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# **FAMIS and App Tree**

## **Mobile Device Work Order Utilization**

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Facilities Maintenance

May 2019

# Outline

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- What are FAMIS and AppTree?
- Overview of FAMIS – Work Order Highlights
- FAMIS Desktop
- Paper WO and Equipment Labels
- App Tree
- Acknowledgements

# What are FAMIS and App Tree

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- FAMIS is the Fermi Computerized Maintenance Management System desktop software.
- AppTree is the developer name of the Mobile App.
- Today's goal is to share information about AppTree for our electronic/mobile Work Order process.
- Using AppTree takes us extremely 'close' to a paperless environment for handling Work Orders.
- Paper is sometimes used in areas where mobile devices don't have a signal. Fermilab has many underground areas.

# Overview of FAMIS – Work Order Highlights

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- The Planning and Scheduling Group is the primary source for creating WOs for the craft people; Elec, Mech, HVAC, etc.
- Requests for work is entered as a Work Request.
- Service Requests are reviewed and decide if, and when, to turn them into a WO.
- When a WO is created a Priority is assigned to it.
- They decide what WOs to schedule for that day.
- They assign WOs to individual workers.  
(Craft people can now see their WOs on their phone.)
- Supervisors electronically see the WOs. They meet with their group and confirm, or adjust, the work for the day.
- PMs are issued and assigned by the Planning Group.

# FAMIS Desktop

## > Main Work Order Screen <

FAMIS 8i (kujawa@fesscmms)

File Edit Query Record Attachments Window Help

WO Number WO746982 PUMPS - SUMP/CENTRIFIGAL/LIFT STATIONS - HIGH WATER ALARM

Parent WO

Main Attributes Tasks Crews Parts Tools PO's Routing Readings Closing

**Asset**  
Asset Class  
Equipment UT112.2 LIFT STATION, SEWAGE, MAIN SANITARY P-2. SOUTH UNI

**General Information**  
Type CORRECTIVE  
Priority 0  
Method  
Assigned To  
Outage Class

**Current Status / Dates**  
Status COMPLETE  
Material Status  
Start Date TUE 4/9/2019  
Due Date TUE 4/9/2019  
Completed FRI 4/12/2019

**Primary Labor**  
Crew ELEC  
Craft  
Crew Size  
Est Hrs/  
Current Est Hrs

**Location**  
Site WHA  
Building MSLS  
Floor MAIN PIT  
Room  
Zone FE

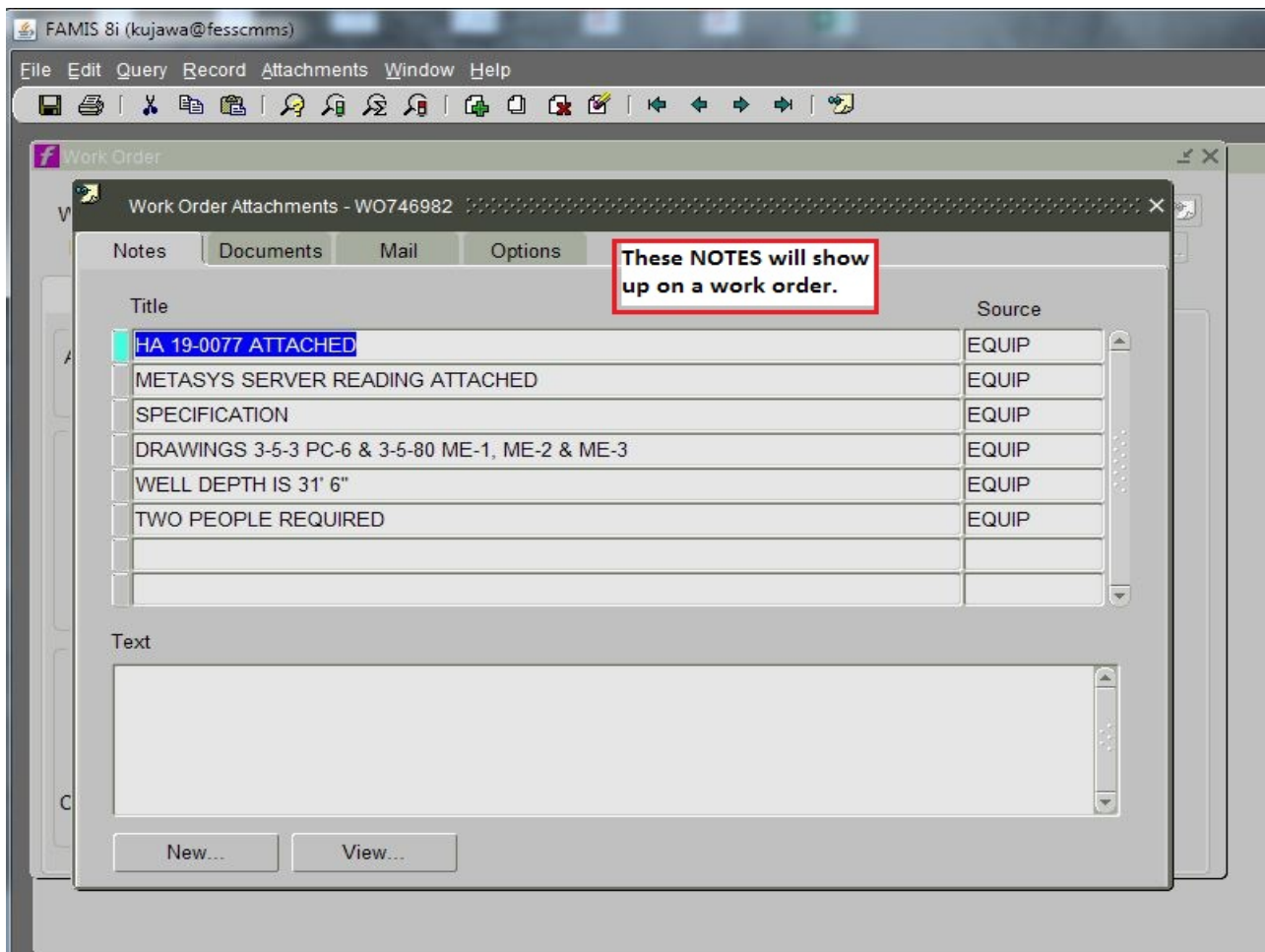
Tracking 1  
Tracking 2  
Non-Available  
Travel Time

