



Illinois Tollway
DIVERSITY

Driving Economic Opportunities

BUILDING FOR SUCCESS

Illinois Tollway Job Order
Contracting (JOC) 101

August 14, 2023



HOUSEKEEPING RULES



Housekeeping Rules



WELCOME & INTRODUCTIONS

Illinois Tollway Job Order Contracting (JOC) 101

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Job Order Contracting at the Illinois Tollway

Benefits, Support, and
Opportunities

What is Job Order Contracting (JOC)?



Job Order Contracting (JOC) is a construction method that allows agencies to complete a **high volume of individual projects** with a **single, competitively-awarded bid**.



Construction task proposals utilize a **pre-set cost catalog (CTC)** based on the regional market.



The construction task catalog (CTC) contains over **275,000 pre-priced** construction task line items.



Contractors bid once on all items covered in the CTC by applying a factor to cover construction, overhead, and profit for the term of the contract.



For example, if a contractor bids a **factor of 1.0** they are saying that they can do everything in the CTC for the **price as listed**. If a **contractor bids .75**, they are saying that they can do everything in the CTC for **\$.75 on the dollar** as listed in the CTC.



At the Illinois Tollway, the JOC General Contractor, JOC PMO, and JOC CM **work directly with the end user**, Tollway Facilities staff, to initiate the JOC Process.

Starting with the Joint Scope Meeting, a team effort between the Tollway, JOC GC, and JOC PMO is established to develop a scope of work through investigation and coordination with other key parties as required to determine the best and highest use of the facility and project objective.



Once the JOC GC submits a price proposal, the **JOC PMO reviews and upon satisfactory review forwards the proposal to the Tollway for approval.**

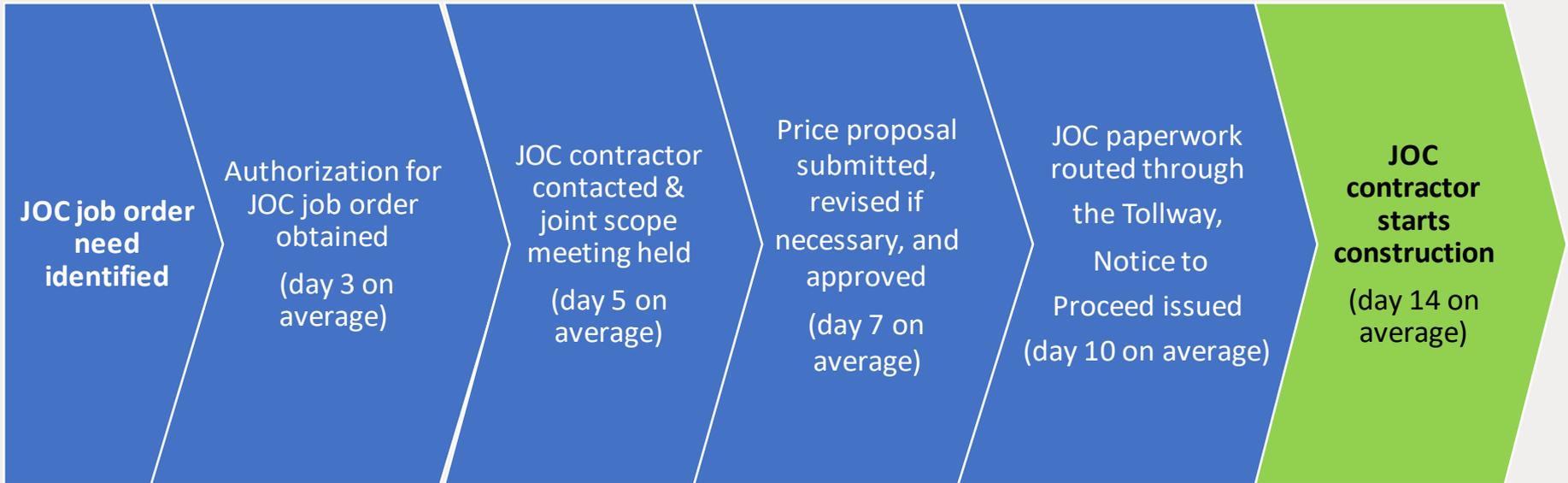
- If proposal revisions are needed, the JOC PMO assists the JOC GC in making appropriate revisions as an opportunity to build JOC skills

When a proposal is approved, the **JOC GC works alongside the JOC PMO** to submit all required documentation to the Tollway's Procurement and Compliance departments, **maintaining an open line of communication.**

- The JOC PMO acts as the primary liaison between the Tollway departments and the JOC GC to ensure all Tollway policies, procedures, and initiative goals are met



The full JOC procurement process takes an **average of two weeks** from identification of need to start of construction:



Once the Tollway approves, the JOC PMO issues a Notice to Proceed and work begins. The JOC PMO and JOC CM staff provide **continuous support, coordination, and communication** through project completion to **ensure success**.



The JOC Program at the Tollway is **based on a collaborative approach** with partnered JOC GCs and the JOC PMO team to **collectively provide opportunity, ability, and guidance**.





JOC Values & Benefits to Client and Contractor



The JOC methodology provides the Tollway with **exceptional guaranteed value** while maintaining a fair, beneficial opportunity to local vendors.

- JOC enables the Tollway to complete facilities and roadway-related projects in a **timely** and **cost-effective** manner
- Establishes seamless, reliable, and high-quality **functionality** to perform work as needed **outside the traditional design and procurement process**



JOC facilitates the development of ongoing partnerships with local vendors, maintaining the Tollway's **strong presence in the local construction community and economy.**



JOC allows the Tollway to **expand its network** of new vendors, both large and small, who can **participate in Tollway projects** and **familiarize themselves with the Tollway as a client** for **future opportunities.**



JOC provides another avenue for the Tollway to **establish and pursue initiatives unique to the agency** through BEP, Veteran, and Small Business participation.



For General Contractors, the JOC program at the Tollway provides an indefinite quantity of rapidly-procured job orders over a **set duration, and within a defined geographic zone.**



- Establishes **streamlined, standardized methodology** from project initiation to closeout
- Offers a **variety of work** across all trades, where the **volume of work assigned is based on performance**
- Allows awarded contractors to **achieve JOC mastery**, building confidence and skills for **future opportunities** at the Tollway and elsewhere



JOC is based on **partnership** between client and contractor, centered around **special initiatives and common goals**.

- Ongoing **support and guidance from the JOC PMO and Gordian** allows contractors to both **learn about and participate in the JOC program simultaneously**
- Opportunity to **build a relationship with the Tollway** and other local vendors
- Awarded contractors will **work with a client that values transparency and consistency**, and who is **invested in the contractors' success**



JOC has benefits for both the Tollway and the awarded general contractor.

For the Tollway:

- Guaranteed value via pre-pricing, based on regional market
- Rapid procurement outside the traditional process
- Allows the Tollway to expand its network of contractors
- Additional opportunities for the Tollway to extend its initiatives (small business, BEP, Veteran participation)

For the general contractor:

- Tollway JOC offers a higher volume and variety of work within a set value, timeframe, and geographic zone
- Clear, standardized expectations and methodology for all assigned work
- Opportunity to learn JOC skills in a supportive, collaborative environment while participating in an active JOC contract
- Pathway to building a relationship with the Tollway and familiarity with government work for future opportunities





The JOC Support Structure at the Illinois Tollway

Tollway staff maintain **open communication** throughout the JOC process.

- **Tollway Facilities** is the primary client and end user of JOC job orders
- Facilities works with all JOC parties from project initiation to completion, encouraging open communication, efficient planning, and mutual support



Tollway Procurement tracks and logs all JOC subcontractor utilization.

