

# New York State Thruway Authority Supplement to AASHTOWare Project Estimator User's Guide

The AASHTOWare Project Estimator User's Guide is available from NYS DOT's website at: <https://www.dot.ny.gov/main/business-center/trns-port/modules/estimator>.

This document contains guidelines for using AASHTOWare Project Estimator 2.16b on New York State Thruway Authority projects. It is a supplement to the generic Software User's Guide to address New York State Thruway Authority specific use of the product.

**2.2.4 - Getting Estimator Support** - Consultants shall obtain support from the Authority's Project Manager. However, support for New York State Thruway Authority staff will be provided through the Engineering Quality Assurance Unit.

## 2.3.1 Setting Preferences

**Estimator Options, General Tab: Roll Up Item Quantity for Bid History Prices** – The New York State Thruway Authority will use this system management function to total the quantities of an item across groups for use with bid-based pricing. For items with bid history, the same unit price will be displayed for the same item in each group, consistent with current practices.

**3.1.3 Understanding the Difference between Estimate Groups and Catalogs** – For New York State Thruway Authority projects, Groups shall be used to combine items into the various fiscal or engineering shares required for the contract.

**4.2 Updating your Catalogs** - The New York State Thruway Authority configuration does not currently support the “Check for Catalog Updates...” command under the Catalog Tools menu.

**4.3.2 Opening a Catalog** – The New York State Thruway Authority has only one catalog that contains US customary items, **nystaenglishcatalog**. The user should use the “Switch Current Catalog” command from the Catalog Tools menu to activate that catalog before they create an estimate, if any other catalog is active (i.e. NYTNG, training catalog). However, once an estimate is created, the catalog can only be changed by the following method:

To switch to the U. S. Customary Unit catalog:

1. Select the “Estimate Options” command from the Edit menu.
2. Select **nystaenglishcatalog** from the drop-down list for the Catalog field.
3. Click the “OK” button to accept the changes and close the Estimate Options window.
4. Verify the Spec. Year field now shows ‘08’.
5. Select **English** from the drop down list for the Unit System field if it does not already specify “E”.

**4.4.1 Saving Estimates / Using valid file names** - The name of a New York State Thruway Authority AASHTOWare Project Estimator file should be based on the first six characters of the New York State Thruway Authority Project Identification Number (PIN). As the user is instructed to enter these characters in the estimate header's Estimate ID field, the New York State Thruway Authority has configured AASHTOWare Project Estimator to automatically read

that field and display it as the default file name the first time the estimate is saved. The user should accept this default value.

#### **4.6 Verifying an Estimate** – Verifying an estimate **does not** flag the following:

- Lump sum quantities that do not equal 1.
- Dollar and Cent Unit Item prices not equal to \$1.00.
- The same items in different groups and having differing unit prices.
- Data in fields that are not used by New York State Thruway Authority. The following fields should not contain any data:
  - Item Level Supplemental Description
  - Group / Engineering Share level Alternate Code

#### **5.1 Working with the Estimate Header**

**ESTIMATE ID** – The Estimate ID for estimates included in the “Plans, Specification and Estimate” (PS&E) submission shall be the first six characters of the New York State Thruway Authority Project Identification Number (PIN).

**SPEC. YEAR** – The Spec Year is automatically set depending on the catalog currently active and can only be changed by changing that catalog. The 08 spec. year will be used for all contracts. The 08 spec. year item catalog includes approved New York State Department of Transportation Standard Specification book items and New York State Department of Transportation special specification items approved for use at the Thruway Authority, as well as approved Thruway Authority special specification items.

**LETTING DATE** – Use current letting date.

**UNIT SYSTEM** - should have been set automatically when the estimate was created. It is dependent upon the catalog that was active when the estimate was created. The nystaenglishcatalog.cat should automatically set the Unit System to English.

