SOLACE AT CIMARRON HILLS

SITUATED IN THE NORTHWEST QUARTER OF SECTION 7
TOWNSHIP 14 SOUTH, RANG 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN
COUNTY OF EL PASO, STATE OF COLORADO
WATER DISTRIBUTION PLAN

CONTACTS:

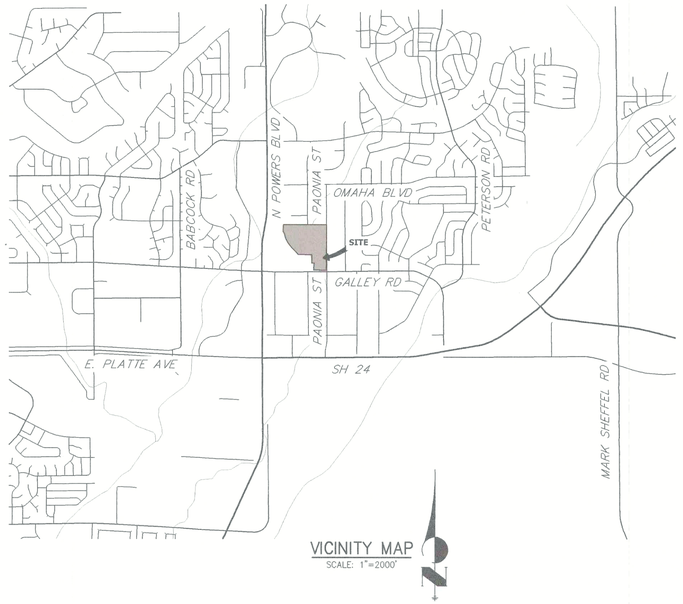
OWNER/DEVELOPER	JACKSON DEARBORN PARTNERS 404 S. WELLS STREET, SUITE 400 CHICAGO, IL 60607 ATTN: DANE OLMSTEAD P~(734) 216-2577
ENGINEER/SURVEYOR	JR ENGINEERING, LLC ATTN: MIKE A. BRAMLETT 5475 TECH CENTER DRIVE, SUITE 235 COLORADO SPRINGS, CO 80919 P~(719) 593-2593
DEVELOPMENT SERVICES (CMD)	CHEROKEE METROPOLITAN DISTICT 6250 PALMER PARK BLVD COLORADO SPRINGS, CO 80915 P~(719) 597-5080
FIRE PROTECTION DISTRICT	CIMARRON HILLS FIRE DEPARTMENT 1835 TUSKEGEE PL COLORADO SPRINGS, CO 80915 P~(719) 591-0960
PLANNER	N.E.S., INC. 619 NORTH CASCADE AVENUE, SUITE 200 COLORADO SPRINGS, CO 80903 P~(719) 471-0073
GEOTECHNICAL	CTL THOMPSON, INC 5170 MARK DABLING BLVD COLORADO SPRINGS, CO 80918 P~(719) 528-8300
ARCHITECT	LCM ARCHITECTS 819 S WABASH AVE, FIFTH FLOOR CHICAGO, IL 60605 P~(312) 995-5305

BASIS OF BEARINGS

THE EASTERLY LINE OF LOT 2, POWERS & GALLEY PLAZA FILING NO. 1 RECORDED IN PLAT BOOK A~4 AT PAGE 30, SAID LINE BEING MONUMENTED BY A 1~1/4" YELLOW PLASTIC CAP STAMPED "LS 22106" AT THE SOUTH END AND A 1" O.D. PIPE AT THE NORTH END, SAID LINE BEARING N00°27'47"E AS SHOWN ON SAID PLAT.

BENCHMARK

FIMS MONUMENT F81, BEING MONUMENTED BY A 3~1/4" ALUMINUM CAP IN RANGE BOX WITH NO TOP, LOCATED 900 FEET EAST OF THE INTERSECTION OF E. PLATTE AVENUE AND VALLEY STREET, APPROXIMATLEY 80 FEET NORTH OF THE CENTERLINE OF E PLATTE AVENUE. SAID MONUMENT HAVING A PUBLISHED ELEVATION OF 6275.86 FEET, NAVD88.



VICINITY MAP
SCALE: 1"=2000'

SHEET INDEX

1 – COVER SHEET
2 – LEGEND AND NOTES
3~7 – WATER DISTRIBUTION PLAN
8~10– DETAIL SHEETS

PCD File No. SF2032
PCD File No. PPR2047

DISTRICT MAIN EXTENSIONS

WATER STATEMENT

THE UNDERSIGNED OWNER/DEVELOPER AGREES THAT THE INSTALLATION OF THESE PROPOSED WATER FACILITIES WILL BE MADE IN ACCORDANCE WITH CHEROKEE METROPOLITAN DISTRICT SPECIFICATIONS AND SHALL PROVIDE A MINIMUM OF 5 FEET AND A MAXIMUM OF 6 FEET OF COVER OVER THE WATER MAIN(S). ANY CHANGES REQUIRED TO MEET THE ABOVE STIPULATIONS SHALL BE AT THE EXPENSE OF THE OWNER/DEVELOPER. COVER IN EXCESS OF 8 FEET SHALL BE SUPPORTED BY PLAN AND PROFILE DRAWINGS APPROVED BY THE DISTRICT.

SIGNED: Dane Olmstead OWNER/DEVELOPER DATE: 10/26/2021

DBA: CS Powers & Galley, LLC

ADDRESS: 404 S. Wells St. 4th Floor, Chicago, IL 60607

ALL HYDRANTS SHALL BE INSTALLED ACCORDING TO THE DISTRICT'S SPECIFICATIONS.

WATER INSTALLATION CORROSION CONTROL REQUIREMENTS

NONE REQUIRED ☐

REQUIRED, DESCRIBED AS FOLLOWS: ☐

WATER PLAN APPROVAL

SIGNED: _____ CHEROKEE METROPOLITAN DISTRICT DATE: 11-08-2021

APPROVAL EXPIRES ONE YEAR FROM THE DATE ABOVE AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

811 Know what's below. Call before you dig.

CHEROKEE METROPOLITAN DISTRICT

WATER PLAN APPROVAL

THE CHEROKEE METROPOLITAN DISTRICT RECOGNIZES THE DESIGN PROFESSIONAL OF RECORD AS THE LICENSED ENGINEER HAVING RESPONSIBILITY FOR THE SUBMITTED DESIGN AND THE DISTRICT HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY. AS SUCH, THE APPROVAL GRANTED HEREIN IS FOR THE CONSTRUCTION OF THE FACILITIES AS REPRESENTED ON THESE DOCUMENTS. APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE BELOW AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

APPROVED BY: _____ DATE: 11-08-2021

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett 32314 10/13/21

MIKE A. BRAMLETT, P.E. DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY REVIEWING APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
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404 S. WELLS STREET, SUITE 400
CHICAGO, IL 60607
ATTN: DANE OLMSTEAD
(734)216-2577
DOLMSTEAD@JACKSONDEARBORN.COM

JR ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

H-SCALE	1"=2000'	DESIGNED BY	APL
V-SCALE	N/A	DRAWN BY	APL
DATE	10/13/21	CHECKED BY	

SOLACE AT CIMARRON HILLS
COVER SHEET
WATER DISTRIBUTION PLAN

SHEET 1 OF 12

JOB NO. 25174.00

3aEame 01:03:19 10/13/2021

LAYER LINETYPE LEGEND

	EXISTING	PROPOSED
PHASE LINE		
MATCH LINE		
SECTION LINE		
BOUNDARY LINE		
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
R.O.W. A LINE	A	A
CENTERLINE		
CITY LIMITS		
WIRE FENCE		
CHAIN LINK FENCE		
WOOD FENCE		
MASONRY FENCE		
GUARDRAIL		
CONC. BARRIER		
CABLE TV	TV	TV
ELECTRIC	E	E
FIBER OPTIC	FO	FO
GAS MAIN	G	G
IRRIGATION MAIN	IRR	IRR
OIL/PETRO. MAIN	O	O
OVERHEAD UTILITY	OHU	OHU
SANITARY SEWER	S	S
STORM DRAIN		
TELEPHONE	T	T
WATER MAIN	W	W
RAW WATER LINE	RWL	RWL
SWALE/WATERWAY FLOWLINE		
DIVERSION DITCH		
DIVERSION CHANNEL		
MAJOR DRAINAGE BASIN		
MINOR DRAINAGE BASIN		
TOP OF SLOPE		
TOE OF SLOPE		
EDGE OF WATER		
INDEX CONTOUR	6100	6100
INTERMEDIATE CONTOUR		
DEPRESSION CONT. (INDEX)	6100	6100
DEPRESSION CONT. (INTER)		
TOP OF CUTS		
TOE OF FILLS		
CUT AND FILL LINE		C/F
SILT FENCE	SF	SF
100 YEAR FLOODPLAIN	100YR	100YR
500 YEAR FLOODPLAIN	500YR	500YR
FLOODWAY	FLDWY	FLDWY
BASE FLOOD ELEVATION		
EDGE OF WETLANDS		
STONE WALL		

UTILITIES LEGEND

	EXISTING	PROPOSED
STORM SEWER		
MANHOLE		
STORM INLET		
AREA INLET – SQUARE		
AREA INLET – ROUND		
FLARED END SECTION		
RIPRAP		
SANITARY SEWER		
LINE MARKER	Mkr San	
SERVICE MARKER		
CLEAN–OUT		
MANHOLE W/ DIRECTIONAL FLOW ARROW		
WATER LINE		
LINE MARKER	Mkr W	
SERVICE MARKER		
FIRE HYDRANT		
FIRE CONNECTION		
MANHOLE		
BEND		
BLOW–OFF VALVE		
WELL	WELL	WELL
METER		
VALVE		
REDUCER		
THRUST BLOCK		
CROSS		
PLUG W/ THRUST BLOCK		
TEE		
REVERSE ANCHOR		
ANODE		
AIR & VACUUM VALVE ASSEMBLY		
TRANSMISSION BLOW–OFF ASSEMBLY		
GAS LINE		
MARKER	Mkr G	
SERVICE MARKER		
METER		
VALVE		
PLUG		
TEE		
DRY UTILITIES		
CABLE TV MARKER	Mkr TV	
CABLE TELEVISION PEDESTAL	TV	
ELECTRIC MARKER	Mkr E	
ELECTRIC SERVICE MARKER		
ELECTRICAL PEDESTAL	E	
ELECTRICAL METER	E	
ELECTRICAL MANHOLE	E	
FIBER–OPTIC MARKER	Mkr FO	
IRRIGATION PEDESTAL	I	
TELEPHONE MARKER	Mkr T	
TELEPHONE PEDESTAL	T	
TELEPHONE MANHOLE	T	
UTILITY POLE		
GUY ANCHOR		
GUY POLE		
MISC. UTILITIES		
VENT PIPE	VP	VP
TEST HOLE DESIGNATOR	TH# FIRM AGENCY	

MONUMENTATION LEGEND

ALUMINUM CAP – FOUND	AC
BRASS CAP – FOUND	BC
BENCHMARK – FOUND	
CROSS – FOUND	
MONUMENT – SET	
MONUMENT – FOUND (DEFAULT)	
MONUMENT – FOUND (ALTERNATE 1)	
MONUMENT – FOUND (ALTERNATE 2)	
MONUMENT – FOUND (ALTERNATE 3)	
MONUMENT – FOUND (ALTERNATE 4)	
MONUMENT – FOUND (ALTERNATE 5)	
MONUMENT – FOUND (ALTERNATE 6)	
MONUMENT – FOUND (ALTERNATE 7)	
NAIL & WASHER – FOUND	NAIL & WASHER
PANEL – FOUND	
PK NAIL – FOUND	PK NAIL
ROW MONUMENT – FOUND	
ROW MARKER – FOUND	
SECTION CORNER – FOUND	
SECTION CORNER – SET	
QUARTER–SECTION CORNER – FOUND	
QUARTER–SECTION CORNER – SET	
SECTION CENTER – FOUND	
SECTION CENTER – FOUND	
CONTROL/TRAVERSE POINT – SET	

TRAFFIC LEGEND

	EXISTING	PROPOSED
PARKING METER		
TRAFFIC SIGNAL BOX		
TRAFFIC SIGNAL POLE		
TRAFFIC SIGNAL		
BARRICADE		
GUARD RAIL POST		
IMPACT ATTENUATOR		
BRIDGE STYLE HIGHWAY SIGN POST		
CANTILEVER STYLE HIGHWAY SIGN POST		
SIGN		
RAILROAD MARKER/SIGN		
STREET LIGHT		
STREET LIGHT – SINGLE		
STREET LIGHT – DOUBLE		
LUMINAIRE		
ALTERNATE LUMINAIRE		
SIGNAL MAST ARM W/ LUMINAIRE		
PEDESTAL POLE FOUNDATION		
TRAFFIC SIGNAL POLE		
ROUND PULL BOX		
MEDIUM PULL BOX		
LARGE PULL BOX (20X33X15)		
SIGNAL HEAD WITHOUT BACK PLATE		
SIGNAL HEAD WITH BACK PLATE		
PEDESTRIAN SIGNAL HEAD		
VIDEO IMAGE DETECTOR		
OPTICOM DETECTOR		
VEHICLE DETECTION ZONE		V

STORM WATER MANAGEMENT

	KEY	SYMBOL
CHECK DAM	CD	
CONSTRUCTION ROAD STABILIZATION	CRS	
CURB SOCK INLET PROTECTION	CS	
CONCRETE WASHOUT AREA	CWA	
DIVERSION DITCH AND DIKE, TEMPORARY	DD	
DIVERSION CHANNEL, TEMPORARY	DV	
DEWATERING	DW	
EROSION CONTROL BLANKET	ECB	
INLET FILTER	IF	
INLET PROTECTION	IP	
MULCHING	MU	
OUTLET PROTECTION	OP	
PAVED FLUME	PF	
PERMENENT SEEDING	PS	
REINFORCED CONCRETE DAM	RCD	
ROUGH CUT STREET CONTROL	RCS	
SEDIMENT BASIN	SB	
SEDIMENT CONTROL LOG	SCL	
SILT FENCE	SF	
SURFACE ROUGHENING	SR	
STABILIZED STAGING AREA	SSA	
SEDIMENT TRAP	ST	
STRAW BALE BARRIER	STB	
TERRACING	TER	
TEMPORARY SEEDING	TS	
TEMPORARY STREAM CROSSING CULVERT/BRIDGE	TSC C	
TEMPORARY STREAM CROSSING FORD TYPE	TSC F	
TEMPORARY SLOPE DRAIN	TSD	
VEHICLE TRACKING CONTROL	VTC	
VEHICLE TRACKING CONTROL WITH WASH RACK	WR	

DRAINAGE REPORT PLANS

	KEY
BASIN DESIGNATION (NO COEFFICIENT)	# / #.#
BASIN DESIGNATION (1 COEFFICIENT)	# / #.# / #
BASIN DESIGNATION (2 COEFFICIENTS)	# / #.# / # / #
ANALISYS POINT IDENTIFIER	#
BASIN DESIGNATION (HISTORIC)	# / #.#
BASIN DESIGNATION (DEVELOPED)	# / #.#
SUB–BASIN DESIGNATION (DEVELOPED)	#.#
DRAINAGE PIPE IDENTIFIER	##
DRAINAGE POINT IDENTIFIER (HEXAGONAL)	##
DRAINAGE POINT IDENTIFIER (TRIANGULAR)	?
SWMM DESIGNATION 1	#
SWMM DESIGNATION 2	#
SWMM DESIGNATION 3	#
SWMM DESIGNATION 4	?

LANDSCAPE LEGEND

	EXISTING	PROPOSED
TREE – CONIFEROUS		
TREE – DECIDUOUS		
SHRUB/BUSH		
SHRUBS AND BUSHES		
IRRIGATION BOX		
IRRIGATION SPRINKLER		
IRRIGATION VALVE		
BOLLARD		
FLAGPOLE	FP	

