FEDERAL ROAD REGION NO	DIVISION	PROJECT NO	SHEET NO
VIII	COLORADO	HES 0004(36)	1

AS CONSTRUCTED

NO REVISIONS ☐ REVISED 10-26-93 VOID ☐

REVISIONS		

STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS — STATE OF COLORADO

PLAN AND PROFILE OF ~~PROPOSED~~ AS CONSTRUCTED

FEDERAL AID PROJECT NO. HES 0004(36)

STATE HIGHWAY NO. 34

WELD COUNTY

THIS PROJECT IS COMBINED WITH HES 0004 (39) FOR CONSTRUCTION.

INDEX OF SHEETS

R66W

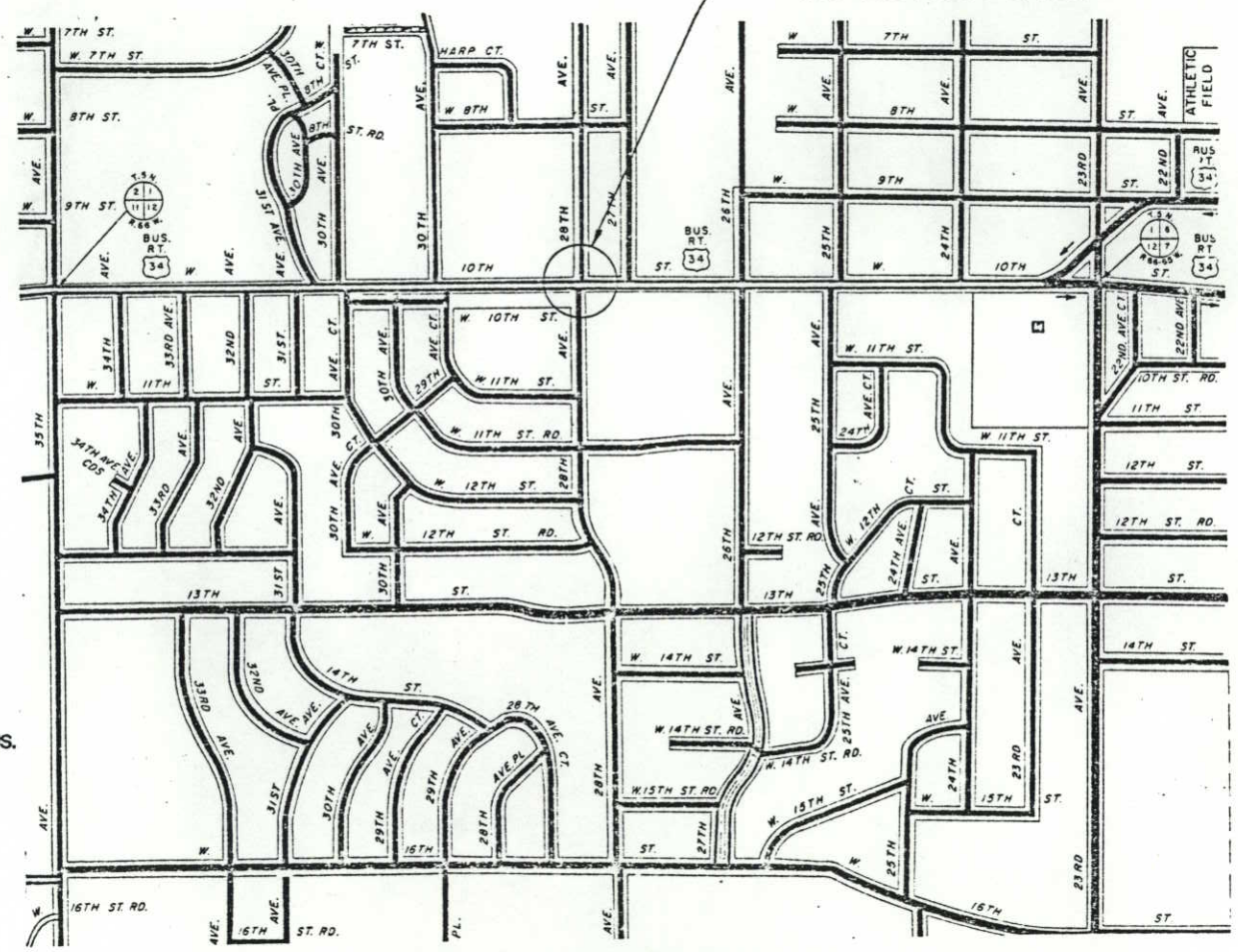
PROJECT LOCATION
HES 0004 (36) M.P. 8.254

T5N

TO LOVELAND

N

TO KERSEY



CITY OF GREELEY

SCALE IN FEET
0 500 1000 1500
SCALE IN METRES
0 100 200 300 400

DESIGN DATA

		28th AVE	HWY. 34 BUS.
2010 DESIGN TRAFFIC VOLUME	DHV =	1050	3300
	ADT =	10500	33000
	% TRUCKS =	3	4

AS CONSTRUCTED PLANS
RETURN TO DIST. 4 DESIGN

PLANS PREPARED BY: CITY OF GREELEY
DEPARTMENT OF PUBLIC WORKS/TRAFFIC
CITY HALL:
GREELEY, COLORADO 80631

BY: Steven E. Bridge

DATE: 1-17-90

AS CONSTRUCTED INFORMATION

CONTRACTOR Stillerson Fleetwood Co.

RESIDENT ENGINEER (Project or Resident) Robert L. Patrick

PROJECT STARTED August 6, 1990

PROJECT COMPLETED October 26 1990

AS CONSTRUCTED PLANS APPROVED

Res. Eng. TITLE 2/26/91 DATE

88168

G.R.R./Dist. 4

AS CONSTRUCTED					
NO. REVISIONS 10-26-93	REVISED	VOID			

FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	HES 0004 (36)	2	13

THE STANDARD PLAN SHEETS INDICATED HEREON BY A MARKED BOX ARE TO BE USED TO CONSTRUCT THIS PROJECT.

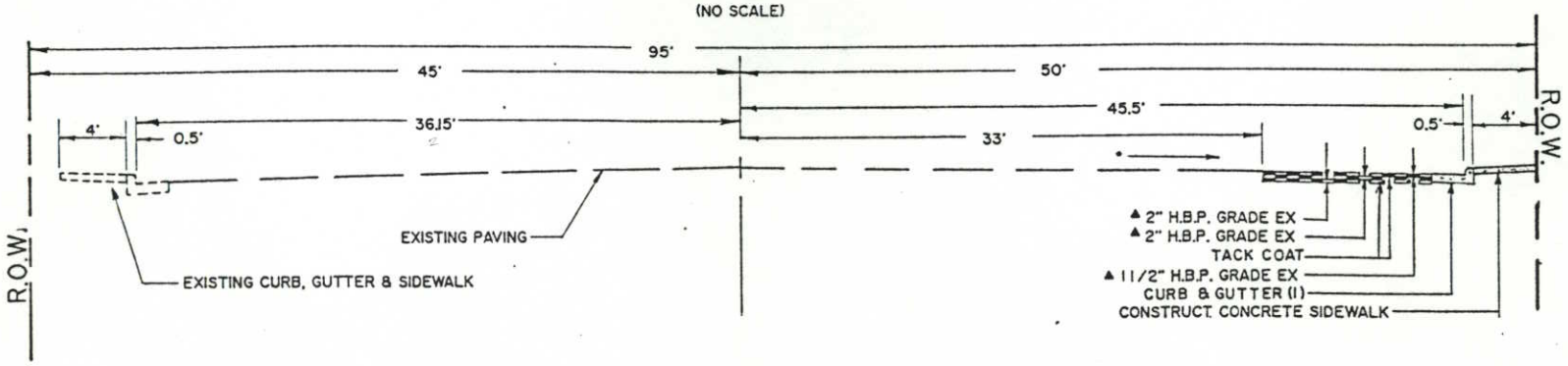
DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

STANDARD PLANS LIST

M & S STANDARDS — JANUARY, 1982

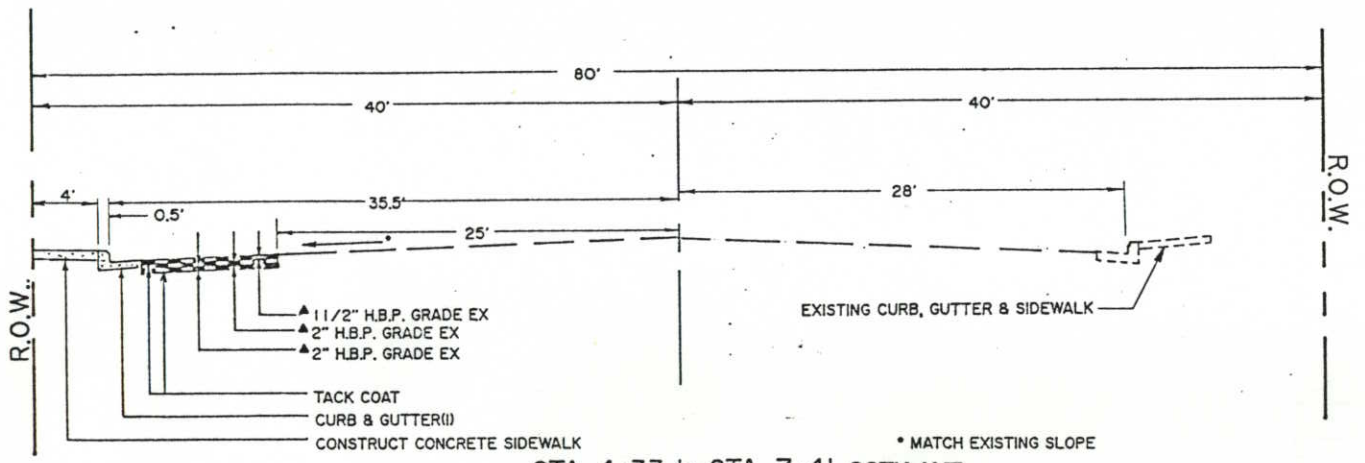
TYPICAL SECTIONS

(NO SCALE)



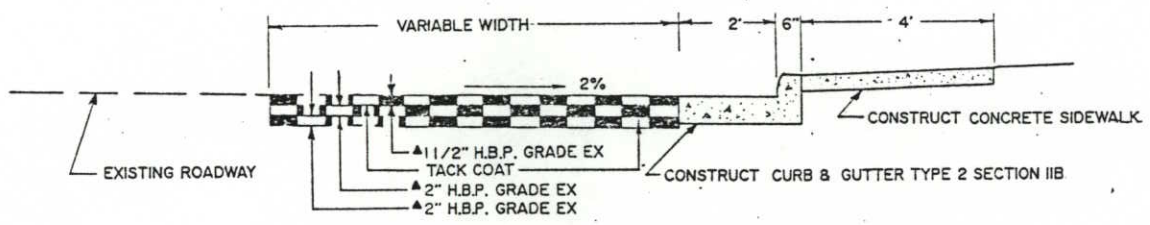
* MATCH EXISTING SLOPE

STA. 0+27 to STA. 3+28 28TH AVE.

