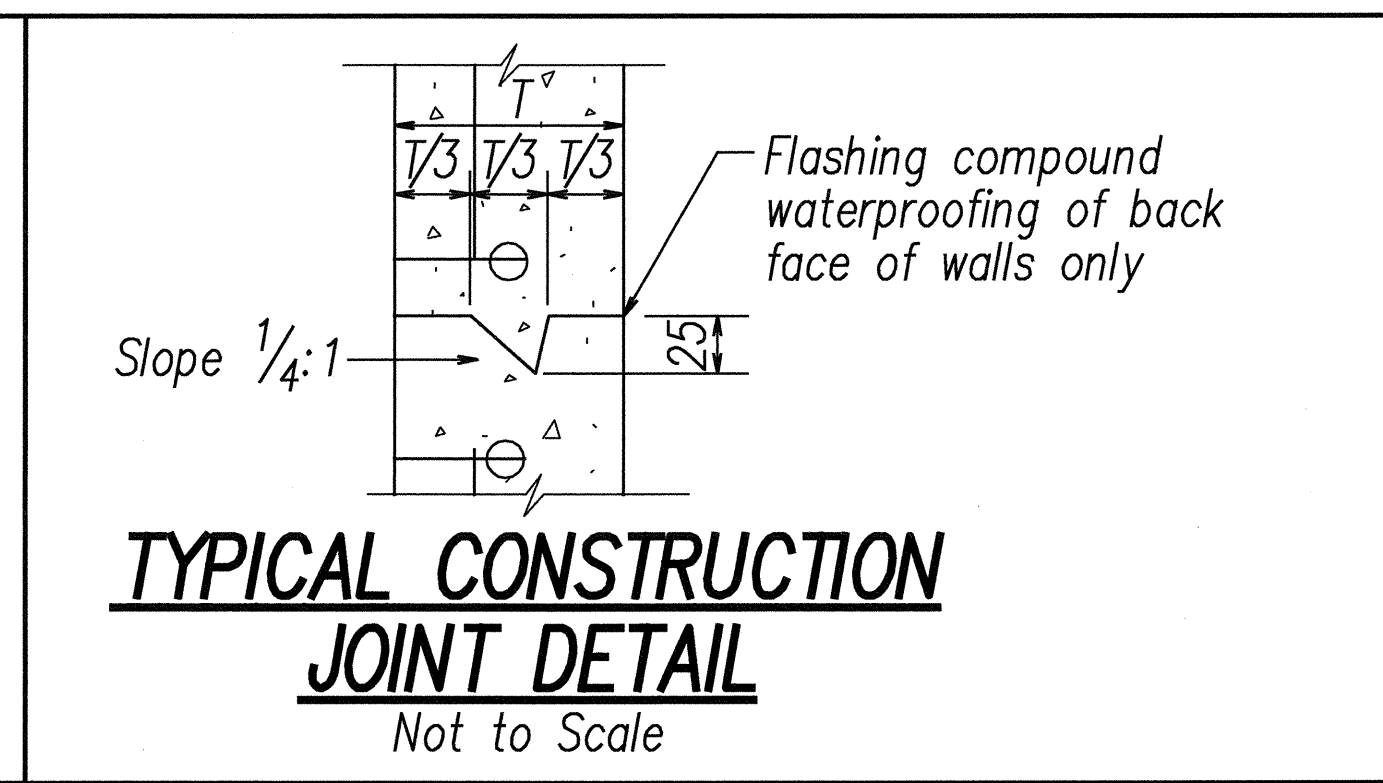
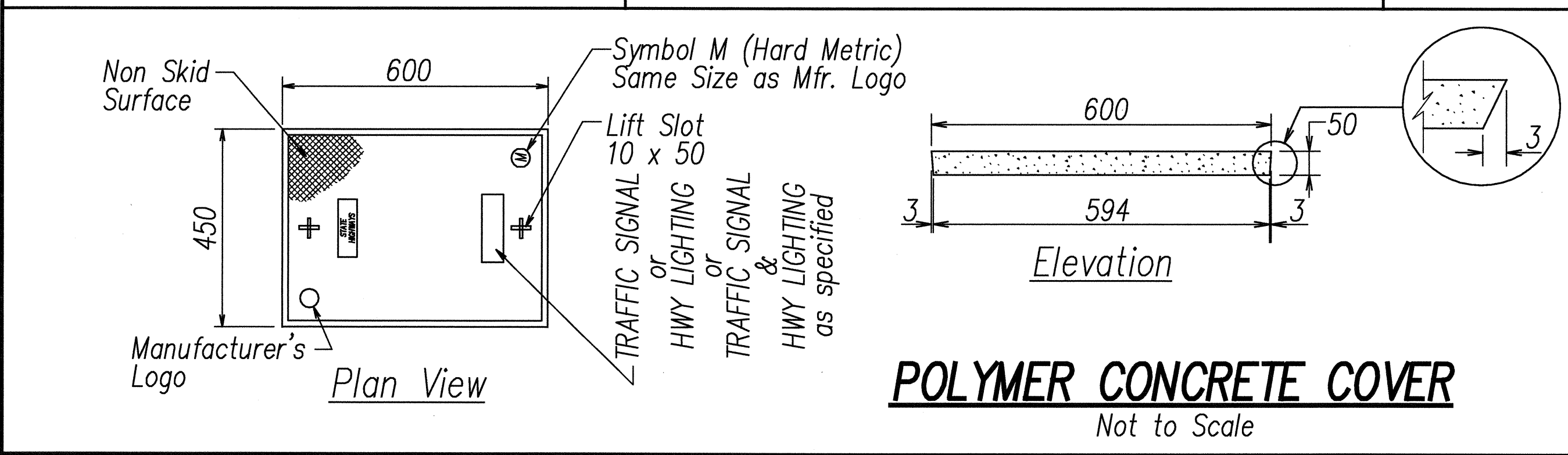
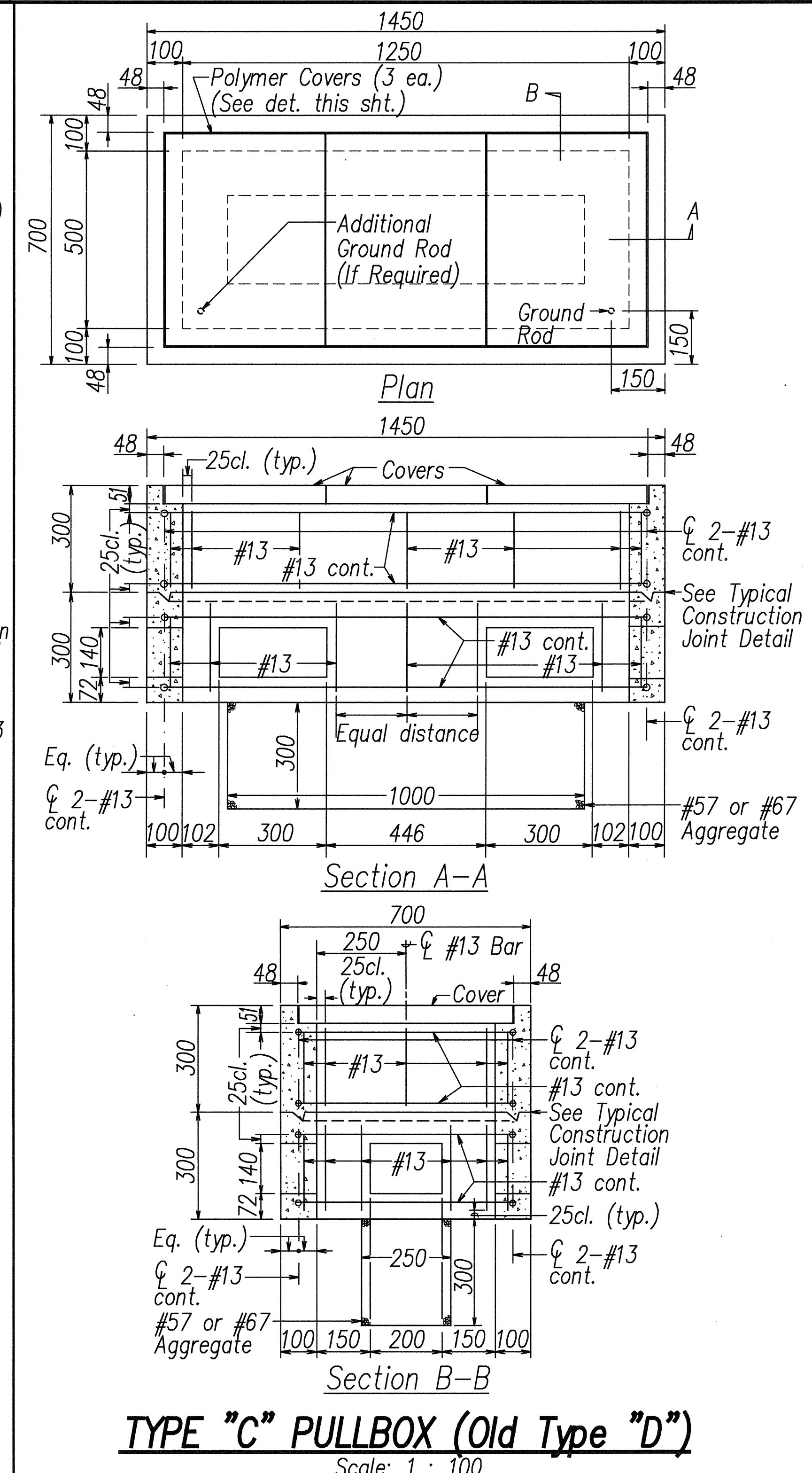
