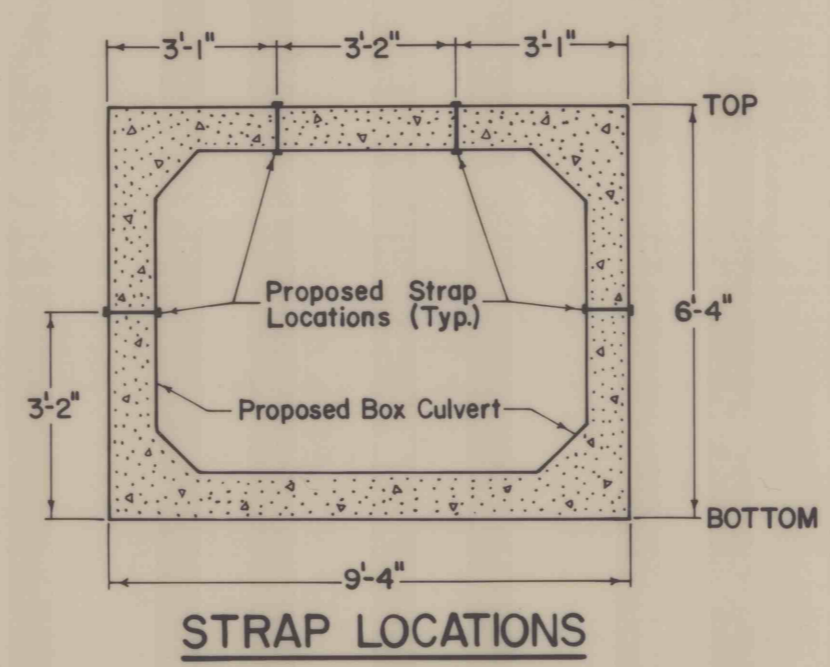
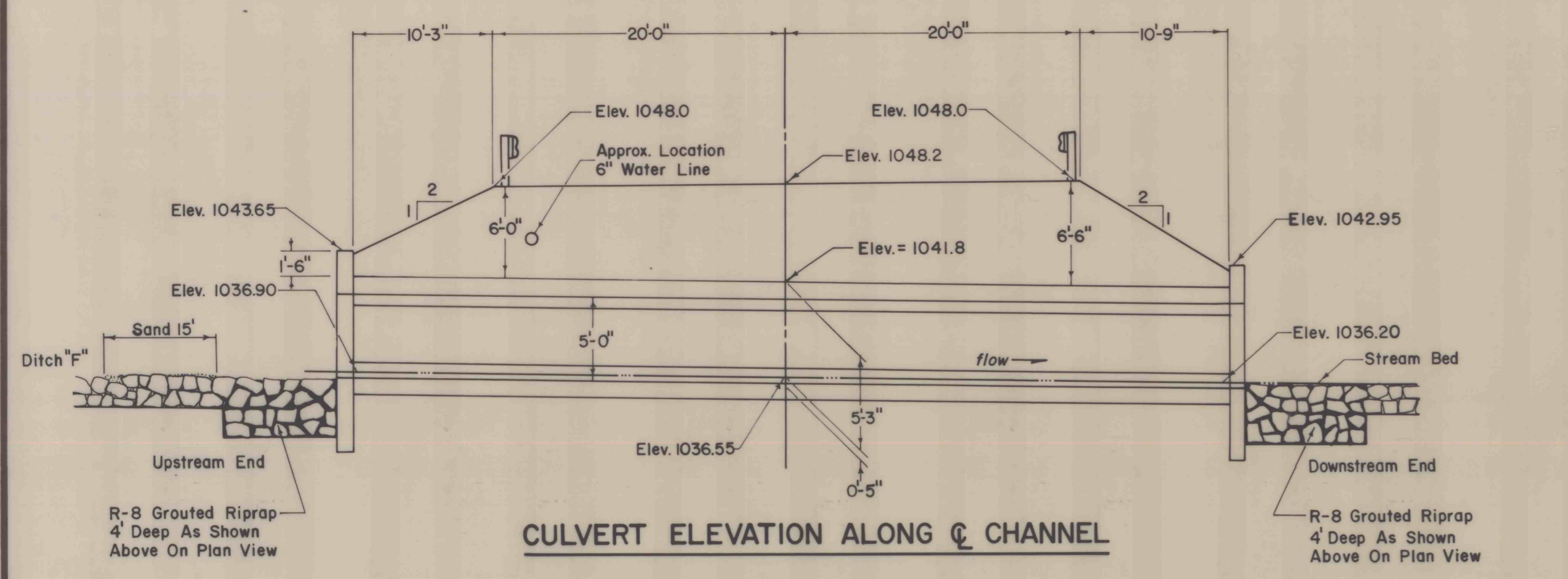
