LOCATION OF UTILITIES ON ADJACENT BOX BRIDGES

SUPPORT ANGLES

WATER OR GAS LINE SUPPORT DETAIL

NOTES:
1. ALL COMPONENTS FOR SUPPORTS MUST BE DESIGNED DURING FINAL PLAN PREPARATION.
2. SHOP DRAWINGS OF SUPPORTS MUST BE PROVIDED AND APPROVED PRIOR TO CONSTRUCTION.
3. GALVANIZE ALL SUPPORTS AND ASSOCIATED HARDWARE.
4. VERTICAL POSITION OF UTILITIES MUST BE SET TO PROVIDE AT LEAST 3" CLEARANCE TO TOP OR BOTTOM HORIZONTAL REBARS IN BEAMS AND MINIMUM 1" CLEARANCE FROM UTILITY TO TOP OR BOTTOM HORIZONTAL REBARS IN END JOINTS.

SPECIAL REQUIREMENTS FOR FLUID CARRYING PIPES:
1. STEEL CASING REQUIRED IN SPANS OVER ROADWAYS OR WALKWAYS.
2. DESIGN INSTRUCTIONS:
   1. FURNISH COMPUTATIONS FOR ADJACENT BEAMS WHEN UTILITY LOAD IS located between beams and is more than 5 lb/ft.
   2. FURNISH COMPUTATIONS IN ANY CASE FOR ADJACENT BEAMS WHEN UTILITY IS SUSPENDED FROM OVERHANGING SLAB OR DIVISOR (INCLUDE HORIZONTAL ACCIDENTAL IMPACT ON RAILING AND PARAPET).
   3. STRUCTURE WITH CATHODIC PROTECTION REQUIRE SPECIAL DETAILS AND APPROVAL OF BRIDGE ENGINEER.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

STANDARD
UTILITY ATTACHMENT TO SUPERSTRUCTURE

REFERENCE DRAWINGS

APR. 29, 2016
LEGEND:

STANDARD

UTILITY ATTACHMENT TO SUPERSTRUCTURE

C BEARINGS

L

SLAB REINFORCEMENT

TOP OF BEAM

BOTTOM OF BEAM

P I E R CAP

TOP OF SLAB

SLAB REINFORCEMENT

TOP OF PIER

TOP AND BOTTOM

TOP AND BOTTOM

(OF REINFORCEMENT)

(OF REINFORCEMENT)

NOTE:

REINFORCEMENT CONFIGURATIONS SHOWN ARE MINIMALS. ACTUAL BAR SIZES AND SPACING MUST BE DESIGNED. CLEARANCES SHOWN ARE MINIMALS.

SLAB REINFORCEMENT SHOWN FOR CLARITY.

P I E R, D O W E L S

SLEEVE

CLEARANCES SHOWN ARE MINIMALS. ACTUAL BAR SIZES AND SPACING MUST BE DESIGNED.

REINFORCEMENT CONFIGURATIONS SHOWN ARE MINIMALS.

NOTE:

SEAL

SECTION X-X (AT ABUTMENT)

PIPELINE UTILITY - FULL DEPTH DIAPHRAGM

SLAB REINFORCEMENT NOT SHOWN FOR CLARITY.

SECTION X-X (AT PIER)

DIAPHRAGM

E.F. DENOTES EACH FACE

PREFORMED CELLULAR POLYSTYRENE

SPLAY OR CUT AS NEEDED TO ACCOMMODATE UTILITY

PIECE 1-3" MIN.

4-0#5 E.F.

#5 @ 12"

2" CLR.

4"

4" TOP AND BOTTOM

#5 @ 9" MAX.

8" MIN.

8" MIN.

9" MIN.

8" MIN.

TOP AND BOTTOM

SLEEVE

TOP AND BOTTOM

COUPLING (TYP.)

4'-0#5 E.F.

8" MIN.

9" MIN.

4" TOP AND BOTTOM

SLEEVE

TOP AND BOTTOM

COUPLING (TYP.)

4'-0#5 E.F.

8" MIN.

9" MIN.

4" TOP AND BOTTOM

SLEEVE

TOP AND BOTTOM

COUPLING (TYP.)

4'-0#5 E.F.

8" MIN.

9" MIN.

4" TOP AND BOTTOM

SLEEVE

TOP AND BOTTOM

COUPLING (TYP.)

4'-0#5 E.F.

8" MIN.

9" MIN.

4" TOP AND BOTTOM

SLEEVE

TOP AND BOTTOM

COUPLING (TYP.)

4'-0#5 E.F.

8" MIN.

9" MIN.

4" TOP AND BOTTOM

SLEEVE

TOP AND BOTTOM

COUPLING (TYP.)

4'-0#5 E.F.

8" MIN.

9" MIN.

4" TOP AND BOTTOM

SLEEVE

TOP AND BOTTOM

COUPLING (TYP.)

4'-0#5 E.F.

8" MIN.

9" MIN.