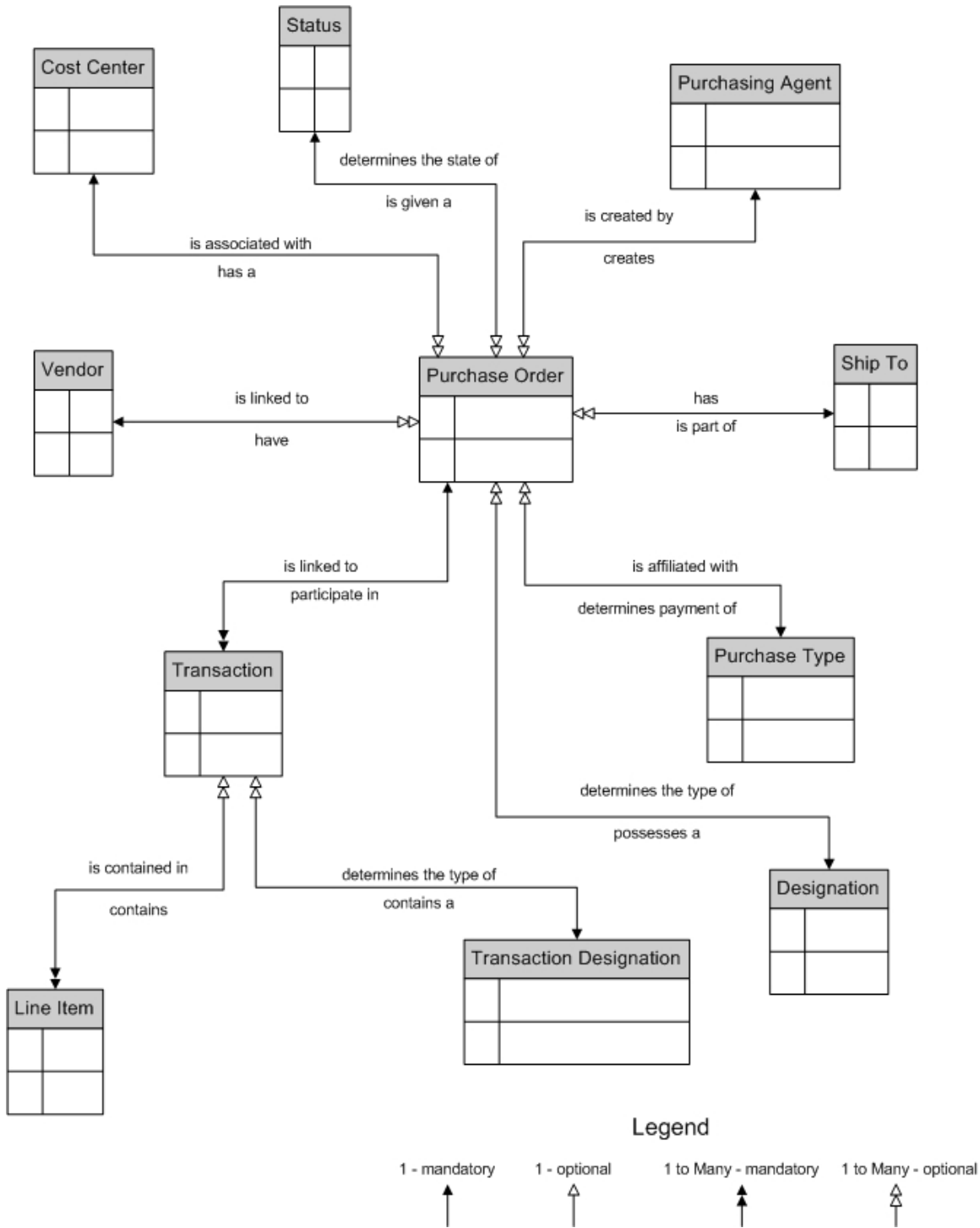


**Version 2 completely replaces the previous version and no changes have been tracked to prevent vast amounts of red ink and clutter.**

Upper Allen Fire Department ER  
Data Model



## Data Dictionary for ER Model

**Key:**

**Entity (blue/bold)**

Attribute (green)

Relationship (red)

