TRAFFIC SIGNAL
PARADISE BLVD & PRICKLY PEAR
CITY OF ALBUQUERQUE
COA PROJECT NO. 5844.88
BERNALILLO COUNTY, NEW MEXICO

CONSTRUCTION PLANS
JULY 19, 2020

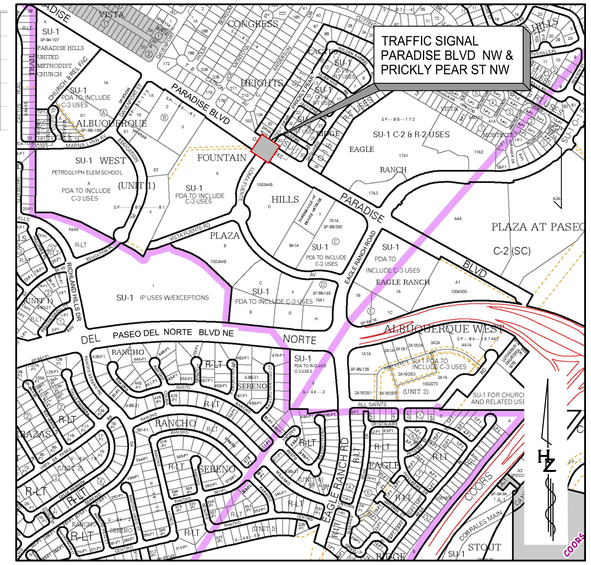
CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, SCOTT A. EDDINGS OF THE FIRM OF HUITT-ZOLLARS, INC., A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE INFRASTRUCTURE INSTALLED AS SHOWN ON THESE DRAWINGS (TRAFFIC SIGNAL PARADISE BOULEVARD AND PRICKLY PEAR) HAVE BEEN INSPECTED BY ME OR BY A QUALIFIED PERSON UNDER MY DIRECT SUPERVISION AND HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND THAT THE ORIGINAL DESIGN INTENT OF THE APPROVED PLANS HAS BEEN MET, EXCEPT AS NOTED BY ME OR PERSONNEL UNDER MY DIRECTION AND SURVEY INFORMATION PROVIDED BY THE CONTRACTOR, BIXBY ELECTRIC AND JASON D. SMITH, NMPS NO. 17122.

SCOTT A. EDDINGS NEW MEXICO 12856 REGISTERED PROFESSIONAL ENGINEER

5/16/22

APPROVED RECORD DRAWINGS	
City Inspector	*Tim Sims*
Contractor	*Custom Grading, Inc.*
Construction Engineer	*David Bishop*
Date	*12/13/2022*



VICINITY MAP
ZONE ATLAS MAP
C-12-Z & C-13-Z

UTILITY COMPANIES

ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY
(WATER SERVICES & WATER LINES)
1 CIVIC PLAZA 5TH FLOOR, P.O. BOX 568
ALBUQUERQUE, NM 87103
CONTACT: DAMIAN LUNA, P.E.
PHONE: (505) 289-3031
EMAIL: dluna@abcwua.org

CENTURY LINK
(TELEPHONE SERVICES)
4301 BOGAN AVENUE NE
ALBUQUERQUE, NM 87107
CONTACT: ABDUL BHIYAN
PHONE: (505) 767-7443
EMAIL: abdul.bhiyan2@centurylink.com

COMCAST
(CABLE TELEVISION)
8440 WASHINGTON STREET NE
ALBUQUERQUE, NM 87013
CONTACT: MIKE MORTUS
PHONE: (505) 271-3644
EMAIL: mike_mortus@cable.comcast.com

NEW MEXICO GAS COMPANY
(GAS SERVICES & GAS LINES)
4625 EDITH BLVD NE
ABLUQUERQUE, NM 87107
CONTACT: ROBERT SMITH
PHONE: (505) 697-3169
EMAIL: rsmith@tecoenergy.com

PNM ELECTRIC
(ELECTRICAL SERVICES & ELECTRIC LINES)
4201 EDITH BLVD NE
ALBUQUERQUE, NM 87107
CONTACT: PAUL DUNAGAN
PHONE: (505) 241-3626
EMAIL: paul.dunagan@pnm.com

Level (3)
(CABLE TELEVISION)
3830 SINGER BLVD NE
ALBUQUERQUE, NM 87109
CONTACT: JOHN HUFNAGLE
PHONE: (505) 938-7322
EMAIL: john.hufnagle@level3.com

VERIZON
(TELEPHONE SERVICES)
6001 MIDWAY PARK
ALBUQUERQUE, NM 87109
CONTACT: ANDY DARNELL
PHONE: (505) 346-4470
EMAIL: andy.darnell@verizon.com
CONTACT: MATT STURGIS
PHONE: (505) 715-1460
EMAIL: m.sturgis@verizon.com

811 nm811 Know what's below. Call before you dig.
TWO WORKING DAYS
BEFORE YOU DIG CALL
811 OR 260-1990

ALL PROPOSED CONDUITS SHALL BE INSTALLED BY BORING. SEE TRAFFIC SIGNAL NOTE #6, SHEET 2.

TRAFFIC NOTES

1. THE CONTRACTOR SHALL RESTRICT LANE CLOSURES TO BETWEEN THE HOURS OF 9:00 AM AND 3:00 PM.
2. THE CONTRACTOR SHALL ACCOMPLISH AS MUCH WORK AS POSSIBLE PRIOR TO STARTING CONSTRUCTION OPERATIONS THAT WILL AFFECT TRAFFIC . THE CONTRACTOR SHALL PROVIDE A LISTING OF SUCH WORK TO THE CITY PROJECT MANAGER AND ENGINEER FOR APPROVAL PRIOR TO STARTING CONSTRUCTION OPERATIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL TRAFFIC AND CONSTRUCTION SIGNAGE UNTIL THE PROJECT HAS BEEN ACCEPTED BY THE CITY OF ALBUQUERQUE.
4. ANY TRAFFIC CLOSURES TO BUSINESSES OR RESIDENCES REQUIRE 48-HOUR NOTICE.

THESE PLANS WERE DESIGNED AND/OR ASSEMBLED BY:

HUITT-ZOLLARS

Huitt-Zollars, Inc. Rio Rancho
333 Rio Rancho Drive NE, Suite 101
Rio Rancho, New Mexico 87124
Phone (505) 892-5141 Fax (505) 892-3259

SCOTT A. EDDINGS, PE
PROJECT ENGINEER

INDEX OF SHEETS

NOVUS PROPERTIES, LLC
TRAFFIC SIGNAL

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE

ENGINEERS STAMP & SIGNATURE

SCOTT A. EDDINGS NEW MEXICO 12856 REGISTERED PROFESSIONAL ENGINEER
7/19/20

APPROVALS	ENGINEER	DATE
DRC Chairman		8/3/2020
Transportation		7/20/2020
Water/Wastewater	N/A -- No Scope	
Hydrology		07/20/20
C.I.P.		
Constr. Mngmt.		
Constr. Coord.		
AEHD		

APPROVED FOR CONSTRUCTION

7/31/2020
City Engineer Date

City Project No. 5844.88

Sheet 1 Of 8

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TRAFFIC SIGNAL NOTES

1. ALL WORK ON THESE PLANS TO BE PERFORMED UNDER THIS CONTRACT SHALL CONFORM TO THE CURRENT MANUAL OF UNIFORM CONTROL DEVICES (MUTCD), NATIONAL ELECTRICAL CODE, THE STANDARDS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS FOR ELECTRICAL WIRING AND APPARATUS, AND THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (UPDATED IN JULY 2003).

2. LOCATIONS OF CONDUITS, FOUNDATIONS, CONTROL CABINETS, POLES, PULL BOXES, MANHOLES, AND SPLICE CABINET SHOWN ON THE PLANS ARE SCHEMATIC AND MAY BE ADJUSTED IN THE FIELD TO PROVIDE MAXIMUM CLEAR SPACE AVAILABLE FOR PEDESTRIANS AND WHEELCHAIRS TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND/OR TO CLEAR EXISTING UTILITIES.

3. THE RECOMMENDED LOCATION OF SIGNAL POLES ON MEDIANS IS 15 FEET BACK FROM THE MEDIAN NOSE. ANY REVISIONS TO LOCATIONS OF POLES AND CABINETS FROM LOCATIONS SHOWN ON PLANS SHALL BE APPROVED BY CITY TRAFFIC ENGINEERING OPERATIONS.

4. CONSTRUCTION OF NEW FOUNDATIONS SHALL BE COORDINATED WITH OTHER CONSTRUCTION ACTIVITIES TO ASSURE THAT THE TOPS OF ALL FOUNDATIONS ARE FLUSH WITH ADJACENT SIDEWALK, THAT ALL STRAIGHT SIDES ARE PARALLEL TO SIDEWALK JOINTS AND BACK OF CURBS, AND THAT FOUNDATIONS WILL BE OUTSIDE OF RAMP SLOPES.

5. THE CONTRACTOR IS WARNED THAT EXISTING CONDUITS MAY CONTAIN AC POWER AND CAUTION SHALL BE EXERCISED IN INTERCEPTING OR INSTALLING CABLE IN EXISTING CONDUIT.

6. THE CONTRACTOR SHALL BORE, DRILL, OR PUSH CONDUITS 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 ALL LINES THAT CROSS ANY PROPOSED BORES. THESE EXCAVATIONS SHALL REMAIN UNTIL AFTER THE BORE IS COMPLETE. THE CONTRACTOR SHALL REMOVE AND REPLACE IN KIND ANY SIDEWALK OR PAVEMENT REQUIRED TO EXPOSE SUCH LINES. THE CONTRACTOR MAY CUT, TRENCH, AND REPLACE EXISTING PAVEMENT ONLY WHEN APPROVED BY THE PROJECT MANAGER.

7. ALL LOOP LEAD-IN CABLES SHALL BE TAGGED AT THE CONTROL CABINET TO IDENTIFY EACH CABLE BY PHASE ND LOOP NUMBER. ALL VIDEO DETECTION CABLES SHALL BE TAGGED AT THE CONTROL CABINET TO IDENTIFY EACH CABLE BY CAMERA NUMBER AND LOCATION. ALL EMERGENCY VEHICLE PREEMPTION DETECTOR CABLE SHALL BE TAGGED AT THE CONTROL CABINET TO IDENTIFY EACH CABLE BY DIRECTION AND LOCATION.

8. ALL PULL BOXES SHALL BE REINFORCED POLYMER MORTAR HEAVY DUTY TYPE WITH REINFORCED POLYMER MORTAR HEAVY DUTY COVERS. CONCRETE COVERS, METAL COVERS, AND CONCRETE PULL BOXES WILL NOT BE ACCEPTABLE.

