DIRTT'S IMPACT ON CSI SECTIONS



DIRTT's Impacts on CSI Sections_OVERVIEW_v1-0 04/01/2021

OVERVIEW

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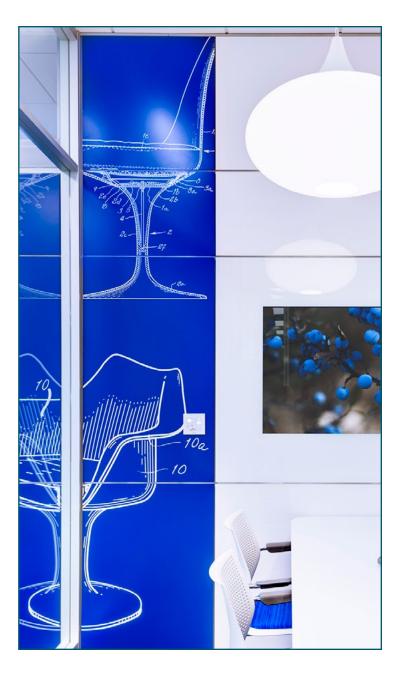


Intent

Construction Specifications Institute (CSI) specifications are all about work results, not products. This document describes the conventional construction specifications that may be impacted when DIRTT solutions are implemented. The latest version (2018) of CSI MasterFormat® informs this list. The list entries below help inform readers of all the potential areas where DIRTT may affect construction costs. The information is intended to help readers understand how to compare the costs of conventional construction with DIRTT construction. The divisions and sections DIRTT solutions are unlikely to affect have been omitted from the list. Not all potential divisions and sections listed are applicable to every project. To use this information accurately for a project, a full project-specific scope review is required to assess which sections will apply.

Definitions

Captures	Items that may be included within DIRTT solutions.
Simplifies	Items that can expect to see a reduction in cost or scope (or both) when DIRTT is the basis of design for construction.
Impacts	Items that may or may not see any cost or scope reductions when DIRTT is the basis of design for construction.
GC/CM	General Contractor or Construction Manager
NOTE: Item	s with a 🔶 are sections where DIRTT solutions are specified.



CSI DIVISIONS

Division 01-General Requirements

Division 01 identifies costs associated with temporary construction facilities, project administration and the mobilization of laborers and equipment. The list of potential impacts below includes overall project schedule, equipment rental durations and administrative tasks.

NOTE: The costs associated with these sections are often referred to as General Conditions in a contractor's estimate.

01 14 00	Work Restrictions
Simplifies Impacts	Limits how and when the contractor may access the job site. DIRTT's integrated prefabricated construction process means much more of a project can be constructed on-site quicker than conventional construction. When the hours contractors can be on-site are restricted, this construction approach means DIRTT projects are completed faster than a conventional approach. Construction schedules are shorter, resulting in reduced overall construction costs associated with other division 01 sections.
01 21 16	Construction Contingencies
Simplifies	Often included in specifications on publicly funded projects that require the contractor to carry a specific percentage of contingency. Contingencies are added to the bottom line for construction costs. DIRTT provides cost and schedule certainty; therefore, it offers less risk to the owner. This reduced risk usually results in a lower contingency requirement, decreasing the overall construction costs.
01 30 00	Administrative Requirements
Simplifies	Establishes the administrative requirements of the contractor. Less time on-site means fewer administrative tasks for the contractor. This lighter workload should also reduce the GC/CM overhead-and-profit line item.
01 33 00	Submittal Procedures
Simplifies	Establishes administrative requirements for processing and reviewing submittals. Fewer submittals must be reviewed because of the sole-sourced, prefabricated method of construction. This method reduces administrative requirements for the GC/CM and the design team during construction.

