



MY DOT PORTAL

LOGIN

Phone or Email

Password

[Forgot Password?](#)

LOGIN

[Redeem a verification code](#)

Electronic Ticketing

Have you heard about eTicketing outside of this presentation?

Yes

No

Have you participated in a trial of eTickets?

Yes

No

Topics

- Background
- What are DeIDOT's goals?
- What are some of the challenges?
- How will we collect the information?
- What suppliers are onboard?
- How do you access the eTicket?
- Potential issues.
- How to handle payment.
- What projects will this apply to?
- Where we go from here.

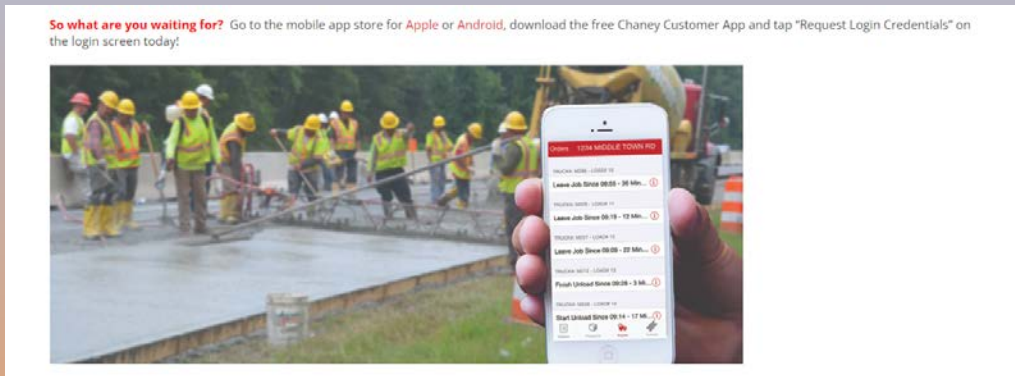
Background

- Why are we doing this?
 - To eliminate paper use and storage space needs.

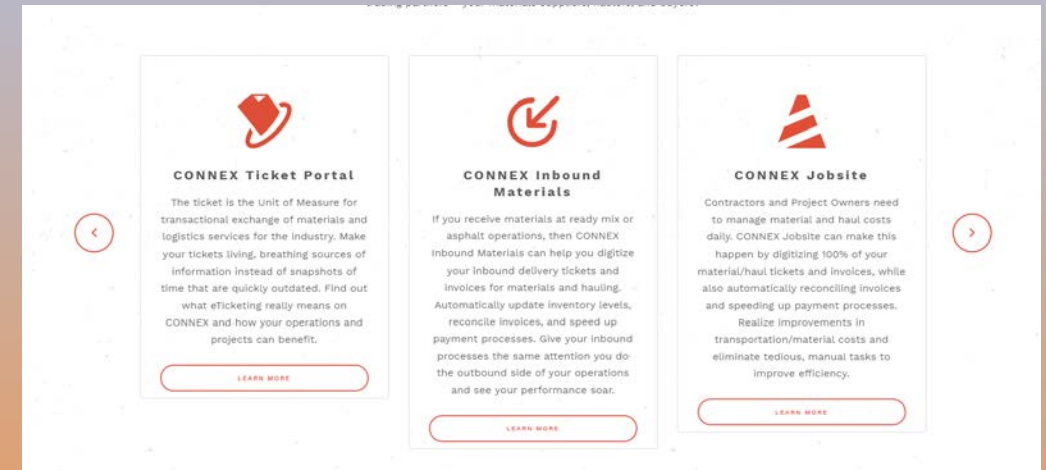


Background

- Why are we doing this?
 - Because our Contractor and Supplier partners are moving this direction.



Source: <https://chaneyenterprises.com>



Source: <https://commandalkon.com>

Background

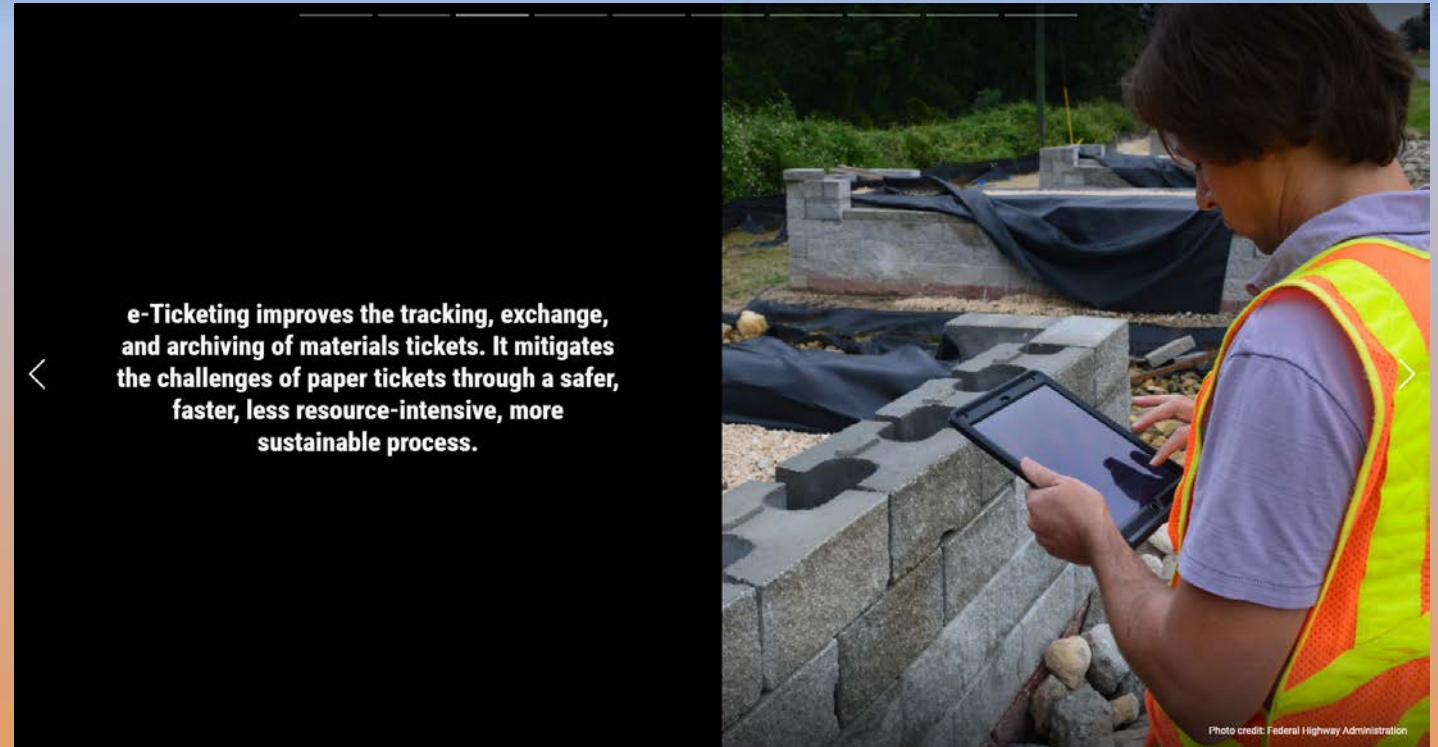
- Why are we doing this?
 - Covid-19
 - Social Distancing

- Surface Transmission
 - Initially high concern
 - Now much lower.



Background

- Why are we doing this?
 - Because FHWA wants us to:
 - Part of Every Day Counts – 6



Source: fhwa.dot.gov

What exactly are eTickets?

- **FHWA definition:** A paperless process for creating, sharing, tracking, documenting, and archiving materials information, accessible in real time via mobile devices, provides all stakeholders with an electronic means to verify materials deliveries while enhancing safety, streamlining inspections, and improving contract administration procedures.
- **Simple definition:** An electronic ~~copy of the~~ **& dynamic** copy of the paper ticket.

