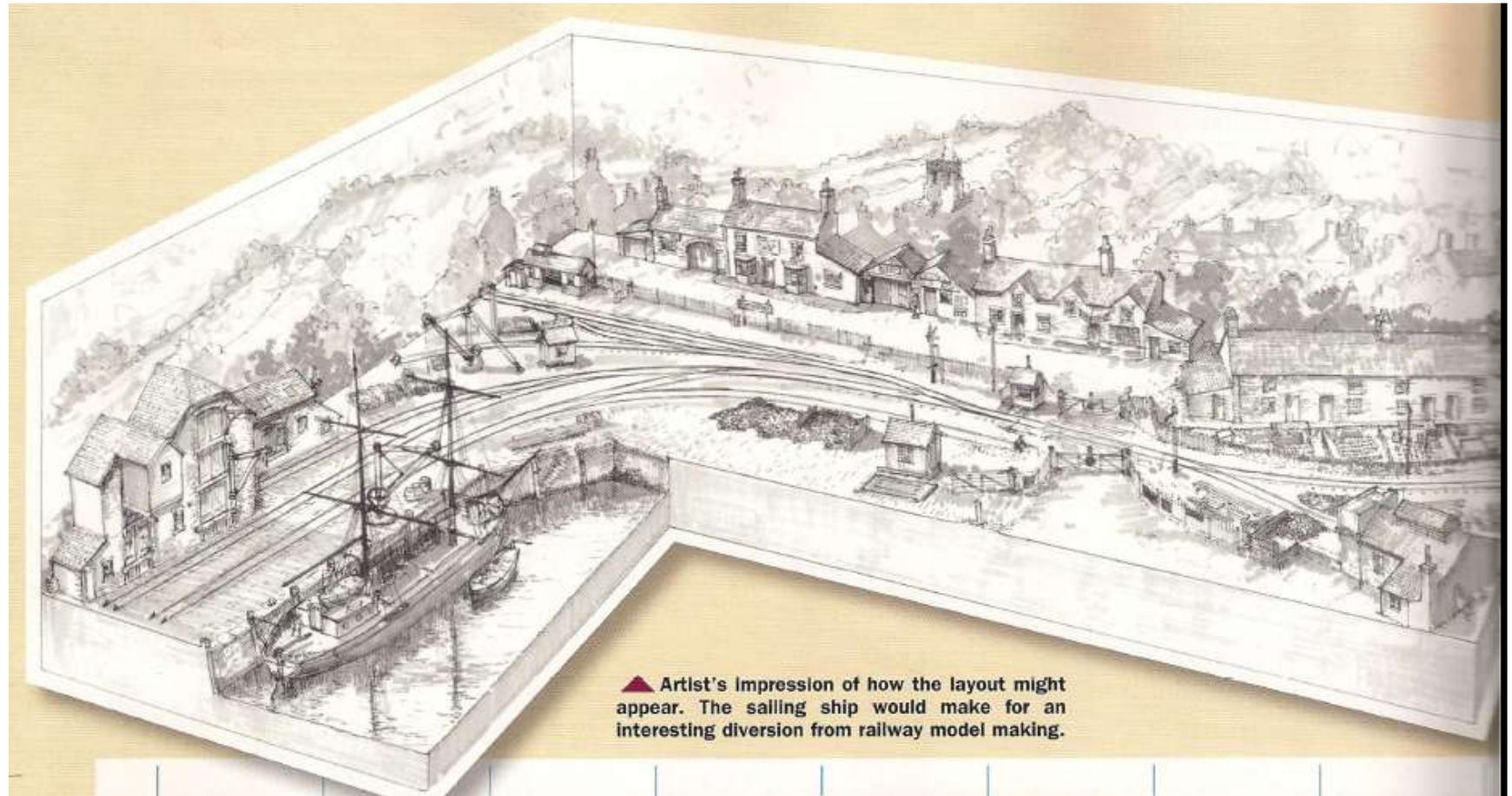


- **Scottish Branch Line Terminus – small village atmosphere**
- **7 ft. by 18" plus staging or fiddle yard on left end**
- **Both passenger and freight traffic**
- **Fairly simple track plan – could be made operational quickly**
- **Curving track scenically good**
- **From Railway Modeller, 04-12 (used with permission)**

# Porthwenn – 0 16.5/On30



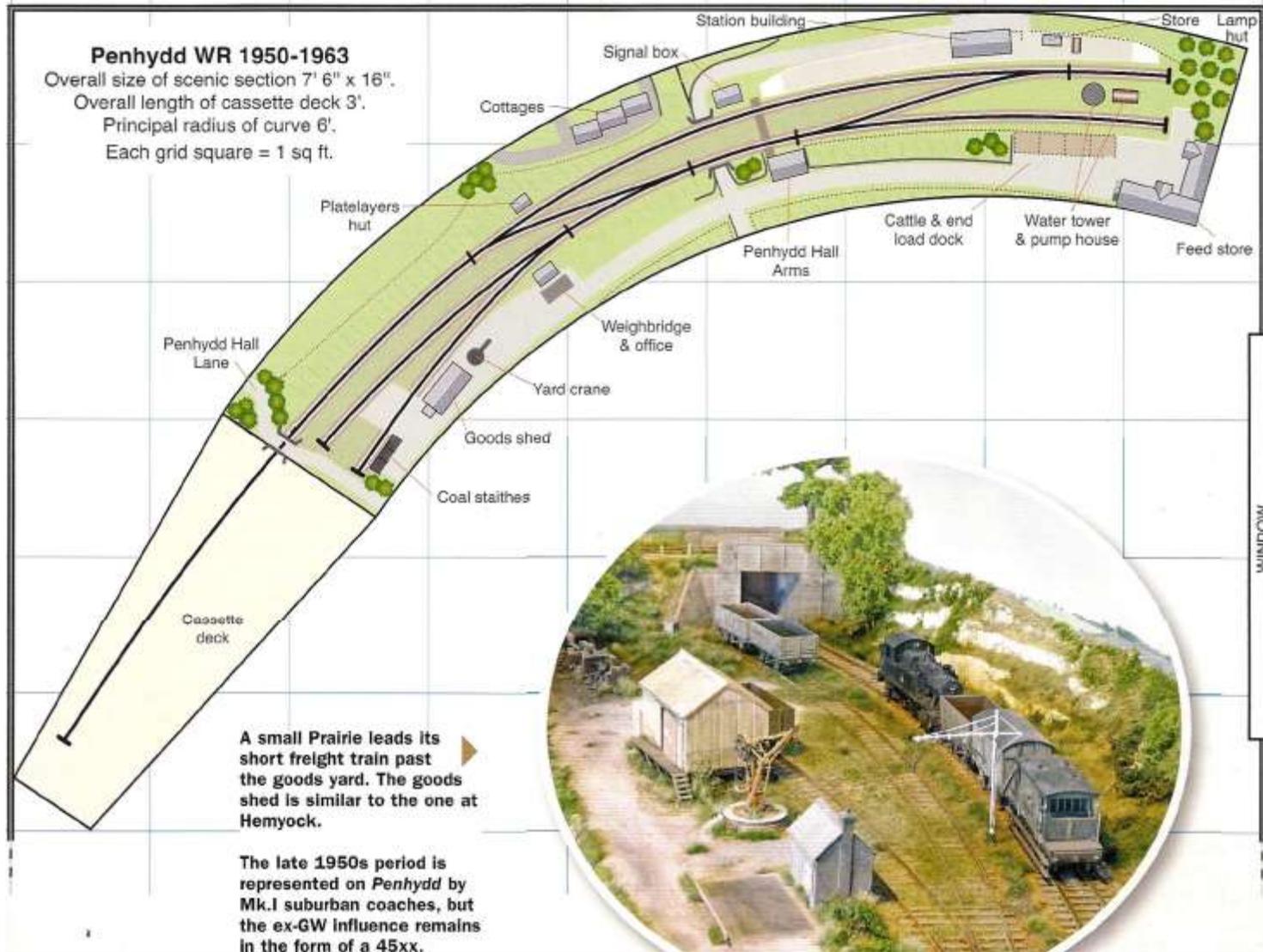
# Porthwenn, Cont'd.



