

DoD Business Process Reengineering
CONSTRUCTION IN PROGRESS
REQUIREMENTS DOCUMENT



Office of the Deputy Undersecretary of Defense
(Installations & Environment)
Business Enterprise Integration Directorate

Domain Governance Board Approved

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Executive Summary

Construction in Progress (CIP) is an accounting term referring to the temporary classification of assets under construction. This document is a continuation of the effort to modernize DoD business processes and specifically addresses construction in progress (CIP). It describes the reengineered standard processes, the data elements, and the business rules required for the creation, addition, and relief of costs associated with CIP activities. The processes, data elements, and business rules were generated during the collaborative business process reengineering (BPR) effort held from March to July 2006, employing a team of representatives from the Components and from the Office of the Deputy Under Secretary of Defense (Installations & Environment). The processes, data elements, and business rules identified in this document was included in the Business Enterprise Architecture (BEA) version 4.0, released September 30, 2006. Inclusion in the BEA compels the Military Services and Defense Agencies to comply with these requirements in their systems and processes.

A CIP account balance represents the accumulation of costs incurred by a real property asset during construction. Once construction is complete, the costs accumulated in the CIP account must be transferred to the appropriate asset account to be used as the initial acquisition cost of the asset. A recurring problem in DoD financial reporting has been the Department's inability to accurately track, report, and transfer CIP account balances. Account balances not properly transferred distort financial records and result in erroneous financial statements.

In accordance with the Secretary's vision of a DoD with transformed business practices, the objective of this BPR effort is to achieve real-time, enterprise-wide visibility of DoD's assets under construction. This will provide Congress, property managers, and financial managers with meaningful and reliable construction cost information.

Purpose

Without accurate and timely financial information, it is not possible to accomplish the President's agenda to secure the best performance and highest measure of accountability for the American people.

The President's Management Agenda

The purpose of this document is to establish sustainable business processes and management controls to improve the reliability and accuracy of CIP cost information and to enhance DoD Components' auditability and access to CIP information.

The requirements and business rules in this document, once implemented, will foster accurate, reliable, and consistent reporting of DoD investments in construction projects to Congress, project and financial managers, and other communities of interest. They will contribute to the achievement of clean audit opinions. This initiative directly supports the President's Management Agenda (PMA) by improving the integration of financial management and business operations.

Background

The Deputy Under Secretary of Defense for Installations and Environment (DUSD(I&E)), among other responsibilities, represents the Department's interests in real property asset management. DoD is the world's largest real property owner, with more than 571,000 facilities (buildings, structures, and utilities) distributed among 3,731 sites on nearly 29.7 million acres worldwide. The replacement value of these assets is estimated to be greater than \$653 billion.¹ The scope and variety of these assets is unmatched by any other government or private enterprise entity.

Accurate, reliable, and timely real property asset data is fundamental to the effective administration, management, forecasting, and financial reporting of the assets and to the ultimate success of military missions. DoD has an increasing need for reliable data across functional areas and business requirements. This data provides vital real property asset information to DoD decision makers.

In November 2003, DUSD(I&E) initiated a BPR effort to address DoD's real property inventory processes. This initiative concentrated on defining the requirements for managing DoD's inventory to meet business enterprise needs and regulatory requirements. Existing real property processes, business rules, and data models were scrutinized and reengineered, resulting in a comprehensive *Real Property Inventory Requirements (RPIR)* document. In January 2005, the *RPIR* document was approved by the I&E Domain Governance Board. The *RPIR* document is the basis for modernized real property inventory life cycle business processes that will meet the Department's current and future requirements for asset accountability and valuation. The *RPIR* is published and available on the DUSD(I&E) Web site, in the Business Enterprise Integration (BEI) Directorate library, at <http://www.acq.osd.mil/ie/bei/library.htm>.

From January through June 2005, the Real Property Acceptance (RPA) BPR was conducted to standardize processes, data elements, and business rules required for the acceptance of real property into the DoD inventory by all Components using any acquisition method. Where the *RPIR* addressed real property accountability over the life cycle of an asset, the RPA BPR was the validation of the entire transfer and acceptance process as reflected in the Unified Facilities Criteria (UFC) 1-300-08, *Criteria for Transfer and Acceptance of Military Real Property*. During this collaborative review, it was determined that acceptance applies not only to transfer but to all acquisition methods and that, since the process for CIP is so different, it should be addressed in a separate BPR. Consequently, the DUSD(I&E) BEI directorate (formerly the Business Transformation directorate) partnered with the Military Services, Defense Agencies, Washington Headquarters Services (WHS), and other DoD core business mission areas (CBMAs) to transform CIP processes.

CIP is a temporary classification of assets under construction. The costs of new construction and capital improvements are accumulated in a CIP account while the asset is under construction. CIP accounts include all costs incurred to bring the real property asset to a form and condition suitable for its intended use. The sum of the individual costs in the CIP account will determine the total cost of the asset that is then recorded in the appropriate Property Plant and Equipment (PP&E) general ledger account.

¹ *Real Property Inventory Fact Sheet*, data as of 30 September 2005, included in the *FY06 Base Structure Report*, February 28, 2006.

Problem Statement

DoD's current processes to track and report CIP do not provide sufficient management visibility into CIP costs and do not fully comply with federal financial management requirements. Furthermore, the Military Services and Defense Agencies do not have consistent access to construction project data managed by their construction agents.

CIP costs may be tracked manually and reported directly to the Defense Finance and Accounting Service (DFAS) for preparation of the financial statements. This way of reporting CIP costs does not provide the capability to trace reported costs back to the original transaction, thereby satisfying audit trail requirements. Finally, current policies and guidance related to accounting for CIP costs are not consistently applied, including accounting for certain costs that result in the creation of a capital asset in the CIP account.

DoD Inspector General (IG) audit report, *Accuracy of the FY 1999 Additions, Deletions, and Modifications to the Military Departments' Real Property Databases*, August 11, 2000, identified the following deficiencies in CIP accounting:

- Internal controls were not adequate to ensure that completed real property projects were transferred from the CIP account to real property accounts promptly and in the proper amount.
- CIP values reported on the financial statements could not be reconciled with ongoing projects because of inadequate or missing supporting documentation.
- The full cost of a completed project could not be easily reported. Project managers responsible for ensuring that the final project cost included both design and construction costs lacked a method or device to link the engineering and design costs over several years to the construction funds.
- Military Services were not consistent in defining when completed projects should be recorded in the real property databases.²

² Report No.D-2000-172, *Accuracy of the FY 1999 Additions, Deletions, and Modifications to the Military Departments' Real Property Databases*, Department of Defense Office of the Inspector General, August 11, 2000.

The DoD IG reiterated this in *Report on Internal Controls Related to Department of Defense Real Property*, April 6, 2006:

- Real property personnel did not record transactions accurately or timely, retain supporting documentation, perform inventories, or reconcile the CIP and real property accounts. As a result, the Military Departments' real property databases were inaccurate, thus leading to a lack of internal control over transactions reported in the financial statements.³

³ Report No.D-2006-072, *Internal Controls Related to Department of Defense Real Property*. Department of Defense Office of Inspector General, April 6, 2006

Scope

The scope of the CIP BPR was to address the deficiencies associated with financial management, asset accountability, and auditability of real property assets under construction. The BPR working group identified and prioritized deficiencies in the CIP process. These deficiencies relate to data, processes, business rules, or policy, and correlate to DoD IG findings discussed previously in the *Problem Statement* section of this document.

For deficiencies relating to data or process, a CIP draft process model was developed. Sub-process threads relating to the deficiencies were decomposed to expose and address the root causes of the deficiencies. For deficiencies related to business rules or policy, the BPR working group developed controls, business rules, and policy recommendations to address the sources of the deficiencies.

Several construction scenarios were analyzed, each having their processes more precisely defined. The BPR working group developed and documented the internal controls, processes, business rules, data, and supporting documentation needed to track, account for, and report real property under construction for each scenario.

Workshop methodology:

- Develop a “To-Be” process in terms of requirements and feasibility.
- Identify data and sources of data necessary to affect CIP cost accountability. To fully identify the data, the working group developed data elements, definitions, and associated business rules.
- Identify specific auditable documentation generated during planning, design, and construction phases of a project.
- Identify roles and responsibilities to maintain auditable supporting documentation at the transaction level and to record and report CIP values.

Summary of Results

The BPR working group defined the events that trigger the creation of a CIP account and the alignment of the CIP account to the Real Property Unique Identifier (RPUID)⁴ to enable accounting for the full cost of the asset, traceability, and visibility over construction costs. The RPUID links the design and construction costs accumulated in the CIP account to a specific real property asset.

In addition, the BPR working group:

- Identified triggering events for creating, updating, and relieving the CIP and or Work in Progress (WIP)⁵ account and transferring the cost of specific RPUIDs to the appropriate PP&E general ledger account. This enables timely recording and capitalization of the asset and eliminates duplicate or erroneous reporting (**Appendix E-1**).
- Determined the minimum information needed to track CIP to include project, RPUID, funding source, and organization. This enables the accurate recording of CIP values on financial statements and reporting of CIP values to Congress (**Appendix E-1**).
- Established management controls throughout the process to enable accountability and efficient management of construction investments (**Appendix E-2**).
- Defined supporting documentation and identified roles and responsibilities for recording, reporting, and maintaining CIP accounts (**Appendix E-3**).

The process models and data elements developed during this BPR are included at **Appendix B**. The corresponding data model and business rules are included at **Appendices C and D**, respectively. Key terms represented in this document are defined in **Appendix F**.

The processes and data elements identified during this BPR will be included in the DoD Business Enterprise Architecture (BEA) Version 4.0, scheduled to be released September 30, 2006.

Policy Revision Recommendations

The BPR working group will recommend several policy changes that will enable the implementation of the “To-Be” environment:

- DoD FMR Volume 4, Chapter 6, *Accounting Policy and Procedures: Property, Plant and Equipment*, should be updated to include the business rules and process characteristics established by this initiative.
- DoD FMR Volume 3, Chapter 17, *Accounting for Military Construction Projects*, should be also be updated to include the business rules and process characteristics established by this initiative.

⁴ The Real Property Unique Identifier (RPUID) is defined in Appendix F.

⁵ The differences between CIP and WIP are defined in Appendix F.

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- New contracts issued by DoD Components will require upon contract award that the contractor to provide the government with the estimated cost of each RPUID, based on the contract amount. This information will be required to provide the government with a basis to establish and organize CIP accounts, and to map them to RPUIDs.
 - Contracts issued by DoD Components must distinguish the procurement of personal property from real property.
 - Unified Facilities Criteria (UFC) 1-300-08, *Criteria for Transfer and Acceptance of Military Real Property*, should be updated to indicate the appropriate auditable supporting documentation and the respective roles and responsibilities for stewardship of supporting documentation to include electronic submission and retention of documents.
 - UFC 1-300-08 should also include the definition of Supervision, Inspection, and Overhead (SIOH), as developed by the BPR working group.

The “To-Be” Environment

The “To-Be” environment described below is a synopsis of the reengineered business processes, logical data model, and business rules developed during the BPR. Roles and responsibilities in the “To-Be” environment are identified in the Roles and Responsibilities table on page 35.

A CIP account will be created when either of the following triggering events occurs: (1) work order and funding authorizations are received for an in-house minor construction project, or (2) design and fund authorizations are received for construction projects performed by an agent. Either of these triggering events could affect work to be completed on an existing facility or a new construction project. A Service-unique project number will be assigned by the Component to each approved real property construction project. At least one RPUID will be assigned or obtained by the real property accountable Component⁶ when the CIP account is created. CIP costs will be tracked by both the Service-unique project number and the RPUID to ensure visibility, traceability, and accountability.

A project may include one or more real property assets and corresponding RPUIDs. All costs to be capitalized for a construction project will be accumulated in the CIP account. A CIP account may be linked to multiple RPUIDs to provide traceability for all construction costs incurred. A reasonable allocation methodology should be established to assign project costs incurred to RPUIDs. To achieve this objective, upon contract award and modifications, if material, the contractor shall be required to provide the government with the estimated cost of each RPUID based on the contract amount. This information will be required to provide the government with a basis to establish, organize, and map CIP accounts to RPUIDs. As costs are incurred and accumulated in the CIP account, the costs shall be prorated across all of the RPUIDs in accordance with the cost distribution established. Thus, the full cost of real property assets can be adequately captured and reported. While this requirement does not alter the structure of contract solicitations, contract line (CLIN) structures, and the structuring of construction invoices from the contractor, it will standardize the practice of when and how costs are allocated to RPUIDs.

⁶ “Real property accountable Component” is defined in Appendix F.

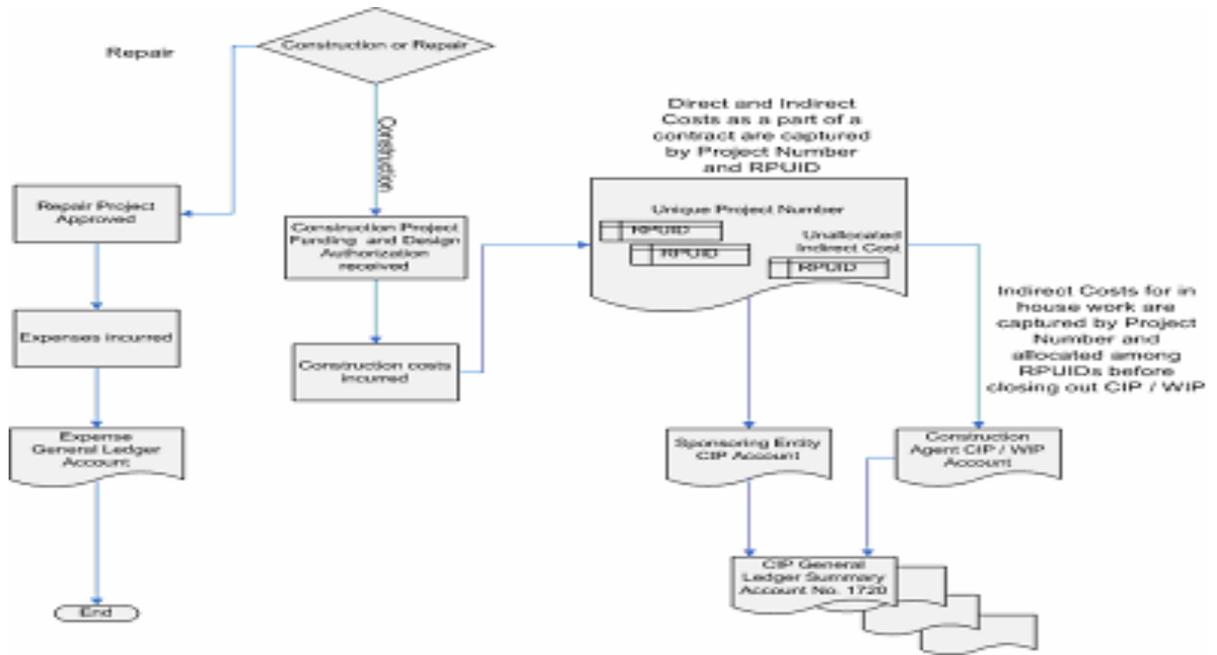


Figure 1: Relationships among a construction project, Real Property Unique Identifiers and CIP accounts

Work Classification & Accounting Procedures	
10USC	Generally Accepted Accounting Principles
Work classification	Type of expenditures
1. Repair	1. Expensed
A project to restore a real property facility, system, or component to such a condition that it may effectively be used for its designated functional purpose	Ordinary Repair and Maintenance; Maintenance - The act of keeping fixed assets in useable condition. It includes preventive maintenance, normal repairs, replacement of parts and structural components, and other activities needed to preserve the asset so that it continues to provide acceptable services and achieves its expected life. Maintenance excludes activities aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from, or significantly greater than, those originally intended.
2. Construction	2. Capitalized
A military construction project includes all military construction work, or any contribution authorized by this chapter, necessary to produce a complete and usable facility or a complete and usable improvement to an existing facility (or to produce such portion of a complete and usable facility or improvement as is specifically authorized by law).	Additions •Extensions, enlargements, or expansions made to an existing facility Betterment •Replace a component of an asset with a different type of component having superior performance capabilities •Extends the useful life of existing general PP&E

The CIP account is relieved when the assets are placed in service.⁷ Additional costs accumulated in the CIP account after the assets are placed in service will be relieved at the final acceptance of the assets. The reengineered business processes, logical data model, and business rules developed during the CIP BPR, when implemented by the Components, will

⁷ Placed in service: For a full discussion on “placed in service,” refer to the *Real Property Inventory Requirements* document, January 2005 at <http://www.acq.osd.mil/ie/bei/library.htm>. The definition for “placed in service” is provided in Appendix F.

provide the capability to properly account for and report DoD's investments in construction and capital improvement projects.