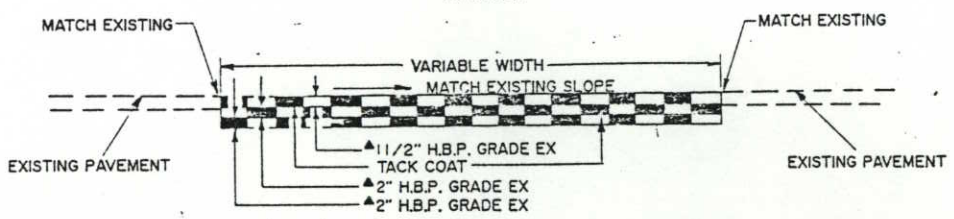


* MATCH EXISTING SLOPE

STA. 4+33 to STA. 7+41 28TH AVE.



SECTION A-A
NO SCALE



SECTION B-B
NO SCALE

▲ APPROXIMATE THICKNESS

TYPICAL SECTION NOTES

(I) NOTE: VERTICAL FACE CURB & GUTTER, TYPE 2(SECTION IIB)

COLORADO PROJECT NO: HES 0004(36)

GENERAL NOTES

1. CONSTRUCTION SURVEYING TO BE DONE BY CITY FORCES.
2. TACK COAT DILUTED EMULSIFIED ASPHALT (SLOW SETTING) @ 0.1 GALS/SQUARE YARD (DILUTED).
3. BITUMINOUS PAVEMENT, GRADING EX, @ 110 LBS. PER SQUARE YARD/ INCH.
4. DILUTED EMULSIFIED ASPHALT FOR TACK COAT SHALL CONSIST OF ONE PART EMULSIFIED ASPHALT AND ONE PART WATER.
5. ACTUAL RATES OF APPLICATION TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
6. THE FOLLOWING SHALL BE FURNISHED WITH EACH BITUMINOUS PAVER:
   1. A SKI TYPE DEVICE AT LEAST 30 FEET IN LENGTH
   2. SHORT SKI OR SHOE.
7. ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE SUCCEEDING LAYER IS PLACED.
8. POWER POLES TO BE MOVED BY OTHERS AT NO COST TO THE PROJECT. CONTRACTOR SHALL COORDINATE THIS WITH THE UTILITY COMPANY.
9. FULL DEPTH SAW CUT ALL ASPHALT AND CONCRETE PARKING LOTS, DRIVEWAYS, AND SIDEWALK. REMOVE AND REPLACE AS REQUIRED. COST OF SAWCUTTING SHALL NOT BE PAID FOR SEPARATELY BUT INCLUDED IN OTHER WORK.
10. REPLACEMENT OF CONCRETE AT DRIVEWAYS SHALL BE A MINIMUM OF 6 INCHES THICK AND SHALL BE PAID FOR AS CONCRETE PAVEMENT.
11. REMOVAL OF CONCRETE DRIVEWAYS TO BE PAID FOR UNDER REMOVAL OF SIDEWALK.
12. EXISTING STRIPING REMOVAL AND NEW STRIPING WILL BE DONE BY CITY FORCES. CONTRACTOR IS REQUIRED TO COORDINATE WITH CITY FORCES FOR TEMPORARY AND PERMANENT STRIPING INSTALLATION AT NO COST TO THE PROJECT.
13. EXISTING TRAFFIC SIGNAL POLE BASES TO BE REMOVED TO 12 INCHES BELOW FINISHED GRADE AND PATCHED TO MATCH EXISTING MATERIALS (COST TO BE INCLUDED IN THE REMOVAL ITEM).
14. CONTRACTOR TO MAINTAIN ACCESS TO ALL BUSINESSES DURING ALL PHASES OF CONSTRUCTION AT NO ADDITIONAL COST TO THE PROJECT.
15. REMOVED TRAFFIC SIGNAL EQUIPMENT TO BE RETAINED BY THE CITY OF GREELEY. CONTRACTOR SHALL LOAD SALVAGED MATERIAL ONTO CITY OF GREELEY TRUCKS.
16. RESETTING SPRINKLERS AND LANDSCAPING WILL BE PAID FOR BY FORCE ACCOUNT ITEM FOR RESET SPRINKLERS AND LANDSCAPING.
17. ALL CONDUIT SHALL BE SCHEDULE 80 PVC UNLESS OTHERWISE SHOWN (TRENCHED).
18. REMOVAL OF ASPHALT MAT TO BE INCLUDED IN THE UNCLASSIFIED EX BID ITEM, AND THE CONTRACTOR SHALL INCLUDE THIS WORK ON HIS METHOD STATEMENT.
19. ~~IT IS ESTIMATED THAT~~ 102 CUBIC YARDS OF UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE) ~~WILL BE~~ REQUIRED FOR THIS PROJECT FOR REMOVAL AND WIDENING OPERATIONS. INFO ONLY SEE CMO #1 (Uncl. Excavation (CIP) Changed to LS payment by CMO #1)
20. EXISTING SIGN REMOVAL AND NEW SIGN INSTALLATIONS TO BE DONE BY CITY FORCES AT NO COST TO THE PROJECT.
21. EXISTING CURB AND GUTTER SHALL REMAIN IN PLACE UNTIL WITHIN 48 HOURS OF PAVING OPERATION OR AS APPROVED BY PROJECT ENGINEER.
22. DEPTH OF MOISTURE DENSITY CONTROL SHALL BE AS FOLLOWS:
    FULL DEPTH OF ALL EMBANKMENTS.
    BASES OF CUTS AND FILLS 0.5 FOOT.
    EXCAVATION REQUIRED FOR COMPACTION OF CUTS AND FILLS WILL BE CONSIDERED AS SUBSIDIARY TO THAT OPERATION AND WILL NOT BE PAID FOR SEPARATELY.
    TYPE OF COMPACTION SHALL BE AASHTO T-99.

VIII	COLORADO	HES 0004(36)	3

AS CONSTRUCTED

NO REVISIONS ☐ REVISED 10-26-90 VOID ☐

FINAL SCHEDULE OF CONSTRUCTION TRAFFIC CONTROL DEVICES

SIGNS						OTHER DEVICES		
SIGN CODE	LEGEND	DIMENSIONS	EACH PANEL SIZE A	EACH PANEL SIZE B	FINAL	ITEM	QUANTITY	FINAL
48W20-1	ROAD/CONST/AHEAD	48"x48"		4	5	VERTICAL PANEL(W/LIGHT)(SB) EACH	20	20
36W20-1	ROAD/CONST/AHEAD	36"x36"	2		1			
**48W20-5	( ) /LANE/CLOSED/AHEAD	48"x48"		4	3	TRAFFIC CONE --EACH	70	50
**36W20-5	( ) /LANE/CLOSED/AHEAD	36"x36"	2		2			
**48W4-2	( ) LANE TRANSITION	48"x48"		8	3			
**36W4-2	( ) LANE TRANSITION	36"x36"	4		2			
24R4-7a	KEEP RIGHT	24"x30"	—		1			
36R3-7R	RIGHT LANE MUST TURN RIGHT	36"x36"	2		—			
48W20-7a	FLAGGER SYMBOL	48"x48"		4	4			
36W20-7a	FLAGGER SYMBOL	36"x36"	2		2			
60G20-2	END/CONSTRUCTION	60"x24"		4	3			
SPECIAL	SIDEWALK CLOSED/CROSSOVER	36"x48"		—	2			
	***TYPE 2 BARRICADE		8		8			
SIGN TOTALS			20	24	X			
FINAL TOTALS			16	20				

ANY TRAFFIC CONTROL DEVICE USED ON ONE PROJECT AND SUBSEQUENTLY MOVED TO THE OTHER PROJECT WILL BE PAID FOR ONLY ONE TIME.

NOTE: ALL CONSTRUCTION WARNING SIGNS PROVIDED ON THIS PROJECT SHALL BE PROVIDED WITH HIGH BRIGHTNESS ENCAPSULATED TYPE REFLECTIVE SHEETING. SEE SECTION 713.10 OF THE STANDARD SPECIFICATIONS.