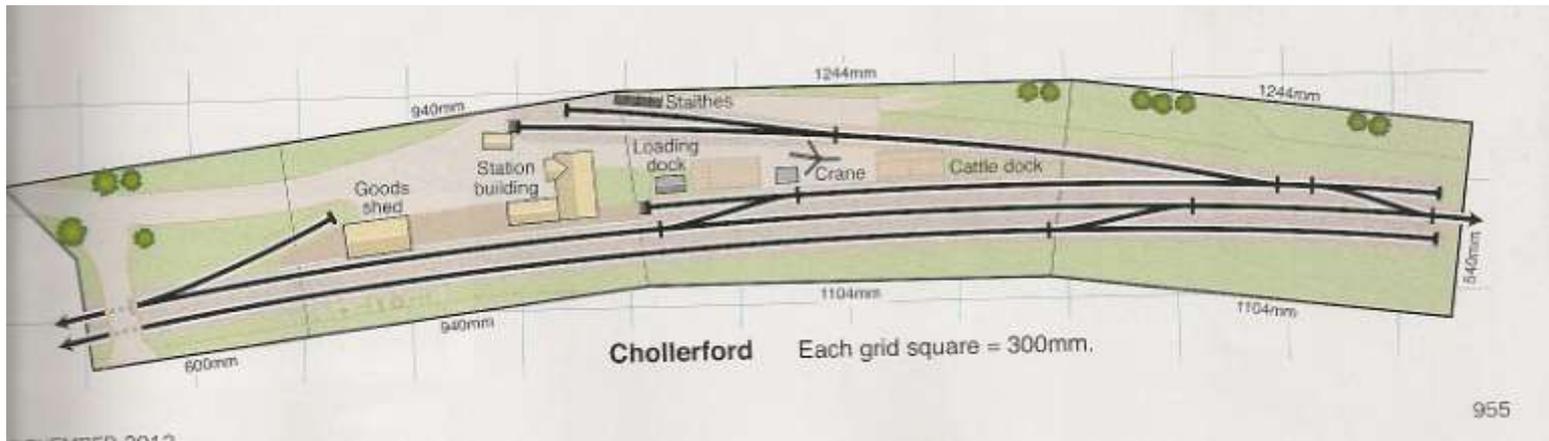
▲ Artist's Impression of how the layout might appear. The sailing ship would make for an interesting diversion from railway model making.

**One of My Favorites!**

# Penhydd – EM/H0m



# Chollerford – 00/H0 Through Station



**Medium Size and Complexity - Has both passenger and freight facilities**

- 2 ft. by 12 ft. curved shelf
- Station Building (Depot)
- Goods Shed (Freight House)
- Cattle Dock (Livestock Pen)
- Loading Dock (Team Track)
- Staithe (Coal Bins)
- From Railway Modeller, Nov. 2012 (used with permission)

**Needs Staging at both ends  
Shelf doesn't need to be straight!**

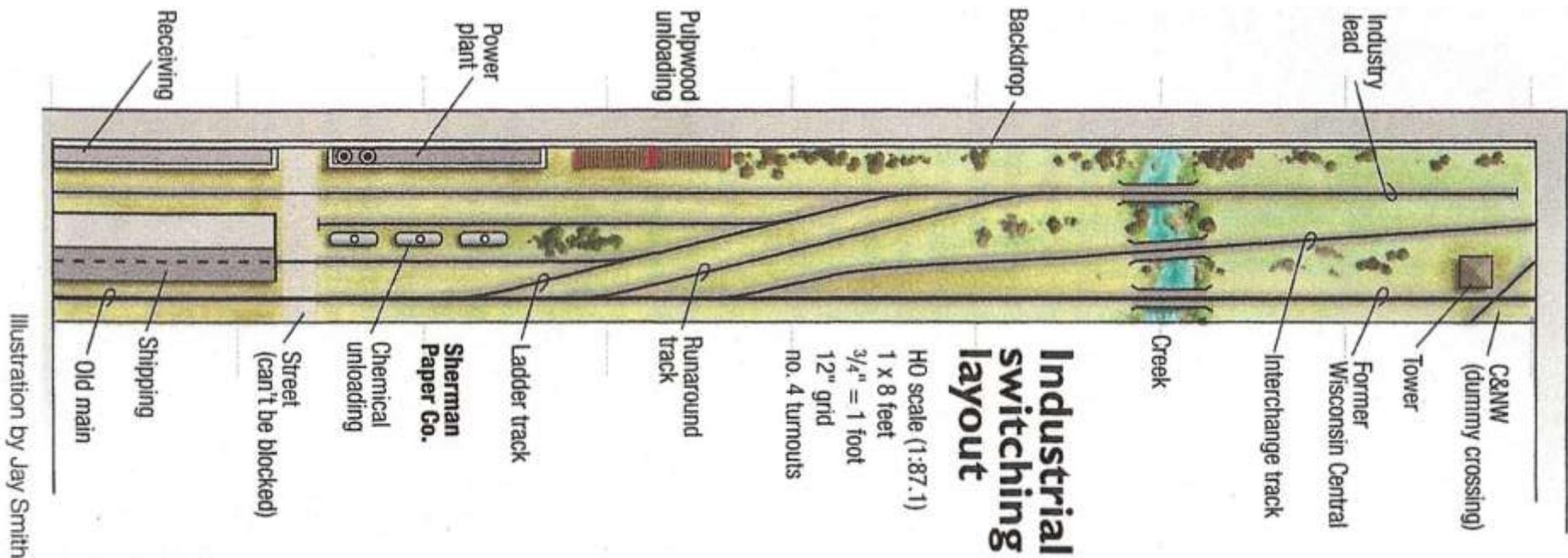
# Some Examples of American Shelf Layouts

