KINNELOA IRRIGATION DISTRICT

PLANS FOR

1850 KINNELOA CANYON ROAD WATER MAIN IMPROVEMENT PROJECT

ABBREVIATIONS

APPD. EQ.	APPROVED EQUAL
A.C.P. OR ACP	ASBESTOS–CEMENT PIPE
A.C. OR AC	ASPHALT CONCRETE
@	AT
BDRY.	BOUNDARY
BLDG.	BUILDING
B'FLY.	BUTTERFLY
B.V. OR BV	BUTTERFLY VALVE
C.I. OR CI	CAST IRON
C.I.P. OR CIP	CAST IRON PIPE
℄ OR C.L.	CENTER LINE
C.L.F. OR CLF	CHAIN LINK FENCE
C.M.L. OR CML	CEMENT MORTAR LINED
CML & C	CEMENT MORTAR LINED & COATED
CML & P	CEMENT MORTAR LINED & PAINTED
CML & W	CEMENT MORTAR LINED & WRAPPED
C.M.C. OR CMC	CEMENT MORTAR COATED
CL.	CLASS
CONC.	CONCRETE
COND.	CONDUIT
CONST.	CONSTRUCTION OR CONSTRUCT
C.M.P.	CORRUGATED METAL PIPE
CPLG.	COUPLING
C.A.B.	CRUSHED AGGREGATE BASE
C.Y.	CUBIC YARD
CLR.	CLEARANCE
DEPT.	DEPARTMENT
D, DIA., OR ⌀	DIAMETER
DWG.	DRAWING
DR.	DRIVE
D.I. OR DI	DUCTILE IRON
D.I.P. OR DIP	DUCTILE IRON PIPE
EA.	EACH
E.	EAST
E/O	EAST OF
E.P. OR EP	EDGE OF PAVEMENT
EMH	ELECTRICAL MANHOLE
EL. OR ELEV.	ELEVATION
ELEC.	ELECTRICAL
EXIST. OR EX.	EXISTING
FT.	FOOT OR FEET
FF	FINISHED FLOOR
FE	FLANGED END
FL	FLOWLINE
FS	FINISHED SURFACE
GA.	GAGE OR GAUGE
GAL.	GALLON
GALV.	GALVANIZED
G.M. OR GM	GAS METER
G.V. OR GV	GATE VALVE
G.B. OR GB	GRADE BREAK
HORIZ.	HORIZONTAL
HP.	HORSE POWER
H.P.	HIGH POINT
HWY.	HIGHWAY
IN.	INCH
I.D.	INSIDE DIAMETER
INST.	INSTALL
INT.	INTERIOR
INV.	INVERT
I.P.S.	IRON PIPE SIZE
LN.	LANE
LAT.	LATERAL
L.F.	LINEAR FOOT
LL	LOT LINE
MAX.	MAXIMUM
M.H.	MANHOLE
M.J. OR MJ	MECHANICAL JOINTS WITH MEGA LUG
M.J.G.L.	MECHANICAL JOINTS WITH GASKET JOINT
MIN.	MINIMUM
M.W.D.	METROPOLITAN WATER DISTRICT
N.	NORTH
N/O	NORTH OF
N.T.S.	NOT TO SCALE
NO. OR #	NUMBER
O.C.	ON CENTER
O.A.E.	OR APPROVED EQUAL
O.D.	OUTSIDE DIAMETER
PVMT.	PAVEMENT
℘ OR P.L.	PROPERTY LINE
PE	PLAIN END
P.V.C.	POLY VINYL CHLORIDE
P.S.I.	POUND PER SQUARE INCH
P.P. OR PP	POWER POLE
PVT.	PRIVATE
R. OR RAD.	RADIUS
R.C.B. OR RCB	REINFORCED CONCRETE BOX
R.C.P. OR RCP	REINFORCED CONCRETE PIPE
RD.	ROAD
REV.	REVISION
RY.	RAILWAY
R.R.	RAILROAD
R.W.G.V.	RESILIENT WEDGE GATE VALVE
R/W	RIGHT–OF–WAY
S.D.	STORM DRAIN
SMH	SEWER MANHOLE
SHT.	SHEET
S.	SOUTH
S/O	SOUTH OF
SO. CAL.	SOUTHERN CALIFORNIA
SPEC'S.	SPECIFICATIONS
SQ.	SQUARE
STD.	STANDARD
STA.	STATION
S.S. OR SS	STAINLESS STEEL
STL.	STEEL
SDMH	STORM DRAIN MANHOLE
ST.	STREET
T.M.H. OR TMH	TELEPHONE MANHOLE
T.C. OR TC	TOP OF CURB
T.F. OR TF	TOP OF FOOTING
T.G. OR TG	TOP OF GRATE
T.W. OR TW	TOP OF WALL
TRANS.	TRANSITION
TYP.	TYPICAL
VERT.	VERTICAL
V.C.P. OR VCP	VITRIFIED CLAY PIPE
W.M. OR WM	WATER METER
W.V. OR WV	WATER VALVE
WT.	WEIGHT
W.	WEST
W/O	WEST OF
W/	WITH