Print  
Library  
Request  
Related WO  
Create WO  
Billing  
Estimates  
Dates  
Audit...  
Conv to Proj...

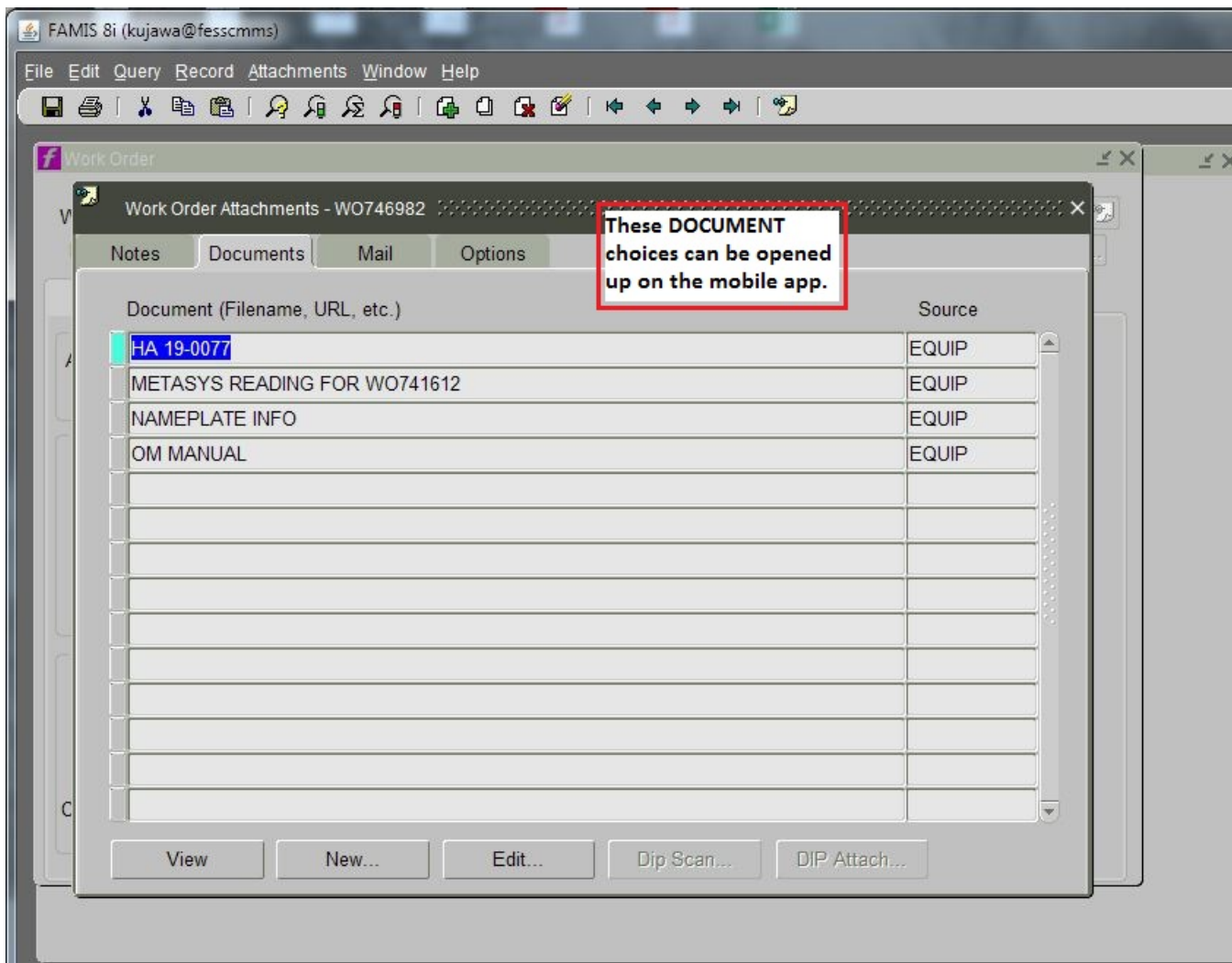
☐ Print Ticket On Next Batch Run

Print work order tickets.  
Record: 1/1 <OSC>

# FAMIS Desktop



# FAMIS Desktop



- Here is a paper WO.  
Typical info included.
- Short Job Title
  - Requester
  - Equipment Number
  - Building
  - Electrical Group is doing the Work
  - Task List: Job details given to you. Add what you did.
  - NOTES – From FAMIS. This from the Push-Pin Icon/Attachments.

