

North Carolina
Department of Revenue

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SECTION I

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Requirements for the
Approval of
Substitute Tax Forms

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North Carolina Department Of Revenue Requirements for the Approval of Substitute Tax Forms

Section I: Requirements for the Approval of All Substitute Tax Forms

1.1 Purpose

This document sets out the requirements for the Department's approval of substitute tax forms. A substitute tax form is a computer-generated tax form produced by a software company or payroll service provider for use in lieu of a form produced by the Department. Section I of this document sets out the requirements applicable to every form. Section II of this document sets out additional requirements applicable to specific forms. A substitute tax form must meet the requirements in both parts to be approved by the Department. **The Department may decline to process a tax return filed on an unapproved substitute tax form.**

Software developers must comply with the requirements in this document to gain approval by the Department. Annually the Department will update this document detailing changes to published tax forms; setting out requirements for forms not included in Section II of this document; outlining additional processing requirements and informing software developers of new requirements imposed by the North Carolina General Assembly. **It is the responsibility of the software developer to submit tax forms for approval based upon the latest edition of this document.** Updates to this document are located on the Department's website at www.dornrc.com. An email alert will be sent out when updates have been made.

1.2 Definitions

Data: Live Data is defined as having all characteristics of a taxpayer-filed return including correct calculations. Full-field data or "dead" data has a character in every variable position on the form. For example, if an amount field is 8 characters, the field will be submitted with 8 characters. The full-field example will not calculate. Blank forms are absent any variable data.

Department: The North Carolina Department of Revenue.

Edition Date: The date the latest version of the Department's tax form becomes published. Software developer versions publish an extended edition date that includes the day and month of release.

Form Number: A sequence of letters and numbers representing the name of each published tax form. This code, printed within an outline of The State of North Carolina, is located in the top left-hand corner or bottom right-hand corner of every published tax form.

Line Geometry: Line Geometry is the positioning of vertical and horizontal lines on tax forms. Data Capture uses the barcode as the primary source in identifying tax forms. In cases where the form cannot be recognized, line geometry is then used to identify the tax forms.

Non-Personalized Tax Form: A generic type of published tax form produced by the Department not containing any pre-printed taxpayer information.

PDF (Portable Document Format): An openly published file format used to represent a document independent of the application software, hardware and operating system used to create it. PDF files provide a way to distribute documents across diverse hardware and software platforms.

Payroll Service Provider: A company that provides a service of signing and filing withholding tax returns on behalf of the employer.

Personalized Tax Form: A standardized published tax form produced by the Department containing pre-printed taxpayer information.

Published Tax Form: A tax form published by the Department for distribution to taxpayers.

Release Date: The date the final form is released to the public. This date is used to mark the timeline for forms approval deadlines.

Reproduced Tax Form: A photocopy of a substitute tax form or a published tax form.

Software Developer: A company that develops or distributes computer-generated tax forms to customers or payroll services.

Software Developer Identification Number: A unique two-digit number assigned by the Department to each software developer approved to produce substitute tax forms.

Substitute Tax Form: A computer-generated tax form produced by a software vendor for purposes of replacing a published tax form.

Training: The process of defining substitute tax forms and published tax forms to the Department's computer system.

Tax Form: A form prepared for use by a taxpayer to submit tax information.

Unauthorized Form: A form that has not been authorized by NCDOR for reproduction.

1.3 What's New

- **Software Developers are required to submit a copy of their company's software only if deemed necessary. See provisions concerning "copy of software" in Part One of the Agreement To Comply.**
- **Deadline dates for first time submissions have been changed to 30 days from the date of posting.**
- **Email naming scheme has been revised to require pdf forms to be submitted in sets.**
- **Developers' website updated to include due date of forms.**
- **Original posting date will remain the same on the developers' website.**
- **Update all forms with revision dates of 2002.**
- **Requiring 1 live data example with a large dollar amount.**
- **Information concerning the NC Public Campaign Fund Screenshot now located on the developers' website.**
- **Power point presentation on "How To Submit PDF Forms via Email" now located on the developers' website.**

1.4 Approval Process

All software developers, primary and secondary, must receive approval by the Department to develop substitute tax forms for the 2009/2010 tax year. The Department will only approve substitute tax forms developed to produce computer-generated data. Substitute tax forms filled in by manual processing techniques (i.e., hand-written or entered by typewriter) will not be accepted. Any software developer previously granted approval from the Department to produce substitute tax forms must resubmit tax forms for approval. All prior approvals expired on August 21, 2009. The Department approves substitute tax forms for a period of one year or until a new edition of the published tax form is issued, whichever comes first.

