F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371			

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 23984 MARK K. GILLILAND ARIZONA, U.S.A. Date Signed 11-28-16
Expires 12/31/2017

AZTEC
the CK Group, Inc. CIVIL • TRANSPORTATION ENGINEERS 16448 N. 40th Street, Suite A Phoenix, Ariz. 85032
PEC
PREMIER ENGINEERING CORPORATION

CITY OF PHOENIX
STREET TRANSPORTATION DEPARTMENT
DESIGN & CONSTRUCTION MANAGEMENT DIVISION
PAVING AND STORM DRAIN
AVENIDA RIO SALADO/BROADWAY ROAD - PHASE II
ST85100371

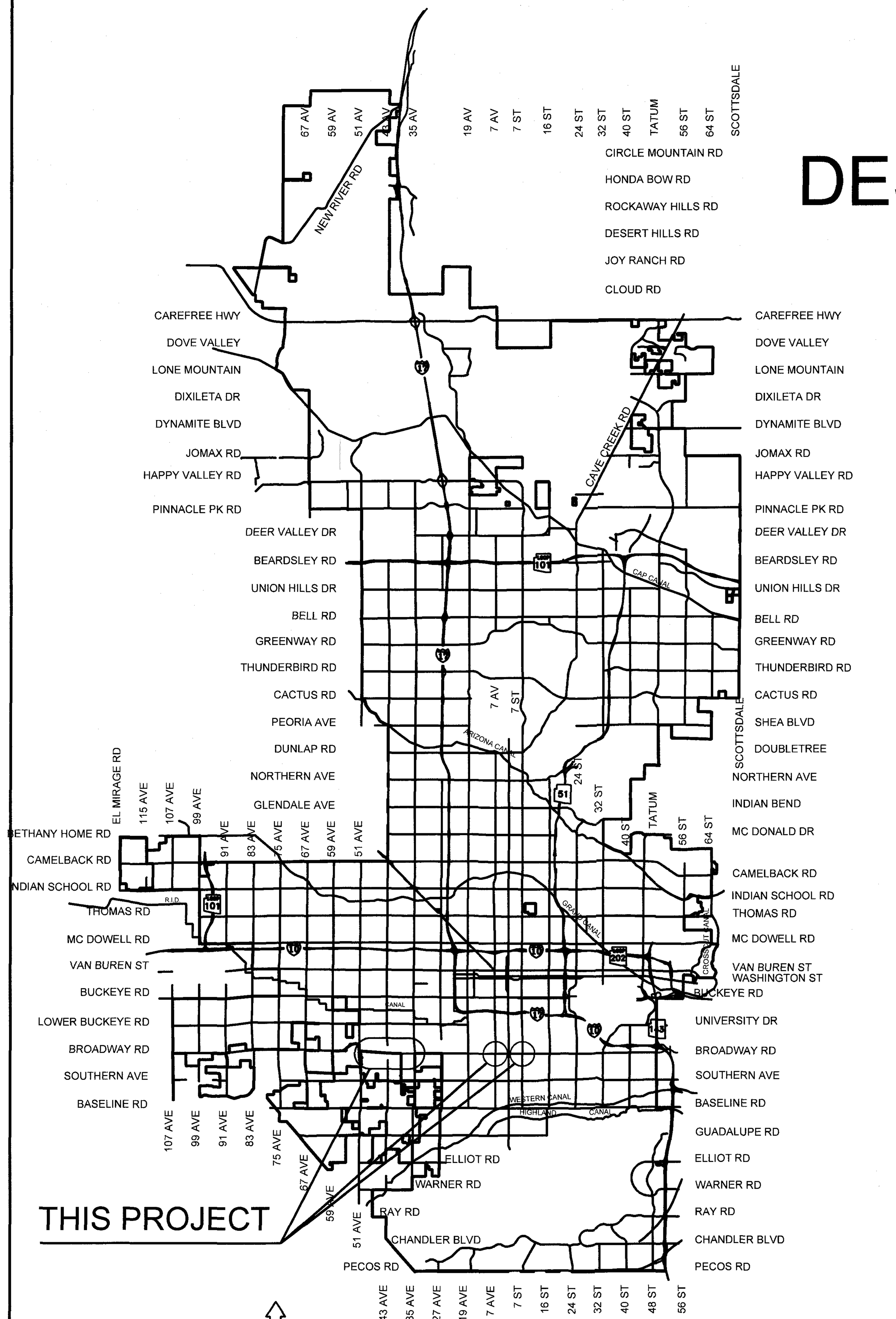
2016

MAYOR
GREG STANTON

CITY MANAGER
ED ZUERCHER

CITY COUNCIL

DISTRICT NO 1.	THELDA WILLIAMS
DISTRICT NO 2.	JIM WARING
DISTRICT NO 3.	DEBRA STARK
DISTRICT NO 4.	LAURA PASTOR
DISTRICT NO 5.	DANIEL VALENZUELA
DISTRICT NO 6.	SAL DICICCIO
DISTRICT NO 7.	MICHAEL NOWAKOWSKI
DISTRICT NO 8.	KATE GALLEGO

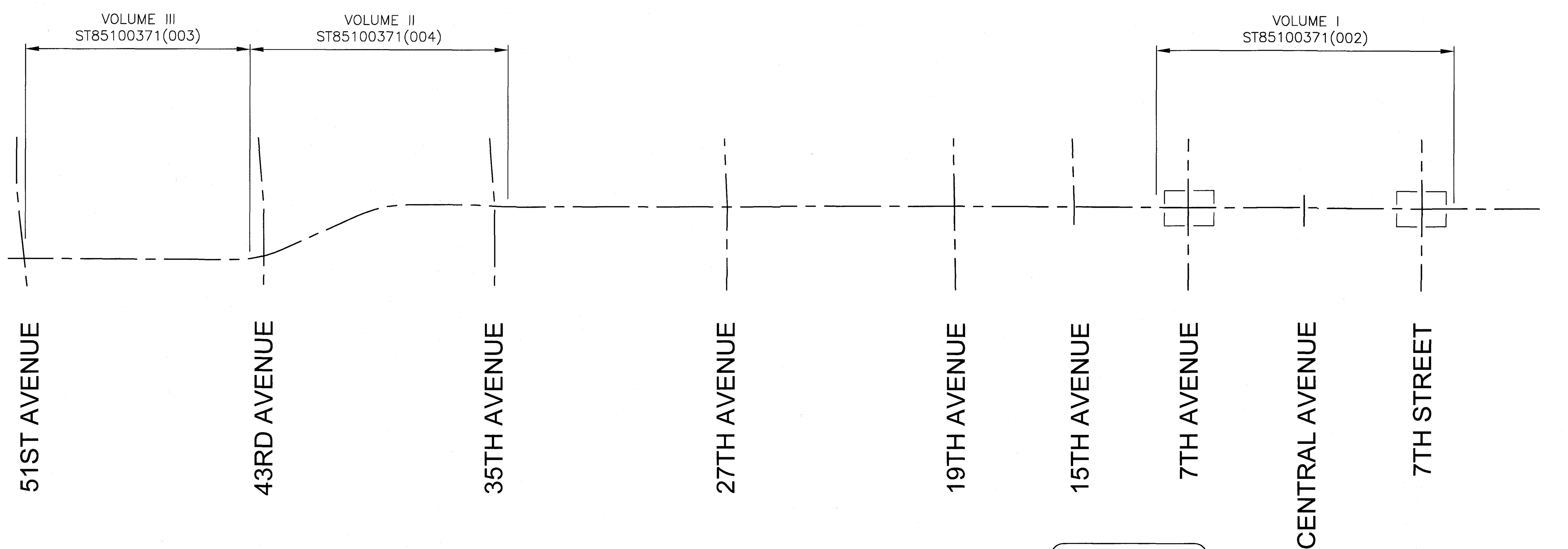


THIS PROJECT

VICINITY MAP
NTS

City of Phoenix
N

INDEX OF SHEETS



COP INSPECTION STAMP

CITY PROJECT MANAGER ____________

CITY INSPECTOR ____________

CONTRACTOR ____________

DATE OF FINAL COMPLETION ____________

APPROVED ____________ 11/30/16
ASSISTANT STREET TRANSPORTATION DIRECTOR — DATE

APPROVED ____________ 11-30-16
DEPUTY STREET TRANSPORTATION DIRECTOR — DATE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

ST85100371: AVENIDA RIO SALADO/BROADWAY ROAD - PHASE II

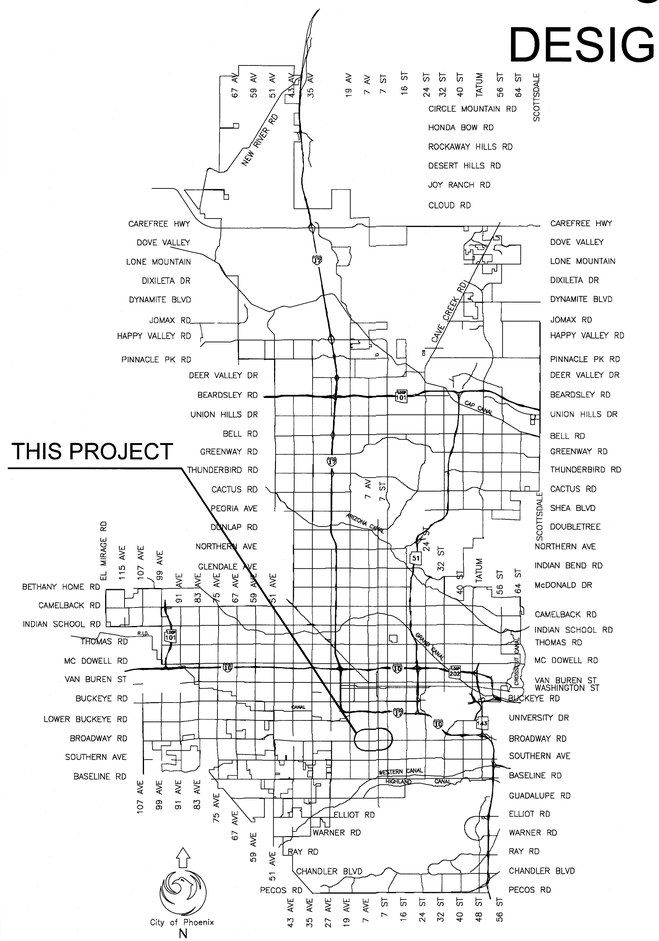
ST85100332

R:\Phoenix\Projects\AZE1504_PhoenixOn-CallEngineering_ConsultingServices_FiscalYears2015-2016\03_ARS_PhaseII_Repackaging\CADD\Sheets\Roadway\ST85100371_Phase II_CoverSheet.dwg edrano Nov 29, 2016 - 1:28pm

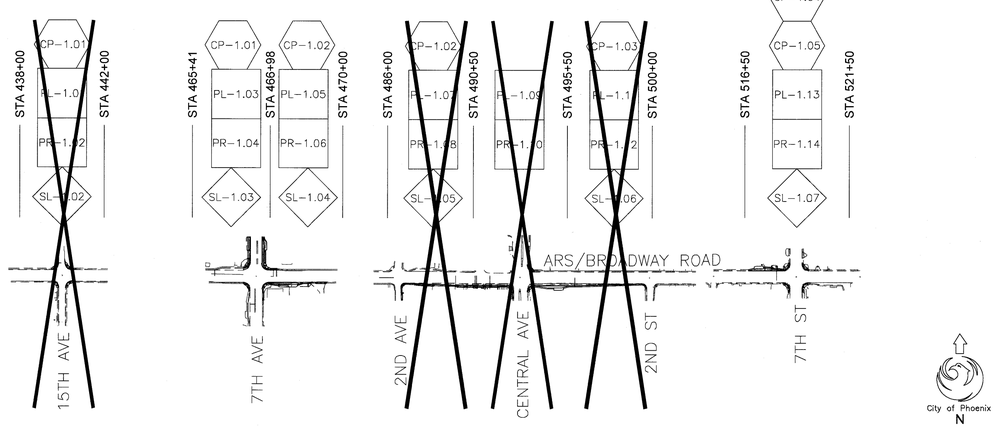
CITY OF PHOENIX
STREET TRANSPORTATION DEPARTMENT
DESIGN & CONSTRUCTION MANAGEMENT DIVISION
PAVING AND STORM DRAIN

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

2013



VICINITY MAP
NTS



KEY MAP
NTS

- (#) PAVING PLAN/PROFILE SHEETS
- (#) CATCH BASIN CONNECTOR PIPE PROFILES
- (#) STREET LIGHT PLAN SHEETS

LENGTH OF PROJECT = 3,650 LF = 0.69 MILES
AREA OF DISTURBANCE=1.95 ACRES

COP INSPECTION STAMP

CITY PROJECT MANAGER _____
CITY INSPECTOR _____
CONTRACTOR _____
DATE OF FINAL COMPLETION _____
MANUFACTURE / TYPE OF VALVES _____ ***ADD FOR WATER PIPE 16-INCH AND LARGER
TYPE OF PIPE INSTALLED _____ ***ADD FOR PIPE 16-INCH AND LARGER

APPROVED _____ 12-3-16
for ASSISTANT STREET TRANSPORTATION DIRECTOR — DATE

APPROVED _____ 12-3-16
DEPUTY STREET TRANSPORTATION DIRECTOR — DATE

REGISTERED PROFESSIONAL ENGINEER — 23785 JAMES F. SCHUMANN — Date Signed 11/11/16 — ARIZONA, U.S.A. — Expires 09/30/2018

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	01	91	

CK GROUP Engineers & Construction Managers
The CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

MAYOR
GREG STANTON

CITY MANAGER
ED ZUERCHER

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DISTRICT NO 8.	KATE GALLEGO

INDEX OF SHEETS

CITY BENCHMARKS

1. C.O.P. B.C. IN H.H., AT THE INTERSECTION OF 15TH AVE. AND ARS/BROADWAY RD. EL. 1060.62'

2. C.O.P. B.C. IN H.H., AT THE INTERSECTION OF 7TH AVE. AND ARS/BROADWAY RD. EL. 1067.15'

3. C.O.P. B.C. IN H.H., AT THE INTERSECTION OF CENTRAL AVE. AND ARS/BROADWAY RD. EL. 1073.25'

4. C.O.P. B.C. IN H.H., AT THE INTERSECTION OF 7TH ST. AND ARS/BROADWAY RD. EL. 1076.79'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

ST85100371(002): QS 4-25 TO 4-29, 5-25 TO 5-29: AVENIDA RIO SALADO/BROADWAY ROAD: 15TH AVENUE TO 7TH STREET

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

LEGEND

- BENCHMARK
- NEW SURVEY MONUMENT – M.A.G. DETAIL 120–1 TYPE "B"
- EXISTING SURVEY MONUMENT – M.A.G. DETAIL 120–1 TYPE "B"
- NEW SURVEY MONUMENT – M.A.G. DETAIL 120–1 TYPE "A"
- EXISTING SURVEY MONUMENT – M.A.G. DETAIL 120–1 TYPE "A"
- NEW COMBINED CURB & GUTTER – M.A.G. DETAIL 220 TYPE "A"
- EXISTING COMBINED CURB & GUTTER
- NEW CONCRETE SIDEWALK – STD. DETAIL P1230
- EXISTING CONCRETE SIDEWALK
- NEW CONCRETE DRIVEWAY OR ALLEY ENT. PER DETAIL NO. ON PLANS
- EXISTING CONCRETE DRIVEWAY OR ALLEY ENT.
- NEW CONCRETE SIDEWALK RAMP PER DETAIL ON PLANS
- EXISTING CONCRETE SIDEWALK RAMP
- NEW SLOPE EASEMENT
- EXISTING SLOPE EASEMENT
- NEW TCE
- EXISTING EASEMENT LINE
- NEW R/W LINE
- EXISTING R/W LINE
- NEW PAVEMENT CENTER LINE OR MONUMENT LINE
- EXISTING PAVEMENT CENTER LINE OR MONUMENT LINE
- NEW DECORATIVE PAVEMENT
- EXISTING DECORATIVE PAVEMENT
- NEW CUT LINE
- NEW FILL LINE
- NEW BLOCK WALL
- EXISTING BLOCK FENCE
- NEW WIRE FENCE
- EXISTING WIRE FENCE
- EXISTING PAVEMENT
- AVERAGE GROUND ELEVATION AT R/W LINE (SHOW IN PROFILE)
- NEW MAIL BOX
- EXISTING MAIL BOX
- NEW WATER SERVICE W/SIZE AND WATER METER BOX
- EXISTING WATER SERVICE W/SIZE AND WATER METER BOX
- NEW UTILITY LINE W/SIZE & TYPE (12" AND SMALLER)
- EXISTING UTILITY LINE W/SIZE & TYPE (12" AND SMALLER)
- NEW UTILITY LINE W/SIZE & TYPE (GREATER THAN 12")
- EXISTING UTILITY LINE W/SIZE & TYPE (GREATER THAN 12")
- NEW MANHOLE (UTILITY DESIGNATION IN CENTER)
- EXISTING MANHOLE (UTILITY DESIGNATION IN CENTER)
- NEW STORM SEWER (GREATER THAN 12")
- EXISTING STORM SEWER OR NEW STORM SEWER SHOWN ON SEPARATE PLANS (GREATER THAN 12")
- NEW CATCH BASIN, GUTTER INLET (LENGTH TO SCALE)
- EXISTING CATCH BASIN, GUTTER INLET
- NEW CATCH BASIN, CURB INLET (LENGTH TO SCALE)
- EXISTING CATCH BASIN, CURB INLET
- NEW CATCH BASIN, CURB & GUTTER INLET (LENGTH TO SCALE)
- EXISTING CATCH BASIN, CURB & GUTTER INLET
- NEW IRRIGATION STANDPIPE – M.A.G. DETAIL 503
- EXISTING IRRIGATION STANDPIPE
- NEW OR RELOCATED FIRE HYDRANT BY CONTRACTOR
- EXISTING FIRE HYDRANT
- NEW OR RELOCATED UTILITY VALVE BY CONTRACTOR
- EXISTING UTILITY VALVE
- NEW OR RELOCATED IRRIGATION BOX BY CONTRACTOR
- EXISTING IRRIGATION BOX
- ADJUST EXIST. WATER VALVE BOX – C.O.P. DETAIL P1391

- EXISTING WATER VALVE W/TOP OF OPERATING NUT ELEVATION
- NEW STREET OR TRAFFIC SIGN
- EXISTING STREET OR TRAFFIC SIGN
- NEW TRAFFIC SIGNAL POLE W/MAST ARM & SIGNAL INDICATIONS
- EXISTING TRAFFIC SIGNAL POLE W/MAST ARM & SIGNAL INDICATIONS
- NEW OR RELOCATED UTILITY POLE W/LINE INDICATING WIRE DIRECTION
- EXISTING UTILITY POLE W/LINE INDICATING WIRE DIRECTION
- NEW OR RELOCATED POWER POLE DOWN GUY ANCHOR
- EXISTING POWER POLE DOWN GUY ANCHOR
- NEW STREET LIGHT & POLE
- EXISTING STREET LIGHT & POLE
- NEW STREET LIGHT
- EXISTING STREET LIGHT
- EXISTING TREE OR STUMP TO BE REMOVED (GREATER THAN 12" DIA.)
- EXISTING TREE OR STUMP TO BE REMOVED 12" DIA. OR LESS (NPI)
- EXISTING TREE TO BE TRANSPLANTED BY CONTRACTOR
- EXISTING TREE TO REMAIN (GREATER THAN 12" DIA.)
- EXISTING TREE TO REMAIN (12" DIA. AND SMALLER)
- EXISTING PINE TREE
- EXISTING PALM TREE
- EXISTING LARGE SHRUB
- EXISTING SMALL SHRUB
- EXISTING BUSH
- S — SAWCUT & MATCH EXISTING
- M — MATCH EXISTING
- 3231 — PROPERTY ADDRESS NUMBER
- SAFETY POST/BOLLARDS

NOTES

ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CONTRACT SPECIFICATIONS; PLANS; CITY OF PHOENIX SUPPLEMENTS TO MAG STANDARD SPECIFICATIONS AND DETAILS; AND MAG STANDARD SPECIFICATIONS AND DETAILS, IN THAT ORDER OF PRECEDENCE, AT THE TIME OF CONSTRUCTION BID.

ALL STORM SEWER MANHOLES ARE TO BE CONSTRUCTED WITHOUT STEPS.

PIPE CONNECTIONS TO EXISTING CONCRETE PIPE MAINS SHALL BE MADE IN ACCORDANCE WITH DETAILS CALLED OUT ON THE PLANS. CONNECTION TO MAINS SHALL NOT BE CLOSER THAN 5', CENTER TO CENTER.

PIPE CONNECTIONS TO NEW PRECAST CONCRETE PIPE MAINS, SHALL BE MADE WITH FACTORY MADE WYES OR TEES. THE DETAIL OF THE FITTINGS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. PIPE CONNECTIONS TO NEW CAST IN PLACE CONCRETE PIPE MAINS SHALL BE MADE PER C.O.P. DETAIL P1576.

CATCH BASIN CONNECTOR PIPES SHALL BE LAID ON A STRAIGHT ALIGNMENT AND SLOPE UNLESS OTHERWISE SPECIFIED. IF BREAKS IN ALIGNMENT OR SLOPE ARE NECESSARY TO MEET FIELD CONDITIONS. THE MAXIMUM DEFLECTION SHALL BE 22–1/2°. THE BEND SHALL BE COLLARED ACCORDING TO C.O.P. DETAIL P1505. ANY ANGLE BENDS GREATER THAN 22–1/2° SHALL BE PREFABRICATED.

CONNECTOR PIPES SHALL CONNECT TO CATCH BASIN WALLS AT AN ANGLE NOT TO EXCEED 22–1/2° FROM PERPENDICULAR.

FACILITIES WHICH ARE NOT SPECIFICALLY LOCATED WITH ACTUAL VERTICAL AND HORIZONTAL CONTROLS, ARE LOCATED ONLY APPROXIMATELY AND TO THE BEST AVAILABLE INFORMATION PROVIDED BY VARIOUS OWNERS OF THE FACILITIES, AND SUPPLEMENTED BY VISUAL SURFACE INFORMATION WHERE APPROPRIATE. ACCURACY, LOCATION AND COMPLETENESS OF THIS INFORMATION SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO INITIATION OF CONSTRUCTION.

AT LEAST TWO WORKING DAYS BEFORE CONSTRUCTION, THE CONTRACTOR SHALL CONTACT BLUESTAKE TO FIND AND FLAG UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CONTACT OTHER APPROPRIATE UTILITIES DIRECTLY IF THEY ARE NOT ON BLUESTAKE SYSTEM.

VERTICAL CONTROL IS BASED ON NATIONAL GEODETIC SURVEY.

UNLESS OTHERWISE NOTED, STATIONS SHOWN ON PIPE PROFILES ARE ALONG CENTERLINE OF PIPE.

UNLESS OTHERWISE NOTED, PIPE SHALL BE BACKFILLED IN ACCORDANCE WITH CITY OF PHOENIX DETAIL P1200.

CATCH BASINS ARE STATIONED PERPENDICULAR TO THE CENTERLINE OF THE STREET AT THE CENTERLINE OF THE MAINTENANCE BASIN.

SANITARY SEWER MAINS AND TAPS CROSSING OVER STORM DRAIN MAINS SHALL BE SUPPORTED PER M.A.G. DETAIL 403–1, 403–2, OR 403–3.

ALL EXISTING PRECAST CONCRETE SAFETY CURBS AND ALL EXISTING WOODEN PARKING CURBS, WHICH ARE INSIDE THE RIGHT OF WAY AND APPROXIMATELY PARALLEL TO THE NEW CURB LINE, SHALL BE RESET ON THE RIGHT OF WAY DIRECTLY OPPOSITE THEIR EXISTING LOCATION, WITH THE BACK EDGE ON THE RIGHT OF WAY LINE. ALL OTHER PRECAST CONCRETE SAFETY CURBS INSIDE THE STREET RIGHT OF WAY SHALL BE SALVAGED AND STOCK PILED FOR THE OWNER AT THE RIGHT OF WAY LINE.

EXISTING PRECAST CONCRETE SAFETY CURBS OUTSIDE THE RIGHT OF WAY, WHICH ARE DISTURBED BY NEW CONSTRUCTION SHALL BE RESET IN THEIR ORIGINAL POSITION BY THE CONTRACTOR.

ALL EXISTING DRIVEWAYS AND ALL EXISTING ALLEYS SHALL BE GRADED TO MATCH THE NEW WORK IN ACCORDANCE WITH C.O.P. STD. DETAIL P1164, UNLESS OTHERWISE SPECIFIED. EXISTING SURFACING SHALL BE REMOVED AND REPLACED AS NECESSARY.

NOTES (cont.)

UNLESS OTHERWISE PROVIDED ON THE PLANS:

- THE SPACE BETWEEN THE BACK OF NEW DRIVEWAY ENTRANCES AND EXISTING A.C. DRIVEWAYS SHALL BE FILLED WITH A MINIMUM OF 3" A.C.S.C. ON 100% COMPACTED NATIVE SOIL. WHERE EXISTING PAVEMENT AND BASE THICKNESS EXCEED THE MINIMUMS, MATCH THE EXISTING.
- THE SPACE BETWEEN THE BACK OF NEW SIDEWALKS AND EXISTING PRIVATE SIDEWALKS, AND THE SPACE BETWEEN THE BACK OF NEW DRIVEWAY ENTRANCES AND EXISTING P.C.C. DRIVEWAYS SHALL BE FILLED WITH P.C.C. THE THICKNESS AND CLASS SHALL MATCH THAT OF THE NEW SIDEWALK OR DRIVEWAY ENTRANCE.
- THE SPACE BETWEEN THE BACK OF THE NEW SIDEWALKS, AND EXISTING A.C. PARKING LOTS, WHICH FALL WITHIN OR ABUT THE R/W SHALL BE FILLED WITH 2" A.C.S.C. ON 100% COMPACTED NATIVE SOIL.

EXISTING IRRIGATION BERMS DISTURBED BY NEW CONSTRUCTION SHALL BE RECONSTRUCTED AS SHOWN ON PLANS.

CATCH BASIN ACCESS FRAME AND COVERS SHALL BE CONSTRUCTED PER C.O.P. DETAIL P1561.

UTILITY COMPANY EMERGENCY CONTACT INFORMATION

COMPANY	NAME	EMAIL	EMERGENCY NUMBER
CITY OF PHOENIX STREET TRANSPORTATION UTILITY COORDINATION	MARINA H. SMITH UTILITY COORDINATOR	marina.smith@phoenix.gov	602–256–3341
CITY OF PHOENIX WATER SERVICES DEPARTMENT	JAMI ERICKSON	jami.erickson@phoenix.gov	602–261–8229
SOUTHWEST GAS	VALERIE GALLARDO–WELLER	valerie.gallardo.meller@swgas.com	602–484–5342
SRPP DISTRIBUTION	JASON HUGHES	jason.hughes@srpnet.com	602–236–0886
SRPP TRANSMISSION	BEN COX	benjamin.cox@srpnet.com	602–236–3725
COX COAXIAL CABLE	RANDY SIMS	randy.sims@cox.com	602–694–1783
COX FIBER OPTIC CABLE	RANDY SIMS	randy.sims@cox.com	602–694–1783
AT&T FIBER OPTIC (Long Distance)	MIKE NEAL (Phx AT&T OSP Supervisor)		480–827–6048
CENTURY LINK	KAREN BROWN	karen.brown1@centurylink.com	480–768–4398
C.O.P. STREETLIGHTING	JASON FERNANDEZ	jason.fernandez@phoenix.gov	602–254–4168
TCG COMMUNICATION (AT&T)	RAY RIEMANN	ray.riemann@arusi.net	480–553–5720

REGISTERED PROFESSIONAL ENGINEER
23785
JAMES F. SCHUMANN
Date Signed 11/14/16
ARIZONA, U.S.A.
Expires 06/30/2018

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	02	91	

CK GROUP Engineers & Construction Managers
the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

STRUCTURAL NOTES

"CLEAR" DIMENSIONS FOR DEPTH OF REINFORCING STEEL ARE FROM FACE OF CONCRETE TO FACE OF BARS.

ALL EXPOSED EDGES OF CONCRETE SHALL BE BEVELED OR ROUNDED.

ALL EXPOSED CONCRETE SURFACES SHALL BE FINISHED IN ACCORDANCE WITH ARIZONA DEPT. OF TRANSPORTATION STANDARD SPECIFICATION 601–3.05 – FINISHING CONCRETE, UNLESS OTHERWISE SPECIFIED.

ABBREVIATIONS

AP	ANGLE POINT
BB	BILLBOARD
BC	BRASS CAP
B/C	BACK OF CURB
BM	BENCHMARK
BOL	BOLLARD / GUARD POST
CATV	CABLE TELEVISION
CMH	COMMUNICATION MANHOLE
CMP	CORRUGATED METAL PIPE
CP	CONCRETE PIPE
CPB	COMMUNICATION PULL BOX
DE	DRAINAGE EASEMENT
DNGY	DOWN GUY
EC	ELECTRICAL CABINET
EE	ELECTRICAL EASEMENT
EM	ELECTRICAL METER
EMH	ELECTRICAL MANHOLE
EPB	ELECTRICAL PULL BOX
F	FENCE
F/B	FACE OF BARRIER
F AP	FENCE – ANGLE POINT
FC	FACE OF CURB
FF	FACE TO FACE
FH	FIRE HYDRANT
FL	FLOW LINE
FO	FIBER OPTIC
G	GUTTER
GM	GAS METER
GMH	GAS MANHOLE
GMK	GAS MARKER SIGN
GMH	GAS MANHOLE
GRATE	STORM DRAIN GRATE
GS	GAS SERVICE
GV	GAS VALVE
HH	HANDHOLE
IBX	IRRIGATION CONTROL BOX
ICV	IRRIGATION CONTROL VALVE
IMH	IRRIGATION MANHOLE
IJS	IRRIGATION JUNCTION STRUCTURE
L	LIP OF GUTTER
LP	LIGHT POLE
MB	MAIL BOX
POE	POINT OF ENDING
PP	POWER POLE
PBE	PULL BOX ELECTRIC
PBS	PULL BOX TRAFFIC SIGNAL
RCBC	REINFORCED CONCRETE BOX CULVERT
PS	PRIVATE SIGN
RCP	REINFORCED CONCRETE PIPE
RGRCP	RUBBER GASKET REINFORCED CONCRETE PIPE
RE	ROADWAY EASEMENT
SCPR	SCUPPER
SDMH	STORM DRAIN MANHOLE
SGN	SIGN
SLE	SLOPE EASEMENT
SSMH	SANITARY SEWER MANHOLE
SP	SIGNAL POLE
SRP	SALT RIVER PROJECT
SS	SEWER SERVICE
STLT	STREET LIGHT
S/W	SIDEWALK
SWE	SIDEWALK EASEMENT
TCAB	TRAFFIC SIGNAL CABINET
TC	TOP OF CURB
TCE	TEMPORARY CONSTRUCTION EASEMENT
TE	TELEPHONE EASEMENT
TEL	TELEPHONE LINE
TMH	TELEPHONE MANHOLE
TN	TOP OF NUT
TOP	TOP OF PIPE
TPED	TELEPHONE PEDESTAL
TS	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CABINET
TSPB	TRAFFIC SIGNAL PULL BOX
TVPB	TV PULL BOX
UST	UNDERGROUND STORAGE TANK
VNAE	VEHICULAR NON–ACCESS EASEMENT
WBV	WATER BLOW–OFF VALVE
WE	WATER EASEMENT
WM	WATER METER
WMH	WATER MANHOLE
WS	WATER SERVICE
WV	WATER VALVE
GB	GRADE BREAK
PLP	PRIVATE LIGHT POLE

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LEGEND AND NOTES

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: NOT TO SCALE			G–1.02

ST85100371(002)

\\ckg–svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016–08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\02_ST85100330_NOTES.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

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REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

REMOVAL SUMMARY

SYM.	ITEM No.	DESCRIPTION REMOVAL/RELOCATION NOTES	UNIT	SHEET NUMBERS PL-1.01	PL-1.03	PL-1.05	PL-1.07	PL-1.09	PL-1.11	PL-1.13	TOTAL □TY
(32)	M1095010	EXCAVATION AND BACKFILL, TIME AND MATERIALS	CY	–	–	–	–	290	230	215	215
	M2050001	ROADWAY EXCAVATION, INCLUDING HAUL	CY	–	–	–	–	–	–	–	700
(2)	M3500010	REMOVE PORTLAND CEMENT CONCRETE SINGLE CURB AND CURB & GUTTER	LF	259	1284	380	559	796	401	557	2221
(1)	M3500020	REMOVE PORTLAND CEMENT CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER, & SLAB	SF	1454	4634	1845	2300	3126	1921	3326	9805
(27)	M3500020	REMOVE PORTLAND CEMENT CONCRETE SLAB (MEDIAN ISLAND)	SF	–	1056	–	–	13	–	11	1067
(25)	M3500036	REMOVE CATCH BASIN	EA	2	2	–	1	2	–	4	6
(11)	M3500040	REMOVE PIPE, BACKFILL & COMPACT	LF	62	62	–	412	426	372	126	188
(8)	M3500060	REMOVE ASPHALT CONCRETE PAVEMENT	SY	68	4349	873	300	366	23	128	5350
(9)	M3500108	REMOVE BLOCK WALL	LF	–	–	–	–	10	–	–	–
(3)	M3500110	REMOVE EXISTING FENCE	LF	85	–	–	–	–	–	80	80
	M3500150	REMOVE TREE, 12" DIA. AND LARGER	EA	–	1	–	1	–	–	–	1
(26)	M3500300	RELOCATE IRRIGATION VALVES ON MEDIAN ISLAND	EA	–	–	–	–	2	–	–	–
(28)	M3500300	REMOVE PARKING BUMPERS	EA	–	5	–	–	–	–	–	5
(4)	M3500300	REMOVE AND SALVAGE STREET SIGN	EA	–	2	1	–	2	–	1	4
(10)	M3500300	RELOCATE MAILBOX	EA	–	–	–	1	–	–	–	–
(17)	M3500300	REMOVE BOLLARD	EA	–	17	–	–	–	–	–	17
(30)	M4793001	REMOVE TRAFFIC SIGNAL POLE FOUNDATION	CY	0.3	0.3	–	–	–	–	–	0.3
(29)	M5159020	REMOVE, SALVAGE AND REINSTALL BUS SHELTER FURNITURE	EA	–	1	1	–	1	–	1	3
(5)	M6101801	RELOCATE WATER METER, BOX & COVER, C.O.P. SUP. 610.11 & C.O.P. DET. P1363	EA	1	1	1	3	1	–	1	3
(15)	M6108007	FIRE HYDRANT, SALVAGE AND DELIVER TO THE CITY OF PHOENIX	EA	–	2	–	1	–	–	1	3
(24)	M6108053	RELOCATE BACKFLOW PREVENTION UNIT, PHOENIX SUPPLEMENTAL DETAIL P1353	EA	–	–	–	2	–	–	–	–

REGISTERED PROFESSIONAL ENGINEER
23785
JAMES F. SCHUMANN
Date Signed 1/11/16
ARIZONA U.S.A.
Expires 06/30/2018

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	03	91	

CK GROUP
Engineers & Construction Managers
the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

REMOVAL SUMMARY

CITY OF PHOENIX, ARI□ONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: NOT TO SCALE			G-1.03

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\03_ST85100330_QTY.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

ROADWAY SUMMARY

SYM.	ITEM No.	DESCRIPTION / CONSTRUCTION NOTES	UNIT	SHEET NUMBERS PL–1.01	PL–1.03	PL–1.05	PL–1.07	PL–1.09	PL–1.11	PL–1.13	TOTAL QTY
1	M3010001	SUBGRADE PREPARATION	SY	222	3769	559	445	782	370	279	4607
21	M3210100	ASPHALT CONC. SURFACE COURSE TYPE D 1/2" FOR DRIVEWAYS, SIDEWALKS AND CONNECTORS	TON	–	38.1	27.5	7.6	18.2	–	–	65.6
1	M3210120	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	25	424	65	50	88	42	33	522
1	M3210355	ASPHALTIC CONCRETE BASE COURSE, (A 1–1/2), 5 1/2" THICK	TON	69	1166	180	138	242	115	90	1436
31	M3241101	PORTLAND CEMENT CONCRETE, CLASS A, FOR DRIVEWAY, SIDEWALK, AND PARKING LOT CONNECTIONS	SF	–	–	–	–	–	–	833	833
1	M3290100	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	0.1	1.6	0.2	0.2	0.3	0.2	0.2	2
18	M3350001	CRACK SEAL PAVEMENT AS SHOWN	SY	374	–	–	–	–	–	–	–
17	M3362100	MICRO SEAL EX PAVEMENT AS SHOWN	SY	27741	4347	12760	2652	4010	2561	18230	35337
26	M3400000	CONCRETE MEDIAN NOSE	SF	–	–	–	–	18	–	–	–
5	M3400406	CONCRETE SIDEWALK, C.O.P. DET P1230, MOD., 6" THICK, CLASS A	SF	167	1253	526	1417	1173	1860	516	2295
6	M3400409	CONCRETE SIDEWALK, C.O.P. DET. P1230, MOD., 9" THICK, CLASS A	SF	1789	1982	–	148	1347	154	1891	3873
9	M3400415	TRUNCATED DOMES FOR SIDEWALK RAMPS, C.O.P. DET. P1232	SF	72	72	–	9	36	9	72	144
32	M3400656	CONCRETE BUS BAY PAVEMENT, STD DETAIL P1256–2, 9" THICK, CLASS "A" CONCRETE	SF	–	2156	–	–	–	–	–	2156
15	M3400664	CONCRETE DRIVEWAY ENTRANCE TYPE 1, C.O.P. DET. P1255–1 (9")	SF	–	2150	1610	1768	913	–	645	4405
24	M3401256	CONCRETE BUS BAY PAVEMENT, STD DETAIL P1256–1, 9" THICK, CLASS "A" CONCRETE	SF	–	–	1698	–	1698	–	1694	3392
13	M3401261	BUS SHELTER PAD, C.O.P. DET. P1261	SF	–	616	615	–	615	–	615	1846
4	M3402201	VERTICAL CURB & GUTTER, MAG DET. 220 TYPE A, H=6"	LF	4	343	159	48	204	37	34	536
7	M3402220	COMBINED CURB AND GUTTER, MAG DET. 220, TYPE "A", H=6", MODIFIED 9" GUTTER PAN, CLASS "A" CONCRETE	LF	22	220	–	3	169	3	231	451
20	M3402221	SINGLE CURB, MAG DET. 222 TYPE A, H=6"	LF	–	–	28	–	72	–	43	71
12	M3402223	CONCRETE SINGLE CURB, MAG DET. 222, TYPE A, MOD FOR BUS BAY	LF	–	–	188	–	187	–	188	376
27	M3402227	COMBINED CONCRETE CURB AND GUTTER, MAG DET. 220, TYPE "A" MODIFIED (FOR BUS BAYS)	LF	–	152	–	–	–	–	–	152
2	M3450021	ADJUST EX MANHOLE FRAME & COVER, MAG STD DET 422	EA	7	4	3	–	4	2	5	12
A	M3453001	ADJUST EX WATER VALVE, C.O.P. DET. P–1391 & P–1391–1, TYPE A	EA	8	14	–	1	4	2	12	26
23	M4051201	SURVEY MARKER, MAG DET. 120–1, TYPE A	EA	–	1	–	–	2	–	–	1
33	M4154001	SAFETY POST/BOLLARD	EA	–	8	–	–	4	–	4	12
36	M4304050	DECOMPOSED GRANITE, 1/2" MINUS	CY	–	200	–	–	–	–	–	200
16 *	M6101810	3/4" OR 1" WATER METER SERVICE CONNECTION	LF	26	85	58	179	61	–	65	208
30	M6103706	WATERLINE REALIGNMENT, 6" AND 8", CONTINGENT ITEM	EA	–	–	–	–	1	–	–	–
34	M6103710	WATERLINE REALIGNMENT, 10" AND 12", CONTINGENT ITEM	EA	–	1	–	–	–	–	–	1
28	M6104006	6" DUCTILE IRON WATER PIPE & FITTING, RESTRAINED, FURNISH & INSTALL	LF	–	20	2	17	–	–	16	38
29 *	M6108006	FIRE HYDRANT FURNISHED BY THE CONSTRACTOR	EA	–	1	1	1	–	–	1	3
10	C3456000	ADJUST FRAMES, COVERS AND VALVE BOXES ON EXISTING NON–CITY UTILITIES, CONTINGENT ITEM	EA	2	2	–	–	1	–	5	7
25	C3456000	ADJUST MANHOLE COVER TO PROPOSED GRADE PER SRP CONSTRUCTION LICENSE AND SPECS.	EA	–	–	–	–	1	–	1	1

* DESCRIPTION CHANGE

ITEM M6101810– 3/4" ON 1" WATER SERVICE CONNECTION, C.O.P. DET. P1342, C.O.P. SUP. 631

ITEM M6108006– HYDRANT FURNISHED BY THE CITY OF PHOENIX, INSTALL (P1360, P1362, C.O.P. SUP. 610)

23785
JAMES F. SCHUMANN
Date Signed 11/17/16
ARIZONA, U.S.A.
Expires 06/30/2018

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	04	91	

CK GROUP Engineers & Construction Managers

the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

ROADWAY SUMMARY

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: NOT TO SCALE			G–1.04

ST85100371(002)

\\ckg–svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016–08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\04_ST85100330_QTY.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

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REVISION BY CITY OF PHOENIX

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STORM DRAIN SUMMARY

SYM.	ITEM No.	DESCRIPTION	UNIT	SHEET NUMBERS PL–1.01	PL–1.03	PL–1.05	PL–1.07	PL–1.09	PL–1.11	PL–1.13	TOTAL QTY
		STORM DRAINAGE									
3 13 14	M5051530	CONCRETE CATCH BASIN, TYPE M–1, L=3', C.O.P. DET. P1569–1	EA	–	2	1	–	–	–	–	3
12	M5051540	CONCRETE CATCH BASIN, TYPE M–2, L1=6 L2=3', C.O.P. DET. P1569–1	EA	–	1	–	–	–	–	–	1
2 10 11 12 8 10	M5051564	CONCRETE CATCH BASIN, TYPE M–1, L=6', C.O.P. DET. P1569–1	EA	1	1	–	–	–	–	2	3
5 15 16 17	M5051565	CONCRETE CATCH BASIN, TYPE N SINGLE, C.O.P. DET. P1570	EA	–	–	–	–	–	–	3	3
1 4 6 7 9	M5051588	CONCRETE CATCH BASIN, TYPE R, C.O.P. DET. P1573	EA	1	–	–	1	1	–	2	2
22	M6180427	PIPE PLUG, MAG DET. 427	EA	3	2	–	–	–	–	3	5
	M6180623	STORM SEWER LATERAL PIPE CONNECTION, C.O.P. DET. P1577	EA	–	4	–	–	–	–	4	8
	M6181015	15" CATCH BASIN CONNECTOR PIPE	LF	–	–	–	11	–	–	146	146
	M6181018	18" CATCH BASIN CONNECTOR PIPE	LF	64	134	28	–	91	–	131	293
	M6181578	STORM SEWER LATERAL PIPE CONNECTION, SPECIAL DETAIL 1578	EA	–	–	1	–	2	–	–	1
	M6186005	18"X18"X18" PREFABRICATED TEE	EA	2	–	–	–	–	–	–	–

23785
JAMES F. SCHUMANN
Date Signed 1/11/16
ARIZONA U.S.A.
Expires 06/30/2018

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	05	91	

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STORM DRAIN SUMMARY

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
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ST85100371(002)

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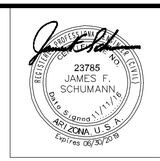
AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.



F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	06	91	

CK GROUP Engineers & Construction Managers

the CK Group, Inc.
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16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

LIGHTING SUMMARY

SYM.	ITEM No.	DESCRIPTION	UNIT	SHEET NUMBERS SL–1.02	SL–1.03	SL–1.04	SL–1.05	SL–1.06	SL–1.07	–	–	–	–	–	–	–	TOTAL QTY
		STREET LIGHTING															
2	M3515075	FURNISH AND INSTALL 67 WATT LED STREET LIGHT PER C.O.P. STREET LIGHTING PROCEDURES, STANDARDS, AND SPECIFICATIONS MANUAL, LATEST EDITION.	EA	–	–	–	1	1	–	–	–	–	–	–	–	–	
1	M3515085	FURNISH AND INSTALL 130 WATT LED STREET LIGHT PER C.O.P. STREET LIGHTING PROCEDURES, STANDARDS, AND SPECIFICATIONS MANUAL, LATEST EDITION.	EA	–	2	1	4	2	–	–	–	–	–	–	–	–	3
3	M6014900	TRENCHING FOR STREET LIGHT CIRCUIT (ONE CONDUIT)	LF	–	425	15	990	390	–	–	–	–	–	–	–	–	440

REVISION BY CITY OF PHOENIX

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LIGHTING SUMMARY

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: NOT TO SCALE			G–1.06

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\06_ST85100330_QTY.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

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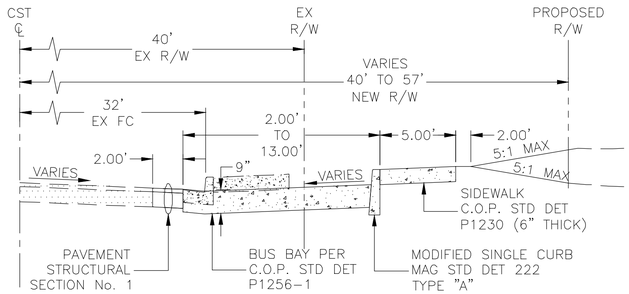
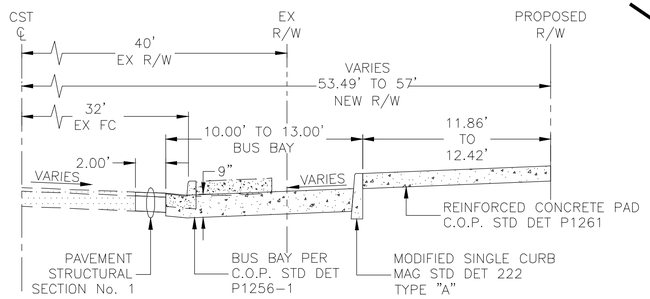
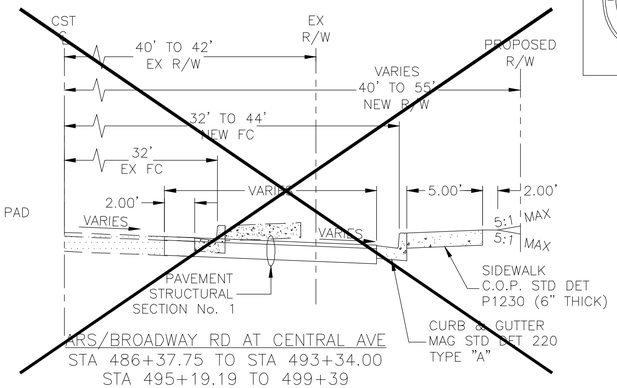


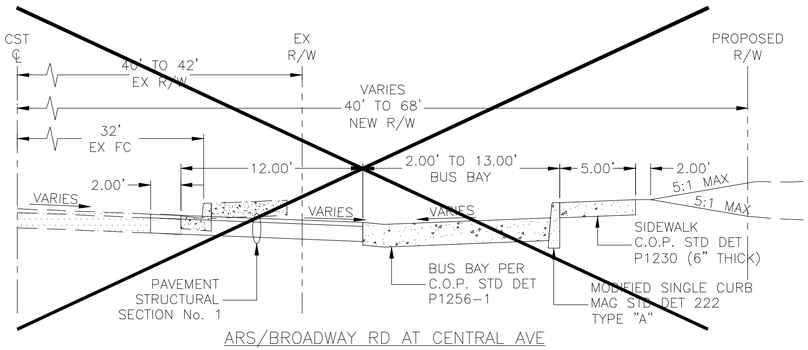
ARS/BROADWAY RD AT 7TH AVE
STA 466+87.61 TO STA 467+92.30
STA 468+42.30 TO STA 469+98



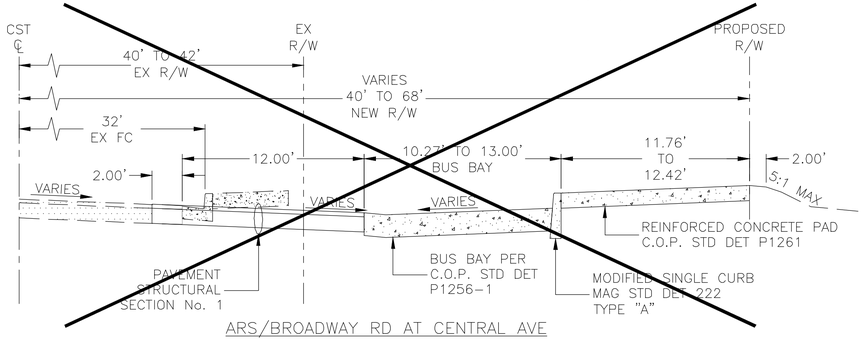
ARS/BROADWAY RD AT 7TH AVE
STA 467+92.30 TO STA 468+42.30



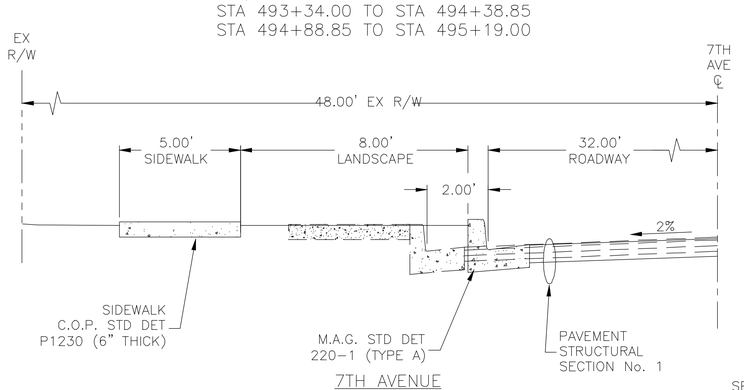
ARS/BROADWAY RD AT CENTRAL AVE
STA 486+37.75 TO STA 493+34.00
STA 495+19.19 TO 499+39



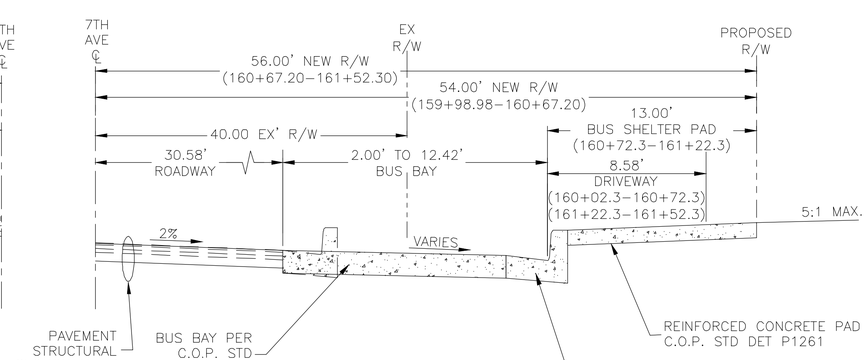
ARS/BROADWAY RD AT CENTRAL AVE
STA 493+34.00 TO STA 494+38.85
STA 494+88.85 TO STA 495+19.00



ARS/BROADWAY RD AT CENTRAL AVE
STA 494+38.85 TO STA 494+88.85



7TH AVENUE
STA 160+12.27 TO 162+07.66



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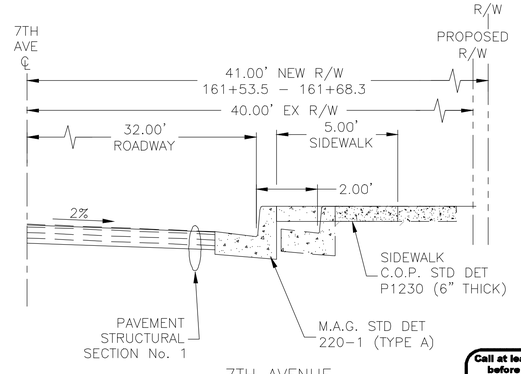
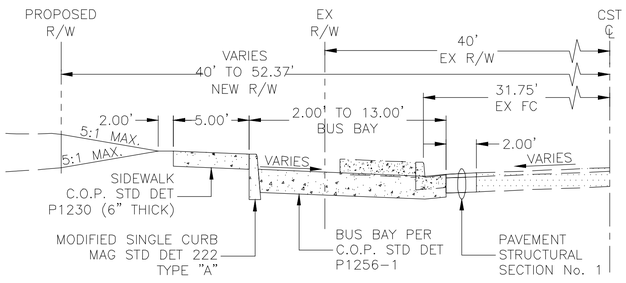
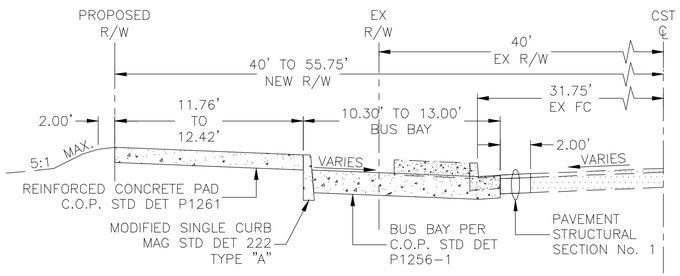
STA 159+98.98 TO 161+52.30



7TH AVENUE
STA 161+52.30 TO 162+07.64



ARS/BROADWAY RD AT 7TH ST
STA 516+85.36 TO STA 517+15.36
STA 517+65.36 TO STA 518+70.36



ARS/BROADWAY RD AT 7TH ST
STA 517+15.36 TO STA 517+65.36

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

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23785
JAMES F. SCHUMANN
Date Signed 1/17/18
ARIZONA U.S.A.
Expires 06/30/2019

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	07	91	

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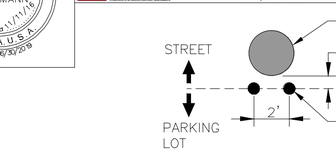
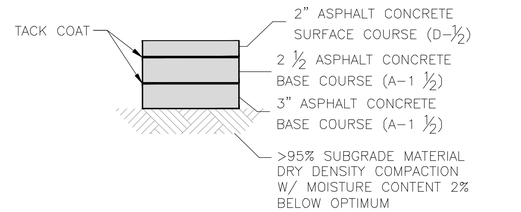
Phoenix, Ariz. 85032



BOLLARDS LAYOUT
AT TRAFFIC SIGNAL POLES

PAVEMENT LEGEND

- EXISTING PAVEMENT TO REMAIN
- PROPOSED PAVEMENT (STRUCTURAL SECTION NO. 1) AND MICRO SEAL
- PROPOSED CONCRETE PAVEMENT
- PROPOSED PAVEMENT FOR DRIVEWAYS, SIDEWALKS AND CONNECTORS



PAVEMENT STRUCTURAL SECTION NO. 1

Call at least two full working days before you begin excavation.
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TYPICAL SECTIONS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
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ST85100371(002)

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AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	08	91	

CK GROUP Engineers & Construction Managers
the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REGISTERED PROFESSIONAL ENGINEER
23785
JAMES F. SCHUMANN
Date Signed 1/11/19
ARIZONA U.S.A.
Expires 06/30/2019

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

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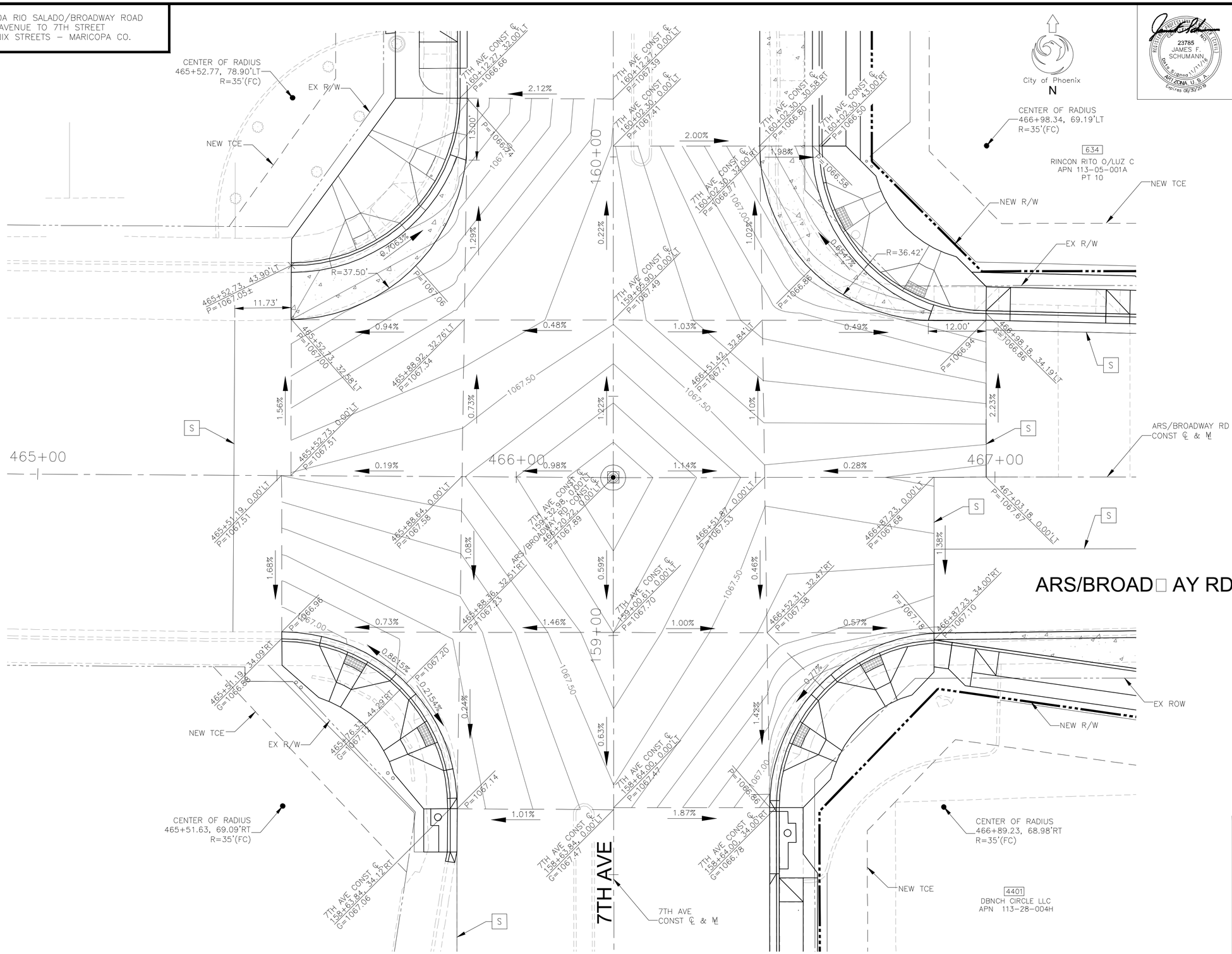


CONTOUR INTERVAL = 0.10'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

STA□ING PLAN □7TH AVE

CITY OF PHOENIX, ARI□ONA
STREET TRANSPORTATION DEPARTMENT

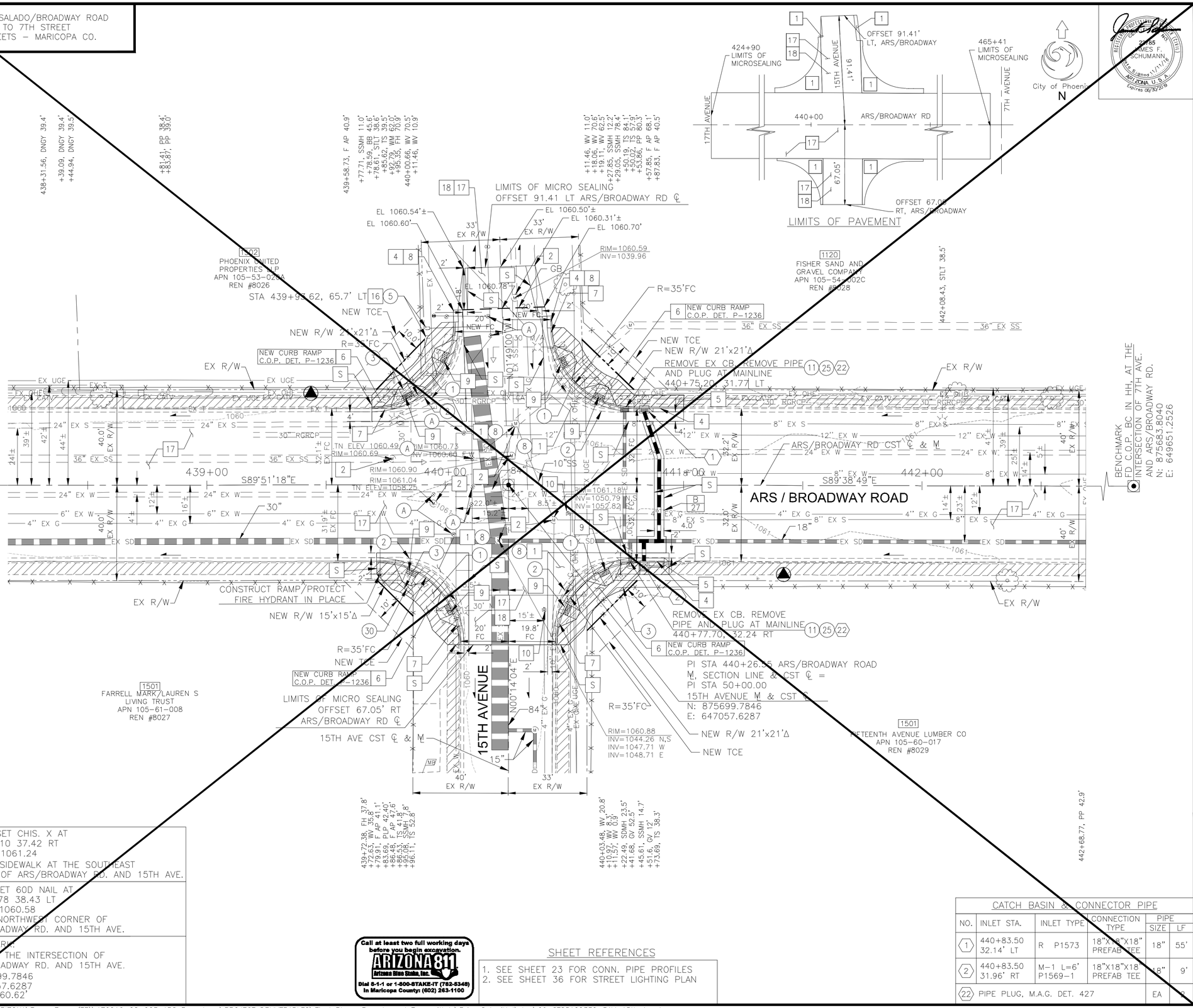
AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=10'			G-1.08

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\08_ST85100330-GRADING 7th Ave.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.



