

North County Transit District Railroad Contractor Safety Training Manual



***Guide & Regulations for Non-Railroad Contractors &
Personnel Working on the NCTD Railroad Right-of-Way.***

October 13, 2011
Version 6.1

North County Transit District
810 Mission Ave.
Oceanside, CA 92054



CRITICAL CONTACT INFORMATION

EMERGENCIES: 911

TO STOP A TRAIN: 760/966-6700

NCTD SECURITY/SHERIFF'S RAIL UNIT: 760/966-6700

NON-EMERGENCY NUMBERS:

NCTD Real Estate Department:

Right-of-Entry Permits or Flagging Requests; Safety Training; Lost Decal

Ed Singer 760/966-6556 esinger@nctd.org

NCTD Rail Safety Department:

Safety Training, Lost Decal, Report Safety Problems or Questions

Eric Contreras 760/966-6513 econtreras@nctd.org

Wayne Penn 760/9666604 wpenn@nctd.org

Operation Lifesaver:

Free Volunteer Safety Training

Melba Novoa 760/966-6571 mnovoa@nctd.org



Table of Contents

NCTD’s Safety Objectives3

1.0 Definitions5

2.0 Right-of-Entry.....9
Review & Approval Process.....9
Documentation & Identification9

3.0 Railroad Flagging Protection10
When Flagging is Required.....10
Employee-in-Charge (EIC) & Flagman.....11
On-Track Safety.....12
EIC Communications13
Right-to-Question.....14

4.0 Working on the NCTD Railroad Right-of-Way15
EIC Instructions15
Job Briefings15
Personal Protective Equipment.....16
Potential Hazards16
Emergency Situations17

5.0 NCTD’s Railroad Right-of-Way Safety18
Zero Tolerance Policy18
Personal Safety Rules18
Safety Requirements for Working on NCTD Railroad Property19

6.0 Contractor’s Industrial Safety Responsibilities20
Vehicles, Machinery & Heavy Equipment:.....20
Electrical20
Small Tools & Work Equipment:.....21
Housekeeping.....21

Appendices: Right-of-Way Maps & Verification Forms23
Appendix A: Right-of-Way Milepost System Maps24
Appendix B: NCTD’s Safety Objectives Verification Form27
Appendix B: Zero Tolerance Safety Rules Verification Form.....28



THIS PAGE INTENTIONALLY LEFT BLANK



NCTD’s Safety Objectives

There is No Greater Importance than Safety.

All Final Decisions Concerning the Railroad will be Solely Made by NCTD

This manual governs all non-railroad contractor and personnel activities on or affecting North County Transit District’s railroad property and/or operating envelope. Non-railroad contractors and personnel are any person, party, company or individuals, other than railroad employees defined as *Roadway Workers* in 49 CFR Part 214, whose activities are conducted within, may encroach upon, or impact the NCTD railroad right-of-way and/or operating envelope. You must be knowledgeable of and follow the instructions in this manual at all times. If you are ever in doubt as to the meaning or application of a rule, ask your foreman, supervisor, or the NCTD Employee-in-Charge for an explanation.

To ensure your safety and the safety of others, you must:

- Read and understand this *Contractor Safety Training Manual*.
- Successfully complete the NCTD Railroad Contractor Safety Training program and exam prior to beginning work.
- Have a copy of this manual available for easy reference when on NCTD railroad property.
- Attend daily job and safety briefings at the start of each day, prior to beginning work, and when a change in the work plan, personnel or location occurs.
- Immediately inform a supervisor and/or the NCTD Employee-in-Charge of any action not in compliance with these requirements.

NCTD management will make unannounced observations and checks to ensure compliance with these safety regulations.

OBJECTIVES

<input checked="" type="checkbox"/> Protect Safe Train Operations	<input checked="" type="checkbox"/> Promote a Safe Workplace	<input checked="" type="checkbox"/> Protect NCTD’s Railroad Property
Work in such a manner as not to interfere with or endanger normal train operations	Recognize potential hazards; Understand and follow safety requirements; Prevent injuries	Prevent damage or risk to NCTD’s railroad right-of-way and property

There is no task so important that it cannot be done safely!

Bring this Manual to your Contractor Safety Training Examination.

Copies of this page and the Zero Tolerance Safety Rules page contained in the Appendices must be signed, dated and on file with NCTD before you will be permitted to start work on NCTD railroad property.

THIS PAGE INTENTIONALLY LEFT BLANK

Amtrak: Nationwide intercity rail passenger service operated by the National Rail Passenger Corporation. Amtrak's *Surfliner* trains operate over the SDNR.

Ballast: Crushed rock supporting and restraining the track structure.

BNSF: *Burlington Northern Santa Fe*, the interstate freight train operator on the SDNR.

California Public Utilities Commission (CPUC): The state agency that administers and enforces both state and federal regulations of the railroad industry.

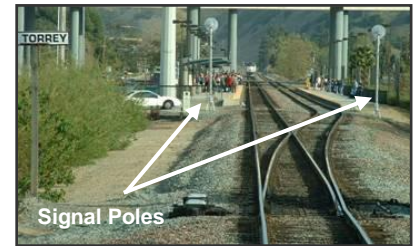
Centralized Traffic Control (CTC): A railroad traffic control system utilizing signals and track switches (turnouts) at "Control Points", operated remotely by the Train Dispatcher, to control and route train movements over a section of railroad. CTC permits the rapid routing and control of trains without the need for written instructions to each train. It is used where train traffic volume and speeds are high, such as on NCTD's railroad.

COASTER: Commuter rail service operated by NCTD on the San Diego Subdivision.

Contractor: As used in this manual, refers to any party, personnel or authorized worker, other than a railroad employee, who is working on, or in a manner that could affect, railroad property.

Contractor Safety Training: A safety training program for non-railroad employees and personnel covering *On-Track Safety*, safety rules, procedures and regulations. All Contractor employees must complete this program before entering NCTD's railroad property.

Control Point (CP): A location on a CTC-controlled railroad comprised of a switch or switches (turnouts) and signals to convey instructions to approaching trains, and where trains can be routed by the Train Dispatcher from one track to another. The boundaries of a Control Point extend to signal poles on either side of the turnout or switch.