01 35 33	Infection Control
	Required on most healthcare projects. Includes items the GC/CM may have to purchase or rent (or both) to protect patients from construction activities.
Simplifies	Fast, clean construction means Infection Control and Risk Assessment (ICRA) barrier requirements may not be as stringent and the equipment that supports these barriers is on-site for less time.
01 52 00	Construction Facilities
	Includes requirements for rented equipment like construction trailers and sanitary facilities.
Simplifies	Speed of construction means items are rented for less time.
01 65 00	Product Delivery Requirements
	Includes requirements for product and material deliveries to the job site or off-site facility.
Simplifies	Just-in-time delivery from the DIRTT factory to the job site means vital items arrive when they are needed directly at the job site in whatever manner the recipient requires. This delivery approach reduces costs for required off-site storage.
01 73 29	Cutting and Patching
	Includes costs associated with patching and repairing the job site after work has been completed.
Simplifies	DIRTT finish panels are one of the last items installed, so they are much less likely to be damaged. They also resist damage better compared to gypsum partitions with conventional finishes.
01 74 00	Cleaning and Waste Management
	Includes costs associated with renting and emptying dumpsters and cleaning the job site.
Simplifies	The clean approach to construction reduces waste disposal fees and time spent by the contractor cleaning the job site.
	NOTE: This clean approach is especially important in healthcare spaces that require strict cleaning protocols.

Division 03-Concrete

Division 03 identifies work associated with concrete.

NOTE: DIRTT has minimal impact on concrete scope.

03 54 00	Cast Underlayment
	Includes self-leveling and troweled concrete applied to the top of the floor slab. Used to repair concrete and create a smooth surface to receive
	finishes. It is commonly used on top of concrete wherever sheet vinyl has been specified.
Impacts	DIRTT does not simplify or capture any of this scope. However, for a better installation, the floor needs to be leveled within certain tolerances. This

Impacts DIRTT does not simplify or capture any of this scope. However, for a better installation, the floor needs to be leveled within certain tolerances. This section establishes those tolerances.

Division 05–Metals

Division 05 identifies work associated with metals that is both structural and decorative.

NOTE: DIRTT has minimal potential to capture scope related to metals in division 05 as the work identified is typically structural in nature. The non-structural metal framing that DIRTT walls replace is not commonly specified in division 05.

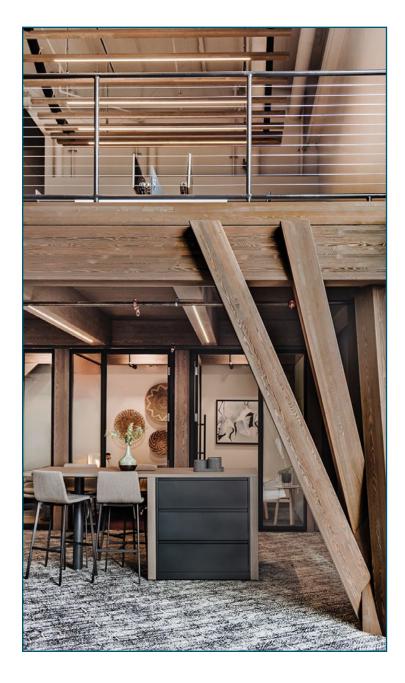
05 05 13	Shop-Applied Coatings for Metal
	Includes finishes like powder coatings applied to metals in a shop.
Captures	Interior powder coat finishes.
05 10 00	Structural Metal Framing
	Includes steel used for structural elements.
Captures	DIRTT Timber may capture this scope if permitted by code.
05 70 00	Decorative Metal
	Includes metal items and metalwork of a decorative nature.
Captures	Metal finish panels not used as railing capture this scope.
05 73 00	Decorative Metal Railings
	Includes decorative metal handrails and railings of various types.
Captures	Laser-cut metal finish panels as railing.
	06 Wood Directio and Compositor

Division 06—Wood, Plastic and Composites

Division 06 includes structural, non-structural and decorative building materials.

