

NMRA Chief Dispatcher:

NMRA Member #

Section #1 – Operating Hours

I have achieved the required operating hours on Robert (Bob) Rodriguez Nickel City Line Model Railroad. Appendix A includes the letter from Bob verifying my operating hours in each of the positions.

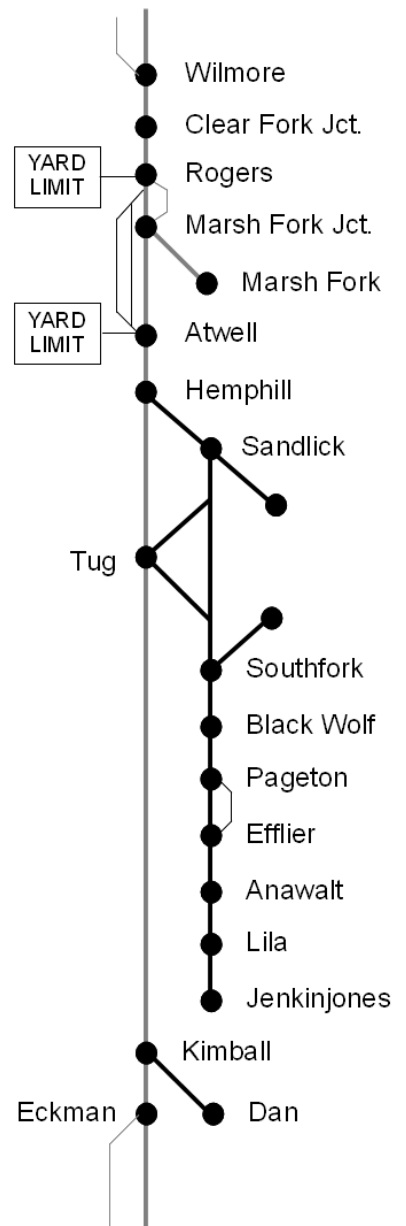
Section #2 – Documentation

Layout Information & Diagrams

For the Documentation requirements I'm submitting the documentation of my own model railroad, the Scotts-dale Division. The Scotts-dale Division is a free-lanced layout based on the modern day Norfolk Southern and especially the Tug Fork Branch of the Pocahontas Division. The modeled area is primary based on McDowell County in southern West Virginia.

The layout is a continuous loop where a single staging yard serves as Wilmore & Eckman, the West & East end of the layout respectively. In addition, a long branch line starts at Hemphill and continues south (railroad East) to Jenkinjones. Passing sidings follow N&W/NS practice of having different names for the East & West ends. There are two passing sidings on the mainline Rogers/Marsh Fork Jct. and Hemphill/Tug. In addition, the Scotts-dale Division Yard's Arrival/Departure track is under dispatcher control and could be used as a third passing siding in a pinch. A passing siding is provided in staging (Wilmore/Eckman) but is intending for continuous running and not part of an operating session. There is one passing siding on the branch line at Pageton/Effier.

Industries include Appalachian Power at Rogers, Engine facility at Scotts-dale Yard, CSX Interchange at Marsh Fork, L&JG Stickley Furniture at Hemphill, Ammonium Nitrate facility at Black Wolf, and coal loaders at Ream, Munson, Pageton, Efflier, Anawalt, Jenkinjones, & Dan. A basic schematic of the layout is show in Figure 1 and the SDD



Track Charts (detailed schematic) is provided in Appendix B. Figure #2 shows a layout diagram.