Dark Territory: A portion of railroad that is not controlled by signals or control points. In Dark Territory, train movements and maintenance activities must be authorized by the Train Dispatcher using a written instruction called a "Track Warrant". Train speeds are much lower in Dark Territory than in CTC areas.

Derail: A device to prevent unintended train movement. If an engine, car or on-track vehicle passes a derail, it will come off the track and stop.



Employee-In-Charge (EIC): A railroad employee assigned to provide On-Track-Safety for workers on or near the railroad right-of-way, commonly called a Flagman. An EIC is trained and qualified on the General Code of Operating Rules and FRA Roadway Worker Protection regulations. The EIC has the authority to halt work and/or remove workers from the property, if necessary to ensure the safety and integrity of the worksite. All Contractor personnel subject to the EIC's supervision are required to follow his/her instructions promptly.

Exclusive Track Occupancy: An On-Track Safety condition, established by an EIC, which prohibits trains from entering into a section of the railroad controlled by that EIC.

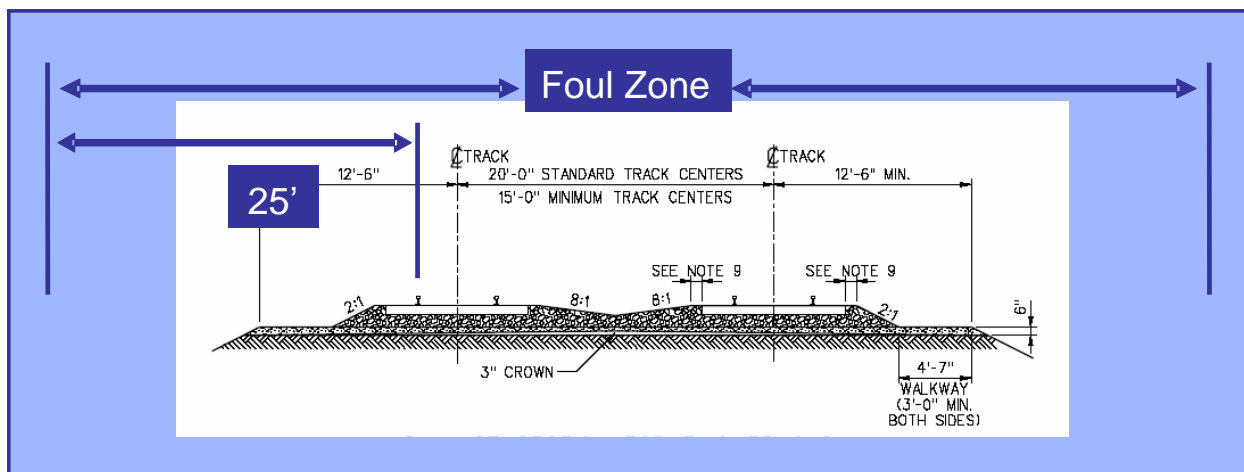
Federal Railroad Administration (FRA): The federal agency that administers and enforces the Code of Federal Regulations (CFR) pertaining to railroad safety. Compliance with CFR codes and FRA regulations is required by law. The requirements outlined in this manual are driven by these regulations and are designed to maintain compliance with the law.

Flagman: A qualified Roadway Worker who has the authority to control the movement of trains & equipment over a designated section of track in order to provide On-Track Safety. The EIC assigned to a jobsite is a qualified Flagman. Additional Flagmen may be assigned to assist the EIC. However, only one EIC is assigned to a specific work location.

Flagging Protection: The protection, by an EIC, of workers and/or work within or near the Foul Zone of the railroad right-of-way. See *Employee-In-Charge* and *On-Track Safety*.

Fouling a Track: Placement of a person or a piece of equipment near a track where the person or equipment could be struck or impacted by a moving train or on-track equipment.

Foul Zone: The 25-foot zone on either side of any track on NCTD's railroad. This defines the minimum portion of the railroad right-of-way where a person is considered to be fouling the track.



General Code of Operating Rules (GCOR): The FRA-required rules that govern the use of railroad tracks by trains, maintenance employees, contractors and others.

Hardhat Decal: A decal indicating successful completion of the required NCTD Railroad Contractor Safety Training. The non-transferable decal is to be placed on the right hand side of each individual's hardhat so it is visible when working on NCTD's railroad.

Jobsite: Also referred to as "worksite". Any location on NCTD's railroad property where Contractor employees perform work; store or use materials and/or equipment; or access during a project.

Main Track (Mainline): The primary track used by trains. Some routes have multiple, parallel main tracks (sometimes called *double track*).

Metrolink: Commuter rail service operated by the Southern California Regional Railroad Authority (SCRRA) in Los Angeles. Metrolink trains operate over NCTD's railroad connecting Oceanside with Orange, Los Angeles, Riverside, and San Bernardino Counties.

Metrolink Operations Center (MOC): SCRRA train dispatching facility in Pomona, CA. Railroad traffic and maintenance activities on NCTD's railroad are controlled and supervised by Train Dispatchers at this facility. See *San Diego Subdivision Train Dispatcher*.

NCTD: North County Transit District, owner of the railroad which extends from the Orange/San Diego County line to one block south of Broadway St. in downtown San Diego and between Oceanside and Escondido.

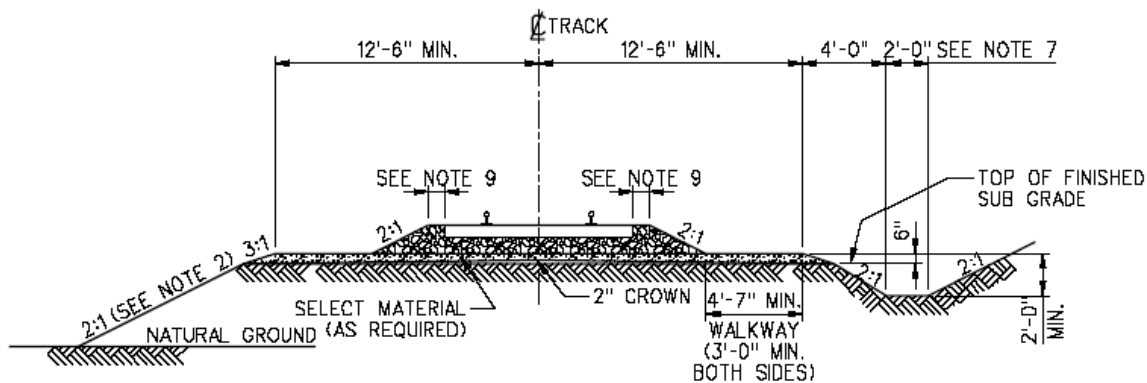
On-Track Equipment: Maintenance-of-way machines other than trains or engines, such as track cars, hi-rail vehicles, tampers, ballast regulators, etc. which are operated on the track.