- Primarily responsible for verifying all subcontractor state registration and that Tollway policies and procedures are adhered to

Tollway Compliance reviews JOC documentation to ensure all Tollway participation goals and special initiatives are met.

- Compliance also tracks payment to subcontractors on JOC projects



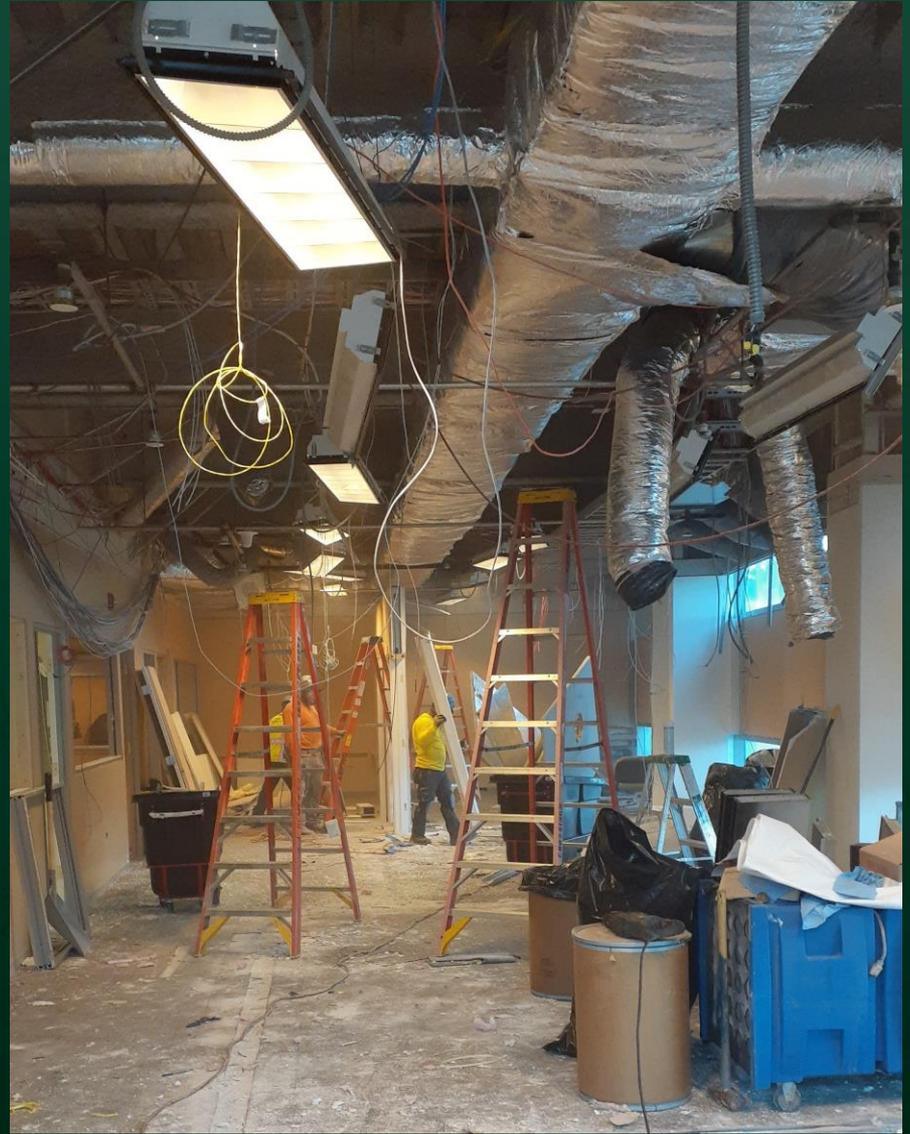
The JOC PMO & CM staff serve as **the primary support** for JOC GCs for all project and construction management needs and activities.

The JOC PMO provides JOC GCs with **day-to-day support** and covers project management duties, including scope development, proposal review, documentation, and implementation and upholding of Tollway initiatives, policies, and procedures.



The JOC CM provides on-site support and oversight for active work, submittals and related documentation, as well as payment processing.

The JOC GC, JOC PMO, and JOC CM share the goal of delivering top-quality work for the Tollway and guide the GC through the JOC process toward success.



Gordian, distributor of the Construction Task Catalog (CTC) and eGordian software, provides ongoing **technical software support** and training on proper use of the **CTC and eGordian**.

Under an active JOC program, Gordian staff can train and guide the JOC GC through the proposal building process, encouraging the mastery of JOC proposal development and process skills.



The Tollway, JOC PMO & CM, Gordian, and JOC general contractor form a cohesive team.

- Tollway Facilities is the initiator and user of all JOC job orders
- Tollway Procurement ensures state requirements are met
- Tollway Compliance tracks Tollway initiative performance and track sub payment
- The JOC PMO serves as the owner's (Tollway) representative, oversees JOC scope and proposal building, documentation, and JOC job order procurement, and is the primary support for JOC GCs for proposals and all day-to-day activities
- The JOC CM oversees and supports active work, handles submittals and related documentation, and processes payment
- Gordian distributes the CTC, maintains the eGordian software system, and can support the JOC contractor with technical proposal and software guidance

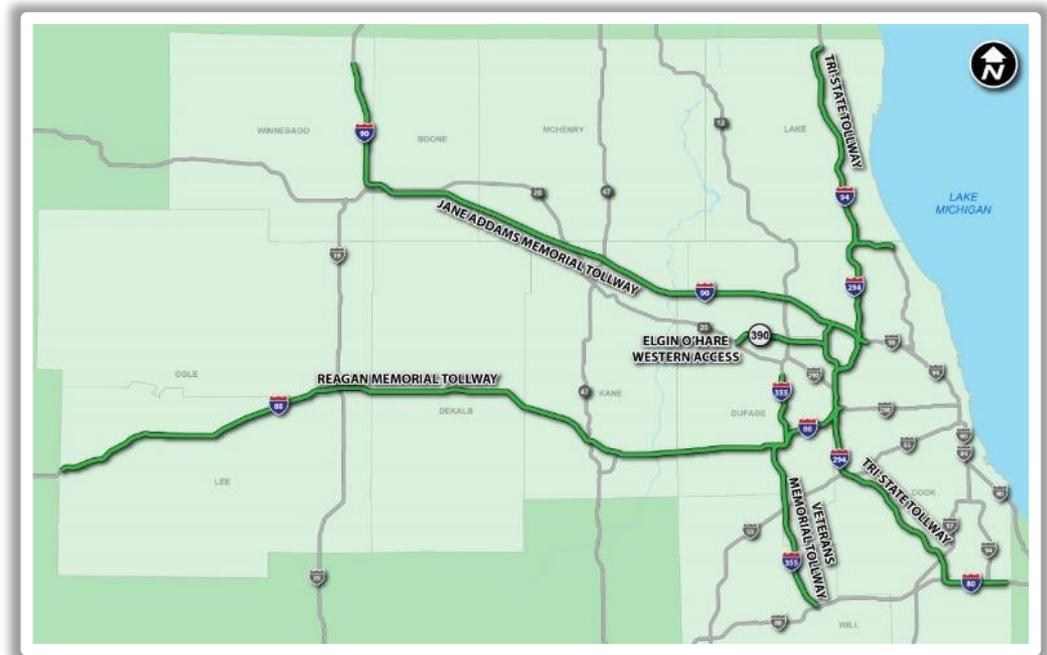




A Look into the Illinois Tollway as a JOC Client

The Illinois Tollway is a 294-mile system comprised of four individual tollways.

