

Electronic Planning Board

**Regency Transportation
Wednesday, October 4th, 2017**



Background

- High percentage of fleet consists of 'Local' shift based drivers working from 12 locations.
- Most local drivers do not have assigned tractors.
- Local driver shift start times vary daily depending on workload.



Challenges

- The TMS system does not provide a visual representation of the drivers by shift or location.
- The TMS system does not provide the ability to easily record shift start times, or that it has been communicated to the driver.
- The TMS system does not provide a visual representation of available tractors at a given location.



Previous Solution

The whiteboard contains the following information:

- Sticky Notes (Left Side):** 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500.
- Handwritten Notes (Top Center):**
 - 6th Ayer/Windsor
 - 2 Cranston/Acacia/Middleboro
 - 6th Boston
 - 6th Cranston
 - 4th Cranston/ELM/Ayer
 - 5 EMP
 - 4 VT
 - 5 Chic/ELM/Cranston
 - 4 VT
 - off
 - 6 S
 - 3 S
- Handwritten Notes (Top Right):**
 - 7 L/H
 - 6 L/H
 - 6 L/H
 - 6 L/H
 - 6 New Ritz/Pai/W
 - 6 L/H
- Handwritten Notes (Middle Right):**
 - 4 ELM/W X 3
 - Back Monday/Off
 - 6 ELM/W X 2 /Chicago
- Table (Center):**

Room	R	W	AD	NS	H	BOOKS	NUMBERS	CVS	Orange
302	300	4066			5876	3053	3773		
303	301	3727			3052	3757	3572		
304	305				U34913	3720			
305	306				4051	3776			
- Handwritten Notes (Bottom Left):**
 - Teacher 447 is Assigned to Bank with
 - Teacher 437 is assigned Eric Wilkins
- Handwritten Notes (Bottom Right):**
 - 6/16/02
 - 3717

The Whiteboard



The Pros

- Visual representation of drivers grouped by locations and shifts.
- Visual representation of tractor status by location. If it is beside a driver it is in use.
- Easily visible start times and we could record that it was communicated to the driver
- Room for other notes as needed.
- The users were comfortable with it, and it worked for their needs.



The Cons

- Impeded our ability to expand and improve the operations office as users were 'tied' to physical whiteboards.
- Planners and Driver Managers were seated along a counter facing the whiteboards. Comfort and communication were lacking.
- Appeared messy and disorganized
- Once the board was erased there was no history.
- Upper Management wondered why we were still using whiteboards in the '21st Century'. Perceived that our technology usage was behind.



What We Needed...



To eliminate the Whiteboard

Simple right? We thought so...



The Process

- Spent time with users understanding how they used the boards and looked for options to use the TMS in place of boards.
- Reviewed options with TMS Vendor and determined the solution was not available within the TMS.
- Identified the key requirements and met with dozens of software vendors, consultants, and A/V companies and could not find a product to satisfy all our requirements.
- Turns out the functionality of the whiteboard was our best solution even though it wasn't the most advanced technology.



The Solution

- A vendor we had worked with on previous projects suggested a small Boston development company may be able to help.
- We met with the developer and over several conversations developed an outline and presented to the operations group with mock-ups of the screen designs and features.
- Approval was given and 3 weeks later the 'Planner 1.0' was put into production.



Bonus Features

(Not available on the Whiteboard)

- Scalable to an infinite number of 'boards'. Previously if we wanted to add a board we needed to consider wall space and its location relevant to the users
- Historical boards are 'locked' and saved. Previously they were erased daily.
- Ability to schedule future time off eliminating the 'Vacation Calendar'.
- Drivers scheduled off appear dimmed on the board to stand out to the planners. Previously we were writing 'Off' next to them (and occasionally accidently planning).
- Able to track attendance and tardiness by reason codes.
- Created freeform areas to share notes about available trailers, customer information, and other important items.
- Version 2.0 in planning stages to provide better attendance reporting and integration into the TMS system.



Planner

Wednesday, October 4th New England Local : [REDACTED]

Available Tractors

402 DC
[REDACTED]

OoS Tractors

426 DC
[REDACTED]

AM Drivers

Peter [REDACTED] 3548 Mo - Fr	449 DC	ON	5am	Freeform Note fields
Michael [REDACTED] 64 Mo-Fr	457 DC	ON	6am	Load Information
Mark [REDACTED] 2436 Mo-Fr	[REDACTED]	NCNS	7am	Other important notes
Andrew [REDACTED] 3070 Mo-Fr	[REDACTED]	LATE	8am	Notes...
Cesario [REDACTED] IC8070 Mo-Fr	8070 IC	EXSD	9am	Notes...
Jr Juan [REDACTED] IC8078 Mo-Fr	8078 IC	ON	12am	Notes...
David [REDACTED] IC8108 Mo-Fr	8108 IC	ON	11am	Notes...
[REDACTED]				

PM Drivers

Kimberly [REDACTED] 3482 Su-Th	[REDACTED]			Start... Notes...
--------------------------------	------------	--	--	-------------------

- Built on Google's Firebase JavaScript platform, allowing high availability real-time synchronization of data between all connected users.



The End Result

- Users adopted quickly and are happy with the planner tool. We have incorporated several of their suggested improvements throughout the process.
- Operations moved into their new open office, no longer 'tied' to whiteboards.