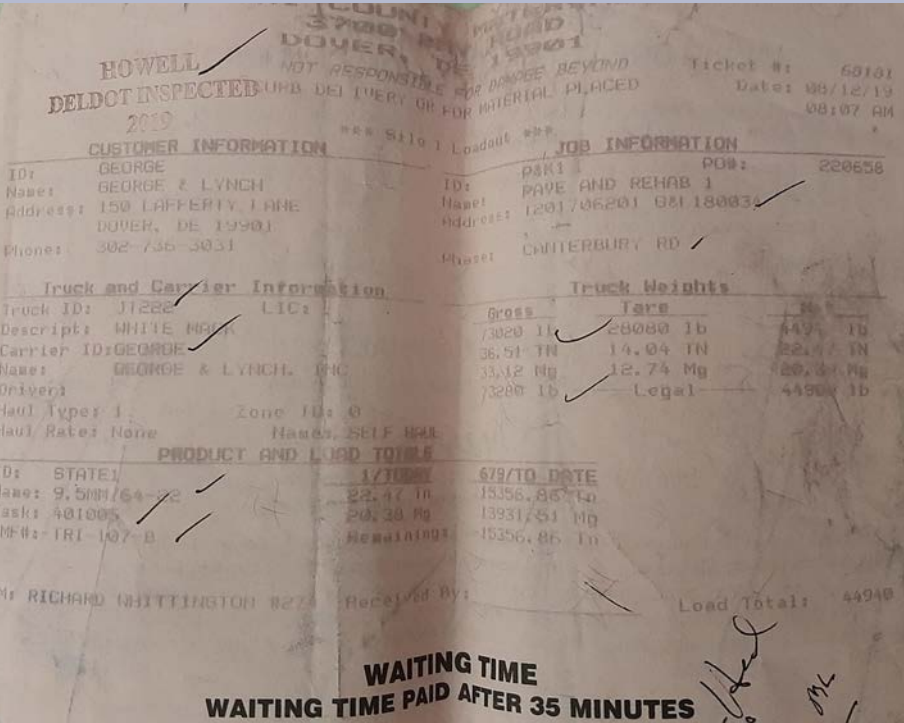
DelDOT's Goals

- Eliminate our paper ticket retention.



DelDOT's Goals

- Better Documentation



Dec 10 4:24 PM EST Ticket Number 70742 Ticket Status Delivered
 1/1 ticket

Supplier	Origin
Christina Materials	CHRISTIANA MATERIALS

Job Name	Job Number	Customer Name
SR. 299	T201012001	ADEL

Hauler	Truck
ADEL CONSTRUCTION	ADE172

Product Description	Product	Product Code	Virgin Asphalt Content
CHR114 19MM 64-22 WEDGING	11481W	401825 OR 401037	

Load Number	Daily Total	GROSS	Weighmaster
2	43.93	36.59	
		GROSS 2	
		NA	
		TARE	
		14.52	
		TARE 2	
		NA	
		NET	
		22.07	
		NET 2	
		NA	

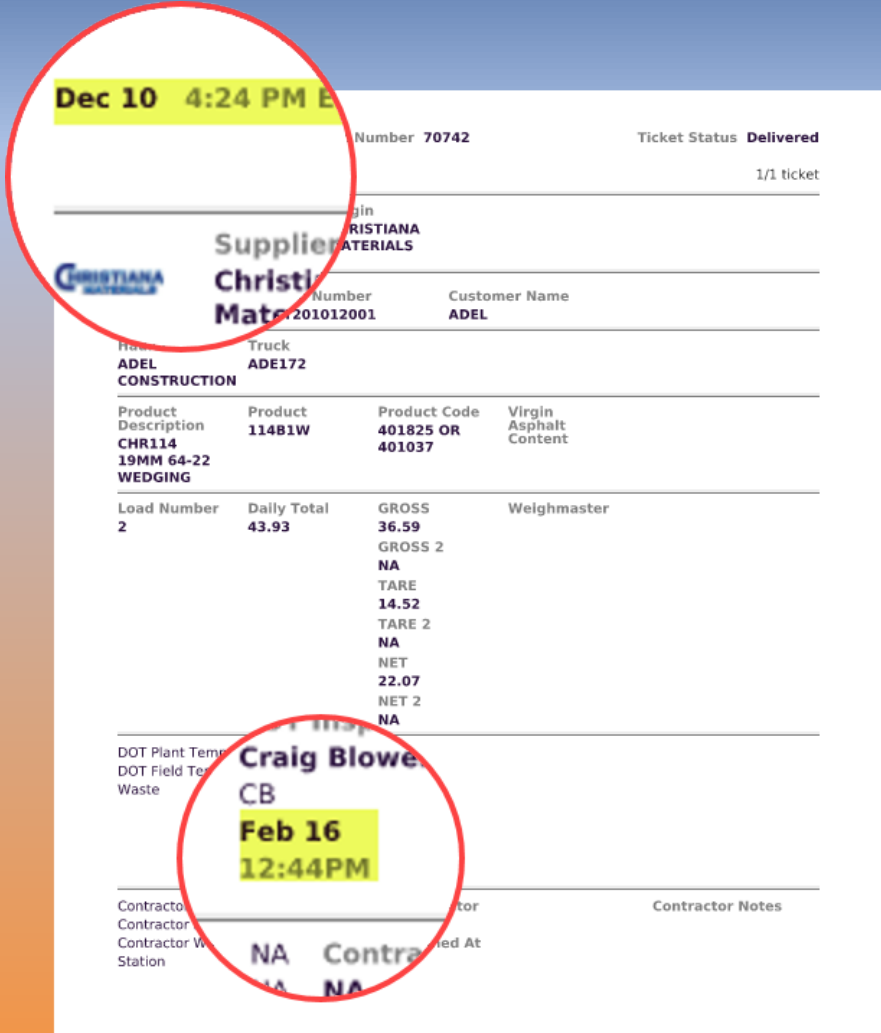
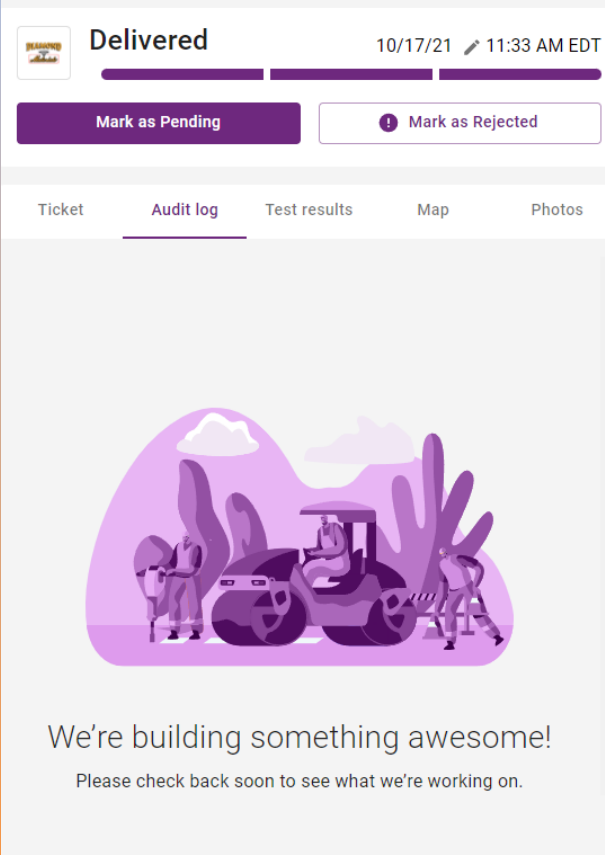
DOT Plant Temp	NA	Status
DOT Field Temp	NA	Accepted
Waste	NA	DOT Inspector
		Craig Blowers
		CB
		Feb 16
		12:44PM

Contractor Field Temp	NA	Contractor Inspector	Contractor Notes
Contractor Plant Temp	NA	NA	
Contractor Waste	NA	Contractor Signed At	
Station	NA	NA	



