

WAUSAU CONSTRUCTION PLANS

BUTTE, MT

RECORD DRAWINGS
12/8/21

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LEGEND

	EXISTING CONTOUR
	PROPOSED CONTOUR
	CURB & GUTTER
	FENCE
	GAS LINE
	OVERHEAD POWER
	UTILITY POLE
	STORM CATCH BASIN
	SANITARY SEWER MAIN
	WATER MAIN

GENERAL NOTES

1. THE LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE AND THE CONTRACTOR SHALL FIELD VERIFY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO TAKE ALL PRECAUTIONARY MEANS TO PROTECT EXISTING UTILITIES.
2. WHERE CONDITIONS ARE ENCOUNTERED WHICH APPEAR DIFFERENT FROM THOSE INDICATED ON THE PLANS OR IN THE SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO THE PERFORMANCE OF WORK.
3. ALL WORK AND MATERIALS SHALL CONFORM TO THE 6TH EDITION OF THE "MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS" AND MODIFICATIONS THERETO. IN CASE OF A CONFLICT BETWEEN REGULATORY OR STANDARD SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL.
4. CONSTRUCTION SAFETY AND SANITATION FACILITIES SHALL BE PROVIDED BY THE CONTRACTOR AND MAINTAINED PER THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
5. THE CONTRACTOR SHALL PROTECT ADJACENT PRIVATE AND PUBLIC PROPERTY FROM DAMAGE DURING CONSTRUCTION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ANY AND ALL UTILITIES IN THE AREA PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.
7. SPECIFICATIONS TO BE MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS.
8. UPON COMPLETION, STORMWATER FACILITIES TO BE MAINTAINED BY PROPERTY OWNER.
9. ALL BMPs TO BE INSTALLED PER DEQ'S STORM WATER MANAGEMENT DURING CONSTRUCTION FIELD GUIDE FOR BEST MANAGEMENT PRACTICES MANUAL.

PREPARED FOR: FORTUNE CONSTRUCTION
3919 Wynne Ave.
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PREPARED BY: **DELUXE ENGINEERING & CONSTRUCTION**
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APPROVED BY:

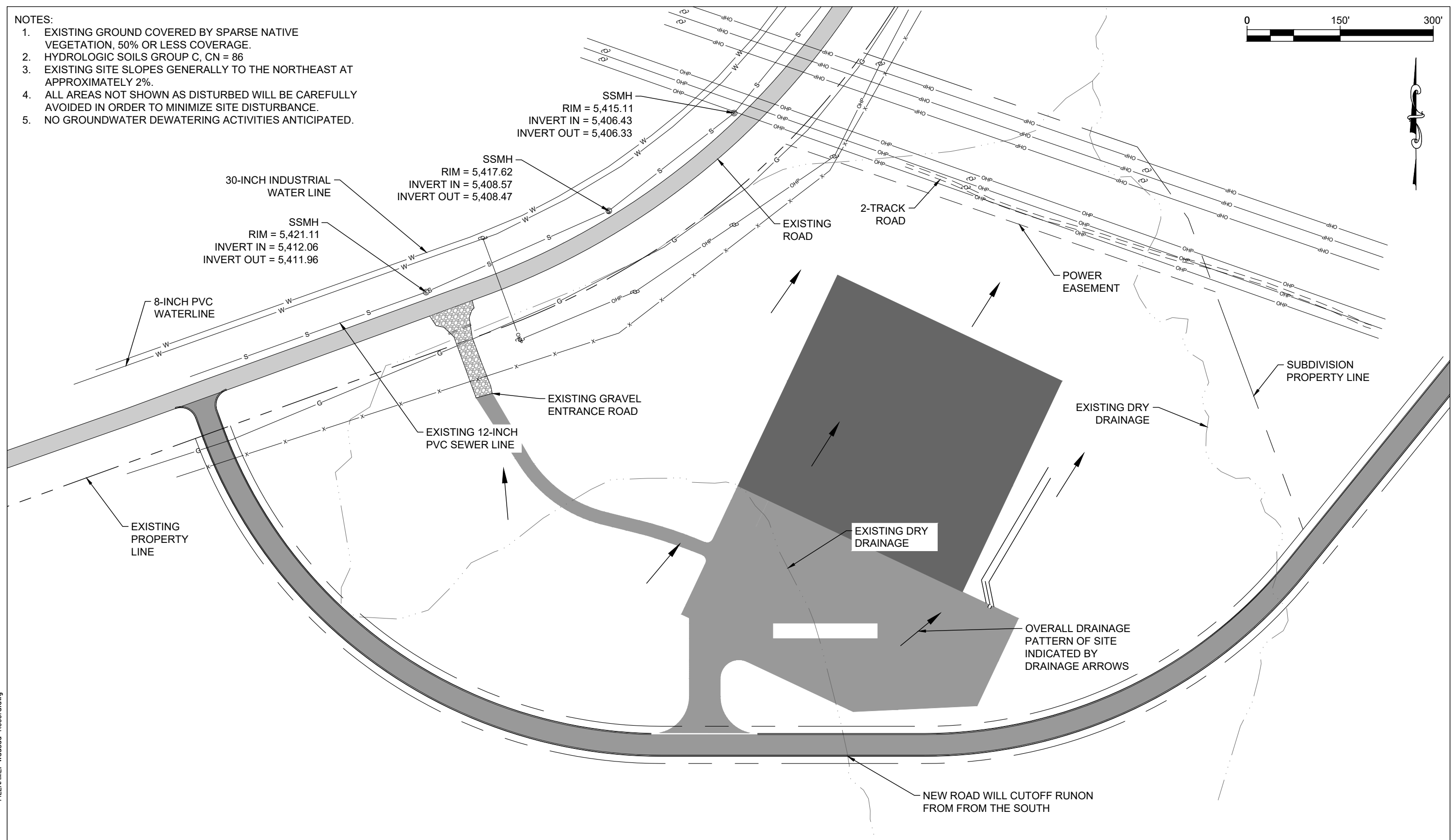
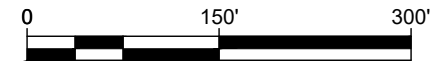
SARAH M. JONES, PE 16807
PROJECT MANAGER



SHEET
G.1

NOTES:

1. EXISTING GROUND COVERED BY SPARSE NATIVE VEGETATION, 50% OR LESS COVERAGE.
2. HYDROLOGIC SOILS GROUP C, CN = 86
3. EXISTING SITE SLOPES GENERALLY TO THE NORTHEAST AT APPROXIMATELY 2%.
4. ALL AREAS NOT SHOWN AS DISTURBED WILL BE CAREFULLY AVOIDED IN ORDER TO MINIMIZE SITE DISTURBANCE.
5. NO GROUNDWATER DEWATERING ACTIVITIES ANTICIPATED.



