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CARS PROCEDURES

The Construction Automated Records System, or CARS, is the NDDOT's computer based construction records system. The system uses the internet for data entry and stores project records on a central database. Reports generated in CARS can be viewed online at any time so copies do not have to be printed and filed. Pay estimates are prepared and approved online allowing for more timely payments to the contractor.

User ID & Passwords

Before being able to enter or view data, CARS users are assigned a user ID and user's rights by the Information Technology Division. The user ID and a password allow you to login to the CARS system. The user rights assigned determines what access you have to view and edit data. Consultants, counties and cities must fill out and submit [SFN 53085](#): LDAP Account Information to Construction Services in order to get a user ID and be assigned user rights. DOT employees are also required to fill out the LDAP Account Information form.

User ID information will be mailed to the CARS coordinator for cities, counties and consultants. Department employees will receive User ID information by email.

If you will be using temporary employees for data entry, you will have to submit the LDAP Account Information form for that employee. The Information Technology Division should also be informed when a User ID is no longer being used such as when temporary or permanent employees are no longer working for an organization. User ID's will be audited for activity from time to time and if no activity is shown within a certain time frame, the User ID will be removed.

The User ID will be sent out with a generic password and the user will be required to change their password the first time they log in to CARS. To change your password:

1. Click on the Change Password link.
2. Sign in with your User ID and the generic password given to you by ITD. The Change Password page is displayed.
3. Enter your new password. Passwords are case sensitive and must contain the following:
 - a. At least 6 characters
 - b. At least 1 uppercase letter
 - c. At least 2 lower case letters
 - d. At least 1 number
4. Type the password in the second text box to confirm and click on the Login key. This will take you to the Main Menu of CARS.

Write down your password and store it in a secure location. If you forget your password, contact the Information Technology Division. Consultant, county and city users will be required to know the answers to the two hint questions submitted on the LDAP Account Information form or they will be unable to get their password information.

Login to the CARS Program

Access to the CARS programs is provided on the NDDOT website. To access CARS:

1. Go to the DOT website at <http://www.dot.nd.gov/>.
2. A link for CARS can be found by selecting the Construction and Engineering link under the Business tab.
3. Click on the Consultants and Engineers link under the Contractors, Consultants, and Engineers section.
4. Select CARS Login under Online Services.
5. Type in User ID and Password and click the Login button.
6. The CARS Main Menu is displayed.

Navigation

The same methods used to navigate Internet Explorer are also used to navigate in CARS. The following lists the most common navigation tools used.

1. Links

Links are usually colored, underlined text but can also be a picture or 3-D image. To check whether an item is a link, put the mouse pointer over the text or the image. If it turns into a hand, it is a link. Clicking on the link will take you to the page indicated by the link.
2. Text Box

Text boxes are used throughout CARS to enter data composed of numbers, text or both. A cursor will appear when you click inside the text box and data can be entered in the box. Sometimes data will be entered in a series of text boxes. Use the TAB button to move to the next text box.
3. Drop Down Box

A drop down box looks similar to a text box but it has an arrow pointing down on the right side. By clicking on the arrow, a list 'drops down' from the box with a list of different options that may be chosen to fill the box
4. Check Box

Check boxes can be used to modify data or select a certain record. A check box is a square next to entered data or a record. Clicking inside the check box will put a check mark or an 'X' in the square. This indicates the data or record has been selected.
5. Buttons

Buttons are used throughout CARS to perform various functions such as SAVE, RETURN, SEARCH, etc. Clicking on them activates these buttons.
6. Radio Buttons

CARS also uses radio buttons. These are small circles followed by text and are used to pick a certain option within a data entry page. To select an option, click inside the radio button and a small black circle will appear. Only one choice can be made in a group of options with radio buttons. If you click on one radio button in a group of options and then click on another, the black circle will disappear from the first choice.
7. Filters

Filters are used in Quantity Manager to regulate the displayed PQEs. Filters set will remain active until the user leaves Quantity Manager.

Input Basics

The following list is basic information needed to enter data into CARS.

