

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
HURON & RICHLAND COUNTIES

RIC-61-14.07

HUR-61- 0.00

DIVISION	STATE	PROJECT	1
3	OHIO		8

ISSUE NO.1

RICHLAND COUNTY
HURON COUNTY
RIC-61-14.07
HUR-61-0.00

WE THE COUNCILMEN OF THE VILLAGE OF PLYMOUTH IN FORMAL SESSION
HEREBY APPROVE THESE PLANS AND CERTIFY THAT THE NECESSARY RIGHT OF
WAY IS AVAILABLE. WE AGREE TO MAINTAIN THE PROJECT IN A MANNER SATIS-
FACTORY TO THE DIRECTOR OF TRANSPORTATION, STATE OF OHIO, OR HIS DULY
AUTHORIZED REPRESENTATIVES, AND WILL MAKE AMPLE PROVISIONS EACH YEAR
FOR SUCH MAINTENANCE AND REPAIR. DONE UNDER AUTHORITY OF SECTIONS
723.01, 5557.02 AND 5591.02 ET. SEQ. OF THE OHIO REVISED CODE.

COUNCIL VILLAGE OF PLYMOUTH
DATE MAYOR

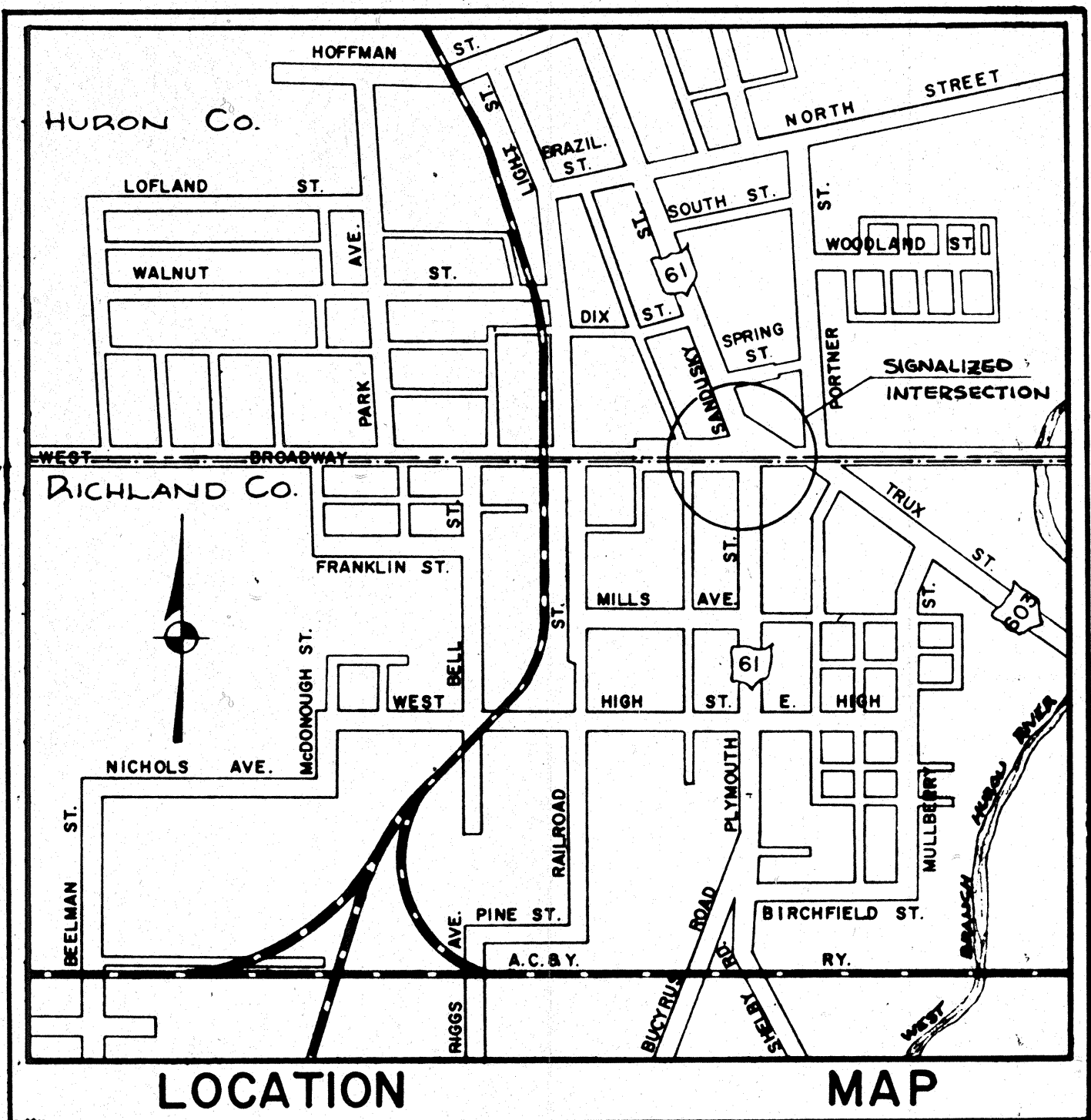
ISSUE NUMBER ONE
VILLAGE OF PLYMOUTH

CONVENTIONAL SIGNS

COUNTY LINE ———— LIMITED ACCESS — LA — LA —
TOWNSHIP LINE ———— RIGHT OF WAY — RW — RW —
SECTION LINE ———— TEMPORARY RIGHT OF WAY — T —
CORPORATION LINE ———— EXISTING RIGHT OF WAY —
FENCE LINE (EXISTING) — x — (PROPOSED) — x —
CENTER LINE — III — II2 —
TREES ○ STUMPS △ (TO BE REMOVED) ⊗ ⊗
UTILITY POLES TELEPHONE ∅ POWER ∅ LIGHT ∅
WORK LIMITS ————

INDEX OF DRAWINGS

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STEEL STRAIN POLE & FOUNDATION DETAILS	7
SIGN BLANK DETAILS	8



0 200 400 600 800 1000
SCALE OF FEET

PLAN
ELEVATIONS
OTHERS

0 40'
0 10'
AS SHOWN

LINE DATA

WORK LIMITS

RICHLAND COUNTY HURON COUNTY
BEGIN WORK STA 96+95 COUNTY LINE STA 100+00
COUNTY LINE STA 100+00 END WORK STA 102+85
TOTAL 305.00 FT. TOTAL 285.00 FT.
ADDITIONS ADDITIONS
BROADWAY ST. 604.00 FT.
TOTAL 909.00 FT. TOTAL 285.00 FT.
WORK TOTAL 1194.00 FEET OR 0.226 MILES

PROJECT LIMITS

RICHLAND COUNTY HURON COUNTY
BEGIN PROJECT STA COUNTY LINE STA
COUNTY LINE STA END PROJECT STA
TOTAL FT. TOTAL FT.
PROJECT TOTAL 0.00 FEET OR 0.000 MILES

SUPPLEMENTAL SPECIFICATIONS			
842	8-29-74		
844	11-8-74		
8625	1-11-74		
8713	1-11-74		

SUPPLEMENTAL STANDARD CONSTRUCTION DRAWINGS			
BP-5	6-1-72		
BP-6	6-1-65		
MC-3	6-1-73		
BP-7	1-1-66		
MC-6	6-1-65		
BP-12	8-11-75		

1975 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION
INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL
SHALL GOVERN THIS IMPROVEMENT.

THE RIGHT OF WAY FOR THIS IMPROVEMENT WILL BE PROVIDED BY THE
VILLAGE OF PLYMOUTH.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF
THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING OF THE HIGHWAY TO
TRAFFIC AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF
TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED: S. H. Reader
DATE: 11-7-75 DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION
APPROVED: _____
DATE: _____ ENGINEER, BUREAU OF BRIDGES
APPROVED: _____
DATE: _____ ENGINEER, BUREAU OF ROADWAY DESIGN
APPROVED: _____
DATE: _____ ASSISTANT DEPUTY DIRECTOR FOR HIGHWAY DESIGN
APPROVED: _____
DATE: _____ ASSISTANT DEPUTY DIRECTOR FOR REAL ESTATE
APPROVED: _____
DATE: _____ ASSISTANT DEPUTY DIRECTOR FOR PROGRAM DEVELOPMENT
APPROVED: _____
DATE: _____ CHIEF ENGINEER, DESIGN
APPROVED: _____
DATE: _____ ASSISTANT DIRECTOR, DEPARTMENT OF TRANSPORTATION
APPROVED: _____
DATE: _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION



PLAN PREPARED AND RECOMMENDED BY
LIVENGOOD ENGINEERING CO.
NORWALK, OHIO

PROJECT RICHLAND COUNTY-HURON COUNTY
RIC/HUR-61-14.07/0.00
DATE OF LETTING 19____ CONTRACT NO.____
FILE NO.____

GENERAL

NOTES

DIVISION	STATE	PROJECT	2
3	OHIO		8

HUR-61-0.00
RIC-61-14.07

1. GENERAL

- 1.01 THESE GENERAL NOTES SUPPLEMENT THE STATE OF OHIO CONSTRUCTION AND MATERIAL SPECIFICATION DATED JANUARY 1, 1975, SECTIONS S625 AND S713 FOR MATERIALS USED FOR INSTALLATION OF LIGHTING AND ELECTRICAL EQUIPMENT.
- 1.02 THE LOCATION OF SUPPORT POLES, CONTROLLER, CONDUIT, CIRCUIT CABLE, ETC., SHALL BE AS INDICATED ON THIS PLAN.
- 1.03 THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY SO THAT THE TRAFFIC SIGNALS WILL BE COMPLETE, ACCEPTED AND READY FOR SERVICE.
- 1.04 ANY ITEMS OF LABOR, MATERIALS AND EQUIPMENT REQUIRED, BUT NOT SHOWN AS A SEPARATE PAY ITEM IN THE PROPOSAL, SHALL BE FURNISHED AND INSTALLED AS INCIDENTAL TO THE CONTRACT.
- 1.05 THE REFERENCE TO ANY NAME, MAKE OR MODEL NUMBER IS INTENDED TO BE DESCRIPTIVE AND NOT RESTRICTIVE AND IS TO INDICATE TO BIDDERS THE DESIGN THAT WILL BE ACCEPTABLE.

- d. TRAFFIC SIGNAL CABLE SHALL ENTER THE CONTROLLER CABINETS AND RUN CONTINUOUSLY FROM SIGNAL HEAD TO SIGNAL HEAD WITHOUT SPLICES. PRESSURE TYPE CONNECTORS WILL BE USED TO MAKE CONNECTIONS INSIDE THE CONTROLLER CABINET. CABLE ENTRANCES SHALL BE PROTECTED BY A SUITABLE WEATHER HEAD AND DRIP LOOP WHEN ENTERING TRAFFIC FIXTURES.
- e. ALL WIRES IN THE CONTROLLER CABINET SHALL BE LABELED, NEATLY LASHED AND FASTENED TO THE CABINET WITH CLAMPS. THIS SHALL INCLUDE WIRE TO THE SIGNAL HEADS AND ALL MISCELLANEOUS EQUIPMENT.
- f. ALL SPLICES IN PULL BOXES SHALL BE OF THE WEATHER-PROOF POURED TYPE.
- g. ALL CURRENT CARRYING WIRES SHALL BE COPPER UNLESS OTHERWISE SPECIFIED.
- h. NO SPLICES SHALL BE PERMITTED IN ANY ELECTRICAL CONDUCTOR.

- B. LIGHTNING ARRESTOR.
- C. ADEQUATE TERMINAL BLOCKS.
- D. FUSED FOR 120/240 V. 60 CYCLE POWER.
- E. POWER SWITCH.
- F. CAST ALUMINUM, WEATHER TIGHT, LOCKABLE CABINET AND NECESSARY MOUNTING HARDWARE AND CONDUIT WITH FITTINGS FOR MOUNTING AS SHOWN IN THE PLANS.
- G. CYCLE GEARS OF THE FOLLOWING SIZES: 50, 60, 65, 70 AND 80 SECONDS.

THE BASIC CONTROLLER SHALL BE EAGLE SIGNAL CO. MODEL EF21A-500 OR ECONOLITE - 2TC - 24FI OR CROUSE HINDS PCE 1000 SERIES OR FUNCTIONAL EQUAL.

PAYMENT FOR ITEM 625 PRETIMED TWO PHASE SIGNAL CONTROLLER WILL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH, COMPLETELY INSTALLED, WIRED, TESTED AND ACCEPTED.

- 5.02 THE CABINET SHALL BE CLEAN-CUT IN DESIGN AND APPEARANCE AND SHALL CONFORM TO THE FOLLOWING:

THE MINIMUM USABLE INSIDE DIMENSIONS SHALL BE HEIGHT 25", WIDTH 16", AND DEPTH 12". IT SHALL BE OF SUFFICIENT SIZE TO HOUSE THE CONTROLLER AND ASSOCIATED EQUIPMENT. HINGED DOOR SHALL BE PROVIDED ON THE FRONT OF THE CABINET WHICH SHALL INCLUDE SUBSTANTIALLY THE FULL AREA OF THE FRONT OF THE CABINET. ALL DOORS SHALL BE FULLY GASKETED WITH ELASTOMERIC GASKETING MATERIALS, MAKING THE CABINET WEATHER RESISTANT AND DUST TIGHT. ONE POINT LATCHING SHALL BE PROVIDED FOR THIS PURPOSE.

