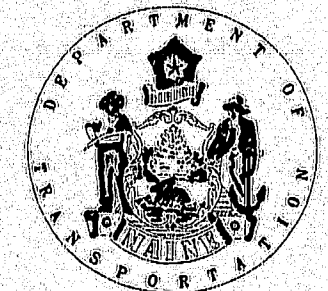


HH-19720 (150' x 111' x 20')

BAUSE 01030

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



PLANS

PENOBSCOT RIVER BRIDGE OVER PENOBSCOT RIVER BETWEEN THE CITIES OF BANGOR AND BREWER PENOBSCOT COUNTY PROJECT NO. BR-BRF-038-1(35) PROJECT LENGTH 0.445 MILES

SPECIFICATIONS

DESIGN: Load Factor Design per AASHTO Standard Specifications for Highway Bridges 1992 and Interim Specifications 1993 and 1994.
CONTRACT: State of Maine, Dept. of Transportation, Standard Specifications, Highways and Bridges, Revision of April 1995.

DESIGN LOADING

LIVE LOAD HS25

MATERIALS

CONCRETE: Structural Wearing Surface Class AASF
Seal Concrete CLASS S
All Other CLASS A
REINFORCING STEEL: ASTM A615 GRADE 60
STRUCTURAL STEEL: All Material ASTM A709, Grade 50W
(Except as otherwise noted) (Unpainted)
High Strength Bolts ASTM A325, TYPE 3

BASIC DESIGN STRESSES

CONCRETE: $f'_c = 4,000$ psi
REINFORCING STEEL: $f_y = 60,000$ psi
STRUCTURAL STEEL: ASTM A709, Grade 50W $F_y = 50,000$ psi
ASTM A709, Grade 36 $F_y = 36,000$ psi
ASTM A325 $F_u = 25,000$ psi

HYDROLOGIC DATA

Drainage Area (Sq. Miles) 7.830
Design Discharge Q50 (cfs) 149,000
Check Discharge Q100 (cfs) 167,000
Headwater Elevation Q50 16.6
Headwater Elevation Q100 17.6
Discharge Velocity Q50 (fps) 6.8
Discharge Velocity Q100 (fps) 7.3
Ordinary High Water Discharge Q11 (cfs) 48,000
Ordinary High Water Headwater Elevation Q11 (cfs) 10.1
Flood of Record Q120 (cfs) 171,000
Flood of Record Headwater Elevation Q120 (cfs) 17.7
Mean High Tide Elevation 5.8
Mean Low Tide Elevation -7.7

TRAFFIC DATA

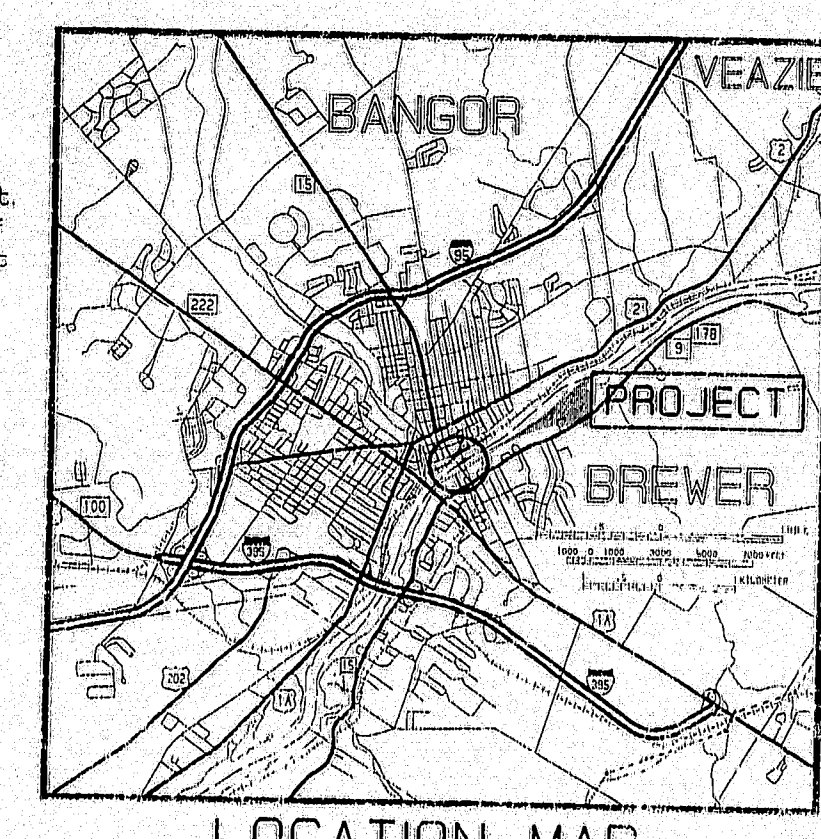
	Washington Ave. Northerly of Oak Street Bangor	Oak Street Bangor	Exchange Street Bangor	Washington Ave. Southerly of Exchange St. Bangor	Cambert Street Brewer	State Street Brewer	North Main St. Northerly of State Street Brewer
Average Annual Daily Traffic (1995)	15085	12505	9020	14180	6240	9225	14480
Average Annual Daily Traffic (2015)	24730	18790	13760	20040	10150	14920	23820
Design Hour Volume	1890	1854	1511	2024	647	1533	2008
DHV (% AADT)	9	10	11	10	7	10	8
Heavy Trucks (% AADT)	2	2	5	4	2	2	5
Heavy Trucks (% DHV)	2	2	5	4	2	2	5
Directional Distribution (% DHV)	54	100	87	74	59	58	54
18 Kip Equivalent P2.0	175	219	171	215	56	87	367
18 Kip Equivalent P2.0	171	216	168	211	55	83	359
Velocity							

REFERENCE

Plans of the existing bridge and a hydrologic report of the bridge site are available for the Contractor's reference at the Bridge Design Office in Augusta. The plans are reproductions of original drawings as prepared for the construction of the bridge and it is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span. The hydrologic report is based on the interpretation by the Department of information obtained for the subject site and no assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.

NOTE

All work contemplated under this contract shall be governed by and in conformity with the Standard Specifications (Revision of April 1995) and supplementals thereto, except as modified on the plans and in the Special Provisions.



APPROVED:
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
COMMISSIONER
CHIEF ENGINEER

9/21/95
DATE
9/21/95
DATE

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1
APPROVED:
DIVISION ADMINISTRATOR
DATE

PIN 002672.00

F.H.W.A. FED. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	1	201

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ESTIMATED QUANTITIES

PIN 002672.00

F.R.V.A. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-03B-K353	2	201

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
108.51	PROSECUTION OF WORK - INITIAL SCHEDULE	1	LS
109.52	PROSECUTION OF WORK - MONTHLY UPDATE	24	EACH
201.23	REMOVING SINGLE TREE TOP ONLY	5	EACH
201.24	REMOVING STUMP	5	EACH
202.08	REMOVING BUILDING #1	1	LS
202.10	REMOVING EXISTING SUPERSTRUCTURE-PROP. OF CONTR. (53 CY)	1	LS
202.11	REMOVING PORTLAND CEMENT CONCRETE PAVEMENT	5150	SY
202.15	REMOVING MANHOLE OR CATCH BASIN	20	EA
202.17	REMOVING EXISTING STRUCTURAL CONCRETE	1	LS
202.19	REMOVING EXISTING BRIDGE (5070 CY)	1	LS
202.202	REMOVING PAVEMENT SURFACE	825	SY
202.203	PAVEMENT BUTT JOINTS	115	SY
203.20	COMMON EXCAVATION	21600	CY
203.233	DISPOSAL OF SPECIAL EXCAVATION	110	CY
203.25	GRANULAR BORROW	4445	CY
203.26	GRAVEL BORROW	336	CY
205.061	STRUC EARTH EXCAV.-DRAIN & MINOR STRUC'S. BELOW GRADE	50	CY
206.07	STRUCTURAL ROCK EXCAVATION-DRAINAGE & MINOR STRUCTURES	550	CY
206.082	STRUCTURAL EARTH EXCAVATION-MAJOR STRUCTURES	1975	CY
206.09	STRUCTURAL ROCK EXCAVATION ABUTS. & RET. WALLS	20	CY
206.10	STRUCTURAL EARTH EXCAVATION-PIERS	2350	CY
304.10	AGGREGATE SUBBASE COURSE--GRAVEL	15500	CY
403.07	HOT BITUMINOUS PAVEMENT, GRADING B	5950	TONS
403.08	HOT BITUMINOUS PAVEMENT, GRADING C	1350	TONS
403.10	HOT BITUMINOUS PAVEMENT, GRADING D	903	TONS
403.101	HOT BIT. PYMT., GRD D (SIDEWALKS, SHIMS, DRIVES, INCIDENTALS)	900	TONS
409.15	BITUMINOUS TACK COAT, APPLIED	575	GAL
501.231	DYNAMIC LOADING TEST	1	EA
501.46	STEEL H-BEAM PILES 73 LBS/FT. DELIVERED	1360	LF
501.461	STEEL H-BEAM PILES 73 LBS/FT. IN PLACE	1360	LF
501.90	PILE TIPS	26	EA
501.91	PILE SPLICES	26	EA
501.92	PILE DRIVING EQUIPMENT MOBILIZATION	1	LS
502.210	STRUCTURAL CONCRETE, ABUTMENTS & RETAINING WALLS	9	CY
502.219	STRUCTURAL CONCRETE, ABUTMENTS & RETAINING WALLS (1395 CY)	1	LS
502.22	STRUCT. CONC., ABUTS. & RET. WALLS (PLACED UNDER WATER)	505	CY
502.239	STRUCTURAL CONCRETE PIERS (1833 CY)	1	LS
502.24	STRUCTURAL CONCRETE PIERS (PLACED UNDER WATER)	2750	CY
502.25	STRUCTURAL CONCRETE SUPERSTRUCTURE SLABS (19 CY)	1	LS
502.26	STRUCT. CONC. RDWY. & SW. SLAB ON STEEL BRIDGES (2090 CY)	1	LS
502.29	STRUCT. CONC. WEARING SURFACE ON BRIDGES (38 CY)	1	LS
510.10	SPECIAL DETOUR 24 FOOT ROAD	1	LS
502.31	STRUCTURAL CONCRETE APPROACH SLABS (60 CY)	1	LS
502.4711	SILICA FUME ADDITIVE (12500 LBS)	1	LS
502.56	CONCRETE FILL	285	CY
503.12	REINFORCING STEEL FABRICATED & DELIVERED	761900	LB
503.13	REINFORCING STEEL PLACING	761900	LB
504.70	STRUCTURAL STEEL FABRICATED AND DELIVERED (2266000 LBS)	1	LS
504.71	STRUCTURAL STEEL ERECTION (2266000 LBS)	1	LS
505.08	SHEAR CONNECTORS (12656 EA)	1	LS
507.0845	BARRIER-MOUNTED STEEL BRIDGE RAILING, 1-BAR	82	LF
507.0847	BARRIER-MOUNTED STEEL BRIDGE RAILING, 2-BAR	2453	LF
508.13	MEMBRANE WATERPROOFING (4922 SY)	1	LS
511.07	COFFERDAM, PIER #2	1	LS
511.07	COFFERDAM, PIER #3	1	LS
511.07	COFFERDAM, PIER #4	1	LS
511.07	COFFERDAM, PIER #5	1	LS
511.07	COFFERDAM, ABUTMENT #2	1	LS
512.08	FRENCH DRAINS	230	LF
514.06	CURING BOX FOR CONCRETE CYLINDERS	1	EA
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (3110 SY)	1	LS
520.23	EXPANSION DEVICE - FINGER JOINT	2	EA
523.08	ELASTOMERIC BRIDGE BEARING - LAMINATED	12	EA
523.10	POT BEARINGS	30	EA
524.30	TEMPORARY STRUCTURAL SUPPORT	1	EA
526.301	TEMPORARY CONCRETE BARRIER, TYPE I	1	LS

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
526.32	PERMANENT CONCRETE BARRIER, TYPE III	2453	LF
527.32	PORTABLE CRASH BARRELS	30	EA
535.60	PRESTRESSED STRUCTURAL CONCRETE SLAB (40 CY)	1	LS
603.15	12 INCH CULVERT PIPE OPTION I	138	LF
603.159	12 INCH CULVERT PIPE OPTION III	570	LF
603.16	15 INCH CULVERT PIPE OPTION I	198	LF
603.169	15 INCH CULVERT PIPE OPTION III	514	LF
603.179	18 INCH CULVERT PIPE OPTION III	258	LF
603.18	21 INCH CULVERT PIPE OPTION I	98	LF
603.189	21 INCH CULVERT PIPE OPTION III	346	LF
603.199	24 INCH CULVERT PIPE OPTION III	57	LF
603.20	30 INCH CULVERT PIPE OPTION I	99	LF
603.209	30 INCH CULVERT PIPE OPTION III	36	LF
603.21	36 INCH CULVERT PIPE OPTION I	90	LF
603.219	36 INCH CULVERT PIPE OPTION III	55	LF
603.411	24 INCH REINFORCED CONCRETE PIPE CLASS V	153	LF
603.77	15 INCH INLET GRATE UNIT	3	EA
604.072	CATCH BASIN TYPE A1-C	30	EA
604.076	60 INCH CATCH BASIN TYPE A1-C	2	EA
604.077	72 INCH CATCH BASIN TYPE A1-C	2	EA
604.092	CATCH BASIN TYPE B1-C	4	EA
604.11	CATCH BASIN TYPE C1	4	EA
604.16	ALTER CATCH BASIN TO MANHOLE	3	EA
604.18	ADJUST MANHOLE OR CATCH BASIN TO GRADE	7	EA
604.249	CATCH BASIN TYPE F-6C	3	EA
604.252	CATCH BASIN TYPE A5-C	2	EA
605.09	6 INCH UNDERDRAIN TYPE B	2320	LF
605.11	12 INCH UNDERDRAIN TYPE C	401	LF
605.12	15 INCH UNDERDRAIN TYPE C	80	LF
605.13	18 INCH UNDERDRAIN TYPE C	816	LF
605.14	21 INCH UNDERDRAIN TYPE C	195	LF
605.15	24 INCH UNDERDRAIN TYPE C	118	LF
605.17	30 INCH UNDERDRAIN TYPE C	281	LF
605.257	TERMINAL CONNECTOR THRIE BEAM	7	EA
606.35	GUARDRAIL DELINEATOR POST	12	EA
606.55	GUARDRAIL TYPE 3 - SINGLE RAIL	450	LF
606.55	GUARDRAIL TYPE 3 - OVER 15' FOOT RADIUS	92	LF
606.55	GUARDRAIL THRIE BEAM - SINGLE RAIL	100	EA
606.70	TRANSITION SECTION THRIE BEAM	6	EA
606.78	MODIFIED ECCENTRIC LOADER TERMINAL	4	EA
607.17	CHAIN LINK FENCE 6 FOOT	261	LF
607.22	CEDAR RAIL FENCE	80	LF
607.36	BRACING ASSEMBLY TYPE I - CHAIN LINK FENCE 6 FOOT	3	EA
608.101	BRICK ISLAND (REMOVE AND REBUILD)	150	SY
609.11	VERTICAL CURB TYPE 1	2150	LF
609.12	VERTICAL CURB TYPE 1 - CIRCULAR	475	LF
609.234	TERMINAL CURB TYPE 1 - 4 FOOT	1	EA
609.238	TERMINAL CURB TYPE 1 - 8 FOOT	68	EA
609.31	CURB TYPE 3	650	LF
609.34	CURB TYPE 5	2725	LF
609.35	CURB TYPE 5 - CIRCULAR	275	LF
609.38	RESET CURB TYPE 1	1925	LF
610.08	PLAIN RIPRAP	107	CY
611.01	GEOTEXTILE WALL INTERLOCKING BLOCKS	485	SF
612.06	BITUMINOUS SEALING - BLACK	75	SY
615.07	LOAM	350	CY
618.13	SEEDING METHOD NUMBER 1	45	UNIT
618.141	SEEDING METHOD NUMBER 3	10	UNIT
618.15	TEMPORARY SEEDING	35	LB
618.12	MULCH	125	UNIT
620.58	EROSION CONTROL GEOTEXTILE	675	SY
621.050	EVERGREEN TREES (9 FOOT - 10 FOOT) GROUP B	1	EA
621.202	MEDIUM DECIDUOUS TREE (2 INCH - 2 1/2 INCH CALIPER) GROUP B	6	EA
621.262	LARGE DECIDUOUS TREES (10 FOOT - 12 FOOT) GROUP B	5	EA
621.273	LARGE DECIDUOUS TREE (2 INCH - 2 1/2 INCH CALIPER) GROUP A	58	EA
621.396	DWARF EVERGREENS (18 INCH - 24 INCH) GROUP B	196	EA
621.531	DECIDUOUS SHRUBS (12 INCH - 18 INCH CALIPER) GROUP A	129	EA
621.54	DECIDUOUS SHRUBS (18 INCH - 24 INCH CALIPER) GROUP A	130	EA
621.546	DECIDUOUS SHRUBS (2 FOOT - 3 FOOT) GROUP A	70	EA
621.547	DECIDUOUS SHRUBS (2 FOOT - 3 FOOT) GROUP B	24	EA
626.11	PRECAST CONCRETE JUNCTION BOX	18	EA
626.21	METALLIC CONDUIT	2200	LF
626.22	NON-METALLIC CONDUIT	3900	LF
626.32	24 INCH FOUNDATION	4	EA
626.33	30 INCH FOUNDATION	15	EA
626.35	CONTROLLER CABINET FOUNDATION	5	EA
626.36	REMOVE OR MODIFY CONCRETE FOUNDATION	2	EA
626.37	SPECIAL FOUNDATION 36 INCH	14	EA
627.61	4 INCH SOLID WHITE PAVEMENT MARKING LINE	2500	LF
627.62	4 INCH BROKEN WHITE PAVEMENT MARKING LINE	5500	LF
627.63	4 INCH SOLID YELLOW PAVEMENT MARKING LINE	5000	LF
627.65	WHITE OR YELLOW PAVEMENT AND CURB MARKING	4900	SF
606.72	GUARDRAIL - THRIE BEAM - OVER 15' RADIUS	150	LF

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
627.68	TEMPORARY 4 INCH PAVEMENT MARKING LINE, WHITE OR YELLOW	12900	LF
629.05	HAND LABOR, STRAIGHT TIME	40	MH
631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	10	HR
631.11	AIR TOOL (INCLUDING OPERATOR)	10	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20	HR
631.14	GRADER (INCLUDING OPERATOR)	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	40	HR
631.18	CHAIN SAW RENTAL (INCLUDING OPERATOR)	10	HR
631.20	STUMP CHIPPER (INCLUDING OPERATOR)	20	HR
631.22	FRONT END LOADER (INCLUDING OPERATOR)	20	HR
631.32	CUVERT CLEANER (INCLUDING OPERATOR)	10	HR
634.16	HIGHWAY LIGHTING	1	LS
634.21	CONVENTIONAL LIGHT STANDARD	15	EA
634.223	40 FOOT LIGHT STANDARD STAINLESS STEEL DAVIT	6	EA
636.30	MECHANICALLY STABILIZED EARTH RETAINING WALL	520	SF
637.07	SPRINKLING	145	MG
637.08	CALCIUM CHLORIDE	15	TON
638.01	EMBEDDED WORK IN STRUCTURE	1	LS
639.18	FIELD OFFICE TYPE A	1	EA
639.22	TESTING FACILITIES BITUMINOUS MIXES	1	LS
639.23	TESTING FACILITIES - CONCRETE	1	LS
641.711	REMOVE AND RESET EXISTING SPECIALTY CONCRETE UNIT PAVING	590	SF
642.15	PRECAST CONCRETE STEPS	2	EA
643.71	TRAFFIC SIGNAL MODIFICATION AT OAK AND HANCOCK	1	LS
643.71	TRAFFIC SIGNAL MODIFICATION AT NORTH MAIN AND CENTER	1	LS
643.80	TRAFFIC SIGNAL AT WASHINGTON AND EXCHANGE	1	LS
643.80	TRAFFIC SIGNAL AT WASHINGTON AND OAK	1	LS
643.80	TRAFFIC SIGNAL AT STATE AND PENOBSCOT	1	LS
643.80	TRAFFIC SIGNAL AT NORTH MAIN AND STATE	1	LS
643.90	INTERCONN. WIRE ALONG OAK-OR-STATE BETWN. HANCOCK & N. MAIN	1	LS
643.90	INTERCONN. WIRE ALONG WASHINGTON BETWEEN EXCHANGE AND OAK	1	LS
643.90	INTERCONN. WIRE ALONG N. MAIN BETWEEN STATE AND CENTER	1	LS
643.91	MASTARM POLE WITH 20 FOOT MASTARM	1	EA
643.91	MASTARM POLE WITH 25 FOOT MASTARM	1	EA
643.91	MASTARM POLE WITH 30 FOOT MASTARM	3	EA
643.91	MASTARM POLE WITH 35 FOOT MASTARM	2	EA
643.91	MASTARM POLE WITH 45 FOOT MASTARM	2	EA
643.91	MASTARM POLE WITH 2-35 FOOT MASTARMS	1	EA
643.92	PEDESTAL POLE	4	EA
643.94	DUAL PURPOSE POLE WITH 30 FOOT MASTARM	3	EA
643.94	DUAL PURPOSE POLE WITH 45 FOOT MASTARM	1	EA
652.31	TYPE I BARRICADE	20	EA
652.311	TYPE II BARRICADE	10	EA
652.312	TYPE III BARRICADE	6	EA
652.33	DRUM	20	EA
652.34	CONE	25	EA
652.35	CONSTRUCTION SIGNS	880	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	LS
652.38	FLAGGER	500	MH
656.50	BALED HAY, IN PLACE	20	EA
656.51	SANDBAG, IN PLACE	20	EA
656.55	DUMPED STONE	50	CY
656.631	15 INCH TEMPORARY SILT FENCE	325	LF
656.632	30 INCH TEMPORARY SILT FENCE	500	LF
656.64	BOOM SUPPORTED FLOATING SILT FENCE	923	LF
657.24	SEEDING PITS	60	UNIT
658.20	ACRYLIC LATEX COLOR FINISH, GREEN	1600	SY
659.10	MOBILIZATION	1	LS
660.21	ON - THE - JOB - TRAINING (BIO)	4000	MH
903.145	30 INCH CEMENT DUCTILE IRON PIPE	120	LF
903.165	5 FOOT DIAMETER PRECAST SEWER MANHOLE	6	EA

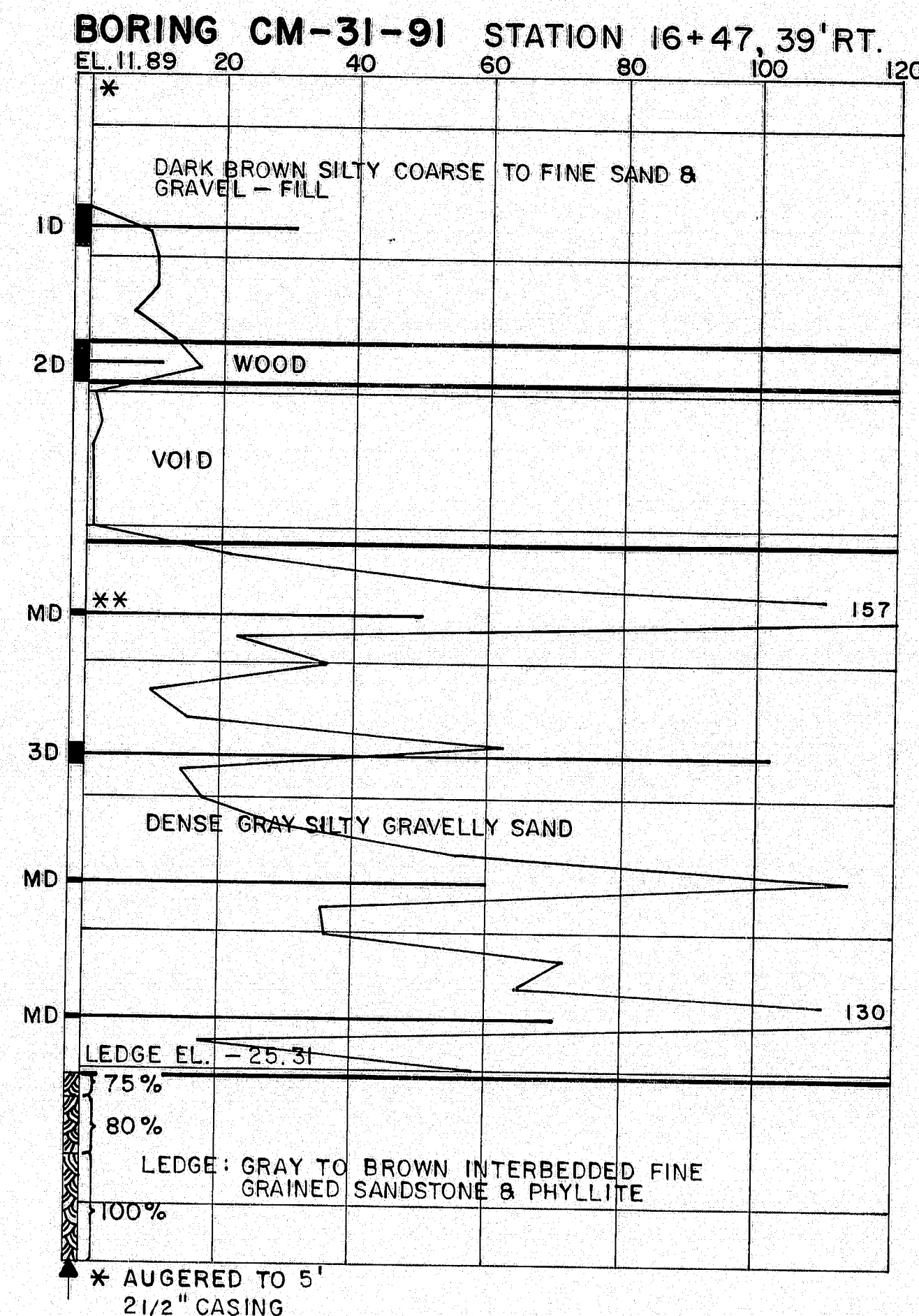
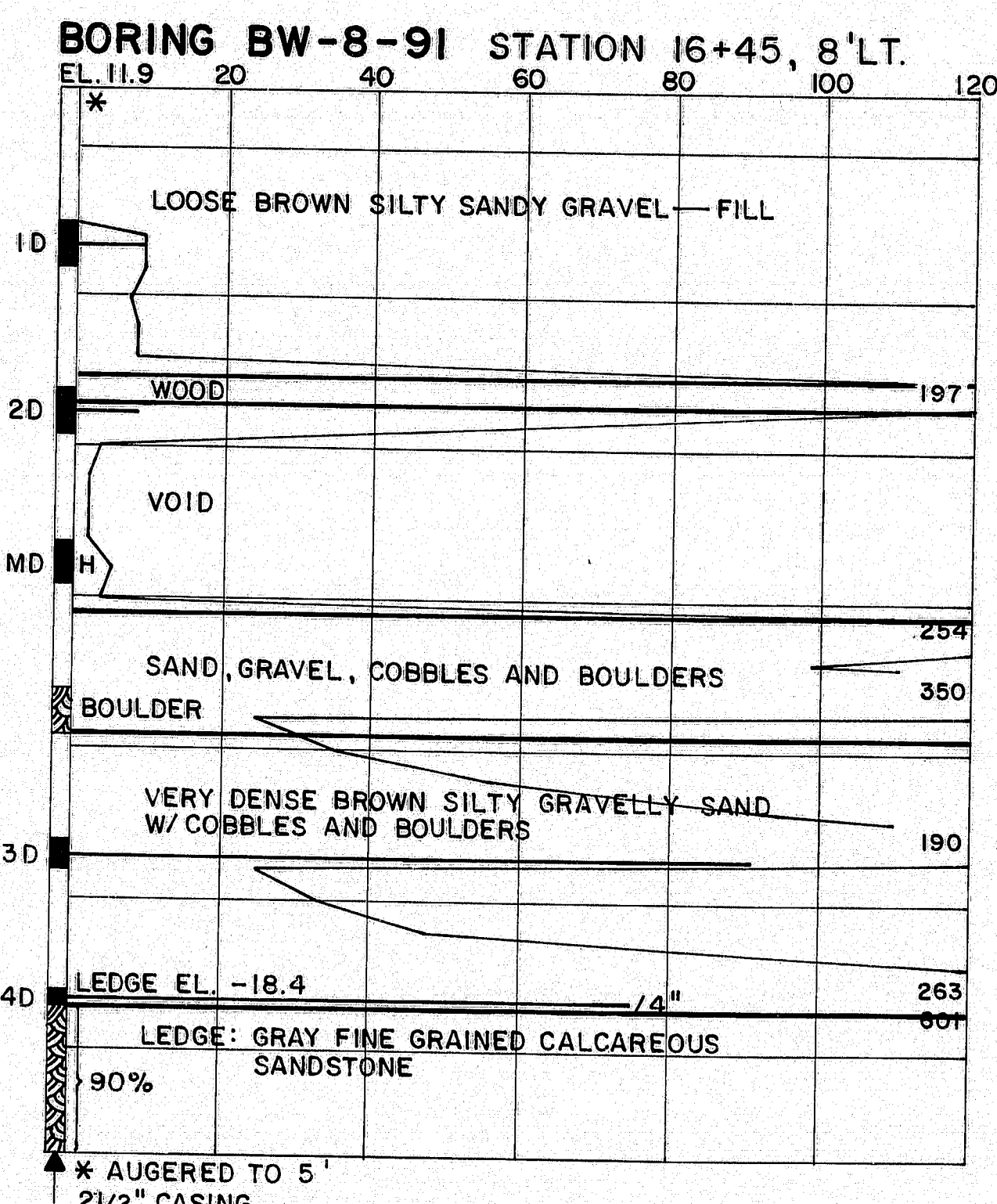
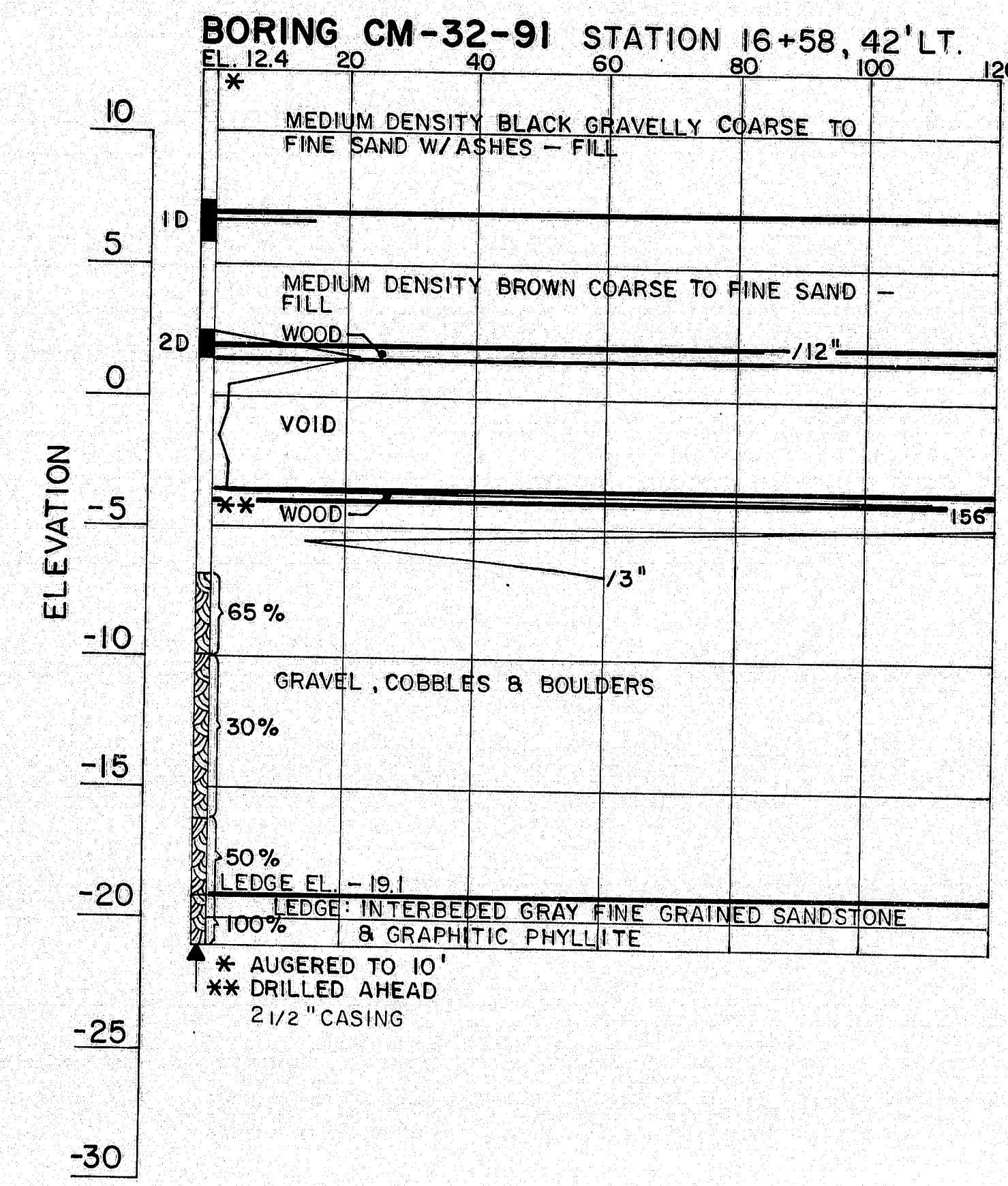
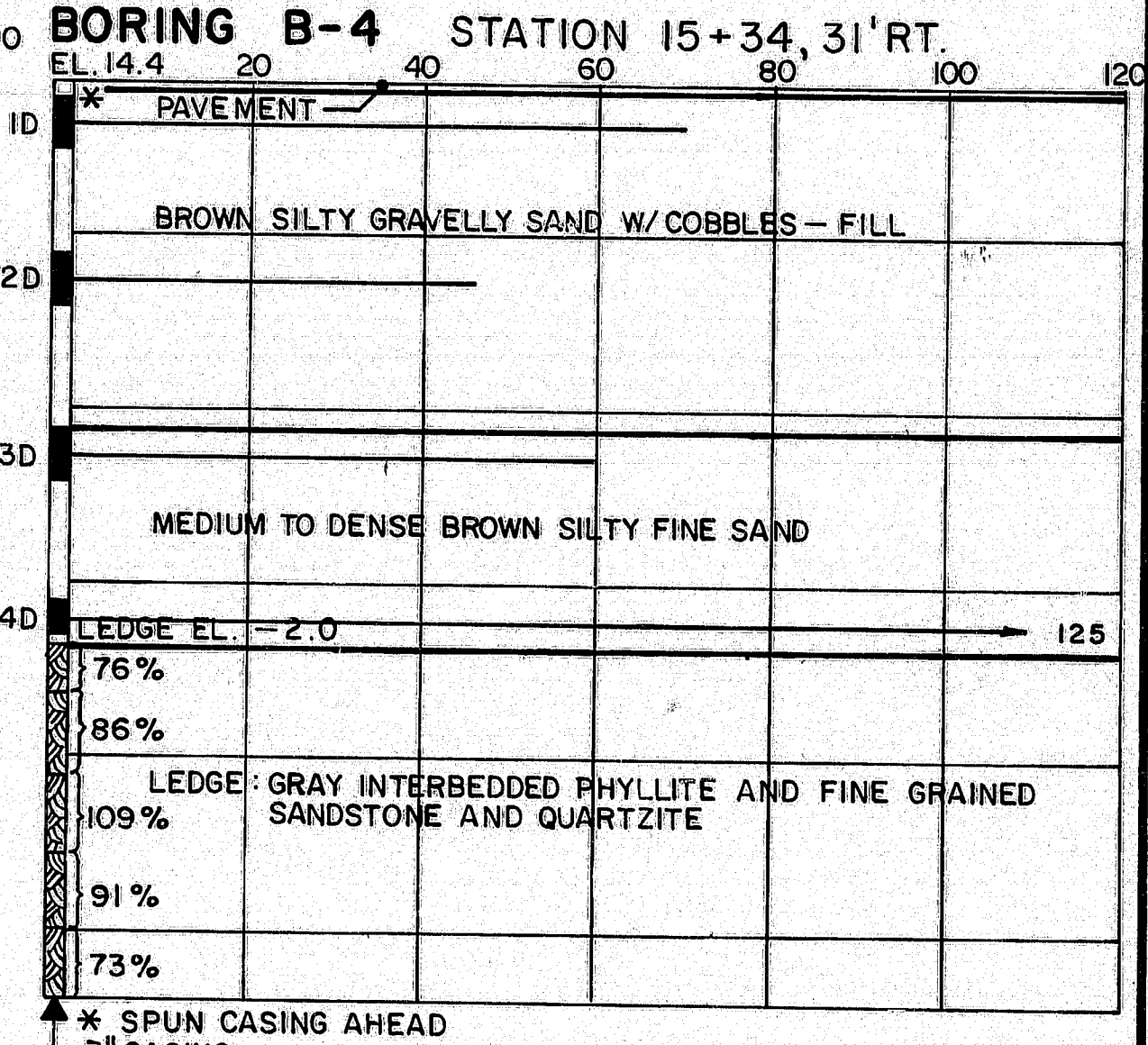
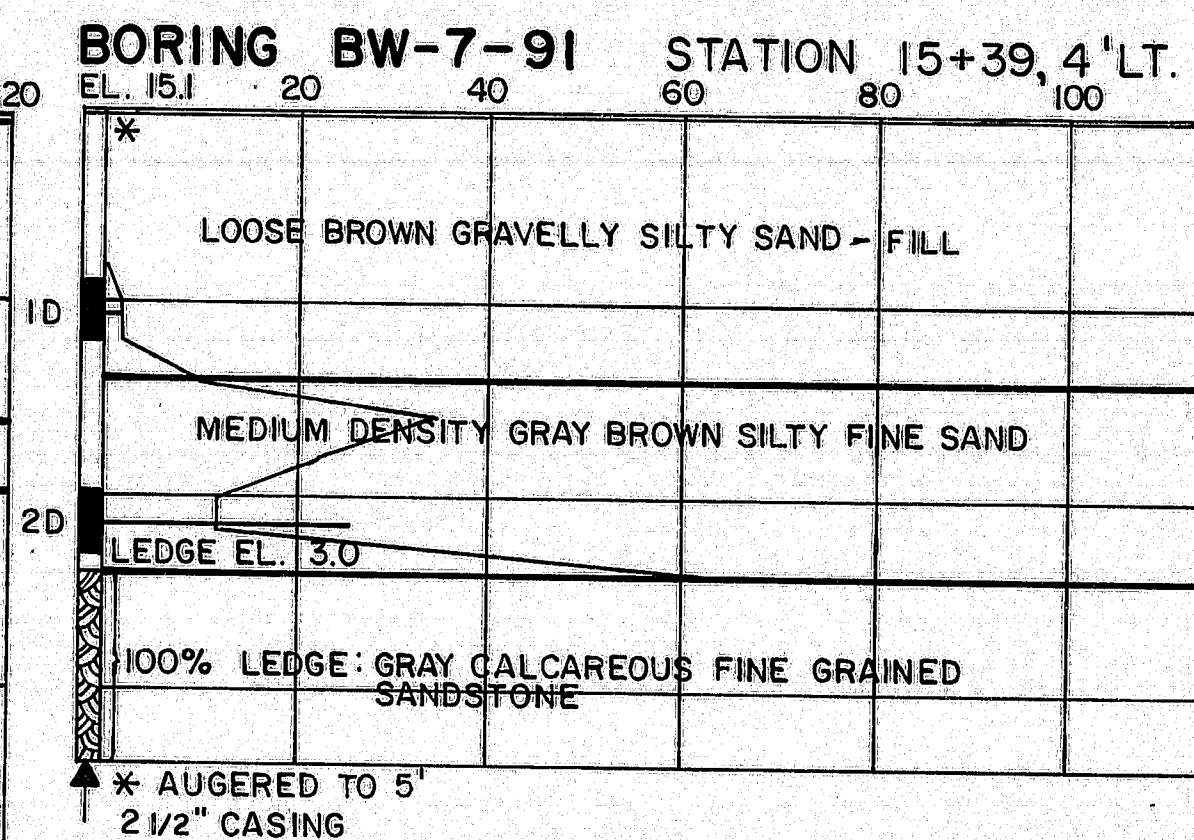
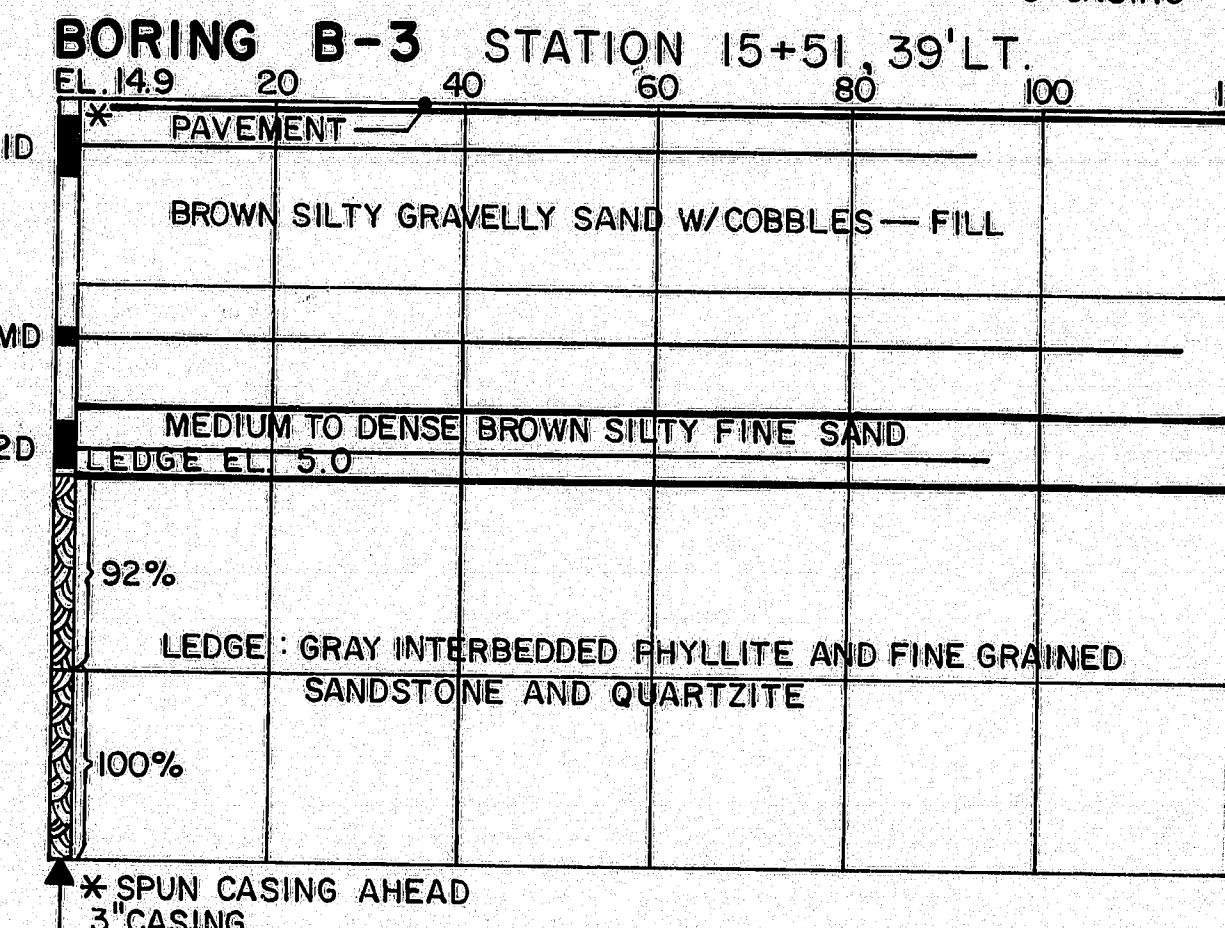
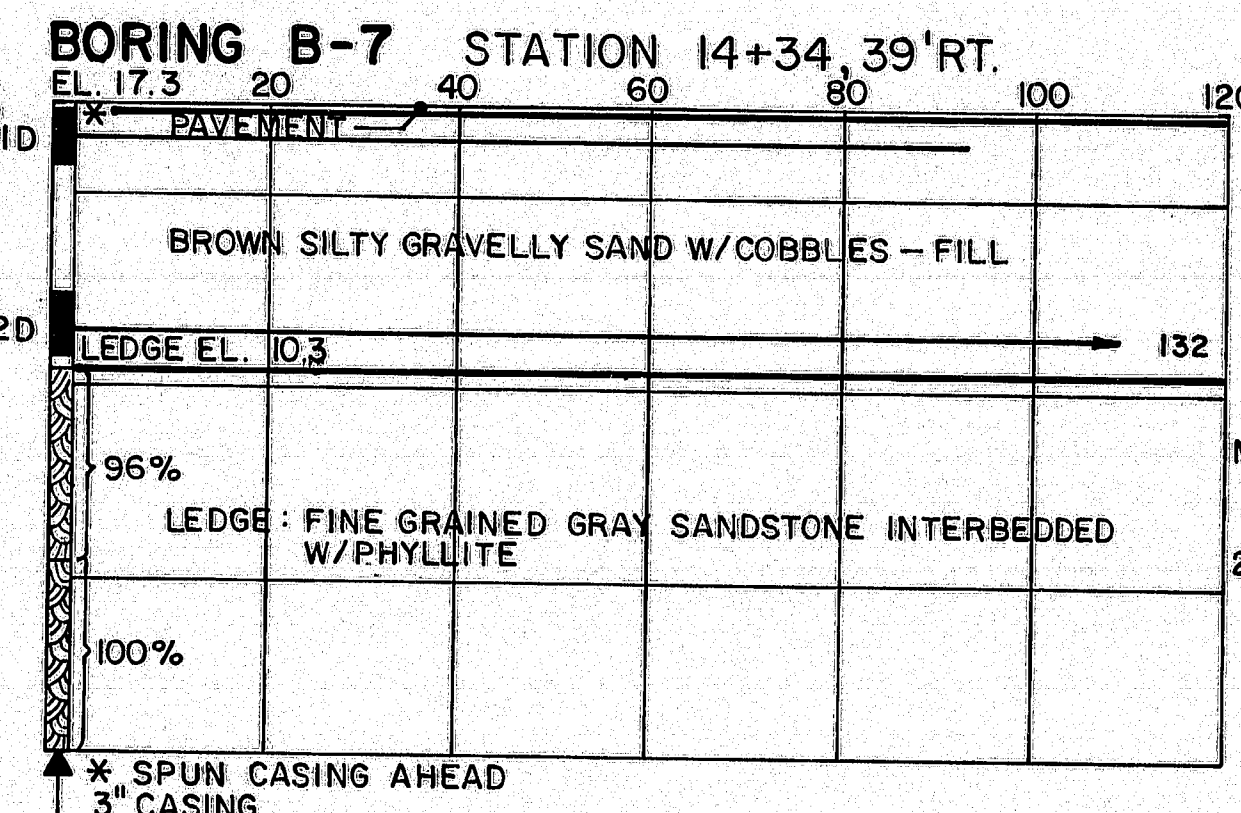
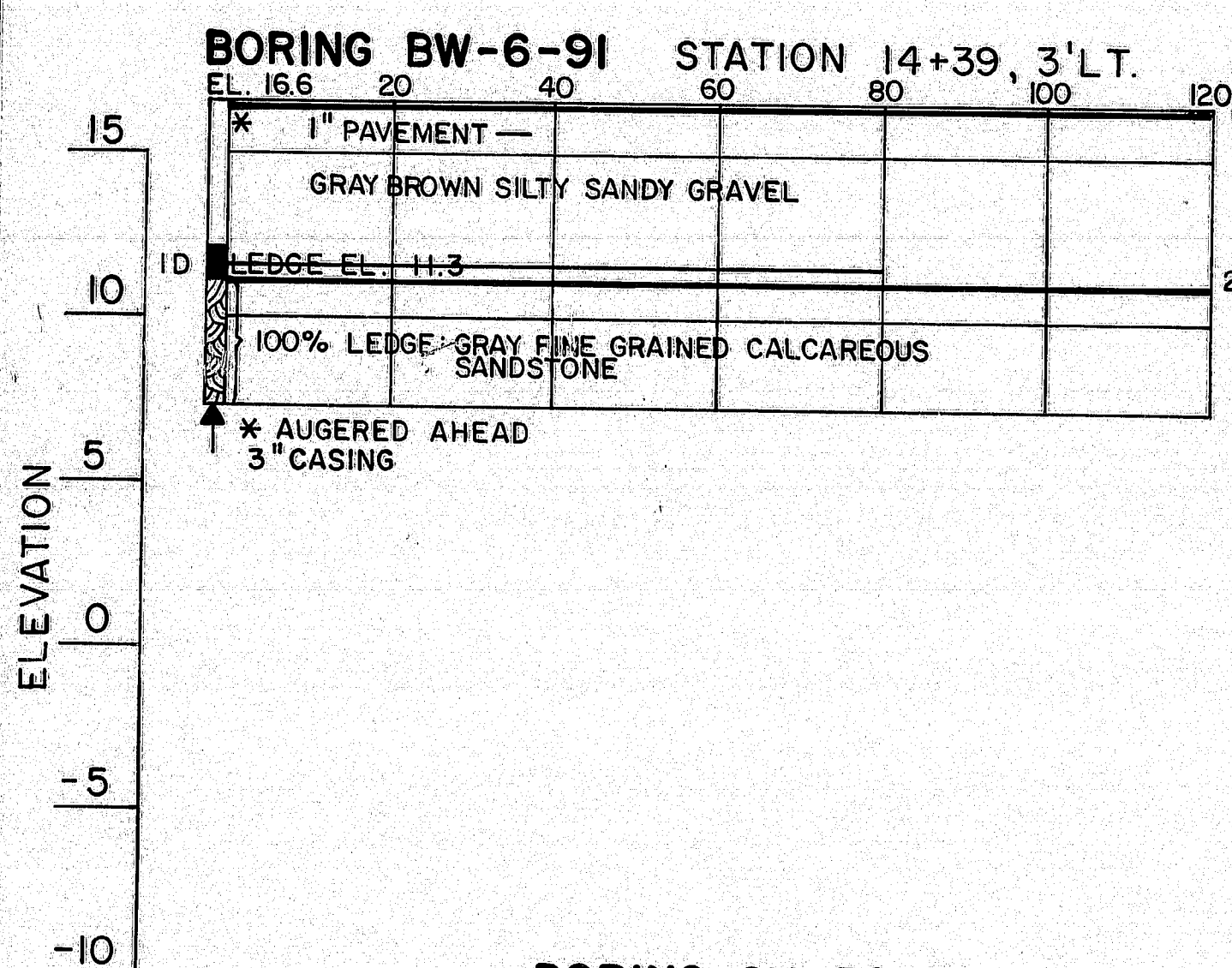
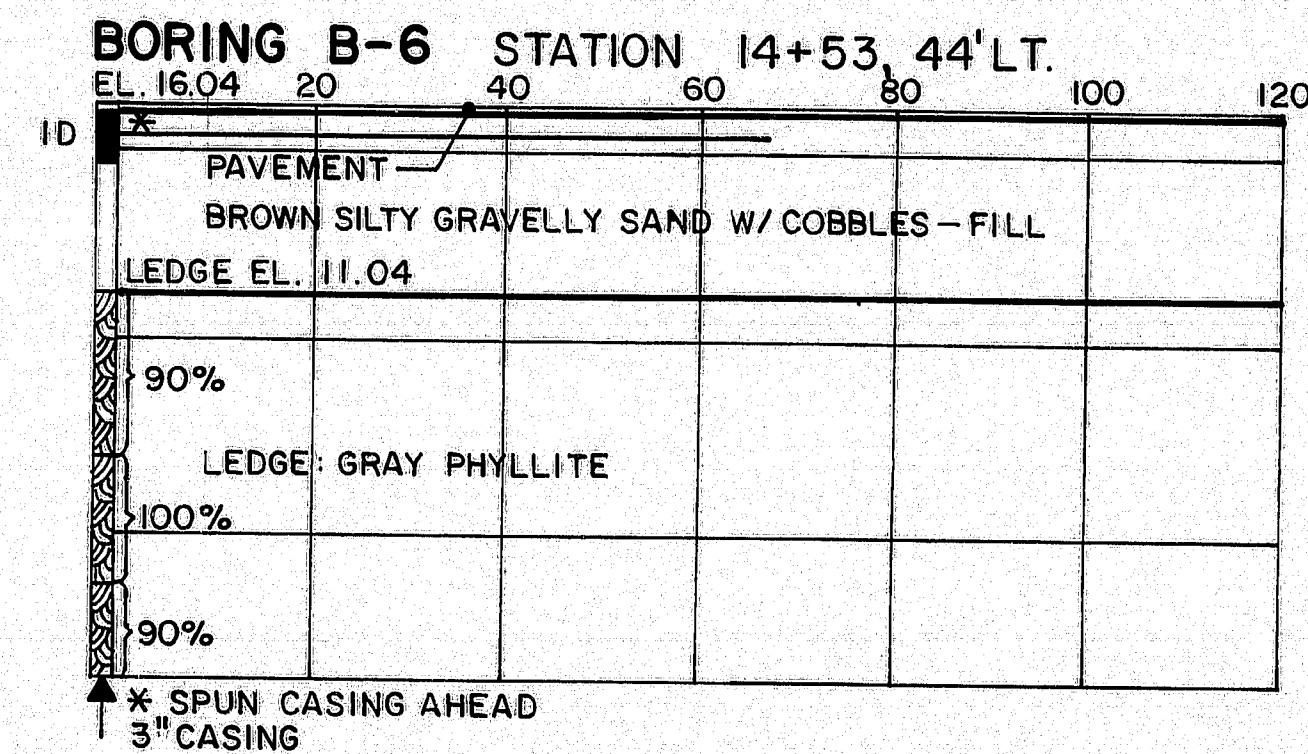
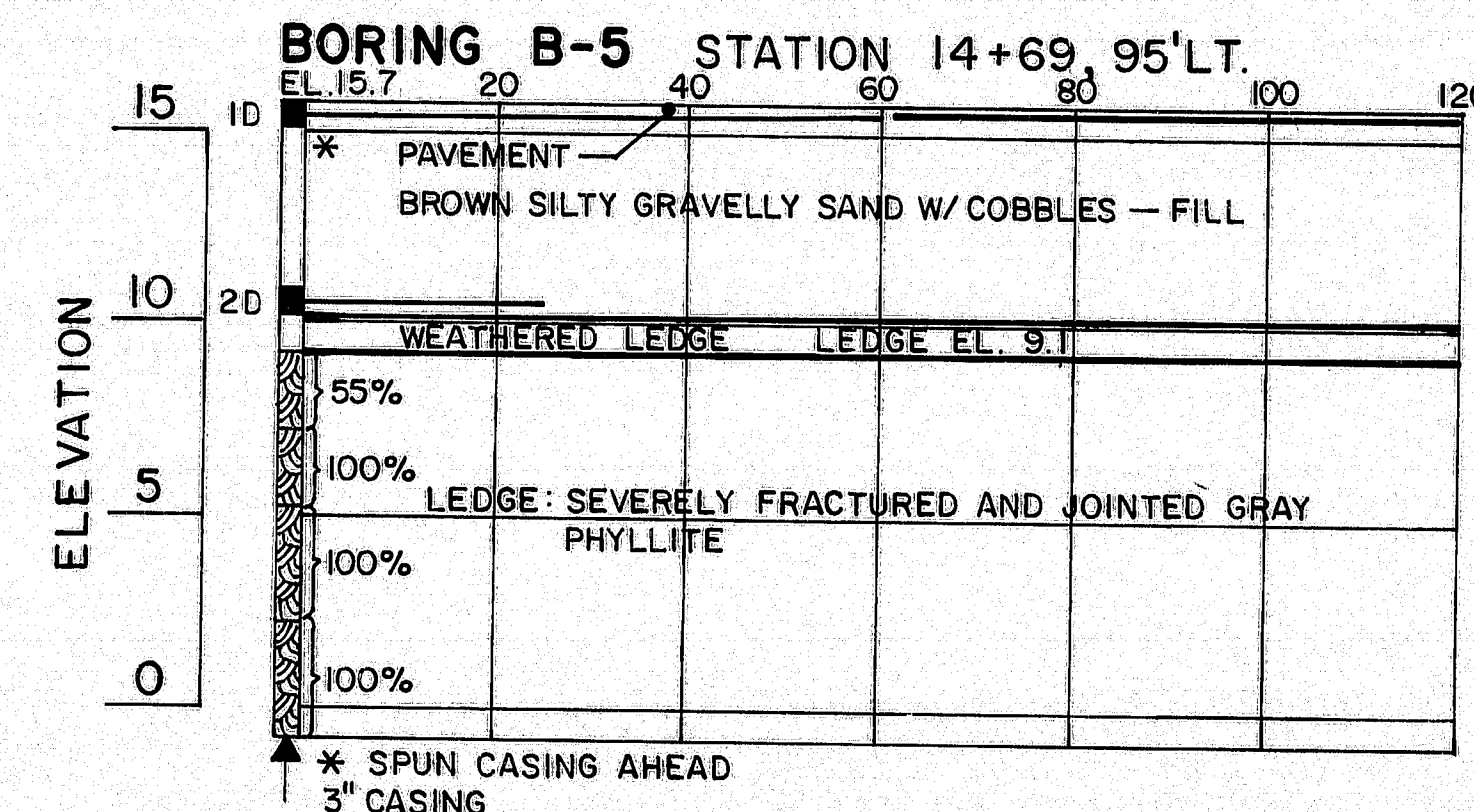
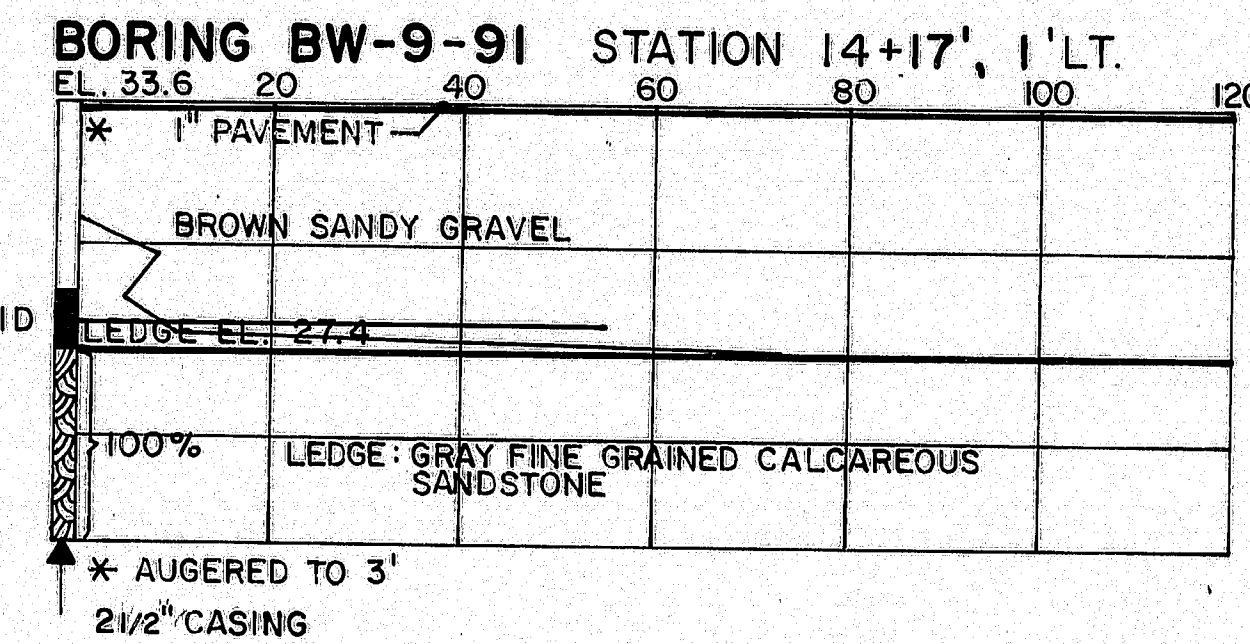
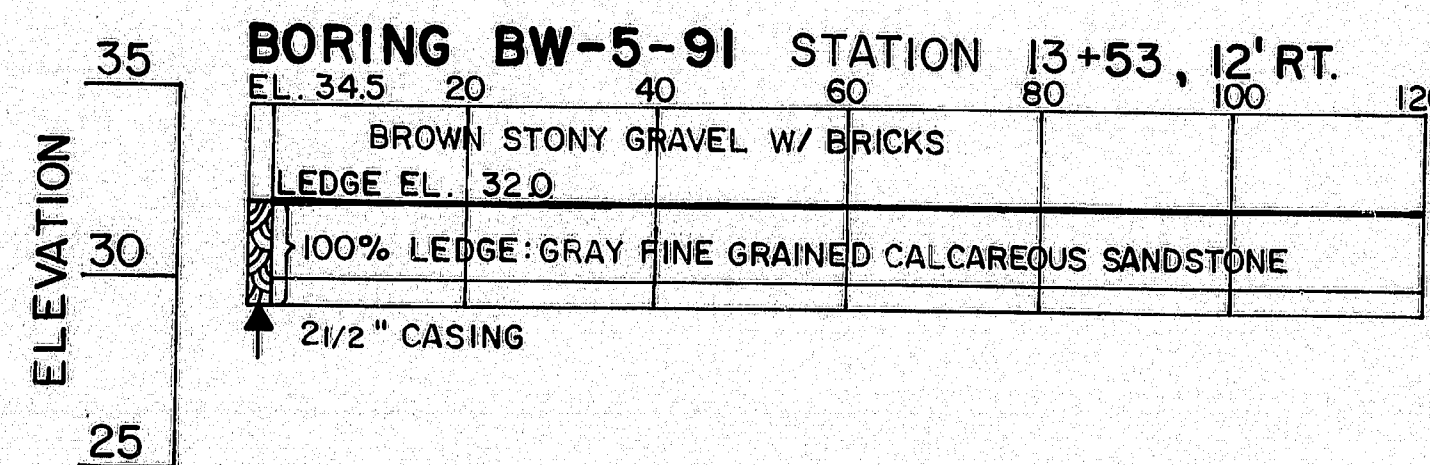
120-2

