



AMTRAK NR. 8 – ENGINEERS EXPERIENCE

Hello and welcome on board of the Amtrak Nr. 8 - Empire Builder. The train left Portland (OR) yesterday at 4:40 PM and is now approaching Whitefish (MT). In Whitefish, the train has a scheduled stay of 20 minutes. The train will then continue driving eastward, following the official Amtrak™ timetable. Terminal station is Chicago (IL) - Union Station, scheduled arrival tomorrow 4:20 PM. The session is self-explanatory, you will get the necessary information's as messages along the route.

Bald, the engineer is driving the train from Spokane(WA) since 1:15 AM and will terminate his service in Whitefish. You will take his place in the driver's seat and will drive the train up to Shelby (MT). But before you depart in Whitefish, you should use the break to refill both locos with diesel and sand.

Obey all signals and speed restrictions. You will get orders from dispatchers along the route, when necessary. Try to keep the timetable, but don't exceed the speed limits. You will notice that there are some speed limit signs with two statements. P- for passenger and F- for freight trains. Since you run a passenger train, follow the upper speed limits. The HUD on the right of the screen informs you about the current operating state of the route ahead. There is heavy traffic on the mainline; this will possibly cause some delays. You can see your schedule on the second page of the session info window. Stop in all scheduled stations. All junctions are dispatcher operated and will be set for you.

Scheduled departure in Whitefish is 7:46 AM.

Good luck!

Difficulty: medium

Duration: 3:30

AMTRAK NR. 7 – SIGHTSEEING TOUR

Welcome on board of the Amtrak Nr. 7 - The Empire Builder - Chicago-St.Paul-Minneapolis- Portland/Seattle. We are approaching Shelby (MT) and you are invited to a ride over the famous Marias Pass up to Whitefish (MT). Just sit down and relax in the comfortable interior of one of the Superliner coaches and watch the beautiful nature or jump into the cab of the loco or watch the train and the landscape using the outside camera. Our engineer takes care for the driving and keeping the schedule.

We are driving according to the official Amtrak timetable. You can check the schedule anytime opening the session info window.

Route exploring session, no driving experience needed, the driver follows the prepared schedule. A lot of traffic along the route.

Difficulty: easy

Duration 3:30

HEAVY HAUL OVER MARIAS

BRIEFING IN WHITEFISH DEPOT

You are the engineer based in Whitefish engine depot and you are on standby duty today. The engineer of the freight train EB-M BN 8612 from Sandpoint Jct. to Shelby has just reported braking problems with his loco. The engine has to be replaced in Whitefish. You have to replace the defective loco with your engine nr. BNSF 7411 (a SD 40-2) and to drive the train over the Marias Pass west grade, up to East Glacier Park.

On the way, at the Conkelley Aluminum plant, you have to take an additional cut of cars, loaded with aluminum products. That train part is heavier than the cars in your consist, therefore it has to be added to the front of the train, directly behind the engines. Follow the directions of the Conkelley yardmaster!

Between Essex and Marias you will get a helper loco because the power of your four SD 40 is not sufficient for the steep grade. The Essex dispatcher will instruct you about the helper operation rules.

Once in Glacier Park, you will be awaited by a fellow engineer, who will take over from you and will drive the train to Shelby. Use the service break for a meal at Glacier Inn. It is known for the best trout in the region.

But before you start driving, refuel your engine and fill up the sand reservoirs.

Have a good trip!

CFAC YARD MASTER SESSIONS

The Columbia Falls Aluminium Company (CFAC) is an aluminium smelter situated in Conkelley (also called Conkelly) near Columbia Falls (MT), directly at the BNSF Hi Line.

Aluminium smelting is a continuous process, regularly interrupted only for maintenance purposes. Any unforeseen interruptions have to be avoided; the restart of the process is very expensive. (The worst case is the interruption of power delivery for more than 15 minutes. The melted aluminium in the potlines will begin to solidify, what causes that the carbon padding of the potlines has to be renewed. But also interruptions in the raw material supplying are undesired.)