06 10 00	Rough Carpentry
	Includes wood used for a building's shell and core and in-wall blocking such as dimensional lumber and plywood.
Captures	Minimal scope from integrated structural support for wall-hung items.
06 11 00	Wood Framing
06 11 00	Wood Framing Includes wood used for the building's shell and core and interior wood stud partitions.





06 13 00	Heavy Timber Construction
Captures	Includes timber structures with a minimum dimension of 5" (127mm) in its least dimension (see image to the left). DIRTT Timber is specified within this section for assemblies like mezzanines, stairs, large canopies, etc.
06 17 00	Shop-Fabricated Structural Wood
Captures	Includes engineered structural-wood products like parallel strand lumber or wood trusses. DIRTT Timber may replace some or all of this scope.
06 18 00	Glued-Laminated Construction
Captures	Includes columns, beams, decking, and other structural units fabricated with glue-laminated construction. DIRTT Timber may replace some or all of this scope.
06 22 00	Millwork
Captures	 Includes standard pattern wood trim and moldings like milled-wood trim around doors, windows, ceilings and floors. DIRTT walls may capture some or all scope associated with interior doors, windows, punched openings or wall trim where millwork would have otherwise been used. NOTE: What DIRTT commonly refers to as millwork is not what is typically specified in this section.
06 25 00	Prefinished Paneling
Captures	Includes hardboard paneling and other ready-made wood product paneling. DIRTT wall finish panels.
06 41 00	Architectural Wood Casework
Captures	Includes upper and base cabinets and applicable finish hardware. DIRTT casework replaces this section with 12 32 00 Manufactured Casework. NOTE : This section does not include countertops.

06 42 00	Wood Paneling
	Includes shop-fabricated wall paneling.
Captures	DIRTT walls can replace wood paneling where it would have otherwise been used.
06 43 00	Wood Stairs and Railings
Captures	Includes stairs, stringers, treads, nosings, risers, handrails, railings and related items. DIRTT Timber may replace some or all of this scope.
06 44 00	Ornamental Woodwork
	Includes shop-fabricated woodwork items of unique design that serve no function other than ornamentation (see image to the right).
Captures	Timber structures with a maximum dimension less than 5" (127mm) in its least dimension (e.g., java bar canopies or other unique artistic installations).

Division 07—Thermal and Moisture Protection

Division 07 identifies items that protect various assemblies and materials from thermal and moisture damage.

NOTE: DIRTT has minimal potential to capture scope in division 07 as it is mostly dedicated to protecting against both internal and external fire risks and external weather conditions.

07 92 19 Acoustical Sealant

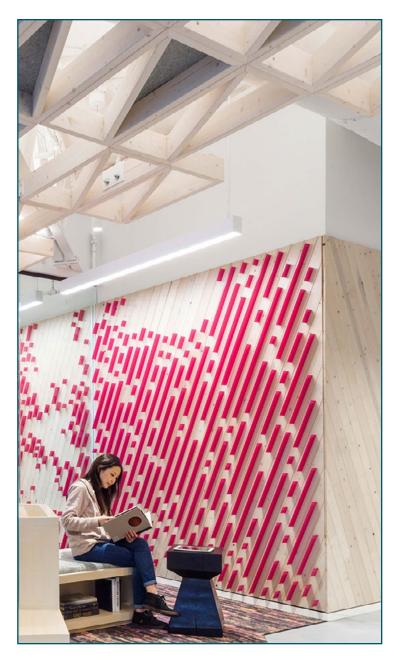
Includes interior and exterior sealants.

Captures Interior sealants used for acoustics at gypsum partitions. Sealant replaced by opti-fillers and wall trim.

Division 08–Openings

Division 08 is dedicated to the exterior and interior fenestrations of a building.

08 10 00	Doors and Frames
	Includes interior and exterior doors and door frames.
Captures	Interior non-fire-rated doors and frames.