ADDENDUM NO. 1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PENOBSCOT RIVER BRIDGE
OVER
PENOBSCOT RIVER
BETWEEN THE CITIES OF
BANGOR - BREWER
PENOBSCOT COUNTY
ESTIMATED QUANTITIES

SHEET - OF AUGUSTA, MAINE

F.R.D.A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	80-602-028-105	3	201



BORING NOTES

- All samples and vane are made ahead of casing.
- Number of blows required to drive extra heavy casing one foot with 400 ft. lbs. of energy per blow.
- Location of sample or sample attempt.
- Number and type of dry sample.
- S & H Sampler #1290's
- Unsuccessful sample attempt and type of sampler
- Number of blows required to drive spoon or tubing one foot with 350 ft. lbs. of energy per blow.
- Bottom of boring (may not be bottom of soil strata)
- Refusal of drill rods or casing (may not be ledge)
- Locations cored by diamond bit and percent recovery of rock.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PENOBSCOT RIVER BRIDGE
over the
PENOBSCOT RIVER
in the cities of
BANGOR - BREWER
PENOBSCOT COUNTY

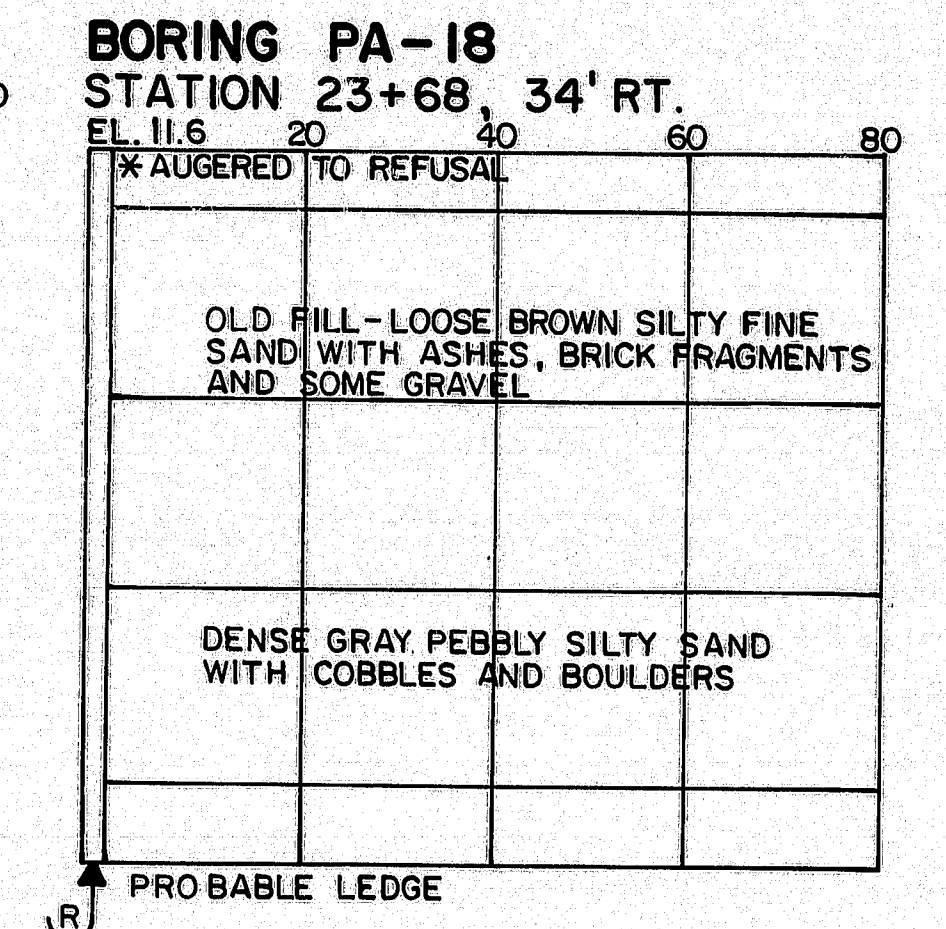
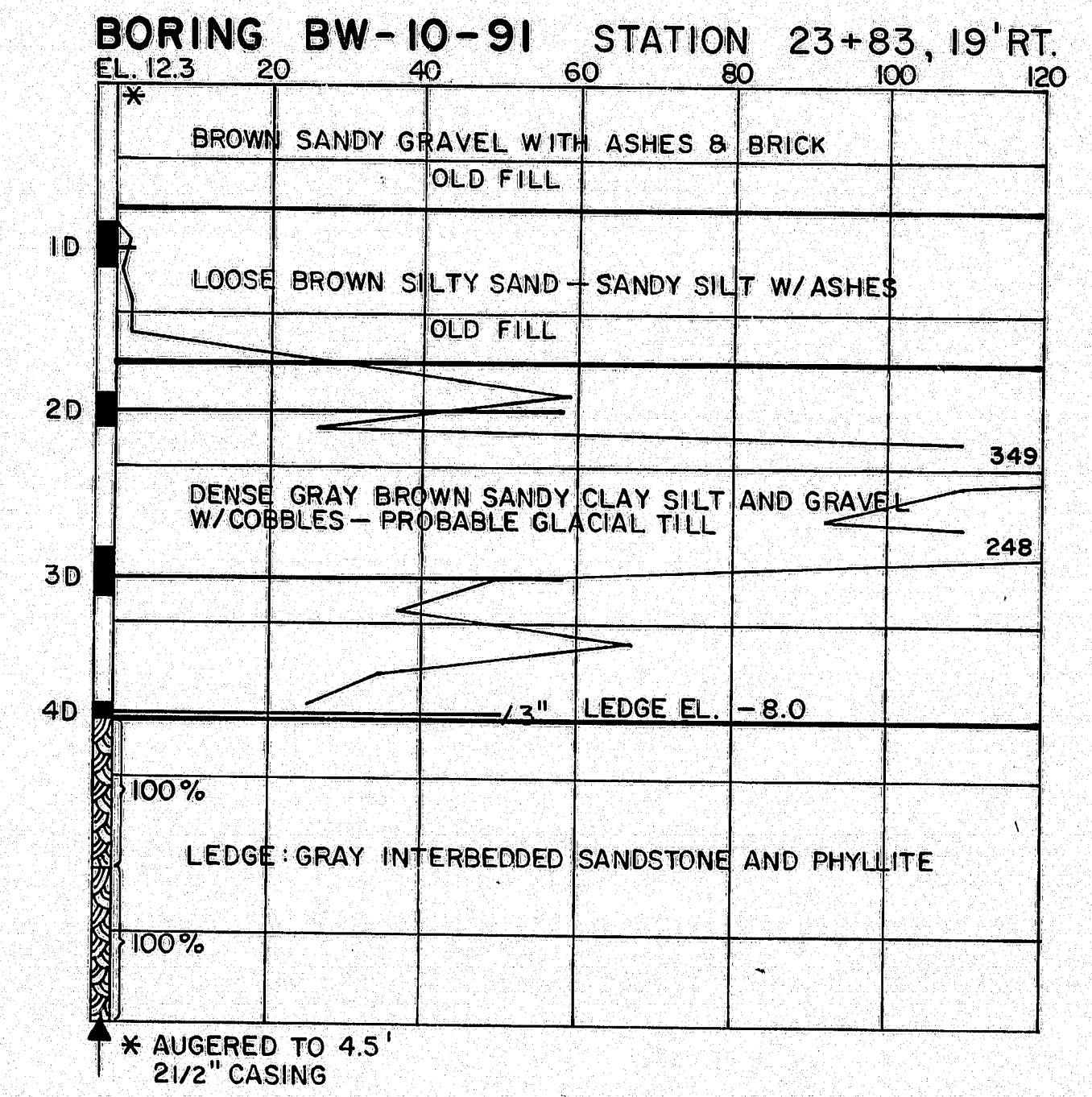
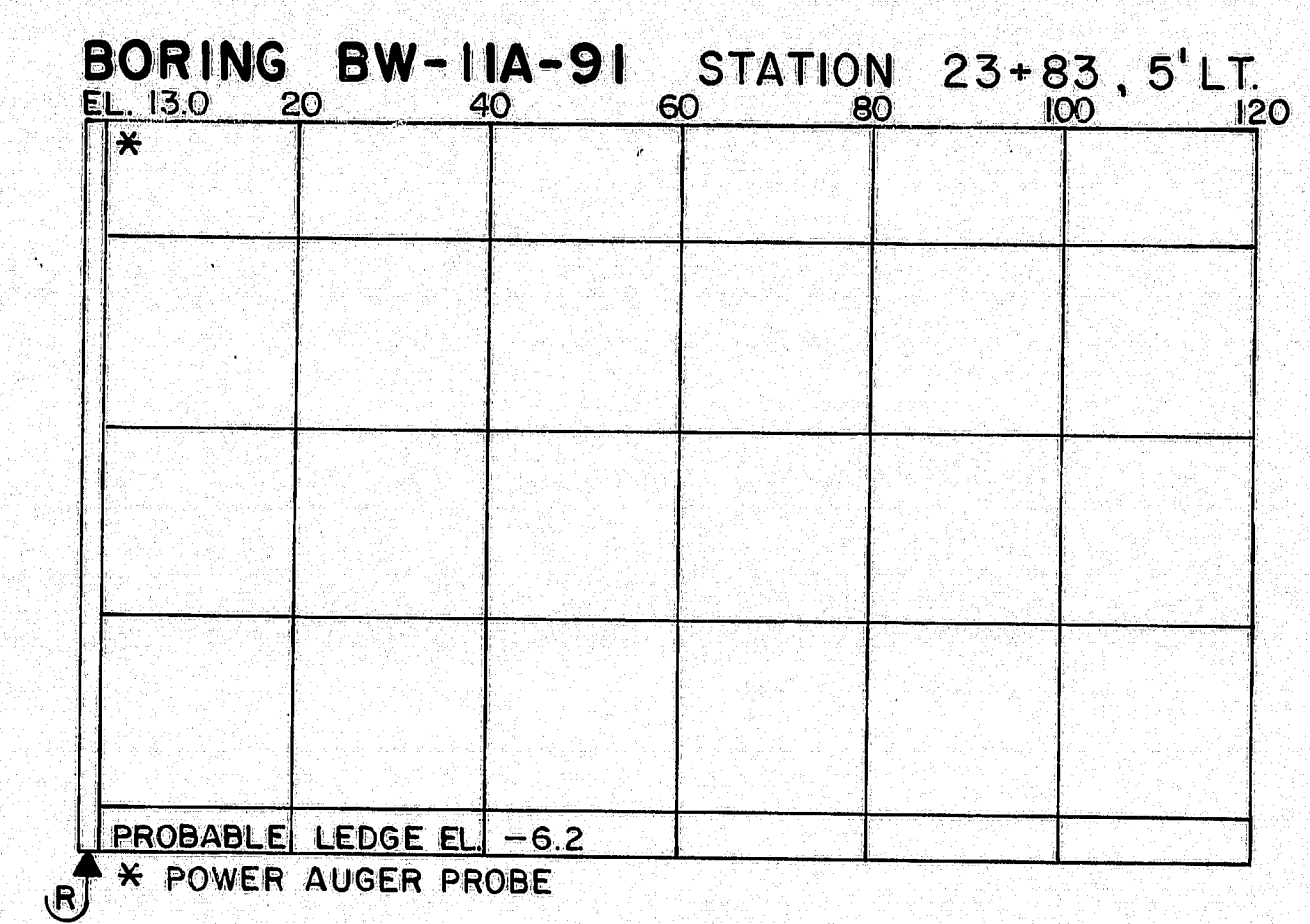
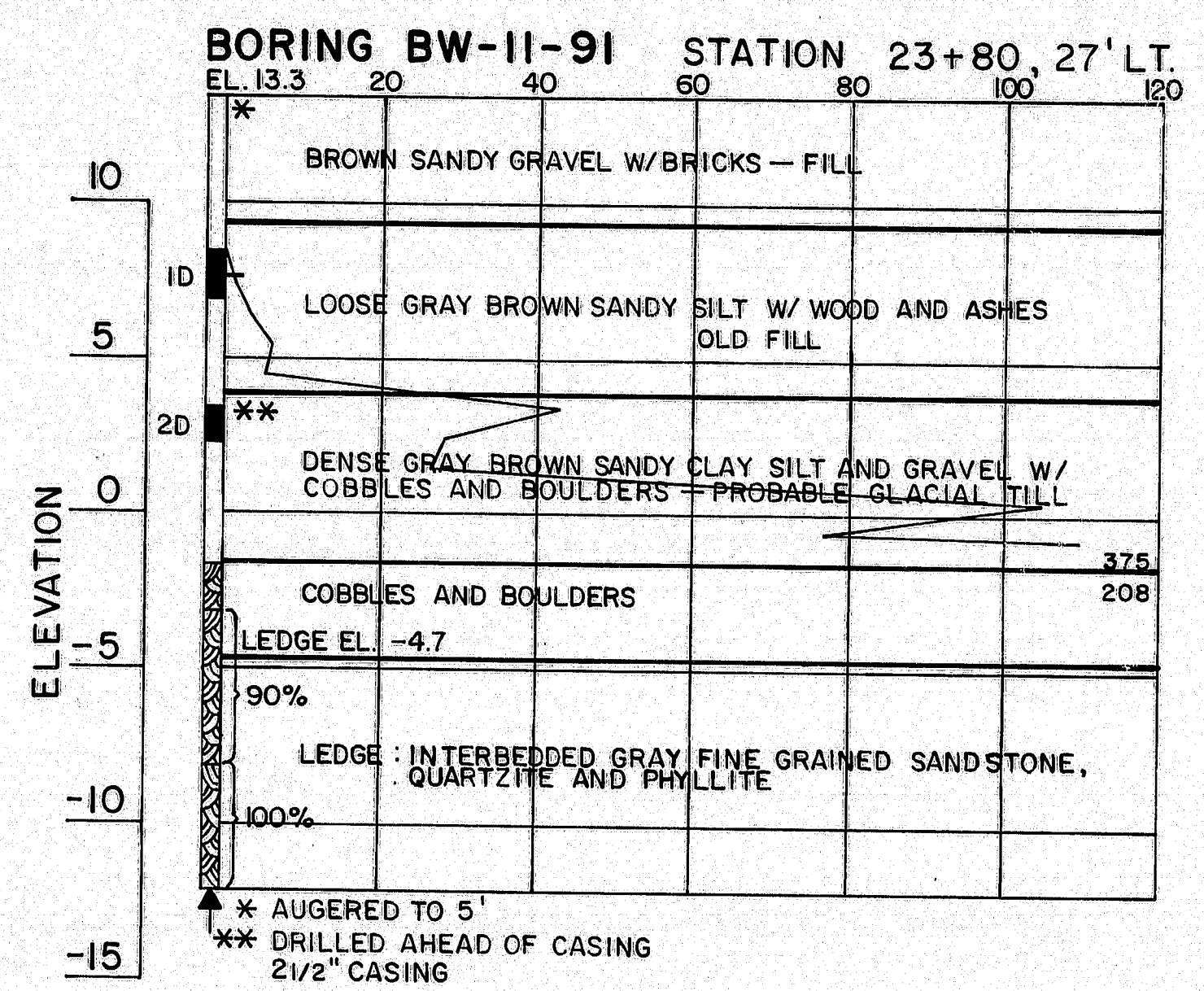
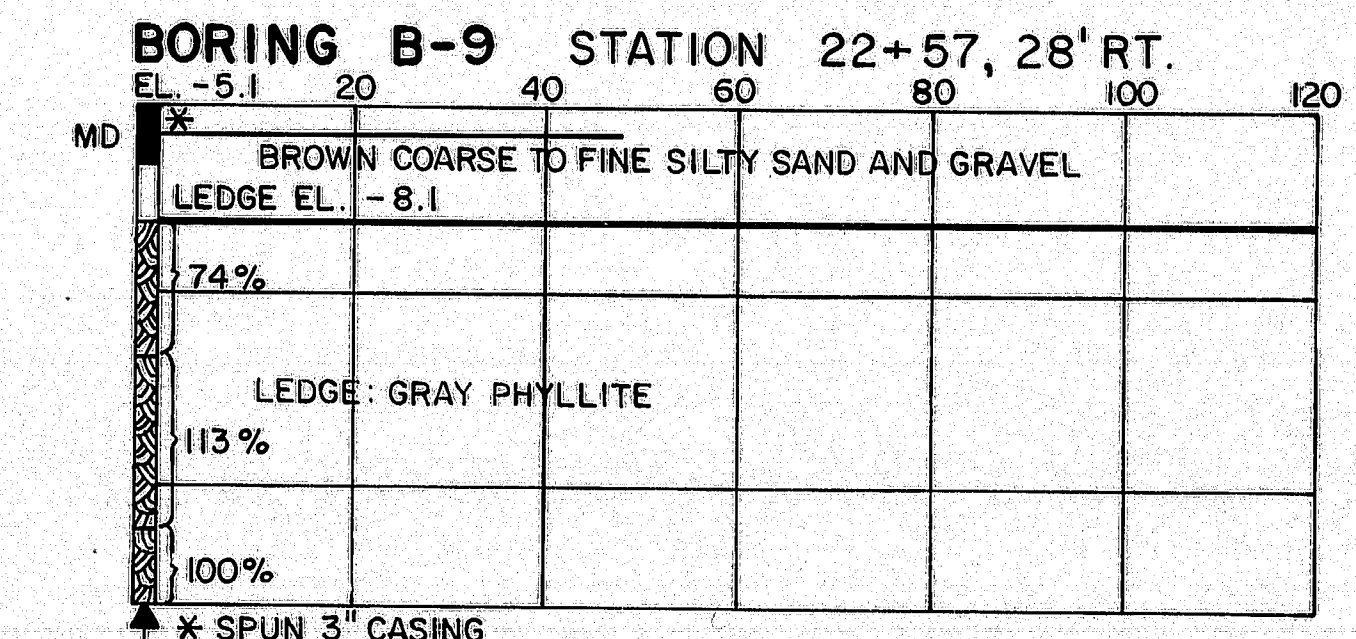
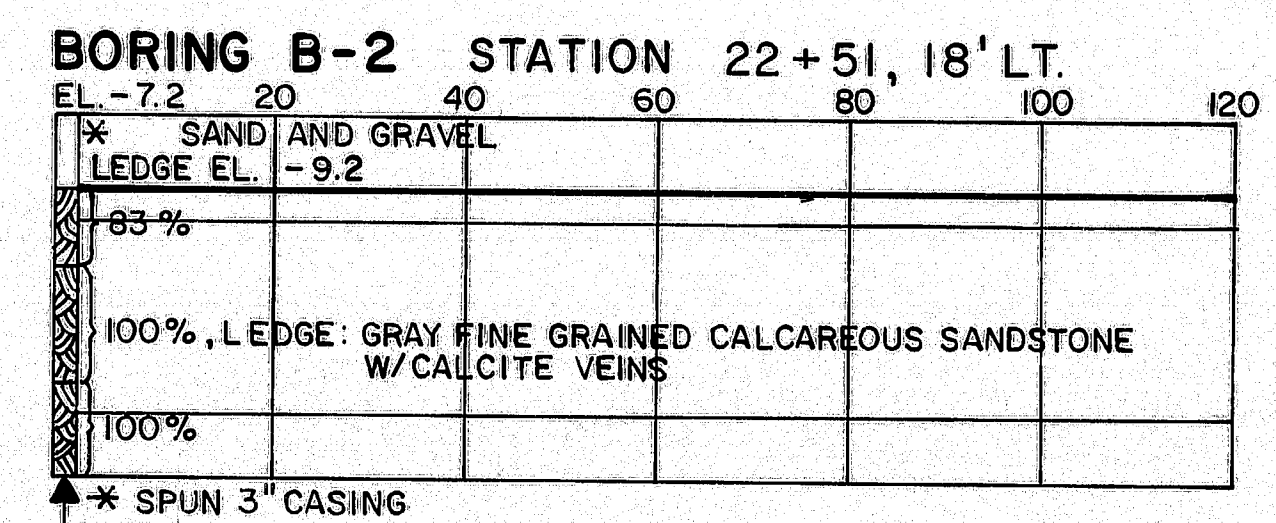
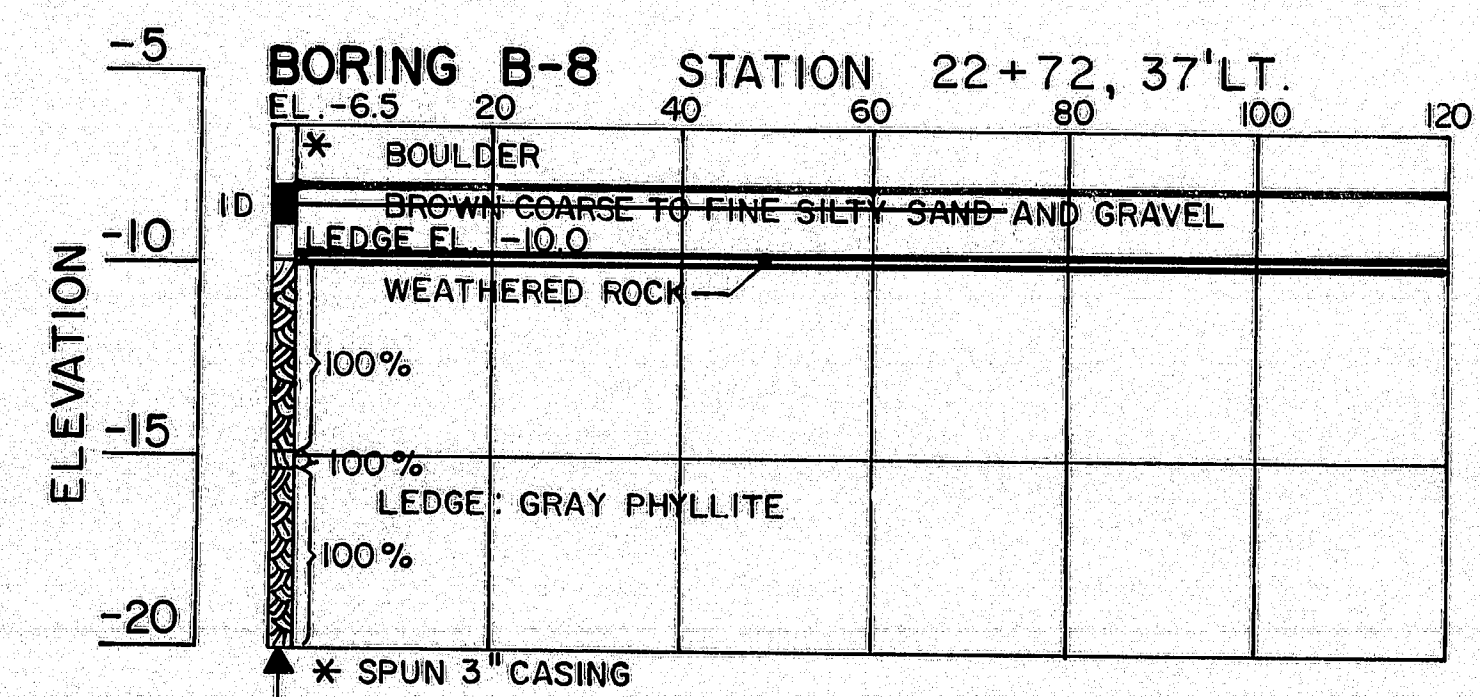
BORING DETAILS
SHEET 1 OF 8 AUGUSTA, MAINE

