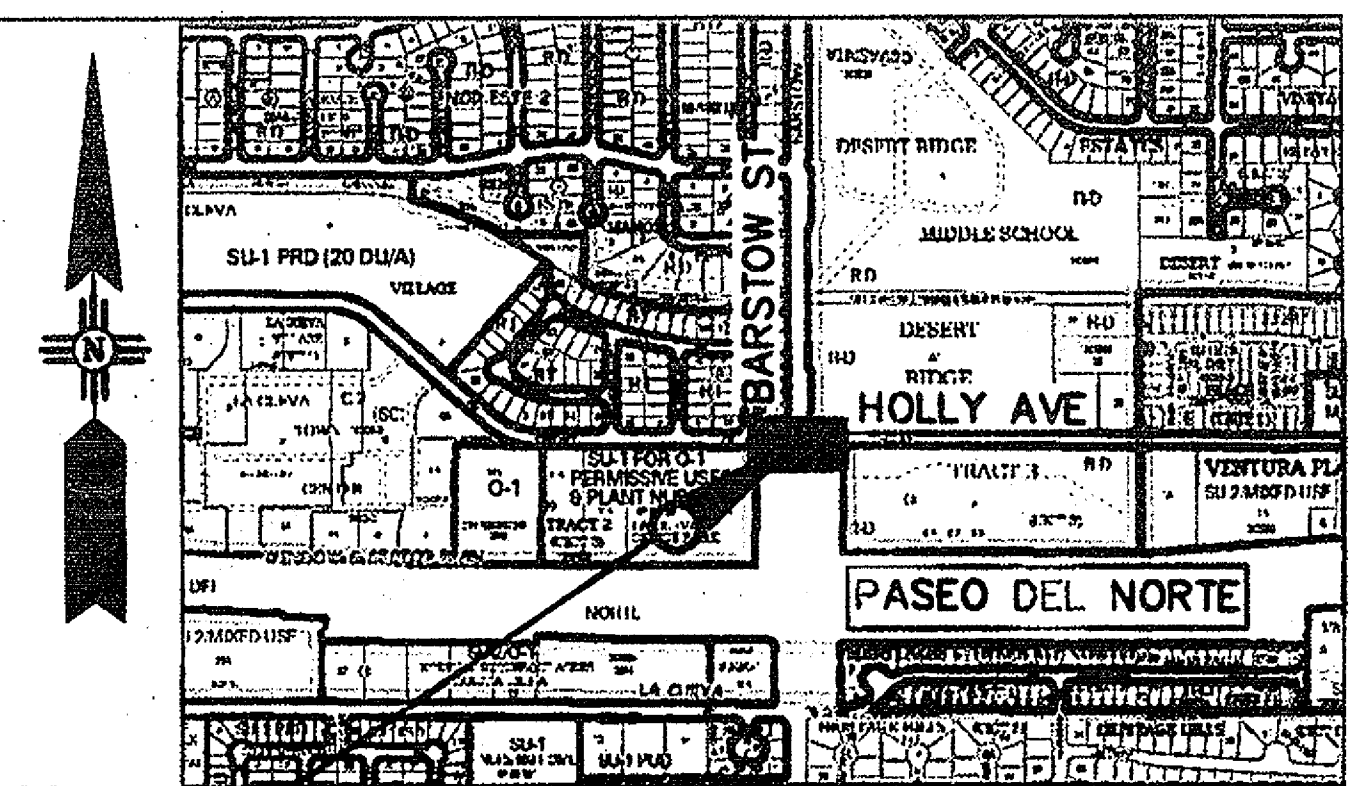


# CITY OF ALBUQUERQUE CONSTRUCTION PLANS

BARSTOW STREET/HOLLY AVENUE

SIGNAL IMPROVEMETS

COA Project 5015.02



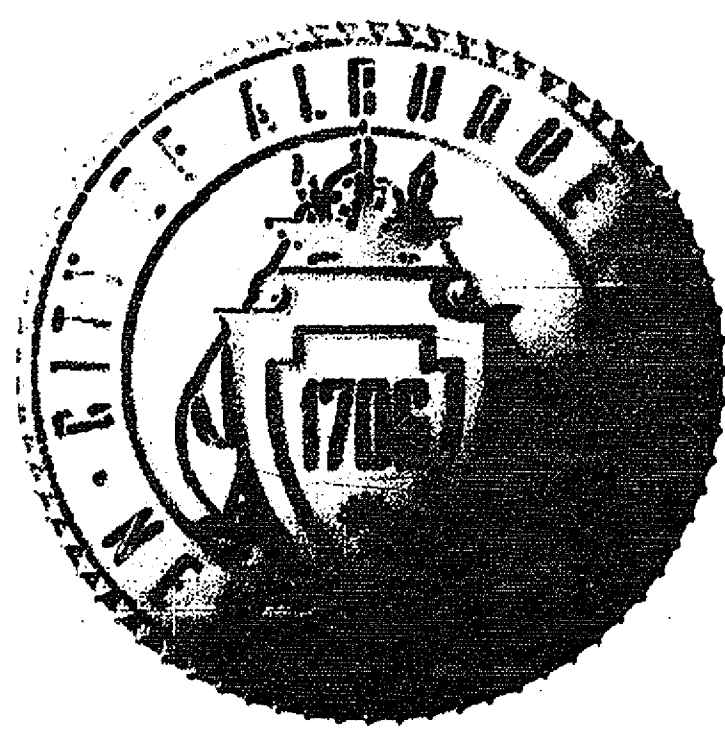
PROJECT LOCATION

VICINITY MAP  
NTS

Zone Atlas Maps  
C19Z, C20Z, D19Z, D20Z

## Index of Sheets

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21	EXISTING UTILITY PLAN	EXISTING UTILITY PLANS



## FINAL DESIGN PLAN SET

### ABCWUA ACCEPTANCE OF RECORD DRAWINGS

CONSTRUCTION ENGINEER

PRINT NAME \_\_\_\_\_  
DATE \_\_\_\_\_

**PARSONS  
BRINCKERHOFF**

REV.	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE APPROVALS ENGINEER DATE *****						
			<b>APPROVED FOR CONSTRUCTION</b>			
DRC Chairman <i>Woodell</i> 11/7/13			City Engineer <i>M. W. [Signature]</i> 11/7/2013			
Transportation <i>W. [Signature]</i> 10/14/13			Date			
Water/Wastewater <i>[Signature]</i> 10/14/13						
Hydrology <i>[Signature]</i> 10/14/13						
Parks						
Constr. Coord.						
Traffic Eng.						
AMAFCA						
PROJECT NO. 5015.02			SHEET 1 of 21			

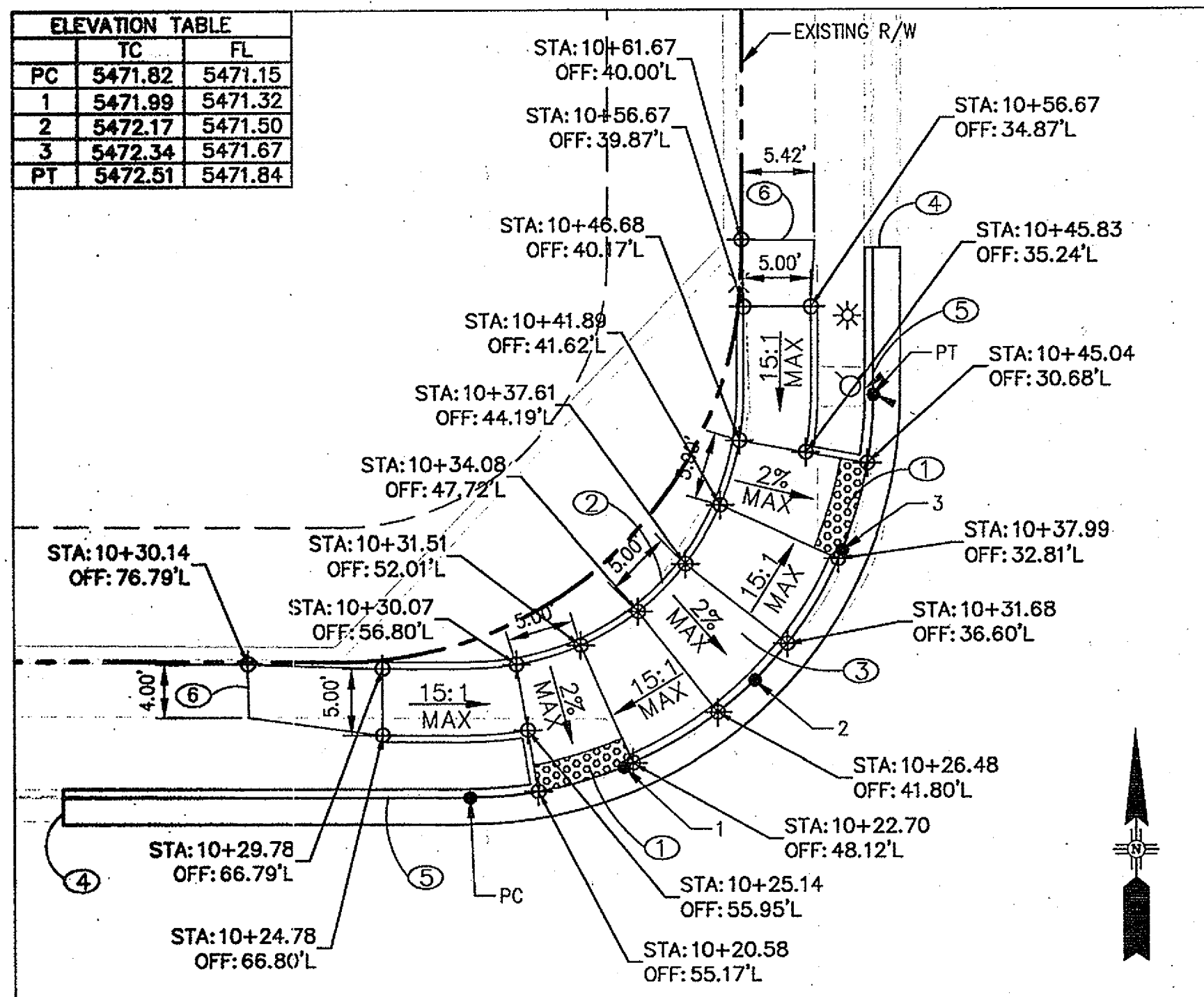




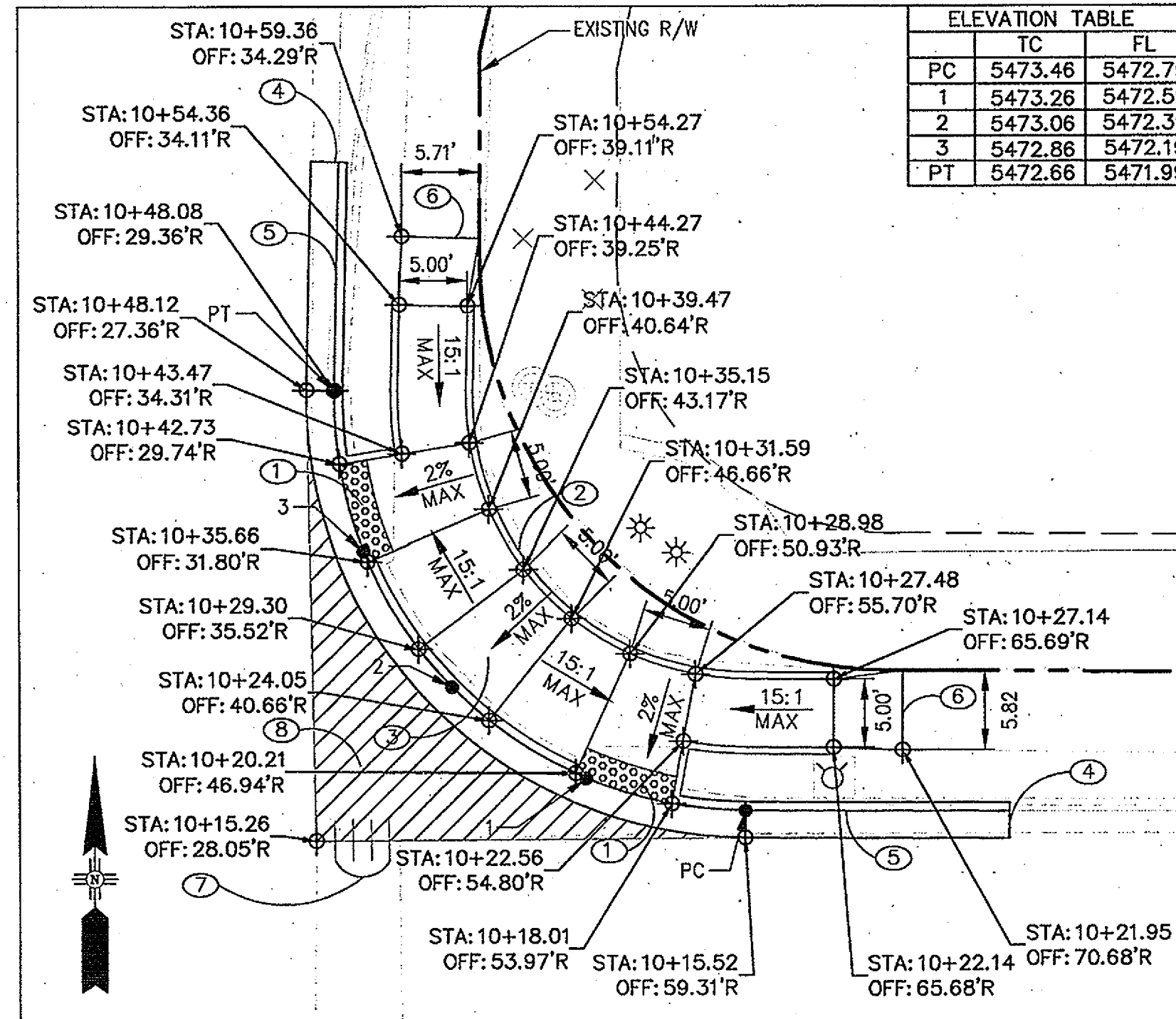
Sheet 10 OF 21



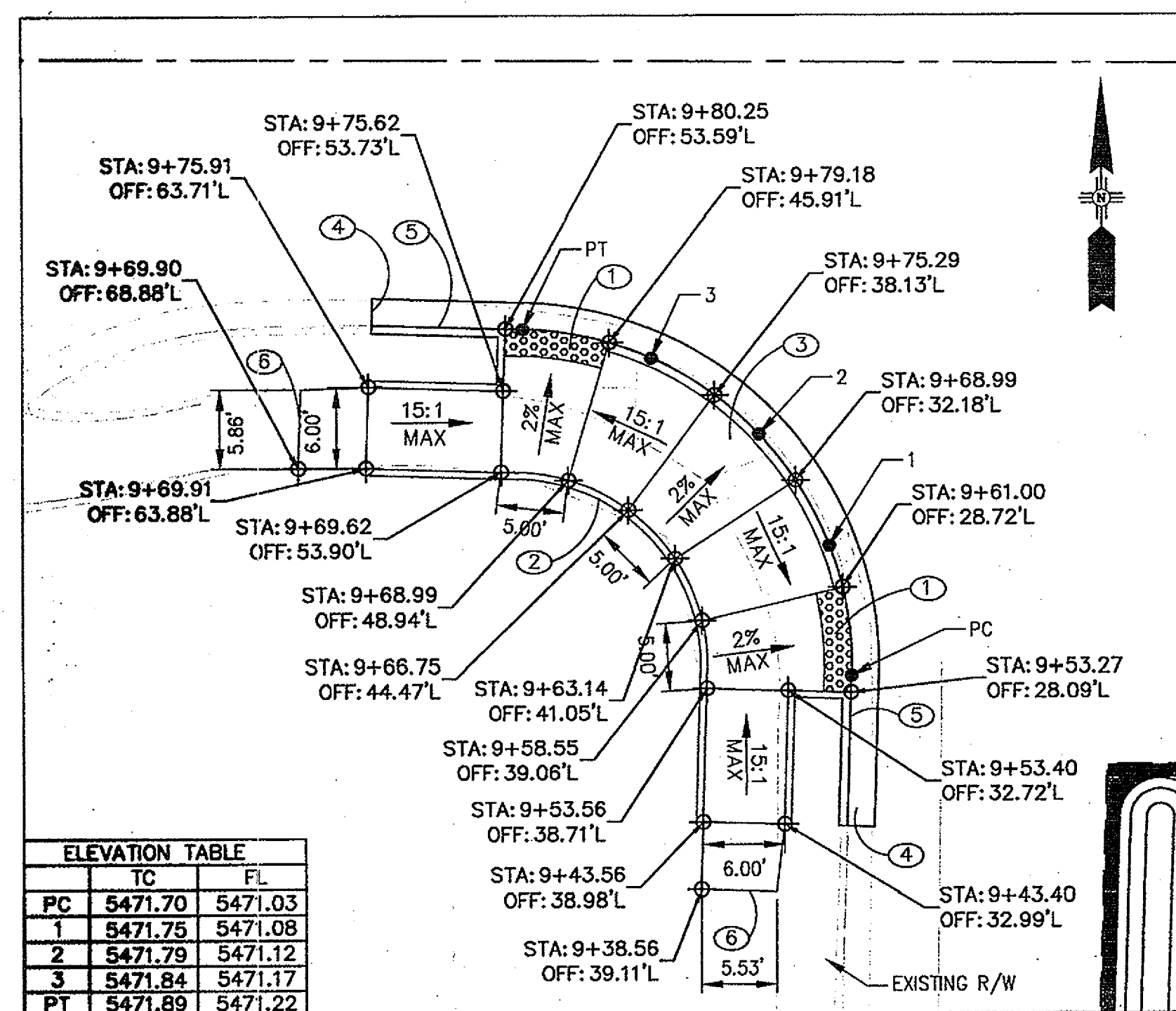
ELEVATION TABLE		
TC	FL	
PC	5471.82	5471.15
1	5471.99	5471.32
2	5472.17	5471.50
3	5472.34	5471.67
PT	5472.51	5471.84



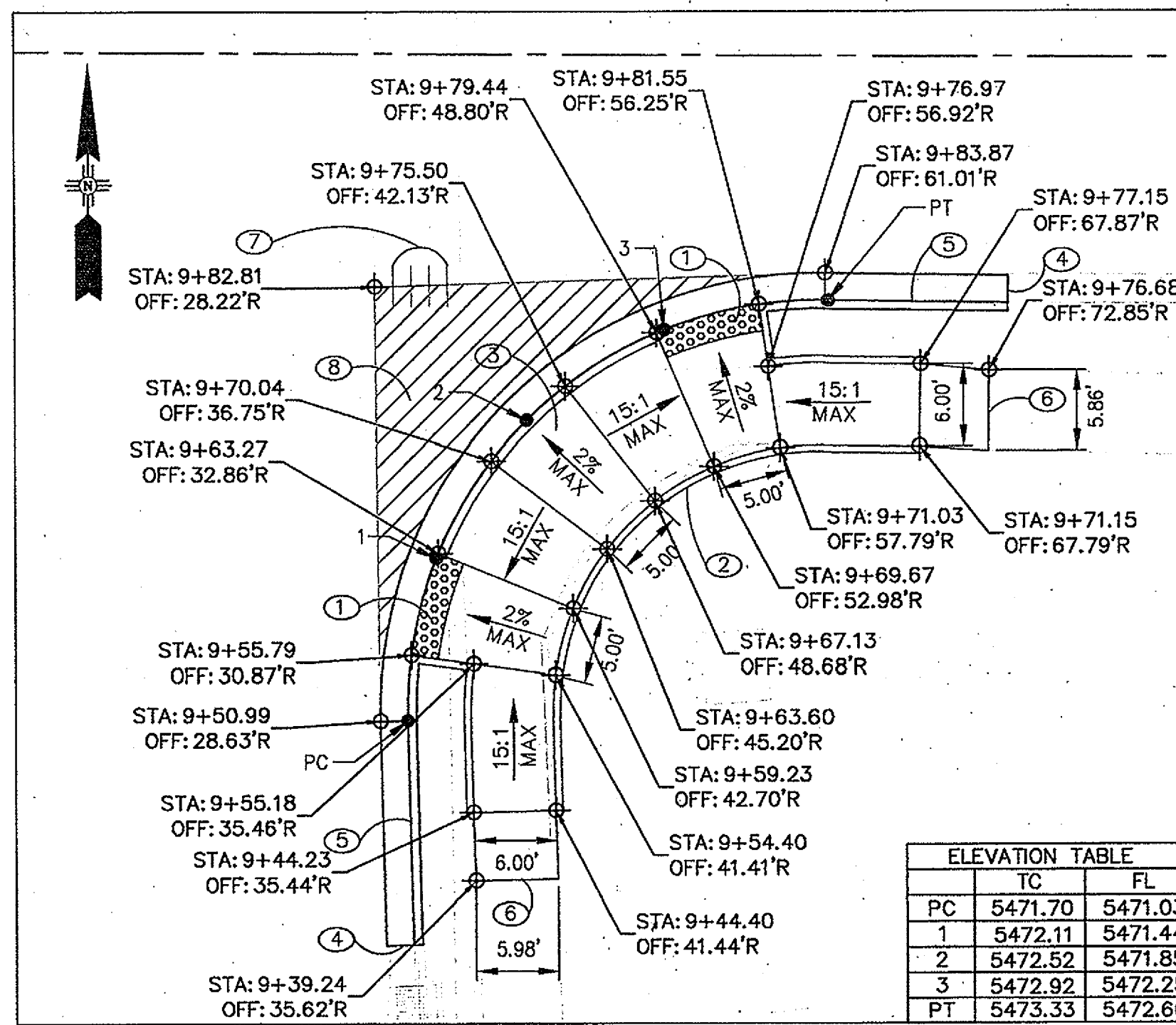
**NW RAMP DETAIL**  
BARSTOW STREET/HOLLY AVENUE INTERSECTION  
SCALE: 1"=10'



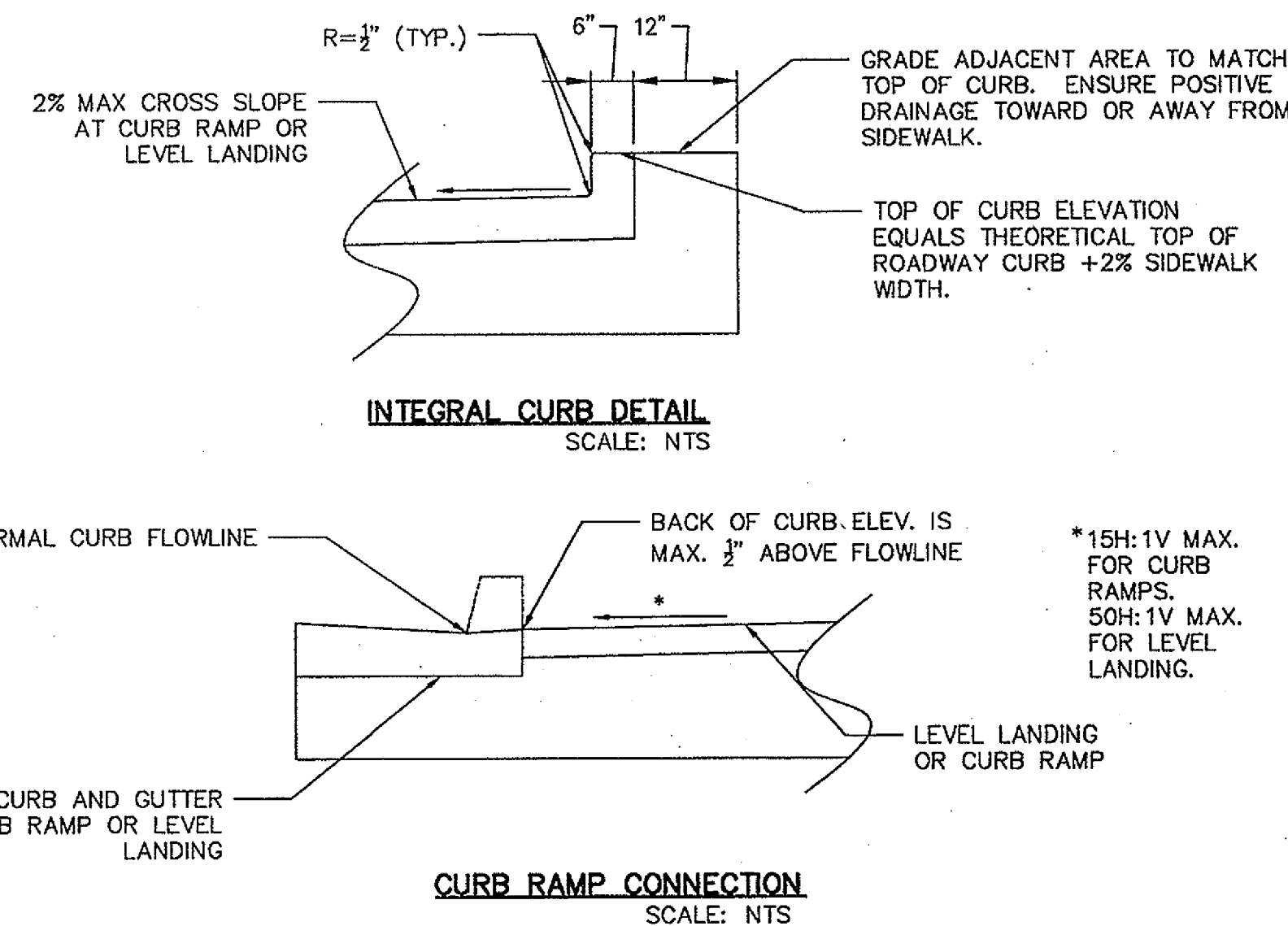
**NE RAMP DETAIL**  
BARSTOW STREET/HOLLY AVENUE INTERSECTION  
SCALE: 1"=10'



**SW RAMP DETAIL**  
BARSTOW STREET/HOLLY AVENUE INTERSECTION  
SCALE: 1"=10'



**SE RAMP DETAIL**  
BARSTOW STREET/HOLLY AVENUE INTERSECTION  
SCALE: 1"=10'



#### GENERAL NOTES:

- CONTRACTOR TO REMOVE CONCRETE CURB AND MAINTAIN EXISTING CURB RETURN RADIUS.
- STATION AND OFFSET FOR CURB AND GUTTER GIVEN TO FRONT FACE OF INTEGRAL CURB OR FLOWLINE UNLESS OTHERWISE NOTED.
- TOP OF CURB ELEVATIONS PROVIDED IN THE CURB ELEVATION TABLES ARE TO NORMAL CURB HEIGHT. ADJUST TOP OF CURB ELEVATIONS AT RAMPS AND LANDINGS.
- CURB RAMPS/SIDEWALKS SHALL MATCH EXISTING SIDEWALK WIDTH AT TIE POINTS.
- ALL TIE POINTS SHALL TIE TO EXISTING CURB & GUTTER OR SIDEWALK WITHIN THE RIGHT OF WAY.
- STATION AND OFFSET PROVIDED REFERENCE CL OF CONSTRUCTION ON BARSTOW STREET.
- DETECTABLE WARNING SURFACE SHALL BE CONSIDERED INCIDENTAL TO ITEM NO. 340.025.
- CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY LANDSCAPING OR IRRIGATION TO PRE-CONSTRUCTION CONDITIONS AT THEIR OWN EXPENSE.
- ALL EXPOSED CURB FACES AT PEDESTRIAN RAMPS SHALL BE PAINTED YELLOW.