T.B.M.: SET CHIS. X AT
441+42.10 37.42 RT
ELEV = 1061.24
ON THE SIDEWALK AT THE SOUTHEAST CORNER OF ARS/BROADWAY RD. AND 15TH AVE.

T.B.M.: SET 60D NAIL AT
439+43.78 38.43 LT
ELEV = 1060.58
AT THE NORTHWEST CORNER OF ARS/BROADWAY RD. AND 15TH AVE.

BENCHMARK
BCHH AT THE INTERSECTION OF ARS/BROADWAY RD. AND 15TH AVE.
N: 875699.7846
E: 647057.6287
ELEV: 1060.62'

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In Maricopa County: (602) 263-1100

SHEET REFERENCES

1. SEE SHEET 23 FOR CONN. PIPE PROFILES
2. SEE SHEET 36 FOR STREET LIGHTING PLAN

CATCH BASIN & CONNECTOR PIPE

NO.	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
1	440+83.50 32.14' LT	R P1573	18"X18"X18" PREFAB TEE	18"	55'
2	440+83.50 31.96' RT	M-1 L=6' P1569-1	18"X18"X18" PREFAB TEE	18"	9'
22	PIPE PLUG, M.A.G. DET. 427			EA	2

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F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	09	91	

CK GROUP
Engineers & Construction Managers
the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REGISTERED PROFESSIONAL ENGINEER
21785
JAMES F. SCHUMANN
Date Signed 1/11/16
ARIZONA U.S.A.
Expires 06/30/2018

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER, & SLAB		
	SWLK 439+69 TO 440+92 LT	SF	700
	SWLK 439+71 TO 440+94 RT	SF	754
2	REMOVE CONCRETE SINGLE CURB AND CURB & GUTTER		
	CURB 439+69 TO 440+06 LT	LF	56
	CURB 439+71 TO 440+06 RT	LF	62
	CURB 440+45 TO 440+92 LT	LF	67
	CURB 440+47 TO 440+94 RT	LF	74
3	REMOVE EX WIRE FENCE		
	STA 439+71 TO 439+91 LT	LF	34
	STA 439+72 TO 439+87 RT	LF	25
	STA 440+62 TO 440+78 RT	LF	26
5	RELOCATE WATER METER, BOX & COVER, C.O.P. SUP. 610.11 & C.O.P. DET. P1363	EA	1
8	REMOVE ASPHALT CONCRETE PAVEMENT	SY	166
11	REMOVE PIPE, BACKFILL & COMPACT	LF	62
25	REMOVE CATCH BASIN	EA	2
30	REMOVE TRAFFIC SIGNAL POLE FOUNDATION	CY	0.30

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	SUBGRADE PREPARATION	SY	222
	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	25
	ASPHALTIC CONCRETE BASE COURSE, (A 1-1/2), 5 1/2" THICK	TON	69
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS-1H	TON	0.1
2	ADJUST EX MANHOLE FRAME & COVER, MAG STD DET 422	EA	7
A	ADJUST WATER VALVE BOX & COVER, C.O.P. DET. P1391 & P1391-1, TYPE A	EA	8
4	VERTICAL CURB & GUTTER, MAG DET. 220-1 TYPE A, H=6"	LF	46
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6")	SF	167
6	CONCRETE SIDEWALK, C.O.P. DET. P1230, MOD., 9" THICK; CLASS A	SF	1789
7	COMBINED CURB & GUTTER, STANDARD DETAIL 220, TYPE "A", H=6", MODIFIED 9" GUTTER PAN, CLASS "A" CONCRETE	LF	220
8	5' CURB TRANSITION TYPE A TO TYPE B	–	–
9	TRUNCATED DOMES FOR SIDEWALK RAMPS, C.O.P. DET. P1232	SF	72
10	ADJUST FRAMES, COVERS AND VALVE BOXES ON EXISTING NON-CITY UTILITIES, CONTINGENCY ITEM	EA	2
16	¾" OR 1" WATER METER SERVICE CONNECTION	LF	26
17	MICRO SEAL EX PAVEMENT AS SHOWN	SY	2774
18	CRACK SEAL PAVEMENT AS SHOWN	SY	374

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PAVING PLAN □15TH AVE

CITY OF PHOENIX, ARI□ONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			PL-1.01

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\09_ST85100330-PAV-15th Ave.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

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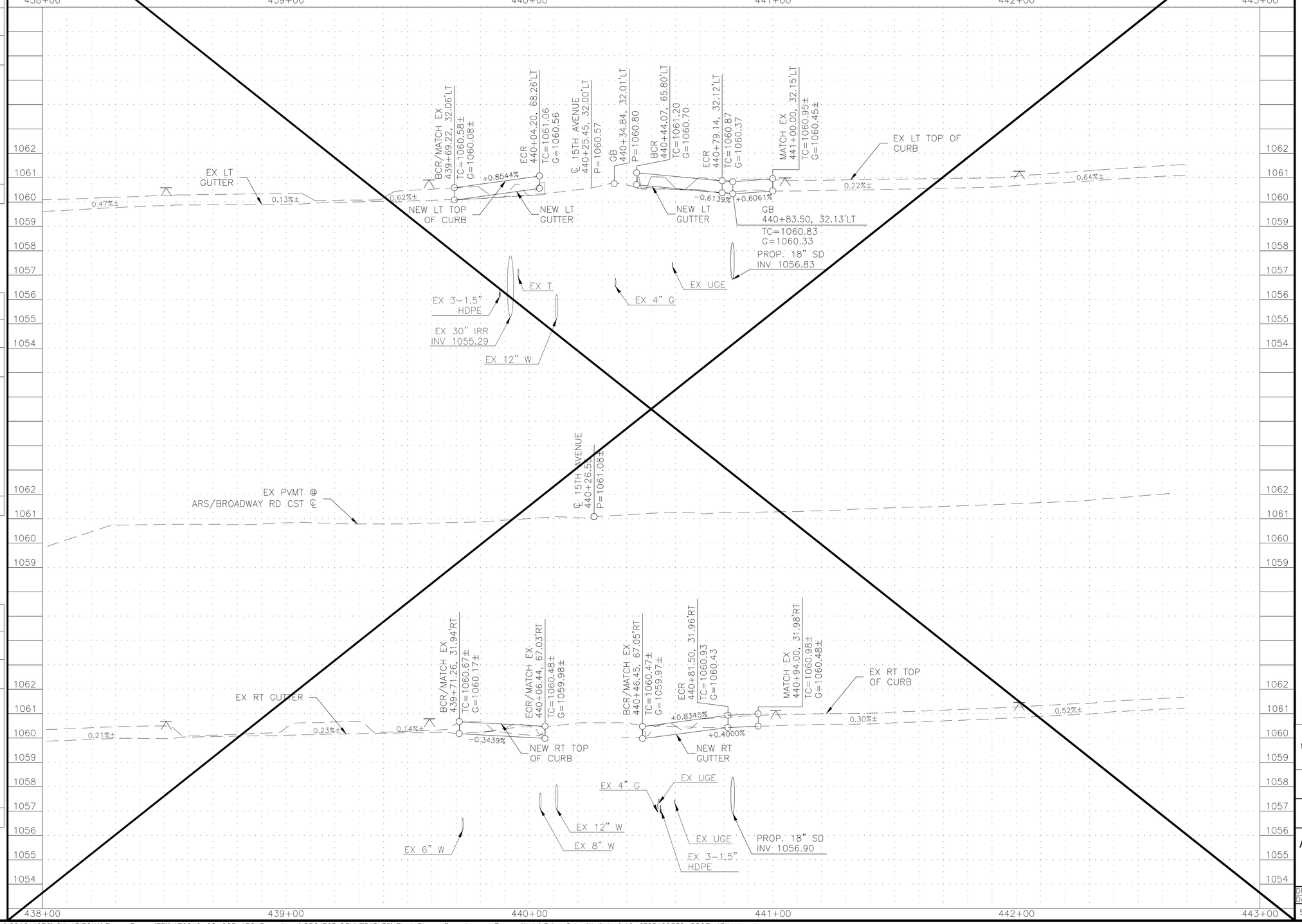
NO.	DESCRIPTION	REV BY	CKD BY	DATE



F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
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CK GROUP
Engineers & Construction Managers

the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REGISTERED PROFESSIONAL ENGINEER
23785
JAMES F. SCHUMANN
Date Signed 1/11/17
ARIZONA U.S.A.
Expires 06/30/2018

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PAVING PROFILE □15TH AVE

CITY OF PHOENIX, ARI□ONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=2' VERTICAL, 1"=20' HORIZONTAL			PR-1.02

ST85100371(002)

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AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

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R/W ACQUISITION PENDING, PARCEL NOT RELEASED FOR CONSTRUCTION

CAUTION
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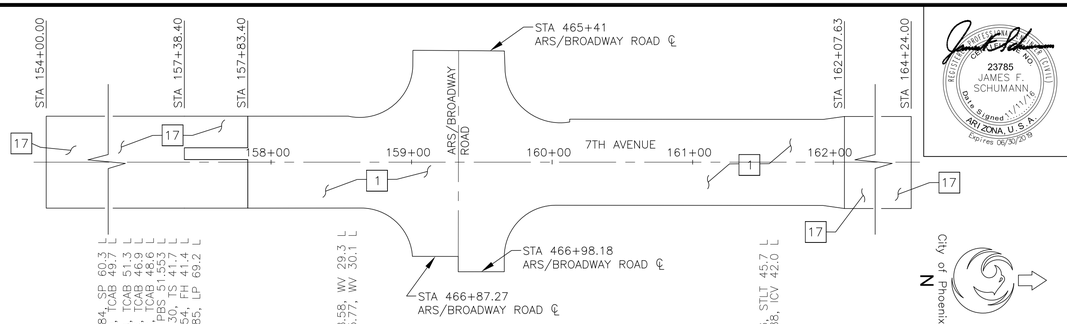

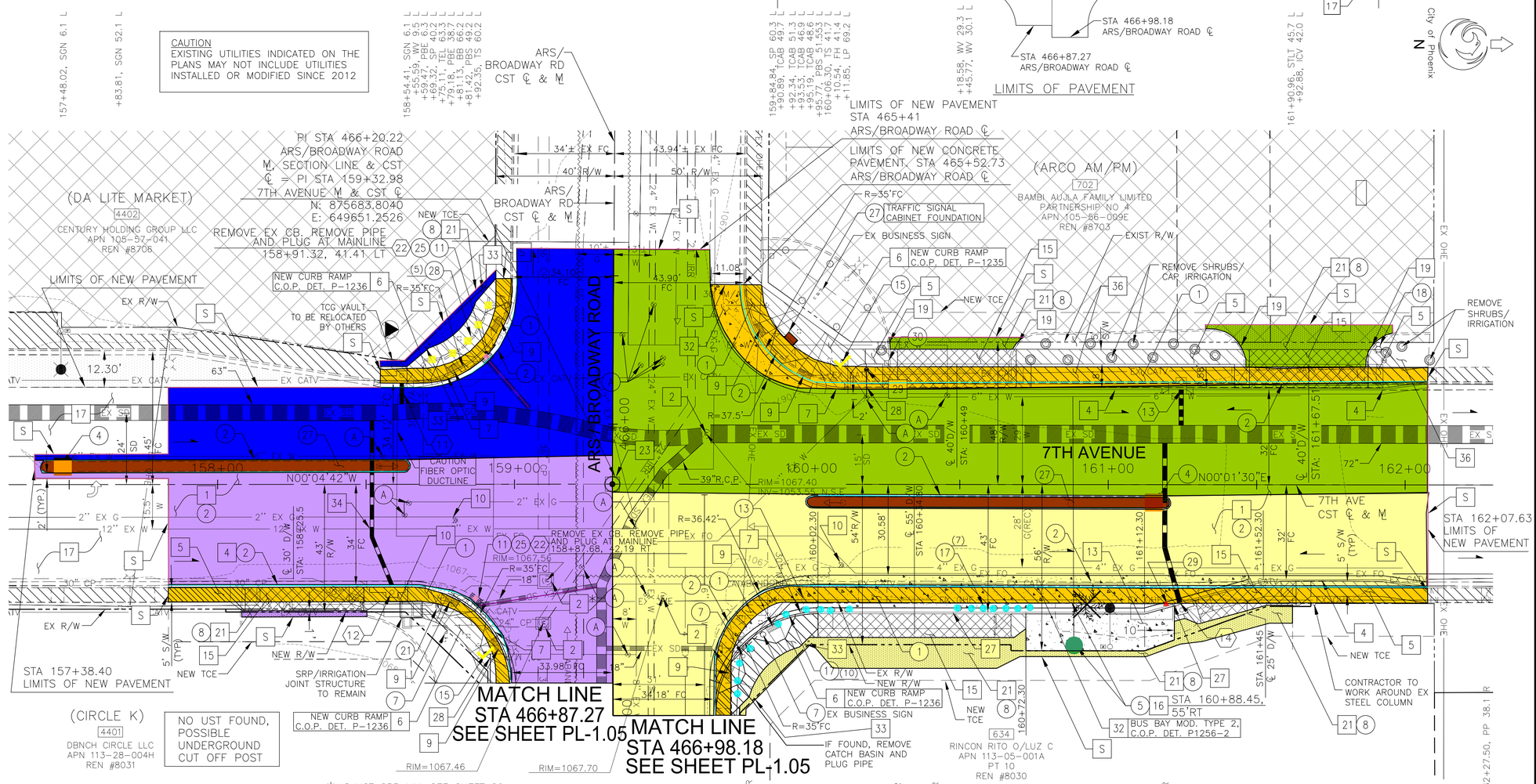

157+67.14 41.3 R
+47 41.1 R
+76.11 43.0 R

158+61.51, IBX 44.0 R
IBX 44.0 R
+68.83, IBX 39.4 R
+73.20, SPE 41.8 R
+76.19, PBE 52.4 R
+76.92, BB 49.9 R
+77.04, STLT 75.9 R
+83.39, PBS 52.2 R
+84.78, PBS 51.4 R
+87.77, SP 54.4 R
+90.23, FH 57.2 R
+93.62, PBE 53.4 R

159+09.74, IMH 46.6 R
+10.92, IMH 32.4 R
+38.28, WV 57.4 R
+40.82, WV 15.2 R
+44.51, WV 37.3 R

159+49.91, WMH 38.0 R
+63.23, MHSS 81.4 R
+74.51, SP 55.2 R
+75.00, BOL 70.6 R
+75.30, BOL 66.0 R
+76.00, BOL 60.5 R
+80.00, PBE 45.5 R
+82.80, BOL 44.6 R
+83.80, BOL 50.6 R
+84.89, BB 49.7 R
+85.00, BOL 46.5 R
+88.00, BOL 43.8 R
+91.70, BOL 38.9 R
+97.40, PP 38.9 R
+97.50, BOL 42.2 R
160+02.70, BOL 42.2 R
+07.00, BOL 42.2 R
+12.20, BOL 42.2 R

160+06.16, PBS 6.1 R
+09.89, GV 27.2 R
+10.64, TS 6.2 R
+49.80, BOL 41.6 R
+53.80, BOL 41.6 R
+57.80, BOL 41.6 R
+61.78, BB 44.6 R
+61.80, BOL 41.6 R
+65.80, BOL 41.6 R
+69.80, BOL 41.6 R
+73.80, BOL 41.6 R
+88.45, WM 39.4 R
161+14.69, BUS SHELTER 40.27 R
161+15.05, SGN 6.1 R

BENCHMARK B.C.H.H.
AT INTERSECTION OF ARS/BROADWAY RD. AND 7TH AVE.
N: 875683.8040,
E: 649651.2526,
ELEV: 1067.15'

T.B.M.: SET PK NAIL AT 158+58.02 52.17 LT
ELEV = 1067.32
AT SOUTHWEST CORNER OF ARS/BROADWAY RD. AND 7TH AVE.

SHEET REFERENCES

1. SEE SHEET 8 FOR INTERSECTION STAKING
2. SEE SHEET 23 & 24 FOR CONN. PIPE PROFILES
3. SEE SHEET 29 & 30 FOR DRIVEWAY PROFILES
4. SEE SHEET 37 FOR STREET LIGHTING PLANS
5. SEE SRP IRRIGATION PLANS FOR IRRIGATION RELOCATION
5. SEE SRP ELECTRICAL PLANS FOR POWER LINE RELOCATION

CATCH BASIN & CONNECTOR PIPE

NO.	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
11	158+62.08 34.12'LT	M-1 L=6' P1569-1	P1577	18"	9'
12	158+58.68 34.00'RT	M-2 L1=6' L2=3' P1569-1	P1577	18"	56'
13	161+24.56 32.00'LT	M-1 L=3' P1569-1	P1577	18"	13'
14	161+24.15 39.74'RT	M-1 L=3' P1569-1	P1577	18"	56'
22	PIPE PLUG, M.A.G. DET. 427			EA	2

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
29	FIRE HYDRANT FURNISHED BY THE CONTRACTOR, INSTALL	EA	1
32	CONCRETE BUS BAY PAVEMENT, STD DET P1256-2, 9" THICK, CLASS "A" CONCRETE	SF	2156
33	SAFETY POST/BOLLARD. SEE LAYOUT DETAIL ON SHEET G-1.07	EA	8
34	WATERLINE REALIGNMENT, 10" AND 12", CONTINGENT ITEM	EA	1
36	DECOMPOSED GRANITE, 1/2" MINUS	CY	200

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
15	CONCRETE DRIVEWAY ENTRANCE TYPE 1, C.O.P. DET. P1255-1 (9")	SF	2150
16	¾" OR 1" WATER METER SERVICE CONNECTION	LF	85
17	MICRO SEAL EX PAVEMENT AS SHOWN	SY	4347
19	CONCRETE SINGLE CURB TERMINATION, MAG 222, TYPE "A"	–	–
21	ASPHALT CONC. SURFACE COURSE TYPE D 1/2" FOR DRIVEWAYS, SIDEWALKS AND CONNECTORS	TONS	38.1
23	SURVEY MARKER, MAG DET. 120-1, TYPE A	EA	1
27	COMBINED CONCRETE CURB AND GUTTER, MAG DET. 220, TYPE "A" MODIFIED (FOR BUS BAYS)	LF	152
28	6" DUCTILE IRON WATER PIPE & FITTING, RESTRAINED, FURNISH & INSTALL	LF	20

REVISION BY CITY OF PHOENIX

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F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	11	91	

23785 JAMES F. SCHUMANN Date Signed 11/11/16 ARIZONA, U.S.A. Expires 06/30/2018

CK GROUP Visions & Construction Research
the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE PORTLAND CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER, & SLAB		
	STA: 158+55 TO STA 162+08 LT	SF	2555
	STA 157+83 TO STA 162+08 RT	SF	2079
2	REMOVE PORTLAND CONCRETE SINGLE CURB AND CURB & GUTTER		
	STA: 158+53 TO STA 162+08 LT	LF	380
	STA 157+83 TO STA 162+08 RT	LF	904
4	REMOVE AND SALVAGE STREET SIGN (INCLUDED IN M3500300 MISC REMOVAL)	EA	2
5	RELOCATE WATER METER, BOX & COVER, C.O.P. SUP. 610.11 & C.O.P. DET. P1363	EA	1
7	PRIVATE SIGN (RELOCATED BY OTHERS)	–	–
8	REMOVE ASPHALT CONCRETE PAVEMENT	SY	4349
11	REMOVE PIPE, BACKFILL & COMPACT	LF	62
13	POWER POLE AND/OR DOWN GUYS (RELOCATED BY OTHERS)	–	–
15	FIRE HYDRANT, SALVAGE AND DELIVER TO THE CITY OF PHOENIX	EA	2
17	REMOVE BOLLARD (INCLUDED IN M3500300 MISC REMOVAL)	EA	17
18	PRIVATE LIGHT POLE (RELOCATED BY OTHERS)	–	–
21	TELEPHONE RISER (RELOCATED BY OTHERS)	–	–
22	PARKING BUMPER (RELOCATED BY OTHERS)	–	–
25	REMOVE CATCH BASIN	EA	2
27	REMOVE PORTLAND CEMENT CONCRETE SLAB	SF	1056
28	REMOVE PARKING BUMPERS (INCLUDED IN MISCELLANEOUS REMOVALS)	EA	5
29	REMOVE, SALVAGE AND REINSTALL BUS SHELTER FURNITURE	EA	1
30	REMOVE TRAFFIC SIGNAL POLE FOUNDATION	CY	0.3

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
	SUBGRADE PREPARATION	SY	3769
1	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	424
1	ASPHALTIC CONCRETE BASE COURSE, (A 1-1/2), 5 1/2" THICK	TON	1166
1	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS-1H	TON	1.6
2	ADJUST EX MANHOLE FRAME & COVER, MAG STD DET 422	EA	4
A	ADJUST EX WATER VALVE BOX & COVER, C.O.P. DET. P1391 & P1391-1, TYPE A	EA	14
4	VERTICAL CURB & GUTTER, MAG DET. 220, TYPE A, H=6"	LF	343
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6")	SF	1253
6	CONCRETE SIDEWALK, C.O.P. DET. P1230, MOD., 9" THICK; CLASS A	SF	1982
7	COMBINED CURB & GUTTER, STANDARD DETAIL 220, TYPE "A", H=6", MODIFIED 9" GUTTER PAN, CLASS "A" CONCRETE	LF	220
9	TRUNCATED DOMES FOR SIDEWALK RAMPS, C.O.P. DET. P1232	SF	72
10	ADJUST FRAMES, COVERS & VALVE BOXES ON EXISTING NON-CITY UTILITIES, CONTINGENCY ITEM	EA	2
13	BUS SHELTER PAD, C.O.P. DET. P1261	SF	616

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PAVING PLAN - 7TH AVE

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			PL-1.03

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\11_ST85100330-PAV-7th Ave 1 of 2.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

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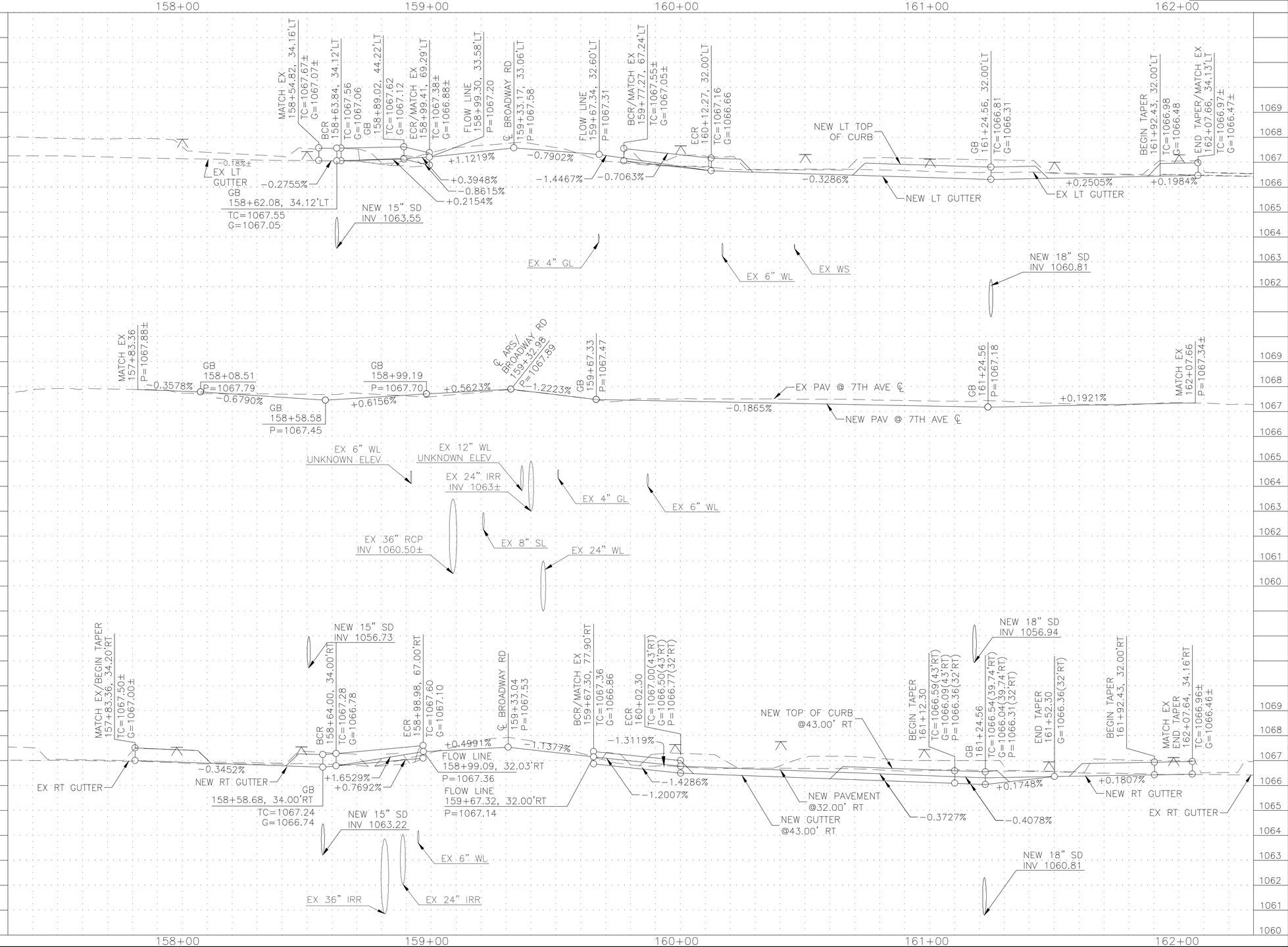

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23785
JAMES F.
SCHUMANN
Date Signed 1/11/16
ARIZONA, U.S.A.
Expires 06/30/2018

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NOTE:

SEE SHEET G-1.08 FOR INTERSECTION STAKING

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PAVING PROFILE □7TH AVE

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STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

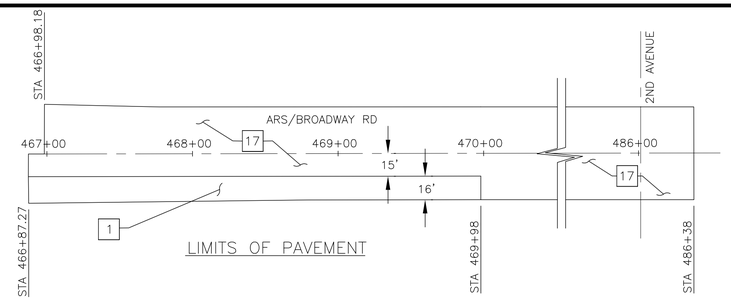
DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=2' VERTICAL, 1"=20' HORIZONTAL			PR-1.04

ST85100371(002)

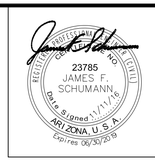
\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\12_ST85100330-PROF-7th Ave 1 of 2.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

R/W ACQUISITION PENDING, PARCEL NOT RELEASED FOR CONSTRUCTION



City of Phoenix
N



F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	13	91	

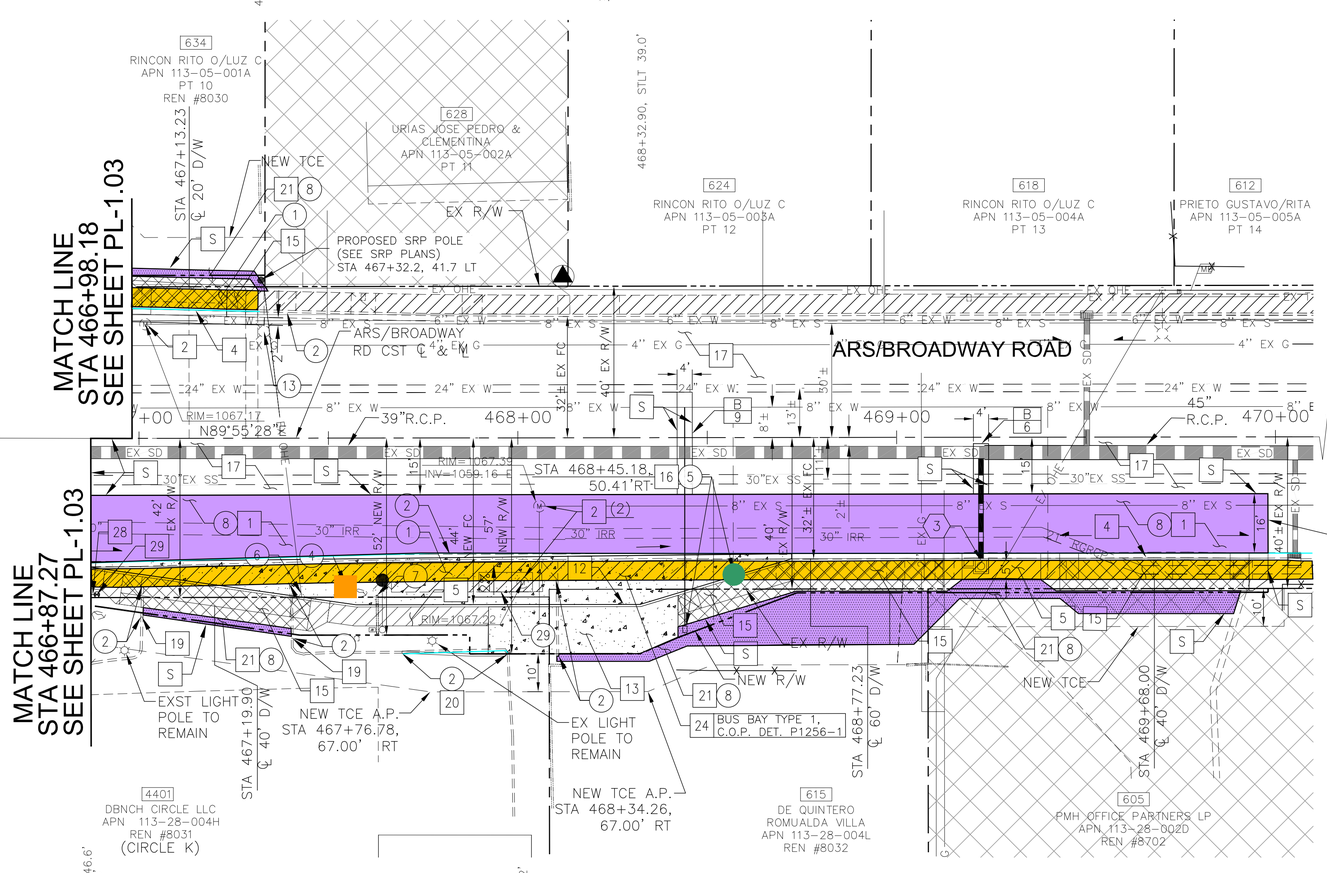
CK GROUP Engineers & Construction Managers
the CK Group, Inc.
CIVIL - TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE PORTLAND CEMENT CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER, & SLAB		
	STA: 467+14 TO STA 467+38 LT	SF	166
	STA 466+87 TO STA 469+98 RT	SF	1679
2	REMOVE PORTLAND CEMENT CONCRETE SINGLE CURB AND CURB & GUTTER		
	STA: 467+14 TO STA 467+36 LT	LF	33
	STA 466+87 TO STA 469+98 RT	LF	347
4	REMOVE AND SALVAGE STREET SIGN (INCLUDED IN M3500300 MISC REMOVAL)	EA	1
5	RELOCATE WATER METER, BOX & COVER, C.O.P. SUP. 610.11 & C.O.P. DET. P1363	EA	1
6	ANCHOR POLE (RELOCATED BY OTHERS)	–	–
7	PRIVATE SIGN (RELOCATED BY OTHERS)	–	–
8	REMOVE ASPHALT CONCRETE PAVEMENT	SY	873
13	POWER POLE AND/OR DOWN GUYS (RELOCATED BY OTHERS)	–	–
29	REMOVE, SALVAGE AND REINSTALL BUS SHELTER FURNITURE	EA	1

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	SUBGRADE PREPARATION	SY	559
	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	65
	ASPHALTIC CONCRETE BASE COURSE, (A 1–1/2), 5 1/2" THICK	TON	180
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	.2
2	ADJUST EX MANHOLE FRAME & COVER, MAG STD DET 422	EA	3
4	CURB & GUTTER, MAG DET. 220 TYPE A, H=6"	LF	159
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6")	SF	526
12	CONCRETE SINGLE CURB, MAG DET 222, TYPE A, MOD FOR BUS BAY	LF	188
13	BUS SHELTER PAD, C.O.P. DET. P1261	SF	615
15	CONCRETE DRIVEWAY ENTRANCE TYPE 1, C.O.P. DET. P1255–1 (9")	SF	1610
16	¾" OR 1" WATER METER SERVICE CONNECTION	LF	58
17	MICRO SEAL EX PAVEMENT AS SHOWN	SY	12760
19	CONCRETE SINGLE CURB TERMINATION, MAG 222, TYPE "A"	–	–
20	SINGLE CURB, MAG DET. 222 TYPE A, H=6"	LF	28
21	ASPHALT CONC. SURFACE COURSE TYPE D 1/2" FOR DRIVEWAYS, SIDEWALKS AND CONNECTORS	TONS	27.5
24	CONCRETE BUS BAY PAVEMENT, STD DET P1256–1, 9" THICK, CLASS "A" CONCRETE	SF	1698
28	6" DUCTILE IRON WATER PIPE & FITTING, RESTRAINED, FURNISH & INSTALL	LF	2
29	FIRE HYDRANT FURNISHED BY THE CONTRACTOR, INSTALL	EA	1



PI STA 492+56.84
ARS/BROADWAY ROAD ℳ,
SECTION LINE & CST ℄
N: 875687.2836
E: 652287.8674

STA 469+98
LIMITS OF NEW PAVEMENT
ARS/BROADWAY ROAD ℄

PI STA 466+20.22
ARS/BROADWAY ROAD ℳ,
SECTION LINE & CST ℄ =
PI STA 50+00.00 7TH
AVENUE ℳ & CST ℄
N: 875683.8040
E: 649651.2526

BENCHMARK BC IN HH
AT INTERSECTION OF
ARS/BROADWAY RD. AND 7TH AVE.
N: 875683.8040
E: 649651.2526
ELEV: 1067.15'

BENCHMARK BC IN HH
AT INTERSECTION OF
ARS/BROADWAY RD. AND CENTRAL AVE.
N: 875687.2836
E: 652287.8674
ELEV: 1067.15'

T.B.M.: SET PK NAIL AT
468+11.93 42.55 LT
ELEV = 1067.88
AT INTERSECTION OF RIGHT OF WAY OF ARS/BROADWAY RD. AND PROPERTY LINE OF URIAS JOSE PEDRO

CAUTION
EXISTING UTILITIES INDICATED ON THE PLANS MAY NOT INCLUDE UTILITIES INSTALLED OR MODIFIED SINCE 2012

CATCH BASIN & CONNECTOR PIPE

NO.	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
3	469+22.23 32.00'RT	M–1 L=3' P1569–1	P1578	18"	28'

SHEET REFERENCES
1. SEE SHEET 24 FOR CONN. PIPE PROFILES
2. SEE SHEET 29 FOR DRIVEWAY PROFILES
3. SEE SHEET 37 & 38 FOR STREET LIGHTING PLAN
4. SEE SRP IRRIGATION PLANS FOR IRRIGATION RELOCATION
5. SEE SRP ELECTRICAL PLANS FOR POWER LINE RELOCATION

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2–28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

PAVING PLAN - 7TH AVE

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			PL–1.05

ST85100371(002)

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\13_ST85100330-PAV-7th Ave 2 of 2.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

23785
JAMES F. SCHUMANN
Date Signed 1/11/16
ARIZONA U.S.A.
Expires 06/30/2018

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	14	91	

the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

CAUTION
EXISTING UTILITIES INDICATED ON THE PLANS MAY NOT INCLUDE UTILITIES INSTALLED OR MODIFIED SINCE 2012

NOTE:

SEE SHEET G-1.08 FOR INTERSECTION STAKING

Call at least two full working days before you begin excavation.
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PAVING PROFILE □7TH AVE

CITY OF PHOENIX, ARI□ONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=2' VERTICAL 1"=20' HORIZONTAL			PR-1.06

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\14_ST85100330-PROF-7th Ave 2 of 2.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

STA 486+38 — STA 490+50
487+00 — 488+00 — 489+00 — 490+00
ARS/BROADWAY ROAD
LIMITS OF PAVEMENT
489+10, 29' Rt Angle Point

City of Phoenix
N

2785
JAMES F.
SCHUMANN
Date Signed 1/11/16
ARIZONA U.S.A.
Expires 06/30/2018

485+52.34, FH 39.1'
+52.45, WV 8.2'
+52.55, WV 9.4'
+67.70, WV 8'
486+16.91, WV 19'
+24.43, SSMH 28.3'
488+68.31, STLT 37.9'
+85.82, FH 30.5'
489+18.06, FH 29.5'
+34.98, WV 9.1'
+37.45, FH 31.4'
+92.28, WV 27.2'
490+08.72, WV 26.5'
+14.47, WV 29.0'
+18.37, WV 35.3'

LIMITS OF MICRO SEALING
EX R/W
CITY OF PHOENIX APN 113-07-123
ARS / BROAD□AY ROAD
ARS/BROADWAY RD CST ℄ & M
N89°55'28"E
45"R.C.P. OR C.M.P. 486+00
45"R.C.P OR C.M.P. 487+00
488+00
42"R.C.P. OR C.M.P. 489+00
490+00
STA 490+23.00, 54.00'RT
(2) STA 490+23.00, 57.00'RT
STA 490+16.80, 53.00'RT
END TAPER F/C
STA 489+37.68, 44.00'RT
STA 489+05.85, 49.00'RT
EX SRP STRUCTURE
36" R=20'F/C
2ND AVENUE
FD C.O.P. B.C. IN H.H., AT THE INTERSECTION OF 7TH AVE. AND ARS/BROADWAY RD. N: 875683.8040 E: 649651.2526
NEW CURB RAMP C.O.P. DET. P-1237
STA 486+28.89 57.07' RT
EX R/W
EX SRP STRUCTURE
STA 486+18.95, 100.73 RT ℄ 25' D/W G=1069.86
REMOVE EX CB. REMOVE PIPE AND PLUG AT MAINLINE STA 486+90, 32'RT
NEW R/W
NEW SRP IRRIGATION EASEMENT
NEW TCE
PROPOSED SRP IRRIGATION PIPE (TYP.) SEE SRP PLANS
STA 487+18.57 ℄ 30' D/W
STA 487+71.63 ℄ 30' D/W
STA 489+40.67 ℄ 30' D/W
STA 489+90.77 ℄ 30' D/W
STA 490+44.08 ℄ 30' D/W
MATCH LINE STA 490+50 SEE SHEET PL-1.09
MATCH EX STA 486+17.53, 128.33'RT @ GUTTER LIP G=1069.81±

43 SOUTHSIDE CHURCH OF CHRIST APN 113-30-021C PT 21 REN #8033
30 CITY OF PHOENIX APN 113-30-066 REN #8034
19 ABDIYEV RAFAEL APN 113-30-012B PT 11 REN #8035
15 CLEARLY WATER LTD APN 113-30-010B PT 9 REN #8036
11 CLEARLY WATER LTD APN 113-30-008B PT 7 REN #8037

485+74.30, GM 74.7'
+75.39, GM 63.2'
+76.67, GMH 61.5'
+83.16, SSMH 10.4'
+99.35, SSMH 5.4'
486+18.28, WV 58.9'
+28.89, FH 57.1'
487+49.05, WM 57.1'
+54.20, WM 60.1'
+92.26, MB 37.2'
+98.95, TREE 54.7'
488+15.10, TREE 50.3'
+30.53, TREE 53.8'
+62.95, TREE 52.9'
+77.70, TREE 51.9'
499+00.33, TREE 55.9'
+08.95, WM 39.4'
490+16.88, WM 43.6'
+23.33, WM 43.1'
+44.09, ICV 51.6'
+25.18, ICV 51.4'

T.B.M.: SET PK NAIL IN SIDEWALK AT 488+37.13 35.46' LT
ELEV = 1070.71
ON THE SIDEWALK OF NORTH SIDE OF ARS/BROADWAY RD.

BENCHMARK B.C.H.H
AT THE INTERSECTION OF ARS/BROADWAY RD. AND 7TH AVE.
N: 875683.8040
E: 649651.2526
ELEV: 1067.15'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

SHEET REFERENCES

1. SEE SHEET 24 FOR CONN. PIPE PROFILES
2. SEE SHEET 29 & 30 FOR DRIVEWAY PROFILES
3. SEE SHEET 39 FOR STREET LIGHTING PLAN
4. SEE SRP IRRIGATION PLANS FOR IRRIGATION RELOCATION
5. SEE SRP ELECTRICAL PLANS FOR POWER LINE RELOCATION

CATCH BASIN & CONNECTOR PIPE

NO.	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
4	486+90.19 34.12'RT	TYPE R, P1573	P1505	15"	11'

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	15	91	

CK GROUP Engineers & Construction Managers
the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE PORTLAND CEMENT CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER, & SLAB		
	STA 486+18 TO 490+50 RT	SF	2300
2	REMOVE PORTLAND CEMENT CONCRETE SINGLE CURB AND CURB & GUTTER		
	STA 486+18 TO 490+50 RT	LF	559
4	REMOVE AND SALVAGE STREET SIGN (INCLUDED IN M3500300 MISC REMOVAL)	EA	1
5	RELOCATE WATER METER, BOX & COVER, C.O.P. SUP. 610.11 & C.O.P. DET. P1363	EA	3
8	REMOVE ASPHALT CONCRETE PAVEMENT	SY	205
10	RELOCATE MAILBOX (INCLUDED IN M3500300 MISC REMOVAL)	EA	1
11	REMOVE PIPE, BACKFILL, AND COMPACT	LF	412
14	IRRIGATION VALVES (RELOCATED BY OTHERS)	–	–
15	FIRE HYDRANT, SALVAGE AND DELIVER TO THE CITY OF PHOENIX	EA	1
22	PARKING BUMPER (RELOCATED BY OTHERS)	–	–
24	RELOCATE BACKFLOW PREVENTIORN UNIT, PHOENIX SUPP. DET P1353	EA	2
25	REMOVE CATCH BASIN	EA	1

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	SUBGRADE PREPARATION	SY	445
	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	50
	ASPHALTIC CONCRETE BASE COURSE, (A 1–1/2), 5 1/2" THICK	TON	138
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	0.2
A	ADJUST EX WATER VALVE BOX & COVER, C.O.P. DET. P1391 & P1391–1, TYPE A	EA	1
4	CURB & GUTTER, MAG DET. 220–1 TYPE A, H=6"	LF	489
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6")	SF	1417
6	CONCRETE SIDEWALK, C.O.P. DET. P1230, MOD., 9" THICK; CLASS A	SF	148
7	COMBINED CURB & GUTTER, STANDARD DETAIL 220, TYPE "A", H=6", MODIFIED 9" GUTTER PAN, CLASS "A" CONCRETE	LF	31
9	TRUNCATED DOMES FOR SIDEWALK RAMPS, C.O.P. DET. P1232	SF	9
11	CURB & GUTTER TRANSITION, MAG 221, TYPE A TO TYPE C	EA	–
15	CONCRETE DRIVEWAY ENTRANCE TYPE 1, C.O.P. DET. P1255–1 (9" THICK)	SF	1769
16	¾" OR 1" WATER METER SERVICE CONNECTION	LF	179
17	MICRO SEAL EX PAVEMENT AS SHOWN	SY	2652
19	CONCRETE SINGLE CURB TERMINATION, MAG 222, TYPE "A"	–	–
21	ASPHALT CONC. SURFACE COURSE TYPE D 1/2" FOR DRIVEWAYS, SIDEWALKS AND CONNECTORS	TONS	7.6
28	6" DUCTILE IRON WATER PIPE & FITTING, RESTRAINED, FURNISH & INSTALL	LF	17
29	FIRE HYDRANT FURNISHED BY CONTRACTOR	EA	1

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PAVING PLAN □CENTRAL AVE

CITY OF PHOENIX, ARI□ONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			PL–1.07

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\15_ST85100330-PAV-Central 1 of 3.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

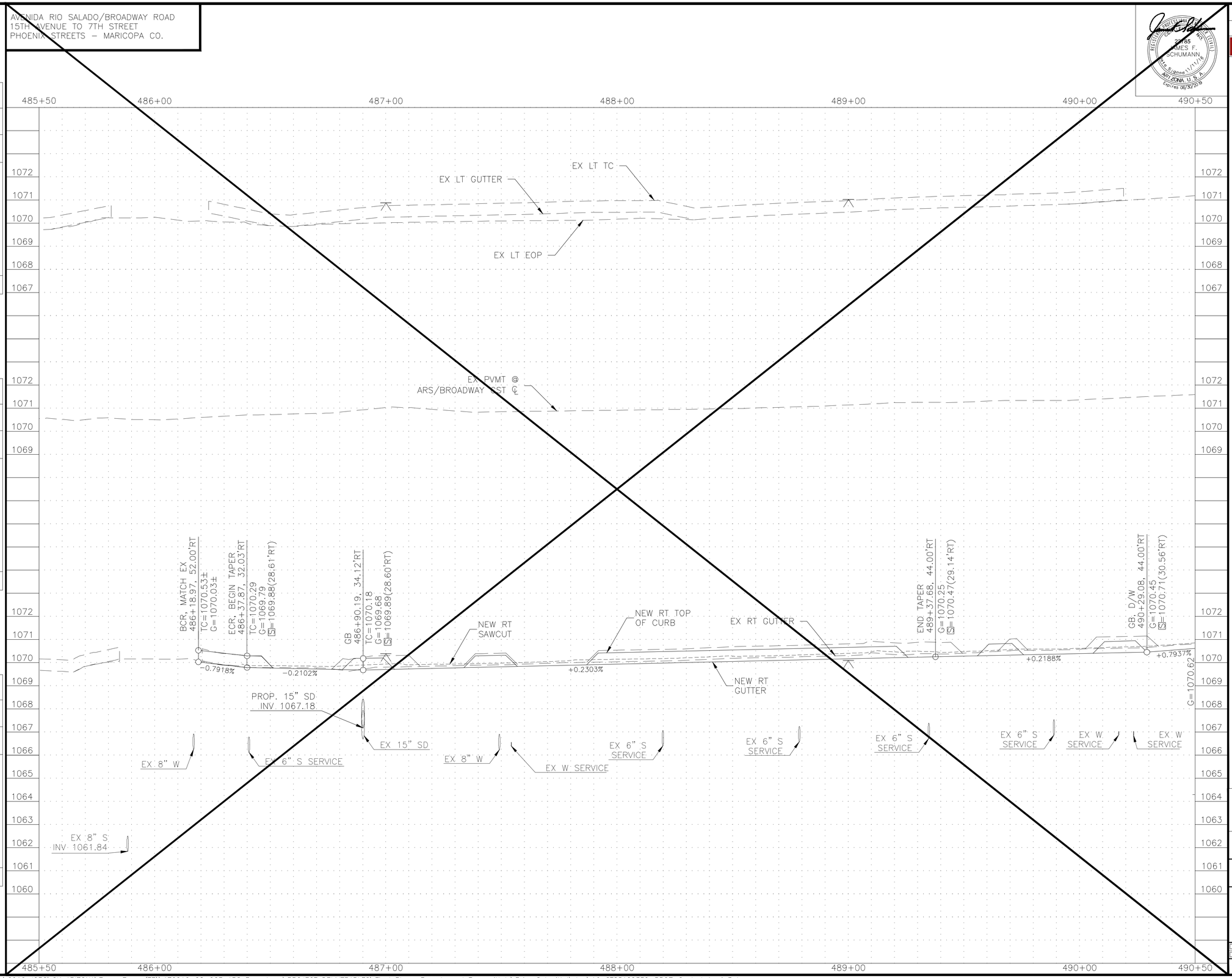
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	16	91	

CK GROUP Engineers & Construction Managers

the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REGISTERED PROFESSIONAL ENGINEER
2785
JAMES F. SCHUMANN
Six Sigma
ARIZONA U.S.A.
Expires 06/30/2018

Call at least two full working days before you begin excavation.
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In Maricopa County: (602) 263-1100

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PAVING PROFILE - CENTRAL AVE

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=2' VERTICAL 1"=20' HORIZONTAL			PR-1.08

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\16_ST85100330-PROF-Central 1 of 3.dwg

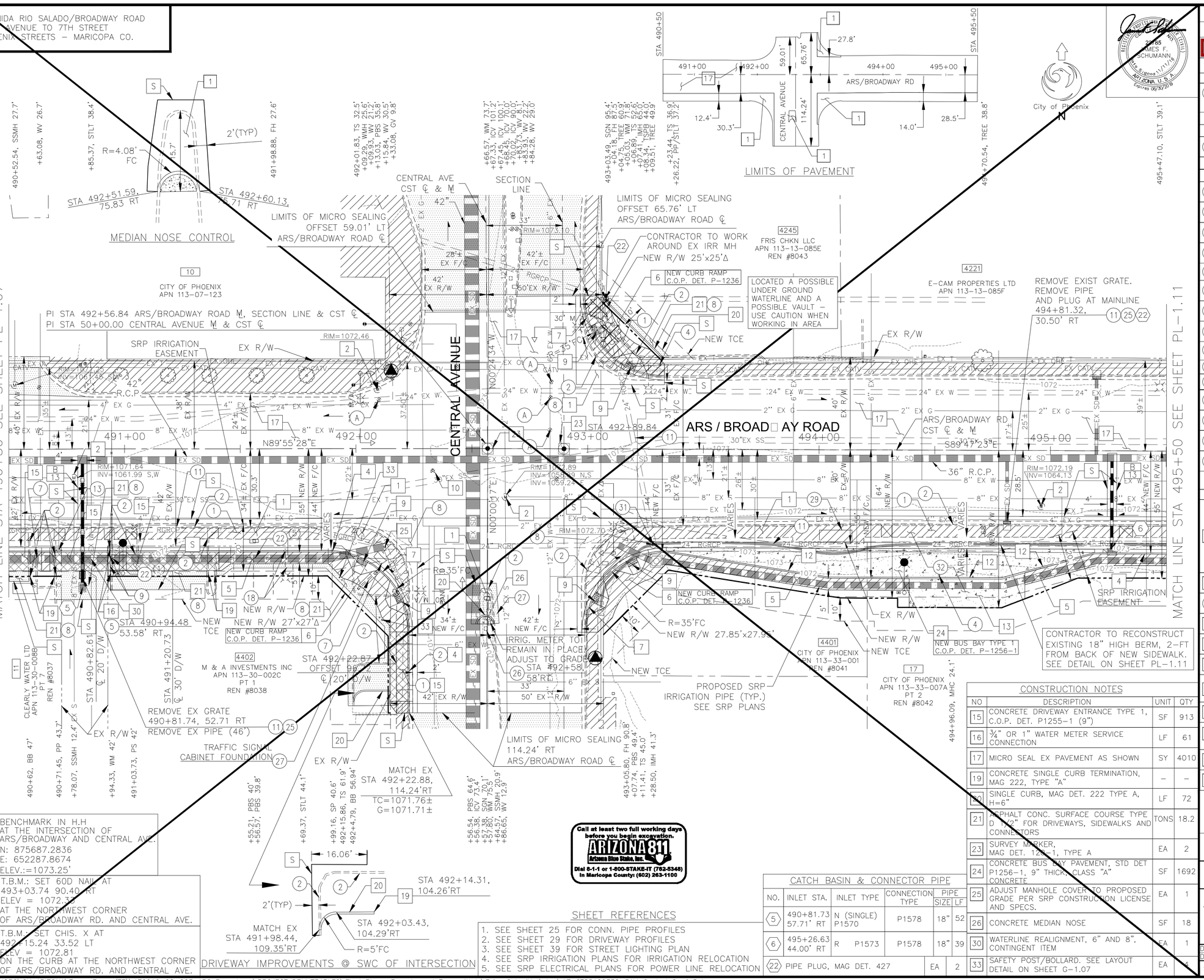
AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



BENCHMARK IN H.H
AT THE INTERSECTION OF ARS/BROADWAY AND CENTRAL AVE.
N: 875687.2836
E: 652287.8674
ELEV.:=1073.25'

T.B.M.: SET 60D NAIL AT 493+03.74 90.40' RT
ELEV = 1072.33'
AT THE NORTHWEST CORNER OF ARS/BROADWAY RD. AND CENTRAL AVE.

