

DESIGN INTENT DRAWING REVIEW GUIDE



Table of Contents

Introduction	1
Welcome!.....	1
Background	1
Purpose and Benefits	2
How to Use this Guide	2
Elements of Design Intent Drawing Set	4
Introduction	4
Design Intent Drawings (DID) Elements.....	6
1. Cover Sheet - Level 1 and Level 2.....	6
2. Demolition Plan (If applicable) - Level 1 and Level 2	7
3. Construction (Partition) Plan - Level 1 and Level 2	8
4. Power/Communications (Electrical) Plan - Level 1 and Level 2	10
5. Furniture Plan (generic) - Level 1 and Level 2.....	11
6. Finish Plan - Level 1 and Level 2.....	12
7. Reflected Ceiling Plan - Level 2	14
8. Interior Elevations - Level 2.....	15
9. Interior Sections - Level 2.....	17
10. Partition (Wall) Sections - Level 2	18
11. Door/Hardware Schedule - Level 2	19
Design Intent Drawing Set Examples.....	21
DID Level 1 Example.....	21
DID Level 2 Example.....	21
Supplemental Examples and Schedules	22
Common Electrical Symbols.....	22
Examples of common furniture symbols	23
Finish Specification Schedule Example (Finish Plan alternate).....	24
DID Project Schedule Example	25
Typical Space Alteration Process	26

Reference Guides and Standards	27
Applicable Codes, Standards and Guidelines.....	27
Common DID Abbreviations	28
Common Lock Functions	29
Door Hardware Glossary of Common Terms	30
DID Checklists	33
DID Level 1 Checklist	33
DID Level 2 Checklist	33
DID Glossary of Terms	34

Introduction

Welcome!

Are you reading this Guide because you are part of a project team working with GSA? You may have been asked to review design drawings and provide input to ensure your agency gets the space that meets the needs and fulfills all the requirements provided to GSA at the beginning of either the lease process or your future move to or in Federal space.

If this sounds familiar, or if you currently find yourself involved in a space alteration project, this Guide will help make the review process more understandable and easier to navigate. The Guide will acquaint you with the look and layout of **Design Intent Drawings (DID)**. You'll find a **Glossary of Terms** at the end to help you with all the new terminology you may hear during the meetings and workshops. You can find what you need by using the PDF reader 'find' function, or you can fully read through the Guide to understand the overall process. Either way, using this reference ensures your voice will be heard during the drawing review process. In addition, the Guide contains two **DID Checklists** (Level 1 and Level 2) that you may download and print to help you keep track of all the reviewed information in an orderly manner and make notes for items that need further review and clarification.

Background

In the summer of 2014, GSA conducted a lessons learned meeting with two of our client agencies to find out what went well, did not go well, and in what areas GSA might improve upon in subsequent projects. One concern centered on the review of DID submittals by agency personnel. Many did not fully understand what needed to be reviewed. Often, their primary work functions fell outside of facilities management, space planning, or architecture/engineering disciplines and they felt like they were trying to understand a new language with visuals like hieroglyphics.

To address this concern, GSA convened a diverse, cross-regional team to prepare a guide that project teams could use to help review basic and detailed DIDs. This document resulted from the team's effort. For those with DID experience, some aspects of the Guide may be simplistic, but for others it will provide the first steps toward learning and understanding a new language, with examples and guidance to demystify common details found in DIDs (which may carry-over into architectural or engineering drawings).

GSA will post this Guide on our regional and national website, creating a collaborative environment for comments, clarifications and improvements, to refine the Guide and make it a useful tool for our clients as they review **Design Intent Drawings**.

Purpose and Benefits

This Guide serves several purposes. Altering or acquiring space is a multi-step process, whether reconfiguring existing space, or acquiring new space. This Guide offers a comprehensive checklist or 'road map' to aid both tenant agencies and GSA personnel that review **Design Intent Drawing** sets during the space design phase of a project. The document:

- Uses graphic examples and descriptive narratives to identify and describe key elements of a DID set, so the end-user may review DIDs and ensure the documents accurately reflect tenant requirements.
- Defines, describes, and explains the content included in DIDs for leased and federal space alterations.
- Provides a common language and expectation for the review process and outcome of a formal DID review, and establishes a checkpoint for missing items in a DID set.
- Defines the differences between Level 1 and Level 2 DIDs by setting parameters for projects with different complexity levels, by illustrating what should or should not be included in each type of DID set.
- Provides a list of the most commonly referenced codes and standards applicable to developing DIDs, and their respective website links.
- Provides a **Glossary of Terms** that relate to **Design Intent Drawings**.

The Guide will be useful for GSA customer agencies and GSA personnel whose experience, mission or normal course of work does not include reading design and construction drawings. Additionally, those familiar with the DID process may also benefit from the checklist's consistent format. Regions may determine which level of DID review is most appropriate for projects.

How to Use this Guide

During a DID review, this Guide should always be used in conjunction with the tenant agency's design/construction requirements document (e.g. a **Program of Requirements** or **Agency Specific Requirements**). The Guide has been organized into Chapters so information may be easily located. Throughout the Guide, words or phrases shown in blue bold typeface signify additional information (e.g. definition, examples) may be found elsewhere in the Guide. Click on the bold word or phrase to take you directly to the additional information.

The Guide begins by breaking down the Elements of content for both Level 1 and Level 2 DID sets using written descriptions with graphic examples of each **drawing sheet** and/or cross-references to an example elsewhere in the Guide. Element descriptions are lettered in bold type and indicated on the drawing sheet example(s) below the descriptions. Click on the link below each example for an enlarged view of the sheet.



The designation of "Level 1" and "Level 2" for the two differing levels of content within DIDs has been established for the communication objective of this DID Review Guide, and are not an industry and/or governmental standard.

DID Checklists for both Level 1 and Level 2 drawing sets are also provided to complement this information. GSA highly recommends reviewers fully read through the Guide before using the DID Checklists. Many references made on the Checklists are more fully explained in the **Elements of a Design Intent Drawing Set** section.

Supplemental examples, schedules, and other helpful drawing references are also provided in the Guide, including an extensive **DID Glossary of Terms**.

Elements of Design Intent Drawing Set

Introduction

Design Intent Drawings (DID) serve as a critical means to communicate a tenant agency's space requirements for constructing and assembling interior spaces, cabinetry/millwork, the placement of furniture and other details throughout the space. They are produced after a final floor plan layout (usually a **Block Plan**; sometimes a **Test Fit**) is approved by the tenant agency, but prior to the **Construction Documents (CD)** development phase (see a project **Typical Space Alteration Process** overview in **Supplemental Examples and Schedules** section of this Guide). DIDs are **drawn-to-scale** and, although there is no one way to produce them. DIDs do follow established GSA and architectural/design industry graphic standards and conventions, both in how drawing sets are constructed, and the content they provide. The information in DIDs expresses the foundation of design criteria that will be further developed and engineered during the CD phase.

As referenced in this Guide, an 'Element' refers to design information organized and presented on an individual **drawing sheet** in a set of drawings, and pertaining to a specific aspect or discipline of the overall design package. For example, the Element information on a **Power/Communications Plan** is dedicated to expressing the electrical and data requirements of a space, while the Element information on a **Finish Plan** is dedicated to showing what finishes have been selected or approved and where they are to be located.

Elements of a **Design Intent Drawing Set** can typically be expressed in two "levels" of content during drawing set development. The more common Level 1 drawing set will show the required minimum level of design content. In some instances, however, a more inclusive Level 2 drawing set may be provided, which includes more detailed (but not engineered) design (and some construction) information. The Elements for Level 1 and Level 2 are presented here together, since some Elements are applicable for both.

While the DID Elements presented here are each individually presented on a separate **drawing sheet** in the drawing set, there may be instances (usually on a smaller project) where certain Elements may be shown



*Note: while some Elements are commonly found in both Level 1 and Level 2 DID sets, there may be some differences in Element content between the two Levels. Content differences are noted within each Element description, if applicable, with graphic examples for both Levels then provided, where appropriate. For example, **Cover Sheets** for a Level 1 and a Level 2 DID set contain the same information, so one graphic example is provided to represent both Levels. **Construction/Partition Plans** for Level 1 and Level 2, however, have a few differences, so graphic examples are provided for each one.*

combined on a single sheet (e.g. Power/Communications information included on the Construction/Partition Plan sheet, Interior Sections included on the Interior Elevations sheet).

The **drawing sheet** content found in Level 1 and Level 2 drawing sets as discussed in this DID Review Guide, is as follows:

#	Type of Drawing	Level 1 DID	Level 2 DID
1	Cover Sheet	x	x
2	Demolition Plan (if applicable)	x	x
3	Construction (or Partition) Plan	x	x
4	Power/Communications (or Electrical) Plan	x	x
5	Furniture Plan	x	x
6	Finish Plan	x	x
7	Reflected Ceiling Plan		x
8	Interior Elevations		x
9	Interior Sections		x
10	Partition Types/Sections		x
11	Door/Hardware Schedule		x

Design Intent Drawings (DID) Elements

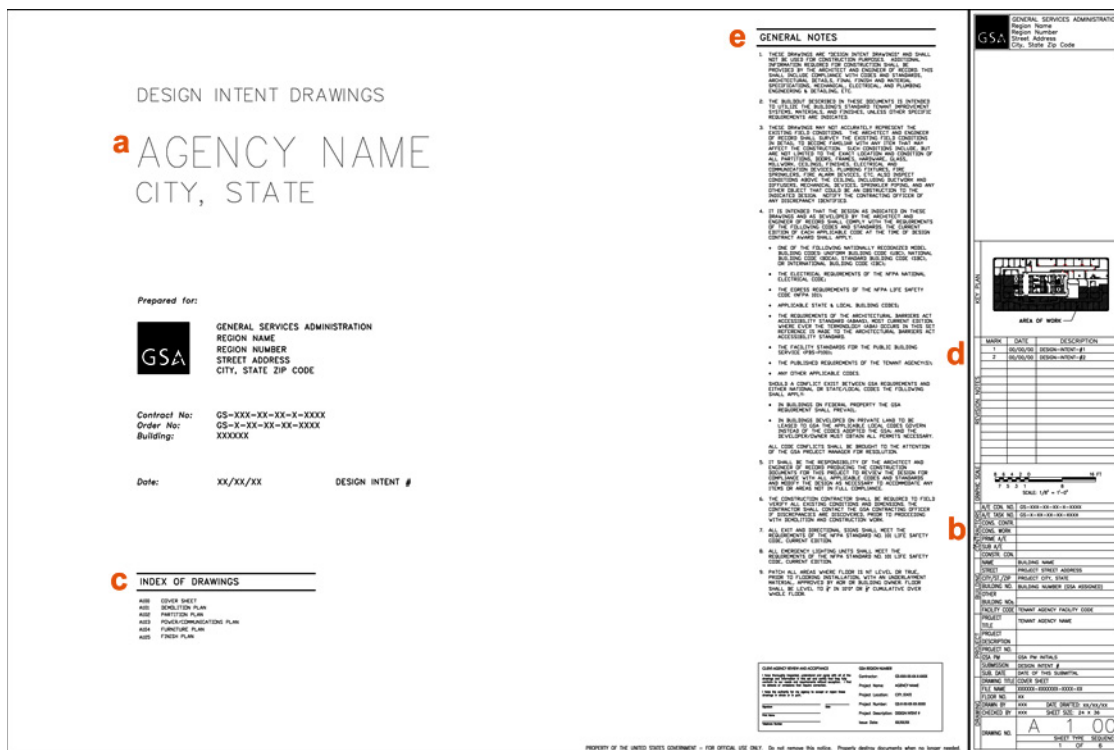
1. Cover Sheet - Level 1 and Level 2

The Cover Sheet, although basic in nature, serves as a very important page in a DID set of drawings. It typically shows:

- a. The project name and location/address.
- b. Name of the design contractor, GSA designer and/or other consultants involved in developing the DIDs.
- c. An Index of Drawings in the set listed in the order they appear.
- d. Dates of the initial and any revised DID submittals.
- e. **General Notes** that set the standard for reference information applicable throughout the DID set, including applicable Codes and Standards that have jurisdiction over the design of the project.

And may include:

- f. Total **Usable Square Footage (USF)** of the project.