#### KEYED NOTES:

- INSTALL DETECTABLE WARNING SURFACE PER NMDOT STD DRAWING PAD-001. SEE SHEET 7 FOR DETAIL.
- BUILD INTEGRAL CURB. SEE DETAIL THIS SHEET.
- MID LEVEL LANDING, 4" ABOVE FLOWLINE ELEVATION.
- NEAT CUT LINE. MATCH EXISTING CURB AT NEAREST JOINT LOCATION.
- BUILD STD. CURB & GUTTER, SEE COA STD. DWG 2415A.
- NEAT CUT LINE, MATCH EXISTING SIDEWALK.
- NO. 4 BARS 3'-0" LONG AT 16" O.C. SEE COA STD. DWG. 2420 FOR DETAILS. THE COST OF THE NO. 4 BARS SHALL BE CONSIDERED INCIDENTAL TO ITEM NO. 340.023.
- REMOVE AND RELAY EXISTING VALLEY GUTTER.

ENGINEER'S SEAL				BENCH MARKS				AS BUILT INFORMATION			
				STATION IS LOCATED AT THE ENTRANCE TO THE				CONTRACTOR			
				GATES OF HEAVEN CEMETARY, 0.9 MILES WEST				DATE			
DATE				DATE				DATE			
NO.				NO.				NO.			
BY				BY				BY			
NO. DATE				NO. DATE				NO. DATE			
REMARKS				REMARKS				REMARKS			
DESIGNED BY: KVC				DESIGNED BY: KVC				DESIGNED BY: KVC			
DATE: 9/28/13				DATE: 9/28/13				DATE: 9/28/13			
DRAWN BY: KVC				DRAWN BY: KVC				DRAWN BY: KVC			
CHECKED BY: PS				CHECKED BY: PS				CHECKED BY: PS			
DATE: 9/30/13				DATE: 9/30/13				DATE: 9/30/13			

**PARSONS  
BRINCKERHOFF**

CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION			
BARSTOW STREET/HOLLY AVENUE SIGNAL IMPROVEMENTS ADA COMPLIANT PEDESTRIAN RAMP DETAILS			
DESIGN REVIEW COMMITTEE <b>APPROVED</b> DEC 10 2013 DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL <b>APPROVED</b> DEC 10 2013 CITY ENGINEER	NO. DATE	NO. DATE
City Project No. COA 5015.02	Zone Map No. C19, C20, D19, D20	Sheet 11 OF 21	



GENERAL NOTES FOR PAVEMENT MARKINGS:

- ALL PAVEMENT MARKINGS SHALL CONFORM TO THE CITY OF ALBUQUERQUE STANDARDS AND SPECIFICATIONS AND THE CURRENT EDITION, WITH REVISIONS, OF THE MUTCD.
- ALL REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SECTION 443 OF THE COA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION. PAINTING OVER EXISTING DOES NOT CONSTITUTE APPROVED REMOVAL OR OBLITERATION.
- THE PERMANENT PAVEMENT MARKINGS MAY BE MODIFIED AS DIRECTED BY THE PROJECT MANAGER.
- THE CONTRACTOR MAY BE REQUIRED BY THE PROJECT MANAGER TO PREPARE AS-BUILT DRAWINGS OF THE EXISTING STRIPING AND PAVEMENT MARKINGS PRIOR TO CONSTRUCTION. THIS WORK WILL BE CONSIDERED INCIDENTAL TO SIGNING AND STRIPING AND NO ADDITIONAL PAYMENT SHALL BE MADE THEREFOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT AND INSTALLATION OF THE PAVEMENT MARKINGS ON FINAL SURFACE COURSE FOLLOWING CONTROL POINTS THAT HAVE BEEN SET NO MORE THAN 50 FEET APART ALONG THE LINES TO BE STRIPED. THE LAYOUT OF ALL PAVEMENT MARKINGS SHALL BE APPROVED BY THE PROJECT MANAGER PRIOR TO THE APPLICATION OF MATERIALS.
- ALL LANE DIMENSIONS ARE FROM CENTER OF LANE STRIPE, CENTER OF DOUBLE LANE STRIPE, FACE OF CURB, OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- THE FINAL LONGITUDINAL STRIPING SHALL BE 60 MIL. (0.060") THICK PLASTIC RETROREFLECTORIZED STRIPING PLACED OVER THE TEMPORARY STRIPING WITHIN 14 TO 30 CALENDAR DAYS AFTER COMPLETION OF THE FINAL PAVEMENT SURFACE, OR AS DIRECTED BY THE PROJECT MANAGER. ALL OTHER MARKINGS SHALL BE APPLIED AT THE SAME TIME. TEMPORARY STRIPING SHALL BE PAINT UNLESS OTHERWISE NOTED.
- ALL FINAL TRANSVERSE MARKINGS SHALL BE 90 MIL (0.090") PLASTIC RETROREFLECTORIZED STRIPING. ALL PAVEMENT ARROWS AND LEGENDS SHALL BE A RETROREFLECTORIZED PREFORMED PLASTIC PAVEMENT MARKING.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE FINAL SURFACE COURSE IS PLACED SO THAT THE STRIPING IS OFFSET ONE (1) FOOT CLEAR OF THE PAVEMENT CONSTRUCTION JOINT, UNLESS OTHERWISE DIRECTED BY THE PROJECT MANAGER.
- THE CONTRACTOR SHALL CLEAN THE ROADWAY SURFACE TO THE SATISFACTION OF THE PROJECT MANAGER BY SWEEPING AND AIR-JET BLOWING IMMEDIATELY PRIOR TO THE PLACEMENT OF ALL PAVEMENT MARKINGS. THE TEMPERATURE SHALL NOT BE LESS THAN 50°F FOR THE PLACEMENT OF THERMOPLASTIC STRIPING, AND 40°F FOR THE PLACEMENT OF RAISED PAVEMENT MARKERS (RPM'S).
- THE PAVEMENT MARKING DRAWINGS ARE SCHEMATIC ONLY. THE CONTRACTOR SHALL FOLLOW ALL DIMENSIONS, DETAILS AND STANDARDS WHEN INSTALLING STRIPING, PAVEMENT MARKINGS AND MARKERS.
- STRIPING ERADICATION SHALL BE ACCOMPLISHED BY WATER BLASTING OR SURFACE PLANING OF THE ROADWAY TO A MAXIMUM DEPTH OF 0.25 INCHES AND FOR A WIDTH EQUAL TO TWO (2) TIMES THE WIDTH OF THE STRIPE OR MARKING TO BE REMOVED.
- ALL VERTICAL CURBS AT RAMPS SHALL BE PAINTED YELLOW. THIS WORK SHALL BE CONSIDERED INCIDENTAL AND NO ADDITIONAL PAYMENT SHALL BE MADE THEREFORE.

SIGNING AND STRIPING ITEMS			
ITEM ID NO.	ITEM DESCRIPTION	UNIT	TOTAL
450.001	ALUMINUM PANEL SIGN, CIP.	SQ. FT.	25
450.010	SQUARE TUBE STEEL POSTS & BASE POSTS FOR ALUMINUM PANEL SIGN, CIP.	LF	66
441.001	RETROREFLECTORIZED PLASTIC PAVEMENT MARKINGS, 4" WIDTH, CIP.	LIN. FT.	2,300
441.002	RETROREFLECTORIZED PLASTIC PAVEMENT MARKINGS, 6" WIDTH, CIP.	LIN. FT.	900
441.003	RETROREFLECTORIZED PLASTIC PAVEMENT MARKINGS, 8" WIDTH, CIP.	LIN. FT.	300
441.005	RETROREFLECTORIZED PLASTIC PAVEMENT MARKINGS, 24" WIDTH, CIP.	LIN. FT.	384
441.011	RETROREFLECTORIZED PLASTIC ARROW, LEFT, CIP.	EACH	9
441.013	RETROREFLECTORIZED PLASTIC ARROW, THRU & RIGHT, CIP.	EACH	3
441.020	RETROREFLECTORIZED PLASTIC WORD, ONLY, CIP.	EACH	4
441.031	RETROREFLECTORIZED PLASTIC SYMBOL, BICYCLE, CIP.	EACH	4
443.101	REMOVAL OF PAVEMENT STRIPE, ANY WIDTH, PAINTED OR PLASTIC, COMPL.	EACH	3,430
443.102	REMOVAL OF PAVEMENT ARROW, SYMBOL OR WORD, PAINTED OR PLASTIC, COMPL.	EACH	9

GENERAL NOTES FOR PERMANENT SIGNS:


- ALL NEW SIGNS SHALL MEET THE MINIMUM REQUIREMENTS SPECIFIED IN THE CURRENT EDITION, WITH REVISIONS, OF THE MUTCD.
- ALL EXISTING SIGNS TO REMAIN, EXCEPT AS SHOWN ON PLANS OR AS DIRECTED BY THE PROJECT MANAGER.
- ANY SIGNS REQUIRED TO BE REMOVED AND RELOCATED SHALL BE CONSIDERED INCIDENTAL AND NO ADDITIONAL PAYMENT SHALL BE MADE THEREFORE. ALL REMOVED SIGNS TO BE SALVAGED TO CITY OF ALBUQUERQUE PINO YARDS.
- ALL EXISTING SIGNS SHALL BE CLEANED AND FREE OF GRAFFITI, DIRT, OR OTHER OBSTRUCTIONS. THIS WORK SHALL BE CONSIDERED INCIDENTAL AND NO ADDITIONAL PAYMENT SHALL BE MADE THEREFORE.
- ANY EXISTING SIGNS CONFLICTING WITH THE INTERSECTION OPERATION OR OTHER SIGNS SHALL BE REMOVED AS DIRECTED BY THE PROJECT MANAGER.
- CONTACT CITY OF ALBUQUERQUE TRAFFIC ENGINEERING AT 857-8000 FOR HANDLING ARRANGEMENTS OF EXISTING SIGNS THAT ARE INDICATED TO BE REMOVED AND SALVAGED.
- UNLESS SPECIFIED OTHERWISE, ALL NEW SIGNS SHALL BE MOUNTED ON A SINGLE 12 GAUGE POST, AS MANUFACTURED BY TELES PAR OR APPROVED EQUAL. POSTS SHALL BE SQUARE WITH DIMENSIONS AS FOLLOWS:  
1 1/2" X 1 1/2" NO PARKING SIGNS, BIKE LANE SIGNS  
2 1/4" X 2 1/4" ALL OTHER SIGNS
- CONTRACTOR SHALL INSTALL A CORRESPONDINGLY SIZED 30 INCH LONG BASE POST WITH AN 18 INCH LONG BASE POST SLEEVE. SIGN POSTS SHOULD BE INSERTED 6 INCHES INTO THE BASE POST OR PER MANUFACTURER'S RECOMMENDATION.
- ALL NEW SIGNS SHALL AT A MINIMUM, USE SUPER ENGINEERING GRADE REFLECTIVE SHEETING WITH GRAFFITI RESISTANT INKS OR COATING AS APPROVED BY THE PROJECT MANAGER.

SIGN AND POST SCHEDULE												
SIGN CODE	NO. OF SIGNS	SIGN AREA (SQ. FT.)	TOTAL SIGN AREA (SQ. FT.)	POST LENGTHS				MOUNTING REQUIREMENTS			BASE POSTS	
				LEFT	CTR	RIGHT	TOTAL	SQUARE TUBING (12 ga.)			NO.	TOTAL LENGTH
								1.75"x1.75"	2.0"x2.0"	2.5"x2.5"		
R3-17-30	4	5	20		12		48.0		X		4	16.0
R3-17aP-24	2	3	5		1		2.0				**	**
SP-1	2	***	***		**		**				**	**
SP-2	1	***	***		**		**				**	**
SP-3	1	***	***		**		**				**	**
TOTAL			25				50					16
*NO ADDITIONAL POST NEEDED (SIGN TO BE MOUNTED ON POST WITH ANOTHER SIGN)												
** NO ADDITIONAL POST NEEDED (SIGN TO BE MOUNTED ON SIGNAL MAST ARM)												
*** STREET SIGNS PAID FOR AS 430.001 INTERNALLY ILLUMINATED SIGN (SEE SECTION 9)												

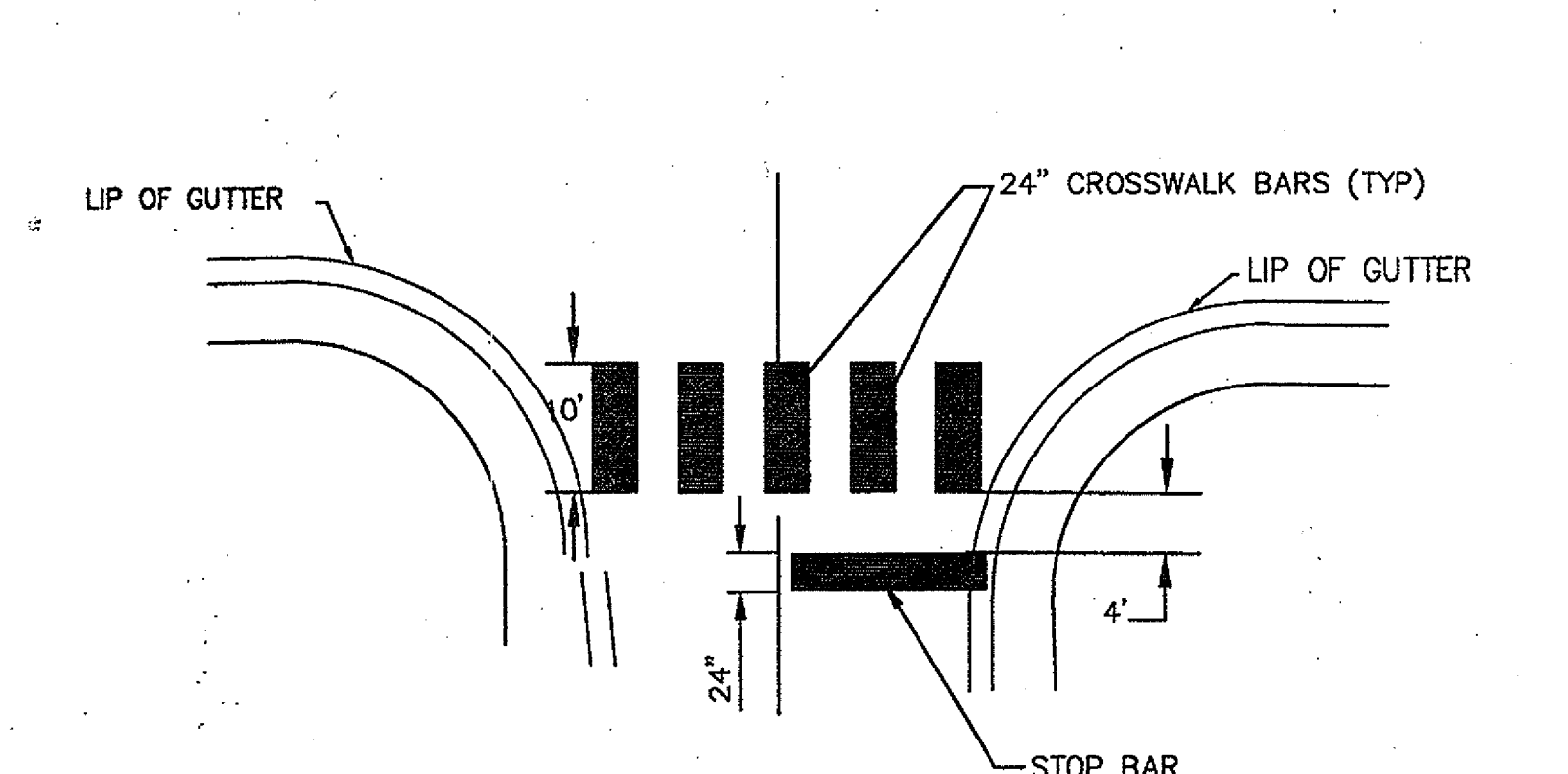
INCIDENTAL ITEMS (TO CONSTRUCTION):

- SIGN MOUNTING HARDWARE AND BRACKETS.
- CLEANING AND REMOVAL OF DEBRIS FOR EXISTING SIGNS TO REMAIN PER GENERAL NOTE 4 (SIGNS).
- REMOVAL OF SIGNS NOT DESIGNATED BUT REQUIRED PER GENERAL NOTE 3 (SIGNS).
- MEDIAN NOSE YELLOW PAINT PER MEDIAN NOSE MARKING TYPICAL DETAIL, SHEET 13 (PAVEMENT MARKINGS).
- VERTICAL CURB YELLOW PAINT PER GENERAL NOTE 13 (PAVEMENT MARKINGS).

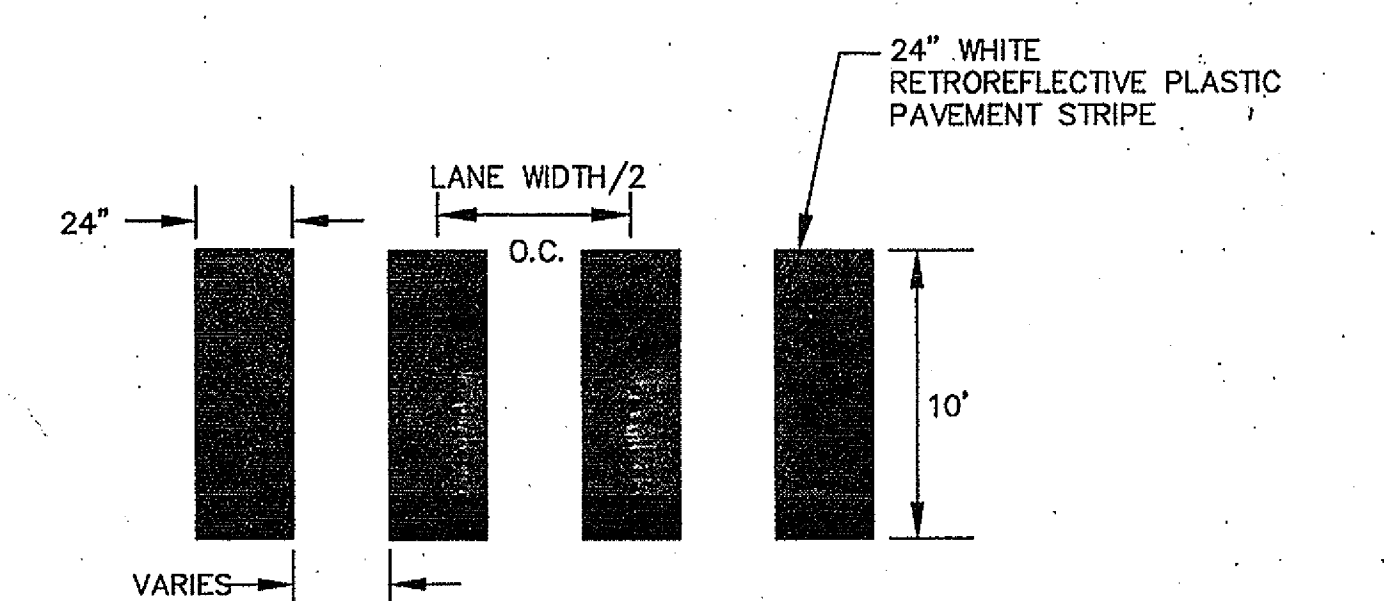
PARSONS  
BRINCKERHOFF

				CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION			
BARSTOW STREET/HOLLY AVENUE				SIGNAL IMPROVEMENTS			
SIGNING AND STRIPING NOTES, DETAILS, AND QUANTITIES				MO./DAY/YR.			
DESIGN REVIEW COMMITTEE		CITY ENGINEER APPROVAL		MO./DAY/YR.		MO./DAY/YR.	
APPROVED		APPROVED					
NOV 07 2013		NOV 07 2013					
DESIGN REVIEW COMMITTEE		CITY ENGINEER					
City Project No.		Zone Map No.		Sheet			
COA 5015.02		C19, C20, D19, D20		12 OF 21			