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- **Straight Shelf Layouts**
- **L-shaped Shelf Layouts**
- **With and Without Staging**

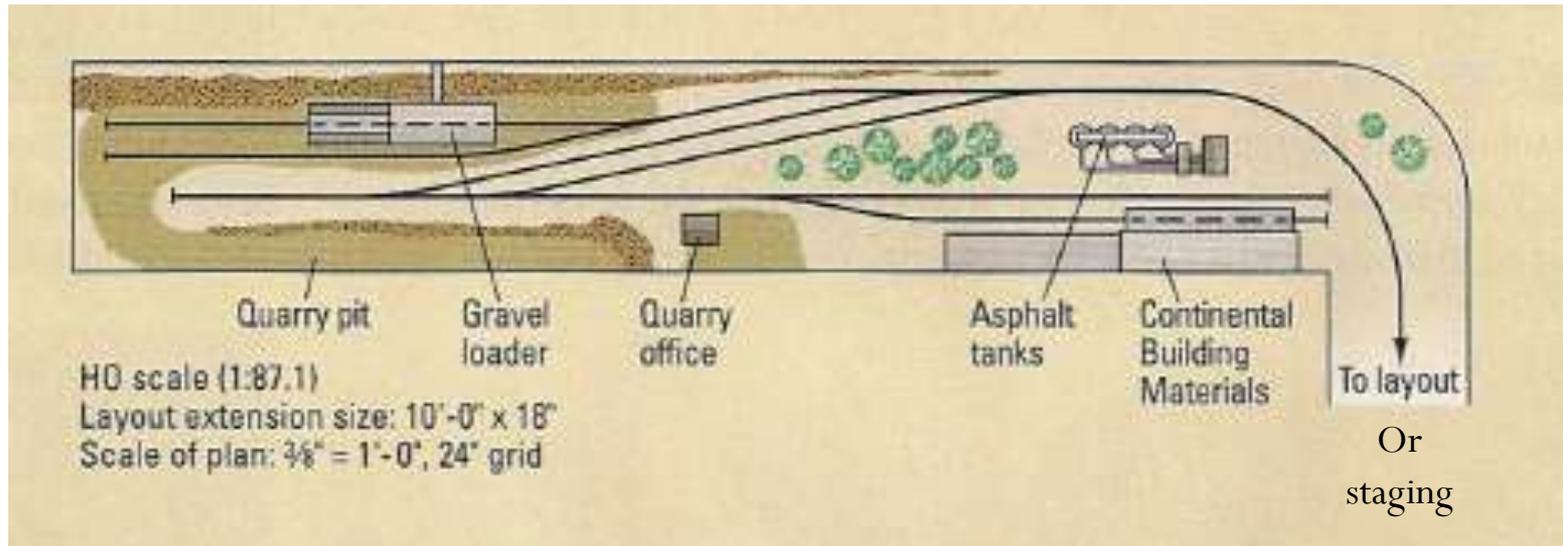
# Sherman Paper Company – HO Scale

- Single Industry Switching Layout – 8 ft. by 12 in.
- Variety of Car types
- Several car spots
- Don't need a staging or fiddle yard, but it would help



From *Model Railroad Planning*, 2006, by Linda Sand, used with permission

# Winter Hill Branch - HO



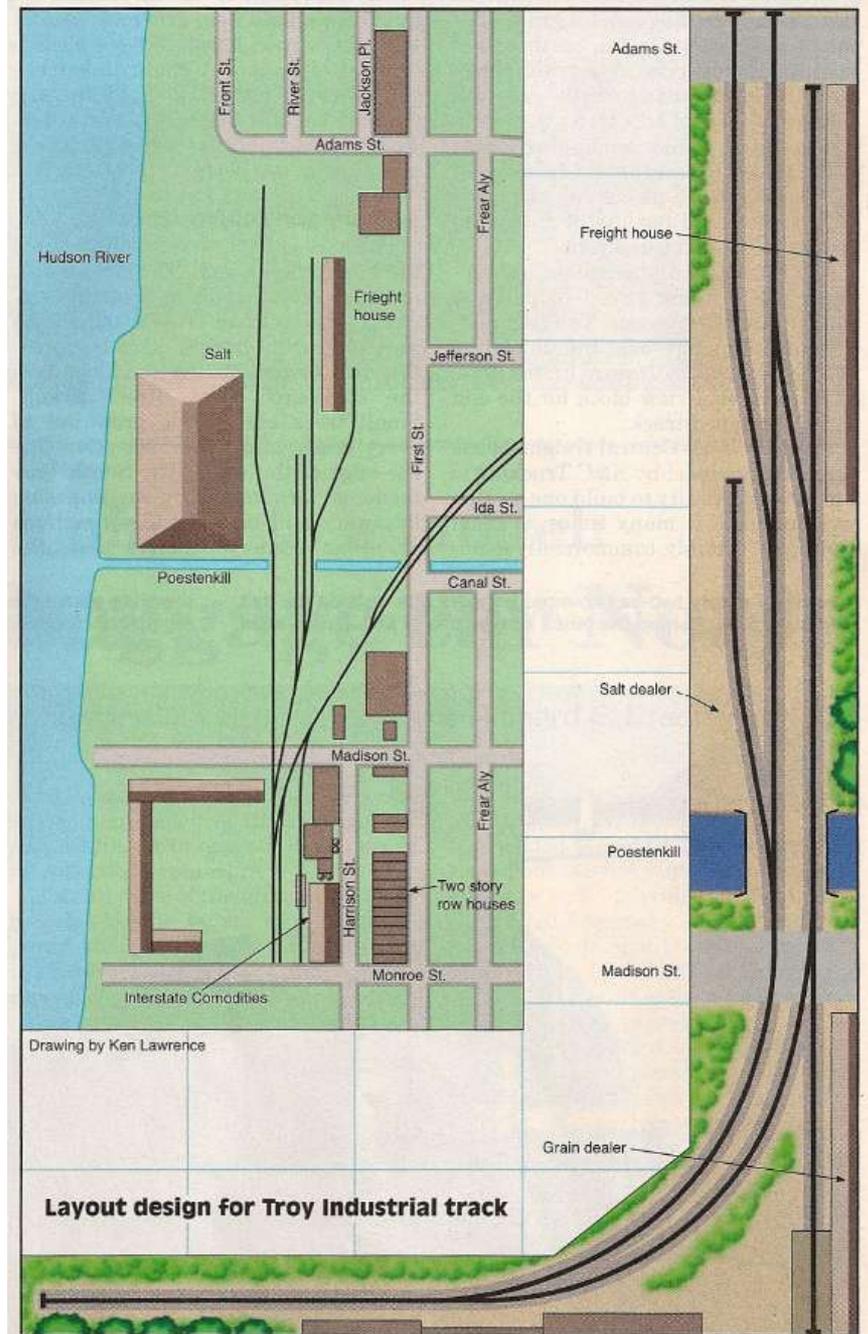
- **Three Industries in one area**
- **Variety of Car types and car spots**
- **Can have a train deliver and pick up cars, and local area switcher collect out-bounds and spot in-bounds**

