KUEBLER BLVD.

27TH AVENUE

RETAIL BLDG
6,100 SF

TAIL
500 SF
LOT 3

COSTCO WHOLESALE

168,550 SF. FOOTPRINT

PROJECT DATA

CLIENT: COSTCO WHOLESALE
999 LAKE DRIVE
ISSAQUAH, WA 98027

PROPERTY DATA:

COSTCO SITE AREA:	19.88 ACRES (866,196 SF)
RETAIL SITE AREA:	0.72 ACRES (31,200 SF)
TOTAL SITE AREA:	20.60 ACRES (897,396 SF)

BUILDING DATA:

NET WAREHOUSE AREA	160,000 S.F.
ENTRY CANOPY (UNCONDITIONED)	3,500 S.F.
EXTERIOR WALLS, MECH & FIRE ROOM	5,050 S.F.
GROSS BUILDING AREA	168,550 S.F.

PARKING DATA:

PROPOSED PARKING:

(#) 10' WIDE STALLS	848 STALLS
(#) ACCESSIBLE STALLS	18 STALLS
TOTAL PROPOSED PARKING	866 STALLS

0 30' 60' 120'
1" = 60'-0"

COSTCO GASOLINE
SALEM, OR

STREET
CITY, STATE

1101 Second Ave. Ste 100
Seattle. WA 98101

206 962 6500
MG2.com

MG2

17-0413-01
MAY 29, 2018

CONCEPT
SITE PLAN

DD11-30

KUEBLER GATEWAY SHOPPING CENTER - EAST SIDE CONCEPT SITE PLAN

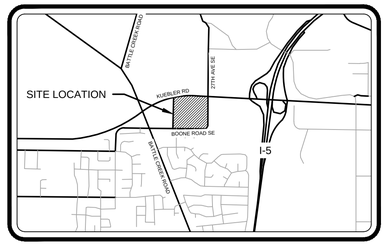
SALEM, OREGON

MAY 29, 2018

KUEBLER GATEWAY SHOPPING CENTER
SITE PLAN REVIEW SET

BOONE ROAD SE AND 27TH AVE SE
SALEM, OREGON 97306

VICINITY MAP
NOT TO SCALE



LEGAL DESCRIPTION
SEE SHEET C101

TAX PARCEL NUMBER
TAX LOTS: 083W12C 01800
083W12C 01900
083W12C 02000
083W12C 02100

SURVEY INFORMATION
VERTICAL DATUM:
NATIONA GEODETIC VERTICAL DATUM OF 1929 (NGVD29).
BASED ON CITY OF SALEM BENCHMARK A211. EL=426.26
ALUMINUM DISK IN CURB AT THE NE CORNER OF COMMERCIAL STREET AND KUEBLER BOULEVARD. 20.2' SE OF PP #2701, 7.5' S OF E-W FENCE.

PROJECT CONTACTS/UTILITIES

OWNER
COSTCO WHOLESALE
999 LAKE DRIVE
ISSAQUAH, WA 98027
PETER KAHN
TEL: (425) 313-6052
FAX: (425) 313-8105
PKAHN@COSTCO.COM

ARCHITECT
MG2
3333 MICHELSON DR., SUITE 100
IRVINE, CA 92612
STEVE BULLOCK
TEL: (206) 962-6614
STEVE.BULLOCK@MG2.COM

CIVIL ENGINEER
DOWL LLC.
720 SW WASHINGTON ST., SUITE 750
PORTLAND OR, 97205
JEFF SHOEMAKER
TEL: (971) 280-8641
FAX: (800) 865-9847
JSHOEMAKER@DOWL.COM

GEOTECHNICAL ENGINEER
TERRACON
21904 64TH AVE W, SUITE 100
MOUNTLAKE TERRACE, WASHINGTON 98043
JIM SCHMIDIT
TEL: (425) 409-2603
FAX: (425) 771-3549
JAMES.SCHMIDT@TERRACON.COM

LANDSCAPE ARCHITECT
WEISMAN DESIGN GROUP
2329 EAST MADISON ST.
SEATTLE, WA 98112-5416
DAN HARVEY
TEL: (206) 322-1732
FAX: (206) 322-1799
DAN@WDGINC.COM

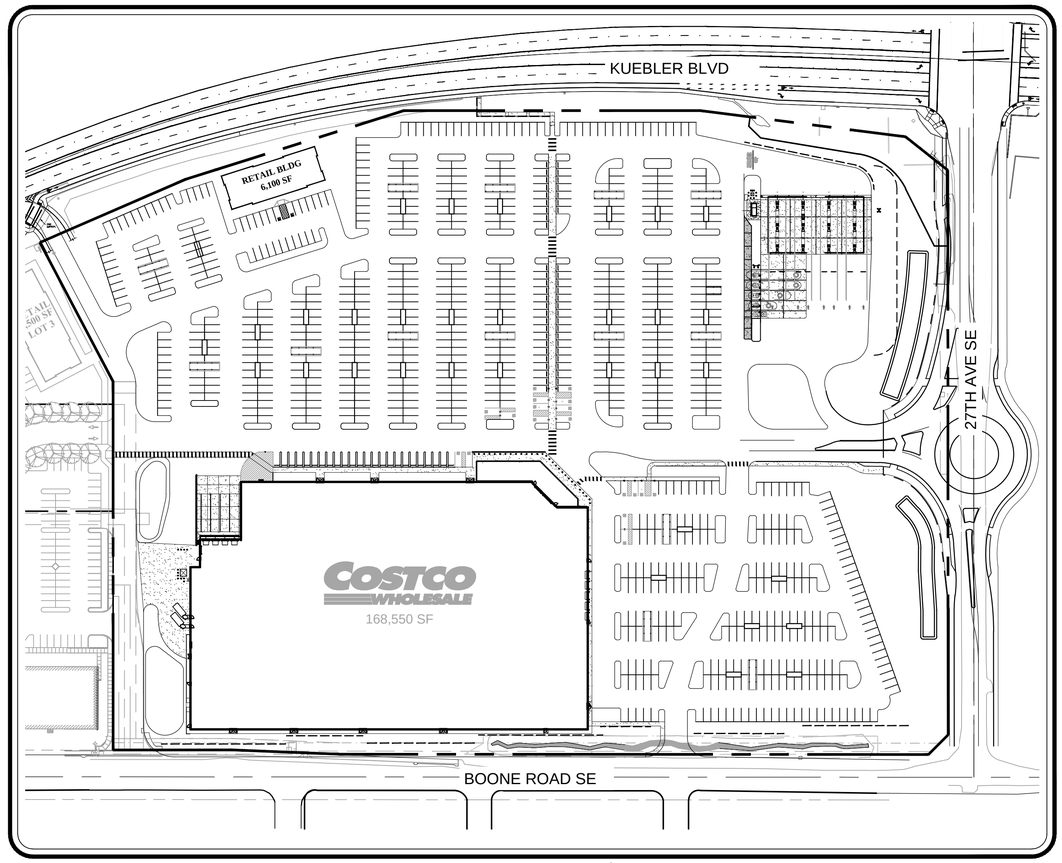
MECH/ELEC ENGINEER
TEI ENGINEERING
830. N. RIVERSIDE DRIVE, SUITE 200
RENTON, WA 98055
DOUGLAS SCOTT
PAAL RYAN
HARDY WIDJAJA
ANN TIEU
TEL: (206) 241-2012
FAX: (206) 241-3101
DSCOTT@TEI-ENGINEERING.COM
PRYAN@TEI-ENGINEERING.COM
HWIDJAJA@TEI-ENGINEERING.COM
AITE@TEI-ENGINEERING.COM

CITY OF SALEM
PUBLIC WORKS DEPARTMENT
555 LIBERTY STREET SE, ROOM 325
SALEM, OR 97301-3513
CURT PELLATZ
TEL: (503) 588-6211
FAX: (503) 588-6025
CPELLATZ@CITYOFSALEM.NET

PGE
PORTLAND GENERAL ELECTRIC
7800 SW MOHAWK ST
TUALATIN, OR 97062
TEL: (503) 323-6700
FAX: (503) 612-3501

NW NATURAL
NORTHWEST NATURAL
220 NW 2ND AVE.
PORTLAND, OREGON 97209
TEL: (503) 721-2512

CENTURY LINK
CENTURY LINK
740 STATE ST.
SALEM ,OR 97301
TEL: (503) 315-9883



SCALE 1" =100'

SHEET INDEX

LEGEND

PROPOSED	EXISTING	DESCRIPTION
		BUILDING
		FLOW LINE CURB
		EXTRUDED CURB
		STANDARD CURB
		EDGE OF PAVEMENT
		EDGE OF CONCRETE
TV	TV	COMMUNICATIONS
FO	FO	BUILDING
T	T	TELEPHONE
G	G	GAS
E	E	ELECTRIC
OHP	OHP	OVERHEAD POWER
SS	SS	SANITARY SEWER
SD	SD	STORM
W	W	WATER
		RIGHT OF WAY
		CENTERLINE
		WETLAND
		EDGE OF WATER
		WALL TOP
		TREE -CONIFEROUS
		TREE - DECIDUOUS
		RIPRAP
		POWER POLE
		LIGHT POST
		POWER JUNCTION BOX
		UNDERGROUND VAULT
T	T	TELEPHONE RISER
		TRAFFIC SIGNAL CROSSING
		GAS METER
		GAS VALVE
		SANITARY SEWER MANHOLE
		DITCH INLET
		STORM MANHOLE
		STORM CATCH BASIN
		STORM AREA DRAIN
		CULVERT
		WATER VALVE
		FIRE HYDRANT
		WETLAND FLAGGING
		TEST PIT
	MW	MONITORING WELL
		SIGN TOP
		IRRIGATION CONTROL VALVE
		CLEANOUT