LEGEND

EXIST. SLOPE SYMBOL — TOE OF SLOPE / TOP OF SLOPE

EXIST. EDGE OF PAVEMENT

EXIST. STORM DRAIN — 30"SD

EXIST. CHAIN LINK FENCE — X — X

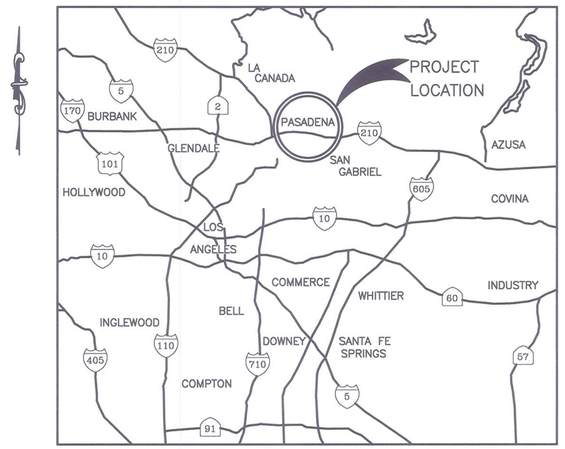
EXIST. RETAINING WALL

PROP. WATER LINE IS TO GO UNDER EXIST. UTILITY — U

PROP. WATER LINE IS TO GO OVER EXIST. UTILITY — O

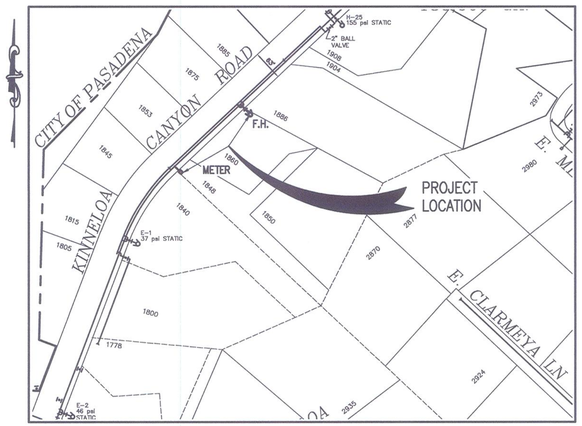
DETAIL 1/5 — SCALE: 1"=1'–0" — DETAIL NUMBER / SHEET NUMBER ON WHICH THE SECTION OR DETAIL IS SHOWN

SECTION A/5 — SCALE: 1"=1'–0" — SECTION LETTER



VICINITY MAP

N.T.S.



LOCATION MAP

N.T.S.