On-Track Safety (OTS): A state of freedom from the danger of being struck by a train or on-track equipment. OTS is established by an EIC applying operating and safety procedures governing track occupancy by personnel, trains and on-track equipment.



Right-of-Entry Permit (ROE): A permit issued by NCTD approving an outside party project that is on, crosses or impacts NCTD's property. An ROE permit *plus* prearranged Flagging Protection are required before an outside party may legally access NCTD's railroad property. Railroads have regulatory obligations to protect their traffic and infrastructure and control access to the right-of-way for work, construction and other projects. The NCTD Real Estate Department administers NCTD's Railroad Right-of-Entry permitting process.

Right-of-Way (ROW): The property upon which the railroad track sits, on which the railroad has federally-protected *right-of-way* over any other possible public or private use. NCTD's railroad right-of-way in any particular area may be narrow, extending only 50-feet or so on either side of the track, or it may be over 200-feet wide. Consult your job's EIC to determine the limits of NCTD's railroad ROW.



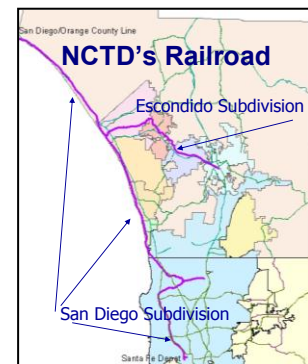
ROADBED SECTIONS AT FILLS

Roadbed: A graded area beneath and on either side of the track structure that provides support of and drainage for the track.

Roadway Worker: A specially trained employee of the railroad, qualified on FRA's *Roadway Worker Protection* requirements, who inspects, maintains, constructs or repairs railroad track, bridges, roadbed, signal and communication systems on or near tracks or with the potential of fouling a track. Contractors and personnel not engaged in the above activities are not Roadway Workers.

Roadway Worker Protection: FRA-enforced safety regulations addressing specific On-Track Safety requirements for railroad personnel defined as Roadway Workers.

SDNR: San Diego Northern Railway: Extends from the Orange/San Diego County line to Broadway St. in downtown San Diego and between Oceanside and Escondido.





San Diego Subdivision Train Dispatcher: The Dispatcher controlling train traffic and track access activities on NCTD's railroad at any given time. The train dispatcher works from the MOC and controls both the San Diego and Escondido Subdivisions.

Sprinter: Light rail transit operated by NCTD on the Escondido Subdivision between Oceanside and Escondido.

Sprinter Control Center: Controls Sprinter trains on the Escondido Subdivision.

Switch: Special track work where one track splits into two or more, or that crosses over between two tracks. A switch permits a train to be guided onto one track or the other. Also called a *Turnout*.

Train Dispatcher: The railroad equivalent to an Air Traffic Controller. See *San Diego Subdivision Train Dispatcher, Centralized Traffic Control* and *MOC*.

Turnout: See *Switch*.

Watchman/Lookout: A person designated to provide on-track safety by visually watching for trains and/or responding to the instructions of an EIC and directing workers when to get clear of the track and Foul Zone. Must be qualified to perform these duties under 49 CFR Part 214.

Working Limits: A section of the railroad controlled by an EIC/Flagman for maintenance or other purposes, such as access by contractors.

2.0 Right-of-Entry to NCTD Railroad Property

North County Transit District (NCTD) owns, maintains and improves their railway. In addition, NCTD operates the *COASTER* commuter rail service that parallels the coastline and *Sprinter* light rail system between Oceanside and Escondido. Other operators on the line include Amtrak, Metrolink (SCRRA) and the BNSF freight railroad.

NCTD's railroad is part of the U.S. General Railroad System of Transportation as defined by the Interstate Commerce Act. NCTD has legal and regulatory obligations and authority to protect the railroad from disruption or damage. Therefore, NCTD controls access to their railroad property and exercises some authority over projects on adjacent land that could affect the railroad.

Prior to entering upon NCTD's railroad property, outside parties must obtain a "Right-of-Entry" permit from the NCTD Real Estate Department. This Department will coordinate with the contractor to have all necessary documents, plans and agreements submitted, reviewed, approved and executed. Entering NCTD's railroad property without a Right-of-Entry permit is trespassing. Failure to obtain proper approvals for work on or adjacent to NCTD's railroad property can result in the stoppage of work and the removal of all unauthorized personnel from the property.

2.1 Review and Approval Process

NCTD reviews Right-of-Entry applications for compliance with structural, technical and safety requirements which include, but are not limited to:

- Location of work;
- Horizontal and vertical clearances;
- Shoring, jacking and false work;
- Maintainability;
- Drainage impacts;
- Property access impacts;
- Compatibility with current and future right-of-way use plans;
- Any issue determined to impact railroad safety or operations;

Right-of-Entry permits will be issued only for projects which meet the railroad's standards, terms, conditions, insurance, and indemnification requirements. For complete requirements, contact the NCTD Real Estate Department at 760/966-6556 or visit the NCTD website at www.gonctd.com.

Once a Right-of-Entry permit has been issued, the project manager must submit a Flagging Request at least fourteen (14) days before starting work to schedule an NCTD Railroad EIC/Flagman (See Section 3: Flagging Protection).

2.2 Documentation and Identification

When on railroad property, a copy of the Right-of-Entry permit for the project must be available for inspection. In addition, when entering railroad property you must:

- Be current with the required NCTD Railroad Contractor Safety Training.
- Display a current NCTD Contractor Safety Trained decal on your hard hat.
- Carry a valid photo ID (driver's license, employer issued ID card, etc.)

Failure to have an approved Right-of-Entry Permit, photo ID and a current NCTD Contractor Safety Trained hardhat decal is grounds for removal from the property.