Work Order #: <b>WO746982</b>	Service	Project/Task: 60	/ 60.03.14.02.02	Priority: 0
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**PUMPS - SUMPICENTRIFUGAL/LIFT STATIONS - HIGH WATER ALARM**

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Schedule Date: 08-APR-19	Requestor: 01829N CARLTON, ROBERT	Method:
Due Date: 09-APR-19	Telephone: 3363 4744 4744	Pager: 0101
Wo Status: COMPLETE	Mail Stop: 303	LR Pager: (630) 531-8073
Department:	Requestor's Id: 01829N CARLTON, ROBERT	Craft: ELEC
Parent WO #: N/A	Requested Start Date: 09-APR-19	

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**Equip Info**

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Equipment: UT112.2	LIFT STATION, SEWAGE, MAIN SANITARY P-2. SOUTH UNIT TO BATAVIA
Mfr: HYDRAMATIC	Remaining Life (yrs):
Model #: S4P1500M4-4	Serial #: S33473

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**Location Info**

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Site: WHA	OSF-WILSON HALL AREA	Contact Name: POLLOCK, JOHN
Building: MSLS	OSF-MAIN SANITARY LIFT STATION	Contact Telephone: 5253
Floor: MAIN PIT	MAIN PUMP PIT	FMS Id: LIFT STATION
Room:		

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**Task List**

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DISPATCH REQUESTED THAT WE CHECK OUT PUMP #2 -M-04071911 .

UPDATED : RCARLTON ON 04/08/2019 07:10 PM : PER G.GILBERT : RUN P3 WHEN NEEDED.

UPDATED : RCARLTON ON 04/08/2019 11:20 PM : PASSED ON TO NEXT SHIFT.

REPAIRS COMPLETED OFF OF WO746951 AND WO746949

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**Parts Info**

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BOM002648

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**Notes**

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Note Date	Note User	Title
05-JUN-08	PMARSH	TWO PEOPLE REQUIRED
15-SEP-11	SHIRLEY	WELL DEPTH IS 31' 6"
15-SEP-11	SHIRLEY	DRAWINGS 3-5-3 PC-6 & 3-5-80 ME-1, ME-2 & ME-3

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**Related Info**

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Capital Proj:	Req Type:	Service
Procedure: 002007005	Req Number/Phase:	SR076114 / 0
Date Entered: 08-APR-19	Printed:	17-APR-19

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**Response Info**

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Date Completed or Billing: 12-APR-19

Craft ID: \_\_\_\_\_ Initials: \_\_\_\_\_

Hours: \_\_\_\_\_

Craft ID: \_\_\_\_\_ Initials: \_\_\_\_\_

Hours: \_\_\_\_\_

I have read and understand the H.A. associated with this task, if applicable. Initials \_\_\_\_\_ Initials \_\_\_\_\_

Condition: \_\_\_\_\_ Comments: \_\_\_\_\_



## Here are a few Equipment Labels

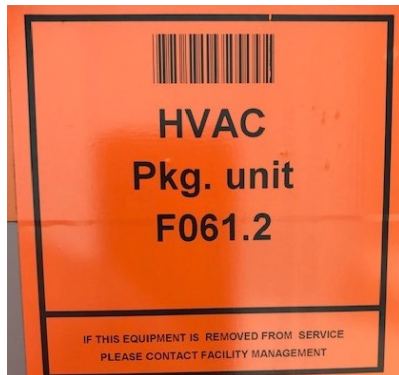
- We/Fermi assigns equipment labels.
- We print and post the equipment labels.
- We input the equipment information into FAMIS.



Fire Alarm Panel



Transformer



HVAC Unit



Circuit Breaker Panel

# App Tree Usage

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And now, finally.....Using AppTree!

- You see the WOs assigned to you.
- You can add WO comments of the work you did.
- You can complete a WO.
- You can enter your labor against a WO.
- You can create a WO.
- You can create a service request. This is primarily for other groups that you are requesting work for them to do.
- You can add Pics to a WO.
- You can look up parts in the Stock Room.
- You can search the WO data base. All, not just yours.
- You can search the Equipment data base.