REVISIONS

REV	DATE	DESCRIPTION	BY

DOWL
WWW.DOWL.COM
720 SW Washington Street, #750
Portland, Oregon 97205
971-280-8641

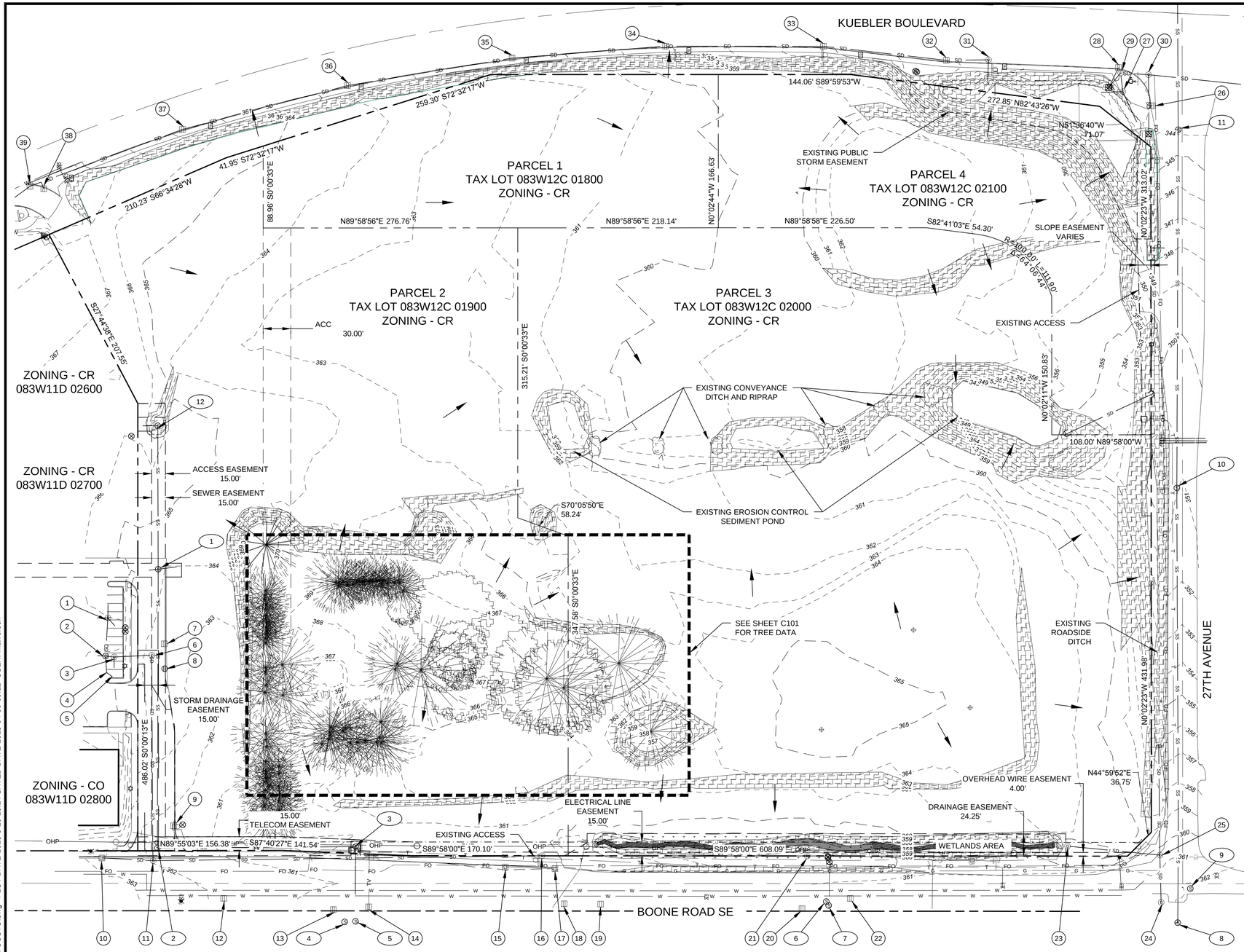
PREPARED FOR
COSTCO WHOLESALE CORPORATION
999 LAKE DRIVE
ISSAQUAH, WA 98027
TEL: (425) 313-6100

KUEBLER GATEWAY
SHOPPING CENTER
SITE PLAN REVIEW SET
COVER SHEET
SE BOONE RD. AND 27TH AVE.
SALEM, OREGON, 97306

PROJECT	14429-01
DATE	05/04/2018

SHEET
C000

\\bil-fs\bil-projects\3\22\14429-01\65\CAD\SPRIM\C-CS-CV-COSTO.dwg PLOT DATE 2018-5-29 19:23 SAVED DATE 2018-05-04 09:41 USER: rhalvorson



LEGEND

- BUILDING
- FLOW LINE CURB
- EXTRUDED CURB
- STANDARD CURB
- EDGE OF PAVEMENT
- EDGE OF CONCRETE
- COMMUNICATIONS
- BUILDING
- TELEPHONE
- GAS
- ELECTRIC
- OVERHEAD POWER
- SANITARY SEWER
- STORM
- WATER
- RIGHT OF WAY
- CENTERLINE
- WETLAND
- EDGE OF WATER
- WALL TOP
- TREE -CONIFEROUS
- TREE - DECIDUOUS
- RIPRAP
- EXISTING SLOPE GREATER THAN 15%
- EXISTING FLOW ARROW
- POWER POLE
- LIGHT POST
- POWER JUNCTION BOX
- UNDERGROUND VAULT
- TELEPHONE RISER
- TRAFFIC SIGNAL CROSSING
- GAS METER
- GAS VALVE
- SANITARY SEWER MANHOLE
- DITCH INLET
- STORM MANHOLE
- STORM CATCH BASIN
- STORM AREA DRAIN
- CULVERT
- WATER VALVE
- FIRE HYDRANT
- WETLAND FLAGGING
- TEST PIT
- MONITORING WELL
- SIGN TOP
- IRRIGATION CONTROL VALVE
- CLEANOUT

SURVEY INFORMATION

SURVEY COMPLETED ON DECEMBER 13TH, 2017

VERTICAL DATUM:
NATIONA GEODETIC VERTICAL DATUM OF 1929 (NGVD29).
BASED ON CITY OF SALEM BENCHMARK A211. EL=426.26
ALUMINUM DISK IN CURB AT THE NE CORNER OF COMMERCIAL SREET AND KUEBLER BOULEVARD. 20.2' SE OF PP #2701, 7.5' S OF E-W FENCE.

TOTAL SITE AREA

913,534 SQUARE FEET
20.9718 ACRES

TAX PARCEL NUMBER

TAX LOTS: 083W12C 01800
083W12C 01900
083W12C 02000
083W12C 02100

FLOODPLAIN INFORMATION

SITE IS NOT LOCATED WITHIN THE 100 YEAR FLOODPLAIN

NO TRANSIT STOP ON BOONE RD SE OR 27TH AVENUE

N

60 0 60 120
SCALE IN FEET

REVISIONS			
REV	DATE	DESCRIPTION	BY

DOWL
720 SW Washington Street, #750
Portland, Oregon 97205
971-280-8641
WWW.DOWL.COM