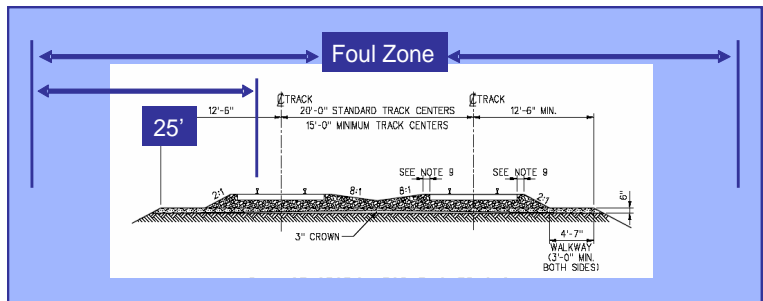
3.0 Flagging Protection

NCTD’s railroad is in one of the busiest railroad corridors in the country. On average, about 60 trains each weekday traverse the line, most of which are fast-moving passenger trains. On-time performance of these trains is critical to the performance of the entire corridor, which stretches between San Diego, Los Angeles and the San Francisco Bay Area. Delays or interruptions to traffic here can have significant impacts on passenger and freight trains hundreds of miles away from here. For this reason, regardless of the nature of the work involved, it usually must be conducted “under traffic”, without halting or delaying trains. Federal regulations define how to protect trains and workers. To accomplish this safely, work is conducted under “Flagging Protection” and the supervision of a railroad Flagman.

All parties must obtain a right-of-entry permit before entering the right-of-way. Those with an approved right-of-entry permit are required to submit a Flagging Request form at least fourteen (14) days before needing to actually enter the right-of-way and start work. All Contractor personnel must receive the required NCTD railroad safety training. Only after a permit is issued, all workers are safety-trained and a qualified railroad Flagman is present may work begin.

3.1 When Flagging is Required

Flagging protection is required any time personnel work in the railroad right-of-way, or work on non-railroad property near or adjacent to the Foul Zone or right-of-way with the potential to impact railroad operations or infrastructure. NCTD has sole discretion to determine



the need for flagging protection in special circumstances. A Flagman is a qualified railroad employee certified on the GCOR, trained in the legal, regulatory and procedural requirements of the job duties, and designated to provide the necessary protection. The NCTD Railroad Employee-in-Charge (EIC) assigned to the job is a Flagman. Some jobs may require additional Flagmen; however, only one Flagman may act as the EIC.

Some examples of typical situations requiring flagging protection are:

- A utilities crew installing pipe, cable, electrical lines or other infrastructure that crosses over or underneath the railroad tracks.
- A cable TV or phone crew stringing cable on poles adjacent to the tracks.
- A construction crane or excavator being used adjacent to railroad property, but with a boom that could potentially swing into the Foul Zone of the active tracks.
- A landscape crew trimming trees and brush along a street or park directly adjacent to and within 25-feet of the tracks.



- A building Contractor excavating property adjacent to the railroad tracks that could cause settlement or ground movement affecting the railroad right-of-way.
- A meeting or field review occurring within or near the Foul Zone, such as engineers planning construction work or inspecting facilities.
- A county survey crew marking property lines adjacent to the right-of-way.
- A construction crew building or replacing railroad infrastructure under contract to NCTD (Roadway Workers).
- A street maintenance crew repainting striping or repairing potholes at a public grade crossing.
- Caltrans working on a freeway overpass where it crosses the railroad tracks.
- A large-scale public event, such as a marathon foot race or street fair, that brings large numbers of people into close proximity to the railroad right-of-way.



In general, any time work equipment is operated, or when any type of construction, jacking, boring, landscaping, clearing, grubbing or demolition activity occurs in close proximity to the railroad, or has the potential to endanger the safe operation of the railroad, regardless of elevation above or below track, flagging protection is required.

3.2 Employee-in-Charge (EIC) / Flagman

An NCTD Railroad Flagman will be assigned as the FRA-required Employee-in-Charge (EIC) for your job. The EIC establishes On-Track Safety to protect jobsite workers from being struck by a train or on-track equipment. Some jobs may have one or more additional Flagmen assigned to the project, working under the EIC's supervision. However, only one Flagman is designated the EIC. The EIC is the primary on-site NCTD representative and authority. The EIC oversees the general safety of the project and interfaces with the Contractor's jobsite foreman or manager. NCTD Railroad EIC's are specially trained and qualified under FRA regulations and maintain the certifications required to perform the required duties. They will provide selected safety training, daily job and safety briefings and protection to assure both the safety of the Contractor's work environment and the safe passage of trains. The EIC has absolute authority to temporarily halt work and to remove Contractor employees from the right-of-way in order to assure safety. In all cases Contractor employees must comply immediately with the instructions of the EIC.



3.3 On-Track Safety

On-Track Safety (OTS) is a condition where workers authorized to be on or near the track, under the protection of a railroad Flagman/EIC, are protected from trains or on-track equipment by one of the following procedures:

- a) Exclusive Track Occupancy:** The Flagman/EIC, in coordination with the Train Dispatcher, assumes control over a section of the railroad and prevents any other train or equipment from entering into it without the his or her permission. This section of the railroad, established between Mileposts or Control Points, becomes the “Working Limits” for a particular job and is temporarily “owned” by the EIC. Exclusive Track Occupancy may be established by:
- **Form B Protection:** Working limits are established on the railroad in advance by an EIC for a specified time frame. The Train Dispatcher then issues a “Form B” bulletin to all trains, which identifies the EIC, the location and the time frame of the working limits. The EIC may also mark each ends of the limits with red metal placards called “flags”, posted adjacent to the track. This red flag requires a train to stop until the EIC grants it permission to proceed through the limits. When contacted by a train, the EIC will clear all workers and equipment from Foul Zone and ensure that it is safe before permitting the train to proceed. If the EIC does not grant the train permission to proceed, the train must stop and not enter the limits. This method is commonly used on NCTD’s railroad as it permits trains to pass through the work limits with little or no delay while giving workers as much working time as possible.
 - **Track & Time:** This procedure is used only in CTC. When requested by an EIC (and traffic permits), the Train Dispatcher temporarily blocks-off the desired section of railroad and places it under the control of the EIC for a specific period of time. Until released by the EIC, the Train Dispatcher is prevented from routing any trains into the Track & Time limits. Although obligated to release it by the expiration time, the Dispatcher cannot allow any trains into the limits until the EIC has actually done so, even if the expiration time has passed. Track & Time is used infrequently to protect Contractors on the railroad as it does not allow much working time between each passing train and has the potential to delay trains.
 - **Track Warrant:** (Used only in Dark Territory) A track warrant is a written authority granted by the Train Dispatcher to a train or to an EIC to occupy a section of track. Without a track warrant, no train or work group is allowed to occupy the track. Once issued, another track warrant covering or overlapping the same territory cannot be issued without the permission of the train or EIC holding the first track warrant. This prevents a train from entering working limits established by an EIC without that EIC’s permission. The EIC will not permit a train into the limits until all workers and equipment are safely clear of the Foul Zone.
- b) Watchman/Lookout:** This procedure is used in select circumstances where Contractor workers may be working near, but not fouling, a track, or on a project that is on adjacent property and has the potential to affect the railroad. In this case, the Flagman does not establish working limits. Instead, he or she monitors the locations of approaching trains and alerts workers when a train approaches. Trains are not required to stop or to contact the Flagman as they approach; however, the Flagman has the ability to contact and stop trains in an emergency. The sole purpose of the Flagman is to provide safety. Do not ask the Flagman to perform any other task.