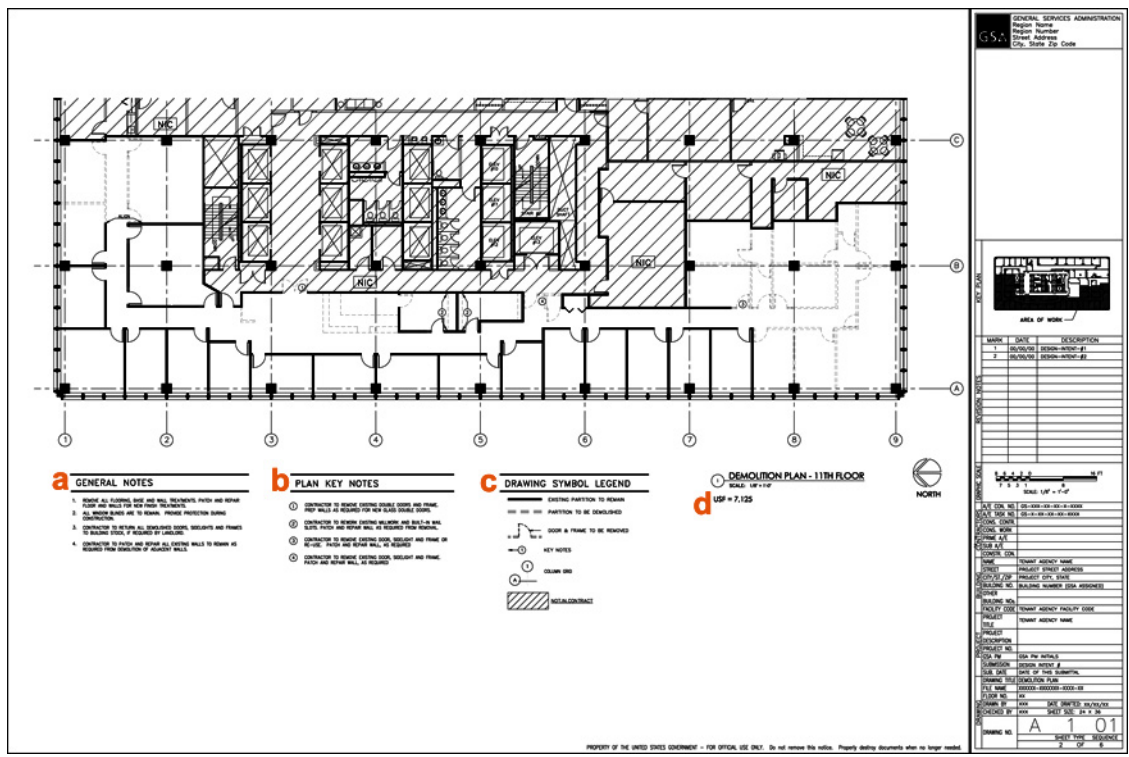
Combined Level 1/Level 2 Cover Sheet Examples.

Click [Cover Sheet - Level 1 and Level 2](#) to view larger.

2. Demolition Plan (If applicable) - Level 1 and Level 2

The Demolition Plan, in a DID set, is a **drawn-to-scale** floor plan that shows a horizontal section looking down through a building, typically at about three to four feet above the finished floor. This plan denotes all existing constructed elements and specifically highlights (usually in dotted line) any existing area/element (and/or sometimes finishes) that needs to be demolished or removed prior to beginning construction of the approved **Construction Plan**. A Demolition Plan is only needed if there are existing conditions to be removed before new construction can begin. The Demolition Plan typically shows:

- a. **General Notes** that provide overall references to the drawing.
- b. **Key Notes** that provide specific reference to tagged elements within the drawing.
- c. A Symbol Legend that identifies specific symbols used in the drawing.
- d. Total **Usable Square Footage (USF)** of the project.



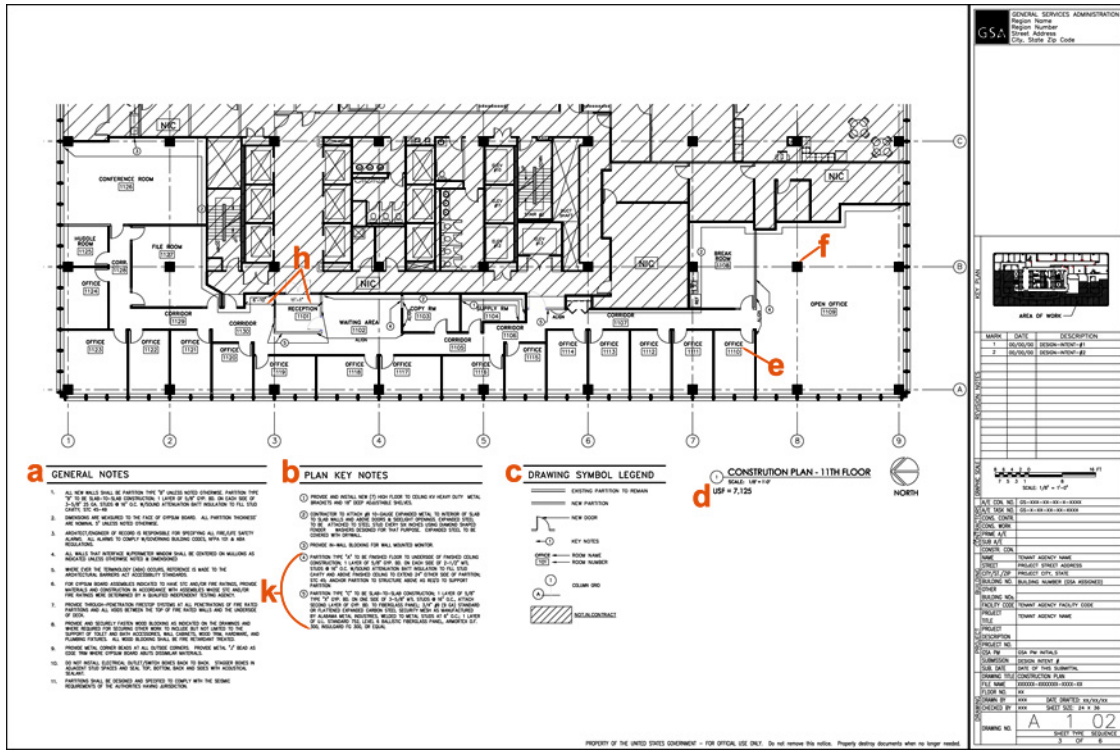
Combined Level 1/Level 2 Demolition Plan Example.

Click [Demolition Plan - Level 1 and Level 2](#) to view larger.

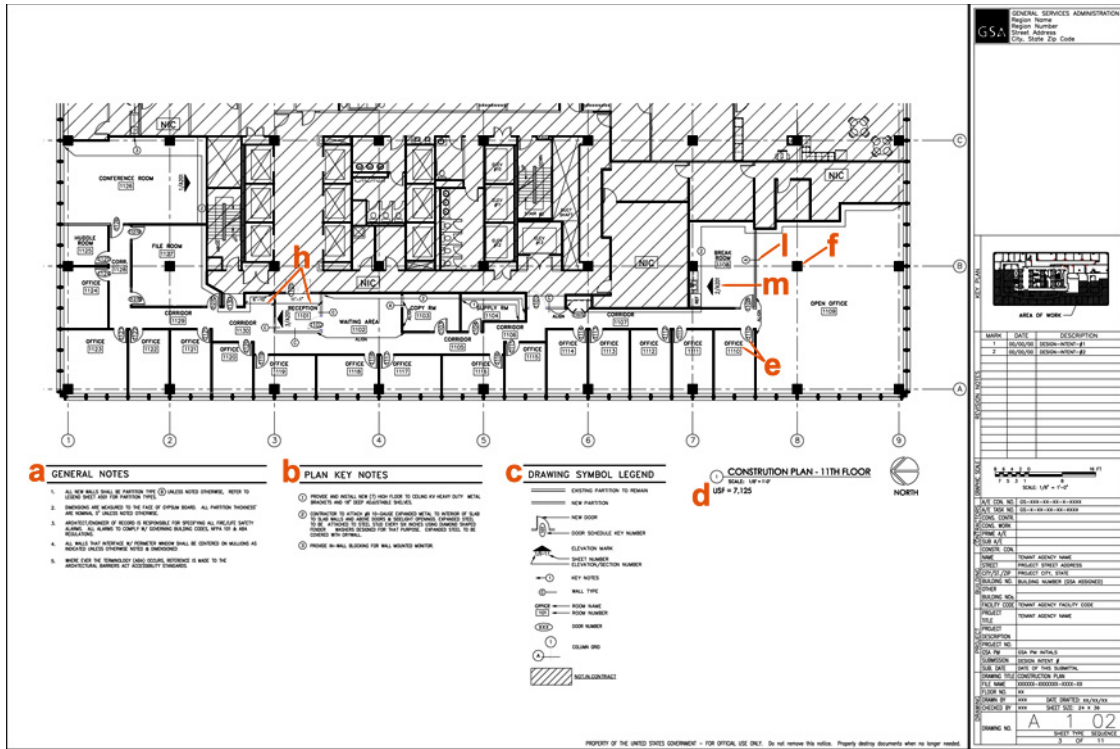
3. Construction (Partition) Plan - Level 1 and Level 2

The **Construction Plan** in a DID set is a **drawn-to-scale** floor plan that shows a horizontal section looking down through a building, typically at about three to four feet above the finished floor, and expresses a graphic representation of the constructed elements (e.g. partitions, doors, etc.) of a space. Furniture (in generic form) is not, typically, shown on the Construction Plan, but on a separate **Furniture Plan**. A DID Construction Plan typically shows:

- a. **General Notes** that provide overall references to the drawing.
- b. **Key Notes** that provide specific reference to tagged elements in the drawing.
- c. A Symbol Legend that identifies specific symbols used in the drawing.
- d. Total **Usable Square Footage (USF)** of the project.
- e. Room/area names/numbers (and door numbers on a Level 2 set) for each room/open area; Numbering will typically be identified by the floor number, starting at the tenant agency suite entry and continuing clockwise (e.g. if on floor 11, Reception is #1101, with #1102, 1103, etc., continuing clockwise. **Note:** DID numbering does not, necessarily, correlate to a building-assigned suite number).
- f. Column locations.
- g. Door and window locations.
- h. Critical dimensions.
- i. Common areas (e.g. stairs, elevators, restrooms).
- j. **Nominal dimensions** for wall/partition thicknesses.
- k. On a Level 1 **Construction Plan**, new partitions are typically either tagged with a **Key Note** identifying each different construction type, or they are drawn using different patterns or line types that cross-reference a description of their construction in the drawing legend. (**Note:** Sometimes only partitions needing special construction [e.g. ballistic material, security mesh] are identified on the plan with a General Note, giving further reference to the tenant agency's general and/or special requirements for detailed construction information).
- l. On a Level 2 **Construction Plan**, new partitions are assigned a tag symbol (refer to Symbol Legend) with a letter or number that refers to a **Partition Section** drawing (located elsewhere in the drawing set) that shows how it is will be constructed.
- m. On a Level 2 **Construction Plan**, Elevation markers noting locations of any built-in construction or millwork. The arrow on an elevation marker points to the object on the plan for which there is an elevation drawn elsewhere in the DID set. Numbers in the marker indicate the **elevation** drawing number and sheet location. (**Note:** In lieu of Elevations, Level 1 **Construction Plans** may note locations for built-in construction or millwork, and give direction that refers to the tenant agency for specific design/construction requirements).



Level 1 Construction (Partition) Plan Example.



Level 2 Construction (Partition) Plan Examples.

Click [Construction \(Partition\) Plan - Level 1](#) or [Level 2](#) to view larger.