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No.	REVISION	BY	DATE

H–SCALE N/A | V–SCALE N/A | DATE 10/13/21 | DESIGNED BY APL | DRAWN BY APL | CHECKED BY

SOLACE AT CIMARRON HILLS

LEGEND AND NOTES

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett 10/13/21

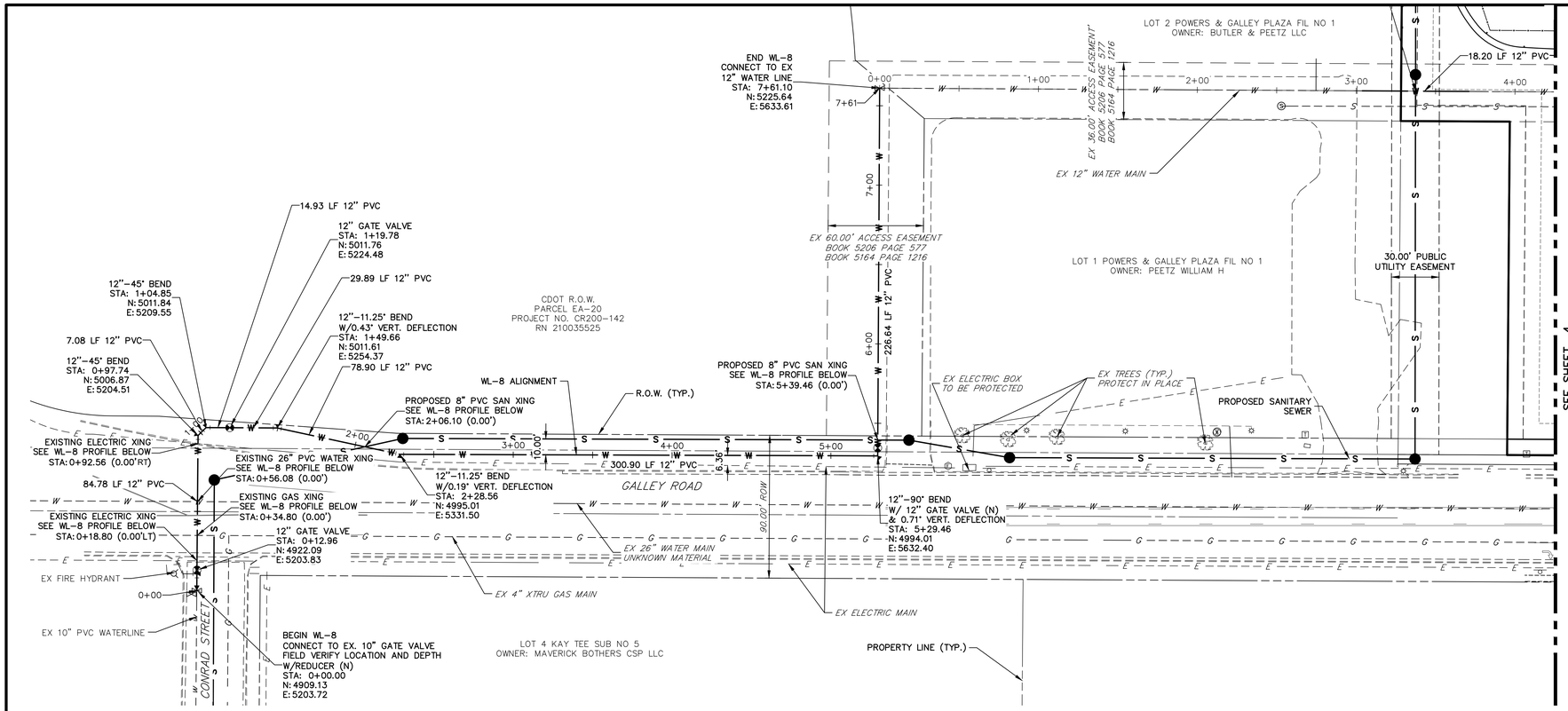
MIKE A. BRAMLETT, P.E. 32314 — DATE

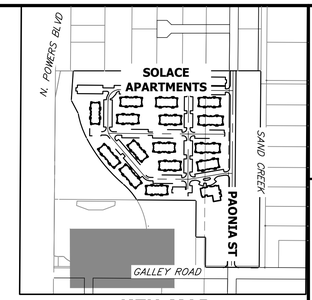
COLORADO P.E. 32314

FOR AND ON BEHALF OF JR ENGINEERING, LLC

SHEET 2 OF 12

JOB NO. 25174.00

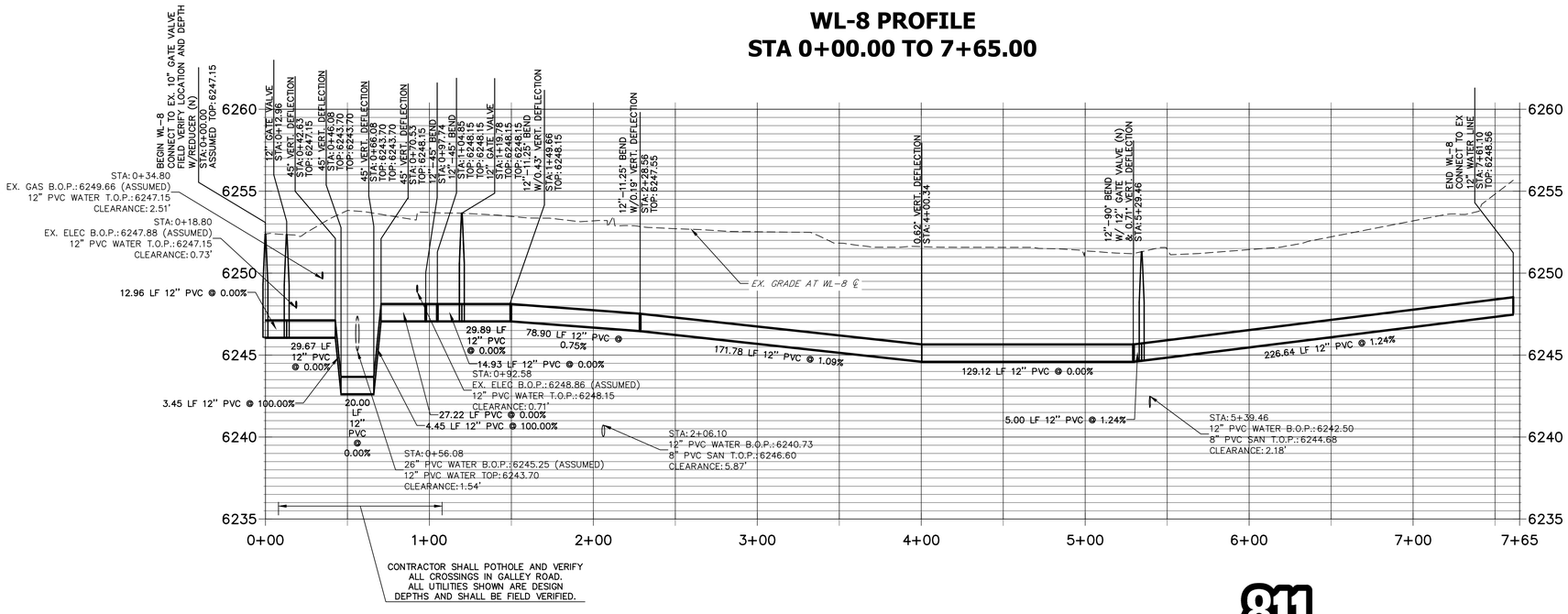




KEY MAP
SCALE 1"=500'

GENERAL NOTES:
1. FOR THE PUBLIC WATER SYSTEM, CHEROKEE RESPONSIBILITY ENDS AT THE MAIN TAP VALVE. SERVICE TO THE BUILDINGS IS THE OWNER'S RESPONSIBILITY.
2. ALL WATER AND SEWER MAINS ARE PUBLIC WATER. AS SUCH THE OWNER, NOT THE DISTRICT, IS RESPONSIBLE FOR PAVEMENT MAINTENANCE IF REPAIRS ARE NEEDED.

WL-8 PROFILE
STA 0+00.00 TO 7+65.00



WATER NOTES:

1. LOWERINGS REQUIRE CONCRETE REVERSE ANCHORS (CRA) AND CONCRETE THRUST BLOCKS (CTRB) PER CSU DETAIL A10-8. ALL LOWERINGS SHALL MEET OR EXCEED CSU CRITERIA AND DETAIL A10-8.
2. ALL BENDS SHALL BE RESTRAINED W/ MECHANICAL JOINT RESTRAINTS (MJR) PER CSU DETAIL B1-13. REQUIRED RESTRAINT LENGTHS SHALL MEET MINIMUM LENGTHS PUBLISHED IN CSU DETAIL B1-13 FOR MAXIMUM STATIC PRESSURES BETWEEN 100 AND 200 PSI.
3. ALL FIRE HYDRANT ASSEMBLIES SHALL BE CONSTRUCTED PER CSU DETAILS A5-1, A5-2 AND A5-3.
4. ALL PROPOSED WATER LINES AND STRUCTURES ARE PUBLIC, UNLESS OTHERWISE SPECIFIED.
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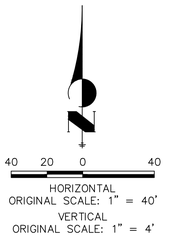
11. ALL VALVES SHALL BE INSTALLED PER CSU DETAIL A9-1.
12. ALL VALVE BOXES SHALL BE SET TO THE FINISHED GRADE AND BE INSTALLED IN ACCORDANCE WITH CSU DETAIL A9-2.
13. ALL VALVES MUST OPEN LEFT PER CHEROKEE WATER DISTRICT SECTION 2.6.G.8
14. NO EXTERNAL METERS SHALL BE INSTALLED WITH THE EXCEPTION OF IRRIGATION LINES.
15. NO SERVICES SHALL BE CONSTRUCTED USING COPPER MATERIALS



Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING ABOVE GROUND AND UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL ABOVE GROUND AND UNDERGROUND UTILITIES.

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett 32314 10/13/21

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

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No.	REVISION	BY	DATE

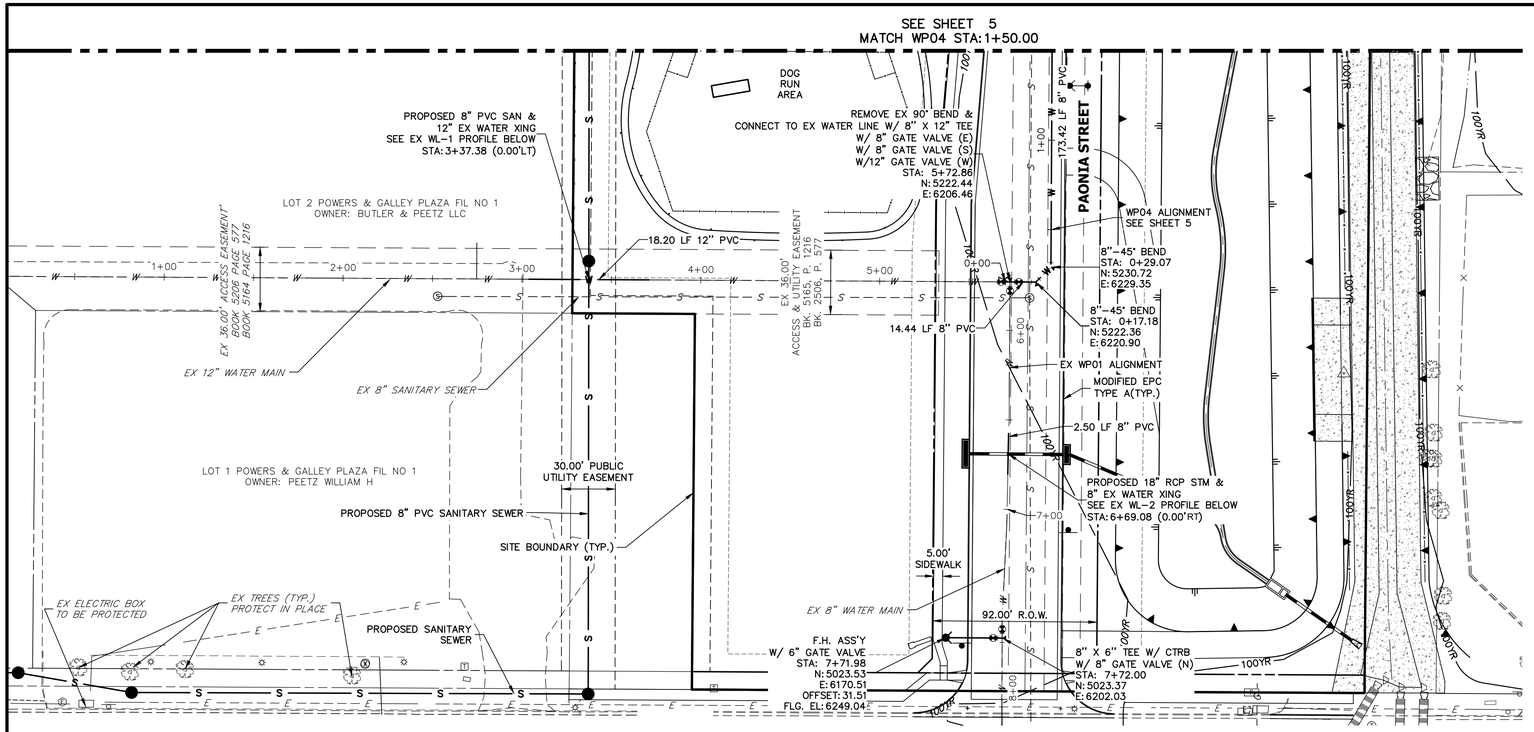
H-SCALE	1"=40'	DESIGNED BY	APL	
V-SCALE	1"=4'	DRAWN BY	APL	
	DATE	10/13/21	CHECKED BY	

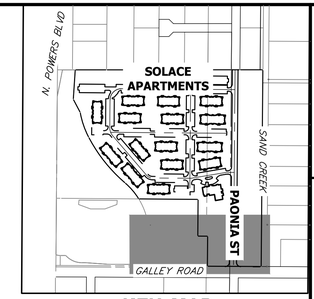
SOLACE AT CIMARRON HILLS

WATER DISTRIBUTION PLAN

SHEET 3 OF 12

JOB NO. 25174.00





KEY MAP
SCALE 1"=500'

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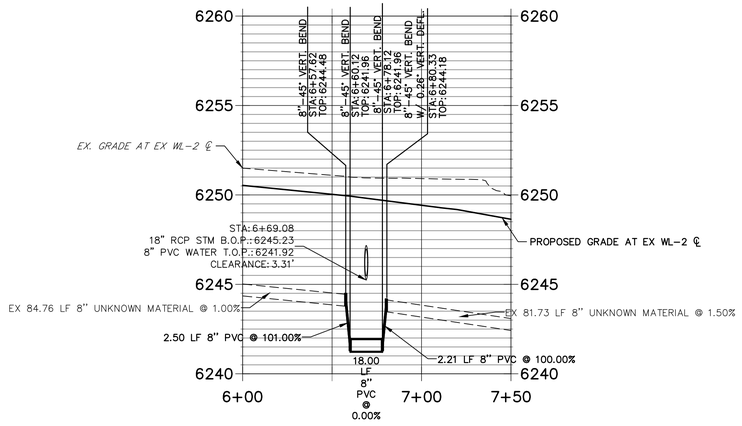
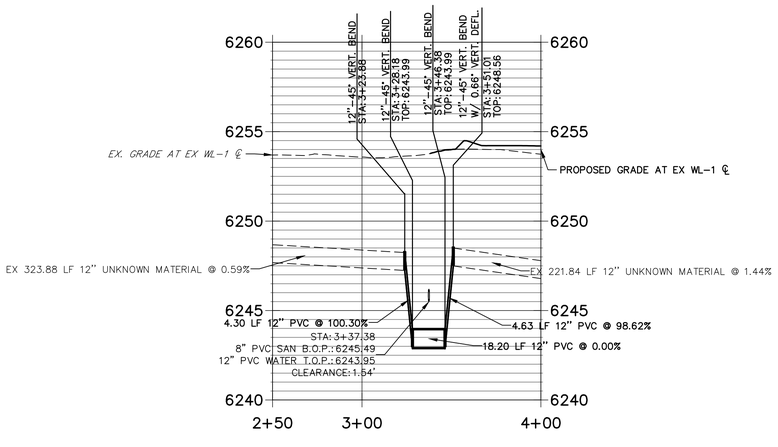
EX WL-2 PROFILE
STA 6+00.00 TO 7+50.00



EX WL-1 PROFILE
STA 2+50.00 TO 4+00.00



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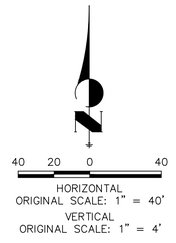
15. NO SERVICES SHALL BE CONSTRUCTED USING COPPER MATERIALS

811 Know what's below. Call before you dig.



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ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett 32314 10/13/21

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

No.	REVISION	BY	DATE

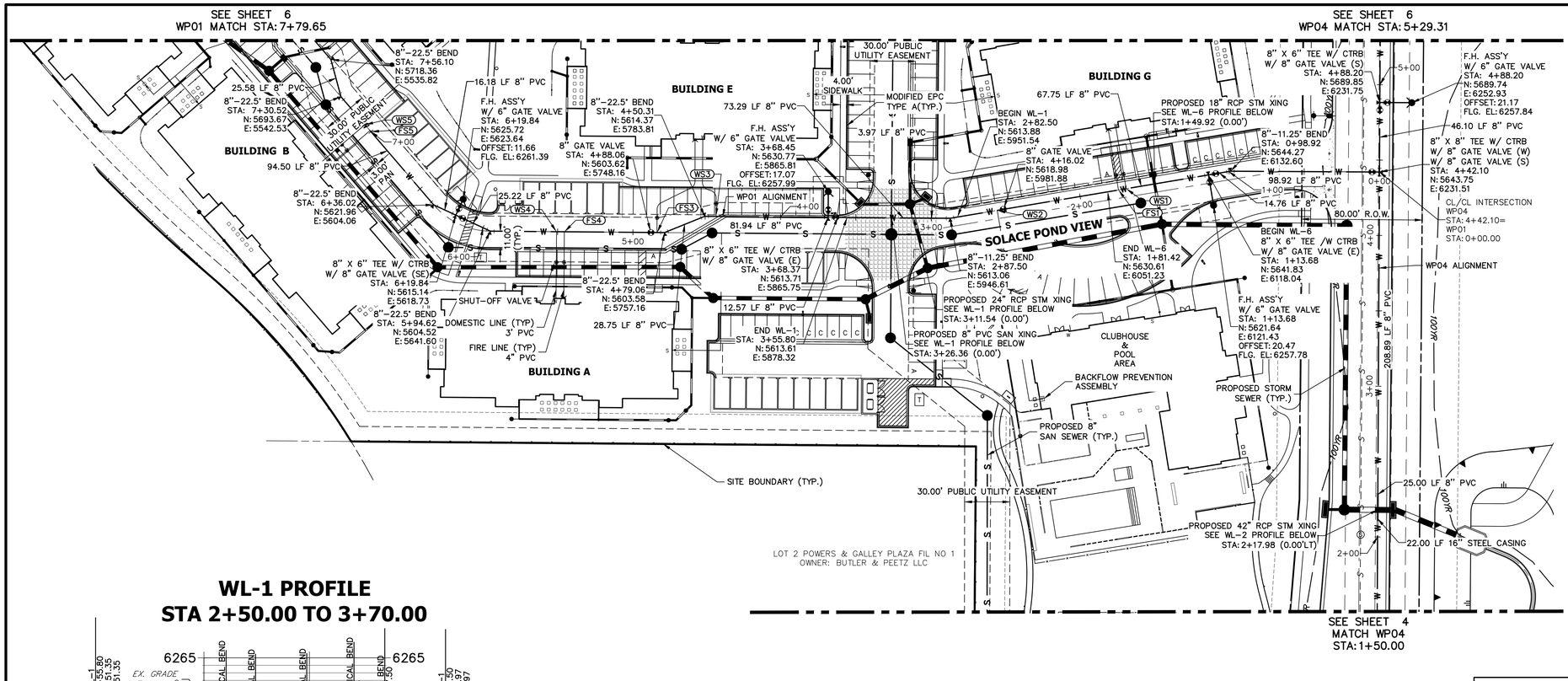
H-SCALE	1"=40'	DESIGNED BY	APL	
V-SCALE	1"=4'	DRAWN BY	APL	
	DATE	10/13/21	CHECKED BY	

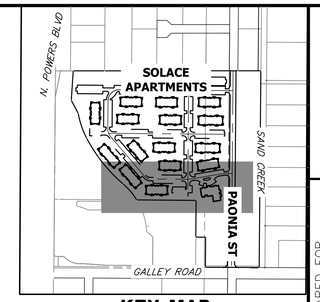
SOLACE AT CIMARRON HILLS

WATER DISTRIBUTION PLAN

SHEET 4 OF 12

JOB NO. 25174.00





KEY MAP
SCALE 1"=500'

WATER NOTES:

1. LOWERINGS REQUIRE CONCRETE REVERSE ANCHORS (CRA) AND CONCRETE THRUST BLOCKS (CTRB) PER CSU DETAIL A10-8. ALL LOWERINGS SHALL MEET OR EXCEED CSU CRITERIA AND DETAIL A10-8.
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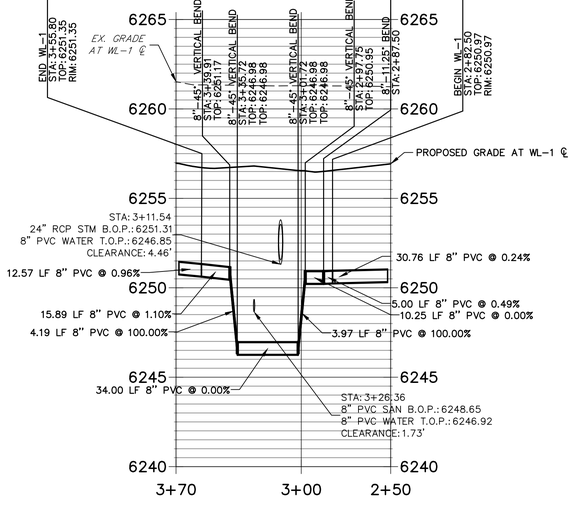
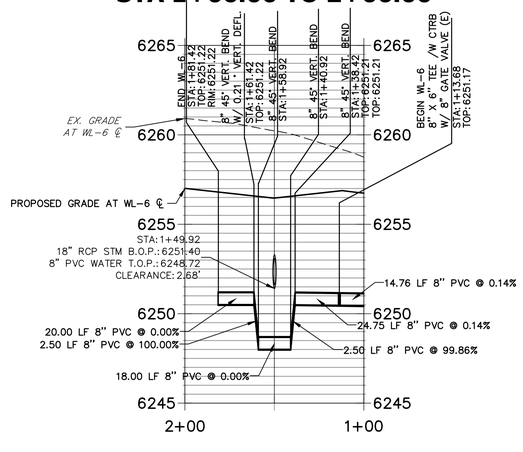
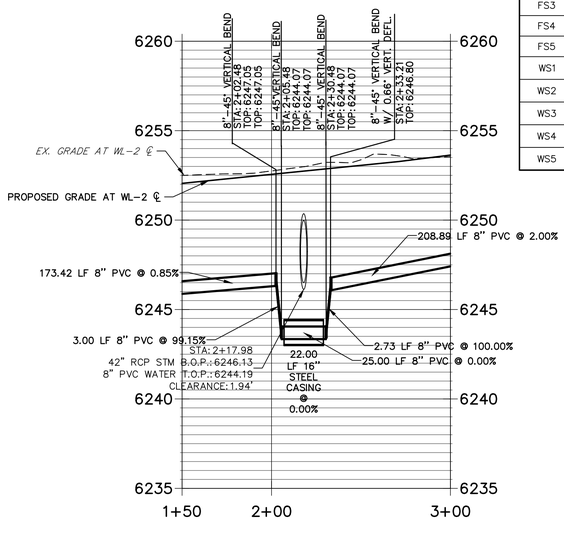
WL-1 PROFILE
STA 2+50.00 TO 3+70.00



WL-6 PROFILE
STA 1+00.00 TO 2+00.00



WL-2 PROFILE
STA 1+50.00 TO 3+00.00



UTILITY SERVICE TABULATION

SERVICE	STATION	ALIGNMENT	DESCRIPTION
FS1	1+74.21	WP01	FIRE SERVICE 4" PVC
FS3	4+84.06	WP01	FIRE SERVICE 4" PVC
FS4	5+45.51	WP01	FIRE SERVICE 4" PVC
FS5	7+00.00	WP01	FIRE SERVICE 4" PVC
WS1	1+69.04	WP01	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE
WS2	2+55.77	WP01	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE
WS3	4+42.81	WP01	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE
WS4	5+50.68	WP01	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE
WS5	7+06.10	WP01	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE

Know what's below. Call before you dig.