T.B.M.: SET CHIS. X AT 492+15.24 33.52 LT
ELEV = 1072.81
ON THE CURB AT THE NORTHWEST CORNER OF ARS/BROADWAY RD. AND CENTRAL AVE.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
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SHEET REFERENCES

1. SEE SHEET 25 FOR CONN. PIPE PROFILES
2. SEE SHEET 29 FOR DRIVEWAY PROFILES
3. SEE SHEET 39 FOR STREET LIGHTING PLAN
4. SEE SRP IRRIGATION PLANS FOR IRRIGATION RELOCATION
5. SEE SRP ELECTRICAL PLANS FOR POWER LINE RELOCATION

CATCH BASIN & CONNECTOR PIPE

NO.	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
5	490+81.73 57.71' RT	N. (SINGLE) P1570	P1578	18"	52
6	495+26.63 44.00' RT	R P1573	P1578	18"	39
22	PIPE PLUG, MAG DET. 427			EA	2

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
15	CONCRETE DRIVEWAY ENTRANCE TYPE 1, C.O.P. DET. P1255-1 (9")	SF	913
16	¾" OR 1" WATER METER SERVICE CONNECTION	LF	61
17	MICRO SEAL EX PAVEMENT AS SHOWN	SY	4010
19	CONCRETE SINGLE CURB TERMINATION, MAG 222, TYPE "A"	–	–
20	SINGLE CURB, MAG DET. 222 TYPE A, H=6"	LF	72
21	ASPHALT CONC. SURFACE COURSE TYPE D 1/2" FOR DRIVEWAYS, SIDEWALKS AND CONNECTORS	TONS	18.2
23	SURVEY MARKER, MAG DET. 120-1, TYPE A	EA	2
24	CONCRETE BUS BAY PAVEMENT, STD DET P1256-1, 9" THICK, CLASS "A" CONCRETE	SF	1692
25	ADJUST MANHOLE COVER TO PROPOSED GRADE PER SRP CONSTRUCTION LICENSE AND SPECS.	EA	1
26	CONCRETE MEDIAN NOSE	SF	18
30	WATERLINE REALIGNMENT, 6" AND 8", CONTINGENT ITEM	EA	1
33	SAFETY POST/BOLLARD. SEE LAYOUT DETAIL ON SHEET G-1.07	EA	4

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	17	91	

CK GROUP Engineers & Construction Managers
the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REGISTERED PROFESSIONAL ENGINEER
23785
JAMES F. SCHUMANN
Date Signed 1/11/17
ARIZONA U.S.A.
Expires 06/30/2018

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE PORTLAND CEMENT CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER, & SLAB		
	STA 492+99 TO 493+33 LT	SF	335
	STA 490+50 TO 495+50 RT	SF	2791
2	REMOVE PORTLAND CEMENT CONCRETE SINGLE CURB AND CURB & GUTTER		
	STA 492+99 TO 493+33 LT	LF	101
	STA 490+50 TO 495+50 RT	LF	695
4	REMOVE AND SALVAGE STREET SIGN (INCLUDED IN M3500300 MISC REMOVAL)	EA	2
5	RELOCATE WATER METER, BOX & COVER, C.O.P. SUP. 610.11 & C.O.P. DET. P1363	EA	1
7	PRIVATE SIGN (RELOCATED BY OTHERS)	–	–
8	REMOVE ASPHALT CONCRETE PAVEMENT	SY	360
9	REMOVE BLOCK WALL	LF	10
11	REMOVE PIPE, BACKFILL & COMPACT	LF	532
13	POWER POLE AND/OR DOWN GUYS (RELOCATED BY OTHERS)	–	–
18	PRIVATE STREET LIGHT POLE (RELOCATED BY OTHERS)	–	–
22	PARKING BUMPER (RELOCATED BY OTHERS)	–	–
25	REMOVE CATCH BASIN	EA	2
26	RELOCATE IRRIGATION VALVES (MISC)	EA	2
27	REMOVE CONCRETE SLAB	SF	13
29	REMOVE, SALVAGE AND REINSTALL BUS SHELTER FURNITURE	EA	1
31	REMOVE EXISTING MANHOLE	EA	1
32	EXCAVATION AND BACKFILL, TIME AND MATERIALS	CY	290

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
	SUBGRADE PREPARATION	SY	782
1	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	88
	ASPHALTIC CONCRETE BASE COURSE, (A 1–1/2), 5 1/2" THICK	TON	242
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS-1H	TON	0.3
2	ADJUST EX MANHOLE FRAME & COVER, MAG STD DET 422	EA	5
A	ADJUST EX WATER VALVE BOX & COVER, C.O.P. DET. P1391 & P1391-1, TYPE A	EA	4
4	CURB & GUTTER, MAG DET. 220 TYPE A, H=6"	LF	204
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6")	SF	1173
6	CONCRETE SIDEWALK, C.O.P. DET. P1230, MOD., 9" THICK; CLASS A	SF	1347
7	COMBINED CURB & GUTTER, STANDARD DETAIL 220, TYPE "A", H=6", MODIFIED 9" GUTTER PAN, CLASS "A" CONCRETE	LF	165
9	TRUNCATED DOMES FOR SIDEWALK RAMPS, C.O.P. DET. P1232	SF	56
10	ADJUST FRAMES, COVERS AND VALVE BOXES ON EXISTING NON-CITY UTILITIES, CONTINGENCY ITEM	EA	1
12	CONCRETE SINGLE CURB, MAG DET 222, TYPE A, MOD FOR BUS BAY	LF	187
13	BUS SHELTER PAD, C.O.P. DET. P1261	SF	615

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

PAVING PLAN □CENTRAL AVE

CITY OF PHOENIX, ARI□ONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			PL-1.09

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\17_ST85100330-PAV-Central 2 of 3.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

490+50 491+00 492+00 493+00 494+00 495+00 495+50

EX LT TC
EX LT GUTTER
BCR/MATCH EX
492+98, 66.07'LT
TC=1072.78±
G=1072.28±
+0.309%
NEW LT GUTTER
NEW LT TOP OF CURB
ECR/MATCH EX
493+33.13, 31.21'LT
TC=1072.95±
G=1072.45±
EX LT GUTTER

℄ CENTRAL AVENUE
492+56.84
P=1073.12

EX PVMT @
ARS/BROADWAY CST ℄

NEW RT SAWCUT
NEW RT TOP OF CURB
BCR 492+87.83, 44.00'RT
TC=1072.21
G=1071.71
S=1072.24(30.16'RT)
+0.1630%
EX RT GUTTER
+0.7937%
NEW RT GUTTER
G=1070.62
EX 8" S
INV 1062.94
EX T
EX W SERVICE
EX 8" W
PROP. 18" SD
INV 1065.64
EX 13" SD
CONNECTOR PIPE
ECR/MATCH EX
492+22.83, 79.23'RT
TC=1072.30±
G=1071.80±
BCR/MATCH EX
492+51.59, 75.93'RT
TC=1073.11±
P=1072.61±
NOSE
492+57.10, 72.06'RT
TC=1073.30
P=1072.80
ECR/MATCH EX
492+60.13, 75.71'RT
TC=1073.26±
P=1072.76±
EX 2" G
EX 2" G
EX 2" G
BCR/MATCH EX
492+99.19, 79.23'RT
TC=1072.16±
G=1071.66±
EX T
EX 12" W
EX 24" IRR.
EX 12" S
INV 1059.61
BEGIN TAPER
ECR
493+34.19, 44.00'RT
TC=1072.29
G=1071.79
S=1072.11±(29.62'RT)
+0.2355%
NEW RT SAWCUT
NEW RT TOP OF CURB
+0.1571%
END TAPER
494+04.19
TC=1072.40(55.00'RT)
P=1071.90(55.00'RT)
G=1071.68(44.00'RT)
S=1071.87±(28.76'RT)
−0.1611%
NEW RT GUTTER
@ 55.00'RT
EX 6" S
SERVICE
EX W
SERVICE
EX RT GUTTER
−0.1600%
BEGIN TAPER
494+79.19
TC=1072.28(55.00'RT)
P=1071.78(55.00'RT)
G=1071.56(44.00'RT)
S=1071.87±(28.50'RT)
−0.7250%
NEW RT GUTTER
@ 44.00'RT
GB
495+26.63, 44.00' RT.
TC=1071.98
G=1071.48
S=1071.92±(28.46'RT)
EX W
SERVICE
PROP. 15" SD
INV 1067.98
EX 6" S
SERVICE
END TAPER
495+19.19, 44.00'RT
TC=1071.99
G=1071.49
S=1071.92±(28.46'RT)
+0.2432%
TC=1072.04
G=1071.54

1062 1063 1064 1065 1066 1067 1068 1069 1070 1071 1072 1073 1074

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\18_ST85100330-PROF-Central 2 of 3.dwg

REGISTERED PROFESSIONAL ENGINEER
2785
JAMES F. SCHUMANN
As Signed 1/11/16
ARIZONA, U.S.A.
Expires 06/30/2018

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	18	91	

CK GROUP Engineers & Construction Managers

the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

PAVING PROFILE - CENTRAL AVE

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

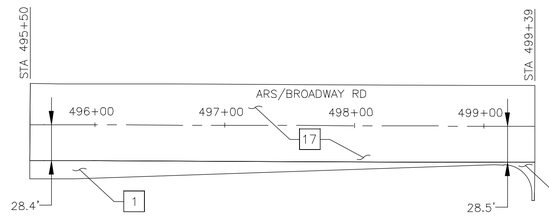
DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=2' VERTICAL, 1"=20' HORIZONTAL			PR-1.10

ST85100371(002)

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



LIMITS OF PAVEMENT

City of Phoenix
N

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	19	91	

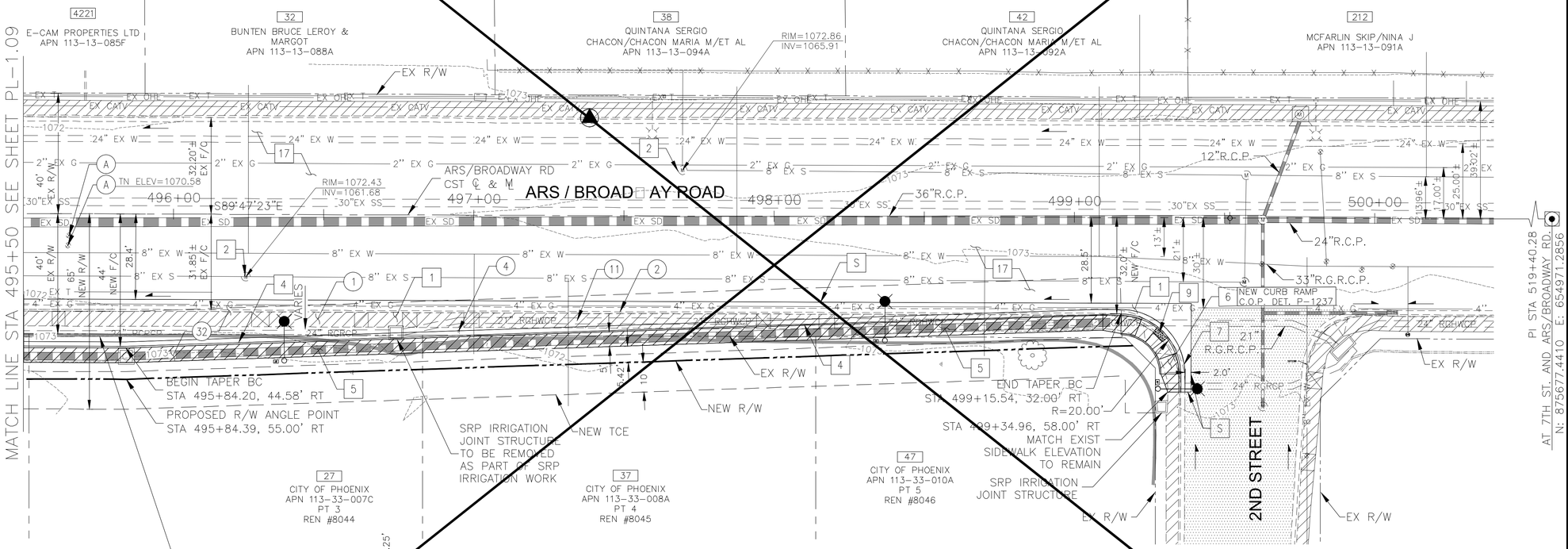
CK GROUP Engineers & Construction Managers
the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REMOVAL/RELOCATION NOTES

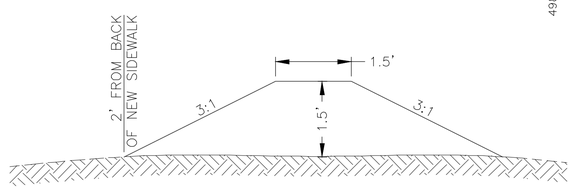
NO	DESCRIPTION	UNIT	QTY
(1)	REMOVE PORTLAND CEMENT CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER, & SLAB	SF	1921
(2)	REMOVE PORTLAND CEMENT CONCRETE SINGLE CURB AND CURB & GUTTER	LF	401
(4)	REMOVE AND SALVAGE STREET SIGN (INCLUDED IN M3500300 MISC REMOVAL)	EA	1
(8)	REMOVE ASPHALT CONCRETE PAVEMENT	SY	28
(11)	REMOVE PIPE, BACKFILL & COMPACT	LF	372
(32)	EXCAVATION AND BACKFILL, TIME AND MATERIALS	CY	230

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	SUBGRADE PREPARATION	SY	370
	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	42
	ASPHALTIC CONCRETE BASE COURSE, (A 1–1/2), 5 1/2" THICK	TON	115
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	0.2
2	ADJUST EX MANHOLE FRAME & COVER, MAG STD DET 422	EA	2
(A)	ADJUST EX WATER VALVE BOX & COVER, C.O.P. DET. P1391 & P1391–1, TYPE A	EA	2
4	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	374
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6")	SF	1860
6	CONCRETE SIDEWALK, C.O.P. DET. P1230, MOD., 9" THICK; CLASS A	SF	164
7	COMBINED CURB & GUTTER, STANDARD DETAIL 220, TYPE "A", H=6", MODIFIED 9" GUTTER PAN, CLASS "A" CONCRETE	LF	31
9	TRUNCATED DOMES FOR SIDEWALK RAMPS, C.O.P. DET. P1232	SF	9
17	MICRO SEAL EX PAVEMENT AS SHOWN	SY	2561



CONTRACTOR TO RECONSTRUCT EXISTING 18" HIGH BERM, 2–FT FROM BACK OF NEW SIDEWALK. SEE DETAIL ON THIS SHEET



BERM DETAIL

BENCHMARK IN B.C.H.
AT THE INTERSECTION OF
ARS/BROADWAY AND 7TH ST.
N: 875677.4410
E: 654971.2856
ELEV: 1076.79'

T.B.M.: FOUND MON. AT
497+38.39 32.48 LT
ELEV = 1072.69
ON THE SIDEWALK OF NORTH SIDE OF ARS/BROADWAY

SHEET REFERENCES

1. SEE SHEET 40 FOR STREET LIGHTING PLAN
2. SEE SRP IRRIGATION PLANS FOR IRRIGATION RELOCATION

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

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PAVING PLAN □CENTRAL AVE

CITY OF PHOENIX, ARI□ONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			PL-1.11

ST85100371(002)

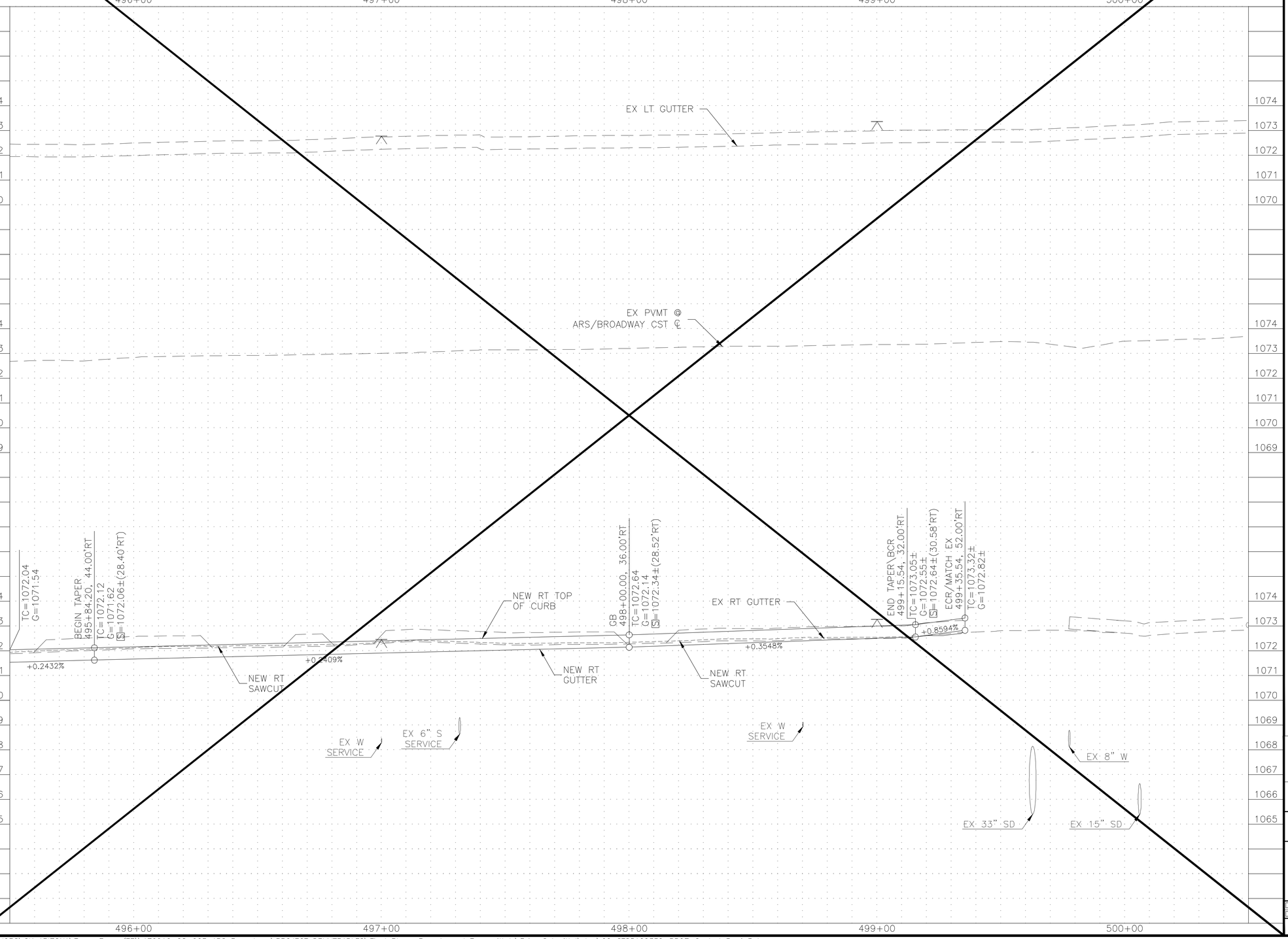
\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\19_ST85100330-PAV-Central 3 of 3.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	



F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	20	91	

CK GROUP Engineers & Construction Managers

the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REGISTERED PROFESSIONAL ENGINEER
21785
JAMES F. SCHUMANN
I Am Signing This
ARIZONA U.S.A.
Expires 06/30/2018

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PAVING PROFILE - CENTRAL AVE

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=2' VERTICAL 1"=20' HORIZONTAL			PR-1.12

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\20_ST85100330-PROF-Central 3 of 3.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

CAUTION
EXISTING UTILITIES INDICATED ON THE PLANS MAY NOT INCLUDE UTILITIES INSTALLED OR MODIFIED SINCE 2012

City of Phoenix
N

23785 JAMES F. SCHUMANN Date Signed 11/11/16 ARIZONA, U.S.A. Expires 06/30/2018

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	21	91	

CK GROUP Engineers & Construction Managers
the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16446 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
(1)	REMOVE PORTLAND CEMENT CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER, & SLAB		
	STA 518+20 TO 519+10 LT	SF	2041
	STA 518+70 TO 519+10 RT	SF	500
	STA 519+70 TO 520+09 LT	SF	363
	STA 519+70 TO 520+15 RT	SF	422
(2)	REMOVE PORTLAND CEMENT CONCRETE SINGLE CURB AND CURB & GUTTER		
	STA 516+85 TO 519+10 LT	LF	332
	STA 518+70 TO 519+10 RT	LF	81
	STA 519+70 TO 520+09 LT	LF	65
	STA 519+70 TO 520+15 RT	LF	79
(3)	REMOVE EX WIRE FENCE		
	STA 516+85 TO 517+50 LT	LF	80
(4)	REMOVE AND SALVAGE STREET SIGN (INCLUDED IN M3500300 MISC REMOVAL)	EA	1
(5)	RELOCATE WATER METER, BOX & COVER, C.O.P. SUP. 610.11 & C.O.P. DET. P1363	EA	1
(8)	REMOVE ASPHALT CONCRETE PAVEMENT	SY	128
(11)	REMOVE PIPE, BACKFILL & COMPACT	LF	126
(13)	POWER POLE AND/OR DOWN GUYS (RELOCATED BY OTHERS)	NPI	–
(15)	FIRE HYDRANT, SALVAGE AND DELIVER TO THE CITY OF PHOENIX	EA	1
(21)	TELEPHONE RISER (RELOCATED BY OTHERS)	NPI	–
(25)	REMOVE CATCH BASIN	EA	4
(27)	REMOVE PORTLAND CEMENT CONCRETE SLAB	SF	11
(29)	REMOVE, SALVAGE AND REINSTALL BUS SHELTER FURNITURE	EA	1
(32)	EXCAVATION AND BACKFILL, TIME AND MATERIALS	CY	215

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
	SUBGRADE PREPARATION	SY	279
1	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	33
	ASPHALTIC CONCRETE BASE COURSE, (A 1–1/2), 5 1/2" THICK	TON	90
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	0.2
2	ADJUST EX MANHOLE FRAME & COVER, MAG STD DET 422	EA	5
(A)	ADJUST EX WATER VALVE BOX & COVER, C.O.P. DET. P1391 & P1391–1, TYPE A	EA	12
4	CURB & GUTTER, MAG DET. 220 TYPE A, H=6"	LF	34
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6")	SF	516
6	CONCRETE SIDEWALK, C.O.P. DET. P1230, MOD., 9" THICK; CLASS A	SF	1891
7	COMBINED CURB & GUTTER, STANDARD DETAIL 220, TYPE "A", H=6", MODIFIED 9" GUTTER PAN, CLASS "A" CONCRETE	LF	231
9	TRUNCATED DOMES FOR SIDEWALK RAMPS, C.O.P. DET. P1232	SF	72
10	ADJUST FRAMES, COVERS & VALVE BOXES ON EXISTING NON–CITY UTILITIES, CONTINGENCY ITEM	EA	5
12	CONCRETE SINGLE CURB, MAG DET 222, TYPE A, MOD FOR BUS BAY	LF	188
13	BUS SHELTER PAD, C.O.P. DET. P1261	SF	615
15	CONCRETE DRIVEWAY ENTRANCE TYPE 1, C.O.P. DET. P1255–1 (9")	SF	645
16	¾" OR 1" WATER METER SERVICE CONNECTION	LF	65
17	MICRO SEAL EX PAVEMENT AS SHOWN	SY	18230
19	CONCRETE SINGLE CURB TERMINATION, MAG 222, TYPE A	–	–
20	SINGLE CURB, MAG DET. 222 TYPE A, H=6"	LF	43
24	CONCRETE BUS BAY PAVEMENT, STD DET P1256–1, 9" THICK, CLASS "A" CONCRETE	SF	1694
25	ADJUST MANHOLE COVER TO PROPOSED GRADE PER SRP CONSTRUCTION LICENSE AND SPECS	EA	1
28	6" DUCTILE IRON WATER PIPE & FITTING, RESTRAINED, FURNISH & INSTALL	LF	16
29	FIRE HYDRANT FURNISHED BY THE CONTRACTOR, INSTALL	EA	1
31	PORTLAND CEMENT CONCRETE, CLASS A, FOR DRIVEWAY, SIDEWALK, AND PARKING LOT CONNECTIONS	SF	833
33	SAFETY POST/BOLLARD. SEE LAYOUT DETAIL ON SHEET G–1.07	EA	4

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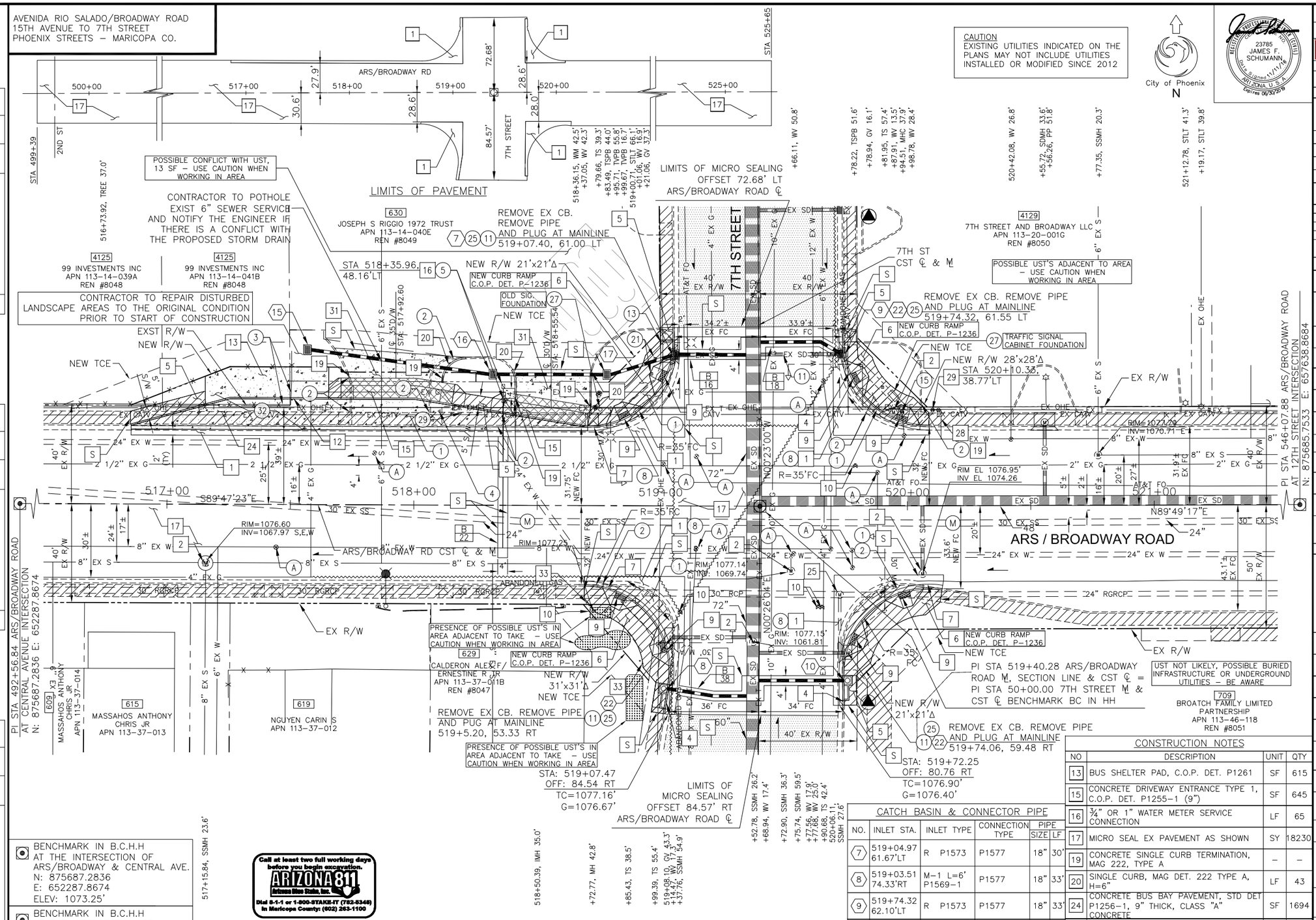
PAVING PLAN - 7TH ST

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			PL–1.13

ST85100371(002)



BENCHMARK IN B.C.H.H
AT THE INTERSECTION OF ARS/BROADWAY & CENTRAL AVE.
N: 875687.2836
E: 652287.8674
ELEV: 1073.25'

BENCHMARK IN B.C.H.H
AT THE INTERSECTION OF ARS/BROADWAY RD. & 7TH ST.
N: 875677.4410
E: 654971.2856
ELEV: 1076.79'

BENCHMARK IN B.C.H.H
AT THE INTERSECTION OF ARS/BROADWAY RD. & 12TH ST.
N: 875685.7533
E: 657638.8684
ELEV: 1082.24'

T.B.M.: PK NAIL AT
519+84.73, 117.24 LT
ELEV = 1077.42
BEHIND SIDEWALK AT NORTHEAST CORNER OF ARS/BROADWAY AND 7TH ST.

T.B.M.: SET PK NAIL AT
519+83.85, 79.51 RT
ELEV = 1077.10
BEHIND SIDEWALK AT SOUTHEAST CORNER OF ARS/BROADWAY AND 7TH ST.

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CATCH BASIN & CONNECTOR PIPE

NO.	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
(7)	519+04.97 61.67'LT	R P1573	P1577	18"	30'
(8)	519+03.51 74.33'RT	M–1 L=6' P1569–1	P1577	18"	33'
(9)	519+74.32 62.10'LT	R P1573	P1577	18"	33'
(10)	519+73.50 70.71'RT	M–1 L=6' P1569–1	P1577	18"	35'
(15)	517+56.73 62.66'LT	N (SINGLE) P1570	CB TO CB	15"	74'
(16)	518+31.84 53.07'LT	N (SINGLE) P1570	CB TO CB	15"	45'
(17)	518+78.02 53.07'LT	N (SINGLE) P1570	CB TO CB	15"	27'

NO	DESCRIPTION	UNIT	QTY
(22)	PIPE PLUG, MAG DET. 427	EA	3

SHEET REFERENCES

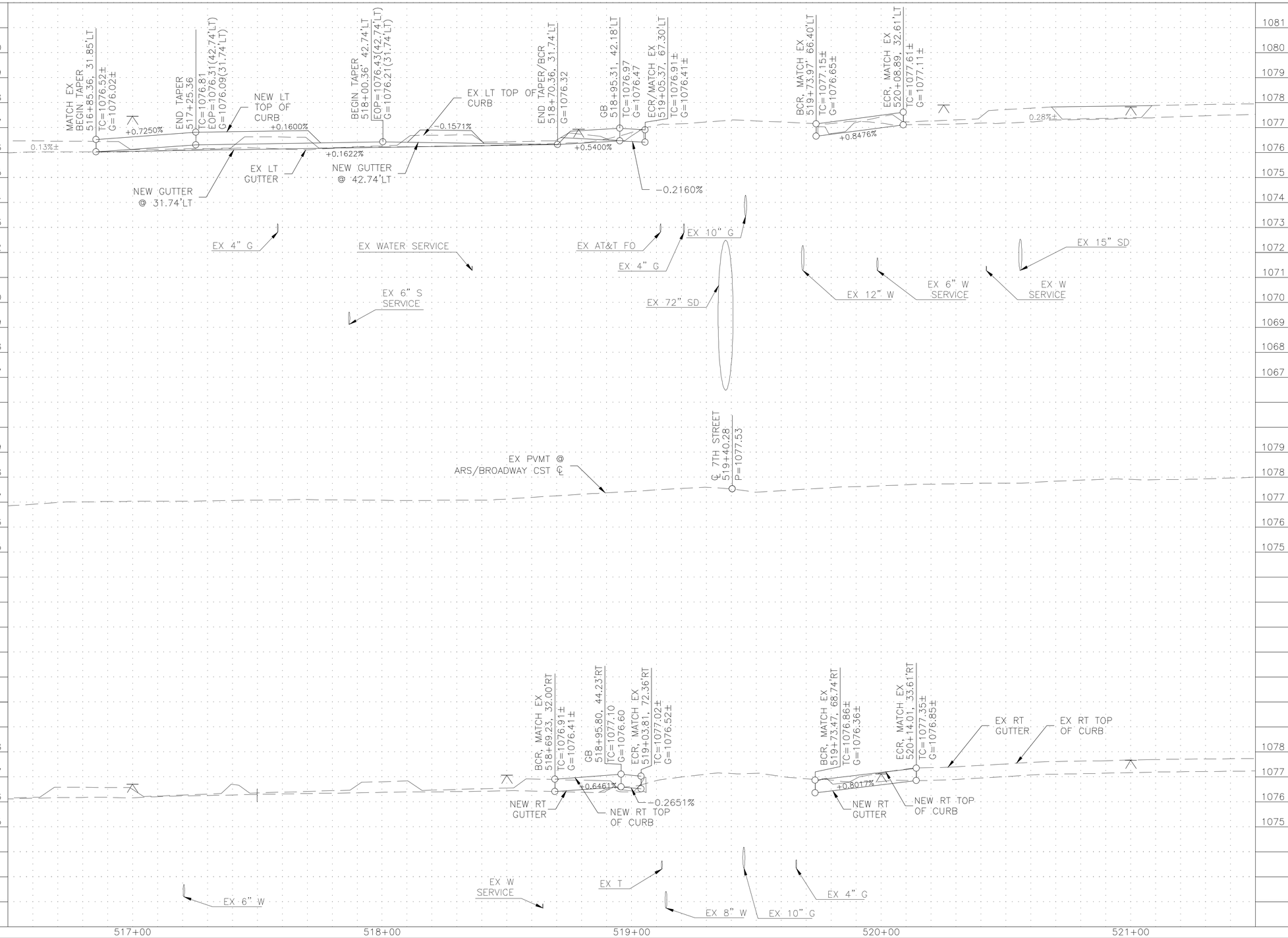
1. SEE SHEET 26 & 27 FOR CONN. PIPE PROFILES
2. SEE SHEET 29 FOR DRIVEWAY PROFILES
3. SEE SHEET 41 FOR STREET LIGHTING PLAN
4. SEE SRP IRRIGATION PLANS FOR IRRIGATION RELOCATION
5. SEE SRP ELECTRICAL PLANS FOR POWER LINE RELOCATION

\\ckg–svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016–08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\21_ST85100330–PAV–7th St.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

23785
JAMES F.
SCHUMANN
Date Signed 1/11/16
ARIZONA U.S.A.
Expires 06/30/2018

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	22	91	

CK GROUP
Engineers & Construction Managers

the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

CAUTION
EXISTING UTILITIES INDICATED ON THE PLANS MAY NOT INCLUDE UTILITIES INSTALLED OR MODIFIED SINCE 2012

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-8348)
In Maricopa County: (602) 263-1100

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

PAVING PROFILE □7TH ST

CITY OF PHOENIX, ARI□ONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=2' VERTICAL 1"=20' HORIZONTAL			PR-1.14

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\22_ST85100330-PROF-7th St.dwg

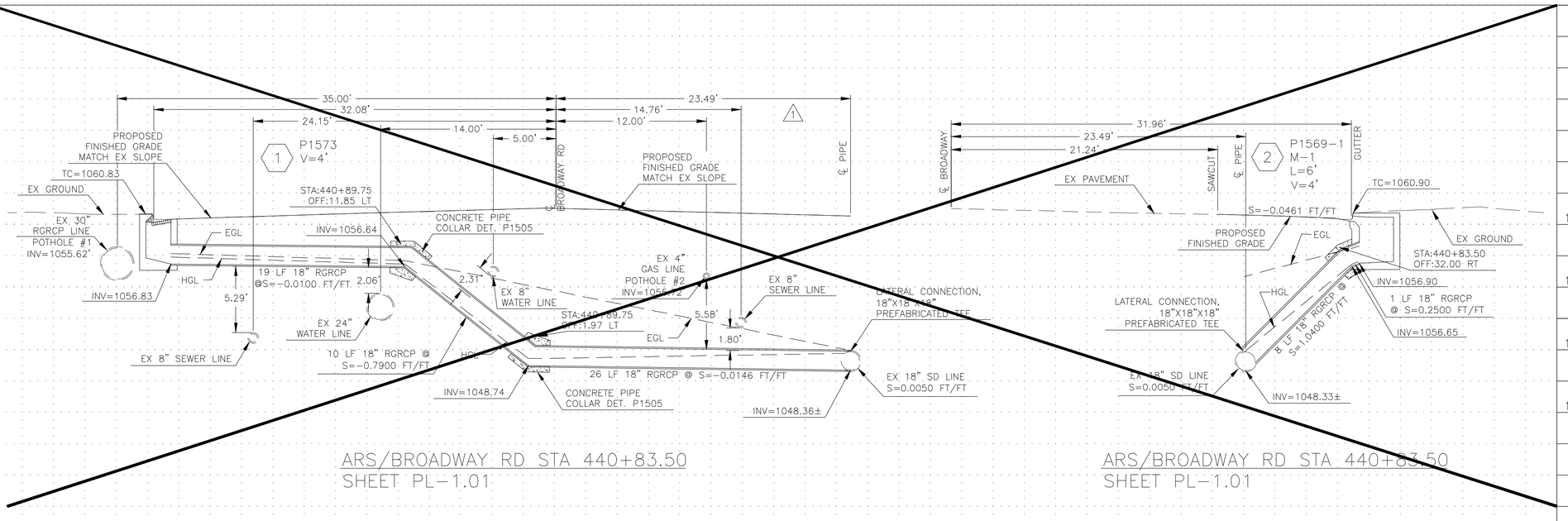
AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



ARS/BROADWAY RD STA 440+83.50
SHEET PL-1.01

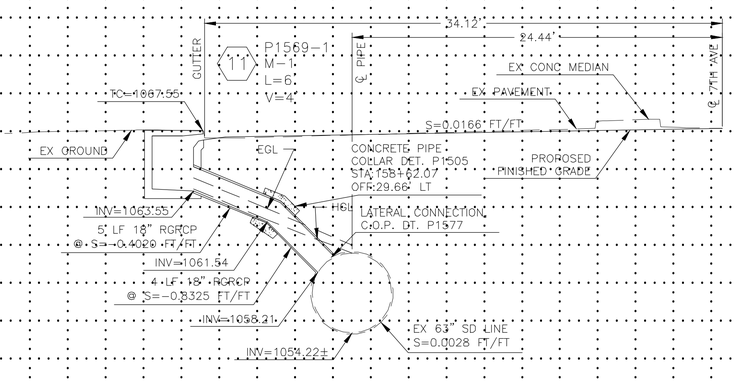
ARS/BROADWAY RD STA 440+83.50
SHEET PL-1.01

REVISION BY CITY OF PHOENIX

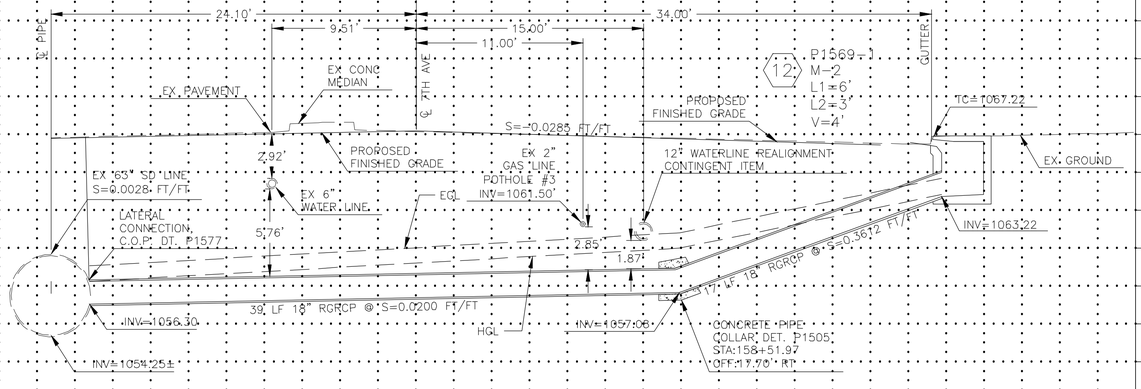
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



7TH AVE STA 158+62.08
SHEET PL-1.03



7TH AVE STA 158+58.68
SHEET PL-1.03

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	23	91	

23785
JAMES F. SCHUMANN
Date Signed 1/11/16
ARIZONA U.S.A.
Expires 06/30/2018

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SHEET REFERENCES

SEE SHEETS 09 & 11 FOR STORM DRAIN AND PAVING PLANS

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CATCH BASIN CONNECTOR PIPE PROFILE

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=5' VERTICAL 1"=5' HORIZONTAL			CP-1.01

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\23_ST85100330-SD-Connectors 1 of 5.dwg

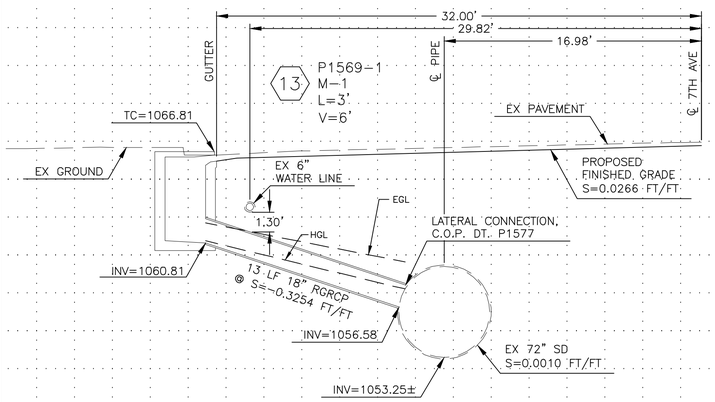
AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

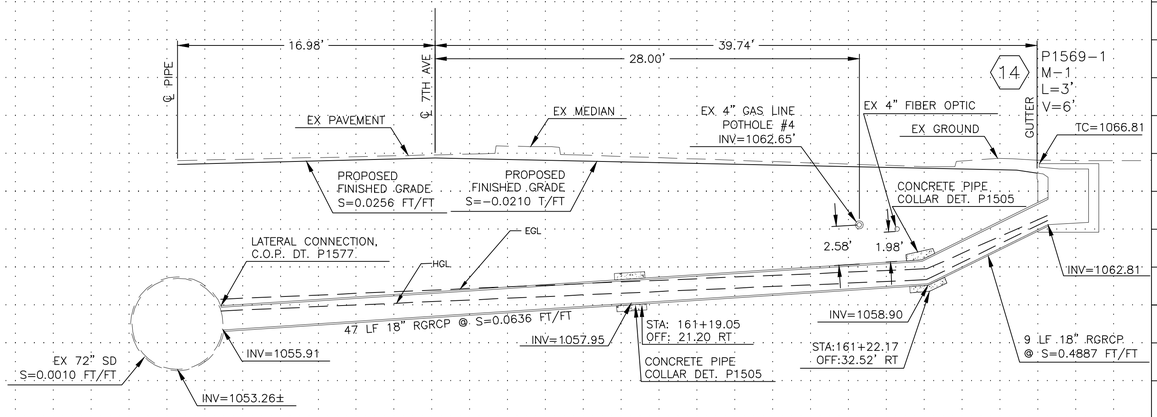
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

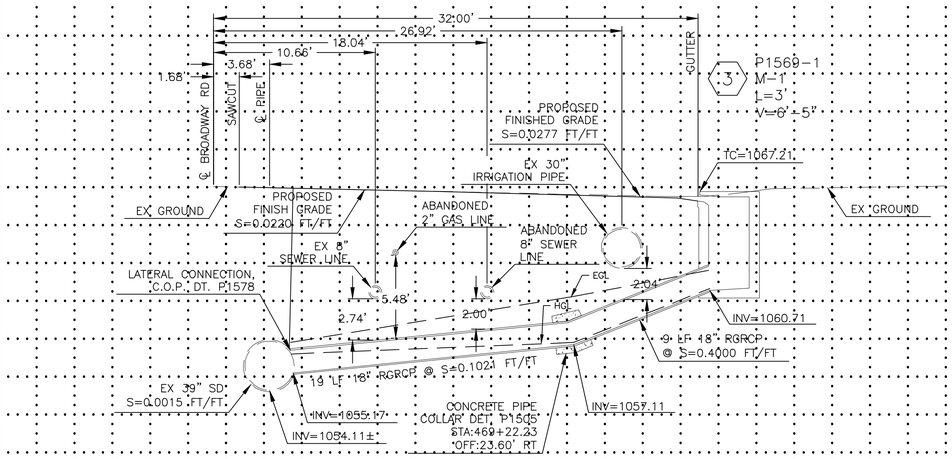
NO.	DESCRIPTION	REV BY	CKD BY	DATE



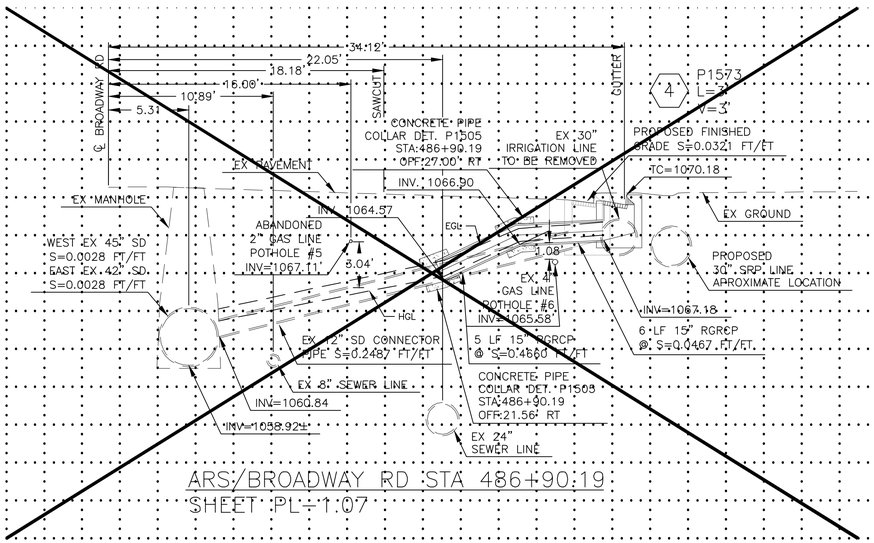
7TH AVE STA 161+24.56
SHEET PL-1.03



7TH AVE STA 161+24.15
SHEET PL-1.03



ARS/BROADWAY RD STA 469+22.23
SHEET PL-1.05



ARS/BROADWAY RD STA 486+90.19
SHEET PL-1.07

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	24	91	

CK GROUP Engineers & Construction Managers
the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

23785 JAMES F. SCHUMANN
Date Signed 1/11/16
ARIZONA U.S.A.
Expires 06/30/2018

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ARIZONA 811
Arizona Blue Stake, Inc.
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In Maricopa County: (602) 263-1100

SHEET REFERENCES

1. SEE SHEETS 11, 13 & 15 FOR PAVING PLANS

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CATCH BASIN CONNECTOR PIPE PROFILE

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=5' VERTICAL, 1"=5' HORIZONTAL			CP-1.02

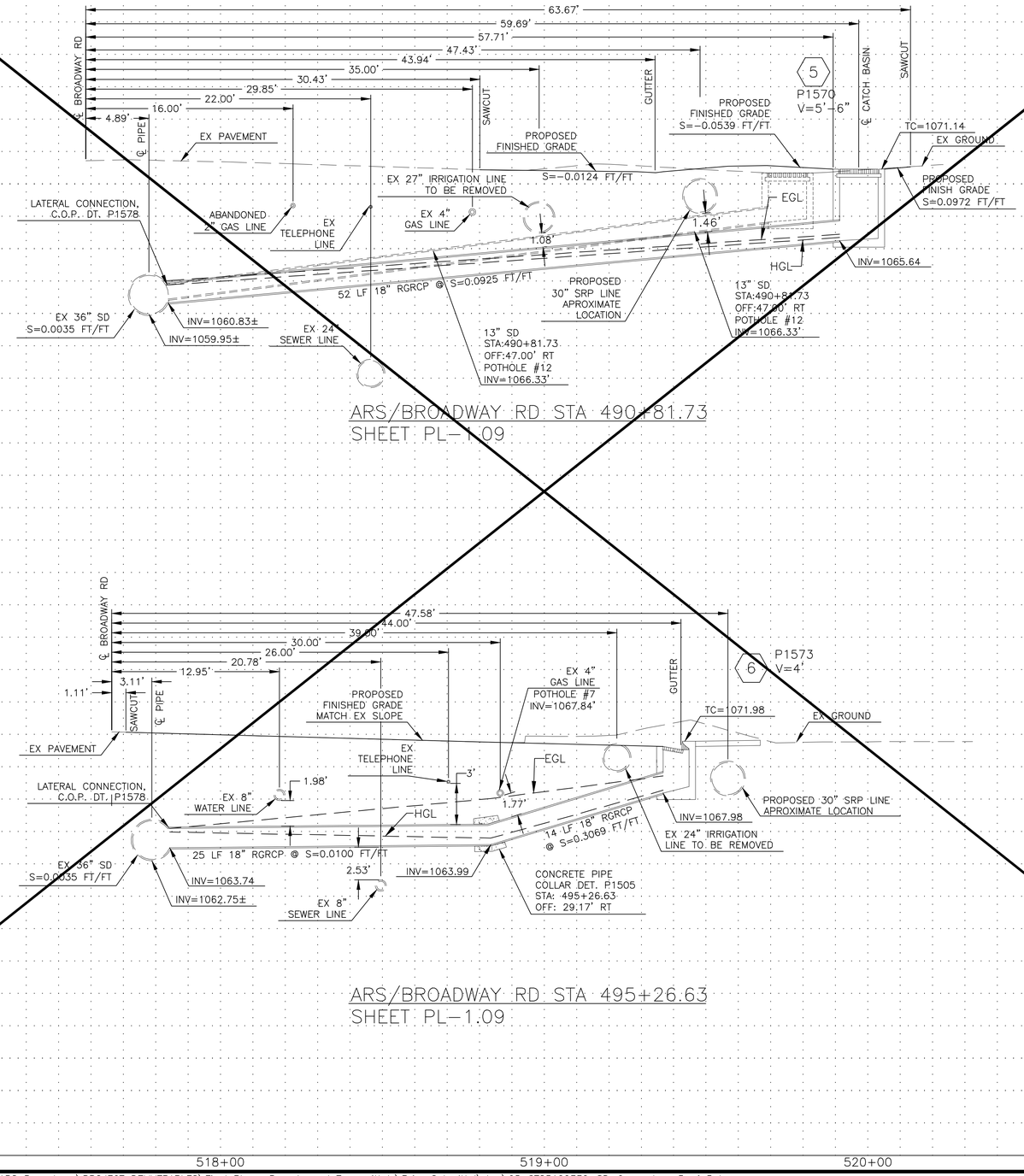
ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\24_ST85100330-SD-Connectors 2 of 5.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE



ARS/BROADWAY RD STA 490+81.73
SHEET PL-1.09

ARS/BROADWAY RD STA 495+26.63
SHEET PL-1.09

517+00 518+00 519+00 520+00 521+00

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	25	91	

CK GROUP Engineers & Construction Managers

the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REGISTERED PROFESSIONAL ENGINEER
22185
JAMES F. SCHUMANN
File Signed 1/11/16
ARIZONA, U.S.A.
Expires 06/30/2018

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Arizona Blue Stake, Inc.
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SHEET REFERENCES

1. SEE SHEET 17 FOR PAVING PLANS

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CATCH BASIN CONNECTOR PIPE PROFILE

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=5' VERTICAL 1"=5' HORIZONTAL			CP-1.03

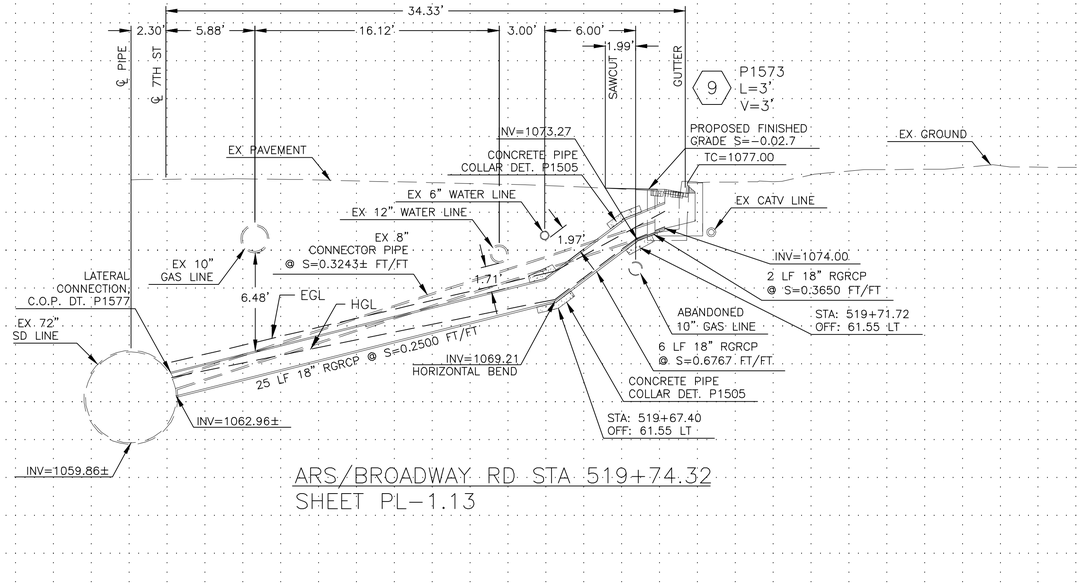
ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\25_ST85100330-SD-Connectors 3 of 5.dwg

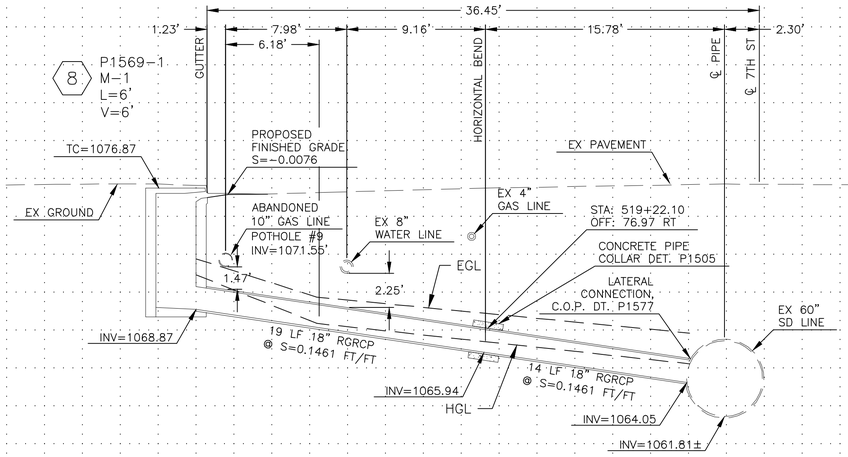
AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

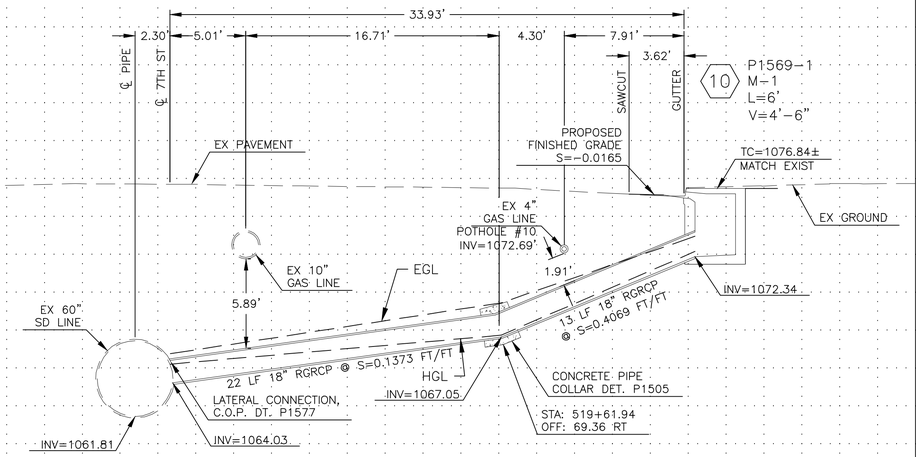
NO.	DESCRIPTION	REV BY	CK'D BY	DATE



ARS/BROADWAY RD STA 519+74.32
SHEET PL-1.13



ARS/BROADWAY RD STA 519+02.97
SHEET PL-1.13



ARS/BROADWAY RD STA 519+73.50
SHEET PL-1.13

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

23785
JAMES F. SCHUMANN
Date Signed 1/11/16
ARIZONA, U.S.A.
Expires 06/30/2018

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	26	91	

CK GROUP Engineers & Construction Managers

the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

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SHEET REFERENCES

SEE SHEET 21 FOR STORM DRAIN AND PAVING PLANS

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CATCH BASIN CONNECTOR PIPE PROFILE

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=5' VERTICAL 1"=5' HORIZONTAL			CP-1.04

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\26_ST85100330-SD-Connectors 4 of 5.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

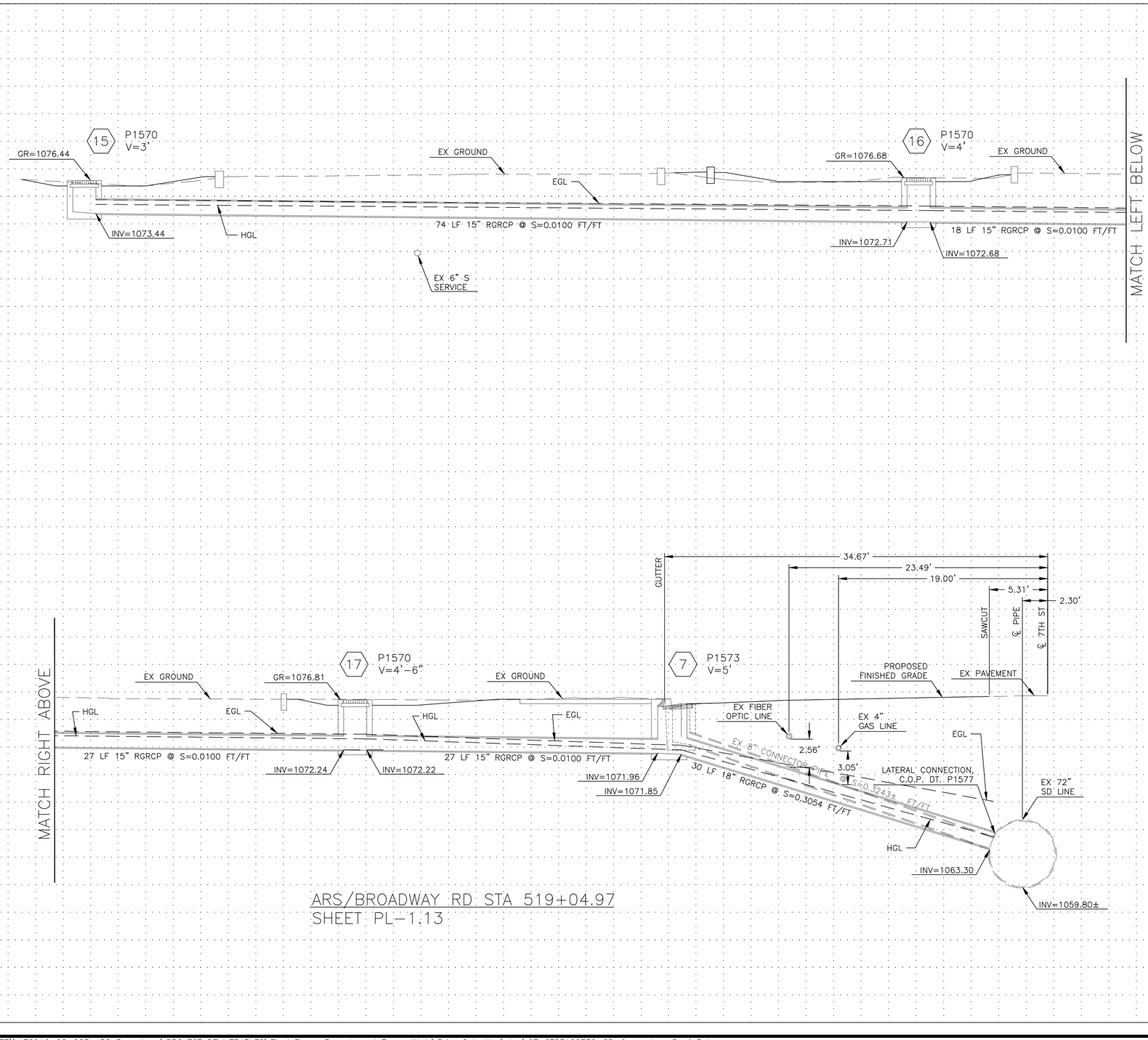
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



ARS/BROADWAY RD STA 519+04.97
SHEET PL-1.13

23785
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ARIZONA, U.S.A.
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F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	27	91	

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CATCH BASIN CONNECTOR PIPE PROFILE

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=5' VERTICAL, 1"=5' HORIZONTAL			CP-1.05

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\27_ST85100330-SD-Connectors 5 of 5.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

STORM DRAIN
ALTERNATE PIPE MATERIAL

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	28	91	

23785 JAMES F. SCHUMANN — Date Signed 1/11/16 — ARIZONA, U.S.A. — Expires 06/30/2018

the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

MAIN LINE PIPE

STATION FROM	STATION TO	QUANTITY L.F.	PIPE DIAMETER R.C.P. (I.D.) IN.	PIPE DIAMETER HDPE *** (I.D.) IN.	PIPE DIAMETER CIPP & C.S.P. (I.D.) IN.	DEPTH TO TOP OF PIPE MIN. (FT.)	DEPTH TO TOP OF PIPE MAX. (FT.)	MAX TRENCH WIDTH AT TOP OF PIPE R.C.P.,C.S.P., & HDPE *** FT.	REINFORCED CONCRETE PIPE ** MIN. D-LOAD (TO PRODUCE 0.01" CRACK)	CAST-IN-PLACE CONCRETE PIPE **** MINIMUM WALL THICKNESS IN.	CORRUGATED STEEL PIPES $2\frac{2}{3}$" x $\frac{1}{2}$" CORR. TYPE "F"* MIN. GAGE	CORRUGATED STEEL PIPES 3" x 1" CORR. TYPE "F"* MIN. GAGE

CONNECTOR PIPE

LOCATION STATION (LT. or RT.)	QUANTITY L.F.	DEPTH TO TOP OF PIPE MIN. (FT.)	DEPTH TO TOP OF PIPE MAX (FT.)	PIPE DIA. R.C.P.,C.S.P., & HDPE *** (I.D.) IN.	R.C.P. ** MIN. D-LOAD (TO PRODUCE 0.01" CRACK)	C.S.P. $2\frac{2}{3}$" x $\frac{1}{2}$" CORR. ALUMINIZED TYPE "2" MIN. GAGE
ARS/BROADWAY RD						
~~440+83.50 RT~~	~~9~~	~~2.0~~	~~7.0~~	~~18~~	~~1800 CLASS IV~~	~~14~~
~~440+87.50 LT~~	~~55~~	~~2.0~~	~~10.7~~	~~18~~	~~1800 CLASS IV~~	~~14~~
469+22.23 RT	28	4.4	10.6	18	1800 CLASS IV	14
~~480+90.19 RT~~	~~11~~	~~1.3~~	~~4.3~~	~~15~~	~~900 CLASS IV~~	~~14~~
~~490+81.73 RT~~	~~52~~	~~3.9~~	~~9.4~~	~~18~~	~~900 CLASS IV~~	~~14~~
~~495+26.63 RT~~	~~39~~	~~2.0~~	~~7.2~~	~~18~~	~~1450 CLASS IV~~	~~14~~
519+04.97 LT	30	3.0	12.3	18	1450 CLASS IV	14
519+02.97 RT	33	5.9	11.5	18	1950 CLASS IV	14
519+74.32 LT	33	1.1	12.7	18	900 CLASS IV	14
519+73.50 RT	35	2.4	11.5	18	1950 CLASS IV	14
517+56.73 LT	74	1.2	2.3	15	1250 CLASS IV	14
518+31.84 LT	45	2.3	2.7	15	1350 CLASS IV	14
518+78.02 LT	27	2.7	3.6	15	1450 CLASS IV	14
7TH AVENUE						
158+62.08 LT	9	1.9	7.9	18	1450 CLASS IV	14
158+58.68 RT	56	1.9	9.4	18	1650 CLASS IV	14
161+24.56 LT	13	3.9	8.6	18	1600 CLASS IV	14
161+24.15 RT	56	1.9	9.4	18	1650 CLASS IV	14

GENERAL NOTES:

1. ONLY PIPE MATERIALS SPECIFIED ON THIS SHEET ARE ACCEPTABLE FOR THIS PROJECT.
2. WHERE MAXIMUM TRENCH WIDTH IS NOTED AS "UNRESTRICTED", PIPE STRENGTHS ARE SPECIFIED FOR A POSITIVE PROJECTING OR EMBANKMENT LOADING CONDITION. TRENCH WIDTH RESTRICTIONS FOR THE CAST-IN-PLACE CONCRETE PIPE OPERATION, SHALL COMPLY WITH SECTION 620.
3. CITY POLICY REQUIRES THAT CAST-IN-PLACE PIPE AND CORRUGATED STEEL PIPE MAINLINES BE UPSIZED A MINIMUM OF 6-INCHES GREATER DIAMETER THAN THE SPECIFIED REINFORCED CONCRETE PIPE DIAMETER. IF EITHER OF THESE OPTIONS ARE USED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESOLVING ANY UTILITY CONFLICTS ASSOCIATED WITH THE INCREASED PIPE DIAMETER. MINIMUM WALL THICKNESS FOR CAST-IN-PLACE PIPE SHALL BE 1/12 OF INSIDE DIAMETER PLUS ONE INCH, BASED ON THE UPSIZED DIAMETER.
4. A MINIMUM OF 14 GAUGE IS REQUIRED FOR ALL CSP BY CITY OF PHOENIX TO OBTAIN DESIGN LIFE REQUIREMENTS OF 75 YEARS TO FIRST PERFORATION.
5. WHERE NEW MAINLINE STORM DRAIN CONNECTION TO EXISTING MAINLINE SYSTEM IS REQUIRED, AND THE NEW MAINLINE IS LARGER THAN THE EXISTING, (SUCH AS NEW 6" OVERSIZED CIPP OR CSP CONNECTING TO EXISTING RGRCP), PIPE INVERTS SHALL BE MATCHED. IN ALL OTHER CASES, INSIDE TOP OF PIPE (CROWN) ELEVATIONS SHALL BE MATCHED.
6. MAX TRENCH WIDTH AT TOP OF PIPE SHALL BE BASED ON MAG PAY WIDTH ON PROJECTS WITH MINIMUM PAVEMENT REPLACEMENT ("PATCH"). ON PROJECTS WITH NEW FULL PAVEMENT (SUCH AS MAJOR ARTERIAL STREET CONSTRUCTION PROJECTS), THE MAX TRENCH WIDTH SHALL BE LABELED, "UNRESTRICTED".

* TYPE "F" – COATED AND CONCRETE LINED CSP
CITY OF PHOENIX SUPPLEMENT TO MARICOPA ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD SPECIFICATIONS.

** RUBBER GASKETED PIPE REQUIRED FOR ALL REINFORCED CONCRETE PIPE

*** HIGH DENSITY POLYETHYLENE (HDPE), TYPE "S" WITH WATERTIGHT JOINTS PER AASHTO 252, AASHTO M294, MAG AND CITY SUPPLEMENTS TO MAG. JOINTS SHALL MEET ASTM D-3212 WATERTIGHT REQUIREMENT (10.8 psi). MAXIMUM DIAMETER ALLOWED = 48-INCH.