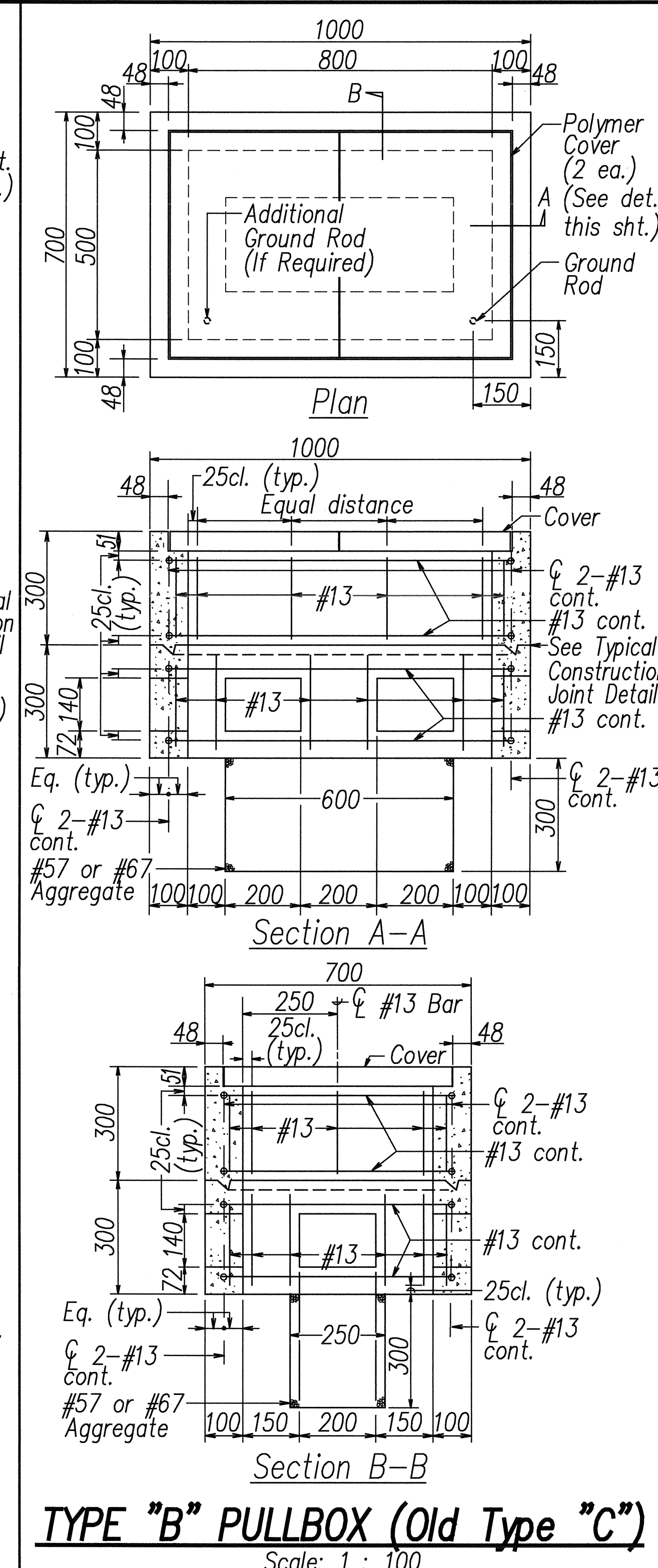
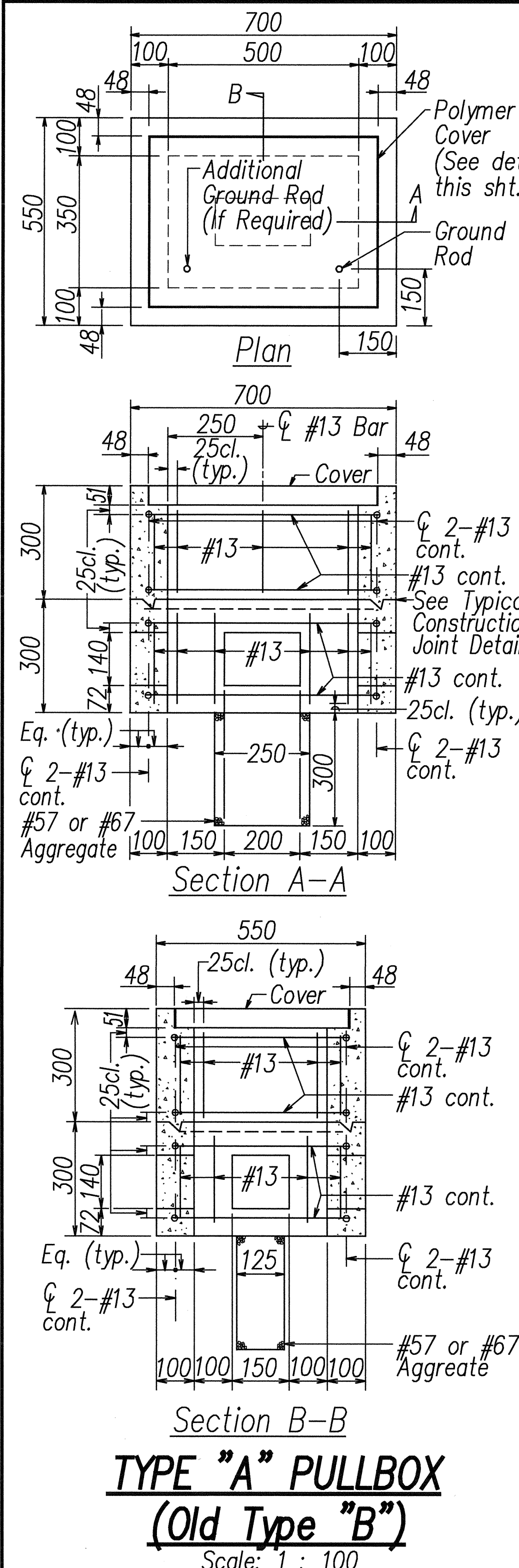