Aluminium smelting process consumes alumina (refined from bauxite), kryolite as a catalysator and huge amounts of electric power. Beside this, there is needed green coke (petrol coke) for baking the anodes and carbon brick padding of the potlines. Any aluminium smelter has usually an own carbon plant.

The raw aluminium produced is delivered in several different forms:

- Ingots (used by foundries)
- Billets (for extrusion)
- Rolling slabs (for rolling to folia etc.)
- Other semi-products

We have simplified our simulated aluminium plant a bit, to keep the things clear. Our smelter consumes alumina and green coke, produces ingots, billets, rolling slabs and crates (semi-products).

THE SESSIONS:

You are the yard master (and the resources disponent) in the company yard. You are responsible for supplying the raw materials alumina and green coke and for the transportation of the aluminium products to the customers. You are working closely together with the BNSF railway company, which carries the raw materials to the Conkelly yard, where the consists are handed over to the CFAC switchers. They will distribute the cars over the CFAC yard, to the loading / unloading facilities. For the hand over actions are only two tracks disponsible, the further company rail net is not accessible for six axle engines.

You have 3 used GP38-2 engines with a “trio infernal” of engineers (Josef, Lothar, Bald) on your side. You have to command them around the yard giving them driver commands. If you will become a successful yardmaster, you have not the time to drive the locos by yourself. Just keep them busy and you will reach your goal.

Check frequently, what is needed as next using the Ctrl+RMB on the industry object (View details). Once the little forklift train (beep, beep...) circulating in the company yard stops (parked in the west part of the smelter building), the smelting process has been stopped.

Your goal is to keep the smelting process running, at least for some hours.

There are three phones (calling triggers) within the yard. When passed by a vehicle they will send an order for the specific resource or empty flat cars. So you can get the trains just-in-time and keep the yard clear.

Read also the chapter “**Example for a typical work turn at CFAC – yard**”, and print out the CFAC yard maps, before starting to play the session.

CFAC YARDMASTER – ASSISTANT

The raw material bunkers are full, the storages are empty. Try to keep the smelting process running at least for 3 hours.

Scoring:

- 1 hour: Yardmaster Assistant
- 2 hours: Yardmaster
- 3 hours: Chief Disponent

Difficulty: medium

Duration: unlimited

CFAC YARDMASTER – SPECIAL

The smelter was shut down for maintenance purposes. You have to prepare the plant for a restart. The bunkers are empty, there are not too much products in the storages. Supply the raw materials until the smelting process begins. Keep the smelter running for at least 3 hours, counted from the process start on.

(Hint: The process starts when both raw materials – alumina and green coke – are disponsible)

Difficulty: advanced

Duration: unlimited

CFAC YARDMASTER – EXPERT

The alumina and green coke bunkers are nearly empty, the product storages will be soon full. Not an easy task. If you manage to keep the smelting process running for 2 hours, then are you very good. With three hours are you a real expert.

Difficulty: expert

Duration: unlimited

KNOWN ISSUES:

CFAC sessions :

When calling the first train (alumina, green coke or empty), you will sometimes get only a loco without cars. Workaround: wait some minutes after starting the session until one off the AI trains travelling as background traffic emerges. Then the train calling system should work.

Applying the first driver command in the session can take up to 30 seconds (the game looks like being frozen, but be patient, it will “come back”).

EXAMPLE FOR A TYPICAL WORK TURN AT CFAC – YARD

START-UP SITUATION

When you start the session, you will find three company switchers at the following positions:

CFAC CallAluminaTrack (Lothar)

CFAC CallCokeTrack (Josef)

CFAC CallEmptiesTrack (Bald)

Those are your engineers you have to command around to do the driving work. You have to jump into the cab only if they get lost or are not intelligent enough to perform some more difficult order. Don't drive regularly by yourself, otherwise you will never succeed to keep the smelter running. There are also some spare consist of empty flat cars and a consist of loaded green coke cars for the case you get the ordered trains not in time.

ORDERING AND DELIVERY TURN FOR ALUMINA

Alumina is the resource you will need in a big mass. (Consumption ratio alumina versus green coke is 10:1).