120-3

PROJECT DESIGN ENGINEER	BY	DATE
PLANS		
REVISIONS		
FIELD CHANGES		

BORING 44-102 4710-1

F.R.B. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	88-018-100	14	201



120-4

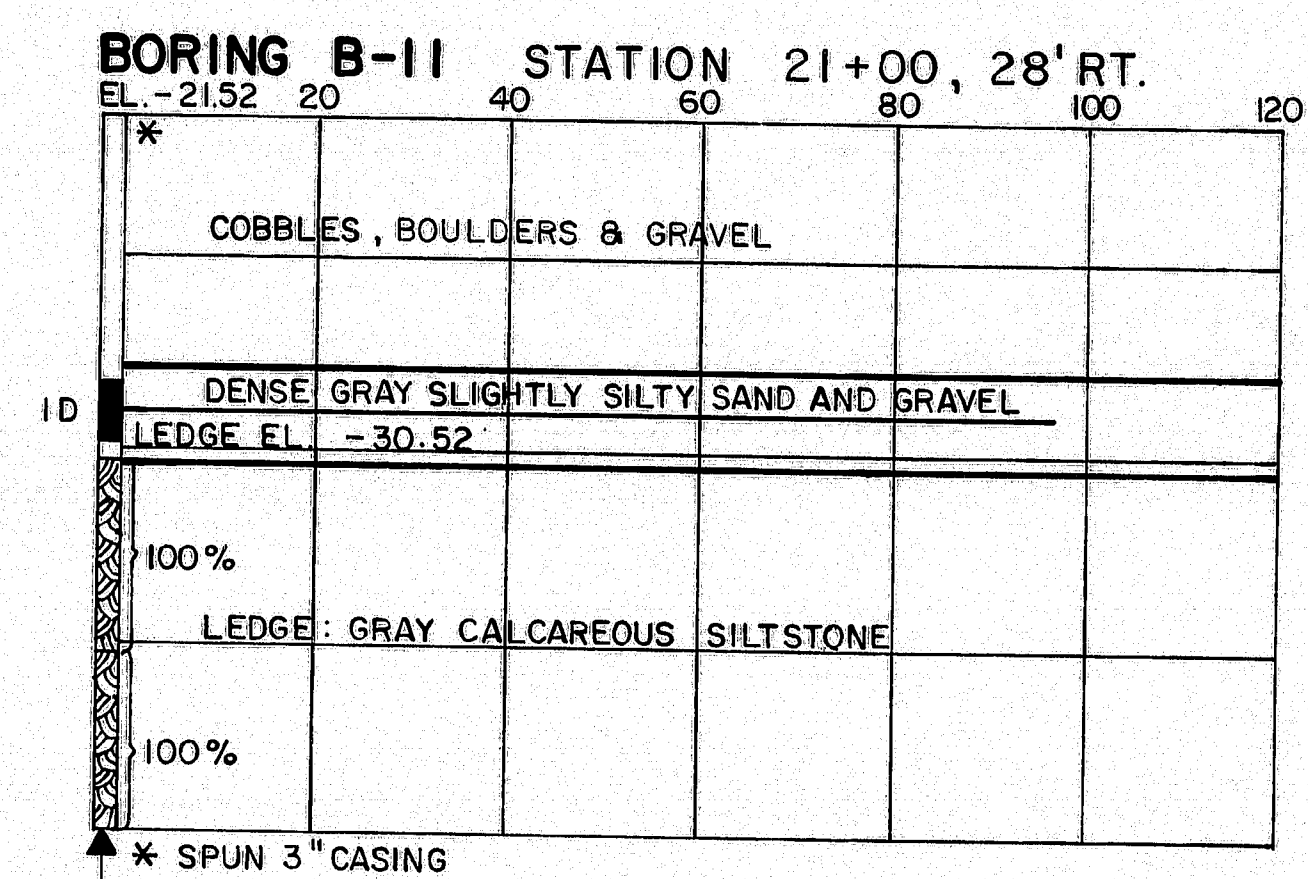
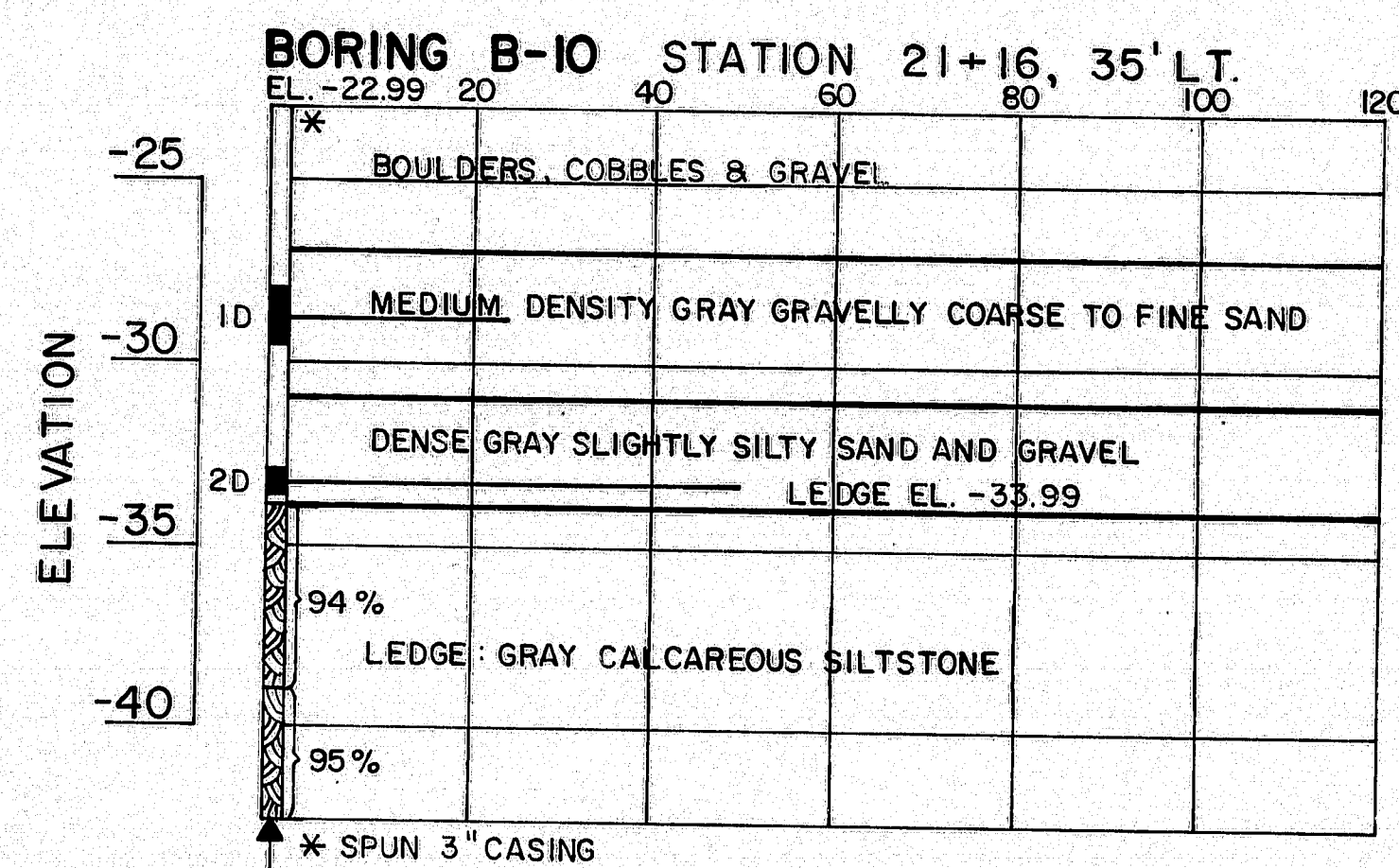
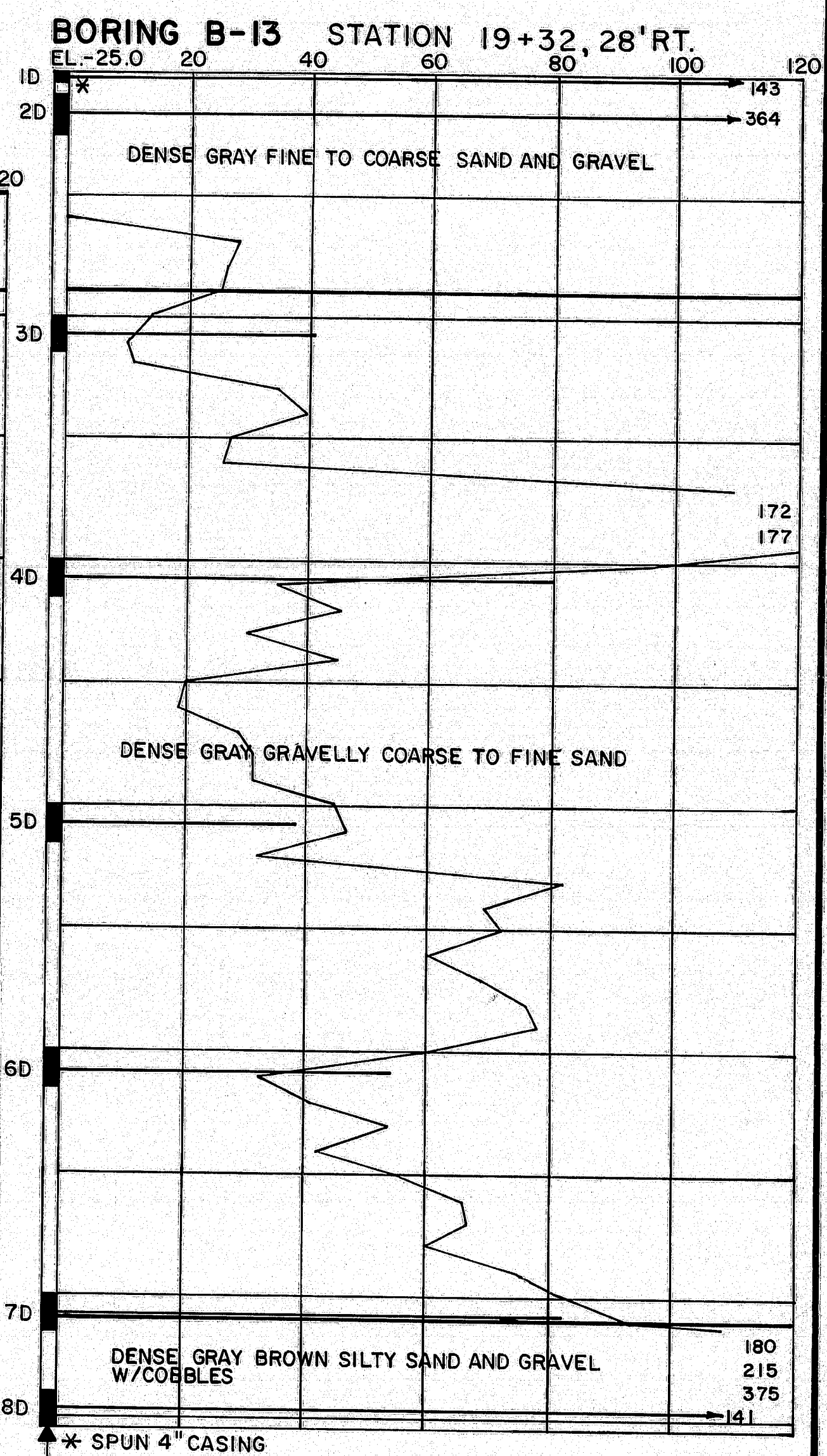
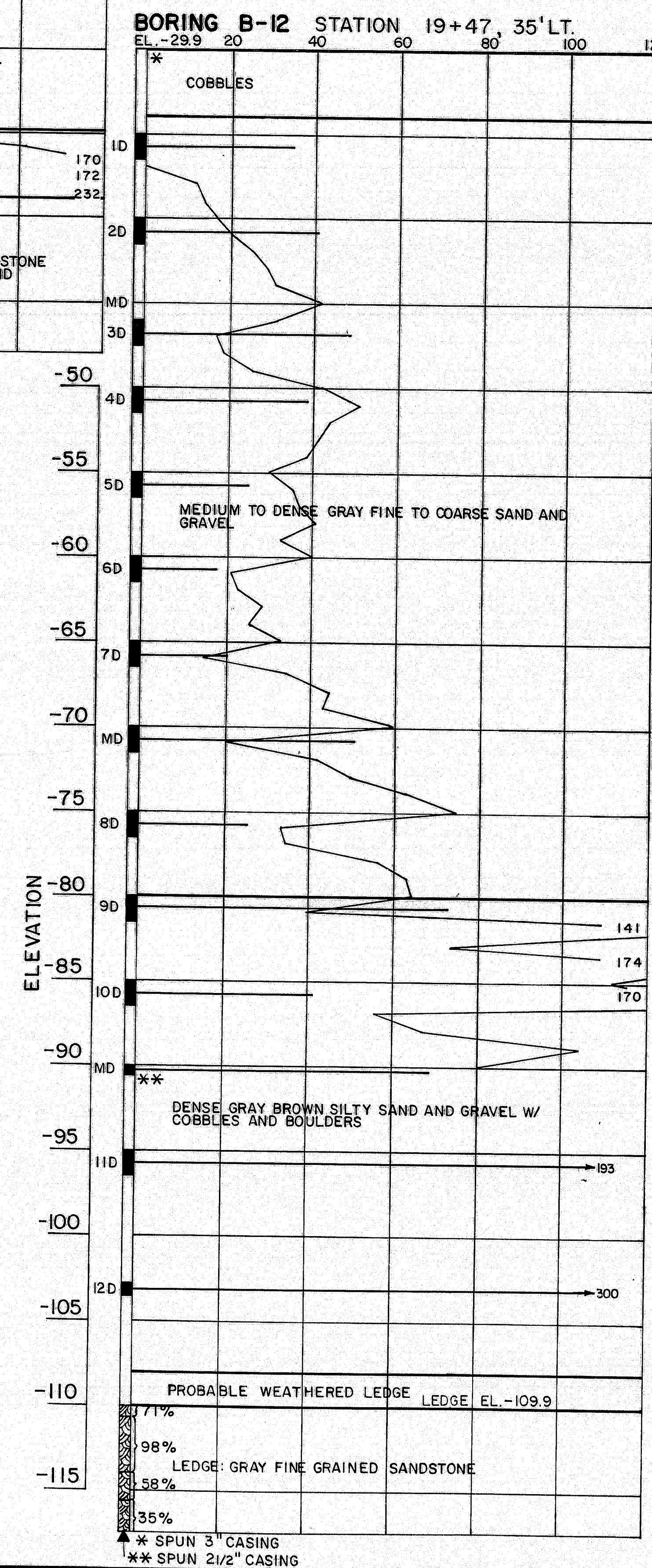
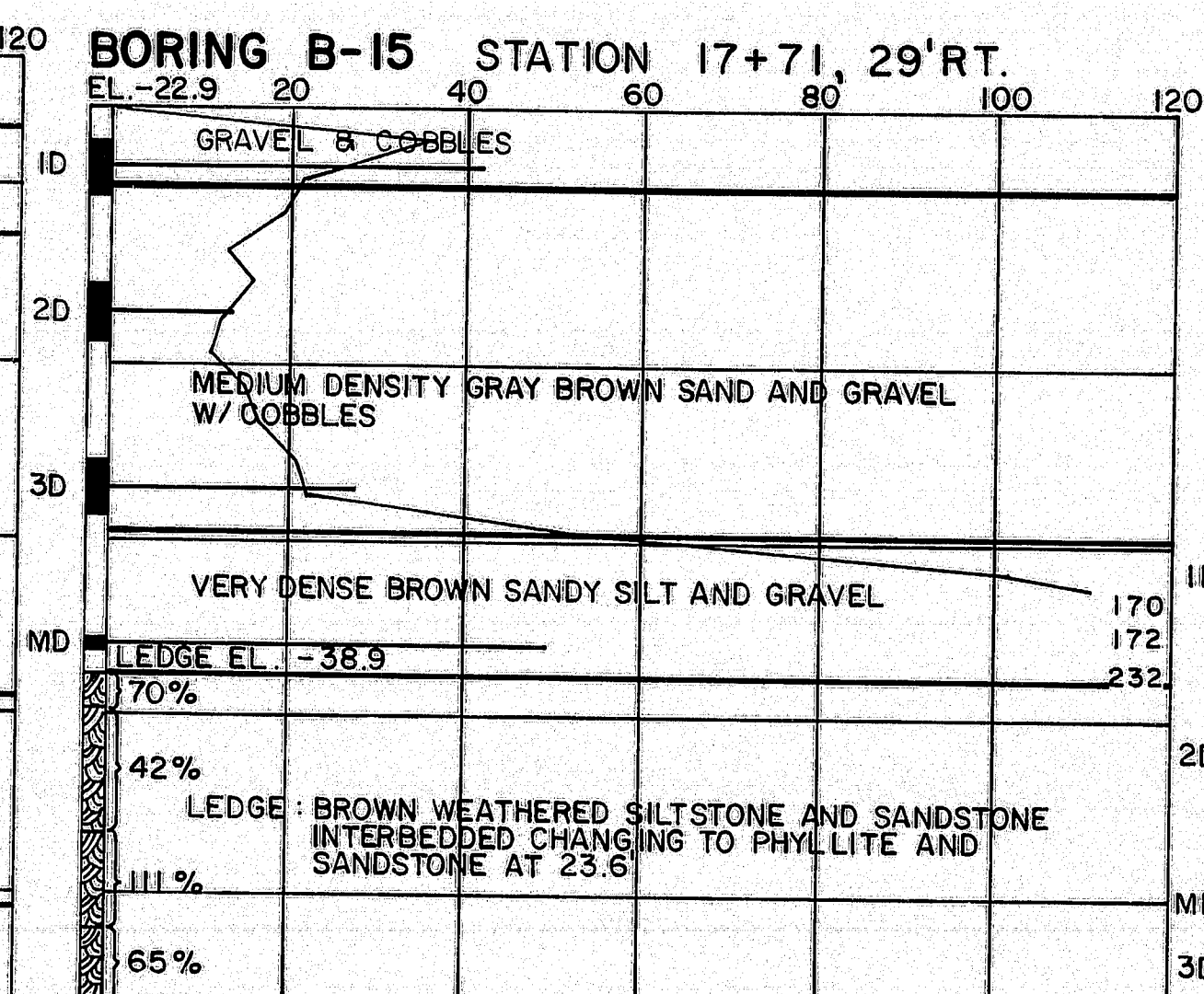
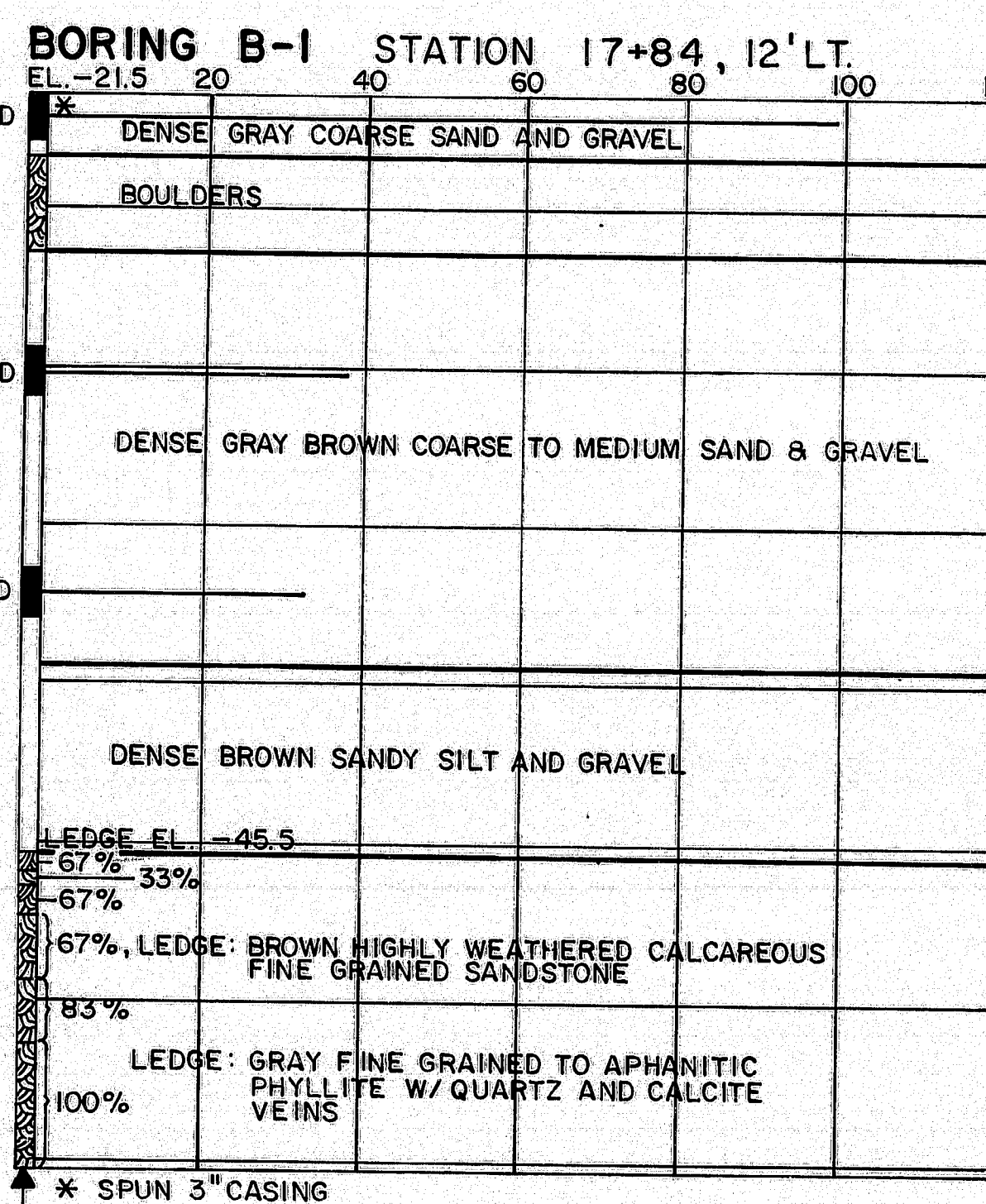
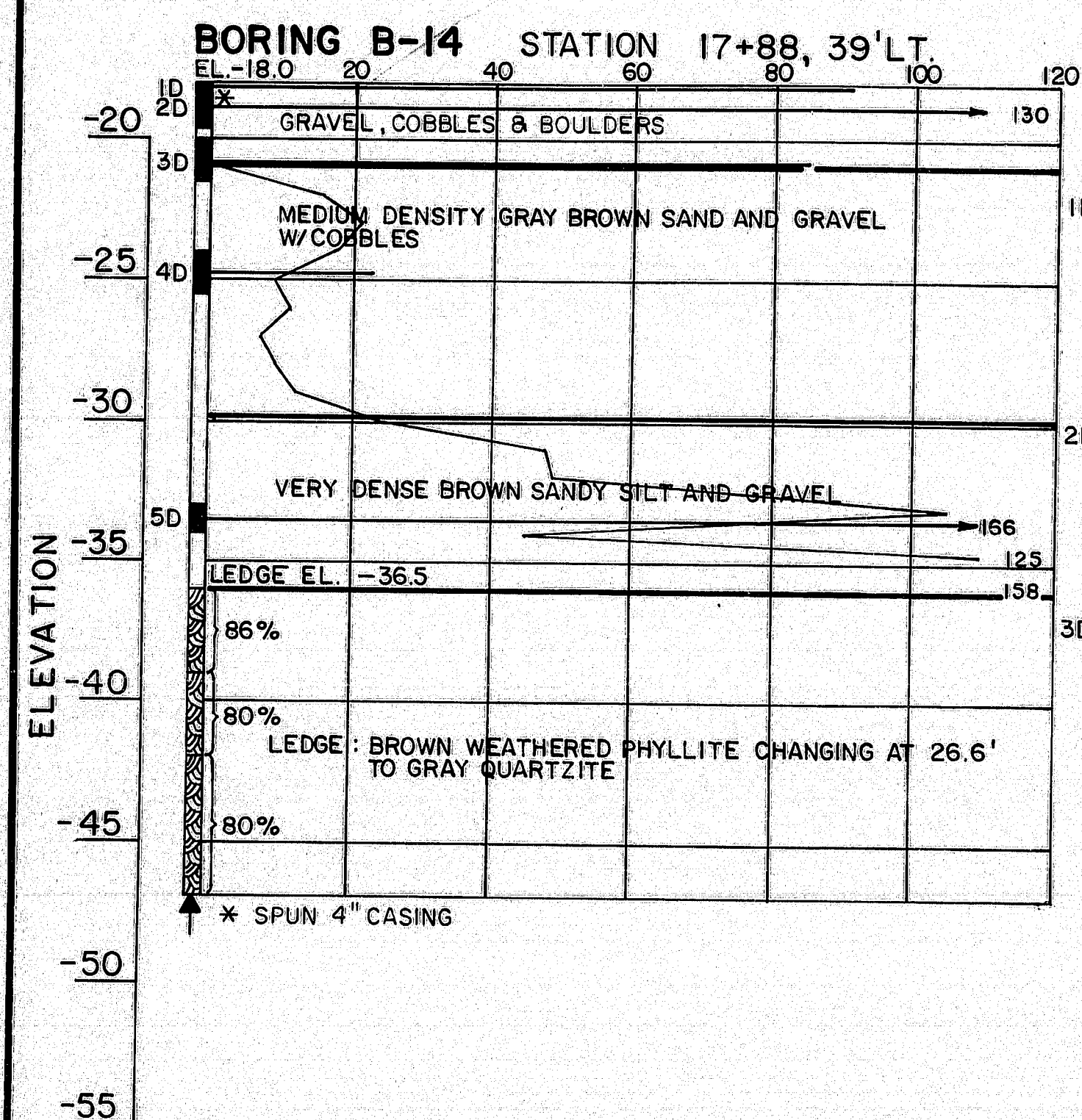
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PENOBSCOT RIVER BRIDGE
over the
PENOBSCOT RIVER
in the cities of
BANGOR - BREWER
PENOBSCOT COUNTY
BORING DETAILS
SHEET 2 OF 8 AUGUSTA, MAINE

PROJECT DESIGN ENGINEER	BY	DATE
PLANS		
DESIGNED		
CHECKED		
REVISIONS		
FIELD CHANGES		

BORING 44-132-10701

F.B.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-98-038-1(10)	5	201



PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

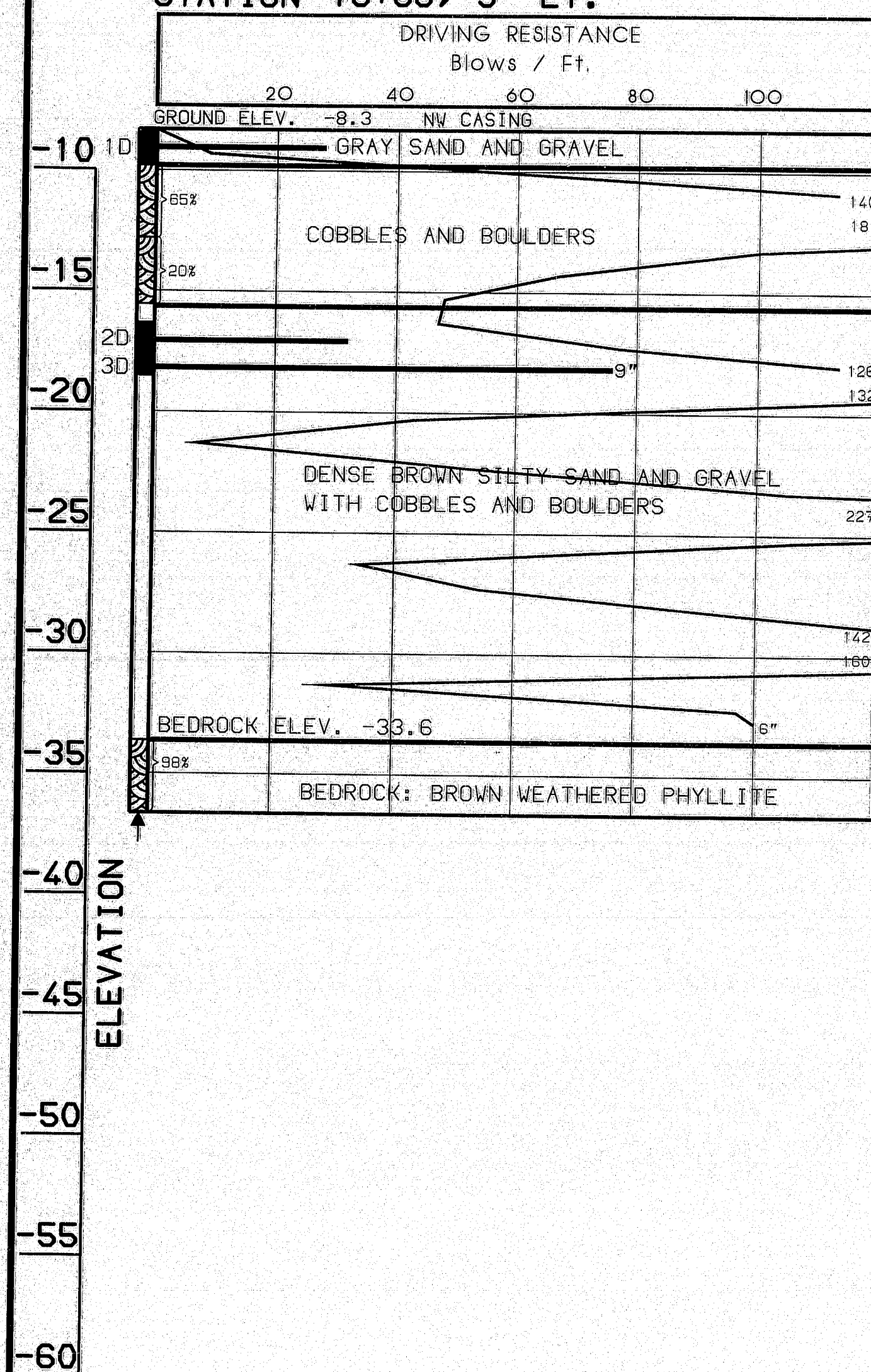
BORING 14-12 25/10-1

120-5

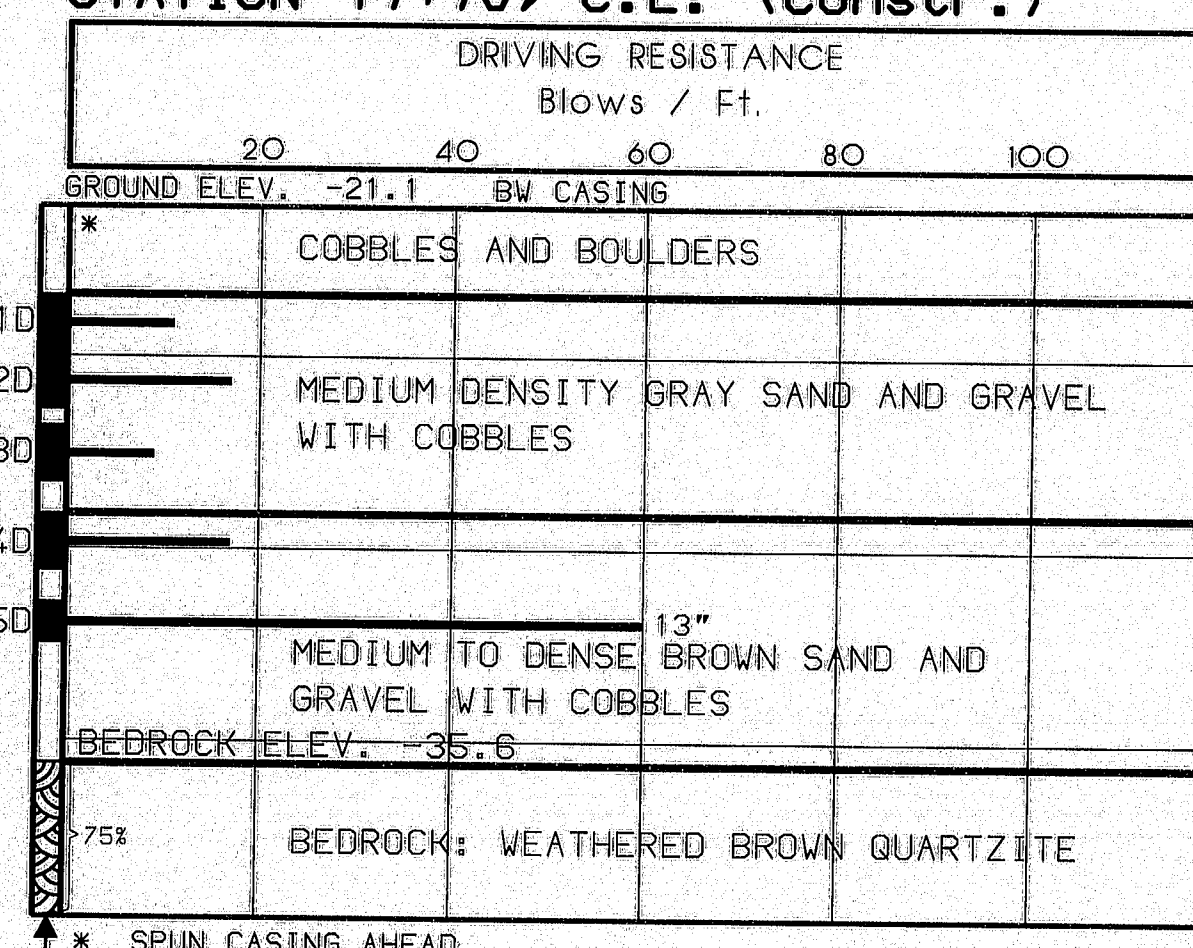
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PENOBSCOT RIVER BRIDGE
over the
PENOBSCOT RIVER
in the cities of
BANGOR — BREWER
PENOBSCOT COUNTY
BORING DETAILS
SHEET 3 OF 8 AUGUSTA, MAINE

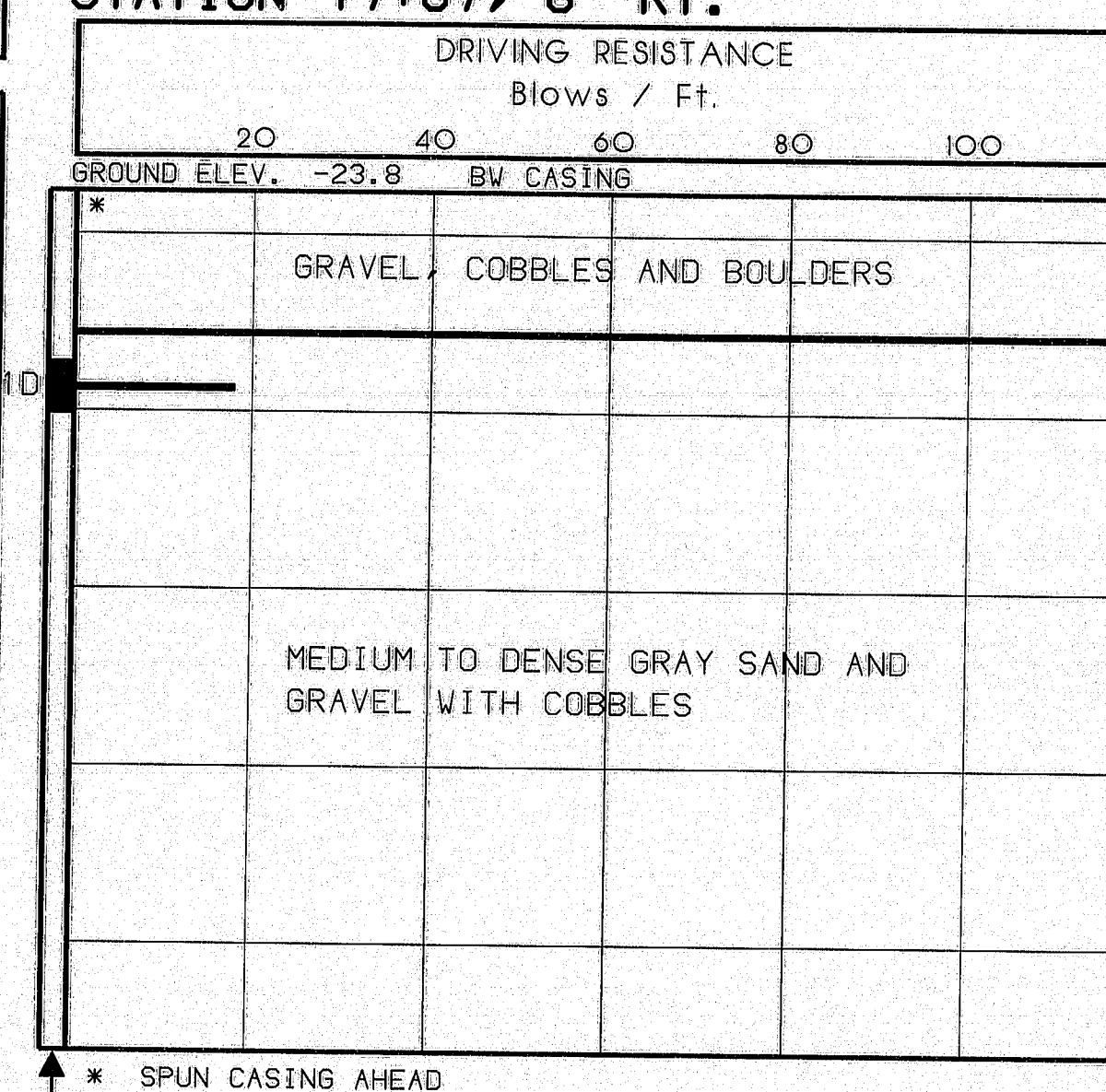
BORING CM-42-94
STATION 16+88, 5' LT.



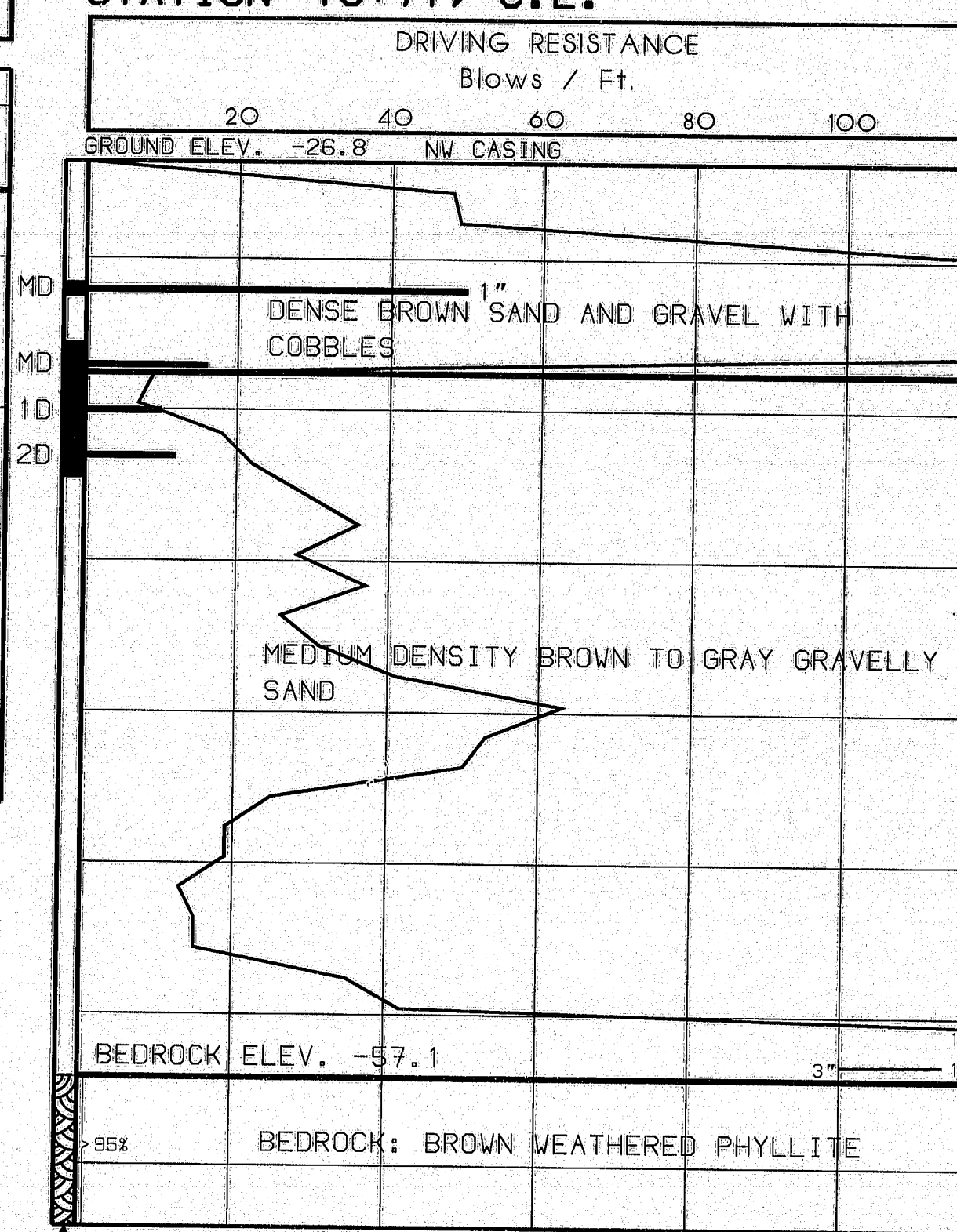
BORING CM-8-94
STATION 17+70, C.L. (constr.)



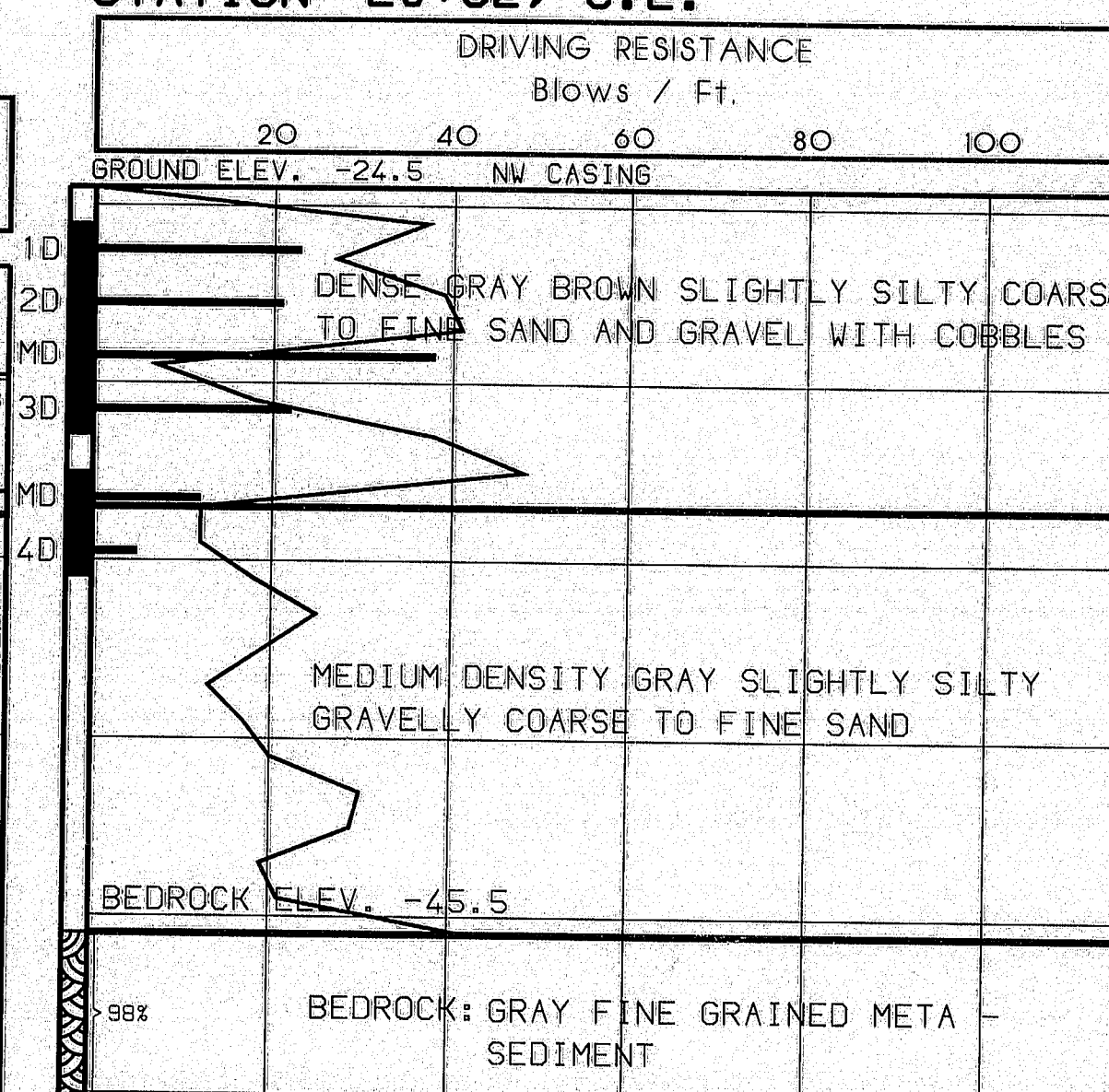
BORING CM-9-94
STATION 17+87, 6' RT.



BORING CM-41-94
STATION 18+71, C.L.



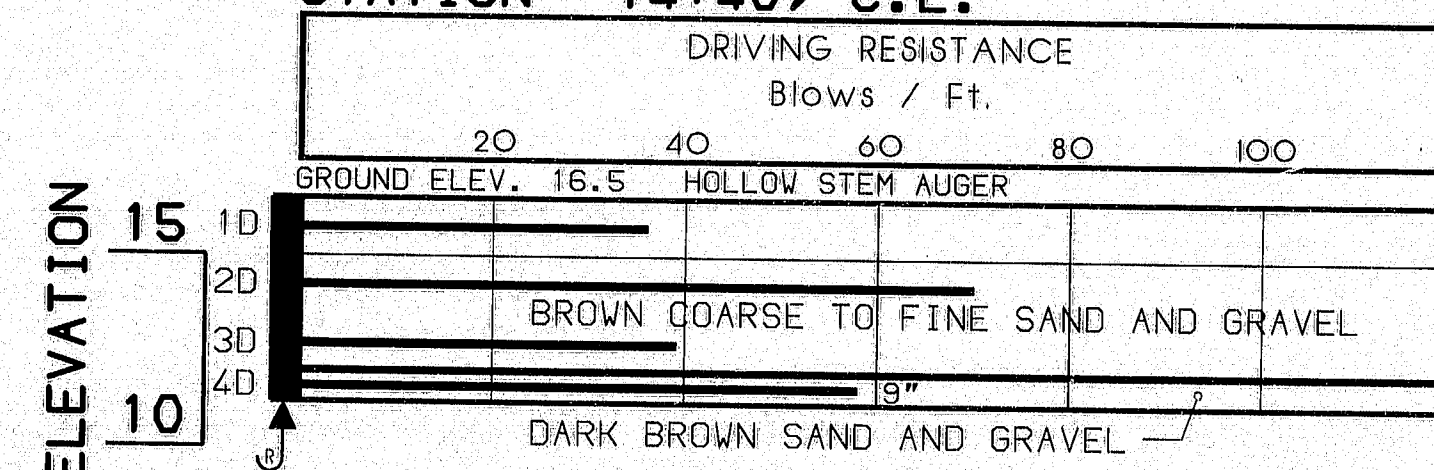
BORING CM-40-94
STATION 20+52, C.L.



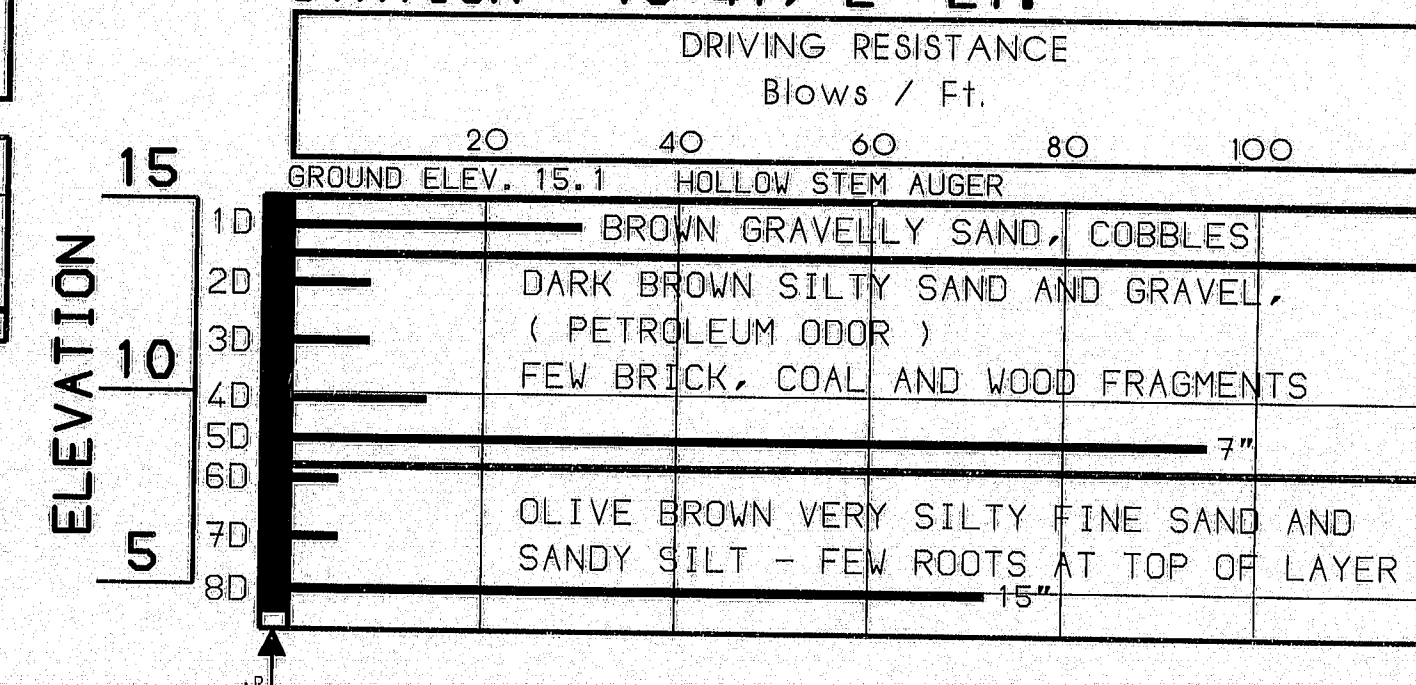
BORING NOTES

- All samples and vane tests made ahead of casing
- Water Elevation
- Number of blows required to drive extra heavy casing one foot with 400 ft. lbs. of energy per blow
- Location of sample or sample attempt
- Number and type of dry sample
- ID Split spoon sampler
- IC 2" O.D. 16 ga. seamless tubing
- IU 3 1/2" O.D. 16 ga. seamless tubing
- IW Wash sample and number
- MD Unsuccessful sample attempt and type of sampler
- Number of blows required to drive spoon or tubing one foot with 350 ft. lbs. of energy per blow
- H Sampling spoon or seamless tubing driven by static weight of drill rods and hammer
- P Piston sampler
- Field vane test
- Bottom of boring (may not be bottom of soil strata)
- Refusal of drill rods or casing (may not be ledge)
- Locations cored by diamond bit and percent recovery of rock

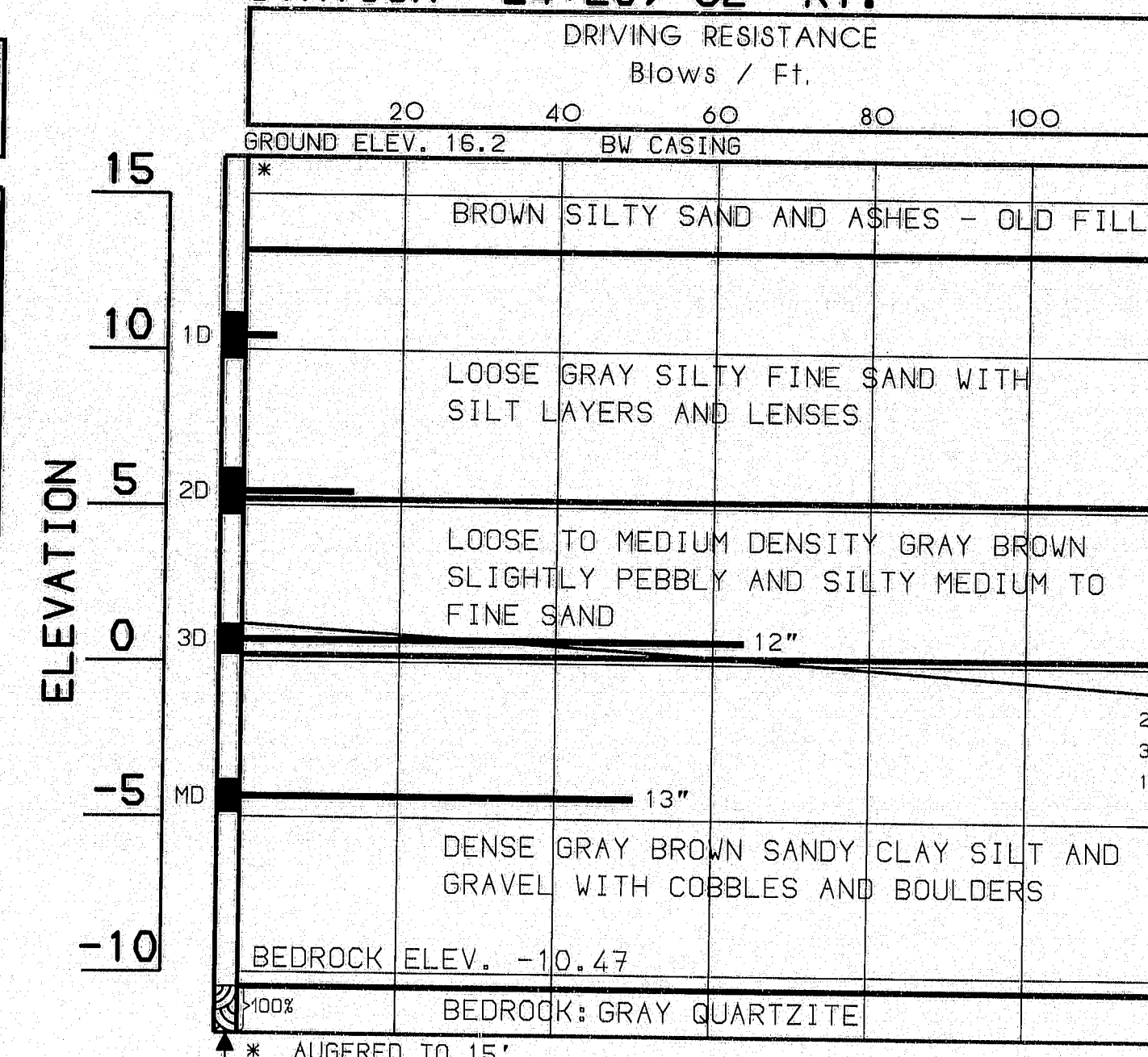
BORING CS-1-94
STATION 14+40, C.L.



BORING CS-2-94
STATION 15+41, 2' LT.