1.4.1 How To Submit Forms

NCDOR will allow developers to submit forms in .PDF format via email to SDFormsUpdate@dorn.com. Emails should be sent with the specific subject line format and file-naming scheme for the attachments. If the subject line is formatted incorrectly, the developer will be required to resubmit the forms in the correct format. Do not resubmit forms unless instructed by someone from the Forms Development & Testing Unit. A reply will be sent from the Department once the developers' email has been opened. The file cannot be larger than 10 megabytes. A separate email is required for each form submitted. (Ex. Form D-400 and attachments in one email and D-400TC and attachments in another email, etc.) **Power point presentation on "How to Submit PDF Forms Via Email" is now located on the developers' website.**

Due to problems in timely receiving US Mail, regardless of priority status, the NCDOR will no longer accept forms submitted through the USPS. All forms must be sent by a courier (UPS, FED EX,) or in .pdf format via email.

Submit all courier mail packages to:

Courier Deliveries

**North Carolina Department of Revenue
Trudy Ivey/Forms Development & Testing Unit
501 N. Wilmington Street
Raleigh, NC 27604-8001**

When mailing substitute tax forms to the Department for final approval, include the correct number of forms for approval. No photocopies or faxes will be accepted during the final approval process. If you plan to submit multiple forms for approval in the same packet, separate and clearly mark the forms included in your packet.

A cover letter listing each form submitted for approval, the contact person in your organization for each tax type and the fax number or address where you want the Department to send its official response must be included with each submission. If you prefer, you may attach a Software Developer Notification Sheet for the Department to report the approval status for these tax forms. This form should contain a check box for the Department to note the form has been approved, should be resubmitted with changes or is not approved. Adequate space should be provided to the Department in order to list the corrections needed before the form can be resubmitted for approval. If you choose to include a Software Developer Notification Sheet, include one copy for each substitute tax form submitted. **NOTE: Please indicate on your header sheet lines that are NOT supported or field length limitations on forms submitted for review. This information should be provided each time the form is submitted.**

1.4.2 Requirements for NC Public Campaign Fund

All North Carolina tax software programs must provide the user with required information and the opportunity to indicate an agreement or an objection to allocate \$3.00 of the taxpayer's tax liability to the **NC Public Campaign Fund**. In that regard, the tax software program **must** present the following statement **verbatim** to the user:

N.C. Public Campaign Fund

Mark 'Yes' if you want to designate \$3 of taxes to this special Fund for voter education materials and for candidates who accept spending limits. Marking 'Yes' does not change your tax or refund.

<u>You</u>	Yes	No
<u>Your Spouse</u>	Yes	No

In addition, when the user is presented the opportunity to make a 'Yes' or 'No' designation to the fund, the following Fund description must appear on the same screen.

N.C. Public Campaign Fund

“You may designate \$3.00 of the taxes you pay to the N.C. Public Campaign Fund. (Married couples filing a joint return may each make a spousal designation if their income tax liability is \$6.00 or more.) The N.C. Public Campaign Fund provides an alternative source of campaign money to qualified candidates who accept strict campaign spending and fund-raising limits. The Fund also helps finance a Voter Guide with educational materials about voter registration, the role of the appellate courts, and the candidates seeking election as appellate judges in North Carolina. Three dollars from the taxes you pay will go to the Fund if you mark an agreement. Regardless of what choice you make, your tax will not increase, nor will any refund be reduced.”

