LEGACY SQUARE MESA, MESA ARIZONA

APN: 138-66-006, 138-66-005A, 138-66-007A, 138-66-028A, 138-66-029A, 133-66-004

ABBREVIATIONS

ABAN	ABANDON	HP	HIGH POINT
AC	ASPHALTIC CONCRETE	HPS	HIGH PRESSURE SODIUM
ACP	ASBESTOS CEMENT PIPE	ID ID	INSIDE DIAMETER
ADJ	ADJUST	INT	INTERSECTION
AGG	AGGREGATE	INV	INVERT
AIP	ABANDON IN PLACE	IRR	IRRIGATION
ALT	ALTERNATE	LAT	LATERAL
BC	BACK OF CURB	LF	UNEAL FEET
BCR	BEGINNING OF CURB RETURN	LS	LANDSCAPE
BDRY		LT	LEFT
	BOUNDARY		
BFE	BASE FLOOD ELEVATION	LVVWD	LAS VEGAS VALLEY WATER DISTRICT
BEG	BEGIN	MAX	MAXIMUM
ВМ	BENCHMARK	MH	MANHOLE
BSW	BACK OF SIDEWALK	MIN	MINIMUM
BVC	BEGINNING OF VERTICAL CURVE	MTR	METER
CATV	CABLE TV	NAP	NOT A PART
C&G	CURB AND GUTTER	NG	NATURAL GRADE
	CITY OF BOULDER CITY		NEVADA DEPARTMENT OF TRANSPORTATION
CBC		NDOT	
CC	CLARK COUNTY	NTS	NOT TO SCALE
CCAUSD	CLARK COUNTY AREA UNIFORM STANDARD DRAWING	0/S	OFFSET
CCRFCD	CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT	OC	ON CENTER
CCWRD	CLARK COUNTY WATER RECLAMATION DISTRICT	OD	OUTSIDE DIAMETER
CIP	CAST IRON PIPE	OHP	OVERHEAD POWER LINE
CL	CENTERLINE	PB	PULL BOX
CLV	CITY OF LAS VEGAS	PC	POINT OF CURVATURE
			POINT OF CONVATURE
CM	CITY OF MESQUITE	PCC	POINT OF COMPOUND CURVE
CMP	CORRUGATED METAL PIPE	PI	POINT OF INTERSECTION
CMU	CONCRETE MASONRY UNIT	PL	PROPERTY LINE
CNLV	CITY OF NORTH LAS VEGAS	PP	POWER POLE
CO	CLEAN OUT	PRC	POINT OF REVERSE CURVE
COH	CITY OF HENDERSON	PROP	PROPOSED
COMM	COMMUNICATIONS	PT	POINT OF TANGENT
CONC	CONCRETE	PVC	POLY VINYL CHLORIDE PIPE
		PVI	
COND	CONDUIT		POINT OF VERTICAL INTERSECTION
CONST	CONSTRUCT OR CONSTRUCTION	PVMT	PAVEMENT
CULV	CULVERT	Q	RATE OF FLOW
DC	DEPRESSED CURB	R or RAD	RADIUS
DI	DROP INLET	RCB	REINFORCED CONCRETE BOX
DIA	DIAMETER	RCP	REINFORCED CONCRETE PIPE
DIP	DUCTILE IRON PIPE	RR	RAILROAD
DIP DMH	DUCTILE IRON PIPE DROP MANHOLE	RR RT	RAILROAD RIGHT
DIP DMH DOM	DUCTILE IRON PIPE DROP MANHOLE DOMESTIC	RR RT ROW	RAILROAD RIGHT RIGHT—OF—WAY
DIP DMH DOM DWY	DUCTILE IRON PIPE DROP MANHOLE DOMESTIC DRIVEWAY	RR RT ROW SS	RAILROAD RIGHT RIGHT—OF—WAY SANITARY SEWER
DIP DMH DOM DWY E or ELEC	DUCTILE IRON PIPE DROP MANHOLE DOMESTIC DRIVEWAY ELECTRIC	RR RT ROW SS SD	RALIROAD RIGHT RIGHT-OF-WAY SANITARY SEWER STORM DRAIN
DIP DMH DOM DWY E or ELEC EAC	DUCTILE IRON PIPE DROP MANHOLE DOMESTIC DOMESTIC BRIVEWAY ELECTRIC EDGE OF AC	RR RT ROW SS SD SHT	RAILROAD RIGHT RIGHT-OF-WAY SANITARY SEWER STORM DRAIN SHEET
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Contact Arizona 811 at least two full Call 811 or click Arizona811.com



(REVISED 03-15-18) (2018 VERSION)

- ENDER OF 15-16-16 (2014 WERSON)

 I. ALL WORK AND MATERIALS SHALL CONFORM TO CURRENT <u>UNFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC MORNS CONSTRUCTION AS PUBLISHED BY THE MARCOPA ASSOCIATION OF OCHERMANISH AND AS AMEDICAL POPT HE CITY OF MESS, ALL WORK AND MATERIALS NOT IN CONFORMANIC WITH THESE MARKED SPECIFICATIONS AND DETAILS ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S PAPPINS.</u>
- THE INFORMATION SHOWN ON PARWINGS CONCERNING THE TYPE AND LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND HAS NOT BEEN INDEPENDENTLY KERFIED BY THE PIGNIEETS OF SCHILT. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMINIONIC WORK AND AGREES TO BE RULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY THE CONTRACTOR'S FAULTE TO EXACTLY LOCATE AND PRESENTE ANY AND ALL UNDERGROUND AND OVERREDO UTILITIES.
- A.CALL 602-263-1100 OR 811 FOR BLUE STAKE SERVICES.
- B. CALL SALT RIVER POWER FOR POLE BRACING, ELECTRIC SERVICE OR CONSTRUCTION SCHEDULING AT 602-236-8888.
- C.CALL CITY OF MESA ELECTRICAL FOR POLE BRACING, ELECTRICAL SERVICE OR CONSTRUCTION SCHEDULING AT 480-644-2251 WITHIN CITY OF MESA ELECTRICAL SERVICE TERRITORY
- DHENE KSCANATING IN OR ADJACENT TO A CITY PARK OR AQUATIC FACULTY THE CONTRACTOR SHALL CONTACT AQUATICS AND PARKS MANITEMACE AT 480-644-3097 TO REQUEST ASSISTANCE IN LOCATING UNDERFORMUN UNITY FACULTIES.
- RUBER EXAMING IN OR ADJACENT TO LANDSCAPING WITHIN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL CONTRACT TRANSPORTATION FIELD OPERATIONS AT 480-644-3380 TO REQUEST ASSISTANCE IN LOCATING UNDERGROUND IRRIGATION FACILITIES.
- R. TRAFFIC CONTROL SHALL CONFORM TO THE CITY OF MESA TEMPORARY TRAFFIC CONTROL MANUAL. ELECTRONIC COPIES ARE AVMLABLE AT https://www.mesoza.cov/busines/oriocating-temporary-traffic-control-permits. hard Copies can be made AfMLABLE of development services, 55 N. Center St., Mesa, Arizona

- 4. CONTRACTOR TO NOTIFY TRAFFIC OPERATIONS AT 480-644-3126 PRIOR TO SIGN REMOVAL AND WHEN READY TO PERMANENTLY RELOCATE SIGN.
- 5. CONTRACTOR TO OBTAIN ANY PERMITS REQUIRED UNLESS OTHERWISE INDICATED, AND COORDINATE ALL IRRIGATION DRY-UPS, RELOCATIONS, AND REMOVALS BY OTHERS. 6. CONTRACTOR SHALL POTHOLE EXISTING UTILITIES AHEAD OF CONSTRUCTION TO ALLOW FOR ANY
- 7. THE CONTRACTOR IS RESPONSIBLE TO REMOVE ALL ABANDONED UTILITIES THAT INTERFERE WITH PROPOSED IMPROVEMENTS. THE CITY OF MESA UTILITIES EPPARTMENT LOCATING SECTION WILL ASSIST THE CONTRACTOR AS NEEDER. IN CETERINING IF THE UTILITY (GAS, WATER, AND WASTEWATER ONLY) IS ABANDONED BY CALLING 480-644-4500.
- 8. PRIOR TO START OF CONSTRUCTION ON PRIVATE PROPERTY (EASEMENTS), THE CONTRACTOR SHALL CIVE THE OWNER SUFFICIENT TIME (MINIMUM 48 HOURS) TO REMOVE ANY ITEMS IN CONFLICT WITH CONSTRUCTION. THE CONTRACTOR SHALL ARRANGE TO REMOVE AND REPLACE ALL OTHER CONFLICTS AS REQUIRED.
- THE CONTRACTOR SHALL COORDINATE WORK SCHEDULES TO PREVENT ANY CONFLICTING WORK CONDITIONS WITH THE CITY OF MESA UTILITY AND TRANSPORTATION CREWS.
- 10. THE CONTRACTOR IS ADVISED THAT A DUST CONTROL PERMIT AND A DUST CONTROL PLAN MAY BE REQUIRED BY THE MARICOPA COUNTY ARE QUALITY DEPARTMENT. IT SHALL BE THE CONTRACTOR'S REPONSIBILITY TO GENERAL THE PERMIT HE PERMIT AND COMPLY WITH ITS REQUIREMENTS. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PRODUCE A COPY OF THE DUST CONTROL FERMIT AND DUST CONTROL PLAN TO THE CITY FOR REMIT AND DUST ON THE DUST CONTROL FERMIT AND DUST CONTROL PLAN TO THE CITY FOR REMIT AND DUST CONTROL PLAN TO THE CITY FOR THE C
- I. INSPECTIONS SHALL BE PROVIDED BY THE CITY OF MESA. THE CONTRACTOR SHALL NOTIFY THE CITY INSPECTION DEPARTMENT AT LEAST 48 HOURS IN ADVANCE OF ANY CONSTRUCTION.
- 12. THE JOB SITE SHALL BE CLEANED OF ANY DEBRIS OR SPOIL RESULTING FROM THIS PROJECT AT THE COMPLETION OF CONSTRUCTION
- 13. ALL EQUIPMENT AND MATERIALS NOT SHOWN OR SPECIFIED ON THE PLANS OR SPECIFICATIONS, BUT REQUIRED TO COMPLETE THIS PROJECT, SHALL BE SUPPLIED BY THE CONTRACTOR AS PART OF THIS CONTRACT WORK (NO ADDITIONAL COST TO THE CITY).
- 14. WHEREVER PAVEMENT REPLACEMENT PER MESA STD DETAIL M-19,04.1 OR MAG STD DETAIL 200 IS REFERRED TO WITHIN THESE PLANS, BACKRILING SHALL BE PER THE CITY OF MESA STREET TRENCH BACKRILING AND PAVEMENT REPLACEMENT POLICY STATEMENT, REVISED SEPTEMBER 29, 1999.
- 15. FOR PURPOSES OF PAVEMENT PER MAG STD DETAIL 200 OR MESA STD DETAIL M-19.04.1, INTERSECTIONS ARE DEFINED BY THE CURB RETURNS IN ALL DIRECTIONS.
- 16. ANY SURVEY MARKERS DISTURBED OR DAMAGED BY THE CONTRACTOR SHALL BE REPLACED IN KIND BY A REGISTERED LAND SURVEYOR AT NO ADDITIONAL COST TO THE CITY.
- ALL EXISTING PAVEMENT MARKINGS, SIGNS, AND SIGNAL EQUIPMENT THAT ARE NOT PART OF THIS PROJECT BUT NEED TO BE REMOVED, REPLACED, RELOCATED, OR REPAIRED BECAUSE OF CONTRACTOR'S WORK WILL BE DONE AT THE CONTRACTOR'S EXPENSE.
- 8. THE CONTRACTOR IS ADVISED THAT DAMAGE TO ANY PUBLIC SERVICES OR SYSTEMS AS A RESULT OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AND INSPECTED BY THE CITY RESULT OF INTO PROJECT STRUCK BE REPROZED THE CONTRACTOR SHE DEPENDING ON DAMAGES, ALL REPARTS SHALL BE DONE WITHIN 24 HOURS. THE CONTRACTOR IS ADVISED THAT ANY COSTS RELATED TO REPAIR OR REPLACEMENT OF DAMAGED PUBLIC SERVICES OR SYSTEMS AS A RESULT OF CONTRACTOR'S NEGLIGENCE SHALL BE BORNE BY THE CONTRACTOR.

WATER, WASTEWATER AND STORM DRAIN GENERAL NOTES

(REVISED 04-15-21) (2021 VERSION)

- MATERIALS AND INSTALLATION OF WATER AND SEWER MAINS, WATER METERS AND SERVICE CONNECTIONS SHALL COMPORM TO CURRENT CITY DETAILS, MESA AMENDMENTS TO MAG IFICATIONS, AND THE APPROVED PRODUCTS LIST. SEE BELOW FOR APPROVED PRODUCT FOR WATER AND WASTEMATER.
- WATER
- WASTEWATER
- NI ACCORDANCE WITH ARIZONA ADMINISTRATIVE CODE (A.A.C.). R18-4-213, ALL MATERIALS WHICH MAY COME. INTO CONTACT WITH DRIWNING WATER SHALL CONFORM TO NATIONAL SANTATION FOUNDATION (NFS) STANDARDS 60, 61, AND 372 AND SHALL BE LEAD-FREE AS DEFINED IN A.A.C. R18-5-504 AND R18-4-101.
- 3. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL NECESSARY FITTINGS AND ADAPTERS REQUIRED TO CONNECT DIFFERENT TYPES OF WATER MAIN MATERIALS.
- REQUIRED TO CONNECT DIFFERENT TYPES OF WATER MAIN MATERIALS.

 PER MESA AMENDMENTS 610.4.2 ALL MINOR VERTICAL OR HORIZONTAL DEFECTIONS SHALL BE BY PIPE DOINT DEFECTION UNLESS OTREMISE NOTED. PIPE, SONT DEFLECTION SHALL NOT EXCELD 3 DEGREES OR 2/3 OF PIPE MAINFACTURER'S RECOMMENDATION ENTORS HELD FOR THE STALL BE COMPACTED SO THAT HO EXISTING LINES, EXISTING VALUES, OR NEWLY INSTALLED VALUES WHICH ARE CONNECTED TO THE OPERATION WITH STYSTEM ARE INCLUDED. IN THE TISTS. ALLOHABLE TIMEFRAMES SHOLLIP FOLLOW MESA AMENDMENTS TO MAD MUST BE COORDINATED WITH HE CITY INSPECTIOR. FOR A DATING IT—IN, THE CONTRACTOR SHALL COMPLETE ALL WORLD.