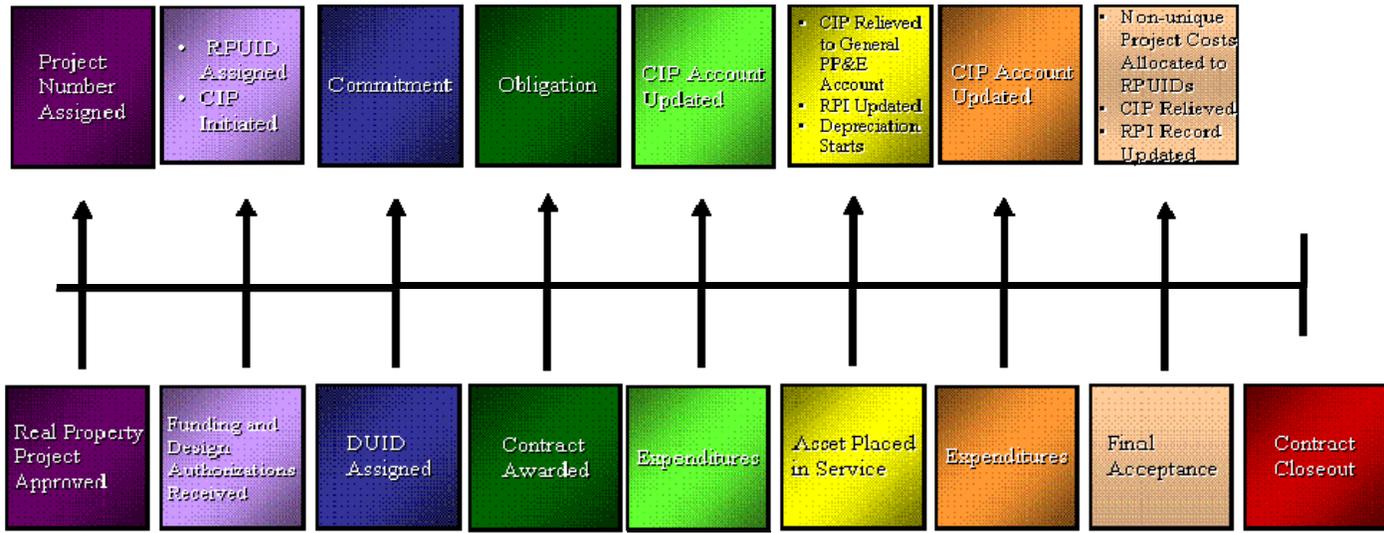


Figure 2: Key events in the CIP process.⁸

⁸ The definition for Demand UID (DUID) can be found in Appendix C, page 28.

Appendix A: Regulatory Requirements

The following regulatory requirements define the standards for recognition, measurement, and reporting of CIP costs.

Federal Accounting Standards Advisory Board (FASAB)

Statement of Federal Financial Accounting Standard No. 6 (SFFAS -6)

All general PP&E shall be recorded at cost. Cost shall include all costs incurred to bring the PP&E to a form and location suitable for its intended use. For example, the cost of acquiring property, plant, and equipment may include the following:

- Amounts paid to vendors
- Transportation charges to the point of initial use
- Handling and storage costs
- Labor and other direct or indirect production costs (for assets produced or constructed)
- Engineering, architectural, and other outside services for designs, plans, specifications, and surveys
- Acquisition and preparation costs of buildings and other facilities
- Appropriate share of the cost of the equipment and facilities used in construction work
- Fixed equipment and related installation costs required for activities in a building or facility
- Direct costs of inspection, supervision, and administration of construction contracts and construction work
- Legal fees, recording fees, and damage claims
- Fair market value of facilities and equipment donated to the government
- Material amounts of interest costs paid

PP&E shall be recognized when title passes to the acquiring entity, or when the PP&E is delivered to the entity or to an agent of the entity. In the case of constructed PP&E, the PP&E shall be recorded as *construction work in progress* until it is placed in service. At that time, the balance shall be transferred to the general PP&E account.

10 USC §2802 - Military Construction Projects

10 USC §2802 requires the Secretary of Defense to report monthly on its construction projects including:

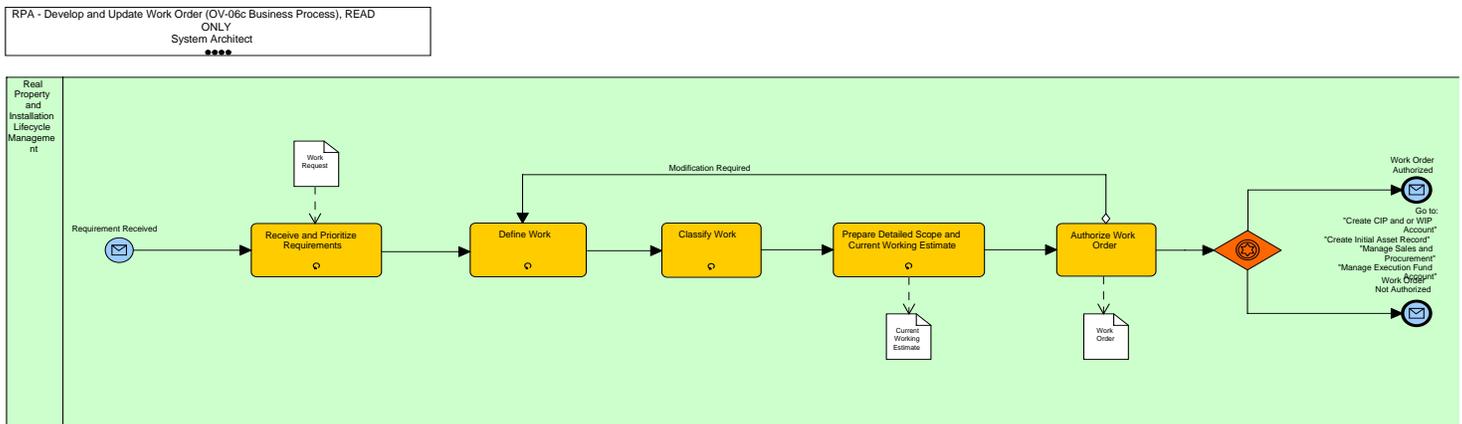
- Project progress, including the percentage of the project currently completed
- Current contract obligation of funds for the project
- Estimated final project cost
- For accounts such as Planning and Design and Unspecified Minor Construction, detailed information regarding expenditure (by project)

Appendix B: Business Process Model (OV-6c)

CIP life cycle business processes are illustrated and defined in the process model (OV-6c).

Real Property Accountability (RPA) – Develop and Update Work Order

The *Develop and Update Work Order* process group is triggered by the start event *Requirement Received*, indicating that a work order requirement has been received and is ready to be prioritized using the *Receive and Prioritize Requirements* process. This process receives all work request parameters through the *Work Request* data object. Once prioritized, the work is further defined through the *Define Work* process, classified by the *Classify Work* process, and a scope and working estimate is developed by the *Prepare Detailed Scope and Current Working Estimate* process, resulting in the development of a current working estimate.



The resulting transaction within this process decomposition group is the authorization of the work order, which is conducted through the *Authorize Work Order* process. The result of this process step is either a modification of the work to be performed (which is represented by the decision flow from the *Authorize Work Order* process back to the *Define Work* process), an authorized and funded work order (represented by the link event *Work Order Authorized* that creates a CIP or WIP account), or an initial asset record that flows to the *Manage Sales and Procurement*, and *Manage Execution Fund* processes. If the work order is not approved or funded, the process ends with the *Work Order Not Approved* event. The two tables below provide a depiction of the data objects flowing into and out of the *Develop and Updated Work Order* process group. It also lists the data elements associated with the respective data objects.

Objects **flowing into** the *Develop and Updated Work Order* process group:

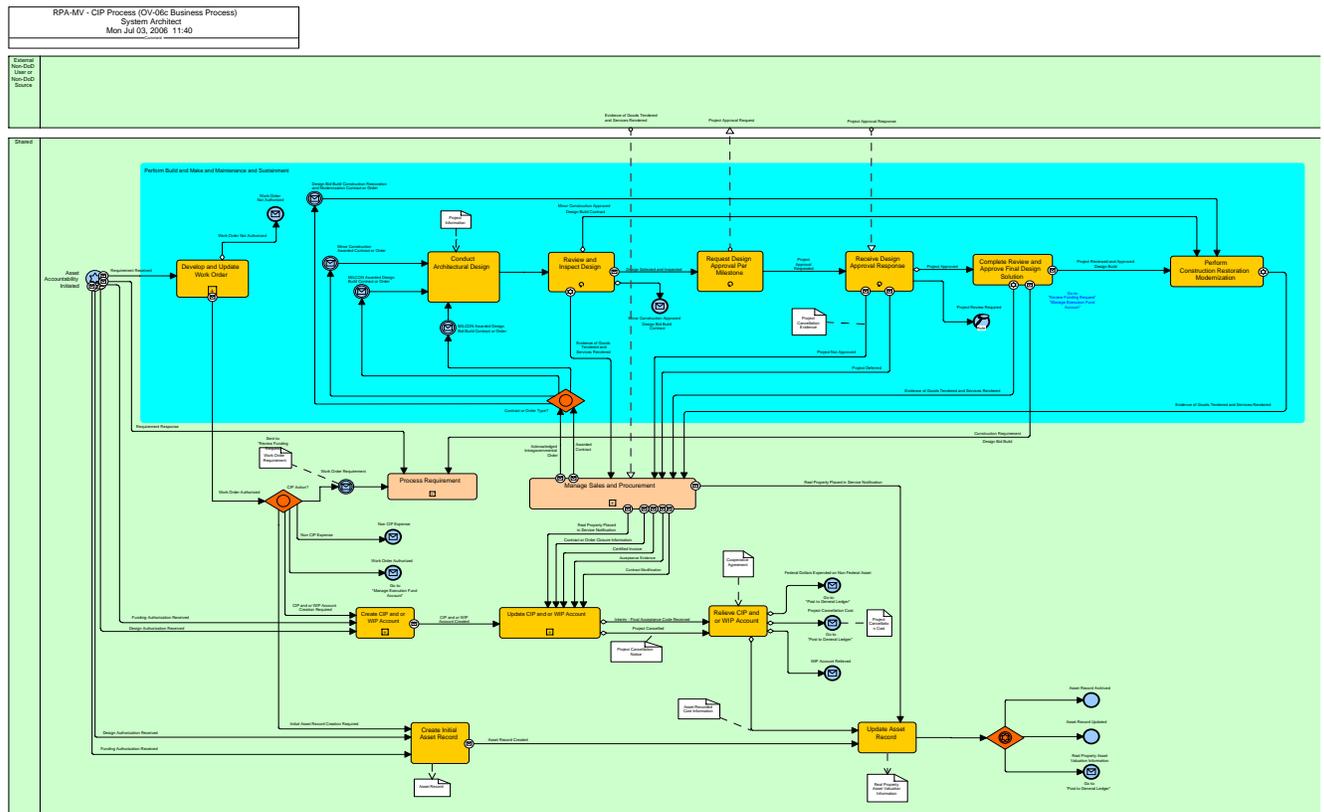
<i>Process Group</i>	<i>Data Object</i>	<i>Associated Data Elements</i>
Develop and Update Work Order	Work Request	Current Working Estimate, Current Working Estimate Date, Real Property Unique Identifier, Site Name, Target Asset Owner, Work Classification Code, Work Description Text, Work Order Authorization Date, Work Order Number

Objects **flowing out** of the *Develop and Updated Work Order* process group:

<i>Process Group</i>	<i>Data Object</i>	<i>Associated Data Elements</i>
Develop and Update Work Order	Current Working Estimate	Current Working Estimate, Current Working Estimate Date, Project Number, Real Property Unique Identifier
	Work Order	Current Working Estimate, Current Working Estimate Date, Real Property Unique Identifier, Site Name, Target Asset Owner, Work Classification Code, Work Description Text, Work Order Authorization Date, Work Order Number, Real Property Site Unique Identifier

RPA – Perform Build and Make and Maintenance and Sustainment

The *Perform Build and Make and Maintenance and Sustainment* group of processes, in part illustrated below, demonstrates enterprise collaboration between the Real Property Installation and Lifecycle Management (RPILM) CBMA and the Material Supply and Service Management (MSSM) CBMA. The RPILM CBMA is involved with the acquisition, sustainment, and disposal of real property, while the MSSM CBMA builds, makes, maintains, returns and disposes of personal property. At the enterprise level, both communities utilize similar processes, therefore enabling the sharing of these processes. The *Perform Build and Make and Maintenance and Sustainment* process group, while not distinctly financial in nature, is a key enabler of the CIP financial accountability processes. It was therefore included at a high level within the scope of the CIP BPR effort and in the BEA version 4.0.



Once the work order is funded and authorized, the CIP and or WIP account and the initial asset record are created, the first process step in the minor construction scenario is *Conduct Architectural Design*. This process is triggered by the *Awarded Contract or Intragovernmental Order* event, that is linked to the *Contract or Order Type* decision gateway and results in three events: *Minor Construction Awarded Contract or Order*⁹, *Military Construction (MILCON) Design Build Contract or Order*⁹, and *MILCON Awarded Design Bid Build Contract or Order*¹⁰.