- The Tollway provides transportation to more than 1.5 million vehicles per day systemwide
- Toll collection is based on a user-fee system
- No state or federal gas tax dollars are used for maintenance and operations



The Illinois Tollway is supported by **107 facilities**, each fulfilling a unique need.

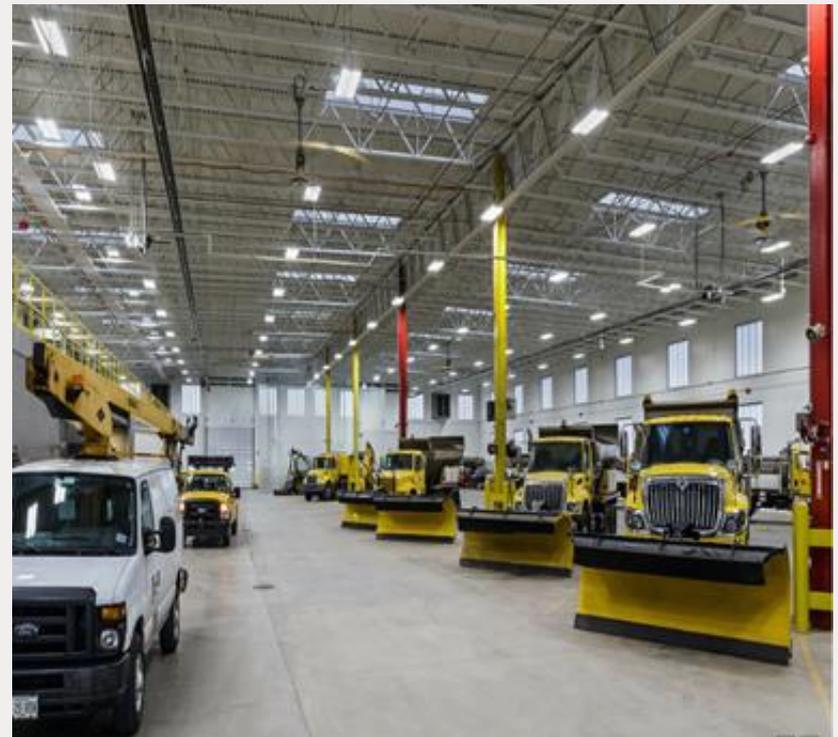


- 11 Maintenance Facilities, or “M-Sites”
- 20 central and specialty facilities
- 24 attended mainline toll plazas
- 52 unattended ramp toll plazas
- Other, smaller Tollway structures:
 - Radio towers, IPDC buildings, ISP and Tollway data support



Tollway Maintenance Facilities, or “M-Sites,” **serve as a base for Tollway staff and fleet** for a designated section of the Tollway.

- M-Sites house Tollway Fleet vehicles, salt trucks, H.E.L.P. trucks, Tollway signage trucks, heavy equipment, and ISP vehicles
- Typical structures at M-Sites include salt domes/barns, brine tank systems, Tollway Fleet garages and repair shops, and storage buildings



The Tollway has several key, specialty facilities at the core of typical Tollway operations.

- The **Central Administration Building** in Downers Grove, the administrative headquarters of the Tollway
- The **Central Warehouse and Sign Shop** in Naperville, the largest and most active Tollway storage facility
- The **Central Support Garage** in Downers Grove, the main repair and maintenance shop for Tollway Fleet
- The **Disaster Recovery Facility in DeKalb**, which acts as a backup and main support for Tollway IT



Tollway plazas and other, smaller facilities fulfill the agency's day-to-day operations.

- The Tollway maintains **24 attended mainline toll plazas and 52 unattended ramp toll plazas**
 - Each plaza is unique, and many have legacy structures adapted to suit new needs as the Tollway grows and modernizes
 - Some plazas also serve as joint facilities for Illinois State Police
- Other, **smaller structures support** larger Tollway facilities and Illinois State Police operations in conjunction with the Tollway
 - Intermediate Power Distribution and Communication (IPDC) buildings extend power and data across the Tollway system
 - Radio towers collect data for Tollway monitoring systems



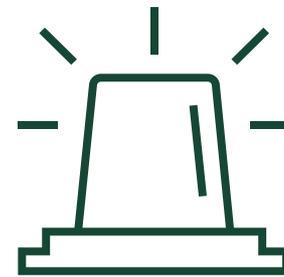
| JOC Project Category | Portion of all JOC Work (Historical) |
|------------------------|--------------------------------------|
| Electrical | 19% |
| Fire Protection | 1% |
| Flooring | 1% |
| HVAC | 21% |
| Masonry | 4% |
| General Improvements | 21% |
| Plumbing | 15% |
| Roadway | 7% |
| Roofing | 5% |
| Structural & Buildouts | 6% |

The Illinois Tollway has a **wide variety** of facilities and unique needs, which is reflected in the types of work the JOC program handles.



JOC has also served the Tollway well as an **emergency response** method.

- Any situation or condition impacting the comfort and safety of Tollway employees or the public, power or fuel failures, gas and water leaks, facility security, and IT data loss or interruption to the core functions of the Tollway is considered an **emergency**
- Historically, **emergency work has made up roughly 25%** of all Tollway JOC work
- Emergency job orders **require immediate responsiveness and availability** from JOC general contractors
- **Each emergency job order response engages the highest levels of JOC teamwork**, coordination, and support to allow the JOC GC to expedite and abate critical situations as fast as possible



JOC projects are already being planned for all three new JOC programs.

- The Tollway plans to utilize the JOC program for general improvements, urgent needs, and various Tollway initiatives, with **approximately \$12.3m already planned**
- Mechanical, electrical, and plumbing work, as well as interior improvement needs, make up the majority of upcoming projects

| JOC Project Category | Value | Portion of Total Work |
|-------------------------------|-----------------|-----------------------|
| General Interior Improvements | \$ 1,980,000.00 | 13% |
| Electrical | \$ 1,245,000.00 | 8% |
| Mechanical | \$ 2,715,000.00 | 18% |
| Plumbing | \$ 900,000.00 | 6% |
| Fire Protection | \$ 250,000.00 | 2% |
| Roofing | \$ 1,795,000.00 | 12% |
| Exterior Improvements | \$ 2,010,000.00 | 13% |
| Canopy Repairs | \$ 400,000.00 | 1% |
| Structural & Buildouts | \$ 650,000.00 | 4% |



Historically, the Tollway's JOC program **mainly performs smaller-sized job orders** to accomplish small repair, replacement, and facility upgrade work.



- With over 1000 JOC job orders over 7 years under the previous Tollway JOC program, approximately **80% were valued at less than \$100,000**
- This is a major benefit to small general contracting firms who may be limited in their capacity, and **provides an accessible opportunity to work** with a large regional client



JOC is an adaptable program for the Tollway and for participating general contractors.

- The Tollway has 107 facilities, including M-sites, Plazas, and specialty and supporting facilities, all of which provide a variety of work for JOC general contractors
- Tollway JOC work encompasses all trades, and is heavy in mechanical, electrical, plumbing, and general improvement work
- JOC's ability to respond to emergencies is a key benefit, and approximately 25% of all historical JOC job orders have been emergencies
- Approximately 80% of all historical JOC job orders were valued below \$100k



The JOC program also serves as an introduction to the Tollway through subcontracting as part of an ongoing, values-based initiative to be a good partner to the local contracting community.

