Mid-Coast Corridor Transit Project

Quality Control and Safety Workshop

April 12, 2016

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THE TEAM

MID-COAST TRANSIT CONSTRUCTORS

Mid Coast Transit Constructors (MCTC) is a fully integrated Joint Venture of Stacy and Witbeck, Herzog, and Skanska. We have combined these three highly successful construction organizations to bring a collection of talents uniquely suited for the CMGC 1 projects. MCTC team members are heavy civil constructors specializing in CM/GC contracting for rail projects. We are experts at self-performing rail and bridge work proudly managed and built by our own forces.

In the past 10 years our firms have constructed over 600 miles of track for passenger service. Together, our CM/GC experience includes more than 30 rail transit projects with a total value of over $4.7 billion.

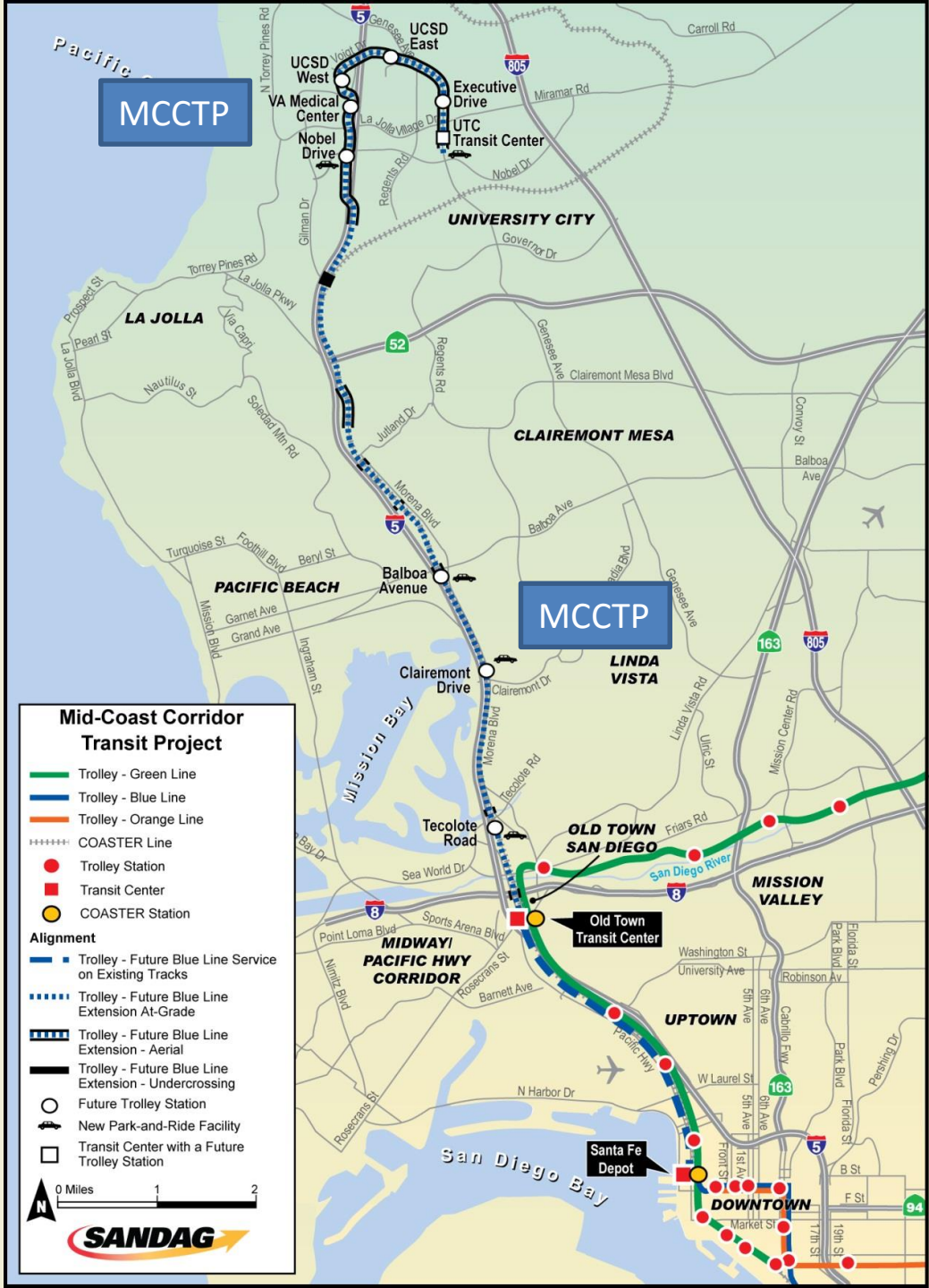
Stacy and Witbeck

HERZOG

SKANSKA

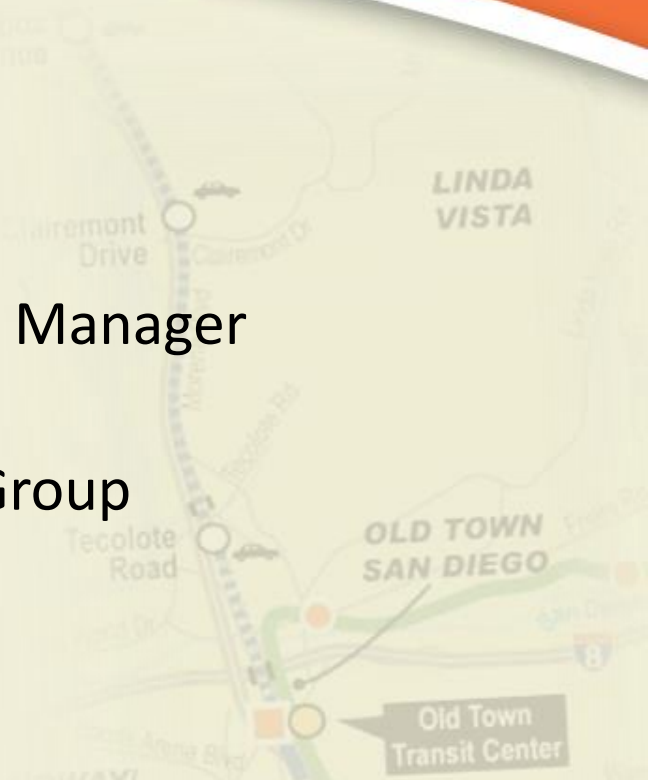
Mid-Coast Corridor Transit Project

- Extension of Trolley Blue Line from Downtown to UTC Transit Center
- 10.9 miles of new LRT tracks
- Nine LRT stations
- Three miles of LRT fall within or adjacent to Caltrans right of way
- Two I-5 Crossings