<u>Type Name</u>	<u>Type</u>	<u>Description</u>
<b>Cost Center</b>	<b>Entity</b>	<b>Specific account types to which the items on the purchase order are to be charged for tax and other purposes.</b>
CostCenterID	Attribute (PK)	System generated auto-incrementing primary key.
Description	Attribute	A brief description of the cost center in plain English.
is associated with	Relationship	Relates Cost Center to Purchase Order. Each cost center may be related to one or more purchase orders, but only one cost center can be related to any single purchase order.
<b>Purchasing Agent</b>	<b>Entity</b>	<b>Contains the various people who are authorized to create purchase orders. The purchasing agent will be linked to the purchase order for tracking purposes.</b>
PurchasingAgentID	Attribute	System generated auto-incrementing primary key.
PurchasingAgentName	Attribute	Name of the purchasing agent.
Creates	Relationship	Relates Purchasing Agent to Purchase Order. Each purchasing agent may be related to one or more purchase orders, but each purchase order
<b>Vendor</b>	<b>Entity</b>	<b>Contains information about specific vendors so that each purchase order can be linked to a single vendor for ordering and payment convenience.</b>
VendorID	Attribute(PK)	System generated auto-incrementing primary key.
VendorName	Attribute	Name of the vendor.
Address	Attribute	Street address of the vendor.
Address2	Attribute	Street address of the vendor, second line.
City	Attribute	City of the vendor.
State	Attribute	State of the vendor.

Zip	Attribute	Vendor's zip code.
ContactName	Attribute	The name of the vendor's point of contact for service, ordering, etc.
ContactTitle	Attribute	Title of the point of contact
PhoneNumber	Attribute	Vendor's phone number
FaxNumber	Attribute	Vendor's fax number
Memo	Attribute	Any other notes regarding the specific vendor.
Is linked to	Relationship	Relates Vendor to Purchase Order. Each vendor may be linked to one or more purchase orders, but only one vendor can be linked with any single purchase order.
ShipTo	Entity	Contains information about the UAFD as the primary address to which the goods should be shipped (The UAFD will be the primary instance, but the model is designed to be flexible).
ShipToID	Attribute(PK)	System generated auto-incrementing primary key.
CompanyName	Attribute	Brief name identifying in plain English the name of the location to which the goods will be shipped.
Address	Attribute	Street address.
Address2	Attribute	Street address, second line.
City	Attribute	City.
State	Attribute	State.
Zip	Attribute	Zip code.
Country	Attribute	Country.
PhoneNumber	Attribute	Phone number
FaxNumber	Attribute	Fax number.
Is part of	Relationship	Relates ShipTo with Purchase Order. Each ShipTo address may be linked to one or more purchase orders but only one ShipTo instance can be linked to any single purchase order.
Purchase Type	Entity	Contains various purchase methods such as cash, credit, check, etc and is used to track the method of payment for purchases.
PurchaseTypeID	Attribute(PK)	System generated auto-incrementing primary key.
PurchaseTypeName	Attribute	Name of the method by which the goods were purchased. i.e. Cash, Credit Card (because a purchase order number may be accompanying another payment method).
Determines payment of	Relationship	Relates Purchase Type to Purchase Order.

		Each Purchase Type may be linked to one or more purchase orders, but only one Purchase Type can be linked to any single purchase order.
<b>Designation</b>	<b>Entity</b>	<b>Contains the various purchase designations for each purchase order such as training, operations, and administration (or others).</b>
DesignationID	Attribute	System generated auto-incrementing primary key.
Designation	Attribute	Type of designation for purchase orders as stated previously (training, ops, admin).
Determines the type of	Relationship	Relates Designation to Purchase Order. Each designation may be linked to one or more purchase orders, but only one designation can be linked to any single purchase order.
<b>Line Item</b>	<b>Entity</b>	<b>Contains the various line items that can be purchased on purchase orders.</b>
LineItemID	Attribute	System generated auto-incrementing primary key.
LineItemDescription	Attribute	A brief description of the line item. (see Items Purchased below for details concerning the relationship between Line Item and Purchase Order.
Is contained in	Relationship	Relates Line Item to Transaction. A line item may participate in many transactions and each transaction must have at least one line item.
<b>Transaction Designation</b>	<b>Entity</b>	<b>Contains various designations for each line item in the Transaction table. Examples include “Fire Department” and “Relief.”</b>
LIDesignationID	Attribute(PK)	System generated auto-incrementing primary key.
LIDesignation	Attribute	Text description of the designation for each line item in the transaction table.
Determines the type of	Relationship	Relates Transaction Designation to Transaction. Each transaction designation may be a part of one or more transactions, but each transaction can have only one transaction designation.
<b>Transaction</b>	<b>Entity</b>	<b>Table created to serve as a container for purchase order numbers and the line items that are associated with each. Each new line item added to an</b>