NO.	DATE	CADD	ISSUE/REVISION DESCRIPTION
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2	4/22/20	SMJ	SW REVIEW COMMENT RESPONSE
3	12/8/21	SMJ	RECORD DRAWINGS

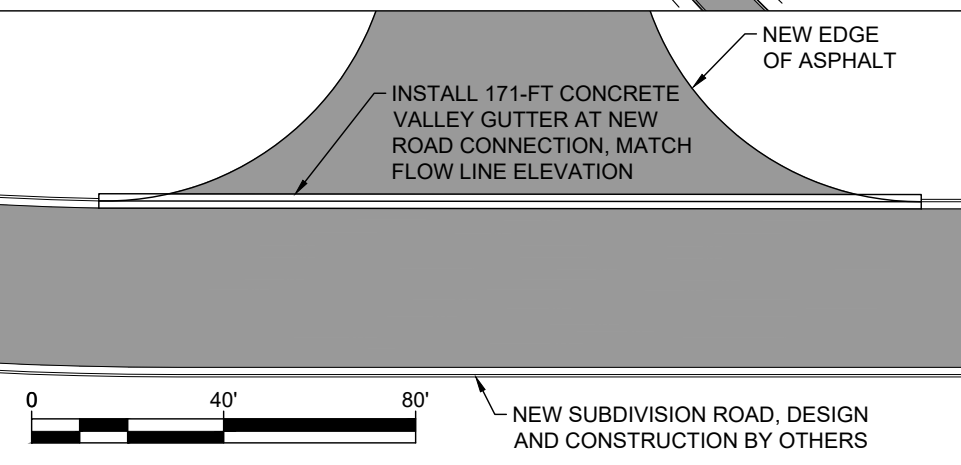
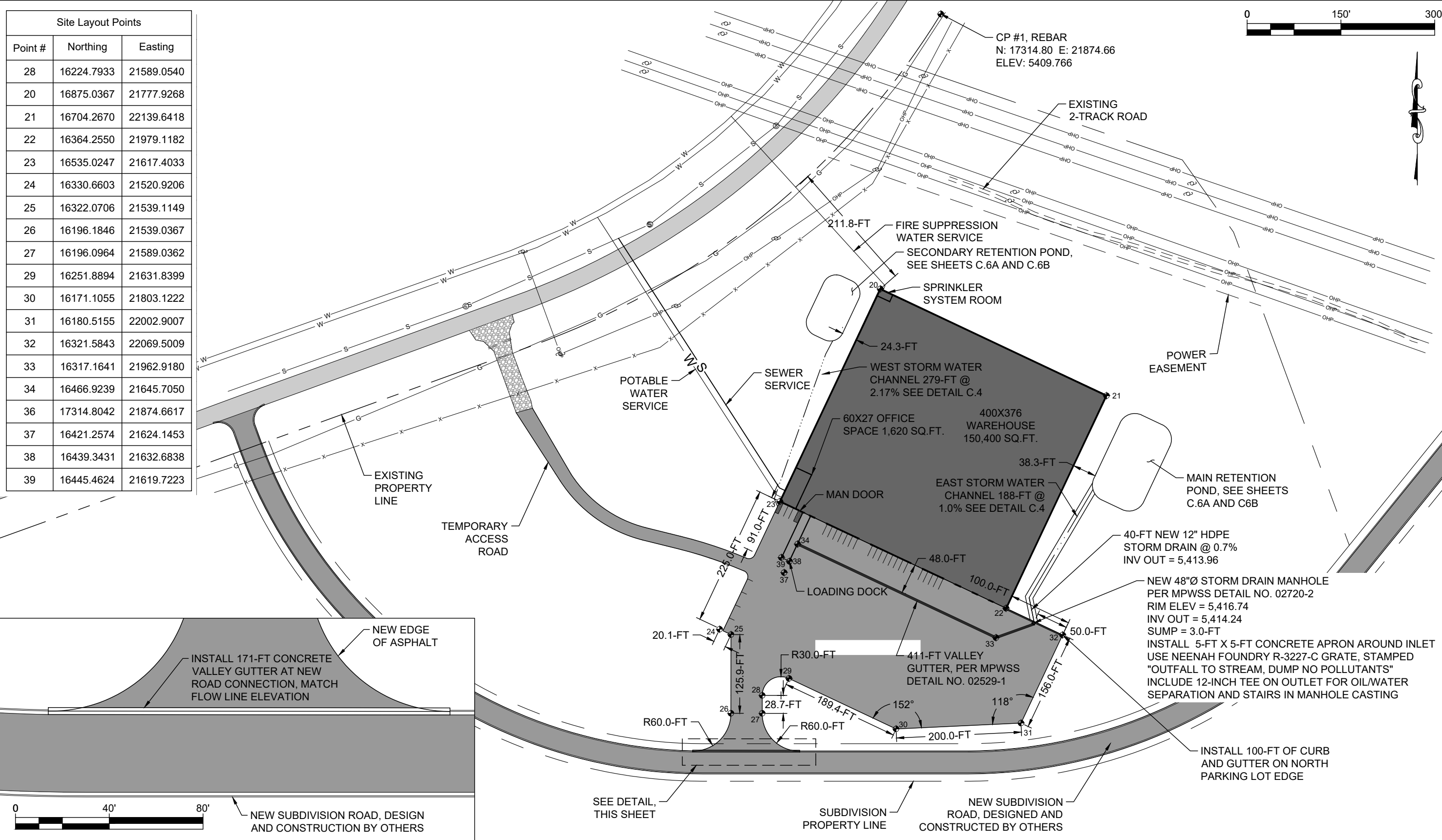
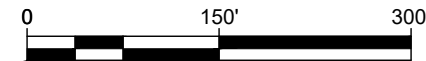