**LATITUDE & LONGITUDE OF MIDPOINT** – For New York State Thruway Authority projects enter the values in Appendix B for the county in which most of the work will be performed. If the project covers an entire Division (e.g. Albany Division Bridge Where and When contract) the values listed under Division-wide should be used. If the project covers the entire state, the values listed under Statewide should be used.

**STATE PROJECT NUMBER (TA #)** - For New York State Thruway Authority projects this field will be populated with the project’s TA Number (e.g. TABS 24-2B), the same to be used in the ESTIMATE DESCRIPTION.

**ESTIMATE DESCRIPTION** - The estimate description field shall begin with the New York State Thruway Authority Letting Number, commonly known as the TA Number (e.g. TABS 24-2B), followed by the Short Description from the Authority’s Capital Program Management System. The entire description should be limited to 60 characters) to ensure that all information is passed to the AASHTOWare Preconstruction Module without error.

**WORK TYPE** – The New York State Thruway Authority work type codes with descriptions are provided in Appendix A.

**HIGHWAY TYPE** – While highway types do not currently affect the prices in Estimator, it is anticipated that they will be used to refine bid history average prices in the future. The code appropriate for most of the project should be selected. The New York State Thruway Authority highway type codes with descriptions are provided in Appendix A.

**URBAN / RURAL TYPE** - While urban/rural types do not currently affect the prices in Estimator, it is anticipated that they will be used to refine bid history average prices in the future. The code appropriate for most of the project should be selected. The New York State Thruway Authority urban/rural type codes with descriptions are provided in Appendix A.

**PRIME SEASON** – The code selected should reflect when construction on the contract will begin in full (i.e. more than just prep work such as clearing and grubbing). The New York State Thruway Authority season codes with descriptions are provided in Appendix A.

**COUNTY** - The County selected should be the county in which most of the work will be performed. Also included are codes for each Thruway Division, which should be used if the project covers an entire Division (e.g. Albany Division Bridge Where and When contracts or Division Wide Pavement Striping Contracts). The County code is used in Estimator to assign the project to a market area for pricing, as prices will vary by market area. New York State Thruway Authority market areas are based upon Division boundaries, used to calculate historical bid price statistics. The New York State Thruway Authority County codes with descriptions are provided in Appendix A.

**DISTRICT** - For New York State Thruway Authority projects, District shall mean the Thruway Division in which the project is located:

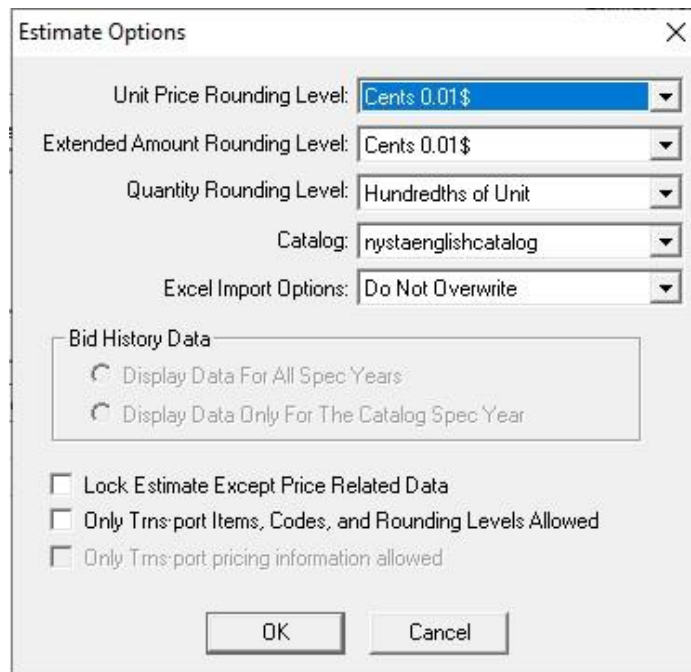
- 21 – New York
- 22 - Albany
- 23 – Syracuse
- 24- Buffalo

**CONTINGENCY %** - The Estimator Contingency Percent field takes the total of all the items in the estimate and adds a percentage which appears as the Estimate Total. The contingency is used to factor in risk or unknowns not taken into account that might affect the estimate. As you approach a final estimate, the contingency should be zero.

