CONSTRUCTION PLANS FOR

LOMAS BOULEVARD / STANFORD DRIVE SIGNAL MODIFICATIONS

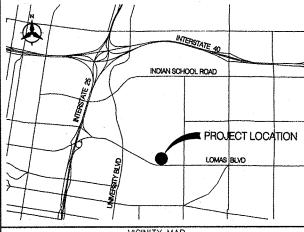
ALBUQUERQUE, NEW MEXICO

INDEX

SHEET NUMBER

DESCRIPTION

- TITLE SHEET
- PROJECT LAYOUT AND SURVEY CONTROL
- TRAFFIC SIGNAL NOTES & LEGEND
- TRAFFIC SIGNAL ESTIMATED QUANTITIES
- TRAFFIC SIGNAL REMOVAL PLAN STANFORD DRIVE / LOMAS BOULEVARD
- EXISTING UTILITY PLAN STANFORD DRIVE / LOMAS BOULEVARD
- TRAFFIC SIGNAL PLAN STANFORD DRIVE / LOMAS BOULEVARD
- CABLES & CONDUITS STANFORD DRIVE / LOMAS BOULEVARD
- CABLES & CONDUITS STANFORD DRIVE / LOMAS BOULEVARD FUNCTIONS & DETECTORS - STANFORD DRIVE / LOMAS BOULEVARD
- INTERCONNECT PLAN 11
- STRIPING PLAN



VICINITY MAP ZONE MAP NO. J-15, J-16

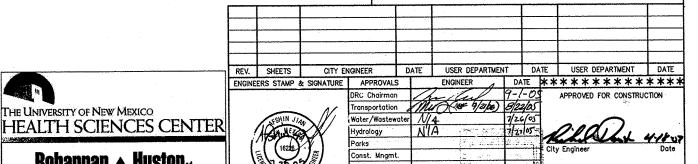
NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY.

- 2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS
- 3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES.
- 4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS, SHOULD A CONFLICT EXIST. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM
- 5. FIVE (5) WORKING DAYS PRIOR TO REGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT 5. FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULED. TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIMSON, CONTRACTOR SHALL NOTIFY THE CONSTRUCTION COORDINATION ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO SECTION 19 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
- 6. ALL WORK EFFECTING ARTERIAL ROADWAYS REQUIRES TWENTY-FOUR HOUR CONSTRUCTION
- 7. ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH PLASTIC REFLECTORIZED PAYEMENT MARKING BY CONTRACTOR TO THE SAME LOCATION AS WAS EXISTING, OR AS INDICATED BY THIS PLAN SET.
- 8. CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE CITY SURVEYOR MAY TAKE NECESSARY MEASURES TO ENSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE CITY SURVEYOR AND SHALL NOTIFY THE CITY SURVEYOR AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISTED ELEVATIONS OF THE PAYMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY ONLY MONUMENT IS LOCATED, CONTRACTOR SHALL AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
- 9. CONTRACTOR SHALL RECORD DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY THE CITY OF ALBUQUERQUE FOR THE PREPARATION OF "AS CONSTRUCTED" DRAWINGS. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED.
- 10. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY GRAFFITI FROM ALL EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
- 11. CONTRACTOR SHALL COORDINATE WITH THE CITY OF ALBUQUERQUE WATER UTILITY DIVISION (S57-8200) SEVEN (7) WORKING DATS IN ADVANCE OF ANY WORK THAT MAY AFFECT EXISTING PUBLIC WATER OR SEWER UTILITIES. EXISTING VALVES TO BE OFERATED BY CITY PERSONNEL ONLY. CONTRACTOR SHALL CONTACT THE WATER SYSTEMS DIVISION SEVEN (7) WORKING DAYS PRIOR TO NEEDING VALVES TURNED ON OR OFF.

THE FOLLOWING NOTES ALSO APPLY WHEN CHECKED

- X ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAYING.
- X BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE.
- TACK COAT REQUIREMENTS SHALL BE DETERMINED BY THE ENGINEER.
- SIDEWALKS AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHEREVER A NEW CURB RETURN IS CONSTRUCTED. $\hfill \Box$ if curb is depressed for a drivepad, the drivepad shall be constructed prior to acceptance of curb and gutter.
- ALL STORM DRAINAGE FACILITIES SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE.
- [X] THE REQUESTOR OR DEVELOPER SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ALL CURB AND GUTTER OR SIDEWALK DAMAGED AFTER APPROVAL BY THE CITY FAMILIES OF WHOM CURB AND GUTTER OR SIDEWALK DAMAGED AFTER APPROVAL BY THE CITY ENGINEER OF WORK COMPLETED BY THE CONTRACTOR.



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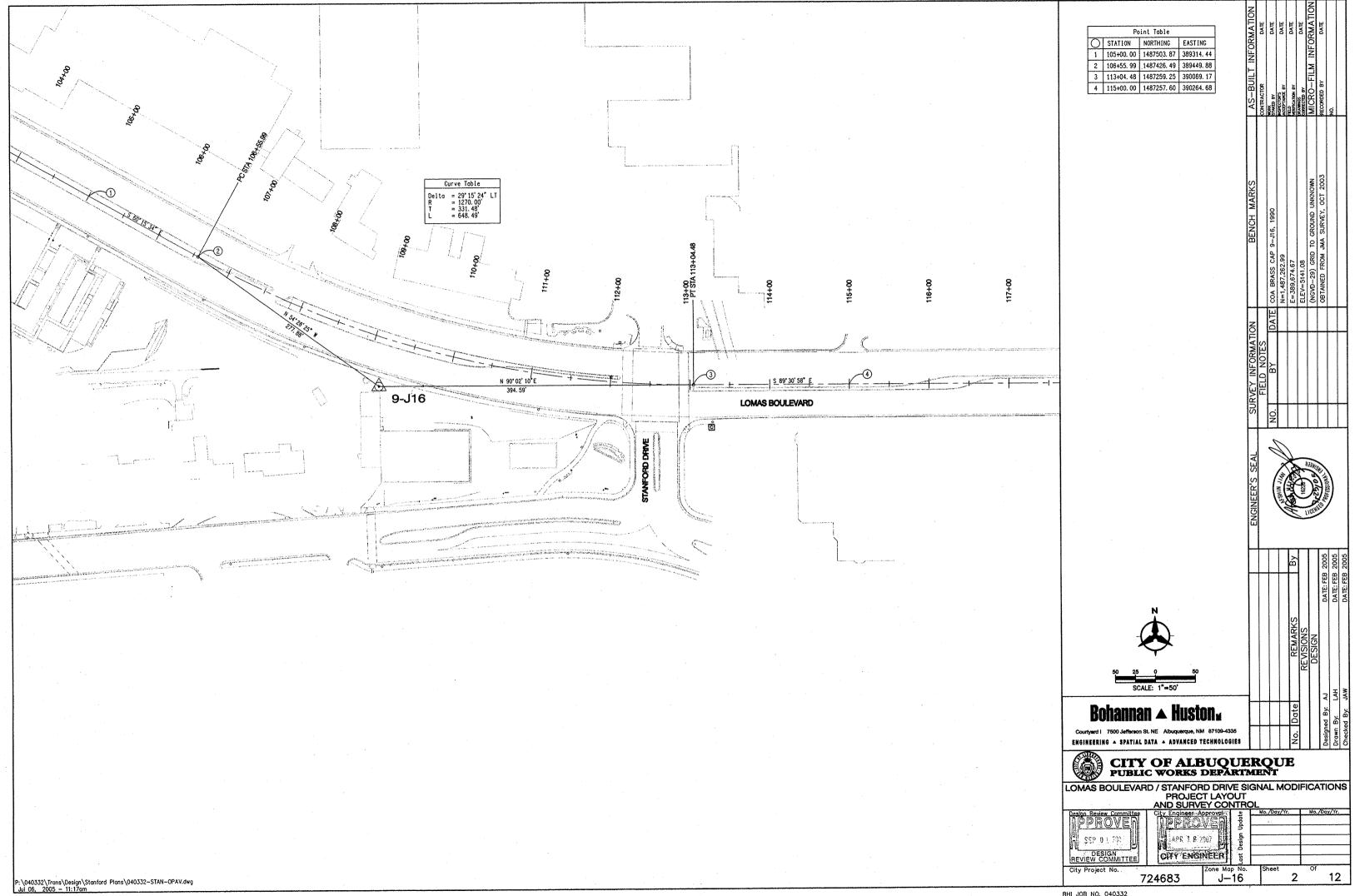
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THE UNIVERSITY OF NEW MEXICO