**** THE MINIMUM DIAMETER FOR CIPP IS 30 INCHES

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

ALTERNATE PIPE MATERIAL CHART

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: NOT TO SCALE			AP-1.01

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\28_ST85100330-APC.dwg

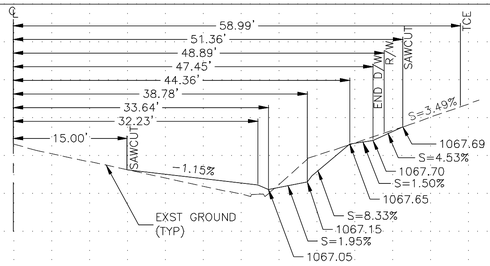
AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



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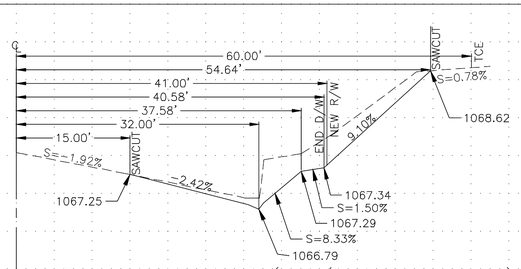

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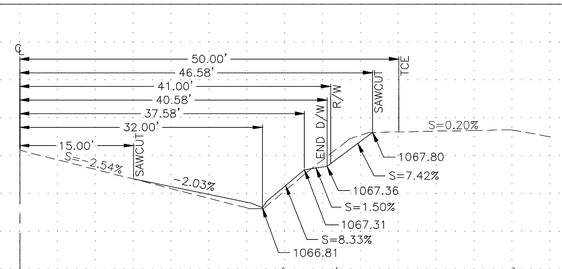

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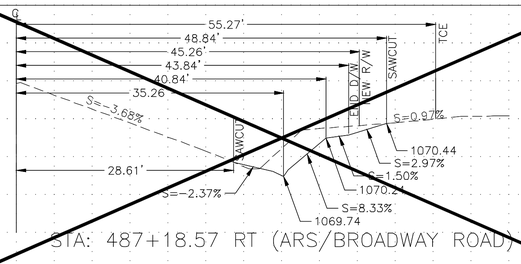

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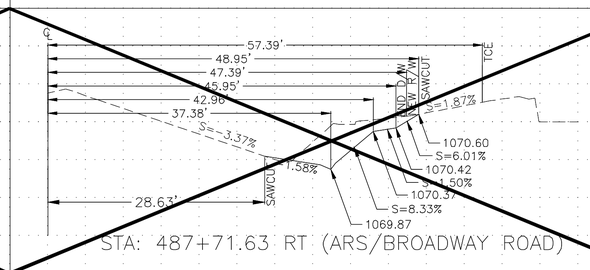

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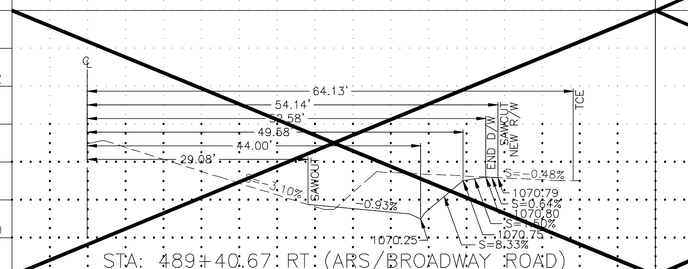

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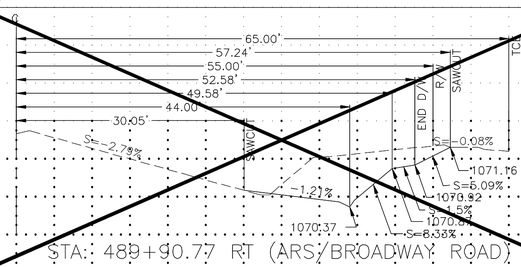

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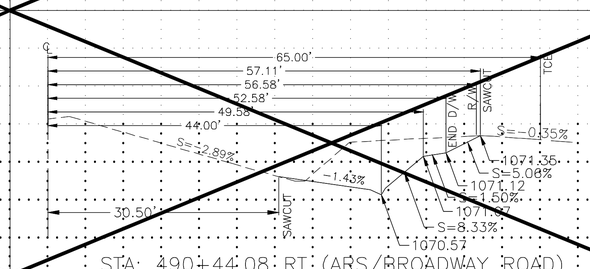

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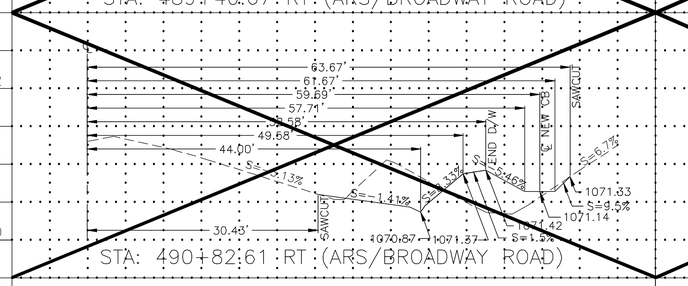

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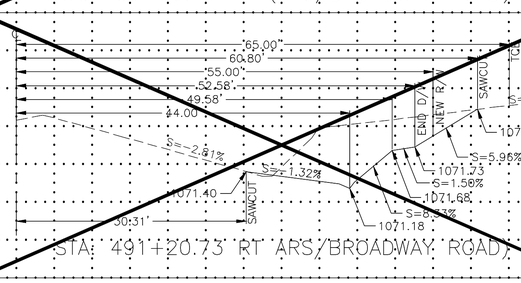

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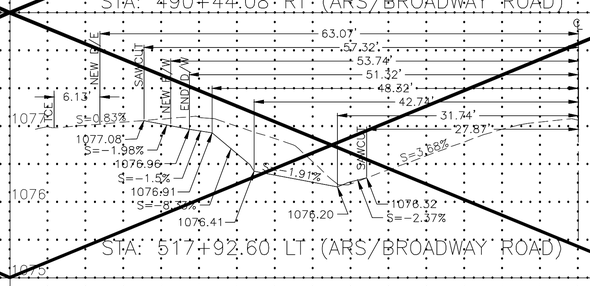
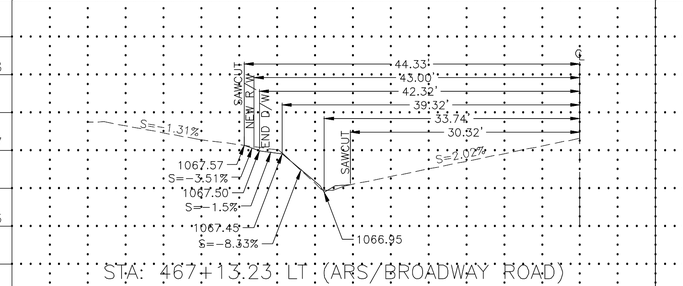


STA: 517+92.60 LT (ARS/BROADWAY ROAD)



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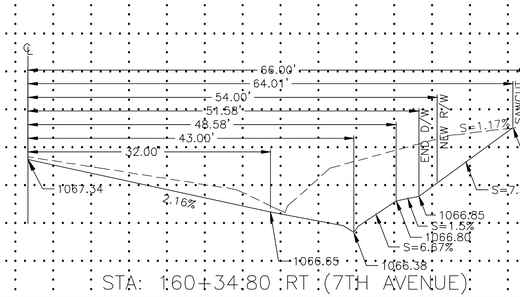


STA: 1+60+34.80 RT (7TH AVENUE)

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	29	91	

CK GROUP
Engineers & Construction Managers
the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

SEE SHEET 05 TO 11 FOR STORM DRAIN AND PAVING PLANS

DRIVE□AY PROFILES

CITY OF PHOENIX, ARI□ONA
STREET TRANSPORTATION DEPARTMENT

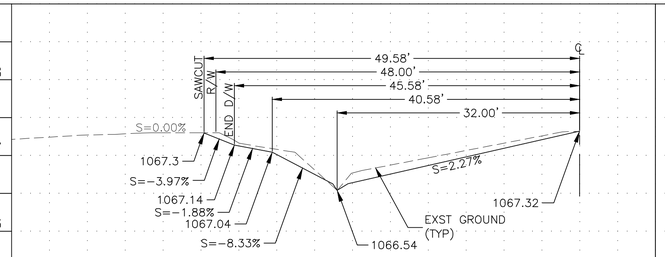
AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=1' VERTICAL, 1"=10' HORIZONTAL			DP-1.01

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\29_ST85100330-DWY PROFILES (1 OF 2).dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.



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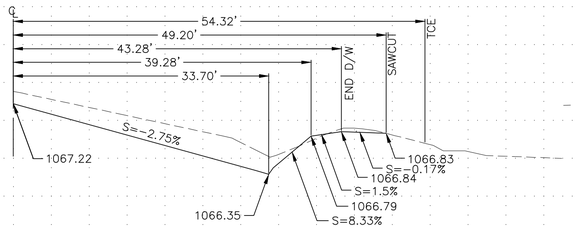

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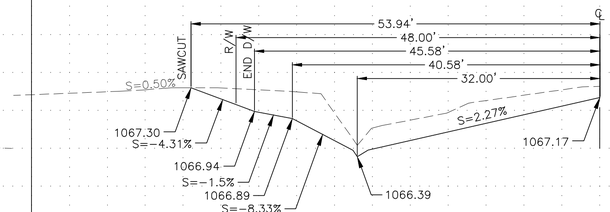

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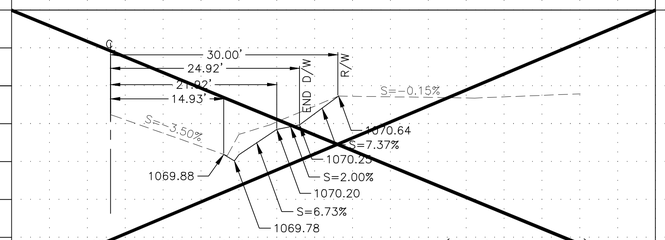
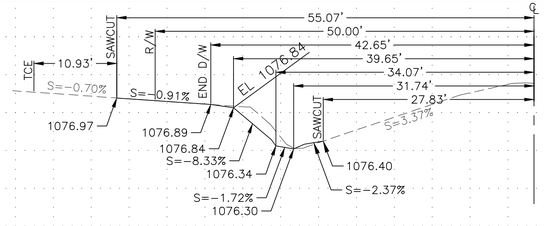


STA: 486+18.95 OFS:100.73 RT (2ND AVENUE)



STA: 518+55.54 LT (ARS/BROADWAY ROAD)

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	30	91	

CK GROUP
Engineers & Construction Managers
the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

SEE SHEET 05 TO 11 FOR STORM DRAIN AND PAVING PLANS

DRIVE□AY PROFILES

CITY OF PHOENIX, ARI□ONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=1' VERTICAL, 1"=10' HORIZONTAL			DP-1.02

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\30_ST85100330-DWY PROFILES (2 OF 2).dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	31	91	

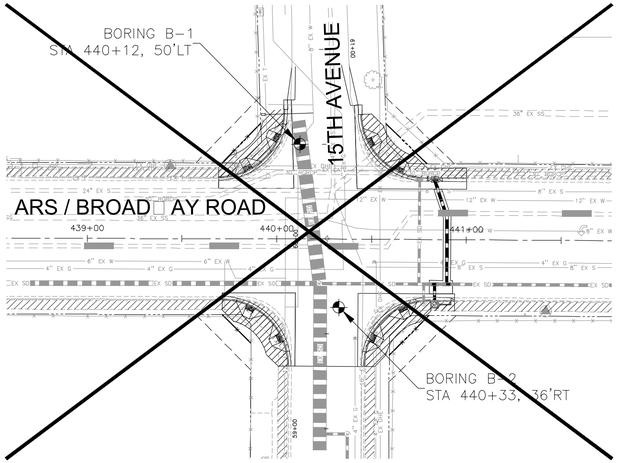
23785 JAMES F. SCHUMANN
Date Signed 1/11/16
ARIZONA, U.S.A.
Expires 06/30/2018

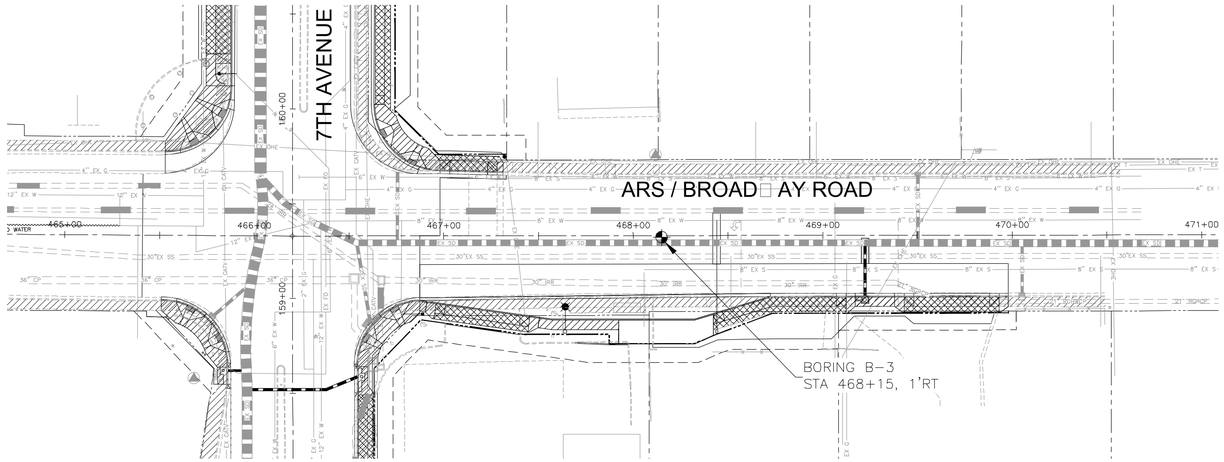
CK GROUP Engineers & Construction Managers

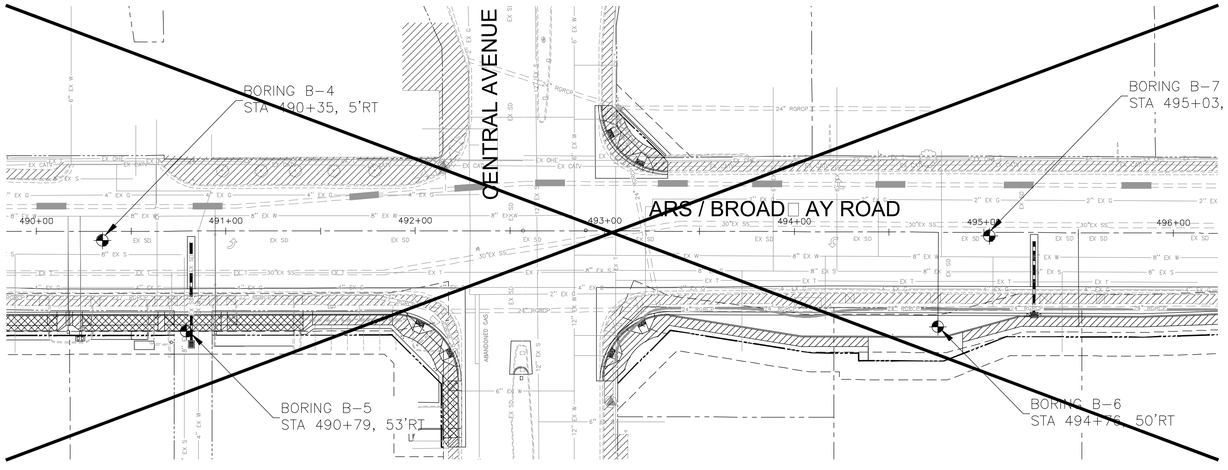
the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

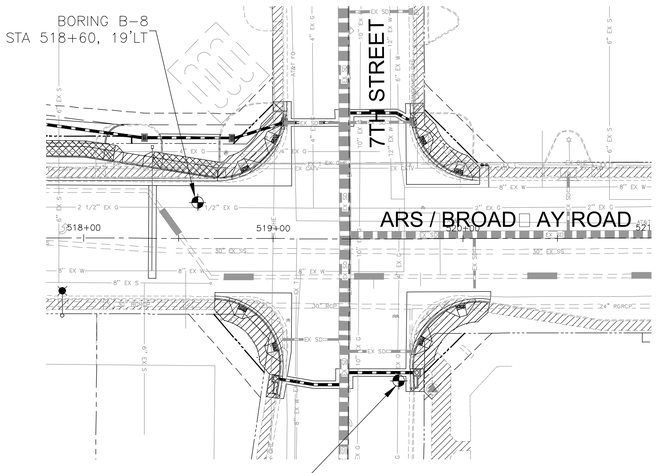
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE









Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

THE MATERIAL BORING LOGS SHOWN ON THESE PLANS ARE INCLUDED FOR THE CMAR'S CONVENIENCE ONLY. THEY ARE NOT INTENDED TO IMPLY THAT THE CHARACTER OF MATERIALS SHOWN IN THE LOGS IS REPRESENTATIVE THROUGHOUT THE PROJECT. THE SOIL BORINGS ARE INDICATIVE OF THE SOIL CHARACTERISTICS ONLY AT THE LOCATION AND TO THE DEPTH OF EACH OF THE BORINGS. EVEN IF NOT SPECIFICALLY SHOWN IN THE GEOTECHNICAL INFORMATION PROVIDED, THE CMAR MAY ENCOUNTER LARGE COBBLES, BOULDERS, CALICHE, CONGLOMERATE, HARD ROCK, PERCHED GROUNDWATER, HISTORIC OR PREHISTORIC CULTURAL RESOURCES, OR OTHER DIFFERING SITE CONDITIONS ON THIS PROJECT.

BORING LOGS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=40'			BL-1.01

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\31_ST85100330-BORING LOGS (1 OF 4).dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	32	91	

CK GROUP Engineers & Construction Managers

the CK Group, Inc.
CIVIL TRANSPORTATION ENGINEERS
16446 N. 40th Street, Suite A
Phoenix, Ariz. 85032

23785 JAMES F. SCHUMANN — Date Signed 1/11/16 — ARIZONA, U.S.A. — Expires 06/30/2018

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

LOG OF BORING NO. B-1

Page 1 of 1

CLIENT: The CK Group, Inc.
SITE: 15th Ave, 7th Ave, Central Ave & 7th St, Phoenix, Arizona
PROJECT: Broadway Road - Intersection Improvements

BORING Location: STA 440+12, 50' Lt | NW Corner of Broadway Rd and 15th Ave.

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLE INTERVAL	SAMPLE TYPE	BLOWS 1st 6"	BLOWS 2nd 6"	BLOWS 3rd 6"	TESTS WATER CONTENT, %	TESTS DRY DENSITY pcf	TESTS LIQUID LIMIT	TESTS PLASTICITY INDEX	TESTS #200
	ASPHALT CONCRETE: 8 inches.	0.7											
	AGGREGATE BASE COURSE: 10 inches, 3 to 4 inch cobbles from 1 to 1.5 feet.	1.5	SC/SM	RS/BS	9	8		8	106	25	6	33
	SILTY CLAYEY SAND WITH GRAVEL: brown, stiff, damp, low plasticity, fine to coarse grained sand, fine to coarse gravel.	5											
	Bottom of BORING.	6											

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

WATER LEVEL OBSERVATIONS, ft			
WL	▽ None WD	▼	
WL	▼	▼	
WL	Backfilled Upon Completion		

Terracon

BORING STARTED	11-4-10		
BORING COMPLETED	11-4-10		
RIG	CME-85	FOREMAN	MCW
APPROVED	SDN	JOB #	65105270

LOG OF BORING NO. B-2

Page 1 of 1

CLIENT: The CK Group, Inc.
SITE: 15th Ave, 7th Ave, Central Ave & 7th St, Phoenix, Arizona
PROJECT: Broadway Road - Intersection Improvements

BORING Location: STA 440+33, 36' Rt | SE Corner of Broadway Rd and 15th Ave.

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLE INTERVAL	SAMPLE TYPE	BLOWS 1st 6"	BLOWS 2nd 6"	BLOWS 3rd 6"	TESTS WATER CONTENT, %	TESTS DRY DENSITY pcf	TESTS LIQUID LIMIT	TESTS PLASTICITY INDEX	TESTS #200
	ASPHALT CONCRETE: 6 inches.	0.5											
	AGGREGATE BASE COURSE: 12 inches, up to 3 inch diameter cobbles, possible old base.	1.5											
	CLAYEY SAND: some silt, brown, loose, damp to moist, low plasticity, fine grained sand.	2	SC	BS									
				RS	8	7		15	100				
	moist.	5		BS									
	Bottom of BORING.	9											

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

WATER LEVEL OBSERVATIONS, ft			
WL	▽ None WD	▼	
WL	▼	▼	
WL	Backfilled Upon Completion		

Terracon

BORING STARTED	11-4-10		
BORING COMPLETED	11-4-10		
RIG	CME-85	FOREMAN	MCW
APPROVED	SDN	JOB #	65105270

LOG OF BORING NO. B-3

Page 1 of 1

CLIENT: The CK Group, Inc.
SITE: 15th Ave, 7th Ave, Central Ave & 7th St, Phoenix, Arizona
PROJECT: Broadway Road - Intersection Improvements

BORING Location: STA 468+15, 1' Rt | Broadway Rd, E of 7th Ave.

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLE INTERVAL	SAMPLE TYPE	BLOWS 1st 6"	BLOWS 2nd 6"	BLOWS 3rd 6"	TESTS WATER CONTENT, %	TESTS DRY DENSITY pcf	TESTS LIQUID LIMIT	TESTS PLASTICITY INDEX	TESTS #200
	ASPHALT CONCRETE: 6 inches.	0.5											
	AGGREGATE BASE COURSE: 12 inches.	1.5											
	CLAYEY SAND: some gravel, dark brown, medium dense, damp, medium plasticity, fine to medium grained sand, fine to coarse grained gravel.	2	SC	RS/BS	9	16		8	107	30	16	39
	Bottom of BORING.	5											

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

WATER LEVEL OBSERVATIONS, ft			
WL	▽ None WD	▼	
WL	▼	▼	
WL	Backfilled Upon Completion		

Terracon

BORING STARTED	11-4-10		
BORING COMPLETED	11-5-10		
RIG	CME-85	FOREMAN	MCW
APPROVED	SDN	JOB #	65105270

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"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

BORING LOGS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: NOT TO SCALE			BL-1.02

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\32_ST85100330-BORING LOGS (2 OF 4).dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	33	91	

CK GROUP Engineers & Construction Managers

the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REGISTERED PROFESSIONAL ENGINEER — 23785 JAMES F. SCHUMANN — Date Signed 1/11/16 — ARIZONA, U.S.A. — Expires 06/30/2018

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

LOG OF BORING NO. B-4

Page 1 of 1

CLIENT: The CK Group, Inc.
SITE: 15th Ave, 7th Ave, Central Ave & 7th St, Phoenix, Arizona
PROJECT: Broadway Road - Intersection Improvements

BORING Location: STA 490+35, 5' Rt | Broadway Rd, W of Central Ave.

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLE INTERVAL	SAMPLE TYPE	BLOWS 1st 6"	BLOWS 2nd 6"	BLOWS 3rd 6"	TESTS WATER CONTENT, %	TESTS DRY DENSITY pcf	TESTS LIQUID LIMIT	TESTS PLASTICITY INDEX	TESTS #200
	ASPHALT CONCRETE: 7 inches.	0.6											
	AGGREGATE BASE COURSE: 5.5 inches.	1.1											
	POORLY GRADED GRAVEL WITH SILT AND SAND: some cobbles, brown, very dense, slightly damp, non-plastic, coarse grained gravel, fine to coarse grained sand.	1	GP-GM										
		2		RS BS	34	47			2	128	0	0	8
		3											
		4											
	Bottom of BORING.	5											

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

WATER LEVEL OBSERVATIONS, ft			BORING STARTED	11-5-10
WL	▽ None WD	▼	BORING COMPLETED	11-5-10
WL	▼	▼	RIG CME-85	FOREMAN MCW
WL	Backfilled Upon Completion		APPROVED SDN	JOB # 6510527

Terracon

LOG OF BORING NO. B-5

Page 1 of 1

CLIENT: The CK Group, Inc.
SITE: 15th Ave, 7th Ave, Central Ave & 7th St, Phoenix, Arizona
PROJECT: Broadway Road - Intersection Improvements

BORING Location: STA 490+79, 53' Rt | S of Broadway Rd, W of Central Ave, offset from sidewalk in alley.

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLE INTERVAL	SAMPLE TYPE	BLOWS 1st 6"	BLOWS 2nd 6"	BLOWS 3rd 6"	TESTS WATER CONTENT, %	TESTS DRY DENSITY pcf	TESTS LIQUID LIMIT	TESTS PLASTICITY INDEX	TESTS #200
	ASPHALT CONCRETE: 3 inches, no aggregate base course.	0.3											
	SILTY SAND WITH GRAVEL: some cobbles, brown, loose, slightly damp, non-plastic, fine to coarse grained sand, coarse grained gravel, trace clay.	1	SM										
		2		RS BS	6	9			4	104			
		3											
		4											
	Bottom of BORING.	5											

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

WATER LEVEL OBSERVATIONS, ft			BORING STARTED	11-5-10
WL	▽ None WD	▼	BORING COMPLETED	11-5-10
WL	▼	▼	RIG CME-85	FOREMAN MCW
WL	Backfilled Upon Completion		APPROVED SDN	JOB # 6510527

Terracon

LOG OF BORING NO. B-6

Page 1 of 1

CLIENT: The CK Group, Inc.
SITE: 15th Ave, 7th Ave, Central Ave & 7th St, Phoenix, Arizona
PROJECT: Broadway Road - Intersection Improvements

BORING Location: STA 494+76, 50' Rt | S of Broadway Rd, E of Central Ave, offset from sidewalk.

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLE INTERVAL	SAMPLE TYPE	BLOWS 1st 6"	BLOWS 2nd 6"	BLOWS 3rd 6"	TESTS WATER CONTENT, %	TESTS DRY DENSITY pcf	TESTS LIQUID LIMIT	TESTS PLASTICITY INDEX	TESTS #200
	FILL - SANDY LEAN CLAY: some gravel, stiff, damp to moist, medium plasticity, fine to medium grained sand, fine to coarse gravel.	0	CL										
		1		RS BS	6	9			10	102	32	14	54
	SANDY LEAN CLAY: stiff, damp, medium plasticity.	2											
	POORLY GRADED GRAVEL WITH SAND: some cobbles, brown, dry, non-plastic, fine to coarse grained sand, coarse grained gravel, up to 4 inch diameter cobbles.	3	GP-GM										
		4											
	Bottom of BORING.	5											

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

WATER LEVEL OBSERVATIONS, ft			BORING STARTED	11-5-10
WL	▽ None WD	▼	BORING COMPLETED	11-5-10
WL	▼	▼	RIG CME-85	FOREMAN MCW
WL	Backfilled Upon Completion		APPROVED SDN	JOB # 6510527

Terracon

THE MATERIAL BORING LOGS SHOWN ON THESE PLANS ARE INCLUDED FOR THE CMAR'S CONVENIENCE ONLY. THEY ARE NOT INTENDED TO IMPLY THAT THE CHARACTER OF MATERIALS SHOWN IN THE LOGS IS REPRESENTATIVE THROUGHOUT THE PROJECT. THE SOIL BORINGS ARE INDICATIVE OF THE SOIL CHARACTERISTICS ONLY AT THE LOCATION AND TO THE DEPTH OF EACH OF THE BORINGS. EVEN IF NOT SPECIFICALLY SHOWN IN THE GEOTECHNICAL INFORMATION PROVIDED, THE CMAR MAY ENCOUNTER LARGE COBBLES, BOULDERS, CALICHE, CONGLOMERATE, HARD ROCK, PERCHED GROUNDWATER, HISTORIC OR PREHISTORIC CULTURAL RESOURCES, OR OTHER DIFFERING SITE CONDITIONS ON THIS PROJECT.

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

BORING LOGS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: NOT TO SCALE			BL-1.03

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\33_ST85100330-BORING LOGS (3 OF 4).dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	34	91	

CK GROUP Engineers & Construction Managers

the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REGISTERED PROFESSIONAL ENGINEER
23785
JAMES F. SCHUMANN
Date Signed 1/11/16
ARIZONA, U.S.A.
Expires 06/30/2018

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

LOG OF BORING NO. B-7

Page 1 of 1

CLIENT: The CK Group, Inc.
SITE: 15th Ave, 7th Ave, Central Ave & 7th St, Phoenix, Arizona
PROJECT: Broadway Road - Intersection Improvements

BORING Location: STA 495+03, 2' Rt | Broadway Rd, E of Central Ave.

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLE INTERVAL	SAMPLE TYPE	BLOWS 1st 6"	BLOWS 2nd 6"	BLOWS 3rd 6"	TESTS WATER CONTENT, %	TESTS DRY DENSITY pcf	TESTS LIQUID LIMIT	TESTS PLASTICITY INDEX	TESTS #200
	ASPHALT CONCRETE: 7 inches.	0.6											
	AGGREGATE BASE COURSE: 5 inches.	1											
	POORLY GRADED GRAVEL WITH SAND: some cobbles, brown, very dense, slightly damp, non-plastic, fine to coarse grained sand, coarse grained gravel, up to 4 inch diameter cobbles, trace silt.	1	GP										
		2			RS	16	44		2	125			
		3											
		4											
		5											
	Bottom of BORING.	5											

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

WATER LEVEL OBSERVATIONS, ft			
WL	▽ None WD	▼	
WL	▼	▽	
WL	Backfilled Upon Completion		

Terracon

BORING STARTED	11-5-10		
BORING COMPLETED	11-5-10		
RIG	CME-85	FOREMAN	MCW
APPROVED	SDN	JOB #	65105270

LOG OF BORING NO. B-8

Page 1 of 1

CLIENT: The CK Group, Inc.
SITE: 15th Ave, 7th Ave, Central Ave & 7th St, Phoenix, Arizona
PROJECT: Broadway Road - Intersection Improvements

BORING Location: STA 518+60, 19' Lt | NW Corner of Broadway Rd and 7th St.

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLE INTERVAL	SAMPLE TYPE	BLOWS 1st 6"	BLOWS 2nd 6"	BLOWS 3rd 6"	TESTS WATER CONTENT, %	TESTS DRY DENSITY pcf	TESTS LIQUID LIMIT	TESTS PLASTICITY INDEX	TESTS #200
	ASPHALT CONCRETE: 7 inches.	0.6											
	AGGREGATE BASE COURSE: 12 inches.	1.6											
	SANDY LEAN CLAY: trace gravel, dark brown, medium stiff to stiff, damp, low to medium plasticity, fine to medium grained sand, fine to coarse grained gravel.	2	CL		BS						24	9	57
		3			RS	4	6		7	101			
		4											
		5											
	Bottom of BORING.	5											

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

WATER LEVEL OBSERVATIONS, ft			
WL	▽ None WD	▼	
WL	▼	▽	
WL	Backfilled Upon Completion		

Terracon

BORING STARTED	11-5-10		
BORING COMPLETED	11-5-10		
RIG	CME-85	FOREMAN	MCW
APPROVED	SDN	JOB #	65105270

LOG OF BORING NO. B-9

Page 1 of 1

CLIENT: The CK Group, Inc.
SITE: 15th Ave, 7th Ave, Central Ave & 7th St, Phoenix, Arizona
PROJECT: Broadway Road - Intersection Improvements

BORING Location: STA 519+66, 75' Rt | SE Corner of Broadway Rd and 7th St.

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLE INTERVAL	SAMPLE TYPE	BLOWS 1st 6"	BLOWS 2nd 6"	BLOWS 3rd 6"	TESTS WATER CONTENT, %	TESTS DRY DENSITY pcf	TESTS LIQUID LIMIT	TESTS PLASTICITY INDEX	TESTS #200
	ASPHALT CONCRETE: 3 inches.	0.3											
	AGGREGATE BASE COURSE: 6 inches, up to 3 inch diameter cobbles, possible old base course.	0.8											
	WELL GRADED SAND WITH CLAY AND GRAVEL: brown, very loose, damp, no to low plasticity, fine to coarse grained sand and gravel.	1	SW-SC										
	POORLY GRADED SAND WITH SILT: some clay, brown, medium dense, damp, no to low plasticity.	1.8											
		2	SP-SM		RS BS	3	3		10	102			
		3											
		4											
		5											
		6											
		7											
		8											
	Bottom of BORING.	8											

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

WATER LEVEL OBSERVATIONS, ft			
WL	▽ None WD	▼	
WL	▼	▽	
WL	Backfilled Upon Completion		

Terracon

BORING STARTED	11-4-10		
BORING COMPLETED	11-4-10		
RIG	CME-85	FOREMAN	MCW
APPROVED	SDN	JOB #	65105270

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BORING LOGS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

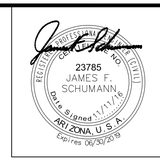
DR: JV/CC	DES: AI/CC	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: NOT TO SCALE			BL-1.04

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\34_ST85100330-BORING LOGS (4 OF 4).dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

CITY OF PHOENIX STREET LIGHTING
AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)



F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	35	91	

CK GROUP Engineers & Construction Managers
the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

SALT RIVER PROJECT (SRP) NOTES

1. CONTRACTOR SHALL CALL SRP FOR A PRE-CONSTRUCTION MEETING PRIOR TO ANY EXCAVATION AT (602) 236-6300.
2. CONTRACTOR WILL SUPPLY ALL TRENCHING AND CONDUIT IF REQUESTED BY THE COP PROJECT MANAGER.
3. CONTRACTOR WILL STAKE STREET LIGHTS PER CITY OF PHOENIX APPROVED STREET LIGHT CONSTRUCTION DRAWINGS.
4. GRADE STAKE WILL BE SET WITHIN TWO (2) FEET OF J-BOX LOCATION.
5. CONTRACTOR WILL COORDINATE WITH SRP AND CITY OF PHOENIX FOR DE-ENERGIZING OF STREETLIGHT CONDUCTOR.
6. GROUND ROD WILL BE PROVIDED AND INSTALLED BY CONTRACTOR IN SRP J-BOX AT EACH STREETLIGHT LOCATION.
7. #6 BARE COPPER GROUND WIRE TO BE ATTACHED FROM GROUNDING LUG ON STREETLIGHT POLE TO GROUND ROD IN J-BOX.
8. IF THE CONTRACTOR INSTALLS THE POLE, THE BARE #6 COPPER GROUND WIRE SHALL BE CONNECTED FROM THE GROUND ROD IN THE SRP J-BOX TO THE GROUND CONNECTION IN THE POLE HAND-HOLE.
9. ALL TRENCHING AND CONDUIT TO BE INSPECTED BY SRP. DO NOT BACKFILL UNTIL INSPECTED.
10. SRP CONSTRUCTION PRINT MUST BE USED AS A TRENCHING REFERENCE. TRENCHING VARIATIONS MUST HAVE WRITTEN SRP DESIGNER APPROVAL. FOLLOW DETAILS FOR CONSTRUCTION. VARIATIONS IN TRENCH ROUTE MAY RESULT IN A REDESIGN FEE PAYABLE BY CONTRACTOR.
11. TRENCHES SHOULD BE STRAIGHT, LEVEL AND FREE OF DEBRIS. ALL TRENCH DEPTHS MEASURED FROM FINAL GRADE TOP OF CONDUIT (PER SRP DESIGN) WITHIN ALL EASEMENTS AND RIGHT OF WAY. MAINTAIN MINIMUM 6" CLEARANCE FROM WATER LINES, 19" FROM ALL GAS LINES AND 12" CLEARANCE FORM OTHER UTILITIES.
12. USE DB120 PVC FOR ALL STRAIGHT CONDUIT, 36" RADIUS SCHEDULE 40 PVC SWEEPS FOR ALL ELBOWS. NO REDUCERS ARE ALLOWED IN CONDUIT SYSTEM, NO COUPLINGS OR BELL ENDS ARE ALLOWED AT EQUIPMENT LOCATIONS. ALL CONDUITS WITHIN ROAD RIGHT OF WAY OR P.U.E. MUST BE RED.
13. RETAINING WALLS ARE REQUIRED ADJACENT TO EQUIPMENT WHERE THE GRADE SLOPE IS GREATER THAN 30" IN 12'.
14. ALL CONDUIT STUB OUTS ARE TO BE CAPPED AND MARKED WITH ELECTRONIC MARKER AND 7" RED FLAG MARKING RIBBON.
15. HARD CAPS ARE TO BE USED FOR ALL STUB OUTS BELOW GRADE.
16. A MANDREL INSPECTION IS REQUIRED WITH SRP INSPECTOR WITHIN 3 DAYS OF FINAL INSPECTION. CONTRACTOR MUST PROVIDE 2 REPRESENTATIVES, MINIMUM 125-CFM TRAILER MOUNTED COMPRESSOR AND ALL NECESSARY ATTACHMENTS.
17. THE CONTRACTOR IS RESPONSIBLE FOR THE INTEGRITY OF ALL CONDUITS UNTIL SRP HAS INSTALLED CONDUCTORS.
18. BACKFILL REQUIREMENTS FOR A TRENCH IN OR UNDER FUTURE PAVEMENT TO BE 1 PART SLURRY MIX IN ROAD RIGHT OF WAY AND IN DIRT TO BE 1/2 SLURRY MIX AND 1/2 SLURRY MIX MAXIMUM UNDER ALL SRP EQUIPMENT.
19. SEE DUCT BANK SPECIFICATIONS FOR ALL DUCT BANK ENCASEMENT REQUIREMENTS.

LED STREETLIGHT NOTES

[1] INSTALL ONE 113W LED (10,000 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL ON A 38'-6" POLE WITH A 6' MAST ARM PER APS DETAIL AND SPECIFICATIONS. FOUNDATION AND GROUNDING PER APS STANDARDS AND SPECIFICATIONS. POLE SHALL BE CENTERED 1'-0" BEHIND BACK OF SIDEWALK OR 4'-0" BEHIND BACK OF CURB. INSTALL (2) #12 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL APS PULL BOX ADJACENT POLE WITH 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.

[2] REMOVE EXISTING HPS LUMINAIRE AND INSTALL ONE 113W LED (10,000 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL PER APS DETAIL AND SPECIFICATIONS. GROUNDING PER APS STANDARDS AND SPECIFICATIONS. INSTALL(2) #12 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.

(1) REMOVE AND PROPERLY DISPOSE OF CITY STREETLIGHT MASTARM FROM SRP POLE

(2) REMOVE AND PROPERLY DISPOSE OF CITY STREETLIGHT POLE AND MASTARM

REMOVAL RELOCATION NOTE

ITEM NUMBER	TYPE OF STREET	QUANTITY	MOUNTING HEIGHT	POLE LENGTH	MAST ARM	APPROVED POLE & ARM MANUFACTURERS	LUMEN	TYPE	WATTAGE	VOLTAGE	LUMINAIRE STYLE	APPROVED LUMINAIRE MANUFACTURERS
[1]	ARTERIAL	4	34'-3"	38'-6"	3'x8'	CEM-TEC MS-1944 VALMONT CB09159 SOUTHWEST FABRICATION, LLC SWF-33701443	10,000	LED	113 W	120/208/240/277 AS POWER CO. REQUIRES	COBRAHEAD	GENERAL ELECTRIC ERS20D3E1740A GRAY R
[2]	ARTERIAL	4	MOUNT ON EXST.	EXST	EXST	USE EXISTING	10,000	LED	113 W	120/208/240/277 AS POWER CO. REQUIRES	COBRAHEAD	GENERAL ELECTRIC ERS20D3E1740A GRAY R

ALL CATALOG NUMBERS SHALL BE CONFIRMED WITH POWER COMPANY PRIOR TO ORDERING

STREET LIGHTING GENERAL NOTES

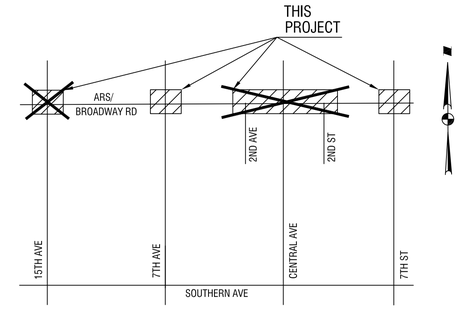
THE FOLLOWING INFORMATION IS PROVIDED TO EMPHASIZE CRITICAL WORK AND IS INTENDED TO SUPPLEMENT THE SPECIFICATIONS.

1. THE CONTRACTOR SHALL COMPLY WITH STATE AND CITY STATUTES AND ORDINANCES.
2. PRIOR TO SUBMITTAL, THE STREET LIGHT DESIGNER SHALL EXAMINE ALL GENERAL CONSTRUCTION DRAWINGS AND VISIT THE CONSTRUCTION SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS UNDER WHICH HE WILL OPERATE AND WHICH WILL IN ANY WAY AFFECT THE WORK UNDER THE CONTRACT.
3. THE STREET LIGHT DESIGNER SHOULD VERIFY DIMENSIONS AT THE SITE AND IMMEDIATELY REPORT DIFFERENCES TO THE DEVELOPER'S CONSTRUCTION MANAGER AND NOT PROCEED WITH WORK UNTIL THE CONSTRUCTION MANAGER RENDERS A DECISION.
4. THE ELECTRICAL CONTRACTOR SHALL COMPLY WITH ALL LICENSING REQUIREMENTS SET FORTH BY THE STATE REGISTRAR OF CONTRACTORS OFFICE TO PERFORM WORK RELATING TO STREET LIGHT INSTALLATION IN CITY OF PHOENIX RIGHT-OF-WAY.
5. ONE DRY UTILITY PERMIT FOR EACH CITY OF PHOENIX STREET LIGHT PROJECT SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
6. LIGHT POLES SHALL BE INSTALLED PLUMB, BE ADJUSTED TO PROVIDE PROPER ALIGNMENT TO THE ROADWAY BEING LIGHTED AND BE PROPERLY GROUNDED WHEN THE INSTALLATION IS COMPLETED.
7. STREET LIGHTS ARE INSPECTED BY THE CITY OF PHOENIX STREETLIGHTING INSPECTOR. WHEN ACCEPTED AND ENERGIZED THE CONTRACTOR WILL INSTALL POLE NUMBERS PRIOR TO INSPECTION.
8. LUMINAIRES SHALL BE INSTALLED LEVEL AND INCLUDE A LAMP AND PHOTOCELL. THE LUMINAIRES SHALL BE FREE OF DUST, DIRT OR ANYTHING THAT WOULD IMPAIR THE OUTPUT OF THE LIGHT.
9. LUMINAIRES FURNISHED WITH MULTI-TAP DRIVERS SHALL BE REWIRED OR RECONNECTED TO MATCH THE VOLTAGE SUPPLIED BY THE ELECTRIC UTILITY COMPANY.
10. POLE SHALL BE SET PLUMB IN TWO DIRECTIONS, NINETY (90) DEGREES APART.
11. SURPLUS EXCAVATION SHALL BE DISPOSED OF BY THE CONTRACTOR.
12. WIRING SHALL BE INSTALLED PER SERVING UTILITY COMPANY STANDARDS. CONDUIT SHALL BE INSTALLED AT THE DEPTH SPECIFIED ON THEIR PLANS.
13. CONDUIT MUST BE LISTED AND LABELED AND SUITABLE FOR UNDERGROUND USE.
14. CONNECTIONS SHALL BE PER SERVING UTILITY COMPANY STANDARDS. EACH POLE SHALL HAVE A 8' X 5/8" COPPER CLAD GROUND ROD DRIVEN BENEATH PULL BOX. A #6 BARE COPPER LEAD FROM THE GROUND ROD IN PULL BOX TO LANDING LUG IN STREET LIGHT POLE HAND HOLE IS REQUIRED.
15. EXCAVATION FOR PULL BOXES AND MATERIAL SPECIFICATIONS SHALL BE PER SERVING UTILITY COMPANY STANDARDS.
16. TRENCH SHALL BE INSTALLED PER SERVING UTILITY COMPANY STANDARDS. THE USE OF A COMMON ELECTRIC UTILITY COMPANY TRENCH IS PERMITTED.
17. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITY COMPANY FOR COORDINATION OF THE TRENCHING AND THE INSTALLATION OF CONDUIT.
18. IT IS THE CONTRACTOR'S RESPONSIBILITY TO RESTORE ALL PROPERTY, LANDSCAPING, PAVING AND DRIVEWAYS THAT ARE DISTURBED DURING STREET LIGHT CONSTRUCTION TO THEIR ORIGINAL CONDITION IN CONFORMANCE WITH MAG SPECIFICATION SECTION 107.9.
19. IF A FIXTURE SHOULD FAIL, IT SHALL BE IMMEDIATELY REPLACED. THE DEVELOPER SHALL BE RESPONSIBLE FOR FURNISHING ALL PERSONNEL AND EQUIPMENT NECESSARY TO SUCCESSFULLY REPAIR THE FIXTURE.
20. THE CONTRACTOR SHALL GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE ENGINEERING MANAGER, AGAINST IMPERFECT WORKMANSHIP, FAILURE, MALFUNCTION OF MATERIALS AND/OR EQUIPMENT DUE TO FAULTY OR IMPERFECT WORKMANSHIP.
21. THIS GUARANTEE IS TO BE IN WRITING TO THE CITY AT THE TIME OF ISSUING FINAL ACCEPTANCE. MATERIALS AND WORKMANSHIP FOUND TO BE DEFECTIVE WITHIN THE WARRANTY PERIOD SHALL BE REPLACED WITHOUT COST TO THE CITY.

LEGEND

- COBRAHEAD LUMINAIRE STREET LIGHT POLE (SEE NOTE FOR DESCRIPTION)
- COBRAHEAD LED LUMINAIRE STREET LIGHT (SEE NOTE FOR DESCRIPTION)
- EXISTING STREET LIGHT MOUNTED ON POWER POLE
- EXISTING STREET LIGHT POLE

SHEET INDEX



VICINITY MAP
N.T.S.

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Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

ST LIGHTING - COVER SHEET

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

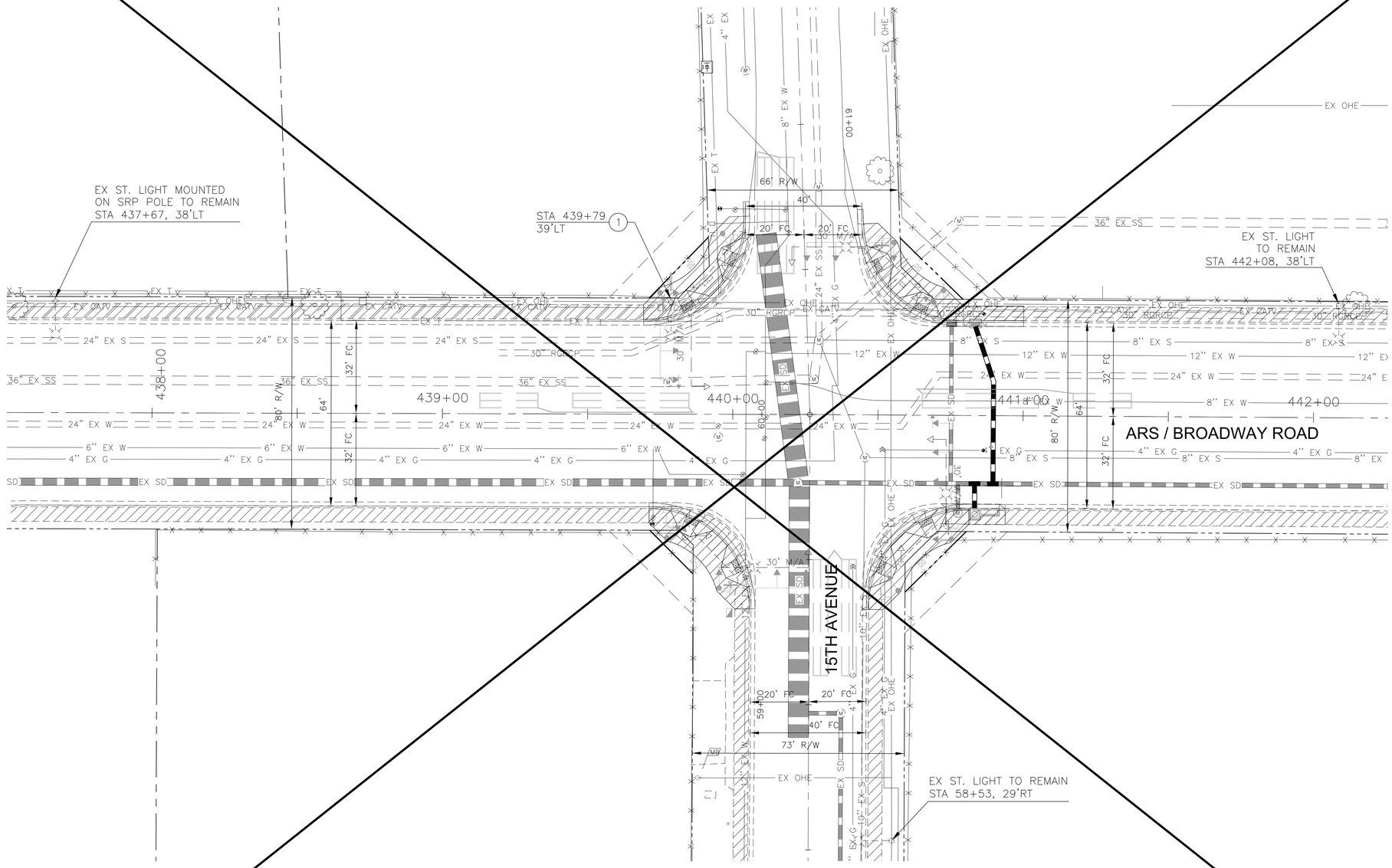
DR: KA/JB	DES: AI/JS	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: NOT TO SCALE			SL-1.01

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\35_ST85100330-LICS.dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N



F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	36	91	

CK GROUP Engineers & Construction Managers
the CK Group, Inc.
CIVIL + TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

27185
JAMES F. SCHUMANN
11/11/16
Date Signed
ARIZONA, U.S.A.
Expires 06/30/2018

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE AND SALVAGE CITY STREETLIGHT MASTARM FROM SRP POLE	EA	1

LEGEND

- COBRAHEAD LUMINAIRE STREET LIGHT POLE (SEE NOTE FOR DESCRIPTION)
- EXISTING STREET LIGHT MOUNTED ON POWER POLE
- EXISTING STREET LIGHT POLE

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

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ST LIGHTING PLAN 15TH AVE

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: KA/JB	DES: AI/JS	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			SL-1.02

ST85100371(002)

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

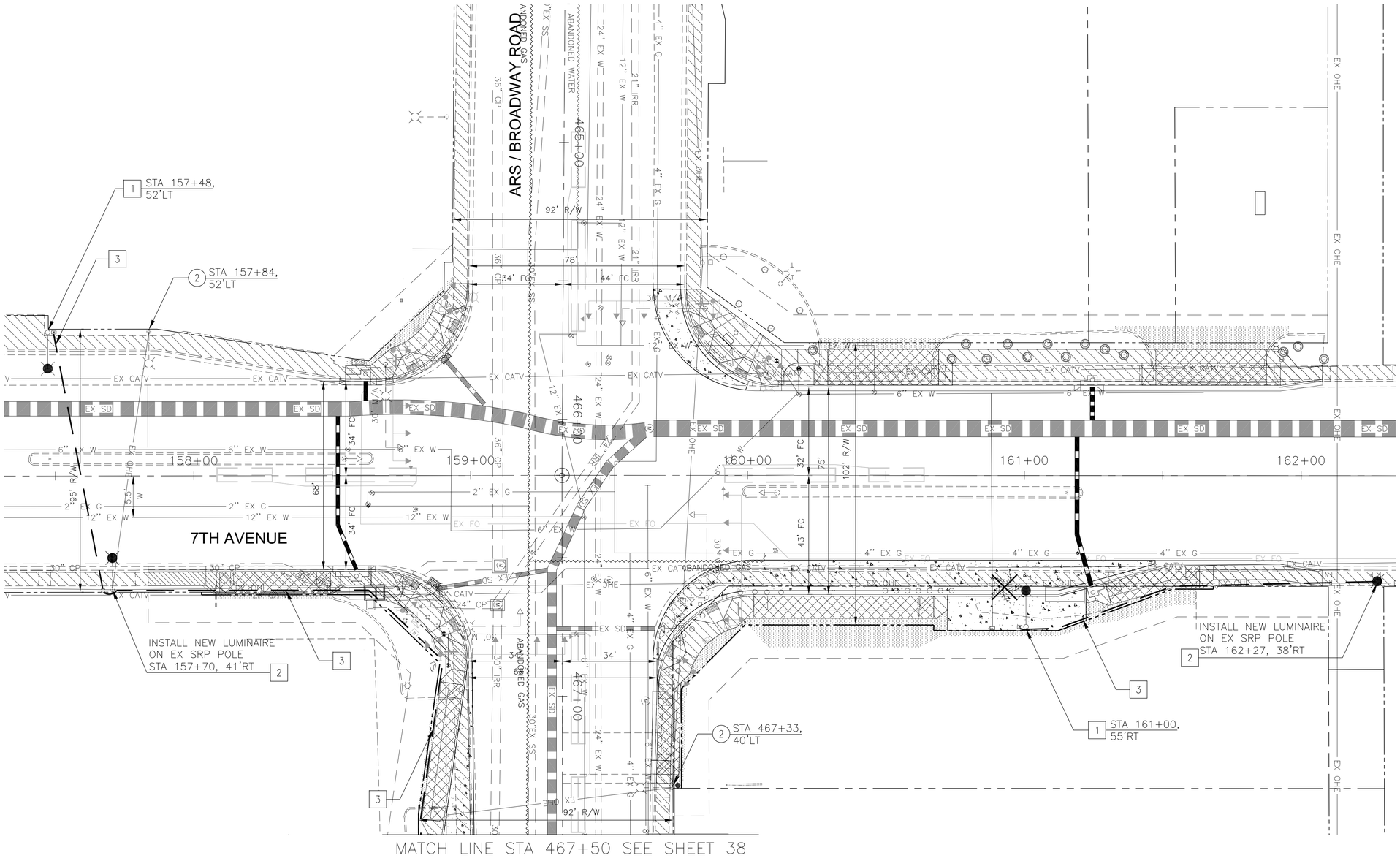
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\36_ST85100330-LIP(1 OF 6).dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

N City of Phoenix



F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	37	91	

CK GROUP Engineers & Construction Managers

the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

23785 JAMES F. SCHUMANN
Date Signed 11/1/16
ARIZONA, U.S.A.
Expires 06/30/2018

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
2	REMOVE AND PROPERLY DISPOSE OF CITY STREETLIGHT POLE AND MAST ARM	EA	2
1	INSTALL ONE 113W LED (10,000 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL ON A 38'–6" POLE WITH A 6' MAST ARM PER APS DETAIL AND SPECIFICATIONS. FOUNDATION AND GROUNDING PER APS STANDARDS AND SPECIFICATIONS. POLE SHALL BE CENTERED 1'–0" BEHIND BACK OF SIDEWALK OR 4'–0" BEHIND BACK OF CURB. INSTALL (2) #12 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL APS PULL BOX ADJACENT POLE WITH 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.	EA	2
2	REMOVE EXISTING HPS LUMINAIRE AND INSTALL ONE 113W LED (10,000 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL PER APS DETAIL AND SPECIFICATIONS. GROUNDING PER APS STANDARDS AND SPECIFICATIONS. INSTALL(2) #12 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.	EA	2
3	TRENCHING FOR STREET LIGHT CIRCUIT (ONE CONDUIT)	LF	418

LEGEND

- COBRAHEAD LUMINAIRE STREET LIGHT POLE (SEE NOTE FOR DESCRIPTION)
- COBRAHEAD LED LUMINAIRE STREET LIGHT (SEE NOTE FOR DESCRIPTION)
- EXISTING STREET LIGHT MOUNTED ON POWER POLE
- EXISTING STREET LIGHT POLE

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In Maricopa County: (602) 263-1100

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ST. LIGHTING PLAN 7TH AVE

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: KA/JB	DES: AI/JS	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			SL-1.03

ST85100371(002)

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\37_ST85100330-LIP(2 OF 6).dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

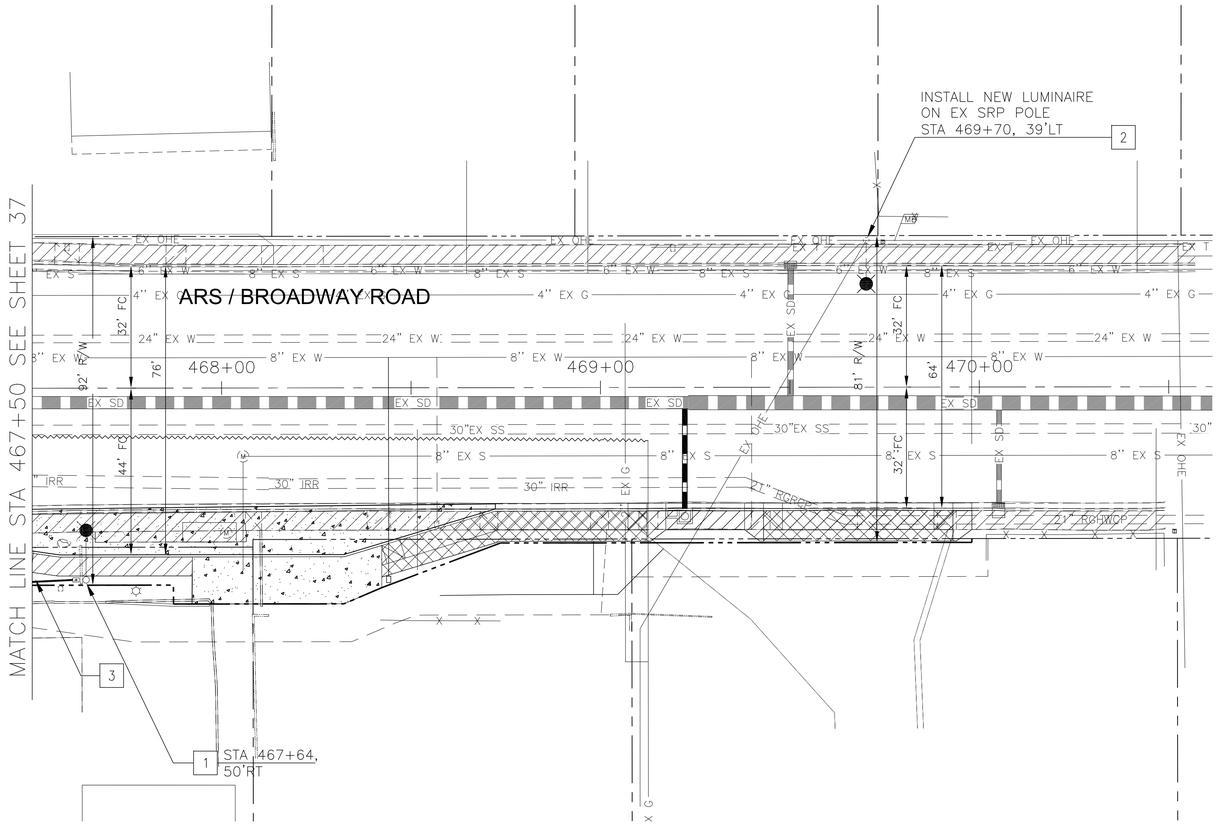
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



City of Phoenix
N

23785
JAMES F. SCHUMANN
Date Signed 11/17/16
ARIZONA, U.S.A.
Expires 06/30/2018

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	38	91	

CK GROUP Engineers & Construction Managers
the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL ONE 113W LED (10,000 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL ON A 38'–6" POLE WITH A 6' MAST ARM PER APS DETAIL AND SPECIFICATIONS. FOUNDATION AND GROUNDING PER APS STANDARDS AND SPECIFICATIONS. POLE SHALL BE CENTERED 1'–0" BEHIND BACK OF SIDEWALK OR 4'–0" BEHIND BACK OF CURB. INSTALL (2) #12 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL APS PULL BOX ADJACENT POLE WITH 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.	EA	1
2	REMOVE EXISTING HPS LUMINAIRE AND INSTALL ONE 113W LED (10,000 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL PER APS DETAIL AND SPECIFICATIONS. GROUNDING PER APS STANDARDS AND SPECIFICATIONS. INSTALL(2) #12 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.	EA	1
3	TRENCHING FOR STREET LIGHT CIRCUIT (ONE CONDUIT)	LF	15

LEGEND

- COBRAHEAD LUMINAIRE STREET LIGHT POLE (SEE NOTE FOR DESCRIPTION)
- EXISTING STREET LIGHT MOUNTED ON POWER POLE
- EXISTING STREET LIGHT POLE

Call at least two full working days before you begin excavation.
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ST LIGHTING PLAN 7TH AVE

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

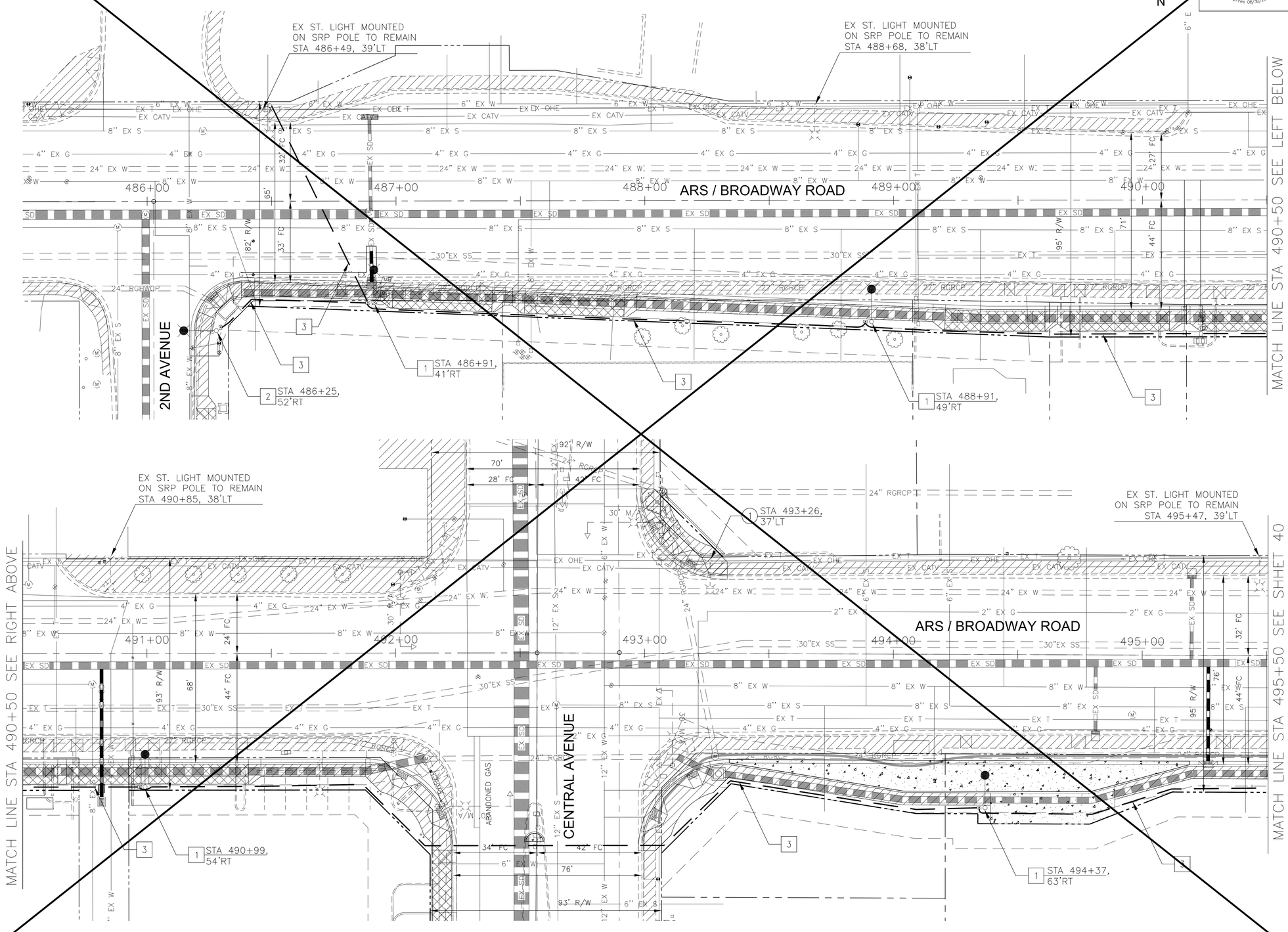
DR: KA/JB	DES: AI/JS	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			SL–1.04