N

40 20 0 40

HORIZONTAL
ORIGINAL SCALE: 1" = 40'

VERTICAL
ORIGINAL SCALE: 1" = 4'

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ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett 32314 10/13/21

MIKE A. BRAMLETT, P.E. — DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

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PREPARED FOR
JACKSON DEARBORN PARTNERS
404 S. WELLS STREET, SUITE 400
CHICAGO, IL 60607
ATTN: DANE OLMSTEAD
(734)216-2577
DOLMSTEAD@JACKSONDEARBORN.COM

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No.	REVISION	BY	DATE

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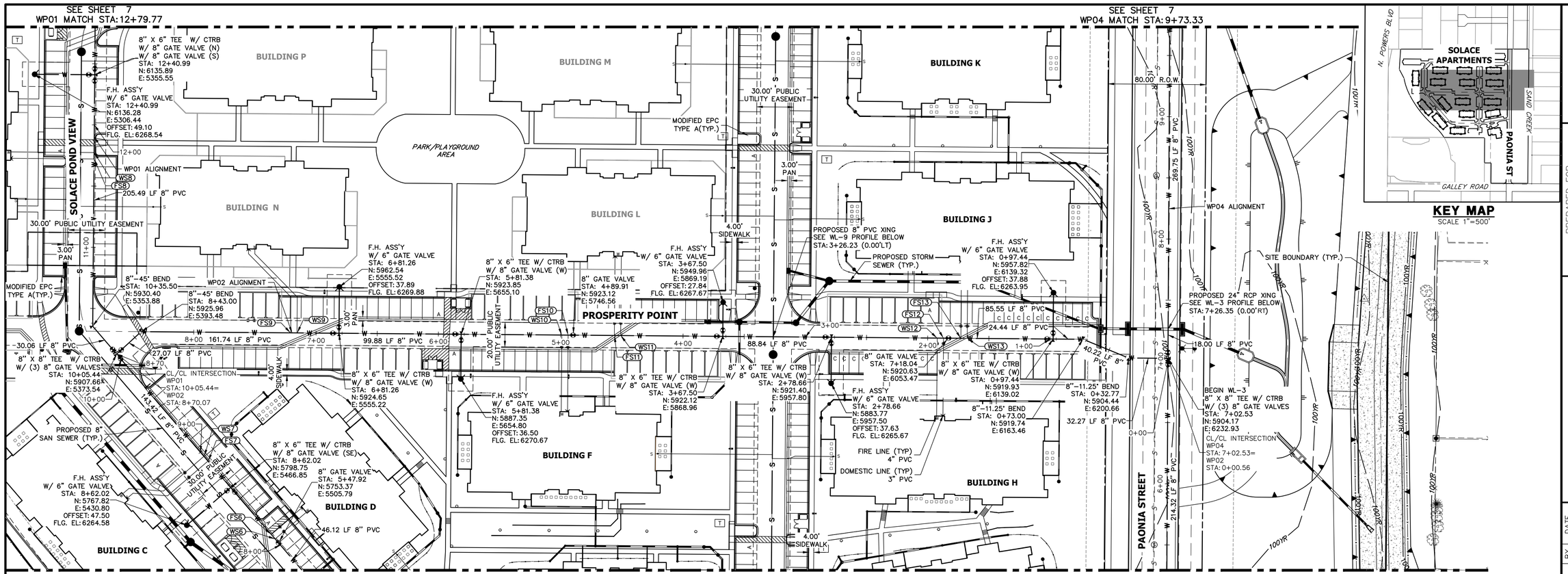
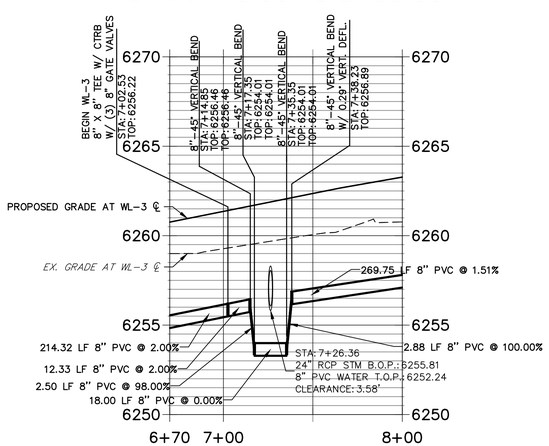
SOLACE AT CIMARRON HILLS
WATER DISTRIBUTION PLAN

SHEET 5 OF 12
JOB NO. 25174.00

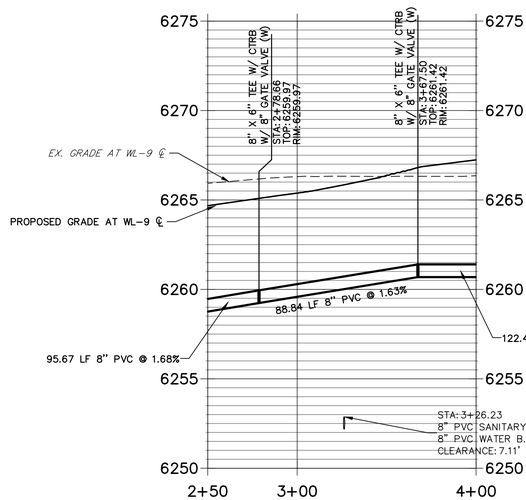


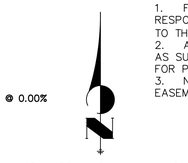
UTILITY SERVICE TABULATION			
SERVICE	STATION	ALIGNMENT	DESCRIPTION
FS6	8+11.59	WP01	FIRE SERVICE 4" PVC
FS7	8+90.48	WP01	FIRE SERVICE 4" PVC
FS8	11+72.18	WP01	FIRE SERVICE 4" PVC
FS9	7+20.76	WP02	FIRE SERVICE 4" PVC
FS10	4+93.91	WP02	FIRE SERVICE 4" PVC
FS12	1+87.03	WP02	FIRE SERVICE 4" PVC
FS13	1+72.89	WP02	FIRE SERVICE 4" PVC
WS6	8+06.43	WP01	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE
WS7	8+95.60	WP01	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE
WS8	11+77.42	WP01	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE
WS9	7+15.59	WP02	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE
WS10	4+99.08	WP02	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE
WS12	1+92.20	WP02	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE
WS13	1+67.73	WP02	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE

WL-3 PROFILE
STA 6+70.00 TO 8+00.00



WL-9 PROFILE
STA 2+50.00 TO 4+00.00





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GENERAL NOTES:

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2. ALL WATER AND SEWER MAINS ARE PUBLIC WATER. AS SUCH THE OWNER, NOT THE DISTRICT, IS RESPONSIBLE FOR PAVEMENT MAINTENANCE IF REPAIRS ARE NEEDED.
3. NO COVERED PARKING FOUNDATIONS ALLOWED IN EASEMENT.

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MIKE A. BRAMLETT, P.E. — DATE
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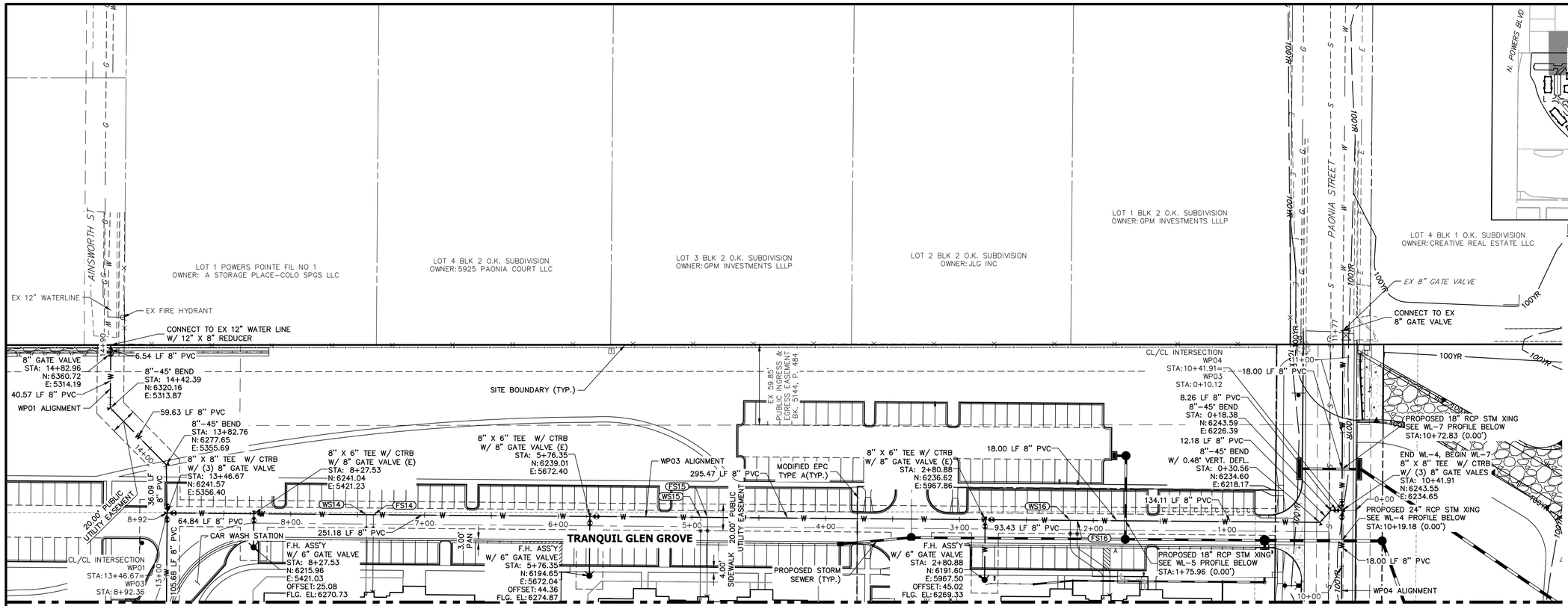
SOLACE AT CIMARRON HILLS

WATER DISTRIBUTION PLAN

SHEET 6 OF 12

JOB NO. 25174.00



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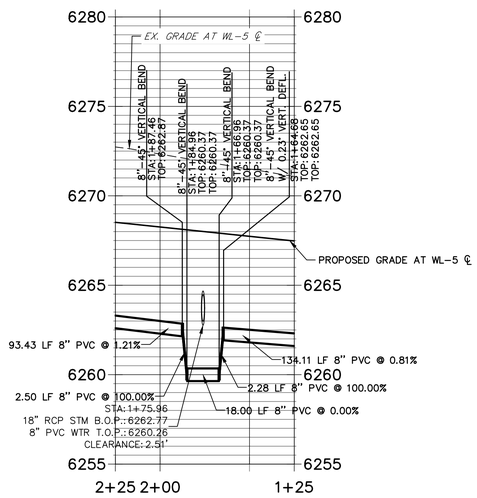
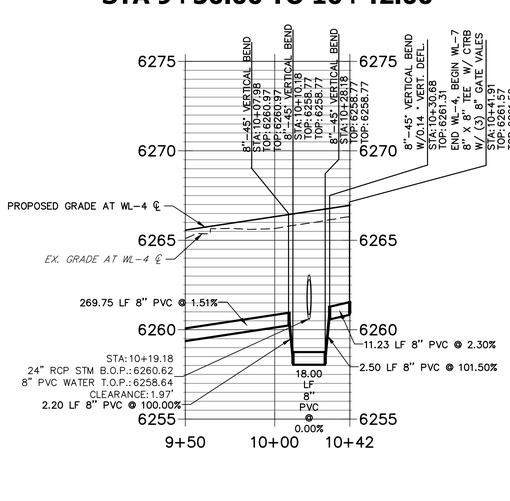
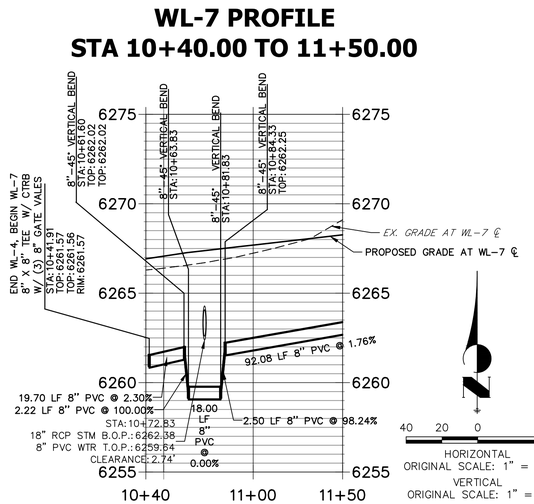
WL-5 PROFILE
STA 1+25.00 TO 2+25.00

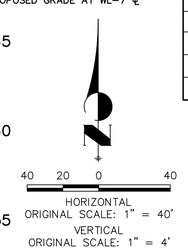


WL-4 PROFILE
STA 9+50.00 TO 10+42.00



WL-7 PROFILE
STA 10+40.00 TO 11+50.00





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UTILITY SERVICE TABULATION

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FS14	7+38.18	WP03	FIRE SERVICE 4" PVC
FS15	4+88.32	WP03	FIRE SERVICE 4" PVC
FS16	2+11.96	WP03	FIRE SERVICE 4" PVC
WS14	7+43.35	WP03	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE
WS15	4+93.48	WP03	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE
WS16	2+17.12	WP03	POTABLE WATER SERVICE 3" HDPE BLUE W/SHUT OFF VALVE

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Mike Bramlett — 10/13/21

MIKE A. BRAMLETT, P.E. — DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

MIKE A. BRAMLETT — 32314 — PROFESSIONAL ENGINEER

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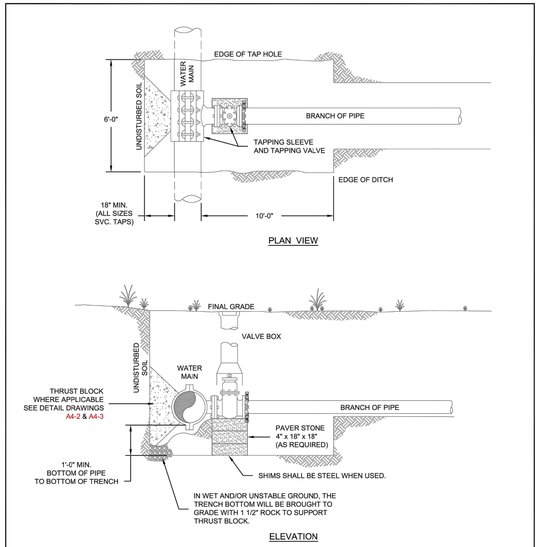
H–SCALE 1"=40' | V–SCALE 1"=4' | DATE 10/13/21 | DESIGNED BY APL | DRAWN BY APL | CHECKED BY

SOLACE AT CIMARRON HILLS

WATER DISTRIBUTION PLAN

SHEET 7 OF 12

JOB NO. 25174.00



NOTES:

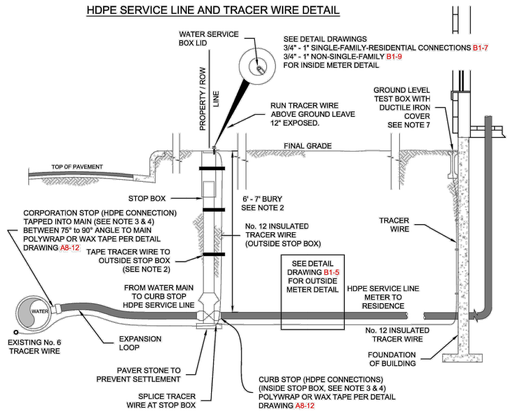
1. 4" WATER SERVICE LINES TYPICALLY REQUIRE A TEE AND VALVE PER SECTION 2.6.D. THIS DRAWING MAY ONLY BE USED AT THE DISCRETION OF COLORADO SPRINGS UTILITIES.
2. TRENCH WALLS AND SHORING SHALL COMPLY WITH OSHA STANDARDS.
3. WHERE COMPACTION CANNOT BE ACHIEVED UNDER THE WATER MAIN FLOWFILL SHALL BE USED.
4. ATTACH ANODES FOR CATHODIC PROTECTION.

Colorado Springs Utilities
It's how we're all connected

DETAILS FOR TAPS 4" AND OVER FOR DUCTILE OR PVC PIPE

B1-2

DATED 03/2014



WATER SERVICE LINE NOTES:

1. NO. 12 INSULATED TRACER WIRE SHALL BE PLACED ALONG SERVICE LINE AND SHALL BE A CONTINUOUS (WITHOUT SPLICES) LENGTH, WITH THE EXCEPTION OF THE SPLICE AT THE STOP BOX WHICH SHALL BE MADE WITH A COPPER CRIMP OR SPLIT BOLT CONNECTOR.
2. FOR GREEN MOUNTAIN FALLS SEE SECTION 2.7.E.1 DEPTH OF BURY.
3. WHEN A NEW HDPE SERVICE IS CONNECTED TO A PVC MAIN, THE SERVICE LINE TRACER WIRE SHALL BE CONNECTED TO THE MAIN'S TRACER WIRE WITH A COPPER CRIMP OR SPLIT-BOLT CONNECTOR. THE TRACER WIRE IS THEN TAPED ALONG THE SERVICE LINE IN AT LEAST 3 LOCATIONS NOT TO EXCEED 10' SPACING. AT THE CURB BOX, THE TRACER WIRE WILL BE TAPED TO THE OUTSIDE OF THE CURB BOX IN AT LEAST THREE PLACES AND BROUGHT TO THE EXISTING GRADE ADJACENT TO THE CURB BOX COVER. 12" OF TRACER WIRE SHALL BE EXPOSED ABOVE GROUND THEN THE TRACER WIRE WILL BE SPLICED AT THE STOP BOX AND TAPED TO THE SERVICE LINE UNTIL IT REACHES THE FOUNDATION WALL. THE TRACER WIRE SHALL FOLLOW THE FOUNDATION WALL AND TERMINATE IN A GROUND LEVEL TEST BOX NO MORE THAN 12" FROM THE FOUNDATION WALL.
4. STIFFENERS SHALL BE INSTALLED WITHIN THE HDPE SERVICE LINE AT THE CONNECTION POINTS OF THE FITTINGS.
5. IF A BACKFLOW PREVENTION ASSEMBLY IS REQUIRED, IT MUST BE LOCATED BEFORE THE FIRST BRANCH LINE. FOR BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS, INCLUDING LOCATION, SEE SECTION 2.7.L.
6. THE FINAL LOCATION OF THE GROUND LEVEL TEST BOX SHALL BE 12" FROM THE FOUNDATION OR THE SAME DISTANCE FROM THE FOUNDATION AS THE WASTEWATER SERVICE LINE CLEANOUT.
7. WHERE THE WATER SERVICE LINE AND WASTEWATER SERVICE LINE ARE LOCATED IN THE SAME TRENCH, THE TRACER WIRE MAY BE WRAPPED AND TAPPED AROUND THE OUTSIDE OF THE WASTEWATER CLEANOUT.

