

5 Reasons Construction Projects Fail



[Article was originally posted on www.constructconnect.com]

By Kendall Jones

For commercial contractors, both GCs and subs, a successful project is one completed on time and within budget. The client is happy with the finished product and the contractor walks away with a tidy profit. Everybody wins. When a project fails, it's typically due to conflicts and issues that cause cost overruns and delays in the schedule.

If not properly managed, it will eventually lead to going over budget and blowing past the scheduled date for substantial completion. Going over budget eats into the contractor's profit in addition to being hit with liquidated damages for every day past the agreed upon completion date. It can also impact upcoming projects if a contractor's workers and equipment are tied up trying to finish up a failing project.

"Failure is not an option." - Ed Harris as NASA Flight Director Gene Kranz in Apollo 13

So what causes construction projects to fail? Any number of factors can lead to project failure, but most of the time it boils down to how well the project manager or project management team performs overseeing the project. Even the most difficult, issue-laden projects can be successful if properly managed.

Here are five reasons construction projects fail and how to prevent it from happening on your next project:

Inadequate Planning

Poor planning leads to poor execution. The more time and effort put into planning out the project, the better off you'll be when work gets underway. This starts by carefully reviewing and fully understanding the plans, specifications, scope of work and client expectations. Good planning involves working with working with the client, architect, subcontractors and suppliers to establish construction schedules and project milestones.

Planning goes beyond just creating a construction schedule. Additional items include conducting a

risk assessment and management strategy, developing site-specific safety plans, establishing contingency plans, site logistics and lining up the delivery of materials and equipment. Keep in mind that the plan and schedule are living documents that will have to be updated and adjusted as work on the project progresses.

Failure to Communicate

Good communication is crucial to delivering a successful construction project. When communication among stakeholders breaks down or is mishandled, it can lead to delays, accidents, costly rework, and unhappy clients. Keeping everyone up to date on changes to the work or schedule goes a long way in preventing major problems from developing that cause projects to fail.

Develop a communication plan and establish document control procedures. Designate a main point of contact that all communication will flow through. All communication should be documented and shared with the appropriate stakeholders. These include meeting notes, submittals, requests for information, invoices, daily reports, change orders and submittals. All correspondence, whether it's emails, phone calls or in-person conversations should be documented and saved. This goes a long way in settling any disputes or disagreements that might arise throughout the course of the project.

The flow of communication affects the flow of a construction project. Problems and delays occur when people stop communicating or responding to inquiries. Projects run smoother and get completed on time and within budget when everyone is communicating and collaborating effectively.

Scope Creep & Change Orders

Scope creep is the continuous expansion or changes to the project's initial scope beyond what was initially intended. Factors that lead to scope creep include poorly defined scope, incomplete plans and specifications, poor communication, mismanagement of change orders and clients changing their minds about what they want.

Change orders are similar in that they involve changes to plans outside of the original scope. Change orders differ from scope creep because they can involve both additions and deletions from the original scope. They can also be initiated by the owner, but GCs and subs can also request change orders and they don't always result in additional costs or deadline extension.

Obviously, you shouldn't take on a project with a poorly defined scope or incomplete plans and specs. All construction methods, finishes and materials should be determined long before you sign a contract and begin work.



California Sub-Bid Request Ads



Date: October 29, 2019 - December 4, 2019

Requests quotes from qualified and certified City of San Diego SLBE-ELBE Subcontractors, Suppliers, and Service Providers for the following (but not limited to) work:

221310 Water Supply and Irrigation Systems; 237110 Water and Sewer Line and Related Structures Construction; 237310 Highway, Street, and Bridge Construction; 237990 Other Heavy and Civil Engineering Construction; 238110 Poured Concrete Foundation and Structure Contractors; 238120 Structural Steel and Precast Concrete Contractors; 238140 Masonry Contractors; 238190 Other Foundation, Structure, and Building Exterior Contractors; 238210 Electrical Contractors; 238910 Site Preparation Contractors; 238990 All Other Specialty Trade Contractors; 332312 Fabricated Structural Metal Manufacturing; 332323 Ornamental and Architectural Metal Work Manufacturing; 423320 Brick, Stone, and Related Construction Material Merchant Wholesalers, 423610 Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers, 423990 Other Miscellaneous Durable Goods Merchant Wholesalers, 484110 General Freight Trucking, Local; 484220 Specialized Freight (Except Used Goods) Trucking, Local; 488490 Other Support Activities for Road Transportation; 541330 Engineering Services; 541620 Environmental Consulting Services; 561730 Landscaping Services

City of San Diego Brookfield Land Construction, Inc.

