# State Housing Finance Agency Low Income Housing Tax Credit Data Transfer Standard V 4.0

# Data Dictionary FINAL

January 25, 2016

# **Table of Contents**

1.	Change Record	3
2.	Introduction	5
3.	DefaultTypesV4.0.XSD	6
4.	DefaultEventsV4.0.XSD	17
5.	IndustryStandard V4.0.XSD	33

# 1. Change Record

Each change to this document once it is initially approved will be recorded in this Change Control record. All changes made to this document will be reflected here.

Approval Date	Author	Version	Change Reference
	Tim Clark TCG Technologies	1.1	Tim Clark TCG Technologies
06/28/2013	Jose Santin WHEDA (Wisconsin Housing and Economic Development Authority)	3.0	First draft version 3.0 of the XML Data Dictionary.
10/21/2013	Paul Perpich Spectrum Enterprises	3.0	Second draft version 3.0 of the XML Data Dictionary.
11/21/2013	Paul Perpich Spectrum Enterprises	3.0	Final version 3.0 of the XML Data Dictionary and related XSD files.
12/23/2013	Paul Perpich Spectrum Enterprises	3.0	Corrections to the 11/21/2013 Final Version 3.0 documentation:  1)Corrections to the 'RaceType' section of the DefaultEventsV3.0.xsd document to include "NH" - Native Hawaiian/Other Pacific Islander in the 'Accepted Values' section.  2) Correction of a typo error in the 'AHDPAMGIPercentage' type definition in the DefaultTypes3.xsd file.  In the comment section the expected 'AHDPAMGIPercentage' was mislabeled as 'AMGIPercentage'.  3) The re-inclusion of the SubsidyType description in this Data Dictionary Document that was inadvertently removed during the update to version 3.0 process.
4/1/2014	Paul Perpich Spectrum Enterprises	3.0	Publication of all documents related to Version 3.0.

Approval	Author	Version	Change Reference
7/24/2014	Paul Perpich Spectrum Enterprises	3.1	Change the name and type of <i>SubsidyType</i> type to <i>OtherSubsidyType</i> as a standard string type and drop the enumerated list aspect.  Correct all references to "positiveInteger" to "xs:positiveInteger" in the <i>DefaultTypes3.0.xsd</i> file.  Remove the section <i>entitled</i> " <i>SOURCES OF FEDERAL RENT ASSISTANCE</i> " on page 29 of version 3.0 of the this Data Dictionary. The structures and elements described were never implemented in the xsd file(s).  Update this Data Dictionary to reflect the
11/13/2015 DRAFT	Paul Perpich Spectrum Enterprises	4.0	above changes.  1) Addition of new "A" - Asian and "NH" - Native Hawaiian/Other Pacific Islander related race designations. (See pg. 14)  2) Removal of the certain Income Sources from the existing IncomeType enumerated list. (See pg. 13)  3) Minor modifications to descriptions of the Adjustment and InitialCert types in DefaultEvents (See pg. 17)  4) Archiving versions 1.1, 2.0 and 3.0 of the standard along with the document entitled "NAHMA XML Standard Version History (Sept 2015).pdf" that memorializes the files that make up the standard as well as a description of the changes made to each version.  5) Update this Data Dictionary to reflect the above changes  6) Add a section to the Introduction of this document discussing the Standard Update and Work Process as well as the Publication Schedule.
1/25/2016	Paul Perpich Spectrum Enterprises	4.0	Publish Final v4.0 Documents

#### 2. Introduction

The state housing finance agencies, property owners and managers, software providers, and related industry trade associations have developed an XML data transfer standard for compliance reporting for properties participating in the Low Income Housing Tax Credit program. The standard is comprised of three XSD files that work in conjunction with one another.

#### DefaultTypesV4.0.xsd

The file DefaultTypesV4.0.xsd contains all of the data type definitions as well as the definitions for the enumerations. This file can be cloned to produce an agency specific version.

An agency could for example, decide to remove many of the coded elements that are not used in their area. Perhaps add codes for specific needs such as emergency relief.

#### DefaultEventsV4.0.xsd

The file DefaultEventsV4.0.xsd contains the 6 different event structures that correspond to the 6 events (Move In, Move Out, Transfer In, Transfer Out, Recertification, Adjustment, Initial). Each event is tailored so that only the data required for the event is included.

In addition to defining the event types, this file also defines the MemberType, AuxDataType, RaceType and ProgramType. The MemberType is a node structure that defines all of the data pertaining to an individual in the household to include any income sources and assets. The AuxDataType is a flexible and dynamic place for non-compliance related data to be transmitted in the file without breaking the schema validation. The RaceType is a node for each Race that applies for the household member. The collection of Races is required and it must contain between one and 6 of "Race" nodes, inclusive. The ProgramType is a node structure that defines the data pertaining to the program or programs that relate to an event.

#### IndustryStandardV4.0.xsd

The IndustryStandardV4.0.xsd file is the base transmission file. There is a base node of the Project. The project node contains attributes which identify the vendor who created the submission file, the project ID, property name, vendor name, creation date of the file as well as a date range of the events contained within the file. Also within the project is a collection of Buildings with attributes. Each Building contains a collection of Units with attributes. Each Unit contains a collection of Events with attributes. Each type of event and the data it contains is defined in the DefaultEventsV4.0.xsd.

As this standard may be used by a large number of organizations, it required some built in flexibility to allow for individual organizations to collect data unique to a situation or region. To allow for a level of customization by individual agencies, the primary constructs have been added to the separate sub files: DefaultTypesV4.0.xsd and DefaultEventsV4.0.xsd. If needed a separate version of the files can be maintained for each agency.

These are still part of the master specification and changes can still be tracked by the standards body. If it is decided that a particular request should not be included in the master specification a copy of the include files are made and modified to meet the particular need. This new draft will be reviewed, approved and published. Once published each agency has only to utilize the files that relate directly to their own custom, or default values.