THE DOOR PINS SHALL BE GREASE-LUBRICATED AND FABRICATED OF A NON-CORRODING STEEL MATERIAL.

THE OUTGOING TRAFFIC CONTROL SIGNAL CIRCUITS SHALL BE OF THE SAME POLARITY AS THE LINE SIDE OF THE POWER SUPPLY: THE COMMON RETURN OF THE SIGNAL CIRCUIT SHALL BE OF THE SAME POLARITY AS THE GROUND SIDE OF THE POWER SUPPLY.

MOUNTING FACILITIES SHALL BE: 2 EACH PAINTED FULL CIRCLE MOUNTING BANDS FOR STEEL POLE MOUNTING. (EAGLE SIGNAL UL 24, OR EQUAL).

THE GROUNDED SIDE OF THE POWER SUPPLY SHALL BE GROUNDED TO THE CONTROLLER CABINET IN AN APPROVED MANNER.

ALL CAST PIECES SHALL BE CLEAN, SMOOTH AND FREE FROM FLAWS, CRACKS, BLOWHOLES AND OTHER IMPERFECTIONS.

THE CABINET SHALL BE PRIME COATED AND SHALL BE FINISHED WITH TWO COATS OF ALUMINUM GRAY PAINT.

PAYMENT FOR THIS WORK WILL BE AT THE UNIT PRICE BID PER EACH ITEM 625 "PRE-TIMED SIGNAL CONTROLLER, TWO PHASE, WITH CABINET," COMPLETE INCLUDING ALL WIRING AND TESTING.

6. GUARANTEE AND WARRANTIES

- 6.01 THE CONTRACTOR SHALL WARRANT OR GUARANTEE SATISFACTORY OPERATION OF ELECTRICAL TRAFFIC CONTROL EQUIPMENT FOR A PERIOD OF THREE MONTHS FOLLOWING ACCEPTANCE OF THE EQUIPMENT BY THE STATE. THE CONTRACTOR'S RESPONSIBILITY SHALL BE LIMITED TO NECESSARY REPAIRS, REPLACEMENT OF DEFECTIVE PARTS WITH PARTS EQUAL TO OR BETTER THAN THOSE ORIGINALLY SPECIFIED AND REMEDYING FAULTY INSTALLATION IN AN APPROVED MANNER: INCLUDING ALL LABOR, MATERIAL AND EQUIPMENT COSTS RELATED THERETO.

THE FOLLOWING ITEMS SHALL BE PROVIDED WITH THE SPECIFIED GUARANTEE:

1. TRAFFIC SIGNAL CONTROLLERS AND ASSOCIATED CONTROL EQUIPMENT.

IN ADDITION, THE MANUFACTURER'S NORMAL WARRANTIES FOR THE ABOVE EQUIPMENT AND OTHER MANUFACTURER'S EQUIPMENT FOR WHICH GUARANTEES ARE NORMALLY PROVIDED SHALL BE ASSIGNED AND DELIVERED TO THE STATE.

THE CONTRACTOR SHALL INSTALL AND HANDLE ITEMS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES, PROVIDED SUCH PROCEDURES ARE NOT IN CONFLICT WITH THE PLANS AND SPECIFICATIONS.

COSTS FOR PROVISION AND PERFORMANCE OF GUARANTEES AND WARRANTIES HEREIN DESCRIBED WILL BE INCIDENTAL TO AND INCLUDED IN THE UNIT PRICE (S) BID FOR THE VARIOUS TRAFFIC CONTROL ITEMS.

7. 844 SIGNS, BY TYPE, AS PER PLAN

- 7.01 SIGN FACE BACKGROUND MATERIAL SHALL BE TYPE F REFLECTIVE SHEETING UNLESS OTHERWISE SPECIFIED IN THE PLANS. THE PROPOSED BACKGROUND COLOR AND LEGEND TYPE SHALL BE SHOWN ON EACH SIGN LAYOUT SHOP DRAWING SUBMITTED FOR REVIEW IN ACCORDANCE WITH 844.04.

8. 844 SPAN WIRE MOUNTED SIGN ATTACHMENT

- 8.01 THIS WORK SHALL CONSIST OF THE FURNISHING AND INSTALLATION OF SPAN WIRE HANGER AND SIGN HANGER BRACE AS DETAILED ON SHEET 6.

BASIS OF PAYMENT WILL BE AT THE CONTRACT BID PRICE PER EACH, 844 SPAN WIRE MOUNTED SIGN ATTACHMENT, WHICH PRICE WILL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK.

9. 844 SIGNS MOUNTED ON SPAN WIRES OR MAST ARMS

- 9.01 IN ADDITION TO 844.07, ALL SIGNS MOUNTED ON SPAN WIRES OR MAST ARMS SHOULD BE FIELD DRILLED.

10. 844 POLE MOUNTED SIGN ATTACHMENT

- 10.01 THIS WORK SHALL CONSIST OF THE FURNISHING AND INSTALLATION OF STAINLESS STEEL STRAPS, MOUNTING BRACKETS, AND HARDWARE AS DETAILED ON SHEET 6.

BASIS OF PAYMENT WILL BE AT THE CONTRACT BID PRICE PER EACH 844 POLE MOUNTED SIGN ATTACHMENT WHICH PRICE WILL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED ITEM OF WORK.

11. 844 DRIVE POSTS

- 11.01 DRIVE POSTS SHALL BE STEEL IN ACCORDANCE WITH 712.20.

12. SEQUENCE OF CONSTRUCTION

- 12.01 THE GROUPING OF ITEMS OR WORK INTO PAY ITEMS INDICATED ABOVE IS NOT INTENDED TO ESTABLISH THE SEQUENCE IN WHICH CONSTRUCTION IS TO BE PERFORMED. THE CONTRACTOR MAY AND IS ENCOURAGED TO REGROUP THE VARIOUS ITEMS OF WORK IN ANY MANNER WHICH WILL ADD TO THE EFFICIENCY, ECONOMY, AND SAFETY OF OPERATIONS IN SECURING A COMPLETE WORKABLE INSTALLATION.

13. COOPERATION WITH VILLAGE OF PLYMOUTH

- 13.01 THE CONTRACTOR IS ADVISED THAT THROUGHOUT THESE PLANS THE VILLAGE OF PLYMOUTH HAS BEEN CALLED UPON TO PERFORM NECESSARY FUNCTIONS. THE CONTRACTOR SHALL COOPERATE WITH AND ARRANGE SUITABLE WORK SCHEDULES, SUBJECT TO THE APPROVAL OF THE ENGINEER, TO PERMIT THE VILLAGE OF PLYMOUTH TO WORK AND OPERATE EQUIPMENT NECESSARY TO CARRYING OUT THESE FUNCTIONS.

14. TRENCH FOR WIDENING

TRENCH EXCAVATION FOR CONCRETE MEDIAN AND PAVEMENT WIDENING SHALL BE PERFORMED ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS, CONES, OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED MATERIALS SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND THE EXCAVATION OPERATIONS. THE LENGTH OF TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

15. CURB RAMPS

CURB RAMPS SHALL BE CONSTRUCTED AT THE LOCATIONS SHOWN ON THE ALIGNMENT SHEETS OR AS SPECIFIED BY THE ENGINEER. CURB RAMP CONSTRUCTION DETAILS SHALL BE BY TYPE AS SHOWN ON STANDARD DRAWING BD-12. THE NORMAL GUTTER LINE PROFILE SHALL BE CONTINUED THROUGH THE RAMP AREA.

PAYMENT FOR ITEM 608, CURB RAMP PER TYPE, SHALL BE AT THE UNIT CONTRACT PRICE BID PER EACH.

- 1.06 UTILITY OWNERS:
THE FOLLOWING IS A LIST OF THE UTILITY OWNERS AFFECTED BY THIS PROJECT:

- A. VILLAGE OF PLYMOUTH, ELECTRIC DEPARTMENT
PLYMOUTH, OHIO, 44865
TELEPHONE (419) 687-4331
- B. GENERAL TELEPHONE COMPANY OF OHIO
29 WEST MAIN STREET
NORWALK, OHIO 44857
TELEPHONE (419) 668-3785
- C. COLUMBIA GAS OF OHIO
33 EAST MAIN STREET
SHELBY, OHIO 44875
TELEPHONE (419) 342-3916
- D. VILLAGE OF PLYMOUTH STREET DEPARTMENT
VILLAGE GARAGE, RT. 61 NORTH
PLYMOUTH, OHIO 44865
TELEPHONE (419) 687-6975

1.07 ELEVATION DATUM:

ALL ELEVATIONS INDICATED IN THESE PLANS ARE BASED ON AN ASSUMED DATUM OF 100.00 FEET WHICH REPRESENTS THE TOP ELEVATION OF A WATER VALVE BOX LOCATED AT STATION 5 + 33 BROADWAY STREET, 35 FEET RIGHT.

1.08 UNDERGROUND UTILITIES:

THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE VILLAGE OF PLYMOUTH DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS.

1.09 SIGNAL SPECIFICATIONS

A. INSTALLATION

- a. THE CONTRACTOR SHALL CONFORM TO THE NATIONAL ELECTRIC CODE AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS IN PERFORMING CONTRACT WORK. HE SHALL OBSERVE THE REGULATIONS OF UTILITIES IN THE AREA OF THEIR EQUIPMENT AND EXERCISE DUE CAUTION IN CONSTRUCTION WORK NEAR THEIR FACILITIES.
- b. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ALL UTILITIES HAVING INSTALLATIONS IN THE AREA TO SECURE AND AFFIRM DATA ON UTILITY LOCATIONS. THESE AGENCIES AND UTILITIES SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO ANY EXCAVATION IN AREAS CONTAINING THEIR INSTALLATIONS.
- c. THE CONTRACTOR SHALL INSTALL THE POWER TO THE CONTROLLER CABINET AND PROVIDE 120/240 VOLTS, 30 AMP SERVICE AS REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING AND PROVIDING THE POWER IN THE MANNER SHOWN IN THE PLANS THROUGH THE VILLAGE OF PLYMOUTH. THE COST OF OBTAINING THE POWER SHALL BE INCLUDED IN THE BID PRICE FOR "POWER CABLE WITH ACCESSORIES".

- 1.10 ELECTRIC POWER SHALL BE OBTAINED FROM THE VILLAGE OF PLYMOUTH, OHIO AT THE LOCATION SHOWN ON THE PLANS. THE VOLTAGE SUPPLIED SHALL BE 120/240 VOLTS.

- 1.11 REFERENCES TO ITEM 625 AND 713 IN THESE PLANS SHALL BE CONSIDERED TO READ AS RESPECTIVE REFERENCES TO ITEMS S625 AND S713.

2. MAINTENANCE OF EXISTING SIGNAL INSTALLATION

- 2.01 THE EXISTING TRAFFIC SIGNAL SHALL BE KEPT IN OPERATION UNTIL THE NEW SIGNAL IS OPERATIONAL. AT THAT TIME, THE EXISTING SIGNAL MAY BE TURNED OFF AND THE NEW SIGNAL ENERGIZED. SIGNAL HEADS SHALL BE COVERED WHEN NOT IN OPERATION, AND THE TRAFFIC MAINTAINED AT THE INTERSECTION BY THE USE OF VILLAGE POLICE FOR THE SHORT PERIOD OF TIME NECESSARY TO MAKE THE CHANGE OVER.

PAYMENT WILL BE INCLUDED IN THE LUMP SUM PRICE BID FOR 614, MAINTENANCE OF TRAFFIC.

3. REMOVAL OF EXISTING SIGNAL INSTALLATION

- 3.01 THIS WORK SHALL CONSIST OF THE REMOVAL OF THE SIGNAL HEADS, CONTROLLER, STRAIN POLES, POLE FOUNDATIONS, CABLES, MESSENGER WIRES, AND ALL OTHER PORTIONS OF THE EXISTING TRAFFIC SIGNAL INSTALLATION. THE EXISTING SIGNAL INSTALLATION SHOULD BE REMOVED AS SOON AS PRACTICAL BY DIRECTION OF THE ENGINEER.

NO ITEM SHALL BE REMOVED UNTIL THE NEW INSTALLATION IS IN FULL OPERATION, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. (SEE 614 MAINTENANCE OF EXISTING SIGNAL INSTALLATION).

THE EXISTING SIGNAL HEADS, CONTROLLER AND STRAIN POLES SHALL BE REMOVED AND STORED ON THE PROJECT AT A LOCATION APPROVED BY THE ENGINEER FOR REMOVAL BY THE VILLAGE. ALL OTHER ITEMS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

PAYMENT FOR 202 REMOVAL OF EXISTING SIGNAL INSTALLATION WILL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH INSTALLATION WHEREIN EXISTING SIGNAL EQUIPMENT IS TO BE REMOVED.

