SHEET SCHEDULE

- ARBOR HILLS PARK PROJECT LOCATION AND SITE ACCESS
- ARBOR HILLS PARK DEMOLITION AND PROTECTION PLAN
- ARBOR HILLS PARK SITE PLAN
- ARBOR HILLS PARK GRADING AND EROSION CONTROL PLAN 1.4
- ARBOR HILLS PARK PATH HORIZONTAL ALIGNMENT
- ARBOR HILLS PARK DESIGN COMPUTATIONS
- BADGER PARK PROJECT LOCATION AND SITE ACCESS
- BADGER PARK DEMOLITION AND PROTECTION PLAN
- BADGER PARK SITE PLAN
- BADGER PARK GRADING AND EROSION CONTROL PLAN
- BADGER PARK DESIGN COMPUTATIONS
- BERNIE'S BEACH PARK PROJECT LOCATION AND SITE ACCESS
- BERNIE'S BEACH PARK DEMOLITION AND PROTECTION PLAN 3.2
- BERNIE'S BEACH PARK SITE PLAN
- BERNIE'S BEACH PARK GRADING AND EROSION CONTROL PLAN
- BERNIE'S BEACH PARK DESIGN COMPUTATIONS

SHEET SCHEDULE (CONTINUED)

- DEMETRAL PARK PROJECT LOCATION AND SITE ACCESS
- DEMETRAL PARK DEMOLITION AND PROTECTION PLAN 4.2
- DEMETRAL PARK SITE PLAN 4.3
- DEMETRAL PARK GRADING AND EROSION CONTROL PLAN 4.4
- DEMETRAL PARK DESIGN COMPUTATIONS 4.5
- JUNCTION RIDGE PARK PROJECT LOCATION AND SITE ACCESS JUNCTION RIDGE PARK DEMOLITION AND PROTECTION PLAN
- JUNCTION RIDGE PARK SITE PLAN 5.3
- JUNCTION RIDGE PARK GRADING AND EROSION CONTROL PLAN 5.4
- JUNCTION RIDGE PARK DESIGN COMPUTATIONS
- SUNRIDGE PARK PROJECT LOCATION AND SITE ACCESS 6.1
- SUNRIDGE PARK DEMOLITION AND PROTECTION PLAN 6.2
- SUNRIDGE PARK SITE PLAN 6.3
- SUNRIDGE PARK GRADING AND EROSION CONTROL PLAN 6.4
- 6.5 SUNRIDGE PARK - DESIGN COMPUTATIONS

SHEET SCHEDULE (CONTINUED)

- TENNEY PARK PROJECT LOCATION AND SITE ACCESS
- TENNEY PARK DEMOLITION AND PROTECTION PLAN
- TENNEY PARK SITE PLAN 7.3
- TENNEY PARK GRADING AND EROSION CONTROL PLAN 7.4
- TENNEY PARK DESIGN CALCULATIONS
- TYPICAL PLAYGROUND SURFACING WITH UNDERDRAIN
- 8.3
- PAVEMENT EDGE AT PLAYGROUND MODULAR BLOCK RETAINING WALL

City of Madison Department of Public Works **PARKS DIVISION**

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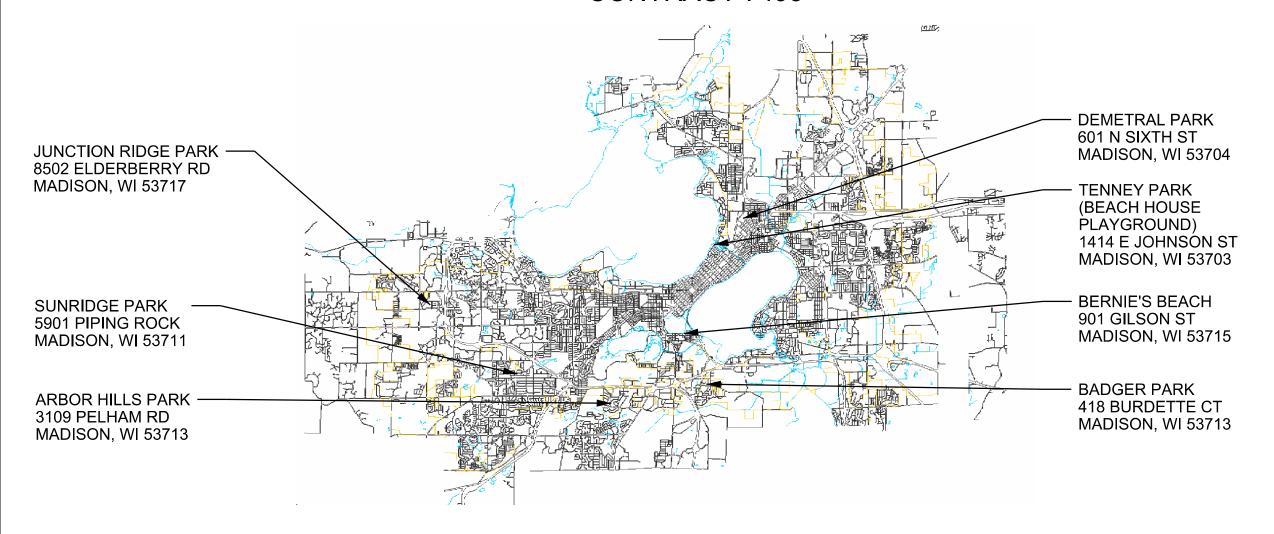
play MADISON PARKS



PROJECT:

2015 PARK PLAYGROUNDS -GROUP 2

2015 PARK PLAYGROUNDS - GROUP 2 **CONTRACT 7493**



Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions o

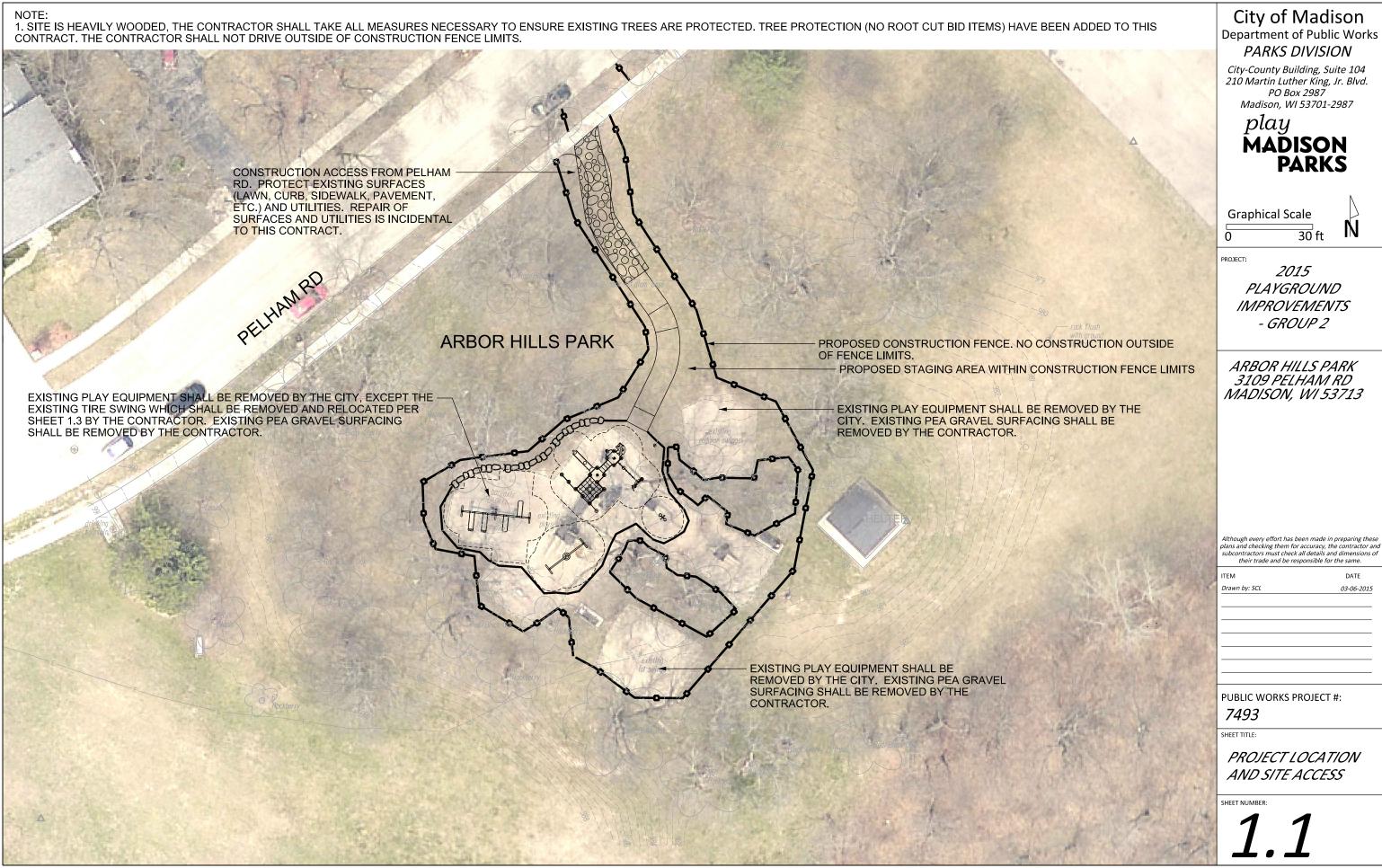
Drawn by: SCL/KK 03-06-2015

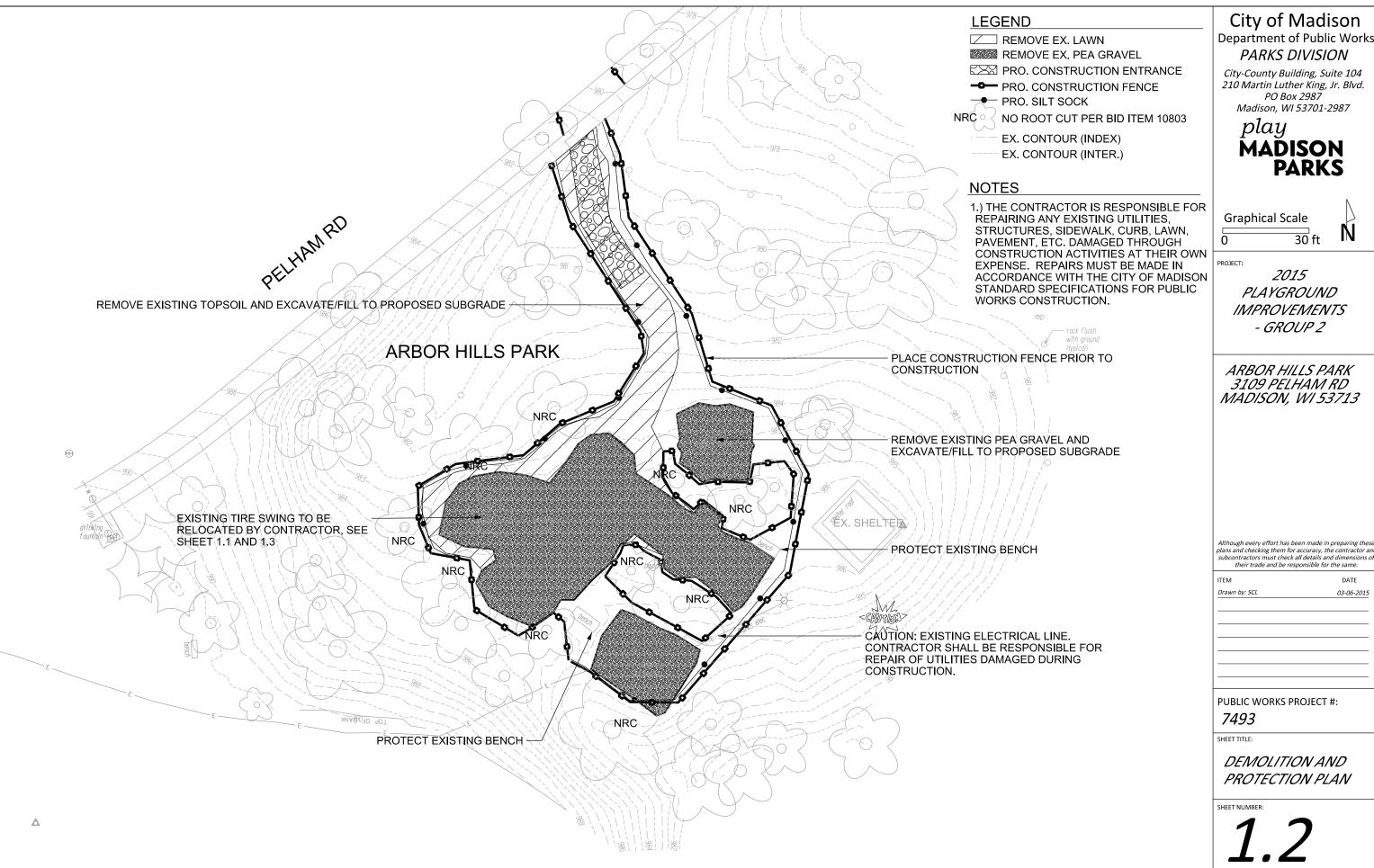
PUBLIC WORKS PROJECT #: 7493

SHEET TITLE

SHEET NUMBER

F:|Paroot|Planning|Capital Projects|Playgrounds|2015 Capital Projects|Contract 2 - Sarah|CoverSheetandDetails.dgn