 MESSARY TO RESTORE UTILITY SERVICE AND FULLY OPEN THE TIE—IN AREA TO TRAFFIC WITHIN THE TIME THOSE.
- C651 (CURRENT VERSION). 7. SOURCE MATER UNLIZED FOR PILLING, FLUSHING AND TESTING SHALL BE OBTAINED FROM A HUBBANT METER ORDERED THROUGH PERMIT SERVICES AND SET BY CITY OR REAS MATER A RESOURCES STATE IT IS PROHEBETED TO OPEN A VALVE TO THE EASTING MATER SYSTEM TO FILL A NEWLY CONSTRUCTED OR REPAIRED PIPELINE AS OUTLINED IN THE MESA AMERIMENTS TO MAGE SECTION 610.11 AND 611.
- 8. WATER METERS, METER ADDES, LIDS, ETC. IN CONFLICT WITH NEW CONSTRUCTION SHALL PRESCRIBE PRESCRIPTOR MESA STANDARD DETAIL M-49 BY THE CONTRACTOR. THE RELOCATION SHALL INCLUDE ALL MATERIALS NECESSARY TO RECONNECT THE METER TO THE CITY DISTRIBUTION SYSTEM. STRUCK LINE EXTENSIONS, IF APPROVED IN WRITING BY MESA WATER RESOURCES DEPARTMENT, SHALL CORRECT TO THE STANDARD DETAIL M-49, WHEN SERVICE LINE EXTENSIONS ARE APPROVED FOR CONSTRUCTION DETAIL M-49. SERVICE LINE CONFINCIS SHALL NO PER PLACED UNDER ROADMAY SURFACES, CONCRETE OUTTINS, CURB AND OUTTER, OR CONCRETE DISTRIBUTIONS.
- P. VALVES SHALL BE INSTALLED WITH VALVE BOX AND COVER PER MAG STD DETAILS 391-1, TYPE C WITH A DEEP-SKIRTED LID (4-INCHES MINIMUM) AS NOTED IN THE APPROVED PRODUCTS LIST.
- 10. ALL WATER LINE ABANDONMENT CUT AND PLUGS FOR ACTIVE LINES SHALL CONFORM TO THE FOLLOWING:
- B.16" DIAMETER PER M.A.G. STANDARD DETAIL 390, TYPE B.
- C GREATER THAN 16" DIAMETER, AS DESIGNED PER PLAN.
- LIME-TREATED AGGREGATE BASE COURSE (ABC) MATERIAL, RECLAIMED CONCRETE MATERIAL (RCM), AND RECLAIMED ASPHALT PAVEMENT (RAP) MATERIALS ARE PROHIBITED FOR USE IN THE PIPE EMBEDIMENT ZOIL (BEDDING, HAUNCHING, INITIAL BACKFILL) FOR WATERLINE CONSTRUCTION PER MESA MENDIMENTS 601.
- FER MESA AMENDMENTS 60.14.2.

 JE PER MESA MEMOMENTS 60.11, APPLICATIONS TO THE CITY OF MESA ENGINEERING INSPECTOR AND REVIEWD AND APPOINTED BY THE WHERE RESOURCES EXPARMENT FOR WHATER STSTEM SHILDTOWN FOR THE PURPOSES OF CONSTRUCTION-FOR-LEATED ACTIVITIES SHALL BE MINED AN MORE THE PURPOSES OF CONSTRUCTION-BEATED ACTIVITIES SHALL BE MINED AND FOR THE PURPOSE SHOP THE SHAPPOWER SHAP THE PURPOSE SHAP THE SHAP TOWN. THE PROJECT SHAP THE PURPOSE SHAP THE SHAP TOWN.
- . REQUIRED BACKFLOW PREVENTION ASSEMBLIES SHALL INCLUDE MANUFACTURERS AND MODELS ESIGNATED IN THE CURRENT 'LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES' AS PUBLISHED Y THE FOUNDATION FOR CROSS—CONNECTION CONTROL AND HYDRAULC RESEARCH, UNIVERSITY OF OUTHERN CALIFORNIA
- 14 BACKFLOW PREVENTION ASSEMBLIES SHALL BE TESTED AND APPROVED BY A CERTIFIED TECHNICIAN DESIGNATED IN THE CURRENT CITY OF MESA LIST OF APPROVED INSPECTORS' PRIOR TO THE REQUEST FOR FINAL INSPECTION.
- EQUEST FOR FINAL INSPECTION.

 IS ALL WATER METERS ARE TO BE SUPPLIED BY THE CITY OF MESA. CHARGES FOR INSTALLING NEW SERVICES AND WETERS WILL BE IN ACCORDANCE WITH THE CURRENT UTILITY SERVICE FEEL OF SCHEDULE. METERS THO INCHES OR LESS WILL BE DELIVERED AND INSTALLED BY CITY FORCES. METERS LARGE THAN THO INCHES WILL BE DELIVEDED BY THE CITY AND INSTALLED BY THE CONTRACTOR AND REQUIRE SCHEDULING AND INSPECTIONS WITH CITY FORCES. CONTACT THE DEVELOPMENT SERVICES DEPARTMENT AT 480-644-4273 FOR THE SPECIFIC PROCEDURE. SEE M-27.01 FOR MORE INFORMATION.
- 16. WHEN GROUTING OR CASTING CONCRETE AROUND PVC SEMER PIPE, SUCH AS AT MANHOLE OR VAULT PENETRATIONS, THE CONTRACTOR SHALL INSTALL WATER STOPS PER MESA AMENDMENTS TO MAG SPECIFICATION 625 AND MANIFACTURES RECOMMENDATIONS.
- MAG SECUCIATION OF AND MANDER CONNECTION SECUMENDATION.

 "SENER BILLION CONNECTION LATERAL SHALL BE INSTALLED PER MAG STANDARD DETAL 440.

 LATERAL WES SHALL BE INSTALLED AT NO GREATER THAN A 45 DEGREE ANDE FROM

 HORIZONTAL SENER LATERAL SCORES SHALL BE AS MOIGHED ON MAG STANDARD DETALL 440.

 AND IN NO GROUNSTANCE SHALL SENER LATERAL SLOPES EXCEED 7/8" PER FOOT FOR 6"

 LATERALS AND 1-7/2" PER FOOT FOR 4" LATERALS, STITMOS SHALL BE INSTALLED WITH NO

 ANGULAR COUNT DETACTION AND ALL CONNECTIONS SHALL BE GASKETED OR SEALED FER MAG

 SEPCIFICATIONS.
- 18 SEMEP MANHOLE BASES, BENCHES, SHELVES, AND CHANNELS SHALL BE CONSTRUCTED PER MAG STANDARD DETAIL 420: EACH MLET PIPE SHALL HAVE A DESIGNATED, FORMED CHANNEL AND BENCHMIC. THE DIMENSIONS OF CHANNELS, SHELF SLOPE, AND MINIMUM INLET PIPE ANGLES SHALL BE CONSTRUCTED PER MAG STANDARD DETAIL 420—3.
- 9. PER MESA DESIGN STANDARDS, SEWER MANHOLES SHALL BE CONSTRUCTED PER MAG STANDARD DETAILS 420-1, TYPE 'A' TOP; AND 423-2 EXCEPT THAT:
- A.MANHOLE SHAFT DIAMETERS SHALL BE 5 FEET.
- B. MANHOLE RINGS AND COVERS SHALL HAVE 30-INCH DIAMETERS.
- C.STEPS SHALL NOT BE INCLUDED.

- (REVISED 02-07-18) (2018 VERSION) CONTRACTOR SHALL COORDINATE ALL DRIVEWAY LOCATIONS WITH PRIVATE PROPERTY OWNERS AND THE CITY INSPECTOR.
- 3. ALL GUTTER GRADES LESS THAN 0.0020 FT/FT SHALL BE STAKED ALONG THE ACTUAL GUTTER ALIGNMENT (NOT OFFSET) AND CHECKED BY CITY OF MESA INSPECTOR IMMEDIATELY PRIOR TO PLACEMENT OF CONCRETE.
- ALL FRAMES, COVERS, VALVE BOXES, ETC. SHALL BE ADJUSTED BY THE CONTRACTOR TO FINISHED GRADE AFTER PLACEMENT OF ASPHALT CONCRETE SURFACE COURSE PER MAG STD DETAILS 270, 422, OR 391–1-C. GAS GENERAL NOTES

- ALL WORK AND MATERIALS SHALL CONFORM TO THE CURRENT CITY OF MESA <u>GAS OPERATIONS</u>, <u>MAINTENANCE</u>, <u>EMERGENCY RESPONSE</u>, <u>AND CONSTRUCTION PRACTICE MANUAL</u>.
- WHEN GAS MAIN AND/OR SERVICES ARE EXPOSED, CONTACT THE CITY OF MESA AT 480-644-2261 FOR INSPECTION OF THE EXPOSED PIPE AND COATING PRIOR TO BACKFILLING THE TRENCH.
- SEEDOING OR SHADING MATERIAL ADJACENT TO THE CITY GAS PIPE SHALL BE SELECT SANDY TYPE SOU FREE OF ROCK OR DEBRIS THAT WILL PASS THROUGH A 3/B INCH "SCREEN" AS INSPECTED AND APPROVED BY THE CITY GAS INSPECTION PERSONNEL.
- 4. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS AS INDICATED ON MESA STD DETAIL M—58 WHEN TRENCHING FOR THE WATER LINE WHERE A GAS MAIN IS TO BE INSTALLED IN THE SAME TRENCH.
- S. CONTACT THE GAS DIVISION AT 480-250-2982 FOR SCHEDULING AND COORDINATION OF THE INSTALLATION OF NATURAL GAS MAINS AND/OR SERVICES.
- GAS LINE SHALL MAINTAIN A NOMINAL TWELVE (12) INCHES (MINIMUM OF EIGHT (8) INCHES) SEPARATION FROM EXISTING WATER, WASTEWATER, ELECTRICAL, CABLE TV, AND TELCO FACILITIES.

ITS/TRAFFIC SIGNAL GENERAL NOTES

- I. THE OTY OF MESA REQUIRES AT LEAST TWO INTERNATIONAL MANUEPAL SIGNAL ASSOCIATION (MASS GERTHERD TRAFTIC SIGNAL EXCHANGASI ON SET DIMEN GLI PHASES OF ANY TRAFFIC SIGNAL MORK AT LEAST ONE TECHNICIAN MISSI LIBEL II CERTIFICATION OF HIGHER, IT MILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROMOTE VERHICATION OF CERTIFICATION, IF A USE SITE IS MISPECTED AND CERTIFIED TECHNICIAN IS NOT ON SITE, A STOP MORK ORDER MILL BE ISSUED. TEMPORARY AND CONTRACT EMPLOYEES DO NOT SATSY THIS TECUTIVEMENT.
- 2. THE CONTRACTOR SHALL IMMEDIATELY REPORT ANY TREFF ISOLAND.

 2. THE CONTRACTOR SHALL IMMEDIATELY REPORT ANY TREFF ISOLAND. ISOLAND. THE ENGINEERING INSPECTIOR OR ITS OPERATIONS SUPERVISOR AT 480–644–3129. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAR DAMAGE TO ANY TRAFFIC SIGNAL EQUIPMENT SUCH AS CONTROLLER CORNECT AND EQUIPMENT AS A RESULT OF THIS PROJECT. A CITY OF MESTATECHNICIAN SHALL IMSPECT THESE REPARMS.
- A. A TRAFFIC SIGNAL CANNOT BE DARK OR IN FLASH FOR MORE THAN TWO HOURS.
- B. A LOSS OF COMMUNICATION SHALL BE REPAIRED WITHIN 24 HOURS.
- C. DETECTOR LOOPS SHALL BE REPLACED IN TWO WEEKS UNLESS THE TRAFFIC SIGNAL FOREMAN AGREES IN WRITING TO A DIFFERENT SCHEDULE.
- CONTRACTOR USING A "REPAIR ORDER FORM". ATHE CONTRACTOR IS ADVISED THAT ANY COSTS RELATED TO REPAIR OR REPLACEMENT OF DAMAGED TRAFFIC SIGNAL EQUIPMENT AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE SHALL BE BORNE BY THE CONTRACTOR.
- S IF THERE IS A TRAFFIC SIGNAL PROBLEM (INDICATION OUTLIGES KNOCKDOWNS LITHLITY POWER IF THERE IS A FINANTIA SIGNAL PROBESSIA (MIGUATION OUTRACES, ROUGATIONS) ON SUITET POWER.

 WORK, AN ITS TECHNICANS SHALL BE CALLED TO RESPOND. IF IT IS DETERMINED THE

 CONTRACTOR'S OS ROBOOTHRACTOR'S MORK CAUSED. THE TRAFFIC SOURLA MALFUNCTION, THE

 CONTRACTOR'S OS ROBOOTHRACTOR'S MORK CAUSED. THE TRAFFIC SOURLA MALFUNCTION, THE

 CONTRACTOR THROUGH A REPAIR ORDER FORM'S SHALL PAY ALL COSTS OF REPAIRS.
- TRAFFIC SIGNAL DETECTOR LOOPS SHALL BE INSTALLED IN ASPHALT CONCRETE PAVEMENT BEFORE THE FINAL LIFT. THE LOOP CONDUCTORS SHALL BE INSTALLED PER MESA STD DETAIL M-96.1.
- THE CONTRACTOR IS ADVISED TO CONTACT THE CITY'S TRANSPORTATION MANAGEMENT CENTER AT 480-444-5888 AT LEAST 48 HOURS PRIOR TO ANY WORK WITHIN THE WOWNTY OF OR THROUGH A SIGNALIZED INTERSECTION WHICH MILL CHANGE TRAFFIC LANE PATTERNS.

