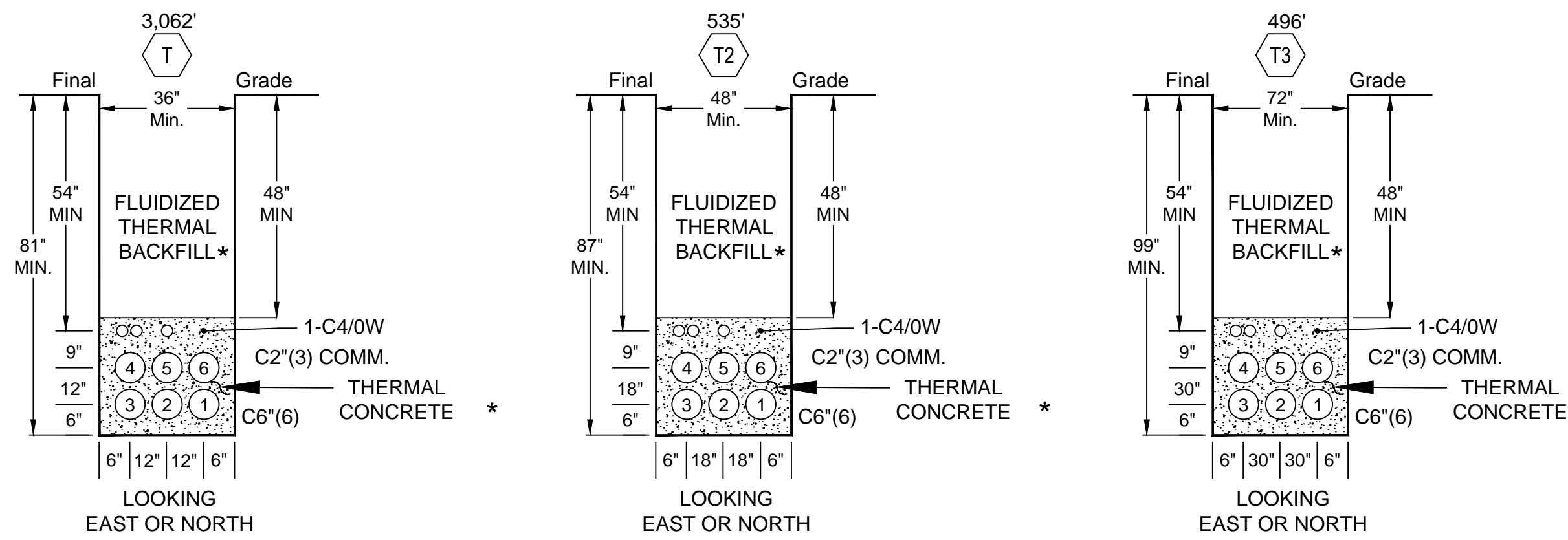
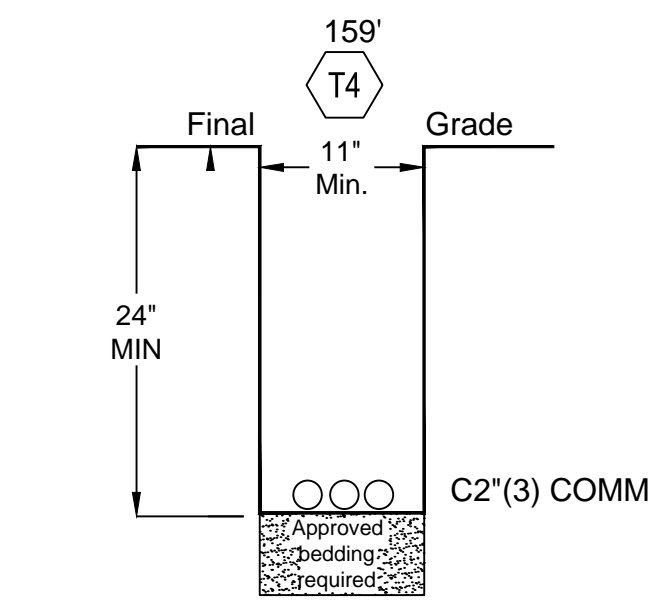


TRENCH DETAILS



* ONLY APPROVED SUPPLIERS TO BE USED FOR POWER DUCT BANK ENCASEMENT OR BACKFILL

* TO BE USED WHEN TRENCH DEPTH EXCEEDS 7'. ONLY APPROVED SUPPLIERS TO BE USED FOR POWER DUCT BANK ENCASEMENT OR BACKFILL



CALL TWO WORKING DAYS BEFORE YOU DIG
 602-233-1100
 1-800-STAKE-IT
 (OUTSIDE MARICOPA COUNTY)

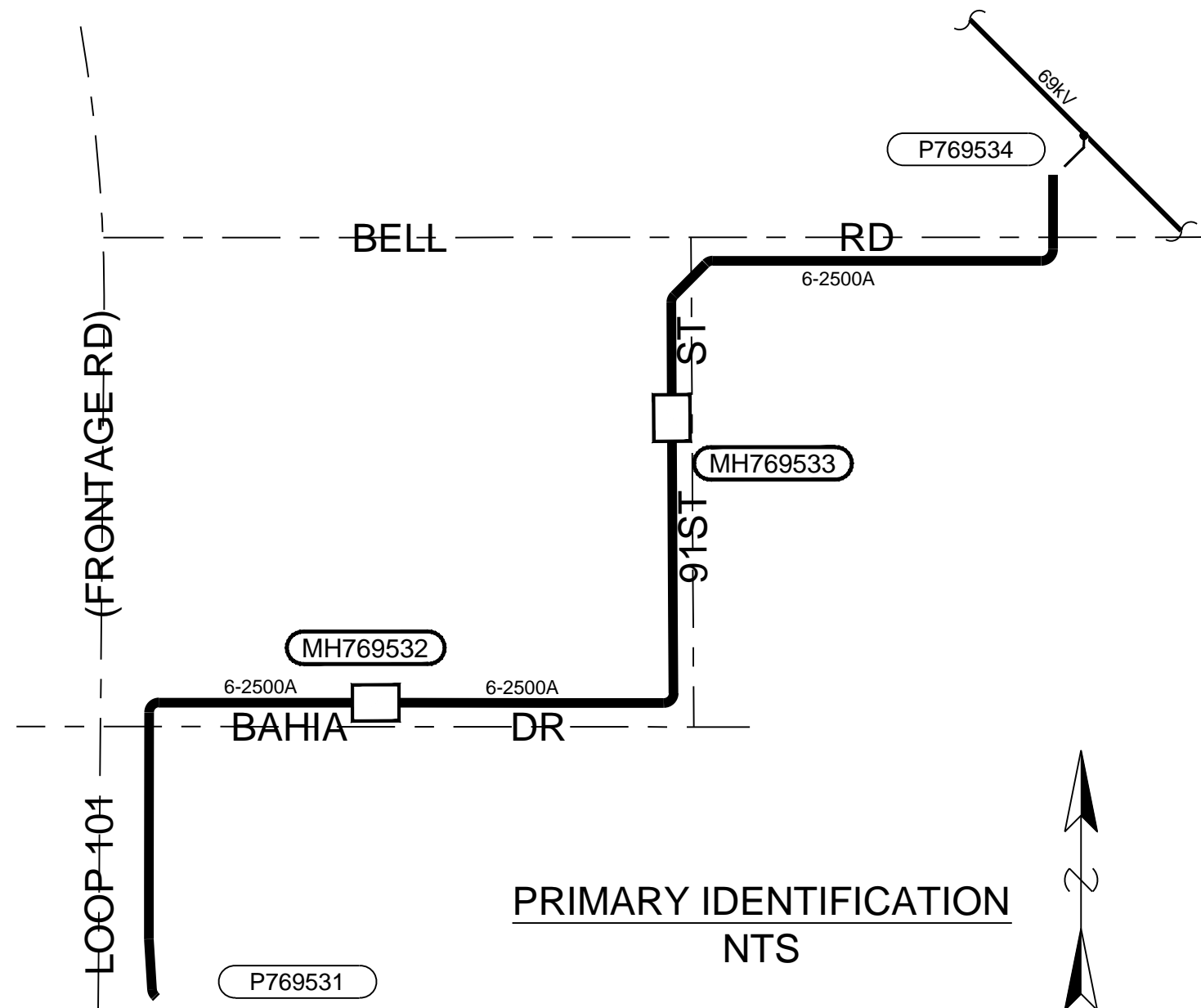
ISSUED-FOR-REVIEW
FINAL DESIGN
 WA304131 RBR 1/24/17

GENERAL TRENCHING NOTES

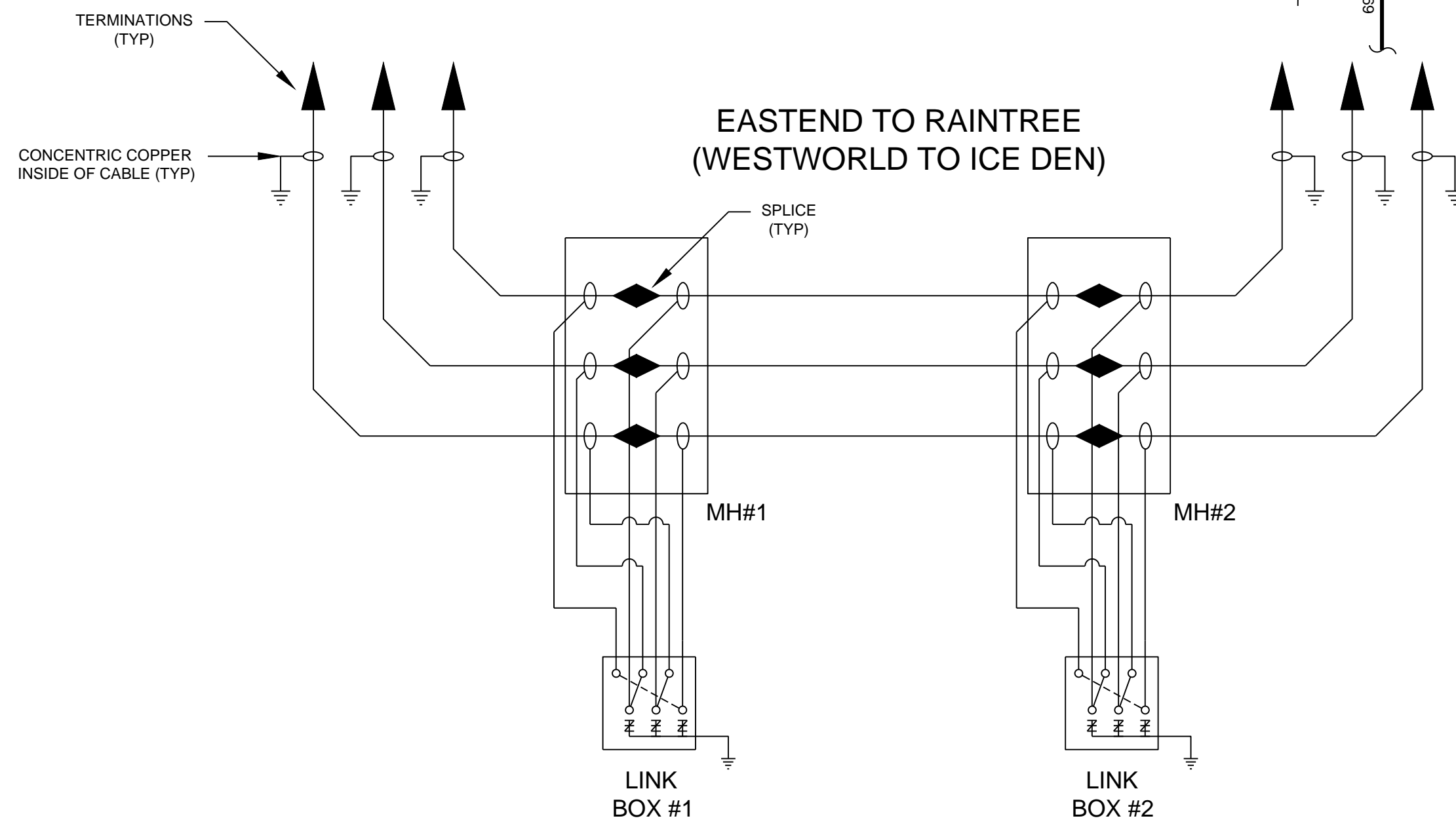
- ALL WORK TO COMPLY WITH THE APS UNDERGROUND DISTRIBUTION CONSTRUCTION STANDARDS (T.A.D.C.S.) MANUAL.
- DENOTES BACKFILL AND COMPACTION PER APS SPECIFICATIONS AS DEFINED IN THE 8601 SECTION OF THE APS T.A.D.C.S. MANUAL. BEDDING, SHADING, AND BACKFILL SHALL CONFORM TO THE CITY OF PARADISE VALLEY SUPPLEMENT MAG SPEC. #2200-2. WHERE HALF-SACK CEMENT SLURRY IS UTILIZED FOR BACKFILL, ONLY PRODUCT CODE PHCLSM IS ACCEPTABLE.
- MAINTAIN MINIMUM 12" VERTICAL SEPARATION BETWEEN ALL APS FACILITIES (I.E. DUCT BANK, CONDUIT, AND CABLE) AND ANY EXISTING UNDERGROUND CROSSING CONFLICTS. MAINTAIN A MINIMUM OF 24" VERTICAL SEPARATION WHEN CROSSING ANY PROPOSED UNDERGROUND CONFLICTS.
- THE USABILITY OF ALL CONDUIT SYSTEMS MUST BE ENSURED. THE PARTY RESPONSIBLE FOR INSTALLING THE CONDUIT SHALL MANDRELL, MANDRELLING SHALL BE PER APS SPECIFICATIONS AS DEFINED IN THE 8601 SECTION OF THE APS T.A.D.C.S. MANUAL, AND SUPPLEMENTAL 69KV CRITERIA.
- A POLYESTER, PRE-LUBRICATED FLAT STRAP PULL LINE (8895.MR) IS REQUIRED IN ALL CONDUIT RUNS. THE PULL LINE SHALL BE PROVIDED BY APS, AND INSTALLED BY THE APS CONTRACTOR.
- TRENCH DEPTHS SHOWN ARE MINIMUM REQUIREMENTS. CONTRACTOR TO ADJUST TRENCH DEPTH AS NECESSARY TO ACCOMMODATE EXISTING OR FUTURE CONFLICTS, AND FIELD CONSTRUCTION.
- THE TRENCH BOTTOM SHALL BE SMOOTH, FLAT AND WITHOUT SURFACE IRREGULARITIES. OTHERWISE A SUFFICIENT AMOUNT OF BEDDING MATERIAL SHALL BE INSTALLED TO PROVIDE THE REQUIRED SURFACE. THE BEDDING MATERIAL SHALL NOT CONTAIN ROCKS LARGER THAN 1-1/2" IN THEIR GREATEST DIMENSION. THE BEDDING OR MATERIAL SHALL CONTAIN A SUFFICIENT VOLUME OF FINES TO FILL ALL VOIDS.
- CONTRACTOR SHALL NOT TRENCH CLOSER THAN 2' TO APS FACILITIES (EXCEPT 4' TO POLES) UNLESS AN APS REPRESENTATIVE IS PRESENT.
- WHEN PASSING OVER OR UNDER CONFLICTS, TRENCH SHALL NOT BE SLOPED STEEPER THAN 1:12 RATIO OR MINIMUM RADIUS OF 160 TIMES THE OUTSIDE DIAMETER OF CONDUIT.
- TRENCH WIDTHS SHOWN ARE MINIMUM REQUIREMENTS BASED ON CONDUIT SIZES. TRENCHES 46 INCHES OR MORE IN DEPTH, MEASURED TO THE TOP OF THE INSTALLED BEDDING MATERIAL, SHALL BE A MINIMUM OF 16 INCHES IN WIDTH WHEREVER A WORKER MUST ENTER THE TRENCH. TRENCHES 60 INCHES OR MORE IN DEPTH, MEASURED TO THE TOP OF THE INSTALLED BEDDING MATERIAL, SHALL BE A MINIMUM OF 24 INCHES IN WIDTH WHEREVER A TRENCH MUST BE SHORED.
- REFER TO 8648 FOR MINIMUM TRENCH DEPTH REQUIREMENTS AT THE APPROACH TO, AND BENEATH A.P.S. PAD-MOUNTED EQUIPMENT AND SUBSTRUCTURES. THESE MINIMUMS ARE REQUIRED TO ENSURE ADEQUATE VERTICAL SPACE IS AVAILABLE TO INSTALL THE CONDUIT SWEEPS. CONDUIT SWEEPS SHALL NOT BE CUT-OFF TO FACILITATE INSTALLATION.