#### **Standard Update and Work Process**

The *State HFA-LIHTC Data Transfer Standard*, used for compliance reporting to the state administrative agencies that oversee the Low Income Housing Tax Credit program, is managed by the National Affordable Housing Management Association (NAHMA).

The standards group communicates, works on and publishes updates and final documentation to the standard through the following portals:

1) The Yahoo based *LIHTC Data Transfer Discussion Forum* located at: <a href="https://groups.yahoo.com/neo/groups/LIHTC-Data-Transfer/info">https://groups.yahoo.com/neo/groups/LIHTC-Data-Transfer/info</a>

This forum is used for the publication of working documents and related information as well as requests for updates to the standard. Membership is open to any and all interested parties and the forum is not moderated.

2) NAHMA organized conference calls

Conference calls are hosted by NAHMA and are regularly scheduled for early January and early July every year to start the conversation regarding updates to the standard. Work on the any updates begins after the initial call with any subsequent calls scheduled as needed.

3) Publication of Finalized Version Documents

Finalized documents for each version of the standard are hosted by the *National Multifamily Housing Council (NMHC)* at: <a href="http://www.nmhc.org/MITSApproval.aspx?refid=883">http://www.nmhc.org/MITSApproval.aspx?refid=883</a>

#### **Publication Schedule**

The following schedule is taken directly from the document entitled "Process Outline for Updating the State HFA LIHTC Data Transfer Standard" which was published by NAHMA as part of the originating document set for the standard. It is available at: http://www.nmhc.org/MITSApproval.aspx?refid=883

#### II. Timeline for Review and Implementation of Recommended Revisions

- 1) Recommended revisions may be submitted at any time, and the State HFA LIHTC Data Transfer Standard Work Group will review and discuss the recommendations as they are proposed. The average time required to reach consensus on a recommended revision is one or two months, but this is dependent on the complexity of the recommendation.
- 2) Updates to the standard will be made by the State HFA LIHTC Data Transfer Standard Work Group twice a year, and posted to the MITS website on January 15 and July 15 each year.
- 3) Implementation of the updated standard will be accomplished on a six-month schedule as well, with a target implementation deadline of July 15 for updated standards issued on January 15, and a target implementation deadline of January 15 for updated standards issued on July 15.

For example, for an updated standard posted on January 2007, the target implementation deadline would be July 15, 2007. For an updated standard posted on July 15, 2007, the target implementation deadline would be January 15, 2008.

## 3. DefaultTypesV4.0.XSD

Type Name: ProjectID

Description: This field contains the ID of the project contained in the transmission file.

Data Type: String(50), min length 2

Type Name: PropertyName

Description: This field contains the name of the property contained in the transmission file.

Data Type: String(100), min length 0

Type Name: VendorName

Description: This field contains the Name of the software vendor who created the transmission file.

Data Type: String(50), min length 1

Type Name: BIN

Description: This field contains the Building Identification Number as assigned by the state housing

finance agency.

Data Type: String(20), min length 1

Type Name: StreetAddress

Description: This field contains the street address of the building contained in the transmission file.

Data Type: String(100), min length 2

Type Name: City

Description: This field contains the street address of the property contained in the transmission file.

Data Type: String(50), min length 2

Type Name: StateCode

Description: This field contains a list of the valid state codes.

Data Type: Enumeration of String

"AL" - Alabama "AK" - Alaska "AZ" - Arizona "AR" - Arkansas

"AS" - American Samoa

"CA" - California
"CO" - Colorado
"CT" - Connecticut
"DE" - Delaware

"DC" - District Of Columbia

"FL" - Florida
"GA" - Georgia
"HI" - Hawaii
"ID" - Idaho
"IL" - Illinois
"IN" - Indiana

"IA" - Iowa

"KS" - Kansas

"KY" - Kentucky

"LA" - Louisiana

"ME" - Maine

"MD" - Maryland

"MA" - Massachusetts

"MI" - Michigan

"MN" - Minnesota

"MS" - Mississippi

"MO" - Missouri

"MT" - Montana

"NE" - Nebraska

"NV" - Nevada

"NH" - New Hampshire

"NJ" - New Jersey

"NM" - New Mexico

"NY" - New York

"NC" - North Carolina

"ND" - North Dakota

"OH" - Ohio

"OK" - Oklahoma

"OR" - Oregon

"PA" - Pennsylvania

"PR" - Puerto Rico

"RI" - Rhode Island

"SC" - South Carolina

"SD" - South Dakota

"TN" - Tennessee

"TX" - Texas

"UT" - Utah

"VT" - Vermont

"VI" - Virgin Islands

"VA" - Virginia

"WA" - Washington

"WV" - West Virginia

"WI" - Wisconsin

"WY" - Wyoming

Type Name: PostalCode

Description: This attribute contains the street address of the property contained in the transmission file.

Data Type: String of in the following formats where "x" is a number between 0 and 9:

"xxxxx"

"xxxxxxxxx"

"xxxxx-xxxx"

Type Name: FederalIncomeDesignation

Description: This attribute contains the Federal Project Set-Aside percentage set by project owner(s)

for the building as recorded on IRS form 8609 and contained in the transmission file.

Data Type: OwnerDesignation

Type Name: UnitNumber

Description: This holds the unit number description for the unit. This is the friendly unit number that

appears on the TIC. This should match the unit number that the State Housing Finance

Agency has on file.

Data Type: String(20), min length 1

Type Name: EventType

Description: A list of the valid event types. This field is required for each event.

Data Type: Enumeration of String

"MI" - Move In
"MO" - Move Out
"TI" - Transfer In
"TO" - Transfer Out
"R" - Recertification
"A" - Adjustment
"IC" – Initial

Type Name: Name

Description: Used to hold the FirstName or LastName of the a household member

Data Type: String(50), min length 1

Type Name: Initial

Description: Used to hold the middle initial of the a household member

Data Type: String(1), min length 0

Type Name: SSN

Description: Used to hold the last four(4) digits of the social security number for a household

member. Cannot be blank. If the SSN is unknown, send 0000 do not send 9999.