ITD FIBER OPTIC GENERAL NOTES (REVISED 02-15-12) (2018 VERSION)

- U UZ-U-19 (2018 VENSION)

 WITHACTOR SHALL DORDRINATE ALL DRIVEWAY LOCATIONS WITH PRIVATE PROPERTY OWNERS AND

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 INTRACTOR SHALL CORDRINATE ALL DRIVEWAY LOCATIONS WITH PRIVATE PROPERTY OWNERS AND

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 AND SHALL EN MODERATION BUILT BUT CONDUMN THAT LAND MILESS

 OTHERWISE NOTED. ANY SUPFACE RESTORATION SHALL BE COMPLETED IN ACCORDANCE WITH CITY OF THE PRIVATE O

 - 2 FOR NON-CAPITAL (PRIVATE) PROJECTS, NO COMPONENT OR PART OF THE CONDUIT FIBER SYSTEM SHALLED, CONSTRUCTED, LOCATED ON, OR ATTACHED TO ANY PROPERTY WITHIN THE CITY'S FUER, INCHIT-G'--MAY VIOLIC CONTROLOTE MAS APPLIED FOR AND RECEIVED APPROVAL FOR RIGHT-OF--MAY FEMILIA SHALLOT OF MAY ENGLISHED AND/OR RIGHT-OF--MAY ENCROAGMENT PERMITS FOR SUCH WORK ON THE CONDUIT FIRST SYSTEM.
 - 3. ALTHOUGH THE EXACT PLACEMENT AND LOCATIONS OF CONDUIT FIBER SYSTEM MAY BE REVISED NUMBON THE PROMET PROCESS, IT IS THE CITY'S EXPRESSED DESIRE TO HAVE THE CONDUIT FIBER SYSTEM INSTALLED OUTSIDE PAYED AREAS, WHENEVER FEASIBLE. FURTHERMORE, WHEN NECESSAY FOR THE CONDUIT FIBER SYSTEM TO CROSS SURFACE OF LYSTREETS OF PAYED AREAS, WHENEVER FEASIBLE. FURTHERMORE, WHEN NECESSAY FOR THE CONTRACTOR SHALL USE DIRECTIONAL BORING PER MESA STD DETAILS M-18 AND M-18.1.

 - 4. PULL BOXES AND VAULTS ARE SHOWN ACCORDING TO AVAILABLE DATA. FIELD ADJUSTMENTS MAI BE NECESSARY TO AVOID CONFLICTS AND INTERCEPT EXISTING CONDUIT. CONFIRM FINAL LOCATION OF ALL NEW PULL BOXES AND VAULTS WITH CITY OF MESS AFPRESENTATION.
 - WIDTH OF PLAN SYMBOLS MAY BE GREATER THAN ACTUAL DISTURBED AREAS, ITEMS DEPICTED ON THE PLANS ARE TO BE INSTALLED WITHIN THE RIGHT-OF-WAY OR PERMANENT EASEMENT WHERE NOTED ON THE PLANS.
 - ARE CITY REQUIRES AT LEAST ONE CERTIFIED TECHNICIAN ON SIE DURING ALL PHASES OF ANY TELECOMMUNICATIONS WORK. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE MERICATION OF CERTIFICATION. IF A JOB SIE IS INSPECTED AND A CERTIFIED TECHNICIAN IS NOT ON STE, THE JOB WILL BE SHUT DOWN.
 - THE CONTRACTOR IS ADVISED TO CONTACT THE CITY'S ITS DEPARTMENT AT 480-644-3129, 48 BUSINESS HOURS PRIOR TO ANY WORK WITHIN THE WONITY OF OR THROUGH A SIGNALIZED INTERSECTION WHICH WILL CHANGE TRAFFIC LANE PATTERNS.
 - INTERSECTION WHICH WILL CHANGE HASHE CAME PATIENTS.

 IN THE CONTRACTOR SHALL IMMEDIATELY PERFORT ANY THAPPING SCHALL DAMAGE TO THE ENGINEERING INSPECTOR. DAMAGE TO ANY TRAFFIC SCHALL COMPREMY SUCH AS CONTROLLE CAMENT AND CONTROLLE CAMENT AND EDUPMENT, EXPECTOR FLOORS, COMPUT, PRESS, MAST AND, FLESS ORS RELATED EDUPMENT AS A RESULT OF THIS PROJECT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL RESPONSIBILITY OF THE CONTRACTOR AND ACCORDING TO CHAPTER OF THE PROPERTIES HAS LESCENTRAL DEPENDENT SOUND EXPENDICAL ACCORDING TO CHAPTER THAPPERS AND SHEET THE PROPERTIES.
 - A. A TRAFFIC SIGNAL CANNOT BE DARK OR IN FLASH FOR MORE THAN TWO HOURS.
 - B. A LOSS OF COMMUNICATION SHALL BE REPAIRED WITHIN 24 HOURS.
 - C. DETECTOR LOOPS SHALL BE REPLACED IN TWO WEEKS UNLESS THE ITS FOREMAN AGREES IN WRITING TO A DIFFERENT SCHEDULF
 - D. IF THE CONTRACTOR CANNOT RESPOND OR MAKE THE REPAIRS WITHIN ABOVE NOTED TIME FRAMES, THE CITY OF MESA WILL MAKE THE NECESSARY REPAIRS AND CHARGE THE CONTRACTOR.
 - E IF THERE IS AN OUTAGE(S) THAT IS NOT A DIRECT RESULT OF THE CONTRACTOR'S OR SUBCONTRACTOR'S WORK, CITY OF MESA SHALL BE CALLED TO RESPOND. IF IT IS DETERMINED THE CONTRACTOR'S OR SUBCONTRACTOR'S WORK CAUSED THE OUTAGE, THE CONTRACTOR SHALL PAY ALL COSTS OF REPAIRS.
 - 9. ALL SIDEWALK REPLACEMENT SHALL BE PER MAG STD DETAIL 230.
 - . THE CONTRACTOR SHALL WIDEOTAPE THE ENTIRE PROJECT AREA PRIOR TO START OF CONSTRUCTION. THE WIDEOTAPE SHALL INCLUDE THE ENTIRE PROJECT AREA MHERE THE CONTRACTOR MILE BE EPERFORMED THE WORK AND SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO STARTING WORK.
 - . THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF MESA TO ATTAIN ANY NECESSARY PERMITS FROM ADOT.
 - . TROUTES—OF MAY FOR ALL WORK SPECIFIED IN THIS CONTRACT MAY NOT BE SHOWN ON THE PLANS, AND THE CONTRACTOR SHALL NOT ENTER OR OCCUPY WITH PERSONNEL, TOOLS, EQUIPMENT, OR MATERIALS ANY PRIVATE GROUND OUTSIDE THE RIGHT—OF—MAY WITHOUT THE CONSENT OF THE OMIRER.
 - POTHOLING AND RELATED SURFACE RESTORATION SHALL BE COMPLETED IN ACCORDANCE WITH CITY OF MESA STO DETAILS M-18 THRU M-18.3, MAG STO DETAIL 212, AND SPECIFICATION SECTION 335, IN THE CASE OF A CONFLICT BETWEEN THE TWO SPECIFICATIONS THE CITY OF MESA'S REQUIREMENTS SHALL PREVAIL.

ITD FIBER SPLICING AND INSTALLATION NOTES

- (REVISED 02-15-12) (2018 VERSION) I. THE CONTRACTOR SHALL NOTIFY THE ITD REPRESENTATIVE 48 HOURS IN ADVANCE OF FIBER OPTIC CABLE INSTALLATION INTO ANY EXISTING OR NEW CONDUIT.
- DISTANCES SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL CAREFULLY MEASURE DISTANCES AND MAKE ALLOWANCES FOR SLACK BEFORE ORDERING AND CUTTING CABLE.
- UISTANCES AND MAKE ALLOMANCES FOR SEARCH REFORE. UNDERHAG AND COTTING CARLE.

 S. TISION SPLIES SAML, BE PERFORMED WITH FOURIERH HANNOT THE FOLLOMING FEATURES:

 AUTOMATIC FIBER ALLOMENT AND AUTOMATIC LIGHT INJECTION WITH DETECTION DEVICES OF

 PROPIEL ALIOMANT ALGORITHMS TO PROPIEL! ALLOW THE FIBER CORES AND ESTIMATE SPLICE

 LOSSES. "V. GROODE ALIGNMENT SHALL NOT BE PERMITTED."
- . ALL FIBER OPTIC WORK SHALL BE PERFORMED IN OFFICE TYPE ENVIRONMENTS IN BUILDINGS, SPLICE TRAILERS AND SPLICING TENTS WITH FLOORS.
- S. AT THE TIME OF FIBER OPTIC CABLE INSTALLATION, LIVE 120/240 VAC AND/OR 280 VAC POMER COMBUCTORS SERVING TRAFFIC CONTROL EQUIPMENT AND LIGHTING MAY BE PRESENT IN JUNCTION BOXES, WHERE FIBER IS TO BE INSTALLED. THE CONTRACTOR SHALL TAKE ALL NECESSARY SAFETY PRECAUTIONS.
- 6. CABLE SHALL BE INSTALLED AS ONE CONTINUOUS PIECE WITH NO SPLICES, EXCEPT WHERE
- 7. ALL CONDUITS TO BE UTILIZED FOR THE FIBER SYSTEM SHALL BE BLOWN OUT WITH COMPRESSED AIR AND HAVE A METAL DISK MANDREL PULLED THROUGH. AN ITD REPRESENTATIVE SHALL BE OF
- 8 INSTALL ONE (1) NO.12 XHHW COPPER STRANDED IN 1" PVC ABOVE FIBER CONDUIT. 9. THE CONTRACTOR SHALL USE LUBRICANT OF THE TYPE AND QUANTITY AS RECOMMENDED BY THE CABLE MANUFACTURER WHEN PULLING CABLE.
- 10 DURING PULLING A FIRER OPTIC BREAK AWAY SWIVEL SHALL BE LISED. I. THE CONTRACTOR SHALL ENSURE THAT THE TENSILE LOAD ON THE CABLE DOES NOT EXCEED MANUFACURER SPECIFICATIONS BY USING A SUITABLE RATED SHEAR PIN AND A SYSTEM WHICH MICUIDES A MEANS OF ALERTING THE INSTALLER WHEN PULLING TENSION APPROACHES THE LIMIT AND DISPLAYS THE ACTUAL TENSION ON THE CABLE.
- 2. DURING PULLING, THE CABLE SHALL BE CONTINUOUSLY LUBRICATED.
- 13 MANUFACTURER RECOMMENDED PULLING SPEEDS SHALL NOT BE EXCEEDED.
- 14. FIBER OPTIC SPLICING SHALL BE PERFORMED ONLY AT THE DESIGNATED LOCATIONS SHOWN ON
- 15. THE CONTRACTOR SHALL CERTIFY THAT THE INSTALLATION OF THE COMMUNICATIONS CABLE SUB-SYSTEM IS IN ACCORDANCE WITH THE CABLE AND SPLICE MANUFACTURER'S RECOMMENDATIONS AND THE PROJECT SPECIFICATIONS. 16. THE CONTRACTOR SHALL NOT CAUSE THE CABLE TO VIOLATE THE MINIMUM BENDING RADIUS FOR WHICH THE CABLE WAS DESIGNED.
- 7. IF THE CABLE IS DAMAGED DURING INSTALLATION, THE ENTIRE LENGTH OF CABLE BETWEEN THE NEAREST SPLICE POINTS SHOWN ON THE PLANS SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. 18. ONE HUNDRED (100) FEET OF EACH CABLE SHALL BE LOOSELY LOOPED AND COILED IN EACH FIBER OPTIC 4' X 4' MANHOLE.
- SIXTY (60) FEET OF EACH CABLE SHALL BE LOOSELY LOOPED AND COILED IN EACH FIBER OPTIC NO. 9 PULL BOX.
- 20. TWENTY—FIVE (25) FEET OF EACH CABLE SHALL BE LOOSELY LOOPED AND COILED IN EACH FIBER OPTIC NO. 7 PULL BOX. I. TWENTY-FIVE (25) FEET OF EACH CABLE SHALL BE LOOSELY COILED AND RACKED INSIDE EQUIPMENT ROOMS.
- 22. THE SLACK LENGTH REQUIREMENTS ARE MINIMUMS. THE CONTRACTOR MAY PROVIDE EXTRA SLACK, NOT TO EXCEED THREE TIMES THE MINIMUM AMOUNT, FOR CONTRACTOR'S SPLICING CONVENIENCE, AT NO ADDITIONAL COST TO THE CITY.
- 23. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EMPTY REFLS AND RESIDUAL MATERIALS. 24. A PERMANENT HIGH-QUALITY LABEL IDENTIFYING EACH CABLE SHALL BE APPLIED TO THE CABLE WITHIN TWO (2) FEET OF THE SPLICE CLOSURE AND/OR PATCH PANEL.