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE KINNELOA IRRIGATION DISTRICT'S PLANS AND SPECIFICATIONS.
2. ALL MATERIALS USED AND ALL WORK TO BE PERFORMED SHALL BE IN ACCORDANCE WITH THE LOS ANGELES COUNTY CODE, DIVISION I, TITLE 20.
3. THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 24 HOURS BEFORE ANY WORK IS STARTED.
   1. KINNELOA IRRIGATION DISTRICT TEL.(626) 797–6295
4. KINNELOA IRRIGATION DISTRICT'S STANDARD DETAILS ARE SHOWN ON STANDARD DRAWING 100.
5. ALL DRAINING OF EXISTING MAINS AT TIE–INS, IF ANY, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. ALL TIE–INS TO EXISTING MAINS AND OVEREXCAVATED AREAS (BELL–HOLES) SHALL BE BROUGHT BACK TO SUBGRADE WITH SAND BACKFILL.
7. NO CONNECTION SHALL BE MADE TO THE EXISTING WATER MAIN WITHOUT PRIOR SCHEDULING THROUGH THE WATER DISTRICTS'S OFFICE TEL.(626) 797–6295 AND UNTIL THE NEW PIPE HAS BEEN TESTED. DISINFECTED, AND TWO CONSECUTIVE DAILY BACTI TEST HAVE BEEN PASSED.
8. ALL DUCTILE IRON PIPE SHALL BE CLASS 350 WITH FIELD LOC GASKETS UNLESS OTHERWISE INDICATED.
9. RESILIENT WEDGE GATE VALVES 10" OR LESS ARE TO BE MUELLER, MODEL A2362–E381 EPDM–316 NO EXCEPTIONS.
10. A FIRE HYDRANT WITH THE STANDARD 6"x4"x2–1/2" HEAD, CONFORMING TO STANDARD DRAWING 100. JAMES JONES 370IR, NO EXCEPTIONS.
11. PAINT ALL FIRE HYDRANTS PER STANDARD DRAWING 100.
12. ALL STEEL PIPE SHALL BE SCHEDULE 40, CEMENT MORTAR LINED.
13. ALL PRODUCTS OR MATERIALS THAT ARE IN CONTACT WITH DRINKING WATER SHALL BE NSF 60/61 APPROVED.
14. ALL FLEX COUPLINGS SHALL BE ROMAC FC501 WITH 316 SS, NUTS & BOLTS, 12" LONG, NO EXCEPTIONS.
15. ALL DUCTILE IRON FITTINGS CLASS 350–IF MJ TYPE–INCLUDE MEGA LUG RESTRAINT WITH 316 S.S. T–BOLTS AND NUTS.
16. ALL FLANGED ADAPTORS WILL HAVE MEGA LUG RESTRAINT WITH 316 S.S. T–BOLTS AND NUTS.
17. ALL BOLTS WILL BE COATED WITH BITUMASTIC SEALER, APPLIED BY BRUSH OR GLOVED HAND ONLY EXCLUDING 316 S.S.
18. WRAPPING WITH PLASTIC IS NOT ALLOWED.
19. ALL BUTTERFLY VALVES SHALL BE LINESEAL III WITH OPTIONS LISTED BELOW:
    –DUCTILE IRON–VALVE BODY AND BONNET
    –EPDM–VALVE SEATS AND PACKING
    –316 SS–SQUEEZE PIN, LOCK WASHER, EXPANSION PLUG, AND CAP SCREWS
    –17–4 PH SS–VALVE SHAFT
    –VALVE DISC–DUCTILE IRON WITH 316 SS EDGE
20. ALL AC PIPE, INCLUDING ANY SMALL PIECES OR REMNANTS REMOVED DURING THE COURSE OF WORK, SHALL BE REMOVED FROM THE AREA AND PROPERLY TRANSPORTED TO A CERTIFIED DISPOSAL SITE. NO A.C. MATERIALS SHALL BE LEFT IN THE TRENCH OR ONSITE.

INDEX OF DRAWINGS

811 DIGALERT — UNDERGROUND SERVICE ALERT

PLAY IT SAFE. DIAL BEFORE YOU DIG! — AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING

REFERENCES

NO.	DESCRIPTION	APP.	DATE	NO.	DESCRIPTION	APP.	DATE

REGISTERED PROFESSIONAL ENGINEER — JERRY L. KERR — No. 34896 — CIVIL — STATE OF CALIFORNIA

APPROVED BY: KINNELOA IRRIGATION DISTRICT

GENERAL MANAGER

2/13/2023

DATE

PLANS PREPARED BY:

CIVILTEC engineering inc.
Civil, Water, Wastewater, Drainage, and Transportation Engineering
Construction Management • Surveying
California • Arizona