- c) **Inaccessible Track:** Used in yards and other auxiliary tracks where traffic is not controlled by the Train Dispatcher. The EIC renders a section of track inaccessible by lining and locking switches, with an exclusive padlock, away from the work area, or by placing derails on the track, or by removing a section of rail from the track approaching the work location. Red flags are usually placed on the track to alert train crews that the track is inaccessible. This physically prevents a train or on-track equipment from entering the work area unless specifically allowed by the EIC.
- d) **Track Out-of-Service:** On tracks that have infrequent train traffic, the EIC may elect to remove the track from service. The EIC contacts the Train Dispatcher, who then “locks-out” the section to be removed from service. This way, no railroad traffic can be permitted on the line, allowing workers to enter the right-of-way without further protection from trains. If on-track equipment is to be used, however, an EIC/Flagman may still be required to protect workers.

3.4 EIC Communications

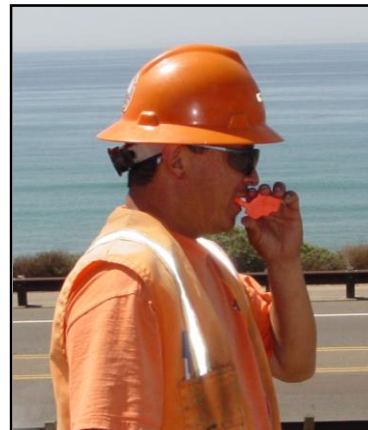
During the job safety briefing given before starting work, the EIC will explain the type of OTS being provided and what you are required to do to get clear of the tracks when instructed. The EIC will identify a safe location or distance to go when he or she instructs workers to clear the track.

- a) **Air Horn or Whistle:** The EIC and/or assisting Flagmen will use a hand-held air horn or a loud whistle to give an audible signal to stop working and move to the safe location identified in the job safety briefing. If noise or other distractions may prevent you from hearing the audible warning, an additional warning method may be identified during the job briefing, such as a shoulder tap.

Air Horn



Whistle



When the signal is given, you must promptly stop all work activities and move to the designated safe area outside the Foul Zone and wait for the EIC to authorize resumption of the work.

b) **White Disc:** In addition to the air horn, the EIC/Flagman will have a white disc or paddle for giving visual signals to the work group. When held up vertically, this is a signal to stop working and move to the safe location identified by the EIC in the job safety briefing. When held horizontally towards the track, this is a signal that it is safe to resume work.

Move To Safe Location



Resume Work



3.5 Right to Question

If you feel the on-track safety being provided is inadequate you may, at any time in and in good faith (which means sincerely, without hostility or disrespect), request a clarification or reevaluation of the protection by the EIC. If you or anyone else makes such a request, everyone must remain clear of all tracks until the question is resolved. The EIC, Contractor Supervisor and the NCTD Railroad Supervisor must resolve the issue before work can begin.

4.0 Working on the NCTD's Railroad Right-of-Way

4.1 EIC Instructions:

All instructions given by the EIC must be followed carefully and promptly. The EIC may, as conditions warrant, require more stringent safety procedures than are specified in this manual. If you are unclear or have concerns or questions about the instructions of the EIC, immediately remove yourself from the Foul Zone until the instructions are clearly understood. In case of doubt or dispute, everyone affected must clear the Foul Zone until the Contractor's foreman or supervisor and the EIC or his/her supervisor resolves any issues or concerns.

4.2 Job Briefings

At the beginning of each workday, and anytime during the workday the work plan or job changes, a job briefing must be conducted or supervised by the EIC prior to your entering the Foul Zone. You are required to attend and sign the job briefing form. Job briefing information includes, but is not limited to:

- Designation/identification of the NCTD Railroad Employee-in-Charge (EIC)
- Type of on-track protection
- Time limits of the protection
- Method of notification (air horn, white disc, etc.) of approach of trains
- Track(s) that may be fouled
- Status of other track(s) at worksite
- A designated place of safety where workers must clear for trains
- A designated assembly place in case of an emergency
- Designated work zones
- Specific job(s) to be done or equipment moves(s) to be made
- Responsibilities of each worker

All workers should ask about and understand the on-track protection provided. Any questions should be resolved before proceeding with the work.

Additional instructions may include an unusual or a specific reminder due to a hazardous condition or unusual practice.

New job briefings must be given when:

- The job, location or OTS changes
- New workers or visitors enter working limits
- The next work shift begins, even if there are no changes from the previous day

4.0 Working on the SDNR Right-of-Way

Changes Mean a New Briefing

■ Job Changes	➔	New Briefing
■ Location Changes	➔	New Briefing
■ OTS Changes	➔	New Briefing
■ New People	➔	New Briefing
■ New Day	➔	New Briefing

11/29/2004 SDNR Contractor Safety Training

4.3 Personal Protective Equipment (PPE)

The following protective equipment is required to work on NCTD's railroad property. All equipment should be in "good shape". Your employer may require additional PPE based on the type of work to be performed:

- a) **Plastic Hardhats** as specified by CAL/OSHA and/or Fed/OSHA. No metallic hardhats.
- b) **Eye Protection** meeting ANSI Z87.1 standards.
- c) **Orange or Lime Safety Vest** with reflective tape
- d) **Footwear** that provides ankle support, has thick, rugged soles to give good traction and to withstand punctures from sharp objects.