1. CARS uses a time out feature. The session will time out after 30 minutes if there is no activity registered and data entered but not saved may be lost. If you are logged on and are interrupted, it is recommended that you click on the Save button before leaving your computer.
2. **DON'T USE THE BACK BUTTON!** The program will function using the back button but you may lose data or you may get a 'Warning: Page has Expired' error message. If this occurs, click the Refresh button on the Internet Explorer tool bar. A dialog box appears asking you to use the Retry button to send the information again. Click on the Retry button and you will be returned to the previous page. Backspace may be used in Quantity Manager at your own risk!
3. The TAB key can be used to move from one input field to the next. As you get used to working in the new CARS format, you will find the TAB key very useful for moving around in the data entry boxes.
4. Station/Location format
 - a. Stations are entered without the plus for example Sta. 100+32 would be entered as 10032
5. The project and subproject displayed at the top of the screen will be the same as the project from the last logon. Change these by clicking on the Project or Subproject link. This will take you to the Project Search Criteria page where you can change the project or subproject.
6. The Main Menu can be accessed by clicking on the link in the top right hand corner or the button at the bottom of each page.
7. PQEs are marked by status.
 - a. Not Checked. PQE may be edited.
 - b. Checked. PQE may be edited.
 - c. Rejected. PQE may be checked or submitted.
 - d. Submitted. PQE has been added by Project Engineer to the estimate. PQE may be edited. Any changes will reset PQE to Not Checked.
 - e. Pending. PQE has been included in the estimate generated by the Project Engineer, but the estimate has not been approved. PQE may be edited. Any changes will reset PQE to Not Checked.
 - f. Submitted for Payment. PQE has been included in estimate that has been approved by Project Engineer and is in final approval process.
 - g. Paid. Payment for PQE has been made. Item is eligible to be appended.
8. A change order drop down box will be found in pay quantities, mix bitumen, and concrete paving. This is used to indicate when a pay item is affected by a change order.
9. Deleting records
 - a. Check box for deleting rows
 - b. Delete button deletes the entire record

10. Printing reports requires having Adobe Reader which can be obtained free from the DOT website. If the reports do not generate, check the settings. Also, the full version of Adobe Acrobat will not generate the reports. The reader will have to be downloaded and set as the program that opens the CARS reports. If you are still having problems generating the reports, you will have to change settings in the Reader by:
- a. From the Start Menu on your computer, open the Adobe Reader.
 - b. Click on Edit and choose Preferences.
 - c. From the list on the left hand side, go to Options.
 - d. There are four check boxes under Web Browser Options. The first two boxes (Display PDF in Browser and Check Browser Settings When Starting Acrobat) should be unchecked.

Text Box Field Lengths

CARS uses text boxes throughout the program. Typing in more characters than the size of the text box will generate an error. The following table lists the character length of all text boxes in CARS.

TITLE OF FIELD	# OF CHARACTERS
Change Order Maintenance Remarks	200
Change Order Maintenance Explanation of Change	3,000
Change Order Spec/Code Maintenance Description	50
Change Order Spec/Code Maintenance Other	50
Concrete Paving Remarks	200
Haul Sheet Maintenance Remarks	200
Mix Bitumen Maintenance Remarks	200
Pay Quantity Maintenance Remarks	200
Project & Inspection Diary – Remarks	12,000
Project Diary Contract Time - Lost Time Reason	80
Project Diary – Engineering Staff	500
Project & Inspection Diary – Weather Notes	5,000
Project & Inspection Diary – Document Comments	200
Inspection Diary – Work in Progress	5,000
Inspection Diary – Labor Force Comments	5,000
Inspection Diary – Edit Equipment Comments	500
Project & Inspection Diary - Amendment Comments	500
Stockpile/Invoice Item Maintenance Remarks	200
Construction Status Maintenance Remarks	200
Weekly Progress Report Maintenance – Remarks	2,000
Weekly Progress Report Maintenance – Road Const. Map Info	300
Weekly Progress Report Maintenance – DBE Remarks	200
Contract Adjustment Maintenance – Remarks	200
Contract Adjustment Maintenance – Item Description	50
Final Checklist Maintenance – Remarks	200

Assign Project Engineers & Project Personnel

After the bid opening and award process is complete, the projects are downloaded into CARS from PACER. An email will be sent to the District Engineer listing the projects from the bid opening for that district. The District Engineer will assign Project Engineers and/or consultants for each project listed.