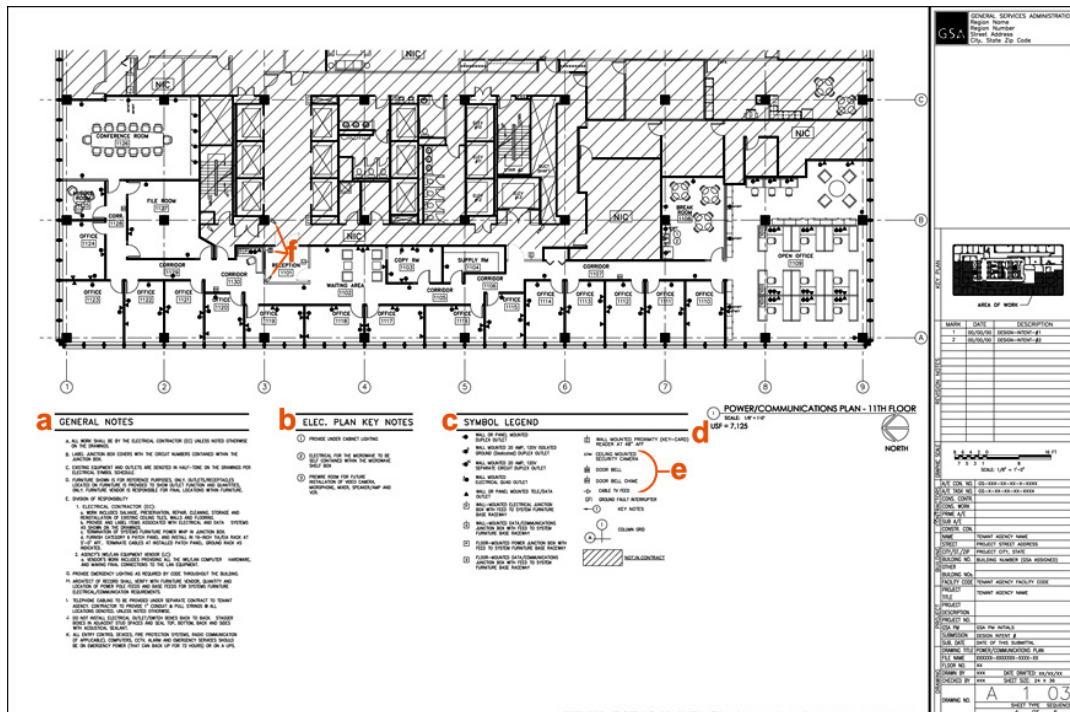
4. Power/Communications (Electrical) Plan - Level 1 and Level 2

The Power/Communications Plan is a **drawn-to-scale** floor plan that shows all required power and communications outlet/receptacle types and locations. These plans typically show:

- General Notes** that provide overall references to the drawing.
- Key Notes** that provide specific reference to tagged elements in the drawing.
- A Symbol Legend that identifies specific symbols used in the drawing (see **Supplemental Examples and Schedules** section for examples of industry **Common Electrical Symbols**).
Note: Power/Communications symbols are purposely drawn larger than in scaled reality in order to be more easily read.
- Total **Usable Square Footage (USF)** of the project.
- All standard and any specialty outlet/receptacle (e.g. cable TV, ISDN line, furniture mounted) types and locations.
- Security requirement locations that require electrical connections (e.g. cameras, doorbell, an Aiphone-intercom system) may also be shown, if appropriate.
- An Equipment Schedule may be included (details provided by agency) if specialty or extensive equipment power/communication needs exist.



Furniture is not typically shown on the Power/Communications Plan unless specific furniture requires electrical/data connections (e.g. workstations). If shown, furniture should be noted as included 'for reference purposes, only' and drawn in half-tone for easier reading. It should also be noted on the plan that outlets/receptacles located on furniture provide quantity and outlet type information, only. The furniture vendor is responsible for final locations.



Combined Level 1/Level 2 Power/Communications (Electrical) Plan Example.

Click [Power/Communications \(Electrical\) Plan - Level 1 and Level 2](#) to view larger.

5. Furniture Plan (generic) - Level 1 and Level 2

The Furniture Plan is a **drawn-to-scale** floor plan that shows the layout of all furnishings and equipment in generic form/configuration and provides initial definition of furniture needs in terms of type, size, and quantity. This may include systems furniture workstations, free-standing furniture or both, as well as basic 'footprint' locations of equipment (e.g. fax, copier). The Furniture Plan typically shows:

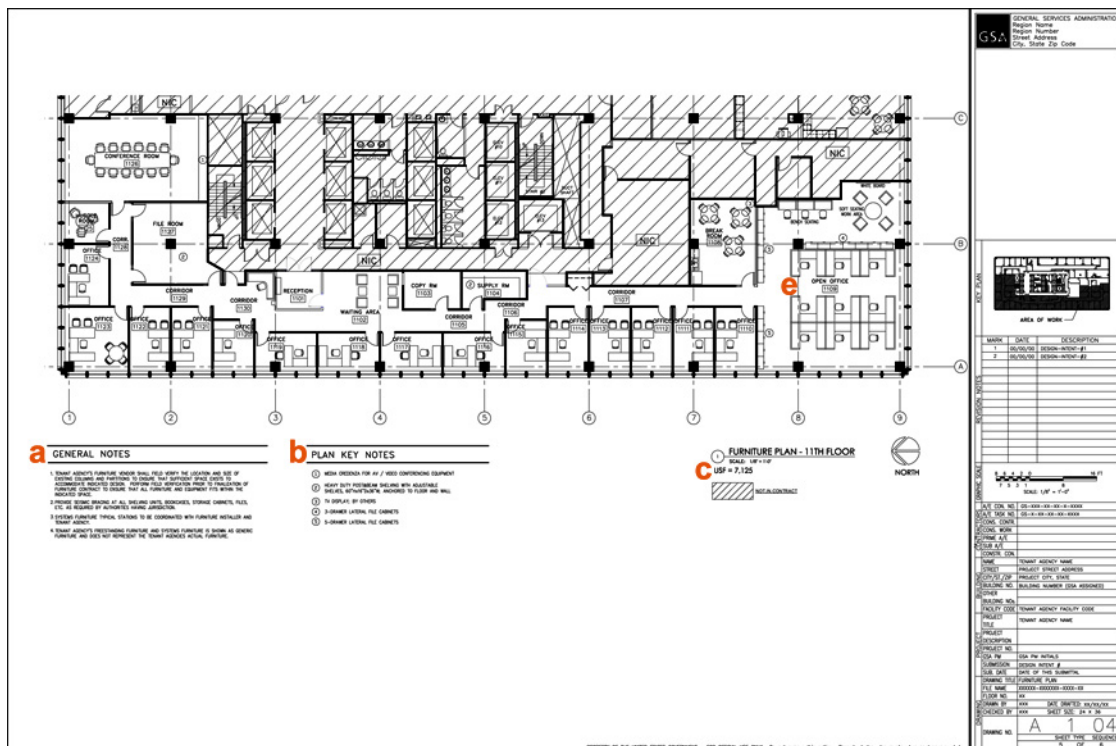
- General Notes** that provide overall references to the drawing.
- Key Notes** that provide specific reference to tagged elements in the drawing.
- Total **Usable Square Footage (USF)** of the project.
- Furniture needs in terms of location, type, size, and quantity.
- Furniture groupings and access orientation.
- Actual overall dimensions of furniture and equipment pieces.

And may include:

- A **Symbol Legend** that identifies various pieces of furniture shown on the plan. (See **Supplemental Examples and Schedules** section for examples of **Common Furniture Symbols**).



Typically, this plan reflects new furniture and equipment, but may also include existing (in generic form), if tenant agency provides existing (size, quantity) information.



Combined Level 1/Level 2 Furniture Plan Example.

Click **Furniture Plan (generic) - Level 1 and Level 2** to view larger.

6. Finish Plan - Level 1 and Level 2

The Finish Plan is a floor plan with coded indicators showing where each selected finish will be applied. These include, but are not limited to finish materials for: flooring, cabinets, countertops, wall finish and wall base. The Finish Plan typically shows:

- a. **General Notes** that provide overall references to the drawing.
- b. A Symbol Legend that identifies specific symbols used in the drawing.
- c. Total **Usable Square Footage (USF)** of the project.
- d. A legend or schedule of selected finishes, specifying material, manufacturer, catalog number and color, and any other specific information for installation (e.g. carpet tile installation is quarter-turned).
- e. An alpha-numeric designation on the schedule for each selected finish (e.g. CPT-1 = carpet selection #1) that is cross-referenced to each location on the Finish Plan where that finish will be applied.
- f. Area/room finish (target) markers are placed on the plan wherever interior finishes will be applied. A finish marker is a divided symbol wherein alpha-numeric finish designations are noted to indicate application placement in a given room. The example in this Guide shows a circle with a triangle-shaped 'arrow' placed on each of the four sides. The circle denotes the floor finish, while each arrow denotes a wall finish and points to the wall where it will be applied. Note, while conceptually similar, finish marker graphics may vary, depending on the drafter. Refer to the Finish Legend for definition of the specific finish marker symbol that is used in the drawing set being reviewed.
- g. Cabinetry/millwork (built-ins) finish (target) markers are placed on the plan where cabinetry/millwork is located. The example in this Guide shows a box format, with one or more (usually one to three) boxes that each denote a finish selection for different parts of a built-in element. For example: a three-box finish marker pointing to a pantry cabinet would include one box to denote the base cabinet finish, a second for the countertop finish and a third for the upper cabinet finish. While conceptually similar, finish marker graphics may vary, depending on the drafter. Refer to the Finish Legend for symbol definition specific to the drawing set being reviewed. Note, alternately, finishes for cabinetry/millwork are sometimes included on **Elevation** drawings (in a Level 2 set), rather than on the Finish Plan. In these instances, a General Note indicating this should be included on the Finish Plan, for reference.



*Sometimes locations for application of finishes are denoted within a tabular spreadsheet format (typically called a **Finish Specification Schedule**), rather than shown on a Finish Plan. This type of finish application schedule lists each room/area by name/number along the left side of the grid, with columns across the top labeled for each wall surface (north, south, etc), floor, base, etc. that can be found in a given room. The respective alpha-numeric designation for each finish selection is then shown in the corresponding "box" where that finish will be applied within the office space. (See **Supplemental Examples and Schedules** section for an example of a **Finish Specification Schedule**.)*

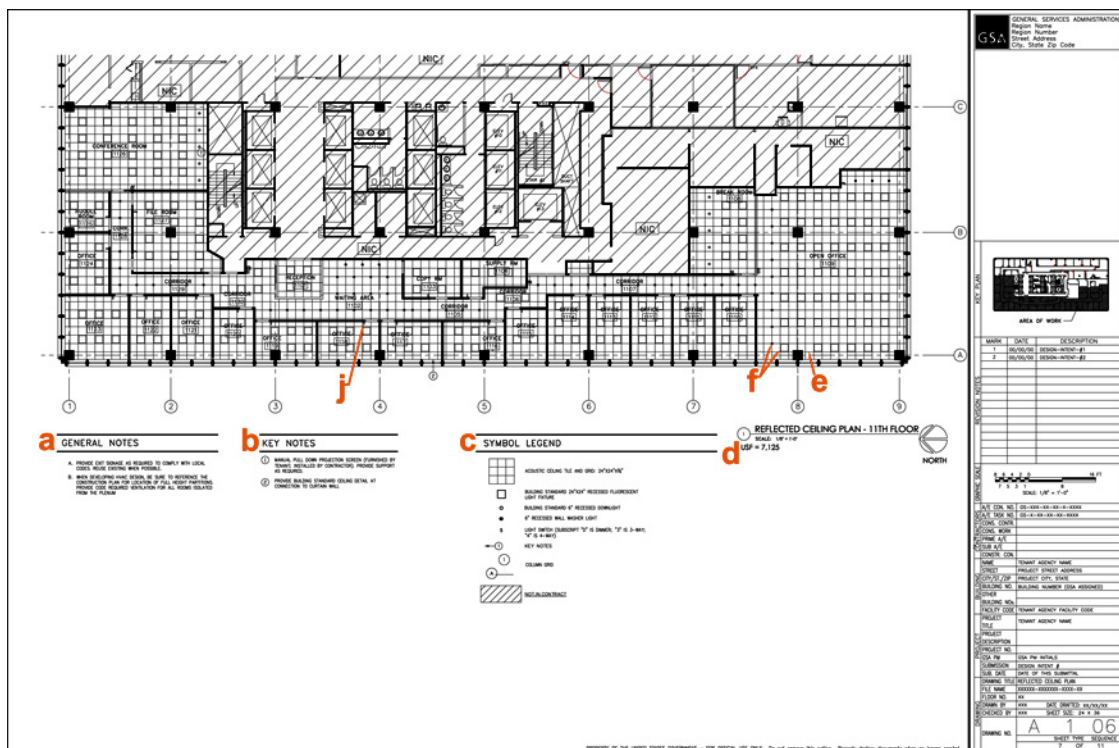
7. Reflected Ceiling Plan - Level 2

The Reflected Ceiling Plan is a **drawn-to-scale** plan view of the ceiling and anything attached to it, such as light fixtures, and soffits. Note, it is not a mirrored or reversed image of the floor plan but, rather, the view one would see if looking down at a mirrored floor that reflects what is on the ceiling. Walls are shown as 'cut through' as are the headers above doors and windows. Anything at floor level is generally not shown. A Reflected Ceiling Plan typically shows:

- General Notes** that provide overall references to the drawing.
- Key Notes** that provide specific reference to tagged elements in the drawing.
- A **Symbol Legend** that identifies specific symbols and fixtures used in the drawing.
- Total **Usable Square Footage (USF)** of the project.
- Ceiling grid location/size (**Note:** often the ceiling grid and fixture type is a **building standard** and any deviations, if allowed by the lessor/owner, will be a tenant expense).
- Types of light fixture and their locations.
- Any ceiling height changes.
- Any soffit locations.
- Any decorative or structural item that touches the ceiling.
- Basic switch locations (where light fixture gets turned on).



