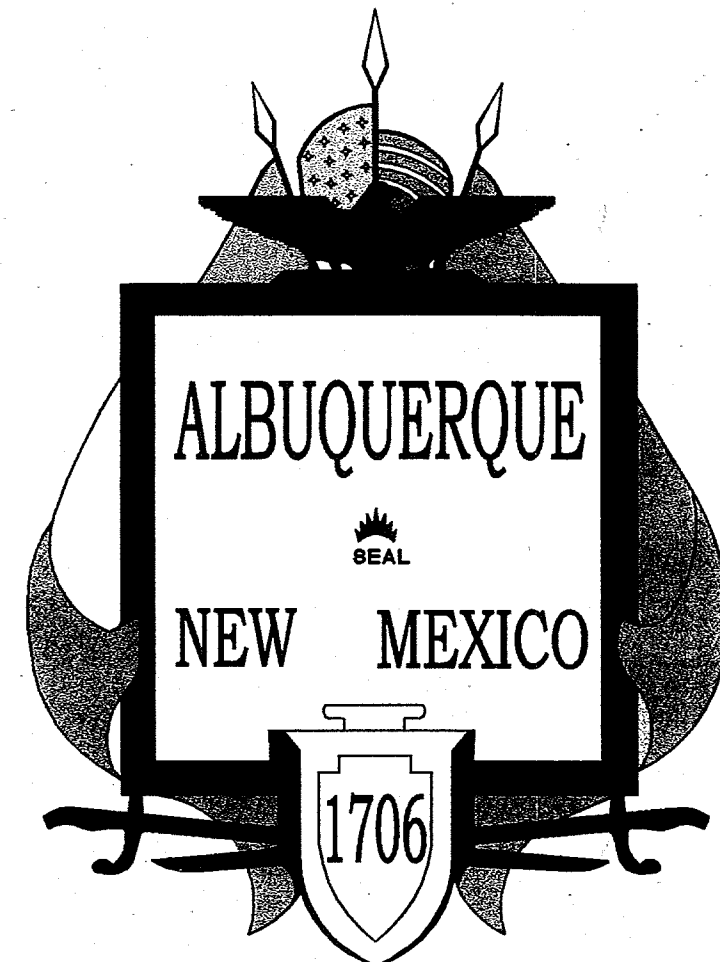


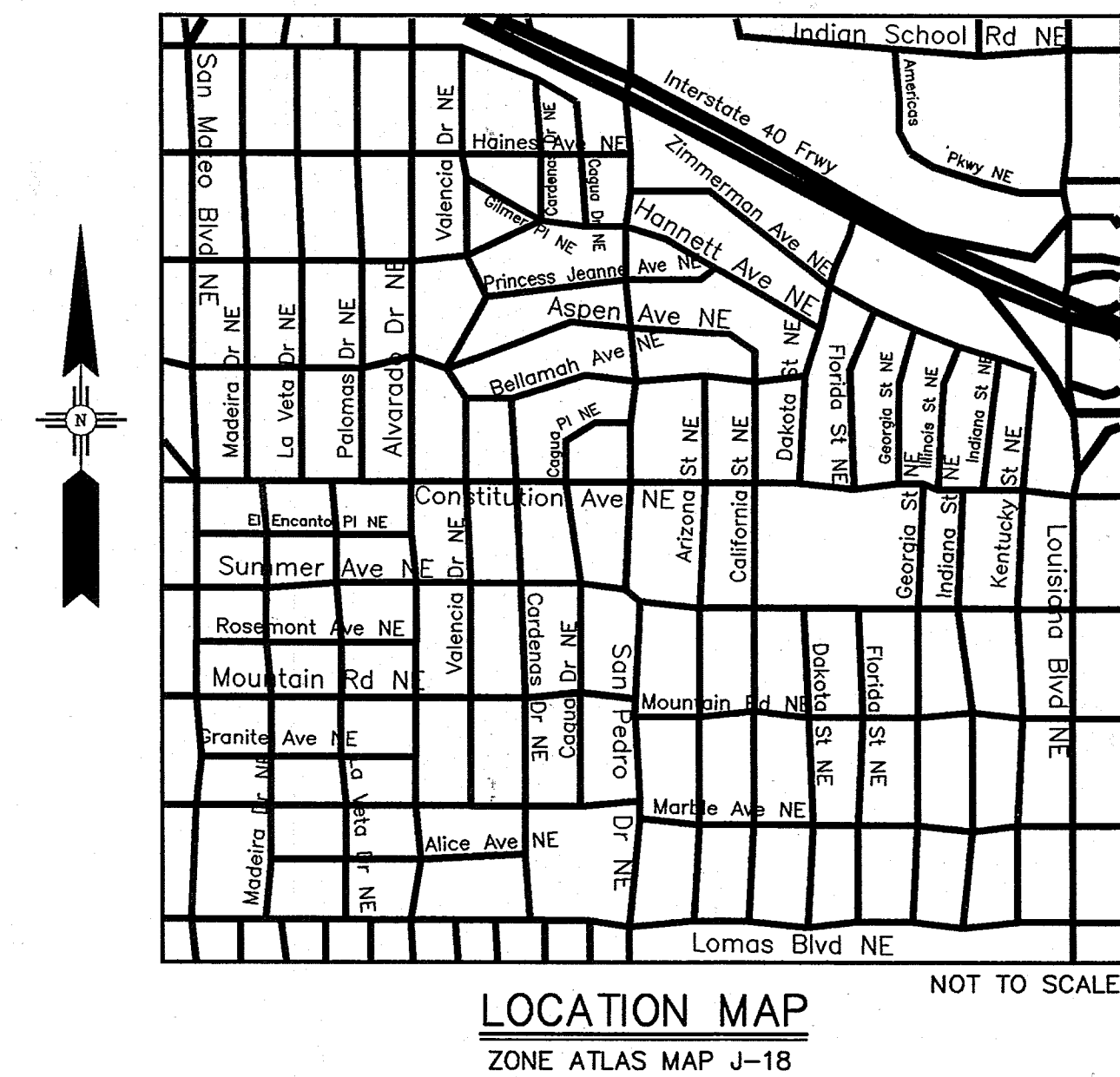
CITY OF ALBUQUERQUE NEW MEXICO



CONSTRUCTION PLANS FOR SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION

INDEX OF SHEETS

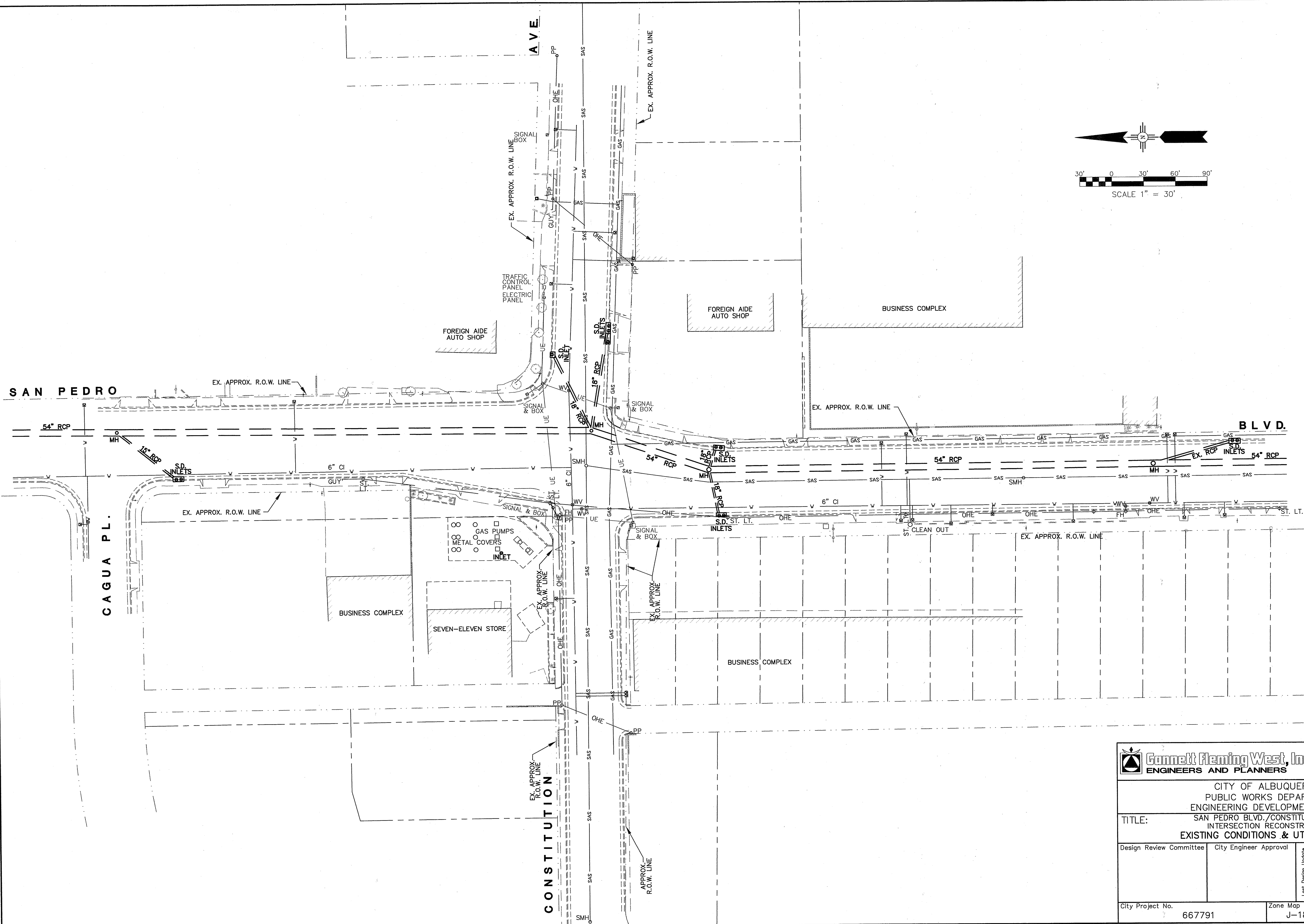
1	TITLE, LOCATION MAP and INDEX OF SHEETS	26-27	STANDARD TRAFFIC CONTROL LAYOUTS
2	EXISTING CONDITIONS and UTILITIES PLAN	28	TRAFFIC CONTROL QUANTITIES
3	PROJECT LAYOUT PLAN	29	PERMANENT SIGNING DETAILS and NOTES
4	LEGEND AND MISCELLANEOUS NOTES	30	PERMANENT SIGNING and STRIPING LAYOUT
5	SUMMARY OF QUANTITIES	31	TYPICAL STRIPING DETAILS
6	TYPICAL SECTIONS	32	SIGNING and STRIPING QUANTITIES
7	MISCELLANEOUS DETAILS	33	TRAFFIC SIGNAL GENERAL NOTES and LEGEND
8-9	MISCELLANEOUS QUANTITY SCHEDULES	34	TRAFFIC SIGNAL ESTIMATED QUANTITIES
10	SURVEY CONTROL PLAN	35	SIGNALIZATION PLAN
11	CURB and GUTTER LAYOUT PLAN	36	TRAFFIC SIGNALS CABLES and CONDUITS
12-13	PAVING PLAN and PROFILE - SAN PEDRO BLVD.	37	TRAFFIC SIGNAL FUNCTIONS and DETECTORS
14-15	PAVING PLAN and PROFILE - CONSTITUTION AVE.	38-44	TRAFFIC SIGNAL STANDARDS and DETAILS
16-17	STORM DRAIN PLAN and PROFILE - SAN PEDRO BLVD.	45	ROADWAY LIGHTING NOTES, LEGEND and INCIDENTAL ITEMS
18	STORM DRAIN PLAN and PROFILE - CONSTITUTION AVE.	46	ROADWAY LIGHTING ESTIMATED QUANTITIES
19	SAN. SEWER REHABILITATION - CONSTITUTION AVE.	47	LIGHTING PLAN
20	WATERLINE IMPROVEMENTS - SAN PEDRO and CONSTITUTION	48	ROADWAY LIGHTING CABLES and CONDUITS
21	CONSTRUCTION TRAFFIC CONTROL STANDARDS	49-52	ROADWAY LIGHTING STANDARDS and DETAILS
22-25	CONSTRUCTION TRAFFIC CONTROL PHASING PLANS		



Gonnett Fleming West, Inc.
ENGINEERS AND PLANNERS
2155 Louisiana Blvd. NE, Suite 9000 Albuquerque, New Mexico 87110
Office: (505) 265-8468 Facsimile: (505) 881-2513

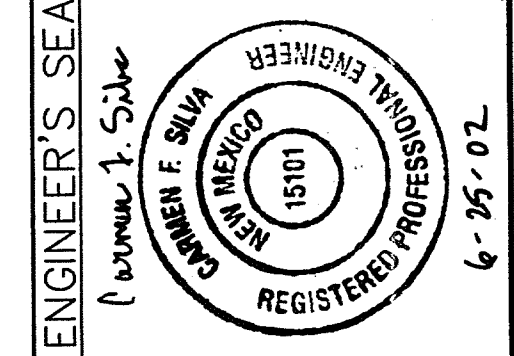
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		DRC Chairman				APPROVED FOR CONSTRUCTION	
		Transportation					
		Water/Wastewater					
		Hydrology					
		Parks					
Constr. Mngmt.				City Engineer		Date	
Constr. Coord.							
City Project No.		667791		Sheet		Of	
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Date: 6/7/2002 CFS
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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE.
INTERSECTION RECONSTRUCTION
EXISTING CONDITIONS & UTILITIES PLAN

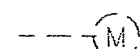
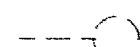
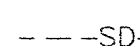
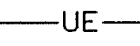
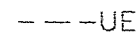
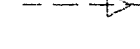
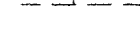
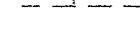
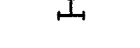
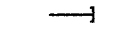
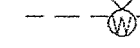
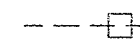
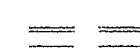
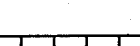
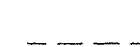
Design Review Committee	City Engineer Approval	Last Design Update	
City Project No. 667791		Zone Map No. J-18	Sheet 2 Of 52



NO.	DATE	REMARKS	BY
REVISIONS			
DESIGN			
DESIGNED BY		DATE	DATE
DRAWN BY		DATE	DATE
CHECKED BY		DATE	DATE

ENGINEER'S SEAL		SURVEY INFORMATION	
KAREN F. SILVA REGISTERED PROFESSIONAL ENGINEER NEW MEXICO 15101		FIELD NOTES	DATE
		NO.	BY

BENCH MARKS		AS BUILT INFORMATION	
ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection NM Central Zone, NAD 27/NGVD 29, in feet X=402236.69, Y=1489851.27, EL=5258.64		CONTRACTOR	DATE
		STARTED BY	DATE
		INSPECTOR'S	DATE
		FIELD CHECKED BY	DATE
		REVISION BY	DATE
		CORRECTED BY	DATE
MICRO-FILM INFORMATION		RECORDED BY	DATE
ACS Brass tablet stamped "1-J18 1981" set in curb at Constitution Ave. & Madera Dr Intersection NM Central Zone, NAD 27/NGVD 29, in feet X=399917.88, Y=1489869.09, EL=5229.93		NO.	DATE

PROPOSED	EXISTING	DESCRIPTION
		SANITARY SEWER MANHOLE
		STORM DRAIN MANHOLE
		TELEPHONE MANHOLE
		MANHOLE
		SANITARY SEWER LINE w/SIZE & TYPE
		STORM DRAIN LINE w/SIZE & TYPE
		WATER LINE w/SIZE & TYPE
		OVERHEAD ELECTRICAL LINE
		ELECTRICAL RISER
		UNDERGROUND ELECTRICAL/TRAFFIC CONTROL
		UNDERGROUND TELEPHONE
		OVERHEAD TELEPHONE
		GAS LINE w/SIZE & TYPE
		CABLE TELEVISION LINE
		ENCASEMENT
		STORM INLET (GRADE ELEVATION GIVEN IN PLANS IS EXTENDED FLOW LINE)
		WATER RISER
		WATER VALVE
		BUTTERFLY VALVE
		FIRE HYDRANT
		REDUCER
		SAS SERVICE CONNECTION
		WATER SERVICE CONNECTION
		TEES
		CROSSES
		BENDS
		CAPS & PLUGS
		WATER METER
		GAS METER
		GAS RISER
		VALVE BOX
		POWER POLE
		TRAFFIC SIGNAL
		TRAFFIC CONTROL BOX
		PULL BOX
		TELEPHONE RISER
		TELEPHONE BOOTH
		FIRE ALARM BOX
		CURB & GUTTER
		SIDEWALK
		BLOCK WALL
		CHAIN LINK FENCE
		FIELD FENCE
		RIGHT OF WAY LINES
		PROPERTY LINES(SIDE)
		PUBLIC EASEMENT
		POWER POLE W/LIGHT
		DRIVEPAD
		MOBILITY IMPAIRED ACCESS RAMP
		C.O.A. PROJECT CONTROL POINT OR A.C.S. MONUMENT DO NOT DISTURB
		TEST BORING
		HORIZ. & VERT. CONTROL
		TREE
		BUSH
		SIGN OR BILLBOARD
		PARKING BUMPER

GENERAL NOTES:

- THE CONTRACTOR SHALL PROVIDE INGRESS AND EGRESS TO LOCAL BUSINESSES AND RESIDENCES FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL ADVISE OF AND SCHEDULE ACCESS CLOSURES, AT LEAST 24 HOURS IN ADVANCE, WITH PROPERTY OWNERS AND THE CONSTRUCTION PROJECT MANAGER.
- IF A PAVEMENT DROP-OFF IS CREATED DURING CONSTRUCTION, THE CONTRACTOR SHALL INITIATE PROTECTIVE ACTION IN ACCORDANCE WITH THE NMSHTD'S CURRENT "DROP-OFF-POLICY". THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.
- NO MATERIAL PITS HAVE BEEN DESIGNATED FOR THIS PROJECT. THE CONTRACTOR MAY OBTAIN SPECIFICATION BORROW OR SURFACING MATERIAL FROM ANY ACCEPTABLE SOURCE.
- THE CONTRACTOR SHALL CLEAN ALL EXISTING STRUCTURES THAT ARE TO REMAIN OPERATIONAL. STRUCTURES SHALL BE CLEAN AT THE TIME OF FINAL PROJECT ACCEPTANCE. THIS WORK SHALL BE CONSIDERED AS INCIDENTAL TO CONSTRUCTION. NO SEPARATE MEASUREMENT AND PAYMENT WILL BE MADE FOR CLEANING OF STRUCTURES.
- FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (768-2551) PRIOR TO OCCUPYING AN INTERSECTION.
- THE CONTRACTOR SHALL BE RESTRICTED TO THE USE OF 35 TON NON-VIBRATING ROLLER MAXIMUM TO OBTAIN THE REQUIRED COMPACTION IN PAVEMENT STRUCTURE, ROADWAY BACKFILL, EMBANKMENT, AND SUBGRADES IN URBAN AREAS WHERE THE USE OF HEAVIER EQUIPMENT COULD DAMAGE UNDERGROUND UTILITIES OR OTHER PERMANENT STRUCTURES.
- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER THIS CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREIN, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1994 EDITION REVISED, OR AS MODIFIED BY THE PROJECT SPECIFICATIONS TITLED "SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION", AS STATED IN THE SPECIAL PROVISIONS.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT N.M. ONE-CALL SYSTEM, 260-1990, FOR LOCATION OF EXISTING UTILITIES.
- ALL NEW STREET PAVING, CURB AND GUTTER, SIDEWALKS OR DRIVEPADS SHALL MATCH THE ELEVATIONS OF ABUTTING EXISTING AREAS AS SHOWN IN THE PLANS OR AS DIRECTED BY THE PROJECT MANAGER.
- THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH ALL OTHER CONTRACTORS AND UTILITY COMPANIES WORKING IN THE SAME AREA. THE CONTRACTOR MAY BE REQUIRED TO RESCHEDULE THEIR ACTIVITIES TO ALLOW ADDITIONAL CREWS TO PERFORM THEIR REQUIRED WORK. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCE CAUSED BY UTILITY COMPANY WORK CREWS.
- WHEN ABUTTING NEW PAVEMENT TO EXISTING, CONTRACTOR SHALL SAW CUT, TO FULL PAVEMENT DEPTH, THE EXISTING PAVEMENT TO A NEAT VERTICAL STRAIGHT LINE AS REQUIRED TO REMOVE ANY BROKEN OR CRACKED PAVEMENT AND MATCH NEW TO EXISTING. THIS WORK SHALL BE CONSIDERED INCIDENTAL AND NO ADDITIONAL PAYMENT WILL BE MADE THEREFOR.
- THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENTS, PAVEMENT MARKINGS, CURB AND GUTTER, OR SIDEWALK DURING CONSTRUCTION, APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS, AND SHALL REPAIR OR REPLACE PER CITY OF ALBUQUERQUE STANDARDS AT HIS OWN EXPENSE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING, AT HIS OWN EXPENSE, ALL PERMITS NECESSARY FOR CONSTRUCTION.
- ALL WORK IMPACTING AN ARTERIAL ROADWAY WILL REQUIRE 24-HOUR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE'S ORANGE BARREL POLICY.
- CRITICAL INTERSECTION WORK SHALL NOT START UNTIL THE CONTRACTOR HAS ALL MATERIAL, EQUIPMENT, AND NECESSARY PERSONNEL ON-SITE. TRAFFIC CONTROL DEVICES SHALL NOT BE PLACED PREMATURELY.
- OVERNIGHT PARKING OF CONSTRUCTION VEHICLES ON PRIVATE PROPERTY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- PNM SHALL PERFORM POLE LINE SETBACK ON THE EAST SIDE TO PROVIDE SPACE NECESSARY FOR TRAVEL LANES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT HORIZONTAL AND VERTICAL CONTROL SURVEY MONUMENTS, AS SHOWN IN THE PLANS, PRIOR TO INITIATING CONSTRUCTION. IF DURING THE COURSE OF CONSTRUCTION OPERATIONS, THE CONTRACTOR DISTURBS AND DESTROYS A MONUMENT, THE CONTRACTOR SHALL NOTIFY THE CITY SURVEYOR. THE MONUMENT SHALL ONLY BE REPLACED BY THE CITY SURVEY SECTION AT THE CONTRACTOR'S EXPENSE.
- ALL TRENCH EXCAVATION BACKFILL WITHIN THE ROADWAY PRISM SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR PER ASTM D-698 OR D-1557 AS APPLICABLE.
- ANY EARTHWORK HAUL ON THIS PROJECT WILL BE CONSIDERED AS INCLUDED IN THE CONTRACT PRICE FOR ITEM 0202.01 - EXCAVATE AND DISPOSE OF UNCLASSIFIED MATERIAL AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REMOVALS REQUIRED TO COMPLETE THE PROJECT. ADDITIONAL REMOVALS NOT SHOWN ON THE PLANS WILL BE CONSIDERED AS INCLUDED IN THE CONTRACT PRICE FOR 0202.X2 - REMOVE AND SALVAGE OR DISPOSE STRUCTURES AND OBSTRUCTIONS.
- WHEN EXISTING TRAFFIC SIGNALS ARE TURNED OFF, THE CONTRACTOR SHALL HAVE AN OFF-DUTY POLICE OFFICER DIRECT TRAFFIC. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND NO ADDITIONAL PAYMENT WILL BE MADE.

UTILITY NOTES:

- THE LOCATION OF ALL EXISTING UTILITIES, AS SHOWN ON THE DRAWINGS, ARE APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING FINAL UTILITY LOCATION DETERMINATION IN THE FIELD DURING CONSTRUCTION. THE COST OF THIS ACTIVITY WILL BE CONSIDERED INCIDENTAL AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.
- THE CONTRACTOR SHALL EXERCISE DUE CARE TO AVOID DISTURBING EXISTING UNDERGROUND UTILITIES. IT SHALL BE HIS RESPONSIBILITY TO COORDINATE WITH THE UTILITY COMPANIES IN ORDER TO PREVENT SERVICE DISRUPTION. THE CARE AND PROTECTION OF THESE CONDUITS AND ALL OTHER UTILITIES AND STREET APPURTENANCES THAT ARE NOT A PART OF THE INTENDED WORK AS SHOWN ON THE PLANS ARE THE RESPONSIBILITY OF THE CONTRACTOR. IF DAMAGED, LOST IN TRENCH, OR OTHERWISE HARMFULLY DISTURBED, THESE ITEMS WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- OVERNIGHT PARKING OF CONTRACTOR'S EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAY OPENINGS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL SCHEDULE TRENCHING INSTALLATION AND BACKFILL OPERATIONS SO THAT ACCESS TO ANY DRIVEWAY IS NOT DISRUPTED LONGER THAN ONE DAY.
- ALL WATER SHUTOFFS MUST BE COORDINATED WITH THE PUBLIC WORKS DEPARTMENT THREE (3) FULL WORKING DAYS PRIOR TO PROPOSED SHUTOFFS TO MINIMIZE DISRUPTIONS.
- WHERE TRENCHING BENEATH EXISTING UTILITY LINES OCCURS, THE CONTRACTOR WILL BE RESPONSIBLE FOR SUPPORTING THE LINE DURING CONSTRUCTION AND ASSURE THAT IT IS ADEQUATELY BACKFILLED AND COMPACTED.
- THE CONTRACTOR SHALL MAINTAIN ALL TRENCHES IN A SAFE CONDITION PROTECTING THE PEOPLE AND THE GENERAL PUBLIC. TRENCH PROTECTION SHALL BE IN ACCORDANCE WITH APPLICABLE O.S.H.A. REGULATIONS. EXCAVATIONS SHALL BE SLOPED, BRACED, OR SHEETED AS REQUIRED BY O.S.H.A. REGULATIONS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY, AND FOR KNOWLEDGE AND COMPLIANCE WITH APPLICABLE O.S.H.A. STANDARDS. NO EXTRA PAYMENT WILL BE MADE FOR THIS COMPLIANCE.
- LOCATIONS OF SERVICE LINE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD LOCATE THESE SERVICE TAPS AFTER COORDINATING WITH THE INDIVIDUAL PROPERTY OWNERS. THE CONTRACTOR SHALL PROVIDE AS-BUILT LOCATIONS OF THE SERVICES. THE COST OF THIS ACTIVITY WILL BE CONSIDERED INCIDENTAL AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.
- SLIGHT ADJUSTMENTS TO THE NEW WATER AND SEWER LINE LOCATIONS MAY BE MADE IN THE FIELD IF NECESSARY TO AVOID RIGHT-OF-WAY CONFLICTS OR CONFLICTS WITH OTHER EXISTING UTILITIES OR OBSTRUCTIONS. THE CONTRACTOR SHALL DOCUMENT ANY CHANGES AND PROVIDE DETAILED AS-BUILT DRAWINGS OF THESE CHANGES. THE COST OF THIS ACTIVITY WILL BE CONSIDERED INCIDENTAL AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.
- CONTRACTOR SHALL SAW CUT EXISTING ASPHALT PRIOR TO REMOVING ANY PAVEMENT SECTION. COSTS FOR SAW CUTTING SHALL BE INCIDENTAL TO THE REMOVAL AND REPLACEMENT OF PAVEMENT SECTION BID ITEM.
- CAPPING OF STUBOUTS AND FURNISHING AND INSTALLING BLIND FLANGES SHALL BE CONSIDERED INCIDENTAL TO THE OVERALL PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE THEREFOR.

UTILITY OWNERS

Crowel, David	Office phone: 842-2911 Office fax: 842-2890	AT&T Resource Supervisor 111 3rd Street NW Albuquerque, NM 87103
Damell, Andy	Office phone: (505) 346-4476 Office fax: (505) 346-4481	MCI Worldcom Operations Manager 3700 Singer NE, Suite A Albuquerque, NM 87109
Erickson, Rita	Office phone: (505) 761-6235 Office fax: (505) 761-0599	Comcast Planning and Design Supervisor 4611 Montbel Place NE Albuquerque, NM 87107
Ferran, Rocky	Office phone: (505) 241-0525 Office fax: (505) 241-3620	PNM- Electric Engineering Representative 4201 Edith Blvd. NE Albuquerque, NM 87107
Gabel, Elisabeth	Office phone: (505) 241-7745 Office fax: 241-7753	PNM - Gas/Gas Co. of NM Planning Engineer 4625 Edith Blvd. NE MS-GS66 Albuquerque, NM 87107
Gay, Bob	Office phone: (505) 898-2661 Office fax: (505) 898-6379	New Mexico Utilities Operations Superintendent 4700 Irving Blvd. NW Suite 201 Albuquerque, NM 87114
Harrison, Royal	Office phone: (505) 938-7339 Office fax: (505) 938-7380	Time Warner Telecom Plant Manager 3830 Singer Blvd. NE Suite 1000 Albuquerque, NM 87109
Mares, John	Office phone: (505) 998-2274 Office fax: (505) 998-9161	E.Spire 505 Marquette NW Suite 1605 Albuquerque, NM 87102
Mueller, Rick	Office phone: (505) 244-3161 Office fax: (505) 244-0094 Cell phone: 228-3329	McLeodUSA Supervisor of Outside Techs. 505 Marquette NW, (Compass Bank) Suite 1600 Albuquerque, NM 87102
Muller, David	Office phone: (505) 245-8706 Office fax: (505) 245-6831 or 245-6733	QWEST/US WEST Capacity Provisioning Specialist 201 3rd Street NW (Bank of Albuquerque) Suite 700 Albuquerque, NM 87102
Nelson, Joshua	Cell phone: (505) 991-2120 Office fax: (505) 217-0070	City Net Telecommunications Consultant 505 Marquette Ave., NW Suite 119-A Albuquerque, NM 87102
Olson, Greg	Office phone: (505) 768-2719 Office fax: (505) 768-3629	City of Albuquerque Principal Engineer, Utility Development P.O. Box 1293 Albuquerque, NM 87103
Turley, Tom	Office phone: (636) 561-0339 Office fax: (636) 561-0355	Genuity Supervisor - OSP Maintenance 50 Centre on the Lake Lake Saint Louis, MO 63367

WHEN APPEARING IN ANY PORTION OF THIS CONTRACT, THE WORDS "PLANT MIX BITUMINOUS PAVEMENT" (PMBP) WILL HAVE THE SAME MEANING AS AND MAY BE USED INTERCHANGEABLY WITH THE WORDS "ASPHALT CONCRETE".

INCIDENTAL ITEMS*

- CORRECTION OF PAVEMENT DROP-OFF. SEE GENERAL NOTE 2, THIS SHEET.
- CLEAN EXISTING STRUCTURES. SEE GENERAL NOTE 4, THIS SHEET.
- MATCHING EXISTING PAVEMENTS. SEE GENERAL NOTE 11, THIS SHEET.
- OFF-DUTY POLICE OFFICER. SEE GENERAL NOTE 22, THIS SHEET.



CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: SAN PEDRO BLVD./CONSTITUTION AVE.
INTERSECTION RECONSTRUCTION
LEGEND AND MISCELLANEOUS NOTES

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of
667791	J-18	4	52

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SUMMARY OF QUANTITIES

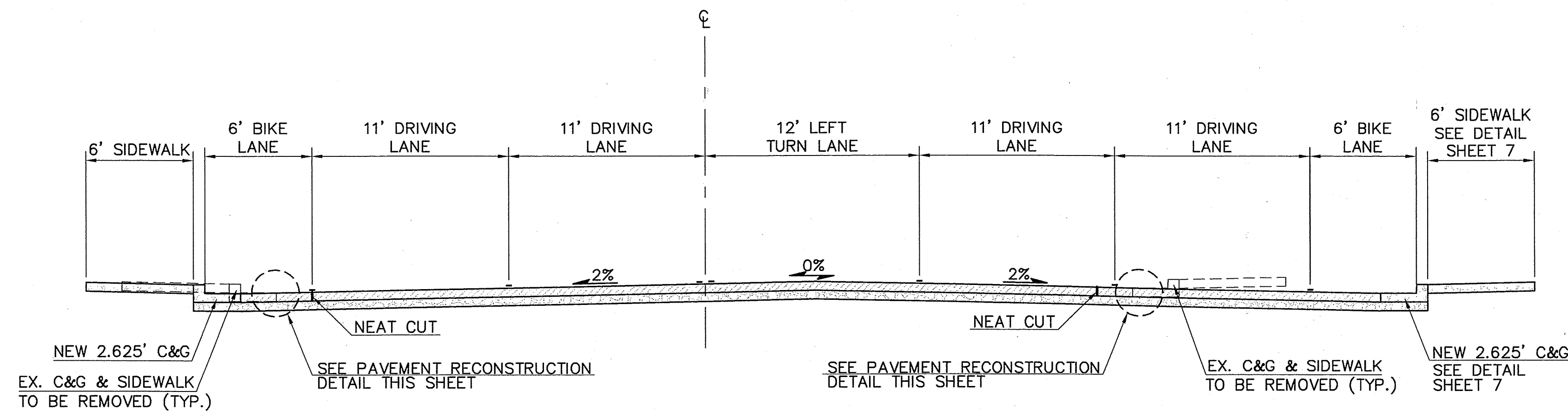
ITEM NO.	ITEM DESCRIPTION	UNIT	ROADWAY		STORM DRAIN & UTILITIES		CONSTRUCTION TRAFFIC CONTROL		PERMANENT SIGNING & STRIPING		SIGNALIZATION		LIGHTING		PROJECT TOTAL	
			ESTIMATE	FINAL	ESTIMATE	FINAL	ESTIMATE	FINAL	ESTIMATE	FINAL	ESTIMATE	FINAL	ESTIMATE	FINAL	ESTIMATE	FINAL
4.010	CONSTRUCTION STAKING, COMPL.	LS													LS	
4.020	CONSTRUCTION SURVEYING, COMPL.	LS													LS	
6.010	CONSTRUCTION PROJECT SIGN	EA						4							4	
6.050	CONSTRUCTION MOBILIZATION, COMPL.	LS						LS							LS	
19.010	CONSTRUCTION TRAFFIC CONTROL & BARRICADING, COMPL.	LS						LS							LS	
116.012	ARTERIAL ASPHALT CONCRETE TYPE B, COMPLETE	TON	12200												12200	
116.020	PLACEMENT OF ARTERIAL ASPHALT, 2"	SY	12200												12200	
301.020	SUBGRADE PREPARATION 12" AT 95% COMPACTION, C.I.P.	SY	4300												4300	
302.020	AGGREGATE BASE COURSE, CRUSHED, 6" THICK AT 95% COMPACTION, C.I.P.	SY	4300												4300	
336.010	PRIME COAT, EMULSIFIED ASPHALT, C.I.P.	SY	1200												1200	
336.120	TACK COAT, CATIONIC EMULSIFIED ASPHALT, C.I.P.	LF	1450												1450	
340.010	SIDEWALK, 4" THICK, PORTLAND CEMENT CONCRETE, INCL. SUBGRADE COMPACTION, C.I.P.	SY	975												975	
340.020	DRIVEPAD, 6" THICK, PORTLAND CEMENT CONCRETE, INCL. SUBGRADE COMPACTION, C.I.P.	SY	640												640	
340.025	WHEELCHAIR ACCESS RAMP, C.I.P.	EA	5												5	
340.050	CURB & GUTTER, STANDARD, PORTLAND CEMENT CONCRETE, INCL. SUBGRADE PREPARATION, C.I.P.	LF	2350												2350	
343.030	EXISTING PAVEMENT, ASPHALT CONCRETE, MORE THAN 4" THICK, SAWCUT, REMOVE & DISPOSE, COMPL.	SY	2550												2550	
343.080	EXISTING CURB & GUTTER OR VALLEY GUTTER, PC CONCRETE, REMOVE & DISPOSE, COMPL.	LF	2650												2650	
343.090	EXISTING SIDEWALK & DRIVEPAD, SAWCUT, REMOVE, & DISPOSE, COMPL.	SY	1100												1100	
344.030	COLD MILLING, ASPHALT CONCRETE PAVEMENT, 1-1/2" THICKNESS, INCL. DISPOSAL OF MILLINGS, COMPL.	SY	6700												6700	
421.005	SERVICE RISER (COMB.) C.I.P.	EA									1				1	
421.010	METER PEDESTAL (SIGNAL), C.I.P.	EA									1				1	
421.016	SERVICE CONNECTION (SIGNAL), C.I.P.	EA									1				1	
421.025	LIGHTING CONTROL CABINET, SIX CIRCUIT, METERED, C.I.P.	EA										1			1	
421.112	METER PEDESTAL (SIGNAL), REMOVE & DISPOSE, COMPL.	EA									1				1	
421.115	LIGHTING CONTROL CABINET, REMOVE & SALVAGE, COMPL.	EA										1			1	
422.017	TRAFFIC SIGNAL MASTARM, 30' ARM, TYPE III, TROMBONE, C.I.P.	EA									2				2	
422.021	TRAFFIC SIGNAL MASTARM, 40' ARM, TYPE III, TROMBONE, C.I.P.	EA									2				2	
422.030	STREET LIGHT STANDARD, SINGLE ARM, 30' (TYPE V DAVIT), C.I.P.	EA										5			5	
422.110	TRAFFIC SIGNAL MASTARM, ANY SIZE, REMOVE & DISPOSE, COMPL.	EA									4				4	
422.130	STREET LIGHT STANDARD, ANY SIZE, REMOVE & SALVAGE, COMPL.	EA										5			5	
423.002	TRAFFIC SIGNAL MASTARM FOUNDATION, C.I.P.	EA									4				4	
423.003	TRAFFIC SIGNAL CONTROLLER FOUNDATION, (TYPE M & P CABINET), C.I.P.	EA									1				1	
423.020	LUMINAIRE FOUNDATION FOR LUMINAIRE HEIGHT OF 40' OR LESS, C.I.P.	EA										5			5	
423.101	TRAFFIC SIGNAL FOUNDATION MASTARM, REMOVE & DISPOSE, COMPL.	EA									4				4	
423.103	TRAFFIC CONTROLLER FOUNDATION, REMOVE & DISPOSE, COMPL.	EA									1				1	
424.005	ELECTRICAL CONDUIT, 2", INCL. TRENCHING, BACKFILL, PATCHING, PUSHING, BORING, & JACKING, C.I.P.	LF									300		1325		300	
424.011	ELECTRICAL CONDUIT, 3", INCL. TRENCHING, BACKFILL, PATCHING, PUSHING, BORING, & JACKING, C.I.P.	LF									800				800	
425.002	ELECTRICAL PULL BOX, (STANDARD), C.I.P.	EA										4			4	
425.003	ELECTRICAL PULL BOX, (LARGE), C.I.P.	EA									9				9	
425.101	ELECTRICAL PULL BOX, ANY TYPE, REMOVE & DISPOSE, C.I.P.	EA									10				10	
426.001	SINGLE CONDUCTOR #2, C.I.P.	LF									275		2800		3075	
426.004	SINGLE CONDUCTOR #8, C.I.P.	LF									575		175		750	
426.010	MULTI CONDUCTOR CABLE #5, C.I.P.	LF									1100				1100	
426.014	MULTI CONDUCTOR CABLE #20, C.I.P.	LF									1100				1100	
427.002	3 SECTION TRAFFIC SIGNAL ASSEMBLY, C.I.P.	EA									12				12	
427.023	PEDESTRIAN SIGNAL, LED, C.I.P.	EA									8				8	
427.031	3 SECTION BACKPLATE, C.I.P.	EA									8				8	
428.010	PUSH BUTTON STATION, C.I.P.	EA									8				8	
428.011	PUSH BUTTON STATION, REMOVE & SALVAGE, COMPL.	EA									8				8	
428.070	PHASE SELECTOR RACK, 4 CHANNELS, C.I.P.	EA									1				1	
428.075	OPTICAL DETECTOR, 1D/1C, C.I.P.	EA									4				4	
428.078	OPTICAL DETECTOR CABLE	LF									925				925	
428.090	MACHINE VISION VEHICLE DETECTION SYSTEM, C.I.P.	EA									1				1	
428.092	VIDEO COAXIAL CABLE, C.I.P.	LF									1000				1000	
428.093	VIDEO POWER CABLE, C.I.P.	LF									1000				1000	
429.01X	ITMS IDC 820A VMS CONTROLLER, C.I.P.	EA									1				1	
429.21X	MULTISONICS P-TYPE SYSTEM READY CABINET, C.I.P.	EA									1				1	
429.101	SIGNAL CONTROLLER, ANY TYPE, REMOVE & SALVAGE, C.I.P.	EA									1				1	
429.121	CONTROLLER CABINET, ANY TYPE, REMOVE & SALVAGE, C.I.P.	EA									1				1	
432.001	ROADWAY LUMINAIRE, TYPE 250S, C.I.P.	EA										9			9	
432.101	ROADWAY LUMINAIRE, ANY TYPE, REMOVE & SALVAGE, C.I.P.	EA										6			6	
440.001	REFLECTORIZED PLASTIC PAVEMENT MARKINGS, 4" WIDTH C.I.P.	LF							3800						3800	
440.003	REFLECTORIZED PLASTIC PAVEMENT MARKINGS, 8" WIDTH C.I.P.	LF							500						500	
441.004	REFLECTORIZED PLASTIC PAVEMENT MARKINGS, 12" WIDTH, C.I.P.	LF							520						520	
441.005	REFLECTORIZED PLASTIC PAVEMENT MARKINGS, 24" WIDTH, C.I.P.	LF							150						150	
441.011	REFLECTORIZED PLASTIC ARROW, LEFT, C.I.P.	EA							4						4	
441.012	REFLECTORIZED PLASTIC ARROW, THRU, C.I.P.	EA							2						2	
441.013	REFLECTORIZED PLASTIC ARROW, THRU & RIGHT, C.I.P.	EA							4						4	
450.001	ALUMINUM PANEL SIGN, C.I.P.	SF							190						190	
450.010	SQUARE TUBE STEEL POSTS & BASE POSTS FOR ALUMINUM PANEL SIGN, C.I.P.	LF							180						180	
450.101	SIGN, POST, & BASE POST, REMOVE & SALVAGE, COMPL.	EA							15						15	
540.020	CONCRETE BLOCK MASONRY RETAINING WALL, CONCRETE-FILLED CORE, C.I.P.	SY	220												220	
540.030	CONCRETE BLOCK MASONRY WALL, INCL. FOUNDATION, REMOVE & DISPOSE, C.I.P.	SY	235												235	
701.100	TRENCHING, BACKFILL, & COMPACTION, FOR 18" TO 36" SEWER PIPE, UP TO 8' IN DEPTH, COMPL.	LF			65										65	
801.002	6" WATERLINE PIPE, w/o FITTINGS, C.I.P.	LF			1000										1000	
801.059	NON PRESSURIZED CONNECTION, w/FITTINGS, WATERLINE	EA			4										4	
801.065	DI FITTINGS, MECHANICAL JOINT, 4"-14", WATERLINE	LB			1200										1200	
801.081	6" GATE VALVE	EA			8										8	
801.105	6" VALVE BOX A	EA			8										8	
801.111	VALVE BOX, ADJUST TO GRADE, C.I.P.	EA	2												2	
801.113	FIRE HYDRANT, 4' BURY, C.I.P.	EA			2										2	
801.150	MECHANICAL JOINT REST. GLAND, 4"-8"	EA			10										10	
802.600	3/4" WATER SERVICE, SINGLE	EA			23										20	
802.620	1" WATER SERVICE, SINGLE	EA			1										1	
802.640	1 1/2" WATER SERVICE, SINGLE	EA			4										4	
802.650	2" WATER SERVICE, SINGLE	EA			1										1	
910.003	15" REINFORCED CONCRETE PIPE, CLASS III, FURNISH & PLACE IN OPEN TRENCH, C.I.P.	LF			25										25	
910.005	18" REINFORCED CONCRETE PIPE, CLASS III, FURNISH & PLACE IN OPEN TRENCH, C.I.P.	LF			40										40	
915.040	CATCH BASIN, TYPE "C", DOUBLE GRATE, C.I.P.	EA			5										5	
915.070	CATCH BASIN, EXISTING, REMOVE & DISPOSE, ANY TYPE, INC. CLEANUP, COMPL.	EA	6												6	
920.130	MANHOLE, 6' DIA. TYPE "C" LESS THAN 6' DEEP, C.I.P.	EA			1										1	
920.410	EXISTING MANHOLE FRAME & COVER, ADJUST TO GRADE WITH METAL RINGS, 2" OR LESS, C.I.P.	EA	5												5	
930.024	REHAB. 12" SAS, CLEAN, TEST & TV, COMPL.	LF			720										720	
930.040	REINSTATE SAS LATERALS, COMPL.	EA			15										15	



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION SUMMARY OF QUANTITIES	
Design Review Committee	City Engineer Approval
City Project No. 667791	
Zone Map No. J-18	Sheet 5 Of 52

ENGINEER'S SEAL		BENCH MARKS		AS BUILT INFORMATION	
Common F. Siler		ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection NM Central Zone, NAD 27/NGVD 29, in feet X=402236.69, Y=1489851.27, EL=5258.64		CONTRACTOR DATE INSPECTOR'S DATE FIELD DATE VERIFICATION BY DATE CORRECTION BY DATE MICRO-FILM INFORMATION RECORDED BY DATE NO.	
REVISIONS		FIELD NOTES		DATE	
NO. DATE		BY		DATE	
REMARKS		NO.		DATE	
DESIGN		BY		DATE	
DATE 11/2001		DATE 11/2001		DATE 11/2001	
DESIGNED BY CFS		DRAWN BY CFS		CHECKED BY JRS	

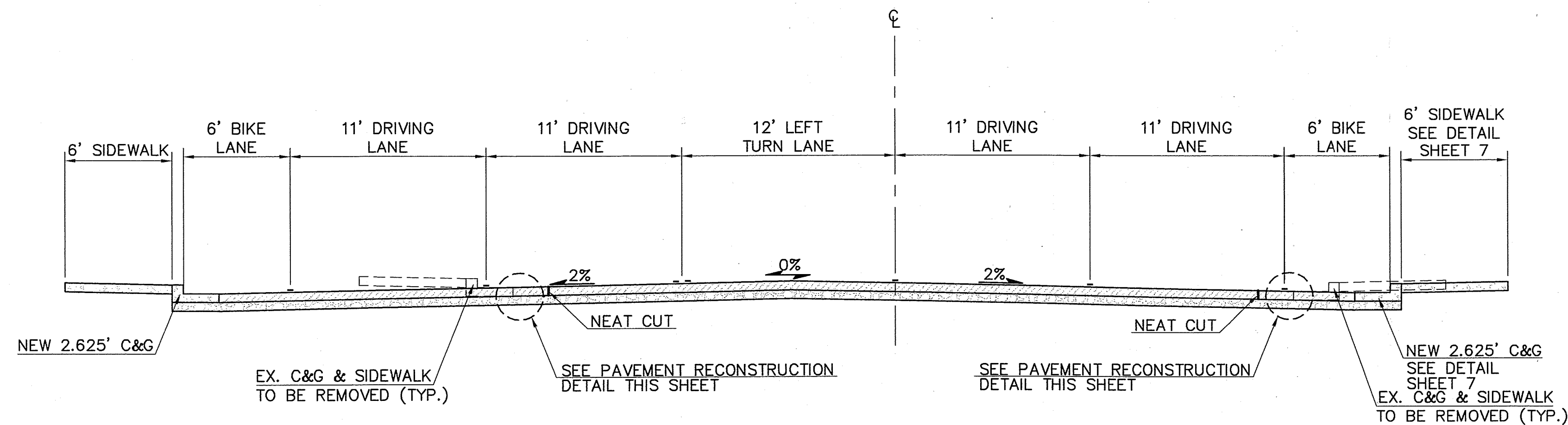
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SAN PEDRO - SECTION 1

SCALE: 1"=5'

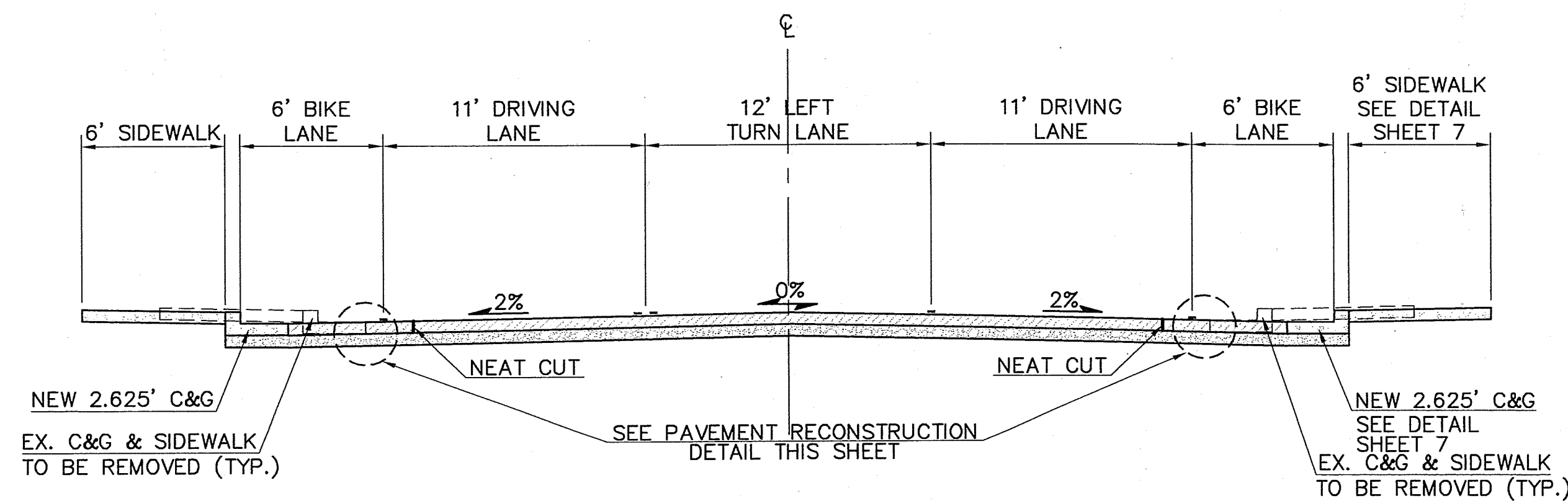
STA. 10+00 TO 10+59 TRANS. FROM EXISTING
STA. 10+59 TO STA. 12+71.40
STA. 12+71.40 TO 15+04.68 TRANS. TO SECTION 2



SAN PEDRO - SECTION 2

SCALE: 1"=5'

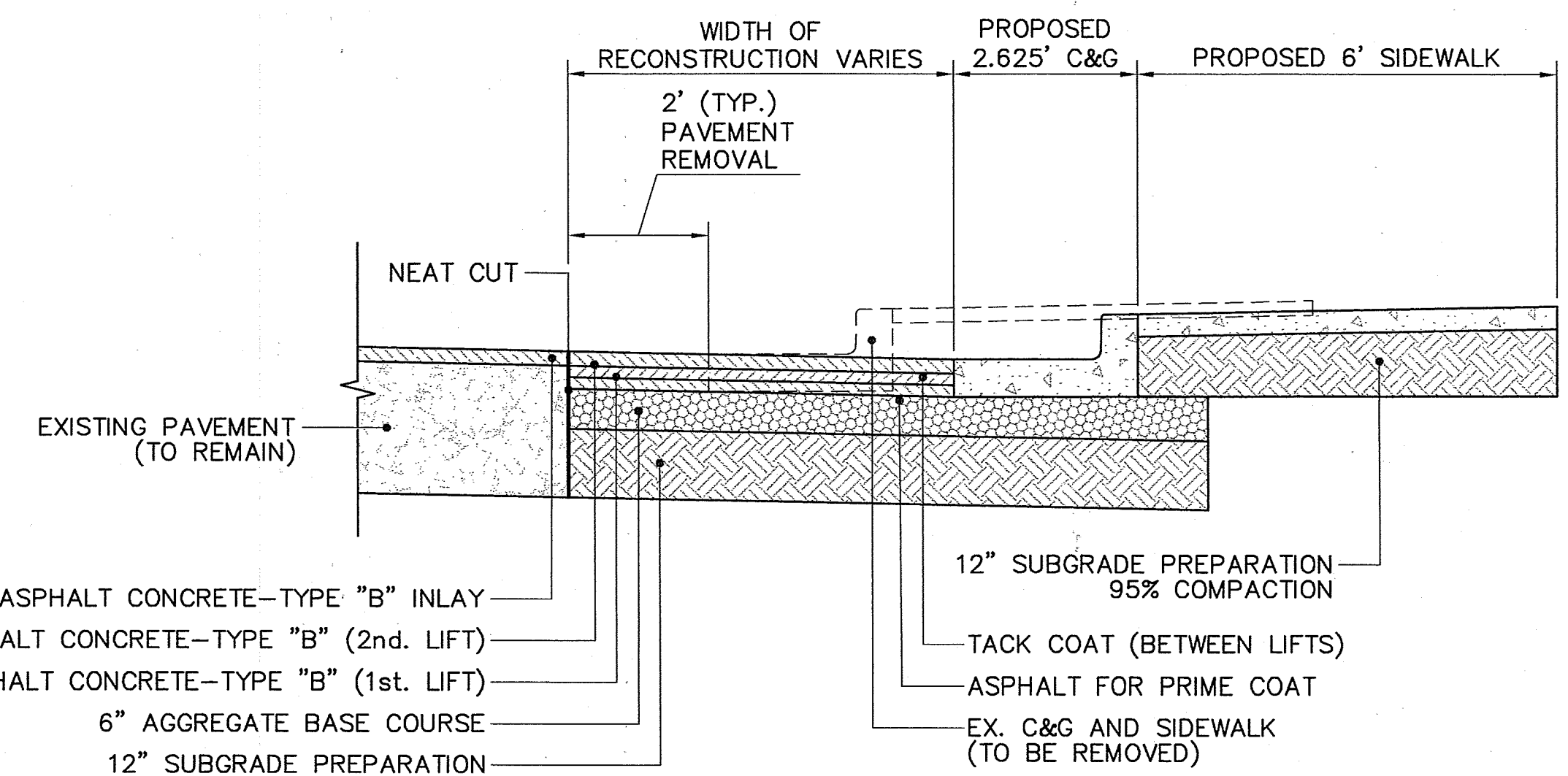
STA. 12+71.40 TO 15+04.68 TRANS. FROM SECTION 1
STA. 15+04.68 TO 16+20.02
STA. 16+20.02 TO 18+64.86 TRANS. TO EXISTING



CONSTITUTION - SECTION

SCALE: 1"=5'

STA. 10+50 TO 11+35 TRANS. FROM EXISTING
STA. 11+35 TO STA. 15+70.46
STA. 15+70.46 TO 16+16.77 TRANS. TO EXISTING



PAVEMENT RECONSTRUCTION DETAIL
NOT TO SCALE

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL		REVISIONS		DESIGN	
CONTRACTOR	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection											
NM Central Zone, NAD 27/NGVD 29, in feet											
X=402236.69, Y=1489851.27, EL=5258.84											
ACS Brass tablet stamped "1-J18 1981" set in curb at Constitution Ave. & Madiera Dr. Intersection											
NM Central Zone, NAD 27/NGVD 29, in feet											
X=399917.88, Y=1489869.09, EL=5229.93											

NO.	DATE	REMARKS	BY
		DESIGN	

DESIGNED BY	DRAWN BY	CHECKED BY

City Project No.	Zone Map No.	Sheet	Of
667791	J-18	6	52

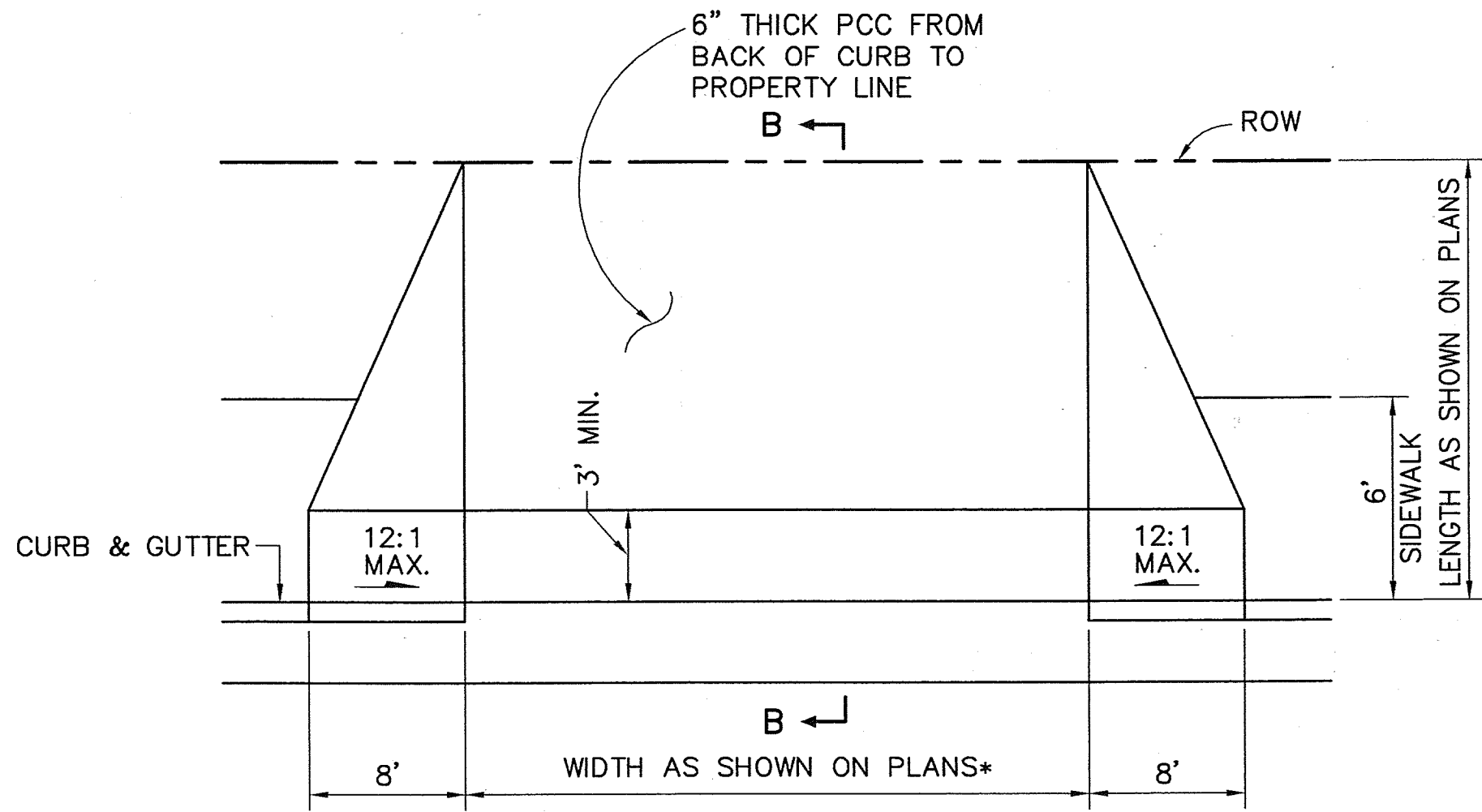


CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE.
INTERSECTION RECONSTRUCTION
TYPICAL SECTIONS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

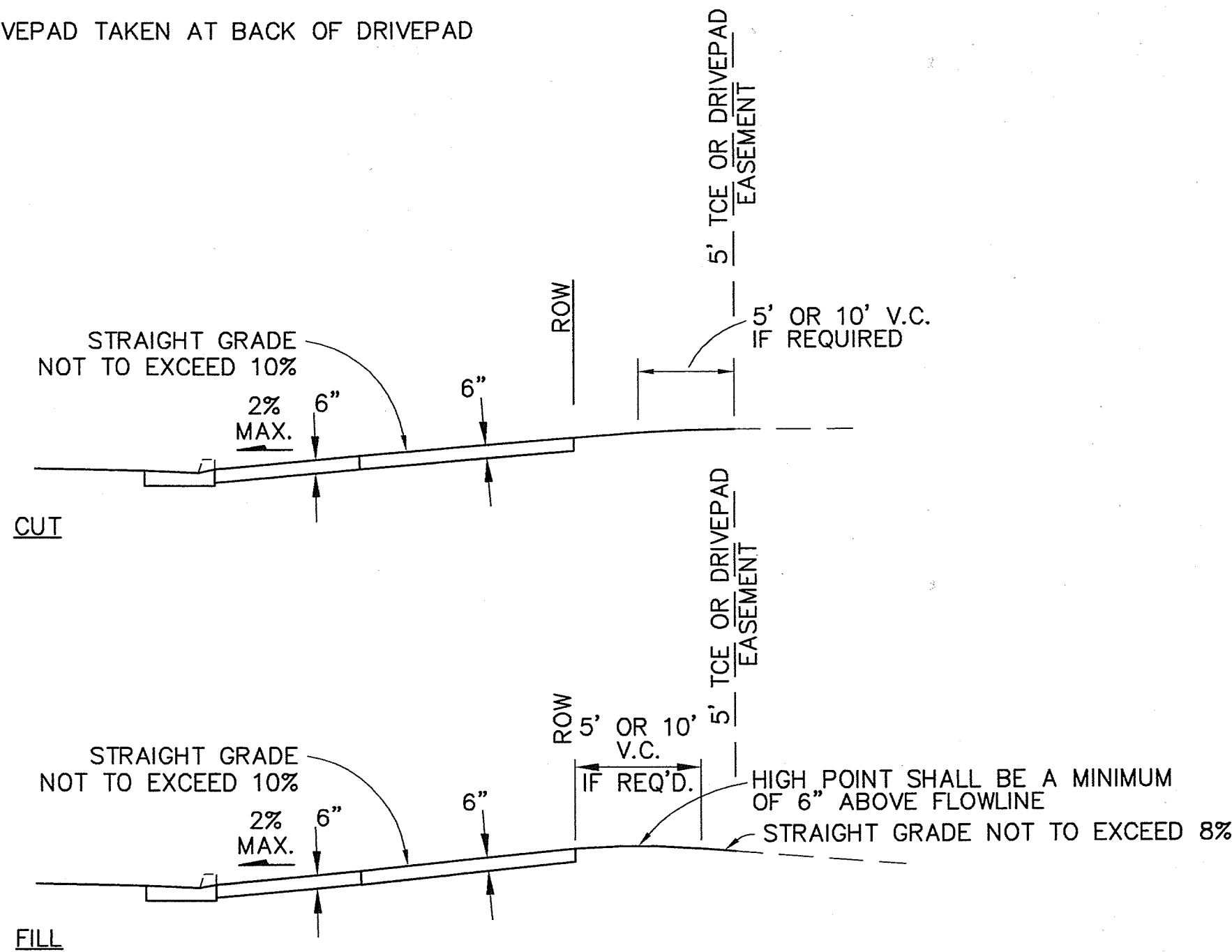
CURB AND GUTTER NOTES

1. CURBS, GUTTERS AND CUT-OFF WALL WILL BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE.
2. FOR STANDARD AND MEDIAN C&G ADJACENT TO ASPHALT CONCRETE PAVEMENT, PROVIDE CONTRACTION JTS. 12' MAX., SPACING, 1/2" EXP. JTS. AT CURB RETURNS & AT A MAXIMUM SPACING OF 120' BETWEEN CURB RETURNS & EACH SIDE OF SEPARATELY CONSTRUCTED DRIVEWAYS. CONTRACTION JTS., SHALL BE EITHER SAWED OR TOOLED A MINIMUM OF 1" DEEP AT FINISHED FACES.
3. FOR ALL OTHER C&G & CUT-OFF WALL PROVIDE CONTRACTION JTS. AT 10' MAX., SPACING, 1/2" EXP. JTS. AT CURB RETURNS & AT A MAXIMUM SPACING OF 100' BETWEEN CURB RETURNS & EACH SIDE OF SEPARATELY CONSTRUCTED DRIVEWAYS. CONTRACTION JTS. SHALL BE EITHER SAWED OR TOOLED A MINIMUM OF 1" DEEP AT ALL FINISHED FACES. REINFORCEMENT SHALL NOT BE USED IN CUT-OFF WALLS.
4. FOR C&G CONSTRUCTED WITH PORTLAND CEMENT CONCRETE PAVEMENT, CONTRACTION JTS. AND EXPANSION JTS. SHALL BE THE SAME AS THE PAVEMENT JOINTS.
5. ALL EDGES SHALL BE EDGED WITH A 3/8" RADIUS EDGING TOOL.
6. STANDARD C&G SHALL BE USED FOR NEW CONSTRUCTION UNLESS OTHERWISE AUTHORIZED BY THE CITY ENGINEER.
7. REMOVE AND REPLACE PAVEMENT 1' WIDE ADJACENT TO LIP OF GUTTER WHEN CONSTRUCTING C&G ADJACENT TO EXISTING ASPHALT CONCRETE PAVEMENT.
8. 1/4" ISOLATION JOINT SHALL BE PLACED BETWEEN SIDEWALK AND C&G WHEN CAST ADJACENT TO EACH OTHER.
9. ADA = AMERICAN WITH DISABILITIES ACT.
10. FOR ALL CURB DETAILS, DIMENSIONS AT ROUNDED CORNERS ARE MEASURED TO INTERSECTION OF STRAIGHT LINES.
11. SMOOTH TRANSITIONS SHALL BE PROVIDED WHEN MATCHING NEW CURB AND GUTTER TO EXISTING CURB AND GUTTER OF DIFFERING DIMENSIONS.

