

W6x9 TYPICAL AT EACH COLUMN
(3-W6x9 @ PLEASANT ST. BRIDGE;
4-W6x9 @ SWORD AVE. BRIDGE)

BEAM "A"/SEE BEAM SCHEDULE FOR SIZE

TYPICAL HYDRAULIC RAM JACK /ALL HYDRAULIC LINES AND MANIFOLDS FOR ALL RAM JACKS ALONG THE THREE PIERS (8 PER PIER) AND TWO ABUTMENTS (6 PER ABUTMENT) SHALL BE INSTALLED IN PARALLEL AND CAPABLE OF SIMULTANEOUSLY LIFTING ALL FOUR EXISTING BRIDGE SPANS / FOR PIERS SEE ELEVATION "A" FOR QUANTITY, SPACING & SIZE-SHEET 1 OF 2 & FOR ABUTMENTS SEE TYPICAL ABUTMENT SUPPORT BAY FOR QUANTITY, SPACING & SIZE-SHEET 2 OF 2

BEAM "B"/SEE BEAM SCHEDULE FOR SIZE

COLUMN-TYP./FOR COLUMN QUANTITY & SPACING SEE ELEVATION "A" FOR COLUMN AND BASE PLATE SIZE SEE COLUMN SCHEDULE

COLUMN W/ 3/8" TOP PL., WxDxT BOTTOM PL. ON WxDx 1/4" BOTTOM LEVELING PL. ON 3/4" NON-SHRINK H.S. GROUT / SEE COLUMN SCHEDULE

APPROXIMATE FINISH GRADE

LIMITS OF EXCAVATION (TOP OF EXISTING FOOTING)

TOP OF FOOTING

CL COLUMN = CL PIER COLUMN (TYP.)

CL PLATE = CL COLUMN (TYP.)

GENERAL NOTES

DESIGN
IN ACCORDANCE WITH THE 1983 SPECIFICATIONS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS WITH CURRENT INTERIM SPECIFICATIONS THROUGH 1986, FOR 50 POUNDS PER SQUARE FOOT AND/OR H-15 LOADING.

GENERAL
USE TEMPORARY SHORING DRAWINGS IN CONJUNCTION WITH PROJECT PLANS AND SPECIFICATIONS AND EXISTING BRIDGE PLANS. CONSULTING THESE DOCUMENTS FOR CONSTRUCTION EXECUTION PROCEDURES AND FOR LOCATIONS AND DIMENSIONS OF STRUCTURAL MEMBERS AND OTHER DETAILS NOT SHOWN ON TEMPORARY SHORING DRAWINGS.

SECTIONS AND DETAILS SHOWN SHALL BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.
ALL DIMENSIONS SHOWN ON DRAWINGS GOVERN CONSTRUCTION UNLESS NOTED OTHERWISE.

EXISTING CONSTRUCTION
DIMENSIONS SHOWN ON EXISTING STRUCTURE AND RELATED DETAILS WERE TAKEN AT THE TIME OF FIELD INSPECTION, SURVEY AND FROM ORIGINAL DESIGN DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS AND EXISTING DETAILS NECESSARY FOR COMPLETION OF ALL WORK BY FIELD SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND ACCURACY THEREOF, AND SHALL NOT ORDER ANY MATERIAL OR COMMENCE ANY FABRICATION UNTIL THE CONTRACTOR HAS MADE THE REQUIRED MEASUREMENTS ON THE EXISTING STRUCTURE AND THE EXTENT OF THE PROPOSED WORK HAS BEEN APPROVED BY THE ENGINEER.

MAY BE ALTERED, IF NECESSARY, TO SUIT CONDITIONS ENCOUNTERED IN CONSTRUCTION WITH APPROVAL OF THE ENGINEER.

FOUNDATIONS SHALL BE CARRIED DOWN TO ELEVATION INDICATED ON DRAWINGS.

UNSUITABLE MATERIAL
ALL UNSUITABLE MATERIAL SHALL BE REMOVED WITHIN THE LIMITS OF THE FOUNDATION OF THE STRUCTURE, AS DIRECTED BY THE ENGINEER.

STRUCTURAL STEEL
STRUCTURAL STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE "DETAILING FOR STEEL CONSTRUCTION (AISC-1983, MOST RECENT EDITION)" AND, WHERE REQUIRED, DESIGNED IN ACCORDANCE WITH THE CITED REFERENCES.