ENGINEERING A SPATIAL DATA A ADVANCED TECHNOLOGIES

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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 FINGINFFRING OPERATIONS THIRD DRAFT SPECIFICATIONS (JUNE 1994).
- 2. LOCATIONS OF CONDUITS, FOUNDATIONS, METER PEDESTALS, 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 CITYS 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 CARLE 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
- 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 MODEO DETECTION COADIAL 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 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 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
- 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 DISCONNECTED AT THE LARGE PULL BOX ADJACENT TO THE POLE.
- 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
- 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
- 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 PILLBOXES 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 SPLICE BARS, INC. COLORS
 SHALL BE COLED:
 12 PAIR - 50 FT.
 25 PAIR - 50 FT.

50 PAIR - 25 FT. 75 PAIR - 25 FT.

- 18. THE CONTRACTOR SHALL PROVIDE OFF-DUTY POLICE OFFICERS TO 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 ALL DATA SHOWN HICH 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
- 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 FRAFFIC 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.
- 21. THE CONTRACTOR SHALL PROVIDE TEMPORARY TRAFFIC CONTROL DEVICES DURING CONSTRUCTION. REFER TO COA STANDARD DRAWINGS 2801, 2802, 2803, 2804, 2806, AND 2808 FOR APPLICABLE EXAMPLES OF TRAFFIC CONTROL. THE CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS & DETAILS FOR APPROVAL TO THE CITY TWO WEEKS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROVIDE ANY TEMPORARY SIGNAL SET-UPS DURING CONSTRUCTION TO ENSURE THE SIGNAL REMAINS OPERATIONAL UNTIL ALL RELOCATIONS TO PERMANENT CONDITIONS ARE COMPLETED.
- 22. THE FOLLOWING CITY OF ALBUQUERQUE STANDARD DRAWINGS SHALL BE USED FOR THIS PROJECT:

2550 TRAFFIC SIGNAL PULL BOX DETAIL

2551 TRAFFIC SIGNAL MANHOLE DETAIL
2555 TRAFFIC SIGNAL CONTROLLER CABINET & PEDESTAL FOUNDATION DETAIL

2555 TRAFFIC SIGNAL CONTROLLER VABINET GROUND MOUNT (LARGE)
2558 TRAFFIC SIGNAL FOUNDATION DETAIL TYPE II & TYPE III STANDARDS
2569 TRAFFIC SIGNAL OPTICAL DETECTOR INSTALLATION DETAILS

2570 TRAFFIC SIGNAL ELECTRICAL SERVICE DETAIL

TRAFFIC SIGNAL EQUIPMENT REQUIREMENTS FOR LOWAS BLVD / STANFORD DR

- THE TRAFFIC CONTROLLER CABINET, CONTROLLER AND EQUIPMENT AT THE INTERSECTION SHALL BE REMOVED AND RELOCATED. EXISTING CONTROLLER FOUNDATION SHALL BE
- ALL SIGNAL INDICATIONS SHALL BE LED.
- 3. ALL PEDESTRIAN SIGNALS SHALL BE LED COUNTDOWN.
- 4 ALL PEDESTRIAN PUSHBUTTONS SHALL BE AS REQUIRED BY COA.
- EMERGENCY VEHICLE PRE-EMPT EQUIPMENT SHALL BE 3M "OPTICOM" MODEL 562 OR LATEST MODEL PHASE SELECTORS MOUNTED ON 3M "OPTICOM" MODEL 560 RACKS. OR DETECTION. PHASE SELECTOR MODULES SHALL BE CAPABLE OF PROVIDING FOUR CHANNELS OF DETECTION. PHASE SELECTOR MODULES SHALL BE CAPABLE OF TWO CHANNELS OF DETECTION FACH OPTICAL DETECTORS SHALL BE 3M "OPTICOM" MODEL 511, ONE(1) DETECTION EACH. OF TICAL DETECTION STATE DE SAM OF TICAL DETECTOR CABLE SHALL BE 3M "OPTICOM" MODEL 138 OR EQUAL. OPTICAL EMITTERS SHALL BE 3M "OPTICOM" MODEL 592 WITH POWER SUPPLY, CABLE, AND SWITCHES, OR APPROVED EQUAL. A MODEL 932 WITH THE STATE ASSIST THE CONTRACTOR IN THE FELD AS WORK PROGRESSES TO COMPLETE THE INSTALLATION OF ALL PRE-EMPTION EQUIPMENT AND ASSIST IN SETTING UP, TURNING ON, PROGRAMMING AND FIELD TESTING PRE-EMPTION EQUIPMENT INCLUDING EMITTERS TO INSURE THAT THE EQUIPMENT IS
- ALL STREET NAME SIGNS ON THE RELOCATED MASTARMS SHALL BE REMOVED AND REINSTALLED ONTO THE NEW MASTARMS. THIS WORK IS INCLUDED IN ITEM 0422.111 TRAFFIC SIGNAL MASTARM, ANY SIZE, REMOVE & RELOCATE, COMPL.
- 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 23 PAIR CABLE (WINDER OF SPICE BLOCKS IN EACH CHAILE OF FINALISE AND INVESTED SPICE BLOCKS SHALL BE BELL SYSTEMS PART #6683-50 OR APPROVED EQUAL. ALL COMMUNICATION CABLE PAIRS SHALL BE TERMINATED AT THE SPLICE BLOCK INCLUDING INACTIVE PAIRS.
- 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.

TRAFFIC SIGNAL LEGEND

NEW	EXISTING	ПЕМ
		PULL BOX
•	σ	SERVICE POLE
M	M	METER PEDESTAL
	C	CONTROLLER CABINET
		CONDUIT RUN (SIGNALS)
		CONDUIT RUN (LIGHTING)
		CONDUIT RUN (INTERCONNECT)
		LOOP DETECTOR
←●	4-0	TRAFFIC SIGNAL PEDESTAL POLE
	\triangle	CONDUIT RUN NUMBER (SIGNAL)
<u>s</u>	Ś	CONDUIT RUN NUMBER (POWER SERVICE)
·	#	TYPE II STANDARD WITH MASTARM, TRAFFIC SIGNAL, BACKPLATE, AND OPTICAL DETECTOR
	\$ TOP	TYPE III STANDARD WITH MASTARM, TRAFFIC SIGNAL, BACKPLATE, OPTICAL DETECTOR, LUNIMAIRE, AND CAMERA
•	•	PEDESTRIAN PUSH BUTTON (MOUNTED TO SIDE OF POLE WHERE INDICATED)
ţ∳	ۂ	PEDESTRIAN SIGNAL (MOUNTED TO SIDE OF POLE WHERE INDICATED)
SC	SC	SPLICE CABINET
•	· Ø	TRAFFIC MANHOLE
	X-0	LIGHTING STANDARD WITH LUMINAIRE AS INDICATED
<u>LC</u>	LC	LIGHTING CONTROL CABINET