118 West Lime Avenue
Monrovia, CA 91016
Phone: 626.357.0588
Fax: 626.303.7957
Web: www.civiltec.com

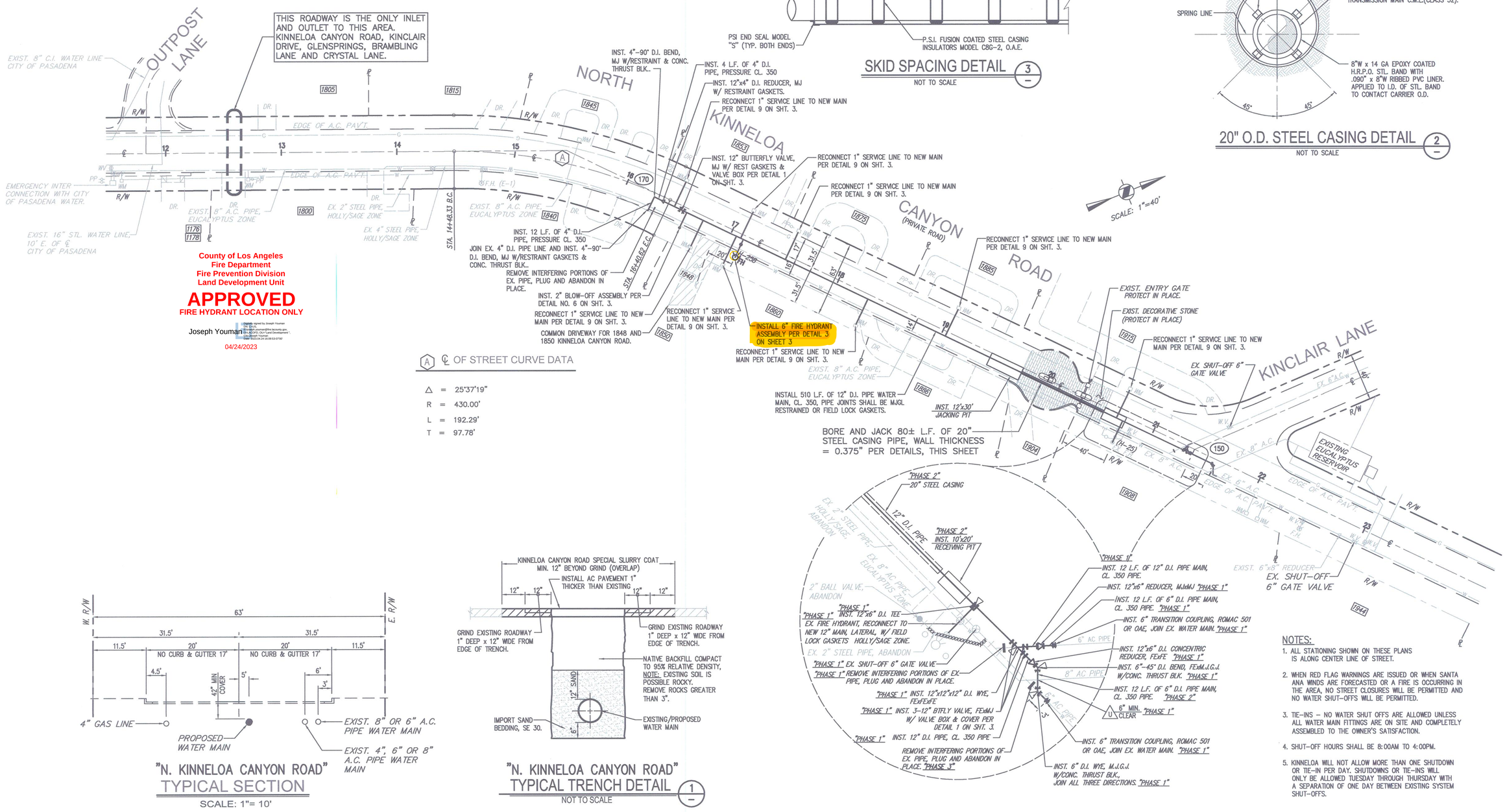
KINNELOA IRRIGATION DISTRICT

WATER DISTRIBUTION SYSTEM

TITLE SHEET

DESIGNED:	CFD	CHECKED:	TLK	DRAWN:	CFD	SCALE:	AS SHOWN
DESIGN DATE:	FEBRUARY 2023	DRAWING No.:	2015174.00	SHEET	1	OF	3

X:\2015\2015174.00–KID–1850 KINNELOA CANYON RD IMPROVEMENTS\DWG\2015174.00 SHT 01.DWG (02–02–23 3:34:24PM)



County of Los Angeles
Fire Department
Fire Prevention Division
Land Development Unit

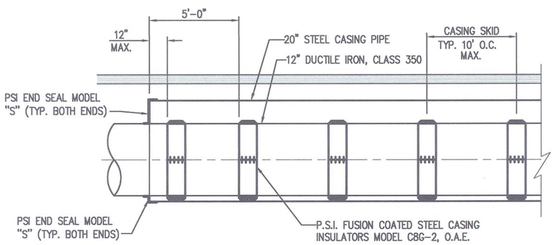
APPROVED
FIRE HYDRANT LOCATION ONLY

Joseph Youman
Digitally signed by Joseph Youman
DN: dc=lacounty, dc=gov, dc=fire, ou=Land Development, cn=Joseph Youman
Date: 2023.04.24 08:09:53-07'00'