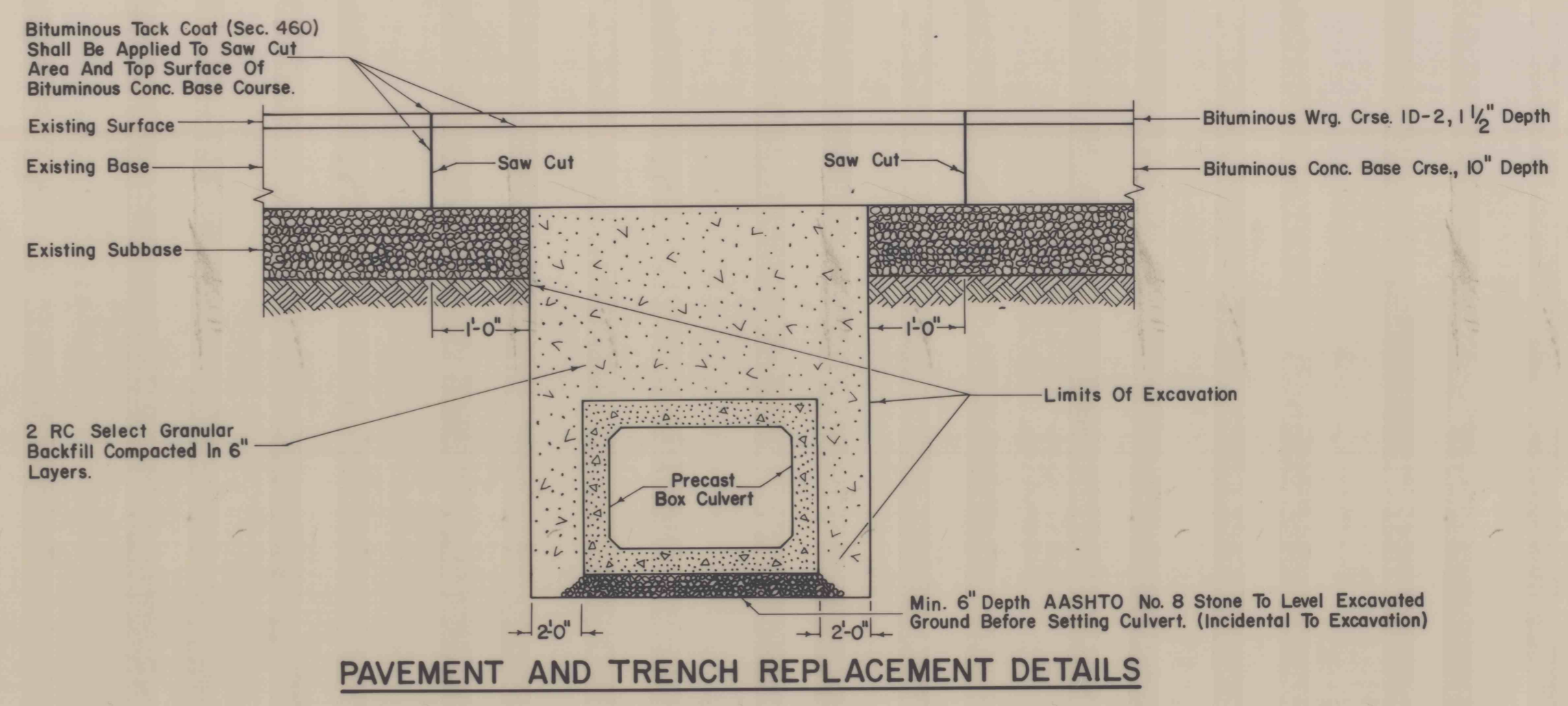