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WAUSAU
EXISTING SITE MAP

SHEET
C.1

Site Layout Points		
Point #	Northing	Easting
28	16224.7933	21589.0540
20	16875.0367	21777.9268
21	16704.2670	22139.6418
22	16364.2550	21979.1182
23	16535.0247	21617.4033
24	16330.6603	21520.9206
25	16322.0706	21539.1149
26	16196.1846	21539.0367
27	16196.0964	21589.0362
29	16251.8894	21631.8399
30	16171.1055	21803.1222
31	16180.5155	22002.9007
32	16321.5843	22069.5009
33	16317.1641	21962.9180
34	16466.9239	21645.7050
36	17314.8042	21874.6617
37	16421.2574	21624.1453
38	16439.3431	21632.6838
39	16445.4624	21619.7223



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WAUSAU
SITE LAYOUT

SHEET
C.2

Main Basin Areas			
	Desc.	SQ.FT.	CN
Impervious	Parking Lot	126405	98
	Building	75200	
Pervious	Natural	107671	86
Composite			94

0.33 ACRES CATCH SLOPE,
DOES NOT DRAIN TOWARDS
RETENTION BASIN, NOT
INCLUDED IN CALCULATIONS

VOLUME NOTES:

- BASED ON APRIL 2020 GROUND SURVEY AND THE DESIGN OF FINISHED GROUND, IT IS ESTIMATED THAT 309 CUBIC YARDS OF EXCAVATION TO SUBGRADE WILL BE REQUIRED. SUBGRADE EQUALS THE BOTTOM OF THE CRUSHED BASE COURSE (CBC).
- QUANTITIES INCLUDE THE FOLLOWING CORRECTIONS FOR SURFACE MATERIALS, BASED ON GEOTECHNICAL REPORT:
 - PARKING LOT = 4" ASPHALT OVER 10" CBC
SURFACE AREA = 126,405 SQ.FT.
VOLUME = 5,462 SQ.YDS.
 - BUILDING = 6" CONCRETE OVER 8" CBC
SURFACE AREA = 150,400 SQ.FT.
VOLUME = 6,499 SQ.YDS.
 - TOPSOIL REMOVAL ASSUMED 6" AVERAGE
TOTAL DISTURBED AREA = 323,260 SQ.FT.
VOLUME = 5,990 SQ.YDS.
- QUANTITIES DO NOT INCLUDE SHRINK/SWELL CORRECTION.
- QUANTITIES DO NOT INCLUDE CORRECTION FOR FOOTINGS AND FOUNDATIONS.

Secondary Basin Areas			
	Desc.	SQ.FT.	CN
Impervious	Parking Lot	0	98
	Building	75200	
Pervious	Re-Seeded	24988	79
Composite			93

MAIN RETENTION POND
59,509 CU.FT
SEE DETAIL SHEETS
C.6A AND C.6B

FF = 5,420 CIVIL
= 100 STRUCTURAL

MAIN DRAINAGE BASIN
7.1 ACRES

ROOF DRAINAGE BASIN
2.3 ACRES

SHEET FLOW
200-FT @ 0.35%

SHEET FLOW
28-FT @ 25%

SECONDARY RETENTION POND
15,768 CU.FT
SEE DETAIL SHEET C.6A AND C.6B

PIPE FLOW
40-FT @ 0.7%

CHANNEL FLOW
196-FT @ 1.0%

ELEV 5417,
APPROXIMATE
INLET SPREAD

CHANNEL FLOW
396-FT @ 0.5%

SHALLOW FLOW
47-FT @ 2.6%

POINT 37
SEE SITE PLAN

SHEET FLOW
300-FT @ 2.6%

ROAD STA. = 42+00.52
CL ELEV = 5,426.98
EDGE ASPHALT = 5,427.32

ROOF DRAINAGE NOTE:
ROOF DRAINAGE WILL BE INTO GUTTERS
WITH DOWNSPOUTS ANTICIPATED EVERY
40-FT. FLOW FROM DOWNSPOUTS WILL
FLOW INTO THE MAIN AND SECONDARY
DITCHES. AT EACH DOWNSPOUT
LOCATION, A ROCK RUNDOWN SHALL BE
CREATED CONSISTING OF 6-INCH
COBBLE. THE RUNDOWN SHALL BE 5-FT
WIDE, CONNECT INTO THE DITCH
COBBLES, AND BE GRADED TO WITH A
LOW CENTER TO CONTAIN FLOWS FROM
THE PERSPECTIVE ROOF DRAINS.

ROAD STA = 40+28.63
CL ELEV = 5,425.74
EDGE ASPHALT = 5,426.08

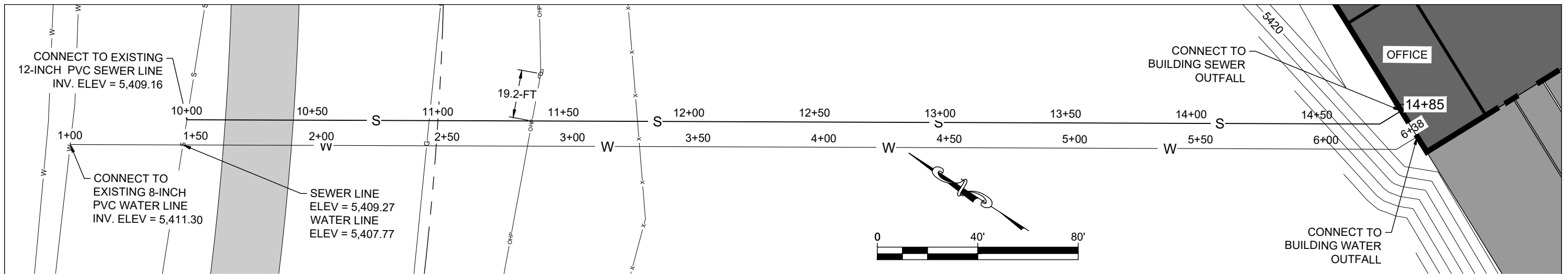
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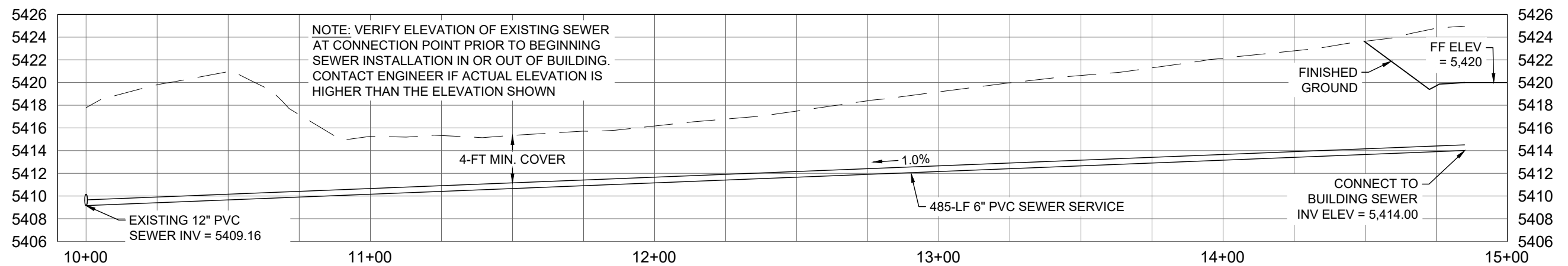
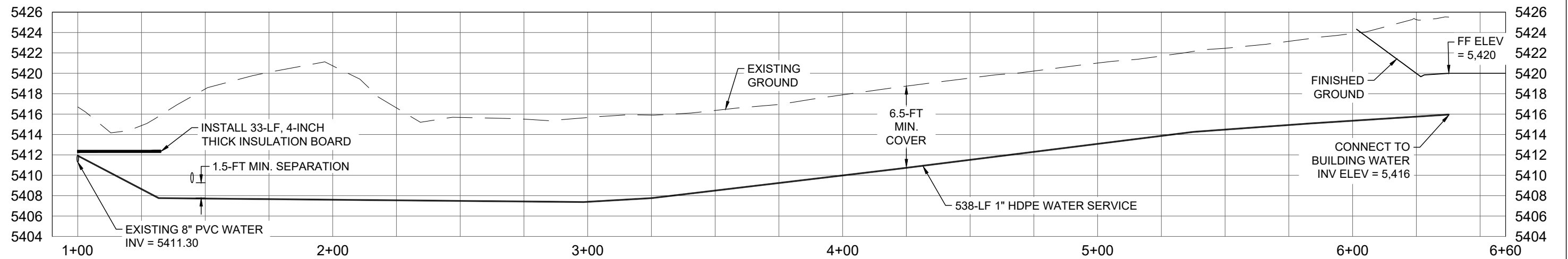
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GRADING PLAN