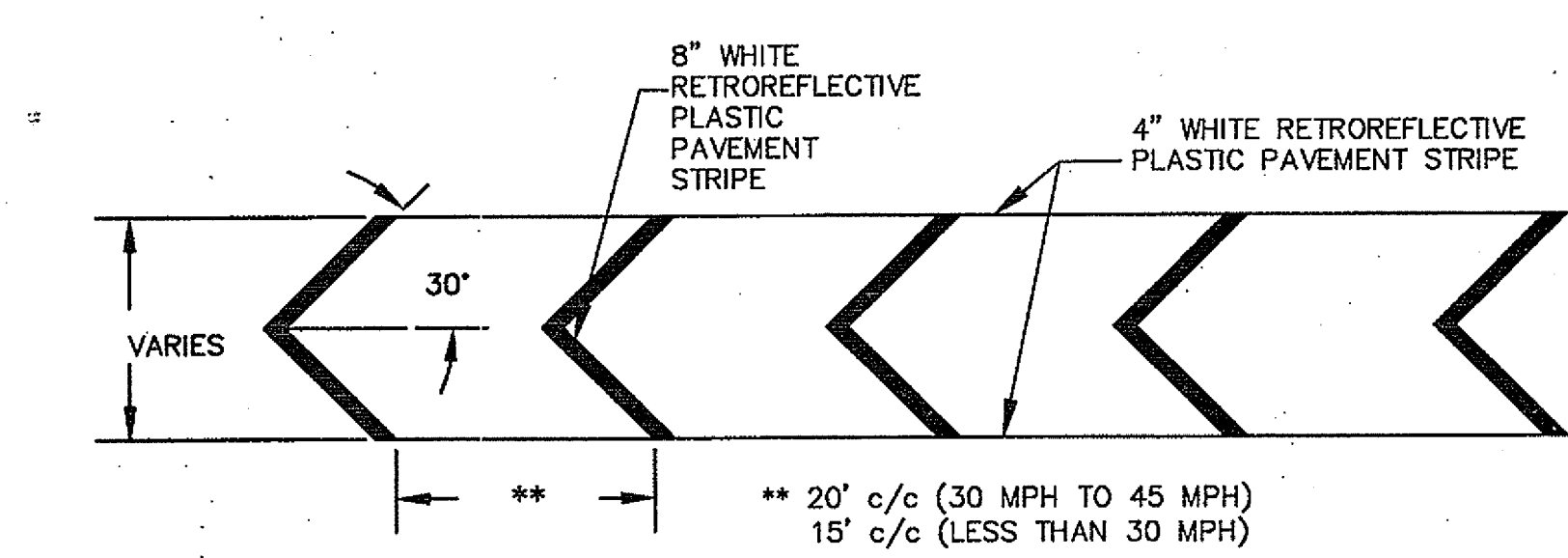




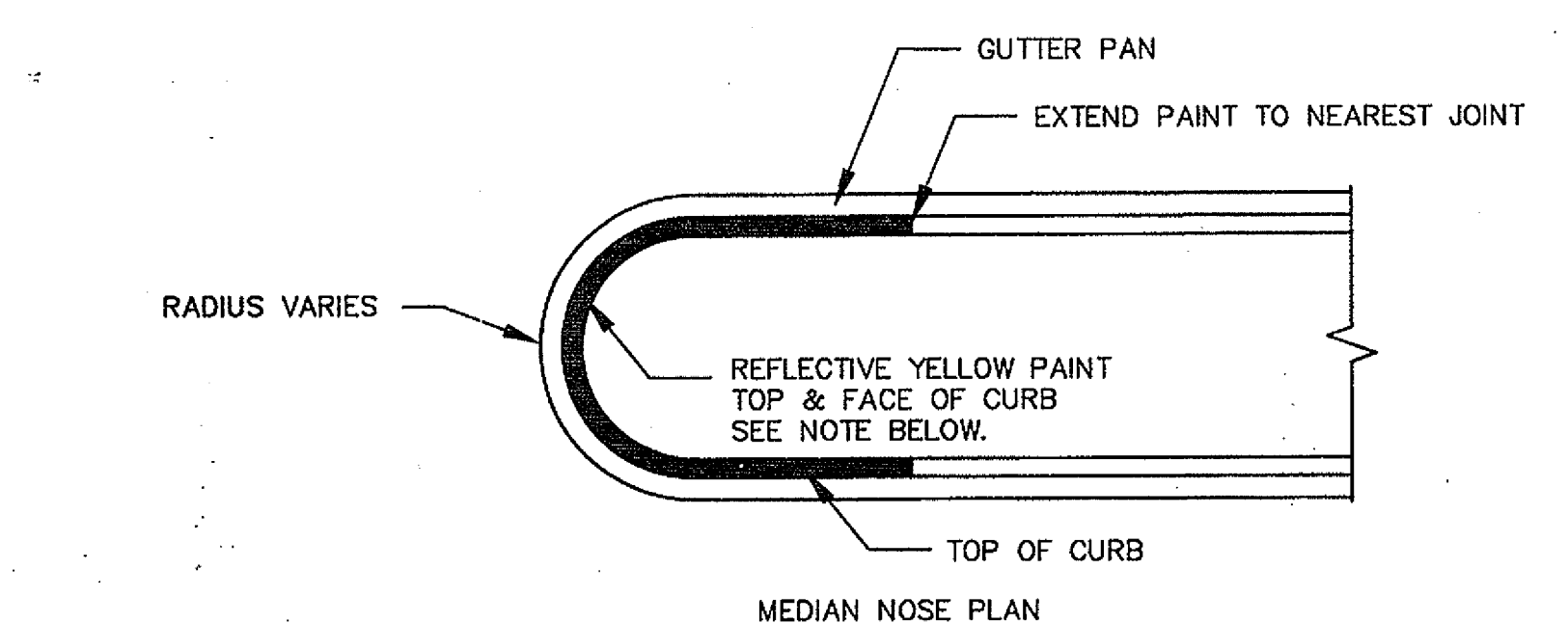
**CROSSEWALK & STOP BAR TYPICAL**  
NTS



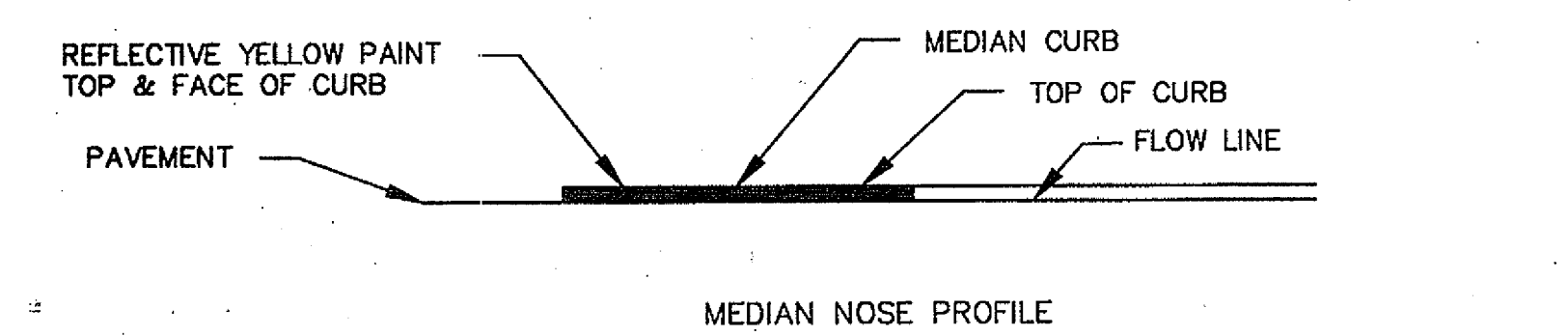
**CROSSEWALK BAR SPACING DETAIL**  
NTS



**CHEVRON ISLAND DETAIL**  
NTS



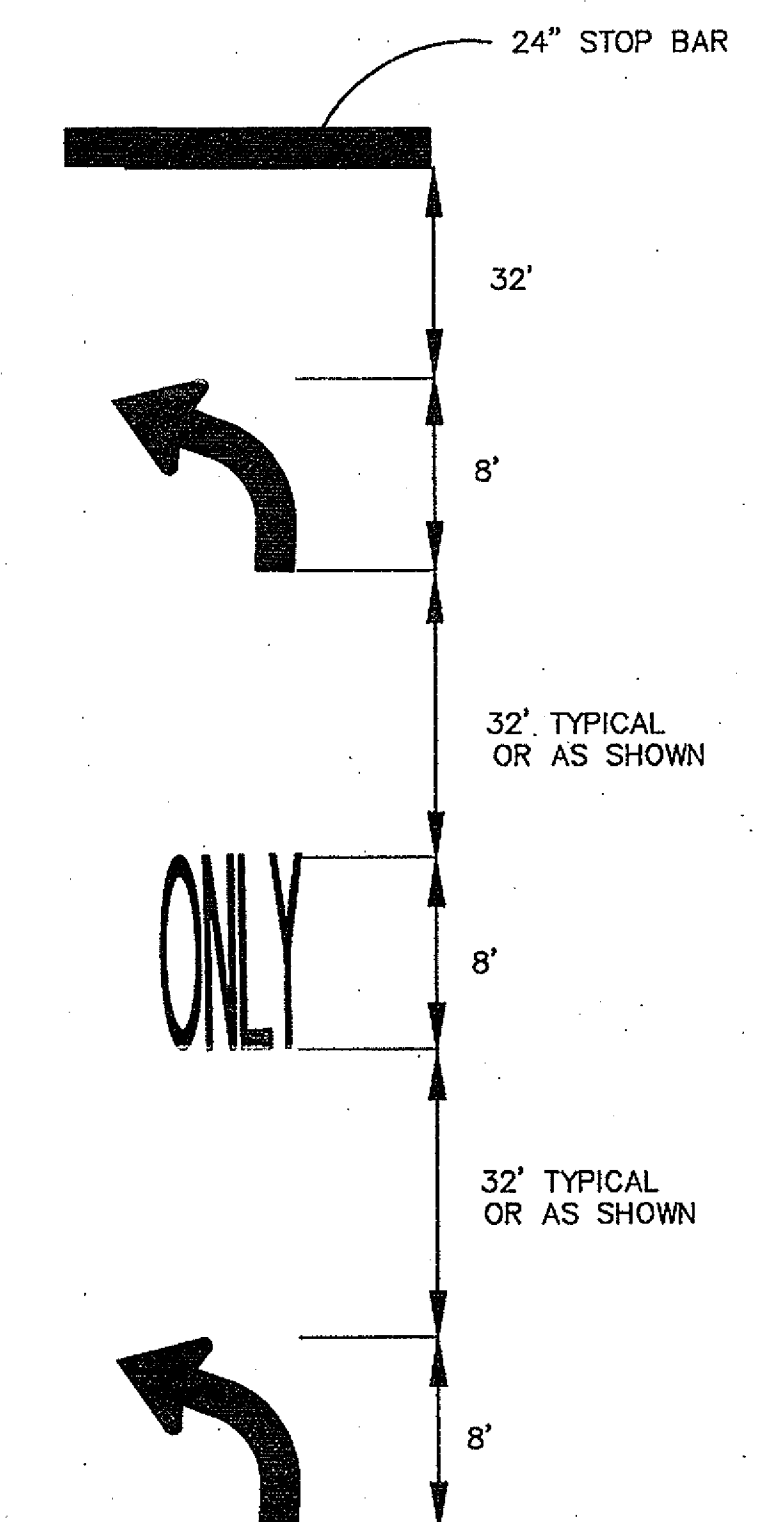
**MEDIAN NOSE PLAN**



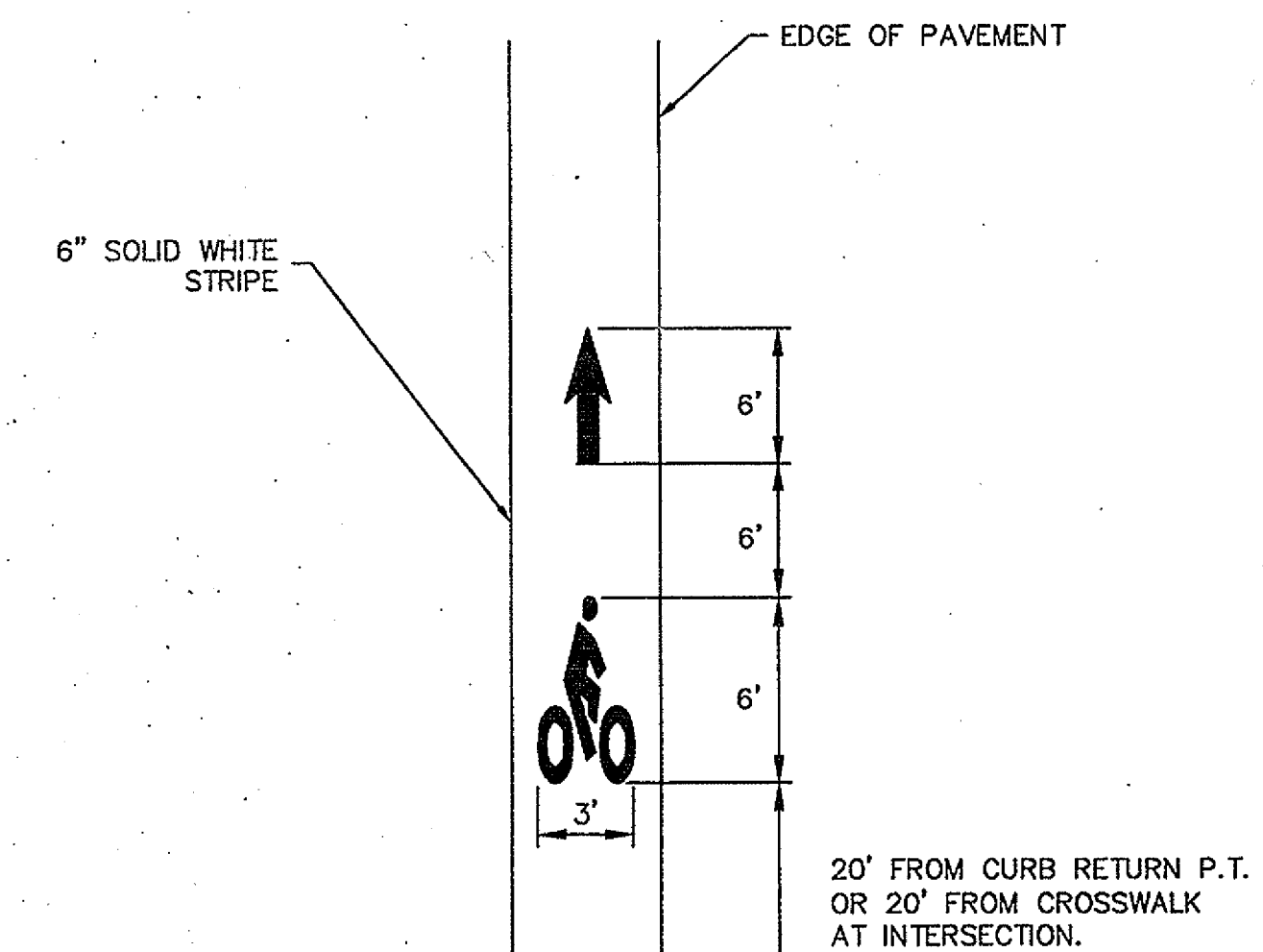
**MEDIAN NOSE PROFILE**

**MEDIAN NOSE MARKING TYPICAL DETAIL**  
NTS

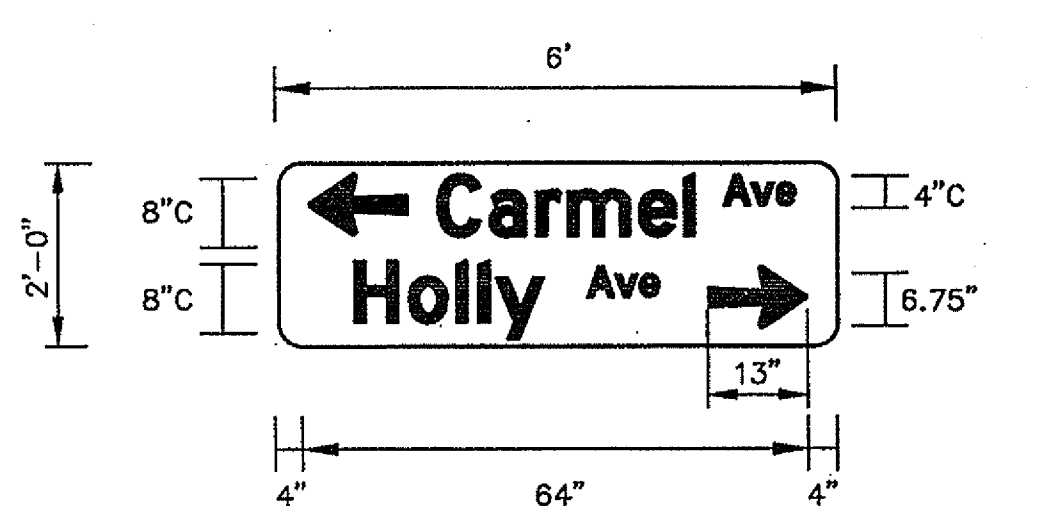
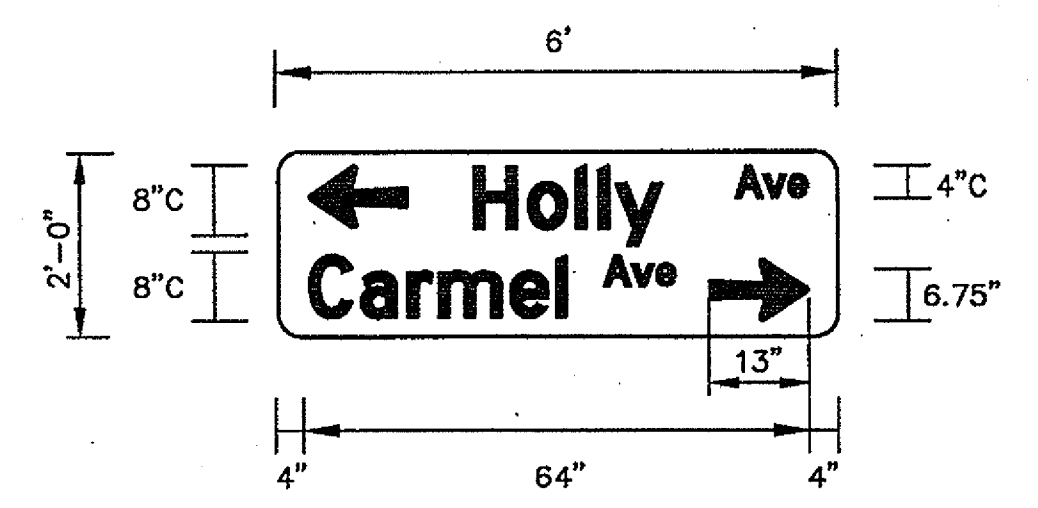
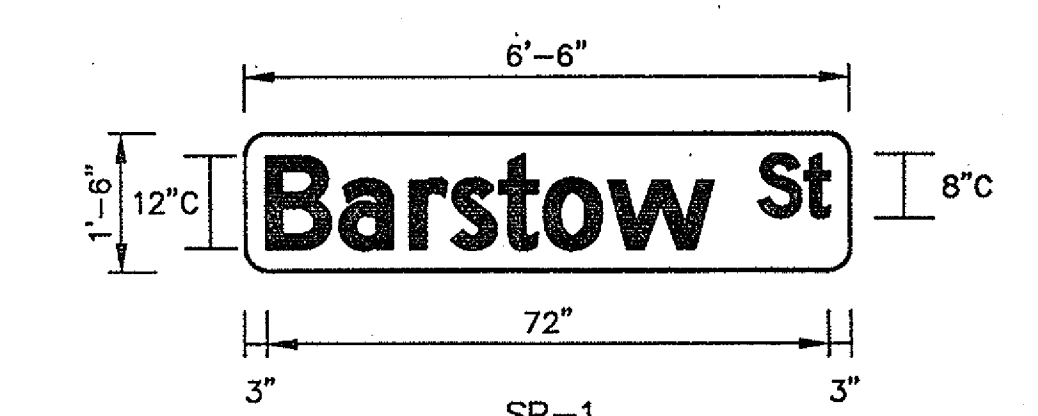
**NOTE:**  
TOP AND FACE OF MEDIAN CURB SHALL BE PAINTED WITH REFLECTIVE YELLOW PAINT FROM NOSE BACK 5' OR TO THE P.C., WHICHEVER IS GREATER. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO SIGNING AND STRIPING AND NO ADDITIONAL PAYMENT SHALL BE MADE.



**TURN LANE TYPICAL**  
NTS

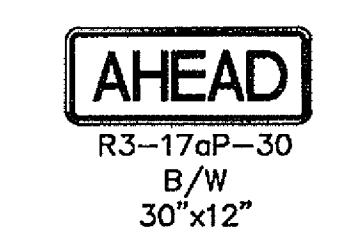
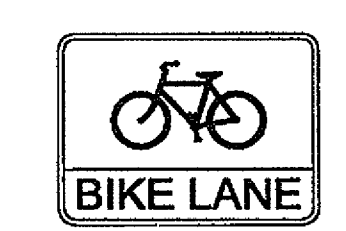


**TYPICAL BIKE LANE MARKINGS**  
NTS



**ILLUMINATED STREET NAME SIGNS**  
NTS

SEE COA STD. DWGS 2900-606 & 2900-607 FOR ILLUMINATED STREET NAME SIGN DETAILS



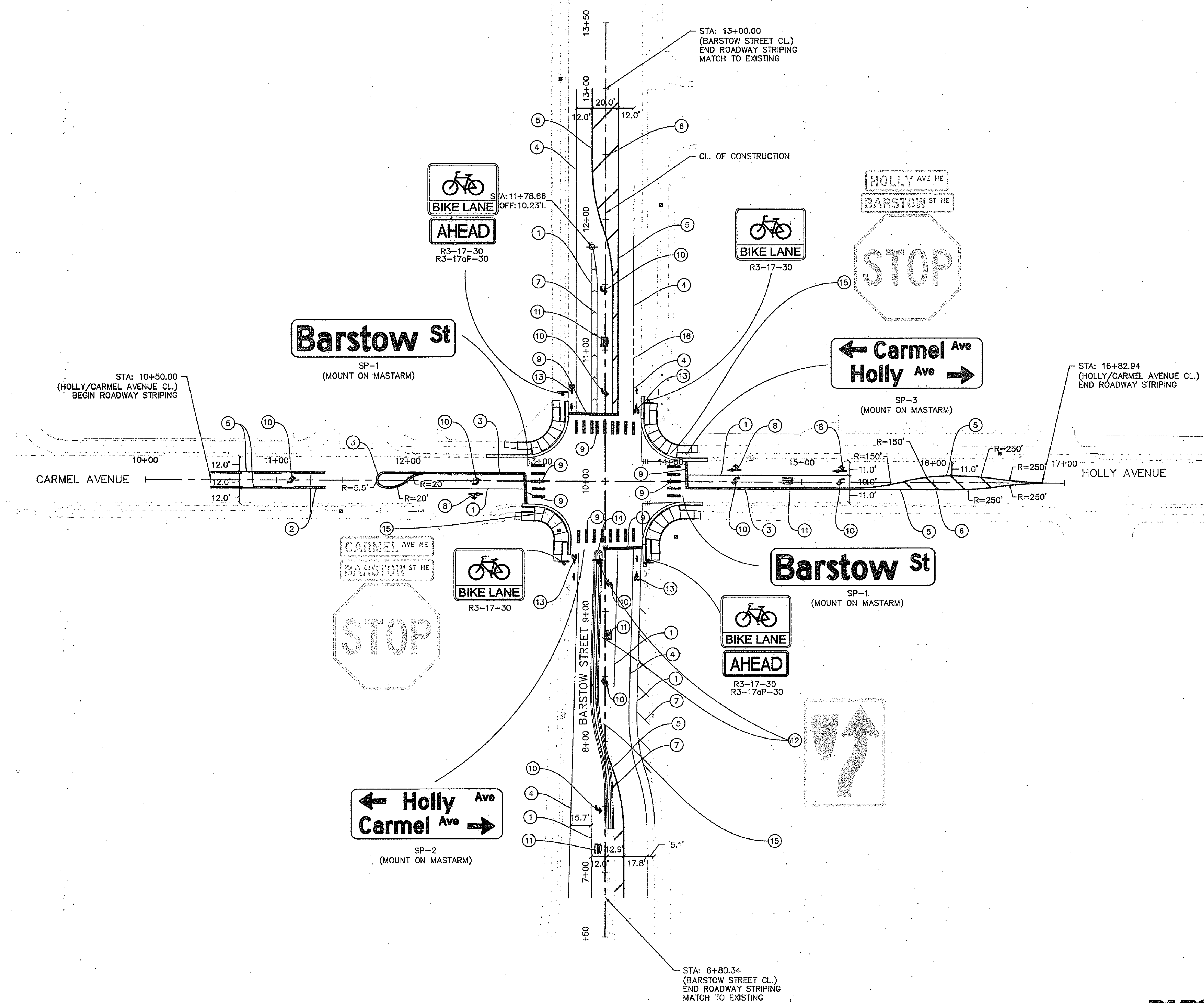
**PAVEMENT SYMBOL MARKING DETAILS**  
NTS

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		<b>CITY OF ALBUQUERQUE</b> DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION	
<b>BARSTOW STREET/HOLLY AVENUE</b> SIGNAL IMPROVEMENTS SIGNING AND STRIPING NOTES, DETAILS, AND QUANTITIES		MO./DAY/YR. NO. 07 2013 CITY ENGINEER	
City Project No. COA 5015.02	Zone Map No. C19, C20, D19, D20	Sheet 13 OF 21	City Project No. COA 5015.02

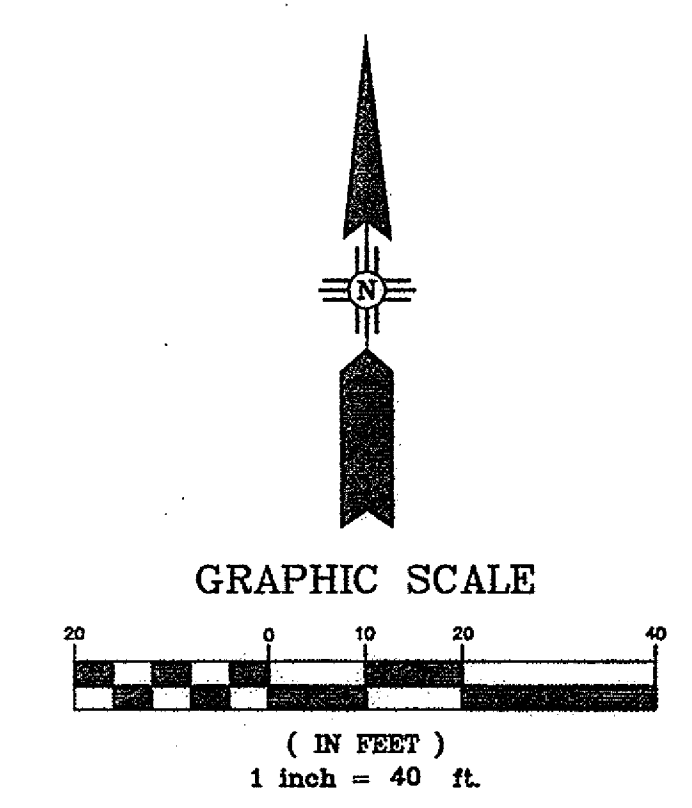
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CONTRACTOR	DATE	CONTRACTOR	DATE
INSPECTOR'S	DATE	INSPECTOR'S	DATE
FIELD LANCE BY	DATE	FIELD LANCE BY	DATE
VERIFICATION BY	DATE	VERIFICATION BY	DATE
CORRECTED BY	DATE	CORRECTED BY	DATE
MICRO-FILM INFORMATION			
NO. STATE PLANE COORDS. (NAD 83)	DATE	NO. STATE PLANE COORDS. (NAD 83)	DATE
N=1518799.515	DATE	N=1518799.515	DATE
E=1547297.145	DATE	E=1547297.145	DATE
NAD 1988 ELEV. = 5378.235	DATE	NAD 1988 ELEV. = 5378.235	DATE





- GENERAL NOTES:**
1. ALL SIGNING AND STRIPING SHALL COMPLY WITH THE CURRENT EDITION, WITH REVISIONS, OF THE M.U.T.C.D..
  2. ALL EXISTING STRIPING AND MARKINGS ON BARSTOW STREET BETWEEN STA. 6+80.34 AND STA. 13+00.00 AND ON CARMEL AVENUE/HOLLY AVENUE BETWEEN STA. 10+50.00 AND STA. 16+82.94 SHALL BE ERADICATED AND RESTRIPED ACCORDING TO PLAN.