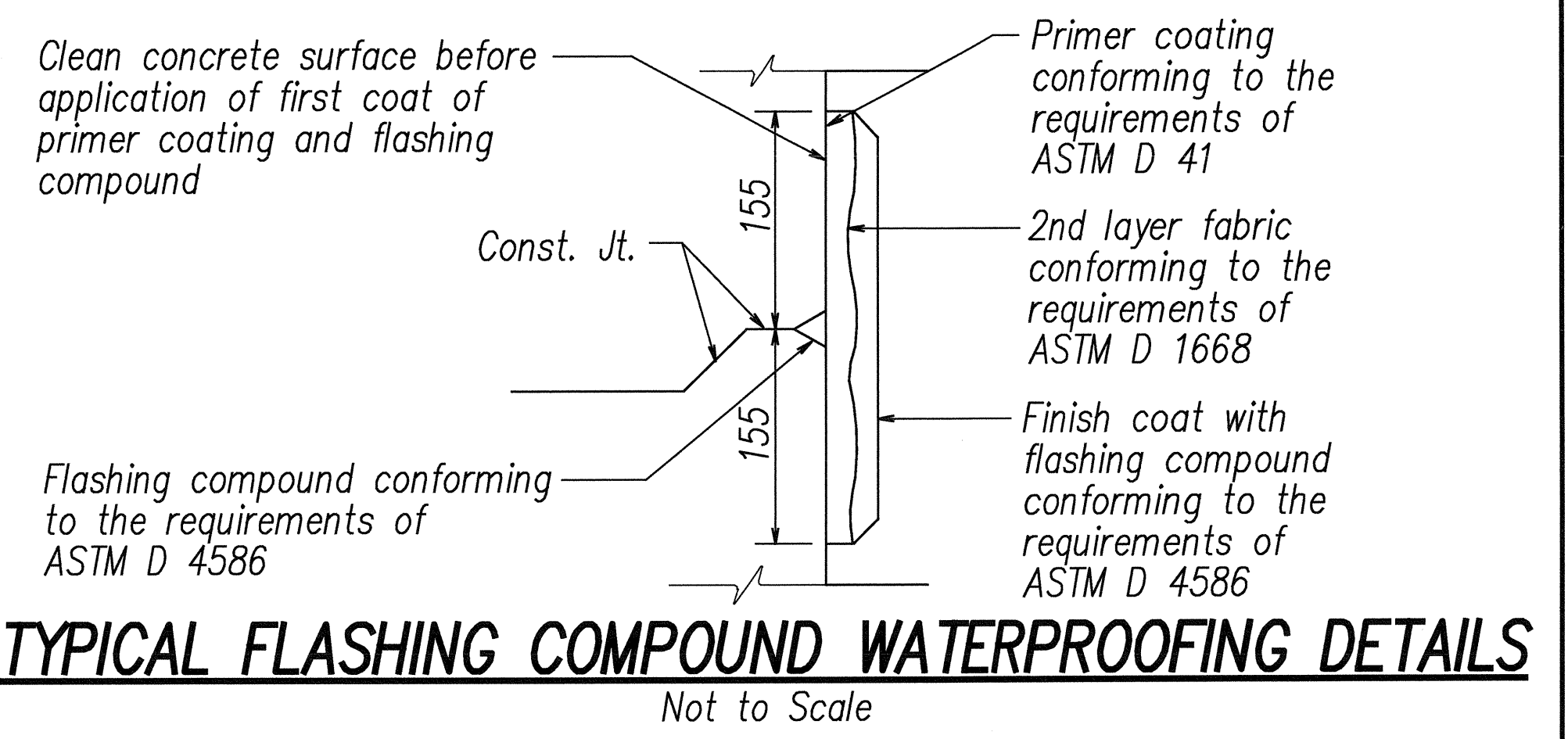
DATE	_____
SURVEY BLANKET BY	_____
DRAWN BY	_____
NOTED BY	_____
CHECKED BY	_____
NO.	_____
LAST ONE OF TWO	_____