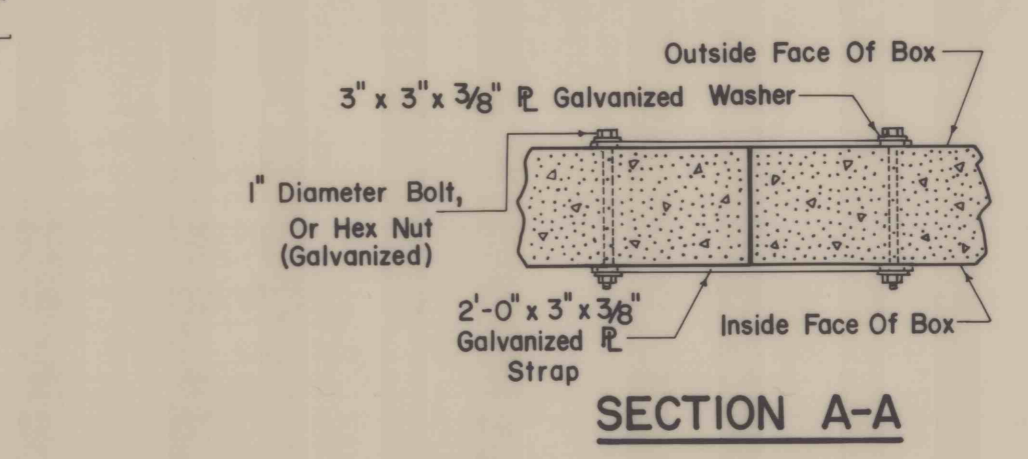
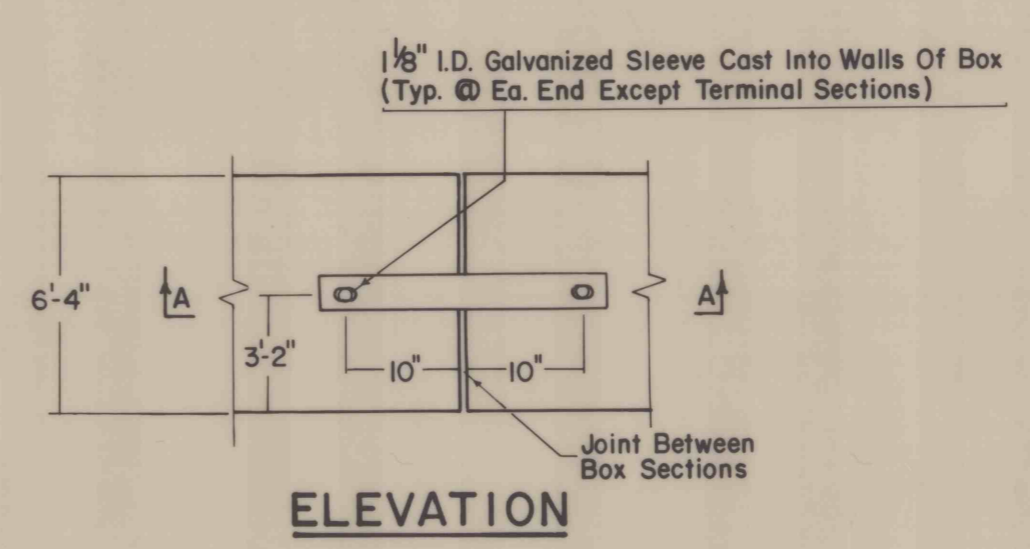
INVENTORY OPERATING	BRIDGE RATING (TONS)			
	H25	HS25	ML80	P-82