DEFINITIONS

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

	AS-BUILT	CONTRACTOR	WORK STAKED BY	MODESTANCE BY	FREED VERBFICATION BY	DRAWNCS CORRECTED BY	MICRO-FILM	RECORDED BY	NO.	
	BENCH MARKS		COA BRASS CAP 9-J16, 1990	N=1,487,262.99	E=389,674.67	ELEV=5141,08	(NGVD-29) GRID TO GROUND UNKNOWN	OBTAINED FROM JMA SURVEY, OCT 2003		
	_	_	DATE COA	Z Z	E=3	ELE	(NG)	081,		_
	SURVEY INFORMATION	FIELD NOTES								
	ENGINEER'S SEAL			AND MESTING	一人の一人の一人の一人の一人の一人の一人の一人の一人の一人の一人の一人の一人の一	16226	SON OF SERVICE	W. A. WILLIAM ST.		
					REMARKS By	REVISIONS	DESIGN	DATE: FEB 2005	S	DATE: FEB 2005
Bohannan ▲ Huston Courtyard 1 7500 Jefferson St. NE. Albuquerque, NM. 87109-4335					Date	REI	30 DE	Designed By: AJ	Drawn By: LAH	Checked By: JAW
CITY OF ALBUQUE PUBLIC WORKS DEPART	SE	RC	<u>]</u>	لا رى	E	L	<u></u>	Des	Dra	င်
LOMAS BOULEVARD / STANFORD DRIVE S	IG	NA	L	MC		IF	C/	λΤΙ	01	IS
TRAFFIC SIGNAL NOTES &	F			ν/γ _ε	-	F	Mo.	/0ay	//Yr.	
City Engines Approved to pool of the committee of the com										

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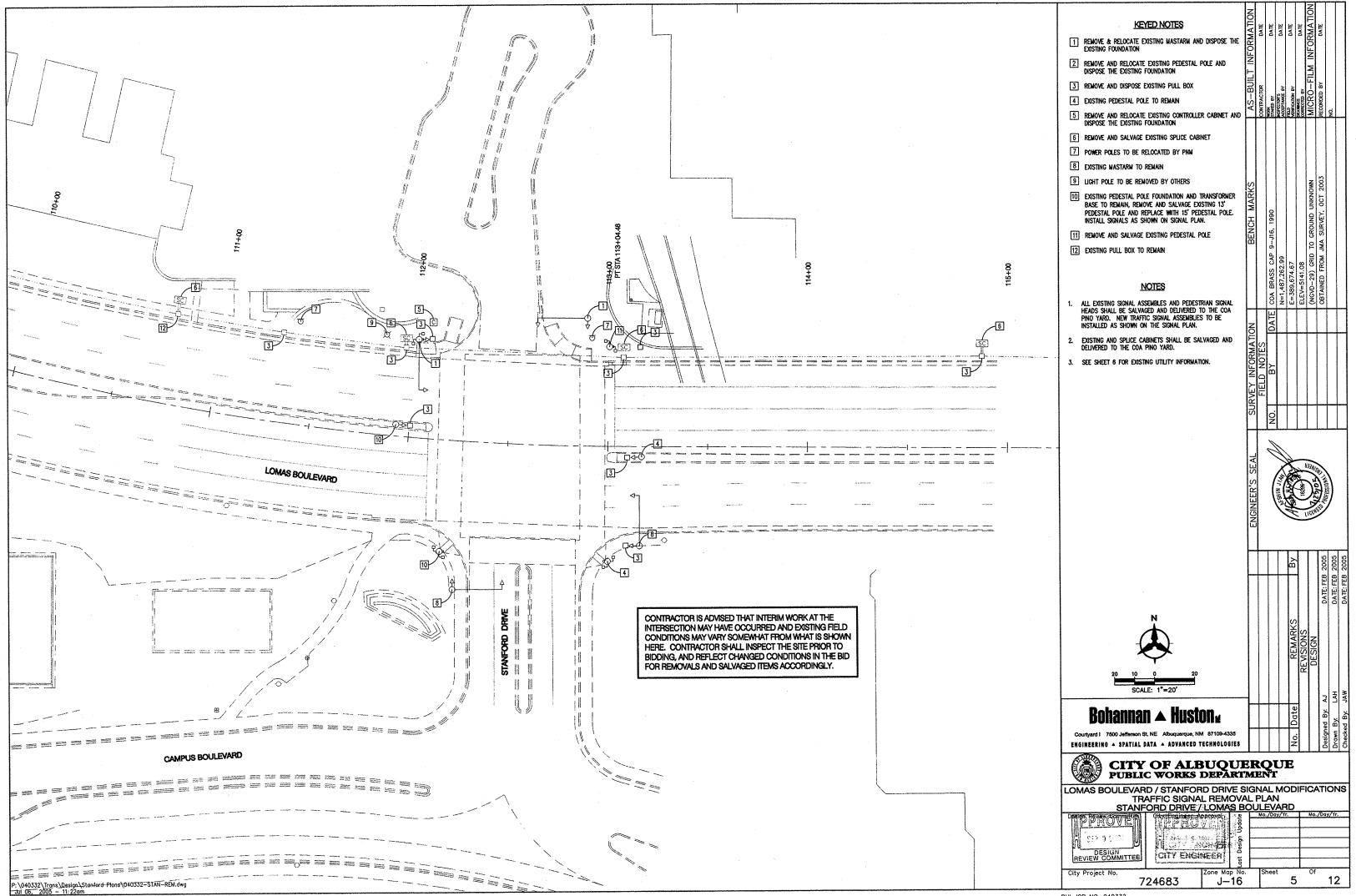
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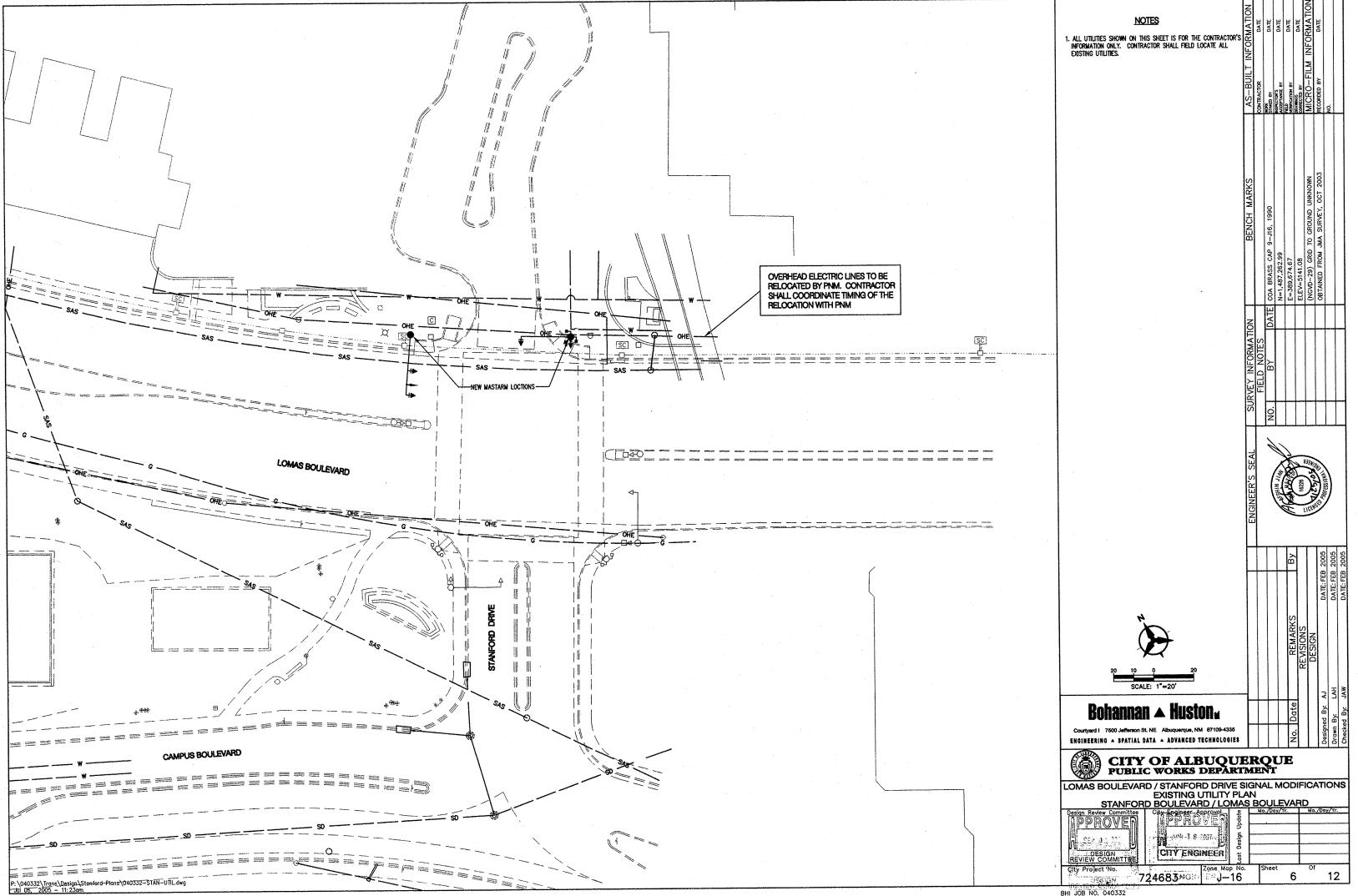
City Project No