# App Tree Usage

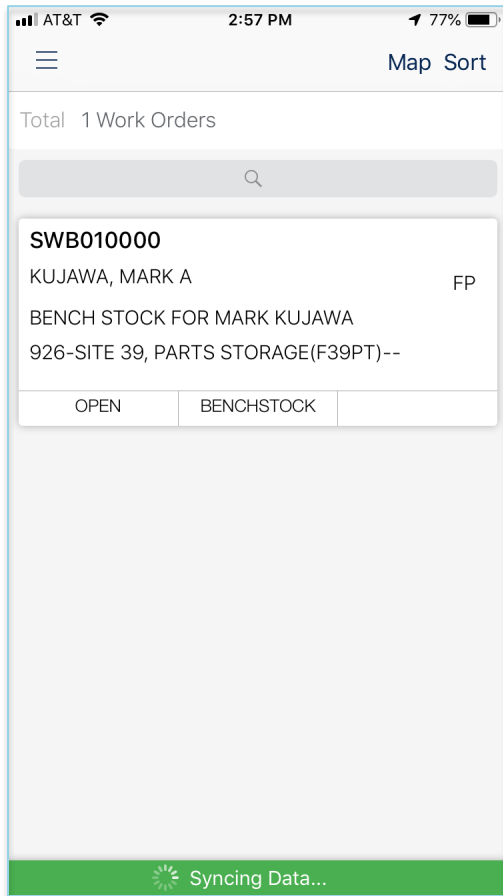
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The Admin part of AppTree.....

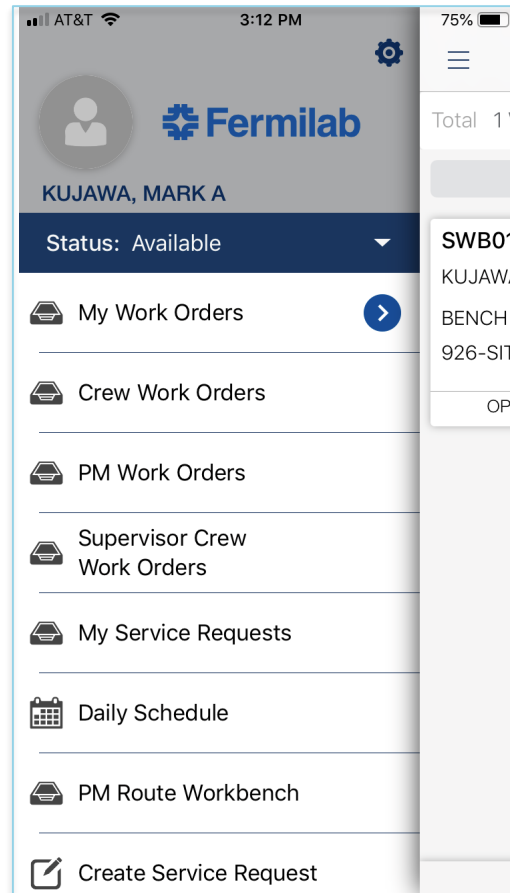
The data base is only as good as the data in it. How to take out the human error of data entry? Here is what Admin has done.

- Create pull down menus.
- Create a hierarchy of fields with pull down menus.
- Auto populate other fields from the menu choices picked.
- Limit how many fields can be free text.
- Limit privileges to certain data fields.
- Limit access to certain menu choices.
- Limit the number of actions you can choose from the Start Menu.

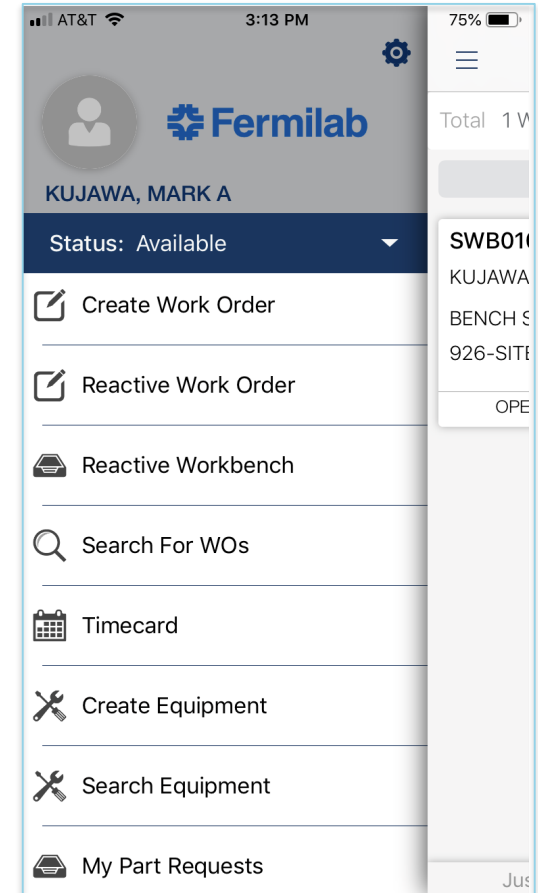
Opening up AppTree... Tap the Icon on mobile device and it opens. No VPN.  
The mobile's MAC address is registered on Fermi's network.