**Taken from Model Railroader Magazine, January 2013, Used with Permission**

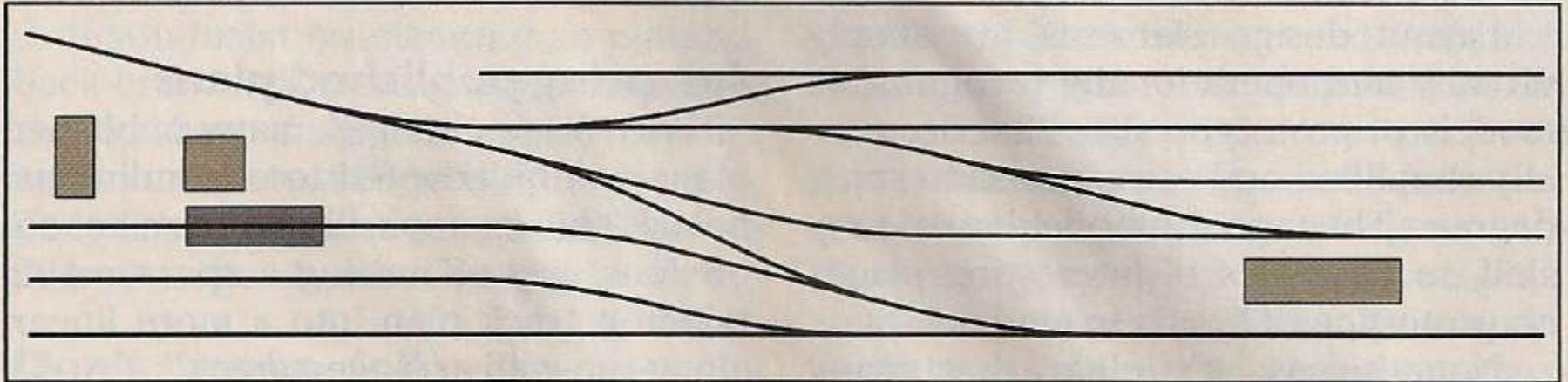
# Troy Industrial Track

**Reference: Railroad Model Craftsman, November 2012, p. 68  
(Used with Permission)**

- 5 ft. by 8 ft. L-Shaped Shelf, 12” deep
- patterned after prototype location in Troy, NY.
- By William Gill.



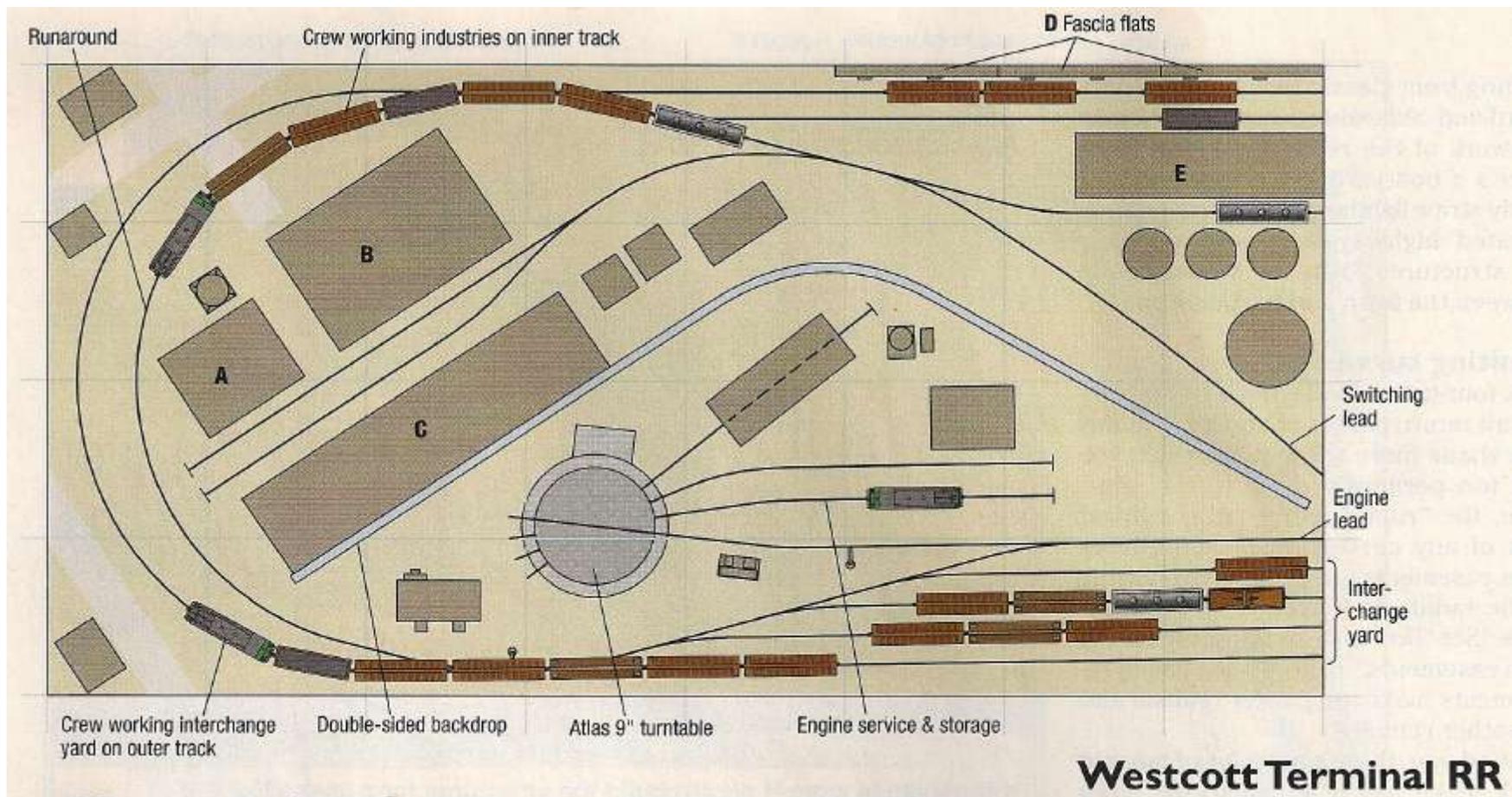
# Switchman's Nightmare



Linn Westcott's classic Switchman's Nightmare track plan has all the makings of an engaging terminal railroad layout: interchange yard, industries, and a runaround tying them together. Byron used these elements in his 4 x 8 plan.