IMPROVEMENTS: MERGE 56 - TORREY HIGHLANDS PROJECT NO. T-3.1B, 3.2B CAMINO DEL SUR (NORTH); T-3.1A, 3.2A CAMINO DEL SUR SOUTH; T-5.1 & T-5.2 CARMEL MOUNTAIN ROAD SOUTH; P-6 TORREY HIGHLANDS TRAIL AND U-3 16" WATER MAIN, AND RANCHO PENASQUITOS PROJECT NO. T-4B - GRADING, RETAINING WALL, WET & DRY UTILITIES, STREET, STREET LIGHT, LANDSCAPE, AND TRAFFIC SIGNALIZATION IMPROVEMENTS

BID DATE December 4, 2019 @ 1:00 p.m.

All Quotes Due Prior to Bid Date

Sukut Construction, LLC

4010 W. Chandler Avenue, Santa Ana, CA 92704

Contact: Rick Welshiemer

Phone: (714) 540-5351 • Fax: (714) 545-2003 • Email: estimating@sukut.com

Plans and specs are available at no cost to interested SLBE-ELBE firms and are available for viewing at our office by appointment, via Sukut's FTP site, or by other arrangement. Sukut will assist SLBE-ELBE subcontractors in obtaining necessary equipment, supplies, or materials. Sukut will also assist SLBE-ELBE firms in obtaining bonding, lines of credit, or insurance. Please contact Rick Welshiemer for assistance in responding to this solicitation.

Subcontractors must be prepared to furnish 100% performance and payment bonds and possess current insurance and workers' comp coverage. Subcontractors/Vendors will be required to sign Sukut's Standard Subcontract/Purchase Order. Copies are available for examination.

Sukut Construction's listing of a Subcontractor in its bid to the agency is not to be construed as an acceptance of all of the Subcontractor's conditions or exceptions included with Subcontractor's price quotes. Quotations must be valid for the same duration as specified by Owner for contract award.

Sukut Construction, LLC
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Proven Management, Inc.
225 3rd Street, Oakland, CA 94607
Phone: 510-671-0000 • Fax: 510-671-1000

PMI requests proposals/quotes from all qualified and certified Local Small Business (LSB), Minority Business Enterprise (MBE) Women Business Enterprise (WBE) subcontractors, suppliers, and truckers for the following project:

**MARKET STREET ENTRY CANOPIES
BART CONTRACT NO. 15LK-140**

Bids: 12/03/2019 @ 2pm

LSB GOAL - 23%

The work includes but is not limited to: Selective Structure Demo; Hazmat Abatement; CIP & Portland Cement Conc; Rebar; Unit Masonry; Mtl Welding; Str Stl; Mtl Decking; Metal Fab; Decorative Metal; Wood, Plastics & Composites; Ro. Carp.; Plastic Fab; Glass Fiber Molded Grating; Thermal & Moisture Protection; Roof / Deck Insulation; Modified Bituminous Roofing; Overhead Colling Grilles; Glazing; Finishes; Plaster & Drywall; Tile; Terrazzo Flooring; Painting; Graffiti-Resistant Coatings; Specialties; Signage; Real-Time Information Display; Bird Control Devices; Fire Prot / Plumbing / HVAC; Electrical; Lighting; Communications; Electronic Safety & Security; Earthwork; Dewatering; Controlled Density Fill; Shoring & Underpinning; Excavation Support & Protection; Ext Improvements; Asphalt & Conc Paving; Utilities; Support & Protection of Utilities; Trenching & Backfilling for Utilities; Storm Drainage Utilities.

Bonding, insurance, lines of credit and any technical assistance or information related to the plans & specifications & requirements for the work will be made available to interested LSB, MBE, WBE certified suppliers & subcontractors.