Auto Sync, Real Time



1<sup>ST</sup> Half of Menu

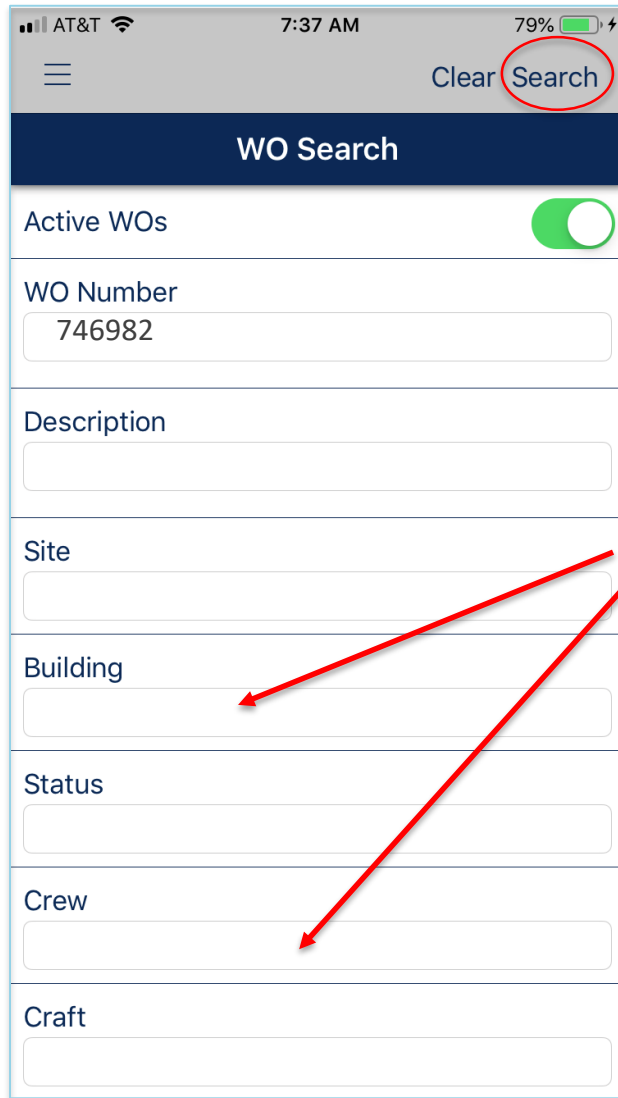


2<sup>ND</sup> Half of Choices

Our Admin can set up custom menu choices.



## Search WO746982



AT&T 7:37 AM 79%

Clear Search

### WO Search

Active WOs ☒

WO Number  
746982

Description

Site

Building

Status

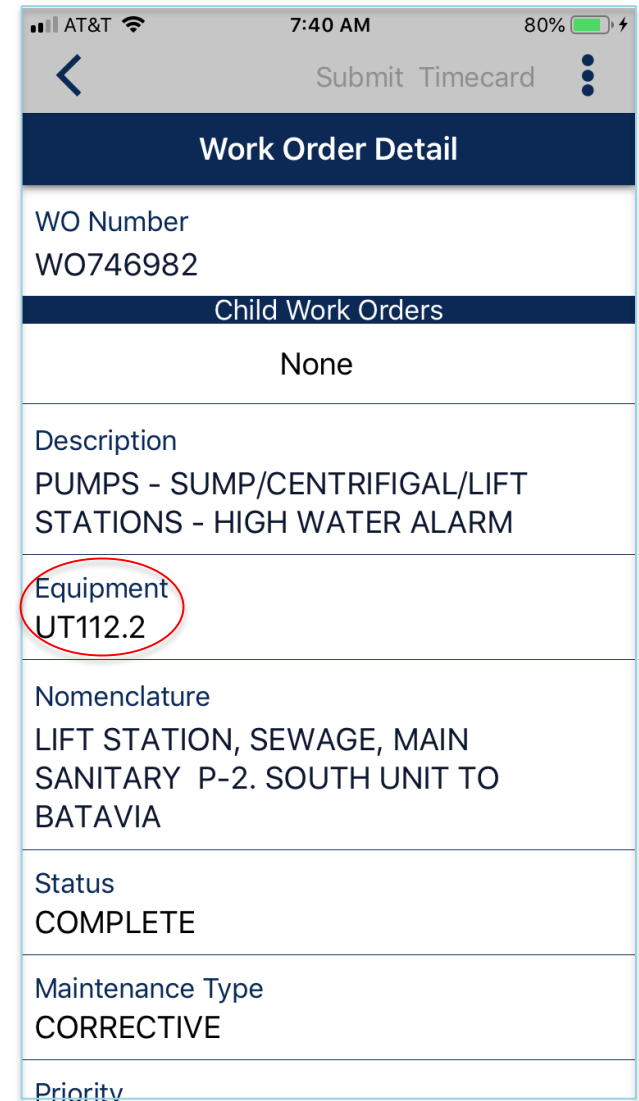
Crew

Craft

You can enter  
as much or as  
little criteria for  
searching WOs.

Your results could  
be very successful  
or very bad.  
(There are a few more  
fields available but  
not shown).