1. ORDERING



Drive Lothar's loco slowly toward this sign until getting the call confirmed. Don't park on the trigger; retire the loco to the yellow flagman's position. You will be notified later about the train arrival. (Takes about 5 minutes). Send Lothar to a waiting position to be prepared for taking over from the BNSF engines.

Driver commands for Lothar: [Drive to trackmark – CFAC Wye1 in](#)

2. HAND OVER MANEUVER

The delivery track is generally CPAC Yard 2 Mid. When received the delivery notification you can watch the incoming train soon arriving over the north main track. When the BNSF train stopped, decouple the engines from the consist and send them to a waiting position (the favourite is CPAC Wye3 out, if free). Check for the car name, you want Lothar to couple to (RMB – View details), then give him following batch of commands:

Couple - (car name, i.e. BNSF alumina hopper xxxxx – 1)
Drive via trackmark – CPAC Wye1 in
Drive To – CFAC – ALUMINA BUNKER1
Unload

Lothar is now instructed and he will perform the unloading. As soon, as he cleared the switches departing to the backyard, send the waiting BNSF engines to the position for taking the empty consist when back from unloading:

Drive to trackmark – CFAC Yard 1W

This is generally the departure track for BNSF trains. Check for the name of the now rear engine. You can add following commands to Lothars schedule:

Drive via trackmark - CPAC Wye1 in
Couple - (engine name, i.e. BNSF SD 40-2 2)

unless you need the “bottleneck track” CFAC BackyardTrack for other maneuvers. You can for example order the next resource needed, as the incoming track is clear now.

When Lothar is done with the unloading, he will drive back and couple the empty consist to the BNSF engine. Decouple Lothars switcher from the consist, **click on his loco** and send him wherever you want to have him waiting for next orders. (i.e. CPAC Wye1 out)

Now its time to dispatch the BNSF train with the empty alumina hoppers To Spokane. (You are free to send him to an alternate portal, but all other portals are situated on the Shelby end, so you will have him for the next 3 hours driving on the route – not good for the game performance).

Driver command: drive To Spokane.