Welcome and Introductions

- Presenters
  - Leonard Paulino, MCTC Quality Control Manager
  - Vince Hundley, CEO of SMART Safety Group
- Introductions



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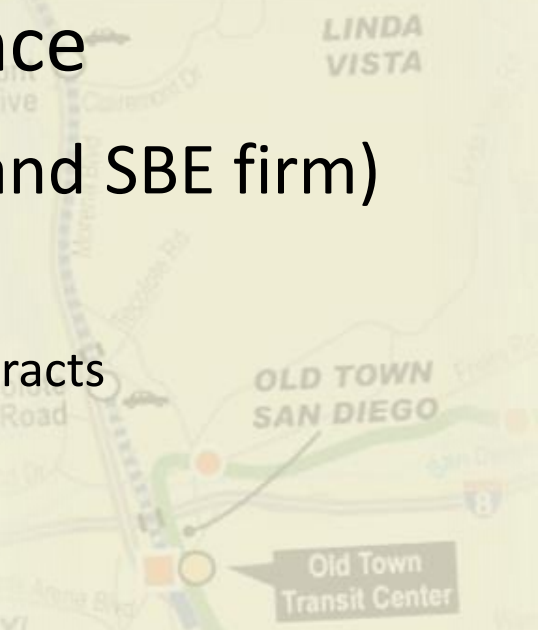
Introduction

John Johnson, MCTC Subcontractor Liaison

- 30 years of construction experience
- Founder/Owner CMSI (DBE, MBE and SBE firm)
- Workshop Series
  - ✓ Estimating & Bidding on MCTC Construction Contracts
  - ✓ Labor Compliance
  - ✓ Using E-Procurement Systems to Win Contracts
  - ✓ The ABCs of Underwriting
  - ✓ Managing Successful Construction Projects (part 1 & 2)



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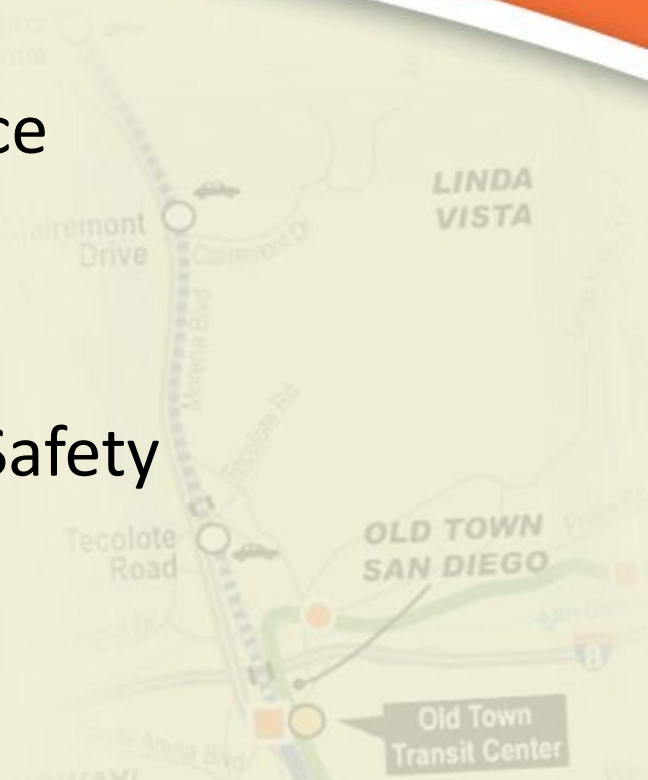
Presentation Outline

- Quality Control vs Quality Assurance
- The Quality Process
- The Quality Control Plan
- Essential Elements of an Effective Safety Program
- Q & A



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Quality Control

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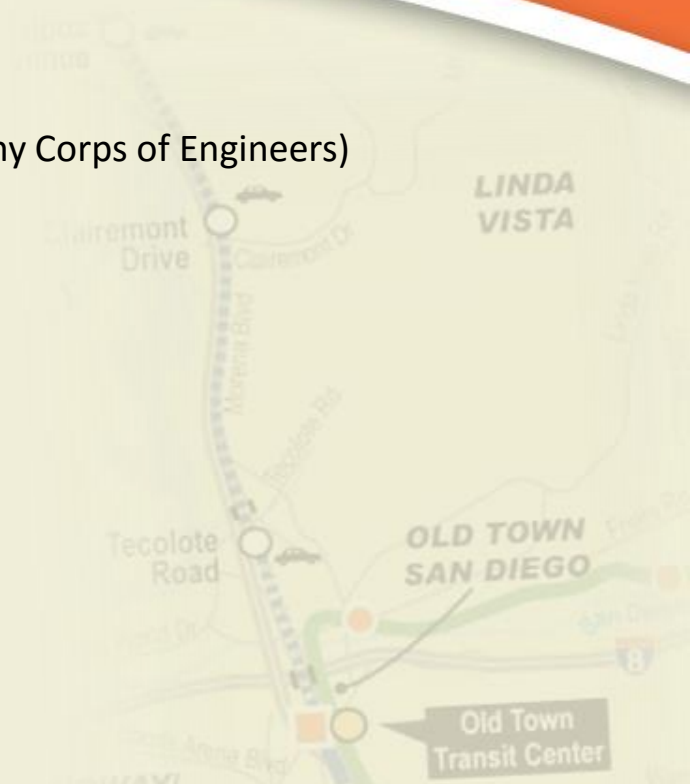
Introduction

Leonard Paulino

- Certification & Training
  - Construction Quality Management for Contractors (U.S. Army Corps of Engineers)
  - Public Works Construction Inspection
  - OSHA 500
  - Project Safety Inspections
  - Hazardous Waste Management
  - Tunnel Safety & Tunneling Operations
  - Start Program
  - Excavation Support Systems
  - ACI Grade 1
  - Shotcrete Operations
  - Soils Testing
  - Pile Driving Operations
  - HDPE Welding and Installations
- Resume
  - 40 years in Construction Management/Quality Control
  - 14 years Public Works Construction and Quality Control
  - 12 years as Chief Inspector at the LA Metro Red Line
  - 11 years as QA/QC Manager w/Stacy and Witbeck Inc.
  - Studied Civil Engineering, University of Guam - 1975; Santa Ana College - 1986