4. 614 MAINTENANCE OF TRAFFIC

- 4.01 TRAFFIC SHALL BE MAINTAINED ON THE EXISTING PAVEMENT WITHOUT INTERRUPTION DURING THE PERFORMANCE OF THE WORK, EXCEPT AS OTHERWISE APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL SET UP AND OPERATE HIS EQUIPMENT IN SUCH A MANNER AS TO ENCROACH UPON THE TRAVELED WIDTH OF PAVEMENT TO A MINIMUM EXTENT.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL FLAGS AND INCIDENTALS RELATED HERETO. PROPER SIGNS, CONES, BARRICADES AND FLAGMEN SHALL BE UTILIZED. THE LUMP SUM BID FOR MAINTAINING TRAFFIC SHALL INCLUDE CONES, BARRICADES, SIGNS, FLAGMEN AND ALL OTHER LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO MAINTAIN TRAFFIC IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR CONSTRUCTION AND MAINTENANCE OPERATION (PART VII).

5. 625 PRETIMED TWO PHASE SIGNAL CONTROLLER WITH CABINET

- 5.01 PRETIMED SIGNAL CONTROLLERS SHALL BE OF THE EXPANSIBLE TYPE, DESIGNED TO PERMIT THE ADDITION OF UP TO THREE PLUG CONNECTED DIAL UNITS WITHOUT ADDITIONAL WIRING OR MODIFICATION OF THE UNIT. THE CONTROLLER SHALL BE PROVIDED WITH ONE DIAL. THE CONTROLLER SHALL BE CAPABLE OF BEING OPERATED WITHIN AN INTERCONNECTED (FLEXIBLE PROGRESSIVE) SYSTEM BY THE ADDITION OF EASILY INSTALLED AUXILIARY ATTACHMENTS.

THE BASIC CONTROLLER SHALL BE EQUIPPED WITH THE FOLLOWING AUXILIARY ITEMS WHICH SHALL BE COMPATIBLE TO THE OPERATION OF THE CONTROLLER AS SHOWN IN THE PLANS:

- A. JACK MOUNTED FLASHER WITH NOISE SUPPRESSOR AND MANUAL SWITCH FOR CHANGING FROM FLASHER TO STOP AND GO OPERATION.

SPRING STREET

CALCULATED BY: DC - MAY, 1975
CHECKED BY: UCL - JUNE, 1975

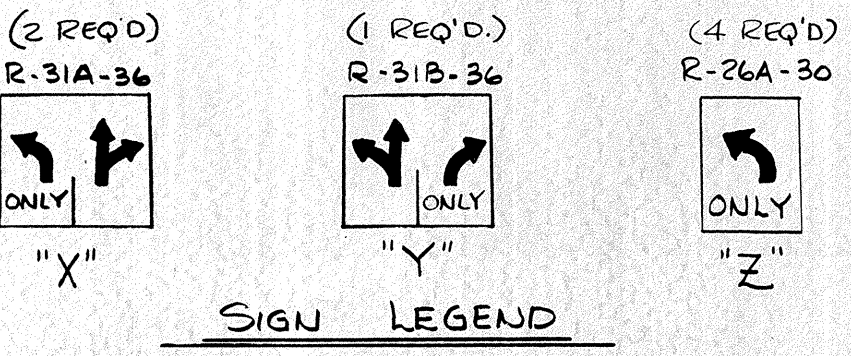
PAVEMENT MARKING SUMMARY (ITEM 621)

HUR-61-0.00
RIC-61-14.07

SIGNAL TIMING

SIG	OA	OB	FLASH
1	R R G Y	Y	Y
2	R R G Y	Y	Y
3	R R G Y	Y	Y
4	R R G Y	Y	Y
5	G Y R R	R	R
6	G Y R R	R	R
7	G Y R R	R	R
8	G Y R R	R	R
TIM. SEC.	21	33	3
%	35	55	5

SIGNAL PHASING



NOTE: 1. POWER TO BE SUPPLIED BY VILLAGE OF PLYMOUTH.
2. EXISTING SIGNS REMOVED & RE-ERECTED BY VILLAGE.

STATION	CHANNELIZING LINE (WHITE)	CENTER LINE (SOLID DOUBLE)	CROSSWALK LINES (8")	12" BROAD TRANSVERSE LINE (YELLOW)	24" STOP LINES	PARKING LOT STALL MARKING	LANE ARROWS	WORD ONLY
STATE ROUTE #61								
96+95 - 97+00	-	5 C/L	-	-	-	-	-	-
97+00 - 98+80	-	360 L&R	-	-	-	-	-	-
98+80 - 98+85	-	5 L	-	-	-	-	-	-
98+85 - 99+40	53R	53 L	-	-	27 L&R	-	1 EA	1 EA
99+40 - 99+54	-	-	95 L&R	-	-	-	-	-
100+29 - 100+43	-	-	105 L&R	-	-	-	-	-
100+43 - 101+15	70L	70R	50 R	-	52 L&R	-	1 EA	1 EA
101+15 - 101+20	-	5R	10 R	-	-	-	-	-
101+20 - 102+75	-	510 L&R	-	155 C/L	-	-	-	-
102+75 - 102+85	-	10 C/L	-	-	-	-	-	-
BROADWAY ST.								
1+18 - 1+23	-	5 C/L	-	-	-	-	-	-
1+23 - 3+83	-	520 L&R	-	260 C/L	-	787 L&R	-	-
3+83 - 3+88	-	5 L	-	-	-	-	-	-
3+88 - 4+57	100 R	64 L	-	-	46 L&R	207 L&R	1 EA	1 EA
4+57 - 4+71	-	-	118 L&R	-	-	-	-	-
4+71 - 5+49	-	-	118 L&R	-	-	-	-	-
5+49 - 6+12	72 L - 52R	61 R	-	-	28 L&R	24 R	1 EA	1 EA
6+12 - 6+84	93 R - 63R	70 R	-	-	-	22 L-24R	1 EA	1 EA
6+84 - 7+22	47 R	-	-	-	-	-	-	-
TOTALS	550 L.F.	1543 L.F.	685 L.F.	415 L.F.	153 L.F.	1064 L.F.	5 EA	5 EA

LEGEND

- PROPOSED STEEL STRAIN POLE
- ⊠ SIGNAL CONTROLLER
- ONE-WAY FACE SIGNAL HEAD
- EXISTING SIGNAL ASSEMBLY
- === EXISTING CURB LINE
- ⊙ STREET LIGHTS
- BM TOP OF WATER VALVE BOX STA. 5+33.35' RT.
- BM TOP NUT OF HYDRANT STA. 99+35.24' LT.
- ▢ CURB RAMPS

SIGNAL PLACEMENT PLAN - INTERSECTION OF SANDUSKY ST. WITH BROADWAY ST.

GENERAL CONSTRUCTION DETAIL NOTES:

1.) CONCRETE WALK REMOVAL:

AT THOSE LOCATIONS WHERE NEW CONSTRUCTION ABUTS EXISTING CONCRETE AND THERE IS NO JOINT, THE CONCRETE SHALL BE SAWS WITH A SUITABLE POWER SAW. ANY ADDITIONAL COST IN CONNECTION WITH THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE 202 REMOVAL ITEM.

2.) GRANULAR FILL

GRANULAR FILL SHALL MEET THE SPECIFICATION OF ITEM 310.02, GRADE A, AND THE COST OF THE MATERIAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 608 CONCRETE WALK.

3.) PAVEMENT REPLACEMENT:

THE COST OF REPLACING ADJACENT ASPHALT PAVEMENT DISTURBED BY THE CONSTRUCTION OF CURBS, TRAFFIC ISLANDS AND MEDIANS, AS PER DETAILS SHOWN, SHALL BE INCLUDED IN THE PERTINENT UNIT PRICE FOR ITEM 609 OR 612. PAVEMENT DISTURBED SHALL BE REPLACED WITH ITEM 404 ASPHALTIC CONCRETE (AC-20).

HUE-61-0.00
RIC-61-14.07

GENERAL SUMMARY

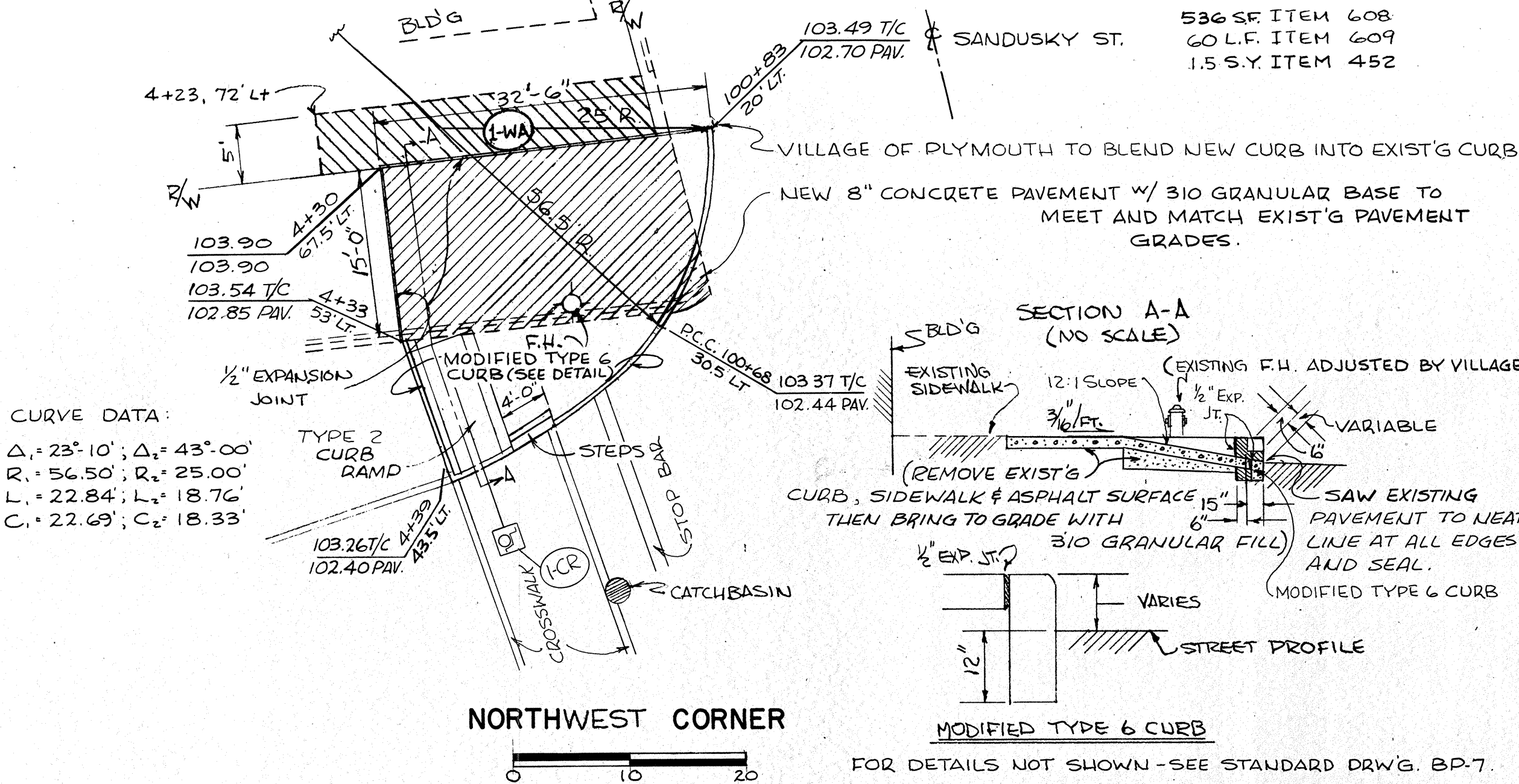
LINE NO.	QUAN	ITEM NO	UNIT	DESCRIPTION
1	1	842	EA.	SIGNAL STRAIN POLE, 3 GAUGE, 12'x8.36x26'-0"
2	1	842	EA.	SIGNAL STRAIN POLE, 3 GAUGE, 12'x9.36x28'-0"
3	4.2	842	C.Y.	CONCRETE FOR ANCHOR BASE FOUNDATION
4	2	842	EA.	VEHICULAR SIGNAL HEAD, 3 SECTION, 2'-8" LENS, 1'-12" LENS, FOUR WAY
5	106	842	L.F.	MESSANGER WIRE, 7 STRAND, 7/16" DIA, WITH ACCESSORIES
6	157	842	L.F.	SIGNAL CABLE, 13 CONDUCTOR NO. 14 AWG
7	50	842	L.F.	POWER CABLE, 3 CONDUCTOR NO. 8 AWG
8	1	625	EA.	PRETIMED 2 PHASE SIGNAL CONTROLLER WITH CABINET
9	2	625	EA.	GROUND ROD
10				
11	1	202	EA.	REMOVAL OF EXISTING SIGNAL INSTALLATION
12	98	202	L.F.	CURB REMOVED
13	166	202	S.Y.	PAVEMENT OR PAVEMENT WEARING COURSE REMOVED
14	1230	202	S.F.	SIDEWALK REMOVED
15				
16	6.5	452	S.Y.	8" PLAIN PORTLAND CEMENT CONCRETE PAVEMENT
17	1765	608	S.F.	4" CONCRETE WALK, AS PER PLAN
18	8	608	L.F.	CONCRETE STEPS, AS PER PLAN
19	1395	609	L.F.	CURB, TYPE 6, MODIFIED
20	106	612	S.Y.	CONCRETE TRAFFIC ISLAND AS PER PLAN
21	4	608	EA.	CURB RAMP, TYPE 1
22	3	608	EA.	CURB RAMP, TYPE 2
23	0.292	621	MI.	CENTER LINES
24	550	621	L.F.	CHANNELIZING LINES
25	685	621	L.F.	CROSSWALK LINES: 8"
26	415	621	L.F.	BROAD TRANSVERSE LINES: 12"
27	153	621	L.F.	STOP LINES: 24"
28	1064	621	L.F.	PARKING LOT STALL MARKINGS
29	5	621	EA.	LANE ARROWS
30	5	621	EA.	WORD ON PAVEMENT, AS PER PLAN
31	2	842	EA.	CABLE SUPPORT ASSEMBLY
32	2	842	EA.	COVERING OF TRAFFIC SIGNALS
33	28	844	L.F.	GROUND MOUNTED SUPPORTS, #6
34	52.5	844	S.F.	SIGNS, FLAT SHEET
35	3	844	EA.	SPAN WIRE MOUNTED SIGN ATTACHMENT
36	1	844	EA.	POLE MOUNTED SIGN ATTACHMENT
37				
38				
39	LUMP	614	LUMP	MAINTAINING TRAFFIC
40	LUMP	623	LUMP	CONSTRUCTION LAYOUT STAKES
41				

