

**UTILITY RISKS**

**I. EXAMPLES OF DIRECT UTILITY RISKS (UTILITY DESIGN CONSTRAINTS)**

- LOADING IMPOSED ON UTILITIES FROM PERMANENT OR TEMPORARY (STAGED) ROADWAY EXCAVATION/GRADING AFFECTING DEPTH OF BURY
- DRAINAGE INFRASTRUCTURE CONFLICTS
- STRUCTURE FOUNDATION PLACEMENT AND REQUIRED EXCAVATION AND SHEETING
- TEMPORARY OR PERMANENT SHEETING REPLACEMENT
- GUIDERAIL AND SUPPORT POST PLACEMENT
- TRAFFIC SIGNAL AND LIGHTING CONFLICTS WITH AERIAL FACILITIES
- TRAFFIC SIGNAL FOUNDATION CONFLICTS
- HIGH VOLTAGE PROXIMITY CLEARANCE REQUIREMENTS
- HISTORIC SIGNIFICANCE - UTILITIES FACILITIES (AND ASSOCIATED PROPERTY LIMITS) THAT ARE EITHER ELIGIBLE OR LISTED ON THE STATE OR FEDERAL REGISTERS OF HISTORIC PLACES MAY REQUIRE EXTRAORDINARY DOCUMENTED EFFORTS TO AVOID.
- OTHER

**II. EXAMPLES OF INDIRECT UTILITY RISKS (UTILITY DESIGN CONSIDERATIONS)**

- AGE OF THE UTILITY MAY RENDER IT SENSITIVE TO IMPACTS FROM ADJACENT CONSTRUCTION ACTIVITIES SUCH AS EQUIPMENT TRAFFIC OPERATION, COMPACTION, VIBRATION AND EXCAVATION.
- UTILITY MATERIAL MAY NOT WITHSTAND ADJACENT CONSTRUCTION ACTIVITIES SUCH MATERIALS MAY INCLUDE TRANSITE DUCTS, WOOD DUCTS, CLAY PIPE, CAST IRON PIPE, BRICK PIPE, MANHOLE, FIBER OPTIC.
- SEASONAL RESTRICTIONS MAY BE REQUIRED BY UTILITY OWNERS FOR SHUT DOWNS AND INTERRUPTION OF SERVICE.
- TEMPORARY REDUCED DEPTH OF BURY (I.E. PAVEMENT BOX EXCAVATIONS), EXPOSING EXISTING UNDERGROUND UTILITIES TO CONSTRUCTION TRAFFIC AND OPERATION.
- COMPACTION VIBRATION OUTSIDE THE IMMEDIATE CONSTRUCTION AREA COULD DAMAGE EXISTING FACILITIES.
- UTILITY TIE-IN METHODS AND PROCEDURES MAY BE EXTENSIVE OR DIFFICULT IN THE PROJECT LOCATION AREA.
- CUT-OVERTIE-IN RESTRICTION PROCEDURES FOR SOME UTILITIES REQUIRE A TEMPORARY OUTAGE TO THE CUSTOMER. SOME CUSTOMERS CANNOT WITHSTAND TEMPORARY OUTAGE.
- LIMITED ROW MAY RESTRICT EQUIPMENT OPERATIONS.
- AERIAL EASEMENTS MAY BE NEEDED TO ACCOMMODATE POLE CROSS ARMS, OR OTHER ENCROACHMENTS WHERE EXISTING ROW IS LIMITED.
- PLACEMENT OF GUY WIRES MAY REQUIRE ACCOMMODATION OR ROW EASEMENTS.
- CONSTRUCTION EQUIPMENT REQUIREMENTS FOR ACCESS, OPERATION, STORAGE AND SERVICING.
- NON COMPLIANCE WITH REGULATORY PROVISIONS OF THE UTILITY ACCOMMODATION POLICY (NJAC 16:25) THE HIGHWAY OCCUPANCY PERMIT (NJAC 16:41) OR ANY OTHER STATE OR FEDERAL REGULATIONS INVOLVING UTILITIES.
- OTHER