Assistance with obtaining necessary equipment, supplies, materials, or related assistance or services for this project will also be offered to interested LSB/MBE/WBE certified suppliers, subcontractors, truckers. PMI is signatory to the Operating Engineers, Carpenters, and Laborers Collective Bargaining Agreements.

100% Payment & Performance bonds will be required from a single, Treasury-listed surety company subject to PMI's approval. PMI will pay bond premium up to 1.5%. Subcontractors awarded on any project will be on PMI's standard form for subcontract without any modifications. For questions or assistance required on the above, please call.

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Contact Info:

795 Folsom Street, 1st Flr, Room 1124

San Francisco, CA 94107

Email: sbe@sbeinc.com

Website: www.sbeinc.com

Phone: (415) 778-6250, (800) 800-8534

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California Sub-Bid Request Ads

DESILVA GATES CONSTRUCTION

11555 Dublin Boulevard • P.O. Box 2909
Dublin, CA 94568-2909
(925) 829-9220 / FAX (925) 803-4263
Estimator: ERIC ALLRED
Website: www.desilvagates.com
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Affirmative Action Employer

DeSilva Gates Construction (DGC)
is preparing a bid as a Prime Contractor
for the project listed below:

**CALTRANS ROUTE 880 -
CONSTRUCTION ON STATE HIGHWAY IN ALAMEDA
COUNTY IN FREMONT AT VARIOUS LOCATIONS
FROM 0.1 MILE NORTH OF AUTO MALL PARKWAY
OVERCROSSING TO 0.1 MILE SOUTH OF FREMONT
BOULEVARD OVERCROSSING**

Contract No. 04-2J8104,
Federal Aid Project No. ACIM- 8801(086)E
Disadvantaged Business Enterprise Goal
Assigned is 14%

OWNER: STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
1727 30th Street, Bidder's Exchange, MS 26,
Sacramento, CA 95816

BID DATE: NOVEMBER 19, 2019 @ 2:00 P.M.

DGC is soliciting quotations from certified Disadvantaged Business Enterprises, for the following types of work and supplies/materials including but not limited to:

AC DIKE, CONSTRUCTION AREA SIGNS, CONSTRUCTION SITE MANAGEMENT, CPM SCHEDULING CONSULTANT, CRASH CUSHION, ELECTRICAL, EMULSION SUPPLIER, EROSION CONTROL, K-RAIL SUPPLIER, LANDSCAPING, LEAD COMPLIANCE PLAN, METAL BEAM GUARDRAIL, MINOR CONCRETE, MISC. IRON AND STEEL FRAME COVER & GRATE, ROADSIDE SIGNS, ROADWAY EXCAVATION, STRIPING, SWPPP/ WATER POLLUTION CONTROL PLAN PREPARATION, TESTING, TRAFFIC CONTROL SYSTEMS, TRAFFIC CONTROL MATERIAL SUPPLIER, TREE REMOVAL/TRIMMING, TRUCKING, WATER TRUCKS, STREET SWEEPING, EROSION CONTROL MATERIAL, HOT MIX ASPHALT (TYPE A) MATERIAL, RUBBERIZED HMA (OPEN GRADE) MATERIAL.

Plans and specifications may be reviewed at our offices located at 11555 Dublin Boulevard, Dublin, CA or 7700 College Town Drive, Sacramento, CA, or at your local Builders Exchange, or reviewed and downloaded from the ftp site at <ftp://ftp%25desilvagates.com:f7pa55wd@pub.desilvagates.com> (if prompted the username is <ftp://ftp%25desilvagates.com> and password is f7pa55wd) or from the Owner's site at www.dot.ca.gov/hq/esc/oe/weekly_ads/all_adv_projects.php

Fax your bid to (925) 803-4263 to the attention of Estimator Eric Allred. If you have questions for the Estimator, call at (925) 829-9220. When submitting any public works bid please include your DUNS number and DIR number. For questions regarding registration for DIR use the link at www.dir.ca.gov/Public-Works/PublicWorks.html

If you need DBE support services and assistance in obtaining bonding, lines of credit, insurance, necessary equipment, materials and/or supplies or related assistance or services, for this project call the Estimator at (925) 829-9220, or contact your local Small Business Development Center Network (<http://californiasbdc.org>) or contact the California Southwest Transportation Resource Center (www.transportation.gov/osdbu/SBTRCs). DGC is willing to breakout portions of work to increase the expectation of meeting the DBE goal.

