

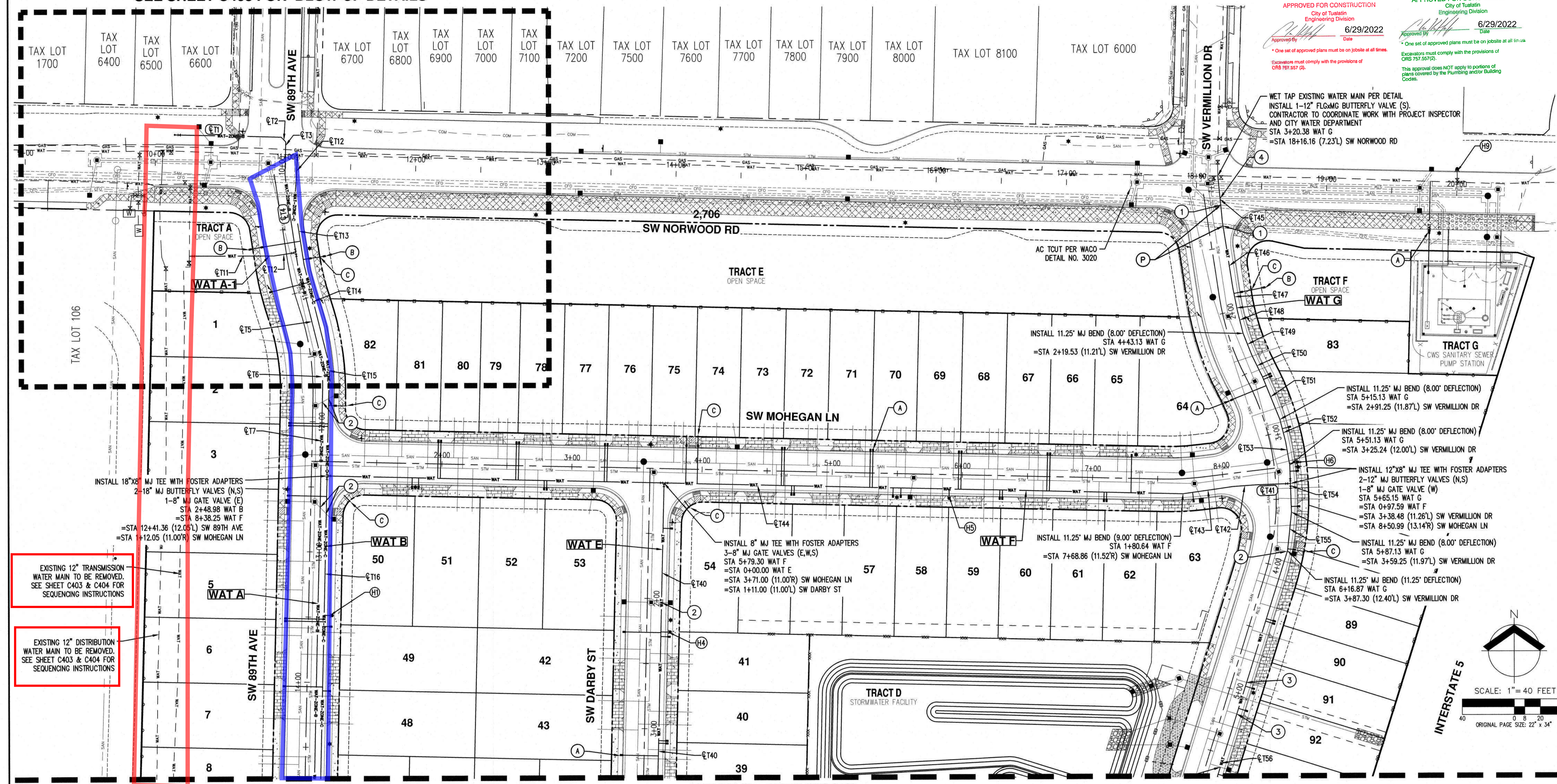
SEE SHEET C403 FOR BLOW UP DETAILS

APPROVED FOR CONSTRUCTION
 City of Tualatin
 Engineering Division
 Approved By: [Signature] Date: 6/29/2022
 * One set of approved plans must be on jobsite at all times.
 Excavators must comply with the provisions of ORS 91.557 (2).
 This approval does NOT apply to portions of plans covered by the Plumbing and/or Building Codes.