The contingency may also be used on New York State Thruway Authority projects to calculate initial mobilization costs. However, in the final estimate the appropriate mobilization items and prices should be included in each group and the contingency set to zero.

**5.1.3 Using the Estimate as a Template** - While a user can create a template, most do not have rights to move it into the Templates folder for others to access. A user should instead work with one of the Estimator System Administrators to have a template posted for general use.

**5.1.4 Setting the Estimate's Options** - To ensure that all estimates are rounded to the same level of accuracy, the default “Estimate Options” settings shown below shall be used for all Estimates.



**Figure 1 - Estimate Options Window**

**Only Trns\*Port items and codes allowed** – This box shall remain unchecked for all estimates to allow users to add items that are not in the New York State Thruway Authority item catalog yet. However, all the items should be approved and in the New York State Thruway Authority catalog before the final estimate is submitted as part of the “Plans, Specification and Estimate” (PS&E) submission.

**5.2 The Groups and All Items Tabs** - For New York State Thruway Authority projects, Groups shall be used to sort items into the various fiscal or engineering Shares required for the contract.

**Group Number** – Groups shall be numbered consecutively in increments of 1 beginning with 0001.

**Alternate Group Code** – Current New York State Thruway Authority business processes do not support the use of the Alt Code field at the group level. This field shall be blank for all estimates submitted as part of the “Plans, Specification and Estimate” (PS&E) submission.

**Group Description** – This description will be provided by the Office of Capital Program Management. It will be a brief description of the fiscal or engineering share and the work to be performed under that share. Utility shares shall include the name of the Utility Company, while local shares shall include the name of the municipality (i.e. Town, County, etc.)

### **5.3 Working with the Estimate Item List**

#### **Unit Prices**

**Lump Sum Items** – The unit price for lump sum items shall be the dollar amount allocated to the group.

**Dollar and Cents Items** – The unit price used for each DC unit item in a group shall be \$1.00.

**For all other item units** - When an item is included in multiple groups, the same unit price shall be used in each group.

## Quantities

**Lump Sum Item Quantities** - The quantity used for each lump sum item in a group shall be 1.00. Although Estimator will allow entry of any value for lump sum quantities, use of values other than 1.00 will cause errors when importing into the AASHTOWare Preconstruction Module.

**Quantity Rounding** – The combined quantity for each item in the estimate shall be rounded to the nearest whole number, unless otherwise provided for in the item specification. In any case, the maximum rounding level allowed for any item shall be one hundredth of a unit.

**Distributing quantities into multiple groups** – When distributing items into multiple groups, the rounding level for the item in each group shall be limited to one hundredth of a unit. For example, a quantity of 1 EACH shall be distributed equally into three groups, as follows:

Group 1 = 0.33

Group 2 = 0.33

Group 3 = 0.34

Total = 1.00 EACH

**Alternate Item Code** - The Alt Code field at the item level is used to identify Alternate bid items.

**Supplemental Description** – New York State Thruway Authority business processes currently require that the Item level Supplemental Description field within Estimator be left blank.

**5.4 Adding Items to Your Estimate** – Users will normally only select items from the New York State Thruway Authority item catalog using the drop-down menus. However, users can manually enter an item number, which has yet to be approved, as a placeholder. However, all placeholders must be replaced by items that have been approved and in the New York State Thruway Authority catalog before the final estimate is submitted as part of the “Plans, Specifications and Estimate” (PS&E) submission.

**5.7.2 Working with Reference Prices** – The New York State Thruway Authority has populated the Reference Price catalog with Dollar and Cents items, as their unit prices should always be \$1.00. The catalog Reference Price will be automatically applied if a user adds that item to an estimate.