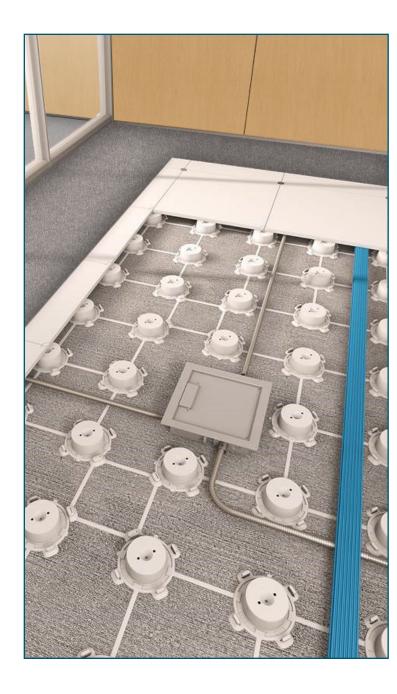
08 31 00	Access Doors and Panels
Captures	Includes interior and exterior doors and panels in walls, ceilings and floors for access to concealed spaces. DIRTT walls are inherently accessible, eliminating the need for access doors and panels where they would typically be required in conventional construction.
08 43 13	Aluminum-framed Storefronts
Captures	Includes exterior and interior glass front framing. All interior aluminum framing for glass fronts, including framing for glass within stack walls and peek-a-boo windows. NOTE : This section does not always include the glazing.
08 43 15	Interior Aluminum-framed Storefronts
Captures	Includes interior glass fronts (see image below). All interior aluminum framing for glass fronts, including framing for glass within stack walls and peek-a-boo windows (for example, 4" glass walls, Inspire™ and Reflect™).
08 71 00	Door Hardware
Captures	Includes exterior and interior door hardware such as hinges, closers, lever sets, pulls, kick plates, wall and floor stops and seals for the operation of doors. Interior door hardware.
08 80 00	Glazing
Captures	Includes exterior and interior panels like polycarbonate or glass for vision lites in doors, side lites, transoms, storefront glass panels, etc. Interior glass. NOTE: Interior and exterior glazing may be specified within other division 08 sections, depending on the intended application.



Division 09-Finishes

Division 09 identifies all of the finishes for a project not included in other sections. Many of the finish options DIRTT offers would typically be specified in division 09 on conventional projects. For many of the following finishes, the section indicated is the closest conventional equivalent; theoretically then, if a contractor were to provide something similar, it would come from the section indicated.

09 20 00	Plaster and Gypsum Board
	Commonly includes only exterior and interior uses of plaster. Gypsum board is not commonly specified here.
Captures	May replace use of interior walls with a plaster finish.
09 21 16	Gypsum Board Assemblies
	Includes rated and non-rated exterior and interior gypsum sheathing, gypsum board, tile backer board, shaft wall liner and acoustic insulation for walls and ceilings.
Captures	Interior non-fire-rated gypsum wall board and insulation for partitions.
09 22 19	Non-Structural Metal Framing
	Includes metal stud framing for rated and non-rated walls and ceilings and in-wall metal blocking to support wall-mounted items.
Captures	Interior metal studs at non-fire-rated partitions.
09 29 00	Gypsum Board
	This section is not commonly used. Instead, section 09 21 16 is typically used for work related to gypsum board.
Captures	Interior non-fire-rated gypsum wall board and insulation for partitions.
09 51 00	Acoustical Ceilings
	Includes suspended ceiling grids and lay-in ceiling panels.
Captures	Perimeter edge angle for lay-in ceiling grids.
Simplifies	Ceiling installation is much faster when walls attach to the finish face of a suspended ceiling, resulting in schedule, material and labor reductions.
	NOTE: These cost savings are likely minimal when DIRTT integral ceiling is specified.