Under North Carolina law, software developers must comply with the above requirements. Therefore, before the Department of Revenue will **approve** a North Carolina tax software program, software developers must submit a screen shot of the required text with the D-400 package for approval. **Approval for the Form D-400 will NOT be given until the screen shot has been received and determined to be correct. Specific language to fulfill the law can be viewed at the link shown below:**

<http://www.ncga.state.nc.us/Sessions/2005/Bills/House/HTML/H1024v7.html>

If your software package includes an “organizer” or “questionnaire” for the user to give to a client to fill out prior to completing the return, the organizer or questionnaire must provide the complete fund description information. North Carolina law prohibits a software package used in preparing North Carolina returns to default to an agreement or objection with respect to the Fund designation. Therefore, the Department of Revenue expects all packages to be programmed in a manner that gives the user the same Yes or No option as given to individuals filing a paper return. If the user does not indicate Yes or No when first presented with the option, the software should alert the user before the return is finalized that no choice was made. If the user makes no choice when given the second opportunity, the return can be finalized. **Information pertaining to the NC Public Campaign Fund is now located on the developers’ website.**

1.4.3 Deadlines for First Time Submissions

The initial submission of the forms listed below are required to be submitted 30 days from the date the software developers’ final forms are posted to the Department’s website. The posted dates for each form can be located on the Software Developer Informational site.

Secondary developers will not be reviewed and/or approved until the primary developer has been approved.

An Agreement to Comply is required of every software developer intending to produce substitute tax forms in the coming year. The deadline for receipt of the Agreement to Comply is August 21, 2009.

In order to avoid delays in the forms review process, NCDOR encourages early submissions.

First Time Submissions

Individual	30 days past posting date Forms: D-400, D-400TC, D-400V, D-400V Amended, D-403, D-403TC, NC K-1 (403), D-407, D-407TC, NC K-1 (407), D-410, D-410G, D-410P, NC-40, NC-478, NC-478 Schedule, NC-478A-L, NC-478V and NC-478V-J
Sales	30 days past posting date Forms: NC-BR, E-500, E-500E, E-500F, E-500G, E-500H, E-500J, E-536, E-536R, E-543, E-554, E-555, E-581, E-585, E-585H, E-585S, E-588, E-588J
Withholding	30 days past posting date Forms: NC-5P, NC-5PA, NC-5PX, NC-3, NC-3M, NC-3X, NC-5, NC-5A, NC-5X, NC-5Q
Corporate	30 days past posting date Forms: CD-401S, NC-NA, NC K-1 (401S), CD-405, CD-419, CD-425, CD-429, CD-V, CD-V Amended, NC-478, NC-478 Schedule, NC- 478 A-L and Article 3-J

1.4.4 Number of Copies Needed for Final Approval

Draft forms for text changes may be submitted through mail or in .pdf format to this e-mail address: SDFormsUpdate@dornc.com. The number of forms required for primary and secondary developers are provided below. Copies of these forms must be originals, photocopies will not be accepted.

	<u>Primary Developers</u>	<u>Secondary Developers</u>
<u>Full-sized forms</u>		
Blank forms	1	0
Variable data (live)	5*	5*
Dummy data (dead)	1	0
<u>Coupon-sized forms</u>		
Blank forms	1	0
Variable data (live)	10**	10**
Dummy data (dead)	1	0

***Software developers who do not submit forms in PDF format via email must submit 10 examples of variable data for all forms unless it is a form that requires more examples (ex. NC-40).**

**Software developers must submit an example to account for each change in the first and last sets of numbers in the scan line. Coupon-size tax forms requiring more than 10 variable examples are the CD-V, CD-V Amended, CD-419, CD-429, NC-5, NC-478V and NC-478V-J.

Developers are required to submit 1 example of non-scannable forms, which are forms without barcodes.

1.4.5 Approval in Sets

If your company chooses to produce a form in any of the following sets, you must also produce all corresponding forms within that set. It is mandatory that all forms within a given set be submitted for approval. Failure to comply risk revocation of the entire set.

Corporate: CD-401S and CD-425*

Income, Adj. &
Tax Credit Set: CD-405 and CD-425*

NC-478: NC-478 Summary, NC-478 Pass-Through, NC-478A, NC-478B, NC-478E, NC-478G, NC-478H, NC-478I, NC-478J, NC-478K, NC-478L and Article 3-J

Estates and Trusts: D-407, D-407TC

Individual Income: D-400, D-400TC

Partnerships: D-403, D-403TC

Sales: E-500, E-536, E-543

***Form CD-425 only has to be submitted once for approval.**

1.4.6 Approval of Forms with Scan Lines

For the 2009 tax year, forms submitted for approval must contain examples of every applicable change in the filing frequency affecting the scan line. For example, 13 different examples of the CD-429 must be submitted for approval to account for one calendar year filing and 12 different fiscal year ending dates. In addition, companies producing the NC-5 must submit examples for both monthly and quarterly filers. See Section II of Resources.