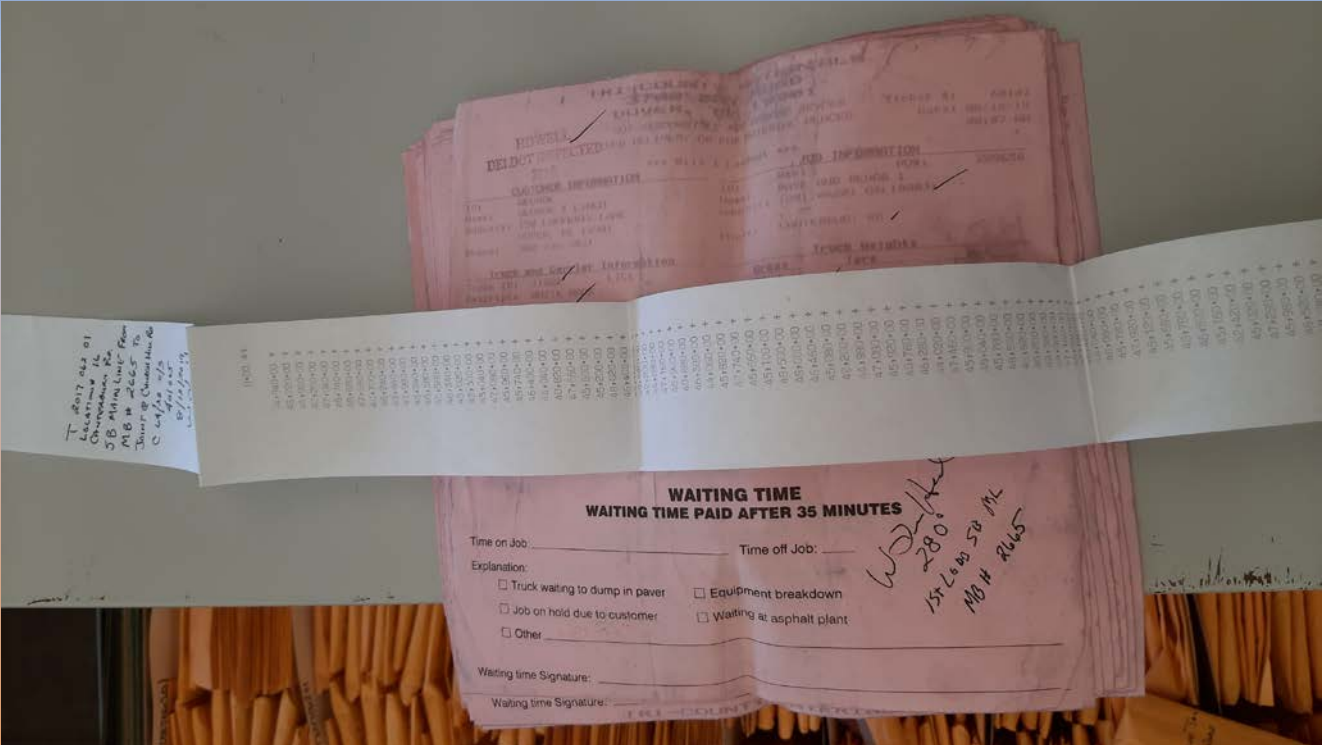
DeIDOT's Goals

- Improve our audit trail.



DeIDOT's Goals

- Eliminate Ticket Tapes.



- And the error we get from transposing numbers

Some Challenges

- Internet Access
 - Wireless providers do not have 100% coverage in the state.
 - We have a work-around, but it will require paper tickets still being printed.

The screenshot shows a mobile application interface for logging a new ticket. The title bar at the top reads "Log a new ticket". Below the title bar, there is a dropdown menu for "Project name" with the placeholder text "Select the project related to your ticket". Below this, there is a section titled "Enter the last 4 digits of your ticket below:" followed by four empty input boxes. Below the input boxes, there is a question "What is the status of the ticket?" with three radio button options: "Pending", "Delivered" (which is selected), and "Rejected". Below the status options, there are two input fields for "Plant Temperature" and "Field Temperature". Below these fields, there are two buttons for temperature units: "°F" (which is selected) and "°C". Below the temperature units, there are three more input fields labeled "Station", "Waste", and "Notes". The bottom of the screen shows a standard Android navigation bar with back, home, and recent apps icons.

Some Challenges

- We are eliminating the requirement that tickets be stamped on all eTicket projects.

DELD
COUNTY OF DOVER, DE 19901
NOT RESPONSIBLE FOR DAMAGE BEYOND URB DELIVERY OR FOR MATERIAL PLACED

Ticket #: 68181
Date: 08/12/19
08:07 AM

CUSTOMER INFORMATION *** Site 1 Loadout ***

ID: GEORGE
Name: GEORGE & LYNCH
Address: 150 LAFFERTY LANE
DOVER, DE 19901
Phone: 302-735-3031

JOB INFORMATION

ID: P&K1
Name: PAVE AND REHAB 1
Address: (20170620) 08118003
Phase: CANTERBURY RD

Truck and Carrier Information

Truck ID: J1282
Carrier ID: GEORGE
Name: GEORGE & LYNCH, INC
Driver:
Haul Type: 1
Haul Rate: None

Truck Weights

Gross	Tare	Net
73200 lb	28080 lb	44910 lb
36.51 TN	14.04 TN	22.47 TN
33.12 Mg	12.74 Mg	20.38 Mg
73200 lb	Legal	44910 lb

PRODUCT AND LOAD TOTALS

ID	NAME	DATE
STATE1	1/10201	679/T0 DATE
lane: 9.5MM/64-22	22.47 TN	15356.85 TN
task: 401005	20.38 Mg	13931.51 Mg
MF#: TRI-107-B	Remainder:	15356.85 TN