**5.7.3 Working with Bid Histories** – Due to the great fluctuation in market prices over the past few years and the relatively small number of occurrences for most items (other than the typical Lump Sum or Each items), it has been decided at this time not to include historical bid price statistics in the Estimator catalogs.

**6.1 Estimate Extra Data** – This option is not currently used by the New York State Thruway Authority.

**6.4 Adding Non-Standard Items to the Estimate** – Users will normally only select items from the New York State Thruway Authority item catalog using the drop-down menus. However, users can manually enter an item number, which has yet to be approved, as a placeholder. However, all placeholders must be replaced by items that have been approved and in the New York State Thruway Authority catalog before the final estimate is submitted as part of the “Plans, Specification and Estimate” (PS&E) submission.

**7. Working with Catalogs and Code Tables** – Not all the catalogs will be used initially by the New York State Thruway Authority. Use of the Bid History, Labor, Material, Equipment and Cost Sheet Catalogs may be phased in over time.

**7.2 The Standard Item Catalog** - The 08 spec. year will be used for all Authority contracts. The 08 spec. year item catalog includes approved New York State Department of Transportation Standard Specification book items and New York State Department of Transportation special specification items also approved for use at the Thruway Authority, as well as approved Thruway Authority special specification Items.

The item catalog will be updated on a regular basis to add recently approved and disapproved specifications. Disapproved items will be removed in the first catalog update after the item’s disapproval date. Users will normally only select items from the New York State Thruway Authority item catalog using the drop-down menus. However, they can manually enter an item number, which has yet to be approved, as a placeholder until the item is approved by the New York State Thruway Authority and the item catalog subsequently updated. However, all placeholders must be replaced by items that have been approved and in the New York State Thruway Authority catalog before the final estimate is submitted as part of the “Plans, Specification and Estimate” (PS&E) submission.

**Required Supplemental Description Indicator** – This indicator should not be checked, as the New York State Thruway Authority does not currently use the Item Level Supplemental Description field.

**7.3.2 Bid History Catalog** – Due to the great fluctuation in market prices over the past few years and the relatively small number of occurrences for most items (other than the typical Lump Sum or Each items), it has been decided at this time not to include historical bid price statistics in the Estimator catalogs.

**7.3.3 Reference Prices Catalog** - The Reference Price Catalog includes all items with units of measure = Dollars and Cents (DC). Additional fixed price items may be added over time.

**8 Importing and Exporting** - Excel spreadsheets are one of many formats that can be exported from or imported into Estimator 2.16b. Minor manual entries will need to be made to correct the project files that are imported from Excel:

1. Enter the proper Estimate ID.
2. Enter the proper Group Description(s).
3. Click on the group names in the tree area to properly re-sequence the groups.

## APPENDIX A - Estimator Code Values

### Work Type Codes

AMIS	Miscellaneous Buildings	BWWC	Bridge Where and When Contract
AROF	Roofing	HCUL	Major Culverts
ASMB	Section Maintenance Buildings	HMIS	Miscellaneous Highway
ASPB	State Police Buildings	HONR	1R Highway Resurfacing
ASSH	Salt Sheds	HPMK	Pavement Markings
AWWT	Wastewater Treatment Plant	HREC	3R Highway Rehab/Reconstruction
BFEN	Bridge Fencing	HSAF	Highway Safety Only
BMIS	Miscellaneous Bridge	HTWR	2R Highway Rehabilitation
BPAI	Bridge Painting	ITS	Intelligent Transportation Systems
BREH	Major Bridge Rehabilitation		
BRPL	Bridge Replacement		
BSRS	Bridge SRSO		
BWAS	Bridge Washing		

### Highway Type Codes

ASPH	Asphalt	CONC	Concrete
COMB	Combination Asphalt & Concrete	NONE	No Highway

### Urban/Rural Codes

R	Rural	U	Urban
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### Prime Season Codes

FALL	Fall (9/22 to 12/22)	SUMM	Summer (6/22 to 9/22)
SPRI	Spring (3/22 to 6/22)	WINT	Winter (12/22 to 3/22)