AKS
 AKS ENGINEERING & FORESTRY, LLC
 1930 SW 100th Ave, Ste 100
 Tualatin, OR 97062
 WWW.AKS-ENG.COM
 ENGINEERING · SURVEYING · NATURAL RESOURCES
 FORESTRY · PLANNING · LANDSCAPE ARCHITECTURE

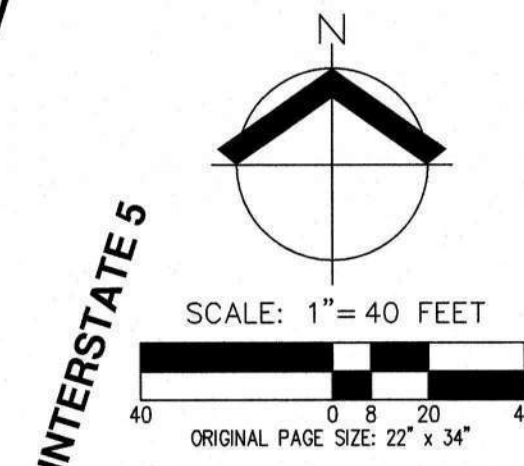
AUTUMN SUNRISE SUBDIVISION
 TUALATIN OREGON
 WASHINGTON COUNTY TAX MAP 23.1.350
 TAX LOT 100

WATER PLAN



EXISTING 12" TRANSMISSION WATER MAIN TO BE REMOVED. SEE SHEET C403 & C404 FOR SEQUENCING INSTRUCTIONS

EXISTING 12" DISTRIBUTION WATER MAIN TO BE REMOVED. SEE SHEET C403 & C404 FOR SEQUENCING INSTRUCTIONS



MATCH LINE - SEE SHEET C402

FIRE HYDRANT TABLE

HYDRANT #	STATION	ALIGNMENT	TOP OF CURB ELEV
H1	13+48.36	SW 89TH AVE	343.54
H4	1+14.40	WAT E	337.15
H5	5+90.08	SW MOHEGAN LN	335.85
H6	3+23.76	SW VERMILLION DR	335.06
H9	19+99.65	SW NORWOOD RD	338.05

WAT A TABLE

CURVE/TANGENT	STATION	LENGTH	TANGENT/CHORD BEARING	PIPE DIAMETER
Q T11	0+00.00	81.70'	S88°35'34"E	18"
Q T12	0+81.70	5.00'	N43°35'07"W	18"
Q T13	0+86.70	25.09'	S01°21'05"W	18"
Q T14	1+41.27	41.29'	S08°42'20"E	18"
Q T15	1+82.56	73.78'	S14°03'56"E	18"
Q T16	2+56.34	18.74'	S03°08'17"E	18"
Q T17	2+75.09	419.05'	S01°21'21"W	18"

WAT B TABLE

CURVE/TANGENT	STATION	LENGTH	TANGENT/CHORD BEARING	PIPE DIAMETER
Q T12	0+00.00	36.71'	S03°31'36"W	18"
Q T14	0+84.49	74.12'	S14°03'29"E	18"
Q T15	1+58.60	19.39'	S03°08'17"E	18"
Q T16	1+77.99	424.03'	S01°21'21"W	18"

WAT E TABLE

CURVE/TANGENT	STATION	LENGTH	TANGENT/CHORD BEARING	PIPE DIAMETER
Q T40	0+00.00	234.58'	S01°21'21"W	8"

WAT F TABLE

CURVE/TANGENT	STATION	LENGTH	TANGENT/CHORD BEARING	PIPE DIAMETER
Q T41	0+97.59	26.11'	S88°00'00"W	8"
Q T42	1+23.70	18.00'	S86°00'00"W	8"
Q T43	1+41.70	38.94'	S82°02'57"W	8"
Q T44	1+80.64	657.61'	N88°38'39"W	8"

WAT G TABLE

CURVE/TANGENT	STATION	LENGTH	TANGENT/CHORD BEARING	PIPE DIAMETER
Q T45	3+20.38	36.01'	S05°29'52"E	12"
Q T46	3+56.39	50.66'	S08°54'41"E	12"
Q T47	4+07.05	18.08'	S11°12'09"E	12"
Q T48	4+25.13	18.00'	S14°00'00"E	12"
Q T49	4+43.13	18.00'	S22°00'00"E	12"
Q T50	4+61.13	18.00'	S26°00'00"E	12"
Q T51	4+79.13	36.00'	S22°00'00"E	12"
Q T52	5+15.13	18.00'	S14°00'00"E	12"
Q T53	5+33.13	18.00'	S10°00'00"E	12"
Q T54	5+51.13	36.00'	S02°00'00"E	12"
Q T55	5+87.13	29.75'	S06°00'00"W	12"
Q T56	6+16.87	682.34'	S17°25'49"W	12"