CONTRACTOR TO PROVIDE RATINGS BASED ON ACTUAL REINFORCEMENT USED IN FABRICATION.



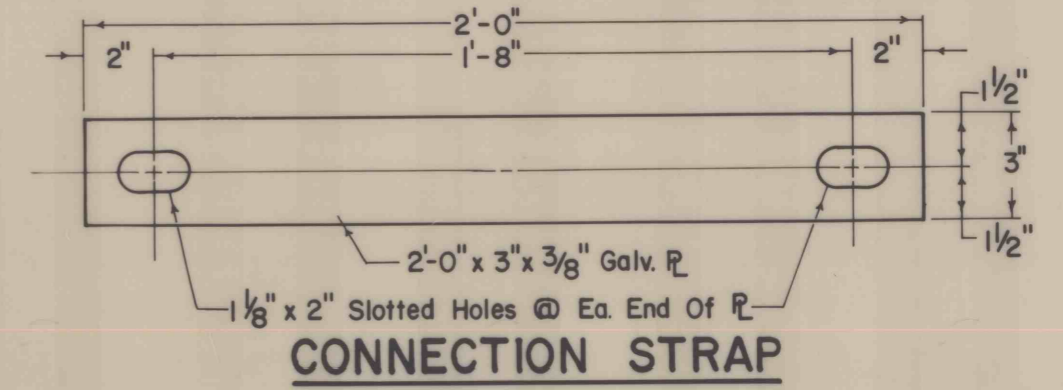
HYDRAULIC DATA

DRAINAGE AREA=0.67 SQ. MILES
 STREAM BED ELEV.=1036.9
 Q50=485 CFS
 Q50 WATER SURFACE ELEV.=1045.84
 Q100=574 CFS
 Q100 WATER SURFACE ELEV.=1048.10