04/24/2023

℄ OF STREET CURVE DATA

△ = 25°37'19"
R = 430.00'
L = 192.29'
T = 97.78'



SKID SPACING DETAIL 3
NOT TO SCALE

20" O.D. STEEL CASING DETAIL 2
NOT TO SCALE

"N. KINNELOA CANYON ROAD" TYPICAL SECTION
SCALE: 1"= 10'

"N. KINNELOA CANYON ROAD" TYPICAL TRENCH DETAIL 1
NOT TO SCALE

NOTES:

1. ALL STATIONING SHOWN ON THESE PLANS IS ALONG CENTER LINE OF STREET.
2. WHEN RED FLAG WARNINGS ARE ISSUED OR WHEN SANTA ANA WINDS ARE FORECASTED OR A FIRE IS OCCURRING IN THE AREA, NO STREET CLOSURES WILL BE PERMITTED AND NO WATER SHUT-OFFS WILL BE PERMITTED.
3. TIE-INS – NO WATER SHUT OFFS ARE ALLOWED UNLESS ALL WATER MAIN FITTINGS ARE ON SITE AND COMPLETELY ASSEMBLED TO THE OWNER'S SATISFACTION.
4. SHUT-OFF HOURS SHALL BE 8:00AM TO 4:00PM.
5. KINNELOA WILL NOT ALLOW MORE THAN ONE SHUTDOWN OR TIE-IN PER DAY. SHUTDOWNS OR TIE-INS WILL ONLY BE ALLOWED TUESDAY THROUGH THURSDAY WITH A SEPARATION OF ONE DAY BETWEEN EXISTING SYSTEM SHUT-OFFS.

811 DIG ALERT — UNDERGROUND SERVICE ALERT
PLAY IT SAFE. DIAL BEFORE YOU DIG! — AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING

REFERENCES

NO.	DESCRIPTION	APP.	DATE	NO.	DESCRIPTION	APP.	DATE

PROFESSIONAL ENGINEER — JERRY L. KERSEY — No. 34896 — CIVIL — STATE OF CALIFORNIA

APPROVED BY: KINNELOA IRRIGATION DISTRICT

GENERAL MANAGER

2/13/2023
DATE

PLANS PREPARED BY:
CIVILTEC engineering inc.
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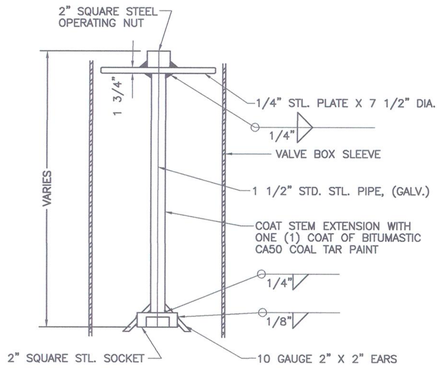
KINNELOA IRRIGATION DISTRICT
WATER DISTRIBUTION SYSTEM
WATER MAIN IMPROVEMENTS
NORTH KINNELOA CANYON ROAD SCHEDULE "C"

DESIGNED:	CFD	CHECKED:	TLK	DRAWN:	CFD	SCALE:	AS SHOWN
DESIGN DATE:	FEBRUARY 2023	DRAWING No.:	2015174.00	SHEET	2	OF	3

X:\2015\2015174.00-KID-1850 KINNELOA CANYON RD IMPROVEMENTS\DWG\2015174.00 SHT 02.DWG (02-02-23 3:33:27PM)