9. WATERTIGHT SPLICING OF TRAFFIC SIGNALS MULTI-CONDUCTOR CABLE WILL BE PERMITTED IN LARGE PULL BOXES INCLUDING LARGE MEDIAN PULL BOXES. SPLICING OF VIDEO DETECTION COAXIAL CABLE AND PREEMPTION DETECTOR CABLE WILL NOT BE PERMITTED FROM THE FIELD UNIT TO THE CONTROLLER CABINET.

10. THE CONTRACTOR SHALL NOTIFY THE CITY OF ALBUQUERQUE '311' 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 '311 EACH TIME A TRAFFIC SIGNAL CONTROL DOOR IS OPENED.

11. THE CONTRACTOR SHALL NOTIFY PNM 30 DAYS IN ADVANCE OF ANTICIPATED POWER SERVICE CONNECTIONS. THE CONTRACTOR SHALL COORDINATE WITH PNM TO ESTABLISH THE ELECTRICAL SERVICE IN THE CITY'S NAME. THE CONTRACTOR SHALL OBTAIN ALL PERMITS ASSOCIATED WITH PROVIDING ELECTRICAL SERVICE. THESE COSTS AND WORK WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.

12. THE CONTRACTOR SHALL REMOVE ALL CONFLICTING SIGNS AS NOTED IN PLANS TO BE DELIVERED TO THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING YARD ON PINO ROAD NE WHEN TRAFFIC SIGNALS ARE PUT INTO OPERATION.

13. ALL CONDUIT GROUNDS SHALL BE INSULATED GREEN #6 AWG CONDUCTORS IN LIEU OF THE SPECIFIED BARE COPPER.

14. LIVE UNUSED CONDUCTORS WILL NOT BE ALLOWED AT MASTARM POLES AND PEDESTAL POLES. ALL UNUSED CONDUCTORS SHALL BE CAPPED AND WATER PROOFED WITH CRIMPED NYLON WIRE CAPS.

15. ALL COPPER SPLICES SHALL USE SILICONE GEL FILLED WIRE NUTS.

16. IF TRENCH WIDTH LESS THAN 12" ARE PROPOSED BY THE CONTRACTOR, APPROVED COMPACTION METHODS SHALL BE USED DURING BACKFILL TO PREVENT LATENT TRENCH FAILURES. THE CONTRACTOR SHALL USE GROUT OR LEAN FILL AS APPROVED BY THE PROJECT MANAGER IN LIEU OF EARTH BACKFILL.

17. CONTRACTOR SHALL PREPARE, SUBMIT AND PROCESS FOR APPROVAL TRAFFIC SIGNAL TIMING PLANS THROUGH CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS. CONTRACTOR WILL ALSO PROGRAM ALL TRAFFIC SIGNAL CONTROLLERS.

18. EXISTING CONDUITS TO BE REMOVED OR ABANDONED SHALL HAVE ALL WIRING REMOVED. IF EXISTING CONDUIT IS NOT UTILIZED, TRACER WIRE SHOULD BE INSTALLED.

TRAFFIC SIGNAL NOTES (CONTINUED)

19. 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.

20. EXISTING SIDEWALKS IMPACTED OR DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR.

21. THE CONTRACTOR SHALL ARRANGE TO HAVE OFF-DUTY POLICE OFFICERS DIRECT TRAFFIC WHEN SIGNALS ARE TURNED OFF.

22. ALL DATA SHOWN HEREIN CONCERNING EXISTING UTILITIES HAS BEEN OBTAINED FROM "AS-BUILT" DRAWINGS FROM FIELD OBSERVATIONS WHICH MAY OR MAY NOT BE ACCURATE. THE CONTRACTOR WILL BE RESPONSIBLE FOR EXPLORATORY TRENCHING, IF NECESSARY, TO MORE SPECIFICALLY LOCATE UTILITY LINES. COST OF LOCATING UTILITY LINES INCLUDING EXPLORATORY TRENCHING WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.

23. ANY TRAFFIC SIGNAL EQUIPMENT REMOVED AND NOT RELOCATED SHALL BE SALVAGED BY THE CONTRACTOR AND DELIVERED TO THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING YARD ON PINO ROAD NE WITH PROPER DOCUMENTATION (LETTER OF TRANSMITTAL).

24. THE CONTRACTOR SHALL TAKE DIGITAL PHOTOS OF EXISTING TRAFFIC SIGNAL EQUIPMENT PRIOR TO ANY REMOVALS OF SIGNAL EQUIPMENT AFTER CONSTRUCTION. THE PICTURES SHALL BE PROVIDED TO THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATION IF .JPG FORMAT AND PLACED ON A CD-ROM. THE CD-ROM 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. ALL REMOVED EXISTING TRAFFIC SIGNAL EQUIPMENTS INCLUDING BUT NOT LIMITED TO POLES, SIGNAL HEADS, CONTROLLER CABINETS, CONFLICT MONITORS, AND DETECTORS SHALL BE DELIVERED TO THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING YARD ON PINO ROAD NE WITH PROPER DOCUMENTATION (LETTER OF TRANSMITTAL).

25. ALL PEDESTRIAN RAMPS SHALL BE AMERICANS WITH DISABILITY ACT (ADA) COMPLAINT INCLUDING APPROPRIATE RAMP SLOPES AND INCORPORATE TRUNCATED DOMES.

26. ALL PEDESTRIAN PUSH BUTTON LOCATIONS SHALL BE ADA COMPLIANT AND BE INSTALLED AT A HEIGHT OF 36 INCHES FROM FINISHED GRADE. PEDESTRIAN PUSH BUTTONS SHALL BE INSTALLED NO MORE THAN 10 INCHES HORIZONTALLY FROM THE SIDEWALK OR THE PEDESTRIAN REFUGE AREA OF A MEDIAN.

27. PEDESTRIAN PUSH BUTTON SIGNS SHALL BE INSTALLED WITH THE ARROW POINTING IN THE DIRECTION OF THE PEDESTRIAN MOVEMENT.

28. NEW TRAFFIC SIGNAL POLES SHALL BE CITY OF ALBUQUERQUE STANDARD TYPE II OR TYPE III GALVANIZED STEEL. ALUMINUM POLES MAY BE USED ONLY WHEN PRE-APPROVED BY THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS. MIXING OF STEEL AND ALUMINUM POLES AND MASTARMS AT AN INTERSECTION IS HIGHLY DISCOURAGED AND MUST BE APPROVED BY THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS.

29. CONTRACTOR SHALL FURNISH AND INSTALL ALUMINUM PANEL STREET NAME SIGNS PER CITY OF ALBUQUERQUE STREET NAME SIGNS STANDARDS.

30. LOOP DETECTORS SHALL BE CENTERED ON LANE AS INDICATED ON THE PLANS. LOOPS SHALL BE 6'x40' QUADRUPOLE PRESENCE DETECTORS (2 TURNS) FOR LEFT TURN LANES AND SHALL BE 6'x40' BIPOLE PRESENCE DETECTORS (2 TURNS) FOR THROUGH LANES.

TRAFFIC SIGNAL LEGEND

NEW	EXISTING	ITEM
		PULL BOX (LARGE)
		PULL BOX (STANDARD)
		SERVICE RISER (SIGNAL)
		METER PEDESTAL (M)
		CONTROLLER CABINET (CC)
T	T	TRANSFORMER
LCC	L	LIGHTING CONTROLLER CABINET
		CONDUIT RUN (SIGNAL)
COMM	COMM	CONDUIT RUN (INTERCONNECT)
X	X	CONDUIT RUN NUMBER (SIGNAL)
SX	SX	CONDUIT RUN NUMBER (POWER SERVICE)
CX	CX	CONDUIT RUN NUMBER (INTERCONNECT SERVICE)
		TYPE II STANDARD POLE WITH MASTARM, TRAFFIC SIGNAL, BACKPLATE, PREEMPTION DETECTOR, AND IISNS
		TYPE III STANDARD POLE WITH MASTARM, TRAFFIC SIGNAL, BACKPLATE, PREEMPTION DETECTOR, LUMINAIRE VIDEO CAMERA, AND IISNS
		PEDESTRIAN COUNTDOWN SIGNALS ON PEDESTAL POLE (PUSH BUTTONS MOUNTED ON SIDE OF POLE WHERE INDICATED)
		TRAFFIC SIGNAL PEDESTAL POLE (WITH PROTECTED TURN SIGNAL)
		TRAFFIC SIGNAL PEDESTAL POLE (WITH PROTECTED+PERMITTED TURN SIGNAL)
		LOOP DETECTION
V	V	SPLICE VAULT
		VIDEO CAMERA
		EMERGENCY VEHICLE PREEMPTION DETECTOR
		ALUMINUM PANEL STREET NAME SIGN

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

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SCOTT A. EDDINGS NEW MEXICO 12856 REGISTERED PROFESSIONAL ENGINEER
5/16/22

AS BUILT INFORMATION
CONTRACTOR — DATE
WORK STAKED BY — DATE
INSPECTED & FOUND ACCEPTABLE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION — DATE
RECORDED BY
NO.

BENCH MARKS
FOUND MONUMENT "9-C12"
STANDARD 3 1/4" ALUMINUM DISC
NEW MEXICO STATE PLANE COORDINATES (CENTRAL ZONE-N.A.D. 1983)
N=1,521,648.216
E=1,512,571.253
ELEV=5127.376 (NAVD 1988)
GROUND TO GRID FACTOR=0.999677378
MAPPING ANGLE=-0°14'47.46"

SURVEY INFORMATION
FIELD NOTES
NO. | BY | DATE

ENGINEER'S SEAL
A. EDDINGS NEW MEXICO 12856 REGISTERED PROFESSIONAL ENGINEER
7/19/20

NO. | BY | DATE | REMARKS
REVISIONS
DESIGN
DESIGNED BY: LRT — DATE: JULY 19, 2020
DRAWN BY: LRT/SAE — DATE: JULY 19, 2020
DWG NAME: 2_TS-NOTES.dwg — PROJ #: R3072202.01
CHECKED BY: SAE — DATE: JULY 19, 2020

Designed By:
HUITT-ZOLLARS
Huitt-Zollars, Inc. Albuquerque
6501 Americas Pkwy NE, Suite 550
Albuquerque, New Mexico 87110
Phone (505) 883-8114 Fax (505) 883-5022

NOVUS PROPERTIES, LLC
TRAFFIC SIGNAL

TITLE:
TRAFFIC SIGNAL NOTES

Design Review Committee	City Engineer	Last Update	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED Aug. 3, 2020 DESIGN REVIEW COMMITTEE	APPROVED Aug. 3, 2020 CITY ENGINEER			

City Project No. 5844.88 | Zone Map No. C-12-Z, C-13-Z | Sheet 2 Of 8

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TRAFFIC SIGNAL EQUIPMENT REQUIREMENTS

1. THE CONTRACTOR SHALL FURNISH AND INSTALL THE FOLLOWING:
   A. ALL TRAFFIC SIGNAL CONTROLLERS SUPPLIED FOR THIS PROJECT SHALL BE ECONOLITE COBALT OR APPROVED EQUAL BY THE CITY OF ALBUQUERQUE.ALL TRAFFIC SIGNAL CONTROLLER CABINETS SUPPLIED FOR THIS PROJECT SHALL BE TYPE "P" CABINETS.
   B. SERVICE PEDESTAL SUPPLIED FOR THIS PROJECT SHALL BE TESCO TYPE B AS PER CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS.