- Under the previous JOC Program, the Tollway and JOC GCs welcomed **over 150 subcontractors to participate on JOC work that were new to the Tollway**
- The JOC program helps the Tollway with their initiative of **offering as much opportunity to as many new firms as possible**
- The support system the JOC team provides leads to an **onboarding path** for firms interested in bidding on Tollway work, including the JOC program



The JOC programs at the Tollway will continue to **build partnership and emphasize teamwork.**

- The JOC team and the Tollway look forward to partnering with exceptional firms, large and small, to continue to provide **reliable and responsive services** while supporting awarded contractors



Between the Tollway's initiative to **extend opportunity** throughout the region, and **the support system established** between the JOC PMO & CM, Gordian, and selected contractors, **the JOC program can be a dynamic, exceptional opportunity to level up** an interested firm's skillset while participating in an active contract with one of the region's largest agencies.



For the upcoming JOC contracts, we want to emphasize the support, guidance, and accessibility available at the Tollway for interested firms.

- Between the Tollway departments, the JOC PMO & CM, and Gordian, there is a wealth of knowledge and support to guide the awarded general contractors to success on a daily basis through the life of their contract
- The Tollway and the JOC team want to make JOC approachable, demystify the process, and partner with motivated vendors to help them level up their skills and prepare for future opportunities





Thank you!

Questions on the upcoming contracts
can be directed to **Brian Chillmon** with
Tollway Procurement:

bchillmon@getipass.com

Illinois Tollway Job Order Contracting Contractor Outreach Seminar



Agenda



- Introductions
- Job Order Contracting (JOC) Overview
- JOC Process
- JOC Contract Documents
- JOC Management Software (eGordian)
- How to Bid a JOC Contract - Calculating the Adjustment Factors
- Q&A

Gordian

Gordian delivers solutions that bring speed, precision and efficiency to every phase of the building lifecycle.

Developer of
**Facilities Intelligence
Solutions**
for strategic decision
making

Pioneer of
RSMeans data,
industry-standard
cost estimating data

Creator of
Job Order Contracting
process and data



Built with Insights, Technology and Expertise



Insights

Gordian cost data experts develop a regionalized UPB for each JOC contract

Construction Task Catalog® (CTC) has over 275,000 accurate construction tasks with preset prices.

Ongoing project and program insights



Technology

Software built from decades of industry experience

Executes 30K projects annually

Easily manage the functions of the construction procurement process

Allows collaboration between owner and contractor



Expertise

Gordian's founder created the original Job Order Contracting process in 1982

Implemented and administered hundreds of successful programs

Dedicated onsite field personnel review proposals to ensure project success.

More than \$3.2B in construction value is completed through Gordian's Job Order Contracting solution annually.



The background features a dark blue gradient with a pattern of semi-transparent blue hexagons of various sizes. Several stylized logos, resembling a combination of the letters 'A' and 'V' or 'R' and 'V', are scattered across the scene, some appearing as faint outlines and others as more solid, light-blue shapes.

Job Order Contracting (JOC) Overview

Different Delivery Methods for Different Projects

In-House Staff

Construction Management
(CM) at Risk

Unit Price
Contracts

Design-Bid-
Build

Time and
Materials

Design-Build

**Job Order
Contracting**



Job Order Contracting (JOC)

Definition

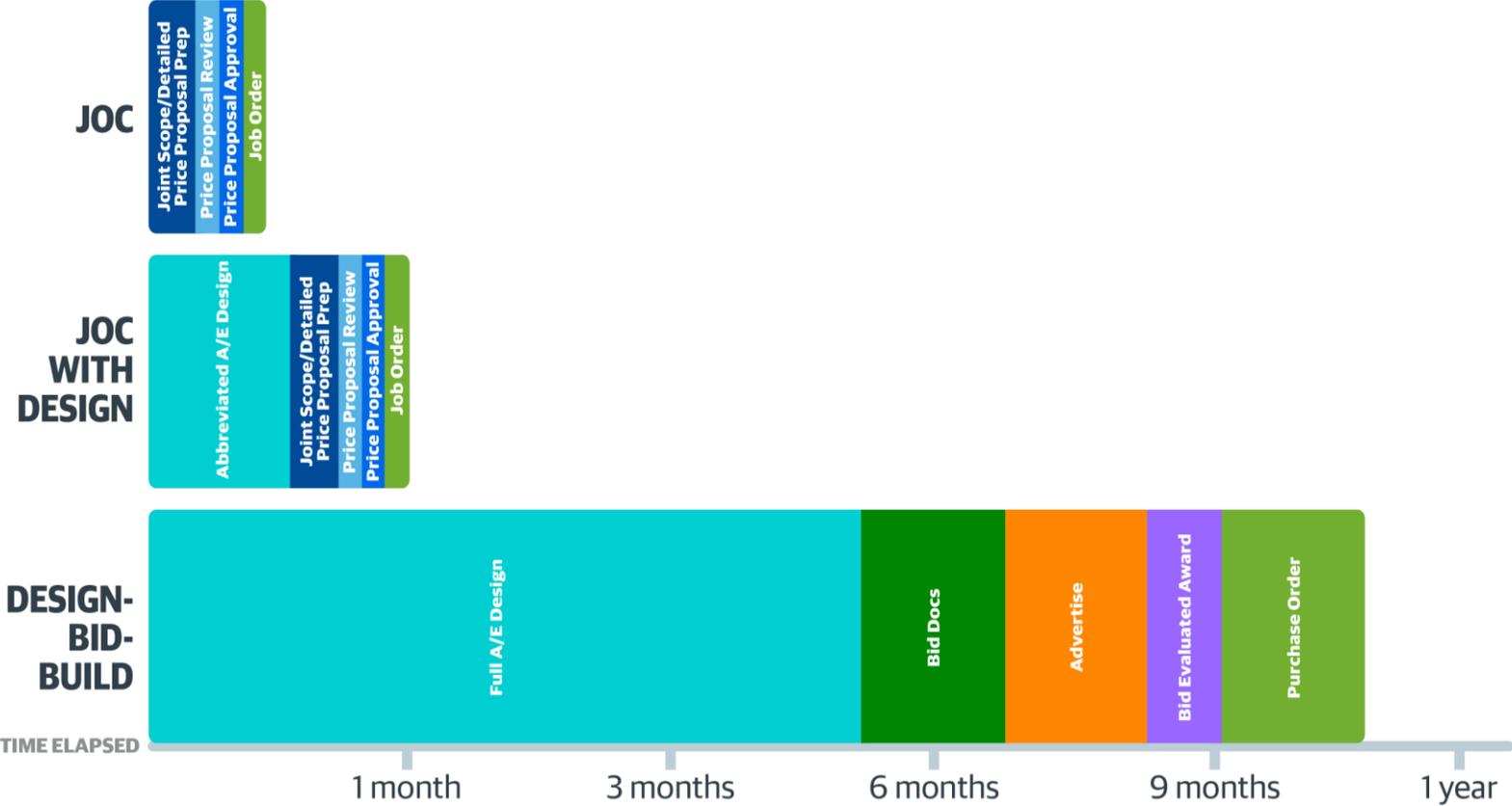
- Indefinite delivery/indefinite quantity process (IDIQ)
- Enables facility owners to complete a substantial number of individual projects with a **single, competitively-awarded bid**
- Tasks are based on **preset costs in the Construction Task Catalog® (CTC)**.
- Bid an Adjustment Factor to be applied to **CTC**, resulting in on-call, competitively bid and awarded contractors that are available to perform work at agreed upon prices

Value

- Saves time and administrative costs on construction procurement
- Fundamentally different construction procurement relationship
 - Collaborative relationship between Owner and Contractor
 - Allows Owners and Contractors to expedite work
 - Contractors and Owners build lasting partnerships



