IN-LINE FENCE & RAILING

UNION • LIUNA LABORERS LOCAL 89 · Serving electric, gas, water & communications utilities since 1990

TECHNICAL PROPOSAL & FIELD EXECUTION PROCEDURES

Utility Infrastructure Services — Electric · Gas · Water/Wastewater · Communications Utilities

Self-performed security perimeters · anti-ram & anti-terror barriers · vacuum/hydro excavation · drilling & foundations · structural steel & railing

1. Purpose & Executive Summary

This document sets out the standardized field execution procedures In-Line Fence & Railing follows on every utility project. It is written so that a utility prequalification, engineering, or construction-management team can review In-Line once and know exactly how the work will be planned, performed, inspected, and documented — the same audit-ready way on each job — at an energized substation, a transmission or distribution corridor, a gas or water/wastewater facility, or a service yard. These procedures apply across electric (substation, transmission & distribution), gas, water/wastewater, and communications utilities — investor-owned, municipal, cooperative, and public power — and are conformed to each client's project specification on every award.

In-Line self-performs 100% of the scopes below with its own Laborers Local 89 workforce and company-owned equipment. There is no subcontractor tier to introduce schedule gaps, safety variance, or diverse-spend dilution. The result for the utilities In-Line serves is predictable: a current 0.68 EMR, ISNetworld-compliant, Gold Shovel–certified crew that arrives prequalified and leaves a fully documented, code-compliant installation — while delivering prime, self-performed diverse-spend credit (including CPUC GO 156 in California).

2. Standards & Compliance Framework

All work is planned and executed to the governing federal, state, utility, and industry standards applicable to each scope. In-Line maintains current familiarity with each utility's own construction and physical-security design standards and conforms its procedures to the project specification on every award.

Codes & standards applied

- **Safety:** OSHA 29 CFR 1926 (construction) and 29 CFR 1910.269 (electric power generation, transmission & distribution) for work in and around energized utility facilities.
- **Safety:** USACE EM 385-1-1 (certified per project), NFPA 70E arc-flash awareness, and SSHO-led site safety planning.
- **Security barriers:** ASTM F2656 / F2656M vehicle-impact ratings (M30/M50, K4/K8/K12) and DoS SD-STD-02.01 for anti-ram barriers; manufacturer certified installation drawings.
- **Perimeters:** ASTM F567 / F1043 chain-link systems, IEEE 80 / utility grounding standards for fence bonding, and IEEE 1402 / NERC CIP-014 awareness for critical-substation physical security.
- **Excavation:** CA Government Code §4216 (DigAlert / 811), Gold Shovel Standard, and ASCE 38 utility quality levels for subsurface utility exposure.
- **Steel & railing:** AISC 360 structural steel, AWS D1.1 structural welding (qualified WPS and certified welders), RCSC bolting, and AASHTO MASH for roadside guardrail/railing where applicable.
- **Site & environmental:** California MUTCD / Caltrans & WATCH traffic control, CGP/SWPPP storm-water BMPs, and SPCC for spoils and slurry handling.

- **Utility-specific:** EUSERC and each utility's published construction and physical-security design standards — investor-owned, municipal, cooperative, and public utilities — plus Ariba and other supplier-portal submittal/prequalification requirements.

3. Safety Program & Field Procedures

Safety is non-negotiable and is the first measure of every job. In-Line sustains a 0.68 EMR through a zero-tolerance program led by SSHO staff and OSHA 30/40-hour–trained management, verified through ISNetworld (SDG&E #400-580281) and Gold Shovel certification.

Pre-mobilization

1. Project-specific safety plan and Activity Hazard Analysis (AHA/JHA) prepared for each task and aligned to the utility's ISNetworld and contractor-safety requirements.
2. Crew verification — confirm OSHA training, FR-clothing readiness, equipment inspections, and required utility site-specific orientations/badging before mobilization.
3. Energized-facility coordination — establish required clearances, switching/grounding coordination, and minimum approach distances with the utility's operating representative.

Daily field procedures

1. Tailgate / pre-task safety briefing and Safety Task Assignment (STA) at the start of every shift; documented and signed.
2. Hazard identification and exclusion-zone setup around energized equipment; FR PPE and arc-flash boundaries observed; no encroachment without an issued clearance.
3. Excavation controls — DigAlert/811 confirmed, vacuum potholing completed before any mechanical dig, competent-person daily inspection, soil classification, and protective systems per OSHA Subpart P.
4. Stop-Work Authority — every crew member is empowered and expected to stop work for any unsafe condition, without exception or reprisal.
5. Incident, near-miss, and daily safety reporting captured and available to the utility for audit the same day.