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TYPICAL INSTALLATION FOR HDPE SERVICE LINE AND STOP BOX

B1-6

DATED 01/2017

WATER DETAIL NOTES:

1. ALL VALVES MUST OPEN LEFT PER CHEROKEE WATER DISTRICT SECTION 2.6.G.8
2. NO EXTERNAL METERS SHALL BE INSTALLED WITH THE EXCEPTION OF IRRIGATION LINES.
3. NO SERVICES SHALL BE CONSTRUCTED USING COPPER MATERIALS.
4. NO BYPASS METERS SHALL BE USED ON THIS SITE.

Know what's **below.** **Call** before you dig.

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett 32314 10/13/21

MIKE A. BRAMLETT, P.E. DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
JACKSON DEARBORN PARTNERS
404 S. WELLS STREET, SUITE 400
CHICAGO, IL 60607
ATTN: DANE OLMSTEAD
(734)216-2577
DOLMSTEAD@JACKSONDEARBORN.COM

J·R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

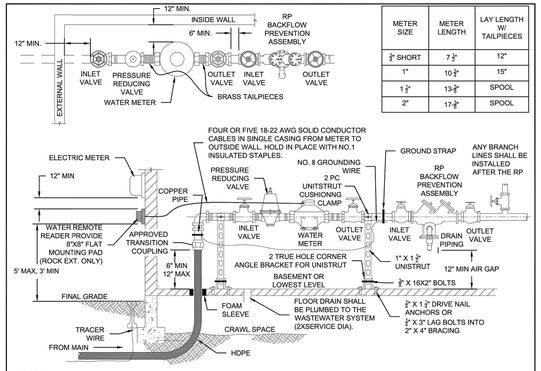
H-SCALE	N/A	DESIGNED BY	APL
V-SCALE	N/A	DRAWN BY	APL
DATE	10/13/21	CHECKED BY	

SOLACE AT CIMARRON HILLS

DETAIL SHEETS

SHEET 8 OF 12

JOB NO. 25174.00

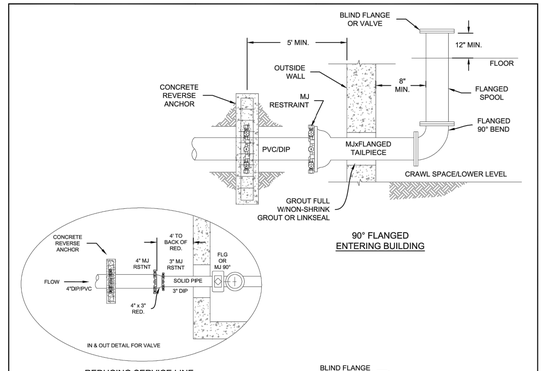


METER SIZE	METER LENGTH	LAY LENGTH W/ TAILPIECES
¾" SHORT	7 ½"	12"
1"	10 ½"	15"
1 ½"	13 ½"	SPOOL
2"	17 ½"	SPOOL

NOTES:

1. THE METER SHALL BE PROVIDED AND INSTALLED BY COLORADO SPRINGS UTILITIES.
2. REFERENCE SECTION 2.7.J (WATER METERS) FOR METER LOOP REQUIREMENTS.
3. METERS MUST BE LOCATED ON THE LOWEST FLOOR OF THE STRUCTURE. METERS SHALL NOT BE INSTALLED IN CRAWL SPACES, AREAS ONLY ACCESSIBLE BY LADDER, OR DESIGNATED STORAGE AREAS.
4. AN APPROVED TRANSITION COUPLING SHALL BE INSTALLED A MIN OF 6" AND A MAX OF 12" FROM THE FLOOR. THE METER LOOP SHALL BE CONSTRUCTED OF COPPER, DUCTILE IRON OR STEEL.
5. ALL FITTINGS IN THE METER LOOP SHALL BE SOLDERED, FIXED FLANGED OR THREADED.
6. THE METER MUST BE INSTALLED WITH THE CLEARANCE DIMENSIONS AS SHOWN ABOVE. ONE SIDE OF THE METER SHALL BE FREE FROM ANY OBSTRUCTION. 3' MINIMUM CLEARANCE IS REQUIRED ABOVE AND IN FRONT OF THE METER. 24" MINIMUM CLEARANCE IS REQUIRED BETWEEN THE METER LOOP AND ELECTRICAL OUTLETS.
7. BRASS INLET AND OUTLET VALVES SHALL BE INSTALLED ON EACH SIDE OF THE METER. INLET AND OUTLET VALVES SHALL BE FULL OPENING, GATE OR BALL VALVES WHICH CLOSE IN DIRECTION OF FLOW. NO CONNECTIONS ARE ALLOWED BETWEEN THE INLET AND OUTLET VALVES.
8. A MINIMUM OF 5' OF COPPER IS REQUIRED AFTER THE METER EXCEPT WHERE A MANIFOLD (MANIBLOCK) SYSTEM IS USED DIRECTLY AFTER THE METER AND IS SUPPORTED.
9. THE METER SHALL BE SECURED WITH UNISTRUT BEFORE AND AFTER THE INLET AND OUTLET VALVES AS SHOWN. UNISTRUT SHALL BE ANCHORED TO THE COPPER PIPE.
10. GROUNDING IS REQUIRED TO ELIMINATE POTENTIAL FOR DISCHARGE OF STATIC ELECTRICITY CAUSED BY FLOW OF WATER THROUGH PIPING. GROUNDING STRAP NOT REQUIRED ON PREFABRICATED LOOPS.
11. REMOTE READER WIRE SHALL EXIT THE BUILDING THROUGH A DEDICATED HOLE FOR REMOTE READER WIRE USE ONLY. A MINIMUM OF 24 INCHES OF SLACK WIRE SHALL BE PROVIDED AT METER AND REMOTE READER.
12. AN 8 INCH X 8 INCH FLAT SPACE SHALL BE PROVIDED FOR MOUNTING OF THE REMOTE READER ON THE EXTERNAL WALL. A MINIMUM OF 12 INCHES OF CLEARANCE FROM ANY VERTICAL PROTRUSION (ROOF DRAIN, CHIMNEY, ETC.) SHALL BE MAINTAINED FROM THE REMOTE READER.
13. GAS FLEX LINE SERVICES SHALL BE LOCATED A MINIMUM OF 18" FROM THE METER LOOP.
14. A BACKFLOW PREVENTION ASSEMBLY IS REQUIRED, IT SHALL BE LOCATED BEFORE THE FIRST BRANCH LINE. FOR BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS, INCLUDING LOCATION, SEE SECTION 2.7.L.
15. THE BACKFLOW PREVENTER SHALL BE SOLDERED OR FIXED FLANGED.

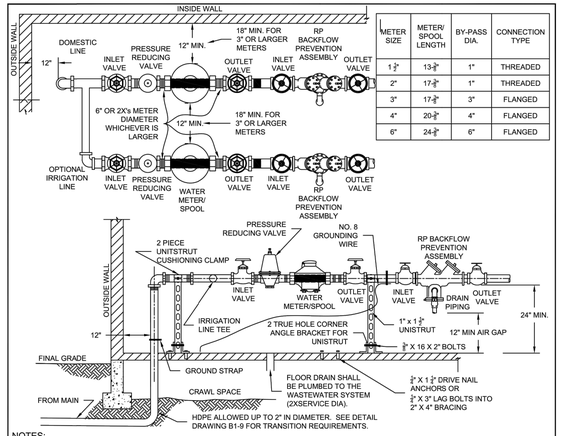
Colorado Springs Utilities It's how we're all connected	TYPICAL INSTALLATION FOR 3/4" THRU 2" METERS INSIDE NON-SINGLE-FAMILY-RESIDENTIAL CONNECTION HDPE SERVICE	B1-9 DATED 3/2019



NOTES:

1. MECHANICAL JOINT PIPE RESTRAINTS MAY BE USED IN PLACE OF A REVERSE CONCRETE ANCHOR WHEN INSTALLED IN ACCORDANCE WITH CHAPTER 5 OF COLORADO SPRINGS UTILITY STANDARDS.
2. WHERE COMPACTION CANNOT BE ACHIEVED UNDER THE WATER MAIN FLOWFILL SHALL BE USED.

Colorado Springs Utilities It's how we're all connected	4" OR LARGER MJ RESTRAINT WATER SERVICE ENTRY POINT	B1-13 DATED 03/2019

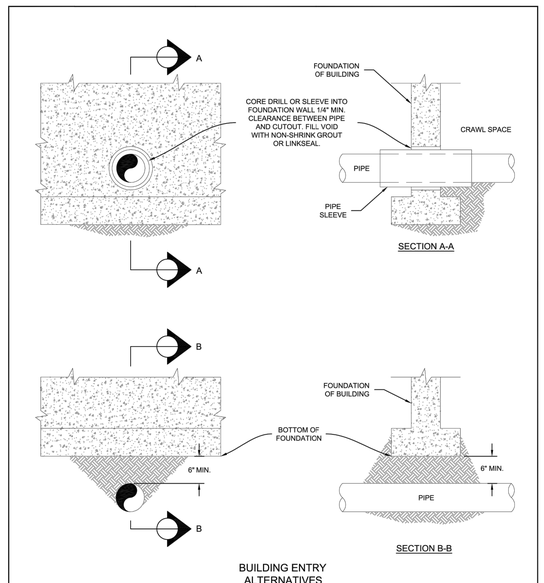


METER SIZE	METER/ SPOOL LENGTH	BY-PASS DIA.	CONNECTION TYPE
1 ½"	13 ½"	1"	THREADED
2"	17 ½"	1"	THREADED
3"	17 ½"	3"	FLANGED
4"	20 ½"	4"	FLANGED
6"	24 ½"	6"	FLANGED

NOTES:

1. THE METER SHALL BE PROVIDED AND INSTALLED BY CHEROKEE METROPOLITAN DISTRICT.
2. METER LENGTHS VARY WITH CERTAIN TYPES OF METER, EXACT DIMENSIONS SHOULD BE OBTAINED FROM CHEROKEE METROPOLITAN DISTRICT
3. REFERENCE SECTION 2.7.J (WATER METERS) FOR METER LOOP REQUIREMENTS.
4. METERS MUST BE LOCATED ON THE LOWEST FLOOR OF THE STRUCTURE. METERS SHALL NOT BE INSTALLED IN CRAWL SPACES, AREAS ONLY ACCESSIBLE BY LADDER, OR DESIGNATED STORAGE AREAS.
5. THE METER LOOP SHALL BE CONSTRUCTED OF COPPER, DUCTILE IRON OR STEEL.
6. ALL FITTINGS IN THE METER LOOP SHALL BE SOLDERED, FIXED FLANGED OR THREADED.
7. THE METER MUST BE INSTALLED WITH THE CLEARANCE DIMENSIONS AS SHOWN ABOVE. ONE SIDE OF THE METER SHALL BE FREE FROM ANY OBSTRUCTION. 3' MINIMUM CLEARANCE IS REQUIRED ABOVE AND IN FRONT OF THE METER. 24" MINIMUM CLEARANCE IS REQUIRED BETWEEN THE METER LOOP AND ELECTRICAL OUTLETS.
8. BRASS INLET AND OUTLET VALVES SHALL BE INSTALLED ON EACH SIDE OF THE METER. INLET AND OUTLET VALVES SHALL BE FULL OPENING, GATE OR BALL VALVES WHICH CLOSE IN DIRECTION OF FLOW. NO CONNECTIONS ARE ALLOWED BETWEEN THE INLET AND OUTLET VALVES.
6. A MIN. OF 6" IS REQUIRED BETWEEN VALVE AND METER FLANGES, OR 2X's THE DIAMETER OF METER, WHICHEVER IS GREATER.
7. A MINIMUM OF 5' OF COPPER IS REQUIRED AFTER THE METER EXCEPT WHERE A MANIFOLD (MANIBLOCK) SYSTEM IS USED DIRECTLY AFTER THE METER AND IS SUPPORTED.
8. BRACING 1 1/2" & 2" METER SHALL BE AS SHOWN. FOR METERS 3" OR GREATER SHALL BE DESIGNED TO ANCHOR METER LOOP AND KEEP SECURED, SUPPORT SHALL BE ATTACHED TO FLOOR.
9. GROUNDING IS REQUIRED TO ELIMINATE POTENTIAL FOR DISCHARGE OF STATIC ELECTRICITY CAUSED BY FLOW OF WATER THROUGH PIPING. GROUNDING STRAP NOT REQUIRED ON PREFABRICATED LOOPS.
10. GAS FLEX LINE SERVICES SHALL BE LOCATED A MINIMUM OF 18" FROM THE METER LOOP.
11. A BACKFLOW PREVENTION ASSEMBLY IS REQUIRED, IT SHALL BE LOCATED BEFORE THE FIRST BRANCH LINE. FOR BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS, INCLUDING LOCATION, SEE SECTION 2.7.L.
12. THE BACKFLOW PREVENTER SHALL BE SOLDERED OR FIXED FLANGED.

	TYPICAL INSTALLATION FOR 1-1/2" THRU 6" METERS INSIDE BUILDING	B1-11A DATED 11/2020



NOTES:

1. WHERE COMPACTION CANNOT BE ACHIEVED UNDER THE WATER MAIN FLOWFILL SHALL BE USED.

Colorado Springs Utilities It's how we're all connected	WATER SERVICE ENTRY POINT	B1-12 DATED 01/2017

WATER DETAIL NOTES:

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Mike Bramlett 10/13/21

MIKE A. BRAMLETT, P.E. — DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

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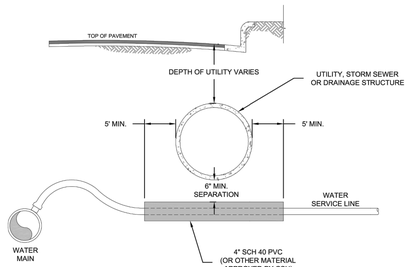
DETAIL SHEETS

SHEET 9 OF 12

JOB NO. 25174.00

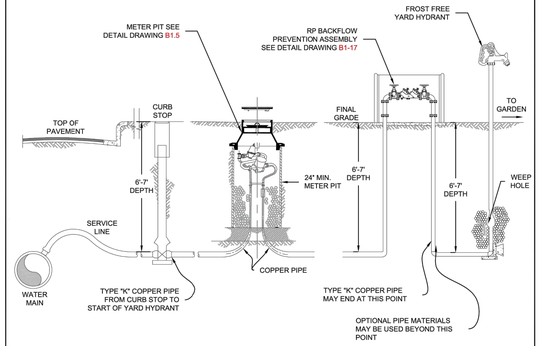
811 Know what's below. Call before you dig.



NOTES:

1. SHOULD ANY SITUATION BE ENCOUNTERED THAT DOES NOT MEET STANDARDS, NOTIFY COLORADO SPRINGS UTILITY INSPECTOR.
2. REFERENCE SECTION 2.7.E OF THESE STANDARDS FOR CROSSING DESIGN INFORMATION.
3. FOR SERVICES 4" AND LARGER SEE DETAIL DRAWINGS A7-1 AND A7-2.
4. A SLEEVE IS REQUIRED WHERE SEPARATION IS LESS THAN 18" FROM BOTTOM OF UTILITY TO TOP OF WATER SERVICE OR WHERE THE UTILITY IS 30" OR GREATER IN SIZE.
5. PROVIDE WATER TIGHT SEAL ON BOTH ENDS OF SLEEVE.
6. IF THE SERVICE IS LOCATED WITHIN STORM SEWER BEDDING IT SHALL BE SLEEVED THROUGH THE BEDDING A MINIMUM OF 5' EITHER SIDE REGARDLESS OF DEPTH.
7. WHERE COMPACTION CANNOT BE ACHIEVED FLOWFILL SHALL BE USED.

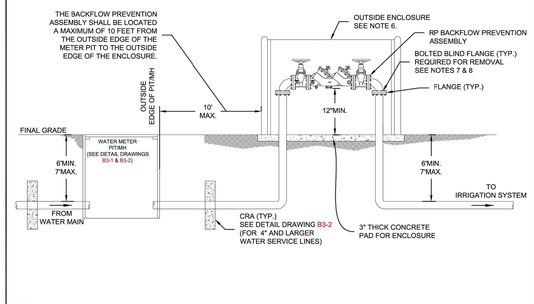
Colorado Springs Utilities	INSTALLATION FOR SERVICE LINE W/SLEEVE UNDER A UTILITY 3/4" - 2"	B1-14 DATED 03/2014



NOTES:

1. METER AND PRESSURE REGULATOR SHALL BE INSTALLED PER DETAIL DRAWING B1-5.
2. SERVICE LINE ASSEMBLY SHALL BE CONSTRUCTED WITH TYPE "K" COPPER PIPE FROM CURB STOP TO THE FIRST ELBOW OF THE YARD HYDRANT ASSEMBLY
3. THE BACKFLOW PREVENTION ASSEMBLY SHALL BE PER DETAIL DRAWING B1-17.
4. FOR SEASONAL USE ONLY; REFERENCE DRAWING A 10-3B FOR TEMPORARY REMOVAL OF BACKFLOW DEVICE
5. METER PIT AND YARD HYDRANT MUST BE FROST FREE UNITS TO PROTECT FROM FREEZING DURING WINTER MONTHS
6. YARD HYDRANT MUST DRAIN WHEN NOT IN USE, 3/4"-2" ROCK SHALL BE USED AROUND WEEP HOLE OR DRAIN TO ALLOW DRAINAGE
7. SYSTEM SHOULD BE DRAINED AND BLOWN OUT BY OCTOBER 20TH OF EACH YEAR TO AVOID DAMAGE FROM FREEZING, UNLESS ALTERNATIVE PRECAUTIONS ARE UNDERTAKEN BY THE OWNER
8. ALL PROPOSED INSTALLATIONS FOR COMMUNITY GARDENS MUST BE SUBMITTED WITH A UTILITY SERVICE PLAN OR ALTERNATIVELY A SITE PLAN SHOWING THE LOCATION OF ALL REQUIRED APPURTENANCES

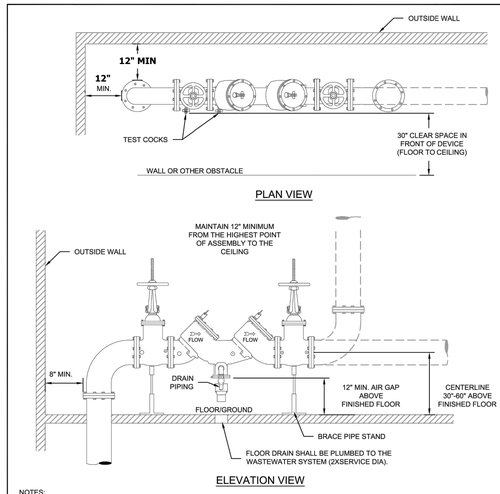
Colorado Springs Utilities	COMMUNITY GARDEN SERVICE DETAIL	B1-15 DATED 01/2017



NOTES:

1. REFERENCE SECTION 2.7.L FOR BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS.
2. NO DRAIN VALVES, OUTLETS OR BRANCH LINES SHALL BE LOCATED BEFORE THE APPROVED BACKFLOW PREVENTION ASSEMBLY.
3. THE APPROVED BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED WITH SOLDERED OR FLANGED ONLY.
4. THE BACKFLOW PREVENTION ASSEMBLY SHALL BE ON AN APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY.
5. REMOVABLE BACKFLOW PREVENTION ASSEMBLIES WILL BE EVALUATED ON A CASE BY CASE BASIS AND WILL ONLY BE APPROVED FOR SEASONAL IRRIGATION USERS.
6. SEASONAL BACKFLOW PREVENTION ASSEMBLIES SHALL BE LOCATED IN A LOCKABLE LID TO PROTECT FROM THEFT.
7. WHERE REMOVAL OF ASSEMBLY IS REQUESTED, FLANGES MUST BE INSTALLED ON THE IN-GROUND SUPPLY AND DISCHARGE PIPING SO THE EXPOSED PIPING OF THE WATER SYSTEM IS SEALED OFF WHILE THE BACKFLOW PREVENTER IS REMOVED.
8. DURING REMOVAL PERIOD, THE VALVE ON THE SUPPLY SIDE SHALL BE SHUT AND THE FLANGES SHALL BE SEALED WITH A BOLTED BLIND FLANGE.
9. FOR SERVICE LINES 4" AND GREATER, PIPE SHALL BE RESTRAINED BETWEEN THE METER PIT AND BACKFLOW PREVENTER.