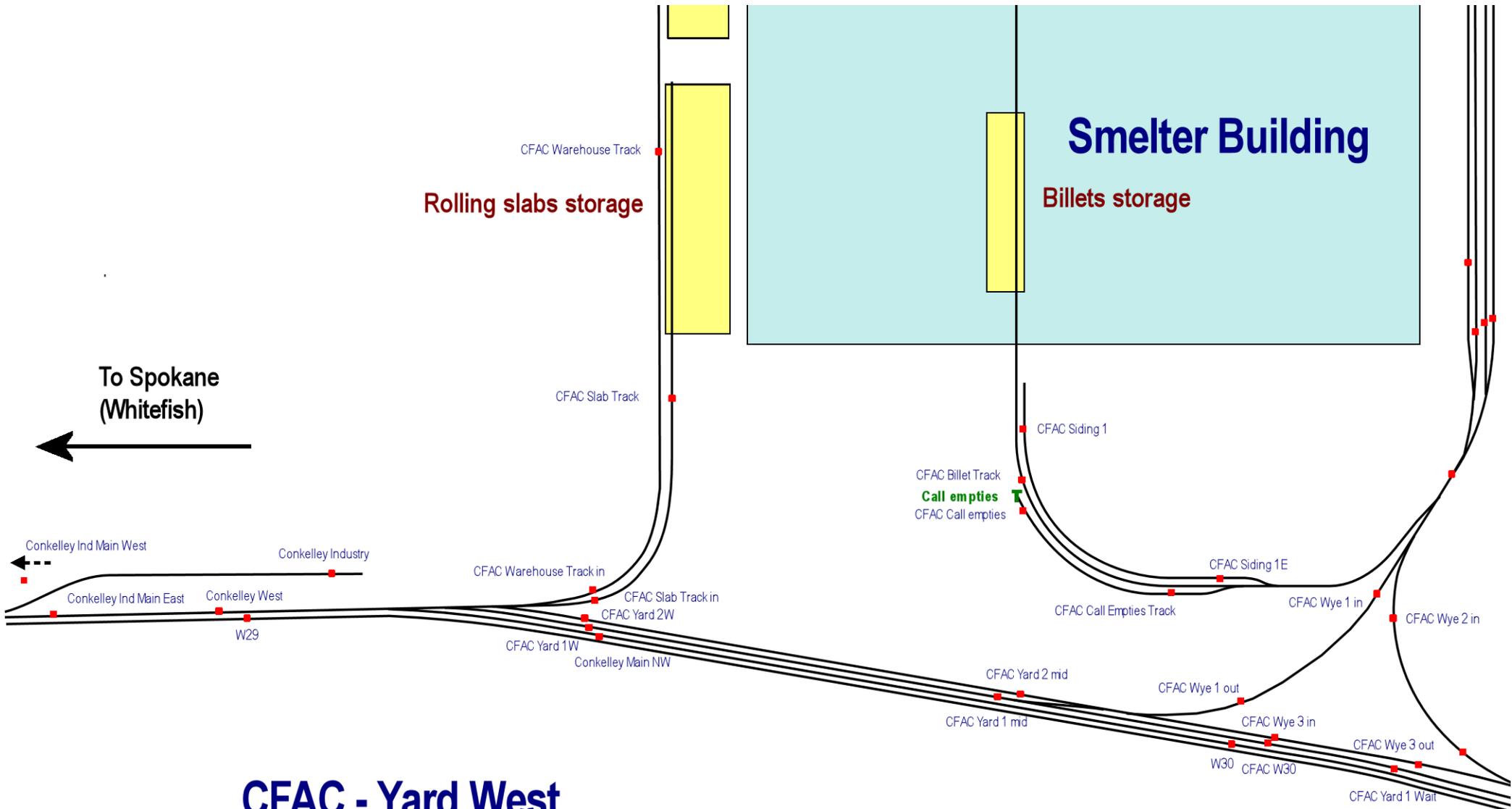
Six axle engines are generally **not allowed** to enter the CFAC yard, except for the two hand over tracks. Do not use the main line tracks for switching, you will interfere with the traffic there and the dispatchers of the Hi Line will not be amused about it.

Both, the incoming and leaving trains uses between Conkelley and Columbia Falls station the northern mainline track, as there isn't an interchange to the south main. Keep this in mind when dispatching the trains To Spokane and an incoming train is already advised. This would possibly cause delays for your delivery. One of the both trains has to wait until the north main is cleared.

This was an example about the working technique you have to use to achieve your goal, keeping the smelter running. Once the production is started, you will not have too much spare time for “watching trains”. You will have to run multiple turns like the described one simultaneously. All you need is to find out the right strategy. Your organisation talent will be challenged.

The indicator for the **smelter** being **shut down** is, when the little “forklift train” circulating around the west part of the smelter building stops. (He is parked then in the interior).

Good luck!



CFAC - Yard West

To Spokane
(Whitefish)

Smelter Building

Rolling slabs storage

Billets storage

CFAC Billet Track
Call empties
CFAC Call empties

Conkelley Ind Main West
Conkelley Ind Main East
Conkelley West
Conkelley Industry
W29

CFAC Warehouse Track in
CFAC Slab Track in
CFAC Yard 2W
CFAC Yard 1W
Conkelley Main NW