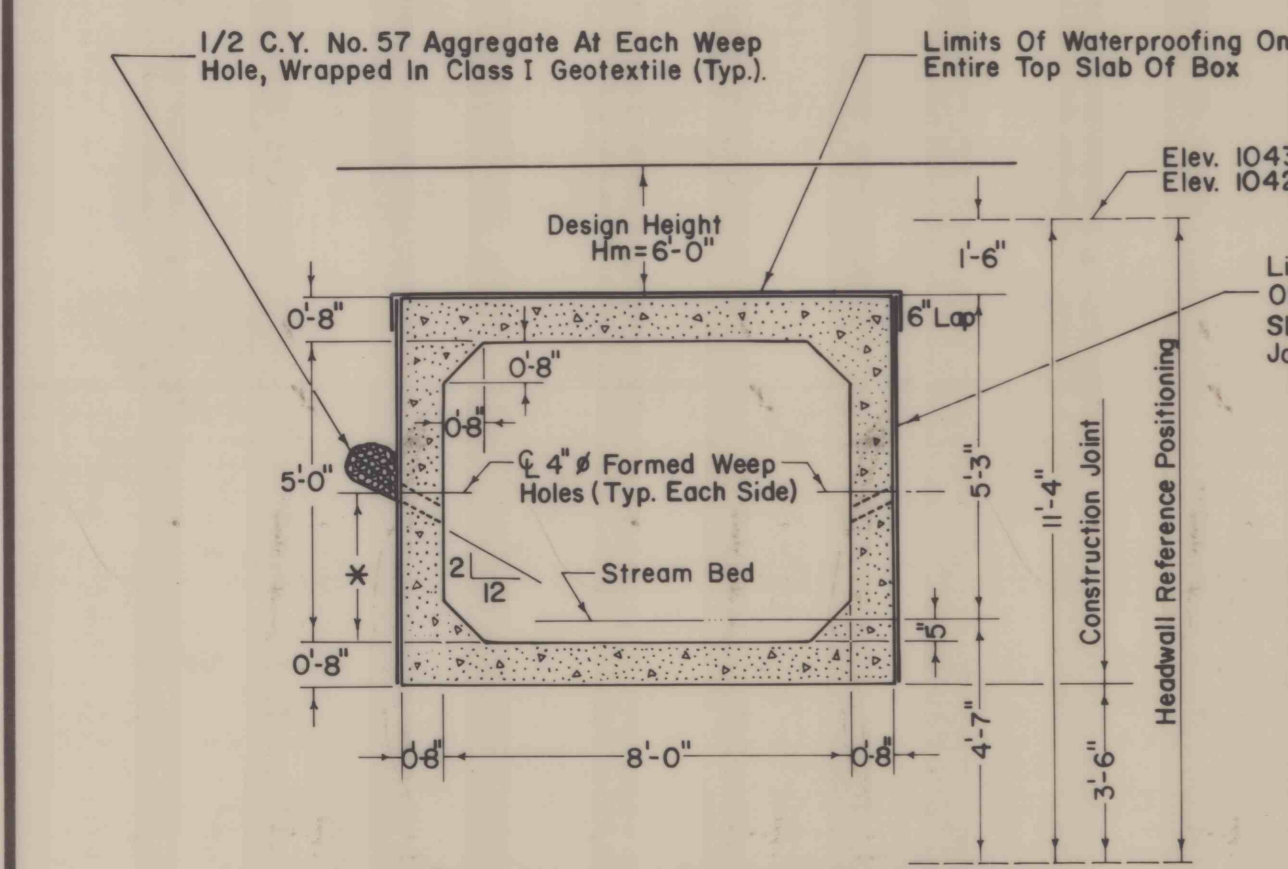


NOTES:

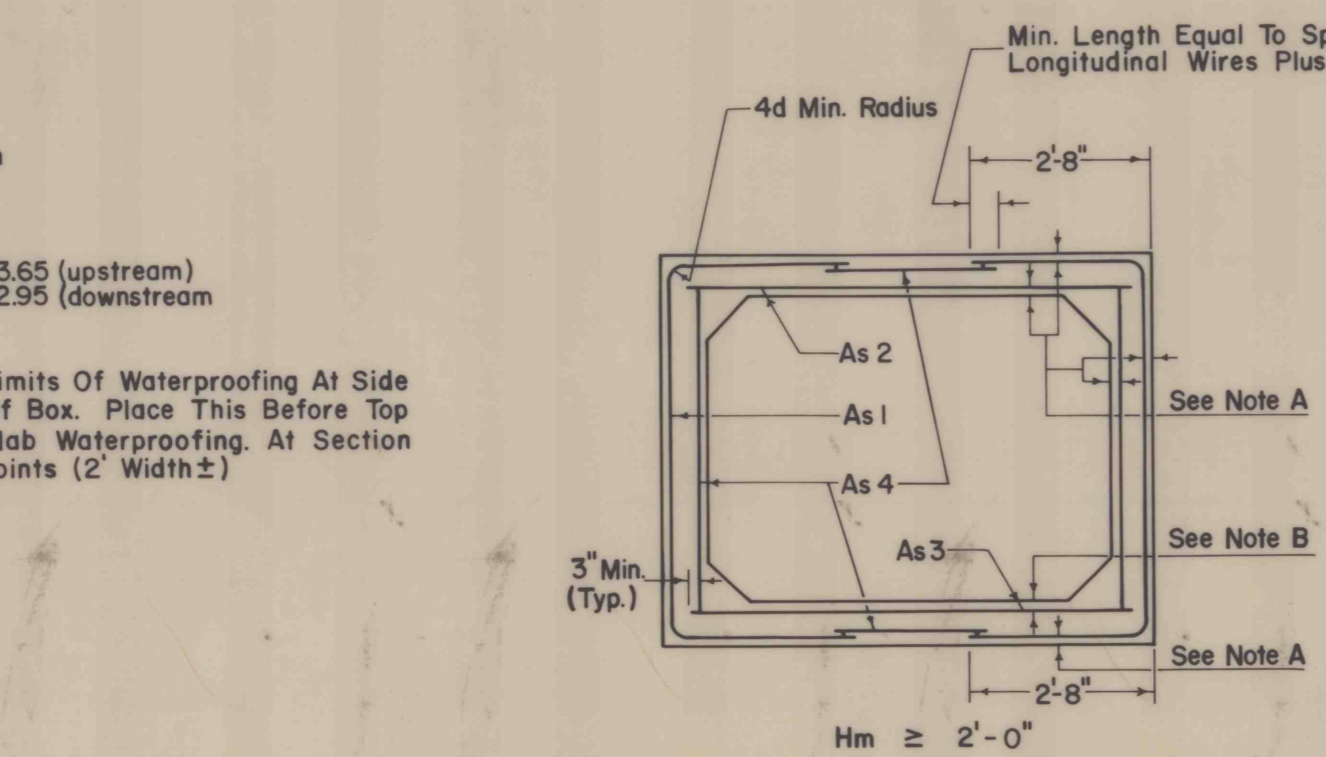
- Place A Total Of 8 Straps Per Precast Box Connection.
- (4 Straps For Inside Faces And 4 Straps For Outside Face Connections)