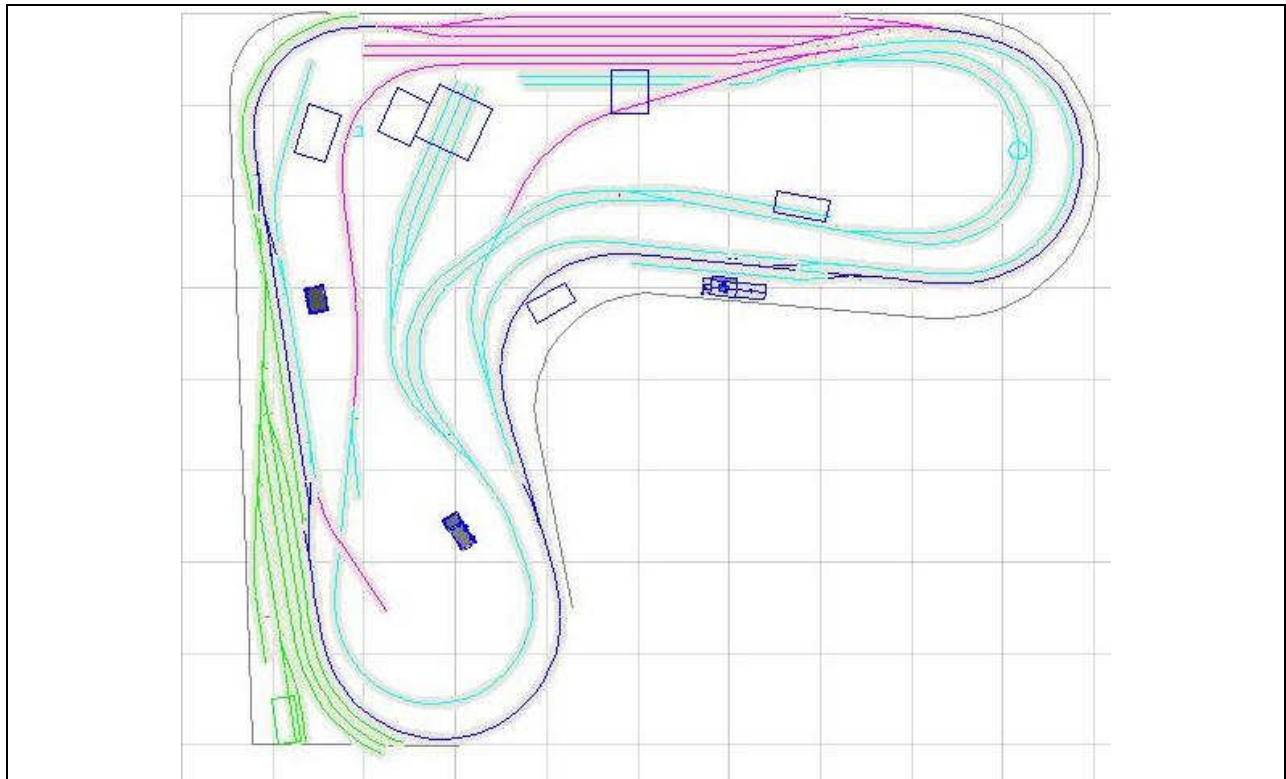


Figure 2: Layout Diagram of Scotts-dale Division

Table one below shows the distances between the stations.

There are 11 trains operating on the layout in a typical simulated 8 hour operating session. Some of these trains have multiple steps, which complication operations. The trains are:

- 765/766 - Unit Train operates directly between the mine and power plant (staging). This train must reverse direction to move up to the loader at Anawalt; which means it requires 4 moves during the operating session.
- U21, U23, & U35 - 3 mine urns operating between Scotts-dale Yard and mines on the branch line.
- S28, S29 & Special - 3 through trains which run from staging to staging, generally without stops at Scotts-dale Yard. The special is any one of 6 intermodal, passenger, or road-railers trains that I wish to run during a session.
- 148 is a general merchandise local freight train which stops at local non-coal industries.
- 824/825 These trains either originate or terminate at Scotts-dale Yard.
- 1 Yard Engine – This train works the Scotts-dale yard