	TRAFFIC SIGNAL ESTIMA	ATED QU	ANTITIES		
<u> </u>			STANFOR	D DRIVE	
ITEM NO	ITEM DESCRIPTION	UNIT	TRAFFIC SIGNAL	INTERCONNECT	TOTAL
			~~~~		~~~~
0421.005	SERVICE RISER (SIGNAL), CIP	EACH	1		1
0421. 003	METER PEDESTAL (SIGNAL), CIP	EACH	1		1
		Turun.			
0422. 004	TRAFFIC SIGNAL PEDESTAL POLE, 15 FOOT, CIP	EACH	3		3
0422. 101	TRAFFIC SIGNAL PEDESTAL POLE, REMOVE & SALVAGE, COMPL.	EACH EACH	2		2
0422. 111	TRAFFIC SIGNAL MASTARM, ANY SIZE, REMOVE & RELOCATE, COMPL.	EACH			
0423. 001	TRAFFIC SIGNAL FOUNDATION FOR PEDESTAL POLE, CIP	EACH	1		11
0423. 002	TRAFFIC SIGNAL MASTARM FOUNDATION, CIP	EACH	2		2 1
0423. 003	TRAFFIC CONTROLLER FOUNDATION (TYPE M & P CABINETS), CIP TRAFFIC SIGNAL FOUNDATION FOR SPLICE CABINET, CIP	EACH	<del></del>	2	2
0423. 005	TRAFFIC SIGNAL FOUNDATION FOR SPLICE CABINET, CIF	EACH	2		2
0423, 101	TRAFFIC SIGNAL FOUNDATION FOR PEDESTAL POLE &	EACH	2	-	2
	SPLICE CABINET, REMOVE & DISPOSE				
0423. 103	TRAFFIC CONTROLLER FOUNDATION, REMOVE & DISPOSE, CIP	EACH	1	-	11
0424. 006	ELECTRICAL CONDUIT, 2" INCLUDING TRENCH, BACKFILL,	LIN FT	925	250	1175
	PATCHING, PUSHING, BORING & JACKING, CIP				
0424. 011	ELECTRICAL CONDUIT, 3" INCLUDING TRENCH, BACKFILL,	LIN FT	655	420	1075
	PATCHING, PUSHING, BORING & JACKING, CIP				
0425, 002	ELECTRICAL PULL BOX, (STANDARD), CIP	EACH	2		2
0425. 003	ELECTRICAL PULL BOX, (LARGE), CIP	EACH	9	7	16
0425. 012	SPLICE CABINET, GROUND MOUNT, LARGE, CIP	EACH		2	2
0425. 020	TRAFFIC SIGNAL MANHOLE, CIP	EACH	9	1	9
0425. 101	ELECTRICAL PULL BOX, ANY TYPE, REMOVE AND DISPOSE, COMPL.  SPLICE CABINET, REMOVE & SALVAGE, CIP	EACH EACH	9	3	3
0425. 110	SPLICE CABINET, REMOVE & SALVAGE, CIF	LACIT		, in the second	
0426. 001	SINGLE CONDUCTOR, #2, CIP	LIN FT	675	-	675
0426. 004	SINGLE CONDUCTOR, #8, CIP	LIN FT	625	-	625
0426. 010	MULTI-CONDUCTOR CABLE #5, CIP	LINFT	1925		1925
0426. 011	MULTI-CONDUCTOR CABLE #7, CIP	LIN FT	185 1250		185 1250
0426. 014	MULTI-CONDUCTOR CABLE #20, CIP COMMUNICATION CABLE, 6 PAIR, CIP	LIN FT	- 1230	665	665
0426. 020	COMMUNICATION CABLE, 50 PAIR, CIP	LIN FT	-	1925	1925
0426. 101	EXISTING WIRING, REMOVE & DISPOSE	LS	LS	LS	LS
0.107.000	2 CENTION TOLETTO CICNAL ACCEUDING OID	EACH	11		11
0427. 002	3 SECTION TRAFFIC SIGNAL ASSEMBLY, CIP 5 SECTION TRAFFIC SIGNAL ASSEMBLY, CIP	EACH	5		5
0427. 005 0427. 02X	PEDESTRIAN SIGNAL. LED	EACH	8		8
0427. 021	3 SECTION BACKPLATE, CIP	EACH	6	-	6
0427. 101	TRAFFIC SIGNAL ASSEMBLY, ANY TYPE, REMOVE & SALVAGE, COMPL.	EACH	10		10
0427. 121	PEDESTRIAN SIGNAL, ANY TYPE, REMOVE & SALVAGE, COMPL.		6	<del>-</del>	6
0429 001	LOOP VEHICLE DETECTOR CIP	EACH	2		2
0428. 001	LOOP VEHICLE DETECTOR, CIP PUSH BUTTON STATION, CIP	EACH	8	<del>                                     </del>	8
0428, 011	PUSH BUTTON STATION, REMOVE & SALVAGE, COMPL.	EACH	6	_	6
0428. 021	LOOP DETECTOR WIRE, CIP	LIN FT	602	-	602
0428. 050	LOOP DETECTOR LEAD-IN CABLE, CIP	LINFT	665	-	665
0425. 060	DETECTOR SAWCUT, COMPL.	LIN FT EACH	214		214
0428, 071	PHASE SELECTOR MODULE, 2 CHANNEL, CIP OPTICAL DETECTOR 1D/1C, CIP	EACH	2		2
0428. 078	OPTICAL DETECTOR TOTAL, CIP	LIN FT	455		455
			ļ		1
0429, 102	SIGNAL CONTROLLER, ANY TYPE, REMOVE & RELOCATE, CIP SIGNAL CONTROLLER CABINET, ANY TYPE, REMOVE & RELOCATE, CIP	EACH	1 1	<del>-</del>	1
0429. 122 04XX. XXX	PNM UTILITY SERVICE	LS	LS		LS
0440.001	REFLECTORIZED PAINTED MARKING, CIP	LINFT	2310		2310
0441. 004	REFLECTORIZED PLASTIC PAVEMENT MARKINGS, 12" WIDE, CIP	LINFT	550	<del>                                     </del>	550 90
0441.005	REFLECTORIZED PLASTIC PAVEMENT MARKINGS, 24" WIDE, CIP REFLECTORIZED PLASTIC ARROW, RIGHT, CIP	LIN FT EACH	90	<del>-</del>	90
0441. 010 0441. 011	REFLECTORIZED PLASTIC ARROW, RIGHT, CIP	EACH	3	-	3