## WO is displayed



AT&T 7:40 AM 80%

< Submit Timecard

### Work Order Detail

WO Number  
WO746982

#### Child Work Orders

None

Description  
PUMPS - SUMP/CENTRIFIGAL/LIFT  
STATIONS - HIGH WATER ALARM

Equipment  
UT112.2

Nomenclature  
LIFT STATION, SEWAGE, MAIN  
SANITARY P-2. SOUTH UNIT TO  
BATAVIA

Status  
COMPLETE

Maintenance Type  
CORRECTIVE

Priority

## Continue scrolling down to see more of the WO.

AT&T 7:40 AM 81%

< Submit Timecard ⋮

Maintenance Type
CORRECTIVE
Priority
0
Site
WHA - OSF-WILSON HALL AREA
Building
MSLS - OSF-MAIN SANITARY LIFT STATION
Floor
MAIN PIT - MAIN PUMP PIT
Room
Crew*
ELEC
Craft
Assigned To

AT&T 7:41 AM 81%

< Submit Timecard ⋮

Accounting

Project 60  
Task 60.03.14.02.02

Task List

DISPATCH REQUESTED THAT WE CHECK OUT PUMP #2 -M-04071911 .

UPDATED : RCARLTON ON 04/08/2019 07:10 PM : PER G.GILBERT : RUN P3 WHEN NEEDED.

UPDATED : RCARLTON ON 04/08/2019 11:20 PM : PASSED ON TO NEXT SHIFT.

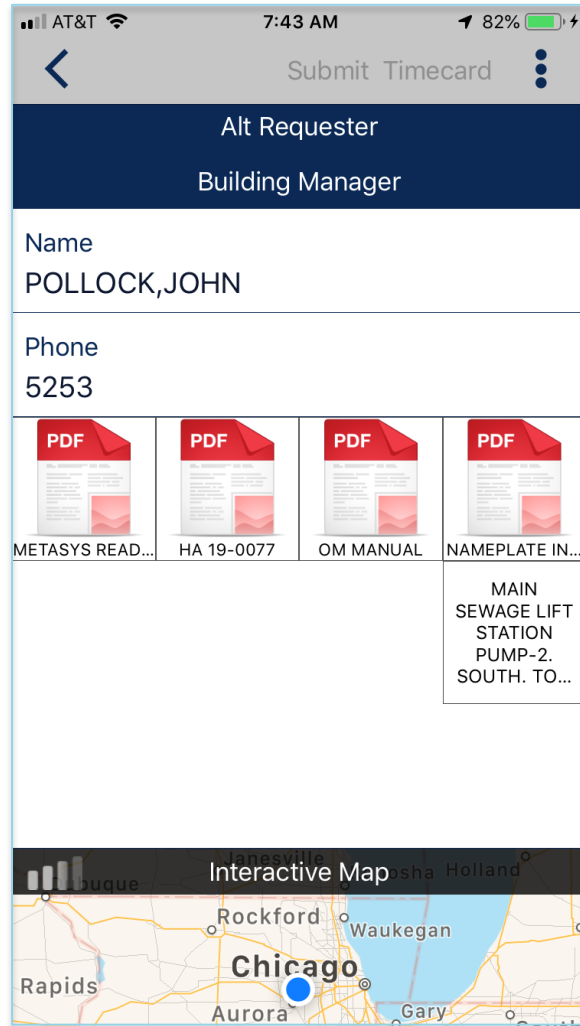
REPAIRS COMPLETED OFF OF WO746951 AND WO746949

Requester

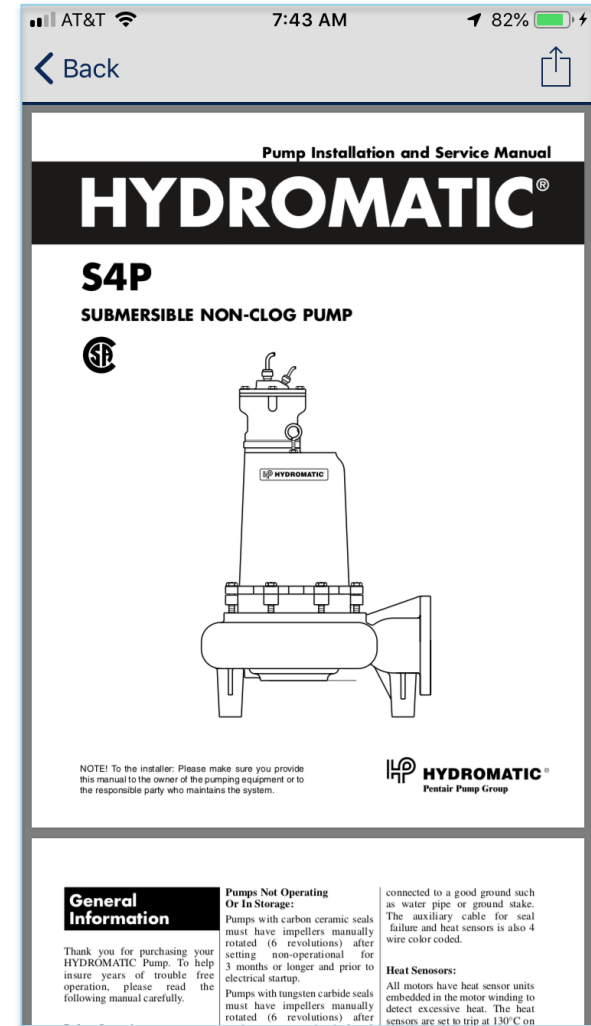
Name  
CARLTON, ROBERT H

Telephone  
3363 4744 4744

At the end of the WO are attachments and a map.