⁹ Defined in Appendix F

¹⁰ Defined in Appendix F

The *Conduct Architectural Design* process uses the associated *Project Information* data object and leads to the next process step, *Review and Inspect Design*. This process is a critical decision point for the minor construction scenario and it has three major decision flows: *Evidence of Goods Tendered and Services Rendered*, *Minor Construction Approved Design Bid Build Contract*, and *Minor Construction Approved Design Bid Build Contract*. *Evidence of Goods Tendered and Services Rendered* represents the ongoing evidence of work performed after a design task has been reviewed and inspected. *Minor Construction Approved Design Bid Build Contract* articulates that upon receiving design approval, the process is exited; the next step in the sequence is the contract or order sourcing process within the procurement function which sources the construction agent required to fulfill a construction requirement. *Minor Construction Approved Design Build Contract* links to the *Perform Construction Restoration Modernization* process, indicative of the design build contract type, which allows the construction agent to both design and build a real property asset with one contract or order.

During or at the completion of the *Perform Construction Restorations Modernization* process, the *Evidence of Goods Tendered and Services Rendered* sequence flow, representing work in progress and project status information, is sent to the procurement function to conduct acceptance of the ongoing work. Additionally, acceptance may be conducted for a fully- or partially-complete building. As a result of this sequence flow, payments are tendered to the agent and information flows are provided to facilitate the accounting of construction costs in the CIP or WIP accounts.

For MILCON, there are two contract types; MILCON design build and MILCON design bid build. The MILCON design build process¹¹ is triggered by the *MILCON Awarded Design Build Contract or Order* event that links to the *Conduct Architectural Design* process. This process utilizes all project information parameters through the associated data object *Project Information* and leads to the *Review and Inspect Design* process. Once the design is reviewed, inspected, and approved, the next process step is *Request Design Approval Per Milestone*, where a *Project Approval Request* is sent to the U.S. Congress for review and approval in accordance with 10 USC § 2807.

The response from the U.S. Congress is a *Project Approval Response* acknowledged by the *Receive Design Approval Response* process, which is a critical decision process for this scenario. As articulated in the diagram, this process has four major outputs: *Project Not Approved* (leading to the relief of the CIP and or WIP account), *Project Deferred* and *Project Review Required*, which are correlated in such a way that if a decision is made to defer a project, the accumulated costs remain in the CIP account until a decision is made through the *Project Review Required* event to either approve the project or not. If the project is approved, the next process steps are *Complete Review and Approve Final Design Solution* and *Perform Construction Restoration Modernization*.

The MILCON design build and design bid build scenarios use the same process steps. The only variation in the design bid build scenario is indicated in the model by the *Construction Requirement Design Bid Build* event, indicating that during the execution of a design bid build contract type, once the project has been completed and approved, the process is exited through the *Construction Requirement Design Bid Build* event. The next step is the contract or order sourcing process within the acquisition function to source the construction agent.

¹¹ Note: Army also has developed a third contract type, "Adapt Build" which will most closely follow the Bid Build scenario.

Once the construction agent is sourced, the event *Design Bid Build Construction Restorations and Modernization Contractor Order* triggers the *Perform Construction Restoration Modernization* process, resulting in the execution of work and subsequent submission of *Evidence of Goods Tendered and Services Rendered* to the acquisition community to inspect and accept the work completed, remit payments to the agent, and ultimately send the required financial transaction information to accumulate construction costs in the CIP and or WIP account.

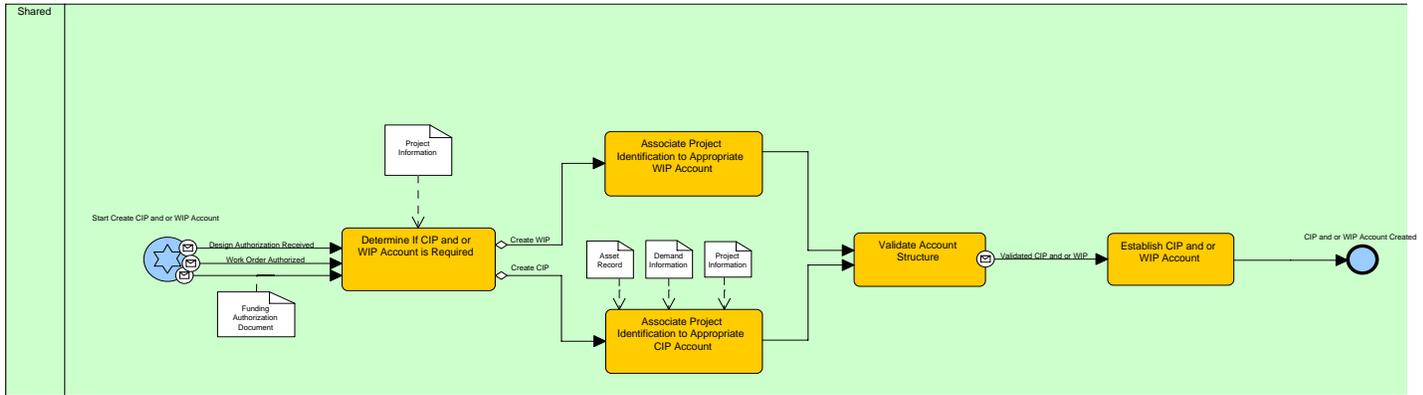
The table below provides a depiction of the data objects flowing into and out of the *Perform Build and Make and Maintenance and Sustainment* process. It also lists the data elements associated with the respective data objects.

<i>Process</i>	<i>Data Object</i>	<i>Associated Data Elements</i>
Perform Build and Make and Maintenance and Sustainment	Project Cancellation Evidence	Acquisition Fund Source Code, Acquisition Organization Code, Approval Authority, Cancellation Effective Date, CIP Financial Reporting Organization Code, Design Authorization Date, Design Stop Date, Project Approval Date, Project Description Text, Project Detail Organization Code, Project Number, Project Type Code, Real Property Site Unique Identifier, Real Property Unique Identifier, Reason for Cancellation, Site Construction Agent Code, Site Name, Target Asset Owner, Work Classification Code, Work Description Text, Work Order Authorization Date, Work Order Number
	Project Information	Acquisition Fund Source Code, Acquisition Method Code, Acquisition Organization Code, Approval Authority, Cancellation Effective Date, CIP Accumulated Costs to Date, CIP Financial Reporting Organization Code, Current Working Estimate, Design Authorization Date, Design Stop Date, Project Approval Date, Project Completion Date, Project Description Text, Project Detail Fund Code, Project Detail Fund Code Cost Amount, Project Detail Organization Code, Project Number, Project Total Cost Amount, Project Type Code, Real Property Site Unique Identifier, Real Property Unique Identifier, Reason for Cancellation, Site Construction Agent Code, Site Name, Target Asset Owner, Work Classification Code, Work Description Text, Work Order Authorization Date, Work Order Number

RPA – Create CIP and or WIP Account¹²

The *Create CIP and or WIP Account* process group is triggered by the following multiple start events: *Design Authorization Received*, and *Work Order Authorized*, leading to the *Determine if CIP and or WIP Account is Required* process.

¹² The differences between CIP and WIP are defined in Appendix F. In addition, the associated business rules pertaining to CIP and WIP can be found in Appendix D.



This process captures all information about a given project through the *Project Information* data object and the output is either the requirement to create a CIP and WIP account, create only a CIP account or create only a WIP account. If it is determined that only a WIP account is required, the following process steps apply: *Associate Project Identification to Appropriate WIP Account*, *Validate the Account Structure* and *Establish CIP and or WIP account*. The end event of this process, *CIP and or WIP Account Created*, indicates that the WIP account is created. If the determination made is to create only a CIP account, the sequence of process steps is similar to the creation of the WIP account, except the *Associate Project Identification to Appropriate CIP Account* process is used, instead of *Associate Project Identification to Appropriate WIP Account*.

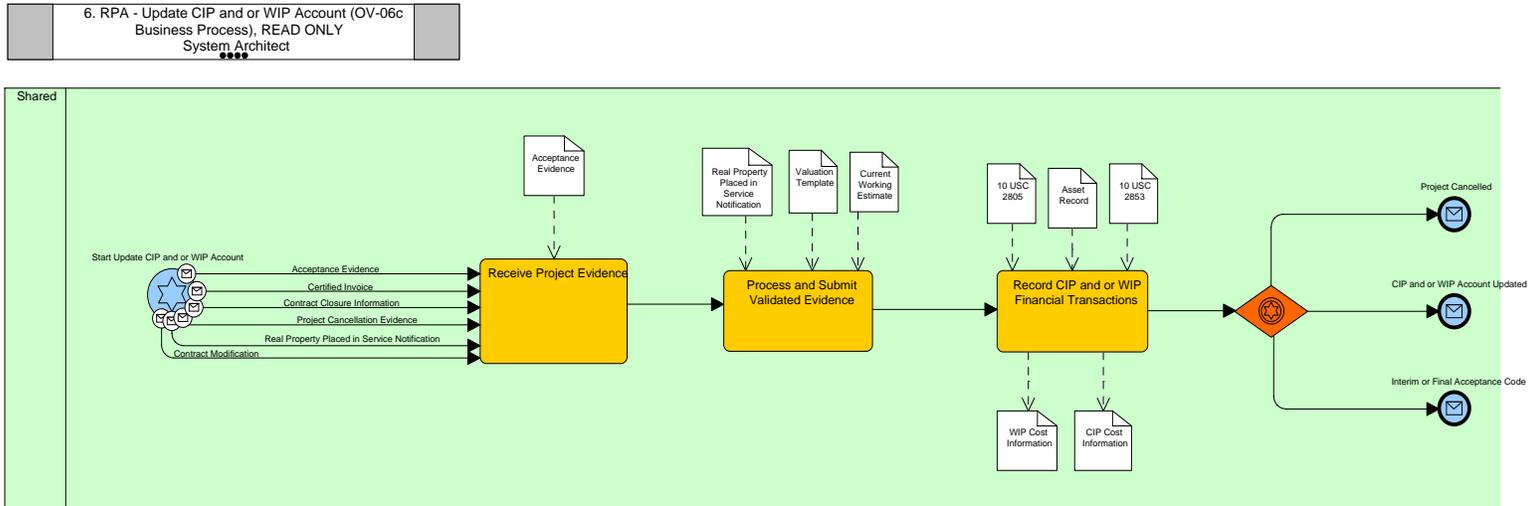
The *Associate Project Identification to Appropriate CIP Account* process utilizes the *Asset Record*, *Demand Information* and *Project Information* data objects, resulting in the end event *CIP and or WIP Account Created*. Alternatively, if the determination is to create a CIP and WIP account, the *Associate Project Identification to Appropriate WIP Account* and *Associate Project Identification to Appropriate CIP Account* processes are utilized resulting in the end event *CIP and or WIP Account Created*.

The table below provides a depiction of the data objects flowing into the *Create CIP and or WIP Account* process. It also lists the data elements associated with the respective data objects.

Data Object	Associated Data Elements	Process
Project Information	Acquisition Fund Source Code, Acquisition Method Code, Acquisition Organization Code, Approval Authority, Cancellation Effective Date, CIP Accumulated Costs to Date, CIP Financial Reporting Organization Code, Current Working Estimate, Design Authorization Date, Design Stop Date, Project Approval Date, Project Completion Date, Project Description Text, Project Detail Fund Code, Project Detail Fund Code Cost Amount, Project Detail Organization Code, Project Number, Project Total Cost Amount, Project Type Code, Real Property Site Unique Identifier, Real Property Unique Identifier, Reason for Cancellation, Site Construction Agent Code, Site Name, Target Asset Owner, Work Classification Code, Work Description Text, Work Order Authorization Date, Work Order Number	Create CIP and or WIP Account
Funding Authorization Document	Acquisition Fund Source Code, Approval Authority, Fund Authorization Amount, Fund Authorization Type, Planned Programmed Fiscal Year Date, Programmed Amount, Project Detail Fund Code, Project Detail Organization Code, Project Number, Real Property Unique Identifier	
Asset Record	Acquisition Fund Source Code, Acquisition Method Code, Acquisition Organization Code, Acquisition Original Asset Recorded Cost Amount, Approval Authority, Cancellation Effective Date, Capital Improvement Placed in Service Date, Capital Improvement Reason Code, Capital Improvement Recorded Cost, CIP Accumulated Costs to Date, CIP Phase Indicator, Congressional District Code, Construction Material Code, Construction Type Code, Cost Sharing Partners, Demand UID, Design Authorization Date, Design Stop Date, Facility Built Date, Facility Estimated Useful Life Adjustment Quantity, Facility Estimated Useful Life Quantity, Facility Number, Facility Total Area Quantity, Facility Total Area Unit Of Measure Code, Facility Total Capital Improvement Cost Amount, Fund Authorization Amount, Fund Authorization Type, Instrument Number, Instrument Type Code, Land Total Area Quantity, Linear Structure Name, Project Approval Date, Project Completion Date, Project Description Text, Project Detail Fund Code, Project Detail Fund Code Cost Amount, Project Detail Organization Code, Project Number, Project Total Cost Amount, Project Type Code, Real Property Site Unique Identifier, Real Property Unique Identifier, Reason for Cancellation, RPA Interest Type Code, RPA Placed in Service Date, RPA Type Code, Site Construction Agent Code, Site Name, Target Asset Owner, Work Classification Code, Work Description Text, Work Order Authorization Date, Work Order Number	
Demand Information	Acquisition Fund Source Code, Acquisition Method Code, Acquisition Organization Code, Demand Description Text, Demand Status Code, Demand UID, Instrument Number, Instrument Type Code, Real Property Unique Identifier	

RPA – Update CIP and or WIP Account

The *Update CIP and or WIP Account* process group is triggered by the following multiple start events: *Acceptance Evidence*, *Certified Invoice*, *Contract Closure Information*, *Project Cancellation Evidence*, *Real Property Placed in Service Notification* and *Contract Modification*, indicating that updates to the CIP and or WIP account could be triggered by one or more start events.



These events trigger the *Received Project Evidence* process. This process captures all real property acceptance parameters through the *Acceptance Evidence* data object and feeds the *Process and Submit Validated Evidence* process step, which utilizes numerous data objects, namely *Real Property Placed in Service*, *Valuation Template* and *Current Working Estimate*. The resulting output of this process leads to the last process step within this process group: *Record CIP and or WIP Financial Transaction*, which is the juncture at which the CIP and or WIP account is updated with validated financial transaction information.

The process now utilizes 10 USC § 2805, 10 USC § 2853 and the *Asset Record* data objects while also producing the *WIP Cost Information* and *CIP Cost Information* data object. The end result of this process step is either a cancellation of the project submitted through the acceptance evidence represented by the event *Project Cancelled* link to the *Relieve CIP and or WIP* process to expense the CIP accumulated costs to date; the *CIP and or WIP Account Updated* event and the *Interim or Final Acceptance Code* event representing the interim or final acceptance of a real property asset, and illustrating the need to relieve the *CIP and or WIP* account and post the accumulated costs as a financial asset in the real property asset record.

The table below provides a depiction of the data objects flowing into the *Update CIP and or WIP Account* process. It also lists the data elements associated with the respective data objects.