** THESE SIGNS TO BE FURNISHED WITH INTERCHANGEABLE PLAQUE (LEFT) OR (RIGHT) AT NO ADDITIONAL EXPENSE

city of GREELEY, COLORADO
DIVISION OF ENGINEERING
10th STREET & 28th AVENUE IMPROVEMENTS

Notebook Ref.	Revised

OF COLORADO
DEPARTMENT OF HIGHWAYS
SION OF HIGHWAYS
H. FORM NO. 113
DEC. 1983

SUMMARY OF ~~APPROXIMATE~~ FINAL QUANTITIES

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
NO REVISIONS ☐	REVISED 10-26-90	VOID ☐	VIII	COLO.	HES 0004 (36)	4

INDEX BOOK	INDEX PAGE	INDEX SHEET	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	HES 0004(36) PLAN	HES 0004(36) AS CONST.	PROJECT TOTALS PLAN	PROJECT TOTALS AS CONST.	DIFF. +/-	% PLAN
CMO		FORM									
		305	202	REMOVAL OF SIDEWALK	Sq Yd	215	414	215	414		
		305	202	REMOVAL OF CURB	Lin Ft	37	42	37	42		
		305	202	REMOVAL OF CURB AND GUTTER	Lin Ft	530	562	530	562		
		305	202	REMOVAL OF CURB, GUTTER AND SIDEWALK	Lin Ft	209	209	209	209		
		305	202	REMOVAL OF TRAFFIC SIGNAL FACE	EACH	9	9	9	9		
		305	202	REMOVAL OF TRAFFIC SIGNAL POLE	EACH	3	3	3	3		
		305	202	REMOVAL OF TRAFFIC SIGNAL CONTROLLER AND CABINET	EACH	1	1	1	1		
		305	202	REMOVAL OF PEDESTAL POLE (Deleted by CMO #1)	EACH	2	2	2	2		
1		305	203	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	C Y	102	—	102	—		
		305	210	RESET FIRE HYDRANT	EACH	1	1	1	1		
		305	403	HOT BITUMINOUS PAVEMENT (GRADING EX) (HAUL AND ASPHALT)	TON	172	277.15	172	277.15		
		305	412	CONCRETE PAVEMENT (6 INCH)	Sq Yd	87	168	87	168		
		305	608	CONCRETE SIDEWALK	Sq Yd	202	215	202	215		
		305	608	CONCRETE CURB RAMP	Sq Yd	20	44	20	44		
		305	609	CURB & GUTTER TYPE 2 (SECTION II-B)	Lin Ft	652	449	652	449		
		305	613	I-1/2 INCH ELECTRICAL CONDUIT	Lin Ft	80	57	80	57		
		305	613	I-1/2 INCH ELECTRICAL CONDUIT (PLASTIC)	Lin Ft	205	212	205	212		
		305	613	2 INCH ELECTRICAL CONDUIT (PLASTIC)	Lin Ft	40	78	40	78		
		305	613	3 INCH ELECTRICAL CONDUIT (PLASTIC)	Lin Ft	700	721	700	721		
		305	613	WIRING	LS	0.5	0.5	0.5	0.5		
		7	614	FLAGGING	HR	250	183.0	250	183.0		
		305	614	PEDESTRIAN SIGNAL FACE (16)	EACH	8	8	8	8		
		305	614	TRAFFIC SIGNAL FACE (12-12-12)	EACH	14	14	14	14		
		305	614	TRAFFIC SIGNAL FACE (12-12-12-12-12)	EACH	2	2	2	2		
		305	614	FIRE PREEMPTION UNIT & TIMER	EACH	2	2	2	2		

SUMMARY OF ~~APPROXIMATE~~ FINAL QUANTITIES

AS CONSTRUCTED
NO REVISIONS [ ] REVISED [10-26-90] VOID [ ]

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	HES 0004(36)	5	13

INDEX ~~BOOK~~	PAGE	Form SHEET	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	HES 0004(36) PLAN	HES 0004(36) AS CONSTR.	PROJECT TOTALS PLAN	PROJECT TOTALS AS CONST.	DIFF. +/-	% PLAN
CMO		305	614	LOOP DETECTOR WIRE	LIN FT	3000	2851	3000	2851		
		305	614	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE A)	EACH	20	16	20	16		
		305	614	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE B)	EACH	24	20	24	20		
		305	614	VERTICAL PANEL (WITH LIGHT) (STEADY BURN)	EACH	20	20	20	20		
2		305	614	MODIFY ITEM 614 TRAFFIC SIGNAL LIGHT POLE STEEL (1 MAST ARM)(CHANGE FOOTING) MCR LINE#1	EACH	—	3	—	3		
		305	614	TRAFFIC CONE	EACH	70	50	70	50		
2		305	614	TRAFFIC SIGNAL-LIGHT POLE STEEL (1 MAST ARM)	EACH	3	3	3	3		
		305	614	TRAFFIC SIGNAL CONTROLLER (TYPE 170)	EACH	1	1	1	1		
		305	626	MOBILIZATION	L.S.	0.5	0.5	0.5	0.5		
		305	700	F/A MINOR CONTRACT REVISIONS	FA	0.5	0.5	0.5	0.5		
		305	700	F/A RESET SPRINKLERS & LANDSCAPING	FA	0.5	0.5	0.5	0.5		
1		305	203	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE) ADDED BY CMO #1	LS	0.32	0.32	—	0.32		

NO REVISION	REVISED 10-26-90	VOID	VIII	COLORADO	HES 0004(36)	6	13

FINAL TABULATION OF CURB & GUTTER

STATION TO STATION	SIDE	CURB & GUTTER TYPE 2 SECTION II B		REMOVE CURB TYPE 2 (6"BARRIER) SEC. B		REMOVAL OF CURB & GUTTER		REMOVAL OF ROLLOVER CURB, GUTTER & S.W.	
		LINEAR FEET		LINEAR FEET		LINEAR FEET		LINEAR FEET	
		PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
0+27 to ~~3+40~~ 3+46 3+35 to 3+58 4+78 ~~4+30~~ to ~~7+40~~ 7+41 1+94	RT RT LT RT	331 321 —	255 190 4	 10	 10	337 82 	360 82 	 	
4+30 to 5+30 5+30 to 7+40 4+50	LT LT LT	 	 	 20	 20	111	120	 209	 209
5+70	LT			7	12				
TOTAL		652	449	37	42	530	562	209	209

FINAL SURFACING QUANTITIES

STATION TO STATION	SOURCE	HOT BITUMINOUS PAVEMENT (GRADING EX)	
		PLAN	FINAL
		TONS	TONS
0+27 to 3+42	CONTRACTOR'S	80	
3+35 to 3+60		14	
4+30 to 7+40		63	
IRREGULARITIES		15	
TOTALS		172	277.15

IT IS ESTIMATED THAT 6 TONS OF BITUMINOUS PAVEMENT WILL BE REQUIRED AT DRIVEWAYS AND PARKING LOTS AND IS INCLUDED IN THE QUANTITIES FOR SURFACING IRREGULARITIES.

▼OILING QUANTITIES

CSS-1H ROADWAY (TACK COAT)	103	FINAL
TOTAL	103	31

FOR INFORMATION ONLY

▼ INCLUDED IN COST OF H.B.P. (GR EX) (H & A)

STABILIZATION DATA

	28th AVE. WIDENING NORTHBOUND (E. SIDE)	28th AVE. WIDENING SOUTHBOUND (W. SIDE)
SERVICIBILITY INDEX	2.0	2.0
18 K ESAL	788,400	788,400
RELIABILITY	80	80
SOIL MR	17,788	14,271
WSN	2.2	2.4
DESIGN HBP THICKNESS	5"	5.5"
OVERALL DEVIATION	0.44	0.44

STRENGTH COEFFICIENT: HBP = 0.44

NOTE: 5.5" THICKNESS (PAVING) USED THROUGHOUT PROJECT FOR EASE OF CONSTRUCTION

FINAL TABULATION OF CONCRETE SIDEWALK & CONCRETE PAVEMENT

STATION TO STATION	SIDE	CONCRETE SIDEWALK (4 FOOT) SQ. YD.		CONCRETE PAVEMENT (6 INCH) DRIVEWAY & TRANSITIONS SQ. YD.		~~SQ. YD.~~		REMOVAL OF CONCRETE SIDEWALK SQ. YD.	
		PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
0+27 to ~~3+40~~ 3+46 0+47	RT RT			 21	 36			153	157
0+27 to 0+47	RT	—	9						
0+97 ~~0+70~~ to ~~1+66~~ 1+79	RT	43	38						
1+80	RT			12	23				
2+12 ~~1+96~~ to ~~3+40~~ 3+46 4+30 to 5+30 4+30 East	RT LT RT	60 — 	68 7 	 	 	 	 	 62 	 237 7
4+78 ~~4+30~~ to ~~4+68~~ 4+90 4+83 5+30 ~~4+98~~ to ~~5+27~~ 5+75 6+08 West	LT LT LT LT	30 13 	5 22 	 13 	 — 	 	 	 —	 4
2+62 West ~~5+80~~ 5+30 ~~5+95~~ 5-94 5-94 ~~5+97~~ to ~~6+96~~ 6+97	LT LT LT LT	— 44	8 46	 21 12 	 83 14 	 	 	— 	9
7+05 7+14 ~~7+13~~ to ~~7+40~~ 7+41		12	12	8	12				
TOTALS		202	215	87	168			215	414

NOTE: IT IS ESTIMATED THAT THERE WILL BE APPROXIMATELY 210 L.F. OF CONCRETE SAWING AND 210 L.F. OF ASPHALT SAWING TO BE INCLUDED IN THE COST OF SIDEWALK REMOVAL AND UNCLASSIFIED EXCAVATION RESPECTIVELY.