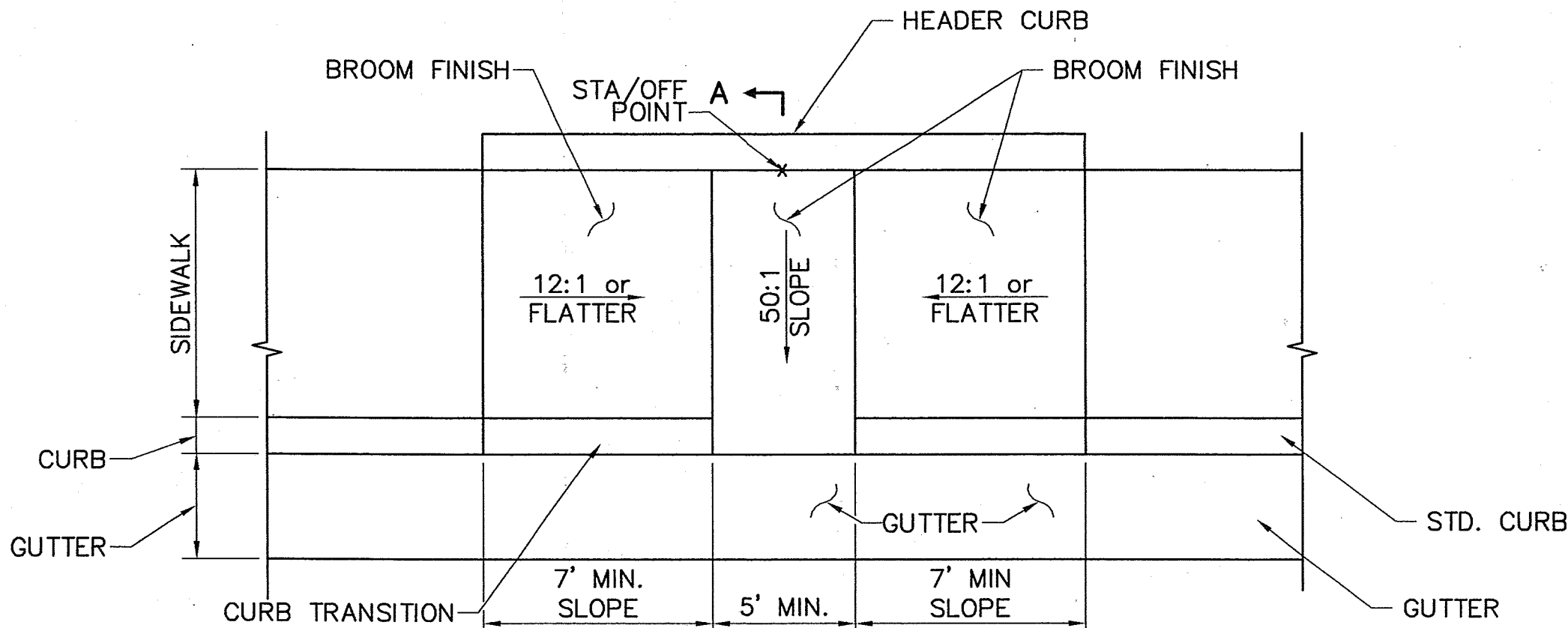


(SIDEWALK AT BACK OF CURB)
DRIVEPAD DETAIL
NOT TO SCALE

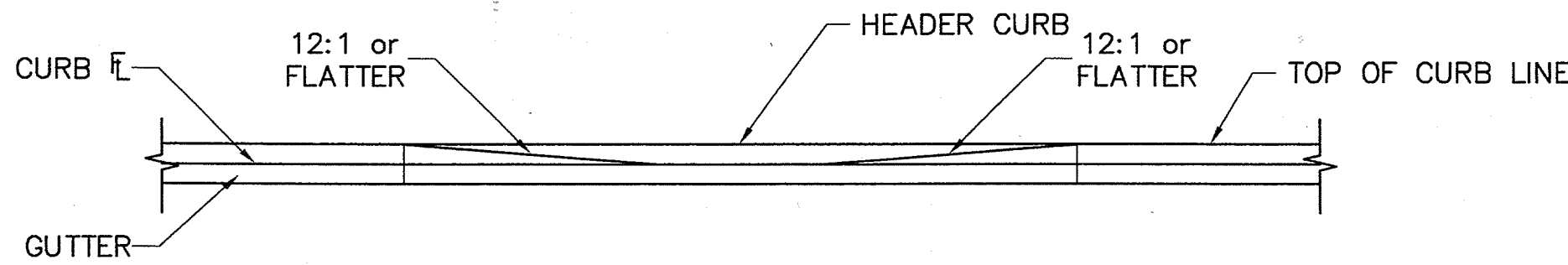
*WIDTH OF DRIVEPAD TAKEN AT BACK OF DRIVEPAD



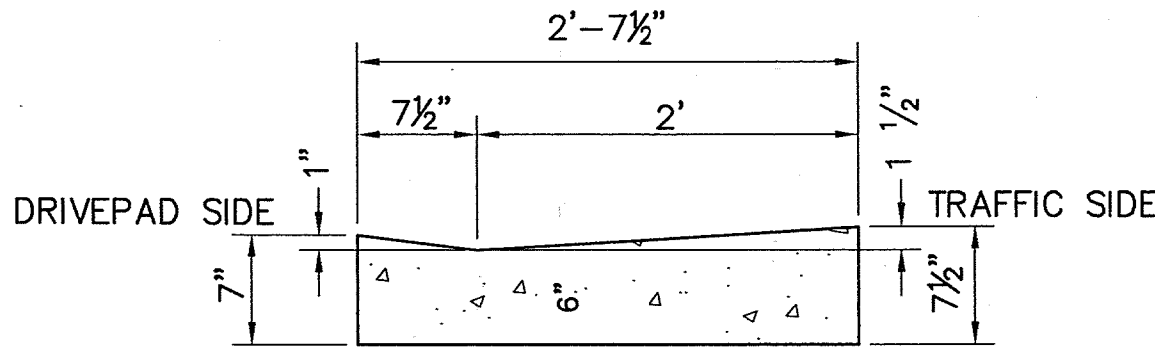
SECTION B-B
NOT TO SCALE



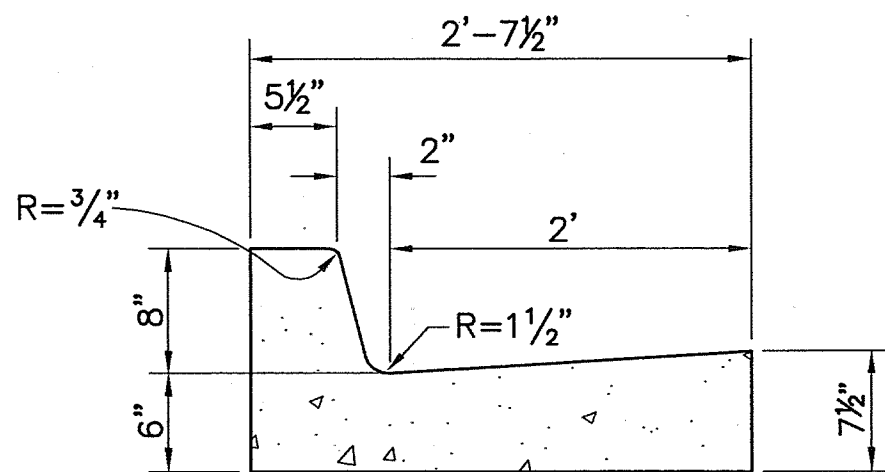
CURB RAMP - TYPE "B" PLAN
NOT TO SCALE
(PAID FOR AS SIDEWALK)



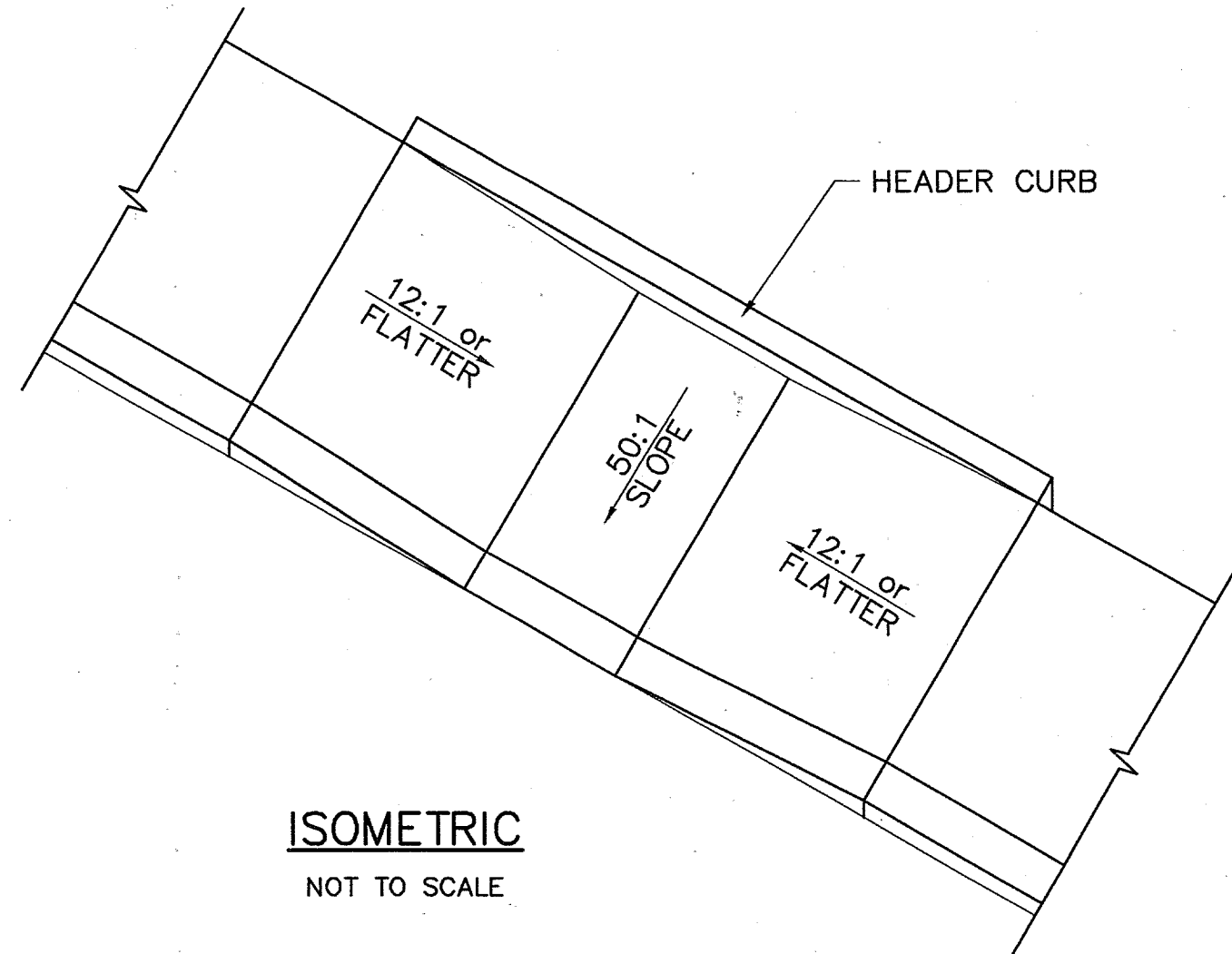
ELEVATION
NOT TO SCALE



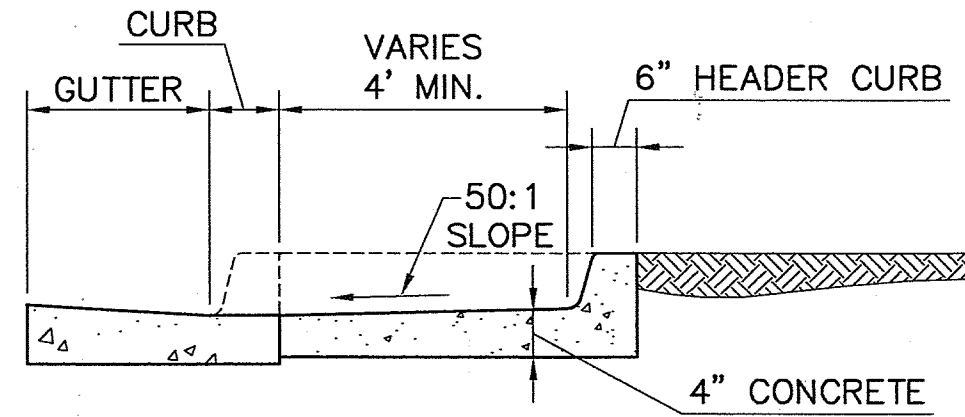
GUTTER @ DRIVEPAD
NOT TO SCALE
(PAID FOR AS CURB & GUTTER)



STANDARD CURB & GUTTER
NOT TO SCALE

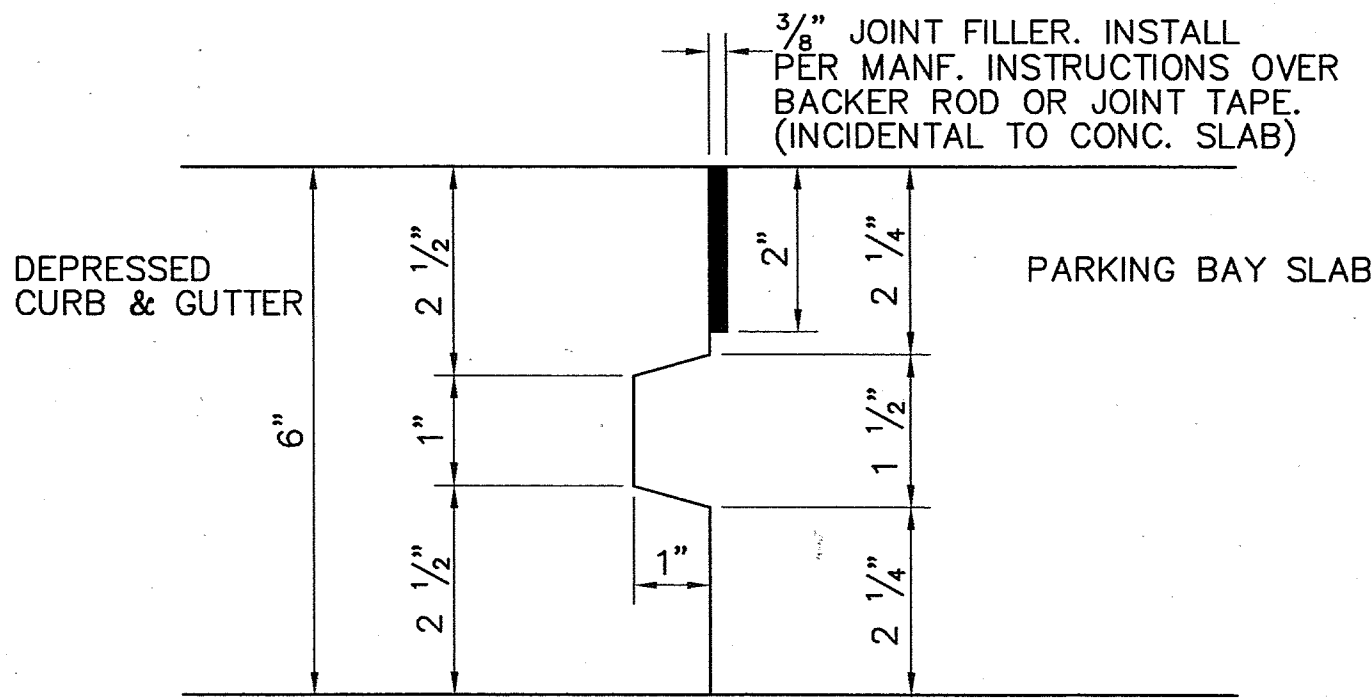


ISOMETRIC
NOT TO SCALE

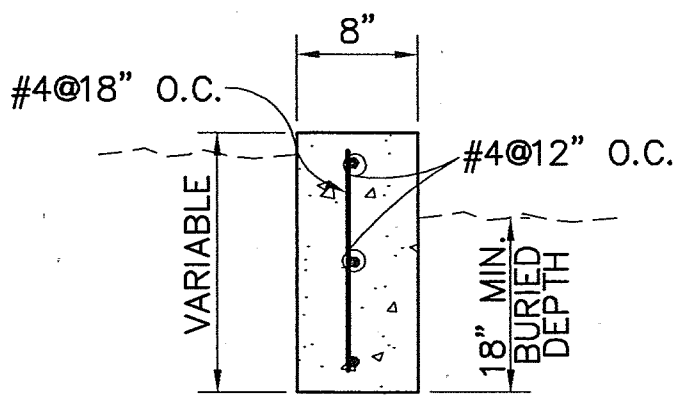


SECTION A-A

NOT TO SCALE
SEE COA 2441 FOR ADDITIONAL DETAILS



LONGITUDINAL KEYED JOINT DETAIL
NOT TO SCALE

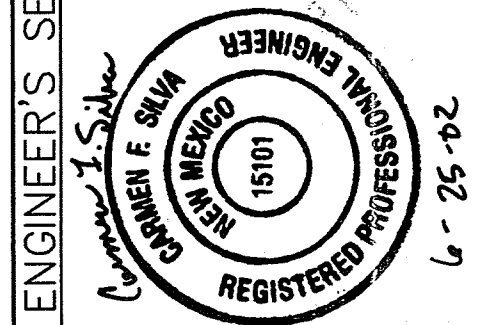


CUT-OFF WALL
NOT TO SCALE
(STEEL REINFORCEMENT SHALL BE CONSIDERED INCIDENTAL TO CONCRETE WALL. ALL WORK AND MATERIAL WILL BE PAID UNDER ITEM 0510.10 - CUT-OFF WALL INCLUDING FORMWORK AND REINFORCEMENT, CIP)



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION MISCELLANEOUS DETAILS	
Design Review Committee	City Engineer Approval
City Project No. 667791	Zone Map No. J-18
Sheet 7	Of 52

SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
NO.	BY	DATE	DATE	CONTRACTOR	DATE
				AS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection	
				INSPECTOR'S	DATE
				NM Central Zone, NAD 27/NGVD 29, in feet	
				FIELD	DATE
				X=402236.69, Y=1489851.27, EL=5258.64	
				VERIFICATION BY	DATE
				AS Brass tablet stamped "1-J18 1981" set in curb at Constitution Ave. & Madiera Dr Intersection	
				RECORDED BY	DATE
				NM Central Zone, NAD 27/NGVD 29, in feet	
				X=399917.88, Y=1489869.09, EL=5229.93	



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			116.020		116.012		301.020		302.020		336.010	336.120	344.030	
			PLACEMENT OF ART. ASPH, 2"		ART. ASPH, TYPE B		SUBGRADE PREP 12"		6" AGGREGATE BASE COURSE		PRIME COAT	TACK COAT	COLD MILL, ASPH. CONC. 1½"	
STATION TO STATION	LOCATION	LENGTH (FT)	WIDTH (FT)	AREA (SY)	DEPTH (IN)	TON	WIDTH (FT)	AREA (SY)	WIDTH (FT)	AREA (SY)	TON	TON	WIDTH (FT)	AREA (SY)
SAN PEDRO BLVD. NEW CONSTRUCTION														
10+61.03	10+86.03	FILLET RT.	39.25	10.57	92.19	4	92.77	14.20	61.91	14.20	61.91	20.28	6.91	
10+86.03	12+54.80	RT.	168.77	16.27	610.20	4	614.04	19.90	373.08	19.90	373.08	134.24	45.76	
10+93.36	13+27.28	LT.	233.92	4.37	227.16	4	228.59	8.00	207.80	8.00	207.80	49.98	17.04	
12+54.80	13+43.88	RT.	89.08	9.13	180.63	4	181.77	12.75	126.20	12.75	126.20	39.74	13.55	
13+27.28	13+51.85	FILLET LT.	41.23	3.39	31.06	4	31.26	7.02	32.14	7.02	32.14	6.83	2.33	
13+43.88	13+80.95	FILLET RT.	43.76	5.08	49.40	4	49.71	8.71	42.33	8.71	42.33	10.87	3.71	
13+95.66	14+32.58	FILLET LT.	43.64	19.72	191.24	4	192.44	23.35	113.20	23.35	113.20	42.07	14.34	
14+25.06	14+49.31	FILLET RT.	49.63	12.83	141.50	4	142.39	16.46	90.74	16.46	90.74	31.13	10.61	
14+32.58	16+20.09	LT.	187.51	18.44	768.37	4	773.21	22.07	459.71	22.07	459.71	169.04	57.63	
14+49.31	18+00.00	RT.	350.69	5.87	457.46	4	460.33	9.50	369.98	9.50	369.98	100.64	34.31	
16+20.09	18+38.00	LT.	217.91	10.17	492.48	4	495.57	13.80	334.01	13.80	334.01	108.34	36.94	
18+00.00	18+64.96	RT.	64.96	4.12	59.47	4	59.85	7.75	55.90	7.75	55.90	13.08	4.46	
MILL & OVERLAY														
10+00.00	18+75.00	BOP TO EOP	875.00	43.50	4229.17	2	4255.77					634.38	43.50	4229.17
CONSTITUTION AVE. NEW CONSTRUCTION														
10+89.83	12+93.96	LT.	204.13	5.17	234.52	4	236.00	8.80	199.48	8.80	199.48	51.59	17.59	
10+91.30	12+76.61	RT.	185.31	5.17	212.90	4	214.24	8.80	181.09	8.80	181.09	46.84	15.97	
14+05.24	16+16.91	RT.	211.67	6.77	318.21	4	320.21	10.39	244.36	10.39	244.36	70.01	23.87	
14+14.32	16+16.78	LT.	202.46	3.06	137.45	4	138.31	6.68	150.27	6.68	150.27	30.24	10.31	
MILL & OVERLAY														
10+50.00	13+25.00	BOP TO INT.	275.00	40.00	1222.22	2	1229.91					183.33	40.00	1222.22
13+75.00	16+50.00	INT. TO EOP	275.00	40.00	1222.22	2	1229.91					183.33	40.00	1222.22
WATERLINE REPLACEMENT														
CAGUA DR.	ARIZONA ST.	BOP TO EOP	1110.00	10.00	1233.33	2	1241.09	10.00	1233.33	10.00	1233.33	271.33	92.50	
TOTAL														
USE					12111.20		12187.37		4275.51		4275.51	1196.27	1408.86	6673.61
					12200		12200		4300		4300	1200	1450	6700

			910.001		910.006		915.040		920.130		
			15" RCP, CLASS IV		18" RCP, CLASS IV		CATCH BASIN, TYPE C, DOUBLE GRATE		MANHOLE, 6' DIA. TYPE C, LESS THAN 6' DEEP, C.I.P.		
STATION	STRUCTURE	ALIGNMENT	LF	LF	EA	EA					
STORM DRAIN											
11+09.72 40.0' RT.	BUILD DOUBLE C INLET. CONNECT TO EXISTING PIPE w/ 20.2 LF OF 15" RCP.	SAN PEDRO	20.2		1						
14+81.37 39.45' LT.	BUILD DOUBLE C INLET. CONNECT TO EXISTING PIPE w/ 14.5 LF OF 18" RCP.	SAN PEDRO		14.5	1						
14+85.10 28.46' RT.	BUILD DOUBLE C INLET. CONNECT TO EXISTING PIPE w/ 3.0 LF OF 18" RCP.	SAN PEDRO		3.0	1						
14+15.57 23.0' RT.	BUILD DOUBLE C INLET. CONNECT TO EXISTING PIPE w/ 8.0 LF OF 18" RCP.	CONSTITUTION		8.0	1						
14+19.63 10.26' RT.	BUILD 6' MANHOLE. CONNECT TO EXISTING PIPE.	CONSTITUTION				1					
14+24.06 23.0' LT.	BUILD DOUBLE C INLET. CONNECT TO EXISTING PIPE w/ 9.8 LF OF 18" RCP.	CONSTITUTION		9.8	1						
TOTAL			20.2	35.3	5	1					
USE			25	40	5	1					

15" RCP, CLASS IV
18" RCP, CLASS IV
CATCH BASIN, TYPE C,
DOUBLE GRATE
MANHOLE, 6' DIA.
TYPE C, LESS
THAN 6' DEEP, C.I.P.

WATERLINE REPLACEMENT SUMMARY OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	TOTAL	USE
801.002	6" WL PIPE, w/o FIT	LF	987	1000
801.059	NON PRESS CONN, w/FIT, WL	EA	4	4
801.065	DI FIT, MJ, 4"-14", WL	LB	1110	1200
801.081	6" GATE VALVE	EA	8	8
801.105	VALVE BOX A	EA	8	8
801.111	VALVE BOX, ADJUST TO GRADE, CIP	EA	2	2
801.113	FIRE HYDRANT, 4' BURY, CIP	EA	2	2
801.150	MJ REST GLAND, 4"-8"	EA	10	10
802.600	3/4" WATER SERVICE, SINGLE	EA	23	23
802.620	1" WATER SERVICE, SINGLE	EA	1	1
802.640	1 1/2" WATER SERVICE, SINGLE	EA	4	4
802.65	2" WATER SERVICE, SINGLE	EA	1	1

SEWERLINE REHAB. SUMMARY OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	TOTAL	USE
930.024	REHAB 12" SAS, CLN, TEST & TV	LF	696	720
930.040	REINSTATE SAS LATERALS, COMPL.	EA	15	15

CATCH BASIN, EXISTING, REMOVE & DISPOSE, ANY TYPE, INC. CLEANUP, COMPL., SD 2200 ITEM NO. 915.070		
STATION	LOCATION	REMARKS
SAN PEDRO		
10+94	25.7 RT	DBL. C
14+78	23.7 LT	DBL. C
14+84	24.7 RT	DBL. C
CONSTITUTION		
14+34	14.7 LT	SGL. C
14+43	15.1 RT	SGL. C
14+78	23.7 RT	DBL. C
PROJECT TOTAL		6
USE		6

EX. MANHOLE FRAME, ADJUST TO GRADE, C.I.P. ITEM NO. 920.400		
STATION	LOCATION	REMARKS
SAN PEDRO		
10+53	8.2 LT	ST. DRAIN MH
13+84	20.6 LT	ST. DRAIN MH
13+88	4.3 RT	SAS MH
14+74	7.6 LT	ST. DRAIN MH
17+88	8.3 LT	ST. DRAIN MH
PROJECT TOTAL		5
USE		5

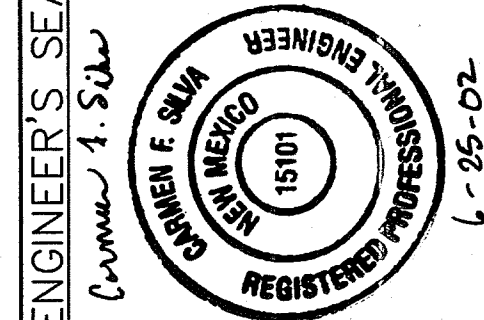
ESTIMATED SURFACING FACTORS

ITEM	UNIT WEIGHT LB/CY	PRIME COAT SECT. 336	TACK COAT SECT. 336	GAL/TON
ARTERIAL ASPHALT, TYPE B	3975			
ASPHALT FOR PRIME COAT		0.44 GAL/SY		257
ASPHALT FOR TACK COAT			0.088 GAL/SY	254

NOTE: AMOUNTS OF ASPHALT MATERIALS SHOWN ON ESTIMATED SURFACING FACTORS SCHEDULE ARE FOR ESTIMATING PURPOSES. CONTRACTOR WILL BE PAID FOR ACTUAL QUANTITIES.



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION MISCELLANEOUS QUANTITIES			
Design Review Committee	City Engineer Approval	Ms./Day/Yr.	Ms./Day/Yr.
City Project No. 667791		Zone Map No. J-18	Sheet 8 Of 52



NO. DATE	REMARKS	BY
	DESIGN	
DESIGNED BY CFS	DATE 9/2001	
DRAWN BY CFS	DATE 9/2001	
CHECKED BY JRS	DATE 11/2001	

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Date: 8/7/2002 05
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CONSTRUCTION ENGINEERING AND LUMP SUM ITEMS			
ITEM NO.	ITEM	UNIT	QUANTITY
4.010	CONSTRUCTION STAKING, COMPL.	L.S.	LUMP SUM
4.020	CONSTRUCTION SURVEYING, COMPL.	L.S.	LUMP SUM
6.010	CONSTRUCTION PROJECT SIGN	EA	4
6.050	CONSTRUCTION MOBILIZATION	L.S.	LUMP SUM
19.010	CONSTRUCTION TRAFFIC CONTROL & BARRICADING, COMPL.	L.S.	LUMP SUM

CURB & GUTTER, STANDARD, PC CONCRETE, INCL. SUBGRADE PREPARATION, C.I.P. ITEM NO. 340.050			
STATION TO STATION	LOCATION	LENGTH (FT)	DESCRIPTION
SAN PEDRO			
10+61.03 - 10+86.03	RT.	39.25	R=25.00', Δ=89°56'52"
10+86.03 - 12+71.40	RT.	185.37	S 00°53'10" E
10+93.36 - 11+50.94	LT.	57.62	S 02°53'10" E
11+50.94 - 12+71.40	LT.	120.46	S 00°35'44" E
12+71.40 - 12+93.90	LT.	24.10	S 00°35'44" E
12+93.90 - 13+27.28	RT.	22.54	S 00°53'10" E
12+96.41 - 13+43.88	LT.	35.90	R=440.00', Δ=04°40'31"
13+43.88 - 13+80.95	RT.	43.06	R=372.00', Δ=06°37'55"
13+80.95 - 14+32.58	LT.	41.23	R=30.00', Δ=78°44'24"
14+32.58 - 14+49.31	RT.	43.76	R=30.00', Δ=83°34'44"
14+49.31 - 14+84.05	LT.	43.64	R=30.00', Δ=83°20'39"
14+84.05 - 15+04.68	RT.	49.63	R=30.00', Δ=94°47'26"
15+04.68 - 16+20.09	LT.	43.14	R=360.00', Δ=06°51'59"
16+20.09 - 18+38.00	RT.	37.36	R=428.00', Δ=05°00'04"
18+38.00 - 18+64.96	LT.	22.09	S 00°35'44" E
18+64.96 - 19+00.00	RT.	22.09	S 00°35'44" E
19+00.00 - 19+25.00	LT.	25.00	S 03°41'38" W
19+25.00 - 19+50.00	RT.	25.00	S 04°24'16" E
CONSTITUTION			
10+89.83 - 11+34.96	LT.	45.24	N 85°48'04" E
11+34.96 - 12+76.61	RT.	43.75	S 86°34'15" E
12+76.61 - 13+49.31	LT.	141.65	N 89°36'55" E
13+49.31 - 14+32.58	LT.	159.00	N 89°36'65" E
14+32.58 - 15+04.68	RT.	124.81	N 89°36'55" E
15+04.68 - 16+20.09	LT.	107.50	N 89°36'65" E
16+20.09 - 17+02.33	RT.	39.26	R=977.00', Δ=02°18'09"
17+02.33 - 18+04.68	LT.	41.11	R=1023.00', Δ=02°18'09"
18+04.68 - 19+00.00	LT.	46.43	S 84°15'01" E
19+00.00 - 19+25.00	RT.	46.78	N 88°06'13" E
TOTAL		2321.21	
USE		2350	

DRIVEPAD, 6" THICK, PC CONCRETE, INCL. SUBGRADE COMPACTION, C.I.P. ITEM NO. 340.020			
STATION	LENGTH (FT)	AREA (SY)	REMARKS
11+18.00 LT.	18'	29.91	SAN PEDRO
11+23.00 RT.	18'	29.91	SAN PEDRO
12+42.00 RT.	18'	29.91	SAN PEDRO
12+67.50 LT.	40'	51.00	SAN PEDRO
13+15.00 RT.	36'	47.16	SAN PEDRO
15+22.00 LT.	40'	51.00	SAN PEDRO
15+92.00 RT.	36'	47.16	SAN PEDRO
17+42.20 LT.	16'	28.00	SAN PEDRO
18.00.00 RT.	40'	51.00	SAN PEDRO
11+62.50 LT.	10'	22.24	CONSTITUTION
11+63.57 RT.	18'	29.91	CONSTITUTION
11+96.50 LT.	18'	29.91	CONSTITUTION
12+61.00 RT.	16'	28.00	CONSTITUTION
12+67.00 LT.	36'	47.16	CONSTITUTION
14+48.00 RT.	28'	39.49	CONSTITUTION
15+07.00 LT.	28'	39.49	CONSTITUTION
15+60.00 LT.	20'	31.83	CONSTITUTION
TOTAL		633.05	
USE		640	

SIDEWALK 4" THICK, PC CONCRETE, INCL. SUBGRADE COMPACTION, C.I.P. (SY) ITEM NO. 340.010			
STATION TO STATION	LOCATION	AREA (SY)	DESCRIPTION
SAN PEDRO			
10+61.63 - 13+80.95	RT.	228.07	6' WIDE
10+93.36 - 13+51.85	LT.	188.38	6' WIDE
14+25.06 - 18+70.46	RT.	312.72	6' WIDE
13+95.66 - 18+43.39	LT.	291.61	6' WIDE
CONSTITUTION			
10+52.25 - 12+93.96	LT.	156.01	6' WIDE
10+55.39 - 12+76.61	RT.	142.45	6' WIDE
14+05.24 - 16+16.91	RT.	140.47	6' WIDE
14+14.32 - 16+16.78	LT.	130.93	6' WIDE
SUBTOTAL		1590.65	
LESS DRIVEPADS		633.05	
TOTAL		957.60	
USE		975	

EXISTING SIDEWALK & DRIVEPAD, SAWCUT, REMOVE & DISPOSE, COMPL. ITEM NO. 343.090			
STATION TO STATION	LENGTH (FT)	WIDTH (FT)	AREA (SY)
SAN PEDRO			
10+61.63 - 13+80.95	319.32	4	141.92
10+93.36 - 13+51.85	258.49	4	114.88
14+25.06 - 18+70.46	445.40	4	197.96
13+95.66 - 18+38.09	447.73	4	198.99
CONSTITUTION			
10+52.25 - 12+93.96	241.71	4	107.43
10+55.39 - 12+76.61	221.22	4	98.32
14+05.24 - 16+16.91	211.67	4	94.08
14+14.32 - 16+16.78	202.46	4	89.98
PROJECT TOTAL			1043.56
USE			1100

EXISTING PAVEMENT, ASPHALT CONCRETE, MORE THAN 4" THICK, SAWCUT, REMOVE & DISPOSE, C.I.P. ITEM NO. 343.030				
STATION TO STATION	LOC.	LENGTH (FT)	AVE. WIDTH (FT)	AREA (SY)
SAN PEDRO				
10+61.63 - 18+70.46	RT	809.43	11	989.3
10+93.36 - 18+38.09	LT	752.06	11	919.2
CONSTITUTION				
10+52.25 - 16+16.78	LT	526.95	5.2	304.5
10+55.39 - 16+16.91	RT	525.61	5	292.0
TOTAL				2505.0
USE				2550

EXISTING CURB & GUTTER OR VALLEY GUTTER, PC CONCRETE, REMOVE & DISPOSE, COMPL. ITEM NO. 343.080			
STATION TO STATION	LOC.	LENGTH (FT)	REMARKS
SAN PEDRO			
10+61.63 - 18+70.46	RT	809.43	
10+93.36 - 18+38.09	LT	752.06	
CONSTITUTION			
10+52.25 - 16+16.78	LT	526.95	
10+55.39 - 16+16.91	RT	525.61	
TOTAL		2614.05	
USE		2650	

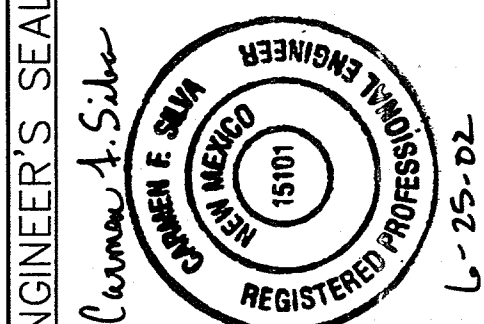
CONCRETE BLOCK MASONRY RETAINING WALL, CONCRETE-FILLED CORE, C.I.P. ITEM NO. 540.020			
STATION TO STATION	LENGTH (FT)	HEIGHT (FT)	AREA (SY)
CONSTITUTION			
11+38.69 - 11+52.65	13.96	2.0	3.10
11+42.85 - 11+57.50	12.65	2.5	3.51
11+67.50 - 11+73.53	6.03	2.5	1.68
14+91.71 - 15+39.73	48.00	1.0	5.33
SAN PEDRO			
15+46.77 - 17+67.56	223.07	6.0	198.28
PROJECT TOTAL			211.9
USE			220

CONCRETE BLOCK MASONRY WALL, INCL. FOUNDATION, REMOVE & DISPOSE, C.I.P. ITEM NO. 540.030			
STATION TO STATION	LENGTH (FT)	HEIGHT (FT)	AREA (SY)
CONSTITUTION			
11+38.69 - 11+52.65	19.48	2.0	4.33
11+42.85 - 11+57.50	12.65	2.5	3.52
11+67.50 - 11+73.53	11.24	2.5	3.12
14+91.71 - 15+39.73	55.26	1.0	6.14
SAN PEDRO			
15+46.77 - 17+67.56	238.06	8.0	211.61
PROJECT TOTAL			228.72
USE			235

WHEELCHAIR ACCESS RAMP, 4" PCC, STD. CURB, C.I.P. SD 2418 ITEM NO. 340.025		
STATION	EACH	REMARKS
SAN PEDRO		
10+73.04	1	TYPE "B"
13+41.98	1	TYPE "B"
13+62.47	1	TYPE "B"
14+14.09	1	TYPE "B"
14+34.54	1	TYPE "B"
PROJECT TOTAL		5
USE		5



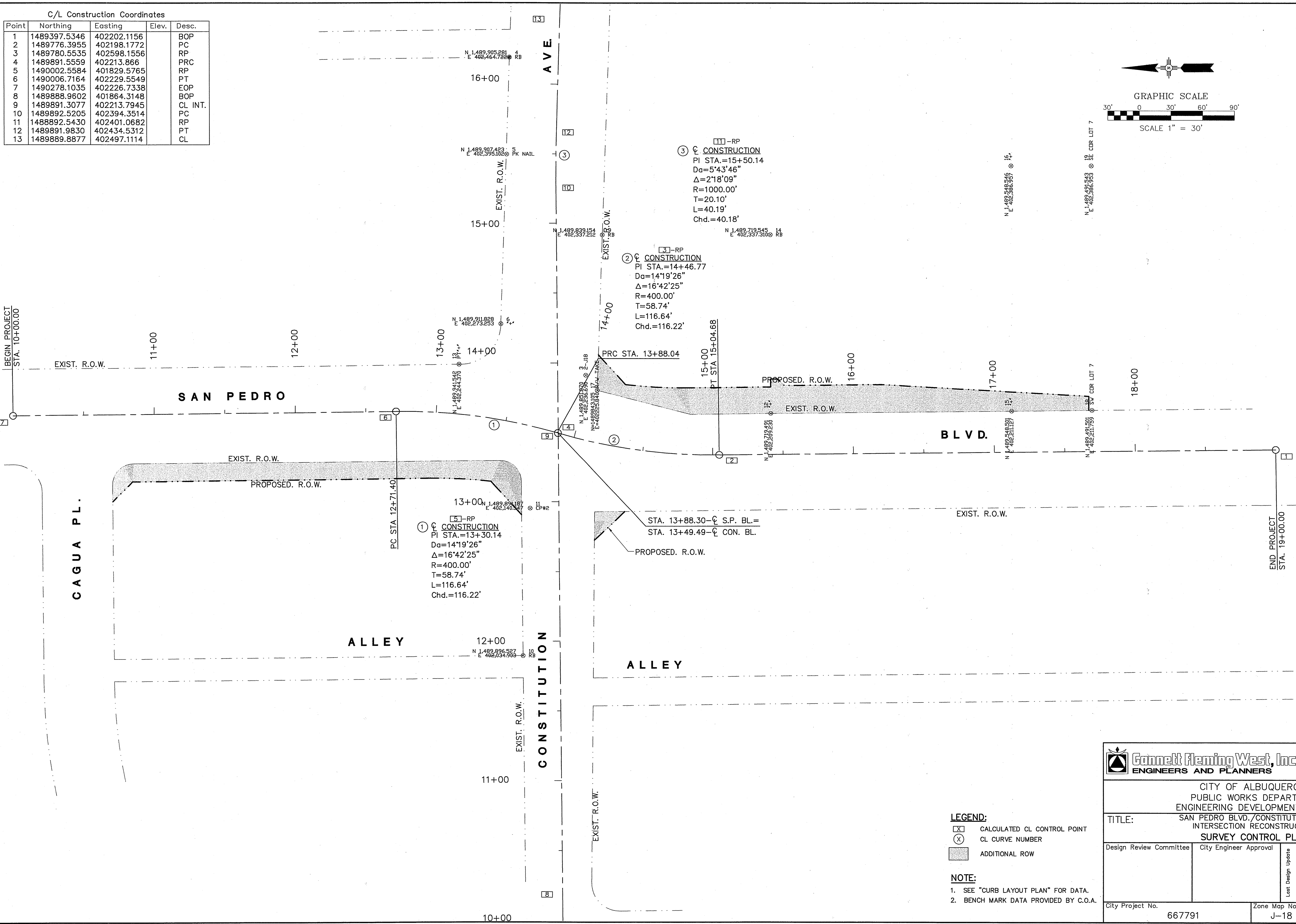
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION	
MISCELLANEOUS QUANTITIES	
Design Review Committee	City Engineer Approval
Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.
667791	J-18
Sheet	Of
9	52



ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
NO.	DATE	FIELD NO.	DATE	CONTRACTOR	DATE	WORK	DATE
				ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection			
				NM Central Zone, NAD 27/NGVD 29, in feet			
				X=402236.69, Y=1489851.27, EL=5258.64			
				ACS Brass tablet stamped "1-J18 1981" set in curb at Constitution Ave. & Madiera Dr. Intersection			
				NM Central Zone, NAD 27/NGVD 29, in feet			
				X=399917.88, Y=1489869.09, EL=5229.93			

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C/L Construction Coordinates				
Point	Northing	Easting	Elev.	Desc.
1	1489397.5346	402202.1156		BOP
2	1489776.3955	402198.1772		PC
3	1489780.5535	402598.1556		RP
4	1489891.5559	402213.866		PRC
5	1490002.5584	401829.5765		RP
6	1490006.7164	402229.5549		PT
7	1490278.1035	402226.7338		EOP
8	1489888.9602	401864.3148		BOP
9	1489891.3077	402213.7945		CL INT.
10	1489892.5205	402394.3514		PC
11	1488892.5430	402401.0682		RP
12	1489891.9830	402434.5312		PT
13	1489889.8877	402497.1114		CL

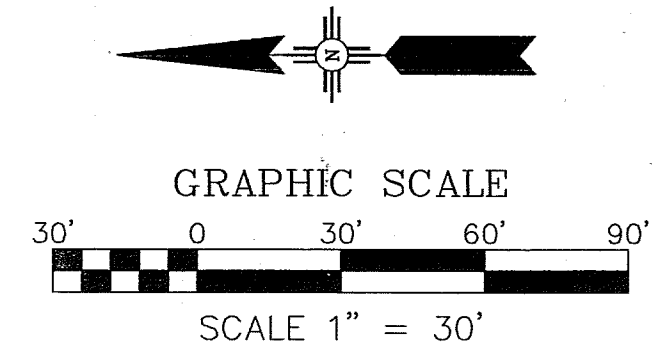


Gannett Fleming West, Inc.
ENGINEERS AND PLANNERS

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION	
SURVEY CONTROL PLAN	
Design Review Committee	City Engineer Approval
City Project No. 667791	Zone Map No. J-18
Sheet 10	Of 52

ENGINEER'S SEAL		BENCH MARKS		AS BUILT INFORMATION	
[Seal]		ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection		CONTRACTOR	
NO. DATE		NO. DATE		DATE	
REMARKS		INSPECTOR'S		DATE	
REVISIONS		NM Central Zone, NAD 27/NGVD 29, in feet		DATE	
DESIGN		X=402236.69, Y=1489851.27, EL=5258.64		DATE	
DATE 9/2001		ACS Brass tablet stamped "1-J18 1981" set in curb at Constitution Ave. & Madiera Dr Intersection		DATE	
DRAWN BY DAA		NM Central Zone, NAD 27/NGVD 29, in feet		DATE	
CHECKED BY JRS		X=399917.88, Y=1489869.09, EL=5229.93		DATE	

CURB AND GUTTER TABLE			
CURVE	DELTA Δ	RADIUS	ARC LENGTH
C1	89°56'52"	25.00'	39.25'
C2	04°40'31"	440.00'	35.90'
C3	06°37'55"	372.00'	43.06'
C4	78°44'24"	30.00'	41.23'
C5	83°34'44"	30.00'	43.76'
C6	83°20'39"	30.00'	43.64'
C7	94°47'26"	30.00'	49.63'
C8	06°51'59"	360.00'	43.14'
C9	05°00'04"	428.00'	37.36'
C10	02°18'09"	1023.00'	41.11'
C11	02°18'09"	977.00'	39.26'



BEGIN PROJECT
STA. 10+00.00

SAN PEDRO

CAGUA PL.

ALLEY

AVE.

CONSTITUTION

ALLEY

BLVD.

LEGEND:
C# CURVE NUMBER

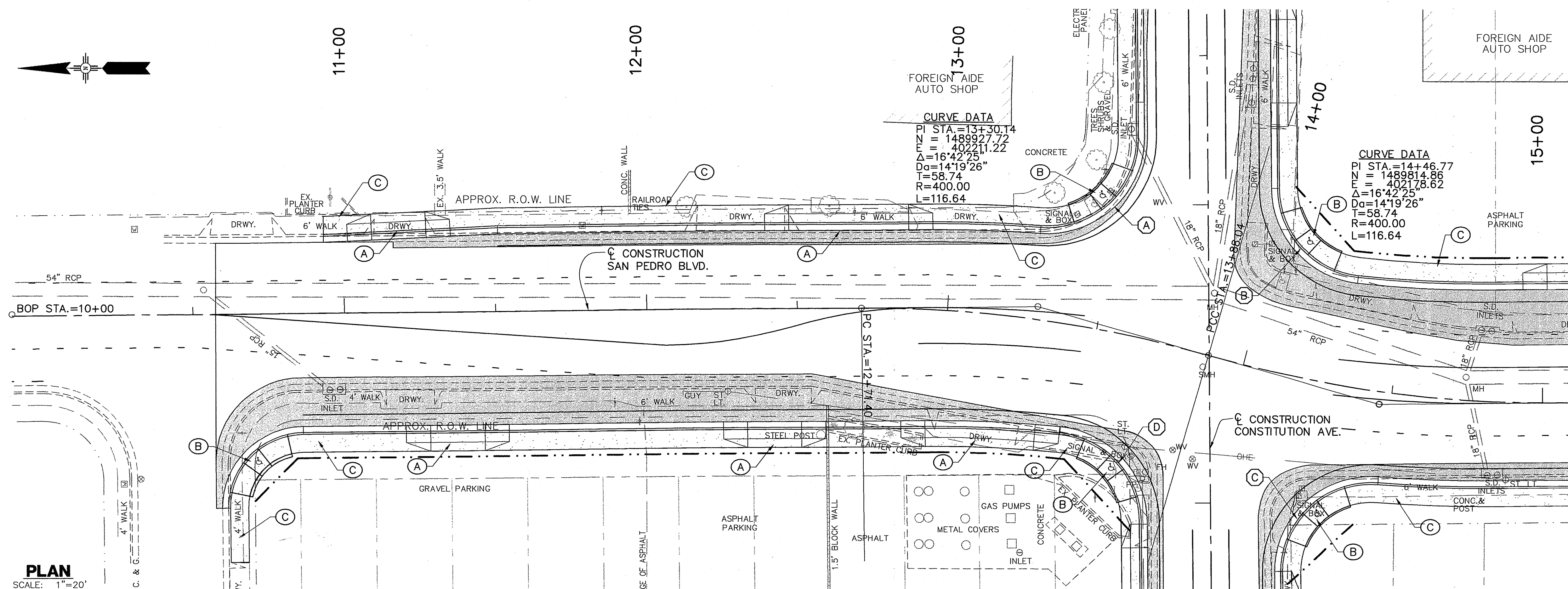
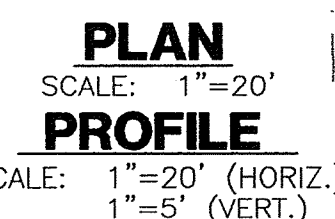
NOTE:
1. ALL CURB DATA IS TO FLOW LINE.
2. ALL SIDEWALK DATA IS TO BACK OF CURB.

Gannett Fleming West, Inc.
ENGINEERS AND PLANNERS

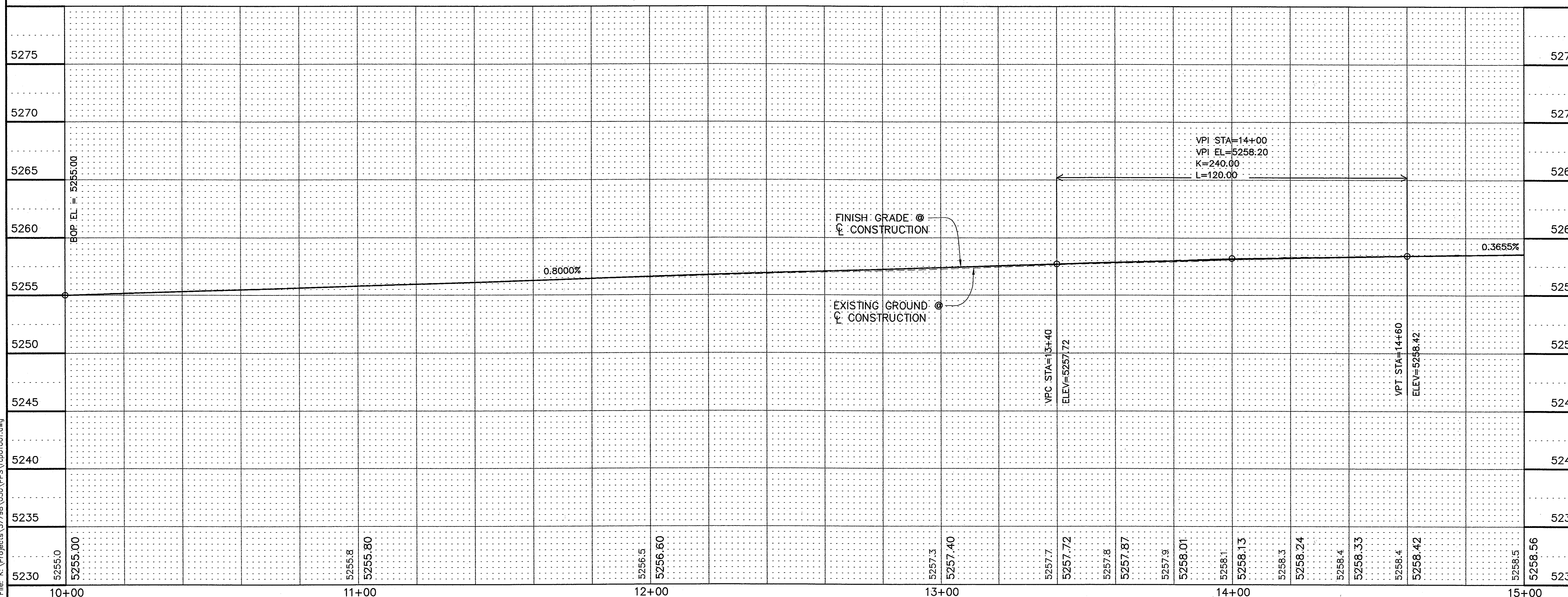
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE.
INTERSECTION RECONSTRUCTION
CURB & GUTTER LAYOUT PLAN

Design Review Committee	City Engineer Approval	Ms./Day/Yr.	Ms./Day/Yr.
City Project No. 667791	Zone Map No. J-18	Sheet 11	Of 52

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
Carmen J. Soto			FIELD NOTES		ACS Brass tablet stamped "11-118 1981" set in curb at Constitution Ave. & Madera Dr. Intersection		
			NO.	BY	DATE	STAKED BY	DATE
						ACCEPTANCE BY	DATE
						FIELD DRAWINGS	DATE
						CORRECTED BY	DATE
						MICRO-FILM INFORMATION	
						RECORDED BY	DATE
						NO.	
						</	



SAN PEDRO BOULEVARD



DRIVEPADS		
STATION	LOCATION	SIZE
<u>SAN PEDRO</u>		
11+18.00	LEFT	18'
11+23.00	RIGHT	18'
12+42.00	RIGHT	18'
12+67.50	LEFT	40'
13+15.00	RIGHT	36'
15+22.00	LEFT	40'
15+92.00	RIGHT	36'
17+42.20	LEFT	16'
18+00.00	RIGHT	40'

RAMPS		
STATION	LOCATION	REMARKS
SAN PEDRO		
10+73.04	52.00 RT.	TYPE "B"
13+41.98	45.98 LT.	TYPE "B"
13+62.47	47.68 RT.	TYPE "B"
14+14.09	47.90 LT.	TYPE "B"
14+34.54	45.83 RT.	TYPE "B"

KEYED NOTES

- (A) BUILD NEW DRIVE PAD.
SEE SHT 7 OF 52 FOR DETAILS AND
SCHEDULE ABOVE FOR SIZE AND
LOCATION.
- (B) BUILD NEW CURB RAMP.
SEE SHT 7 OF 52 & COA STD. DWG.
2491 FOR DETAILS AND SCHEDULE
ABOVE FOR SIZE AND LOCATION.
- (C) BUILD NEW STANDARD C&G w/6' WIDE
SIDEWALK. SEE SHT. 11 OF 52 FOR C&G
LAYOUT PLAN. SEE SHT. 7 OF 52 AND
COA STD. DWGS. 2415 & 2430 FOR
DETAILS.
- (D) BUILD NEW CONCRETE BLOCK MASONRY
RETAINING WALL w/ CONCRETE FILLED COR
SEE SHT 9 OF 52 FOR DIMENSIONS OF
WALL.

A	
T/C	F
1 58.71	58.04
2 58.00	57.34
3 57.83	57.17
$\Delta = 78^{\circ}44'24''$	
$R = 30.00'$	
$l = 41.23'$	

B	
T/C	F
1 58.32	57.6
2 58.17	57.5
3 58.66	58.0

$\Delta = 83^{\circ}20'39''$
 $R = 30.00'$
 $I = 43.64'$

D	
T/C	f
1 57.77	57.11
2 57.36	56.70
3 56.94	56.28

$\Delta = 83^{\circ}34'44''$
 $R = 30.00'$
 $l = 43.76'$

C	
T/C	f
1 56.83	56.1
2 57.61	56.9
3 58.39	57.7

$\Delta = 94^{\circ}47'26''$
 $R = 30.00'$
 $l = 49.63'$



	CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP
TITLE:	SAN PEDRO BLVD./CONSTITUTION AVE. TRANSPORTATION IMPROVEMENTS PAVING PLAN & PROFILE - SAN PEDRO

35	Design Review Committee	City Engineer Approval	Lost Design Update	Mo./Day/Yr.	Mo./Day/Yr.
50					
City Project No. 667791		Zone Map No. J-18	Sheet 12	Of 52	

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
 Carmen F. Saba		FIELD NOTES					
		NO.	BY DATE				
				ACS Brass tablet stamped "2-J18 1981" set flush on San Pedro Blvd. & Constitution Ave. Intersection		CONTRACTOR	DATE
				NM Central Zone, NAD 27/NGVD 29, in feet		INSPECTOR'S	DATE
				X=402236.69, Y=1489951.27, EL=5258.64		DATE BY	DATE
						FIELD	DATE
						VERIFICATION BY	DATE
				ACS Brass tablet stamped "1-J18 1981" set in curb at Constitution Ave. & Madiera Dr Intersection		CORRECTED BY	DATE
				NM Central Zone, NAD 27/NGVD 29, in feet		MICRO-FILM INFORMATION	
						RECORDED BY	DATE
						NO.	

[illegible]

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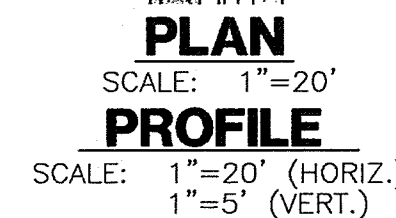


Diagram illustrating a vertical curve design on a grid. The horizontal axis represents stationing (14+00 to 19+00) and the vertical axis represents elevation (5230 to 5275).

The curve is defined by the following data:

- Vertical Curve Length: $L = 90.00$
- Constant: $K = 1123.77$
- Vertical Point of Intersection (VPI): $\text{EL} = 5259.00$, $\text{STA} = 16+20$
- Vertical Point of Curvature (VPC): $\text{STA} = 15+75$, $\text{ELEV} = 5258.84$
- Vertical Point of Tangency (VPT): $\text{STA} = 16+85$, $\text{ELEV} = 5259.70$
- End of Profile (EOP): $\text{STA} = 18+75.19$, $\text{EOP EL} = 5260.14$
- Grades: -0.3655% and 0.4455%
- Vertical Point of Intersection (VPI): $\text{STA} = 14+60$, $\text{ELEV} = 5258.42$

The diagram shows the existing ground profile (dashed line) and the proposed finish grade (solid line). The finish grade is a parabolic curve that starts at the VPI, passes through the VPC and VPT, and ends at the EOP.

Key elevations and stationing points are labeled along the curve:

- VPI STA = 14+60, ELEV = 5258.42
- VPC STA = 15+75, ELEV = 5258.84
- VPT STA = 16+85, ELEV = 5259.70
- EOP STA = 18+75.19, EOP EL = 5260.14

The diagram also includes a list of elevations for every 5 feet from 5230 to 5258.13, corresponding to the stationing grid.