09 60 00	Flooring
Simplifies	Includes interior finished floor coverings. Flooring installation is much faster when walls install on top of finish floor, resulting in schedule, material and labor reductions. NOTE : These cost savings are likely minimal when integral cove base is specified.
09 65 00	Resilient Flooring
Simplifies	Includes interior finished floor coverings like resilient tile and other sheet materials. Flooring installation is much faster when walls install on top of finish floor resulting in schedule, material and labor reductions. NOTE: These cost savings are likely minimal when integral cove base is specified.
09 65 13	Resilient Base and Accessories
Captures	Includes materials like applied rubber base. Wall base where DIRTT base trim is used.
09 68 00	Carpeting
Simplifies	Includes carpet and accessories. Flooring installation is much faster when walls install on top of finish floor, resulting in schedule, material and labor reductions.
09 69 33	Low-Profile, Fixed Height Access Flooring
Captures	Includes non-adjustable access floor assemblies (see image to the left). DIRTT access floors are specified within this section.
09 81 00	Acoustic Insulation
Captures	Includes batt, board and sprayed insulation for acoustics. This section is not commonly used for the insulation within gypsum partitions. DIRTT only captures this scope when acoustic insulation within gypsum partitions is not specified within section 09 21 16.

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NOTE: These sections in green all include some type of finish that DIRTT captures or replicates graphically.

09 72 00	Wall Coverings
	Includes fabrics and wallpaper.
Closest DIRTT Equivalent	Fabric or thermofoil finish panels.
09 74 13	Wood Wall Coverings
	Includes wood veneer.
Closest DIRTT Equivalent	Wood veneer finish panels.
09 75 00	Stone Facing
	Includes thin stone applied to a substrate.
Closest DIRTT Equivalent	DIRTT finish panels with stone-like patterns.
09 77 00	Special Wall Surfacing
	Includes anything special or unique not included in other sections.
Closest DIRTT Equivalent	Willow® Glass and WriteAway™.
09 77 23	Fabric-Wrapped Panels
	Includes fabric wrapped around a substrate.
Closest DIRTT Equivalent	Fabric finish panels.
09 90 00	
-09-90-00	Painting and Coating
	Includes exterior and interior fluid-applied finishes such as stains, clear coats, lacquers, primers and paint.
Closest DIRTT Equivalent	
	Includes exterior and interior fluid-applied finishes such as stains, clear coats, lacquers, primers and paint.
Closest DIRTT Equivalent 09 91 00	Includes exterior and interior fluid-applied finishes such as stains, clear coats, lacquers, primers and paint. Chromacoat finish panels. Painting Includes exterior and interior opaque fluid-applied finishes such as lacquers, primers and paint.
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Division 10-Specialties

Division 10 contains items that an owner often procures on their own with a third-party vendor and does not involve the contractor. Therefore, several of the costs associated with sections listed below will not be included in the contractor's estimate. In those instances, the cost associated with DIRTT construction compared to conventional construction may not be a like-for-like comparison. However, the costs associated with this section are applicable to the overall project budget.