Proper attire includes:

- Waist-length shirt with sleeves & ankle-length pants.
- Clothing that does not interfere with vision or hearing, and allows free use of hands and feet.
- Lace-type or securely-buckled boots at least 6" high with a defined heel. Steel toe boots are recommended.

Improper attire includes:

- Shorts, skirts, or other loose or ragged clothing
- Neckties or loose jewelry
- Open toe, lounging or jogging-type shoes, unlaced or unbuckled shoes, shoes without a defined heel, and worn or poorly-fitting shoes with loose soles



4.4 Potential Hazards

As previously stated, NCTD's railroad carries about 60 trains on a typical day. The trains are mostly passenger trains operating at high speeds. Trains approach relatively quietly. You should be on the lookout for trains on any track, at any time, and in either direction. In addition to the obvious hazards of passing trains, there are numerous other hazards on the right-of-way:

- Footing is poor around the track and on the ballast, ties and rails.
- Slopes are often irregular and steep.
- On-track vehicles and machines operate on the track in addition to the trains.
- In addition to trains, NCTD and others operate vehicles and other equipment along the right-of-way.
- Vegetation may hinder visibility and footing or cause an allergic reaction.
- Drivers at road crossings may be unaware of workers on the right-of-way.



- There are numerous utility lines and crossings, both above-ground and underground on the right-of-way. This includes electrical lines, high-pressure gas lines, fiber optic cables, etc.
- Track components may be wet or slick.
- Switches have remotely-controlled moving parts and may move at any time.
- Other work processes, such as track or right-of-way maintenance may occur nearby or at the work site.
- In addition to track and bridges, railroad infrastructure includes signal equipment that must not be damaged or impacted. Do not interfere with any signal equipment. Promptly report any accidental contact with signal components.



4.5 Emergency Situations

Immediately report any accident, injury or emergency to your foreman/supervisor AND the NCTD Railroad EIC!

The EIC is able to contact trains, the train dispatcher and emergency responders including fire, police and paramedics.

Immediately report to the EIC any defects in tracks, bridges, signals, utilities or communication facilities or any unusual condition that may affect job safety and/or the safe operation of the Railroad.

If persons are injured, do everything reasonable to assist or provide for their care.

In case of personal injury, loss of life or damage to property, immediately secure any tools or equipment involved.

5.0 NCTD's Railroad Right-of-Way Safety

5.1 Zero Tolerance Policy

ANY of the following WILL RESULT IN YOUR REMOVAL FROM THE PROPERTY and could result in your job being shut down:

- **Right-of-Entry:** Failure to have a valid Right-of-Entry Permit for your project when on railroad property.
- **Foul Zone:** Entering into the Foul Zone without permission or instructions from an NCTD Railroad EIC/Flagman assigned to your job.
- **Safety Training:** Failure to have a current Contractor Safety Trained hardhat decal on your hardhat.
- **EIC Instructions:** Failure to promptly comply with the instructions of the NCTD Railroad EIC or Flagman.
- **PPE:** Failure to wear or use appropriate clothing and PPE as outlined in this Manual.
- **Machinery:** Operating any machine in close proximity to the Right-of-Way or Foul Zone unless the NCTD Railroad EIC/Flagman has indicated that it is safe to do so.
- **Rail:** Stepping or standing on the top of a rail.
- **Intoxicants:** Consuming, being under the influence of or having in your possession any alcoholic beverage, intoxicant, controlled substance, drug or medication, other than a prescription medication that does not affect your alertness or judgment, when on railroad property.
- **Cell Phones:** Do not conduct cell phone calls anywhere in the Foul Zone. Stand clear of the Foul Zone when using a cell phone. Do not allow a cell phone conversation to distract you from maintaining your own personal safety or the safety of others. While using a cell phone on railroad property you must remain stationary. Use of cell phones for jobsite related communication must be pre-approved by the EIC.

5.2 Personal Safety Rules:

- **Personal Listening Devices:** The use or possession of personal listening devices, such as radios, CD, MP3 and cassette tape players, or other devices that may impair your hearing while you are in or near the Foul Zone, is prohibited.
- **Horseplay:** Do not engage in horseplay, physical altercations, or practical jokes. Unless specifically required by your duties or an emergency situation, running or jumping is prohibited.
- **Weapons:** Firearms or other potentially deadly weapons, including knives with a blade in excess of three inches, are prohibited on railroad property.
- **Railroad Equipment:** Unless authorized and safety-briefed by the EIC for a job-related purpose, keep off of locomotives, cars and other railroad equipment.

5.3 Right-of-Way Safety Rules:

- Keep clear of the Foul Zone of any track unless an NCTD Railroad EIC has established On-Track Safety and allows the activity.
- Always look both ways before crossing tracks, regardless of the OTS being provided.
- Expect moving trains or equipment on any track, at anytime in any direction. Engines may push or pull a train, and there could be an uncontrolled movement of equipment, either of which can approach very quietly.
- Do not interfere with the operation of any railroad equipment, such as wayside signals or grade crossing warning devices.
- Step over the rails when crossing the tracks. Never step on top of a rail. Never walk, stand, or sit on the rails.
- Stay away from track switches. The mechanism may be controlled remotely and can move unexpectedly with enough force to crush rock! Stay clear of any other railroad device with which you are not familiar.
- Never stand between the rails of an adjacent track or between tracks when a train is passing unless instructed by the EIC.
- Give at least 50 feet of clearance from the end of any piece of standing equipment when crossing tracks occupied by engines, railroad cars, or on-track equipment. Keep an eye on the equipment in case it moves unexpectedly, and stay within the operator's sight whenever possible.
- Never cross a track between standing equipment if there is less than 50 feet between the equipment.
- NEVER cross tracks by going underneath, over or through cars, engines or on-track equipment.
- Stop working while trains are passing if you are within 25 feet of the track. Always stand as far back as possible to prevent injury from flying debris or loose rigging.
- Stop all mechanized equipment while a train passes through your work area, unless specifically permitted by the EIC to keep working. Secure or lower booms, backhoes, excavators, buckets, etc., clear of the tracks.
- Whenever possible, face the direction of the approaching train or on-track equipment;
- Move your vehicle at least 25-feet away from the track when a train approaches. If this is not possible, secure the vehicle, exit and stand a safe distance away from the tracks until the train passes. Never put yourself into a position where you cannot quickly and safely secure and exit your vehicle.