STATION	LOCATION	SIZE
<u>SAN PEDRO</u>		
11+18.00	LEFT	18'
11+23.00	RIGHT	18'
12+42.00	RIGHT	18'
12+67.50	LEFT	40'
13+15.00	RIGHT	36'
15+22.00	LEFT	40'
15+92.00	RIGHT	36'
17+42.20	LEFT	16'
18+00.00	RIGHT	40'

STATION	LOCATION	REMARKS
<u>SAN PEDRO</u>		
10+73.04	52.00 RT.	TYPE "B"
13+41.98	45.98 LT.	TYPE "B"
13+62.47	47.68 RT.	TYPE "B"
14+14.09	47.90 LT.	TYPE "B"
14+34.54	45.83 RT.	TYPE "B"

- (A) BUILD NEW DRIVE PAD.
SEE SHT 7 OF 52 FOR DETAILS AND
SCHEDULE ABOVE FOR SIZE AND
LOCATION.
- (B) BUILD NEW CURB RAMP.
SEE SHT 7 OF 52 & COA STD. DWG.
2491 FOR DETAILS AND SCHEDULE
ABOVE FOR SIZE AND LOCATION.
- (C) BUILD NEW STANDARD C&G w/6' WIDE
SIDEWALK. SEE SHT. 11 OF 52 FOR C&G
LAYOUT PLAN. SEE SHT. 7 OF 52 AND
COA STD. DWGS. 2415 & 2430 FOR
DETAILS.
- (D) BUILD NEW CONCRETE BLOCK MASONRY
RETAINING WALL w/ CONCRETE FILLED CORE.
SEE SHT 9 OF 52 FOR DIMENSIONS OF
WALL.

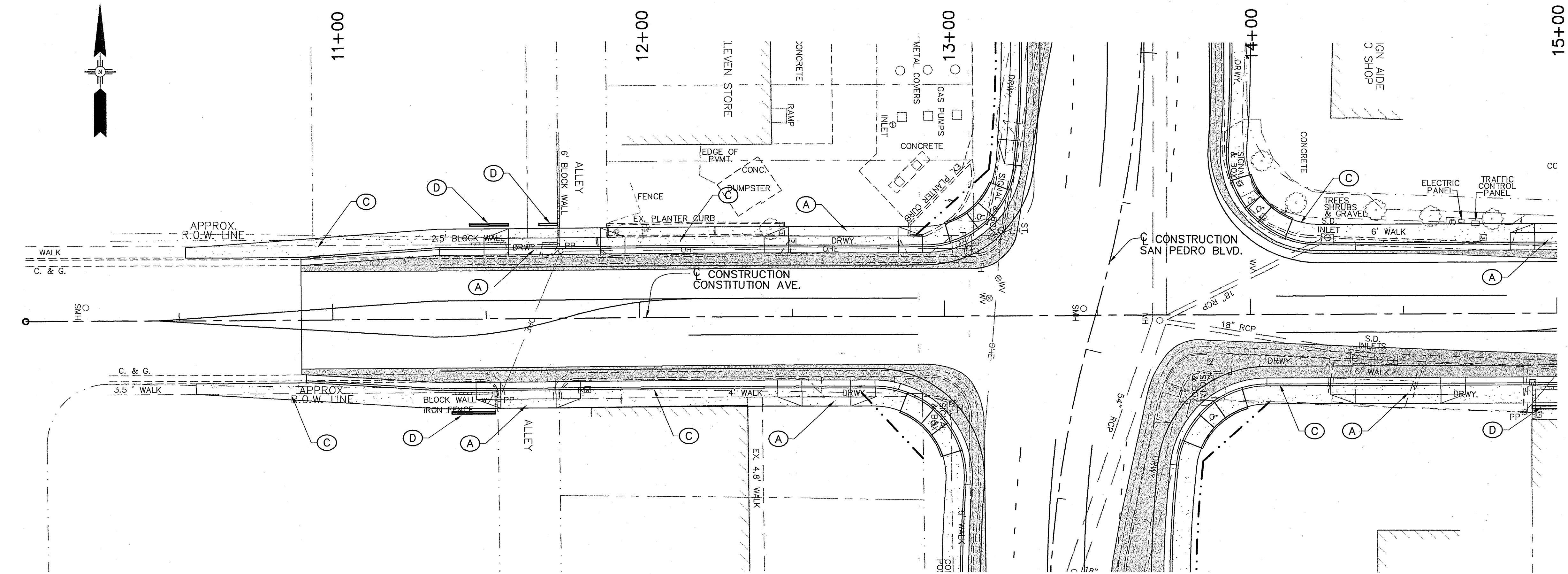
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 **Gannett Fleming West, Inc.**
ENGINEERS AND PLANNERS

	CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP
TITLE:	SAN PEDRO BLVD./CONSTITUTION AVE. TRANSPORTATION IMPROVEMENTS PAVING PLAN & PROFILE – SAN PEDRO

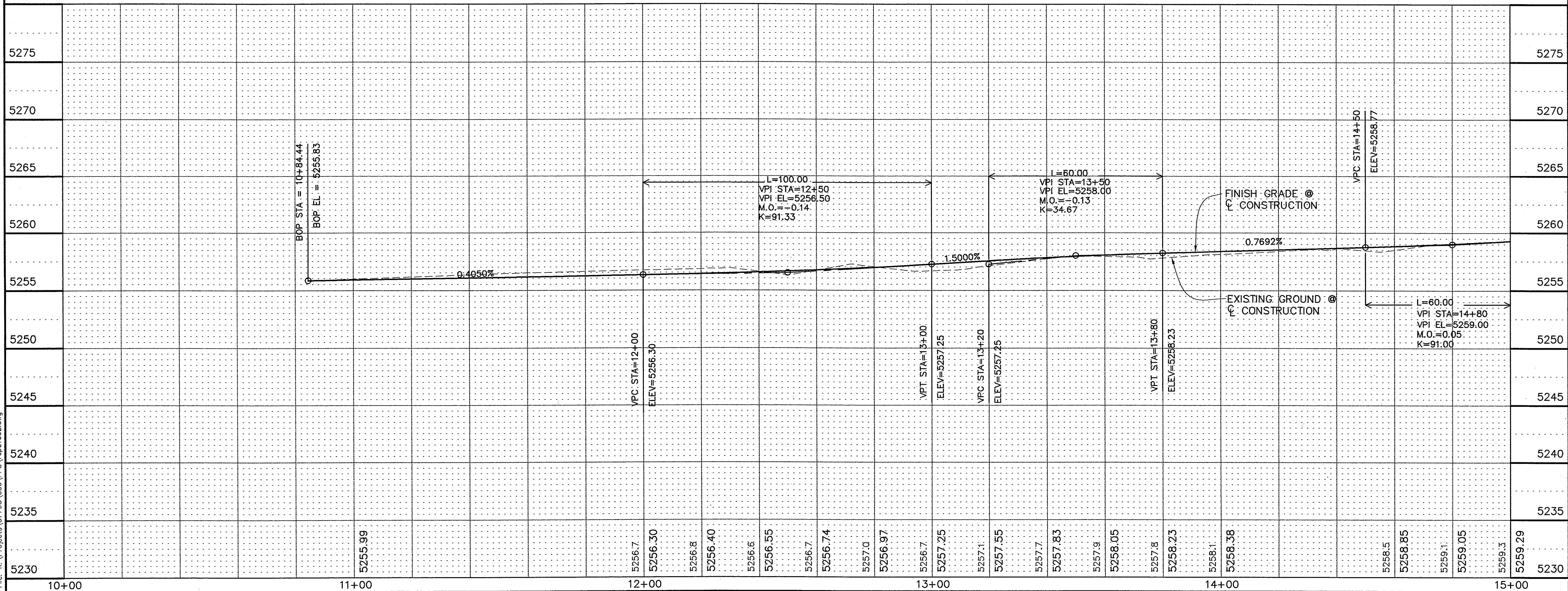
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
City Project No. 667791		Zone Map No. J-18	Sheet 13	Of 52

Time: 12:49:23
Date: 6/10/2002 CFS
Drawing File: K:\Projects\37798\030\PS\csp01002.dwg



PLAN
SCALE: 1"=20'
PROFILE
SCALE: 1"=20' (HORIZ.)
1"=5' (VERT.)

CONSTITUTION AVENUE

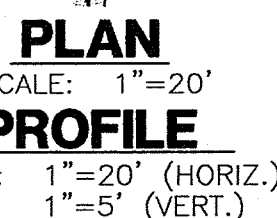


DRIVEPADS		
STATION	LOCATION	SIZE
11+62.50	LEFT	10'
11+63.57	RIGHT	18'
11+96.50	LEFT	18'
12+61.00	RIGHT	16'
12+67.00	LEFT	36'
14+48.00	RIGHT	28'
15+07.00	LEFT	28'
15+60.00	LEFT	20'

KEYED NOTES

- (A) BUILD NEW DRIVE PAD. SEE SHT 7 OF 52 FOR DETAILS AND SCHEDULE ABOVE FOR SIZE AND LOCATION.
- (B) BUILD NEW CURB RAMP. SEE SHT 7 OF 52 & COA STD. DWG. 2491 FOR DETAILS AND SCHEDULE ABOVE FOR SIZE AND LOCATION.
- (C) BUILD NEW STANDARD C&G w/6' WIDE SIDEWALK. SEE SHT. 11 OF 52 FOR C&G LAYOUT PLAN. SEE SHT. 7 OF 52 AND COA STD. DWGS. 2415 & 2430 FOR DETAILS.
- (D) BUILD NEW CONCRETE BLOCK MASONRY RETAINING WALL w/ CONCRETE FILLED CORE. SEE SHT 9 OF 52 FOR DIMENSIONS OF WALL.

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
		FIELD NOTES		CONTRACTOR		DATE	
		BY		DATE		DATE	
NO. DATE		REMARKS		INSPECTOR'S		DATE	
		DESIGN		DATE		DATE	
DESIGNED BY		DATE NOV. 2001		DATE		DATE	
DRAWN BY		DATE NOV. 2001		DATE		DATE	
CHECKED BY		DATE NOV. 2001		DATE		DATE	



CURVE DATA	
PI STA.=15+50.14	P I S/A.=15+70.23
N = 1489872.39	
E = 402395.50	
$\Delta = 218'09"$	
$D_a = 5'43'46"$	
T=20.10	
R=1000.00	
L=40.19	



KEYED NOTES

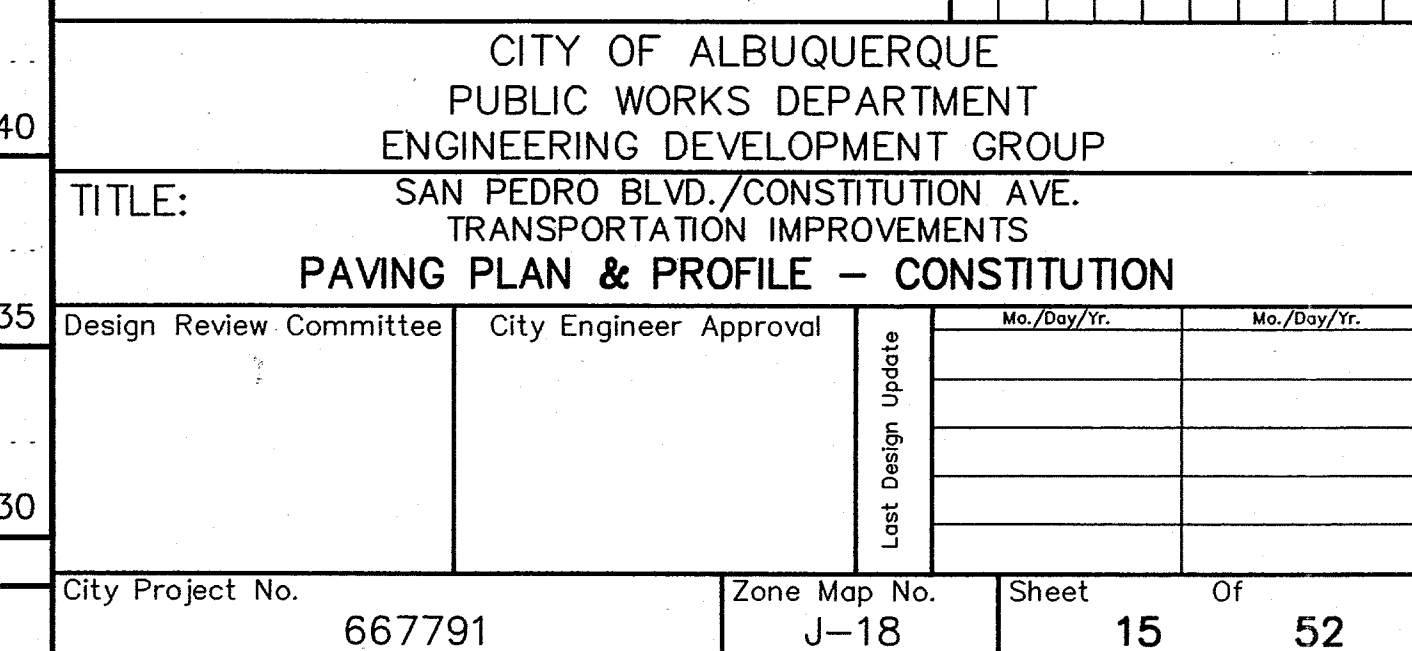
- (A) BUILD NEW DRIVE PAD.
SEE SHT 7 OF 52 FOR DETAILS AND
SCHEDULE ABOVE FOR SIZE AND
LOCATION.
- (B) BUILD NEW CURB RAMP.
SEE SHT 7 OF 52 & COA STD. DWG.
2491 FOR DETAILS AND SCHEDULE
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- (C) BUILD NEW STANDARD C&G w/6' WIDE
SIDEWALK. SEE SHT. 11 OF 52 FOR C&G
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- (D) BUILD NEW CONCRETE BLOCK MASONRY
RETAINING WALL w/ CONCRETE FILLED CORE
SEE SHT 9 OF 52 FOR DIMENSIONS OF
WALL

ENGINEER'S SEAL

Carmen F. Silva



15-25-02

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-SEE SHEET 23 OF 57 FOR DETAILS
FOR THESE LATERALS.

—C CONSTRUCTION
CONSTITUTION AVE

-C CONSTRUCTION
SAN PEDRO BLVD

STA. 10+94.72, 25.72' RT.
REMOVE DOUBLE C INLET.

GRAVEL PARKING
- STA. 11+09.72, 40' R.I.
BUILD DOUBLE C INLET.
CONNECT TO EXISTING
PIPE w/20.2 LF OF 15"
RCP, CLASS IV.

	BUILD NEW 2C INLET (1)
	STA. 11+09.72, 40.00' RT
	INV.=5253.63
	GRATE=5255.02

CONNECT TO EXISTING w/
20.2 LF - 15" RCP @ S=2.00%
INV.=5253.22

FINISH GRADE @
C CONSTRUCTION

EXISTING GROUND
C CONSTRUCTION

10118" RCP EL 5254.67

18" RCP EL: 5252.27

142.88 LF - 54" RCP @ S=0.60%

EX: MH452
STA. 13+84
RIM = 525
INV(N) = 524
INV(S) = 524
INV(NE) = 524

EX. MH453	STA: 10+53.64, 8
	RIM = 5255.33
	INV(N)=5244.66
	INV(S)=5244.70
	INV(SW)=5252.26

EX: 20 INLET (1)	
STA: 10+94.72,	
25.72' RT.	

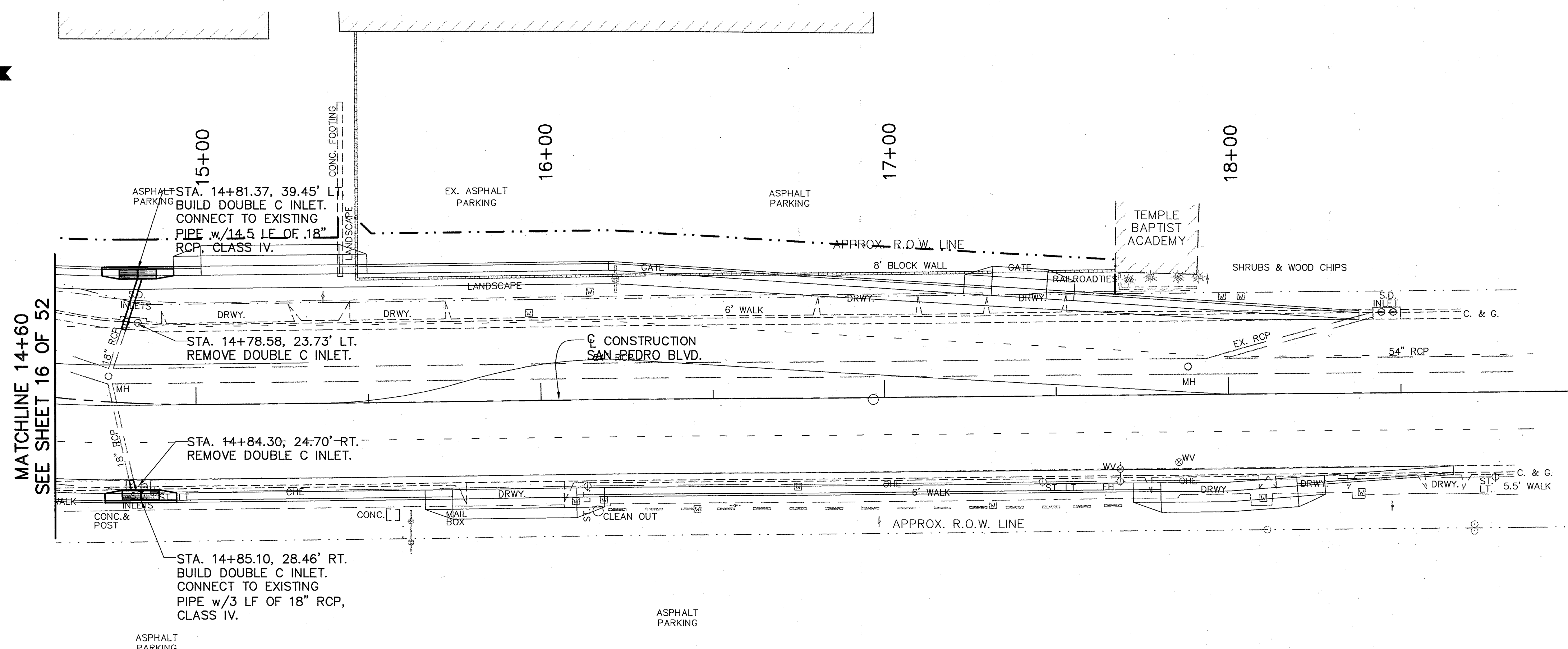
NEW 2C INLET: (1)
STA: 1+09.72,
10.00' DT . . .

NO.	DATE	REVISIONS
		DESIGN
DESIGNED BY	CFS	DATE NOV. 2001
DRAWN BY	CFS	DATE NOV. 2001
CHECKED BY	JRS	DATE NOV. 2001


Gannett Fleming West, Inc.
ENGINEERS AND PLANNERS

CITY OF ALBUQUERQUE	
PUBLIC WORKS DEPARTMENT	
ENGINEERING DEVELOPMENT GROUP	
TITLE:	SAN PEDRO BLVD./CONSTITUTION AVE. TRANSPORTATION IMPROVEMENTS STORM DRAIN PLAN & PROFILE – SAN PEDRO

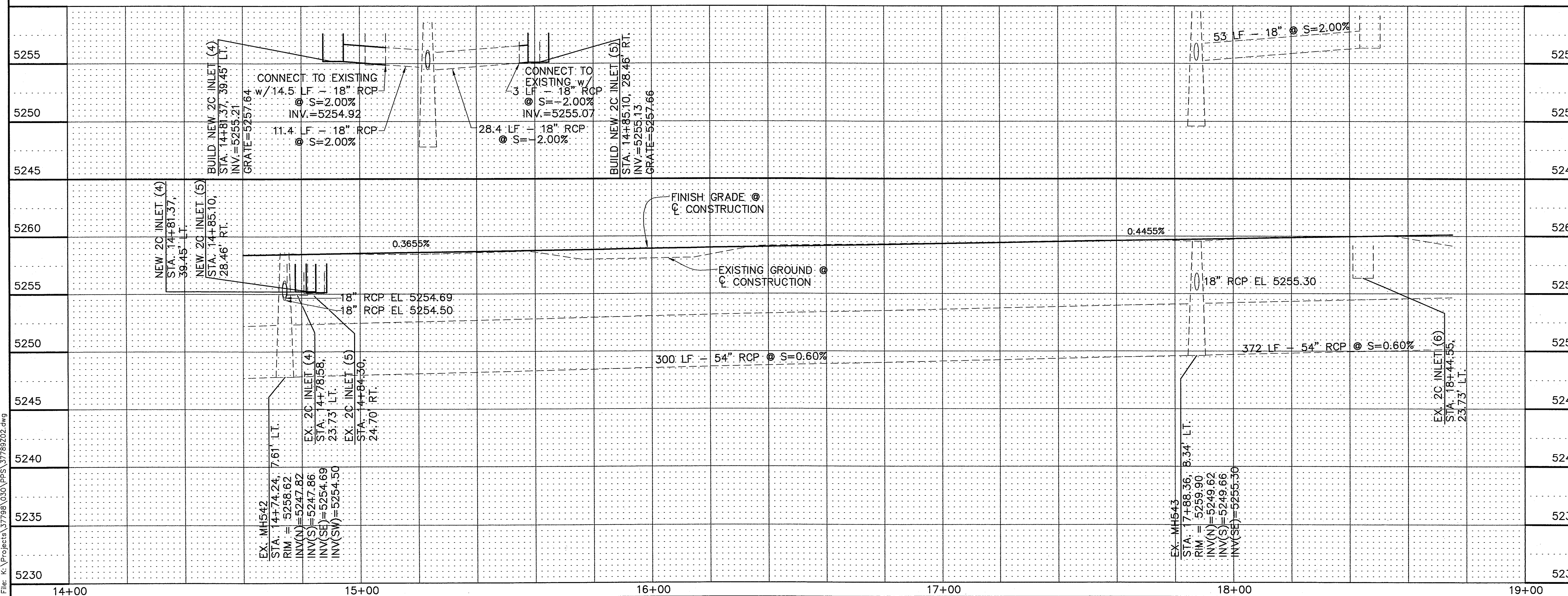
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
City Project No. 667791		Zone Map No. J-18	Sheet 16	Of 52



PLAN
SCALE: 1"=20'

PROFILE
SCALE: 1"=20' (HORIZ.)
1"=5' (VERT.)

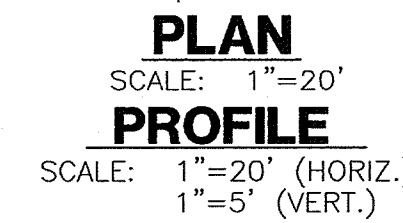
SAN PEDRO BOULEVARD

[illegible]

45  **Gannett Fleming West, Inc.**
ENGINEERS AND PLANNERS

40.	CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP
TITLE:	SAN PEDRO BLVD./CONSTITUTION AVE. TRANSPORTATION IMPROVEMENTS STORM DRAIN PLAN & PROFILE - SAN PEDRO

35	Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
30					
City Project No.		Zone Map No.	Sheet	Of	
667791		J-18	17	52	

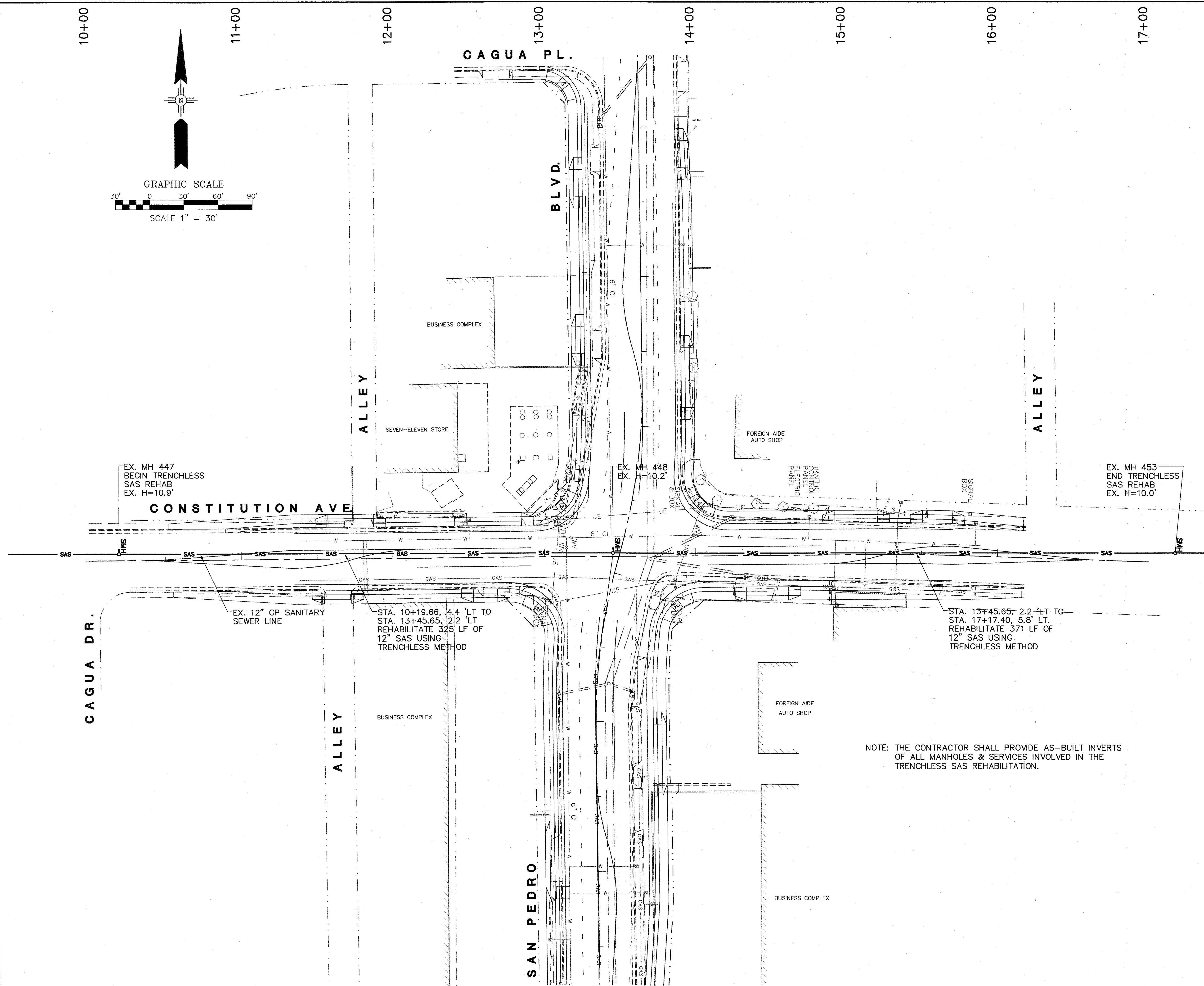


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CITY OF ALBUQUERQUE	
PUBLIC WORKS DEPARTMENT	
ENGINEERING DEVELOPMENT GROUP	
TITLE:	SAN PEDRO BLVD./CONSTITUTION AVE. TRANSPORTATION IMPROVEMENTS STORM DRAIN PLAN & PROFILE - CONSTITUTION

Design Review Committee		City Engineer Approval		Last Design Update	Mo./Day/Yr.		Mo./Day/Yr.	
City Project No. 667791		Zone Map No. J-18		Sheet 18		Of 52		

Time: 14:44:36
Date: 6/10/2002 CFS
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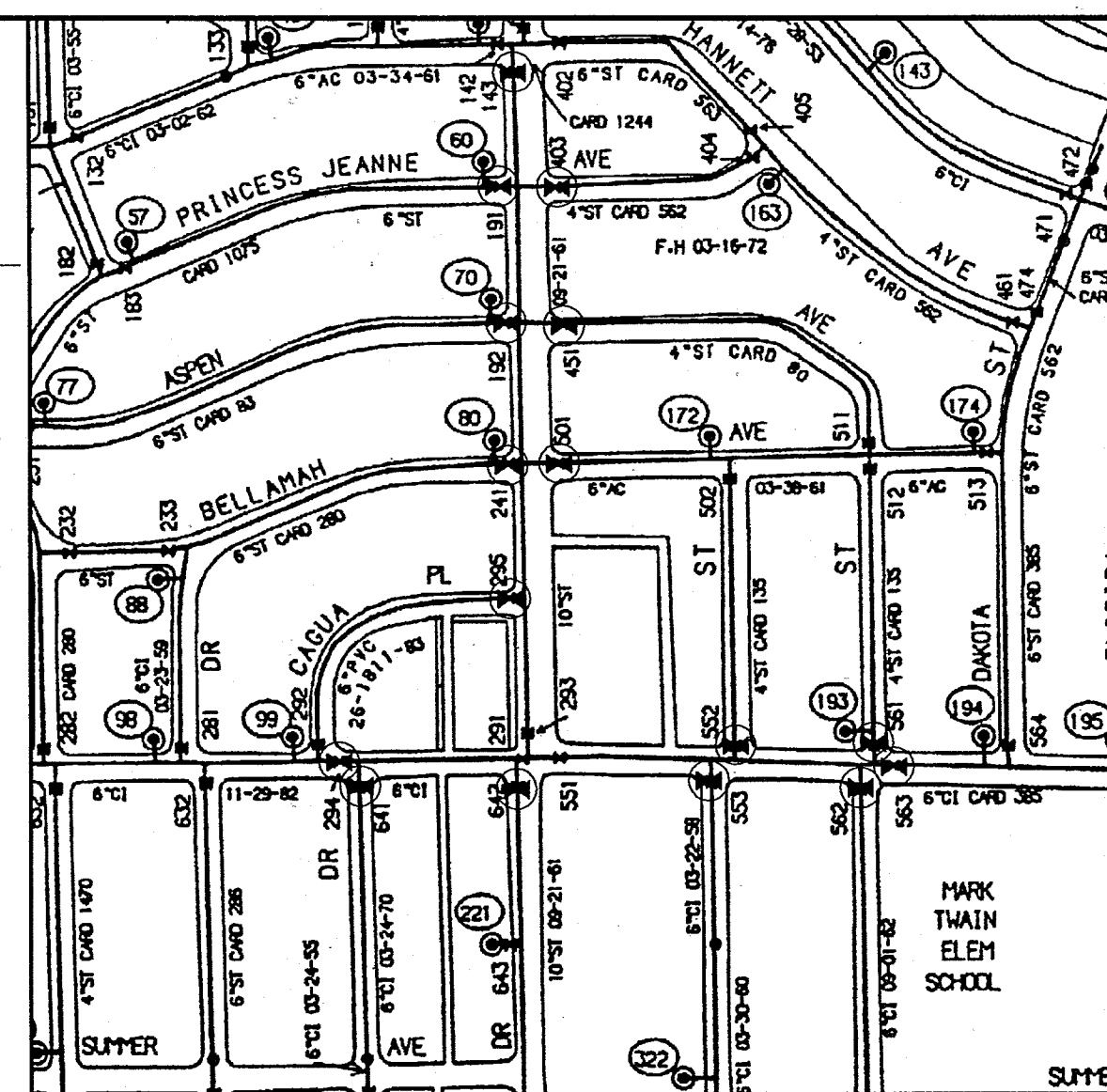
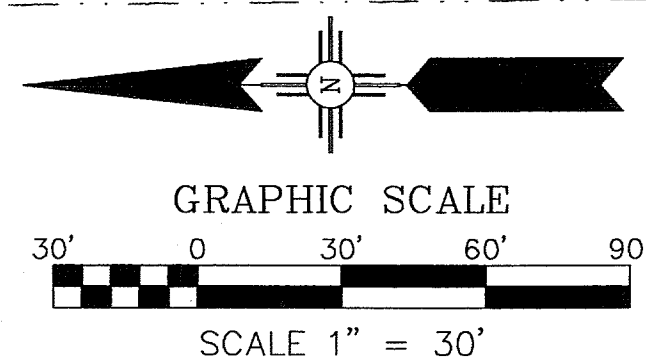
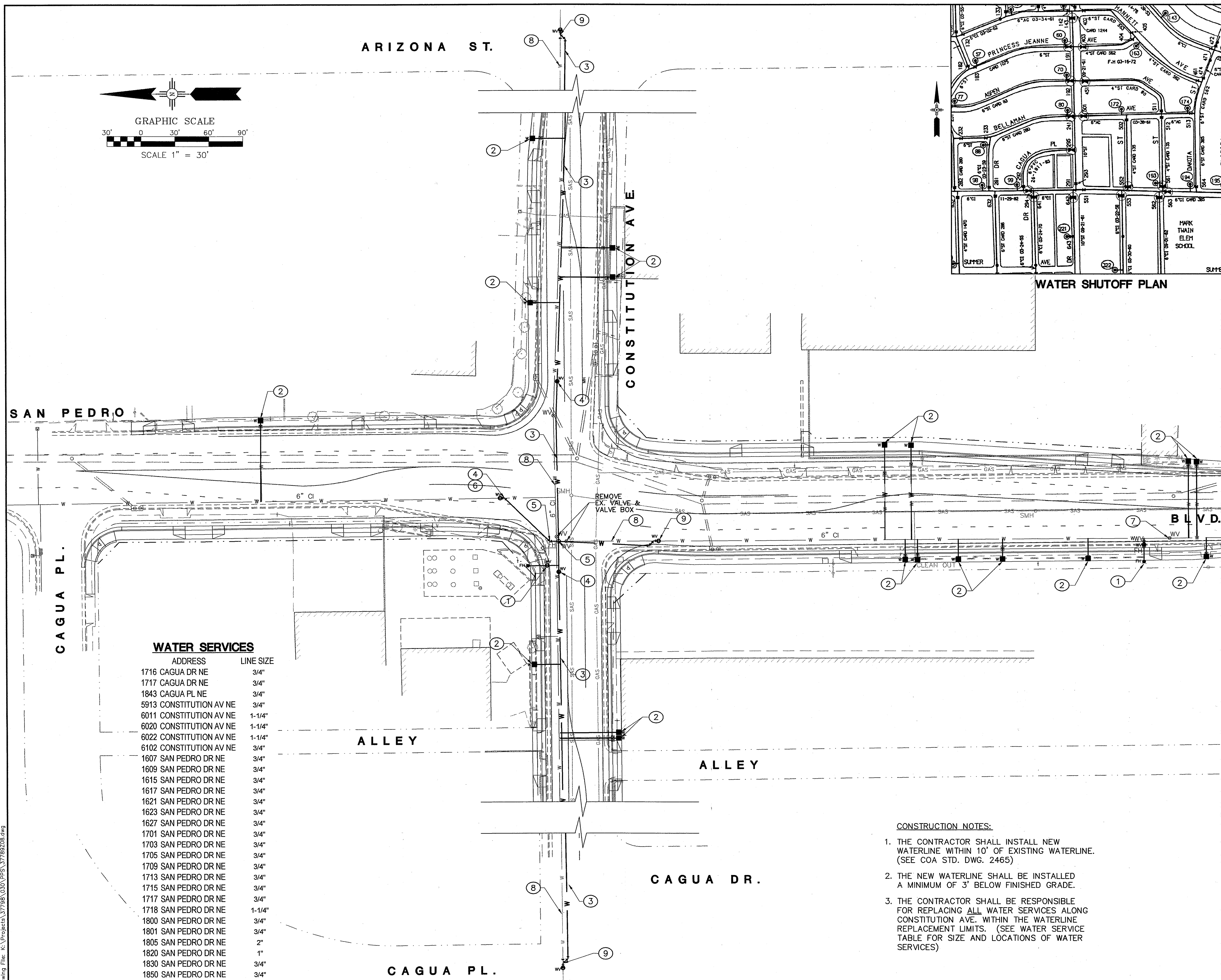
NOTE: THE CONTRACTOR SHALL PROVIDE AS-BUILT INVERTS OF ALL MANHOLES & SERVICES INVOLVED IN THE TRENCHLESS SAS REHABILITATION.



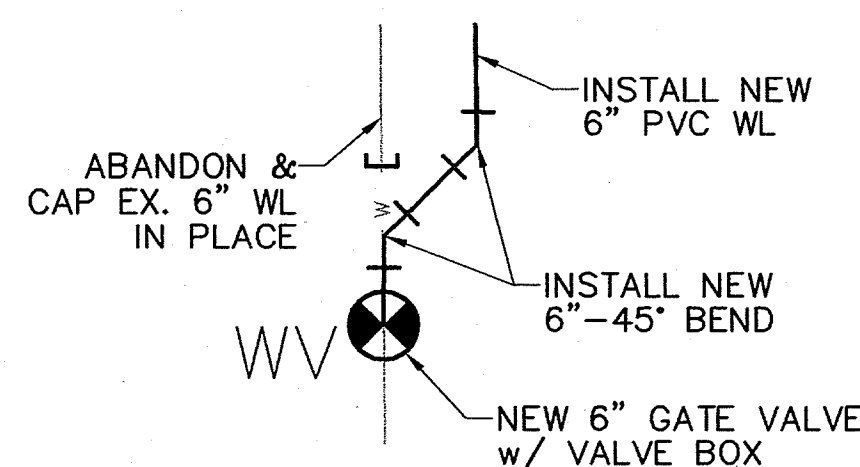
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE.
TRANSPORTATION IMPROVEMENTS
TRENCHLESS SAS REHAB. - CONSTITUTION AVE.

Design Review Committee	City Engineer Approval	Ms./Day/Yr.	Ms./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of
667791	J-18	19	52

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
	REVISIONS	NO.	DATE	BY	FIELD NOTES	NO.	DATE
DESIGNED BY	CFS		DATE	NOV. 2001			
DRAWN BY	CFS		DATE	NOV. 2001			
CHECKED BY	JRS		DATE	NOV. 2001			



KEYED NOTES



NOTE: RESTRAINING GLANDS SHALL BE USED AT ALL FITTINGS AND THE CONNECTING PIPE SHALL BE RESTRAINED WITH HARNESS AS PER TABLE.

PIPE SIZE	90°	45°	22½°	TEE*	VALVE
4"	21'	9'	5'	21'	52'
6"	28'	12'	6'	37'	74'
8"	37'	15'	7'	54'	99'
10"	44'	18'	7'	69'	115'



Gannett Fleming West, Inc.
ENGINEERS AND PLANNERS

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
City Project No. 667791		Zone Map No. J-18	Sheet 20	Of 52

CONSTRUCTION TRAFFIC CONTROL GENERAL NOTES

1. CONTRACTOR MUST OBTAIN FROM CONSTRUCTION COORDINATION AN EXCAVATION/BARRICADING PERMIT BEFORE ENGAGING IN ANY CONSTRUCTION, MAINTENANCE OR REPAIR WORK IN ANY OF THE CITY OF ALBUQUERQUE'S RIGHTS-OF-WAY. EMERGENCY WORK THAT WOULD PRESERVE LIFE OR PROPERTY IS EXCLUDED WITH THE UNDERSTANDING, THAT A PERMIT SHALL BE OBTAINED WITHIN 24 TO 48 HOURS.

2. CONTRACTOR SHALL AT THE TIME OF PERMIT REQUEST, SUBMIT FOR APPROVAL BY CONSTRUCTION COORDINATION, A TRAFFIC CONTROL PLAN DETAILING ALL EXISTING TOPOGRAPHY SUCH AS LANE WIDTHS, DRIVEWAYS, AND BUSINESS/RESIDENTIAL ACCESSSES. THE TRAFFIC CONTROL PLAN SHALL INCLUDE ALL PHASES OF WORK AND SCHEDULES INVOLVED IN THE CONSTRUCTION PROJECT. ANY SEPARATE PHASES OF A CONSTRUCTION PROJECT SHALL BE GIVEN AN INDIVIDUAL PERMIT EACH. BLANKET PERMITS WILL NOT BE ISSUED.

3. TYPICAL TRAFFIC CONTROL PLANS DO NOT REFLECT THE EXISTING TOPOGRAPHY SUCH AS DRIVEWAYS, LANE WIDTHS, AND BUSINESS/RESIDENTIAL ACCESSSES. EVERY LOCATION THAT REQUIRES CONSTRUCTION TRAFFIC CONTROL SHALL HAVE A DETAILED TRAFFIC CONTROL PLAN SHOWING ALL EXISTING TOPOGRAPHY.

4. CONSTRUCTION SHALL NOT BEGIN UNLESS A TRAFFIC CONTROL PLAN HAS BEEN APPROVED AND VERIFIED BY CONSTRUCTION COORDINATION.

5. CONSTRUCTION COORDINATION SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY TRAFFIC CONTROL CHANGES NEEDED BY CONTRACTOR, THAT WERE NOT PREVIOUSLY APPROVED. THESE TRAFFIC CONTROL CHANGES SHALL BE REQUESTED IN WRITING ACCOMPANIED WITH A TRAFFIC CONTROL PLAN REFLECTING SUCH CHANGES.

6. ALL CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL, SERVICE AND MAINTAIN ALL TRAFFIC CONTROL DEVICES. TRAFFIC CONTROL DEVICES SHALL NOT BE REMOVED OR ALTERED IN ANY WAY WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION, PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.

7. THE CONSTRUCTION TRAFFIC CONTROL INITIAL SET-UP FOR EACH PHASE SHALL BE BY AN AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED WORKSITE TRAFFIC SUPERVISOR. THE MAINTENANCE AND SERVICING SHALL ALSO BE DONE BY AN ATSSA CERTIFIED WORKSITE TRAFFIC SUPERVISOR OR EQUIVALENT.

8. CONTRACTOR IS RESPONSIBLE TO MAINTAIN AND SERVICE ALL TRAFFIC CONTROL DEVICES 24 HOURS A DAY, 7 DAYS A WEEK THROUGHOUT LENGTH OF PROJECT. CONTRACTOR IS RESPONSIBLE THAT ALL TRAFFIC CONTROL DEVICES COMPLY WITH THE MUTCD, LATEST EDITION.

9. ALL ADVANCE WARNING SIGNS SHALL BE DOUBLE INDICATED WHENEVER THERE ARE MULTI-LANE TRAFFIC IN ANY ONE GIVEN DIRECTION AND THERE IS SUFFICIENT MEDIAN SPACE.

10. ALL BARRICADES IN ALL TAPERS AND TANGENTS SHALL BE PLACED APART, A DISTANCE MEASURED IN FEET, EQUAL TO THAT OF THE POSTED SPEED LIMIT. NO EXCEPTIONS UNLESS APPROVED BY CONSTRUCTION COORDINATION PER MUTCD SECTION 6A-4.

11. ALL WORK IN ARTERIAL ROADWAYS SHALL BE ON A CONTINUOUS 24 HOUR PER DAY BASIS UNTIL COMPLETED.

12. CONTRACTOR IS RESPONSIBLE TO PROVIDE CONSTRUCTION COORDINATION, A WEEKLY LOG OF DAILY INSPECTIONS OF BARRICADE AND MAINTENANCE SCHEDULES ON PROJECTS THAT ARE OVER ONE WEEK DURATION.

13. EQUIPMENT OR MATERIALS SHALL NOT BE STORED WITHIN 15 FEET OF A TRAVELED TRAFFIC LANE DURING NON-WORKING HOURS WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION.

14. CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE AND ADEQUATE MEANS OF CHANNELIZING PEDESTRIAN TRAFFIC AROUND AND THROUGH THE CONSTRUCTION AREA.

15. CONTRACTOR IS RESPONSIBLE FOR OBLITERATION OF ANY CONFLICTING STRIPING AND RESPONSIBLE FOR ALL TEMPORARY STRIPING.

16. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL FACILITIES, BUSINESSES AND/OR RESIDENTS AT ALL TIMES.

17. CONTRACTOR SHALL PROVIDE ACCESS SIGNS FOR BUSINESSES LOCATED WITHIN THE CONSTRUCTION AREA UNDER THE SUPERVISION OF CONSTRUCTION COORDINATION. EACH ACCESS SIGN SHALL HAVE 5 INCH, ORANGE LETTERING ON WHITE BACKGROUND. SHOPPING CENTERS AND MALLS SHALL BE LISTED AS SUCH.

18. ALL ADVANCE WARNING SIGNS SHALL MEET THE MINIMUM REFLECTIVE INTENSITY REQUIREMENTS SET FORTH BY THE CITY OF ALBUQUERQUE. CONSTRUCTION COORDINATION SHALL DETERMINE ALL REQUIREMENTS AND APPROVE OR DISAPPROVE ANY ADVANCE WARNING SIGN PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.

19. 48 HOURS PRIOR TO OCCUPYING OR CLOSING OF A RIGHT-OF-WAY, CONTRACTOR SHALL NOTIFY: POLICE, FIRE DEPARTMENT, SCHOOLS, HOSPITALS, TRANSIT AUTHORITY, BUSINESSES AND/OR RESIDENTS THAT WILL BE AFFECTED BY THE CONSTRUCTION.

20. ANY FIELD ADJUSTMENTS SHALL BE APPROVED BY CONSTRUCTION COORDINATION.

21. EXCAVATIONS SHALL BE PLATED, TEMPORARILY PATCHED OR RESURFACED PRIOR TO OPENING OF TRAFFIC. A MINIMUM OF 11 FEET, SHALL BE PROVIDED FOR TRAFFIC IN ANY GIVEN DIRECTION. CONTRACTOR IS RESPONSIBLE FOR ANY WORK INVOLVED IN SATISFYING THESE REQUIREMENTS.

22. CONTRACTOR SHALL AT ALL TIMES COMPLY WITH THE FOLLOWING:
1. STANDARDS AND REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
2. THE CITY OF ALBUQUERQUE TRAFFIC CODE, LATEST EDITION.
3. SECTION 19 OF THE CITY OF ALBUQUERQUE'S STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION, AS WELL AS OTHER SECTIONS.

23. FAILURE TO COMPLY WITH ANY OF THE ABOVE MENTIONED, WILL BE ADEQUATE CAUSE TO CEASE ALL WORK ON ANY CONSTRUCTION PROJECT. WORK WILL NOT RESUME UNTIL ALL REQUIREMENTS ARE ADDRESSED AND APPROVED BY CONSTRUCTION COORDINATION.

24. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN NEW-CLEAN CONDITION. WASHING OF EQUIPMENT IS INCIDENTAL TO ITS PLACEMENT AND MAINTENANCE.

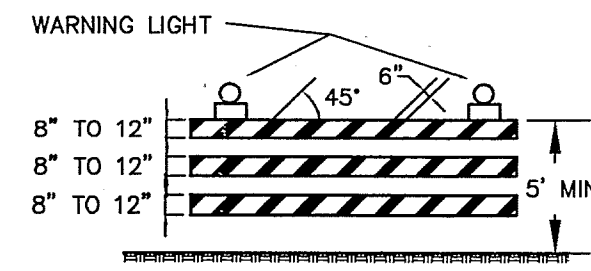
25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.

26. ADVANCE WARNING SIGNS SHALL BE 36"x36" MIN., WITH SUPER ENGINEERING SHEETING OR BETTER. MOUNTING HEIGHT AT TOP OF SIGN SHALL BE THE SAME AS FOR A 48" SIGN AS INDICATED IN THE MUTCD.

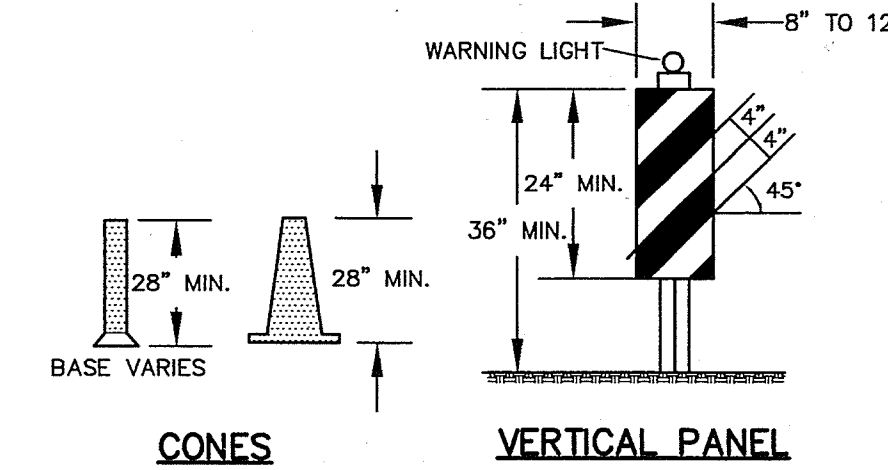
27. ITEM 0420.115 - REFLECTORIZED PAINTED MARKINGS IS INCLUDED FOR PAVEMENT STRIPING BETWEEN SURFACING LIFTS AND FOR USE ON TEMPORARY PAVEMENTS, AS DIRECTED BY THE PROJECT MANAGER.

28. CONCRETE WALL BARRIERS AND IMPACT ATTENUATORS SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT PRICE FOR ITEM NUMBER 0019.01-CONSTRUCTION TRAFFIC CONTROL AND BARRICADING AND NO ADDITIONAL MEASUREMENT OR PAYMENT WILL BE MADE.

29. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORKSITE. ALL GRAFFITI SHALL BE PROMPTLY REMOVED FROM ALL EQUIPMENT, BOTH PERMANENT AND TEMPORARY.



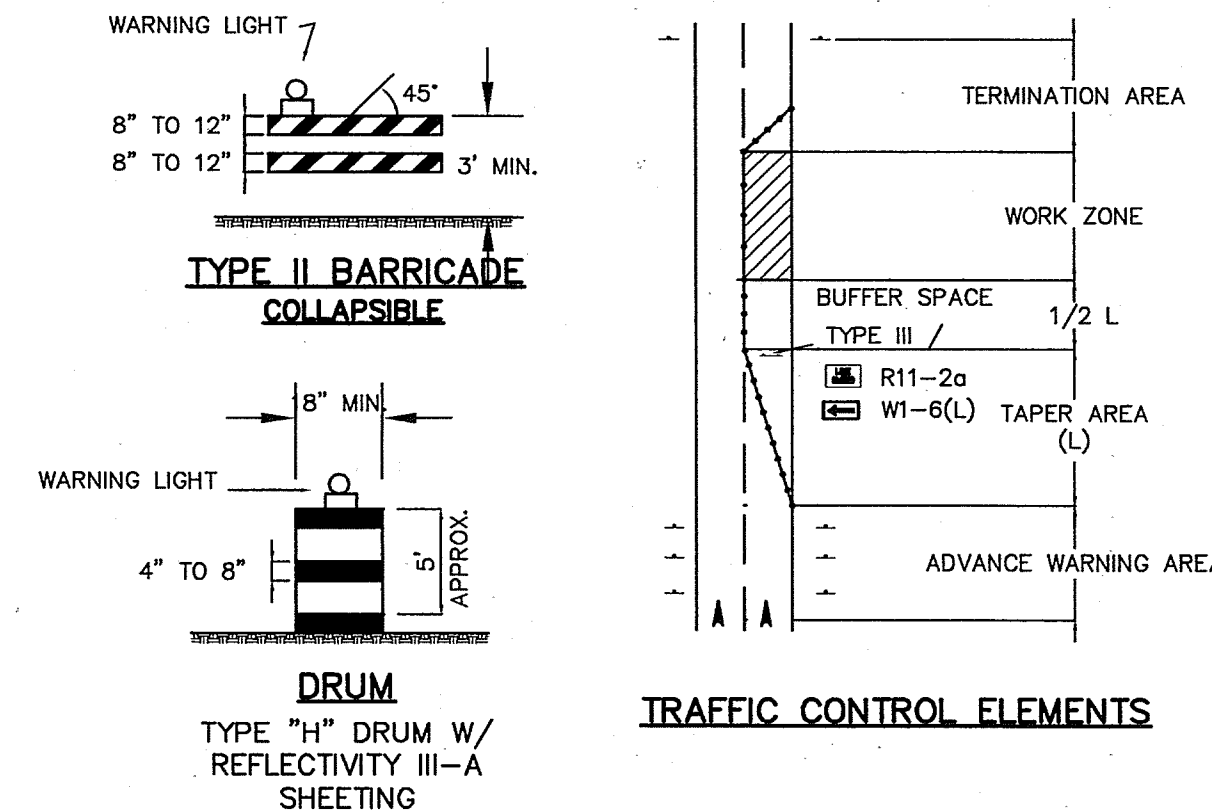
TYPE III BARRICADE



TYPE II BARRICADE



TYPE I BARRICADE



TRAFFIC CONTROL ELEMENTS

LEGEND

- WORK AREA
 - BARRICADE - TYPE I, TYPE II, OR TYPE "H" DRUM W/ REFLECTIVITY III-A SHEETING
 - BARRICADE - TYPE III
 - VERTICAL PANEL
 - WARNING SIGN
 - DISTANCE BETWEEN SIGNS - A DISTANCE MEASURED IN FEET EQUAL TO A VALUE OF TEN TIMES THE SPEED LIMIT OF THE STREET
 - FLAGMAN POSITION
 - S
 - L
- THE TANGENT LENGTH IS EQUAL TO THE TAPER LENGTH FOR A GIVEN STREET.

TAPER REQUIREMENTS

SPEED LIMIT (MPH)	TAPER LENGTH (L) (FEET)			MINIMUM NUMBER OF DEVICES FOR TAPER	MAXIMUM DEVICE SPACING IN FEET	
	10' LANE	11' LANE	12' LANE		ALONG TAPER	AFTER TAPER
20	70	75	80	5	20	20
25	105	115	125	6	25	25
30	150	165	180	7	30	30
35	205	225	245	8	35	35
40	270	300	320	9	40	40
45	450	495	540	13	45	45
50	500	550	600	13	50	50
55	550	605	660	13	55	55

RECOMMENDED SIGN SPACING(D) FOR ADVANCE WARNING SIGN SERIES

SPEED LIMIT (MPH)	MINIMUM DISTANCE IN FEET	
	BETWEEN SIGNS	FROM LAST SIGN TO TAPER
0-20	10 X SPEED LIMIT	10 X SPEED LIMIT
25-30	10 X SPEED LIMIT	10 X SPEED LIMIT
30-35	10 X SPEED LIMIT	10 X SPEED LIMIT
40-45	10 X SPEED LIMIT	10 X SPEED LIMIT
50-60	10 X SPEED LIMIT	10 X SPEED LIMIT

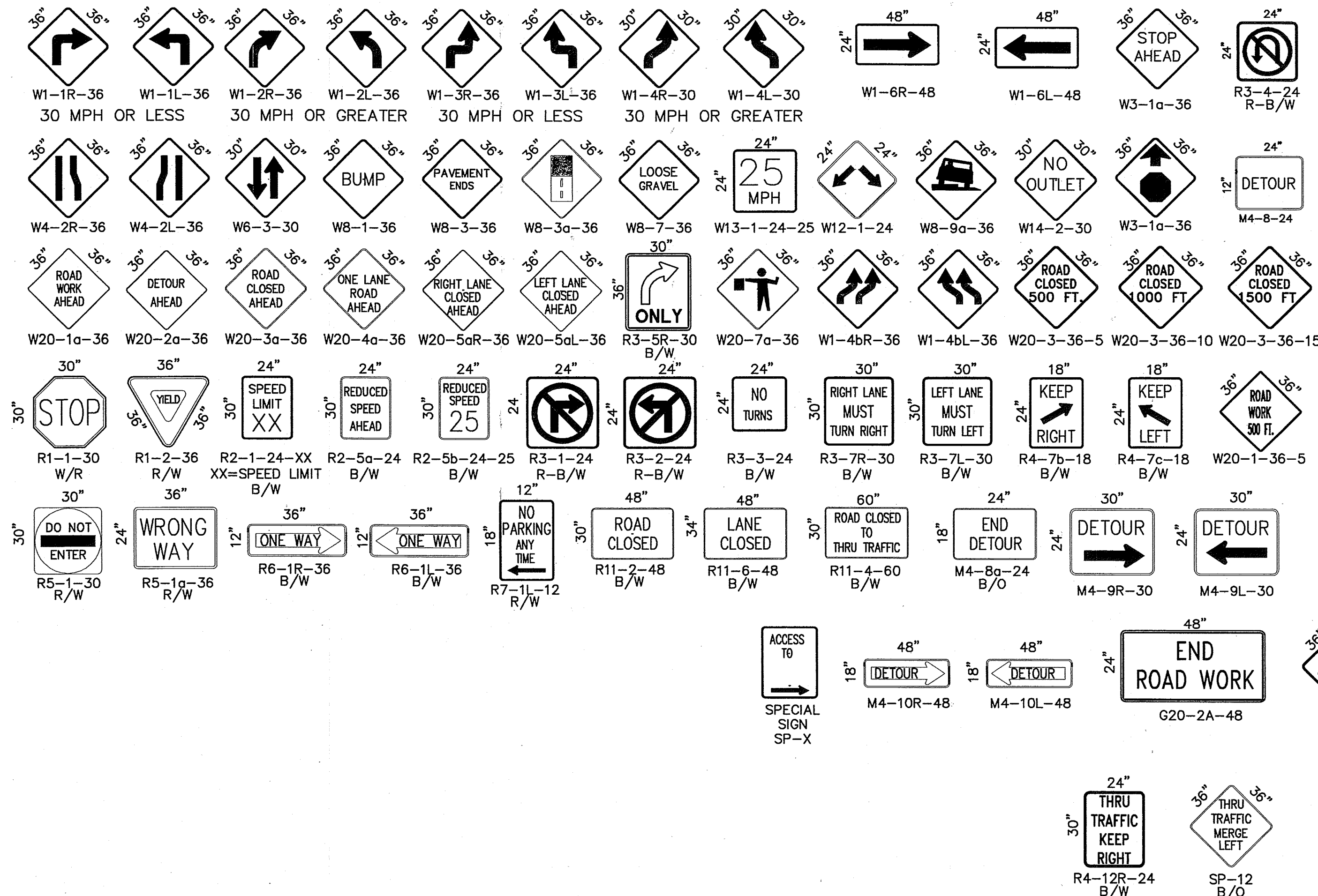
TAPER CRITERIA

TYPE OF TAPER	TAPER LENGTH
UPSTREAM TAPER:	
MERGING TAPER	L MINIMUM
SHIFTING TAPER	1/2 L MINIMUM
SHOULDER TAPER	1/2 L MINIMUM
TWO-WAY TRAFFIC TAPER	100 FEET MAXIMUM
DOWNSIDE TAPERS	100 FEET PER LANE

TAPER LENGTH COMPUTATION

SPEED LIMIT	
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR GREATER	$L = W \times S$
L = TAPER LENGTH	
W = WIDTH OF OFFSET IN FEET	
S = POSTED SPEED OR OFF-PEAK 85-PERCENTILE SPEED IN MPH	

SIGN FACE DETAILS



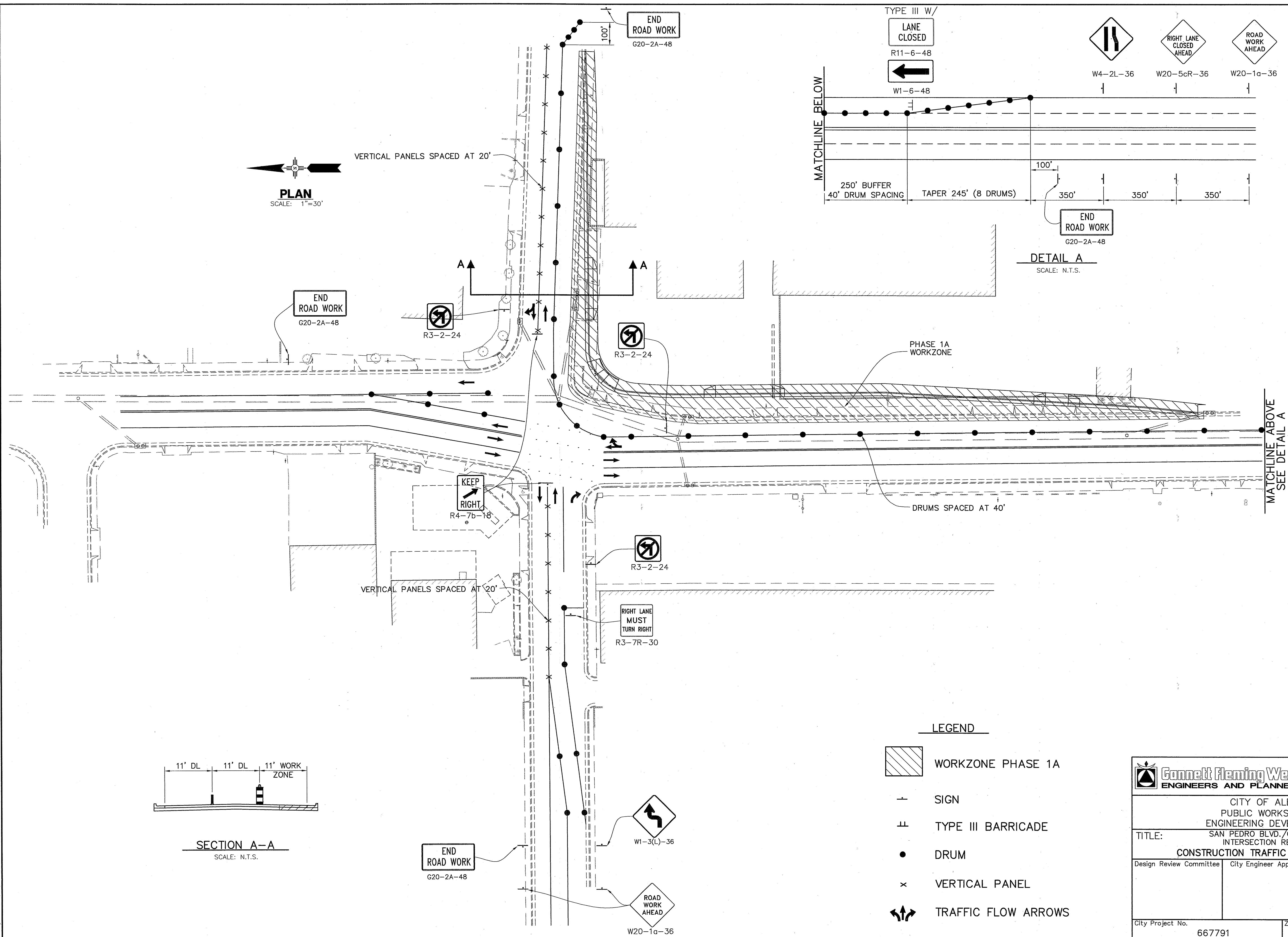
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

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INTERSECTION RECONSTRUCTION
CONSTRUCTION TRAFFIC CONTROL STANDARDS

Design Review Committee City Engineer Approval
Last Design Update

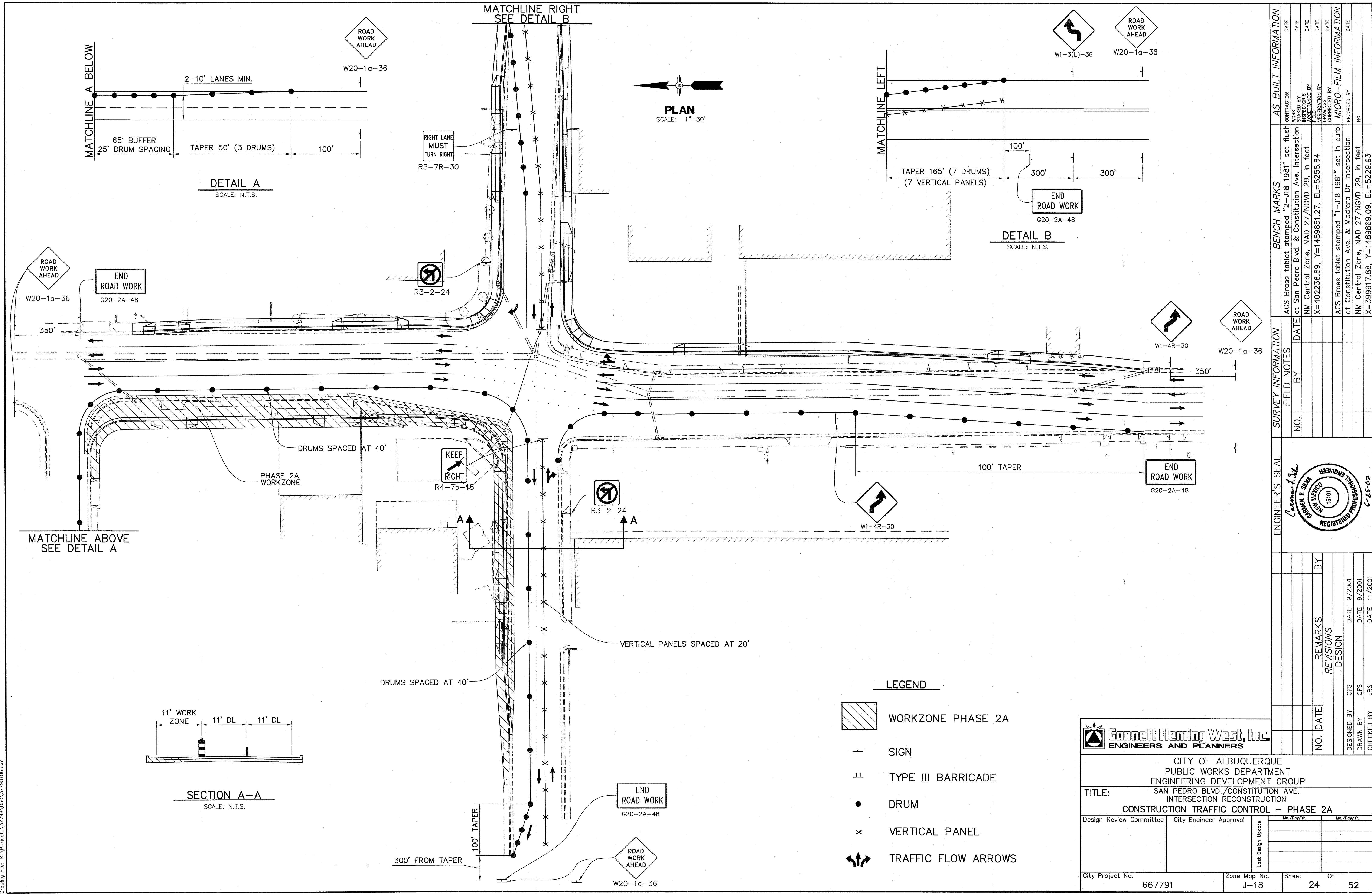
C.O.A. STD.