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\38_ST85100330-LIP(3 OF 6).dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N



REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	39	91	

27785
JAMES F. SCHUMANN
Date Signed 11/1/16
ARIZONA, U.S.A.
Expires 06/30/2018

CK GROUP Engineers & Construction Managers

the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE AND SALVAGE CITY STREETLIGHT MASTARM FROM SRP POLE	EA	1

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL ONE 130W LED (9,900 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL ON A 38'–6" POLE WITH A 3'x8' MAST ARM PER APS DETAIL 8040 AND SPECIFICATIONS. FOUNDATION AND GROUNDING PER APS STANDARDS AND SPECIFICATIONS. POLE SHALL BE CENTERED 1'–0" BEHIND BACK OF SIDEWALK. INSTALL (2) #12 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL APS PROVIDED PULL BOX ADJACENT POLE WITH 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.	EA	4
2	INSTALL ONE 67W LED (5,300 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL ON A 30'–6" POLE WITH A 3'x8' MAST ARM PER APS DETAIL 8040 AND SPECIFICATIONS. FOUNDATION AND GROUNDING PER APS STANDARDS AND SPECIFICATIONS. POLE SHALL BE CENTERED 1'–0" BEHIND BACK OF SIDEWALK. INSTALL (2) #12 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL APS PROVIDED PULL BOX ADJACENT POLE WITH 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.	EA	1
3	TRENCHING FOR STREET LIGHT CIRCUIT (ONE CONDUIT)	LF	990

LEGEND

- COBRAHEAD LUMINAIRE STREET LIGHT POLE (SEE NOTE FOR DESCRIPTION)
- EXISTING STREET LIGHT MOUNTED ON POWER POLE
- EXISTING STREET LIGHT POLE

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ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

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ST. LIGHTING PLAN CENTRAL

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

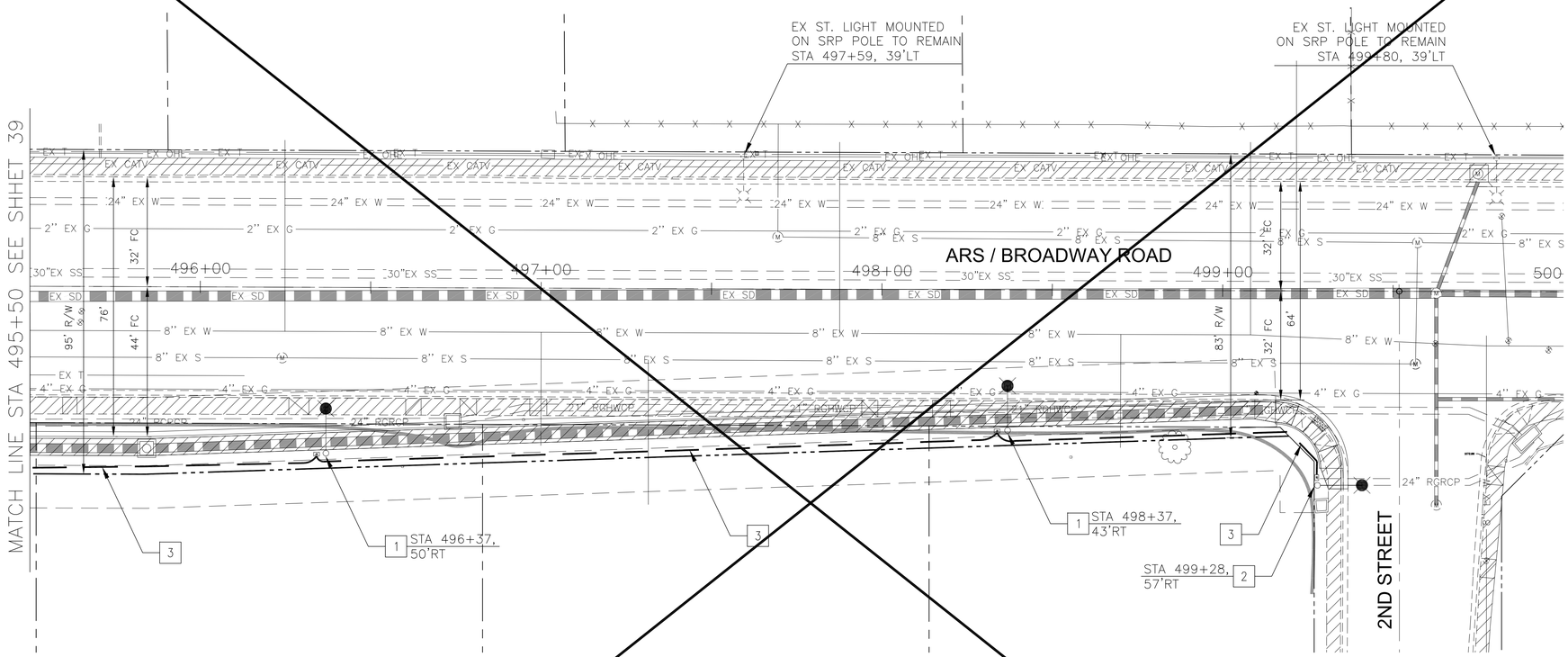
DR: KA/JB	DES: AI/JS	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			SL–1.05

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\39_ST85100330-LIP(4 OF 6).dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N



F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	40	91	

CK GROUP Engineers & Construction Managers
the CK Group, Inc.
CIVIL + TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

27185
JAMES F. SCHUMANN
Date Signed 11/17/16
ARIZONA, U.S.A.
Expires 06/30/2018

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL ONE 130W LED (9,900 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL ON A 38'–6" POLE WITH A 3'x8' MAST ARM PER APS DETAIL 8040 AND SPECIFICATIONS. FOUNDATION AND GROUNDING PER APS STANDARDS AND SPECIFICATIONS. POLE SHALL BE CENTERED 1'–0" BEHIND BACK OF SIDEWALK. INSTALL (2) #12 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL APS PROVIDED PULL BOX ADJACENT POLE WITH 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.	EA	2
2	INSTALL ONE 67W LED (5,300 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL ON A 30'–6" POLE WITH A 3'x8' MAST ARM PER APS DETAIL 8040 AND SPECIFICATIONS. FOUNDATION AND GROUNDING PER APS STANDARDS AND SPECIFICATIONS. POLE SHALL BE CENTERED 1'–0" BEHIND BACK OF SIDEWALK. INSTALL (2) #12 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL APS PROVIDED PULL BOX ADJACENT POLE WITH 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.	EA	1
3	TRENCHING FOR STREET LIGHT CIRCUIT (ONE CONDUIT)	LF	390

LEGEND

- COBRAHEAD LUMINAIRE STREET LIGHT POLE (SEE NOTE FOR DESCRIPTION)
- EXISTING STREET LIGHT MOUNTED ON POWER POLE
- EXISTING STREET LIGHT POLE

Call at least two full working days before you begin excavation.
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Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

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ST LIGHTING PLAN CENTRAL

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: KA/JB	DES: AI/JS	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			SL–1.06

ST85100371(002)

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

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NO.	DESCRIPTION	REV BY	CKD BY	DATE

\\ckg–svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016–08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\40_ST85100330–LIP(5 OF 6).dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

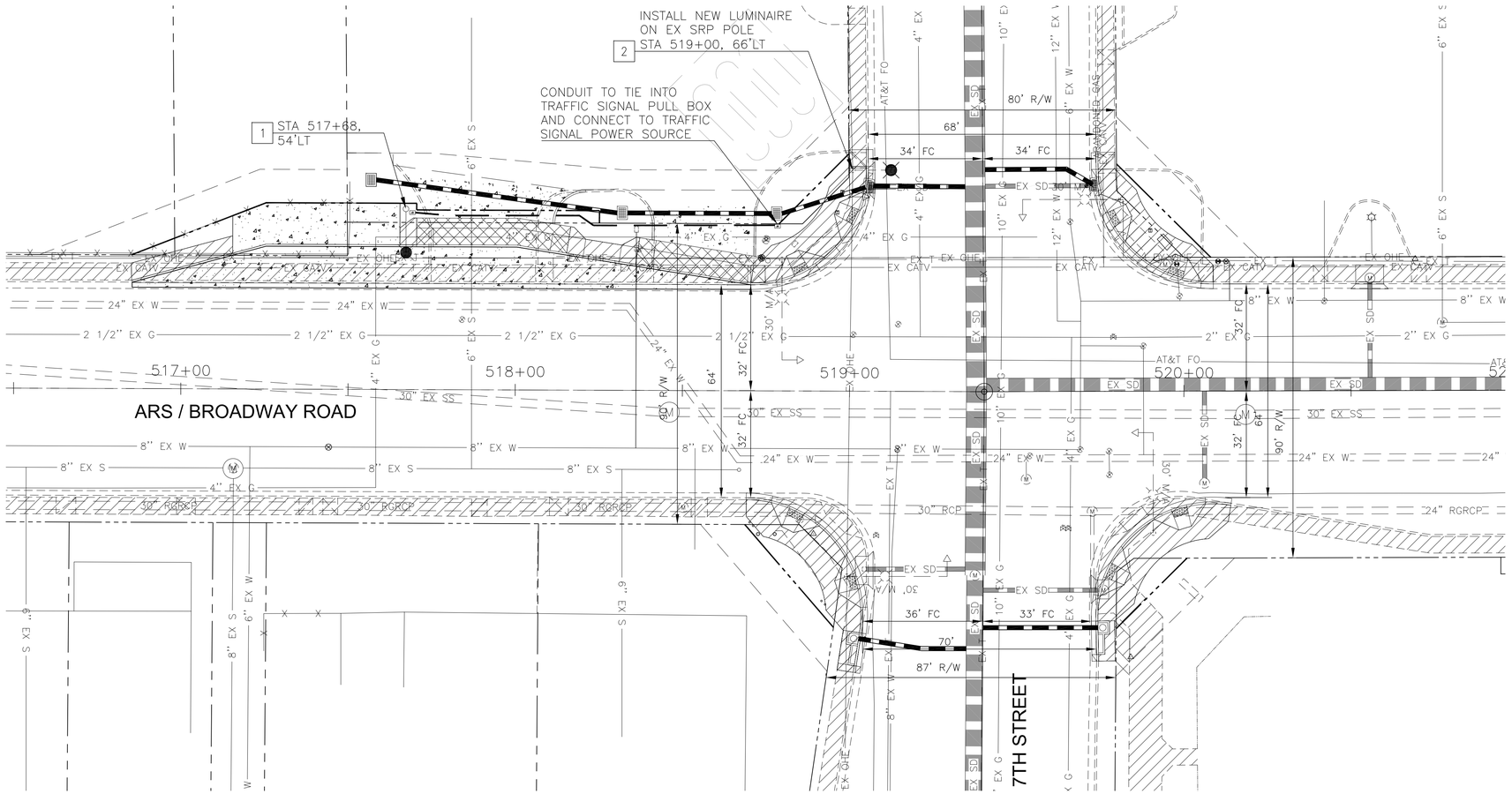
NO.	DESCRIPTION	REV BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

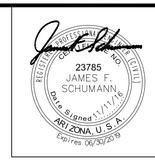
NO.	DESCRIPTION	REV BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE



City of Phoenix
N



F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	41	91	

CK GROUP Engineers & Construction Managers
the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE AND PROPERLY DISPOSE OF CITY STREETLIGHT MASTARM FROM SRP POLE	EA	1

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL ONE 113W LED (10,000 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL ON A 38'–6" POLE WITH A 6' MAST ARM PER APS DETAIL AND SPECIFICATIONS. FOUNDATION AND GROUNDING PER APS STANDARDS AND SPECIFICATIONS. POLE SHALL BE CENTERED 1'–0" BEHIND BACK OF SIDEWALK OR 4'–0" BEHIND BACK OF CURB. INSTALL (2) #12 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL APS PULL BOX ADJACENT POLE WITH 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.	EA	1
2	REMOVE EXISTING HPS LUMINAIRE AND INSTALL ONE 113W LED (10,000 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL PER APS DETAIL AND SPECIFICATIONS. GROUNDING PER APS STANDARDS AND SPECIFICATIONS. INSTALL(2) #12 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.	EA	1
3	TRENCHING FOR STREET LIGHT CIRCUIT (ONE CONDUIT)	LF	110

LEGEND

- COBRAHEAD LUMINAIRE STREET LIGHT POLE (SEE NOTE FOR DESCRIPTION)
- COBRAHEAD LED LUMINAIRE STREET LIGHT (SEE NOTE FOR DESCRIPTION)
- EXISTING STREET LIGHT MOUNTED ON POWER POLE
- EXISTING STREET LIGHT POLE

Call at least two full working days before you begin excavation.
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ST LIGHTING PLAN 7TH ST

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: KA/JB	DES: AI/JS	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			SL–1.07

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\41_ST85100330-LIP(6 OF 6).dwg

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N

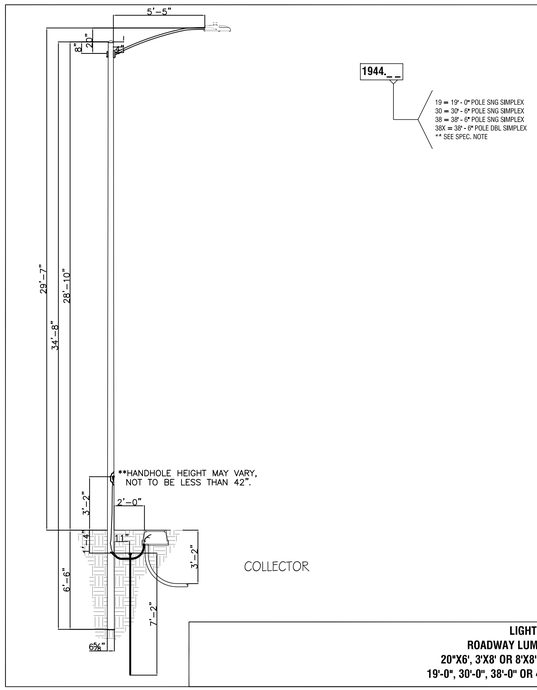
23785
JAMES F. SCHUMANN
Date Signed 11/1/16
ARIZONA, U.S.A.
Expires 06/30/2018

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(002)	42	91	

CK GROUP Engineers & Construction Managers
the CK Group, Inc.
CIVIL, TRANSPORTATION ENGINEERS
16448 N. 40th Street, Suite A
Phoenix, Ariz. 85032

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE



CONSTRUCTION NOTES:

1 ADJUST PHOTO EYE TO FACE NORTH

2 A GROUND ROD IS PROVIDED WITH THE JUNCTION BOX. WHERE A GROUND ROD CANNOT BE DRIVEN ALTERNATE GROUND SHALL BE USED. SEE 2449 THRU 2460 FOR APPROVED ALTERNATES.

3 THE 40'-6" SELF-SUPPORTING STEEL POLE AND ONE OF THE 38'-0", HAVE TWO, MANUFACTURED INSTALLED SIMPLEX FITINGS 180 APART FOR DOUBLE ARMS. SEE CHART.

4 APN 33701054 IS A POLE BAND ADAPTOR WITH A SIMPLEX FITTING. ADAPTOR IS REQUIRED FOR THE SECOND ARM IN DOUBLE ARM APPLICATIONS ON EXISTING PLES IN THE FIELD WITHOUT TWO SIMPLEX FITTINGS. SEE 8198 FOR AVAILABLE SIZES.

5 POLES THAT HAVE MORE THAN ONE LUMINAIRE REQUIRE A SEPARATE CIRCUIT WITH FUSING FROM THE J-BOX TO EACH LUMINAIRE.

ENGINEERING NOTES:

A THE LIGHT CODE PROVIDES TWO SAME WATTAGE LUMINAIRES WHEN DOUBLE ARM ARE SPECIFIED.

B SEE SPEC 8130 - 8131 FOR IN-LINE FUSE FOR UNDERGROUND FEEDS.

C SEE 8100 THRU 8107 FOR OVERHEAD ATTACHMENTS.

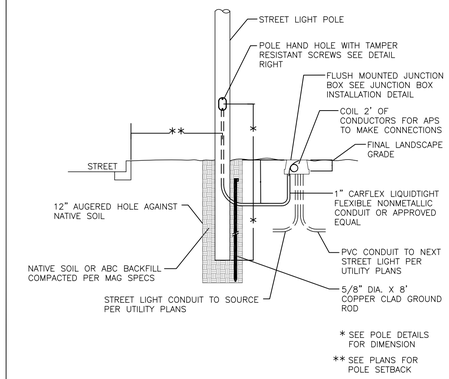
LIGHT CODE	COLOR	APN	TYPE	WATTS	MULTIVOLT	INITIAL LUMENS	PHOTOMETRIC CURVE
CL60	GRAY	00128329	LED	45	120/208/240/277 DRIVER	4,100	454669
CL61		00128330		60	120/208/240/277 DRIVER	5,100	454659
CL62		00128331		95	120/208/240/277 DRIVER	8,200	454677
CL63		00128332		113	120/208/240/277 DRIVER	10,000	454688
CL64		00128364		257	120/208/240/277 DRIVER	19,200	454942

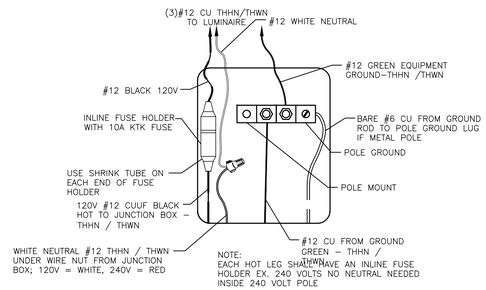
POLE TYPE	POLE CODE	POLE LENGTH	BURY DEPTH	POLE ABOVE GROUND	POLE BUTT DIAMETER			LUMINAIRE HEIGHT ABOVE GROUND ON ARM		
					STEP	TAPER	WEIGHT	20' X 6'	3' X 8'	8' X 8'
LOCAL	1944.30	30'-0"	5'-0"	25'-0"	5-9/16"	7-5/16"	460	25'- 11"	27'- 3"	-
COLLECTOR	1944.38	38'-0"	6'-0"	32'-0"	6-5/8"	9-3/4"	640	32'- 11"	34'- 3"	39'- 3"
ARTERIAL	1944.38X	38'-0"	6'-0"	32'-0"	6-5/8"	9-3/4"	640	32'- 11"	34'- 3"	39'- 3"

**-FOR NON-STANDARD POLES, CONTACT THE STREET TRANSPORTATION STREETLIGHTING SECTION FOR INFORMATION.

LIGHTS
ROADWAY LUMINAIRE ON
20'X6', 3'X8' OR 8'X8' MAST ARMS ON
19'-0", 30'-0", 38'-0" OR 40'-6" STEEL POLES

8040





CITY OF PHOENIX REVISED 9/2012	STREET LIGHT STANDARD STREET LIGHT WIRING AND GROUNDING DETAIL FOR APS/SRP SERVICE AREA	DETAIL NO. WG1

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

ELECTRICAL REQUIREMENTS FOR NEW POLE INSTALLATION

1. JUNCTION BOXES SHALL MEET UTILITY COMPANY STANDARDS.
2. CONDUIT, CONDUCTORS, AND FUSE HOLDERS SHALL BE LISTED AND LABELED FOR USE IN A WET LOCATION WHEN USED IN A JUNCTION BOX. NEC300.5(B), 310.8(C)
3. IN-LINE FUSE HOLDER USED IN HAND HOLE OR SERVICE DROP SHALL BE CONSIDERED AS DISCONNECTING MEANS. FUSE HOLDERS TO BE RATED AT 22,000 A/C MINIMUM. NEC 240.40
4. ELECTRICAL CONNECTIONS-CONDUCTORS OF DISSIMILAR METALS SHALL NOT BE INTERMIXED IN A TERMINAL OR SPLICING CONNECTOR WHERE PHYSICAL CONTACT OCCURS BETWEEN DISSIMILAR CONDUCTORS, (COPPER, ALUMINUM) UNLESS THE DEVICE IS IDENTIFIED FOR THE PURPOSE AND CONDITIONS OF USE. NEC 110.14
5. ELECTRICAL CONNECTIONS OR SPLICES IN AN UNDERGROUND INSTALLATION SHALL BE APPROVED FOR WET LOCATIONS. (NEC 300.5)
6. NON-CURRENT CARRYING CONDUCTIVE MATERIALS ENCLOSING ELECTRICAL CONDUCTORS OR EQUIPMENT, OR FORMING PART OF SUCH EQUIPMENT, SHALL BE CONNECTED TO EARTH IN A MANNER THAT WILL LIMIT THE VOLTAGE IMPOSED BY LIGHTNING OR UNINTENTIONAL VOLTAGE DUE TO SHORT CIRCUITS AND LIMIT THE VOLTAGE TO GROUND ON THESE MATERIALS. NEC 250.4(B) (GROUND RODS)
7. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED FROM THE GROUND LUG IN THE HAND-HOLE TO THE LUMINAIRE WITH THE CURRENT CARRYING CONDUCTORS. NEC 410.30(B)(3).
8. CONNECTION TO THE GROUND ROD AND THE GROUNDING ELECTRODE SHALL BE LISTED AND LABELED FOR USE. NEC 250.8
9. CONNECT #6 BARE COPPER WIRE FROM THE GROUND ROD ADJACENT TO THE POLE OR IN JUNCTION BOX TO THE GROUND LUG IN THE POLE.

CONSTRUCTION NOTES:

1 ADJUST PHOTO EYE TO FACE NORTH

2 A GROUND ROD IS PROVIDED WITH THE JUNCTION BOX. WHERE A GROUND ROD CANNOT BE DRIVEN ALTERNATE GROUND SHALL BE USED. SEE 2449THRU 2460 FOR APPROVED ALTERNATES.

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5 POLES THAT HAVE MORE THAN ONE LUMINAIRE REQUIRE A SEPARATE CIRCUIT WITH FUSING FROM THE J-BOX TO EACH LUMINAIRE.

ENGINEERING NOTES:

A THE LIGHT CODE PROVIDES TWO SAME WATTAGE LUMINAIRES WHEN DOUBLE ARM ARE SPECIFIED.

B SEE SPEC 8130 - 8131 FOR IN-LINE FUSE FOR UNDERGROUND FEEDS.

C SEE 8100 THRU 8107 FOR OVERHEAD ATTACHMENTS.

20 YEAR PHOTOCELL REQUIREMENTS

APN# 00073241 CONTROL PHOTO MULTI BR-20 CONTROL, PHOTO-ELECTRIC, BROWN, 20YEAR FAIL OFF, 120/208/240/277 MULTI-VOLT, SILICON, SOLID STATE, 2.40 TO 3.60 FC ON 1.2 TO 2.4 FC OFF, 60 HERTZ, 320 JOULE MOV, INVERSE ON/OFF RATIO .6:1 +/- .1, FAIL OFF, THREE PIN NEMA TWISTLOCK, 20 YEAR LIFE, 8483-SIDE SELC, MODEL #8483F2TMABR

GE Evolve II Gray Cobra LED Fixtures

WATT	LUMEN	DESCRIPTION	APN	MODEL#
45W	4,100	**SCALABLE ROADWAY GE LED GRAY Pedestrian** LUMINAIRE 45WATT, 4000K, 4,100 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, GRAY, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136,15 WATTAGE LABEL.	128329	ERS10A3B1540A GRAY R
60W	5,100	**SCALABLE ROADWAY GE LED GRAY Local Street** LUMINAIRE 60WATT, 4000K, 5,100 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, GRAY, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136,15 WATTAGE LABEL.	128330	ERS10A3B1740A GRAY R
95W	8,200	**SCALABLE ROADWAY GE LED GRAY Collector Street** LUMINAIRE 95WATT, 4000K, 8,200 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, GRAY, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136,15 WATTAGE LABEL.	128331	ERS10C3C1740A GRAY R
113W	10,000	**SCALABLE ROADWAY GE LED GRAY Major Roadway** LUMINAIRE 113WATT, 4000K, 10,000 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, GRAY, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136,15 WATTAGE LABEL.	128332	ERS20D3E1740A GRAY R
257W	19,200	**SCALABLE ROADWAY GE LED GRAY Special Major Roadway** LUMINAIRE 257WATT, 4000K, 19,200 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, GRAY, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136,15 WATTAGE LABEL.	128364	ERS20G3C1140A GRAY R

CITY OF PHOENIX REVISED 9/2012		

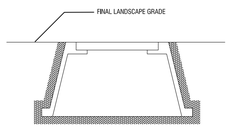
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CK'D BY	DATE

DESCRIPTION
15" X 21" X 12" JUNCTION BOX WITH 3/8" CAPTIVE PENTA HEAD BOLTS

WORD "ELECTRIC" ON COVER

BOX TO BE POLYMER CONCRETE MATERIAL WITH POLYMER CONCRETE BOLT DOWN (NON-CONDUCTIVE COVER).



SRP APPROVED SUPPLIERS	PART NUMBER
STRONGWELL	PC111885I3 BOX PC1118C5O4-17/UH0390AA COVER WITH ELECTRIC
ARMORCAST PRODUCTS	A6001429A
CDR SYSTEMS	PA40-1015-12
CARSON & ASSOCIATES	HLW1118-12 BOX HLW1118-PO LID

CITY OF PHOENIX REVISED 9/2012	STREET LIGHT STANDARD JUNCTION BOX INSTALLATION DETAIL FOR SRP SERVICE AREA	DETAIL NO. JB1

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

ST LIGHTING DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
15TH AVENUE TO 7TH STREET
ST85100371(002)

DR: KA/JB	DES: AI/JS	CK: AI/JS	DWG SERIES No.
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: NA			SL-1.08

ST85100371(002)

\\ckg-svr\projects\2016 JOBS\CK ARIZONA\Trans Engr. (TE)\AZ2016-08_COP ARS Repackage\PROJECT DELIVERABLES\Final Plans, Reports and Transmittals\Prior Submittal\dwg\42_ST85100330-LID(1 OF 1).dwg

TRAFFIC SIGNAL SUMMARY

ITEM No.	DESCRIPTION	UNIT	SHEET															TOTAL QUANTITY
			10428 - 7th Ave			10429 - 7th St												
			Found	Equip	Wiring	Found	Equip	Wiring	Found	Equip	Wiring	Found	Equip	Wiring	Found	Equip	Wiring	
M4711002	2" PVC Conduit under new pavement or landscaping	LF	300			400												700 LF
M4711004	2 ½" Conduit under new pavement or landscaping	LF	710			950												1660 LF
M4712002	No. 5 Junction Box	EA	3			3												6 EA
M4712003	No. 7 Junction Box	EA	1			1												2 EA
M4721001	Foundation for Type A Pole Foundation	EA	1															1 EA
M4721003	Foundation for Type LM Pole	EA	3			4												7 EA
M4721005	Foundation for Type SR Pole	EA	4			4												8 EA
M4722001	Power Service Pedestal Foundation	EA	1			1												2 EA
M4722002	Foundation for Traffic Signal Controller Cabinet	EA	1			1												2 EA
M4741001	Type A Pole	EA		1														1 EA
M4741004	Type LM Pole	EA		3			4											7 EA
M4741006	Type SR Pole	EA		4			4											8 EA
M4741012	35' Mast Arm for SR/SM pole	EA					2											2 EA
M4741013	40' Mast Arm for SR Pole	EA		4			2											6 EA
M4741020	COP Luminaire Mast Arm	EA		8			8											16 EA
M4741021	5' Riser for LM/SM/SR Pole	EA		7			7											14 EA
M4741023	20' Riser for LM/SM/SR Pole	EA		1			1											2 EA
M4751001	Electrical Power Service Pedestal	EA	1			1												2 EA
M4751002	Traffic Signal Controller Cabinet	EA	1			1												2 EA

TRAFFIC SIGNAL REMOVALS

ITEM No.	DESCRIPTION	UNIT	10428 - 7th Ave			10429 - 7th St												TOTAL QUANTITY
			Found	Equip	Wiring	Found	Equip	Wiring	Found	Equip	Wiring	Found	Equip	Wiring	Found	Equip	Wiring	
M4791001	Removal of A Pole	EA	5			3												8 EA
M4791005	Removal of M Pole w/ Mast Arm	EA	4			4												8 EA
M4792001	Removal of Controller Cabinet	EA	1			1												2 EA
M4792002	Removal of Power Service Pedestal	EA	1			1												2 EA
M4793001	Removal of Traffic Signal Pole Foundations	CY	5			7												12 CY
M4794001	Removal of Incidental Traffic Items	LS	1			1												2 EA

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100330(002)	43	91	

NOTE:

Lineal Feet quantities for PVC conduit are measured from point to point and may not reflect actual field conditions

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

Expires 6/30/2017

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28 THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTORS CONTRACT WITH THE CITY OF PHOENIX."

TRAFFIC SUMMARY

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

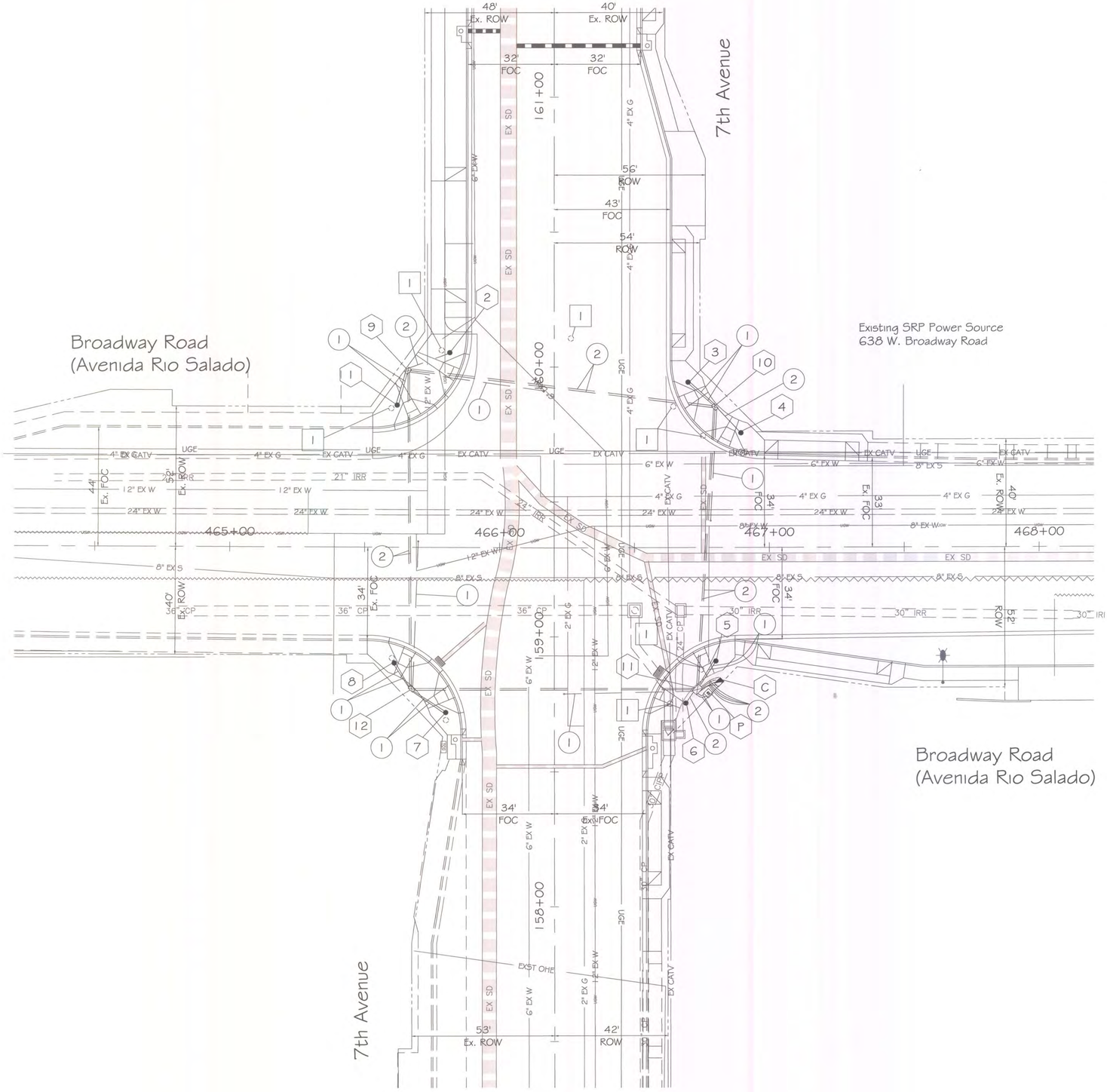
BROADWAY ROAD/AVENIDA RIO SALADO

15th AVENUE TO 7th STREET
ST85100371(002)

DES:	CK:	DWG SERIES No.
DATE:	DATE:	
SCALE: N/A		TS-1.01

ST85100330

R:\Phoenix\Projects\AZE1504_PhoenixOn-CallEngineering_ConsultingServices_FiscalYears2015-2016\03_ARS_Phasell_Repackaging\CADD\Sheets\Traffic\st85100371(002)_15thAve_to7thSt_signal_summary.dwg 11/1/2016 10:28am



1. GENERAL NOTES:

1.1 The contractor shall notify the City Of Phoenix Traffic Signal Shop (602-262-6733) a minimum of fourteen (14) calendar days prior to beginning any traffic signal work. Submittals of all equipment shall be furnished to the Signal Shop and approved prior to the ordering of any traffic signal equipment. The contractor shall verify that they have the most current set of drawings prior to start and ordering of any equipment.

1.2 Foundation elevations must be within 1/4" of finished sidewalk grade.

1.3 The Contractor shall layout all ADA ramps, junction boxes and foundation locations for approval by the traffic signal representative prior to any excavation.

1.4 A minimum of four (4) feet of clearance is required between all traffic signal poles and the back edge of sidewalk pedestnan ramps.

1.5 Traffic Signal Plan approval is valid for 365 calendar days from date sealed. If signal construction has not begun prior to the 365 days elapsing, the signal plans must be re-submitted for approval or an extension granted by the Deputy Director Traffic Services or an authorized representative to ensure that existing traffic signal equipment locations and standard detail references are current.

1.6 The contractor shall have a complete set of construction drawings including current City of Phoenix standard details on site at all times during signal construction activities.

2. CONTRACTOR NOTE FOR CITY OF PHOENIX TRAFFIC SIGNAL POLES

2.1 The contractor shall provide and install four (4) City of Phoenix Type SR poles, three (3) City of Phoenix Type LM poles, all with anchor cages, nuts bolts, one (1) 20 ft. pole extension, seven (7) standard 5 ft. pole extensions, eight (8) 8 ft. luminaire mast arms, four (4) 40 ft. signal mast arms as per C.O.P. Street Transportation drawing # 10164.

2.2 Signal poles, mast arms, mast arm extensions, pole extensions and 8 ft. luminaire mast arms shall be powder coated with a color prescribed by the Traffic Signal Construction Supervisor. Contact the Supervisor at (602) 262-6733 to confirm color.

2.3 Separate pull strings shall be installed from end of signal mast arm for every signal device on the signal mast arms and a single pull string on the luminaire mast arms to the hand hole at the base of each traffic signal pole.

3. WORK TO BE PERFORMED BY THE CONTRACTOR

The contractor shall provide the traffic signal equipment as indicated in note 2.1. The contractor is to provide all underground work including, but not limited to:

3.1 - All demolition work, unless otherwise noted
- All trenching
- All foundations (pole, controller and power service pedestal)
- All pole anchor cages, nuts and bolts required for pole foundations installed by the contractor in addition to those specified in note 2.1
- All junction boxes with 18" of sump
- All conduit runs
- Provide and install the power service pedestal
- Provide and install conduit runs from PSP to Utility Company feed

3.2 All underground conduits shall be schedule 40 rigid polyvinyl chloride (PVC) installed 24 inches to 30 inches below finished grade with the exception of loop lead-in conduits, which shall be schedule 40 rigid PVC installed in accordance with the latest City of Phoenix Standard Detail Sheet. All conduits shall be installed in straight lines (unless approved by the Signal Shop Inspector) junction box to junction box or junction box to signal equipment foundation with one 90 degree sweep on each end as specified in the plans. All conduits entering junction boxes shall be vertical. Conduits in all foundations shall be located as close as possible to center of the foundation and vertical with foundation below the bottom of the cover. All conduit ends except those in the controller cabinet foundation will be provided with a "bell end" fitting of appropriate size.

3.3 Removal of existing streetlights:

The contractor shall:
- Request de-energization of all streetlights listed for removal,
- Provide complete removal of streetlight pole, mast arm and luminaire
- Properly dispose of all streetlight material

4. WORK TO BE PERFORMED BY CITY OF PHOENIX SIGNAL CREWS

The City of Phoenix traffic signal crews will provide and install all above ground traffic signal equipment including:

- All poles and mast arms except as indicated in note 2.1
- All signal heads
- All pedestrian heads
- All APS push buttons
- All controllers
- All LED luminaires
- All illuminated street signs
- All signal wiring
- All loop and non-invasive detectors
- All pole grouting
- All cameras
- All radios

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.		44	91

DR:	DES:	CK:	DATE:

54530 BRUCE E. LITTLETON REGISTERED PROFESSIONAL ENGINEER ARIZONA, U.S.A. EXPIRES: 06-30-2019

PROPOSED FOUNDATION SCHEDULE

NO.	TYPE	FROM M.OF BROADWAY RD/ARS	FROM M.OF 7th AVENUE
C	CONT	50 ft. SOUTH	61 ft. EAST
P	PSP	53 ft. SOUTH	57 ft. EAST
1	SR	53 ft. NORTH	58 ft. WEST
2	LM	72 ft. NORTH	39 ft. WEST
3	SR	61 ft. NORTH	50 ft. EAST
4	LM	42 ft. NORTH	69 ft. EAST
5	SR	42 ft. SOUTH	60 ft. EAST
6	A	58 ft. SOUTH	49 ft. EAST
7	SR	61 ft. SOUTH	40 ft. WEST
8	LM	43 ft. SOUTH	59 ft. WEST

PROPOSED JUNCTION BOX SCHEDULE

NO.	TYPE	FROM M.OF BROADWAY RD/ARS	FROM M.OF 7th AVENUE
9	#5	66 ft. NORTH	54 ft. WEST
10	#5	52 ft. NORTH	60 ft. EAST
11	#7	52 ft. SOUTH	54 ft. EAST
12	#5	52 ft. SOUTH	53 ft. WEST

INSTALL

- (C) 8 Phase Controller Foundation
- (P) Power Service Pedestal Foundation
- (1) thru (8) See Foundation Schedule
- (9) thru (12) See Junction Box Schedule
- (1) 2" Schedule 40 PVC with #10 copper pull wire bent over lip of stubout
- (2) 2½" Schedule 40 PVC with #10 copper pull wire bent over lip of stubout

REMOVE

- (1) Traffic Signal Foundation - 9
  A - 5
  M - 4

Two working days before you dig CALL FOR THE BLUE STAKES (602) 263-1100 Blue Stake Center CALL COLLECT

TRAFFIC SIGNAL PLAN

APPROVED BY:

TRAFFIC SIGNAL ENGINEER: Thomas E. Walsh

ACTING STREET TRANSPORTATION TRAFFIC SERVICES DEPUTY DIRECTOR:

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

BROADWAY RD/AVENIDA RIO SALADO AT 7th AVENUE

FOUNDATION

PROJECT #:			FILE NO: 10428	
DR: hsy	DES:	CK:	SHEET NO: 1	TOTAL SHEETS 3
DATE: JUNE 2016	DATE:	DATE:		
SCALE: 1" = 20'		QS. #: 4-26		

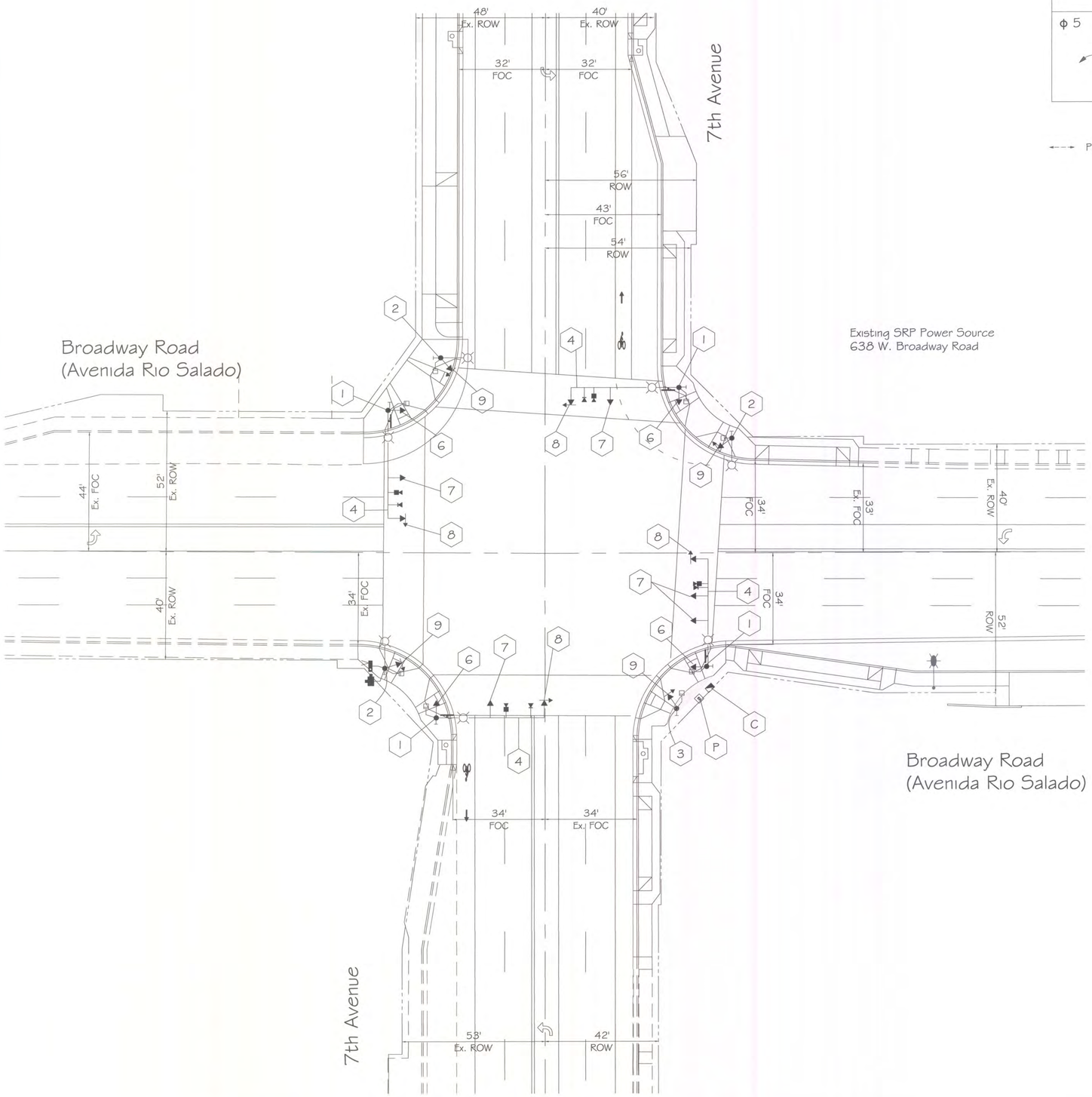
10428.dwg JUN/29/16 2:40pm

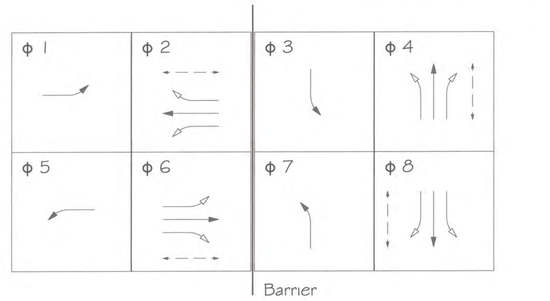
BROADWAY/ARS AT 7th AVE

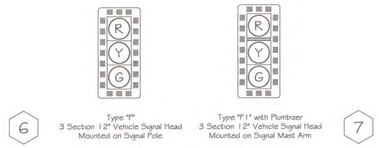
PROJECT #: ST85100371(002)

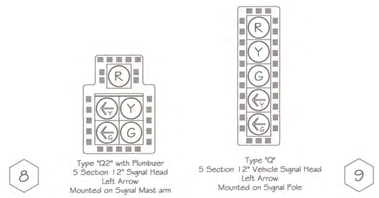
FILE #: 10428

DWG SERIES No. TS-1.02









54530
BRUCE E. LITTLETON
7/14/16
REGISTERED PROFESSIONAL ENGINEER
ARIZONA, U.S.A.
EXPIRES: 06-30-2018

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.		45	91

DR:	DES:	CK:	DATE:

BROADWAYARS AT 7th AVE

INSTALL

- C 8 Phase Controller Cabinet
- P Power Service Pedestal
- 1 Traffic Signal Pole Type SR - 4 New
- 2 Traffic Signal Pole Type LM - 3 New
- 3 Traffic Signal Pole Type A - 1 New
- 4 40 ft Signal Mast Arm - 4 New

- 6 Type F 12" Signal Head - 4 New
  Pole Mount
- 7 Type F1 12" Signal Head - 5 New
  Mast Arm Mount w/Plumbizer
- 8 Type Q2 5 Section 12" Signal Head - 4 New
  Doghouse Style - Left Arrow
  Mast Arm Mount w/Plumbizer
- 9 Type Q 5 Section 12" Signal Head - 4 New
  In Line Style - Left Arrow
  Pole Mount
- LED Illuminated Street Sign - 4 New
  Broadway Road - 2
  7th Avenue - 2
- LED Luminaire - 7 New
- Pedestrian Signal Head - 8 New
- APS Push Button - 8 New
- Video Detection - 4 New
- EVP Detector and Confirmation Light - 4 New
- PTZ CCTV Camera w/20' Riser - 1 New
- Wireless Network Radio - 1 New

Two working days before you dig
CALL FOR THE BLUE STAKES
(602) 263-1100
Blue Stake Center
CALL COLLECT

PER PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE FURNISHED FOR INSPECTION OR COPYING, EXCEPT AS SPECIFICALLY STATED IN THE CITY CODE, OR AS REQUIRED BY LAW

TRAFFIC SIGNAL PLAN

APPROVED BY:

TRAFFIC SIGNAL ENGINEER: Thomas E. Wolsey

ACTING STREET TRANSPORTATION TRAFFIC SERVICES DEPUTY DIRECTOR:

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

BROADWAY RD/AVENIDA RIO SALADO AT 7th AVENUE

EQUIPMENT

PROJECT #:			FILE NO: 10428	
DR: tsy	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE: JUNE 2016	DATE:	DATE:		
SCALE: 1" = 20'		QS. #: 4-26	2	3

10428.dwg JUL/12/16 3:14pm

PROJECT #: ST85100371(002)

FILE #: 10428

DWG SERIES No.
TS-1.03

C — Controller to #7 Junction Box

CONDUIT 1	CONDUIT 2	CONDUIT 3	CONDUIT 4
#10 Bare Copper #10 AWG White 42C IMSA Cable	#10 Bare Copper Detection Camera Cable (4) EVP Detection Cable (4) EVP Confirmation Cable (4) CCTV Cable (1) CAT 5e Cable (1)	#10 Bare Copper #10 AWG Black #10 AWG White #10 AWG Green	Detectible Mule Tape

P — Power Service Pedestal to #7 Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG Black #10 AWG White #10 AWG Green 3C IMSA Cable (Radio) 5C IMSA Cable	Detectible Mule Tape

1 — NWC Junction Box to SR Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IMSA Cable (Sign) 3C IMSA Cable (Luminaire) 20C IMSA Cable	#10 Bare Copper EVP Detection Cable (1) EVP Confirmation Cable (1) Detection Camera Cable (1)

2 — NEC Junction Box to SR Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IMSA Cable (Sign) 3C IMSA Cable (Luminaire) 20C IMSA Cable	#10 Bare Copper EVP Detection Cable (1) EVP Confirmation Cable (1) Detection Camera Cable (1)

3 — SEC Junction Box to SR Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IMSA Cable (Sign) 3C IMSA Cable (Luminaire) 20C IMSA Cable	#10 Bare Copper EVP Detection Cable (1) EVP Confirmation Cable (1) Detection Camera Cable (1)

4 — SWC Junction Box to SR Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IMSA Cable (Sign) 3C IMSA Cable (Luminaire) 20C IMSA Cable	#10 Bare Copper EVP Detection Cable (1) EVP Confirmation Cable (1) Detection Camera Cable (1)

5 — NWC Junction Box to LM Pole

CONDUIT 1
#10 Bare Copper #10 AWG White 3C IMSA Cable (Luminaire) 20C IMSA Cable

6 — NEC Junction Box to LM Pole

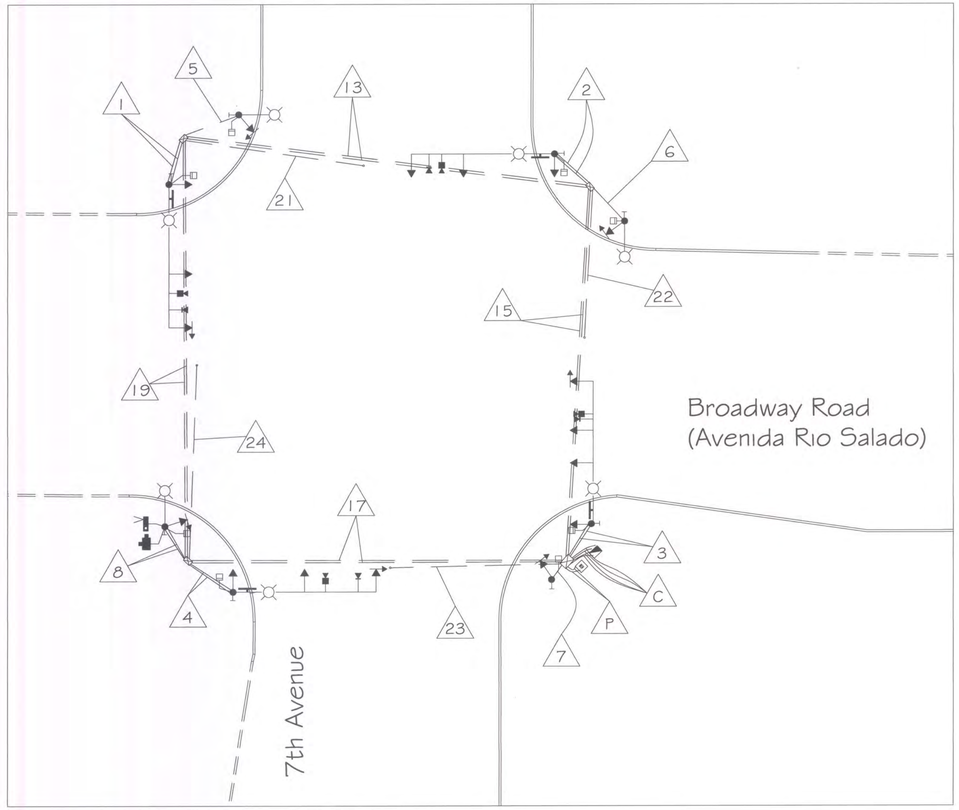
CONDUIT 1
#10 Bare Copper #10 AWG White 3C IMSA Cable (Luminaire) 20C IMSA Cable

7 — SEC Junction Box to A Pole

CONDUIT 1
#10 Bare Copper #10 AWG White 3C IMSA Cable 20C IMSA Cable

8 — SWC Junction Box to LM Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IMSA Cable (Radio) 3C IMSA Cable (Luminaire) 20C IMSA Cable	#10 Bare Copper CCTV Cable (1) CAT 5e Cable (1)



13 — NWC Junction Box to NEC Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 5C IMSA Cable 42C IMSA Cable	#10 Bare Copper Detection Camera Cable (2) EVP Detection Cable (2) EVP Confirmation Cable (2)

15 — NEC Junction Box to SEC # 7 Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 5C IMSA Cable 42C IMSA Cable	#10 Bare Copper Detection Camera Cable (2) EVP Detection Cable (2) EVP Confirmation Cable (2)

17 — SEC #7 Junction Box to SWC Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IMSA Cable (Radio) 5C IMSA Cable 42C IMSA Cable	#10 Bare Copper Detection Camera Cable (1) EVP Detection Cable (1) EVP Confirmation Cable (1) CCTV Cable (1) CAT 5e Cable (1)

19 — SWC Junction Box to NEC Junction Box

CONDUIT 1	CONDUIT 2
Detectible Mule Tape	Detectible Mule Tape

21 — NWC Junction Box to Loop

CONDUIT 1
#10 Bare Copper

22 — NEC Junction Box to Loop

CONDUIT 1
#10 Bare Copper

23 — SEC Junction Box to Loop

CONDUIT 1
#10 Bare Copper

24 — SWC Junction Box to Loop

CONDUIT 1
#10 Bare Copper

54530
BRUCE E. LITTLETON
Signed 7/11/16
ARIZONA, U.S.A.
EXPIRES: 06-30-2018

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.		46	91

DR:	DES:	CK:	DATE:

BROADWAY/ARS AT 7th AVE

Two working days before you dig CALL FOR THE BLUE STAKES
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TRAFFIC SIGNAL PLAN

APPROVED BY:

TRAFFIC SIGNAL ENGINEER: Thomas E. Wolsen

ACTING STREET TRANSPORTATION TRAFFIC SERVICES DEPUTY DIRECTOR:

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

BROADWAY RD/AVENIDA RIO SALADO AT 7th AVENUE

WIRING DIAGRAM

PROJECT #:			FILE NO: 10428	
DR: hsy	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE: JUNE 2016	DATE:	DATE:		
SCALE: 1" = 20'		QS. #: 4-26	3	3

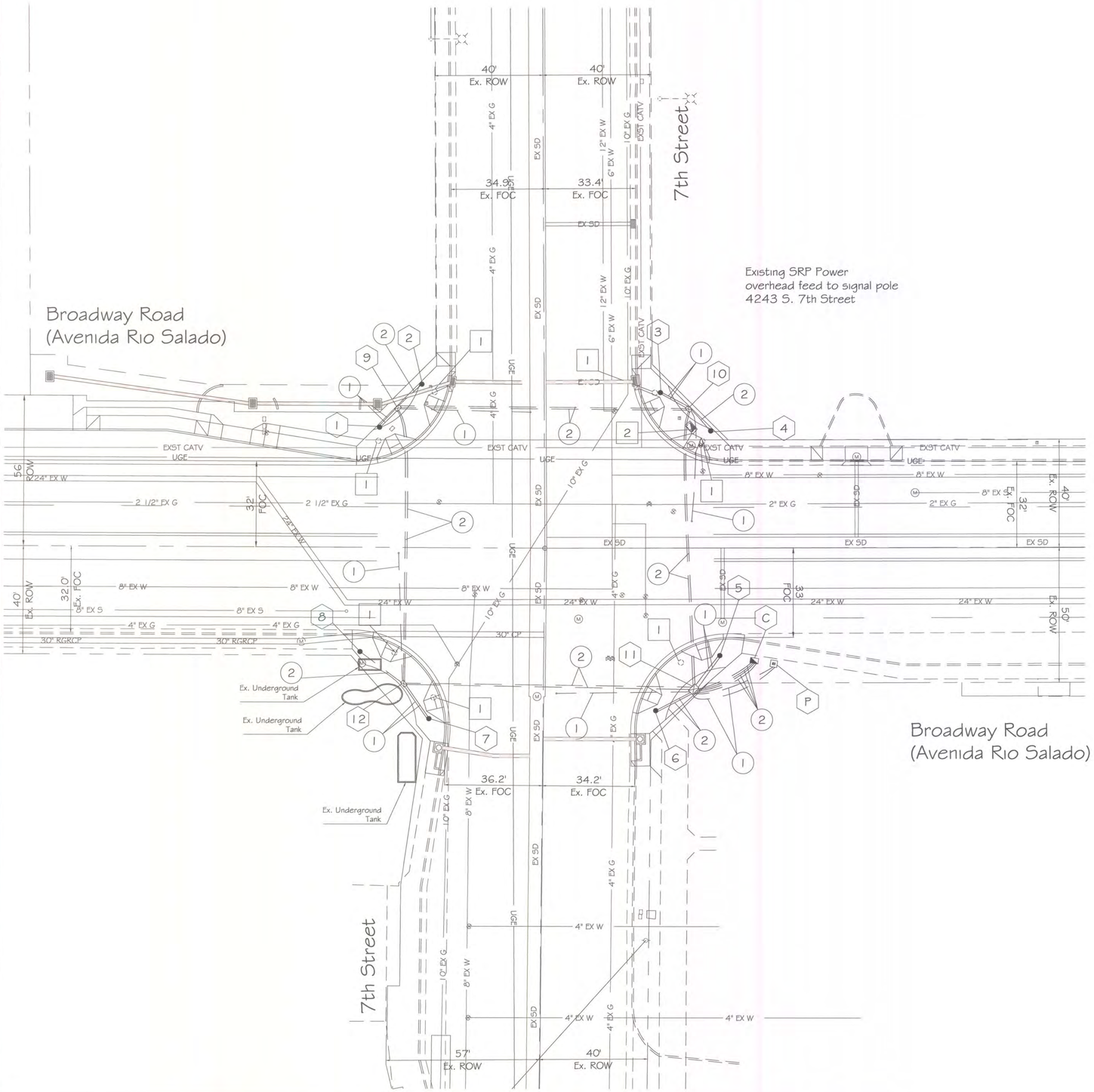
N

10428.dwg JUN/29/16 2:40pm

PROJECT #: ST85100371(002)

FILE #: 10428

DWG SERIES No.
TS-1.04



1. GENERAL NOTES:

1.1 The contractor shall notify the City Of Phoenix Traffic Signal Shop (602-262-6733) a minimum of fourteen (14) calendar days prior to beginning any traffic signal work. Submittals of all equipment shall be furnished to the Signal Shop and approved prior to the ordering of any traffic signal equipment. The contractor shall verify that they have the most current set of drawings prior to start and ordering of any equipment.

1.2 Foundation elevations must be within 1/4" of finished sidewalk grade.

1.3 The Contractor shall layout all ADA ramps, junction boxes and foundation locations for approval by the traffic signal representative prior to any excavation.

1.4 A minimum of four (4) feet of clearance is required between all traffic signal poles and the back edge of sidewalk pedestrian ramps.

1.5 Traffic Signal Plan approval is valid for 365 calendar days from date sealed. If signal construction has not begun prior to the 365 days elapsing, the signal plans must be re-submitted for approval or an extension granted by the Deputy Director Traffic Services or an authorized representative to ensure that existing traffic signal equipment locations and standard detail references are current.

1.6 The contractor shall have a complete set of construction drawings including current City of Phoenix standard details on site at all times during signal construction activities.

2. CONTRACTOR NOTE FOR CITY OF PHOENIX TRAFFIC SIGNAL POLES

2.1 The contractor shall provide and install four (4) City of Phoenix Type SR poles, four (4) City of Phoenix Type LM poles, all with anchor cages, nuts bolts, one (1) 20 ft. pole extension, seven (7) standard 5 ft. pole extensions, eight (8) 8 ft. luminaire mast arms, two (2) 40 ft. signal mast arms and two (2) 35 ft. signal mast arm as per C.O.P. Street Transportation drawing # 10164.

2.2 Signal poles, mast arms, mast arm extensions, pole extensions and 8 ft. luminaire mast arms shall be powder coated with a color prescribed by the Traffic Signal Construction Supervisor. Contact the Supervisor at (602) 262-6733 to confirm color.

2.3 Separate pull strings shall be installed from end of signal mast arm for every signal device on the signal mast arms and a single pull string on the luminaire mast arms to the hand hole at the base of each traffic signal pole.

