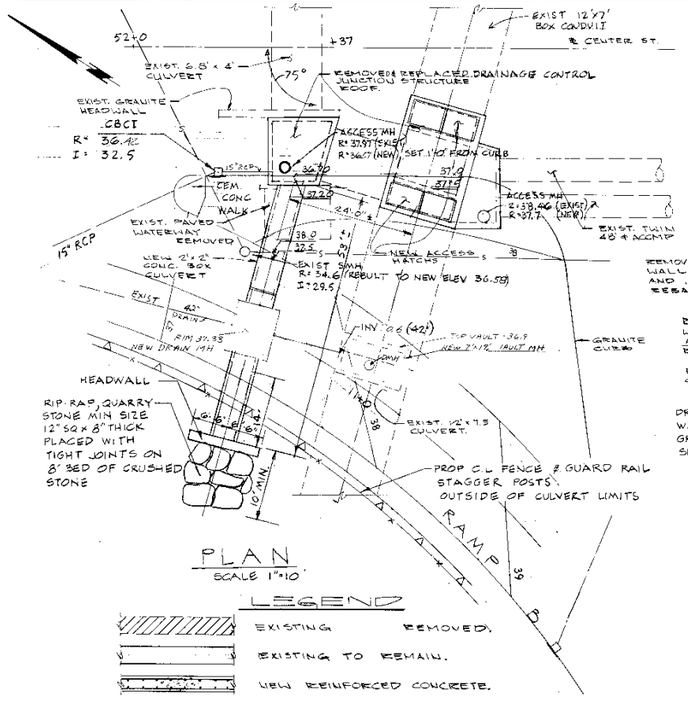
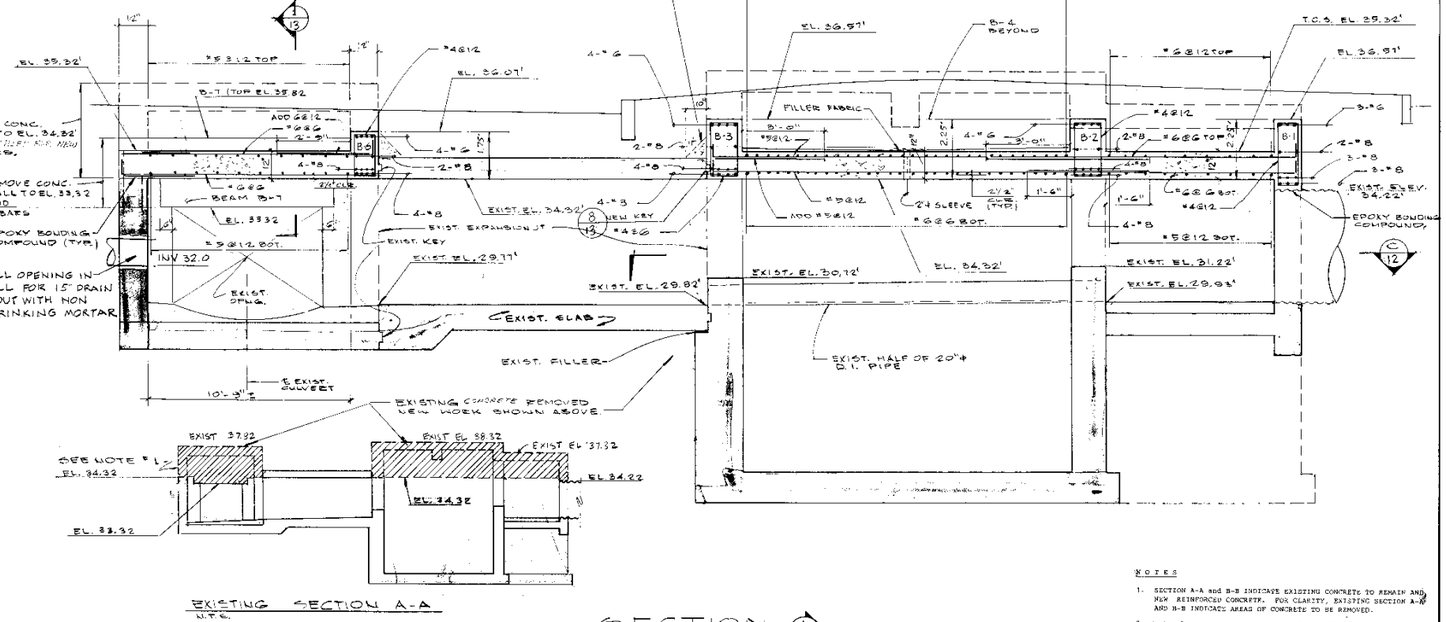
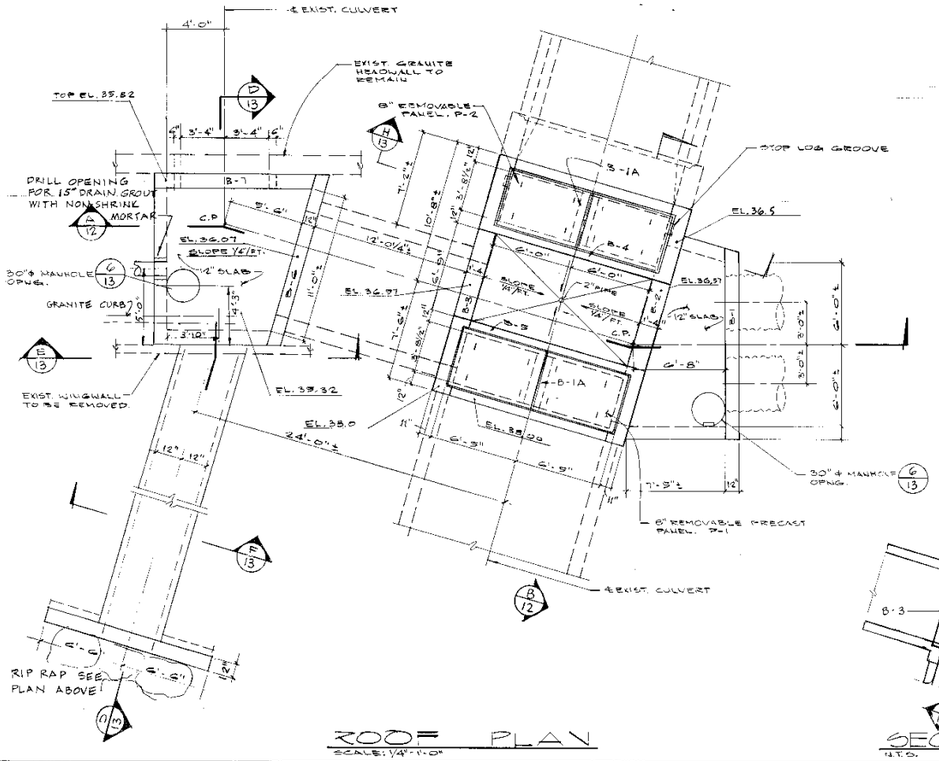