City Project No. 667791 Zone Map No. J-18 Sheet 21 Of 52

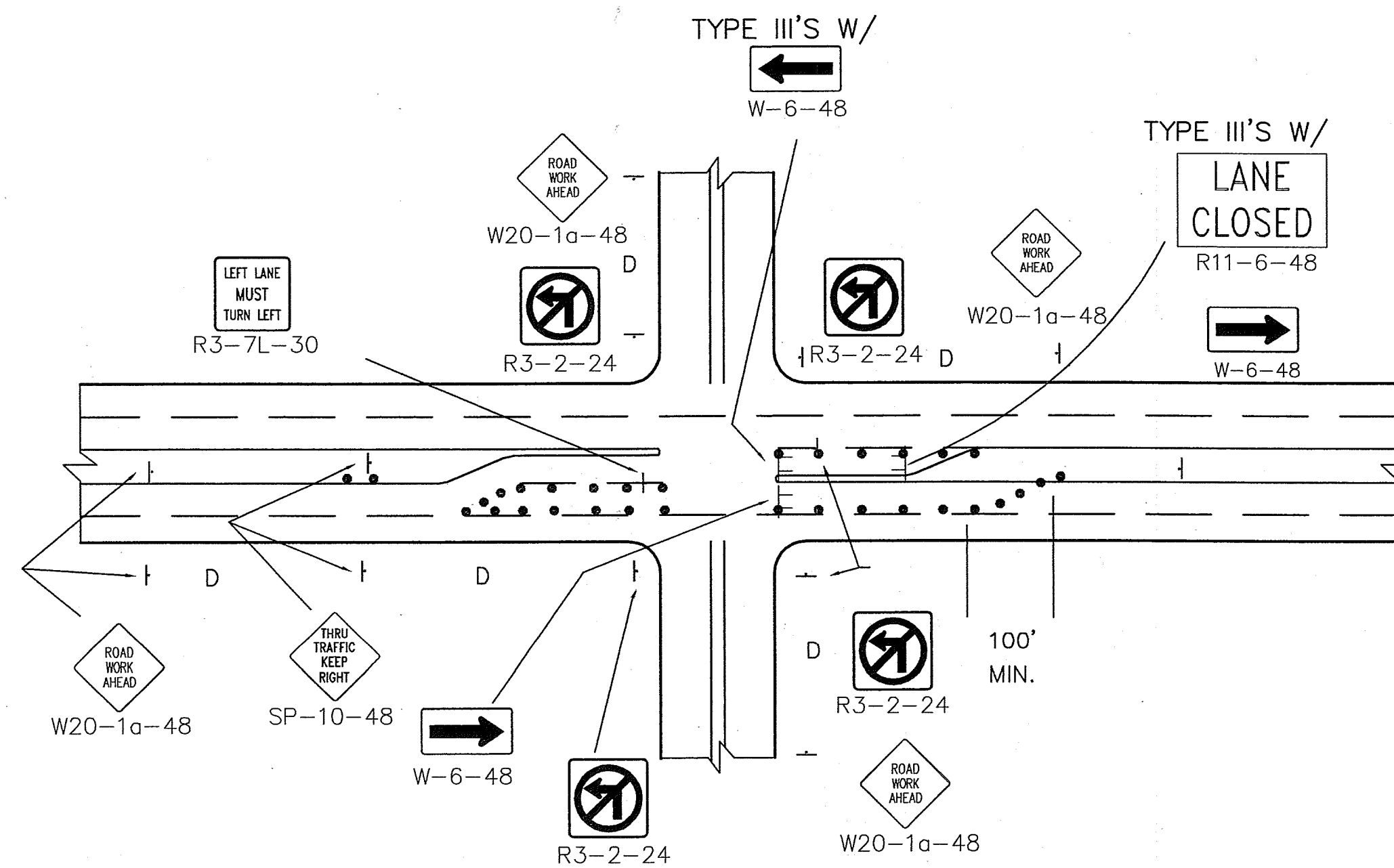
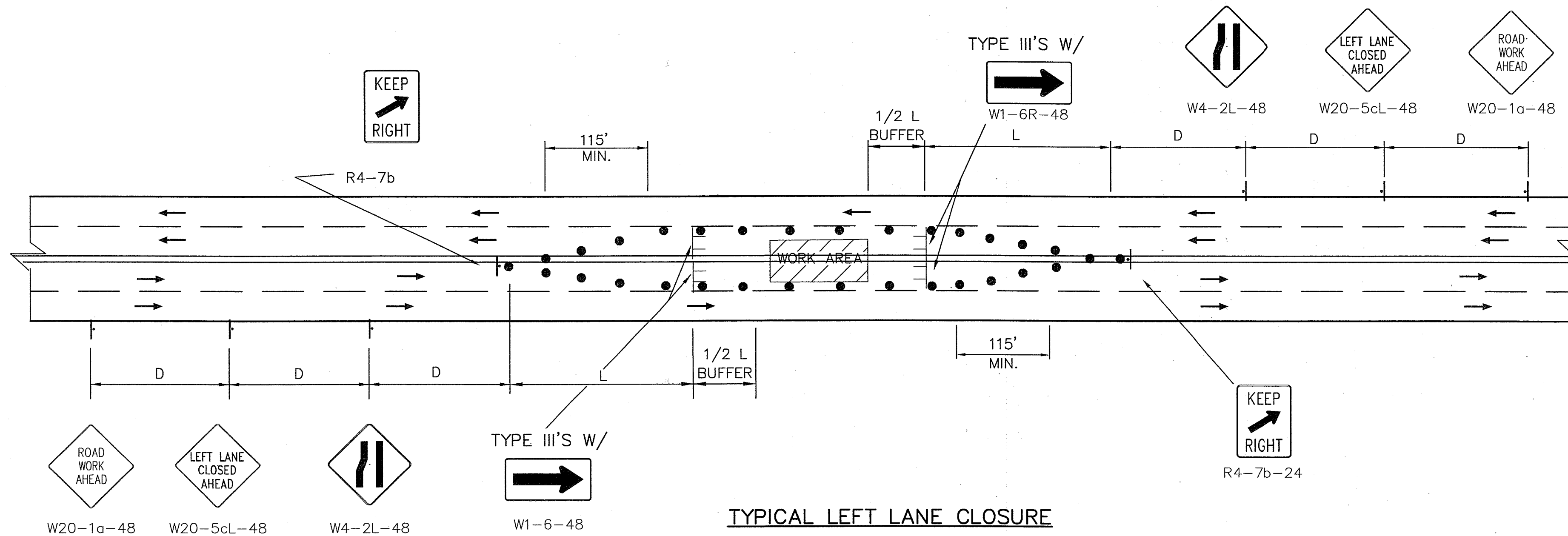
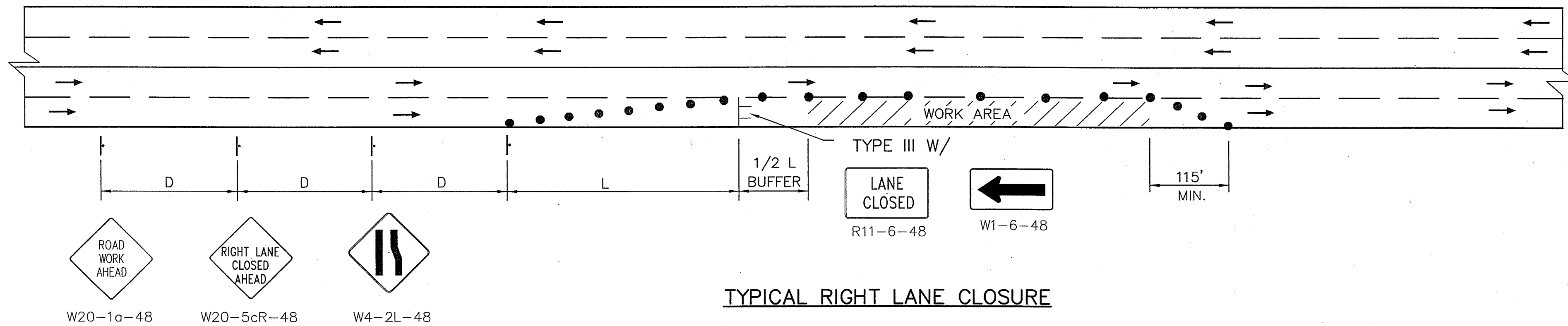
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NOTE: DEPENDING ON WORK ZONE LOCATION

NOTE: MAY REQUIRE LEFT LANE CLOSURE DEPENDING ON FIELD CONDITIONS.

TAPER REQUIREMENTS

SPEED LIMIT (MPH)	TAPER LENGTH (L) (FEET)			MINIMUM NUMBER OF DEVICES FOR TAPER	MAXIMUM DEVICE SPACING IN FEET	
	10' LANE	11' LANE	12' LANE		ALONG TAPER	AFTER TAPER
20	70	75	80	5	20	20
25	105	115	125	6	25	25
30	150	165	180	7	30	30
35	205	225	245	8	35	35
40	270	300	320	9	40	40
45	450	495	540	13	45	45
50	500	550	600	13	50	50
55	550	605	660	13	55	55

RECOMMENDED SIGN SPACING(D) FOR ADVANCE WARNING SIGN SERIES

SPEED MILES PER HR.	MINIMUM DISTANCE BETWEEN SIGNS	FROM LAST SIGN TO TAPER
0-20	4 X SPEED LIMIT	4 X SPEED LIMIT
25-30	4 X SPEED LIMIT	4 X SPEED LIMIT
30-35	4 X SPEED LIMIT	4 X SPEED LIMIT
40-45	4 X SPEED LIMIT	4 X SPEED LIMIT
50-60	4 X SPEED LIMIT	4 X SPEED LIMIT

TAPER CRITERIA

TYPE OF TAPER	TAPER LENGTH
UPSTREAM TAPER:	
MERGING TAPER	L MINIMUM
SHIFTING TAPER	1/2 L MINIMUM
SHOULDER TAPER	1/2 L MINIMUM
TWO-WAY TRAFFIC TAPER	100 FEET MAXIMUM
DOWNSTREAM TAPERS	100 FEET PER LANE

TAPER LENGTH COMPUTATION

SPEED LIMIT	
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR GREATER	$L = W \times S$
L = TAPER LENGTH	
W = WIDTH OF OFFSET IN FEET	
S = POSTED SPEED OR OFF-PEAK 85-PERCENTILE SPEED IN MPH	



CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION

STANDARD TRAFFIC CONTROL LAYOUTS

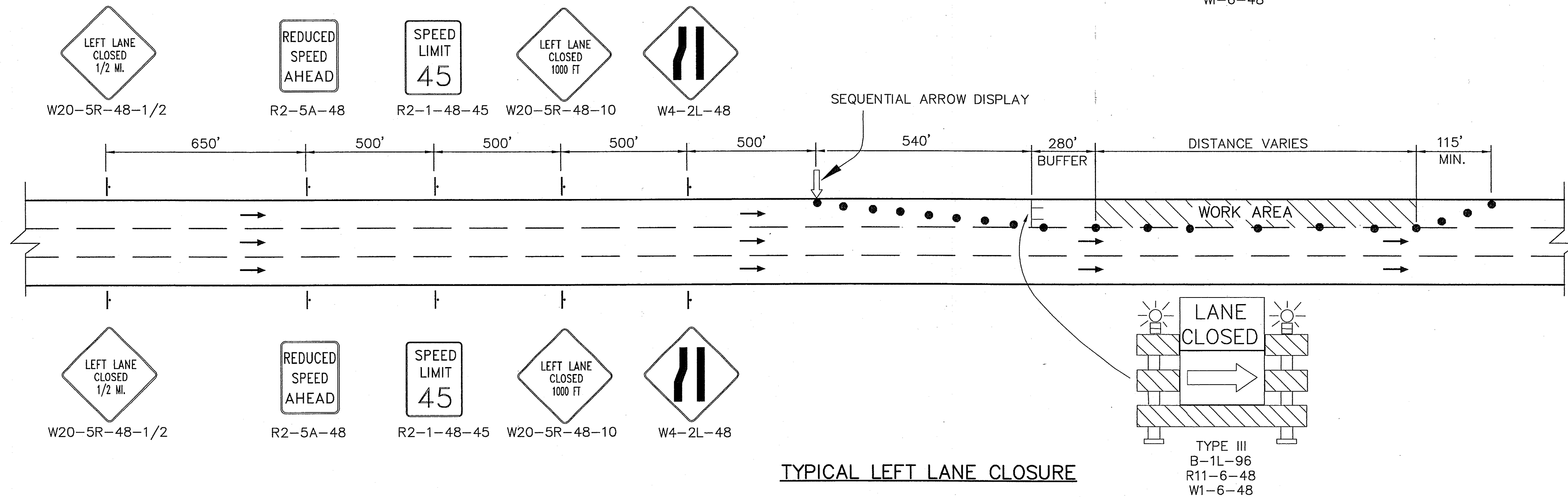
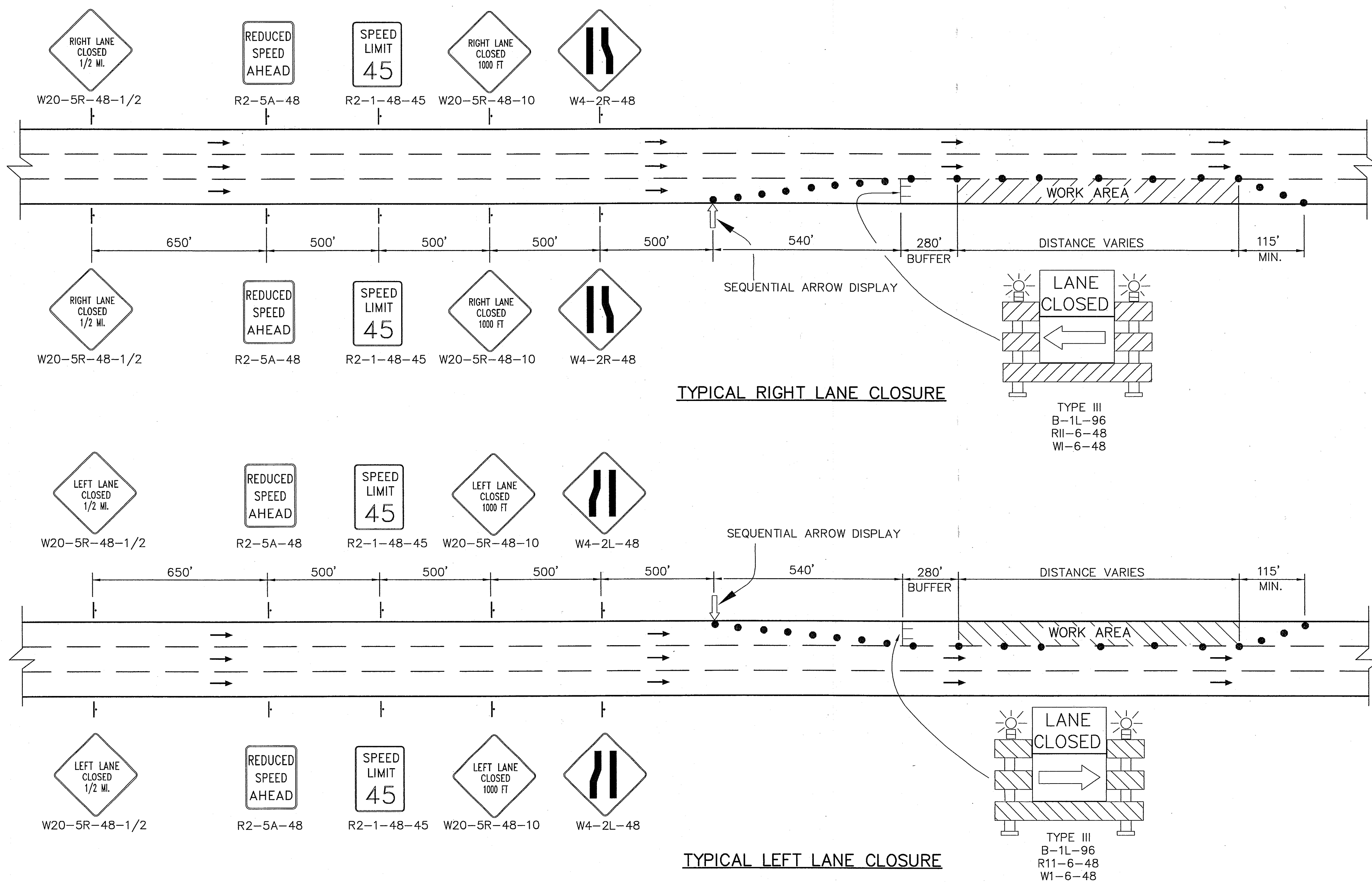
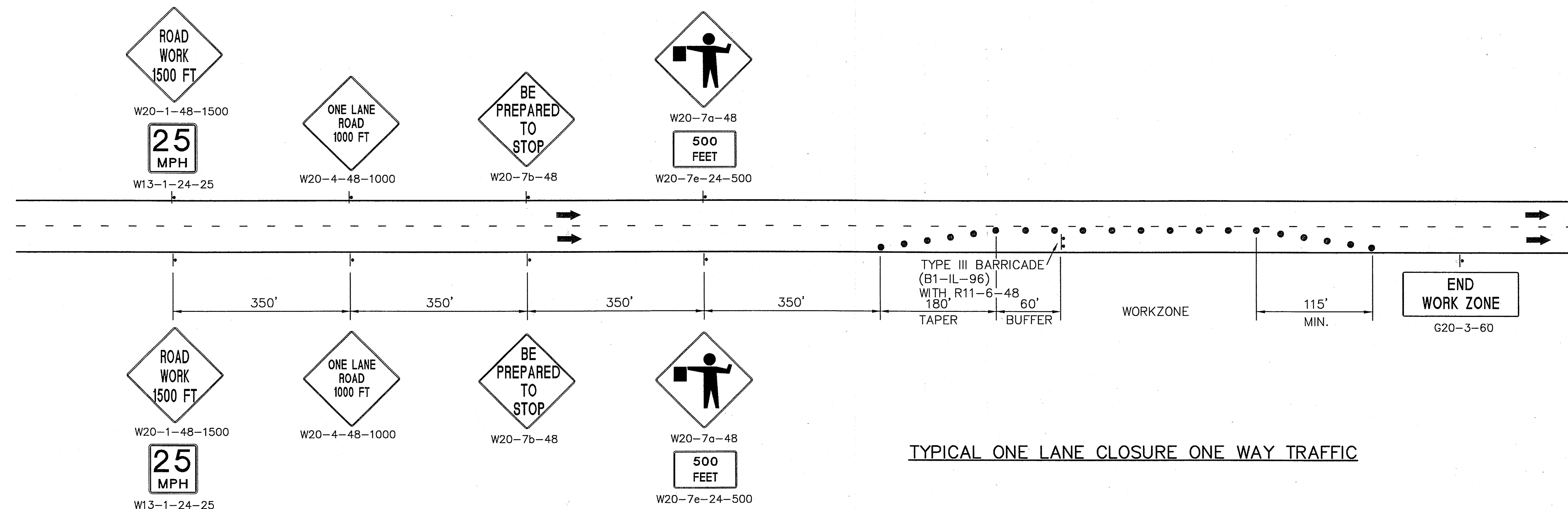
Design Review Committee City Engineer Approval

City Project No. 667791 Zone Map No. J-18 Sheet 26 Of 52

ENGINEER'S SEAL
CARMEN F. SILVA
REGISTERED PROFESSIONAL ENGINEER
6-25-02

NO. DATE REMARKS REVISIONS DESIGN

DESIGNED BY CFS DATE 9/2001
DRAWN BY CFS DATE 9/2001
CHECKED BY JRS DATE 11/2001



TAPER REQUIREMENTS

SPEED LIMIT (MPH)	TAPER LENGTH (L) (FEET)			MINIMUM NUMBER OF DEVICES FOR TAPER	MAXIMUM DEVICE SPACING IN FEET	
	10' LANE	11' LANE	12' LANE		ALONG TAPER	AFTER TAPER
20	70	75	80	5	20	20
25	105	115	125	6	25	25
30	150	165	180	7	30	30
35	205	225	245	8	35	35
40	270	300	320	9	40	40
45	450	495	540	13	45	45
50	500	550	600	13	50	50
55	550	605	660	13	55	55

RECOMMENDED SIGN SPACING(D) FOR

ADVANCE WARNING SIGN SERIES

SPEED MILES PER HR	MINIMUM BETWEEN SIGNS	DISTANCE IN FEET FROM LAST SIGN TO TAPER
0-20	4 X SPEED LIMIT	4 X SPEED LIMIT
25-30	4 X SPEED LIMIT	4 X SPEED LIMIT
30-35	4 X SPEED LIMIT	4 X SPEED LIMIT
40-45	4 X SPEED LIMIT	4 X SPEED LIMIT
50-60	4 X SPEED LIMIT	4 X SPEED LIMIT

TAPER CRITERIA

TYPE OF TAPER	TAPER LENGTH
UPSTREAM TAPER:	
MERGING TAPER	L MINIMUM
SHIFTING TAPER	1/2 L MINIMUM
SHOULDER TAPER	1/2 L MINIMUM
TWO-WAY TRAFFIC TAPER	115' MAXIMUM
DOWNSTREAM TAPER	115' PER LANE

TAPER LENGTH COMPUTATION

SPEED LIMIT	
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR GREATER	$L = W \times S$

L = TAPER LENGTH
W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED OR OFF-PEAK
85-PERCENTILE SPEED IN MPH

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
 <i>Carmen F. Silva</i>		FIELD NOTES		ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection NM Central Zone, NAD 27/NGVD 29, in feet X=402236.69, Y=1489851.27, EL=5258.64		CONTRACTOR	
NO.	DATE	REMARKS	BY	NO.	BY	DATE	DATE
DESIGN REVISIONS							
DESIGNED BY				ACS Brass tablet stamped "1-J18 1981" set in curb at Constitution Ave. & Madiera Dr Intersection NM Central Zone, NAD 27/NGVD 29, in feet X=399917.88, Y=1489869.09, EL=5229.93			
DRAWN BY				WORK			
CHECKED BY				STAMPED BY			
DATE				FIELD ACCEPTANCE BY			
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DATE				CORRECTED BY			
DATE				MICRO-FILM INFORMATION			
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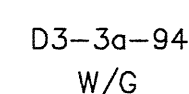
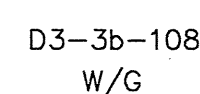
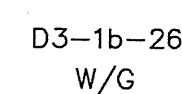
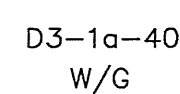
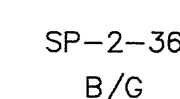
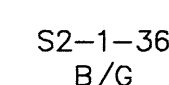
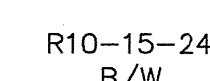
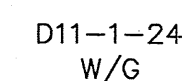
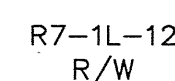
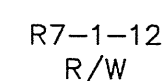
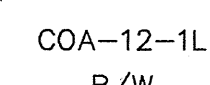
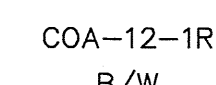
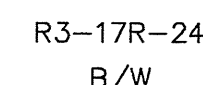
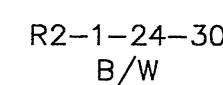
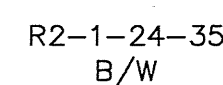
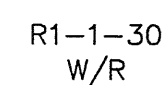
() SIGN(S) AND/OR SUPPORT(S) USED IN OTHER CONSTRUCTION PHASE(S). NO ADDITIONAL PAYMENT THEREFORE.
 * NO ADDITIONAL POST(S) OR SUPPORT(S) NEEDED. TO BE MOUNTED ON POST(S) OR SUPPORT(S) WITH OTHER SIGN(S).
 ** NO ADDITIONAL POST(S) NEEDED. TO BE MOUNTED ON TYPE III BARRICADE.
 *** NO ADDITIONAL POST(S). TO BE MOUNTED ON VERTICAL PANEL.

BARRICADE TYPE III - 8'		
PHASE	EACH	REMARKS
PHASE 1A	1	—
PHASE 1B	1(1)	—
PHASE 2A	0	—
PHASE 2B	(1)	—
PROJECT TOTAL		2

NOTE: QUANTITIES ON THIS SHEET ARE FOR CONTRACTORS INFORMATION ONLY. TRAFFIC CONTROL TO BE PAID FOR UNDER ITEM 19.010-TRAFFIC CONTROL & BARRICADING.

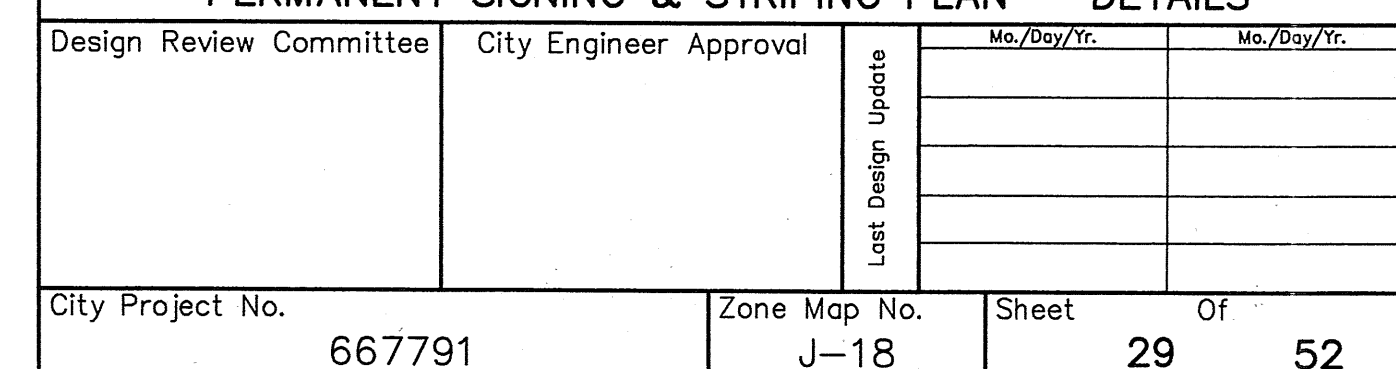
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							NO.	DATE	CONTRACTOR
							BY	WORKED BY INSPECTOR'S	DATE
								ACCEPTANCE BY	DATE
								VERIFICATION BY	DATE
								DRAWINGS	DATE
								CHECKED BY	DATE
								AOS Brass tablet stamped "1-J18 1981" set in curb at Constitution Ave. & Madiera Dr intersection	MICRO-FILM INFORMATION
								NM Central Zone, NAD 27/NGYD 29, in feet	RECORDED BY
								X=399917.88, Y=1489869.09, EL=5229.93	NO.

	Gannett Fleming West, Inc.							NO. DA	DESIGNED	DRAWN BY	CHECKED
	ENGINEERS AND PLANNERS										
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP											
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION TRAFFIC CONTROL QUANTITIES											
Design Review Committee			City Engineer Approval			Last Design Update	Mo./Day/Yr.		Mo./Day/Yr.		
City Project No. 667791				Zone Map No. J-18		Sheet 28		Of 52			



1. EXISTING SIGNS ARE TO BE REMOVED AND SALVAGED. CONTACT ALBERT ORTIZ AT 857-8000 EXT. 1151 FOR HANDLING ARRANGEMENTS.
2. NEW SIGNS SHALL BE MOUNTED ON A SINGLE 12 GAUGE POST, AS MANUFACTURED BY TELESAR, OR APPROVED EQUAL. POSTS SHALL BE SQUARE WITH DIMENSIONS AS FOLLOWS:

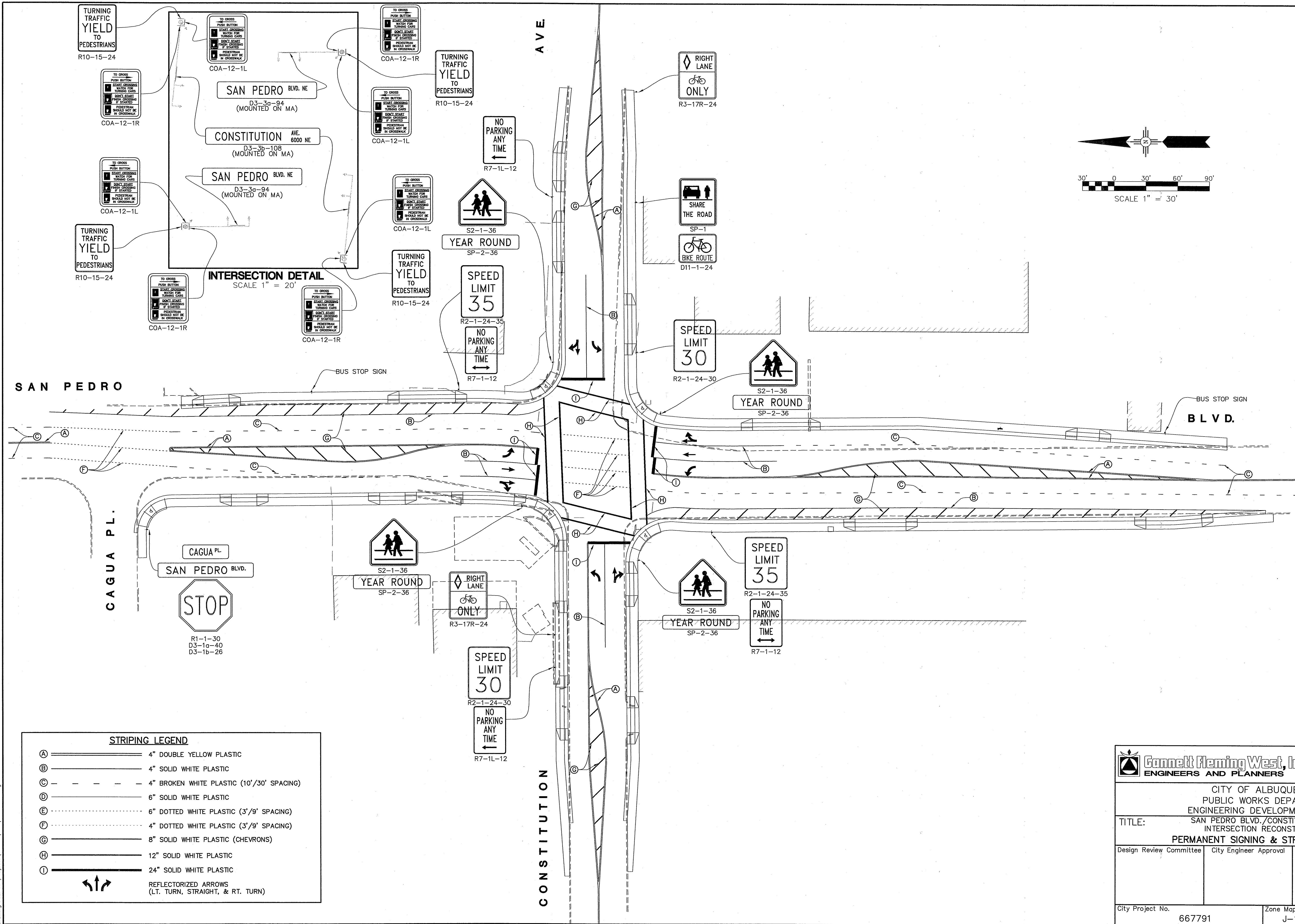
$1\frac{1}{2}" \times 1\frac{1}{2}"$	NO PARKING SIGNS (R7-1f-12)
$2\frac{1}{4}" \times 2\frac{1}{4}"$	ALL OTHER SIGNS
3. CONTRACTOR SHALL INSTALL A CORRESPONDINGLY SIZED 30-INCH LONG BASE POST, POST SLEEVE. SIGN POSTS SHOULD BE INSERTED 6-INCHES INTO THE BASE POST OR PER MANUFACTURER'S RECOMMENDATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING LOCATIONS WHERE NEW SIGNS WILL BE PLACED WITHIN NEW SIDEWALK AREAS. AT THESE LOCATIONS, THE CONTRACTOR SHALL PLACE THE BASE POST AND SLEEVE PRIOR TO SIDEWALK CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING ANY SIDEWALK DAMAGED BY SIGN POST INSTALLATION.
5. ALL NEW SIGNS SHALL, AT A MINIMUM, USE SUPER ENGINEERING GRADE REFLECTIVE SHEETING WITH GRAFFITI RESISTANT INKS OR COATING AS APPROVED BY THE TRAFFIC ENGINEER. STOP SIGNS SHALL USE VIP SHEETING WITH OVERLAY FILM PER MANUFACTURER'S REQUIREMENTS.



ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
		FIELD NOTES					
		NO.	BY	DATE			
					ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection		
					NW Central Zone, NAD 27/NGVD 29, in feet		
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					FIELD VERIFICATION BY		
					CONTRACTOR'S NAME		
					RECORDED BY		
					DATE		
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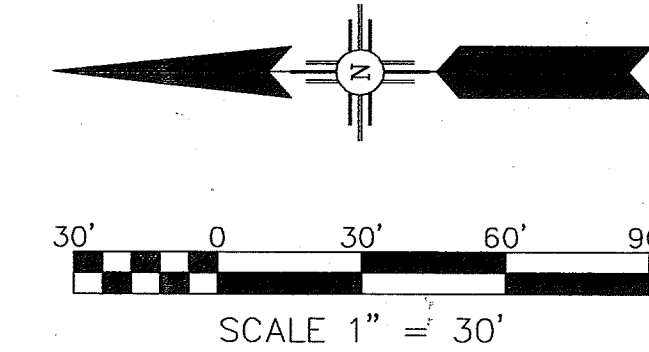
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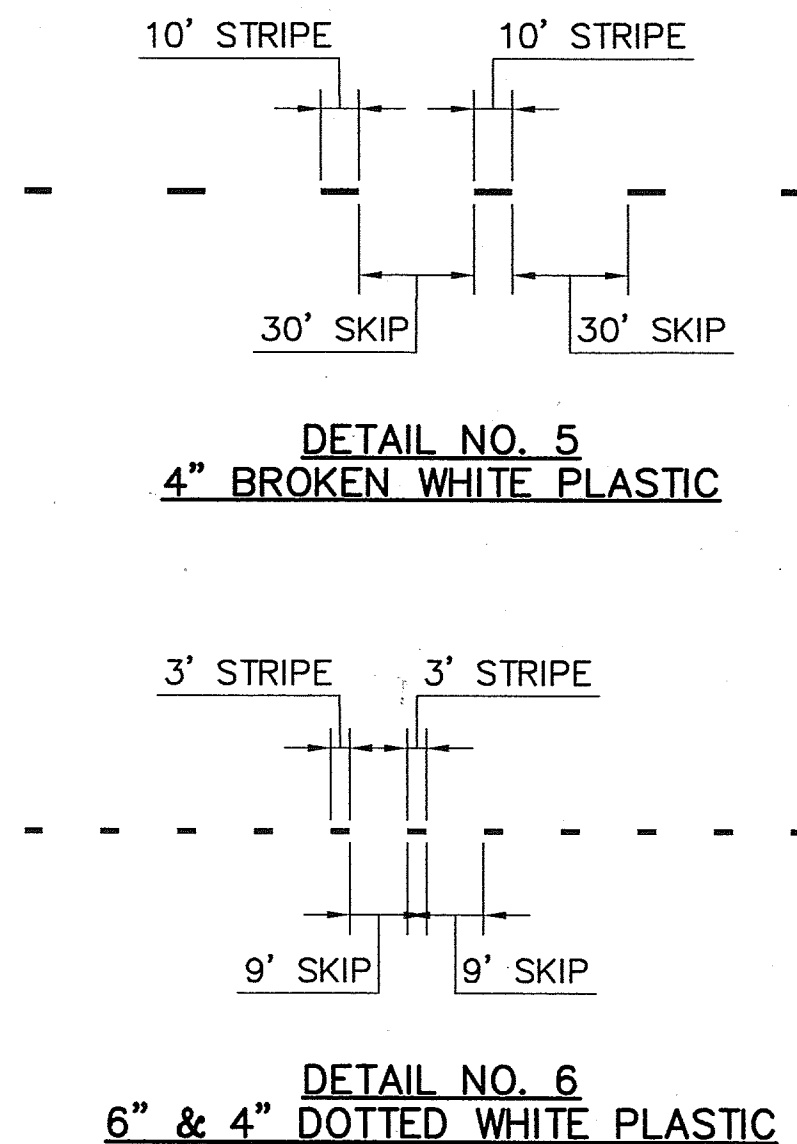
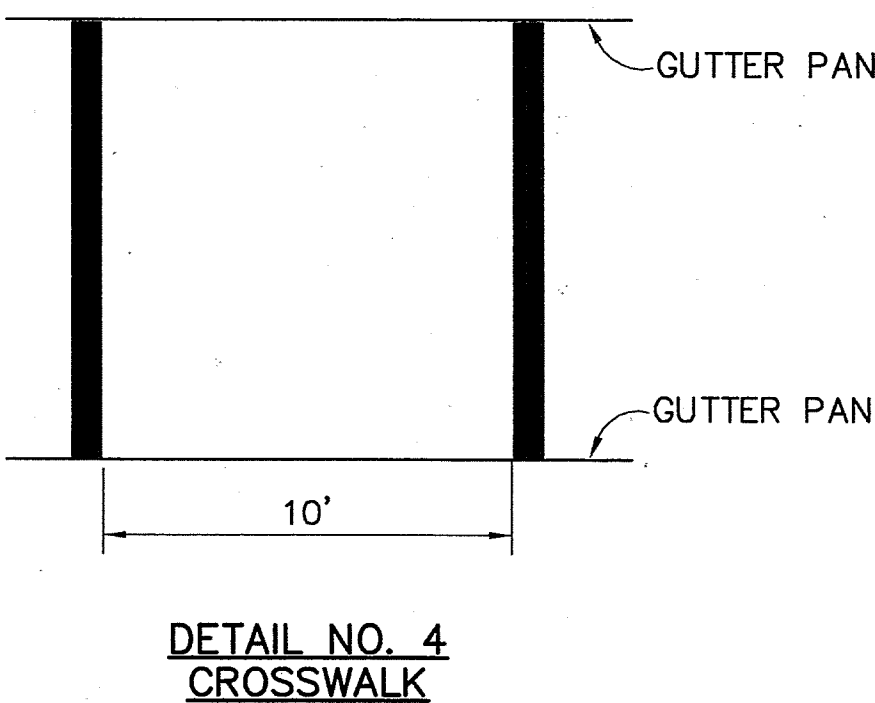
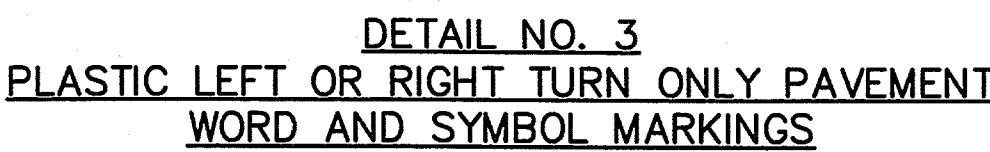
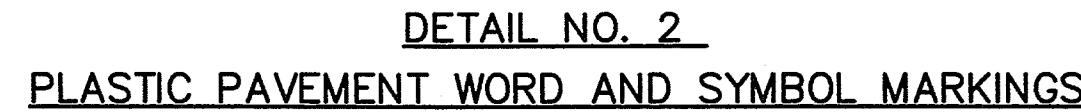
STRIPING LEGEND

- (A) 4" DOUBLE YELLOW PLASTIC
 - (B) 4" SOLID WHITE PLASTIC
 - (C) 4" BROKEN WHITE PLASTIC (10'/30' SPACING)
 - (D) 6" SOLID WHITE PLASTIC
 - (E) 6" DOTTED WHITE PLASTIC (3'/9' SPACING)
 - (F) 4" DOTTED WHITE PLASTIC (3'/9' SPACING)
 - (G) 8" SOLID WHITE PLASTIC (CHEVRONS)
 - (H) 12" SOLID WHITE PLASTIC
 - (I) 24" SOLID WHITE PLASTIC
- REFLECTORIZED ARROWS
(LT. TURN, STRAIGHT, & RT. TURN)



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION	
PERMANENT SIGNING & STRIPING LAYOUT	
Design Review Committee	City Engineer Approval
City Project No. 667791	Zone Map No. J-18
Sheet 30	Of 52

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
Carmen F. Salas REGISTERED PROFESSIONAL ENGINEER 1501		FIELD NOTES NO. BY DATE		ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection NM Central Zone, NAD 27/NGVD 29, in feet X=402236.69, Y=1489851.27, EL=5258.64		CONTRACTOR DATE INSPECTOR'S DATE VERIFICATION BY DATE CORRECTED BY DATE MICRO-FILM INFORMATION RECORDED BY DATE	
REVISIONS DESIGN		NO. DATE		NO. DATE		NO. DATE	
DESIGNED BY CFS DATE 10/2001		BY		BY		BY	
DRAWN BY CFS DATE 10/2001		REMARKS		REMARKS		REMARKS	
CHECKED BY JRS DATE 11/2001		NO. DATE		NO. DATE		NO. DATE	



NOTES:

1. ALL PAVEMENT WORD AND SYMBOL MARKINGS SHALL BE PREFORMED PLASTIC 60 mil OR GREATER.

PROJECT LOCATION		PROJECT NO.		ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
STREET ADDRESS		CITY		STATE		NO.		BY		DATE	
ZONING		REMARKS		BY		NO.		DATE		WORK ORDER	
DESIGNED BY		DATE		DATE		DATE		DATE		DATE	
DRAWN BY		DATE		DATE		DATE		DATE		DATE	
CHECKED BY		DATE		DATE		DATE		DATE		DATE	
Mo./Day/Yr.		Mo./Day/Yr.		Mo./Day/Yr.		Mo./Day/Yr.		Mo./Day/Yr.		Mo./Day/Yr.	
Sheet		Of		31		52					

SIGNAL NOTES

1. ALL WORK ON THESE PLANS TO BE PERFORMED UNDER THIS CONTRACT SHALL CONFORM TO THE CURRENT NATIONAL ELECTRIC CODE, THE STANDARDS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS FOR ELECTRICAL WIRING AND APPARATUS, AND THE CITY'S TRAFFIC ENGINEERING OPERATIONS THIRD DRAFT SPECIFICATIONS (JUNE 1994).
2. LOCATIONS OF CONDUITS, FOUNDATIONS, CONTROL CABINETS, POLES, PULL BOXES, MANHOLES, AND SPlice CABINETS SHOWN ON THE PLANS ARE SCHEMATIC AND SHALL BE ADJUSTED IN THE FIELD TO MAXIMIZE CLEAR SPACE AVAILABLE FOR PEDESTRIANS AND WHEELCHAIRS TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT. THE CONTRACTOR SHALL MEET WITH THE CITY'S TRAFFIC ENGINEERING OPERATIONS PERSONNEL IN THE FIELD AT ALL LOCATIONS TO SPOT EQUIPMENT BEFORE BEGINNING THE WORK. ALL SUCH EQUIPMENT SHALL BE INSTALLED WITHIN THE RIGHT-OF-WAY.
3. THE CONTRACTOR IS WARNED THAT EXISTING CONDUITS MAY CONTAIN AC POWER AND CAUTION SHALL BE EXERCISED IN INTERCEPTING OR INSTALLING CABLE IN EXISTING CONDUIT.
4. THE CONTRACTOR SHALL BORE, DRILL, OR PUSH WHEN CROSSING EXISTING PAVEMENTS AND ANY DRIVEWAYS FOR SIDE STREET CROSSINGS. BEFORE CONDUIT CAN BE BORED, DRILLED, OR PUSHED THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES. THE CONTRACTOR SHALL LOCATE AND EXPOSE GAS LINES WHICH CROSS ANY PROPOSED BORES. THESE EXCAVATIONS SHALL REMAIN OPEN UNTIL AFTER THE BORE IS COMPLETE. CONTRACTOR SHALL REMOVE AND REPLACE IN KIND ANY SIDEWALK OR PAVEMENT REQUIRED TO EXPOSE SUCH LINES. THE CONTRACTOR MAY CUT, TRENCH, AND REPLACE EXISTING PAVEMENT ONLY WHEN APPROVED BY THE PROJECT MANAGER.
5. SPlicing OF COMMUNICATIONS CABLE WILL NOT BE PERMITTED IN PULL BOXES. SPlicing OF COMMUNICATIONS CABLE (CONNECTIONS) WILL BE PERMITTED ONLY AT SPlice CABINETS OR CONTROLLER CABINETS WITH SPlice BARS. SPlicing OF TRAFFIC SIGNALS MCC WILL BE PERMITTED IN LARGE PULL BOXES INCLUDING LARGE MEDIAN PULL BOXES. SPlicing OF VIDEO DETECTION COAXIAL CABLE WILL NOT BE PERMITTED FROM THE MASTARM BASE TO THE CONTROLLER CABINET. SPlicing OF OPTICAL DETECTOR CABLE WILL NOT BE PERMITTED FROM THE DETECTOR TO THE CONTROLLER CABINET.
6. ALL LOOP LEAD-IN CABLES SHALL BE TAGGED AT THE CONTROL CABINET TO IDENTIFY EACH CABLE BY PHASE AND LOOP NUMBER. ALL VIDEO DETECTION COAXIAL AND POWER CABLES SHALL BE TAGGED AT THE CONTROL CABINET TO IDENTIFY EACH CABLE BY CAMERA NUMBER AND LOCATION. ALL OPTICAL DETECTOR CABLE SHALL BE TAGGED AT THE CONTROL CABINET TO IDENTIFY EACH BY DIRECTION AND LOCATION.
7. ALL PULL BOXES SHALL BE REINFORCED POLYMER MORTAR HEAVY DUTY TYPE WITH REINFORCED POLYMER MORTAR HEAVY DUTY COVERS. CONCRETE COVERS, STEEL COVERS, AND CONCRETE PULL BOXES WILL NOT BE ACCEPTABLE.
8. THE CONTRACTOR SHALL NOTIFY THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS(857-8000) THREE WORKING DAYS IN ADVANCE OF ANY ANTICIPATED WORK ON SIGNALS, LIGHTING, AND POWER SERVICES. TRAFFIC ENGINEERING OPERATIONS PERSONNEL WILL ASSIST THE CONTRACTOR IN FIELD LOCATION OF EQUIPMENT, COLOR CODING OF WIRING, AND MUST BE PRESENT WHEN SIGNALS AND LIGHTING ARE SHUT-OFF OR TURNED ON. THE CONTRACTOR SHALL ALSO NOTIFY THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS EACH TIME A TRAFFIC SIGNAL CONTROL DOOR IS OPENED.
9. THE CONTRACTOR SHALL NOTIFY PUBLIC SERVICE COMPANY 30 DAYS IN ADVANCE OF ANTICIPATED POWER SERVICE CONNECTIONS. THE CONTRACTOR SHALL COORDINATE WITH PUBLIC SERVICE COMPANY TO ESTABLISH ELECTRICAL SERVICE IN THE CITY'S NAME. THE CONTRACTOR SHALL PAY THE LOCAL POWER COMPANY ALL COSTS TO PROVIDE ELECTRICAL SERVICE. THIS WORK WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
10. THE CONTRACTOR SHALL REMOVE ALL CONFLICTING SIGNING AND DELIVER TO THE CITY TRAFFIC ENGINEERING YARDS WHEN TRAFFIC SIGNALS ARE PUT INTO OPERATION.
11. LIVE UNUSED CONDUCTORS WILL NOT BE ALLOWED AT MASTARM POLES AND PEDESTAL POLES. ALL SUCH UNUSED CONDUCTORS SHALL BE CAPPED & WATERPROOFED WITH CRIMPED ON NYLON WIRE CAPS.
12. IF TRENCH WIDTHS LESS THAN 12" ARE PROPOSED BY THE CONTRACTOR, APPROVED COMPACTION METHODS SHALL BE USED DURING BACKFILL TO PREVENT LATENT TRENCH FAILURES. THE CONTRACTOR SHALL USE GROUT OR LEAN FILL AS APPROVED BY THE PROJECT MANAGER IN LIEU OF EARTH BACKFILL.
13. FOR CONDUITS CONTAINING ONLY LOW VOLTAGE COMMUNICATIONS CABLES, THE REQUIREMENTS FOR A SINGLE CONDUCTOR BARE COPPER #8 AWG MAY BE WAIVED WHERE PERMITTED BY THE NATIONAL ELECTRIC CODE.
14. THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS PERSONNEL WILL PROVIDE TRAFFIC SIGNAL TIMING PLANS AND WILL PROGRAM TRAFFIC SIGNAL CONTROLLERS.
15. EXISTING CONDUITS TO BE REMOVED OR ABANDONED SHALL HAVE ALL WIRING REMOVED.
16. EXISTING CONDUITS SHALL BE REPAIRED, ADJUSTED, OR REPLACED AS DIRECTED BY THE PROJECT MANAGER WHERE ELECTRICAL PULLBOXES OR TRAFFIC MANHOLES ARE INSTALLED OR REPLACED.
17. CONTRACTOR SHALL COIL EXCESS INTERCONNECT CABLE AT ALL NEW OR EXISTING TRAFFIC MANHOLES BETWEEN SPlice CABINET OR CONTROL CABINETS WITH SPlice BARS. IF MORE THAN ONE MANHOLE EXISTS BETWEEN SPlice CABINETS OR CONTROL CABINETS WITH SPlice BARS, THEN COILING IS ONLY REQUIRED AT ONE OF THE MANHOLES. THE FOLLOWING QUANTITIES OF COMMUNICATION CABLE SHALL BE COILED:
12 PAIR - 50 FT.
25 PAIR - 50 FT.
50 PAIR - 25 FT.
75 PAIR - 25 FT.
18. THE CONTRACTOR SHALL ARRANGE TO HAVE OFF-DUTY POLICE OFFICERS DIRECT TRAFFIC WHEN SIGNALS ARE TURNED OFF.
19. ALL DATA SHOWN HEREIN CONCERNING EXISTING UTILITIES HAS BEEN OBTAINED FROM "AS-BUILT" DRAWINGS AND FROM FIELD OBSERVATIONS WHICH MAY OR MAY NOT BE ACCURATE. THE CONTRACTOR WILL BE RESPONSIBLE FOR EXPLORATORY TRENCHING. IF NECESSARY, TO MORE SPECIFICALLY LOCATE UTILITY LINES. COST OF LOCATING UTILITY LINES INCLUDING EXPLORATORY TRENCHING WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
20. THE CONTRACTOR SHALL VIDEO TAPE THE EXISTING TRAFFIC SIGNAL EQUIPMENT IN VHS FORMAT AND REVIEW THE TAPE WITH CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS PERSONNEL PRIOR TO BEGINNING ANY REMOVALS OF SIGNAL EQUIPMENT. THE TAPE SHALL BECOME THE PROPERTY OF THE CITY AND MAY BE USED TO RESOLVE ANY QUESTIONS RELATED TO THE ORIGINAL CONDITION AND QUALITY OF EXISTING EQUIPMENT. THE EXISTING TRAFFIC SIGNAL EQUIPMENT INCLUDING POLES, CONTROLLER CABINETS, CONFLICT MONITORS, AND DETECTORS SHALL BE DELIVERED TO THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING YARD ON PINO ROAD NE.

INCIDENTAL ITEMS*

1. REMOVAL OF EXISTING PULL BOXES, CONDUITS, OR OTHER SIGNAL EQUIPMENT FOR INSTALLATION OF NEW SIGNAL EQUIPMENT.
2. CABLE TESTING AND DIAGRAMS.
3. BORING, DRILLING, PUSHING, AND TRENCHING, INCLUDING REMOVAL AND REPLACEMENT OF PAVEMENT, SIDEWALKS, DRIVEPADS, VALLEY GUTTERS, WHEELCHAIR RAMPS, CURB & GUTTER, AND LANDSCAPING (INCLUDING SPRINKLERS), FOR INSTALLATION OF PULL BOXES, CONDUITS, AND SIGNAL FOUNDATIONS, EXCEPT AS NOTED ON THE PLANS.
4. LOCATION OF UTILITY LINES INCLUDING EXPLORATORY TRENCHING AND EXPOSING OF GAS LINES WHEN BORING.
5. DESIGN, MATERIALS, INSTALLATION AND REMOVAL OF SAFETY BARRIER FOR SHIELDING EQUIPMENT OR MATERIAL.
6. APPRISING PUBLIC THROUGH THE LOCAL NEWS MEDIA.
7. HAULING OF MATERIAL TO BE DISPOSED TO CITY LANDFILL.
8. REMOVAL, SALVAGE, AND TRANSPORTATION OF EXISTING SIGNAL EQUIPMENT TO THE CITY TRAFFIC ENGINEERING OPERATIONS YARD.
9. LEAN FILL FOR CONDUIT TRENCHES.
10. PULL BOX ADJUSTMENT TO GRADE.
11. OFF-DUTY POLICE OFFICER FOR TRAFFIC CONTROL.
12. REMOVAL AND REPLACEMENT IN KIND OR BETTER OF LANDSCAPING INCLUDING SPRINKLERS, FOR INSTALLATION OF PULL BOXES, CONDUITS AND SIGNAL FOUNDATIONS.
13. COST FOR PUBLIC SERVICE COMPANY TO PROVIDE ELECTRICAL SERVICE.

* ITEMS LISTED ARE ONLY A GENERAL DESCRIPTION OF THE REQUIRED WORK AND MATERIALS, AND MAY NOT BE COMPLETE. THIS LIST DOES NOT INCLUDE ANY INCIDENTAL WORK OR MATERIALS REQUIRED BY THE SPECIAL PROVISIONS SERIALS (STANDARD DETAILS), SUPPLEMENTAL SPECIFICATIONS, OR THE STANDARD SPECIFICATIONS.

TRAFFIC SIGNAL EQUIPMENT REQUIREMENTS

1. THIS PROJECT IS AN EXTENSION OF AN EXISTING SIGNAL SYSTEM. THEREFORE THE CONTRACTOR SHALL FURNISH AND INSTALL THE FOLLOWING:
- A. THE TRAFFIC SIGNAL CONTROLLER SUPPLIED FOR THIS PROJECT SHALL BE AN ITMS IDC 820A VMS CONTROLLER.
- B. ALL TRAFFIC SIGNAL CONTROLLER CABINETS SUPPLIED FOR THIS PROJECT SHALL BE A MULTISONICS P-TYPE SYSTEM READY CABINET.
2. SPlice CABINETS SHALL BE AS DETAILED ON THE PLANS. LOW VOLTAGE SPlice BLOCKS SHALL BE 50 UNITS TO THE FOOT, WITH EACH SPlice BLOCK CAPABLE OF HANDLING 25 PAIR CABLE (NUMBER OF SPlice BLOCKS IN EACH CABINET CAPABLE OF HANDLING NUMBER OF CONDUCTORS SHOWN ON PLANS). SPlice BLOCKS SHALL BE BELL SYSTEMS PART #66B3-50 OR APPROVED EQUAL. ALL COMMUNICATION CABLE PAIRS SHALL BE TERMINATED AT THE SPlice BLOCK INCLUDING INACTIVE PAIRS.
3. INTERCONNECT CABLES SHALL COMPLY WITH REA SPECIFICATION PE-22. INTERCONNECT CABLE SHALL CONTAIN THE NUMBER OF WIRE PAIRS SHOWN ON THE PLANS AND THE INDIVIDUAL CONDUCTORS SHALL BE 19 AWG SOLID.
4. EMERGENCY VEHICLE PRE-EMPT EQUIPMENT SHALL BE RACK MOUNTED 3M "OPTICOM" MODEL 762 PHASE SELECTORS MOUNTED ON RACKS ALL RACKS SHALL BE CAPABLE OF PROVIDING FOUR CHANNELS OF DETECTION. PHASE SELECTOR MODULES SHALL BE CAPABLE OF TWO CHANNELS OF DETECTION EACH. OPTICAL DETECTORS SHALL BE 3M "OPTICOM" MODEL 511, 1 CHANNEL, 1 DIRECTION. OPTICAL DETECTOR CABLE SHALL BE 3M "OPTICOM" MODEL. OPTICAL EMITTERS SHALL BE 3M "OPTICOM" MODEL 592 WITH POWER SUPPLY, CABLE, AND SWITCHES. A MANUFACTURERS REPRESENTATIVE SHALL ASSIST THE CONTRACTOR IN THE FIELD AS WORK PROGRESSES TO COMPLETE THE INSTALLATION OF ALL PRE-EMPTION EQUIPMENT AND ASSIST IN SETTING UP, TURNING ON, PROGRAMMING AND FIELD TESTING PREEMPTION EQUIPMENT INCLUDING EMITTERS TO INSURE THAT THE EQUIPMENT IS OPERATIONAL.
5. THIS PROJECT INVOLVES THE INSTALLATION OF A MACHINE VISION VEHICLE DETECTION SYSTEM. THEREFORE THE CONTRACTOR SHALL FURNISH AND INSTALL THE FOLLOWING:
- A. EITHER AN ECONOLITE "AUTOSCOPE" 2004 OR A PEEK VISION SYSTEM VIDEO TRAK-900 MACHINE VISION VEHICLE DETECTION SYSTEM UNIT, ALL NECESSARY CABLES, HARNESSSES, MATERIALS, FITTINGS, AND MISCELLANEOUS COMPONENTS NECESSARY TO PROVIDE A COMPLETE AND OPERATING SYSTEM AT ONE (1) SIGNALIZED INTERSECTION.
- B. FOUR (4) FIXED LENS VIDEO CAMERAS.
- C. ALL HARDWARE SHALL BE FURNISHED AND INSTALLED TO ALLOW REMOTE DETECTOR SET UP AND RETRIEVAL OF DATA IN THE VEHICLE DETECTION UNIT.
- D. COMPUTER SOFTWARE AND HARNESSSES TO CONNECT AND OPERATE THE NEW SYSTEM.
- E. VIDEO POWER CABLE SHALL BE A THREE CONDUCTOR #12 AWG TWISTED POWER SERVICE CABLE.