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MAĎISON PARKS

30 ft

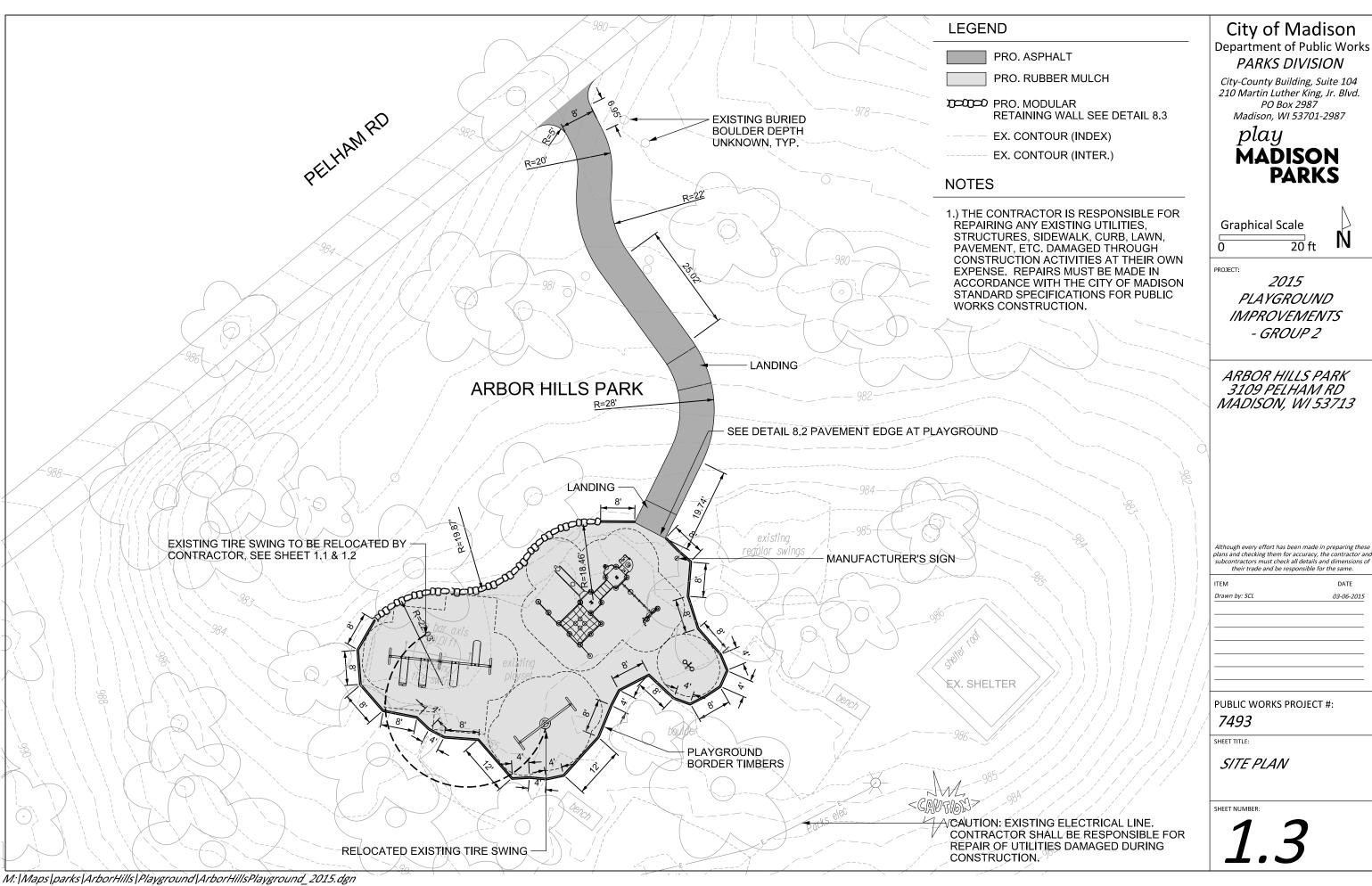
PLAYGROUND IMPROVEMENTS - GROUP 2

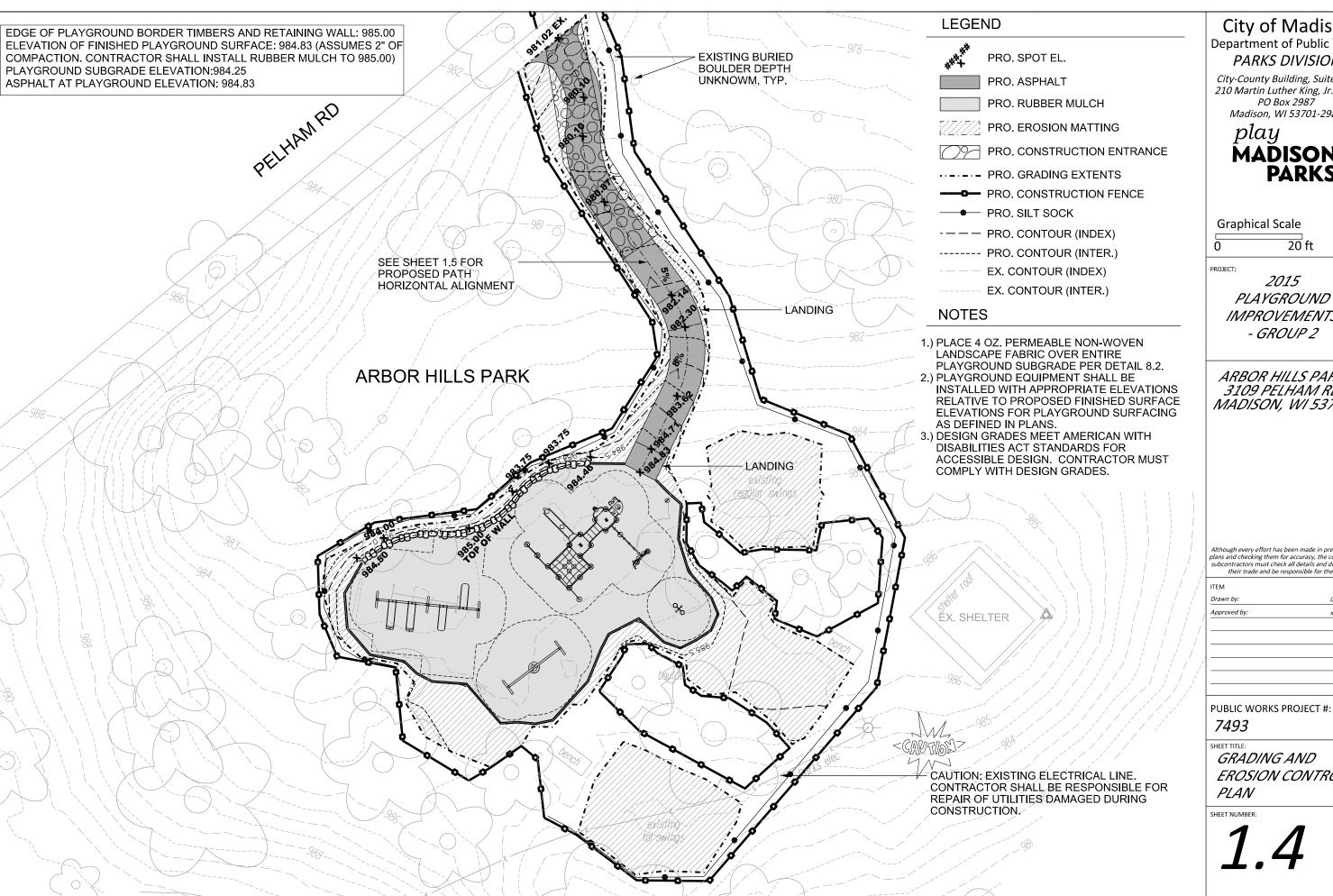
ARBOR HILLS PARK 3109 PELHAM RD MADISON, WI 53713

plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE
Drawn by: SCL	03-06-2015

DEMOLITION AND PROTECTION PLAN





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MAĎISON PARKS

20 ft

PLAYGROUND IMPROVEMENTS - GROUP 2

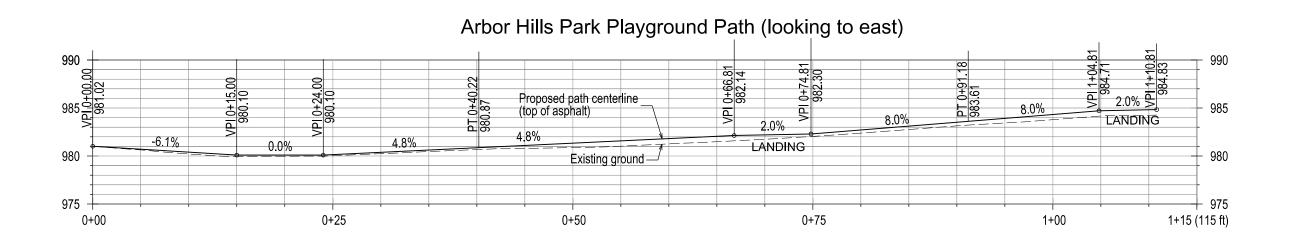
ARBOR HILLS PARK 3109 PELHAM RD MADISON, WI 53713

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE
Drawn by:	03-06-2015
Approved by:	xx-xx-xxxx
,	

GRADING AND **EROSION CONTROL**

1.) DESIGN GRADES MEET AMERICAN WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN. CONTRACTOR MUST COMPLY WITH DESIGN GRADES.



City of Madison Department of Public Works PARKS DIVISION

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play MADISON PARKS

Graphical Scale

0 20 ft

N

PROJEC

2015 PLAYGROUND IMPROVEMENTS - GROUP 2

ARBOR HILLS PARK 3109 PELHAM RD MADISON, WI 53713

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE
Drawn by: DR	03-06-2015

PUBLIC WORKS PROJECT #:

7493

SHEET TITI

PATH HORIZONTAL ALIGNMENT

SHEET NUMBI

	Notes: Positive volume	es are cuts, negative volum	es are fills.								
			Terrain Models) are used for co	mputations	or intended	for actual	construction.				
		A	20 14 (115 11)								
	Existing Proposed	ArborHills_Survey2014-08 Pro_2.dtm	-28.dtm ("Ex")								
	rioposed	1 10_2.dtm									
ort	Grp	Material	ltem	From Surface Model	To Surface Model	area (sq ft)	depth (ft)	Unfac- tored volume (cu ft)	Unfac- tored volume (cu yd)	Expan- sion Factor (%)	Factore (Uncor pacted Volum (cu yo
	Grass to		00	,			0.50	540			
1.1	Asphalt Grass to	Topsoil Excavate	Strip 6in topsoil Cut subsoil to proposed	n/a	n/a	1031	0.50	516	19.1	0%	1
1.2	Asphalt	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	1031	varies	201	7.4	0%	
1.3	Grass to Asphalt	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	1031	varies	-25	-0.9	0%	
	, to priorit	0.00000111000	Place 9in depth gravel base				74,100		0.0		
1 1	Grass to	Cravel (Deth) Diese	out to 6in from pavement	-/-	-/-	1024	0.75	770	20.6	0%	_
1.4	Asphalt Grass to	Gravel (Path) Place	edge Place 3in asphalt (includes	n/a	n/a	1031	-0.75	-773	-28.6	0%	-2
1.5	Asphalt	Asphalt Place	ramp into playground)	n/a	n/a	912	-0.25	-228	-8.4	0%	
1.6	Grass to	Tanasii Diasa	Place 3in topsoil on 6in wide	n/a	n/a	119	-0.25	-30	-1.1	0%	
1.0	Asphalt Grass to	Topsoil Place	gravel edge	пла	II/a	119	-0.23	-30	-1.1	076	
2.1	Grass	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	676	0.50	338	12.5	0%	1
2.2	Grass to Grass	Subsoil Excavate	Cut subsoil to proposed	Ex-6in	Pro-6in	676	varies	17	0.6	0%	
2.2	Grass Grass to	Oubsoil Excavate	subgrade Fill subsoil to proposed	LA-OIII	F10-0III	0/0	valles	17	0.0	0%	
2.3	Grass	Subsoil Place	subgrade	Ex-6in	Pro-6in	676	varies	-109	-4.0	0%	
2.4	Grass to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	676	-0.50	-338	-12.5	0%	-1
2.4	Grass to Play	Topsoil Place	Place oin topsoil	n/a	n/a	676	-0.50	-330	-12.5	0%	
3.1	Surface	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	426	0.50	213	7.9	0%	
2.0	Grass to Play	Subsail Evas:	Cut subsoil to proposed	Fv 6:-	Dro 7:	400		40	4.0	001	
3.2	Surface Grass to Play	Subsoil Excavate	subgrade Fill subsoil to proposed	Ex-6in	Pro-7in	426	varies	48	1.8	0%	
3.3		Subsoil Place	subgrade	Ex-6in	Pro-7in	426	varies	-108	-4.0	0%	
3.4	Grass to Play Surface	Play Surface Place	Place 9in uncompacted rubber chips (expected to compact to 7in)	n/a	n/a	426	-0.58	-249	-9.2	29%	-1
	Grass to				T .						
4.1	Timbers Grass to	Topsoil Excavate	Strip 6in topsoil Cut subsoil to proposed	n/a	n/a	25	0.50	13	0.5	0%	
4.2		Subsoil Excavate	subgrade	Ex-6in	Pro-12in	25	varies	9	0.3	0%	
	Grass to		Fill subsoil to proposed								
4.3	Timbers	Subsoil Place	subgrade Border Timbers (placeholder	Ex-6in	Pro-12in	25	varies	-2	-0.1	0%	-
	Grass to	Border Timbers Place	volume to balance volume								
4.4		(placeholder volume)	comps)	n/a	n/a	25	-1.00	-25	-0.9	0%	-
5.1	Grass to Wall	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	144	0.50	72	2.7	0%	
5.2	Grass to Wall	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	982.71ft	144	varies	118	4.4	0%	
			Fill subsoil to proposed								
5.3	Grass to Wall	Subsoil Place	subgrade	Ex-6in	982.71ft	144	varies	0	0.0	0%	
			Place 6in gravel base under wall & out 6in on front & sides up to bottom of								
5.4	Grass to Wall	Gravel (Wall) Place	proposed topsoil	n/a	n/a	144	varies	-92	-3.4	0%	
			Place 12in wide gravel in								
5.5	Grass to Wall	Gravel (Wall) Place	back of wall up to play subgrade	n/a	n/a	51	-1.04	-53	-2.0	0%	
2.0			Place block retaining wall		1			33	2.0	5,0	
F ^	Cree - 1- 14/ "	Wall Place (placeholder	(placeholder volume to		2/2		4.70	100		22.	
5.6	Grass to Wall	voiume)	balance volume comps) Place 6in topsoil on 12in	n/a	n/a	61	-1.79	-109	-4.0	0%	
			wide gravel behind retaining								
5.7	Grass to Wall	Topsoil Place	wall	n/a	n/a	32	-0.50	-16	-0.6	0%	
			Place 9in uncompacted rubber chips (expected to								
5.8	Grass to Wall	Play Surface Place	compact to 7in)	n/a	n/a	51	-0.58	-30	-1.1	29%	
			Placeholder to reconcile retaining wall volumes with overall DTM difference								
F ^	Cres - t- 14/ "	(nlesshalder en l	because proposed DTM	n/o	2/0		- شامر			201	
5.9	Grass to Wall Play Surface	(placeholder volume)	doesn't fully model wall	n/a	n/a	144	varies	27	1.0	0%	
6.1		Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	1161	1.42	1645	60.9	0%	6
^-	Play Surface	0.115	Fill subsoil to proposed	E. 47	D						
6.2	to Grass Play Surface	Subsoil Place	subgrade	Ex-17in	Pro-6in	1161	varies	-1177	-43.6	0%	-4
	,, Canave										

		Play Surface										
_		to Grass										
	7.1		Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	1436	1.42	2034	75.3	0%	75.3
		Play Surface										
- 1		to Grass		Fill subsoil to proposed		ExPlayFil						
- 1	7.2	(outside DTM)	Subsoil Place	subgrade	Ex-17in	led-6in	1436	varies	-1496	-55.4	0%	-55.4
		Play Surface										
		to Grass										
	7.3	(outside DTM)	Topsoil Place	Place 6in topsoil	n/a	n/a	1436	-0.50	-718	-26.6	0%	-26.6
- F		Play Surface	, opean, lase	, inco em ispesii								
_		to Play										
	8.1	Surface	Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	2573	1.42	3645	135.0	0%	135.0
1	0.1	Play Surface	I lay ourlace Excavate	Tremove est. 1711 pea graver	11/4	100	2010	1.72	3043	100.0	070	100.0
- 1		to Play		Cut subseil to proposed								
-	8.2	Surface	Subsoil Excavate	Cut subsoil to proposed	Ex-17in	D 7:-	2573		ا ا		0%	0.0
╛	8.2		Subsoil Excavate	subgrade	Ex-17In	Pro-7in	25/3	varies	'	0.0	0%	0.0
		Play Surface		F31 1 3 t 1								
.		to Play	L	Fill subsoil to proposed								
1	8.3		Subsoil Place	subgrade	Ex-17in	Pro-7in	2573	varies	-2245	-83.1	0%	-83.1
		Play Surface		Place 9in uncompacted								
		to Play		rubber chips (expected to								
1 L	8.4		Play Surface Place	compact to 7in)	n/a	n/a	2573	-0.58	-1501	-55.6	29%	-71.5
1 [Play Surface										
. 1	9.1	to Timbers	Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	32	1.42	45	1.7	0%	1.7
IJ ト		Play Surface		Cut subsoil to proposed								
	9.2	to Timbers	Subsoil Excavate	subgrade	Ex-17in	Pro-12in	32	varies	3	0.1	0%	0.1
4l [Play Surface		Fill subsoil to proposed								
4 I	9.3	to Timbers	Subsoil Place	subgrade	Ex-17in	Pro-12in	32	varies	-5	-0.2	0%	-0.2
. 1				Place border timbers (12in								
9		Play Surface	Border Timbers Place	tall). Placeholder volume to								
	9.4	to Timbers	(placeholder volume)	balance volume comps	n/a	n/a	32	-1.00	-32	-1.2	0%	-1.2
1 6		Play Surface	(pracerioraer teraine)	Tallanco teramo compo								
	10.1	to Wall	Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	9	1.42	13	0.5	0%	0.5
<u> </u>		Play Surface	,,	Cut subsoil to proposed								
	10.2	to Wall	Subsoil Excavate	subgrade	Ex-6in	982.71ft	9	varies	2	0.1	0%	0.1
11 H	10.2	Play Surface	Cabson Excavate	Fill subsoil to proposed	EX OIII	002.7 III		varies	-	0.1	070	0.1
1	10.3	to Wall	Subsoil Place	subgrade	Ex-6in	982.71ft	9	varies	ا	0.0	0%	0.0
	10.3	to vvaii	Subsoil Flace	Place 12in wide gravel in	LX-OIII	302.7 III	9	varies	ı v	0.0	0 70	0.0
11		Play Surface										
	40.4		G AM-II) BI	back of wall up to play			9	-1.54	-14	-0.5	00/	0.5
il -	10.4	to Wall	Gravel (Wall) Place	subgrade	n/a	n/a	9	-1.54	-14	-0.5	0%	-0.5
1			l	Place block retaining wall								
			Wall Place (placeholder	(placeholder volume to								
i L	10.5	to Wall	volume)	balance volume comps)	n/a	n/a	0	-1.79	0	0.0	0%	0.0
				Place 9in uncompacted								
		Play Surface		rubber chips (expected to								
ΉL	10.6	to Wall	Play Surface Place	compact to 7in)	n/a	n/a	9	-0.58	-5	-0.2	29%	-0.3
ΙГ				Increase play surface by 1/2								
5				of asphalt ramp gravel base								
7				volume = 1/2 x (2.25 ft x 9 ft								
	11.1	Adjust	Play Surface Place	x 7 in)	n/a	n/a	20	-0.29	-6	-0.2	0%	-0.2
4 F		•		Increase subsoil excavate by								
				1/2 of asphalt ramp gravel								
3				base volume = 1/2 x (2.25 ft								
1	11.2	Adjust	Subsoil Excavate	x 9 ft x 7 in)	n/a	n/a	20	0.29	6	0.2	0%	0.2
√ Ի	11.4	Aujust	Oubson Excavate	IV A IV III)	111 a	III a	20	0.20	<u> </u>	0.2	U /0	0.2