0441. 011	REFLECTORIZED PLASTIC WORD, ONLY, CIP	EACH	2		2
			,		
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ITEMS 0421.005 "SERVICE RISER (SIGNAL)" AND 0421.010 "METER PEDESTAL (SIGNAL)" HAVE BEEN ELIMINATED. PAGES 11 OF 12

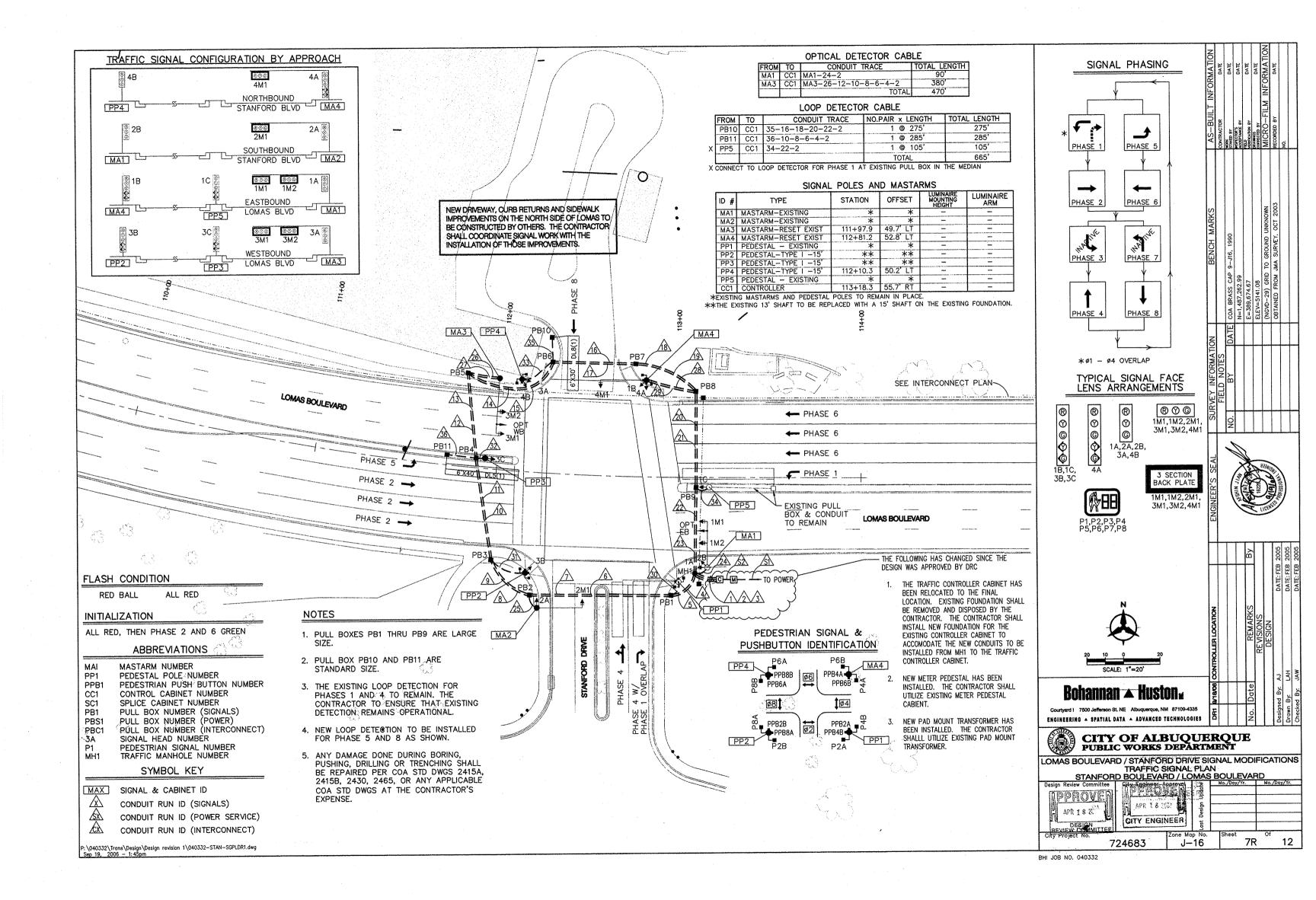
	AS-BUILT INFORMATI	CONTRACTOR DATE	MORK STANDD BY DATE		FELD DATE MERICATION BY DATE	DRAWENGS DATE CORRECTED BY	MICRO-FILM INFORMA	RECORDED BY DATE	NO.	
	BENCH MARKS		DATE COA BRASS CAP 9-J16, 1990	N=1,487,262.99	E=389,674.67	ELEV=5141.08	(NGVD-29) GRID TO GROUND UNKNOWN	OBTAINED FROM JMA SURVEY, OCT 2003		
	SURVEY INFORMATION	FIELD NOTES	NO. BY DATE of		П	LI .		0		
	FNGINEER'S SEAL			The same of		(16228)	Jan Joseph Joseph		no record	
	SARAN CONTROL FRI OCATION				REMARKS By	REVISIONS	DESIGN	DATE: FEB 2005		
Bohannan A Huston  Courtyerd 1 7500 Jefferson St. NE Albuquerque, NM 87109-4335 ENGINEERING A SPATIAL DATA A ADVANCED TECHNOLOGIES  CITY OF ALBUQUI	E	<b>R</b> (		ן נפ	No Date	1		Designed By A.I		اخ
PUBLIC WORKS DEPART  LOMAS BOULEVARD / STANFORD DRIVE S  TRAFFIC SIGNAL ESTIMATED  Design Review Committee   City Engineer Approval   19   10   10   10   10   10   10   10	M	NA IAI	L	MC ITI	DD ES				ΟN y/Υ ^r	
City Project No.   Can't Estate   S   City Project No.   Zone Map No.   J-16		S	hee	ŧ	41	<u>₹</u>	Of		12	





BHI JOB NO. 040332

13.00



						CON	IDUIT AND	CONDUC	TOR REQU	IREMENTS					
CON	DUIT	LEN	IGTH	, SI	ZE, AND TYPE			CONDUIT	FILL BY C	ONTRACTOR					
RUN ID	SIZE 1"	/LENGT 2"		TYPE	REMARKS	MCC 5 (# @ FT)	MCC 7 (# @ FT)	MCC 20 (# @ FT)	SCC #2 (# @ FT)	SCC #8 (# @ FT)	PS (# @ FT)	DLLIC (# @ FT)	OPTICOM (# @ FT)	OTHER (# @ FT)	OTHER (# @ FT)
S1		200			POWER TO METER				3 @ 205						
S2		15		REC	METER TO PBS1				3 @ 20						
1					CC1 TO MH1	1 @ 25		2 @ 25		1 @ 25		2.6.05	2 @ 25		
2					CC1 TO MH1 CC1 TO MH1	1 @ 25		2 @ 25		1 @ 25		3 @ 25	2 9 23		
4		25		REC	MH1 TO PB1							1 @ 30	1 @ 30		
5 6		85	25		MH1 TO PB1 PB1 TO PB2	1 @ 30		2 @ 30		1 @ 30		1 @ 90	1 @ 90		
7				REC	PB1 TO PB2	1 @ 90		2 @ 90		1 @ 90		4.0.40	1 0 10		
8		35			PB2 TO PB3 PB2 TO PB3	1 @ 40		2 @ 40		1 @ 40		1 @ 40	1 @ 40		
10		65		REC	PB3 TO PB4							1 @ 70	1 @ 70		
11		50	65		PB3 T0 PB4 PB4 T0 PB5	1 @ 70		2 @ 70		1 @ 70			1 @ 55		
12		30		REC	PB4 TO PB5	1 @ 55		2 @ 55		1 @ 55					
14		55		REC	PB5 TO PB6	1 @ 60		2 @ 60		1 @ 60				,	
15 16		50	55		PB5 T0 PB6 PB6 T0 PB7	1 6 00						1 @ 55	·		
17			50		PB6 T0 PB7	1 @ 55		2 @ 55		1 @ 55	.,	1 @ 50			
18 19		45	45		PB7 T0 PB8 PB7 T0 PB8	1 @ 50		2 @ 50		1 @ 50					
20		60		REC	PB8 TO PB9	1 0 05		2 @ 65		1 @ 65		1 @ 65			
21		55	60		PB8 T0 PB9 PB9 T0 MH1	1 @ 65		2 @ 65		1 @ 03		2 @ 60			
23				REC	PB9 TO MH1	1 @ 60		2 @ 60		1 @ 60		· · · · · · · · · · · · · · · · · · ·			
24 25					MA1 TO MH1 MA2 TO PB2	4 @ 15 2 @ 15									
26		15		REC	MA3 TO PB5						,		1 @ 20		·
27 28		35	15		MA3 TO PB5 MA4 TO PB8	2 @ 20		-			1 @ 40				
29			35	REC	MA4 TO PB8	5 @ 40	2 @ 40								
30 31		15 25			PP1 TO PB1 PP2 TO PB3	4 @ 20 4 @ 30	1 @ 30								
32		15		REC	PP3 TO PB4	1 @ 20			-						
33 34		25 15	ļ		PP4 TO PB6 PP5 TO PB9	6 @ 30 1 @ 20						1 @ 20			
35	ļ <u>.</u>	15	<u> </u>	REC	PB10 T0 PB6	1 6 20						1 @ 20			
36		25	<u> </u>	REC	PB4 TO PB11						· · · · · · · · · · · · · · · · · · ·	1 @ 30			
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**ABBREVIATIONS** COMMUNICATION CABLE-6 PAIR COMMUNICATION CABLE-12 PAIR CC 12
MA
MCC
PB
PP
PPB
REC
SCC
CAM MASTARM MULTI CONDUCTOR CABLE PULL BOX PEDESTAL POLE
PEDESTRIAN PUSH BUTTON
RIGID ELECTRIC CONDUIT SINGLE CONDUCTOR CABLE VIDEO CAMERA Bohannan ▲ Huston⊭ Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335 ENGINEERING A SPATIAL DATA A ADVANCED TECHNOLOGIES CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT LOMAS BOULEVARD / STANFORD DRIVE SIGNAL MODIFICATIONS