6.0 Contractor's Industrial Safety Responsibilities

The NCTD Railroad EIC is responsible to provide On-Track Safety and oversee the general safety of the jobsite. While the EIC may stop work if he/she observes OSHA workplace safety violations, the EIC is not responsible to ensure that Contractor personnel comply with applicable OSHA or other regulatory safety requirements. The Contractor's foremen or supervisors are responsible for the safety of their crews and must guard their crews against workplace dangers and injuries. Although FRA regulations govern railroad workplace safety, non-railroad workers on railroad property are still subject to OSHA safety regulations pertaining to their work.

In addition, contractor personnel are responsible for complying with the following:

6.1 Vehicles, Machinery & Heavy Equipment

Always drive vehicles and operate machinery in a careful, cautious manner. Speed limit on the right-of-way is not more than 15 mph and may be lowered if conditions warrant. In addition, the following rules apply to vehicles and equipment operating on railroad property:

- Audible backup warning devices are required on all heavy equipment.
- Do not carry unauthorized persons on equipment. Foremen/supervisors must know that persons qualified to be on equipment are properly positioned before movement is made. Do not transport passengers in truck beds or on heavy equipment.
- Equipment Operators must know the locations of overhead and underground wires, utilities and other known hazards. Operator must have a clear understanding of how to protect utility lines and him/herself before operating machinery.
- NEVER move equipment across the tracks except at established road crossings. Tracked or rubber tired equipment requires the supervision of a Flagman any time railroad tracks are to be crossed.
- NEVER move tracked or rubber tired equipment across railroad bridges.

6.2 Electrical

Electrical wires must be considered live at all times. Do not depend on the insulation of wires for your safety. In addition:

- Keep away from all overhead and underground wires.
- If necessary to run cords across the track, they must be placed underneath the base of rail. Ask the EIC for instructions on doing this properly.
- Do not place any metal objects across rails.
- Do not excavate until:
 - Dig Alert has been contacted and site identification is complete;
 - NCTD's Railroad Communication & Signals Department has identified and marked any buried signal wires and conduits.
 - All required NCTD and OSHA shoring and bracing requirements are met.

6.3 Small Tools & Work Equipment

Small tools and other equipment on the jobsite must be controlled and secured to prevent any interference with operation of trains:

- Operate all tools and equipment in a safe manner, consistent with instructions and the intended use. Keep all connecting hoses and wires clear of the track.
- Do not leave hand tools on the track or in areas where they may interfere with train operations.
- Store and secure all materials and small tools when the work site is unattended.
- Properly restore all fencing and security equipment before leaving the job site.
- When equipment is left unattended:
 - Engine must be stopped and ignition locked.
 - Parking or hand brake must be securely set.
 - Keys must be in possession of operator or authorized employee.
 - Wheels must be securely blocked on grades.
 - Equipment must be secured in a highly visible area or protected area.

6.4 Housekeeping

CPUC General Orders 118 and 260 require that lateral and vertical clearances around a railroad track and a safe walkway parallel to both sides of the track be maintained. Material and equipment must not be stored closer than 25 feet from the closest rail. The EIC may direct Contractor's employees to correct conditions not in compliance before allowing trains to pass or the end of the work day.



THIS PAGE INTENTIONALLY LEFT BLANK

APPENDICES

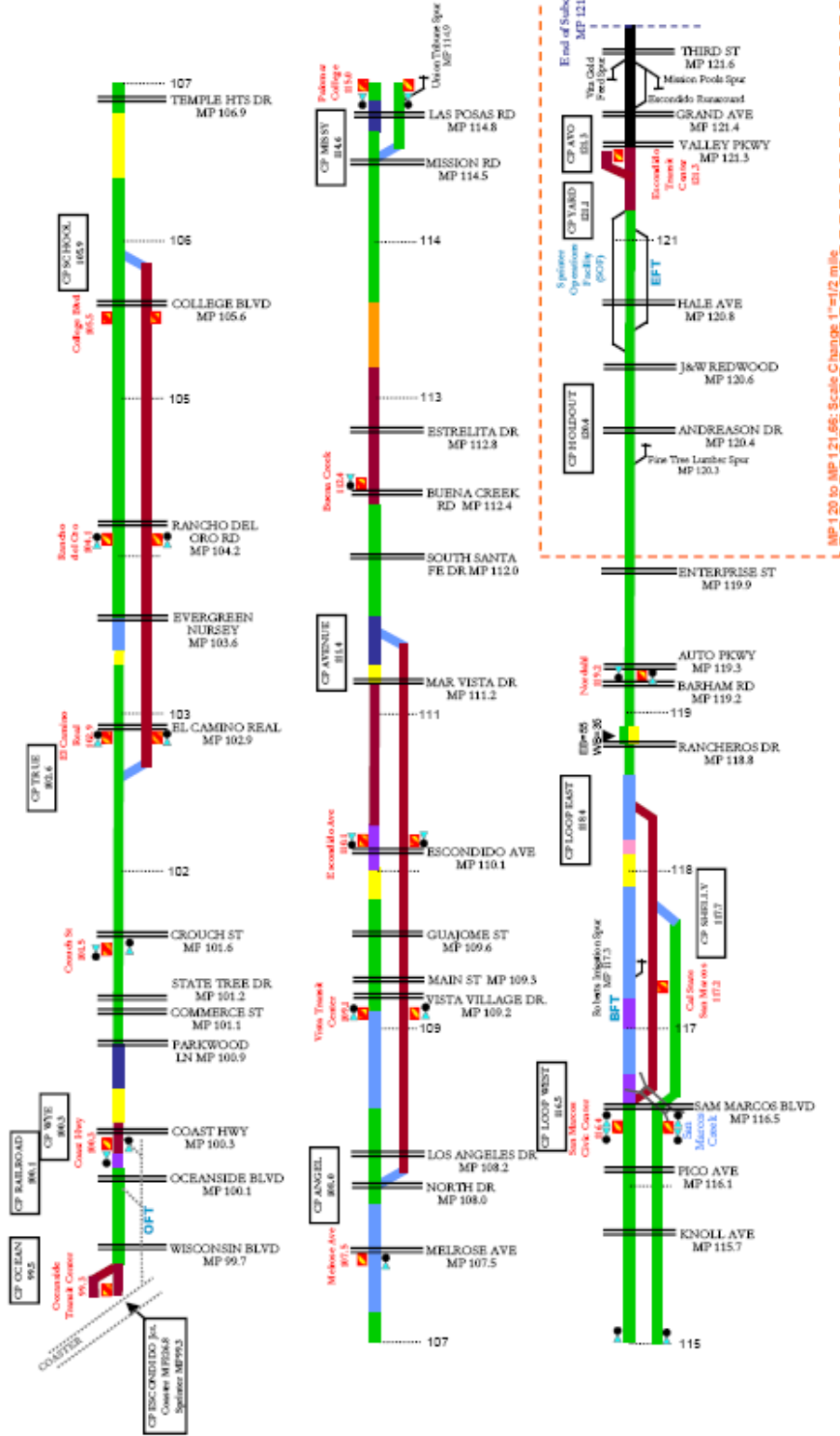
Verification Forms:

Appendix A: Right-of-Way Milepost System Maps

Appendix B: NCTD's Safety Objectives Verification Form

Appendix C: Zero Tolerance Safety Rules Verification Form

Escondido Subdivision



Scale: 1" = 1 mile

NOTE: This is a graphical representation only. If questions arise regarding track and locations, please refer to official timetables.

Legend:

- GRAB: Mainline
- CRASHING: Bypass Freight Track
- OFT = Coonada Freight Track
- BFT = Bypass Freight Track
- EFT = Escondido Freight Track
- Signal: -N outside signal, -S inside signal
- Track: = Tandem, = Spur Track

Legend:

- MAROON = 30 MPH
- PURPLE = 25 MPH
- PINK = 20 MPH
- Green = 15 MPH
- BLACK = 10 MPH
- Thin black = 5 MPH

Legend:

- GREEN = 55 MPH
- BLUE = 50 MPH
- Light Blue = 45 MPH
- ORANGE = 40 MPH
- YELLOW = 35 MPH

Scale: 1" = 1/2 mile

MP 120 to MP 121.66: Scale Changes 1" = 1/2 mile

DONALONG, March 7, 2008



Appendix B:

NCTD’s Safety Objectives

There is No Greater Importance than Safety.

This manual governs all non-railroad contractor and personnel activities on or affecting North County Transit District’s railroad property and/or operating envelope. Non-railroad contractors and personnel are any person, party, company or individuals, other than railroad employees defined as *Roadway Workers* in 49 CFR Part 214, whose activities are conducted within, may encroach upon, or impact NCTD’s railroad right-of-way and/or operating envelope. You must be knowledgeable of and follow the instructions in this manual at all times. If you are ever in doubt as to the meaning or application of a rule, ask your foreman, supervisor, or the NCTD Railroad Employee-in-Charge for an explanation.

To ensure your safety and the safety of others, you must:

- Read and understand this *Contractor Safety Training Manual*.
- Successfully complete the NCTD Railroad Contractor Safety Training program and exam prior to beginning work.
- Have a copy of this manual available for easy reference when on railroad property.
- Immediately inform a supervisor and/or the NCTD Railroad Employee-in-Charge of any action not in compliance with these requirements.
- Attend daily job and safety briefings at the start of each day, prior to beginning work, and when a change in the work plan, personnel or location occurs.

NCTD railroad management will make unannounced observations and checks to ensure compliance with these safety regulations.

OBJECTIVES

<input checked="" type="checkbox"/> Protect Safe Train Operations	<input checked="" type="checkbox"/> Promote a Safe Workplace	<input checked="" type="checkbox"/> Protect NCTD’s Railroad Property
Work in such a manner as not to interfere with or endanger normal train operations	Recognize potential hazards; Understand and follow Contractor Safety requirements; Prevent injuries	Prevent damage or risk to the NCTD railroad right-of-way and property

Bring this Manual to your Contractor Safety Training Examination. This page must be signed, dated and on file with NCTD before you will be permitted to start work on NCTD’s railroad property. I have received instruction in and understand the requirements of the *NCTD Railroad Contractor Safety Training Manual*:

Print Name

Company

Signature

Date

*Bring this Manual to your Contractor Safety Training Examination.
This page must be signed, dated and on file with NCTD before you will be permitted to start work on railroad property.*



Appendix C:

NCTD Railroad Contractor Safety
Zero Tolerance Safety Rules

ANY of the following MAY RESULT IN YOUR REMOVAL FROM THE PROPERTY and could result in your job being shut down:

- Right-of-Entry: Failure to have a valid Right-of-Entry Permit for your project when on NCTD railroad property.
Foul Zone: Entering into the Foul Zone without permission or instructions from an NCTD Railroad EIC/Flagman assigned to your job.
Safety Training: Failure to have a current Contractor Safety Trained hardhat decal on your hardhat.
EIC Instructions: Failure to promptly comply with the instructions of the NCTD Railroad EIC or Flagman.
PPE: Failure to wear or use appropriate clothing and PPE as outlined in this Manual.
Machinery: Operating any machine in close proximity to the Right-of-Way or Foul Zone unless the NCTD Railroad EIC/Flagman has indicated that it is safe to do so.
Rail: Stepping or standing on the top of a rail.
Intoxicants: Consuming, being under the influence of or having in your possession any alcoholic beverage, intoxicant, controlled substance, drug or medication, other than a prescription medication that does not affect your alertness or judgment, when on NCTD's railroad property.
Cell Phones: Do not conduct cell phone calls anywhere in the Foul Zone. Stand clear of the Foul Zone when using a cell phone. Do not allow a cell phone conversation to distract you from maintaining your own personal safety or the safety of others. While using a cell phone on railroad property you must remain stationary. Use of cell phones for jobsite related communication must be pre-approved by the EIC.

I have read and understand the above Zero-Tolerance rules:

Print Name

Company

Signature

Project (If Applicable)

Hardhat Decal Number (NCTD purposes only)

Date

Bring this Manual to your Contractor Safety Training Examination. This page must be signed, dated and on file with NCTD before you will be permitted to start work on railroad property.