

Bridge Measurements Generic Job Hazard Analyses

Required Protective Clothing and Safety Equipment: rotating or strobe type emergency lights, traffic control equipment, hand-line gloves

Sequence of Basic Job Steps	Potential Accidents/Hazards	Recommended Safe Job Procedures
Prior to moving on to bridge	Failure to follow TxDOT traffic regulations and traffic control plans may result in traffic pedestrian accident or death.	Use Traffic Control Plan: Error: Not available Place cones to provide enough buffer and room for a safe work area. SM 445-2-H CH 17, Work Zone Safety.
Prior to moving on to bridge	Traffic hazards, bridge failure, falling into water	Be aware of traffic; wear a DOT Type III reflective green vest when working in or near traffic. Assess bridge stability. Look for heavy debris loads against decking or piers. Be alert for any unusual span motion or deformity. If bridge is closed or if there is water over bridge deck, do not measure or go on to bridge.
Moving onto the bridge	Traffic hazards, bridge failure, falling into water	Assess bridge stability. Look for heavy debris loads against decking or piers. Be alert for any unusual span motion or deformity. If bridge is closed or if there is water over bridge deck, do not measure or go on to bridge.
Erecting bridge crane	Pinching, crushing, or laceration to hands, fingers, feet and toes. Back strain.	Be aware of hand placement, wear protective gloves and footwear. Use caution lifting heavy sounding weights.
Making the bridge measurement and using the bridge crane	Pinching, crushing, or laceration to hands, fingers, feet and toes.	Know the stream velocity and depth (refer to field folder). Make sure crane is stable and appropriate counter weights are in place before lowering weights and meter. Release and apply cable brake slowly and evenly.
Making the bridge measurement and using the bridge crane	Drowning or falling off bridge.	Watch for fast rising stage and floating debris. Have crew member watch for debris jams and have cable cutter ready in case debris catches on meter or cable. Measure on upstream side of bridge whenever possible. DO NOT LEAN OVER GUARD RAIL.
Making the bridge measurement using ADCP tethered boat	Traffic or pedestrian accident	Be alert to traffic. DO NOT walk into traffic lanes.
Making the bridge measurement using ADCP tethered boat	Drowning, falling off of bridge. Injury to appendages, abrasions.	DO NOT lean over guard rail. Kneel on ground if reaching over guard rail. DO NOT allow hands, arms, or legs to become entangled in hand line. Wear hand-line gloves.
Making the bridge measurement using ADCP tethered boat	Damage to or loss of equipment	Watch for floating debris. Release hand-line if boat becomes entangled in debris.
Entering the stream to measure overbank flows		Follow JHA for Wading Measurements.