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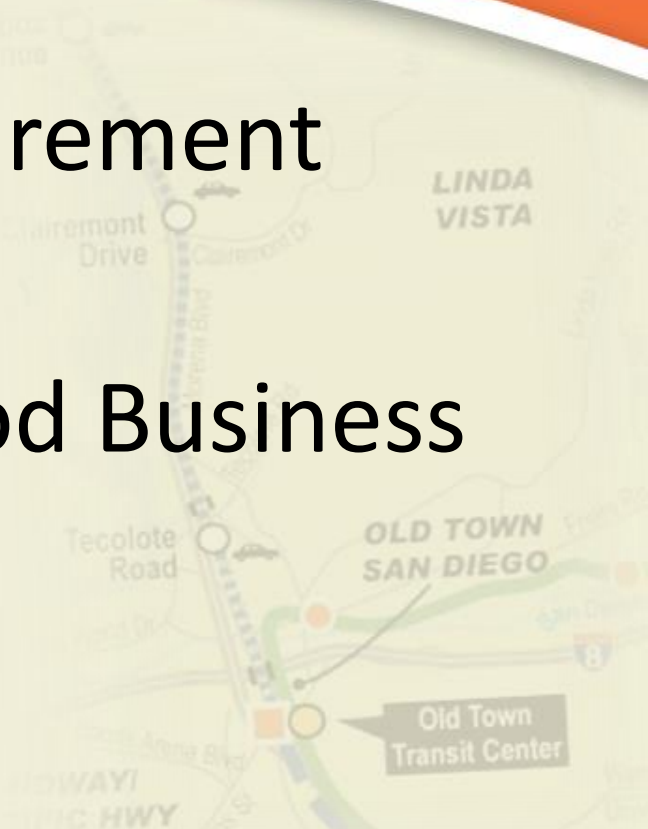
The Basics

- QC/QA is a contract requirement
- Doing quality work is Good Business



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Primary Objective

- Define the difference between QC and QA
- Promote general understanding of quality processes
- Explain the importance of controlling quality on your own work
- Touch on how and why to develop a Quality Control Plan

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What are QC and QA

- Quality Control?
  - Steps taken to make sure that company's products or services are of sufficiently high quality
- Quality Assurance?
  - The process of evaluating program performance on a regular basis to ensure that it will satisfy relevant quality standards

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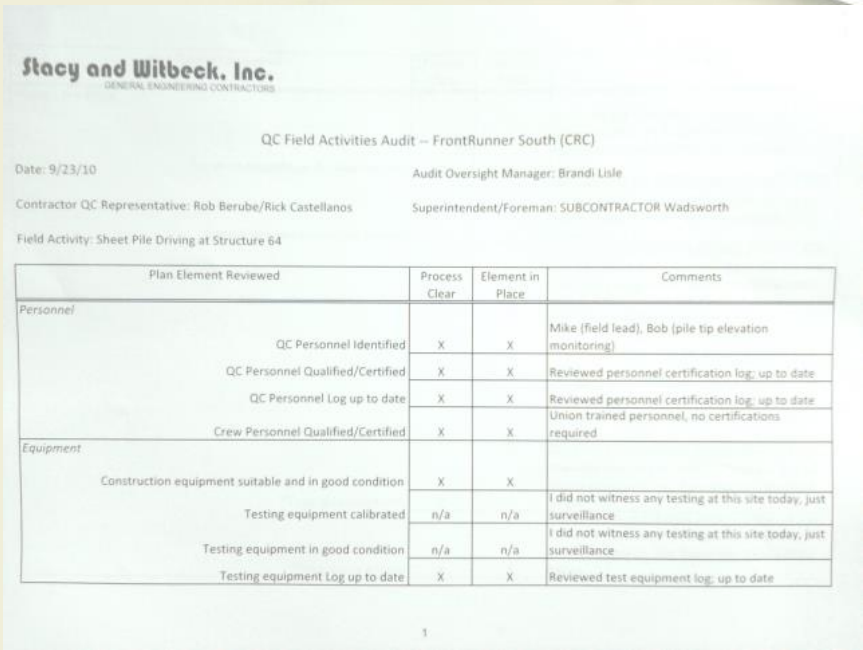
Quality Control vs Quality Assurance

Difference in APPROACH

QA makes sure processes are developed and adhered to



Stacy and Witbeck, Inc.
GENERAL ENGINEERING CONTRACTORS

QC Field Activities Audit – FrontRunner South (CRC)

Date: 9/23/10 Audit Oversight Manager: Brandi Lisle

Contractor QC Representative: Rob Berube/Rick Castellanos Superintendent/Foreman: SUBCONTRACTOR Wadsworth

Field Activity: Sheet Pile Driving at Structure 64

Plan Element Reviewed	Process Clear	Element in Place	Comments
Personnel			
QC Personnel Identified	X	X	Mike (field lead), Bob (pile tip elevation monitoring)
QC Personnel Qualified/Certified	X	X	Reviewed personnel certification log; up to date
QC Personnel Log up to date	X	X	Reviewed personnel certification log; up to date
Crew Personnel Qualified/Certified	X	X	Union trained personnel, no certifications required
Equipment			
Construction equipment suitable and in good condition	X	X	
Testing equipment calibrated	n/a	n/a	I did not witness any testing at this site today, just surveillance
Testing equipment in good condition	n/a	n/a	I did not witness any testing at this site today, just surveillance
Testing equipment Log up to date	X	X	Reviewed test equipment log; up to date

1

QC checks whether the constructed item satisfies quality requirements & specs

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Quality Control vs Quality Assurance

Difference in SEQUENCE

QA is set up before work begins and don periodically during construction

QC takes place during construction and at specific hold points

Quality Control vs Quality Assurance

Difference in PERSONNEL

QA is performed by managers, customers and 3rd party

QC is performed by crafts people, foremen, superintendents, engineers & inspectors

Who is Responsible?

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Life Cycle of a Quality Program

- Call out QC Mgr at time of proposal
- Interview testing labs and inspectors
- QC Plan approval

- Understand work
- Scheduling
- Inspections
- Documentation
- Communication
- Training
- Incentive

- Safety Certification
- As-built Final Review
- Final submittals
- Document turn-over

- Monthly Pay Certification
- Internal reviews
- Agency audits
- As-Built reviews

Why is a Quality Program Necessary?