Locations	Distance	
	Real in	Scale miles
Wilmore	0	0
Clear Fork Jct.	47	1.19
Rogers	36	0.91
Atwell	42	1.06
Hemphill	79	1.99
Tug	63	1.59
Thorpe	77	1.94
Southfork	142	3.59
Black Wolf	91	2.30
Pageton	84	2.12
Efflier	53	1.34
Anawalt	29	0.73
Lila	48	1.21
Jenkinjones	44	1.11
Kimball	77	1.94
Eckman	47	1.19

Timetable & Operating Train Chart

The maximum speed on the Scotts-dale Division is 25 scale miles per hour; however loaded coal trains typically do not have sufficient power to operate at more than 12 to 14 scale miles per hour. A fast clock using a 3 to 1 ratio will be used. As a result it takes about 6 scale minutes to cover the mainline and about 20 scale minutes to cover the branch line.

The resulting timetable and operating train chart is in Appendix C.

By schedule there are five meets. They are:

- U21 & U23 at Hemphill/Tug
- Special & U23 at Hemphill/Tug
- 824 & U35 at Hemphill/Tug
- 765 & U21 at Pageton/Efflier
- 766 & U23 at Pageton/Efflier

For the U21 & U23 meet, U21 will take the Hemphill/Tug siding and work the mine at Ream while U23 continues to Tug on the mainline. At Tug, U23 will cross over to the Tug Fork Branch line.

For U23 and Special meet, U23 will hold a Sandlick until the special clears Hemphill. Then U23 will continue at restricted speed to Atwell & Scotts-dale Yard.

For 824 & U35 meet, U35 will take the Hemphill/Tug siding and hold at Sandlick until 824 clears Hemphill. Then U35 will switch onto the mainline.

For 765 & U21 meet, U21 will take the Pageton/Efflier siding and hold until 765 has cleared Pageton.

For the 766 & U23 meet, 765 will hold on the branch line until U23 arrives at Pageton and takes the siding to work the mine at Pageton.

Operating System

The Scotts-dale Division will operate similar to the Norfolk Southern operations for medium volume, non-signaled territory. There will be a dispatcher monitoring progress of the trains via block detection and controlling train routing via remote turnout control. A computer interface similar to the Norfolk Southern will be used for the Dispatcher. Also the Dispatcher will be providing train crews with operating instructions via Track Authority Forms (similar to Track Warrants). Forms will be completed by both dispatcher and crew using radios and read back procedures. Car movements will be controlled via switch lists generated by the Trainmaster prior to the start of the operating session. Sample Paperwork is included in Appendix D.