CALCULATED BY: G. J. MAY 1974

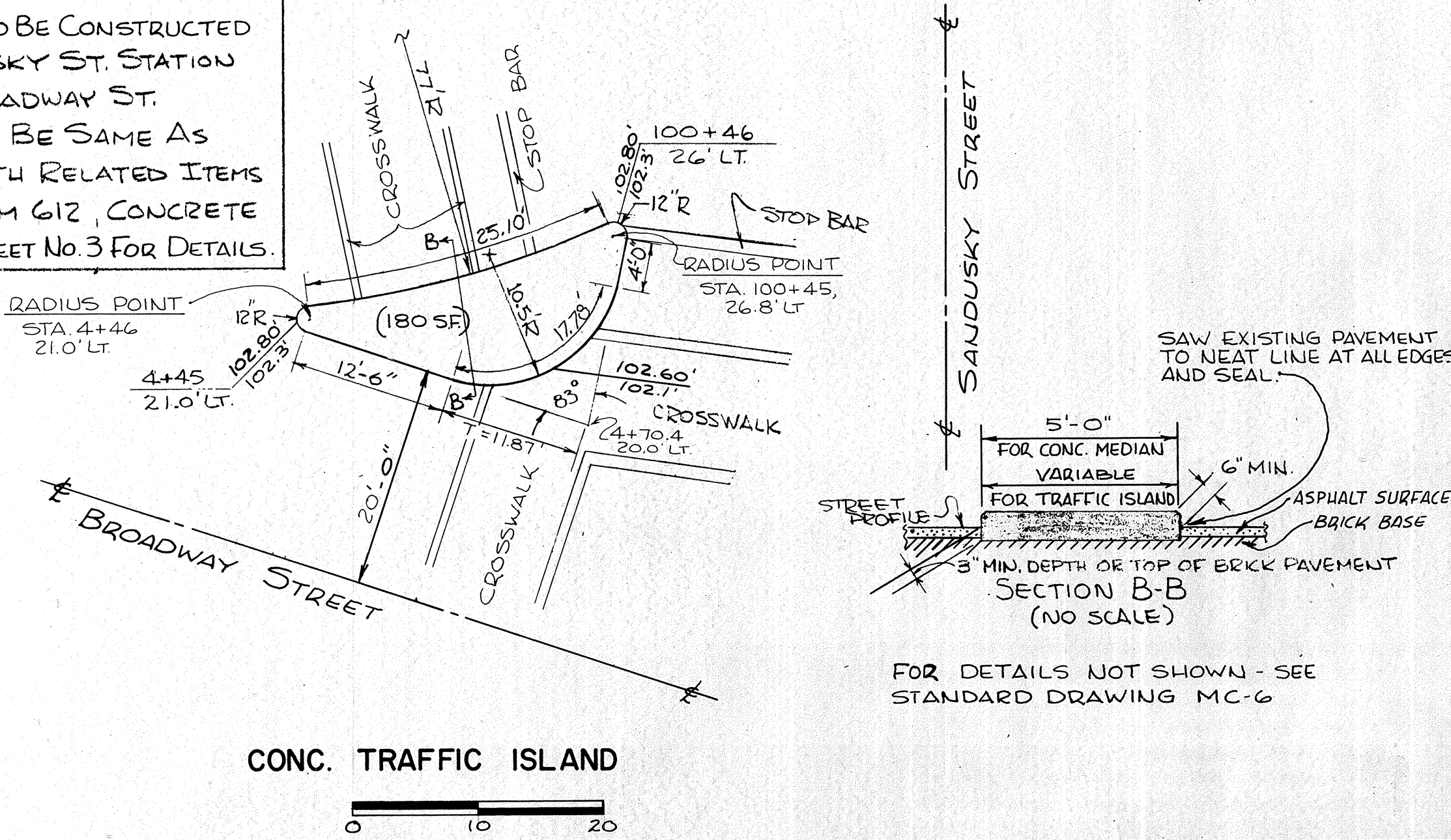
CHECKED BY: U.C.L. JR. JUNE 1975 & AUGUST 1975

CONSTRUCTION DETAILS

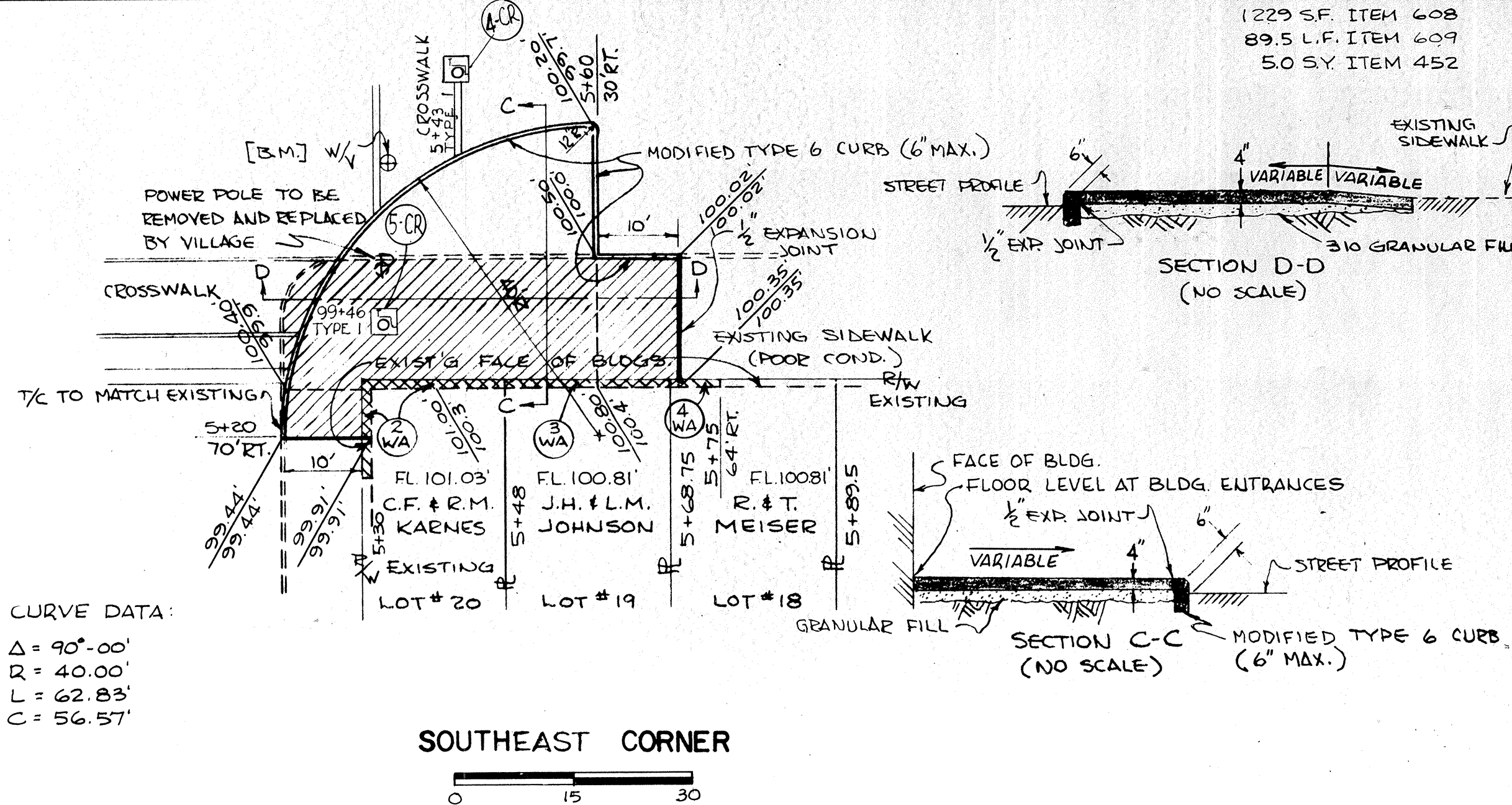
NOTE: EXPANSION JOINTS, ASPHALT CONCRETE (AC-20) REPAIR, & ITEM 310 SUBBASE TO BE INCLUDED IN ITEM 608, CONCRETE WALK.



NOTE: CONCRETE MEDIAN TO BE CONSTRUCTED BETWEEN SANDUSKY ST. STATION 100+90 RT. AND BROADWAY ST. STATION 6+11 LT. TO BE SAME AS SECTION B-B WITH RELATED ITEMS INCLUDED IN ITEM 612, CONCRETE MEDIAN. SEE SHEET NO. 3 FOR DETAILS.



NOTE: EXPANSION JOINTS, ASPHALT CONCRETE (AC-20) REPAIR, & ITEM 310 SUBBASE TO BE INCLUDED IN ITEM 608, CONCRETE WALK.



HUR-61-0.00
RIC-61-14.07

NOTES

- MATERIAL SPECIFICATIONS**
1. TAPERED TUBES S.A.E.-1020 STEEL PROCESSED TO MINIMUM YIELD STRESS OF 55,000 P.S.I.
 2. CAST ANCHOR BASE & HANDHOLE FRAME - ASTM-A27- GRADE 65-35.
 3. HANDHOLE COVER PLATE - 11GA. STEEL SAE-1015
 4. CAST ALUMINUM POLE TOP - ALUMINUM ALLOY 43
 5. SPAN WIRE CLAMP - LOW ALLOY, HIGH STRENGTH STEEL ASTM-A242- OR 375, LOAD PRODUCING DISTORTION 12,500 LBS. DIRECT TENSION
 6. ALL BOLTS & NUTS LESS THAN 5/8" DIA. PASSIVATED STAINLESS STEEL AISI-300 SERIES - COMMERCIAL GRADE.
 7. ALL OTHER NUTS & BOLTS 5/8" DIA. & OVER - ASTM-A307 AND GALVANIZED IN ACCORDANCE WITH ASTM-A153
 8. ANCHOR BASE & U-BOLTS - HIGH STRENGTH STEEL - MINIMUM YIELD STRESS 55,000 LBS. SQ. IN. - MIN. ULTIMATE 90,000 P.S.I.
 9. WELDING ROD - ASTM-A233 - CLASS E60XX OR 70XX.
 10. GALVANIZING - WHEN SPECIFIED ASTM-A123.