PREPARED FOR
COSTCO WHOLESALE CORPORATION
999 LAKE DRIVE
ISSAQUAH, WA 98027
TEL: (425) 313-8100

KUEBLER GATEWAY
SHOPPING CENTER
SITE PLAN REVIEW SET

EXISTING CONDITIONS

SE BOONE RD. AND 27TH AVE.
SALEM, OREGON, 97306

PROJECT 14429-01
DATE 05/04/2018

SHEET
C100

SURVEY INFORMATION

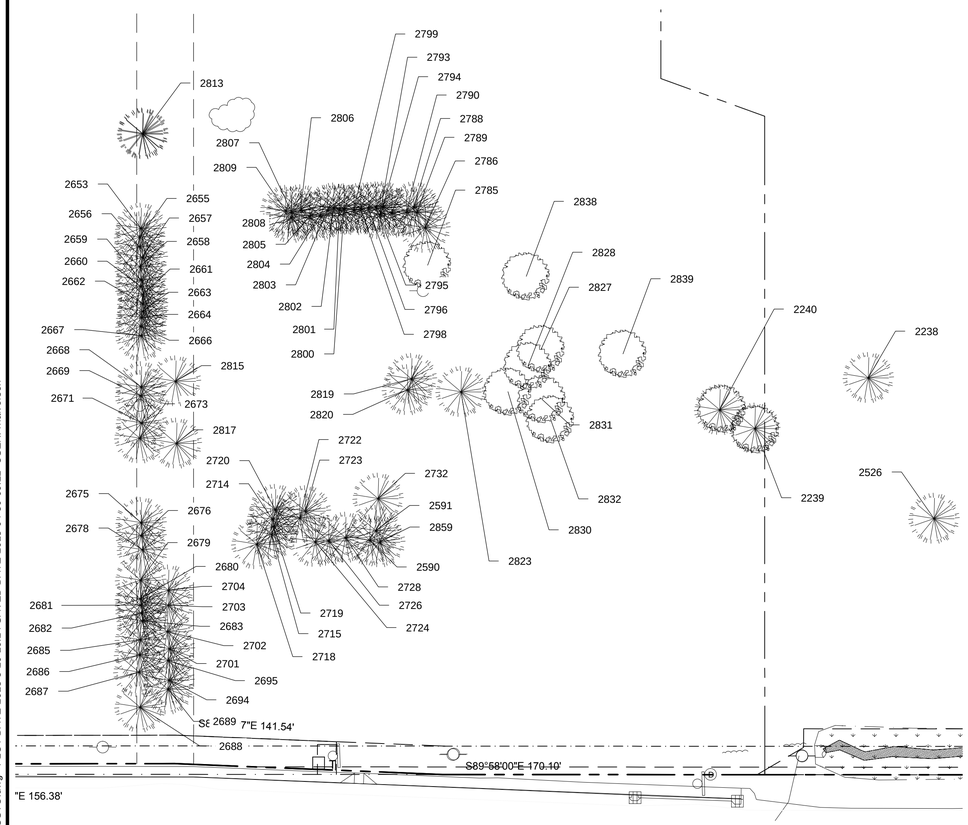
PARCEL A:
A TRACT OF LAND LYING IN THE SOUTHWEST ONE-QUARTER OF SECTION 12, TOWNSHIP 8 SOUTH, RANGE 3 WEST OF THE WILLAMETTE MERIDIAN, CITY OF SALEM, MARION COUNTY, OREGON, DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT ON THE NORTH RIGHT-OF-WAY LINE OF BOONE ROAD S.E., SAID POINT BEING 30.00 FEET NORTH 00°05'21" EAST AND 678.71 FEET SOUTH 89°58'00" EAST FROM THE SOUTHWEST CORNER OF SAID SECTION 12; AND RUNNING THENCE NORTH 89°58'00" WEST 467.90 FEET ALONG SAID NORTH RIGHT-OF-WAY LINE; THENCE NORTH 00°00'13" WEST 491.37 FEET; THENCE NORTH 27°44'38" WEST 207.56 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF KUEBLER BOULEVARD, SAID POINT BEING 90.56 FEET SOUTHEASTERLY OF AND AT RIGHT ANGLES TO THE CENTERLINE OF SAID KUEBLER BOULEVARD; THENCE NORTH 66°34'28" EAST 210.23 FEET ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE TO AN ANGLE POINT IN SAID RIGHT-OF-WAY, SAID POINT BEING 80.00 FEET SOUTHEASTERLY OF AND AT RIGHT ANGLES TO SAID CENTERLINE; THENCE NORTH 72°32'17" EAST 41.95 FEET ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE TO A POINT WHICH IS 79.61 FEET SOUTHEASTERLY OF AND AT RIGHT ANGLES TO SAID CENTERLINE; THENCE LEAVING SAID SOUTHERLY RIGHT-OF-WAY LINE SOUTH 00°00'33" EAST 88.97 FEET; THENCE NORTH 89°58'56" EAST 276.76 FEET; THENCE SOUTH 00°00'33" EAST 315.21 FEET; THENCE SOUTH 70°05'50" EAST 58.24 FEET; THENCE SOUTH 00°00'33" EAST 347.58 FEET TO THE POINT OF BEGINNING; EXCEPTING THAT PORTION CONVEYED TO CITY OF SALEM, AN OREGON MUNICIPAL CORPORATION, ORGANIZED AND EXISTING UNDER AND BY VIRTUE OF THE LAWS OF THE STATE OF OREGON BY DEED RECORDED FEBRUARY 25, 2013 IN REEL 3476, PAGE 0048, BOOK OF RECORDS.

PARCEL B
BEGINNING AT A POINT ON THE WEST LINE OF THAT TRACT OF LAND DESCRIBED IN REEL 2556, PAGE 0136, DEED RECORDS FOR MARION COUNTY, OREGON WHICH BEARS SOUTH 89°58'00" EAST 347.25 FEET AND NORTH 00°00'33" WEST 712.34 FEET FROM THE SOUTHWEST CORNER OF SECTION 12 IN TOWNSHIP 8 SOUTH, RANGE 3 WEST OF THE WILLAMETTE MERIDIAN, IN THE CITY OF SALEM, MARION COUNTY, OREGON; THENCE NORTH 00°00'33" WEST ALONG SAID WEST LINE A DISTANCE OF 88.97 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY OF KUEBLER BOULEVARD; THENCE NORTH 72°32'17" EAST ALONG SAID RIGHT-OF-WAY LINE A DISTANCE OF 259.30 FEET; THENCE NORTH 89°59'52" EAST ALONG SAID RIGHT-OF-WAY LINE A DISTANCE OF 247.43 FEET TO THE EAST LINE OF THAT TRACT OF LAND DESCRIBED IN REEL 2579, PAGE 0170, BOOK OF RECORDS; THENCE SOUTH 00°02'44" EAST ALONG SAID EAST LINE A DISTANCE OF 166.63 FEET; THENCE SOUTH 89°58'56" WEST 494.90 FEET TO THE POINT OF BEGINNING.

PARCEL B1:
A 30.00 FOOT WIDE ACCESS EASEMENT THE WESTERLY LINE OF WHICH IS DESCRIBED AS FOLLOWS:
BEGINNING AT THE SOUTHWEST CORNER OF THE ABOVE DESCRIBED TRACT AND RUNNING THENCE SOUTH 00°00'33" EAST A DISTANCE OF 682.34 FEET TO THE NORTH LINE OF BOONE ROAD.

PARCEL C:
BEGINNING AT A POINT ON THE NORTH LINE OF BOONE ROAD AT ITS INTERSECTION WITH THE WEST LINE OF THAT TRACT OF LAND DESCRIBED IN REEL 2579, PAGE 0172 BOOK OF RECORDS WHICH POINT BEARS SOUTH 89°58'00" EAST 842.63 FEET AND NORTH 00°02'44" WEST 30.00 FEET FROM THE SOUTHWEST CORNER OF SECTION 12 IN TOWNSHIP 8 SOUTH, RANGE 3 WEST OF THE WILLAMETTE MERIDIAN IN THE CITY OF SALEM, MARION COUNTY, OREGON; THENCE NORTH 00°02'44" WEST ALONG THE WEST LINE OF SAID TRACT, A DISTANCE OF 682.78 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 00°02'44" WEST ALONG THE WEST LINE OF SAID TRACT, A DISTANCE OF 166.63 FEET TO THE SOUTHERLY RIGHT-OF-WAY LINE OF KUEBLER BOULEVARD SE; THENCE NORTH 89°59'52" EAST ALONG SAID RIGHT-OF-WAY LINE A DISTANCE OF 144.06 FEET TO AN ANGLE POINT THEREIN; THENCE SOUTH 82°43'26" EAST ALONG SAID RIGHT-OF-WAY LINE A DISTANCE OF 272.85 FEET; THENCE SOUTH 51°36'40" EAST 71.07 FEET TO AN ANGLE POINT IN THE WEST RIGHT-OF-WAY LINE OF 27TH AVE.; THENCE SOUTH 00°02'23" EAST ALONG THE WEST RIGHT-OF-WAY LINE OF SAID 27TH AVE. A DISTANCE OF 313.02 FEET; THENCE NORTH 89°58'00" WEST A DISTANCE OF 108.00 FEET; THENCE NORTH 00°02'11" WEST ALONG THE WEST LINE OF THAT TRACT OF LAND DESCRIBED IN REEL 1595, PAGE 0219, BOOK OF RECORDS, A DISTANCE OF 150.83 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF A 100.00 FOOT RADIUS CURVE TO THE LEFT (THE CHORD OF WHICH BEARS NORTH 50°37'43" WEST 106.15 FEET) A DISTANCE OF 111.90 FEET; THENCE NORTH 82°41'03" WEST 54.30 FEET; THENCE NORTH 89°59'00" WEST 226.50 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL D:
BEGINNING AT A POINT ON THE NORTH LINE OF BOONE ROAD AT ITS INTERSECTION WITH THE WEST LINE OF THAT TRACT OF LAND DESCRIBED IN REEL 1089, PAGE 0148, BOOK OF RECORDS WHICH POINT BEARS SOUTH 89°58'00" EAST 842.63 FEET AND NORTH 00°02'44" WEST 30.00 FEET FROM THE SOUTHWEST CORNER OF SECTION 12 IN TOWNSHIP 8 SOUTH, RANGE 3 WEST OF THE WILLAMETTE MERIDIAN IN THE CITY OF SALEM, MARION COUNTY, OREGON; THENCE NORTH 89°58'00" WEST ALONG SAID NORTH LINE A DISTANCE OF 163.81 FEET; THENCE NORTH 00°00'33" WEST 347.58 FEET; THENCE NORTH 70°05'50" WEST 58.24 FEET; THENCE NORTH 00°00'33" WEST 315.21 FEET; THENCE NORTH 89°58'56" EAST 218.14 FEET; THENCE SOUTH 89°59'00" EAST 226.50 FEET; THENCE SOUTH 82°41'03" EAST 54.30 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF A 100.00 FOOT RADIUS CURVE TO THE RIGHT (THE CHORD OF WHICH BEARS SOUTH 50°37'43" EAST 106.15 FEET) A DISTANCE OF 111.90 FEET TO A POINT ON THE WEST LINE OF THAT TRACT OF LAND DESCRIBED IN REEL 1595, PAGE 0219, BOOK OF RECORDS; THENCE SOUTH 00°02'11" EAST ALONG SAID WEST LINE A DISTANCE OF 150.83 FEET; THENCE SOUTH 89°58'00" EAST A DISTANCE OF 108.00 FEET, TO THE WEST RIGHT-OF-WAY LINE OF 27TH AVENUE; THENCE SOUTH 00°02'23" EAST ALONG SAID RIGHT-OF-WAY LINE A DISTANCE OF 431.98 TO AN ANGLE POINT IN SAID RIGHT-OF-WAY LINE; THENCE SOUTH 44°59'52" WEST 36.75 FEET TO THE NORTH LINE OF SAID BOONE ROAD; THENCE NORTH 89°58'00" WEST ALONG SAID NORTH LINE, A DISTANCE OF 444.28 FEET TO THE POINT OF BEGINNING.