2. EMERGENCY VEHICLE PREEMPTION DETECTOR SYSTEM EQUIPMENT SHALL BE 3M "OPTICOM" MODEL 762 (OR MOST CURRENT ACCEPTABLE MODEL) PHASE SELECTORS MOUNTED ON 3M "OPTCOM" MODEL RACKS, OR APPROVED EQUAL. ALL RACKS SHALL BE CAPABLE OF PROVIDING FOUR CHANNELS OF DETECTION. PHASE SELECTOR MODULES SHALL BE CAPABLE OF TWO CHANNELS EACH. A MANUFACTURER'S REPRESENTATIVE SHALL ASSIST THE CONTRACTOR IN THE FIELD AS WORK PROGRESSES TO COMPLETE THE INSTALLATION OF ALL EMERGENCY VEHICLE PREEMPTION DETECTOR EQUIPMENT AND ASSIST IN SETTING UP. TURNING ON, PROGRAMMING AND FIELD TESTING PREEMPTION EQUIPMENT INCLUDED EMITTERS TO ENSURE THAT THE EQUIPMENT IS OPERATIONAL.

3. ALL INDICATIONS OF ALL VEHICLE SIGNAL ASSEMBLIES AND ALL PEDESTRIAN SIGNAL INDICATORS SHALL BE TINTED LED SIGNALS OF A TYPE AND MANUFACTURER APPROVED BY THE CITY OF ALBUQUERQUE. PEDESTRIAN SIGNALS SHALL ALSO INCLUDE "COUNTDOWN" INDICATORS FOR CLEARANCE TIME.

4. ALL PEDESTRIAN PUSH BUTTONS SHALL BE BULLDOG TYPE.

5. ALL SIGNAL ASSEMBLIES, PEDESTRIAN SIGNALS, PEDESTRIAN PUSH BUTTONS, AND FITTINGS SHALL COMPLY WITH THE CITY OF ALBUQUERQUE TYPE AND COLOR (BLACK) FINISH REQUIREMENTS.

6. LOOP DETECTION SHALL BE THE PREFERRED CHOICE FOR VEHICLE DETECTION AT AN INTERSECTION. VIDEO DETECTION OR OTHER DETECTION OPTIONS MAY NOT BE ALLOWED UNLESS PRE-APPROVED BY THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS.

7. IF VIDEO DETECTION IS APPROVED BY THE CITY OF ALBUQUERQUE, CONTRACTOR SHALL FURNISH AND INSTALL THE FOLLOWING:
   A. NEWEST ECONOLITE CAMERAS.
   B. NECESSARY COMPUTER SOFTWARE TO CONNECT AND OPERATE THE VIDEO DETECTION SYSTEM.
   C. NECESSARY VIDEO POWER CABLE.
   D. TRAINING FOR THE VIDEO DETECTION EQUIPMENT AND THE VIDEO HARDWARE SYSTEM.

TRAFFIC SIGNAL INTERCONNECT REQUIREMENTS

1. PER PLAN, EXISTING COPPER OR FIBER OPTIC INTERCONNECT SHALL BE MAINTAINED OR PROVIDED FOR SIGNAL CONSTRUCTION. THIS SHALL INCLUDE BUT NOT LIMITED TO INSTALLING SPLICE CABINETS, SPLICE VAULTS, SPLICE ENCLOSURES, INTERCONNECT CONDUIT AND CABLE, CCTV CAMERA INSTALLATION, AND APPROPRIATE SIGNAL CONTROLLER INTERFACES (FIELD SWITCH, TERMINAL SERVICES ETC.).

2. IF NO EXISTING INTERCONNECT IS PRESENT, CONTRACTOR, SHALL PROVIDE SPLICE VAULT, AND INTERCONNECT CONDUIT WITH #6 AWG TRACER WIRE & PULL STRING. INTERCONNECT CONDUIT SHALL BE STUBBED AND CAPPED AT PROJECT LIMITS.

3. SIGNAL CONDUCTORS SHALL NOT SHARE CONDUIT OR PULL BOXES WITH FIBER OPTIC COMMUNICATIONS CABLE. FIBER OPTIC SHALL BE INSTALLED IN A SEPARATE CONDUIT AND PULL BOXES.

4. SPLICING OF COMMUNICATION CABLE WILL NOT BE PERMITTED IN PULL BOXES, SPLICING OF COMMUNICATION CABLE (CONNECTIONS) WILL BE PERMITTED ONLY AT SPLICE CABINETS, SPLICE VAULTS WITH SPLICE CLOSURES, OR CONTROLLER CABINETS WITH SPLICE BLOCKS.

5. FOR CONDUITS CONTAINING ONLY LOW VOLTAGE COMMUNICATION CABLES OR FIBER OPTIC CABLE, AN INSULATED SINGLE CONDUCTOR COPPER #6 AWG WILL BE USED AS A TRACER WIRE.

TRAFFIC SIGNAL INCIDENTAL ITEMS*

1. REMOVAL OF EXISTING PULL BOXES, CONDUITS, CONDUCTORS OR OTHER SIGNAL EQUIPMENT FOR INSTALL OF NEW SIGNAL EQUIPMENTS EXCEPT AS NOTED IN PLANS.
2. CABLE TESTING AND DIAGRAMS.
3. BORING, DRILLING, PUSHING, AND TRENCHING, INCLUDING REMOVAL AND REPLACEMENT OF PAVEMENT, SIDEWALKS, DRIVE PADS, VALLEY GUTTERS, WHEELCHAIR RAMPS, CURB & GUTTER, AND LANDSCAPING (INCLUDING SPRINKLERS) FOR INSTALLATION OF PULL BOXES, CONDUITS, AND SIGNAL FOUNDATIONS, EXCEPT AS NOTED IN PLANS.
4. LOCATION OF UTILITY LINES INCLUDING EXPLORATORY TRENCHING AND EXPOSING GAS LINES WHEN BORING.
5. DESIGN, MATERIALS, INSTALLATION, AND REMOVAL OF SAFETY BARRIER FOR SHIELDING EQUIPMENT OR MATERIAL.
6. APPRISING PUBLIC THROUGH THE LOCAL NEWS MEDIA.
7. HAULING OF MATERIAL TO BE DISPOSED TO CITY LANDFILL.
8. REMOVAL, SALVAGE, AND TRANSPORTATION OF EXISTING SIGNAL EQUIPMENT TO THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING YARD ON PINO ROAD NE.
9. LEAN FILL FOR CONDUIT TRENCHES.
10. PULL BOX ADJUSTMENT TO GRADE.
11. OFF-DUTY POLICE OFFICER FOR TRAFFIC CONTROL.
12. CAMERA MOUNTING HEIGHT ADJUSTMENT ARM.
13. COST FOR PNM TO PROVIDE ELECTRICAL SERVICE.
14. CONTRACTOR SHALL PROVIDE COMPLETE AS-BUILT GIS DATA TO CITY TRAFFIC OPERATIONS PRIOR TO PROJECT CLOSEOUT.

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

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NO.

SURVEY INFORMATION
FIELD NOTES
NO. | BY | DATE

ENGINEER'S SEAL
A. EDDINGS NEW MEXICO 12856 REGISTERED PROFESSIONAL ENGINEER
7/19/20

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

DESIGNED BY: LRT — DATE: JULY 19, 2020
DRAWN BY: LRT/SAE — DATE: JULY 19, 2020
DWG NAME: 3_TS-EQUIP-INC.dwg — PROJ #: R307202.01
CHECKED BY: SAE — DATE: JULY 19, 2020

nm811 Know what's below. Call before you dig.
TWO WORKING DAYS BEFORE YOU DIG CALL 811 OR 260-1990

Designed By:
HUITT-ZOLLARS
Huitt-Zollars, Inc. Albuquerque
6501 Americas Pkwy NE, Suite 550
Albuquerque, New Mexico 87110
Phone (505) 883-8114 Fax (505) 883-5022

NOVUS PROPERTIES, LLC
TRAFFIC SIGNAL

TITLE:
EQUIPMENT, INCIDENTALS & INTERCONNECT

Design Review Committee	City Engineer	Last Update	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED Aug. 3, 2020 DESIGN REVIEW COMMITTEE	APPROVED Aug. 3, 2020 CITY ENGINEER			

City Project No.	Zone Map No.	Sheet	Of
5844.88	C-12-Z, C-13-Z	3	8

TRAFFIC SIGNAL QUANTITIES

Traffic Signal Estimated Quantities

Item No.	Item Description	Unit	Interconnect	Prickly Pear	Total
422.004	Traffic Signal Pedestal Pole, 15', CIP.	EA		2	2
422.016	Traffic Signal Mastarm, 30' Arm, Type II, Trombone, CIP.	EA		1	1
422.017	Traffic Signal Mastarm, 30' Arm, Type III, Trombone, CIP.	EA		1	1
422.020	Traffic Signal Mastarm, 40' Arm, Type II, Trombone, CIP.	EA		2	2
423.001	Traffic Signal Foundation For Pedestal Pole, CIP.	EA		2	2
423.002	Traffic Signal Mastarm Foundation, CIP.	EA		4	4
423.003	Traffic Signal Controller Foundation, (Type P Cabinet), CIP.	EA		1	1
424.006	Rigid Electrical Conduit, 2" Including Trench, Backfill, Patching, Pushing, Boring And Jacking, CIP.	LF		505	505
424.011	Rigid Electrical Conduit, 3", Incl. Trenching, Backfill, Patching, Pushing, Boring, & Jacking, CIP.	LF	235	520	755
425.002	Electrical Pull Box, (Standard), CIP	EA	2		2
425.003	Electrical Pull Box, (Large), CIP	EA		13	13
425.021	Splice Vault	EA	1		1
426.001	Single Conductor #2, CIP.	LF		84	84
426.003	Single Conductor #6, CIP.	LF		2640	2,640
426.005	Single Conductor #10, CIP.	LF		0	0
426.010	Multi-Conductor Cable, #5, CIP.	LF		2500	2,500
426.011	Multi-Conductor Cable, #7, CIP.	LF		325	325
426.014	Multi-Conductor Cable, #20, CIP.	LF		960	960
426.101	Existing Wiring, Remove & Dispose, Complete	LS	1		1
427.002	3 Section Traffic Assembly, CIP.	EA		9	9
427.004	5-Section Traffic Assembly, CIP.	EA		9	9
427.023	Pedestrian Signal, Countdown, CIP.	EA		8	8
427.031	3 Section Backplate, CIP.	EA		7	7
427.033	5 Section Backplate, CIP.	EA		3	3
428.001	Loop Vehicle Detector, CIP.	EA		7	7
428.010	Push Button Station, CIP.	EA		8	8
428.021	Loop Detector Wire, CIP.	LF		2345	2,345
428.050	Loop Lead-In Cable, CIP.	LF		1085	1,085
428.060	Detector Saw Cut, Complete	LF		1010	1,010
428.071	Phase Sector Module, 2 Channel, CIP	EA		2	2
428.076	Emergency Preemption Detector, 2D/2C	EA		4	4
428.078	Emergency Preemption Detector Cable	LF		970	970
428.080	Emergency Preemption Emitter	EA		4	4
429.001	Traffic Actuated Controller, CIP	EA		1	1
429.021	8 Phase Dual Ring Controller Cabinet, CIP	EA		1	1
435.006	Single Mode Fiber Optic Cable (6-Strand) (Interconnect)	LF	1500		1,500
435.600	Splice Closure Re-Splice, CIP	EA		1	1
450.010	Aluminum Panel Sign, CIP	SF		45	45
428.092	PTZ Camera Video Cable	LF		100	100
428.093	PTZ Camera Power Cable	LF		100	100
428.094	PTZ Camera	EA		1	1