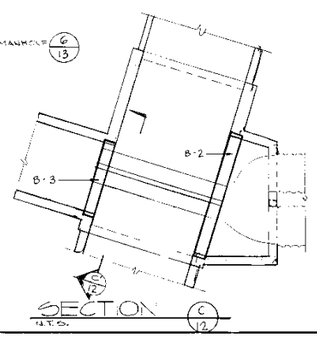
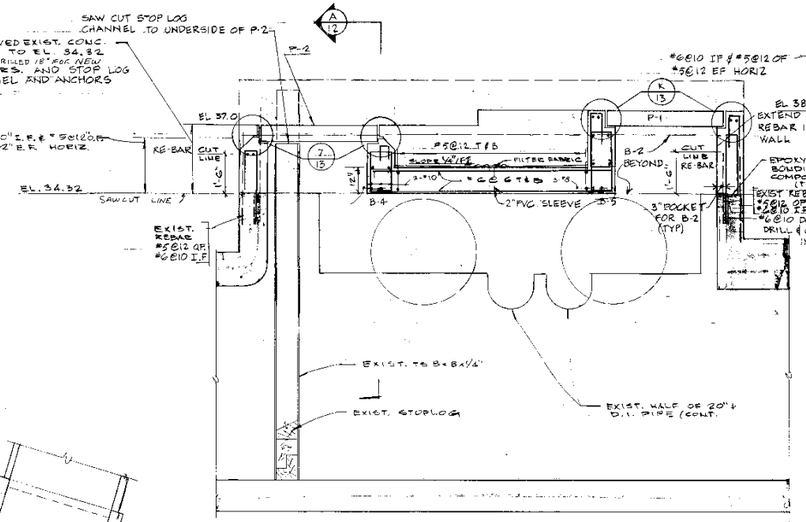
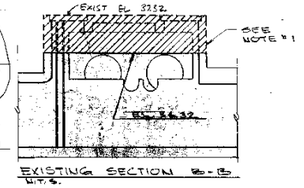