WATER STRUCTURE KEY NOTES

- INSTALL SINGLE 5/8" X 3/4" WATER METER (TYP)
- INSTALL SINGLE 5/8" X 3/4" WATER METER (TYP) AND DOUBLE CHECK VALVE ASSEMBLY PER DETAIL FOR IRRIGATION SERVICE.
- CONTRACTOR TO INSTALL 4" PVC IRRIGATION SLEEVE UNDER SIDEWALK (TYP).

WATER PIPE DEFLECTION KEY NOTES

- DEFLECT WATER MAIN(S) UNDER FIBER DUCT BANK. SET WATER MAINS TO APPROXIMATELY 6.5 FT OF COVER.
- DEFLECT WATER MAIN(S) UNDER STORM LEAD. SET WATER MAIN(S) TO APPROXIMATELY 4.0 FT OF COVER. MAINTAIN 18" MINIMUM VERTICAL SEPARATION.
- DEFLECT WATER MAIN(S) UNDER STORM LATERAL. SET WATER MAIN(S) TO APPROXIMATELY 4.0 FT OF COVER. MAINTAIN 18" MINIMUM VERTICAL SEPARATION.
- DEFLECT WATER MAIN(S) UNDER SANITARY FORCE MAIN. SET WATER MAIN TO APPROXIMATELY 7.0 FT OF COVER. MAINTAIN 18" MINIMUM VERTICAL SEPARATION.

NOTE:
 TRACT G CWS SANITARY SEWER PUMP STATION SHOWN FOR REFERENCE ONLY. WORK TO BE DONE BY OTHERS UNDER SEPARATE PERMIT.

WAT A-1 TABLE

CURVE/TANGENT	STATION	LENGTH	TANGENT/CHORD BEARING	PIPE DIAMETER
Q T11	0+00.00	64.79'	S89°56'51"E	12"
Q T12	0+64.79	17.05'	N81°17'40"E	12"

P POTHOLE EXISTING UTILITY FOR POTENTIAL CONFLICT PRIOR TO ORDERING MATERIALS AND BEGINNING WORK. CONTRACTOR TO COORDINATE UTILITY RELOCATION TO RESOLVE CONFLICT

WASHINGTON COUNTY CASE FILE NO. CP21-919

DESIGNED BY: JSM
 DRAWN BY: JSM
 MANAGED BY: DS
 CHECKED BY: AHH
 DATE: 06/23/2022
 REGISTERED PROFESSIONAL ENGINEER
 OR 000000
 MAY 12, 2016
 DARKO S/M/C
 RENEWAL DATE: 6/30/24
 REVISIONS:

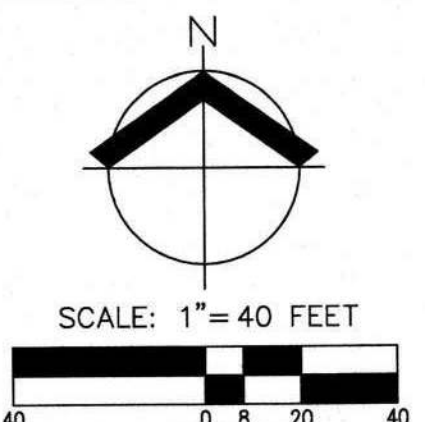
JOB NUMBER
7454
 SHEET
C401

AKS DRAWING FILE: 7454 PH WATERWORKS LAYOUT: NORTH

APPROVED FOR CONSTRUCTION
 City of Tualatin
 Engineering Division
 Approved By: [Signature]
 Date: 6/29/2022

APPROVED FOR CONSTRUCTION
 City of Tualatin
 Engineering Division
 Approved By: [Signature]
 Date: 6/29/2022

* One set of approved plans must be on jobsite at all times.
 Excavators must comply with the provisions of ORS 731.657(2).
 This approval does NOT apply to portions of plans covered by the Plumbing and/or Building Codes.