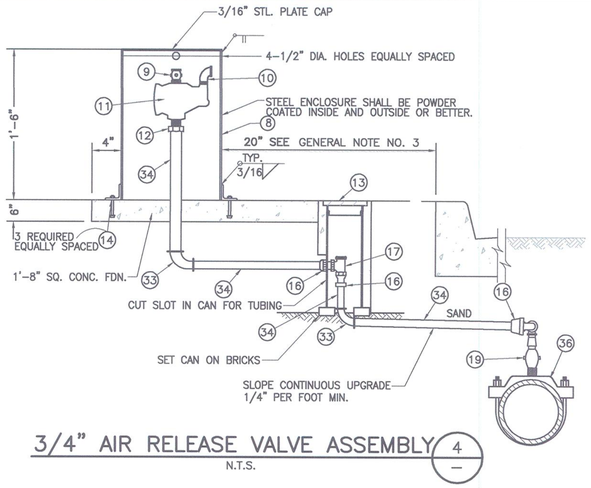
GENERAL NOTES

1. METER BOX SHALL BE FURNISHED BY THE CONTRACTOR AND DELIVERED TO THE DISTRICT YARD. THE DISTRICT WILL SET THE METER BOX.
2. THE METER BOX SHALL BE SET AGAINST THE BACK OF THE SIDEWALK IF THERE IS ROOM BETWEEN THE SIDEWALK AND THE PROPERTY LINE. OTHERWISE, THE METER BOX SHALL BE SET AGAINST THE BACK OF THE CURB.
3. WHEN THE SIDEWALK IS 5' WIDE OR LESS AND IS ADJACENT TO THE CURB, FIRE HYDRANTS, AIR RELEASE VALVES AND OTHER INSTALLATIONS THAT PROTRUDE ABOVE THE GROUND SHALL BE LOCATED BETWEEN PROPERTY LINE AND BACK OF SIDEWALK.
4. FORD GRIP IS NOT TO BE USED.



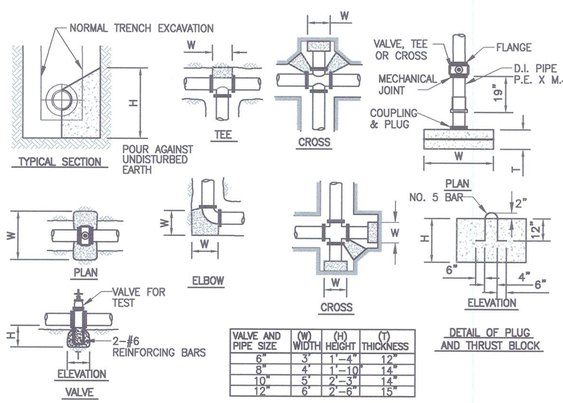
VALVE STEM EXTENSION 2

N.T.S.



3/4" AIR RELEASE VALVE ASSEMBLY 4

N.T.S.



VALVE AND PIPE SIZE	(W) WIDTH	(H) HEIGHT	(T) THICKNESS
6"	3'	1'-4"	12"
8"	4'	1'-10"	14"
10"	5'	2'-3"	14"
12"	6'	2'-6"	15"

NOTES:
1. THRUST BLOCK REQUIRED FOR VALVES 6" OR LARGER.
2. THRUST BLOCKS ARE TO BE POURED AGAINST UNDISTURBED EARTH.
3. THE EARTH PRESSURE BEHIND THRUST BLOCKS SHALL NOT EXCEED 2,000 POUNDS PER SQUARE FOOT.
4. THE TEST PRESSURE IN THE PIPE SHALL BE 200 POUNDS PER SQUARE INCH.

CONCRETE THRUST BLOCKS 5

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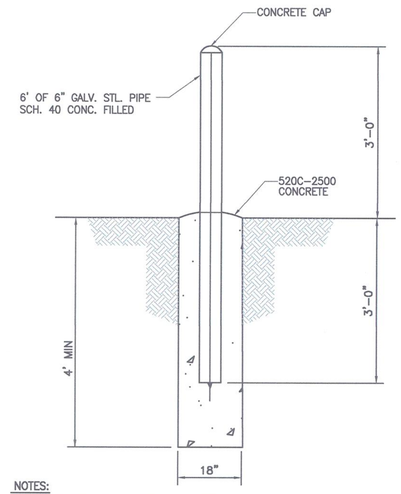
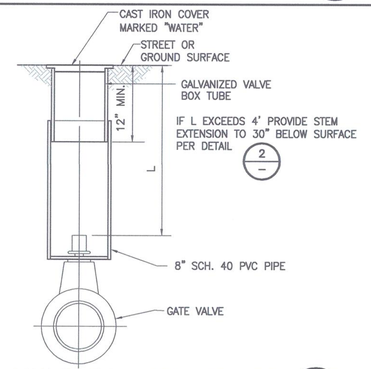


NOTES:
1. SEE PLANS FOR NUMBERS OF BARRICADE TO BE USED.
2. THE EXACT LOCATION OF BARRICADE MAY BE CHANGED BY THE INSPECTOR IN THE FIELD.
3. THE GALV. PIPE ABOVE GROUND SHALL BE PAINTED TWO FIELD COATS OF ZINC RICH PRIMER.
4. TWO FINISH COATS OF "COUNTY OF LOS ANGELES FIRE DEPT. YELLOW" SHALL BE USED FOR PRESSURE 100 LBS OR LESS. RED SHALL BE USED FOR PRESSURE 100 LBS OR MORE.

PROTECTIVE BARRICADE 8

N.T.S.