NOTES

1. SECTION A-A and B-B INDICATE EXISTING CONCRETE TO REMAIN AND NEW REINFORCED CONCRETE. FOR CLARITY, EXISTING SECTION A-A AND B-B INDICATE AREAS OF CONCRETE TO BE REMOVED.
2. ALL EXCAVATIONS TO BE BACKFILLED WITH COMPACTED GRANULAR FILL.
3. ANY DAMAGE TO EXIST. CONC OR RE-BARS DUE TO PROPOSED WORK INCLUDING METHOD OF REMOVAL SPECIFIED IN GENERAL NOTE 3 WILL BE REPAIRED TO THE SATISFACTION OF THE MDC AND THE CORP.

GENERAL

1. THE CONTRACTOR WILL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE AND REPORT ANY DISCREPANCY TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
2. THE CONTRACTOR WILL SUBMIT ALL SHOP DRAWINGS TO THE ENGINEER AND RECEIVE HIS APPROVAL BEFORE FABRICATION OF MATERIAL.
4. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE 1988 MASS. D.P.W. SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.

CONCRETE

1. ALL CONCRETE SHALL CONFORM WITH THE LATEST REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE.
2. CONCRETE SHALL HAVE AN ULTIMATE STRENGTH OF AT LEAST 3000 POUNDS PER SQUARE INCH AT 28 DAYS.
3. REINFORCING STEEL SHALL CONSIST OF NEW BILLET DEFORMED BARS OF A.S.T.M. SPEC. A-615, GRADE 60. ALL OF NEW BILLET STEEL, AND A.S.T.M. SPEC. 185 FOR WELDED WIRE FABRIC.
4. PROVIDE BAR SPACERS SUPPORTS AND OTHER ACCESSORIES IN ACCORDANCE WITH A.C.I. DETAILING MANUAL.
5. CONCRETE PROTECTION:
   FOOTING - 3" COVER ON REBARS
   WALLS - 2" COVER ON REBARS
   SLABS - AS NOTED
6. PLACE 6" COMPACTED GRAVEL UNDER ALL SLABS.
7. PROVIDE DOWELS AT ALL WALLS AND FOOTING CORNERS AND JUNCTIONS. USE 4 - #5 x 4'-6".

AS-BUILT BY
D.W. WHITE CONSTRUCTION
867 MIDDLE ROAD
AMESBURY, MA. MARCH 1991

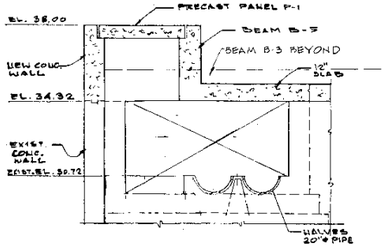
ISSUE	DATE	DESCRIPTION	BY	CHKD	APP

CENTRE ST. / CROWN COLONY DRIVE
STREET RECONSTRUCTION
QUINCY, MA

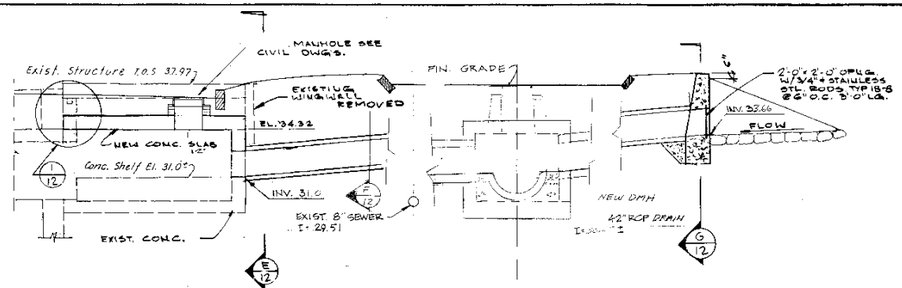
DRAINAGE CONTROL STRUCTURE MODIFICATIONS-PLANS SECTIONS & DETAILS

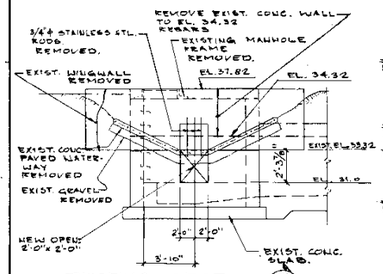
DATE 13-27-89
SCALE AS NOTED
SHEET 1 OF 2