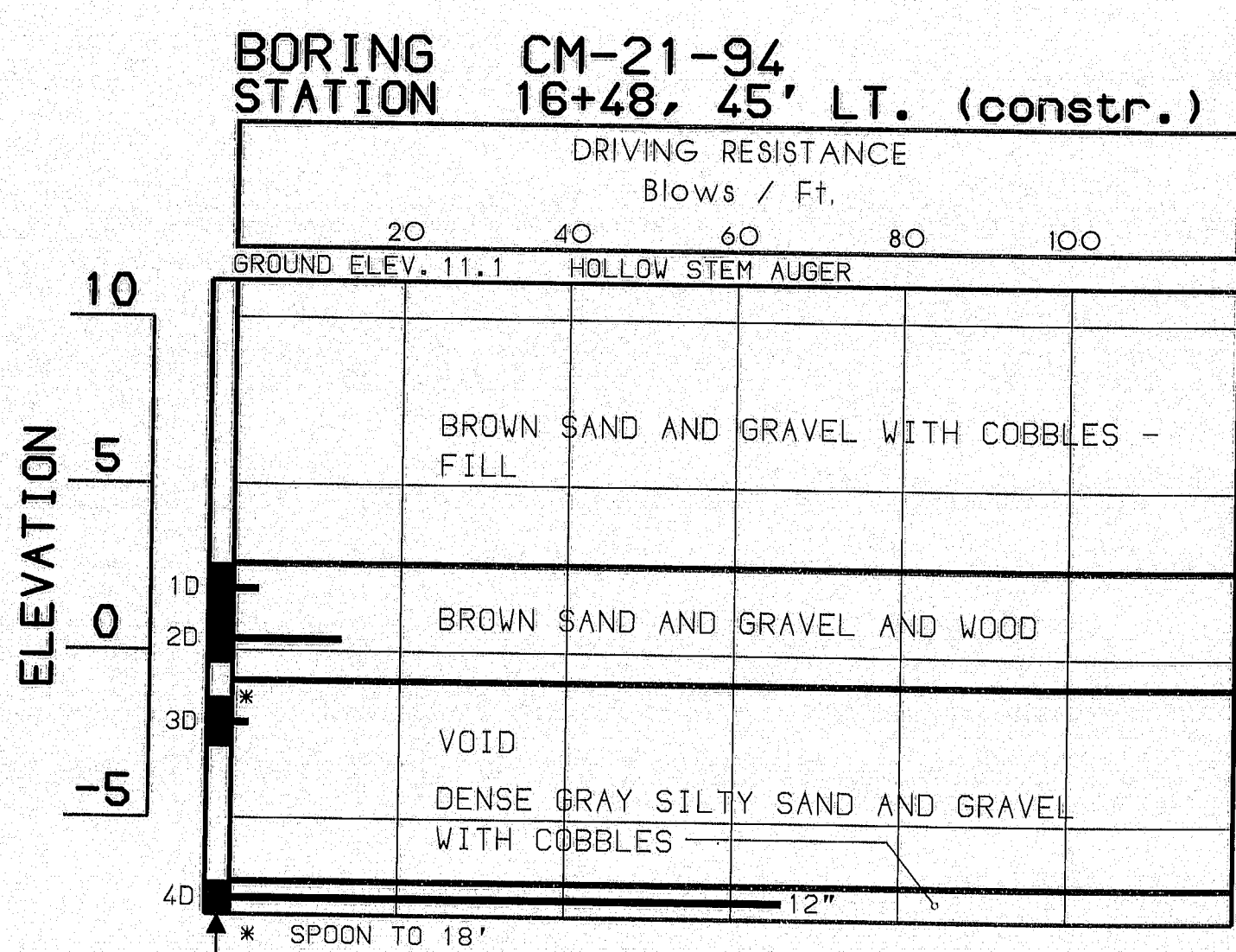
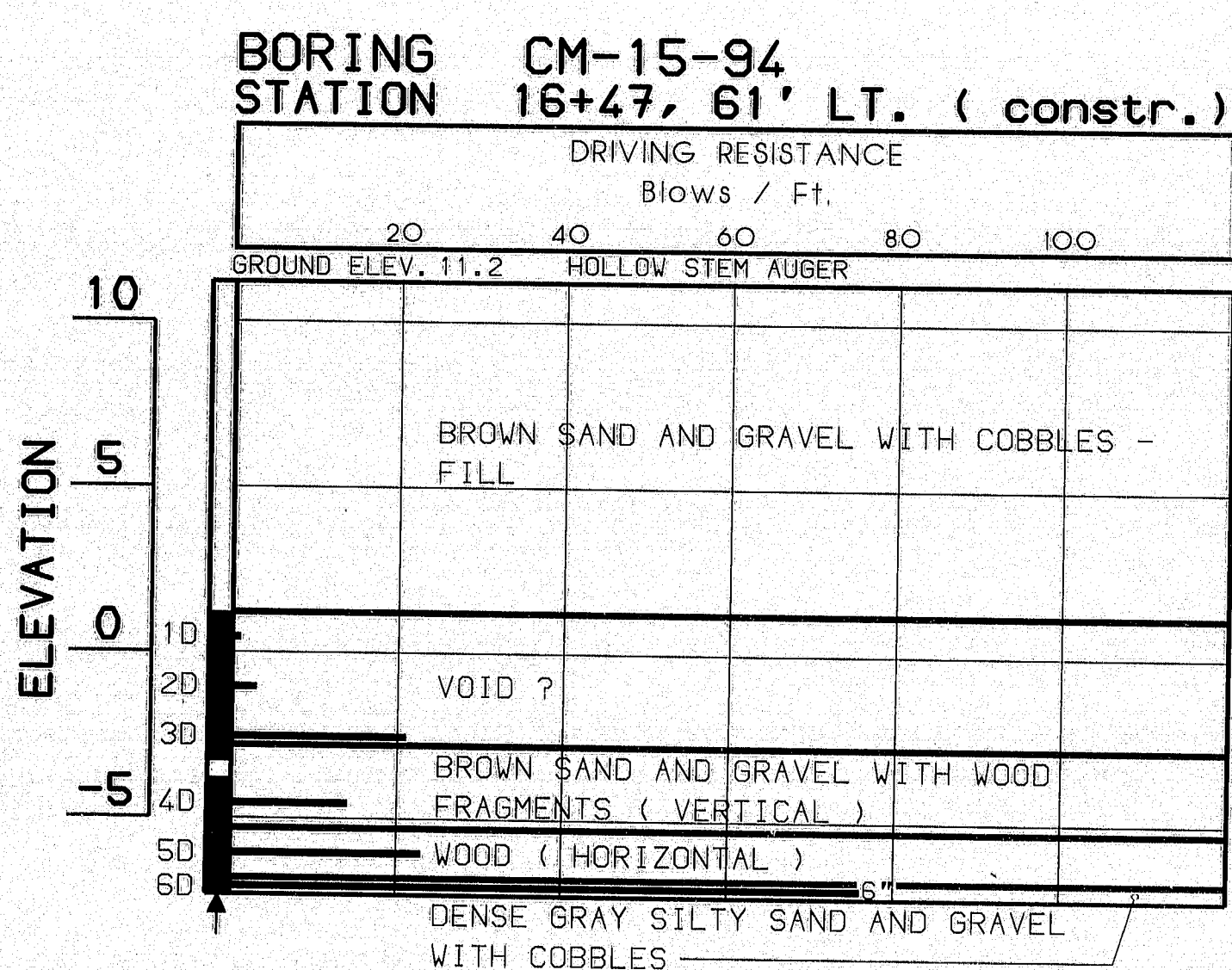
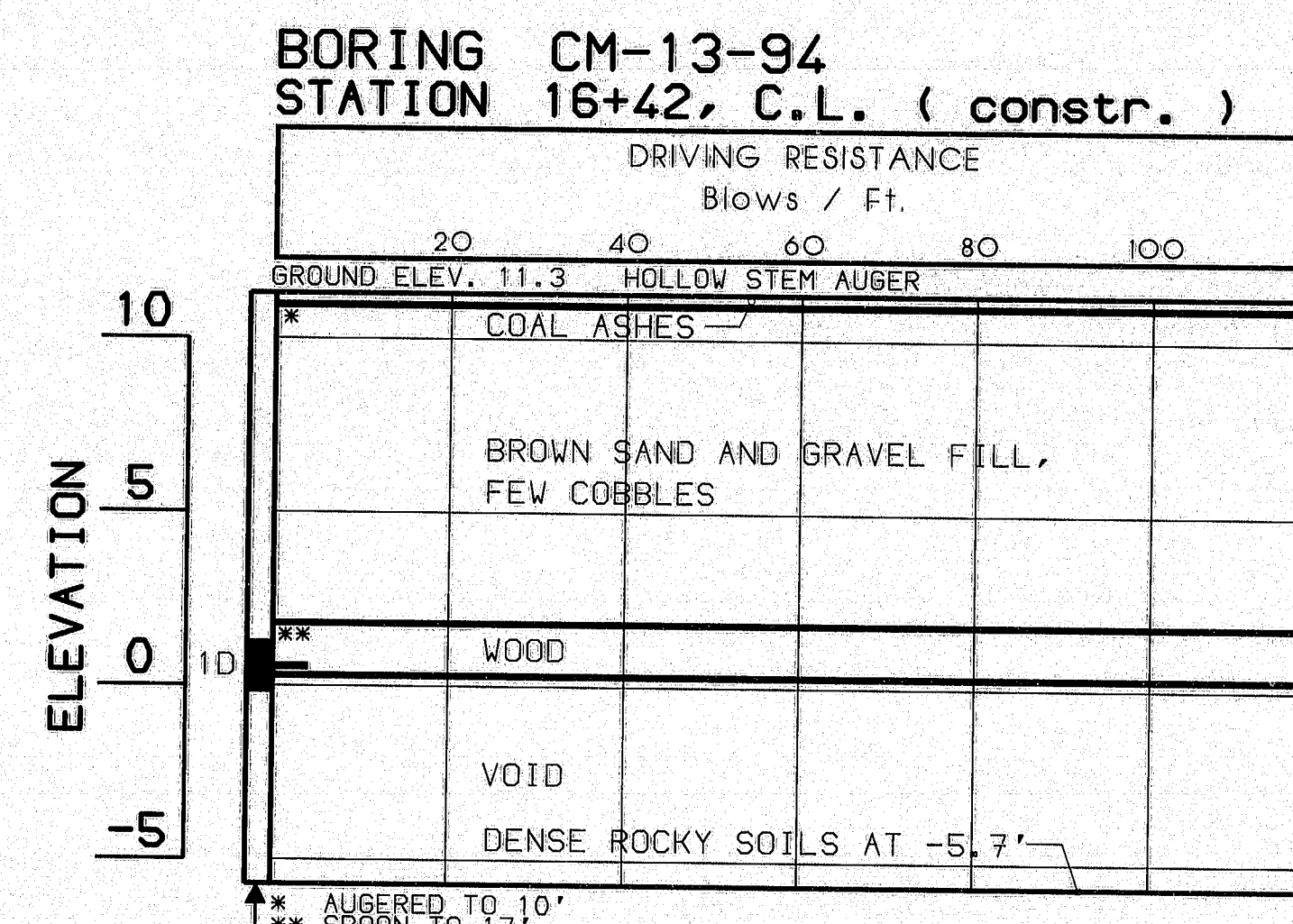
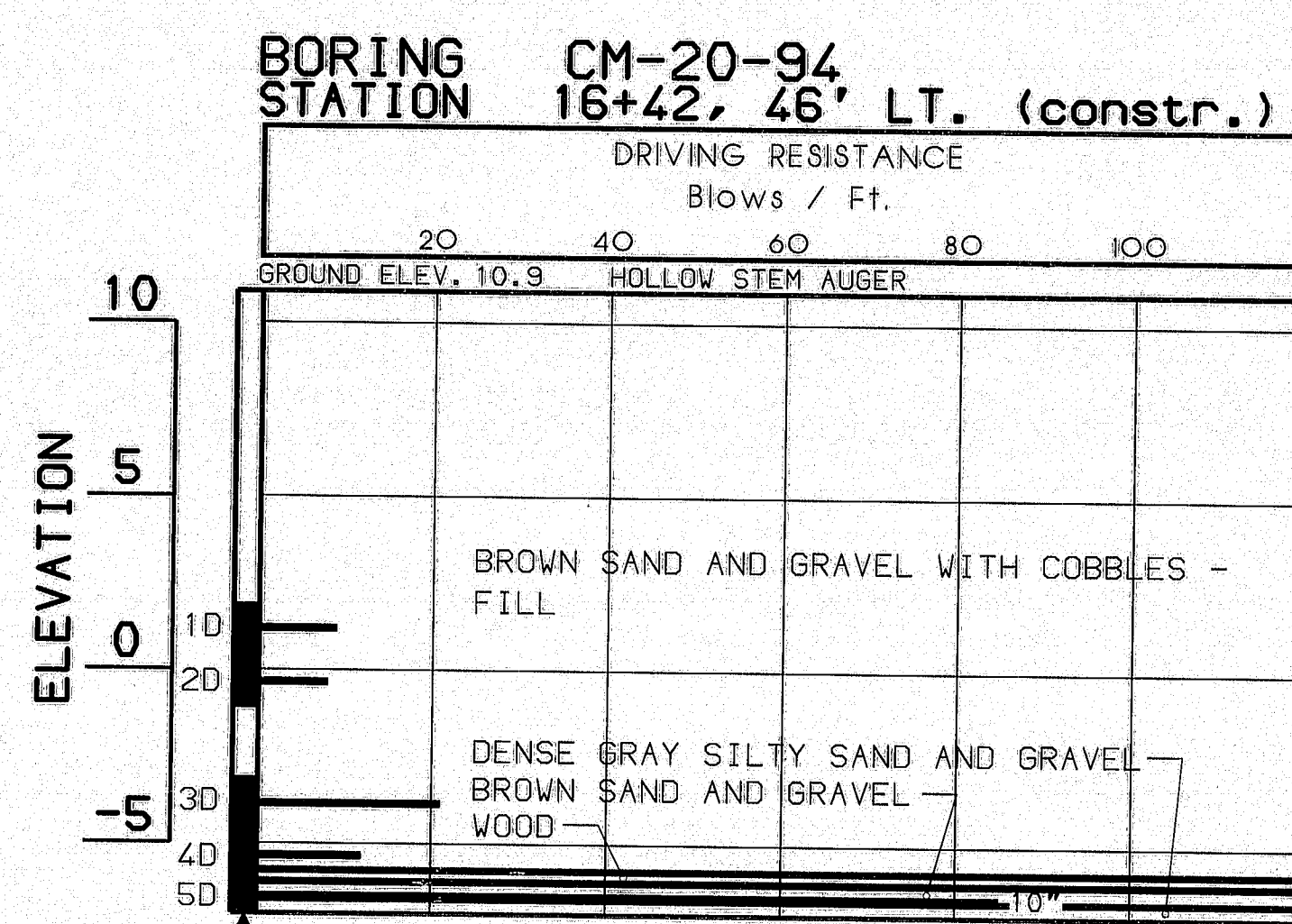
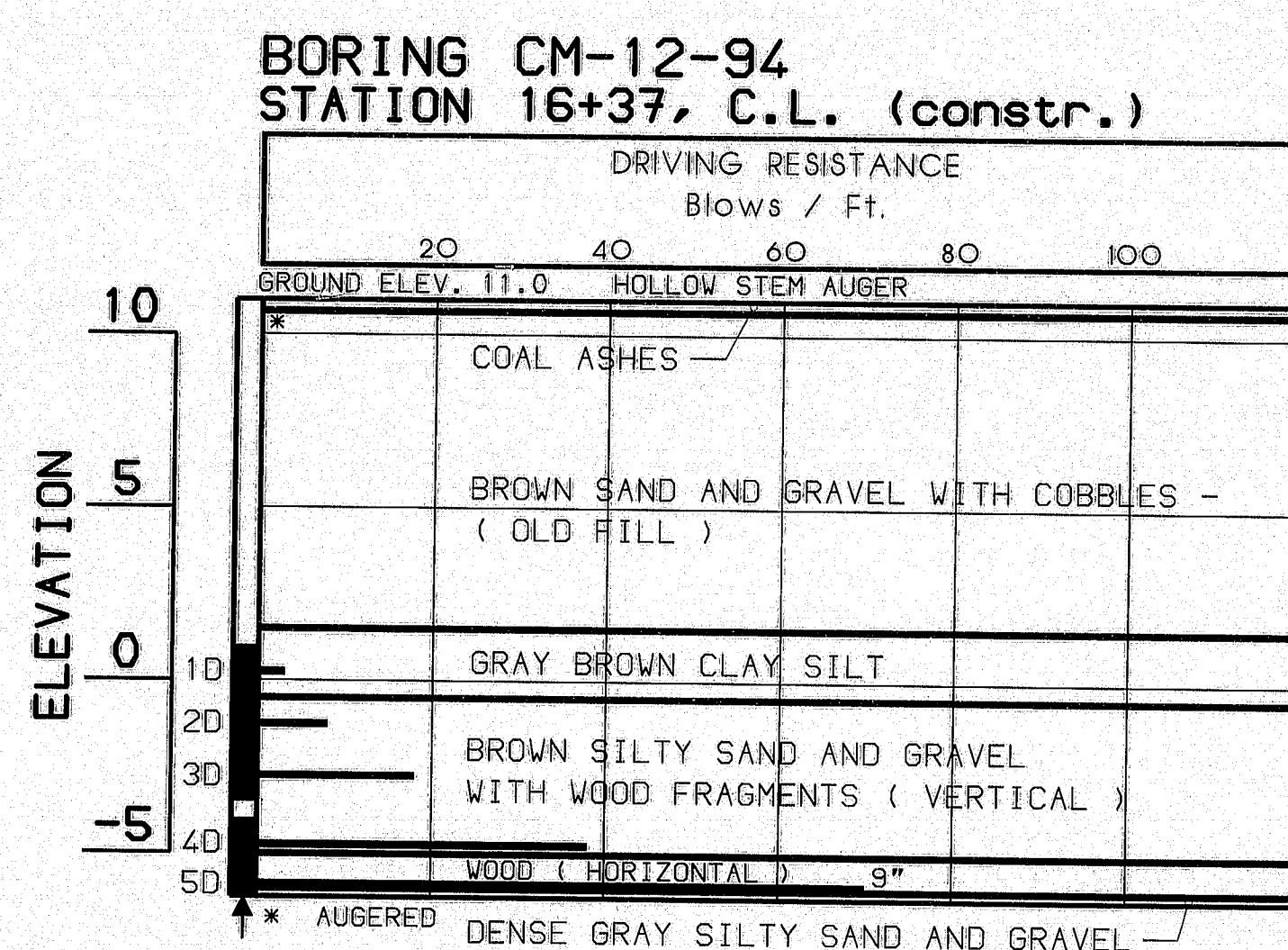
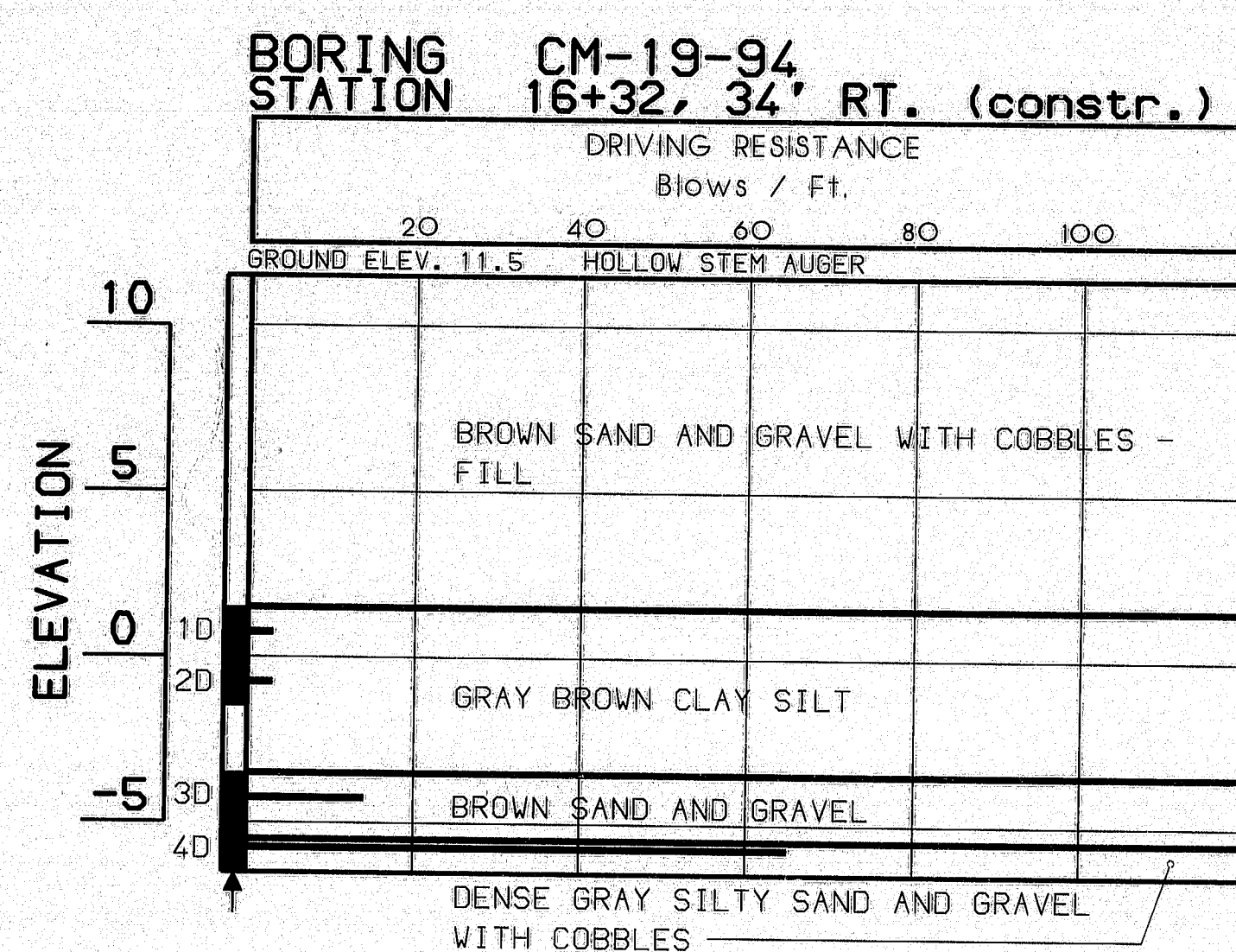
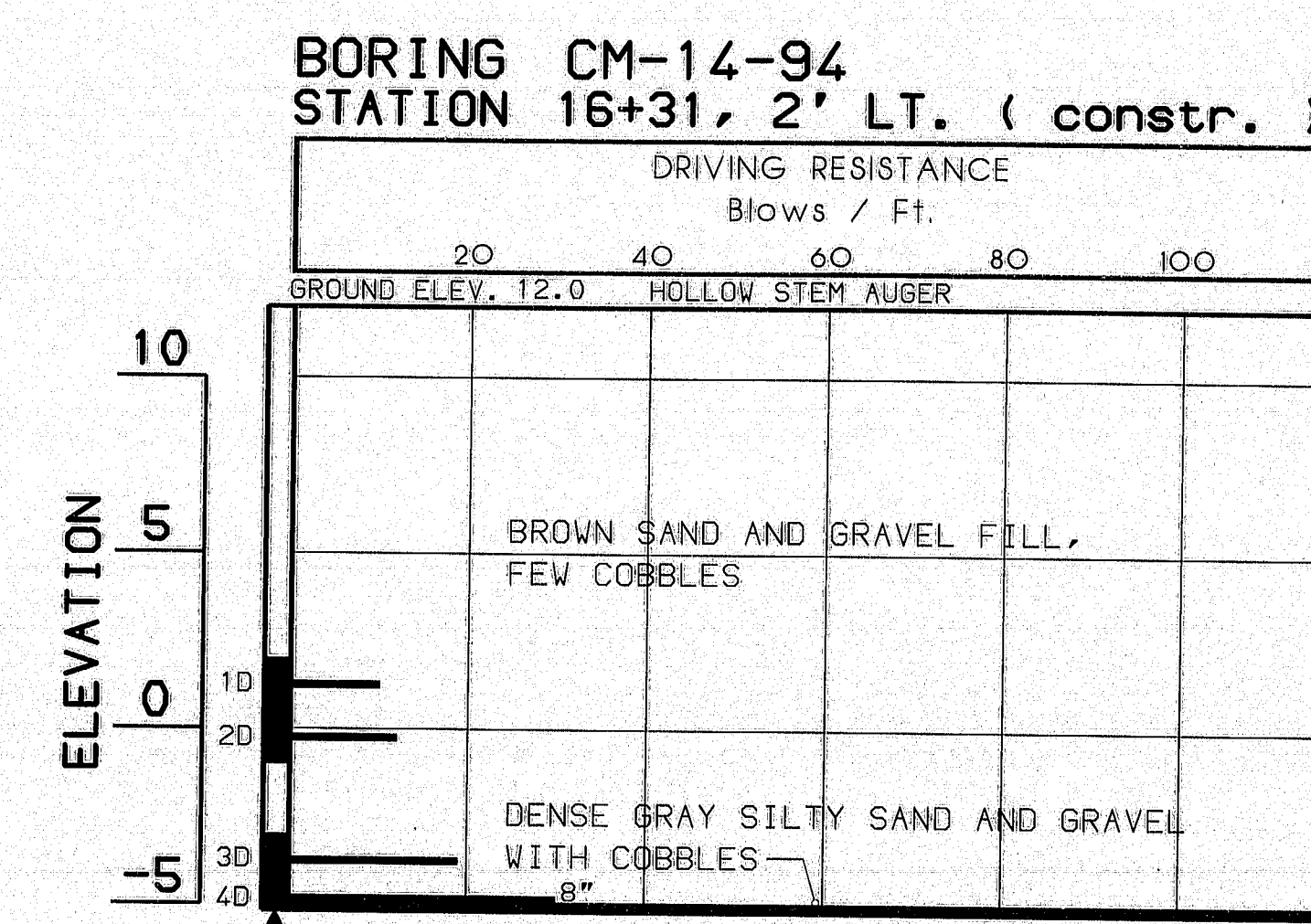
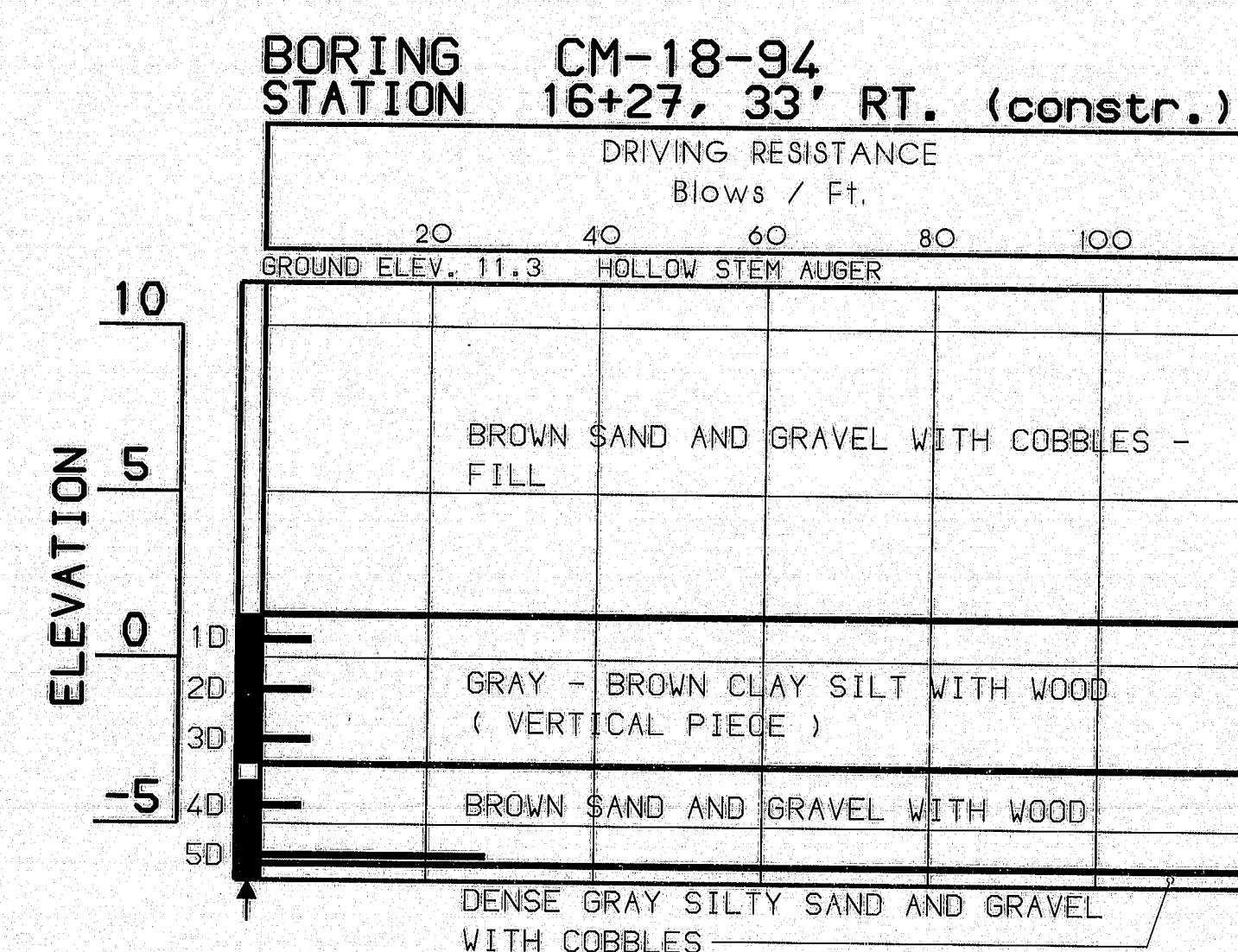
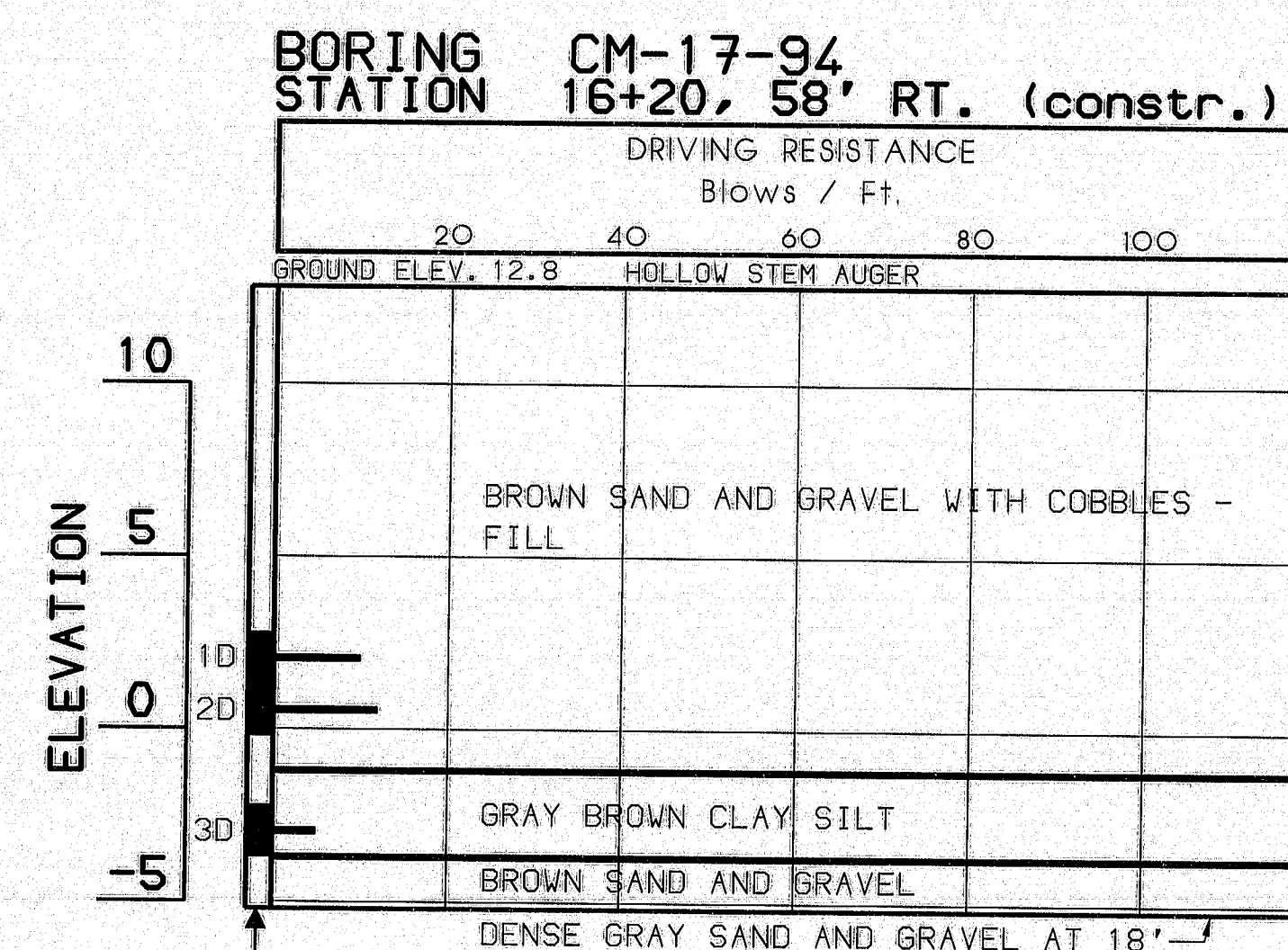
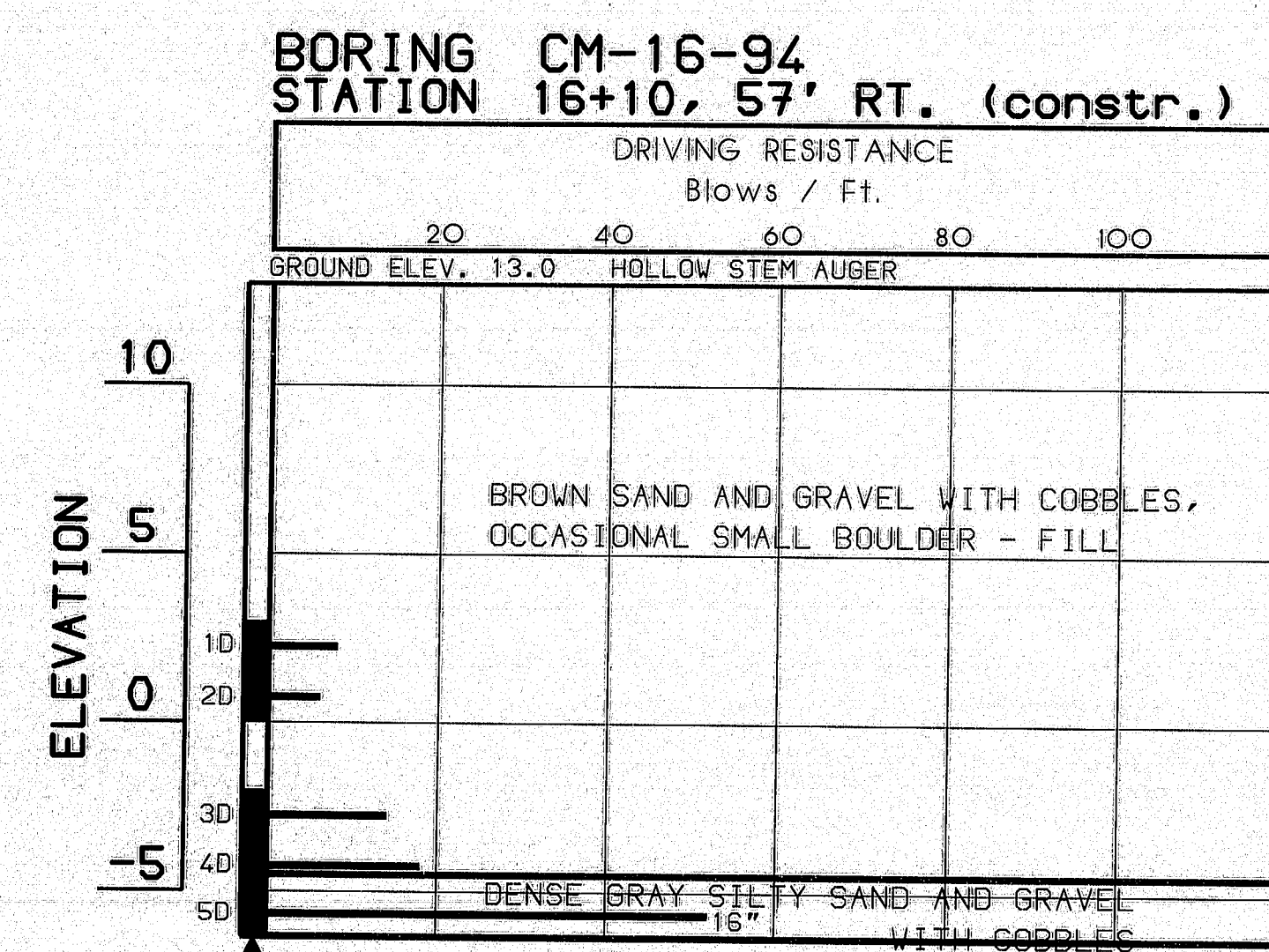


BORING BW-4-95
STATION 24+20, 32' RT.