NOTE, no dashes are accepted, numbers only.

Data Type: String(4) of all decimals between 0 and 9

Type Name: Gender

Description: A list of the valid gender choices.

Data Type: Enumeration of String

"NA" - Not Applicable

"M" - Male "F" - Female

Type Name: Ethnicity

Description: A list of the valid ethnicity choices.

Data Type: Enumeration of String

"H" - Hispanic or Latino
"N" - Not Hispanic or Latino

"TDR" - Tenant Declined to Respond

"MISSING" - Missing

TypeName: isDisabled

Description: A list of the valid disability choices.

Data Type: Enumeration of String

"Y" - Yes "N" - No

"TDR" - Tenant Declined to Respond

"Missing" - Missing

Type Name: MaritalStatus

Description: A list of the valid marital status choices.

Data Type: Enumeration of String

"NA" - Not Applicable

"M" - Married
"S" - Single
"D" - Divorced
"SE" - Separated
"UN" - Unmarried

"UC" - Unmarried Couple

"W" - Widowed

Type Name: UnitType

Description: A list of the valid unit type choices. This is identifying how the unit is being utilized in

conjunction to the event that is being transmitted.

Data Type: Enumeration of String

"LI" - Low Income
"MKT" - Market Rate
"EMP" - Employee Unit

Type Name: StudentCode

Description: A list of the valid student code choices. When a household is comprised of all full-time

students, one of these exception codes need be present in order for the household to

qualify for the Tax Credit program.

Data Type: Enumeration of String

"NA" - Not a household comprised entirely of full-time students

"TANF" - Student household receiving Temporary Assistance for Needy Families

"JTPA" - Student household enrolled in a Job Training Partnership Act program

"MFJT" - Student household in which the members are married and file a joint tax return

"SPWM" - Student household comprised of a single parent with minor children

none of which are claimed on another person's tax return

"FOST" - Student household comprised of a former recipient of foster care

"1530" - Student household during extended use period.

Type Name: Relationship

Description: A list of the valid relationship choices.

Data Type: Enumeration of String

"C" - Child/Dependent
"F" - Foster Child/Adult
"H" - Head of Household

"K" - Co-Head

"L" - Live-In caretaker
"N" - None of the above
"O" - Other family member

"S" - Spouse

"U" - Unborn Child/Anticipated Adoption or Foster

Type Name: AlienRegNbr

Description: Used to hold the alien registration number for a household member. Can be blank.

NOTE, no dashes are accepted, numbers only.

Data Type: A string using the following pattern:

"Axxxxxxxxx" - Where x is '0' through '9'

Type Name: SpecialStatus

Description: A list of the valid special status choices.

Data Type: Enumeration of String

"AL" - Assisted Living
"BI" - Brain Injury

"BW" - Battered Women

"D" - Disabled

"DD" - Developmental Disabled
"DI" - Displaced Individual(s)
"DR" - Drug Dependency

"DV" - Victims of Domestic Violence

"E" - Elderly

"E55" - Elderly 55 and Over "E62" - Elderly 62 and Over "EA" - Elderly Amenities

"ES" - Elderly Set Aside

"F" - Family

"FWH" - Farm Worker Housing

"H" - Handicapped

"HIV" - Aids/HIV Related Illness

"HL" - Homeless "HO" - Hollman

"J" - Joint Custody

"MI" - Mental Illness

"ND" - Not Disabled

"O" - Other

"S" - Fulltime Student

"SR" - Single Room Occupancy

"TP" - Teen Pregnancy/Parenting

"U" - Undesignated

Type Name: AssetType

Description: A list of the valid asset type choices. This identifies what is the type of the asset.

Data Type: Enumeration of String

"CSH" - Cash/Demand Deposit Accounts

"CD" - CDs/Time Deposits
"MKT" - Marketable Securities
"IRA" - IRA/Keogh Account
"RET" - Retirement/Pension Fund
"REL" - Real Estate, Equity

"REL" - Real Estate, Equi "GEM" - Gems/Jewelry

"COL" - Coins/Stamp Collections

"ART" - Art/Antiques

"ATO" - Automobiles - Antique

"LMP" - Lump Sum Receipts (Not Income)

"TRS" - Trust/Available Principal

"OTH" - Other

Type Name: AssetStatus

Description: A list of the valid asset status choices. This identifies how the income of the asset was

determined.

Data Type: Enumeration of String

"C" - Current
"I" - Imputed
"A" - Average

Type Name: AssetVerificationSource

Description: A list of the valid verification source choices. This identifies how the value and income

of the asset was determined.

Data Type: Enumeration of String

"AA" - Accountant's Affidavit

"BA" - Bank's Affidavit

"ES" - Account/Earnings Statement
"MS" - Published Market Standards

"NV" - Not Verified

"O" - Other

"OA" - Owners Affidavit
"QA" - Qualified Appraisal
"TXA" - Bank/Tax Assessment

Type Name: IncomeType

Description: A list of the valid income type choices. This identifies what is the type of the income

being reported.

Data Type: Enumeration of String

"B" - Business (including distributed profits and net income from business)

"CS" - Child Support "F" - Federal Wage

"G" - General Assistance

"I" - Indian Trust
"M" - Military Pay

"N" - Other Non Wage Source (including alimony, unemployment benefits)

"PE" - Pensions (including veterans pensions, military retirement, and income from all other pensions and annuities)

"SI" - Supplemental Security Income (both personnel benefit and state supplements administered by SSA) (SSI)

"SS" - Social Security (both personal and dual entitlements)

"T" - TANF (Temporary Assistance for Needy Families)

"U" - Unemployment

"W" - Non-Federal Wage (including salaries, tips commission bonuses, and other income from employment)

Type Name: IncomeVerificationSource

Description: A list of the valid income verification source choices. This identifies how the income

projection was determined.