USE ONE OF TWO SETS OF "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS" (HAWAIIAN EDITION) AND "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS" (HAWAIIAN EDITION) FOR THE PROJECT.

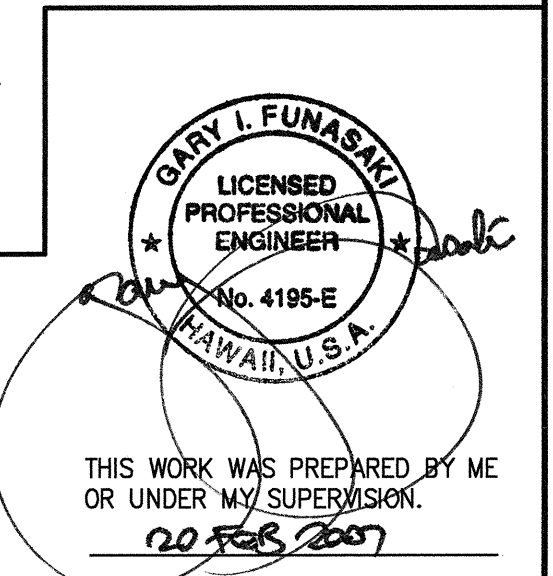


All Dimensions are in Millimeters unless Otherwise shown.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-8930(2)	2007	291	331



- General Notes:**
1. Provide a minimum of one 16 Ø x 2.5m Copperweld Ground Rod in each pullbox. When directed by the Traffic Signal Inspector/Engineer, install additional Ground Rods. Cost of Ground Rods shall be incidental to the pullboxes.
 2. All pre-cast concrete pullboxes shall be manufactured in two pieces.
 3. The pullbox with cover shall be capable of supporting an MS 18 Loading.
 4. The maximum weight of the pullbox cover shall not exceed 27 kilograms.
 5. The openings for the conduits on all pullboxes shall be pre-cast concrete knockouts.
 6. After installing the conduits in the openings of the pullboxes, the Contractor shall fill the excess opening in the pre-cast knockouts with concrete mortar.
 7. Prior to installing the pullboxes, the Contractor shall level the bottom of the trench and achieve a minimum of 95% relative compaction of the bottom of the trench.
 8. All concrete shall be Class A (25MPa, min.)
 9. Rebars shall be Grade 300 and all lapped splices shall be 360mm minimum.
 10. The #57 or #67 size aggregate shall conform to latest version of AASHTO M43 (ASTM D 448).
 11. Type "C" Pullbox shall be installed in a location protected from vehicular traffic (i.e. raised sidewalk, behind A.C. curbs, traffic signal standard or pipe guards).



STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
PULLBOX & COVER (STATE) DETAILS	
North-South Road Phase 1B F.A.I. Proj. No. STP-8930(2)	
Scale: AS NOTED	Date: Feb 21, 2007
SHEET No. E2.10 OF 62 SHEETS	

DATE	REVISION
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-8930(2)	2007	292	331

Clean concrete surface before application of first coat of primer coating and flashing compound

Primer coating conforming to the requirements of ASTM D 41

2nd layer fabric conforming to the requirements of ASTM D 1668

Finish coat with flashing compound conforming to the requirements of ASTM D 4586

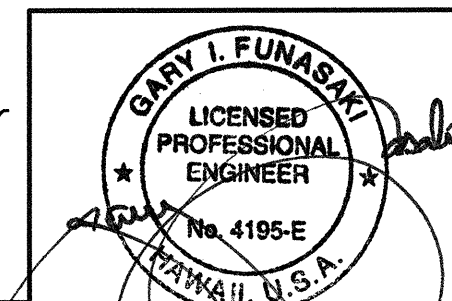
Flashing compound conforming to the requirements of ASTM D 4586

TYPICAL FLASHING COMPOUND WATERPROOFING DETAILS

Not to Scale

General Notes:

1. Provide a minimum of one 16mm ϕ x 2.5m Copperweld Ground Rod in each pullbox. When directed by the Traffic Signal Inspector/Engineer, install additional Ground Rods. Cost of Ground Rods shall be incidental to the pullboxes.
2. All pre-cast concrete pullboxes shall be manufactured in two pieces.
3. The pullbox with cover shall be capable of supporting an MS 18 Loading.
4. The maximum weight of the pullbox cover shall not exceed 27 kilograms.
5. The openings for the conduits on all pullboxes shall be pre-cast concrete knockouts.
6. After installing the conduits in the openings of the pullboxes, the Contractor shall fill the excess opening in the pre-cast knockouts with concrete mortar.
7. Prior to installing the pullboxes, the Contractor shall level the bottom of the trench and achieve a minimum of 95% relative compaction of the bottom of the trench.
8. All concrete shall be Class A (25MPa, min.)
9. Rebars shall be Grade 300 and all lapped splices shall be 360mm minimum.
10. The #57 or #67 size aggregate shall conform to latest version of AASHTO M43 (ASTM D 448).
11. Type "C" Pullbox shall be installed in a location protected from vehicular traffic (i.e. raised sidewalk, behind A.C. curbs, traffic signal standard or pipe guards).