52787X

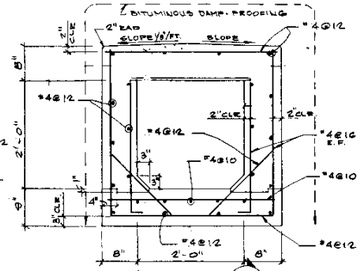


SECTION C' 12
SCALE: 1/4" = 1'-0"

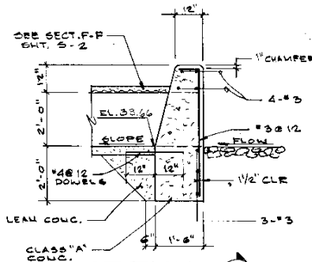




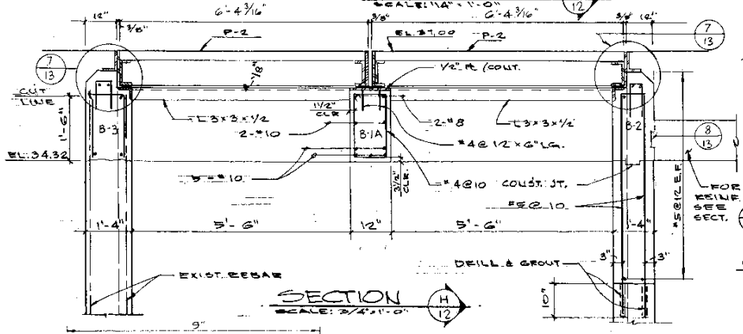
EXISTING SECT.
SCALE: 1/4" = 1'-0"



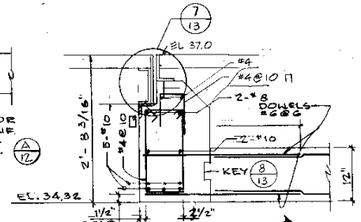
SECTION F 12
SCALE: 1" = 1'-0"



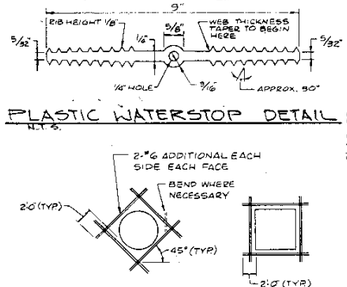
SECTION G 12
SCALE: 1/2" = 1'-0"



SECTION H 12
SCALE: 3/4" = 1'-0"

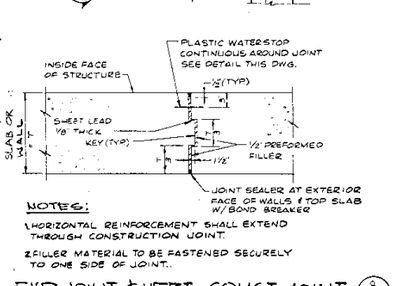


SECTION J 13
SCALE: 1" = 1'-0"



DETAIL 1 12
SCALE: 1" = 1'-0"

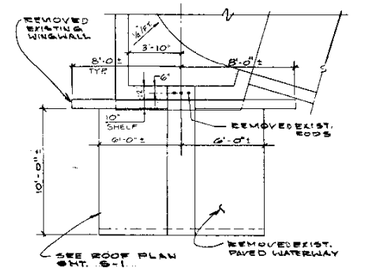
TYPICAL OPENING DETAIL
N.T.S.



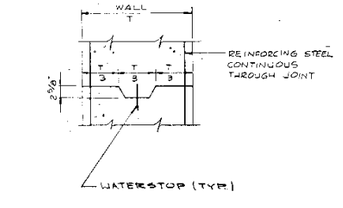
NOTES:
1 HORIZONTAL REINFORCEMENT SHALL EXTEND THROUGH CONSTRUCTION JOINT.
2 FILLER MATERIAL TO BE FASTENED SECURELY TO ONE SIDE OF JOINT.

EXP JOINT & VERT. CONST. JOINT 8 13
N.T.S.

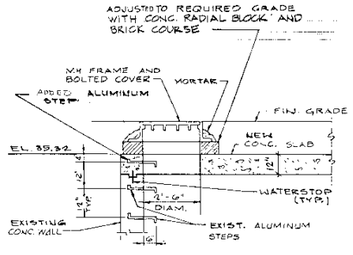
PLASTIC WATERSTOP DETAIL
N.T.S.