- There are good contractors with good quality programs
- Other contractors with no programs and they have been misinformed contractors
- QC programs give confidence to clients
- Have to be standards for construction and a way to ensure quality for public safety

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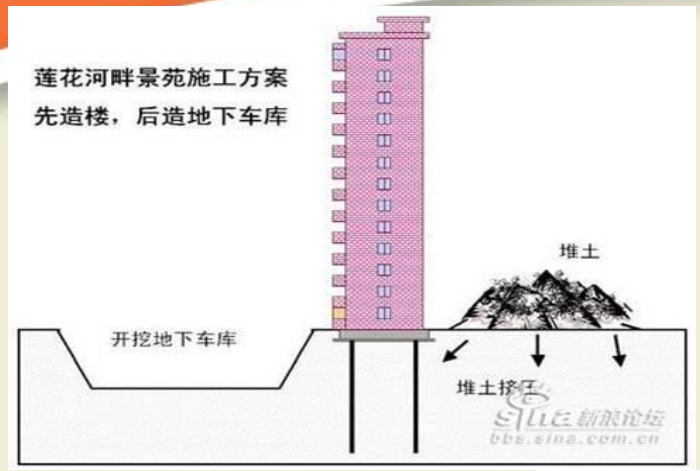
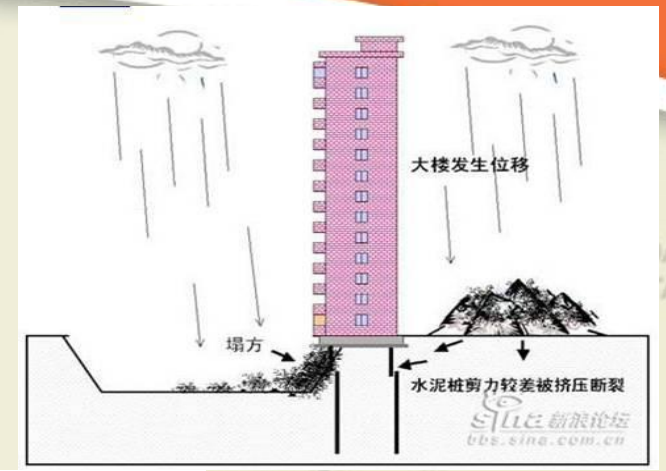
Why is a Quality Program Necessary?





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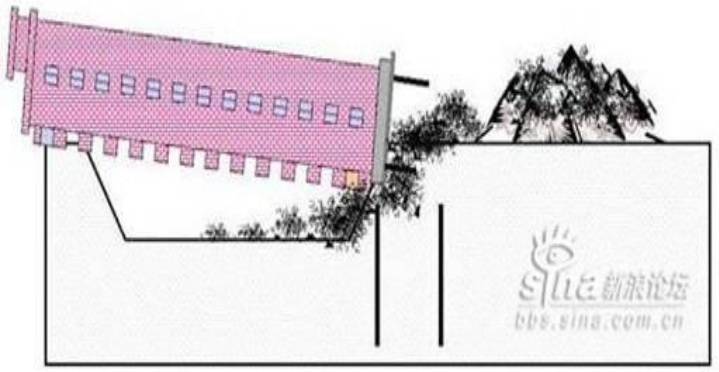

Why is a Quality Program Necessary?

As a Business Owner

- A QC Plan can:
  - Help you organize and streamline your systems and processes
  - Help you manage and train your employees
  - Help you prepare for growth
  - Result in better products and services
  - Make you stand out among competitors (if implemented well)

Increase profitability

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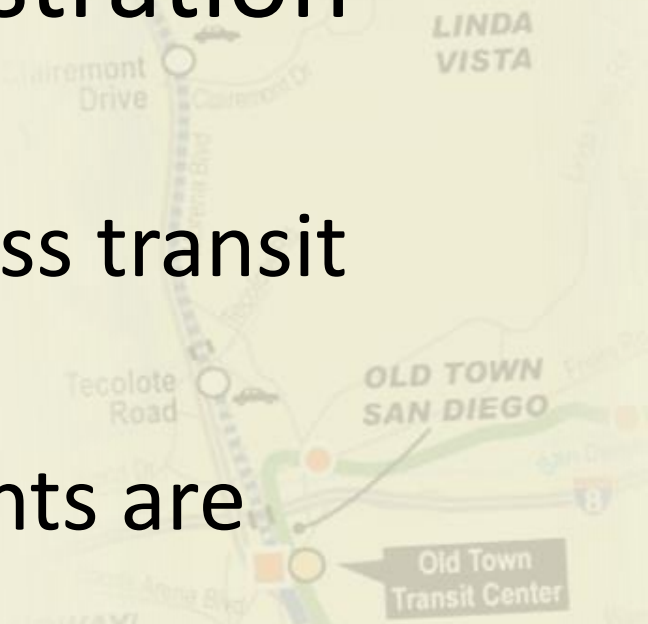
Developing a QC Plan

- **F**ederal **T**ransit **A**dministration

  - Sets the standards for mass transit construction projects
  - 15 Quality Control elements are identified



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FTA 15 Elements of QC

1. Management Responsibility

2. Documented Quality System

3. Design control

4. Document Control

5. Sub, Supplier & Procurement Control

6. Product Identification & Traceability

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FTA 15 Elements of QC

7. Process Control	8. Inspection & Testing	9. Control of Measuring & Testing Equipment
10. Inspection & Test Status	11. Nonconformance ID and Control	12. Corrective Action

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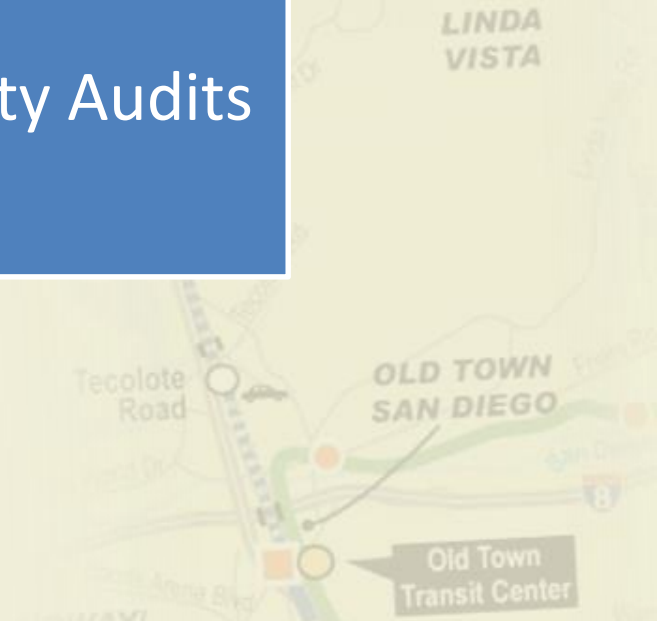
FTA 15 Elements of QC

13. Documentation by Quality Records

14. Quality Audits

15. Training



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Questions and Comments?