- KEYED NOTES:**
- ① 4" SOLID WHITE RETROREFLECTORIZED THERMOPLASTIC STRIPE (120 MIL.)
  - ② 4" DASHED YELLOW RETROREFLECTORIZED THERMOPLASTIC STRIPE (120 MIL.)
  - ③ 4" SOLID DOUBLE YELLOW RETROREFLECTORIZED THERMOPLASTIC STRIPE (120 MIL.)
  - ④ 6" SOLID WHITE RETROREFLECTORIZED THERMOPLASTIC STRIPE (120 MIL.)
  - ⑤ 4" SOLID YELLOW RETROREFLECTORIZED THERMOPLASTIC STRIPE (120 MIL.)
  - ⑥ 8" SOLID YELLOW RETROREFLECTORIZED THERMOPLASTIC STRIPE (120 MIL., ANGLED 30°)
  - ⑦ 8" SOLID WHITE RETROREFLECTORIZED THERMOPLASTIC STRIPE (120 MIL., ANGLED 30°)
  - ⑧ RETROREFLECTORIZED PLASTIC PAVEMENT MARKING SYMBOL-THRU-LEFT ARROW.
  - ⑨ 24" SOLID WHITE RETROREFLECTORIZED THERMOPLASTIC STRIPE (120 MIL.)
  - ⑩ RETROREFLECTORIZED PLASTIC PAVEMENT MARKING SYMBOL-LEFT-TURN ARROW.
  - ⑪ RETROREFLECTORIZED PLASTIC PAVEMENT MARKING WORD-ONLY.
  - ⑫ REMOVE AND RESET EXISTING SIGN ACCORDING TO PLAN.
  - ⑬ RETROREFLECTORIZED PLASTIC PAVEMENT MARKING SYMBOL-BIKE LANE SYMBOL
  - ⑭ YELLOW RETROREFLECTORIZED MEDIAN NOSE (INCIDENTAL TO STRIPING)
  - ⑮ REMOVE AND SALVAGE EXISTING SIGN AND POST (INCIDENTAL TO SIGNING)
  - ⑯ 6" DOTTED WHITE RETROREFLECTORIZED THERMOPLASTIC STRIPE (2' STRIPE, 6' GAP)



CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION			
BARSTOW STREET/HOLLY AVENUE SIGNAL IMPROVEMENTS SIGNING AND STRIPING PLAN			
DESIGN REVIEW COMMITTEE <b>APPROVED</b> NOV 07 2013	CITY ENGINEER APPROVAL <b>APPROVED</b> NOV 07 2013	MO./DAY/YR.	MO./DAY/YR.
DESIGNED BY: KVC	DRAWN BY: KVC	CHECKED BY: PS	DATE: 9/28/13
City Project No. COA 5015.02		Zone Map No. C19, C20, D19, D20	Sheet 14 OF 21

**PARSONS  
BRINCKERHOFF**

AS BUILT INFORMATION			
CONTRACTOR	DATE	DATE	DATE
STATIONED BY	DATE	DATE	DATE
INSPECTOR'S	DATE	DATE	DATE
FIELD	DATE	DATE	DATE
VERIFICATION BY	DATE	DATE	DATE
CORRECTED BY	DATE	DATE	DATE
RECORDED BY	DATE	DATE	DATE
NO.	NO.	NO.	NO.

BENCH MARKS			
STATION IS LOCATED AT THE ENTRANCE TO THE	DATE	DATE	DATE
"GATES OF HEAVEN" CEMETARY, 0.9 MILES WEST	DATE	DATE	DATE
ON PASEO DEL NORTE FROM WYOMING BLVD.	DATE	DATE	DATE
NM STATE PLANE COORDS. (NAD 83)	DATE	DATE	DATE
N=1518799.515	DATE	DATE	DATE
E=1547297.145	DATE	DATE	DATE
NAD 1988 ELEV. = 5378.235	DATE	DATE	DATE

SURVEY INFORMATION			
FIELD NOTES	DATE	DATE	DATE
BY	DATE	DATE	DATE
NO.	DATE	DATE	DATE

ENGINEER'S SEAL			
PAUL F. STEFF	DATE	DATE	DATE
REGISTERED PROFESSIONAL ENGINEER	DATE	DATE	DATE
NO. DATE	DATE	DATE	DATE
REMARKS	DATE	DATE	DATE
BY	DATE	DATE	DATE



TRAFFIC SIGNAL NOTES:

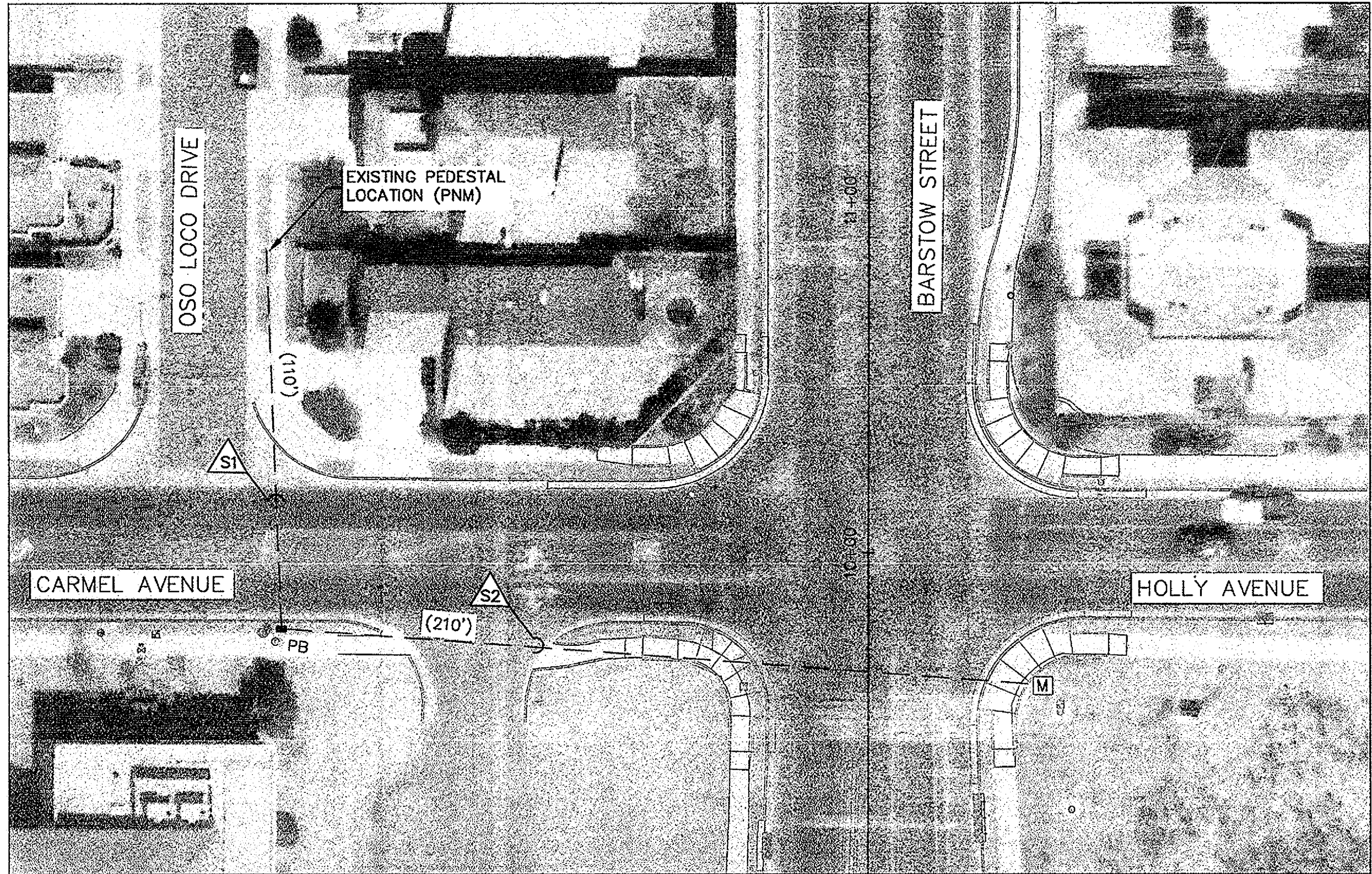
- 1. THE CONTRACTOR SHALL CONTACT THE CITY OF ALBUQUERQUE FOR APPROVED PRODUCTS LISTING FOR TRAFFIC SIGNAL COMPONENTS.
- 2. LOCATIONS OF CONDUITS, FOUNDATIONS, CONTROL CABINETS, POLES, PULL BOXES, MANHOLES, AND SPICE CABINETS SHOWN ON THE PLANS ARE SCHEMATIC AND SHALL BE AVAILABLE FOR PEDESTRIANS AND 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.
- 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. MASTARMS SHALL BE PLACED 90° TO THE CENTERLINE UNLESS OTHERWISE NOTED.
- 5. SPlicing OF OPTICAL DETECTOR AND VIDEO CABLE WILL NOT BE PERMITTED FROM THE OPTICAL DETECTOR OR VIDEO CAMERA TO THE CONTROLLER CABINET.
- 6. ALL OPTICAL DETECTOR CABLES AND VIDEO CABLE SHALL BE TAGGED AT THE CONTROL CABINET TO IDENTIFY EACH BY DIRECTION AND LOCATION.
- 7. THE CONTRACTOR SHALL NOTIFY THE CITY OF ALBUQUERQUE FIVE (5) WORKING DAYS IN ADVANCE OF ANY ANTICIPATED WORK ON SIGNALS, LIGHTING, AND POWER SERVICES. TRAFFIC ENGINEERING PERSONNEL MUST BE PRESENT WHEN SIGNALS ARE SHUT OFF OR TURNED ON. THE CONTRACTOR SHALL ALSO NOTIFY THE LOCAL MAINTAINING AGENCY EACH TIME A TRAFFIC SIGNAL CONTROL DOOR IS OPENED. THE CONTRACTOR SHALL NOTIFY THE CITY OF ALBUQUERQUE TWO (2) WEEKS PRIOR TO TURNING ON NEW SIGNALS.
- 8. THE CONTRACTOR SHALL NOTIFY PNM THIRTY (30) DAYS IN ADVANCE OF ANTICIPATED POWER SERVICE CONNECTIONS. THE CONTRACTOR SHALL COORDINATE WITH PNM TO ESTABLISH ELECTRICAL SERVICE IN THE CITY OF ALBUQUERQUE'S NAME. THE CONTRACTOR SHALL PAY PNM ALL COSTS TO PROVIDE ELECTRICAL SERVICE. THIS WORK WILL BE PAID THROUGH ITEM #421.015, SERVICE CONNECTION.
- 9. THE CONTRACTOR SHALL REMOVE ALL CONFLICTING SIGNING AND DELIVER TO THE COA WHEN TRAFFIC SIGNALS ARE PUT INTO OPERATION.
- 10. FOR CONDUITS CONTAINING ONLY LOW VOLTAGE COMMUNICATION CABLES, THE REQUIREMENTS FOR SINGLE CONDUCTOR COPPER #6 AWG MAY BE WAIVED WHERE PERMITTED BY THE NATIONAL ELECTRIC CODE.
- 11. EXISTING CONDUITS TO BE REMOVED OR ABANDONED SHALL HAVE ALL WIRING REMOVED.
- 12. EXISTING CONDUITS SHALL BE REPAIRED, ADJUSTED, OR REPLACED AS DIRECTED BY THE PROJECT MANAGER WHERE ELECTRICAL PULL BOXES OR TRAFFIC MANHOLES ARE INSTALLED OR REPLACED.
- 13. THE CONTRACTOR SHALL ARRANGE TO HAVE OFF-DUTY POLICE OFFICERS TO DIRECT TRAFFIC WHEN NEW SIGNALS ARE PLACED INTO OPERATION OR WHEN EXISTING SIGNALS ARE TEMPORARILY SHUT OFF. SIGNAL LAB WILL NOT DO THE INITIAL INSPECTION WITHOUT POLICE PRESENCE. OFF-DUTY POLICE OFFICERS FOR TRAFFIC CONTROL WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
- 14. THE CONTRACTOR SHALL FURNISH FOUNDATION ELEVATIONS TO THE PROJECT MANAGER FOR APPROVAL BEFORE INSTALLATION. THE CONTRACTOR SHALL GRADE AROUND THE FOUNDATIONS TO PROVIDE TRAVERSABLE SLOPES AS DIRECTED BY THE PROJECT MANAGER. THE CONTRACTOR SHALL SUBMIT CROSS-SECTIONS FOR APPROVAL BASED ON ACTUAL FIELD ELEVATIONS. ALL EXCAVATION AND/OR EMBANKMENT REQUIRED WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
- 15. SIGNALS NEAR EXISTING OVERHEAD POWER LINES MUST MAINTAIN A VERTICAL CLEARANCE AND/OR A HORIZONTAL CLEARANCE FROM THE CLOSEST PHASE CONDUCTOR. THE LOCAL POWER COMPANY WILL ASSIST IN MEASUREMENT AND DETERMINATION OF CLEARANCE.
- 16. ALL CONDUIT SHALL BE BORED.
- 17. ALL NEW SIGNAL CONSTRUCTION SHALL BE ADA COMPLIANT INCLUDING LOCATION OF MASTARMS, PEDESTAL POLES, AND PUSH BUTTONS.
- 18. SIGNAL HEADS SHALL BE COVERED WHEN NECESSARY WITH AN APPROVED BLACK NON-TRANSPARENT SIGNAL COVER.
- 19. THE CONTRACTOR IS HEREBY ADVISED THAT THE INTERSECTION SIGNALS SHALL NOT BE TURNED ON UNTIL THE SIGNAL IS COMPLETELY INSTALLED, INCLUDING FULLY ACTUATED OPERATION (PRE-EMPTION, AND ALL PUSH BUTTON WIRING SHALL BE OPERATIONAL).
- 20. THE CONTRACTOR SHALL INSTALL ALL POLE MOUNT TRAFFIC SIGNALS AND PEDESTRIAN SIGNALS ON THE BACKSIDE OF THE POLE IN REFERENCE TO THE ROAD IN ORDER TO AVOID TRUCK TURNING TRAFFIC.
- 21. A SOIL SAMPLE, EXPLORATORY BORES MUST BE PROVIDED BY THE CONTRACTOR TO DETERMINE THE TYPE OF FOUNDATION TO BE USED FOR THE MASTARMS, TYPE II & TYPE III.
- 22. ALL SIGNAL CONSTRUCTION PLANS SHALL BE REVIEWED AND APPROVED BY THE COA PRIOR TO LETTING.
- 23. CAP UNUSED WIRING.
- 24. ALL MASTARMS SHALL BE STEEL.
- 25. ALL CONDUIT INSTALLED IN A TRENCH SHALL BE FLAGGED WITH CAUTION TAPE ONE FOOT ABOVE THE CONDUIT. CAUTION TAPE SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
- 26. LUMINAIRES INSTALLED ON MASTARMS IN THE NORTHEAST AND NORTHWEST QUADRANTS OF THE INTERSECTION SHALL BE INSTALLED WITH SHIELDING TO PREVENT LIGHT FROM SHINING INTO THE ADJACENT NEIGHBORHOODS.
- 27. THE CONTRACTOR SHALL ENSURE THAT ALL MASTARM SIGNAL HEADS ARE LOCATED AS NEAR AS POSSIBLE TO THE CENTER OF THE LANE SERVED. ALL VERTICAL POLE MOUNTED DISPLAYS SHALL BE DIRECTED TOWARD THE LANE(S) SERVED.
- 28. ALL INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE INSTALLED WITH THE TRAILING EDGE OF THE SIGN ALIGNED WITH THE FACE OF CURB, OR AS CLOSE AS POSSIBLE.
- 29. ALL VEHICLE DISPLAYS SHALL BE LED TYPE APPROVED BY THE CITY OF ALBUQUERQUE.

TRAFFIC SIGNAL EQUIPMENT REQUIREMENTS:

- 1. THIS PROJECT IS A NEW SIGNAL SYSTEM. THEREFORE THE CONTRACTOR SHALL FURNISH AND INSTALL THE FOLLOWING:
  - A. ALL NEW TRAFFIC SIGNAL CONTROLLERS ON THIS PROJECT SHALL BE ECONOLITE ASC-3, TS1/NTOP ACTUATED CONTROLLER AS DIRECTED BY THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING DEPARTMENT.
  - B. ALL EIGHT PHASE DUAL RING CONTROLLER CABINETS SUPPLIED FOR THIS PROJECT SHALL BE TS-1, "P" SIZE CABINETS WIRED FOR FULL EIGHT PHASE SYSTEM OPERATION, TELEMETRY BOARDS, "IT" TRANSIENT VOLTAGE SURGE SUPPRESSER AND ALL CONNECTING HARNESSSES. THESE CABINETS SHALL BE CAPABLE OF LOOP DETECTION.
- 2. EMERGENCY VEHICLE PRE-EMPT EQUIPMENT SHALL BE 3M "OPTICOM" MODEL 762 (OR MOST CURRENT ACCEPTABLE MODEL). PHASE SELECTORS MOUNTED ON 3M OPTICOM MODEL 760 RACKS, OR APPROVED EQUAL. ALL RACKS SHALL BE CAPABLE OF PROVIDING FOUR CHANNELS OF DETECTION. PHASE SELECTOR MODULES SHALL BE CAPABLE OF TWO CHANNELS OF DETECTION EACH. A MANUFACTURERS REPRESENTATIVE SHALL ASSIST THE CONTRACTOR IN THE FIELD AS WORK PROGRESSES TO COMPLETE THE INSTALLATION OF ALL PRE-EMPTION EQUIPMENT AND TO ASSIST IN SETTING UP, TURNING ON, PROGRAMMING AND FIELD TESTING PREEMPTION EQUIPMENT INCLUDING EMITTERS TO INSURE THAT THE EQUIPMENT IS OPERATIONAL.
- 3. THE CONTRACTOR SHALL INSTALL INTERNALLY ILLUMINATED STREET NAME SIGNS ON EACH MASTARM. THE BRAND OF ILLUMINATED STREET NAME SIGN SHALL BE APPROVED BY CITY OF ALBUQUERQUE TRAFFIC ENGINEERING. THE SIGNS SHALL BE CONSTRUCTED FROM 1/2-INCH THICK WHITE IMPACT RESISTANT LEXAN PANELS. THE CITY MAY SUPPLY GRAPHICS FOR THE SIGN AND ALL DIGITAL PRINTING SHALL USE OUTDOOR QUALITY MATERIALS TO ENSURE A MINIMUM OF 3-YEARS GRAPHIC IMAGE QUALITY. AN ANTI-GRAFFITI ULTRAVIOLET COATING SHALL BE APPLIED TO ALL SIGNS. LETTERING ON ALL SIGNS SHALL BE PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT APPROVED EDITION.
- 4. THIS PROJECT INCLUDES THE INSTALLATION OF A CCTV CAMERA AT THE INTERSECTION.
  - A. THE VIDEO POWER CABLE SHALL BE A THREE CONDUCTOR #12 AWG TWISTED POWER SERVICE CABLE OR MANUFACTURER EQUIVALENT.
  - B. THE INSTALLATION AND SETUP OF THE CCTV CAMERA SHALL BE UNDER THE DIRECTION OF A FACTORY REPRESENTATIVE WHO SHALL BE PAID THROUGH ITEM #428.210, CCTV CAMERA - PAN, TILT, ZOOM, CIP.

TRAFFIC SIGNAL INCIDENTAL ITEMS:

- 1. REMOVAL OF EXISTING PULL BOXES, CONDUITS, POLES AND 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, AND CURB AND GUTTER 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.
- 8. REMOVAL, SALVAGE, AND TRANSPORTATION OF EXISTING SIGNAL EQUIPMENT TO THE CITY OF ALBUQUERQUE PINDO YARDS.
- 9. LEAN FILL FOR CONDUIT TRENCHES.
- 10. PULL BOX ADJUSTMENT TO GRADE.
- 11. REMOVAL AND REPLACEMENT IN KIND OR BETTER OF LANDSCAPING INCLUDING SPRINKLERS, FOR INSTALLATION OF PULL BOXES, CONDUITS AND SIGNAL FOUNDATIONS.
- 12. 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.
- 13. LOCATOR WIRES INSTALLED WITH FIBER OPTIC CABLE. THESE LOCATOR WIRES SHALL BE #10 AWG. LOCATOR WIRES SHALL NOT BE REQUIRED TO HAVE MORE THAN FEET OF ADDITIONAL LENGTH IN EACH PULL BOX.
- 14. FAN-OUT KITS, PATCH CORDS, TEST CONNECTOR TERMINALS, AND ALL MISCELLANEOUS FIBER OPTIC CABLE HARDWARE CONNECTIONS AND HARDWARE NOT SPECIFIED ARE SUBJECT INCIDENTAL TO CONSTRUCTION. THESE ITEMS ARE SUBJECT TO APPROVAL BY THE CITY OF ALBUQUERQUE.
- 15. FIELD SPLICES.
- 16. CRIMP CLAMPS (CLOSED END CONNECTORS) ON ALL UNUSED CONDUCTORS.
- 17. GEL FILLED WIRE NUTS FOR ALL FIELD SPLICES.
- 18. OFF-DUTY POLICE OFFICER FOR TRAFFIC CONTROL, TRAFFIC SIGNAL NOTE 13.
- 19. SOIL SAMPLE AND EXPLORATORY BORES PER TRAFFIC SIGNAL NOTE 21.
- 20. USED WIRING, TRAFFIC SIGNAL NOTE 23.
- 21. SHIELDING FOR LUMINAIRES, TRAFFIC SIGNAL NOTE 24.
- 22. CAUTION TAPE ABOVE CONDUIT, TRAFFIC SIGNAL NOTE 25.
- 23. REQUIRED EQUIPMENT FOR ADA COMPLIANCE, TRAFFIC SIGNAL PLAN NOTE 5.













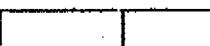
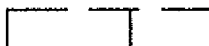

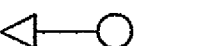



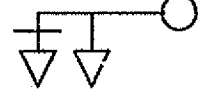
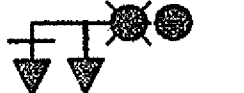
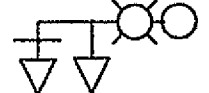









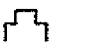



PARSONS  
BRINCKERHOFF


CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION			
BARSTOW STREET/HOLLY AVENUE SIGNAL IMPROVEMENTS TRAFFIC SIGNAL NOTES AND QUANTITIES			
DESIGN REVIEW COMMITTEE APPROVED NOV 07 2013 DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL APPROVED NOV 07 2013 CITY ENGINEER	DATE 9/28/13	DATE 9/28/13
DESIGNED BY: KVC	DRAWN BY: KVC	CHECKED BY: PS	DATE: 9/28/13
City Project No. COA 5015.02		Zone Map No. C19, C20, D19, D20	Sheet 15 OF 21

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
		FIELD NOTES		STATION IS LOCATED AT THE ENTRANCE TO THE		CONTRACTOR	
		NO. DATE BY		"GATES OF HEAVEN" CEMETERY, 0.9 MILES WEST		DATE	
		NO. DATE BY		ON PASSE DEL NORTE FROM VICTORY BLVD.		DATE	
		NO. DATE BY		N.M. STATE PLANE COORDS. (NAD 83)		DATE	
DESIGNED BY: KVC		DATE: 9/28/13		RECORDED BY		DATE	
DRAWN BY: KVC		DATE: 9/28/13		CHECKED BY		DATE	
CHECKED BY: PS		DATE: 9/28/13		NO.		NO.	