FINAL TABULATION OF CONCRETE CURB RAMP

STATION	SIDE	CONCRETE CURB RAMP SQ. YD.	
		PLAN	FINAL
3+46 ~~3+30~~ 4+35 to 4+78	RT LT	10 10	17 27
TOTAL		20	44

city of GREELEY, COLORADO

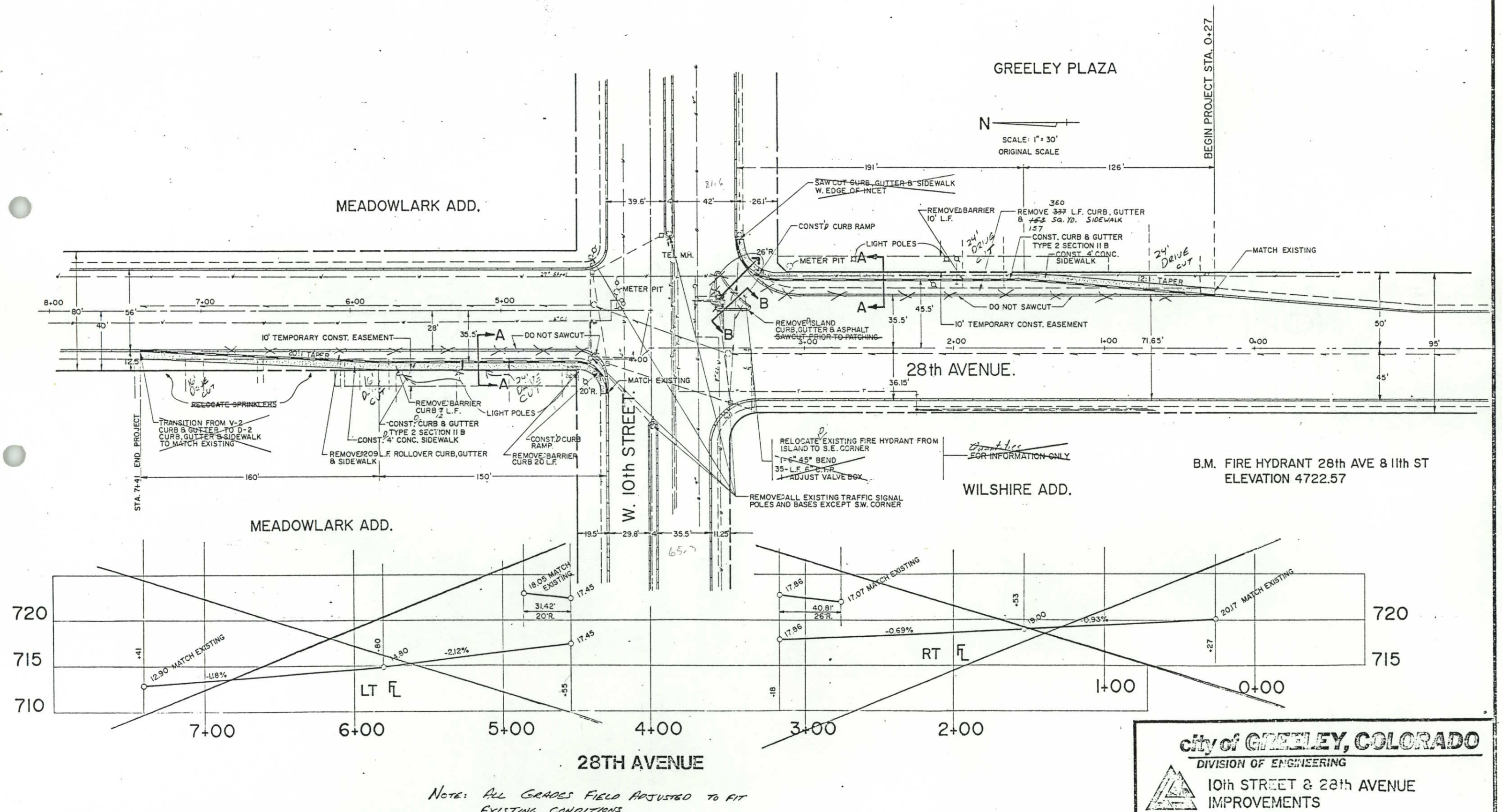
DIVISION OF ENGINEERING

10th STREET & 28th AVENUE

NO REVISIONS		REVISED 10-26-90	VOID					
VIII	COLORADO	HES 0004 (36)	7	73				

OWNERSHIP OF UTILITIES

WATER MAINS - CITY OF GREELEY 350-9811
SANITARY & STORM SEWER - CITY OF GREELEY 350- 9811
TELEPHONE - U S WEST 1-226-6310
ELECTRIC LINES - PUBLIC SERVICE 353-1144
GAS LINES - GREELEY GAS 352-1511
CABLE TV - CABLEVISION 351-0669



28TH AVENUE

NOTE: ALL GRADES FIELD ADJUSTED TO FIT EXISTING CONDITIONS

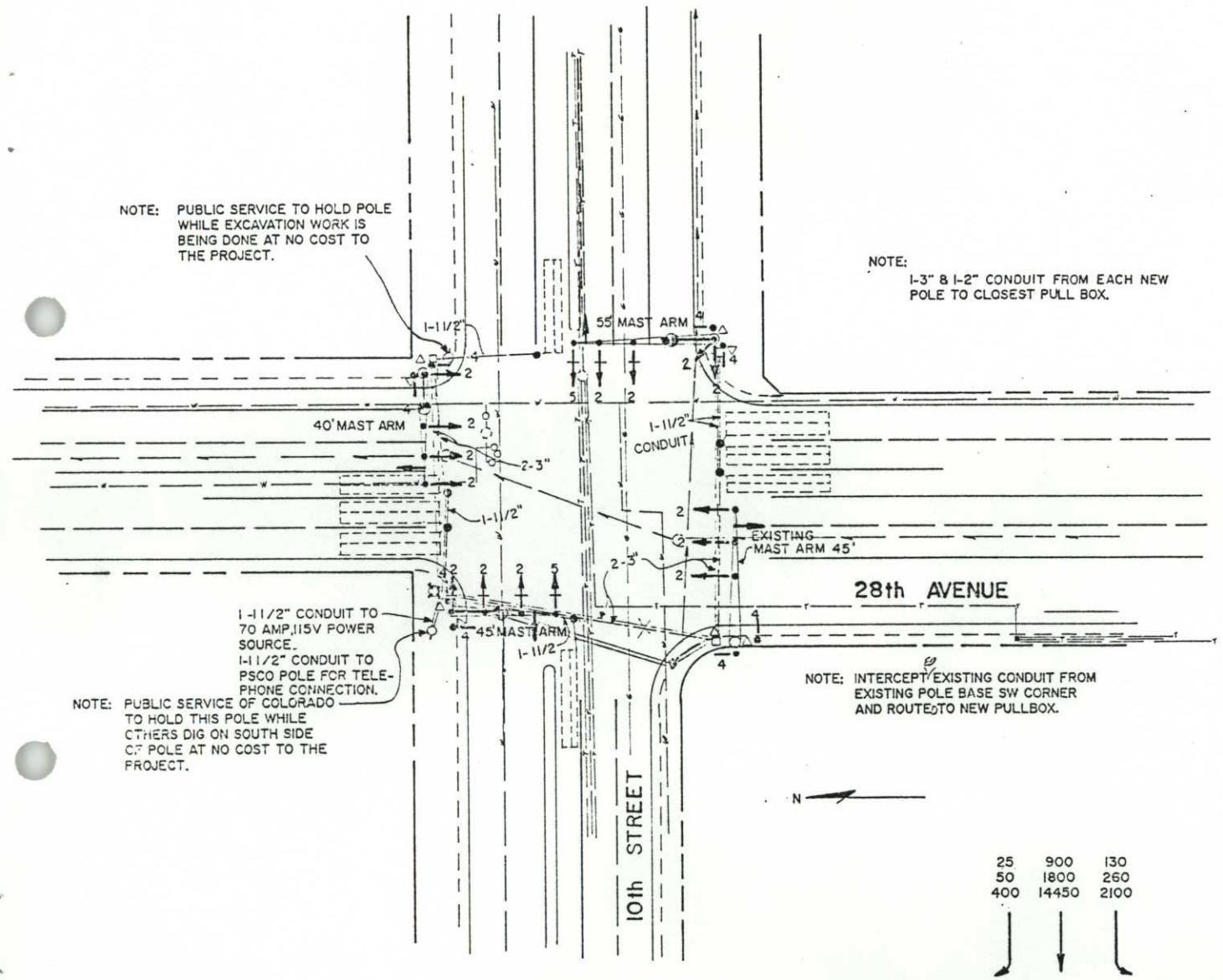
city of GREELEY, COLORADO
DIVISION OF ENGINEERING

10th STREET & 28th AVENUE IMPROVEMENTS

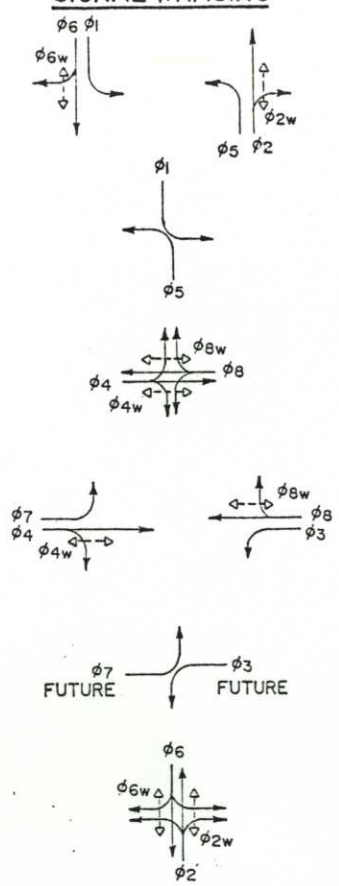
Notebook Ref.	Revised

TRAFFIC SIGNAL PLAN

AS CONSTRUCTED				FEDERAL ROAD REGION NO	DIVISION	PROJ NO.	SHEET NO	TOTAL SHEETS
NO REVISION		REVISED 10-23-90	VOID	VIII	COLORADO	HES 0004(36)	8	13



SIGNAL PHASING



FINAL

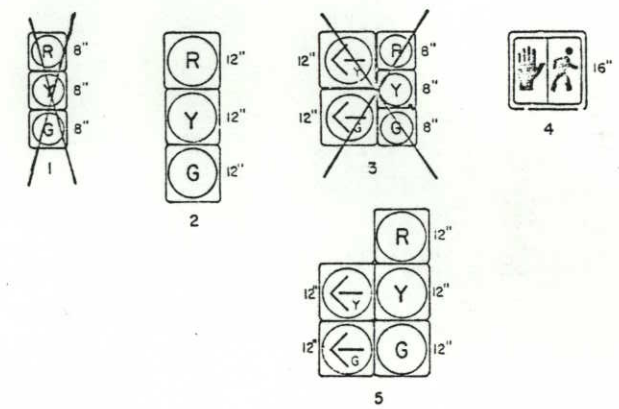
TABULATION OF TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	PLAN QUANTITY	FINAL
202	REMOVAL OF TRAFFIC SIGNAL FACE	EA.	9.	9
202	REMOVAL OF TRAFFIC SIGNAL POLE	EA.	3	3
202	REMOVAL OF TRAFFIC CONTROLLER AND CABINET	EA.	1	1
202	REMOVAL OF PEDESTAL POLE	EA.	2	2
613	1 1/2 INCH ELECTRICAL CONDUIT (SCH 80)	L.F.	80	57
613	1 1/2 INCH ELECTRICAL CONDUIT (PLASTIC)	L.F.	205	212
613	2 INCH ELECTRICAL CONDUIT (PLASTIC)	L.F.	40	78
613	3 INCH ELECTRICAL CONDUIT (PLASTIC)	L.F.	700	721
613	WIRING	L.S.	0.5	0.5
614	PEDESTRIAN SIGNAL FACE (16)	EA.	8	8
614	TRAFFIC SIGNAL FACE (12-12-12)	EA.	14	14
614	TRAFFIC SIGNAL FACE (12-12-12-12-12)	EA.	2	2
614	FIRE PREEMPTION UNIT & TIMER	EA.	2	2
614	LOOP DETECTOR WIRE	L.F.	3000	2551
614	TRAFFIC SIGNAL-LIGHT POLE STEEL (1 MASTARM)	EA.	3	3
614	MODIFY ITEM 614 - TRAFFIC SIGNAL-LIGHT POLE STEEL (1 MAST ARM) CHANGE FOOTING	EA.	—	3
614	TRAFFIC SIGNAL CONTROLLER (TYPE 170)	EA.	1	1

NOTES

1. The controller shall include 8 pedestrian push buttons & pedestrian signs. Signs shall be decal type.
2. Luminaires will be furnished and installed by others. Mounting height shall be 30 feet.
3. The contractor shall install street light wiring furnished by others.
4. Controller shall be a Type 170. Controller cabinet shall be a Model 332. Controller shall include a model 400 modem card. Fire preemption unit shall be Opticom type and include 4 detectors.
5. Traffic signals mounted on mast arms shall be furnished with Astro type mounting brackets.
6. Each signal pole shall include luminaire extensions and 15' arms.
7. Loop wire will be duct type. Loops will be 6'x40' quads.
8. All street markings to be installed by city forces at no cost to the project.
9. The cost of connecting electrical service switch to the controller shall be included in the cost of the controller.
10. Intersection shall be wired for 8 phase operation.