		<b>purchase order results in a new instance of transaction.</b>
TransactionID	Attribute(PK)	System generated auto-incrementing primary key.
LineItemID	Attribute(FK)	Foreign key that relates line item id's to a given transaction.
PurchaseOrderID	Attribute(FK)	Foreign key that relates purchase order numbers to a given transaction.
UnitPrice	Attribute	Price per unit of the line item.
UnitsOrdered	Attribute	Number of units ordered of a given line item.
UnitsRecieved	Attribute	Actual number of units received
Designation	Attribute	Designation for each line item.
SubTotal	Attribute	Tracks the unit price multiplied by the units ordered (or units received if we've received the shipment) for each transaction.
Is linked to	Relationship	Relates Transaction to Purchase Order. Each transaction is linked to a single purchase order and each purchase order must have at least one transaction linked to it.
Contains a	Relationship	Relates Transaction to Transaction Description. Each transaction contains a single transaction designation.
Contains	Relationship	Relates Transaction to Line Item. Each transaction must contain a single line item.
<b>Status</b>	<b>Entity</b>	<b>Each purchase order is given a status based on the level of completion.</b>
StatusID	Attribute	System generated auto-incrementing primary key.
Status	Attribute	Text description of the status of the purchase order. Examples include "Waiting for Invoice" and "Complete."
Determines the state of	Relationship	Relates Status to Purchase Order. Each individual status can be linked to one or more purchase orders and each purchase order must be linked to only one status.
<b>Purchase Order</b>	<b>Entity</b>	<b>Container bringing together information from all other entities to form a complete purchase order.</b>
PurchaseOrderNumber	Attribute(PK)	Number that uniquely identifies each purchase order. Auto-incrementing on a basis yet to be determined.
Date	Attribute	Date that the purchase order was issued.

Notes	Attribute	Additional notes on each purchase order.
VendorID	Attribute(FK)	Foreign key linking a single purchase order to a specific vendor.
ShipTo	Attribute(FK)	Foreign key linking a single purchase order to a ShipTo address.
CostCenterID	Attribute(FK)	Foreign Key linking purchase order to a single Cost Center instance.
PurchasingAgentName	Attribute(FK)	Foreign Key linking purchase order to a single Purchasing Agent instance.
DesignationTypeID	Attribute(FK)	Foreign Key linking a purchase order to a single Designation instance.
PurchaseTypeID	Attribute(FK)	Foreign Key linking purchase order to a single Purchase Type instance.
Total	Attribute	Total price to be paid for the entire purchase order.
PurchasingAgentName	Attribute(FK)	Name of the purchasing agent.
FreightCharge	Attribute	Extra charges for shipping
Status	Attribute(FK)	Foreign key linking purchase order to status. Indicates the status of the current purchase order.
IsVoid	Attribute	Boolean value to indicate whether the purchase order should be marked as void.
Have	Relationship	Relates Purchase Order to Vendor. Each purchase order is linked to one and only one vendor.
Has	Relationship	Relates Purchase Order to ShipTo. Each purchase order has a single ShipTo address.
Has a	Relationship	Relates Purchase Order to Cost Center. Each purchase order must be linked to a single cost center.
is created by	Relationship	Relates Purchase Order to Purchasing Agent. Each purchase order must be linked to a single purchasing agent.
is affiliated with	Relationship	Relates Purchase Order to Purchase Type. Each purchase order is linked to a single purchase type.
Participates in	Relationship	Relates Purchase Order to Transaction. Each purchase order participates in one to many transactions.
Is given a	Relationship	Relates Purchase Order to Status. Each purchase order is given one and only one status.
Possesses a	Relationship	Relates Purchase Order to Description. Each purchase order possesses one and only one description.