PROJECT DESIGN NUMBER
DATE
BY
DESIGN-DETAILED
CHECKED
REVISIONS
FIELD CHANGES
PLANS

30 JUN 93 01:01:00



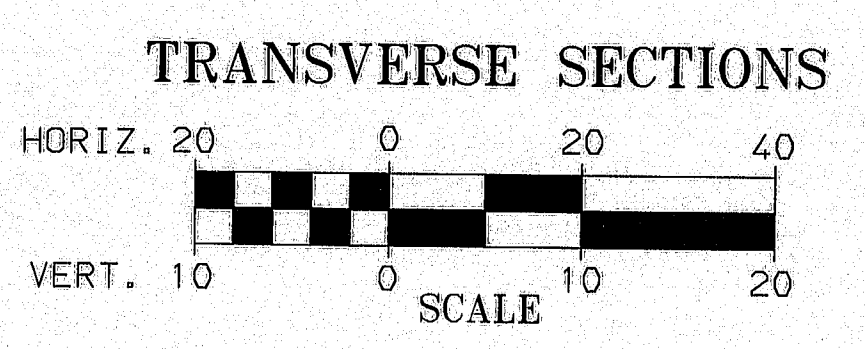
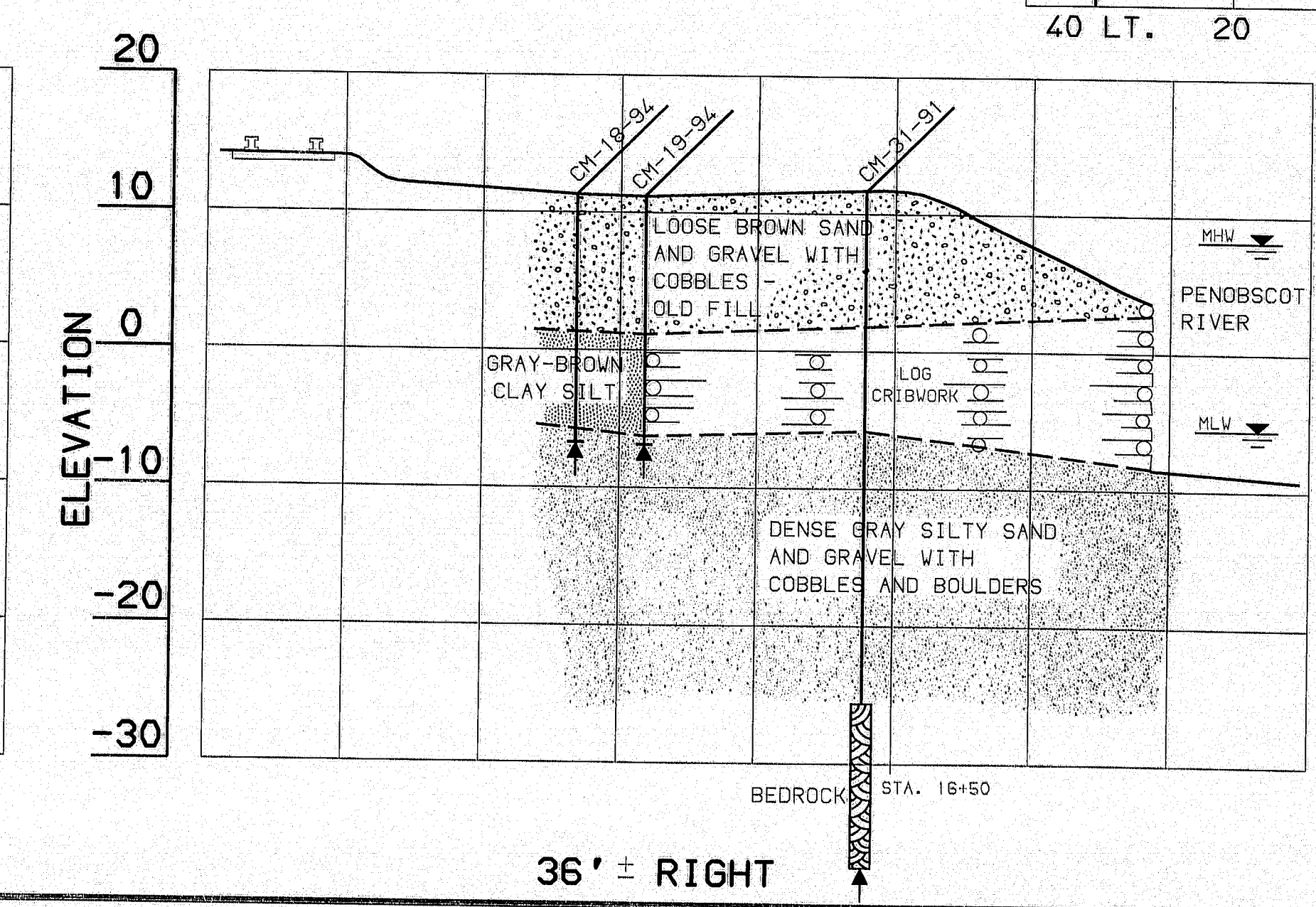
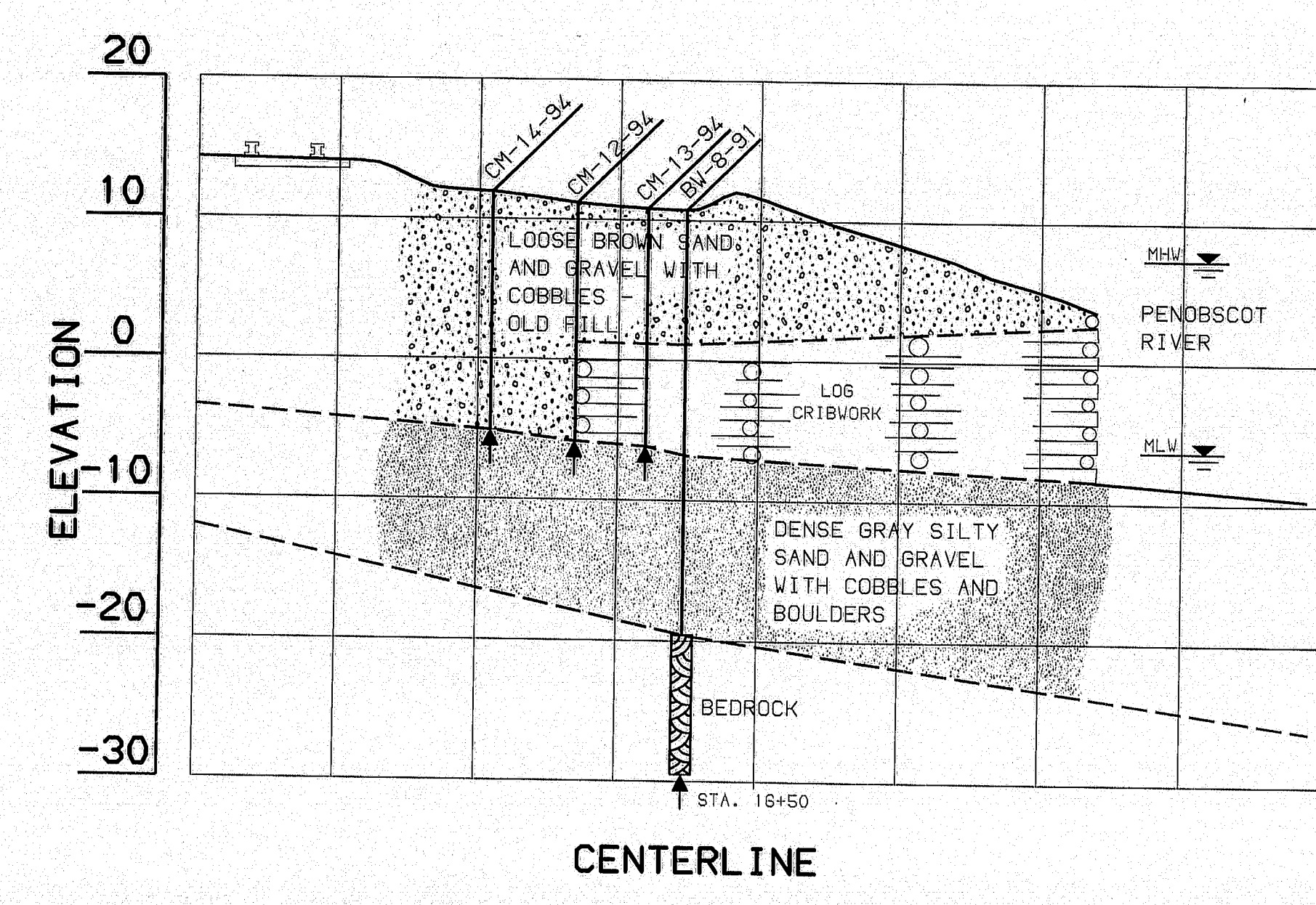
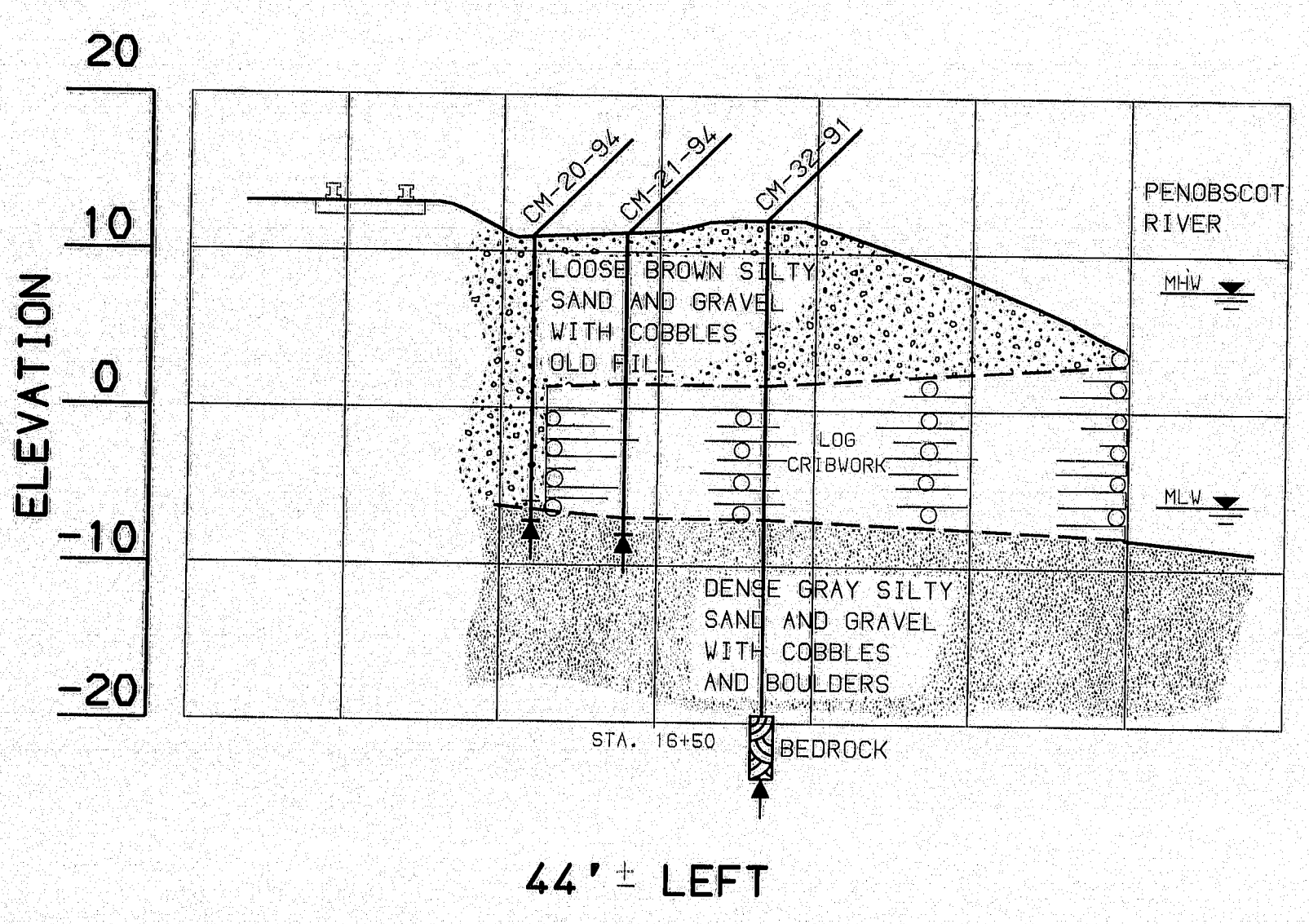
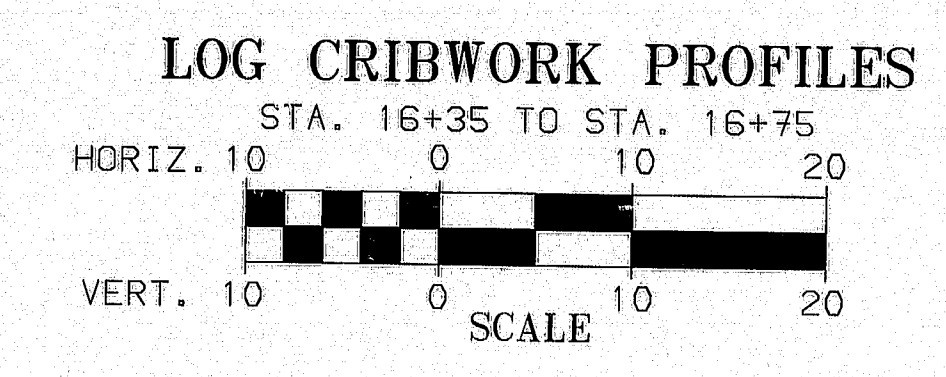
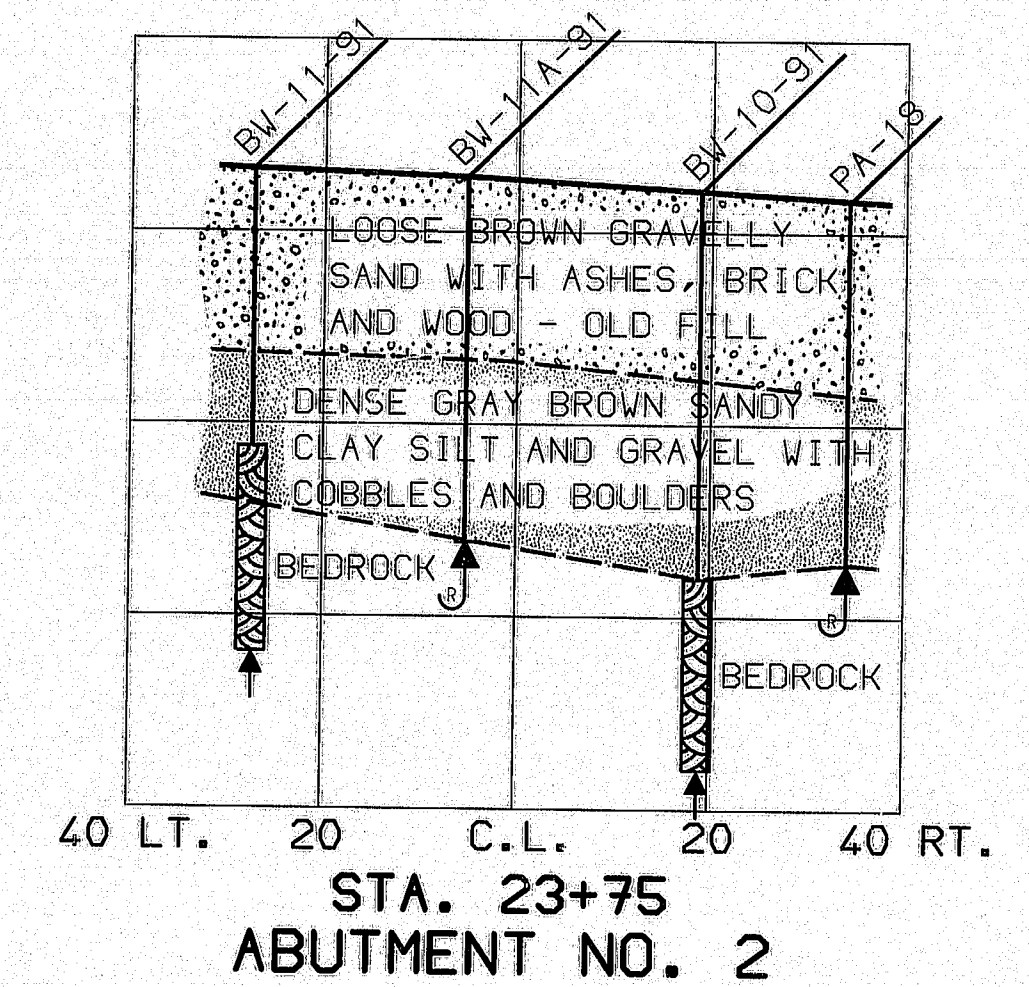
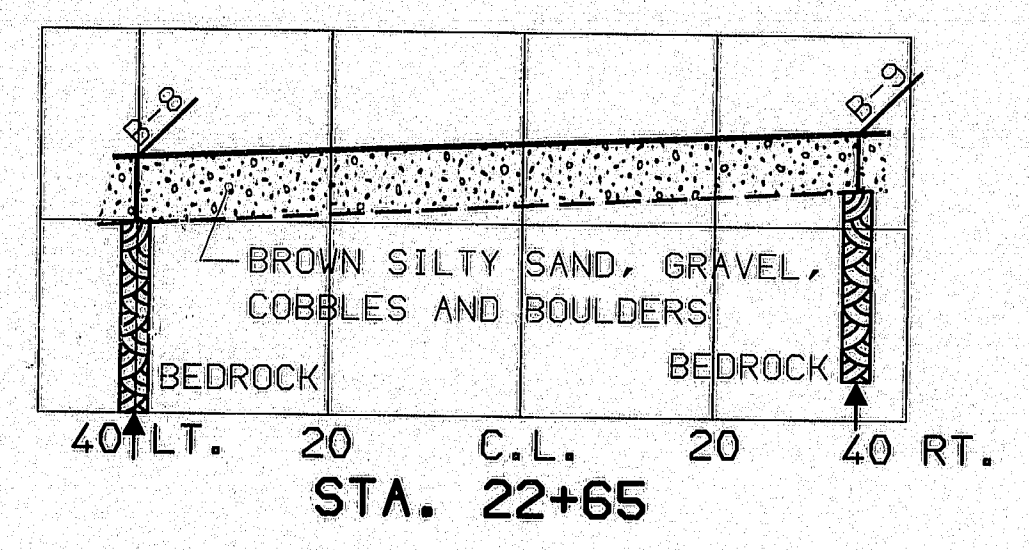
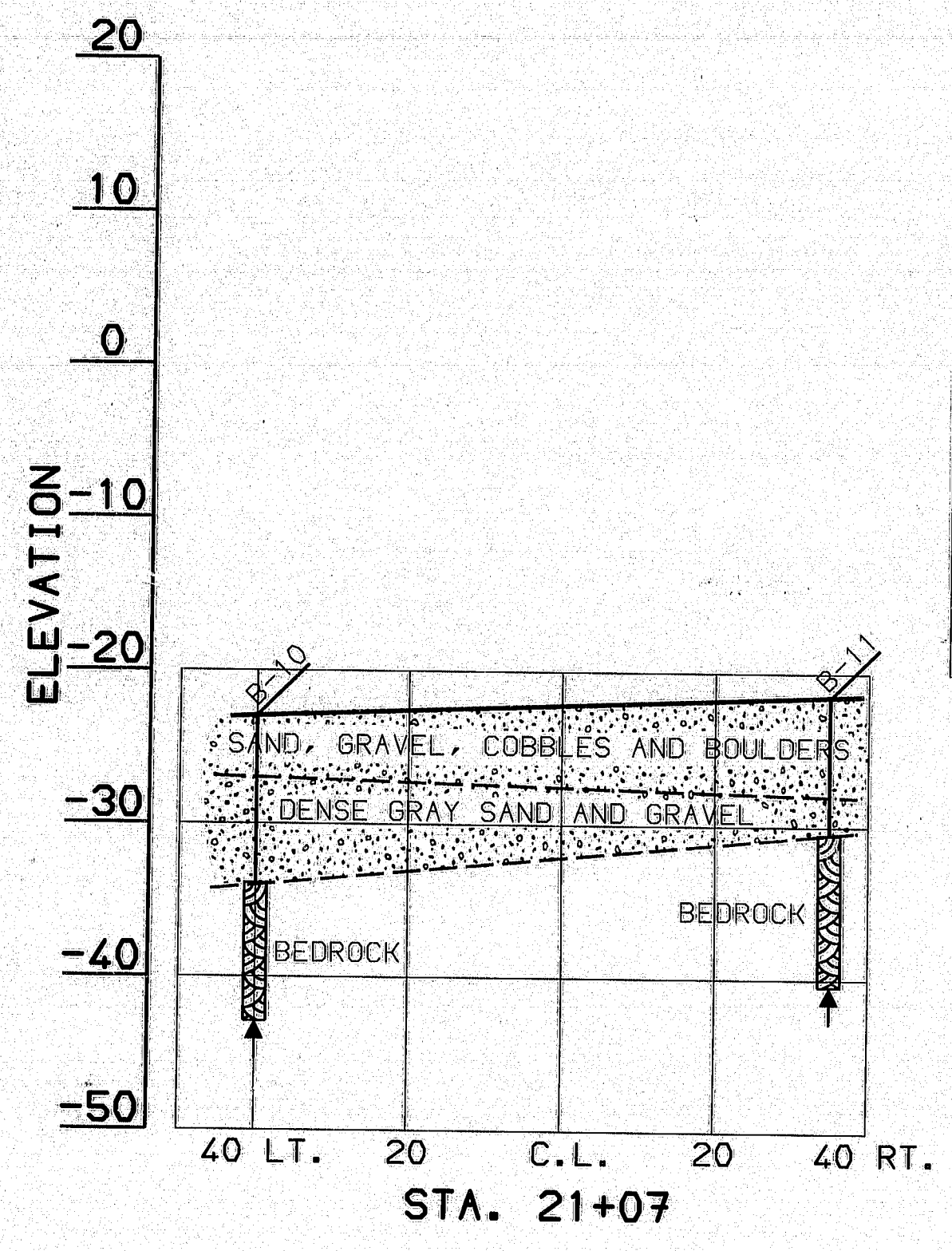
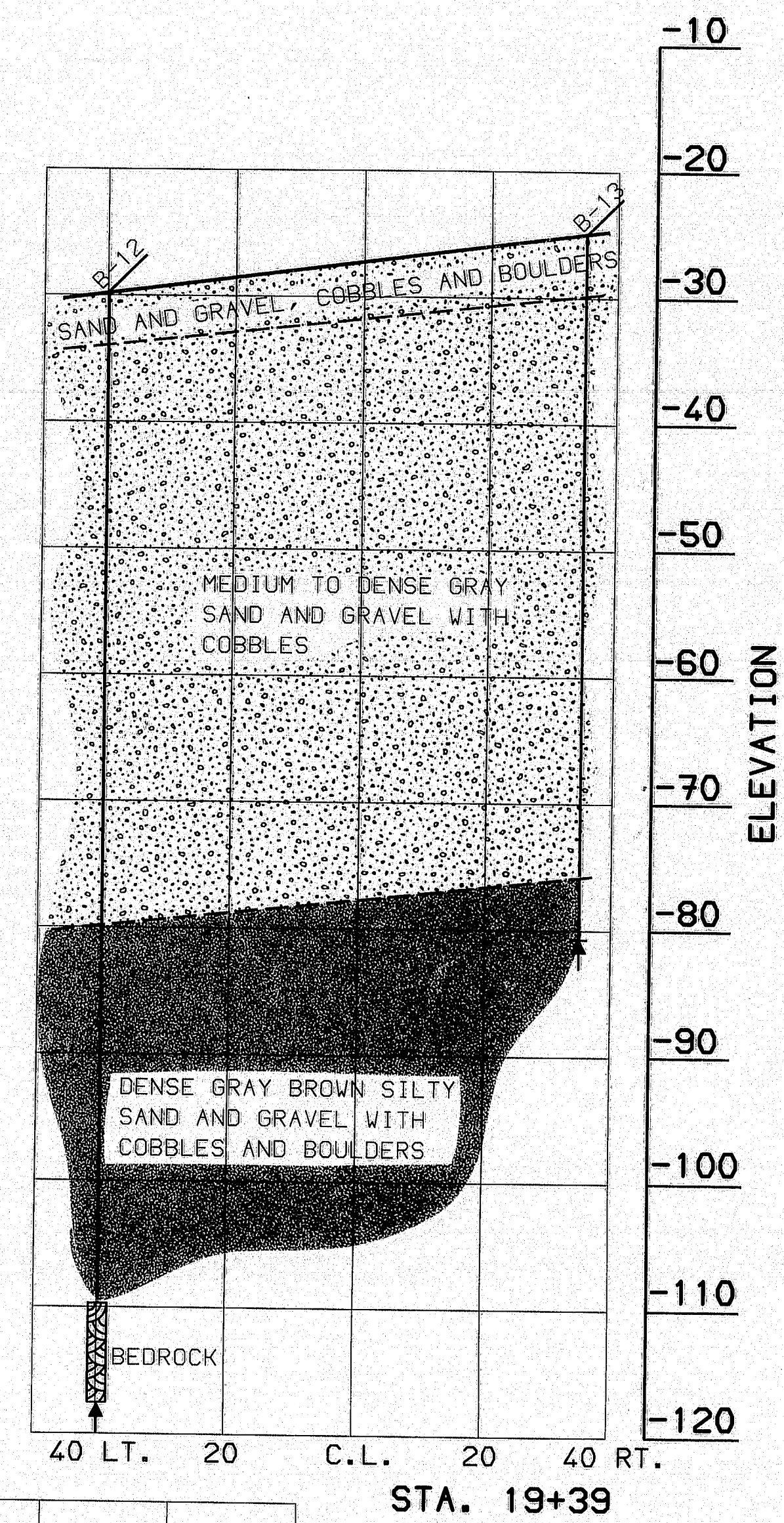
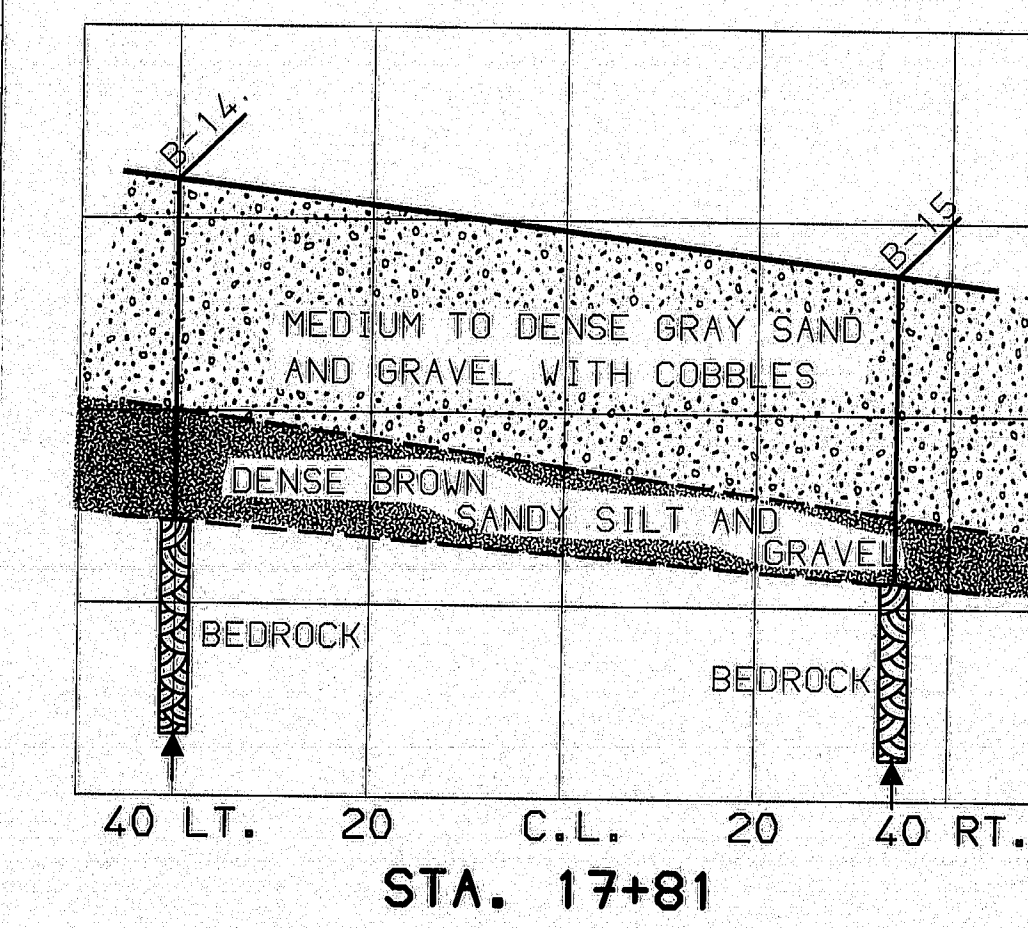
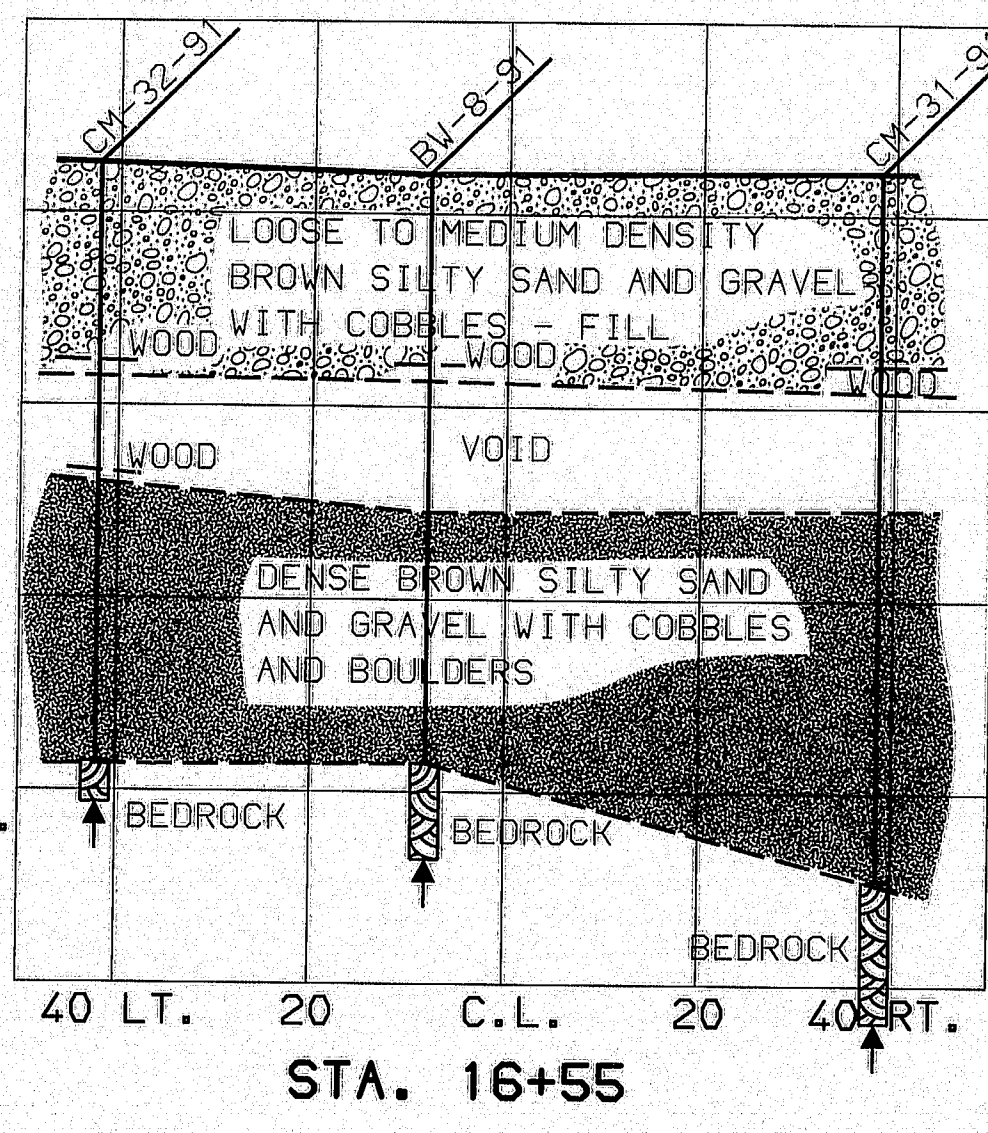
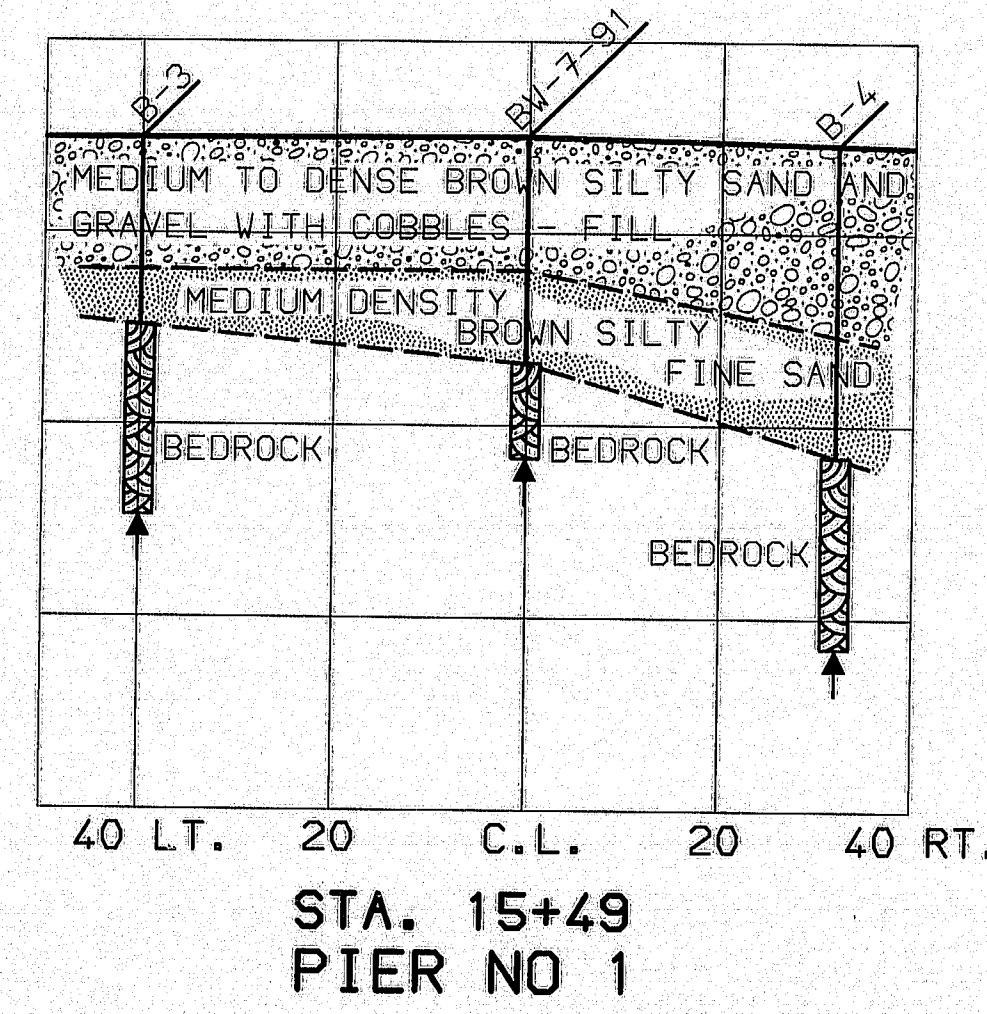
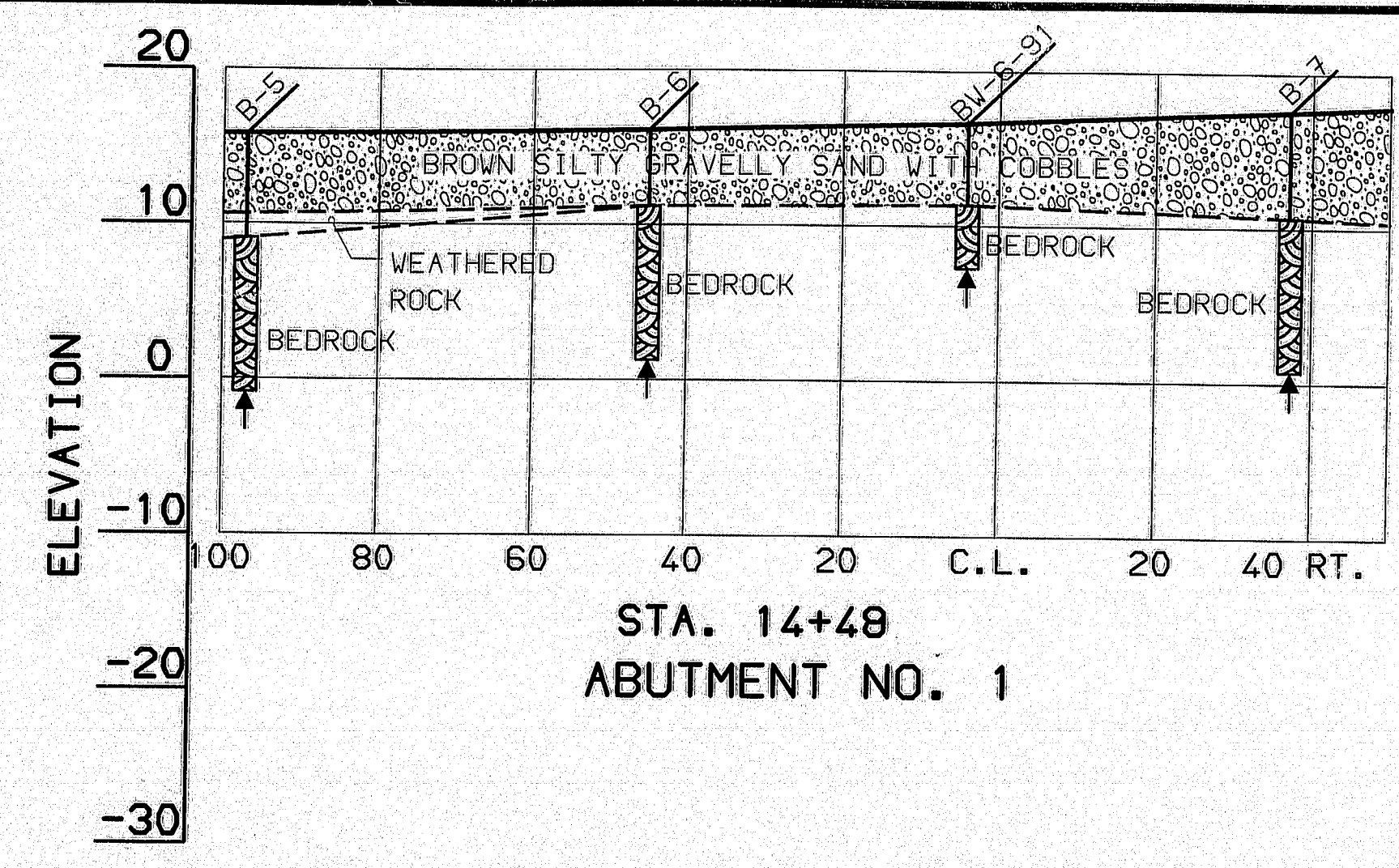
BORING NOTES

- ≡ Water Elevation
- < Number of blows required to drive extra heavy casing one foot with 400 ft. lbs. of energy per blow
- Location of sample or sample attempt
- Number and type of dry sample
 - ID Split spoon sampler
 - IC 2" O.D. 16 ga. seamless tubing
 - IU 3 1/2" O.D. 16 ga. seamless tubing
 - IW Wash sample and number
 - MD Unsuccessful sample attempt and type of sampler
- Number of blows required to drive spoon or tubing one foot with 350 ft. lbs. of energy per blow
- H Sampling spoon or seamless tubing driven by static weight of drill rods and hammer
- P Piston sampler
- Field vane test
- ↑ Bottom of boring (may not be bottom of soil strata)
- ⬆ Refusal of drill rods or casing (may not be ledge)
- ⊠ Locations cored by diamond bit and percent recovery of rock

PROJECT DESIGN ENGINEER	DATE
DESIGN-DRAWN	BY
CHECKED	BY
REVISIONS	BY
FIELD NOTES	BY

30 JUN 93-01/01/00

F.H.W.A. DIST. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BR-038-1(30)	20	201



PROJECT DESIGN	DATE
DESIGN-DRAWN	
CHECKED	
REVISIONS	
FIELD CHANGES	

30JUN83-010100

120-8

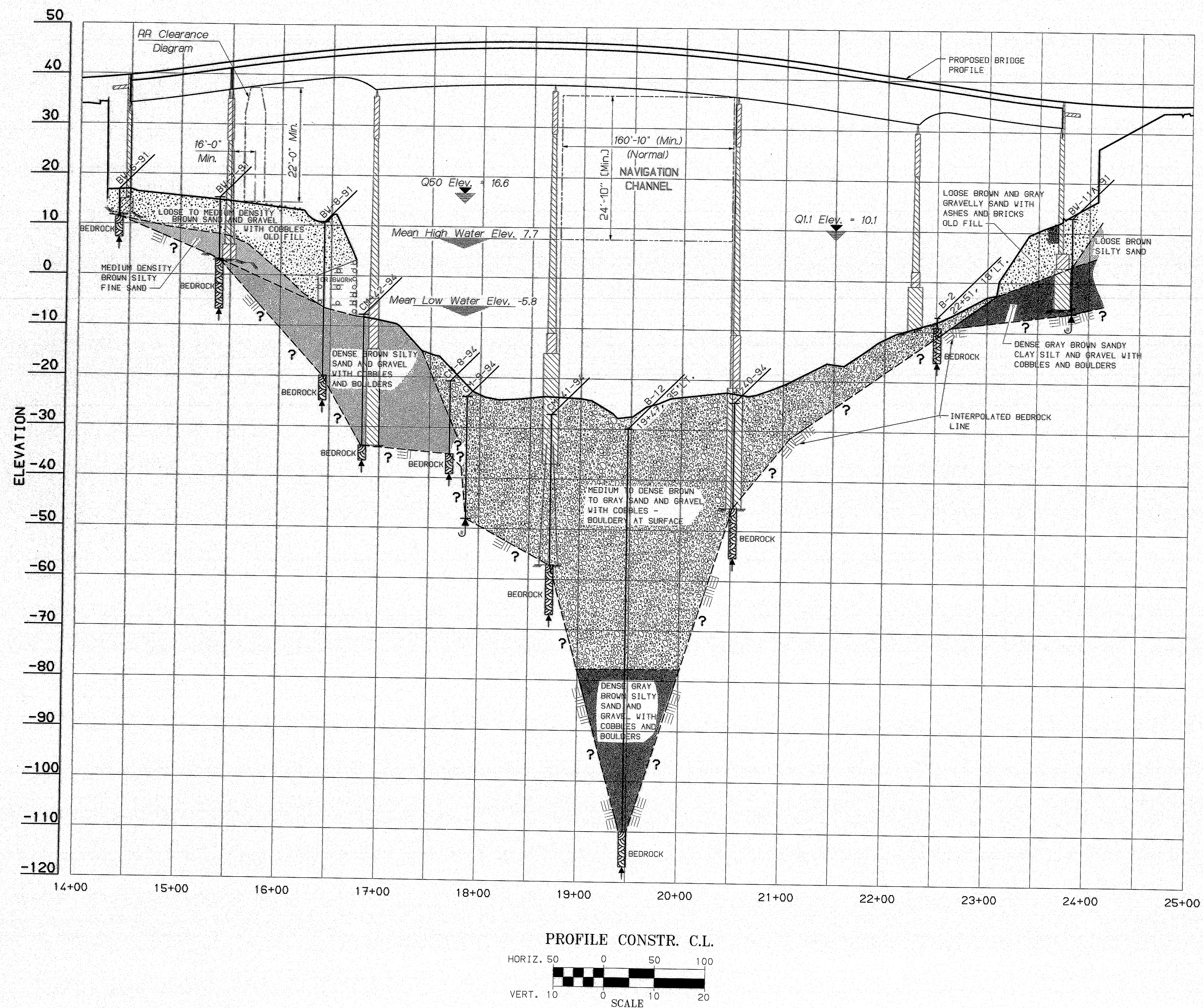
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PENOBSCOT RIVER BRIDGE
over the
PENOBSCOT RIVER
in the cities of
BANGOR - BREWER
PENOBSCOT COUNTY

LOG CRIBWORK AND SOILS TRANSVERSE SECTIONS

SHEET 4 OF 8 AUGUSTA, ME.

F.R.L.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	DE-BR-038-1(25)	7	201



PROJECT DESIGN NUMBER	DATE
DESIGN DETAIL	BY
CHECKED	DATE
REVISIONS	
FIELD CHANGES	

30 JUN 63-010100

120-9

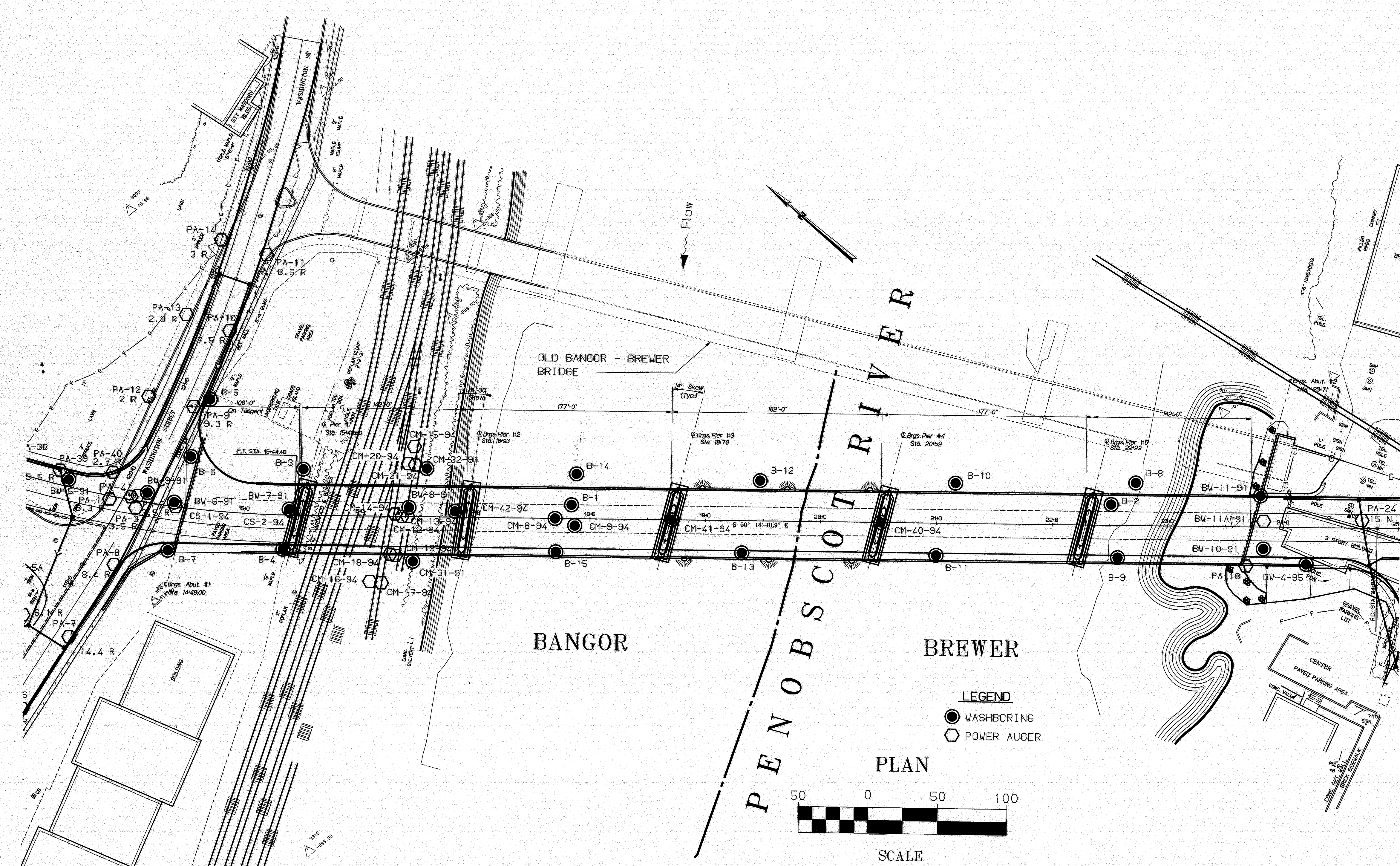
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PENOBSCOT RIVER BRIDGE
over the
PENOBSCOT RIVER
in the cities of
BANGOR - BREWER
PENOBSCOT COUNTY

BRIDGE SOILS PROFILE

SHEET 7 OF 8 AUGUSTA, ME.

F.H.W.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BE-REF-008-1(30)	10	201



PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

30 JUN 83-010100

120-10

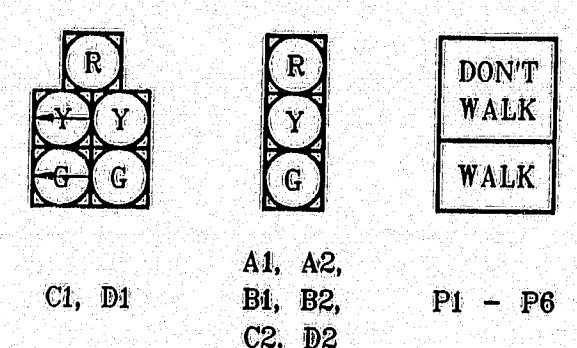
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PENOBSCOT RIVER BRIDGE
over the
PENOBSCOT RIVER
in the cities of
BANGOR - BREWER
PENOBSCOT COUNTY
BORING LOCATIONS - BRIDGE

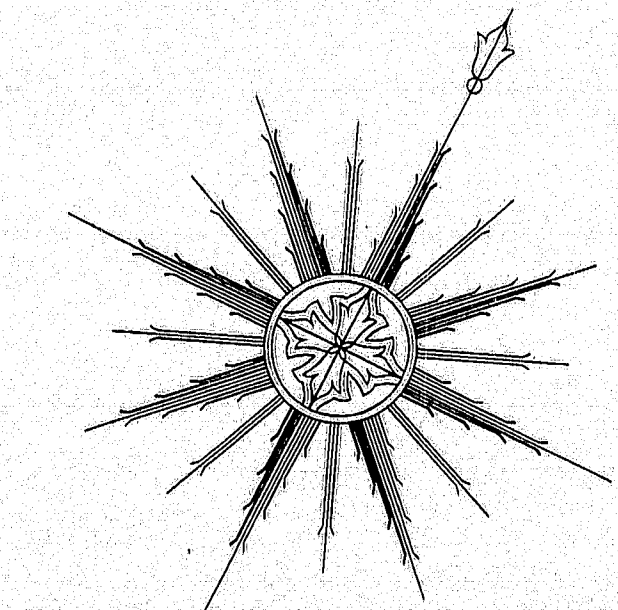
SHEET 8 OF 8 AUGUSTA, ME.

F.H.V.A.V.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	11	201

INDICATIONS

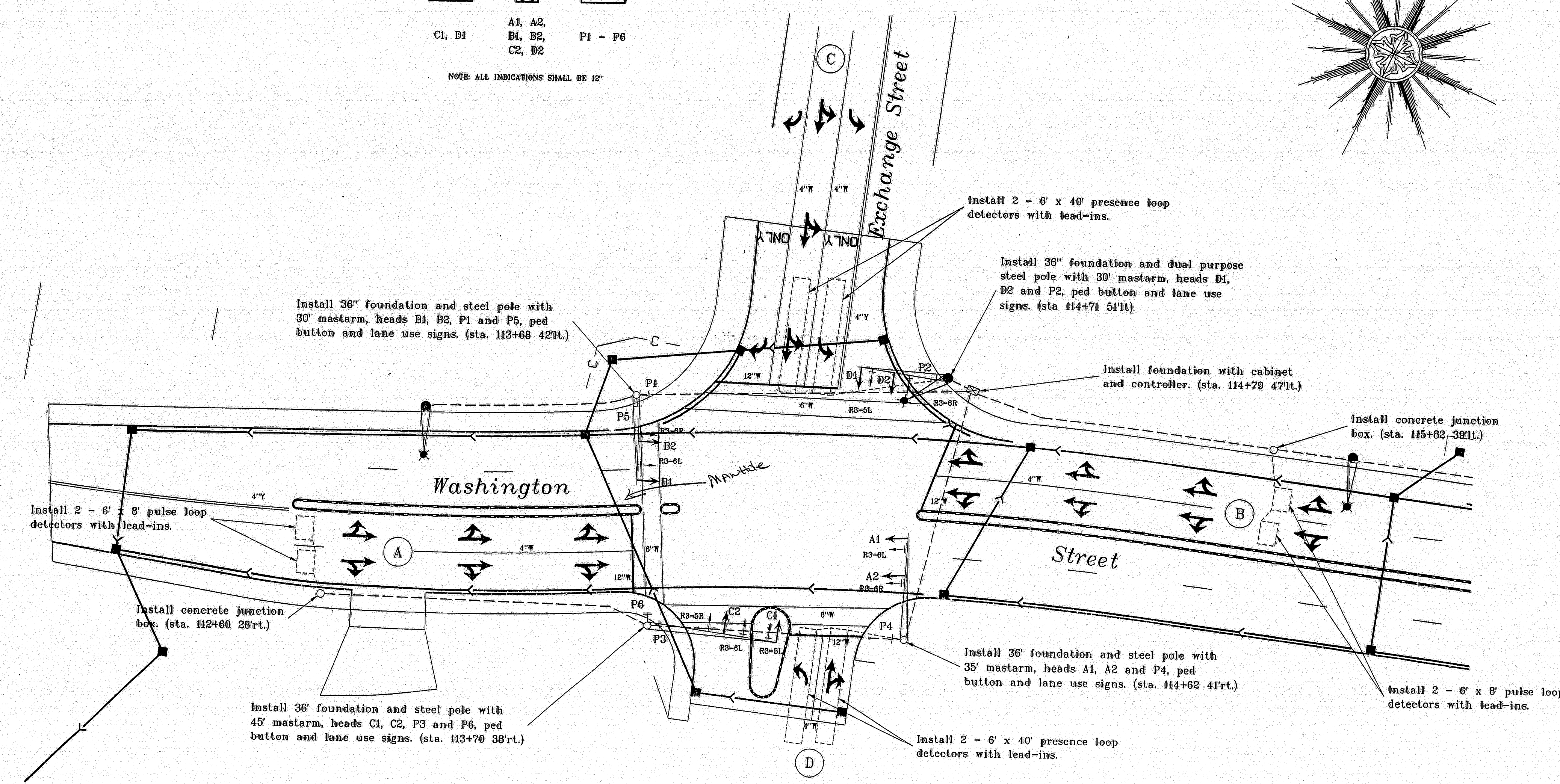


NOTE: ALL INDICATIONS SHALL BE 12"



LEGEND	
	controller with cabinet
	steel pole
	mast arm
	vehicular head
	ped head
	conduit

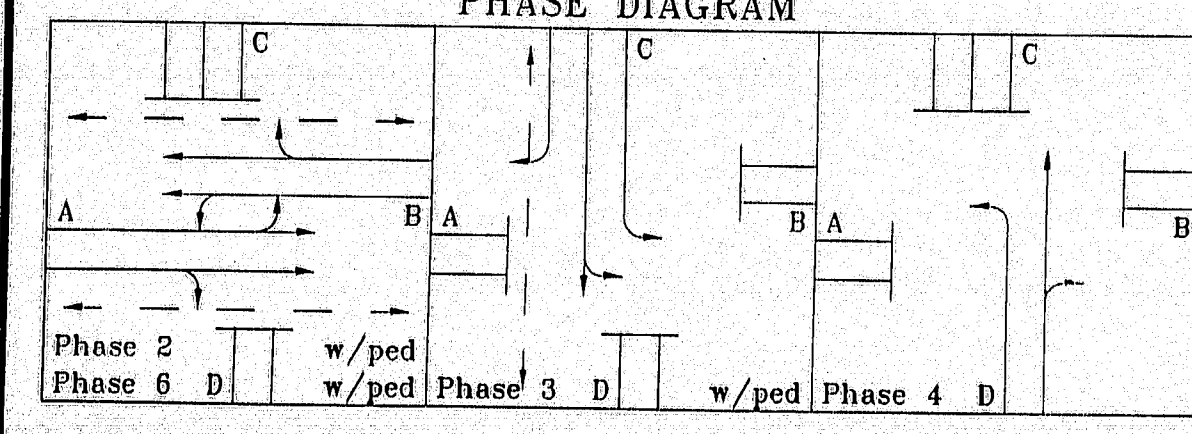
KEY TO PAVEMENT MARKINGS	
4"Y	4 inch double yellow center line
4"W	4 inch white lane line
6"W	6 inch white cross walk line
12"W	12 inch white stop line
	white left or right arrow
	white thru arrow
ONLY	white "ONLY" message



SIGNAL TIMING

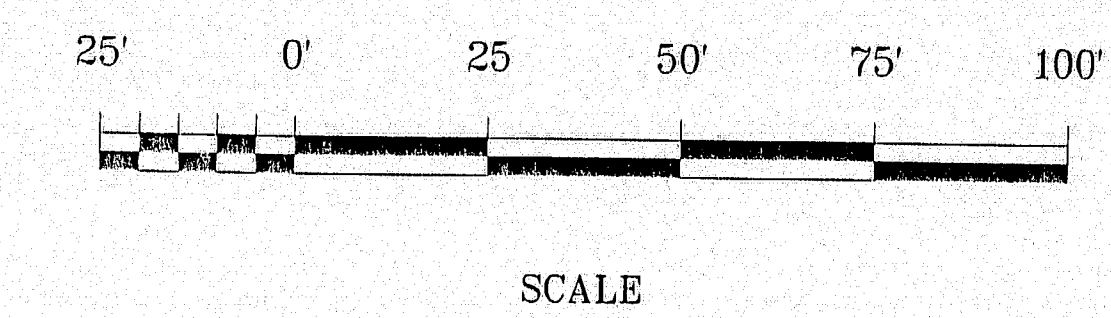
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Min Green	15	15	15	15	15	15	15	15
Extension	4	4	4	4	4	4	4	4
Max I	40	40	40	40	40	40	40	40
Max II	3	3	3	3	3	3	3	3
Yell Clear	3	3	3	3	3	3	3	3
Red Clear	15	15	15	15	15	15	15	15
Walk	5	5	5	5	5	5	5	5
Ped Clear	17	17	17	17	17	17	17	17
Recall	soft	off	off	off	off	off	off	off

PHASE DIAGRAM



PROJECT DESIGN ENGINEER	DATE
CHECKED	7/85
DESIGN-DETAILED	
REVISIONS	
FIELD CHANGES	

15AUG95-040030



PK 2011
1997

120-11

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Bangor

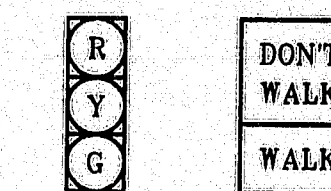
Traffic Signals
at
Washington Street
and
Exchange Street

BR-BRF-038-1(35)

SHEET 1 OF 9 AUGUSTA, MAINE P.L.M. 002672.00

F.M.V.A. DES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	12	201

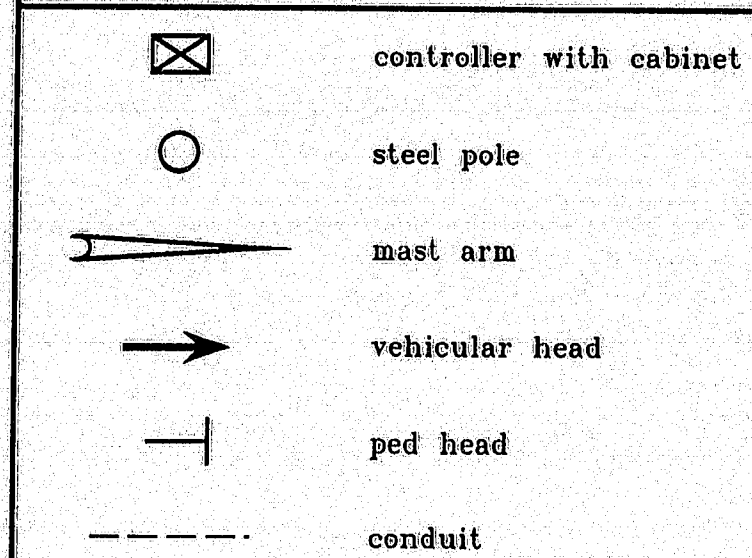
INDICATIONS



A1, A2,
B1, B2 P1 - P2

NOTE: ALL INDICATIONS SHALL BE 12"

LEGEND



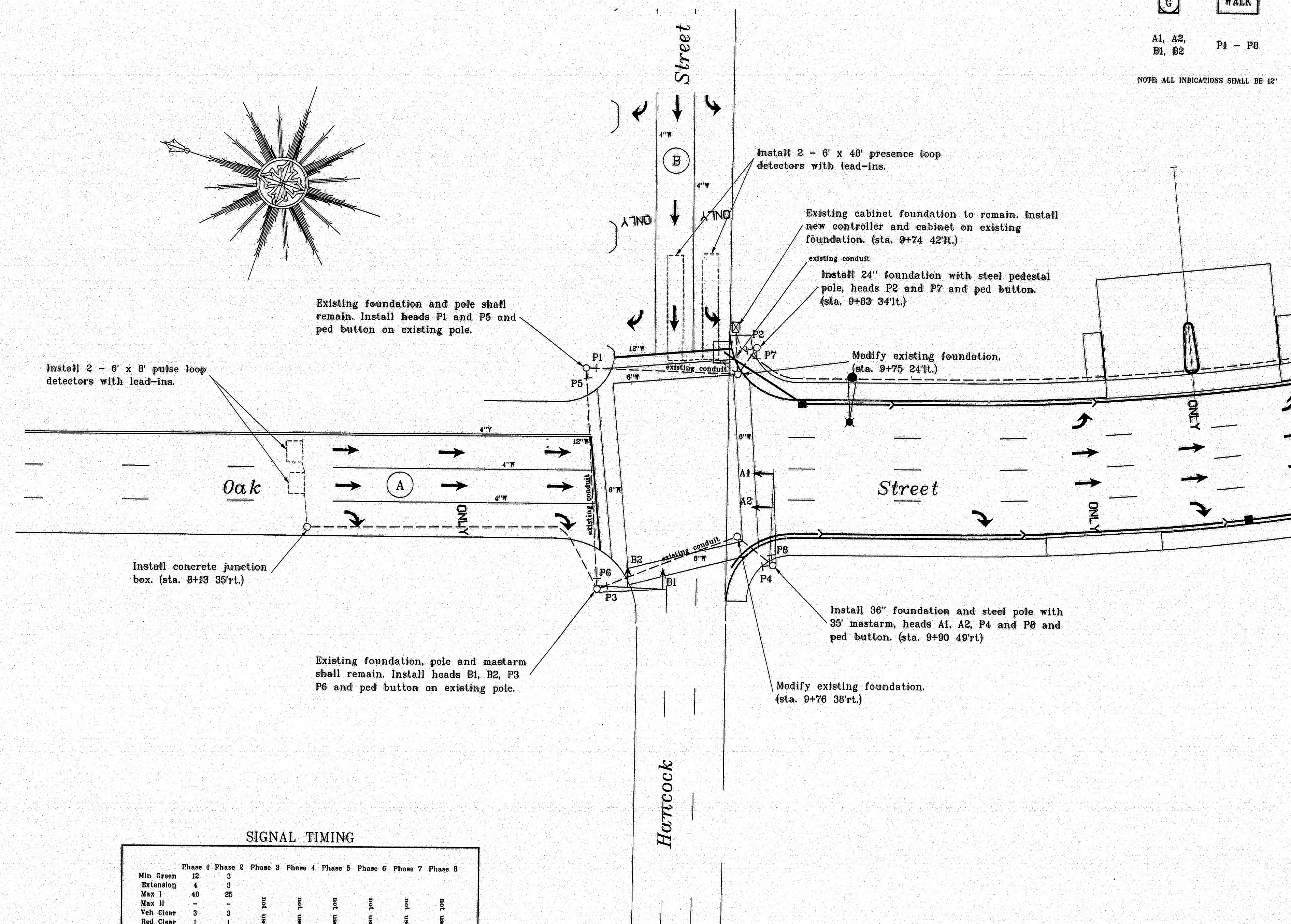
KEY TO PAVEMENT MARKINGS

4"Y	4 inch double yellow center line
4"W	4 inch white lane line
6"W	6 inch white cross walk line
12"W	12 inch white stop line
← or →	white left or right arrow
↑	white thru arrow
ONLY	white "ONLY" message

#5 Built
1997

120-12

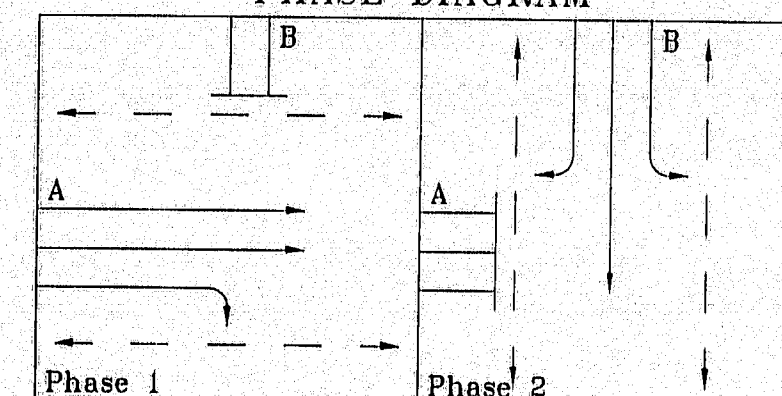
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Bangor
Traffic Signal Modifications
at
Oak Street
and
Hancock Street
BR-BRF-038-1(35)
SHEET 2 OF 9 AUGUSTA, MAINE P.L.N. 002672.00



SIGNAL TIMING

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Min Green	12	5						
Extension	4	5						
Max I	40	25						
Max II	-	-						
Yell Clear	5	5	perm	yes	perm	yes	perm	yes
Red Clear	1	1	perm	yes	perm	yes	perm	yes
Walk	5	5						
Yell Clear	10	10						
Recall	soft	off						

PHASE DIAGRAM



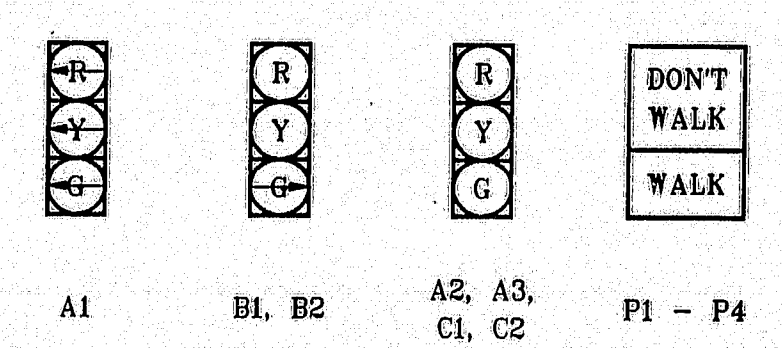
PROJECT DESIGN ENGINEER	DATE
DESIGN-DRAWN	7/95
CHECKED	
REVISIONS	
FIELD CHANGES	