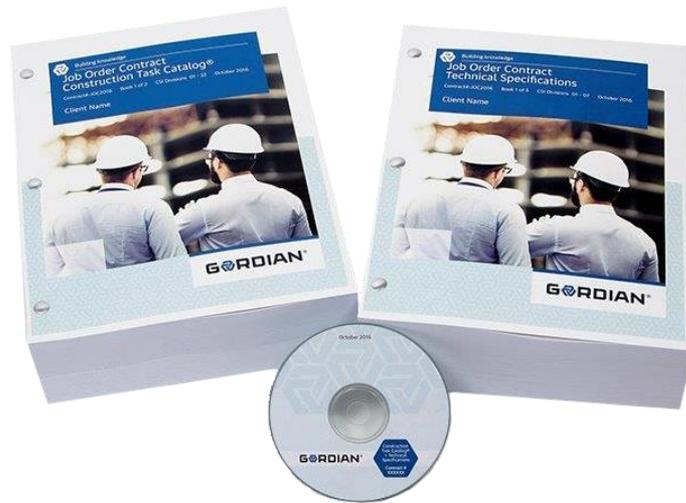
JOC Value: Significant Time Savings



Contract Documents



Contract Documents



- IFB Invitation for Bid
- The Construction Task Catalog®
- The Technical Specifications



Construction Task Catalog (CTC)

The Construction Task Catalog®

- Catalog of Pre-Priced Construction Tasks
- Organized by Construction Specifications Institute (CSI)
- Based on Local Labor, Material & Equipment Costs
- The tasks represent the “Scope of Work” for the contract



Construction Task Catalog®

CSI MasterFormat

Full task description

Cost includes labor, material and equipment for your location

09 22 16

Non-Structural Metal Framing (09 22)

Note: Includes all necessary framing studs, bridging, fasteners necessary to attach to floors, walls, ceilings and a metal stiffener at half height. Per SF of wall area measures one side. Do not deduct for openings of less than 25 SF when calculating total wall square footage.

| | | | |
|------------------|--|-------|------|
| 09 22 16 00-0004 | SF 3-5/8" Width, 25 Gauge, Non Load Bearing, Non Structural Metal Framing Stud With Tracks And Runners, 16" On Center..... | 1.67 | 0.34 |
| | <i>For Walls > 10' High, Add</i> | 0.33 | |
| | <i>For Soffit, Columns Or Beams Up To 10' High, Add</i> | 0.86 | |
| | <i>For Soffit, Columns Or Beams > 10' High, Add</i> | 1.11 | |
| | <i>For Horizontal Installation Up To 10' High, Add</i> | 0.30 | |
| | <i>For Horizontal Installation > 10' High, Add</i> | 0.38 | |
| | <i>For Curved Wall, Add</i> | 0.26 | |
| | <i>For 12" On Center, Add</i> | 0.29 | |
| | <i>For 24" On Center, Deduct</i> | -0.29 | |
| | <i>For Up To 200, Add</i> | 0.51 | |
| | <i>For > 200 To 500, Add</i> | 0.25 | |

Modifiers for variations or quantity discounts

Demolition cost (if applicable)



The Technical Specifications

- Specifies Quality of Materials and Workmanship
- Corresponds with Tasks in the Construction Task Catalog®



Technical Specifications

09 22 16 Non-Structural Metal Framing (09 22)

Note: Includes studs, bridging, fasteners, and metal stiffener at half height. Do not deduct for openings of less than 25 SF.

09 22 16 13 Non-Structural Metal Stud Framing (09 22 16)

09 22 16 13-0001 25 Gauge, Non-Load Bearing, Non-Structural, Galvanized Steel Stud Framing With Tracks And Runners (09 22 16 13)

| | | | | |
|------------------|----|---|-------|------|
| 09 22 16 13-0002 | SF | 1-5/8" Width, 16" On Center, 25 Gauge, Non-Load Bearing, Non-Structural, Galvanized Steel Stud Framing With Tracks And Runners..... | 2.82 | 0.75 |
| | | <i>For Powder-Actuated Fasteners Every 2', Add</i> | 0.06 | |
| | | <i>For Walls >10' High, Add</i> | 0.56 | |
| | | <i>For Soffit, Columns Or Beams Up To 10' High, Add</i> | 1.79 | |
| | | <i>For Soffit, Columns Or Beams >10' High, Add</i> | 2.35 | |
| | | <i>For Horizontal Installation Up To 10' High, Add</i> | 0.56 | |
| | | <i>For Horizontal Installation >10' High, Add</i> | 0.75 | |
| | | <i>For Curved Wall, Add</i> | 0.56 | |
| | | <i>For 12" On Center, Add</i> | 0.47 | |
| | | <i>For 24" On Center, Deduct</i> | -0.47 | |
| | | <i>For Up To 100, Add</i> | 0.94 | |
| | | <i>For >100 To 300, Add</i> | 0.47 | |
| | | <i>For >1 000 Deduct</i> | -0.24 | |