The following forms will contain scan lines:

Software Developers: CD-419, CD-429, CD-V, CD-V Amended, D-400V, D-400V Amended, D-410, D-410G, D-410P, NC-3, NC-5, NC-5X, NC-5P, NC-5PX, NC-40. Software developers who intend to produce the E-500, E-500E, or NC-3M will be required to produce a full-size return as opposed to a two-page coupon-size return.

1.4.7 Test Scenarios and Names/Addresses

The Department has developed test scenarios for individual income and ten (10) names and addresses for businesses. These test scenarios can be used for substitute forms seeking final approval.

1.4.8 ID Number Scenarios

We ask the developer to use nine-digit account identification number or social security number to verify the check digit in the scan line is calculating properly. The account identification number / social security number must be varied on all of the examples.

1.4.9 Coupons/Binding Forms

Do not cut the coupons prior to submitting them for approval, as we will cut them ourselves. We still expect coupons to be cut when submitted by taxpayers. We also ask that you not bind any forms when you submit them for approval. Instead of binding the forms, we ask that you use a color sheet to separate the forms.

1.4.10 Grid Layouts (SEE NOTE)

Grid layouts are created for the purpose of updating the forms specifications. They are also available to assist Software Developers with the reproduction of substitute tax forms. The layouts are formatted on 6x10 grids. **All grids should be printed on 8 ½ x 11 paper. When printing make sure the “shrink to fit” option is not selected and page scaling is set to “none”.**

NOTE: If you are a returning vendor from the 2008 forms approval year, use the last approved version for forms with no changes; however, if you are unable to duplicate the approved version from last year, contact the Forms Development & Testing Unit in advance and a new barcode number will be assigned. If you are a **NEW** vendor, use the specifications and grid layouts to reproduce your forms.

1.5 Software Developer Identification Number

A unique two-digit software developer ID number will be assigned to each primary developer; however, alphas are assigned to each secondary developer. The software developers' identification number must be placed in the top left-hand corner or bottom right-hand corner on every published tax form. The primary software developers' identification number must be placed in the proper position within the barcode. Software developers must not produce the State's outline. For example, on the NC-40 print this number as follows:
NC-40 (xx).

NOTE: Software developers producing a blank form and defining the positioning of variable data to sell to other companies who will add the variable data must adhere to the following conditions:

1. All companies being sold a blank form must be informed of this approval process and agree to submit the form with variable data to the Department for approval.
2. The company selling the form must use its Software Developer Identification Number in the barcode.
3. The company buying the blank form must print its Software Developer Identification Number in parentheses after the Form Number on every page of the substitute tax form.
4. The company selling the form must provide the Forms Development & Testing Unit with a complete list, including contact information, of companies purchasing the blank form.

1.6 Scan Band Requirements

A scan band is required on the following forms: CD-401S, CD-405, CD-425, D-400, D-400TC, D-403, D-403TC, D-407, D-407TC and NC-478. Exact positioning is required on the CD-419, CD-V, CD-V Amended, D-400V, D-400V Amended, D-410, D-410G, D-410P, NC-3, NC-3M, NC-5, NC-5A, NC-5X, NC-5P, NC-5PA, NC-5PX and NC-40. All variable information included on scan band forms must be printed in a 12-point Courier font (10 cpi). All text and line geometry on scan band forms must be reproduced.

1.6.1 Row and Column Positioning

Line numbers are based on 66 lines per 11" high paper. Position numbers are based on 85 positions per 8 1/2" wide paper.