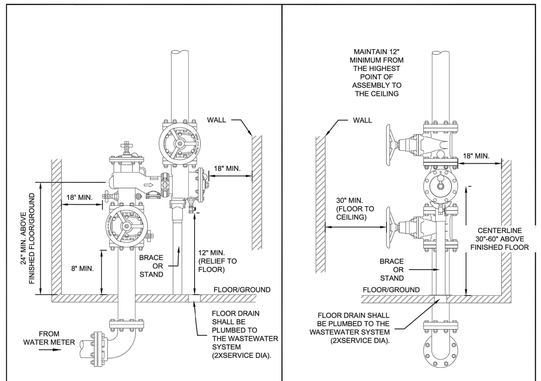
Colorado Springs Utilities	TYPICAL NON-SINGLE-FAMILY RESIDENTIAL OUTDOOR WATER METER AND REMOVABLE BACKFLOW PREVENTION ASSEMBLY FOR IRRIGATION SYSTEMS	B1-17 DATED 01/2017



NOTES:

1. SHUT-OFF VALVES, CHECK VALVES, AND TEST COCKS SHALL BE STANDARD TO THE APPROVED BACKFLOW PREVENTION ASSEMBLY.
2. TEST COCKS SHOULD BE LOCATED FACING THE THE CLEAR SPACE.
3. ALL ASSEMBLIES TO BE SUPPORTED BY A CRADLE PIPE STAND.
4. THE DEVICE SHALL BE INSTALLED AT AN ELEVATION THAT IS NO LESS THAN 30" -60" ABOVE FINISHED FLOOR.
5. THE DEVICE SHALL BE PLACED 18" AWAY FROM THE ADJACENT WALL TO THE EDGE OF THE SIDE WITH THE TEST COCK AND A MINIMUM OF 8" FROM ALL OTHER SIDES.
6. THE DEVICE SHALL BE PLACED WITH A MINIMUM OF 30" CLEAR SPACE IN FRONT OF THE DEVICE FROM FLOOR TO CEILING.
7. A MINIMUM OF 18" SHALL BE MAINTAINED FROM THE BOTTOM OF THE RELIEF VALVE TO THE FLOOR. AN ADEQUATE DRAIN IS REQUIRED FOR THE BACKFLOW PREVENTION ASSEMBLY. (UNDER THE DEVICE WHENEVER POSSIBLE)
8. A STRAINER IS RECOMMENDED TO BE INSTALLED BEFORE THE BACKFLOW DEVICE.
9. TEST COCKS ARE TO BE USED FOR TESTING OF THE BACKFLOW PREVENTION ASSEMBLY AND SHALL NOT BE MODIFIED.
10. CLEARANCE REQUIREMENTS APPLY TO BOTH REDUCED PRESSURE AND DOUBLE CHECK BACKFLOW PREVENTION ASSEMBLIES.

Colorado Springs Utilities	REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY FIRE PROTECTION SYSTEMS	B1-18 DATED 01/2017



NOTES:

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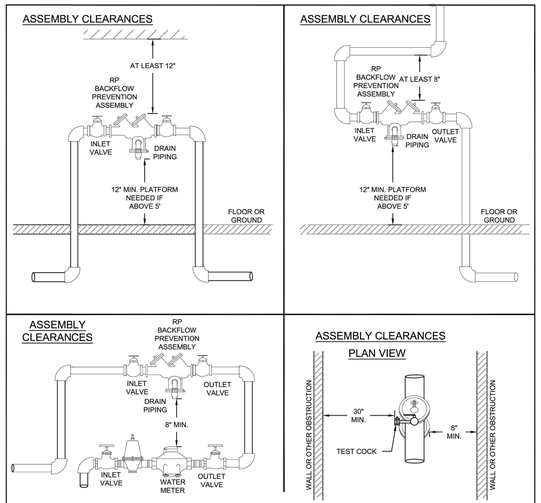
2. TEST COCKS SHOULD BE LOCATED FACING THE THE CLEAR SPACE.
3. ASSEMBLIES TO BE SUPPORTED BY A CRADLE PIPE STAND WHERE NECESSARY.
4. THE DEVICE SHALL BE INSTALLED AT AN ELEVATION THAT IS NO LESS THAN 30" -60" ABOVE FINISHED FLOOR.
5. THE DEVICE SHALL BE PLACED 18" AWAY FROM THE ADJACENT WALL TO THE EDGE OF THE SIDE WITH THE TEST COCK AND A MINIMUM OF 8" FROM ALL OTHER SIDES.
6. THE DEVICE SHALL BE PLACED WITH A MINIMUM OF 30" CLEAR SPACE IN FRONT OF THE DEVICE FROM FLOOR TO CEILING.
7. A MINIMUM OF 18" SHALL BE MAINTAINED FROM THE BOTTOM OF THE RELIEF VALVE TO THE FLOOR. AN ADEQUATE DRAIN IS REQUIRED FOR THE BACKFLOW PREVENTION ASSEMBLY. (UNDER THE DEVICE WHENEVER POSSIBLE)
8. A STRAINER IS RECOMMENDED TO BE INSTALLED BEFORE THE BACKFLOW DEVICE.
9. TEST COCKS ARE TO BE USED FOR TESTING OF THE BACKFLOW PREVENTION ASSEMBLY AND SHALL NOT BE MODIFIED.
10. DIMENSIONS ALSO APPLY TO VERTICAL DOWN/VERTICAL DOWN CONFIGURATIONS AND VERTICAL UP/VERTICAL DOWN (NO BRACE REQUIRED).
11. CLEARANCE REQUIREMENTS APPLY TO BOTH REDUCED PRESSURE AND DOUBLE CHECK BACKFLOW PREVENTION ASSEMBLIES.

Colorado Springs Utilities	VERTICAL UP/VERTICAL UP BACKFLOW PREVENTION ASSEMBLY	B1-19 DATED 01/2017



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3. ASSEMBLIES TO BE SUPPORTED BY A CRADLE PIPE STAND WHERE NECESSARY.
4. THE DEVICE SHALL BE INSTALLED AT AN ELEVATION THAT IS NO LESS THAN 30" -60" ABOVE FINISHED FLOOR.
5. THE DEVICE SHALL BE PLACED 18" AWAY FROM THE ADJACENT WALL TO THE EDGE OF THE SIDE WITH THE TEST COCK AND A MINIMUM OF 8" FROM ALL OTHER SIDES.
6. THE DEVICE SHALL BE PLACED WITH A MINIMUM OF 30" CLEAR SPACE IN FRONT OF THE DEVICE FROM FLOOR TO CEILING.
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8. A STRAINER IS RECOMMENDED TO BE INSTALLED BEFORE THE BACKFLOW DEVICE.
9. TEST COCKS ARE TO BE USED FOR TESTING OF THE BACKFLOW PREVENTION ASSEMBLY AND SHALL NOT BE MODIFIED.

Colorado Springs Utilities	TYPICAL CLEARANCE FOR BACKFLOW PREVENTION ASSEMBLY	B1-20 DATED 01/2017

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Mike Bramlett — 32314 — 10/13/21

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

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Know what's below. Call before you dig.

SOLACE AT CIMARRON HILLS

DETAIL SHEETS

SHEET 10 OF 12

JOB NO. 25174.00

NOTES:

1. THIS DRAWING SHOWN IS DIAGRAMMATIC, AND IS INTENDED TO SHOW THE INTENT OF THE WORK IN PLUMBING PIPING TO ACCOMMODATE THE UTILITY SUBMETER.
2. BACKFLOW PREVENTION:
   ALL EXISTING CUA/A CUSTOMERS, AND ALL NEW CUA/A CUSTOMERS MUST INSTALL THE REQUIRED MAIN LINE CONTAINMENT BACKFLOW PREVENTION ASSEMBLY IN COMPLIANCE WITH THE CURRENT COLORADO SPRINGS UTILITIES WATER LINE EXTENSION & SERVICE STANDARDS AND CITY CODE TO ENTER/REMAIN IN THE CUA/A PROGRAM. PLEASE NOTE THAT ADDITIONAL BACKFLOW PREVENTION BEYOND WHAT IS REQUIRED BY COLORADO SPRINGS UTILITIES, MAY BE REQUIRED BY REGIONAL BUILDING DEPARTMENT AND PLUMBING CODES.
3. A PLUMBING PERMIT IS REQUIRED, THROUGH THE REGIONAL BUILDING DEPARTMENT.
4. APPROVAL OF THE SUBMETER PIPING WORK INCLUDES BOTH COLORADO SPRINGS UTILITIES AND REGIONAL BUILDING DEPARTMENT APPROVAL.
5. SUBMETER LOCATION SHALL BE APPROVED BY COLORADO SPRINGS UTILITIES. LOCATION SHALL ALLOW READY ACCESS FOR INSPECTION AND REPAIR. INSTALLATION SHALL INCLUDE DEDICATED UPSTREAM AND DOWNSTREAM SHUTOFF VALVES.
6. ANY AUTOMATED METER READING OR REMOTE READING PROVISIONS OF THE UTILITY SUBMETER MUST BE ACCOMMODATED. THIS MAY REQUIRE THE SUBMETER TO BE WITHIN A SPECIFIED DISTANCE OF AN EXTERIOR WALL OR OTHER REQUIREMENTS.
7. METER WILL BE SET BY COLORADO SPRINGS UTILITIES PERSONNEL.
8. WHERE A SUBMETER BYPASS IS CHOSEN BY THE CUSTOMER, THE FOLLOWING APPLY:
   A) LOCKS NOT REQUIRED. SINCE THE SUBMETER READINGS ARE USED FOR CREDIT ON THE CUSTOMERS WASTEWATER BILL,OPENING THE BYPASS ONLY REDUCES THE CUSTOMERS CREDITS, THEREFORE A UTILITY LOCK IS NOT REQUIRED.
   B) BYPASS PIPING SHALL BE ARRANGED TO BYPASS ONLY THE UTILITY SUBMETER. BYPASS PIPING SHALL NOT BYPASS OTHER APPURTENANCES SUCH AS THE BACKFLOW PREVENTER, PRESSURE REGULATOR, OR ANY CUSTOMER METER.
   C) RECOMMENDED BYPASS PIPING SIZES

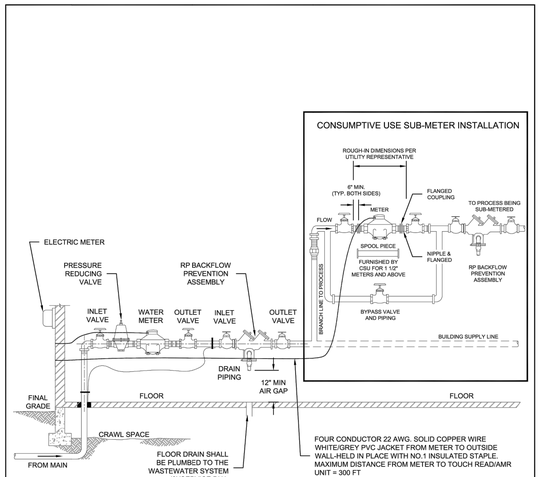
METER SIZE	BYPASS SIZE
¾"	¾"
1"	1"
1-½"	1"
1-½"	1"
2"	1"
3" AND LARGER	LINE SIZE

Colorado Springs Utilities — It's how we're all connected

SCHEMATIC DETAIL OF IRRIGATION AND CONSUMPTIVE USE SUB-METER INSTALLATION

B1-21

DATED 01/2017

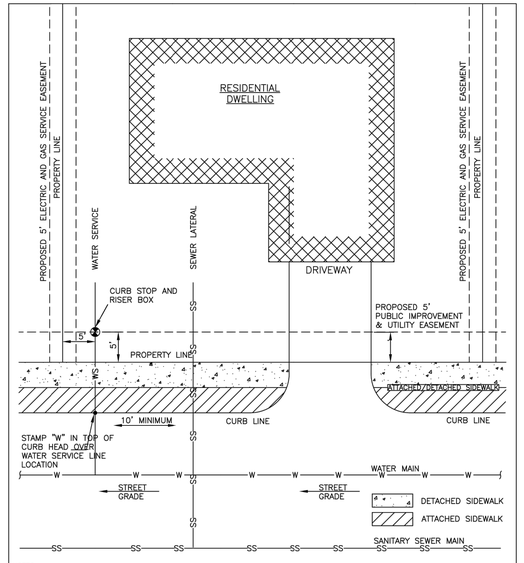


Colorado Springs Utilities — It's how we're all connected

SCHEMATIC DETAIL OF IRRIGATION AND CONSUMPTIVE USE SUB-METER INSTALLATION

B1-22

DATED 01/2017



NOTES:

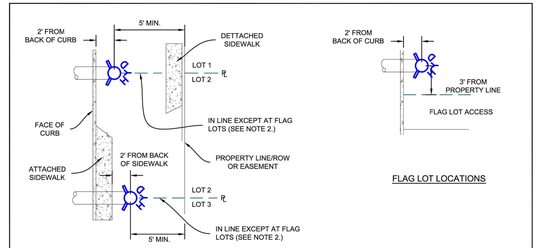
1. DIMENSIONS SHOWN ARE TYPICAL FOR ALL DEVELOPMENTS REGARDLESS OF EXACT CONFIGURATION RELATIVE TO STREET.
2. SEWER LATERAL CLEANOUT NOT SHOWN
3. TYPICAL WATER SERVICE LINE LOCATION SHALL BE 5' FROM THE SIDE LOT LINE. ALTERNATE LOCATIONS MAY BE CONSIDERED ON A CASE BY CASE BASIS AND WILL ONLY BE ALLOWED WITH APPROVAL FROM THE DISTRICT.
4. ALL WATER SERVICE CURB STOPS SHALL BE SEALED WITH A WATERTIGHT PLUG TO PREVENT CONTAMINATION.

CHEROKEE METROPOLITAN DISTRICT

TYPICAL SERVICE LINE LOCATIONS RELATIVE TO STREET LAYOUT

DRAWN: KSJB	REVISED:
DATE: NOV 2020	REVISED:
SCALE: NONE	REVISED:

W-38



NOTES:

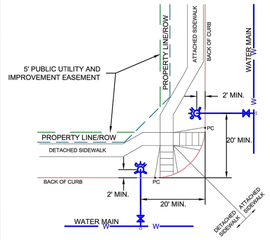
1. HYDRANT NOZZLE SHALL BE POSITIONED AT RIGHT ANGLES TO THE NEAREST CURB. IF NO CURB OR SIDEWALK EXIST, NOZZLE SHALL BE PLACED AT RIGHT ANGLE TO STREET OR ALLEY.
2. HYDRANTS INSTALLED AT FLAG LOT LINES SHALL BE OFFSET 3' FROM THE LOT LINE.
3. HYDRANTS SHALL BE PLACED A MINIMUM OF 5.0 FEET FROM ANY UTILITY OR DRAINAGE STRUCTURE. (TO BE COORDINATED WITH JOINT TRENCH INSTALLATION).
4. EASEMENTS MUST BE PROVIDED FOR ANY PUBLIC HYDRANT WHICH IS CLOSER THAN 5.0 FEET INSIDE THE RIGHT-OF-WAY LINE.
5. A SAFE WORKING CLEARANCE IS NECESSARY FOR THE FIRE DEPARTMENT TO IDENTIFY, ATTACH HOSES TO AND OPERATE A FIRE HYDRANT IN CASE OF AN EMERGENCY. A 3 FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS EXCEPT AS OTHERWISE REQUIRED OR APPROVED BY THE COLORADO SPRINGS FIRE DEPARTMENT.
6. FIRE HYDRANTS SHALL BE INSTALLED WITH CLEARANCES PER THE MOST CURRENT APPROVED IFC.

Colorado Springs Utilities — It's how we're all connected

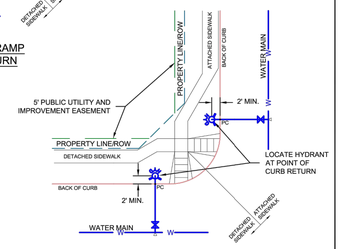
FIRE HYDRANT LOCATIONS

A5-1

DATED 03/2014



STANDARD PEDESTRIAN RAMP LAYOUT FOR CURB RETURN RADIUS 20' OR LESS



STANDARD PEDESTRIAN RAMP LAYOUT FOR CURB RETURN RADIUS 25' OR GREATER

NOTES:

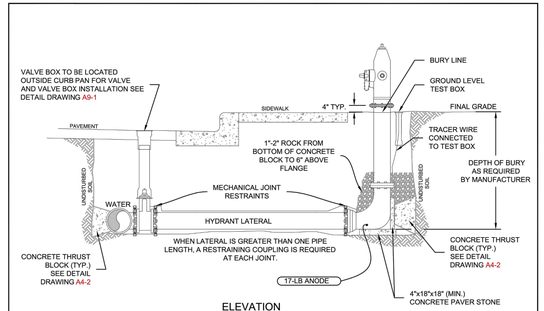
1. THE FIRE HYDRANT SHALL BE LOCATED BEHIND THE POINT OF CURB RETURN FOR CURB RETURN RADIUS 25 FEET OR GREATER.
2. WHERE THE CURB RETURN RADIUS IS 20 FEET OR LESS THE CENTER OF THE HYDRANT SHALL BE LOCATED 20 FEET OFF OF THE BACK OF CURB OF THE INTERSECTING STREET.
3. IN ALL CASES THE FIRE HYDRANT SHALL BE LOCATED A MINIMUM OF 2 FEET OUTSIDE OF THE PEDESTRIAN RAMP OR SIDEWALK.
4. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER OR THE DEVELOPER'S ENGINEER TO VERIFY THAT PROPOSED HYDRANT LOCATIONS WILL NOT CONFLICT WITH ANY OTHER UTILITIES, FACILITIES, PEDESTRIAN RAMP INSTALLATIONS, DRAINAGE FACILITIES, PROPOSED PROPERTY STRUCTURES OR IMPROVEMENTS PRIOR TO BEGINNING CONSTRUCTION.

Colorado Springs Utilities — It's how we're all connected

FIRE HYDRANT LOCATIONS

A5-2

DATED 03/2014



NOTES:

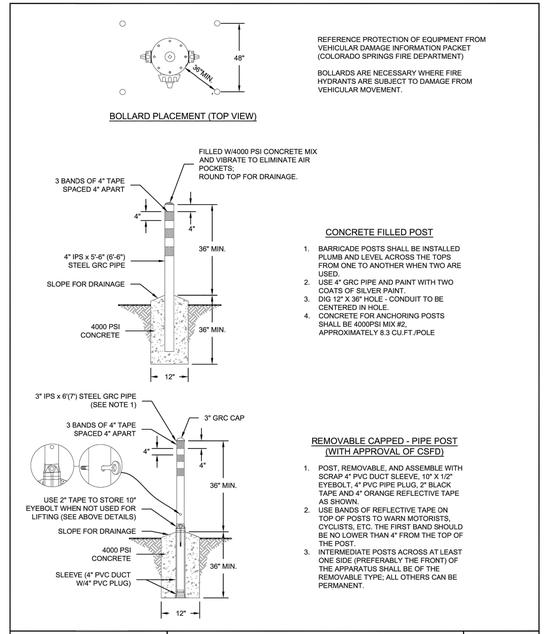
1. MECHANICAL JOINT RESTRAINTS SHALL BE INSTALLED PER DETAIL DRAWINGS A4-4, A4-5, & CHAPTER 5.
2. TRACER WIRE AND GROUND LEVEL TEST BOX TO BE INSTALLED WITH EACH FIRE HYDRANT. PLACE TEST BOX WITHIN 6" FROM THE HYDRANT.
3. REFERENCE DETAIL DRAWINGS A5-1 & A5-2 FOR FIRE HYDRANT LOCATION.
4. INSTALLATION OF A PRIVATE FIRE HYDRANT WILL REQUIRE A SECONDARY VALVE INSTALLED AT THE PROPERTY LINE.
5. HYDRANT BASE BLOCK SHALL BE PLACED ON UNDISTURBED EARTH.
6. DO NOT BLOCK WEEP HOLE WITH POLYWRAP.
7. COVER DRAIN ROCK WITH POLYWRAP PRIOR TO BACKFILL.
8. FOR HDPE HYDRANT CONNECTION SEE DETAIL DRAWING A10-9.
9. FOR PRIVATE FIRE HYDRANTS A SECONDARY VALVE SHALL BE INSTALLED ON THE PROPERTY LINE OR RIGHT-OF WAY LINE.