After the District Engineer has assigned a project engineer to a project, the Project Engineer will assign their project personnel. For consultants, the designated CARS coordinator will assign the Project Engineer to a project who will in turn assign project personnel. Project personnel will be able to update or view project information depending on the user rights they have been assigned by the Information Technology Division of the DOT.

The person assigned as the Project Engineer in CARS will be responsible for maintaining Project Diaries, Change Orders, and Estimates. This should be the person in daily contact with the project. A position in charge of multiple projects such as Team Leader or Resident Engineer should not be assigned as the Project Engineer if they are not able to be on the project daily. The Alt. Engineer role can be used for project personnel who will handle the engineer duties in the absence of the Project Engineer.

Assign Project Personnel

To assign project personnel:

1. On the Main Menu, check to see that the project displayed at the top of the page is correct. To select a project, click on the Project link in the upper left hand corner of the Main Menu page. The Project Search Criteria page is displayed. Choose your project from the Assigned Project drop down list and click on the Search button. You can also access your project by typing in the project number in the Project ID text box or typing the PCN number in the PCN text box. You will only be able to assign personnel to projects assigned to you.
2. Once you have picked the project, click on the Project Personnel link. The Project Personnel page is displayed.
3. The project engineer's name will be listed under Assigned Personnel. Click on the Assign/Remove Personnel button. The Assign Project Personnel page is displayed.
4. A list of available personnel is displayed in alphabetical order along with their user ID's. To assign personnel to the project, click in the check box in the Assign column.
 - NDDOT Engineers will see NDDOT personnel displayed on this screen.
 - To assign a consultant employee to an NDDOT-run project, see 'Assign Consultant Personnel' section below
 - Consultant Engineers will see personnel from their own company displayed on this screen.
 - To assign an employee from a different consultant office to a consultant-run project, see 'Assign Consultant Personnel' section below
5. Click on the Save button. If you have tied projects, a dialog box will display asking if you want to update all tied projects. Clicking on yes will assign the personnel chosen to all projects tied to the one shown at the top of the page. If you choose no, you will need to assign personnel to those projects separately.
6. After the assigned personnel are chosen and saved, you will be returned to the Project Personnel page. All personnel assigned to the project will now be listed alphabetically under Assigned Personnel.

If a project engineer is assigned to multiple projects or a large project with several tied project numbers, it is possible to change projects or subprojects from any location within the CARS programs.

Assign Testing Companies & Testing Company Personnel

The Assign Testing Companies button allows the project engineer to assign individual testing companies access to the Materials Dropbox module in CARS. No other modules in CARS will be available to the testing company. The project engineer should notify the testing company that they have been assigned to the project.

Once assigned, the testing company's CARS coordinator will be able to assign personnel to the project. The assigned personnel will have the ability to add, edit, and view documents within the Materials Dropbox.

To assign Testing Company personnel:

1. On the Main Menu, check to see that the project displayed at the top of the page is correct. To select a project, click on the Project link in the upper left-hand corner of the Main Menu page. The Project Search Criteria page is displayed. Choose your project from the Assigned Project drop down list and click on the Search button. You can also access your project by typing in the project number in the Project ID text box or typing the PCN number in the PCN text box. You will only be able to assign personnel to projects assigned to you.
2. Once you have picked the project, click on the Project Personnel link. The Project Personnel page is displayed.
3. Click on the Assign/Remove Personnel button. The Assign Project Personnel from Testing Companies page is displayed.
4. A list of available personnel is displayed in alphabetical order along with their user ID's. To assign personnel to the project, click in the check box in the Assign column.
5. Click on the Save button. If you have tied projects, a dialog box will display asking if you want to update all tied projects. Clicking on yes will assign the personnel chosen to all projects tied to the one shown at the top of the page. If you choose no, you will need to assign personnel to those projects separately.
6. After the assigned personnel are chosen and saved, you will be returned to the Project Personnel page. All personnel assigned to the project will now be listed alphabetically under Assigned Testing Company Personnel.
7. These users must also be added to the "Assigned Testers" section within Project Personnel for their name to be shown in the Tester/Inspector dropdown in the "Document Entry" section of the Materials Dropbox. See next section for details.