All Dimensions are in Millimeters unless Otherwise shown.

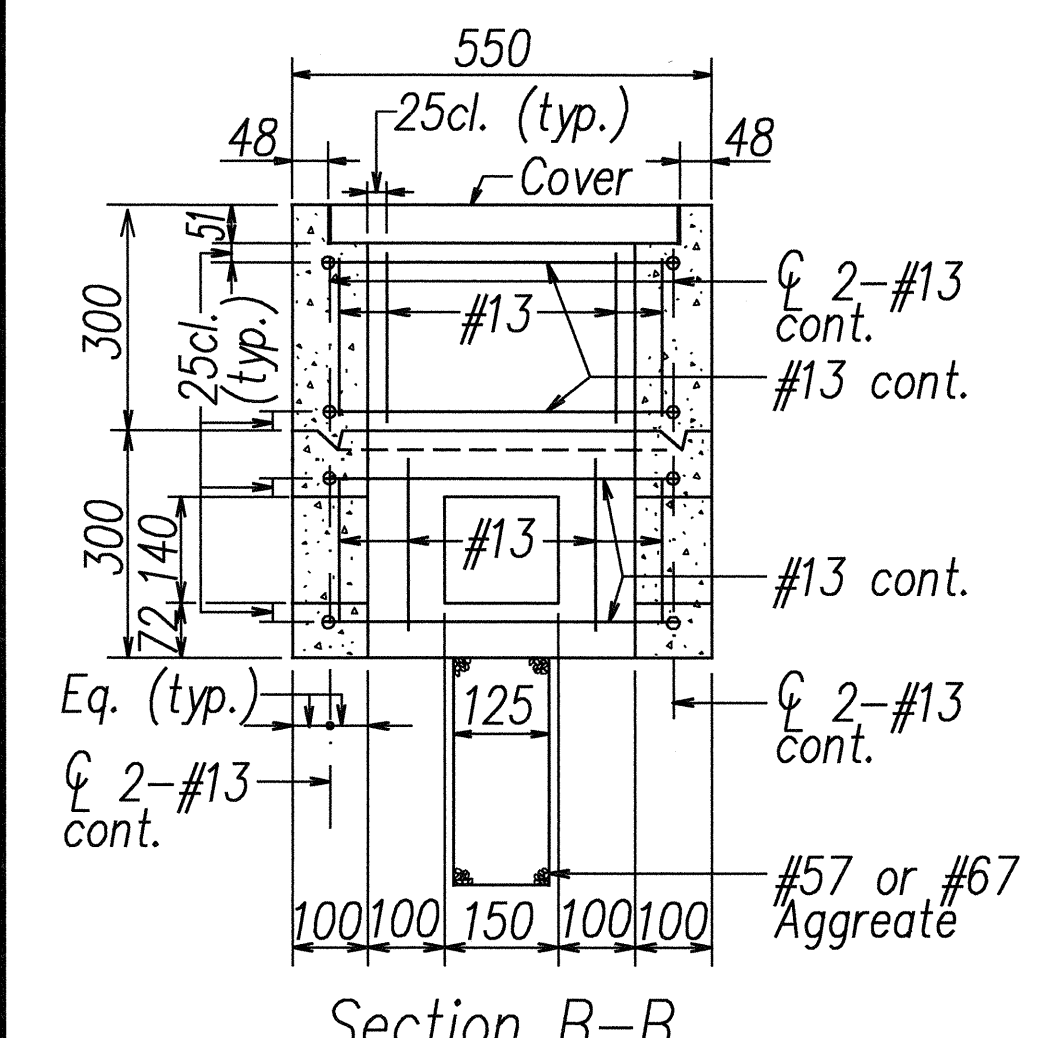
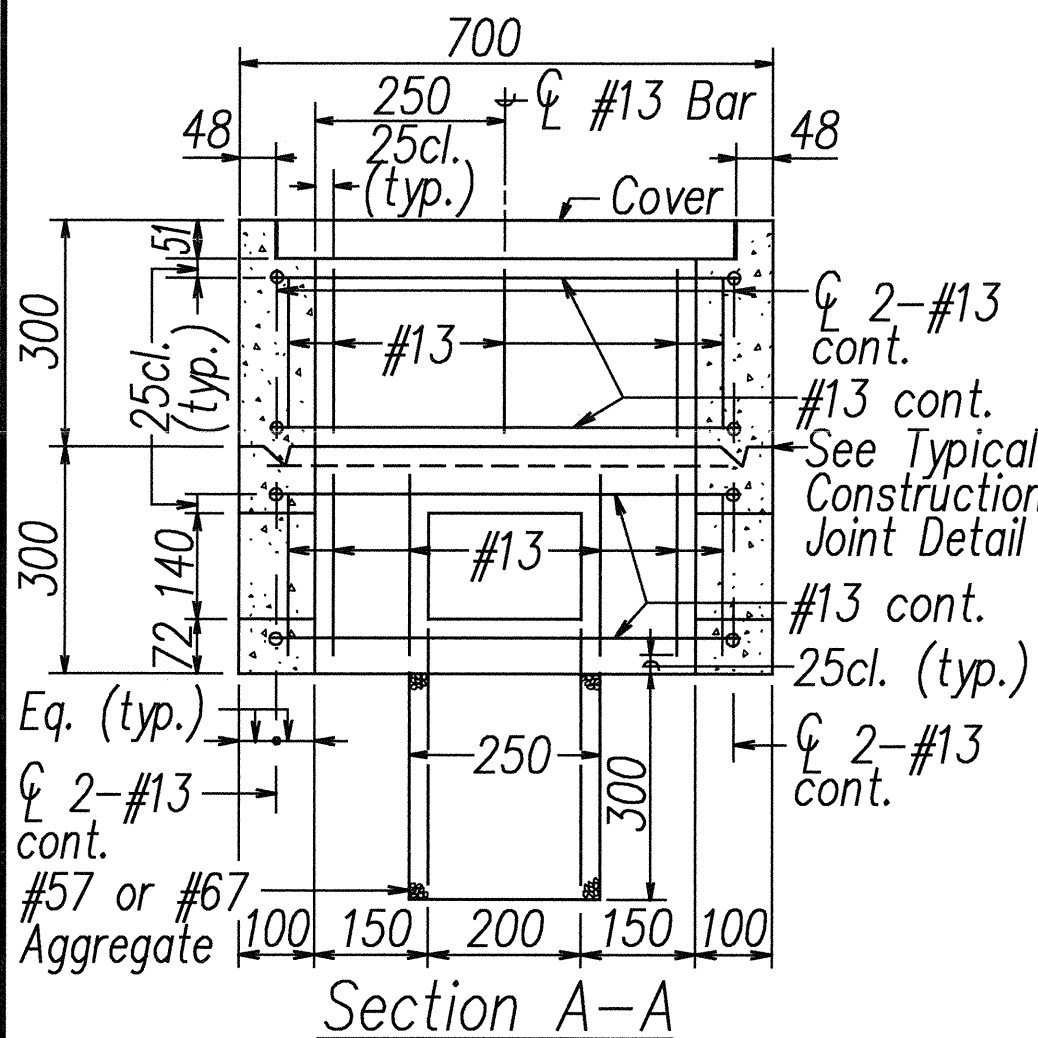
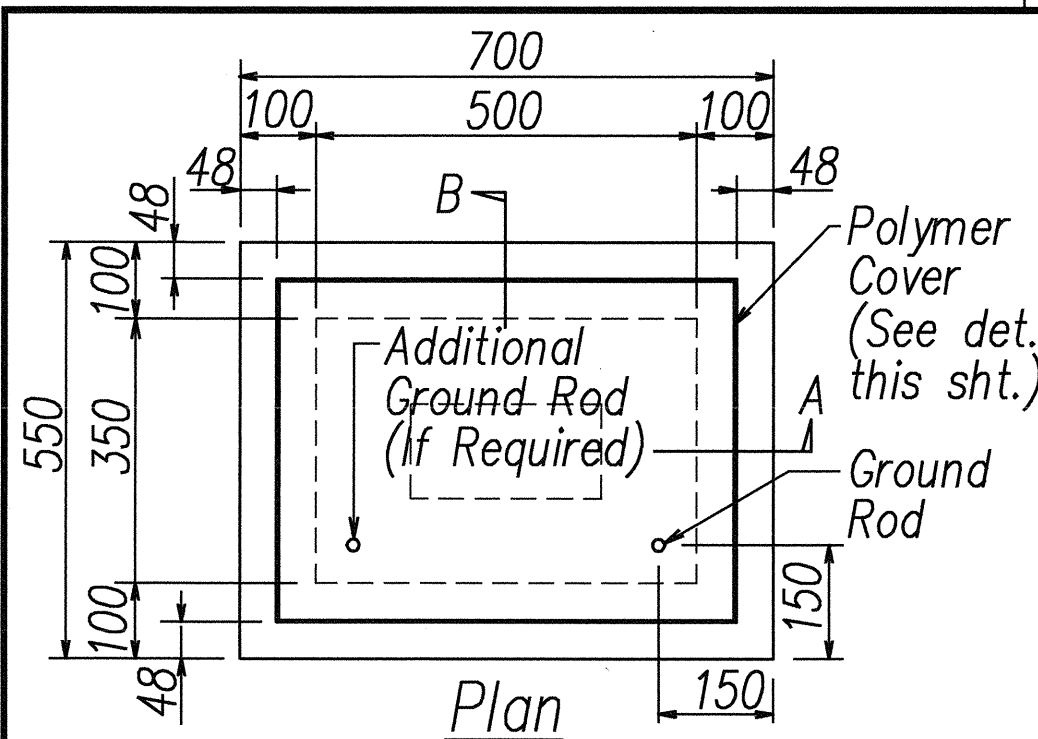
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PULLBOX & COVER (C&C) DETAILS