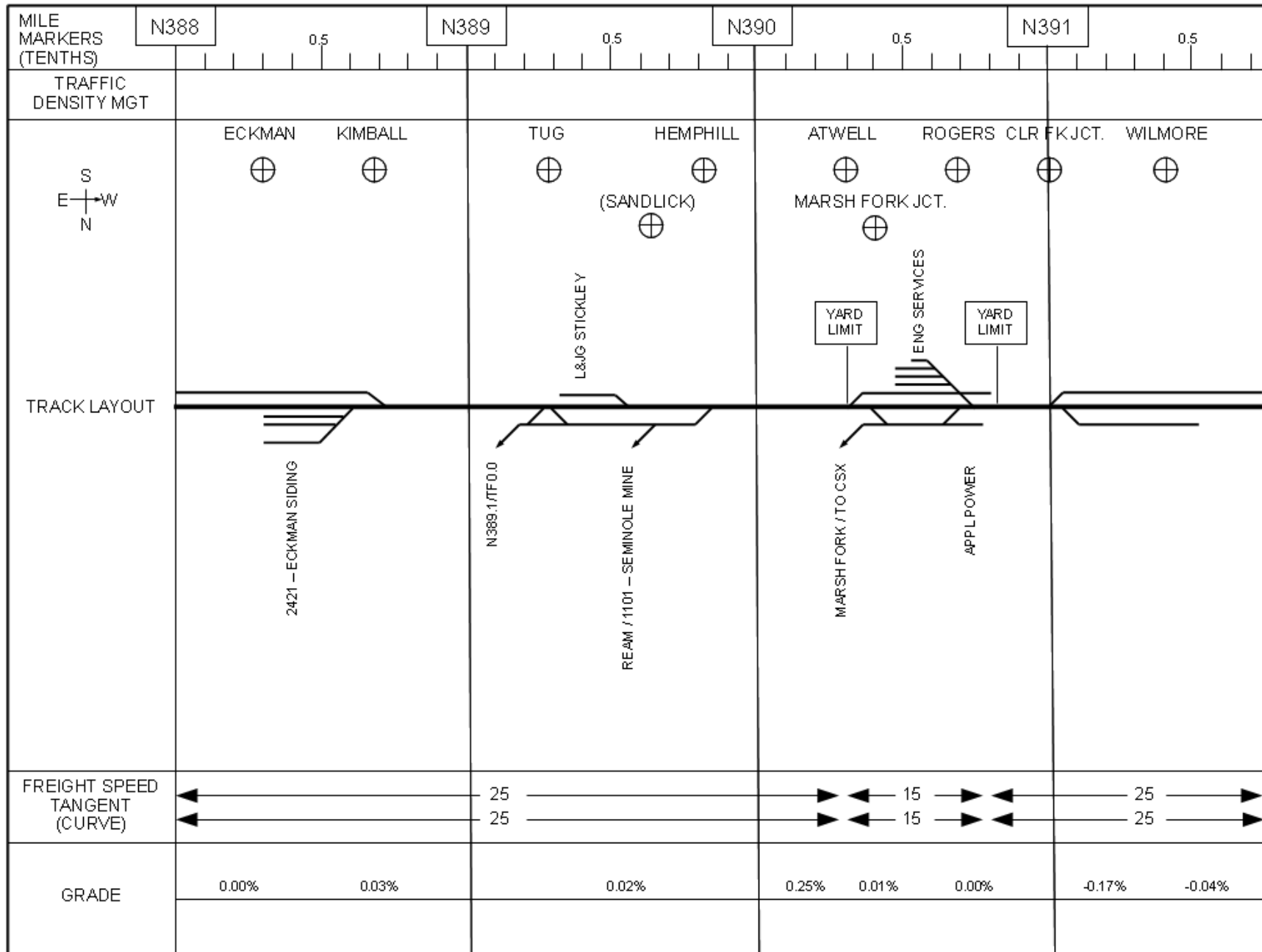
Jobs during operating session will include: Trainmaster, Dispatcher, Yard Foreman (combination of Yardmaster & Yard Engineer), and Road Engineers.