Arbor Hills Park P	layground - Earthwork	Quantities	
City of Madison Public	Works Contract		
Date Revised:	2/3/2015		

Dervied from more detailed spreadsheet available from Parks Div

Positive volumes are cuts (material available), negative volumes are fills (material needed)

	Sum of Factored (Uncom-	1	
Row Labels	pacted) Volume (cu yd)		
(placeholder volume)	pacted) volume (cu yu)	-	
	-8.4		
Asphalt Place			
Border Timbers Place			
(placeholder volume)	-2.1		
Gravel (Path) Place	-28.6		
Gravel (Wall) Place	-5.9		
Play Surface			
Excavate	273.4		
Play Surface Place	-85.2		
Subsoil Excavate	15.0		
Subsoil Place	-191.3		
Topsoil Excavate	42.6		
Topsoil Place	-62.3		
Wall Place			
(placeholder volume)	-4.0		
Grand Total	-55.9		
Net subsoil	-176	cu yd	
Net topsoil		cu yd	
Net topsoil & subsoil		cu yd	
rec topooli di aubaoli	-100	- Ju	
Reorganized into bi	d table items		
Bid Item	Quantity	Units	Relation to Table Above

Bid Item	Quantity	Units	Relation to Table Above
			= Subsoil Excavate + Topsoil
20101 Excavation Cut	58	CY	Excavate
20103 Excavation Cut			
- Pea Gravel	273	CY	= Play Surface Excavate
20201 Fill	-176	CY	= Subsoil Excavate + Subsoil Place
20221 Topsoil	373	SY	= (Topsoil Place)/167
40102 Crushed			
Aggregate Base			
Course Gradation No.			
2 & 3	57	tons	= (Gravel Place) * -2 ton/cubic yard
40201 3" Depth HMA			= Asphalt Place * -2.16 ton/cubic
Pavement Type E-0.3	18.2	tons	yard
90004 Playground			
Surfacing - Rubber	94	CY	= Play Surface Place * -1.10

City of Madison
Department of Public Works PARKS DIVISION

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play
MADISON
PARKS

PROJECT:

2015 PLAYGROUND **IMPROVEMENTS** - GROUP 2

ARBOR HILLS PARK 3109 PELHAM RD MADISON, WI 53713

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE
Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:

7493

SHEET TITLE:

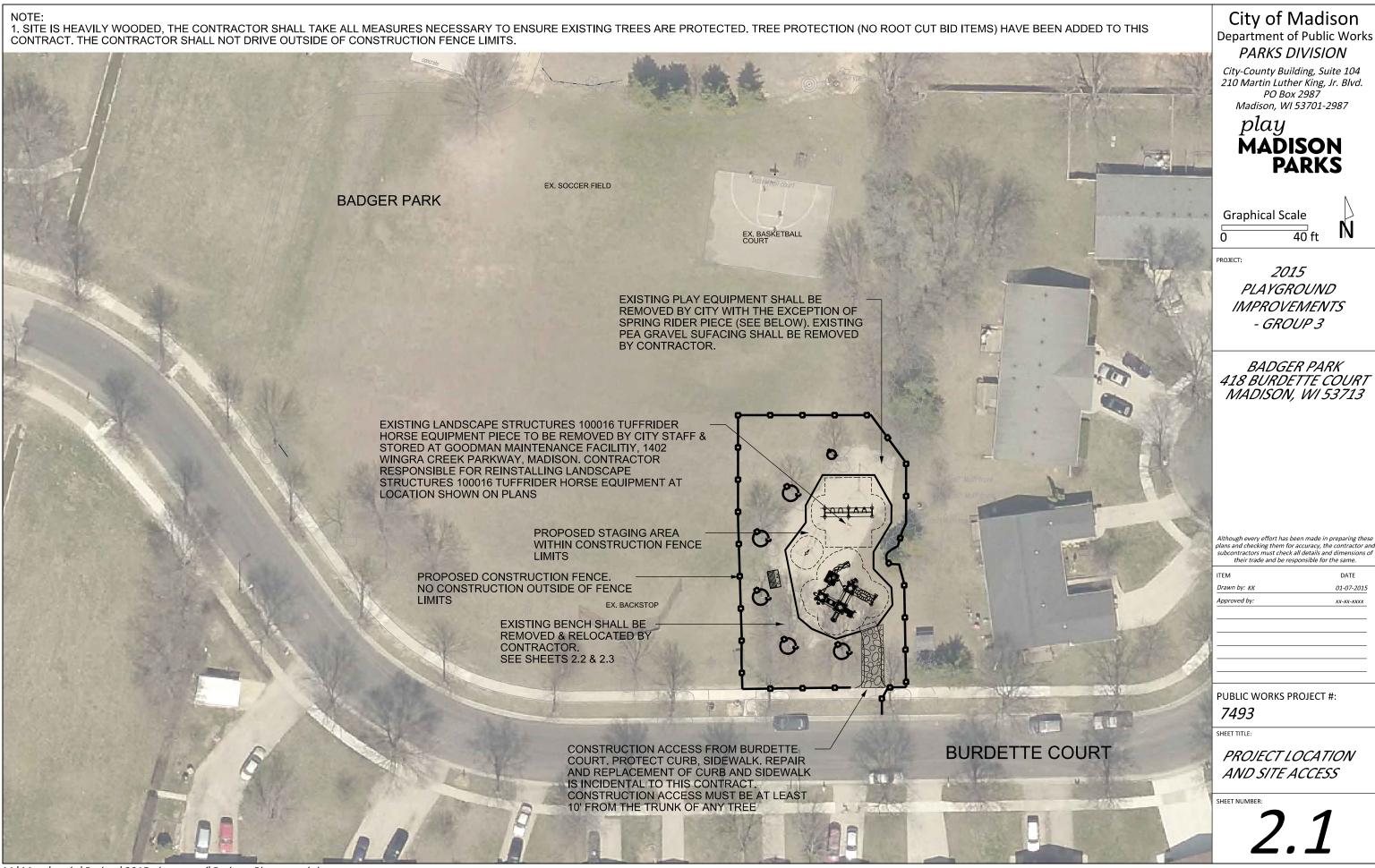
DESIGN COMPUTATIONS

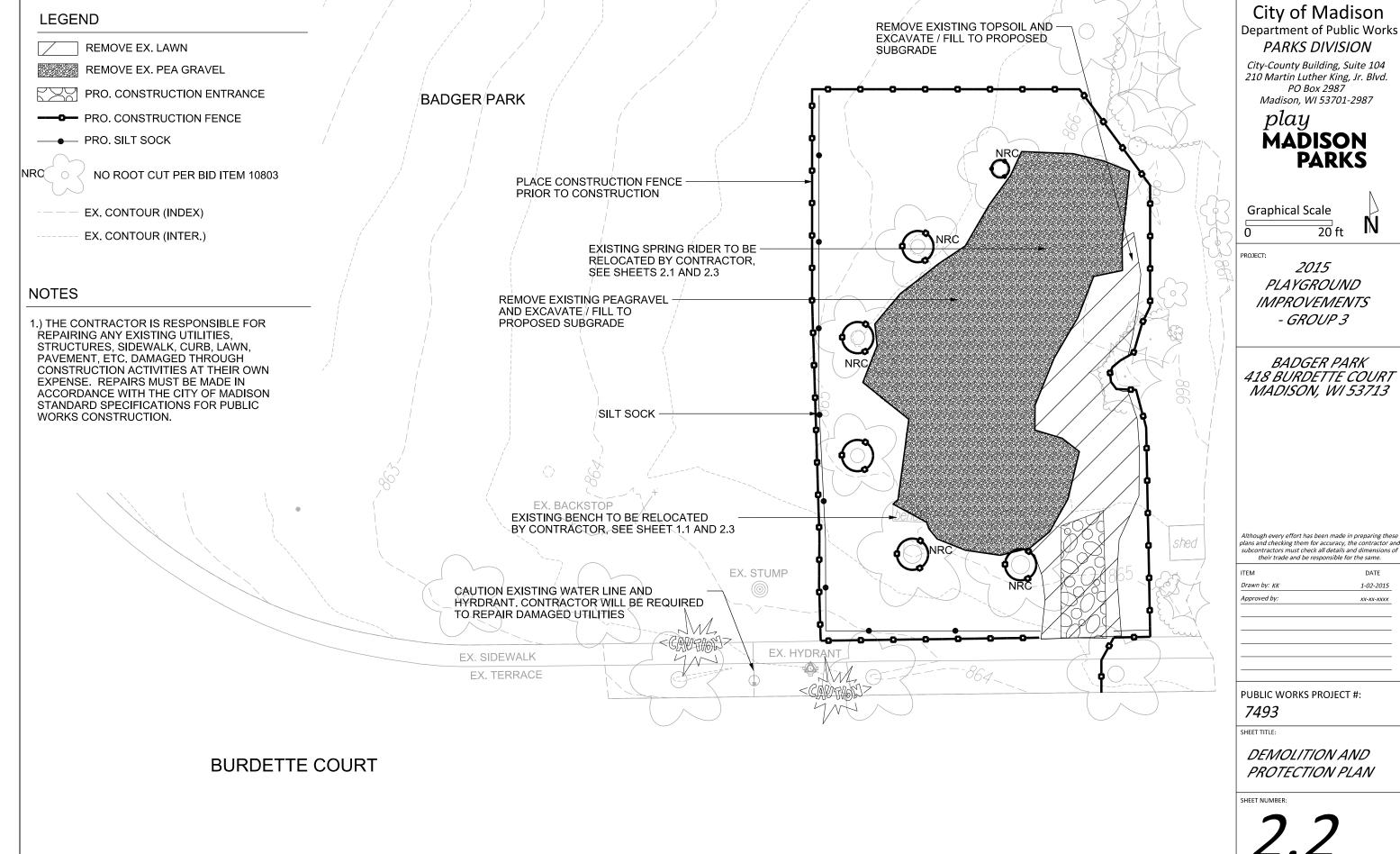
Arbor Hills Park Playground - Earthwork Quantities

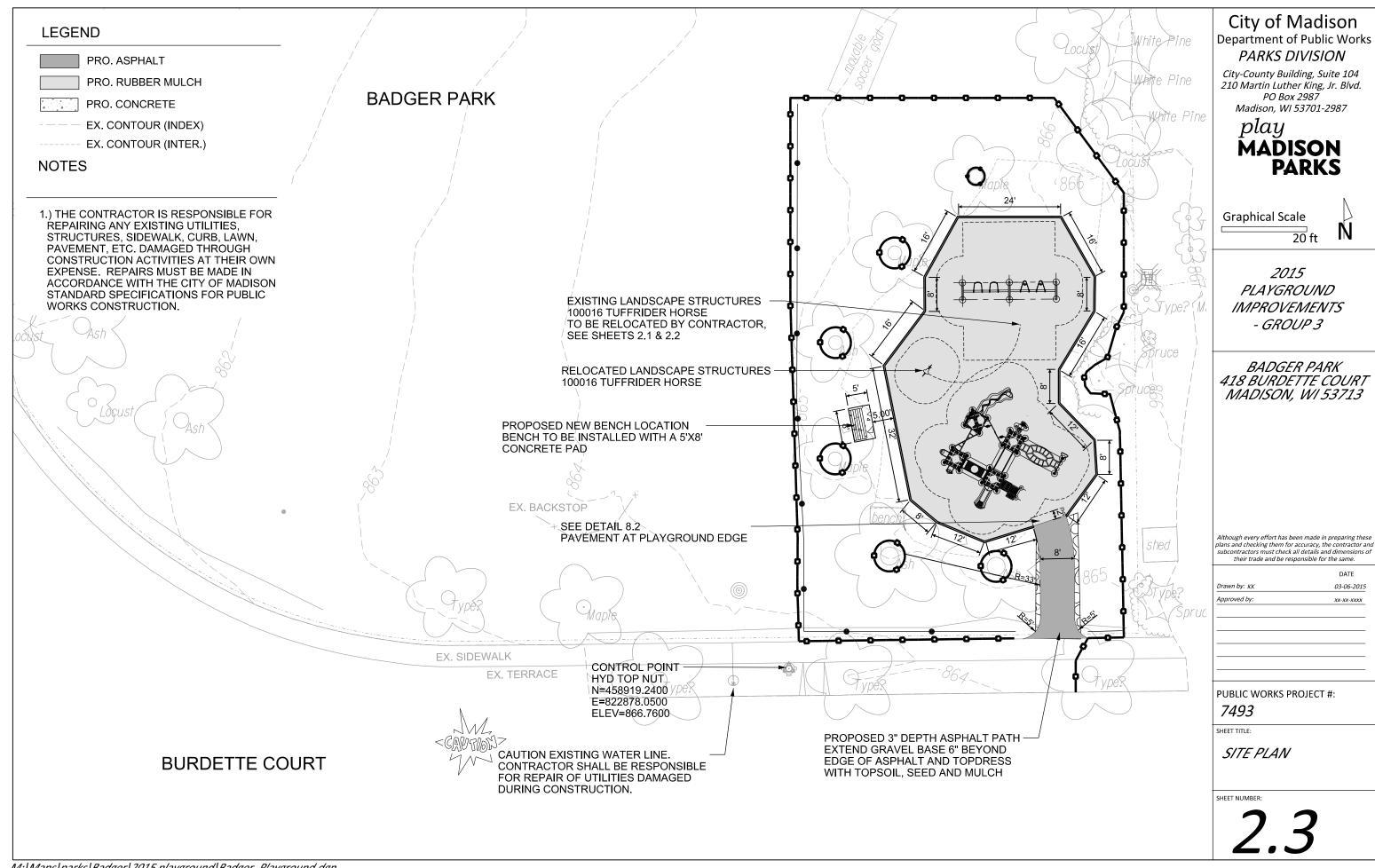
City of Madison Public Works Contract

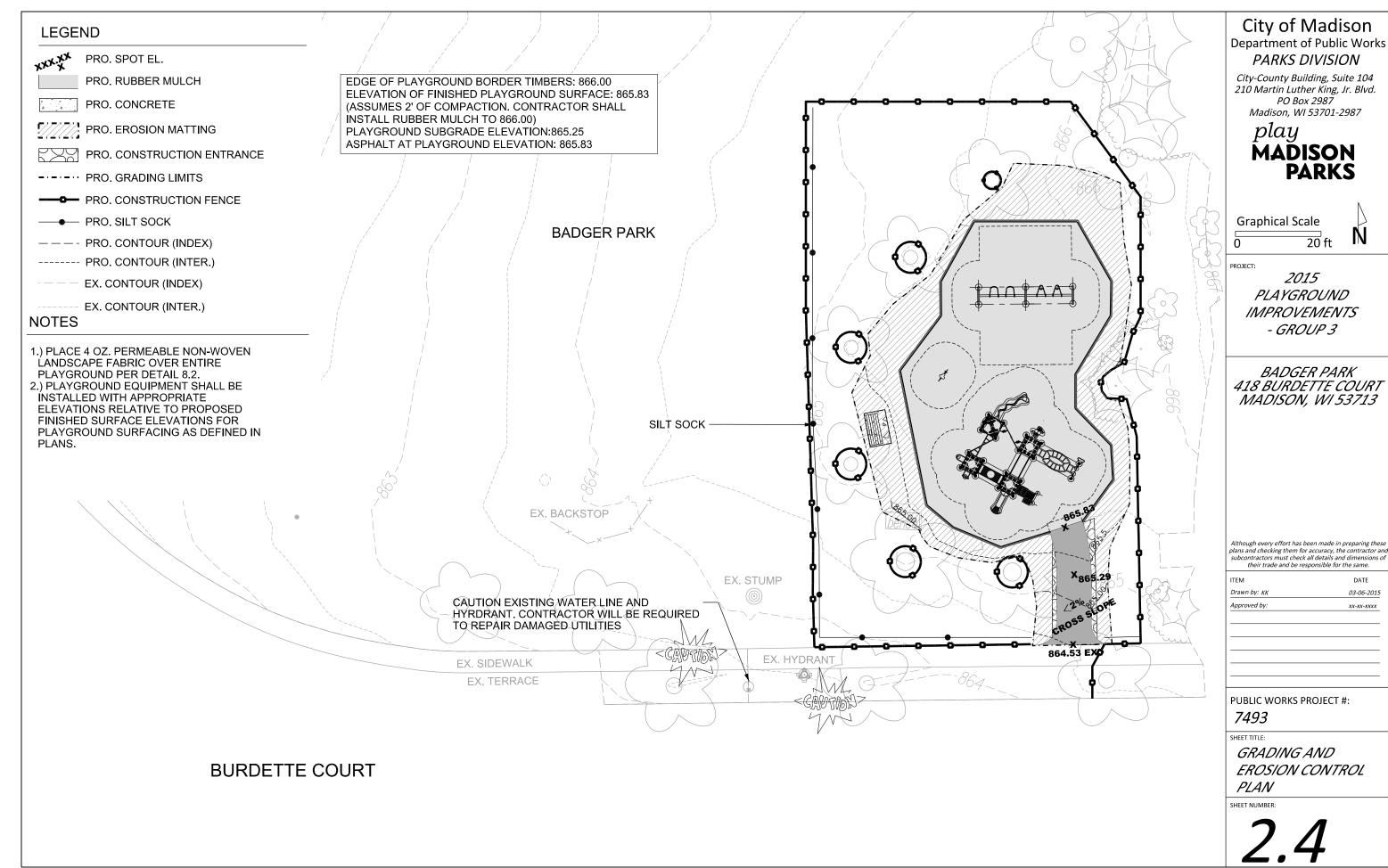
Date Revised:

Notes:









	Badger Par	k Playground - Earth	work Quantities										Grass to	Timbers Place	Place border timbers (placeholder volume to				ļ				
		Public Works Contract	Contract									6.4		(placeholder volume)	balance volume comps)	n/a	n/a	25	-1.00	-25	-0.9	0%	-0
	Date Revised:	3/2/2015	5									7.1	Play Surface to Asphalt	Play Surface Excavate	Remove existing pea gravel (est 17 in depth)	n/a	n/a	2	1.42	3	0.1	0%	c
		0,2,2010											Play Surface		Cut subsoil to proposed		- 101						
	Notes:											7.2	to Asphalt Play Surface	Subsoil Excavate	subgrade Fill subsoil to proposed	Ex-17in	Pro-12in	2	varies	0	0.0	0%	-
		es are cuts, negative volume	es are fills									7.3		Subsoil Place	subgrade	Ex-17in	Pro-12in	2	varies	-1	0.0	0%	
			Terrain Models) are used for co	mnutations	or intended	for actual	construction					7.4	Play Surface	Control (Doth) Disco	Place 9in gravel base, out 6i		-1-		0.75		0.1	00/	
	NOT all parts of	all surface models (Digital	Terrain Moders) are used for co	Imputations	or interided	ioi actuai	construction.					7.4	Play Surface	Gravel (Path) Place	from asphalt edge	n/a	n/a	2	-0.75	2	-0.1	0%	-
	Cylindia a	Dadmar Cummy 2014 00 18	altina									7.5	to Asphalt	Asphalt Place	Place 3in asphalt	n/a	n/a	0	-0.25	0	0.0	0%	
		Badger_Survey2014-09-18.	aum									7.6	Play Surface to Asphalt	Topsoil Place	Place 3in topsoil on 6in wide	- /-			-0.25		0.0	0%	
	Proposed	pro1.dtm										7.0	Play Surface	Topsoil Place	gravel edge Remove existing pea gravel	n/a	n/a	- 2	-0.25	- 1	0.0	0%	
												8.1	to Bench Pad	Play Surface Excavate	(est 17 in depth)	n/a	n/a	3	1.42	4	0.2	0%	
										l_	Factored	82	Play Surface	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-7in	3	varies		0.0	0%	
								Unfac-	Unfac-	Expan-	(Uncom-	0.2	Play Surface	Cappell Excavate	Fill subsoil to proposed	EX IIII	1107111	+	Harres		0.0		
				From	To			tored	tored	sion	pacted)	8.3	to Bench Pad	Subsoil Place	subgrade	Ex-17in	Pro-7in	3	varies	-3	-0.1	0%	-(
				Surface	Surface	area		volume	volume	Factor	Volume	8.4	Play Surface to Bench Pad	Gravel (Bench Pad) Place	Place 2in gravel base, out 6i from concrete edge	n n/a	n/a	3	-0.17	-1	0.0	0%	(
ort	Grp	Material	ltem .	Model	Model	(sq ft)	depth (ft)	(cu ft)	(cu yd)	(%)	(cu yd)		Play Surface	0.0.0.(20.0	inom concrete dage								
	Bench Pad to		Remove existing concrete									8.5		Concrete Place	Place 5in concrete	n/a	n/a	1	-0.42	0	0.0	0%	(
1.1	Grass	Concrete Excavate	bench pad (est 5in thick)	n/a	n/a	30	0.42	13	0.5	0%	0.5	8.6	Play Surface to Bench Pad	Tonsoil Place	Place 5in topsoil on 6in wide gravel edge	n/a	n/a	2	-0.42		0.0	0%	
	Bench Pad to	Gravel (Bench Pad)	Remove existing bench pad									0.0	Play Surface		Remove existing pea gravel	1174	iii u					- 70	
1.2		Excavate	gravel base (est 2in thick)	n/a	n/a	30	0.17	5	0.2	0%	0.2	9.1		Play Surface Excavate	(est 17 in depth)	n/a	n/a	981	1.42	1390	51.5	0%	51
	Bench Pad to		Cut subsoil to proposed	1	1			t		1 70		9.2	Play Surface to Grass	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-6in	981	varies	0	0.0	0%	(
1.3		Subsoil Excavate	subgrade	Ex-7in	Pro-6in	30	varies		0.0	0%	0.0		Play Surface		Fill subsoil to proposed					1			
1.5	Bench Pad to	Cascon Excavate	Fill subsoil to proposed	-2 1111	1. 13 5.11	30	,ancs	 	1 0.0	70	0.0	9.3	to Grass	Subsoil Place	subgrade	Ex-17in	Pro-6in	981	varies	-1018	-37.7	0%	-3
ا, ,		Subsail Blace	1 ' '	Ev 7:-	Dro Gir	30	\mui	_		00/		94	Play Surface to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	981	-0.50	-491	-18.2	0%	-18
1.4		Subsoil Place	subgrade	Ex-7in	Pro-6in	30	varies	-5	-0.2	9 0%	-0.2	3.4	Play Surface		topoon			+ 331	2.00	101	10.2		
[Bench Pad to		L	1.	1.								to Play	Diam Confess 5	Remove existing pea gravel				4.00		442.5	60/	
1.5		Topsoil Place	Place 6in topsoil	n/a	n/a	30	-0.50	-15	-0.6	0%	-0.6	10.1	Surface Play Surface	Play Surface Excavate	(est 17 in depth)	n/a	n/a	2278	1.42	3227	119.5	0%	11
	Grass to				1					1			to Play		Cut subsoil to proposed				ļ				
2.1	Asphalt	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	282	0.50	141	5.2	0%	5.2	10.2		Subsoil Excavate	subgrade	Ex-17in	Pro-7in	2278	varies	0	0.0	0%	(
	Grass to		Cut subsoil to proposed										Play Surface to Play		Fill subsoil to proposed				ļ				
2.2	Asphalt	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	282	varies	86	3.2	0%	3.2	10.3	Surface	Subsoil Place	subgrade	Ex-17in	Pro-7in	2278	varies	-2162	-80.1	0%	-80
	Grass to		Fill subsoil to proposed		1								Play Surface										
2.3		Subsoil Place	subgrade	Ex-6in	Pro-12in	282	varies		0.0	0%	0.0		to Play	D. O. C. D.	Place 7in compacted rubber				0.50	4000		2004	
2.3		Subsoli Flace	1 -		F10-12III	202	varies	-	0.0	0%	0.0	10.4	Surface Play Surface	Play Surface Place	chips (9in uncompacted) Remove existing pea gravel	n/a	n/a	2278	-0.58	-1329	-49.2	29%	-63
	Grass to		Place 9in gravel base, out 6ir		1,							11.1		Play Surface Excavate	(est 17 in depth)	n/a	n/a	44	1.42	62	2.3	0%	2
2.4		Gravel (Path) Place	from asphalt edge	n/a	n/a	282	-0.75	-212	-7.8	0%	-7.8		Play Surface		Cut subsoil to proposed								
	Grass to											11.2	to Timbers Play Surface	Subsoil Excavate	subgrade Fill subsoil to proposed	Ex-17in	Pro-12in	44	varies	- 0	0.0	0%	
2.5	Asphalt	Asphalt Place	Place 3in asphalt	n/a	n/a	247	-0.25	-62	-2.3	0%	-2.3	11.3		Subsoil Place	subgrade	Ex-17in	Pro-12in	44	varies	-33	-1.2	0%	-1
	Grass to		Place 3in topsoil on 6in wide												Place border timbers								
2.6	Asphalt	Topsoil Place	gravel edge	n/a	n/a	35	-0.25	-9	-0.3	0%	-0.3	11.4		Timbers Place	(placeholder volume to		-/-	44	-1.00	-44	-1.6	00/	
	Grass to	•										11.4	to Timbers	(placeholder volume)	balance volume comps) Increase play surface by 1/2	n/a	n/a	44	-1.00	-44	-1.6	0%	-1
3.1	II.	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	51	0.50	26	0.9	0%	0.9				of path ramp gravel base				ļ				
	Grass to	Topodii Exeditate	Cut subsoil to proposed	11/4	1174	"	0.00		0.0	7 070	0.0	10.4		DI 0 (DI	volume = 1/2 x (23 sq ft x		,		0.00	_]		0001	
3.2		Subsoil Excavate		Ex-6in	Dro 7in	51	varies	١ ,	0.1	0%	0.1	12.1	Adjust	Play Surface Place	7in) Increase subsoil excavate by	n/a	n/a	23	-0.29	-/	-0.2	29%	-0
3.2		Subson Excavate	subgrade	EX-OIII	Pro-7in	51	varies		0.1	0%	0.1				1/2 of concrete ramp gravel	'			ļ				
	Grass to		Fill subsoil to proposed		l			_							base volume = 1/2 x (23 sq								
3.3		Subsoil Place	subgrade	Ex-6in	Pro-7in	51	varies	0	0.0	0%	0.0	12.2	Adjust	Subsoil Excavate	ft x 7in)	n/a	n/a	23	0.29	/	0.2	0%	
	Grass to		Place 2in gravel base, out 6ir	וו								Badger	Park Playground	I - Earthwork Quantities									
3.4	Bench Pad	Gravel (Bench Pad) Place	from concrete edge	n/a	n/a	51	-0.17	-9	-0.3	0%	-0.3	City of Ma	dison Public Works Co Date Revised:	ontract 3/2/2015									
	Grass to											Denied fro		adsheet available from Parks Div									
3.5	Bench Pad	Concrete Place	Place 5in concrete	n/a	n/a	39	-0.42	-16	-0.6	0%	-0.6			addinest available #UIII FalkS DIV									
	Grass to		Place 5in topsoil on 6in wide									Positive vo	tion Summary lumes are cuts (mater	rial available), negative volumes are fi	ills (mate								
3.6	Bench Pad	Topsoil Place	gravel edge	n/a	n/a	12	-0.42	-5	-0.2	0%	-0.2		S	Sum of Factored (Uncom-									
J.0	Grass to		3.3.5.5.5.5	1	1	14	5.12	t	1 0.2	7,0	0.2	Row Labe	els p	acted) Volume (cuyd)									
4.1		Topsoil Excavate	Strip 6in topsoil	n/a	n/a	699	0.50	350	12.9	0%	12.9	Asphalt Pl	ace	-2.3									
4.1		Topour Excavate		11/Q	11// 4	099	0.50	330	12.8	0 70	12.3	Concrete i		0.5									
ا م	Grass to	Cubacil Every-t-	Cut subsoil to proposed	F., 6:	D C:	000		.		00/		Concrete F	Place	-0.6									
4.2		Subsoil Excavate	subgrade	Ex-6in	Pro-6in	699	varies	4	0.1	0%	0.1	Gravel (Be	nch Pad) Excavate	0.2									
	Grass to		Fill subsoil to proposed	L .	<u> </u>					1			nch Pad) Place	-0.3									
4.3		Subsoil Place	subgrade	Ex-6in	Pro-6in	699	varies	-71	-2.6	0%	-2.6	Gravel (Pa		-7.9									
	Grass to											Play Surfa	ce Excavate	173.6									
4.4	Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	699	-0.50	-350	-12.9	0%	-12.9	Plau Curf	ce Place	-78.5									
	Grass to Play											Subsoil Ex	ce Place ccavate ace lace (placeholder	-78.5 6.4 -122.6									
5.1	• 1	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	537	0.50	269	9.9	0%	9.9	Timbers P	lace (placeholder										
	Grass to Play		Cut subsoil to proposed							l		Topsoil Ex	cavate	-2.6 29.5 -32.2									
5.2	*	Subsoil Excavate	subgrade	Ex-6in	Pro-7in	537	varies	66	2.4	0%	2.4	Topsoil Pla Grand To	ace	-32.2 -36.9									
٥.۷		Capson Excavate	Fill subsoil to proposed		1 10-7111	337	valles	1 00	2.4	0 /8	4.4												
ا ۾	Grass to Play	Cultaril Disco	1 ' '	F 2:-	D 3.							Net subso		-116 cu yd									
5.3		Subsoil Place	subgrade	Ex-6in	Pro-7in	537	varies	-18	-0.6	0%	-0.6	Net topsoi Net topsoi	I & subsoil	-3 cu yd -119 cu yd									
	Grass to Play		Place 7in compacted rubber		1							Reorgan	ized into bid table	items									
l	Surface	Play Surface Place	chips (9in uncompacted)	n/a	n/a	537	-0.58	-313	-11.6	29%	-14.9	Bid Item		Quantity L	Jnits Relation to Table Abo	ve	+						
5.4												20101 Ex	cavation Cut cavation Cut - Pea	36 0									
5.4	Grass to	l	Strip 6in topsoil	n/a	n/a	25	0.50	13	0.5	0%	0.5	Gravel		174 0									
		Topsoil Excavate			4				J.0		0.0	20201 Fil		-116 0		ubsoil Place	1						
5.4 6.1	Timbers	Topsoil Excavate	 ' 			I						20221 To	psoil	193 8	SY = (Topsoil Place)/- 167		1						
6.1	Timbers Grass to		Cut subsoil to proposed	Ev. Gin	Dro 10in	25	Varios		0.3	00/	0.3	20221 To 40102 Cn	ushed Aggregate	193 8	SY = (Topsoil Place)/167								
	Timbers Grass to Timbers	Topsoil Excavate Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-12in	25	varies	8	0.3	0%	0.3	40102 Cri Base Cou 2&3	ushed Aggregate urse Gradation No.	193 S									
6.1	Timbers Grass to Timbers Grass to		Cut subsoil to proposed	Ex-6in	Pro-12in	25 25		8	0.3		0.3	40102 Cn Base Cou 2&3 40201 3"	ushed Aggregate		ons = (Gravel Place)* -2 ton/	cubic yard							

City-County Building, Suite 104 210 Martin Luther King, Jr. Blvd. PO Box 2987 Madison, WI 53701-2987

play
MADISON
PARKS

Graphical Scale

20 ft

PROJECT:

2015 PLAYGROUND IMPROVEMENTS - GROUP 3

BADGER PARK 418 BURDETTE COURT MADISON, WI 53713

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE
Drawn by: KK	03-06-2015
Approved by:	xx-xx-xxxx