<i>Data Object</i>	<i>Associated Data Elements</i>	<i>Process</i>
Acceptance Evidence	Acquisition Fund Source Code, Acquisition Method Code, Acquisition Organization Code, Acquisition Original Asset Recorded Cost Amount, Approval Authority, Capital Improvement Placed in Service Date, Capital Improvement Reason Code, CIP Phase Indicator, Demand UID, Facility Built Date, Facility Estimated Useful Life Adjustment Quantity, Facility Estimated Useful Life Quantity, Facility Number, Facility Total Area Quantity, Facility Total Area Unit Of Measure Code, Facility Total Capital Improvement Cost Amount, Instrument Number, Instrument Type Code, Land Total Area Quantity, Planned Programmed Fiscal Year Date, Programmed Amount, Project Approval Date, Project Completion Date, Project Number, Real Property Site Unique Identifier, Real Property Unique Identifier, Reason for Cancellation, RPA Interest Type Code, RPA Placed in Service Date, RPA Type Code, Site Construction Agent Code, Site Name, Target Asset Owner	Update CIP and or WIP Account
Real Property Placed in Service Notification	Acquisition Original Asset Recorded Cost Amount, Capital Improvement Placed in Service Date, Capital Improvement Recorded Cost, CIP Accumulated Costs to Date, CIP Phase Indicator, Project Number, Real Property Site Unique Identifier, Real Property Unique Identifier, RPA Interest Type Code, RPA Placed in Service Date, RPA Type Code, Site Name	
Valuation Template	Acquisition Fund Source Code, Acquisition Organization Code, Cost Sharing Partners, Demand Description Text, Demand Status Code, Demand UID, Design Authorization Date, Design Bid Build Actual Construction Cost, Design Bid Build Actual Design Cost, Design Build Actual Cost, Instrument Number, Instrument Type Code, Programmed Amount, Project Detail Fund Code, Project Detail Fund Code Cost Amount, Project Detail Organization Code, Project Total Cost Amount, Project Type Code, Real Property Unique Identifier, Work Classification Code, Work Description Text, Work Order Authorization Date, Work Order Number	
Current Working Estimate	Current Working Estimate, Current Working Estimate Date, Project Number, Real Property Unique Identifier	
10 USC 2805	Public Law Date, Public Law Number, USC Citation	
10 USC 2853	Public Law Date, Public Law Number, USC Citation	

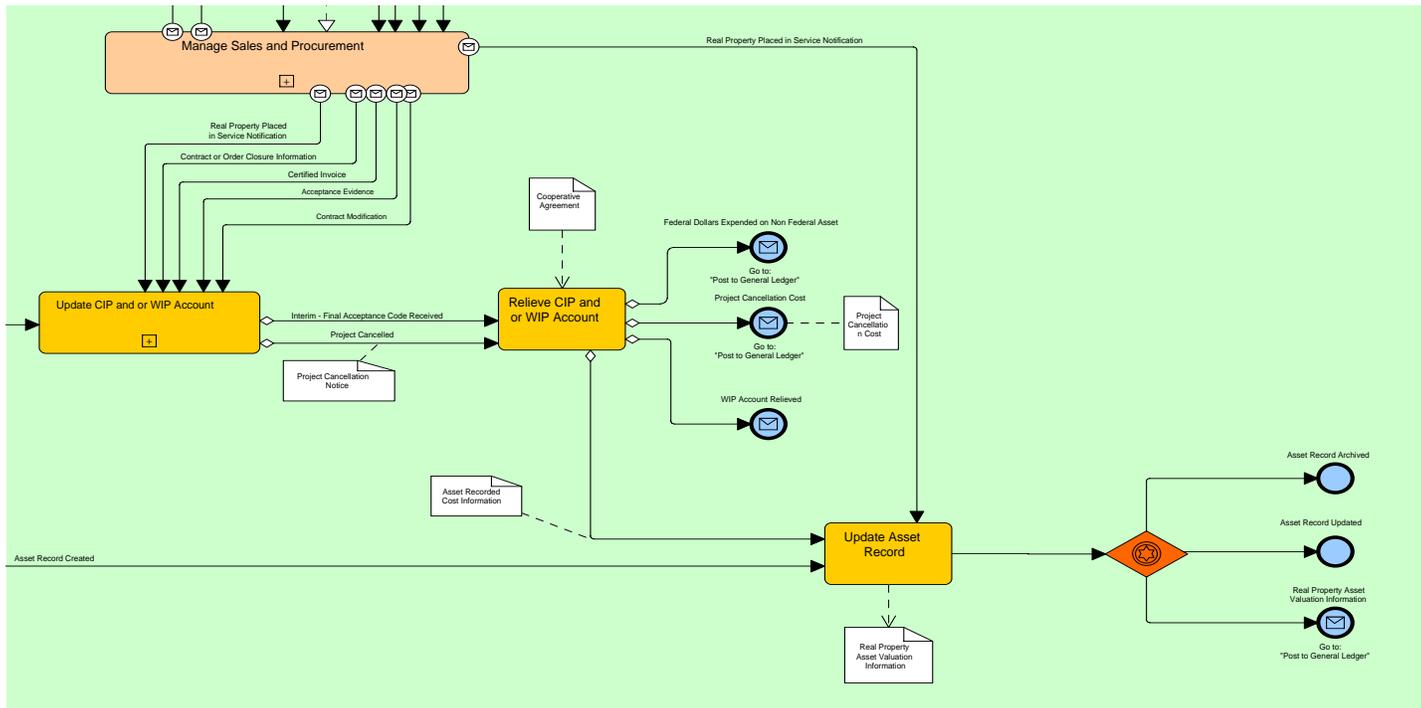
Asset Record	Acquisition Fund Source Code, Acquisition Method Code, Acquisition Organization Code, Acquisition Original Asset Recorded Cost Amount, Approval Authority, Cancellation Effective Date, Capital Improvement Placed in Service Date, Capital Improvement Reason Code, Capital Improvement Recorded Cost, CIP Accumulated Costs to Date, CIP Phase Indicator, Congressional District Code, Construction Material Code, Construction Type Code, Cost Sharing Partners, Demand UID, Design Authorization Date, Design Stop Date, Facility Built Date, Facility Estimated Useful Life Adjustment Quantity, Facility Estimated Useful Life Quantity, Facility Number, Facility Total Area Quantity, Facility Total Area Unit Of Measure Code, Facility Total Capital Improvement Cost Amount, Fund Authorization Amount, Fund Authorization Type , Instrument Number, Instrument Type Code, Land Total Area Quantity, Linear Structure Name, Project Approval Date, Project Completion Date, Project Description Text, Project Detail Fund Code, Project Detail Fund Code Cost Amount, Project Detail Organization Code, Project Number, Project Total Cost Amount, Project Type Code, Real Property Site Unique Identifier, Real Property Unique Identifier, Reason for Cancellation, RPA Interest Type Code, RPA Placed in Service Date, RPA Type Code, Site Construction Agent Code, Site Name, Target Asset Owner, Work Classification Code, Work Description Text, Work Order Authorization Date, Work Order Number	
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The table below provides a depiction of the data objects flowing out of the Update CIP and or WIP Account process. It also lists the data elements associated with the respective data objects.

<i>Data Object</i>	<i>Associated Data Elements</i>	<i>Process</i>
CIP Cost Information	Acquisition Fund Source Code, Acquisition Organization Code, CIP Accumulated Costs to Date, CIP Financial Reporting Organization Code, Design Bid Build Actual Construction Cost, Design Bid Build Actual Design Cost, Design Build Actual Cost, Project Detail Fund Code, Project Detail Fund Code Cost Amount, Project Detail Organization Code, Project Number, Project Total Cost Amount, Project Type Code, Real Property Unique Identifier, Work Classification Code	Update CIP and or WIP Account
WIP Cost Information	Acquisition Fund Source Code, Acquisition Organization Code, CIP Accumulated Costs to Date, CIP Financial Reporting Organization Code, Design Bid Build Actual Construction Cost, Design Bid Build Actual Design Cost, Design Build Actual Cost, Project Detail Fund Code, Project Detail Fund Code Cost Amount, Project Detail Organization Code, Project Number, Project Total Cost Amount, Project Type Code, Real Property Unique Identifier, Work Classification Code	

RPA – Relieve CIP and or WIP Account

The *Relieve CIP and or WIP Account* process is triggered by two decision flows: *Interim - Final Acceptance Code Received* and *Project Cancelled*. Each of these decision flows triggers a different outcome from the *Relieve CIP and or WIP Account* process.



The *Project Cancelled* flow triggers the accumulated costs for a design project, which has not been approved to be expensed from the *Relieve CIP and or WIP Account* process represented by the end event and data object *Project Cancellation Cost*. For interim and final acceptance of constructed real property, *Interim and Final Acceptance Code Received* relieves the *CIP and or WIP Account* and posts the *Asset Recorded Cost Information* to the *Update Asset Record* process.

In both scenarios, the *Relieve CIP and or WIP Account* process utilizes information provided by the *Cooperative Agreement* data object to determine the amount to be expensed and posted to the general ledger through the end event *Federal Dollars Expended on Non Federal Assets*.

The table below provides a depiction of the data objects flowing into the *Relieve CIP and or WIP Account* process. It also lists the data elements associated with the respective data objects.

Data Object	Associated Data Elements	Process
Project Cancellation Notice	Acquisition Fund Source Code, Acquisition Organization Code, Approval Authority, Cancellation Effective Date, CIP Financial Reporting Organization Code, Design Authorization Date, Design Stop Date, Project Approval Date, Project Description Text, Project Detail Organization Code, Project Number, Project Type Code, Real Property Site Unique Identifier, Real Property Unique Identifier, Reason for Cancellation, Site Construction Agent Code, Site Name, Target Asset Owner, Work Classification Code, Work Description Text, Work Order Authorization Date, Work Order Number	Relieve CIP and or WIP Account
Cooperative Agreement	Acquisition Fund Source Code, Acquisition Method Code, Acquisition Organization Code, Approval Authority, Cost Sharing Partners, Real Property Site Unique Identifier, Real Property Unique Identifier, RPA Interest Type Code, Target Asset Owner	

The table below provides a depiction of the data objects flowing out of the Relieve *CIP and or WIP Account* process. It also lists the data elements associated with the respective data objects.

<i>Data Object</i>	<i>Associated Data Elements</i>	<i>Process</i>
Asset Recorded Cost Information	Acquisition Fund Source Code, Acquisition Method Code, Acquisition Organization Code, Acquisition Original Asset Recorded Cost Amount, Capital Improvement Placed in Service Date, Capital Improvement Reason Code, Capital Improvement Recorded Cost, CIP Accumulated Costs to Date, CIP Financial Reporting Organization Code, CIP Phase Indicator, Cost Sharing Partners, Demand UID, Design Bid Build Actual Construction Cost, Design Bid Build Actual Design Cost, Design Build Actual Cost, Design Stop Date, Facility Built Date, Facility Estimated Useful Life Adjustment Quantity, Facility Estimated Useful Life Quantity, Facility Total Capital Improvement Cost Amount, Project Approval Date, Project Completion Date, Project Description Text, Project Detail Fund Code, Project Detail Fund Code Cost Amount, Project Detail Organization Code, Project Number, Project Total Cost Amount, Project Type Code, Real Property Site Unique Identifier, Real Property Unique Identifier, RPA Interest Type Code, RPA Placed in Service Date, Target Asset Owner, Work Classification Code, Work Description Text, Work Order Authorization Date, Work Order Number	Relieve CIP and or WIP Account
Project Cancellation Cost	Acquisition Fund Source Code, Acquisition Organization Code, Approval Authority, Cancellation Effective Date, CIP Accumulated Costs to Date, CIP Financial Reporting Organization Code, Design Authorization Date, Design Bid Build Actual Construction Cost, Design Bid Build Actual Design Cost, Design Build Actual Cost Design Stop Date, Project Approval Date, Project Description Text, Project Detail Fund Code, Project Detail Fund Code Cost Amount, Project Detail Organization Code, Project Number, Project Total Cost Amount, Project Type Code, Real Property Site Unique Identifier, Real Property Unique Identifier, Reason for Cancellation, RPA Placed in Service Date, Site Construction Agent Code, Site Name, Target Asset Owner, USC Citation, Work Classification Code, Work Description Text, Work Order Authorization Date, Work Order Number	

The table below details the data objects definitions discussed above.

<i>Data Object</i>	<i>Data Object Definition</i>
10 USC 2805	This is documentation containing evidence of compliance to Title 10 of the United States Code, Section 2805. This section covers the statutory dollars limits for Unspecified Minor Construction.
10 USC 2853	This is documentation containing evidence of compliance to Title 10 of the United States Code, Section 2853. This Section specifies the cost variation limits Congress must approve if costs increase during construction.
Acceptance Evidence	Documentation of the act of assuming ownership of legal title and accountability of goods tendered and services rendered, excluding Real Property Placed in Service Notification. This serves as proof that the deliverables received or services rendered have been provided fulfilling specified terms and conditions against the previously agreed upon agreement, contract, and/or intragovernmental order between the supplier and the buyer. It also must include information necessary for Asset Valuation (e.g., capitalize vs. expense determinations).
Asset Record	This is the continuous aggregation of descriptive characteristics of an asset under Department of Defense accountability.
Asset Recorded Cost Information	This object represents the full cost of a constructed real property asset. It is triggered by the placed in service date of a constructed real property asset. These costs which are relieved from the construction in progress account are posted to the asset record to enable fiscal accountability
CIP Cost Information	This is information regarding capitalized costs accumulated in the construction in progress (CIP) account during the execution of a construction project.
Cooperative Agreement	This is information that reflects a unique document that captures a federal and non-federal relationship.
Current Working Estimate Report	This is a comprehensive cost-estimating report that accounts for site procurement, design, construction, project supervision, construction security, value-added taxes, and any other project costs.
Demand Information	This object consists of a Demand UID linked to the associated elements that represent the organization having the demand and the funds intended to fulfill the demand. The DUID serves as a reference throughout the process of fulfilling the demand and satisfying any associated financial transactions, e.g., commitment, obligation, disbursement.
Funding Authorization Document	The Funding Authorization Document (FAD) establishes the authorized funding for an agency during a specified period of time, specifying the program guidelines and changes in authorized funding for the agency.
Project Cancellation Cost	This object represents costs associated with the cancellation or non approval of a design or construction project by the U. S. Congress. Design and construction costs are accumulated in the construction in progress account. At the required design or construction approval step, if the project is not or no longer approved by the U.S. Congress, all associated costs captured in the construction in progress account are relieved and expensed.
Project Cancellation Evidence	This is evidence that the project been canceled or has not been approved by Congress.
Project Cancellation Notice	This is documentation informing the executing agent that the project has been cancelled.
Project Information	This is a quantitative and qualitative profile of the design and or construction project. It is a collection of data elements and information which uniquely identifies and provides information on the nature and context of the work to be performed. It consists of information such as the location of the work to be performed, source of funds, controlling agencies, current working estimate, the approval state or status of the project, and a signed Certificate of Compliance for Critical Planning Actions. Current examples of information that can be captured in the project information include the information represented on the DD Form 1391.
Real Property Asset Valuation Information	The value of the asset, which includes original procurement cost, depreciation and or amortization expense, gain and or loss on disposal, net realizable value, cost of capital improvement.
Real Property Placed in Service	Notice that an asset has been placed in service and is available for use.