SHEET
C.3



WATER SERVICE PROFILE



SEWER SERVICE PROFILE

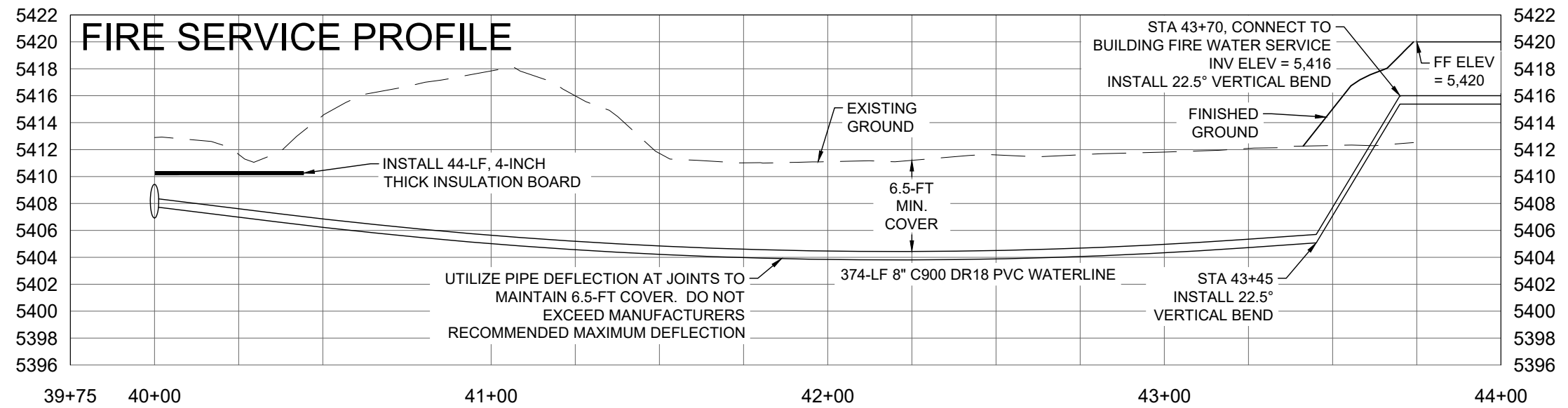
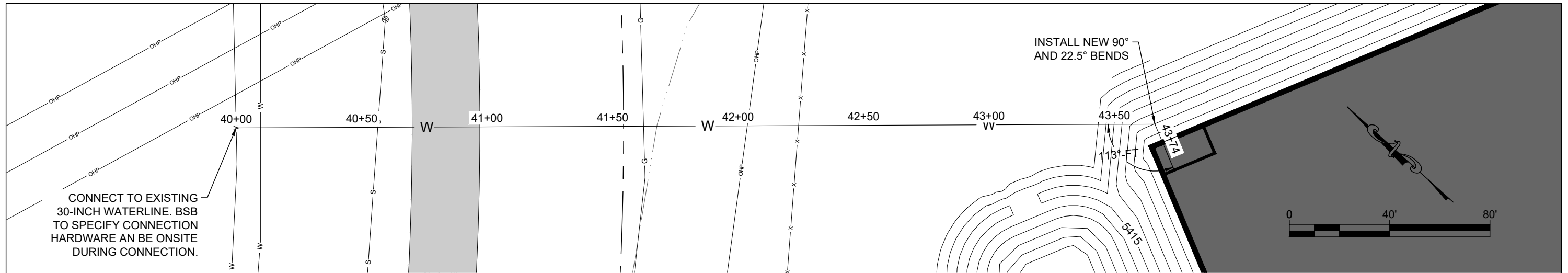
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UTILITY PLAN

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C.4



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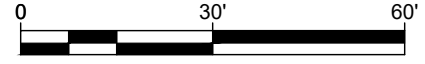