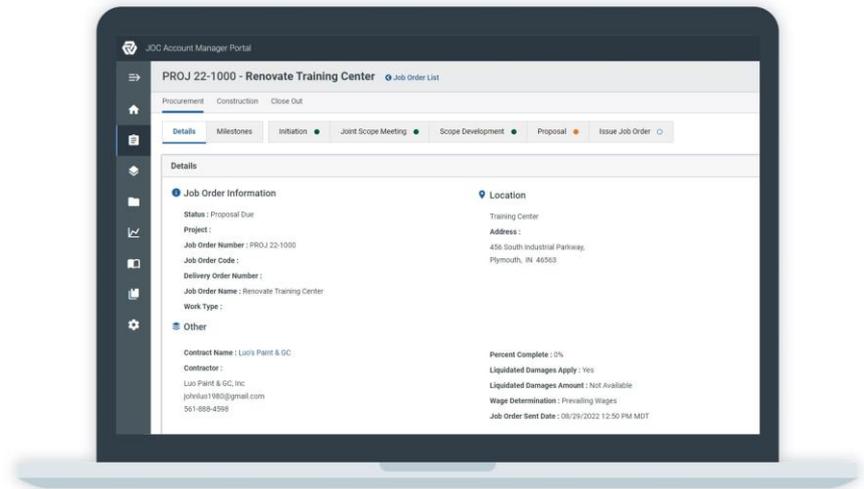
JOC Management Software - eGordian

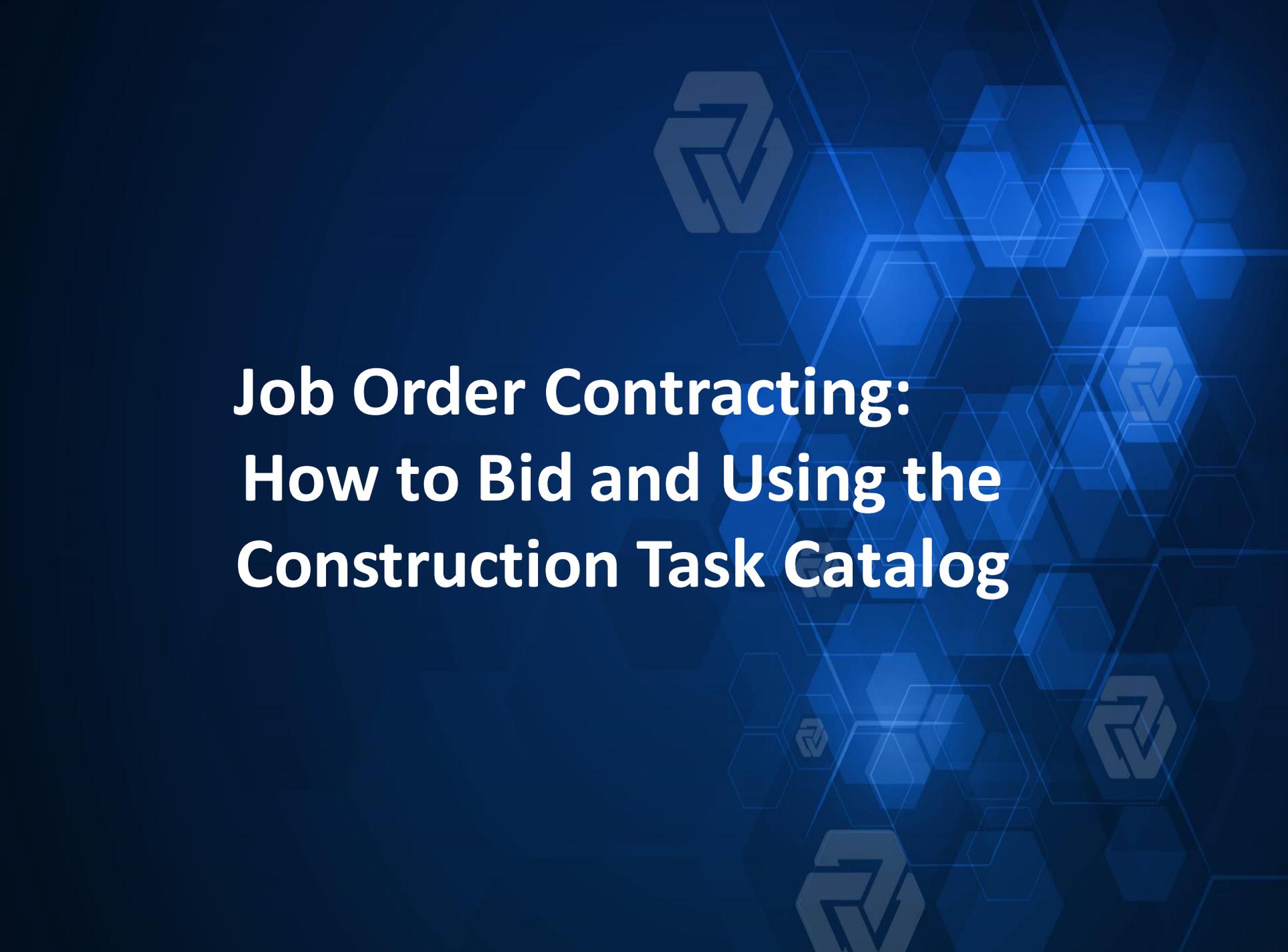
Gordian Software

Gordian JOC solutions includes access to our secure, internet-based software programs

Internet Based Software Provided with Contract

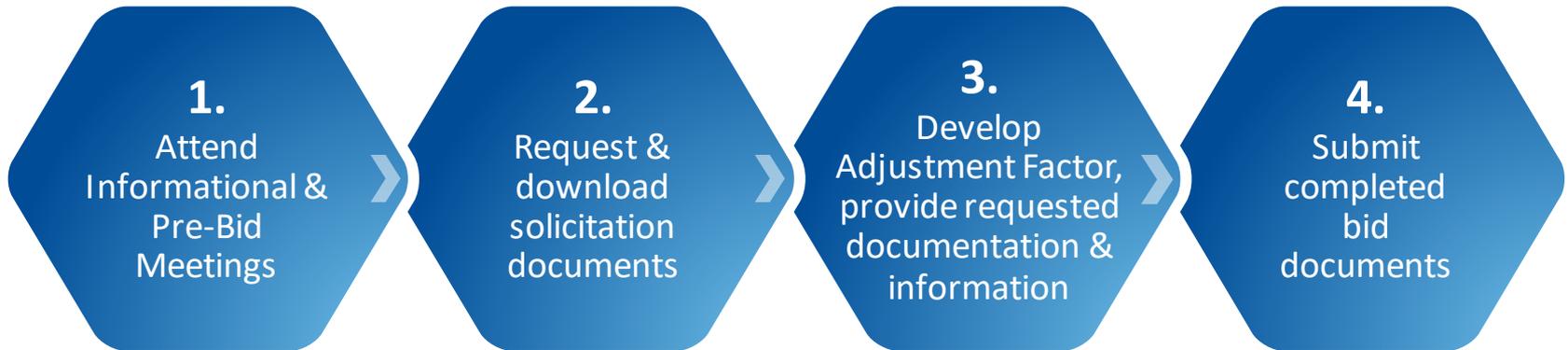
- The Gordian JOC Management Software Expedites the Job Order Process
 - Price Proposals
 - Subcontractor Lists
 - Tracking Dates
 - Required Job Order Forms
- Ongoing Training provided



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Job Order Contracting: How to Bid and Using the Construction Task Catalog

Steps to Bid



Using the Construction Task Catalog/The Rules

In the front of the Construction Task Catalog is a six-page written guide that explains the rules for using the CTC.

Adjustment Factors Must Include:

- All overhead including home office overhead, job site office overhead, supervision, and project management
- Profit
- Subcontractors' overhead and profit
- Project trailer, portable toilets, storage containers for Contractor's use
- Basic safety and warning signage
- As-built drawings in the same media provided by owner
- Daily clean-up and Final professional clean-up

GORDIAN®

Using The Construction Task Catalog®

About the CTC:

- ❑ This Construction Task Catalog® (CTC) was developed and customized by The Gordian Group, Inc. specifically for Waterford Arsenal, priced locally using current labor, material and equipment costs, and published in January 2020.
- ❑ The Gordian Group, Inc. licenses the use of this CTC and other proprietary information and software for the sole purpose of providing Job Order Contracting services to Waterford Arsenal. Use of this CTC and other proprietary information and software for any other purpose, or for any other entity, is expressly prohibited without the express written consent of The Gordian Group, Inc.

Each CTC is customized for specific clients

EQUIPMENT COSTS:

- ❑ Equipment costs include all equipment required to accomplish the task.
- ❑ Mobilization is included for all equipment except large equipment (e.g. cranes, bulldozers, excavators, backhoes, bobcats etc.), which include mobilization.
- ❑ Equipment costs include all operating expenses such as fuel, electricity, lubricants, etc.

MATERIAL COSTS:

Comprehensive rules for using the Construction Task Catalog

- ❑ Material costs include the cost of the material, delivery, and all incidentals and accessories integral to the installation.
- ❑ Material costs include manufacturer's and/or fabricator's shop drawings.
- ❑ Material costs for roofing, drywall, VCT, carpet, wall covering, ceiling tile, pipe, conduit, concrete, etc. include an allowance for waste. This list is not intended to be all inclusive, but descriptive of the types of construction materials that are typically sold in standard lengths, sizes and weights.
- ❑ Material costs for imported materials (e.g. aggregate, sand, soil, etc.) include delivery up to 15 miles from the closest approved source.

The Unit Prices Include:

Unit prices based on local labor, equipment and material costs

LABOR COSTS:

- ❑ Labor costs include direct labor through the working foreperson level at straight time prevailing wage rates including fringe benefits and an allowance for Social Security, Medicare taxes, worker's compensation, unemployment insurance, and employee benefits.
- ❑ Labor costs include unloading equipment, materials, and tools, and transporting the same up or down 2 stories and 125' to reach the project site; layout, measuring and calling to fit; performing the task; disposal of excess material; and time for lunch and breaks.