FIRER TESTING NOTES

(REVISED 02-15-12) (2018 VERSION)

- ALL FIBER OPTIC TESTING SHALL BE PERFORMED WITH AN OTDR CAPABLE OF PRODUCING PC COMPATIBLE OUTPUT FILES.
- 2. ELECTRONIC SUBMITTAL ON CD SHALL BE REQUIRED. TEST RESULTS SUPPLIED ELECTRONICALLY SHALL BE IN PDF FORMAT, OTDR NATIVE FORMAT, AND INCLUDE OTDR SOFTWARE FOR VIEWING.
- 3. FIBERS SHALL BE IDENTIFIED BY STRAND NUMBER.
- 4. EACH BINDER SHALL HAVE A COVER SHEET INDICATING WHICH CABLE(S) WERE TESTED, THE OTDE . Encir brough strike in view a course is their indications without basings; there is established in the UNER'S MARE, THE FIFE OF IEST PERFORMED, AND THE DATE(S) OF THE INSTITUTE IN THE INTERMEDIATE RESULTS, AN INDEX OF STREETS THAT COURTAIN ANY DISCREPANCIES WITH THE SPECIFICATIONS STALL BE PROVIDED MANERAL TREY FOLLOWING THE COVER SHEET.
- S. COVER SHEETS FOR FINAL TEST RESULTS SHALL BEAR THE REVIEWER'S SIGNATURE, THE DATE, AND A STATEMENT INDICATING THAT THE INSTALLATION COMPUES WITH THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.
- ALL OTOR TRACES SHALL BEAR THE SIGNATURE OR INITIALS AND PRINTED NAME OF TH ALL OTHE MALES SHALL BEAM THE SHARHOME OF MININES AND PHONILD MANE OF THE CONTRACTOR'S REPUTORE MONO HAS REWINDED THE MACES. THE CONTRACTOR SHALL PLACE A CHECK MARK ON ALL TRACES THAT SAIRSY THE REQUIREMENTS DENTIFIED HERBIN. FOR MITTAMEDIATE TEST RESULTS, THE CONTRACTOR'S TALL INDICIDENT OF DISCREPANCES MINOL MAY EAST AND PLACE A POST-IT FLAG ON THE SUBJECT PLACE. THE PLACE SHALL BEAM A SHORT DESCRIPTION OF THE PHOPOEDE CONTRECTOR ACTION (E.G. RE-SPLICE)
- SINGLE-MODE FIBER OPTIC CABLE SHALL BE TESTED IN ACCORDANCE WITH EIA-455-61 OR ANY SUBSEQUENT REVISIONS OR REPLACEMENTS. CABLE SEGMENTS HAVING ATTENUATION GREATER THAN 0.4 DB/KM AT 1310 NM AND 0.3 DB/KM AT 1550 NM SHALL BE REJECTED. CABLE SEGMENT LOSS EVENTS GREATER THAN 0.20 DB SHALL BE REJECTED.
- MULTI-MODE FIBER OPTIC CABLE ATTENUATION SHALL BE LESS THAN OR EQUAL TO 0.35 DB PER KM AT 1310 NM AND 0.25 DB PER KM AT1550 NM.
- P. THE MAXIMUM INSERTION LOSS FOR CONNECTORS SHALL BE 0.50 DB. THE CONNECTORS SHALL BE POLISHED TO ENSURE THAT BACK REFLECTION DOES NOT EXCEED 30 DB.
- 10. POST INSTALLATION TESTING: THE FIBER OPTIC CABLE SHALL BE ETSIZED AFTER INSTALLATION TO VERBY THE INTEGRATY OF THE FIBER OPTIC CABLE PLANT AND ITS FERFORMANCE. THE CONTRACTOR SHALL PERFORM IN RESERTION LOSS TSO WE ACTOR DISSO PLANT FLABLE USING THE ATTENNATION TEST SETS IN ACCORDANCE WITH EA-455-171. OTDE TESTING IN ACCORDANCE WITH EA-455-171. OTDE TESTING IN ACCORDANCE WITH EA-455-171. OTDE TESTING IN DE ORGENEE SHALL BE SET OF ALL RESERVED. BY CONTRACTOR AT NO ADDITIONAL COST TO THE OTY.

 CONNECTIONS TEST GREATER THAN 0.5 DB SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST TO THE OTY.
- 1. THE CONTRACTOR SHALL PERFORM BIDIRECTIONAL OTDR TESTING ON ALL FIBERS, BARE FIBER ADAPTERS SHALL BE USED FOR OTDR TESTING. THE CONTRACTOR SHALL USE A POWER METER TO PERFORM ATTENATION MEASUREMENTS.
- PERFORM ATERNATION MEASUREMENTS.

 THE CONTRACTOR SHALL PERFORM OTDER TESTING ON ALL FIBERS WITH THE TITO REPRESENTATIVE PRESENT REFORE FINAL ACCEPTANCE. THE CONTRACTOR PROVIDED OFFERATOR SHALL BE GUALIFIED TO PERFORM THE TEST. MOTTER TEST RESULTS SHALL BE PROVIDED TO THE CITY OF MEAS FIELD MISSECTOR FOR EACH FIRED. UNASCEPTABLE RESULTS SHALL REQUIRE THE CONTRACTOR TO REMISTALL MECESSARY SECTIONS OF CARLE, SPLICING ONLY AT POINTS INDICATED ON PLANS, AND AT THE CONTRACTOR'S EXPENSE.
- 14 RE-TESTING SHALL BE REQUIRED IF ANY SPLICE CLOSURE IS OPENED AFTER TESTING, AFTER COMPETING THE REWORK, THE CONTRACTOR SHALL USE AN OTIR IN ACCORDANCE WITH EM-455-59 MD EM-454-59 MD EM-454-59 MD EM-454-59 MD EM-454-59 MD EM-545-59 MD EM

ITD FIBER OPTIC MATERIALS (REVISED 11-23-11) (2018 VERSION)

- REFERENCES TO A MANUFACTURER'S TRADE NAME OR CATALOG NUMBER ARE FOR THE PURPOSE OF DENTIFICATION TO ESTABLISH A LEYEL OF OUALITY, AND THE CONTRACTOR MILL NOT BE PRENITED TO FURNISH LINE MATERIALS OF OTHER MANUFACTURER, SCAPET WERE MANUFACTURER, SCAPET WERE MANUFACTURER NAME IS NOT INDICATED, PROVIDED IF THEY ARE OF EQUAL QUALITY, COMPLETE WITH SECONDATIONS FOR THIS PROCECT, AND AGE APPROVED BY THE CHOINEER.
- 2. SEE TECHNICAL SPECIFICATIONS FOR FIBER OPTIC MATERIAL INFORMATION.
- SEE TECHNICAL SPECIFICATIONS OF PULL BOX MATERIALS INFORMATION. PULL BOX COVER LETTERING SHALL BE 1" LETTERS CAST IN STANDARD MARKINGS CITY OF MESA ITS FIBER OPTICS. PULL BOX COVER WILL BE SECURED WITH A 5-POINT SECURITY BOLT. I. EACH FIBER SHALL BE DISTINGUISHABLE BY MEANS OF A COLOR CODE IN ACCORDANCE WITH
- 5. THE CABLE MANUFACTURER SHALL CERTIFY THAT THE CABLE IS IN CONFORMANCE WITH THE SPECIFICATIONS.
- O. THE CONTRACTOR SHALL FURNISH AND INSTALL OUTDOOR RATED SPLICE CLOSURE IN MANHOLES
 AND SPLICE FIBER CABLE. THE CONTRACTOR SHALL FURNISH AND INSTALL FIBER PATCH PANEL IN
 CABINETS AND TERMINATE FIBER. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL COUPLERS
 AND CONSPICTOR.
- 7. ALL PATCH PANEL CONNECTORS SHALL BE LC TYPE CONNECTORS OR APPROVED EQUAL



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DIGITAL SIGNATURE

PRINTS REQUIRE ENGINEER'S SEAL AND SIGN FOR PROOF OF VALIDITY

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(REVISED 02-07-12) (2018 VERSION)

- . CONTRACTOR MIL REQUEST AND MAINTAIN A VALID ONE CALL NOTICE FOR THE DURATION OF THE EXCAVATION PERIOD. CONTRACTOR IS TO CONTACT AIR PRODUCTS 43 HOURS IN ADVANCE TO WORKING WITHIN TEN (10) FEET OF PREJINE AT 480-225-1406, 480-225-1406, 470
- 2. ANY CONTINUOUS EXPOSURE THAT UNDERMINES THE PIPELINE FOR FIFTEEN (15) FEET OR MORE SHALL BE SUPPORTED BY THE CONTRACTOR USING AN APPROVED METHOD AGREED UPON BY THE AIR PRODUCTS REPRESENTATIVE AND THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE AND ALLOW SAFE JOB SITE ACCESS FOR THE AIR PRODUCTS REPRESENTATIVE TO THE NITROGEN PIPELINE FOR THE PURPOSE OF INSPECTIONS FOR PIPE AND OR CONTING DAMAGE, OR REPAIR IF REQUIRED.
- 4. ANY NEW FACILITY BEING INSTALLED OR EXCAVATION DURING THIS PROJECT SHALL MAINTAIN A TWO (2) FOOT SEPARATION FROM THE NITROGEN PIPELINE IN ALL DIRECTIONS.
- BACK FILL MATERIAL SHALL CONSIST OF CLEAN SAND FOR TWO FEET AROUND THE NITROGEN PIPELINE. SLURRY IS NOT TO BE PLACED ON OR WITHIN TWO (2) FOOT OF A NITROGEN PIPELINE.
- 6. IF DURING THE PROJECT THE CONTRACTOR ENCOUNTERS ANY AIR PRODUCTS TEST STATION(S) AND/OR VENT STATION(S) AND IT IS DETERMINED THAT A
 RELOCATION OF THESE FACULTES IS NECESSARY, THE CONTRACTOR SHALL PROVIDE TRENCHMIS AND BROKEFLING AS REQUIRED TO AN ADEQUATE DEPTH AN
 WIDTH FROM THE EXISTING TEST/ORN TSATION(S) ON A AREA AGREED UPON BY ALL PARTIES IN THE FIELD. OTHER THAN WELDING, AIR PRODUCTS MILL
 PROVIDE THE MATERIALS AND LABOR TO RELOCATE TEST/VENT STATION(S).
- CONTRACTOR SHALL PROVIDE PROTECTION FOR ANY AND ALL AIR PRODUCTS FACILITIES ABOVE AND BELOW GROUND WITHIN THE SCOPE OF THIS PROJECT FOR THE DURATION OF THE PROJECT. STREET LIGHTING GENERAL NOTES

(REVISED 05-17-12) (2018 VERSION)