15AUG95-010030

PLANS

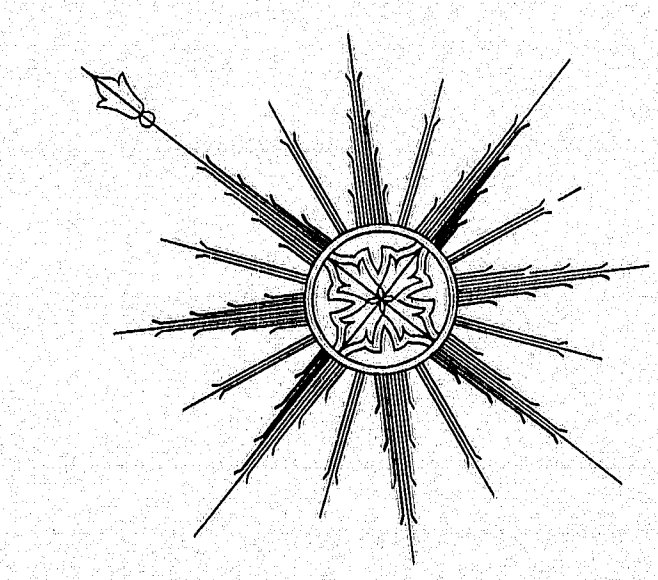
F.D.N.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	13	201

INDICATIONS



NOTE ALL INDICATIONS SHALL BE 12"

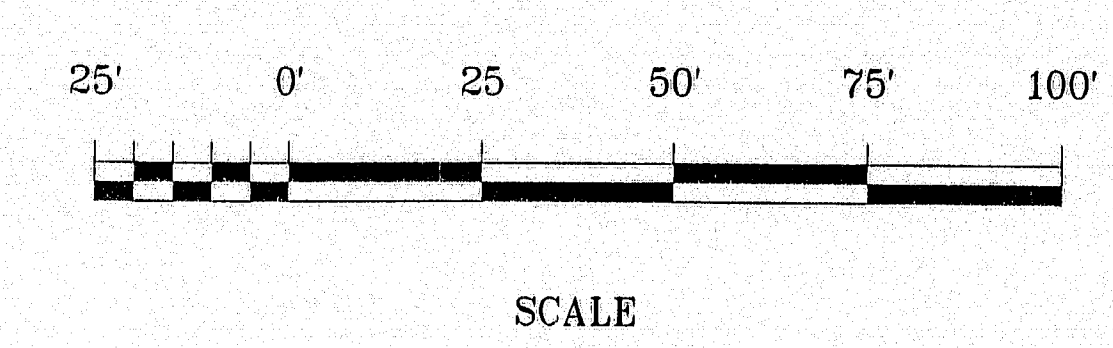
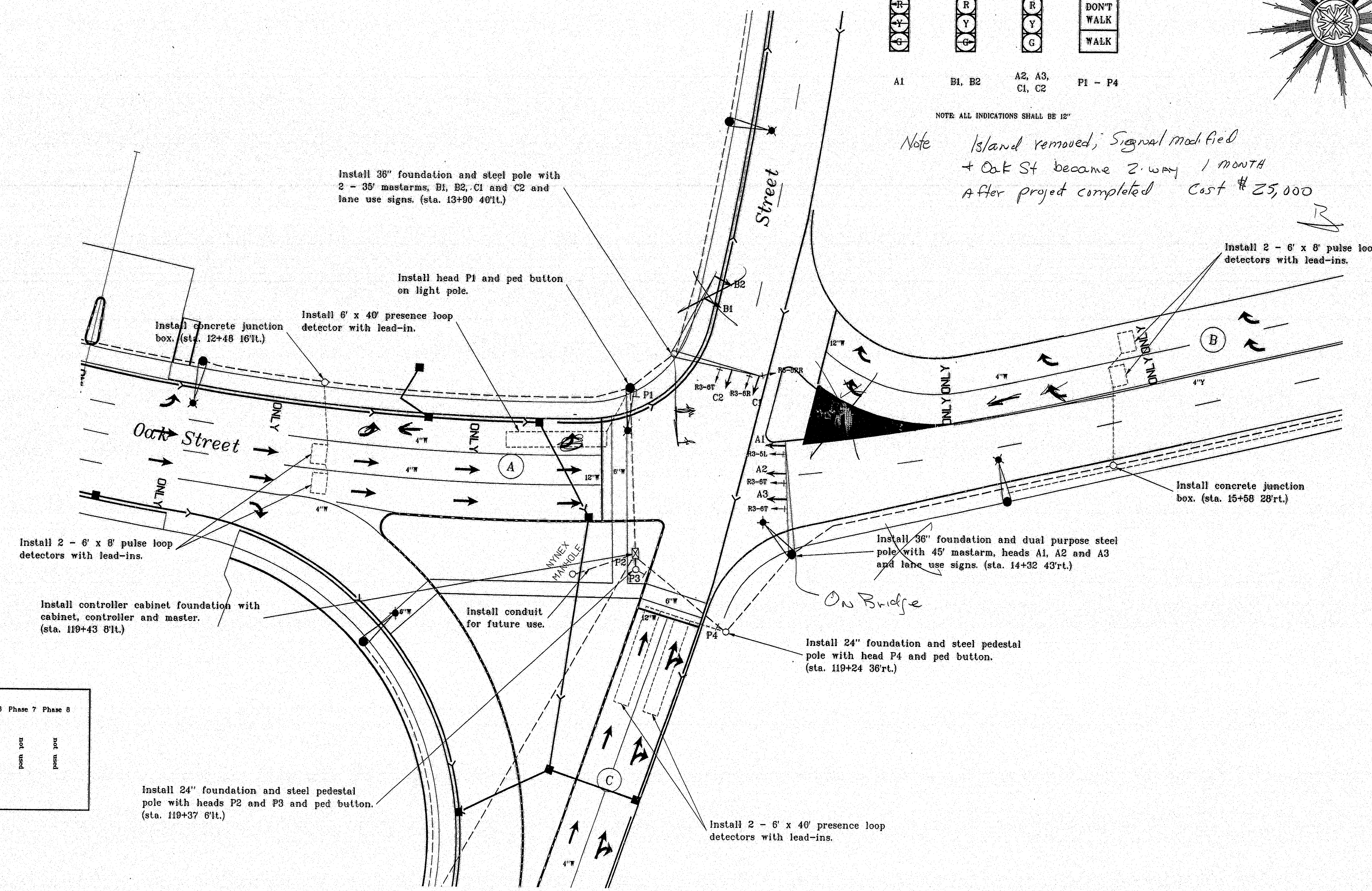
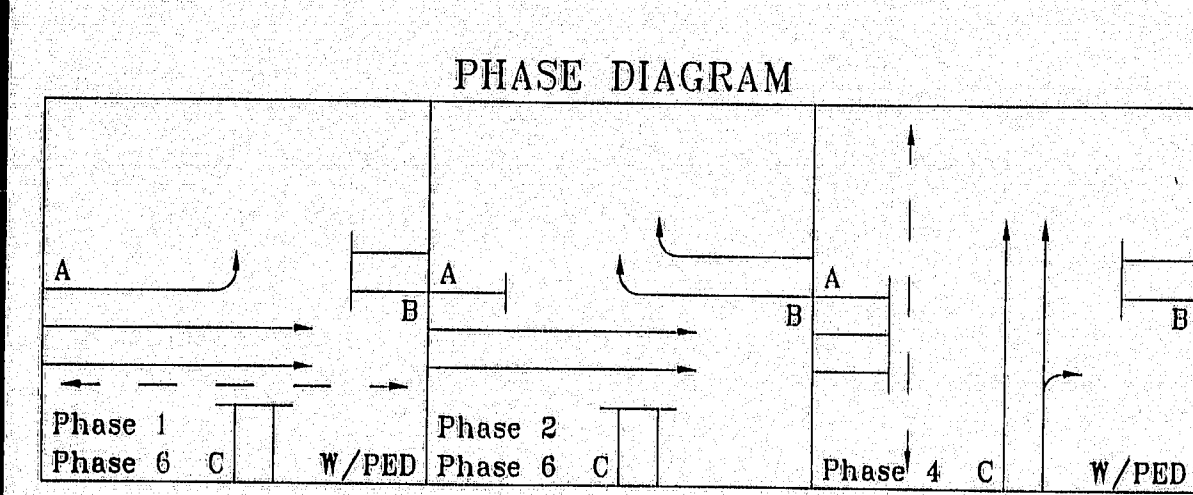
Note Island removed; Signal modified
+ Oak St became 2-way 1 month
After project completed Cost \$25,000



LEGEND	
	controller with cabinet
	steel pole
	mast arm
	vehicular head
	ped head
	conduit

KEY TO PAVEMENT MARKINGS	
4"Y	4 inch double yellow center line
4"W	4 inch white lane line
6"W	6 inch white cross walk line
12"W	12 inch white stop line
	white left or right arrow
	white thru arrow
ONLY	white "ONLY" message

SIGNAL TIMING	
	Phase 1 Phase 2 Phase 3 Phase 4 Phase 5 Phase 6 Phase 7 Phase 8
Min Green	3 15 3 3 15 3 3 3
Extension	0 4 0 0 0 0 0 0
Max 1	30 40 30 30 30 30 30 30
Max 2	- - - - - - - -
Veh Clear	0 0 0 0 0 0 0 0
Red Clear	0 0 0 0 0 0 0 0
Walk	- - - - - - - -
Ped Clear	- - - - - - - -
Recall	off soft off soft



120-13

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

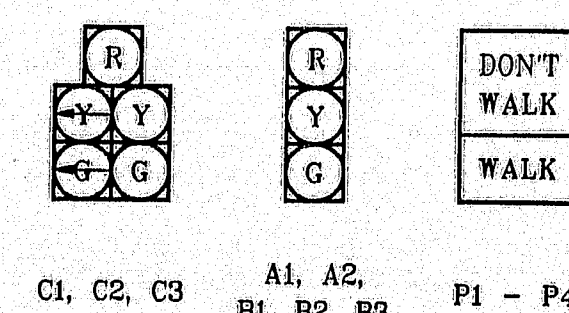
Bangor
Traffic Signals
at
Washington Street
and
Oak Street/New Bridge
BR-BRF-038-1(35)

SHEET 3 OF 9 AUGUSTA, MAINE P.L.N. 002672.00

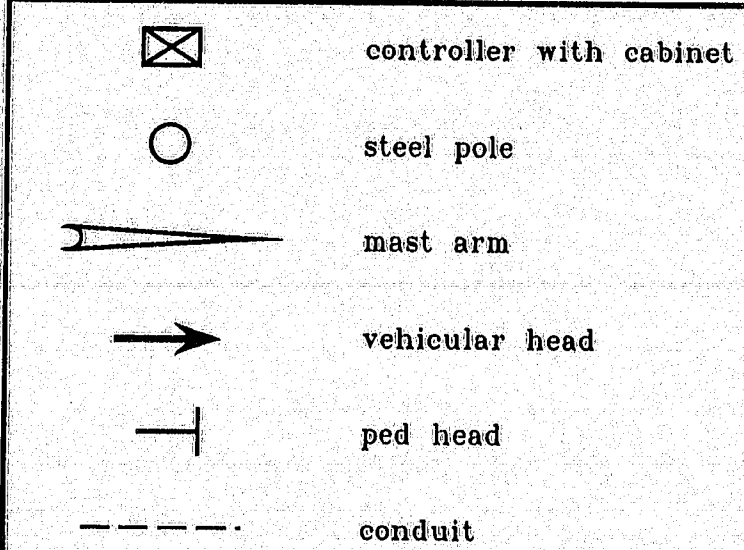
PROJECT DESIGN ENGINEER	DATE
MD	7/95
CHECKED	DATE
MD	7/95
DESIGN-DETAILED	DATE
MD	7/95
PLANS	DATE
MD	7/95

15AUG95 010030

INDICATIONS



LEGEND



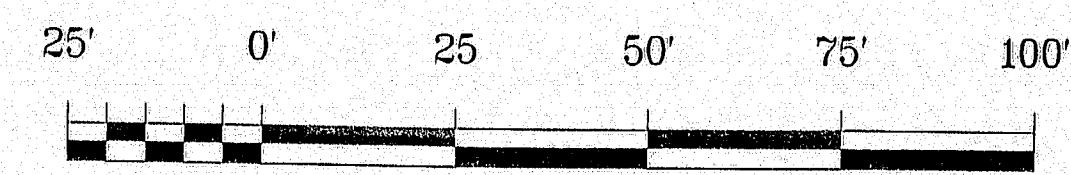
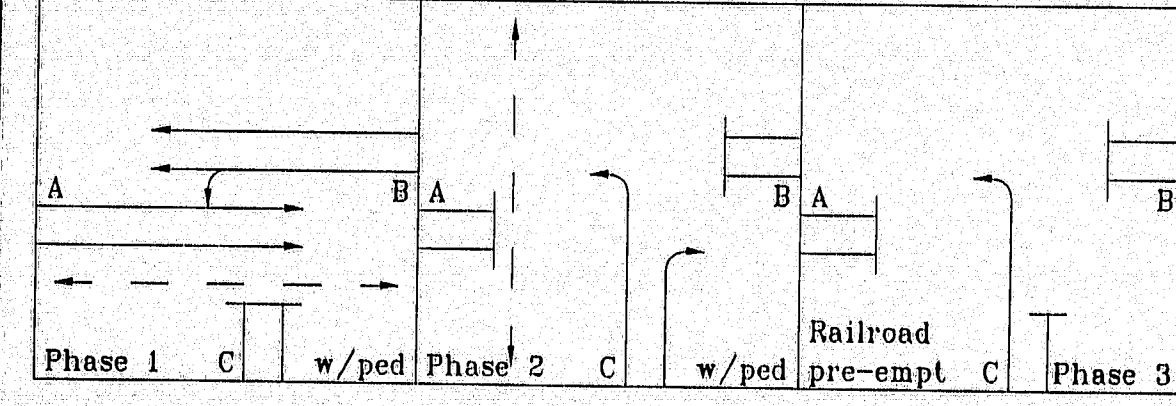
KEY TO PAVEMENT MARKINGS

4"Y	4 inch double yellow center line
4"W	4 inch white lane line
6"W	6 inch white cross walk line
12"W	12 inch white stop line
← or →	white left or right arrow
↑	white thru arrow
ONLY	white "ONLY" message

SIGNAL TIMING

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Min Green	12	3						
Extension	4	3						
Max I	40	20						
Max II	-	-						
Veh Clear	9	1						
Red Clear	1	1						
Walk	5	5						
Ped Clear	14	10						
Recall	soft	off						

PHASE DIAGRAM



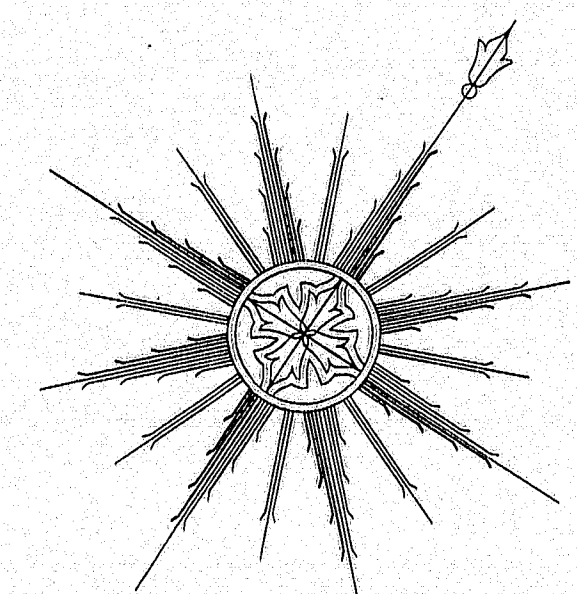
SCALE

As Built
1997
8

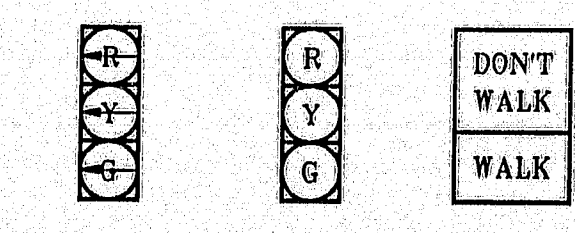
120-14

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Brewer
Traffic Signals
at
State Street
and
Penobscot Street
BR-BRF-038-1(35)

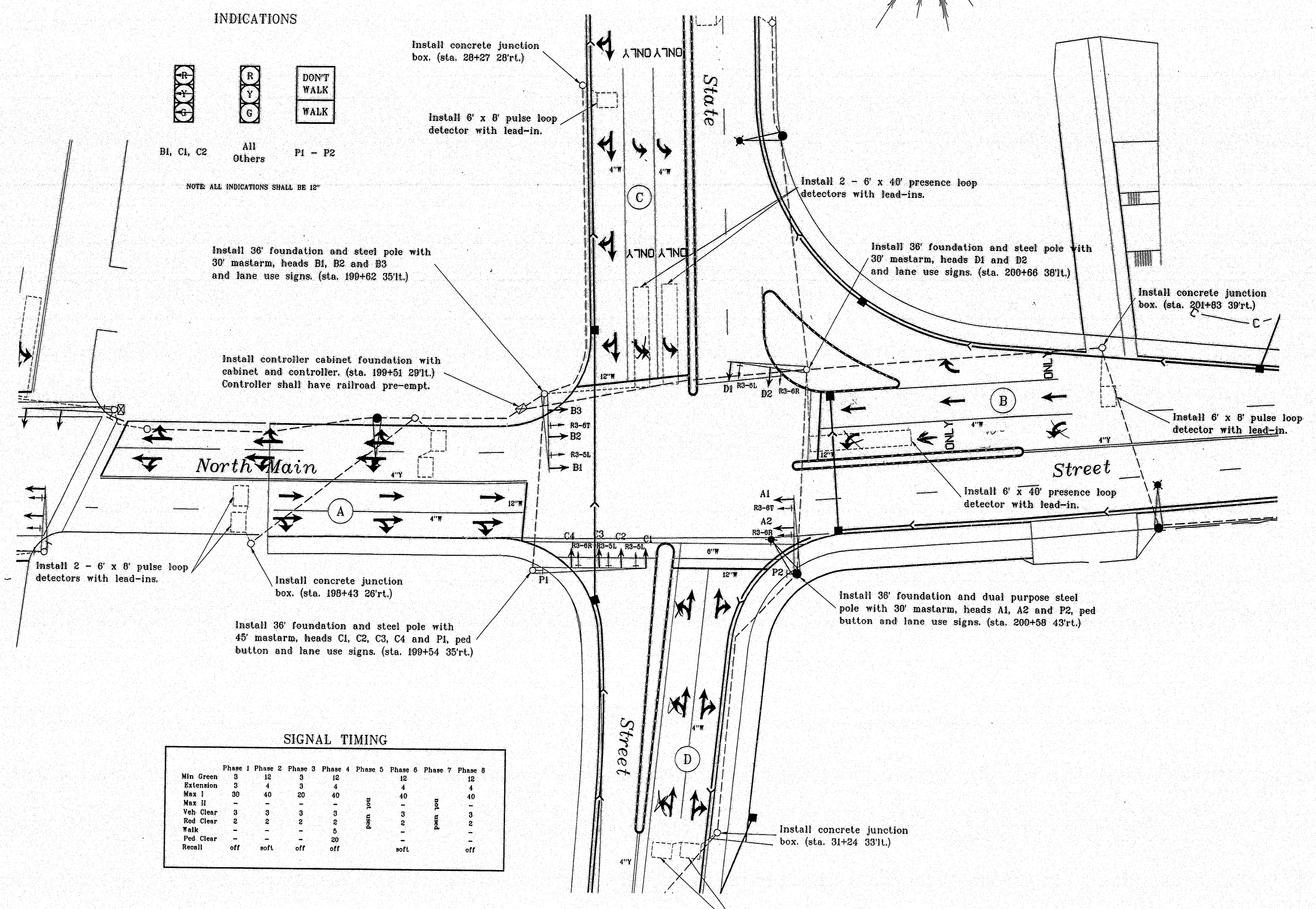
F.H.V.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	15	201



INDICATIONS



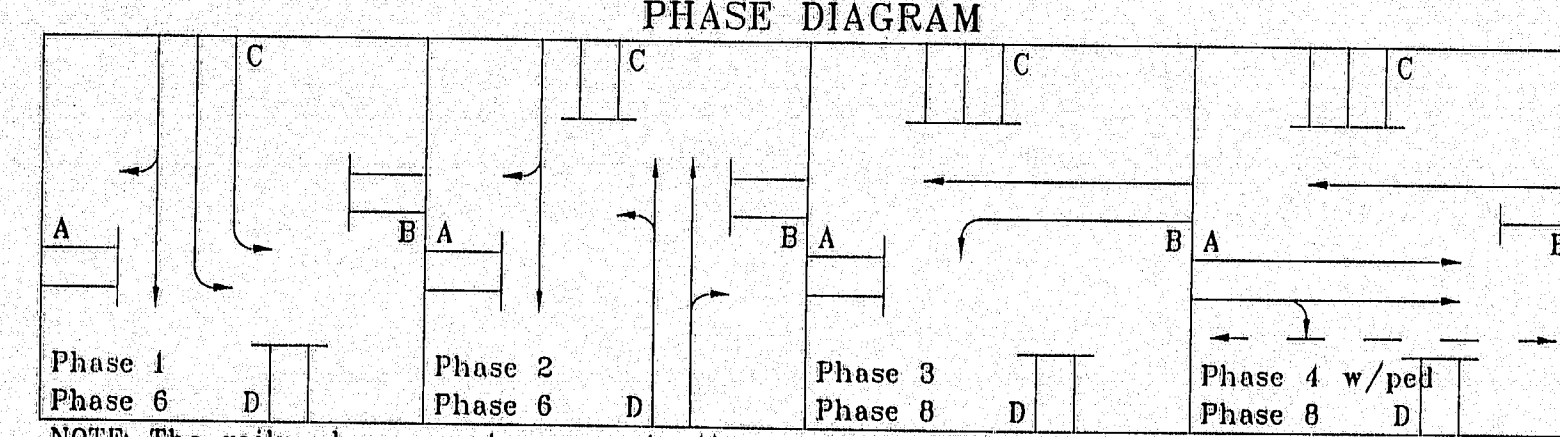
NOTE: ALL INDICATIONS SHALL BE 12"



SIGNAL TIMING

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Min Green	3	4	3	4	3	4	3	4
Extension	3	4	3	4	3	4	3	4
Max I	30	40	30	40	30	40	30	40
Max II	-	-	-	-	-	-	-	-
Veh Clear	3	3	3	3	3	3	3	3
Ped Clear	2	2	2	2	2	2	2	2
Walk	-	-	-	-	-	-	-	-
Ped Clear Recall	off	soft	off	off	soft	off	off	off

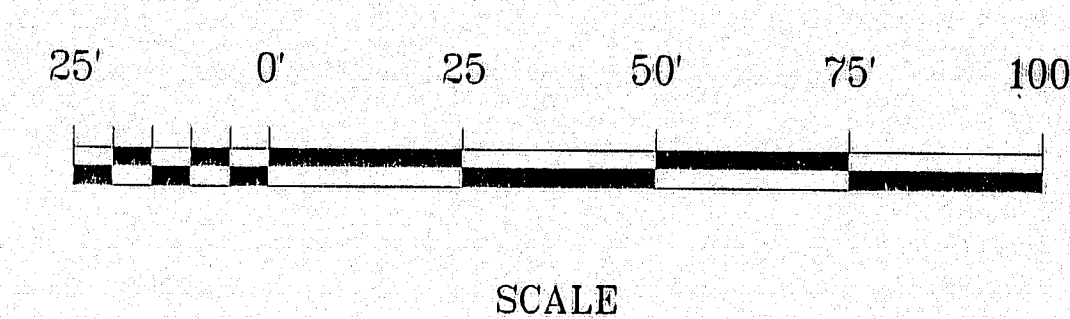
PHASE DIAGRAM



NOTE: The railroad pre-empt upon actuation shall clear to phases 1 and 6 and shall then continue normal operation omitting phase 2 until deactivated.

LEGEND	
	controller with cabinet
	steel pole
	mast arm
	vehicular head
	ped head
	conduit

KEY TO PAVEMENT MARKINGS	
4"Y	4 inch double yellow center line
4"W	4 inch white lane line
6"W	6 inch white cross walk line
12"W	12 inch white stop line
	white left or right arrow
	white thru arrow
ONLY	white "ONLY" message



As Built 1997
120-15

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Brewer
Traffic Signals
at
North Main Street
and
State Street
BR-BRF-038-1(35)

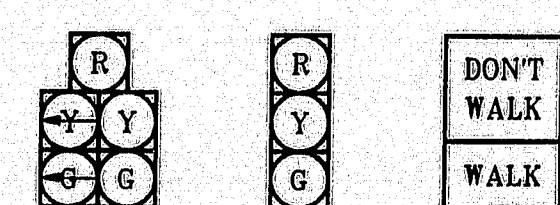
SHEET 5 OF 9 AUGUSTA, MAINE P.L.N. 002672.00

PROJECT DESIGN ENGINEER	DATE
DESIGN-DRAWN	7/85
CHECKED	
REVISIONS	
FIELD CHANGES	

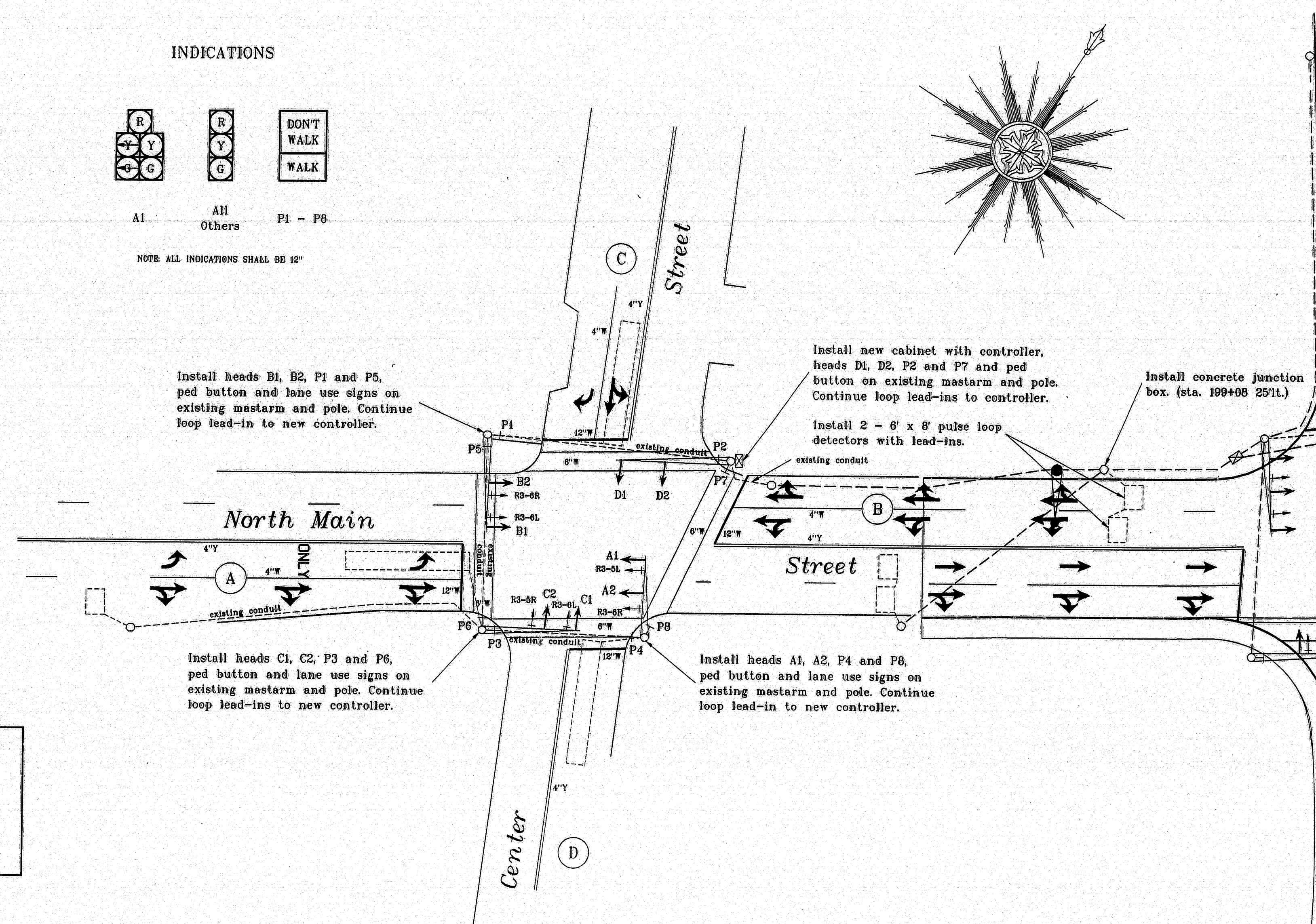
15 AUGUST 1995

F.W.V.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	16	201

INDICATIONS



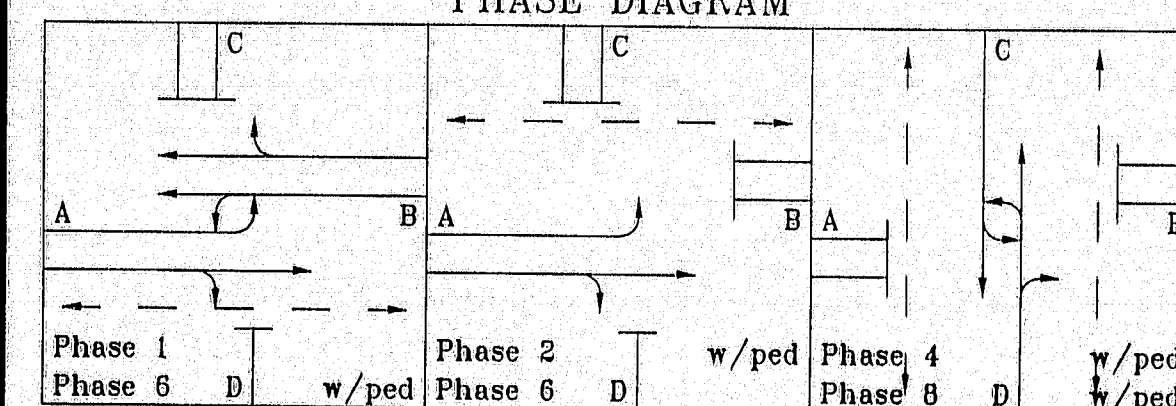
NOTE: ALL INDICATIONS SHALL BE 12"



SIGNAL TIMING

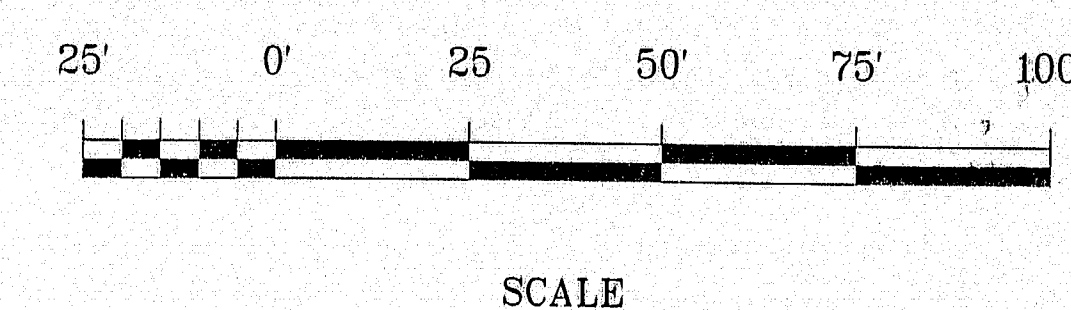
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Min Green	3	12	3	3	12	3	3	3
Extension	3	4	3	3	4	3	3	3
Max I	20	40	20	20	40	20	20	20
Max II	-	-	-	-	-	-	-	-
Veh Clear	3	3	3	3	3	3	3	3
Red Clear	1	1	1	1	1	1	1	1
Walk	-	5	5	5	5	5	5	5
Ped Clear	-	9	10	10	13	12	12	12
Recall	off	soft	off	off	soft	off	off	off

PHASE DIAGRAM



LEGEND	
	controller with cabinet
	steel pole
	mast arm
	vehicular head
	ped head
	conduit

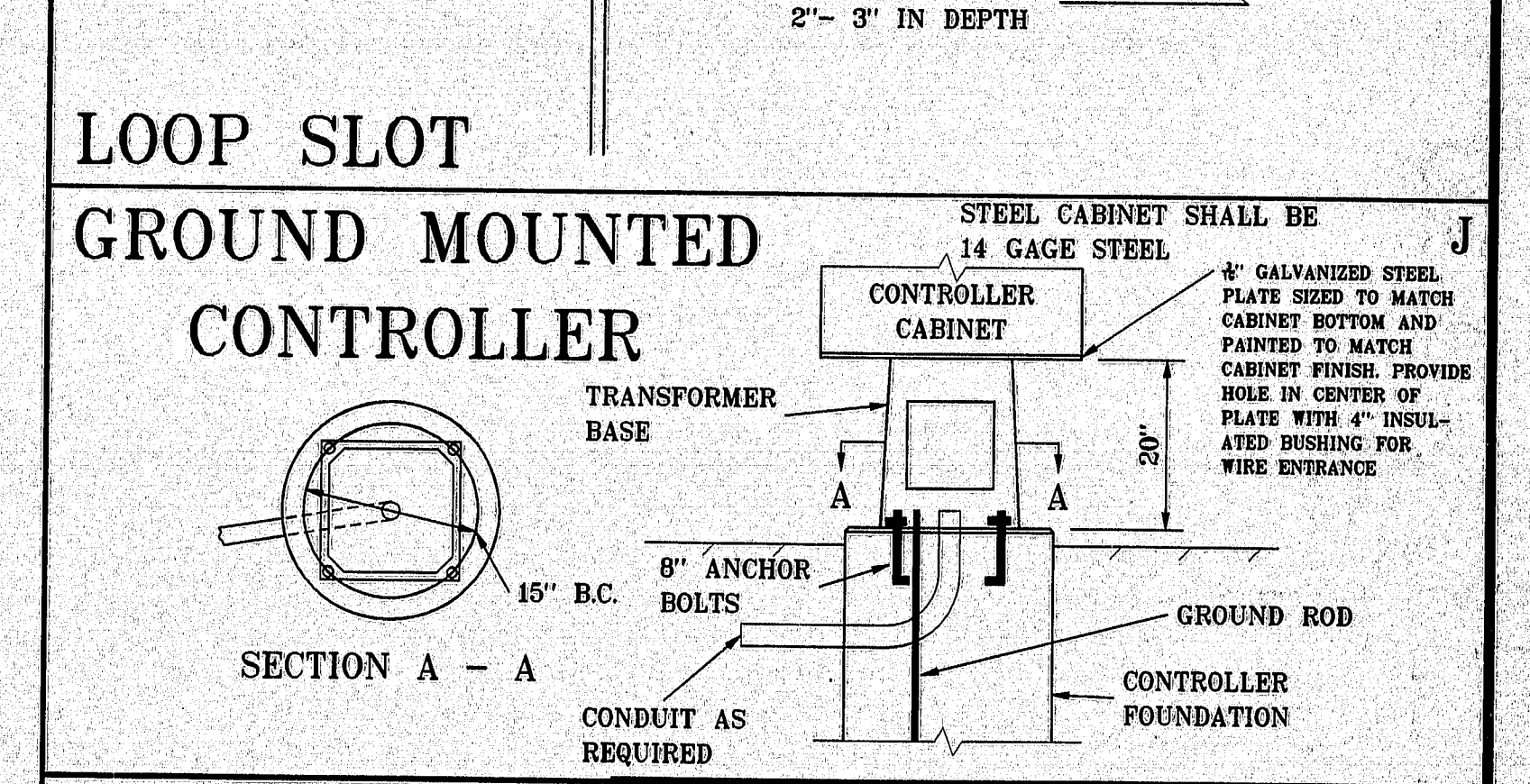
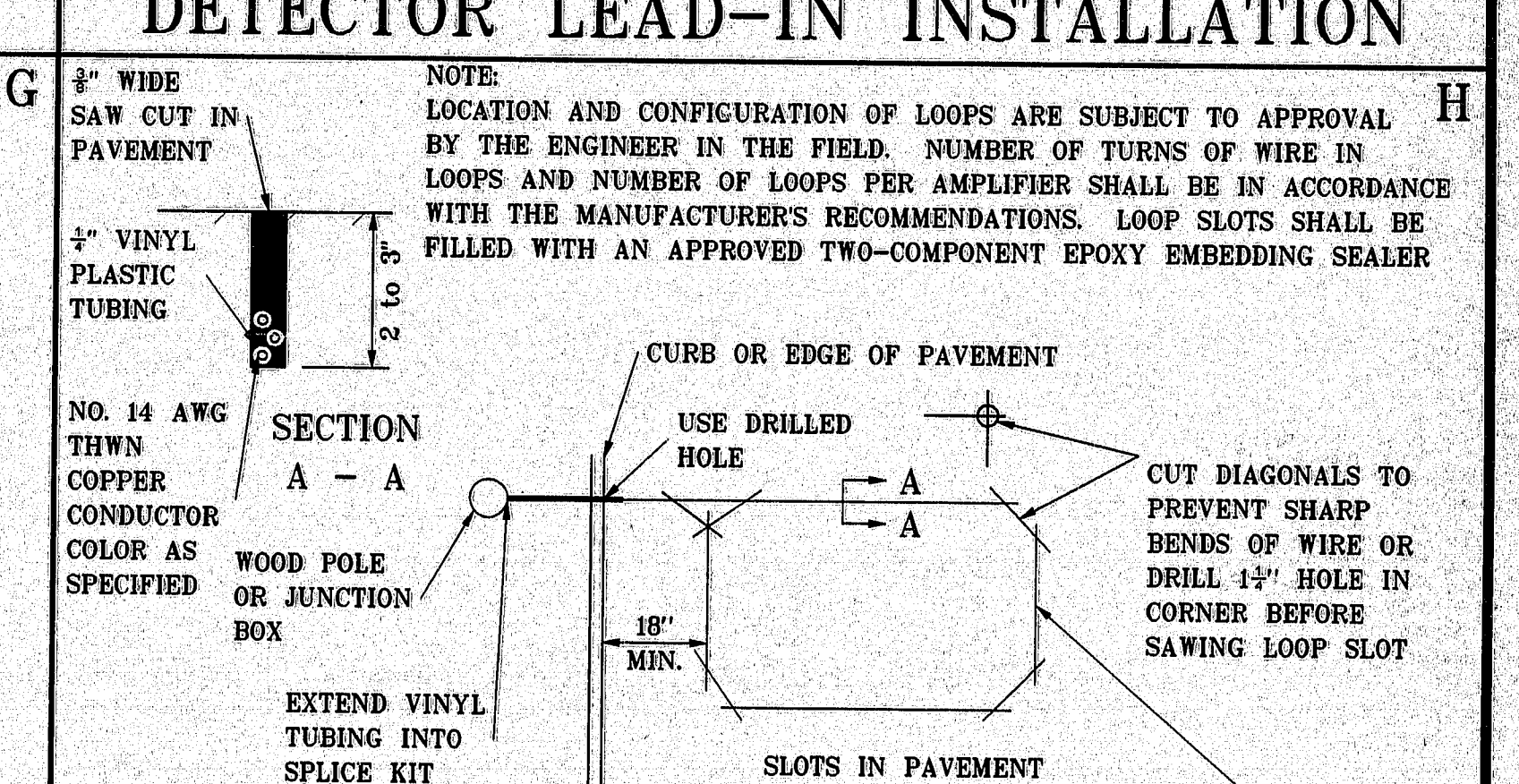
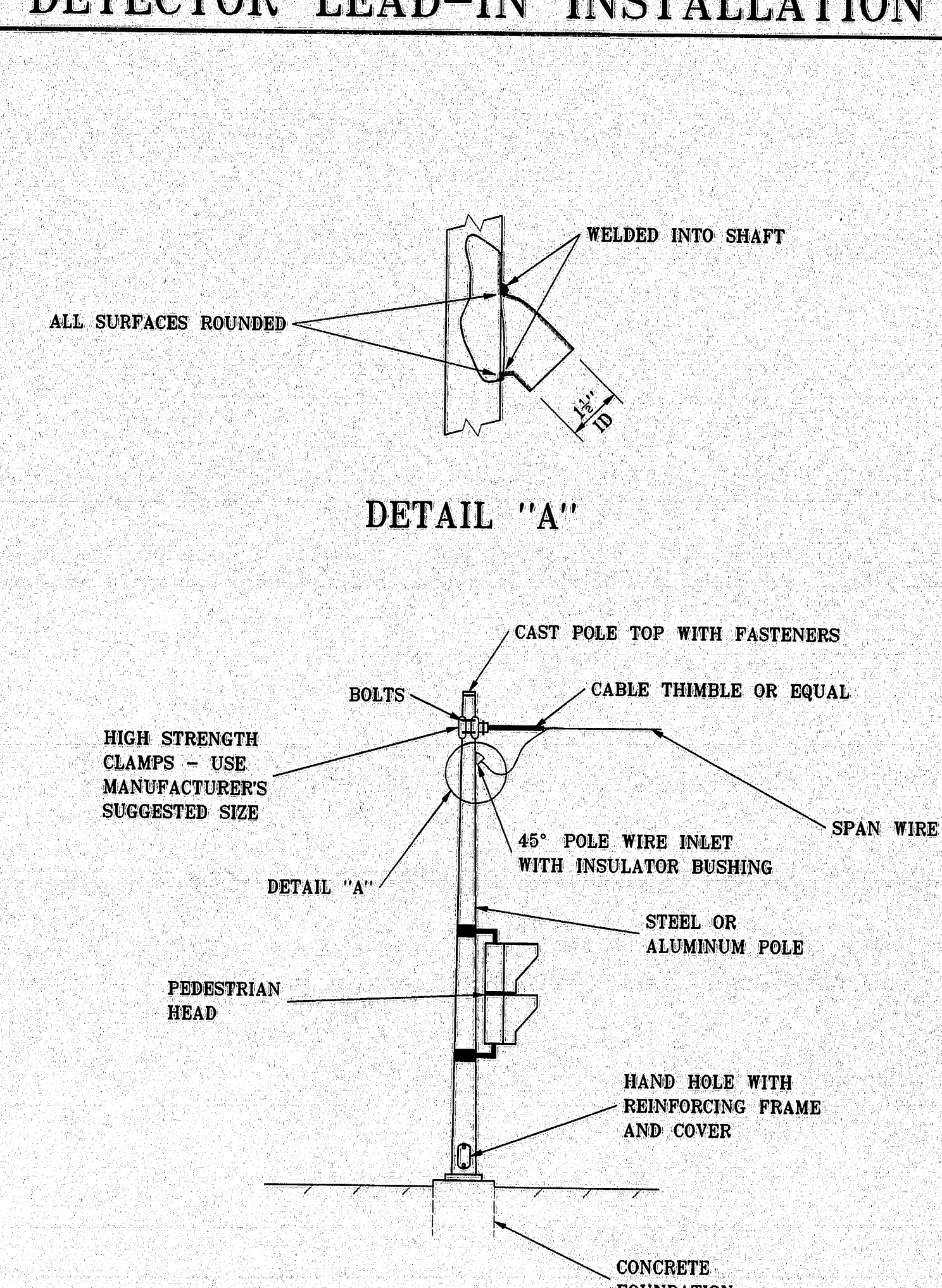
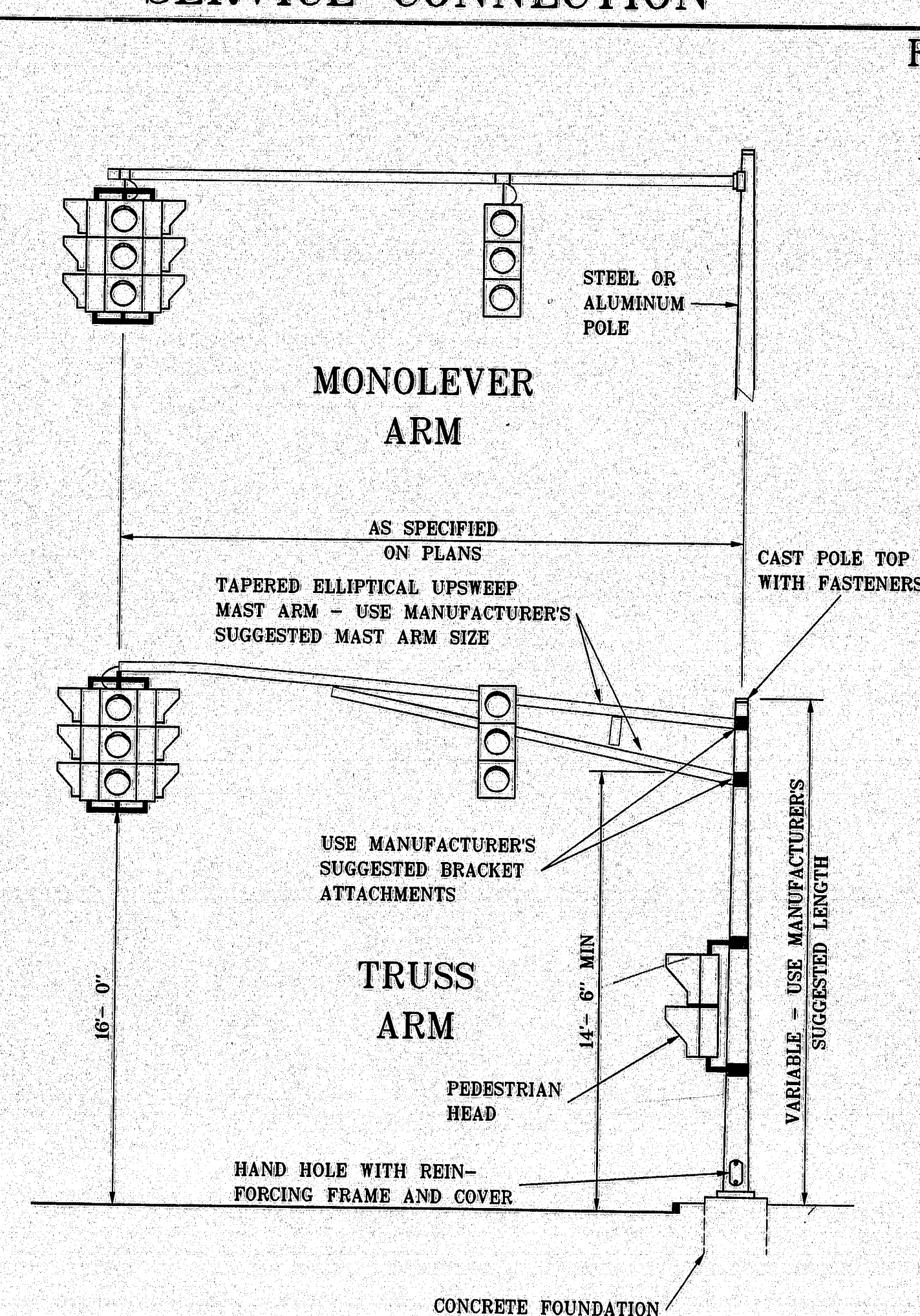
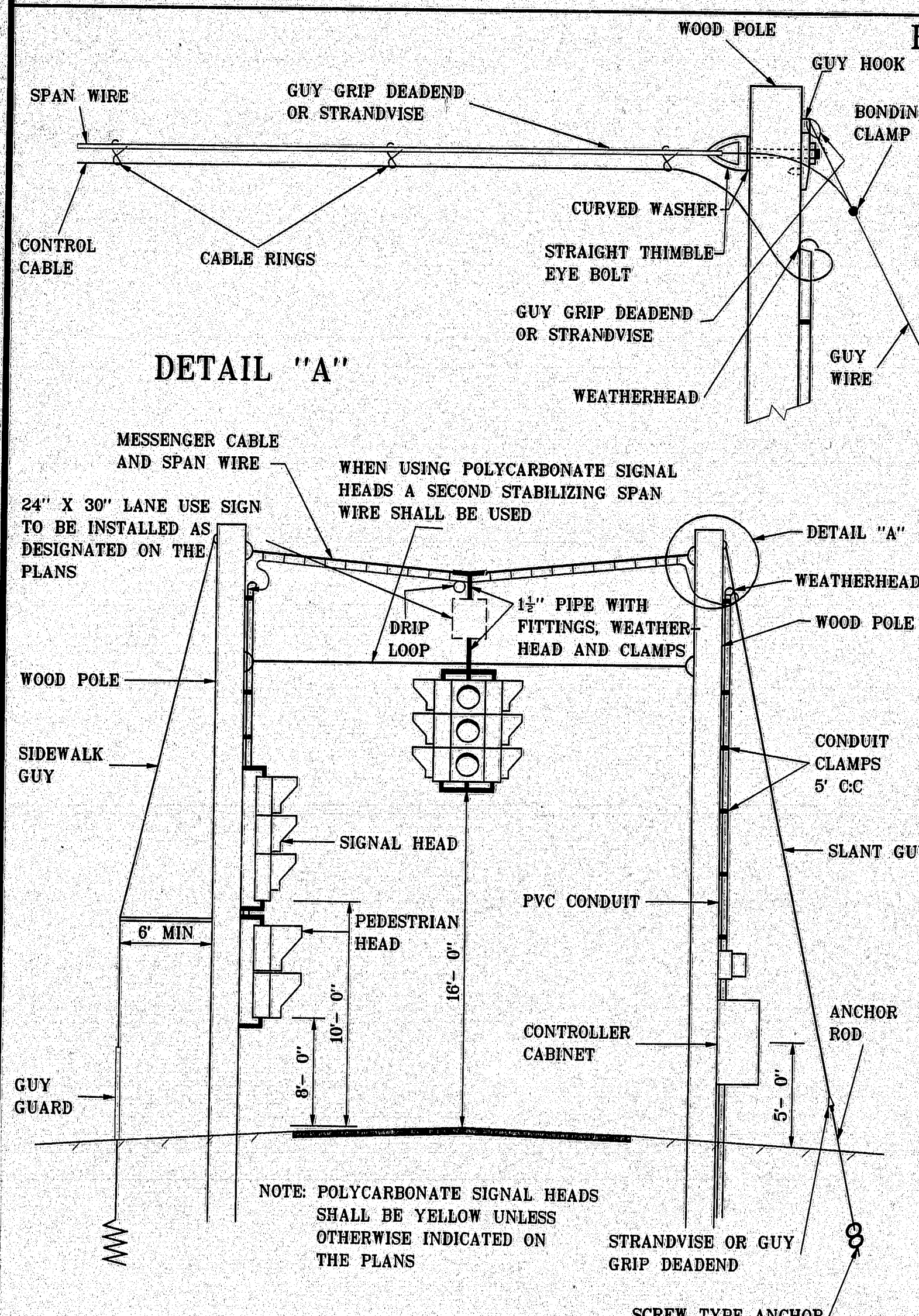
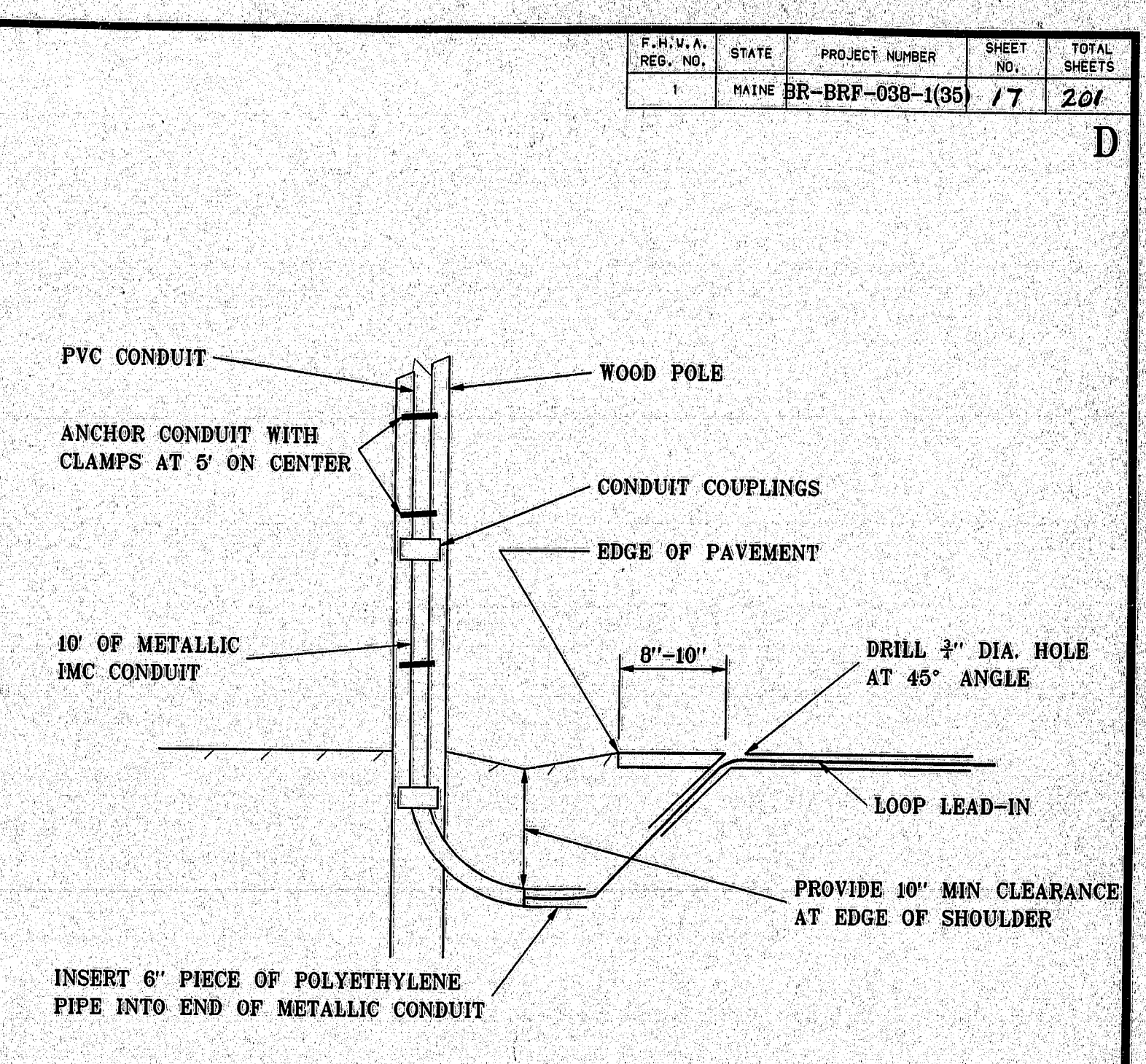
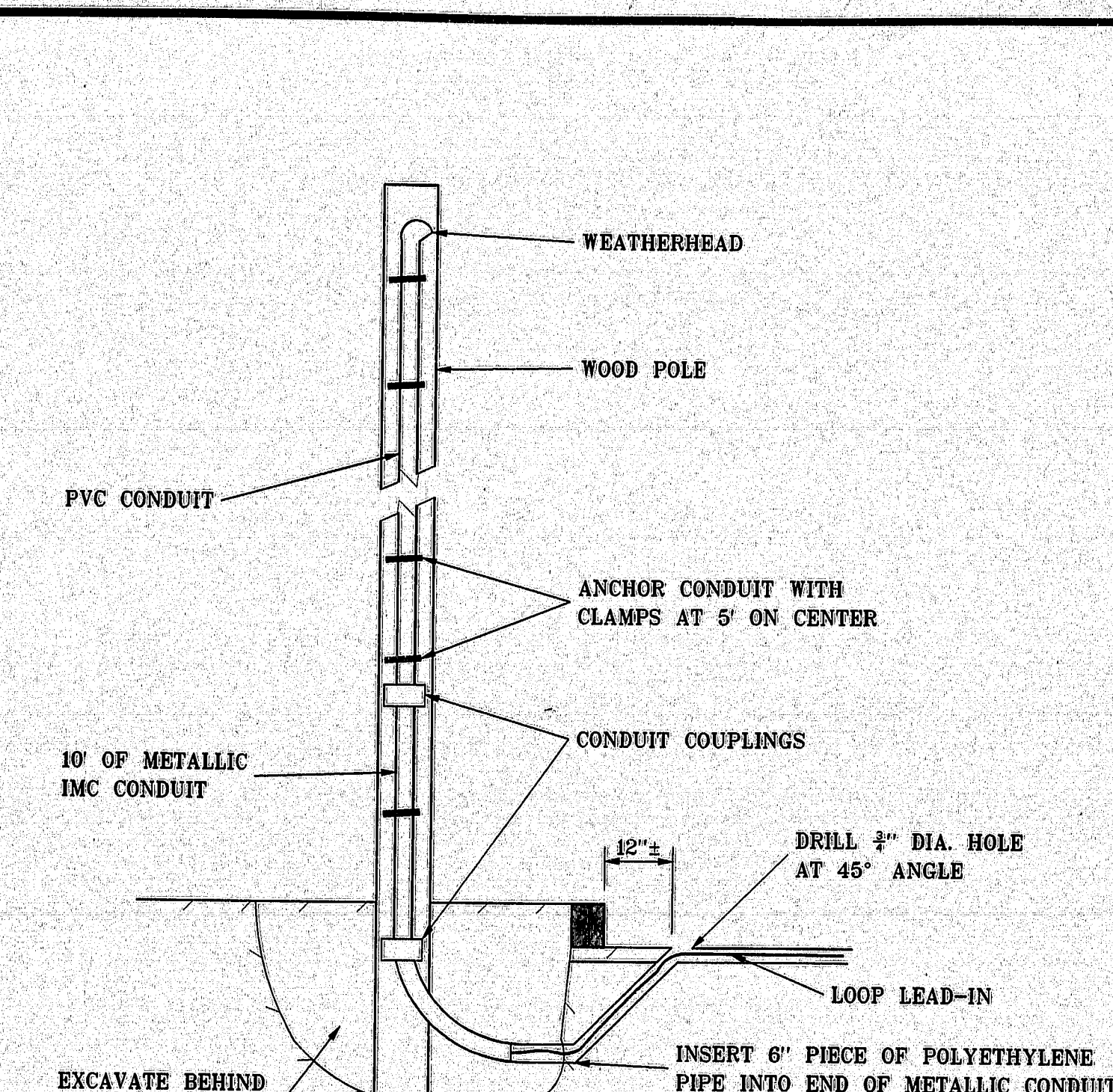
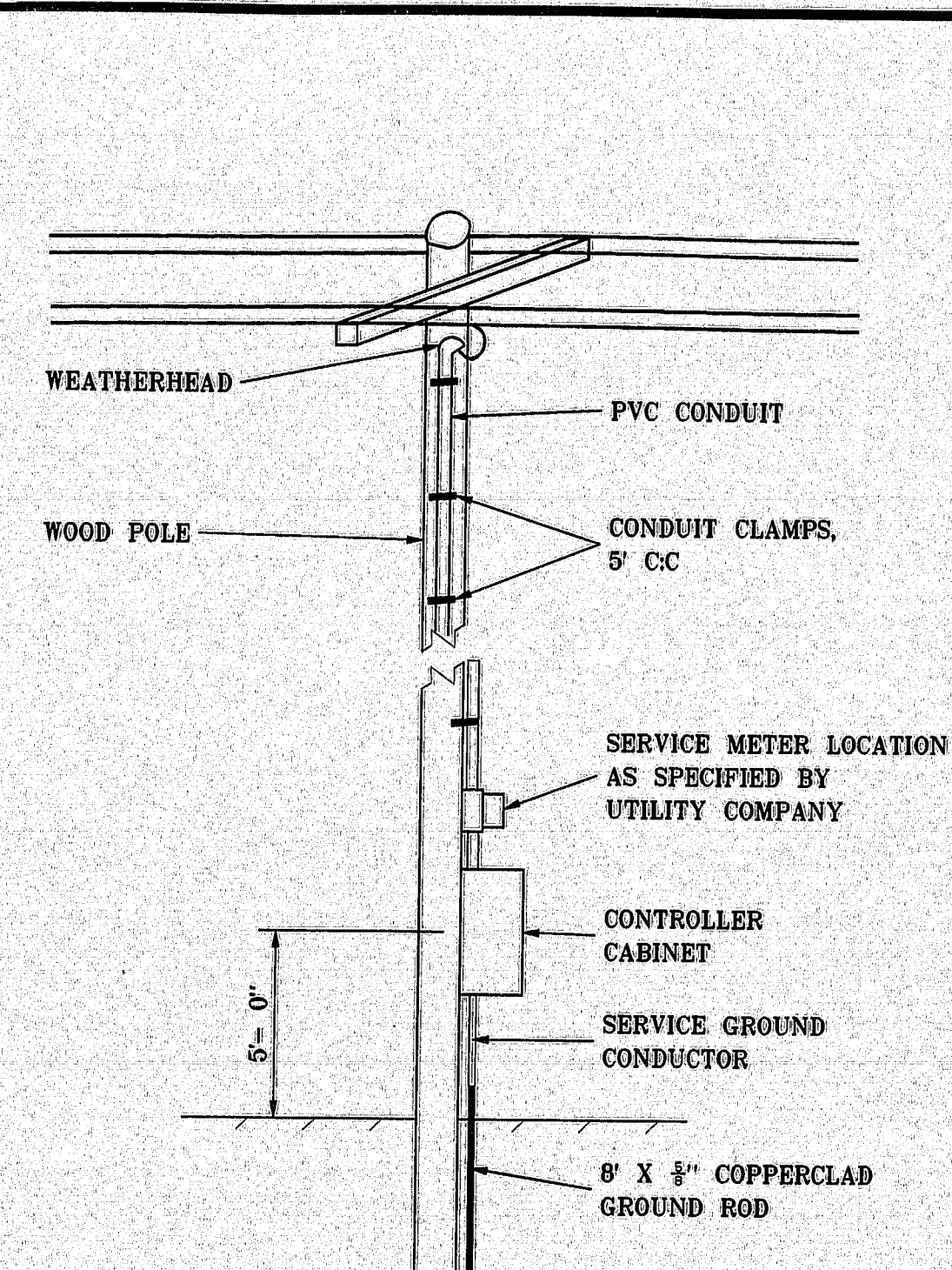
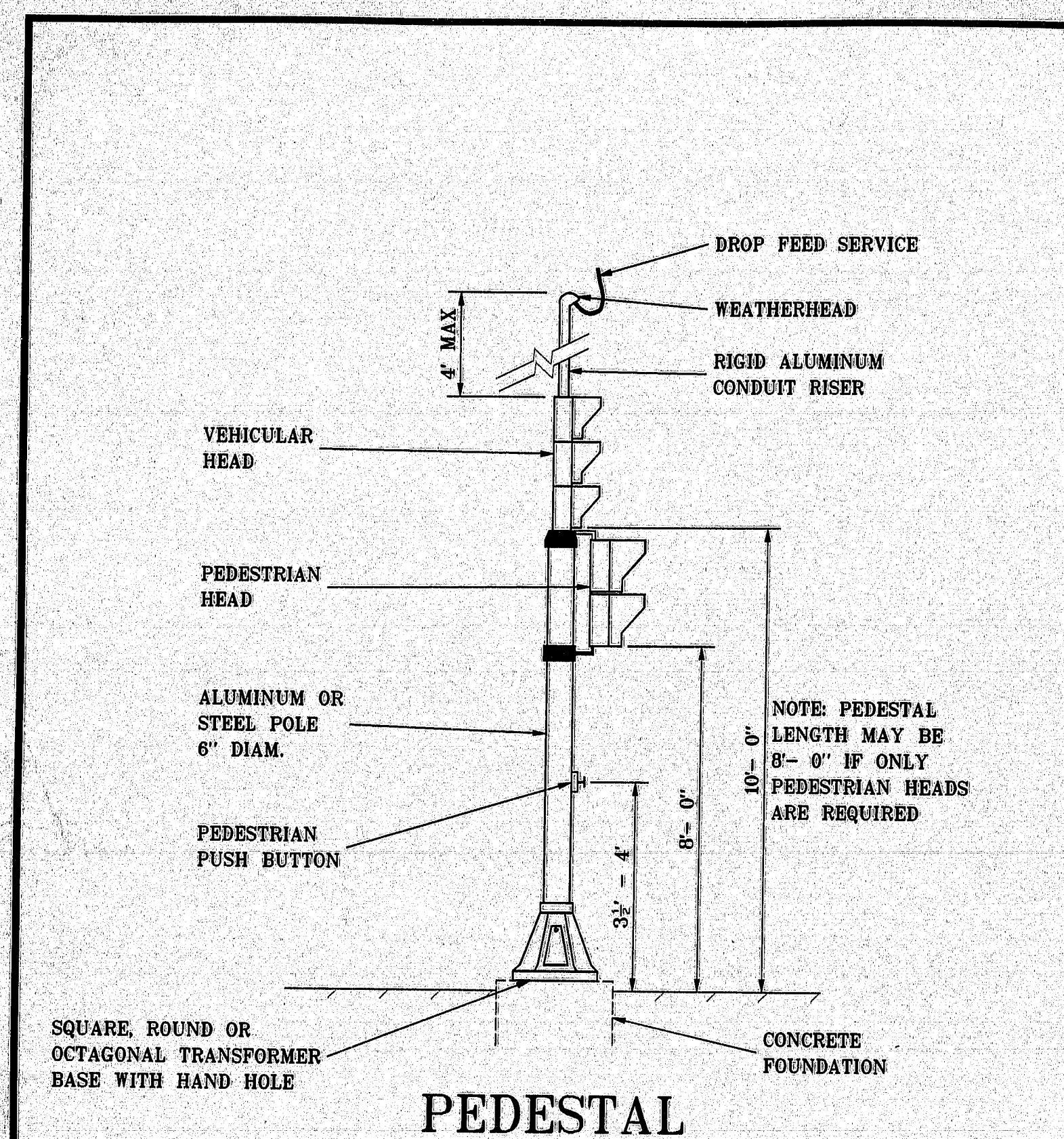
KEY TO PAVEMENT MARKINGS	
4"Y	4 inch double yellow center line
4"W	4 inch white lane line
6"W	6 inch white cross walk line
12"W	12 inch white stop line
	white left or right arrow
	white thru arrow
ONLY	white "ONLY" message