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SAFETY

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Vincent Hundley

- BS in Occupational Safety ‘94 Illinois State University
- MS in Industrial Hygiene ‘08 San Diego State University
- Certified Safety Professional (BCSP)
- Safety Director of the AGC of San Diego (750+ members)
- Experience exclusively with contractors since 1996
- Past Director of the American Subcontractors Association
- National Associated General Contractors, Safety Committee Member
- County of San Diego, Disaster Emergency Response Team
- Community Emergency Response Team Deputy
- Lymphoma & Leukemia Society Team Member, Ironman Team
- NFPA Electrical Safety Committee

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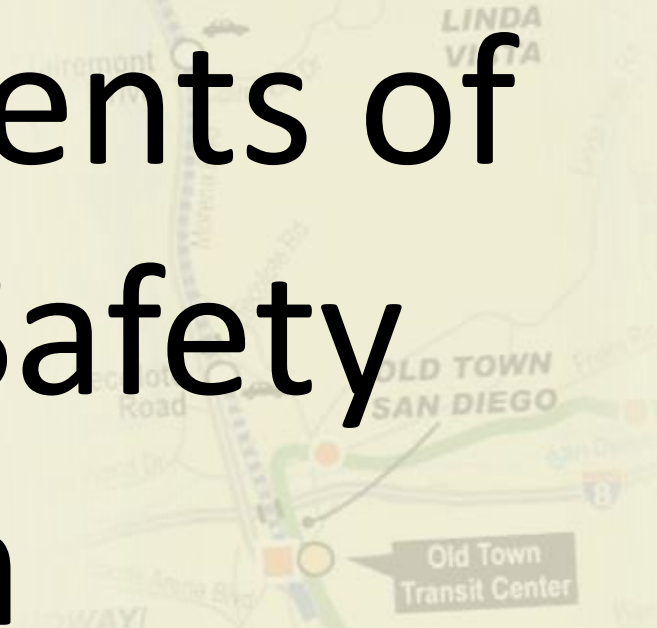
Essential Elements of an Effective Safety Program



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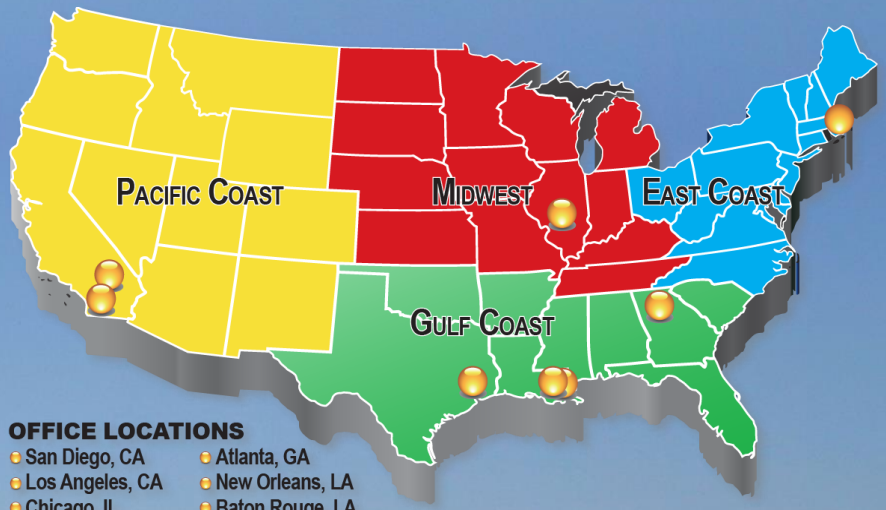
OUR SERVICES

NATIONWIDE COVERAGE



OFFICE LOCATIONS

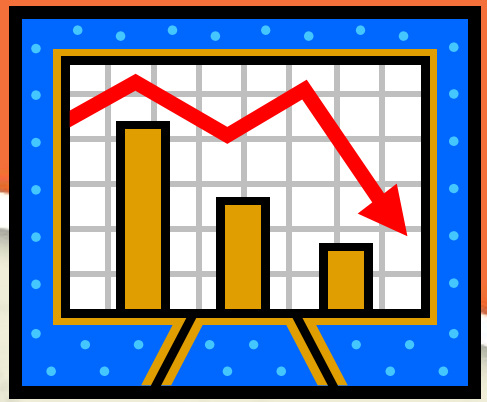
- San Diego, CA
- Los Angeles, CA
- Chicago, IL
- Boston, MA
- Atlanta, GA
- New Orleans, LA
- Baton Rouge, LA
- Houston, TX

OUR TEAM

Objectives & Benefits

- Reduce frequency of injuries
  - Morally Right
  - Less Employee Turnover
  - Less Work Interruption
- Lower Worker's Compensation Cost
  - More profitable
  - Selling point for negotiated work

What if you DO NOTHING?



1. You will continue to have injuries
2. Your X-Mod will climb
3. Fewer carriers will underwrite your company
4. You will pay more for insurance
5. Your Competition will pass you up
6. You will lose customers