At our discretion, 100% Payment and 100% Performance bonds may be required as a subcontract condition. This will be a PREVAILING WAGE JOB. DGC is an Equal Opportunity/Affirmative Action Employer.



Kiewit

Kiewit Infrastructure West Co.
4650 Business Center Drive Fairfield, CA 94534
Attn: Victor Molina • norcal.bids@kiewit.com
Fax: 707-439-7301

Requests sub-bids from qualified California Department of General Services (DGS) certified Local Small Business Enterprises (LSB), Local Micro Small Businesses having a primary business office in the counties of Alameda, Contra Costa and San Francisco and California Unified Certification Program (CUCP) certified Minority/Women Business Enterprise (MBE/WBE) Subcontractors, Consultants, and/or Suppliers seeking to participate in the construction on the Market Street Entry Canopies Project in San Francisco, CA.

<https://cucp.dot.ca.gov/cucp>
<http://www.pd.dgs.ca.gov>
www.bart.gov/ocr

Subcontractors and Suppliers
for the following project:

Market Street Entry Canopies
Contract No. 15LK-140
Owner: BART

Bid Date: December 3, 2019 by 2:00 P.M.

**Disadvantaged Business Enterprises (DBEs)
and Local Small Businesses (LSB)**

Minority Business Enterprise (MBE), Women Business Enterprise (WBE), Local Small Business Enterprise (LSB), wanted for the following scopes, including, but not limited to:

AC Paving, Bird Control Devices, CCTV, Concrete - Minor, Concrete Reinforcing, Concrete Supply, Concrete Cast in Place, Concrete Pumping, Demo, Drywall, Electrical, Flooring, Hazardous Abatement, Joint Protection, Masonry, Metals, Metal Decking, Openings, Painting & Coatings, Piping, Plumbing, Quality Control, Roofing, Security, Signage, Structural Steel, Temp Facilities and Traffic Control.

Bonding, insurance and any technical assistance or information related to the plans or specification and requirements for the work will be made available to interested DBE, MBE, WBE and LSB certified suppliers, service providers and subcontractors. Assistance with obtaining necessary equipment, supplies, materials, or services for this project will be offered to interested certified suppliers, service providers and subcontractors.

**Subcontractor and Supplier Scopes are due
November 29, 2019 and Quotes
NO LATER THAN December 2, 2019 at 5 PM.**

Plans are available for viewing at our office at our address below and through SmartBidNet (SBN).

All subcontractors that are registered in our SBN database will receive an invitation to bid. Please visit <https://www.kiewit.com/districts/northern-california/overview.aspx> to register your company and to be able to receive bidding information, view plans and specifications.

You can view the plans in our office during regular business hours by appointment.

Performance Bond and Payment Bonds may be required for subcontractors and a suppliers bond for suppliers.

Project Stabilization Agreement (PLA) applies for SF Bay Area Rapid Transit District

Subcontract work shall be signatory to the applicable local union or willing to sign a one-time agreement.

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DIR# 1000001147



O.C. Jones & Sons, Inc.
General Engineering Contractor

O.C. Jones & Sons, Inc.
1520 Fourth Street • Berkeley, CA 94710
Phone: 510-526-3424 • FAX: 510-526-0990
Contact: Jean Sicard

REQUEST FOR **DVBE & SBE**
SUBCONTRACTORS AND SUPPLIERS FOR:

**Crack, seat and overlay with
RHMA AND HMA, and replace culverts
Hwy 101 Healdsburg
Caltrans #04-0J6424**

BID DATE: December 13, 2019 @ 2:00 PM

We are soliciting quotes for (including but not limited to): Trucking, Temporary and Permanent Erosion Control Measures, Lead Compliance Plan, Progress Schedule (Critical Path Method), Construction Area Signs, Traffic Control System, Portable Changeable Message Sign, SWPPP, Rain Event Action Plan, Storm Water Sampling & Analysis, Sweeping, Vibration Monitoring, Treated Wood Waste, Noise Monitoring, Temporary High-Visibility Fence, Clearing & Grubbing, Shoulder Backing, Pervious Backfill Material, Soil Densification (High Density Polyurethane), Planting & Irrigation, Hydroseed, Compost, Lean Concrete Base Rapid Setting, Crack Treatment, AC Dike, Geosynthetic Pavement Interlayer (Paving Fabric), Tack Coat, Cold Plane AC, Jointed Plain Concrete Pavement, Individual Slab Replacement, Grinding, CIDH Concrete Pile, Structural Concrete, Paving Notch Extension, Architectural Surface (Barrier), Clean Expansion Joint, Joint Seal, Bar Reinforcing Steel, Sign Structure, Alternative Pipe Culvert, Concrete Backfill, Filter Fabric, Underground, Adust Utilities to Grade, Cleaning, Inspecting, and Preparing Culvert, Clean Drainage Facility, Sand Backfill, Machine Spiral Wound PVC Pipeliner, Rock Slope Protection, Detectable Warning Surface, Minor Concrete, Misc. Iron & Steel, Prepare and Stain Concrete, Fencing, Delineator, Pavement Marker, Roadside Signs, Midwest Guardrail System, Asphalt Composite Vegetation Control, Single Thrie Beam Barrier, Alternative In-Line Terminal System, Crash Cushion, Concrete Barrier, Striping & Marking, Electrical, Temporary Active Treatment System, Crack Pavement, Grind Concrete Pavement, Grated Line Drain, Rumble Strip, and Construction Materials.

Jean Sicard (510-809-3411 jsicard@ocjones.com) is the estimator on this project and he is available to provide assistance or answer questions regarding the project scope of work including bid requirements, break out of bid items, plan or spec interpretation, bonding or insurance requirements, and other bid assistance. Plans and specs are available to review at our Berkeley office, or can be sent out via Building Connected. Plans are also available under the Advertised Projects tab at the Caltrans website at: <http://ppmoe.dot.ca.gov/des/oe/contract-awards-services.html>. PDF format quotes should be emailed to the estimator or faxed to 510-526-0990 prior to noon on the date of the bid. Quotes from DVBE & SBE Subcontractors, Suppliers and Truckers are highly encouraged. OCJ is willing to breakout any portion of work to encourage DVBE & SBE participation. Subcontractors must possess a current DIR, Contractors License, and insurance and workers compensation coverage including waiver of subrogation. OCJ may require Performance and Payment bonds on subcontracts. OCJ will pay the bond premium up to 2% of the contract value. All subcontractors are required to execute OC Jones' standard subcontract agreement, comply with all insurance requirements, and name OCJ as additional insured. Copies of our agreement and insurance requirements are available upon request. OCJ is a Union contractor, and we are signatory to the Operating Engineers, Laborers, Teamsters, and Carpenters. OCJ is an Equal Opportunity Employer.



California Sub-Bid Request Ads



Manson Construction Co.
1401 Marina Way South Ste. 330
Richmond, CA 94804
TEL: 510-232-6319 • FAX: 510-232-4528

REQUEST FOR QUALIFIED AND CERTIFIED LBE SUBCONTRACTORS AND SUPPLIERS FOR:

Port of San Francisco, Mission Bay Ferry Landing Project

RFQ/RFP CONTRACT NO. 2819

PROJECT BID DATE: November 19, 2019 AT 12 P.M.

Quotes are requested for various items of work including but not limited to: Hydrographic Survey, Vessel Tracking, Scow Certification for SF-DODS Disposal, Tugboats, Stockpile Management (drying contaminated dredge material), Trucking, Demolition, Landfill, Fine Aggregate, Cap Mattress and Articulating Block Mattress, Divers, Sub Consultant, Fuel.

Project Description: The Mission Bay Ferry Landing is a capital project with an estimated direct cost budget of \$34,000,000 and will consist of three phases: Pre-Construction, Early Construction, and Construction. The Port is utilizing the Construction Management / General Contractor ("CM/GC") Project Delivery method. This CM/GC method creates a Pre-Construction phase and enables the early engagement of the CONTRACTOR to collaborate with the Port and its Project designers and design Consultants ("A/E Team"), to provide a better designed and constructed Project. Early construction will consist of debris removal, dredging, cap installation and rehandling and disposal of contaminated materials. The Construction phase entails the construction of a new Ferry Landing and related facilities at Terry Francois Boulevard at 16th Street in San Francisco.