TRAFFIC SIGNAL LEGEND

NEW	EXISTING	ITEM
		PULL BOX
		SERVICE POLE
		METER PEDESTAL
		CONTROLLER CABINET
		CONDUIT RUN (SIGNALS)
		CONDUIT RUN (INTERCONNECT)
		LOOP DETECTOR
		TRAFFIC SIGNAL PEDESTAL POLE
		CONDUIT RUN NUMBER (SIGNAL)
		CONDUIT RUN NUMBER (POWER SERVICE)
		CONDUIT RUN NUMBER (INTERCONNECT)
		CONDUIT RUN NUMBER (WARNING BEACON)
		TYPE II STANDARD WITH MASTARM, TRAFFIC SIGNAL, BACKPLATE, AND OPTICAL DETECTOR
		TRAFFIC SIGNAL, BACKPLATE, OPTICAL DETECTOR, LUMINAIRE, AND VIDEO CAMERA
		PEDESTRIAN PUSH BUTTON (MOUNTED TO SIDE OF POLE WHERE INDICATED)
		PEDESTRIAN SIGNALS (MOUNTED TO SIDE OF POLE WHERE INDICATED)
		SPlice CABINET
		TRAFFIC MANHOLE
		VIDEO CAMERA

TRAFFIC SIGNAL EQUIPMENT REQUIREMENTS CONT.

6. THE CONTRACTOR SHALL FURNISH TRAINING FOR THE MACHINE VISION VEHICLE DETECTION EQUIPMENT (2 DAYS), THE VIDEO HARDWARE SYSTEM (1 DAY), THE EMERGENCY VEHICLE PRE-EMPTION EQUIPMENT AND THE SYSTEM MASTER (1 DAY). THIS TRAINING SHALL BE PERFORMED WHEN THE EQUIPMENT IS FULLY OPERATIONAL. MANUFACTURER'S REPRESENTATIVES SHALL CONDUCT THE TRAINING IN ALBUQUERQUE FOR APPROXIMATELY 20 CITY TRAFFIC ENGINEERING PERSONNEL.
7. ALL SIGNAL ASSEMBLIES, PEDESTRIAN SIGNALS, PEDESTRIAN PUSH BUTTONS, CABINETS, AND FITTINGS SHALL COMPLY WITH THE CITY OF ALBUQUERQUE TYPE AND COLOR REQUIREMENTS INCLUDING THE FOLLOWING:
- A. ALL RED SIGNAL HEADS SHALL BE LED.
- B. ALL PEDESTRIAN SIGNALS SHALL BE LED.

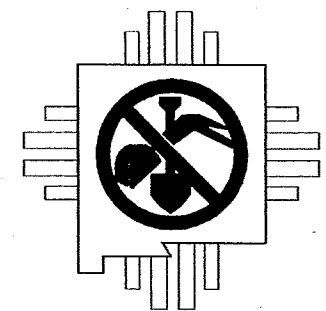
DEFINITIONS

1. "ENGINEER" - FOR THE PURPOSES OF THIS PROJECT, THE TERM "ENGINEER" IS SYNONYMOUS WITH THE TERM "PROJECT MANAGER".



CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE.
INTERSECTION RECONSTRUCTION
TRAFFIC SIGNAL GENERAL NOTES AND LEGEND

Design Review Committee	City Engineer Approval	Ms./Day/Yr.	Ms./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of
667791	J-18	33	52



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(505) 260-1990

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TRAFFIC SIGNAL QUANTITIES (Estimated)				
NUMBER	ITEM	UNIT	SAN PEDRO CONSTITUTION	USE
0421.005	SERVICE RISER (COMBINATION), C.I.P.	EA	1	1
0421.010	METER PEDESTAL (COMBINATION), C.I.P.	EA	1	1
0421.015	SERVICE CONNECTION (COMBINATION), C.I.P.	EA	1	1
0421.112	METER PEDESTAL (SIGNAL), REMOVE & DISPOSE, C.I.P.	EA	1	1
0422.017	TRAFFIC SIGNAL MASTARM, 30' ARM, TYPE III TROMBONE, C.I.P.	EA	2	2
0422.019	TRAFFIC SIGNAL MASTARM, 40' ARM, TYPE III TROMBONE, C.I.P.	EA	2	2
0422.110	TRAFFIC SIGNAL MASTARM, ANY SIZE, REMOVE & DISPOSE, C.I.P.	EA	4	4
0423.002	TRAFFIC SIGNAL MASTARM FOUNDATION, C.I.P.	EA	4	4
0423.003	TRAFFIC SIGNAL CONTROLLER FOUNDATION (TYPE M & P CABINET), C.I.P.	EA	1	1
0423.101	TRAFFIC SIGNAL FOUNDATION MASTARM, REMOVE & DISPOSE, COMPL.	EA	4	4
0423.103	TRAFFIC CONTROLLER FOUNDATION, REMOVE & DISPOSE, COMPL.	EA	1	1
0424.005	ELECTRICAL CONDUIT, 2" INCL. TRENCHING, BACKFILL, PATCHING, PUSHING, BORING, & JACKING, C.I.P.	LF	283	300
0424.011	ELECTRICAL CONDUIT, 3" INCL. TRENCHING, BACKFILL, PATCHING, PUSHING, BORING, & JACKING, C.I.P.	LF	762	800
0425.003	ELECTRICAL PULL BOX, (LARGE) C.I.P.	EA	9	9
0425.101	ELECTRICAL PULL BOX, ANY TYPE, REMOVE & DISPOSE, C.I.P.	EA	10	10
0426.001	SINGLE CONDUCTOR #2, C.I.P.	LF	264	275
0426.004	SINGLE CONDUCTOR #8, C.I.P.	LF	540	575
0426.010	MULTI CONDUCTOR CABLE #5, C.I.P.	LF	1080	1100
0426.014	MULTI CONDUCTOR CABLE #20, C.I.P.	LF	1080	1100
0427.002	3 SECTION TRAFFIC SIGNAL ASSEMBLY, C.I.P.	EA	12	12
0427.023	PEDESTRIAN SIGNAL, LED, C.I.P.	EA	8	8
0427.031	3 SECTION BACKPLATE, C.I.P.	EA	8	8
0428.010	PUSH BUTTON STATION, C.I.P.	EA	8	8
0428.011	PUSH BUTTON STATION, REMOVE & SALVAGE, COMPL.	EA	8	8
0428.070	PHASE SELECTOR RACK, 4 CHANNELS, C.I.P.	EA	1	1
0428.075	OPTICAL DETECTOR 1D/1C, C.I.P.	EA	4	4
0428.078	OPTICAL DETECTOR CABLE, C.I.P.	LF	897	925
0428.090	MACHINE VISION VEHICLE DETECTION SYSTEM, C.I.P.	EA	1	1
0428.092	VIDEO COAXIAL CABLE, C.I.P.	LF	977	1000
0428.093	VIDEO POWER CABLE, C.I.P.	LF	977	1000
0428.094	VIDEO CAMERA, C.I.P.	EA	4	4
0429.01X	ITMS IDC 820A VMS CONTROLLER, C.I.P.	EA	1	1
0429.21X	MULTISONICS P-TYPE SYSTEM READY CABINET, C.I.P.	EA	1	1
0429.101	SIGNAL CONTROLLER, ANY TYPE, REMOVE & SAL., C.I.P.	EA	1	1
0429.121	CONTROLLER CABINET, ANY TYPE, REMOVE & SAL., C.I.P.	EA	1	1



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION TRAFFIC SIGNAL ESTIMATED QUANTITIES			
Design Review Committee	City Engineer Approval	Ms./Dy/Yr.	
		Ms./Dy/Yr.	
City Project No.	Zone Map No.	Sheet	Of
667791	J-18	34	52

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
		FIELD NOTES		ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection NM Central Zone, NAD 27/NGVD 29, in feet X=402236.69, Y=1489851.27, EL=5258.64		CONTRACTOR	
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SIGNAL POLES/MASTARMS FOUNDATIONS LOCATIONS

ID #	STA	OFFSET	TYPE
MA1	STA. 13+41.04	49.79' LT.	TYPE III - 30' ARM
MA2	STA. 13+61.59	48.77' RT.	TYPE III - 40' ARM
MA3	STA. 14+16.11	50.38' LT.	TYPE III - 30' ARM
MA4	STA. 14+35.49	46.64' RT.	TYPE III - 40' ARM

VIDEO COAXIAL CABLE

FROM	TO	CONDUIT TRACE	No./LENGTH
CC1	MA1	15-16-17-18-6-MA1	1@240
CC1	MA2	15-16-17-18-19-20-9-MA2	1@338
CC1	MA3	15-16-24-13-MA3	1@199
CC1	MA4	15-16-3-MA4	1@120
TOTAL LENGTH			977

OPTICAL DETECTOR CABLE

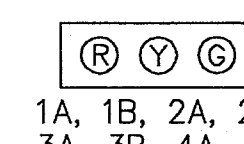
FROM	TO	CONDUIT TRACE	No./LENGTH
CC1	MA1	15-16-17-18-6-MA1	1@260
CC1	MA2	15-16-17-18-19-20-9-MA2	1@358
CC1	MA3	15-16-24-13-MA3	1@219
CC1	MA4	15-16-3-MA4	1@140
TOTAL LENGTH			897

PLAN
SCALE: 1"=20'

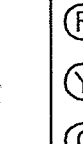
TYPICAL SIGN FACE LENS ARRANGEMENTS



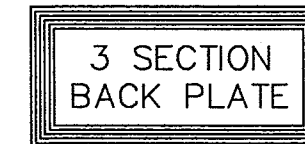
P1, P2, P3, P4
P5, P6, P7, P8



1A, 1B, 2A, 2B,
3A, 3B, 4A, 4B



1C, 2C,
3C, 4C

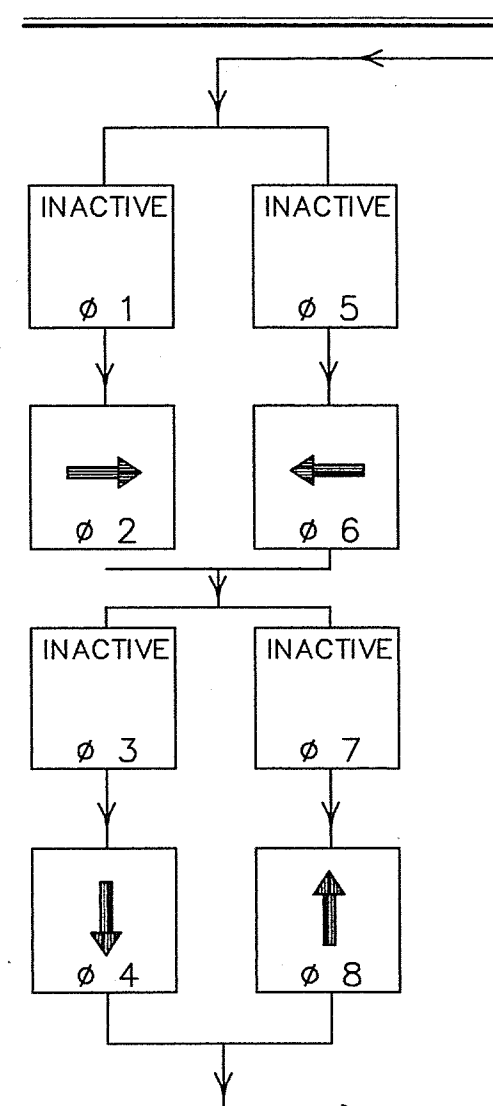


1A, 1B, 2A, 2B,
3A, 3B, 4A, 4B

PEDESTRIAN PUSH BUTTON DESIGNATION SIGNS

PPB2, PPB4, PPB6, PPB8 - COA 12-1R
PPB1, PPB3, PPB5, PPB7 - COA 12-1L

SIGNAL PHASING



FLASH CONDITION *

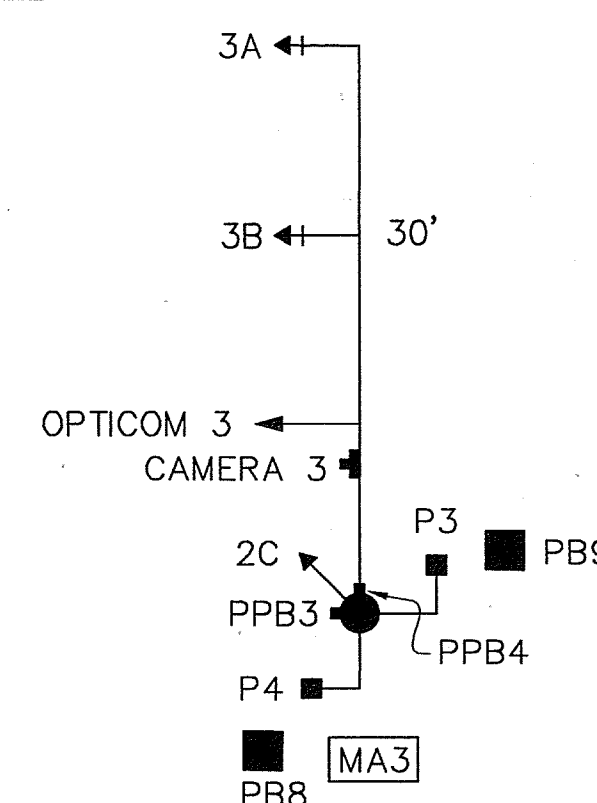
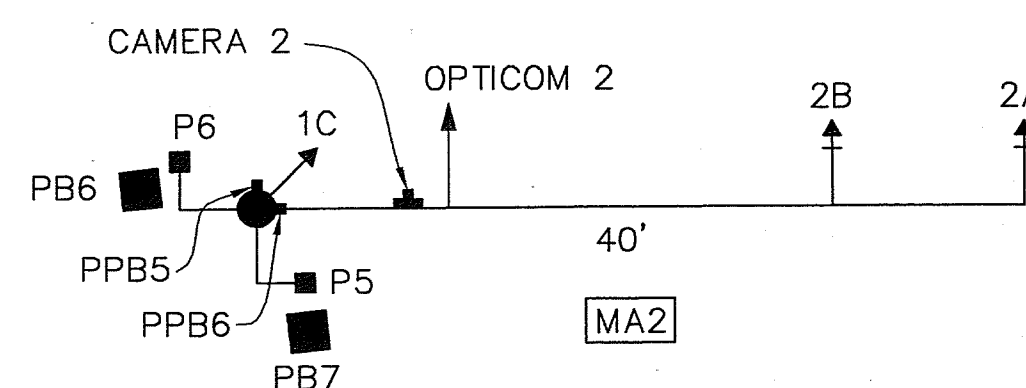
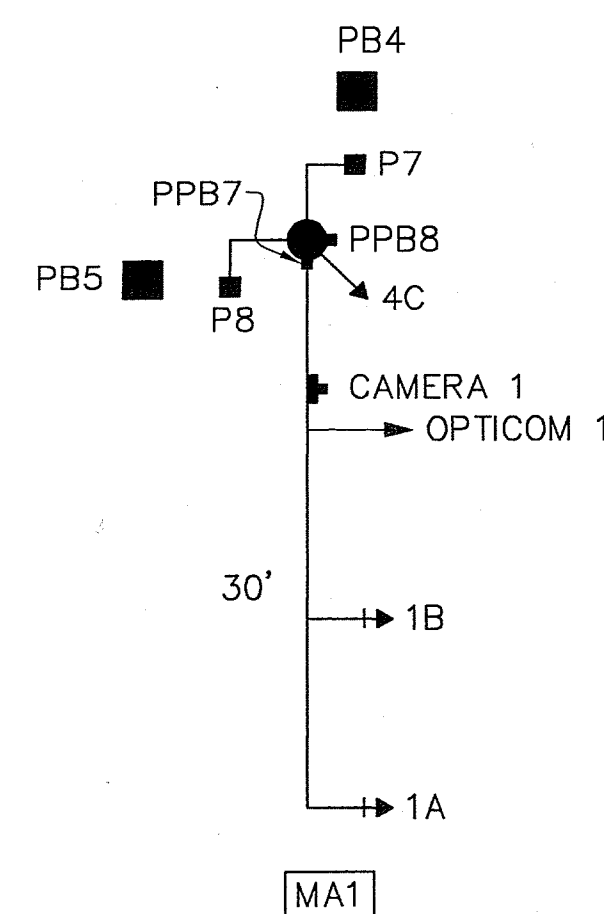
RED BALL → HEADS: 1A, 1B, 1C, 3A, 3B, 3C
RED BALL → HEADS: 2A, 2B, 2C, 4A, 4B, 4C

INITIALIZATION

ALL RED, THEN PHASE 4 AND 8 GREEN

SIGNAL NOTES

- PULL BOXES 1 THRU 9 ARE LARGE SIZE WITH CONCRETE COLLAR.
- REMOVE & SALVAGE EX. CONTROLLER AND CABINET. INSTALL NEW "P" SIZE SIGNAL CABINET AND ITMS IDC 820A VMS CONTROLLER.
- MOUNT CAMERAS ON 10' LUMINAIRE ARM. CAMERA MOUNTING HEIGHT TO BE 40'.



SYMBOL KEY

- MA# SIGNAL & CABINET ID
- # CONDUIT RUN ID (SIGNAL)
- S# CONDUIT RUN ID (POWER SERVICE)

ABBREVIATIONS

MA# MAST ARM NUMBER
PPB# PEDESTRIAN PUSH BUTTON NUMBER
CC# CONTROL CABINET NUMBER
PB# PULL BOX NUMBER (SIGNALS)
P# PEDESTRIAN SIGNAL NUMBER
PP# PEDESTAL POLE NUMBER



CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION	
Design Review Committee	City Engineer Approval
City Project No. 667791	Zone Map No. J-18
Sheet 35	Of 52

SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
NO.	DATE	BY	DATE	CONTRACTOR	DATE
				ACCS Brass tablet stamped "2-118 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection	
				NM Central Zone, NAD 27/NGVD 29, in feet	
				X=402236.69, Y=148951.27, EL=5258.64	
				ACCS Brass tablet stamped "1-118 1981" set in curb at Constitution Ave. & Madiera Dr Intersection	
				NM Central Zone, NAD 27/NGVD 29, in feet	
				X=399917.88, Y=1489869.09, EL=5229.93	

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POWER
INTERSECTION "BOX" RUNS
SIGNAL DETECTOR RUNS
SIGNAL CABLES FOR INDIVIDUAL POLES

CONDUIT AND CONDUCTOR REQUIREMENTS													
CONDUIT LENGTH, SIZE, AND TYPE						CONDUIT FILL BY CONTRACTOR LENGTH AND TYPE							
RUN ID ▲▲	SIZE/LENGTH			TYPE	REMARKS	SPARE	MCC 5 (# @ FT)	MCC 20 (# @ FT)	SCC #2 (# @ FT)	SCC #8 (# @ FT)	OPTICOM (# @ FT)	VIDEO POWER (# @ FT)	VIDEO COAXIAL (# @ FT)
	2"	3"	4"										
S1		10		REC	RISER TO METER		0	0	3@16	0	0	0	0
S2		66		REC	METER TO CONTROLLER		0	0	3@72	0	0	0	0
1		22		REC	CONTROLLER TO PB1		1@28	2@28	0	1@28	0	0	0
2		37		REC	PB1 TO PB2		1@43	2@43	0	1@43	0	0	0
3		8		REC	PB2 TO MA4		1@14	2@14	0	1@14	1@14	1@14	1@14
4	8			REC	MA4 TO PB3		1@14	2@14	0	1@14	0	0	0
5	93			REC	PB3 TO PB4		1@99	2@99	0	1@99	0	0	0
6		9		REC	PB4 TO MA1		1@15	2@15	0	1@15	1@15	1@15	1@15
7	9			REC	MA1 TO PB5		1@15	2@15	0	1@15	0	0	0
8	73			REC	PB5 TO PB6		1@79	2@79	0	1@79	0	0	0
9		7		REC	PB6 TO MA2		1@13	2@13	0	1@13	1@13	1@13	1@13
10	8			REC	MA2 TO PB7		1@14	2@14	0	1@14	0	0	0
11	92			REC	PB7 TO PB8		1@98	2@98	0	1@98	0	0	0
12		9		REC	PB8 TO MA3		1@15	2@15	0	1@15	0	0	0
13		9		REC	MA3 TO PB9		1@15	2@15	0	1@15	1@15	1@15	1@15
14		72		REC	PB9 TO PB2		1@78	2@78	0	1@78	0	0	0
15		22		REC	CONTROLLER TO PB1		0	0	0	0	4@28	4@28	4@28
16		37		REC	PB1 TO PB2		0	0	0	0	4@43	4@43	4@43
17		14		REC	PB2 TO PB3		0	0	0	0	2@20	2@20	2@20
18		93		REC	PB3 TO PB4		0	0	0	0	2@99	2@99	2@99
19		15		REC	PB4 TO PB5		0	0	0	0	1@21	1@21	1@21
20		73		REC	PB5 TO PB6		0	0	0	0	1@79	1@79	1@79
21		12		REC	PB6 TO PB7	SPARE	0	0	0	0	0	0	0
22		92		REC	PB7 TO PB8	SPARE	0	0	0	0	0	0	0
23		17		REC	PB8 TO PB9	SPARE	0	0	0	0	0	0	0
24		72		REC	PB9 TO PB2		0	0	0	0	1@78	1@78	1@78
MA1					BASE TO 1A		1@50	0	0	0	0	0	0
MA1					BASE TO 1B		1@40	0	0	0	0	0	0
MA1					BASE TO 4C		1@15	0	0	0	0	0	0
MA1					BASE TO OPTICOM1		0	0	0	0	1@35	0	0
MA1					BASE TO CAM1		0	0	0	0	0	1@55	1@55
MA1					BASE TO PPB7		1@5	0	0	0	0	0	0
MA1					BASE TO PPB8		1@5	0	0	0	0	0	0
MA1					BASE TO P7		1@5	0	0	0	0	0	0
MA1					BASE TO P8		1@5	0	0	0	0	0	0
MA2					BASE TO 2A		1@60	0	0	0	0	0	0
MA2					BASE TO 2B		1@50	0	0	0	0	0	0
MA2					BASE TO 1C		1@15	0	0	0	0	0	0
MA2					BASE TO OPTICOM2		0	0	0	0	1@35	0	0
MA2					BASE TO CAM2		0	0	0	0	0	1@55	1@55
MA2					BASE TO PPB5		1@5	0	0	0	0	0	0
MA2					BASE TO PPB6		1@5	0	0	0	0	0	0
MA2					BASE TO P5		1@5	0	0	0	0	0	0
MA2					BASE TO P6		1@5	0	0	0	0	0	0
MA3					BASE TO 3A		1@50	0	0	0	0	0	0
MA3					BASE TO 3B		1@40	0	0	0	0	0	0
MA3					BASE TO 2C		1@15	0	0	0	0	0	0
MA3					BASE TO OPTICOM3		0	0	0	0	1@35	0	0
MA3					BASE TO CAM3		0	0	0	0	0	1@55	1@55
MA3					BASE TO PPB3		1@5	0	0	0	0	0	0
MA3					BASE TO PPB4		1@5	0	0	0	0	0	0
MA3					BASE TO P3		1@5	0	0	0	0	0	0
MA3					BASE TO P4		1@5	0	0	0	0	0	0
MA4					BASE TO 4A		1@60	0	0	0	0	0	0
MA4					BASE TO 4B		1@50	0	0	0	0	0	0
MA4					BASE TO 3C		1@15	0	0	0	0	0	0
MA4					BASE TO OPTICOM4		0	0	0	0	1@35	0	0
MA4					BASE TO CAM4		0	0	0	0	0	1@55	1@55
MA4					BASE TO PPB1		1@5	0	0	0	0	0	0
MA4					BASE TO PPB2		1@5	0	0	0	0	0	0
MA4					BASE TO P1		1@5	0	0	0	0	0	0
MA4					BASE TO P2		1@5	0	0	0	0	0	0
		30		REC	FOUNDATION STUBOUTS*	SPARE							
	283	762					1080	1080	264	540	897	977	977

* CONTRACTOR SHALL PROVIDE ONE (1) 3" STUBOUT FROM EACH CONTROLLER & POLE FOUNDATION.

ABBREVIATIONS

CAM	VIDEO CAMERA
MA	MASTARM
MCC	MULTI CONDUCTOR CABLE
PB	PULL BOX
PP	PEDESTAL POLE
PPB	PEDESTRIAN PUSH BUTTON
REC	RIGID ELECTRIC CONDUIT
SCC	SINGLE CONDUCTOR CABLE



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION TRAFFIC SIGNALS CABLES & CONDUITS	
Design Review Committee	City Engineer Approval
City Project No. 667791	Zone Map No. J-18
Sheet 36	Of 52

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
		FIELD NOTES NO. BY DATE		ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection NM Central Zone, NAD 27/NGVD 29, in feet X=402236.69, Y=1489851.27, EL=5258.64		CONTRACTOR DATE INSPECTOR'S DATE VERIFY BY DATE CORRECTED BY DATE MICRO-FILM INFORMATION RECORDED BY DATE NO.	
REVISIONS DESIGN		REMARKS BY		DATE		DATE	
DESIGNED BY CFS		DATE 9/2001		DATE		DATE	
DRAWN BY CFS		DATE 9/2001		DATE		DATE	
CHECKED BY DHW		DATE 11/2001		DATE		DATE	

VIDEO LOOPS TO BE PROGRAMMED INTO VIDEO DETECTION SYSTEM

- 1/ IDENTIFY CONDUCTORS LISTED AS "115 VOLTS"
- 2/ WRAP RING 2 CABLE AT EACH SPLICE POINT WITH COLORED ELECTRICAL TAPE. THE IDENTIFICATION MARKING SHALL BE PROVIDED ON EACH RING 2 CABLE AT EACH SPLICE BOX AND LOCATED 6" BACK FROM THE END.
- 3/ IDENTIFY CONDUCTORS LISTED AS "PPB - LOW VOLTAGE" AT EACH SPLICE POINT. FIVE (5) CONDUCTOR CABLE SHALL BE 24 VOLTS AND USED FOR PUSH BUTTONS ONLY.

* INCIDENTAL TO CONSTRUCTION

FUNCTION CHART - 115 VOLT CIRCUIT ^{1/}

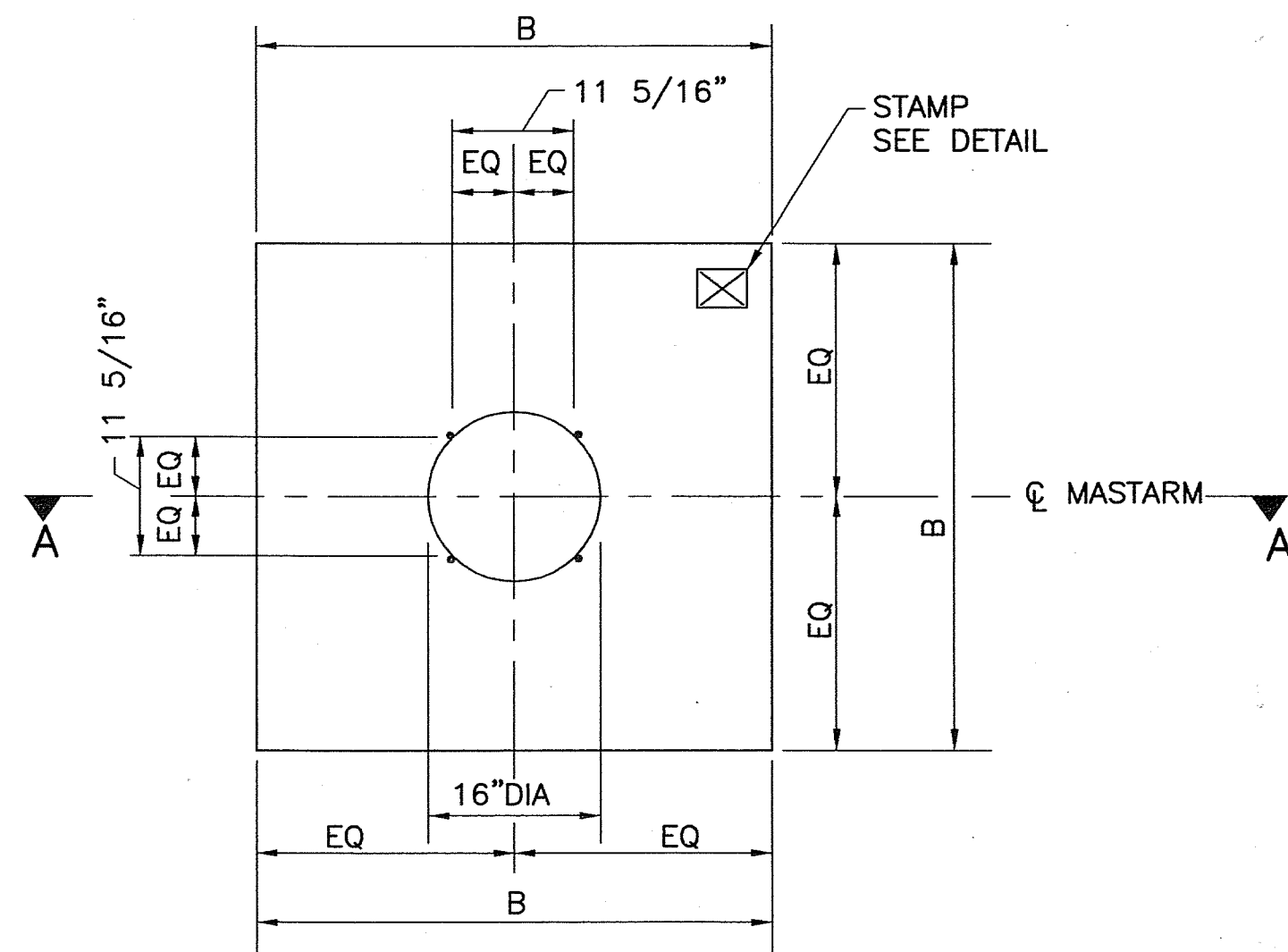
FUNCTION CHART - 24 VOLT CIRCUIT ^{3/}

VIDEO DETECTION

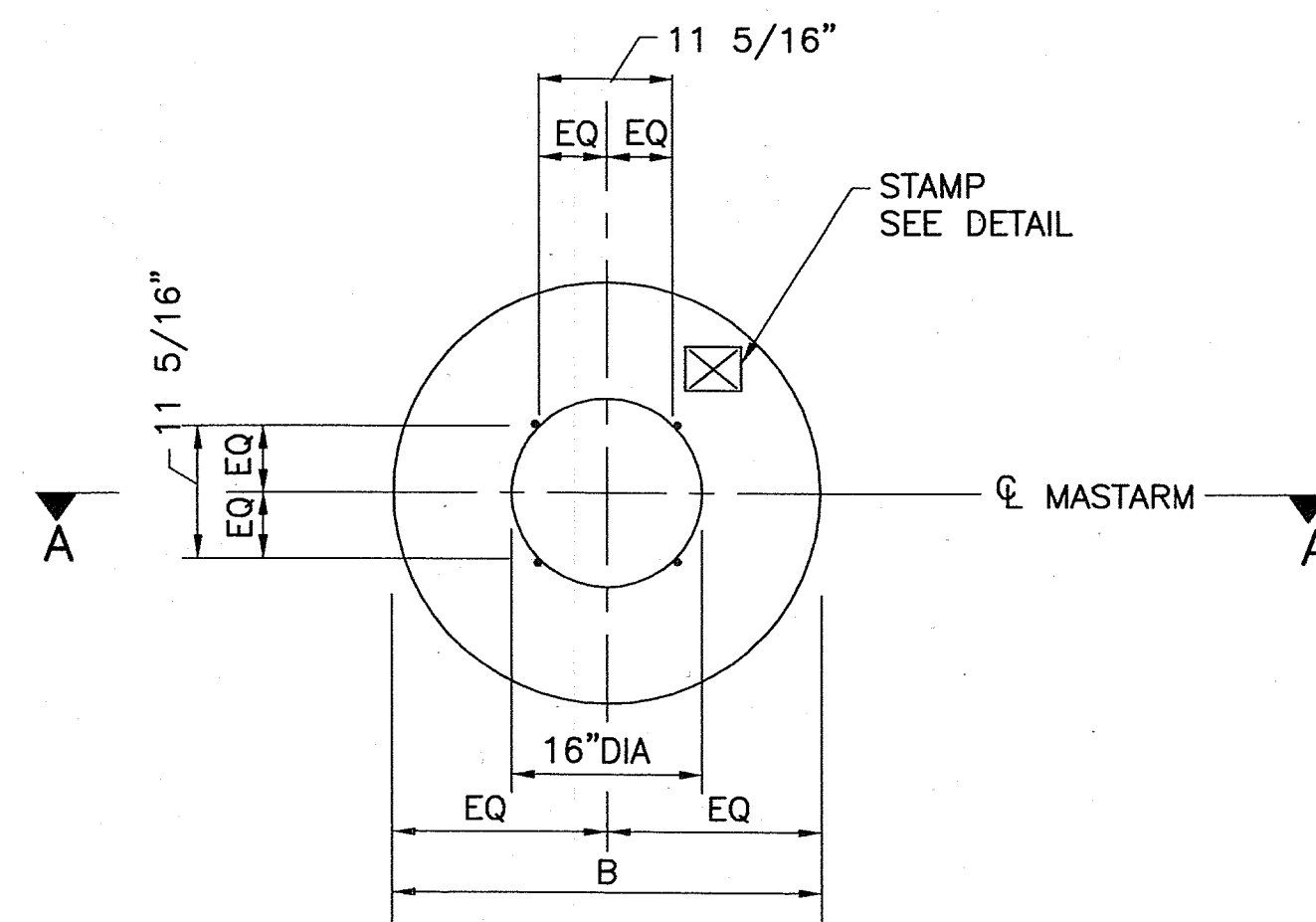
DLIC	DETECTOR LOOP LED IN CABLE			
EC	EXTENDED CALL LOOP			
L	DETECTOR LOOP LENGTH			
W	DETECTOR LOOP WIDTH			
S	SAWCUT LOOP TO CURB			
T	TERMINAL LOOP			
QP	QUADRAPOLE LOOP			
REC	RECTANGULAR LOOP			
SDWBA	SYSTEM DETECTOR	WEST	BOUND	APPROACH
SDWBD	SYSTEM DETECTOR	WEST	BOUND	DEPARTURE
SDEBA	SYSTEM DETECTOR	EAST	BOUND	APPROACH
SDEBD	SYSTEM DETECTOR	EAST	BOUND	DEPARTURE
SDNBA	SYSTEM DETECTOR	NORTH	BOUND	APPROACH
SDNBD	SYSTEM DETECTOR	NORTH	BOUND	DEPARTURE
SDSBA	SYSTEM DETECTOR	SOUTH	BOUND	APPROACH
SDSBD	SYSTEM DETECTOR	SOUTH	BOUND	DEPARTURE

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION		
		FIELD NOTES		ACS Brass tablet stamped "J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection NM Central Zone, NAD 27/NGVD 29, in feet X=402236.69, Y=1489851.27, EL=5258.64		WORK STAKED BY DATE ACCEPTANCE BY DATE FIELD DRAWINGS DATE CORRECTED BY DATE		
		NO.	BY					DATE
DESIGNED BY		CFS	DATE	9/2001	ACS Brass tablet stamped "J1-118 1981" set in curb at Constitution Ave. & Madiera Dr. Intersection NM Central Zone, NAD 27/NGVD 29, in feet X=399917.88, Y=1489869.09, EL=5229.93			
DRAWN BY		CFS	DATE	9/2001				
CHECKED BY		DHW	DATE	11/2001				
DATE								

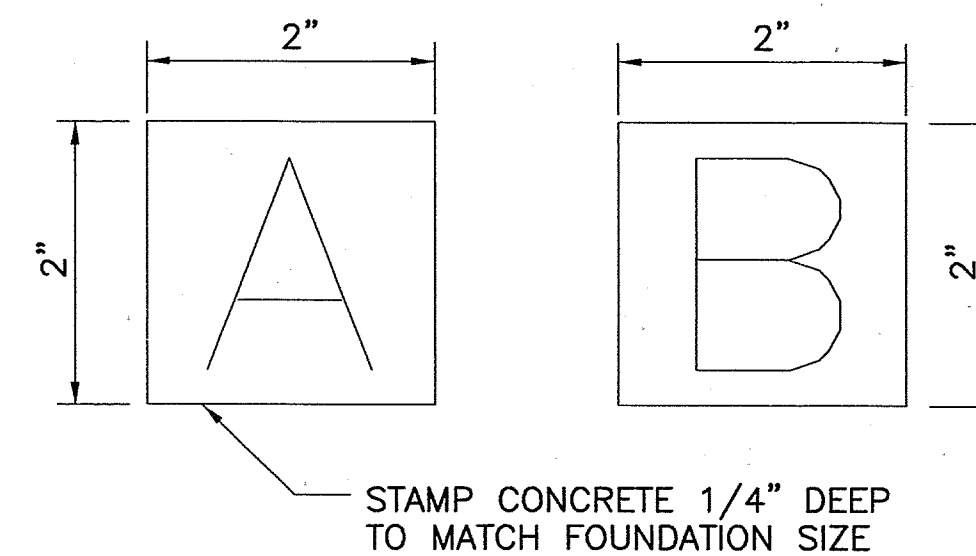
		Gannett Fleming West, Inc.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						</
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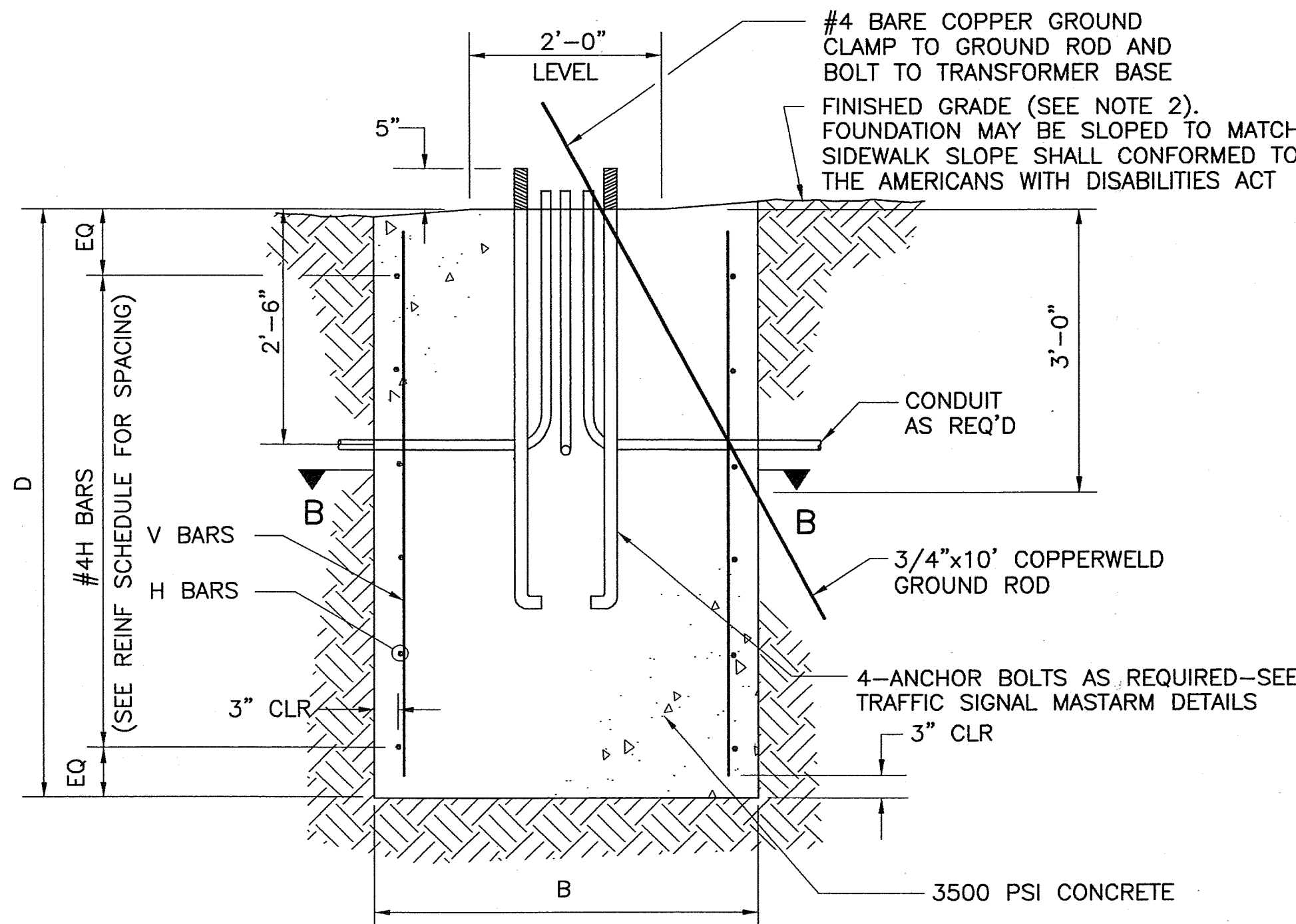
PLAN VIEW (SQUARE)
NO SCALE



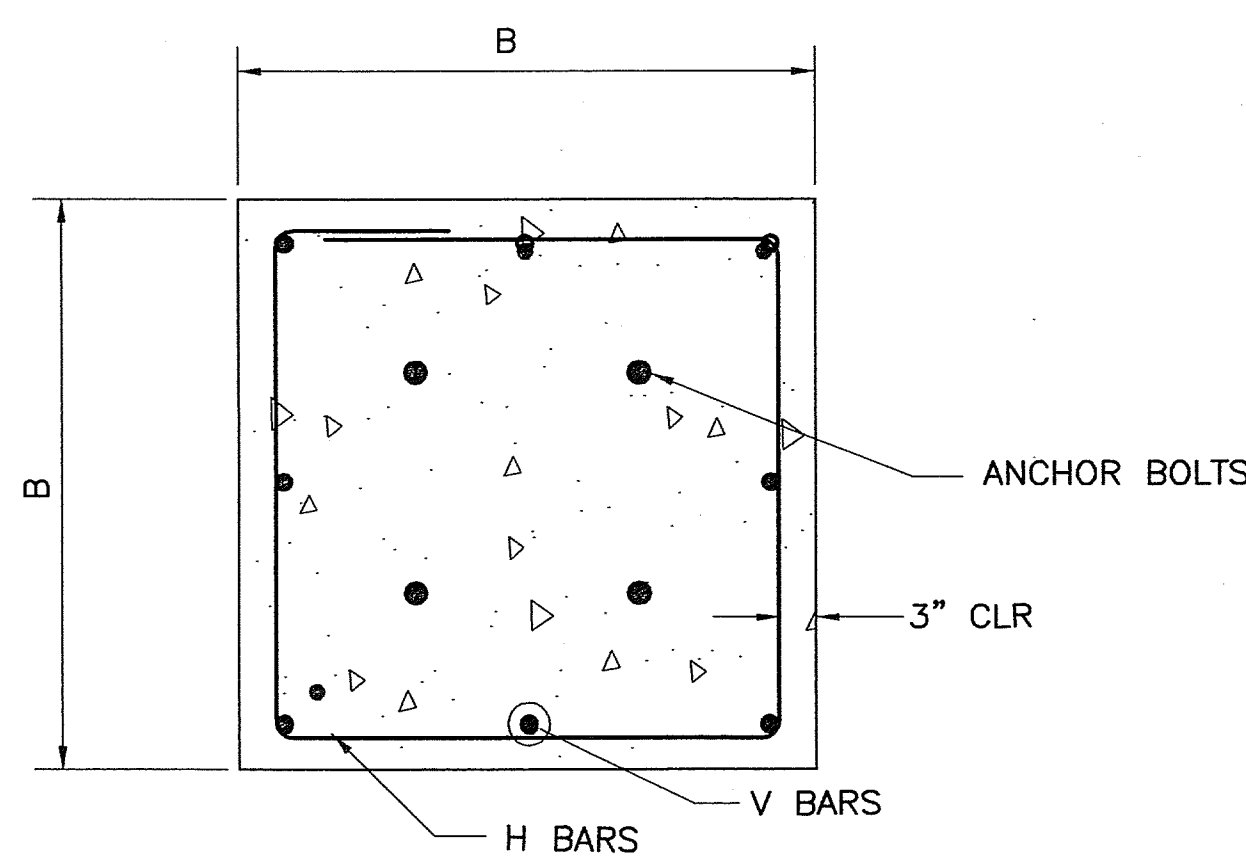
PLAN VIEW (ROUND)
NO SCALE



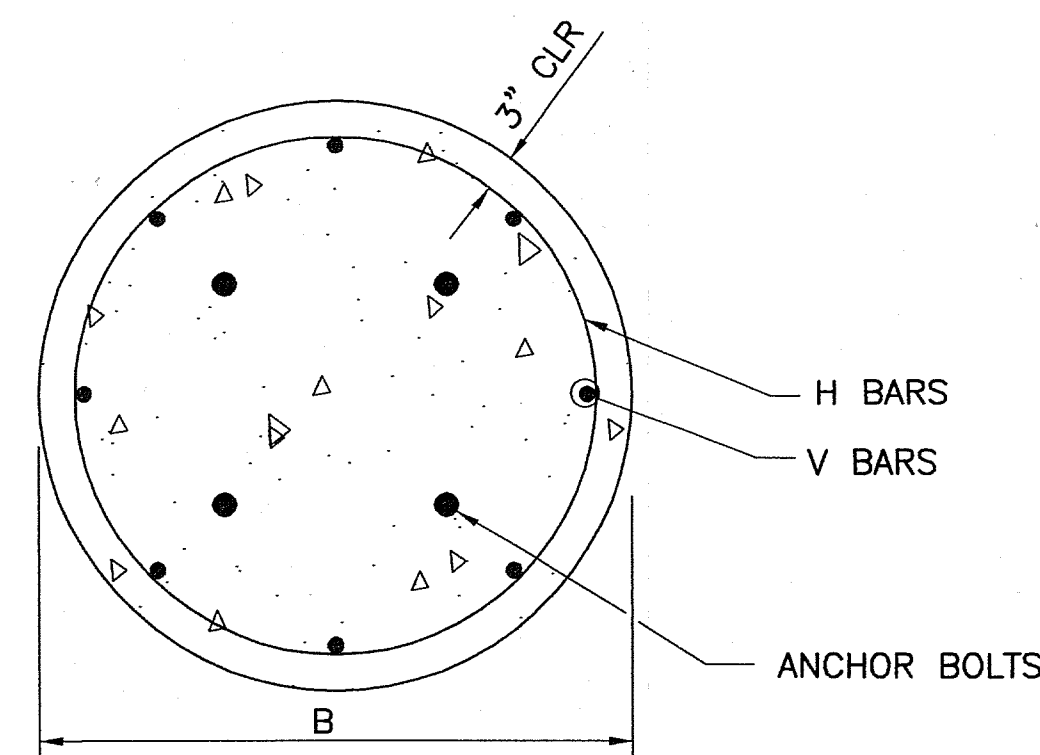
STAMP DETAIL
NO SCALE



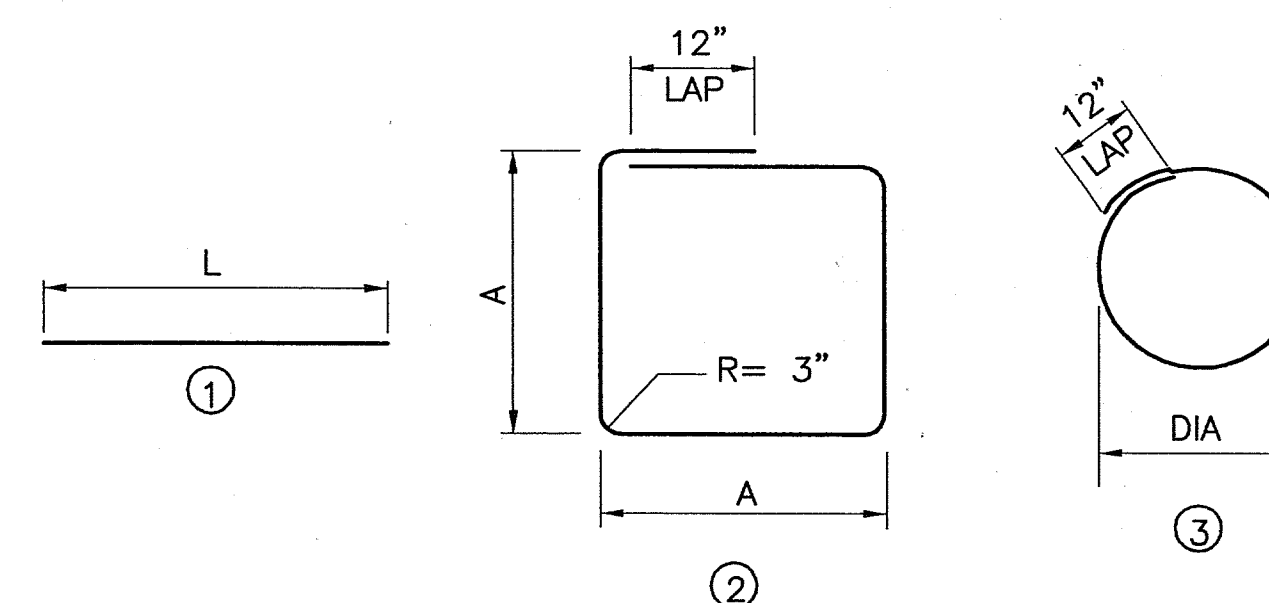
SECTION A-A (ROUND OR SQUARE)
NO SCALE



SECTION B-B (SQUARE)
NO SCALE



SECTION B-B (ROUND)
NO SCALE



BAR BENDING DIAGRAM

TRAFFIC SIGNAL MASTARM FOUNDATION NOTES

1. REFER TO THE PLANS FOR LOCATIONS OF TRAFFIC SIGNAL MASTARM FOUNDATIONS.
2. FINISHED GRADE FOR THE FOUNDATIONS SHALL BE ESTABLISHED IN THE FIELD BY THE PROJECT MANAGER.
3. THE FOUNDATIONS SHOWN HERE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT REVISION.
4. CONCRETE SHALL BE 3500 PSI FOR EXTERIOR STRUCTURES. REFER TO TABLE 101.C OF THE SPECIFICATIONS.
5. REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60.
6. THE TOP 6 INCHES OF THE FOUNDATION PEDESTAL SHALL BE FORMED TO THE DIMENSIONS SHOWN ON THIS SHEET TO FORM NEAT LINES. CONCRETE BELOW 6 LINES MAY BE CAST AGAINST THE EARTH.
7. THE CONCRETE SHALL GAIN 80% OF THE DESIGN STRENGTH PRIOR TO INSTALLING THE TRAFFIC SIGNAL MASTARM.
8. ALL FOUNDATIONS SHALL INCLUDE COPPERWELD GROUND RODS. ALL GROUND RODS SHALL BE 3/4" DIA X 10'-0" AND WILL BE CONSIDERED INCIDENTAL TO THE FOUNDATIONS BID ITEMS.
9. ALL FOUNDATIONS SHALL BE STAMPED EITHER "A" OR "B" TO SHOW TYPE CONSTRUCTED (SEE STAMP DETAIL).

FOUNDATION DIMENSIONS AND QUANTITIES

FOUNDATION TYPE	SIGNAL ARM SPAN(FT)	DIMENSION		REINFORCING		REBAR POUNDS	3500 PSI CONCRETE CUBIC YARDS	NOTES
		B (WIDTH)	D (DEPTH)	V BARS MARK	H BARS MARK			
TYPE A (SQUARE)	15	3'-6"	5'-0"	#4V2	#3H2	49.1	2.27	
	20	"	"	"	"	"	"	
	25	"	"	"	"	"	"	
TYPE B (SQUARE)	30	4'-0"	6'-3"	#5V1	#3H1	82.6	3.70	
	35	"	"	"	"	"	"	
	40	"	"	"	"	"	"	
TYPE A (ROUND)	15	2'-6"	8'-6"	#6V4	#3H4	98.1	1.55	ROUND SHAPE TO BE USED ONLY WHERE SPECIFICALLY NOTED ON PLANS OR WHEN APPROVED BY THE PROJECT MANAGER.
	20	"	"	"	"	"	"	
	25	"	"	"	"	"	"	
TYPE B (ROUND)	30	3'-0"	11'-9"	#7V3	#3H3	179.7	3.08	
	35	"	"	"	"	"	"	
	40	"	"	"	"	"	"	

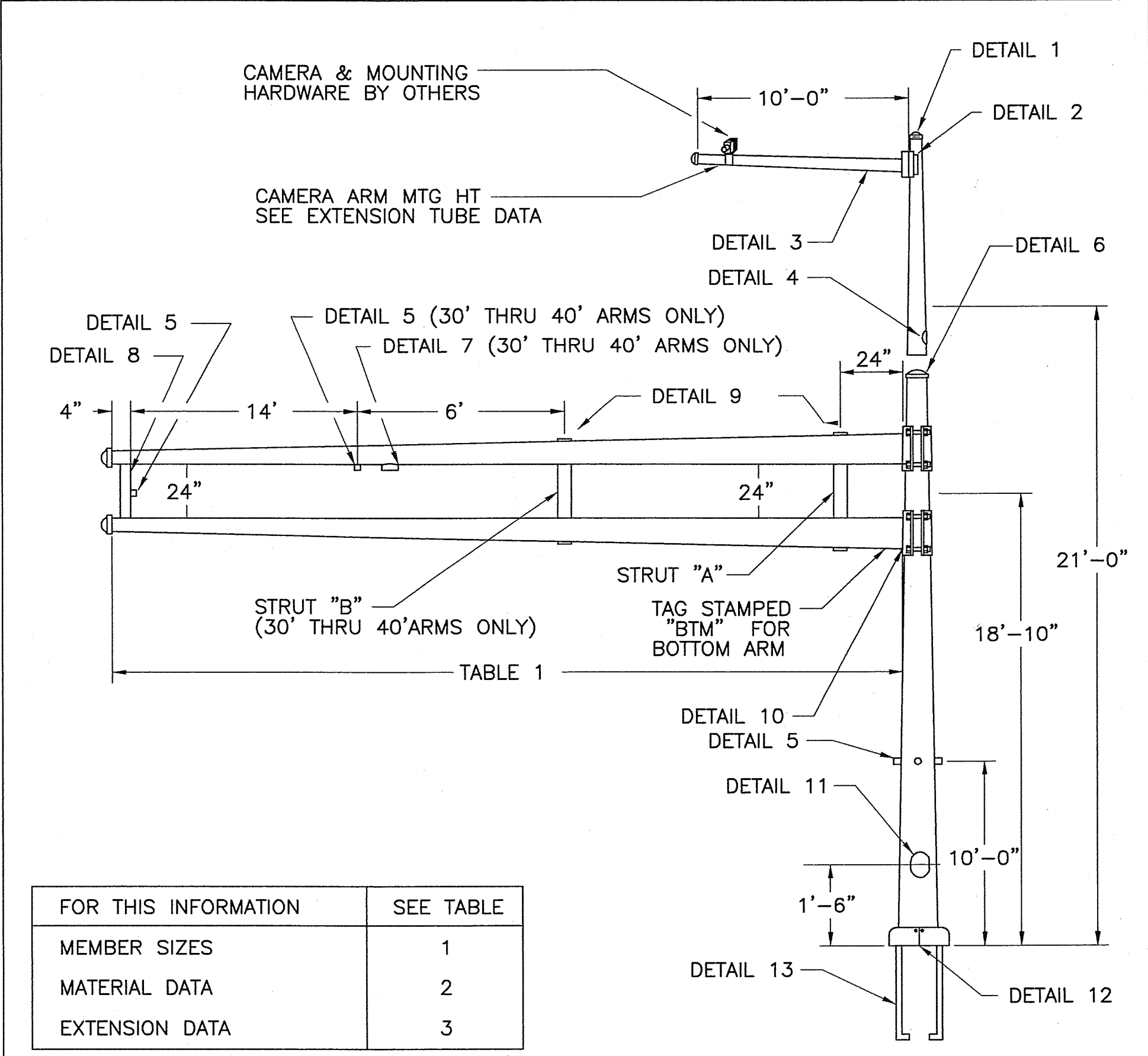
REINFORCING SCHEDULE (GRADE 60 BARS)

MARK	QUANT	TYPE	SIZE	LENGTH	COMMENTS
#5V1	8	1	5	5'-9"	A = 42",TIES AT 14" OC A = 36",TIES AT 12" OC DIA = 30",TIES AT 12" OC DIA = 24",TIES AT 12" OC
#4V2	8	1	4	4'-6"	
#7V3	6	1	7	11'-3"	
#6V4	6	1	6	8'-0"	
#3H1	6	2	3	15'-4"	
#3H2	5	2	3	13'-4"	
#3H3	12	3	3	9'-3"	
#3H4	9	3	3	7'-8"	

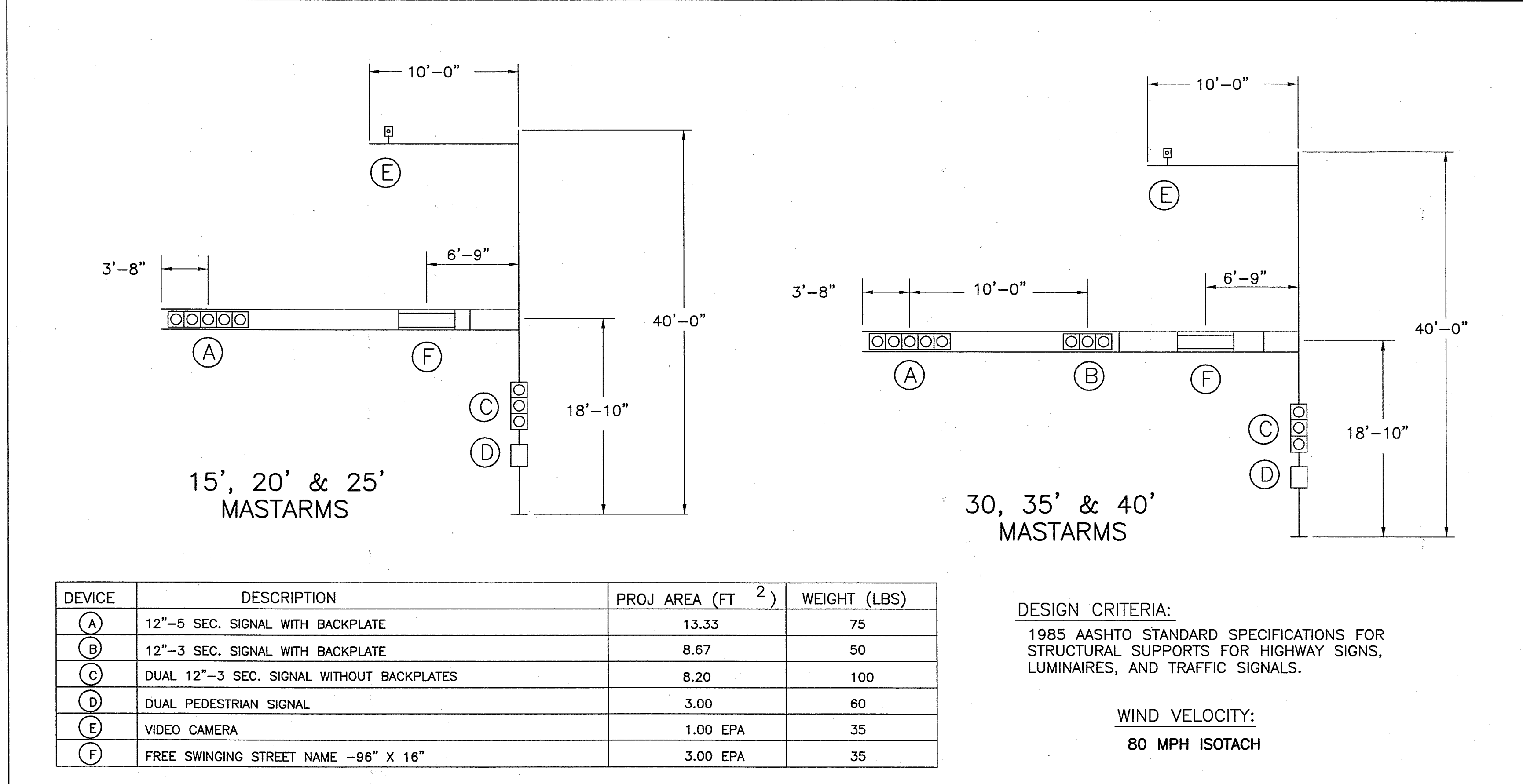
AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	FLUSH	DATE	NO.	BY	NO.	BY
ACS Brass tablet stamped "2-J18 1981" set at San Pedro Blvd. & Constitution Ave. Intersection							
INSPECTOR'S	DATE	STAKE	DATE				
FIELD	DATE	BY	DATE				
VERIFICATION BY	DATE						
CORRECTED BY	DATE						
MICRO-FILM INFORMATION		REVISIONS		DESIGN		DATE	
ACS Brass tablet stamped "1-J18 1981" set in curb at Constitution Ave. & Madiera Dr intersection							
RECORDED BY	DATE						



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION	
TRAFFIC SIGNAL FOUNDATION DETAILS TYPE II & TYPE III STANDARDS	
Design Review Committee	City Engineer Approval
C.O.A. STD.	
City Project No. 667791	Zone Map No. J-18
Sheet 38	Of 52