<i>Data Object</i>	<i>Data Objection Definition</i>
Notification	
Valuation Template	This is information that is required for identifying rules and requirements to be used in valuing assets. The rules and requirements taken into consideration include the types of funding, the types of costs, types of assets, the useful lives of end-items and major components, salvage value, depreciation type and which costs are to be aggregated into the end item cost, which items are to be valued separately, expensed costs, and whether there is government furnished material or government furnished labor being provided to the contractor.
WIP Cost Information	This is information regarding the costs accumulated in the work in progress (WIP) account. For real property construction projects, this represents the cost information accumulated by the construction agent to be billed to the sponsoring entity. The billed costs are recorded in the corresponding construction in progress (CIP) account.
Work Order	A contract or order that has been awarded to a supplier/contractor and is a mutually binding legal relationship obligating the supplier to furnish the supplies or services (including construction) that can be invoiced, and the buyer to pay for them. It includes all types of commitments that obligate the DoD to an expenditure of appropriated funds and that, except as otherwise authorized, are in writing. In addition to bilateral instruments, contracts include, but are not limited to, awards and notices of awards; job orders or task letters issued under basic ordering agreements; letter contracts; and orders, such as purchase orders, under which the contract becomes effective by written acceptance or performance. The contract will contain at least the following: price, quantity, delivery date, ship-to, bill-to other terms and conditions, specification and charge code. Contracts or orders could include Fixed-price, Cost-reimbursement, Incentive, Grants, Cooperative Agreements, Other Transactions, Interagency Procurements Under the Economy Act, Intra-agency order, Indefinite-Delivery type orders, order against Basic Agreements, Basic Ordering Agreements and Federal Supply Schedules.
Work Order Requirement	This event triggers a Work Order Requirement to be processed.
Work Request	This is a request for a contract or order that will be awarded to a supplier/contractor and will be a mutually binding legal relationship obligating the supplier to furnish the supplies or services (including construction) that can be invoiced, and the buyer to pay for them. It will include all types of commitments that obligate the DoD to an expenditure of appropriated funds and that, except as otherwise authorized, are in writing. In addition to bilateral instruments, contracts include, but are not limited to, awards and notices of awards; job orders or task letters issued under basic ordering agreements; letter contracts; and orders, such as purchase orders, under which the contract becomes effective by written acceptance or performance. The contract will contain at least the following: price, quantity, delivery date, ship-to, bill-to other terms and conditions, specification and charge code. Contracts or orders could include Fixed-price, Cost-reimbursement, Incentive, Grants, Cooperative Agreements, Other Transactions, Interagency Procurements Under the Economy Act, Intra-agency order, Indefinite-Delivery type orders, order against Basic Agreements, Basic Ordering Agreements and Federal Supply Schedules.

Appendix C: Data Elements

The table below provides a brief description for each of the data elements and details whether they are new¹³ or existing.¹⁴

Status	CIP Data Element Synonym	CIP Data Element Definitions
Exists in RPIR	Acquisition Fund Source Code	A code used to identify the fund types that will pay for acquisition of the real property asset.
Exists in RPIR	Acquisition Method Code	A designator that shows how interest in the real property asset was acquired.
Exists in RPIR	Acquisition Organization Code	A code used to identify organizations responsible for funding the acquisition of the real property asset.
Exists in RPIR & RPAR	Acquisition Original Asset Recorded Cost Amount	The acquisition cost plus all material amounts paid to bring the real property asset to its form and location suitable for its intended use.
Exists in RPIR & RPAR	Capital Improvement Placed in Service Date	The calendar date the improvement to a real property facility is available for use by DoD. The date on which a leasehold improvement (capital improvement) is made to a leased facility. On this date, the government assumes liability and the warranties begin for the capital improvement to which they have received title. Also includes date of leaseholds.
Exists in RPIR	Capital Improvement Reason Code	This is the reason the capital improvement was performed.
Exists in RPIR & RPAR	CIP Phase Indicator	A flag to indicate if there will be multiple placed in service dates for the construction of the real property facility (i.e., multiple construction phases).
Exists in RPIR & RPAR	Congressional District Code	Congressional districts are legislatively defined subdivisions of a State for the purpose of electing representatives or delegates to the House of Representatives of the United States Congress. This does not apply to the Senate since Senators represent the entire state and that data is derived.
Exists in RPIR & RPAR	Construction Material Code	The primary building material used to construct a given real property facility.
Exists in RPIR & RPAR	Construction Type Code	The code used to identify the type of construction for a given real property facility.
Exists in RPIR & RPAR	Facility Built Date	The calendar date on which the original construction was completed for a facility.
Exists in RPIR & RPAR	Facility Estimated Useful Life Adjustment Quantity	The number of years by which the life of a real property facility is extended through the completion of a capital improvement.
Exists in RPIR	Facility Estimated Useful Life Quantity	The total number of service years expected from a long-term real property facility. In other words, the amount of time that the facility is expected to be in use.
Exists in RPIR	Facility Number	The locally developed facility identification that is clearly visible (either painted or by signage) on the exterior of a real property facility, used for visual identification of the facility.
Exists in RPIR	Facility Total Area Quantity	The total constructed area of a real property facility in unit measure.

¹³ New: Being added to DoD Business Enterprise Architecture in V4.0 and mandated by this document.

¹⁴ Existing: Is published in RPIR and/or RPAR or BEA.

Status	CIP Data Element Synonym	CIP Data Element Definitions
Exists in RPIR	Facility Total Area Unit Of Measure Code	The Unit of Measure code used for the measurement of the total area size of a facility.
Exists in RPIR	Facility Total Capital Improvement Cost Amount	The sum of the costs for all capital improvements made to the real property asset, not including the original procurement cost, derived by summing the respective capital improvement costs.
Exists in RPIR & RPAR	Instrument Number	The legal/official instrument designator assigned by one of the Services or GSA.
Exists in RPIR & RPAR	Instrument Type Code	A code used to identify the type of legal instrument associated with a specific real property asset.
Exists in RPIR & RPAR	Land Total Area Quantity	The size of the land parcel.
Exists in RPIR	Linear Structure Name	The common identification or name for the networked facility assigned by the Military Service, WHS, or Agency.
Exists in RPIR	Planned Programmed Fiscal Year Date	The Fiscal Year that the acquisition or transfer of the real property asset is expected.
Exists in RPIR & RPAR	Project Completion Date	The calendar date the project for the real property asset was completed.
Exists in RPIR & RPAR	Project Description Text	Descriptive information from the respective project documents or legal/official instruments illustrating the basic characteristics of the project.
Exists in RPIR & RPAR	Project Detail Fund Code	A code used to identify the actual fund type(s) used to fund the work called for in the real property project.
Exists in RPIR & RPAR	Project Detail Fund Code Cost Amount	The actual amount of funds expended by fund code, in then-year US dollars.
Exists in RPIR	Project Detail Organization Code	A code used to identify the organization, or organizations, funding the real property project.
Exists in RPIR & RPAR	Project Number	A unique number assigned to a real property project. This serves as permanent identification of the project from planning through programming, funding, project execution, and reporting.
Exists in RPIR & RPAR	Project Total Cost Amount	The actual amount of funds expended, in then-year US dollars, to complete the tasking.
Exists in RPIR & RPAR	Project Type Code	A code used to identify the type of project.
Exists in BEA	Public Law Number	The number used to identify a specific law enacted by the Congress and signed by the President. For example, the 554th Law of the 106th Congress would be Public Law 106-554. The specific Public Law number will determine where the USSGL account information is referenced and cross walked. For instance, funds made temporarily not available due to a specific public law, will be segregated in specific general ledger accounts, and the specific public law number will be cited, along with the amount, on external reports. The most current Public Law number is to be used.
Exists in RPIR & RPAR	Real Property Site Unique Identifier	The unique identifier (UID) used to permanently identify a site. This UID will be the Real Property Site Unique Identifier (RPSUID).
Exists in RPIR & RPAR	Real Property Unique Identifier	The real property unique identifier (RPUID) is a non- intelligent code used to permanently and uniquely identify a real property asset.
Exists in RPIR	RPA Interest Type Code	A code used to identify the type of DoD asset interest that denotes if the real property asset is owned, leased, or permitted from another agency or entity.
Exists in RPIR & RPAR	RPA Placed in Service Date	The calendar date the real property asset is available for use by DoD. On this date, an interim Transfer and Acceptance of Military Real Property document (DD Form 1354) is signed, title for assets listed on the acceptance form is transferred, and the punch list of additional work and certificate of occupancy by local authorities are attached to the acceptance form. On this date, the government assumes liability and the warranties begin for the asset to which DoD has received title.
Exists in RPIR & RPAR	RPA Type Code	A code used to identify the type of real property asset.

Status	CIP Data Element Synonym	CIP Data Element Definitions
Exists in RPIR	Site Construction Agent Code	A code used to identify the organization, which has primary responsibility for the construction occurring on the Site. This organization may also have construction responsibility for other Service/Agency sites within the specific geographical area in which this Site is located.
Exists in RPIR & RPAR	Site Name	The common identification or name for the site assigned by the Military Service, WHS, or Agency.

Status	CIP Data Element Synonym	CIP Data Element Definitions
New	Approval Authority	The entity designated as having the delegated authority to certify an effort or unit of work.
New	Cancellation Effective Date	The calendar date an effort or unit of work was cancelled by the approval authority.
New	Capital Improvement Recorded Cost	All costs incurred to bring the capital improvement to its form and location suitable for its intended use.
New	CIP Accumulated Costs to Date	The balance of the aggregated costs in the construction in progress (CIP) account.
New	CIP Financial Reporting Organization Code	A code used to identify the organization responsible to report construction in progress (CIP) on its financial statements.
New	Cost Sharing Partners	The party sharing costs for the existence or construction of a Real Property Asset.
New	Current Working Estimate	This is the current estimated cost of construction, including cost mark-ups [SIOH, contingencies, engineering during construction].
New	Current Working Estimate Date	The calendar date at which a cost approximation was performed.
New	Demand Description Text	Descriptive information from the respective documents or legal/official instruments illustrating the basic characteristics of the project.
New	Demand Status Code	The symbol that stands for the status of the DEMAND.
New	Demand UID	The Demand Unique Identifier (DUID) is used to identify a requirement linked to an associated type of funds (department regular, main account, period of availability, budget activity, budget sub-activity, budget line item) . The DUID is established as the customer's demand is associated with a type of funds, representing the funds intended to fulfill the demand. The DUID serves as a reference throughout the process of fulfilling the demand and satisfying any associated financial transactions, e.g., commitment, obligation, disbursement. The requisitioner or the person responsible for making purchases within the services will have the responsibility to create the purchase requisition that drives the creation of the DUID.
New	Design Authorization Date	The calendar date the party designated as having the delegated authority certified a design effort.
New	Design Bid Build Actual Construction Cost	The accumulated construction cost incurred in a design bid build scenario.
New	Design Bid Build Actual Design Cost	The accumulated design costs incurred in a design bid build scenario.
New	Design Build Actual Cost	The accumulated design and construction cost incurred in a design build contract.
New	Design Stop Date	The calendar date at which a given design for construction was deferred or stopped. (i.e., for the Army, Code 4 is 'Hold' and Code 5 is 'Deferred'.)
New	Fund Authorization Amount	The amount of authorized funds available for project use.
New	Fund Authorization Type	The type of project that funds have been authorized for (e.g., Design, Construction).

Status	CIP Data Element Synonym	CIP Data Element Definitions
New	Programmed Amount	The amount appropriated by Congress for the project in that fiscal year to include any general Congressional adjustments (if applicable).
New	Project Approval Date	The calendar date that a given project was approved.
New	Public Law Date	The calendar date that a given law was enacted.
New	Reason for Cancellation	The description text providing justification for the cancellation of an effort or unit of work.
New	Target Asset Owner	The party who will maintain legal entitlement to an asset once completed.
New	USC Citation	A legal citation, which distinguishes a law from another.
New	Work Classification Code	The code, which identifies the categorical nature of a specified unit of work.
New	Work Description Text	A brief summary describing the nature of the work to be performed.
New	Work Order Authorization Date	The calendar date the party designated as having the delegated authority certified an effort or unit of work.
New	Work Order Number	The numerical identifier, which distinguishes one unit of work from another.

Appendix D: Business Rules (OV-6a)

The Business Rules (OV-6a) table below depicts the business rules associated with CIP life cycle business processes. Business Rules (OV-6a) provide a precise definition of what should happen or be enforced, as well as constraints on business processes:

CIP Process Operational Business Rules	Associated Process(s)
At the time of acceptance of the real property asset, the DoD construction agent and the real property accountable officer will execute the Transfer and Acceptance of Military Real Property document	Execute Acceptance Transactions
The real property accountable officer will provide a copy of the executed Transfer and Acceptance of Military Real Property document to the sponsoring entity at the acceptance transaction if the sponsoring entity is not the real property accountable Component for the asset.	Execute Acceptance Transactions
When an asset or an improvement to an asset is placed in service, the cost accumulated to date in the construction in progress (CIP) account must be transferred to the appropriate General Property Plant and Equipment (PP&E) account and recorded in the real property inventory.	Post to General Ledger Relieve CIP and or WIP Account Update CIP and or WIP Account
The cost of the asset placed in service must equal the sum of all construction and design costs.	Relieve CIP and or WIP Account Update CIP and or WIP Account
The terms and conditions of a contract must include a provision, where applicable, that requires the supplier to provide estimated costs by Real Property Unique Identifier(s) on invoices. A reasonable allocation methodology of costs will be determined after contract award for auditability.	Develop or Modify Contract or Order
Indirect project cost must be allocated across construction in progress (CIP) accounts no later than final acceptance based on the direct cost of the asset as a percentage of the total direct cost of all assets in the project.	Update CIP and or WIP Account
When a DoD entity is constructing a real property asset to be transferred to another DoD entity on a direct cite basis, the constructing entity must accumulate cost in a construction in progress (CIP) account for the benefit of the fund owner.	Create CIP and or WIP Account
When a DoD entity is constructing a real property asset to be transferred to another DoD entity on a cost reimbursable basis, the constructing entity must accumulate cost in a work in progress (WIP) account.	Create CIP and or WIP Account
For each cost-shared project between Federal and Non-federal entities, a construction in progress (CIP) account must only be created if the asset is federally owned.	Create CIP and or WIP Account
For each cost-shared project between Federal and Non-federal entities where the Federal Government is the construction agent, a work In progress (WIP) account must be created if the asset is not federally owned.	Create CIP and or WIP Account
For each cost-shared project between Federal and Non-federal entities where the asset's final ownership was not determined at project design, project design cost must be relieved from the construction in progress (CIP) account and expensed to the general ledger when it is determined that the asset will not be federally owned.	Relieve CIP and or WIP Account Update CIP and or WIP Account
Only the Federal share of construction costs for real property being constructed on federal property in conjunction with a non-federal project (e.g. state or other entity) should be captured in a construction in progress (CIP) account.	Create CIP and or WIP Account Update CIP and or WIP Account
For each cost-shared project between Federal and Non-federal entities when the asset is constructed on a federal property, the asset is recorded at its full value in the appropriate general PP&E account of the accountable Component.	Relieve CIP and or WIP Account
Only the DoD share of construction costs for real property being constructed on DoD property in conjunction with another federal agency (e.g. Department of State) should be captured in a construction in progress (CIP) account on DoD's financial statements.	Create CIP and or WIP Account Update CIP and or WIP Account