DUCT BANK CONSTRUCTION

- ALL WORK TO COMPLY WITH APS TRANSMISSION & DISTRIBUTION CONSTRUCTION STANDARDS (T.A.D.C.S.) MANUAL.
- DENOTES CONDUIT ENCASED IN CONCRETE AS SPECIFIED IN THE 8601 SECTION OF THE APS T.A.D.C.S. MANUAL. ALL CONDUITS ARE TYPE D.B.(DIRECT-BURIAL), EXCEPT THE 5-INCH SHALL BE TYPE E.B.(ENCASED BURIAL), UNLESS NOTED OTHERWISE. SHORT SECTIONS OF CONCRETE-ENCASED 5-INCH IS TO BE INSTALLED DIRECT-BURIED. THAT AVOIDS HAVING TO DELIVER AND TRACK TWO DIFFERENT TYPES OF 5-INCH CONDUIT.
- A MINIMUM 3-INCH CONCRETE ENVELOPE IS REQUIRED AROUND DUCTS. CONCRETE TO BE PER THE 8601 SECTION OF THE APS T.A.D.C.S. MANUAL, UNLESS OTHERWISE SPECIFIED.
- SPACERS AND REBAR FOR DUCT BANKS ARE TO BE INSTALLED PER THE 8892 AND 8895 SECTIONS OF THE APS T.A.D.C.S. MANUAL.
- WHERE A CONCRETE-ENCASED DUCT BANK IS STUBBED OUT, EACH CONDUIT SHALL EXTEND A MINIMUM OF 1 FOOT BEYOND THE CONCRETE ENCASEMENT TO FACILITATE FUTURE EXTENSION.
- ALL SPECIFIED TRENCH DEPTHS ARE THE MINIMUM REQUIRED.
- WHENEVER A DUCT BANK IS TO BE INSTALLED PARALLELING A VERY CURVED ALIGNMENT OR AROUND A LONG RADIUS BEND. THE MINIMUM TRENCH WIDTH SHOULD BE INCREASED BY APPROXIMATELY 4 INCHES. THE INCREASED TRENCH WIDTH WILL FACILITATE INSTALLATION OF THE DUCT BANK AND ENSURE ADEQUATE ENCASEMENT THICKNESS ON BOTH SIDES OF THE DUCT BANK.
- THE USABILITY OF ALL CONDUIT SYSTEMS MUST BE ENSURED. THE PARTY RESPONSIBLE FOR INSTALLING THE CONDUIT SHALL MANDRELL. MANDRELLING SHALL BE PER APS SPECIFICATIONS AS DEFINED IN THE 8601 SECTION OF THE APS T.A.D.C.S. MANUAL, AND SUPPLEMENTAL 69KV CRITERIA.
- ALL CONDUIT STUB LOCATIONS SHALL BE MARKED WITH AN ELECTRONIC MARKER.
- ALL EMPTY CONDUIT ENDS SHALL BE PLUGGED WITH EXPANDABLE PLUGS WHEN TERMINATED INSIDE AN EQUIPMENT ENCLOSURE. GLUE AND CAP ALL EMPTY CONDUIT STUBBED IN SOIL OR TERMINATED OUTSIDE OF AN EQUIPMENT ENCLOSURE.



PRIMARY IDENTIFICATION NTS



SHEATH GROUNDING SCHEMATIC

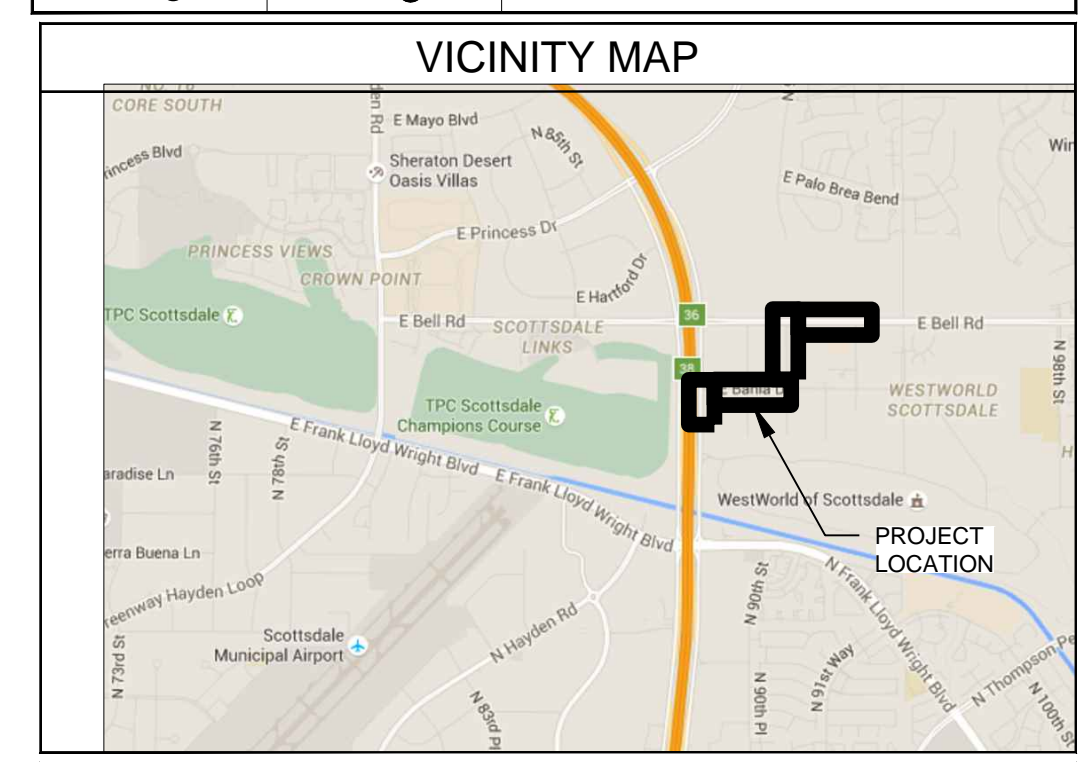
TOTAL TRENCH (ft): 3,062'
 TOTAL TRENCH IN R/W (ft): 2,198'

TOTAL WIRE DATA FOOTAGE (Install):
 FEEDER
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 COMMUNICATIONS
 APN#100683= 4,459'

EASTEND-RAINTREE UG AT BELL EAST END SUBSTATION WA304131

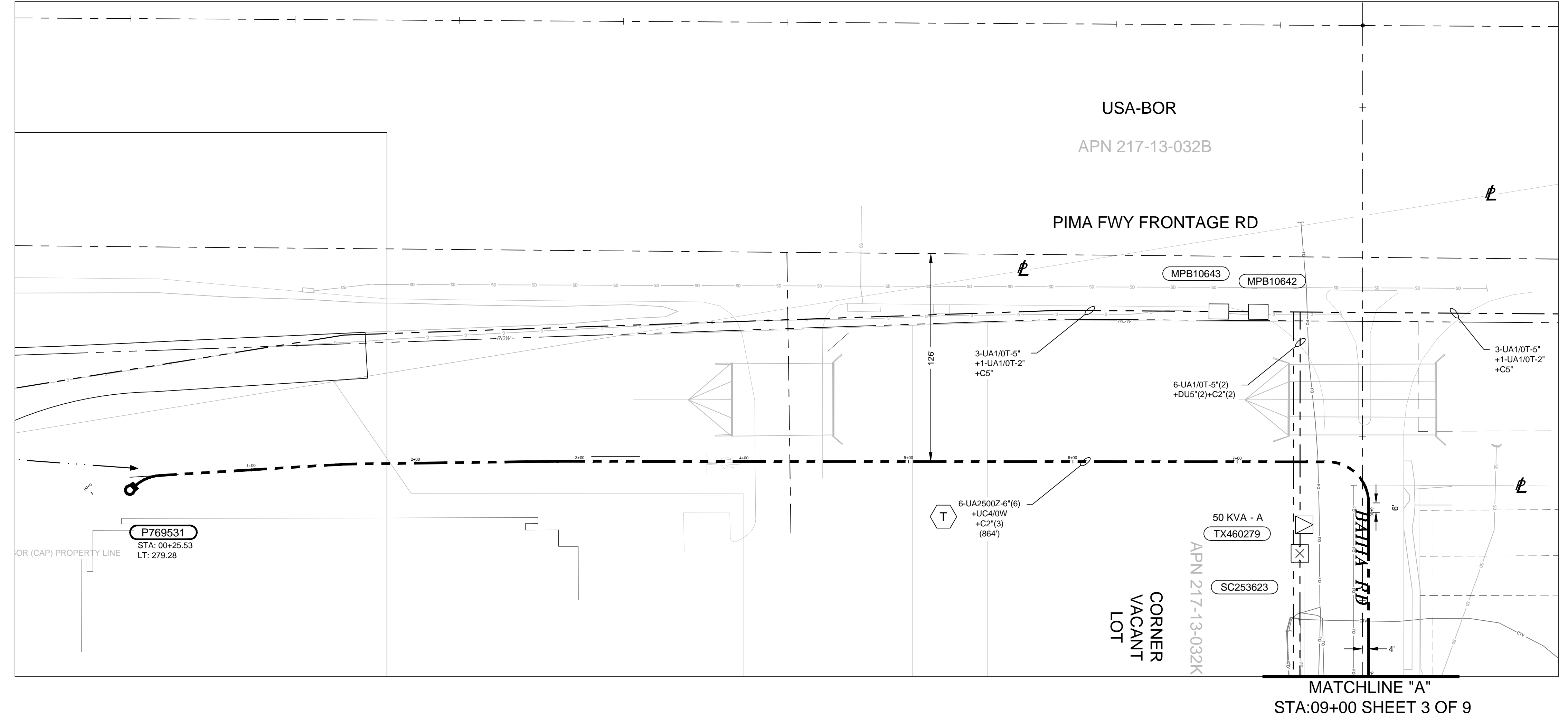
APS UTILITIES KEY			
EXISTING		PROPOSED	
W	WATER	W	WATER
S	SEWER	S	SEWER
G	GAS	G	GAS
SD	STORM DRAIN	SD	STORM DRAIN
IRR	IRRIGATION	IRR	IRRIGATION
TS	TRAFFIC SIGNAL	TS	TRAFFIC SIGNAL
T	TELE	T	TELE
CATV	CATV	CATV	CATV
FO	FIBER	FO	FIBER
UG ELECTRIC NOMINAL TRANSMISSION (69KV)*			
UG ELECTRIC NOMINAL PRIMARY (12,470/7,200V)*			
UG ELECTRIC NOMINAL SECONDARY/SERVICE (120/240V)*			
OH ELECTRIC NOMINAL TRANSMISSION (69KV)*			
OH ELECTRIC NOMINAL PRIMARY (12,470/7,200V)*			
OH ELECTRIC NOMINAL SECONDARY/SERVICE (120/240V)*			
CONDUIT			
TRENCH RUNNING LINE			
* UNLESS OTHERWISE NOTED			