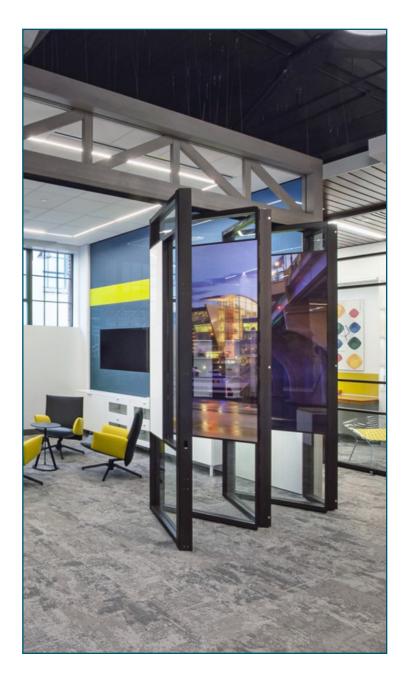
10 11 00	Visual Display Units
	Includes chalkboards, markerboards, tack boards, etc.
Captures	Finish panels with finishes that provide these functions: for example, back-painted glass, magnetic markerboard, WriteAway™ and Willow® Glass.
Contractor Estimate	Not typically in their estimate unless the items are very large.
10 11 43	Visual Display Wall Panels
	Includes custom-fabricated chalkboard, markerboard and tack board panels for full-height and wall applications.
Captures	Finish panels with finishes that provide these functions: for example, back-painted glass, magnetic markerboard, WriteAway™ and Willow® Glass.
Contractor Estimate	Typically, these items are in their estimates as they are often very large.
10 14 00	Signage
	Includes both interior and exterior uses. Scope impact potential is greatest by printing information directly onto DIRTT walls that would typically be included on signage.
Captures	Finish panels with finishes that provide this function: for example, WriteAway™, Willow® Glass and etched back-painted glass.
Contractor Estimate	Not typically in their estimate unless the items are very large.
10 22 19	Demountable Partitions
	Includes partition systems designed for relocation.
Captures	This scope is where several DIRTT competitors are often specified.
Contractor Estimate	Whether or not this scope is in the GC/CM's estimate depends on who is responsible for the scope. Sometimes, it is in the Furniture Fixtures and Equipment (FF&E) budget and not something the GC/CM carries in their cost.

Estimate

\bigstar	10 22 39	Folding Panel Partitions
		Includes movable folding panels (see the image to the right).
	Capture	Leaf™ Folding Wall is specified within this section.
	Contractor	Typically, these items are in their estimate as they are often very large and
	Estimate	require additional structural support.
	10 26 00	Wall and Corner Protection*
		Includes surface-applied corner guards, bumper rails and sheet
		wall protection.
	Captures	Additional wall and corner protection is not typically required on DIRTT walls under normal circumstances. DIRTT finish panels are inherently stronger than
		typical gypsum with conventional finishes.
		NOTE : Healthcare projects will likely still use bumper guards with handrails in
		corridors as they also provide something for patients to hold on to.
	Contractor	Typically, these items are in their estimate.
	Estimate	

*CSI MasterFormat (2018) lists this section as Wall and Door Protection. This document uses **corner protection** to better align with the more common naming and use of this section.

10 51 00LockersIncludes manufactured metal, wood and plastic lockers.CapturesDIRTT Manufactured Casework may capture this scope.NOTE: Wood lockers are often specified under 06 41 00 Architectural
Wood Casework.ContractorTypically, these items are in their estimate.



Division 11-Equipment

Division 11 includes a wide range of equipment the GC/CM may or may not supply and install. This division includes equipment for loading docks, food service, banking, offices, athletics, healthcare, etc. Depending on the size and type of equipment, the owner may decide to contract directly with a third-party vendor and installer. DIRTT does not impact or capture much of the scope within division 11; rather, DIRTT is more likely to simplify or integrate the installation in a unique way. This type of integration is not typically captured in a contractor's estimate.

11 52 00 Audio-Visual Equipment

Includes TVs, projector screens and other types of display technology.

Simplifies
 Equipment installation is much cleaner when walls accommodate the equipment within. The integration of embedded technology in DIRTT walls is unique to DIRTT. This scope is a difficult one to compare similarly to a GC/CM for cost because an exact conventional equivalent does not exist.
 Contractor
 Estimate
 Fixtures and Equipment (FF&E) budget and not something the GC/CM carries in their cost.



Division 12-Furnishings

Division 12, similar to division 11, includes a wide range of furnishings that the GC/CM may or may not supply and install. This division includes furnishings such as art, window blinds, casework and countertops composed of any material, furniture, stadium seating and planters. The potential scope impacts by DIRTT on division 12 are greatest for casework, countertops and the incorporation of art on DIRTT walls.