1.6.2 Name and Address Requirements in Scan Band

- The name and address information should begin at the left most position allotted for these items. Any position not used must be left blank.
- Punctuation and hyphens **must be omitted** in postal abbreviations.
- Capitalize all alpha characters in variable fields.
- If an area is not applicable in the name and address section, leave the section blank. For example, if the taxpayer is single or married filing separately, leave the area reserved for spouse blank on the D-400.
- Use the following examples to program the first four letters of the taxpayer's last name and the first four characters of the address correctly:

	T/P Last Name	First 4 Address Characters
Ex. 1: Mark Cox, 103 Bland Street	COX	103
Ex. 2: Ella Max-Jones, PO Box 12	MAX-	PO B
Ex. 3: Jo O'Conner, Rural Route 3	O'CO	RR 3
Ex. 4: Ann Bell, 10 North Pass Rd	BELL	10 N

1.7 Barcode Requirements

The Department uses an alphanumeric Code 39 (3 of 9) barcode configuration. The barcode must be centered in the location of the barcode on each page of the Department's published tax form. The barcode must be positioned so it reads from left to right when printed horizontally, top to bottom when printed vertically on the left edge of the form and bottom to top when printed vertically on the right edge of the form.

The barcode contains 10 characters and uses the following format:

- 3 Digits: NCDOR Form Reference Number
- 2 Digits: Page Number (Starting at 01)
- 2 Digits: Software Developer ID Number (Assigned by Department)
- 1 Digit: Remaining 0 unless SD's change the approved form before the Department issues a new edition to its published tax form.
- 2 Digits: Edition Number

The Department requires the barcode be placed in a specific location on the front side of all coupon-size tax forms processed with a scan line. The location of barcodes will differ slightly between substitute tax forms and the Department's published tax form because the size of the barcode used by the Department is smaller than the size of the barcode developed by software developers. On coupon tax forms, the right side of the barcode on substitute tax forms must be placed 2" from the right side of the tax form. The bottom of the barcode on coupon-size substitute tax forms must be located .5" from the bottom of the tax form. On full-size tax forms, place the barcode where it appears on the published tax form.

The numeric value of the barcode must be printed near the barcode, generally on the side of the edge of the tax form. Follow the format used in the published tax form to place the numeric value properly on the form except for the following conditions. On coupon tax forms processed with a scan line, print the barcode number above the barcode. On full-size returns where the barcode is printed vertically, stack the barcode numbers beside the barcode on the side facing the edge of the document. This number must not interfere with the height of the barcode.

Each vendor must produce a barcode to fit the following specifications:

- * The top and bottom of the barcode must be protected by a minimum of .25" clearance (white space). The sides of the barcode must be protected by a minimum of .5" clearance.
- * **The barcode must measure more than 2.1/2" but less than 2.3/4" in length. This does not include clearance space.**
- * The barcode must contain the exact numerical listing for each substitute tax form.
- * The narrow-element bar must be the same width as the narrow-element space.
- * The wide-element bar must be the same width as the wide-element space.
- * The minimum wide-to-narrow ratio is 3:1.

1.8 Formatting Requirements

1.8.1 Font

Software developers must print variable taxpayer data, including the scan line, in capital letters using a 12-point Courier font (10 cpi), not a Courier New font. Italics and underlining will not be accepted. **No other fonts will be approved.** The taxpayer's name and address must be printed in 6 or 8 lines per inch. Variable taxpayer data includes, but is not limited to, the Taxpayer's Name and Address, Filing Date, Due Date, Date Compensation Paid, Account Identification number, SSN, FEIN and all dollar fields. This data must be printed as described in Section 1.9 of this document.

1.8.2 Margin Requirements

Margins on substitute forms must be equal to or greater than the margins on the published tax form with one exception. If a published tax form contains .125" or .25" margin, the substitute tax form must increase its margin to .5" on the bottom and sides of all tax forms. The top margin must be at least .25." Substitute tax forms submitted with margins less than .5" on the bottom and sides and .25" on the top will not be approved.

Refer to Section 1.12 and Section 2.1 for specific scan line requirements.

1.8.3 Form Size

Height:

For full-page tax forms, standard 8.5" x 11" paper must be used. Paper height will vary on coupon-size tax forms.

Width:

All substitute tax forms must measure 8.5" in width.

1.8.4 Paper Specifications

Software developers must inform their customers of the Department's paper requirements.

1.8.4.1 Paper Quality

Use white, unlined bond paper.

1.8.4.2 Paper Weight

Published tax forms are to be printed on 20-pound bond paper.

1.8.4.3 Page Orientation

Use portrait orientation in printing substitute tax forms unless otherwise instructed.