STRUCTURAL STEEL DETAILS NOT SPECIFICALLY SHOWN SHALL BE TAKEN AS BEING SIMILAR TO THOSE SHOWN FOR THE MOST NEARLY SIMILAR CONDITION AS DETERMINED BY THE ENGINEER

STRUCTURAL STEEL SHALL BE NEW STEEL OR USED CONFORMING TO THE FOLLOWING:
UNLESS NOTED OTHERWISE ASTM A36 (FY=36 KSI)
HIGH STRENGTH BOLTS ASTM A325

WELDED CONNECTIONS SHALL BE MADE BY APPROVED CERTIFIED WELDERS USING FILLER METAL CONFORMING TO E70XX OR F7X-EXXX WITH LOW HYDROGEN.

ALL GROUT USED UNDER STEEL LEVELING PLATES SHALL BE NON-SHRINK, HIGH STRENGTH GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI.

ADDITIONAL STRUCTURAL STEEL NOTES
IF THE SAME BEAMS (BEAMS "A" & "B") ARE TO BE USED FOR BOTH BRIDGES, THE FOLLOWING SHALL APPLY:

- ALL PLATES, W-SECTIONS AND ANGLES WELDED TO BEAMS "A" & "B" SHALL BE REMOVED A MINIMUM DISTANCE OF 8" FROM THE BEAM(S) CROSS SECTION TO REMAIN.
- EXISTING WELDS ON BEAM(S) SHALL NOT BE DAMAGED WHEN REMOVING PLATES, W-SECTIONS AND ANGLES FROM BEAM(S) AND REPOSITIONING OF BEAM(S) FROM ONE BRIDGE TO THE NEXT BRIDGE.
- A MINIMUM (BEAM) OVERHANG OF 2'-0" OVER EXTERIOR COLUMNS SHALL BE MAINTAINED FOR BOTH BRIDGES (SEE ELEVATION-TYPICAL NEW SUPERSTRUCTURE SUPPORT BAY ALONG EXISTING PIERS-PLEASANT ST.-SHEET 1 OF 2).

ERECTION
DO NOT INCORPORATE STRUCTURAL MEMBERS WHICH HAVE BEEN BENT OR DAMAGED DURING FABRICATION, TRANSPORTATION AND/OR ERECTION.

ERECT THE STRUCTURAL FRAME TRUE AND PLUMB. PROVIDE TEMPORARY BRACING WHEREVER NECESSARY TO RESIST ALL FORCES TO WHICH THE STRUCTURE MAY BE SUBJECT, INCLUDING THE EFFECT OF ERECTION EQUIPMENT AND OPERATION OF THE SAME. SUCH BRACING SHALL BE REMOVED BY THE CONTRACTOR AS PART OF HIS EQUIPMENT AFTER ALL STRUCTURAL MEMBERS AND CONNECTIONS HAVE BEEN COMPLETED.

AS ERECTION PROGRESSES, SECURELY CONNECT MEMBERS WITH SUFFICIENT BOLTS TO RESIST ALL CONSTRUCTION LOAD, WIND AND ERECTION STRESSES.