PUBLIC WORKS PROJECT #:

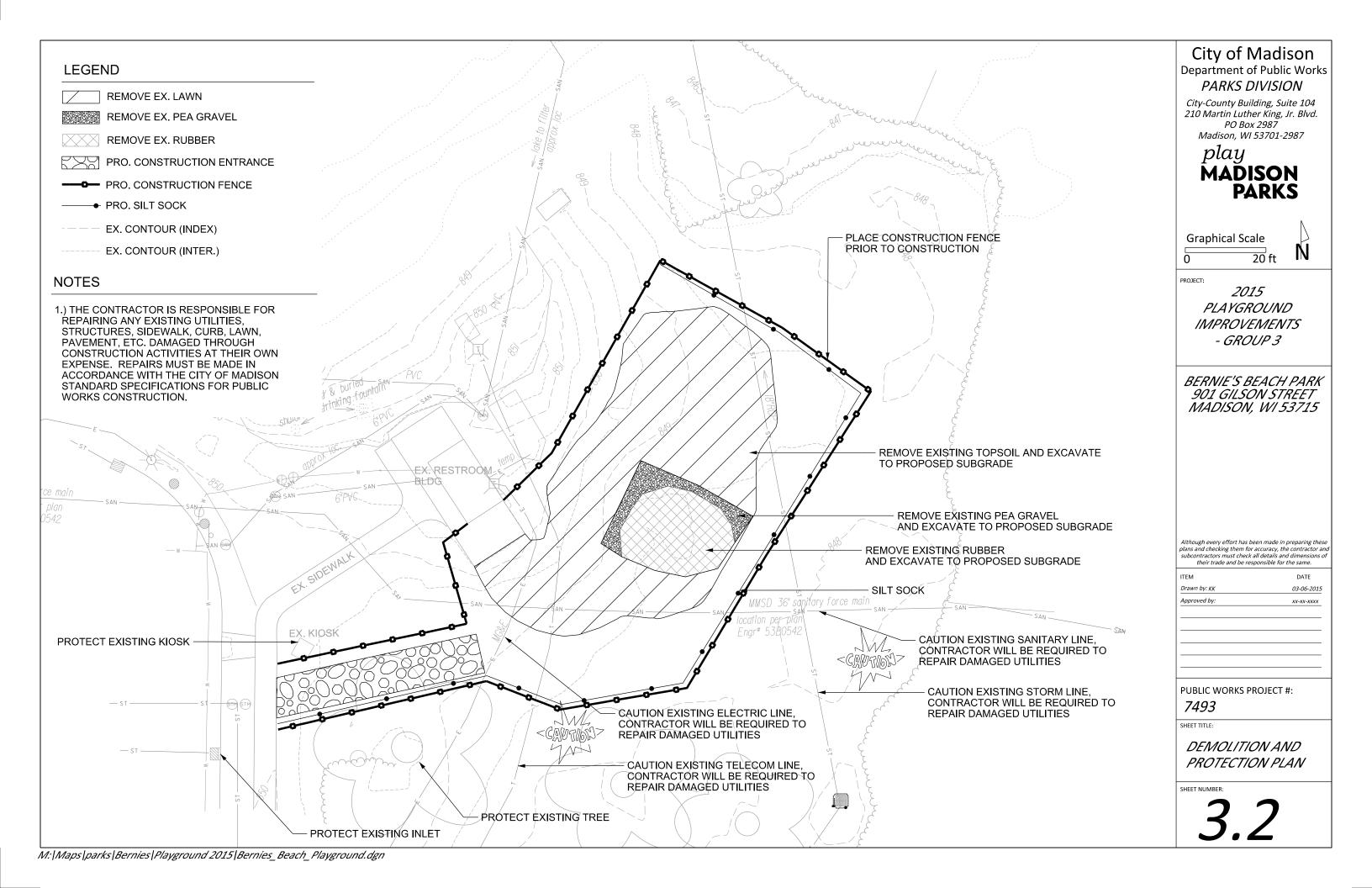
7493

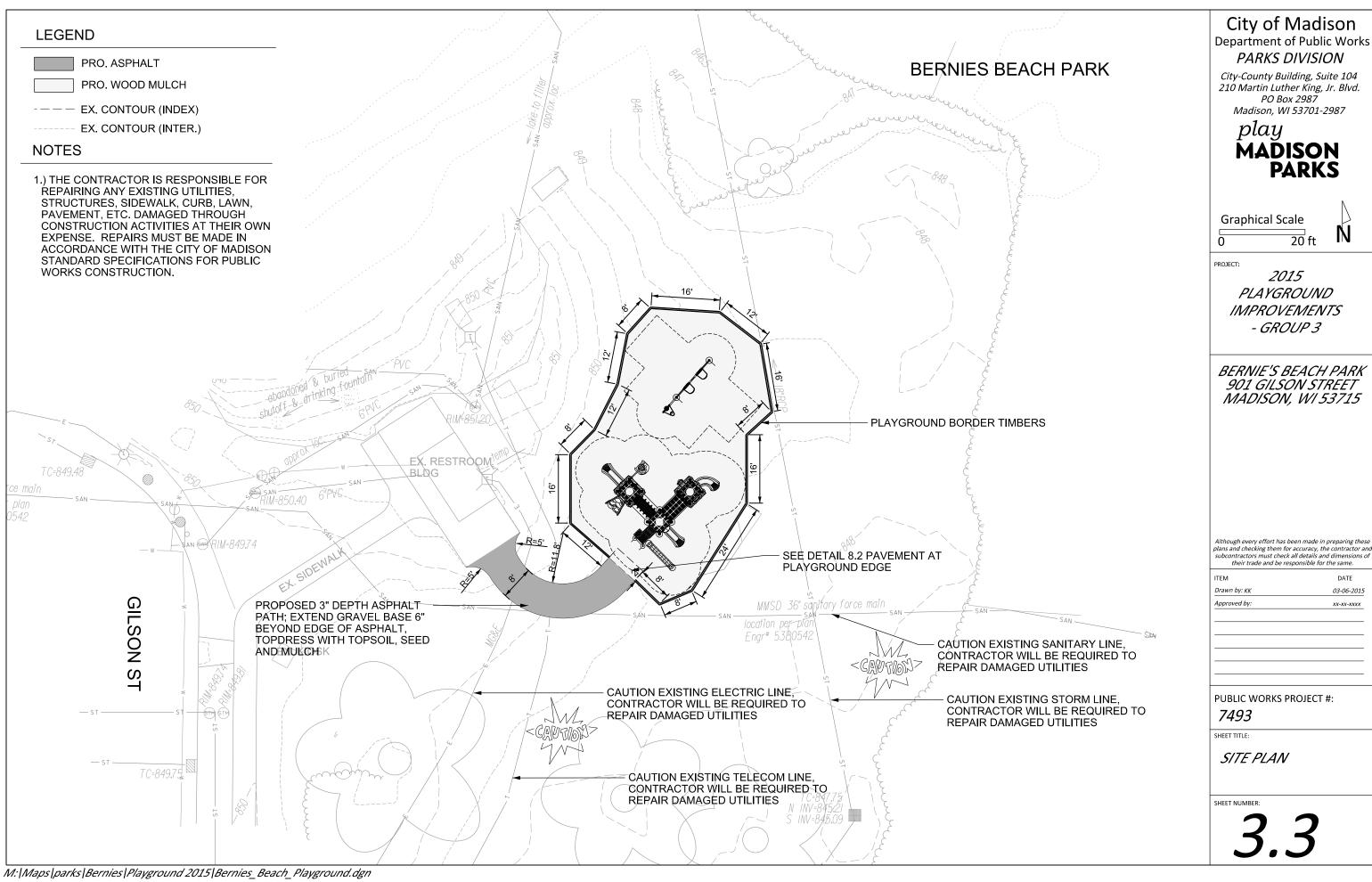
SHEET TITLE:

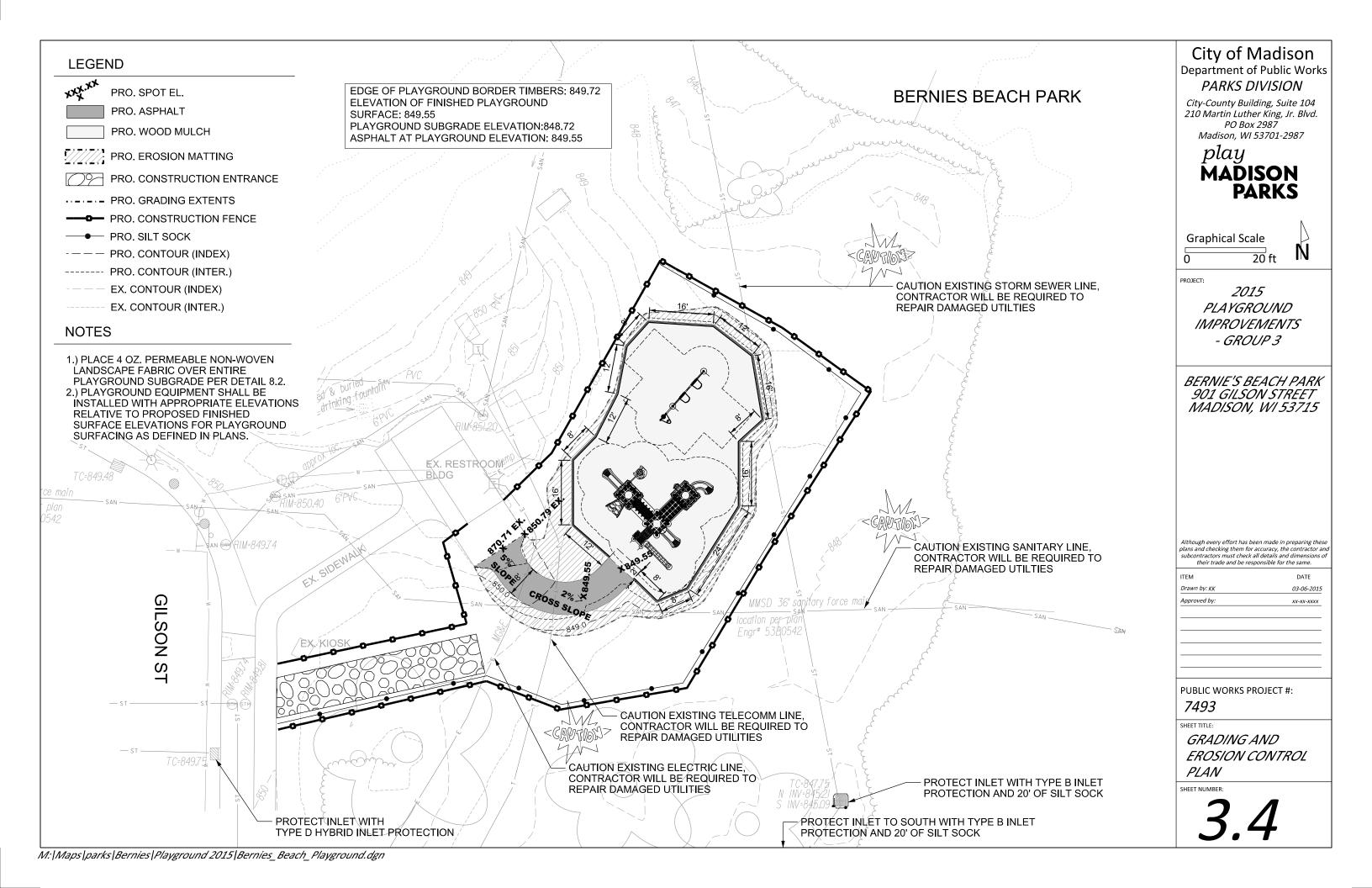
DESIGN CALCULATIONS

SHEET NUMBI









P F	Date Revised: Notes: Positive volume	es are cuts, negative volume all surface models (Digital 1 Bernies_Survey2014-08-15. Pro1.dtm	errain Models) are used for co	mputations	or intended						
F N E F	Positive volume Not all parts of Existing	all surface models (Digital T Bernies_Survey2014-08-15.	errain Models) are used for co	mputations	or intended						
F P	Positive volume Not all parts of Existing	all surface models (Digital T Bernies_Survey2014-08-15.	errain Models) are used for co	mputations	or intended						
E F	Not all parts of Existing	all surface models (Digital T Bernies_Survey2014-08-15.	errain Models) are used for co	mputations	or intended						
E	Existing	Bernies_Survey2014-08-15.		mputations	or intended						
F			dtm		or interiaca	for actual	construction.				
F			dtm								
	Proposed	Pro1.dtm									
Sort (
Sort (F4
Sort (Factored
Sort (_				Unfac-	Unfac-	Expan-	(Uncom-
Sort (From Surface	To Surface			tored	tored	sion	pacted)
Son (A	88-4	W			area	-141- (64)	volume	volume	Factor	Volume
	Grp	Material	ltem	Model	Model	(sq ft)	depth (ft)	(cu ft)	(cu yd)	(%)	(cu yd)
4.4	Grass to	Tanaail Evapunta	Strin Gin tangail	2/2	n/o	373	0.50	187	6.9	0%	6.0
1.1	Asphalt Grass to	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	3/3	0.50	107	0.9	0%	6.9
1.2		Subsoil Excavate	Cut subsoil to proposed	Ex-6in	Pro-12in	373	veries	3	0.1	0%	0.1
1.2	Asphalt Grass to	Subson Excavate	subgrade Fill subsoil to proposed	EX-OIII	F10-12III	3/3	varies	3	0.1	U 76	0.1
1 2		Subsoil Place	subgrade	Ex-6in	Dro 12in	373	veries	-102	2.0	0%	-3.8
1.3	Asphalt Grass to	Oubson FidCe	Place 9in gravel base, out to	∟x-0111	Pro-12in	3/3	varies	-102	-3.8	0%	-3.8
1.4	Asphalt	Gravel (Path) Place		n/a	n/a	373	-0.75	-280	-10.4	0%	-10.4
1.4	Grass to	Gravel (Path) Place	6in from asphalt edge	n/a	11/a	3/3	-0.73	-200	-10.4	U%	-10.4
1.5		Asphalt Place	Place 3in asphalt	n/a	n/a	330	-0.25	-83	-3.1	0%	-3.1
1.5	Asphalt Grass to	лэрнан гіасе	Place 3in aspnait Place 3in topsoil on 6in wide	n/a	n/a	330	-∪.∠5	-83	-3.1	U%	-3.1
4.6	Grass to	Tongoil Place	•	n/o	n/o	40	0.05	4.4	0.4	00/	0.4
1.6	Asphalt Grass to	Topsoil Place	gravel edge	n/a	n/a	43	-0.25	-11	-0.4	0%	-0.4
2.4		Tanasii Europeata	Otain Gin toward			044	0.50	474	17.1	00/	47.4
2.1	Grass	Topsoil Excavate		n/a	n/a	941	0.50	471	17.4	0%	17.4
	Grass to	0 1 3 5 1	Cut subsoil to proposed	_ o.	D 0:			_	0.0	20/	
2.2	Grass	Subsoil Excavate	subgrade	Ex-6in	Pro-6in	941	varies	0	0.0	0%	0.0
ا م	Grass to	Cultiral Di	Fill subsoil to proposed	F C.	D 0:	ا یہ ا		201	44-	22/	
2.3	Grass	Subsoil Place	subgrade	Ex-6in	Pro-6in	941	varies	-391	-14.5	0%	-14.5
	Grass to										
2.4	Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	941	-0.50	-471	-17.4	0%	-17.4
	Grass to Play			l .							
3.1	Surface	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	1553	0.50	777	28.8	0%	28.8
	Grass to Play		Cut subsoil to proposed								
3.2	Surface	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	1553	varies	168	6.2	0%	6.2
	Grass to Play		Fill subsoil to proposed								
3.3	Surface	Subsoil Place	subgrade	Ex-6in	Pro-12in	1553	varies	-306	-11.3	0%	-11.3
(Grass to Play										
3.4	Surface	Play Surface Place	Place 12in wood chips	n/a	n/a	1553	-1.00	-1553	-57.5	0%	-57.5
	Grass to										
4.1	Timbers	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	52	0.50	26	1.0	0%	1.0
	Grass to		Cut subsoil to proposed								
4.2	Timbers	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	52	varies	7	0.3	0%	0.3
	Grass to		Fill subsoil to proposed								
4.3	Timbers	Subsoil Place	subgrade	Ex-6in	Pro-12in	52	varies	-20	-0.7	0%	-0.7
			Place border timbers								
			(placeholder volume to								
	Grass to	Timbers Place	balance volume								
4.4	Timbers	(placeholder volume)	computations)	n/a	n/a	52	-1.00	-52	-1.9	0%	-1.9
	Play Surface	Play Surface (Rubber)	Remove rubber chips (est 6in								
5.1	to Asphalt	Excavate		n/a	n/a	3	0.50	2	0.1	0%	0.1
	Play Surface	Play Surface (Pea Gravel)	Remove pea gravel under								
5.2	to Asphalt	Excavate	rubber chips (est 11in depth)	n/a	n/a	3	0.92	3	0.1	0%	0.1
	Play Surface	Play Surface (Pea Gravel)	Remove pea gravel (est 17 in								
5.3	to Asphalt	Excavate	depth)	n/a	n/a	3	1.42	4	0.2	0%	0.2
	Play Surface		Cut subsoil to proposed								
5.4		Subsoil Excavate	subgrade	Ex-17in	Pro-12in	6	varies	0	0.0	0%	0.0
	Play Surface		Fill subsoil to proposed								
5.5	,	Subsoil Place	subgrade	Ex-17in	Pro-12in	6	varies	-8	-0.3	0%	-0.3
	Play Surface		Place 9in gravel base, out to								
5.6	to Asphalt	Gravel (Path) Place	•	n/a	n/a	6	-0.75	-5	-0.2	0%	-0.2
	Play Surface	, ,	1 "0-								
5.7	to Asphalt	Asphalt Place	Place 3in asphalt	n/a	n/a	3	-0.25	-1	0.0	0%	0.0
	Play Surface		Place 3in topsoil on 6in wide								2.0
5.8	to Asphalt	Topsoil Place	•	n/a	n/a	3	-0.25	-1	0.0	0%	0.0
		Play Surface (Rubber)	Remove rubber chips (est 6in					•	5.5		5.5
6.1	to Grass	Excavate	• •	n/a	n/a	43	0.50	22	0.8	0%	0.8
		Play Surface (Pea Gravel)	Remove pea gravel under				5.50		0.0	7,0	3.0
6.2	to Grass	Excavate	rubber chips (est 11in depth)	l _{n/a}	n/a	43	0.92	39	1.5	0%	1.5
	Play Surface	Play Surface (Pea Gravel)	Remove pea gravel (est 17 in			13	5. 5.	- 55	1.5	370	1.5
6.3	to Grass	Excavate		n/a	n/a	23	1.42	33	1.2	0%	1.2
	2.20		1 7	1	1			55		2,3	