The Adjustment Factors Include:

The Adjustment Factors include the following costs, unless specifically excluded by the terms of the Contract Documents:

BUSINESS COSTS:

- ❑ Office overhead, including, but not limited to, office space, office equipment, office and management personnel, office supplies, and employee transportation.
- ❑ Insurance and bonding.
- ❑ Profit

January 2020
Sample

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Page 88 - 1



General Rules / Unit Prices

- For complete and in-place construction, including all labor, equipment and material
- Include all fasteners. Fasteners listed separately are for use with Owner-furnished material and equipment or for relocating or reinstalling existing material and equipment.
- Exclude more substantial mounting material
- Sealant and caulking included for doors and windows, duct work, plumbing fixtures, seamless floors, countertops, roof flashing, pitch pockets, skylights, roof curbs, exterior trim, etc.
- Include testing and calibrating, balancing, start-up services to ensure proper installation, construction and performance of work. May be paid for owner supplied materials and equipment, or when working on or tying into existing materials and equipment.
- All labor, material, equipment, spare parts and documents required by a Technical Specification are included.



General Rules / Demolition

- Unit prices include all labor, equipment and material required for
 - Complete removal of items
 - Clean-up of the area
 - Transporting the demolished items up or down two (2) stories into a truck, dumpster or designated area located within 125' of the project site
- Unit prices exclude:
 - Costs for hauling
 - Dump fees
 - Dumpsters
 - Trash chutes
- If item being demolished is attached to another item being removed and can be removed as one piece, the items should not be priced separately.
- Replace includes removal of the existing item and installation of new item
- Remove and relocate or remove and reinstall includes removal, cleaning and installation of existing item in same or different location



General Rules / Restricted and Confined Spaces

- Work eligible for Restricted Working Space modifiers are:
 - Any area with less than 3' vertical or horizontal clearance.
 - Crawl spaces
 - Ceiling plenums where grid is not removed
 - Narrow piping tunnels
 - Equipment rooms with congested installation space due to equipment and piping placement
- Code of Federal Regulations define confined spaces for construction and set forth requirements, procedures and safety precautions. If specific equipment, services or training are required, the contractor will be paid for these items. These are not required to be included in the Adjustment Factor.



Using the Construction Task Catalog[®]

Include All Appropriate Tasks:

| | | | | | | |
|------------------|------------------------------------|-----|----------|-------|------------|------------|
| 32 16 23 00-0002 | 4" Cast In Place Concrete Sidewalk | SF | \$7.31 | 400 | \$2,924.00 | |
| | For Quantities 100 to 500, Add | SF | \$0.91 | 400 | \$364.00 | |
| 32 11 16 00-0015 | 4" Crushed Aggregate Base | SF | \$0.79 | 400 | \$316.00 | |
| | For Quantities Under 1000 | SF | \$0.21 | 400 | \$84.00 | |
| 01 71 13 00-0003 | Mobilize Backhoe | EA | \$402.63 | 1 | \$402.63 | |
| 31 23 16 36-0006 | Excavation by Backhoe | CY | \$5.19 | 11 | \$57.09 | |
| | For Quantities Under 20 CY, Add | CY | \$5.19 | 11 | \$57.09 | |
| 31 23 16 36-0028 | Loading Excess Materials | CY | \$4.49 | 13.75 | \$61.74 | |
| | For Quantities Under 20 CY, Add | CY | \$4.49 | 13.75 | \$61.74 | |
| 01 74 19 00-0029 | Hauling to Dump Site | CYM | \$0.90 | 207 | \$186.30 | |
| 01 74 19 00-0021 | Landfill Dump Fee | CY | \$17.53 | 13.75 | \$241.04 | \$4,755.63 |
| | | | | | | /400 |
| | | | | | | \$11.89 |

Compare these prices



Unit Prices: Labor Costs

- Direct labor through the working foreperson level at prevailing wage rates
- Unloading equipment, materials, and tools, and transporting up or down two (2) stories and 125' to reach project site
- Measuring and cutting to fit
- Performing the Task
- Disposal of excess materials
- Time for lunch and breaks



Unit Prices: Equipment Costs

- All equipment required to accomplish the task
- Mobilization included for all equipment except large equipment (e.g. cranes, bulldozers, excavators, backhoes, bobcats, etc.)
- All operating expenses – fuel, electricity, lubricants, etc.



Unit Prices: Material Costs

- Cost of the material, delivery, and all incidentals and accessories integral to the installation
- Manufacturer's and/or fabricator's shop drawings
- Construction materials typically sold in standard lengths, sizes and weights, including an allowance for waste
- Costs for imported materials include delivery up to 15 miles from the closest approved source



Adjustment Factors



Adjustment Factors

What is an Adjustment Factor?

- **An Adjustment Factor is a multiplier applied to the construction tasks** that may increase or decrease the prices listed in the CTC.
- **May bid multiple Adjustment Factors** (normal working hours, other than normal working hours, etc.) that are applied to all Tasks in the CTC.
- **Adjustment Factors should include all direct and indirect costs** not included in the preset prices, and the contractor's overhead and profit.

Importance of Adjustment Factors:

- Determines winning bidder
- Used to price individual job orders
- Price proposal total becomes the lump sum job order amount



Adjustment Factor: Business Costs

- Office overhead
- Insurance and bonding
- Profit
- Job Order development services, Owner meetings and other administrative services
- Subcontractors' overhead and profit
- Cost of financing the work
- Business risks



Adjustment Factor: Project Costs

- Project trailer, equipment & supplies & portable toilets for Contractor's use
- Project management & supervision
- Services required to complete project filings & obtain permits
- Preparation & modification of sketches, drawings, submittals, as-built drawings, project photographs & other project records
- Incidental engineering & architectural services
- Basic safety & warning signage, minor barricades & personnel safety equipment