TRAFFIC SIGNAL POLE FOUNDATIONS

THE CONTRACTOR SHALL STAKE THE LONGITUDINAL AND LATERAL LOCATION, AND THE ELEVATION OF THE TOP OF EACH FOUNDATION SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER ELEVATION, OFFSET, AND LEVEL OF EACH FOUNDATION. THE FOUNDATION LOCATIONS MAY BE CHANGED AS DIRECTED BY THE ENGINEER, IN CASE OF SLOPE OR SUBSURFACE DIFFICULTIES. EXCAVATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 503. EXCAVATION SHALL BE TO THE DIMENSIONS SHOWN ON THE PLANS, AND SHALL BE PERFORMED BY MEANS OF AN EARTH AUGER OF THE SPECIFIED DIA. UNLESS OTHERWISE DIRECTED BY THE ENGINEER. WHERE SUBSURFACE OBSTRUCTIONS ARE ENCOUNTERED, THE ENGINEER MAY REQUIRE THE CONTRACTOR TO REMOVE THE OBSTRUCTION OR TO REPLACE THE EXCAVATED MATERIAL AND RELOCATE THE FOUNDATION. IF CAVING OF THE EXCAVATION OCCURS, THE CONTRACTOR SHALL EXCAVATE THE SPECIFIED DEPTH MAINTAINING THE SIDES AS NEARLY VERTICAL AS POSSIBLE. NO PAYMENT SHALL BE MADE FOR ANY EXCAVATION, CONCRETE, OR REINFORCING STEEL USED IN EXCESS OF THE PLAN QUANTITIES. CONCRETE, CLASS C, SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 511, AND SHALL BE PLACED AGAINST UNDISTURBED SOIL OR COMPACTED EMBANKMENT. STEEL REINFORCEMENT BARS, WHERE REQUIRED, SHALL BE POSITIONED AS SHOWN ON THE PLANS AND PLACED IN ACCORDANCE WITH ITEM 509. CYLINDRICAL ANCHOR BASE TYPE FOUNDATIONS FOR TRAFFIC SIGNAL POLES SHALL HAVE ANCHOR BOLTS AND CONDUIT ACCURATELY HELD IN POSITION WITH A TEMPLET WHILE CONCRETE IS PLACED. FORMS SHALL BE USED FOR THE UPPER PORTIONS OF ALL FOUNDATIONS AND NO BACKFILLING SHALL BE PERMITTED FROM THE BOTTOM TO SIX INCHES BELOW THE GRADE LEVEL. NO GROUTING OF CONCRETE SHALL BE PERMITTED BETWEEN THE FOUNDATION TOP AND THE POLE BASE. **TRAFFIC SIGNAL POLE** WHERE A WIRE ENTRANCE IS REQUIRED, THE SERVICE ENTRANCE HEAD SHALL BE LOCATED APPROXIMATELY 12" BELOW SPAN WIRE CLAMP.

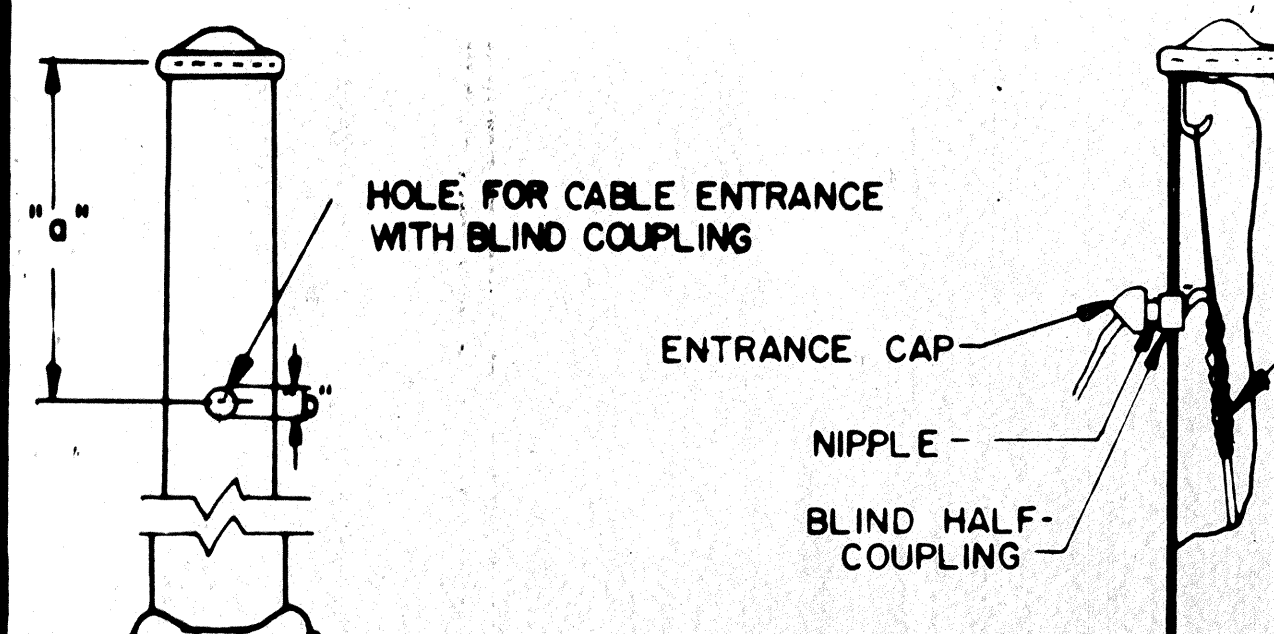
GROUND ROD

GROUND ROD SHALL BE IN ACCORDANCE WITH TYPICAL GROUND ROD DETAIL AND TESTED IN ACCORDANCE WITH 625.22 CONSTRUCTION AND MATERIAL SPECIFICATIONS.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

STEEL STRAIN POLE & FOUNDATION DETAILS

APPROVED _____
ENGINEER OF TRAFFIC

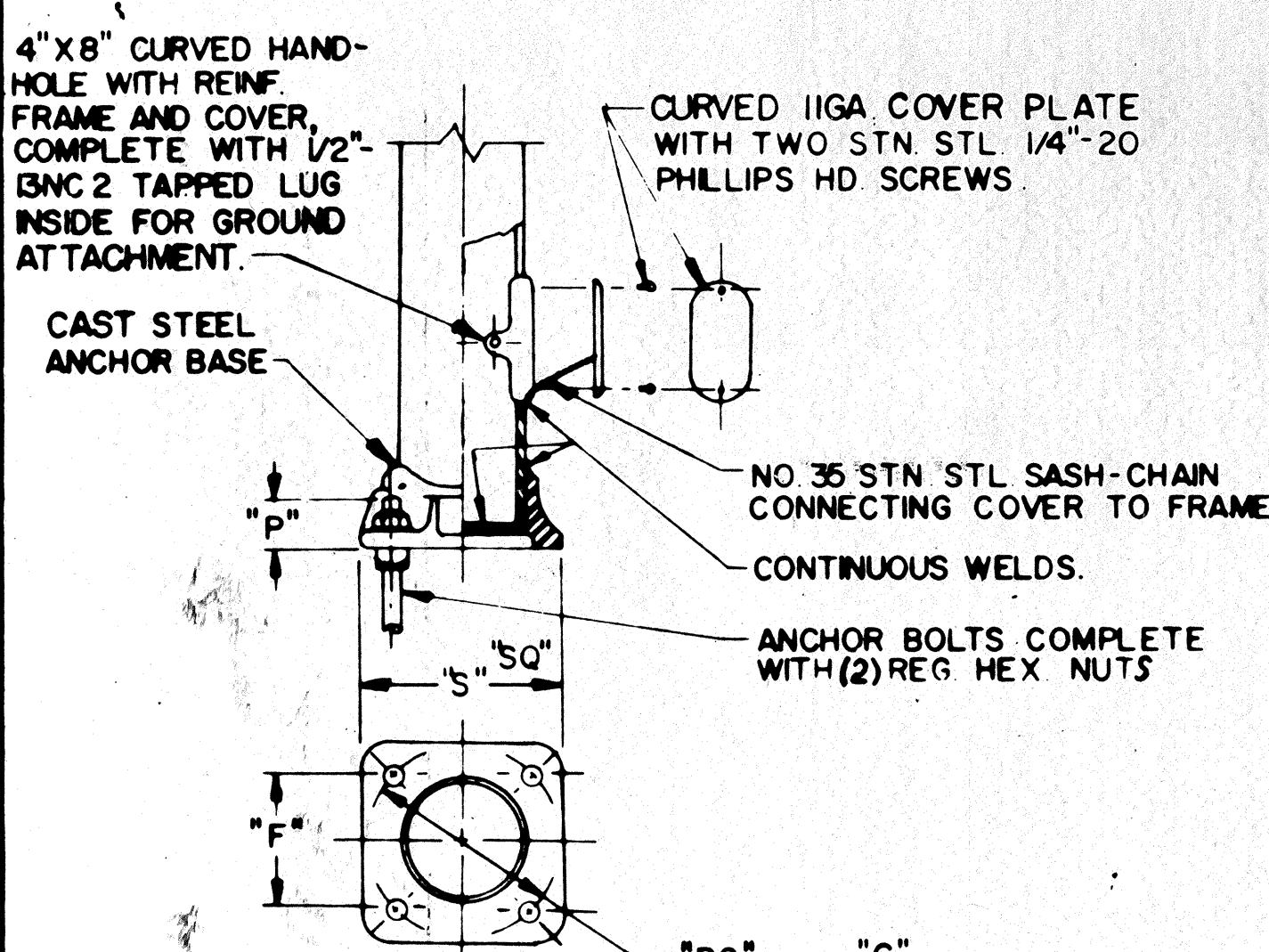


TYPICAL CABLE STRAIN RELIEF & ENTRANCE CAP DETAILS

TABLE 2

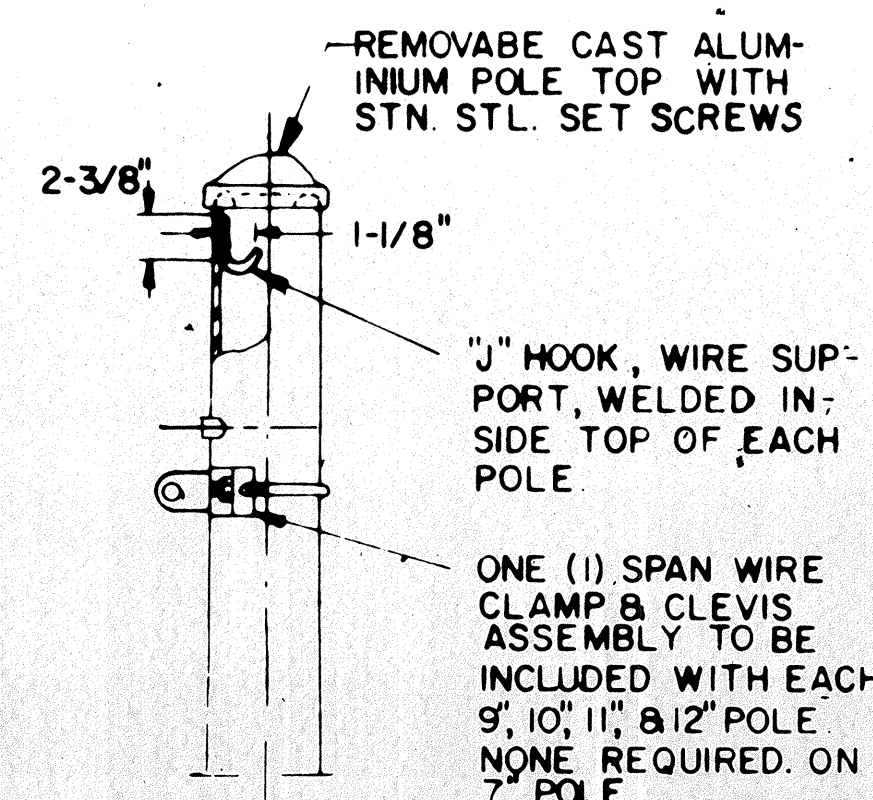
CONFIG	"a"	"b"	"c"
A	30"	2"	90°
B	30"	2"	180°
C	30"	2"	270°
D	48"	2"	90°
E	48"	2"	180°
F	48"	2"	270°
G	NO HOLE REQUIRED		