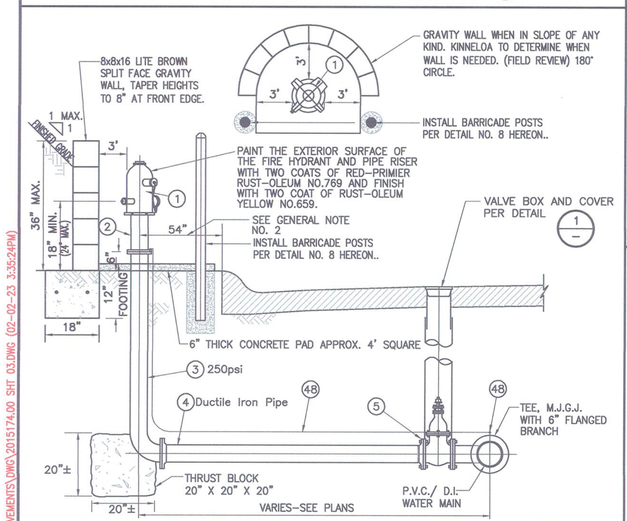


VALVE BOX AND COVER 1

N.T.S.

BILL OF MATERIAL

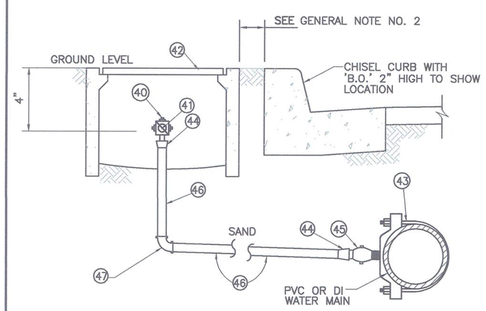
NO.	QTY.	SIZE	DESCRIPTION
1		6" x 4" x 2 1/2"	FIRE HYDRANT HEAD, JAMES JONES 3701R
2		6"	STD. GALVANIZED STEEL PIPE, 1/4" MORTAR LINED, THREADED EACH END WITH 150 LB. COMPANION FLANGE WITH BREAKAWAY BOLTS.
3		6"	CAST IRON PIPE BURY, MJGJ x FLG., CL. 150
4		6"	DUCTILE IRON PIPE, PRESSURE CLASS 350
5		6"	R.W. GATE VALVE, FLG. x MJGJ, 200 PSI, M & H CLOW, OR KENNEDY.
6			NOT USED
7			NOT USED
8		12"	GALZ. STL. PIPE, CAPPED 12 3/4" O.D. X 3/16" WALL, POWDER COATED OR APPROVED EQUAL.
9		1/2"	FORD FB-500 CORPORATION STOP
10		1/2"	90° STREET ELBOW, BRASS, CL. 150
11		3/4"	AIR RELEASE VALVE, APCO NO. 65
12		1" X 3/4"	STRAIGHT COUPLING, FORD C84-34
13			BROOKS NO. 3 1/2 METER BOX WITH CAST IRON LID
14		2" X 2" X 1 1/2" X 1/4"	STEEL ANGLE WITH 3/8" X 6" BOLTS, GALVANIZED STAINLESS STEEL BOLTS POWDER COATED OR APPROVED EQUAL
15			NOT USED
16		1"	JOINT COUPLING, FORD C84-44, M.I.P. X P.J.-CTS.
17		1"	ANGLE BALL VALVE, FORD BA11-344
18			NOT USED
19		1"	CORPORATION STOP, QUARTER BEND COUPLING, FORD FB 400, STREET QUARTER BEND, & L14-44 M.I.P. X P.J.-CTS.
20			NOT USED
21			NOT USED
22			NOT USED
23			NOT USED
24			NOT USED
25			NOT USED
26			NOT USED
27			CAST METER BOX, EPOXY COATED, ARMOR CAST OR ASI WITH STL. LID #38
28			NOT USED
29		1"	BALL ANGLE METER VALVE, FORD BA13-444W F.I.P. x MTR. SWIVEL NUT
30		1"	BRONZE METER COUPLING, FORD C38-44-2.625
31		1"	1" BADGER-RADIO READ REGISTER WITH BRONZE BOTTOM SUPPLIED BY KID
32		1"	CHECK VALVE, FORD HS11-444 F.I.P. X F.I.P.
33		1"	ELL COUPLING, FORD L44-44
34		1"	COPPER TUBE, TYPE K
35		1"	CORPORATION STOP, FORD FB400-4
36		1"	DOUBLE STRAP SADDLE, FORD FC202 X MAIN SIZE X CC4
37		1"	NOT USED
38		1"	45° ELL COUPLING, FORD LA 14-44
39			NOT USED
40		2"	BRASS SCREWED PLUG WITH IRON PIPE THREAD
41		2"	CURB VALVE, FORD BALL VALVE B11-777
42			ARMOR CAST OR API, CAST EPOXY, METER BOX WITH CAST IRON COVER
43		2"	DOUBLE STRAP SADDLE, FORD FC202 X MAIN SIZE X CC7
44		2"	FORD STRAIGHT COUPLING, C14-77 F.I.P. X CTS-P.J.
45		2"	CORPORATION STOP, FORD FB400-7
46		2"	COPPER PIPE, TYPE K
47		2"	FORD ELL COUPLING, L44-77
48			TRACER WIRE DETAIL