Assigned Testers

The Assigned Testers section populates the 'Tester Name' dropdown within the CARS Materials Dropbox. Testing personnel must be added to this section even if they appear above in the Assigned Personnel page or the Assigned Testing Company Personnel above. If they aren't added, their names won't appear as an option in the Materials Dropbox and they won't be able to upload their results under their name.

The Tech ID is required.

1. Click "Assign Testers", then enter the Tester's name and Tech ID.
 - a. The Tech ID can be found on the NDDOT website under Materials and Research Division [Technical Certification](#).
2. Click "Add" to add the tester to the Assign Testers section of the project personnel page.

Assign/Remove Consultant Employees

This button & subsequent screen can be used to add/remove consultant employees to a project with an NDDOT Project Engineer. It can also be used to add/remove employees from a different consulting company to projects with a consultant Project Engineer.

Examples:

1. NDDOT Engineer and inspectors but additional consultant employees are added to the project for survey and/or materials testing
2. Consultant Engineer and inspectors but employees are added to the project from a different consulting company

This screen also allows the Engineer to assign users as an Alt. Engineer, if needed. The same screen can be used to unassign the Alt. Engineer rights, if needed.

Change Projects/Subproject Selection

To change the project or subproject selection:

1. To change the project
 - a. Click on the Project link
 - b. The Project Search Criteria page is displayed. Pick the project by:
 - i. Choose the project from the Assigned Project drop down
 - ii. Type in the project number in the Project ID text box
 - iii. Type in the project control number in the PCN text box
 - iv. Click on the Search button
2. To change the Subproject
 - a. Click on the Subproject link
 - b. The Subproject Selection page is displayed. All subprojects for the project chosen are displayed under Subproject Search Results. Click on the link for the subproject.
 - c. The Project Search Criteria is also displayed on this page. If the project is changed from this page, the subprojects displayed will change to the ones for that project.

The CARS Main Menu is divided in two distinct categories – Maintenance and Reports. The Maintenance side of the menu is used to make entries into CARS and create reports for the information entered. The Reports side allows you to access any report already created from previously input information. Instructions for use of the various Maintenance and Report functions will be listed by type in subsequent sections of this manual.

CARS/FILENET FILE STORAGE

The NDDOT uses an electronic document management system (Filenet) to store construction project records. All files uploaded to CARS are stored in Filenet.

Filenet document management shall be used for all NDDOT projects where the Contract is signed by the Director. Use of Filenet is not required on Local Agency projects.

A modified version of Filenet has been incorporated with the CARS program. This will enable all users in CARS to add, search and store project records to Filenet while using the CARS program.

There are two functions available on the Main Menu for accessing Filenet in CARS. They are the Search Documents link and the Add Documents link.

Search Documents Link

All CARS users will be able to view project related documents stored in Filenet/CARS. Project related documents from the bid opening date forward will be displayed in the Search Documents link located at the top of the CARS Main Menu. (see below)

North Dakota ND.gov Official Portal for North Dakota State Government
Construction Automated Records System
 Project: IM-2-094(146)275 [Search Documents](#) [Add Documents](#) [Main Menu](#)
 SubProject: 1 - GRADING, SALVAGED BASE COURSE, DOWELED PCC PAVEMEN

Main Menu

Maintenance	Report
Quantity Manager	Concrete Paving
Certification Manager	Haul Sheet
Concrete Paving	Mix Bitumen
Haul Sheets	Piling Reports
Mix Bitumen	Spread Sheet
Piling / Test Piling	Quantity Book
Stockpiles	Approved Progressive Estimate
Fuel Cost Adjustment	Financial Transactions
Project Diary	Weekly Progress Report Selection
Inspection Diary	Change Order
Materials Dropbox	Force Account
PE-Create Progressive Estimate	Explanation of Change in Plan
Weekly Progress Report	Contract Time for Completion Selection
Change Order	Project Status Selection
Construction Status	TCP Field Report
Contract Adjustment	Status Of Finals
Force Accounts	Final District Totals
Project Personnel	Final Projects Report
Project Permits	Total Amount Vs Change Orders
Contractor NOI/Claims	Completed on Time
Vertical Clearances	Contract Adjustment
	Progressive Estimate Days Expired

Users are able to refine the search results by choosing several options. They are Subject/Title, Division Number, Beginning and Ending date, and Document Type. Users may enter one or all of the criteria to refine their search. Click the Search button to retrieve the results.