Colorado Springs Utilities — It's how we're all connected

FIRE HYDRANT INSTALLATION

A5-3

DATED 03/2014



Colorado Springs Utilities — It's how we're all connected

FIRE HYDRANT PROTECTION POSTS (BOLLARDS)

A5-4

DATED 03/2014

WATER DETAIL NOTES:

1. ALL VALVES MUST OPEN LEFT PER CHEROKEE WATER DISTRICT SECTION 2.6.G.8
2. NO EXTERNAL METERS SHALL BE INSTALLED WITH THE EXCEPTION OF IRRIGATION LINES.
3. NO SERVICES SHALL BE CONSTRUCTED USING COPPER MATERIALS.
4. NO BYPASS METERS SHALL BE USED ON THIS SITE.

811 Know what's below. Call before you dig.

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett 32314 10/13/21

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

UNTIL SUCH TIME AS THESE PLANS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
JACKSON DEARBORN PARTNERS
404 S. WELLS STREET, SUITE 400
CHICAGO, IL 60607
ATTN: DANE OLMSTEAD
(734)216-2577
DOLMSTEAD@JACKSONDEARBORN.COM

J·R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

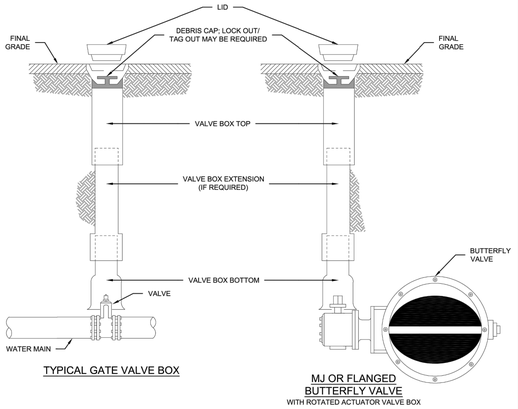
H-SCALE	N/A	DESIGNED BY	APL
V-SCALE	N/A	DRAWN BY	APL
DATE	10/13/21	CHECKED BY	

SOLACE AT CIMARRON HILLS

DETAIL SHEETS

SHEET 11 OF 12

JOB NO. 25174.00



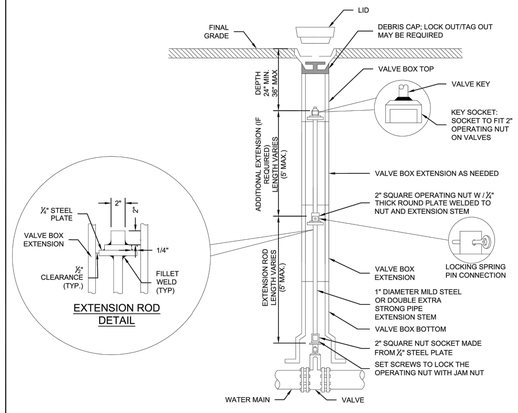
TYPICAL GATE VALVE BOX

MJ OR FLANGED BUTTERFLY VALVE
WITH ROTATED ACTUATOR VALVE BOX

NOTES:

1. MAIN AND FIRE HYDRANT VALVES AND VALVE BOXES SHALL NOT BE IN THE CURB PAN, CURB OR SIDEWALK.
2. VALVE BOXES SHALL BE SLIP TYPE, PER CHAPTER 4.
3. DEBRIS CAPS SHALL BE INSTALLED AS CLOSE UNDER THE CAST IRON COVER WITHOUT INTERFERING WITH COVER OPERATIONS.
4. DEBRIS CAPS WITH FLEXIBLE SKIRTS SHALL BE TRIMMED TO PROVIDE A SMOOTH CONTACT WITH THE INTERIOR OF THE VALVE BOX.
5. FOR SERVICE LINES 4" AND GREATER, TRACER WIRE WILL BE BROUGHT UP IN THE SECONDARY VALVE BOX.

Colorado Springs Utilities	VALVE BOX INSTALLATION	A9-1
		DATED 03/2014

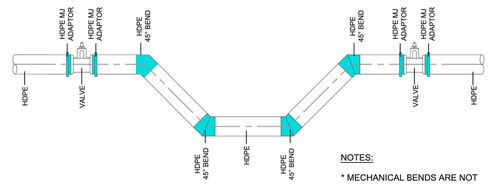


EXTENSION ROD DETAIL

NOTES:

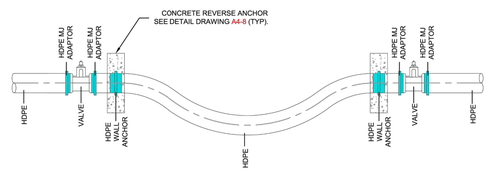
1. THIS DRAWING DEPICTS DEEP VALVE BOX INSTALLATIONS WITH EXTENSION RODS.
2. FOR BUTTERFLY VALVES, SUPPORT GEAR CASING WITH 4"x18"x18" (MIN) CONCRETE BLOCKS.
3. REFER TO DETAIL DRAWING A9-1 FOR TYPICAL VALVE BOX INSTALLATION REQUIREMENTS.

Colorado Springs Utilities	DEEP VALVE BOX INSTALLATION WITH EXTENSION RODS FOR DEPTHS OVER 10'	A9-2
		DATED 03/2014



NOTES:

* MECHANICAL BENDS ARE NOT ALLOWED IN A HDPE LOWERING.



TYPICAL BORE APPLICATION

NOTES: DENOTES HDPE FITTINGS

1. FLANGED FITTINGS TO BE APPROVED BY COLORADO SPRINGS UTILITIES. FOR 16" OR LARGER HDPE PIPE USE BUTTERFLY VALVES.
2. SEE DETAIL DRAWING A10-7 FOR WALL ANCHOR DETAIL.
3. SEE DETAIL DRAWING A4-8 FOR CONCRETE REVERSE ANCHOR FOR DIMENSIONS AND SIZING.

Colorado Springs Utilities	TYPICAL INSTALLATION HDPE LOWERINGS	A10-8
		DATED 06/2015

WATER DETAIL NOTES:

1. ALL VALVES MUST OPEN LEFT PER CHEROKEE WATER DISTRICT SECTION 2.6.0.8
2. NO EXTERNAL METERS SHALL BE INSTALLED WITH THE EXCEPTION OF IRRIGATION LINES.
3. NO SERVICES SHALL BE CONSTRUCTED USING COPPER MATERIALS.
4. NO BYPASS METERS SHALL BE USED ON THIS SITE.

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett 10/13/21

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

Know what's below. Call before you dig.

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
JACKSON DEARBORN PARTNERS
404 S. WELLS STREET, SUITE 400
CHICAGO, IL 60607
ATTN: DANE OLMSTEAD
(734)216-2577
DOLMSTEAD@JACKSONDEARBORN.COM

J·R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

H-SCALE	N/A
V-SCALE	N/A
DATE	08/03/21
DESIGNED BY	CJS
DRAWN BY	CJS
CHECKED BY	

SOLACE AT CIMARRON HILLS

DETAIL SHEETS

SHEET 12 OF 12

JOB NO. 25174.00

SOLACE AT CIMARRON HILLS

SITUATED IN THE NORTHWEST QUARTER OF SECTION 7
TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN
COUNTY OF EL PASO, STATE OF COLORADO

SANITARY SEWER PLAN AND PROFILE

CONTACTS:

OWNER/DEVELOPER	JACKSON DEARBORN PARTNERS 404 S. WELLS STREET, SUITE 400 CHICAGO, IL 60607 ATTN: DANE OLMSTEAD P~(734) 216-2577
ENGINEER/SURVEYOR	JR ENGINEERING, LLC ATTN: MIKE A. BRAMLETT 5475 TECH CENTER DRIVE, SUITE 235 COLORADO SPRINGS, CO 80919 P~(719) 593-2593
DEVELOPMENT SERVICES (CMD)	CHEROKEE METROPOLITAN DISTICT 6250 PALMER PARK BLVD COLORADO SPRINGS, CO 80915 P~(719) 597-5080
FIRE PROTECTION DISTRICT	CIMARRON HILLS FIRE DEPARTMENT 1835 TUSKEGEE PL COLORADO SPRINGS, CO 80915 P~(719) 591-0960
PLANNER	N.E.S., INC. 619 NORTH CASCADE AVENUE, SUITE 200 COLORADO SPRINGS, CO 80903 P~(719) 471-0073
GEOTECHNICAL	CTL THOMPSON, INC 5170 MARK DABLING BLVD COLORADO SPRINGS, CO 80918 P~(719) 528-8300
ARCHITECT	LCM ARCHITECTS 819 S WABASH AVE, FIFTH FLOOR CHICAGO, IL 60605 P~(312) 995-5305

VICINITY MAP
SCALE: 1"=2000'

SHEET INDEX

1 – COVER SHEET
2 – LEGEND
3–6 – SANITARY SEWER PLAN AND PROFILE
7 – DETAIL SHEET

BASIS OF BEARINGS

THE EASTERLY LINE OF LOT 2, POWERS & GALLEY PLAZA FILING NO. 1 RECORDED IN PLAT BOOK A–4 AT PAGE 30, SAID LINE BEING MONUMENTED BY A 1–1/4" YELLOW PLASTIC CAP STAMPED "LS 22106" AT THE SOUTH END AND A 1" O.D. PIPE AT THE NORTH END, SAID LINE BEARING N00°27'47"E AS SHOWN ON SAID PLAT.

BENCHMARK

FIMS MONUMENT F81, BEING MONUMENTED BY A 3–1/4" ALUMINUM CAP IN RANGE BOX WITH NO TOP, LOCATED 900 FEET EAST OF THE INTERSECTION OF E. PLATTE AVENUE AND VALLEY STREET, APPROXIMATLEY 80 FEET NORTH OF THE CENTERLINE OF E PLATTE AVENUE. SAID MONUMENT HAVING A PUBLISHED ELEVATION OF 6275.86 FEET, NAVD88.

CHEROKEE METROPOLITAN DISTRICT
WASTEWATER PLAN APPROVAL

THE CHEROKEE METROPOLITAN DISTRICT RECOGNIZES THE DESIGN PROFESSIONAL OF RECORD AS THE LICENSED ENGINEER HAVING RESPONSIBILITY FOR THE SUBMITTED DESIGN AND THE DISTRICT HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY. AS SUCH, THE APPROVAL GRANTED HEREIN IS FOR THE CONSTRUCTION OF THE FACILITIES AS REPRESENTED ON THESE DOCUMENTS. APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE BELOW AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

APPROVED BY: _____ DATE: 11-08-2021

Know what's below. Call before you dig.

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett 32314 10/13/21

MIKE A. BRAMLETT, P.E. DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

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No.	REVISION	BY	DATE

H-SCALE	1"=2000'
V-SCALE	N/A
DATE	10/13/21
DESIGNED BY	APL
DRAWN BY	APL
CHECKED BY	

SOLACE AT CIMARRON HILLS
COVER SHEET
SANITARY SEWER PLAN AND PROFILE

SHEET 1 OF 7

JOB NO. 25174.00

LAYER LINETYPE LEGEND

	EXISTING	PROPOSED
PHASE LINE		
MATCH LINE		
SECTION LINE		
BOUNDARY LINE		
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
R.O.W. A LINE	A	A
CENTERLINE		
CITY LIMITS		
WIRE FENCE		
CHAIN LINK FENCE		
WOOD FENCE		
MASONRY FENCE		
GUARDRAIL		
CONC. BARRIER		
CABLE TV	TV	TV
ELECTRIC	E	E
FIBER OPTIC	FO	FO
GAS MAIN	G	G
IRRIGATION MAIN	IRR	IRR
OIL/PETRO. MAIN	O	O
OVERHEAD UTILITY	OHU	OHU
SANITARY SEWER	S	
STORM DRAIN		
TELEPHONE	T	T
WATER MAIN	W	W
RAW WATER LINE	RWL	RWL
SWALE/WATERWAY FLOWLINE		
DIVERSION DITCH		
DIVERSION CHANNEL		
MAJOR DRAINAGE BASIN		
MINOR DRAINAGE BASIN		
TOP OF SLOPE		
TOE OF SLOPE		
EDGE OF WATER		
INDEX CONTOUR	6100	6100
INTERMEDIATE CONTOUR		
DEPRESSION CONT. (INDEX)	6100	6100
DEPRESSION CONT. (INTER)		
TOP OF CUTS		
TOE OF FILLS		
CUT AND FILL LINE		C/F
SILT FENCE	SF	SF
100 YEAR FLOODPLAIN	100YR	100YR
500 YEAR FLOODPLAIN	500YR	500YR
FLOODWAY	FLDWY	FLDWY
BASE FLOOD ELEVATION		
EDGE OF WETLANDS		
STONE WALL		

LANDSCAPE LEGEND

	EXISTING	PROPOSED
TREE – CONIFEROUS		
TREE – DECIDUOUS		
SHRUB/BUSH		
SHRUBS AND BUSHES		
IRRIGATION BOX		
IRRIGATION SPRINKLER		
IRRIGATION VALVE		
BOLLARD		
FLAGPOLE	FP	

UTILITIES LEGEND

	EXISTING	PROPOSED
STORM SEWER		
MANHOLE		
STORM INLET		
AREA INLET – SQUARE		
AREA INLET – ROUND		
FLARED END SECTION		
RIPRAP		
SANITARY SEWER		
LINE MARKER	Mkr San	
SERVICE MARKER		
CLEAN–OUT		
MANHOLE W/ DIRECTIONAL FLOW ARROW		
WATER LINE		
LINE MARKER	Mkr W	
SERVICE MARKER		
FIRE HYDRANT		
FIRE CONNECTION		
MANHOLE		
BEND		
BLOW–OFF VALVE		
WELL	WELL	WELL
METER		
VALVE		
REDUCER		
THRUST BLOCK		
CROSS		
PLUG W/ THRUST BLOCK		
TEE		
REVERSE ANCHOR		
ANODE		
AIR & VACUUM VALVE ASSEMBLY		
TRANSMISSION BLOW–OFF ASSEMBLY		
GAS LINE		
MARKER	Mkr G	
SERVICE MARKER		
METER		
VALVE		
PLUG		
TEE		
DRY UTILITIES		
CABLE TV MARKER	Mkr TV	
CABLE TELEVISION PEDESTAL	TV	
ELECTRIC MARKER	Mkr E	
ELECTRIC SERVICE MARKER		
ELECTRICAL PEDESTAL	E	
ELECTRICAL METER	E	
ELECTRICAL MANHOLE	E	
FIBER–OPTIC MARKER	Mkr FO	
IRRIGATION PEDESTAL	I	
TELEPHONE MARKER	Mkr T	
TELEPHONE PEDESTAL	T	
TELEPHONE MANHOLE	T	
UTILITY POLE		
GUY ANCHOR		
GUY POLE		
MISC. UTILITIES		
VENT PIPE	VP	VP
TEST HOLE DESIGNATOR	TH# FIRM AGENCY	

MONUMENTATION LEGEND

ALUMINUM CAP – FOUND	AC
BRASS CAP – FOUND	BC
BENCHMARK – FOUND	
CROSS – FOUND	
MONUMENT – SET	
MONUMENT – FOUND (DEFAULT)	
MONUMENT – FOUND (ALTERNATE 1)	
MONUMENT – FOUND (ALTERNATE 2)	
MONUMENT – FOUND (ALTERNATE 3)	
MONUMENT – FOUND (ALTERNATE 4)	
MONUMENT – FOUND (ALTERNATE 5)	
MONUMENT – FOUND (ALTERNATE 6)	
MONUMENT – FOUND (ALTERNATE 7)	
NAIL & WASHER – FOUND	NAIL & WASHER
PANEL – FOUND	
PK NAIL – FOUND	PK NAIL
ROW MONUMENT – FOUND	
ROW MARKER – FOUND	
SECTION CORNER – FOUND	
SECTION CORNER – SET	
QUARTER–SECTION CORNER – FOUND	
QUARTER–SECTION CORNER – SET	
SECTION CENTER – FOUND	
SECTION CENTER – FOUND	
CONTROL/TRAVERSE POINT – SET	

TRAFFIC LEGEND

	EXISTING	PROPOSED
PARKING METER		
TRAFFIC SIGNAL BOX		
TRAFFIC SIGNAL POLE		
TRAFFIC SIGNAL		
BARRICADE		
GUARD RAIL POST		
IMPACT ATTENUATOR		
BRIDGE STYLE HIGHWAY SIGN POST		
CANTILEVER STYLE HIGHWAY SIGN POST		
SIGN		
RAILROAD MARKER/SIGN		
STREET LIGHT		
STREET LIGHT – SINGLE		
STREET LIGHT – DOUBLE		
LUMINAIRE		
ALTERNATE LUMINAIRE		
SIGNAL MAST ARM W/ LUMINAIRE		
PEDESTAL POLE FOUNDATION		
TRAFFIC SIGNAL POLE		
ROUND PULL BOX		
MEDIUM PULL BOX		
LARGE PULL BOX (20X33X15)		
SIGNAL HEAD WITHOUT BACK PLATE		
SIGNAL HEAD WITH BACK PLATE		
PEDESTRIAN SIGNAL HEAD		
VIDEO IMAGE DETECTOR		
OPTICOM DETECTOR		
VEHICLE DETECTION ZONE		V

STORM WATER MANAGEMENT

	KEY	SYMBOL
CHECK DAM	CD	
CONSTRUCTION ROAD STABILIZATION	CRS	
CURB SOCK INLET PROTECTION	CS	
CONCRETE WASHOUT AREA	CWA	
DIVERSION DITCH AND DIKE, TEMPORARY	DD	
DIVERSION CHANNEL, TEMPORARY	DV	
DEWATERING	DW	
EROSION CONTROL BLANKET	ECB	
INLET FILTER	IF	
INLET PROTECTION	IP	
MULCHING	MU	
OUTLET PROTECTION	OP	
PAVED FLUME	PF	
PERMENENT SEEDING	PS	
REINFORCED CONCRETE DAM	RCD	
ROUGH CUT STREET CONTROL	RCS	
SEDIMENT BASIN	SB	
SEDIMENT CONTROL LOG	SCL	
SILT FENCE	SF	
SURFACE ROUGHENING	SR	
STABILIZED STAGING AREA	SSA	
SEDIMENT TRAP	ST	
STRAW BALE BARRIER	STB	
TERRACING	TER	
TEMPORARY SEEDING	TS	
TEMPORARY STREAM CROSSING CULVERT/BRIDGE	TSC C	
TEMPORARY STREAM CROSSING FORD TYPE	TSC F	
TEMPORARY SLOPE DRAIN	TSD	
VEHICLE TRACKING CONTROL	VTC	
VEHICLE TRACKING CONTROL WITH WASH RACK	WR	

DRAINAGE REPORT PLANS

	KEY
BASIN DESIGNATION (NO COEFFICIENT)	#/#.#
BASIN DESIGNATION (1 COEFFICIENT)	#/#.#/#
BASIN DESIGNATION (2 COEFFICIENTS)	#/#.#/#
ANALISYS POINT IDENTIFIER	#
BASIN DESIGNATION (HISTORIC)	#/#.#
BASIN DESIGNATION (DEVELOPED)	#/##
SUB–BASIN DESIGNATION (DEVELOPED)	#/##
DRAINAGE PIPE IDENTIFIER	##
DRAINAGE POINT IDENTIFIER (HEXAGONAL)	##
DRAINAGE POINT IDENTIFIER (TRIANGULAR)	?
SWMM DESIGNATION 1	#
SWMM DESIGNATION 2	#
SWMM DESIGNATION 3	#
SWMM DESIGNATION 4	?