APS SYMBOLS LEGEND		
EXISTING EQUIPMENT	PROPOSED EQUIPMENT	DESCRIPTION
		- PADMOUNTED TRANSFORMER
		- SWITCHING CABINETS
		- 10 SWITCHING CABINET
		- OH/UG CAPACITOR BANK
		- J-BOX / PULL BOX
		- MANHOLES
		- OH TRANSFORMER
		- OH SWITCH (KPF)
		- APS OWNED POLE
		- APS OWNED STEEL POLE
		- APS OWNED JOINT USE POLE
		- DIP (TRANSITION) POLE
		- STREET LIGHT
		- DUSK TO DAWN LIGHT



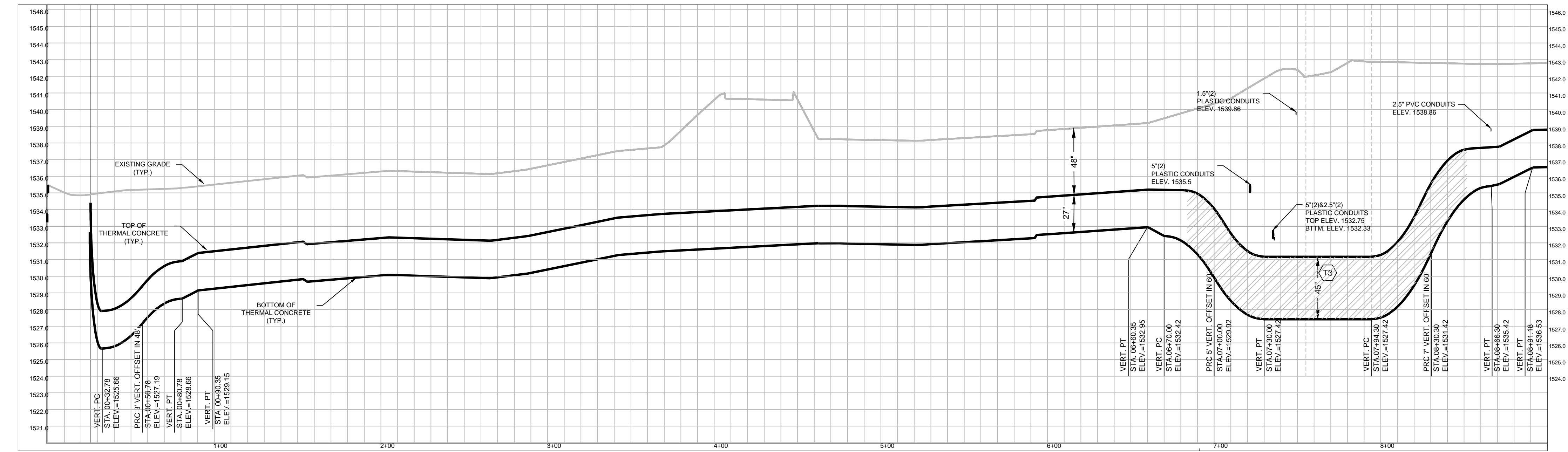
NW 1/4 Sec 6 T 3N R 5E MAP# 36-49
 NE 1/4 Sec 6 T 3N R 5E MAP# 36-50
 CONTACT: PAUL RICHARDS
 PHONE: 602-371-6186 PGR/MOBILE: 602-316-5152

aps		EASTEND TO RAIN TREE-UG AT BELL EASTEND SUBSTATION	
WO#:	WA304131	DATE:	1/24/17
BY:	R. ROBERTS	SCALE:	1:40 @ "D" SIZE
FILENAME:	WA304131.DWG	SHEET	1 OF 9



APS UTILITIES KEY	
EXISTING	PROPOSED
—	WATER — W —
—	SEWER — S —
—	GAS — G —
—	STORM DRAIN — SD —
—	IRRIGATION — IRR —
—	TRAFFIC SIGNAL — TS —
—	TELE — T —
—	CATV — CATV —
—	FIBER — FO —
UG ELECTRIC NOMINAL TRANSMISSION (69KV)*	
UG ELECTRIC NOMINAL PRIMARY (12,470/7,200V)*	
UG ELECTRIC NOMINAL SECONDARY/SERVICE (120/240V)*	
OH ELECTRIC NOMINAL TRANSMISSION (69KV)*	
OH ELECTRIC NOMINAL PRIMARY (12,470/7,200V)*	
OH ELECTRIC NOMINAL SECONDARY/SERVICE (120/240V)*	
CONDUIT	
TRENCH RUNNING LINE	
* UNLESS OTHERWISE NOTED	

APS SYMBOLS LEGEND		
EXISTING EQUIPMENT	PROPOSED EQUIPMENT	DESCRIPTION
		- PADMOUNTED TRANSFORMER
		- SWITCHING CABINETS
		- 1Ø SWITCHING CABINET
		- OH/UG CAPACITOR BANK
		- J-BOX / PULL BOX
		- MANHOLES
		- OH TRANSFORMER
		- OH SWITCH (KPF)
		- APS OWNED POLE
		- APS OWNED STEEL POLE
		- APS OWNED JOINT USE POLE
		- DIP (TRANSITION) POLE
		- STREET LIGHT
		- DUSK TO DAWN LIGHT

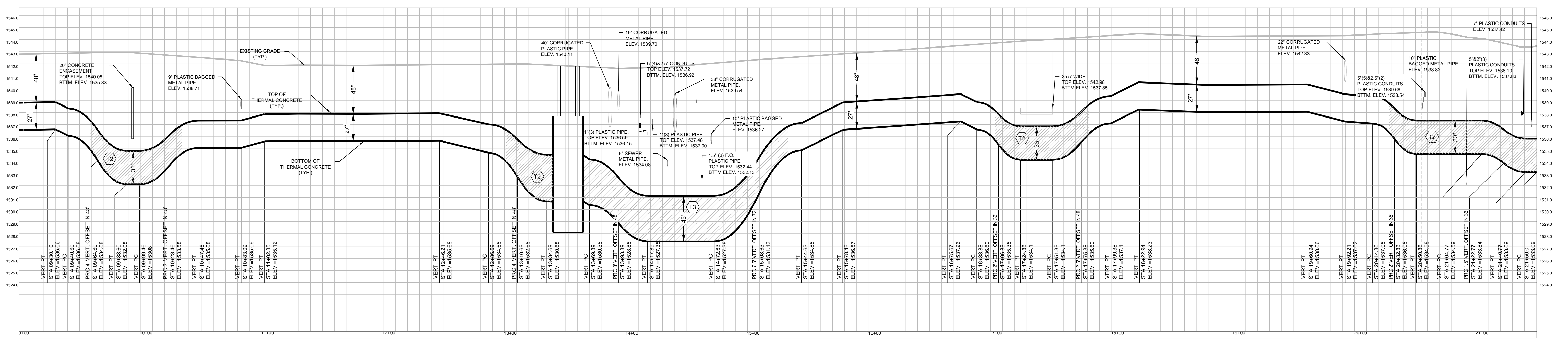
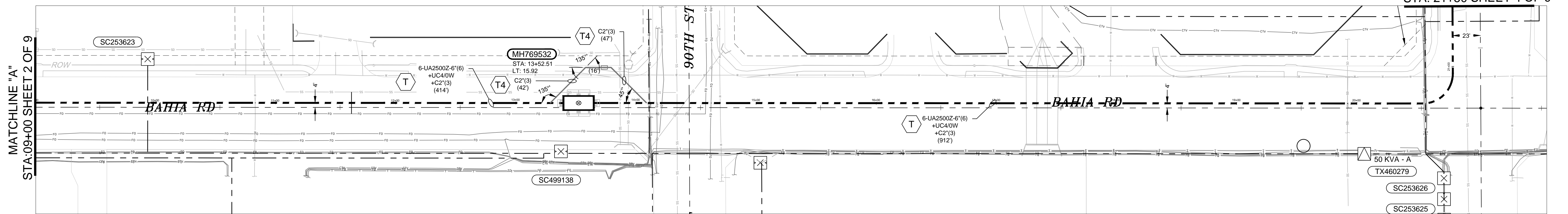


CALL TWO WORKING DAYS BEFORE YOU DIG
602-253-1100
1-800-STAKE-IT
 (OUTSIDE MARICOPA COUNTY)

NW1/4	Sec 6	T 3N	R 5E	MAP# 36-49
NE 1/4	Sec 6	T 3N	R 5E	MAP# 36-50
3				
2				
1				
NO.	MAXIMO	DATE	DESCRIPTION	BY

CONTACT: PAUL RICHARDS
 PHONE: 602-371-6186 PGR/MOBILE: 602-316-5152

		EASTEND TO RAIN TREE-UG AT BELL EASTEND SUBSTATION	
WO#:	WA304131	DATE:	1/24/17
BY:	R. ROBERTS	SCALE:	1:40 @ "D" SIZE
FILENAME:	WA304131.DWG	SHEET	2 OF 9



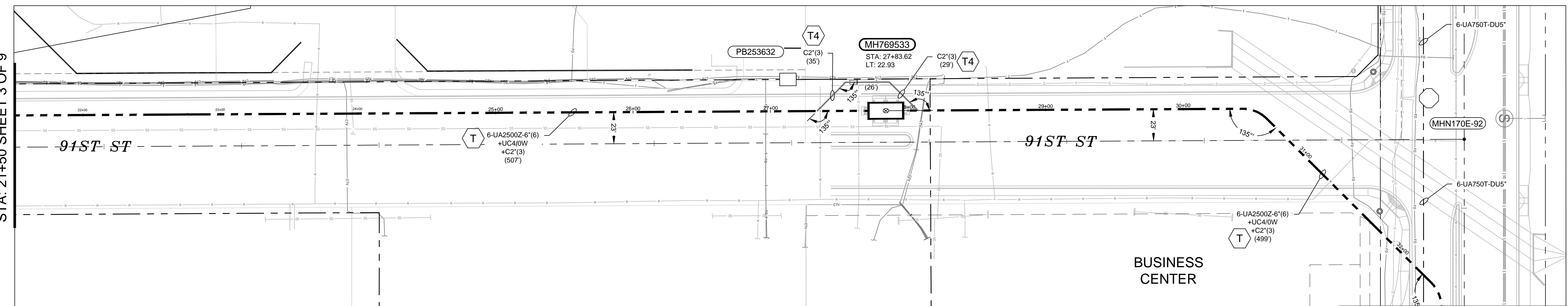
APS UTILITIES KEY	
EXISTING	PROPOSED
—	WATER — W
—	SEWER — S
—	GAS — G
—	STORM DRAIN — SD
IRR	IRRIGATION — IRR
TS	TRAFFIC SIGNAL — TS
T	TELE — T
FO	CATV — CATV
	FIBER — FO
UG ELECTRIC NOMINAL TRANSMISSION (69KV)*	
UG ELECTRIC NOMINAL PRIMARY (12,470/7,200V)*	
UG ELECTRIC NOMINAL SECONDARY/SERVICE (120/240V)*	
OH ELECTRIC NOMINAL TRANSMISSION (69KV)*	
OH ELECTRIC NOMINAL PRIMARY (12,470/7,200V)*	
OH ELECTRIC NOMINAL SECONDARY/SERVICE (120/240V)*	
CONDUIT	
TRENCH RUNNING LINE	
* UNLESS OTHERWISE NOTED	