120-16

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Brewer
Traffic Signal Modifications
at
North Main Street
and
Center Street
BR-BRF-038-1(35)
SHEET 6 OF 9 AUGUSTA, MAINE P.L.N. 002672.00

PROJECT DESIGN ENGINEER	DATE
PLANS	7/95
DESIGN-DETAILED	MD
REVISED	MD
PROPOSED	
FIELD CHANGES	



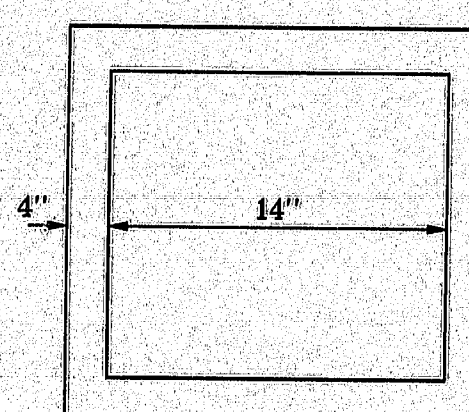
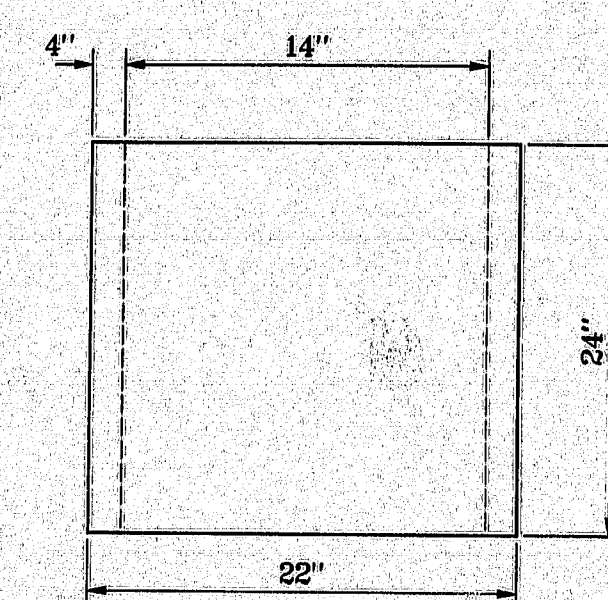
REVISIONS	
ADDED J	
3-23-82 RL	
PLATE F	
3-23-82 RL	
E, C, D, E	
6-30-82 RL	
E, C, D, E, H	
7-22-87 EK	
E	
8-24-88 SL	
E-DETAIL A	
9-6-89 SL	
E-DETAIL A	
10-17-89 SL	
CADD	
8-20-91 MD	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Bangor-Brewer
Standard Details
Traffic Signals
BR-BRF-038-4(35)
Item No. 643

SHEET 7 OF 8 AUGUSTA, MAINE

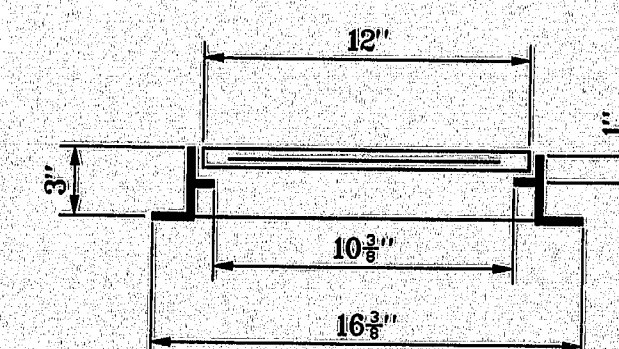
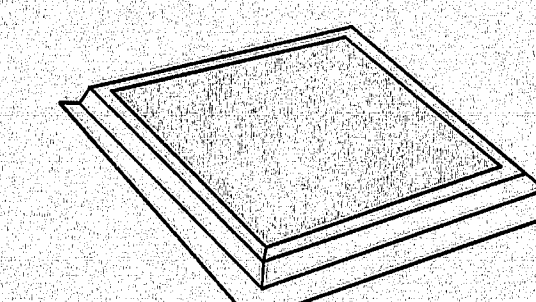
F.R.A.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	19	201



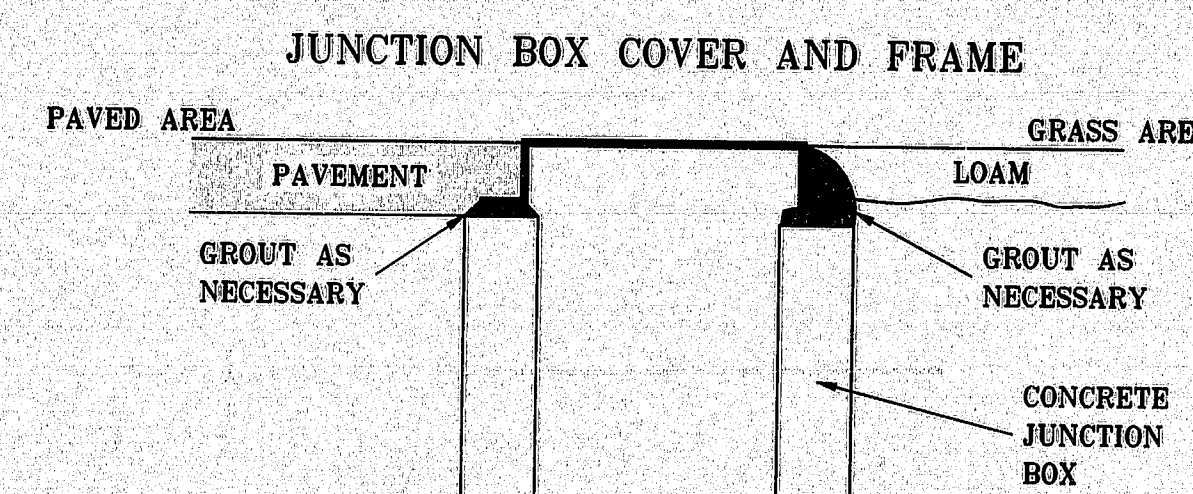
TOP

GROUT FRAME IN PLACE
ON TOP OF BOX

NOTE: FOR USE IN
SIDEWALK AREAS

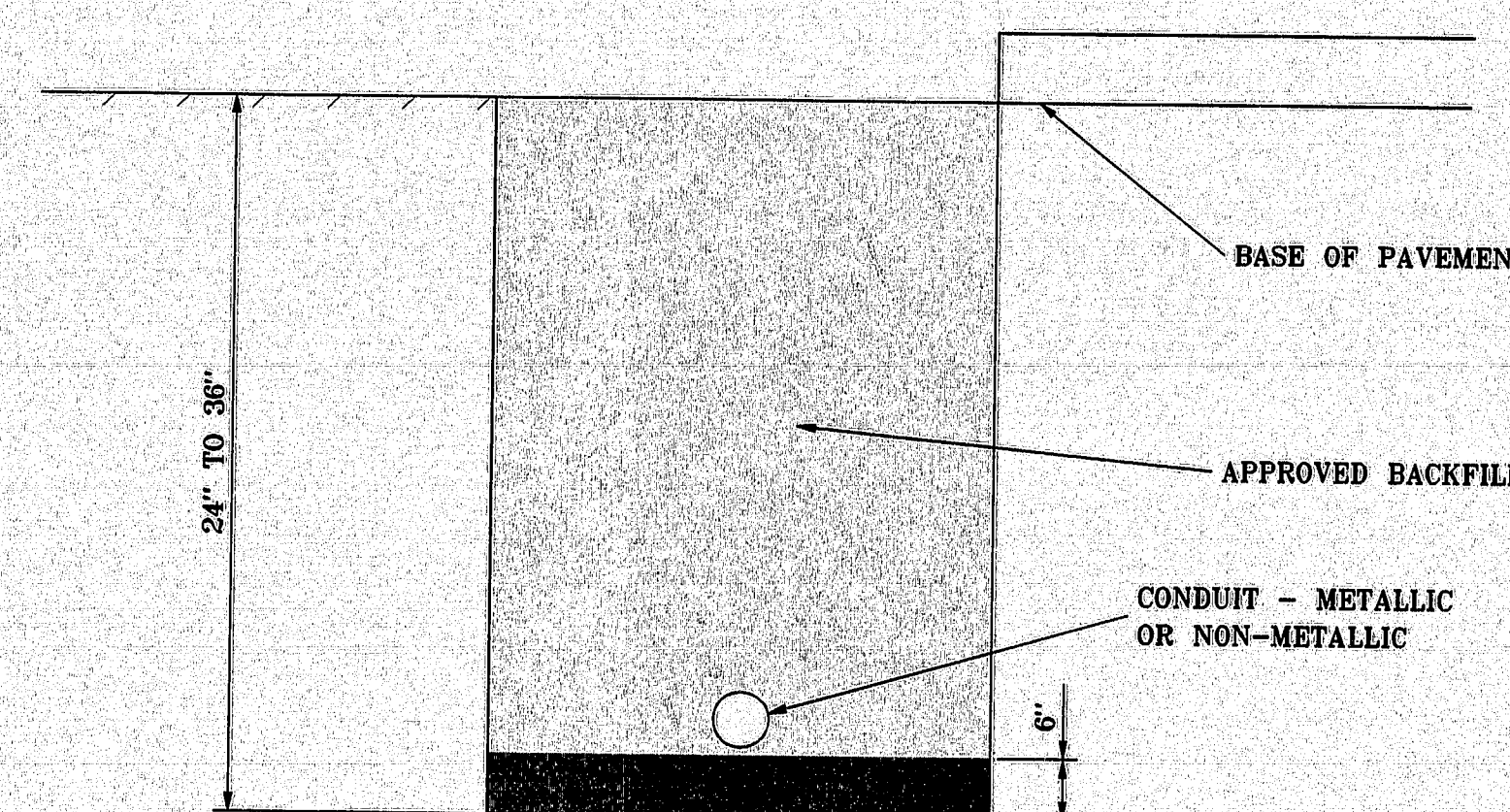


ELECTRICAL PULL BOX
COVER



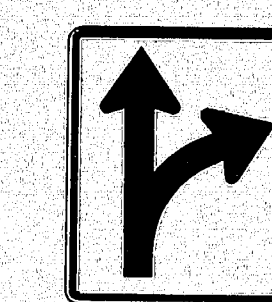
INSTALL JUNCTION BOX ON GRADE.
GROUT AS NECESSARY AS SHOWN.

PRECAST CONCRETE JUNCTION BOX
ITEM NO. 626.111

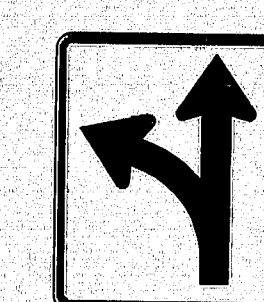


CONDUIT TRENCH

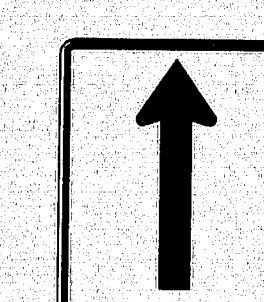
OVERHEAD LANE USE SIGNS



R3-6R
30" x 36"



R3-6L
30" x 36"



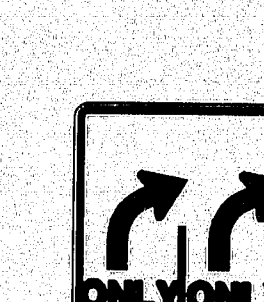
R3-6T
30" x 36"



R3-5R
30" x 36"



R3-5L
30" x 36"



R3-8RR
30" x 30"

GENERAL NOTES for TRAFFIC SIGNAL INSTALLATION:

- The Contractor shall meet all requirements of the utility companies when installing equipment on their poles. The Contractor shall be responsible for contacting the utility companies to determine their requirements.
- At each intersection the Electrical Contractor shall make the necessary connections for a #6 AWG bonding wire to an existing utility's vertical ground wire. If this vertical ground wire does not exist the contractor shall leave enough bonding wire to reach the system neutral. The local utility should be notified when the bonding wire is ready to be connected. The utility will make that connection.
- The locations of all equipment shown are approximate. Final locations shall be determined in the field by the Resident Engineer.
- If steel cabinets are used each shall be 14 gauge steel.
- A master controller shall be installed at Washington Street and Oak Street. The master shall be capable of coordinating and controlling each local unit and uploading and downloading of all local unit parameters via telecommunications cable as described below. It shall be capable of closed-loop functions such as but not limited to detector data logging and traffic responsive operation of the system. The Contractor shall supply two (2) copies on 3 1/2" floppy disks of software necessary for the master to communicate with a central office computer.
- Each new controller shall be a N.E.M.A. standard solid state menu-driver unit capable of providing the phasing shown. Each shall have an internal time clock/calendar for flash and max II operations. Each controller shall be capable of volume density operation on all phases and shall have programmable lead/lag function.
- The hardwire interconnect shall be six pair, shielded cable for telemetry use meeting either REA-39, -89 BJFA/BJFC or IMSA spec. 40-2-1984, 40-4-1984 or 39-4-1984.
- The three Bangor controllers shall be equipped with an OPTICOM emergency vehicle preempt system. Sensors compatible with the existing system shall be installed on each approach of each intersection with the exception of approach "E" at Washington and Oak. When activated the controller shall immediately clear to the thru and compatible left turn (if applicable) phase(s).
- Any signal equipment removed is the property of the State of Maine and shall be returned to the State as directed by the Engineer. Unless otherwise noted all existing signal equipment shall be removed.
- The cost of lane use signs shall be incidental to Items No. 643.80 or 643.71.
- All conduit shown is new and to be installed by the Contractor unless noted as "existing conduit". All conduit shall be 2" schedule 80 PVC conduit unless otherwise noted. Conduit installed between sta. 15+58 rt. and sta. 24+12 rt. shall be 2" galvanized steel.

REVISIONS

ORIGINAL	
AUGUST 1988	
CADD	
SEPTEMBER 1991	

120-19
Addendum No. 2

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

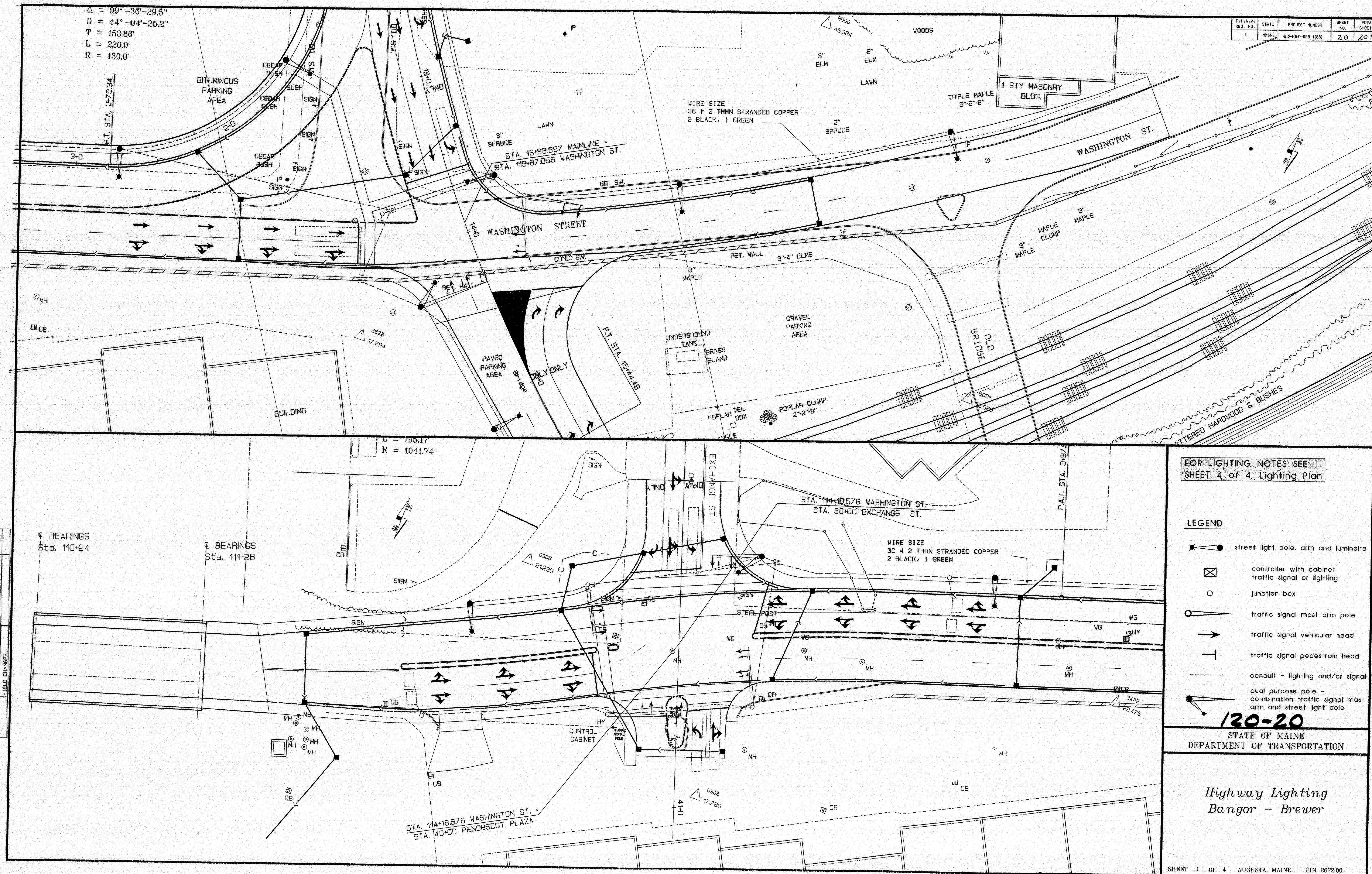
Bangor-Brewer
Standard Details
Junction Boxes
Conduit Trenches
for Highway Lighting
and Traffic Signals
BR-BRF-038-1(35)

SHEET 9 OF 9 AUGUSTA, MAINE T 3

BANGOR-BREWER P.I.N. 002672.00

PROJECT DESIGN ENGINEER	DATE
DESIGN-DRAWN	
REVISIONS	
FIELD CHANGES	

15AUG85-0100.30



F.H.W.A. DIST. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	RR-68P-08P-(88)	20	201

FOR LIGHTING NOTES SEE SHEET 4 of 4, Lighting Plan

LEGEND

- street light pole, arm and luminaire
- controller with cabinet traffic signal or lighting
- junction box
- traffic signal mast arm pole
- traffic signal vehicular head
- traffic signal pedestrian head
- conduit - lighting and/or signal
- dual purpose pole - combination traffic signal mast arm and street light pole

120-20

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Highway Lighting
Bangor - Brewer

DATE	BY	CHK
8-95		
DESIGN-DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

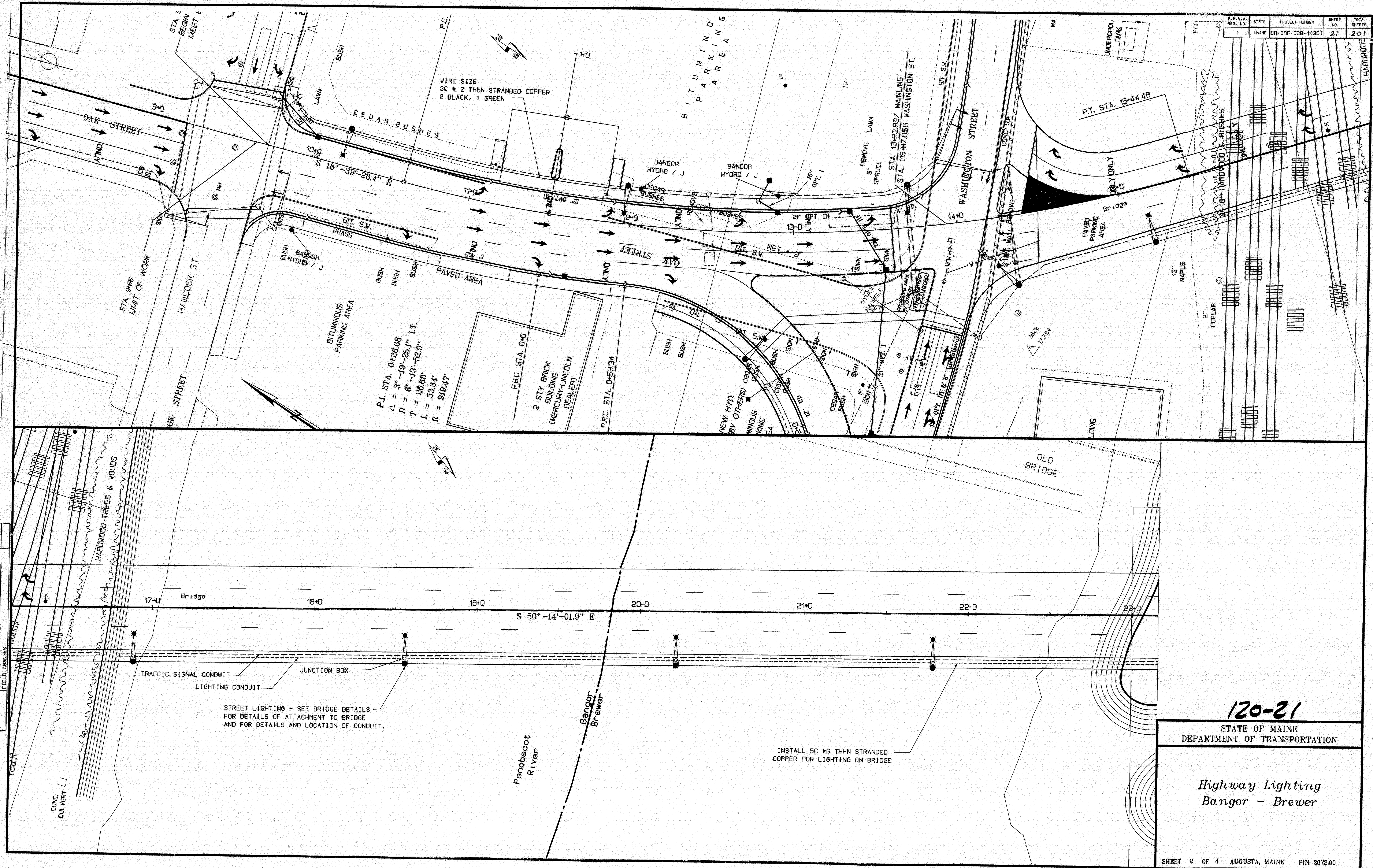
PLANS

09AUG95-0059590

PROJECT DESIGN ENGINEER	DATE
DESIGN-DRAWN	8-95
CHECKED	
REVISIONS	
FIELD CHANGES	

15AUG95-0100.30

PLANS



F.I.V.A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BFF-038-1(95)	21	207

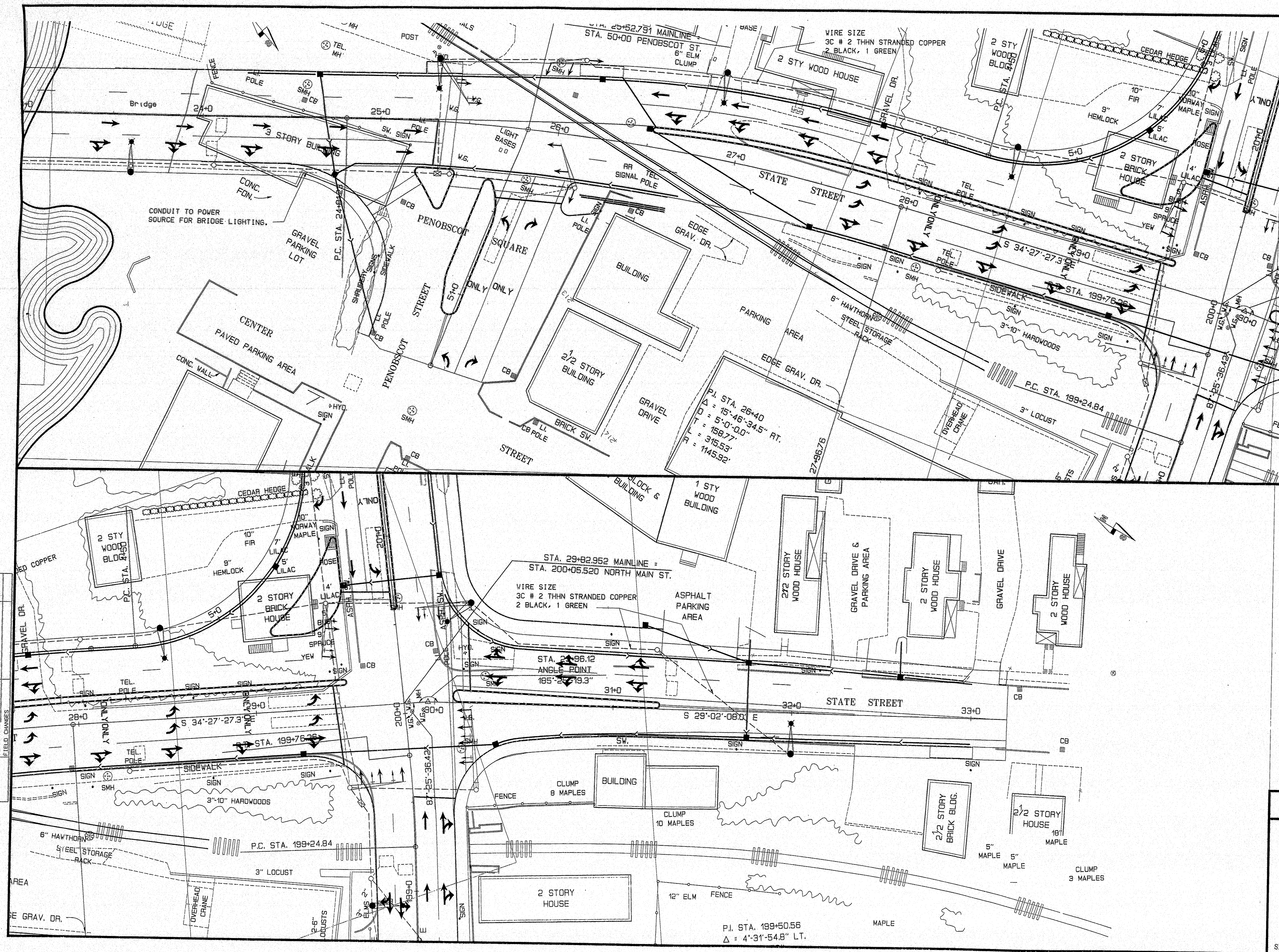
120-21

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Highway Lighting
Bangor - Brewer

SHEET 2 OF 4 AUGUSTA, MAINE PIN 2672.00

F.T.V.A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
RES. NO.	MAINE	BR-DRP-038-100	22	201



PROJECT DESIGN ENGINEER	DATE	BY
DESIGN-REVIEWED	8-30	BAK
CHECKED		
REVISIONS		
FIELD CHANGES		

PLANS

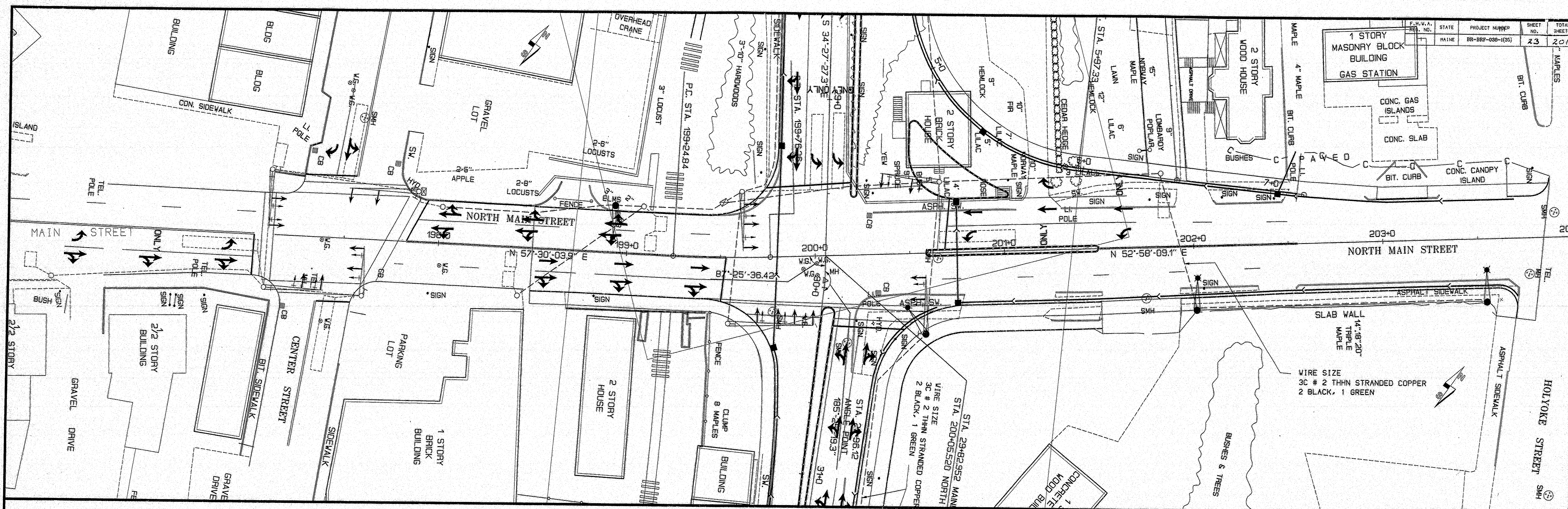
15AUG85-010030

120-22

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

*Highway Lighting
Bangor - Brewer*

SHEET 3 OF 4 AUGUSTA, MAINE PIN 2672.00



NOTES - LIGHTING

1. Install on Penobscot Bridge six stainless steel davit type poles with 8'-0" davit overhang. The poles shall have a 4"x 6" handhole located roadside at 48" to bottom measured from the shoebase. Install 400W luminaire, Cat. No. RPAK400HP24XA8 Holophane or equal. A separate 120/240V electrical service will be established on the Brewer end of the bridge as directed by the engineer in the field. The electrical service will also feed the navigation lighting system controller. Junction boxes on the bridge shall be 24"x 18"x 6" galvanized malleable iron watertight.
2. All existing lighting affected by this project shall be returned to the appropriate cities. The pole shall be carefully removed and transported to areas as designated by the engineer.
3. Light Standards on both approaches shall be 40' aluminum truss type with 8'-0" arms. The luminaires shall be RPAK400HP24XA8 Holophane or equal. Dual purpose pole excluded.
4. Three Street Lighting Services and Control Cabinets shall be installed. Locations will be determined in the field.
 - 1 Service for lighting in Bangor
 - 1 Service for lighting in Brewer
 - 1 Service for lighting on the Bridge

Install light poles and foundations at locations listed below, as shown on plans. Install conduit as shown on plans.

BANGOR

Washington St.
 Sta 112+93 38' Lt
 Sta 114+71 51' Lt Dual Purpose Pole
 Sta 116+09 38.5' Lt
 Sta 117+74 36.5' Lt
 Sta 118+73 97' Lt
 Sta 121+70 12.5' Lt
 Sta 122+90 12' Lt
 Oak St.
 Sta 10+19 22.5' Lt
 Sta 11+96 22.5' Lt
 Sta 13+72 25.5' Lt W/Ped. signal head
 Sta 14+32 43' Rt Dual Purpose Pole

BREWER

State St.
 Sta 26+31 36' Lt Dual Purpose Pole
 Sta 26+35 48.5' Lt
 Sta 28+49 50.5' Lt
 Sta 32+00 23' Rt
 No. Main St.
 Sta 198+93 26' Lt
 Sta 200+58 43' Rt Dual Purpose Pole
 Sta 202+00 34' Rt
 Sta 203+54 34' Rt

Locations of light poles shown are approximate. Final locations shall be determined in the field by the engineer.