SEE SHEET C404 FOR BLOW UP DETAILS

MATCH LINE - SEE SHEET C401

EXISTING 12" TRANSMISSION WATER MAIN TO BE REMOVED. SEE SHEET C403 & C404 FOR SEQUENCING INSTRUCTIONS

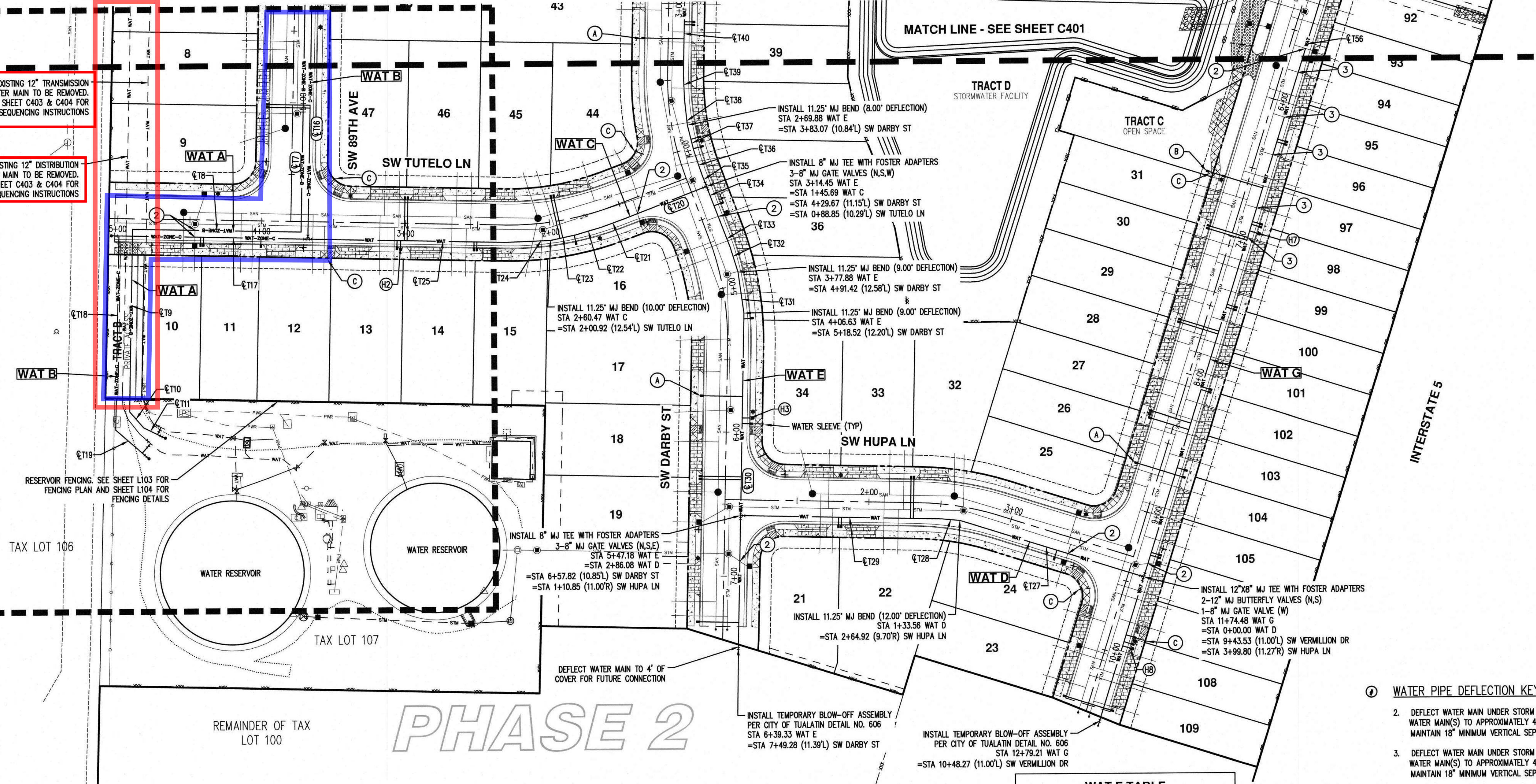
EXISTING 12" DISTRIBUTION WATER MAIN TO BE REMOVED. SEE SHEET C403 & C404 FOR SEQUENCING INSTRUCTIONS

RESERVOIR FENCING. SEE SHEET L103 FOR FENCING PLAN AND SHEET L104 FOR FENCING DETAILS

DEFLECT WATER MAIN TO 4' OF COVER FOR FUTURE CONNECTION

INSTALL TEMPORARY BLOW-OFF ASSEMBLY PER CITY OF TUALATIN DETAIL NO. 606
 STA 6+39.33 WAT E
 =STA 7+49.28 (11.39'L) SW DARBY ST