**PERMITS**

**PERMITS RELATED TO UTILITIES**

- LICENSE TO CROSS
- ROAD OPENING PERMITS (COVERED UNDER NJDOT PROJECTS)
- OCCUPANCY PERMIT
- RAILROAD CROSSING PERMIT

**SPECIAL PERMITS (AS A RESULT OF MODIFIED UTILITIES)**

- POTABLE WATER PERMIT
- TWA PERMIT
- SEWER EXTENSION PERMIT

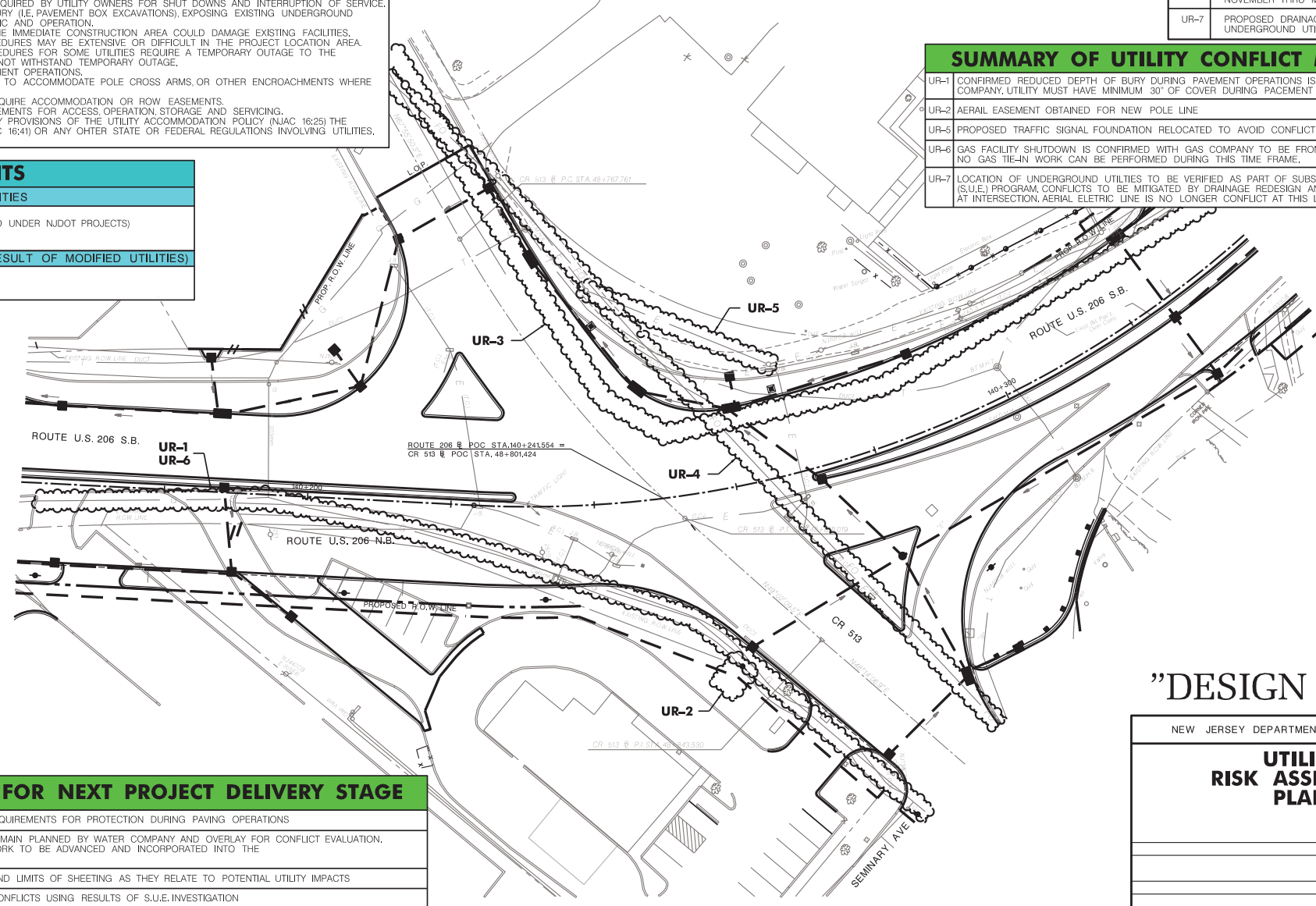
**ACTION ITEMS FOR NEXT PROJECT DELIVERY STAGE**

- OBTAIN FIBER OPTIC COMPANY'S REQUIREMENTS FOR PROTECTION DURING PAVING OPERATIONS
- OBTAIN LAYOUT OF FUTURE WATER MAIN PLANNED BY WATER COMPANY AND OVERLAY FOR CONFLICT EVALUATION. PLANNED WATER MAIN FACILITY WORK TO BE ADVANCED AND INCORPORATED INTO THE STATE'S CONTRACT.
- REVIEW CONSTRUCTION STAGING AND LIMITS OF SHEETING AS THEY RELATE TO POTENTIAL UTILITY IMPACTS
- EVALUATE UNDERGROUND UTILITY CONFLICTS USING RESULTS OF S.U.E. INVESTIGATION