APS SYMBOLS LEGEND		DESCRIPTION
EXISTING EQUIPMENT	PROPOSED EQUIPMENT	
		- PADMOUNTED TRANSFORMER
		- SWITCHING CABINETS
		- 1Ø SWITCHING CABINET
		- OH/UG CAPACITOR BANK
		- J-BOX / PULL BOX
		- MANHOLES
		- OH TRANSFORMER
		- OH SWITCH (KPF)
		- APS OWNED POLE
		- APS OWNED JOINT USE POLE
		- DIP (TRANSITION) POLE
		- STREET LIGHT
		- DUSK TO DAWN LIGHT

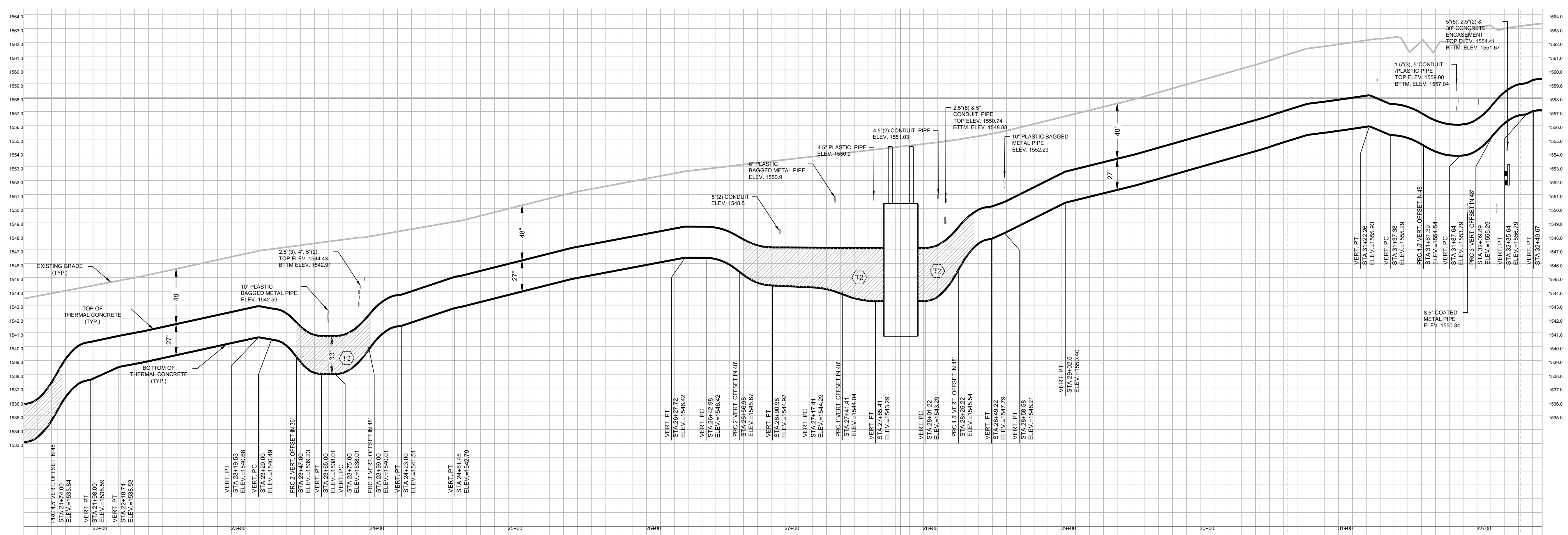
CALL TWO WORKING DAYS BEFORE YOU DIG
602-233-1100
1-800-STAKE-IT
 (OUTSIDE MARICOPA COUNTY)

NW 1/4	Sec 6	T 3N	R 5E	MAP# 36-49
NE 1/4	Sec 6	T 3N	R 5E	MAP# 36-50
3				
2				
1				
NO.	MAXIMO	DATE	DESCRIPTION	BY
CONTACT: PAUL RICHARDS				
PHONE: 602-371-6186 PGR/MOBILE: 602-316-5152				
		EASTEND TO RAIN TREE-UG AT BELL		
		EASTEND SUBSTATION		
WO#:	WA304131	DATE:	1/24/17	
BY:	R. ROBERTS	SCALE:	1:40 @ "D" SIZE	
FILENAME:	WA304131.DWG	SHEET	3 OF 9	

MATCHLINE "B"
 STA: 21+50 SHEET 3 OF 9

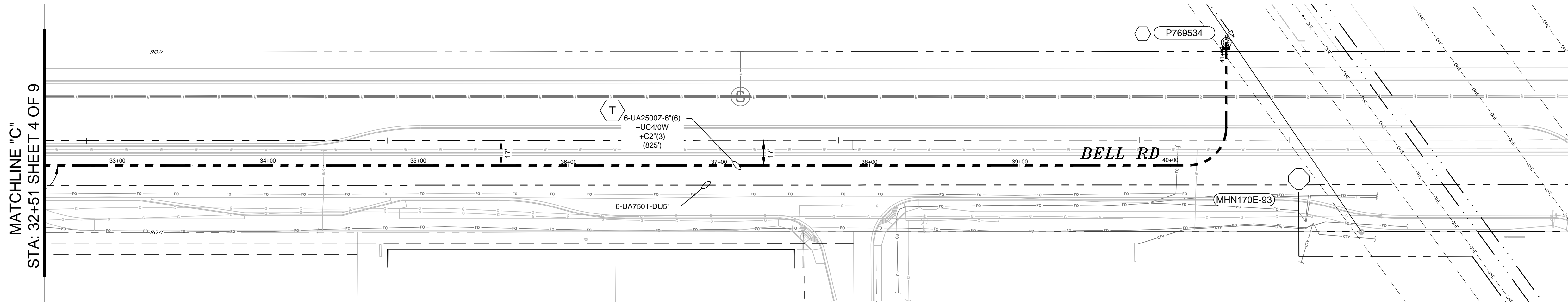


MATCHLINE "C"
 STA: 32+51 SHEET 5 OF 9



CALL TWO WORKING DAYS
 BEFORE YOU DIG
602-233-1100
1-800-STRIKE-IT
 (OUTSIDE MARICOPA COUNTY)

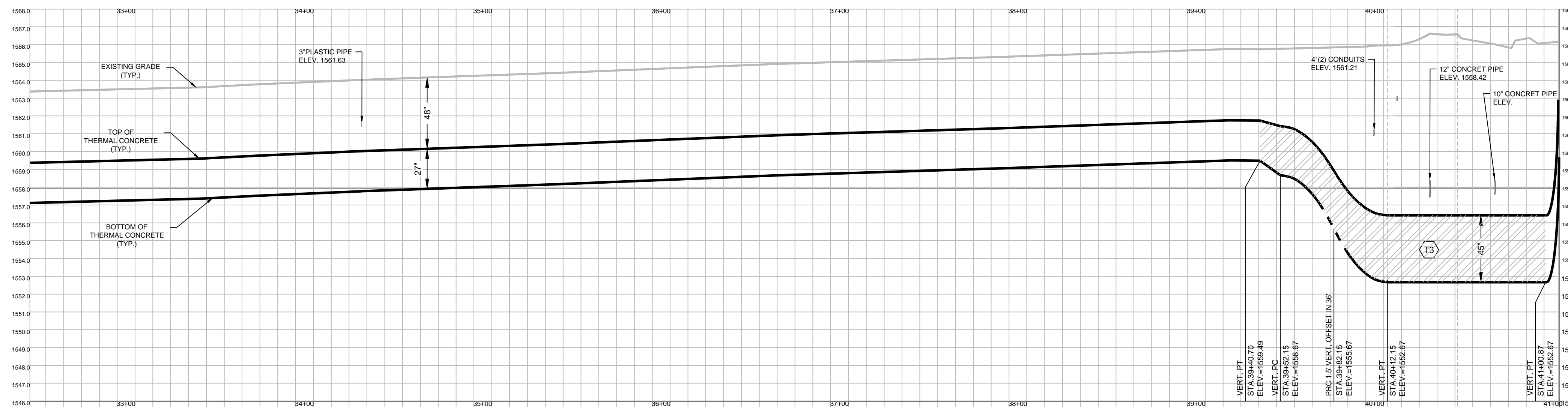
NW 1/4 Sec 6 T 3N R 5E	MAP# 36-49	CONTACT: PAUL RICHARDS			
NE 1/4 Sec 6 T 3N R 5E	MAP# 36-50	PHONE: 602-371-6186 PGR/MOBILE: 602-316-5152			
3		EASTEND TO RAIN TREE-UG AT BELL EASTEND SUBSTATION			
2					
1					
NO.	MAXIMO	DATE	DESCRIPTION	BY	WO#: WA304131 DATE: 1/24/17 BY: R. ROBERTS SCALE: 1:40 @ "D" SIZE FILENAME: WA304131.DWG SHEET 4 OF 9



MATCHLINE "C"
 STA: 32+51 SHEET 4 OF 9

APS UTILITIES KEY	
EXISTING	PROPOSED
---	WATER W
---	SEWER S
---	GAS G
---	STORM DRAIN SD
---	IRRIGATION IRR
---	TRAFFIC SIGNAL TS
---	TELE T
---	CATV CATV
---	FIBER FO
UG ELECTRIC NOMINAL TRANSMISSION (69KV)*	
UG ELECTRIC NOMINAL PRIMARY (12,470/7,200V)*	
UG ELECTRIC NOMINAL SECONDARY/SERVICE (120/240V)*	
OH ELECTRIC NOMINAL TRANSMISSION (69KV)*	
OH ELECTRIC NOMINAL PRIMARY (12,470/7,200V)*	
OH ELECTRIC NOMINAL SECONDARY/SERVICE (120/240V)*	
CONDUIT	
TRENCH RUNNING LINE	
* UNLESS OTHERWISE NOTED	

APS SYMBOLS LEGEND		DESCRIPTION
EXISTING EQUIPMENT	PROPOSED EQUIPMENT	
		- PADMOUNTED TRANSFORMER
		- SWITCHING CABINETS
		- 1Ø SWITCHING CABINET
		- OH/UG CAPACITOR BANK
		- J-BOX / PULL BOX
		- MANHOLES
		- OH TRANSFORMER
		- OH SWITCH (KPF)
		- APS OWNED POLE
		- APS OWNED STEEL POLE
		- APS OWNED JOINT USE POLE
		- DIP (TRANSITION) POLE
		- STREET LIGHT
		- DUSK TO DAWN LIGHT



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1-800-STAKE-IT
 (OUTSIDE MARICOPA COUNTY)

NW1/4	Sec 6	T 3N	R 5E	MAP# 36-49
NE 1/4	Sec 6	T 3N	R 5E	MAP# 36-50
3				
2				
1				
NO.	MAXIMO	DATE	DESCRIPTION	BY

CONTACT: PAUL RICHARDS
 PHONE: 602-371-6186 PGR/MOBILE: 602-316-5152

		EASTEND TO RAIN TREE-UG AT BELL EASTEND SUBSTATION	
WO#:	WA304131	DATE:	1/24/17
BY:	R. ROBERTS	SCALE:	1:40 @ "D" SIZE
FILENAME:	WA304131.DWG	SHEET	5 OF 9

EASTEND-RAINTREE UG AT BELL
EAST END SUBSTATION
WA304131

ISSUED-FOR-REVIEW
FINAL DESIGN
WA304131 RBR 1/24/17

APS UTILITIES KEY

EXISTING	PROPOSED
—	WATER — W —
—	SEWER — S —
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OH ELECTRIC NOMINAL SECONDARY/SERVICE (120/240V)*	
CONDUIT	
TRENCH RUNNING LINE	
* UNLESS OTHERWISE NOTED	