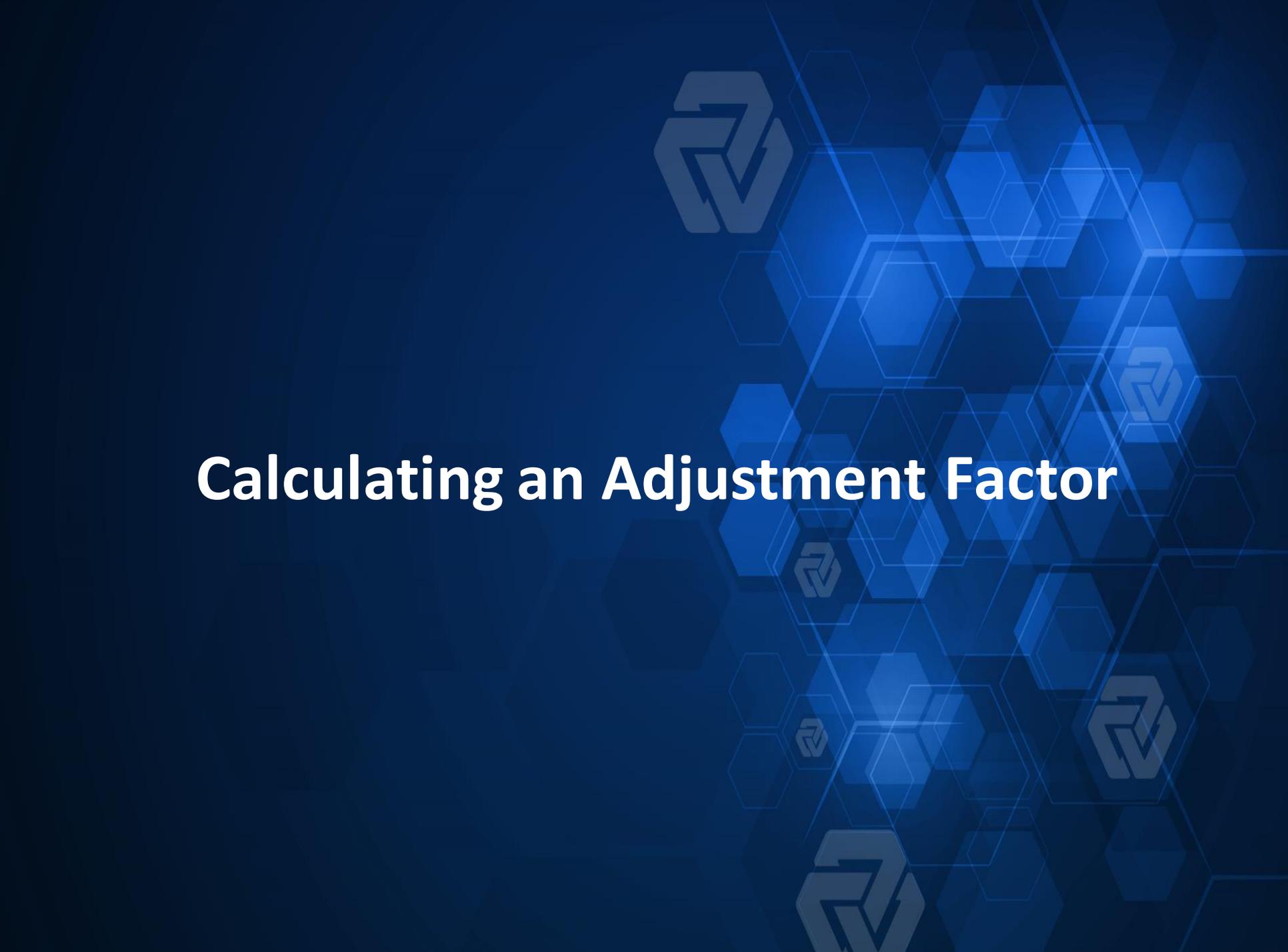


Adjustment Factor: Project Costs

- Meeting Owner's security requirements
- All taxes for which a waiver is not available
- Removing & returning Owner's furniture & furnishings
- Sealing windows, doors & other openings with plastic to contain construction dust & debris within the work area
- Working in extreme temperatures or adverse conditions
- Costs resulting from inadequate supply of building materials, fuel, electricity or skilled labor
- Daily & final professional clean-up



Calculating an Adjustment Factor

The background features a dark blue gradient with a pattern of semi-transparent blue hexagons of varying sizes and opacities. A stylized, light blue logo, resembling a geometric knot or a complex letter 'A', is repeated several times across the background.

Adjustment Factors:

The Price Component is in the Form of an Adjustment Factor Applied to the Pre-Set Unit Prices in the Construction Task Catalog®

Expressed as:

- A “Net” No Adjustment to the Unit Prices: 1.0000
- An Increase to the Unit Prices: 1.1250
- A Decrease to the Unit Prices: 0.9500

Typical Adjustment Factors Include:

Normal Working Hours Adjustment Factor: Monday to Friday Excluding Holidays

Other than Normal Working Hours Adjustment Factor: Nights, Weekends, and Holidays

The Other than Normal Working Hours Adjustment Factor must be equal to or greater than the Normal Working Hours Adjustment Factor.

Non-Pre-priced Adjustment Factor: For Non-Pre-priced Work that is not found in the CTC

Non Pre-Priced must have permission from owner *prior to submission*.

Non Pre-Priced requires three (3) supplier or subcontractor quotes or justification for less than three (3) quotes.



Calculating Adjustment Factors

What You Need

- Historical scope of work and final project proposals
- Construction Task Catalog (provided in the solicitation documents)
- Overhead costs, including project-related costs
- Desired profit margin

How to Calculate

1. Calculate final cost of historical project.
2. Add overhead and profit.
3. Price historical project from CTC using scope of work.
4. Divide subtotal (historical project, overhead and profit) by direct cost of work from CTC.



Example: Administration Building & Shop Renovation

Doors and Hardware

- Replace 12 interior doors, hinges and hardware
- Doors shall be 3x7, solid core wood doors
- Grade 2 locksets with knobs
- Replace 2 push bar exits and door closers on exit doors

Interior Lighting

- Replace all lay-in troffer fixtures on first and second floors, 48 in total
- Replace 4 exit fixtures
- Replace 12 industrial fixtures in shop area

Plumbing Fixtures

- Replace 8-bathroom sinks, 8 faucets, and 8 toilets in men's and women's bathrooms in admin building and shop area
- Replace 4 water fountains

Central HVAC

- Replace Central HVAC
- Demo and replace existing roof top 4-ton cooling and heating unit



Example: Direct Cost vs. CTC

Direct Cost of Work from Quotes or Estimates

| | |
|----------------------|-------------|
| Replace Central HVAC | \$6,240.00 |
| Doors and Hardware | \$26,567.00 |
| Lighting | \$16,598.00 |
| Plumbing | \$16,987.00 |

Total = \$66,392.00

Direct Cost of Work from CTC

| | |
|----------------------|-------------|
| Replace Central HVAC | \$5,912.59 |
| Doors and Hardware | \$27,456.62 |
| Lighting | \$17,964.49 |
| Plumbing | \$17,263.79 |

Total = \$68,597.95

**** Does not include Overhead/Profit ****



Example: Calculating An Adjustment Factor

| | | |
|----|---|--------------------|
| A. | Direct Cost of Work From Historical Projects | \$66,392.00 |
| B. | Overhead (10%)* | \$ 6,639.20 |
| C. | Subtotal (Cost From Historical + Overhead) | <u>\$73,031.20</u> |
| D. | Profit (10%)* | \$ 7,303.12 |
| E. | Subtotal (Cost From Historical + Overhead + Profit) | <u>\$80,334.32</u> |
| F. | Direct Cost of Work From CTC | \$68,597.50 |
| | Adjustment Factor (E / F) | 1.1711 |

*Sample Only – Contractors to Determine Appropriate Overhead & Profit

Tip: Consider the CTC as the starting point at 1.000

Recommendation: Prepare this calculation for more than one sample project

Calculating the Adjustment Factors

“This is how much I need to be paid for these tasks to be profitable.”

$$\begin{array}{r} \text{Unit Price} \quad \times \quad \text{Quantity} \quad \times \quad \text{Adjustment Factor} \quad = \quad \text{Total for Task} \\ + \\ \text{Unit Price} \quad \times \quad \text{Quantity} \quad \times \quad \text{Adjustment Factor} \quad = \quad \text{Total for Task} \\ + \\ \text{Unit Price} \quad \times \quad \text{Quantity} \quad \times \quad \text{Adjustment Factor} \quad = \quad \text{Total for Task} \\ \hline \text{Total Job Order Price} \end{array}$$



Risks of Low Adjustment Factors

- Leads to Arguments in Proposal Review
 - Unsupportable Tasks
 - Exaggerated Quantities
- Leads to Delays in Job Order Development
 - Takes Longer to Review Proposals
- Creates an Adversarial Relationship
 - Reduced Volume of Work
 - Will Shorten Contract
 - Lost Profitability
- No Second Chance to Improve your Margin



The background is a dark blue gradient with a pattern of lighter blue hexagons of varying sizes and opacities. A stylized logo, consisting of three interlocking shapes forming a hexagon, is repeated in a grid-like fashion across the background. The text "Thank You!" is centered in a white, bold, sans-serif font.

Thank You!



QUESTIONS AND ANSWERS

DIVERSITY AND STRATEGIC DEVELOPMENT

Programs

- ConstructionWorks
- Diversity Webinar Series
- Earned Credit Program
- Partnering for Growth Program
- ROCIP
- Small Business Initiative
- Technical Assistance Program

Initiatives

- Virtual outreach sessions
- Training webinars
- Contracting opportunity emails

Register for Tollway Diversity alerts!

- lperez@getipass.com

Visit illinoistollway.com to get started





THANK YOU