

JOURNEYMAN INTELLIGENT TRANSPORTATION SYSTEMS

1. PROJECT LAYOUT AND PLANNING

- a. Reading and interpreting blueprints and municipal specifications
- b. Coordination with authorities having jurisdiction

2. SAFETY

- a. Underground
- b. Shoring
- c. Lane Closures
- d. Work Zone Safety
- e. Crane Signals and Rigging

3. UNDERGROUND INSTALLATIONS

- a. Trenching and ditch digging
- b. Underground Boring and Pot Holeing
- c. Direct Burial Pre-Cast Structures
- d. Installing PVC/Rigid Conduit
- e. Installing grounding electrode systems

4. CONDUIT RACEWAY SYSTEMS

- a. Installation of conduit and fittings and boxes
- b. Installation of fastening and supporting devices
- c. Bender setup and conduit bending
- d. Conduit Threading

5. INSTALLING TRANSFORMERS AND CONTROLLERS

- a. Wall and Pad Mounting
- b. Proper Terminations
- c. Grounding Systems

6. INSTALLING, SPLICING & TERMINATING WIRES AND CABLES

- a. Phasing and control circuit wiring
- b. Multi-Conductor control wiring
- c. Splices and terminations
- d. Cable Testing/Test Instruments

7. LIGHTING SYSTEM INSTALLATION

- a. Concrete-Pole-Bases
- b. Street Lighting Fixtures and Poles
- c. Control Methods and Wiring

8. SPECIAL SYSTEMS

- a. Traffic Detection Loops
- b. Freeway Systems Fiber Optics
- c. Freeway Systems CCTV
- d. Photovoltaic Applications
- e. Asphalt and Concrete Restoration
- f. Traffic Controller Instruction

9. TESTING AND TROUBLESHOOTING FEEDERS AND BRANCH CIRCUITS

- a. Testing, analyze and repair street lighting and traffic signal circuits
- b. Checking circuit continuity and meggering
- c. Identifying fault current to ground
- d. Ground Verification
- e. Repairs and maintenance

Functional Job Tasks of a Journeyman Intelligent Transportation Systems

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Summary of Physical Demands:

Lifting:	boxes of fixtures weighing up to 50 pounds, boxes of wire weighing from 5 to 50 pounds, switch gear, transformers and panels weighing from 25 to 5,000 pounds.
Carrying:	boxes of fixtures weighing up to 50 pounds, boxes of wire weighing from 5 to 50 pounds, switch gear, transformers and panels weighing from 25 to 5,000 pounds.
Reaching:	overhead or while standing on a ladder to install fixture boxes, pull wire, drill studs, or install conduit.
Stooping or Bending:	to install fixture boxes, drill studs, or pull wire 18 inches or less off the floor.
Handling & Fingering:	using a small knife to cut off thin insulation, pushing back paper fillers, stripping wires, connecting wires, installing switches, plugs or light fixtures.
Twisting & Turning:	on a step ladder with arms overhead or crouching when drilling, pulling wire, installing switches, plugs or light fixtures.
Visual & Auditory	Two-way communication between partners installing conduit, pulling wire between offices, floors and remote building areas.