ALBUQUERQUE, NM POLE SERIES



LOADING INFORMATION

TABLE 1: POLE AND MASTARM SCHEDULE																								
DESIGNATION (SEE EXAMPLE ABOVE)				POLE DATA				BASE PLATE DATA				ANCHOR BOLT DATA				MASTARM DATA				ARM ATTACHMENT DATA				
POLE SERIES	POLE TYPE	SIGNAL ARM SPAN (FT)	CAMERA MOUNTING HEIGHT (0=NO CAMERA)	BASE DIA	TOP DIA	LENGTH	GA	CIRCLE "C"	THK "G"	BC RANGE		BOLT CIRCLE	DIAMETER "K"	LENGTH "J"	HOOK "H"	FIXED END DIA	FREE END DIA	GA	LENGTH (FT)	"A"	"B"	"C"	"D"	"E"
ALB	2	15	0, 30, 35, 40	10.00"	7.06"	21'-0"	7	23.00"	1.50"	16.00"	19.00"	16.00"	1.50"	54"	6"	5.80"	3.70"	11	15	7.25"	9.44"	10.81"	10.38"	1.00"-8UNC X 8.00"
ALB	2	20	0, 30, 35, 40	10.00"	7.06"	21'-0"	7	23.00"	1.50"	16.00"	19.00"	16.00"	1.50"	54"	6"	6.50"	3.70"	11	20	7.25"	9.44"	10.81"	10.38"	1.00"-8UNC X 8.00"
ALB	2	25	0, 30, 35, 40	10.00"	7.06"	21'-0"	7	23.00"	1.50"	16.00"	19.00"	16.00"	1.50"	54"	6"	7.00"	3.50"	11	25	7.25"	9.44"	10.81"	10.38"	1.00"-8UNC X 8.00"
ALB	2	30	0, 30, 35, 40	12.00"	9.06"	21'-0"	5	23.00"	1.50"	16.00"	19.00"	16.00"	1.50"	54"	6"	7.72"	3.52"	7	30	9.25"	11.44"	13.81"	12.38"	1.00"-8UNC X 9.00"
ALB	2	35	0, 30, 35, 40	12.00"	9.06"	21'-0"	5	23.00"	1.50"	16.00"	19.00"	16.00"	1.50"	54"	6"	8.30"	3.40"	7	35	9.25"	11.44"	13.81"	12.38"	1.00"-8UNC X 9.00"
ALB	2	40	0, 30, 35, 40	12.00"	9.06"	21'-0"	5	23.00"	1.50"	16.00"	19.00"	16.00"	1.50"	54"	6"	9.00"	3.40"	7	40	9.25"	11.44"	13.81"	12.38"	1.00"-8UNC X 9.00"

TABLE 2: MATERIAL DATA					
COMPONENT	ASTM DESIGNATION	MIN. YIELD (KSI)	COMPONENT	ASTM DESIGNATION	MIN. YIELD (KSI)
POLE TUBE	A595 GR A	55	SIGNAL ARM CLAMP	A36	36
BASE PLATE	A36	36	SIGNAL ARM CONN BOLTS	A325 *	
MAST ARM TUBE	A595 GR A	55	CAMERA ARM PLATES	A36	36
CAMERA ARM TUBE	A595 GR A	55	GALVANIZING	A123 & A153	
POLE EXTENSION	A595 GR A	55			
ANCHOR BOLTS AASHTO M314 GR. 55					
* LUBRICATE IN FIELD IF NECESSARY IN LIEU OF THE REQUIREMENT IN A325					

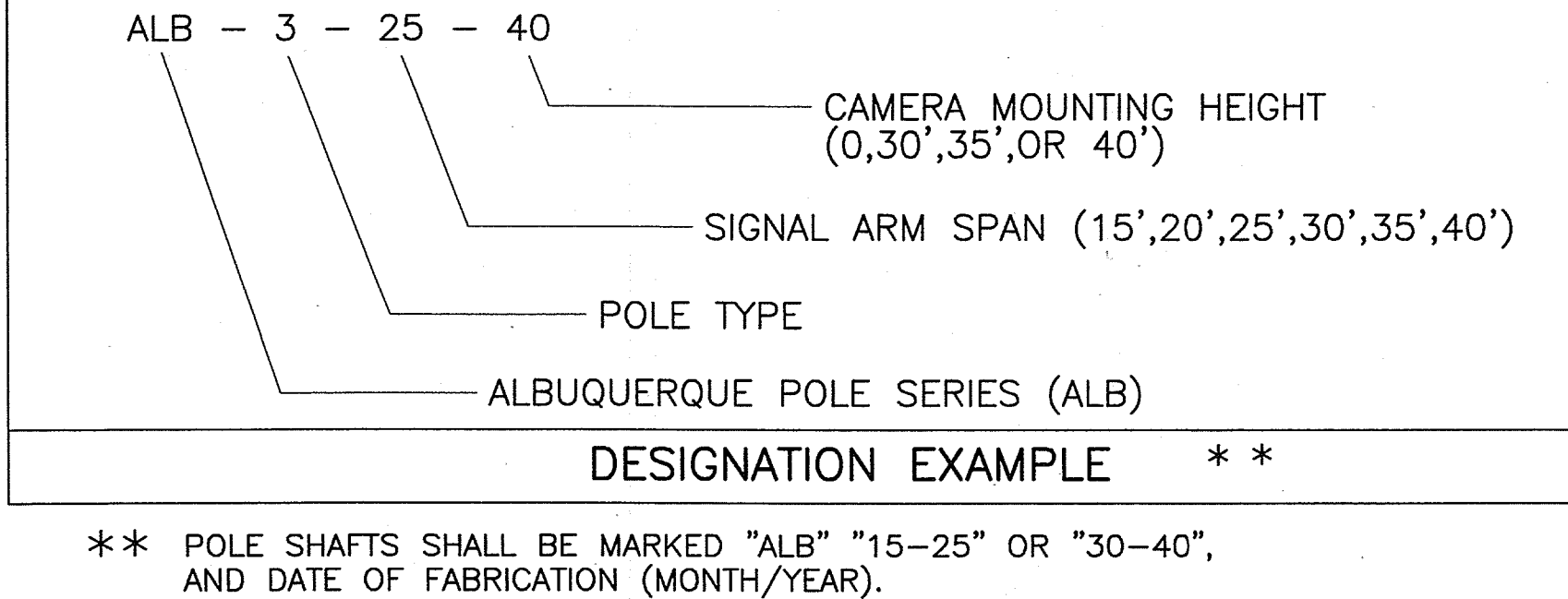


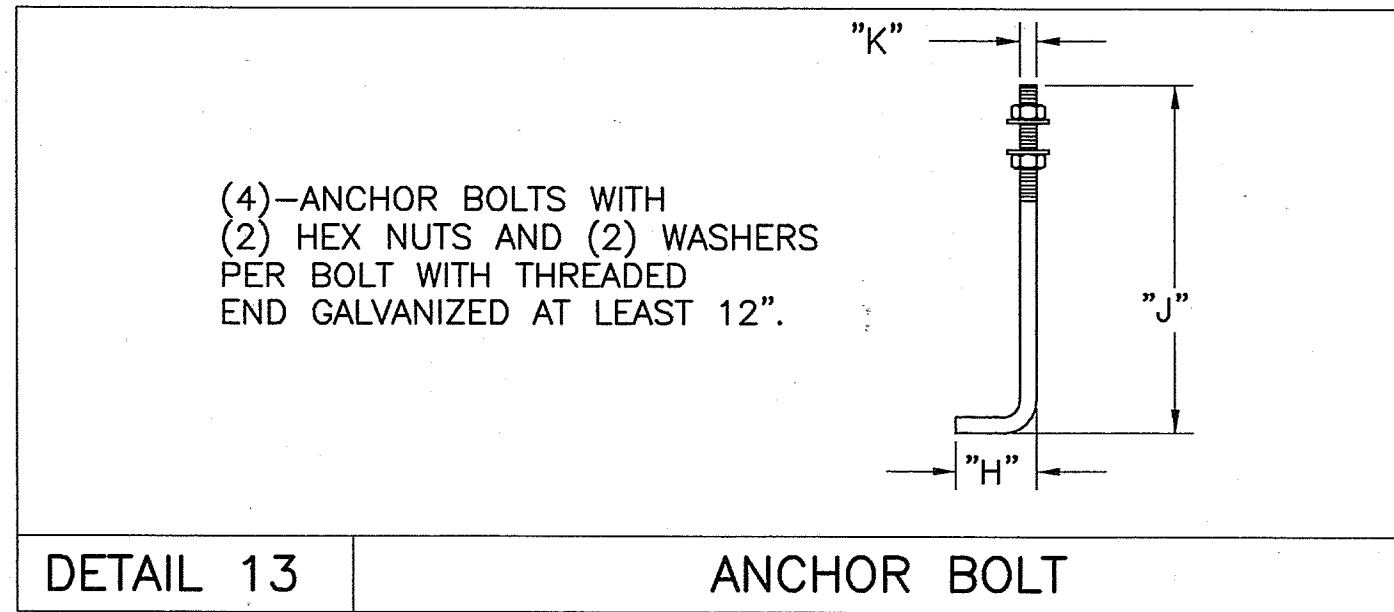
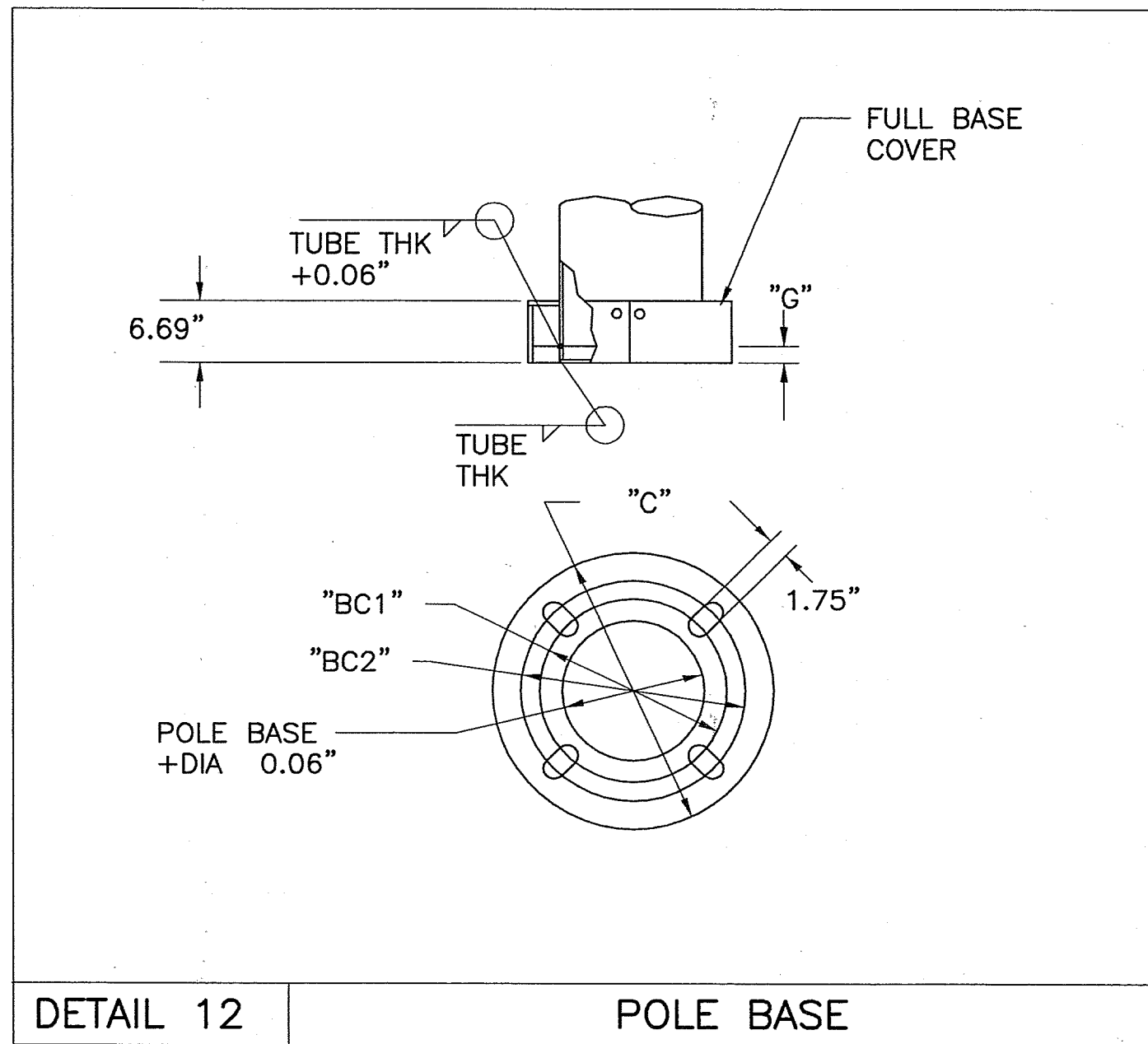
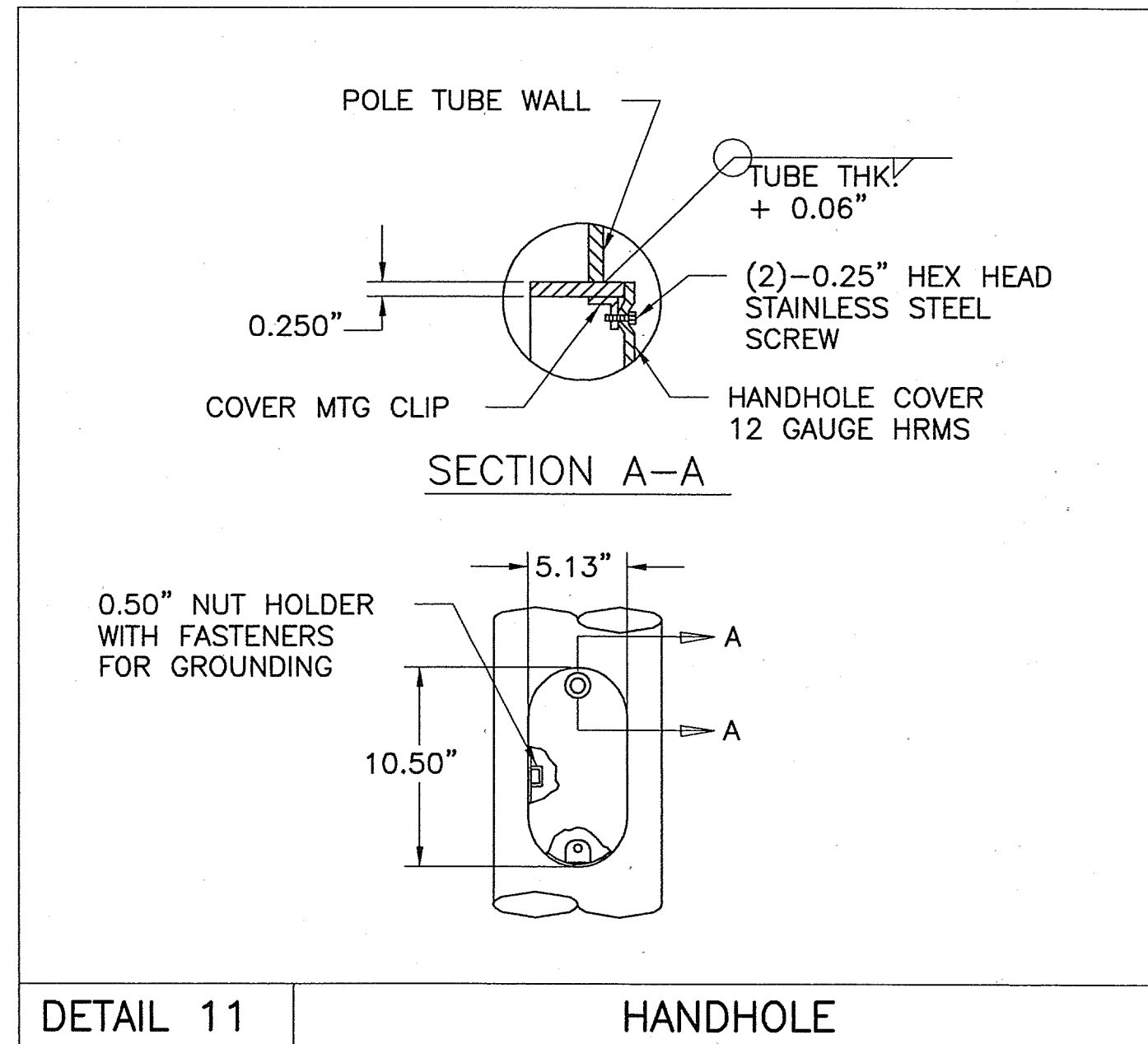
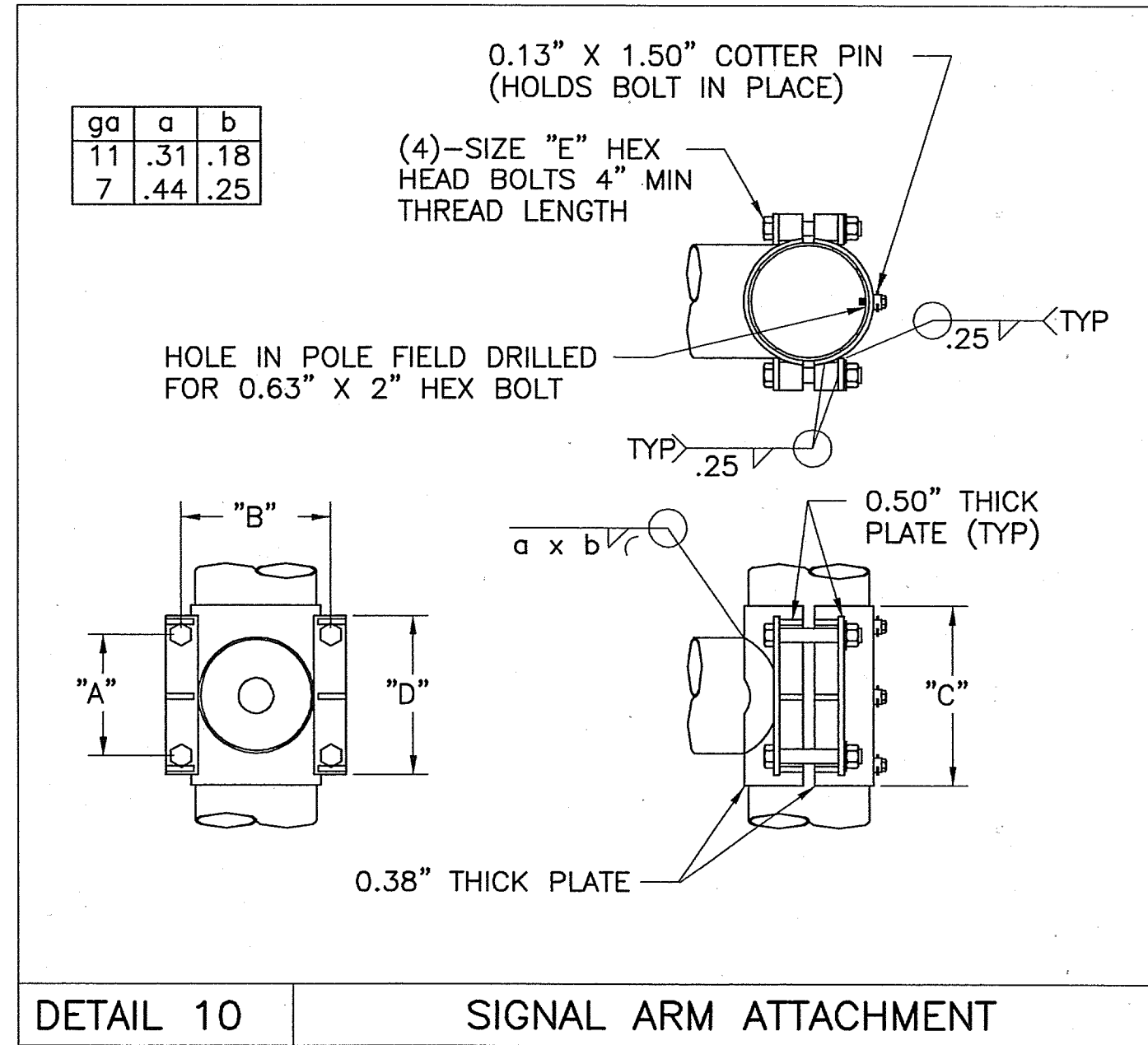
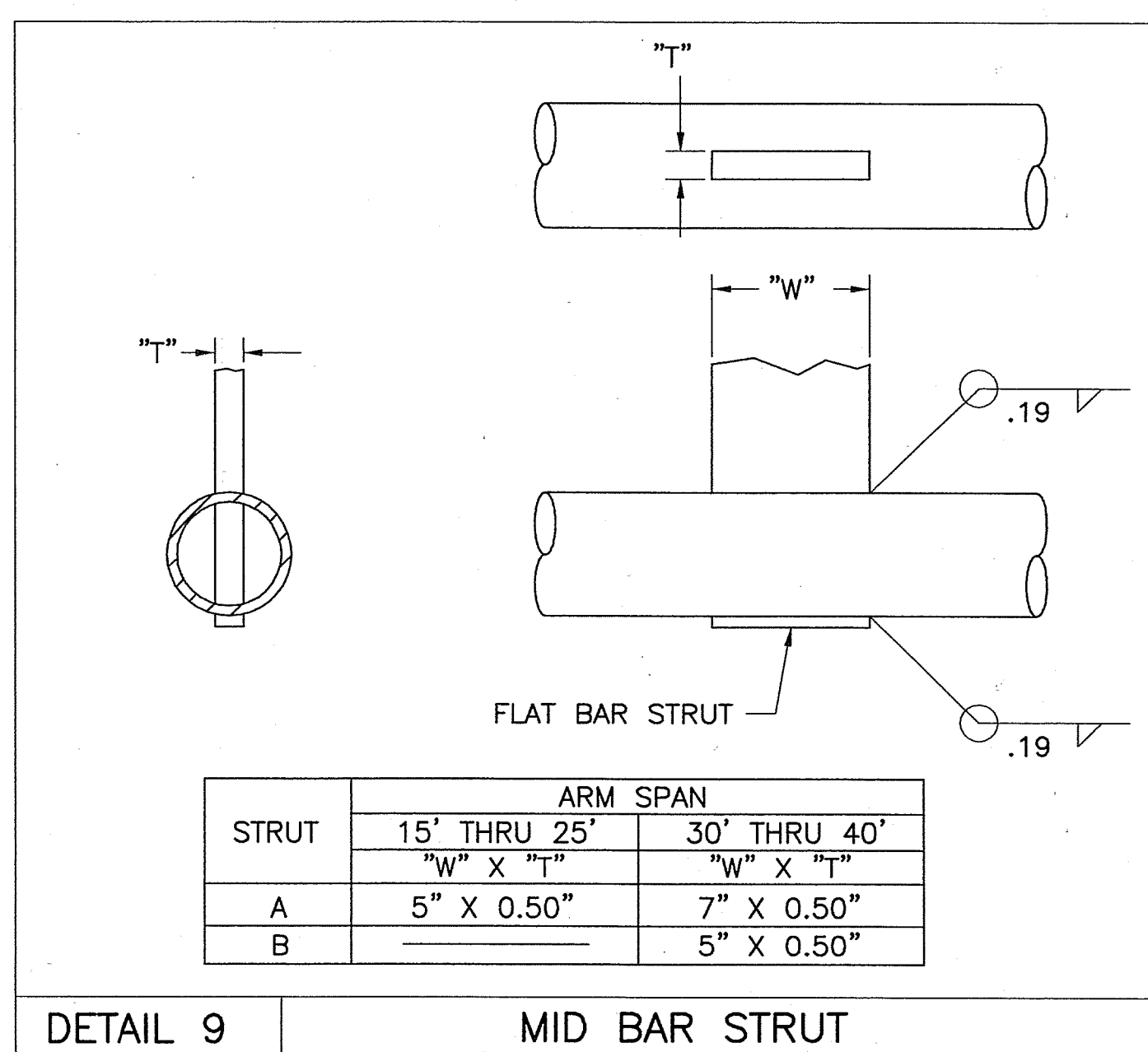
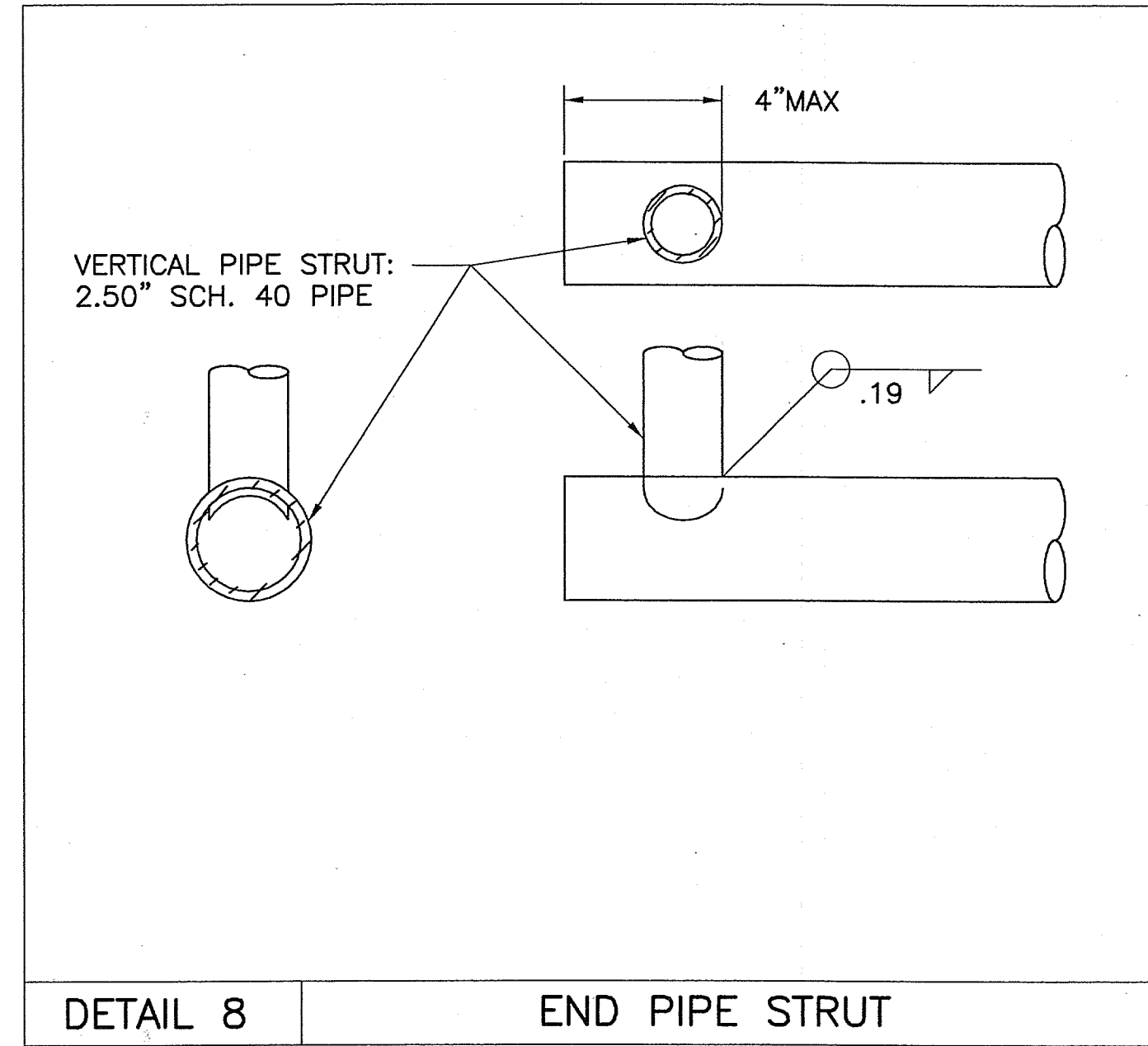
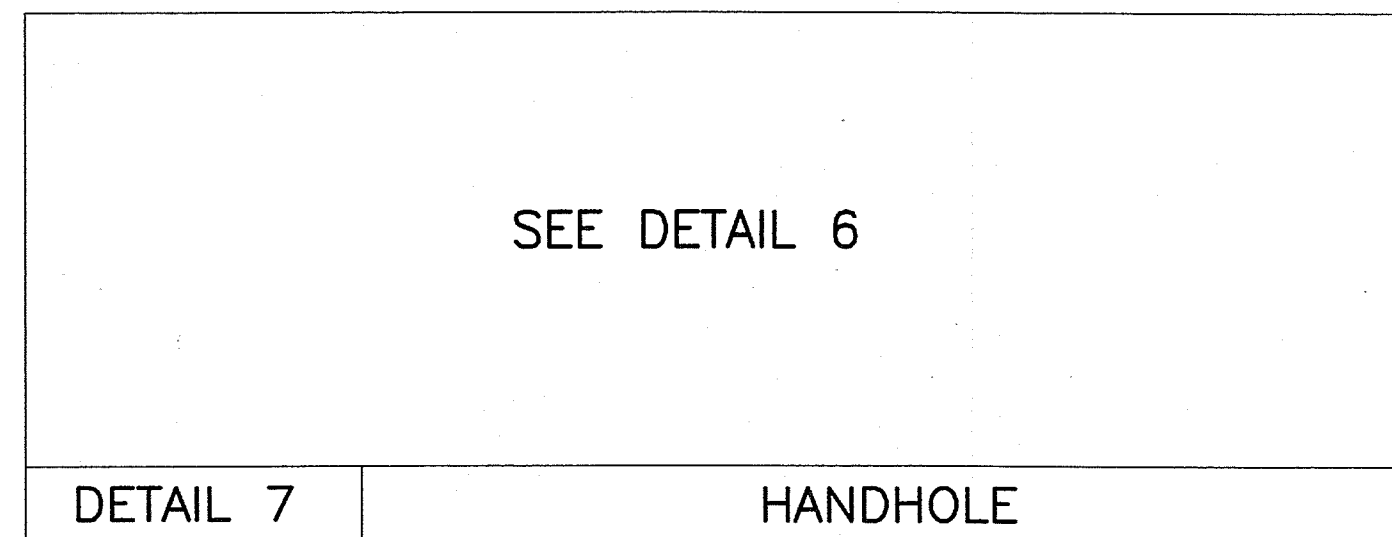
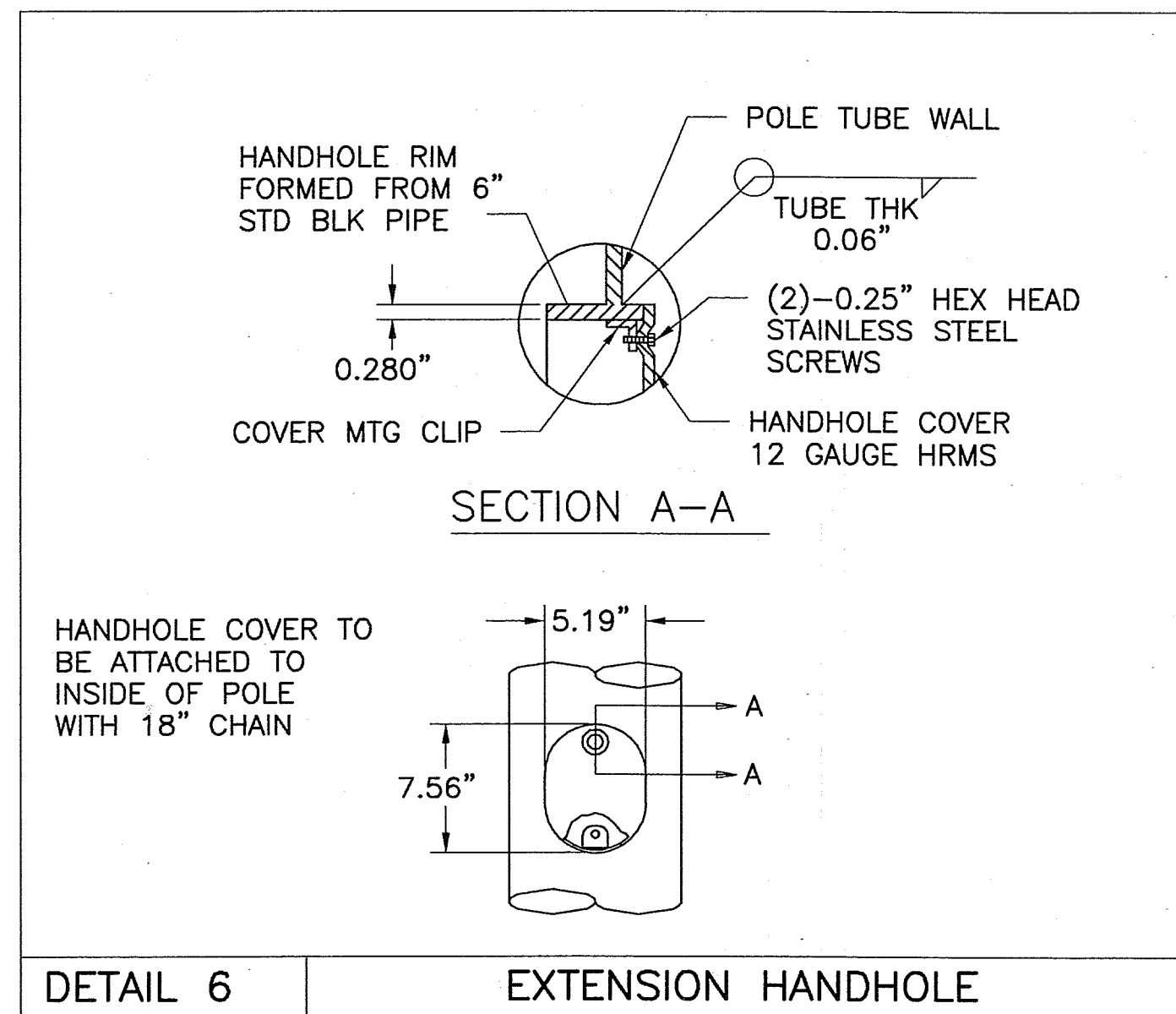
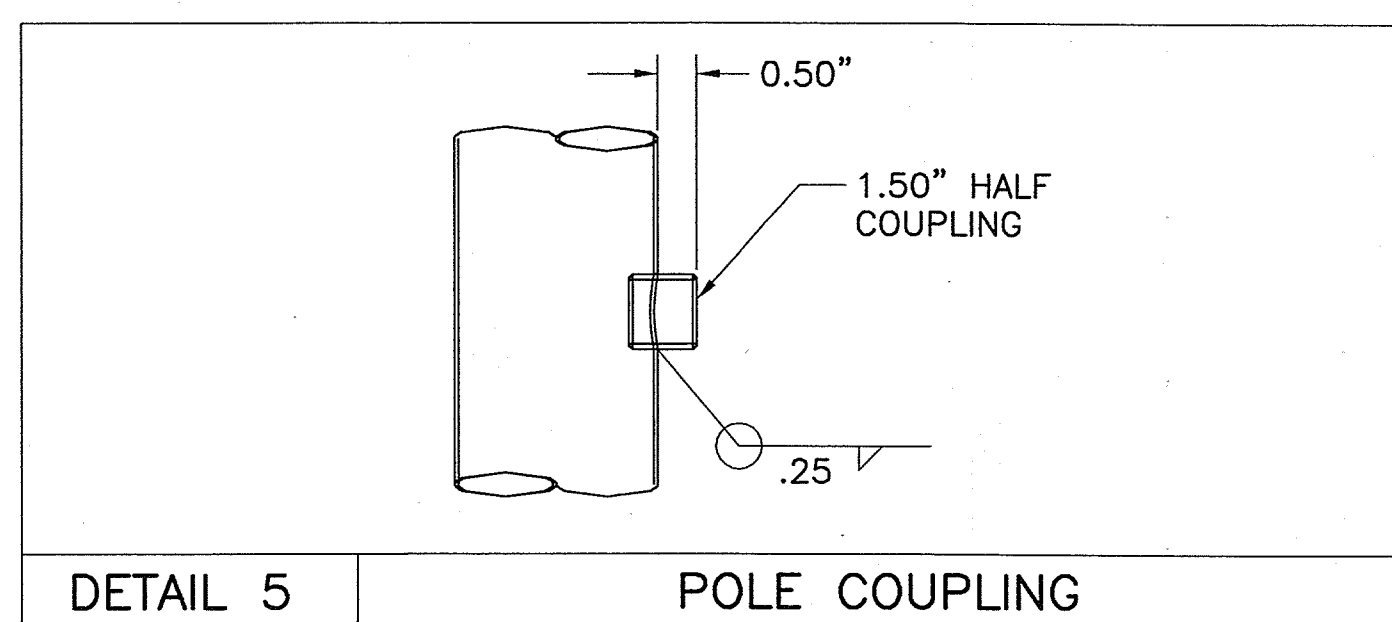
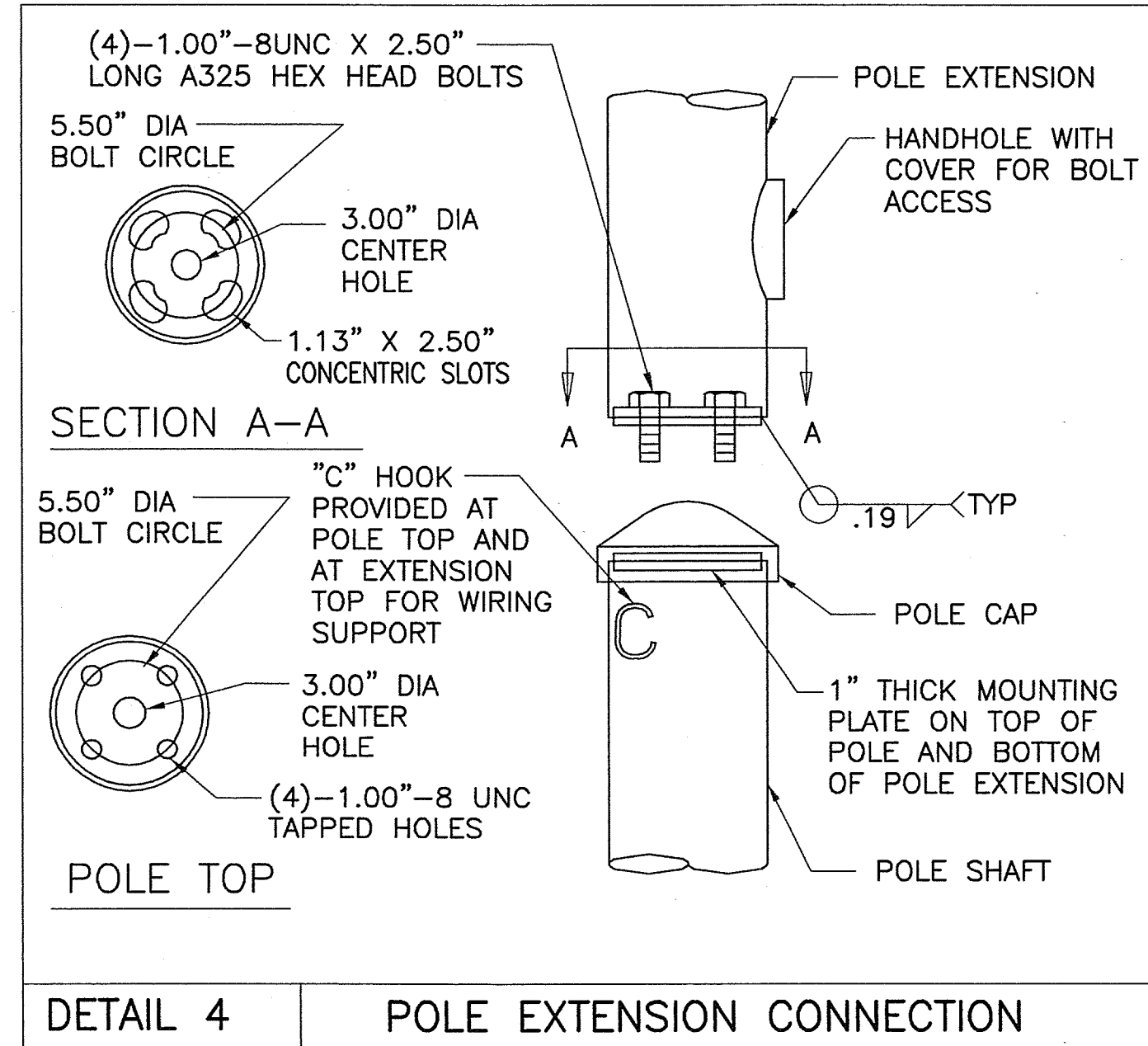
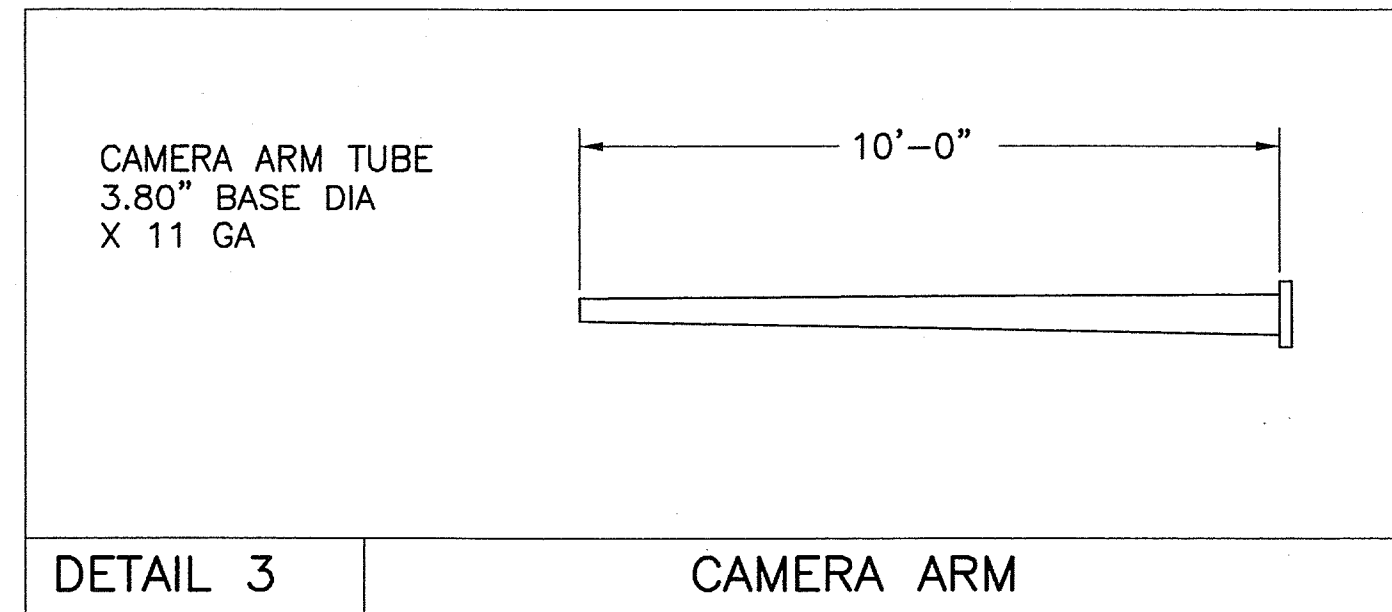
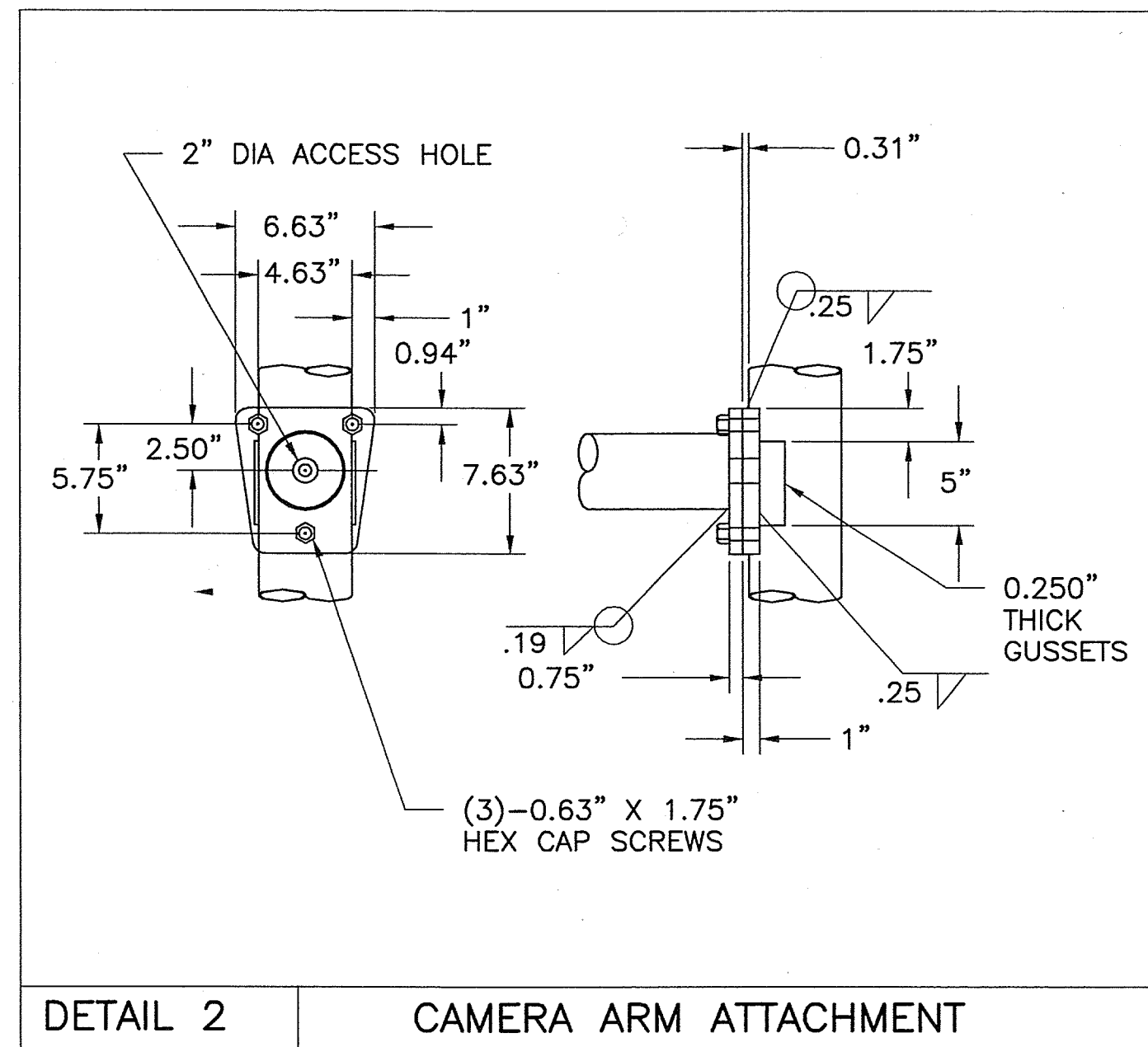
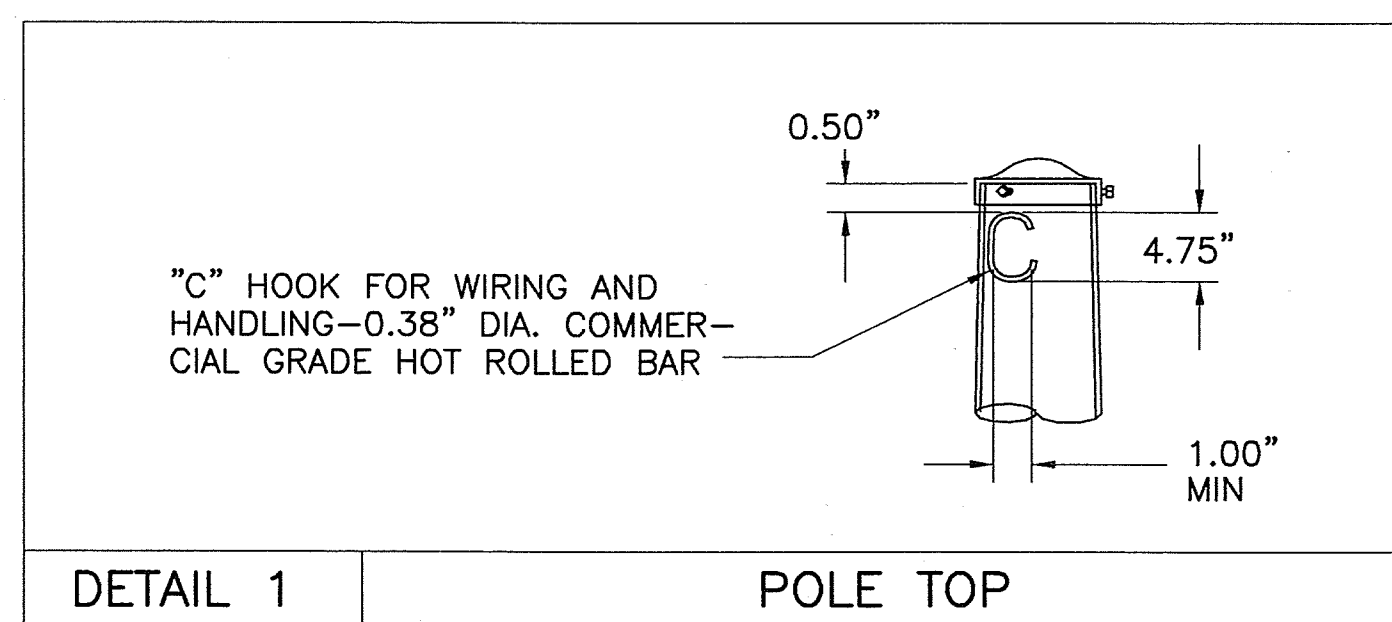
TABLE 3: EXTENSION TUBE DATA					
MASTARM LENGTH (FT)	CAMERA MTG HT (FT)	EXTENSION TUBE			
		BASE DIA	TOP DIA	LENGTH (FT)	GAUGE
15-20	30	7.00	5.74	9.0	11
	35	7.00	5.04	14.0	11
	40	7.00	4.34	19.0	11
30-40	30	9.00	7.74	9.0	11
	35	9.00	7.04	14.0	11
	40	9.00	6.34	19.0	11



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION MASTARM DETAILS TYPE III STANDARD			
Design Review Committee	City Engineer Approval	Ms./Dy./Yr.	
C.O.A. STD.		Ms./Dy./Yr.	
City Project No.	Zone Map No.	Sheet	Of
667791	J-18	40	52

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Time: 15.614
Date: 6/7/2002 CFS
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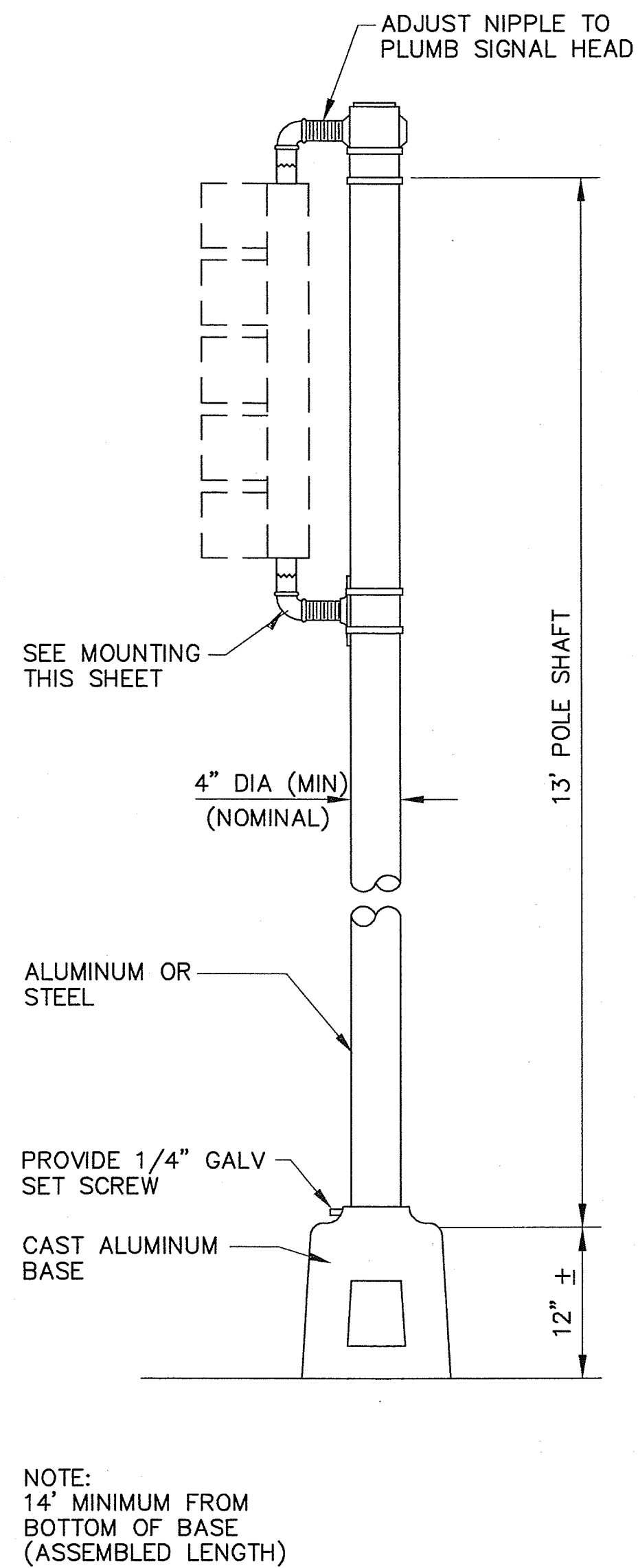


CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION TYPE III STANDARD MISCELLANEOUS DETAILS	
Design Review Committee	City Engineer Approval
C.O.A. STD.	
City Project No. 667791	Zone Map No. J-18
Sheet 41	Of 52

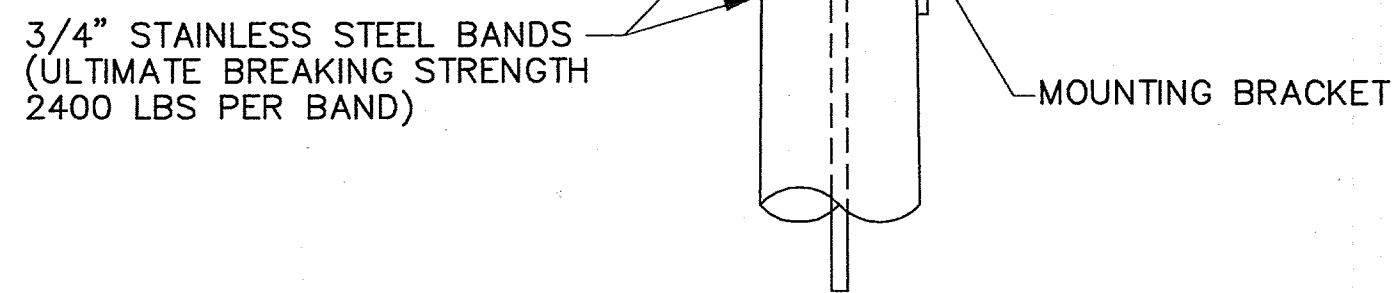
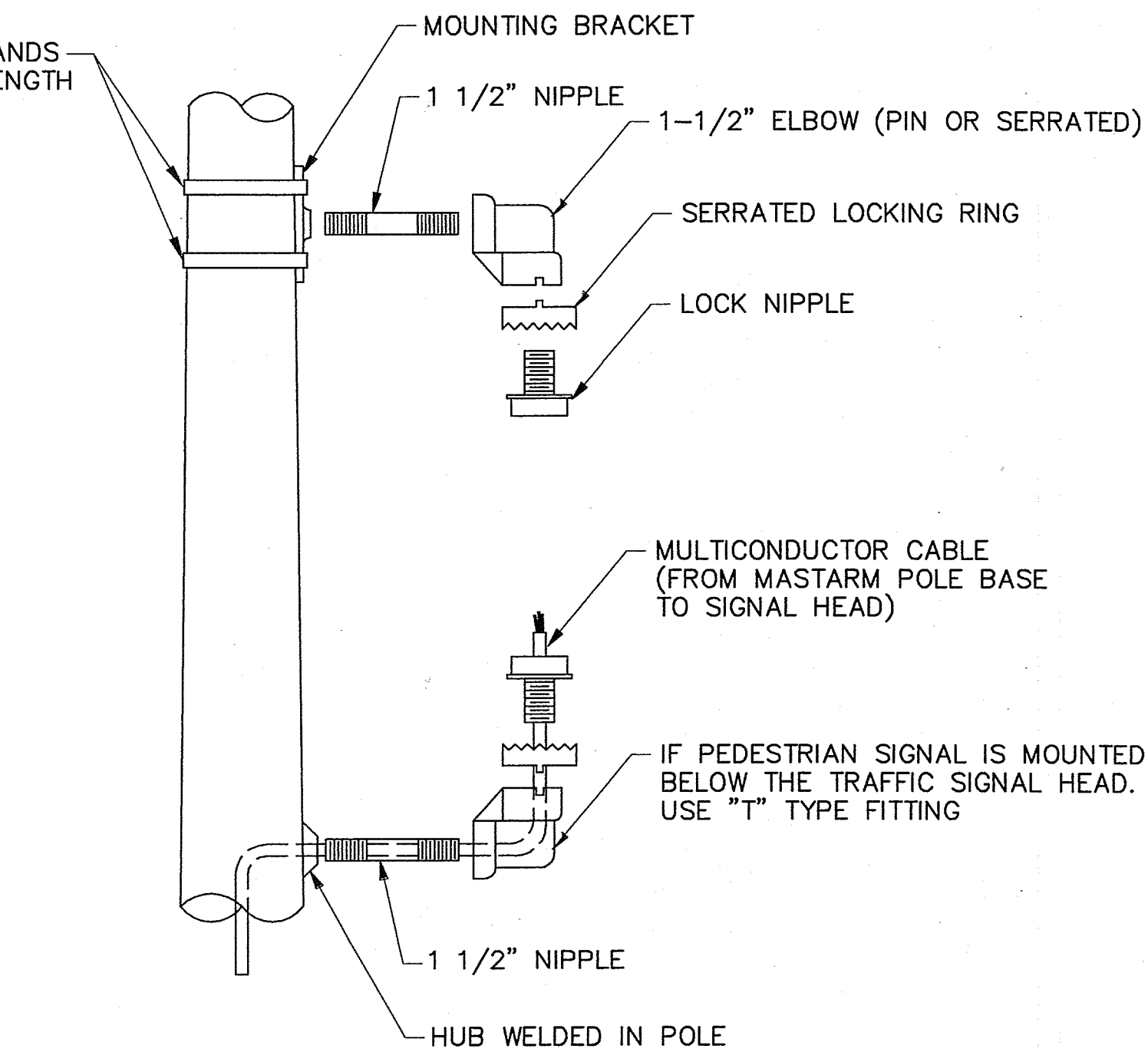
BENCH MARKS		AS BUILT INFORMATION	
CONTRACTOR	DATE	CONTRACTOR	DATE
INSPECTOR'S	DATE	INSPECTOR'S	DATE
FIELD	DATE	FIELD	DATE
VERIFICATION BY	DATE	VERIFICATION BY	DATE
CORRECTED BY	DATE	CORRECTED BY	DATE
SURVEY INFORMATION		MICRO-FILM INFORMATION	
FIELD NOTES	DATE	FIELD NOTES	DATE
NO.	BY	NO.	BY
C.O.A. STD.		C.O.A. STD.	
DESIGNED BY	DATE	DESIGNED BY	DATE
DRAWN BY	DATE	DRAWN BY	DATE
CHECKED BY	DATE	CHECKED BY	DATE

Time: 15:56:55
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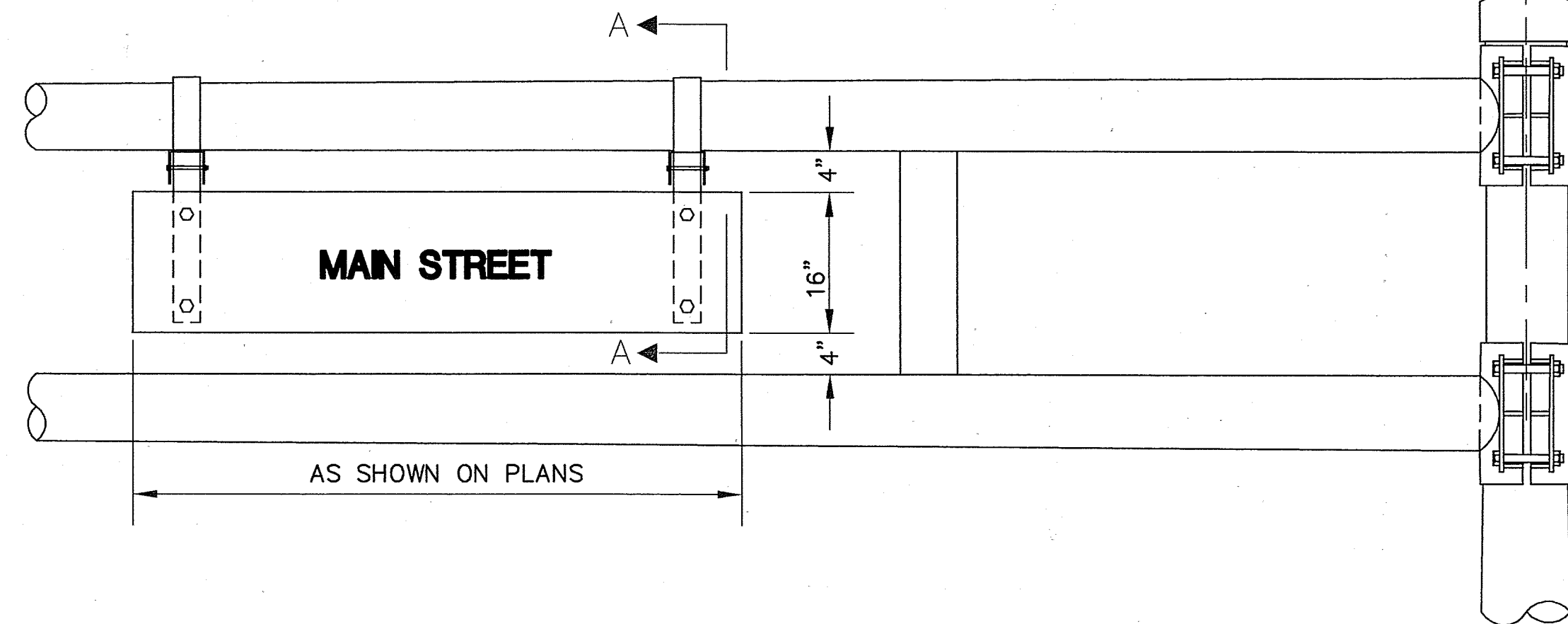
TYPE I PEDESTAL POLE DETAILS



MOUNTING DETAIL



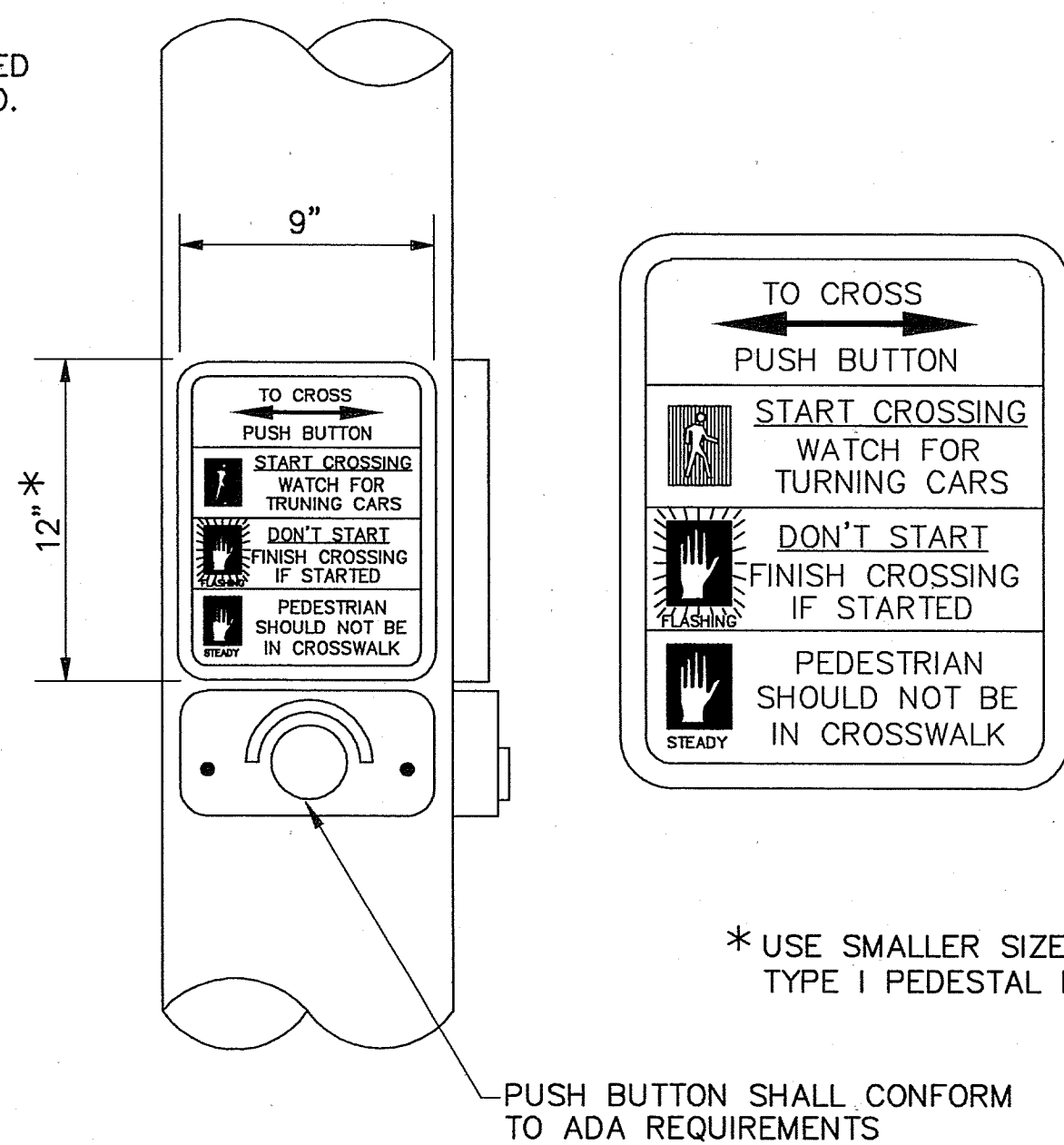
PEDESTRIAN SIGNAL DETAILS



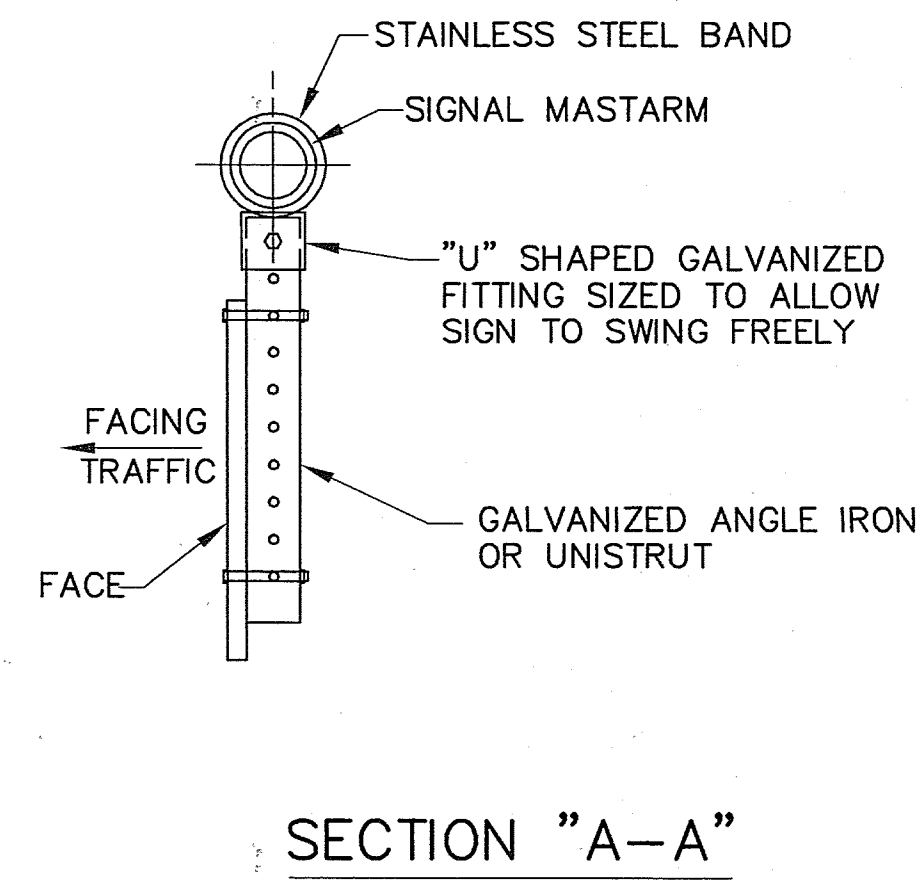
NOTES:

- STREET NAME SIGNS REQUIRED AS SHOWN ON SIGN PLAN SHEETS.
- SIGN SHALL BE 16" WIDE WITH 8" SERIES "C" LETTERS UP TO 12 SQUARE FEET TOTAL AREA AND SHALL HAVE HIGH INTENSITY REFLECTIVE LEGEND, BORDER AND BACKGROUND COLORS: WHITE ON GREEN, SIGN PANELS SHALL BE SINGLE SHEET 6061-T6 ALUMINUM .120 MINIMUM THICKNESS.