Mr: RICHARD WHITTINGTON #27
Received By:
Load Total: 44910

WAITING TIME
WAITING TIME PAID AFTER 35 MINUTES

Some Challenges

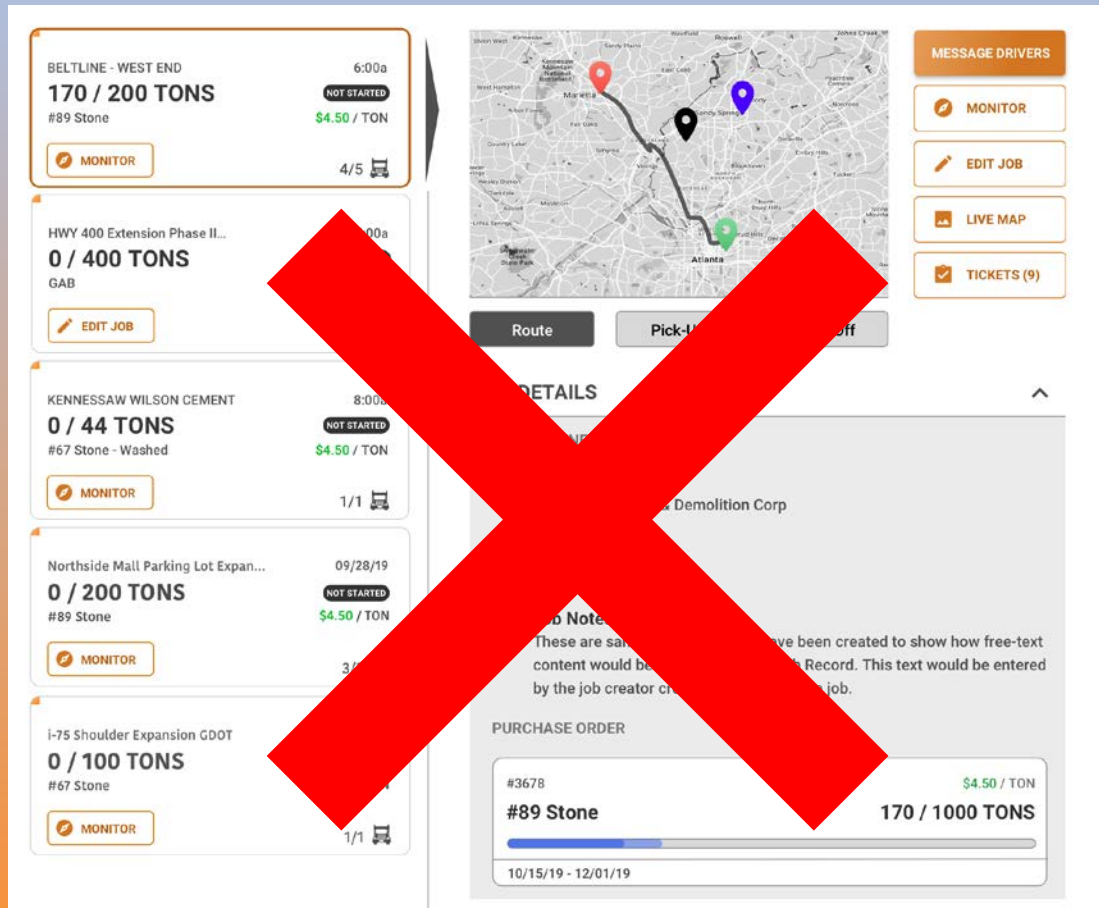
- Inaccurate Ticket Information

Raw ticket data Hide details ^

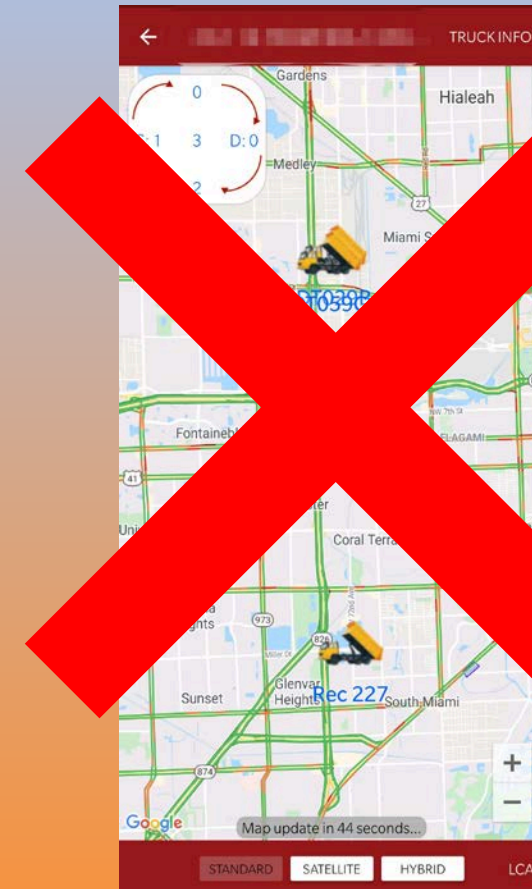
Plant	DelMar Asphalt	Supplier	ALLAN MYERS MATERIALS
Customer Name	Allan Myers - Fallston	Contract #	T202006301
Job	P&R SUSSEX I (US 13 SEAFORD) 2020 - T202006301	Job #	2025138-21
Hauler	MONEL AND SON TRUCKING INC	Truck	928
Max GVW	71000.0	Product	AM-DELMAR-28
Product Description	AM-Delmar-28 Superpave "C" 76-22	Product Code	N/A
Virgin Asphalt Content	N/A	Load	4
Daily Total	87.20	Weighmaster	Steven Lambrose #608DE
Gross	34.83	Tare	12.94
Net	21.89		

What information do we want?

- Just the information that is currently on the paper ticket



Source: truckit.com



Source: earthwavetech.com

What information do we want?

- We want to request similar information to other DOT's.

AASHTO

Table 1—Required Source (E-Ticket) Fields in Contractor's MDMS for each Data Block

Reference Field No.	JSON Field Name	Long Description	Examples	Data Type	Unit Category	Data Field Required		
						Aggregate	Asphalt Paving	Concrete Paving Ready-Mixed Concrete
1	TicketNum	Ticket Number	5126349, 101R, 539-19	String	None	Yes	Yes	Yes
2	ContractID	Contract Identification	180181, R-37463	String	None	Yes	Yes	Yes
3	ProjID	Agency Project Identification	SP1234-56, SAP047-609-012	String	None	Yes	Yes	Yes
4	ContractorName	Contractor Name	Al Fresco Contracting	String	None	Yes	Yes	Yes
5	SourceID	Source Identification	BP001, RMX001, GS79103 (e.g., pit / plant identification)	String	None	Yes	Yes	Yes
6	ScaleID	Scale ID	2, A2	String	None	Yes	Yes	No
7	SiloID	Silo ID	5, A3	String	None	No	Yes	No
8	SourceOperName	Source Operator Name	Adam Zappel (e.g., weighmaster)	String	None	Yes	Yes	Yes
9	SourceOperCertNum	Source Operator Certification Number	1234567 (e.g., weighmaster certification number)	String	None	Yes	Yes	Yes
10	SourceNote	Source Notes	First Load, Last Load, Warnings	String	None	Yes	Yes	Yes
11	MixDesignID	Mix Design Identification	02-2020-184, RMX135-030, (e.g., mix design report number)	String	None	No	Yes	Yes
12	MatlCode	Material Code	SPWEA340C, DMF #1932480001, SM13F52, Class 5 Table 4 (e.g., material description, classification)	String	None	Yes	Yes	Yes
13	ItemID	Pay Item Identification	2231.509.00010	String	None	Yes	Yes	Yes – Paving Only
14	LoadNum ^a	Load Number	75	Number	None	Yes	Yes	Yes
15	TruckID ^b	Truck Identification	51.6046, 88tb, T-1, T1	String	None	Yes	Yes	Yes
16	TrailerID ^b	Trailer Identification	51.6046, 88tb, T-1, T1	String	None	Yes	Yes	Yes
17	VoidedTicket	Voided Ticket	See Table 2	String	None	Yes	Yes	Yes
18	LoadDateTime ^{c, d}	Loading Date and Time	2007-04-05T12:30:45-02:00	String	Time	Yes	Yes	Yes
19	GrossWt ^e	Gross Weight	44.33	Number	Mass	Yes	Yes	No
20	NetWt ^e	Net Weight	26.83	Number	Mass	Yes	Yes	No
21	TruckTareWt ^{e, f}	Truck Tare Weight	17.5	Number	Mass	Yes	Yes	No
22	OverweightWt ^{e, g}	Overweight Weight	0.33	Number	Mass	Yes	Yes	Yes

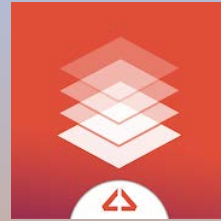
DeIDOT

Reference Field No.	Description	Examples	Data Type	Required
1	Ticket Number	5126349, 101R, 539-19	String	Yes
2	Contract Number	T202011001	String	Yes
3	Contract Name (Job)	Walnut Street Streetscape Improvements	String	Yes
4	Contractor Name (Customer)	Mumford & Miller, Inc.; A Del Construction	String	Yes
5	Supplier Name	River Asphalt; Allan Myers Materials	String	Yes
6	Supplier Plant	Plant #1 Dagsboro; Dover Asphalt	String	Yes
7	Job Number (Location)	Task 1; Location 5	String	Yes
8	Weigh Master Name	Johnny Scales	String	Yes
9	Weigh Master ID	1234567	String	Yes
10	Left Intentionally Blank			No
11	Mix Design ID (Product)	1628p; AM-WILM-29 76-22	String	Yes
12	Material Type (Product Description)	9.5mm top; 19MM 76-22 <u>NON CARB</u>	String	Yes
13	Item No. (Product Code)	401005; 401016	String	Yes
14	Load Number	75	Number	Yes
15	Identifying Vehicle Number	T-1	String	Yes
16	Hauler	John Doe Trucking	String	Yes
17	Legal Gross Vehicle Weight	73,280	Number	Yes
18	Loading Date & Time	2020-06-15T13:45:30	String	Yes
19	Gross Weight	72,980	Number	Yes
20	Net Weight	27,900	Number	Yes



How do we collect the information?

- We want uniformity.



- We selected HaulHub as our Vendor.



How do we collect the information?

- Suppliers can connect to HaulHub in 3 different ways:

Option 1

For Producers with Internal IT Resources

Producers will POST data to an API with an authorized user key similar to: de.dot-api.io/userkey. DeIDOT will publish technical documentation for your use.



Option 2

For Producers with existing e-Ticketing Solutions

Your current e-ticketing vendor will POST data to an API similar to the one above



Option 3

For Producers with Limited to No IT Resources and no e-Ticketing Solution

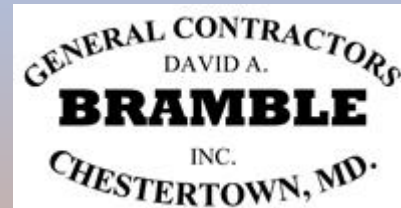
DeIDOT has secured basic IT services to get your operations up and running at no cost to you. One software license per Supplier/Producer will be provided. This assumes that your ticket data is centrally located in one database. If your plant systems are not consolidated into one central database, you might require additional IT services.*



Why HaulHub?