Original Plan was published in "*101 Track Plans for Model Railroaders*" by Linn H. Westcott, Kalmbach Publications, c. 1956, plan no. 6.

# Switchman's Dream

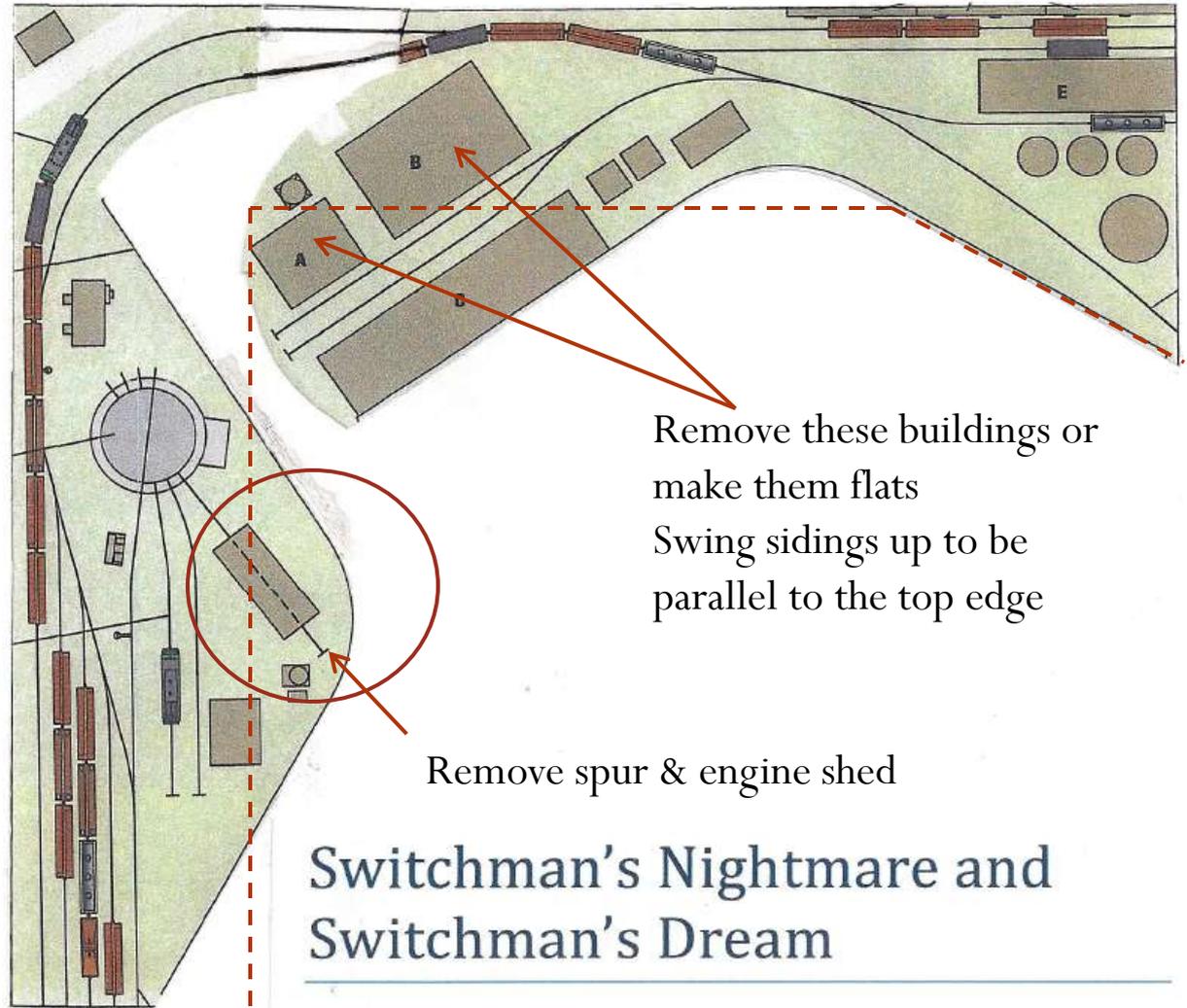


This is Byron Henderson's Redesign of the "Nightmare" into a 4 ft. by 8 ft. Layout with yard and industrial area

From Model Railroad Planning, 2011

# Switchman's Dream Revisited

Using basic 4 by 8 plan by Byron Henderson (MRP 2011), and Tony Koester's "Track Planning with scissors and tape" article in MRP 2011, a nice L-shaped switching layout can be built. It is suggested that the mod's. shown be made to make the reach-in distance to the corner less than 30".



## Switchman's Nightmare and Switchman's Dream

From Model Railroad Planning, 2013.