1.8.4.4 Coupon-Size Tax Forms

Coupon-size tax forms must be printed on the bottom of the page to ensure that three sides of the paper have straight edges. Only one coupon-size tax form must be printed per page. Software developers must include instructions for the taxpayer to cut the top of the tax form properly. Software developers must clearly mark the cut line on every page of substitute tax forms to ensure that the substitute tax form is cut to size.

1.8.5 Legibility

The Department reserves the right to reject any substitute tax form with poor legibility. The ink and printing method used must ensure no part of a form develops "smears" or other printing defects lessening print quality.

If a published tax form contains information written in white ink surrounded by black ink, the vendor must reverse the ink color. Print the information in black ink. Do not produce shading on substitute tax forms.

1.8.6 Ink

Black, Non-Magnetic and NON-REFLECTIVE ink/toner must be used on all substitute forms. Dropout ink color will not be accepted.

1.8.7 Dropout Ink

The information printed with dropout ink is used to guide the taxpayer through manual preparation. Do not duplicate amount boxes or text printed by the Department in dropout ink unless otherwise specified.

Note: Do not reproduce the dropout circles used to designate negative numbers. Instead, print a negative sign (-) directly to the left of the amount.

1.8.8 Printer Specifications

The Department requests all substitute tax forms be printed with laser or ink jet printers using single sheet fed paper. Documents printed on a pin-feed printer are not acceptable.

1.8.9 Graphics

The outline of the geographic boundaries of The State of North Carolina, which surround the Form Number in the upper left-hand corner or bottom right-hand corner of a published tax form must not be reproduced.

1.8.10 Line Geometry

Curved lines used in line geometry on substitute tax forms will not be accepted. Design block lines instead of curved lines where applicable.

1.9 Requirements for Variable Data

1.9.1 Variable Printed Data

Print the following data as specified:

In Monetary Fields:

- **Do not print commas to separate numbers within amount fields. Print amount fields continuously. For example, \$1,003,849.00 should be written: 1003849.00.**
- **Print dollar signs (\$) in a 12-point Arial font only on Tax Due lines on substitute tax forms.**
- **Monetary fields must not be left blank, including zero payments and fields not applicable to the taxpayer. Enter 0 on scan band forms and 0.00 on forms without scan bands where .00 is printed on published tax forms.**
- **All dollar amount fields must be right justified.**
- **Leading zeros are not allowed. For example, if \$20.00 is entered into an 8-character field, it should not read: 00020.00. It should read: 20.00.**

In Taxpayer Information Fields:

- Print Social Security Numbers and Federal Identification Numbers without dashes if the fields are separated. For example, SSNs should be written: 123456789; FEINs should be written: 123456789.
- Account IDs do not contain any spaces and should be written: 123456789.
- Print the year using two digits. Print the month and day as two-digit numbers.
- All dates, including Due Dates, Date Quarter End dates and Compensation Paid dates, must use a space to separate the day, month and year. Do not use slashes or dashes to separate dates. For example, June 9, 2001 should be written: 06 09 01.

1.9.2 Variable Data Fields

All variable data fields (line numbers) must be in the same location as on the published form.

1.9.3 Monetary Field Lengths

Software developers must program in the same amount of whole numbers as on the Department's published tax form. For example, if a monetary field length has eight whole numbers on the Department's form, software packages must use eight whole numbers in the amount field.

1.9.4 Requirements for Non-Scannable Coupon Forms

The Department limits the amount of characters that can be printed in name and address fields on non-scannable forms.

Field Lengths for Name:

The developer may create no more than four name and address lines. For business taxes, print a maximum of 35 characters for the taxpayer's legal name on the first line. If the taxpayer's legal name exceeds this length, continue printing the next 35 characters on the second line. If the taxpayer's legal name does not extend to the second line, software developers may include the trade name on the second line.

Field Lengths for Address:

Print a maximum of 35 characters on the address line following the name line(s). Print the city or town, state and zip code on the last line. Print a maximum of 20 characters for the city, single space, print the correct state abbreviation, single space and print either a 5-digit or 9-digit zip code.