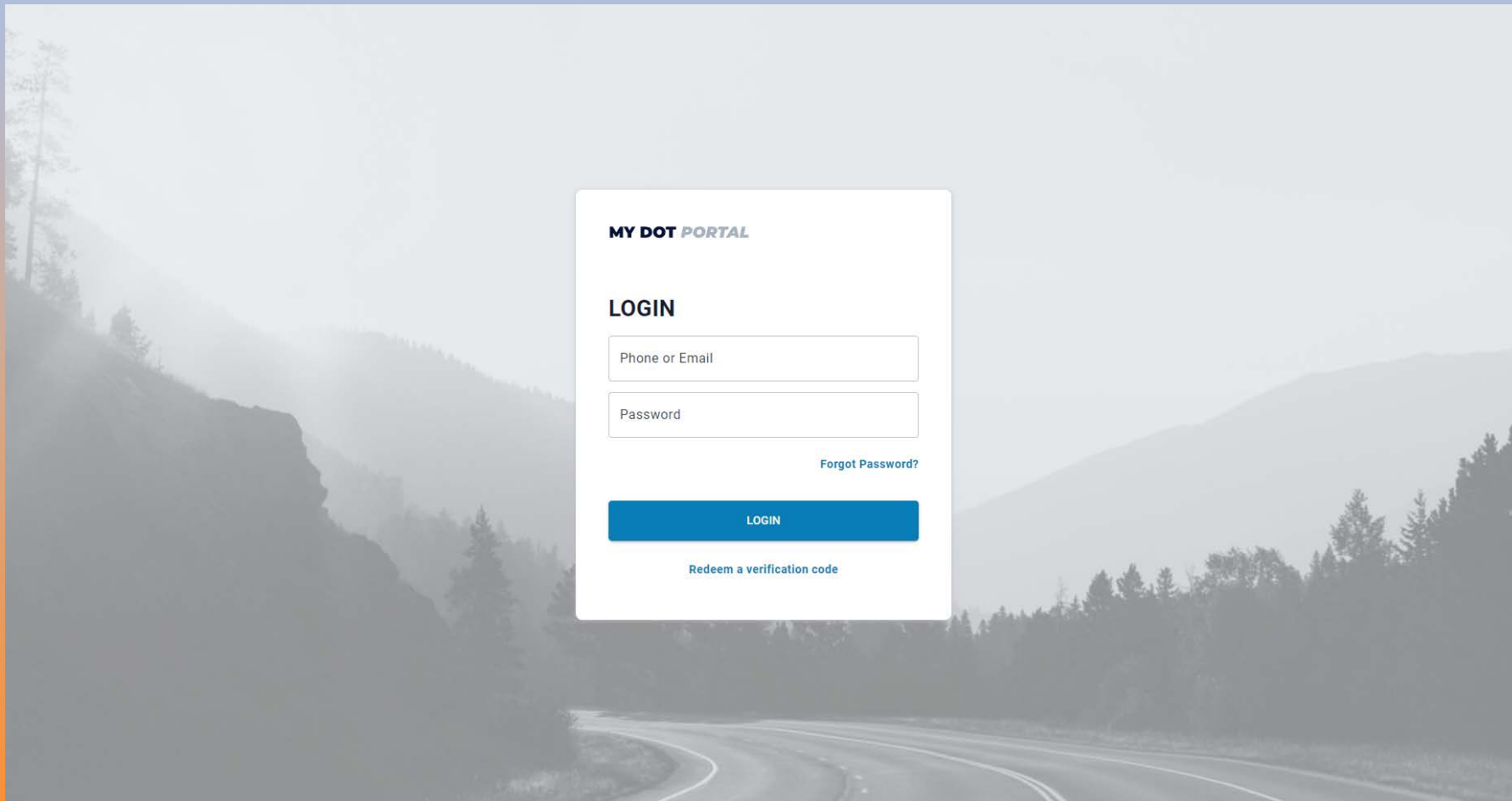


Who's in?



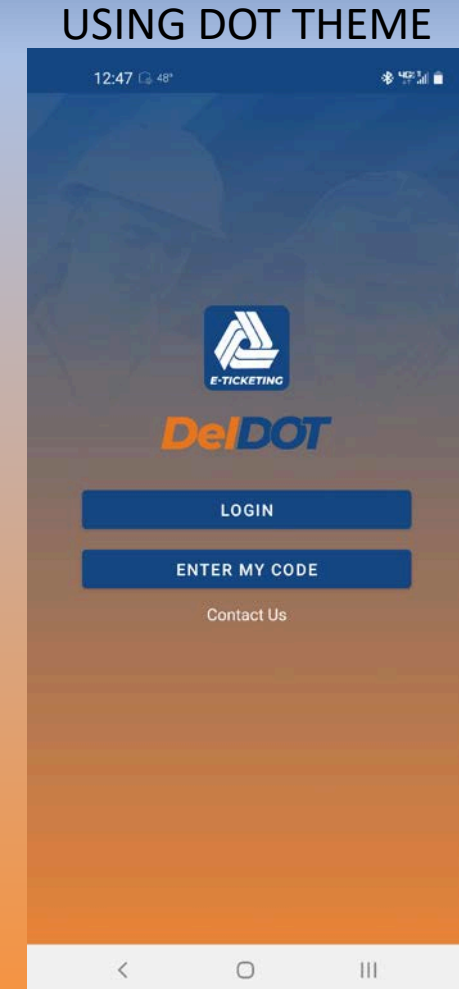
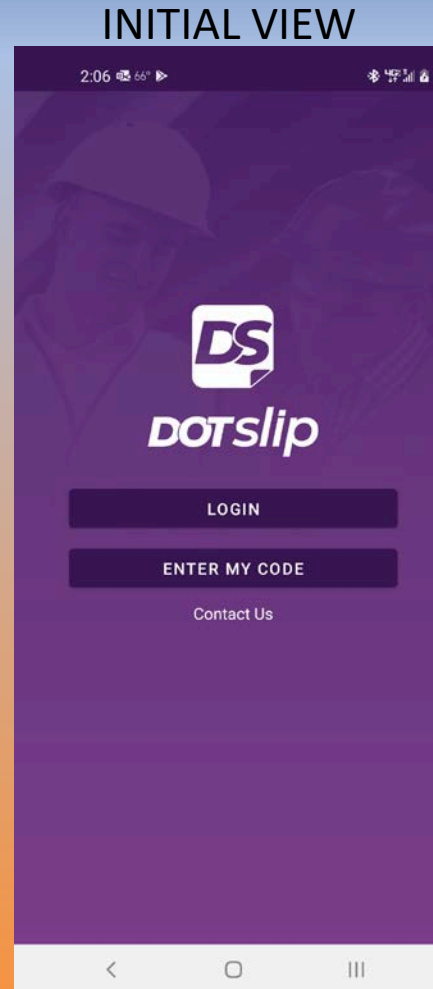
How to Access

- Website <https://tickets.deldot.gov>



How to Access

- Mobile Applications - DOTSlip
 - iOS
 - <https://apps.apple.com/us/app/dotslip/id1485480149>
 - Android
 - <https://play.google.com/store/apps/details?id=com.haulhub.android.dotslips>