From Linear shelf layout to 4x8 to L-shaped shelf layout

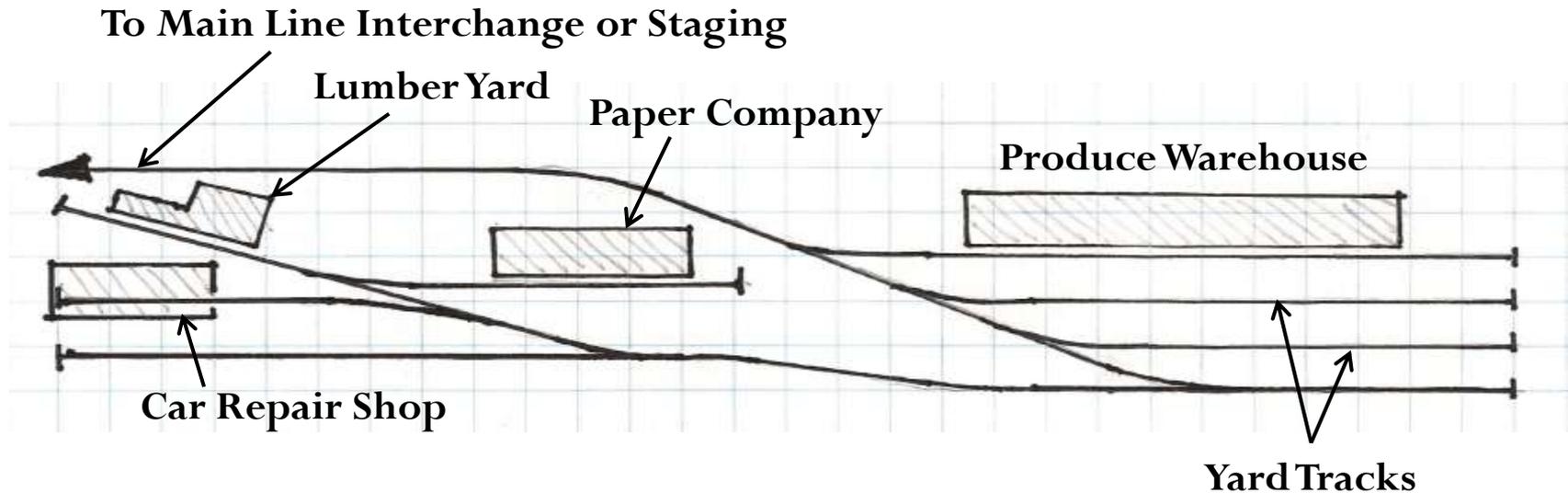
# Frazer – An Industrial Switching Area



Track Diagram

**A Town on Bob MacKendrick's West Chester (PRR) Railroad:  
Inspiration from a small piece of a large Model Railroad!**

# Frazer Track Diagram



**Bob MacKendrick's West Chester Division of the Pennsylvania Railroad was featured in *Rail Model Journal*, October 2004.**

**One of My Favorites!**

# Frazer – Yard Area

Industry

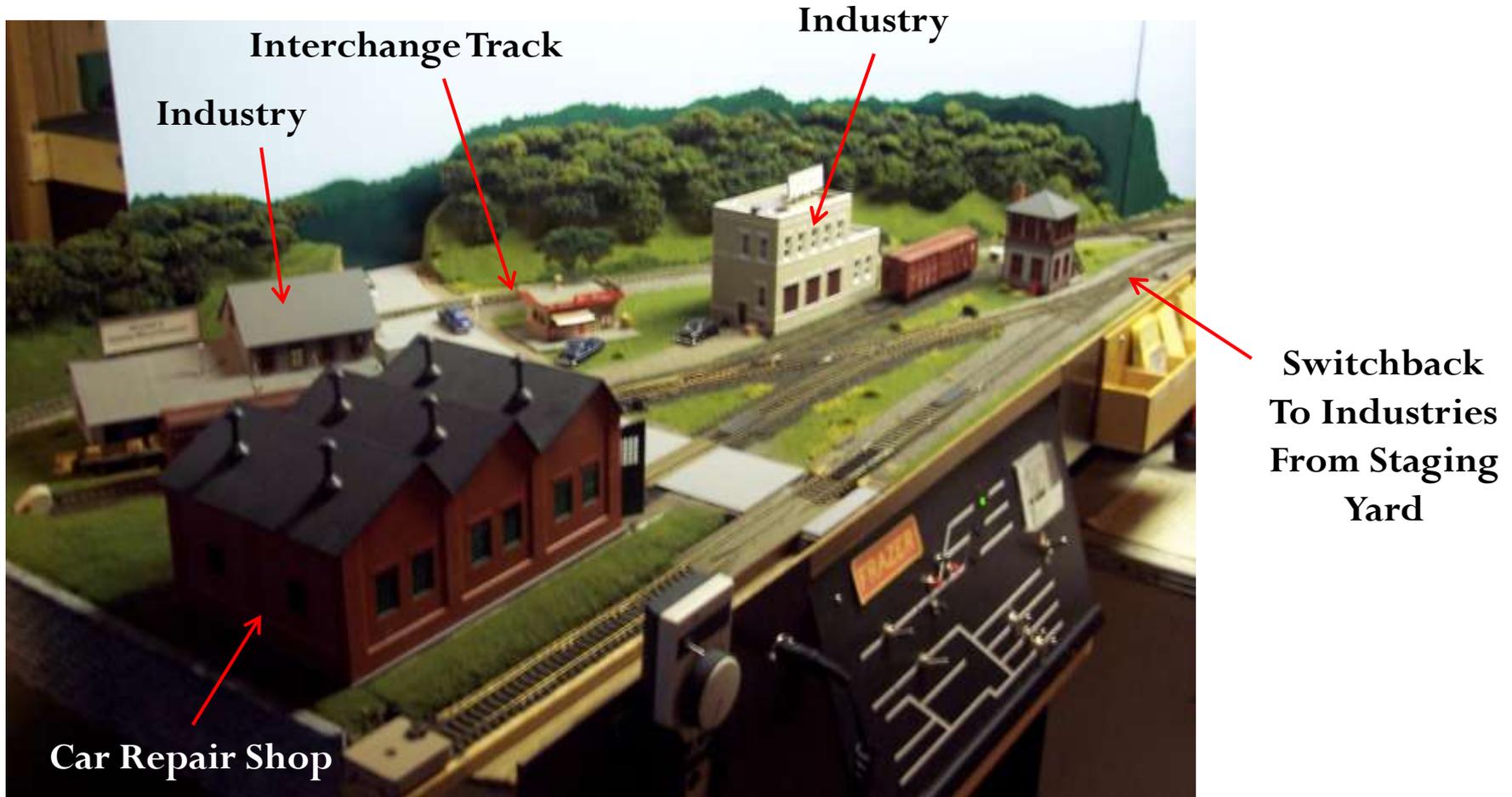
The “right” end, storage tracks and entry to switch back – serves as scenic staging for the industrial area.