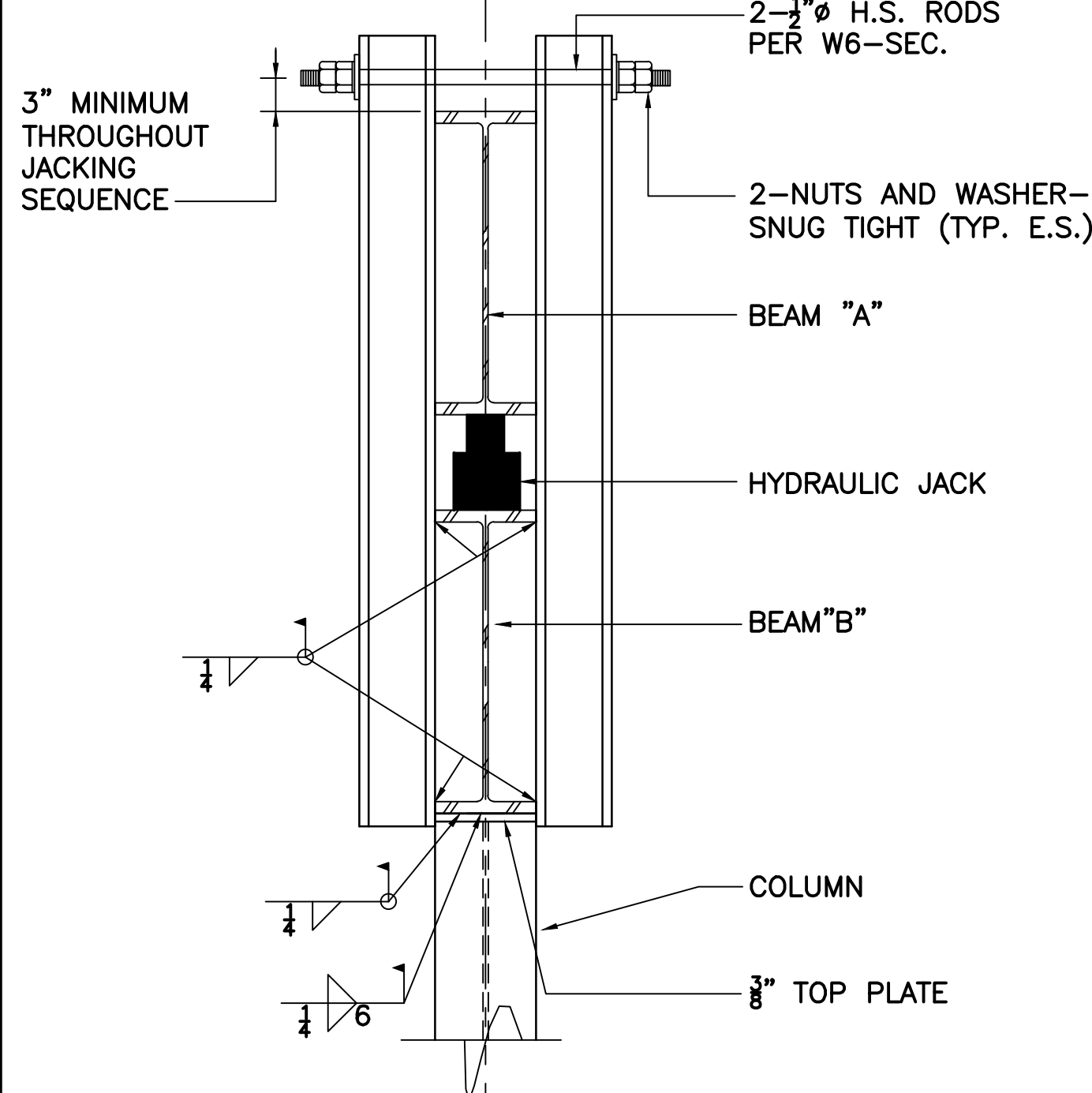
HYDRAULIC RAM JACK LIFTING SYSTEM
ALL HYDRAULIC RAM JACKS, HOSES, COUPLINGS ETC. SHALL BE MANUFACTURED BY RICHARD DUDGEON, INC., BRIDGEPORT, CT., (OR EQUAL). A TECHNICAL REPRESENTATIVE UNDER THE EMPLOY OF THE HYDRAULIC EQUIPMENT MANUFACTURE SHALL BE ON SITE TO MONITOR THE INSTALLATION AND RAISING AND LOWERING OF THE SUPERSTRUCTURE DURING CONSTRUCTION.

TYPICAL NEW SUPERSTRUCTURE SUPPORT BAY ALONG EXISTING PIERS - PLEASANT ST.

(SWORD AVE. SIMILAR - NOT SHOWN)
SCALE: 1/4" = 1'-0"

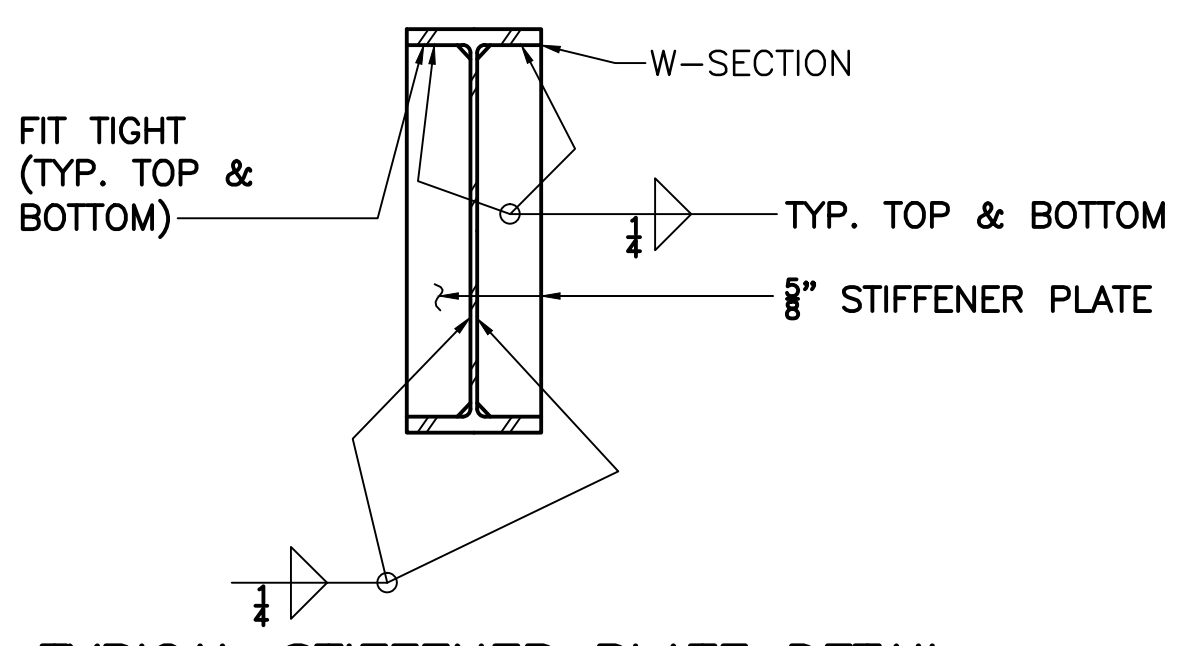
BRIDGE LIFT NOTES:

- INSTALL ALL NEW 10"x 8" X ±2" SHIMS PLATES TIGHT UNDER BEAM "A" AND ABOVE BEAM "B" PRIOR TO LIFTING BRIDGE.
- STOP.
- SIMULTANEOUSLY LIFT (RAISE) EXISTING BRIDGE 2 INCHES VERTICALLY WITH THE HYDRAULIC RAM JACKS.
- STOP.
- INSTALL ALL NEW ADDITIONAL 10"x 8" X ±2" SHIMS PLATES TIGHT UNDER BEAM "A" AND ABOVE BEAM "B".
- STOP.
- REPEAT STEPS 3 TO 6.
- SIMULTANEOUSLY LIFT (RAISE) EXISTING BRIDGE 2 1/4 INCHES (1/4" HIGHER THAN THE NEW BRIDGE BEARINGS TO BE INSTALLED) VERTICALLY WITH THE HYDRAULIC RAM JACKS.
- STOP.
- INSTALL ALL NEW ADDITIONAL 10"x 8" X ±2 1/4" SHIMS PLATES TIGHT UNDER BEAM "A" AND ABOVE BEAM "B".
- STOP.
- INSTALL NEW BRIDGE BEARINGS ACCORDING TO CONTRACT DOCUMENTS.
- STOP.
- AFTER ALL BRIDGE BEARINGS ARE INSTALLED, REMOVE ALL SHIM PLATES AND LOWER BRIDGE SUPERSTRUCTURE WITH THE HYDRAULIC RAM JACKS ON TO THE NEWLY INSTALLED BRIDGE BEARINGS.



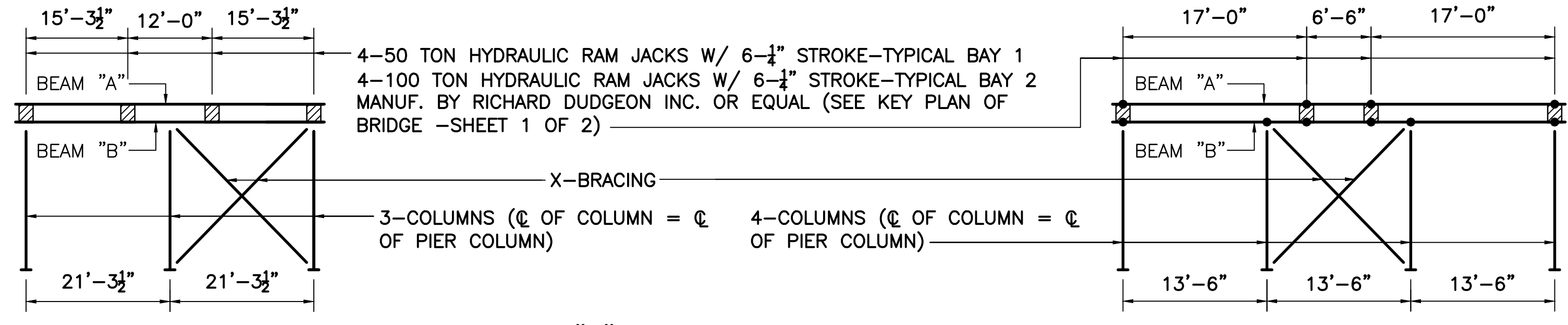
SECTION E-E
SCALE: 1" = 1'-0"

NOTE:
CENTERLINE OF BEAM "A",
BEAM "B", HYDRAULIC RAM
JACKS, SHIMS, COLUMN
AND PIER SHALL BE COINCIDENT
AND PLUMB.