Manson construction is willing to break out items of work into economically feasible units to encourage LBE participation. 100 % payment and performance bonds are required but can be waived with prior approval for special cases. Manson will pay bond premium up to 1.5%.

This Contract has a labor agreement wherein Manson is signatory to Piledrivers and Operators. Current insurance and workers compensation coverage including USL&H and waiver of subrogation is required.

The following must be submitted with Quote by **COB 11/15/19**: LBE means a "Local Business Enterprise" that is CMD certified in the district of San Francisco in the following categories: MBE, WBE, and OBE. Please provide your company's Contractor's License #, DIR #, CMD Vendor #, and Federal Tax I.D. # on the quote. Quotes must be valid for 120 days.

For scope clarifications, to view plans and specifications, or to submit quotes contact **Gus Lamen** at alamen@mansonconstruction.com or 510-232-6319 ext. 8367.

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RCS Inc.

Kim Romero, President
kromero777@gmail.com
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EXCHANGE

5 Reasons Construction Projects Fail

Continued from page 1

The construction contract should clearly state how any work outside of the original scope should be requested and documented. No additional work should commence until a written change order has been executed and authorized by the client. Additional costs and timeline extensions should be determined and agreed upon. Don't forget to work with your subs to determine how change orders might impact their schedule before signing off on additional work.

Productivity Issues & Delays

We'll ignore delays caused by events, such as natural disasters, that can't be controlled by any of the parties involved. These excused delays are handled under force majeure clauses in construction contracts and protect the contractor from having to paying damages due to not performing or completing the project on schedule.

Project schedules are based on productivity expectations. Each task or job requires a certain number of man-hours to complete and are used

to determine how many workers you will need to complete each one within a given amount of time.

When workers don't show up, get injured or goof off on the job, it can lower your productivity levels, cause delays and throw your schedule out of whack. This could force you to bring in additional workers or sub out more work which in turn lowers your profit margins.

Labor shortages and fewer skilled workers have only made the problem of productivity worse over the past several years. Newer workers don't have the skills and confidence to complete tasks at the same speed as experienced veterans on your crew. Understanding the capabilities of your workers is vital when determining your project schedule.

Conduct background checks and provide training to your employees to ensure they have the skills to perform their job. Assign specific roles and responsibilities so that everyone knows what they should be doing each day. Equip your workers with the proper tools and equipment needed to complete tasks efficiently. Work with your sub-

contractors to determine whether they have the workforce available to perform their contracted work as scheduled.

Ignoring Red Flags

When projects are running smoothly, it's easy to ignore early warning signs that trouble may be brewing. Little issues can quickly snowball into major problems if left unchecked, causing projects to fail. This can be caused by workers failing to report issues or not monitoring projects closely.

These minor issues are often put on the back burner while dealing with other aspects of the project. All problems should be prioritized and handled accordingly when they arise. Project managers should be able to analyze and troubleshoot issues as early as possible to avoid delays. Quick thinking and good decision making are what sets great project managers apart from good ones.

SOURCE: www.constructconnect.com/blog/5-reasons-construction-projects-fail

How IoT Can Improve Productivity and Safety on the Construction Site

[Article was originally posted on www.constructconnect.com]

By Holly Welles

The Internet of Things (IoT) has incredible implications for the field of construction. It's already proven its value in health care, manufacturing, transportation, and other industries where automation and systems management are critical. With its many applications, it has the potential to improve productivity and safety on jobsites.

Project managers have a whole host of responsibilities that compete for their attention, and accounting for every last detail can prove challenging. It's difficult to coordinate personnel, equipment, and materials to bring a build to completion, and it's all too easy to make a mistake. Fortunately, IoT can help.

Increased interconnectivity between devices and systems can sync them to a central server for simplified monitoring. This kind of convenience allows supervisors to perform their tasks with confidence, aware of everything and anything that might cause issues.

With these benefits in mind, here are a few strategies for improving construction productivity and safety with the IoT:

Enhanced Machine Control

Machine control uses a variety of measurement technologies, such as LIDAR and GNSS, for improved precision. It allows for the automatic adjustment of machinery to grade, drill, pave, or pile large areas, most commonly found in civil construction projects. As the technology develops, it'll see greater adoption.