Car Storage & sorting

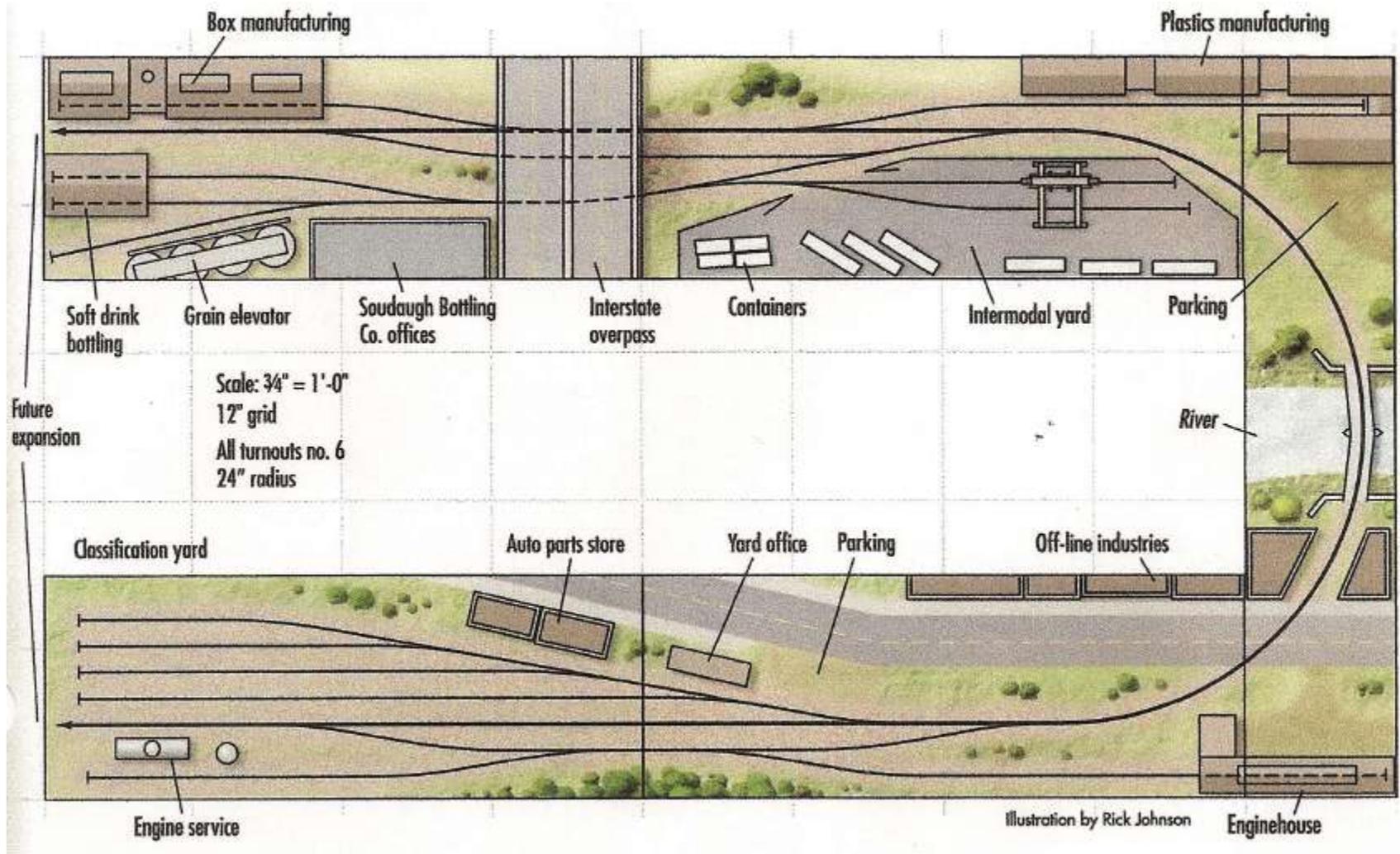
Switchback to Industries

# Frazer – Industry Area



**No Run-around track, but all industries can be switched using two engines or car-positioning on incoming train**

# Modern Industrial Layout - H0



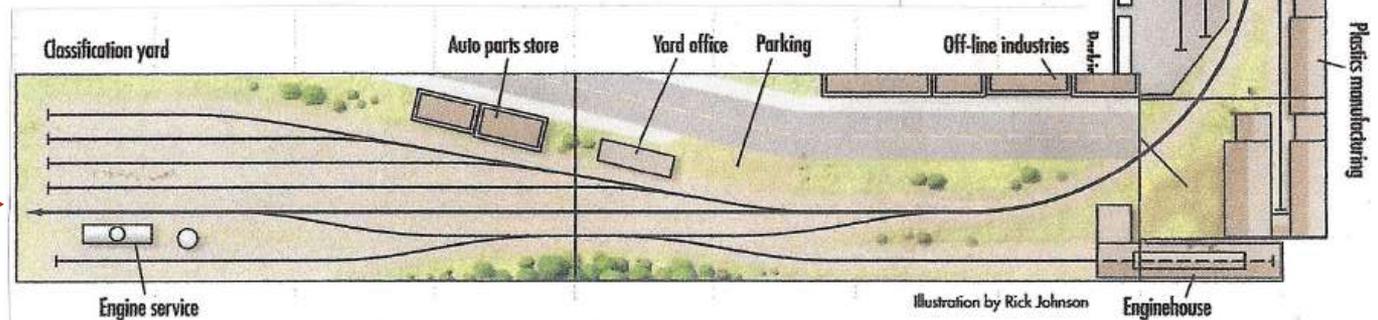
5 ft. by 9 ft. U-Shaped Layout by Linda Sand,  
Model Railroad Planning 1999, used with permission

# Revised Plan: L - Shaped

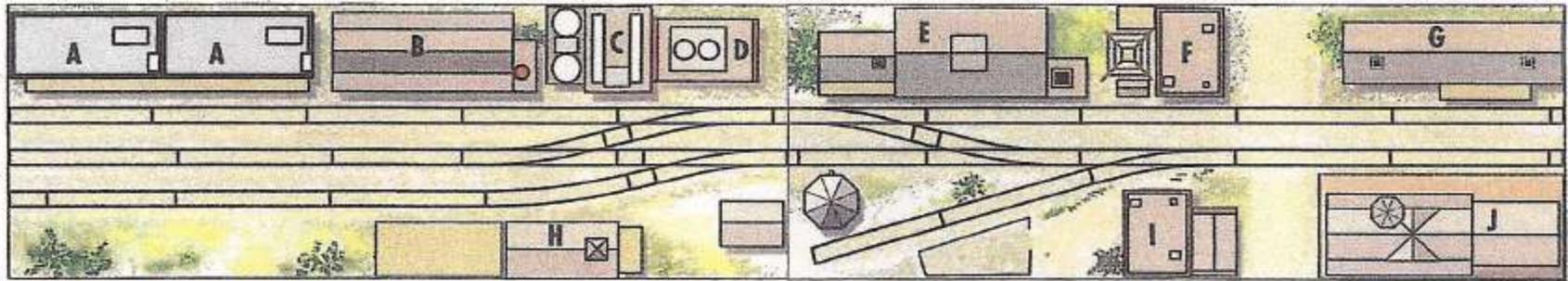
- 9 ft. by 9 ft. L-Shaped shelf Layout
- 18 in. deep shelves
- Modern Industrial Setting
- Lots of switching opportunities
- Can add cassette staging at yard leg

**One of My Favorites!**

Add Cassette  
Here →



# Back to the Time-Saver.....



A IHC Two kitbashed Luigis Restaurants (348-910)  
B IHC Factory with loading silos (348-3505)  
C IHC Gruesome Casket Co. (out of production)  
D IHC Machine Shop (348-47764)  
E Model Power Brewery (00451)

F IHC General Store/Finance Co. (47798)  
G Con-Cor Edison's Lab (out of production)  
H Life-Like Church (kitbashed, 1350)  
I IHC Grocery store/auto repair (348-3504)  
J IHC Rico Station (348-807)

Scale: 1" = 1'-0" 6" grid End X joins End Y

Each layout half is 16" x 45"

- 7.5 ft. by 16" Shelf Layout
- HO Scale
- Lots of Industries to switch!