TRAFFIC SIGNAL CABLES & CONDUITS
STANFORD BOULEVARD / LOMAS BOULEVARD

OF THE STANFORD BOULEVARD | STA CITY ENGINEER DESIGN REVIEW COMMITTEE 12 724683 J-16

CON	דוווח	IEV	IGTH	QI	ZE, AND TYPE			CONDUIT	FILL BY C	ONTRACTOR	R LENGTH A	AND TYPE		:	
UN ID		E/LENG	<del></del>			MCC 5	MCC 7					DLLIC (# © FT)	OPTICOM (# ♥ FT)	OTHER (# @ FT)	OTHER (# © FT)
<b>##</b>	1"	2"	3"	TYPE	REMARKS	MCC 5 (# @ FT)	MCC 7 (# @ FT)	MCC 20 (# @ FT)	SCC #2 (# @ FT)	SCC #8 (# @ FT)	PS (# @ FT)	(# © FT)	(# @ FT)	(# @ FT)	(# © FT)
					BASE TO 1A	1 @ 15									
MA1						1 @ 55							.,,		
MA1					BASE TO 1M1										
MA1					BASE TO 1M2	1 @ 45									
MA1					BASE TO 2B	1 @ 15							1 @ 50		
MA1					BASE TO OPTICOM EB								1 9 50		
MA2					BASE TO 2A	1 @ 15									
MA2					BASE TO 2M1	1 @ 45									
(417.12	-														
MA3					BASE TO 3A	1 @ 15									
MA3					BASE TO 3M1	1 @ 55									
MA3					BASE TO 3M2	1 @ 45									
MA3					BASE TO OPTICOM EB								1 @ 50		
MA4		ļ			BASE TO 4A	<u> </u>	1 @ 15								<del>                                     </del>
MA4					BASE TO 4M1	1 @ 55						· · · · · · · · · · · · · · · · · · ·			<del> </del>
MA4					BASE TO 1B		1 @ 15								
MA4	<u> </u>				BASE TO P4A	1 @ 15					<b> </b>				
MA4	L				BASE TO P6B	1 @ 15									
MA4					BASE TO PPB4A	1 @ 5									<u> </u>
MA4					BASE TO PPB6B	1 @ 5							`	<u></u>	
						1 0 15									
PP1		ļ			BASE TO P2A	1 @ 15								į	
PP1	ļ	<u> </u>		ļ <u>.</u>	BASE TO P4B	1 @ 15									<u> </u>
PP1	ļ				BASE TO PPB2A	1 @ 5									<b> </b>
PP1		ļ			BASE TO PPB4B	1 @ 5									
		ļ			DACE TO 2D		1 @ 15								
PP2	-	<b> </b>		ļ	BASE TO 3B	1 @ 15	1 6 13				<u> </u>				
PP2	<b></b>	<b>-</b>		<b></b>	BASE TO P8A										
PP2	ļ	<b></b>		ļ	BASE TO P2B	1 @ 15									
PP2	<b>_</b>	ļ			BASE TO PPB8A	1 @ 5									
PP2	ļ	<u> </u>		ļ	BASE TO PPB2B	1 @ 5									<b>-</b>
	<del> </del>	<b></b>		ļ	DACE TO 20		1 @ 15								
PP3	<del> </del>				BASE TO 3C		1 9 13								
PP4	<del> </del>	<del> </del>			BASE TO 3A	1 @ 15				***************************************					
PP4	<del> </del>	<del> </del>			BASE TO 4B	1 @ 15									
PP4 PP4	<del> </del>	+	<del> </del>	<del> </del>	BASE TO PEA	1 @ 15									
	<del> </del>	<del> </del>	<b> </b>	-	BASE TO PBB	1 @ 15			<u> </u>	·····					
PP4	<del> </del>	<del> </del>	<b> </b>	<del> </del>	BASE TO POB	1 @ 5					<b></b>				
PP4	+			<del> </del>	BASE TO PPBBB	1 @ 5									
PP4	-	<del> </del>	<del> </del>	<del> </del>	DASE IN FFDOD	1 3									
PP5	1	<del>                                     </del>	<del> </del>	<b> </b>	BASE TO 1C		1 @ 15								<b></b>
	1	1	<b></b>	1											ļ
	1	1	<b>T</b>											,	<b>_</b>
TOTAL	0	925	655			1925	185	1250	675	625	40	665	455		1.
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	BREVIATIONS	CONTROL CARLE & DA	n	INFORMATION	DATE	DATE	DATE	DATE	DATE	<b>NFORMATION</b>	DATE		
CC (		ication cable—6 pai ication cable—12 p <i>i</i> i		INFO						-1			
MCC PB	PULL BO			UILT	æ		>-	>-			<b>≥</b>		
PP PPB REC		al Pole Rian Push Button Ectric Conduit		AS-BUILT	CONTRACTOR	WORK STAKED BY	MSPECTOR'S ACCEPTANCE BY	PERD VERFICATION BY	DRAWINGS CORRECTED BY	MICRO-FILM	ORDED		
SCC	SINGLE	CONDUCTOR CABLE		H	8	STA	A A	ਜੂ <b>ਲ</b>	88	≥	8	Š	1
				MARKS						NOWN	2003		
						1990				NO ON	EY, 00		
				BENCH						(NGVD-29) GRID TO GROUND UNKNOWN	OBTAINED FROM JMA SURVEY, OCT		
				ľ		COA BRASS CAP 9-J16,	-39	23	8	GRID TO	SOM JM		
						BRASS	N=1,487,262.99	E=389,674.67	ELEV=5141.08	)-29)	NED F		
				L	L	Ŧ	ŧ	E=38	ELEV	(NGV	OBTA		
				S		DATE							
				RAMA	TES								
-				INFO	FIELD NOTES	ВХ					٠		