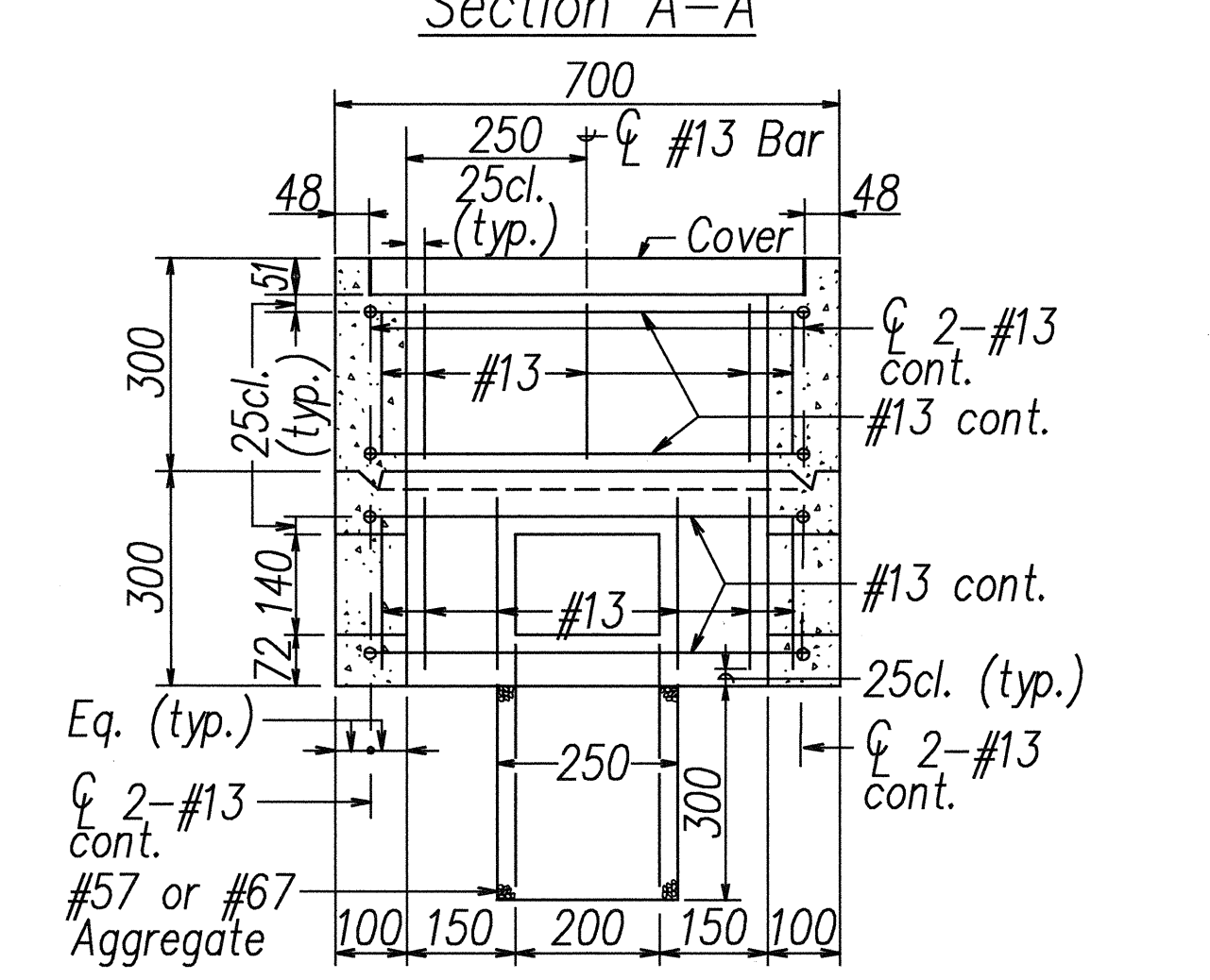
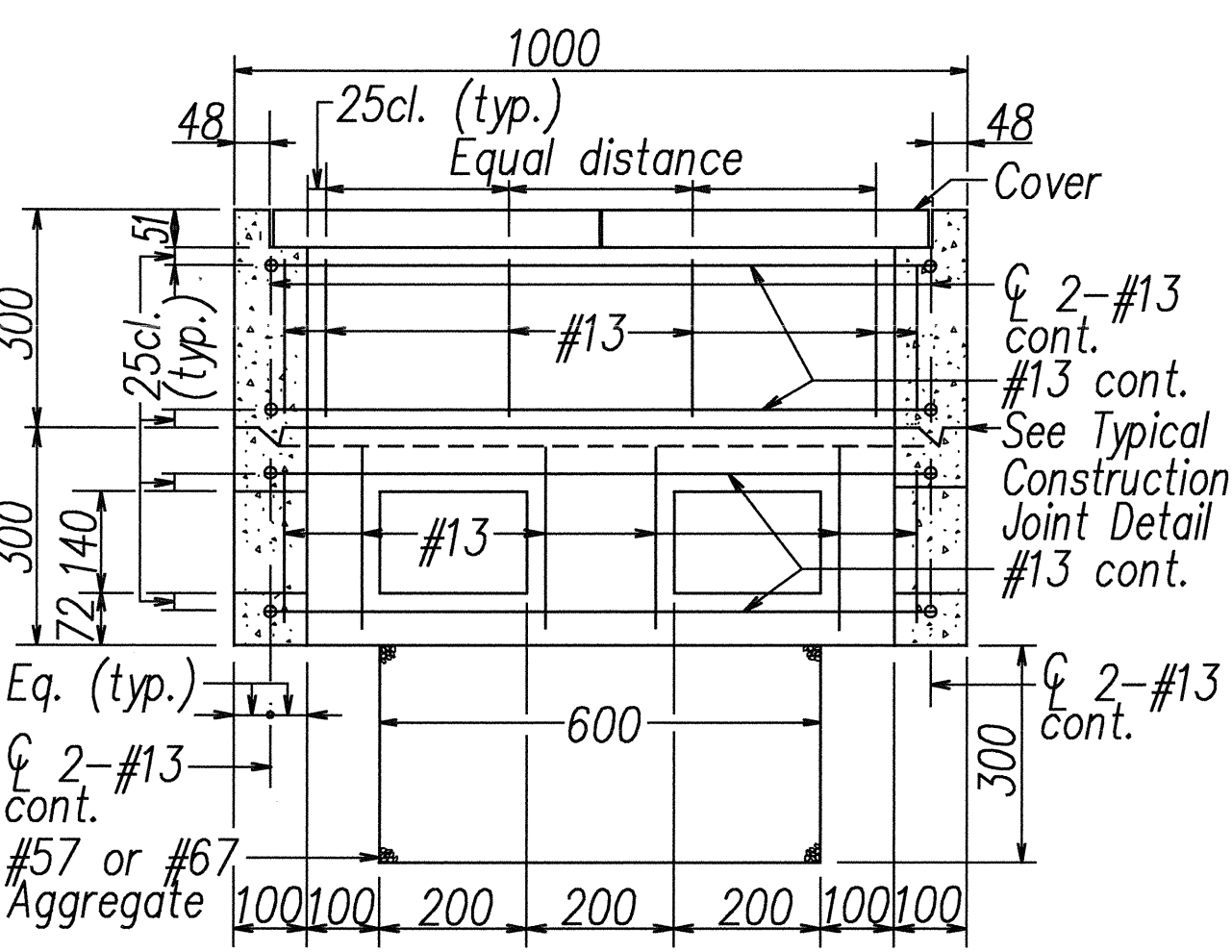
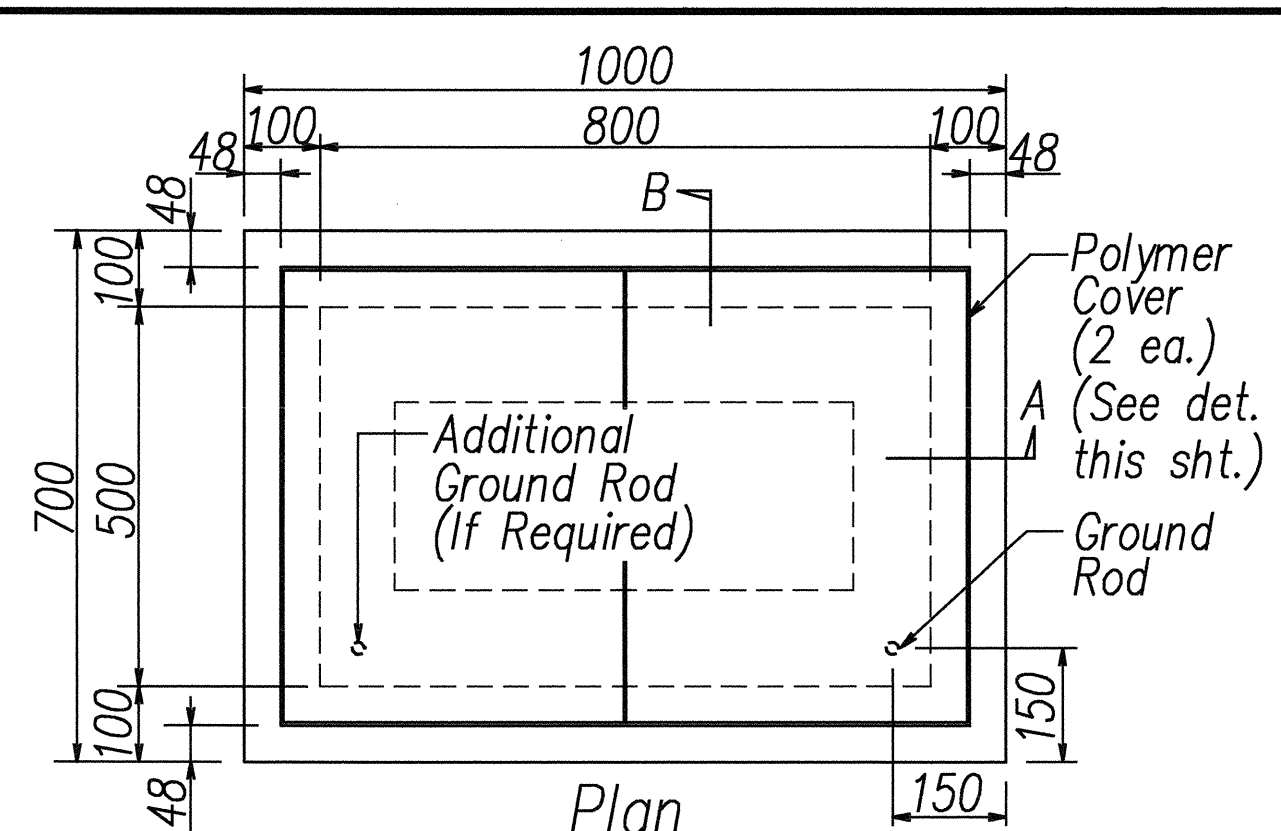
North-South Road
Phase 1B
F.A.I. Proj. No. STP-8930(2)