	Play Surface		Cut subsoil to proposed								
6.4	to Grass	Subsoil Excavate	subgrade	Ex-17in	Pro-6in	66	varies	0	0.0	0%	
	Play Surface		Fill subsoil to proposed								
6.5	to Grass	Subsoil Place	subgrade	Ex-17in	Pro-6in	66	varies	-113	-4.2	0%	-
	Play Surface										
6.6	to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	66	-0.50	-33	-1.2	0%	-
	Play Surface		·								
	to Play	Play Surface (Rubber)	Remove rubber chips (est 6in								
7.1	Surface	Excavate	depth	n/a	n/a	423	0.50	212	7.8	0%	
	Play Surface		·								
	to Play	Play Surface (Pea Gravel)	Remove pea gravel under								
7.2	Surface	Excavate	rubber chips (est 11in depth)	n/a	n/a	423	0.92	388	14.4	0%	1
	Play Surface		(
	to Play	Play Surface (Pea Gravel)	Remove pea gravel (est 17 in								
7.3		Excavate	depth)	n/a	n/a	152	1.42	215	8.0	0%	
	Play Surface				1						
	to Play		Cut subsoil to proposed								
7.4	Surface	Subsoil Excavate	subgrade	Ex-17in	Pro-12in	575	varies	0	0.0	0%	
	Play Surface	Cascal Excarate	5 4 2 5 4 4 4 5	-x	1.10 12		14.100	Ť			
	to Play		Fill subsoil to proposed								
7.5		Subsoil Place	subgrade	Ex-17in	Pro-12in	575	varies	-830	-30.7	0%	-3
1.0	Play Surface	Cubson Flace	Subgrade	EX-17111	1 10-12111	3/3	Varios	-030	-50.7	070	
	to Play										
7.6		Play Surface Place	Place 12in wood chips	n/a	n/a	575	-1.00	-575	-21.3	0%	-2
7.0		Play Surface (Rubber)	Remove rubber chips (est 6in		II/a	3/3	-1.00	-5/3	-21.3	070	
8.1	•	Excavate	depth	n/a	n/a	5	0.50	3	0.1	0%	
0. 1		Play Surface (Pea Gravel)	Remove pea gravel under	II/a	II/a	3	0.30	3	0.1	070	
8.2		Excavate		n/a	n/a	5	0.92	5	0.2	0%	
0.2	Play Surface	Play Surface (Pea Gravel)	rubber chips (est 11in depth) Remove pea gravel (est 17 in	II/a	II/a	3	0.92	3	0.2	070	
8.3		Excavate	depth)	n/a	n/a	2	1.42	3	0.1	0%	
0.3	Play Surface	Excavate	Cut subsoil to proposed	n/a	n/a	- 2	1.42	3	0.1	0%	
		Subsoil Excavate		Ex-17in	Pro-12in	7		0	0.0	0%	
8.4	to Timbers Play Surface	Subson Excavate	subgrade Fill subsoil to proposed	EX-17III	P10-12III	- 4	varies	0	0.0	0%	
8.5		Cubasii Diasa		F., 47:-	D== 40i=	7		-12	-0.4	0%	
0.0	to rimbers	Subsoil Place	subgrade Place border timbers	Ex-17in	Pro-12in	- 4	varies	-12	-0.4	0%	
	Di Of-		(placeholder volume to								
	Play Surface	Timbers Place	balance volume	l .	1,	_	4.00		اء	201	
8.6	to Timbers	(placeholder volume)	computations)	n/a	n/a		-1.00	-7	-0.3	0%	
			Increase play surface by 1/2								
			of path ramp gravel base								
		L	volume = 1/2 x (32 sq ft x								
12.1	Adjust	Play Surface Place	12in)	n/a	n/a	32	-0.50	-16	-0.6	0%	-
			Increase subsoil excavate by								
			1/2 of concrete ramp gravel								
			base volume = 1/2 x (32 sq								
12.2	Adjust	Subsoil Excavate	ft x 12in)	n/a	n/a	32	0.50	16	0.6	0%	

ernie's Beach Park Playground	- Earthwork	Quantities
tu of Madison Dublic Works Contract		

dison Public Works Contract

Date Revised: 3/3/2015

Dervied from more detailed spreadsheet available from Parks Div

Positive volumes are cuts (material available), negative volumes are fills (material needed)

	Sum of Unfac-		
	tored volume		
Row Labels			
	, (<i>j j</i>		
Asphalt Place	-3.1		
,			
Gravel (Path) Place	-10.5		
Play Surface (Pea Gravel)			
Excavate	25.5		
LACAVALE	20.0		
Play Surface (Rubber)			
Excavate	8.8		
Literate	0.0		
Play Surface Place	-79.4		
Subsoil Excavate	7.2		
Subsoil Place	-66.0		
Timbers Place			
(placeholder volume)	-2.2		
Topsoil Excavate	54.1		
Topsoil Place	-19.1		
Grand Total	-84.7		
Net subsoil	FO	cu yd	
Net topsoil		cu yu cu vd	
Net topsoil & subsoil		cu yd	
·		cu yu	
Reorganized into bid tal	ole items		
Bid Item	Quantity	Units	Relation to Table Above
20101 Excavation Cut	61	CY	= Subsoil Excavate + Topsoil Excavate
20103 Excavation Cut -			
Pea Gravel		CY	= Play Surface Excavate
20201 Fill		CY	= Subsoil Excavate + Subsoil Place
20221 Topsoil		SY	= (Topsoil Place)/167
40102 Crushed Aggregate			
Base Course Gradation			
No. 2 & 3	21	tons	=(Gravel Place) * -2 ton/cubic yard
40201 3" Depth HMA			
Pavement Type E-0.3	8.0	tons	= Asphalt Place * -2.16 ton/cubic yard
90003 Playground			
Surfacing - Wood	I 87	CY	= Play Surface Place * -1 10

= Play Surface Place * -1.10

City of Madison Department of Public Works PARKS DIVISION

City-County Building, Suite 104 210 Martin Luther King, Jr. Blvd. PO Box 2987 Madison, WI 53701-2987

play
MADISON
PARKS

Graphical	Scale

20 ft

PROJECT:

2015 **PLAYGROUND IMPROVEMENTS** - GROUP 3

BERNIE'S BEACH PARK 901 GILSON STREET MADISON, WI 53715

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE
Drawn by: KK	03-06-2015
Approved by:	xx-xx-xxxx
	_

PUBLIC WORKS PROJECT #:

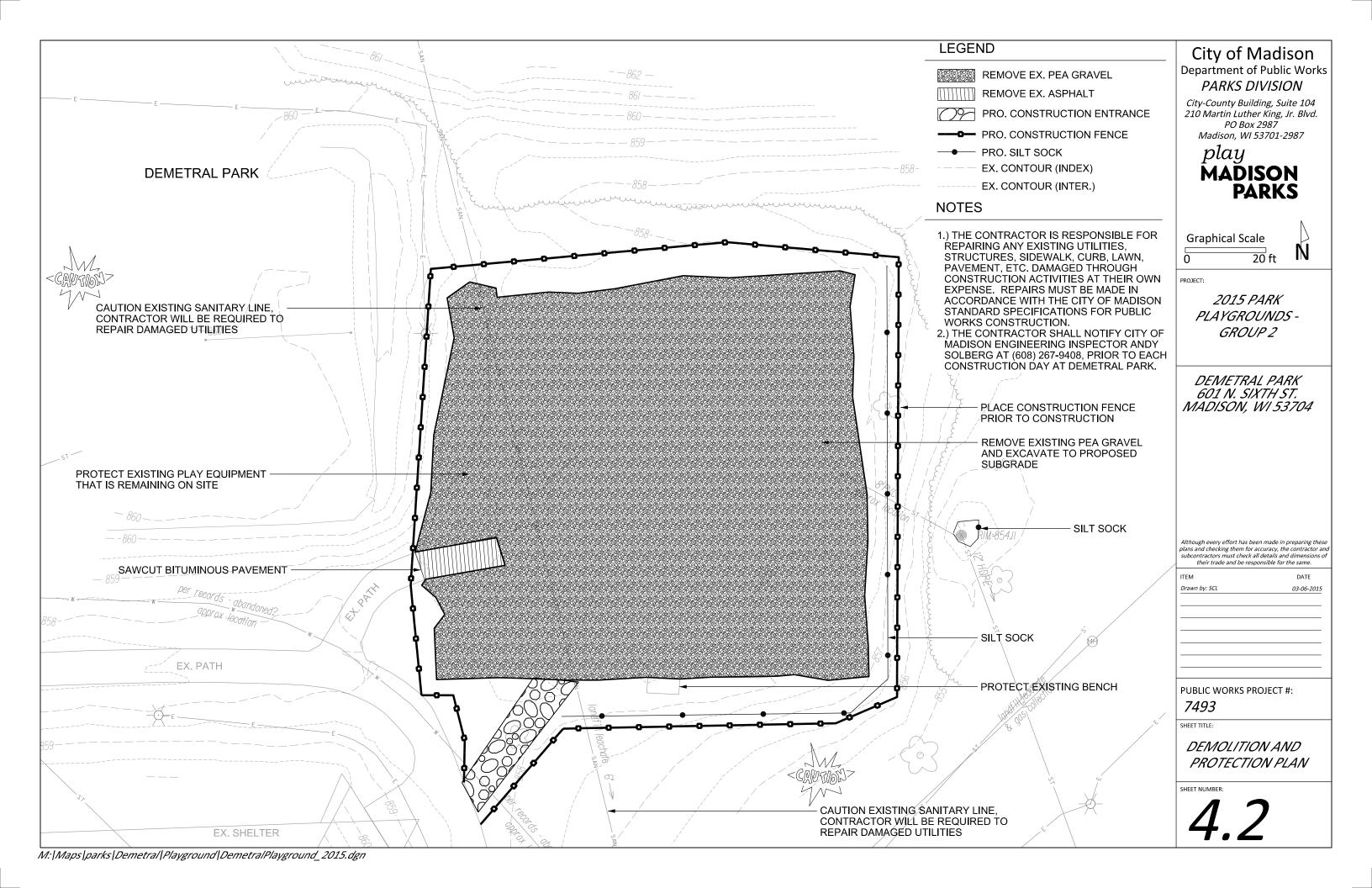
7493

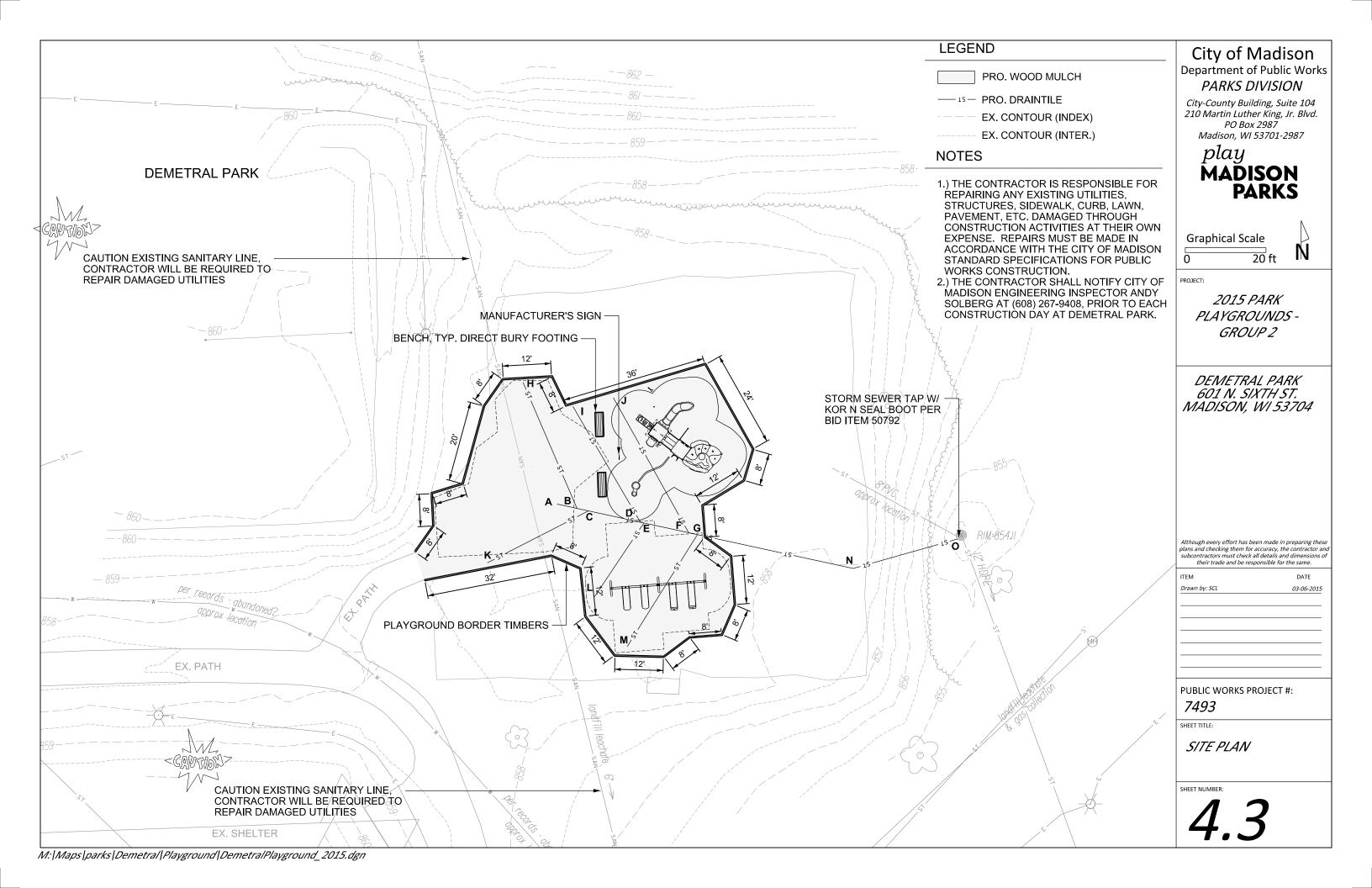
SHEET TITLE:

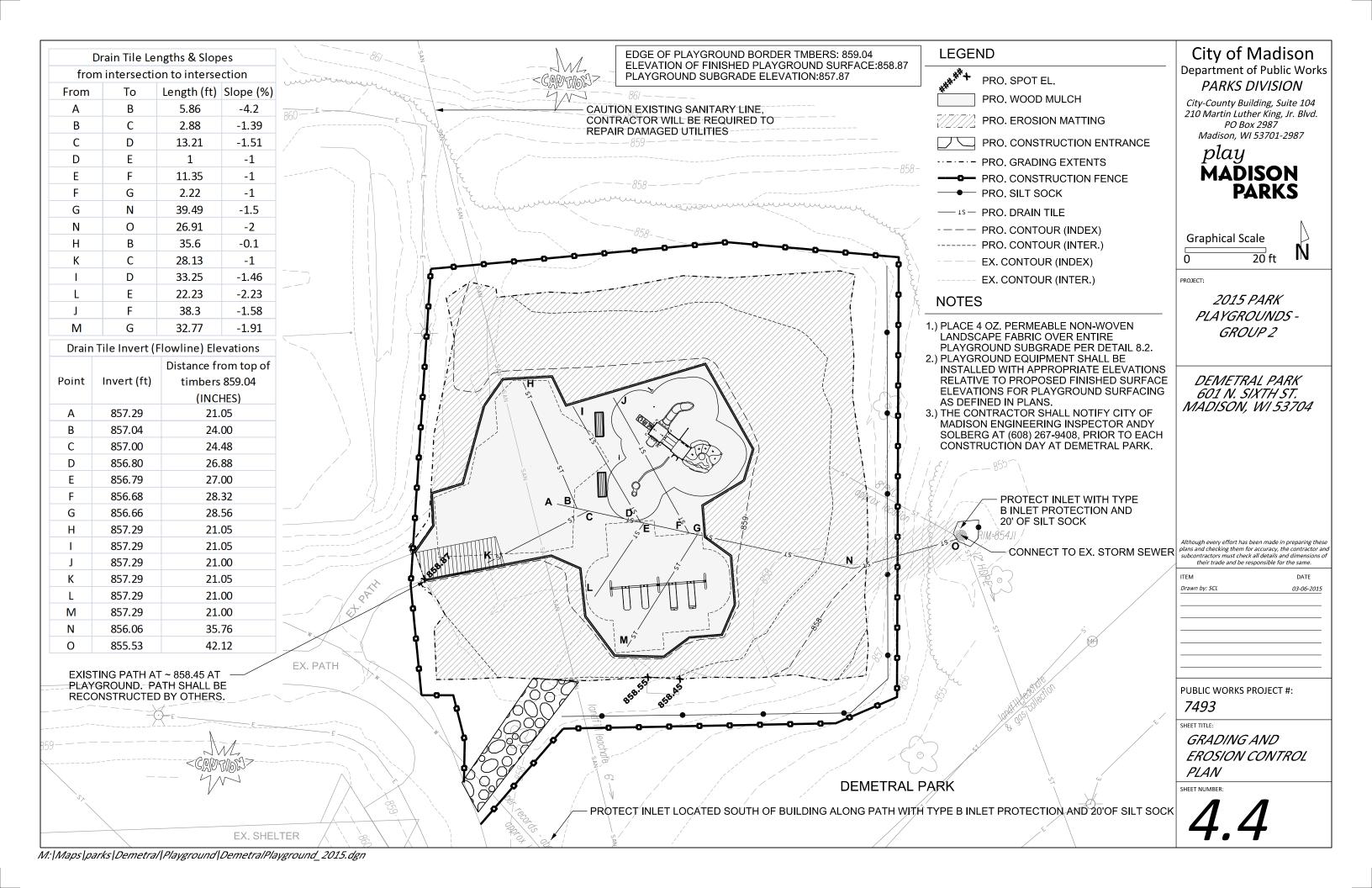
DESIGN CALCULATIONS

Bernie's Beach Park Playground - Earthwork Quantities









	Cviotine	Dometral Common 2011 10 1	22 DlayComb dies								
	Existing	Demetral_Survey2014-10-2	23_PlayComb.dtm								
	Proposed	Pro_1.dtm									
											Factore
				From Surface	To Surface	area		Unfac- tored volume	Unfac- tored volume	Expan- sion Factor	(Uncompacted
ort	Grp	Material	Item	Model	Model	(sq ft)	depth (ft)	(cu ft)	(cu yd)	(%)	(cu yd)
	Grass to										
1.1		Topsoil Excavate	Strip 6in topsoil	n/a	n/a	34	0.50	17	0.6	0%	(
4.0	Grass to	0	Cut subsoil to proposed	F., C:-	D C:			_	0.0	00/	l .
1.2	Grass Grass to	Subsoil Excavate	subgrade Fill subsoil to proposed	Ex-6in	Pro-6in	34	varies	0	0.0	0%	(
1.3		Subsoil Place	subgrade	Ex-6in	Pro-6in	34	varies	-4	-0.1	0%	(
1.5	Grass to	Subsoli i lace	Subgrade	LX-OIII	1 10-0111	34	varies	-4	-0.1	0 70	
1.4		Topsoil Place	Place 6in topsoil	n/a	n/a	34	-0.50	-17	-0.6	0%	-(
	Grass to Play	roposii r idoo	i idee eii tepeeii	1110	1		0.00		0.0	0,0	<u> </u>
3.1	Surface	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	6	0.50	3	0.1	0%	(
	Grass to Play		Cut subsoil to proposed								
3.2	Surface	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	6	varies	3	0.1	0%	(
	Grass to Play		Fill subsoil to proposed								
3.3	Surface	Subsoil Place	subgrade	Ex-6in	Pro-12in	6	varies	0	0.0	0%	(
	Grass to Play										
3.4		Play Surface Place	Place 12in wood mulch	n/a	n/a	6	-1.00	-6	-0.2	0%	-(
	Grass to										
4.1		Topsoil Excavate	Strip 6in topsoil	n/a	n/a	4	0.50	2	0.1	0%	(
	Grass to		Cut subsoil to proposed								
4.2		Subsoil Excavate	subgrade	Ex-6in	Pro-12in	4	varies	2	0.1	0%	(
	Grass to		Fill subsoil to proposed								
4.3	Timbers	Subsoil Place	subgrade	Ex-6in	Pro-12in	4	varies	0	0.0	0%	(
	0	Daniel Timber Diago	Border Timbers (placeholder								
	Grass to	Border Timbers Place	volume to balance volume				4.00		0.4	00/	
4.4		(placeholder volume)	comps)	n/a	n/a	4	-1.00	-4	-0.1	0%	-
5.1	Play Surface to Grass	Dlay Surface Execute	Domoun out 17in non group!	n/a	n/a	6448	1.42	9135	338.3	0%	33
5.1	Play Surface	Play Surface Excavate	Remove est. 17in pea gravel Fill subsoil to proposed	II/a	II/a	0440	1.42	9133	330.3	076	33
5.2	, ,	Subsoil Place	subgrade	Ex-17in	Pro-6in	6448	varies	-8301	-307.4	0%	-30
J.Z	Play Surface	Oubson Flace	Subgrade	LX-17111	1 10-0111	0440	varies	-0301	-307.4	0 70	-50
5.3		Topsoil Place	Place 6in topsoil	n/a	n/a	6448	-0.50	-3224	-119.4	0%	-119
0.0	Play Surface	Topodi Fidoo	i idee eii tepeeii	11/4	11/4	0110	0.00	OLLI	110.1	0,0	
	to Play										
6.1		Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	3733	1.42	5288	195.9	0%	195
	Play Surface	,									
	to Play		Cut subsoil to proposed								
6.2	Surface	Subsoil Excavate	subgrade	Ex-17in	Pro-12in	3733	varies	0	0.0	0%	
	Play Surface										
	to Play		Fill subsoil to proposed								
6.3		Subsoil Place	subgrade	Ex-17in	Pro-12in	3733	varies	-3679	-136.3	0%	-136
	Play Surface										
	to Play										
6.4		Play Surface Place	Place 12in wood mulch	n/a	n/a	3733	-1.00	-3733	-138.3	0%	-13
_	Play Surface				1.	_			_		
7.1		Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	89	1.42	126	4.7	0%	4
7.	Play Surface	Outrail Format	Cut subsoil to proposed	F., 47:	D== 40:			_] .
7.2		Subsoil Excavate	subgrade	Ex-17in	Pro-12in	89	varies	0	0.0	0%	(
7.0	Play Surface	Cubacil Dlag -	Fill subsoil to proposed	Fv. 47:	Dro 40:		veneri	400	2.2	001] ,
7.3	to Timbers	Subsoil Place	subgrade	Ex-17in	Pro-12in	89	varies	-102	-3.8	0%	-(
	Play Surface	Border Timbers Place	Place border timbers (12in tall). Placeholder volume to								
7.4		(placeholder volume)	balance volume comps	n/a	n/a	89	-1.00	-89	-3.3	0%	-:
1.4	to milibera	(piaocholaci volullic)	Drain tile - approx 300 ft x 1ft	11/4	11/4	09	-1.00	-09	-5.5	0 /8	-
8.1	Adjust	Subsoil Excavate	wide x average 2 ft deep	n/a	n/a	300	2.00	600	22.2	0%	22
5.1	,	2 220011 Excavato	Drain tile stone - approx 230		1	555	2.50	550	22.2	5 70	
			ft x 1ft wide x average 2 ft								
			deep (approx - includes								
8.2	Adjust	Drain Tile Stone Place	volume of pipe itself)	n/a	n/a	230	-2.00	-460	-17.0	0%	-1 ⁻
	,		Drain Tile subsoil				-				<u> </u>
			replacement outside								
			playground - approx 70 ft x								
			1ft wide x average 2 ft deep								
			(approx - includes volume of								
8.3	Adjust	Subsoil Place	pipe itself)	n/a	n/a	70	-2.00	-140	-5.2	0%	

	Demetral Park Play	/ground - Farth	work Quant	ities
	City of Madison Public V		Work Quart	
	Date Revised:	2/2/2015		
	Date Neviseu.	2/2/2013		
	Dervied from more detail	ed enreadsheet avoi	lable from Parks	s Div
	Dervied nom more details	eu spieausileet aval	lable IIOIII Faiks	S DIV
	Computation Summar	\ <u>'</u>		
) negative volun	nes are fills (material needed)
	1 ositive volunies are out), negative voidi	(material needed)
ored com-		Sum of Factored		
ted)		(Uncom-pacted)		
ume	Row Labels	Volume (cu yd)		
yd)	Border Timbers Place	volume (cu yu)		
0.6	(placeholder volume)	-3.4		
	Drain Tile Stone Place	-17.0		
0.0	Play Surface Excavate	538.9		
-0.1	Play Surface Place	-138.5		
	Subsoil Excavate	22.4		
-0.6	Subsoil Place	-452.8		
0.1	Topsoil Excavate	0.8		
	Topsoil Place	-120.0		
0.1	Grand Total	-169.7		
0.0	Orana rotar	100.1		
0.0				
-0.2	Net subsoil	-430	cu yd	
0.1	Net topsoil		cu yd	
0.1	Net topsoil & subsoil		cu yd	
0.1			, ,	
0.0				
0.0	Reorganized into bid t	able items		
	<u> </u>			
-0.1	Bid Item	Quantity	Units	Relation to Table Above
338.3				= Subsoil Excavate + Topsoil
	20101 Excavation Cut	23	CY	Excavate .
307.4	20103 Excavation Cut -			
119.4	Pea Gravel	539	CY	= Play Surface Excavate
	20201 Fill	-430	CY	= Subsoil Excavate + Subsoil Place
	20221 Topsoil	719	SY	= (Topsoil Place)/167
195.9				
	40102 Crushed			
0.0	Aggregate Base Course			
	Gradation No. 2 & 3	0	tons	= (Gravel Place) * -2 ton/cubic yard
136.3	40201 3" Depth HMA			= Asphalt Place * -2.16 ton/cubic
	Pavement Type E-0.3	0.0	tons	yard
138.3	90003 Playground			
100.0	Surfacing - Wood			
4.7	Mulch	152	CY	= Play Surface Place * -1.10

City-County Building, Suite 104 210 Martin Luther King, Jr. Blvd. PO Box 2987 Madison, WI 53701-2987

play
MADISON
PARKS

PROJECT:

2015 PARK PLAYGROUNDS -GROUP 2

DEMETRAL PARK 601 N. SIXTH ST. MADISON, WI 53704

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE
Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:

7493

SHEET TITLE:

DESIGN CALCULATIONS

SHEET NUMB

4.5

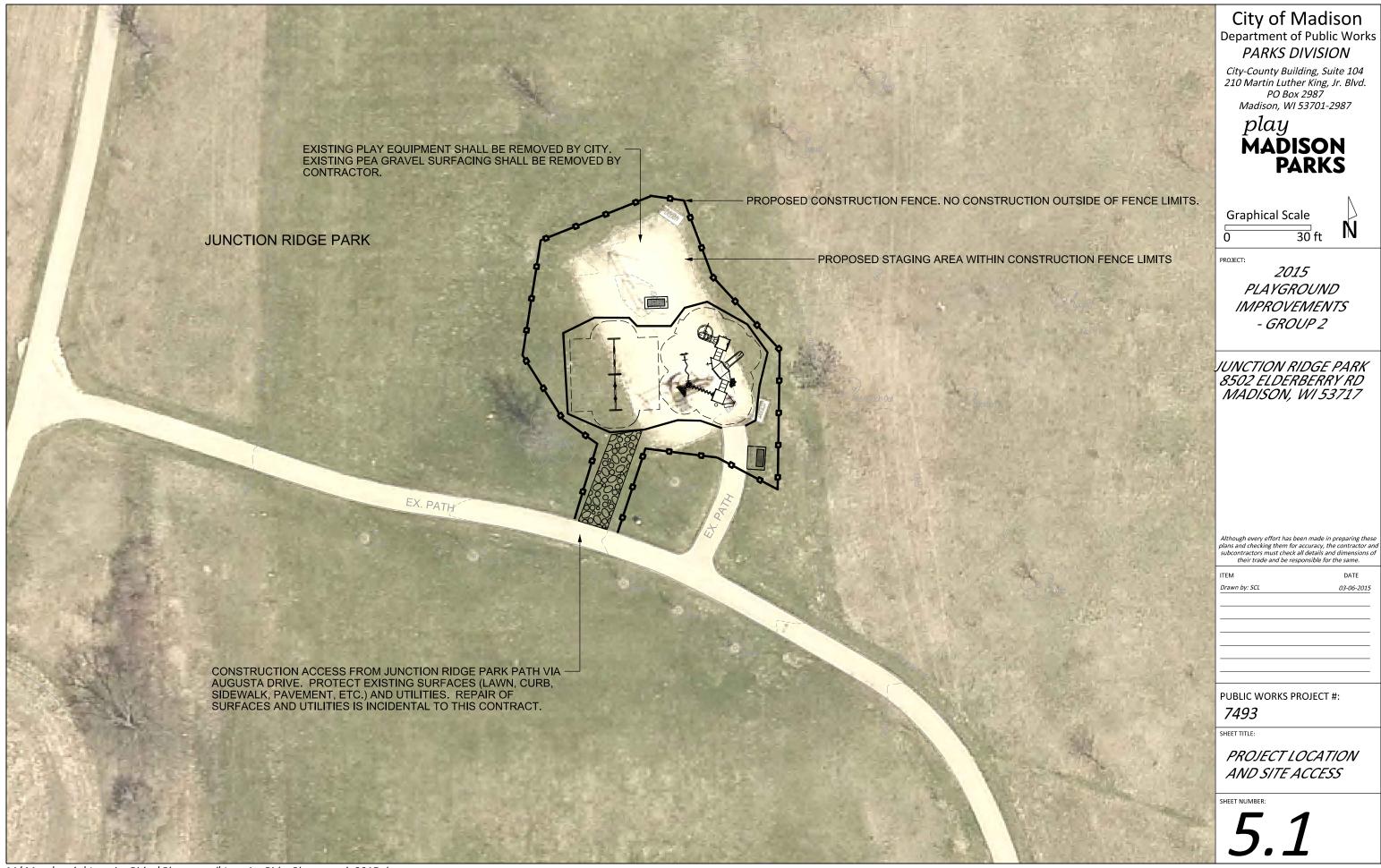
Demetral Park Playground - Earthwork Quantities