12 10 00	Art
	Includes interior and exterior artworks.
Captures	Anywhere graphic art or imagery of any kind is part of DIRTT walls.
Contractor Estimate	Not typically in their estimate and, therefore, is not specified.
12 32 00	Manufactured Casework
	Includes modular cabinets and countertops composed of any material (see
	image to the left).
Captures	DIRTT casework ("millwork") is specified within this section.
12 36 00	Countertops
	Includes countertops of any material: for example, metal, wood, wood cores
	finished with plastic laminate, solid surface, acrylic resins, stone or plastic.
Captures	Countertops provided by DIRTT.

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Division 13-Special Construction

Division 13 includes items that require special attention and consideration. Some of these items include swimming pools, ice rinks, aquariums, planetariums, geodesic domes and, of course, DIRTT's own solutions. This division is where DIRTT excels.

13 32 75 Integrated Interior Assemblies

Captures

Includes prefabricated and pre-engineered assemblies and components for site installation by stacking or linking (see image below). This section is the world of DIRTT. Here, DIRTT can specify wall framing, finish panels, doors, door frames, door hardware, electrical, some communications, plumbing accommodations, medical gas and any other additional integrated components.



Division 22—Plumbing

Division 22 includes meters, piping, valves, drinking fountains, lavatories, water closets, gas and vacuum systems for laboratory and healthcare facilities, water heaters, etc. While DIRTT walls can accommodate many different plumbing fixtures and types of piping, DIRTT's total scope impact on division 22 in terms of cost are limited to the use of Flex Gas.

22 61 13	Compressed Air Piping for Laboratory and Healthcare Facilities
Simplifies/ Captures	Includes medical air systems for healthcare (see image below). DIRTT's Flex Gas system replaces copper piping within accessible DIRTT walls with flexible medical gas hoses. DIRTT also provides the latch valve assembly, latch valve mounting brackets and manifolds to connect the flex gas assembly to the base building distribution system. NOTE : The medical gas plumber will still need to include labor in their estimate for work associated with flex gas components.
22 62 13	Vacuum Piping for Laboratory and Healthcare Facilities
	Includes medical vacuum systems for healthcare (see image below).
Simplifies/ Captures	DIRTT's Flex Gas system replaces copper piping within accessible DIRTT walls with flexible medical gas hoses. DIRTT also provides the latch value assembly, latch value mounting brackets and manifolds to connect the flex gas assembly to the base building distribution system. NOTE : The medical gas plumber will still need to include labor in their estimate for work associated with flex gas components.
22 63 13	Gas Piping for Laboratory and Healthcare Facilities
	Includes medical oxygen and nitrous oxide systems for healthcare (see image below).
Simplifies/ Captures	DIRTT's Flex Gas system replaces copper piping within accessible DIRTT walls with flexible medical gas hoses. DIRTT also provides the latch valve assembly, latch valve mounting brackets and manifolds to connect the flex gas assembly to the base building distribution system.

NOTE: The medical gas plumber will still need to include labor in their estimate for work associated with flex gas components.



Division 23—Heating, Ventilating and Air Conditioning

Division 23 includes facility fuel systems, air-cleaning and air-distributing systems, exhaust systems, boilers and similar equipment.

DIRTT has the potential to simplify the installation of HVAC branch distribution. This simplification is only possible when an HVAC system can be installed in its entirety above the ceiling before DIRTT walls are installed. More specifically, walls are installed after the finish ceiling and HVAC system are completed. This approach should reduce the overall cost of a HVAC system by reducing the amount of time it takes to install it.

NOTE: HVAC trunk lines are typically installed early during the interior build-out. DIRTT would not likely have any impact on the installation of HVAC trunk lines or other major HVAC equipment.

23 31 13	Metal Ducts
	Consists of metal ducting for HVAC supply and return air.
Simplifies	Ducting may be installed faster in an open floor plan where DIRTT walls and doors are installed after the overhead HVAC and ceilings are completed.

Division 26-Electrical

Division 26 includes a wide range of electrical scope such as electrical-distribution systems, substations, transformers, interior and exterior lighting.