To view the documents, click the document title. The ability to open several documents at one time is not available. See sample below:

North Dakota nd.gov Official Portal for North Dakota State Government
 Construction Automated Records System

Project: IM-2-094(146)275 [Main Menu](#)
 SubProject: 1 - GRADING, SALVAGED BASE COURSE, DOWELED PCC PAVEMEN

Subject/Title:
 Division No:
 Beginning Date: (mm/dd/yyyy)
 Ending Date: (mm/dd/yyyy)
 Document Type:
 PCN: Equals 21512

52 records found, displaying all records.

Document Title	Project No.	Subject/Title	Division No.	Date	Document Type
test.pdf	IM-2-094(146)275	Pre Construction Conference-EEO	520 ADMINISTRATION	04/30/2019	FORM
CT_test.pdf	IM-2-094(146)275	CERTIFICATION ATTACHMENT	621 VALLEY CITY - CONSTRUCTION	04/30/2019	WORK DRAWING
FC_test.pdf	IM-2-094(146)275	Full As Built Plan set	621 VALLEY CITY - CONSTRUCTION	04/30/2019	FORM
MT_sfn10071m Compaction Control.pdf	IM-2-094(146)275 (SFN 61068)	Random Sample Location	621 VALLEY CITY - CONSTRUCTION	04/27/2019	TEST
MT_sfn61074 Independant Assurance Comparison.pdf	IM-2-094(146)275 (SFN 61068)	Random Sample Location	621 VALLEY CITY - CONSTRUCTION	04/27/2019	TEST
MT_sfn10071m Compaction Control.pdf	IM-2-094(146)275 (SFN 18552)	Daily Report-Hot Bituminous Pavement-Quality Control	621 VALLEY CITY - CONSTRUCTION	04/27/2019	TEST
MT_sfn61074 Independant Assurance Comparison.pdf	IM-2-094(146)275 (SFN 61068)	Random Sample Location	621 VALLEY CITY - CONSTRUCTION	04/27/2019	TEST

Add Documents Link

The Add Documents Link is where CARS users will add electronic project documents into CARS. Users are required to give each document a Subject/Title. A document type is also required, a drop down box is available to define the document type. The users will then click the Browse button to search their PC's for the source documents location they are saving to CARS. The final step is to click the Add button, this will store the document into CARS. The preferred file formats are (tiff, pdf, xls, docx). The files should not exceed 20 MB. Once a document is added, it cannot be deleted unless the user contacts Construction Services.

North Dakota nd.gov Official Portal for North Dakota State Government
 Construction Automated Records System

Project: SOIA-7-085(087)171 [Main Menu](#)
 SubProject: 1 - GRADING, BOX CULVERT, CULVERTS, AGGREGATE BASE, HO

Civil Rights Form Name:
 Subject/Title:
 Document: File can be no larger than 20 MB.
 Document Type:
 Date: 10/10/2018 (mm/dd/yyyy)

[Main Menu](#) User: David L. Bruins PCN: 20157

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The Department of Transportation’s retention on project records is: 3 years after FHWA final payment, then microfilm. Retain microfilm for 75 years after date filmed. To ensure that quality records are put to microfilm, the DOT recommends the following scanning standards:

1. 300 dpi
2. Tiff Group 4 compression
3. Color only if necessary (detailed maps/photos)
4. Pdf

Materials Documents in CARS - Materials Dropbox

The Materials Dropbox in CARS is a specialized version of the “Add Documents” section. The link to the Materials Dropbox is found on the CARS home page under the Inspection Diary link. All materials tests must be entered using the Materials Dropbox.

See Section 3 of the Construction Records Manual for addition information regarding the Materials Dropbox.