EXISTING TREE INFORMATION
SCALE: 1" = 40'

EXISTING TREE TABLE

POINT NUMBER	TREE TYPE	CALIPER
2238	OAK	34
2239	OAK	34
2240	OAK	44
2526	OAK	28
2589	CONIFER	24
2590	CONIFER	22
2591	CONIFER	16
2653	CONIFER	15
2655	CONIFER	12
2656	CONIFER	19
2657	CONIFER	16
2658	CONIFER	12
2659	CONIFER	15
2660	CONIFER	14
2661	CONIFER	12
2662	CONIFER	16
2663	CONIFER	8
2664	CONIFER	10
2666	CONIFER	18
2667	CONIFER	13
2668	CONIFER	10
2669	CONIFER	14
2671	CONIFER	15
2673	CONIFER	20
2675	CONIFER	24
2676	CONIFER	12
2678	CONIFER	19
2678	CONIFER	19
2679	CONIFER	15
2680	CONIFER	7
2681	CONIFER	12
2682	CONIFER	7
2683	CONIFER	22
2685	CONIFER	19
2686	CONIFER	13
2687	CONIFER	16
2688	CONIFER	14
2689	CONIFER	21
2694	CONIFER	20
2695	CONIFER	15
2701	CONIFER	16
2702	CONIFER	16
2703	CONIFER	13
2704	CONIFER	17
2714	CONIFER	28
2715	CONIFER	21
2718	CONIFER	6
2719	CONIFER	12
2720	CONIFER	26
2722	CONIFER	7

POINT NUMBER	TREE TYPE	CALIPER
2723	CONIFER	21
2724	CONIFER	25
2726	CONIFER	14
2728	CONIFER	21
2732	CONIFER	19
2785	DECD	12
2786	CONIFER	17
2788	CONIFER	14
2789	CONIFER	15
2790	CONIFER	12
2791	CONIFER	13
2793	CONIFER	9
2794	CONIFER	8
2795	CONIFER	13
2796	CONIFER	18
2798	CONIFER	7
2799	CONIFER	16
2800	CONIFER	14
2801	CONIFER	12
2802	CONIFER	14
2803	CONIFER	16
2804	CONIFER	8
2805	CONIFER	16
2806	CONIFER	17
2807	CONIFER	9
2808	CONIFER	21
2809	CONIFER	22
2813	CONIFER	26
2815	MAPLE	26
2817	CEDER	25
2819	CONIFER	21
2820	CONIFER	18
2823	OAK	51
2827	DECD	20
2828	DECD	18
2830	DECD	17
2831	DECD	12
2832	DECD	29
2838	DECD	30
2839	DECD	28

SANITARY SEWER DATA

1. SANITARY SEWER MANHOLE
RIM=364.11'
IE 8" PVC IN (N)=357.47'
IE 8" PVC IN (W)=357.26'
IE 8" PVC IN (E)=357.25'
IE 8" PVC OUT (S)=357.10'
2. SANITARY SEWER MANHOLE
RIM=361.86'
IE 8" PVC IN (N)=354.60
IE 8" PVC OUT (E)=354.36
3. SANITARY SEWER MANHOLE
RIM=361.02'
IE (W)=352.84'
IE (S)=352.56'
4. SANITARY SEWER MANHOLE
RIM=360.51'
5. SANITARY SEWER MANHOLE
RIM=360.57'
6. SANITARY SEWER MANHOLE
RIM=360.99'
7. SANITARY SEWER MANHOLE
RIM=360.87'
8. SANITARY SEWER MANHOLE
RIM=362.82'
IE (W)=345.05'
IE (N)=345.00'
9. SANITARY SEWER MANHOLE
RIM=362.02'
10. SANITARY SEWER MANHOLE
RIM=350.93'
IE (S)=341.99'
IE (N)=341.06'
11. SANITARY SEWER MANHOLE
RIM=344.44'
IE 8" PVC STUB? (W)=334.66'
IE 24" CONC IN (S)=333.86'
IE 24" CONC OUT (N)=333.10'
12. SANITARY SEWER MANHOLE
RIM=350.42'
IE 24" CONC IN (S)=329.68'
IE 24" CONC OUT (N)
13. SANITARY SEWER MANHOLE
RIM=363.83'
IE (W)=360.63'
IE (S)=360.39'

STORM DRAINAGE DATA

1. STORM DRAIN MANHOLE
FILTERA SYSTEM
RIM=366.06'
IE 12" CPP IN (S)=359.91'
IE 10" CPP IN (SE)=359.89'
IE 18" CPP IN (W)=359.75'
IE 18" CPP OUT (N)=359.67'
SUMP=356.03'
2. STORM DRAIN MANHOLE
FILTERA SYSTEM
RIM=365.99'
IE 18" CPP IN (W)=359.70'
IE 18" CPP OUT (N)=359.66'
PIPES TURNED DOWN TO S & E
SUMP=356.37'
3. STORM DRAIN MANHOLE
RIM=365.85'
IE 18" CPP IN (W)=356.33'
IE 8/10" CPP IN (S)=356.27'
IE 18" CPP OUT (E)=356.21'
4. CONTECH MANHOLE
RIM=365.41'
FILTERA SYSTEM
5. CONTECH MANHOLE
RIM=365.36'
FILTERA SYSTEM
6. STORM DRAIN MANHOLE
RIM=363.82'
IE 18" CPP IN (W)=356.10'
IE 18" CPP OUT (S)=356.00'
7. STORM TRAPPED INLET
RIM=363.55'
TRAPPED INLET (N)
IE 4" IP (S)=362.30'
SUMP=359.88'
8. STORM AREA DRAIN
RIM=363.42'
9. CONTECH MANHOLE/CATCH BASIN
FILTERA SYSTEM
RIM=361.24'
10. CATCH BASIN
RIM=362.56'
11. STORM DRAIN MANHOLE
RIM=361.85'
IE 18" CPP IN (N)=355.75'
IE 18" CPP OUT (E)=355.55'
12. CATCH BASIN
RIM=361.35'
13. CATCH BASIN
RIM=360.17'
14. CATCH BASIN
RIM=360.15'
15. CATCH BASIN
RIM=359.82'
IE 4" IN (W)=359.10'
IE 4" IN (E)=358.96'
IE 10" OUT (E)=358.36'
16. STORM DRAIN MANHOLE
RIM=360.68'
IE 18" IN (W)=354.55'
IE 18" OUT (E)=354.50'
17. CATCH BASIN
RIM=359.88'
IE 4" IN (W)=358.98'
IE 10" IN (E)=358.14'
IE 10" OUT (W)=358.03'
18. CATCH BASIN
RIM=359.46'
19. CATCH BASIN
RIM=359.68'
20. CATCH BASIN
RIM=359.91'
21. STORM DRAIN MANHOLE
RIM=360.47'
IE 18" IN (E)=353.77'
IE 18" OUT (W)=353.69'
22. CATCH BASIN
RIM=360.17'
23. STORM DRAIN MANHOLE
RIM=359.66'
24. STORM DRAIN MANHOLE
RIM=361.66'
25. STORM DRAIN MANHOLE
RIM=360.48'
IE 18" IN (W)=352.66'
IE 30" (N)=352.16'
IE 30" (S)=352.16'
26. CATCH BASIN
RIM=343.40'
IE 12" IP (W)=341.65'
SUMP=340.70'
27. STORM DRAIN MANHOLE
OVERSIZED LID
FILTERA SYSTEM
RIM=344.77'
IE 6" PVC IN (W)=337.70'
IE 6" PVC IN (S)=337.70'
PIPE TURNED DOWN TO N
SUMP=333.43'
28. CATCH BASIN
RIM=344.44'
IE 12" PVC (S)=341.92'
SUMP=341.44'
29. STORM DRAIN MANHOLE
RIM=344.92'
IE 18" PVC IN (S)=336.10'
IE 12" PVC IN (SW)=336.00'
IE 36" CONC OUT (E)=335.87'
30. STORM DRAIN MANHOLE
RIM=344.09'
IE 18" PVC IN (S)=336.29'
IE 36" CONC IN (W)=335.69'
IE 36" CONC OUT (E)=335.65'
31. STORM DRAIN MANHOLE
OVERSIZED LID
RIM=346.89'
IE 14" PVC IN (W)=341.99'
IE 16" PVC OUT (S) TURNED DOWN,
CANNOT DIP
SUMP=337.96'
32. CATCH BASIN
RIM=347.47'
IE 14" PVC IN (W)=343.15'
IE 14" PVC OUT (E)=342.91'
SUMP=341.92'
33. CATCH BASIN
RIM=349.45'
IE 14" PVC IN (W)=345.25'
IE 14" PVC OUT (E)=345.05'
SUMP=344.20'
34. CATCH BASIN
RIM=352.46'
IE 12" PVC IN (W)=348.45'
IE 14" PVC OUT (E)=348.10'
SUMP=347.29'
35. CATCH BASIN
RIM=355.38'
IE 12" PVC IN (W)=351.44'
IE 12" PVC OUT (E)=351.21'
SUMP=350.38'
36. CATCH BASIN
RIM=358.66'
IE 12" PVC IN (W)=354.61'
IE 12" PVC OUT (E)=354.48'
SUMP=353.70'
37. CATCH BASIN
RIM=362.12'
IE 12" PVC IN (W)=358.08'
IE 12" PVC OUT (E)=357.95'
SUMP=356.97'
38. CATCH BASIN
RIM=365.23'
IE 12" PVC (N)=361.08'
SUMP=360.18'
39. CATCH BASIN
RIM=365.35'
IE 12" PVC IN (W)=361.20'
IE 12" PVC OUT (E)=361.00'
SUMP=360.15'
40. CATCH BASIN
RIM=365.52'
IE 12" PVC OUT (E)= 361.50'
SUMP FULL OF DEBRIS