INSTALL TEMPORARY BLOW-OFF ASSEMBLY PER CITY OF TUALATIN DETAIL NO. 606
 STA 12+79.21 WAT G
 =STA 10+48.27 (11.00'L) SW VERMILLION DR



REMAINDER OF TAX LOT 100

PHASE 2

WAT A TABLE

CURVE/TANGENT	STATION	LENGTH	TANGENT/CHORD BEARING	PIPE DIAMETER
Q17	2+75.09	419.05'	S01'21'21"W	18"
Q18	6+94.13	117.08'	N88'38'39"W	18"
Q19	8+11.21	126.76'	S01'21'21"W	18"
Q110	9+37.97	14.83'	S41'01'44"E	18"
Q111	9+52.80	16.72'	S63'31'44"E	18"

WAT B TABLE

CURVE/TANGENT	STATION	LENGTH	TANGENT/CHORD BEARING	PIPE DIAMETER
Q116	1+77.99	424.03'	S01'21'21"W	18"
Q117	6+02.03	131.23'	N88'38'39"W	18"
Q118	7+33.26	134.93'	S01'21'21"W	18"

WAT C TABLE

CURVE/TANGENT	STATION	LENGTH	TANGENT/CHORD BEARING	PIPE DIAMETER
Q120	1+45.69	60.78'	S68'56'58"W	8"
Q121	2+06.47	18.00'	S70'00'00"W	8"
Q122	2+24.47	18.00'	S74'00'00"W	8"
Q123	2+42.47	18.00'	S78'00'00"W	8"
Q124	2+60.47	13.31'	S87'59'52"W	8"
Q125	2+91.87	137.27'	N88'38'39"W	8"

WAT D TABLE

CURVE/TANGENT	STATION	LENGTH	TANGENT/CHORD BEARING	PIPE DIAMETER
Q127	0+00.00	133.56'	N72'34'11"W	8"
Q128	1+33.56	12.68'	N84'37'27"W	8"
Q129	1+46.24	139.84'	N88'38'22"W	8"

WAT G TABLE

CURVE/TANGENT	STATION	LENGTH	TANGENT/CHORD BEARING	PIPE DIAMETER
Q156	6+16.87	662.34'	S17'25'49"W	12"

WAT E TABLE

CURVE/TANGENT	STATION	LENGTH	TANGENT/CHORD BEARING	PIPE DIAMETER
Q140	0+00.00	234.58'	S01'21'21"W	8"
Q140	0+00.00	234.58'	S01'21'21"W	8"
Q139	2+34.58	17.30'	S02'00'00"E	8"
Q138	2+51.88	18.00'	S06'00'00"E	8"
Q137	2+69.88	18.00'	S14'00'00"E	8"
Q136	2+87.88	18.00'	S18'00'00"E	8"
Q134	3+05.88	18.00'	S21'00'00"E	8"
Q135	3+05.88	18.00'	S21'00'00"E	8"
Q133	3+41.88	18.00'	S21'00'00"E	8"
Q132	3+59.88	18.00'	S17'00'00"E	8"
Q131	3+77.88	28.83'	S07'51'30"E	8"
Q130	4+06.71	232.63'	S01'21'21"W	8"

- Ⓢ WATER PIPE DEFLECTION KEY NOTES**
- DEFLECT WATER MAIN UNDER STORM LEAD. SET WATER MAIN(S) TO APPROXIMATELY 4.0 FT OF COVER. MAINTAIN 18" MINIMUM VERTICAL SEPARATION.
 - DEFLECT WATER MAIN UNDER STORM LATERAL. SET WATER MAIN(S) TO APPROXIMATELY 4.0 FT OF COVER. MAINTAIN 18" MINIMUM VERTICAL SEPARATION.
- Ⓢ WATER STRUCTURE KEY NOTES**
- INSTALL SINGLE 5/8" x 3/4" WATER METER (TYP)
 - INSTALL SINGLE 5/8" x 3/4" WATER METER (TYP) AND DOUBLE CHECK VALVE ASSEMBLY PER DETAIL FOR IRRIGATION SERVICE.
 - CONTRACTOR TO INSTALL 4" PVC IRRIGATION SLEEVE UNDER SIDEWALK (TYP).

FIRE HYDRANT TABLE

HYDRANT #	STATION	ALIGNMENT	TOP OF CURB ELEV
H2	3+64.70	WAT C	347.43
H3	5+89.94	SW DARBY ST	340.80
H7	6+92.49	SW VERMILLION DR	330.15
H8	9+93.56	SW VERMILLION DR	333.76