CABLE ENTRANCE LOCATION DETAIL

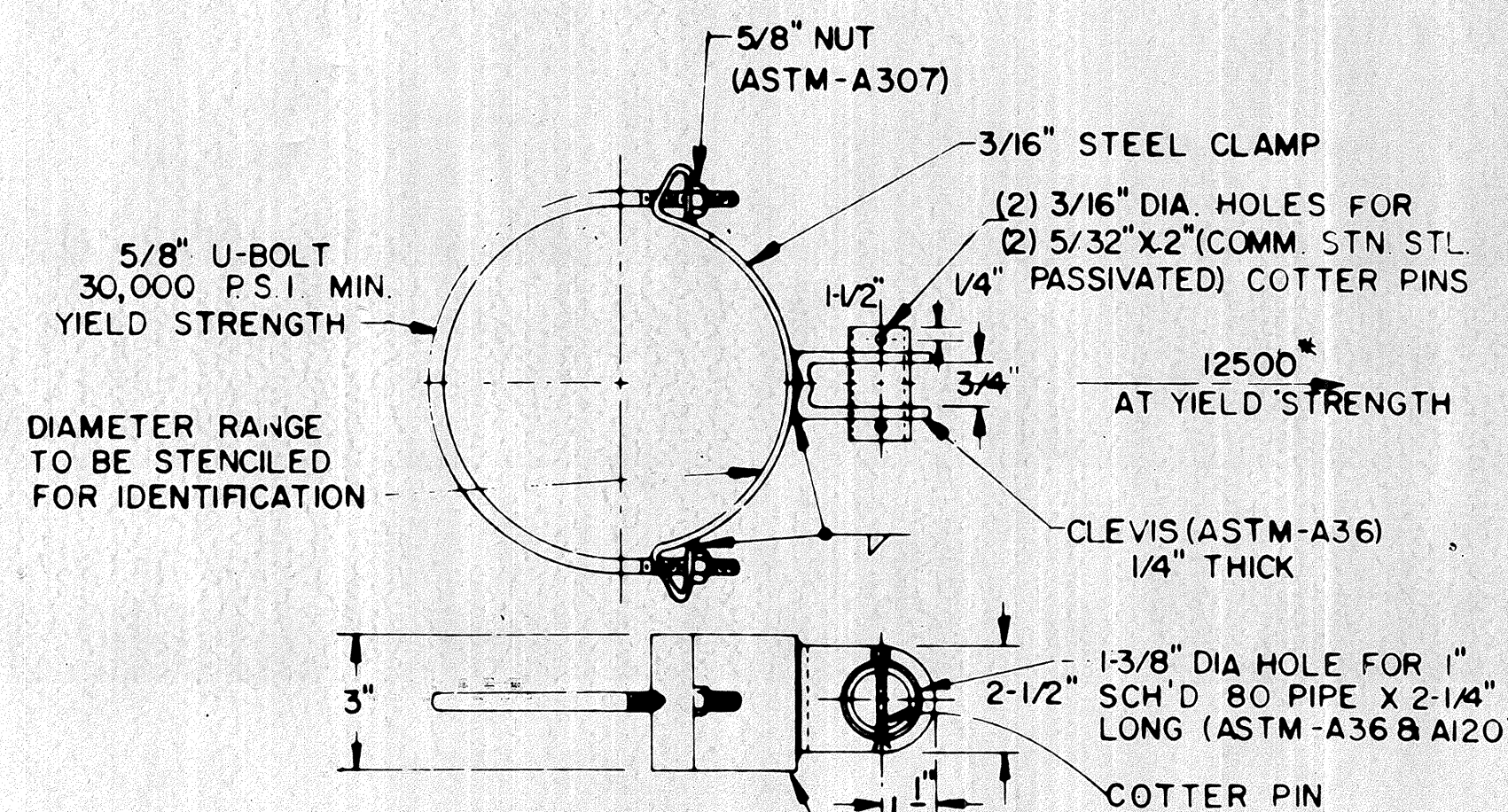


ANCHOR BASE DATA					ANCHOR BOLT DATA				
POLE DIA.	"BC"	"F"	"S"	"P"	SIZE	L	T	G	
7"	10"	7 1/16"	1 1/2"	2 1/4"	1/4" X 48"	42"	8"	10"	
9"	12 1/2"	8 7/8"	1 1/2"	3"	1/2" X 60"	54"	9"	11"	
10"	13 1/2"	9 5/8"	1 1/2"	3 3/8"	1/2" X 60"	54"	9"	11"	
11"	15"	10 5/8"	1 1/2"	3 3/8"	3/4" X 90"	84"	9"	11"	
12"	16"	11 5/8"	1 1/2"	4"	3/4" X 90"	84"	9"	11"	

TYPICAL HANDHOLE, ANCHOR BASE & ANCHOR BOLT DETAILS

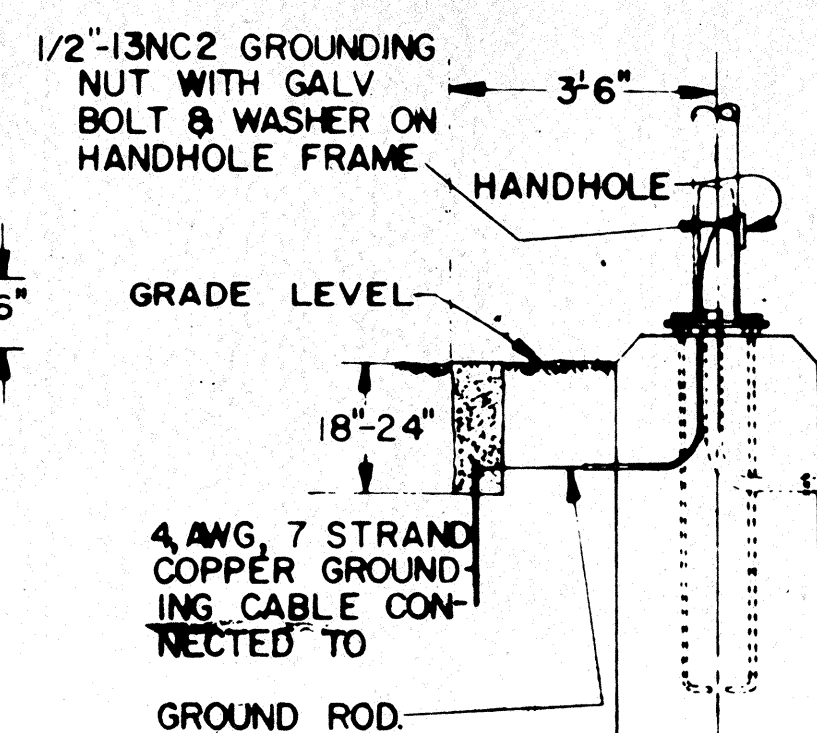


POLE TOP DETAILS



TYPE	CLAMP RANGE MIN.	MAX.
I	3.1"	3.6"
II	3.6"	4.4"
III	4.4"	5.2"
IV	5.2"	5.8"
V	5.8"	6.8"
VI	6.8"	7.9"
VII	7.9"	9.0"
VIII	9.0"	10.1"
IX	10.1"	11.3"
X	11.3"	12.1"
XI	12.1"	13.4"
XII	13.4"	14.5"
XIII	14.5"	15.5"
XIV	15.5"	16.5"

SPAN WIRE CLAMP DETAILS

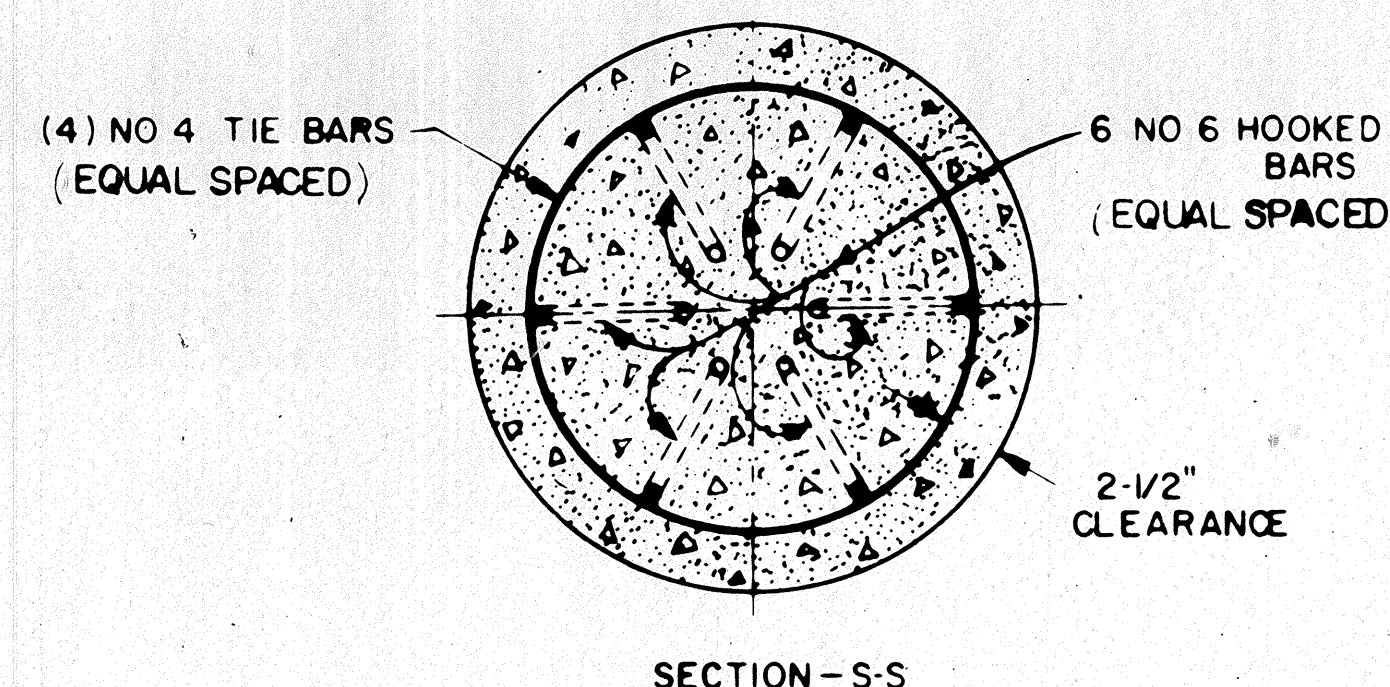
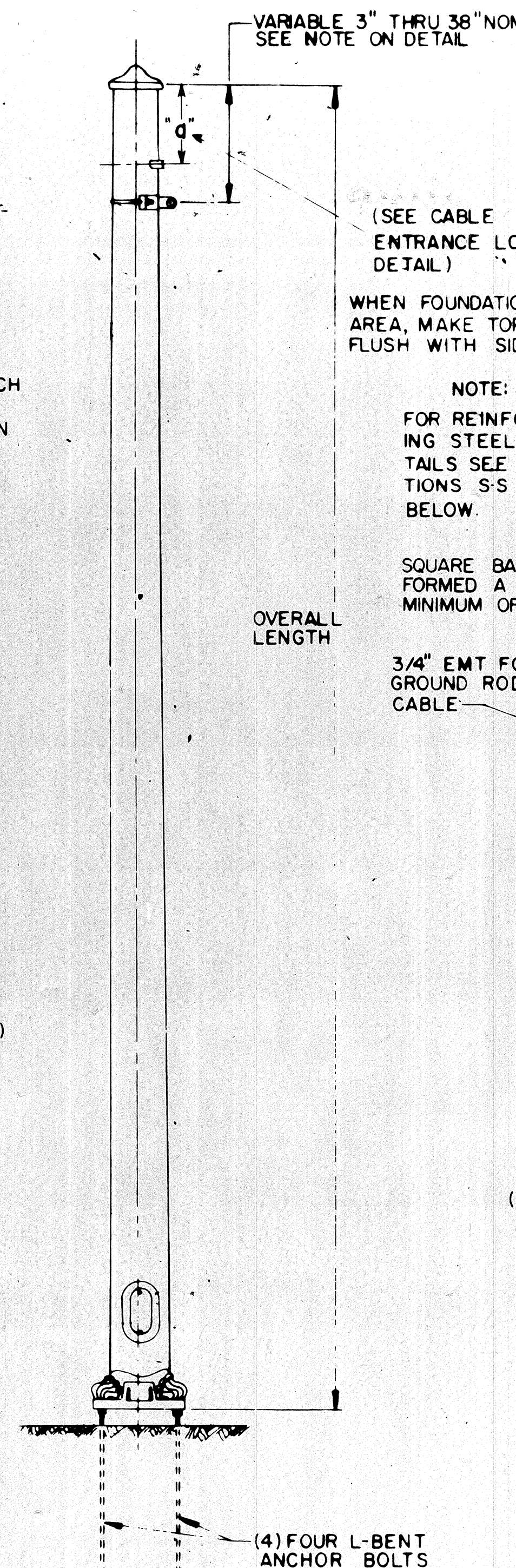