UTILITY RISK AREAS	
UR-1	CAST IRON MAIN OVER 80 YEARS OLD, LOCATED WITHIN ROADWAY FULL DEPTH PAVEMENT AREA. VIBRATION OF SUBGRADE COMPACTION OPERATIONS POTENTIAL IMPACT
UR-2	LIMITED ROW AVAILABILITY FOR PROPOSED UTILITY POLES AND GUY WIRES. ADDITIONAL ROW AND/OR AERIAL AND GUY EASEMENTS MAY BE REQUIRED.
UR-3	FUTURE PLANNED WATER MAIN EXTENSION BY WATER COMPANY
UR-4	18 DUCT BANK FIBER TRUNKLINE. RELOCATION COSTS SIGNIFICANT.
UR-5	AERIAL ELECTRIC PRIMARY CROSSING IN VICINITY OF PROPOSED TRAFFIC SIGNAL. HVPA CONSIDERATIONS
UR-6	GAS FACILITY SEASONAL SHUTDOWN RESTRICTION NOVEMBER THRU MARCH
UR-7	PROPOSED DRAINAGE CONFLICTS WITH UNDERGROUND UTILITY FACILITIES

SUMMARY OF UTILITY CONFLICT MITIGATION	
UR-1	CONFIRMED REDUCED DEPTH OF BURY DURING PAVEMENT OPERATIONS IS ACCEPTABLE BY UTILITY COMPANY. UTILITY MUST HAVE MINIMUM 30" OF COVER DURING PAVEMENT OPERATIONS.
UR-2	AERIAL EASEMENT OBTAINED FOR NEW POLE LINE
UR-5	PROPOSED TRAFFIC SIGNAL FOUNDATION RELOCATED TO AVOID CONFLICT WITH EXISTING UTILITY POLE
UR-6	GAS FACILITY SHUTDOWN IS CONFIRMED WITH GAS COMPANY TO BE FROM NOVEMBER TO MARCH. NO GAS TIE-IN WORK CAN BE PERFORMED DURING THIS TIME FRAME.
UR-7	LOCATION OF UNDERGROUND UTILITIES TO BE VERIFIED AS PART OF SUBSURFACE UTILITY ENGINEERING (S.U.E.) PROGRAM. CONFLICTS TO BE MITIGATED BY DRAINAGE REDESIGN AND/OR UTILITY RELOCATION. AT INTERSECTION, AERIAL ELECTRIC LINE IS NO LONGER IN CONFLICT AT THIS LOCATION.



"DESIGN TOOL"

NEW JERSEY DEPARTMENT OF TRANSPORTATION

**UTILITY RISK ASSESSMENT PLAN**


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RISKS TO UTILITIES INVOLVING CONSTRUCTION ACTIVITIES IDENTIFIED IN FINAL PLANS AND SPECIFICATIONS.

LIST ANY CONDITION INVOLVING A UTILITY WHICH CAN RESULT IN A SIGNIFICANT EFFECT ON COST, SCHEDULE, OR FEASIBILITY OF A COST EFFECTIVE SOLUTION TO THE PROJECT PURPOSE AND NEED.

LIST ALL PERMITS RELATED TO UTILITIES WHICH MAY BE REQUIRED. SOME PERMITS ARE NOT APPLICABLE AS THEY ARE TYPICALLY COVERED UNDER NJDOT. THE DESIGNER SHOULD VERIFY WHICH PERMITS NEED TO BE SECURED BY THE CONTRACTOR.

THE DESIGNER SHOULD CONSIDER SPECIAL PERMITS WHICH MAY BE REQUIRED AS A RESULT OF MODIFYING EXISTING UTILITIES.

PROVIDE DIRECTION FOR SPECIFIC UTILITY RELATED ACTIONS FOR SUBSEQUENT PROJECT DELIVERY STAGES

UTILITY RISK AREAS SHOULD BE CLEARLY IDENTIFIED. THESE AREAS SHOULD INCLUDE PROJECT SPECIFIC IMPACTS.

RESULTS OF UTILITY RISK ASSESSMENT ARE DOCUMENTED AND MODIFIED DURING SUCCESSIVE DELIVERY STAGES TO REFLECT UTILITY SOLUTIONS AS THE PROJECT ADVANCES