New or relocations of HVAC elements (exhaust fans, air vents, etc), sprinkler heads and/or emergency egress lighting and signs are part of CD and engineering development and not provided within the DID scope of work. Existing locations, however, of these elements may be indicated within this drawing.



Level 2 Reflected Ceiling Plan Example.

Click [Reflected Ceiling Plan - Level 2](#) to view larger.

8. Interior Elevations - Level 2

Drawn at a larger scale than floor plans, interior elevations provide a pictorial view of built-in and/or architectural elements (e.g. cabinetry, transaction counters, and interior windows). Elevations express how a front, side, or back vertical surface will appear if the viewer stands directly facing the vertical surface. Interior Elevations typically show:

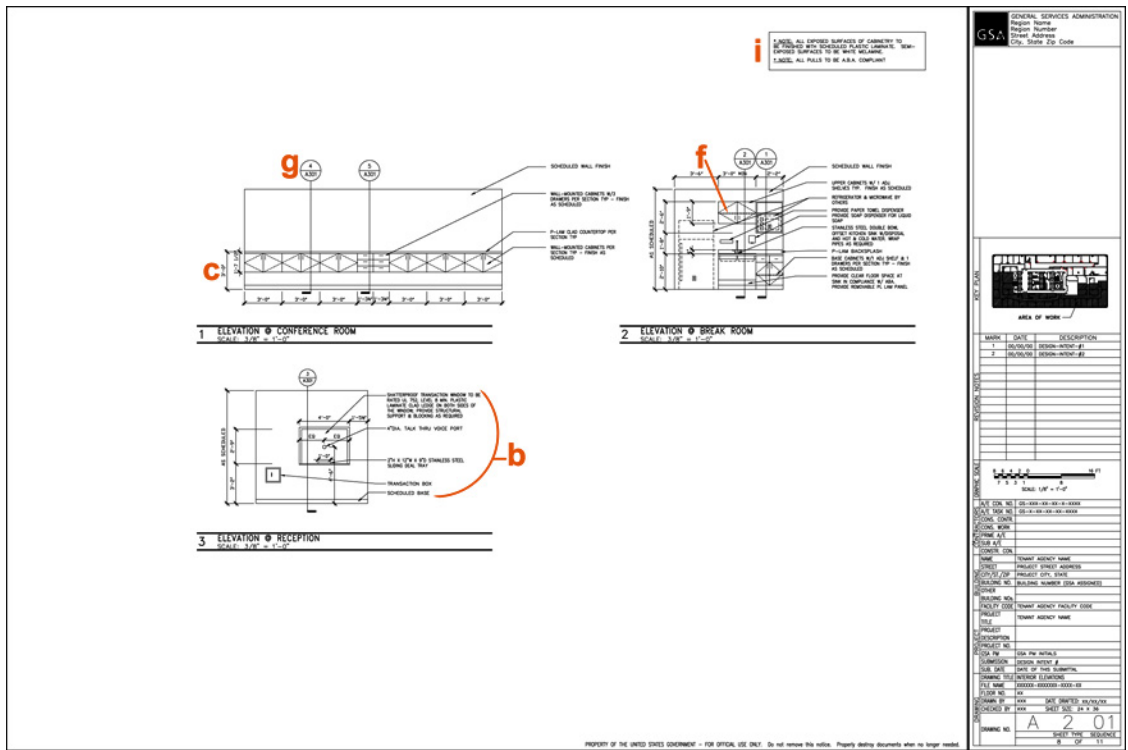
- a. Basic structure of the built-in or architectural element in relation to the finished floor below and finished ceiling above.
- b. Call-out notes that describe details shown on each elevation.
- c. Vertical dimensions, shown in feet/inches (horizontal dimensions are typically on the **Construction Plan** and, therefore, omitted here, but may still be shown for clarity).
- d. Base moldings, trims, door/window casings, etc.
- e. Any step backs or other changes in the vertical plane of the elevation.
- f. Hidden lines and section lines, if applicable (e.g. shelf location behind a closed cabinet door).
- g. Most elevations will include vertical target markers that indicate where on the Elevation a drawing of a cut-through view (called a Section) has been done and the location within the DID set where that drawing can be found. Section target markers should be located on the Elevation drawing where a cut-through view will best illustrate relationships between significant components and show key details needed for construction.
- h. Any complex item that cannot be fully articulated on the floor plan(s).

And may include:

- i. **General Notes** that provide overall references to the drawing.
- j. **Key Notes** that provide specific reference to tagged elements in the drawing.
- k. Electrical cover plate locations for outlets and switches.
- l. Finish Specification information, if not provided on **Finish Plan**.



Elevation drawings are not the same as Shop Drawings, which provide additional fabrication and/or installation detailed information and are typically produced by a construction contractor or specific manufacturer.



Level 2 Interior Elevations Example.

Click [Interior Elevations - Level 2](#) to view larger.


9. Interior Sections - Level 2

Drawn at a larger scale than floor plans, DID Section drawings show an imaginary 'vertical slice' or **cut-through** view of a built-in element (e.g. cabinets, millwork) for which a 'front view' detail has already been expressed in an **Elevation** drawing. Sections should 'cut through' the element where they can best illustrate the relationships between its significant components. Section drawings illustrate the basic construction details of how a built-in element will be constructed. Section drawings typically shows:

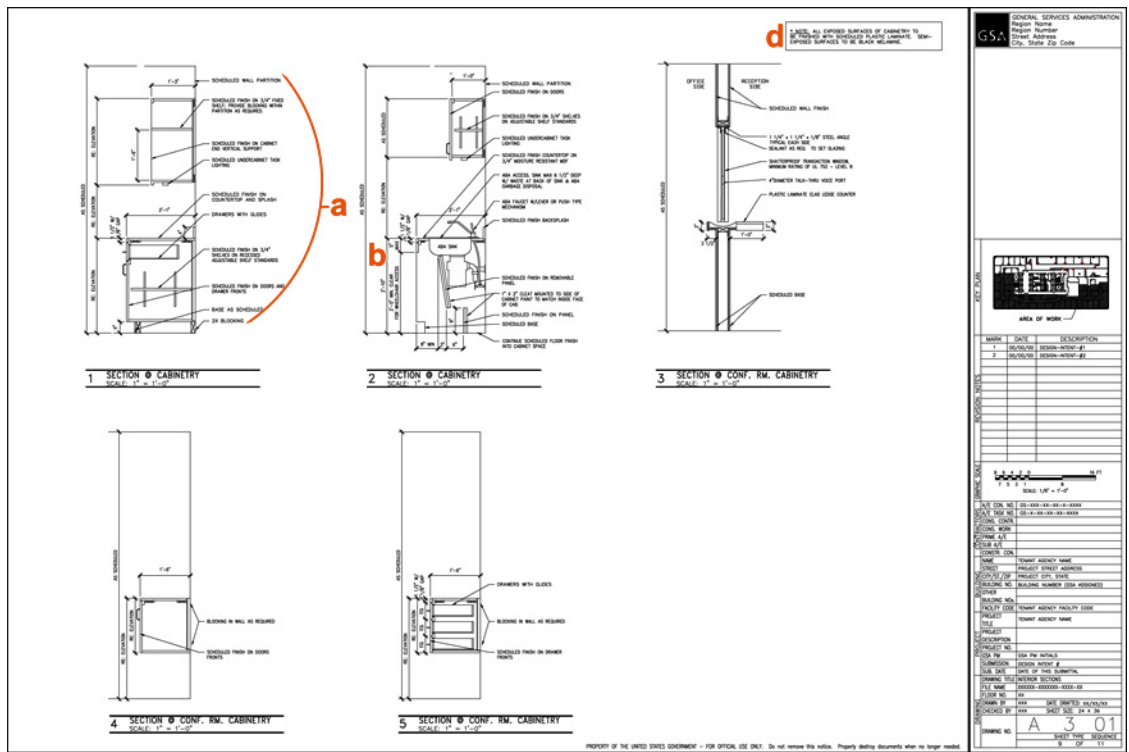
- a. Call-out notes that describe details shown on each Section.
- b. Vertical and depth dimensions.

And may include:

- c. Designation of finish selections and applications (if not shown on **Finish Plan**).
- d. **General Notes** that provide overall references to the drawing.
- e. **Key Notes** that provide specific reference to tagged elements in the drawing.



Section drawings are not the same as Shop Drawings, which provide additional fabrication and/or detailed installation information, and are typically produced by a construction contractor or specific manufacturer.



Level 2 Interior Sections Example.

Click [Interior Sections - Level 2](#) to view larger.

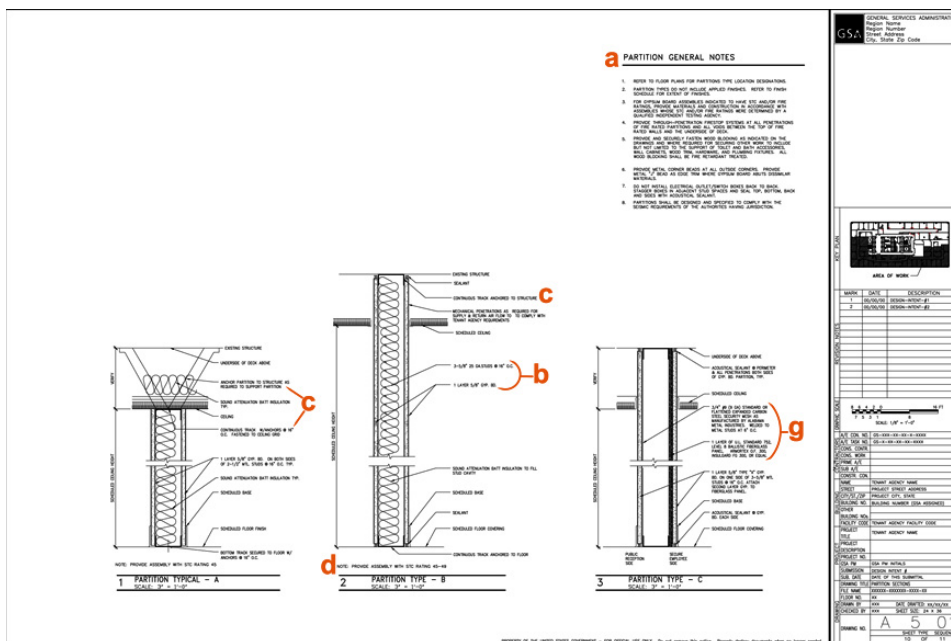
10. Partition (Wall) Sections - Level 2

Drawn at a larger scale than floor plans, elevations and sections, partition sections are a type of section drawing that provides a cut through view of a particular wall/partition construction 'type' (per locations denoted on the **Construction Plan**). Sometimes referred to as a wall 'assembly.' Each partition type is assigned with a letter (e.g. Type A). Partition Section drawings typically show:

- General Notes** that provide overall references to the drawing.
- Materials used for partition construction.
- How a partition type is constructed in relation to the existing structure (called the floor deck or slab) above. (e.g. slab to slab, anchored to underside of deck).
- Whether or not a partition type has a **Sound Transmission Class (STC)** rating. (Usually noted with an STC number and illustrated by sound attenuation batt insulation in the wall cavity).
- Finished floor to finished ceiling dimension denoted or referenced.
- Whether or not a partition type has a fire rating (typically only used on **demising walls**).
- Any specialty construction required within partition construction (e.g. expanded metal mesh, ballistic panel).