- 1. ALL WORKMANSHIP, MATERIAL AND INSTALLATION SHALL COMPLY WITH THE CURRENT MAG UNIFORM STANDARD DETAILS AND SPECIFICATIONS AS AMENDED BY THE OTTY OF MESS, THE OTTY OF MESS, AND SPECIFICATIONS AS AMENDED BY THE OTTY OF MESS, THE OTTY OTHER OTTY OF MESS, THE OTTY OTHER OTTY OTHER OTTY OF MESS, THE OTTY OTHER OTHER
- 3: CONTRACTOR SHALL SUBMIT A LIST CONTAINING NAMES AND QUALIFIED STATUS OF PERSONNEL THAT WILL BE ON THE IMMEDIATE JOB SITE TO THE INSPECTOR PRIOR TO STARTING ANY TYPE OF CONSTRUCTION. ANY CHANGE IN THIS LIST WILL REQUIRE IMMEDIATE NOTIFICATION TO THE INSPECTOR.
- 4. DURING THE CONSTRUCTION OR WARRANTY PERIOD, IF THE CONTRACTOR FAILS TO OR IS UNABLE TO COMPLY WITHIN TWO (2) WORKING DAYS OF A REQUEST OF THE MSSPECTION OR IF A STREET HIGHT OUTLAGE MAKES IT IN EXCESSARY FOR OIT FORCES TO DO WORK THAT IS NORMALLY THE CONTRACTOR OF THE SEPPONSBUTY, THE CITY THE LEASTHEAD WELLOW FITE CONTRACTOR AS SEPARATE BELIANS SHALL DOVER EACH MODIFY OF EACH MEDIT OF EACH FORCES. THE AMOUNT OF EACH BELIANS SHALL DOVER SHALL BE CITY FORCES. THE AMOUNT OF EACH BELIANS SHALL DOVER SHALL BE CITY FOR THE WILL BE BILLED AT EACH MINIMALY SHORTLY ARE PLUS THE APPLICATION.
- 5. INSPECTIONS SHALL BE REQUESTED BY THE ELECTRICAL CONTRACTOR IN ACCORDANCE WITH THE FOLLOWING LIST:
- A BEFORE STARTING PROJECT (PRE-JOB INSPECTION).
- B. BEFORE FILLING PULL BOX HOLES WITH AGGREGATE.
- C. BEFORE BACKFILLING TRENCH AND COVERING CONDUIT.
- D.WHEN THE POLE FOUNDATIONS ARE DUG, ANCHOR BOLTS, GROUND WIRE AND GROUND PLATE ARE READY AND IN PLACE, PRIOR TO POURING CONCRETE. E. BEFORE PULLING WIRE.
- F. BEFORE INSTALLATION OF FIXTURES AND PHOTOCELL
- G. BEFORE MAKING SPLICES.
- HIMEN PROJECT IS COMPLETED. IF NECESSARY, A LIST OF DISCREPANCES WILL BE SUBMITTED TO THE CONTRACTOR FOR CORRECTIVE ACTION. FAILURE TO HAVE THESE ITEMS INSPECTED AND APPROVED BEFORE PROCEEDING WILL RESULT IN REJECTION OF THE WORK DONE, AND REMOVAL OF ALL SUCH WORK WILL BE REQUIRED.
- 6. ALL STREET LIGHTS SHALL BE CONNECTED TO THE PERMANENT POWER SUPPLY BY THE AGENCY SUPPLYING POWER. STREET LIGHT SYSTEMS WILL NOT BE ACCEPTED UNTIL THE SYSTEM HAS BEEN ENERGIZED AND FULLY OPERATIONAL FOR A MINIMUM ONE-HOUR TEST PERIOD AT RATED VOLTAGE.
- 7. WHERE LICHTING CONTROL CABINETS ARE UTILIZED, STREET LIGHT CIRCUITS SHALL BE 240 VOLT. WHERE CABINETS ARE NOT USED, STREET LIGHT CIRCUITS SHALL BE 120 VOLT. ALL SERVICES SHALL BE 120/240 VOLT. ALL CONTROL CIRCUITS SHALL BE 120 VOLT.
- BEFORE DISCONNECTING ANY EXISTING STREET LIGHTS, THE NEW LIGHT SYSTEM SHALL BE WORKING OR TEMPORARY LIGHTING INSTALLED. EXISTING STREET LIGHTS TO BE REMOVED AND NEW STREET LIGHTS SHALL NOT OPERATE AT THE SAME TIME.
- 9 POLES HAVING MULTIPLE LUMINAIRES SHALL HAVE TWO (2) CONDUCTORS AND ONE (1) BOND WIRE PER LUMINAIRE. THE CONDUCTORS SHALL BE MARKED AS PAIRS AT THE HAND HOLE.
- 10. ALL UNDERGROUND CIRCUIT CONDUCTORS SHALL BE BLACK, UNLESS OTHERWISE NOTEL
- II. WHERE STREET LIGHTS OR CIRCUITS ARE 120 VOLT, ONE CONDUCTOR SHALL BE UNFUSED AND BE EITHER WHITE OR MARKED WHITE, AS REQUIRED.
- 12. ALL CIRCUIT CONDUCTORS IN CONDUIT SHALL BE XHHW/XHHW-2 INSULATION, EXCEPT PHOTOCELL CIRCUIT SHALL BE TRAY CABLE (SEE NOTE 13 THIS PAGE). II. THE TRAY CABLE SHALL BE FROME FR-EPR XHHH-2 CONDUCTORS, CPE JACKET, BOUNDLTS] FRPC 4/3 (COLORS: BLACK-RED-WHITE) OR EQUIVALENT, RUN UNDERFORMING FROM THE LIGHTING CONTROL CABINET TO THE HANDHOLE OF THE PHOTOCALL LIGHT PACE, WHICH SHALL BE CONTINUOUS & WITHOUT SPLICES. FROM THE HANDHOLE UP, THREE (3) CONDUCTORS OF NO. 14 AWG THEN OR EQUIVALENT WILL BE SPLICED WITH BUTT SPLICES (NO WIRE NUTS) TO THE TERMINAL BLOCK OF THE PHOTOCALL CONTROLLED LUMINAIRE. BUTT SPLICES SHALL BE INSOLATED AND THE GRIME TIPE.
- 4. MINIMUM DEPTH FROM TOP OF CURB OR ROADWAY TO TOP OF CONDUIT SHALL BE TWENTY-FOUR (24) INCHES. MAXIMUM DEPTH SHALL BE FORTY-EIGHT (48) INCHES, UNLESS OTHERWISE APPROVED.
- IS. UNDERGROUND WRING SHALL BE INSTALLED IN SCHEDULE 40 RIGID PVC CONDUIT, UL APPROVED FOR ABOVE GROUND AND UNDERGROUND USE WITH 90 DEGREE C WIRE. WHERE TWENTY-FOUR (24) INCHES COVER IS NOT POSSIBLE, GALVANIZED RIGID STEEL CONDUIT (GRS) SHALL BE USED.
- (6. GALVANIZED RIGID STEEL CONDUIT (GRS) SHALL BE DOUBLE WRAPPED WITH 20-WIL TAPE TO SIX (6) INCHES PAST THE THREADED METAL COUPLING, COMPRESSON COUPLINGS ARE NOT ALLOWED. PRIOR APPROVAL IS NEEDED FOR ANY DESIGN USING GRS CONDUIT. ALL CONDUITS SHALL BE BLOWN OUT. USING 90-PS AR PRESSURE BEFOR PLULING MIRE.
- 17. A TWO-PIECE EXPANSION JOINT COUPLING SHALL BE INSTALLED IN PVC CONDUIT RUNS AT INTERVALS NOT TO EXCEED ONE-HUNDRED (100) FEET.
- 8. ALL FORTY-FIVE (45) AND NINETY (90) DEGREE BENDS OF CONDUIT SHALL HAVE A RADIUS OF NOT LESS THAN EIGHTEEN (18) INCHES. FACTORY BENDS ONLY SHALL BE USED. 19. ALL JOINTS BETWEEN PVC CONDUIT, COUPLINGS AND FITTINGS SHALL BE PREPARED WITH PURPLE PRIMER AND CEMENTED TOGETHER WITH GRAY PVC CEMENT
- 20. THE COMUNIT LOCATIONS SHOWN ON PLANS ARE DIAGRAMMATIC REPRESENTATIONS ONLY. CONTRACTOR IS TO INSTALL COMDUIT TO ANDID CONTRICTS. THE CONTRACTOR MAY, AT HIS OPTION, BORE FOR THE PLACEMENT OF CONDUIT PER MESA STD DETAIL M-18. ALL CONDUITS SHALL BE PLACED WITHIN EXISTING RIGHT-OF-WAY UNLESS OTHERWISE APPROVED.
- I. STREET LICHT CONDUITS SHOULD BE INSTALLED PRIOR TO RESIDENTIAL DRIVEWAY INSTALLATIONS. IF STREET LICHT CONDUIT IS INSTALLED AFTER RESIDENTIAL DRIVEWAY INSTALLATION, CONTRACTOR SHALL BORE CONDUIT UNDER DRIVEWAY. MEANDERING THE CONDUIT BEHIND THE ENTRANCE WILL NOT BE PERMITTED.
- 2. BACKFILL REQUIREMENTS FOR ALL TRENCHES SHALL CONFORM TO ARTICLE 300 OF THE NATIONAL ELECTRIC CODE, SECTION 601 OF THE UNIFORM STANDARD SPECIFICATIONS, AND MESA STD DETAIL M-19.4 FOR STREET TRENCH BACKFILL AND PAYEMENT REPLACEMENT.
- 23. WITH THE EXCEPTION OF DETACHED SIDEWALKS, PULL BOXES SHALL BE INSTALLED (SEE MESA STD DETAILS M-74.1 AND M-74.2) FIVE (5) FEET (CENTER TO CENTER) BETMEEN STREET LIGHT POLES AND PULL BOXES.
- 24. PHOTOCELL RECEPTACLE SHALL BE POSITIONED ON LUMINAIRE SO THAT WHEN INSTALLED, THE PHOTOCELL WILL FACE NORTH.
- 25. ALL SHORTING CAPS TO BE LOW PROFILE TYPE. NO HIGHER THAN 1-1/2" ABOVE SOCKET.
- 26. ALL PHOTOCELL CIRCUIT CONDUIT MUST BE 1-1/2" OR LARGER (TO INCLUDE CONDUIT STUBBING UP AT PHOTOCELL LIGHT POLE).
- 27. ALL FINISHED POLE FOUNDATIONS, SERVICE ENTRANCE SECTIONS, LIGHTING CONTROL CABINET PADS AND PULLBOXES SHALL BE AT SIDEWALK GRADE UNLESS OTHERWISE NOTED.
- 28. WHEN CONCRETE FOUNDATIONS ARE POURED, THEY SHALL BE VIBRATED WITH A MECHANICAL VIBRATOR.
- 29. POLE FOUNDATIONS SHALL CURE FOR 72 HOURS BEFORE INSTALLING LIGHT POLES OR REMOVING POLE BRACING.
- 30. ALL POLE FOUNDATIONS SHALL HAVE A COPPER GROUNDING PLATE PER MESA STD DETAIL M-73.6, G-101.
- 31. ALL STEEL POLES AND STEEL POLE PARTS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH MAG STANDARD SPECIFICATION 771.
- 32. ALL POLES SHALL BE WIRED USING TWO (2) NO. 12 BLACK THHN/THINN 90 DEGREE C STRANDED COPPER CONDUCTORS, 600 VOLT, NEC APPROVED AND ONE
 (1) NOTZ GREEN THHN/THINN STRANDED COPPER BOOM WIRE GROUNDING THE LUMINAIRE. WIRES SHALL RIN FROM THE LUMINAIRE TO MINIMUM OF THELVE
 (12) INVIERS BELOW POLE HANDINGE FOR TERMINAIN. POLES HANNIG MILTIPLE LUMINAIRES SHALL HAVE TWO (2) CONDUCTORS AND ONE (1) BOND WIRE
 PER LUMINAIRE, AND THE CONDUCTORS SHALL BE MARKED AS PAIRS AT THE HANDHOLE.
- 33. THREE WIRES SHALL BE RUN CONTINUOUSLY WITHOUT SPLICES FROM THE PHOTOCELL TO THE HAND HOLE COVER WHERE IT WILL BE BUTT SPLICED TO THE D. IMPLE MIRES SHALE BE OWN COMMODOS MIRHOUT SHALE SHOWN HE PHOTOCOLLE TO THE HAND HOLE COPEN MIRHER IT MILE DE BUILT SHOULDE FOR MIRHER HE HAVE BEEN SHOULD FOR THE HAND THE SHALE BE ONLY THE SHOULD FOR THE SHALE DE NORTH SHALE BE DENTIFIED BY BELOK INSULATION. THE "POWER FROM PHOTO" SHALL BE IDENTIFIED BY HEID INSULATION. THE MEDITAL SHALL BE DENTIFIED BY MIRT INSULATION. THE MEDITAL SHALL BE DENTIFIED BY MIRT INSULATION.
- 34. ALL LIGHTING CONDUCTORS AND BOND WIRES SHALL BE COPPER.
- 35. ALL PVC CONDUIT RUNS SHALL CONTAIN A MINIMUM NO. 8 GREEN XHHW INSULATED SEVEN (7) STRAND COPPER BOND WIRE.
- 36. ALL CONDUCTORS SHALL BE STRANDED.
- 37. THE NO. 8 STRANDED GROUNDING WIRE IN THE CONCRETE POLE FOUNDATION COING TO THE GROUNDING PLATE SHALL BE INSULATED WITH XHHW INSULATION THROUGH THE CONCRETE FOUNDATION.
- 38. ALL LIGHTING CONTROL CABINETS SHALL BE INSTALLED MITHIN TWO (2) WEEKS OF BEGINNING THE STREET LIGHT IMPROVEMENTS.
 39. EACH LUMINAIRE SHALL BE FUSED BEHIND THE POLE HANDHOLE COVER USING AN HEB TYPE FUSE HOLDER WITH INSULATING BOOTS AND A 5-AMP FININ FUSE OR APPROVED EQUAL.
- 40. ALL FINISHED STREET LIGHT POLE FOUNDATIONS AND CONTROLLER PAD SHALL BE AT SIDEWALK GRADE AND ADJACENT TO SIDEWALK UNLESS OTHERWISE NOTED, STREET LIGHT PULL BOXES SHALL BE AT SIDEWALK GRADE AND TWELVE (12) WICHES FROM SIDEWALK UNLESS OTHERWISE NOTED, (MESA STD DETAIL M-7-A2, MISTALATION NOTE 1).
- 41. PROJECT SHALL BE BLUE STAKED BEFORE ANY DIGGING IS STARTED BY CALLING 602-263-1100 OR 811.
- 12. ALL HIGH-PRESSURE SODIUM LAMPS SHALL CONFORM TO THE APPROPRIATE LAMP SPECIFICATION FOR ITS PARTICULAR WATTAGE. SEE LAMP SPECIFICATION, MESA STD DETAL M-71.
- 4: ALL SPUCES INCLUDING GROUNDS AND BOING SMALL BE DONE WITH A CEL CAP GRUE SPUCE KIT, GEL CAP \$5.-2/0-3 HOLE, OTHER GEL CAP PRODUCTS OF APPROPRIATE SIZE OF APPROVED EQUAL. FOR APPROVED STREET LIGHT MATERIAL SIZE: http://www.mnessoz.gov/business/maightening/suprome_products_equipment_natural_ope_fine_contractors.
- 4. STATION NUMBERS ARE APPROXIMATE. IN SUBDIVISIONS, LOCATE STREET LIGHT POLES AND LIGHTING CONTROL CABINETS ACCORDING TO LOT LINE MEASUREMENTS.
- 45. STREET PAVING PERMITTEE/CONTRACTOR IS HEREBY NOTIFIED THAT STREET PAVING WILL NOT BE ACCEPTED BY THE CITY OF MESA UNTIL ALL STREET LIGHTS, RETENTION BASINS AND LANDSCAPING IMPROVEMENTS ARE INSTALLED AND ACCEPTED.
- 46. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT ALL WORK ASSOCIATED WITH THE STREET LIGHTING SYSTEM IS INSPECTED AND APPROVED BY THE CITY PRIOR TO BACKFILLING TRENCHES OR COVERING ANY WORK. CONTACT THE CITY OF MESA ENGINEERING FIELD INSPECTOR TO ARRANGE FOR STREET LIGHT STSTEM INSPECTION.
- 47. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL P-301 POLES WHERE IMPACTED BY PROJECT REQUIREMENTS. ALL OTHER LIGHTING EQUIPMENT SHALL BE RETURNED TO THE LIGHTING FOREMAN (480-644-3178) WITH 48 HOURS NOTICE.