TYPICAL GROUND ROD DETAIL

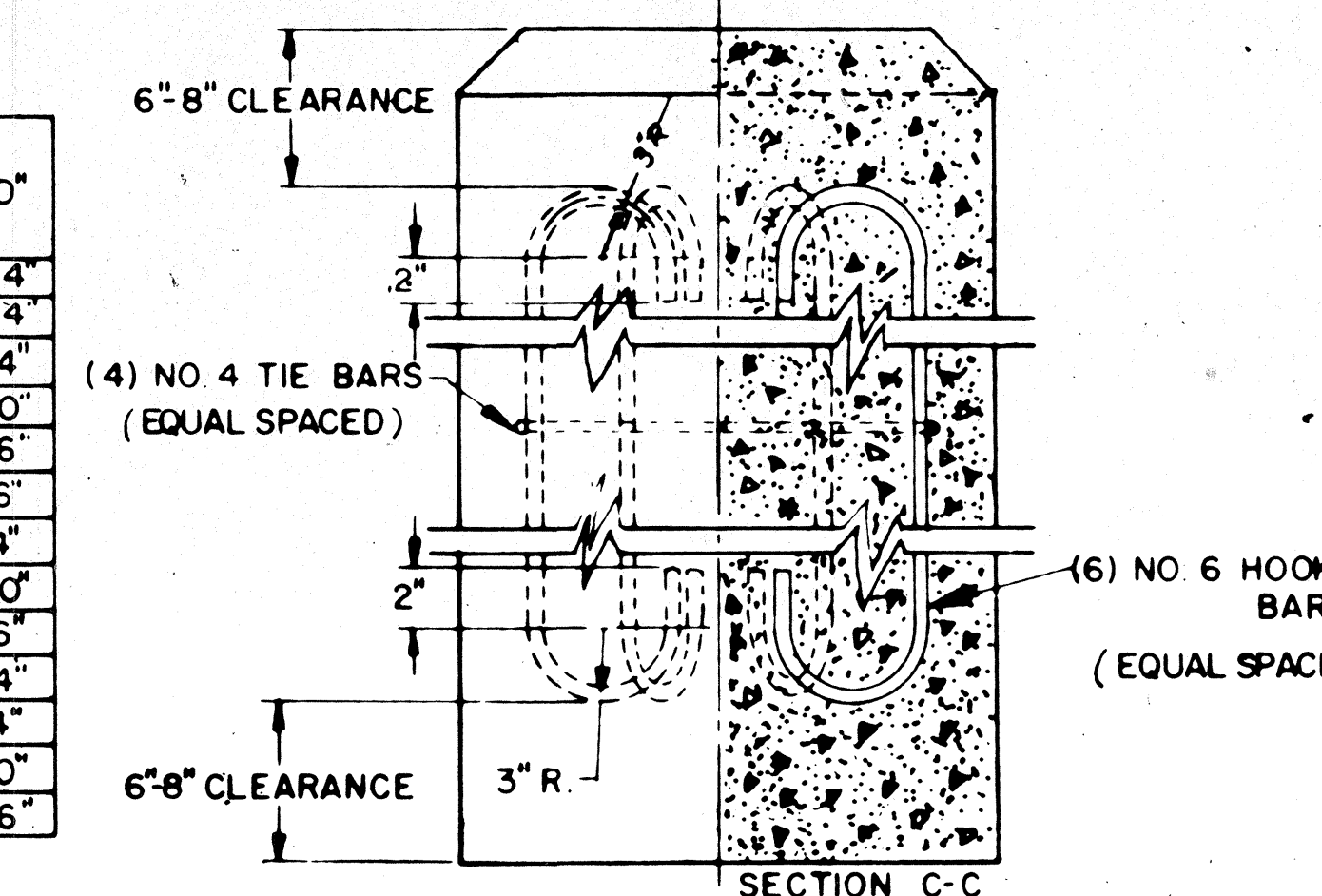
STEEL STRAIN POLE

TYPE	BASE DIA.	TOP DIA.	OVERALL LENGTH	WALL THICKNESS	DESIGN DATA FOR TRANSVERSE LOAD AT 18" DOWN FROM TOP OF POLE	"H"	"D"
1	7.0"	4.20"	20.0'	(3 GA.) 250"	159,700* 2135*	42"	24"
2	9.0"	6.36"			64,700* 2730*	54"	24"
3	10.0"	6.36"	26.0'		44,700* 3400*	54"	24"
4	11.0"	7.36"			32,700* 4100*	84"	30"
5	12.0"	8.36"			24,700* 4960*	84"	36"
6	14.0"	10.36"			16,700* 6854*	84"	36"
7	10.0"	6.08"	28.0'		54,700* 3140*	54"	24"
8	11.0"	7.08"			41,700* 3850*	84"	30"
9	12.0"	8.08"			31,700* 4590*	84"	36"
10	9.0"	4.80"	30.0'		110,700* 2350*	54"	24"
11	10.0"	5.80"			74,700* 2920*	54"	24"
12	11.0"	6.80"			53,700* 3560*	84"	30"
13	12.0"	7.80"			39,700* 4260*	84"	36"

STRAIN POLE TYPES

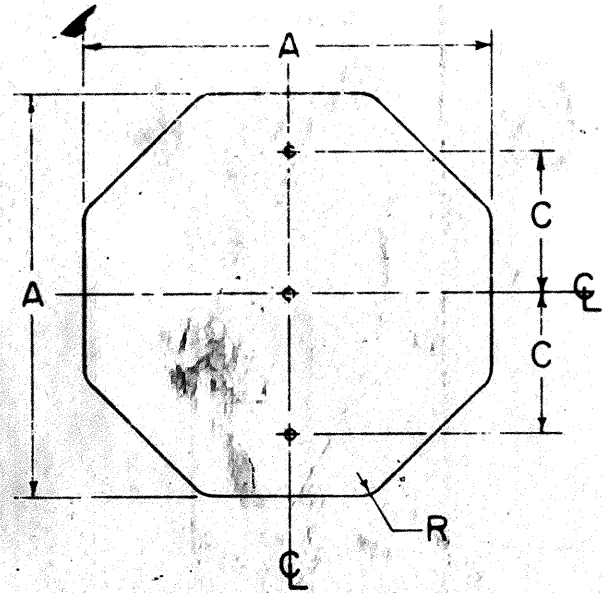


TYPICAL STRAIN POLE FOUNDATION

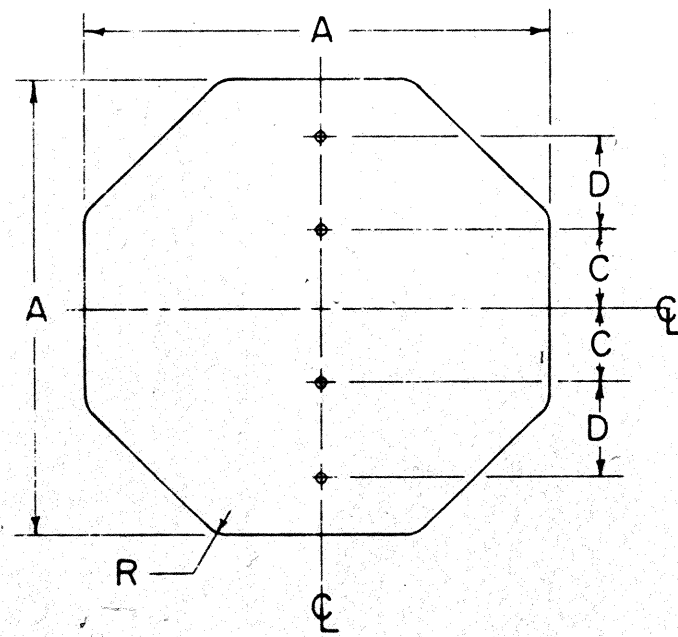


TYPICAL REINFORCING STEEL SECTIONS

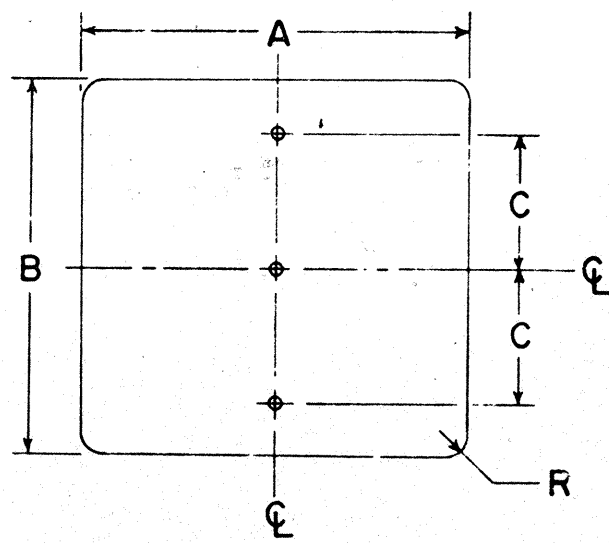
HUR-61-0.00
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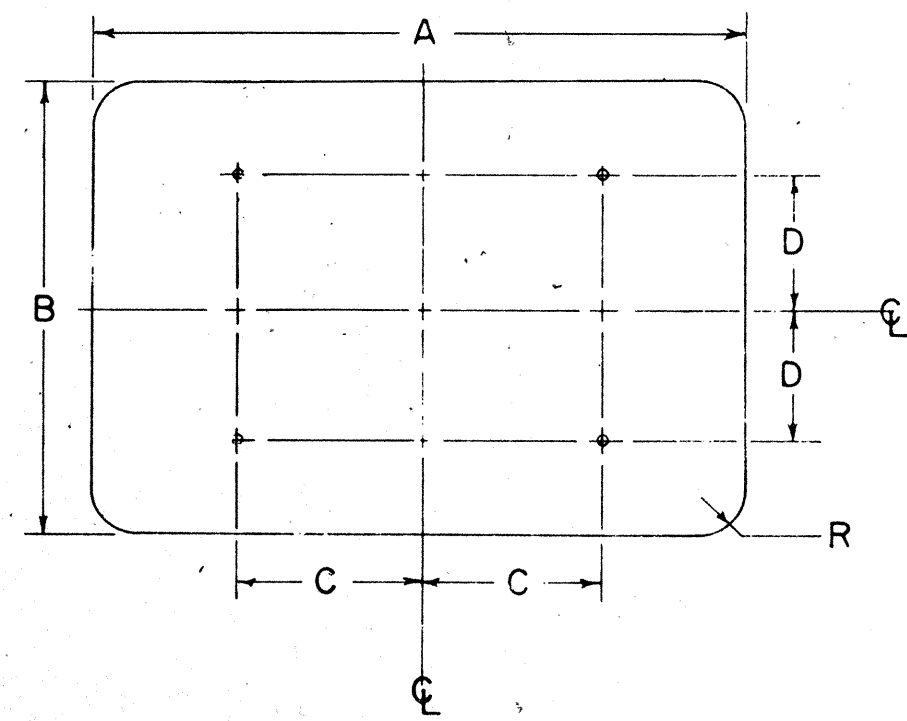
A	C	R	GAUGE
30	8	1 1/2	.080
36	8	1 1/2	.080



A	C	D	R	GAUGE
48	8	10	1 1/2	.100

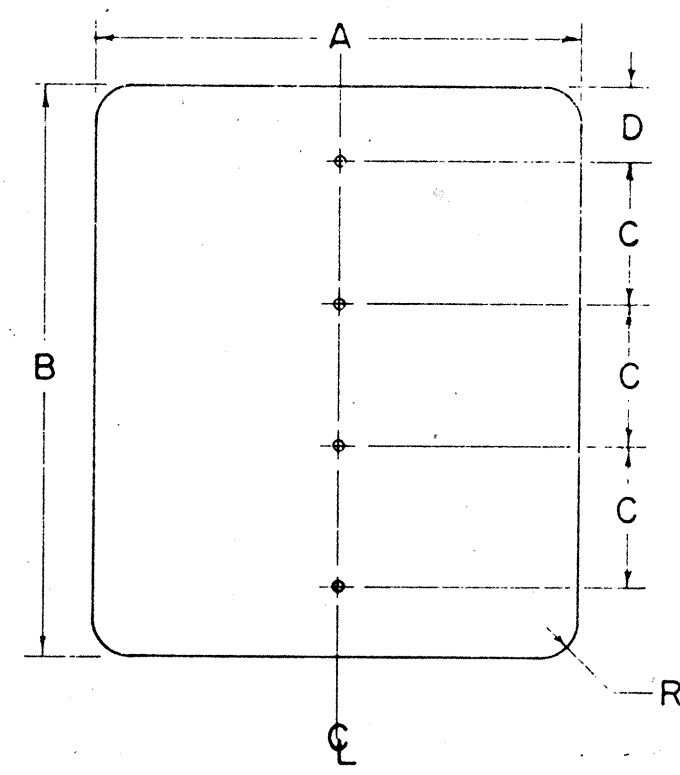


A	B	C	R	GAUGE
24	30	8	1 1/2	.063
24	48	15	1 1/2	.100
30	36	11	1 1/2	.080
30	42	12	1 1/2	.080
36	36	11	1 1/2	.080
36	42	15	1 1/2	.080
36	48	15	1 1/2	.080
48	24	10	3	.100
48	36	13	3	.100