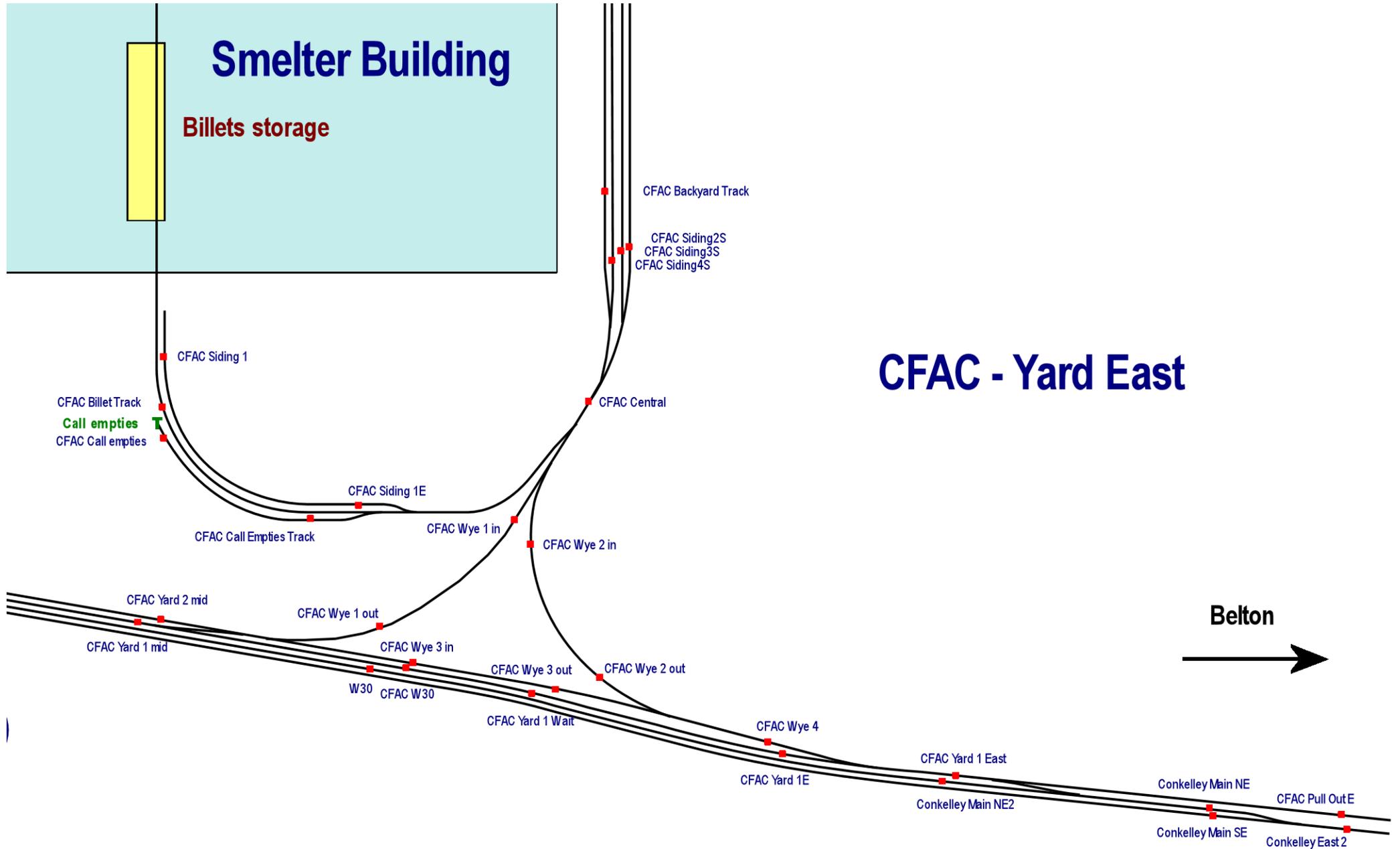
CFAC Yard 2 mid
CFAC Yard 1 mid
CFAC Wye 1 out
CFAC Wye 3 in
W30
CFAC W30

CFAC Siding 1
CFAC Siding 1E
CFAC Call Empties Track
CFAC Wye 1 in
CFAC Wye 2 in
CFAC Wye 3 out
CFAC Yard 1 Wait