SIGNAL FACES



LEGEND

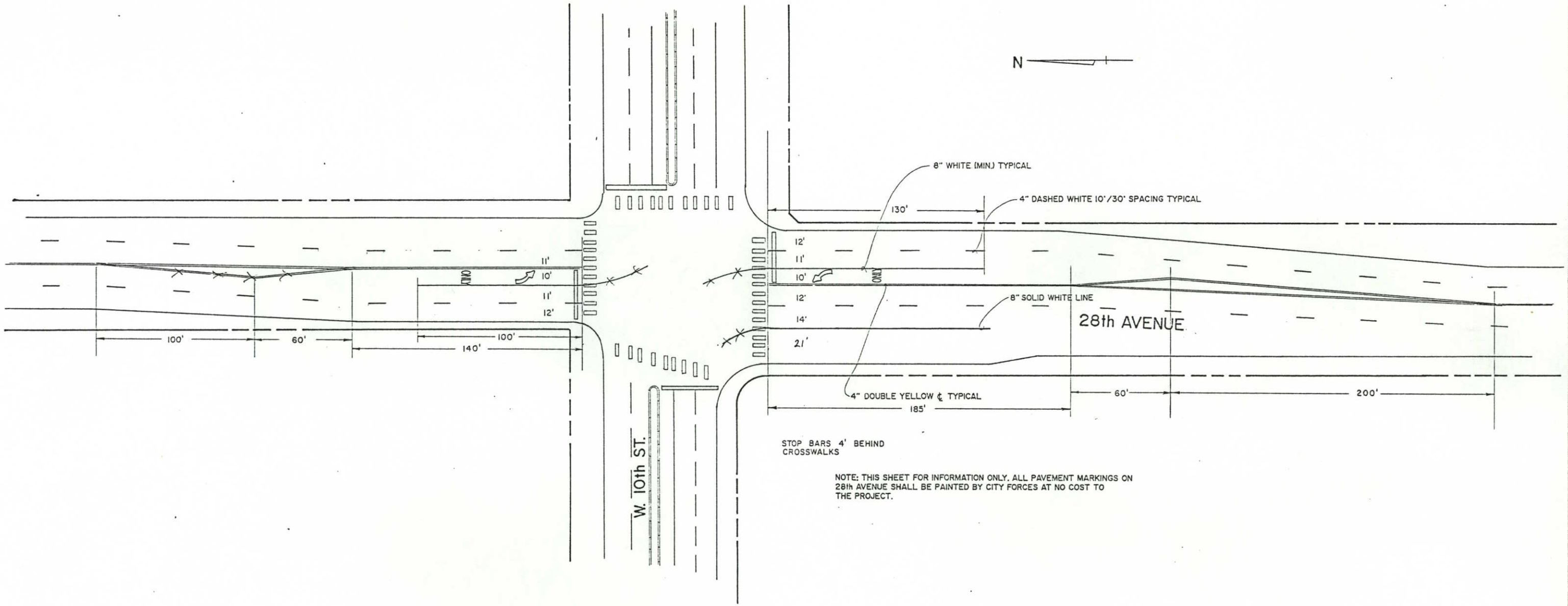
- Traffic Signal Pole with Mast Arm
- Traffic Signal Span Wire Pole
- Pedestal Pole
- Traffic Signal Face
- Traffic Signal Face with Backplate
- Pedestrian Signal Face
- Controller and Cabinet
- Electrical Conduit and Pull Box
- Vehicle Loop Detector
- Pedestrian Push Button
- Luminaire
- Water Valve Style Pull Box
- Fire Preemption Unit Detector

VIII	COLORADO	HES 0004(36)	9

AS CONSTRUCTED

NO REVISIONS ☐ REVISED 12-23-72 VOID ☐

STRIPING PLAN



NOTE: THIS SHEET FOR INFORMATION ONLY. ALL PAVEMENT MARKINGS ON 28th AVENUE SHALL BE PAINTED BY CITY FORCES AT NO COST TO THE PROJECT.

city of GREELEY, COLORADO

DIVISION OF ENGINEERING

28th AVENUE STRIPING PLAN

Notebook Ref.	Revised

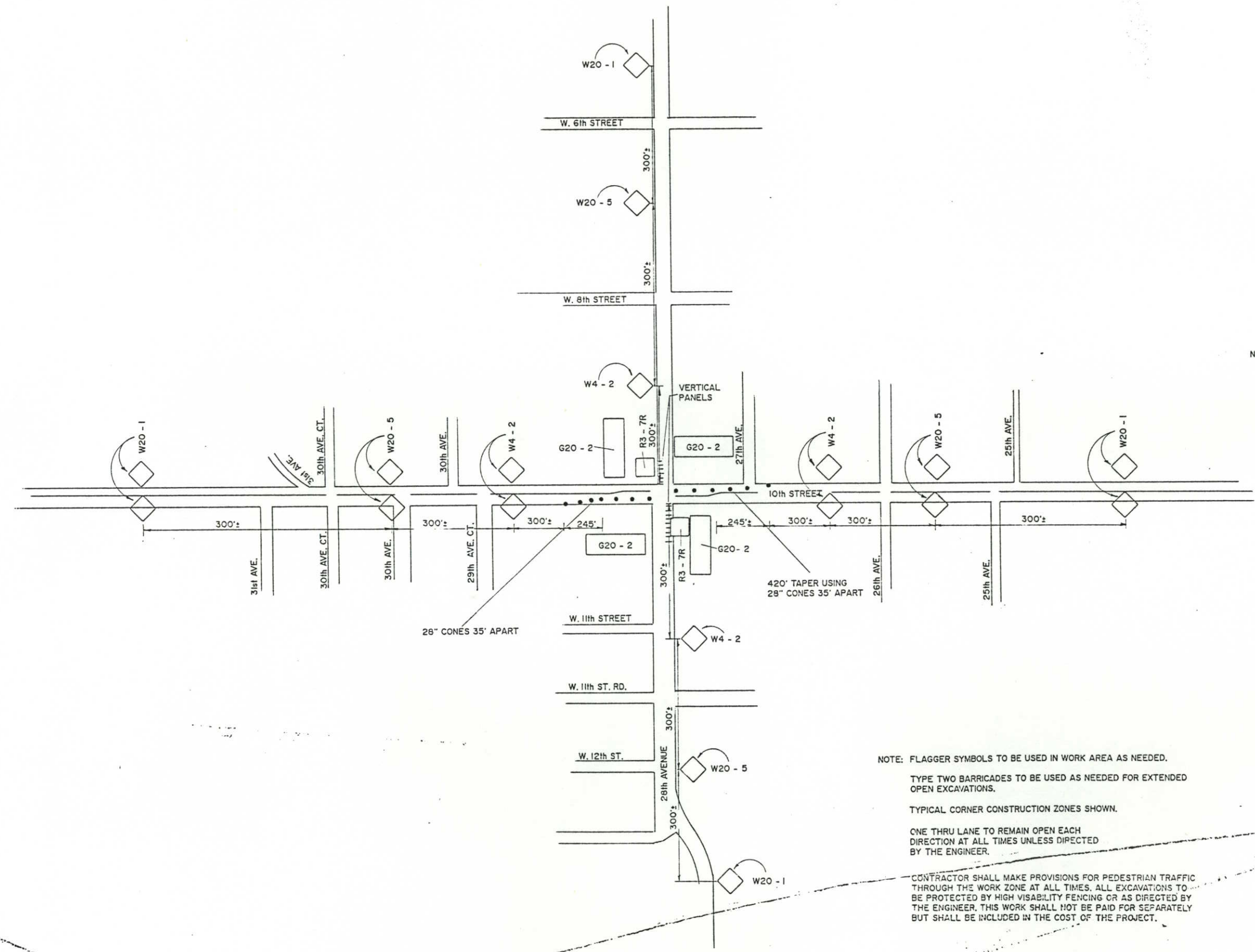
VIII	COLORADO	HES 000 4136	10

AS CONSTRUCTED

NO REVISIONS | REVISED | VOID 9-26-97

VOID BY 10-06-98
CONSTRUCTION

TRAFFIC CONTROL PLAN



NO SCALE

NOTE: FLAGGER SYMBOLS TO BE USED IN WORK AREA AS NEEDED.

TYPE TWO BARRICADES TO BE USED AS NEEDED FOR EXTENDED OPEN EXCAVATIONS.

TYPICAL CORNER CONSTRUCTION ZONES SHOWN.

ONE THRU LANE TO REMAIN OPEN EACH DIRECTION AT ALL TIMES UNLESS DIRECTED BY THE ENGINEER.