APS SYMBOLS LEGEND

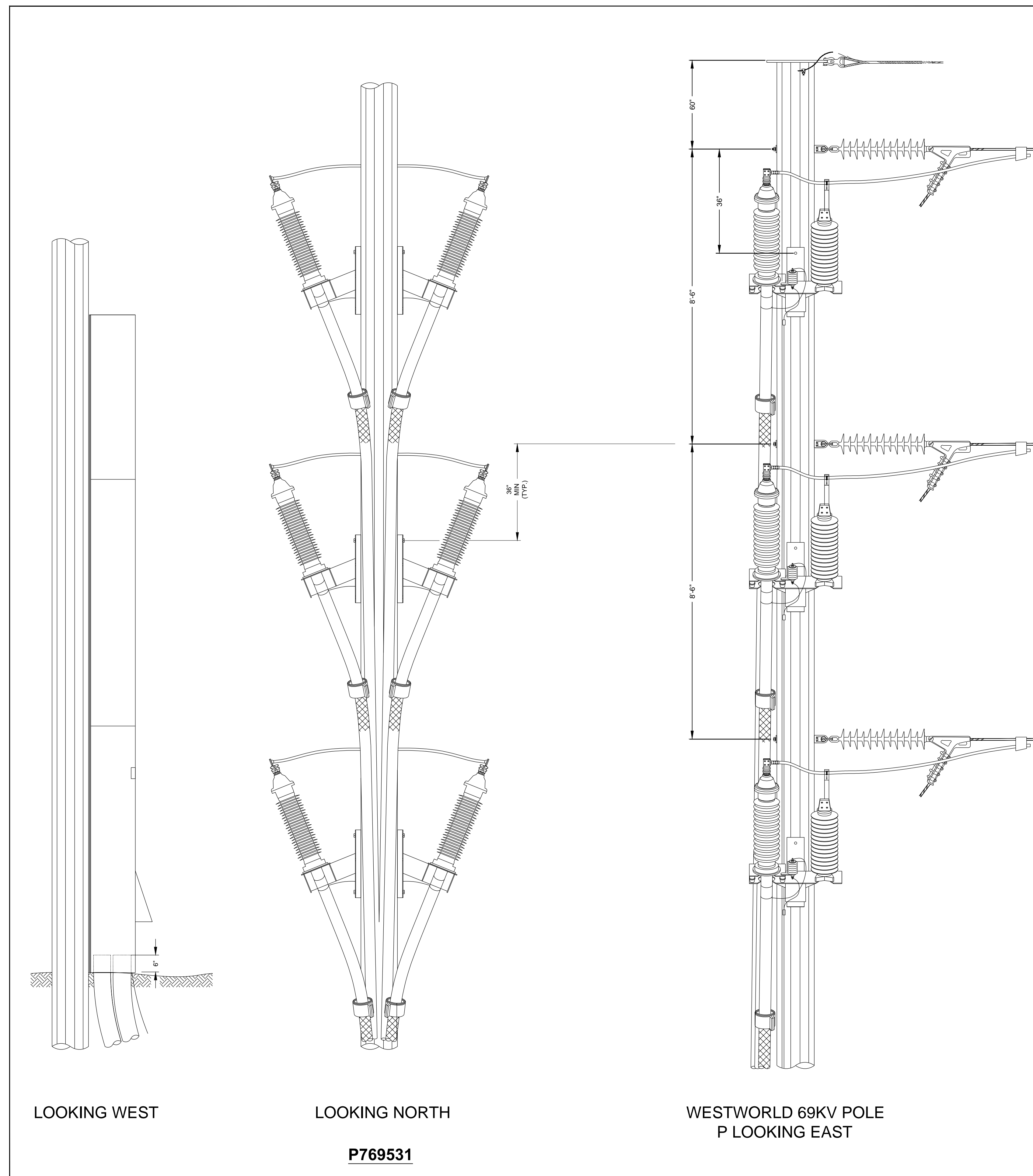
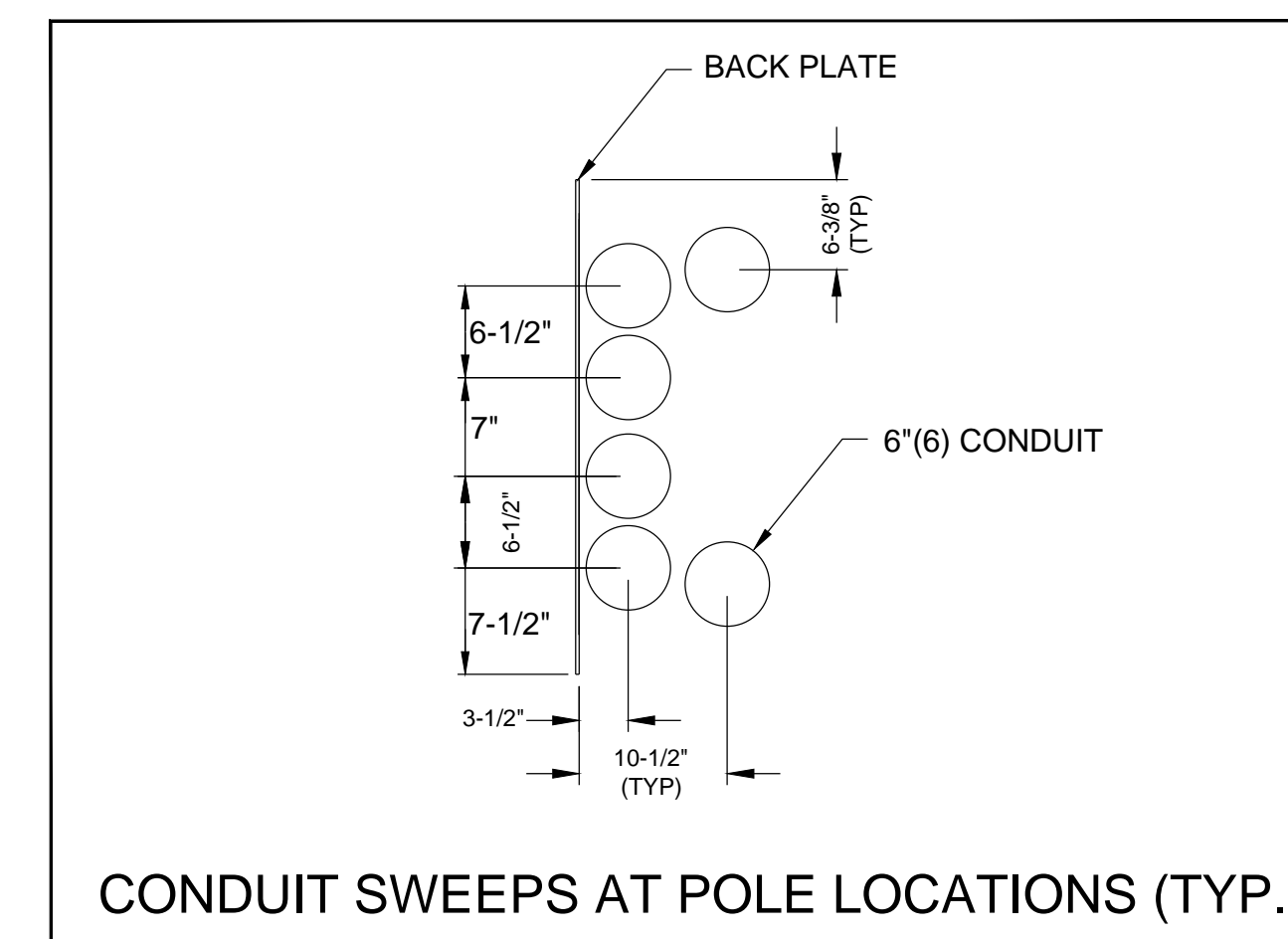
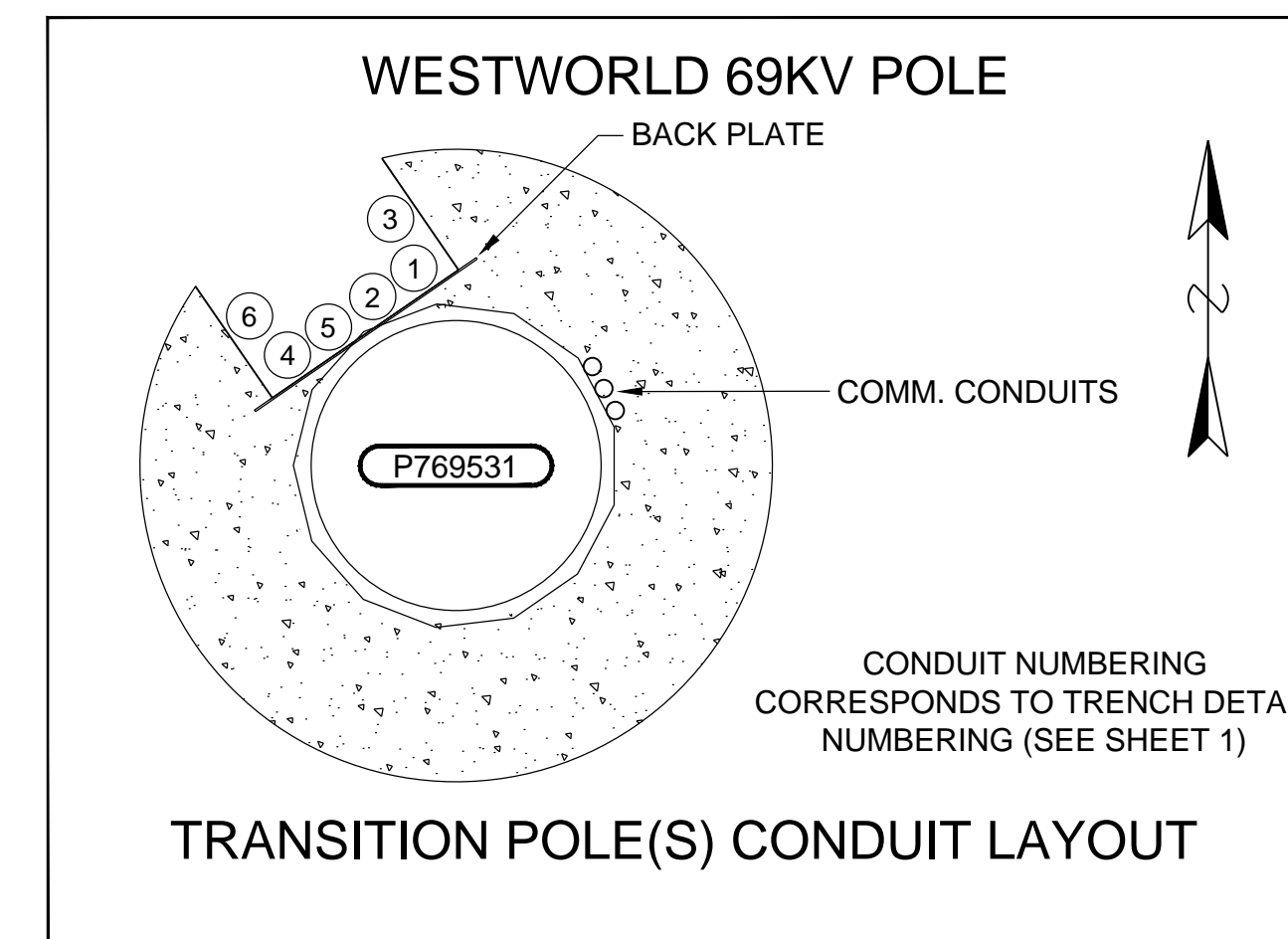
EXISTING EQUIPMENT	PROPOSED EQUIPMENT	DESCRIPTION
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		- STREET LIGHT
		- DUSK TO DAWN LIGHT

CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

3				
2				
1				
NO.	MAXIMO	DATE	DESCRIPTION	BY

CONTACT: PAUL RICHARDS
PHONE: 602-371-6186 PGR/MOBILE: 602-316-5152

	EASTEND TO RAIN TREE-UG AT BELL EASTEND SUBSTATION		
WO#:	WA304131	DATE:	1/24/17
BY:	R. ROBERTS	SCALE:	1:40 @ "D" SIZE
FILENAME:	WA304131.DWG	SHEET	6 OF 9



EASTEND-RAINTREE UG AT BELL
 EAST END SUBSTATION
 WA304131
 ISSUED-FOR-REVIEW
FINAL DESIGN
 WA304131 RBR 1/24/17

APS UTILITIES KEY

EXISTING	PROPOSED
---	WATER W
---	SEWER S
---	GAS G
---	STORM DRAIN SD
---	IRRIGATION IRR
---	TRAFFIC SIGNAL TS
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---	CATV CATV
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CONDUIT	
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APS SYMBOLS LEGEND