Data Type: Enumeration of String

"AS" - Attorney's Statement

"BC" - Copy of Benefits/Payment Check

"BV" - Bank/Trustee Verification
"CPA" - Accountant/CPA Statement
"CS" Check Stubs/Earning Statement

"EV" - Employer Verification

"NV" - Not Verified

"O" - Other

"PA" - Payer/Benefactor Affidavit

"PV" - Benefits Provider Verification

"SS" - Separation/Divorce Settlement

"TXB" - Tax Returns - Business

"TXI" - Tax Returns - Individuals

Type Name: HouseholdType

Description: A list of the valid household type choices. The household type identifies how the

household should be categorized.

Data Type: Enumeration of String

"NA" - Not Applicable

"EL" - Elderly
"FA" - Family
"HO" - Homeless
"RC" - RCAC
"DS" - Displaced
"SN" - Special Needs

Type Name: EmploymentType

Description: A list of the valid employment type choices. For households which have employment

income, this will identify the type of employment that is present.

Data Type: Enumeration of String

"NA" - Not Applicable
"A" - Agriculture
"B" - Business/Office

"FTS" - FT Student, No Special Conditions

"GS" - Government/Public Service

"HM" - Homemaker

"IM" - Industrial/Manufacturing

"NE" - Not Employed

"NS" - Not Skilled/Unskilled

"R" - Retired

"SE" - Self Employed "SS" - Skilled/Specialized

"TP" - Technical/Professional

Type Name: OwnerDesignation

Description: This type is used for reporting the Income Set-Aside and Rental Set-Aside percentages.

Data Type: Decimal, 2 fractional digits, min value of 0.00, max value of 150.00

Type Name: RaceType

Description: A list of the valid race type choices.

Data Type: Enumeration of String

"A" - Asian

"AIND" - Asian Indian
"ACH" - Chinese
"AF" - Filipino
"AJ" - Japanese

"AK" - Korean
"AV" - Vietnamese
"AO" - Asian Other

"AI" - American Indian/Alaskan Native

"B" - Black/African American

"NH" - Native Hawaiian/Other Pacific Islander

"PNH" - Native Hawaiian

"PGC" - Guamanian or Chamarro

"PS" - Samoan

"PO" - Pacific Islander Other

"O" - Other "W" - White

"TDR" - Tenant Declined to Respond

"MISSING" - Missing

Type Name: BinaryDigit

Description: This is used to create a Boolean type

Data Type: Integer, non-negative, max value of 1 inclusive

0 = False1 = True

Type Name: STDDate

Description: Date field which is strongly typed to ensure only valid dates are submitted.

Data Type: String, containing only valid dates in the format MM/DD/YYYY.

Type Name: OptionalDate

Description: Date field which is strongly typed to ensure only valid dates are submitted.

Data Type: String, containing only valid dates in the format MM/DD/YYYY. Can be blank.

Type Name: STDMoney

Description: A type for sending money as a decimal

Data Type: Decimal, 2 fractional digits, minimum value of -1 inclusive

Type Name: integerOpt

Description: Unbound optional integer

Data Type: String of numbers between 0 and 9 without a maximum length.

Type Name: AMGIPercentage

Description: A list of the valid area median gross income percentages

Data Type: Enumeration of String

"1" = 50%
"2" = 60%
"3" = 80%
"4" = OI\*\*

Type Name: AHDPAMGIPercentage

Description: A list of the valid Affordable Housing Disposition Program area median gross

income percentages

Data Type: Enumeration of String

"1" = 50%
"3" = 80%
"4" = OI\*\*

Type Name: yesno

Description: This is used to create a set of valid answers for a question.

Data Type: Enumeration of String

"1" = Yes
"2" = No

"8" = Declined to Respond

"9" = Missing

Type Name: OverIncomePercent

Description: This is used to report the over income percentage at certification.

Data Type: Enumeration of String

"140" = 140% "170" = 170%

Type Name: FederalSubsidyType

Description: A list of the valid federal subsidy type choices. This is identifying what type of federal

subsidy is being received by the household in this event.

Data Type: Enumeration of String

"1" – HUD Multi-Family Project-Based Rental Assistance (PBRA)

"2" – Section 8 Moderate Rehabilitation
"3" – Public Housing Operating Subsidy

"4" – HOME Rental Assistance

"5" – HUD Housing Choice Voucher (HCV), tenant-based

"6" – HUD Project-Based Voucher (PBV)

"7" – USDA Section 521 Rental Assistance Program

"8" – Other Federal Rental Assistance (Same as existing NAHMA type)

Type Name: OtherSubsidyType

Description: This field contains the name of Other Subsidy Types that are Non-Federal.

Data Type: String(100), min length 0

#### 4. DefaultEventsV4.0.XSD

The DefauleEventsV4.0.xsd file defines the each of the event types that are allowed to be transmitted via the standard. Many of the data elements for each of these events are defined in the DefaultTypesV4.0.xsd.

• Include DefaultTypesV4.0.xsd

Name: MoveIn

Description: This complex type is used to report all data associated with a MoveIn event.

Data Type: Complex Type

Name: MoveOut

Description: This complex type is used to report all data associated with a MoveOut event.

Data Type: Complex Type

Name: TransferOut

Description: This complex type is used to report all data associated with a TransferOut event. Unit

transfers are comprised of two events a TransferOut from the old unit and a TransferIn

for the new unit.

Data Type: Complex Type

Name: TransferIn

Description: This complex type is used to report all data associated with a TransferIn event. Unit

transfers are comprised of two events a TransferOut from the old unit and a TransferIn

for the new unit.

Data Type: Complex Type

Name: Recertification

Description: This complex type is used to report all data associated with an Annual Recertification

event.

Data Type: Complex Type

Name: Adjustment

Description: This complex type is used to report all data associated with an event that is not

covered by any other existing event type.

Data Type: Complex Type

Name: InitialCert

Description: This complex type is used to report all data associated with an InitialCert event. Use this

event type for a household which currently resides on the property as a market rate household who is now becoming a tax credit household or is a tax credit household

changing to a market rate household.