How to Access

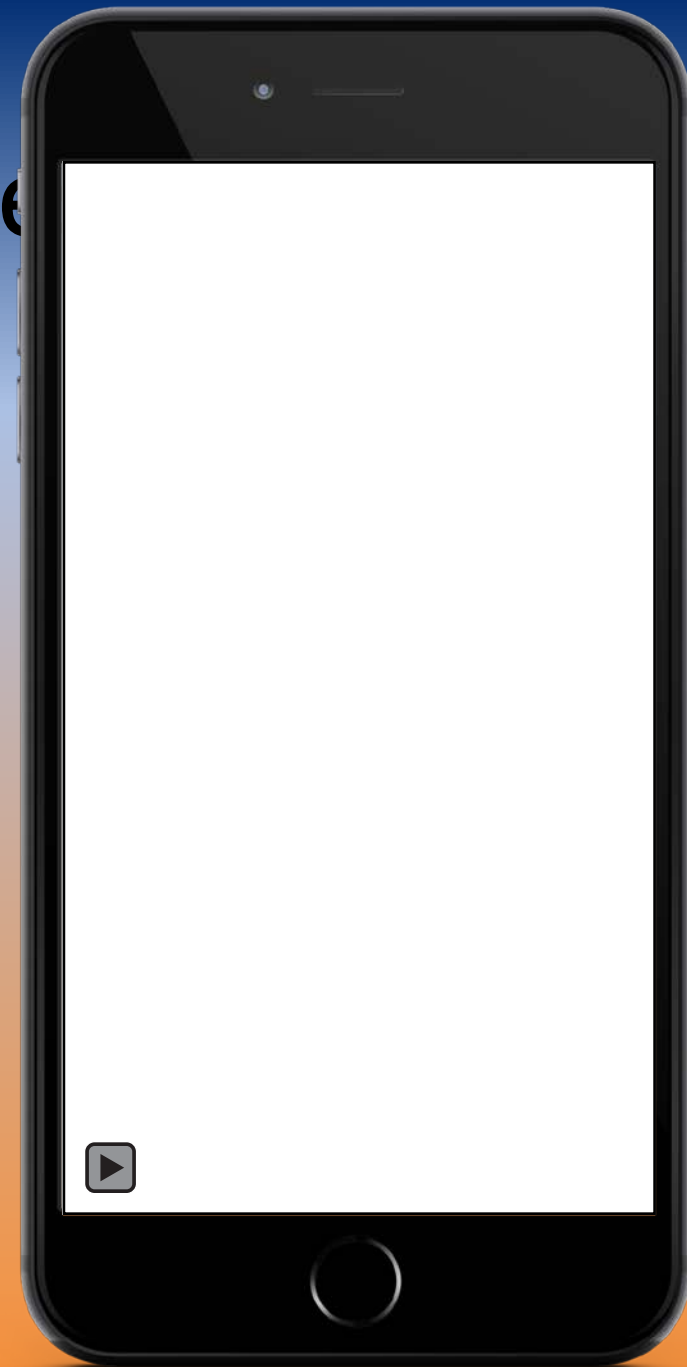
- For User credentials
 - Area Engineers should contact Billy or myself prior to the start of the project to ensure all of the project staff have access.
 - billy.sweeney@delaware.gov or 302.760.2350
 - craig.blowers@delaware.gov or 302.760.2336
 - Note: Contractor access will be provided through the Job Slip app. Contractors may contact their suppliers for access information.

How to Access

- Mobile App General Overview
 - Download DOTSlip from Android or IOS App store
 - Generally the same between the versions, although Android lags just a week or so behind in design changes

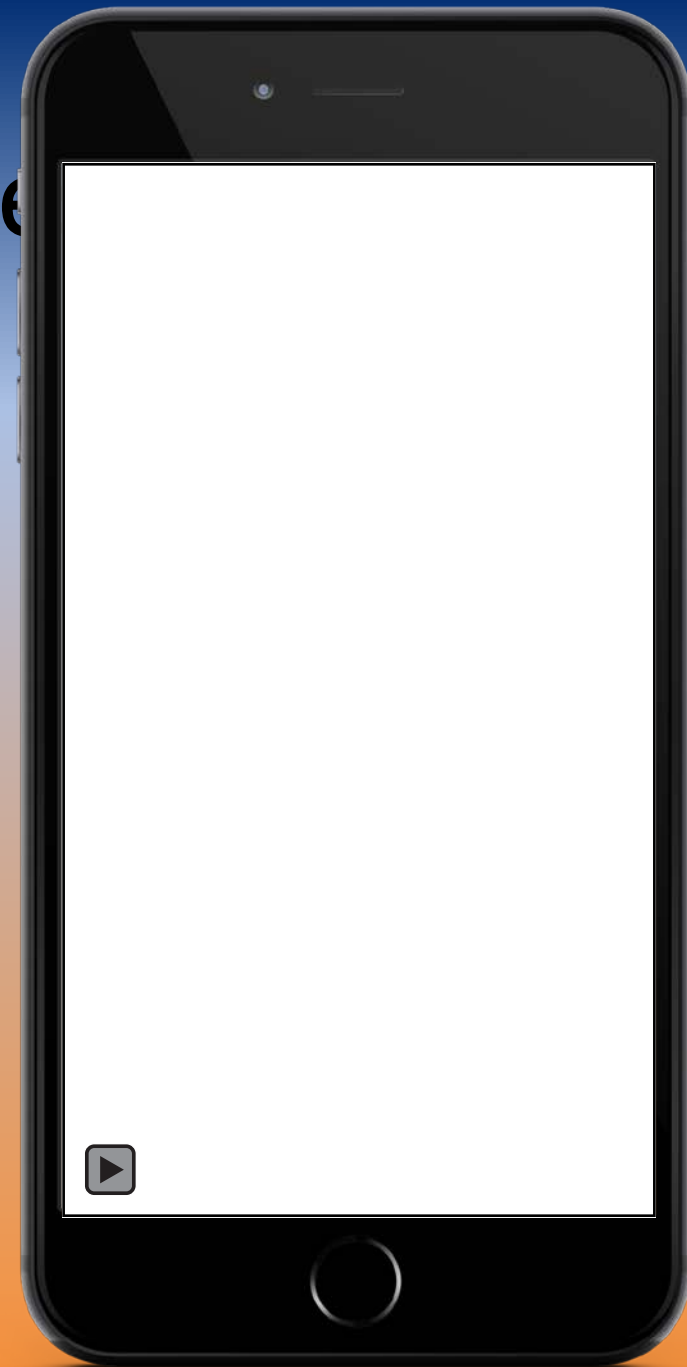
How to Access

- Mobile App – Typical process
 - Logging in
 - Finding the ticket
 - Enter notes
 - Mark as Delivered



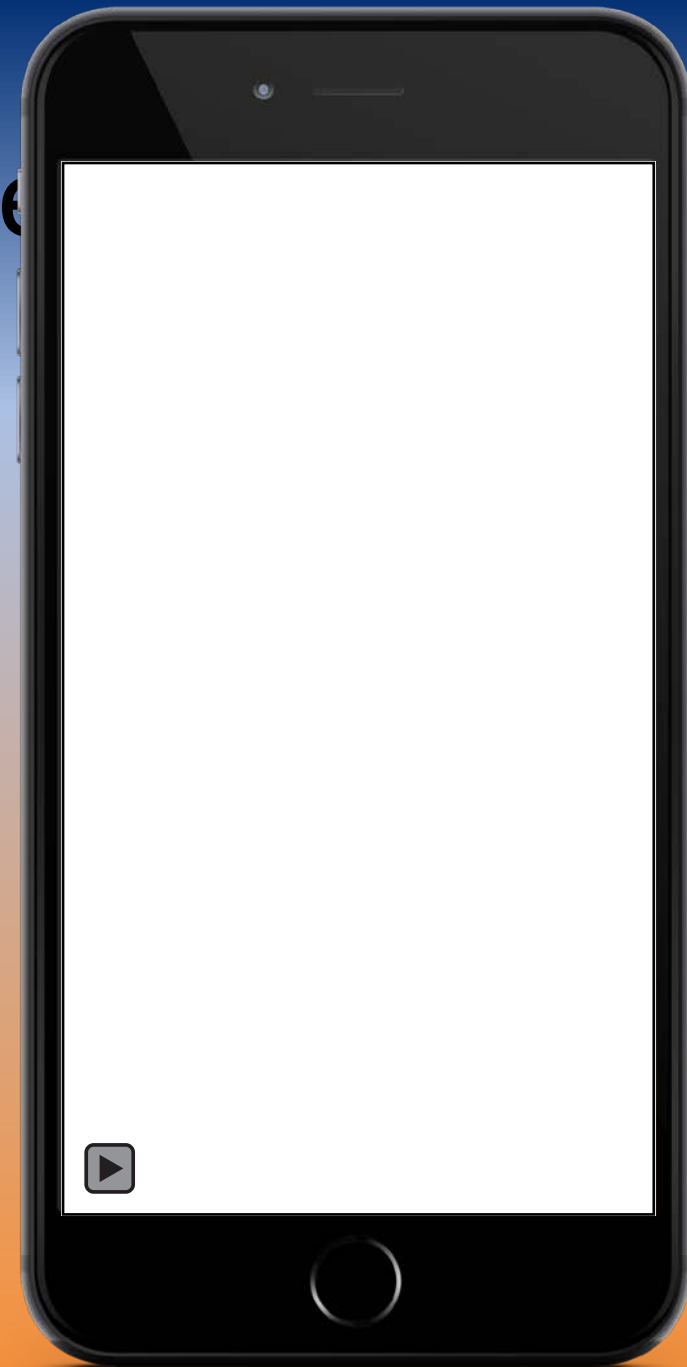
How to Accept

- Mobile App – Rejecting a load
 - Finding the ticket
 - Enter notes
 - Mark Rejected