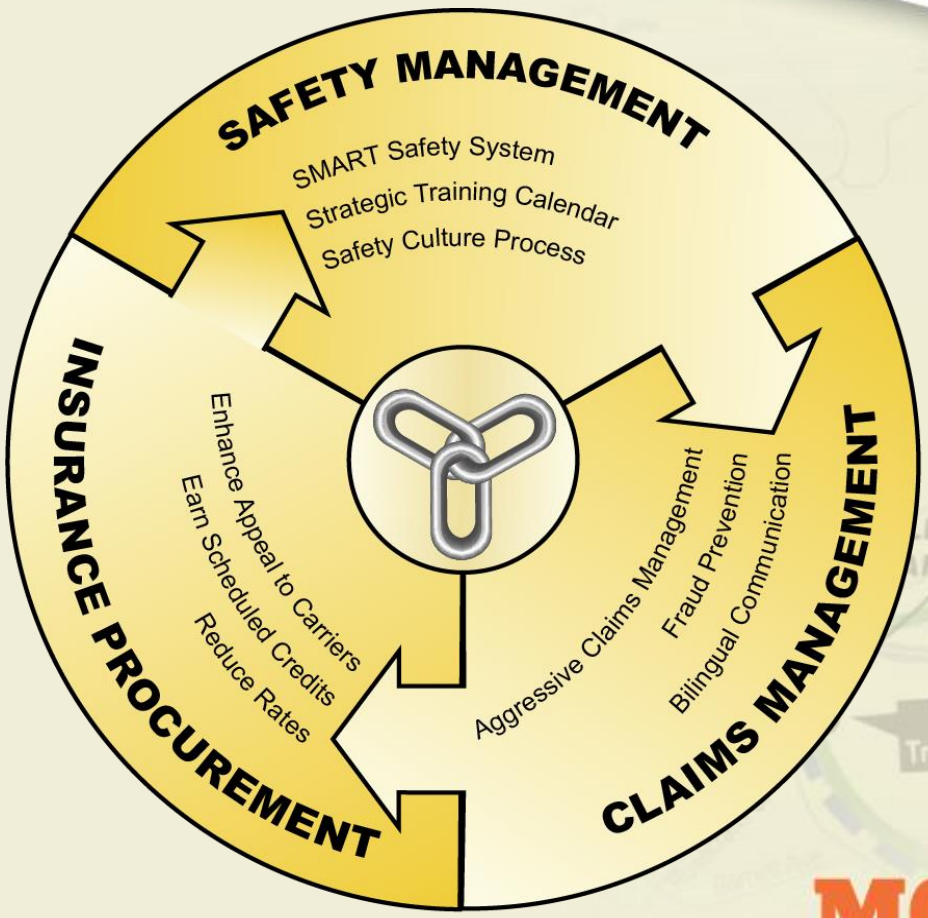
Management Commitment

- Send the right message
  - Send it often
    - every meeting
    - all levels
- Allocate funds
  - Safety Manager
  - Program Development
  - Supervisor training
  - Safe equipment

SMART Risk Management

Key Benefits

- ✓ Increase profitability
- ✓ Free up management time
- ✓ Get the “Gold Standard”
- ✓ Create a safety reputation
- ✓ Earn a competitive advantage for insurance
- ✓ Leverage our expertise



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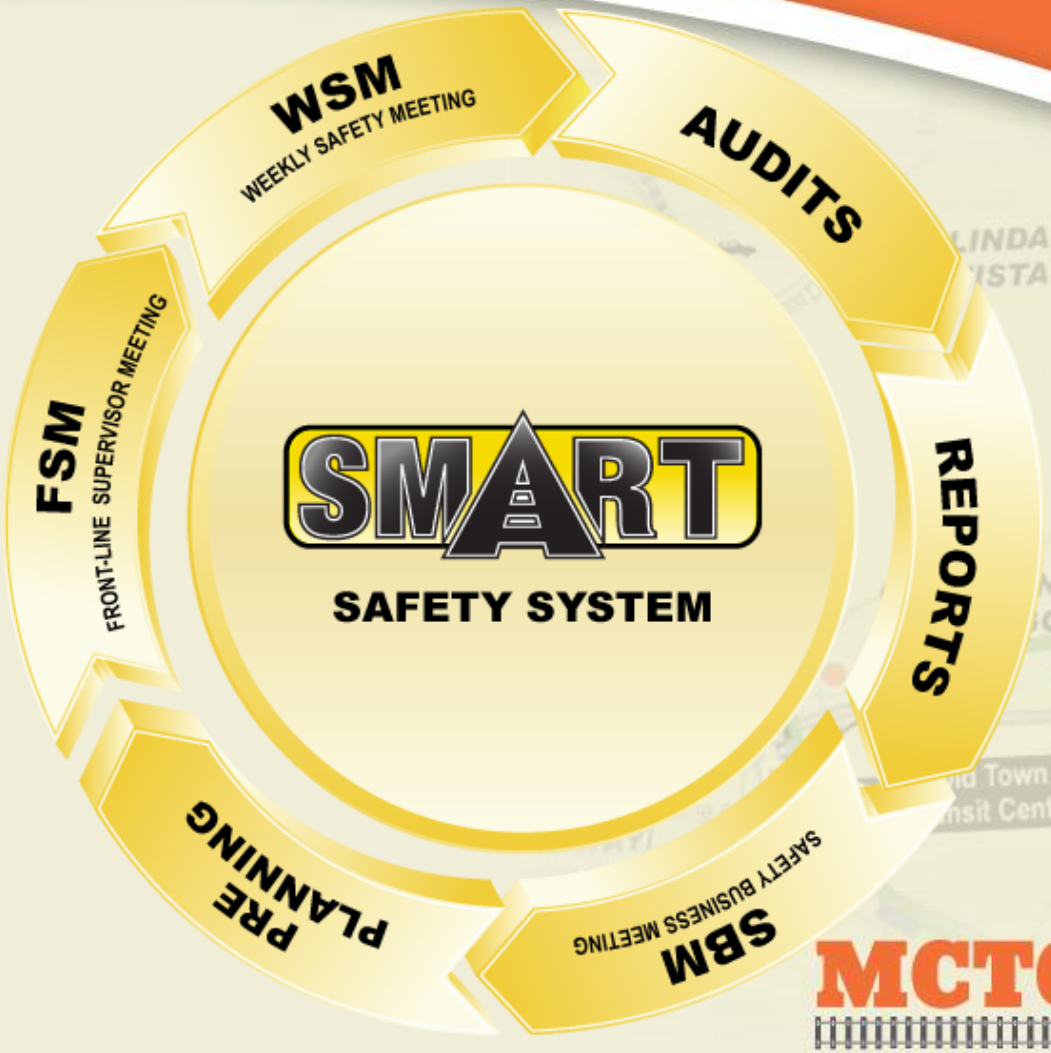
SMART Safety System

Key Benefits

- ✓ Performed on a monthly basis like clockwork
- ✓ Consistent and measurable
- ✓ Efficient use of resources
- ✓ Overtime it creates a proactive “Safety Culture”
- ✓ Proven results



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What you Need

1. Jobsite Audits
2. Recordkeeping & Reports
3. Safety Business Meeting
4. Pre Planning
5. Training
6. Claims Management
7. Insurance Procurement