Data Type: Complex Type

Name: MoveInDate

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert Description: The date the household moved into the unit for this event.

xml Type: elementData Type: STDDateRequired: yes

Name: LIHTCQualificationDate

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: The most recent qualification date for this event.

xml Type: elementData Type: STDDate

Required: no

Name: HouseholdIncomeAtMostRecentQualificationDate

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: Household income at the time of the most recent LIHTC qualification date.

xml Type: elementData Type: STDMoney

Required: no

Name: HouseholdSizeAtMostRecentQualificationDate

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: Household size at the time of the most recent LIHTC qualification date.

xml Type: element

Data Type: xs:PositiveInteger

Required: no

Name: EffectiveDateofMostRecentIncomeCertification

Category: Initial, MoveIn, TransferIn, Recertification and Adjustment

Description: The effective date of the most recent certification of LIHTC income. This is

populated in an event where income is not actually certified such as a self

certification event.

xml Type: elementData Type: STDDate

Required: no

Name: HouseholdSizeAtMostRecentIncomeCertification

Category: Initial, MoveIn, TransferIn, Recertification and Adjustment

Description: The size of the household on the effective date of the most recent certification of

LIHTC income. This is populated in an event where income is not actually certified

such as a self certification event

xml Type: element
Data Type: integer
Required: no

Name: UnitType

Category: MoveIn, MoveOut, TransferOut, TransferIn, Recertification, Adjustment, InitialCert

Description: Identifies how this unit is being utilized

xml Type: elementData Type: UnitType

Required: yes

Name: NumOccupants

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: How many people are living in the unit – excludes L-live in attendants and

N-None of the above

xml Type: element

Data Type: Positive Integer

Required: yes

Name: MostRestrictiveIncomeDesignation

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: The most restrictive income set-aside percentage that is being applied to the household.

This value may be the same as the FederalIncomeDesignation or a lesser amount.

Use 0 for market rate household

xml Type: element

Data Type: OwnerDesignation

Required: yes

Name: MostRestrictiveRentDesignation

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: The most restrictive rental set-aside percentage that is being applied to the household.

This value may be the same as the FederalIncomeDesignation or a lesser amount.

Use 0 for market rate household

xml Type: element

Data Type: OwnerDesignation

Required: yes

Name: FederalMaxEligibleIncome

Category: Initial, MoveIn, TransferIn, Recertification and Adjustment

Description: Maximum LIHTC income for the household based on household size and the

FederalIncomeDesignation percentage for the household.

xml Type: element
Data Type: STDMoney

Required: yes

Name: FederalMaxEligibleLIHTCRent

Category: Initial, MoveIn, TransferIn, Recertification and Adjustment

Description: Maximum LIHTC rent for the household based on household size and the

FederalIncomeDesignation percentage for the household.

xml Type: elementData Type: STDMoney

Name: MostRestrictiveMaxLIHTCIncome

Category: Initial, MoveIn, TransferIn, Recertification and Adjustment

Description: The LIHTC maximum allowable income for the unit based on an IncomeDesignation

percentage that is lower than the FederalIncomeDesignation.

xml Type: elementData Type: STDMoney

Required: no

Name: MostRestrictiveMaxLIHTCRent

Category: Initial, MoveIn, TransferIn, Recertification and Adjustment

Description: The LIHTC maximum allowable gross rent for the unit based on the number of bedrooms

and an IncomeDesignation percentage that is lower than the FederalIncomeDesignation.

xml Type: elementData Type: STDMoney

Required: no

Name: AnnualIncome

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: The projected annual income for the household for the duration of the compliance period

including income from assets.

xml Type: elementData Type: STDMoney

Required: yes

Name: TenantRent

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert,

Description: The portion of the rent paid by the tenant.

xml Type: elementData Type: STDMoney

Required: yes

Name: UtilityAllowance

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert,

Description: The amount of utilities, for a particular unit, set by a utility allowance schedule which is

published either by HUD, Rural Development or the Public Housing Authority, or a letter

from the utility company which states the rates

xml Type: elementData Type: STDMoney

Required: yes

Name: FederalRentAssistanceAmount

Category: Initial, MoveIn, TransferIn, Recertification and Adjustment

Description: Federal rental subsidy amount

xml Type: elementData Type: STDMoney

Name: SourcesOfFederalRentAssistance

Category: Initial, MoveIn, TransferIn, Recertification and Adjustment

Description: The single program under which the federal subsidy portion of rent is being paid.

xml Type: element

Data Type: FederalSubsidyType

Required: yes

Name: TotalMonthlyRentAssistance

Category: Initial, MoveIn, TransferIn, Recertification and Adjustment
Description: The total amount of both federal and non federal rental assistance.

xml Type: elementData Type: STDMoney

Required: yes

Name: OtherNonFederalRentAssistance

Category: Initial, MoveIn, TransferIn, Recertification and Adjustment

Description: The non federal portion of the rent paid by a third party such as a housing authority.

xml Type: elementData Type: STDMoney

Required: yes

Name: SourceOfOtherNonFederalRentAssistance

Category: Initial, MoveIn, TransferIn, Recertification and Adjustment

Description: The program under which the non-federal subsidy portion of rent is being paid.

xml Type: element

Data Type: OtherSubsidyType

Required: yes

Name: NonOptionalCharges

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert,

Description: The amount of non-optional charges, such as mandatory garage rent, storage lockers,

charges for services provided by the development, etc.

xml Type: elementData Type: STDMoney

Required: yes

Name: MaxLIHTCRent

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert,

Description: The LIHTC maximum allowable gross rent for the unit based on the number of bedrooms

and IncomeDesignation percentage.

xml Type: elementData Type: STDMoney

Name: HouseholdType

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: Household designation

xml Type: element

Data Type: HouseholdType

Required: yes

Name: AllStudentHousehold

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: If all household members are full-time students, set as True. If at least one household

member is not a full time student, set as False.

xml Type: elementData Type: BinaryDigit

Required: yes

Name: StudentUseCode

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: If all household members are full-time students, identify the qualifying exception. Enter

NA for a household which is not comprised of all full-time students.