Scale: AS NOTED Date: Feb 21, 2007

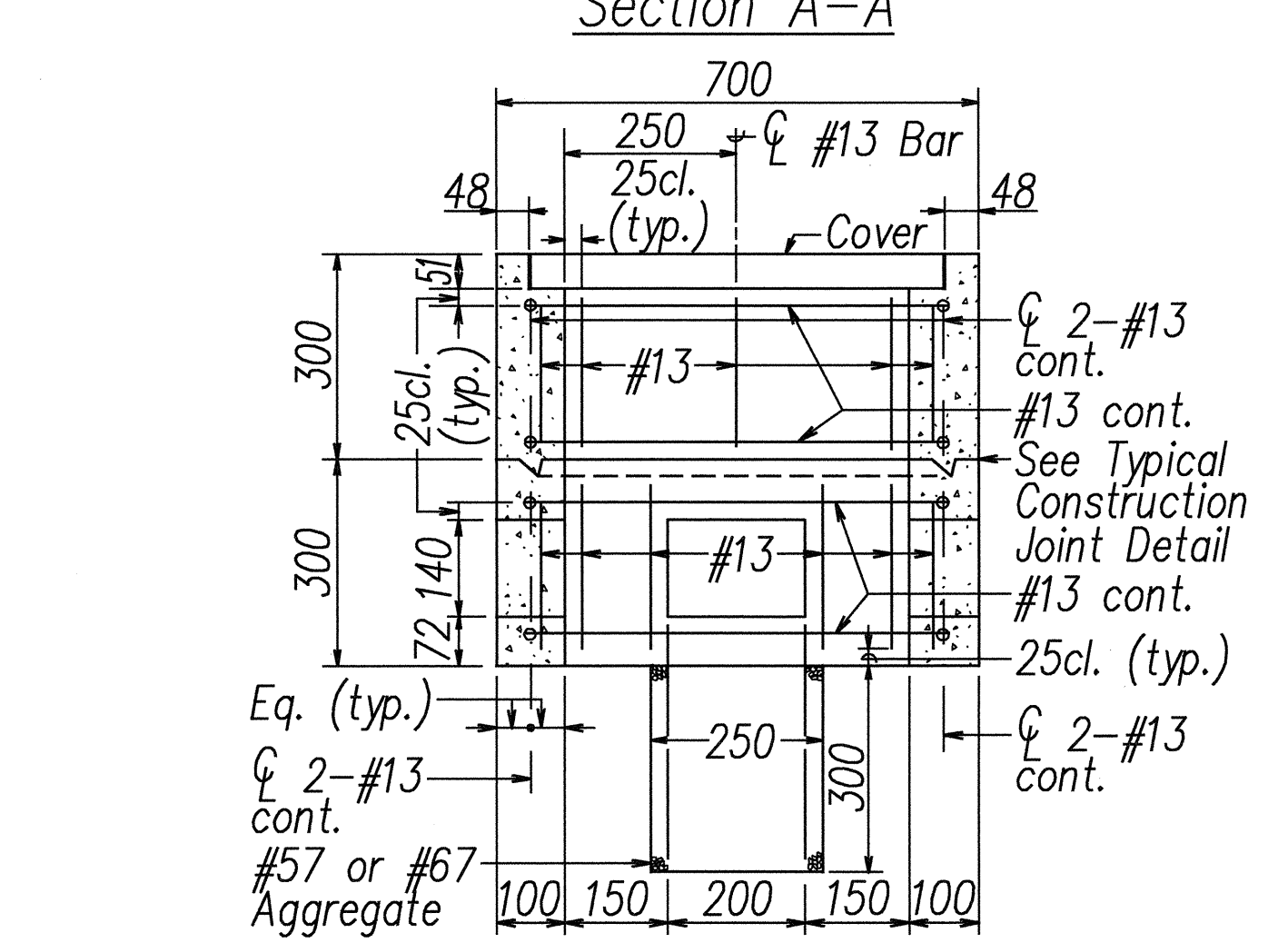
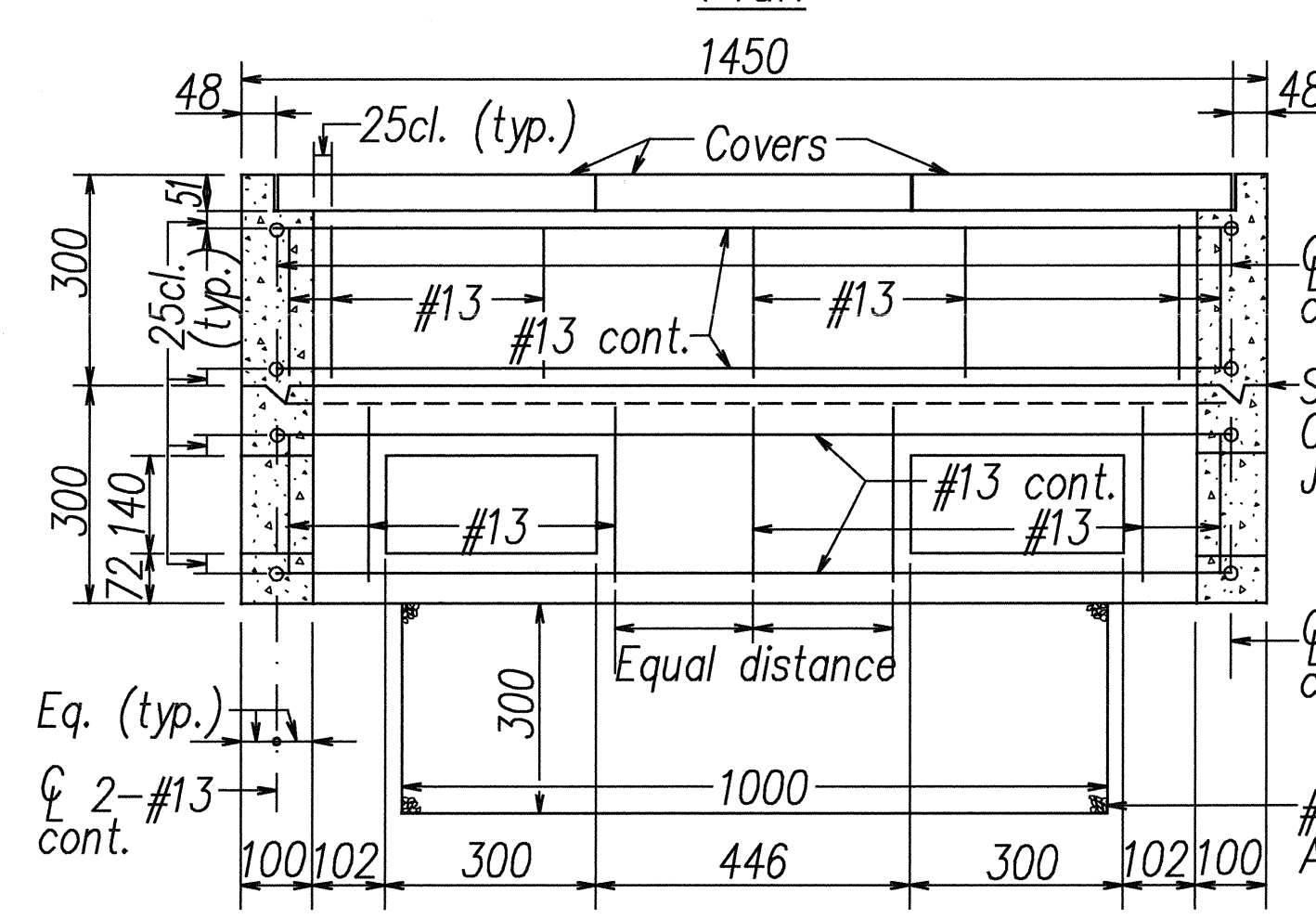
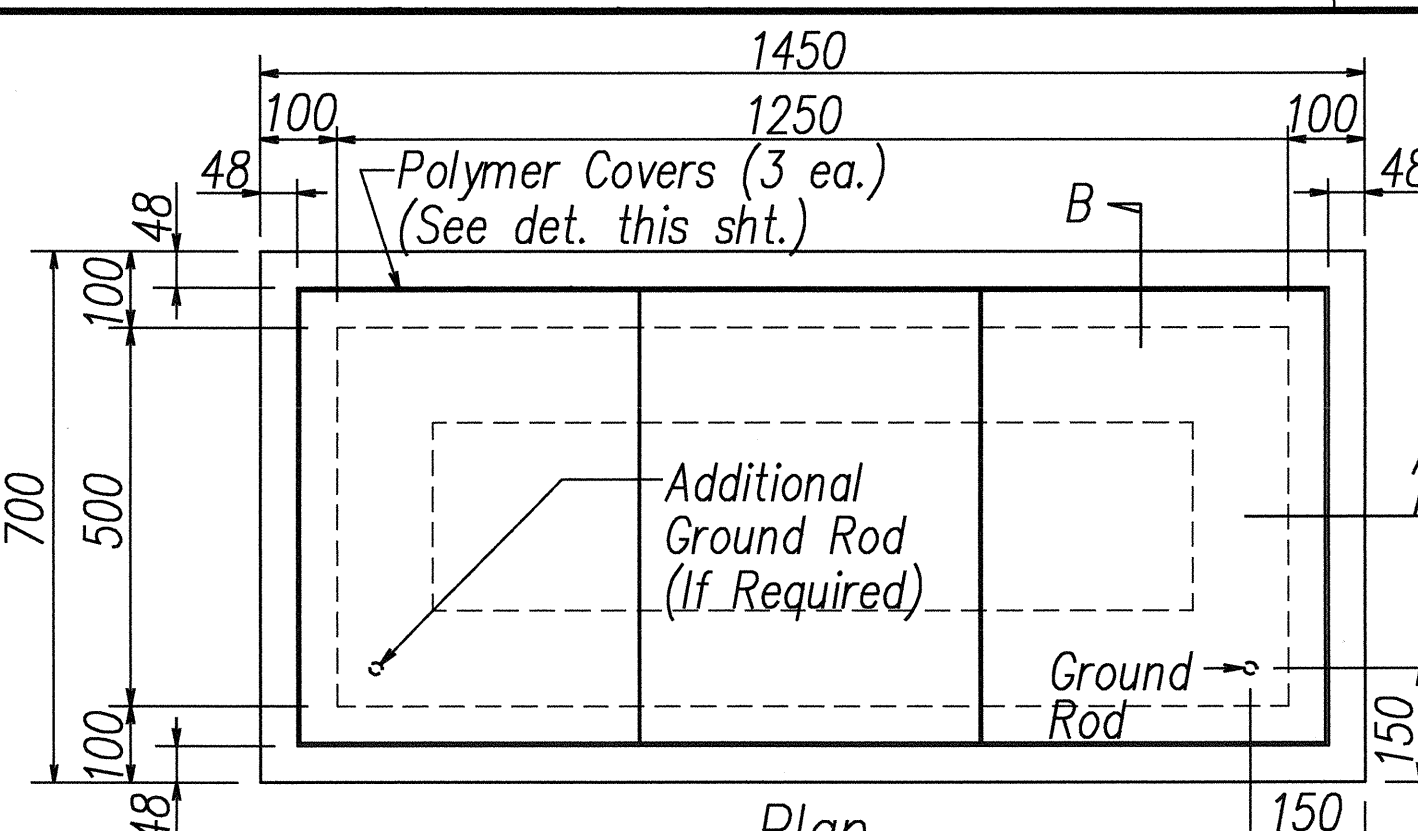
SHEET No. E211 OF 62 SHEETS