NOTES:
1. APPROVED PROTECTIVE GUARD POST BE INSTALLED TO PREVENT MECHANICAL INJURY.
2. NO DRIVEWAY OR DRIVEWAY APPROACHES SHALL BE CONSTRUCTED WITHIN 60" OF THE CENTER OF A HYDRANT RISER.
3. FIRE HYDRANT SHALL HAVE 3 FT. CLEAR SPACE FROM ANY OBSTRUCTIONS. (360°) L.A.C.F.D. REG. #8, SEC. G1E.
4. BREAK AWAY BOLTS AND APPLY SILICONE SEALER TO HOLES.

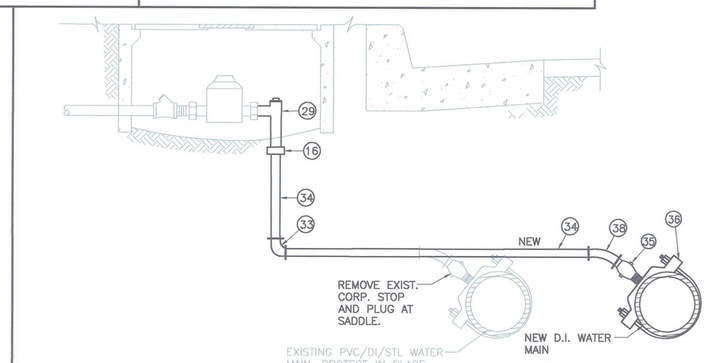
6" FIRE HYDRANT ASSEMBLY 3

N.T.S.



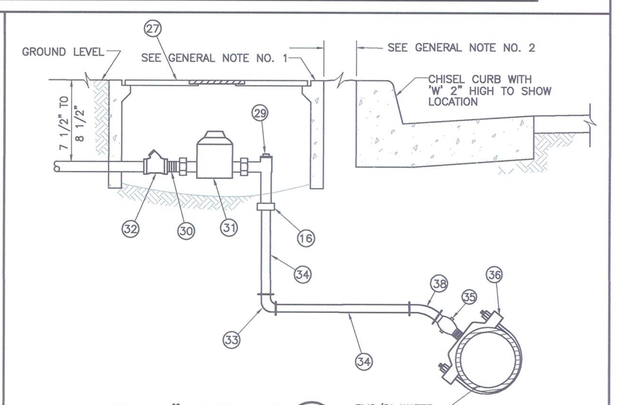
2" BLOW-OFF ASSEMBLY 6

N.T.S.



RECONNECT EXISTING SERVICE 9

N.T.S.



NEW 1" SERVICE 7

N.T.S.

811 DIG ALERT — UNDERGROUND SERVICE ALERT

PLAY IT SAFE. DIAL BEFORE YOU DIG! — AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING

REFERENCES

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REGISTERED PROFESSIONAL ENGINEER — TERRY L. KERSEY — No. 34896 — CIVIL — STATE OF CALIFORNIA

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KINNELOA IRRIGATION DISTRICT

WATER DISTRIBUTION SYSTEM

STANDARD DRAWING. No. 100
MISCELLANEOUS DETAILS, BILL OF MATERIAL AND NOTES

DESIGNED:	CFD	CHECKED:	TLK	DRAWN:	CFD	SCALE:	AS SHOWN
DESIGN DATE:	FEBRUARY 2023	DRAWING No.:	2015174.00	SHEET	3	OF	3

X:\2015\2015174.00-KID-1850 KINNELOA CANYON RD IMPROVEMENTS\DWG\2015174.00 SHT 03.DWG (02-02-23 3:35:24PM)