DIRTT's impact on division 26 is limited to branch circuiting and electrical drops. Additionally, because DIRTT provides modular power solutions, the line is frequently blurred between what DIRTT is providing and which sections the solution impacts. When performing cost comparison exercises, the simplest approach is to compare the total cost of a conventional drop against a DIRTT Power drop. For full modular power, compare conventional distribution to modular distribution costs as another separate line item.

26 05 00	Common Work Results for Electrical
	Consists of administrative requirements related to submittals and documentation, system-testing requirements and other basic work requirements for all division 26 work.
Simplifies	Less for the engineer and contractor to review as all DIRTT solutions are pre-engineered. Additionally, the electrical contractor has less work on-site.
26 05 19	Low-Voltage Electrical Power Conductors and Cables
	Includes product-level wiring, armored-cable (AC) and metal-clad (MC) cable, wires, connectors, splices and terminations.
Captures	AC and MC cables, connectors, power whip, extender cable, express lines and splitters.
Simplifies	Installation is quicker and simpler with pre-terminated cables.

26 05 29	Hangers and Supports for Electrical Systems
Captures Simplifies	Includes the mounting and support devices for conduits and cables. Mounting hardware and brackets used for securing boxes and conduits within DIRTT frames. Installation on-site is quicker as all back boxes and conduits are factory mounted.
26 05 33	Raceways and Boxes for Electrical Systems
Captures Simplifies	Includes surface-mounted raceways, conduits and junction boxes, back boxes and pull boxes. Surface-mounted raceways (not required with DIRTT), conduit, back and junction boxes, pull and zone boxes, panel manager and power chassis. Installation on-site is quicker as all back boxes and conduits are factory mounted.
26 09 23	Lighting Control Devices
Captures	Includes switches, dimmers and faceplates. Faceplates when requested so they match others.
26 27 26	Wiring Devices
Captures Simplifies	Includes electrical receptacles and face plates. Pre-terminated electrical outlets, face plates and trim rings. Installation on-site is quicker as all devices are pre-terminated.

Division 27—Communications

Division 27 includes all the items that support data and voice communications within a building such as cabling, networking equipment and hardware and audiovideo systems. DIRTT has the most potential to capture scope in division 27 with a low-voltage telecommunication passive optical network (PON) solution or a copper solution.

27 05 00	Common Work Results for Communications
	Consists of administrative requirements related to submittals and documentation, system-testing requirements and other basic work requirements for all division 27 work.
Simplifies	Potentially less for the engineer and contractor to review as all DIRTT solutions are pre-engineered.
27 05 29	Hangers and Supports for Communications Systems
27 05 29	Hangers and Supports for Communications Systems Includes the mounting and support devices for conduits and cables.
27 05 29 Captures	

27 05 33	Conduits and Backboxes for Communications Systems
	Includes conduits and junction and pull boxes.
Captures	DIRTT Network Conduit (DNC), conduits and back, pull and junction boxes.
Simplifies	Installation on-site is quicker as all back boxes and conduits are factory mounted.
27 11 00	Communications Equipment Fittings
	Includes consolidation points, optical line terminations (OLTs), optical network terminations (ONTs), splitters and chassis.
Captures	Consolidation points, OLTs, ONTs, splitters and chassis.
27 15 00	Communications Horizontal Cabling

CapturesCopper/PON cabling, data jacks, face plates and trim rings

Division 28-Electronic Safety and Security

Division 28 includes safety and security systems for access controls (e.g., electrified door hardware), video surveillance systems, alarm systems and life safety systems such as fire alarms.

IMPORTANT: While DIRTT does not likely capture any of the scope within division 28, it does provide accommodations for items like specialty back boxes, cabling, devices, etc. Any of the more common conventional back boxes and conduits needed for scope within division 28 are typically the same ones specified in division 26 for electrical. Division 28 includes the device itself.

EXTENDER CABLE

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