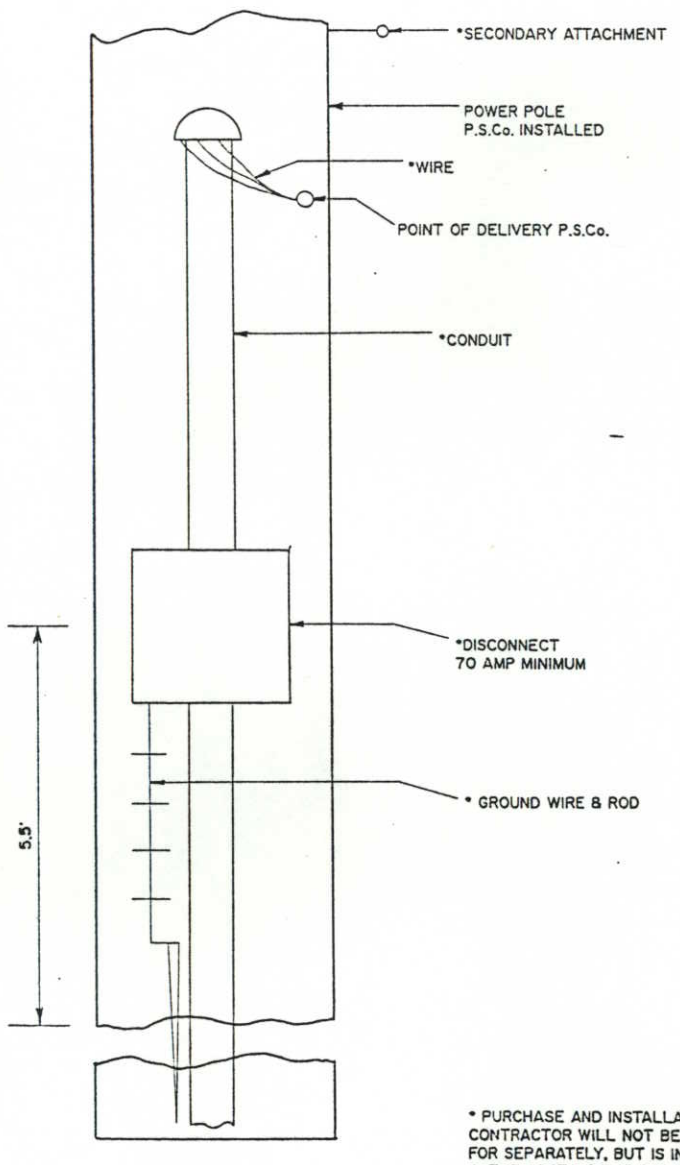
CONTRACTOR SHALL MAKE PROVISIONS FOR PEDESTRIAN TRAFFIC THROUGH THE WORK ZONE AT ALL TIMES. ALL EXCAVATIONS TO BE PROTECTED BY HIGH VISABILITY FENCING OR AS DIRECTED BY THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROJECT.

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	HES 0004 (36)	11	13

AS CONSTRUCTED

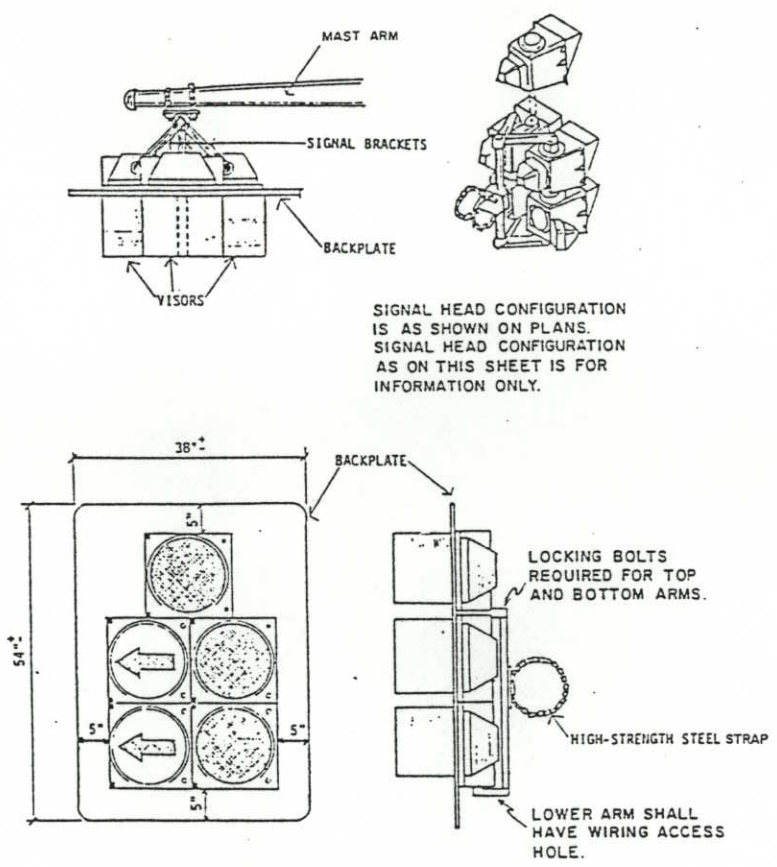
NO REVISIONS ☐ REVISED 10-26-90 VOID ☐

ASTRO— TYPE MOUNTING BRACKETS.



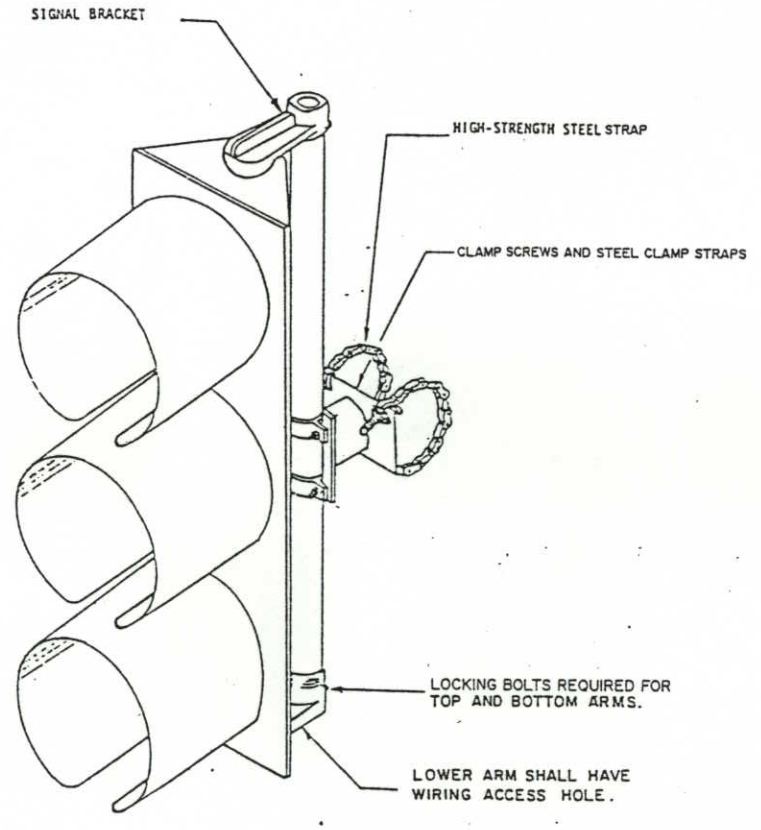
POWER SOURCE CONNECTION DETAIL

* PURCHASE AND INSTALLATION BY CONTRACTOR WILL NOT BE PAID FOR SEPARATELY, BUT IS INCLUDED IN THE COST OF THE PROJECT.



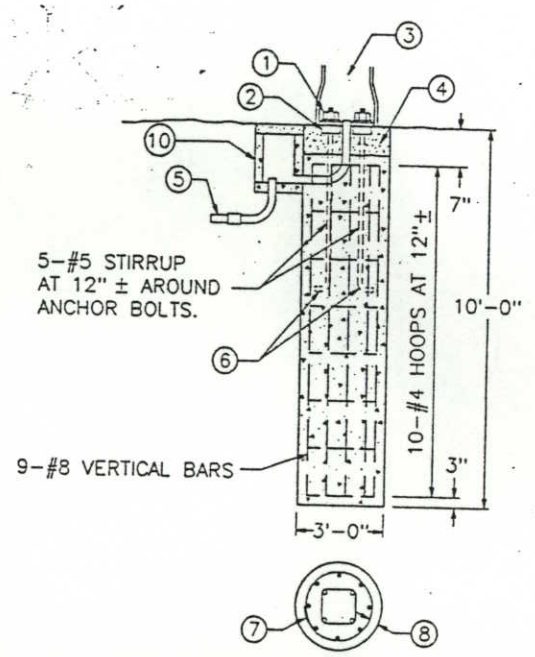
SIGNAL HEAD CONFIGURATION IS AS SHOWN ON PLANS. SIGNAL HEAD CONFIGURATION AS ON THIS SHEET IS FOR INFORMATION ONLY.

DETAIL OF 5-SECTIONAL TRAFFIC SIGNAL HEAD MAST ARM MOUNTING



DETAIL OF MAST ARM SIGNAL HEAD MOUNTING

ADDED BY MCR #2, LINE ITEM #1.



TYPICAL TRAFFIC SIGNAL POLE FOOTING

FOOTING NOTES

1. HEX NUTS
2. SQUARE NUTS
3. HAND HOLE SHALL BE PROVIDED
4. 4" MIN. NON-SHRINKABLE GROUT OVER ROUGH FOUNDATION
5. RIGID CONDUIT (24" MIN. DEPTH, 30" MIN. DEPTH UNDER ROADWAY)
6. INSTALL ANCHOR BOLTS (FURNISHED WITH POLE) PER MANUFACTURER'S TEMPLATE PRINT (FURNISHED WITH ORDER)
7. MINIMUM OVERLAP OF 12"
8. 1-1/2" CLEARANCE FOR HOOPS
9. CAISSON DESIGNS REQUIRE THAT THE CAISSON BE FOUNDED IN COMPACT SAND, CLAY OR SANDY CLAY. IF, BY VISUAL INSPECTION OF THE HOLE, OTHER MATERIAL IS PRESENT, THE CAISSON DESIGN SHALL BE MODIFIED AS DETERMINED BY THE ENGINEER.
10. PULL BOX