REVISIONS

REV	DATE	DESCRIPTION	BY

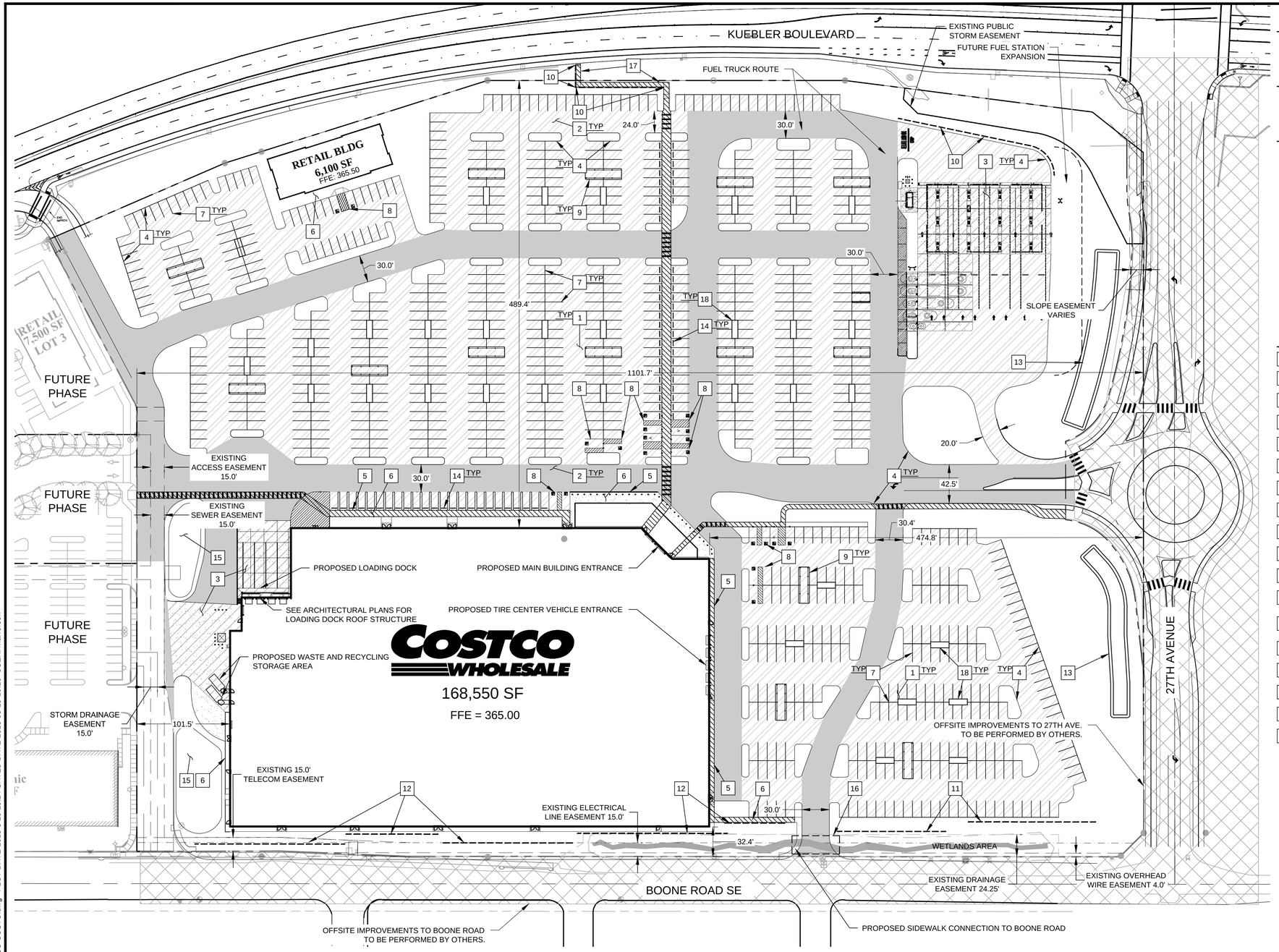
DOWL
720 SW Washington Street, #750
Portland, Oregon 97205
971-280-8641
WWW.DOWL.COM

PREPARED FOR
COSTCO WHOLESALE
COSTCO WHOLESALE CORPORATION
999 LAKE DRIVE
ISSAQUAH, WA 98070
TEL: (425) 313-8100

KUEBLER GATEWAY
SHOPPING CENTER
SITE PLAN REVIEW SET
EXISTING STRUCTURES
SE BOONE RD. AND 27TH AVE.
SALEM, OREGON, 97306

PROJECT 14429-01
DATE 05/04/2018

SHEET
C101



PARKING STALL DATA

SPACES PROVIDED (TOTAL) = 894 PARKING SPACES
REGULAR PARKING PROVIDED = 876 PARKING SPACES
ADA PARKING PROVIDED = 18 PARKING SPACES

TOTAL SITE AREA

895,325 SQUARE FEET
20.55 ACRES

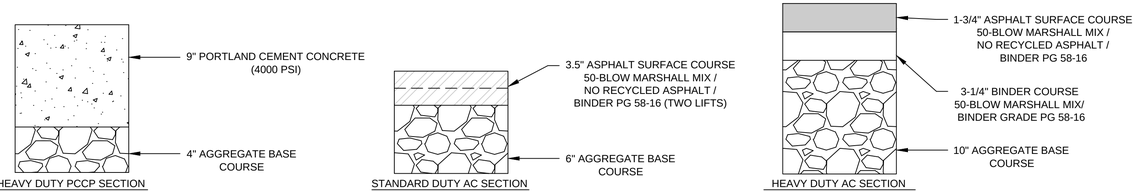
PAVING LEGEND

- HEAVY DUTY PCCP
- HEAVY DUTY AC
- STANDARD DUTY AC
- IMPROVEMENTS TO BE PERFORMED BY OTHERS
- ADA ACCESSIBLE ROUTE

CONSTRUCTION NOTES

1. PROPOSED STANDARD ASPHALT PAVEMENT. SEE SECTION THIS SHEET.
2. PROPOSED HEAVY ASPHALT PAVEMENT. SEE SECTION THIS SHEET.
3. PROPOSED HEAVY CONCRETE PAVEMENT. SEE SECTION THIS SHEET.
4. PROPOSED STANDARD 6" CONCRETE CURB.
5. PROPOSED FLUSH CONCRETE CURB.
6. PROPOSED STANDARD CONCRETE SIDEWALK.
7. PROPOSED PARKING LOT STRIPING.
8. PROPOSED ADA PARKING LOT STRIPING.
9. PROPOSED CART CORRAL.
10. PROPOSED RETAINING WALL. SEE GRADING PLAN FOR MORE INFORMATION.
11. PROPOSED SCREEN WALL.
12. PROPOSED RETAINING AND SCREEN WALL. SEE GRADING PLAN FOR MORE INFORMATION. SEE ARCHITECTURAL PLANS FOR SCREEN WALL DETAILS.
13. PROPOSED STORMWATER FACILITY. SEE STORM PLAN AND GRADING PLAN FOR MORE INFORMATION.
14. PROPOSED CONCRETE WHEEL STOP.
15. PROPOSED LANDSCAPE BERM. SEE GRADING PLAN FOR MORE INFORMATION.
16. PROPOSED 16' WIDE BOX CULVERT (CONSPAN CULVERT - 52' LONG)
17. PROPOSED ADA RAMP WITH HANDRAILS.
18. PROPOSED LANDSCAPE ISLAND.

PAVING SECTIONS



REVISIONS			
REV	DATE	DESCRIPTION	BY

DOWL
WWW.DOWL.COM
720 SW Washington Street, #750
Portland, Oregon 97205
971-280-8641

PREPARED FOR
COSTCO WHOLESALE CORPORATION
999 LAKE DRIVE
ISSAQUAH, WA 98027
TEL: (425) 313-8100

KUEBLER GATEWAY
SHOPPING CENTER
SITE PLAN REVIEW SET

SITE PLAN

SE BOONE RD. AND 27TH AVE.
SALEM, OREGON, 97306

PROJECT	14429-01
DATE	05/04/2018

SHEET
C200

\\bhl-fs\bhl-projects\3\21\14429-01\65\CAD\SPRIM\C-CS-COSTCO.dwg PLOT DATE 2018-5-29 19:24 SAVED DATE 2018-05-29 19:20 USER: rhalvorson

KUEBLER BOULEVARD

BOONE ROAD SE

27TH AVENUE

RETAIL BLDG
6,100 SF
FFE= 365.50

RETAIL
7,500 SF
LOT 3

COSTCO WHOLESALE
168,550 SF
FFE= 365.00

TW:355.01
BW:354.90

TW:363.07
BW:356.38

TW:362.70
BW:362.70
363.96

TW:361.30
BW:358.40

TW:360.66
BW:352.00

TW:362.19
BW:353.10

TW:362.67
BW:360.00

347.14

350.22

351.17

353.90

364.52

367.80

363.47

367.33

364.82

362.84

362.50

359.64

363.75

RETAINING WALL
0'-2' MAX

LANDSCAPE
BERM (3:1 MAX)

PROPOSED RETAINING WALL

WQ STORMWATER SWALE

OFF-SITE IMPROVEMENTS
BY OTHERS

SCREEN WALL

RETAINING &
SCREEN WALL

TW:364.80
BW:364.47

TW:360.33
TW:360.00
TW:363.50
BW:360.93

TW:363.50
BW:362.28

TW:364.78
BW:359.64

TW:363.00
BW:362.67

TW:364.00
BW:362.08

TW:359.84
BW:359.51

TW:361.83
BW:361.50

TW:362.83
BW:362.50

TW:363.88
BW:362.50

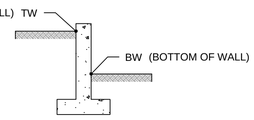
TW:362.83
BW:362.50

TW:363.50
BW:362.67

2.9%
4.7%
0.9%
32.2%
7.5%
7.7%
46.1%
28.1%
32.0%
31.9%
1.6%
5.0%
5.5%
4.8%
3.2%
18.8%
1.5%
18.5%
6.5%

LEGEND

- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- X.X% PROPOSED SLOPE LABEL
- FLOW ARROW
- STORM CATCH BASIN
- STORM MANHOLE



WALL GRADE LABELS DETAIL

SCALE: NTS

NOTE:

GRADES FOR 27TH AVE SE ARE APPROXIMATE AND TO BE COORDINATED WITH DEVELOPER.