The electrician picked OM Manual.



Real, usable map. Tap to go full screen. Pinch and zoom can be used.

Work is done. Enter your labor and complete the WO.

AT&T 9:01 AM 100%

< Submit Timecard

**Work Order Detail**

WO Number  
WO747310

**Child Work Orders**

None

Description  
MISC/NON-SWO CORRECTIVE-CREATE APPTREE OVERVIEW FOR MARTIN B.

Equipment  
FP000

Nomenclature  
FP PARENT

Status  
OPEN

Maintenance Type  
CORRECTIVE

Priority  
3

AT&T 9:01 AM 100%

< Submit

**New Time Entry From WO**

Work Date\*  
4/18/19

Employee\*  
KUJAWA, MARK A

Work Order #\*  
WO747310 - MISC/NON-SWO CORRECTIVE-CREATE APPTREE OVERVIEW FOR MARTIN B.

Hours\*  
0:00

Pay Code\*  
REGULAR

Labor Comments

Is Work Complete ?



**New Time Entry From WO**

Work Date\*  
4/18/19

Month	Day	Year
January	15	2016
February	16	2017
March	17	2018
April	18	2019
May	19	2020
June	20	2021
July	21	2022

Employee\*  
KUJAWA, MARK A

Work Order #\*  
WO747310 - MISC/NON-SWO  
CORRECTIVE-CREATE APPTREE  
OVERVIEW FOR MARTIN B.

Hours\*  
0:00

Pay Code\*

The app opens up another menu to pick dates and time to enter.

Tap Submit when done.

**Submit**

KUJAWA, MARK A

Work Order #\*  
WO747310 - MISC/NON-SWO  
CORRECTIVE-CREATE APPTREE  
OVERVIEW FOR MARTIN B.

Hours\*  
0:00

+ 0 0  
1 5  
2 10  
3 15

Pay Code\*  
REGULAR

Labor Comments

Is Work Complete ?

Enter comments of the work you did. It will attach to the WO.

Slide the switch if WO is complete. It will stay in Plan&Schd list if not complete.

## Review of an assigned work order.

- Created and assigned by Planning & Scheduling Group.
- Reviewed by Supervisors. They have the desktop app to see the same thing as Planning and Scheduling.
- Craft people have it on their mobile device.
- WO has enough info to do the work.
- Out in the field, a person can enter comments, add labor, and complete the WO.
- Pick the next WO in your list to do.
- Data submitted or retrieved is REAL TIME.

## Creating a Work Order with a mobile device.

- From the Start Menu tap/choose Create Work Order.
- The first 3 fields are pull down menus with an hierarchy.  
(This creates standard data entry for filtering and reports).
- Enter the Equipment Number from a search list OR by scanning the equipment bar code label.
- Many fields auto-populate from the Equipment Number entered and the menu choices made.
- Enter a TASK Description of the work. It is free form text.
- Tap Submit, a pop-up window appears with a WO number.
- When you open the WO, there is more auto-populated info such as Bldg. Mgr., attachments, crew, and priority.

Book, Chapter, Section have a hierarchy of pull down menus.

AT&T 11:03 AM 100%

Submit Cancel

Create Work Order

Book

Chapter

Section

Description\*

Equipment

Site\*

F38 - FARM SITE #38, RECEIVING ROAD

Building\*

Floor

AT&T 11:03 AM 100%

Back PL Book

Search

ADMINISTRATIVE  
007

CARPENTER  
006

DOOR  
019

ELECTRICAL  
001

ELEVATOR  
017

ENGINEERING MECHANICAL  
005

FIRE PROTECTION  
010

HI VOLTAGE  
004

HVAC  
003

16 records

BOOK choices:  
Pick what group  
to do the work.

I picked Fire  
Protection.

AT&T 11:30 AM 100%

Submit Cancel

**Create Work Order**

Book  
010 - FIRE PROTECTION

Chapter

Section

Description\*

Equipment

Site\*

Building\*

Floor

AT&T 11:04 AM 100%

Back PL Chapter

Search

**ASSIST/SUPPORT**  
007

**CPEMR ON-CALL**  
005

**DISABLEMENT**  
002

**LEAKING SUPPRESSION GAS OR  
SPRINKLER (AIR / WATER)**  
004

**MISC / NON-SWO**  
006

**MODIFICATION**  
003

**TROUBLE - ALARM - SUPERVISORY**  
001

7 records

Under CHAPTER for Fire Prot. is a menu that only applies to Fire Protection. It is a general idea of what the WO is for.

I picked Trbl-Alm-Supv.