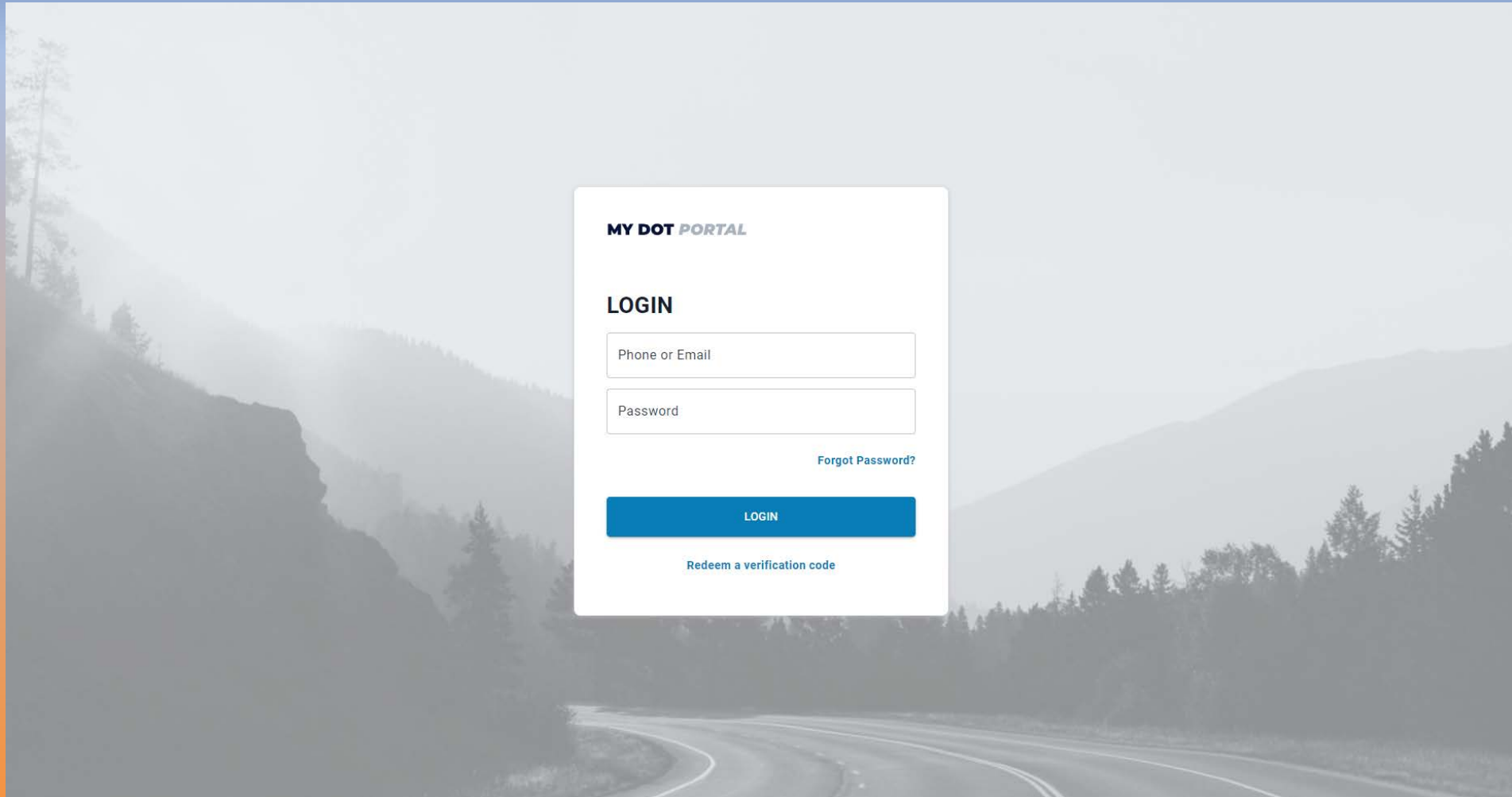
How to Access

- Mobile App – No Connectivity
 - Drivers will continue to carry paper tickets for the foreseeable future
 - Inspectors will need to get, at least, the last 4 digits of the ticket from the driver's copy
 - Should also take a general look at the details of the ticket, but there is no need to keep a copy



How to Access

- Web Interface (for Construction)
 - M&R Staff will have a different view





How to Access

Ticket Information



How to Access

Downloading Tickets



Potential Issues

- eTickets not appearing.
 - Special Provision requires test/calibration tickets:

Setup and Calibration

Conduct a test of each supplier's integration with the Department's eTicketing Portal prior to shipping material. Complete test at least 14 days prior to shipping material unless otherwise approved by the engineer. The test must involve at least four calibration eTickets from each supplier approved for use on the project. The calibration eTickets must accurately reflect the categories 1-7 shown above; all other categories shall be marked "TEST". After the engineer confirms the calibration eTickets have been entered into the Department's eTicket Portal, void the eTickets with the reason "Calibration Testing".

- HaulHub is also building a report function into the DOTSlip app for eTickets that fail mid-operation. This will allow HaulHub and DeIDOT to check if there is an issue on our end.
- eTickets with incorrect information (from the supplier)
 - Wrong carrier, wrong material, etc.
 - Reject the eticket – Suppliers can regenerate the eticket

Potential Issues

- eTickets with incorrect information (in DOTSlip)

- eTicket not showing Weighmaster while the paper ticket does:
- eTicket only showing tons and not pounds:

Load Number 4	Daily Total 88.32	GROSS 36.62 GROSS 2 NA TARE 14.19 TARE 2 NA NET 17.43 NET 2 NA	Weighmaster
DOT Plant Temp	NA	Status Accepted	Reject Reason/Notes Last Load
DOT Field Temp	222.00°F	DOT Inspector Craig Blowers CB	
Waste	5.00	Feb 20 9:35AM	
Contractor Field Temp	NA	Contractor Inspector NA	Contractor Notes
Contractor Plant Temp	NA	Contractor Signed At NA	
Contractor Waste	NA		
Station	100+00		

- Please notify Billy and Craig immediately

Potential Issues

- Marking Tickets as Delivered
 - Supporting our staff.
 - Everyone will need smartphones.
 - Increase staffing on paving operations.
 - Staff may need portable phone chargers.
 - Mark “Delivered” throughout the day as material arrives on site – not at the end of the day.
 - We will be increasing staffing to aid in ensuring an inspector can always be by the paver.
 - GPS is not yet enabled on the app, but it will be in the future. Help us track where material is dumped.

Potential Issues

- Communication between Plant Inspector and Field Inspector
 - Without stamps, phone calls will be key.

- Catastrophic failure?
 - We'll still have paper tickets.

Payment (proposed)

- Planned for the tickets to be marked “Delivered” in HaulHub
 - Tickets will then be uploaded to Unifier at several points through the day
 - Inspection staff will then select delivered tickets, identify pay vs. source, identify the item number, and “package” the tickets for them to be added to the IDR.
 - No running tapes
- **Still under construction** – Anticipated April 2022

Payment (interim)

- Mark tickets “Delivered” in HaulHub
 - Download .pdf of the tickets and attach it to the IDR
 - Use the Excel .csv (comma separated value) file to generate ticket tapes, also attached to the IDR.

Which Projects?