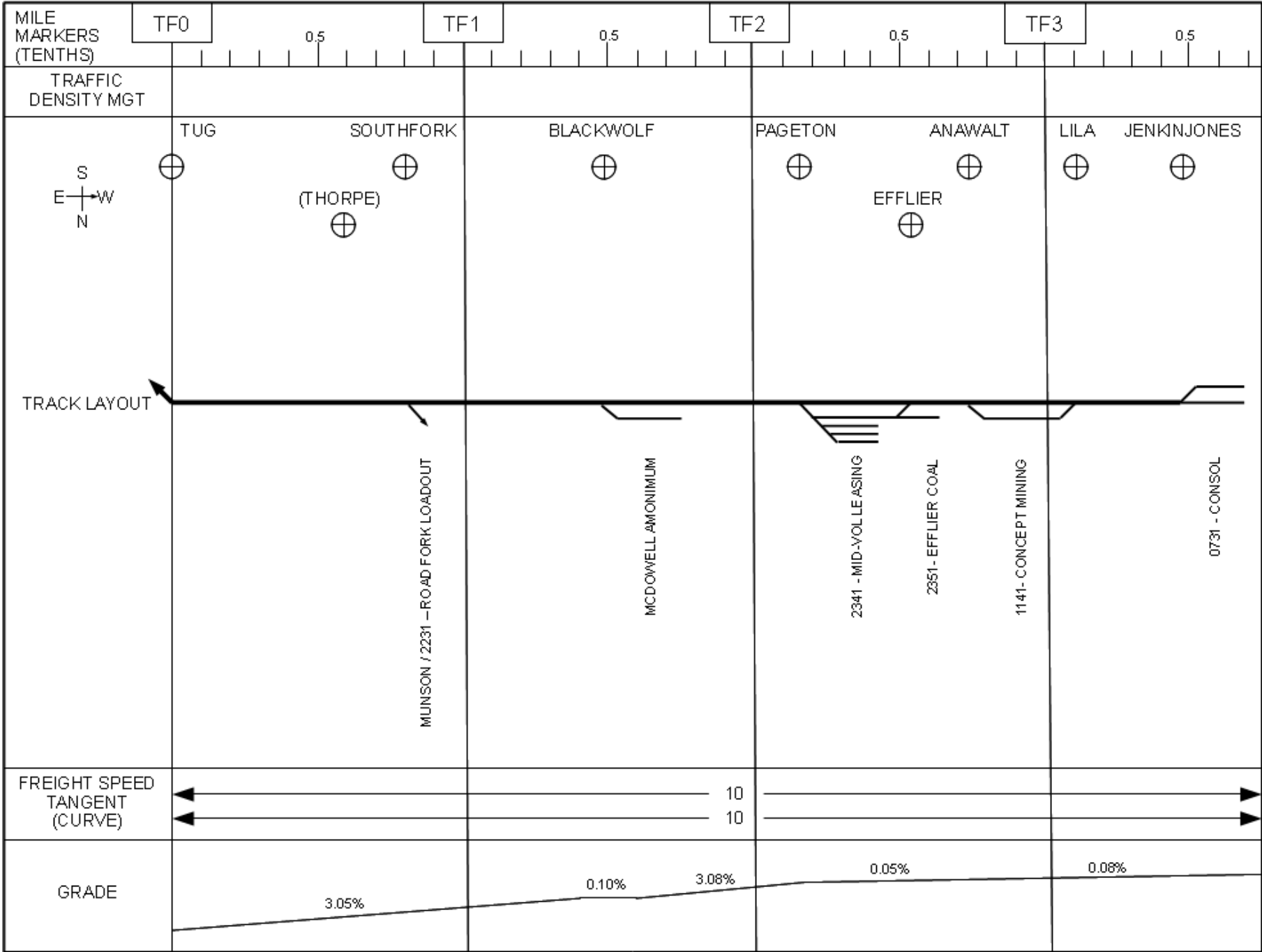
Appendix A

- Letter from Robert Rodriguez verifying hours completed.
- Table of Positions and hours completed