GALVANIZED STRAP CONNECTION DETAILS



TYPICAL PRECAST BOX SECTION

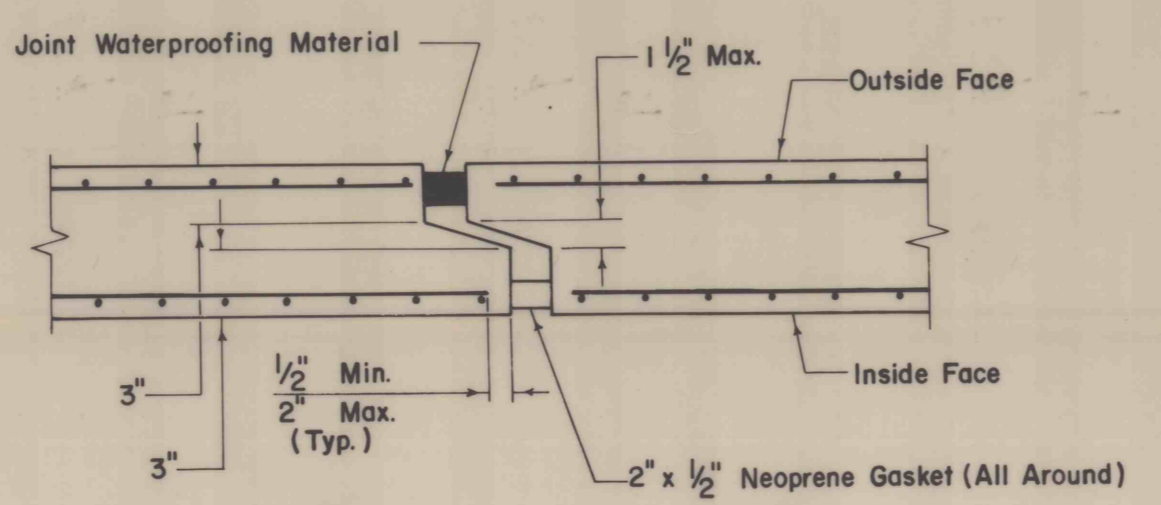


BOX REINFORCEMENT REQUIREMENTS

Mark	Area (in ²)
As 1	0.24
As 2	0.33
As 3	0.36
As 4	0.19

Steel Areas Shown Are Those Of Flexural Reinforcement Required By Design. A Serviceability Criteria For Crack Control Check Is Required To Determine The Wire Size And Spacing (Steel Area) Used For Fabrication.

NOTE: Seal Around Each Duct Joint With A Neoprene Sponge Donut.



JOINT DETAIL

GENERAL NOTES

MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408(1990) AND THE CONTRACT SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS:
 DESIGN DIVISION ONE OF 1989 AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" AND AS SUPPLEMENTED BY THE PENNA. DEPARTMENT OF TRANSPORTATION DESIGN MANUAL, PART 4, STRUCTURES (INCLUDING CURRENT REVISIONS /MAY 1991).

LIVE LOAD:
 HS25 LOADING, MODIFIED 125% MILITARY LOADING (2 AXLES OF 30 KIPS EACH AT 4'-0" C/C) OR 204 KIP PERMIT LOADING. (P-82), AASHTO GROUP 1B.

USE CLASS A CEMENT CONCRETE IN HEADWALLS, FOOTINGS AND WINGWALLS.