- Only the ones with the eTicking Specification (763520)

However

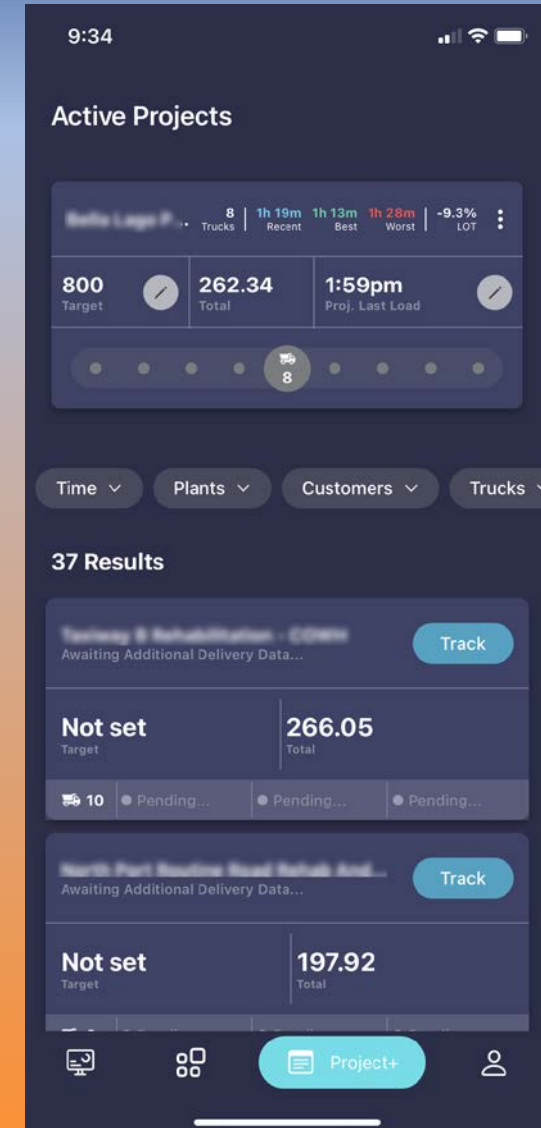
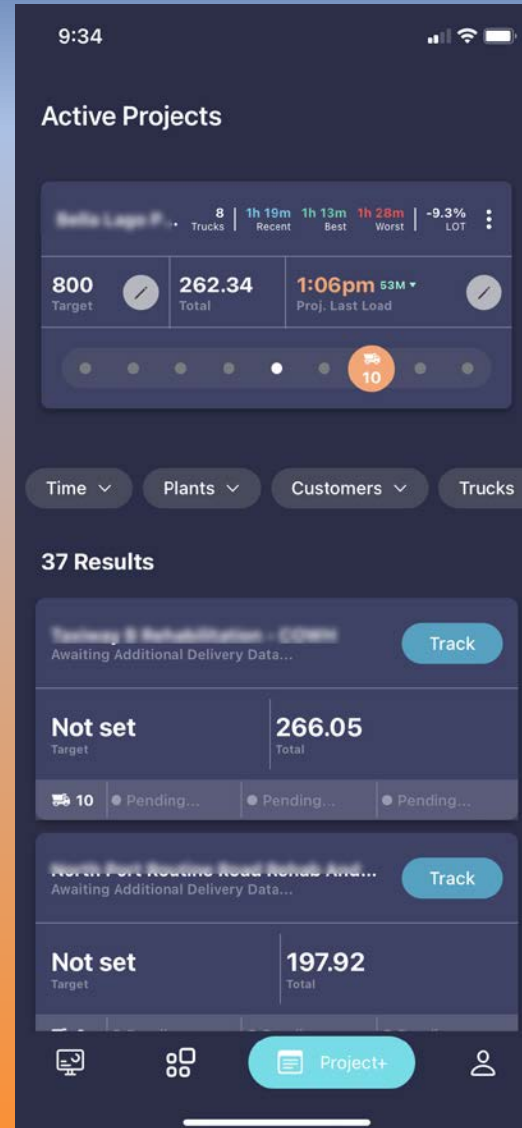
- Everyone is encouraged to add it now.
- Once the Unifier BP goes live, we will strongly encourage it.
- There is no added cost to the Contractor, we dealt directly with the Suppliers and they are all tied-in.
- Additionally, many of the suppliers may request it, to eliminate the need to stamp tickets and to focus on the use of their own technologies (remote printing, etc.)

Future Updates and Benefits

- Simple quality of life improvements
 - Dark Mode
- Data analysis
 - GPS of where load is placed
 - Time to finish estimator (already available to the Contractor)
 - Pavement round checks (already available to the Contractor)
 - and more...

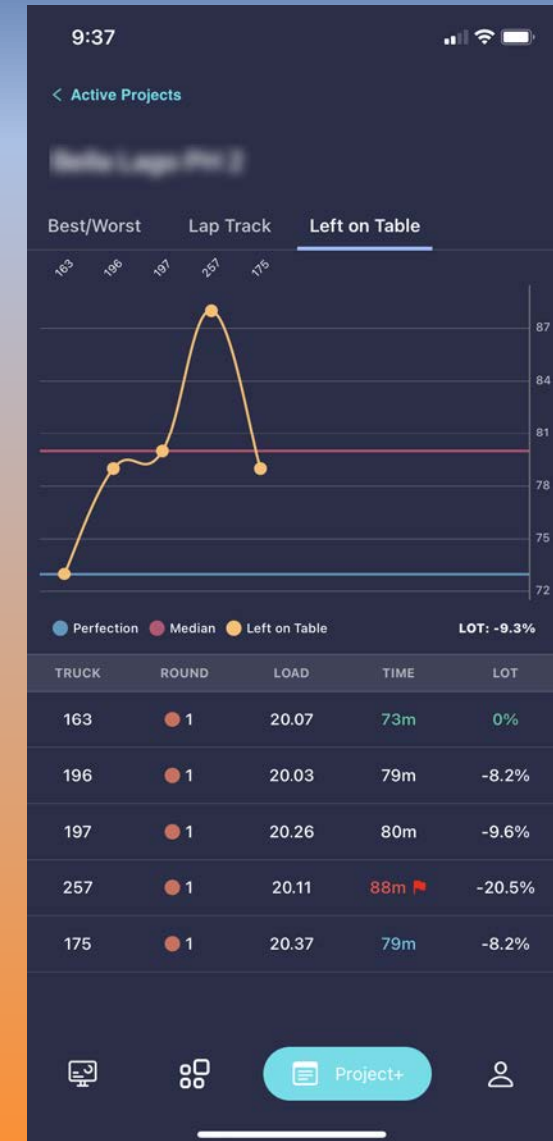
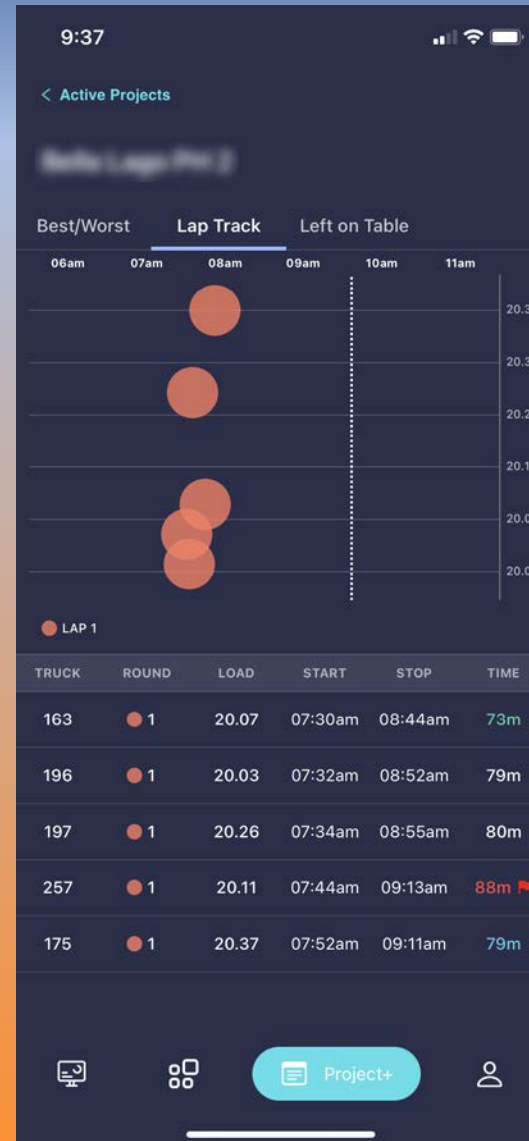
Future Updates and Benefits

- Data analysis
 - Time to finish estimator (already available to the Contractor)



Future Updates and Benefits

- Data analysis
 - Pavement round checks (already available to the Contractor)



An aerial photograph of a highway interchange with multiple lanes and ramps, surrounded by green trees. The text is overlaid in the center of the image.

e-Ticketing
Digitizing the Supply Chain
Delivery System

Questions?