Appendix B

Detailed schematic



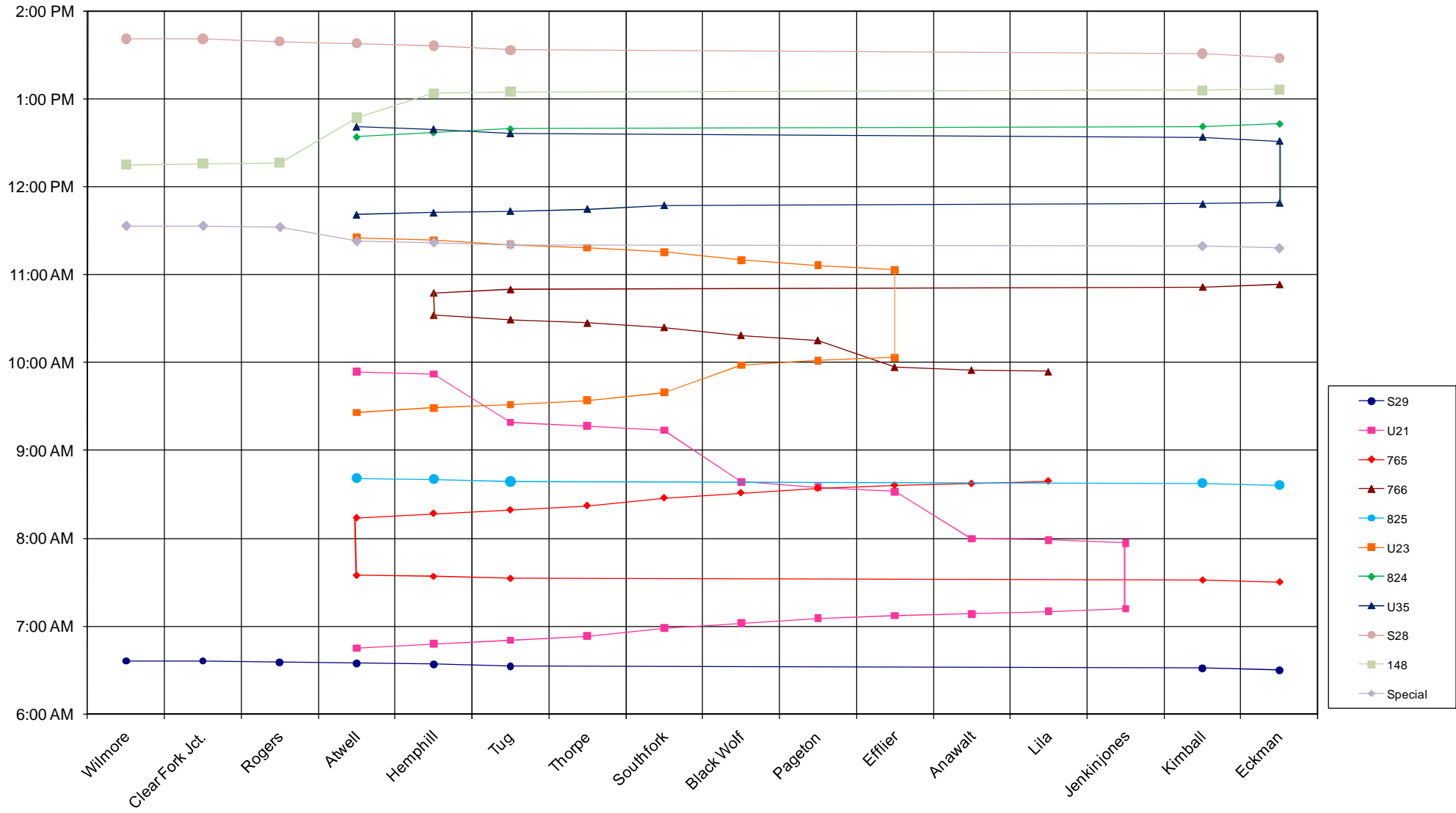


Appendix C

Timetable

	MTYs In	U21		765 - MTYs		766- Loads Out		825 - MTYs	U23		824 - Loads Out	U35		S28 - Loads Out	148 - Mixed	Special
	S29 - MTYs	U21 - Out	U21 - In	765-In	765-Out	766-in	766-Out		U23-Out	U23-In		U35-In	U35-Out			
Wilmore	6:36 AM													1:41 PM	12:15 PM	11:33 AM
Clear Fork Jct.	6:36 AM													1:41 PM	12:15 PM	11:33 AM
Rogers	6:35 AM													1:39 PM	12:16 PM	11:32 AM
Atwell	6:34 AM	6:45 AM	9:53 AM	7:34 AM	8:13 AM			8:41 AM	9:26 AM	11:25 AM	12:34 PM	12:40 PM	11:40 AM	1:37 PM	12:47 PM	11:22 AM
Hemphill	6:33 AM	6:48 AM	9:52 AM	7:33 AM	8:16 AM	10:32 AM	10:47 AM	8:40 AM	9:29 AM	11:23 AM	12:37 PM	12:39 PM	11:42 AM	1:36 PM	1:03 PM	11:21 AM
Tug	6:32 AM	6:50 AM	9:19 AM	7:32 AM	8:19 AM	10:29 AM	10:49 AM	8:38 AM	9:31 AM	11:20 AM	12:39 PM	12:36 PM	11:43 AM	1:33 PM	1:04 PM	11:20 AM
Thorpe		6:53 AM	9:16 AM		8:22 AM	10:27 AM			9:34 AM	11:18 AM			11:44 AM			
Southfork		6:58 AM	9:13 AM		8:27 AM	10:24 AM			9:39 AM	11:15 AM			11:47 AM			
Black Wolf		7:02 AM	8:38 AM		8:30 AM	10:18 AM			9:58 AM	11:09 AM						
Pageton		7:05 AM	8:35 AM		8:34 AM	10:15 AM			10:01 AM	11:06 AM						
Efflier		7:07 AM	8:31 AM		8:36 AM	9:57 AM			10:03 AM	11:03 AM						
Anawalt		7:08 AM	7:59 AM		8:37 AM	9:55 AM										
Lila		7:10 AM	7:58 AM		8:38 AM	9:53 AM										
Jenkinjones		7:11 AM	7:56 AM													
Kimball	6:31 AM			7:31 AM			10:51 AM	8:37 AM			12:41 PM	12:33 PM	11:48 AM	1:30 PM	1:05 PM	11:19 AM
Eckman	6:30 AM			7:30 AM			10:53 AM	8:36 AM			12:43 PM	12:31 PM	11:49 AM	1:28 PM	1:06 PM	11:18 AM

Operating Train Chart



Appendix D - Sample Paperwork

Call Board

The Call Board notifies the crew of their assignments. It includes the train symbol, description, and departure time. It also provides the engine number for selecting on the throttle and the starting location. It is prepared by the Trainmaster prior to the start of the session. Based on the information on the Call Board, crews can fill in the first couple of lines of their Track Authority Form.