TRAFFIC SIGNAL LEGEND		
PROPOSED	EXISTING	ITEM
		PULL BOX
		SERVICE POLE
		METER PEDESTAL
		CONTROLLER CABINET
		SPLICE CABINET
		CONDUIT RUN
		LOOP DETECTOR
		TRAFFIC SIGNAL PEDESTAL POLE
		CONDUIT RUN NUMBER (SIGNAL)
		TYPE II STANDARD W/MASTARM SIGNAL, BACKPLATE & OPTICAL DETECTOR
		TYPE III STANDARD W/MASTARM SIGNAL, BACKPLATE, LUMINAIRE & OPTICAL DETECTOR
		PEDESTRIAN PUSH BUTTON (MOUNTED TO SIDE OF POLE WHERE INDICATED)
		PEDESTRIAN SIGNALS (MOUNTED TO SIDE OF POLE WHERE INDICATED)
		TRAFFIC MANHOLE
		CONDUIT RUN ID (POWER SERVICE)
		VIDEO CAMERA
		CCTV CAMERA

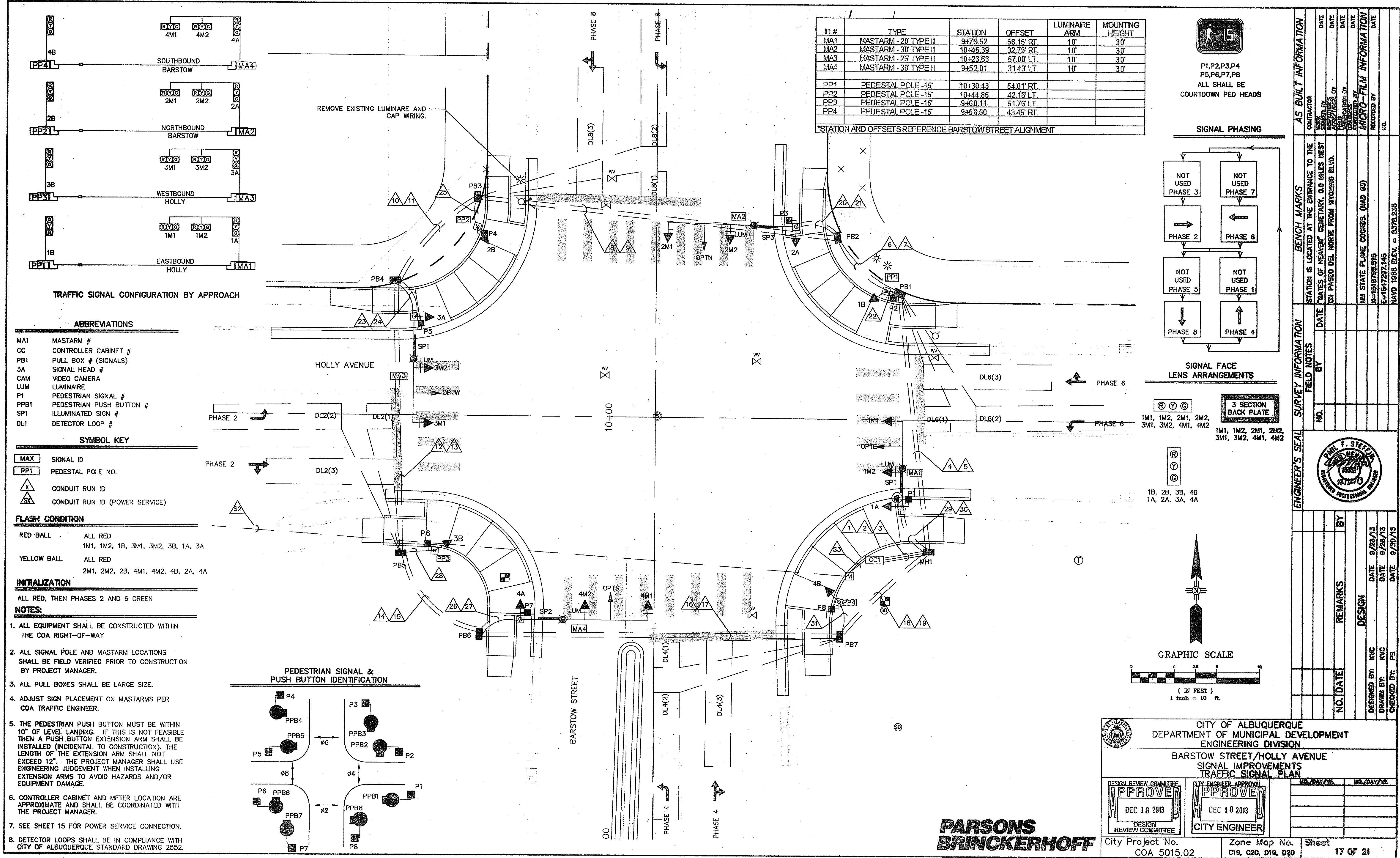
TRAFFIC SIGNAL			
ITEM ID NO.	ITEM DESCRIPTION	UNIT	TOTAL
421.015	SERVICE CONNECTION (SIGNAL), CIP.	EACH	1
422.004	TRAFFIC SIGNAL PEDESTAL POLE, 15', CIP.	EACH	4
422.013	TRAFFIC SIGNAL MASTARM, 20' ARM, TYPE III, TROMBONE, CIP.	EACH	1
422.015	TRAFFIC SIGNAL MASTARM, 25' ARM, TYPE III, TROMBONE, CIP.	EACH	1
422.017	TRAFFIC SIGNAL MASTARM, 30' ARM, TYPE III, TROMBONE, CIP.	EACH	2
423.001	TRAFFIC SIGNAL FOUNDATION FOR PEDESTAL POLE, CIP.	EACH	4
423.002	TRAFFIC SIGNAL MASTARM FOUNDATION, CIP.	EACH	4
424.006	ELECTRICAL CONDUIT, 2", ICL, TRENCHING, BACKFILL & PATCHING, PUSHING, BORING, & JACKING, CIP.	L.F.	495
424.011	ELECTRICAL CONDUIT, 3", ICL, TRENCHING, BACKFILL & PATCHING, PUSHING, BORING, & JACKING, CIP.	L.F.	1,415
425.020	TRAFFIC SIGNAL MANHOLE, CIP.	EACH	1
425.003	ELECTRICAL PULL BOX (LARGE), CIP.	EACH	9
426.001	SINGLE CONDUCTOR, #2, CIP.	L.F.	1,020
426.003	SINGLE CONDUCTOR, #8, CIP.	L.F.	1,180
426.004	SINGLE CONDUCTOR, #8, CIP.	L.F.	1,500
426.005	SINGLE CONDUCTOR, #10, CIP.	L.F.	1,450
426.010	MULTI-CONDUCTOR CABLE, #5, CIP.	L.F.	1,400
426.014	MULTI-CONDUCTOR CABLE, #20, CIP.	L.F.	1,060
427.002	3 SECTION TRAFFIC SIGNAL ASSEMBLY, CIP.	EACH	16
427.021	PEDESTRIAN COUNTDOWN SIGNAL (LED), CIP.	EACH	8
427.031	3 SECTION BACKPLATE, CIP.	EACH	8
428.001	LOOP VEHICLE DETECTOR, CIP.	EACH	1
428.010	PUSH BUTTON STATION, CIP.	EACH	8
428.022	DUCTED LOOP DETECTOR WIRE, CIP.	L.F.	3,270
428.050	LOOP LEAD-IN CABLE, CIP.	L.F.	1,530
428.060	DETECTOR SAW CUT, COMPL.	L.F.	1,161
428.070	PHASE SELECTOR RACK, 4 CHANNELS, CIP.	EACH	1
428.071	PHASE SELECTOR MODULE 2 CHANNEL, CIP.	EACH	2
428.075	OPTICAL DETECTOR, 1 DIRECTION, 1 CHANNEL, CIP.	EACH	4
428.078	OPTICAL DETECTOR CABLE, CIP.	L.F.	735
428.092	VIDEO COAXIAL CABLE, CIP.	L.F.	70
428.093	VIDEO POWER CABLE, CIP.	L.F.	70
428.210	CCTV CAMERA - PAN, TILT, ZOOM, CIP.	EACH	1
429.001	TRAFFIC ACTUATED CONTROLLER, CIP.	EACH	1
429.021	8 PHASE DOUBLE RING CONTROLLER CABINET, CIP.	EACH	1
430.001	INTERNALLY ILLUMINATED SIGN	EACH	4
432.001	ROADWAY LUMINAIRE TYPE 250 S, CIP.	EACH	4
435.006	SINGLE MODE FIBER OPTIC CABLE (8)	EACH	675
435.610	EXISTING SPLICE CLOSURE (RESPICE)	EACH	1
435.702	MANAGED FIELD ETHERNET SWITCH	EACH	1
435.707	TESTING AND TROUBLESHOOTING	L.S.	L.S.

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
		STATION IS LOCATED AT THE ENTRANCE TO THE "GATES OF HEAVEN" CELESTARY, 0.9 MILES WEST ON PASO DEL NORTE FROM WYOMING BLVD.		CONTRACTOR DATE		INSPECTED BY DATE	
		FIELD NOTES NO. BY		ASSESSMENT BY DATE		MICRO-FILM INFORMATION RECORDED BY DATE	
NO. DATE REMARKS BY		NO. DATE REMARKS BY		NO. DATE REMARKS BY		NO. DATE REMARKS BY	
DESIGNED BY: RVC DATE 9/26/13 DRAWN BY: RVC DATE 9/26/13 CHECKED BY: PS DATE 9/30/13		DESIGNED BY: RVC DATE 9/26/13 DRAWN BY: RVC DATE 9/26/13 CHECKED BY: PS DATE 9/30/13		DESIGNED BY: RVC DATE 9/26/13 DRAWN BY: RVC DATE 9/26/13 CHECKED BY: PS DATE 9/30/13		DESIGNED BY: RVC DATE 9/26/13 DRAWN BY: RVC DATE 9/26/13 CHECKED BY: PS DATE 9/30/13	

CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION BARSTOW STREET/HOLLY AVENUE SIGNAL IMPROVEMENTS TRAFFIC SIGNAL NOTES AND QUANTITIES			
DESIGN REVIEW COMMITTEE APPROVED NOV 07 2013 DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL APPROVED NOV 07 2013 CITY ENGINEER	DESIGNED BY: RVC DATE 9/26/13	DRAWN BY: RVC DATE 9/26/13
City Project No. COA 5015.02		Zone Map No. C19, C20, D19, D20	Sheet 16 OF 21

**PARSONS  
BRINCKERHOFF**

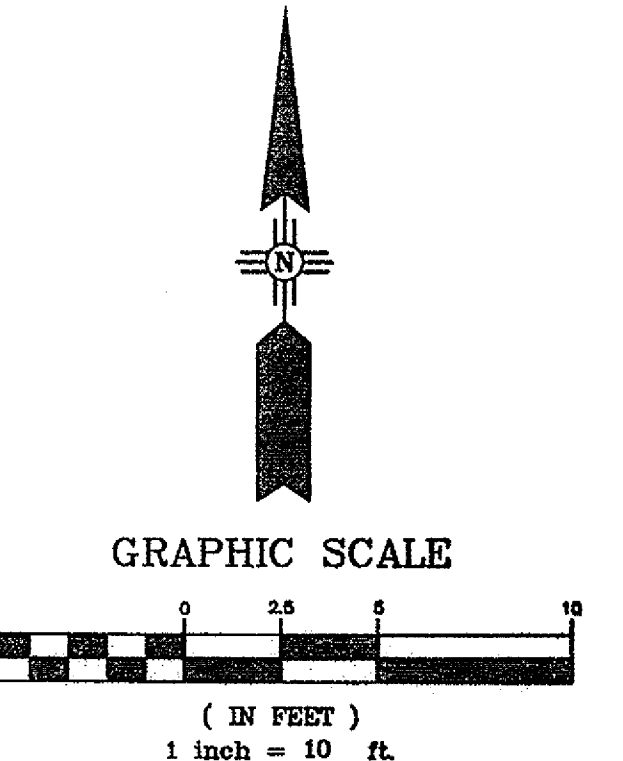
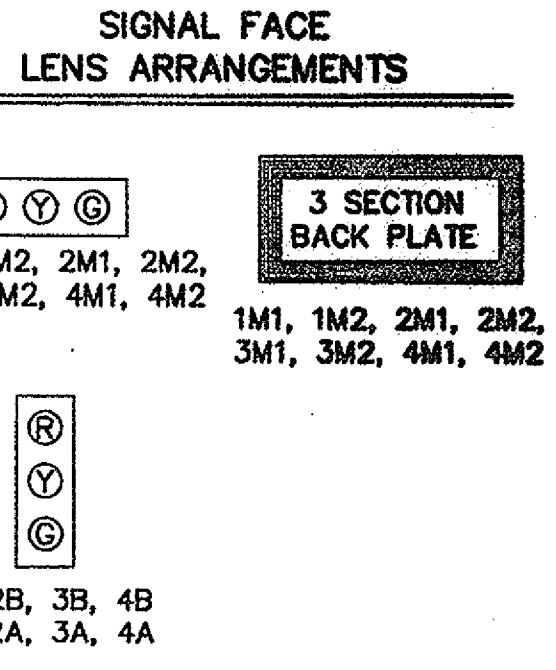
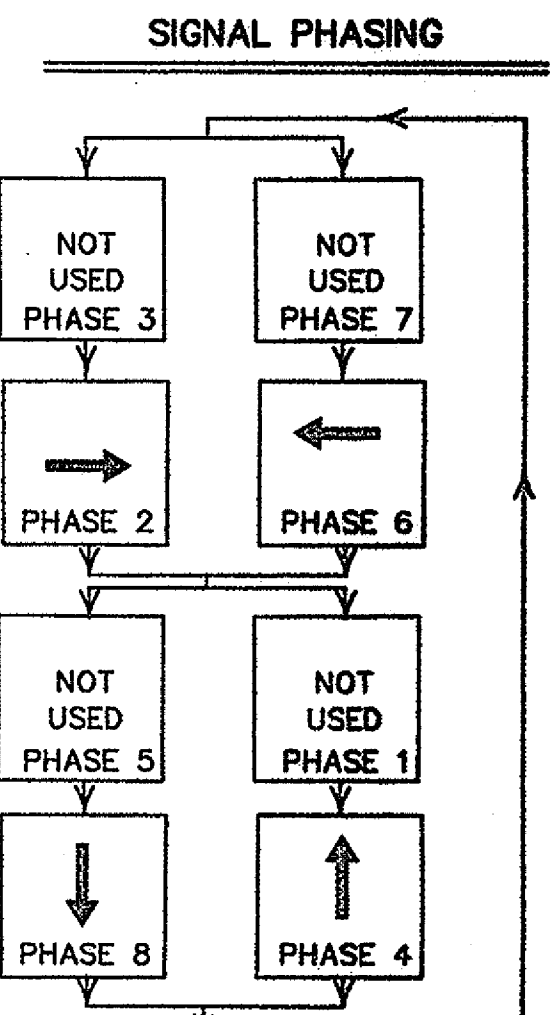




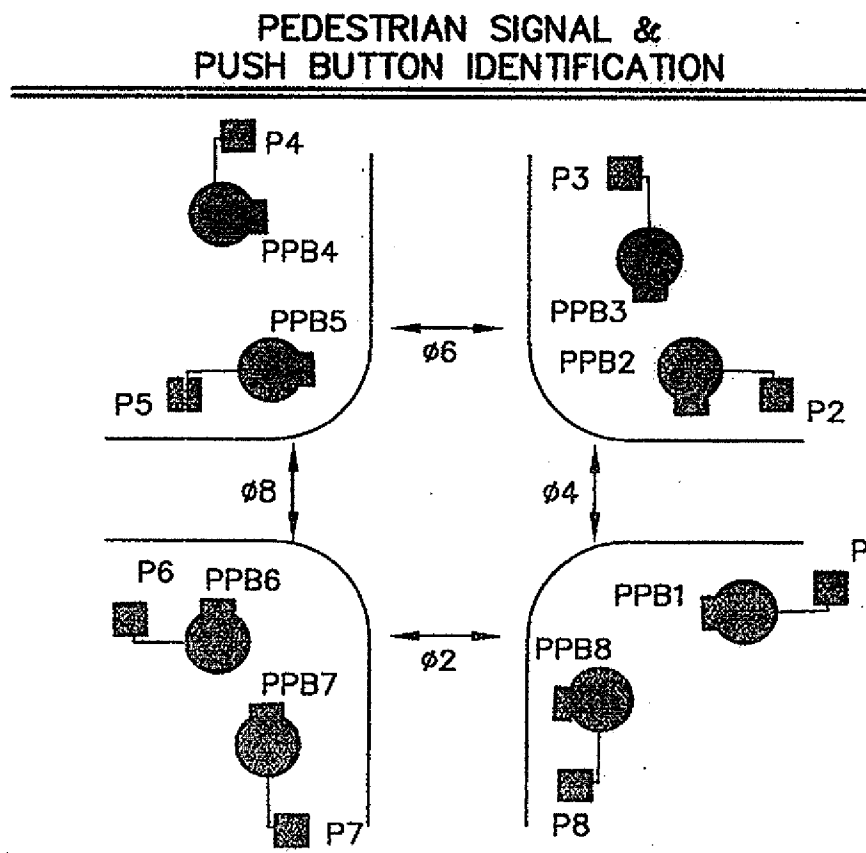
ID #	TYPE	STATION	OFFSET	LUMINAIRE ARM	MOUNTING HEIGHT
MA1	MASTARM - 20' TYPE III	9+79.52	58.15' RT.	10'	30'
MA2	MASTARM - 30' TYPE III	10+45.39	32.73' RT.	10'	30'
MA3	MASTARM - 25' TYPE III	10+23.53	57.00' LT.	10'	30'
MA4	MASTARM - 30' TYPE III	9+52.01	31.43' LT.	10'	30'
PP1	PEDESTAL POLE - 15'	10+30.43	54.01' RT.		
PP2	PEDESTAL POLE - 15'	10+44.85	42.16' LT.		
PP3	PEDESTAL POLE - 15'	9+68.11	51.76' LT.		
PP4	PEDESTAL POLE - 15'	9+56.60	43.45' RT.		

\*STATION AND OFFSETS REFERENCE BARSTOW STREET ALIGNMENT

P1, P2, P3, P4  
P5, P6, P7, P8  
ALL SHALL BE  
COUNTDOWN PED HEADS



- TRAFFIC SIGNAL CONFIGURATION BY APPROACH**
- ABBREVIATIONS**
- MA1 MASTARM #
  - CC CONTROLLER CABINET #
  - PB1 PULL BOX # (SIGNALS)
  - 3A SIGNAL HEAD #
  - CAM VIDEO CAMERA
  - LUM LUMINAIRE
  - P1 PEDESTRIAN SIGNAL #
  - PPB1 PEDESTRIAN PUSH BUTTON #
  - SP1 ILLUMINATED SIGN #
  - DL1 DETECTOR LOOP #
- SYMBOL KEY**
- MAX SIGNAL ID
  - PP1 PEDESTAL POLE NO.
  - CONDUIT RUN ID
  - CONDUIT RUN ID (POWER SERVICE)
- FLASH CONDITION**
- RED BALL ALL RED  
1M1, 1M2, 1B, 3M1, 3M2, 3B, 1A, 3A
  - YELLOW BALL ALL RED  
2M1, 2M2, 2B, 4M1, 4M2, 4B, 2A, 4A
- INITIALIZATION**
- ALL RED, THEN PHASES 2 AND 6 GREEN
- NOTES:**
- ALL EQUIPMENT SHALL BE CONSTRUCTED WITHIN THE COA RIGHT-OF-WAY
  - ALL SIGNAL POLE AND MASTARM LOCATIONS SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION BY PROJECT MANAGER.
  - ALL PULL BOXES SHALL BE LARGE SIZE.
  - ADJUST SIGN PLACEMENT ON MASTARMS PER COA TRAFFIC ENGINEER.
  - THE PEDESTRIAN PUSH BUTTON MUST BE WITHIN 10" OF LEVEL LANDING. IF THIS IS NOT FEASIBLE THEN A PUSH BUTTON EXTENSION ARM SHALL BE INSTALLED (INCIDENTAL TO CONSTRUCTION). THE LENGTH OF THE EXTENSION ARM SHALL NOT EXCEED 12". THE PROJECT MANAGER SHALL USE ENGINEERING JUDGEMENT WHEN INSTALLING EXTENSION ARMS TO AVOID HAZARDS AND/OR EQUIPMENT DAMAGE.
  - CONTROLLER CABINET AND METER LOCATION ARE APPROXIMATE AND SHALL BE COORDINATED WITH THE PROJECT MANAGER.
  - SEE SHEET 15 FOR POWER SERVICE CONNECTION.
  - DETECTOR LOOPS SHALL BE IN COMPLIANCE WITH CITY OF ALBUQUERQUE STANDARD DRAWING 2552.



**PARSONS  
BRINCKERHOFF**

CITY OF ALBUQUERQUE  
DEPARTMENT OF MUNICIPAL DEVELOPMENT  
ENGINEERING DIVISION

BARSTOW STREET/HOLLY AVENUE  
SIGNAL IMPROVEMENTS  
TRAFFIC SIGNAL PLAN

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	NO. / DAY / YR.	NO. / DAY / YR.
APPROVE DEC 18 2013 DESIGN REVIEW COMMITTEE	APPROVE DEC 18 2013 CITY ENGINEER		

City Project No. COA 5015.02      Zone Map No. C19, C20, D19, D20      Sheet 17 OF 21



CONDUIT AND CONDUCTOR FILL REQUIREMENTS														
RUN ID ##	CONDUIT RUN			REMARKS	CONDUCTOR LENGTH AND TYPE									
	2"	3"	TYPE		MCC 5	MCC 20	SCC 2	SCC 6	SCC 8	SCC 10	DLLC	OPTICOM	VIDEO COAXIAL CABLE	VIDEO POWER CABLE
					(# @ FT)	(# @ FT)	(# @ FT)	(# @ FT)	(# @ FT)	(# @ FT)	(# @ FT)	(# @ FT)	(# @ FT)	(# @ FT)
S1		110'	REC	POWER SOURCE TO P88			3 @ 115'							
S2		210'	REC	P88 TO M1			3 @ 215'							
S3		5'	REC	M1 TO CC1			3 @ 10'							
1		10'	REC	CC1 TO MH1	1 @ 15'	2 @ 15'		2 @ 15'						
2		10'	REC	CC1 TO MH1					8 @ 15'	8 @ 15'	12 @ 15'			
3		10'	REC	CC1 TO MH1								4 @ 15'	1 @ 15'	1 @ 15'
4		60'	REC	MH1 TO PB1	1 @ 65'	2 @ 65'		2 @ 65'						
5	60'		REC	MH1 TO PB1					4 @ 65'	4 @ 65'	6 @ 65'	2 @ 65'		
6		30'	REC	PB1 TO PB2	1 @ 35'	2 @ 35'		2 @ 35'						
7	30'		REC	PB1 TO PB2					4 @ 35'	4 @ 35'	3 @ 35'	2 @ 35'		
8		85'	REC	PB2 TO PB3	1 @ 90'	2 @ 90'		2 @ 90'						
9	85'		REC	PB2 TO PB3					2 @ 90'	2 @ 90'	3 @ 90'	1 @ 90'		
10		30'	REC	PB3 TO PB4	1 @ 35'	2 @ 35'		2 @ 35'						
11	30'		REC	PB3 TO PB4					2 @ 35'	2 @ 35'		1 @ 35'		
12		65'	REC	PB4 TO PB5	1 @ 70'	2 @ 70'		2 @ 70'						
13	65'		REC	PB4 TO PB5						1 @ 70'				
14		30'	REC	PB5 TO PB6	1 @ 35'	2 @ 35'		2 @ 35'						
15	30'		REC	PB5 TO PB6							3 @ 35'			
16		85'	REC	PB6 TO PB7	1 @ 90'	2 @ 90'		2 @ 90'						
17	85'		REC	PB6 TO PB7					2 @ 90'	2 @ 90'	3 @ 90'	1 @ 90'		
18		30'	REC	PB7 TO MH1	1 @ 35'	2 @ 35'		2 @ 35'						
19	30'		REC	PB7 TO MH1					2 @ 35'	2 @ 35'	6 @ 35'	1 @ 35'		
20		10'	REC	PB2 TO MA2	1 @ 15'	2 @ 15'		2 @ 15'						
21	10'		REC	PB2 TO MA2					2 @ 15'	2 @ 15'		1 @ 15'		
22		10'	REC	PB1 TO PP1	2 @ 15'			2 @ 15'						
23		10'	REC	PB4 TO MA3	1 @ 15'	2 @ 15'		2 @ 15'						
24	10'		REC	PB4 TO MA3					2 @ 15'	2 @ 15'		1 @ 15'		
25		10'	REC	PB3 TO PP2	2 @ 15'			2 @ 15'						
26		10'	REC	PB6 TO MA4	1 @ 15'	2 @ 15'		2 @ 15'						
27	10'		REC	PB6 TO MA4					2 @ 15'	2 @ 15'		1 @ 15'		
28		10'	REC	PB5 TO PP3	2 @ 15'			2 @ 15'						
29		10'	REC	MH1 TO MA1	1 @ 15'	2 @ 15'		2 @ 15'						
30	10'		REC	MH1 TO MA1					2 @ 15'	2 @ 15'		1 @ 15'	1 @ 15'	1 @ 15'
31	10'		REC	PB7 TO PP4	2 @ 15'			2 @ 15'						
MA1				BASE TO MH1	1 @ 45'									
MA1				BASE TO MH2	1 @ 40'									
MA1				BASE TO 1A	1 @ 20'									
MA1				BASE TO OPTICOM							1 @ 35'			
MA1				BASE TO SP-1						2 @ 30'				
MA1				BASE TO LUMINARE				2 @ 45'						
MA1				BASE TO P1	1 @ 15'									
MA1				BASE TO PPB1	1 @ 10'									
MA1				BASE TO CCTV								1 @ 40'	1 @ 40'	
MA2				BASE TO 2M1	1 @ 55'									
MA2				BASE TO 2M2	1 @ 50'									
MA2				BASE TO 2A	1 @ 20'									
MA2				BASE TO OPTICOM							1 @ 45'			
MA2				BASE TO SP-3						2 @ 30'				
MA2				BASE TO LUMINARE				2 @ 45'						
MA2				BASE TO P3	1 @ 15'									
MA2				BASE TO PPB3	1 @ 10'									
MA3				BASE TO 3M1	1 @ 50'									
MA3				BASE TO 3M2	1 @ 45'									
MA3				BASE TO 3A	1 @ 20'									
MA3				BASE TO OPTICOM							1 @ 40'			
MA3				BASE TO SP-1						2 @ 30'				
MA3				BASE TO LUMINARE				2 @ 45'						
MA3				BASE TO P5	1 @ 15'									
MA3				BASE TO PPB5	1 @ 10'									
MA4				BASE TO 4M1	1 @ 55'									
MA4				BASE TO 4M2	1 @ 50'									
MA4				BASE TO 4A	1 @ 20'									
MA4				BASE TO OPTICOM							1 @ 45'			
MA4				BASE TO SP-2						2 @ 30'				
MA4				BASE TO LUMINARE				2 @ 45'						
MA4				BASE TO P7	1 @ 15'									
MA4				BASE TO PPB7	1 @ 10'									
PP1				BASE TO 1B	1 @ 20'									
PP1				BASE TO P2	1 @ 15'									
PP1				BASE TO PPB2	1 @ 10'									
PP2				BASE TO 2B	1 @ 20'									
PP2				BASE TO P4	1 @ 15'									
PP2				BASE TO PPB4	1 @ 10'									
PP3				BASE TO 3B	1 @ 20'									
PP3				BASE TO P6	1 @ 15'									
PP3				BASE TO PPB6	1 @ 10'									
PP4				BASE TO 4B	1 @ 20'									
PP4				BASE TO P8	1 @ 15'									
PP4				BASE TO PPB8	1 @ 10'									
PROJECT TOTALS	495'	810'			1,400'	1,060'	1,020'	1,180'	1,500'	1,450'	1,530'	735'	70'	70'

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CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION			
BARSTOW STREET/HOLLY AVENUE SIGNAL IMPROVEMENTS TRAFFIC SIGNAL CONDUITS AND CABLES			
DESIGN REVIEW COMMITTEE <b>APPROVED</b> NOV 07 2013	CITY ENGINEER APPROVAL <b>APPROVED</b> NOV 07 2013	NO. / DAY / YR.	NO. / DAY / YR.
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ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
NO.	DATE	BY	REMARKS	STATION IS LOCATED AT THE ENTRANCE TO THE "GATES OF HEAVEN" CELESTARY, 0.9 MILES WEST ON PASO DEL NORTE FROM WYOMING BLVD.	CONTRACTOR	DATE	DATE
					INSPECTED BY	DATE	DATE
					FIELD SURVEY BY	DATE	DATE
					DESIGNED BY	DATE	DATE
					CHECKED BY	DATE	DATE
					RECORDED BY	DATE	DATE
					NO.		