Know what's below. Call before you dig.

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett 10/13/21

MIKE A. BRAMLETT, P.E. — DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

MIKE A. BRAMLETT 32314 PROFESSIONAL ENGINEER

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
JACKSON DEARBORN PARTNERS
404 S WELLS STREET SUITE 400
CHICAGO, IL 60607
ATTN: DANE OLMSTEAD
734-216-2577
DOLMSTEAD@JACKSONDEARBORN.COM

J·R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

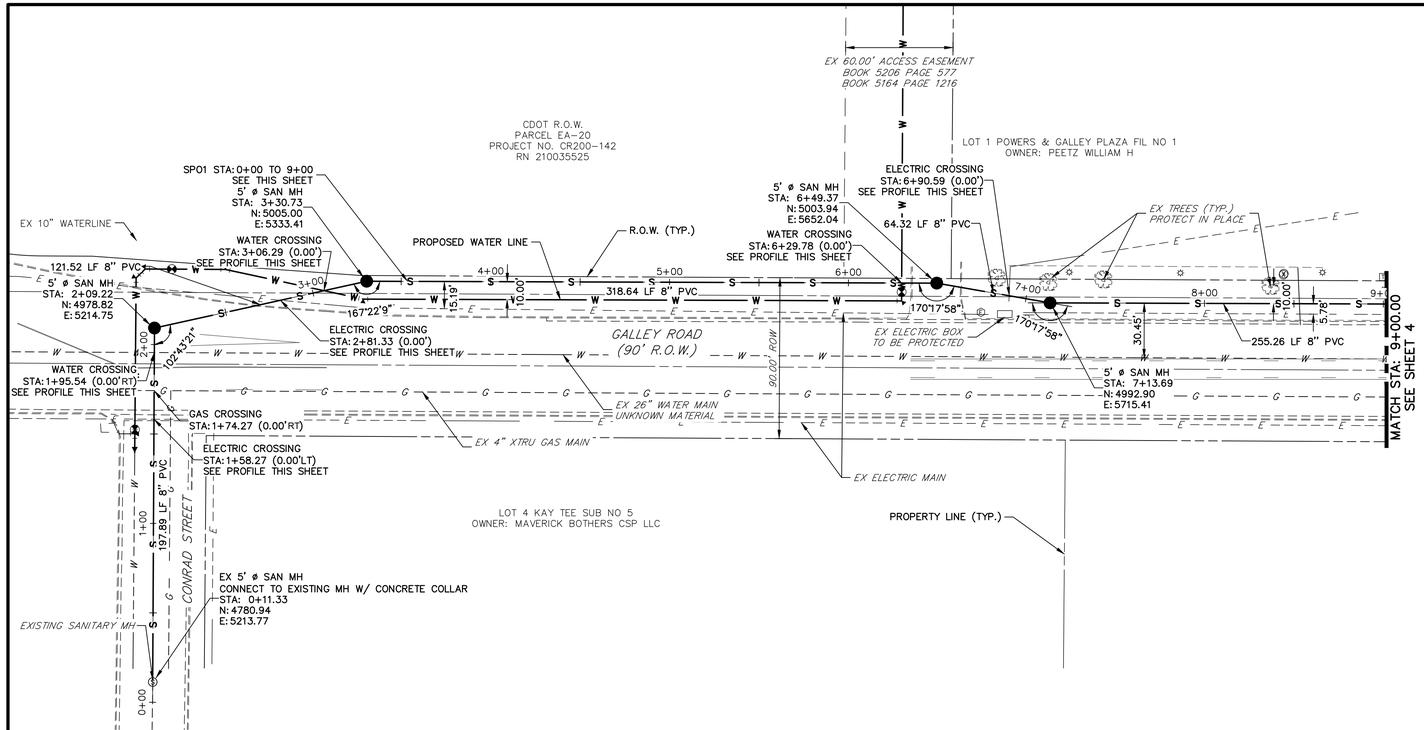
H–SCALE	N/A
V–SCALE	N/A
DATE	10/13/21
DESIGNED BY	APL
DRAWN BY	APL
CHECKED BY	

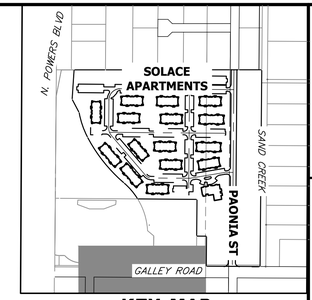
SOLACE AT CIMARRON HILLS

COVER SHEET

SHEET 2 OF 7

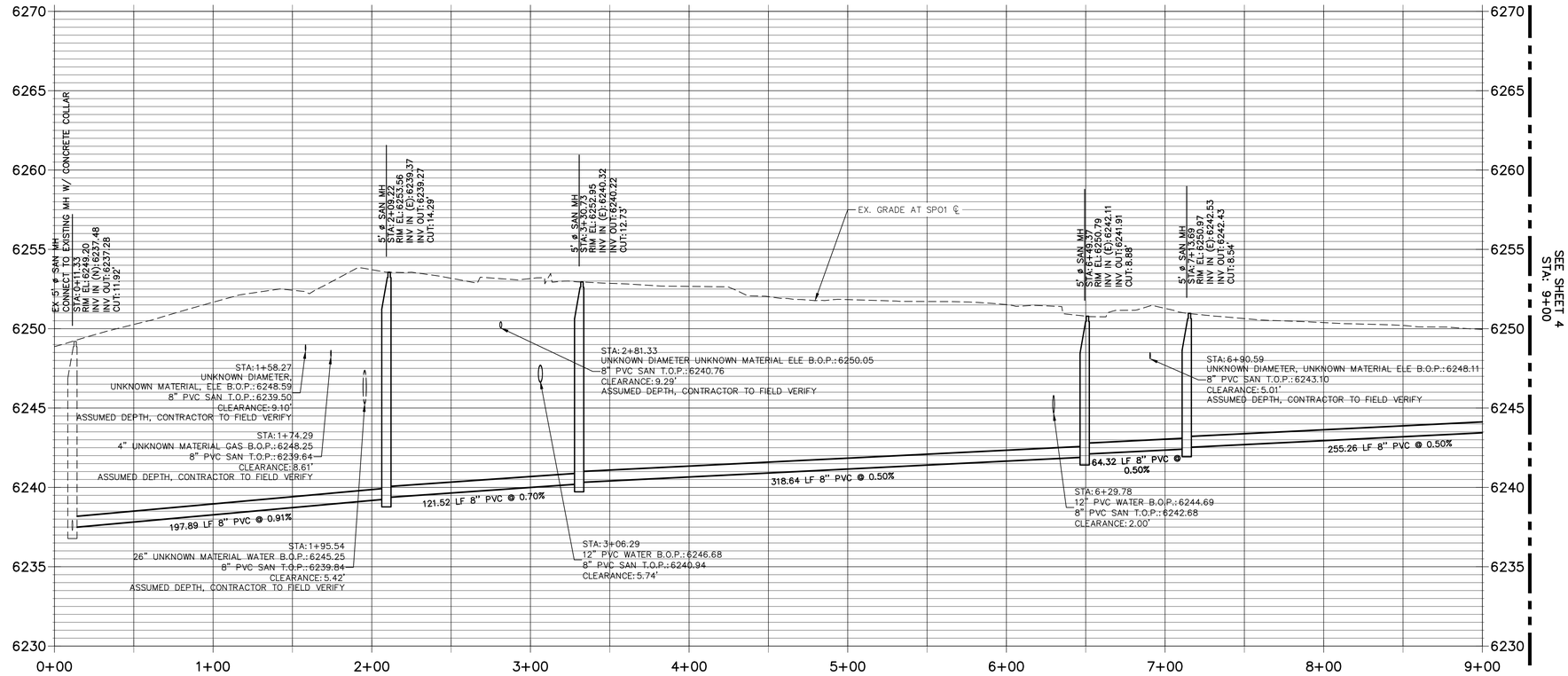
JOB NO. 25174.00





KEY MAP
SCALE 1"=500'

SP01 PROFILE (1)
STA 0+00.00 TO 9+00.00



NOTES:

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40 20 0 40
HORIZONTAL
ORIGINAL SCALE: 1" = 40'
VERTICAL
ORIGINAL SCALE: 1" = 4'

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett 32314 10/13/21

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

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No.	REVISION	BY	DATE

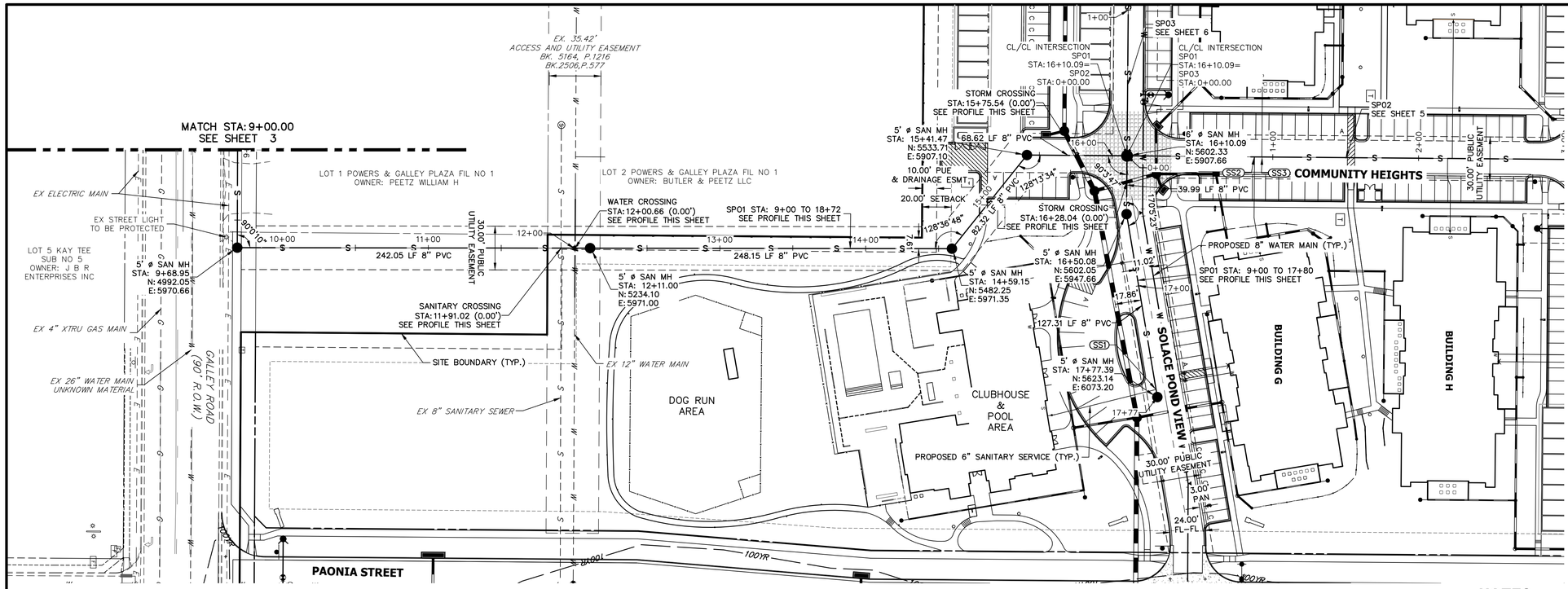
H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1"=40'	1"=4'	10/13/21	APL	APL	

SOLACE AT CIMARRON HILLS

SANITARY SEWER PLAN AND PROFILE

SHEET 3 OF 7

JOB NO. 25174.00



KEY MAP
SCALE 1"=500'

NOTES:

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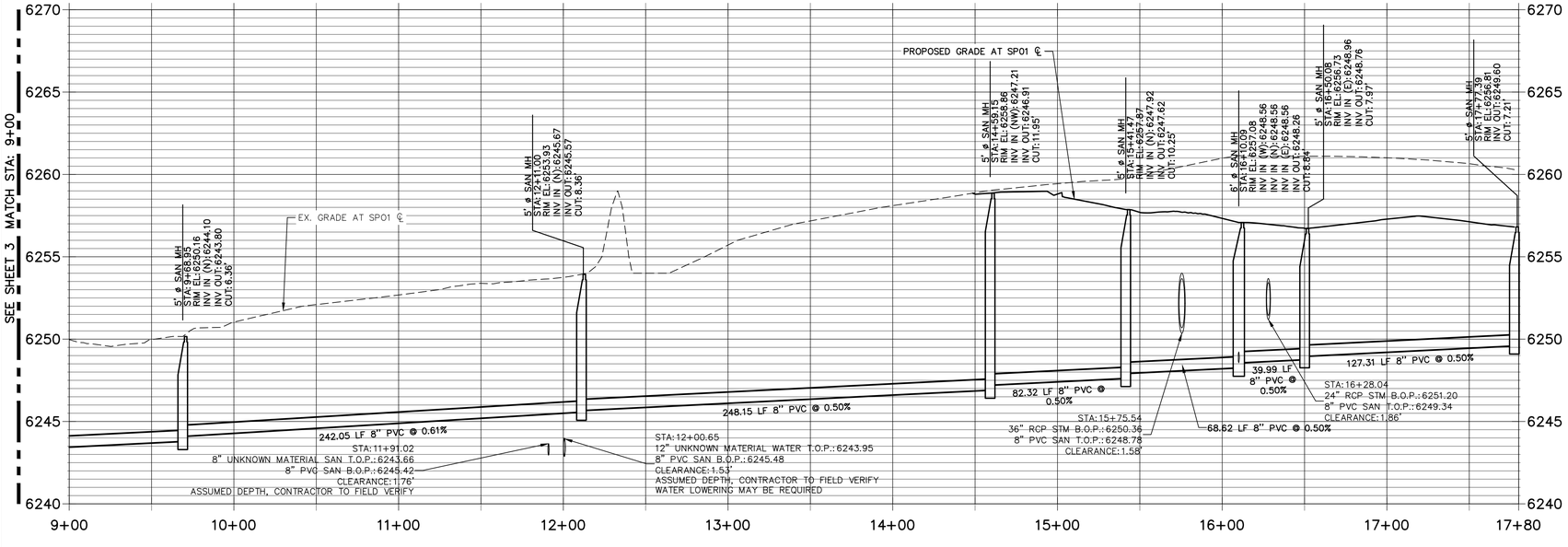
SP01 PROFILE (2)
STA 9+00.00 TO 17+80.00



UTILITY SERVICE TABULATION			
SERVICE/BLDG #	STATION	ALIGNMENT	DESCRIPTION
SS1	17+72.09	SP01	SANITARY SEWER SERVICE 6" PVC W/CLEANOUT

Know what's **below.** **Call** before you dig.

40 20 0 40
HORIZONTAL ORIGINAL SCALE: 1" = 40'
VERTICAL ORIGINAL SCALE: 1" = 4'

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett 10/13/21

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
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No.	REVISION	BY	DATE

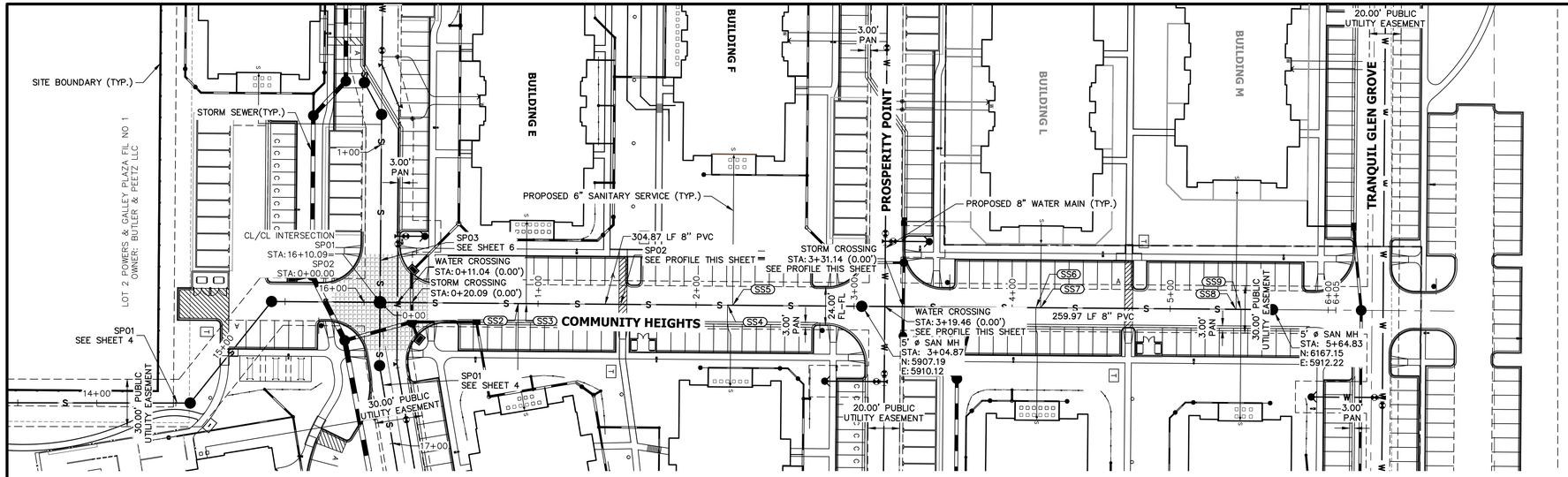
H-SCALE 1"=40' | V-SCALE 1"=4' | DATE 10/13/21 | DESIGNED BY APL | DRAWN BY APL | CHECKED BY

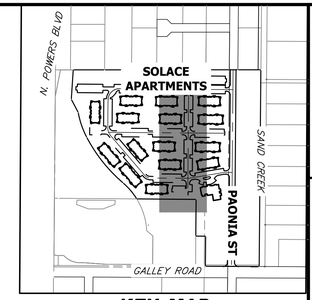
SOLACE AT CIMARRON HILLS

SANITARY SEWER PLAN AND PROFILE

SHEET 4 OF 7

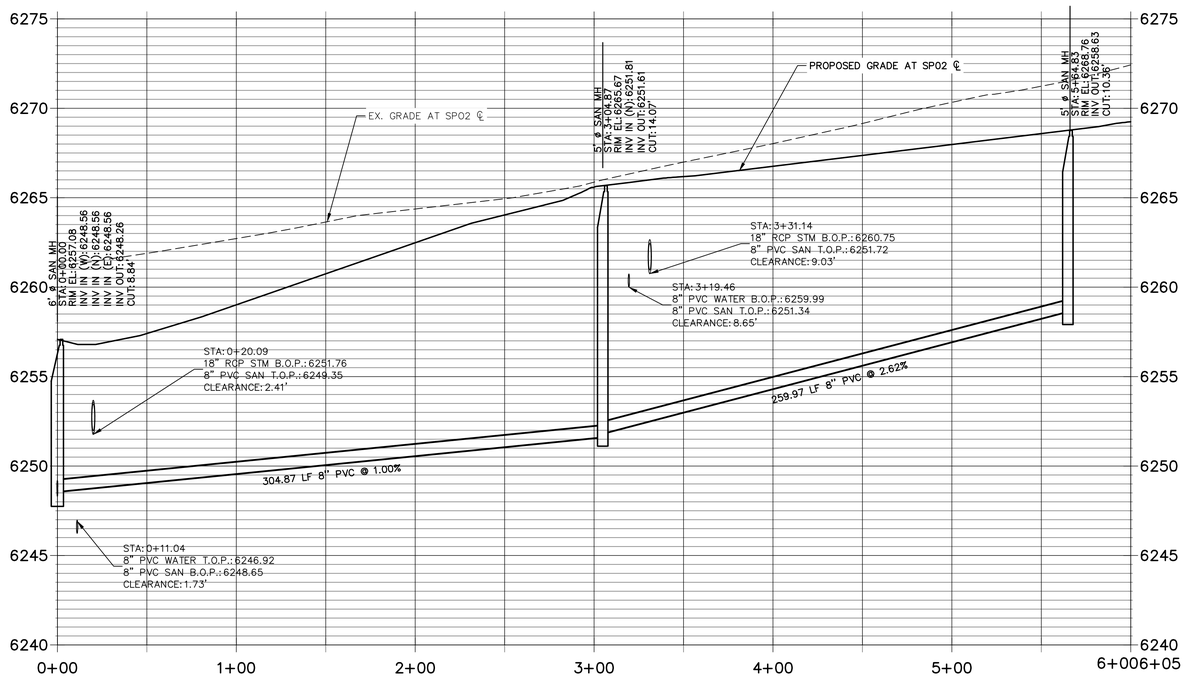
JOB NO. 25174.00





KEY MAP
SCALE 1"=500'