SEE ESC PLANS FOR EROSION & SEDIMENT CONTROL MEASURES

N

60 0 60 120

SCALE IN FEET

REV	DATE	DESCRIPTION	BY

REVISIONS

DOWL
WWW.DOWL.COM
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KUEBLER GATEWAY
SHOPPING CENTER
SITE PLAN REVIEW SET

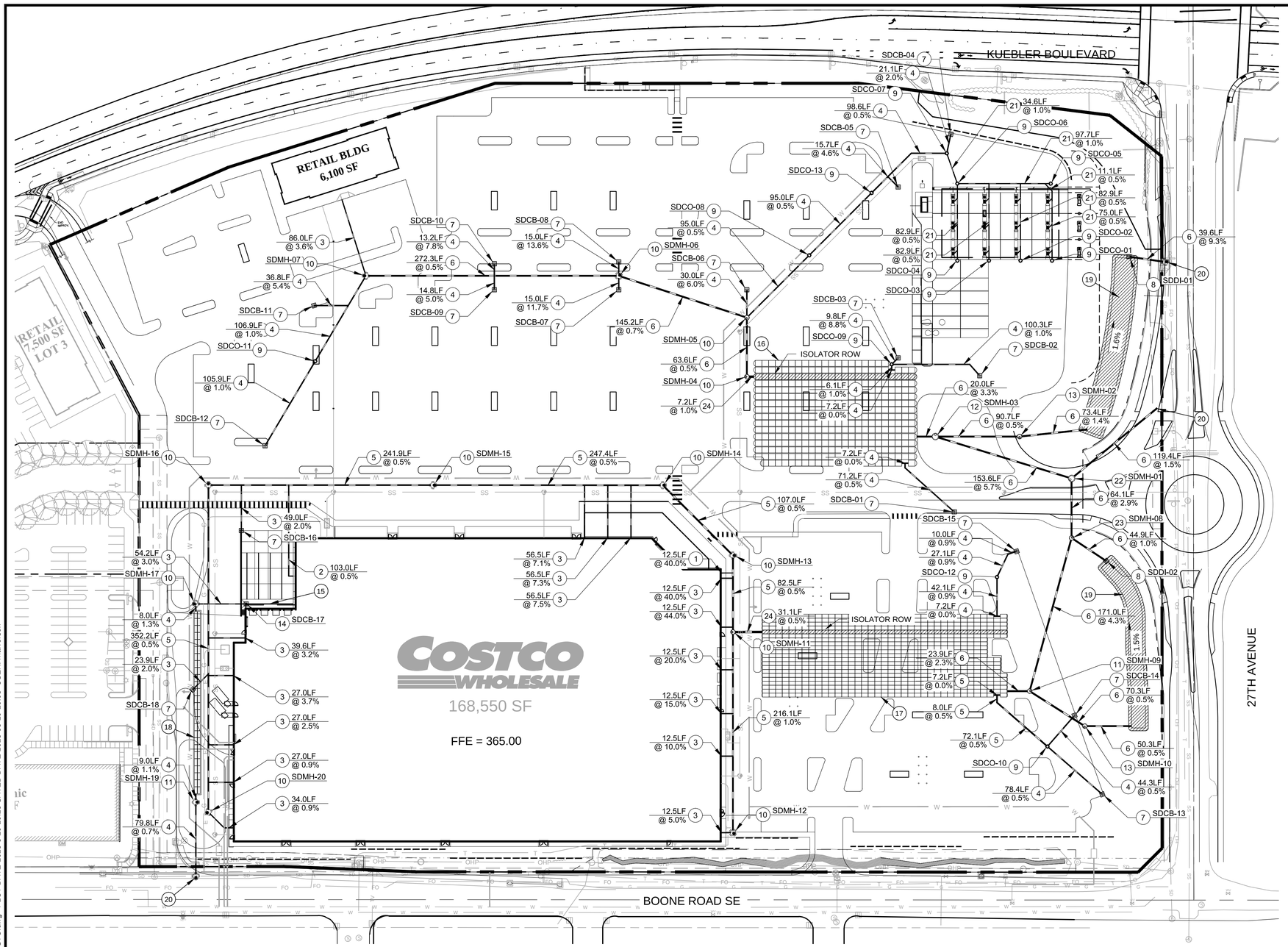
GRADING PLAN

SE BOONE RD. AND 27TH AVE.
SALEM, OREGON, 97306

PROJECT	14429-01
DATE	05/04/2018

SHEET

C300

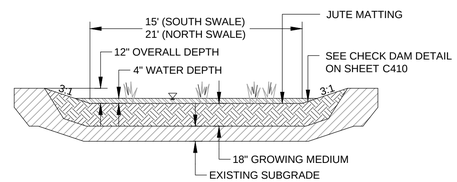


LEGEND

- STORM LINE
- STORM MANHOLE
- STORM CATCH BASIN
- STORM CLEANOUT
- STORM DETENTION CHAMBERS
- STORMWATER WATER QUALITY SWALE

STORM CONSTRUCTION NOTES

1. PROPOSED 6" HDPE STORM LINE.
2. PROPOSED 10" DUCTILE IRON STORM LINE.
3. PROPOSED 10" HDPE STORM LINE.
4. PROPOSED 12" HDPE STORM LINE.
5. PROPOSED 15" HDPE STORM LINE.
6. PROPOSED 18" HDPE STORM LINE.
7. PROPOSED STANDARD CG-2 CATCH BASIN. SEE TABLE THIS SHEET.
8. PROPOSED DITCH INLET.
9. PROPOSED STORM CLEANOUT.
10. PROPOSED 48" STORM MANHOLE. SEE TABLE THIS SHEET.
11. PROPOSED 60" FLOW CONTROL MANHOLE. SEE TABLE THIS SHEET.
12. PROPOSED 72" FLOW CONTROL MANHOLE. SEE TABLE THIS SHEET.
13. PROPOSED WATER QUALITY MANHOLE. SEE TABLE THIS SHEET.
14. PROPOSED 2 FILTER WATER QUALITY CATCH BASIN. SEE TABLE THIS SHEET.
15. PROPOSED TRENCH DRAIN.
16. PROPOSED STORMTECH UNDERGROUND DETENTION SYSTEM (MC-3500 CHAMBERS).
    TOTAL VOLUME: 71,300 CF
    TOTAL CHAMBERS: 378
    TOTAL END CAPS: 32
17. PROPOSED STORMTECH UNDERGROUND DETENTION SYSTEM (SC-740 CHAMBERS).
    TOTAL VOLUME: 60,800 CF
    TOTAL CHAMBERS: 756
    TOTAL END CAPS: 42
18. PROPOSED STORMTECH UNDERGROUND DETENTION SYSTEM (SC-310 CHAMBERS).
    TOTAL VOLUME: 1,650 CF
    TOTAL CHAMBERS: 52
    TOTAL END CAPS: 4
19. PROPOSED VEGETATED STORMWATER QUALITY SWALE. SEE SECTION THIS SHEET.
20. PROPOSED CONNECTION TO STORM MANHOLE INSTALLED UNDER PUBLIC IMPROVEMENTS.
21. PROPOSED 8" PVC STORM LINE.
22. PROPOSED 72" STORM MANHOLE. SEE TABLE THIS SHEET.
23. PROPOSED 60" STORM MANHOLE. SEE TABLE THIS SHEET.
24. PROPOSED 24" HDPE STORM LINE.