Variable Data Requirements:

- Do not use punctuation in the address field except for a dash to separate 9-digit zip codes.
- Do not use periods after abbreviations.
- Do not use a comma between the city and state.
- Capitalize and bold the name and address.
- Print the name and address in a 12-point Courier font.
- The name and address must be left justified.
- The start of the address field must be .5" away from the left edge of the paper.

1.9.5 Abbreviations in Name and Address

Common abbreviations, listing the taxpayer's address, may be used to generate taxpayer information. Refer to the list of Abbreviations for Substitute Tax Forms, located in the [NACTP Tax Form Design Guidelines](#) publication, as a resource to identify acceptable abbreviations often located in an address or tax form acceptable to the Department. Use of the correct state abbreviations in the address is mandatory.

Print the taxpayer's name as it is normally written. Do not remove apostrophes, hyphens or spaces if the taxpayer's name generally contains these marks. Print the name and address information in capital letters. For example:

<u>Taxpayer's Name</u>	<u>NCDOR Name Listing</u>
McAbee	MCABEE
O'Henry	O'HENRY
Ellis-Day	ELLIS-DAY

1.9.6 Signature Area

All taxpayer signatures must be originals and affixed after the form is printed on all published tax forms that include signature lines. The statement under the signature line **MUST** read, "I certify that, to the best of my knowledge, this return is accurate and complete."

1.10 Requirements for Text on Tax Forms

1.10.1 Instructional Text

Purely instructional text may be omitted on substitute tax forms at the Department's discretion. Any text that is not instructional must be included on the substitute tax form. Instructional text must be printed exactly as written by the Department.

1.10.2 Abbreviations in Text

Any page containing a barcode, the abbreviations must match what is shown on the published tax form.

1.10.3 Reference Marks

All reference marks used on published tax forms must be included on substitute tax forms. These reference marks are used to orient the computer to the location of the image being scanned and are used to assist the Department's data entry staff. The Department uses the arrowhead (▶) symbol as its reference mark.

1.10.4 Leading Dots

Do not use leading dots.

1.11 Taxpayer Requirements

1.11.1 Use Of Envelope

Software developers should encourage the use of the North Carolina Department of Revenue's envelope enclosed in the taxpayer's tax booklet. This envelope is coded with a POSTNET (ZIP + 4) barcode for sorting purposes. Use of the envelope will increase the speed the tax forms are processed. If the Department-provided envelope is not available use a standard business envelope.

1.12 Scan Line Requirements

Tax forms requiring a scan line are the CD-419, CD-429, CD-V, CD-V Amended, D-400V, D-400V Amended, D-410, D-410G, D-410P, NC-3, NC-5, NC-5X, NC-5P, NC-5PX, NC-40. The 27-digit scan line **MUST** be printed in a 12-point Courier font (10 cpi).

The scan line, using Modulus 11 to compute the check digits, must be placed on the bottom left-hand corner of the substitute tax form. The scan line must be printed in an absolute row and margin position. It must begin .5" from the left side of the paper. The bottom of the characters must be printed .5" from the bottom of the form. The Department will not approve substitute tax forms with deviations from the scan line requirements.

1.12.1 Producing the Scan Line

The scan line must be written exactly as follows. The 9's represent the variable data and the X's represent the check digit. The 0's will be entered as zeros.

9999X 999999999X 0000000 9999X

Field One: Period and Date

The first two digits represent either the month or quarter of the filing period or due date. The third and fourth numbers represent the last two digits of year. The fifth number is a check digit.

Refer to Section II to determine the correct periods for each tax form and filing frequency.

Field Two: Taxpayer Identification Number

The Taxpayer Identification Number changes with tax type. On Corporate Estimated Tax forms, use the taxpayer's Federal Employer Identification Number to produce this series of numbers. On Individual Estimated Income Tax forms, use the taxpayer's Social Security Number to produce this series of numbers. On Sales and Use Tax and Withholding forms, reproduce the Account ID number in this space. The tenth digit is a check digit.

Note: On Joint NC-40, D-400V, D-400V Amended and D-410 forms, use the Social Security Number of the person who is listed first on the return, not the Social Security Number of the person who is listed as the spouse.

Field Three: Zeros

The next set of seven digits contains only zeros.