3. WORK TO BE PERFORMED BY THE CONTRACTOR

The contractor shall provide the traffic signal equipment as indicated in note 2.1. The contractor is to provide all underground work including, but not limited to:

3.1 - All demolition work, unless otherwise noted
- All trenching
- All foundations (pole, controller and power service pedestal)
- All pole anchor cages, nuts and bolts required for pole foundations installed by the contractor in addition to those specified in note 2.1
- All junction boxes with 18" of sump
- All conduit runs
- Provide and install the power service pedestal
- Provide and install conduit runs from PSP to Utility Company feed

3.2 All underground conduits shall be schedule 40 rigid polyvinyl chloride (PVC) installed 24 inches to 30 inches below finished grade with the exception of loop lead-in conduits, which shall be schedule 40 rigid PVC installed in accordance with the latest City of Phoenix Standard Detail Sheet. All conduits shall be installed in straight lines (unless approved by the Signal Shop Inspector) junction box to junction box or junction box to signal equipment foundation with one 90 degree sweep on each end as specified in the plans. All conduits entering junction boxes shall be vertical. Conduits in all foundations shall be located as close as possible to center of the foundation and vertical with foundation below the bottom of the cover. All conduit ends except those in the controller cabinet foundation will be provided with a "bell end" fitting of appropriate size.

3.3 Removal of existing streetlights:

The contractor shall:
- Request de-energization of all streetlights listed for removal,
- Provide complete removal of streetlight pole, mast arm and luminaire
- Properly dispose of all streetlight material

4. WORK TO BE PERFORMED BY CITY OF PHOENIX SIGNAL CREWS

The City of Phoenix traffic signal crews will provide and install all above ground traffic signal equipment including:

- All poles and mast arms except as indicated in note 2.1
- All signal heads
- All pedestrian heads
- All APS push buttons
- All controllers
- All LED luminaires
- All illuminated street signs
- All signal wiring
- All loop and non-invasive detectors
- All pole grouting
- All cameras
- All radios

54630
BRUCE E. LITTLETON
Date Signed 7/13/16
ARIZONA, U.S.A.
EXPIRES: 06-30-2018

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.		47	91

DR:	DES:	CK:	DATE:

PROPOSED FOUNDATION SCHEDULE

NO.	TYPE	FROM M_OF BROADWAY RD/ARS	FROM M_OF 7th ST
C	CONT	41 ft. SOUTH	78 ft. EAST
P	PSP	42 ft. SOUTH	86 ft. EAST
1	SR	45 ft. NORTH	61 ft. WEST
2	LM	61 ft. NORTH	45 ft. WEST
3	SR	58 ft. NORTH	43 ft. EAST
4	LM	44 ft. NORTH	62 ft. EAST
5	SR	39 ft. SOUTH	65 ft. EAST
6	LM	60 ft. SOUTH	42 ft. EAST
7	SR	63 ft. SOUTH	42 ft. WEST
8	LM	38.5 ft. SOUTH	68 ft. WEST

PROPOSED JUNCTION BOX SCHEDULE

NO.	TYPE	FROM M_OF BROADWAY RD/ARS	FROM M_OF 7th ST
9	#5	51 ft. NORTH	53 ft. WEST
10	#7	51 ft. NORTH	53 ft. EAST
11	#5	51 ft. SOUTH	54 ft. EAST
12	#5	50 ft. SOUTH	52 ft. WEST

INSTALL

- (C) 8 Phase Controller Foundation
- (P) Power Service Pedestal
- (1) thru (8) See Foundation Schedule
- (10) thru (12) See Junction Box Schedule

(1) 2" Schedule 40 PVC with #10 copper pull wire bent over lip of stubout

(2) 2½" Schedule 40 PVC with #10 copper pull wire bent over lip of stubout

REMOVE

(1) Traffic Signal Foundation - 7
A - 3
M - 4

(2) Traffic Signal Controller Foundation - 1

Two working days before you dig CALL FOR THE BLUE STAKES (602) 263-1100 Blue Stake Center CALL COLLECT

TRAFFIC SIGNAL PLAN

APPROVED BY:

TRAFFIC SIGNAL ENGINEER: Thomas E. Wolen

ACTING STREET TRANSPORTATION TRAFFIC SERVICES DEPUTY DIRECTOR:

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

BROADWAY RD/AVENIDA RIO SALADO AT 7th STREET

FOUNDATION

PROJECT #:			FILE NO: 10429	
DR: HSY	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE: JUNE 2016	DATE:	DATE:		
SCALE: 1" = 20'		QS. #:	1	3

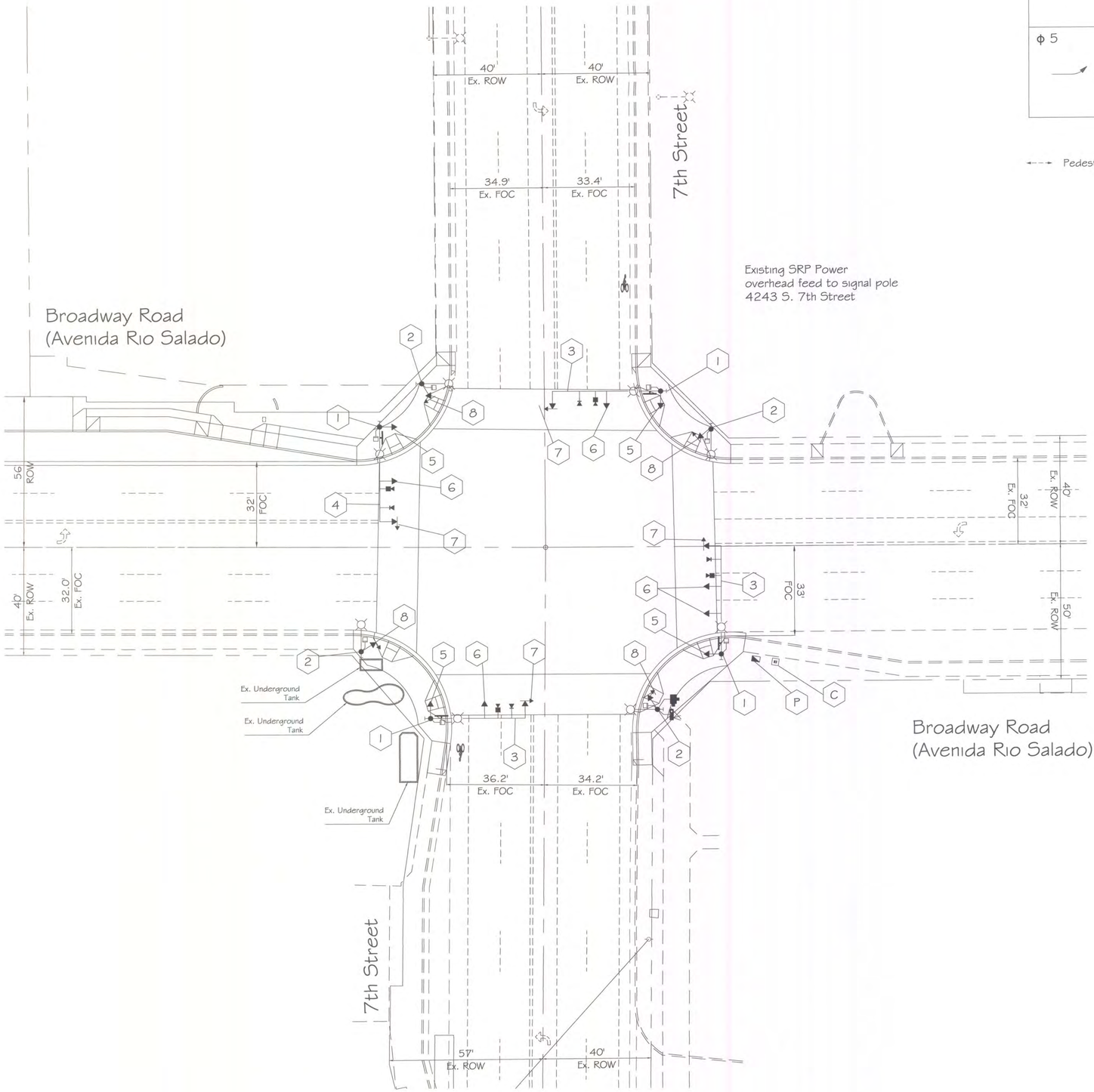
10429.dwg JUN29/16 2:41pm

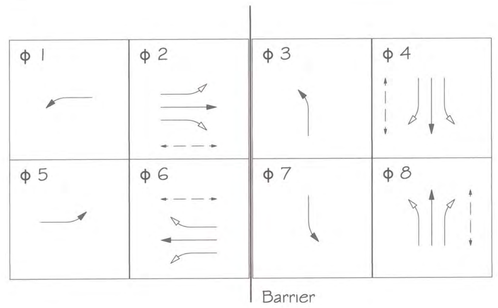
BROADWAY/ARS & 7th ST

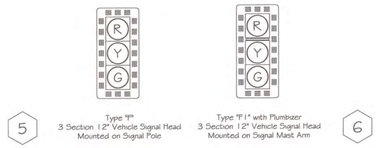
PROJECT #: ST85100371(002)

FILE #: 10429

DWG SERIES No.
TS-1.05







INSTALL

- C — 8 Phase Controller Cabinet
- P — Power Service Pedestal
- 1 — Traffic Signal Pole Type SR - 4 New
- 2 — Traffic Signal Pole Type LM - 4 New
- 3 — 40 ft Signal Mast Arm - 2 New
- 4 — 35 ft Signal Mast Arm - 2 New
- 5 — Type F 12" Signal Head - 4 New
  Pole Mount
- 6 — Type F1 12" Signal Head - 5 New
  Mast Arm Mount w/Plumbizer
- 7 — Type Q2 5 Section 12" Signal Head - 4 New
  Doghouse Style - Left Arrow
  Mast Arm Mount w/Plumbizer
- 8 — Type Q 5 Section 12" Signal Head - 4 New
  In Line - Left Arrow
  Pole Mount

- LED Luminaire - 8 New
- LED Illuminated Street Sign - 4 New
  Broadway Road - 2
  7th Street - 2
- Pedestrian Head - 8 New
- Pedestrian Push Button - 8 New
- Vehicle Detection - 4 New
- EVP Detector and Confirmation Light - 4 New
- PTZ CCTV Camera w/20' Riser - 1 New
- Wireless Network Radio - 1 New

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.		48	91

DR: | DES: | CK: | DATE:

64530 BRUCE E. LITTLETON — Registered Professional Engineer — Not Valid Without Signature — ARIZONA, U.S.A. — EXPIRES: 06-30-2019

BROADWAY/ARS & 7th ST

PROJECT #: ST85100371(002)

FILE #: 10429

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TRAFFIC SIGNAL PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

BROADWAY RD/AVENIDA RIO SALADO AT 7th STREET

EQUIPMENT

APPROVED BY:

TRAFFIC SIGNAL ENGINEER: Thomas E Wolen

ACTING STREET TRANSPORTATION TRAFFIC SERVICES DEPUTY DIRECTOR:

PROJECT #:			FILE NO: 10429
DR: HSY	DES:	CK:	SHEET NO: 2
DATE: JUNE 2016	DATE:	DATE:	TOTAL SHEETS 3
SCALE: 1" = 20'		QS. #:	

N

10429.dwg JUN/29/16 2:41p

DWG SERIES No. TS-1.06

C Controller to #7 Junction Box

CONDUIT 1	CONDUIT 2	CONDUIT 3	CONDUIT 4
#10 Bare Copper #10 AWG White 42C IMSA Cable	#10 Bare Copper Detection Camera Cable (4) EVP Detection Cable (4) EVP Confirmation Cable (4) CCTV Cable (1) CAT 5e Cable (1)	#10 Bare Copper #10 AWG Black #10 AWG White #10 AWG Green	Detectible Mule Tape

P Power Service Pedestal to #7 Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG Black #10 AWG White #10 AWG Green 3C IMSA Cable (Radio) 5C IMSA Cable	Detectible Mule Tape

1 NWC Junction Box to SR Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IMSA Cable (Sign) 3C IMSA Cable (Luminaire) 20C IMSA Cable	#10 Bare Copper EVP Detection Cable (1) EVP Confirmation Cable (1) Detection Camera Cable (1)

2 NEC Junction Box to SR Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IMSA Cable (Sign) 3C IMSA Cable (Luminaire) 20C IMSA Cable	#10 Bare Copper EVP Detection Cable (1) EVP Confirmation Cable (1) Detection Camera Cable (1)

3 SEC Junction Box to SR Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IMSA Cable (Sign) 3C IMSA Cable (Luminaire) 20C IMSA Cable	#10 Bare Copper EVP Detection Cable (1) EVP Confirmation Cable (1) Detection Camera Cable (1)

4 SWC Junction Box to SR Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IMSA Cable (Sign) 3C IMSA Cable (Luminaire) 20C IMSA Cable	#10 Bare Copper EVP Detection Cable (1) EVP Confirmation Cable (1) Detection Camera Cable (1)

5 NWC Junction Box to LM Pole

CONDUIT 1
#10 Bare Copper #10 AWG White 3C IMSA Cable (Luminaire) 20C IMSA Cable

6 NEC Junction Box to LM Pole

CONDUIT 1
#10 Bare Copper #10 AWG White 3C IMSA Cable (Luminaire) 20C IMSA Cable

7 SEC Junction Box to LM Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IMSA Cable (Radio) 3C IMSA Cable (Luminaire) 20C IMSA Cable	#10 Bare Copper CCTV Cable (1) CAT 5e Cable (1)

8 SWC Junction Box to LM Pole

CONDUIT 1
#10 Bare Copper #10 AWG White 3C IMSA Cable (Luminaire) 20C IMSA Cable

13 NWC Junction Box to NEC Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 5C IMSA Cable 42C IMSA Cable	#10 Bare Copper Detection Camera Cable (2) EVP Detection Cable (2) EVP Confirmation Cable (2)

15 NEC Junction Box to SEC # 7 Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 5C IMSA Cable 42C IMSA Cable	#10 Bare Copper Detection Camera Cable (2) EVP Detection Cable (2) EVP Confirmation Cable (2)

17 SEC #7 Junction Box to SWC Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 5C IMSA Cable 42C IMSA Cable	#10 Bare Copper Detection Camera Cable (1) EVP Detection Cable (1) EVP Confirmation Cable (1) CCTV Cable (1) CAT 5e Cable (1)

19 SWC Junction Box to NEC Junction Box

CONDUIT 1	CONDUIT 2
Detectible Mule Tape	Detectible Mule Tape

21 NWC Junction Box to Loop

CONDUIT 1

22 NEC Junction Box to Loop

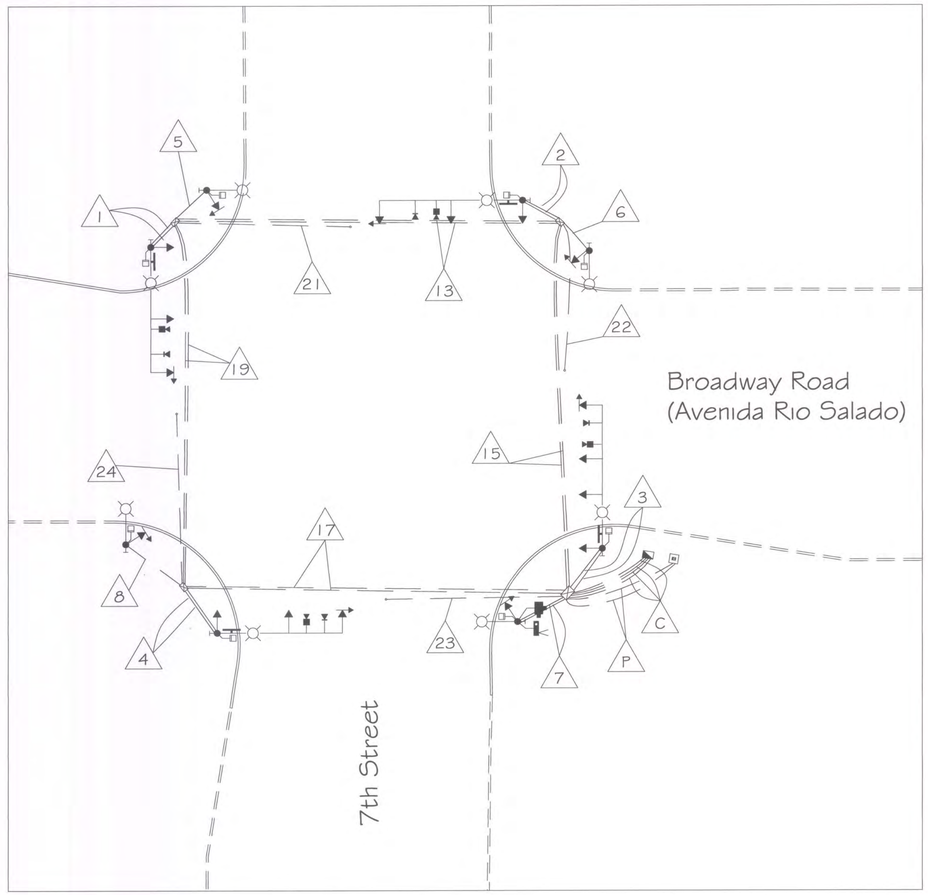
CONDUIT 1

23 SEC Junction Box to Loop

CONDUIT 1

24 SWC Junction Box to Loop

CONDUIT 1



54530
BRUCE E. LITTLETON
7-11
ARIZONA, U.S.A.
EXPIRES: 06-30-2019

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.		49	91

DR:	DES:	CK:	DATE:

BROADWAY AVE & 7th ST

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Blue Stake Center CALL COLLECT

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TRAFFIC SIGNAL PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

BROADWAY RD/AVENIDA RIO SALADO AT 7th STREET

WIRING DIAGRAM

APPROVED BY:

TRAFFIC SIGNAL ENGINEER: Thomas E. Walsh

ACTING STREET TRANSPORTATION TRAFFIC SERVICES DEPUTY DIRECTOR:

PROJECT #:			FILE NO: 10429	
DR: HSY	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE: JUNE 2016	DATE:	DATE:	3	3
SCALE: 1" = 20'		QS. #:		

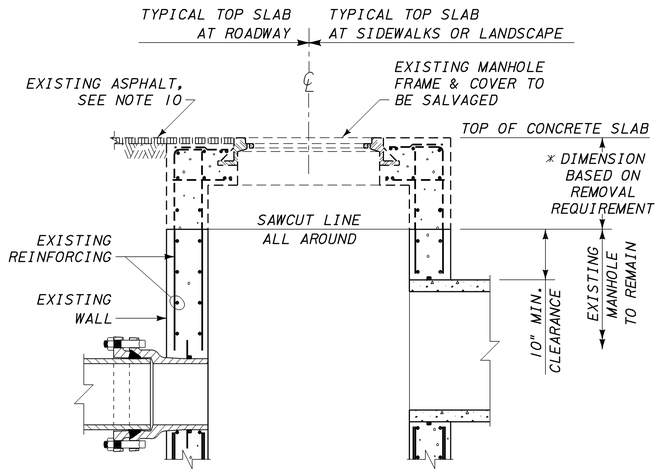
N

10429.dwg JUN29/16 2:41p

PROJECT #: ST85100371(002)

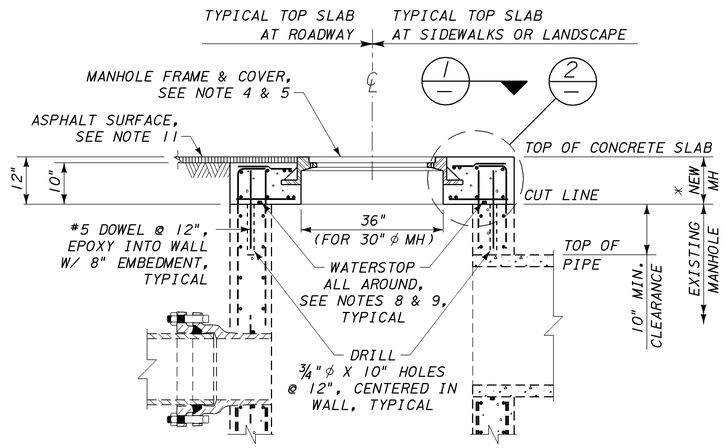
FILE #: 10429

DWG SERIES No.
TS-1.07



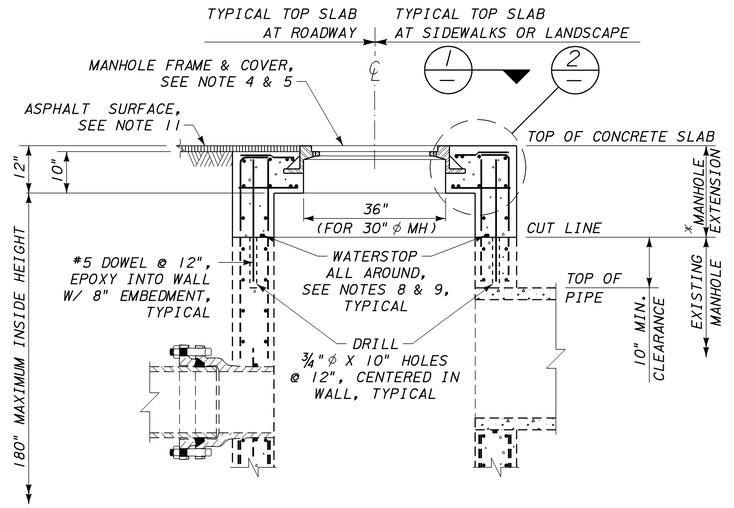
* DIMENSION BASED ON REMOVAL REQUIREMENT

REMOVAL OF WALLS & TOP SLAB OF EXISTING MANHOLE



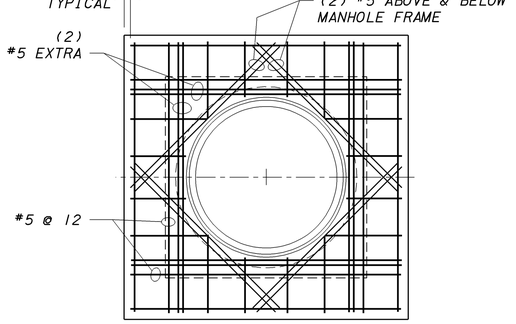
*DIMENSION BASED ON LOWERING REQUIREMENT

LOWERING EXISTING MANHOLE W/ NEW TOP SLAB

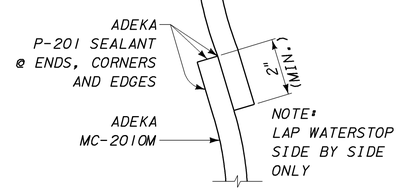


* DIMENSION BASED ON RAISING REQUIREMENT

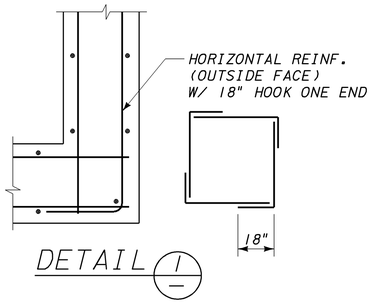
RAISING EXISTING MANHOLE W/ NEW TOP SLAB



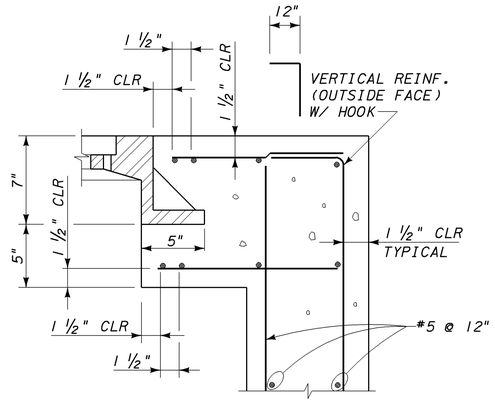
TOP SLAB DETAIL



WATERSTOP LAP DETAIL



DETAIL 1



NOTE: DIAGONAL REINFORCING STEEL IN SLAB NOT SHOWN FOR CLARITY.

DETAIL 2

DESIGN CRITERIA

1. HS20 HIGHWAY LOADING, 32 KIPS ON REAR AXLE (16 KIPS/WHEEL), WHEEL SPACING 6', 30% IMPACT. ONE WHEEL CENTERED ON MANHOLE COVER, OTHER WHEEL ADJACENT TO MANHOLE.
2. INTERNAL DESIGN PRESSURE - 50 FT. HEAD ABOVE TOP OF MANHOLE COVER.

NOTE:
DO NOT EXCEED NOTED 180" MAXIMUM INSIDE HEIGHT DIMENSION WHEN RAISING EXISTING MANHOLES.

GENERAL NOTES

1. STRUCTURAL CONCRETE SHALL BE 4000 PSI @ 28 DAYS (MAG AA) PER SRP 03300.
2. REINFORCING STEEL SHALL COMPLY WITH REQUIREMENTS OF SRP 03210, BARS SHALL BE ASTM A615 GRADE 60.
3. CONCRETE PLACEMENT SHALL BE PER GE 03305.
4. EXACT ELEVATION OF TOP OF MANHOLE SHALL BE SET BASED ON FINISHED GRADE ELEVATION.
5. WATERTIGHT MANHOLE FRAME AND BOLTED LID SHALL BE NEENAH CATALOG NO. R-1916-H, MANUFACTURED BY NEENAH FOUNDRY COMPANY. NO SUBSTITUTION ALLOWED.
6. EXACT TOP ELEVATION TO BE SET BY CUSTOMER'S ENGINEER BASED ON CUSTOMER'S PAVING AND GRADING PLANS.
7. FIELD CUT REBAR AT MANHOLE.
8. WATERSTOP SHALL BE ADEKA ULTRA SEAL MC-2010M, CLEAN SURFACE AND BOND WATERSTOP TO EXISTING CONCRETE WITH ADEKA P-201 ELASTIC SEALANT. SEE WATERSTOP LAP DETAIL.
9. SEAL INSIDE (WATER SIDE) OF JOINT WITH SIKAFLEX CONSTRUCTION SEALANT.
10. REMOVE EXISTING ASPHALT SURFACE AS REQUIRED.
11. PROVIDE ASPHALT SURFACE AS REQUIRED.

REFERENCES

STANDARD SPECIFICATION FOR REINFORCING STEEL	SRP 03210
STANDARD SPECIFICATION FOR CONCRETE	SRP 03300
STANDARD SPECIFICATION CONCRETE PLACEMENT	GE 03305

REVISIONS

REV NO.	DFTR	DSGN	ENGR CHK	ISSUE AUTH	DATE
REVISED GENERAL NOTES 10, 11, AND ASSOCIATED CALLOUTS.					
1	JWS	-	CWT	REL	09/26/07
	JWS	-	CWT	REL	
INITIAL ISSUE.					
0	JWS	-	CWT	REL	07/21/05
	JWS	-	CWT	REL	

SALT RIVER PROJECT
WATER ENGINEERING STANDARD

LOWERING AND RAISING EXISTING PRESSURE MANHOLE ELEVATIONS

SCALE: NONE | LREXSTPMH.WES
DWG SIZE: 22X34

WES-LREXSTPMH

DWG SERIES No. SRPI-1.01

SCHEMATIC LEGEND

*UNLESS OTHERWISE INDICATED

C-3UA750K

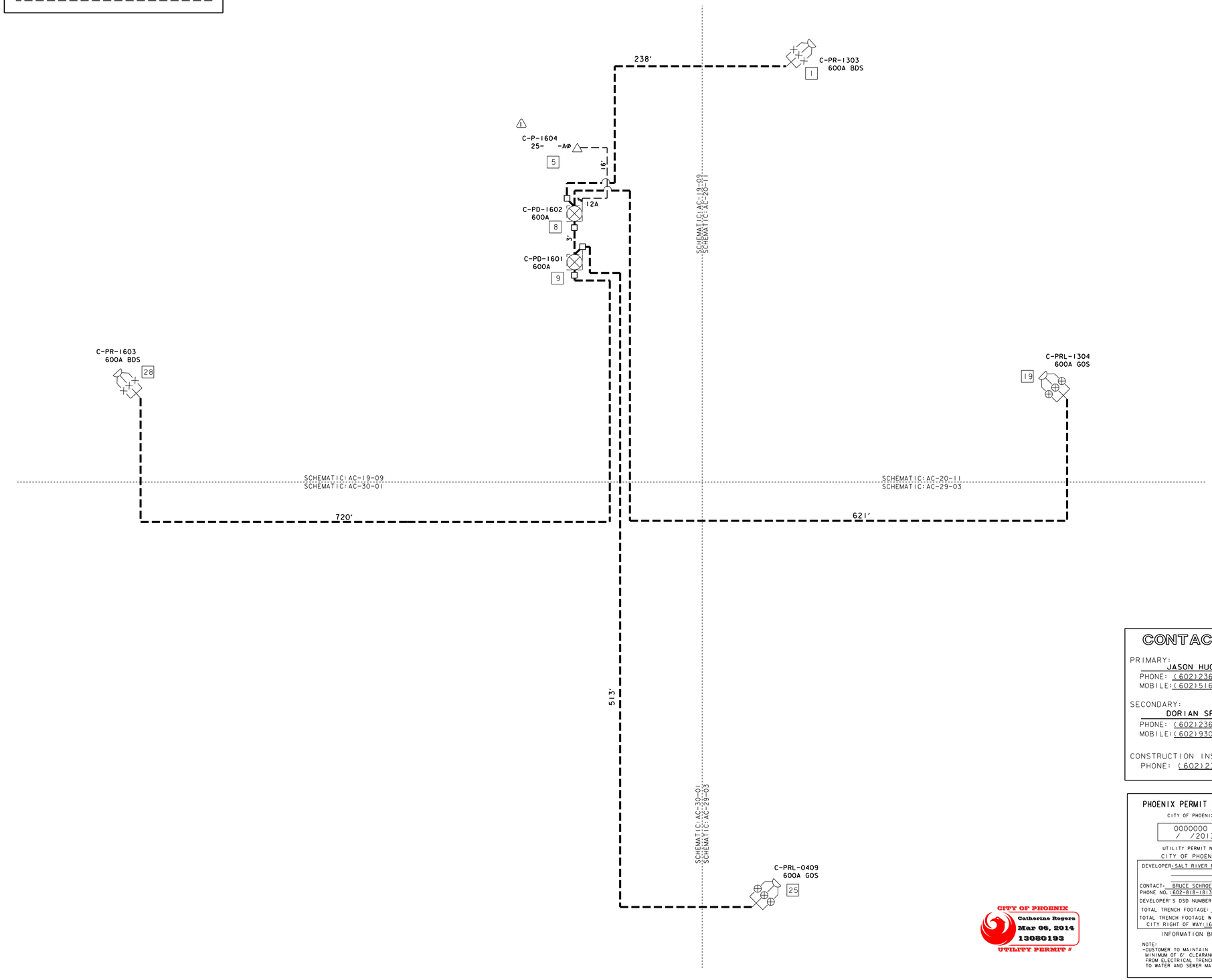
C-1UA2K

SCHEMATIC:

AC-19-09; AC-29-03; AC-30-01; AC-20-11

N

SCALE:NTS



CITY OF PHOENIX
Catherine Rogers
Mar 06, 2014
13080193
UTILITY PERMIT #

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PHONE: (602)236-0436

PHOENIX PERMIT BOXES

CITY OF PHOENIX

0000000
/ /2013

UTILITY PERMIT NO.
CITY OF PHOENIX

DEVELOPER: SALT RIVER PROJECT

CONTACT: BRUCE SCHROEDER
PHONE NO.: 602-818-1813
DEVELOPER'S DSD NUMBER:
TOTAL TRENCH FOOTAGE: 1678'
TOTAL TRENCH FOOTAGE WITHIN CITY RIGHT OF WAY: 1678'

INFORMATION BOX

NOTE:
-CUSTOMER TO MAINTAIN MINIMUM OF 6' CLEARANCE FROM ELECTRICAL TRENCH TO WATER AND SEWER MAINS.

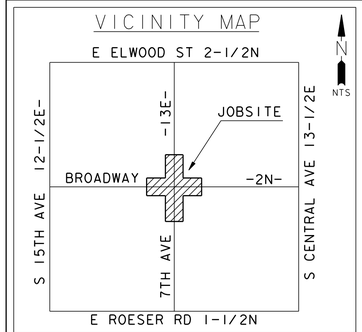
CITY OF PHOENIX
GENERAL NOTES FOR UTILITY CONSTRUCTION

1. All utility construction shall conform to the latest Maricopa Association of Governments (MAG) Uniform Standard Specifications and Details for Public Works Construction, and the City of Phoenix Supplements to MAG
2. All work performed in the City of Phoenix rights-of-way shall be governed by the latest edition of the City of Phoenix Traffic Barricade Manual.
3. This set of plans was reviewed by the City of Phoenix Utility Coordination Section in compliance with City requirements. However, such review shall not prevent the City from requiring correction of errors found to be in violation of any law ordinance or City of Phoenix requirement for utility construction in the rights-of-way
4. The contractor shall have a copy of the approved/stamped construction plans and approved traffic control plan at the project site at all times.
5. All utilities crossing streets must be bored or punched unless permission to open cut has been given in writing by the City Engineer.
6. Before starting any work on a major or collector street, the utility company shall schedule a preconstruction meeting with the City of Phoenix Street Transportation Department 5/32 s Utility Inspection Section.
7. The City of Phoenix does not warrant any quantities shown on these plans.
8. Utility companies are to coordinate alley work with the Refuse Section.
9. The utility company shall contact the City of Phoenix Street Transportation Department 5/32 s Utility Inspection Section a minimum of 48 hours in advance of starting work, giving location and permit number in order to schedule inspections.
10. All work requiring asphalt replacement, concrete replacement, or resurfacing alleys in the City of Phoenix right-of-way will require a final inspection with the utility company representative at time of completion.
11. Maintain a minimum six (6) feet horizontal separation and one (1) foot vertical from all water and sewer mains, all measurements outside to outside.

MAINLINE LEGEND

- PROPOSED UNDERGROUND SWITCH.
- EXISTING WOOD POLE.
- PROPOSED RISER ON PROPOSED WOOD POLE
- PROPOSED RISER ON EXISTING POLE
- POINT NUMBER (FOR WORK TO BE DONE)
- PROPOSED METER LOCATION
- PROPOSED UNDERGROUND PRIMARY BORE/TRENCH ROUTE.
- PROPOSED UNDERGROUND SERVICE BORE/TRENCH ROUTE.
- PROPOSED UNDERGROUND SECONDARY CONDUCTOR.
- PROPOSED UNDERGROUND J-BOX.
- PB — NEW UNDERGROUND PULL BOX.
- EM — UNDERGROUND ELECTRONIC MARKER.
- PROPOSED STREET LIGHT ON STEEL POLE

VICINITY MAP



NOTICE

THIS JOB ORDER INVOLVES OVERHEAD, UNDERGROUND AND/ OR SERVICES
OH# JJ2-219
UG#
SER#

FIELD INSPECTION STAMP

REV	REVISED BY	DATE	REVISION DESCRIPTION
2	RXSCHROE	02/20/14	ADJUSTED TRENCH ROUTE ALONG 7TH AVE; ADDED FIBER
1	RXSCHROE	01/22/14	ADDED 1PH X-FORMER & S/L; RENUMBERED ACTIVITY POINTS TWEAKED DETAIL "A"; ADDED EQUIPMENT DIMENSIONS ADDED LIGHTS NUMBERS; ADDED STATIONING-PERMIT
0	RXSCHROE	03/04/13	JOB CREATED

JOB NAME ARS3 BROADWAY & S 7TH AVE
FIS JO KJ2-742 MAP 1/4 SE S 19 T 1N R 3E
40/ACRE AC-19-16 COORDS 12-15/16E : 2-1/16N
AMP WO T1860316 AMP VERSION

Call at least two full working days before you begin excavation. Arizona Blue Stake, Inc. ARIZONA811 Dial 8-1-1 or 1-800-STAKE-IT (782-5348) or Maricopa County 1-602-263-1100

COST CENTER 22680
ROUTING CODE DDY+7

SHEET NUMBER 1 OF 5

EASY, PLEASANT, AND REWARDING

02/20/14

DWG SERIES No. SRPP-1.01

CONDUIT RACKING DETAILS

UK24K
FROM: RISER @PT1
TO: PULLBOX @PT12
12"
FROM: PR-1303
TO: PD-1602
FROM: EM @ PT2
TO: EM @ PT26
UKB6 A

FROM: EM @ PT26
TO: EM @ PT2
FROM: EM @ PT1
TO: EM @ PT2
UKB6 B

UK24K
FROM: RISER @PT1
TO: PULLBOX @PT12
12"
FROM: PR-1303
TO: PD-1602
FROM: EM @ PT2
TO: EM @ PT26
UKB6 C

UK24K
FROM: RISER @PT1
TO: PULLBOX @PT12
12"
UK251
FROM: P-1604
TO: PD-1602
FROM: PR-1303
TO: PD-1602
FROM: EM @ P3
TO: EM @ PT22
UKB6 Z

UK251
FROM: P-1604
TO: PD-1602
FROM: PRL-1304
TO: PD-1602
FROM: PR-1303
TO: PD-1602
UKB6 D

UK24K
FROM: RISER @PT1
TO: PULLBOX @PT12
12"
FROM: PD-1602
TO: PRL-1304
FROM: EM @ PT2
TO: EM @ PT26
UKB6 E

FROM: PR-1601
TO: PRL-0409
FROM: PD-1601
TO: PR-1603
UKB6 F

UK24K
FROM: RISER @PT1
TO: PULLBOX @PT12
12"
FROM: PR-1601
TO: PRL-0409
FROM: EM @ PT2
TO: EM @ PT26
FROM: PD-1601
TO: PR-1603
FROM: PD-1602
TO: PRL-1304
UKB12 G

UK24K
FROM: PULLBOX @PT12
TO: RISER @PT25
12"
FROM: PR-1601
TO: PRL-0409
FROM: EM @ PT2
TO: EM @ PT26
FROM: PD-1601
TO: PR-1603
FROM: PD-1602
TO: PRL-1304
UKB12 H

UK251L
FROM: J-BOX @ PT23
TO: J-BOX @ PT17
FROM: PD-1602
TO: PRL-1304
FROM: EM @ PT29
TO: EM @ PT20
UKB6 I

USK3
FROM: SES @ PT15
TO: J-BOX @ PT17
UK251L
FROM: J-BOX @ PT23
TO: J-BOX @ PT17
FROM: PD-1602
TO: PRL-1304
FROM: EM @ PT29
TO: EM @ PT20
UKB6 J

UK251
FROM: J-BOX @ PT17
TO: RISER @ PT21
FROM: PD-1602
TO: PRL-1304
FROM: EM @ PT29
TO: EM @ PT20
UKB6 K

FROM: PD-1602
TO: PRL-1304
FROM: EM @ PT20
TO: EM @ PT19
UKB6 L

UK251
FROM: J-BOX @ PT17
TO: RISER @ PT21
FROM: EM @ PT19
TO: EM @ PT20
FROM: EM @ PT29
TO: EM @ PT20
UKB6 M

UK24K
FROM: PULLBOX @PT12
TO: RISER @PT25
12"
UK251L
FROM: J-BOX @ PT17
TO: J-BOX @ PT23
FROM: PD-1601
TO: PRL-0409
FROM: EM @ PT2
TO: EM @ PT26
UKB6 N

UK24K
FROM: PULLBOX @PT12
TO: RISER @PT25
12"
UK251L
FROM: J-BOX @ PT23
TO: EM @ PT26
FROM: PD-1601
TO: PRL-0409
FROM: EM @ PT2
TO: EM @ PT26
UKB6 O

UK251L
FROM: J-BOX @ PT23
TO: EM @ PT26
FROM: EM @ PT25
TO: EM @ PT26
FROM: EM @ PT2
TO: EM @ PT26
UKB6 P

UK24K
FROM: PULLBOX @PT12
TO: RISER @PT25
12"
FROM: PD-1601
TO: PRL-0409
FROM: EM @ PT26
TO: EM @ PT25
UKB6 Q

FROM: EM @ PT20
TO: EM @ PT29
FROM: PD-1601
TO: PR-1603
UKB6 R

FROM: EM @ PT29
TO: EM @ PT28
FROM: PD-1601
TO: PR-1603
UKB6 S

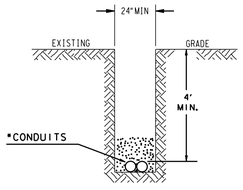
FROM: EM @ PT20
TO: EM @ PT29
FROM: EM @ PT28
TO: EM @ PT29
UKB6 T

CONDUIT ONELINE LEGEND

(CONDUITS ARE AS FOLLOWS UNLESS NOTED OTHERWISE)

- C-UK42K SRP COMM
- C-UK33
- C-UK25I-PRIMARY
- C-UK25I-SECONDARY
- C-UK25IL
- C-USK25
- CONDUIT TRANSITION FROM SPOOL TO HARDSTICK

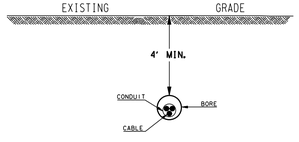
TRENCH DETAIL



*NUMBER AND/OR SIZE OF CONDUITS IN TRENCH MAY VARY.
(SEE CONDUIT ONE LINE)

GUIDED BORE DETAIL

BORE PIT LOCATION



*NUMBER AND/OR SIZE OF CONDUITS IN BORE MAY VARY.
(SEE CONDUIT ONE LINE)

CONDUIT ONE LINE

SCALE: 1" = 40'

BORE & TRENCH CREW NOTES:

1.) ALL EXISTING UTILITIES THAT ARE TO BE CROSSED WITH THE NEW BORE OR TRENCH MUST BE POT HOLED BEFORE CROSSING.

2.) THERE MUST BE AT LEAST A 1' MINIMUM SEPARATION BETWEEN ANY UTILITIES CROSSED WITH THE PROPOSED CONDUCTOR.

3.) DUE TO THE EXISTING EASEMENT WIDTH AND EXISTING UTILITIES IN THAT EASEMENT, ADDITIONAL POT HOLES OR OUTAGE ON THE EXISTING CONDUCTOR MAY BE REQUIRED TO BORE SAFELY IN THE EASEMENT.

4.) THE BOTTOM OF ALL NEW UNDERGROUND EQUIPMENT PADS WILL BE SET AT THE SAME ELEVATION AS THE TOP OF EXISTING CURB OR SIDEWALK.

5.) INSTALL A UBGRD OR UBGRDJ GROUND IN ANY CUBICLE ON THIS JOB THAT IS MISSING A GROUND.

6.) CAP ALL CONDUIT STUB UPS AND INSTALL A ELECTRONIC MARKER. DO NOT ENCASE THE STUB OUTS IN SLURRY. COVER ALL STUB OUTS WITH NATIVE DIRT.

7.) STUB ALL PRIMARY AND SECONDARY CONDUITS INTO THE SINGLE PHASE TRANSFORMERS PER THE CONDUIT ONE LINE DRAWING. IF THE WINDOW IS TOO SMALL, ENLARGE THE WINDOW OR CHANGE OUT THE PAD TO THE NEWER PAD WITH THE LARGER WINDOW.

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CITY OF PHOENIX
Catherine Rogers
Mar 06, 2014
13080193
UTILITY PERMIT #

JOB NAME ARS3 BROADWAY & S 7TH AVE
FIS JO KJ2-742 MAP 1/4 SE S 19 T 1N R 3E
40/ACRE AC-19-16 COORDS 12-15/16E : 2-1/16N
AMP WO T1860316 AMP VERSION
COST CENTER 22680
ROUTING CODE DDY+7
SHEET NUMBER 2 OF 5

Call at least two full working days before you begin excavation. ARIZONA811 ARIZONA BLUE STAKE, INC. Dial 8-1-1 or 1-800-STAKE-IT (1-782-5348) In Maricopa County: 602-263-1100

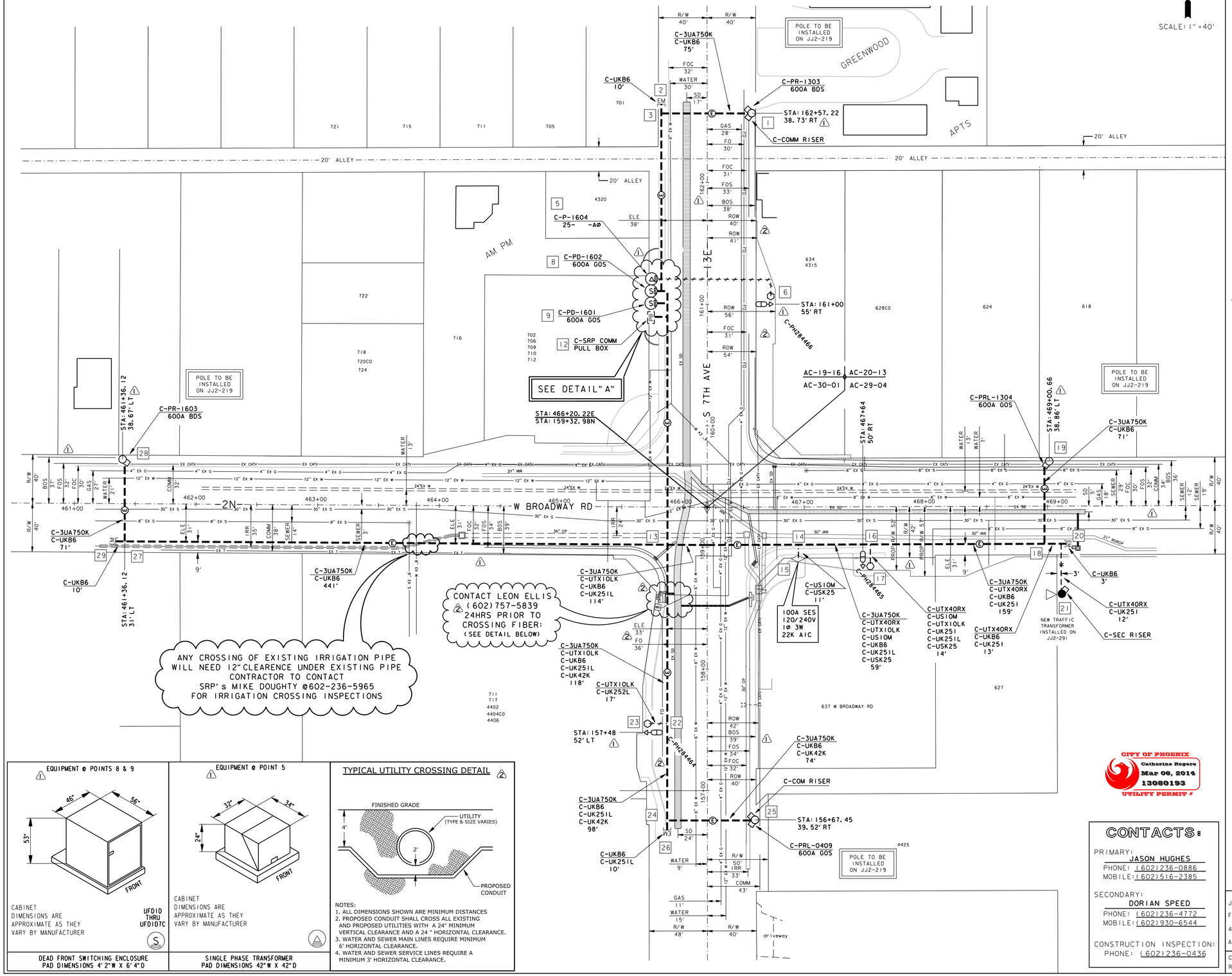
SKP

02/20/14

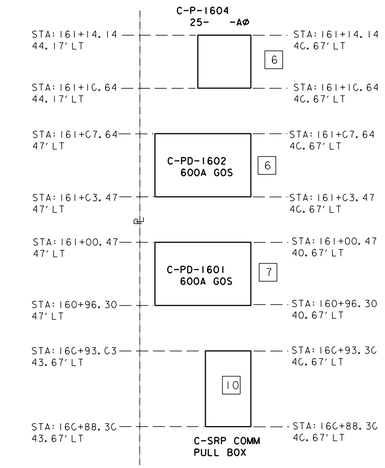
EASY, PLEASANT, AND REWARDING
DWG SERIES No. SRPP-1.02

MAINLINE

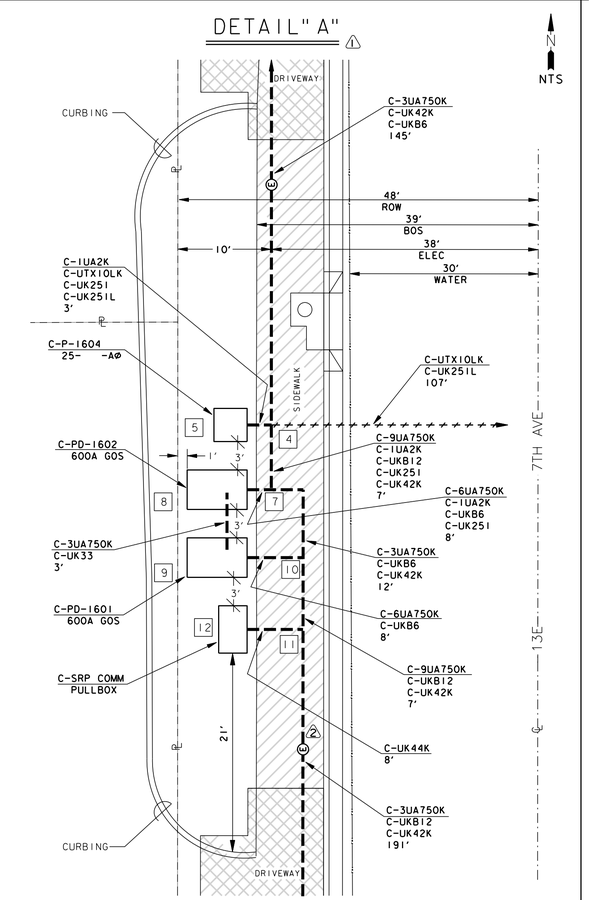
(WORKS WITH JJ2-219)



EQUIPMENT STATIONING



DETAIL "A"



EQUIPMENT @ POINTS 8 & 9

CABINET DIMENSIONS ARE APPROXIMATE AS THEY VARY BY MANUFACTURER

UFDID THRU UFDID7C

DEAD FRONT SWITCHING ENCLOSURE
PAD DIMENSIONS 4' 2"W X 6' 4"D

EQUIPMENT @ POINT 5

CABINET DIMENSIONS ARE APPROXIMATE AS THEY VARY BY MANUFACTURER

SINGLE PHASE TRANSFORMER
PAD DIMENSIONS 42"W X 42"D

TYPICAL UTILITY CROSSING DETAIL

NOTES:
1. ALL DIMENSIONS SHOWN ARE MINIMUM DISTANCES
2. PROPOSED CONDUIT SHALL CROSS ALL EXISTING AND PROPOSED UTILITIES WITH A 24" MINIMUM VERTICAL CLEARANCE AND A 24 " HORIZONTAL CLEARANCE.
3. WATER AND SEWER MAIN LINES REQUIRE MINIMUM 6' HORIZONTAL CLEARANCE.
4. WATER AND SEWER SERVICE LINES REQUIRE A MINIMUM 3' HORIZONTAL CLEARANCE.

CITY OF PHOENIX
Catherine Rogers
Mar 06, 2014
13080193
UTILITY PERMIT #

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JOB NAME ARS3 BROADWAY & S 7TH AVE
FIS JO KJ2-742 MAP 1/4 SE S 19 T 1N R 3E
40/ACRE AC-19-16 COORDS 12-15/16E : 2-1/16N
AMP WO T1860316 AMP VERSION

Call at least two full working days BEFORE you begin excavation. ARIZONA811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (1-782-5348) In Northern County: 1-602-263-1100

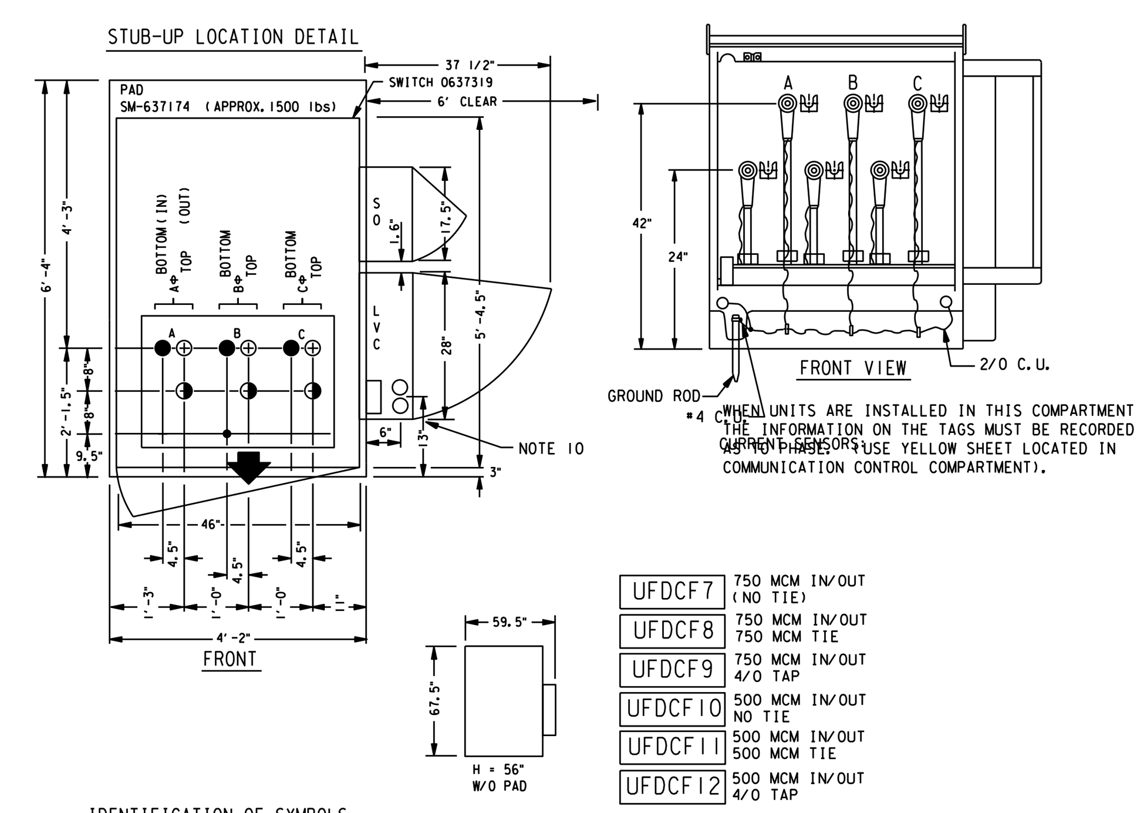
COST CENTER 22680
ROUTING CODE DDY+7

SHEET NUMBER 3 OF 5

EASY, PLEASANT, AND REWARDING

02/20/14

DWG SERIES No. SRPP-1.03



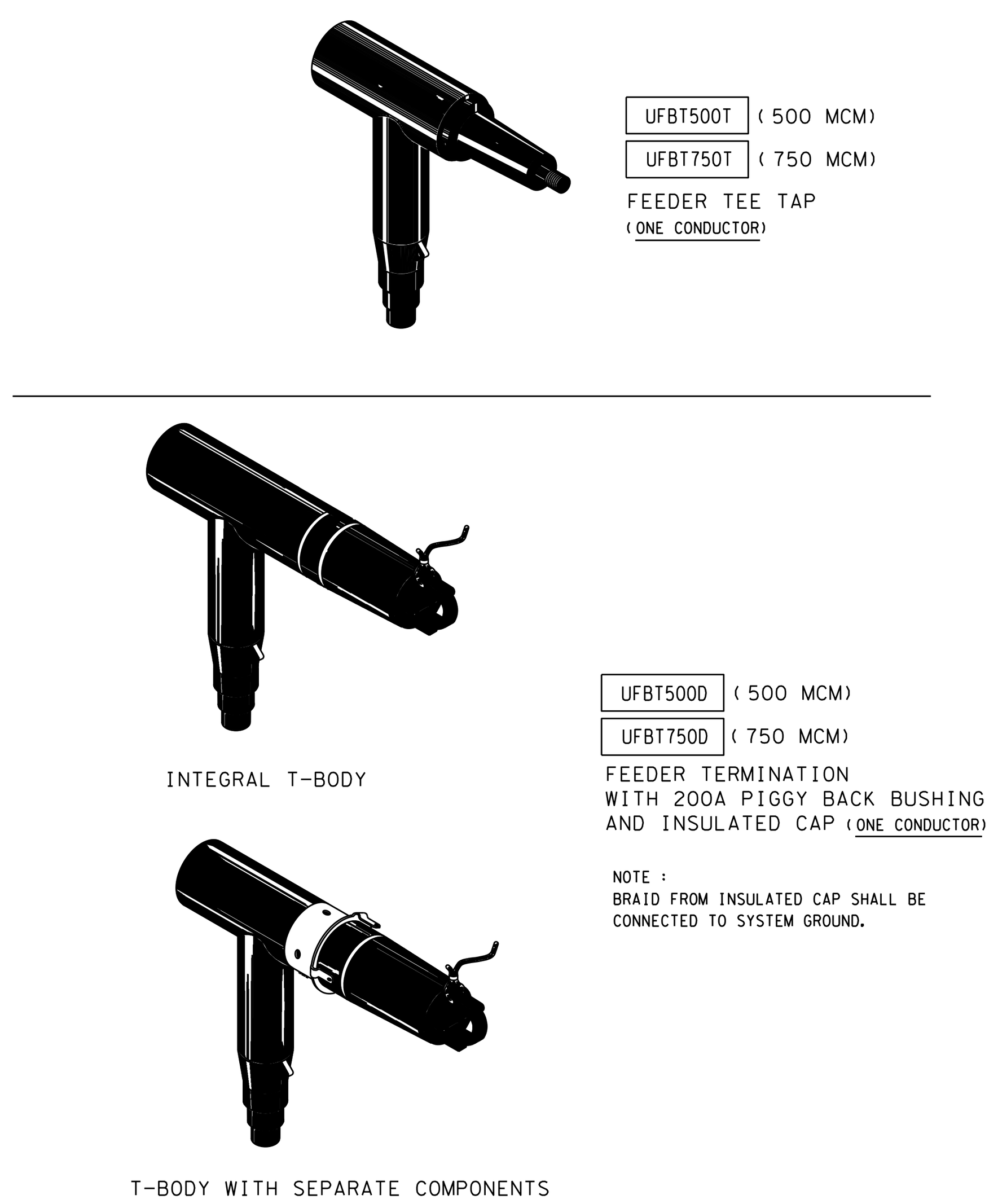
SYMBOL	POSITION	CABLE TERMINATION
1	TOP	3" CONDUIT FOR EITHER: 500MCM FEEDER OR 750MCM FEEDER
2	TOP-TAP	3" CONDUIT FOR EITHER: 500MCM FEEDER, 750MCM FEEDER, OR 4/0 AL
3	BOTTOM	3" CONDUIT FOR EITHER: 500MCM FEEDER OR 750MCM FEEDER
4	GROUND ROD	

UFDCF7	750 MCM IN/OUT (NO TIE)
UFDCF8	750 MCM IN/OUT 750 MCM TIE
UFDCF9	750 MCM IN/OUT 4/0 TAP
UFDCF10	500 MCM IN/OUT NO TIE
UFDCF11	500 MCM IN/OUT 500 MCM TIE
UFDCF12	500 MCM IN/OUT 4/0 TAP

NOTES

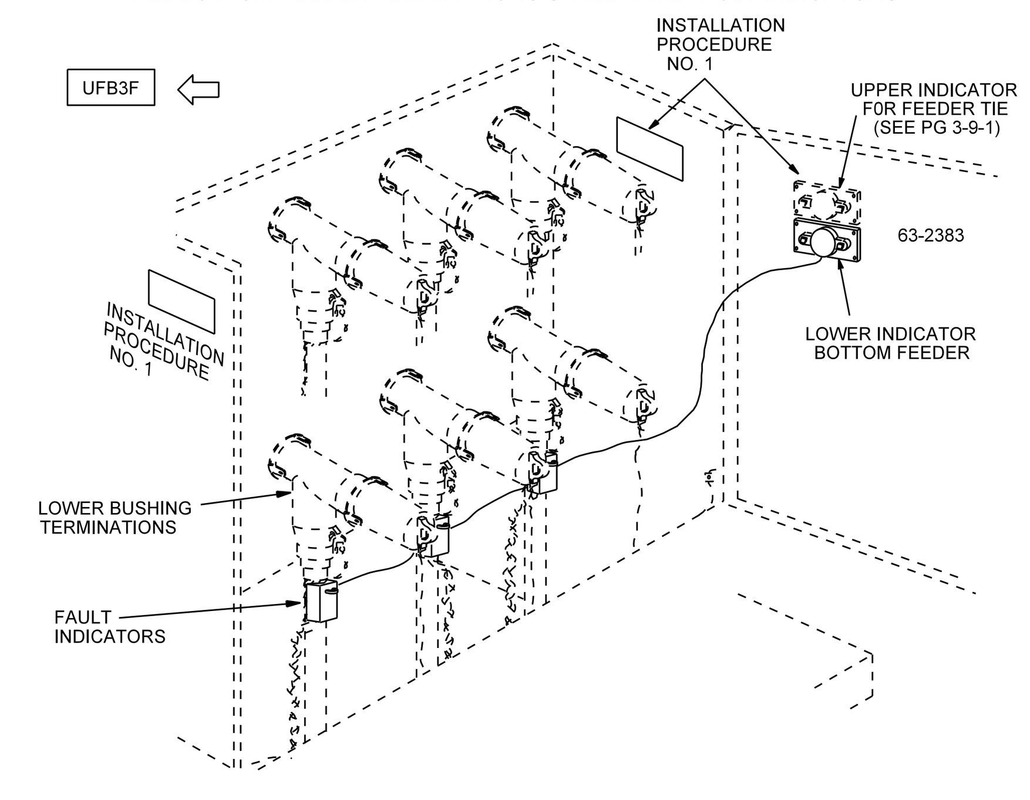
1. ALL PAD ELEVATIONS SHALL BE ESTABLISHED BY SURVEY (BLUE TOP), AND TOP OF PAD SHALL BE 4" ABOVE FINAL GRADE IN IMMEDIATE AREA.
2. PAD MUST BE LEVEL BEFORE SETTING ENCLOSURE. AREA UNDER PAD MUST BE COMPACTED PER TRENCH SPECIFICATIONS.
3. IF OBSTACLES ARE ANTICIPATED IN FRONT OF THE SWITCH (E.G. DESIGNATED PARKING), THE SWITCH SHALL BE ROTATED 90 DEG. SO THE "SO" AND "LVC" COMPARTMENTS FACE ROAD RIGHT OF WAY. ADDITIONAL LABELING SHALL BE PLACED ON THE SIDE OF THE ENCLOSURE FACING ROAD RIGHT OF WAY.
4. INSTALL GROUND CONNECTORS INTO ENCLOSURE GROUNDING NUTS. TRAIN 2/0 CU ALONG FRONT BASE OF ENCLOSURE AND CONNECT TO GROUND CONNECTORS.
5. INSTALL GROUND RODS TO NOT INTERFERE WITH CONDUITS. CONNECT #4 CU LEAD FROM GROUND ROD TO GROUND CONNECTORS.
6. TRAIN CONCENTRIC NEUTRAL WIRES DOWN ALONG CABLES AND CONNECT TO 2/0 CU BUS USING COMPRESSION CONNECTORS. CONNECT GROUND LEADS FROM INSULATED BUSHING CAPS TO 2/0 CU USING SPLIT BOLTS.
7. CONDUIT SHALL BE STUBBED TO 1" BELOW THE LEVEL OF THE PAD (5" ABOVE GRADE.)
8. LOAD BREAK BUSHINGS PROVIDE POINT FOR TESTING AND GROUNDING.
9. TWO COMMUNICATIONS CONDUIT ENTRANCES AT THIS APPROXIMATE LOCATION ON CABINET BOTTOM. SEE "SWITCHING AND FUSING, REMOTE SUPERVISORY CONTROL".