### County Codes

C01	Albany	C35	Oswego
C05	Cayuga	C37	Putnam
C06	Chautauqua	C38	Rensselaer
C10	Columbia	C39	Rockland
C13	Dutchess	C41	Saratoga
C14	Erie	C42	Schenectady
C18	Genesee	C45	Seneca
C19	Greene	C51	Ulster
C21	Herkimer	C52	Warren
C25	Madison	C53	Washington
C26	Monroe	C54	Wayne
C27	Montgomery	C55	Westchester
C29	Niagara	C61	Bronx
C30	Oneida	D21	New York Division
C31	Onondaga	D22	Albany Division
C32	Ontario	D23	Syracuse Division
C33	Orange	D24	Buffalo Division
C34	Orleans		

**Unit Codes**

ACRE	Acre	INTM	Intersection Month
BAG	Bag	LB	Pound
BF	Board Ft.	LF	Linear Ft.
CDAY	Calendar Day	LS	Lump Sum
CF	Cubic Ft.	MGAL	Thousand Gallons
CW	Calendar Week	MNTH	Month
CY	Cubic Yard	PCNT	Percent
DAY	Day	PDD	Pressure Distributor Day
DC	Dollars and Cents	QU	Quality Unit
EACH	Each	SF	Square Ft.
ELOC	Each Location	SY	Square Yard
F	Feet	TON	Ton
FQU	Quality Unit		
GAL	Gallon		
HOUR	Hour		
INCH	Inch		



## APPENDIX B - Latitude & Longitude for Capital Projects

### County-wide Projects

Albany	Lat: 42°38'00"	Long: 073°47'00"
Cayuga	Lat: 43°02'50"	Long: 076°37'00"
Chautauqua	Lat: 42°24'40"	Long: 079°25'40"
Columbia	Lat: 42°24'20"	Long: 073°31'30"
Dutchess	Lat: 41°32'00"	Long: 073°49'30"
Erie	Lat: 42°49'40"	Long: 078°47'30"
Genesee	Lat: 43°01'10"	Long: 078°11'10"
Greene	Lat: 42°18'30"	Long: 073°52'20"
Herkimer	Lat: 43°00'50"	Long: 074°58'20"
Madison	Lat: 43°05'40"	Long: 075°49'10"
Monroe	Lat: 43°02'30"	Long: 077°41'40"
Montgomery	Lat: 42°55'10"	Long: 074°26'20"
Oneida	Lat: 43°07'30"	Long: 075°24'30"
Onondaga	Lat: 43°07'00"	Long: 076°14'20"
Ontario	Lat: 42°58'40"	Long: 077°13'30"
Orange	Lat: 41°23'00"	Long: 074°06'10"
Putnam	Lat: 41°25'50"	Long: 073°37'50"
Rensselaer	Lat: 42°29'10"	Long: 073°41'50"
Rockland	Lat: 41°06'10"	Long: 074°04'30"
Schenectady	Lat: 42°49'30"	Long: 074°00'50"
Seneca	Lat: 42°58'00"	Long: 076°50'20"
Ulster	Lat: 41°52'50"	Long: 074°03'30"
Westchester – I-87	Lat: 40°59'40"	Long: 073°51'10"
I-287	Lat: 41°01'50"	Long: 073°45'00"
I-95	Lat: 40°57'20"	Long: 073°44'30"
Bronx	Lat: 40°52'50"	Long: 073°50'00"

### Division-wide Projects

Albany	Lat: 42°34'00"	Long: 073°47'00"
Buffalo	Lat: 42°55'00"	Long: 078°46'00"
New York	Lat: 41°08'00"	Long: 074°10'00"
Syracuse	Lat: 43°06'00"	Long: 076°00'00"

**Statewide Projects**                      Lat: 43°10'00"                      Long: 075°40'00"

For projects with work being performed at multiple discrete locations, the Latitude and Longitude for the location with the highest cost work should be reported.