Scotts-Dale Division Call Board						
Time	Symbol	Name	Eng #	Location	Track	Crew
6:00 AM	YARD	Yard Switcher	5351	SDD Yard	Ready	
6:30 AM	S29	Westbound MTYs	8879	Eckman	#3	
6:45 AM	U21	Pageton Turn	8136	SDD Yard	A/D	
7:30 AM	765/766	HYCO Unit Train	2591	Eckman	#4	
8:36 AM	825	Inbound MTYs	8879	Eckman	#3	
9:26 AM	U23	Branch Mines Turn	6604	SDD Yard	A/D	
11:18 AM	Special	AMTK Cardinal	52	Eckman	#1	
11:40 AM	U35	Dan Branch Turn	3223	Dan	#5	
12:15 PM	148	Mixed Local	4805	Wilmore	#2	
12:34 PM	824	Lambert's Point Loads	8836	SDD Yard	A/D	
1:28 PM	S28	Eastbound Loads	8836	Wilmore	#3	


Dispatcher Line Up

The Dispatcher Line Up provides the Dispatcher with the operating plan for the session. It is prepared by the Trainmaster prior to the start of the session. The Dispatcher Line Up provides the same information as the Call Board, plus it lists the direction and mainline stop for each locomotive.

Scotts-Dale Division													
Dispatcher Line Up													
Time	Symbol	Name	Eng #	Location	Track	Stops							
						Wilmore	Rogers	SDD Yard	Atwell	Hemphill	Tug	Branchline	Eckman
6:00 AM	YARD	Yard Switcher	5351	SDD Yard	Ready								
6:30 AM	S29	Westbound MTYs	8879	Eckman	#3	X	←						X
6:45 AM	U21	Pageton Turn	8136	SDD Yard	A/D			X	←		→	X	
7:30 AM	765/766	HYCO Unit Train	2591	Eckman	#4			X	←		→	X	X
8:36 AM	825	Inbound MTYs	8879	Eckman	#3			X	←				X
9:26 AM	U23	Branch Mines Turn	6604	SDD Yard	A/D			X	←	X	→	X	
11:18 AM	Special	AMTK Cardinal	52	Eckman	#1	X	←		X				X
11:40 AM	U35	Dan Branch Turn	3223	Dan	#5			X	←				X
12:15 PM	148	Mixed Local	4805	Wilmore	#2	X		X		X			X
12:34 PM	824	Lambert's Point Loads	8836	SDD Yard	A/D			X					X
1:28 PM	S28	Eastbound Loads	8836	Wilmore	#3	X							X