xml Type: elementData Type: StudentCode

Required: yes

Name: EmploymentType

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: The type of employment worked by the household.

xml Type: element

Data Type: EmploymentType

Required: yes

Name: HeadOfHousehold

Category: MoveIn, MoveOut, TransferOut, TransferIn, Recertification, Adjustment, InitialCert,

Description: The member node for the head of household

xml Type: elementData Type: MemberType

Required: yes

Name: ProgramType

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert, Description: The type of program or programs for which this event is qualified.

xml Type: elementData Type: ProgramType

Name: WagesTotal

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: Total amount of wages for the whole household.

xml Type: elementData Type: STDMoney

Required: no

Name: SocialSecTotal

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: Total amount of social security benefits received by the whole household.

xml Type: elementData Type: STDMoney

Required: no

Name: PublicAssistTotal

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert Description: Total amount of public assistance received by the whole household.

xml Type: elementData Type: STDMoney

Required: no

Name: OtherTotal

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert Description: Total amount of other assistance received by the whole household.

xml Type: elementData Type: STDMoney

Required: no

Name: AssetCashValueTotal

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: Total cash value for all assets for the whole household.

xml Type: elementData Type: STDMoney

Required: no

Name: AnnualAssetIncomeTotal

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert Description: Total amount of other assistance received by the whole household.

xml Type: elementData Type: STDMoney

Required: no

Name: SourcesOfFederalRentAssistance

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: A collection of SourceOfFederalRentAssistance

xml Type: ComplexType

Name: Members

Category: MoveIn, TransferIn, Recertification, Adjustment, InitialCert

Description: A collection of MemberTypes

xml Type: ComplexType

Required: yes

Name: Member

Category: MoveIn:Members, TransferIn:Members, Recertification:Members, Adjustment:Members,

InitialCert:Members

Description: The member nodes for all household members except the head of household.

xml Type: MemberType

Required: no

Name: AuxiliaryData

Category: MoveIn, MoveOut, TransferOut, TransferIn, Recertification, Adjustment, InitialCert,

MemberType

Description: A collection of AuxDataType

xml Type: ComplexType

Required: yes

Name: AuxilData

Category: MoveIn:AuxiliaryData, MoveOut:AuxiliaryData, TransferOut:AuxiliaryData,

TransferIn: Auxiliary Data, Recertification: Auxiliary Data, Adjustment: Auxiliary Data,

InitialCert:AuxiliaryData, :AuxiliaryData, MemberType:AuxiliaryData

Description: Auxiliary data item nodes

xml Type: AuxDataType

Required: no

Name: TransferBIN

Category: TransferOut, TransferIn

Description: TransferOut: The BIN to which the household on this transfer-out event has transferred.

TransferIn: The BIN from which the household on this transfer-in event has transferred.

xml Type: element
Data Type: BIN
Required: yes

Name: TransferUnit

Category: TransferOut, TransferIn

Description: TransferOut: The Unit to which the household on this transfer-out event has transferred.

TransferIn: The Unit from which the household on this transfer-in event has transferred.

xml Type: elementData Type: stringRequired: yes

Name: OldMoveInDate

Category: TransferIn, Recertification, Adjustment, InitialCert

Description: The original move in date for the household for which this event is reporting.

xml Type: elementData Type: STDateRequired: yes

#### MEMBER TYPE

Name: MemberType

Description: This complex type holds a member of the household, all income and asset information

for this person.

xml Type: ComplexType

Name: FirstName Category: MemberType

Description: The first name of the household member.

xml Type:attributeData Type:NameRequired:yes

Name: MiddleInitial Category: MemberType

Description: The initial for the middle name of the household member.

xml Type: attributeData Type: InitialRequired: no

Name: LastName Category: MemberType

Description: The last name of the household member.

xml Type: attributeData Type: NameRequired: yes

Name: SSN

Category: MemberType

Description: The social security number of the household member.

xml Type: attribute
Data Type: SSN
Required: no

Name: AlienRegNbr Category: MemberType

Description: The alien registration number of the household member.

xml Type:attributeData Type:AlienRegNbr

Required: no

Name: Gender Category: MemberType

Description: The gender of the household member.

xml Type: element Data Type: Gender Required: yes Name: Ethnicity Category: MemberType

The ethnicity of the household member. Description:

xml Type: element Data Type: Ethnicity

Required: yes

Name: isDisabled Category: MemberType Description: Disability status.

Xml Type: Element Data Type: isDisabled

Required: yes

Name: DateOfBirth Category: MemberType

Description: The date of birth of the household member.

xml Type: element Data Type: **STDD**ate Required: yes

Name: Age

MemberType Category:

Description: The age of the household member.

xml Type: element

Data Type: positive integer

Required: yes

Name: Relationship Category: MemberType

Description: The relationship of the household member.

xml Type: element Data Type: Relationship

Required: yes

Name: MaritalStatus MemberType Category:

The marital status of the household member. Description:

xml Type: element Data Type: MaritalStatus

Required: yes

Name: **FullTimeStudent** Category: MemberType

Description: The full-time student status of the household member. 1 for full-time, 0 for other

xml Type: element Data Type: **BinaryDigit** 

Name: Incomes Category: MemberType

Description: A collection of "Income" which holds a separate node for each income source for the

household member. The collection is required. The collection may contain zero or more

nodes.

xml Type: complex type

Required: yes

Name: Income

Category: MemberType:Incomes

Description: A node for each income source for the household member.

xml Type: complex type

Required: no

Name: IncomeType

Category: MemberType:Incomes

Description: An attribute which identifies the type of income of this node.

xml Type: attributeData Type: IncomeType

Required: yes

Name: IncomeVerificationSourse Category: MemberType:Incomes

Description: The income verification source indicates how the income information was obtained.

xml Type: element

Data Type: IncomeVerificationSource

Required: yes

Name: Amount

Category: MemberType:Incomes

Description: The annual income amount for this income source.