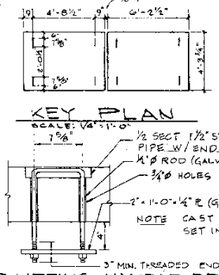
EXISTING PART PLAN (ROOF)
SCALE: 1/4" = 1'-0"



HORIZ. CONSTRUCTION JOINT
SCALE: 1" = 1'-0"

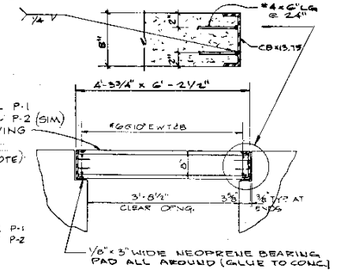


TYPICAL MANHOLE DETAIL 6 12
SCALE: 1/4" = 1'-0"

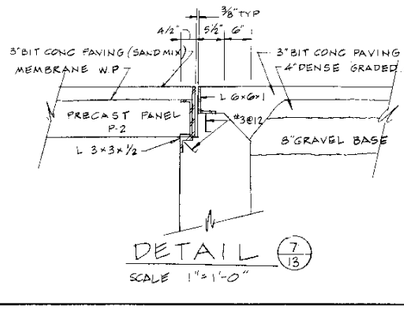


KEY PLAN
SCALE: 1/4" = 1'-0"

TYP. LIFTING HANDLE DETAIL
SCALE: 1 1/2" = 1'-0"



TYP PRECAST PANEL DETAIL
SCALE: 3/4" = 1'-0"



DETAIL 7 13
SCALE 1" = 1'-0"

STRUCTURAL NOTES

1. ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS A CONCRETE MASONRY UNLESS NOTED OTHERWISE IN THE DRAWINGS.
2. ALL CONCRETE CONSTRUCTION AND REINFORCING BAR DETAILS SHALL BE CONFORM TO THE 1977 AASHTO SPECIFICATIONS WITH CURRENT INTERIMS THROUGH 1979.
3. EXPOSED CONCRETE EDGES SHALL HAVE A 3/4" CHAMFER.
4. AT LEAST TWO HOURS SHALL ELAPSE AFTER DEPOSITING CONCRETE IN WALL BEFORE DEPOSITING IN SLABS SUPPORTED THEREON.
5. THE USE OF CONSTRUCTION JOINTS AT LOCATIONS NOT INDICATED SHALL BE AS APPROVED BY THE ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT AGAINST FLOTATION OR UPLIFT DURING CONSTRUCTION.
7. ALL JOINT SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

DESIGN LOADS:

UNIT WEIGHT OF SOIL = 130 P.C.F.
SOIL LATERAL LOADS:
(EQUIVALENT FLUID PRESSURES)
MAXIMUM = 100 P.C.F., SATURATED
= 65 P.C.F., DRY
MINIMUM = 30 P.C.F.
HS20 VEHICULAR LOADS

DESIGN CRITERIA

AASHTO 1977 DESIGN SPECIFICATIONS
WORKING STRESS DESIGN METHOD

ALL STRUCTURES SHALL BE DESIGNED FOR VARIOUS MINIMUM AND MAXIMUM LOAD COMBINATIONS TO PRODUCE MAXIMUM SHEARS AND BENDING MOMENTS.

PRECAST CONCRETE: f_c = 2000 psi K = 326
j = 0.876 v_c = 67 psi
f_s = 24,000 psi

CAST-IN-PLACE CONCRETE:
f_c = 1200 psi K = 169
j = 0.895 v_c = 52 psi
f_s = 24,000 psi

MH FRAMES, COVERS & GRATES SHALL BE H-20 LOADING

A. VIBRATORY COMPACTION EQUIPMENT SHALL NOT BE USED ON THE FINE AGGREGATE AND CRUSHED STONE.
B. BACKFILL WITH SUITABLE EXCAVATED MATERIAL OR WITH ACCEPTABLE REPLACEMENT MATERIAL.

AS BUILT BY
D.W. WHITE CONSTRUCTION
869 MIDDLE ROAD
HOLBROOK, MA. MARCH 1991

ISSUE	DATE	DESCRIPTION	BY	CHKD	APP

CENTRE ST. / CROWN COLONY DRIVE STREET RECONSTRUCTION

QUINCY, MA

DRAINAGE CONTROL STRUCTURE MODIFICATIONS-SECTIONS AND DETAILS

DATE 3-27-89
SCALE AS NOTED
SHEET 2 OF 2

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