Underground Distribution Construction Standards — SRP — PROPRIETARY MATERIAL
REV. DELETED PREVIOUS NOTES 7 AN 11 ADDRESSING LOCKS AND SPEEDCRETE.
SWITCHING AND FUSING
REMOTE CONTROL S&C DEAD FRONT SWITCH
ONE SIDE ACCESS
3-16-1 — ISSUE DATE: 07/07/09 — REV. DATE: 02/10/11 — APPROVAL: B.PRIEST — 8513E508.DGN



Underground Distribution Construction Standards — SRP — PROPRIETARY MATERIAL
EXTENSIVE REVISIONS/ADDED INTEGRAL T-BODY
SWITCHING AND FUSING
FEEDER TEE TAP AND TERMINATION
3-6-1 — ISSUE DATE: 01/15/87 — REV. DATE: 10/11/10 — APPROVAL: B.PRIEST — 8513E256.DGN

ALL BOTTOM FEEDER TERMINATIONS SHALL HAVE FAULT INDICATORS

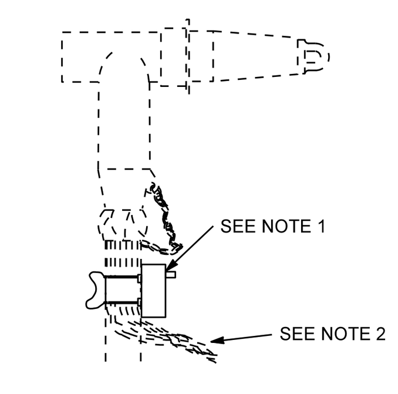


INSTALLATION PROCEDURE (ALL SWITCHES)

1. THREE LOCATIONS ARE AVAILABLE FOR FAULT DETECTOR INDICATORS. INSTALL THE INDICATORS TO FACE THE STREET.
2. INSTALL INDICATOR ON LOWER WINDOW IN DOOR USING 2-1/4" X 1/2" BOLTS, AND FLAT WASHERS.
3. TRAIN CABLE DOWN ALONG DOOR AND BEHIND CABLES ON LOWER BUSHINGS. ATTACH SENSORS ON 500MCM OR 750MCM CABLES. (SEE DETAIL)

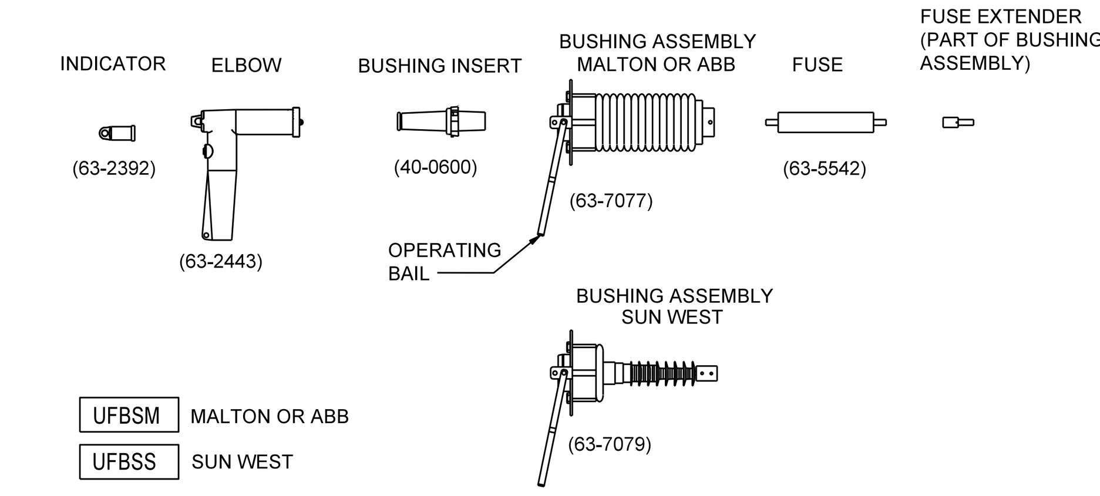
NOTES:

1. SENSOR MUST BE INSTALLED OVER TWISTED DRAIN WIRES OR CONCENTRIC NEUTRALS ON EACH OF THE LOWER BUSHING TERMINATIONS.
2. DRAIN WIRES TWISTED TOGETHER AND BONDED TO GROUND USING COMPRESSION CONNECTOR.
3. THREE SWITCHES AT UDA HAVE A FAULT DETECTOR WITH CONTACTS. (STOCK 63-2383)



SENSOR INSTALLATION DETAIL

Underground Distribution Construction Standards — SRP — PROPRIETARY MATERIAL
REV. ADDED CU TO PAGE
SWITCHING AND FUSING
FAULT INDICATOR ON LOWER FEEDER
ON ALL SWITCHES
3-8-1 — ISSUE DATE: 01/15/87 — REV. DATE: 02/16/11 — APPROVAL: B.PRIEST — 8513E7.DGN



1. One 50kVA or two 25kVA units may be fed. A traffic signal, auto or rail, may be fed from the first transformer out only.
2. Fused bushing assembly for ABB/Malton switches, stock no. 63-7310. Available for use on ABB/Malton switches with manufacture date 2/98 and later.

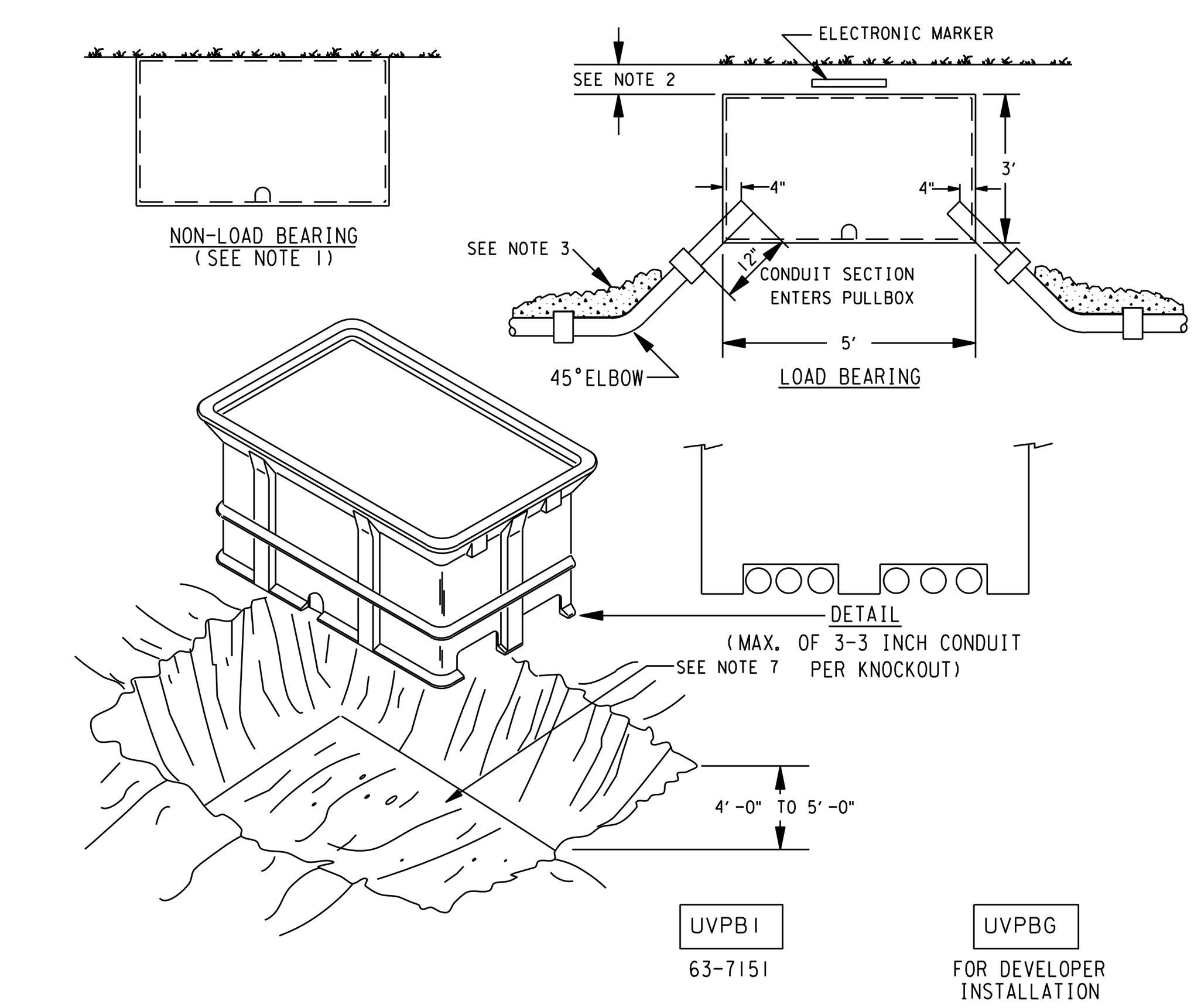
Installation Instructions

1. Lubricate bushing insert and install into bushing assembly well.
2. Install fuse onto end of bushing assembly and extender onto end of fuse.
3. Lubricate protective cap and install on bushing insert.
4. Remove parking stand from top "A"phase left side bushing, exposing access port.
5. Install complete bushing assembly into access port on switch using hot line tools on the operating bail. Rotate to latch.
6. Install elbow termination onto tap cable.
7. Install voltage indicator onto elbow.
8. Using hot line tools, remove insulating cap and install elbow onto bushing insert to energize tap cable.

Re-Fusing Instructions

1. Verify fuse has operated by visual examination of voltage indicator and by high voltage meter thru bushing after elbow has been removed and parked on an adjacent parking stand.
2. Using hot line tools, install protective cap onto exposed bushing insert.
3. Using hot line tools on operating bail, rotate bushing assembly to unlatch and remove by pulling out.
4. Remove operated fuse from bushing assembly and replace with new fuse. Remove fuse extender from operated fuse and install onto end of new fuse.
5. Using hot line tools on operating bail, install bushing assembly. Rotate to latch.
6. Remove protective cap.
7. Re-install elbow to energize the cable.

Underground Distribution Construction Standards — SRP — PROPRIETARY MATERIAL
Pg. 5 of 12
SWITCHING AND FUSING
FUSED BUSHING ASSEMBLY
FOR SWITCH
3-13-5 — ISSUE DATE: 12/14/01 — REV. DATE: 04/29/10 — APPROVAL: B.PRIEST — 8513E302.DGN

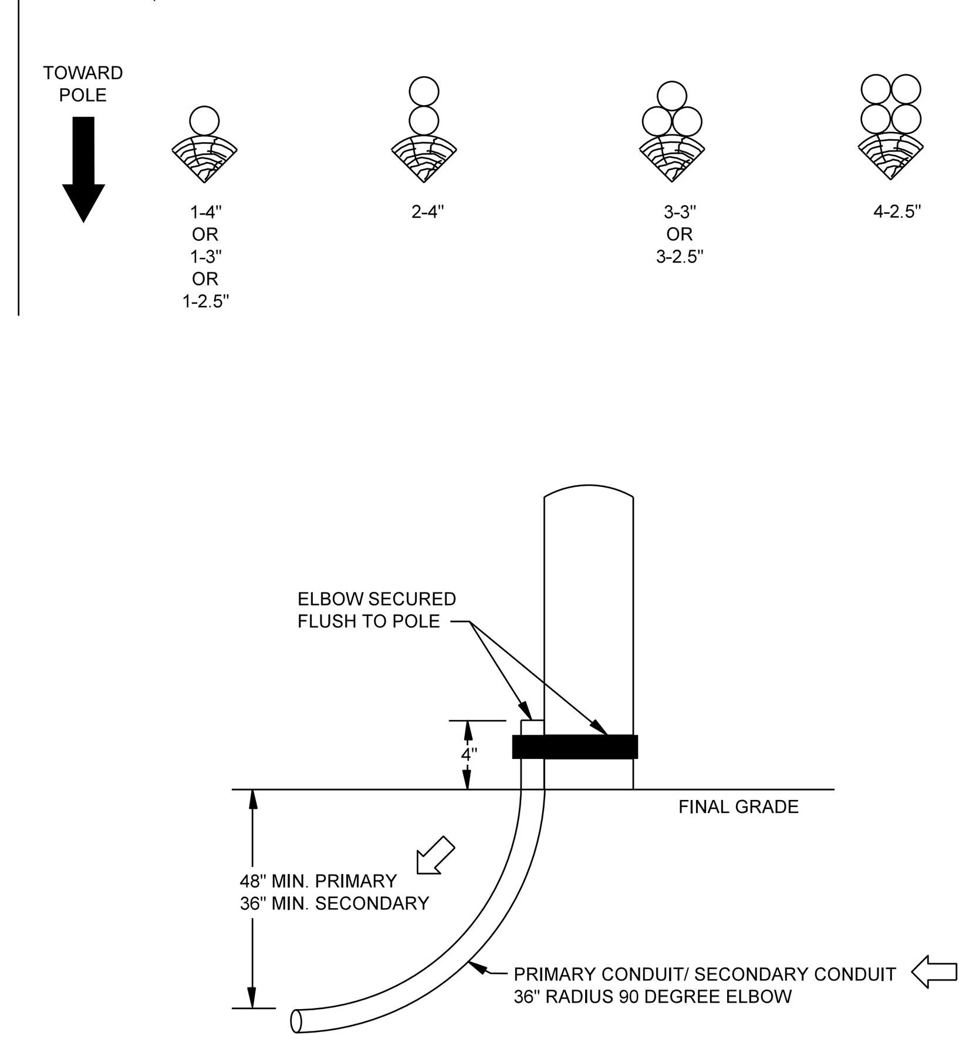


NOTES

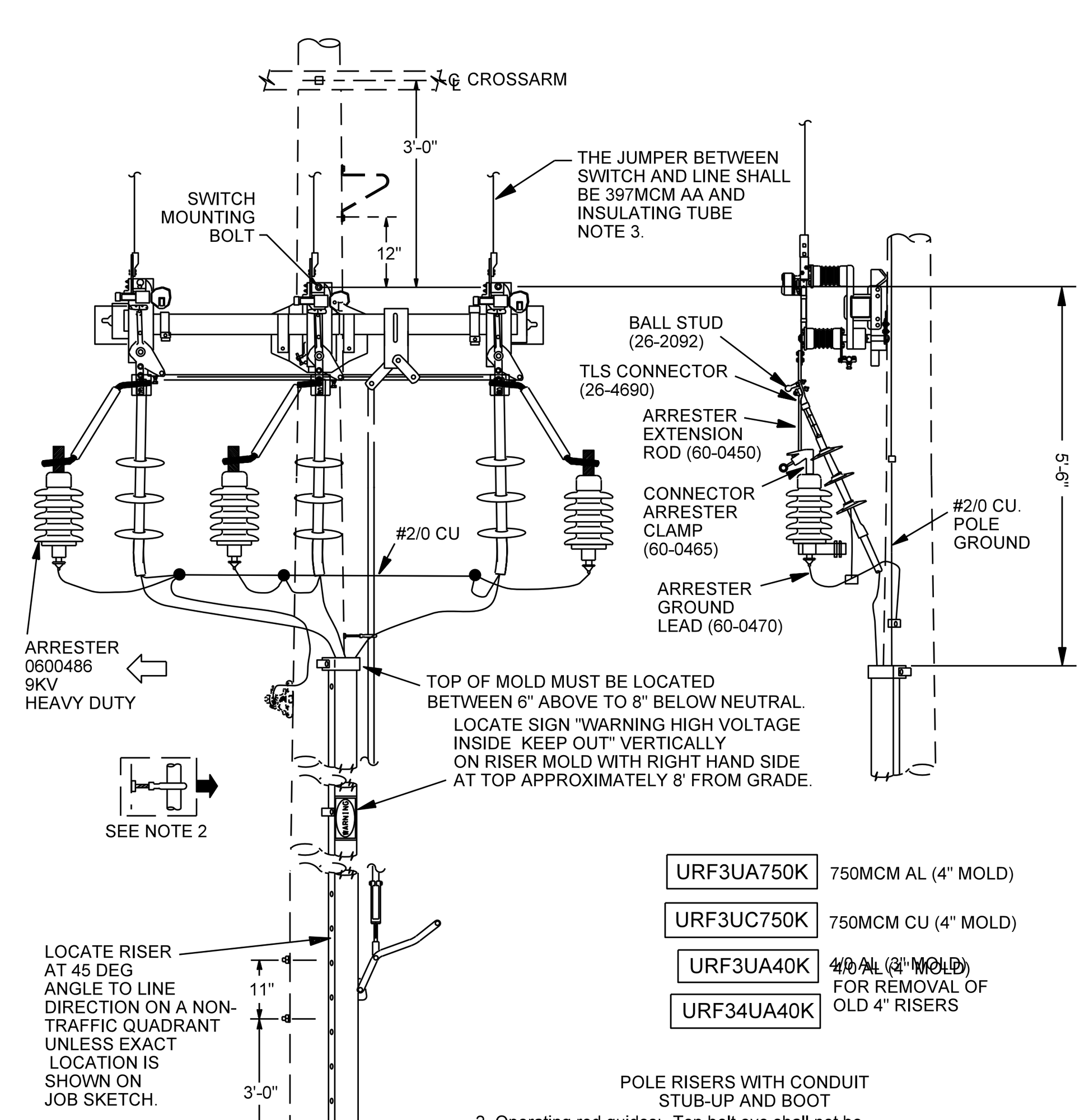
1. FOR NO TRAFFIC NON-LOAD BEARING APPLICATIONS, THIS BOX MAY BE INSTALLED FLUSH MOUNTED WITHOUT A SUPPORTING CONCRETE COLLAR.
2. FOR POSSIBLE TRAFFIC LOAD BEARING APPLICATIONS, THIS BOX SHALL HAVE 12 INCHES OF COVER. WHEN INSTALLED IN ALLEYS OR WHERE SUBJECT TO FINAL GRADE CHANGES, THIS BOX SHALL HAVE 18 TO 24 INCHES OF COVER.
3. ELBOWS INTO PULLBOX SHALL BE GROUTED IN. (ELBOWS NOT INCLUDED IN THIS COMPATIBLE UNIT).
4. CARE SHALL BE TAKEN TO PROVIDE A SMOOTH, LEVEL, WELL COMPACTED BASE TO SET THE BOX ON. COMPACT AROUND SIDES OF BOX TO PREVENT SETTLING.
5. CUSTOMER SUPPLIED PULL BOX MUST MEET SPECIFICATIONS LISTED IN STOCK DESCRIPTION # 63-7151.
6. CONDUITS MUST EXTEND A MINIMUM OF 4 INCHES INSIDE OF BOX.
7. DIMENSIONS AT BOTTOM OF EXCAVATION SHALL BE A MINIMUM OF 6 FEET BY 8 FEET.
8. ABOVE GROUND PULL BOXES ARE PREFERRED. USE UVPB1 OR UVPBG AS A LAST RESORT ONLY.

Underground Distribution Construction Standards — SRP — PROPRIETARY MATERIAL
REV. REFORMAT
VAULTS, MANHOLES AND BOXES
5'x 3'x 3' PULL BOX
BELOW GRADE (LOAD BEARING)
7-6-1 — ISSUE DATE: 01/15/87 — REV. DATE: 05/10/11 — APPROVAL: B.PRIEST — 8513E101.DGN

REQUIRED CONDUIT CONFIGURATION TO FIT RISER BOOTS
(THE QUADRANT CONFIGURATION FOR THE POLE RISER WILL BE SPECIFIED BY THE DESIGNER)

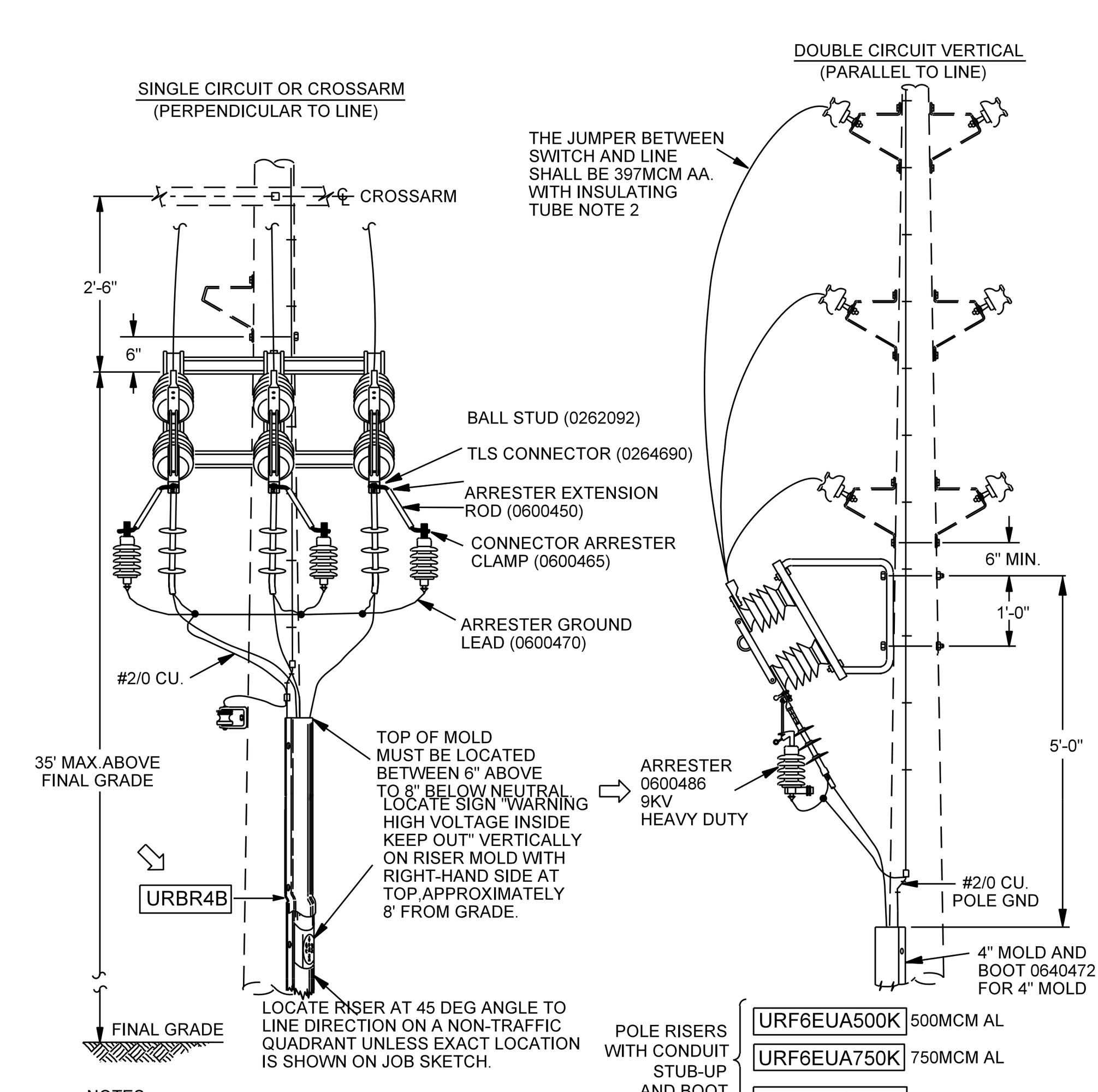


Electric Service Specifications — SRP — PROPRIETARY MATERIAL
TRENCHING AND CONDUIT
POLE RISER ELBOW AND LOCATION
6-3 — ISSUE DATE: 09/01/09 — REV. DATE: 10/05/10 — APPROVAL: M.MILLIES — 8509E310.DGN



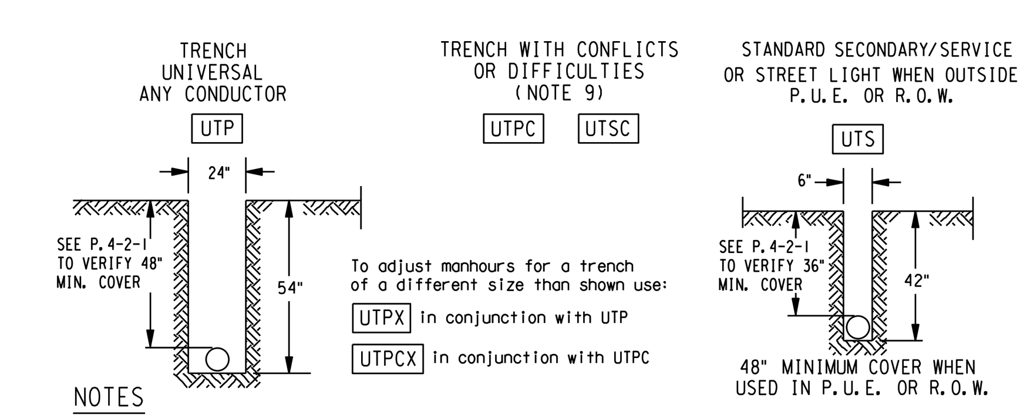
NOTES:
1. For 750MCM cable, see termination details on page 5-3-1.
2. Operating rod guides: -Top bolt eye shall not be greater than 5ft from switch crank. -Bottom bolt eye shall not be lower than 5ft from grade. -Intermediate bolt eyes shall not be spaced greater than 5ft.
3. If running line is 266A, 600V 350A jumper may be used.

Underground Distribution Construction Standards — SRP — PROPRIETARY MATERIAL
REV. UPDATED PAGE NUMBER, ADDED ARRESTER STOCK CODE.
RISERS
FEEDER RISER WITH GANG-OPERATED SWITCH
5-36-1 — ISSUE DATE: 01/31/92 — REV. DATE: 09/28/12 — APPROVAL: B.PRIEST — 8513E149.DGN



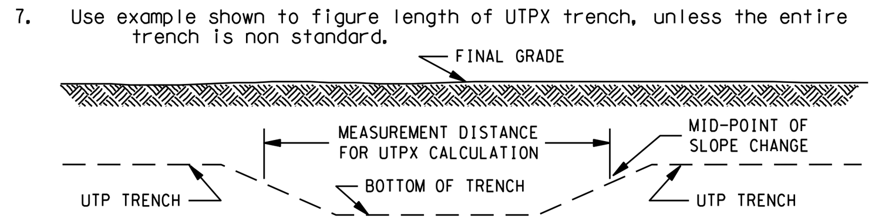
NOTES:
1. For 750MCM cable, see termination details on page 5-3-1.
2. If running line is 266A, 600V 350A jumper may be used.
3. To convert existing to G.O.S., remove one DB6VE and construct one DGR6. See DGR6 clearance requirements.

Underground Distribution Construction Standards — SRP — PROPRIETARY MATERIAL
REV. UPDATED PAGE NUMBER, ADDED ARRESTER STOCK CODE.
RISERS
FEEDER RISER
POLE MOUNTED DISCONNECTS
5-32-1 — ISSUE DATE: 06/09/87 — REV. DATE: 09/28/12 — APPROVAL: B.PRIEST — 8513E189.DGN



NOTES

1. Trench depths and conduit cover are to be measured from final grade stakes. All trench depths or conduit cover requirements specified on a job drawing shall be followed.
2. These trench codes provide man-hours for excavation only and do not provide for trench backfill.
3. The total trench footage length will be shown in the grid as standard trench, either UTP for primary or UTS for secondary, street light, or service. When trench is provided by customer, this is the only coding required on the job grid.
4. Non standard trench locations will be identified on the job order sketch with required width and depth dimensions given.
5. When trenching is provided by SRP, non standard trenches shall have 2 compatible unit codes in the grid, UTP plus the UTPX, to adjust the time for digging.
6. When specified depth cannot be obtained because of solid rock, a minimum earth cover of 24" is acceptable, provided a minimum 2" encasement of concrete surrounds the conduit.
7. Use example shown to figure length of UTPX trench, unless the entire trench is non standard.



b. UTPX quantity = the factor from the UT-X Chart multiplied by the trench footage length which is non-standard, as calculated in item 4. If multiple calculations for non-standard trench are made, add all totals together, only one entry is needed for UTPX quantity in the grid.

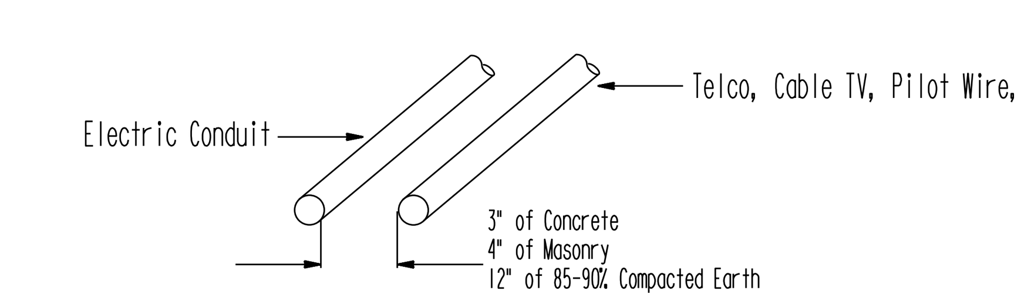
8. If secondary/service or street light must be placed in P.U.E. or road R.O.W., use UTP trench dimensions and enter UTS as the compatible unit.
9. Provides 1.5 times regular man-hours.
10. Trench bottom to be smooth and free of sharp rocks. Where excavation is in rock, bottom of trench to have protective layer of clean, level, tamped backfill or sand.

(CONTINUED ON NEXT PAGE)

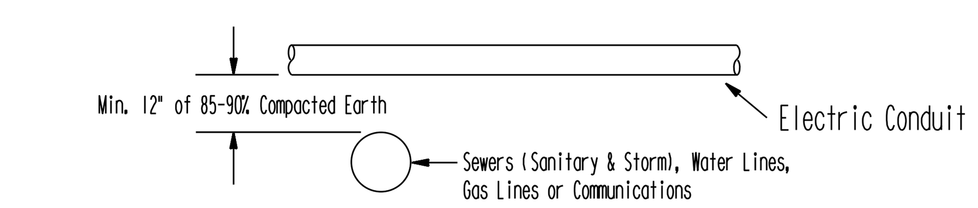
Underground Distribution Construction Standards — SRP — PROPRIETARY MATERIAL
REV. CORRECT PAGE REFERENCE — Page 1 of 2
TRENCHING
EXCAVATION CODES
6-11-1 — ISSUE DATE: 01/15/87 — REV. DATE: 07/16/10 — APPROVAL: B.PRIEST — 8513E135.DGN

NOTES

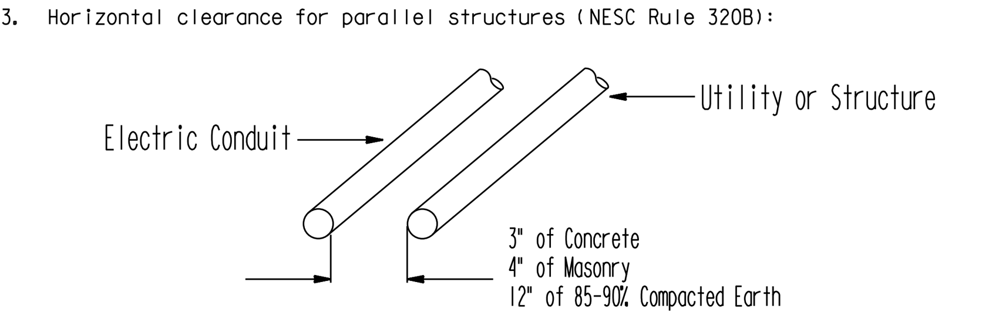
1. Minimum vertical or horizontal separations between electric conduit systems and communications conduit systems (NESC Rule 320B2):



2. Minimum clearance between an electric conduit system and other existing underground structures or utilities (note 4):



3. Horizontal clearance for parallel structures (NESC Rule 320B):



4. An alternative to 12" of 85-90% compacted earth is a rigid support for the upper structure to prevent it from transferring any direct load to lower structure.
5. Conduit should be installed as far as practical from a water main to protect it from being undermined if the main breaks.
6. Municipals and other utilities may have additional requirements.

Electric Service Specifications — SRP — PROPRIETARY MATERIAL
REV. REFORMAT
CLEARANCES
UNDERGROUND CONDUIT
5-14 — ISSUE DATE: 04/15/86 — REV. DATE: 11/09/10 — APPROVAL: M.MILLIES — 8509E149.DGN

CITY OF PHOENIX
Catherine Rogers
Mar 06, 2014
13080193
UTILITY PERMIT #

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PHONE: (602)236-0436

JOB NAME ARS3 BROADWAY & S 7TH AVE
FIS JO KJ2-742 — MAP 1/4 SE S 19 T 1N R 3E
40/ACRE AC-19-16 — COORDS 12-15/16E : 2-1/16N
AMP WO T1860316 — AMP VERSION
COST CENTER 22680
ROUTING CODE DDY+7

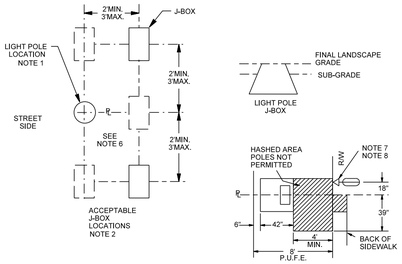
ARIZONA811 — Call at least two full working days before you begin excavation.

SHEET NUMBER 4 OF 5

EASY, PLEASANT, AND REWARDING

02/20/14

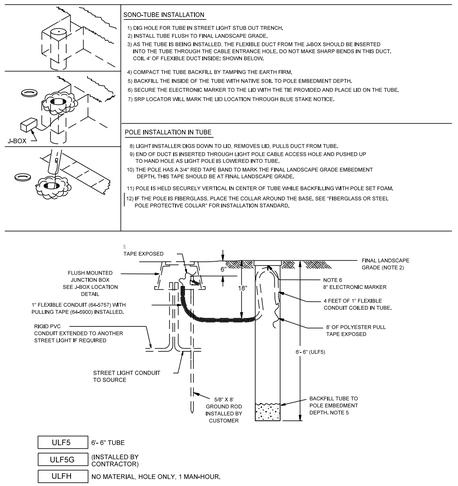
DWG SERIES No. SRP-1.04



NOTES:

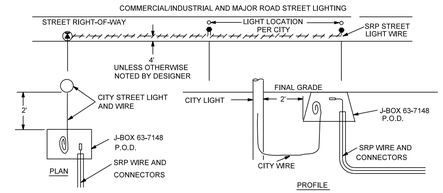
1. CUSTOMER TO STAKE LIGHT LOCATION PER APPROVED MUNICIPAL PLAN.
2. GRADE STAKE TO BE WITHIN 2 FEET OF J-BOX LOCATION. CUSTOMER TO STAKE J-BOX LOCATION. AVOID CONFLICT WITH SIDEWALK, LANDSCAPING, ETC.
3. GROUND ROD TO BE INSTALLED FOR EACH STREET LIGHT LOCATION PER STANDARDS ON PAGE 9-1-1.
4. SEE SONOTUBE INSTALLATION DETAIL, PAGE 9-1-1, IF APPLICABLE.
5. #6 BARE COPPER GROUND WIRE TO BE ATTACHED FROM GROUNDING LUG ON STREET LIGHT POLE TO GROUND ROD IN J-BOX.
6. J-BOX MAY BE POSITIONED BEHIND THE POLE, EXCEPT IN THE CITIES OF CHANDLER AND GILBERT.
7. IF POLE IS IN PROXIMITY OF METALLIC APPARATUS SEE CONSTRUCTION STANDARDS SECTION. LIGHT POLES IN PROXIMITY OF METALLIC APPARATUS, BONDING. ALSO SEE SECTION 3 "ELECTRIC SERVICE REQUIREMENTS NOTE 7"
8. OFFSET 18" FROM PROPERTY LINE WHEN TRANSFORMER IS BISECTING THE SAME PROPERTY LINE.

Outdoor Lighting Standards	REV.	
PROPRIETARY MATERIAL	DESIGN STREETLIGHT POLE J-BOX LOCATION DETAILS	ISSUE DATE: 11/19/01 REV. DATE: 12/20/10 APPROVAL:W,LARAMIE
	3-10-1	8518E90.DGN



ULF5	6'- 6" TUBE
ULF5G	(INSTALLED BY CONTRACTOR)
ULFH	NO MATERIAL, HOLE ONLY, 1 MAN-HOUR.

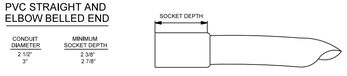
Outdoor Lighting Standards	REV: REVISED NOTE 12, CHANGED PAGE NUMBER.	
PROPRIETARY MATERIAL	CONSTRUCTION STANDARDS STEEL POLE INSTALLATION TUBE	ISSUE DATE: 01/14/00 REV. DATE: 01/21/13 APPROVAL:W.LARAMIE
	6-1-1	8518E91.DGN

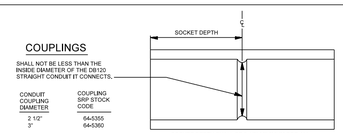


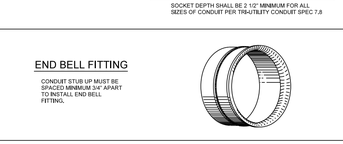
NOTES:

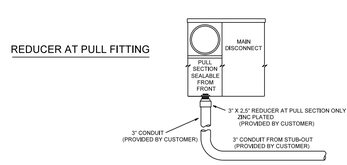
1. FOR CITY OWNED AND INSTALLED STREET LIGHTS TO BE SERVED BY SRP UNDERGROUND WIRE, THE POINT OF DELIVERY (P.O.D.) WILL BE AN SRP APPROVED JUNCTION BOX INSTALLED BY THE CITY. THE CITY IS TO PROVIDE THE LOCATION OF THE LIGHTS.
2. A 3 FT. PIGTAIL OF STREET LIGHT WIRE FROM THE CITY'S LIGHT POLE. VIA FLEXIBLE CONDUIT. IS TO BE INSERTED INTO THE JUNCTION BOX BY THE CITY. THE CITY MAY INCLUDE THEIR OWN IN-LINE FUSE IN THE JUNCTION BOX. SRP IS TO MAKE THE ELECTRICAL CONNECTION IN THE JUNCTION BOX (PHASE & NEUTRAL ONLY) (CHANDLER AND TEMPE HAVE AGREEMENTS TO CONNECT.)
3. THE CITY IS TO PROVIDE APPROPRIATE POLE GROUNDING IF METAL POLES ARE USED.
4. IF TWO OR MORE CITY LIGHTS ARE TO BE CONNECTED IN SERIES AND SERVED FROM ONE SRP CONNECTION, THE CITY MUST STATE THE NUMBER AND SIZE OF LIGHTS TO BE SERVED.

Outdoor Lighting Standards	REV:	
PROPRIETARY MATERIAL	DESIGN CITY OWNED STREET LIGHTS POINT OF DELIVERY DETAIL	ISSUE DATE: 10/25/88 REV. DATE: 12/16/10 APPROVAL:W,LARAMIE
	3-7-1	8513E81.DGN

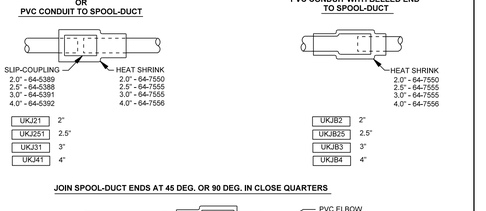






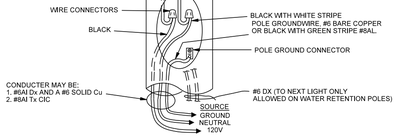


Electric Service Specifications	REV, EXTENSIVE REVISION	
PROPRIETARY MATERIAL	TRENCHING AND CONDUIT SIZES & SPECIFICATIONS BELLED ENDS AND FITTINGS	ISSUE DATE: 03/13/01 REV. DATE: 09/09/10 APPROVAL:M,.MELLIES
	6-2	8509E127.DGN



1. GLUE COUPLING ONTO PVC CONDUIT AND BEVEL INSIDE ENDS OF SPOOL-DUCT 30 DEG.- 60 DEG .
2. PLACE HEAT SHRINK SLEEVES OVER ENDS OF DUCT AND INSERT SPOOL-DUCT INTO COUPLING (OR BELL END).
3. SHRINK HEAT SHRINK TUBE OVER COUPLING AND ONTO SPOOL-DUCT TO HOLD THEM TOGETHER.
4. GROUT FINAL ASSEMBLY PER CONDUIT ELBOW REINFORCEMENT DETAILS ON PG.4-6-1.
5. JOINING SPOOL-DUCT WITH A PVC ELBOW IS TO BE USED IN CLOSE QUARTERS WHERE SPOOL-DUCT CAN NOT BE INSTALLED IN ONE CONTINUOUS PIECE.
6. ADD A "G" TO THE END OF ANY ABOVE COMPATIBLE UNIT FOR MATERIAL PROVIDED BY SRP AND INSTALLED BY CUSTOMER.

Underground Distribution Construction Standards	REV: ADDED CUs FOR 22.5 DEG. JOINTS	
PROPRIETARY MATERIAL	CONDUIT SHORT RADIUS CORNER AND SPOOL-DUCT OR PVC TO SPOOL-DUCT JOINT	ISSUE DATE: 02/14/90 REV. DATE: 08/17/10 APPROVAL:B,.PRIEST
	4-9-1	8513E12.DGN



Make connections in the pole with wire nuts. Orient the wire nut openings downward to prevent water from entering. Place a small amount of inhibitor grease in each wire nut before making the connection.

SOURCE

1) The preferred source is a flush mounted junction box next to the pole.
2) Private lights may be served from an above ground J-box within 10 feet of the pole (ULF6) or a pad mounted single phase transformer within 10 feet of the pole (ULF7).
3) A flush mounted J-box above high water level may be used to serve pedestal mounted poles in the water retention area via 2.5" rigid PVC. In water retention areas all connections shall be above the high water level.
4) In water retention areas poles may be served from another pole with connections made in the hand-hole.

CONNECTIONS AT SOURCE

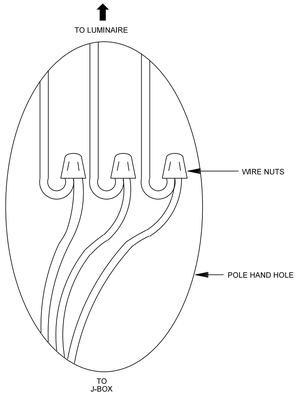
In flush mount or above ground J-box*
#6 Al Dx w/bare #6 solid copper in flex duct between pole and flush J-box or #8 Al Tx CIC (63-0412) between pole and above ground J-box.
Ground - From the steel pole ground connector in the hand-hole run the ground wire to the J-box ground rod. Bare #6 solid copper may be connected directly to the rod. Use a pig-tail of bare #6 solid copper and a two-place mole bar (63-0095) to connect aluminum conductor to the rod.

120V Hot Leg - The black wire from the hand-hole is connected to the black wire from the transformer's X1 or X3 terminal. Verify voltage.
Neutral - The black with white stripe wire from the hand-hole is connected to the black with white stripe wire from the transformer X2 terminal (neutral).
* For connection to 1/0 or 4/0 Tx street light secondary, successive lights are to be connected to alternate phase legs.

Series or radial poles in water retention areas
#6 Al Dx in 2.5" rigid PVC
Ground - Each pole will have a bare #6 solid copper from it's own ground rod or plate. Connect the #6 solid copper to the steel pole ground connector in the hand-hole.
120V Hot Leg - The black wire from a source pole is connected to the luminaire black wire and the black wire to the next pole fed. If there is one. Verify voltage.
Neutral - The black with white stripe wire from a source pole is connected to the luminaire white wire and the black with white stripe wire to the next pole fed, if there is one.

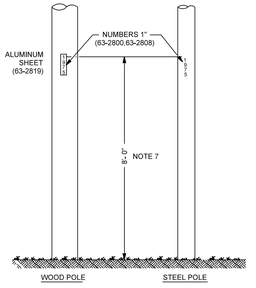
In pad mounted single phase transformer
#8 Al Tx CIC (63-0412) between the pole and the transformer.
Ground - The black with green stripe wire is connected to the X2 terminal which is grounded to the transformer tank.
120V Hot Leg - The black (hot leg) is connected to the transformer X1 or X3 terminal.
Neutral - The black wire with white stripe wire is connected to the X2 terminal.

Outdoor Lighting Standards	REV, REFORMAT	
PROPRIETARY MATERIAL	CONSTRUCTION STANDARDS CONNECTIONS AT STEEL POLE HANDHOLE	ISSUE DATE: 12/09/99 REV. DATE: 01/09/09 APPROVAL:W,LARAMIE
	9-8-1	8518E8.DGN



WIRE NUT OPENINGS POINT DOWN

Outdoor Lighting Standards	REV.	
PROPRIETARY MATERIAL	CONSTRUCTION STANDARDS CONNECTIONS WIRE NUT ORIENTATION IN HAND HOLE	ISSUE DATE: 12/12/04 REV. DATE: 12/21/10 APPROVAL:W,LARAMIE
	9-9-1	8518E284.DGN



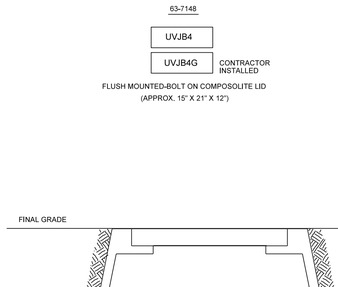
NOTES:

1. INSTALLING CREW IS TO NUMBER STREET LIGHT OR DUSK TO DAWN POLES AT TIME OF INSTALLATION. STREET LIGHT OR DUSK TO DAWN NUMBER WILL BE INDICATED ON THE WORK ORDER SKETCH.
2. STREET LIGHT NUMBER IS TO BE PLACED ON SIDE OF POLE FACING STREET. DUSK TO DAWN NUMBER IS TO BE PLACED IN THE MOST VISIBLE LOCATION.
3. ON DUSK TO DAWN OR PRIVATE POLES IN THE CITY OF PHOENIX PLACE THE SRP STICKER 3 INCHES ABOVE THE HANDHOLE.
4. SURFACES TO WHICH NUMBERS ARE APPLIED MUST BE CLEAN AND FREE OF DIRT. NUMBERS FOR WOOD POLES ARE TO BE APPLIED TO PLASTIC I.D. PLATE WHICH IS THEN TO BE NAILED TO POLE. NUMBERS FOR STEEL POLES ARE TO BE APPLIED DIRECTLY TO STEEL POLE.
5. SRP WILL INSTALL STREET LIGHT NUMBERS ON CUSTOMER OWNED LIGHTING SYSTEMS. NUMBERS WILL BE ATTACHED TO CUSTOMER OWNED STEEL POLES AND SRP WOOD POLES WHICH HAVE JOINT USE ATTACHMENT OF CITY LIGHTS. THE NUMBER TO BE INSTALLED IS SHOWN ON THE MEC ORDER OR JOB ORDER AND WILL HAVE THE FOLLOWING PREFIX:

CITY OF PHOENIX	=	PH-
CITY OF PEORIA	=	PE-
CITY OF GLENDALE	=	GL-
CITY OF CHANDLER	=	CH-
CITY OF GILBERT	=	GI-
CITY OF TEMPE	=	TE-

6. SRP OWNED STREETLIGHT POLE NUMBERS HAVE NO PREFIX LETTER. SRP DUSK TO DAWN OR PRIVATE LIGHT POLE NUMBERS HAVE PREFIX LETTER "A".
7. PLACE NUMBER AT 8' ON DEDICATED "STREETLIGHT" POLES (AS SHOWN) AND AT 12' ON SHARED POLES.

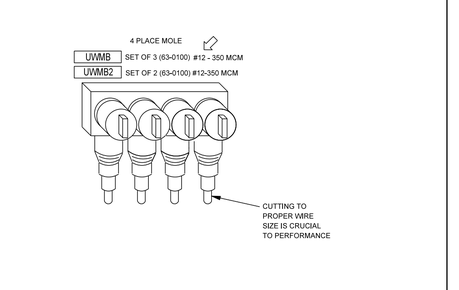
Outdoor Lighting Standards	REV, REFORMAT	
PROPRIETARY MATERIAL	CONSTRUCTION STANDARDS LIGHT POLE NUMBERING	ISSUE DATE: 11/11/87 REV. DATE: 01/09/09 APPROVAL:W,LARAMIE
	9-12-1	8518E72.DGN



NOTE:

TAKE CARE TO PROVIDE A SMOOTH, LEVEL AND WELL-COMPACTED BASE FOR PLACING THE BOX. COMPACT AROUND THE SIDES OF THE BOX TO PREVENT SETTLING.

Outdoor Lighting Standards	REV, REFORMAT	
PROPRIETARY MATERIAL	HARDWARE VAULTS,MANHOLES AND BOXES JUNCTION BOX INSTALLATION	ISSUE DATE: 01/21/00 REV. DATE: 03/23/09 APPROVAL:W,LARAMIE
	8-10-1	8518E95.DGN



Outdoor Lighting Standards	REV, REFORMAT	
PROPRIETARY MATERIAL	HARDWARE CABLE AND ACCESSORIES 0-600V TAP MOLE CONNECTORS	ISSUE DATE: 01/21/00 REV. DATE: 04/04/11 APPROVAL:W,LARAMIE
	8-11-1	8518E126.DGN

CITY OF PHOENIX
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PHONE: (602)236-0436

JOB NAME ARS3 BROADWAY & S 7TH AVE
FIS JO KJ2-742 MAP I/4 SE S 19 T 1N R 3E
40/ACRE AC-19-16 COORDS 12-15/16E : 2-1/16N
AMP WO T1860316 AMP VERSION
COST CENTER 22680
ROUTING CODE DDY+7

Call at least two full working days before you begin excavation. ARIZONA811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602)263-1100

SHEET NUMBER 5 OF 5

EASY, PLEASANT, AND REWARDING

02/20/14

DWG SERIES No. SRPP-1.05

SCHEMATIC LEGEND

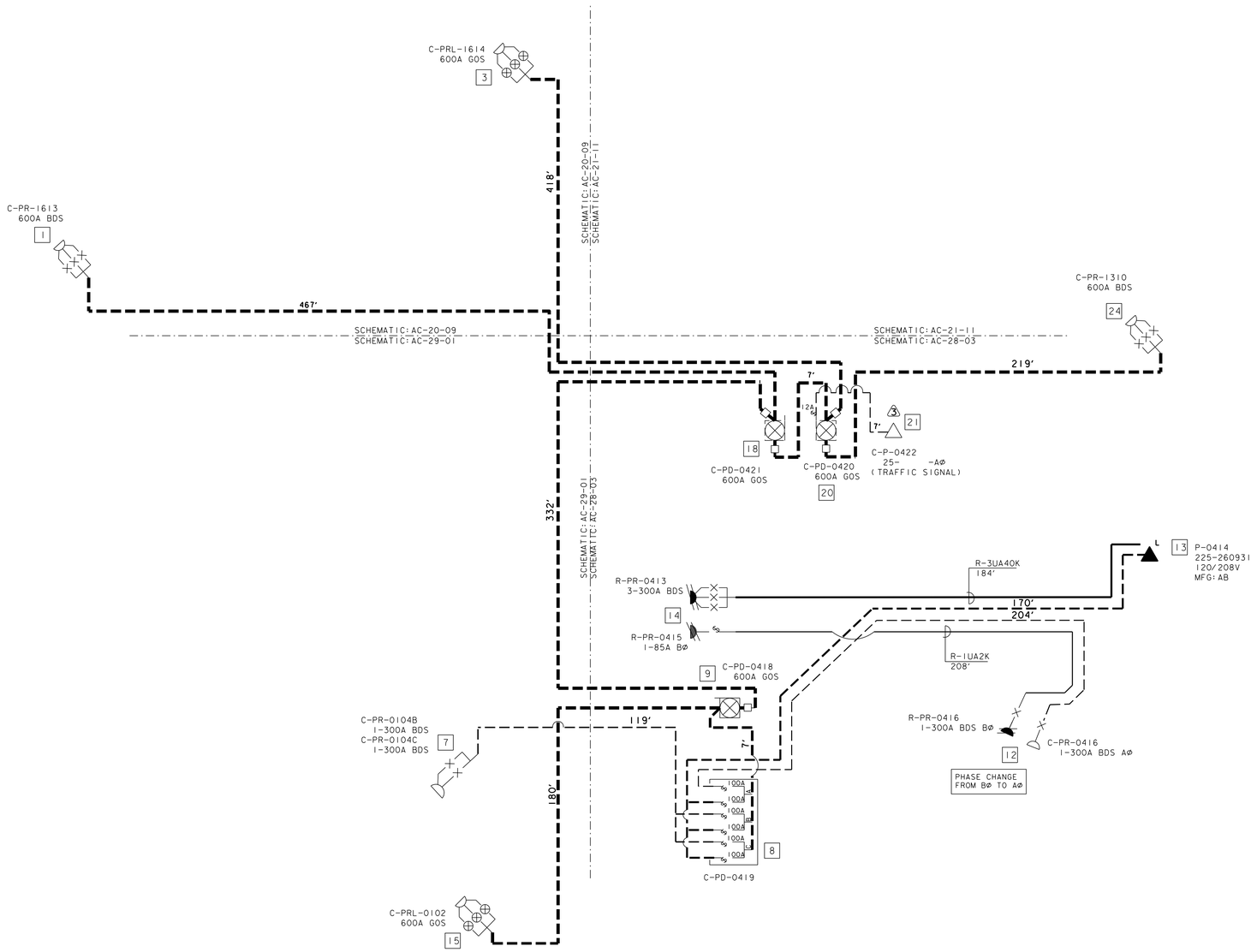
*UNLESS OTHERWISE INDICATED

- C-3UA750K
- C-3UA2K
- C-2UA2K
- C-1UA2K
- E-3UA40K
- E-1UA2

SCHEMATIC

AC-20-09 AC-28-03 AC-29-01 AC-21-11

N
NTS



CITY OF PHOENIX
GENERAL NOTES FOR UTILITY CONSTRUCTION

1. All utility construction shall conform to the latest Maricopa Association of Governments (MAG) Uniform Standard Specifications and Details for Public Works Construction, and the City of Phoenix Supplements to MAG
2. All work performed in the City of Phoenix rights-of-way shall be governed by the latest edition of the City of Phoenix Traffic Barricade Manual.
3. This set of plans was reviewed by the City of Phoenix Utility Coordination Section in compliance with City requirements.However, such review shall not prevent the City from requiring correction of errors found to be in violation of any law ordinance or City of Phoenix requirement for utility construction in the rights-of-way
4. The contractor shall have a copy of the approved/stamped construction plans and approved traffic control plan at the project site at all times.
5. All utilities crossing streets must be bored or punched unless permission to open cut has been given in writing by the City Engineer.
6. Before starting any work on a major or collector street, the utility company shall schedule a preconstruction meeting with the City of Phoenix Street Transportation Department 5/32 s Utility Inspection Section.
7. The City of Phoenix does not warrant any quantities shown on these plans.
8. Utility companies are to coordinate alley work with the Refuse Section.
9. The utility company shall contact the City of Phoenix Street Transportation Department 5/32 s Utility Inspection Section a minimum of 48 hours in advance of starting work, giving location and permit number in order to schedule inspections.
10. All work requiring asphalt replacement, concrete replacement, or resurfacing alleys in the City of Phoenix right-of-way will require a final inspection with the utility company representative at time of completion.
11. Maintain a minimum six (6) feet horizontal separation and one (1) foot vertical from all water and sewer mains, all measurements outside to outside.

PHOENIX PERMIT BOXES
CITY OF PHOENIX

0000000
/ /2013
UTILITY PERMIT NO.
CITY OF PHOENIX

DEVELOPER: SALT RIVER PROJECT

CONTACT: JASON HUGHES
PHONE NO.: 602-516-2385
DEVELOPER'S DSD NUMBER:
TOTAL TRENCH FOOTAGE: 1432'
TOTAL TRENCH FOOTAGE WITHIN CITY RIGHT OF WAY: 0'

INFORMATION BOX

NOTE:
-CUSTOMER TO MAINTAIN MINIMUM OF 6' CLEARANCE FROM ELECTRICAL TRENCH TO WATER AND SEWER MAINS.