VEGETATED STORMWATER QUALITY SWALE

SCALE: 1" = 5'

MANHOLE DATA

SDMH-01
RIM: 351.81
IE IN (18"S) = 345.69
IE IN (18"W) = 345.69
IE OUT (18"NE) = 345.69

SDMH-02
RIM: 356.07
IE IN (18"W) = 351.28
IE OUT (18"E) = 351.18

SDMH-03
RIM: 359.91
IE IN (18"W) = 352.13
IE OUT (18"E) = 351.73
IE OUT (18"E) = 354.43

SDMH-04
RIM: 362.42
IE IN (18"N) = 354.59
IE OUT (24"E) = 354.39

SDMH-05
RIM: 361.67
IE IN (18"W) = 355.01
IE IN (12"NE) = 355.08
IE IN (12"N) = 355.58
IE OUT (18"S) = 354.91

SDMH-06
RIM: 362.04
IE IN (18"W) = 356.15
IE IN (12"N) = 356.15
IE IN (12"S) = 356.15
IE OUT (18"E) = 356.05

SDMH-07
RIM: 364.40
IE IN (12"SW) = 357.61
IE IN (10"N) = 357.61
IE OUT (18"E) = 357.51

SDMH-08
RIM: 353.75
IE IN (18"S) = 348.72
IE IN (18"SE) = 347.72
IE OUT (18"N) = 347.52

SDMH-09
RIM: 359.73
IE IN (18"W) = 354.70
IE OUT (18"SE) = 354.50
IE OUT (18"N) = 356.00

SDMH-10
RIM: 358.99
IE IN (18"NW) = 354.15
IE OUT (18"E) = 354.15

SDMH-11
RIM: 364.71
IE IN (18"N) = 355.06
IE IN (15"S) = 358.11
IE OUT (24"E) = 354.96

SDMH-12
RIM: 363.72
IE IN (10"W) = 360.37
IE OUT (15"N) = 360.27

SDMH-13
RIM: 364.58
IE IN (18"NW) = 355.57
IE OUT (18"S) = 355.47

SDMH-14
RIM: 364.19
IE IN (15"W) = 356.21
IE OUT (18"SE) = 356.11

SDMH-15
RIM: 364.24
IE IN (15"W) = 357.54
IE OUT (15"E) = 357.44

SDMH-16
RIM: 363.03
IE IN (15"S) = 358.85
IE OUT (15"E) = 358.75

SDMH-17
RIM: 363.74
IE IN (10"E) = 356.80
IE OUT (12"S) = 356.60

SDMH-19
RIM: 367.33
IE IN (12"N) = 356.40
IE OUT (12"S) = 356.29

SDMH-20
RIM: 367.33
IE IN (10"SE) = 360.71
IE OUT (15"N) = 360.61

CATCH BASIN DATA

SDCB-01
RIM: 357.46
IE OUT (12"NW) = 355.42

SDCB-02
RIM: 359.43
IE OUT (12"NW) = 355.93

SDCB-03
RIM: 359.77
IE OUT (12"SW) = 355.78

SDCB-04
RIM: 360.18
IE OUT (12"S) = 356.94

SDCB-05
RIM: 360.38
IE OUT (12"NW) = 356.88

SDCB-06
RIM: 361.32
IE OUT (12"S) = 357.37

SDCB-07
RIM: 361.89
IE OUT (12"N) = 357.91

SDCB-08
RIM: 362.19
IE OUT (12"S) = 358.19

SDCB-09
RIM: 361.85
IE OUT (12"N) = 357.85

SDCB-10
RIM: 362.14
IE OUT (12"S) = 358.14

SDCB-11
RIM: 363.64
IE OUT (12"E) = 360.00

SDCB-12
RIM: 362.00
IE OUT (12"NE) = 359.74

SDCB-13
RIM: 358.80
IE OUT (12"NW) = 356.14

SDCB-14
RIM: 358.87
IE OUT (12"SW) = 355.97

SDCB-15
RIM: 360.05
IE OUT (12"W) = 357.04

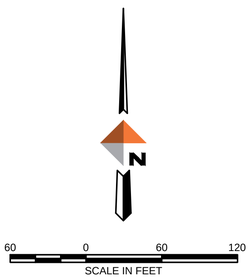
SDCB-16
RIM: 362.04
IE OUT (10"N) = 359.79

SDCB-17
RIM: 360.79
IE OUT (10"W) = 358.45

SDCB-18
RIM: 363.31
IE OUT (10"NE) = 360.55

SDDI-01
RIM: 347.14
IE OUT (18"E) = 344.14

SDDI-02
RIM: 351.17
IE OUT (18"NW) = 348.17



REVISIONS

REV	DATE	DESCRIPTION	BY

DOWL
720 SW Washington Street, #750
Portland, Oregon 97205
971-280-8641
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PREPARED FOR
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999 LAKE DRIVE
ISSAQUAH, WA 98070
TEL: (425) 313-8100

KUEBLER GATEWAY
SHOPPING CENTER
SITE PLAN REVIEW SET

STORM DRAINAGE PLAN

SE BOONE RD. AND 27TH AVE.
SALEM, OREGON, 97306

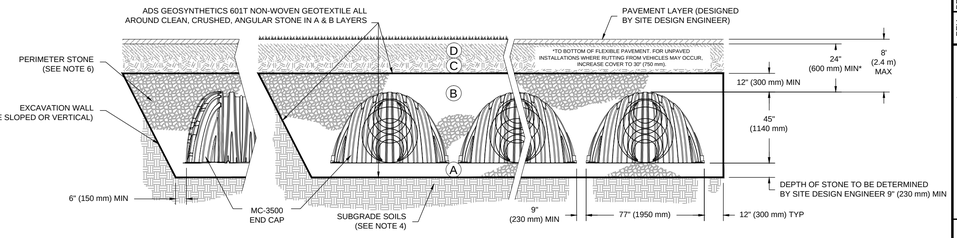
PROJECT	14429-01
DATE	05/04/2018

SHEET
C400

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[†] A-1, A-2-4, A-3 OR AASHTO M43[†] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTION AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[†] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[†] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[* *]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



*FOR COVER DEPTHS GREATER THAN 8.0' (2.4 m) PLEASE CONTACT STORMTECH

NOTES:

1. MC-3500 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
   PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

MC-3500
STANDARD CROSS SECTION

DESCRIPTION

REV	DRW	CHK	DESCRIPTION
03/19/13	JLM	JLM	UPDATE

DATE: 11/19/14 DRAWN: JLM CHECKED: JLM PROJECT #:

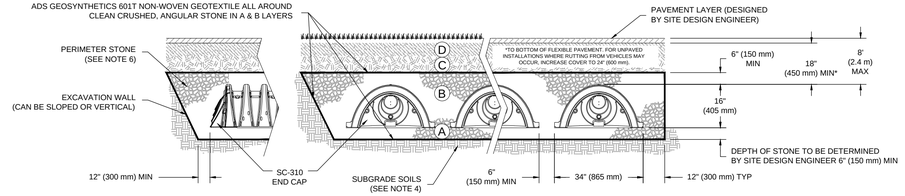
4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

SHEET
1 OF 1

ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[†] A-1, A-2-4, A-3 OR AASHTO M43[†] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[†] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[†] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[* *]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



NOTES:

1. SC-310 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922
   "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
5. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
6. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

SC-310
STANDARD CROSS SECTION

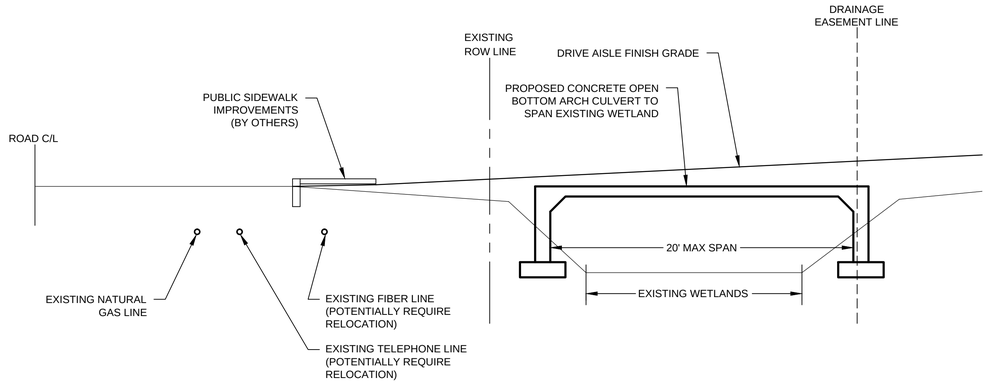
DESCRIPTION

REV	DRW	CHK	DESCRIPTION
03/19/13	JLM	JLM	UPDATE

DATE: 11/19/14 DRAWN: JLM CHECKED: JLM PROJECT #:

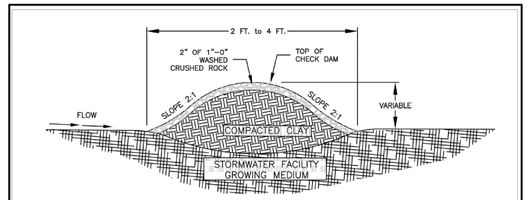
4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

SHEET
1 OF 1



CONCRETE OPEN BOTTOM ARCH CULVERT DETAIL

SCALE: 1" = 5'



CHECK DAM

CHECK DAM SPACING

FACILITY LENGTH (FT)	LONGITUDINAL STREET SLOPE	# OF CHECK DAMS	ADDITIONAL INLETS
30	<=1%	0	NONE
	>=1%	1	NONE
31 – 50	<=1%	1	NONE
	>=1%	2	1
51–70	<=1%	2	1
	>=1%	3	2
71–90	<=1%	3	2
	>=1%	4	3
91 +	<=1%	4	3
	>=1%	5	4

NOTES:

1. CHECK DAMS TO BE EVENLY SPACED BETWEEN INLET AND OUTLET. ADDITIONAL REQUIREMENTS MAY BE NECESSARY ON STEEP SLOPES
2. ADDITIONAL INLETS TO BE PLACED DIRECTLY DOWNSTREAM OF CHECK DAMS
3. TOP OF CHECK DAM TO BE 1" BELOW GUTTER ELEVATION AT INLET (AT CURB LINE) BUT NOT GREATER THAN 2" BELOW TOP OF CURB