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CONTRACTOR — DATE
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BENCH MARKS
FOUND MONUMENT "9-C13"
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N=1,521,648.218
E=1,512,571.263
ELEV=5127.376 (NAVD 1988)
GROUND TO GRID FACTOR=0.999677378
MAPPING ANGLE=-0°14'47.46"

MICRO-FILM INFORMATION
RECORDED BY
NO.

SURVEY INFORMATION
FIELD NOTES
NO. | BY | DATE

ENGINEER'S SEAL
SCOTT A. EDDINGS — NEW MEXICO — 12856 — REGISTERED PROFESSIONAL ENGINEER
7/19/20

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

DESIGNED BY: LRT — DATE: JULY 19, 2020
DRAWN BY: LRT/SAE — DATE: JULY 19, 2020
DWG NAME: 4-QTY.dwg — PROJ.#: R3072202.01
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NOVUS PROPERTIES, LLC
TRAFFIC SIGNAL

TITLE:
TRAFFIC SIGNAL ESTIMATED QUANTITIES

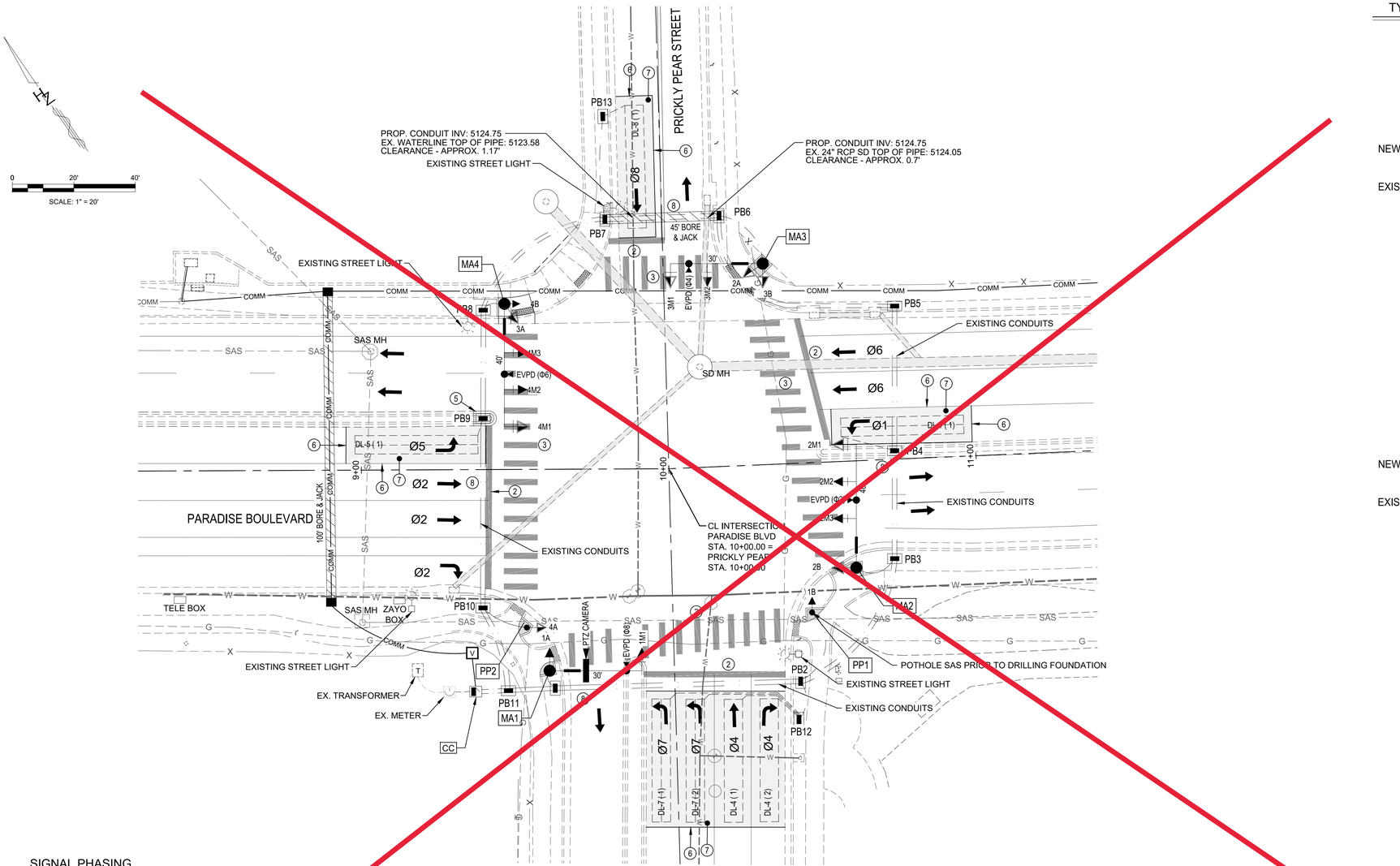
Design Review Committee	City Engineer	Last Update	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED Aug. 3, 2023 DESIGN REVIEW COMMITTEE	APPROVED Aug. 3, 2023 CITY ENGINEER			

City Project No.	Zone Map No.	Sheet	Of
5844.88	C-12-Z, C-13-Z	4	8

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, SCOTT A. EDDINGS OF THE FIRM OF HUITT-ZOLLARS, INC., A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE INFRASTRUCTURE INSTALLED AS SHOWN ON THESE DRAWINGS (TRAFFIC SIGNAL PARADISE BOULEVARD AND PRICKLY PEAR) HAVE BEEN INSPECTED BY ME OR BY A QUALIFIED PERSON UNDER MY DIRECT SUPERVISION AND HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND THAT THE ORIGINAL DESIGN INTENT OF THE APPROVED PLANS HAS BEEN MET, EXCEPT AS NOTED BY ME OR PERSONNEL UNDER MY DIRECTION AND SURVEY INFORMATION PROVIDED BY THE CONTRACTOR, BIXBY ELECTRIC AND JASON D. SMITH, NMPS NO. 17122.

SCOTT A. EDDINGS — NEW MEXICO — 12856 — REGISTERED PROFESSIONAL ENGINEER
5/16/22

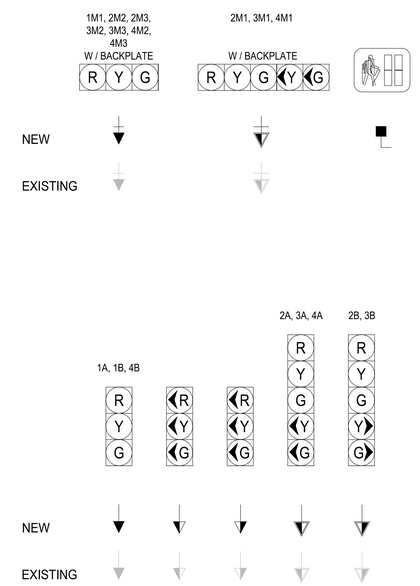


PLAN

PARADISE BLVD NW & PRICKLY PEAR ST NW

SUPERSEDED -- SEE SHEET 5R

TYPICAL SIGNAL FACE ASSEMBLIES AND LEGEND



ABBREVIATIONS

MA1	MAST ARM NUMBER
PP1	PEDESTAL POLE NUMBER
CC	CONTROLLER CABINET
EVPD (Φ2)	EMERGENCY VEHICLE PREEMPTION DETECTION (PHASE)

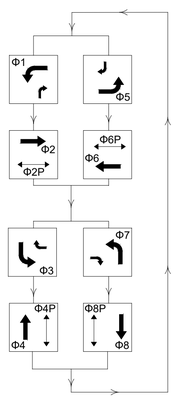
FLASH CONDITION

RED HEADS - Φ1, Φ2, Φ5, Φ6
RED HEADS - Φ3, Φ4, Φ7, Φ8

INITIALIZATION

STEADY ON RED, THEN Φ2 AND Φ6 GREEN

SIGNAL PHASING



CONSTRUCTION NOTES

1. ADJUST CURB RAMPS TO MAKE SURE PUSH BUTTONS ARE ACCESSIBLE.
2. 24" RETROREFLECTORIZED THERMOPLASTIC SOLID WHITE STOP BAR.
3. 11' x 2' RETROREFLECTORIZED THERMOPLASTIC SOLID WHITE CROSSWALK MARKINGS
4. REMOVE & REPLACE EX. PAVEMENT FOR LOOP DETECTION
5. REMOVE & REPLACE EX. MEDIAN CURB PER COA STD DWG 2415A & PATTERNED COLORED CONCRETE (MATCH EX.)
6. SAWCUT EX. ASPHALT FOR NEW LOOP DETECTION
7. REMOVE & REPLACE EXISTING ASPHALT. MATCH EX.
8. ALL UTILITIES WILL BE EXPOSED BEFORE CONSTRUCTION VIA POTHOLE FOR EACH BORE AND JACK.

LEGEND	PEDESTAL POLE HEIGHT	EQUIPMENT				POLE LOCATION
PP1	15'	1	0	1	1	10+45.85, 47.17' RT
PP2	15'	0	1	1	1	9+52.92, 49.76' RT

NOTES:
REFER COA STD DWGS 2558, 2560, 2562C AND 2562D FOR INSTALLATION OF PEDESTAL POLES AND FOUNDATION.