**A Revised Time Saver Plan by John Flann, *Model Railroad Planning*, 2003. Tracks are extended to provide actual industries to pick up and spot cars. John's operational method used a random drawing of car cards to decide which cars to pick up and which cars in the train to spot. Other methods are applicable, e.g., car cards and waybills, switch lists, etc.**

# Back To The Inglenook ....

Dawson Station



- A single-industry modeled from real life
- 4 ft. by 1 ft.
- N-scale
- Saw Mill in the woods
- See RMC, January 2014

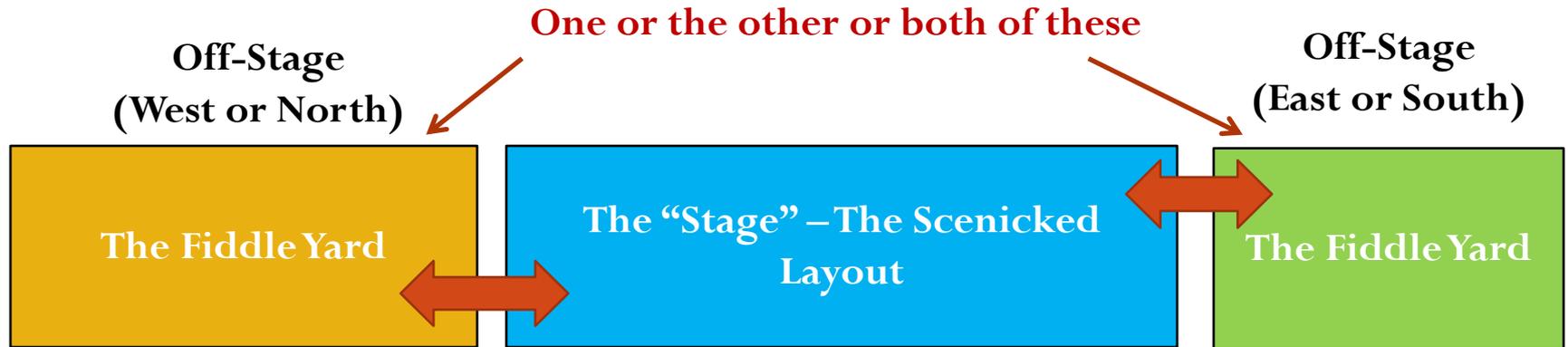


The Inglenook can be operated as a realistic industry setting, with cars in, cars out, based on real prototypes. See the Dawson Station web site, [www.dawson-station.blogspot.com](http://www.dawson-station.blogspot.com)

# What Makes a “Good” Shelf Layout?

- **Size** – Fits the area you have available!
- **Not just a Puzzle** – Realistic Operation
- **Realistic place, time, era and railroad equipment**
- **Operation with a Purpose**
- **Key Features nice to have:**
  - Locomotive Run-around Capability
  - Adequate run-around length to fit the train length
  - Siding Lengths appropriate to car traffic
  - Staging or Fiddle Yards to feed the “On Stage” Scene
- **Suggested Options for Shelf Layout Design:**
  - Through Station/Town
  - End of the Line and/or Branch Line
  - Single Industry (Quarry, Logging, Mining, Paper Mill, Brewery) with a variety of traffic – loads, empties, different car types, etc.
  - Industrial Park – Interchange with main line, variety of traffic

# Generic Shelf Layout Ingredients



- Can be a conventional multi-track yard
- Can be a sector plate or transfer table
- Can be a set of cassettes

- Has a Theme, Era, Place
- Where the Operations Happen
- Connects to one or both fiddle yards
- Car movements can be done by switch lists, car cards, or random draw methods

- Can be a conventional multi-track yard
- Can be a sector plate or transfer table
- Can be a set of cassettes

**These ingredients can be in a straight line, an L-shape or a U-Shape. They can be straight or curved – whatever fits, and whatever strikes your fancy!**

# Summary

- If you have a wall that you can hang a shelf on, you can design a shelf layout that will provide realistic operation
- Shelf layouts come in all shapes and sizes
- Shelf layouts can be any theme, prototype, era, scale
- There are lots of references and material to draw upon for inspiration, including the internet!
- You can get a shelf layout up and running in a short time
- A shelf Layout is a great way to explore a new scale, new era, a new theme, to see if you like it before committing to a large layout
- Go design and build one! It can be fun!

# Some Good References

- **Railway Modeller Magazine:** Peco Publications, Devon, U.K.
- **Continental Modeller Magazine:** Peco Publications, Devon, U.K., [www.pecopublications.co.uk](http://www.pecopublications.co.uk)
- **Carl Arendt's Microlayout Design Gallery and Scrapbook web site,** [www.carendt.com](http://www.carendt.com)
- **Layout Design Special Interest Group web site and LDSIG Journal**
- **Various issues of Model Railroader Magazine and Model Railroading Planning Annuals**
- **Various issues of Railroad Model Craftsman Magazine**
- **"Small, Smart and Practical Model Railroad Layouts,"** by Iain Rice, Kalmbach Publications, 2003.
- **"How to Design A Small Shelf Layout,"** by Lance Mindheim, published by Lance Mindheim, c. 2009, [www.shelflayouts.com](http://www.shelflayouts.com)
- **"8 Realistic Track Plans for Small Switching Layouts,"** by Lance Mindheim, c. 2009, [www.shelflayouts.com](http://www.shelflayouts.com)

# Acknowledgements

I would like to acknowledge and thank the following companies for granting permission to use their published material in the preparation of this clinic:

- **Kalmbach Publishing Company, for plans taken from Model Railroader magazine and Model Railroad Planning**
- **Carstens Publishing Company, for plans taken from Railroad Model Craftsman**
- **Peco Publications, U.K., for plans taken from Railway Modeller magazine and Continental Modeller magazine.**

Thank you for your kind attention....  
Questions?