120-23

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Highway Lighting
Bangor - Brewer

DATE	BY	REVISIONS
8-85	BAK	DESIGN-Detailed
		CHECKED
		FIELD CHANGES
PLANS		

P.I. STA. 0+26.68
 $\Delta = 3^{\circ}-19'-25.1''$ LT
 $D = 6^{\circ}-13'-52.9''$
 $T = 26.68'$
 $L = 53.34'$
 $R = 919.47'$

2 STY BRICK
BUILDING
MERCURY-LINCOLN

BITUMINOUS
PARKING
AREA

P.I. STA. 2+07.19
 $\Delta = 99^\circ - 36' - 29.5''$
 $D = 44^\circ - 04' - 25.2''$
 $T = 153.86'$
 $L = 226.0'$
 $R = 130.0'$

1 LINDEN
9 MIKADO SPIREA
11 PRINCE OF WALES JUNIPER
7 BUGOSA ROSE

4 BEARINGS
Sta. 110+24

NEW PATIO LOCATION

EXCAVATE PAVEMENT. LOAM & SEED
AS DIRECTED BY RESIDENT ENGINEER

P.I. STA. 112+64.04
 $\Delta = 10^{\circ}-44'-04.2''$ LT.
 $D = 5^{\circ}-30'-0.0''$
 $T = 97.87'$
 $L = 195.17'$
 $R = 1041.74'$

1. REF. MAPLE 3-6

STA. 114+18.58 WASHINGTON ST. =
STA. 30+00 EXCHANGE ST

WASHINGTON STREET

P.I. STA. 114+55.57
 $\Delta = 10^\circ - 20' - 13.1''$ RT
 $D = 5^\circ - 30' - 0.0''$
 $T = 94.23'$
 $L = 187.95'$
 $R = 1041.74'$ CB

120-25

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PENOBSCOT RIVER BRIDGE
OVER
PENOBSCOT RIVER
IN THE CITIES OF
BANGOR - BREWER
PENOBSCOT COUNTY
LANDSCAPING

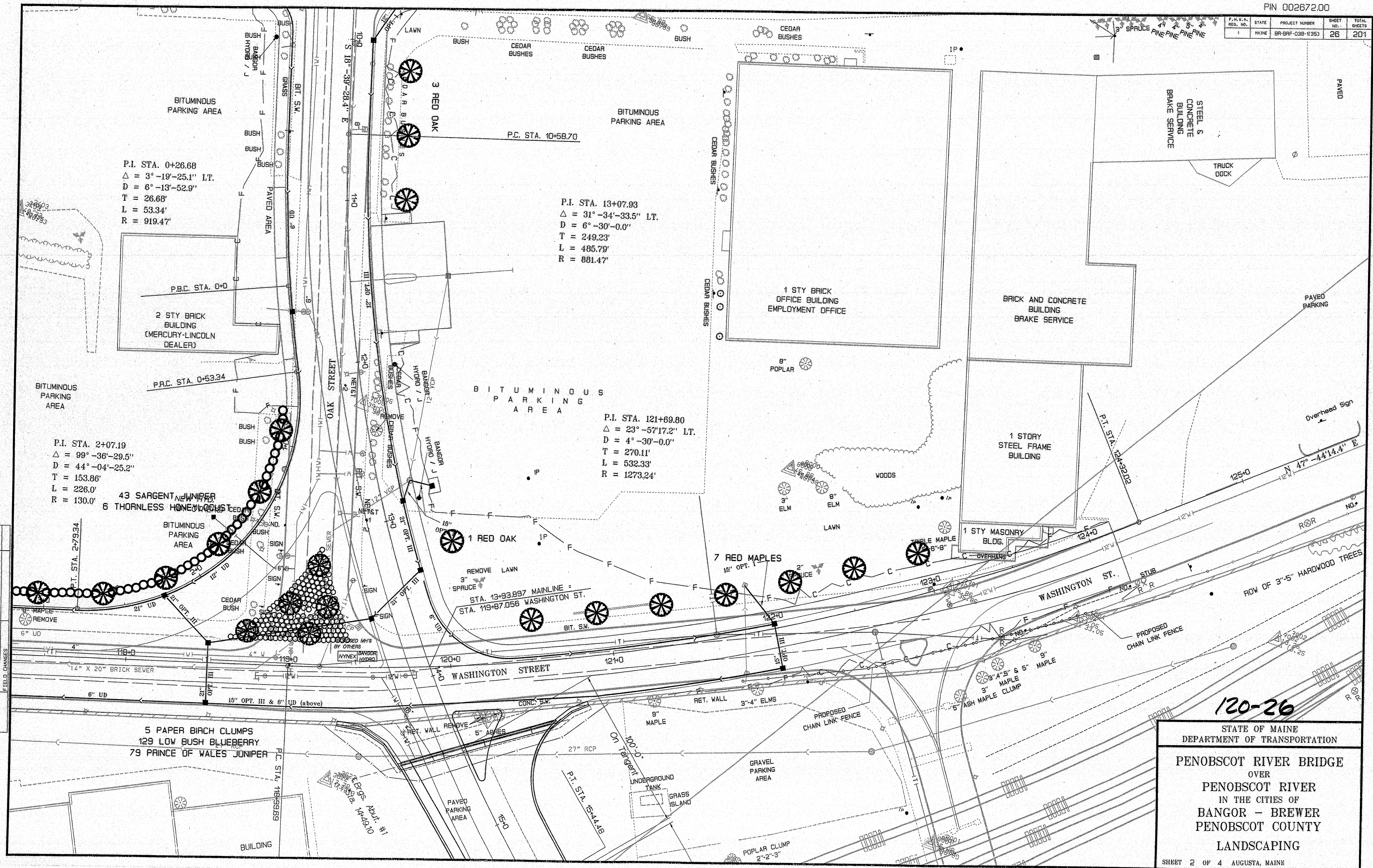
SHEET 1 OF 4 AUGUSTA, MAINE

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	<i>B. Laroche</i>	8/95
CHECKED		
REVISIONS		

5 AUG 95-01 00 30

PIN 002672.00

PLAN	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRP-038-11353	26	201



DATE	BY
8/25	BL/urc
DESIGN-DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

PLANS

15AUG95-0100.30

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PENOBSCOT RIVER BRIDGE
OVER
PENOBSCOT RIVER
IN THE CITIES OF
BANGOR - BREWER
PENOBSCOT COUNTY
LANDSCAPING

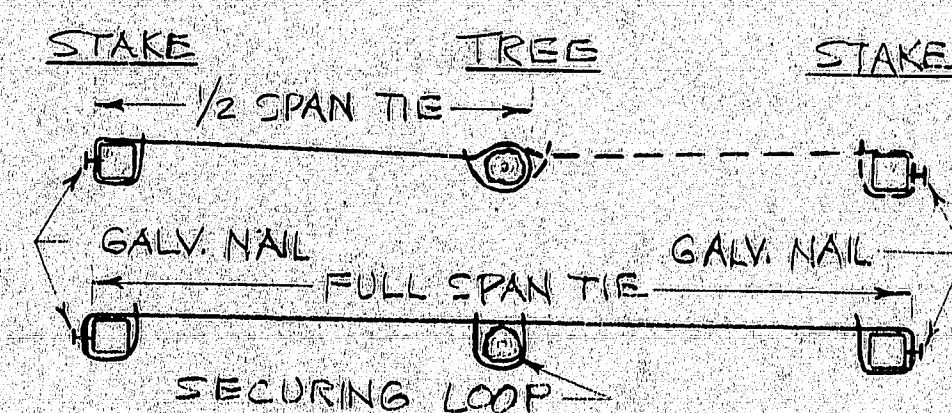
SHEET 2 OF 4 AUGUSTA, MAINE

TREE SUPPORT SCHEDULE

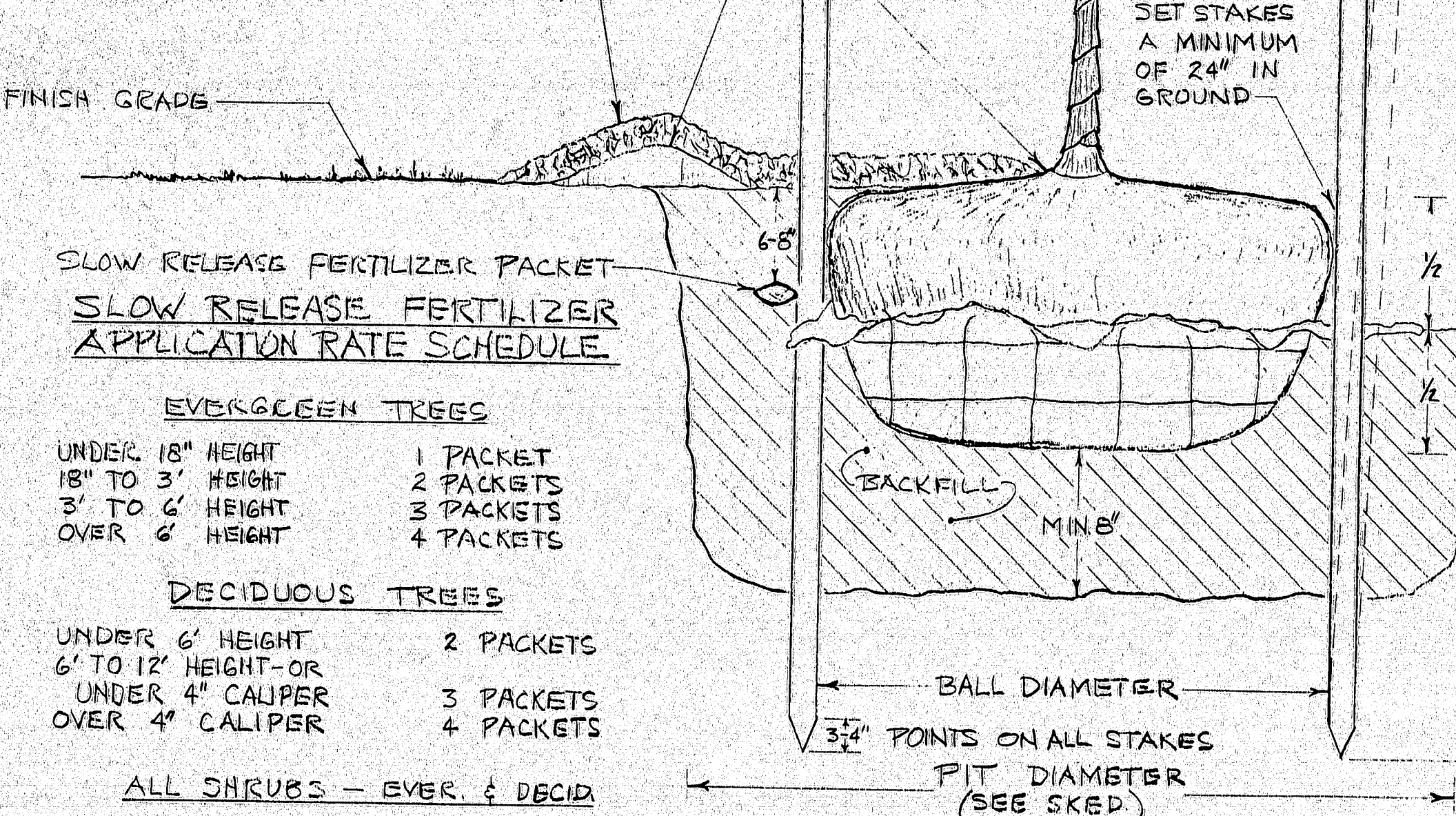
TREE DECIDUOUS	HEIGHT EVERGREEN	NO. OF STAKES
6' TO 8'	3' TO 5'	2
8' TO 12'	5' TO 8'	2
OVER 12'	OVER 8'	3

* ENGINEER MAY REQUIRE GUYING

- FASTEN STAKES TO TREE WITH PLASTIC CHAIN-LOCK TREE SUPPORT TIES IN EITHER MANNER SHOWN BELOW (PLAN VIEW)



- PLACE TIES (OR OPTIONAL WIRE AND HOSE) NEAR THE TOP OF THE STAKE, BUT NOT HIGHER THAN 1/3 THE HEIGHT OF THE TREE.
- CUT OFF EXCESS HEIGHT OF STAKE TOPS TO EQUAL LEVEL.
- STAKES SHALL STAND VERTICAL WHEN TREE SUPPORTING OPERATIONS ARE COMPLETED.
- MAKE PILOT HOLES FOR STAKES WITH CROWBAR AT SLIGHT OUTWARD ANGLE.
- TREE WRAP- SECURE AT TOP, BOTTOM, AND MAX. INTERVALS OF 2' WITH SOFT 3-PLY JUTE TWINE OR APPROVED TAPE.
- DO NOT APPLY MULCH DIRECTLY AGAINST TRUNK.
- BUILD SOIL BERM FOR WATER SAUCER.
- 4" BARK MULCH (WHEN SETTLED)



SLOW RELEASE FERTILIZER APPLICATION RATE SCHEDULE

EVERGREEN TREES	
UNDER 18" HEIGHT	1 PACKET
18" TO 3' HEIGHT	2 PACKETS
3' TO 6' HEIGHT	3 PACKETS
OVER 6' HEIGHT	4 PACKETS
DECIDUOUS TREES	
UNDER 6' HEIGHT	2 PACKETS
6' TO 12' HEIGHT OR UNDER 4" CALIPER	3 PACKETS
OVER 4" CALIPER	4 PACKETS
ALL SHRUBS - EVER. & DECID.	
UNDER 2' HGT. OR SPRD.	1 PACKET
2' TO 3' HGT. OR SPRD.	2 PACKETS
OVER 3'	3 PACKETS
VINES & GROUNDCOVERS	1 PACKET

PLANTING NOTES

- PLACE PLANTS PLUMB AND AT PROPER DEPTH IN HOLE ON FIRMED BACKFILL. TURN AS REQUIRED TO "FACE".
- BACKFILL IN 4" LIFTS AND TAMP TO HALF THE DEPTH OF THE BALL. LOOSEN AND SPREAD OUT BURLAP - CUT OUT EXCESSIVE BULK. REMOVE TOP HALF OF WIRE BASKET.
- PLACE SLOW RELEASE FERTILIZER PACKETS AND COMPLETE BACKFILLING.
- FORM WATER SAUCER WITH SOIL BERM AS APPROPRIATE.
- LIQUID FEED WITH 16-32-16 AT 6 LB. PER 100 GAL PER SCHEDULE BELOW

PLANT HEIGHT	AMT. OF SOLUTION
UP TO 2' HEIGHT	4 QTS. (1 GAL.)
2' TO 6' HEIGHT	6 QTS. (1 1/2 GAL.)
6' TO 12' HEIGHT	12 QTS. (3 GAL.)
OVER 12' HEIGHT	16 QTS. (4 GAL.)
CLASS C EVERGREEN	1 PINT PER PLANT
CLASS C DECIDUOUS	2 QTS. PER PLANT

PIT SIZES FOR ALL PLANTS

BALL DIAM.	PIT DIAM.
UP TO 2'	1 1/2 x BALL DIAM.
2' TO 4'	BALL DIAM. + 2'
> 4'	BALL DIAM. + 3'
PLANT HEIGHT	PIT DEPTH*
UP TO 24"	MIN. 15"
24" TO 8'	MIN. 18"
8' OR TALLER	MIN. 24"

* ALLOW FOR 8" MIN. DEPTH OF FIRMED BACKFILL UNDER PLANT BALL

BACKFILL MIX

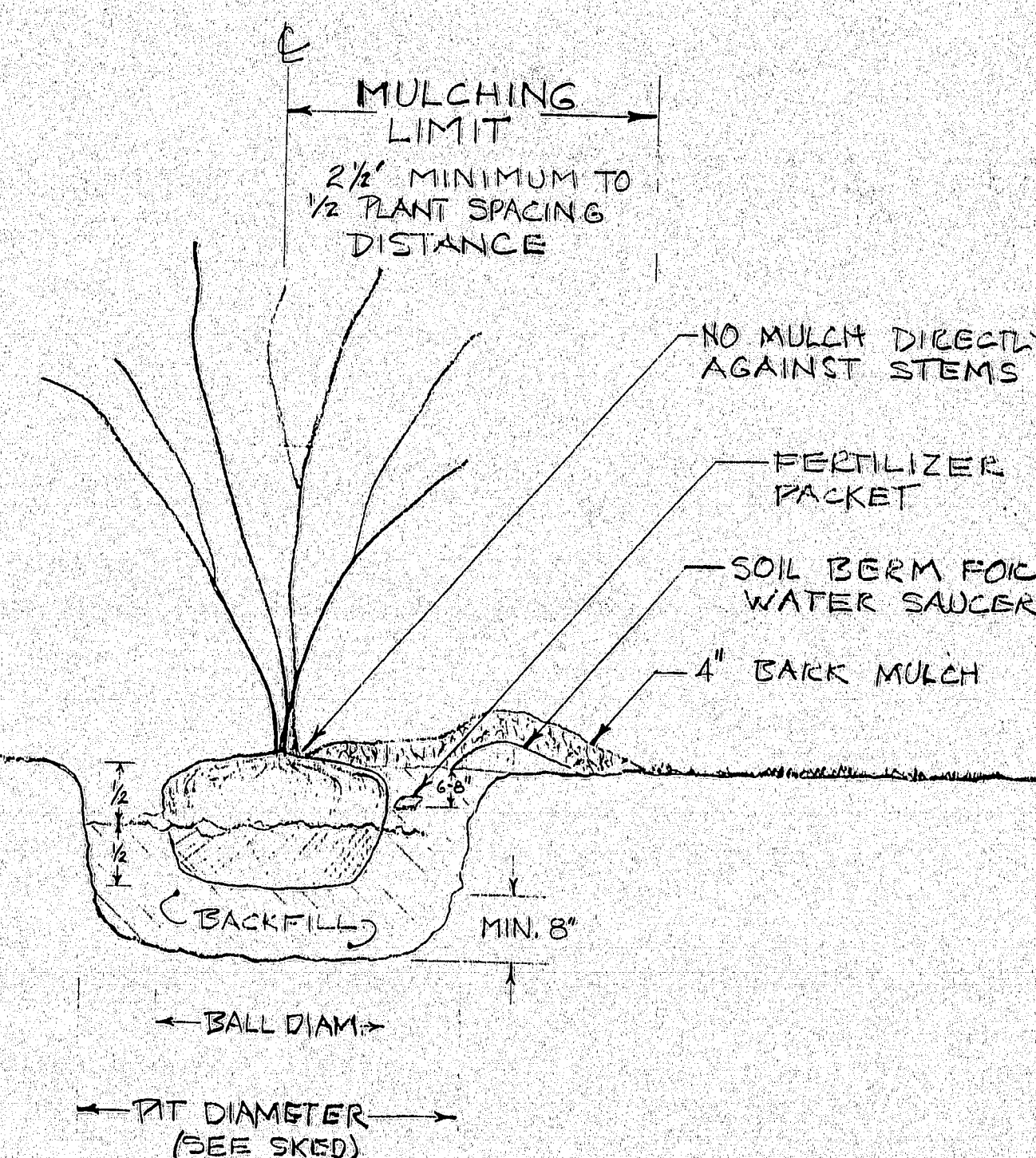
3 PARTS LOAM TO 1 PART PEAT HUMUS

LAYOUT STAKES

- STAKE SHALL BE SUPPLIED IN TWO LENGTHS - 36" MIN. FOR TREE LOCATIONS AND 18" MIN. FOR SHRUBS.
- ALL STAKES SHALL BE OF PLANED LUMBER AND SHALL BE SHARPENED ON ONE END AS SHOWN.
- THE ENGINEER MAY REQUIRE THAT STAKES BE PAINTED. REFER TO STANDARD SPEC. SEC. 621.0018.

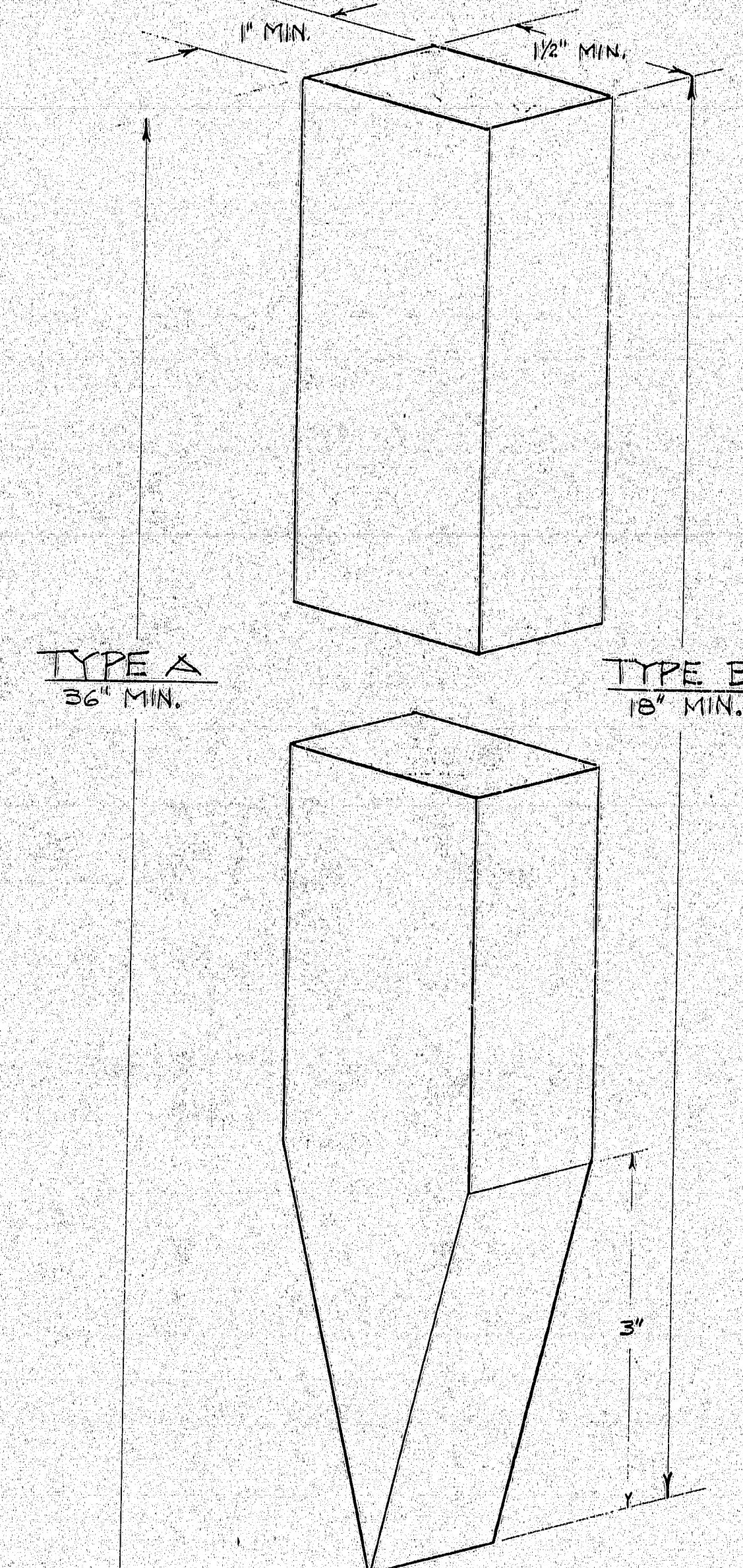
HERBICIDE NOTE

- PLANT BEDS THAT HAVE BEEN TREATED WITH HERBICIDE FOR WEED CONTROL SHALL NOT BE DISTURBED FOR A MINIMUM OF 7 DAYS.



FUNGICIDE SPRAY

- ALL WILLOW AND POPLAR TREES AND CORNUS ALBA SHRUBS WILL BE SPRAYED ON THE PROJECT WITH A FUNGICIDE APPROVED BY THE ENGINEER BEFORE PLANTING.



120-28

REVISIONS: 12-10-87

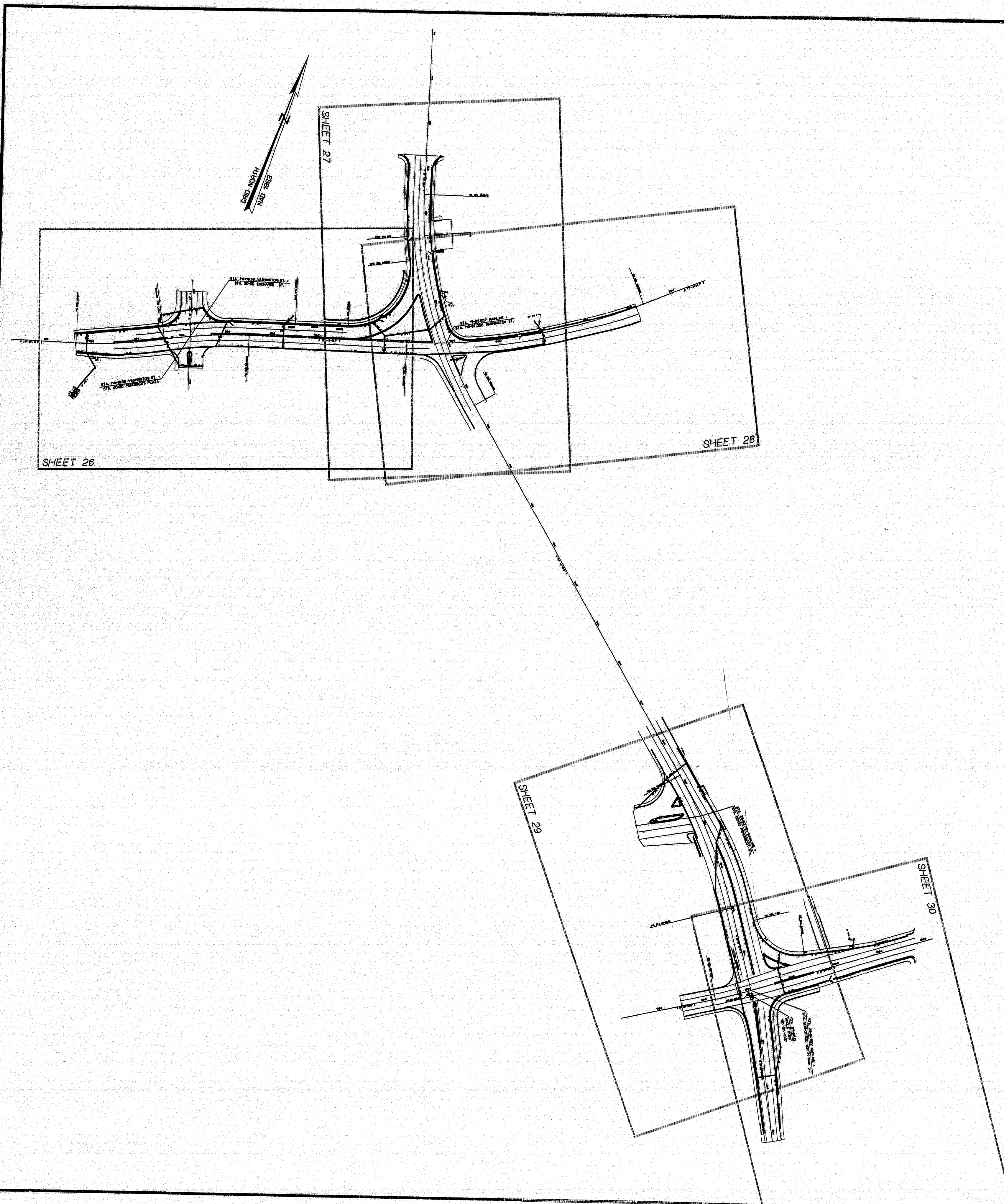
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS

NO SCALE

PLANTING
SUPPORTING
MULCHING
LAYOUT STAKES

SHEET 4 OF 4 AUGUSTA, MAINE



General Notes

- THE UTILITIES INVOLVED IN THIS CONTRACT ARE:
BANGOR HYDRO ELECTRICAL CO.
CABLEVISION T.V.
NYNEX TELEPHONE CO.
CITY OF BREWER -
WATER DISTRICT
SEWER DEPARTMENT
FIRE DEPARTMENT
CITY OF BANGOR -
WATER DISTRICT
SEWER DEPARTMENT
MAINE CENTRAL RAILROAD
- ALL UTILITY FACILITIES SHALL BE ADJUSTED BY THE RESPECTIVE UTILITIES UNLESS NOTED.
- CLEARING LIMITS SHALL BE 10' BEYOND AND PARALLEL TO THE CONSTRUCTION SLOPE LINES OR AS SHOWN ON THE PLANS UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
- ALL CLEARING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE. THE ACTUAL LINES FOR CLEARING SHALL BE ESTABLISHED IN THE FIELD BY THE ENGINEER. ESTIMATED CLEARING REQUIRED IS 0.13 ACRE.
- GRUBBING WIDTHS ARE NOT SHOWN ON THE PLANS. MINOR AMOUNTS OF GRUBBING SHALL BE REQUIRED. GRUBBINGS SHALL BE DISPOSED OF BY THE CONTRACTOR AND SHALL NOT BE USED IN FILL SLOPES.
- STUMPS HAVE BEEN ESTIMATED TO BE REMOVED UNDER ITEM 201.24. REMOVING STUMPS, HOWEVER, WHERE DIRECTED BY THE ENGINEER, ITEM 631.20. STUMP CHIPPER RENTAL MAY BE USED TO REMOVE STUMPS.
- IF FOUNDATION MATERIAL IS REQUIRED UNDER CULVERTS, IT SHALL MEET THE REQUIREMENTS FOR GRANULAR BORROW - UNDERWATER BACKFILL AND WILL BE PAID FOR AS GRANULAR BORROW.
- GRANULAR BORROW USED TO BACKFILL MUCK EXCAVATION OR IN LOW WET AREAS TO 1' ABOVE WATER LEVEL OR OLD GROUND SHALL MEET REQUIREMENTS FOR GRANULAR BORROW UNDERWATER BACKFILL.
- ESTIMATED STRUCTURAL EXCAVATION REQUIRED 3,300 C.Y.
- PAVED ENTRANCES SHALL BE CONSTRUCTED WITH:
2" HOT BITUMINOUS PAVEMENT AND
12" AGGREGATE SUBBASE COURSE GRAVEL.
- ALL PAVED WALKS TO BE CONSTRUCTED WITH:
2" HOT BITUMINOUS PAVEMENT AND
12" AGGREGATE SUBBASE COURSE GRAVEL.
- PLACE HOT BITUMINOUS PAVEMENT GRADING "D" AROUND CATCH BASINS IN GRASSED AREAS (3' OUTSIDE OF FRAME, 2" THICK) WITH ACRYLIC LATEX COLOR FINISH - GREEN.
- EXISTING CULVERTS OR CLOSED DRAINAGE SYSTEM TO REMAIN SHALL BE CLEANED AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE MADE UNDER ITEM 631.32 CULVERT CLEANER (INCLUDING OPERATORS).
- NO EXISTING DRAINAGE SHALL BE ABANDONED. REMOVED OR PLUGGED WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- THE CLOSED DRAINAGE SYSTEM HAS BEEN DESIGNED USING CORRUGATED SIZES FOR UNDERDRAIN RUNS. ALTERNATIVE SIZES HAVE BEEN SHOWN IN THE "ALTERNATIVE SIZE FOR SMOOTHLINE DESIGN" COLUMN. MIXING OF PIPE TYPES BETWEEN THE ALTERNATIVE SMOOTHLINE SIZES AND CORRUGATED SIZES SHALL NOT BE ALLOWED WITHOUT A COMPLETE DRAINAGE DESIGN FOR THE PIPE RUN INVOLVED, APPROVED BY THE ENGINEER.
- ANY NECESSARY CUTTING OF EXISTING PIPES TO FIT IN AREAS OF PROPOSED CATCH BASINS WILL NOT BE PAID FOR SEPARATELY AND WILL BE CONSIDERED INCIDENTAL TO ITEM 604.
- ALL EXCAVATION BELOW SUBGRADE FOR CATCH BASINS NOTED "REMOVE AND PLUG" SHALL BE PAID FOR UNDER ITEM 202.15. REMOVING MANHOLE OR CATCH BASIN. ALL PLUGS SHALL BE CONSTRUCTED OF MORTAR. PAYMENT TO BE INCIDENTAL TO ITEM 203.15. PAYMENT FOR BACKFILLING EXCAVATION WITH GRANULAR BORROW WILL BE PAID FOR UNDER ITEM 203.25. GRANULAR BORROW.
- EXISTING CATCH BASIN CASCADE GRATES AND FRAMES SHALL BE REMOVED AND STOCKPILED FOR PICK UP BY M.D.S.T. MAINTENANCE PERSONNEL. NO SEPARATE PAYMENT WILL BE MADE FOR REMOVAL AND STOCKPILING.
- EXISTING ABANDONED WATER MAINS BROKEN BY THE CONTRACTOR DURING CONSTRUCTION SHALL HAVE THE ENDS PLUGGED WITH BRICK AND MORTAR. COST FOR ALL LABOR AND MATERIAL WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO DIRECT PAYMENT WILL BE MADE.
- ONE GUARDRAIL DELINEATOR POST SHALL BE INSTALLED AT EACH GUARDRAIL END, AND ONE SHALL BE INSTALLED AT THE BEGINNING OF THE M.E.L.T. FLARE.
- CONNECTIONS AND CUTTING OF PROPOSED GUARDRAIL FOR CONNECTION TO EXISTING GUARDRAIL WILL BE CONSIDERED INCIDENTAL TO ITEM 606.
- MODIFIED ECCENTRIC LOADER TERMINALS SHALL BE INSTALLED CONCURRENTLY WITH THE PLACEMENT OF EACH SECTION OF BEAM GUARDRAIL.
- CURB TYPE 3 TO BE INSTALLED WITH MOLD 2 AND SEALED WITH BITUMINOUS SEALING BLACK, WHEN DIRECTED.
- ALL CATCH BASINS TYPE A1-C PLACED ON CIRCULAR CURB TYPE 1 SHALL HAVE THE CURB INLET CUT THE SAME RADIUS AS ADJACENT CIRCULAR CURB. PAYMENT SHALL BE INCIDENTAL TO ITEM 604.072.

- THE FOUR FEET OR EIGHT FEET OF CIRCULAR CURB TYPE 1 REQUIRED TO BE CUT FOR A TERMINAL CURB SECTION SHALL BE PAID FOR UNDER ITEM 609.234 OR ITEM 609.238 RESPECTIVELY.
- LOAM HAS BEEN ESTIMATED FOR 100% OF THE DISTURBED SLOPE AREA. ACTUAL PLACEMENT OF THE LOAM SHALL BE AS DESIGNATED BY THE ENGINEER.
- UNLESS OTHERWISE NOTED SEEDING METHOD NO. 1 SHALL BE UTILIZED ON ALL LAWNS AND DEVELOPED AREAS. SEEDING METHOD NO. 3 SHALL BE UTILIZED AS SHOWN ON THE LANDSCAPE PLANS.
- MULCH SHALL BE APPLIED IN AREAS SEEDED BY SEEDING METHOD NO. 3. AND SEEDING METHOD NO. 1.
- LOAM SHALL BE PLACED TO A NOMINAL DEPTH OF 2 INCHES UNLESS OTHERWISE NOTED OR DIRECTED.
- ACRYLIC LATEX COLOR FINISH GREEN SHALL BE PLACED ON ALL PAVED ISLANDS.
- ALL PEDESTRIAN RAMPS SHALL BE 6' WIDE.
- ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER. ALL WORK EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE. REPAIR WORK, IF NECESSARY, SHALL NOT BE DONE ON OR ADJACENT TO LANE CARRYING TRAFFIC.
- TEMPORARY EROSION CONTROL MEASURES SHALL BE MAINTAINED AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE MADE UNDER ITEMS 629.05, HAND LABOR, 631.12, ALL PURPOSE EXCAVATOR, AND 631.172, TRUCK LARGE.
- THERE ARE NO WASTE STORAGE AREAS FOR THIS PROJECT.
- EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CFR PART 1926.650 - 652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).
- ESTIMATED QUANTITIES FOR REQUIRED STRUCTURAL EARTH EXCAVATION, DRAINAGE AND MINOR STRUCTURES ARE INFORMATIONAL ONLY AND REPRESENT THE APPROXIMATE MINIMUM QUANTITY REQUIRED TO INSTALL DRAINAGE STRUCTURES. ADDITIONAL EXCAVATION FOR THE CONTRACTOR'S CONVENIENCE OR TO COMPLY WITH BACKSLOPING REQUIREMENTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE RELATED DRAINAGE ITEMS.
- BACKSLOPING OF TRENCHES REQUIRED TO INSTALL DRAINAGE PIPES SHALL NOT BE ALLOWED FOR THE STATIONS LISTED BELOW UNLESS APPROVED BY THE ENGINEER.
BANGOR
DAK STREET - STA. 11+00 RT. TO 12+50 RT.
WASHINGTON ST. - STA. 111+50 RT. TO STA. 122+00 RT.
STA. 120+25 LT. TO STA. 122+00 LT.
BREWER
STATE STREET - STA. 24+25 LT. TO 26+75 LT.
STA. 24+75 RT. TO 39+20 RT.
STA. 31+75 LT. TO 33+20 LT.
N. MAIN ST. - STA. 202+25 LT. TO 203+75 LT.
NOTE: APPROXIMATELY 3,825 LF OF STRAIGHT TYPE 1 CURB WILL BE AVAILABLE TO RESET ON THE PROJECT (2,849 LF IN BANGOR, 976 LF IN BREWER). APPROXIMATELY FIFTY PERCENT OF THESE QUANTITIES HAVE BEEN ESTIMATED FOR RESETTING. THE QUANTITY OF RESET CURB MAY BE MODIFIED AS DIRECTED BY THE ENGINEER. EXCESS GRANITE CURBING SHALL BE REMOVED AND STOCKPILED FOR PICK UP BY M.D.S.T. MAINTENANCE PERSONNEL. NO SEPARATE PAYMENT WILL BE MADE FOR REMOVAL AND STOCKPILING.
- VOLUMES FOR PORTLAND CEMENT PAVEMENT ARE NOT INCLUDED IN THE STATION TO STATION EXCAVATION QUANTITIES ON THE CROSS SECTIONS.
- THE CONCRETE SLAB TO BE REMOVED LOCATED AT STATION 4+42 LT. WILL BE PAID FOR UNDER ITEM 202.11 REMOVING PORTLAND CEMENT PAVEMENT (SY).
- BACKFILL AND COMPACT EXISTING BRICK CISTERN FROM STA. 12+30+ TO STA. 12+57+ WITH GRANULAR BORROW. PAYMENT WILL BE MADE UNDER ITEM 203.25. GRANULAR BORROW.
- CONCRETE TRENCH DAMS FOR SECTIONS OF PIPE IN CONTAMINATED SOILS SHALL BE CONSTRUCTED WITH ITEM NO. 502.56. CONCRETE FILL. ANY FORMING THAT MAY BE REQUIRED TO INSTALL THE TRENCH DAMS WILL BE INCIDENTAL TO ITEM 502.56 CONCRETE FILL. TRENCHES EXCAVATED IN CONTAMINATED SOILS SHALL BE BACKFILLED WITH THE EXCAVATED SOIL MATERIAL ONCE THE PIPE INSTALLATION IS COMPLETE.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRF-038-1(35)	29	201

Bangor - Brewer

120-29
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

General Notes
&
Layout Plan

SHEET 1 OF 101 AUGUSTA, MAINE

Bangor - Brewer Highway Plans

Construction Notes

CONSTRUCT PAVED DRIVES / ENTRANCES AT THE FOLLOWING LOCATIONS:

STA. 11+12 RT. OAK ST.	STA. 32+57 RT. STATE ST.
STA. 11+50 LT. OAK ST.	STA. 33+05 RT. STATE ST.
STA. 12+08 RT. OAK ST.	STA. 33+10 RT. STATE ST.
STA. 112+88 RT. WASH. ST.	STA. 6+50 LT. RAMP MA12
STA. 25+92 LT. STATE ST.	STA. 198+55 RT. N. MAIN ST.
STA. 26+51 LT. STATE ST.	STA. 201+72 RT. N. MAIN ST.
STA. 31+47 LT. STATE ST.	STA. 202+75 LT. N. MAIN ST.
STA. 32+31 LT. STATE ST.	STA. 203+45 LT. N. MAIN ST.

ITEM NO. 20123 - REMOVING SINGLE TREE TOP ONLY

STA. 202+90 . 32' RT. . N. MAIN ST. (TRIPLE MAPLE)	1 EACH
STA. 200+97 . 48' LT. . N. MAIN ST. (12" MAPLE)	1 EACH
STA. 202+99 . 42' LT. . N. MAIN ST. (18" MAPLE)	1 EACH
STA. 6+16 . 88' LT. . RAMP MA12 (15" MAPLE)	1 EACH
STA. 32+48 . 40' LT. . STATE ST. (24" DEAD MAPLE)	1 EACH

ITEM NO. 20123 - REMOVING STUMP

STA. 202+90 . 32' RT. . N. MAIN ST. (TRIPLE MAPLE)	1 EACH
STA. 200+97 . 48' LT. . N. MAIN ST. (12" MAPLE)	1 EACH
STA. 202+99 . 42' LT. . N. MAIN ST. (18" MAPLE)	1 EACH
STA. 6+16 . 88' LT. . RAMP MA12 (15" MAPLE)	1 EACH
STA. 32+48 . 40' LT. . STATE ST. (24" DEAD MAPLE)	1 EACH

ITEM NO. 20208 - REMOVING BUILDING NO. 1

STA. 31+25 RT. STATE ST.

ITEM NO. 20211 - REMOVING PORTLAND CONCRETE PAVEMENT

STA. 11+65 TO STA. 117+00 WASH. ST.
STA. 120+10 TO STA. 124+15 WASH. ST.
STA. 24+50 TO STA. 29+75 STATE ST.
STA. 30+10 TO STA. 33+20 STATE ST.

ITEM NO. 20215 - REMOVING MANHOLE OR CATCH BASIN

STA. 112+94 LT. WASH. ST.	1 EACH
STA. 112+99 RT. WASH. ST.	1 EACH
STA. 113+80 LT. WASH. ST.	1 EACH
STA. 30+25 LT. EXCHANGE ST.	1 EACH
STA. 30+47 RT. EXCHANGE ST.	1 EACH
STA. 114+57 RT. WASH. ST.	1 EACH
STA. 114+78 LT. WASH. ST.	1 EACH
STA. 116+87 RT. WASH. ST.	1 EACH
STA. 116+90 LT. WASH. ST.	1 EACH
STA. 118+90 LT. WASH. ST.	1 EACH
STA. 119+42 LT. WASH. ST.	1 EACH
STA. 121+73 RT. WASH. ST.	1 EACH
STA. 10+56 LT. OAK ST.	1 EACH
STA. 24+57 LT. STATE ST.	1 EACH
STA. 50+63 RT. PENOBSCOT SQ.	1 EACH
STA. 26+09 LT. STATE ST.	1 EACH
STA. 27+99 RT. STATE ST.	1 EACH
STA. 29+81 LT. STATE ST.	1 EACH
STA. 30+00 LT. STATE ST.	1 EACH
STA. 202+54 LT. N. MAIN ST.	1 EACH

ITEM NO. 60655 - GUARD RAIL TYPE 3 - SINGLE RAIL

△ FROM STA. 124+72 RT. TO STA. 124+88 RT. WASH. ST.	L = 225.0 L.F.
△ FROM STA. 198+35.3 LT. TO STA. 198+48.3 LT. N. MAIN ST.	L = 75.0 L.F.
△ FROM STA. 24+07.66 RT. TO STA. 24+25.16 RT. STATE ST.	L = 12.5 L.F.
△ FROM STA. 24+08.55 LT. TO STA. 24+21.45 LT. STATE ST.	L = 12.5 L.F.
△ FROM STA. 27+65.5 RT. TO STA. 29+20 RT. STATE ST.	L = 152.5 L.F.
△ FROM STA. 121+90.75 RT. TO STA. 124+03.25 RT. WASH. ST.	242.5 L.F.
△ FROM STA. 198+29.05 LT. TO STA. 198+91.55 LT. N. MAIN ST.	62.5 L.F.
△ FROM STA. 27+84.25 RT. TO STA. 29+21.75 RT. STATE ST.	137.5 L.F.

ITEM NO. 60660 - GUARD RAIL TYPE 3 - SINGLE RAIL OVER 15' RADIUS

△ FROM STA. 29+28 RT. STATE ST. TO	
△ STA. 198+45 LT. N. MAIN ST.	R = 35' L = 54.0 L.F.
△ STA. 198+58 RT. N. MAIN ST. TO	
△ STA. 30+48 RT. STATE ST.	R = 40' L = 95.5 L.F.

△ 60665 GUARD RAIL - THREE BEAM - SINGLE RAIL	
STA. 121+84.50 RT. TO STA. 121+90.75 RT. WASH. ST.	1 EACH
STA. 198+57.60 LT. TO STA. 198+10.3 LT. N. MAIN ST.	1 EACH
STA. 24+20.16 RT. TO STA. 24+26.41 RT. STATE ST.	1 EACH
STA. 24+21.45 LT. TO STA. 24+27.70 LT. STATE ST.	1 EACH
STA. 29+21.75 RT. TO STA. 29+29.00 RT. STATE ST.	1 EACH
STA. 30+48.00 RT. TO STA. 30+54.25 RT. STATE ST.	1 EACH

△ 60670 TRANSITION SECTION - THREE BEAM	
STA. 121+84.50 RT. TO STA. 121+90.75 RT. WASH. ST.	1 EACH
STA. 198+57.60 LT. TO STA. 198+10.3 LT. N. MAIN ST.	1 EACH
STA. 24+20.16 RT. TO STA. 24+26.41 RT. STATE ST.	1 EACH
STA. 24+21.45 LT. TO STA. 24+27.70 LT. STATE ST.	1 EACH
STA. 29+21.75 RT. TO STA. 29+29.00 RT. STATE ST.	1 EACH
STA. 30+48.00 RT. TO STA. 30+54.25 RT. STATE ST.	1 EACH

△ 60672 GUARD RAIL - THREE BEAM - OVER 15' RADIUS	
STA. 29+28.0 RT. STATE ST. TO STA. 198+45.0 LT. N. MAIN ST.	
R = 35' - L = 68.5 L.F.	
STA. 198+50.0 RT. N. MAIN ST. TO STA. 30+48.0 RT. STATE ST.	
R = 40' - L = 48.0 L.F.	

ITEM NO. 60676 - MODIFIED ECCENTRIC LOADER TERMINAL

△ STA. 24+20.16 RT. TO STA. 24+26.41 RT. STATE ST.	1 EACH
△ STA. 24+21.45 LT. TO STA. 24+27.70 LT. STATE ST.	1 EACH
△ STA. 30+48.0 RT. TO STA. 30+54.25 RT. STATE ST.	1 EACH

△ STA. 24+26.41 RT. TO STA. 24+27.70 LT. STATE ST.	1 EACH
△ STA. 24+27.70 LT. TO STA. 24+26.41 RT. STATE ST.	1 EACH
△ STA. 30+54.25 RT. TO STA. 30+48.0 RT. STATE ST.	1 EACH
△ STA. 27+48.75 RT. TO STA. 27+84.25 RT. STATE ST.	1 EACH

ITEM NO. 60717 - CHAIN LINK FENCE - 6'

STA. 121+75 RT. TO STA. 123+80 RT. WASH. ST. L = 215.0 L.F.

ITEM NO. 60722 - CEDAR RAIL FENCE

STA. 4+25 LT. TO STA. 5+80 LT. RAMP MA12 L = 80.0 L.F.

ITEM NO. 608108 - RESET BRICK ISLAND

FROM 50+12 RT. TO 50+39 C.L. PENOBSCOT SQ.
TO 50+39 RT. - 51+13 RT. & TO 50+36 RT. - 50+60 RT.

ITEM NO. 61009 - PLAIN RIPRAP

STA. 111+70 . 105' RT. WASH. ST. INSTALL 15' X 20' RIPRAP OUTLET

ITEM NO. 62058 - EROSION CONTROL GEOTEXTILE

STA. 27+89 LT. STATE ST. TO STA. 28+140 LT. N. MAIN ST.

ITEM NO. 64215 - PRE-CAST CONCRETE STEPS

STA. 0+38 RT. DRIVE MD01
STA. 0+82 RT. DRIVE MD01

CONSTRUCT PAVED WALKS

STA. 0+38 RT. DRIVE MD01
STA. 0+82 RT. DRIVE MD01

Summary of Excavation & Borrow

F.H.W.A. FED. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-BRP-098-11(35)	30	201

Bangor - Brewer

COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION (FROM CROSS SECTIONS)	20,559 CY
EARTH FROM DRIVES, OLD ROAD, ETC.	1,007 CY
TOTAL COMMON EXCAVATION	21,566 CY

FILL FOR BORROW CALCULATIONS

COMMON FILL (FROM CROSS SECTIONS)	6,019 CY
FILL FOR DRIVES	321 CY
TOTAL FILL	6,340 CY

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

TOTAL AVAILABLE COMMON EXCAVATION	21,566 CY
TOTAL AVAILABLE STRUCT. EXCAVATIONS (USUALLY UNDERDRAIN ONLY)	1,350 CY
TOTAL AVAILABLE NON-ROCK EXCAVATION	22,916 CY

COMPUTATION OF WASTE MATERIAL

TOTAL AVAIL. WASTE STORAGE AREA (FROM CROSS SECTIONS)	0 CY
PORTLAND CEMENT CONCRETE PAVEMENT	1,086 CY
TOTAL WASTE MATERIAL	1,086 CY

COMPUTATION OF GRANULAR BORROW FOR ESTIMATE

GRANULAR BORROW TO BACKFILL DRAINAGE STRUCTURES	175 CY
GRANULAR BORROW TO MAINTAIN TRAFFIC	500 CY
GRANULAR BORROW	675 CY x 1.15 = 775 CY

COMPUTATION FOR COMMON BORROW FOR ESTIMATE

TOTAL FILL	6,340 CY
TOT. AVAIL. NON-ROCK EXCAV.	22,916 x 0.85 = 19,479 CY
TOT. AVAIL. STR. ROCK EXCAV.	139 x 1.33 = 185 CY
TOTAL AVAILABLE EXCAVATION	19,664 CY
TOTAL FILL MINUS TOTAL AVAILABLE EXCAV.	13,324 CY SURPLUS

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Construction Notes
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△ ADDENDUM # 1

SHEET 2 OF 101 AUGUSTA, MAINE

Bangor - Brewer Highway Plans