CIP Process Operational Business Rules	Associated Process(s)
For each cost-shared project between Federal and Non-federal entities where the Federal Government is not the construction agent and the asset is not federally owned, the Federal Government share of construction cost must be expensed, as incurred.	Update CIP and or WIP Account
For a construction project, the same project number must be used for all phases.	Conduct Architectural Design Perform Construction Restoration Modernization Request Design Approval Per Milestone Review and Inspect Design
Each military construction project performed by construction agents must have both design and fund authorizations prior to initiating construction in progress (CIP) or work in progress (WIP).	Create CIP and or WIP Account
The title for real property assets and improvements constructed on federal property, without regard to construction agent or fund source, will be held by the Federal Government.	Update Asset Record Update CIP and or WIP Account
After the Real Property final acceptance is executed, each additional project cost must be expensed and must not be included in the construction in progress (CIP) account.	Update CIP and or WIP Account
Each authorized work order for an in house minor construction project must be present to initiate construction in progress (CIP).	Create CIP and or WIP Account Develop and Update Work Order
Each authorized work order for an in house minor construction project must have authorized funding prior to performance of work.	Develop and Update Work Order
After the asset is placed in service, each additional cost incurred must be recorded in the construction in progress (CIP) account until final acceptance and then transferred by RPUID to the appropriate General PP&E account.	Relieve CIP and or WIP Account Update CIP and or WIP Account Update Asset Record
Preliminary planning cost accumulated prior to design authorization must be expensed and not be captured in the construction in progress (CIP) account.	Create CIP and or WIP Account
When a project is cancelled, each cost accumulated in construction in progress (CIP) accounts must be expensed.	Relieve CIP and or WIP Account Update CIP and or WIP Account
When a portion of a project is cancelled or decreased in scope, the cost directly associated to that portion of the project and an allocated portion of the common cost in the construction in progress (CIP) must be expensed.	Relieve CIP and or WIP Account Update CIP and or WIP Account
Each project deferred for more than two years must be reviewed for continuance or cancellation during the review cycle.	Receive Design Approval Response
At least one Real Property Unique Identifier must be established at the creation of the construction in progress account.	Create Initial Asset Record
Construction in progress (CIP) must be tracked by the project number and associated with the Real Property Unique Identifier(s).	Create Initial Asset Record
Each DoD Agency must obtain a Real Property Unique Identifier from the real property accountable Component upon receiving the official authorization to perform work on a real property construction project.	Create Initial Asset Record
The sponsoring entity of a real property construction project must acknowledge to the construction agent that the Real Property asset is ready for acceptance prior to acceptance by real property accountable Component.	Execute Acceptance Transactions
The sponsoring entity of a real property construction project must ensure that all costs incurred by the sponsoring entity are provided to the construction agent on a formal document for inclusion in the full cost of the asset prior to acceptance by real property accountable Component.	Execute Acceptance Transactions
Each supplier must provide invoices at the level of detail defined in the terms and conditions of the contract or order.	Accept Goods and Services Monitor Contract Receive Goods and Services
The creation of a work in progress (WIP) and or construction in progress (CIP) account for real property assets must be dependant on the type of work, asset, and funding method.	Create CIP and or WIP Account
Prior to performance of work, the scope of the work order must be approved.	Develop and Update Work Order
For a real property construction project, all costs for improvements that increase the useful life, efficiency, capacity, or size of an existing asset, or modifies the functionality or use of an asset shall be capitalized.	Update CIP and or WIP Account Relief CIP and or WIP Account
Each construction in progress (CIP) account in an abeyance status must be reviewed for continuance or cancellation during the review cycle.	Update CIP and or WIP Account Receive Design Approval Response

CIP Process Operational Business Rules	Associated Process(s)
All additional project costs incurred following the placed in service date shall be transferred from the construction in progress (CIP) account to the real property asset account by RPUID with the final Transfer and Acceptance of Military Real Property document.	Update Asset Record Relieve CIP and or WIP Account Manage Sales and Procurement
For construction projects that are completed in multiple phases, the cost of each phase is transferred from the construction in progress (CIP) account to the real property asset account at the time the phase is placed in service.	Update Asset Record Relieve CIP and or WIP Account Manage Sales and Procurement
For financial reporting purposes, portions of construction in progress (CIP) reported by the construction agent and sponsoring entity must tie to the total amount of construction in progress (CIP) reported for the project.	Update CIP and or WIP Account
For a specified project, and for the purpose of an audit trail of the construction in progress (CIP) account, the government's project construction agent and/or the sponsoring entity must retain the supporting documentation for their respective portion of the project that they have fiscal accountability for.	Update CIP and or WIP Account Update Asset Record Manage Sales and Procurement
For an accepted real property asset, and for the purpose of an audit trail, the government's project construction agent and/or the sponsoring entity must provide to the real property accountable officer the list of auditable supporting documentation that must be provided, along with their location, who in turn must ensure the documentation is retained in accordance with applicable laws, regulations and instructions.	Update Asset Record Manage Sales and Procurement
The minimum information associated with construction in progress (CIP) amount reported for financial statement preparation purposes must include the Customer Project Number, Project Detail Fund Code(s), Project Detail Cost, Project Detail Organization Code(s), Programmed Amount, and Real Property Unique Identifier(s).	Create CIP and or WIP Account Update CIP and or WIP Account Update Asset Record
Sponsoring entities shall continue to report construction in progress (CIP) on its financial statements until the real property asset is accepted by the real property accountable Component.	Update CIP and or WIP Account

Appendix E: Business Process Characteristics – *How This Resolves Current Deficiencies*

The BPR working group identified major deficiencies in the “As-Is” environment, and developed business processes, rules, management controls and data elements that, when implemented, would resolve these deficiencies. This section illustrates how the reengineered processes, rules, and data elements previously described in appendices B through D resolve these deficiencies.

E.1. Asset Accountability

E.1.1 Statement of Deficiency

The full cost of assets obtained from a completed project could not be easily reported as required by FASAB 4 and 6. Project managers responsible for ensuring that the final project cost included both design and construction costs lacked a method or device to link the engineering and design costs over several years to construction funds. Military Services were not consistent in defining when completed projects should be recorded in the real property databases due to a lack of standardized guidance.

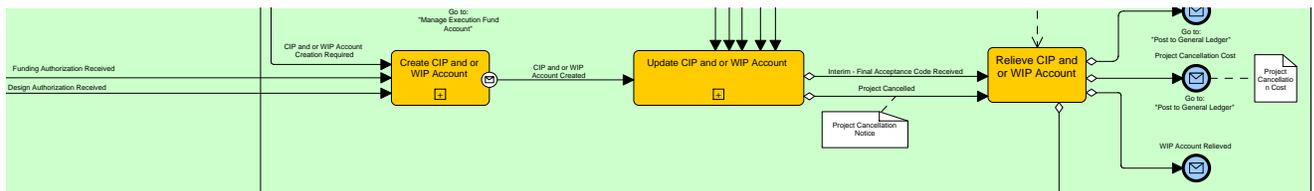
E.1.2. Proposed Solution

The BPR working group defined and standardized the CIP process life cycle key events, and aligned those triggering transactions with RPUIDs to enable traceability and accountability of DoD’s investments and real property assets. This section outlines those processes and associated business rules.

Process

At the creation of the CIP account, for work to be completed on either an existing facility or a new construction, at least one RPUID must be obtained from or assigned by the real property accountable Component. Upon receiving official authorization to perform work on a real property construction project, the sponsoring entity will obtain an RPUID from the real property accountable Component¹⁵ where the asset will be constructed. The CIP account must be tracked by the project number and associated with the RPUIDs. RPUIDs will link the design and construction costs accumulated in the CIP account to specific real property assets.

When a DoD entity is constructing a real property asset to be transferred to another DoD entity using directly-cited funding, the constructing entity must accumulate cost in a CIP account for the benefit of the sponsoring entity. For an in-house minor construction project, the CIP account will be created when the work order and funding authorizations are received. Each authorized work order for an in-house minor construction project must be present to



¹⁵ Real property accountable Component and sponsoring entity are defined in Appendix F

initiate a CIP account.

For Military Construction projects performed by an agent, design and fund authorizations must be present prior to initiating a CIP or WIP account. The creation of a CIP or WIP account for real property assets must be dependent on the type of work, asset, and funding method. Preliminary planning costs accumulated prior to design authorization must be expensed and not be captured in the CIP account.

Indirect project costs contained in the CIP account must be allocated across RPUIDs no later than final acceptance, based on the direct cost of the asset as a percentage of the total direct cost of all assets in the project. After the real property final acceptance is executed, each additional project cost, direct or indirect, must be expensed and must not be included in the CIP account. The cost accumulated in the CIP account must be relieved at the time the real property asset is placed in service. To ensure the timely transfer of completed assets, the cost accumulated in the CIP account must be transferred to the appropriate General PP&E account and recorded in the real property inventory on the date the asset is placed in service.

Business Rules

The BPR working group mapped relevant business rules CIP processes, as depicted in the table below, to enable visibility and accountability to full asset and construction costs.

CIP Process Operational Business Rules	Associated Process(s)
The cost of the asset placed in service must equal the sum of all construction and design costs.	Relieve CIP and or WIP Account Update CIP and or WIP Account
The terms and conditions of a contract must include a provision, where applicable, that requires the supplier to provide estimated costs by Real Property Unique Identifier(s) on invoices. A reasonable allocation methodology of costs will be determined after contract award for auditability.	Develop or Modify Contract or Order
Indirect project cost must be allocated across construction in progress (CIP) accounts no later than final acceptance based on the direct cost of the asset as a percentage of the total direct cost of all assets in the project.	Update CIP and or WIP Account
When a DoD entity is constructing a real property asset to be transferred to another DoD entity on a direct cite basis, the constructing entity must accumulate cost in a construction in progress (CIP) account for the benefit of the fund owner.	Create CIP and or WIP Account
When a DoD entity is constructing a real property asset to be transferred to another DoD entity on a cost reimbursable basis, the constructing entity must accumulate cost in a work in progress (WIP) account.	Create CIP and or WIP Account
For each cost-shared project between Federal and Non-federal entities, a construction in progress (CIP) account must only be created if the asset is federally owned.	Create CIP and or WIP Account
For each cost-shared project between Federal and Non-federal entities where the Federal Government is the construction agent, a work in progress (WIP) account must be created if the asset is not federally owned.	Create CIP and or WIP Account
For each cost-shared project between Federal and Non-federal entities where the asset's final ownership was not determined at project design, project design cost must be relieved from the construction in progress (CIP) account and expensed to the general ledger when it is determined that the asset will not be federally owned.	Relieve CIP and or WIP Account Update CIP and or WIP Account
Only the Federal share of construction costs for real property being constructed on federal property in conjunction with a non-federal project (e.g. state or other entity) should be captured in a construction in progress (CIP) account.	Create CIP and or WIP Account Update CIP and or WIP Account
For each cost-shared project between Federal and Non-federal entities when the asset is constructed on a federal property, the asset is recorded at its full value in the appropriate general PP&E account of the accountable Component.	Relieve CIP and or WIP Account
Only the DoD share of construction costs for real property being constructed on DoD property in conjunction with another federal agency (e.g. Department of State) should be captured in a construction in progress (CIP) account on DoD's financial statements.	Create CIP and or WIP Account Update CIP and or WIP Account
For each cost-shared project between Federal and Non-federal entities where the Federal Government is not the construction agent and the asset is not federally owned, the Federal Government share of construction cost must be expensed, as incurred.	Update CIP and or WIP Account
For a construction project, the same project number must be used for all phases.	Conduct Architectural Design Perform Construction Restoration Modernization Request Design Approval Per Milestone Review and Inspect Design
Each military construction project performed by construction agents must have planning and design and fund authorizations prior to initiating construction in progress (CIP) or work in progress (WIP).	Create CIP and or WIP Account
An authorized work order for an in house minor construction project must be present to initiate construction in progress (CIP) account.	Create CIP and or WIP Account Develop and Update Work Order
Each authorized work order for an in house minor construction project must have authorized funding prior to performance of work.	Develop and Update Work Order
Preliminary planning cost accumulated prior to design authorization must be expensed and not be captured in the construction in progress (CIP) account.	Create CIP and or WIP Account
At least one Real Property Unique Identifier must be established at the creation of the construction in progress account.	Create Initial Asset Record
Construction in progress (CIP) must be tracked by the project number and associated with the Real Property Unique Identifier(s).	Create Initial Asset Record
Each DoD Agency must obtain a Real Property Unique Identifier from the real property accountable Component upon receiving the official authorization to perform work on a real	Create Initial Asset Record

CIP Process Operational Business Rules	Associated Process(s)
property construction project.	
The sponsoring entity of a real property construction project must ensure that all costs incurred by the sponsoring entity are provided to the construction agent on a formal document for inclusion in the full cost of the asset prior to acceptance by real property accountable Component.	Execute Acceptance Transactions
Each supplier must provide invoices at the level of detail defined in the terms and conditions of the contract or order.	Accept Goods and Services Monitor Contract Receive Goods and Services
The creation of a work in progress (WIP) and or construction in progress (CIP) account for real property assets must be dependent on the type of work, asset, and funding method.	Create CIP and or WIP Account
Prior to performance of work, the scope of the work order must be approved.	Develop and Update Work Order
For a real property construction project, all costs for improvements that increase the useful life, efficiency, capacity, or size of an existing asset, or modifies the functionality or use of an asset shall be capitalized.	Update CIP and or WIP Account Relieve CIP and or WIP Account
The portions of construction in progress (CIP) reported by the construction agent and sponsoring entity must reconcile to the total amount of construction in progress (CIP) reported for the project.	Update CIP and or WIP Account
The minimum information associated with the construction in progress (CIP) amount reported for financial statement preparation purposes must include the Customer Project Number, Project Detail Fund Code(s), Project Detail Cost, Project Detail Organization Code(s), Programmed Amount, and Real Property Unique Identifier(s).	Create CIP and or WIP Account Update CIP and or WIP Account Update Asset Record
Sponsoring entities shall continue to report construction in progress (CIP) on its financial statements until the real property asset is accepted by the real property accountable Component.	Update CIP and or WIP Account
The title for real property assets and improvements constructed on federal property, without regard to construction agent or fund source, will be held by the Federal Government.	Update Asset Record Update CIP and or WIP Account
After the Real Property final acceptance is executed, each additional project cost, direct or indirect, must be expensed and must not be included in the construction in progress (CIP) account.	Update CIP and or WIP Account

The BPR working group developed the following cost matrix to illustrate the types of construction costs that should be accumulated in the CIP account to comply with the federal financial requirements listed in *Statement of Federal Financial Accounting Standard 6 (SFFAS-6)*. The cost of a new construction or a capital improvement to an existing asset will be accumulated in the CIP account and will include all costs¹⁶ incurred to bring the asset to a form and location suitable for its intended use. These costs may include but are not limited to those listed in Table 2. Any of the cost types below should be captured at the auditable source. In the “To Be” environment, these costs will be captured and electronically transmitted by authoritative sources to update the appropriate CIP accounts.

Table 2: Construction in Progress Cost Matrix

Cost Type A	Description
Cost of contract work	<p>Amounts paid for work performed under contract, to include items below if performed under contract, as well as any incentive fees paid to contractors to reward performance goals.</p> <p>Examples: direct cost of labor, direct cost of materials and supplies, Supervision, Inspection, and Overhead (SIOH), cost of transportation, cost of handling and storage, cost of injuries and damages, cost of legal and recording fees, cost of architecture and engineering studies, cost of facility and site preparation, cost of installed equipment, cost of installing government furnished equipment or material (GFE, GFM), cost of installing donated assets.</p>

¹⁶ Direct and indirect costs are defined in Appendix F.