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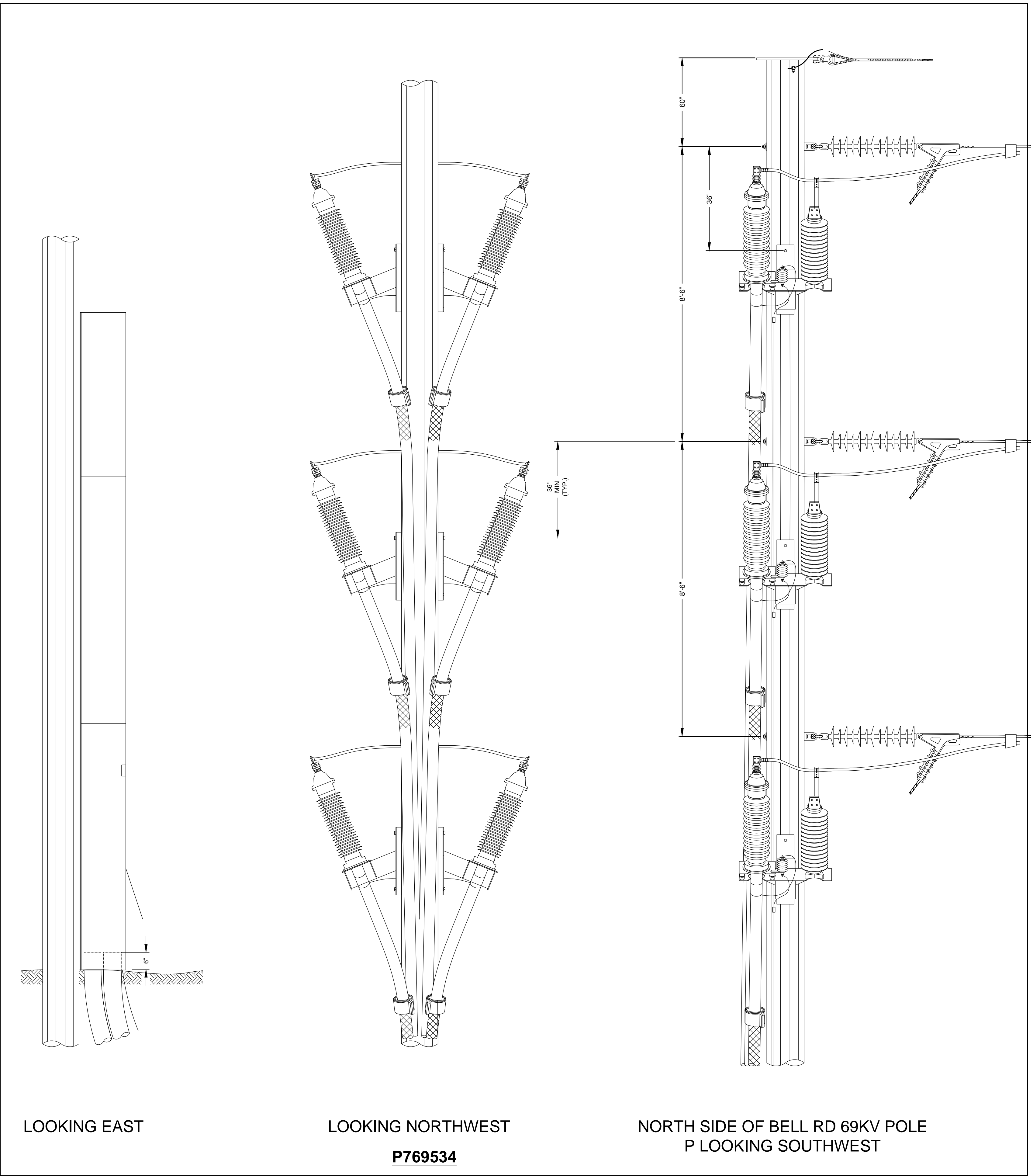
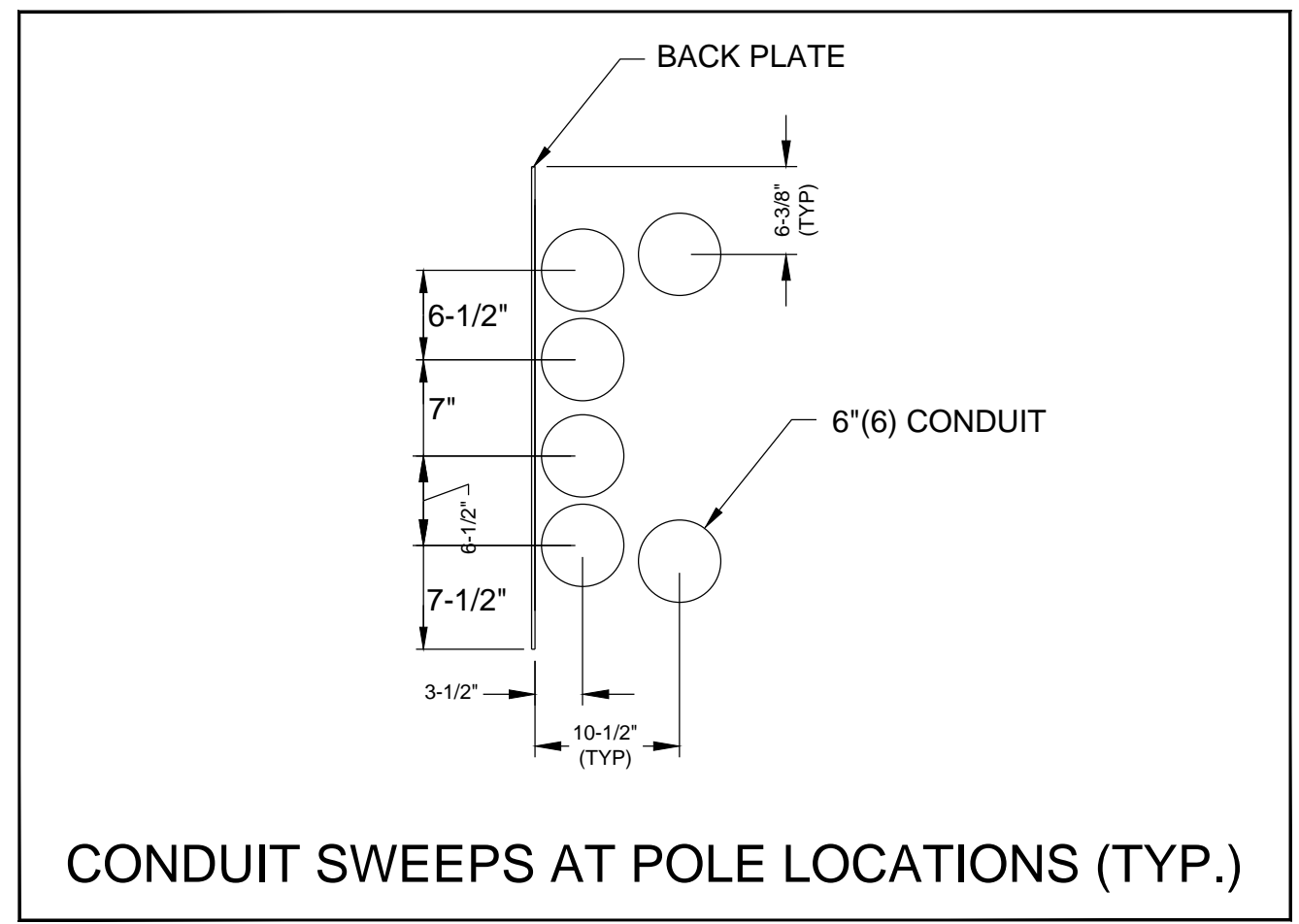
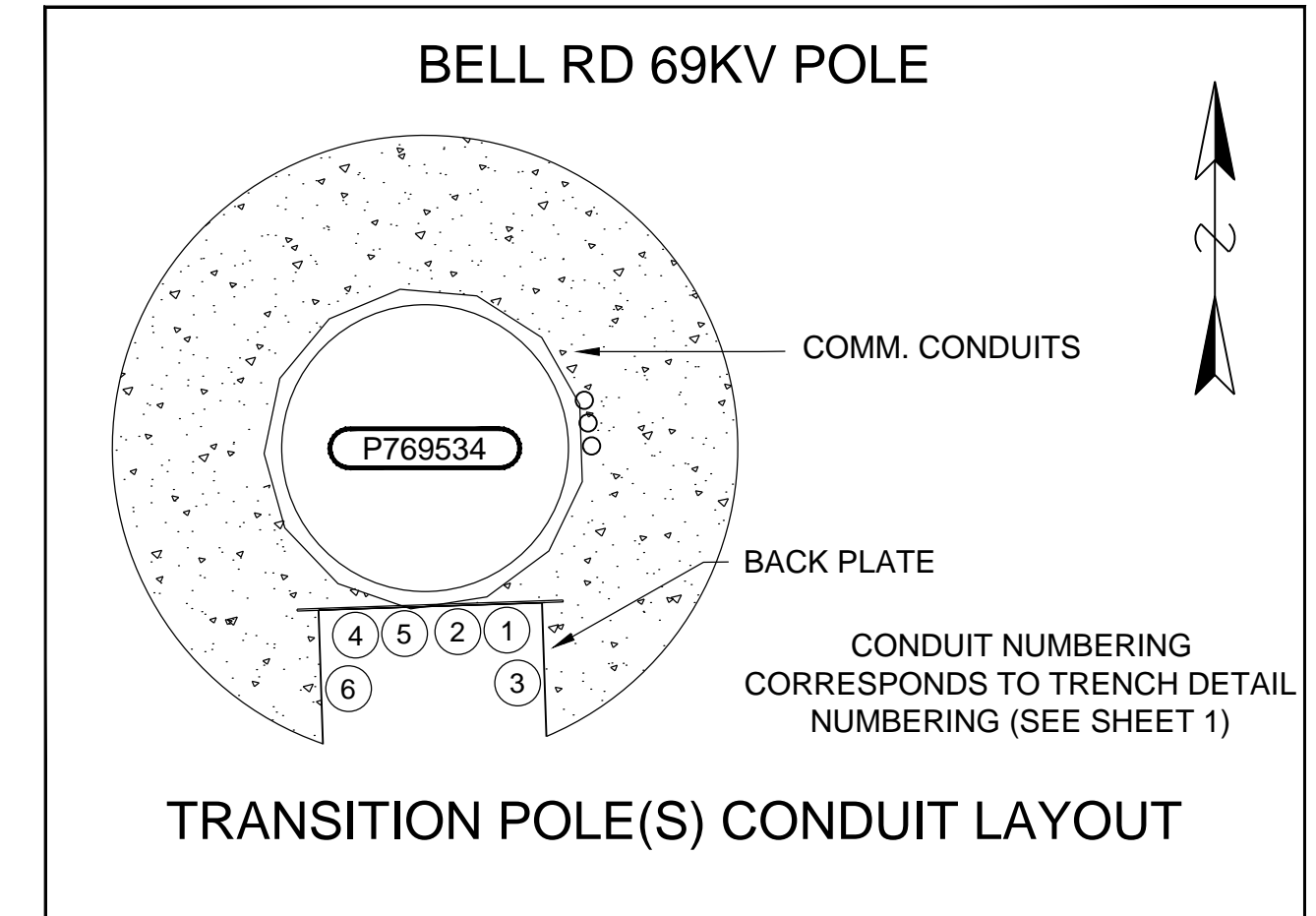
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602-233-1100
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 (OUTSIDE MARICOPA COUNTY)

3				
2				
1				
NO.	MAXIMO	DATE	DESCRIPTION	BY

CONTACT: PAUL RICHARDS
 PHONE: 602-371-6186 PGR/MOBILE: 602-316-5152

aps EASTEND TO RAIN TREE-UG AT BELL
 EASTEND SUBSTATION

WO#:	WA304131	DATE:	1/24/17
BY:	R. ROBERTS	SCALE:	1:40 @ "D" SIZE
FILENAME:	WA304131.DWG	SHEET	7 OF 9



LOOKING EAST

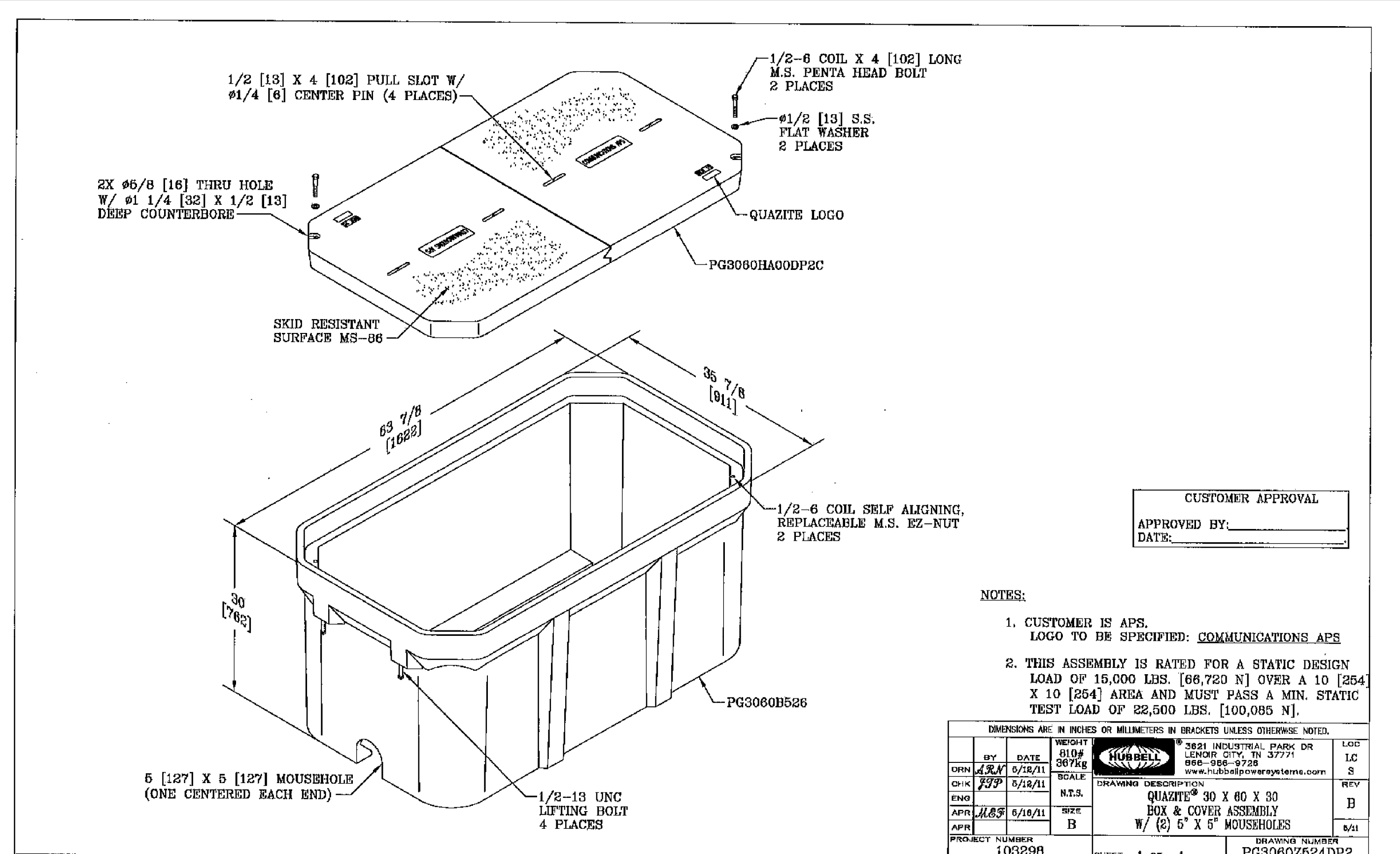
LOOKING NORTHWEST

NORTH SIDE OF BELL RD 69KV POLE
 P LOOKING SOUTHWEST

P769534

EASTEND-RAINTREE UG AT BELL
EAST END SUBSTATION
WA304131

ISSUED-FOR-REVIEW
FINAL DESIGN
WA304131 RBR 1/24/17



FIBER COMMUNICATION NOTES:

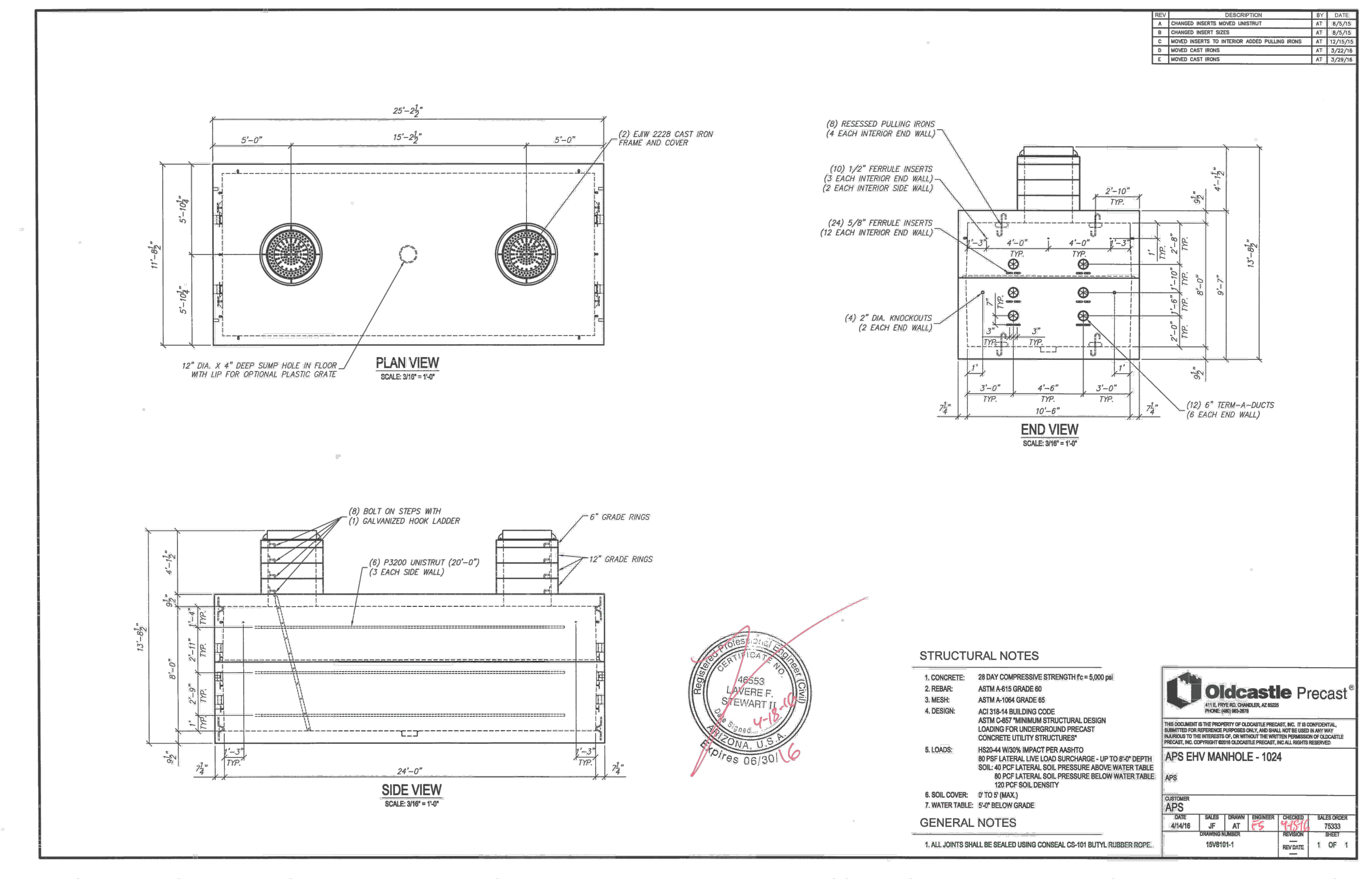
- Guidelines For Pulling/Installing Fiber Optic Cable**
- Bend Radius**
The main risk of damage to the fiber optic cable is by overlooking the minimum bending radius. It is important to know that the damage occurs more easily when the cable is bent under tension, so when the installation is in process be sure to allow for a minimum of 13 inches for the bending radius. The number of turns/bends shall be kept to a minimum and shall not exceed a total of (4) 90 degree bends in any combination for any single pull.
- Reel Placement**
Reel set shall be adjacent to the manhole/handhole and installers must use appropriate fiber optic pulling equipment and procedures per the manufacturer's instructions.
- Cable Slack**
Coil 150 feet of cable at any transition, termination point or pull box location.
- Splices**
All splice locations will be designated herein and confirmed by APS Communications.
- Strength**
The fibers in the cable will shatter under considerable impact, pressure or if pulling tensions exceed 600LB, although from the outside of the cable this will not be apparent. With fiber optic cable the jacket of the cable, the Kevlar layer directly beneath and the fiberglass strength member give the cable its strength so care must be taken to not visibly nick, cut or damage these components.
- Installation**
Use an appropriate swivel eye and pulling lubricant when installing fiber optic cable to minimize cable twisting and to significantly reduce the coefficient of friction between the cable jacket material and the PVC conduit.
- Safety**
Although fiber optic cable is made entirely of non-conductive materials, under certain conditions it is still capable of having induced or static electric charges on its surface. ADSS fiber cables are designed for installation in and around electric fields of up to 12kVper meter without material damage. These fields can however induce a static surface charge that can be dangerous if touched bare handed. To insure the safety of field personnel, it is recommended that all fiber installed near or around APS electrical facilities be treated as an energized conductor and that it be grounded prior to handling. It should be made clear that fiber cable is more susceptible to crushing than regular metallic conductors, so proper handling techniques per the manufacturer should be observed at all times.
- Pull Straps**
All conduits that will be used for fiber optic cable shall have 3/4" mule tape installed to facilitate the pulling of the fiber cable.
- Conduit Material**
Minimum radius bend on manufactured sweeps for underground fiber conduit is 36" (inch) radius. No field heated bends.
- All conduit for fiber communications shall be 2"(inch) DB 120 for straight sections and sweeps.**

FOR FIBER USE ONLY PULL BOX

CONDUIT CONFIGURATION

TOP VIEW
See details on plans for which side of pull box to install the conduit sweeps.

SIDE VIEW (EXPOSED)
GROUT
DRAIN HOLE
C2(3)



APS UTILITIES KEY

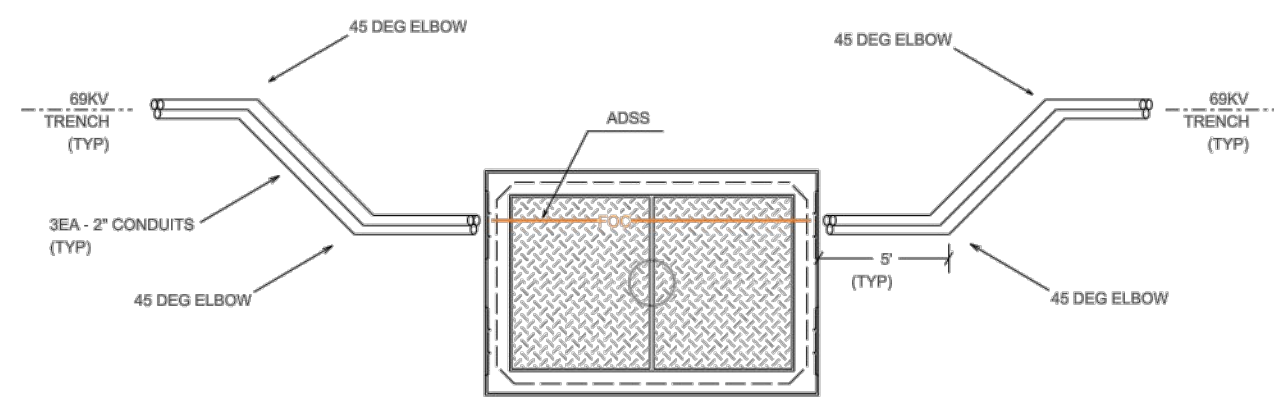
EXISTING	PROPOSED
---	WATER W
---	SEWER S
---	GAS G
---	STORM DRAIN SD
---	IRRIGATION IRR
---	TRAFFIC SIGNAL TS
---	TELE T
---	CATV CATV
---	FIBER FO
UG ELECTRIC NOMINAL TRANSMISSION (69KV)*	
UG ELECTRIC NOMINAL PRIMARY (12,470/7,200V)*	
UG ELECTRIC NOMINAL SECONDARY/SERVICE (120/240V)*	
OH ELECTRIC NOMINAL TRANSMISSION (69KV)*	
OH ELECTRIC NOMINAL PRIMARY (12,470/7,200V)*	
OH ELECTRIC NOMINAL SECONDARY/SERVICE (120/240V)*	
CONDUIT	
TRENCH RUNNING LINE	
* UNLESS OTHERWISE NOTED	

APS SYMBOLS LEGEND

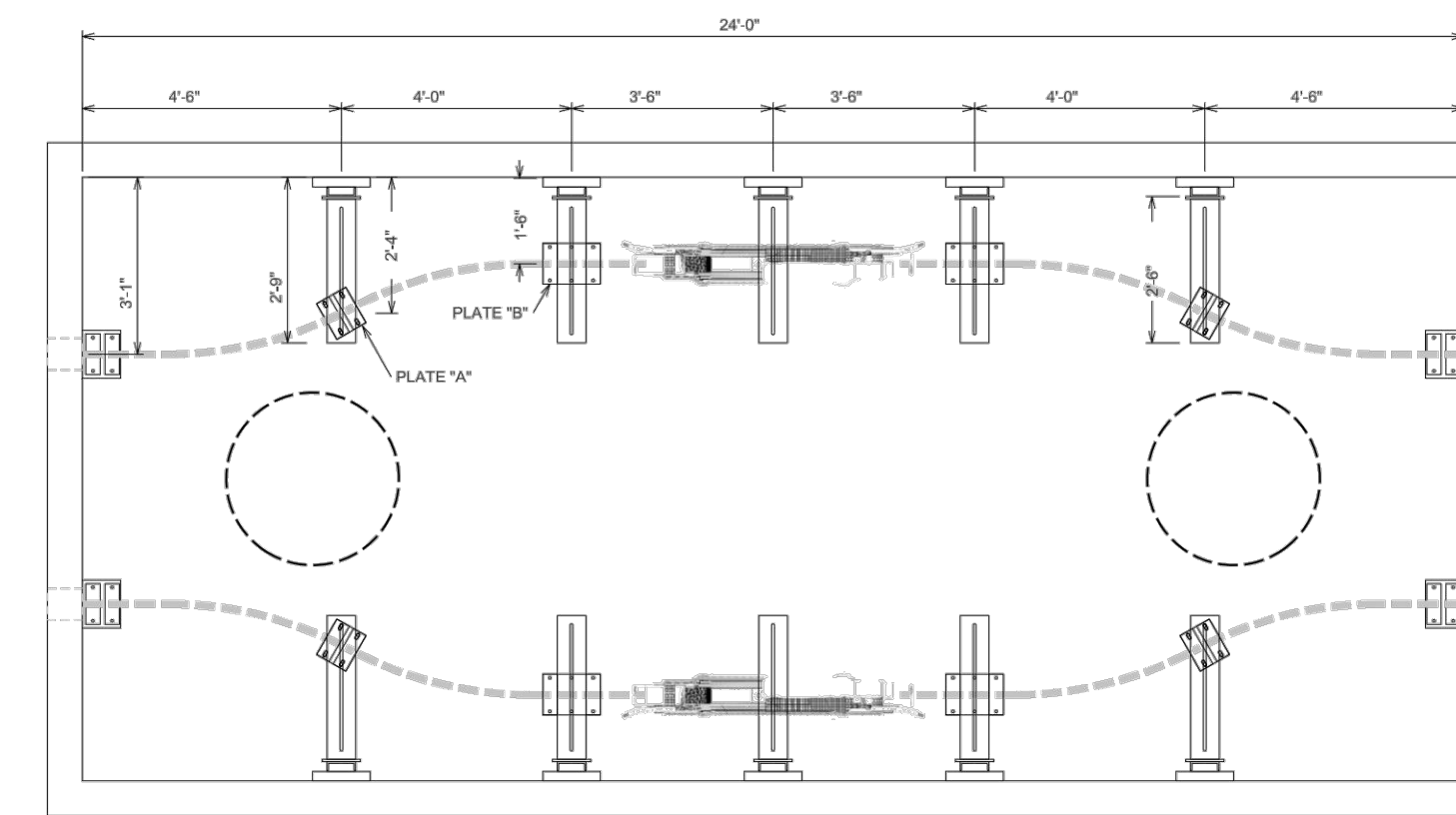
EXISTING EQUIPMENT	PROPOSED EQUIPMENT	DESCRIPTION
▲	▲	- PADMOUNTED TRANSFORMER
⊠	⊠	- SWITCHING CABINETS
J	J	- 1Ø SWITCHING CABINET
⊕	⊕	- OH/UG CAPACITOR BANK
□	□	- J-BOX / PULL BOX
○	○	- MANHOLES
△	▲	- OH TRANSFORMER
×	×	- OH SWITCH (KPF)
○	●	- APS OWNED POLE
⊙	⊙	- APS OWNED STEEL POLE
⊖	⊖	- APS OWNED JOINT USE POLE
⊕	⊕	- DIP (TRANSITION) POLE
⊔	⊔	- STREET LIGHT
⊕	⊕	- DUSK TO DAWN LIGHT