				SURVEY INFORMATION	FIEL								
				IS		NO.							
					T	1	<u>.                                    </u>		1			L	
				SFAI		\		1			<b>~</b>		
				FR'S		1	SIN 3/4	Time in	16226	$\int_{\mathcal{S}}$	A Second	200	
				FNGINF		. 1	Size			LICEN			
				4									
				$\vdash$	+	Τ	Τ	8	Ţ	Τ	92	92	95
				$\vdash$	+	-	+	8			DATE: FEB 2005	FEB 2005	DATE: FEB 2005
				-							DATE	DATE: FEB	DATE
								XX XX					
								RFMARKS	REVISIONS	DESIGN			
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												AH	JAW
R	ohanna	n 🔺 Husti	M.	T	$\dagger$	$\dagger$	$\dagger$	Date	23,		Bv. AJ		
Courtyard	i i 7500 Jefferson S	t. NE Albuquerque, NA	87109-4335	$\vdash$	$\dagger$	$\dagger$	+	C N	7		Designed By:	Drawn By	Checked By:
ENGINEE.		OF ALE		L RI	20		L		1.		10	0	10
	PUBLI	D / STANFOR	DEPART	M	E	V.	[		) E	ic/	ידו	<u></u>	20
	TRAFI	FIC SIGNAL C D BOULEVAR	ABLES & RD / LOMA	CC	N	Dι	JIT	S					
Design Re	PACONALIA	City-Engineer, A	Update	F	Mo	./0	y/Y	<u>r.                                    </u>	‡	Mo.	/Do	y/ Yr	
REVIEW	DES GN V COMMITTEE	CITY ENGO	ast Design Update	E					lacksquare				
City Proj	ect No.	24683	Zone Map No J—16	).	S	hee	t	9	1	Of		12	
I													

			DE	TECTO							
LOOP ID	V	EHICLE D	ETECTOR		LOOP	LOOF	DIM			LOOP	PAVEMENT
LOOP ID	MODE	CALL	UNIT NO	CHANNEL	TYPE	L	W	S	T	WIRE	SAWCUT
			<u> </u>								
DL8(1)	PRESENCE		SEVEN	CH 1	REC	30'	6'	5'	3,	237'	77'
DLG(1)	PRESENCE		SEVEN	<u> </u>	INEO		Ť	<del>                                     </del>			<del>                                     </del>
DL5(1)	PRESENCE		ONE	CH 2	QP	40'	6'	5'	3'	365'	137'
											-
			<b> </b>								-
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TOTALS	<del> </del>		<del> </del>	<del> </del>	<del>                                     </del>			-	-	602'	214'

### QUANTITY ESTIMATING ASSUMPTION:

LOOP	WIRE		_									
6' x	30° O	PLOOP	= (8*1	) + (	(4*W)	+ (2*S	) + (	2*T)	+ 5 =	269	+ 2	(S+T)
6' x	40' Q	LOOP	= (8*L	) + (	(4*W)	+ (2*5	) + (	2*T)	+ 5 =	349	+ 2	(S+T)
6' x	50' Q	P LOOP	= (8*L *6) = 9	) + (	(4*W)	+ (2*S	) + (	(2*T)	+ 5 =	429	+ 2	!(\$+T)
6' x	30' R	EC LOOI	P = (6*	L) +	(6*W)	+ (2*	S) +	(2*T)	+ 5	= 216	<u>;</u> +	2(S+T)
6' x	40' RI	EC LOO	P = (6*	L) +	(6*W)	+ (2*	S) + ̯	(2*T)	+_5	= 276	3 +_	2(S+T
6' x	6' E(	LOOP	= (6*L	) + (	(6*W)	+ (2*S)	) + (	2*1)	+5=	: //	+ 2	(S+1)
6' v	6' SY	SIDOP	= (8*I	) + (	์ 8*W) -	+ (2*S`	<b>)</b> + (	2*T)	+ 5 =	- 96	+ 2	(S+T)

#### PAVEMENT SAWCUT

6' x 30' QP LOOP = (3*L) + (2*W) + S= 6' x 40' QP LOOP = (3*L) + (2*W) + S= 6' x 50' QP LOOP = (3*L) + (2*W) + S=	102	+	S
$6' \times 40' \text{ QP LOOP} = (3*L) + (2*W) + S=$	132	+	S
$6' \times 50' \text{ QP LOOP} = (3*L) + (2*W) + S=$	162	+	S
6' x 30' REC LOOP = $(2*L) + (2*W) + S*$ 6' x 40' REC LOOP = $(2*L) + (2*W) + S*$	=72	+	S
$6' \times 40' \text{ REC LOOP} = (2*L) + (2*W) + S$	=92	+	S
$6' \times 6' = C = (2*L) + (2*W) + S=$	24	+	S
6' $\times$ 6' EC LOOP = $(2*L) + (2*W) + S =$ 6' $\times$ 6' SYS LOOP = $(2*L) + (2*W) + S =$	24	+	S

- L = DETECTOR LOOP LENGTH (FROM PLAN)
  W = DETECTOR LOOP WIDTH (FROM PLAN)
  S = SAWCUT LENGTH FROM DETECTOR LOOP TO
  FACE OF CURB (FROM PLAN)
  T = LOOP WIRE TERMINAL LENGTH FROM FACE
  OF CURB TO PULL BOX (FROM PLAN)

#### NOTES:

- 1/ IDENTIFY CONDUCTORS LISTED AS "115 VOLTS"
- 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.

#### BACK UP TIME SETTING

	<u>ø1</u>	<b>ø2</b>	<u>ø3</u>	<u>ø4</u>	ø <u>5</u>	<u>ø6</u>	<u>ø7</u>	<u>ø4</u>
MINIMUM INITIAL	5	15	5	10	15	15	5	10
VEHICLE EXTENSION	3	3	3	3	3	3	3	3
MAXIMUM 1	10	30	10	30	10	30	10	30
MAXIMUM 2	15	40	15	40	15	40	15	40
YELLOW CHANGE	4	4	4	4	4	4	4	4
RED CLEAR	2	2	2	2	2	2	2	2
WALK	Ō	4	0	4	0	4	0	4
PEDESTRIAN CLEAR	Ó	16	0	25	0	16	0	25