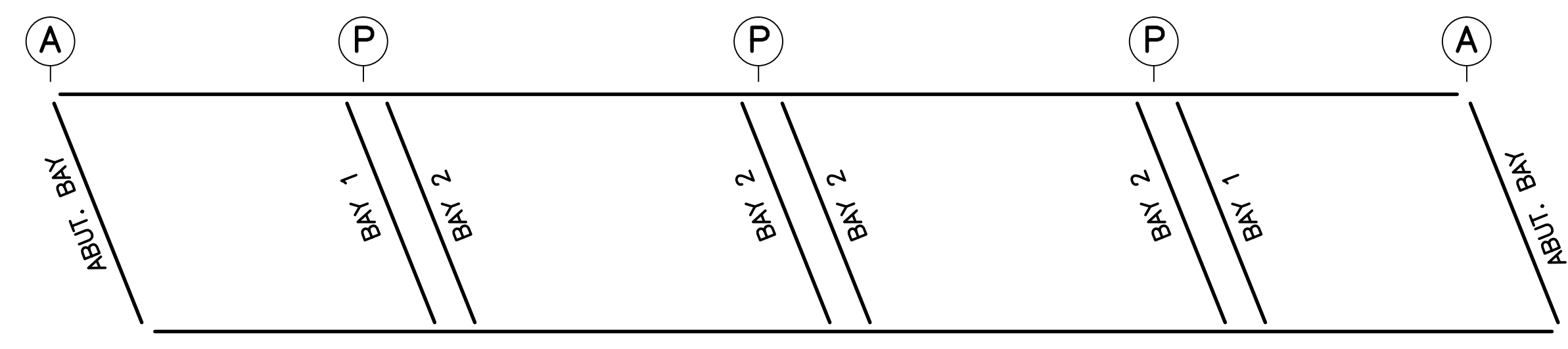
TYPICAL STIFFENER PLATE DETAIL
NO SCALE

SWORD AVE.	BEAM SCHEDULE		COLUMN SCHEDULE	
	BAY 1	BAY 2	COLUMN	BASE PL. WxDXT
PLEASANT ST.	BAY 1	BAY 2	W8x31	10"x10"x 1/2"
	BAY 1	BAY 2	W10x49	13 1/4"x13 1/4"x 7/8"
PLEASANT ST.	BAY 1	BAY 2	W10x49	13 1/4"x13 1/4"x 7/8"
	BAY 1	BAY 2	W10x54	13 1/4"x13 1/4"x 7/8"



ELEVATION "A" - TYPICAL PIER SUPPORT BAY
NO SCALE

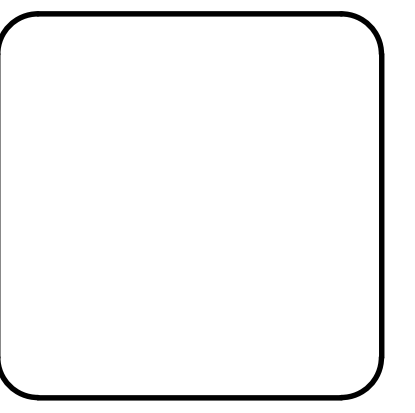
INDICATES LOCATION OF 3/8" STIFFENER PLATES (SEE TYPICAL STIFFENER PLATE DETAIL-SHEET 1 OF 2)



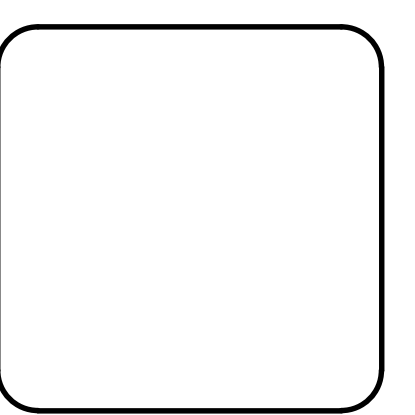
KEY PLAN OF BRIDGE
(SEE BEAM & COL. SCHEDULES)

(A) = ABUTMENT SUBSTRUCTURE
(P) = PIER SUBSTRUCTURE

REVISION DESCRIPTION	BY	DATE	NO.



Interim Superstructure
Sheet 1 of 2, Sheets
Simultaneous Multi-Span Hydraulic Lift & Jacking
JDB Consulting Engineers
835 Samsom Rd., Eastham, MA 02642



Prepared for Springfield Steel Erectors & Lane Service Company

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