STREET NAME SIGN DETAILS



PEDESTRIAN PUSH BUTTON DETAIL



NOTE:

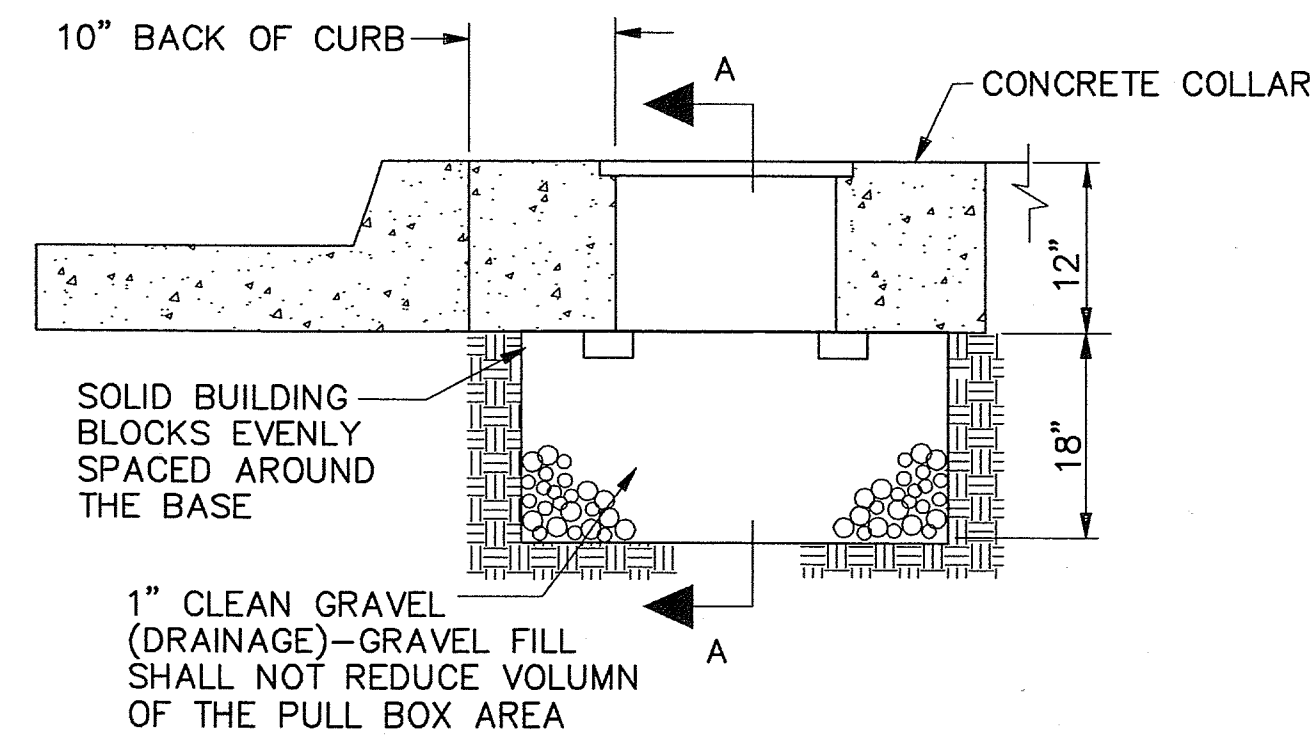
PEDESTRIAN ACTUATED CROSSING SHALL BE A MAXIMUM OF 42" ABOVE THE FINISHED PUBLIC SIDEWALK. A STABLE, FIRM, AND SLIP-RESISTANT AREA - 30"x48" - SHALL BE PROVIDED TO ALLOW FOR A FORWARD OR A PARALLEL APPROACH TO THE CONTROLS. WHERE A PARALLEL IS PROVIDED, CONTROLS SHALL BE WITHIN 10" HORIZONTALLY OF AND CENTERED ON THE CLEAR GROUND SPACE.



CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE.
INTERSECTION RECONSTRUCTION
MISCELLANEOUS DETAILS

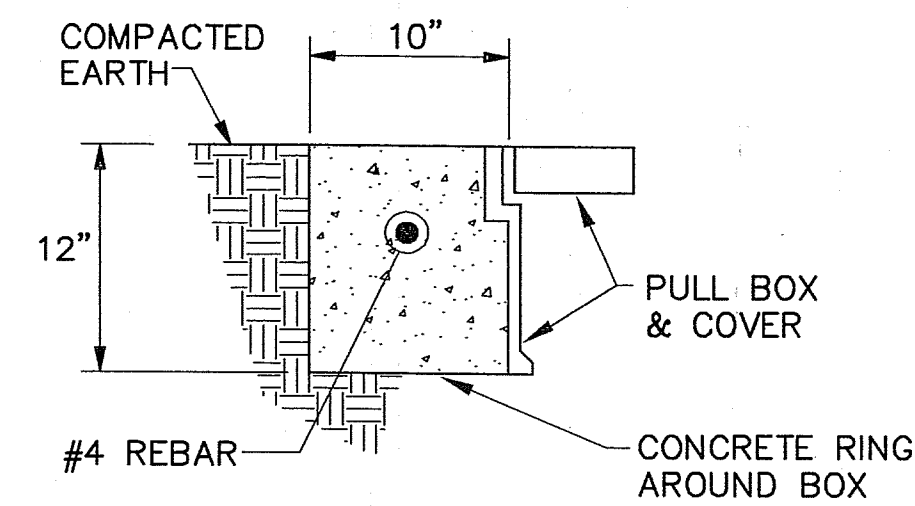
Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
C.O.A. STD.			
City Project No.	Zone Map No.	Sheet	Of
667791	J-18	42	52

BENCH MARKS		AS BUILT INFORMATION	
ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection	CONTRACTOR	DATE	DATE
NM Central Zone, NAD 27/NGVD 29, in feet	INSPECTOR'S	DATE	DATE
X=402236.69, Y=1489851.27, EL=5258.64	FIELD	DATE	DATE
	VERIFICATION BY	DATE	DATE
	CORRECTED BY	DATE	DATE
ENGINEER'S SEAL		MICRO-FILM INFORMATION	
		ACS Brass tablet stamped "1-J18 1981" set in curb at Constitution Ave. & Madiera Dr Intersection	RECORDED BY
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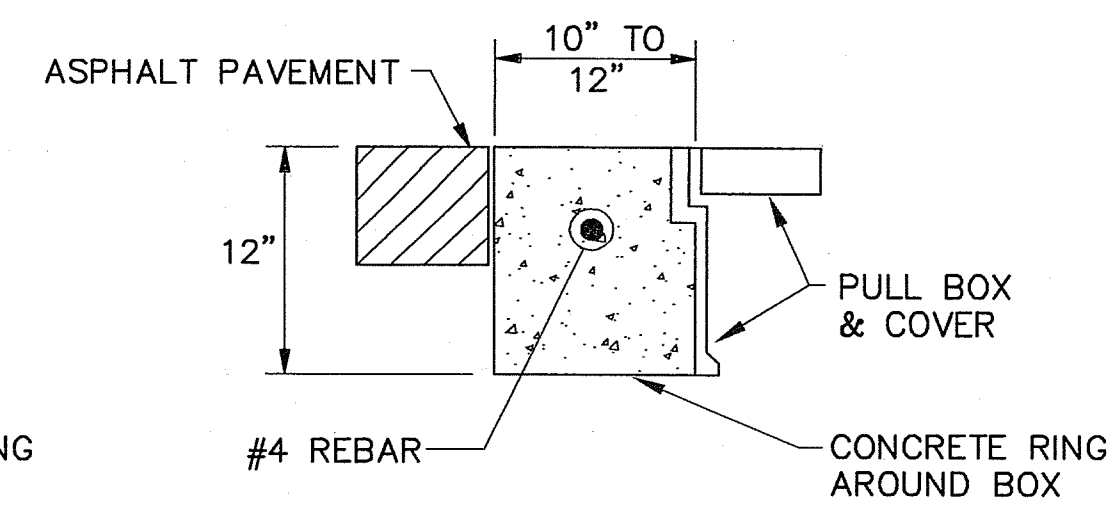


TYPICAL PULLBOX INSTALLATION

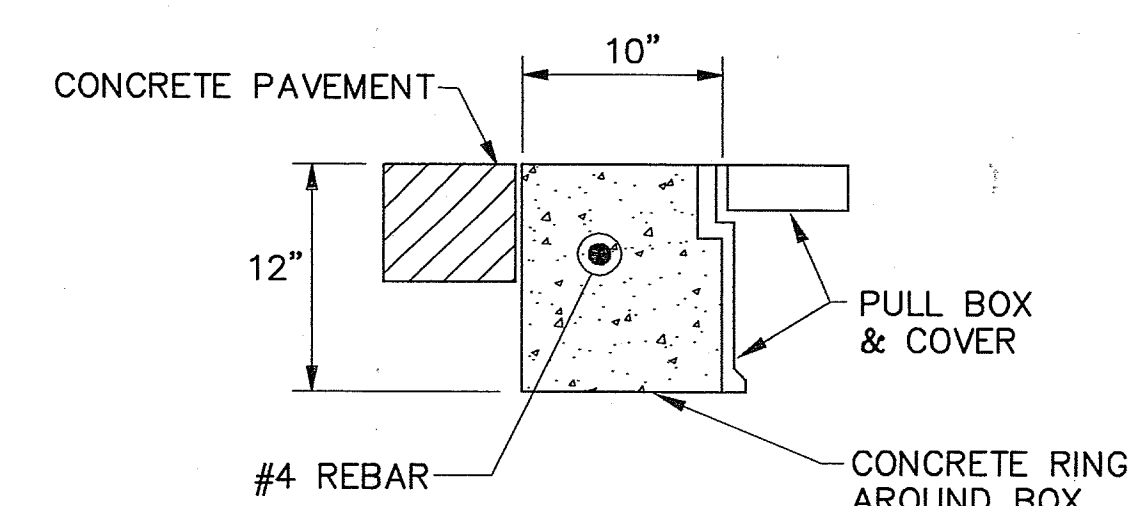
NOTE: SEE "CONCRETE COLLAR DETAIL"



IN COMPACTED EARTH



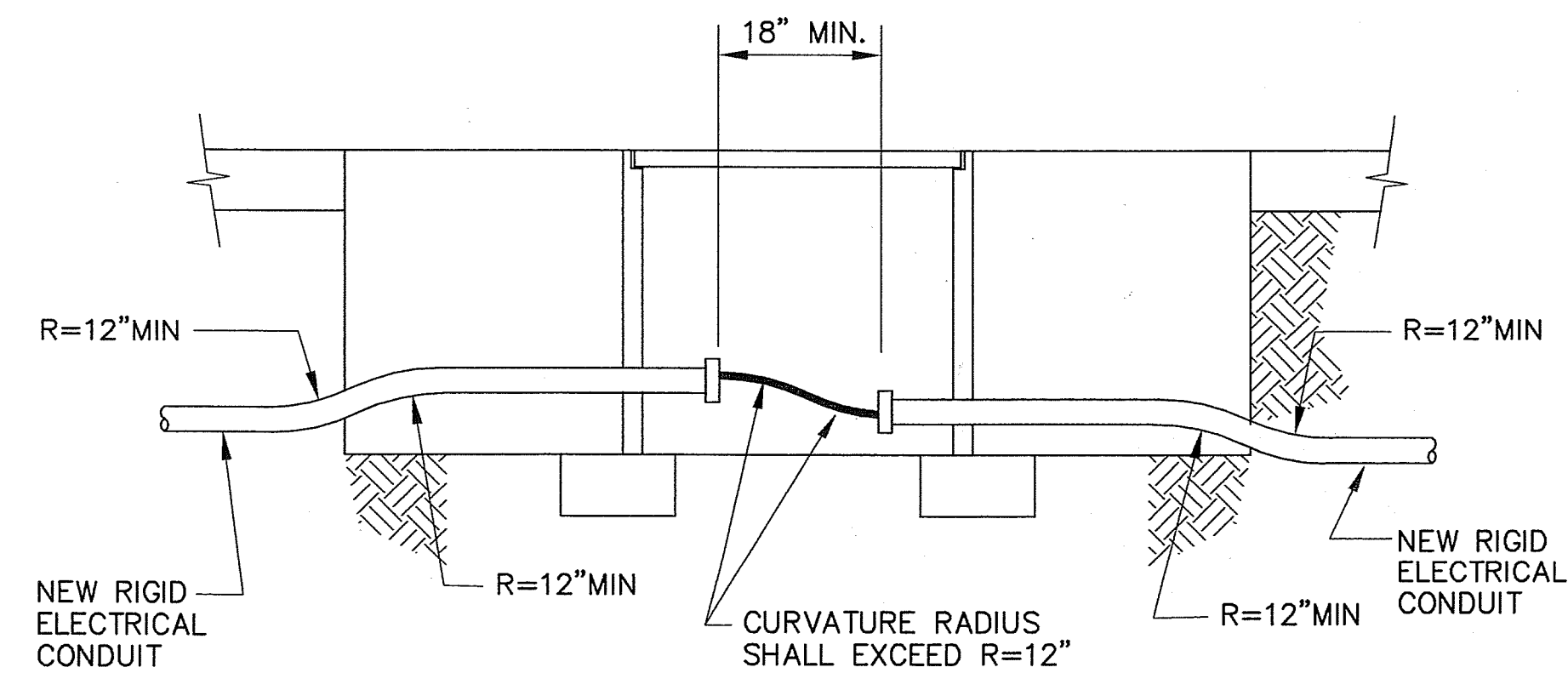
IN ASPHALT PAVEMENTS



IN CONCRETE PAVEMENTS

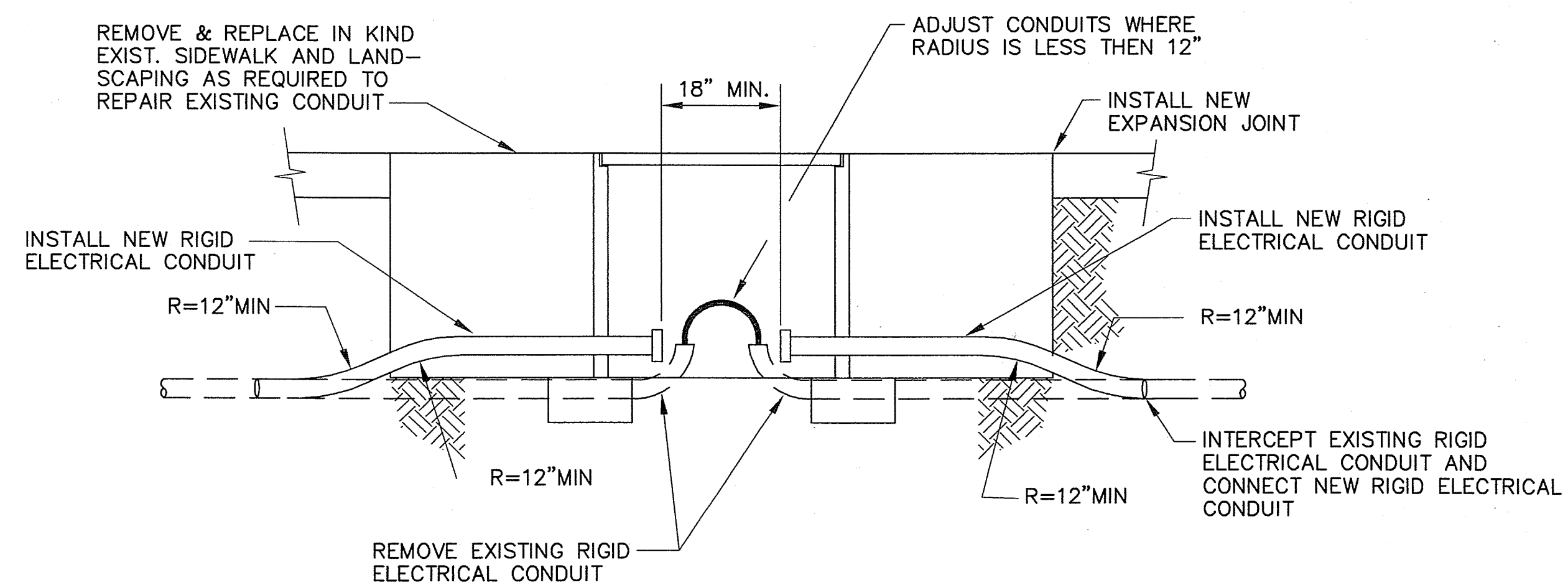
CONCRETE COLLAR DETAILS

NOTE: THE CONCRETE COLLAR FOR THE PULL BOXES WILL BE CONSIDERED INCIDENTAL TO THE PULL BOX BID ITEMS



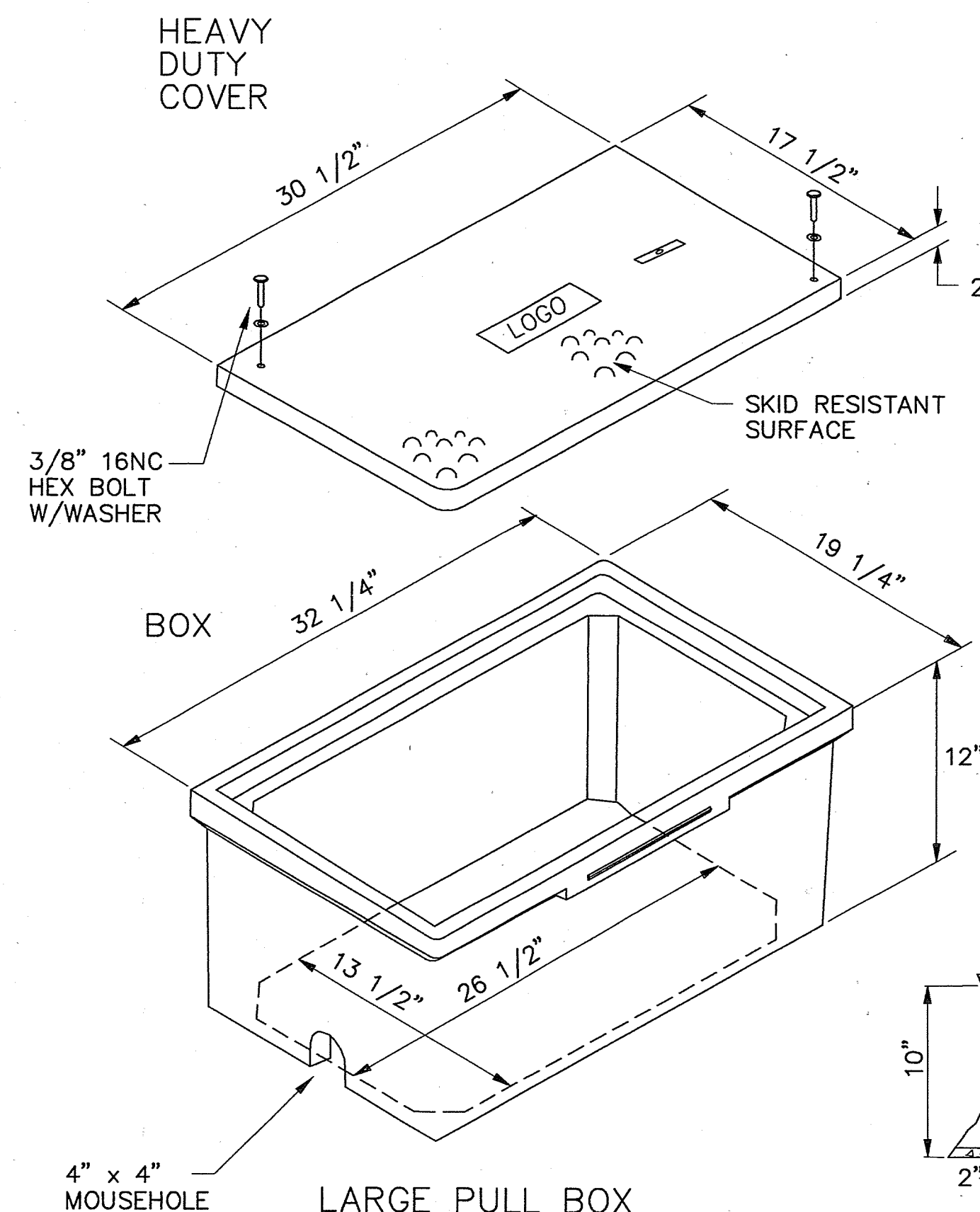
TRAFFIC SIGNAL PULL BOX (TYPICAL)

NEW CONDUIT INSTALLATION

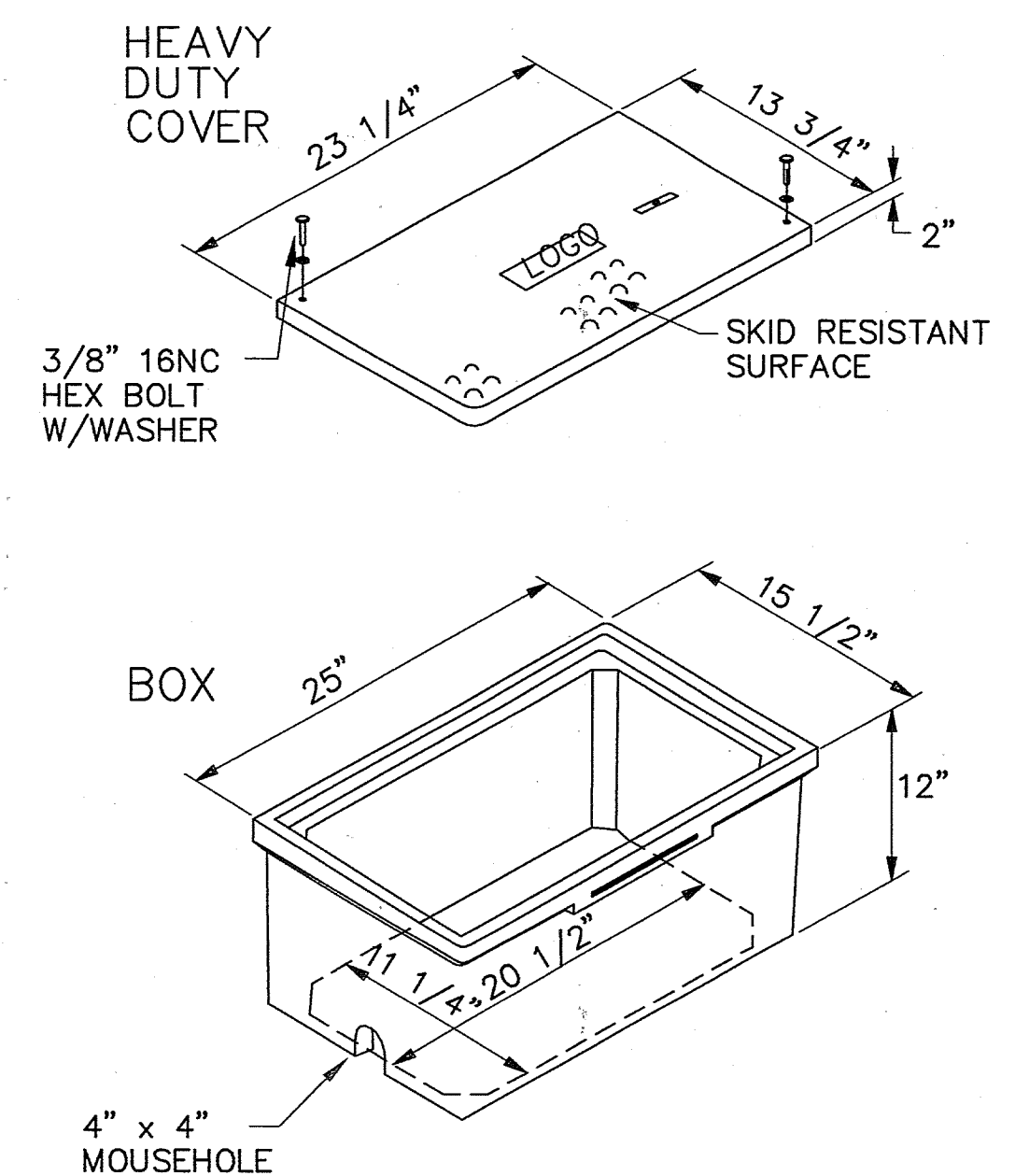


TRAFFIC SIGNAL PULL BOX (TYPICAL)

RETROFIT INSTALLATION



LARGE PULL BOX



STANDARD PULL BOX

PULL BOX DETAILS

NOTES FOR HEAVY DUTY REINFORCED POLYMER MORTAR PULL BOX AND COVERS

1. MATERIAL TO BE AN AGGREGATE CONSISTING OF SAND AND GRAVEL BOUND TOGETHER WITH A POLYMER AND REINFORCED WITH CONTINUOUS WOVEN GLASS STRANDS. THE MATERIAL MUST HAVE THE FOLLOWING MECHANICAL PROPERTIES: COMPRESSIVE STRENGTH - 11,000 PSI, TENSILE STRENGTH - 1,700 PSI, FLEXURAL STRENGTH - 7,500 PSI.
2. ALL PULL BOX COVERS SHALL BE HEAVY DUTY REINFORCED POLYMER MORTAR, HAVING A SERVICE LOAD OF 22,568 LBS. OVER 10" SQUARE (225 PSI).
3. PULL BOX TYPE AND LOGO SHALL BE APPROVED BY THE PROJECT MANAGER.
4. THE DIMENSIONS OF THE PULL BOXES SHOWN ARE NOMINAL DIMENSIONS AND MAY VARY AS TO THE MANUFACTURER'S RECOMMENDATIONS. ALL DIMENSIONS SHALL BE VERIFIED BY THE PROJECT MANAGER.
5. ELECTRICAL PULL BOX (STANDARD) SHALL BE A HEAVY DUTY REINFORCED POLYMER MORTAR PULL BOX AND COVER MEASURING 13 3/4" x 23 1/4" x 2".



CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE.
INTERSECTION RECONSTRUCTION
PULL BOX DETAILS

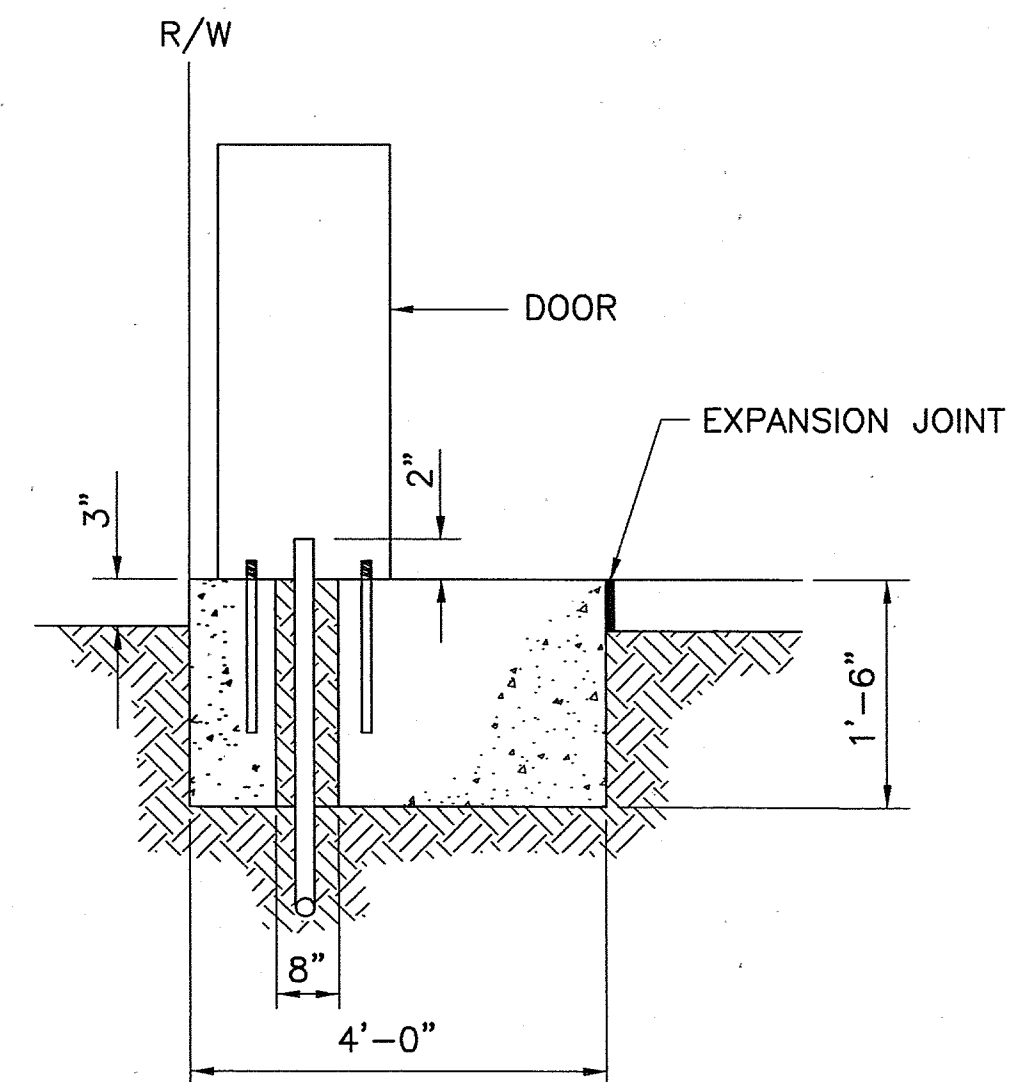
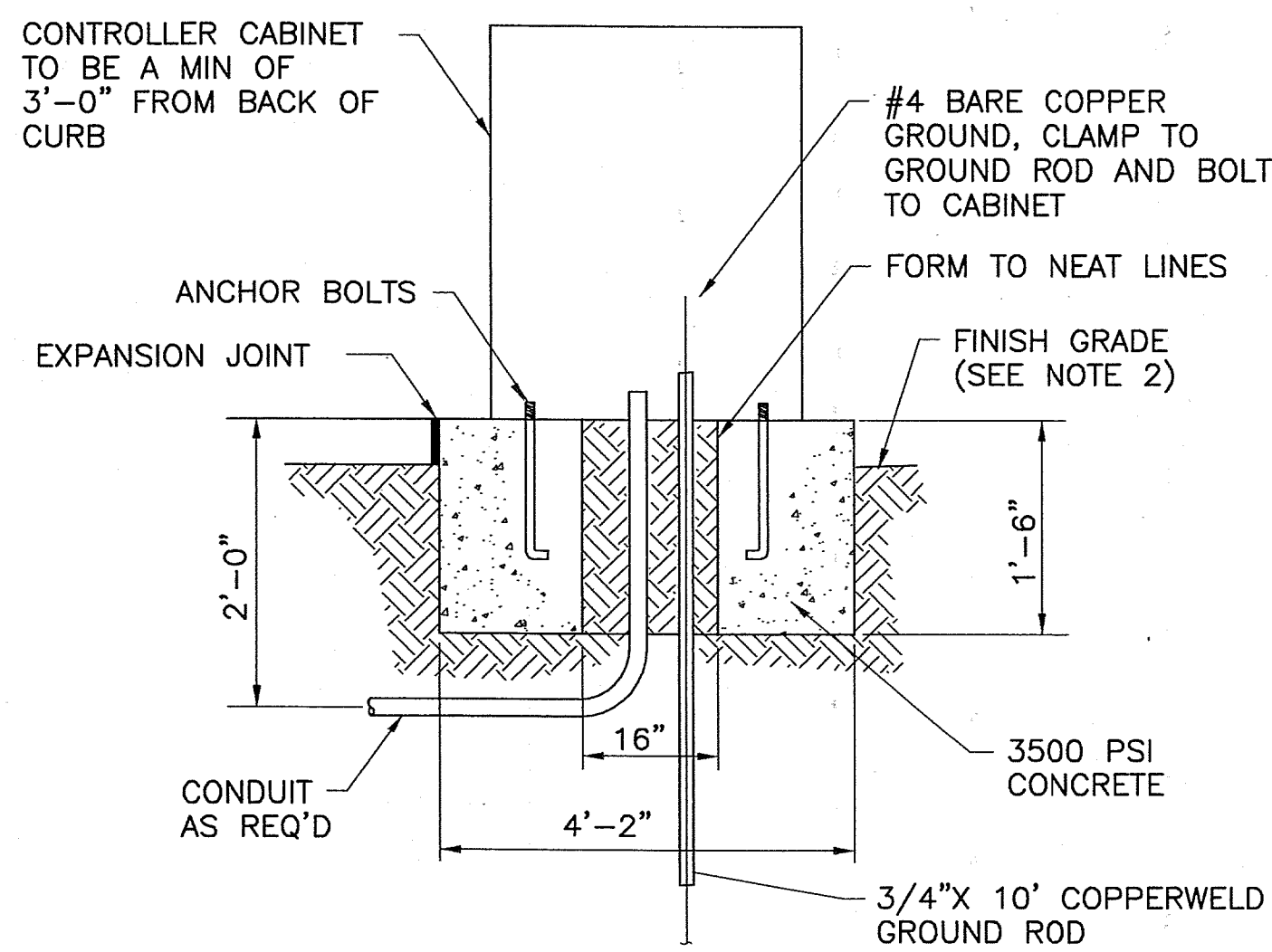
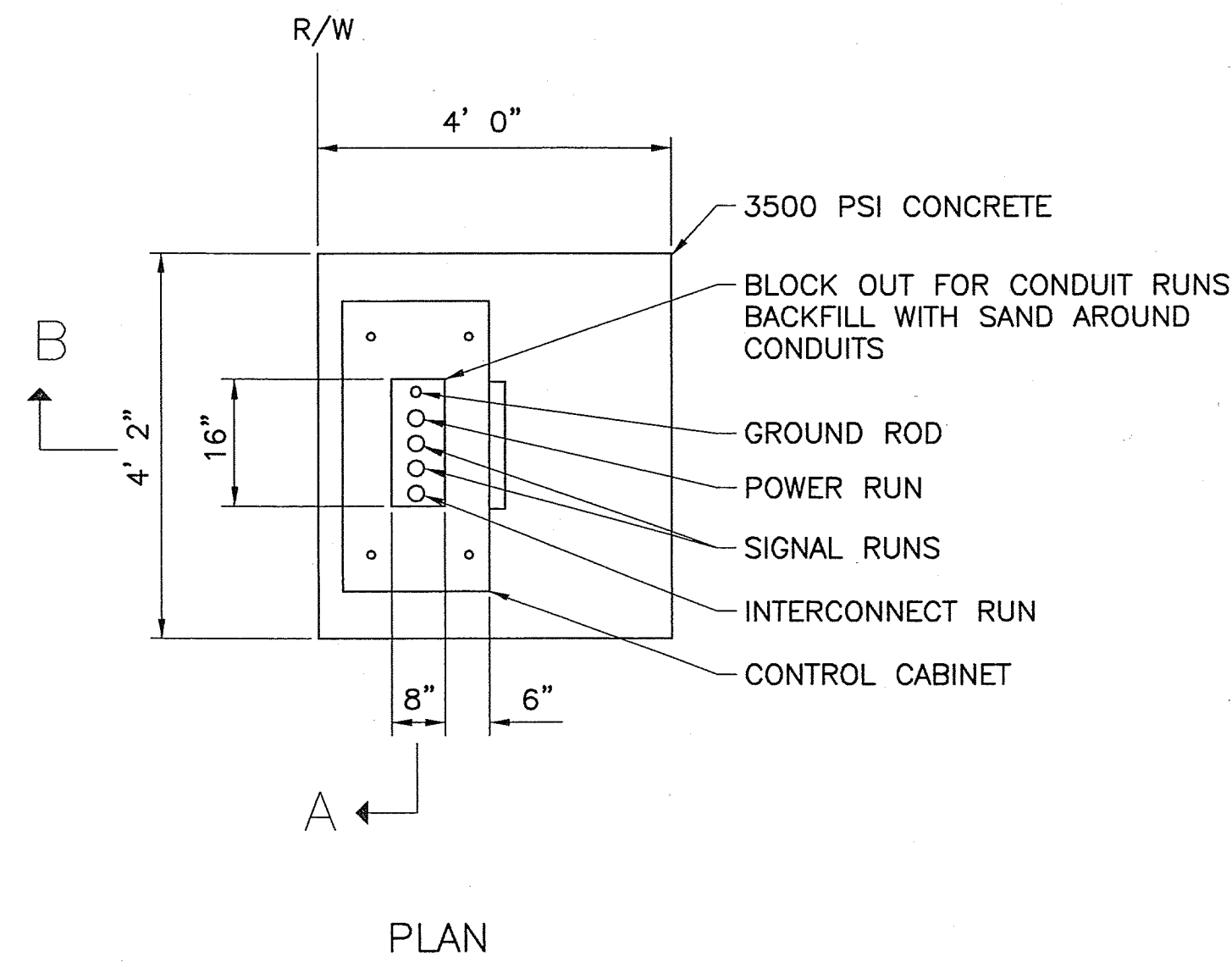
Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
C.O.A.	STD.		
City Project No.	Zone Map No.	Sheet	Of
667791	J-18	43	52

BENCH MARKS		AS BUILT INFORMATION	
ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection	DATE	CONTRACTOR	DATE
NM Central Zone, NAD 27/NGVD 29, in feet	DATE	INSPECTOR'S	DATE
X=402236.69, Y=1489851.27, EL=5258.64	DATE	VERIFICATION BY	DATE
	DATE	CORRECTED BY	DATE
MICRO-FILM INFORMATION		RECORDS	
ACS Brass tablet stamped "1-J18 1981" set in curb at Constitution Ave. & Madiera Dr Intersection	DATE	RECORDED BY	DATE
NM Central Zone, NAD 27/NGVD 29, in feet	DATE	NO.	DATE
X=399917.88, Y=1489869.09, EL=5229.93	DATE		

C.O.A. STD.

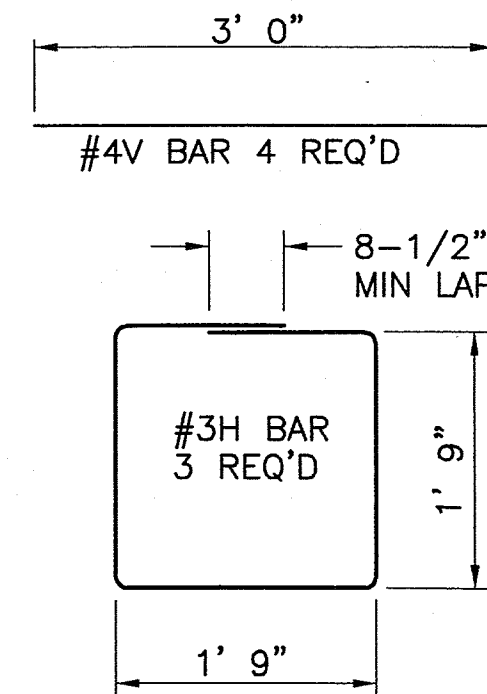
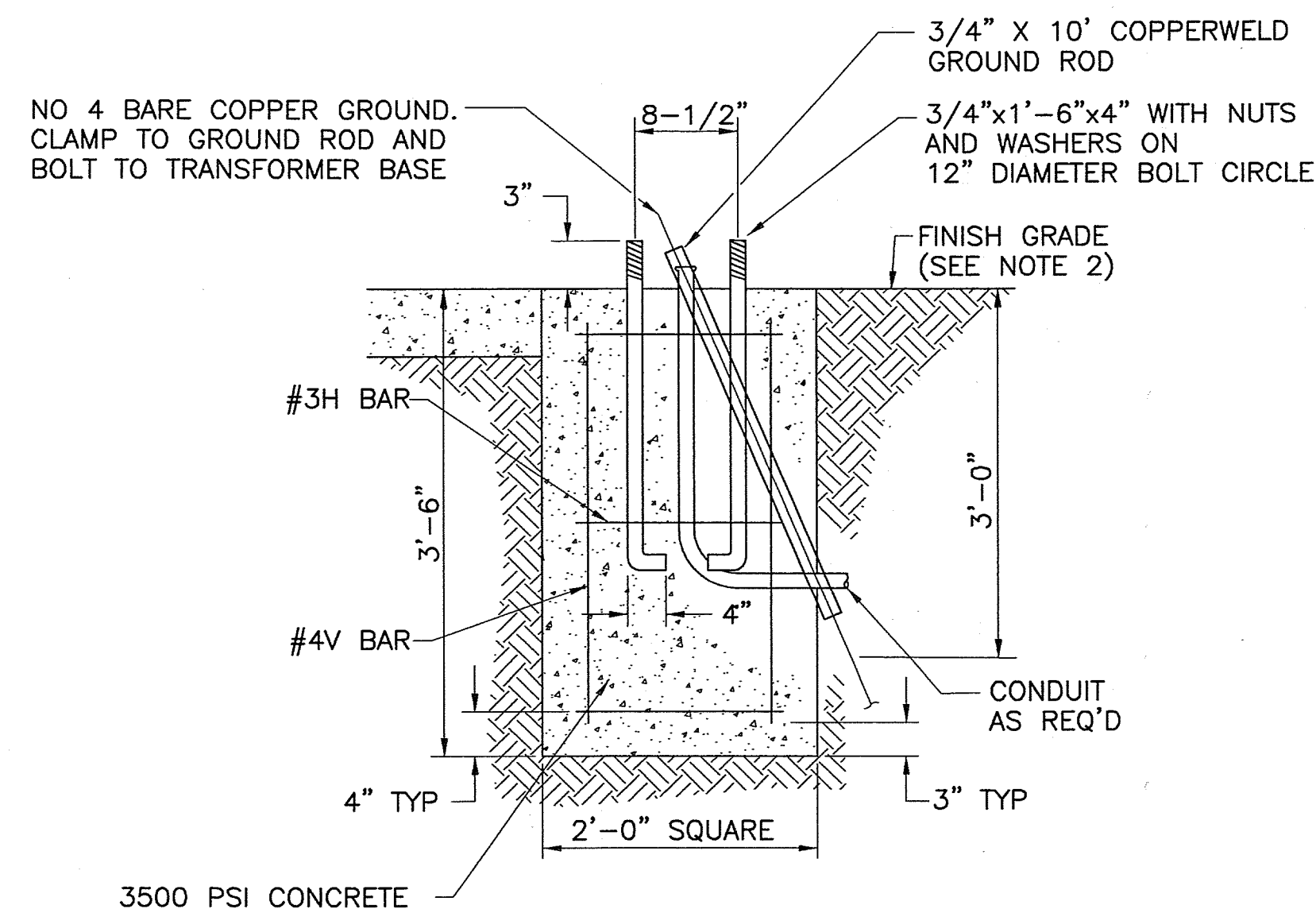
REVISIONS

NO.	DATE	REMARKS
DESIGNED BY	CPS	DATE 9/2001
DRAWN BY	CPS	DATE 9/2001
CHECKED BY	DHW	DATE 11/2001



CONTROLLER FOUNDATION DETAIL

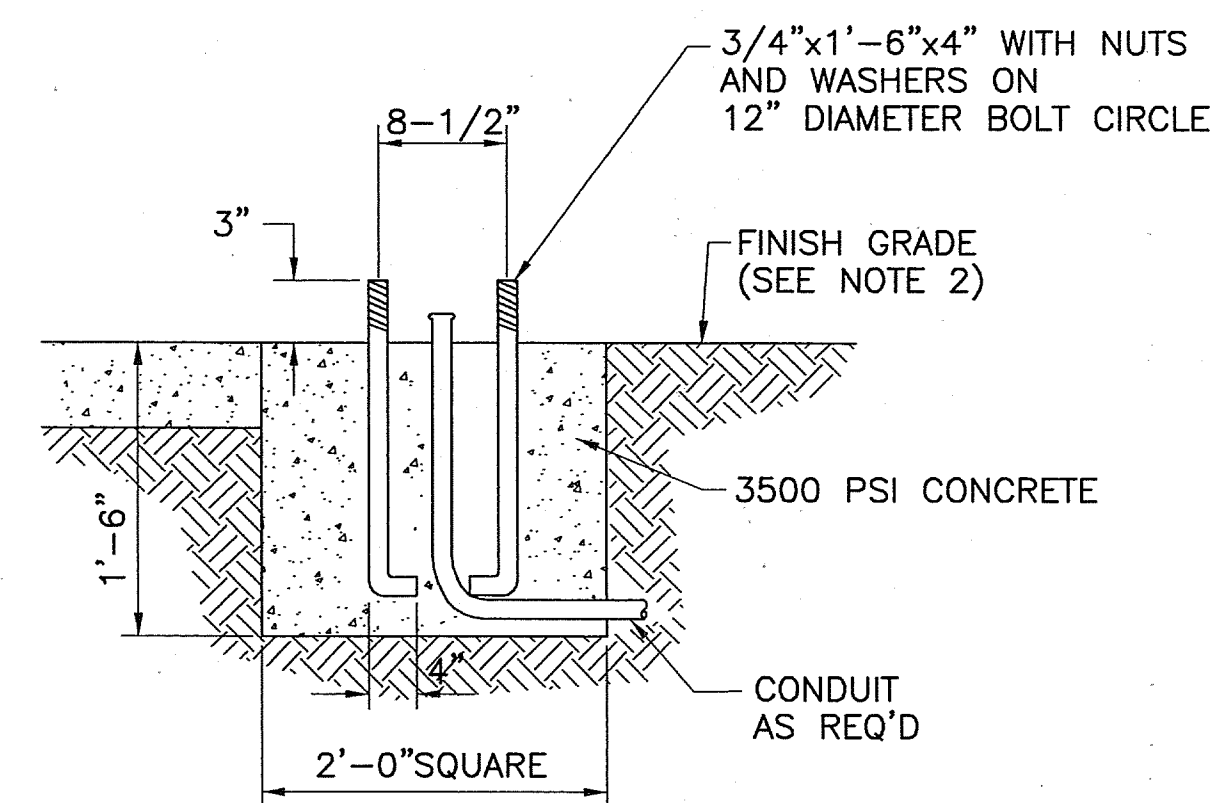
IN THE EVENT THE SUPPLIED CABINET WOULD OVERLAP THE SIDES OF ABOVE FOUNDATION, THE FOUNDATION SHALL BE INCREASED IN SIZE AS DIRECTED BY THE ENGINEER.



PEDESTAL FOUNDATION DETAIL

ESTIMATED QUANTITIES

FOUNDATION TYPE	3500 PSI CONCRETE CU YD	REINFORCING BARS POUNDS
PEDESTAL FOUNDATION	0.52	17
CONTROLLER FOUNDATION (TYPE M & P)	0.88	--
SPLICE CABINET FOUNDATION	0.13	--



SPLICE CABINET FOUNDATION DETAIL

TRAFFIC SIGNAL FOUNDATION NOTES

- ALL FOUNDATIONS SHALL INCLUDE COPPERWELD GROUND RODS. ALL GROUND RODS SHALL BE 3/4" OX10'-0" AND WILL BE CONSIDERED INCIDENTAL TO THE FOUNDATION BID ITEMS.
- FINISHED GRADE FOR ALL FOUNDATIONS TO BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER. FOUNDATIONS MAY BE SLOPED TO MATCH SIDEWALKS. SLOPES SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS.



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION CABINET & PEDISTAL FOUNDATION DETAILS			
Design Review Committee	City Engineer Approval	Ms./Dsg./Yr.	
C.O.A. STD.		Ms./Dsg./Yr.	
City Project No.	Zone Map No.	Sheet	Of
667791	J-18	44	52

SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
NO.	DATE	BY	DATE	CONTRACTOR	DATE
				ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection	
				NM Central Zone, NAD 27/NGVD 29, in feet	
				X=402236.69, Y=1489851.27, EL=5258.64	
ENGINEER'S SEAL		REVISIONS		MICRO-FILM INFORMATION	
NO.	DATE	BY	DATE	CONTRACTOR	DATE
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LIGHTING NOTES

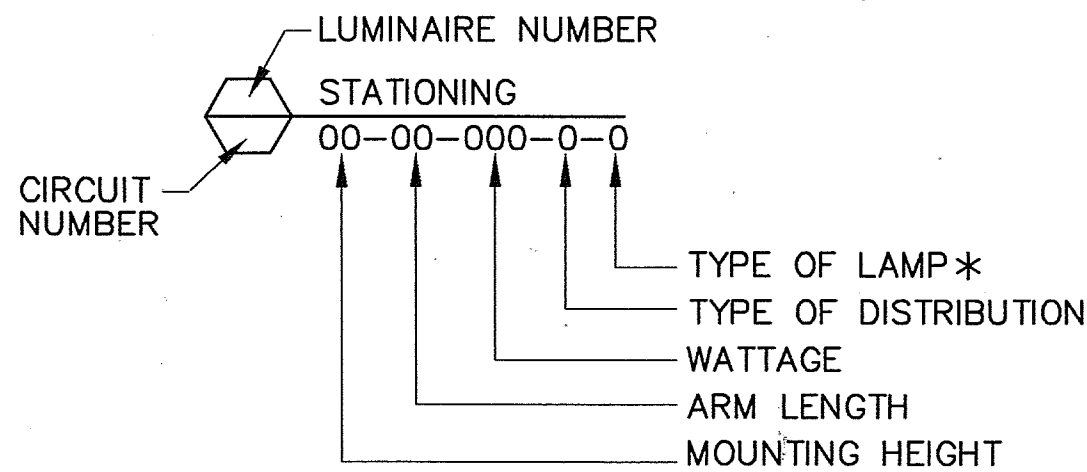
1. LOCATIONS OF CONDUIT, FOUNDATIONS, PULL BOXES, AND CONTROL CABINETS SHOWN ON THE PLANS ARE SCHEMATIC AND SHALL BE ADJUSTED IN THE FIELD TO MAXIMIZE CLEAR SPACE AVAILABLE FOR PEDESTRIANS AND WHEELCHAIRS TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT. THE CONTRACTOR SHALL MEET WITH THE PROJECT MANAGER IN THE FIELD AT ALL LOCATIONS TO SPOT EQUIPMENT BEFORE BEGINNING THE WORK. ALL SUCH EQUIPMENT SHALL BE INSTALLED WITHIN THE RIGHT OF WAY.
2. ALL WIRE ON THIS PROJECT TO BE COPPER ONLY.
3. LIGHT STANDARDS SHALL HAVE DIRECT ANCHOR BASE.
4. ALL ROADWAY AND OVERHEAD SIGN LIGHTING CIRCUITS ON THIS PROJECT SHALL BE 240 VOLTS.
5. ALL PULL BOXES INSTALLED FOR ROADWAY LIGHTING SHALL BE STANDARD SIZE.
6. CONTRACTOR SHALL REMOVE EXISTING CONDUITS AND PULL BOXES THROUGH OUT THE PROJECT AS DIRECTED BY PROJECT MANAGER.
7. REWIRING OF EXISTING LUMINAIRES TO REMAIN, TO BE REMOVED AND RESET, AND CONNECTIONS TO NEW CIRCUITS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
8. EACH CIRCUIT FOR ROADWAY LIGHTING SHALL BE INSTALLED IN SEPARATE CONDUITS UNLESS APPROVED OTHERWISE.
9. ALL ROADWAY LUMINAIRES AND TYPE V STANDARDS WHICH ARE REMOVED SHALL BE SALVAGED AND DELIVERED TO CITY OF ALBUQUERQUE BY THE CONTRACTOR.
10. EACH TIME A ROADWAY LUMINAIRE IS TURNED ON OR OFF THE CONTRACTOR SHALL COORDINATE WITH THE FOLLOWING REPRESENTATIVES:
- LOCAL POWER COMPANY
CITY OF ALBUQUERQUE
- POWER SHALL NEITHER BE TURNED ON OR OFF UNTIL RESPONSIBLE PARTIES FOR EACH LIGHTING SYSTEM HAVE BEEN NOTIFIED.
11. RESPONSIBILITY AND MAINTENANCE OF LIGHTING SYSTEMS INSTALLED AS PART OF THIS PROJECT SHALL BE AS FOLLOWS:
- A. ROADWAY LIGHTING SYSTEM SHALL BE ACCEPTED AND MAINTAINED BY
- CITY OF ALBUQUERQUE AND THE LOCAL POWER (PNM ELECTRIC)
THE CONTRACTOR SHALL PROVIDE THE CITY AND THE LOCAL POWER COMPANY FIVE (5) WORKING DAYS NOTICE IN ADVANCE OF TURNING ON THE SYSTEM SO AS TO ALLOW THE CITY AND THE LOCAL POWER COMPANY TO INSPECT AND APPROVE THE SYSTEM BEFORE IT IS TURNED ON.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND COST OF ENERGIZNG ALL LIGHTING SYSTEM UNTIL SUCH TIME THAT THE APPROPRIATE OWNER AND MAINTAINING AGENCY ACCEPT THE RESPONSIBILITY FOR THEIR RESPECTIVE SYSTEMS.
12. THE CONTRACTOR SHALL PAY FOR COSTS FOR THE LOCAL POWER COMPANY TO PROVIDE POWER SERVICE. THESE COSTS WILL BE INCIDENTAL TO LIGHTING INSTALLATION.
13. CONTRACTOR SHALL COORDINATE WITH POLE MANUFACTURER TO MATCH BOLT PATTERN OF NEW TYPE V STANDARDS WITH THAT OF EXISTING FOUNDATIONS TO REMAIN.
14. ALL LIGHTING CONTROL CABINETS SHALL INCLUDE PHOTO ELECTRIC CELLS.
15. THE DESIGN IS BASED UPON TYPE III, 250 WATT, HIGH PRESSURE SODIUM, FLAT GLASS LUMINAIRES WITHOUT INDIVIDUAL PHOTO CELLS. THE CONTRACTOR SHALL FURNISH AND INSTALL THIS TYPE OF FIXTURE.
16. LIGHTING CONTROL CABINETS SHALL BE OF THE FOLLOWING TYPE(S):
- 6 CIRCUIT, METERED – SAN PEDRO & CONSTITUTION

LIGHTING NOTES CONT

18. THE CONTRACTOR SHALL REMOVE EXISTING SERVICE RISERS, SERVICE POLES, CONTROL CABINETS, AND EXISTING WIRING AS REQUIRED BY THE LOCAL POWER COMPANY AND AS DIRECTED BY THE PROJECT MANAGER.
19. SEE SHEET 43 OF 52 FOR ELECTRICAL PULL BOX DETAILS..
20. ANCHOR BOLTS SHALL BE CONSIDERED INCIDENTAL TO COST OF THE POLE.
21. LIGHTING STANDARDS SHALL BE LOCATED AS FOLLOWS:
- A). ON SECTIONS WITH CURB, GUTTER, AND SIDEWALK, PLACE FOUNDATIONS DIRECTLY BEHIND SIDEWALK.
- B). ON SECTIONS WITH CURB AND GUTTER WITHOUT SIDEWALK, PLACE FOUNDATION 10' BACK FROM CURB & GUTTER.
- C). ON SECTIONS WITHOUT CURB AND GUTTER, PLACE FOUNDATION 12' BACK FROM EDGE OF DRIVING LANE.
22. ALL LIGHTING CONTROL CABINETS AND ELECTRICAL CONTACTORS SHALL BE TASCO (OR APPROVED EQUAL). ELECTRICAL CONTACTORS AND DISCONNECT SWITCH FOR SERVICE POLE SHALL BE CONSIDERED INCIDENTAL TO SERVICE POLE (LIGHTING) ITEM #706010.
23. LOCAL POWER COMPANY WILL ASSIST WITH IDENTIFICATION OF EXISTING CIRCUITS. CONTRACTOR SHALL BE REQUIRED TO TIE THE NEW CIRCUITS INTO EXISTING CIRCUITS. CONTRACTOR SHALL USE APPROPRIATE CAUTION WHEN INTERCEPTING EXISTING CIRCUITS.
24. LIGHTS NEAR EXISTING OVERHEAD TRANSMISSION LINES MUST MAINTAIN A (13') VERTICAL CLEARANCE AND/OR A (14') HORIZONTAL CLEARANCE FROM CLOSEST PHASE CONDUCTOR. THE LOCAL POWER COMPANY WILL ASSIST IN MEASUREMENT AND DETERMINATION OF CLEARANCE.
25. LIGHTING WILL BE COMPLETED WITH CONSTRUCTION PHASING, REFER TO SHEET 22 THRU 25 OF 52. NEW LIGHTING SHALL BE OPERATIONAL PRIOR TO OPENING ROADWAY TO TRAFFIC.