While partition thicknesses on the Construction Plan are typically drawn in nominal dimensions, Partition Sections are drawn at their actual dimensioned thickness (e.g. plan partitions drawn at a nominal 5" thick have an actual Section construction dimension of 4 7/8"). Finishes are not denoted on Partition Section drawings.



Level 2 Partition (Wall) Sections Example.

Click [Partition \(Wall\) Sections - Level 2](#) to view larger.

11. Door/Hardware Schedule - Level 2

The Door/Hardware Schedule provides detailed information in tabular format. Each door is identified by the number assigned to it on the **Construction Plan**, which corresponds to the room number into which it opened (e.g. the door into room #101 will be door #101). Rooms with multiple doors are further defined using an alpha designation (e.g. door #101A, #101B). Door/Hardware Schedules typically show:

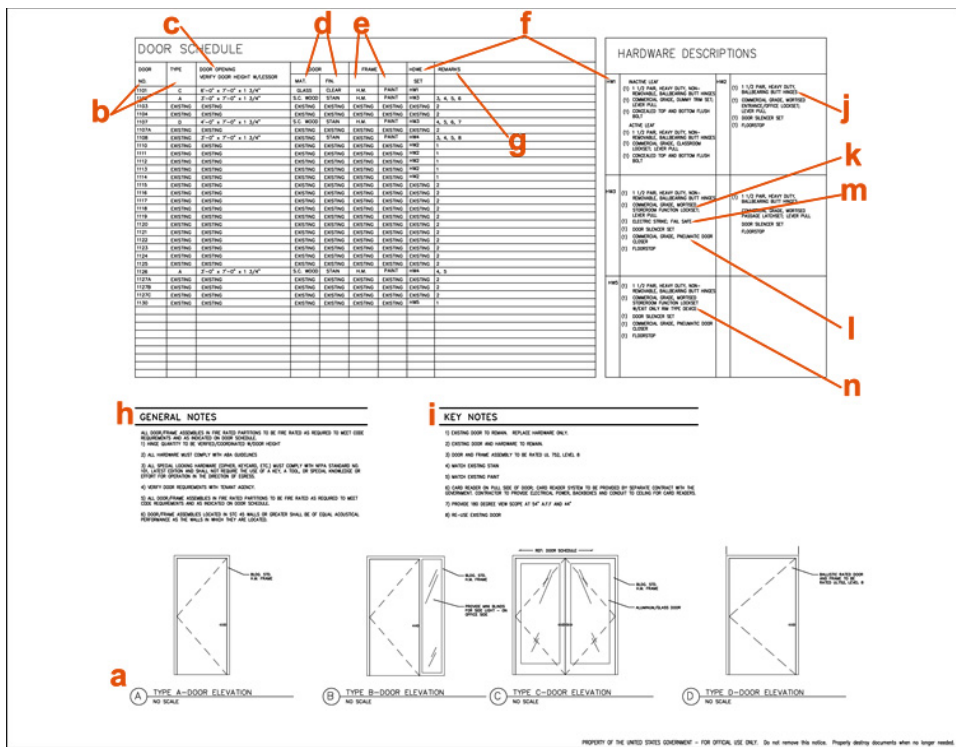
- a. Elevations of the different door Types used throughout the space with alpha designations assigned to each Type (e.g. Type A – single door, Type B – double door with a sidelight).
- b. An ordered listing of assigned door Types and Door Numbers (Door No.) as described above.
- c. Dimensions of each door opening.
- d. Door construction material (e.g. hollow core wood, glass, steel) and the generic finish (e.g. stain, paint) to be used for each door.
- e. Door frame construction material (e.g. hollow metal) and the generic finish (e.g. paint) to be used for each door frame.
- f. Type of Hardware Set (see below) assigned to each door.
- g. Additional (numbered) notes (under Remarks) for any special instructions or requirements (e.g. fire rated, existing door to remain, kickplate) for each, as applicable.

And may include:

- h. **General Notes** that provide overall references for the Schedule.
- i. **Key Notes** referenced to specific doors in the Schedule.

The other key section of the Door/Hardware Schedule is the Hardware (type) Descriptions, which are typically in tabular format elsewhere on the same **drawing sheet**. Each different type of Hardware Set (Hdwe Set) noted in the Hardware Descriptions is assigned an alpha-numeric designation (e.g. HW-1). Hardware Sets that are similar, but have a minor difference (e.g. two sets are the same except one has a closer, one doesn't) are listed separately, and further defined by assigning an alpha designation (e.g. HW-1A, HW-1B). Hardware descriptions include, but are not limited to:

- j. Number of hinges needed per door (based on height) and if they're removable or non-removable.
- k. Type of lockset function to be used for each Hardware Type (see **Reference Guides and Standards** section for examples of **Common Lock Functions**).
- l. Type of door closer (if applicable).
- m. Electric strike (if applicable).
- n. Any specialty hardware requirement (e.g. magnetic alarm switch, security exit device, hold open device).



GENERAL SERVICES ADMINISTRATION
 Region Name
 Project Number
 Street Address
 City, State Zip Code

AREA OF WORK

MARK DATE DESCRIPTION

1. REVISION 1.00 01-15-10 10:00 AM
 2. REVISION 1.00 01-15-10 10:00 AM

1" = 1'-0" SCALE

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 2. 1002
 3. 1003
 4. 1004
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A 6 01
 SHEET TITLE: LEVEL 2 DOOR SCHEDULE
 11 OF 12

Level 2 Door/Hardware Schedule Example.
 Click [Door/Hardware Schedule - Level 2](#) to view larger.

Design Intent Drawing Set Examples

DID Level 1 Example

Click [full set of DID Level 1 Example](#) to view larger.



Cover Sheet



Demolition Plan



Construction (Partition) Plan



Power/Communications
(Electrical) Plan



Furniture Plan



Finish Plan

DID Level 2 Example

Click [full set of DID Level 2 Example](#) to view larger.



Cover Sheet



Demolition Plan



Construction (Partition) Plan



Power/Communications
(Electrical) Plan



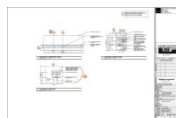
Furniture Plan



Finish Plan



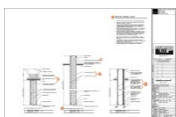
Reflected Ceiling Plan



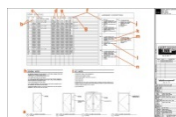
Interior Elevations



Interior Sections
























Partition (Wall) Sections



Door/Hardware Schedule

Supplemental Examples and Schedules






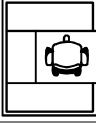



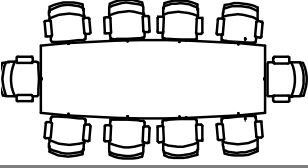
Common Electrical Symbols

Symbols	Descriptions
	Wall mounted duplex outlet
	Wall mounted quadruplex outlet
	Wall mounted 20 amp, 120v separate circuit duplex outlet
	Wall mounted telephone outlet
	Wall mounted data outlet
	Wall mounted tele/data outlet
	Floor mounted duplex outlet
	Floor mounted quadruplex outlet
	Floor mounted telephone outlet
	Floor mounted data outlet
	Floor mounted tele/data outlet
GFI	Ground fault interrupter
	Wall mounted proximity (key-card) reader at 48"
	Ceiling mounted security camera
	Door bell
	Doorbell chime
	Cable TV feed
	Duress alarm/panic button
	Wall-mounted electrical junction box with feed to system furniture base raceway
	Wall-mounted data/communications junction box with feed to system furniture base raceway
	Floor-mounted power junction box with feed to system furniture base raceway
	Floor-mounted data/communications junction box with feed to system furniture base raceway



*Note: If agency-specific symbols are used, refer to **Symbol Legend on Power/Communications Plan for details.***

Examples of common furniture symbols

Symbols	Descriptions
	Office task chair with casters
	Office pull-up chair
	Lounge chair
	3-cushion sofa
	L-shaped workstation
	U-shaped workstation
	Vertical file cabinet
	Horizontal file cabinet
	Round meeting table
	Boat-shaped conference table

Finish Specification Schedule Example (Finish Plan alternate)

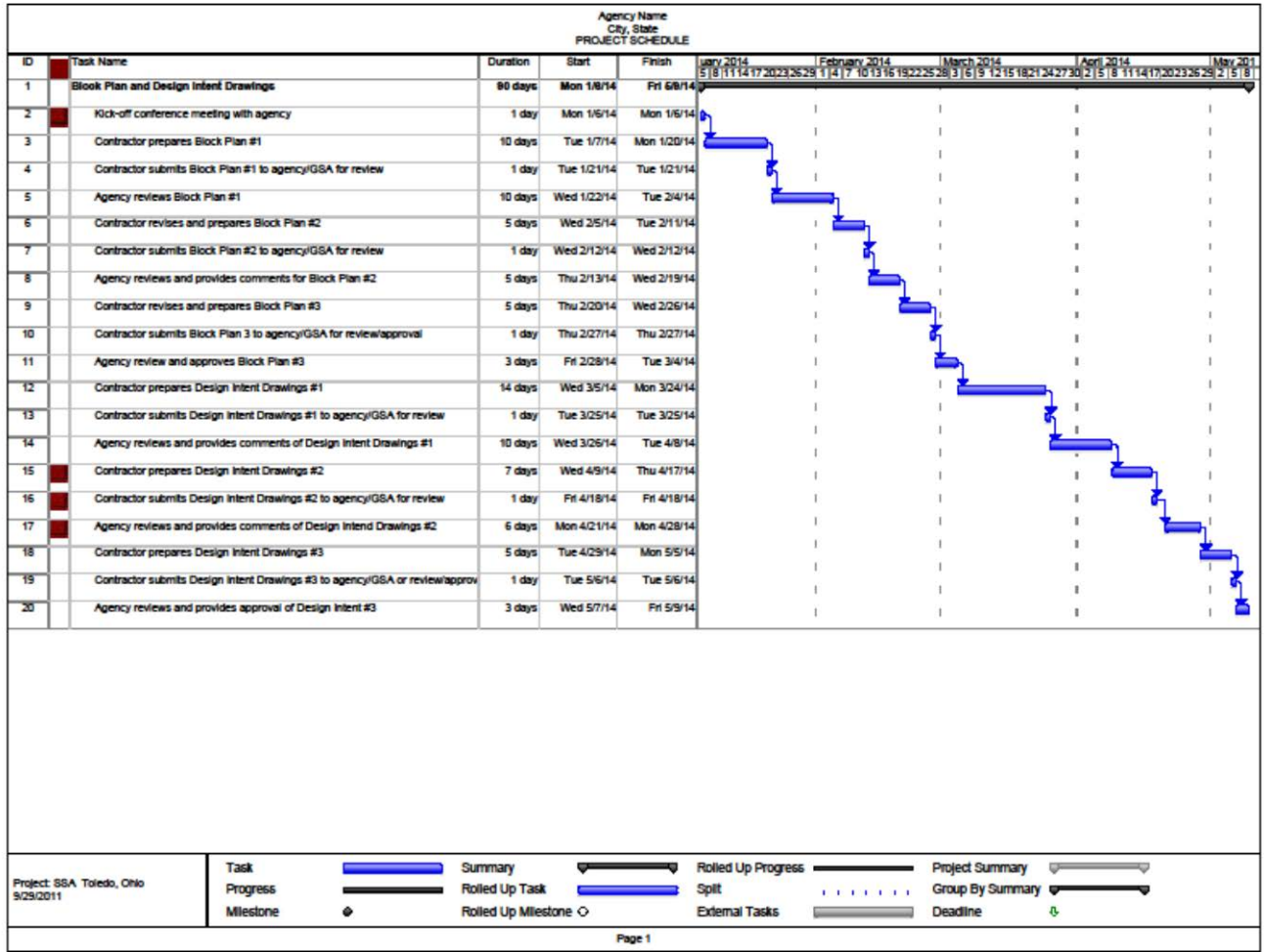
FINISH SPECIFICATION SCHEDULE								
Room #	Room Name	Floor finish	Wall base	North wall	East wall	South wall	West wall	Key Notes
1101	Reception	CT2	B1	1	1	1	1	
1102	Waiting Area	CT2	B1	1	1	1	1	2
1103	Copy Room	CT1	B1	1	1	1	1	
1104	Supply Room	CT1	B1	1	1	1	1	
1105	Corridor	CT2	B1	2	2	2	2	2
1106	Corridor	CT2	B1	2	2	2	2	2
1107	Corridor	CT2	B1	2	2	2	2	2
1108	Break Room	VCT	B2	3	3	3	3	
1109	Open Office	CT2	B2	3	3	3	3	2
1110	Office	CT1	B1	1	1	1	1	
1111	Office	CT1	B1	1	1	1	1	
1112	Office	CT1	B1	1	1	1	1	
1113	Office	CT1	B1	1	1	1	1	
1114	Office	CT1	B1	1	1	1	1	
1115	Office	CT1	B1	1	1	1	1	
1116	Office	CT1	B1	1	1	1	1	
1117	Office	CT1	B1	1	1	1	1	
1118	Office	CT1	B1	1	1	1	1	
1119	Office	CT1	B1	1	1	1	1	
1120	Office	CT1	B1	1	1	1	1	
1121	Office	CT1	B1	1	1	1	1	
1122	Office	CT1	B1	1	1	1	1	
1123	Office	CT1	B1	1	1	1	1	
1124	Office	CT1	B1	1	1	1	1	
1125	Huddle Room	CT1	B1	1	1	1	1	
1126	Conference Room	CT1	B1	1	4	1	4	
1127	File Room	CT1	B1	1	1	1	1	1
1128	Corridor	CT2	B1	2	2	2	2	2
1129	Corridor	CT2	B1	2	2	2	2	2
1130	Corridor	CT2	B1	2	2	2	2	2