4. Field Execution Procedures by Scope

Each scope below states the governing standards, the sequence of operations, the safety controls, and the quality hold points In-Line uses to deliver and document the work.

4.1 High-Security Substation Perimeters & Automated Gates

Standards: utility physical-security design standard, ASTM F567/F1043, IEEE 80 grounding, IEEE 1402 / NERC CIP-014 awareness.

1. Review the issued-for-construction security specification, grounding plan, and geotech; confirm energized areas and required clearances; submit materials, gate-operator, and mill-certification data for approval.
2. Badge in, complete utility orientation, and establish exclusion zones from energized equipment; set temporary grounding as required.
3. Locate and pothole every crossing with vacuum excavation before any post drilling (see 4.3); verify no conflict with buried ground grid, cable, or duct bank.
4. Drill/auger post foundations to specified embedment; set posts plumb to line and grade in concrete; maintain tension and fabric/mesh to spec, with barbed or razor topping where required.
5. Bond and ground all fence sections and gates to the substation ground grid per IEEE 80 and the utility standard — a critical step verified for continuity and documented.
6. Install automated slide/swing gate operators, safety loops, and access controls; integrate with security/SCADA where specified; cycle-test and commission.

Hold / Witness Point	What is verified	Standard / Record
Foundation set	Embedment depth, plumb, line & grade before backfill	Project spec / inspection record
Fence grounding/bonding	Continuity to ground grid at each section & gate	IEEE 80 / utility std — test log
Gate commissioning	Operator cycle, safety devices, access control test	Mfr data / commissioning sheet

4.2 Anti-Ram / Anti-Terror Vehicle Barriers

Standards: ASTM F2656 crash ratings (M30/M50, K4/K8/K12), DoS SD-STD-02.01, certified manufacturer drawings.

1. Confirm the required crash rating and stand-off from the security design; obtain certified foundation and barrier shop drawings.
2. Pothole and verify all subsurface conflicts; excavate barrier foundations to the certified depth (full-depth or shallow-mount as specified).
3. Place reinforcing and formwork; install bollards, wedge/beam barriers, or operable (pop-up) units strictly per the rated drawings — rating compliance depends on exact embedment and concrete.
4. Place and test concrete (slump and cylinders); cure per spec; for operable barriers, commission hydraulic/electric systems and run test cycles.
5. Document as-built dimensions and rating compliance for the utility's security record.

Hold / Witness Point	What is verified	Standard / Record
Foundation excavation	Depth/dimension to certified rated drawing	ASTM F2656 cert / inspection
Concrete placement	Slump, cylinders, embedment of barrier	ACI / cylinder break reports
Operable barrier test	Cycle count, controls, fail-safe operation	Mfr commissioning record

4.3 Vacuum / Hydro Excavation & Underground Asset Protection

Standards: CA Gov Code §4216 (DigAlert 811), Gold Shovel Standard, ASCE 38 quality levels. Company-owned vacuum excavation to 35' deep × 3' diameter.

1. File the DigAlert/811 ticket, review utility records, and confirm mark-outs before any excavation.
2. Soft-dig (vacuum/hydro) potholing to expose and daylight every buried utility at crossings and within the tolerance zone — no mechanical excavation until assets are positively located.
3. Record depth, offset, size, and condition of each exposed asset; provide to the utility as a subsurface-utility record.
4. Contain and manage slurry and spoils per SPCC/SWPPP; backfill and compact to spec; restore surface.

Hold / Witness Point	What is verified	Standard / Record
Mark-out verification	811 ticket active, marks confirmed on site	CA GC §4216 / ticket record
Daylight at crossings	Asset positively exposed before mechanical dig	Gold Shovel / pothole log
Backfill & compaction	Lift thickness and compaction to spec	Project spec / density test

4.4 Drilling, Backhoe & Foundations

Standards: project geotech & foundation spec; OSHA Subpart P. Company-owned drilling rig to 42' depth × 34" diameter.

1. Confirm foundation locations are potholed and clear of conflicts; review geotech and reinforcing details.
2. Drill shafts to specified depth and diameter; manage and characterize spoils; inspect the hole for depth, diameter, and cleanliness.
3. Set reinforcing cage, place concrete continuously, and document placement; protect and cure per spec.

Hold / Witness Point	What is verified	Standard / Record

Shaft inspection	Depth, diameter, bottom cleanliness before steel	Geotech / inspection record
Reinforcing	Cage size, cover, centering	Project spec / QC checklist
Concrete	Continuous placement, cylinders	ACI / break reports

4.5 Structural Steel Fabrication, Erection, Railing & Guardrail

Standards: AISC 360, AWS D1.1 (qualified WPS, certified welders), RCSC bolting, AASHTO MASH for roadside systems; in-house fabrication shop with QC.