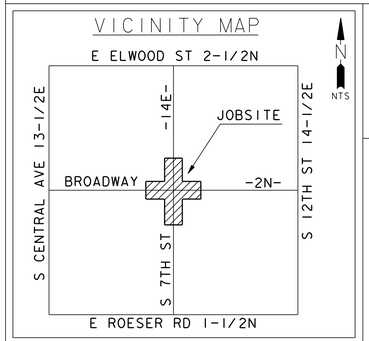
CONTACTS

PRIMARY:
JASON HUGHES
PHONE: (602)236-0886
MOBILE: (602)516-2385

SECONDARY:
DORIAN SPEED
PHONE: (602)236-4772
MOBILE: (602)930-6544

CONSTRUCTION INSPECTION:
PHONE: (602)236-0436

VICINITY MAP



NOTICE

THIS JOB ORDER INVOLVES OVERHEAD, UNDERGROUND AND/ OR SERVICES
OH# JJ2-218
UG#
SER#

FIELD INSPECTION STAMP

CITY OF PHOENIX
Catherine Rogers
Jun 09, 2014
13080195
UTILITY PERMIT #

REV	REVISED BY	DATE	REVISION DESCRIPTION
5	JAHUGHES	5/23/14	MOVE POINT 7 BACK ONTO PRIVATE PROPERTY
4	RXSCHROE	03/19/14	PRINT & ISSUED YELLOWS
3	RXSCHROE	02/14/14	SHIFTED EQUIPMENT @ PTS 18,19 & 22 EAST
2	RXSCHROE	01/30/14	ADJUSTED STATIONING ALONG 7TH ST
1	RXSCHROE	01/22/14	RISER LOCATION @ PT1; ADDED STATIONING-PERMIT
			MODIFIED DETAIL"B"; ADDED EQUIPMENT DIMENSIONS
			RE-NUMBERED ACTIVITY POINTS
0	RXSCHROE	03/04/13	JOB CREATED

JOB NAME ARS1-UG BROADWAY AND 7TH ST
FIS JO KJ2-741 MAP 1/4 SW S 21 T 1N R 3E
40/ACRE AC-21-13 COORDS 14-1/16E : 2-1/16N
AMP WO T1860207 AMP VERSION
COST CENTER 22680
ROUTING CODE DDY+7

Call at least two full working days before you begin excavation. ARIZONA811 Arizona One Call, Inc. Dial 811 or 1-800-STAKE-IT (782-5348) In Maricopa County 1(602)263-1100

SKP

SHEET NUMBER 1 OF 4

03/19/14

EASY, PLEASANT, AND REWARDING

DWG SERIES No. SRPP-1.06

CONDUIT ONE LINE

CONDUIT ONELINE LEGEND

(CONDUITS ARE AS FOLLOWS UNLESS NOTED OTHERWISE)

- C-UK33 (FEEDER)
- C-UK25 (PRIMARY)
- C-UK252
- C-UK251
- C-USK25
- E-UK33 (PRIMARY)
- E-UK251

Conduit Racking cross sections A, B, D, F, H, I, J, K, L & M = 24" x 54" SRP only trenches w/ 6-3" conduits

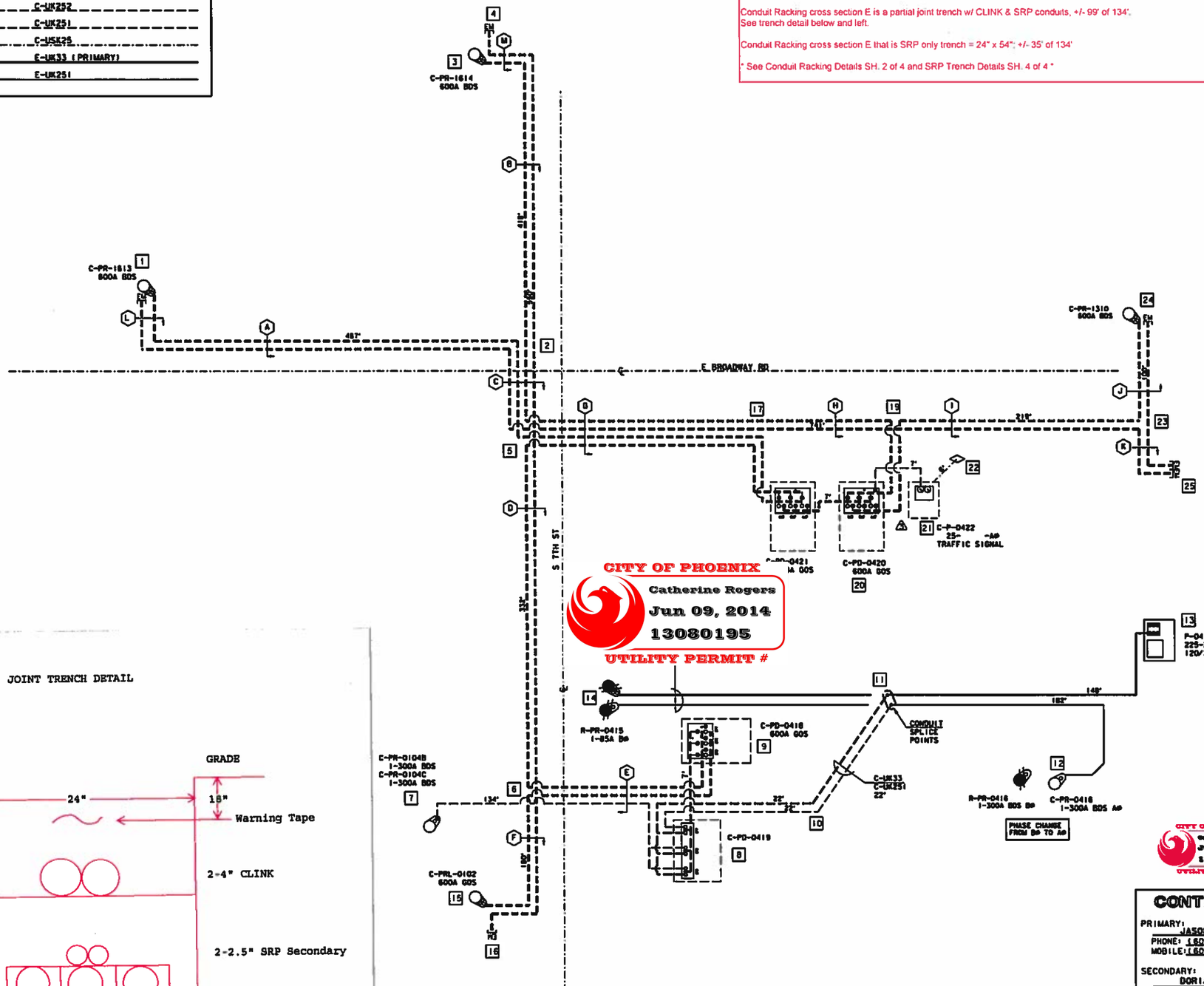
Conduit Racking cross sections C & G = 30" x 62" SRP only trenches w/ 12-3" conduits

Conduit Racking cross section E is a partial joint trench w/ CLINK & SRP conduits, +/- 99' of 134'. See trench detail below and left.

Conduit Racking cross section E that is SRP only trench = 24" x 54"; +/- 35' of 134'

* See Conduit Racking Details SH. 2 of 4 and SRP Trench Details SH. 4 of 4 *

N
NTS



JOINT TRENCH DETAIL

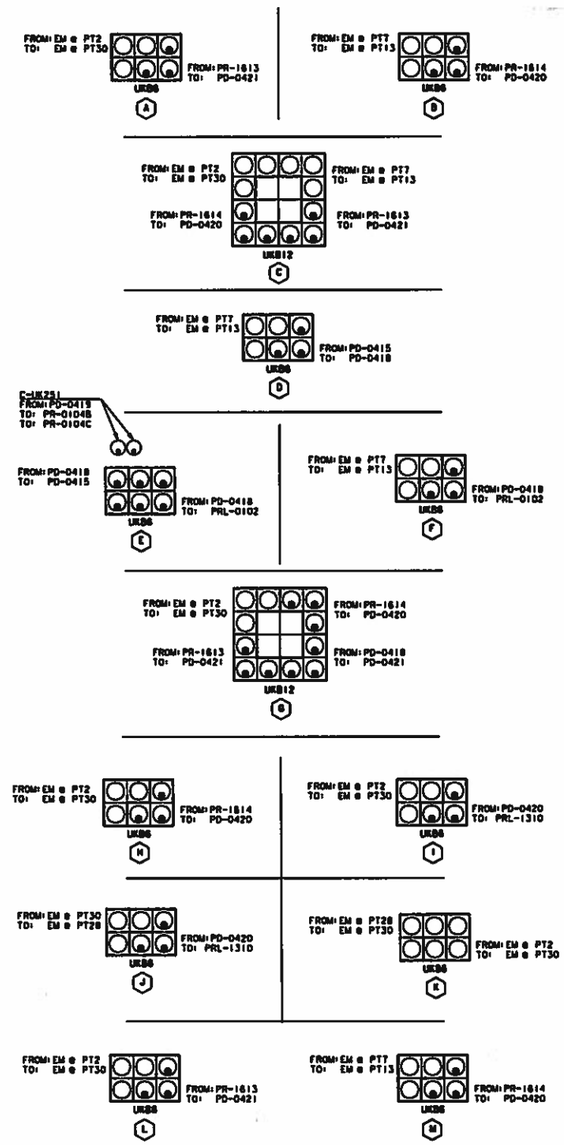
CONTACTS:

PRIMARY: JASON HUGHES
PHONE: (602)236-0886
MOBILE: (602)518-2385

SECONDARY: DORIAN SPEED
PHONE: (602)236-4772
MOBILE: (602)930-6544

CONSTRUCTION INSPECTION:
PHONE: (602)236-0438

CONDUIT RACKING DETAILS



FIELD INSPECTION STAMP

NOTICE
THIS JOB ORDER INVOLVES OVERHEAD, UNDERGROUND AND/ OR SERVICES
OH# JJ2-218
UG#
SER#

JOB NAME ARS1-UG BROADWAY & S 7TH ST
FIS JO KJ2-741 MAP 1/4 SW S 21 T 1N R 3E
40/ACRE AC-21-13 COORDS 14-1/16E : 2-1/16N
AMP WO T1860207 AMP VERSION
COST CENTER 22680
ROUTING CODE DDY+10
SHEET NUMBER 2 OF 4

EAST, PLEASANT, AND REMUDDING

03/19/14

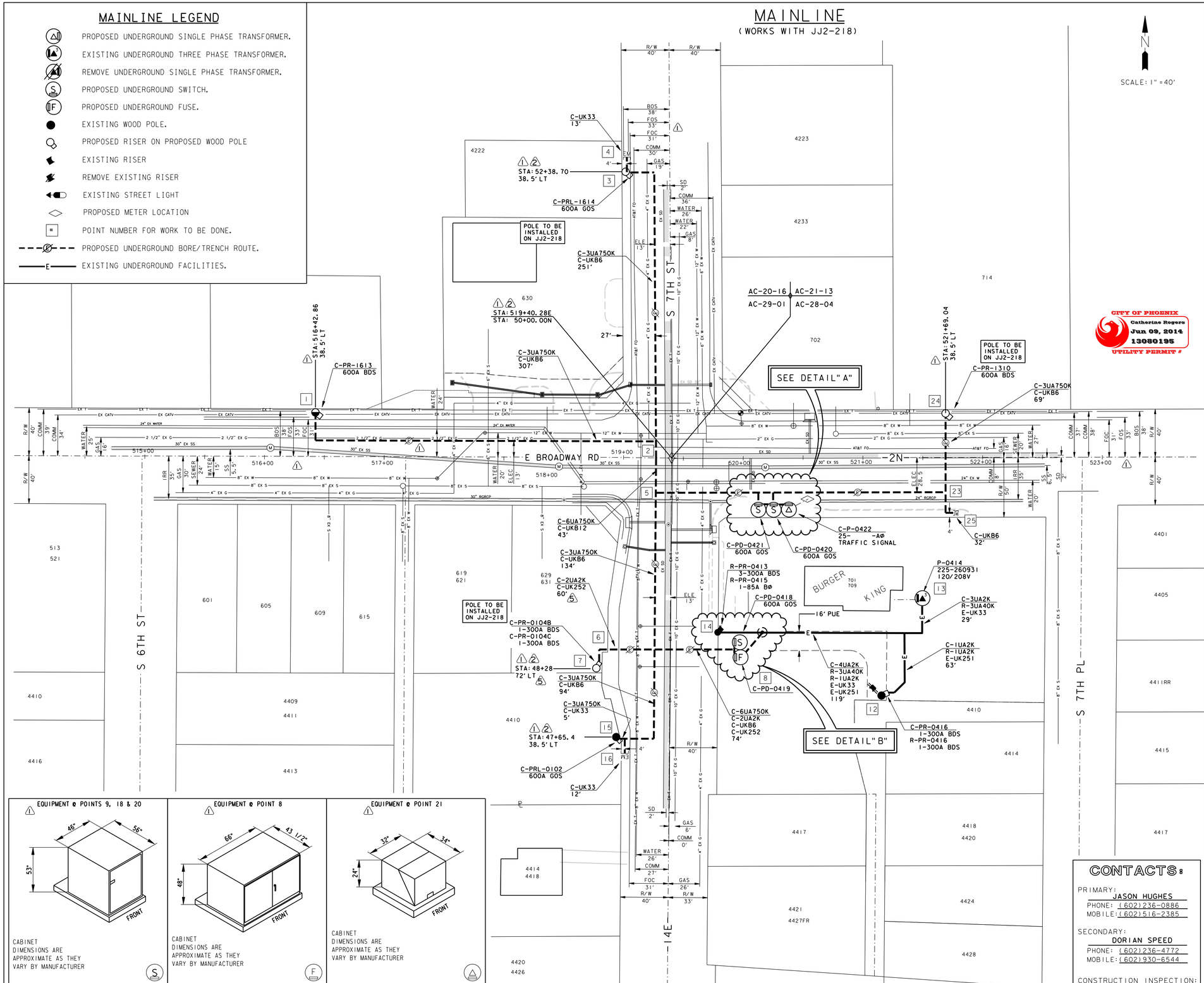
DWG SERIES No. SRPP-1.07

MAINLINE
(WORKS WITH JJ2-218)

MAINLINE LEGEND

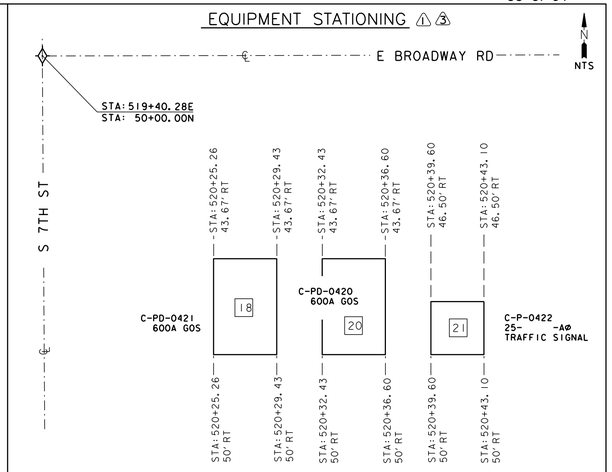
- PROPOSED UNDERGROUND SINGLE PHASE TRANSFORMER.
- EXISTING UNDERGROUND THREE PHASE TRANSFORMER.
- REMOVE UNDERGROUND SINGLE PHASE TRANSFORMER.
- PROPOSED UNDERGROUND SWITCH.
- PROPOSED UNDERGROUND FUSE.
- EXISTING WOOD POLE.
- PROPOSED RISER ON PROPOSED WOOD POLE
- EXISTING RISER
- REMOVE EXISTING RISER
- EXISTING STREET LIGHT
- PROPOSED METER LOCATION
- POINT NUMBER FOR WORK TO BE DONE.
- PROPOSED UNDERGROUND BORE/TRENCH ROUTE.
- EXISTING UNDERGROUND FACILITIES.

SCALE: 1" = 40'

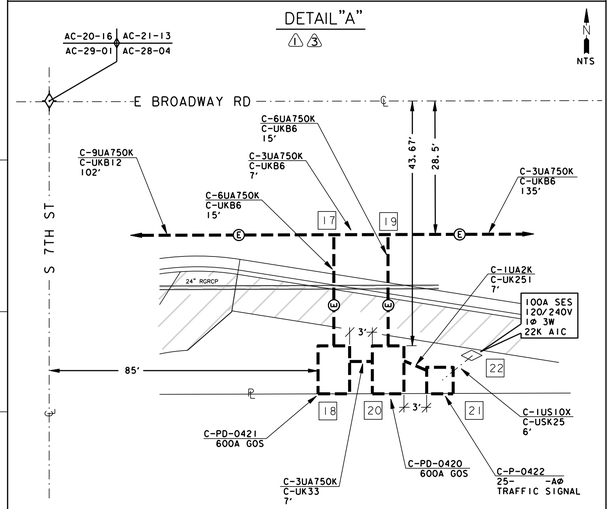


CITY OF PHOENIX
Catherine Rogers
Jun 09, 2014
13060195
UTILITY PERMIT #

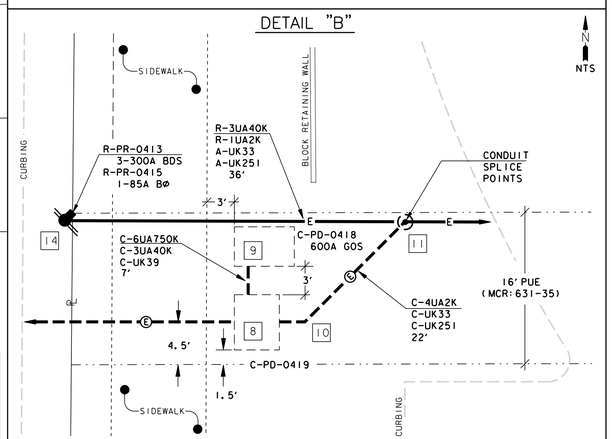
EQUIPMENT STATIONING ⚠1 ⚠3



DETAIL "A" ⚠1 ⚠3



DETAIL "B"



CONTACTS 8

PRIMARY: JASON HUGHES
PHONE: (602)236-0886
MOBILE: (602)516-2385

SECONDARY: DORIAN SPEED
PHONE: (602)236-4772
MOBILE: (602)930-6544

CONSTRUCTION INSPECTION:
PHONE: (602)236-0436

EQUIPMENT @ POINTS 9, 18 & 20 ⚠1

CABINET DIMENSIONS ARE APPROXIMATE AS THEY VARY BY MANUFACTURER

(S)

DEAD FRONT SWITCHING ENCLOSURE
PAD DIMENSIONS 4'2"W X 6'4"D

EQUIPMENT @ POINT 8 ⚠1

CABINET DIMENSIONS ARE APPROXIMATE AS THEY VARY BY MANUFACTURER

(F)

DEAD FRONT FUSING ENCLOSURE
PAD DIMENSIONS 70"W X 57"D

EQUIPMENT @ POINT 21 ⚠1

CABINET DIMENSIONS ARE APPROXIMATE AS THEY VARY BY MANUFACTURER

(△)

SINGLE PHASE TRANSFORMER
PAD DIMENSIONS 42"W X 42"D

JOB NAME	ARSI-UG BROADWAY & S 7TH ST
FIS JO	KJ2-741
MAP I/4	SW S 21 T 1N R 3E
40/ACRE	AC-21-13
COORDS	14-1/16E : 2-1/16N
AMP WO	T1860207
AMP VERSION	
COST CENTER	22680
ROUTING CODE	DDY+10

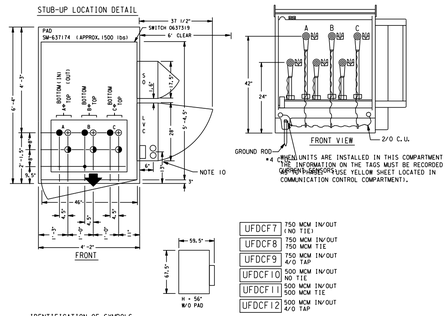
Call at least two full working days before you begin excavation. ARIZONA811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County 602-263-1100

SHEET NUMBER 3 OF 4

03/19/14

EASY, PLEASANT, AND REWARDING

DWG SERIES No. SRPP-1.08



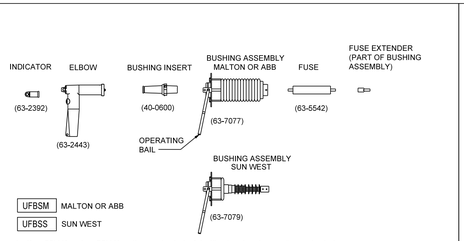
IDENTIFICATION OF SYMBOLS

SYMBOL	POSITION	CABLE TERMINATION
1	TOP	3" CONDUIT FOR EITHER: 500MCM FEEDER OR 750MCM FEEDER
2	TOP-TAP	3" CONDUIT FOR EITHER: 500MCM FEEDER, 750MCM FEEDER, OR 4/0 AL
3	BOTTOM	3" CONDUIT FOR EITHER: 500MCM FEEDER OR 750MCM FEEDER
4	GROUND ROD	

NOTES

1. ALL PAD ELEVATIONS SHALL BE ESTABLISHED BY SURVEY (BLUE TOP), AND TOP OF PAD SHALL BE 4" ABOVE FINAL GRADE IN IMMEDIATE AREA.
2. PAD MUST BE LEVEL BEFORE SETTING ENCLOSURE. AREA UNDER PAD MUST BE COMPACTED PER TRENCH SPECIFICATIONS.
3. IF OBSTACLES ARE ANTICIPATED IN FRONT OF THE SWITCH (E.G. DESIGNATED PARKING), THE SWITCH SHALL BE ROTATED 90 DEG. SO THE "SO" AND "LVC" COMPARTMENTS FACE ROAD RIGHT OF WAY. ADDITIONAL LABELING SHALL BE PLACED ON THE SIDE OF THE ENCLOSURE FACING ROAD RIGHT OF WAY.
4. INSTALL GROUND CONNECTORS INTO ENCLOSURE GROUNDING NUTS. TRAIN 2/0 CU ALONG FRONT BASE OF ENCLOSURE AND CONNECT TO GROUND CONNECTORS.
5. INSTALL GROUND RODS TO NOT INTERFERE WITH CONDUITS. CONNECT *4 CU LEAD FROM GROUND ROD TO GROUND CONNECTORS.
6. TRAIN CONCENTRIC NEUTRAL WIRES DOWN ALONG CABLES AND CONNECT TO 2/0 CU BUS USING COMPRESSION CONNECTORS. CONNECT GROUND LEADS FROM INSULATED BUSHING CAPS TO 2/0 CU USING SPLIT BOLTS.
7. CONDUIT SHALL BE STUBBED TO 1' BELOW THE LEVEL OF THE PAD ±5' ABOVE GRADE.)
8. LOAD BREAK BUSHINGS PROVIDE POINT FOR TESTING AND GROUNDING.
9. TWO COMMUNICATIONS CONDUIT ENTRANCES AT THIS APPROXIMATE LOCATION ON CABINET BOTTOM. SEE "SWITCHING AND FUSING, REMOTE SUPERVISORY CONTROL".

Underground Distribution Construction Standards	REV. DELETED PREVIOUS NOTES 7 AN 11 ADDRESSING LOCKS AND SPEEDCRETE,	
SKP PROPRIETARY MATERIAL	SWITCHING AND FUSING REMOTE CONTROL S.C. DEAD FRONT SWITCH ONE SIDE ACCESS	ISSUE DATE: 07/07/09 REV. DATE: 02/10/11 APPROVAL:B.PRIEST
	3-16-1	8513E508 .DGN



1. One 50kVA or two 25kVA units may be fed. A traffic signal, auto or rail, may be fed from the first transformer out only.
2. Fused bushing assembly for ABB/Malton switches, stock no. 63-7310. Available for use on ABB/Malton switches with manufacture date 2/98 and later.

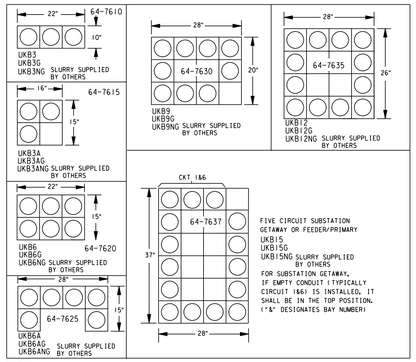
Installation Instructions

1. Lubricate bushing insert and install into bushing assembly well.
2. Install fuse onto end of bushing assembly and extender onto end of fuse.
3. Lubricate protective cap and install on bushing insert.
4. Remove parking stand from top "A"phase left side bushing, exposing access port.
5. Install complete bushing assembly into access port on switch using hot line tools on the operating bail. Rotate to latch.
6. Install elbow termination onto tap cable.
7. Install voltage indicator onto elbow.
8. Using hot line tools, remove insulating cap and install elbow onto bushing insert to energize tap cable.

Re-Fusing Instructions

1. Verify fuse has operated by visual examination of voltage indicator and by high voltage meter thru bushing after elbow has been removed and parked on an adjacent parking stand.
2. Using hot line tools, install protective cap onto exposed bushing insert.
3. Using hot line tools on operating bail, rotate bushing assembly to unlatch and remove by pulling out.
4. Remove operated fuse from bushing assembly and replace with new fuse. Remove fuse extender from operated fuse and install onto end of new fuse.
5. Using hot line tools on operating bail, install bushing assembly. Rotate to latch.
6. Remove protective cap.
7. Re-install elbow to energize cable.

Underground Distribution Construction Standards	Pg. 5 of 12	
SKP PROPRIETARY MATERIAL	SWITCHING AND FUSING FUSED BUSHING ASSEMBLY FOR SWITCH	ISSUE DATE: 12/14/01 REV. DATE: 04/29/10 APPROVAL:B.PRIEST
	3-13-5	8513E302.DGN



NOTES

1. A 2/0 COPPER NEUTRAL WILL BE REQUIRED WITH DUCT BANKS FROM A SUBSTATION OUT TO THE TERMINATION OR SPLICE POINTS AS SPECIFIED BY DESIGNER. SEE PAGE 4-13-2 FOR 2/0 COPPER INSTALLATION INSTRUCTION.
2. ALL UKB CONDUIT BANKS CONSIST OF 3" CONDUITS WITH A MINIMUM OF 2" CONTROLLED LOW STRENGTH MATERIAL (1-1/2 SACKS CEMENT/YD.) ENCASEMENT AND WILL HAVE SPACERS LOCATED AT 6 FT. INTERVALS.
3. ADD "F" TO CONDUIT BANK CODE WHEN ENCASING WITH FULL STRENGTH CONCRETE.
4. ADD SUFFIX "FE" TO GET ENCASING WITH FULL STRENGTH RED CONCRETE. (EL PASO GAS CROSSING)
5. CONSULT CONFIGURATIONS OTHER THAN THOSE SHOWN MUST BE SPECIFIED BY DESIGNER ON SKETCH. INNER SPACES OF (UKB9) (UKB12) & (UKB15) ARE NOT TO BE USED. AS EXCESS HEATING WILL RESULT.
6. THESE CONDUIT BANKS, WITH THE EXCEPTION OF SUBSTATION GET-AWAYS, MAY BE ROTATED 90 OR 180 DEGREES AS SPECIFIED BY DESIGNER.
7. WHEN TRENCHING UNDER EXISTING CONDUIT BANKS REFER TO UKBS2 FOR SUPPORTING SPECIFICATIONS (PG. 4-16-1).
8. THE ABOVE DIMENSIONS ARE NOMINAL OVERALL FOR DETERMINING TRENCH DIMENSIONS.
9. INDIVIDUAL CONDUITS ARE NOT TO BE ENCIRCLED WITH STEEL SUCH AS WIRE OR REBAR AS EXCESSIVE HEATING WILL RESULT. ENCIRCLEMENT AROUND ENTIRE DUCT BANK IS PERMISSIBLE.
10. REFER TO CLEARANCE SECTION FOR MINIMUM COVER OF A DUCT BANK INSTALLED IN ROAD RIGHT OF WAYS.
11. ON SUBSTATION GET-AWAYS DESIGNATE TOP ROW OF CONDUIT TO BE IN TOP WINDOW OF MANHOLE.

Underground Distribution Construction Standards	REV. REFORMAT	Page 1 of 2
SKP PROPRIETARY MATERIAL	CONDUIT FEEDER OR PRIMARY 3" CONDUIT BANK SPECIFICATION CODES	ISSUE DATE: 01-15-87 REV. DATE: 05/16/10 APPROVAL:B.PRIEST
	4-13-1	8513E13.DGN

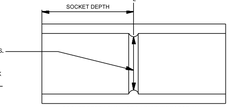
PVC STRAIGHT AND ELBOW BELLED END

CONDUIT DIAMETER	MINIMUM SOCKET DEPTH
2 1/2"	2 3/8"
3"	2 7/8"

COUPLINGS

SHALL NOT BE LESS THAN THE INSIDE DIAMETER OF THE DB120 STRAIGHT CONDUIT IT CONNECTS.

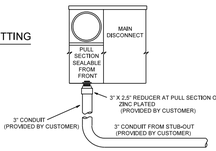
CONDUIT COUPLING DIAMETER	COUPLING SRP STOCK CODE
2 1/2"	64-5355
3"	64-5360



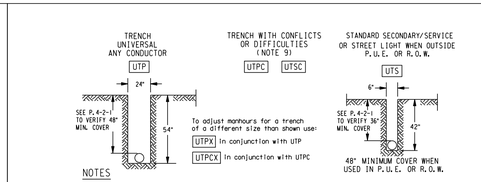
END BELL FITTING

CONDUIT STUB UP MUST BE SPACED MINIMUM 3/4" APART TO INSTALL END BELL FITTING.

REDUCER AT PULL FITTING

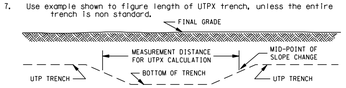


Electric Service Specifications	REV. EXTENSIVE REVISION	
SKP PROPRIETARY MATERIAL	TRENCHING AND CONDUIT SIZES & SPECIFICATIONS BELLED ENDS AND FITTINGS	ISSUE DATE: 09/13/01 REV. DATE: 09/09/10 APPROVAL:M.MILLIES
	6-2	8509E127.DGN



NOTES

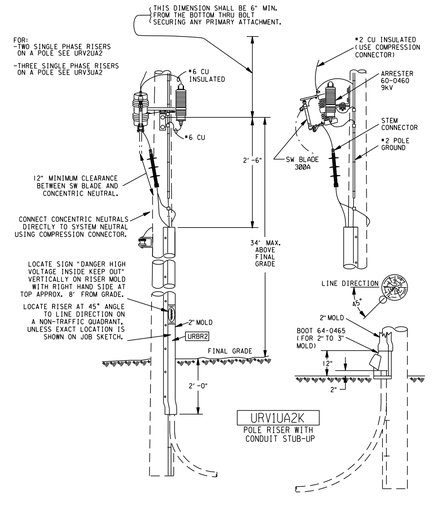
1. Trench depths and conduit cover are to be measured from final grade stakes. All trench depths or conduit cover requirements specified on a job drawing shall be followed.
2. These trench codes provide man-hours for excavation only and do not provide for trench backfill.
3. The total trench footage length will be shown in the grid as standard trench, either UTP for primary or UTS for secondary, street light, or service. When trench is provided by customer, this is the only coding required on the job grid.
4. Non standard trench locations will be identified on the job order sketch with required width and depth dimensions given.
5. When trenching is provided by SRP, non standard trenches shall have 2 compatible unit codes in the grid, UTP plus the UTPX, to adjust the time for digging.
6. When specified depth cannot be obtained because of solid rock, a minimum earth cover of 24" is acceptable, provided a minimum 2" encasement of concrete surrounds the conduit.
7. Use example shown to figure length of UTPX trench, unless the entire trench is non standard.



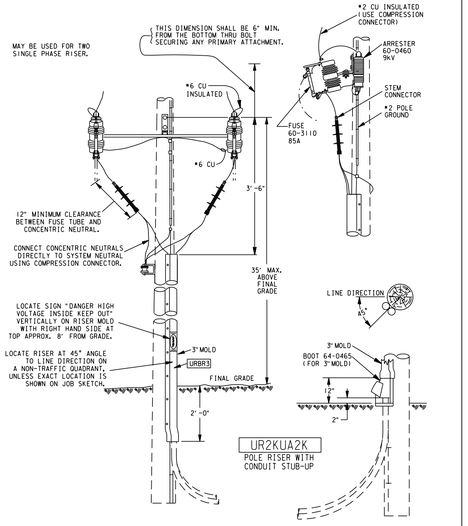
   a. UTPX quantity = the factor from the UT-X Chart multiplied by the trench footage length which is non-standard, as calculated in item 4. If multiple calculations for non-standard trench are made, add all totals together, only one entry is needed for UTPX quantity in the grid.
8. If secondary/service or street light must be placed in P.U.E. or road R.O.W., use UTP trench dimensions and enter UTS as the compatible unit.
9. Provides 1.5 times regular man-hours.
10. Trench bottom to be smooth and free of sharp rocks. Where excavation is in rock, bottom of trench to have protective layer of clean, level, tamped backfill or sand.

(CONTINUED ON NEXT PAGE)

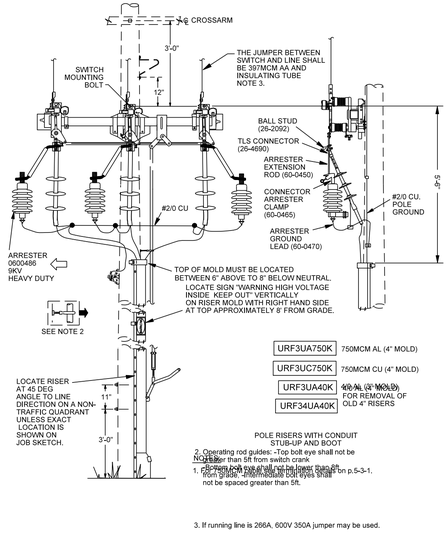
Underground Distribution Construction Standards	REV. CORRECT PAGE REFERENCE	Page 1 of 2
SKP PROPRIETARY MATERIAL	TRENCHING EXCAVATION CODES	ISSUE DATE: 01/15/87 REV. DATE: 07/16/10 APPROVAL: B.PRIEST
	6-11-1	8513E135.DGN



Overhead Distribution Construction Standards	REV. REFORMAT	
SKP PROPRIETARY MATERIAL	RISERS PRIMARY RISER - SINGLE CONDUCTOR #2 AL. FEEDING AN OVERHEAD LINE	ISSUE DATE: 01/15/87 REV. DATE: 04/19/10 APPROVAL: B.PRIEST
	5-19-1	8513E92.DGN

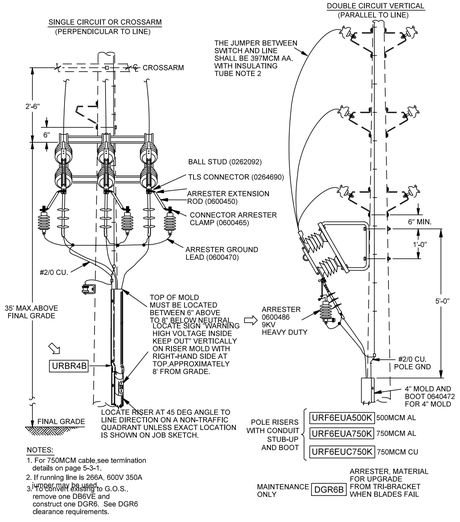


Underground Distribution Construction Standards	REV. REFORMAT	
SKP PROPRIETARY MATERIAL	RISERS PRIMARY RISER TWO CONDUCTORS #2 AL.	ISSUE DATE: 01/15/87 REV. DATE: 04/19/10 APPROVAL: B.PRIEST
	5-21-1	8513E130.DGN



3. If running line is 266A, 600V 350A jumper may be used.

Underground Distribution Construction Standards	REV. UPDATED PAGE NUMBER. ADDED ARRESTER STOCK CODE.	
SKP PROPRIETARY MATERIAL	RISERS FEEDER RISER WITH GANG-OPERATED SWITCH	ISSUE DATE: 01/31/92 REV. DATE: 09/28/12 APPROVAL:B.PRIEST
	5-36-1	8513E149.DGN



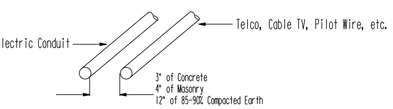
NOTES:

1. For 750MCM cable see termination details on page 5-3-1.
2. If running line is 266A, 600V 350A jumper may be used.
3. If Crossarm attached to G.O.S., remove one DB9VE and construct one DGR6. See DGR6 clearance requirements.

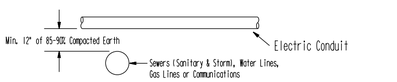
Underground Distribution Construction Standards	REV. UPDATED PAGE NUMBER. ADDED ARRESTER STOCK CODE.	
SKP PROPRIETARY MATERIAL	RISERS FEEDER RISER POLE MOUNTED DISCONNECTS	ISSUE DATE: 06/09/87 REV. DATE: 09/28/12 APPROVAL:B.PRIEST
	5-32-1	8513E189.DGN

NOTES

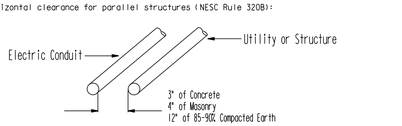
1. Minimum vertical or horizontal separations between electric conduit systems and communications conduit systems (NESC Rule 320B2):



2. Minimum clearance between an electric conduit system and other existing underground structures or utilities (note 4):



3. Horizontal clearance for parallel structures (NESC Rule 320B):



4. An alternative to 12" of 85-90% compacted earth is a rigid support for the upper structure to prevent it from transferring any direct load to lower structure.
5. Conduit should be installed as far as practical from a water main to protect it from being undermined if the main breaks.
6. Municipals and other utilities may have additional requirements.

Electric Service Specifications	REV. REFORMAT	
SKP PROPRIETARY MATERIAL	CLEARANCES UNDERGROUND CONDUIT	ISSUE DATE: 04/15/86 REV. DATE: 11/09/10 APPROVAL:M.MILLIES
	5-14	8509E145.DGN

CONTACTS

PRIMARY:
JASON HUGHES
PHONE: (602)236-0886
MOBILE: (602)516-2385

SECONDARY:
DORIAN SPEED
PHONE: (602)236-4772
MOBILE: (602)930-6544

CONSTRUCTION INSPECTION:
PHONE: (602)236-0436

CITY OF PHOENIX
Catherine Rogers
Jun 09, 2014
13080195
UTILITY PERMIT #

JOB NAME ARSI-UG BROADWAY & S 7TH ST
FIS JO KJ2-741 MAP I/4 SW S 21 T 1N R 3E
40/ACRE AC-21-13 COORDS 14-1/16E : 2-1/16N
AMP WO T1860207 AMP VERSION

Call at least two full working days before you begin excavation. ARIZONA811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: 1-602/263-1100

COST CENTER 22680
ROUTING CODE DDY+10

SHEET NUMBER 4 OF 4

EASY, PLEASANT, AND REWARDING

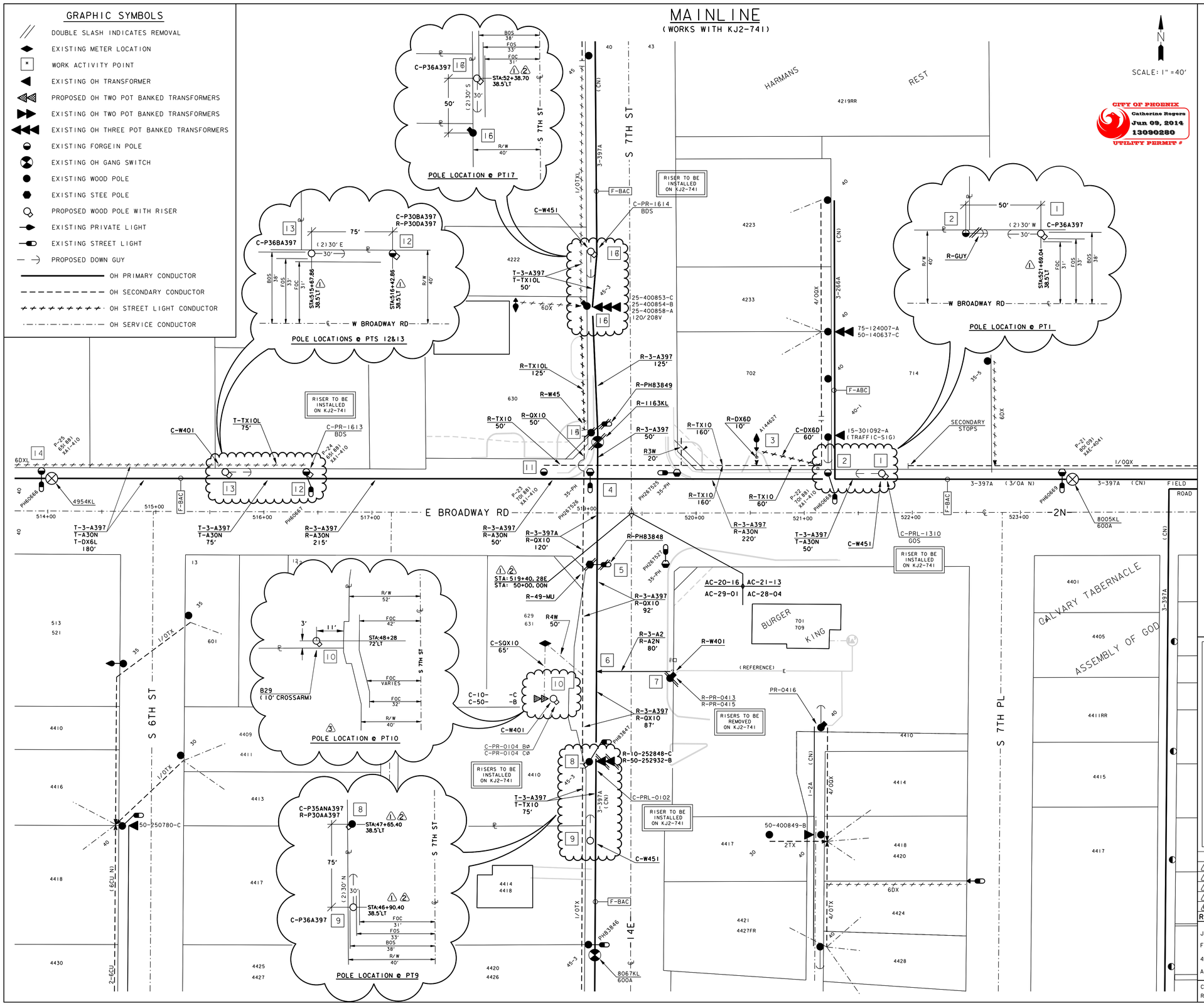
03/19/14

DWG SERIES No. SRPP-1.09

MAINLINE
(WORKS WITH KJ2-741)

GRAPHIC SYMBOLS

- DOUBLE SLASH INDICATES REMOVAL
- EXISTING METER LOCATION
- WORK ACTIVITY POINT
- EXISTING OH TRANSFORMER
- PROPOSED OH TWO POT BANKED TRANSFORMERS
- EXISTING OH TWO POT BANKED TRANSFORMERS
- EXISTING OH THREE POT BANKED TRANSFORMERS
- EXISTING FORGEIN POLE
- EXISTING OH GANG SWITCH
- EXISTING WOOD POLE
- EXISTING STEE POLE
- PROPOSED WOOD POLE WITH RISER
- EXISTING PRIVATE LIGHT
- EXISTING STREET LIGHT
- PROPOSED DOWN GUY
- OH PRIMARY CONDUCTOR
- OH SECONDARY CONDUCTOR
- OH STREET LIGHT CONDUCTOR
- OH SERVICE CONDUCTOR



CITY OF PHOENIX
Catherine Rogers
Jun 09, 2014
13090280
UTILITY PERMIT #

CITY OF PHOENIX
GENERAL NOTES FOR UTILITY CONSTRUCTION

1. All utility construction shall conform to the latest Maricopa Association of Governments (MAG) Uniform Standard Specifications and Details for Public Works Construction, and the City of Phoenix Supplements to MAG
2. All work performed in the City of Phoenix rights-of-way shall be governed by the latest edition of the City of Phoenix Traffic Barricade Manual.
3. This set of plans was reviewed by the City of Phoenix Utility Coordination Section in compliance with City requirements.However, such review shall not prevent the City from requiring correction of errors found to be in violation of any law ordinance or City of Phoenix requirement for utility construction in the rights-of-way
4. The contractor shall have a copy of the approved/stamped construction plans and approved traffic control plan at the project site at all times.
5. All utilities crossing streets must be bored or punched unless permission to open cut has been given in writing by the City Engineer.
6. Before starting any work on a major or collector street, the utility company shall schedule a preconstruction meeting with the City of Phoenix Street Transportation Department 5/32 s Utility Inspection Section.
7. The City of Phoenix does not warrant any quantities shown on these plans.
8. Utility companies are to coordinate alley work with the Refuse Section.
9. The utility company shall contact the City of Phoenix Street Transportation Department 5/32 s Utility Inspection Section a minimum of 48 hours in advance of starting work, giving location and permit number in order to schedule inspections.
10. All work requiring asphalt replacement, concrete replacement, or resurfacing alleys in the City of Phoenix right-of-way will require a final inspection with the utility company representative at time of completion.
11. Maintain a minimum six (6) feet horizontal separation and one (1) foot vertical from all water and sewer mains, all measurements outside to outside.

PHOENIX PERMIT BOXES
CITY OF PHOENIX

0000000 / /2013

UTILITY PERMIT NO.
CITY OF PHOENIX

DEVELOPER: SALT RIVER PROJECT

CONTACT: JASON HUGHES
PHONE NO.: 602-236-0886
DEVELOPER'S DSD NUMBER:
TOTAL TRENCH FOOTAGE: 0'
TOTAL TRENCH FOOTAGE WITHIN CITY RIGHT OF WAY: 0'

INFORMATION BOX

NOTE:
-CUSTOMER TO MAINTAIN MINIMUM OF 6' CLEARANCE FROM ELECTRICAL TRENCH TO WATER AND SEWER MAINS.

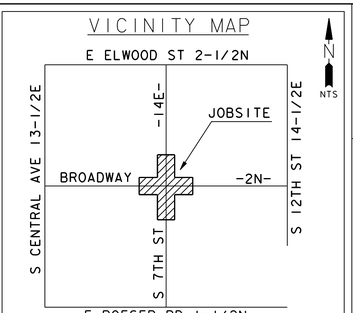
CONTACTS 8

PRIMARY: JASON HUGHES
PHONE: (602)236-0886
MOBILE: (602)516-2385

SECONDARY: DORIAN SPEED
PHONE: (602)236-8679
MOBILE: (602)930-6544

CONSTRUCTION INSPECTION:
PHONE: (602)236-0436

VICINITY MAP



NOTICE
THIS JOB ORDER INVOLVES OVERHEAD, UNDERGROUND AND/ OR SERVICES
OH# ____
UG# KJ2-741
SER# ____

FIELD INSPECTION STAMP

REV	REVISED BY	DATE	REVISION DESCRIPTION
4	RXSCHROE	05/15/14	CHANGED POLE LOCATION @PT7
3	RXSCHROE	03/20/14	PRINT & ISSUED WHITES
2	RXSCHROE	01/30/14	ADJUSTED STATIONING ALONG 7TH ST
1	RXSCHROE	01/22/14	ADDED STATIONING-PERMIT; CHNG FRAMING @PTS 12 & 13
0	RXSCHROE	02/15/13	JOB CREATED

JOB NAME ARS1-OH
FIS JO JJ2-218 MAP I/4 13 S 21 T 1N R 3E
40/ACRE AC-21-13 COORDS 14-1/16E : 2-1/16N
AMP WO T1860207 AMP VERSION

Call at least two full working days before you begin excavation. ARIZONA811 BLUE STAKE, INC. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County 1-602-263-1100

COST CENTER 22680
ROUTING CODE DDI.5 CSI, L, G, T +10

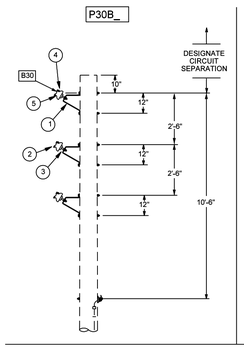
SHEET NUMBER 1 OF 2

EASY, PLEASANT, AND REWARDING

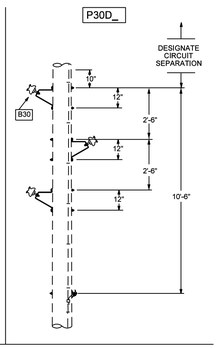
05/14/14

DWG SERIES No. SRPP-1.10

P30B_



P30D_

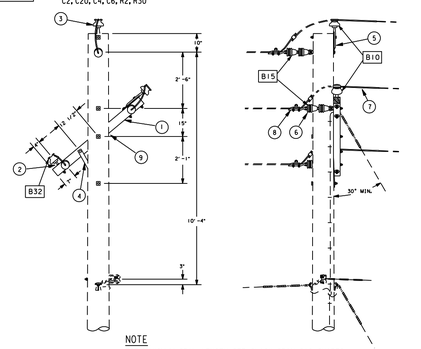


CONDUCTORS: A2, A266, A30, A397, AC312, C1, C2, C20, C4, C6, R2, R266, R30

ITEM	MATERIAL DESCRIPTION	QUANTITY	STOCK NO.
1	BRACKET, SIDE MOUNT, HOT GALV. LARGE	3	5028505
2	INSULATOR, PIN, 12KV, PORCELAIN GRAY	3	5034594
3	PIN, INSULATOR, 5/8 X 1.5 IN.SHORT	3	5028641
4	LINE GUARD, VARIOUS	0 or 3	BL__
5	SIDE TIE, VARIOUS	3	BPT2__

Overhead Distribution Construction Standards	REV: UPDATED STOCK CODES.	
SRP PROPRIETARY MATERIAL	PRIMARY CONSTRUCTION UNITS THREE PHASE, TANGENT, 0 DEG.- 6 DEG.	ISSUE DATE: 09/30/71 REV. DATE: 05/08/13 APPROVAL: B.PRIEST
	5-23-1	8512E151.DGN

P36B_ _ CONDUCTORS A2, A266, A30, A397, C2, C20, C4, C6, R2, R30



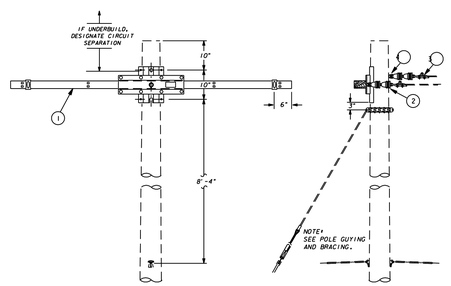
NOTE
FOR MAXIMUM SPAN LENGTH SEE SLACK SPAN SAG CHARTS.

ITEM	MATERIAL DESCRIPTION	QUANTITY	STOCK NO.
1	CROSSARM, DENSE OR CLOSE GRAIN	1	58-0205
2	PIN, INSULATOR, 5/8 X 5.75 IN, LONG	1	58-7500
3	INSULATOR, PIN, 12KV, PORCELAIN GRAY	3	59-3765
4	BRACE, CROSSARM, 1.25 X 0.25 X 20 IN.	1	58-3655
5	PIN, INSULATOR, 18 IN. LENGTH, HOT GALV.	2	58-7290
6	INSULATOR, SUSPENSION, 6-1/4 IN., CLEVIS	6	59-4330
7	DEADEND GRIP, VARIOUS	3	BDG..
8	DEADEND CLAMP, VARIOUS	3	BD..
9	PLATE, GAIN, 9" X 4-1/2"	1	58-7820

Overhead Distribution Construction Standards	REV. REMOVED POLE GROUND MOLDING	
SRP PROPRIETARY MATERIAL	PRIMARY CONSTRUCTION UNITS THREE PHASE DEADEND 180 DEG. SLACK SPAN STAGGERED CONFIGURATION, CROSSARM	ISSUE DATE: 05/22/75 REV. DATE: 05/31/11 APPROVAL: B.PRIEST
	5-36-1	8512E132.DGN

P35_ _ CONDUCTORS A2, A266, A30, A397, C2, C20, C4, C6, R2, R30

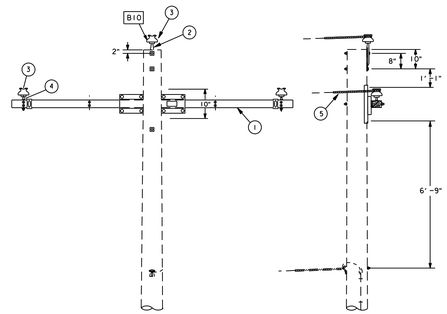
PREFERRED FOR RISER



ITEM	MATERIAL DESCRIPTION	QUANTITY	STOCK NO.
1	CROSSARM, DEADEND, 8 FT.	1	58-0290
2	INSULATOR, SUSPENSION, 6-1/4 IN. CLEVIS	6	59-4330
3	DEADEND CLAMP, VARIOUS	3	BD..
4	BOLT, EYE, 1-3/4" X 3" I.D.	1	58-5160

Overhead Distribution Construction Standards	REV. REFORMAT	
SRP PROPRIETARY MATERIAL	PRIMARY CONSTRUCTION UNITS THREE PHASE DEADEND CROSSARM	ISSUE DATE: 09/30/71 REV. DATE: 05/31/11 APPROVAL: B.PRIEST
	5-29-1	8512E126.DGN

P35AN CONDUCTORS A2, A266, A397

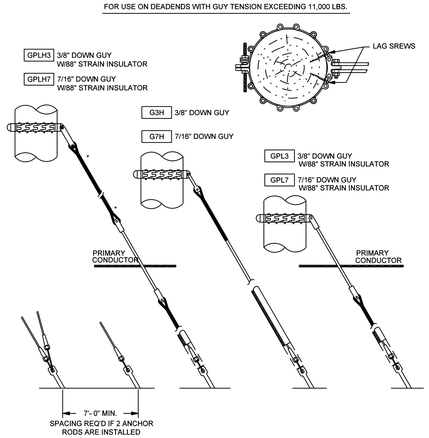


NOTE
FOR MAXIMUM SPAN LENGTH SEE SLACK SPAN SAG CHARTS.

ITEM	MATERIAL DESCRIPTION	QUANTITY	STOCK NO.
1	CROSSARM, 8', 3000 LB. CONDUCTOR TENSION	1	58-0290
2	PIN, INSULATOR, 18 IN. LENGTH, HOT GALV.	1	58-7290
3	INSULATOR, PIN, 12KV, PORCELAIN GRAY	3	59-3765
4	PIN, INSULATOR, 5/8 X 5.75 IN. LONG	2	58-7500
5	DEADEND GRIP, VARIOUS	3	BDG..

Overhead Distribution Construction Standards	REV. REMOVED POLE GROUND MOLDING	
SRP PROPRIETARY MATERIAL	PRIMARY CONSTRUCTION UNITS THREE PHASE DEADEND SLACK SPAN	ISSUE DATE: 01/30/84 REV. DATE: 05/31/11 APPROVAL: B.PRIEST
	5-31-1	8512E128.DGN

FOR USE ON DEADENDS WITH GUY TENSION EXCEEDING 11,000 LBS.

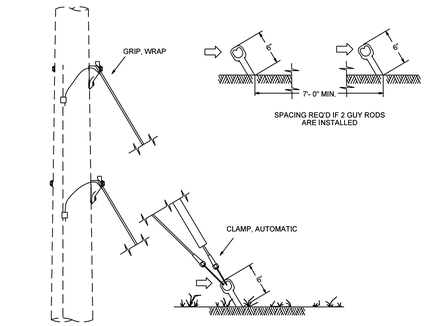


NOTES:
1. LINK TYPE POLE BANDS ARE INCLUDED WITH THESE UNITS AND ARE SIZED FOR APPROXIMATELY 10 INCH DIAMETER. LINKS MAY BE REMOVED OR ADDITIONAL LINKS, STOCK NUMBER 5027576, MAY BE ADDED IF NEEDED.
2. DOWN GUYS WITH EPOXIGLASS STRAIN INSULATORS ARE TO BE USED WHEN THE GUY WIRE NEEDS PROTECTION FROM ACCIDENTAL CONTACT WITH ENERGIZED CONDUCTORS.

*AUTOMATIC GUY CLAMPS MAY BE SUBSTITUTED WHEN SPACE IS LIMITED.

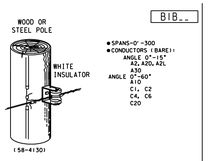
Overhead Distribution Construction Standards	REV: UPDATED STOCK CODES.	
SRP PROPRIETARY MATERIAL	POLE GUYING AND BRACING DOWN GUYS WITH POLE BANDS	ISSUE DATE: 08/09/93 REV. DATE: 04/30/13 APPROVAL: B.PRIEST
	4-16-1	8512E221.DGN

G55 (TWO) 5/16" DOWN GUYS WITH GUY GUARD
G53 (ONE) 5/16" AND (ONE) 3/8" DOWN GUY WITH GUY GUARD
G57 (ONE) 5/16" AND (ONE) 7/16" DOWN GUY WITH GUY GUARD
G35 (ONE) 3/8" AND (ONE) 5/16" DOWN GUY WITH GUY GUARD
G33 (TWO) 3/8" DOWN GUYS WITH GUY GUARD
G37 (ONE) 3/8" AND (ONE) 7/16" DOWN GUY WITH GUY GUARD
G73 (ONE) 7/16" AND (ONE) 3/8" DOWN GUY WITH GUY GUARD
G75 (ONE) 7/16" AND (ONE) 5/16" DOWN GUY WITH GUY GUARD
DESIGNATES BOTTOM GUY
DESIGNATES TOP GUY



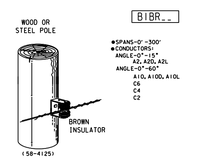
Overhead Distribution Construction Standards	REV. REMOVED BONDING CLAMPS	
SRP PROPRIETARY MATERIAL	POLE GUYING AND BRACING DOUBLE DOWN GUYING	ISSUE DATE: 09/30/71 REV. DATE: 05/17/12 APPROVAL: B.PRIEST
	4-5-1	8512E269.DGN

B1B_ _



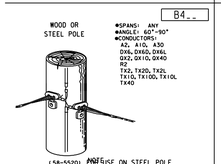
- SPANS= 0'-300
- CONDUCTORS (BARE)= ANGLE 0°-15°: A2, A20, A2L, A30; ANGLE 0°-60°: A10, C1, C2, C4, C6, C20

B1BR_ _



- SPANS=0'-300'
- CONDUCTORS= ANGLE=0°-15°: A2, A20, A2L; ANGLE=0°-60°: A10, A10D, A10L, C6, C4, C2

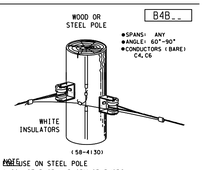
B4_ _



- SPANS= ANY
- ANGLE= 60°-90°
- CONDUCTORS= A2, A10, A30, DX6, DX6D, DX6L, DX12, DX10, DX40, R2, TX2, TX2D, TX2L, TX10, TX10D, TX10L, TX40

NOTE
FOR USE ON STEEL POLE ALSO USE BK2BL, BK2BM OR BK2BS.

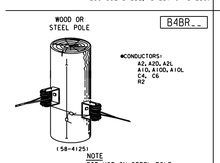
B4B_ _



- SPANS= ANY
- ANGLE= 60°-90°
- CONDUCTORS (BARE)= C4, C6

NOTE
FOR USE ON STEEL POLE ALSO USE BK2BL, BK2BM OR BK2BS.

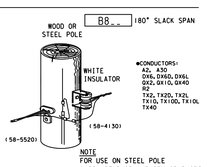
B4BR_ _



- CONDUCTORS= A2, A20, A2L, A10, A10D, A10L, C4, C6, R2

NOTE
FOR USE ON STEEL POLE ALSO USE BK2BL, BK2BM OR BK2BS.

B8_ _ 180° SLACK SPAN

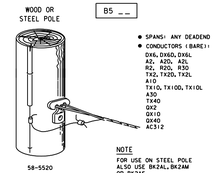


- CONDUCTORS= A2, A30, DX6, DX6D, DX6L, DX12, DX10, DX40, R2, TX2, TX2D, TX2L, TX10, TX10D, TX10L, TX40

NOTE
FOR USE ON STEEL POLE ALSO USE BK2BL, BK2BM OR BK2BS.

Overhead Distribution Construction Standards	REV. REFORMAT	
SRP PROPRIETARY MATERIAL	BASIC ASSEMBLY UNITS NEUTRAL AND SECONDARY ASSEMBLIES 0 DEG. - 90 DEG.	ISSUE DATE: 02/01/84 REV. DATE: 08/02/11 APPROVAL: B.PRIEST
	2-13-1	8512E85.DGN

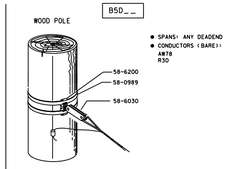
B5_ _



- SPANS= ANY DEADEND
- CONDUCTORS (BARE)= DX6, DX6D, DX6L, A2, A20, A2L, A30, TX2, TX2D, TX2L, A10, TX10, TX10D, TX10L, A30, TX40, QX2, QX10, QX40, AC512

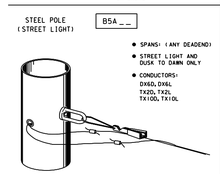
NOTE
FOR USE ON STEEL POLE ALSO USE BK2AL, BK2AM OR BK2AS

B5D_ _



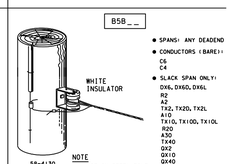
- SPANS= ANY DEADEND
- CONDUCTORS (BARE)= AB7B R30

B5A_ _



- SPANS= (ANY DEADEND)
- STREET LIGHT AND DUSK TO DAWN ONLY
- CONDUCTORS= DX6D, DX6L, TX2D, TX2L, TX10D, TX10L

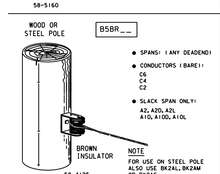
B5B_ _



- SPANS= ANY DEADEND
- CONDUCTORS (BARE)= C6, C4
- SLACK SPAN ONLY= DX6, DX6D, DX6L, R2, A2, TX2, TX2D, TX2L, A10, TX10, TX10D, TX10L, R20, A30, TX40, QX2, QX10, QX40, AC512

NOTE
FOR USE ON STEEL POLE ALSO USE BK2AL, BK2AM OR BK2AS

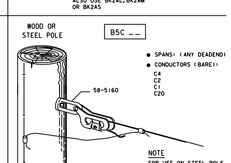
B5BR_ _



- SPANS= (ANY DEADEND)
- CONDUCTORS (BARE)= C6, C4, C2
- SLACK SPAN ONLY= A2, A20, A2L, A10, A10D, A10L

NOTE
FOR USE ON STEEL POLE ALSO USE BK2AL, BK2AM OR BK2AS

B5C_ _



- SPANS= (ANY DEADEND)
- CONDUCTORS (BARE)= C4, C2, C1, C20

NOTE
FOR USE ON STEEL POLE ALSO USE BK2AL, BK2AM OR BK2AS

Overhead Distribution Construction Standards	REV. REFORMAT	
SRP PROPRIETARY MATERIAL	BASIC ASSEMBLY UNITS NEUTRAL AND SECONDARY ASSEMBLIES DEADENDS	ISSUE DATE: 02/01/84 REV. DATE: 05/17/11 APPROVAL: B.PRIEST
	2-14-1	8512E59.DGN

CONTACTS 8

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CITY OF PHOENIX
Catherine Rogers
Jun 09, 2014
13090280
UTILITY PERMIT #

JOB NAME ARS1-OH
FIS JO JJ2-218
40/ACRE AC-21-13
AMP WO T1860207
COST CENTER 22680
ROUTING CODE DD1.5 CSI,L,G,T +10

MAP 1/4 13 S 21 T 1N R 3E
COORDS 14-1/16E : 2-1/16N
AMP VERSION

Call at least two full working days before you begin excavation.
ARIZONA811
It's the law. It's free.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: 1-602-263-1100

SHEET NUMBER 2 OF 2

EASY, PLEASANT, AND REWARDING

03/19/14

DWG SERIES No. SRPP-1.11