1. Jobsite Audits

Conduct Inspections

- Performed by Safety Personnel
- Involve broker and/or consultant
- Unannounced
- Frequently
- Management to review findings and follow-up with Supervisor

Use Standardized Checklist

- Field needs to know what to expect

Disciplinary Procedure

Disciplinary Procedure

- See it? Say it!
- Involve Manager in follow-up
- Opportunity to get employee buy in
- Supervisor held accountable for their workers.
- Review in Safety Business Meeting
- Supervisor and crews should be rewarded for good work

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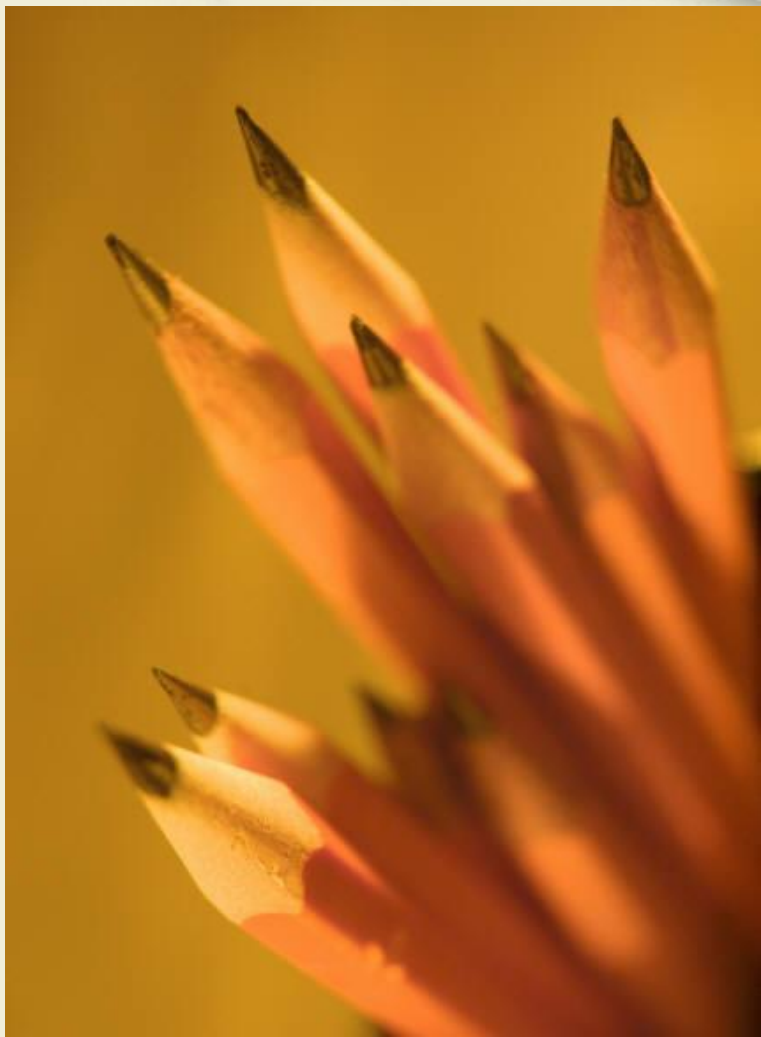
2. Recordkeeping & Reports

What gets measured… gets done

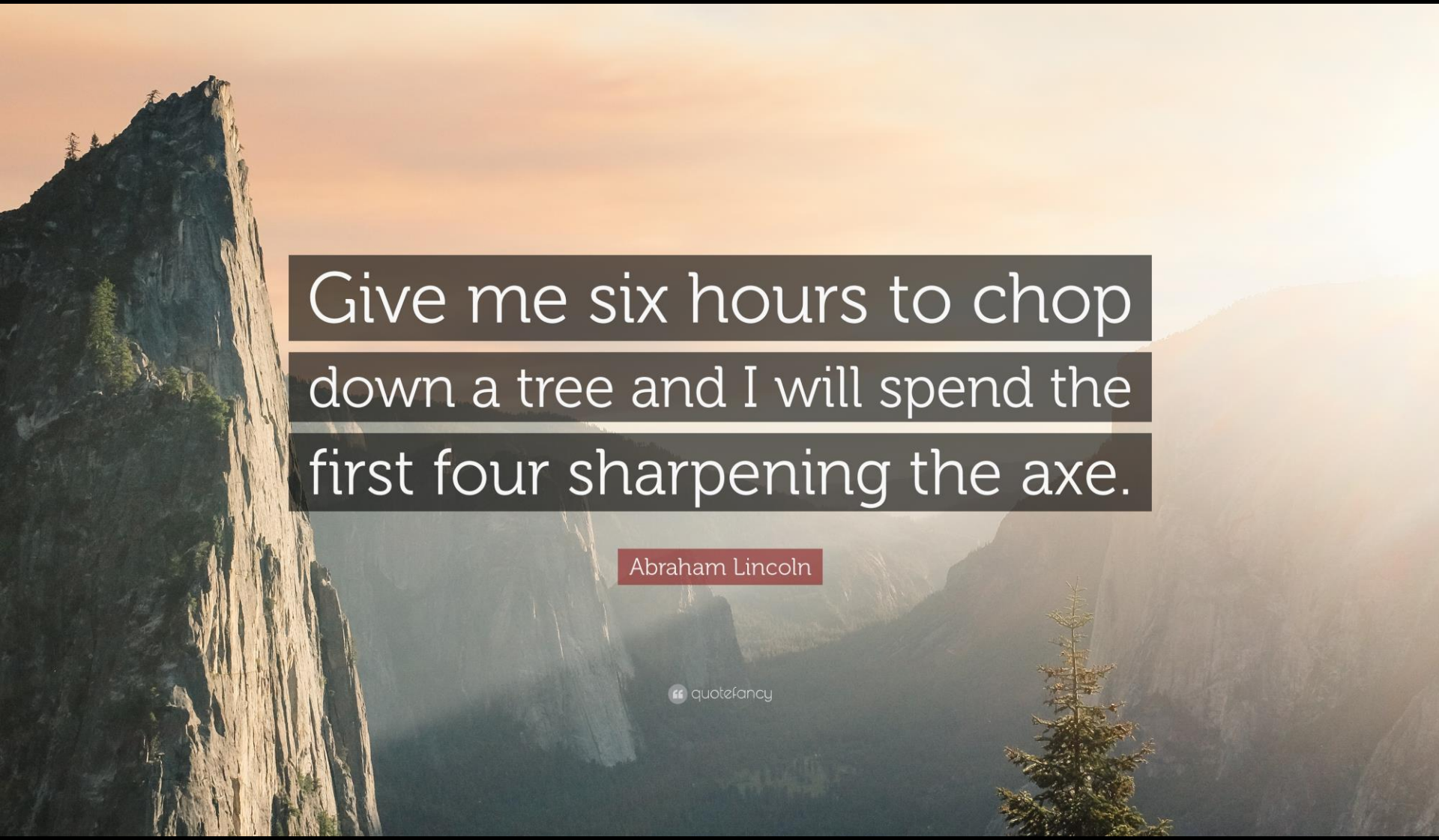
- Track incident rates and report to company
- Track Loss Reserves
- Track Experience Modification Rate
- Track paperwork from supervisors such as training/audits
- Develop a training matrix
- Review Disciplinary Action