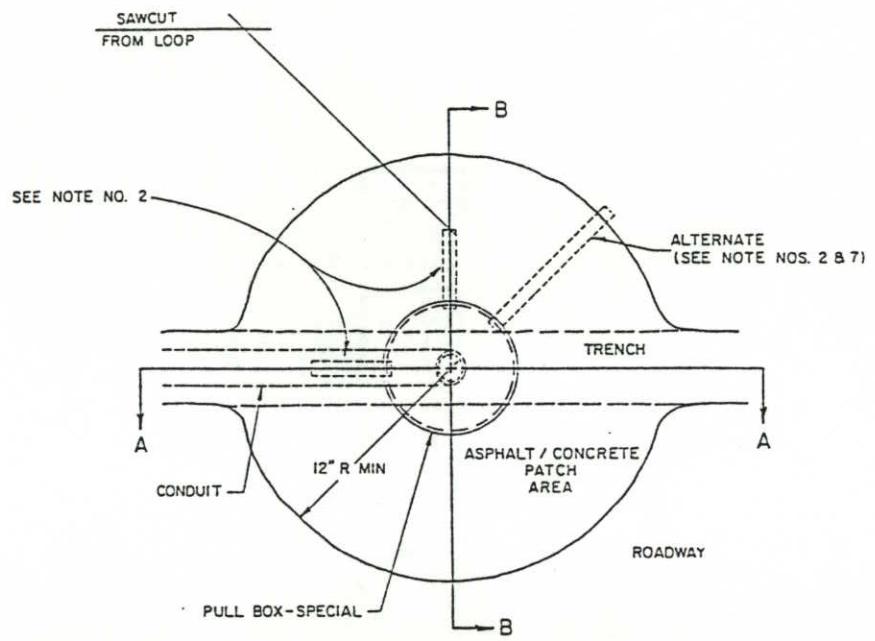
FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	HES 0004 (36)	12	13

AS CONSTRUCTED

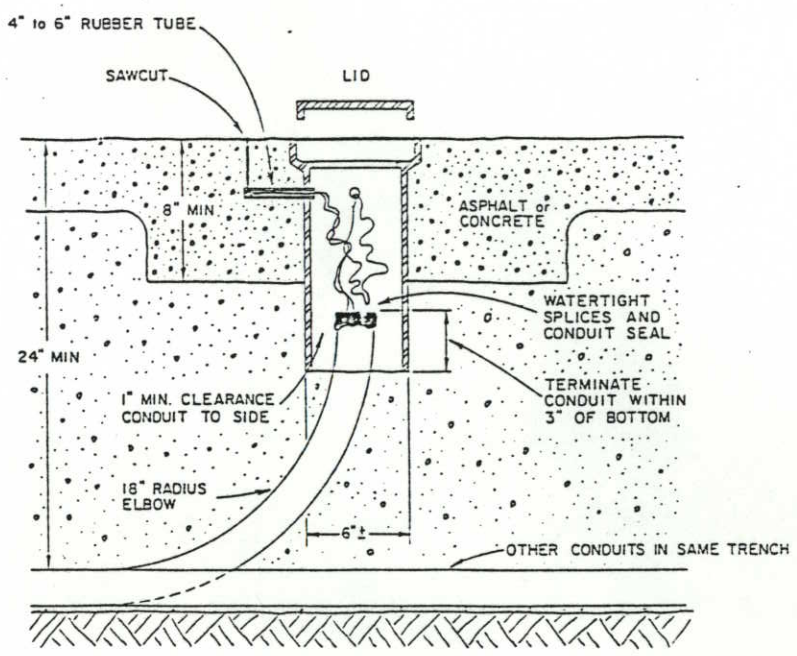
NO REVISIONS 10-26-90 REVISED [ ] VOID [ ]

PULL BOX-SPECIAL

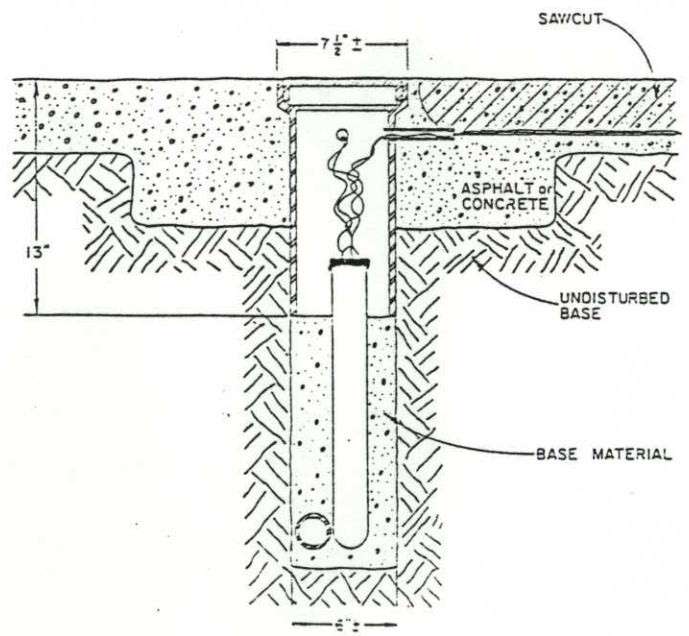
FOR LOOP DETECTOR WIRE



TOP VIEW



SECTION A-A



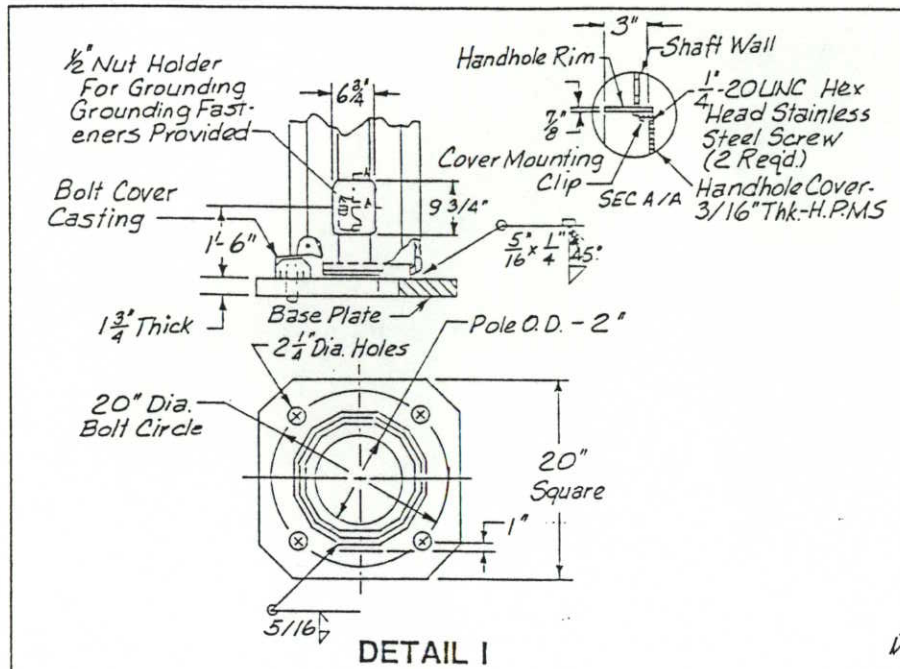
SECTION B-B

GENERAL NOTES:

1. Pull Box-Special shall be a Water Valve Stem Type pull box made of cast iron or steel. The pull box shall have capability of accepting riser rings for future overlays. The lid shall have the word "TRAFFIC" printed on it.
2. Pull boxes shall have ¾" to 1" diameter holes drilled or torched 3" from top to accept a 4" to 6" rubber tube (¾" garden hose). The number of holes shall be as per plans or as directed by the engineer.
3. Care shall be taken during backfill compaction to prevent collapse of the tubes.
4. 2' minimum slack of both feed and loop wires is to be provided so that all testing and splicing can be done outside of the pull box.
5. Pull box lid is to be sealed water tight by caulking.
6. Pull box is to be located in an area of the street not heavily traveled if possible and centered a minimum of 12" from the concrete gutter pan.
7. If hot asphalt is not available a concrete ring (12" minimum radius and 8" minimum depth) may be allowed by the engineer. If concrete is allowed the rubber tube must be extended beyond the concrete to asphalt joint.
8. All work listed above for installation of pull boxes shall not be paid for separately, but shall be included in the price of the conduit.

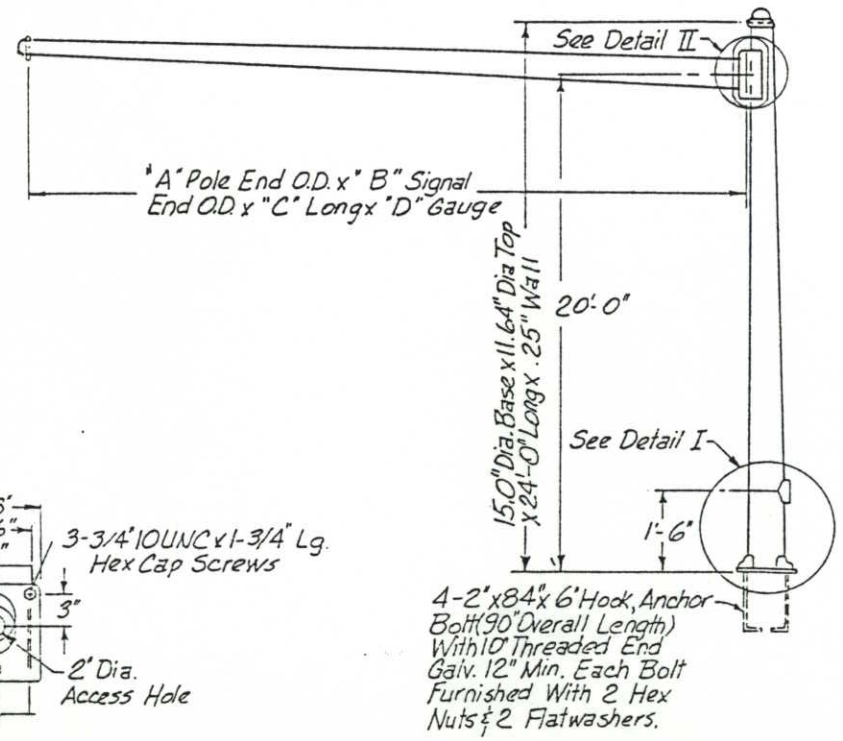
AS CONSTRUCTED			
NO REVISIONS 10-26-10	REVISED		VOID

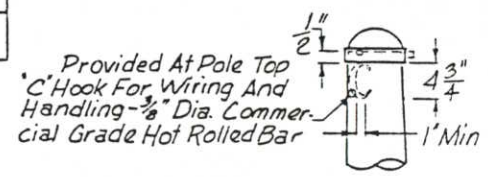
FED.ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
VIII	COLO.	HES 0004 (36)	13	13