CITY OF SALEM
DEPARTMENT OF PUBLIC WORKS

STANDARD PLAN
CHECK DAM DETAILS

APPROVED	CITY ENGINEER	4/01/14 DATE	DRAWN BY	KAK	12/2013	**NO. 220**
			CHECKED BY	KR	12/2013	

REVISIONS

REV	DATE	DESCRIPTION	BY

DOWL
WWW.DOWL.COM
720 SW Washington Street, #750
Portland, Oregon 97205
971-280-8641

PREPARED FOR
COSTCO WHOLESALE
COSTCO WHOLESALE CORPORATION
999 LAKE DRIVE
ISSAQUAH, WA 98027
TEL: (425) 313-8100

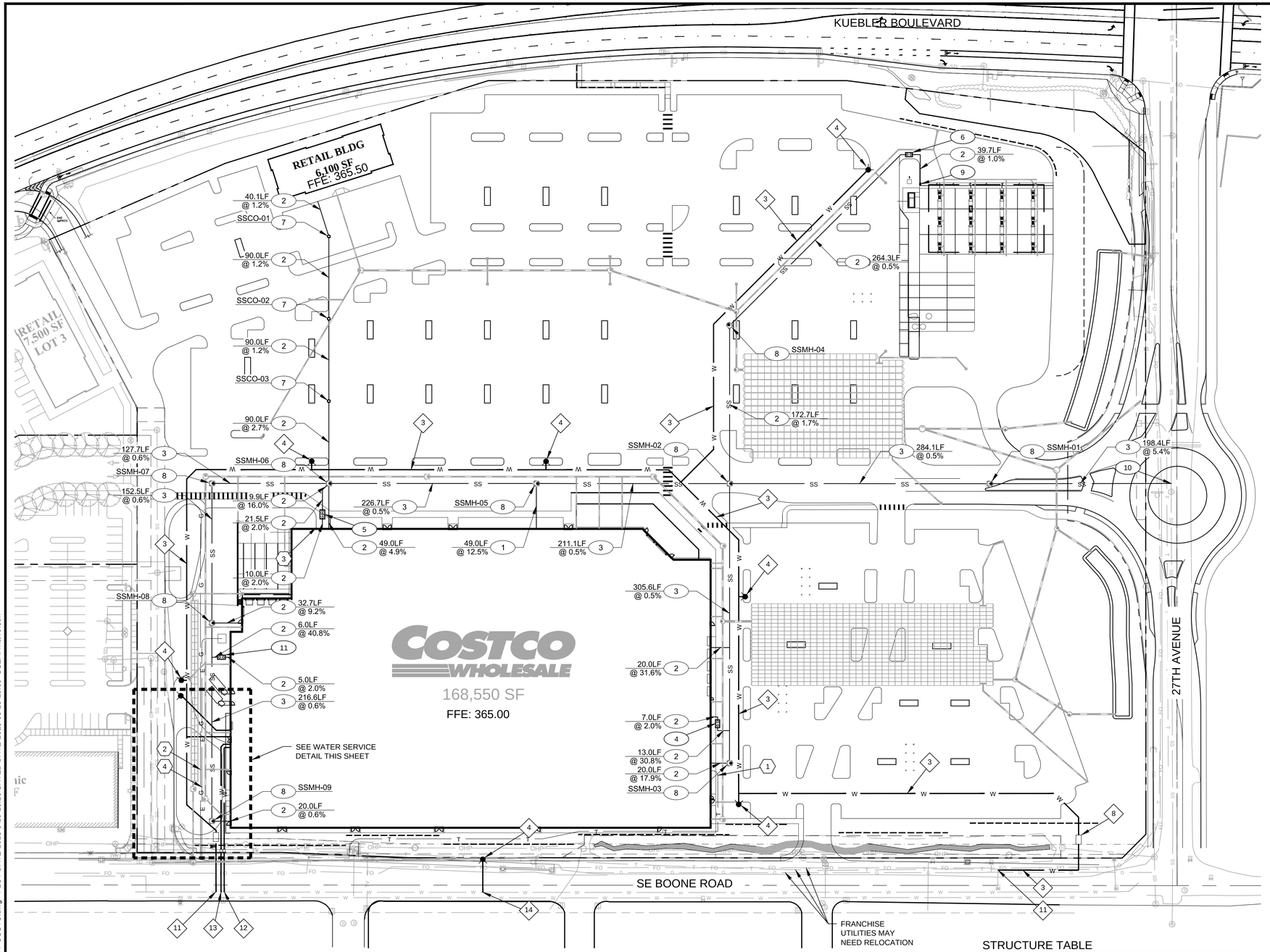
KUEBLER GATEWAY
SHOPPING CENTER
SITE PLAN REVIEW SET

STORM DETAILS

SE BOONE RD. AND 27TH AVE.
SALEM, OREGON, 97306

PROJECT 14429-01
DATE 05/04/2018

SHEET
C410



LEGEND

- W — PROPOSED WATER LINE
- SS — PROPOSED SANITARY SEWER LINE
- T — PROPOSED TELECOM LINE
- E — PROPOSED ELECTRICAL LINE
- G — PROPOSED GAS LINE
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEANOUT

SANITARY SEWER CONSTRUCTION NOTES

1. PROPOSED 4" SDR-35 PVC SANITARY LINE.
2. PROPOSED 6" SDR-35 PVC SANITARY LINE.
3. PROPOSED 8" SDR-35 PVC SANITARY LINE.
4. PROPOSED 1000 GALLON GREASE INTERCEPTOR.
5. PROPOSED 1500 GALLON GREASE INTERCEPTOR.
6. PROPOSED 1000 GALLON OIL WATER SEPARATOR.
7. PROPOSED SANITARY CLEANOUT.
8. PROPOSED 48" SANITARY MANHOLE. SEE TABLE THIS SHEET.
9. PROPOSED SANITARY AREA DRAIN.
10. PROPOSED TEE CONNECTION TO EXISTING 24" SANITARY SEWER LINE.
11. PROPOSED 800 GALLON SAND SEPARATOR.

WATER CONSTRUCTION NOTES

1. PROPOSED 2" IRRIGATION LINE.
2. PROPOSED 3" CL52 DUCTILE IRON WATER LINE.
3. PROPOSED 12" CL52 DUCTILE IRON WATER LINE.
4. PROPOSED FIRE HYDRANT ASSEMBLY.
5. PROPOSED FIRE DEPARTMENT CONNECTION & 6" CL52 DUCTILE IRON WATER LINE.
6. PROPOSED 3" DOMESTIC WATER METER.
7. PROPOSED 2" IRRIGATION WATER METER.
8. PROPOSED 8" DOUBLE CHECK DETECTOR BACKFLOW PREVENTION ASSEMBLY.
9. IRRIGATION DOUBLE CHECK LOCATED IN BUILDING.
10. PROPOSED DOMESTIC DOUBLE CHECK BACKFLOW ASSEMBLY LOCATED IN BUILDING.
11. CONNECT 12" WATER TO BOONE ROAD 30" WATER LINE.
12. CONNECT DOMESTIC WATER LINE TO BOONE ROAD 30" WATER LINE.
13. CONNECT IRRIGATION WATER LINE TO BOONE ROAD 30" WATER LINE.
14. CONNECT 6" HYDRANT LINE TO BOONE ROAD 30" WATER LINE.

FRANCHISE UTILITY NOTES

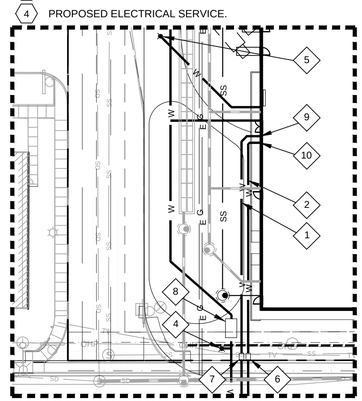
1. PROPOSED TELEPHONE SERVICE.
2. PROPOSED GAS SERVICE.
3. PROPOSED GAS METER.
4. PROPOSED ELECTRICAL SERVICE.

STRUCTURE TABLE

SSMH-01 RIM: 355.28 IE IN (8"W) = 351.68 IE OUT (8"E) = 351.58	SSMH-04 RIM: 361.97 IE IN (6"NE) = 356.26 IE OUT (6"S) = 356.16	SSMH-07 RIM: 363.03 IE IN (8"S) = 356.46 IE OUT (8"E) = 356.36
SSMH-02 RIM: 363.45 IE IN (8"W) = 353.20 IE IN (8"S) = 353.20 IE IN (6"N) = 353.20 IE OUT (8"E) = 353.10	SSMH-05 RIM: 364.33 IE IN (8"W) = 354.36 IE IN (6"S) = 354.36 IE OUT (8"E) = 354.26	SSMH-08 RIM: 364.43 IE IN (6"E) = 357.48 IE IN (8"S) = 357.48 IE OUT (8"N) = 357.38
SSMH-03 RIM: 364.70 IE IN (6"W) = 354.93 IE OUT (8"N) = 354.73	SSMH-06 RIM: 363.34 IE IN (6"S) = 355.59 IE IN (6"SW) = 355.59 IE IN (6"N) = 355.59 IE IN (8"W) = 355.59 IE OUT (8"E) = 355.49	SSMH-09 RIM: 366.08 IE IN (6"E) = 358.88 IE OUT (8"N) = 358.78

WATER SERVICE DETAIL

SCALE: 1" = 40'



REVISIONS

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720 SW Washington Street, #750
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KUEBLER GATEWAY
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SITE PLAN REVIEW SET

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SALEM, OREGON, 97306

PROJECT	14429-01
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SHEET
C500