LEGEND	EQUIPMENT TYPE	LOCATION
CC	ASC/3, TYPE "P" CABINET	9+37.06, 71.75' RT
	EXISTING METER	9+29.06, 71.75' RT

LEGEND	MASTARM TYPE	EQUIPMENT										POLE LOCATION
MA1	ALB-3-30	1	0	1	0	0	1	1	1	1	0	9+61.23, 63.85' RT
MA2	ALB-2-40	2	1	0	0	1	1	1	1	1	1	10+60.47, 32.85' RT
MA3	ALB-2-30	1	1	0	1	1	1	1	2	2	0	10+31.81, 66.75' LT
MA4	ALB-2-40	2	1	1	1	0	1	1	2	2	0	9+46.50, 54.00' LT

NOTES:
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MAPPING ANGLE=-0°14'47.46"
RECORDED BY — DATE
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SURVEY INFORMATION
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ENGINEER'S SEAL
A. ERDLINGS 2558 REGISTERED PROFESSIONAL ENGINEER
7/19/20

NO.	DATE	REMARKS	BY
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		DESIGN	
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DRAWN BY: LRT/SAE		DATE: JULY 19, 2020	
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NOVUS PROPERTIES, LLC
TRAFFIC SIGNAL

TITLE:
PARADISE BLVD & PRICKLY PEAR ST
TRAFFIC SIGNAL PLAN

Design Review Committee	City Engineer	Last Update	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED Aug. 3, 2020 DESIGN REVIEW COMMITTEE	APPROVED Aug. 3, 2020 CITY ENGINEER			

City Project No.	Zone Map No.	Sheet	Of
5844.88	C-12-Z, C-13-Z	5	8

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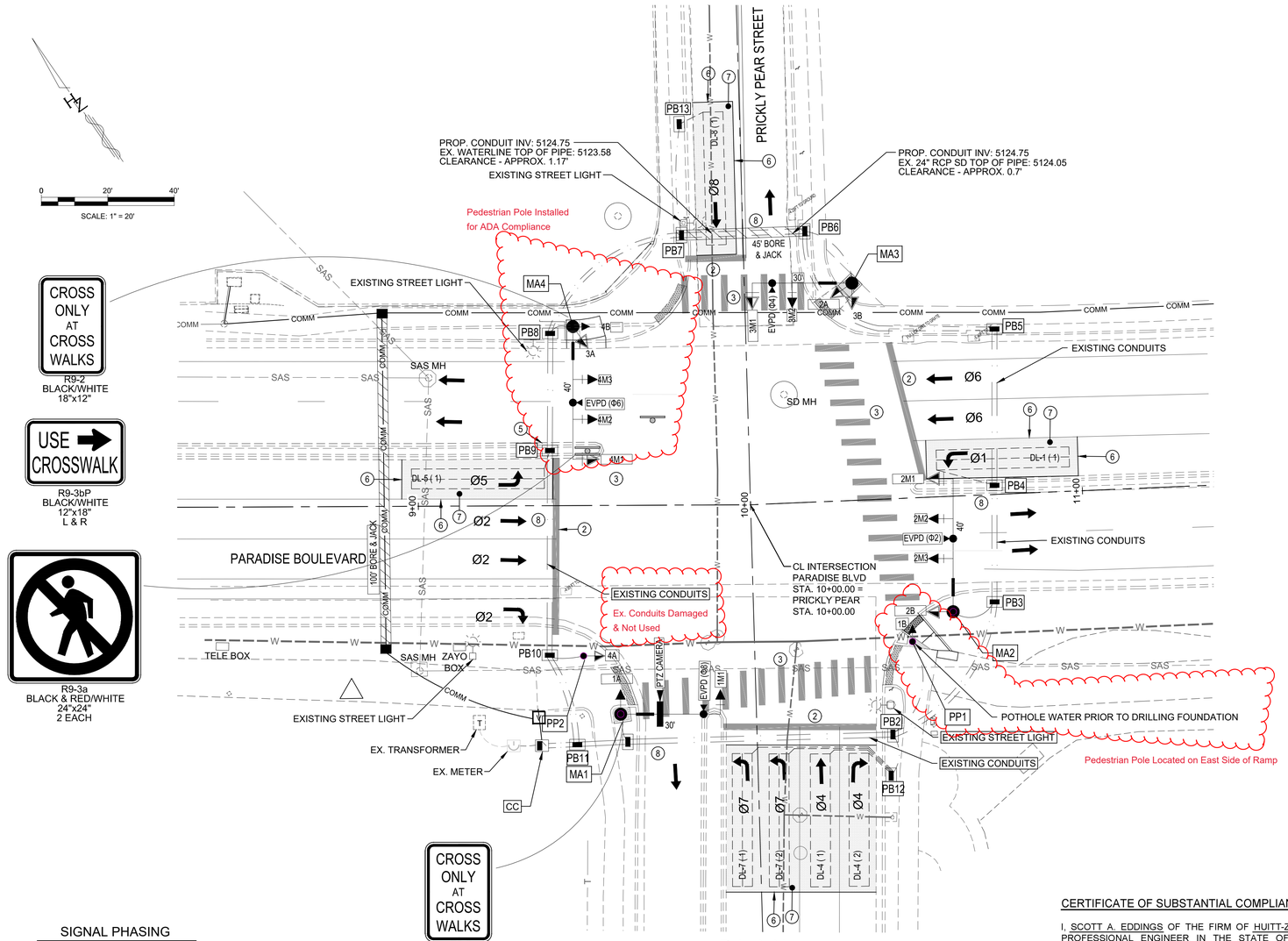
Last Saved:7/19/2020 12:30:50 PM, eddings



PLAN

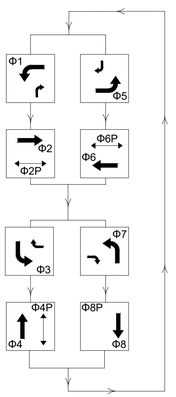
PARADISE BLVD NW & PRICKLY PEAR ST NW

CROSS ONLY AT CROSS WALKS
R9-2
BLACK/WHITE
18"x12"

USE CROSSWALK
R9-3bP
BLACK/WHITE
12"x18"
L & R

R9-3a
BLACK & RED/WHITE
24"x24"
2 EACH

SIGNAL PHASING



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LEGEND	PEDESTAL POLE HEIGHT	EQUIPMENT				POLE LOCATION
PP1	15'	1	0	O	2	10+46.97, 43.21' RT
PP2	15'	0	1	1	0	9+49.53, 45.27' RT

NOTES:
REFER COA STD DWGS 2558, 2560, 2562C AND 2562D FOR INSTALLATION OF PEDESTAL POLES AND FOUNDATION.

LEGEND	EQUIPMENT TYPE	LOCATION
CC	ASC/3, TYPE "P" CABINET	9+37.06, 71.75' RT
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LEGEND	MASTARM TYPE	EQUIPMENT										POLE LOCATION
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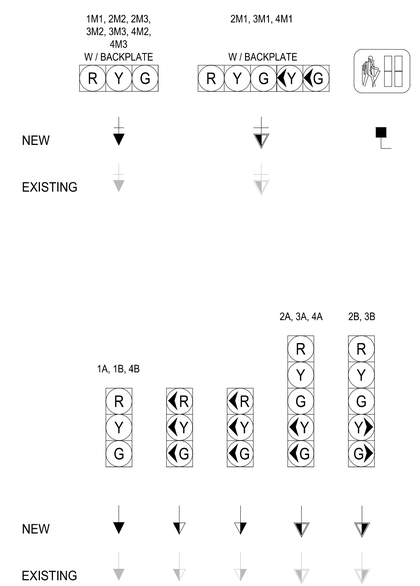
5/16/22

TYPICAL SIGNAL FACE ASSEMBLIES AND LEGEND



ABBREVIATIONS

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STEADY ON RED, THEN Φ2 AND Φ6 GREEN

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1	9/7/20	SAE	REVISED SHEET

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DWG NAME: 5-TS_Rev1.dwg
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City Project No. 5844.88
Zone Map No. C-12-Z, C-13-Z
Sheet 5R Of 8

Plotted: 9/7/2020 1:06:14 PM, By:Eddings, Scott
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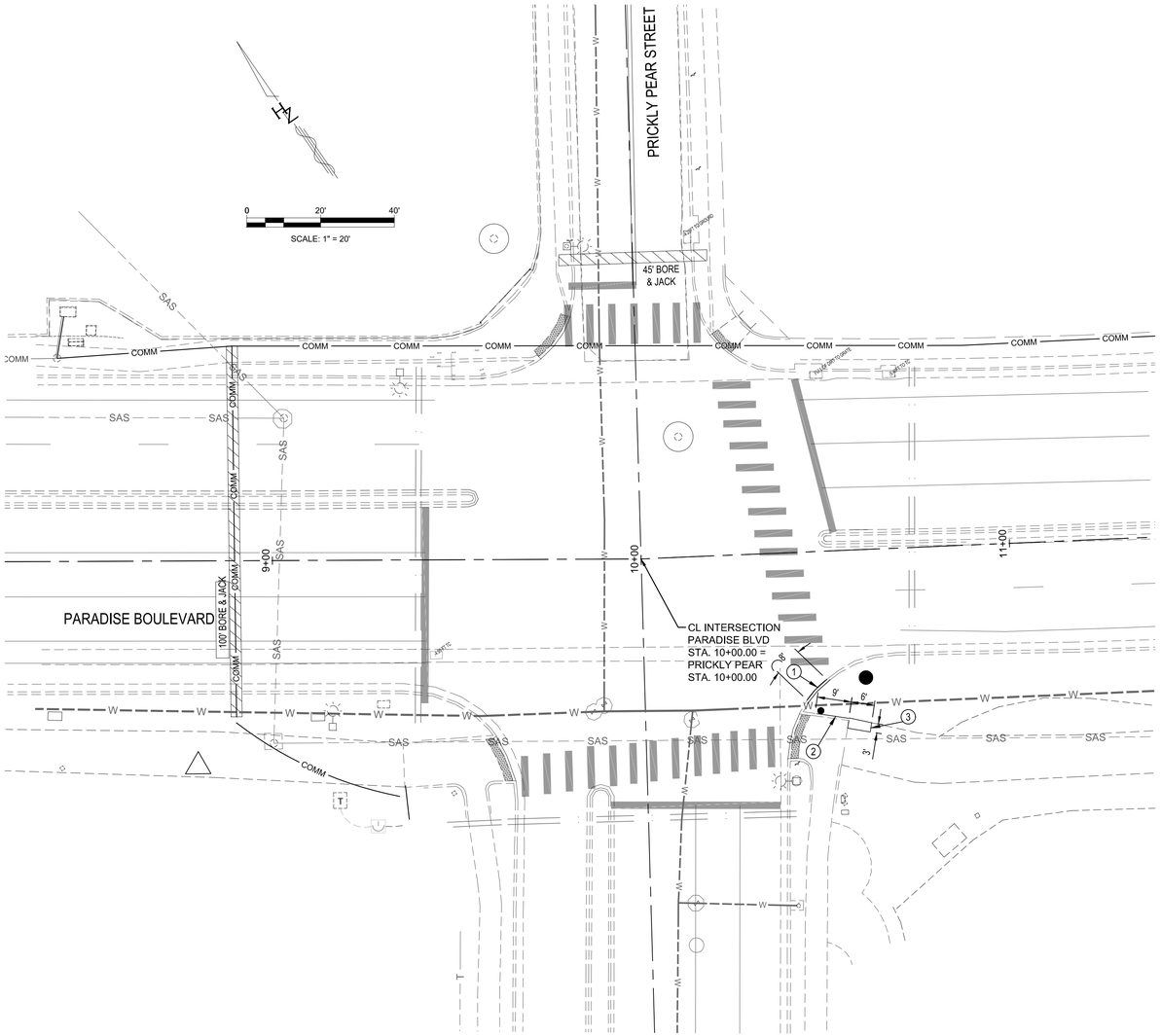
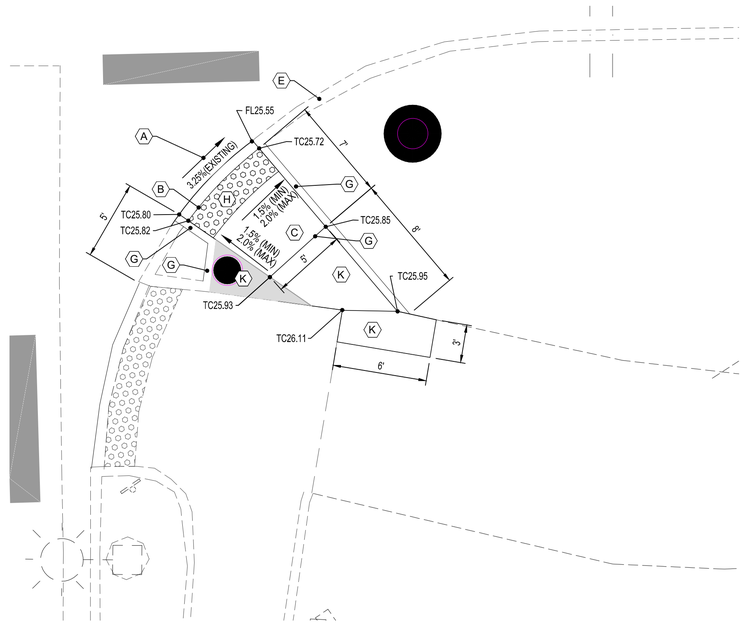