LANDSCAPE IRRIGATION GENERAL NOTES

(REVISED 02-15-18) (2018 VERSION)

- CONTINUITION SHALL BE RESPONSIBLE FOR HE INSTILLATION LATOUT OF HE STSLEM IN ACCORDANCE WITH THE UNMANNES TO PROPORTIONAL OF MICHAEL STATEMENT OF THE MADE OF THE
- 2. PRIOR TO THE INSTALLATION OF ANY IRRIGATION SYSTEM COMPONENTS THE CONTRACTOR SHALL VERBEY THE STATIC PRESSURE OF THE AVAILABLE WATER POINT OF COMMERCION. IN THE EVENT THAT THE STATIC PRESSURE IS LESS THAN THE FIELD VERBED MOMENT MOTED IN THE APPROVED PLANS AND SPECIFICATIONS THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF THE DISOREPANCY. THE LANDSCAPE ARCHITECT WILL ASSESS THE STUATION MOMA DAILST THE DESIGN IF NECESSARY. THE CONTRACTOR SHALL NOT CONTINUE PRIGATION WORK UNTIL THE LANDSCAPE ARCHITECT HAS PROVIDED WRITTEN APPROVAL TO DO SO.
- 3. ALL MRIGATION PIPE TYPE AND SIZE PER THE APPROVED PLANS AND SPECIFICATIONS. ALL MAINLINE PIPE SHALL BE NEW PVC PIPE. ALL MAINLINE FITTINGS SHALL BE ASTM 2466 OR ASTM 3464 FITTINGS. ALL LATERAL LINE PIPE SHALL BE NEW PVC PIPE. FITTINGS ON ALL PVC LATERAL LINES SHALL BE ASTM 2466 FITTINGS ONLESS OTHERWISE SHOWN ON THE FAMS AND BETHE.
- 4. LIVE IRRIGATION MAINLINES SHALL BE INSTALLED A MINIMUM OF 24" BELOW FINISH GRADE. BACKFILL THE TRENCH AROUND LIVE SERVICE MAINLINES ACCORDING TO CITY OF MESA STANDARDS. LATERAL LINES SHALL BE PLACED A MINIMUM OF 18" BELOW FINISH GRADE.
- 5. MATER SERVICE LINE TO METER WILL BE PROVIDED BY GENERAL CONTRACTOR. WATER METER WILL BE INSTALLED BY THE CITY. INSTALL THE IRRIGATION MAINLINE TO THE BACKFLOW PREVENTION DEVICE AND WATER METER, CONNECTIONS AND BACKFLOW SHALL BE INSTALLED AS PER INDUSTRY AND CITY OF MESA
- 6. ALL VALVES SHALL BE LOCATED IN GROUPS AS SHOWN ON DRAWINGS IN LANDSCAPE AREAS. VALVES SHALL BE LOCATED A MINIMUM OF 12* AWAY FROM ANY BUILDING, FENCE, MOWSTRIP, SIDEWALK OR CURB.
- 7. ALL VALVES ARE TO BE WRED TO CONTROLLERS USING \$14 AND DIRECT BURY WRE AND MATER-RESISTANT WIRE CONNECTORS. COMMON WIRE SHALL BE \$12 AND GRECT BURAL WIRE AND WATER-RESISTANT WIRE CONNECTORS. ALL VALVE WIRES UNDER PAYING SHALL BE MISTALED IN SCHEDULE 40 PVC SLEEVES BURED \$47 BEPR FRUN OBE STATE WIRE FROM THE CONTROLLER TO EACH SORDY OF VALVES FOR FUTURE USE AND COLL A 48" LOOP OF WIRE IN A PULL BOX. MARK THE WIRE COLL WITH A CHRISTY TAG NOTING ITS CORRESPONDING STATION NUMBER.
- 8. THE CONTRACTOR SHALL PROVIDE AND INSTALL THE NEW IRRIGATION CONTROLLER IN THE LOCATION INDICATED ON THE PLANS. CONTRACTOR IS RESPONSIBLE FOR POWER CONNECTIONS FROM THE ELECTRICAL METER AND ALL SYSTEMS.
- 9. PROVIDE AND INSTALL ALL THE MANUFACTURER'S RECOMMENDED SURGE AND LIGHTNING PROTECTION EQUIPMENT ON ALL CONTROLLERS.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPARRING ANY STE TIEUS DIMANGED DURING THE COURSE OF CONSTRUCTION WHERE CONSTRUCTION ACTIVITIES HAVE DISTURBED THE SITE INSIDE OF OUTSIDE OF THE CONTRACT LIMITS. ALL AREAS SHALL BE REPARRED AREA DAYOR RESTORED TO REGIONAL CONDITION. REPARRED AREAS SHALL BE CREVALED THAN CONSTRUCTION.
 REPARRED AREAS SHALL BE CONSTRUCTED OF APOLICE A SMOOTH TRANSFORM IN REGULAR ON MATERIALS FROM EXISTING TO NOW CONSTRUCTION.
- HI.THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWNOS OF THE HRHIGATION SYSTEM SHOWING EXACT MEASURED AND DIMENSONED LOCATIONS OF ALL VALVE BOXES, PULL BOXES, QUICK COUPLERS, METER MANIFOLD EQUIPMENT, CONTROLLERS, SLEEVES AND OTHER HEMS. THE DIMENSIONS TO PERMANENT FEATURES SUCH AS STRUCTURES.
- 2. RRIGATION SLEEVES SHALL BE INSTALLED BENEATH ALL PAVEMENT, DRIVEMAYS AND DRAINAGE STRUCTURES THAT ARE CROSSED WITH IRRIGATION MAINLINE OR LATERAL PIPE OR CONTROLLER WIRE, ALL SLEEVES SHALL BE SCHEDULE 40 PIPE. SZE SHALL BE 4" FOR ALL PIPING SIZE SHALL BE 2" WHERE ONLY CONTROLLER WIRE S PROVINCE, SLEVES SHALL BE EXTRIDED 0" NIO LAMOSSAFA RAFA.
- 13. ONLY ONE VALVE SHALL BE PROVIDED PER VALVE BOX. ALL HARDWARE SHALL BE STANLESS STEEL BOXTS SHALL HAVE WASHERS. EXPANSION COILS SHALL BE PROVIDED AT EACH WRITE CONNECTION IN VALVE BOX. WARP WINE AROUND 1/2" PVC PIPE 15 TIMES. COVER SHALL BE EMBOSSED WITH 1/2" LETTERS ON CONTROLLER ADD ON VALVES WITH CONTROLLERS FOR CONTROLLER ADD ON VALVES WITH CONTROLLERS FOR DEAD WARDEN.
- 1. ADEQUATE PRESSURE SHALL BE VERIFIED FOR ALL PIPE RUNS PRIOR TO COVERING PIPE IN TRENCHES. OWNER'S REPRESENTATIVE SHALL BE PRESENT FOR ALL IRRIGATION PRESSURE TESTING PRIOR TO COVERING TRENCHES.
- 15. ALL WORK AND MATERIALS MUST MEET CITY OF MESA STANDARDS.
- 16. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS INCLUDING ALL APPURTENANCES AND LABOR NECESSARY TO INSTALL THE COMPLETE AUTOMATIC SPRINKLER SYSTEM FROM THE METER. WATER USAGE CHARGES SHALL BE PAID BY CONTRACTOR UNTIL PROJECT FINAL ACCEPTANCE BY CITY OF MESA.
- 17. PROJECT RECORD DRAWINGS FOR IRRIGATION SYSTEM:
- A. MAINTAIN ON SITE AND SEPARATE FROM DOCUMENTS USED FOR CONSTRUCTION, ONE COMPLETE SET OF CONTRACT DOCUMENTS AS PROJECT RECORD DOCUMENTS. KEEP DOCUMENTS CURRENT. DO NOT PERMANENTLY COVER WORK UNTIL AS-BUILT INFORMATION IS RECORDED.
- DOCUMENTS. RECEP DOCUMENTS CONTROLL OF NOT TERMINENT COVER MONS OWN, ASSOCIATION ASSOCIATION SHOWN ON THE CONSTRUCTION DRAWNOS.

 RECORD ACCURATE RETERENCE DIMENSIONS, MESSIRED FROM AT LEAST TWO PERMANENT RETERENCE POWTS, OF EACH MERCATION SYSTEM VALVE, EACH
 BROKELOW PREVENTION DEVICE, EACH CONTROLLER OR CONTROLLER UNIT, EACH SLEEVE END, EACH STUB-OUT FOR FUTURE PIPE OR MINING CONNECTIONS,
 AND OTHER PRINCATION COMPONENTS ENCLOSED MININ A VALVE BOX.

(REVISED 02-15-12) (2018 VERSION)

- I. ALL WORKMANSHIP, MATERIAL AND INSTALLATION SHALL COMPLY WITH THE CURRENT M.A.G. UNIFORM STANDARD DETAILS AND SPECIFICATIONS AS AMENDED BY THE CITY OF MESA, THE CITY OF MESA ENGINEERING & DESIGN STANDARDS AND THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRIC CODE.
- 2. DURING THE CONSTRUCTION OR WARRANTY PERIOD, IF THE CONTRACTOR FALLS TO OR IS UNABLE TO COMPLY WITHIN TWO (2) WORKING DAYS OF A REQUES. OF THE INSPECTOR OF IT A PARK LIGHT OUTAGE MAKES IT RECESSARY FOR CITY FORCES TO DO MORN THAT IS NORMALLY THE CONTRACING THE RESPONSIBILITY, THE CITY WILL BE LISTIFIED IN BLUNK THE CONTRACTOR. A SEPARATE BILLING SHALL CONTR. FACH FROM HOW BY CITY FORCES. THE AMOUNT OF EACH BILLING SHALL BE EITHER \$350.00 OR THE ACTUAL ACCUMULTED CHARGES FOR EMPLOYEES' TIME, MATERIALS, AND EQUIPMENT, WHICHEVER IS GREATER. EMPLOYEES' TIME WILL BE BILLED AT EACH INDIVIDUAL'S HOURLY RATE PLUS THE APPLICABLE CITY OVERHEAD RATE.
- INSPECTIONS SHALL BE REQUESTED BY THE ELECTRICAL CONTRACTOR IN ACCORDANCE WITH THE FOLLOWING LIST:
- A. BEFORE STARTING PROJECT (PRE-JOB INSPECTION).
- B. BEFORE FILLING PULL BOX HOLES WITH AGGREGATE.
- C. BEFORE BACKFILLING TRENCH AND COVERING CONDUIT
- D. WHEN THE POLE FOUNDATIONS ARE DUG, ANCHOR BOLTS, GROUND WIRE AND GROUND PLATE ARE READY AND IN PLACE, PRIOR TO POURING CONCRETE.
- E. BEFORE PULLING WIRE.
- F. BEFORE INSTALLATION OF FIXTURES AND PHOTOCELL.
- H. WHEN PROJECT IS COMPLETED.
- IF NECESSARY, A LIST OF DISCREPANCIES WILL BE SUBMITTED TO THE CONTRACTOR FOR CORRECTIVE ACTION. FAILURE TO HAVE THESE ITEMS INSPECTED AND APPROVED BEFORE PROCEEDING WILL RESULT IN REJECTION OF THE WORK DONE, AND REMOVAL OF ALL SUCH WORK WILL BE REQUIRED.
- . ALL PARK LIGHTING SHALL BE CONNECTED TO THE PERMANENT POWER SUPPLY BY THE AGENCY SUPPLYING POWER. STREET LIGHT SYSTEMS WILL NOT BE ACCEPTED UNTIL THE SYSTEM HAS BEEN ENERGIZED AND FULLY OPERATIONAL FOR A MINIMUM ONE-HOUR TEST PERIOD AT RATED VOLTAGE.
- BEFORE DISCONNECTING ANY EXISTING LIGHTS, THE NEW LIGHT SYSTEM SHALL BE WORKING OR TEMPORARY LIGHTING INSTALLED. EXISTING PARK LIGHTS TO BE REMOVED AND NEW PARK LIGHTS SHALL NOT OPERATE AT THE SAME TIME.
- 6. POLES HAVING MULTIPLE LUMINAIRES SHALL HAVE THO (2) CONDUCTORS AND ONE (1) BOND WIRE PER LUMINAIRE. THE CONDUCTORS SHALL BE MARKED AS PAIRS AT THE HANDHOLE: ALL UNDERGROUND CIRCUIT CONDUCTORS SHALL BE BLACK, UNLESS OTHERWISE MOTED.

- 12. ALL JOINTS BETWEEN PVC CONDUITS, COUPLINGS & FITTINGS SHALL BE PREPARED WITH PURPLE PRIMER AND CEMENTED TOGETHER WITH GRAY PVC CEMENT.

- 18. ALL SHORTING CAPS TO BE LOW PROFILE TYPE. NO HIGHER THAN 1-1/2" ABOVE SOCKET.

- 29. ALL CONDUCTORS SHALL BE STRANDED.
- 30. THE NO. 8 STRANDED GROUNDING WIRE IN THE CONCRETE POLE FOUNDATION GOING TO THE GROUNDING PLATE SHALL BE INSULATED WITH XHHW INSULATION THROUGH THE CONCRETE FOUNDATION AND TWO (2) INCHES EACH SIDE OF THE CONCRETE FOUNDATION.
- 31. ALL LIGHTING CONTROL CABINETS SHALL BE INSTALLED WITHIN TWO (2) WEEKS OF BEGINNING THE STREET LIGHT IMPROVEMENTS.
- 32. EACH LUMINAIRE SHALL BE FUSED BEHIND THE POLE HANDHOLE COVER USING AN HEB TYPE FUSE HOLDER WITH INSULATING BOOTS AND A 5-AMP FINN FUSE OR APPROVED EQUAL.
- 33. ALL PULLBOXES AND LIGHTING CONTROL CABINET PADS SHALL BE ADJACENT TO SIDEWALK UNLESS OTHERWISE NOTED.
 34. PROJECT SHALL BE BLUE STAKED BEFORE ANY DIGGING IS STARTED BY CALLING 602-263-1100 OR 811. 35. ALL HIGH-PRESSURE SODIUM LAMPS SHALL CONFORM TO THE APPROPRIATE LAMP SPECIFICATION FOR ITS PARTICULAR WATTAGE. SEE LAMP SPECIFICATION, MESA STD DETAIL M-71.