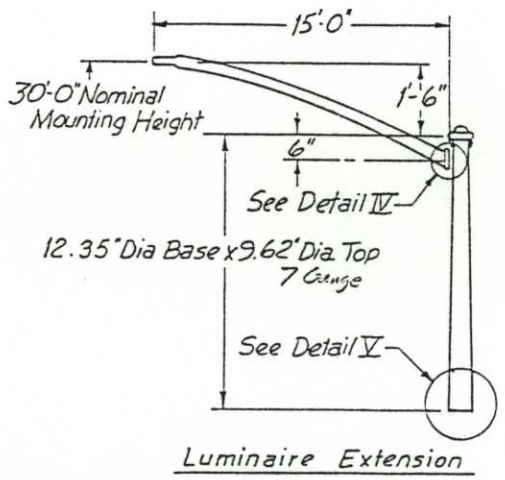
DETAIL I

Qty	Arm Data			
	POLE END "A"	SIGNAL END "B"	LONG "C"	GA. "D"
	8.0"	4.5"	25'-0"	7
	9.0"	4.8"	30'-0"	7
	10.5"	5.6"	35'-0"	7
	11.5"	5.9"	40'-0"	7
	12.0"	5.7"	45'-0"	7
	12.5"	5.5"	50'-0"	3

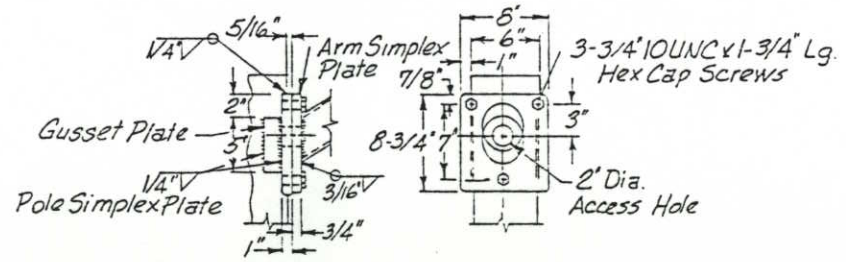




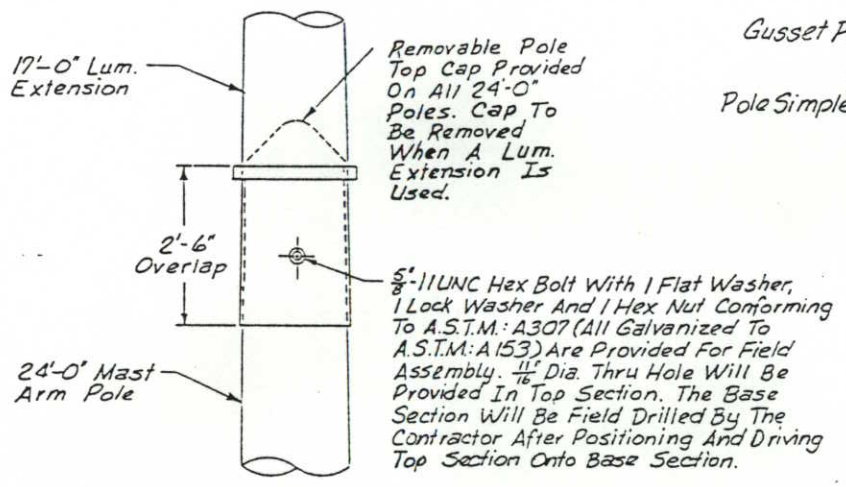
POLE TOP DETAIL



Luminaire Extension



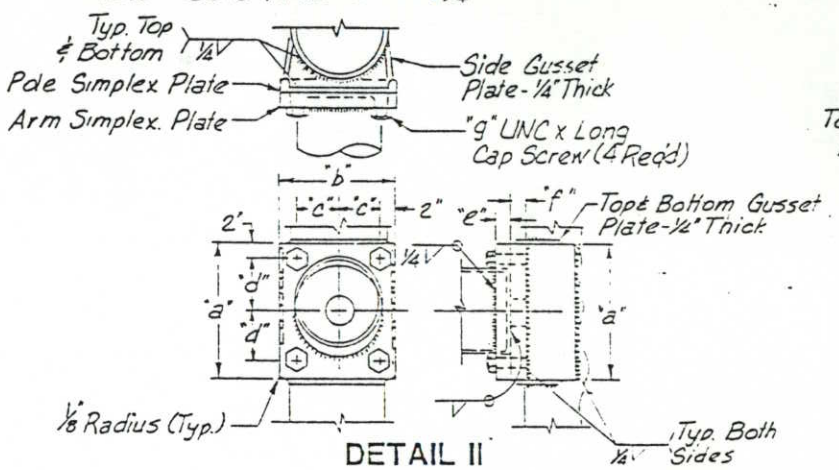
DETAIL IV



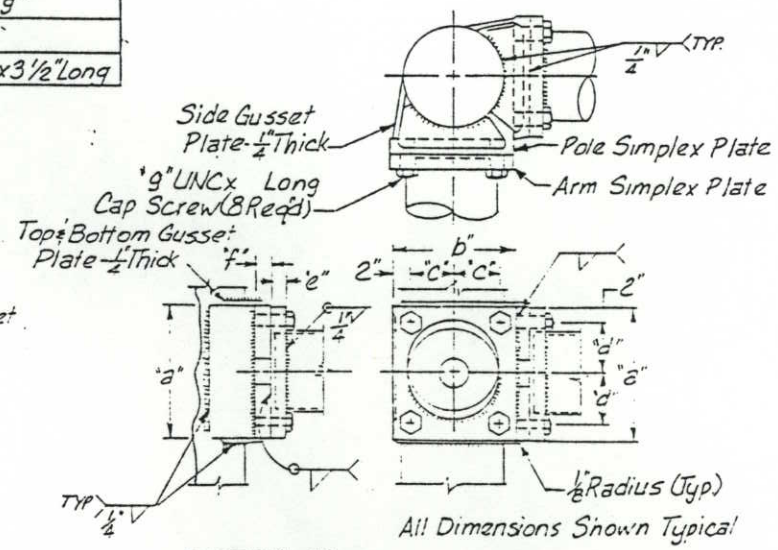
DETAIL V

ARM CONNECTION DATA							
POLE SIZE	"a"	"b"	"c"	"d"	"e"	"f"	"g"
15.0"	16¼"	15"	5½"	6⅛"	1½ ⊗	1¾"	1½ 6UNCx3½"Long

⊗ 12.5" - 50'-0" Arms "e" = 1¾"

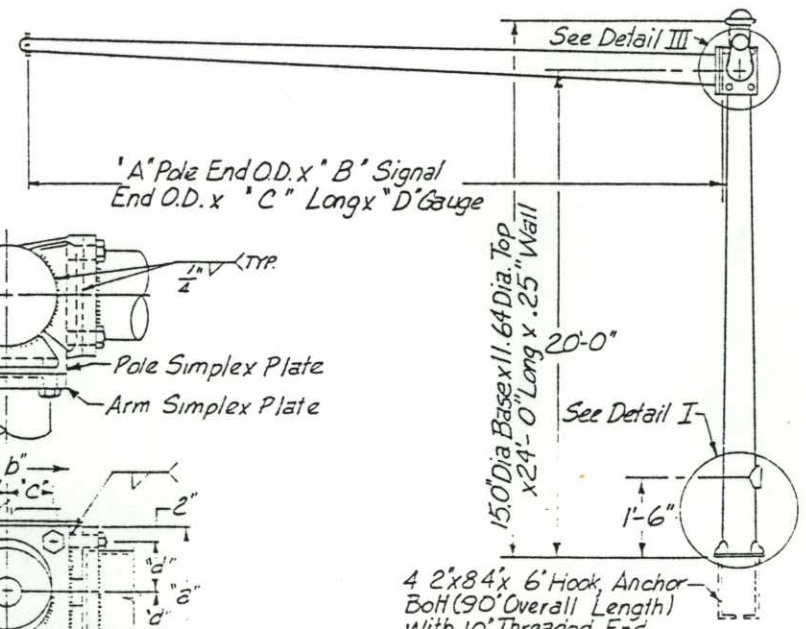


DETAIL II



All Dimensions Shown Typical

DETAIL III



NOTES:

1. ALL POLE, TRAFFIC SIGNAL AND LUMINAIRE ARM SHAFTS, 13.0" O.D. AND UNDER, SHALL CONFORM TO ASTM DESIGNATION: A595 GRADE 55 WITH A LINEAR TAPER - 0.14"/FT.
2. ALL POLE SHAFTS, 13.5" O.D. OR GREATER, SHALL CONFORM TO ASTM DESIGNATION: A572 GRADE 55 WITH A LINEAR TAPER - 0.14"/FT.
3. BASE PLATES FOR POLE SHAFTS 13.0" O.D. AND UNDER TO BE 36,000 PSI MINIMUM YIELD STRENGTH.
4. BASE PLATES FOR POLE SHAFTS 13.5" O.D. AND GREATER TO BE 42,000 PSI MINIMUM YIELD STRENGTH.
5. ANCHOR BOLTS - ASTM A36 MODIFIED TO 55,000 PSI MINIMUM YIELD STRENGTH.
6. POLE AND ARMS TO BE GALVANIZED TO ASTM DESIGNATION: A123.
7. ACCESSORIES TO BE HOT DIP GALVANIZED TO ASTM DESIGNATION: A153
8. CAST POLE TOP CAP - SECURED IN PLACE WITH 3 SET SCREWS.
9. SIMPLEX CONNECTING BOLTS HIGH STRENGTH, GALVANIZED TO ASTM DESIGNATION: A153.
10. SIMPLEX PLATES - 36,000 PSI MINIMUM YIELD STRENGTH.
11. ALL VEHICULAR AND/OR PEDESTRIAN SIGNAL LIGHTS AND NECESSARY HARDWARE TO ATTACHMENT TO BE FIELD LOCATED.
12. CAST ANCHORBOLT COVERS, STN STD FASTENERS PROVIDED TO SECURE COVERS IN PLACE.
13. LUMINAIRE ARM SHAFT - 11 GA. STEEL WITH 55.000 PSI MINIMUM YIELD STRENGTH - LINEAR TAPER - 0.14"/FT. WITH 2-3/8" O.D. X 8" STRAIGHT SECTION LUMINAIRE END.

STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
STATE OF COLORADO

TRAFFIC SIGNAL MAST ARM POLE DETAIL