DEMOLITION P L A N

PARADISE BLVD NW & PRICKLY PEAR ST NW



SOUTHEAST RAMP

PARADISE BLVD NW & PRICKLY PEAR ST NW

ABBREVIATIONS:

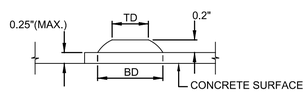
TBC	TOP BACK CURB
FL	FLOW LINE
TA	TOP OF ASPHALT
TC	TOP OF CONCRETE
HC	TOP OF HEADER CURB

DEMOLOTION NOTES

1. REMOVE AND DISPOSE CURB FACE. DO NOT DISTURB GUTTER PAN.
2. REMOVE AND DISPOSE HEADER CURB. DO NOT DISTURB SIDEWALK.
3. NEATCUT, REMOVE AND DISPOSE ASPHALT TRAIL.

CONSTRUCTION NOTES:

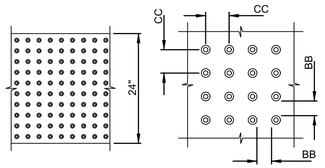
- (A) SLOPE OF GUTTER
- (B) 1/4" MAX. LIP ABOVE FLOW LINE.
- (C) LANDING 5' SQUARE.
- (D) 1/2" EXPANSION JOINT.
- (E) 6" AT FACE OF CURB.
- (F) CONSTRUCTION (CONTRACTION) JOINT.
- (G) HEADER CURB PER COA STD. DWG. 2415B.
- (H) DETECTABLE WARNING SURFACE (2' WIDTH) SHALL BE DESIGNED PER ADA GUIDELINES. SUBMIT SPECIFICATIONS TO CONSTRUCTION ENGINEER FOR EVALUATION PRIOR TO CONSTRUCTION. SEE DETAIL THIS SHEET.
- (J) NOT USED
- (K) 4" SIDEWALK PER COA STD DWG 2430



BD - BASE DIAMETER
0.9" MIN. TO 1.4" MAX.

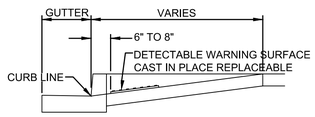
TD - TOP DIAMETER
50% OF BD MIN. TO 65% OF BD MAX.

DOME SECTION



DOME PLAN VIEW

CC - CENTER TO CENTER SPACING
1.6" MIN. TO 2.4" MAX.
BB - BASE TO BASE SPACING
0.65" MIN.



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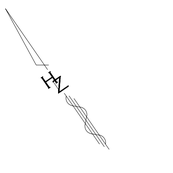
5/16/22



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TWO WORKING DAYS BEFORE YOU DIG CALL 811 OR 260-1990

Designed By:

HUITT-ZOLLARS
Huitt-Zollars, Inc. Albuquerque
6501 Americas Pkwy NE, Suite 550
Albuquerque, New Mexico 87110
Phone (505) 883-8114 Fax (505) 883-5022

NOVUS PROPERTIES, LLC

TRAFFIC SIGNAL

TITLE: PARADISE BLVD & PRICKLY PEAR ST
DEMOLITION PLAN & CURB RAMP

Design Review Committee	City Engineer	Last Update	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED Sept. 8, 2020 DESIGN REVIEW COMMITTEE	APPROVED Sept 8, 2020 CITY ENGINEER			

City Project No.	Zone Map No.	Sheet	Of
5844.88	C-12-Z, C-13-Z	5A	8

AS BUILT INFORMATION
CONTRACTOR — DATE
WORK STAKED BY — DATE
WORK ACCEPTANCE BY — DATE
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BENCH MARKS
FOUND MONUMENT "9-C12" — MICRO-FILM INFORMATION
STANDARD 3 1/4" ALUMINUM DISC — DATE
NEW MEXICO STATE PLANE COORDINATES (CENTRAL ZONE-N.A.D. 1983) — RECORDED BY
N=1,521,648.216 — NO.
E=1,512,571.253
ELEV=5127.376 (NAVD 1988)
GROUND TO GRID FACTOR=0.999677378
MAPPING ANGLE=-0°14'47.46"

SURVEY INFORMATION
FIELD NOTES

NO.	DATE	BY	REMARKS
1	8/17/20	SAE	ADDED SHEET

REVISIONS

ENGINEER'S SEAL

A. EDDINGS NEW MEXICO 12856 REGISTERED PROFESSIONAL ENGINEER
7/9/20

DESIGN
DESIGNED BY: LRT — DATE: JULY 19, 2020
DRAWN BY: LRT/SAE — DATE: JULY 19, 2020
DWG NAME: 5-TS_Rev1.dwg — PROJ #: R3072302.01
CHECKED BY: SAE — DATE: JULY 19, 2020

Plotted: 8/17/2020 4:18:46 PM, By:Eddings, Scott
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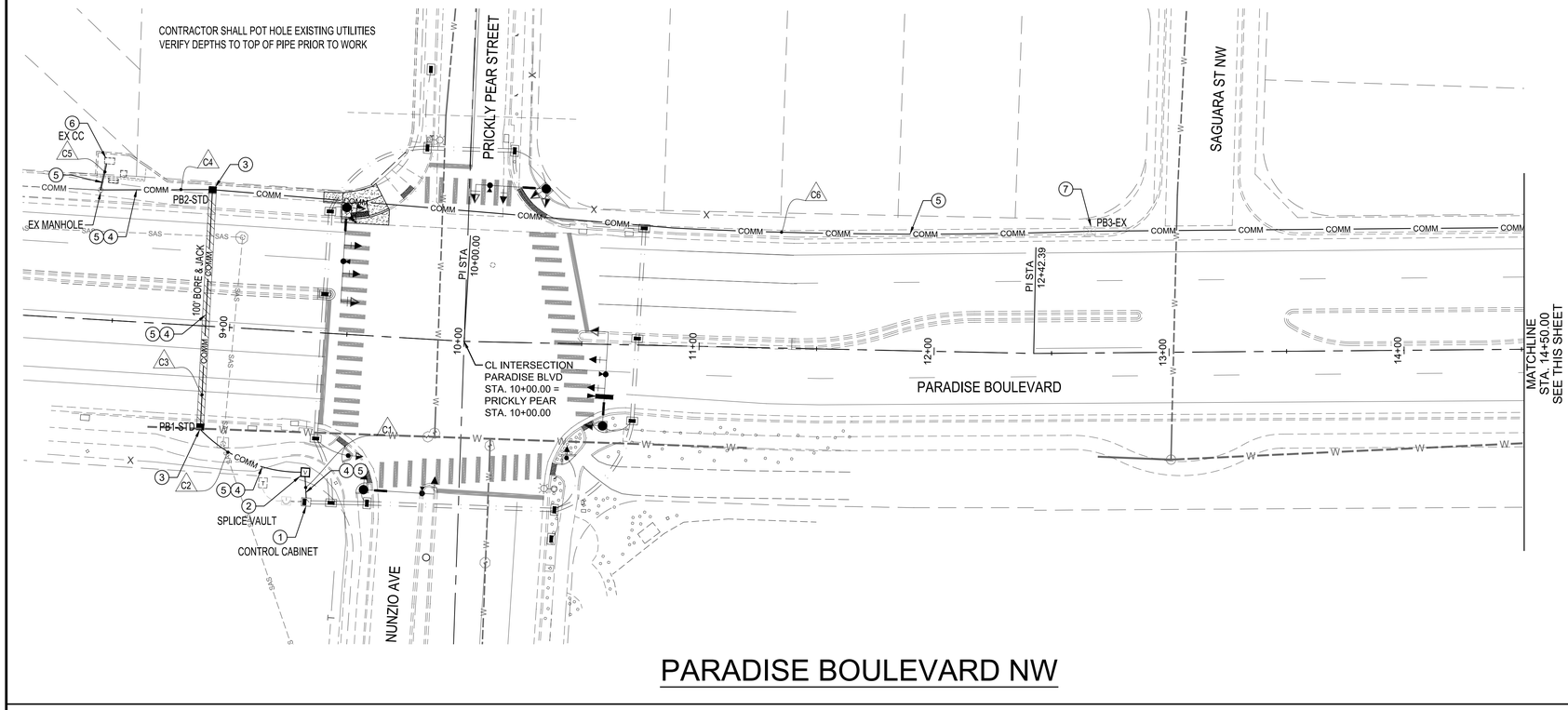
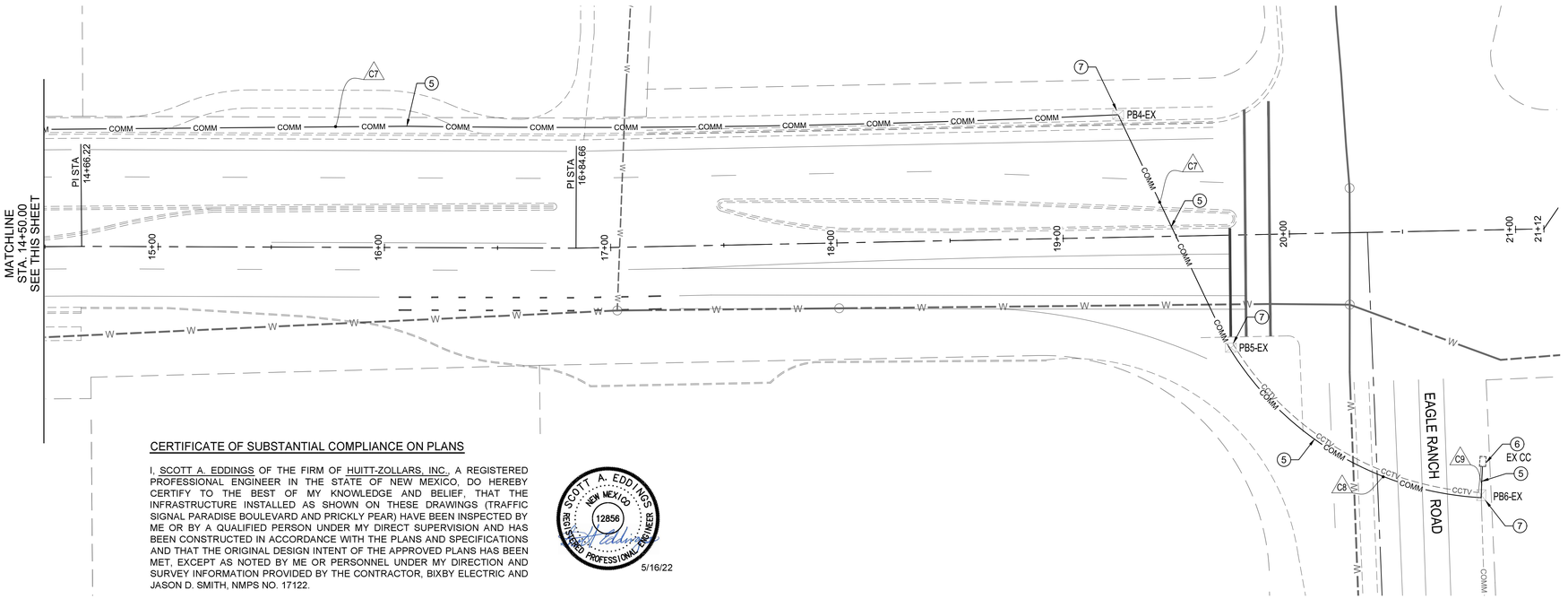