USE CEMENT CONCRETE WITH A 28 DAY COMPRESSIVE STRENGTH OF 5,000 P.S.I. IN CONSTRUCTING PRECAST BOX SECTIONS.

REFER TO SECTION 1085 OF PUBLICATION 408 FOR THE CONSTRUCTION OF THE PRECAST CONCRETE BOX CULVERT. PAYMENT FOR THE PRECAST REINFORCED CONCRETE BOX CULVERT INCLUDES THE INSTALLATION OF ANY PROTECTIVE COATING.

PROVIDE CONCRETE COVER ON REINFORCING BARS AS NOTED HEREIN.

CHAMFER EXPOSED CONCRETE EDGES 1" x 1" EXCEPT AS NOTED.

PROVIDE DEFORMED REINFORCEMENT STEEL MEETING THE REQUIREMENTS OF ASTM DESIGNATION 615, 616, OR 617, GRADE 60 AS SET FORTH IN PUBLICATION 408.

IN PRECAST BOX SECTIONS, USE FLAT ADDITIONAL PROPERTIES:
 MINIMUM YIELD STRENGTH OF 65,000 PSI.
 MAXIMUM SPACING OF CIRCUMFERENTIAL WIRE IS 4 INCHES.
 MINIMUM SPACING OF CIRCUMFERENTIAL WIRE IS 2 INCHES (3 INCHES PREFERRED).
 MAXIMUM SPACING OF LONGITUDINAL WIRE IS 8 INCHES.

PROVIDE REINFORCEMENT STEEL LAP SPLICE LENGTHS AND EMBEDMENT LENGTHS AS NOTED HEREIN.

CUTOFF WALL AND WINGWALL FOOTINGS MAY BE ORDERED BY THE ENGINEER TO BE AT ANY ELEVATION OR OF ANY DIMENSIONS NECESSARY TO PROVIDE A PROPER FOUNDATION.

NOTIFY ALL INVOLVED UTILITY COMPANIES PRIOR TO STARTING WORK. UTILITIES WILL NOT BE DISTURBED OR ENDANGERED DURING CONSTRUCTION OPERATIONS.

THE FOLLOWING AREAS OF CULVERT REQUIRE THE APPLICATION OF A TWO-COAT PROTECTIVE COATING IN ACCORDANCE WITH SECTION 1085.3 (n) OF PUBLICATION 408:
 ENTIRE HEIGHT OF TWO OUTSIDE WALLS IN AREAS NOT COVERED BY PROPRIETARY MEMBRANE WATERPROOFING.
 TOP OF BOTTOM SLAB AND BOTTOM 18" OF ALL INSIDE WALLS

USE EPOXY BONDING COMPOUND WHEREVER C.I.P. CEMENT COMES IN CONTACT WITH PRECAST CEMENT CONCRETE. COMPOUND SHALL BE TYPE 2, GRADE 2, CONFORMING TO ASTM-C881-78 SPECIFICATIONS.

MAXIMUM DESIGN FOUNDATION PRESSURE: WINGS=1.4 TSF, BOX=0.75 TSF
 MAXIMUM ALLOWABLE FOUNDATION PRESSURE=4.0 TSF

NO.	DATE	REVISION	APPR.

SUBMITTED: *Dennis M. Galladino*
 PROJECT DESIGNER, WILKES-BARRE

APPROVED: *Theodore J. Fisher*
 CHIEF, DESIGN SECTION, WILKES-BARRE

APPROVED: _____
 DIRECTOR, BUREAU OF ABANDONED MINE RECLAMATION

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL RESOURCES

PROJECT NO. O S M 54(3629)103.1

BACKFILLING STRIP PITS AND SLOPES
 HECKSCHERVILLE
 CASS TOWNSHIP
 SCHUYLKILL COUNTY, PENNSYLVANIA

CROSS SECTIONS
 AND DETAILS

DRAWN BY: *J.S.T.* DATE: Aug. 9, 1990 DRAWING NO: 6 of 10
 CHECKED BY: *J.A.* SCALE: Not To Scale

ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY CONTRACTOR AT THE SITE.