With the advantages of IoT, machine control can increase productivity by a significant margin. It has the capacity to improve precision, of course, but that's only part of its potential when paired with something as powerful as IoT. Connectivity can completely change the development process.

Beyond its basic functionality, machine control with IoT allows real-time reporting of the progress, movements, and status of equipment. Project managers can use this information to plan and coordinate other build activities, accelerating the pace of their projects while reducing delays and downtime.

Among other applications for IoT in construction, this is one of the most promising. As technology continues to advance and more companies implement machine control into their construction practices, project managers will find they have far less difficulty bringing a build to its final stages on schedule.



Refined Maintenance Methods

Preventive maintenance is preferable to reactive damage control. When handling heavy equipment, breakdown or failure could cause thousands of dollars in downtime, not to mention repairs. It's better to get ahead of issues and address them before they escalate, and IoT supports this kind of proactive approach.

Construction companies can equip their assets with IoT sensors that assist managers in optimizing the performance of their machinery. It helps them determine the status of equipment and take precautions if they discover any complications. As they attend to these small problems, they prevent much larger setbacks.

Since productivity is an area of improvement for many construction companies, it's clear why management would want to integrate systems that keep their crew on schedule. When they employ IoT for maintenance purposes, they'll improve efficiency and meet goals within a reasonable timeframe.

IoT can cut construction costs and delays through a series of sensors that track certain indicators. These indicators include excessive vibration, temperature fluctuations, and other diagnostic information maintenance workers can check on their smartphone, tablet, or computer. This information is easily accessible from most devices.

Improved Performance Tracking

High standards of safety in the construction industry are critical for success. They ensure the protection of workers, prevention of interruptions, and, in a broader context, operational excellence through all stages of a project. Project managers are well aware of the importance of proper protocol and precautions.

To assist them in their duties, project managers have specialized equipment that enhances safety on a jobsite. Smart wearables like SolePower work boots can detect workers' fatigue and falls, as well as alert them to approaching vehicles. Other wearables like the Smart Cap serve similar purposes by monitoring brainwaves.

When project managers take advantage of IoT, they're fostering an environment where the worker feels secure. Since 78% of construction firms have a hard time finding qualified professionals to hire, these changes may seem appealing to young people who wouldn't otherwise consider a career in the field.

In other words, improved health and performance tracking have secondary benefits for finding, hiring, and retaining workers. Beyond its applications in data management, regulatory compliance, and increased visibility with equipment assessment, IoT has remarkable value for the industry as a whole.

Today's Most Promising Solutions

The IoT has the ability to improve productivity and safety through the solutions listed above, but they represent only a fraction of its potential. While enhanced machine control, refined maintenance methods, and improved performance tracking are all promising, construction companies have access to other, no less impressive technologies. Industry professionals should research these technologies and review their options today.

SOURCE: <https://www.constructconnect.com/blog/iot-can-improve-productivity-safety-construction-site>

Tutor Perini/O & G Joint Venture (TPOG)



SEEKING DBE FIRMS

FOR SUBCONTRACTING OPPORTUNITIES ON THE WESTSIDE
PURPLE LINE EXTENSION SECTION 2 PROJECT

OWNER: LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (LACMTA)



INTERESTED IN WORKING WITH TPOG?

TPOG issues Notice of Interest (NOI) Emails to all Tutor Perini/O & G Joint Venture registered vendors notifying them of upcoming 1st tier opportunities on the project. All CUCP certified DBEs vendors based in Southern California are already registered with TPOG. Please contact us if your firm is not receiving TPOG Notices of Interest by sending a note to:

Nareg@moderntimesinc.com

BONDING, LINES OF CREDIT, AND INSURANCE SUPPORT SERVICES:

TPOG is willing to assist DBE Subcontractors and suppliers in obtaining access to bonds, lines of credit and insurance. Please email Nareg Bostanian for your requests for assistance.

TPOG is soliciting in good faith all interested subcontractors as well as certified DBE firms. If you are interested in bidding or have any questions in relation to the scope, please email DBE Project Coordinator: Nareg Bostanian or visit the website below. <http://www.tpogjv4purpleline.com/index.html>