MINIMUM DEPTH FROM FINISHED GRADE TO TOP OF CONDUIT SHALL BE THIRTY-SIX (36) INCHES. MAXIMUM DEPTH SHALL BE FORTY-EIGHT (48) INCHES, INN ESS OTHERWISE APPROVED. & UNDERGROUND WIRING SHALL BE INSTALLED IN SCHEDULE 40 RIGD PVC CONDUIT, UL APPROVED FOR ABOVE GROUND AND UNDERGROUND USE WITH 90 DEGREE C WIRE. WHERE THRITY-SIX (38) INVIES COVER IS NOT POSSIBLE, GALVANIZED RIGD STEEL CONDUIT (GRS), SHALL BE USED. GRS CONDUIT SHALL BE DOUBLE WRAPPED WITH 20-MIL TAPE TO SIX (6) INVIESS PAST THE THREADED WETAL COUPLING. COMPRESSION COUPLINGS ARE NOT ALLOWED. PRIOR APPROVAL IS NEEDED FOR ANY DESIGN USING GRS CONDUIT. 9. ALL CONDUITS SHALL BE BLOWN OUT USING 90-PSI AIR PRESSURE BEFORE PULLING WIRE. 10. A TWO-PIECE EXPANSION JOINT COUPLING SHALL BE INSTALLED IN PVC CONDUIT RUNS AT INTERVALS NOT TO EXCEED ONE-HUNDRED (100) FEET. 11. ALL FORTY-FIVE (45) AND NINETY (90) DEGREE BENDS OF CONDUIT SHALL HAVE A RADIUS OF NOT LESS THAN EIGHTEEN (18) INCHES. FACTORY BENDS ONLY SHALL BE USED. II: THE CONDUIT LOCATIONS SHOWN ON PLANS ARE DIAGRAMMATIC REPRESENTATIONS ONLY. CONTRACTOR IS TO INSTALL CONDUIT TO AVOID CONFLICTS. THE CONTRACTOR MAY AT HIS OPTION BORE FOR THE PLACEMENT OF COMDUIT PER MESA STD DETAIL M—18 AND M—18.1. ALL CONDUITS SHALL BE PLACED WITHIN EXISTING RIGHT—FAMY DIVILES OF THERMES APPROVED. 14. LIGHTING CONDUITS SHOULD BE INSTALLED PRIOR TO DRIVEWAY, PARKING LOT, OR SIDEWALK INSTALLATIONS. IF LIGHTING CONDUIT IS INSTALLED AFTER DRIVEWAY, PARKING LOT, OR SIDEWALK INSTALLATIONS, CONTRACTOR SHALL BORE CONDUIT UNDER DRIVEWAY. 15. BACKFILL REQUIREMENTS FOR ALL TRENCHES SHALL CONFORM TO ARTICLE 300 OF THE N.E.C., SECTION 601 OF THE UNIFORM STANDARD SPECIFICATIONS, AND MESA STD DETAIL M-19.4 FOR STREET TRENCH BACKFILL AND PAVEMENT REPLACEMENT. 16. WITH THE EXCEPTION OF DETACHED SDEWALKS, PULL BOXES SHALL BE INSTALLED (SEE MESA STD DETAILS M-74.1 AND M-74.2) FIVE (5) FEET (CENTER TO CENTER) BETWEEN STREET LIGHT POLES AND PULL BOXES. 17. PHOTOCELL RECEPTACLE SHALL BE POSITIONED ON LUMINAIRE SO THAT WHEN INSTALLED THE PHOTOCELL WILL FACE NORTH. 19. ALL PHOTOCELL CIRCUIT CONDUIT MUST BE 1-1/2" OR LARGER (TO INCLUDE CONDUIT STUBBING UP AT PHOTOCELL LIGHT POLE). 20. ALL FINISHED POLE FOUNDATIONS, SERVICE ENTRANCE SECTIONS, LIGHTING CONTROL CABINET PADS AND PULLBOXES SHALL BE AT SIDEWALK GRADE UNLESS OTHERWISE NOTED. 21. WHEN CONCRETE FOUNDATIONS ARE POURED, THEY SHALL BE VIBRATED WITH A MECHANICAL VIBRATOR 22. POLE FOUNDATIONS SHALL CURE FOR 72 HOURS BEFORE INSTALLING LIGHT POLES OR REMOVING POLE BRACING. 23. ALL POLE FOUNDATIONS SHALL HAVE A COPPER GROUNDING PLATE PER MESA STD DETAIL M-73.6, G-101. 24. ALL STEEL POLES AND STEEL POLE PARTS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH MAG STANDARD SPECIFICATION 771. 25. ALL POLES SHALL BE WIRED USING TWO (2) NO. 12 BLACK THHIV/THIM 90 DEGREE C STRANDED COPPER CONDUCTORS, 600 VOLT, NEC APPROVED AND ONE (1) NO. 12 GREEN THHIV/THIM STRANDED COPPER BOND WIRE GROUNDING THE LUMINAIRE. WIRES SHALL RUN FROM THE LUMINAIRE TO MINIMUM OF THELVE (12) INCHES BELOW POEL HANDOISE FOR TERMANTON. PALES HAVING MALTIPLE LUMINAIRES SHALL HAVE TWO (2) CONDUCTORS AND ONE (1) BOND WIRE PER LUMINAIRE, AND THE CONDUCTORS SHALL BE MARKED AS PAIRS AT THE HANDHOLE. 26. THREE MIRES SHALL BE RUN CONTINUOUSLY WITHOUT SPLICES FROM THE PHOTOCELL LIGHTING CONTROL CABINET. THEY SHALL BE NO. 12 THEN/FIRM 90 DEGREE C STRANGED COPPER COMPONED RES 500 VOX.1, NEC APPROVED. THE "POWER TOP HOTO'S SHALL BE IDENTIFIED BY HED INSULATION. THE POWER RROM PHOTO'S SHALL BE IDENTIFIED BY HED INSULATION. 27. ALL LIGHTING CONDUCTORS AND BOND WIRES SHALL BE COPPER. 28. ALL PVC CONDUIT RUNS SHALL CONTAIN A MINIMUM NO. 8 GREEM XHHW INSULATED SEVEN (7) STRAND COPPER BOND WIRE.

> Contact Arizona 811 at least two full working days before you begin excavation **ZONA**'811 Call 811 or click Arizona811.com

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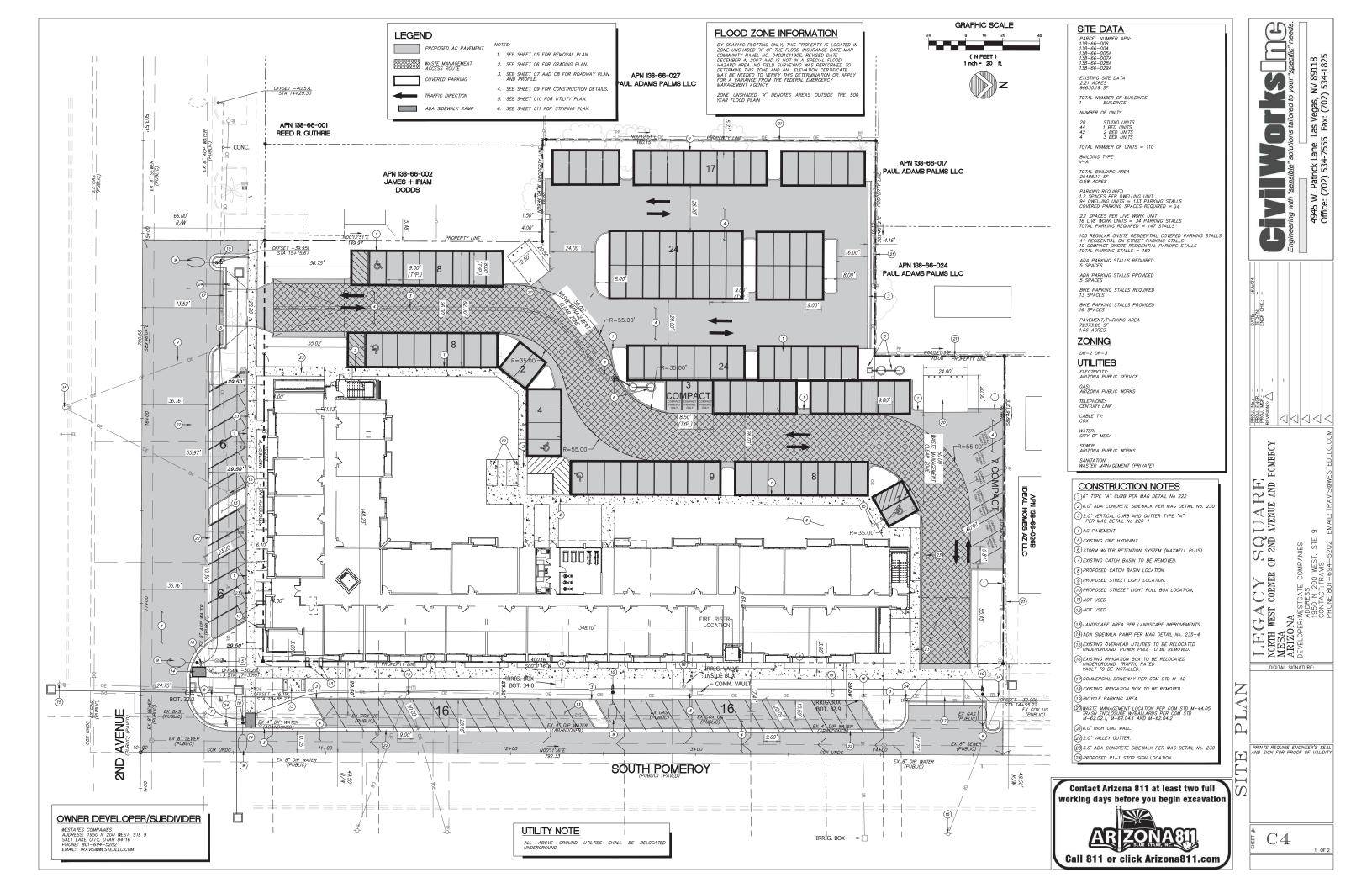
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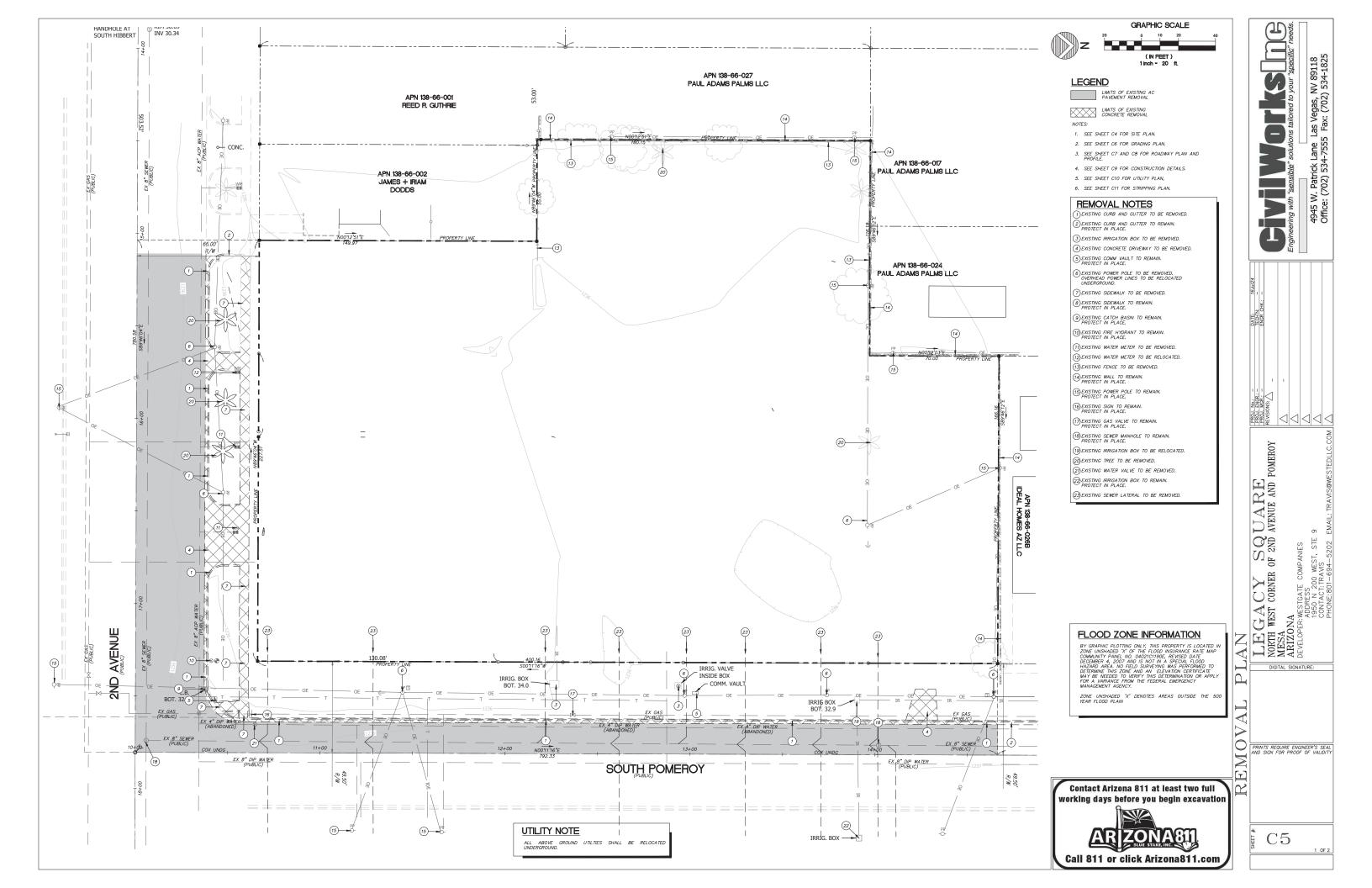
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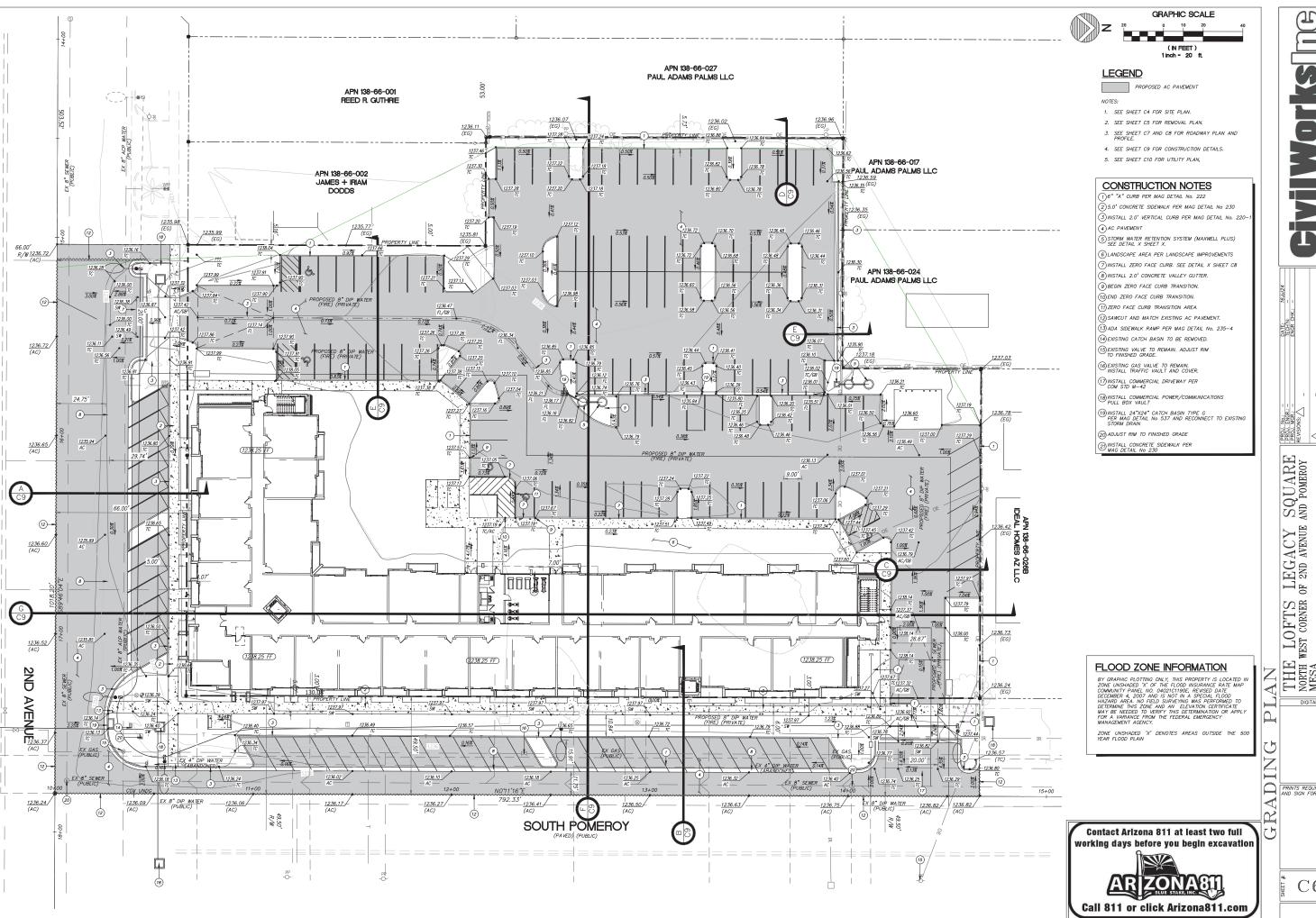
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PRINTS REQUIRE ENGINEER'S SEAL AND SIGN FOR PROOF OF VALIDITY