LIGHTING LEGEND

NEW	EXISTING	ITEM
		LIGHTING STANDARD WITH LUMINAIRE AS INDICATED
		CONDUIT RUN
		PULL BOX
		JUNCTION BOX
		SERVICE POLE WITH SERVICE RISER
		LIGHTING CONTROL CABINET
		HIGHMAST LIGHTING



LAMP TYPES *

H = MERCURY
S = HIGH PRESSURE SODIUM

LIGHTING INCIDENTAL ITEMS

1. ANCHOR BOLTS FOR FOUNDATIONS.
2. GROUND RODS FOR FOUNDATIONS.
3. UNIVERSAL SUPPORT BRACKETS FOR SERVICE RISERS.
4. CONCRETE FOUNDATION FOR LIGHTING CONTROL CABINETS INCLUDING EXCAVATION, BACKFILL, CONCRETE, GROUNDRODS, AND ANCHOR BOLTS.
5. REWIRING OF ANY EXISTING LUMINAIRES TO REMAIN OR BE RESET.
6. TRAINING FOR AND ADJUSTMENTS OF HIGH MAST LIGHTING SYSTEMS.



CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: SAN PEDRO BLVD./CONSTITUTION AVE.
INTERSECTION RECONSTRUCTION
ROADWAY LIGHTING NOTES, LEGEND & INCIDENTAL ITEMS

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of
667791	J-18	45	52

Time: 15:39:48
Drawing File: K:\Projects\37798\030\37798F15.dwg

LIGHTING QUANTITIES (Estimated)				
NUMBER	ITEM	UNIT	SAN PEDRO CONSTITUTION	USE
0421.025	LIGHTING CONTROL CABINET, SIX CIRCUIT, METERED, C.I.P.	EA	1	1
0421.115	LIGHTING CONTROL CABINET, REMOVE & SALVAGE, COMPL.	EA	1	1
0422.030	STREET LIGHT STANDARD, SINGLE ARM, 30' (TYPE V, DAVIT), C.I.P.	EA	5	5
0422.130	STREET LIGHT STANDARD, ANY SIZE, REMOVE & SALVAGE, COMPL.	EA	5	5
0423.020	LUMINAIRE FOUNDATION FOR LUMINAIRE HEIGHT OF 40' OR LESS, C.I.P.	EA	5	5
0424.005	ELECTRICAL CONDUIT, 2" INCL. TRENCHING, BACKFILL, PATCHING, PUSHING, BORING, & JACKING, C.I.P.	LF	1295	1325
0425.001	ELECTRICAL PULL BOX, (STANDARD) C.I.P.	EA	4	4
0426.001	SINGLE CONDUCTOR #2, C.I.P.	LF	2722	2800
0426.004	SINGLE CONDUCTOR #8, C.I.P.	LF	148	175
0432.001	ROADWAY LUMINAIRE, TYPE 250S, C.I.P.	EA	9	9
0432.101	ROADWAY LUMINAIRE, ANY TYPE, REMOVE & SALVAGE, COMPL.	EA	6	6



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION ROADWAY LIGHTING ESTIMATED QUANTITIES			
Design Review Committee	City Engineer Approval	Mo./Day/Yr.	
		Mo./Day/Yr.	
		Mo./Day/Yr.	
		Mo./Day/Yr.	
City Project No.	Zone Map No.	Sheet	Of
667791	J-18	46	52

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
		FIELD NOTES		ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection NM Central Zone, NAD 27/NGVD 29, in feet X=402236.69, Y=1489851.27, EL=5258.64		CONTRACTOR	
NO.	DATE	BY	DATE	INSPECTOR'S		DATE	DATE
				FIELD VERIFICATION BY		DATE	DATE
				CORRECTED BY		DATE	DATE
REMARKS		REVISIONS		MICRO-FILM INFORMATION		RECORDED BY	
DESIGN				ACS Brass tablet stamped "1-J18 1981" set in curb at Constitution Ave. & Modiera Dr Intersection NM Central Zone, NAD 27/NGVD 29, in feet X=399917.88, Y=1489869.09, EL=5229.93		NO.	
DESIGNED BY	CFS	DATE	9/2001				
DRAWN BY	CFS	DATE	9/2001				
CHECKED BY	DHW	DATE	11/2001				

Time: 18:19:24
Date: 6/7/2001 CFS
Drawing File: K:\Projects\37798\030\37798F16.dwg

ABBREVIATIONS

PB# PULL BOX NUMBER

NOTES

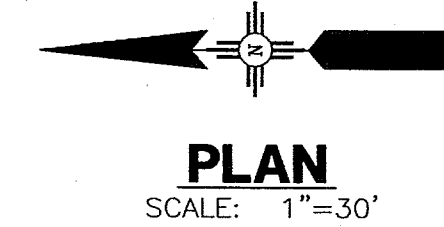
1. PULL BOXES 1-4 ARE STANDARD SIZE.

LEGEND

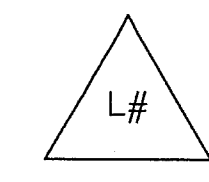
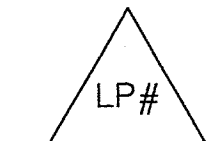
-  NEW LUMINAIRE, POLE & FOUNDATION
-  NEW LUMINAIRE MOUNTED ON TYPE III POLE
-  NEW LIGHTING CONTROL CABINET (6 CIRCUIT)
-  2" CONDUIT w/ 2-SCC #2
-  2" CONDUIT w/ 2-SCC #8
-  2" CONDUIT w/ 3-SCC #2
-  REMOVE & SALVAGE EX. LUM & POLE

LUMINAIRE FOUNDATION LOCATION DATA

LUM ID #	TYPE	STATION	OFFSET
1	TYPE III - 40' MH	13+41.04	46.79' LT
2	TYPE V - DIRECT ANCHOR BASE	12+21.57	47.73' RT
3	TYPE III - 40' MH	13+61.59	48.77' RT
4	TYPE III - 40' MH	14+35.49	46.64' RT
5	TYPE III - 40' MH	14+16.11	50.38' LT
6	TYPE V - DIRECT ANCHOR BASE	14+88.66	36.09' RT
7	TYPE V - DIRECT ANCHOR BASE	16+18.47	35.75' RT
8	TYPE V - DIRECT ANCHOR BASE	17+45.62	35.75' RT
9	TYPE V - DIRECT ANCHOR BASE	18+77.11	35.75' RT



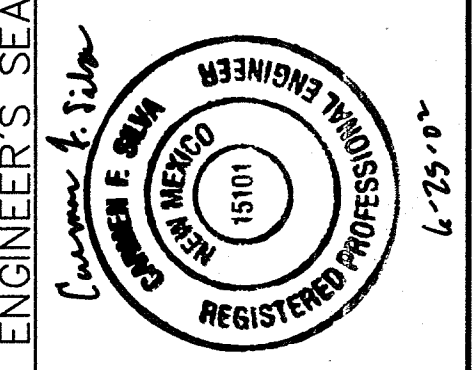
SYMBOL KEY

-  L# CONDUIT RUN ID (LIGHTING)
-  LP# CONDUIT RUN ID (POWER SERVICE)



CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE.
INTERSECTION RECONSTRUCTION

LIGHTING PLAN		Ms./Dy./Yr.	
Design Review Committee	City Engineer Approval		
City Project No.	Zone Map No.	Sheet	Of
667791	J-18	47	52

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
		FIELD NOTES		ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection		CONTRACTOR	
REMARKS		NO.		DATE		DATE	
DESIGN		BY		DATE		DATE	
DESIGNED BY CFS		DATE 9/2001		DATE		DATE	
DRAWN BY CFS		DATE 9/2001		DATE		DATE	
CHECKED BY DHW		DATE 11/2001		DATE		DATE	

Time: 15:11:28
Date: 6/7/2002 CFS
Drawing File: K:\Projects\37798\030\37798R17.dwg

CONDUIT AND CONDUCTOR REQUIREMENTS									
CONDUIT LENGTH, SIZE, AND TYPE					CONDUIT FILL BY CONTRACTOR LENGTH AND TYPE				
RUN ID ▲	SIZE/LENGTH			TYPE	REMARKS	SCC #2 (# @ FT)	SCC #4 (# @ FT)	SCC #8 (# @ FT)	
	1"	2"	3"						
S1		10		REC	RISER TO METER	3@16	0	0	
S2		66		REC	METER TO CONTROLLER	3@72	0	0	
1		79		REC	CONTROLLER TO PB1	0	4@85	0	
2		14		REC	PB1 TO LUM1	0	0	2@20	
3		86		REC	PB1 TO PB2	0	4@92	0	
4		118		REC	PB2 TO LUM2	0	2@124	0	
5		13		REC	PB2 TO LUM3	0	0	2@19	
6		97		REC	PB2 TO PB3	0	2@103	0	
7		11		REC	PB3 TO LUM4	0	0	2@17	
8		88		REC	PB3 TO PB4	0	2@94	0	
9		12		REC	PB4 TO LUM5	0	0	2@18	
10		51		REC	PB4 TO LUM6	0	2@57	0	
11		132		REC	LUM6 TO LUM7	0	2@138	0	
12		122		REC	LUM7 TO LUM8	0	2@128	0	
13		132		REC	LUM8 TO LUM9	0	2@138	0	
14		264		REC	LUM9 TO RECONNECT*	0	2@270	0	
TOTAL		1295				264	2812	148	

*ESTIMATED CONDUIT FOR RECONNECTION OF EXISTING LIGHTS ALONG EXISTING CIRCUIT.

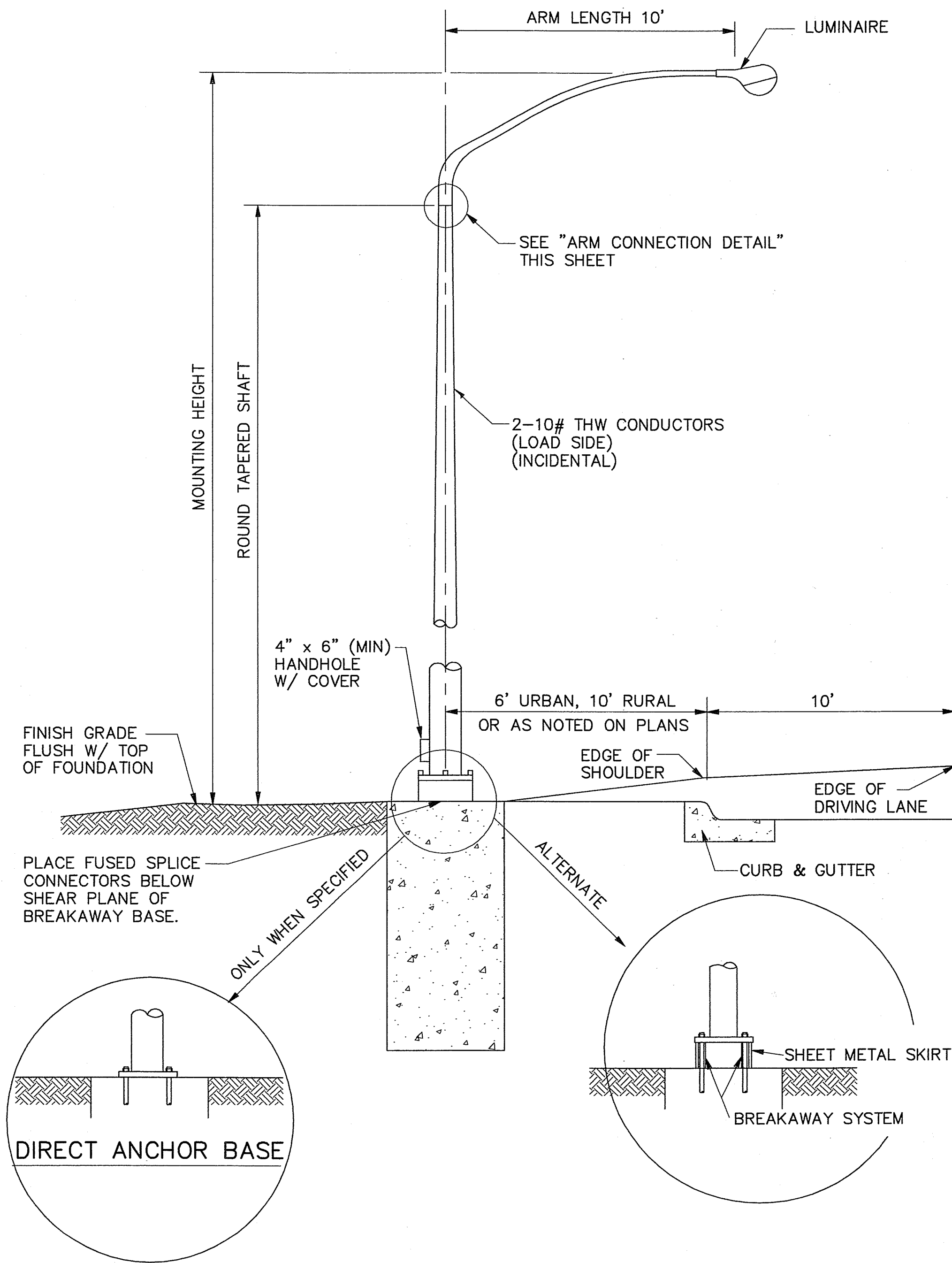
ABBREVIATIONS

LUM LUMINAIRE
SCC SINGLE CONDUCTOR CABLE
PB PULL BOX



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION ROADWAY LIGHTING CABLES & CONDUITS			
Design Committee	Review	City Engineer Approval	Approval
City Project No. 667791		Zone Map No. J-18	Sheet 48 Of 52

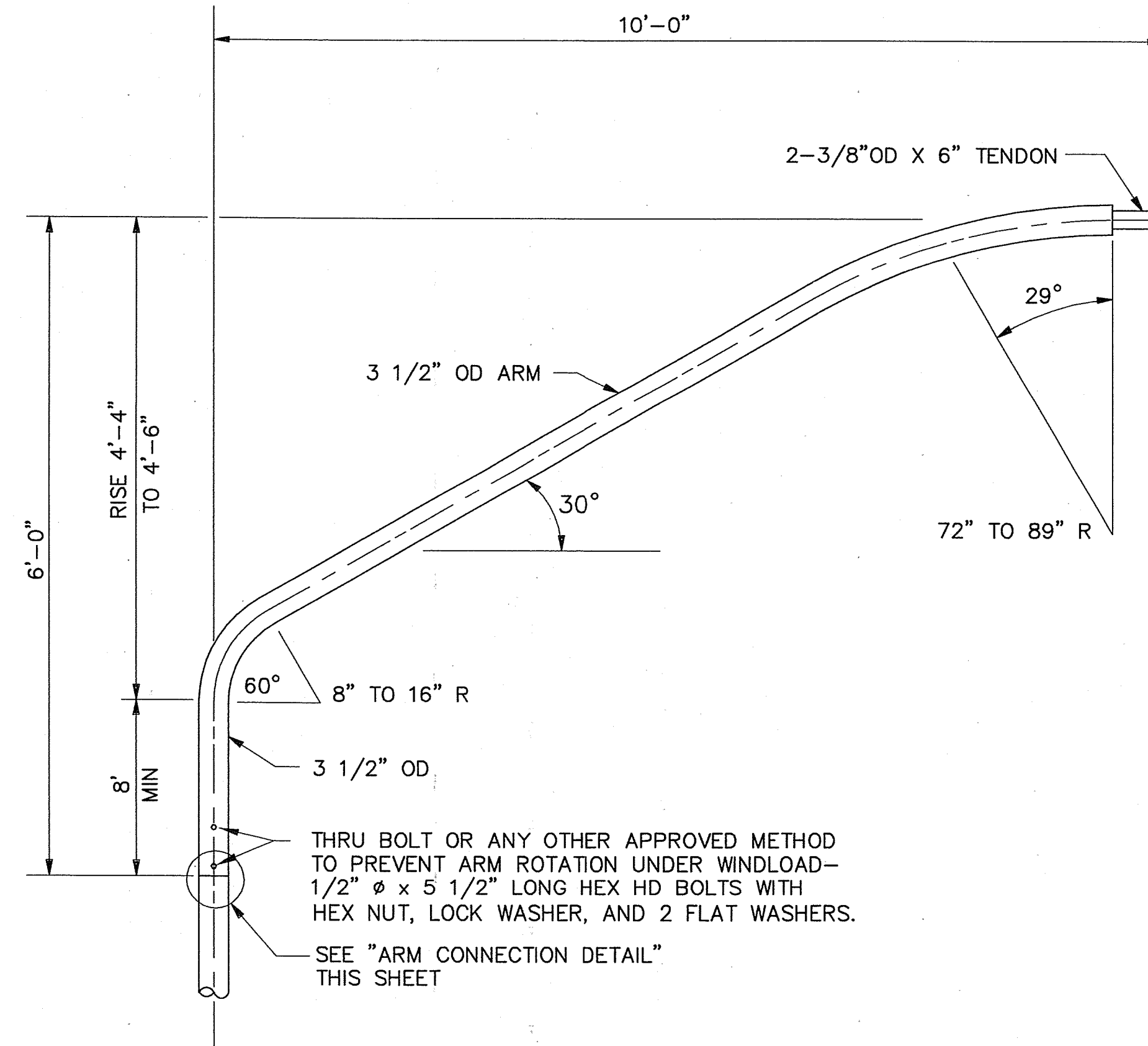
ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
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NO. DATE		BY		INSPECTOR'S		DATE	
REMARKS		REVISIONS		FIELD		DATE	
DESIGN		DATE 9/2001		CORRECTED BY		DATE	
DRAWN BY CFS		DATE 9/2001		MICRO-FILM INFORMATION		RECORDED BY	
CHECKED BY DHW		DATE 11/2001		at Constitution Ave. & Madiera Dr Intersection NM Central Zone, NAD 27/NGVD 29, in feet X=399917.88, Y=1489869.09, EL=5229.93		NO.	



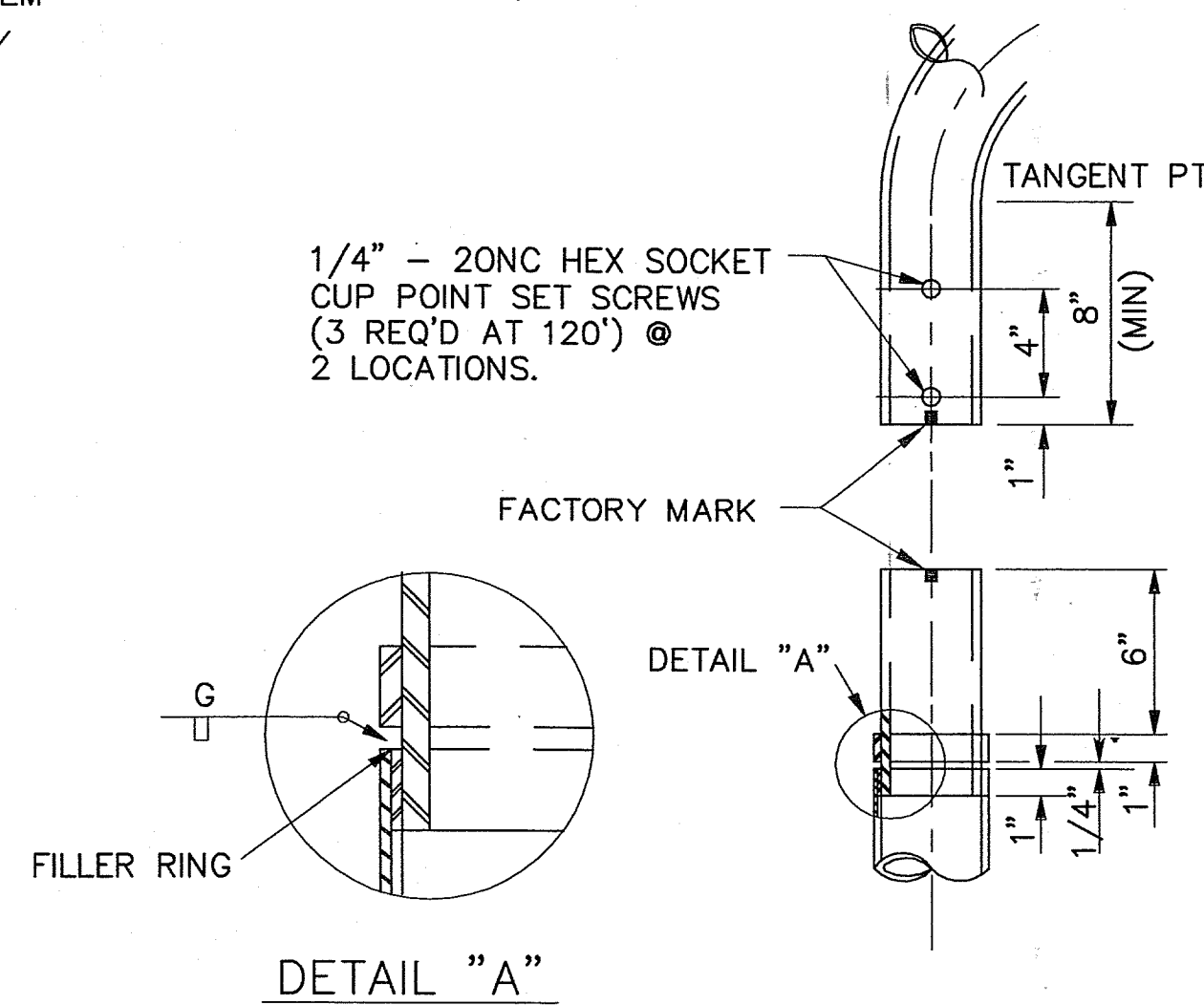
TYPE "V" STANDARD INSTALLATION

NOTES

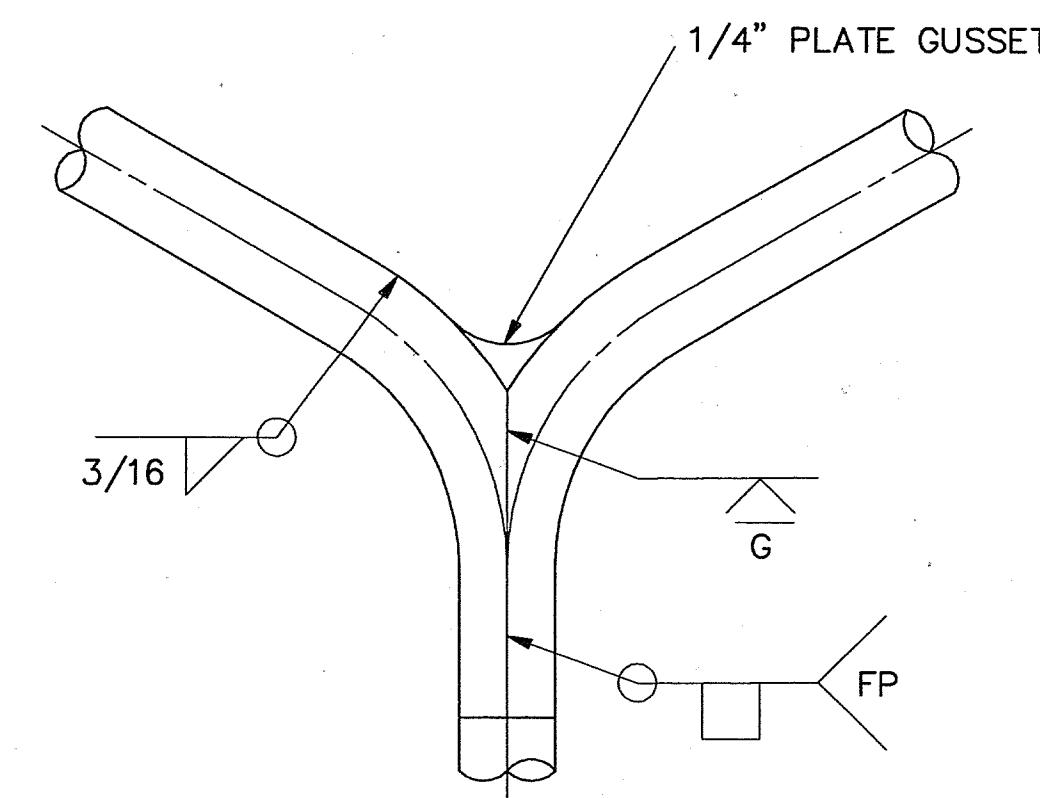
- MASTARM SHALL BE DAVIT STYLE. DIMENSIONS SHALL BE AS NOTED. ARM SHALL BE ATTACHED ON A SHAFT TENON AS DETAILED. SHAFT SHALL BE A ROUND TAPERED TUBE.
- NUTS, BOLTS OR FASTENERS SHALL COMPLY WITH ASTM A-307 OR AASHTO M-314 GRADE 55 AND BE ZINC PLATED, ASTM A-153 OR CADMIUM PLATED, ASTM A-165.
- BOLT GASKET SHALL BE 22 GAUGE STAINLESS STEEL SHEET OF 18-8 SERIES (301, 302, 303, 304).
- GROUTING SHALL BE IN ACCORDANCE TO SECTION 617 OF THE STANDARD SPECIFICATIONS.
- ACCEPTABLE TYPE V LIGHTING STANDARDS ARE VALMONT, HAPCO ALUMINUM, AND UNION METAL.
- DETAILS SHOWN ARE FOR STEEL POLES. PRE-APPROVED ALUMINUM POLES MAY BE USED.



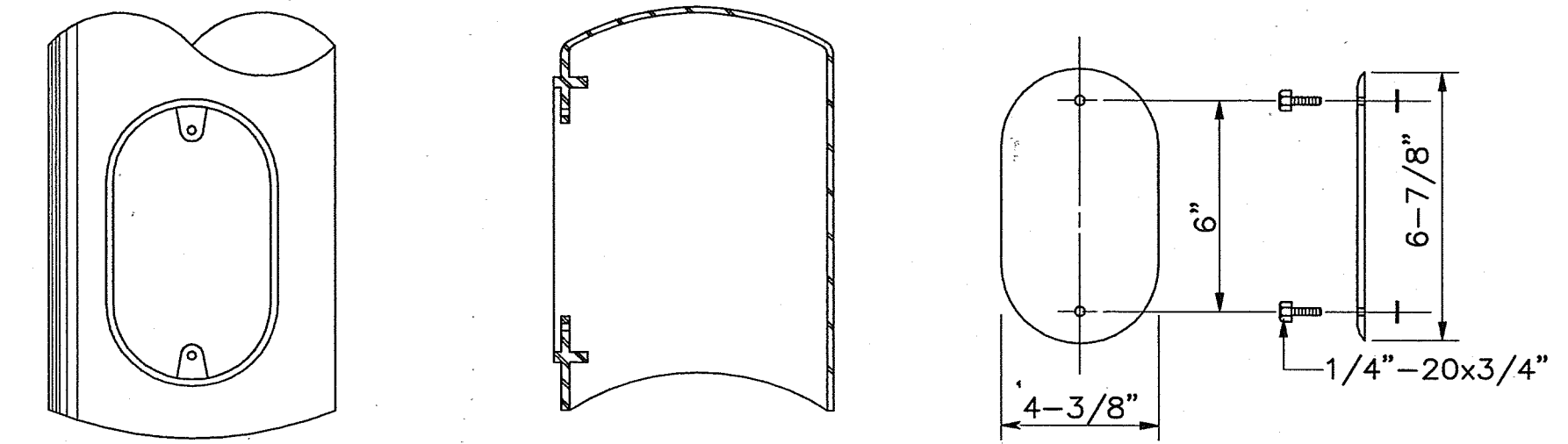
ARM DETAIL



ARM CONNECTION DETAIL



DOUBLE ARM CONNECTION DETAIL



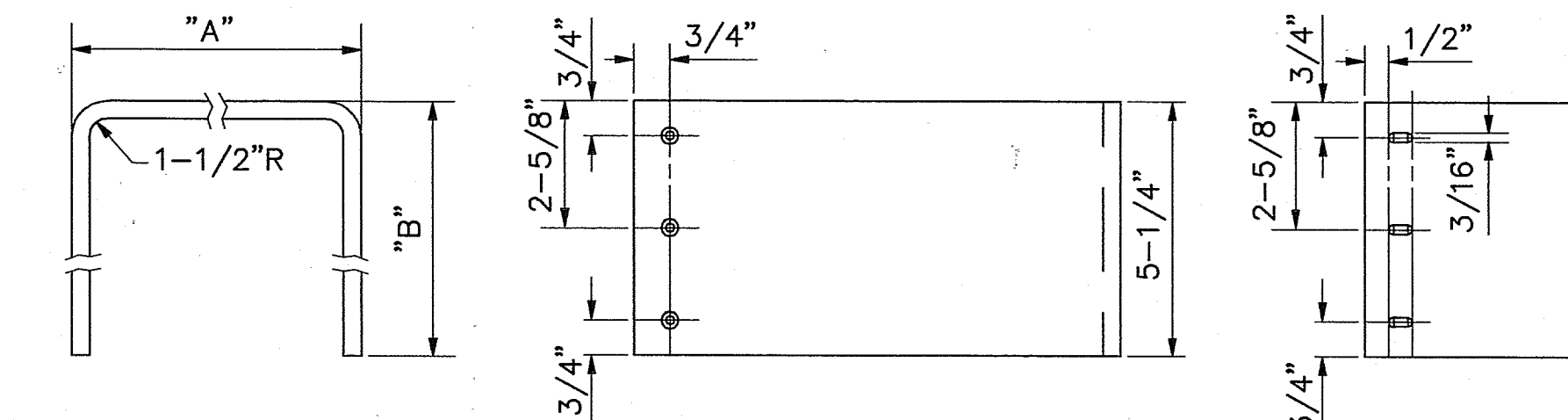
HANDHOLE REINFORCEMENT SHALL BE EITHER FORGED FROM STEEL CONFORMING TO ASTM A-576, GRADE 1021, OR FABRICATED FROM 3/16" WALL TUBING CONFORMING ASTM A-39; OR CAST FROM STEEL CONFORMING TO ASTM A-27, GRADE 65-35, OR FABRICATED WITH 6" STANDARD BLACK PIPE (0-0.280" WALL) ASTM A-53 GRADE B.

REINFORCEMENT SHALL BE WELDED TO THE POLE SHAFT IN THE 90 DEGREE LOCATION, PRIOR TO GALVANIZING POLE SHAFT. COVER SHALL BE FABRICATED FROM 3/16" SHEET STEEL OR ALUMINUM. STEEL COVER IS GALVANIZED ACCORDING TO ASTM A-153. COVER SHALL BE EQUIPPED WITH TWO (2) AISI 304 STAINLESS STEEL 1/4" - 20 x 3/4" HEX CAP SCREW AND TWO (2) CAPTIVE WASHERS.

PROVISION FOR INTERNAL GROUNDING SHALL BE PROVIDED BY A TAPPED HOLE.

HANDHOLE REINFORCEMENT SHALL STRENGTHEN POLE SHAFT SECTION TO THAT OF A SHAFT FABRICATED WITHOUT A HANDHOLE.

HANDHOLE DETAILS



SPECIFICATION:

SKIRT COVER SHALL BE FABRICATED FROM 1/16" SHEET ALUMINUM ALLOY 3003H14. SCREWS ARE SELF TAPPING #10 x 5/8" STAINLESS STEEL. WHEN COUPLINGS ARE SPECIFIED, EACH LIGHT POLE WILL BE FURNISHED WITH TWO (2) SKIRT COVER SECTIONS AND SIX (6) SCREWS.

INTENDED USE:

THE SKIRT COVER IS USED TO ENCLOSE VOID UNDER POLES WITH BREAKAWAY SUPPORT COUPLINGS.

SKIRT COVER DETAILS

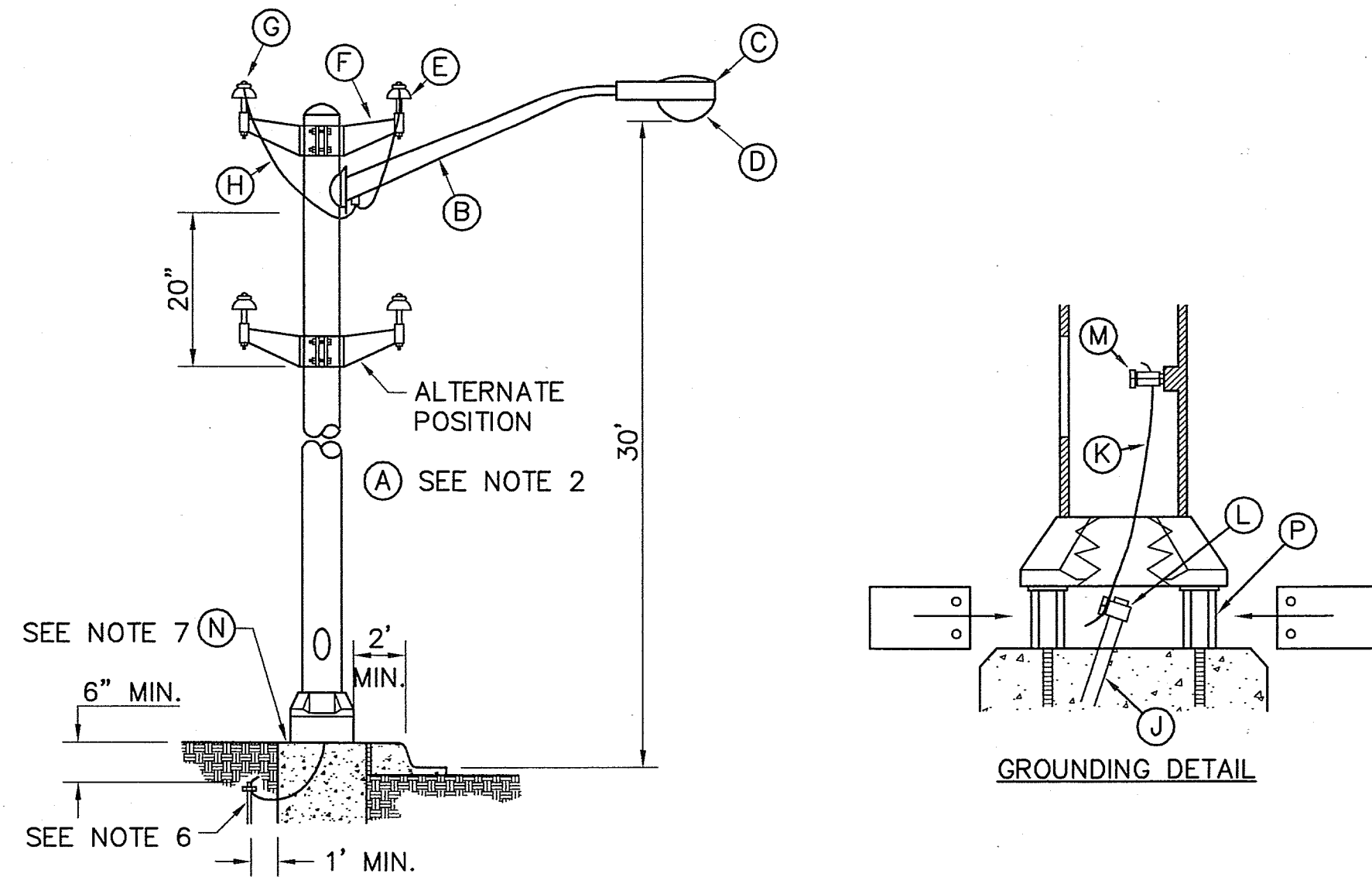


CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE.
INTERSECTION RECONSTRUCTION
ROADWAY LIGHTING TYPE "V" STANDARD

Design Review Committee	City Engineer Approval	Ms./Day/Yr.	Ms./Day/Yr.
C.O.A. STD.			
City Project No. 667791	Zone Map No. J-18	Sheet 49	Of 52

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
NO.	DATE	NO.	DATE	CONTRACTOR	DATE	CONTRACTOR	DATE
				ACS Brass tablet stamped "2-J18 1981" set flush at San Pedro Blvd. & Constitution Ave. Intersection		CONTRACTOR	
				NM Central Zone, NAD 27/NGVD 29, in feet		INSPECTED BY	
				X=402236.69, Y=1489851.27, EL=5258.64		FIELD BY	
						VERIFICATION BY	
						REVISIONS	
						DESIGN	
						NO. DATE	
						REMARKS	
						BY	
						DESIGNED BY	
						CFS	DATE 9/2001
						DRAWN BY	
						CFS	DATE 9/2001
						CHECKED BY	
						DHW	DATE 11/2001

C.O.A. STD.



240/480V OVERHEAD FED ARTERIAL STREETLIGHT

MATERIAL LIST			
ITEM	QUANT.	DESCRIPTION	PNM STOCK NO.
A	1	POLE	5680-
B	1	6' ARM	5975-268813
C	1	250W HPS LUMINAIRE	6210-
D	1	250W HPS LAMP	6240-312717
E	2	5KV GRAY PIN INSULATOR	5970-252796
F	1	DOUBLE FEEDER PIN ARM	5975-260224
G	2	#4 LINE TIE	5975-262352
H	16	#8 CU INSUL. BLACK WIRE	6145-000292
J	1	5/8" x 8' GROUND ROD	5975-258368
K	6"	#6 CU WIRE	6145-002496
L	1	5/8" GROUND ROD CLAMP	5935-232784
M	1	ST. LT. POLE GROUNDING PLUG	5935-236942
N	1	ST. LT. FOUNDATION	5975-269233
P	1	BREAKAWAY COUPLER ASSEMBLY POURED-IN-PLACE FOUNDATION	5680-000485 DS-12-14.0

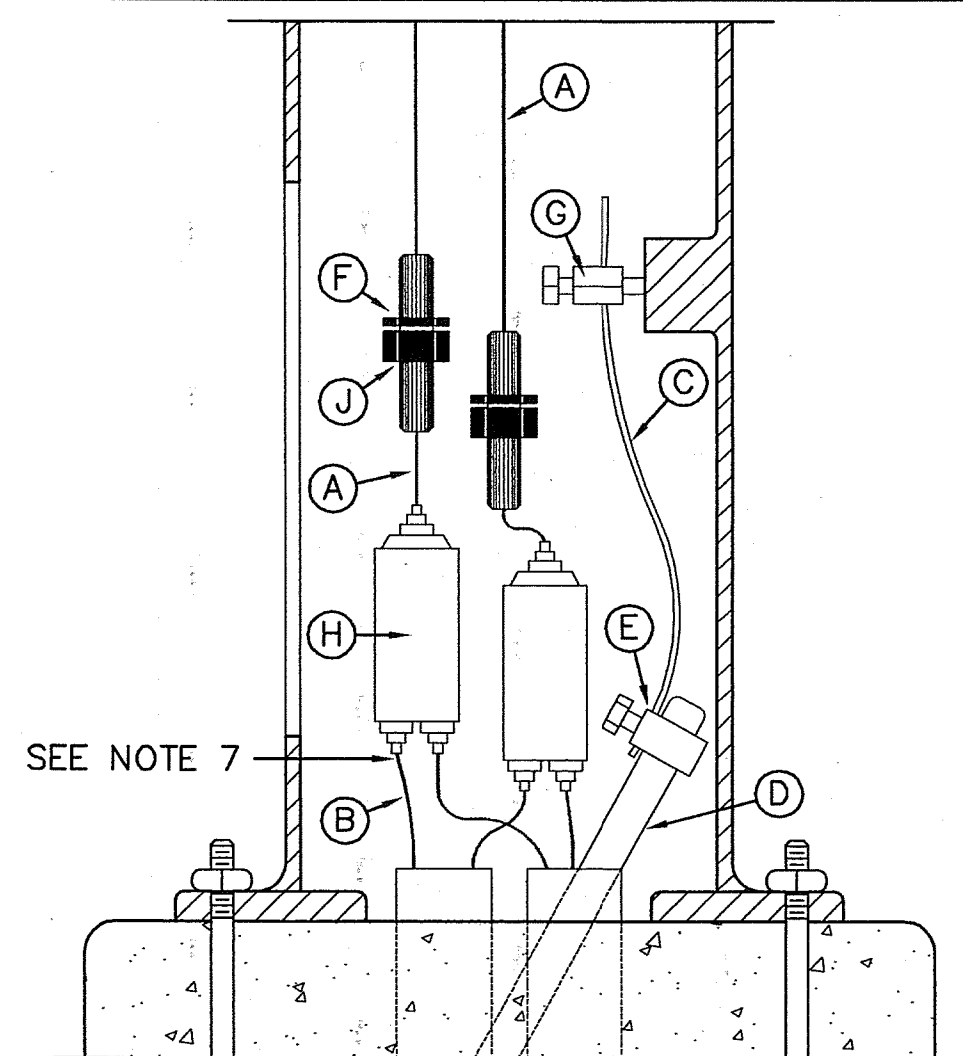
NOTES:

- LEVEL LUMINAIRE IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- POLE MUST BE AT LEAST 4' FROM A FIRE HYDRANT.
- POURED-IN-PLACE FOUNDATION MUST CURE FOR 14 DAYS BEFORE ERECTING POLE.
- NESC RULES 215C1, 231.
- INSTALL DRIVEN GROUND ROD IF PRECAST FOUNDATION IS USED.
- CAUTION: PRECAST MAY NOT BE USED FOR ANGLE CHANGE GREATER THAN 5'.
- CAUTION: IF PRECAST FOUNDATION IS USED, EARTH MUST BE COMPACTED IN 6" LIFTS.
- CAUTION: DEADENDS MUST BE GUYED.

P.N.M. REFERENCES

- SEE DS-12-1.0 LAMP AND PHOTO-CONTROL IDENTIFICATION CODING
- SEE DS-12-14.0 FOUNDATION DETAIL-ARTERIAL STREETLIGHT
- SEE DS-18-20.1 GROUND ASSEMBLY

NOTE: ALL ITEMS EXCEPT FOUNDATION AND LUMINAIRE ARE INCLUDED IN PRICE FOR ITEM 0422.030 - STREETLIGHT STANDARD.



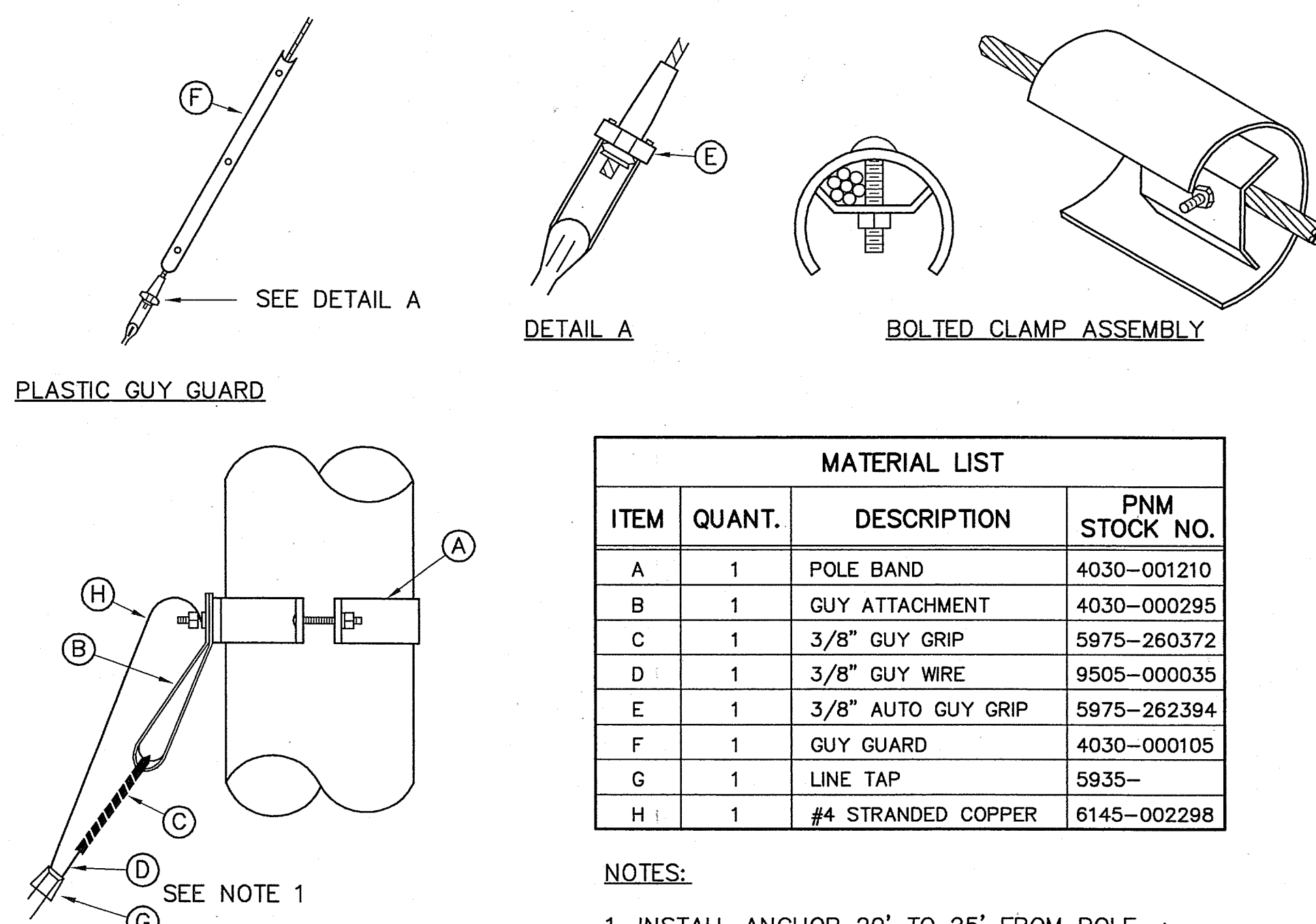
GROUNDING DETAIL FOR UNDERGROUND FED STREETLIGHT

NOTES:

- LEVEL LUMINAIRE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- WHEN SYSTEM NEUTRAL IS AVAILABLE, GROUND TO POLE.
- MAY BE REDUCED IF NECESSARY, BUT NOT LESS THAN 6".
- POLE MUST BE AT LEAST 4 FEET FROM A FIRE HYDRANT.
- POURED-IN-PLACE FOUNDATION MUST CURE FOR 14 DAYS BEFORE ERECTING POLE.
- 1984 NESC.: RULES 231, 314 B
- LEAVE 18" TO 24" TAIL FROM EDGE OF CONDUIT STUBOUT.

MATERIAL LIST			
ITEM	QUANT.	DESCRIPTION	PNM STOCK NO.
A	-	600 V 2/C #10 UF CU CABLE QR	6145-000326
B	-	600 V #2 ALUMINUM CABLE	6145-001894
C	1	#6 CU WIRE	6145-002496
D	1	5/8" X 8' CU GROUND ROD	5975-258368
E	1	5/8" GROUND ROD CLAMP	5935-232784
F	2	FUSEHOLDER	5920-231437
G	1	STREETLIGHT POLE GROUNDING LUG	5935-236942
H	2	3 WAY STREET LIGHT CONNECTORS	5935-238484
J	2	5A LIMITRON FUSE	5920-227625

NOTE: ALL WORK AND MATERIAL INDICATED BY THIS DETAIL WILL BE INCLUDED IN THE PRICE FOR ITEM 0423.20-LUMINAIRE FOUNDATION FOR LUMINAIRE HEIGHT 40' AND LESS.

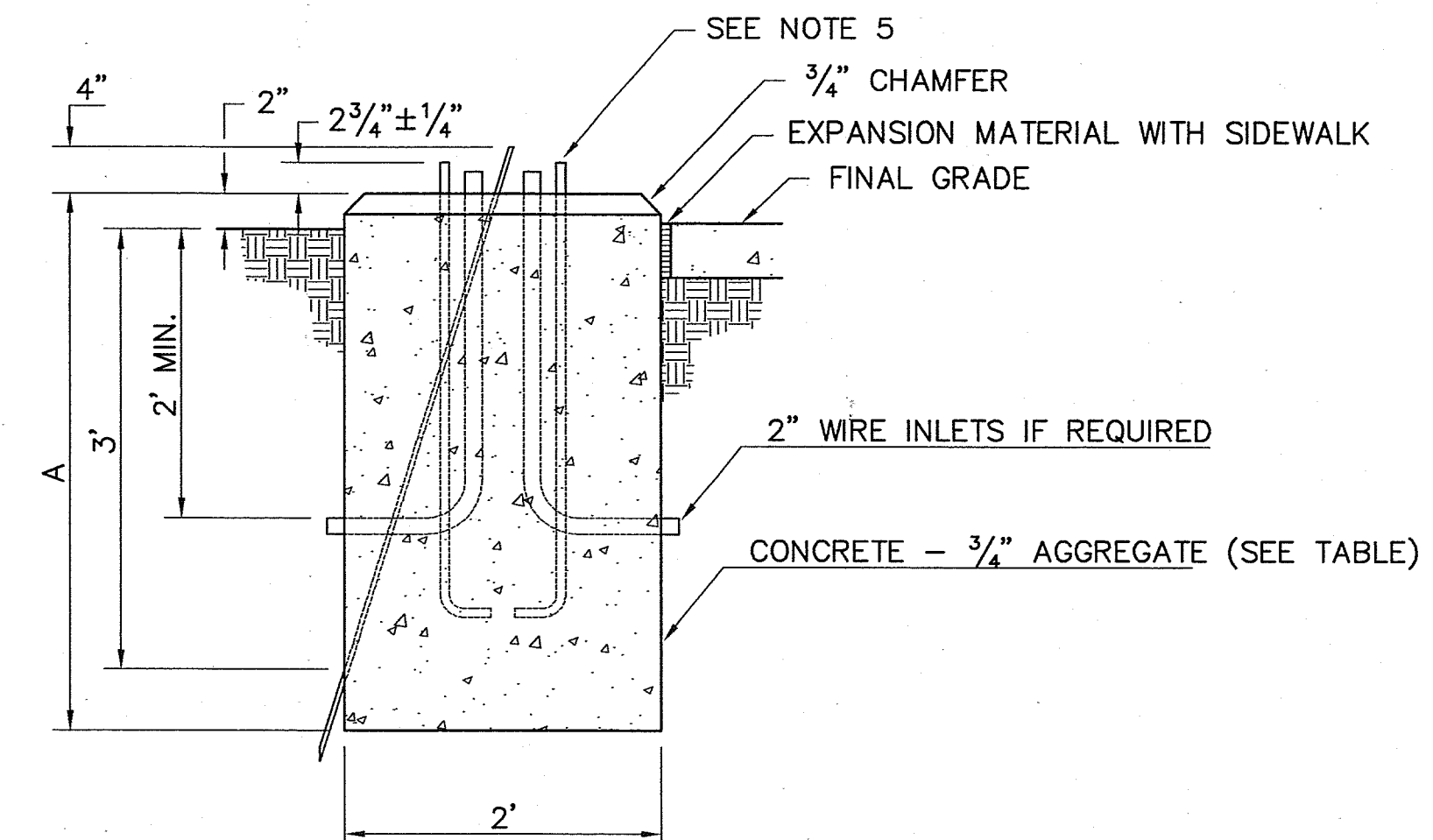
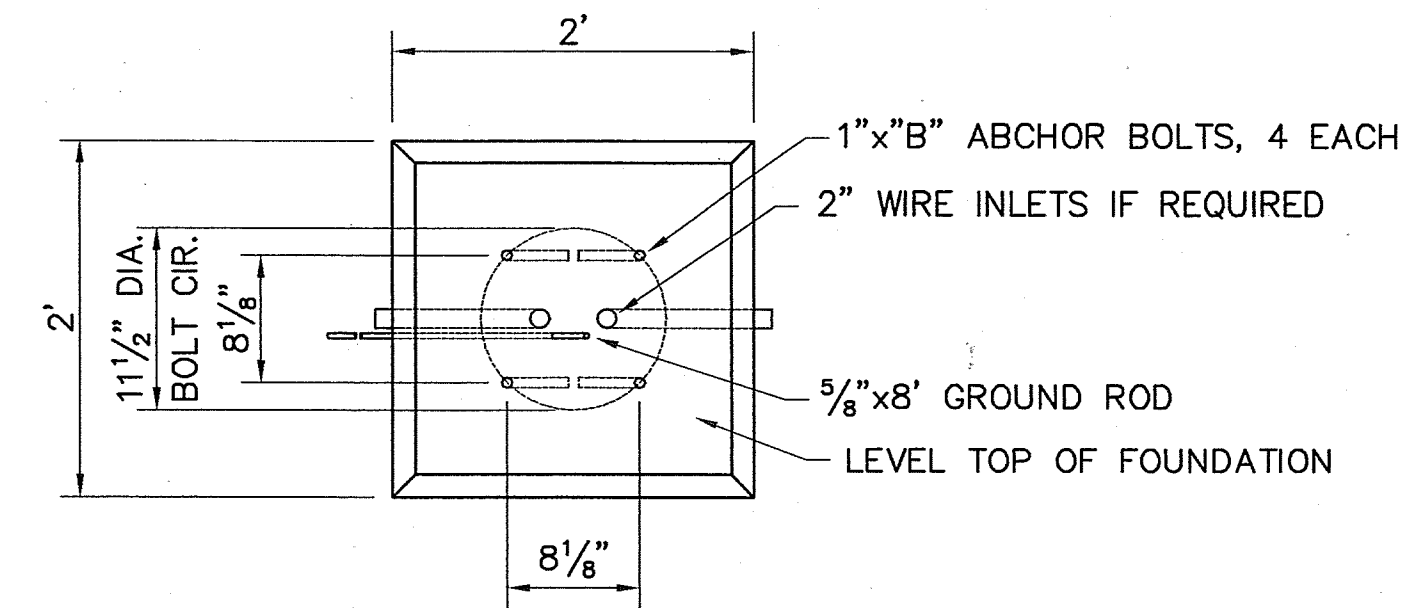


MATERIAL LIST			
ITEM	QUANT.	DESCRIPTION	PNM STOCK NO.
A	1	POLE BAND	4030-001210
B	1	GUY ATTACHMENT	4030-000295
C	1	3/8" GUY GRIP	5975-260372
D	1	3/8" GUY WIRE	9505-000035
E	1	3/8" AUTO GUY GRIP	5975-262394
F	1	GUY GUARD	4030-000105
G	1	LINE TAP	5935-
H	1	#4 STRANDED COPPER	6145-002298

NOTES:

- INSTALL ANCHOR 20' TO 25' FROM POLE. *
- ATTACH DOWN GUY ASSEMBLY TO SCREW ANCHOR PER MANUFACTURER'S INSTRUCTIONS.

DOWN GUY ASSEMBLY ALUMINUM STREETLIGHT POLES



FOUNDATION DETAIL - ARTERIAL STREETLIGHT

NOTES:

- SOIL OUTSIDE OF FOUNDATION DIMENSIONS MUST BE COMPACTED.
- FOR SIDEWALK INSTALLATION: TOP OF FOUNDATION IS FLUSH WITH SIDEWALK AND THERE IS NO CHAMFER.
- USE EXPANSION MATERIAL IN AND AGAINST SIDEWALK INSTALLATION.
- ALLOW A MINIMUM 14 DAYS OF CURING TIME BEFORE ERECTING POLE.
- THE STEEL ANCHOR BOLTS SHALL CONFORM TO THE FOLLOWING SPECIFICATION: STEEL = ASTM A675, GRADE 90, THREADS = 1-8 UNC; THREADED LENGTH=6"; COATING = HOT DIP GALVANIZED ON THREADED END; COATING MUST EXTEND AT LEAST 12".

NOTE: ALL WORK AND MATERIAL INDICATED BY THIS DETAIL WILL BE PAID FOR UNDER ITEM 0423.020-LUMINAIRE FOUNDATION FOR LUMINAIRE HEIGHT 40' AND LESS.

TYPE SERVICE	MOUNTING HEIGHT (FT.)	MAXIMUM NUMBER OF ARMS	MAXIMUM LINE ANGLE CHANGE	A	B	MIN. CONC. STRENGTH AT 28 DAYS (PSI)
OH	30	2	5	3'-6"	3'	3000
	30	2	25	5'-6"	5'	3000
UG	30	2	N/A	3'-6"	3'	3000
	*40	1	N/A	3'-6"	3'	3000
	40	2	N/A	4'-0"	3'	4500

* INCLUDES 40' DAVIT POLE



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: SAN PEDRO BLVD./CONSTITUTION AVE. INTERSECTION RECONSTRUCTION ROADWAY LIGHTING FOUNDATION & BASE DETAILS	
Design Review Committee	City Engineer Approval
C.O.A. STD.	
City Project No. 667791	Zone Map No. J-18
Sheet 50	Of 52



- | | | |
|---|-----|-----------------------------------|
| ① | 1 | 25' TREATED POLE |
| ② | 30' | 2" GALVANIZED CONDUIT |
| ③ | 1 | 2" WEATHER HEAD |
| ④ | 2 | UNIVERSAL SUPPORT BRACKET |
| ⑤ | 2 | 2" PIPE STRAP KIT |
| ⑥ | 1 | COPPERWELD 3/4"x10'-0" GROUND ROD |
| ⑦ | 1 | GROUND ROD CLAMP |
| ⑧ | 1 | GROUND LUG |
| ⑨ | 10' | #6 BARE COPPER GROUND WIRE |
| ⑩ | 1 | 5/8" EYE BOLT |
| | 40' | 1/C #2 THW BLACK |
| | 40' | 1/C #2 THW WHITE |
| | 40' | 1/C #2 THW RED |

* CONDUIT AND WIRE EXTENDING MORE THAN 10' FROM POLE WILL BE MEASURED AND PAID PER ACTUAL FOOTAGE USED.



- ① 1 EXISTING POLE
- ② 40' 2" GALVANIZED CONDUIT
- ③ 1 2" WEATHER HEAD
- ④ 2 UNIVERSAL SUPPORT BRACKET
- ⑤ 2 2" PIPE STRAP KIT
- ⑥ 1 COPPERWELD 3/4"x10'-0" GROUND ROD
- ⑦ 1 GROUND ROD CLAMP
- ⑧ 1 GROUND LUG
- ⑨ 10' #6 BARE COPPER GROUND WIRE
50' 1/C #2 THW BLACK
50' 1/C #2 THW WHITE
50' 1/C #2 THW RED

* CONDUIT AND WIRE EXTENDING MORE THAN 10' FROM POLE WILL BE MEASURED AND PAID PER ACTUAL FOOTAGE USED



MATERIAL LIST

- | | | |
|---|----|----------------------|
| ① | 1 | U BOLT |
| ② | 2 | 5/8" MACHINE BOLTS |
| ③ | 3' | #4 SOLID COPPER WIRE |
| ④ | 2 | 2-1/4" SQUARE WASHER |
| ⑤ | 2 | 5/8" MF LOCKNUT |
| ⑥ | 1 | LINE TAP |
| ⑦ | 1 | SUPPORT BRACKET |
| ⑧ | 1 | GROUNDING LUG |

UNIVERSAL SUPPORT BRACKETS NOTES:

1. BRACKET TO BE FASTENED TO POLE WITH 5/8" GALVANIZED MACHINE BOLTS.
2. BRACKET SUITABLE FOR TWO 2" CONDUITS.
3. TWO HOLE STRAPS ATTACHED AT 30" INTERVALS WITH 2" LAG SCREWS MAY BE USED INSTEAD OF THE SUPPORT BRACKET WHEN THE CONDUIT IS 1" OR LESS. A MAXIMUM OF TWO CONDUITS MAY BE STRAPPED DIRECTLY TO THE POLE.

1. ALL SERVICE DETAILS, MATERIALS, & INSTALLATION SHALL CONFORM TO THE LOCAL POWER COMPANY REQUIREMENTS.
2. CONTACT LOCAL POWER COMPANY CUSTOMER SERVICES FOR POLE QUADRANT FOR RISERS.
3. ALL ABOVE GRADE CONDUIT SHALL BE GALVANIZED.
4. RISER BRACKET ASSEMBLY MUST BE GROUNDED PER LOCAL POWER COMPANY REQUIREMENTS.
5. CONDUIT AND WIRE EXTENDING MORE THAN 10' FROM POLE WILL BE MEASURED AND PAID PER ACTUAL FOOTAGE USED.
6. UNIVERSAL SUPPORT BRACKETS WILL BE CONSIDERED INCIDENTAL TO THE SERVICE RISER.
7. DRILLING HOLES IN EXISTING STEEL POLES FOR UNIVERSAL SUPPORT BRACKETS WILL NOT BE PERMITTED UNLESS OTHERWISE APPROVED BY THE LOCAL POWER COMPANY. BRACKETS SHALL BE MOUNTED ON STEEL POLES WITH STAINLESS STEEL BANDS.

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: SAN PEDRO BLVD./CONSTITUTION AVE.
INTERSECTION RECONSTRUCTION
ROADWAY LIGHTING ELECTRICAL SERVICE DETAILS

Design Review Committee	City Engineer Approval
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City Project No. 667791

ne Map No
J-18

Sheet	Of
51	52

C.O.A. STD