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FIRE SERVICE PLAN

SHEET

C.5



EMERGENCY OVERFLOW
ELEVATION 5,414
2-FT WIDE, 1-FT DEEP,
4:1 SLOPES

EMERGENCY OVERFLOW
ELEVATION 5,412
4-FT WIDE, 1-FT DEEP,
4:1 SLOPES

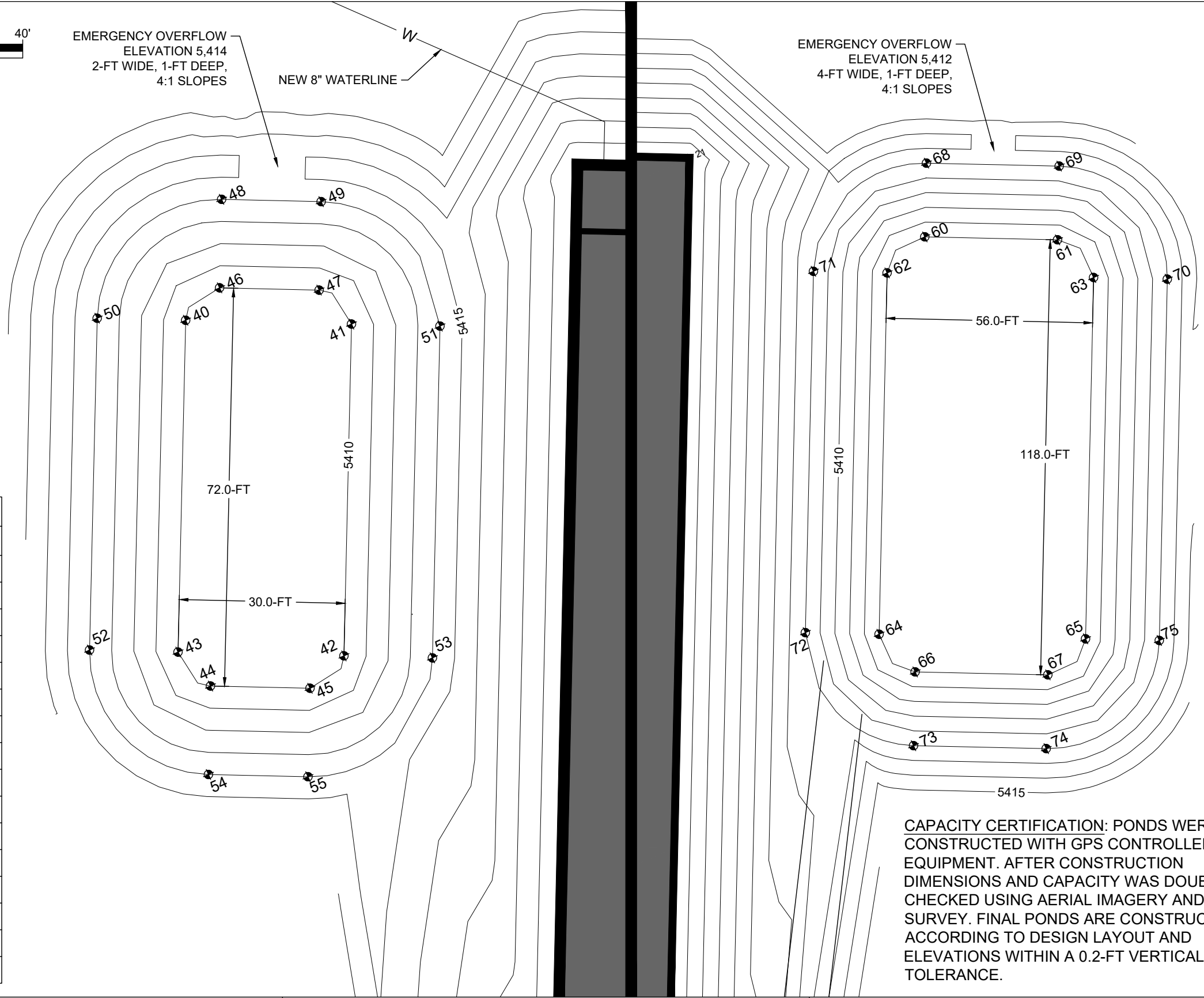
NEW 8" WATERLINE

Pond Stage vs. Area	
Elevation	Area (sq.ft.)
5,410.00	2,129.10
5,411.00	2,954.16
5,412.00	3,879.75
5,413.00	4,899.35
5,414.00	6,027.00

Pond Stage vs. Area	
Elevation	Area (sq.ft.)
5,407.00	6,522.16
5,408.00	7,895.75
5,409.00	9,369.88
5,410.00	10,944.53
5,411.00	12,619.72
5,412.00	14,386.16

Site Layout Points		
Point #	Northing	Easting
48	16895.4578	21716.5672
40	16878.1348	21701.7377
41	16865.3092	21728.8579
42	16811.0689	21703.2066
43	16823.8945	21676.0865
44	16815.9054	21678.9454
45	16808.2100	21695.2175
46	16880.9937	21709.7269
47	16873.2984	21725.9990
49	16887.7624	21732.8393
50	16884.9752	21687.2737
51	16858.4689	21743.3220
52	16830.7349	21661.6224
53	16804.2285	21717.6707
54	16801.4413	21672.1050
55	16793.7459	21688.3771

Site Layout Points		
Point #	Northing	Easting
68	16676.8223	22197.7737
60	16658.7366	22189.2352
61	16643.3673	22221.7895
62	16653.9629	22175.9231
63	16630.0552	22226.5632
64	16565.3428	22134.0845
65	16541.4350	22184.7246
66	16552.0306	22138.8581
67	16536.6614	22171.4125
69	16661.4530	22230.3280
70	16621.5167	22244.6489
71	16662.5014	22157.8373
72	16573.8812	22115.9987
73	16533.9449	22130.3196
74	16518.5756	22162.8740
75	16532.8965	22202.8103



CAPACITY CERTIFICATION: PONDS WERE CONSTRUCTED WITH GPS CONTROLLED EQUIPMENT. AFTER CONSTRUCTION DIMENSIONS AND CAPACITY WAS DOUBLE CHECKED USING AERIAL IMAGERY AND GPS SURVEY. FINAL PONDS ARE CONSTRUCTED ACCORDING TO DESIGN LAYOUT AND ELEVATIONS WITHIN A 0.2-FT VERTICAL TOLERANCE.