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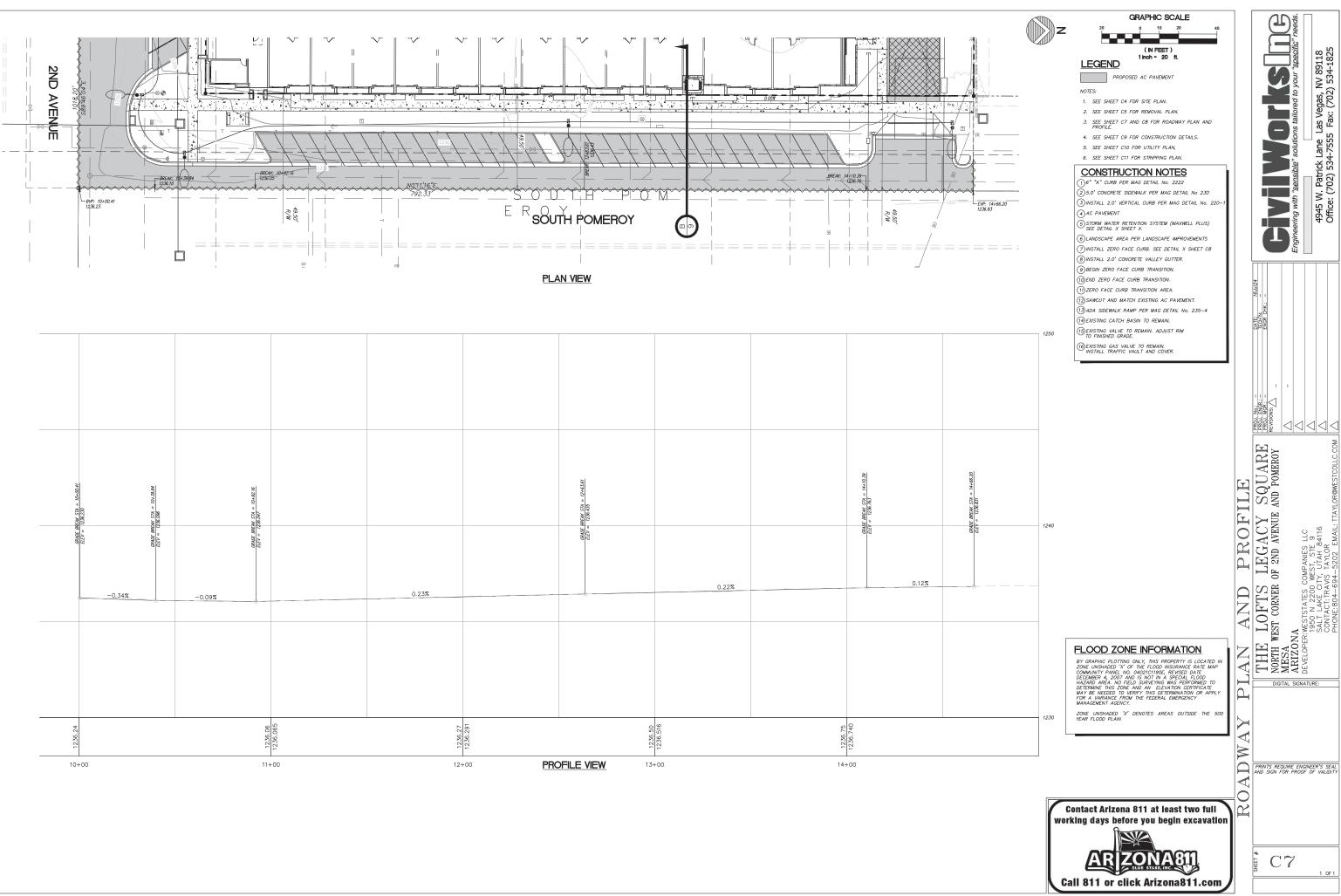


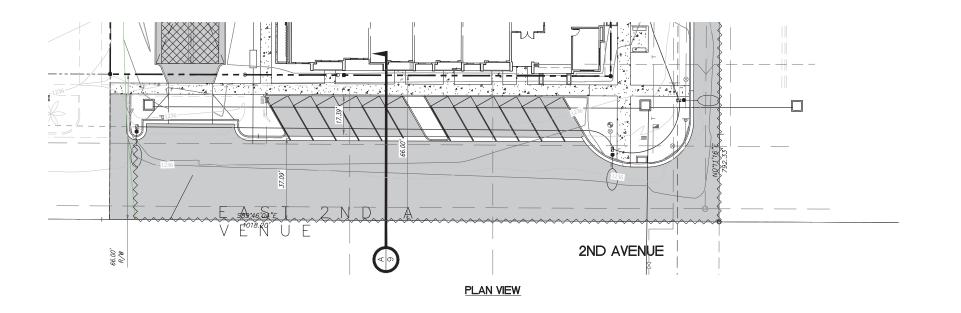


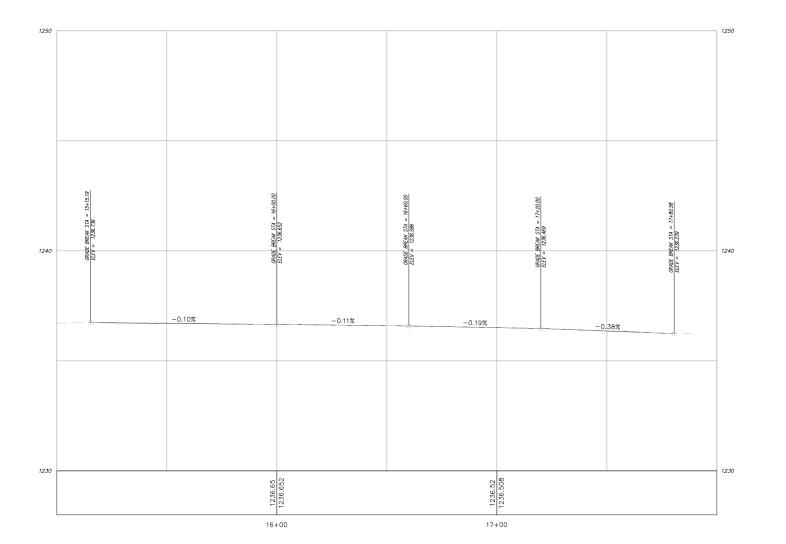
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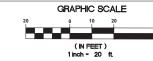






PROFILE VIEW

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LEGEND

PROPOSED AC PAVEMENT
NOTES:

- 1. SEE SHEET C4 FOR SITE PLAN.
- 2. SEE SHEET C5 FOR REMOVAL PLAN.
- 3. SEE SHEET C7 AND C8 FOR ROADWAY PLAN AND PROFILE.
- 4. SEE SHEET C9 FOR CONSTRUCTION DETAILS.
- 5. SEE SHEET C10 FOR UTILITY PLAN,
- 6. SEE SHEET C11 FOR STRIPPING PLAN.

CONSTRUCTION NOTES

①6" "A" CURB PER MAG DETAIL No. 2222
②5.0' CONCRETE SIDEWALK PER MAG DETAIL No 230
③ INSTALL 2.0' VERTICAL CURB PER MAG DETAIL No. 220

(4) AC PAVEMENT

(5) STORM WATER RETENTION SYSTEM (MAXWELL PLUS)
SEE DETAIL X SHEET X.
(6) LANDSCAPE AREA PER LANDSCAPE IMPROVEMENTS

7) INSTALL ZERO FACE CURB. SEE DETAIL X SHEET C8

(8) INSTALL 2.0' CONCRETE VALLEY GUTTER.
(9) BEGIN ZERO FACE CURB TRANSITION.

10 END ZERO FACE CURB TRANSITION.

(1) ZERO FACE CURB TRANSITION AREA.
(12) SAWCUT AND MATCH EXISTING AC PAVEMENT.

13 ADA SIDEWALK RAMP PER MAG DETAIL No. 235-4

(14) EXISTING CATCH BASIN TO REMAIN.
(15) EXISTING VALVE TO REMAIN. ADJUST RIM TO FINISHED GRADE.

16 EXISTING GAS VALVE TO REMAIN. INSTALL TRAFFIC VAULT AND COVER.

Engineering with "sensible" solutions tailored to your "specific and the sensible of the sensi

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LOFTS LEGACY SQU.
WEST CORNER OF 2ND AVENUE AND PON
NA
PER-WESTSTATES COMPANIES LLC
1950 N 2200 WEST, STE 9

FLOOD ZONE INFORMATION

PY GRAPHIC PLOTTING ONLY. THIS PROPERTY IS LOCATED IN ZONE UNISHADED X* OF THE FLODD INSURANCE RATE MAP COMMUNITY PANEL NO. AGEDICATION REVISED DATE DECEMBER 4, 2007 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE AND AN ELEVATION CERTIFICATE MAY BE NEEDED TO VERTIFY THIS DETERMINATION OR APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

ZONE UNSHADED 'X' DENOTES AREAS OUTSIDE THE 50 YEAR FLOOD PLAIN



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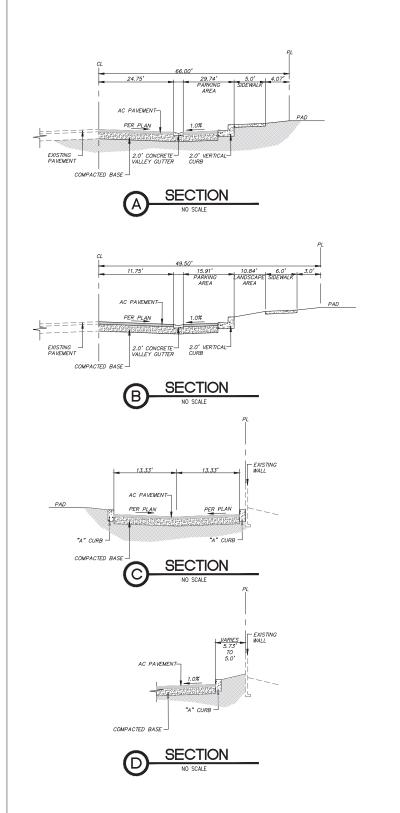
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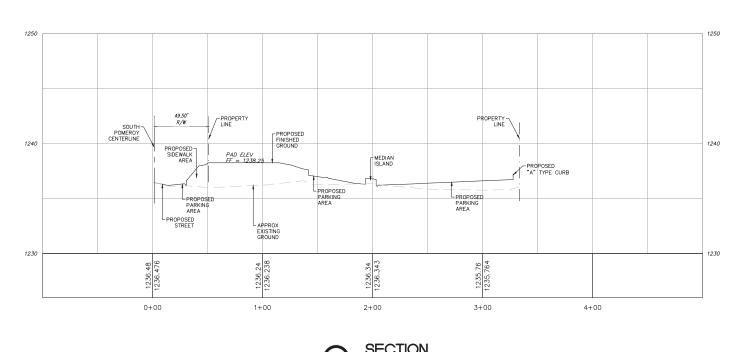
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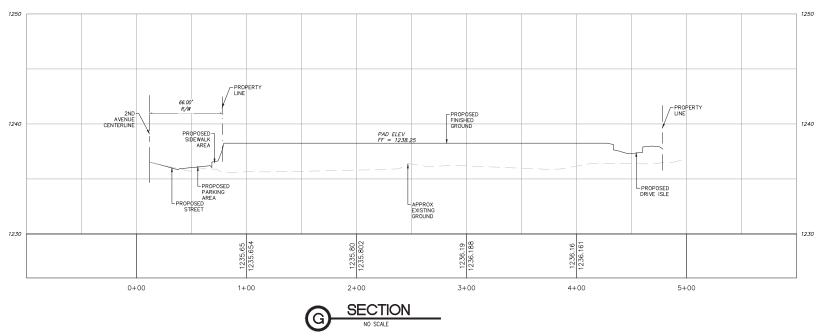
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SECTIONS AND DETAILS

THE LOFTS LEGACY SQUARE
NORTH WEST CORNER OF 2ND AVENUE AND POMEROY
ARIZONA
DEVELOPER: WESTSTATES COMPANIES LLC PRINTS REQUIRE ENGINEER'S SEAL AND SIGN FOR PROOF OF VALIDITY

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