xml Type: elementData Type: STDMoney

Required: yes

Name: Assets

Category: MemberType

Description: A collection of "Asset" which holds a separate node for each asset for the household

member. The collection is required. The collection may contain zero or more nodes.

xml Type: complex type

Required: yes

Name: Asset

Category: MemberType:Assets

Description: A node for each asset recorded on the TIC for the household member.

xml Type: complex type

Required: no

Name: IncomeType

Category: MemberType: Assets

Description: An attribute which identifies the type of asset of this node.

xml Type: attributeData Type: AssetType

Required: yes

Name: AssetStatus

Category: MemberType: Assets

Description: The element explains how the asset income value was determined: Current income,

imputed calculation or average income calculation.

xml Type: elementData Type: AssetStatus

Required: yes

Name: AssetVerificationSource Category: MemberType: Assets

Description: The asset verification source indicates how the asset information was obtained.

xml Type: element

Data Type: AssetVerificationSource

Required: yes

Name: CashValue

Category: MemberType:Incomes

Description: The computed cash value of the asset.

xml Type: elementData Type: STDMoney

Required: yes

Name: AnnualIncome

Category: MemberType:Incomes

Description: The computed annual income projection of the asset for the next year.

xml Type: elementData Type: STDMoney

Required: yes

Name: SpecialStatuss Category: MemberType

Description: A collection of "SpecialStatus" which holds a separate node for each SpecialStatus for

the household member. SpecialStatus is an enumeration which holds descriptors (elderly, disabled, homeless, etc.) for the applicant. The collection is required, but can contain zero nodes if there are no SpecialStatus codes applied to the household member.

xml Type: complex type

Name: SpecialStatus

Category: MemberType: SpecialStatuss

Description: An individual SpecialStatus element in the collection that apply for the respective

household member.

xml Type: elementData Type: SpecialStatus

Required: no

Name: Races

Category: MemberType

Description: A collection of "Race" which holds a separate node for each Race that applies for the

household member. The collection of Races is required and it must contain between one

and 6 of "Race" nodes, inclusive.

xml Type: complex type

Required: yes

Name: Race

Category: MemberType: Races

Description: An individual Race element in the collection that apply for the household member.

xml Type: elementData Type: RaceType

#### **AUX DATA TYPE**

Name: AuxDataType

Description: The usage of AUX data allows the creator of the XML file to include additional data that

is not part of the standard. Usage of the AUX data should NOT be used for compliance related data. If there is a deficiency in the XML standard, this should be brought to the attention of the standards committee for review. The AUX data is comprised of two elements – a choice of the type of data, and then a string to hold the name of the data

being sent.

xml Type: choice: MoneyData, DataData, StringData, IntData

Name: MoneyData Category: AuxDataType

Description: If the AuxDataType is a money or numeric value with two decimal places value, then use

this element for the choice.

xml Type: elementData Type: STDMoney

Required: no

Name: DateData Category: AuxDataType

Description: If the AuxDataType is a date value, then use this element for the choice.

xml Type: elementData Type: STDDate

Required: no

Name: StringData Category: AuxDataType

Description: If the AuxDataType is a string or text value, then use this element for the choice.

xml Type: elementData Type: stringRequired: no

Name: IntData

Category: AuxDataType

Description: If the AuxDataType is an integer (numeric with no decimal places) value, then use this

element for the choice.

xml Type: elementData Type: integerRequired: no

Name: DataName Category: AuxDataType

Description: When an AuxDataType node is added, the DataName field is required. This is a string

value that holds the name of the data that is being sent.

xml Type: attribute
Data Type: string
Required: yes

#### PROGRAM TYPE

Name: ProgramType

Description: This complex type holds the information about which program or programs for which an

event is qualified.

xml Type: ComplexType

Name: TaxCredit
Category: ProgramType
Description: Tax Credit Program

xml Type: element Data Type: yesno Required: yes

Name: HOME

Category: ProgramType
Description: HOME Program

xml Type: element Data Type: yesno Required: yes

Name: HomeIncomeStatus Category: ProgramType

Description: AMGI Percentage for Home Program Income

xml Type: element

Data Type: AMGIPercentage

Required: yes

Name: TaxExempt Category: ProgramType

Description: Tax Exempt Program

xml Type: element Data Type: yesno Required: yes

Name: TaxExemptIncomeStatus

Category: ProgramType

Description: AMGI Percentage for Tax Exempt Program Income

xml Type: element

Data Type: AMGIPercentage

Required: yes

Name: AHDP

Category: ProgramType
Description: AHDP Program

xml Type: elementData Type: yesnoRequired: yes

Name: AHDPIncomeStatus

Category: ProgramType

Description: AMGI Percentage for AHDP Program Income

xml Type: element

Data Type: AHDPAMGIPercentage

Required: yes

Name: OtherPrograms Category: MemberType

Description: A collection of "OtherProgram" which holds a separate node for each OtherProgram for

the event. OtherProgram is an enumeration which holds descriptors (name of the program,

income status) for the program. The collection is optional.

xml Type: complex type

Required: no

Name: OtherProgram Category: ProgramType

Description: This complex type holds the information about other programs for which an event is

qualified. Can have a maximum of 10 OtherPrograms

xml Type: ComplexType

Required: no

Name: NameOfTheProgram

Category: ProgramType: OtherProgram

Description: Other Program Name

xml Type: element
Data Type: xs:string
Required: yes

Name: IncomeStatus

Category: ProgramType:OtherProgram Description: Other Program Income Status

xml Type: elementData Type: integerOpt

### 5. IndustryStandard V4.0.XSD

The IndustryStandardV4.0.xsd is the document which defines the transmission file to hold all data. This file uses the events defined in the DefaultEventsV4.0.xsd and data elements defined in the DefaultTypesV4.0.xsd. The file will contain a series of events that took place over a date range.

- Include DefaultTypesV4.0.xsd
- Include DefaultEventsV4.0.xsd

This file contains a root node for the Project. A file can only contain one Project. The Project node contains the following attributes.