1. Produce shop/erection drawings and submittals; procure with mill certifications; plan coatings (hot-dip galvanizing or specified paint system).
2. Fabricate in-house to AWS D1.1 using qualified weld procedures and certified welders; perform in-process QC and required NDE; apply coatings.
3. Deliver and erect; make field welds/bolted connections to RCSC; verify alignment, plumb, and connection torque.
4. Install cable railing, handrail, metal-beam guardrail, or ornamental metal to the approved details; inspect and document.

Hold / Witness Point	What is verified	Standard / Record
Welding	WPS, welder certs, visual & NDE as required	AWS D1.1 / CWI report
Coating	DFT / galvanizing thickness & coverage	ASTM / coating log
Erection	Plumb, alignment, bolt torque / connection	AISC/RCSC — inspection record

4.6 Sound / Screen & Barrier Walls

Standards: project structural & acoustic spec; OSHA Subpart P for footings.

1. Pothole and excavate post footings; verify clear of conflicts; set posts to line, grade, and embedment.
2. Install wall panels/screen system to spec; verify alignment and security/entry-prevention features; inspect and document closeout.

5. Quality Control Program

In-Line runs an in-house, three-phase quality control process on every definable feature of work, with documentation retained and available to the utility.

- Preparatory phase — review spec and drawings, confirm submittals/material certs approved, verify crew qualifications and equipment, and hold a pre-work meeting.
- Initial phase — inspect the first unit of work against the standard, set the quality benchmark, and correct any deficiency before production continues.
- Follow-up phase — ongoing inspection at the hold/witness points listed per scope above, with deficiencies logged and closed.
- Documentation — material certifications, weld and coating records, concrete tests, grounding-continuity logs, daily reports, photos, and as-builts compiled into a closeout package.

6. Environmental, Traffic Control & Site Protection

- Storm-water BMPs per the project CGP/SWPPP; SPCC controls for fuels, slurry, and spoils; dust and track-out control.
- Vacuum-excavation slurry and spoils contained, profiled, and disposed of per regulation; surfaces restored to spec.
- Traffic control and lane closures per California MUTCD / WATCH with encroachment permits as required; public and worker protection maintained.

7. Project Execution, Self-Perform Workforce & Emergency Response

1. Kickoff & submittals — project-specific safety plan, schedule, material/shop submittals, and traffic/environmental plans issued at award.
2. Self-perform delivery — all scopes performed by In-Line's LIUNA Laborers Local 89 crews with company-owned vacuum, drilling, earthwork, and fabrication assets; no subcontractor tier.
3. Communication — daily reports, look-ahead schedules, RFIs, and QC records provided on the utility's cadence; single point of contact for the project.
4. Emergency response — In-Line mobilizes statewide for storm, dig-in, security-breach, and disaster-rebuild response, including debris removal and rapid asset protection.
5. Closeout — punchlist, as-builts, certifications, and the full QC documentation package delivered for the utility's records and CPUC reporting.

8. Supplier Diversity & Diverse-Spend Value

Because In-Line self-performs the scope as a prime, multi-certified diverse business (DBE, HUBZone, CA Small Business, SLBE, SBE), every dollar spent is prime, self-performed diverse credit toward a utility's supplier-diversity and Tier 1 / Tier 2 diverse-spend targets — including California's CPUC General Order 156 22%+ goal — with no subcontractor pass-through to dilute it. In-Line additionally sources project materials through a DVBE-certified disabled-veteran supplier partner, so a single award can capture two diverse categories on the same job under the utility's diverse-spend and GO 156 reporting.

9. Compliance & Certification Matrix

Category	In-Line Status
Safety / EMR	0.68 EMR · zero-tolerance program · SSHO staff · OSHA 30/40-hr management
Prequalification	ISNetworld compliant (SDG&E #400-580281) · Gold Shovel Certified · EM-385 per project
Diversity (GO 156)	DBE (Caltrans #14089) · HUBZone (SBA #59995) · CA Small Business (DGS #1364100) · SLBE · SBE · DVBE materials via supplier partner
Bonding & insurance	$15M aggregate / $4.6M per project · United Fire & Casualty · insured to utility terms
Licensing	CA #769516 (C-13, C-51, C-31) · CAGE 3TBE4 · DIR #1000002605
Workforce	Union signatory — LIUNA Laborers Local 89 · self-perform 100% · company-owned equipment
Equipment	Vacuum excavation to 35'×3' · drilling rig to 42'×34" · backhoe fleet · in-house fab shop
Experience	35 years serving CA IOUs · SDG&E, Kiewit, Granite, PCL, Balfour Beatty, SANDAG, Caltrans, Port of San Diego, U.S. DHS

10. Contact

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