3. Safety Business Meeting

- Involve Leaders
  - "In the Loop"
- Review
  - jobsite audits
  - all incidents
  - discipline
- Strategize & Craft Policy
- Discuss Areas to focus training
- Prescribe Weekly Safety Meetings



4. Pre-planning



4. Pre-Planning

- Promulgate Policy
- Procure Products
- Prepare and Perfect Training
- Project Pre-Plans (P3)
- Physician Selection
- Strategic Training Calendar Development

4. Pre-Planning (prepare the IIPP)

Your Written Program should be:

1. Realistic… so start slow
2. OSHA compliant
3. A team effort to write
4. Brief… because it's better
   - Avoid flowery language
5. All in one (IIPP, MSDS, Electrical, etc.)
   - Easier to manage one book

5. Field Supervisor Meeting

- Monthly Like Clockwork
- Review
  - Incidents
  - Discipline
- Give Training on Safety Program
- Feedback

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Supervisor Training

- Company Safety Program
- OSHA 10/30 Hour
- Forklift Certification
- 1st-Aid/CPR
- Fall Protection
- Electrical Safe Work Practices
- Project Supervision

6.Weekly Safety Meetings

- In addition to JHAs
- Weekly Safety Meetings
  - Monday Mornings
  - Written by Safety Committee
  - Company Specific Theme

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7. Claims Management

- Investigate EVERYTHING
- Define standard reporting procedure
  - Provide Phone List
  - Specific tab in Safety Program
  - Post Everywhere

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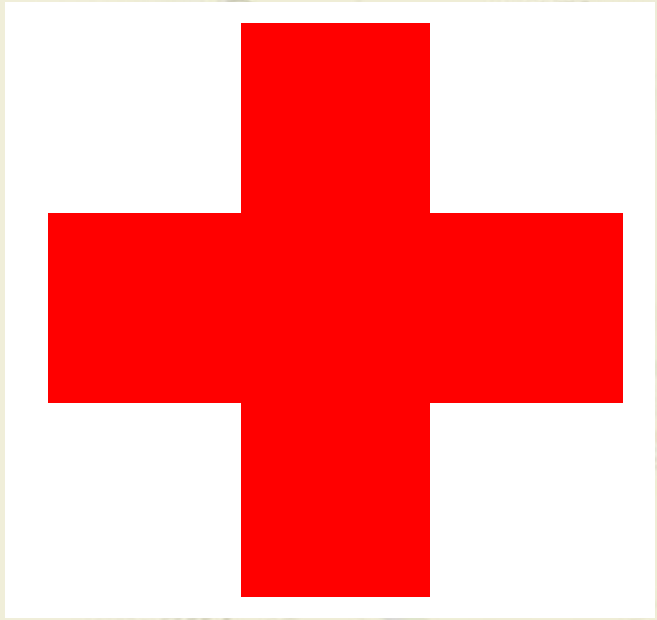
7. Claims Management

- Follow all claims until closed
- Have Quarterly Claims Reviews
  - Carrier and Broker
- During Insurance Procurement
  - Specify Reserve raising protocol
  - Specify Adjuster assignment



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7. Insurance Procurement

- Involve Broker in Safety Program
- Insist on dedicated Claims Handlers
- Carrier should visit the jobsite
- Talk about Scheduled Credits w/ Broker and Carrier

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Conclusion

- As medical and insurance cost rise, and they will rise, you can separate yourself from your competition by reducing the number of injuries your employees experience.
- Companies can save from $5-20 for every dollar they spend on an effective safety program.

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Closing Discussions

- Questions & Answers
- Evaluation Survey

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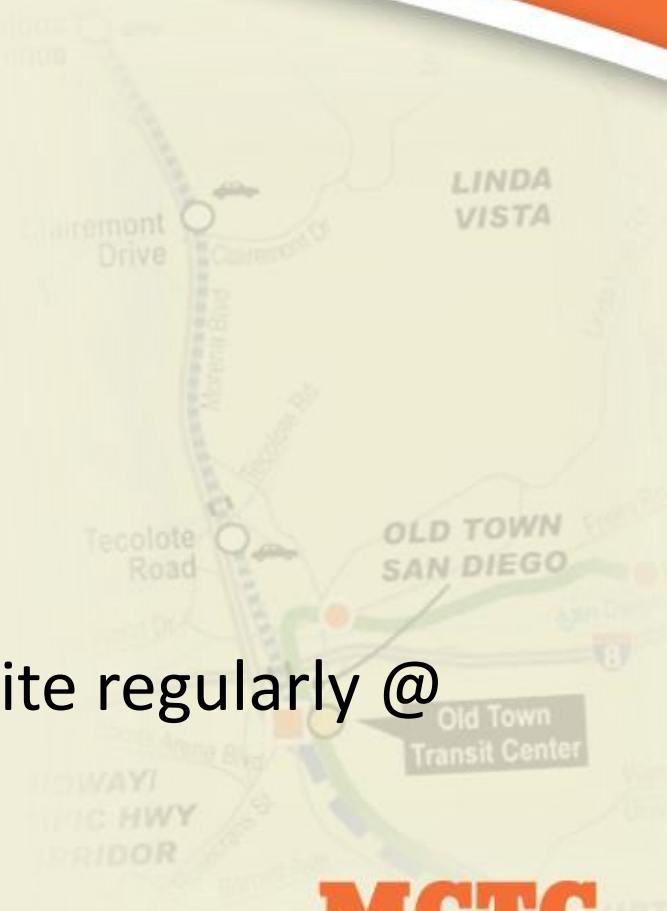

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