FUNCTION CHART - 115 VOLT CIRCUIT <sup>1</sup>						
CONDUCTOR			RING 1 - MULTI CONDUCTOR CABLE 20		RING 2 - MULTI CONDUCTOR CABLE 20 <sup>2</sup>	
CONDUCTOR NUMBER	BASE COLOR	TRACER	FUNCTION	FIELD CONNECTION	FUNCTION	FIELD CONNECTION
1	BLACK	-	SPARE	SPARE	SPARE	SPARE
2	WHITE	-	SPARE	SPARE	SPARE	SPARE
3	RED	-	PHASE 1 RED	SPARE	PHASE 5 RED	SPARE
4	GREEN	-	PHASE 1 GREEN	SPARE	PHASE 5 GREEN	SPARE
5	ORANGE	-	PHASE 1 YELLOW	SPARE	PHASE 5 YELLOW	SPARE
6	BLUE	-	SPARE	SPARE	SPARE	SPARE
7	WHITE	BLACK	SPARE	SPARE	SPARE	SPARE
8	RED	BLACK	PHASE 2 RED	RED BALL 1M1, 1M2, 1A, 1B	PHASE 6 RED	RED BALL 3M1, 3M2, 3A, 3B
9	GREEN	BLACK	PHASE 2 GREEN	GREEN BALL 1M1, 1M2, 1A, 1B	PHASE 6 GREEN	GREEN BALL 3M1, 3M2, 3A, 3B
10	ORANGE	BLACK	PHASE 2 YELLOW	YELLOW BALL 1M1, 1M2, 1A, 1B	PHASE 6 YELLOW	YELLOW BALL 3M1, 3M2, 3A, 3B
11	BLUE	BLACK	PHASE 2 WALK	PEDESTRIAN WALK P7, P8	PHASE 6 WALK	PEDESTRIAN WALK P3, P4
12	BLACK	WHITE	PHASE 2 DONT WALK	PEDESTRIAN DONT WALK P7, P8	PHASE 6 DONT WALK	PEDESTRIAN DONT WALK P3, P4
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 2M1, 2M2, 2A, 2B	PHASE 8 RED	RED BALL 4M1, 4M2, 4A, 4B
17	WHITE	RED	PHASE 4 GREEN	GREEN BALL 2M1, 2M2, 2A, 2B	PHASE 8 GREEN	GREEN BALL 4M1, 4M2, 4A, 4B
18	ORANGE	RED	PHASE 4 YELLOW	YELLOW BALL 2M1, 2M2, 2A, 2B	PHASE 8 YELLOW	YELLOW BALL 4M1, 4M2, 4A, 4B
19	BLUE	RED	PHASE 4 WALK	PEDESTRIAN WALK P1, P2	PHASE 8 WALK	PEDESTRIAN WALK P5, P6
20	RED	GREEN	PHASE 4 DONT WALK	PEDESTRIAN DONT WALK P1, P2	PHASE 8 DONT WALK	PEDESTRIAN DONT WALK P5, P6

- 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 AND LOCATED 6" BACK FROM THE END.

FUNCTION CHART - 24 VOLT CIRCUIT <sup>3</sup>			
RING 1 - MULTI CONDUCTOR CABLE 5			
CONDUCTOR NUMBER	BASE COLOR	FUNCTION	FIELD CONNECTION
1	BLACK	PHASE 2	PPB7, PPB8
2	WHITE	COMMON	COMMON
3	RED	PHASE 4	PPB1, PPB2
4	GREEN	PHASE 6	PPB3, PPB4
5	ORANGE	PHASE 8	PPB5, PPB6

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.

DETECTOR RACK ASSIGNMENTS																	
UNIT NUMBER	POWER SUPPLY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
CHANNEL 1		Φ1	Φ2	Φ6	Φ2 EC	Φ3	Φ4	Φ8	Φ4 EC	DUAL LEFT Φ1	DUAL LEFT Φ3	SD 1	SD 3	SD 5	SD 7	SD 9	PED ISOLATION
CHANNEL 2		Φ5	Φ2	Φ6	Φ6 EC	Φ7	Φ4	Φ8	Φ8 EC	DUAL LEFT Φ5	DUAL LEFT Φ7	SD 2	SD 4	SD 6	SD 8	SD 10	OPTICOM 1
DECTOR MODULE REQUIRED	*		X	X			X	X									X

\* INCIDENTAL TO CONSTRUCTION

OPTICAL DETECTOR CABLE ITEM NO. 428.076				
FROM	TO	CONDUIT TRACE	NO. x LENGTH	TOTAL LENGTH
OPTN	CC1	MA2-21-7-5-2	1 x 175	175
OPTS	CC1	MA4-27-17-19-2	1 x 200	200
OPTS	CC1	MA1-30-2	1 x 65	65
OPTW	CC1	MA3-24-11-9-7-5-2	1 x 295	295
		TOTAL		735

DETECTOR LOOPS										
LOOP ID	VEHICLE DETECTOR				LOOP TYPE	LOOP DIMENSIONS				PAVEMENT T SAWCUT
	MODE	CALL	UNIT #	CHANNEL		L	W	S	T	
DL4 (1)	PRESENCE		SK	CH 1	QP	6	6	25	15	157'
DL4 (2)	PRESENCE		SK	CH2	QP	30	6	30	15	359'
DL4 (3)	PRESENCE		SK	CH2	QP	30	6	15	15	329'
DL2 (1)	PRESENCE		TWO	CH1	QP	6	6	20	15	147'
DL2 (2)	PRESENCE		TWO	CH2	QP	30	6	20	15	339'
DL2 (3)	PRESENCE		TWO	CH2	QP	30	6	5	15	309'
DL8 (1)	PRESENCE		SEVEN	CH1	QP	6	6	30	15	167'
DL8 (2)	PRESENCE		SEVEN	CH2	QP	30	6	30	15	359'
DL8 (3)	PRESENCE		SEVEN	CH2	QP	30	6	15	15	329'
DL6 (1)	PRESENCE		THREE	CH1	QP	6	6	15	15	137'
DL6 (2)	PRESENCE		THREE	CH2	QP	30	6	15	15	329'
DL6 (3)	PRESENCE		THREE	CH2	QP	30	6	5	15	309'
TOTALS										3270'

#### QUANTITY ESTIMATING ASSUMPTIONS


LOOP WIRE  
6' X 30' QUADRUPOLE LOOP = (8 x L) + (4 x W) + (2 x S) + (2 x T) + 5 = 269 + [2 x (S + T)]  
6' X 40' QUADRUPOLE LOOP = (8 x L) + (4 x W) + (2 x S) + (2 x T) + 5 = 349 + [2 x (S + T)]

PAVEMENT SAWCUT  
6' X 30' QUADRUPOLE LOOP = (3 x L) + (2 x W) + S = 102 + S  
6' X 40' QUADRUPOLE LOOP = (3 x L) + (2 x W) + S = 132 + S

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

VIDEO COAXIAL CABLE ITEM NO. 428.092				
FROM	TO	CONDUIT TRACE	NO. x LENGTH	TOTAL LENGTH
CCTV	CC1	MA1-2-30	1 x 70	70
		TOTAL		70

VIDEO POWER CABLE ITEM NO. 428.093				
FROM	TO	CONDUIT TRACE	NO. x LENGTH	TOTAL LENGTH
CCTV	CC1	MA1-2-30	1 x 70	70
		TOTAL		70

		CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION	
BARSTOW STREET/HOLLY AVENUE SIGNAL IMPROVEMENTS TRAFFIC SIGNAL FUNCTIONS & DETECTORS			
DESIGN REVIEW COMMITTEE <b>APPROVED</b> NOV 07 2013	CITY ENGINEER APPROVAL <b>APPROVED</b> NOV 07 2013 CITY ENGINEER	NO. / DAY / YR.	NO. / DAY / YR.
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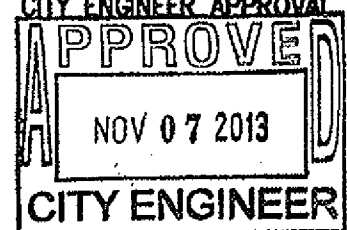
GENERAL NOTES:

1. **SPECIFICATIONS** ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS, 1986 EDITION, UPDATE 8.
2. **BUSINESS ACCESS** 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 CITY ENGINEER.
3. **DROP-OFF POLICY** IF A PAVEMENT DROP-OFF IS CREATED DURING CONSTRUCTION, THE CONTRACTOR SHALL INITIATE PROTECTIVE ACTION IN ACCORDANCE WITH THE NMDOT'S CURRENT "DROP-OFF-GUIDELINE". THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.
4. **CONSTRUCTION SCHEDULE** SEVEN (7) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A CONSTRUCTION SCHEDULE, THAT SHALL BE SUBMITTED AND UPDATED IN ACCORDANCE WITH THE CONTRACT TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. THE CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION.
5. **NM ONE-CALL** TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT N.M. ONE-CALL SYSTEM, 260-1990, FOR LOCATION OF EXISTING UTILITIES.
6. **PERMITS** CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS NECESSARY FOR CONSTRUCTION. PERMITS SHALL BE CONSIDERED INCIDENTAL TO THE ASSOCIATED WORK PERFORMED.
7. **24-HOUR CONSTRUCTION** ALL WORK IMPACTING ARTERIAL ROADWAY MAY REQUIRE 24-HOUR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE'S ORANGE BARREL POLICY. THE CONSTRUCTION COORDINATION ENGINEER SHALL DETERMINE IF MARATHON CONSTRUCTION IS REQUIRED AND COORDINATE WITH THE CONTRACTOR.
8. **INTERSECTION WORK** 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.
9. **OVERNIGHT PARKING** OVERNIGHT PARKING OF CONSTRUCTION VEHICLES ON PRIVATE PROPERTY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. **CLEAR ZONE** THE CONSTRUCTION CLEAR ZONE FOR THIS PROJECT IS 3 FEET FROM THE FACE OF CURB. THE CONTRACTOR SHALL NOT STORE EQUIPMENT OR MATERIAL WITHIN THE CONSTRUCTION CLEAR ZONE UNLESS THE EQUIPMENT OR MATERIAL IS PROPERLY SHIELDED UTILIZING CURRENT SAFETY DESIGN AND INSTALLATION METHODS. THE SAFETY DESIGN FOR SHIELDING SHALL BE PROVIDED BY THE CONTRACTOR AND MUST BE APPROVED BY THE PROJECT MANAGER BEFORE IMPLEMENTING. THIS WORK, INCLUDING DESIGN, INSTALLATION, AND REMOVAL OF THE SHIELDING, SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.
11. **REGULATORY SIGNS** THE CONTRACTOR SHALL NOTIFY THE ALBUQUERQUE TRAFFIC ENGINEERING DIVISION THREE (3) WORKING DAYS IN ADVANCE OF ANY WORK REQUIRED REGARDING ALL EXISTING REGULATORY SIGNS AND SIGNALS THAT NEED TO BE REMOVED, RELOCATED, OR REINSTALLED. CALL 857-8680. REFER TO SECTION 18.4.4 OF THE SPECIFICATIONS.
12. **SURVEY MONUMENTS** THE CONTRACTOR SHALL NOTIFY THE CITY SURVEYOR NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE CITY SURVEYOR MAY TAKE NECESSARY MEASURES TO INSURE 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 FINISHED ELEVATION OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT THE CONTRACTOR'S 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.
13. **CONSTRUCTION LIMITS** THE CONTRACTOR WILL BE REQUIRED TO CONFINE THEIR WORK WITHIN THE CONSTRUCTION LIMITS AND/OR R.O.W. TO PRESERVE EXISTING VEGETATION AND PRIVATE PROPERTY. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAY OPENINGS OR DESIGNATED TRAFFIC LANES.
14. **BUILDING DAMAGE** IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT BUILDING STRUCTURES ADJACENT TO THE PROJECT NOT BE DAMAGED DUE TO ANY CONSTRUCTION ACTIVITIES. DAMAGE CAUSED TO ANY BUILDING STRUCTURE WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, INCLUDING ALL COSTS INCURRED IN RESTORING/REPAIRING SAID DAMAGE.
15. **PEDESTRIAN ACCESS** THE CONTRACTOR SHALL SUBMIT A PROPOSED WORK PLAN FOR PEDESTRIAN IMPROVEMENTS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INITIATING THIS WORK. THIS PLAN SHALL INCLUDE THE METHOD PROPOSED TO MAINTAIN PEDESTRIAN ACCESS TO BUSINESSES, SCHOOLS, HOSPITALS, BUILDINGS, ETC. THROUGHOUT THE PEDESTRIAN IMPROVEMENTS CONSTRUCTION IN PARTICULAR. THE CONTRACTOR, AT MINIMUM, SHALL MAINTAIN A 36" CLEAR PATH FOR PEDESTRIANS SO AS TO MEET ADA ACCESSIBILITY REQUIREMENTS.
16. **AS-BUILTS** THE CONTRACTOR SHALL MAINTAIN AN UP TO DATE SET OF AS-BUILT PLANS FOR THE PROJECT. THESE PLANS SHALL BE KEPT CURRENT, WITHIN TWO WEEKS, AT ALL TIMES AND SHALL BE SUBJECT TO REVIEW BY THE PROJECT MANAGER THROUGHOUT THE PROJECT AND WILL BE REVIEWED BY THE PROJECT MANAGER FOR ACCURACY AND COMPLETENESS AT LEAST ONCE EVERY 30 DAYS. THE FINAL AS-BUILT PLANS SHALL BE SUBMITTED AND ACCEPTED BY THE PROJECT ENGINEER PRIOR TO FINAL PAYMENT.
17. **GRAFFITI** THE CONTRACTOR SHALL MAINTAIN A GRAFFITI FREE WORK SITE AND SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT AND ROADWAY FEATURES, WHETHER PERMANENT OR TEMPORARY. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT AND NO SEPARATE MEASURE OR PAYMENT WILL BE MADE THEREFOR.
18. **CONSTRUCTION SIGNING** CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL CONSTRUCTION SIGNING UNTIL PROJECT IS ACCEPTED BY THE CITY.
19. **NON-VIBRATORY ROLLER** THE CONTRACTOR SHALL BE RESTRICTED TO THE USE OF A 35 TON MAXIMUM NON-VIBRATORY ROLLER 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.
20. **EXISTING TIE-IN** ALL NEW STREET PAVING, CURB AND GUTTER, SIDEWALKS OR DRIVE PADS SHALL MATCH THE ELEVATIONS OF ABUTTING EXISTING AREAS AS SHOWN IN THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER.
21. **MANHOLE RIM ELEVATIONS** SHOWN ON THESE PLANS ARE APPROXIMATE AND WILL VARY WITH THE FINISHED PAVEMENT ELEVATIONS.
22. **PULL BOX** WHERE PULL BOXES ABUT BACK OF CURB OR ARE LOCATED IN A CONCRETE PAVED AREA, PROVIDE 3/4" EXPANSION MATERIAL AROUND THE PULL BOX. ALL PULL BOXES TO BE FLUSH WITH SURFACE OF CONCRETE.
23. **CURB RAMPS** SHALL BE CONSTRUCTED AT ALL CURB RETURNS CONSTRUCTED WITH THIS PROJECT AT THE LOCATIONS SHOWN ON PLANS, IN ACCORDANCE WITH THE CITY STANDARD DETAILS. CURB RAMPS SHALL BE MEASURED AND PAID PER SQUARE YARD OF SURFACE AREA. DETECTABLE WARNING SURFACES SHALL COMPLY WITH ALL PROVISIONS OF ADA, AND MATERIALS USED SHALL BE ON THE CITY'S APPROVED PRODUCTS LIST. DETECTABLE WARNING SURFACES ARE CONSIDERED INCIDENTAL TO CURB RAMPS. NO SEPARATE MEASUREMENT AND PAYMENT WILL BE MADE FOR DETECTABLE WARNING SURFACE.

GENERAL NOTES CONTINUED:

24. **SAW CUT** 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.
25. **FIELD VERIFICATION** THE CONTRACTOR SHALL VERIFY ALL EXISTING FIRE HYDRANT FLANGES, PADS, VALVE BOXES, MANHOLE RIMS AND TOP OF PIPE ELEVATIONS IN THE FIELD. ELEVATIONS SHALL BE ADJUSTED TO FINISHED GRADE TO COMPLY WITH THE REQUIREMENTS OF THE STANDARD CITY DETAILS.
26. **CURB TAPER** ENDS OF NEW CURB AND GUTTER SHALL BE TAPERED FROM 8" TO 0" IN HEIGHT OVER A LENGTH OF 5 FEET. LAY-CURB SHALL BE INCLUDED AS CURB TAPER. PAYMENT FOR THIS WORK SHALL BE PAID FOR AS LINEAR FEET OF STANDARD CURB AND GUTTER AND NO ADDITIONAL PAYMENT WILL BE MADE THEREFOR.
27. **SLOPE LIMITS** THE CONTRACTOR SHALL WARP SLOPES UP TO 3:1 WHERE NECESSARY TO STAY WITHIN THE RIGHT OF WAY OR CONSTRUCTION EASEMENT LIMITS. THE WORK SHALL BE AS DIRECTED BY THE PROJECT MANAGER.
28. **SUBGRADE PREP** THE SUBGRADE PREP SHALL EXTEND ONE (1) FOOT BEYOND THE FREE EDGE OF NEW SIDEWALK AND SHALL BE CONSIDERED INCIDENTAL TO SIDEWALK CONSTRUCTION.
29. **DAMAGE REPAIR** THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENTS, PAVEMENT STRIPING & MARKINGS, CURB AND GUTTER, DRIVEPADS, HANDICAP RAMPS, AND SIDEWALK DURING CONSTRUCTION APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS, AND SHALL REMOVE AND REPLACE AS PER COA STANDARDS AT THEIR OWN EXPENSE.
30. **REMOVALS** 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 202.01 - REMOVE AND SALVAGE OR DISPOSE STRUCTURES AND OBSTRUCTIONS. HAULING OF REMOVALS AND MATERIAL TO BE DISPOSED SHALL BE PAID FOR UNDER BID ITEM NO. 202.01.
31. **CONCRETE REMOVAL** WHEN REMOVAL OF EXISTING CURB AND GUTTER OR SIDEWALK IS REQUIRED, REMOVE TO NEAREST JOINT.
32. **DISPOSALS** ALL CONSTRUCTION DEBRIS, SPOIL AND NON-SALVAGEABLE ITEMS BECOME THE PROPERTY OF THE CONTRACTOR AND PROPER DISPOSAL OF THESE ITEMS IS THE RESPONSIBILITY OF THE CONTRACTOR. ANY HAUL COSTS ASSOCIATED WITH THIS WORK IS CONSIDERED INCIDENTAL TO THE PROJECT.
33. **SALVAGEABLE MATERIALS** FROM THIS PROJECT ARE TO BE HAULED AND STOCKPILED AT THE FOLLOWING LOCATIONS: SIGNING, FIRE HYDRANTS, STREET LIGHT, CITY OF ALBUQUERQUE PINE YARDS. HAUL OF SUCH MATERIAL SHALL BE PERFORMED DURING NORMAL WORKING HOURS AS DIRECTED BY THE PROJECT ENGINEER. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE CONTRACT PRICE FOR EACH SALVAGE ITEM.
34. **BACKFILL COMPACTION** ALL TRENCH EXCAVATION BACKFILL WITHIN THE ROADWAY PRISM SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR PER ASTM D-698 OR D-1557 AND COA STD. DWG. 2465 AS APPLICABLE.
35. **EXISTING STRUCTURES** THE CONTRACTOR SHALL CLEAN ALL EXISTING STRUCTURES THAT ARE TO REMAIN OPERATIONAL. ALL STRUCTURES (NEW AND EXISTING) 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.
36. **OSHA REQUIREMENTS** EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR EMPLOYEES SAFETY.
37. **R-VALUE** THE DESIGN R-VALUE FOR THIS PROJECT IS 50. WHERE SOILS WITH AN R-VALUE OF LESS THAN 50 OCCUR AT FINISHED SUBGRADE ELEVATION OF PAVED ROADWAY AREAS, THESE SOILS SHALL BE OVER EXCAVATED A VERTICAL DEPTH OF AT LEAST TWO (2) FEET AND FOR A LATERAL DISTANCE OF AT LEAST TWO (2) FEET OUTSIDE OF THE BACK EDGE OF CURB (SEE CITY OF ALBUQUERQUE STANDARD DESIGN SECTIONS). THE OVER EXCAVATED MATERIAL SHALL BE REPLACED WITH A MATERIAL HAVING AN R-VALUE OF AT LEAST 50. OVER EXCAVATION WILL BE PAID FOR UNDER COA ITEM NO. 202.011 - EXCAVATE AND DISPOSE OF UNSUITABLE MATERIAL, COMPLETE.
38. **STRUCTURAL FILL** STRUCTURAL FILL FOR EMBANKMENTS, PAVEMENTS, AND STRUCTURES SHALL BE PLACED IN LIFTS THAT, FOLLOWING COMPACTION, DO NOT EXCEED 8". FILLS SHOULD BE COMPACTED AT MOISTURE CONTENTS WITHIN +/- 2% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM. SELECT STRUCTURAL FILL AROUND CULVERTS AND OTHER STRUCTURES SHOULD BE COMPACTED, USING HAND OPERATED COMPACTION EQUIPMENT AND IN LIFTS NOT EXCEEDING 4", TO THE DENSITY AND MOISTURE CONTENT SPECIFIED ABOVE. THE UPPER 12" OF ROADBEDS SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY (ASTM 1557).

PARSONS  
BRINCKERHOFF

			
CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION			
BARSTOW STREET/HOLLY AVENUE SIGNAL IMPROVEMENTS GENERAL NOTES			
DESIGN REVIEW COMMITTEE  NOV 07 2013	CITY ENGINEER APPROVAL  NOV 07 2013	NO./DAY/YR.	NO./DAY/YR.
City Project No. COA 5015.02		Zone Map No. C19, C20, D19, D20	Sheet 2 OF 21

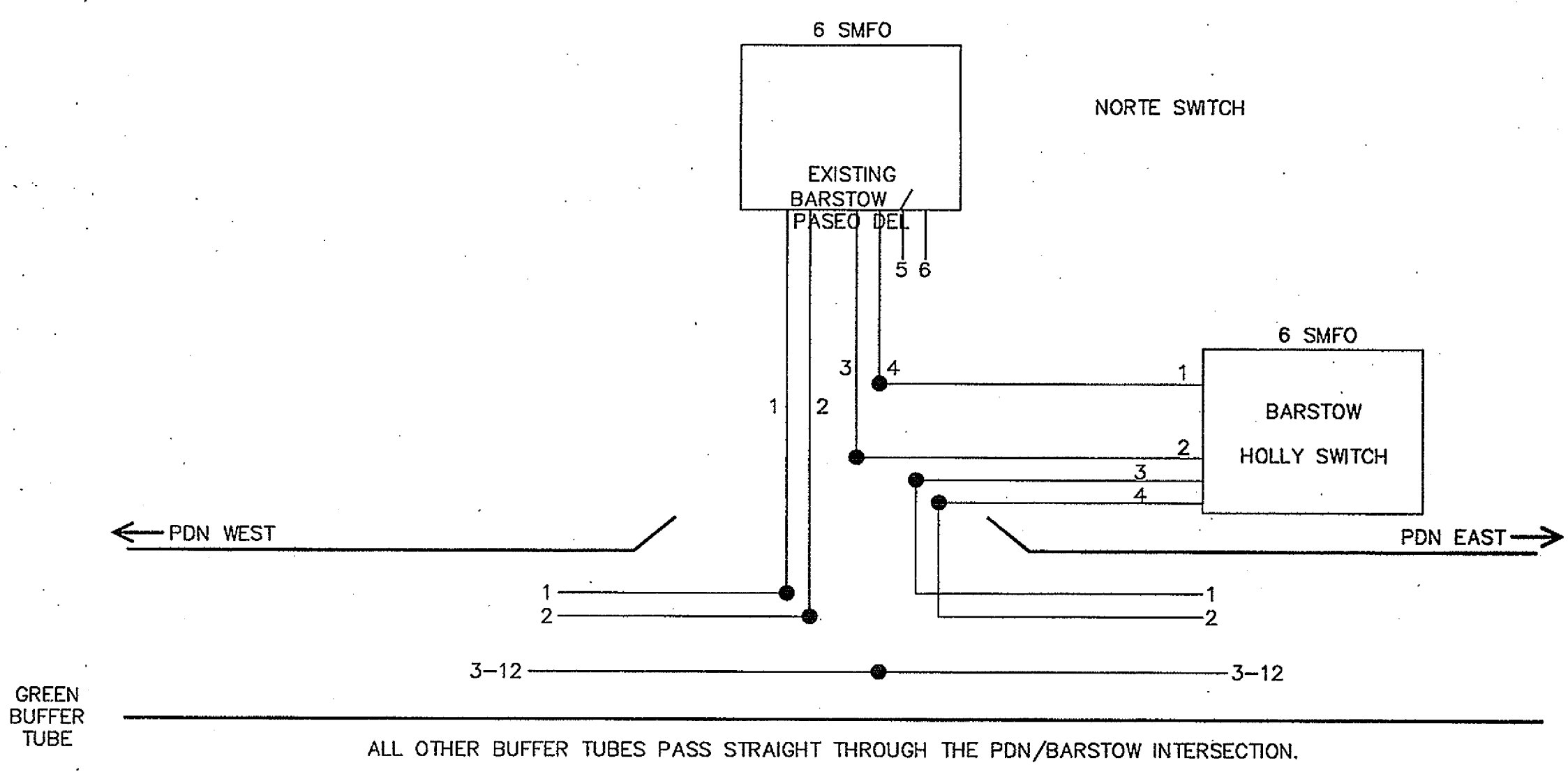


ITS GENERAL NOTES:

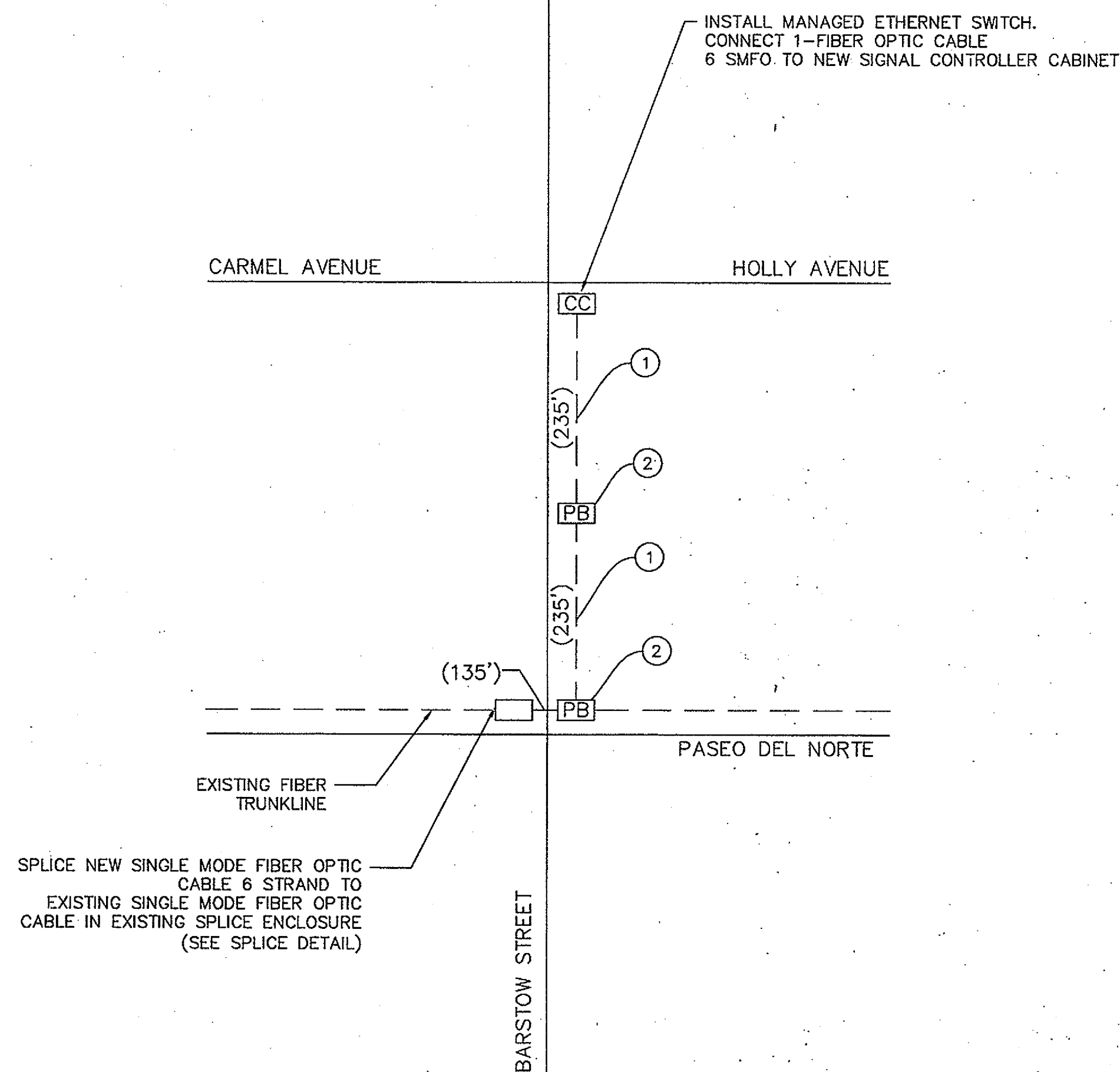
1. THIS PROJECT HAS BEEN DESIGNED USING THE CITY OF ALBUQUERQUE STANDARD CONSTRUCTION DETAILS.
2. THE PLANS SHOW THE GENERAL PATH AND LOCATION OF CONDUIT AND EQUIPMENT IN RELATION TO MAJOR PHYSICAL FEATURES AND APPROXIMATE STATIONING. THE LOCATION OF UTILITY POLES, SIGNS, VEGETATION AND OTHER STATIONARY OBJECTS ALONG THE CONDUIT PATH MAY NOT BE SHOWN, BUT SHALL BE IDENTIFIED BY THE CONTRACTOR AS THE CONDUIT ROUTE IS MARKED PRIOR TO TRENCHING. THE CONTRACTOR SHALL PLACE ALL CONDUIT IN A MANNER THAT MINIMIZES HORIZONTAL AND VERTICAL BENDING, NOT TO EXCEED 1 FOOT PER 10 FEET, IN ORDER TO MINIMIZE THE INDUCED STRESSES ON CABLES DURING CABLE INSTALLATION. ALL CONDUIT, COMMUNICATION CABLE, AND ELECTRICAL CABLE SHALL BE INSTALLED ACCORDING TO NATIONAL ELECTRIC CODE REQUIREMENTS.
3. CONDUIT LAYOUT SHOWN ON THE PLANS IS SCHEMATIC. CONTRACTOR SHALL PLACE CONDUIT, PULL BOXES, AND POLES WITHIN RIGHT-OF-WAY. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING CONDUIT AROUND EXISTING UTILITIES AND OBSTRUCTIONS.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL FIELD CONDITIONS NECESSARY FOR THE COMPLETION OF THIS WORK. THIS WILL INCLUDE, BUT IS NOT LIMITED TO, LOCATIONS OF ALL EXISTING CONDUIT, PULL BOXES, JUNCTION BOXES, ELECTRICAL SERVICES, UNDERGROUND OR OVERHEAD UTILITIES, ELEVATIONS AND LOCATIONS. THE CONTRACTOR SHALL NOTIFY NEW MEXICO ONE-CALL, 505-260-1990, AT LEAST 2 WORKING DAYS PRIOR TO ANY EXCAVATION TO LOCATE ALL EXISTING UNDERGROUND UTILITIES. THIS WORK SHALL BE INCIDENTAL TO THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR WILL NOT BE COMPENSATED FOR THE NECESSARY REPAIRS IF UTILITIES ARE DAMAGED DURING CONSTRUCTION.
5. CONTRACTOR SHALL MEET THE REQUIREMENTS OF SECTION 424 OF THE STANDARD SPECIFICATIONS FOR ANY TYPES OF CONDUIT INSTALLATIONS IN THIS PROJECT.
6. ANY REQUIRED CONDUIT CROSSING PAVEMENT SHALL BE JACKED OR BORED, WHERE THE CONDUIT INSTALLATION DISTURBS EXISTING LANDSCAPE, IRRIGATION OR PAVEMENT, THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETELY RESTORE THESE AREAS TO ORIGINAL CONDITION.
7. IN EACH ITS MANHOLE 50 FEET OF MAIN FIBER OPTIC CABLE SHALL BE STORED AND AN ADDITIONAL 20 FEET AT EACH SPLICE, WITH 10 FEET OF CABLE ON EACH SIDE OF THE CABLE SPLICE POINT OR AS SHOWN IN THE PLANS. STORE 25 FEET OF SPARE FIBER OPTIC CABLE IN EACH ITS PULL BOX. STORE THE FIBER OPTIC CABLE WITHOUT TWISTING OR BENDING THE CABLE BELOW THE MINIMUM BEND RADIUS OF 10 TIMES THE CABLE DIAMETER.
8. ITS EQUIPMENT CABINETS SHALL BE INSTALLED ON THE BACK SIDE OF THE POLE RELATIVE TO TRAFFIC FLOW. DOORS SHALL BE HINGED TO OPEN TOWARD TRAFFIC TO BLOCK SPRAY WHEN ROADWAY IS WET.
9. AS-BUILT PLANS. IN ADDITION TO THE CONTRACTOR'S OBLIGATION TO DEVELOP AND MAINTAIN AS-BUILT PLANS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 105.2, THE CITY OF ALBUQUERQUE MAY ALSO MAINTAIN A SET OF AS-BUILT PLANS FOR THIS PROJECT. THEREFORE THE CONTRACTOR'S SURVEYOR SHALL PROVIDE INFORMATION ON ANY REVISION TO THE HORIZONTAL AND VERTICAL GEOMETRY TO THE PROJECT MANAGER. ALSO THE CONTRACTOR SHALL PROVIDE ESRI SHAPE FILES WITH GPS COORDINATES OF EACH INSTALLED ITS ELEMENT TO THE CITY OF ALBUQUERQUE. THE FOLLOWING ELEMENTS CAN BE CONSIDERED AS ITS ELEMENTS: ITS PULL BOXES, ITS MANHOLES, ITS POLES, CAMERAS, SENSORS, DYNAMIC MESSAGE SIGNS, HAR STATIONS, SERVICE METERS, AND ANY OTHER ITS RELATED ELEMENT. GPS DATA SHALL BE COLLECTED IN WGS84 AND DECIMAL DEGREES FORMAT. CONTRACTOR SHALL CONTACT THE CITY OF ALBUQUERQUE PRIOR TO ANY DATA COLLECTION.
10. FIBER OPTIC CABLE AND SINGLE CONDUCTORS SHALL BE PLACED IN 1-3" CONDUIT AS SHOWN ON ITS PLAN.
11. A MANAGED FIELD ETHERNET SWITCH SHALL BE INSTALLED IN THE NEW CONTROLLER CABINET AT THE BARSTOW STREET/HOLLY AVENUE INTERSECTION. THE SWITCH SHALL CONFORM TO SPECIFICATIONS AND SHALL BE APPROVED BY THE CITY OF ALBUQUERQUE.
12. FIBER OPTIC CABLE 6 SMFO SHALL BE INSTALLED FROM THE BARSTOW STREET/HOLLY AVENUE CONTROLLER CABINET TO THE EXISTING SPLICE ENCLOSURE IN THE NORTHWEST QUADRANT OF THE BARSTOW STREET/PASEO DEL NORTE INTERSECTION. THE CABLE SHALL BE SPLICED IN THE EXISTING ENCLOSURE AS SHOWN IN THE SPLICE DIAGRAM. THE SPLICING OF THE FIBER OPTIC CABLE 6 SMFO AND ANY ADJUSTMENTSTO THE EXISITING FIBER OPTIC CABLES IN THE SPLICE CABINET SHALL BE PAID THROUGH ITEM #435.610, EXISTING SPLICE CLOSURE (RESPLICE).
13. TESTING AND TROUBLESHOOTING SHALL BE COMPLETED PER SECTION 435.

KEYED NOTES:

- ① INSTALL 1-FIBER OPTIC CABLE 6 SMFO IN NEW 3" CONDUIT.
- ② INSTALL PULL BOX (LARGE)



NOTE TO CONTRACTOR  
THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF ALBUQUERQUE PRIOR TO SPLICING FIBER OPTIC CABLE TO ENSURE APPROPRIATE CONNECTIONS. THE SPLICE DIAGRAMS SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY AND SHALL BE CONFIRMED PRIOR TO CONSTRUCTION. DETAILS SHOWN PROVIDED BY THE CITY OF ALBUQUERQUE.



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39. EXISTING UTILITIES IN PLAN ALL EXISTING UTILITIES SHOWN HEREIN WERE TAKEN FROM RECORD DRAWINGS, FIELD SURVEYS, C.O.A. SYSTEMS UTILITIES MAPS AND INFORMATION PROVIDED BY THE UTILITY OWNERS AND ARE APPROXIMATE. IT WILL BE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS AND TYPE OF EXISTING UTILITIES TO BE ADJUSTED OR EXTENDED AND TO PROVIDE PROTECTION FOR ALL UTILITIES WITHIN THE CONSTRUCTION AREA.
40. AVOIDING UTILITIES THE CONTRACTOR IS TO EXERCISE DUE CARE TO AVOID DISTURBING ANY EXISTING UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE UTILITY COMPANIES IN ORDER TO PREVENT ANY SERVICE DISRUPTION THAT MIGHT RESULT FROM PROJECT CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AND PRESERVE UTILITY EQUIPMENT AFFECTED BY PROJECT CONSTRUCTION. SHOULD THE CONTRACTOR BREAK AN EXISTING UTILITY LINE DURING CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL BE RESPONSIBLE FOR UTILITY REPAIR COSTS.
41. IDENTIFYING UTILITIES THE CONTRACTOR WILL EXPLORE AND IDENTIFY ALL EXISTING UTILITIES AND STORM DRAINAGE PIPE PRIOR TO COMMENCING ANY BORING OPERATIONS. THE CONTRACTOR WILL OFFSET THE PROPOSED DRAINAGE PIPES SO THAT THE BORING OPERATION WILL NOT DAMAGE THE EXISTING PIPE. THE CONTRACTOR WILL PROVIDE A BORING LAYOUT TO THE PROJECT MANAGER 24 HOURS PRIOR TO BEGINNING THE BORING. COST FOR THIS WORK WILL BE CONSIDERED AS INCIDENTAL TO CONSTRUCTION.
42. WATER SERVICE THE CONTRACTOR SHALL NOTIFY THE LOCAL FIRE DEPARTMENT AND WATER AUTHORITY AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF WHEN FIRE HYDRANTS WILL BE TAKEN OUT OF SERVICE AND RETURNED TO SERVICE. ALL HYDRANTS TAKEN OUT OF SERVICE SHALL BE BAGGED.
43. UTILITY POLES ALL UTILITY POLES TO BE RELOCATED SHALL BE TEMPORARILY SUPPORTED BY OTHERS PRIOR OR DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH PNM ELECTRIC FOR THIS RELOCATION. CALL 241-3464. THE COST OF RELOCATION SHALL BE PAID FOR BY THE CITY OF ALBUQUERQUE.
44. ADJUSTING UTILITIES ALL GAS VALVE BOXES, GAS MANHOLES, ELECTRICAL MANHOLES, AND TELEPHONE MANHOLES WILL BE ADJUSTED TO GRADE BY OTHERS. THIS WORK SHALL BE COORDINATED WITH EACH UTILITY. A UTILITY COORDINATION MEETING SHALL BE SET UP BY THE CONTRACTOR A MINIMUM OF ONE (1) WEEK PRIOR TO ANY CONSTRUCTION ACTIVITY. COORDINATION OF UTILITY RELOCATION SCHEDULES SHALL BE DETAILED AT THIS MEETING. EACH UTILITY WILL BE RESPONSIBLE FOR THE COST OF THE WORK.
45. QWEST RELOCATION THE CONTRACTOR SHALL COORDINATE WITH QWEST ON RELOCATION OF ANY TELEPHONE BOXES.
46. CABLE RELOCATION THE CONTRACTOR SHALL COORDINATE WITH COMCAST CABLE ON RELOCATION OF ANY CABLE TELEVISION SERVICES.
47. UTILITY RELOCATIONS THE CONTRACTOR IS HEREBY ADVISED THAT UTILITY RELOCATION WORK BY THE UTILITY OWNERS MAY HAVE TO BE PERFORMED CONCURRENT WITH CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE FOR UTILITY WORK IN CONJUNCTION WITH CONSTRUCTION OPERATIONS AND SHALL BE REQUIRED TO COORDINATE THE SCHEDULING OF WORK WITH THE RESPECTIVE UTILITY OWNERS.
48. UTILITY LOCATIONS THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND TYPE OF EXISTING UTILITIES TO BE ADJUSTED OR EXTENDED.
49. OFF-DUTY POLICE OFFICER WHEN EXISTING TRAFFIC SIGNALS ARE TURNED OFF, THE CONTRACTOR SHALL HAVE AN OFF-DUTY POLICE OFFICER DIRECT TRAFFIC. THIS WORK SHALL BE INCIDENTAL TO CONSTRUCTION AND NO ADDITIONAL PAYMENT WILL BE MADE.
50. MATCHING EXISTING GRADES WHERE A PROFILE GRADE IS NOT PROVIDED IN THE PLANS, STREET CENTERLINE GRADES SHALL BE RESTORED BY THE CONTRACTOR TO THE EXISTING CENTERLINE GRADES. CROSS SECTION THE EXISTING ROAD PRIOR TO CONSTRUCTION AS NEEDED TO MATCH EXISTING (50' MIN.). MINOR ADJUSTMENTS TO THE STREET GRADES MAY BE NECESSARY AND WILL BE DIRECTED BY THE PROJECT ENGINEER. MINOR ADJUSTMENTS TO THE STREET GRADES WILL BE CONSIDERED INCIDENTAL TO THE PAVING BID ITEMS. SMOOTH TRANSITIONS SHALL BE MADE BETWEEN EXISTING PAVEMENT WHICH REMAINS IN PLACE AND PAVEMENT WHICH IS BEING REPLACED. TRAFFIC CONTROL DEVICES, INCLUDING PAVEMENT MARKINGS, MUST BE RESTORED TO THE SAME OR BETTER CONDITION AS BEFORE CONSTRUCTION.
51. WATER SHUT-OFF PLAN THE CONTRACTOR SHALL COORDINATE WITH THE WATER AUTHORITY SEVEN (7) DAYS IN ADVANCE OF PERFORMING WORK THAT WILL AFFECT THE PUBLIC WATER OR SANITARY INFRASTRUCTURE. WORK REQUIRING SHUTOFF OF FACILITIES DESIGNATED AS MASTER PLAN FACILITIES MUST BE COORDINATED WITH THE WATER AUTHORITY 14 DAYS IN ADVANCE OF PERFORMING SUCH WORK. ONLY WATER AUTHORITY CREWS ARE AUTHORIZED TO OPERATE PUBLIC VALVES. SHUTOFF REQUESTS MUST BE MADE ONLINE AT <http://abcwua.org/content/view/full/463/729/>.
52. IF HUMAN REMAINS ARE ENCOUNTERED, THE CONTRACTOR SHALL CEASE ALL WORK, AND CONTACT THE OFFICE OF MEDICAL EXAMINER FOR FURTHER INSTRUCTIONS.
53. ELECTRONIC MARKER DEVICES SHALL BE INSTALLED PER STANDARD TECHNICAL SPECIFICATION SECTION 170 AND SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
54. NPDES COMPLIANCE THE CONTRACTOR WILL BE RESPONSIBLE FOR ACQUIRING A LOW EROSIONIVITY WAIVER FOR THIS PROJECT. COST FOR THIS WORK WILL BE CONSIDERED AS INCIDENTAL TO CONSTRUCTION.

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.

1. CORRECTION OF PAVEMENT DROP-OFF. SEE GENERAL NOTE 3.
2. CLEAN EXISTING STRUCTURES. SEE GENERAL NOTE 35.
3. MATCHING EXISTING PAVEMENTS. SEE GENERAL NOTE 50.
4. ALL NECESSARY CONSTRUCTION WORK PERMITS. SEE GENERAL NOTE 6.
5. CLEAR ZONE SHIELDING. SEE GENERAL NOTE 10.
6. OFF-DUTY POLICE OFFICER. SEE GENERAL NOTE 49.
7. PAVEMENT SAW CUT FOR NEW ROADWAY PAVING, SEE GENERAL NOTE 24.
8. CLEANING TRAFFIC CONTROL DEVICES.
9. YELLOW PAINT FOR CURB RAMPS, CURB RETURNS AND MEDIAN NOSES.
10. HAULING OF MATERIAL TO BE DISPOSED. SEE GENERAL NOTE 32.
11. LOCATION OF UTILITY LINES INCLUDING EXPLORATORY TRENCHING AND BORING.
12. GUTTER MAINTENANCE. SEE GENERAL NOTE 3.
13. IDENTIFYING EXISTING UTILITIES PRIOR TO BORING. SEE GENERAL NOTE 41.
14. THICKENED EDGE CONCRETE AND REINFORCEMENT. SEE SHEET 6, THICKENED EDGE DETAIL.
15. WATER SHUT-OFF PLANS. SEE GENERAL NOTE 51.
16. DETECTABLE WARNING SURFACES FOR CURB RAMPS. SEE GENERAL NOTE 23.
17. ELECTRONIC MARKER DEVICES. SEE GENERAL NOTE 53.
18. SUBGRADE PREPARATION UNDER SIDEWALK.
19. ACQUIRING A LOW EROSION WAIVER. SEE GENERAL NOTE 54.

Bustamante, Clara	Office phone: (505) 697-4212 Office fax: 344-0091 Cell: 401-7542	New Mexico Gas 4625 Edith Blvd. NE Albuquerque, NM 87107
Contreras, Andrea	Office phone: (505) 241-3666 Cell: 401-7632	PNM - Electric Co. of NM 4201 Edith Blvd. NE Albuquerque, NM 87107
Mortus, Mike	Office phone: (505) 761-6252 Office fax: (505) 761-0599	Comcast Planning and Design Supervisor 4611 Montbel Place NE Albuquerque, NM 87107
Young, Beverly	Office phone: (505) 245-6450	CENTURY LINK/QWEST 4301 Boga NE Albuquerque, NM 87109
Chang, Peter	Office phone: (505) 768-2598	ABCWUA P.O. Box 1293 Albuquerque, NM 87103
		NEW MEXICO ONE CALL SYSTEM CALL BEFORE YOU DIG (505) 260-1990

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	CITY OF ALBUQUERQUE																					
	DEPARTMENT OF MUNICIPAL DEVELOPMENT																					
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	BARSTOW STREET/HOLLY AVENUE SIGNAL IMPROVEMENTS <b>GENERAL NOTES</b>																					
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ROADWAY ITEMS			
ITEM ID NO.	ITEM DESCRIPTION	UNIT	TOTAL
118.020	PLACEMENT ARTERIAL ASPHALT CONCRETE, 2 INCH LIFT, CIP.	SY	375
301.020	SUBGRADE PREP, 12" AT 95% COMPACTION, CIP.	SY	172
302.020	AGGREGATE BASE COURSE, CRUSHED, 6" AT 95% COMPACTION, CIP. SD 2408	SY	125
340.023	WHEELCHAIR ACCESS RAMP, 4" PCC, STD. CURB., CIP. SD 2418 *NOTE: STD. CURB & GUTTER AND HEADER CURB ARE INCLUDED	SY	355
340.030	VALLEY GUTTER & CURB, PORTLAND CEMENT CONCRETE, INCL. REINFORCEMENT AND SUBGRADE COMPACTION, CIP. SD 240	SY	47
346.100	TEXTURED MEDIAN PAVEMENT, 4" THICK, COLORED CC CONCRETE, ICL. SIBGRADE COMPACTION, CIP. SD 2408	SF	420
609324	CONCRETE SLOPED CURB AND GUTTER 6"x30"	LF	431

TRAFFIC SIGNAL			
ITEM ID NO.	ITEM DESCRIPTION	UNIT	TOTAL
421.015	SERVICE CONNECTION (SIGNAL) CIP	EACH	1
422.004	TRAFFIC SIGNAL PEDESTAL POLE 15' CIP	EACH	4
422.013	TRAFFIC SIGNAL MAST ARM 20' ARM TYPE III TROMBONE CIP	EACH	1
422.015	TRAFFIC SIGNAL MAST ARM 25' ARM TYPE II TROMBONE CIP	EACH	1
422.017	TRAFFIC SIGNAL MAST ARM 30' ARM TYPE II TROMBONE CIP	EACH	2
423.001	TRAFFIC SIGNAL FOUNDATION FOR PEDESTAL POLE CIP	EACH	4
423.002	TRAFFIC SIGNAL MAST ARM FOUNDATION CIP	EACH	4
424.005	ELECTRICAL CONDUIT 2" ICL. TRENCHING, BACKFILL & PATCHING, PUSHING, BORING & JACKING CIP	LF	495
424.011	ELECTRICAL CONDUIT 3" ICL. TRENCHING, BACKFILL & PATCHING, PUSHING, BORING & JACKING CIP	LF	1415
425.020	TRAFFIC SIGNAL MANHOLE CIP	EACH	1
425.003	ELECTRICAL PULL BOX (LARGE) CIP	EACH	9
426.001	SINGLE CONDUCTOR #2 CIP	LF	1020
426.003	SINGLE CONDUCTOR #8 CIP	LF	1180
426.004	SINGLE CONDUCTOR #8 CIP	LF	1500
426.005	SINGLE CONDUCTOR #10 CIP	LF	1450
426.010	MULTI-CONDUCTOR CABLE #5 CIP	LF	1400
426.014	MULTI-CONDUCTOR CABLE #20 CIP	LF	1060
427.002	3 SECTION TRAFFIC SIGNAL ASSEMBLY CIP	EACH	16
427.021	PEDESTRIAN COUNTDOWN SIGNAL (LED) CIP	EACH	8
427.031	3 SECTION BACKPLATE CIP	EACH	8
428.001	LOOP VEHICLE DETECTOR CIP	EACH	1
428.010	PUSH BUTTON STATION CIP	EACH	8
428.022	DUCTED LOOP DETECTOR WIRE CIP	LF	3270
428.050	LOOP LEAD-IN CABLE CIP	LF	1530
428.060	DETECTOR SAWCUT, COMPL	LF	1161
428.070	PHASE SELECTOR RACK 4 CHANNELS CIP	EACH	1
428.071	PHASE SELECTOR MODULE 2 CHANNEL CIP	EACH	2
428.075	OPTICAL DETECTOR 1 DIRECTION 1 CHANNEL CIP	EACH	4
428.078	OPTICAL DETECTOR CABLE CIP	LF	735
428.092	VIDEO COAXIAL CABLE CIP	LF	70
428.093	VIDEO POWER CABLE CIP	LF	70
428.210	CCTV CAMERA - PAN/TILT/ZOOM CIP	EACH	1
429.001	TRAFFIC ACTUATED CONTROLLER CIP	EACH	1
429.021	8 PHASE DOUBLE RING CONTROLLER CABINET CIP	EACH	1
430.001	INTERNALLY ILLUMINATED SIGN	EACH	4
432.001	ROADWAY LUMINAIRE TYPE 250 S CIP	EACH	4
435.005	SINGLE MODE FIBER OPTIC CABLE (6)	EACH	675
435.510	EXISTING SPLICE CLOSURE (RESPLICE)	EACH	1
435.702	MANAGED FIELD ETHERNET SWITCH	EACH	1
435.707	TESTING AND TROUBLESHOOTING	LS	LS