PARADISE BOULEVARD NW

0 30' 60'

SCALE: 1" = 30'



PARADISE BOULEVARD NW

CONSTRUCTION NOTES

1. START INTERCONNECT CONDUIT AT NEW CONTROL CABINET (9+37.06, 71.75' RT)
2. INSTALL NEW SPLICE VAULT (STA 9+35.83, 59.70' RT)
3. INSTALL NEW ELECTRICAL PULL BOX (STANDARD)
4. INSTALL NEW 3" CONDUIT
5. INSTALL INTERCONNECT SINGLE MODE FIBER OPTIC CABLE 6-STRAND. SALVAGE EXISTING INTERCONNECT CABLE
6. CONNECT TO EXISTING CONTROL CABINET
7. EXISTING PULL BOX

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, SCOTT A. EDDINGS OF THE FIRM OF HUITT-ZOLLARS, INC., A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE INFRASTRUCTURE INSTALLED AS SHOWN ON THESE DRAWINGS (TRAFFIC SIGNAL PARADISE BOULEVARD AND PRICKLY PEAR) HAVE BEEN INSPECTED BY ME OR BY A QUALIFIED PERSON UNDER MY DIRECT SUPERVISION AND HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND THAT THE ORIGINAL DESIGN INTENT OF THE APPROVED PLANS HAS BEEN MET, EXCEPT AS NOTED BY ME OR PERSONNEL UNDER MY DIRECTION AND SURVEY INFORMATION PROVIDED BY THE CONTRACTOR, BIXBY ELECTRIC AND JASON D. SMITH, NMPS NO. 17122.

SCOTT A. EDDINGS NEW MEXICO 12856 REGISTERED PROFESSIONAL ENGINEER

5/16/22

PARADISE BOULEVARD NW

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TRAFFIC SIGNAL

TITLE: PARADISE BLVD & PRICKLY PEAR ST
TRAFFIC SIGNAL INTERCONNECT

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City Project No.	Zone Map No.	Sheet	Of
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CONDUIT AND CONDUCTOR REQUIREMENTS											
CONDUIT LENGTH, SIZE, TYPE				CONDUIT FILL BY CONDUCTOR TYPE AND LENGTH							
RUN ID	SIZE AND LENGTH		LOCATION	POWER	HOME-RUN	RING	BRANCH	IISNS	LUMINAIRE	LOOP	PREEMPTION CABLE
	2"	3"									
S1	300		POWER TO METER	X							
S2	60		METER TO CC	X							
1		20	CC TO PB11		X						
2		20	CC TO PB11							X	X
3		20	PB11 TO PB1			X					
4		20	PB11 TO PB1							X	X
6		10	PB1 TO PB2			X					
7		90	PB1 TO PB2							X	X
9		60	PB2 TO PB3			X					
10		60	PB2 TO PB3							X	X
13		40	PB3 TO PB4			X					
14		40	PB3 TO PB4							X	X
15		55	PB4 TO PB5			X					
16		55	PB4 TO PB5							X	X
17		80	PB5 TO PB6			X					
18		80	PB5 TO PB6							X	X
20		50	PB6 TO PB7			X					
21		50	PB6 TO PB7							X	X
23		55	PB7 TO PB8			X					
24		55	PB7 TO PB8							X	X
26		50	PB8 TO PB9			X					
27		50	PB8 TO PB9							X	X
28		70	PB9 TO PB10			X					
29		70	PB9 TO PB10							X	X
31		35	PB10 TO PB11			X					
32		35	PB10 TO PB11							X	X
5		15	PB1 TO MA1				X				X
8		20	PB2 TO PB12							X	
11		15	PB2 TO PP1				X				
12		15	PB3 TO MA2				X				
19		30	PB6 TO MA3				X				
22		40	PB7 TO PB13							X	
25		10	PB8 TO MA4				X				
30		20	PB10 TO PP2				X				
TOTAL	**360**	**1335**									
MCC5				0	20	525	15				640
MCC20					40	1050	30				
SCC #6				1044	40	1050					
SCC #8									0		
SCC #10								0			
LOOP										500**	
PREEMPTION CABLE											870**

NOTES:

** REFER LOOP DETECTOR LEAD-IN CABLE TRACE AND PREEMPTION DETECTOR CABLE TRACE TABLES ON THIS SHEET FOR CONDUIT TRACE AND LENGTH CALCULATIONS

EXPLANATION OF POWER, HOME-RUN, RING, BANCH, IISNS, LUMINAIRE, LOOP, AND PREEMPTION CABLE IS AS FOLLOWS:

POWER: RISTER TO METER 3-SCC#2 AWG (STRANDED PNM WIRING), METER TO CC HAS 3-SCC#6

HOME-RUN: 1-MCC5, 2-MCC20, AND 2 SCC#6 WHITE & GREEN

RING: 1-MCC5, 1-MCC20, 2-SCC#6 WHITE & GREEN

BRANCH: 1-MCC5, 1-MCC20, 2-SCC#6 WHITE & GREEN

IISNS: 2-SCC#10

LUMINAIRE: 2-SCC#8

LOOP: 1-LOOP DETECTOR LEAD-IN CABLE

PREEMPTION CABLE: 1-PREEMPTION DETECTOR CABLE

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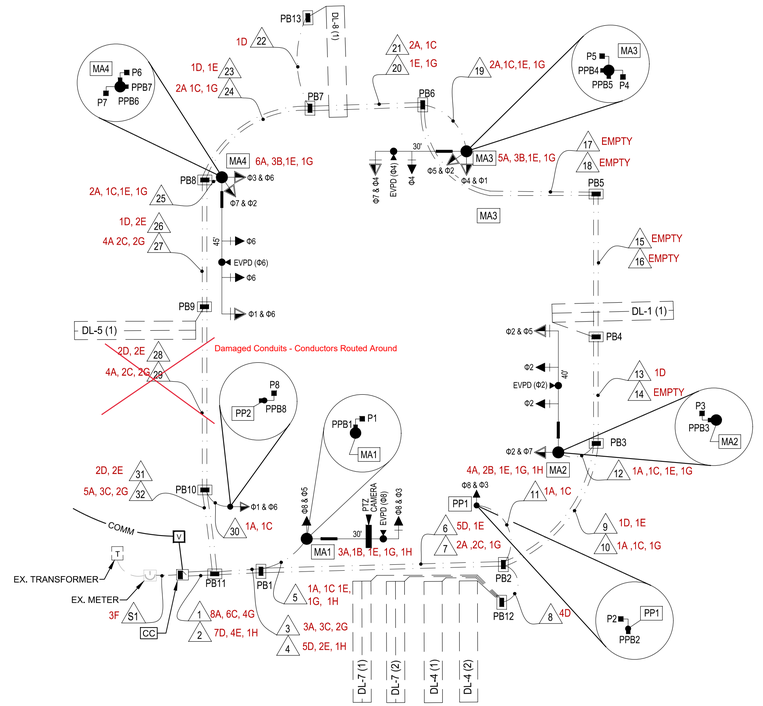
5/16/22

PREEMPTION CABLE TRACE								
PREEMPTION DETECTOR	FROM	TO	LENGTH (FT) (A)	FROM	TO	CONDUIT TRACE	LENGTH (FT) (B)	LENGTH (FT) (A+B)
EVPD (Φ2)	MA2	POLE BASE	40	POLE BASE	CC	12-10-7-3-1	175	215
EVPD (Φ4)	MA3	POLE BASE	30	POLE BASE	CC	19-20-24-27-29-32-1	310	340
EVPD (Φ6)	MA4	POLE BASE	45	POLE BASE	CC	25-27-29-32-1	185	230
EVPD (Φ8)	MA1	POLE BASE	30	POLE BASE	CC	5-3-1	55	85
TOTAL LENGTH (FT)								**870**