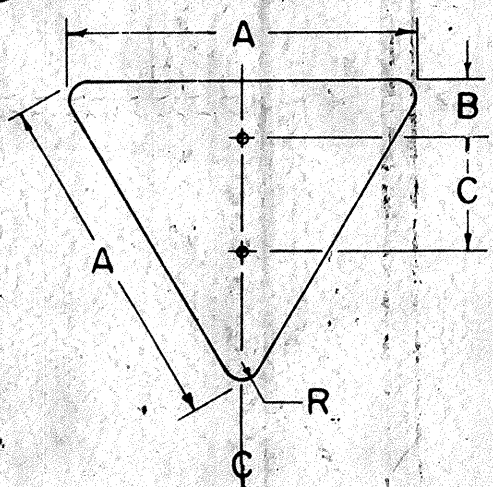


A	B	C	D	R	GAUGE
48	48	22	16	3	.100
48	60	22	22	3	.100

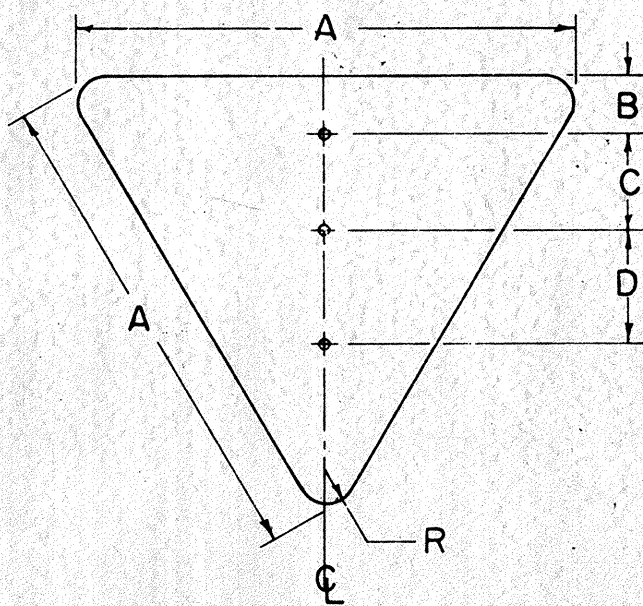
SPEED LIMIT SIGNS ON TWO SUPPORTS



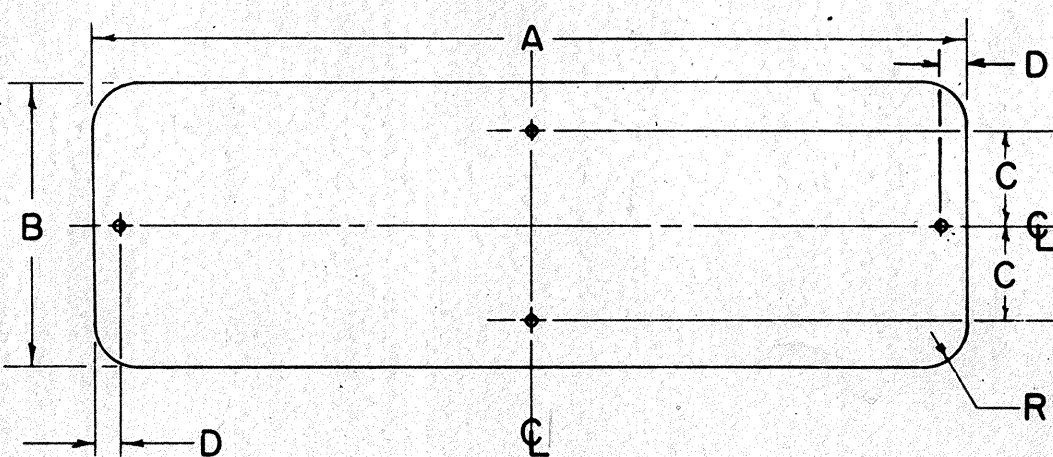
A	B	C	D	R	GAUGE
48	48	12	6	3	.100
48	60	15	7 1/2	3	.100



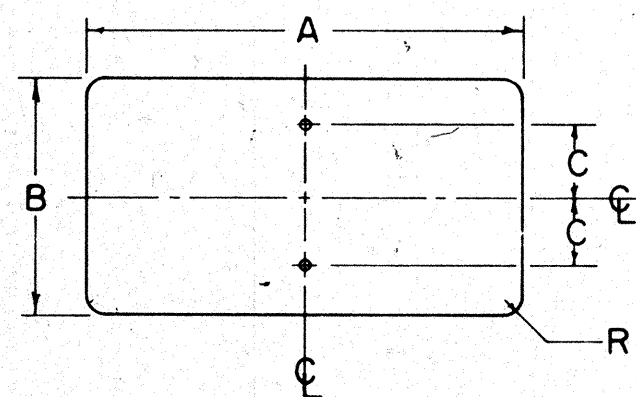
A	B	C	R	GAUGE
36	3	1/16	2 1/2	.080



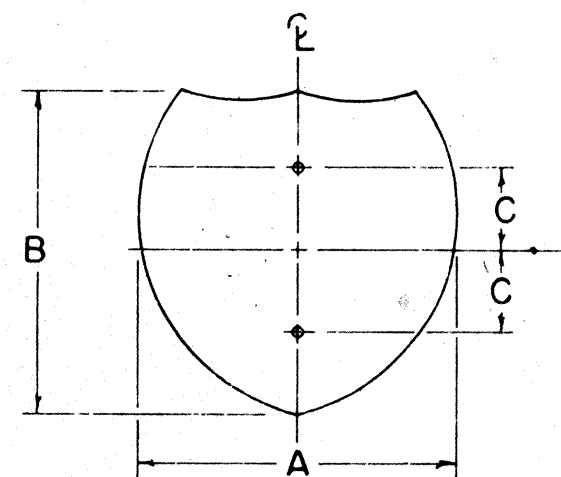
A	B	C	D	R	GAUGE
48	4	10	15	3	.100
60	5	10	15	4	.100



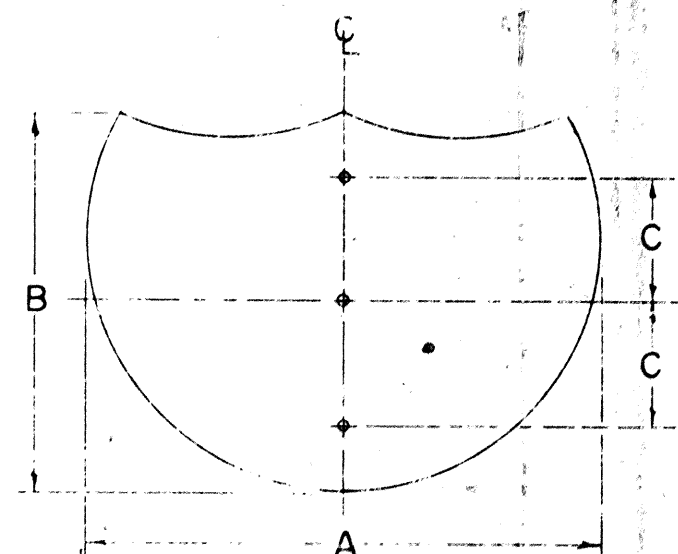
A	B	C	D	R	GAUGE
36	12	4	1	1 1/2	.080
72	12	—	16	1 1/2	.100
60	12	—	13	1 1/2	.100



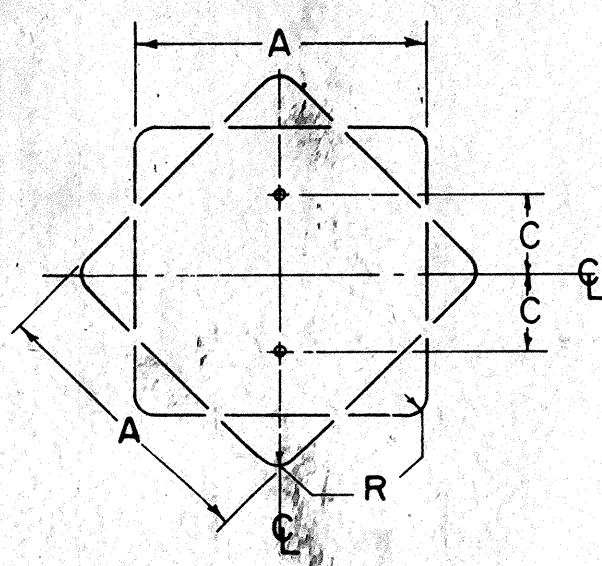
A	B	C	R	GAUGE
12	6	1 1/2	1 1/2	.063
20	15	6	1 1/2	.063
24	12	4 1/2	1 1/2	.063
24	18	7 1/2	1 1/2	.063
8	26	8	1	.063
36	18	7 1/2	1 1/2	.080



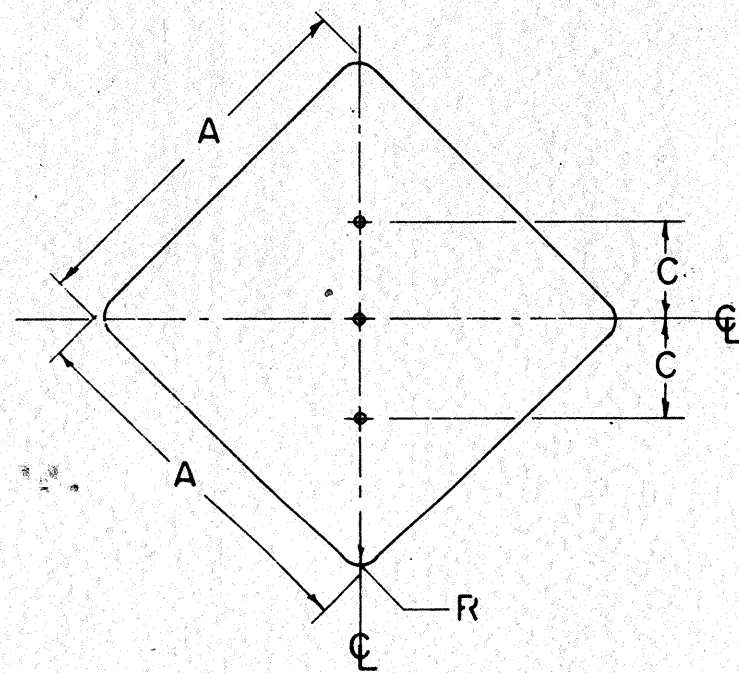
A	B	C	GAUGE
24	24	8	.063
30	24	8	.080



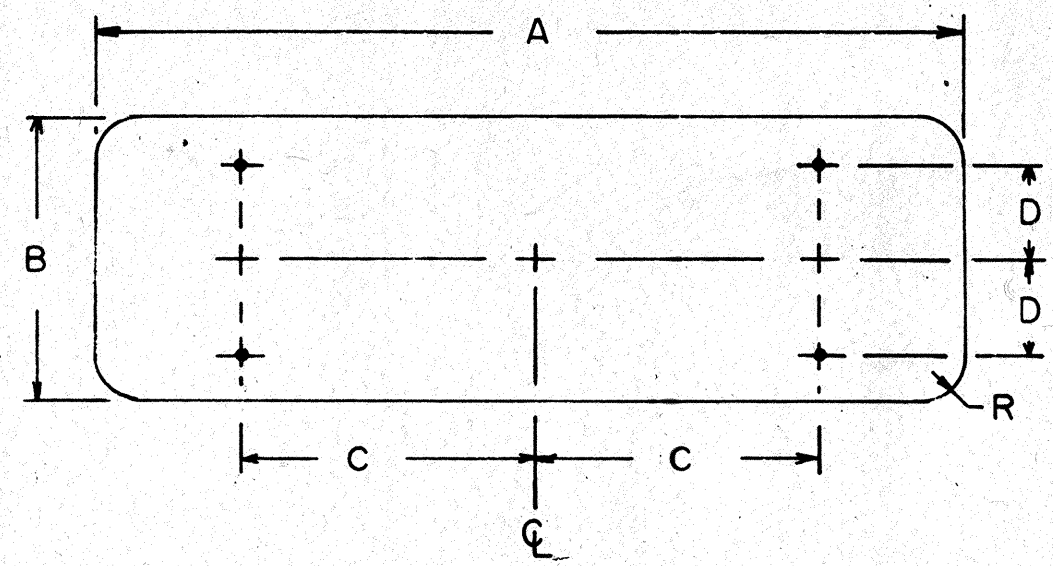
A	B	C	GAUGE
36	36	11	.080
48	36	11	.100



A	C	R	GAUGE
18	7 1/2	1 1/2	.063
24	8	1 1/2	.063
30	8	1 1/2	.080

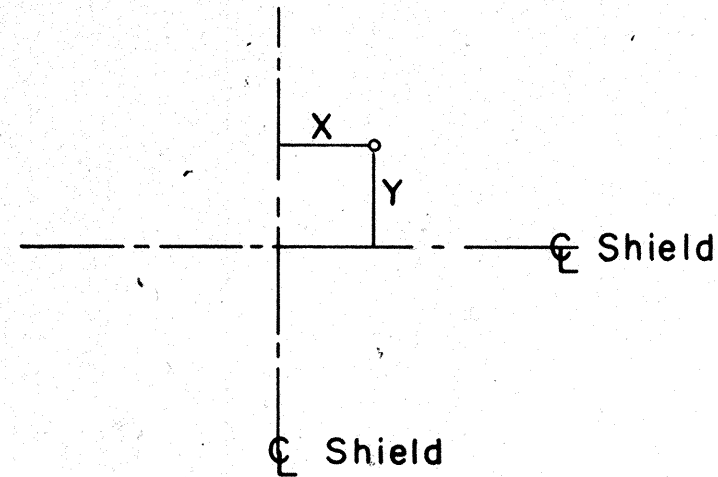


A	C	R	GAUGE
36	12	1 1/2	.080
48	14	3	.100



A	B	C	D	R	GAUGE
72	18	20	6	1 1/2	.100
72	24	20	8	1 1/2	.100
60	30	17	10	1 1/2	.100
96	18	27	6	1 1/2	.100

Location of holes on "Demountable Shields"
(attached to guide signs)



SIZE	NO. HOLES	X	Y
(26) 24X24	4	7	7
30X24	4	8	8
(39) 36X36	4	10	10
		0	10
48X36	6	15	10

For notes on fastening see drawing for miscellaneous "Signing Items" sheet.

NOTES:

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

MATERIAL

FLAT SIGN BLANKS SHALL BE FURNISHED IN ALUMINUM ALLOY 6061-T6, (ASTM-B209, GS11A-T6) WITH MILL FINISH.

BOLT HOLES

THE BOLT HOLES SHALL BE 3/8" IN DIAMETER, AND MAY BE DRILLED, BLANKED OR PUNCHED TO FINISHED SIZE.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

SIGN BLANK
DETAILS

SBD

APPROVED
ENGINEER OF TRAFFIC

DATE
4-14-67
5-10-68
10-1-68
5-27-69
6-18-69