SIGNING AND STRIPING ITEMS			
ITEM ID NO.	ITEM DESCRIPTION	UNIT	TOTAL
440.001	ALUMINUM PANEL SIGN, CIP.	SQ. FT.	25
440.010	SQUARE TUBE STEEL POSTS & BASE POSTS FOR ALUMINUM PANEL SIGN, CIP.	LF	88
441.001	RETROREFLECTORIZED PLASTIC PAVEMENT MARKINGS, 4" WIDTH, CIP.	LBI FT.	2,300
441.002	RETROREFLECTORIZED PLASTIC PAVEMENT MARKINGS, 6" WIDTH, CIP.	LBI FT.	900
441.003	RETROREFLECTORIZED PLASTIC PAVEMENT MARKINGS, 8" WIDTH, CIP.	LBI FT.	300
441.005	RETROREFLECTORIZED PLASTIC PAVEMENT MARKINGS, 24" WIDTH, CIP.	LBI FT.	384
441.011	RETROREFLECTORIZED PLASTIC ARROW, LEFT, CIP.	EACH	9
441.013	RETROREFLECTORIZED PLASTIC ARROW, THRU & RIGHT, CIP.	EACH	3
441.020	RETROREFLECTORIZED PLASTIC WORD, ONLY, CIP.	EACH	4
441.031	RETROREFLECTORIZED PLASTIC SYMBOL, BICYCLE, CIP.	EACH	4
443.101	REMOVAL OF PAVEMENT STRIPE, ANY WIDTH, PAINTED OR PLASTIC, COMPL.	EACH	3,430
443.102	REMOVAL OF PAVEMENT ARROW, SYMBOL, OR WORD, PAINTED OR PLASTIC, COMPL.	EACH	9


EXISTING UTILITIES			
ITEM ID NO.	ITEM DESCRIPTION	UNIT	TOTAL
432.102	ROADWAY LUMINAIRE, ANY TYPE, REMOVE & RELOCATE, COMPL.	EA	1
801.114	FIRE HYDRANT, 4-1/2" BURY, IJJ, INCL. BLOCKING & AGGREGAT, CIP. SD 2340	EA	2
801.119	FIRE HYDRANT, EXISTING, REMOVE & SALVAGE, COMPL.	EA	2

CONSTRUCTION ITEMS			
ITEM ID NO.	ITEM DESCRIPTION	UNIT	SUB TOTAL
4.010	CONSTRUCTION STAKING, COMPL.	%	1
4.020	CONSTRUCTION SURVEYING, COMPL.	%	1
6.050	CONSTRUCTION MOBILIZATION, COMPL.	%	1
19.010	CONSTRUCTION TRAFFIC CONTROL & BARRICADING, COMPL.	%	1
30.010	FLOOD PROTECTION, COMPL.	%	1

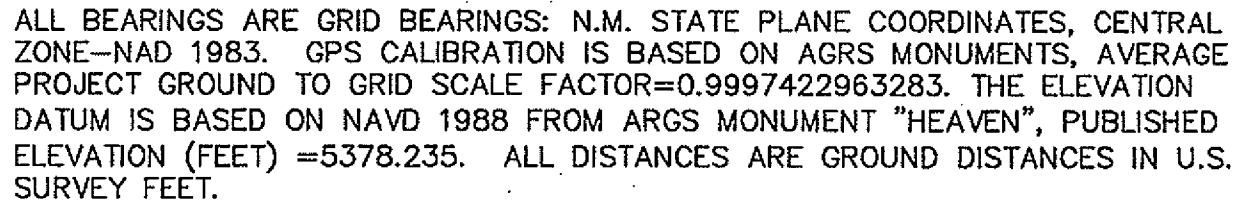
REMOVAL ITEMS			
ITEM ID NO.	ITEM DESCRIPTION	UNIT	TOTAL
343.030	EXISTING PAVEMENT, ASPHALT CONCRETE, MORE THAN 4" THICK, SAWCUT, REMOVE & DISPOSE, COMPL.	SY	125
343.065	EXISTING SIDEWALK, 4" PC CONCRETE, REMOVE AND DISPOSE, COMPL. *NOTE: REMOVAL OF STD. CURB & GUTTER, HEADER CURB, VALLEY GUTTER, AND MEDIAN CONCRETE ARE INCLUDED	SY	468


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 <b>CITY OF ALBUQUERQUE</b> DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION <b>BARSTOW STREET/HOLLY AVENUE</b> SIGNAL IMPROVEMENTS SUMMARY OF QUANTITIES			
DESIGN REVIEW COMMITTEE <b>APPROVED</b> NOV 07 2013 DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL <b>APPROVED</b> NOV 07 2013 CITY ENGINEER	DESIGNED BY: KVC DATE: 9/28/13 DRAWN BY: KVC DATE: 9/28/13 CHECKED BY: PS DATE: 9/30/13	SHEET NO. 4 OF 21
City Project No. COA 5015.02		Zone Map No. C19, C20, D19, D20	

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS-BUILT INFORMATION	
		FIELD NOTES NO. BY DATE NO. BY DATE NO. BY DATE NO. BY DATE NO. BY DATE NO. BY DATE		STATION IS LOCATED AT THE ENTRANCE TO THE "GATES OF HEAVEN" CEMETERY, 0.9 MILES WEST ON PASO DEL NORTE FROM WYOMING BLVD. NM STATE PLANE COORDS. (NAD 83) N=1510799.515 E=1547287.145 NAVD 1988 ELEV. = 5376.235		CONTRACTOR DATE CHECKED BY DATE RECORDED BY DATE MICRO-FILM INFORMATION DATE NO.	



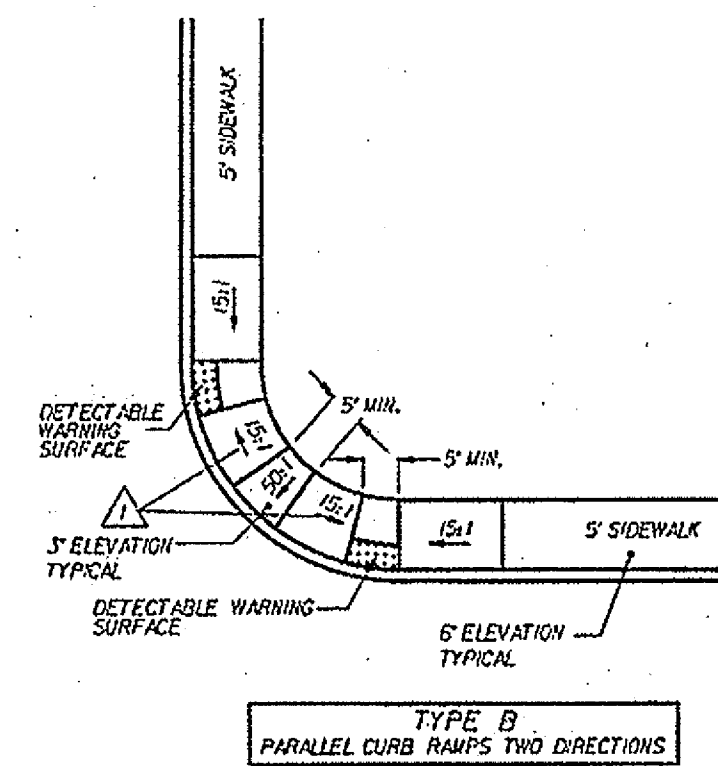
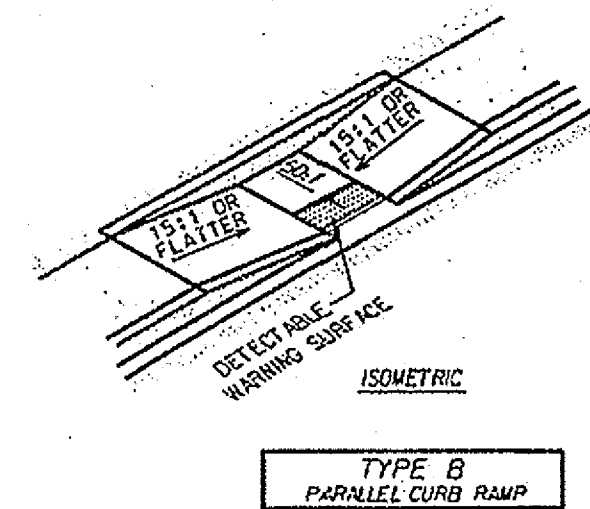
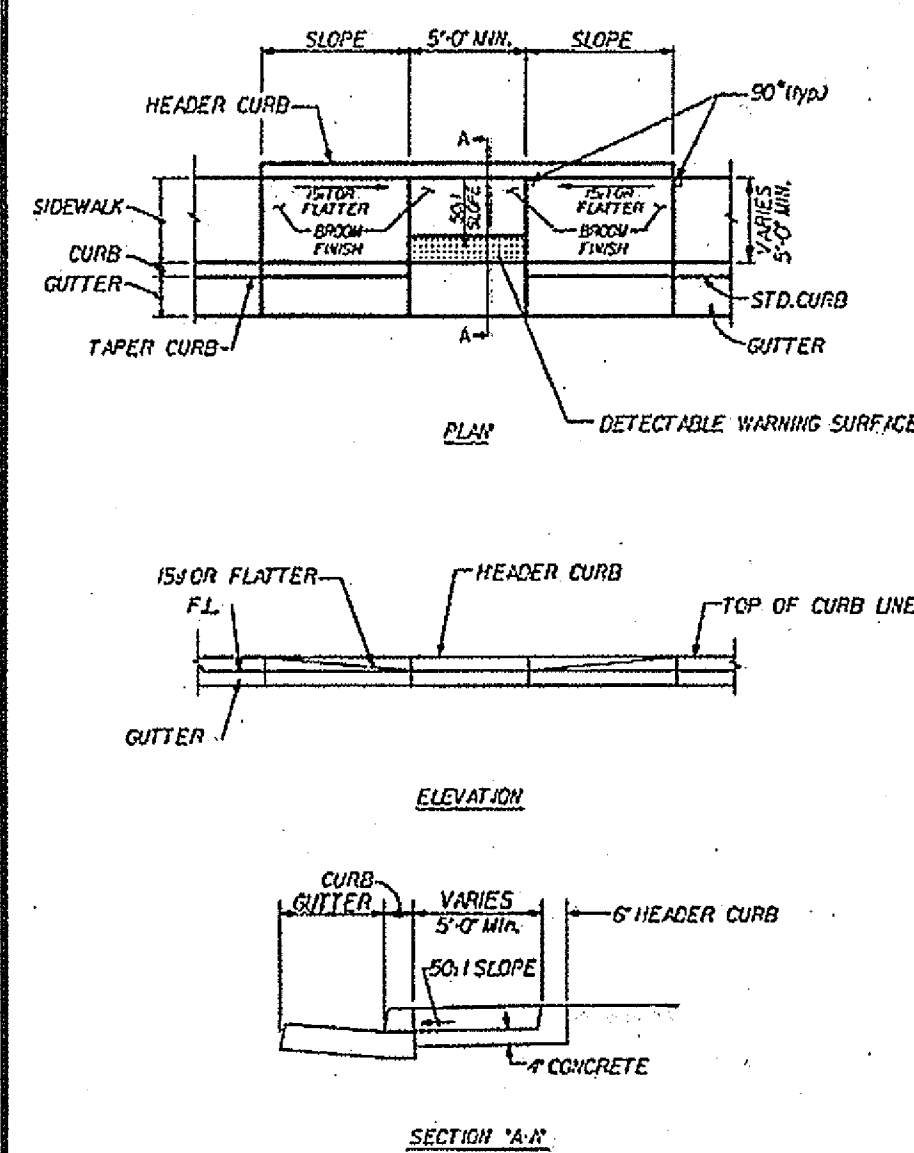
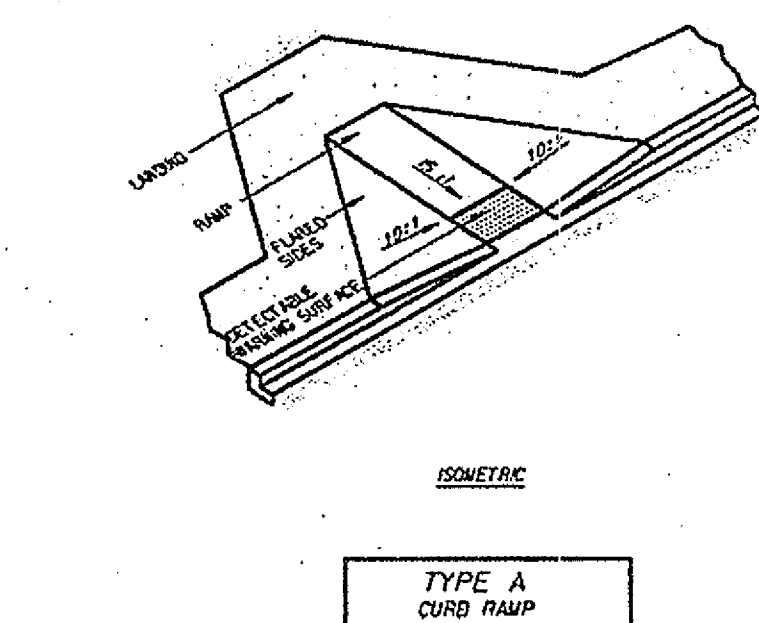


	CITY OF ALBUQUERQUE		
	DEPARTMENT OF MUNICIPAL DEVELOPMENT		
	ENGINEERING DIVISION		
	BARSTOW STREET/HOLLY AVENUE		
SIGNAL IMPROVEMENTS			
HORIZONTAL LAYOUT AND SURVEY CONTROL			
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City Project No.		Zone Map No.	Sheet
COA 5015.02		C19, C20, D19, D20	5 OF 21









5'-0"	-	1525mm
4'-0"	-	1220mm
3'-0"	-	915mm
2'-0"	-	610mm
6"	-	150mm
4"	-	100mm
10:1	-	1:10
15:1	-	1:15
22:1	-	1:22
50:1	-	1:50


I 8/03/04 R.GARCIA REVERSED FLOWMETS  
NO. DATE REV. BY DESCRIPTION

REVISIONS FOR CHANGE NOTICES :

## NEW MEXICO DEPARTMENT OF TRANSPORTATION

### PEDESTRIAN ACCESS DETAILS CURB RAMP DETAILS

#### TYPE "A" & TYPE "B"

APPROVAL  
RECOMMENDED

*[Signature]*

8-07-04

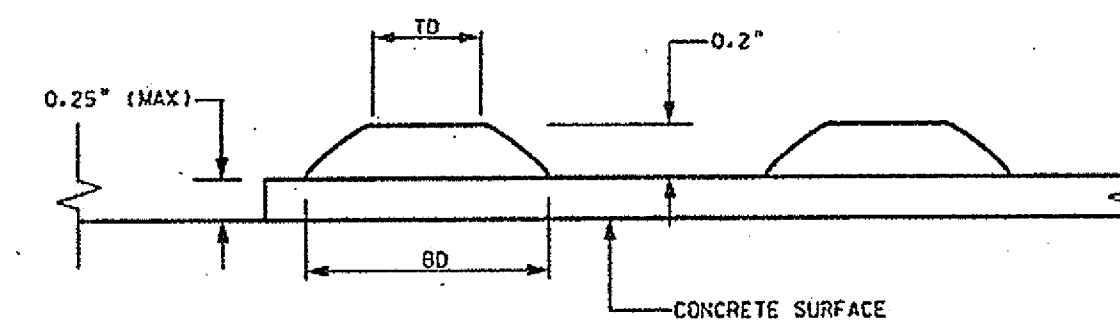
ENGINEER

DATE

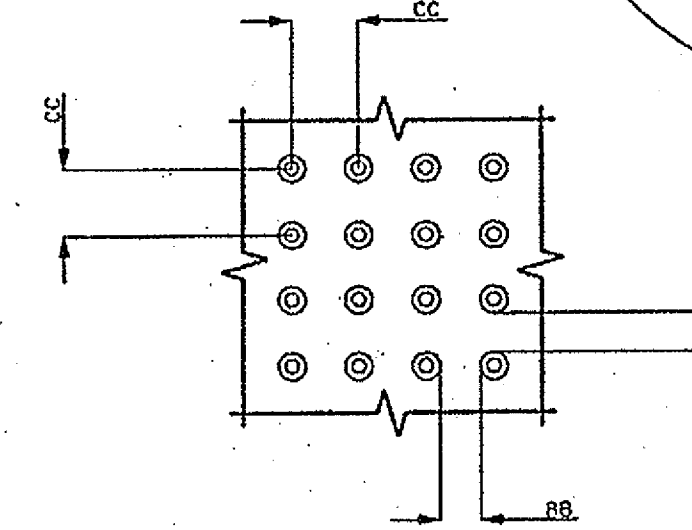
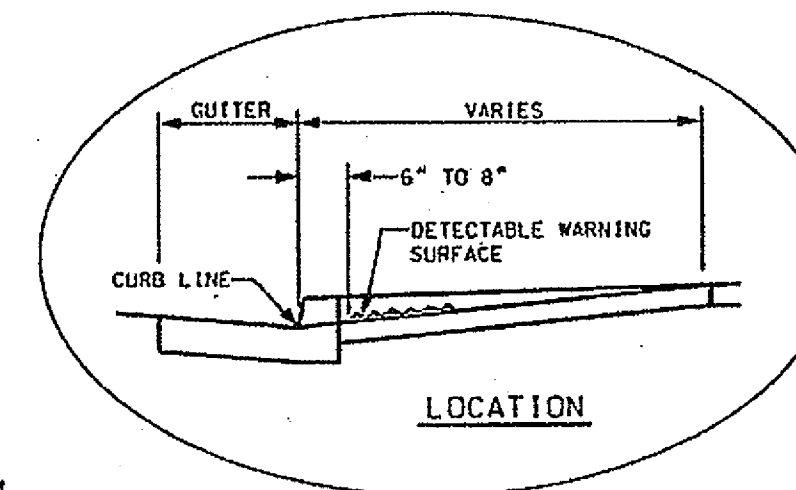
PAD-001

01/01/04

Sheet 3 of 10



BD - BASE DIAMETER  
0.9" MIN TO 1.4" MAX.  
TD - TOP DIAMETER  
50% OF BD MIN TO 65% OF BD MAX




CC - CENTER TO CENTER SPACING  
1.6" MIN TO 2.4" MAX

BB - BASE TO BASE SPACING  
0.65" MIN

DETECTABLE WARNING SURFACES SHALL EXTEND 24" MIN. IN THE DIRECTION OF TRAVEL AND FULL WIDTH OF THE CURB, RAMP, LANDING, OR TRANSITION. DOWNS SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF THE CROSSWALK TO PERMIT WHEELS TO ROLL BETWEEN DOWNS.

**METRIC CONVERSIONS**

0.2"	5.1 MM
0.25"	6.4 MM
0.65"	16.5 MM
0.9"	22.9 MM
1.4"	35.6 MM
1.6"	40.6 MM
2.4"	61 MM
24"	610 MM


1				
NO.	DATE	REV.	BY	DESCRIPTION
REVISIONS & CHANGE NOTICES 1				
NEW MEXICO DEPARTMENT OF TRANSPORTATION				
DETECTABLE WARNING SURFACE				
APPROVAL RECOMMENDED				12/3/63 DATE
PAO-001	01/01/04	Sheet		10 of 10

NOTES:

1. DETAILS SPECIFIED ON THIS PLAN APPLY TO ALL CONSTRUCTION OR RECONSTRUCTION OF STREETS, CLOSURES, OR SIDEWALKS BY ALL PUBLIC AGENCIES AND BY ALL PRIVATE ORGANIZATIONS CONSTRUCTING FACILITIES FOR PUBLIC USE.
2. SIDEWALKS RAMP ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
3. THE TOP OF THE JOINT FILLER FOR ALL RAMP TYPES SHALL BE FLUSH WITH THE ADJACENT CONCRETE.
4. ALL PRODUCTS USED FOR DETECTABLE WARNING SURFACES SHALL BE ON THE DEPARTMENT'S APPROVED PRODUCT LIST.

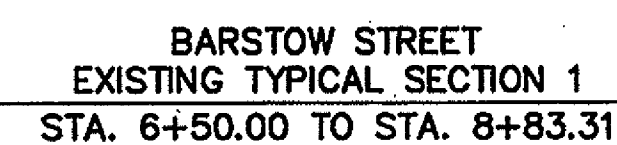
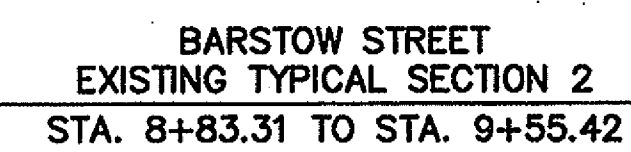
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						INSPECTOR'S ACCEPTANCE BY	DATE
						VERIFICATION BY	DATE
						DRAININGS CORRECTED BY	DATE
					NM STATE PLANE COORDS. (NAD 83)	MICRO-FILM INFORMATION	
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					E=1547297.145	NQ.	
					NAYD 1988 ELEV. = 5378.235		



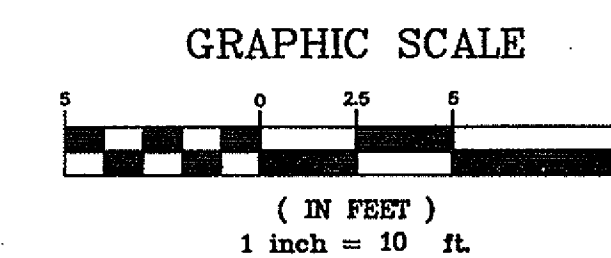
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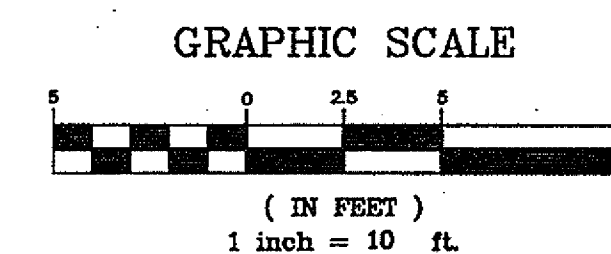
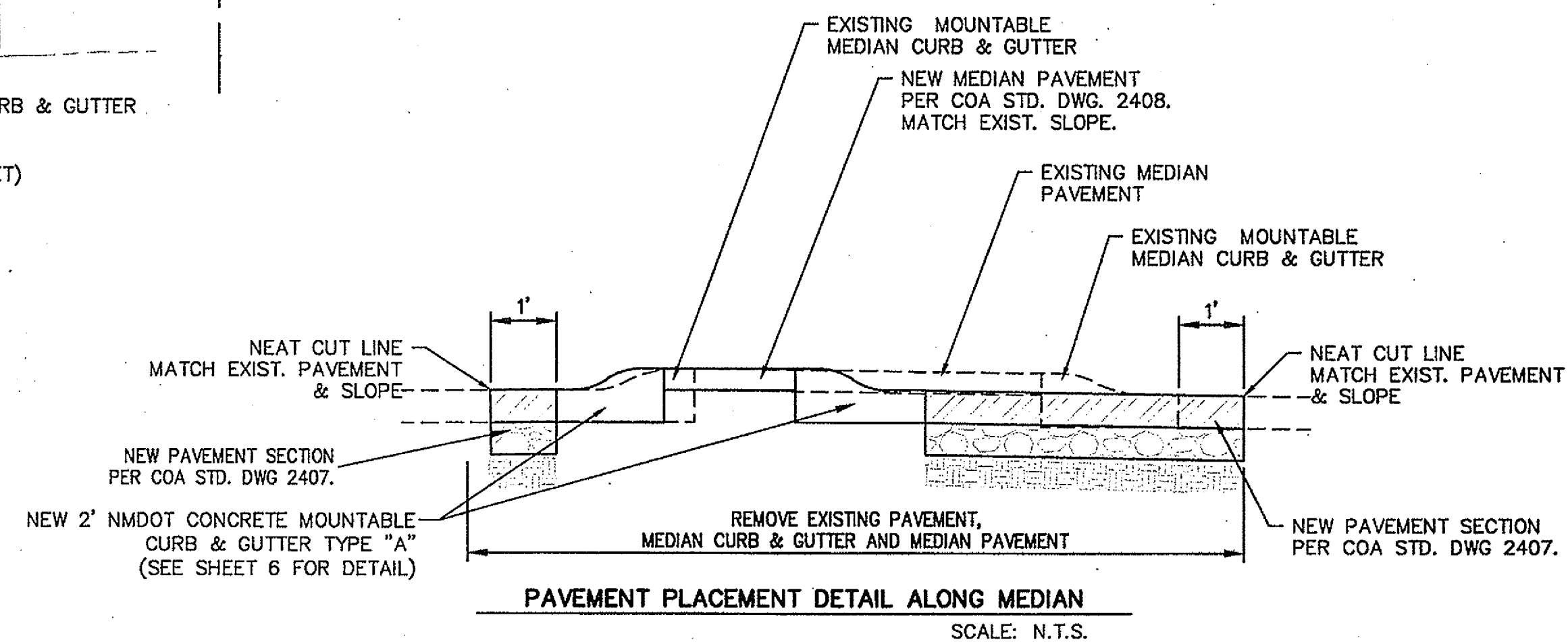
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STA. 6+50.00 TO STA. 7+67.25




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