Cost Type B	Description
Total Labor Cost	The total costs of government burdened labor directly associated with the construction project. Includes both military and civilian labor costs, in accordance with current published DoD Comptroller annual reimbursable rates.
Direct cost of materials and supplies	The purchase price, the cost of inspection, and loading assumed by the carrier. Example: Purchase material for a self-help project. The Government Representative inspects and accepts the material. A shipper loads on truck [transportation not included].
Cost of Supervision, Inspection, and Overhead (SIOH)	Supervision, Inspection, and Overhead (SIOH) is a fee applied to the cost of a construction contract to recover direct and indirect expenses for a project's construction management services. Examples of Supervision, Inspection, and Overhead may include but are not limited to the following: administration of social programs, claims analysis, constructability review, contract/project administration, cost estimation, cost management, labor rates, materials testing, post construction activities, procurement of materials, equipment, project management, quality assurance, scheduling, and value engineering.
Cost of transportation	Amounts paid for transportation of workers, materials, and supplies in connection with the construction project.
Cost of handling and storage	Amount paid for packaging and storing the materials, supplies, and equipment used in the construction project.
Cost of injuries and damages	Costs incurred as a result of injuries to people or damage to property incurred directly as a result of the construction project.
Cost of legal and recording fees	Legal fees incurred to bring the asset to its intended use (e.g., title or recording fees).
Cost of architecture and engineering studies	Amounts paid for engineering, architectural, and other outside services for designs, plans, specifications, and surveys. May include design reviews, environmental impact studies, and soil testing for the new construction projects.
Cost of site and asset preparation	Amounts paid to prepare the site for new construction, such as soil removal, grading, and infill. Includes amount paid to prepare the asset for its intended use, such as installation of utilities into an asset.
Cost of installed equipment	Fixed equipment and related installation costs required for a complete and usable asset. The term, Installed Equipment, refers to equipment that has been affixed and built into a facility (real property) as an integral part of the facility. An example of this would be an HVAC system. Installed Equipment is a part of the "construction" and will be funded as a construction cost.
Usage Cost of government furnished equipment or material (GFE, GFM)	The usage cost of the government furnished equipment, material, and facilities used in construction work. Example: Use of a government owned grader for site preparation billed at the assigned hourly rate.
Cost of donated assets	The fair market value of real property and installed equipment donated to the government.

E.2. Internal Controls

E.2.1 Statement of Deficiency

Internal controls are currently not adequate to ensure that completed real property project costs were transferred from the CIP account to the real property account promptly and in the proper amount.

E.2.2 Proposed Solution

The internal control activity is a fundamental element of an organization's management structure. It provides reasonable assurance of effectiveness and efficiency of operations, reliability of financial reporting, and compliance with applicable laws and regulations. The concept of internal control refers to a series of ongoing actions and activities that occur throughout an entity's operations to facilitate the efficient continuity of operations. Internal control should be recognized as an essential component of each system that management uses to regulate and guide its operations, rather than as a separate process, within an organization.

The table below demonstrates recommended internal control activities specific to CIP:

<i>CIP Process¹⁷</i>	<i>Financial Statement Assertion</i>	<i>Internal Control</i>
Perform Build and Make and Maintenance and Sustainment	Existence or Occurrence, Completeness	For a construction project, the same project number must be used for all phases.
	Existence or Occurrence, Completeness	Each project deferred for more than two years must be reviewed for continuance or cancellation during the review cycle.
	Existence or Occurrence, Completeness	Each construction in progress (CIP) account in an abeyance status must be reviewed for continuance or cancellation during the review cycle.
Develop or Modify Contract or Order	Existence or Occurrence, Completeness	An authorized work order for an in house minor construction project must be present to initiate construction in progress (CIP).
Create CIP and or WIP Account	Existence or Occurrence, Completeness	The creation of a work in progress (WIP) ¹⁸ or construction in progress (CIP) account for real property assets must be dependent on the type of work, asset, and funding method.
	Existence or Occurrence, Completeness	Each military construction project performed by construction agents must have both planning and design and fund authorizations prior to initiating construction in progress (CIP) or work in progress (WIP).
	Existence or Occurrence, Completeness	An authorized work order for an in house minor construction project must be present to initiate construction in progress (CIP) account.
	Presentation & Disclosure	The construction in progress information submitted for financial reporting must include at least the CIP amount, Customer Project Number, Project Detail Fund Code(s), Project Detail Cost, Project Detail Organization Code(s), Programmed Amount, and Real Property Unique Identifier(s).

¹⁷ As defined by the DoD Business Enterprise Architecture

¹⁸ A. When a DoD entity is constructing a real property asset to be transferred to another DoD entity on a cost reimbursable basis, the constructing entity must accumulate cost in a Work in Progress (WIP) account.

B. For each cost-shared project between Federal and Non-federal entities where the Federal Government is the construction agent, a Work In Progress (WIP) account must be created if the asset is not federally owned.

<i>CIP Process</i>	<i>Financial Statement Assertion</i>	<i>Internal Control</i>
Create CIP and or WIP Account	Existence or Occurrence, Completeness	An authorized work order for an in house minor construction project must be present to initiate construction in progress (CIP) account.
	Presentation & Disclosure	The construction in progress information submitted for financial reporting must include at least the CIP amount, Customer Project Number, Project Detail Fund Code(s), Project Detail Cost, Project Detail Organization Code(s), Programmed Amount, and Real Property Unique Identifier(s).
Update CIP and or WIP Account	Existence or Occurrence, Completeness	Each construction in progress (CIP) account in an abeyance status must be reviewed for continuance or cancellation during the review cycle.
	Existence or Occurrence, Completeness	When a portion of a project is cancelled or decreased in scope, the cost directly associated with that portion of the project and an allocated portion of the common cost in the construction in progress (CIP) must be expensed.
	Existence or Occurrence	For a specified project and for the purpose of an audit trail of the construction in progress (CIP) account, the government's project construction agent and the sponsoring entity must retain the supporting documentation for their respective portion of the project that they have fiscal accountability for.
	Existence or Occurrence, Valuation or Allocation	For financial reporting purposes, the portions of construction in progress (CIP) reported by the construction agent and sponsoring entity must reconcile to the total amount of construction in progress (CIP) reported for the project.
	Presentation & Disclosure	The construction in progress information submitted for financial reporting must include at least the CIP amount, Customer Project Number, Project Detail Fund Code(s), Project Detail Cost, Project Detail Organization Code(s), Programmed Amount, and Real Property Unique Identifier(s).
	Presentation & Disclosure	The sponsoring entity shall continue to report construction in progress (CIP) on its financial statements until the real property asset is accepted by the real property accountable Component.
	Existence or Occurrence, Completeness	At the time the real property asset or an improvement to an asset is placed in service, the cost accumulated in the construction in progress (CIP) account must be relieved.
	Existence or Occurrence, Completeness	When a project is cancelled, each cost accumulated in construction in progress (CIP) accounts must be expensed.
	Existence or Occurrence, Completeness	All costs that extend the useful life of an existing asset, or enlarge or increase its capacity, shall be capitalized

<i>CIP Process⁴</i>	<i>Financial Statement Assertion</i>	<i>Internal Control</i>
Relieve CIP and or WIP Account	Existence or Occurrence, Completeness	For a real property construction project, all costs for improvements that increase the useful life, efficiency, capacity, or size of an existing asset, or modifies the functionality or use of an asset shall be capitalized.
	Existence or Occurrence, Completeness	When a project is cancelled, each cost accumulated in construction in progress (CIP) accounts must be expensed.
	Existence or Occurrence, Completeness	When a portion of a project is cancelled or decreased in scope, the cost directly associated with that portion of the project and an allocated portion of the common cost in the construction in progress (CIP) must be expensed.
	Existence or Occurrence, Completeness	At the time the real property asset or an improvement to an asset is placed in service, the cost accumulated in the construction in progress (CIP) account must be relieved.
	Existence or Occurrence, Completeness	All additional project costs incurred following the placed in service date shall be transferred from the construction in progress (CIP) account to the real property asset account by RPUID with the final <i>Transfer and Acceptance of Military Real Property</i> document.
	Existence or Occurrence, Completeness	For construction projects that are completed in multiple phases, the cost of each phase is transferred from the construction in progress (CIP) account to the real property asset account at the time the phase is placed in service.

The table below illustrates the roles and responsibilities for maintaining, recording, reporting, and relieving CIP accounts from project initiation to acceptance of the real property asset:

TABLE 1: Roles and Responsibilities

Sustainable Business Process	Organizational Structure ¹	Funding Type	Construction Type (New, Improvement)	RPUID Assignment ²	Who plans and programs for the project	Who did Congress appropriate/authorize the funds to	Who maintains CIP	On whose balance sheet will CIP be reported?	Who prepares acceptance transactions	Who accepts the facility ³	Who reports the facility on the balance sheet upon being Placed In Service
1 Single use facility on a single site	General Fund (GF), Working Capital Fund (WCF)/Revolving Fund	MILCON, O&M, WCF, Other (e.g., NAF)	New or Improvement	Real Property Accountable Component	The Sponsoring Entity(s)	The Sponsoring Entity(s)	1) Direct Cite Basis To Construction Agent Construction Agent 2) Reimbursable Basis To Construction Agent The Sponsoring Entity(s) 3) Local Contract The Sponsoring Entity(s)	The Sponsoring Entity(s)	The Construction Agent	Real Property Accountable Component	The preponderant user (if Defense Agency or WCF activity), otherwise the real property accountable component.
2 Joint use facility on a single site	Multiple General Fund (GF) organizations.	MILCON	New or Improvement	Real Property Accountable Component	The Sponsoring Entity(s)	The Sponsoring Entity(s)	1) Direct Cite Basis To Construction Agent Construction Agent 2) Reimbursable Basis To Construction Agent The Sponsoring Entity(s) 3) Local Contract The Sponsoring Entity(s)	The Sponsoring Entity(s)	The Construction Agent	Real Property Accountable Component	The preponderant user if the GF org is a defense agency or real property accountable component if Military Service
3 Joint use facility on a single site	Working Capital Fund (WCF)/Revolving Fund and General Fund (GF) organizations. Working Capital Fund (WCF)/Revolving Fund organization is the preponderant user	MILCON	New	Real Property Accountable Component	The Sponsoring Entity(s)	The Sponsoring Entity(s)	1) Direct Cite Basis To Construction Agent Construction Agent 2) Reimbursable Basis To Construction Agent The Sponsoring Entity(s) 3) Local Contract The Sponsoring Entity(s)	The Sponsoring Entity(s)	The Construction Agent	Real Property Accountable Component	The preponderant user. In this case, the WCF/Revolving tenant.
4 Joint use facility on a single site	Multiple Working Capital Fund (WCF)/Revolving Fund organizations	MILCON	New	Real Property Accountable Component	The Sponsoring Entity(s)	The Sponsoring Entity(s)	1) Direct Cite Basis To Construction Agent Construction Agent 2) Reimbursable Basis To Construction Agent The Sponsoring Entity(s) 3) Local Contract The Sponsoring Entity(s)	The Sponsoring Entity(s)	The Construction Agent	Real Property Accountable Component	Each WCF/Revolving entity has to account for its portion of investment.
5 Joint use facility on a single site	Working Capital Fund (WCF)/Revolving Fund and General Fund (GF) organizations. Working Capital Fund (WCF)/Revolving Fund organization is NOT the preponderant user	MILCON	New	Real Property Accountable Component	The Sponsoring Entity(s)	The Sponsoring Entity(s)	1) Direct Cite Basis To Construction Agent Construction Agent 2) Reimbursable Basis To Construction Agent The Sponsoring Entity(s) 3) Local Contract The Sponsoring Entity(s)	The Sponsoring Entity(s)	The Construction Agent	Real Property Accountable Component	WCF/Revolving and GF will report their portion of investment.
6 Joint use facility on a single site	Multiple Working Capital Fund (WCF)/Revolving Fund organizations	WCF	Improvement	Real Property Accountable Component	The Sponsoring Entity(s)	The Sponsoring Entity(s)	1) Reimbursable Basis To Construction Agent The Sponsoring Entities 2) Local Contract The Sponsoring Entity(s)	The Sponsoring Entities (proportionate to their investment)	The Construction Agent	Real Property Accountable Component	Each WCF/Revolving entity has to account for its portion of investment.
7 Joint use facility on a single site	Multiple Working Capital Fund (WCF)/Revolving Fund & General Fund (GF) organizations. Working Capital Fund (WCF)/Revolving Fund is the preponderant user	Joint WCF and O&M	Improvement	Real Property Accountable Component	The Sponsoring Entity(s)	The Sponsoring Entity(s)	1) Reimbursable Basis To Construction Agent The Sponsoring Entities 2) Local Contract The Sponsoring Entity(s)	The Sponsoring Entities (proportionate to their investment)	The Construction Agent	Real Property Accountable Component	The preponderant user. In this case, the WCF/Revolving tenant.
8 Joint use facility on a single site	Multiple Working Capital Fund (WCF)/Revolving Fund & General Fund (GF) organizations. Working Capital Fund (WCF)/Revolving Fund is NOT the preponderant user	Joint WCF and O&M	Improvement	Real Property Accountable Component	The Sponsoring Entity(s)	The Sponsoring Entity(s)	1) Reimbursable Basis To Construction Agent The Sponsoring Entities 2) Local Contract The Sponsoring Entity(s)	The Sponsoring Entities (proportionate to their investment)	The Construction Agent	Real Property Accountable Component	WCF/Revolving and GF will report their portion of investment.
9 Cost shared construction between non-federal & federal (DoD) governments	General Fund (GF), Working Capital Fund (WCF)/Revolving Fund, Other	MILCON, Other	New or Improvement	Real Property Accountable Component	The Sponsoring Entity(s)	The Sponsoring Entity(s)	The Sponsoring Entity(s)	The Sponsoring Entities (proportionate to their investment)	The Construction Agent	Real Property Accountable Component	Real property accountable component if on DoD land

1 - RPUIDs will be requested through the assigned RPAO of the accountable component
 2 - Although some sponsoring entities are not authorized to hold real property, the sponsoring entities should be present at the acceptance
 3 - Revolving Funds include organizations such as NAFI

E.3 Supporting Documentation

E.3.1 Statement of Deficiency

CIP values reported on financial statements could not be reconciled with ongoing projects because of inadequate or missing supporting documentation.

E.3.2. Proposed Solution

The BPR working group identified the list of auditable supporting documentation that must be maintained to provide a complete audit trail for an accepted real property asset. The location of this information must be provided to the real property accountable officer (RPAO), by the government's project construction agent or the sponsoring entity. In addition, for a specified project, the government's project construction agent and the sponsoring entity must retain all supporting documentation for their respective portions of the project for which they have fiscal accountability.