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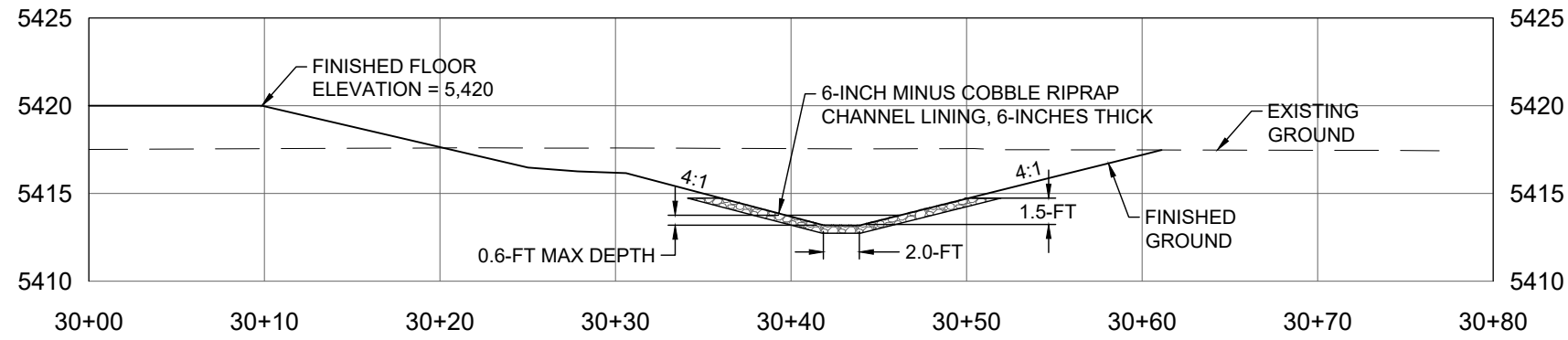


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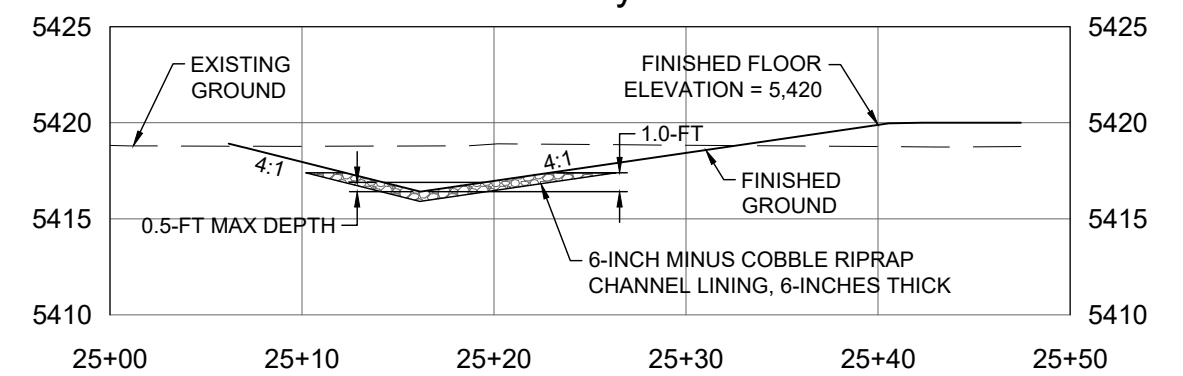
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POND DETAILS