GENERAL NOTES	
1.	Samples of all finishes shall be submitted to GSA and tenant agency for approval prior to installation. Submittals shall include locations for all finishes.
2.	All interior finishes (wall covering, ceiling tile, etc) shall comply with GSA criteria for flame spread and smoke development ratings and shall meet GSA requirements.
3.	All paint shall be eggshell/satin/low lustre finish unless otherwise noted.
4.	All painted doors and frames shall be semi-gloss finish unless otherwise noted.
5.	Public corridors and restroom finishes are the lessor's responsibility.
6.	All interior wall surfaces of building perimeter shell walls to be painted as scheduled.
7.	Provide building standard transition strip between finishes, color to match door frame.
KEY NOTES	
1	VCT to be static resistant
2	Quarter-turn carpet tile installation

FINISH SPECIFICATION SCHEDULE			
CT1	Carpet tile Mfr: Name Style: Name/Number Color: Name/Number	1	Paint Mfr: Name Color: Name/Number
CT2	Carpet tile Mfr: Name Style: Name/Number Color: Name/Number	2	Vinyl Wallcovering Mfr: Name Color: Name/Number Color: Name/Number
VCT	Sheet vinyl Mfr: Name Style: Name/Number Color: Name/Number	3	Paint Mfr: Name Color: Name/Number
VB1	Vinyl base Mfr: Name Color: Name/Number X" Straight	4	Wainscoting to 36" AFF Wood to be (type of wood) Paint above wainscoting Mfr: Name Color: Name/Number
VB2	Vinyl base Mfr: Name Color: Name/Number X" Cove		

Click [Finish Specification Schedule Example](#) to view larger.

DID Project Schedule Example



Click [DID Project Schedule Example](#) to view larger.

Typical Space Alteration Process

While **Design Intent Drawings (DID)** are the focus of this Guide, a brief overview of the main steps involved in a typical space alteration project is provided, below, giving broad-brush insight into how a project progresses and where DIDs occur in the overall process.

1. **Requirements Development**
2. Space is awarded
3. **Block Plans** are prepared
4. **Design Intent Drawings** - may include a DID workshop or **Design Charrette**
5. Pre-Design conference/meeting
6. **Schematic Designs (SD)** initial interpretation of DIDs 35% complete
 - a. Revisions following comments
 - b. Review outline specifications
 - c. Review proposed product submittals
7. **Design Development Document (DD)** 70% complete
 - a. Revisions following comments
 - b. Review outline specifications
 - c. Review proposed product submittals
8. Pre-Final **Construction Documents (CD)** 90% complete
 - a. Revisions following comments
9. **Construction Documents (CD)** 100%
 - a. Review for completeness and inclusion of all prior comments
 - b. Review Specifications
 - c. Review Product Submittals
10. Construction/Build-out
11. Occupancy

Reference Guides and Standards

Applicable Codes, Standards and Guidelines

Design Intent Drawings (and any additional or subsequent drawings developed by the Architect and Engineer of Record) shall comply with the following codes and standards. The current edition of each applicable code and standard at the time of design contract award shall apply. Users of this Guide may obtain more detailed information from a subject matter expert (SME) regarding codes, standards or guidelines by contacting their primary GSA representative.

- The Facility Standards for the Public Building Service (PBS-100)
[http:// www.gsa.gov/portal/content/104821](http://www.gsa.gov/portal/content/104821)
- **Agency Specific Requirements (ASR)** or **Program Of Requirements (POR)**
- One of the following nationally recognized model building codes:
 - International Building Code (IBC)
 - International Congress of Building Officials (ICBO)
 - State Specialty and Structural codes
- Requirements of Authorities Having Jurisdiction (AHJ) GSA Regional and Local City/County officials
<http://www.gsa.gov/portal/category/21056>
- Fire and Life Safety - National Fire Protection Association (NFPA72)
- The egress requirements of the NFPA Life Safety Code (NFPA 101)
- The requirements of the Architectural Barriers Act Accessibility Standard (ABAAS), most current edition. Wherever the terminology (ABA) occurs in this set, reference is made to the Architectural Barriers Act Accessibility Standard.
<http://www.access-board.gov/guidelines-and-standards/buildings-and-sites>
www.gsa.gov/portal/category/21630
- All applicable state and local building codes

When and/or where applicable, the most current edition of these standards or guidelines may also apply:

- Historic Preservation
<http://www.gsa.gov/portal/category/21506>
- Leadership in Energy & Environmental Design (LEED)
<http://www.gsa.gov/portal/category/21083>
- National Environmental Policy Act (NEPA) Desk Guide
<http://www.gsa.gov/portal/content/104676>
- Leasing Desk Guide
<http://www.gsa.gov/portal/content/163635>

Common DID Abbreviations

Design Intent Drawing sets often use industry-common abbreviations, similar to those seen in **Construction Documents**, although not as extensively. Commonly used DID abbreviations include, but are not limited to:

ABV	Above	AFF	Above Finished Floor
ALT	Alternate	ARCH	Architect
BLDG	Building	CD	Construction Document
CL	Center Line	CLG	Ceiling
COL	Column	CONT	Continuous
DEMO	Demolition	DIA	Diameter
DIM	Dimension	DN	Down
D/W	Dishwasher	DWG	Drawing
ELEV	Elevation	EQ	Equal
EQUIP	Equipment	EST	Estimate
EXIST	Existing	EXT	Exterior
FIN	Finish	FIXT	Fixture
FLR	Floor	GA	Gauge
GC	General Contractor	GFI	Ground Fault Interrupt
GL	Glass	GYP	Gypsum (Board)
HC	Hollow core	HDW	Hardware
HGT	Height	HOR	Horizontal
HVAC	Heating, Ventilation & Air Conditioning	INT	Interior
J-Box	Junction box	JCT	Junction
LAM	Laminate	LAV	Lavatory
LTG	Lighting	MECH	Mechanical
MFG	Manufacturing	MTL	Metal (steel)
MUL	Mullion	NIC	Not In Contract
NTS	Not to scale	NOM	Nominal
OC	On center	OH	Overhead
OPNG	Opening	PWR	Power
REF	Refrigerator	RMV	Remove
SC	Solid core	SCHED	Schedule
SECT	Section	SIM	Similar
SPECS	Specifications	SQ FT	Square feet
SQ IN	Square inches	STC	Sound Transmission Coefficient
STD	Standard	SYS	System
TYP	Typical	VIF	Verify in field
WC	Toilet (water closet)	WD	Wood

Common Lock Functions

Door/Hardware specifications include a “function” that indicates how a lockset needs to operate for a given location. Commonly used lock functions include, but are not limited to:

Classroom Lockset: Inside lever always unlocked and operable. Outside lever locked and unlocked by key only. Key retracts latch bolt. Common applications: classrooms, public entry doors, any room usually open, but locked during off hours, requiring locking ability by authorized persons only.

Exit Lockset: Unlocked by inside lever only. Outside lever always locked, preventing re-entry. Common applications: emergency exit doors, or any door requiring egress access, but preventing re-entry.

Dummy Trim: Dummy trim is a non-functioning door pull/lever. Half dummy is for one side of a door. Full dummy is for both sides of a door. Common applications: closets, non-active door of a double door entry, or any door requiring a “pull” function only.

Office Function Set: Inside lever always unlocked and operable. Outside lever locked by key from outside or by depressing and/or turning a button on the inside. When outside lever is locked, a key is used to retract the latch bolt. Common applications: office doors or any room requiring both locked and unlocked options.

Passage Function Lockset: Both levers always unlocked and free to operate at all times on either side of the door. Either lever retracts latch. Common applications: closets, stairways, or any room that does not require locking.

Privacy Lockset: Inside lever always unlocked and operable. Outside lever can be locked by depressing and/or turning a button on the inside. When locked, outside can be (overridden) unlocked by use of a simple tool (e.g. allen key, small screwdriver). This is usually referred to as ‘emergency release.’ Commercial versions of this may automatically unlock inside push button upon closing the door. Common applications: single-use restrooms, changing rooms.

Storeroom Lockset: Inside lever always unlocked and operable and retracts latch bolt. Outside lever always locked, with entry accessed by key use. It is often paired with a door closer to assure door closed when not in use. Common applications: storage rooms, computer rooms, any access controlled door (with an electric strike, if electric key card/keypad is used), or any other space requiring authorization to access.

Door Hardware Glossary of Common Terms

Active Leaf: The operation side or active leaf of a double door system to which the lockset is installed and normal passage expected.

Astragal: A vertical member attached to the closing stile edge of one or both doors of a pair of doors covering the clearance gap to provide a weather seal, minimize light passage between the doors, or slow the smoke or flame passage during a fire. Some astragals overlay; others meet at the centerline of the gap.

Ball-bearing Butt Hinge: A hinge equipped with ball bearings between the hinge knuckles or hinge pin loops, to reduce friction.

Butt Hinge: A type of hinge designed to be mortised into both the door edge and the frame.

Construction Core: A temporary interchangeable or removable core designed for use during the construction phase of a building. The cores are normally keyed alike and, upon completion of construction, they are to be replaced by the permanent system's cores.

Coordinator: A mechanism used on a pair of doors equipped with door closers to control the order in which they close. Often used with overlapping astragals or with panic hardware that requires one door to close before the other.

Core: The central part of a cylinder which is rotated by a key to operate the lock.

Crash Bar: A cross bar or level of an exit device which operates as a push bar to release the lock. Typically used to provide egress in an emergency situation.

Cylinder: The cylindrically shaped part of a lock assembly that contains the tumbler mechanism and the keyway, and permits only the correct key to enter and turn to operate the locking mechanism.

Deadbolt: A lock bolt, usually rectangular in shape, that projects into a hole provided in the strike and is operated by a key or turnknob, rather than a spring action.

Deadlatch: A latchbolt having a beveled end that incorporates a spring-activated feature, called a guardbolt, which automatically locks the projected latchbolt against return by end pressure and prevents 'jimmying' of the latchbolt. The latchbolt and guardbolt retract together when the inside door lever is turned.

Deadlock: A lock equipped with a deadbolt.

Dogging Device: A mechanism on an exit device, which holds the crash bar in a fully depressed (unlocked) position.

Door Closer: A device either attached on the surface or mortised into the top of a door to regulate and control its closing action.

Door Holder: A device that secures a door in selected open positions.

Door Jamb: The vertical (side) sections of a door frame onto which a door is secured with hinges and where the strike for the closing hardware is located.

Door Pull: A handle or grip, usually mounted on a plate, attached to a door to facilitate opening and closing.

Door Stop: A device to limit the opening swing of a door. May also refer to the projections along the top and sides of a doorframe against which the door closes.