Filing System

When scanning and storing documents in CARS, once it is verified that the document has been uploaded, it should not be included in the paper project files. Paper documents should be stamped with a red star as they are uploaded to CARS. This will help identify documents that have been scanned and do not need to be retained or included with the final paperwork.

All Project Engineers shall store the following construction project records documents in CARS:

1. Preconstruction Meeting Minutes.
2. Correspondence. Project correspondence, including emails, shall be stored in CARS/Filenet. Any documents received should be scanned and stored in CARS/Filenet in a timely manner. Do not store draft documents.
3. Weekly Progress Reports. This will be the original progress report with the project engineer signature and contractor’s signature.
4. Certifications and submittals should be stored in the CARS system using the Certification Manager Module.
5. Schedules: Schedules and updates prepared in accordance with Section 108.03, “Progress Schedule”
6. Inspectors Diaries should be created in CARS on a daily basis.
 - a. In the rare case where paper diaries are created, they should be scanned and saved into CARS/Filenet. They should be saved in CARS/Filenet once a week per contractor/subcontractor.
7. Project Diaries. These diaries are required to be entered into CARS on a daily basis by using the Project Diary selection on the CARS Main Menu.
 - a. In the case of projects that are not set up in CARS, such as an emergency project, the project diaries will be scanned and stored in Filenet using the criteria listed below.
 - b. Project number must be on each page.
 - c. Legibility is not to be compromised.
 - d. Diary entries must be scanned into Filenet daily.
8. Materials Testing Results: Use the Materials Dropbox in CARS to upload completed materials forms. Forms completed on paper should be scanned and uploaded. Files completed on a

computer or ipad can be uploaded directly into the Materials Dropbox as a pdf.

- a. Other materials forms can be uploaded into CARS/Filenet using the Add Document feature.
- 9. Change Orders. Use the Change Order module in CARS to create, enter, and sign Change Orders.
- 10. Piling logs. Any piling logs that are not in the CARS system shall be scanned and stored in CARS/Filenet.
- 11. Bench Mark books. All field books used for bench marks shall be scanned and stored in CARS/Filenet.

The following are CARS/Filenet suggestions for adding these documents:

Document	Subject/Title	Document Type
Preconstruction Conference	Preconstruction Conference	Correspondence
Correspondence	Subject	Correspondence
Progress Report	Progress Report weekending (Progress Report _05142010)	Report
Inspection Diary	Inspector Contractor weekending (Johnson_Gowen_07242010)	Forms
Project Diary	Engineer Project Diary day (Johnson Project Diary_07022010)	Forms
Piling Logs	Piling Logs	Forms
Bench Mark Books	Bench Marks	Field Book

FINAL RECORDS

The vast majority of project records are now maintained in CARS/Filenet. All construction project records not stored in CARS should be sent to Construction Services during the final records process. Final paperwork required on the Final Records Checklist should be uploaded to CARS in the Final Checklist Module. See Section 7 of this manual for more information.

CARE OF COMPUTER EQUIPMENT

Proper care and treatment of computer equipment is essential to keep it in proper working condition. The following list of precautions will help keep computer equipment in good working order.

1. Computer equipment is particularly susceptible to weather conditions such as extremes in heat or cold, dust or wet conditions.
2. Make sure computer equipment is secure in field offices or vehicles. Lock the field office or the vehicle when unattended.
3. Computer equipment can be vulnerable during electrical storms especially in the field office setting. It's a good practice to turn off and unplug the computer during an electrical storm or when you leave the office for the day. Although surge protectors are an essential part of protecting your computer, they will not save it from a lightning strike.
4. DO NOT spray window cleaner directly on the screen of the monitor or the display on a laptop as it can damage or destroy this equipment. Cleaning supplies used specifically for monitor screens and laptop displays can be obtained from Supply.

REPAIRS AND OTHER PROBLEMS

Any hardware or software problems that occur should be handled by contacting the NDDOT Help Desk at 328-HELP (4357). If the Help Desk can't assist you at the time of the call, they will log the problem and a technician will be assigned to your problem and will work with you until it is resolved.

Any problems with the CARS programs should be directed to Construction Services Division at 328-2563.