SHEET
C.6A

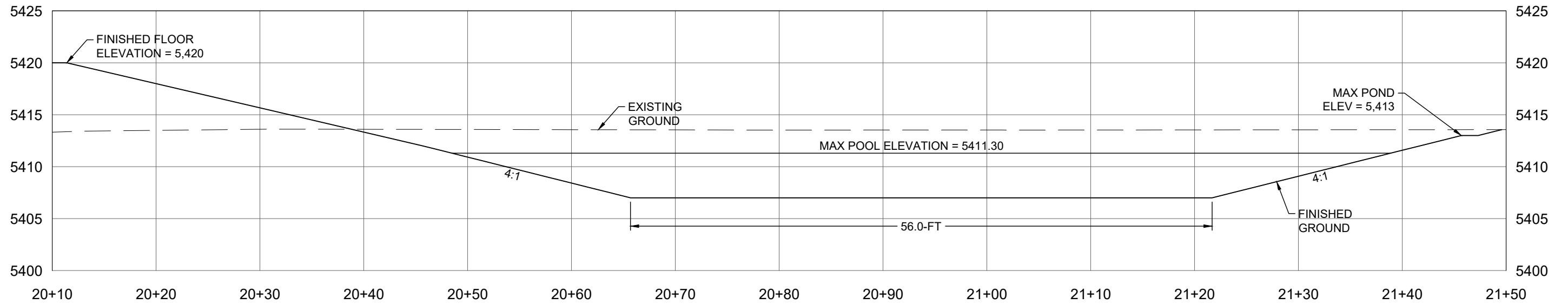
Main Ditch



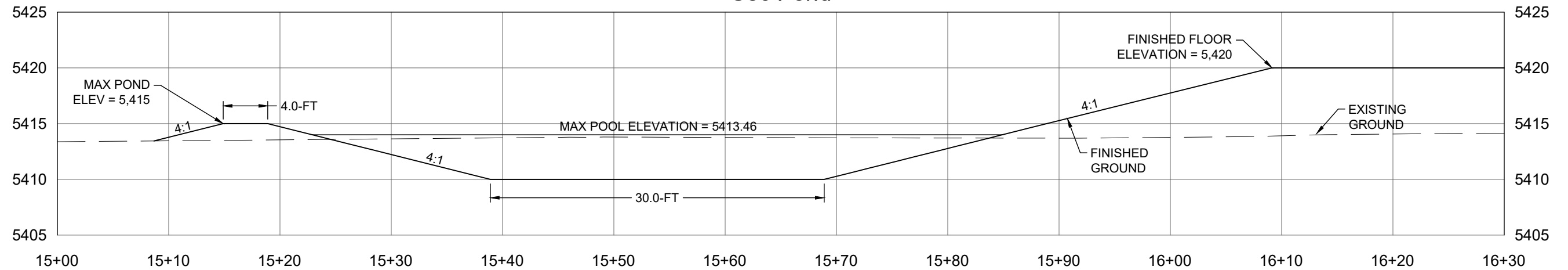
Secondary Ditch



Main Pond



Sec Pond



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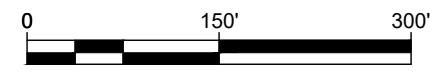
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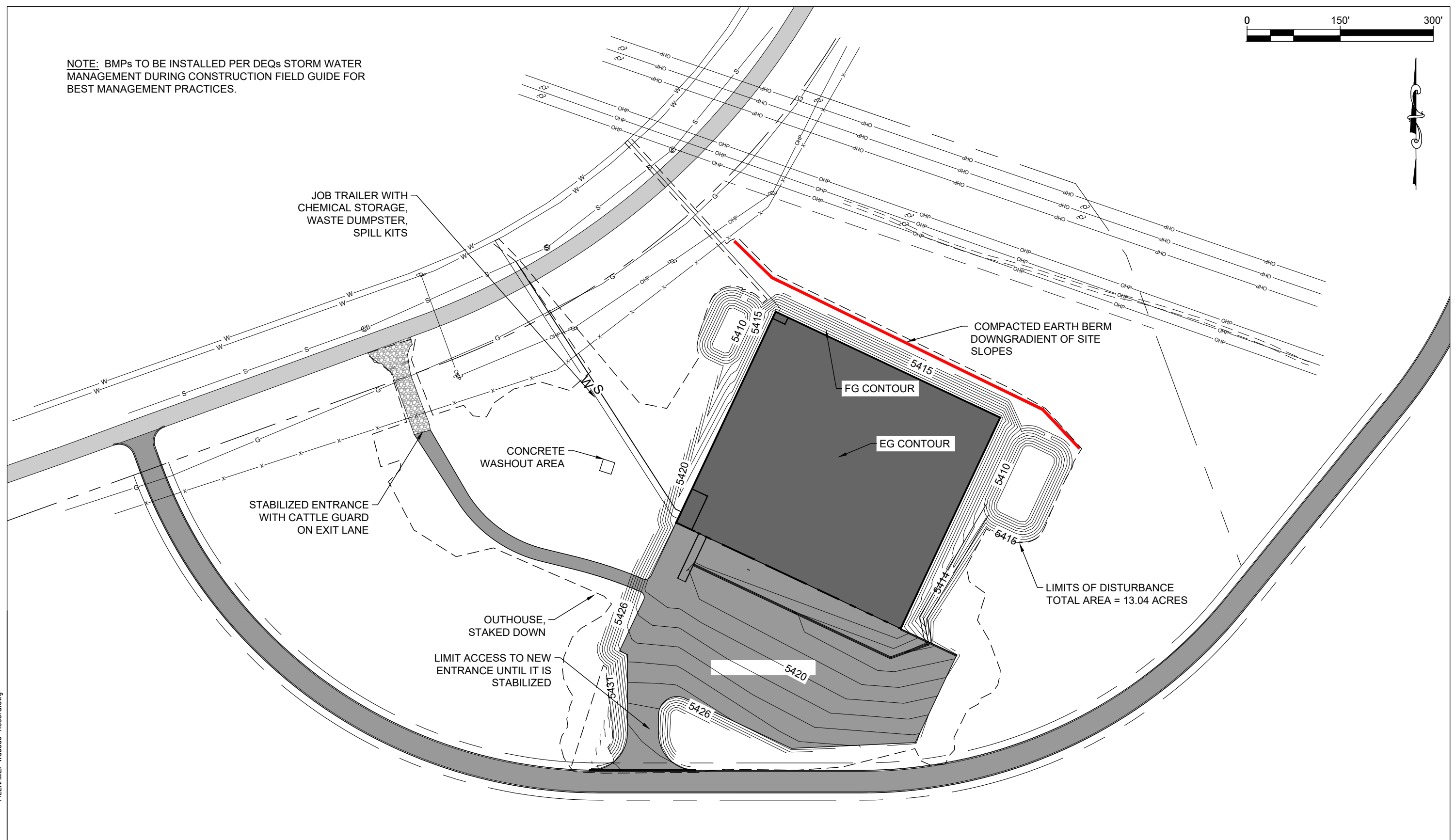
POND CROSS SECTIONS

SHEET

C.6B



NOTE: BMPs TO BE INSTALLED PER DEQs STORM WATER MANAGEMENT DURING CONSTRUCTION FIELD GUIDE FOR BEST MANAGEMENT PRACTICES.



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3	11/18/20	SMJ	SWPPP UPDATE
4	12/8/21	SMJ	RECORD DRAWINGS



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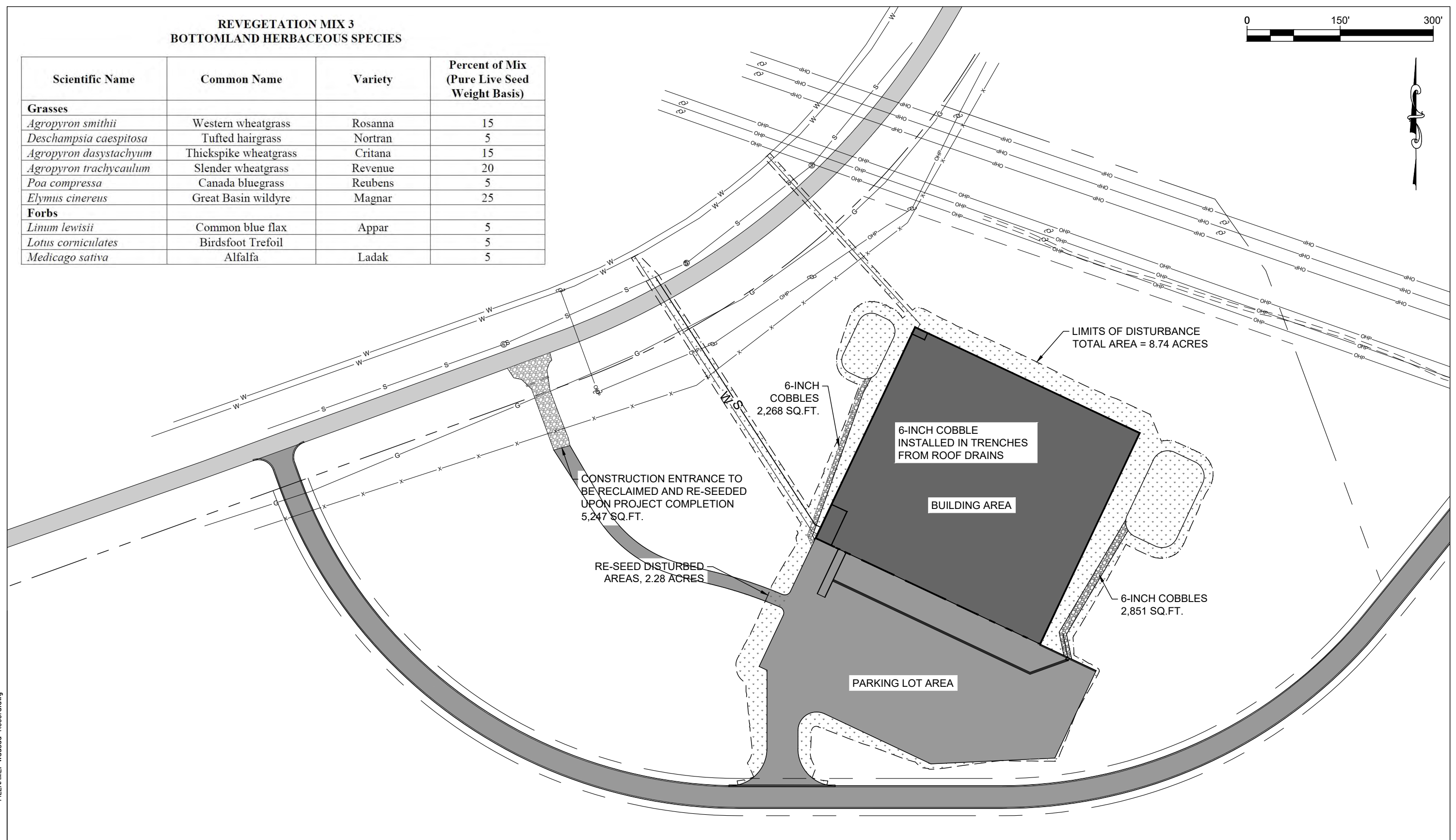
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 SWPPP PLAN