List of supporting documentation to be retained	
Evidence of Project Approval	Such as, but not limited to: 1) Work Order
Evidence of Obligation on Behalf of the Government	Such as, but not limited to: 1) For Contracts and Contract modifications, the following information is utilized: <ul style="list-style-type: none">• Statement of Work,• Dollar Amount of Contract,• Location,• Source of Funds,• Parties to the Contract, and• Signature Page [Signature of All Parties]. 2) Documentation of troop labor hours 3) Approved Work Order
Evidence of Payment Submitted	Such as, but not limited to: 1) Approved last invoice reflecting the total amount submitted for payment and received to date. 2) Evidence of in-house construction costs, including labor
Evidence of Facility Acceptance and CIP Relief	Such as, but not limited to: 1) Interim or final DD Form 1354 with associated source documentation retained by the responsible party. Note: All cost information transferred from the CIP account to the real property asset account at the time the asset is placed in service, will be supported by the DD Form 1354.
Evidence of Project Closeout	Such as, but not limited to: 1) Final DD Form 1354 with associated source documentation retained by the responsible party.

Appendix F: Definitions

Term	Definition
Architecture & Engineering (A&E) Agent	An Architecture & Engineering (A&E) Agent represents both a firm that does only design work, and a firm that can do design and construction. In the case of the latter, the combination is usually a construction contractor that sub-contracts a design firm to assist in the Design Build acquisition strategy.
Capital Improvement	The term capital improvement includes any improvement that increases the useful life, efficiency, capacity, size of an existing asset or modifies the functionality or use of the asset, regardless of the source of funding or capitalization threshold.
Capital Improvement Placed In Service Date ¹⁹	The calendar date the improvement to a real property facility is available for use by DoD. The date on which a leasehold improvement (capital improvement) is made to a leased facility. On this date, the government assumes liability and the warranties begin for the capital improvement to which they have received title. Also includes date of leaseholds.
Completeness	Financial statement assertions regarding management's completeness address whether all transactions and accounts that should be presented in the financial statements are so included. When conducting tests to verify the completeness assertion, auditors search for understatements. Testing begins with the supporting source documents and progresses toward the accounting records.
Construction in Progress (CIP)	In the context of real property construction, this represents the accumulation of costs of construction for or by the sponsoring entity since project inception.
Design Build	A design build contract or order indicates that both the design and construction of a real property asset is awarded and executed by the same Architecture & Engineering (A&E) agent (s) as part of one contract or order. I.e. the same A&E agent(s) conducts the design of a required real property asset and also executes the construction of the design upon completion. For the Army this would include an adapt build contract or order that indicates that the construction agent (USACE) will adapt an existing standard design (representing approximately 85% design complete) to meet local design criteria and the space available on the site. The final USACE design will be a 100% complete design. A construction contract will be awarded to build the project.
Design Bid Build	A design bid build contract or order indicates that design and construction of a required real property asset is executed by the two or more different Architecture & Engineering (A&E) agents. The design contract is initially awarded to a design agent (s) and once the design is completed, the construction agent(s) required to execute the construction of the completed design is sourced through a competitive bid process
Direct Cite	When funds are provided on a Direct Cite basis, the executing contracting agent will use the accounting codes (Line of Accounting) provided by the Sponsor (Funding Activity). All accounting relevant actions will be reported to the Funding Activity - Commitments, Obligations, Accrued Cost/Payables, and Disbursements/Expenditures for their Financial Reports.
Direct Costs	Direct costs are costs that can be specifically identified with an output. All direct costs should be included in the full cost of outputs. Typical direct costs in the production of an output include: (a) Salaries and other benefits for employees who work directly on the output; (b) Materials and supplies used in the work; (c) Various costs associated with office space, equipment, facilities, and utilities that are used exclusively to produce the output; and

¹⁹ For additional detail see table for “Placed in Service Date for Improvement Methods” refer to the Real Property Acceptance Requirements document, August 2006 at <http://www.acq.osd.mil/ie/bei/library.htm>.

Term	Definition
	(d) Costs of goods or services received from other segments or entities that are used to produce the output (See discussions and explanations in the next section on "Inter-Entity Costs").
DoD Construction Agent	In accordance with DoDD 4270.5, the U.S. Army Corps of Engineers, the Naval Facilities Engineering Command, or such other approved DoD activity assigned the design or construction execution responsibilities associated with the military construction program.
Existence or Occurrence	Financial statement assertions regarding existence or occurrence address whether assets and liabilities exist at a given date and whether recorded transactions occurred during a given period. When testing existence or occurrence assertions, auditors search for overstatements. Existence or occurrence testing should begin with the accounting records and progress toward the supporting evidence.
Indirect Costs	Indirect costs are costs of resources that are jointly or commonly used to produce two or more types of outputs but are not specifically identifiable with any of the outputs. Typical examples of indirect costs include costs of general administrative services, general research and technical support, security, rent, employee health and recreation facilities, and operating and maintenance costs for buildings, equipment, and utilities.
Logical Data Model (OV-7)	The OV-7 provides an integrated view of the data pertinent to DoD Business Mission Areas.
Military Construction	The term military construction as used in 10 USC §2801 includes any construction, development, conversion, or extension of any kind carried out with respect to a military installation. A military construction project includes all military construction work necessary to produce a complete and usable facility or a complete and usable improvement to an existing facility.
Military Department	In accordance with DODD 5110.4, for purposes of the Pentagon Reservation, Washington Headquarters Services shall be considered a Military Department and its Director the secretary thereof.
Operational Event-Trace Description (OV-6c)²⁰	These high-level views are useful for representing key performance parameters, thresholds, and objectives, and for building conceptual operational threads throughout the model. Operationally significant data objects and the information they contain form the information building blocks that are used to describe significant operational flows through the use cases. The OTS provides a way to represent the CONOPS and thread the pieces of the model productively ²¹ .
Operational Rules Model (Business Rules) (OV-6a)	The OV-6a captures business rules that constrain an enterprise, mission, operation, business, or architecture. The business rules describe what the business can and cannot do.
Operational Views (OV)	The OV is a description of the tasks, activities, operational elements, and information exchanges required to accomplish DoD missions. DoD missions include both warfighting missions and supporting business processes. The OV contains graphical and textual products that identify the operational nodes and elements, assigned tasks and activities, and information flows required between nodes. It defines the types of information exchanged, the frequency of the exchanges,

²⁰ Depiction of objects with explanation are located at end of this section

²¹ DoD Architecture Framework Version 1.0, Deskbook, DoD Architecture Framework Working Group, 15 August 2004, p. 2-63.

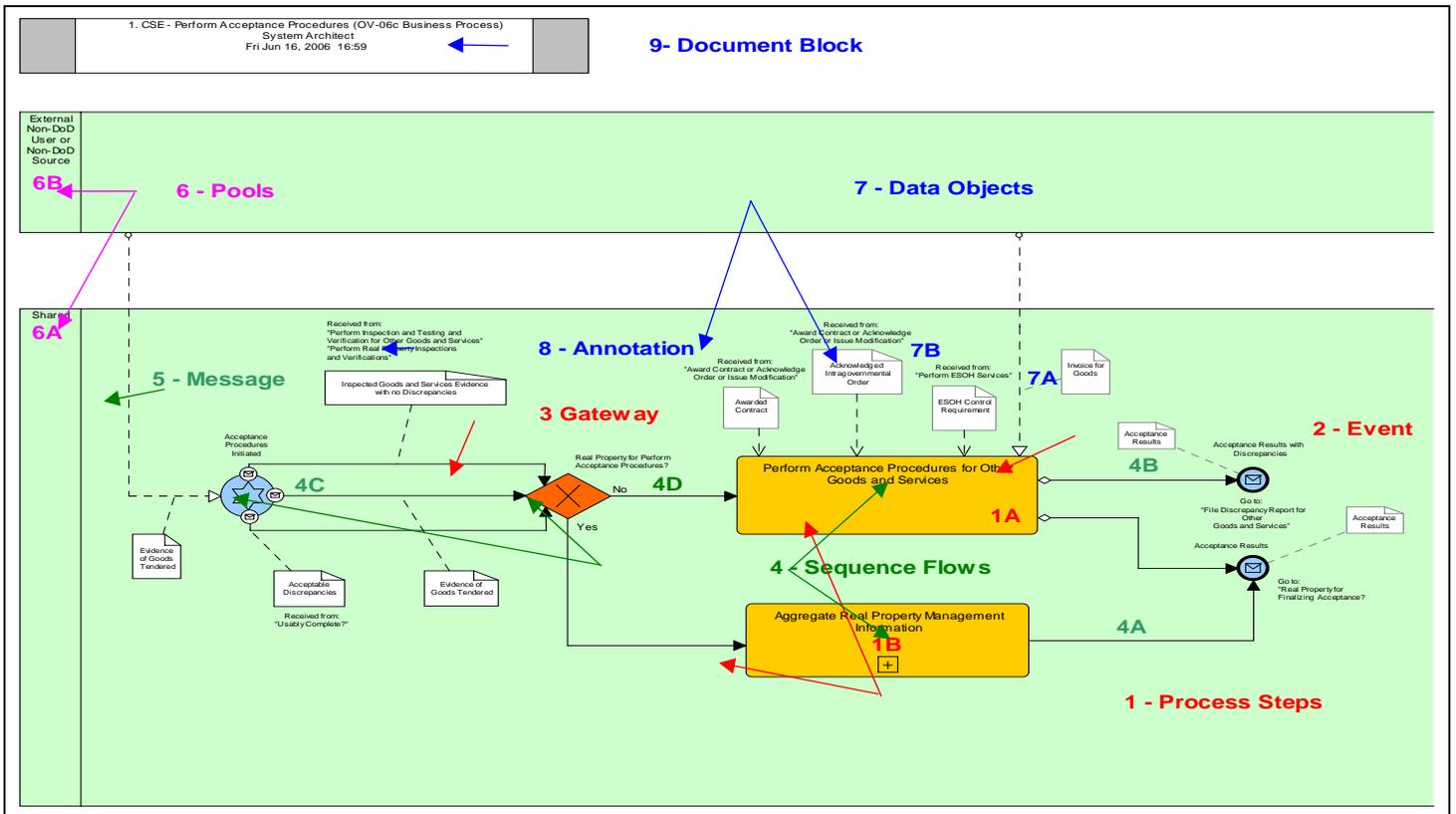
Term	Definition
	which tasks and activities are supported by the information exchanges, and the nature of information exchanges ²² .
Preponderant User	The DoD Component whose activities comprise the predominant use of a facility, as measured by using the largest quantity or unit of measured space. When determining which DoD Component must recognize a General PP&E asset for accounting and financial statement reporting purposes, refer to DoD FMR Volume 4, Chapter 6, 060105B.
Presentation and Disclosure	Financial statement assertions regarding presentation and disclosure address whether transactions are recorded in the proper accounts and whether particular components of the financial statements are accurately classified, described, and disclosed.
Real Property Accountable Component	The Military Department authorized under Title 10 to hold real property. In accordance with DODD 5110.4, for the purposes of the Pentagon Reservation, Washington Headquarters Services shall be considered a Military Department.
Real Property Asset Placed In Service Date ²³	The calendar date the real property asset is available for use by DoD. On this date, an interim Transfer and Acceptance of Military Real Property document (DD Form 1354) is signed, title for assets listed on the acceptance form is transferred, and the punch list of additional work and certificate of occupancy by local authorities are attached to the acceptance form. On this date, the government assumes liability and the warranties begin for the asset to which DoD has received title.
Real Property Unique Identifier (RPUID)	As defined in the RPIR, the real property unique identifier (RPUID) is a non-intelligent code used to permanently and uniquely identify a real property asset. Each real property asset in which the DoD has a legal interest must be assigned a Real Property Unique Identifier (RPUID).
Repair	The term repair project as used in 10 USC §2811 means a project to restore a real property facility, system, or component to such a condition that it may effectively be used for its designated functional purpose.
Rights and Obligations	Financial statement assertions regarding management's rights and obligations focus on whether assets and liabilities constitute the rights and liabilities of the entity on a given date. Audit procedures designed to test rights and obligations assertions often involve reading documents such as deeds, contracts, and vendor invoices to determine whether the organization has satisfactory title to its assets and whether the entity is obligated to pay the liabilities.
Sponsoring Entity	The military department, DoD agency or combatant command that sponsors the construction project. DoD agencies and combatant commands are not authorized to own real property and as such these assets are owned by and held in the real property inventory of real property accountable Component for the site where the asset is located.
Supervision, Inspection, and Overhead	Supervision, Inspection, and Overhead (SIOH) is a fee applied to the cost of a construction contract to recover direct and indirect expenses for a project's construction management services. Examples of Supervision, Inspection, and Overhead may include but are not limited to the following: administration of social programs, claims analysis, constructability review, contract/project administration, cost estimation, cost management, labor rates, materials testing, post construction activities, procurement of materials, equipment, project management, quality

²² DoD Architecture Framework Version 1.0, Volume I: Definitions and Guidelines, DoD Architecture Framework Working Group, 15 August 2004, p. 1-2.

²³ For additional detail see table for “Placed in Service Date for Acquisition Methods” refer to the Real Property Acceptance Requirements document, August 2006 at <http://www.acq.osd.mil/ie/bei/library.htm>.

Term	Definition
	assurance, scheduling, and value engineering.
Valuation or Allocation	Financial statement assertions regarding valuation or allocation address whether assets and liabilities are valued properly and whether costs are allocated reasonably among assets and time periods.
Work in Progress (WIP)	In the context of real property construction, this represents the accumulation of costs by the construction agent that will be billed to the sponsoring entity since project inception. The billed costs are recorded in the corresponding construction in progress (CIP) account by the sponsoring entity.

Figure 1, Objects of an OV-6c Diagram



Flow Objects are actually perform the work and produce the products, synchronize the Process Steps, and direct the process flow. Red numbers identifies these on Figure 1. The flow objects are:

1. **Process Steps** perform the work and produce the product. Process steps, called *tasks* (1A), are not further broken down into more detail. Other Process Steps, *sub-processes* (1B), are further broken down in another diagram. Sub-processes are identified with a "+" stereotype.
2. **Events** act like traffic signals and hold up the Process or allow it to proceed in response to things that happen, called *triggers*. A *Start Event* starts the Process in response to a trigger (in this case receipt of one of many allowable messages, shown by the envelope stereotype). An *End Event* (2) signifies the completion of the Process. End Events may cause an Event to happen; in this case, it sends a message when the Process ends.
3. **Gateways** act like switch tracks. Depending on decision criteria, the correct process path among many possible alternatives or synchronizing multiple Process paths is taken.

Arrows that show the process flow via process sequence or passing synchronizing messages represent *Connection Objects*. Green numbers identifies these on Figure 1. The connection objects are:

1. **Sequence Flows**, shown by solid arrows, are like railroad tracks that simply take the process flow from one Process Step to the next. Many Sequence Flows (4A) are neither labeled nor have conditions associated with them. *Conditional Sequence Flows* (4B) are identified by a diamond icon at the starting end and are taken when the condition is true. Some Sequence Flows have an *initiating event* (4C) that triggers the Sequence Flow, as when receiving a message. Finally, some Sequence Flows are *named Sequence Flows* (4D) for clarity, such as after making a choice in a Gateway.
2. **Message flows**, shown by dotted arrows, are messages between independent organizations (represented by separate *Pools*) that synchronize their separate internal processes. Message Flows are not the same as data flows; their *only* purpose is to signal readiness to proceed.