Name: ProjectID Category: Project

Description: This field contains the ID of the project contained in the transmission file. This will be

assigned to the management company by the respective State Housing Finance Agency.

xml Type: attribute

Data Type: ProjectID type. See DefaultTypesV4.0.xsd.

Required: yes

Name: PropertyName

Category: Project

Description: This field contains the name of the property contained in the transmission file.

xml Type: attribute

Data Type: PropertyName type. See DefaultTypesV4.0.xsd.

Required: no

Name: VendorName

Category: Project

Description: This field contains the name of the software vendor who created the XML transmission

file.

xml Type: attribute

Data Type: VendorName type. See DefaultTypesV4.0.xsd.

Required: yes

Name: CreateDate Category: Project

Description: The date the transmission file was created

xml Type: attribute

Data Type: STDDate type. See DefaultTypesV4.0.xsd.

Name: ReportingStartDate

Category: Project

Description: The beginning date of the date range for the transmission file.

xml Type: attribute

Data Type: STDDate type. See DefaultTypesV4.0.xsd.

Required: yes

Name: ReportingEndDate

Category: Project

Description: The ending date of the date range for the transmission file.

Data Type: STDDate type. See DefaultTypesV4.0.xsd.

Required: yes

There is one data element for the Project node:

Name: Buildings Category: Project

Description: This is a collection of Building types. There can only be one collection of buildings

within the project.

xml Type: Complex TypeData Type: collection

Required: yes

The Buildings has one element, a Building:

Name: Building

Category: Project:Buildings

Description: This is an individual Building within the Buildings collection. There can be multiple

Building nodes within the Buildings collection.

Data Type: Complex Type

Required: yes

A Building has the following attributes:

Name: BIN

Category: Project:Buildings:Building

Description: This holds the Building Identification Number that is assigned to each building from the

State Housing Finance Agency.

xml Type: attribute

Data Type: BIN type. See DefaultTypesV4.0.xsd.

Required: yes

Name: StreetAddress

Category: Project:Buildings:Building

Description: This holds the street address where each building is located.

xml Type: attribute

Data Type: StreetAddress type. See DefaultTypesV4.0.xsd.

Required: no

Name: City

Category: Project:Buildings:Building

Description: This holds the city where each building is located.

xml Type: attribute

Data Type: City type. See DefaultTypesV4.0.xsd.

Required: no

Name: State

Category: Project:Buildings:Building

Description: This holds the state where each building is located.

xml Type: attribute

Data Type: StateCode type. See DefaultTypesV4.0.xsd.

Required: no

Name: PostalCode

Category: Project:Buildings:Building

Description: This holds the postal code where each building is located.

xml Type: attribute

Data Type: PostalCode type. See DefaultTypesV4.0.xsd.

Required: no

Name: FederalIncomeDesignation Category: Project:Buildings:Building

Description: This holds the Federal Project Set-Aside percentage set by project owner(s) for the

building as recorded on IRS form 8609 and contained in the transmission file.

xml Type: attribute

Data Type: OwnerDesignation Type. See DefaultTypesV4.0.xsd.

Required: yes

There is one data element for the Building node:

Name: Units

Category: Project:Buildings:Building

Description: This is a collection of Units. There can be only one Units collection within each

Building. The collection of units will be the units, by building, that have any units to be

reported over this report date range.

Data Type: Complex Type

There is one data element for the Units node:

Name: Unit

Category: Project:Buildings:Building:Units

Description: This is an individual Unit within the Units collection. There can be multiple Unit nodes

within the Units collection.

Data Type: Complex Type

Required: yes

A Unit has the following attributes:

Name: UnitNumber

Category: Project:Buildings:Building:Units

Description: This holds the unit number description for the unit. This is the friendly unit number that

appears on the TIC. This should match the unit number that the State Housing Finance

Agency has on file.

xml Type: attribute

Data Type: UnitNumber type. See DefaultTypesV4.0.xsd.

Required: yes

Name: Bedrooms

Category: Project:Buildings:Building:Units

Description: This holds the number of bedrooms for the unit.

xml Type: attribute

Data Type: xs: integerOpt

Required: no

Name: SqFt

Category: Project:Buildings:Building:Units

Description: This holds the area in square feet for the unit.

xml Type: attribute

Data Type: xs:positiveInteger

Required: no

There is one data element for the Unit node:

Name: Events

Category: Project:Buildings:Building:Units:Unit

Description: This is a collection of Events. There can be only one Events collection within each

Unit. The collection of events will be the events, by unit, by building, that have any

units to be reported over this report date range.

xml Type: Complex Type

Data Type: collection

#### There is one data element for the Events node:

Name: Event

Category: Project:Buildings:Building:Units:Unit:Events

Description: This is an individual Event within the Events collection. There can be multiple Event

nodes within the Events collection.

Data Type: Complex Type

Required: yes

#### An Event has the following attributes:

Name: EventDate

Category: Project:Buildings:Building:Units:Unit:Events:Event
Description: This is the actual date that this compliance event occurred.

xml Type: attribute

Data Type: STDType type. See DefaultTypesV4.0.xsd.

Required: yes

Name: EventType

Category: Project:Buildings:Building:Units:Unit:Events:Event Description: This explains the type of event being reported.

xml Type: attribute

Data Type: EventType type. See DefaultTypesV4.0.xsd.

Required: yes

Name: IsCorrection

Category: Project:Buildings:Building:Units:Unit:Events:Event

Description: This explains the type of event being reported.

xml Type: attribute

Data Type: BinaryDigit type. See DefaultTypesV4.0.xsd.

Required: yes

Name: OriginalEventDate

Category: Project:Buildings:Building:Units:Unit:Events:Event Description: This is the original date that this compliance event

occurred. xml

Type: attribute

Data Type: OptionalDate type. See DefaultTypesV4.0.xsd.

Required: yes

Name: CorrectionEffectiveDate

Category: Project:Buildings:Building:Units:Unit:Events:Event

Description: This is the date when the correction occurred.

xml Type: attribute

Data Type: OptionalDate type. See DefaultTypesV4.0.xsd.