INTERSECTION WIRING SCHEMATIC

A - 5/C SIGNAL CABLE
B - 7/C SIGNAL CABLE
C - 20/C SIGNAL CABLE
D - DLLIC
E - PREEMPTION CABLE (EVPD)
F - 1/C #2 ELEC SERVICE WIRE
G - SCC#10 (IISNS)
H - CCTV CABLE
K - 1/C #2 ELEC SERVICE WIRE

DETECTION LOOPS												
LOOP ID	PHASE #	VEHICLE DETECTION				LOOP TYPE	LOOP DIMENSIONS				LOOP WIRE (FT)	PAVEMENT SAWCUT (FT)
		MODE	CALL	UNIT #	CHANNEL		L	W	S	T		
DL-1 (1)	Φ1	PRESENSE	2	1	ONE	QP	40	6	4	4	365	136
DL-4 (1)	Φ4	PRESENSE	3	6	ONE	BP	40	6	4	4	205	96
DL-4 (2)	Φ4	PRESENSE	3	6	TWO	BP	40	6	16	4	229	108
DL-5 (1)	Φ5	PRESENSE	2	1	TWO	QP	40	6	4	4	365	136
DL-7 (1)	Φ7	PRESENSE	4	5	TWO	QP	40	6	39	4	435	171
DL-7 (2)	Φ7	PRESENSE	4	10	TWO	QP	40	6	28	3	411	160
DL-8 (1)	Φ8	PRESENSE	3	7	ONE	BP	40	6	5	4	207	97
TOTALS											**2217**	**904**

QUANTITY ESTIMATING ASSUMPITIONS
LOOP WIRE

6' x 40' QUADRUPOLE LOOP QP = (8*L) + (4*W) + (2*S) + (2T) + 5

6' x 40' BIPOLE LOOP BP = (4*L) + (4*W) + (2*S) +(2*T) + 5

PAVEMENT SAWCUT

6' x 40' QUADRUPOLE LOOP QP = (3*L) + (2*W) + S

6' x 40' BIPOLE LOOP BP = (2*L) + (2*W) + S

WHERE

QP = QUADRUPOLE LOOP (2 TURNS)

BP = BIPOLE LOOP (2 TURNS)

L = DETECTOR LOOP LENGTH (FROM PLANS)

W= DETECTR 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)

LOOP DETECTOR LEAD-IN CABLE TRACE				
LOOP #	FROM	TO	CONDUIT TRACE	LENGTH (FT)
DL-1 (1)	PB4	CC	13-9-6-2	130
DL-4 (1)(2)	PB12	CC	8-6-2	50
DL-5 (1)	PB9	CC	28-31-2	125
DL-7 (1)(2)	PB12	CC	8-6-2	50
DL-8 (1)	PB13	CC	22-23-26	145
TOTAL LENGTH (FT)				**500**

CONDUCTORS FROM BASE OF POLES TO EQUIPMENTS ON MASTARMS				
	CONDUCTOR TYPE/LENGTH			
POLE	MCC5	MCC7	IISNS	LUMINAIRE
MA1	1	1	0	0
MA2	2	2	0	0
MA3	2	3	0	0
MA4	2	3	0	0
PP1	4	0	0	0
PP2	4	0	0	0

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A. EDDINGS NEW MEXICO 12856 REGISTERED PROFESSIONAL ENGINEER
7/19/20

NO.	BY	REMARKS	DATE
		REVISIONS	
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		DESIGNED BY: LRT	DATE: JULY 19, 2020
		DRAWN BY: LRT/SAE	PROJ.#: R307202.01
		DWG NAME: 7-8_TS COND.dwg	DATE: JULY 19, 2020
		CHECKED BY: SAE	

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NOVUS PROPERTIES, LLC
TRAFFIC SIGNAL

TITLE:
PARADISE BLVD & PRICKLY PEAR ST
TRAFFIC SIGNAL CONDUITS & CABLES - I

Design Review Committee	City Engineer	Last Update	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED Aug. 3, 2020 DESIGN REVIEW COMMITTEE	APPROVED Aug. 3, 2020 CITY ENGINEER			

City Project No. 5844.88 | Zone Map No. C-12-Z, C-13-Z | Sheet 7 Of 8

Plotted: 7/19/2020 12:30:39 PM, By:Eddings, Scott
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Last Saved:7/19/2020 12:17:02 PM, seddings

FUNCTION CHART - 115 VOLT CIRCUIT			
CONDUCTOR		RING 1 - MCC20	RING 2 - MCC20
BASE COLOR	TRACER	FIELD CONNECTION	FIELD CONNECTION
BLACK	-	SPARE	SPARE
WHITE	-	SPARE	SPARE
RED	-	Φ1 RED	Φ5 RED
GREEN	-	Φ1 GREEN	Φ5 GREEN
ORANGE	-	Φ1 YELLOW	Φ5 YELLOW
BLUE	-	SPARE	SPARE
WHITE	BLACK	SPARE	SPARE
RED	BLACK	Φ2 RED	Φ6 RED
GREEN	BLACK	Φ2 GREEN	Φ6 GREEN
ORANGE	BLACK	Φ2 YELLOW	Φ6 YELLOW
BLUE	BLACK	Φ2P WALK	Φ6P WALK
BLACK	WHITE	Φ2P DON'T WALK	Φ6P DON'T WALK
RED	WHITE	Φ3 RED	Φ7 RED
GREEN	WHITE	Φ3 GREEN	Φ7 GREEN
BLUE	WHITE	Φ3 YELLOW	Φ7 YELLOW
BLACK	RED	Φ4 RED	Φ8 RED
WHITE	RED	Φ4 GREEN	Φ8 GREEN
ORANGE	RED	Φ4 YELLOW	Φ8 YELLOW
BLUE	RED	Φ4P WALK	Φ8P WALK
RED	GREEN	Φ4P DON'T WALK	Φ8P DON'T WALK

WIRING NOTES
AT THE BASE OF SIGNAL POLE, SPLICE ONE (1) MCC 20 CABLE WITH SIGNAL & PEDESTRIAN HEAD CABLES.
AT THE ADJACENT PULL BOX, SPLICE ONE (1) MCC20 CABLE COMING FROM BASE OF SIGNAL POLE WITH TWO (2) MCC20 CABLES RINGS.
SPLICING AT THE BASE OF POLE AND AT THE ADJACENT PULL BOX SHALL BE DONE PER THE COLOR SCHEME SHOWN IN THE FUNCTION CHARTS ON THIS SHEET.
IN CASE OF RIGHT TURN OVERLAP SIGNAL HEAD (THROUGH + RIGHT PHASE), GREEN ARROW AND YELLOW ARRON ON THE RIGHT TURN OVERLAP PHASE SHOULD BE CONNECTED TO BLACK AND WHITE SPARE CONDUCTORS ON ONE (1) MCC20 CABLE.

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

FUNCTION CHART - 115 VOLT CIRCUIT												
MCC7 - SIGNAL HEADS												
	3 SECTION HEADS (THROUGH PHASES)	5 SECTION HEADS (LEFT TURN PHASES)	5 SECTION HEADS (THROUGH + LEFT PHASES)	5 SECTION HEADS (THROUGH + RIGHT PHASES)								
BASE COLOR	SIGNAL INTERVAL	SIGNAL INTERVAL	SIGNAL INTERVAL	SIGNAL INTERVAL								
RED	RED	RED ARROW	RED	RED								
GREEEN	GREEN	GREEN ARROW	GREEN	GREEN								
ORANGE	YELLOW	YELLOW ARROW	YELLOW	YELLOW								
BLUE	SPARE	SPARE	GREEN ARROW	GREEN ARROW								
BLACK	SPARE	SPARE	YELLOW ARROW	YELLOW ARROW								
WHITE	COMMON	COMMON	COMMON	COMMON								
WHITE/BLACK	SPARE	SPARE	SPARE	SPARE								

FUNCTION CHART - 115 VOLT CIRCUIT	
MCC5-PEDESTRIAN HEADS	
BASE COLOR	FIELD CONNECTION
GREEN	WALK
RED	DONT WALK
WITE	COMMON
ORANGE	SPARE
BLACK	SPARE

FUNCTION CHART - 24 VOLT CIRCUIT3	
MCC5-PUSH BUTTONS	
BASE COLOR	FIELD CONNECTION
BLACK	Φ2P
WHITE	COMMON
RED	Φ4P
GREEN	Φ6P
ORANGE	Φ8P

OPTICAL DETECTOR LEAD-IN CABLE					
MA1	CONTROLLER	5-4-2	1	50	50
MA2	CONTROLLER	12-9-6-4-2	1	205	205
MA3	CONTROLLER	19-20-23-26-28-31-2	1	310	310
MA4	CONTROLLER	25-26-28-31-2	1	185	185

DETECTOR RACK ASSEMBLIES												
UNIT NUMBER	POWER SUPPLY	1	2	3	4	5	6	7	8	9	10	11
CHANNEL 1		Φ2	Φ1	Φ4	Φ3					EVDPD(Φ2)	EVDPD(Φ2)	
CHANNEL 2		Φ6	Φ5	Φ8	Φ7					EVDPD(Φ2)	EVDPD(Φ2)	
DECTOR MODULE REQUIRED	*	X	X	X	X					X	X	
*POWER SUPPLY IS INCIDENTAL TO CONSTRUCTION												

ABBREVIATIONS

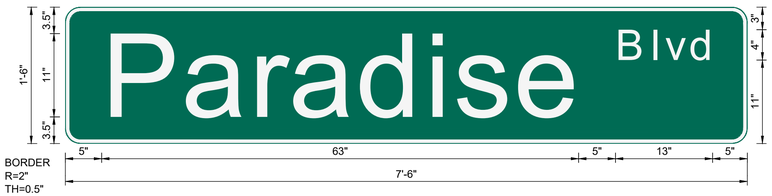
MCC	MULTI-CONDUCTOR CABLE
EVPD(O2)	EMERGENCY VEHICLE PREEMPTION DETECTOR (PHASE)

Panel Style: COA TS 18in.ssi
M.U.T.C.D.: 2009 Edition

PHASE Φ2 (EASTBOUND)

Panel Style: COA TS 18in.ssi
M.U.T.C.D.: 2009 Edition

PHASE Φ6 (WESTBOUND)



Panel Style: COA TS 18in.ssi
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PHASE Φ4 (NORTHBOUND)
PHASE Φ8 (SOUTHBOUND)

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NOVUS PROPERTIES, LLC
TRAFFIC SIGNAL

TITLE:
PARADISE BLVD & PRICKLY PEAR ST
TRAFFIC SIGNALCABLES & CONDUITS - II

Design Review Committee	City Engineer	Last Update	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED Aug. 3, 2020 DESIGN REVIEW COMMITTEE	APPROVED Aug. 3, 2020 CITY ENGINEER			

City Project No.	Zone Map No.	Sheet	Of
5844.88	C-12-Z, C-13-Z	8	8

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