3				
2				
1				
NO.	MAXIMO	DATE	DESCRIPTION	BY
CONTACT: PAUL RICHARDS				
PHONE: 602-371-6186 PGR/MOBILE: 602-316-5152				
aps			EASTEND TO RAIN TREE-UG AT BELL EASTEND SUBSTATION	
WO#:	WA304131	DATE:	1/24/17	
BY:	R. ROBERTS	SCALE:	1:40 @ "D" SIZE	
FILENAME:	WA304131.DWG	SHEET	8 OF 9	

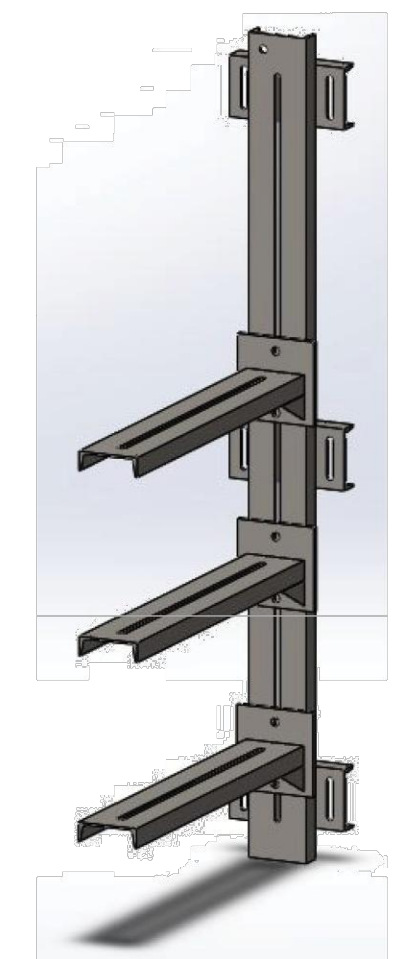
EASTEND-RAINTREE UG AT BELL
EAST END SUBSTATION
WA304131



PLAN VIEW AT COMM. VAULT NEAR MANHOLE
3EA - 2" CONDUITS
(TYP)

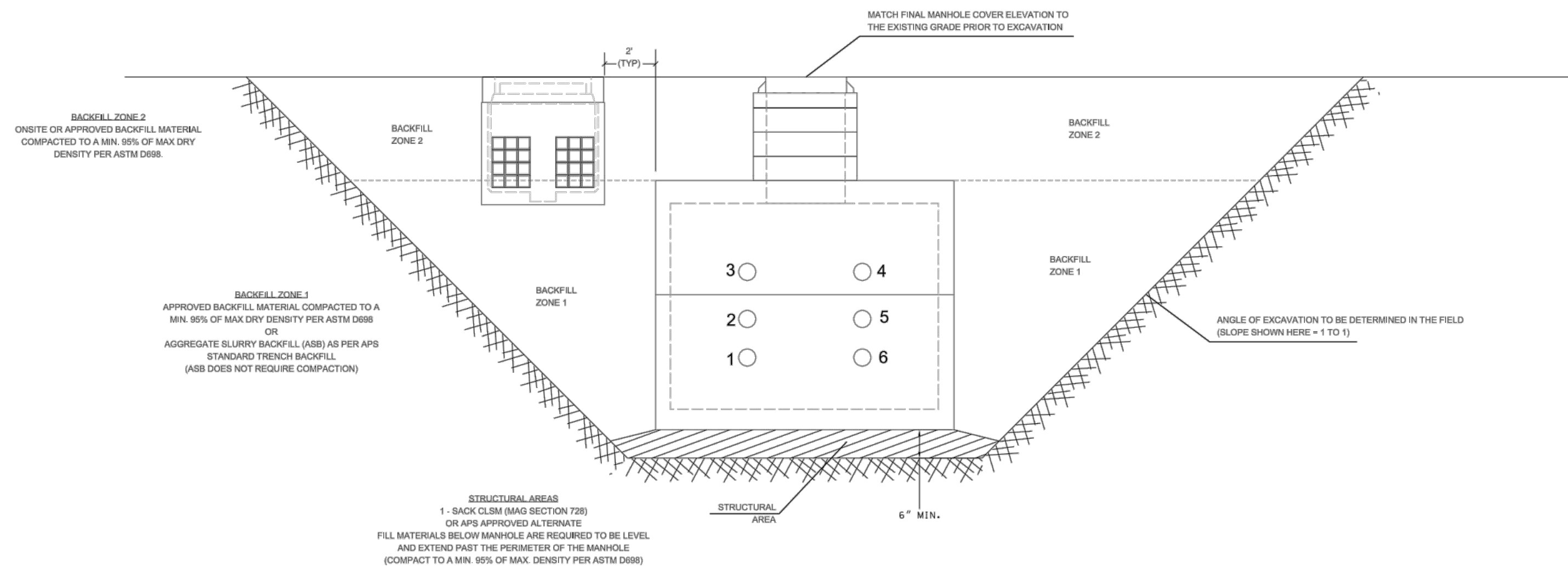


PLAN VIEW

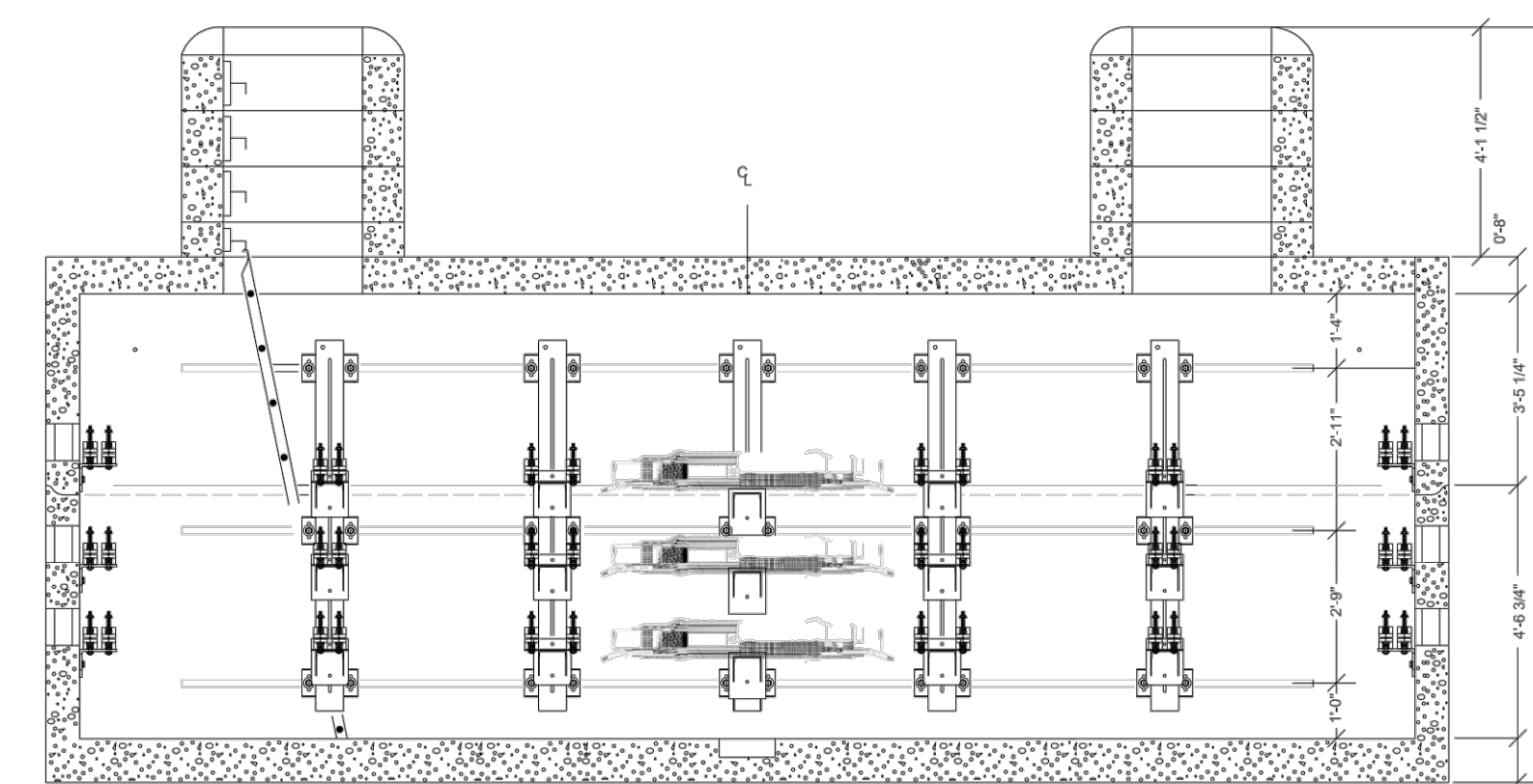


MANHOLE
RACKING
SUPPORTS

20 EA REQUIRED

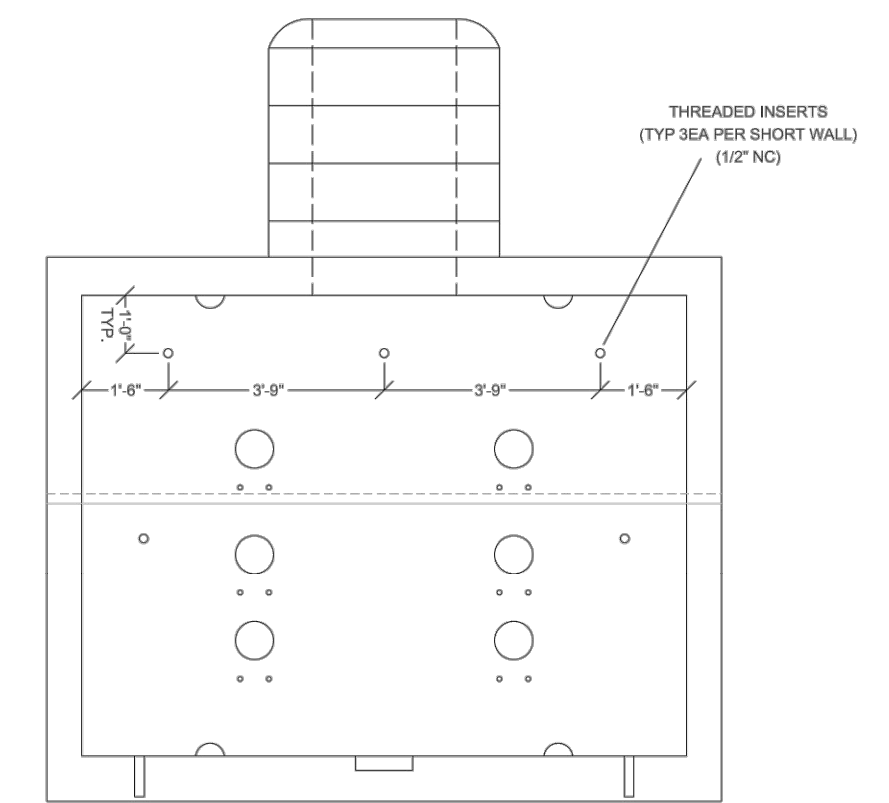


SECTION VIEW AT MANHOLE VAULT (TYP)
(LOOKING AHEAD STATION)



PROFILE VIEW

69KV MANHOLE DETAIL

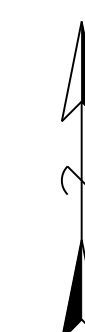


END VIEW

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	IRRIGATION IRR
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CALL TWO WORKING DAYS
BEFORE YOU DIG
602-233-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

3				
2				
1				
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CONTACT: PAUL RICHARDS
PHONE: 602-371-6186 PGR/MOBILE: 602-316-5152

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