Double door system: An entrance or exit with two doors in one door frame. One is considered active, where normal passage and the lockset is expected and the other is called idle or inactive and is normally secured with flush bolts. The inactive side opens when a larger opening is necessary or desired.

Dummy Trim: Trim only, without a lock. Usually used on the inactive leaf of a double door.

Electric Hinge: A hinge designed to pass electric wires from the frame to the door for use in an electric-controlled lock.

Electric Strike: An electrically operated device that replaces a conventional lock strike plate and allows the door to be opened from a remote location or by special access equipment (e.g. card reader, push-button release switch).

Escutcheon Plate: A protective or ornamental, surface-mounted cover plate with opening for the lever handle, core, cylinder and key, etc.

Exit Device: Also known as Panic Hardware. A door-locking device always operable from the inside of a building or space by pressing on a crash bar, which releases the locking bolt or latch.

Flush Bolt(s): A door bolt installed so the operating handle is flush with the edge of the door; usually installed at the top and bottom of an inactive leaf of a double door.

Gasket: A material or mechanical seal that fills the space around the perimeter, head, and jamb of a door. Used for sound control, light infiltration, smoke and fire-stopping, etc.

Hand: See [Swing](#).

Hinge: Two metal plates that each have loops formed along one edge that engage together and rotate around a common pivot rod or 'pin.' Serves to suspend or 'hang' a door, allowing it to swing or move.

Hollow Core Door: A door constructed with space between two exterior facing sheets. The spacing and material used to separate the sheets may vary.

Hollow Metal: Generally refers to doors or door frames, fabricated from cold formed metal sheets (usually steel), without other solid materials.

Inactive Leaf: Also known as idle leaf. The leaf of a pair of doors (also called a double door) that opens only after the active leaf is opened (or is sometimes kept stationary) and to which the lock strike is fastened to receive the latch of the active door.

Jamb: See [Door Jamb](#)

Kick Plate: A protective plate applied on the lower part of a door to protect the door from being marred.

Latchbolt: A beveled, spring-activated bolt that retracts when it engages the lip of the strike plate, and then automatically extends into a hole provided in the strike once the door is fully closed. A latchbolt typically retracts when the door lever is turned and may or may not include a dead-locking feature.

Leaf (in a pair of doors or double door): One of the two doors forming a double door.

Lever Handle: A horizontal, bar-like grip on a lockset or auxiliary lock.

Lockset: A complete lock assembly that includes the lock or latch mechanism, strike plate, and trim (levers, rose, escutcheons).

Master Key: A single key that operates multiple locks, each of which will also operate with its own individual key.

Mortised: An opening or cutout made to receive a lock or other hardware.

Non-Removable Hinge: In DID hardware descriptions, this refers to a high-security type of hinge with a hinge pin constructed so that it cannot be removed like a regular hinge pin. They are often used on doors that swing out into public spaces.

Panic Hardware: See [Exit Device](#).

Rail: The horizontal framing member of a door which extends fully between the stiles.

Rose: Also known as a rosette. An ornament or bearing surface for a door handle; usually mounted against the surface of the door.

Silencer: A small piece of resilient material attached to the door stop on a doorframe to cushion the door when it closes against it.

Stile: One of the two vertical framing members of a door.

Strike: A metal plate or box attached or mortised into a door jamb to receive a door latch or bolt in order to secure the door closed; sometimes called a 'keeper.'

Swing: Also known as hand of a door. The opening direction of a swinging door. A door hinged on the right that opens inward is a right-handed door. If it opened outward, it would be a right-handed reverse door. Similarly, a door hinged on the left that opens inward or outward is a left-handed or left-hand reverse door, respectively.

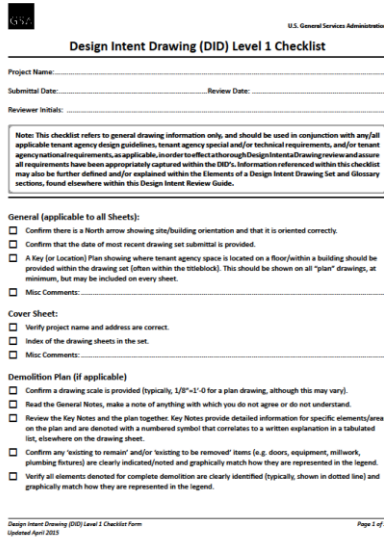
Throw: The distance that a deadbolt or latchbolt projects out from the door edge when in the locked position.

Trim: A decorative member applied to the face of a door jamb. Often used to cover or hide the joint between a doorframe and the adjacent wall surface. Also refers to decorative and/or functional components of a lockset (e.g. lever, rose, escutcheon), or decorative and/or functional components applied to a door to assist in its operation (e.g. push plate, pull plate, pull, kickplate).

DID Checklists

DID Level 1 Checklist

Click [DID Level 1 Checklist](#) to download.



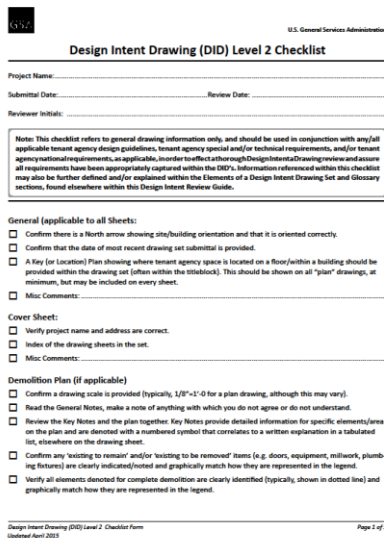
The image shows a thumbnail of the 'Design Intent Drawing (DID) Level 1 Checklist' form. At the top, it features the GSA logo and the text 'U.S. General Services Administration'. The title 'Design Intent Drawing (DID) Level 1 Checklist' is prominently displayed. Below the title, there are fields for 'Project Name', 'Submital Date', and 'Reviewer Initials'. A 'Note' box follows, explaining that the checklist is for general drawing information and should be used with applicable tenant agency design guidelines. The main body of the form contains several sections with checkboxes: 'General (applicable to all Sheets)', 'Cover Sheet', and 'Demolition Plan (if applicable)'. Each section lists specific items to be reviewed, such as confirming the North arrow, the date of the most recent drawing set, and the inclusion of a Key (or Location) Plan. At the bottom, it indicates 'Design Intent Drawing (DID) Level 1 Checklist Form' and 'Updated April 2015', with 'Page 1 of 2' on the right.



Note: During a DID review, the DID Checklist should always be used in conjunction with the tenant agency's design/construction requirements document (e.g. a Program of Requirements or Agency Specific Requirements).

DID Level 2 Checklist

Click [DID Level 2 Checklist](#) to download.



The image shows a thumbnail of the 'Design Intent Drawing (DID) Level 2 Checklist' form. It follows the same layout as the Level 1 checklist, with the GSA logo and 'U.S. General Services Administration' at the top. The title is 'Design Intent Drawing (DID) Level 2 Checklist'. It includes fields for 'Project Name', 'Submital Date', and 'Reviewer Initials'. A 'Note' box explains its purpose for general drawing information. The checklist sections are 'General (applicable to all Sheets)', 'Cover Sheet', and 'Demolition Plan (if applicable)', each with a list of items to be reviewed. The footer includes 'Design Intent Drawing (DID) Level 2 Checklist Form' and 'Updated April 2015', with 'Page 1 of 2' on the right.

DID Glossary of Terms

Access Door: A hinged or removable panel that when opened provides access to an area such as a mechanical shaft, allowing for the inspection and servicing of its internal components. (Also called an access panel)

A/E: Refers to the Architectural and Engineering design services.

Agency Specific Requirements (ASR): Also known as **Program of Requirements (POR)**. A document that defines an agency's specific space requirements for size and number of enclosed and open spaces, IT requirements, security requirements, floor and wall finishes, column spacing, door types, and sound mitigation requirements. Other more specific requirements may be included depending upon agency and complexity of project.

Alteration: Any action that will change the configuration of existing space, including minor items such as: add or replace a lock, install electrical outlets or re-paint and re-carpet the space during the term of occupancy.

ANSI-BOMA Office Area (ABOA): Also known as **Usable Square Feet (USF)**. A leasing term that refers to the area where a tenant normally houses personnel and/or furniture for which a square footage measurement will be measured and calculated as defined by the American National Standards Institute (ANSI) approved, **Building Owners Management Association (BOMA)** standard for measurement.

As-built Drawings: The official record drawings which represent all field conditions including location, sizes, and nature of concealed items such as structural elements, accessories, equipment, devices, plumbing lines, mechanical equipment, etc. They are the planner's first tool to assess an existing space and help determine what can be built in that space.

AutoCAD: Autodesk (manufacturer) Computer-Aided Design. Historically and commonly used commercially available computer software used by the architecture and design industry to create 2-dimensional (and sometimes 3-dimensional) drawings.

Bid Package: **Construction Documents** for the bidding contractors with the requirements and conditions of the project under bid. These documents communicate such details as design intent, desired materials, installation criteria and other project specifics. They also include standardized bidding forms and bidding instructions.

Block Plan (BP): A **drawn-to-scale** floor plan, similar to a **Test Fit**, but produced once a specific space has been awarded and in order to develop an agency-approved layout prior to **DIDs**. Block Plans show partitions, doors, square footage allocations, room/area names, and circulation patterns. Furniture may be shown in generic or block form.



This Glossary primarily contains terms directly related to the DID development and review process. It also includes select terms that may be heard or used during DID discussions, but are specific to project steps that occur before or after.

BOMA: Refers to the industry-referenced standard for measuring space, as set forth by the Building Owners and Management Association standard. For office space, the resulting measurement is referred to as **Usable Square Footage (USF)** or **ANSI-BOMA Office Area (ABOA)**.

Building Common: Refers to the areas of a building that provide services to the building tenants but are not considered part of a specific tenant's space. These areas include, but are not limited to: main or auxiliary lobbies, vending areas, mail rooms, daycare facilities, mechanical or equipment rooms.

Building Core: Collectively, the building support and common areas which serve tenants on a floor or in a building but are not, themselves, considered tenant **Usable Square Footage**. Spaces include, but are not limited to fire stairs, elevator shafts, janitor closets, toilet rooms, **HVAC** shafts, machine rooms, and electrical or telephone closets.

Building Standard: Refers to detailed design specifications that are pre-determined by the building owner/management (in conjunction with an architect or design professional).

Center line: A line (usually shown as a dot-dash-dot line) on a drawing that indicates the center of objects (e.g. window mullions, doors)

Chase: Also referred to as a Mechanical Chase. A hollow section of wall (or floor or ceiling) through which mechanical ductwork or other building systems are run.

Circulation Factor: The space in an office suite used for hallways and walkways (i.e. circulation so people can get from one net space to another net space). The Circulation Factor is expressed as a percentage of the total office space (the **Usable Square Footage**) that is used for hallways. It is space used exclusively by a single tenant and it is part of the tenant's private space. **Note:** the more open office space (e.g. for groups of workstations) that is needed per a tenant agency's requirements, the circulation factor used will be respectively higher. For further insight, refer to your GSA Project Manager.

Clerestory Window: A high placed window located above eye level.

Columns: An upright structural component made of steel or concrete which supports the building's structure.

Construction Documents/Drawings (CD): Very detailed architectural and engineering drawings that include everything required for the General Contractor to provide a construction estimate for the build out of the space and to obtain bids and permits. They also serve as the road map for the actual build out of the space, containing everything a contractor needs to know to construct the space. CDs are the final drawings in a project before construction.

Cut line: A line on a drawing indicating where a building or object has been visually cut through.

Dead Load: The total weight of the materials and other items that are part of a building and all that is a permanent part of a space. The dead load is taken into account by the structural engineer when calculating load bearing requirements. Fixed file cabinets become a part of a dead load and must be considered when designing a space.

Delineated Area: The directional street boundaries which an agency requests to be located (e.g. north, south, east, and west street boundaries).

Deliverables: Refers to tangible or intangible services, documents, or products to be delivered to a customer.

Demising Wall: Also known as a demising partition or party wall. Boundary partition which separates one tenant's space from that of another tenant or from the common corridor.

Demountable Partitions: A non-load-bearing wall made of prefabricated partition sections designed to provide enclosed room spaces, but that can be disassembled and reconfigured to meet changing office requirements (e.g. DIRTT, KI, Nello).