Track Authority Form

The Track Authority Form governs the movement of trains. It is prepared by the Dispatcher based on the operating plan and schedule. When the Train Crew reports in to the Dispatcher, the Dispatcher transmits the Track Authority to the Train Crew via Radio. The Train Crew copies down the transmitted information, and then reads it back to the Dispatcher for verification. Once the Clear time is provided to the Train Crew, the Track Authority is in effect and the Train Crew may proceed.

	
No. _____ SYM.: _____ Date: _____, 20__	
Eng No.: _____ Location: _____ Track: _____	
1. <input type="checkbox"/> Track Warrant No. _____ is Void.	
2. <input type="checkbox"/> Proceed from _____ to _____ on _____ track.	
3. <input type="checkbox"/> Work Between _____ and _____ on _____ track. Do not foul limits ahead of: _____.	
4. This Authority expires at _____ <input type="checkbox"/> AM or <input type="checkbox"/> PM.	
5. Not in Effect until Arrival of: _____, _____, _____ at _____.	
6. <input type="checkbox"/> Hold Main Track at Last Named Point.	
7. <input type="checkbox"/> Do Not Foul Limits Ahead of: _____, _____, _____.	
8. <input type="checkbox"/> Clear Main Track at Last Named Point.	
9. <input type="checkbox"/> Between _____ and _____ make all movements at restricted speed, limits occupied by train or engine.	
10. <input type="checkbox"/> Between _____ and _____ make all movements at restricted speed, and stop short of men or equipment fouling track.	
11. <input type="checkbox"/> Flag protection not required against following trains on same track.	
12. Other Specific Instructions: _____ _____ _____	
OK _____ Dispatcher _____	Signed: _____
OS _____ Date: _____	Time _____
Copied by: _____ Clear _____ <input type="checkbox"/> AM or <input type="checkbox"/> PM	
Form 11369	

Switchlist

The Switchlist governs car movement. The Switchlist is prepared by the Trainmaster prior to the start of the operating session. The Switchlist is provided to the Train Crew when they report. The Switchlist provides the train number, car numbers and landing, and the locations for picking up and setting out cars. Prior to starting their train, the Train Crew verifies that their train includes all the cars listed on the Switchlist.

Switchlist					
148	Columbus - Crewe Daily				61/2005
Mixed Freight					
Road	Number	AAR	Lading	Action	Location
RBOX		XM	Goods	T	Wilmore
NS		XM	Auto Parts	T	Wilmore
NS		XM	Auto Parts	T	Wilmore
NS		XM	Auto Parts	T	Wilmore
ACL		FCB	Lumber	T	Wilmore
SHPX		TP	Diesel	S	SDD / Service
NS		GT	MTY	S	SDD Yard
NS		HT	MTY	S	SDD Yard
NS		HT	MTY	S	SDD Yard
NS		LO	MTY	P	SDD Yard
NS		XM	MTY	S	LS / L&JG Stickley
TTX		FCB	Lumber	S	LS / L&JG Stickley
CSX		XM	Furniture	P	LS / L&JG Stickley
CR		XM	Furniture	P	LS / L&JG Stickley
Notes					
1	Action Symbols				
	CC - Crew Change				
	P - Pick Up				
	S - Set Out				
	T - Through				
2	SDD Yard is under Yardmaster Control. Contact Yardmaster prior to entering Yard Limits.				