Field Four: Function Code

The function code is a number assigned by the Department for use in accounting for tax revenue. Refer to Table Eight in Section II of this document to determine the correct function code and check digit for each tax form.

1.12.2 Calculating the Check Digit

There are five steps to calculating a Modulus 11 check digit.

- Step One:**
- A) Identify numbers used in fields in scan line.
 - B) Identify code numbers.
 - C) Multiply each field by code numbers.

Check digits are included for each section of the scan line in Section II of this document.

Included below are the steps to properly calculate the check digit. To identify code numbers, use the digits from 2 through 7 sequentially from a right to left pattern as follows:

Taxpayer ID Field:

- 1st digit: Multiply by 4
- 2nd digit: Multiply by 3
- 3rd digit: Multiply by 2
- 4th digit: Multiply by 7
- 5th digit: Multiply by 6
- 6th digit: Multiply by 5
- 7th digit: Multiply by 4
- 8th digit: Multiply by 3
- 9th digit: Multiply by 2

Step Two: Add the results from Step One.

Step Three: Divide the result from Step Two by 11 using basic math. Calculate the remainder.
Ex. $23/11=2$ with a remainder of 1.

Step Four: Subtract the remainder from 11 in each field. If no remainder from Step Three results, use zero as the remainder and subtract zero from 11.

Step Five: Use the result of Step Four for each field as the check digit for that field. If the result from Step Four is two digits, use the last digit of the two-digit number as the check digit.

1.12.3 Example of Calculating Check Digits in Field Two

Example One: Joint Individual Estimated Income Tax Return

Bob and Mary Jones file an Individual Estimated Income Tax Form (NC-40) for the due date of September 15, 2002. Bob, who is listed first on the return, enters his Social Security Number as 123456789. His spouse's Social Security Number is 234567890. The function code for this form is 630.

Use the SSN of the person who is listed first on the return, NOT the spouse. Therefore, this scan line should read, 1202X 123456789X 0000000 0630X, with X representing the check digit.

To calculate the check digit in Field Two, follow these steps:

- 1) Multiply sets of field numbers by code numbers.

<u>Field One</u>	<u>Field Two</u>	<u>Field Three</u>	<u>Field Four</u>
1 2 0 2 5 ><1	2 3 4 5 6 7 8 9	X><0000000><0	6 3 0 1>
	x x x x x x x x x		
	4 3 2 7 6 5 4 3 2		
	4 6 6 28 30 30 28 24 18		

- 2) Add totals for Field Two.
Field 2: 4+6+6+28+30+30+28+24+18=**174**
- 3) Divide total for Field Two by 11.
Field 2: 174/11=15 plus a remainder of **9**
- 4) Subtract the remainder for Field Two from 11.
Field 2: 11-9=**2**
- 5) Use the last digit from Step 4 for each field as the check digit for that field.
The second set should read **1234567892**.

Scan line: **12025 1234567892 0000000 06301**

1.13 Software Developer Responsibility

The Department primarily approves forms based upon the form's legibility, the accuracy and quality of the barcode and scan line, the precision of line numbers and required information and margins.

It is the responsibility of the software developer to ensure the accuracy of calculations performed by software programs.

The Department reserves the right to issue revisions to its published tax forms at any time and as frequently as it finds necessary. It is the sole responsibility of the software developer to keep apprised of new editions to tax forms published by the Department. It is the responsibility of the software developer to submit substitute tax forms for approval based upon the requirements listed in the latest edition of this document.

The Department does not authorize software developers to place unapproved forms in their software packages. If an unapproved form is released on a software package, the Department requires you to place a draft banner on the signature lines of all forms reading "**DRAFT FORM, DO NOT FILE.**" This banner must be printed in bold capital letters and in a 14-point font. If a form does not contain a signature line, this banner must be printed at the top of the form. If it is a coupon-size form without a signature line the banner must be printed directly below the cut line at the top of the form. Software developers understand that this banner will enable the Department to readily identify these forms and to reject them.

The software developer must inform its customers of the Department's requirements as listed in this document. It is the software developer's responsibility to instruct customers on using the correct printer, paper weight size, font, font size and ink as required by the Department.

Software developers must provide the exact tax form in their software that they were approved for by NCDOR. Failure to comply will result in tax forms being rejected and returned to the taxpayer.