Design Charrette: A short, collaborative meeting during which members of a team quickly collaborate and sketch designs to explore and share a broad diversity of design ideas.

Design Intent Drawing Set (DID): The first set of drawings produced prior to the **CD** phase. DIDs are basic in nature, but should be sufficient in detail to communicate the interior design criteria that will be further developed and engineered in the CD phase. Typically, DIDs illustrate the interior partitions, specific layout of the space, power/communication information and interior finish selections. Some DID sets may include more detailed information such as interior elevations and sections, door/hardware requirements, and reflected ceiling plans.

Design Development (DD): A phase in the A/E design process in which the design moves from the **schematic phase** to the contract document phase. In this phase, the A/E prepares drawings and other presentation documents to crystallize the design concept and describe it in terms of architectural, electrical, mechanical, and structural systems. In addition, the A/E also prepares a statement of the probable project cost.

Dimension Line: A line that shows the measured distance between two points, typically locating a wall, cabinetry or other objects on a drawing. The line has arrowheads and/or slash marks at each end to mark the exact points of reference for the distance to be measured. The numeric dimension is written directly above or inserted into this line.

Dimension String: A line of continuous dimensions, usually tied back to a known element (e.g. center of a column).

Door Swing: The outline or path of travel that a door follows when opened.

Drawing Sheet: Instead of calling them pages, like in a book, the architecture and design industries refer to pages of a drawing set as 'sheets.'

Drawn-To-Scale: Refers to objects that are hand-drawn (or printed) at a specific scaled ratio relative to the actual size of the object. For example, drawing a 10-foot object on paper is not practical, so the object is drawn reduced in size using a standardized, incremental measurement, such as $\frac{1}{4}$ -inch = 1-foot. This renders the 10-foot object as drawn on paper to measure an actual (and correspondingly accurate) 2 $\frac{1}{2}$ -inches long.

The advent of computer drafting further improved the drawing process by allowing objects and spaces to be drawn using their actual dimensions and then appropriately scaled down during the printing process.

Egress: The path of travel taken to exit out of a room, area or building.

Elevation: A scaled drawing of a vertical plane of a given structure or object, such as a wall with millwork, doors, windows, cabinets and other building elements.

Engineered Drawing: Extremely detailed drawing prepared by a licensed engineer in a particular discipline (e.g. electrical, mechanical, or structural).

Expansion: Acquiring additional square footage in an existing agency location, increasing the total square footage for rent charges. This is different from **New Space**, which refers to the opening of a new office and acquisition of space that is new to an agency's real estate inventory.

Extension line: A line that intersects perpendicular to a **Dimension Line**, with one extending from each end of where a dimension is given (e.g. a dimension given from 'point A' to 'point B' will have one Extension Line extending from each point).

Finish marker: A divided symbol where alpha-numeric finish designations are noted to indicate application placement in a given room. Finish markers typically reference a finish schedule in the set of plans.

Fire-rated door: A door that resists fire and prevents it from spreading between spaces. A fire rated door is specifically labeled and certified by UL (Underwriters Laboratory) or other authority, and notes how many hours it resists fire.

Fire-rated wall: A wall assembly that prevents the spread of fire between adjacent spaces. To include gypsum wallboard systems and layers, fire rated doors and glazing, and seals and gaskets.

Floor Common: Refers to the areas on a floor that are available primarily for the use of the tenants on that floor. These areas include: elevator lobbies, public corridors, restrooms, janitorial closets, telephone room, electrical rooms, and mechanical rooms.

General Notes: Numbered notes that provide detailed information and/or instruction applicable to a given **drawing sheet** or sometimes, if noted, a full set of drawings.

Grid Line: Lines that typically run vertically and horizontally on a set of plans and in most cases align with the center of columns, also referred to as column lines. These lines usually terminate at number or letters outside the building walls and are a way to reference a specific location on a floor plan (e.g. between Grid Line A and Grid Line 2). These lines also frequently occur on **Elevations** and **Sections**, again for reference purposes.

Gypsum Wallboard (Drywall): A generic name for panel products consisting of a non-combustible, mostly gypsum core, with a paper layer surface. Also referred to as drywall or wallboard, it is commonly used in partition (wall) construction.

Hardware: Refers to the identification of a system's physical components and their interrelationships. Such as: locking mechanisms, hinges and levers on doors or cabinets.

Hidden line: A line on a drawing (usually shown as a dotted line) that indicates areas or objects not visible on the surface or that are hidden behind others. May also indicate objects above the cut line when viewing a floor plan.

HVAC: Heating, Ventilation, and Air Conditioning. A system is used to provide heating and cooling services to buildings.

Key Note: A numbered (or lettered) symbol used to tag specific objects or elements on a floor plan which then correlate to a written explanation or description in a tabulated list located elsewhere on the **drawing sheet**.

Leader line: A line extending from text and ending with an arrow, pointing to an object or location for which the text is a reference.

Legend: A tabulated list of symbols that each represent an object on a drawing, diagram, table, etc. which either cannot be depicted at actual size or cannot be drawn in specific detail. Each symbol is given a concise explanatory note that more clearly defines the object.

Millwork: The woodwork such as cabinets, countertops, or window casings, ready-made by a lumber mill.

Mullion: A vertical divider located between windows or doors.

New space: The opening of a new office and acquisition of space that is new to an agency's real estate inventory. This is different from **Expansion Space**, which is the acquisition of additional square footage to an existing agency location.

Not In Contract (NIC): References areas on a floor plan, typically indicated by crosshatching of the area(s) that are not included in the **SOW** for the **DID** portion of the project. **Note:** There may be areas of the floor plan that are part of the overall project SOW, but are NIC for the DID phase (e.g. only a portion of an existing office is being redesigned, but overall project includes reworking the **HVAC** throughout the entire office; work that will be included in the CD SOW, once the DIDs are completed).

Nominal dimensions: An approximate size of a material or component designated by rounding the actual dimension to the nearest larger whole number. In **DIDs**, partition walls shown in **plan view** are typically drawn this way to affect drafting efficiency.

Partition: An interior wall or barrier dividing a room, area of a building, enclosure, etc., into separate areas.

Plan (or Floor Plan): A horizontal section view looking downward on an object or area, cutting through all major vertical elements as well as door and window openings. Usually the horizontal plane cut is about 4 feet above the floor, but this may vary slightly, depending on what needs to be shown.

Plan view: The view of a horizontal plane (e.g. a floor plan) as seen from above.

Program Of Requirements (POR): Also known as an **Agency Specific Requirements (ASR)**. A document that defines an agency's specific space requirements for size and number of enclosed and open spaces, IT requirements, security requirements, floor and wall finishes, column spacing, door types, and sound mitigation requirements. Other more specific requirements may be included depending upon agency and complexity of project.

Project (or Plan) North: Usually noted below an arrow pointing to the direction that the designer refers to as North on the plans. This is not considered True North. True North points in the actual direction of north.

Record drawings: Are prepared by the architect and reflect on-site changes the contractor noted in the **As-Built Drawings**. They are often compiled as a set of on-site changes made for the owner per the owners architect or contractor.

Red Line Drawings: The Red-Line Drawings record the changes that have occurred during construction and are incorporated onto the plans manually and/or electronically prepared by the Construction Administrator. The field Red-Line set and other miscellaneous documents will be provided by the Construction Administrator for the preparation of the revised as-built drawings.

Reduction: The release of square footage in an existing agency location reducing the total square footage for which rent is charged.

Reflected Ceiling Plan: The Reflected Ceiling Plan is a mirror-image or 'reflection' of the ceiling represented by projecting the ceiling onto a flat plane directly below. It shows the location of light fixtures and other objects in the ceiling.

Reimbursable Work Authorization (RWA): GSA Form 2957 is a funding document that obligates funds from an agency to the General Services Administration (GSA) for the cost of alterations or services.

Relocation: Moving from one space to another (either in the same building or to a different building).

Rentable Square Footage (RSF): Also known as Billable Square Footage. The area for which rent is charged. It includes a pro rata share of the building support, joint use, and common areas such as building elevator lobbies, corridors, restrooms and mechanical areas.

Requirements Development (RD): A collaborative analysis and planning process by which GSA works with an agency to gather and create required documentation to provide space for an agency's mission performance. These documents quantify the spatial and functional needs of a tenant agency. Information gathered includes but is not limited to: square footages and quantities of enclosed and open spaces, requirements for IT, security, interior finishes, column spacing, door and hardware types, sound mitigation, and any and all other agency-specific and/or special requirements needed for the build out of the space. Requirements may also contain an agency's preference for geographic location or **Delineated Area**. Content is typically expressed in a combination of graphic formats and narrative description in a document often referred to as **Agency Specific Requirements (ASR)** or **Program of Requirements (POR)**.

Scale: Refers to the proportion or ratio that defines the size relationships seen on a drawing. The actual size of objects or spaces is represented in drawings using a standardized increment of measurement that is

relative to its actual value (see **Drawn-To-Scale**). An example of scale is $\frac{1}{4}'' = 1'-0''$. The first number is the incremental value of the second number's measurement in reality. In the example given, then, a $\frac{1}{4}$ -inch line shown on plan is equal to a 1-foot line in real space. A triangular-shaped type of ruler called an Architectural Scale has several of these measurements delineated on each of its three sides.

Schedule: a chart or table that provides detailed information on a specific category of materials, such as finishes, hardware or doors.

Schematic Design Phase (SD): First phase in the design of a project where an architect/engineer prepares schematic diagrams giving a general view of the components and the scale of the project after detailed discussions with the client (owner). Similar to **DIDs** but different in where the design starts and stops.

Scope of Work (SOW): In DIDs, this refers to both the physical, delineated area wherein design will be provided as well as the extent of work and level of detail to be provided in services, performance and **deliverables**.

Section: a cut-through view of an element or construction assembly to demonstrate how it is constructed on the interior. Section drawings in a DID set are, typically, provided to show partition type construction or more detailed construction of an **Elevation** drawing. Section drawings may show a vertical or horizontal cut-through view.

SF-81 (Request for Space): The form transmitted to GSA outlining an agency's request for space, the amount of square footage required and the delineated area in which the agency requests to be located.

STC or Sound Transmission Class: A rating indicating how much sound a wall or a floor and ceiling construction will block airborne sound transfer from one room to the next. A higher STC rating will provide better sound isolation (e.g. offices are often STC 45, while a conference room might be STC 50 or above).

Systems Furniture: A generic term for a type of furniture consisting of component parts, typically with an interconnecting system of panels, work surfaces, shelves, and storage units which can be assembled, disassembled, and reassembled in different ways to meet changing work space requirements. Also referred to as modular furniture or a furniture system, with individual work spaces commonly referred to as workstations or cubicles. Note, some manufacturers offer **Demountable Partitions** as well as systems furniture.

Target Marker: A symbol identifying a specific element in a drawing that refers the viewer to important information or details about that element, located in another part of the drawing set (e.g. a target marker identifying a built-in cabinet on a Construction/Partition Plan denoting where to find an elevation drawing of the cabinet elsewhere in the drawing set).

Test Fit: A **drawn-to-scale** floor plan generated when a space has been identified, but prior to award and before **Block Plans** or **DIDs** to confirm that the program will fit into a proposed space.

Title Block: A boxed-off section of a **Drawing Sheet**, usually along the right side or lower edge, containing the sheet number, drawing name, date of the drawing, drawing sheet size, drawing scale, initials of the draftsman, and date of all revisions and submittals.

Transom Window: A high placed window, similar to a **Clerestory Window**, but located above a doorway.

Usable Square Footage (USF): The area where a tenant normally houses personnel and/or furniture for which a square footage measurement will be measured and calculated as defined by the American National Standards Institute (ANSI) approved, **Building Owners Management Association (BOMA)** standard for measurement. It is the “footprint” of an agency’s delineated space on the floor plan of the building. It is also referred to as **ABOA**.

Utilization Rate: Expressed as a usable square foot per person and is a means of gauging the efficiency of a facility.

Vertical Penetration: Refers to stairs, elevator shafts, flues, pipe shafts, vertical ducts, and the like and their enclosing walls. Atria, lightwells and similar penetrations above the finished floor are also included in this definition. Structural columns are not considered a Vertical Penetration.

Design Intent Drawing Review Guide



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