SP02 PROFILE
STA 0+00.00 TO 6+00.00



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UTILITY SERVICE TABULATION			
SERVICE/BLDG #	STATION	ALIGNMENT	DESCRIPTION
SS2	0+87.50	SP02	SANITARY SEWER SERVICE 6" PVC W/CLEANOUT
SS3	0+92.50	SP02	SANITARY SEWER SERVICE 6" PVC W/CLEANOUT
SS4	2+19.93	SP02	SANITARY SEWER SERVICE 6" PVC W/CLEANOUT
SS5	2+23.14	SP02	SANITARY SEWER SERVICE 6" PVC W/CLEANOUT
SS6	4+15.01	SP02	SANITARY SEWER SERVICE 6" PVC W/CLEANOUT
SS7	4+18.01	SP02	SANITARY SEWER SERVICE 6" PVC W/CLEANOUT
SS8	5+41.73	SP02	SANITARY SEWER SERVICE 6" PVC W/CLEANOUT
SS9	5+44.87	SP02	SANITARY SEWER SERVICE 6" PVC W/CLEANOUT

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ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

Mike Bramlett 10/13/21

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

MIKE A. BRAMLETT — 32314 — PROFESSIONAL ENGINEER — STATE OF COLORADO

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No.	REVISION	BY	DATE

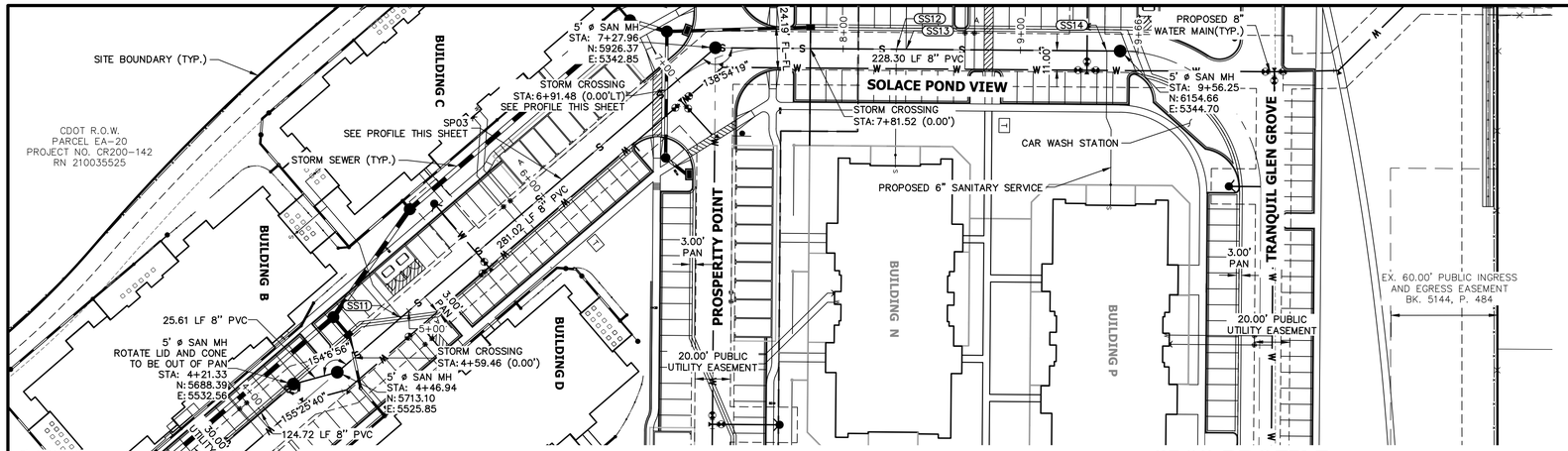
H-SCALE 1"=40' | V-SCALE 1"=4' | DATE 10/13/21 | DESIGNED BY APL | DRAWN BY APL | CHECKED BY

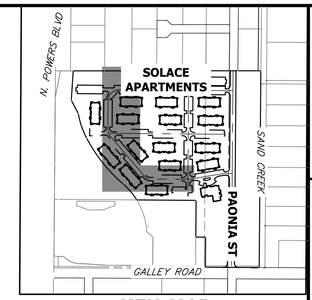
SOLACE AT CIMARRON HILLS

SANITARY SEWER PLAN AND PROFILE

SHEET 5 OF 7

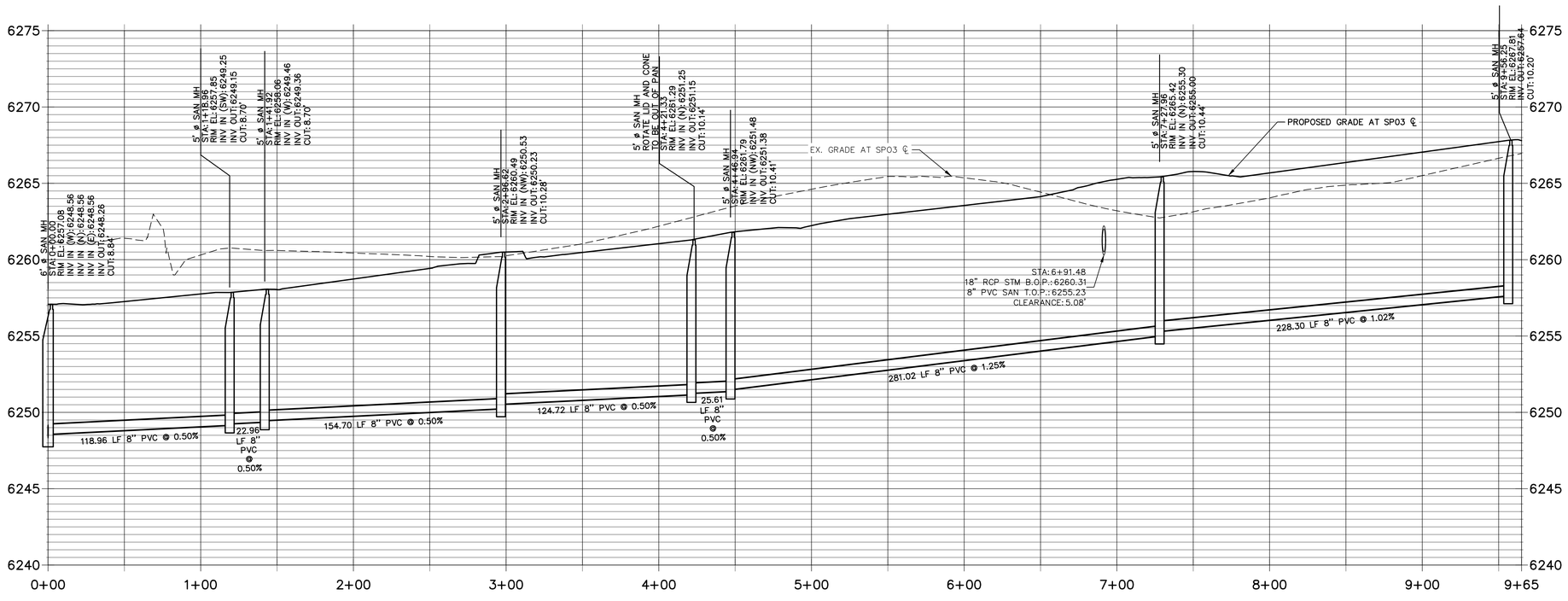
JOB NO. 25174.00





KEY MAP
SCALE 1"=500'

SP03 PROFILE
STA 0+00.00 TO 9+65.00



UTILITY SERVICE TABULATION			
SERVICE/BLDG #	STATION	ALIGNMENT	DESCRIPTION
SS10	1+12.67	SP03	SANITARY SEWER SERVICE 6" PVC W/CLEANOUT
SS11	4+94.15	SP03	SANITARY SEWER SERVICE 6" PVC W/CLEANOUT
SS12	8+29.98	SP03	SANITARY SEWER SERVICE 6" PVC W/CLEANOUT
SS13	8+35.48	SP03	SANITARY SEWER SERVICE 6" PVC W/CLEANOUT
SS14	9+48.75	SP03	SANITARY SEWER SERVICE 6" PVC W/CLEANOUT

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HORIZONTAL
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VERTICAL
ORIGINAL SCALE: 1" = 4'

ENGINEER'S STATEMENT

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Mike Bramlett 32314 10/13/21

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

STATE OF COLORADO · MIKE A. BRAMLETT · 32314 · REGISTERED PROFESSIONAL ENGINEER

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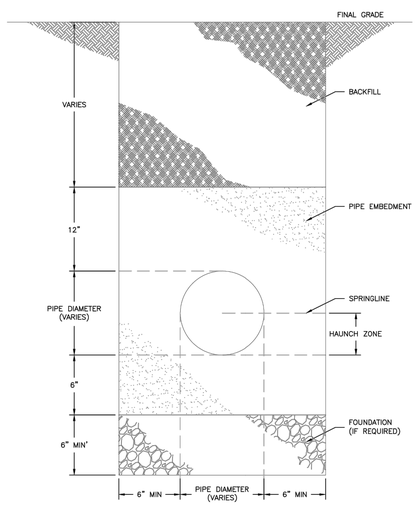
DRAWN BY APL
CHECKED BY

SOLACE AT CIMARRON HILLS

SANITARY SEWER PLAN AND PROFILE

SHEET 6 OF 7

JOB NO. 25174.00



NOTE:

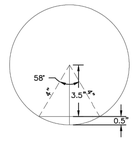
1. TRENCH BACKFILL SHALL CONFORM TO THE SPECIFICATIONS OF THE AUTHORITY HAVING JURISDICTION AND ASTM D2321.

Colorado Springs Utilities — It's how we're all connected

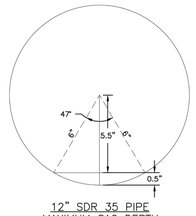
TYPICAL TRENCH SECTION

C2–1

DATED 5/2015



8" SDR 35 PIPE
MAXIMUM SAG DEPTH



12" SDR 35 PIPE
MAXIMUM SAG DEPTH

Colorado Springs Utilities — It's how we're all connected

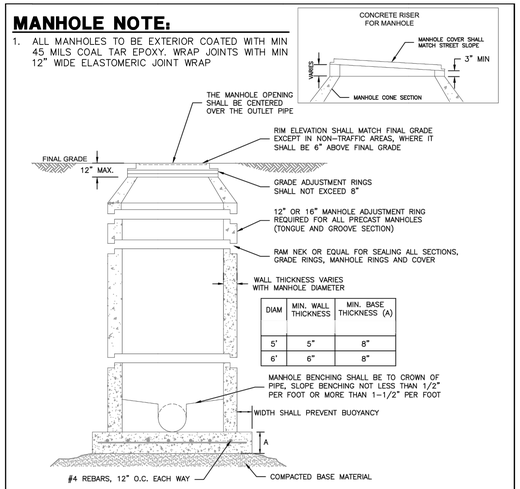
MAXIMUM SAG DEPTH FOR WASTEWATER MAINS

C2–13

DATED 5/2015

MANHOLE NOTE:

1. ALL MANHOLES TO BE EXTERIOR COATED WITH MIN 45 MILS COAL TAR EPOXY. WRAP JOINTS WITH MIN 12" WIDE ELASTOMERIC JOINT WRAP



DIAM	MIN. WALL THICKNESS	MIN. BASE THICKNESS (A)
5'	5"	8"
6'	6"	8"

NOTES:

1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS THAN 4000 PSI @ 28 DAYS AND DESIGNED FOR HS-20 LOADING CONDITIONS.
2. ALL CONCRETE SHALL BE MECHANICALLY VIBRATED.
3. FOR CAST IN PLACE MANHOLES, DO NOT DROP CONCRETE A DISTANCE OF MORE THAN 5' UNLESS APPROVED BY COLORADO SPRINGS UTILITIES.
4. 3/4" CRUSHED ROCK REQUIRED UNDER BASE TO A DEPTH OF 6" UP TO SPRINGLINE OF PIPE, 2'-3' RADIUS AROUND BASE.
6. STRUCTURAL REINFORCEMENT SHALL COMPLY TO ASTM C-478. ASTM C-478 SHALL BE STAMPED ON THE OUTSIDE OF THE MANHOLE.

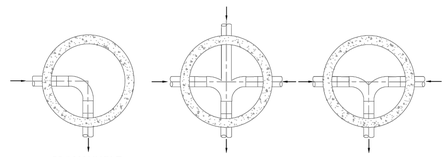
Colorado Springs Utilities — It's how we're all connected

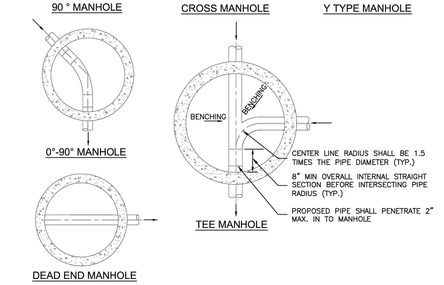
STANDARD CONCRETE MANHOLE

C3–1

DATED 5/2015

TYPICAL INTERSECTING PIPE MANHOLE LAYOUTS





NOTES:

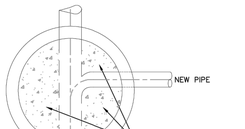
1. SEE DETAIL DRAWING C3-1 FOR MANHOLE REQUIREMENTS.
2. LAYOUTS SHOWN ARE FOR 8"-12" PIPES; LAYOUTS FOR LARGER DIAMETER PIPELINES AND MANHOLES SHALL BE DESIGNED BY THE DESIGN ENGINEER AND APPROVED BY COLORADO SPRINGS UTILITIES.
3. TO BE READ IN CONJUNCTION WITH CHAPTER 2, MANHOLE SIZES.

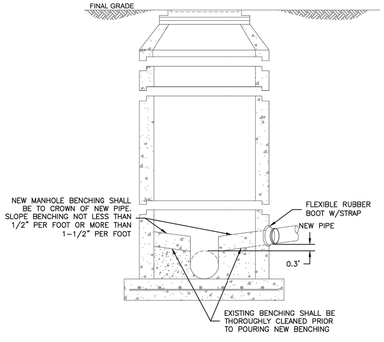
Colorado Springs Utilities — It's how we're all connected

TYPICAL MANHOLE LAYOUTS AND INTERSECTIONS

C3–2

DATED 5/2015





NOTES:

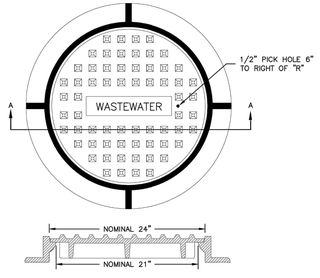
1. SEE DETAIL DRAWING C3-1 FOR MANHOLE REQUIREMENTS.

Colorado Springs Utilities — It's how we're all connected

CORE DRILLING INTO AN EXISTING MANHOLE

C3–3

DATED 5/2015



SECTION A-A
COVER SECTION

NOTES:

1. SEE CHAPTER 4 FOR ADDITIONAL INFORMATION AND SPECIFIC DIMENSIONS.

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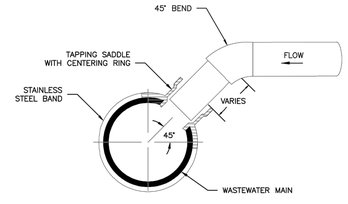
STANDARD MANHOLE RING AND COVER IN TRAFFIC AREAS

C3–9

DATED 5/2015



TYPICAL WASTEWATER SERVICE TAPPING SADDLE

NOTES:

1. WHEN THE WASTEWATER MAIN IS VCP, USE THE SDR 35 PVC SADDLE WITH A LARGER SKIRT. SADDLE SHALL BE ONE NOMINAL SIZE LARGER THAN THE WASTEWATER MAIN.
2. PIPE WILL BE CUT WITH AN O.D. HOLE SAW OR TAPPING MACHINE. A 4-1/2" O.D. HOLE SAW SHALL BE USED FOR 4" TAPS AND A 6-1/2" O.D. HOLE SAW SHALL BE USED FOR 6" TAPS.
3. ONLY 4" AND 6" TAP SIZES ARE ALLOWED.
4. WASTEWATER TAPPING SADDLES SHALL HAVE A CENTERING RING.
5. A GASKET SHALL BE USED TO ENSURE AN AIRTIGHT SEAL BETWEEN THE SADDLE AND THE PIPE.

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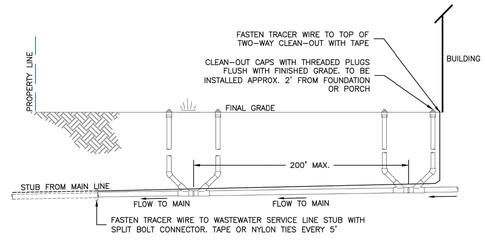
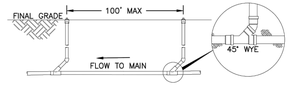
TYPICAL WASTEWATER SERVICE LINE TAPPING METHOD

D1–6

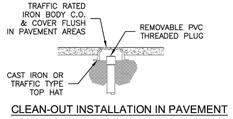
DATED 5/2015



TWO-WAY CLEAN-OUT INSTALLATION



SINGLE CLEAN-OUT INSTALLATION



CLEAN-OUT INSTALLATION IN PAVEMENT

NOTES:

1. SINGLE CLEAN-OUT TO BE PLACED AT 100' INTERVALS, TWO-WAY CLEAN-OUTS AT 200' INTERVALS (100' EACH WAY CLEANING).
2. TRACER WIRE TO BE CONTINUOUSLY CONNECTED FROM THE MAIN LINE TO THE CLEAN-OUT LOCATED AT THE BUILDING.

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TYPICAL WASTEWATER SERVICE LINE WITH TRACER WIRE AND CLEAN-OUTS

D1–4

DATED 5/2015

ENGINEER'S STATEMENT

STANDARD DETAILS SHOWN WERE REVIEWED ONLY AS TO THEIR APPLICATION ON THIS PROJECT

Mike Bramlett — 10/13/21

MIKE A. BRAMLETT, P.E. — DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

COLORADO — MIKE A. BRAMLETT — 32314 — PROFESSIONAL ENGINEER

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
JACKSON DEARBORN PARTNERS
404 S WELLS STREET SUITE 400
CHICAGO, IL 60607
ATTN: DANE OLMSTEAD
734-216-2577
DOLMSTEAD@JACKSONDEARBORN.COM

J·R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

H-SCALE	N/A	DESIGNED BY	APL
V-SCALE	N/A	DRAWN BY	APL
DATE	10/13/21	CHECKED BY	

SOLACE AT CIMARRON HILLS

DETAIL SHEET

SHEET 7 OF 7

JOB NO. 25174.00