SHEET
 C.7

**REVEGETATION MIX 3
BOTTOMLAND HERBACEOUS SPECIES**



Scientific Name	Common Name	Variety	Percent of Mix (Pure Live Seed Weight Basis)
Grasses			
<i>Agropyron smithii</i>	Western wheatgrass	Rosanna	15
<i>Deschampsia caespitosa</i>	Tufted hairgrass	Nortran	5
<i>Agropyron dasystachyum</i>	Thickspike wheatgrass	Critana	15
<i>Agropyron trachycaulum</i>	Slender wheatgrass	Revenue	20
<i>Poa compressa</i>	Canada bluegrass	Reubens	5
<i>Elymus cinereus</i>	Great Basin wildyre	Magnar	25
Forbs			
<i>Linum lewisii</i>	Common blue flax	Appar	5
<i>Lotus corniculates</i>	Birdsfoot Trefoil		5
<i>Medicago sativa</i>	Alfalfa	Ladak	5



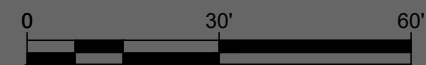
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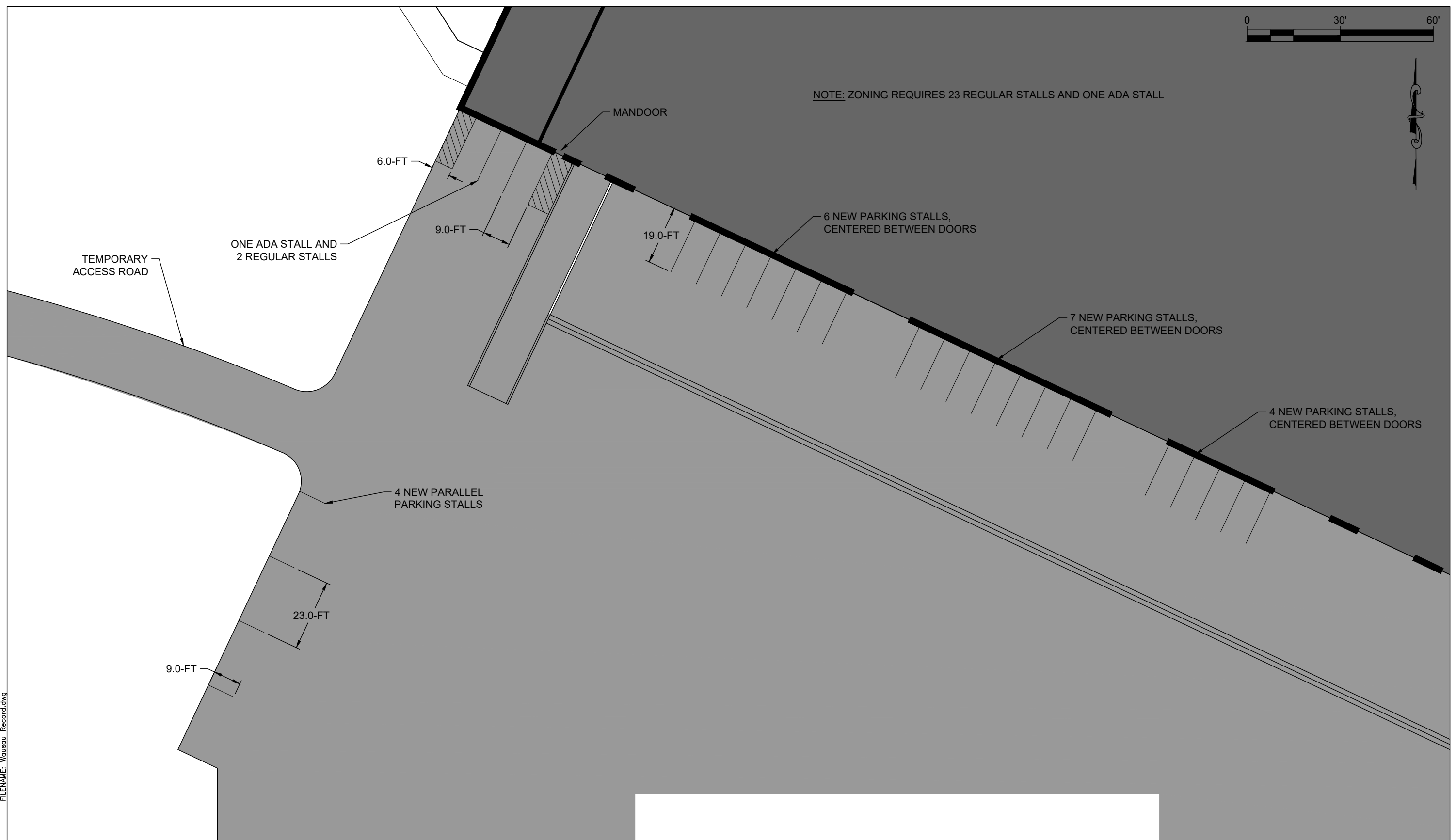
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VEGETATION PLAN

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C.8



NOTE: ZONING REQUIRES 23 REGULAR STALLS AND ONE ADA STALL



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WAUSAU
 PARKING LAYOUT

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C.2A