AT&T 11:30 AM 100%

Submit Cancel

### Create Work Order

Book  
010 - FIRE PROTECTION

Chapter  
001 - TROUBLE - ALARM - SUPERVISO...

Section

Description\*

Equipment

Site\*

Building\*

Floor

AT&T 12:13 PM 100%

Back PI Procedure

Search

**ALARM - DISPATCH REPORTED**  
010001003

**ALARM - FD REPORTED**  
010001004

**SUPERVISORY - DISPATCH REPORTED**  
010001002

**SUPERVISORY - FD REPORTED**  
010001006

**TROUBLE - ALARM - SUPERVISORY -  
FSM FOUND/REPORTED**  
010001007

**TROUBLE - ALARM - SUPERVISORY -  
OTHER REPORTED - DESCRIBE**  
010001008

**TROUBLE - DISPATCH REPORTED**  
010001001

**TROUBLE - FD REPORTED**  
010001005

8 records

Under Section,  
these menu choices  
further define the  
purpose of this WO.

I chose Trouble-  
Dispatch Reported.

11:30 AM 100%

Submit Cancel

### Create Work Order

Book  
010 - FIRE PROTECTION

Chapter  
001 - TROUBLE - ALARM - SUPERVISO...

Section  
010001001 - TROUBLE - DISPATCH RE...

Description\*  
TROUBLE - DISPATCH REPORTED

Equipment

Site\*

Building\*

11:12 AM 100%

Submit Cancel

Book  
010 - FIRE PROTECTION

Chapter  
001 - TROUBLE - ALARM - SUPERVISO...

Section  
010001001 - TROUBLE - DISPATCH RE...

Description\*  
TROUBLE - DISPATCH REPORTED-SITE 38. FACP

Is Minutes Percent

1 2 3 4 5 6 7 8 9 0

- / : ; ( ) \$ & @ "

#+= . , ? ! ' < >

ABC ☺ 🗣 space Done

These menus build the Description/Title on the WO. There is a little room to add free text such as Bldg name, HVAC, pump, fire panel.

The numbers in each field build what is called a Phrase Library. This helps insure accurate data for Reports and Queries.

The screenshot shows a mobile application interface with a status bar at the top displaying 'AT&T', '11:14 AM', and '100%' battery. The app has a grey header bar with a hamburger menu icon on the left and 'Submit' and 'Cancel' buttons on the right. The form consists of several fields, each with a label and a text input area, and a barcode icon to the right of the 'Equipment' field. The fields are: 'Equipment' (containing 'FP922D1 - FIRE DETECTION S...'), 'Site\*' (containing 'F38 - FARM SITE #38, RECEIVING ROAD'), 'Building\*' (containing 'F38FO - 922 - SITE 38, FACILITY MGM...'), 'Floor' (containing '1FL -'), 'Room' (containing 'SE-EXIT -'), 'Task List\*' (with a pencil icon), 'Crew' (containing 'FP'), and 'Assigned To' (empty). Each text input field has a small 'x' icon to its right.

Field	Value
Equipment	FP922D1 - FIRE DETECTION S...
Site*	F38 - FARM SITE #38, RECEIVING ROAD
Building*	F38FO - 922 - SITE 38, FACILITY MGM...
Floor	1FL -
Room	SE-EXIT -
Task List*	
Crew	FP
Assigned To	

Scrolling down further has more fields to fill in. The next one is equipment.

If you tap in the equipment field, it takes you to a screen to search and pick from a list, OR... tap the barcode icon and your mobile device will read the Equipment Label. Either way, the rest of the fields shown here will auto-populate.

Again, auto-populate insures accurate data.



AT&T 11:15 AM 100%

Submit Cancel

Building\*

F38FO - 922 - SITE 38, FACILITY MGM...

Floor

1FL -

Room

SE-EXIT -

Task List\*

Replaced smoke detector 01-12.

Crew

FP

Assigned To

No Documents

Interactive Map

Rockford Chicago Waukegan

The last field to fill in is the Task List. It is free form text. Describe the work.

**Submit** this and get a WO number.

**So, a WO was created with 3 menu choices, one picture, and 2 fields of minimal text entry.**

The WO includes contact info, equipment description, location, a priority, a work crew, and possibly attachments, all based on the Phrase Library and Equipment number.

You can open up the WO, add your labor and complete it.

2 other things that are commonly done are Reactive WOs and Service Requests.

Reactive Work Orders are emergencies or urgent service calls. They are WOs with a default Priority of 0.

- The Duty Electricians/Mechanics, and Fire Techs are big users of this.
- They are often created/entered after the work is done.

Service Requests are created by anyone to have work done.

- Mechanics can request electrical work and vice versa.
- I could turn in a request for an Emergency Light.
- Planning Group has this in their queue and the WO lifecycle begins again.

# Acknowledgements

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- Sue Sprosty – Planning and Scheduling Group – Electrical
- Matt Besch – Facilities Maintenance Mechanic
- Patricia Marsh – Data Base Admin – Desktop and Mobile App
- John “JP” Pollock – Mechanical Supervisor

THANK YOU