OPERATION	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
		DECALL				RECALL		

#### DETECTOR RACK ASSIGNMENTS

									. ,										
UNIT NUMBER	POWER SUPPLY	1	2	3	4	5	6	7	8	9	- 10	11	12	13	14	15	16	17	18
CHANNEL 1 -		Ø1	ø2	ø6	ø2 EC	ø3	ø4	ø8	ø4 EC	DUAL LEFT ø1	DUAL LEFT ø3	SD 1	SD 3	SD 5	SD 7	SD 9	P E D + S C	ортісом	ортісом З
CHANNEL 2		ø5	ø2	ø6	ø6 EC	ø7	ø4	ø8	ø8 EC	DUAL LEFT ø5	DUAL LEFT Ø7	SD 2	SD 4	SD 6	SD 8	SD 10	L A T I O N	ортісом 2	ортісом 4
DETECTOR MODULE REQUIRED	*	✓					Х	<b>✓</b>									<b>✓</b>	<b>✓</b>	<b>✓</b>

- * INCIDENTAL TO CONSTRUCTION
- X EXISTING DETECTOR LOOP

			FUNCTION CF	IART – 115 VOLT	CINCOTT	1/				
CONDUCTOR			RING 1 - MULTI CO	ONDUCTOR CABLE 20	RING 2 - MULTI CONDUCTOR CABLE 20					
CONDUCTOR NUMBER			FUNCTION	FIELD CONNECTION	FUNCTION	FIELD CONNECTION SPARE				
1 BLACK -		-	PHASE 1	GREEN RIGHT TURN ARROW	SPARE					
2	WHITE		PHASE 1	YELLOW RIGHT TURN ARROW	SPARE	SPARE				
3	RED		PHASE 1 RED	SPARE	PHASE 5 RED	SPARE				
4.	GREEN	_	PHASE 1 GREEN	GREEN LEFT TURN ARROW 3B. 3C	PHASE 5 GREEN	GREEN LEFT TURN ARROW 1B, 1C				
5	ORANGE	•••	PHASE 1 YELLOW	YELLOW LEFT TURN ARROW 3B, 3C	PHASE 5 YELLOW	YELLOW LEFT TURN ARROV 1B, 1C				
6	BLUE		SPARE	SPARE	SPARE	SPARE				
7	WHITE	BLACK	SPARE	SPARE	SPARE	SPARE				
8	RED	BLACK	PHASE 2 RED	RED BALL 1A, 1B, 1C, 1M1, 1M2	PHASE 6 RED	RED BALL 3A, 3B, 3C, 3M1, 3M2				
9	GREEN	BLACK	PHASE 2 GREEN	GREEN BALL 1A, 1B, 1C, 1M1, 1M2	PHASE 6 GREEN	GREEN BALL 3A, 3B, 3C, 3M1, 3M2				
10	ORANGE	BLACK	PHASE 2 YELLOW	YELLOW BALL 1A, 1B, 1C, 1M1, 1M2	PHASE 6 YELLOW	YELLOW BALL 3A, 3B, 3C, 3M1, 3M2				
11	BLUE	BLACK	PHASE 2 WALK	PEDESTRIAN WALK P2A, P2B	PHASE 6 WALK	PEDESTRIAN WALK P6A, P6B				
12	BLACK	WHITE	PHASE 2 DON'T WALK	PEDESTRIAN DON'T WALK P2A, P2B	PHASE 6 DON'T WALK	PEDESTRIAN DON'T WALK P6A, P6B				
13	RED	WHITE	PHASE 3 RED	SPARE	PHASE 7 RED	SPARE				
14	GREEN	WHITE	PHASE 3 GREEN	SPARE	PHASE 7 GREEN	SPARE				
15	BLUE	WHITE	PHASE 3 YELLOW	SPARE	PHASE 7 YELLOW	SPARE				
16	BLACK	RED	PHASE 4 RED	RED BALL 4A, 4B, 4M1	PHASE 8 RED	RED BALL 2A, 2B, 2M1				
17	WHITE	RED	PHASE 4 GREEN	GREEN BALL 4A, 4B, 4M1	PHASE 8 GREEN	GREEN BALL 2A, 2B, 2M1				
18	ORANGE	RED	PHASE 4 YELLOW	YELLOW BALL 4A, 4B, 4M1	PHASE 8 YELLOW	YELLOW BALL 2A, 2B, 2M1				
19	BLUE	RED	PHASE 4 WALK	PEDESTRIAN WALK	PHASE 8 WALK	PEDESTRIAN WALK P8A, P8B				
20	RED	GREEN	PHASE 4 DON'T WALK	PEDESTRIAN DON'T WALK	PHASE 8 DON'T WALK	PEDESTRIAN DON'T WALK P8A, P8B				

FUNCTION CHART - 24 VOLT CIRCUIT ³ ∕							
CONDUCTOR		RING 1-MULTI CONDUCTOR CABLE 5		RING 2-MULTI	CONDUCTOR CABLE 5		
NUMBER	BASE COLOR	FUNCTION	FIELD CONNECTION	FUNCTION	FIELD CONNECTION		
1	BLACK	PHASE 2	PPB2A, PPB2B	SPARE			
2	WHITE	COMMON	PPB2A, 2B, 4A, 4B	COMMON	PPB6A, 6B, 8A, 8B		
3	RED	PHASE 4	PPB4A, PPB4B	SPARE	1.7		
4	GREEN	SPARE		PHASE 6	PPB6A, PPB6B		
5	ORANGE	SPARE		PHASE 8	PPB8A, PPB8B		

#### ABBREVIATIONS:

DLLIC = DETECTOR LOOP LEAD IN CABLE
EC = EXTENDED CALL LOOP
L = DETECTOR LOOP LENGTH
W = DETECTOR LOOP WIDTH
S = SAWCUT LOOP TO CURB
T = TERMINAL LOOP

EC = QUADRAPOLE LOOP
REC = RECTANGULAR LOOP

	SURVEY IN	FIELD	NO.						
	ENGINEER'S SEAL	SE STATE OF THE SECOND						)	
				OFWADIVO BY		DESIGN	DATE: FEB 2005	DATE: FEB 2005	DATE: FEB 2005
Bohannan A Huston Courty and 1 7500 Jefferson St. NE Albuquerque, NM 87109-4336 ENGINEERING A SPATIAL DATA A ADVANCED TECHNOLOGIES				-	No. IDate		Designed By: AJ	Drawn By: LAH	Checked By: JAW
CITY OF ALBUQUE PUBLIC WORKS DEPART  LOMAS BOULEVARD / STANFORD DRIVE S TRAFFIC SIGNAL FUNCTIONS &	IGI	VΑ	LN	ION	OIF	ICA			
DD STANFORD BOULEVARD / LOMA  Design Review Committee City Engineer Approved 9	SE	Mo.	ULI /0oy	EV/	RI	) Mo.	/Doy	/Yr.	

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