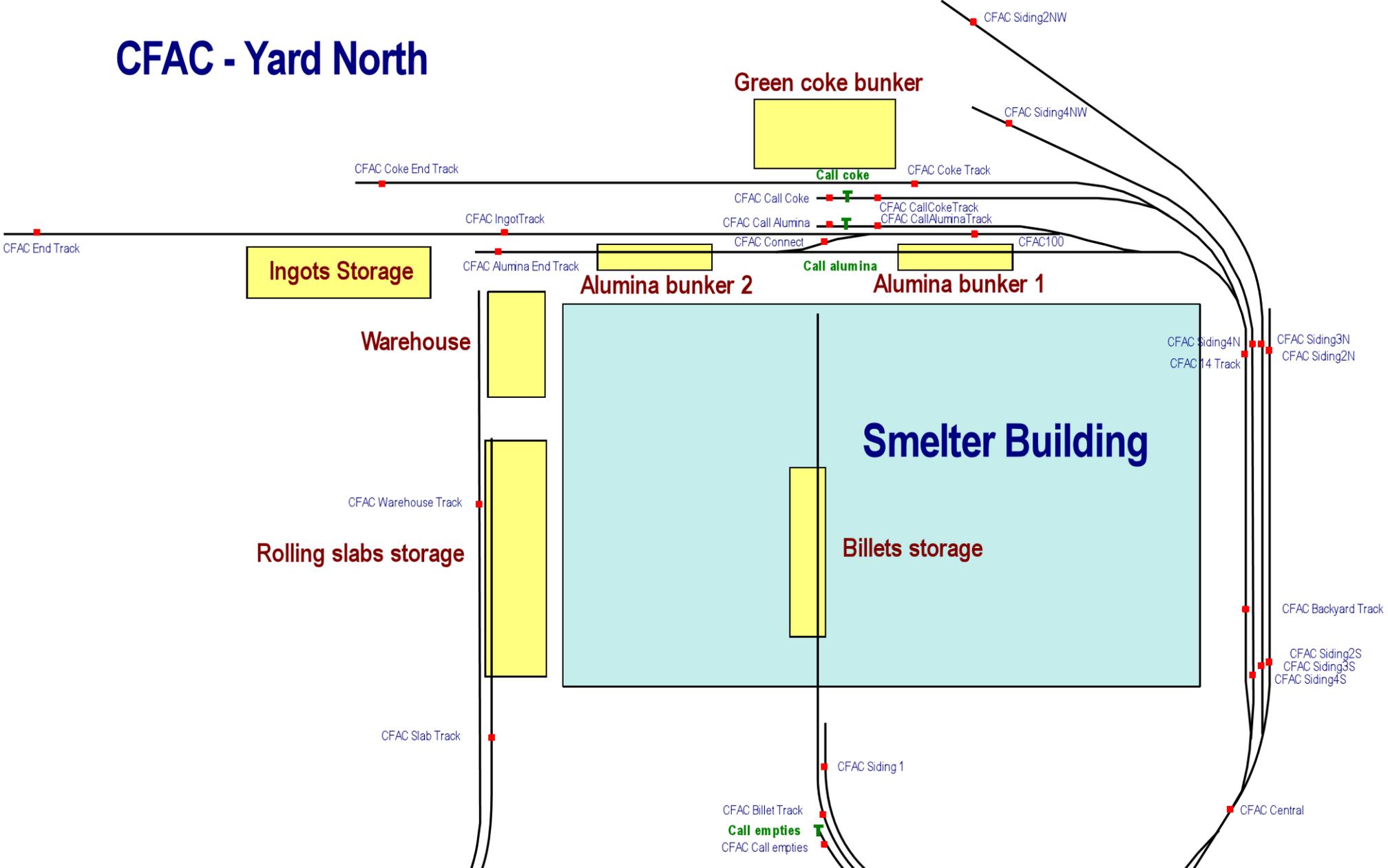
Smelter Building

Billets storage

CFAC - Yard East



CFAC - Yard North



SIGNALS AND SIGNS

 <p>Proceed</p>	 <p>Caution Advance</p>	 <p>Caution</p>	 <p>Stop</p>
 <p>Proceed on diverge</p>	 <p>Caution Advance on diverge</p>	 <p>Caution on diverge</p>	 <p>Stop</p>
 <p>Speed Limit Advance All Trains</p>	 <p>Speed Limit All trains</p>	 <p>Speed Limit Advance</p>	 <p>Speed Limit P - Passenger Trains F - Freight Trains</p>
 <p>End Speed Limit Speed Maximum P - 79 mph F - 60 mph</p>	<p>W</p> <p>Whistle</p>		