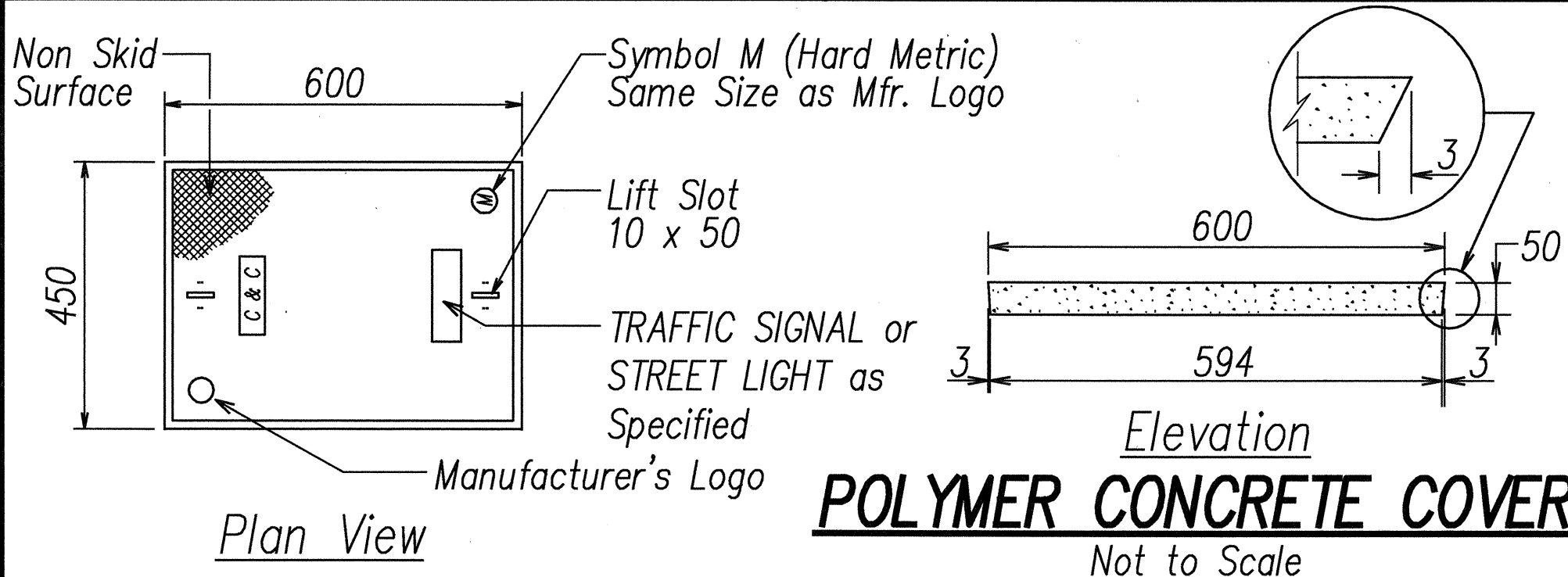
TYPE "A" PULLBOX (Old Type "B")
Scale: 1 : 100



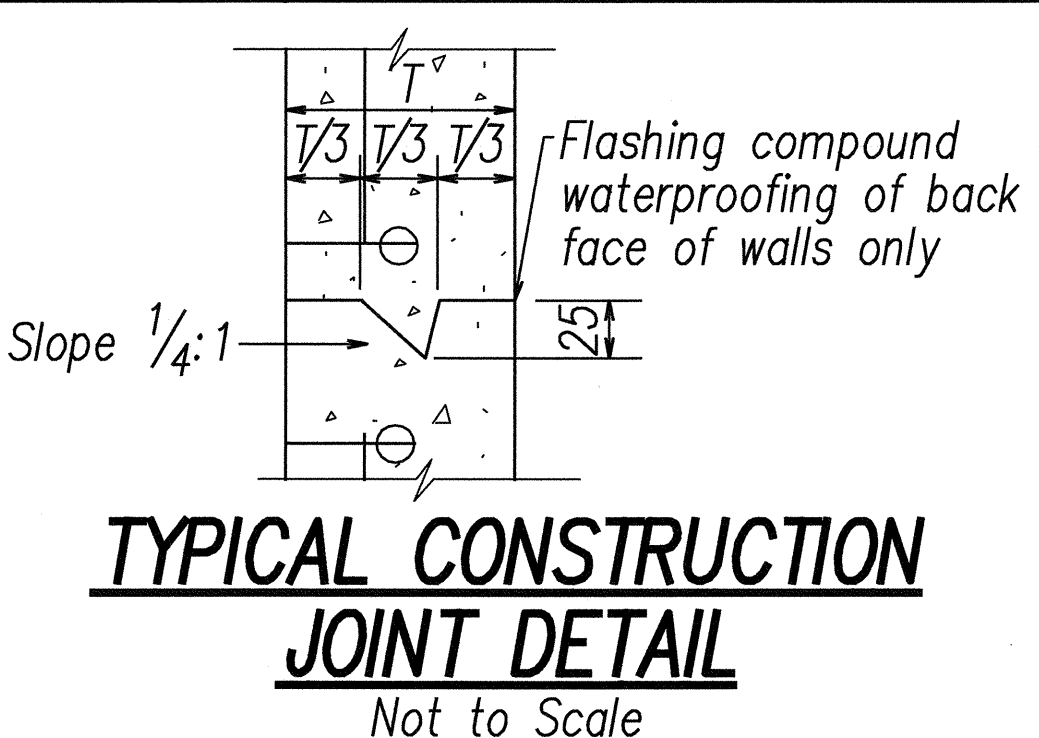
TYPE "B" PULLBOX (Old Type "C")
Scale: 1 : 100



TYPE "C" PULLBOX (Old Type "D")
Scale: 1 : 100



POLYMER CONCRETE COVER
Not to Scale



TYPICAL CONSTRUCTION JOINT DETAIL
Not to Scale

DESIGNED BY: DATE: 11/11/06
CHECKED BY: 11/11/06
NOTED BY: 11/11/06
ORIGINAL PLAN: 11/11/06
LAST REV. 02/21/07
BY: 02/21/07
REASON: 02/21/07