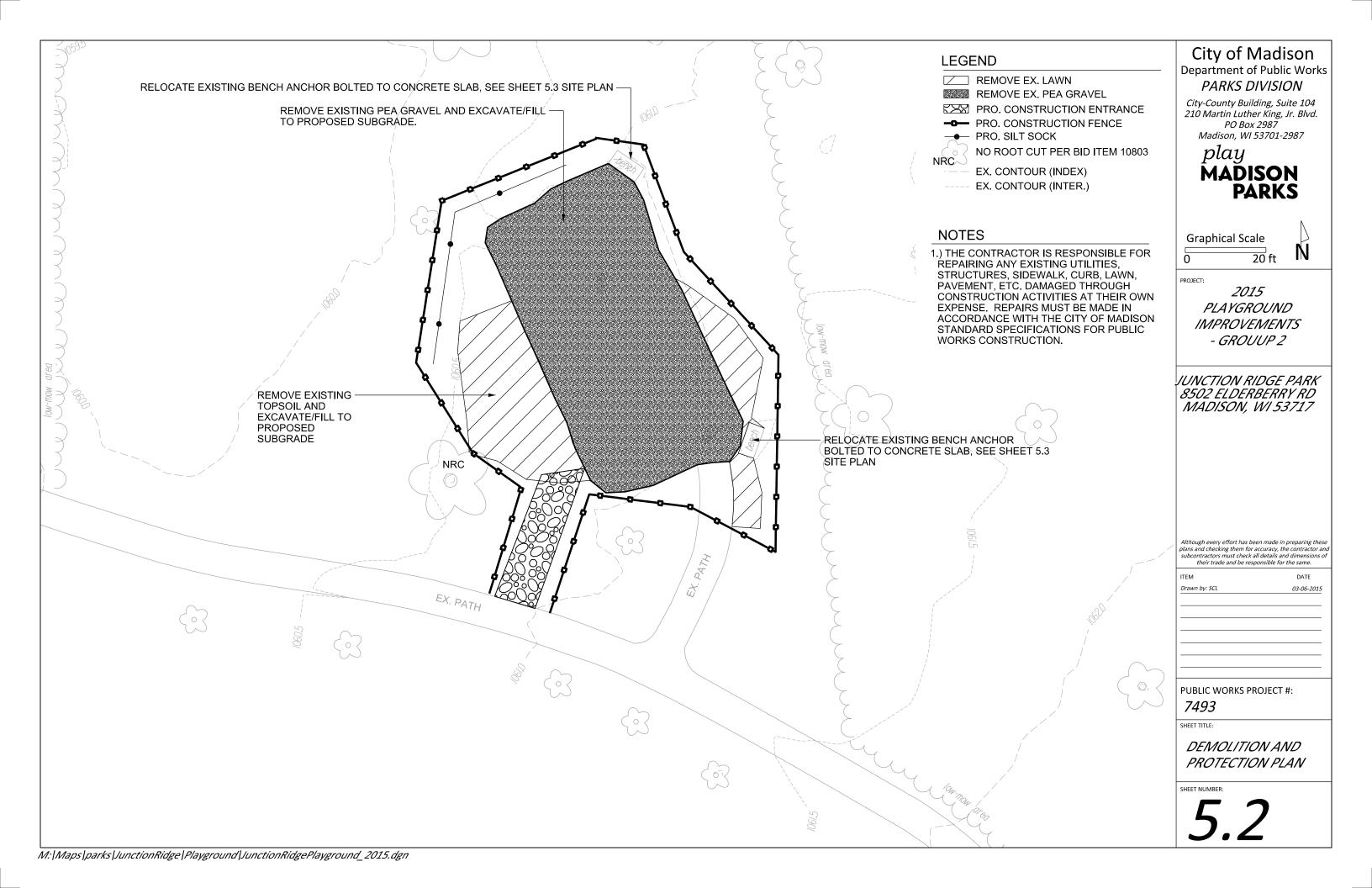
City of Madison Public Works Contract

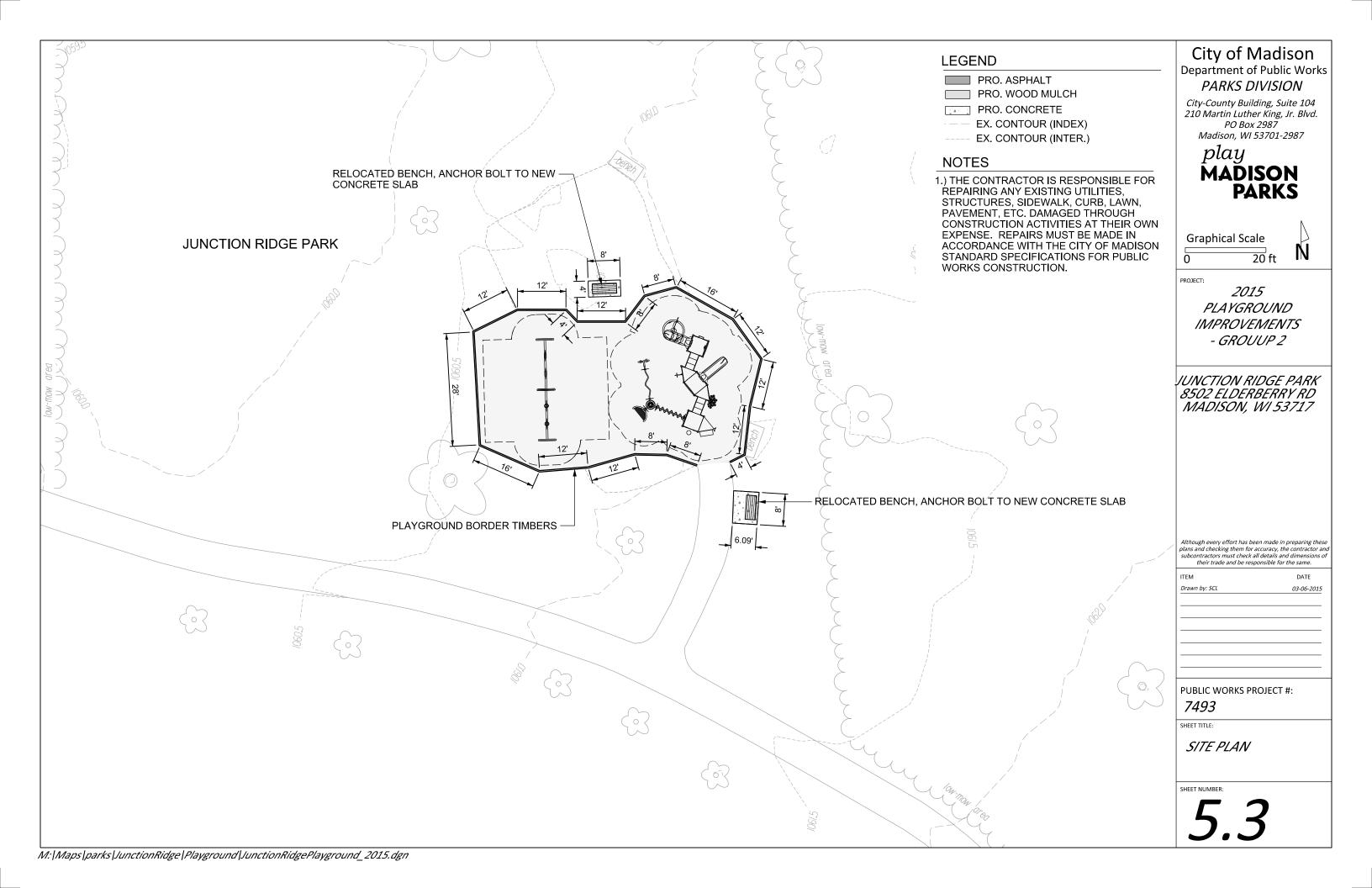
Positive volumes are cuts, negative volumes are fills.

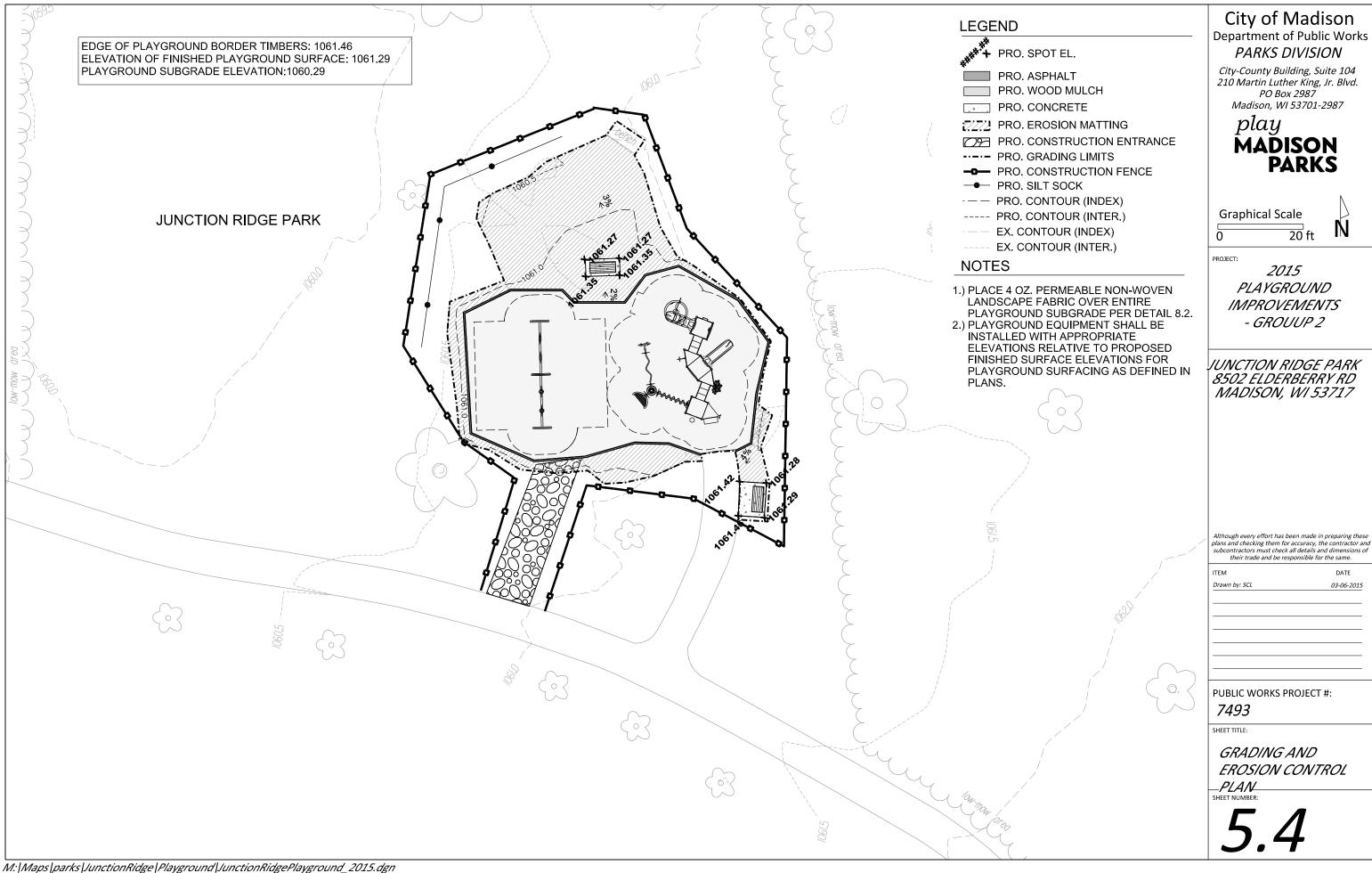
Date Revised:

Notes:









	Notes:		611-								
		es are cuts, negative volu	umes are illis. tal Terrain Models) are used for co	mnutations	or intended	for actual	construction				
	Not all parts of	all surface frioders (Digit	lai Terraiii Woders) are used for co	inputations	or interided	ioi actuai	construction.				
	Existing	Demetral_Survey2014-1	0-23 PlayComb.dtm								
	Proposed	Pro_1.dtm									
		_									
											Factored
								Unfac-	Unfac-	Expan-	(Uncom-
				From	To			tored	tored	sion	pacted)
				Surface	Surface	area		volume	volume	Factor	Volume
Sort	Grp	Material	ltem	Model	Model	(sq ft)	depth (ft)	(cu ft)	(cu yd)	(%)	(cu yd)
			Remove existing concrete								1
	Concrete to		bench pad (assumed 5in	١.	1.						
1.1	Grass	Concrete Excavate	depth)	n/a	n/a	57	0.42	24	0.9	0%	0.9
4.0	Concrete to		Remove existing gravel base	١,	1,		0.50			00/	١.
1.2		Gravel Excavate	(assumed 6in depth)	n/a	n/a	57	0.50	29	1.1	0%	1.1
1.3	Concrete to Grass	Subsoil Excavate	Cut subsoil to proposed	Ex-11in	Pro-6in	57	varios	0	0.0	0%	0.0
1.3	Concrete to	Subsoil Excavate	subgrade Fill subsoil to proposed	EX-11III	PIO-OIII	37	varies	0	0.0	0%	0.0
1.4		Subsoil Place		Ex-11in	Pro-6in	57	varies	-20	-0.7	0%	-0.7
1.4	Concrete to	Subsuit Place	subgrade	⊏X-11III	P10-0111	31	varies	-20	-0.7	0%	-0.
1.5		Topsoil Place	Place 6in topsoil	n/a	n/a	57	-0.50	-29	-1.1	0%	-1.1
1.5	Glass	Topsoil Flace	Remove existing concrete	II/a	11/a	31	-0.50	-29	-1.1	070	-1.
	Concrete to		bench pad (assumed 5in	1							1
2.1		Concrete Excavate	depth)	n/a	n/a	4	0.42	2	0.1	0%	0.
Z. I	Concrete to	Concrete Excavate	Remove existing gravel base	II/a	11/a	-	0.42		0.1	0 70	0.
2.2		Gravel Excavate	(assumed 6in depth)	n/a	n/a	4	0.50	2	0.1	0%	0.
2.2	Concrete to	Glaver Excavate	Cut subsoil to proposed	TI/ G	TI/ a	 	0.00		0.1	070	0.
2.3		Subsoil Excavate	subgrade	Ex-11in	Pro-12in	4	varies	1	0.0	0%	0.0
2.0	Concrete to	Oubson Excavate	Fill subsoil to proposed	LX-TIIII	1 10-12111		varies	'	0.0	070	0.0
2.4		Subsoil Place	subgrade	Ex-11in	Pro-12in	4	varies	0	0.0	0%	0.0
2.7	Concrete to	Cubodii i idoc	Subgrade	_X 11111	1 10 12111		varies		0.0	070	0.0
2.5		Play Surface Place	Place 12in wood chips	n/a	n/a	4	-1.00	-4	-0.1	0%	-0.
	r iay canacc	r lay Carlace r lace	Remove existing concrete	11/4	1114		1.00		0.1	070	<u> </u>
	Concrete to		bench pad (assumed 5in								1
3.1	Timbers	Concrete Excavate	depth)	n/a	n/a	2	0.42	1	0.0	0%	0.0
	Concrete to		Remove existing gravel base		1.0 4				0.0		-
3.2		Gravel Excavate	(assumed 6in depth)	n/a	n/a	2	0.50	1	0.0	0%	0.0
	Concrete to		Cut subsoil to proposed								
3.3	Timbers	Subsoil Excavate	subgrade	Ex-11in	Pro-12in	2	varies	0	0.0	0%	0.0
	Concrete to		Fill subsoil to proposed								
3.4	Timbers	Subsoil Place	subgrade	Ex-11in	Pro-12in	2	varies	0	0.0	0%	0.0
	Concrete to										
3.5	Timbers	Topsoil Place	Place 6in topsoil	n/a	n/a	2	-0.50	-1	0.0	0%	0.0
	Grass to		·								
4.1	Concrete	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	59	0.50	30	1.1	0%	1.1
	Grass to		Cut subsoil to proposed								
4.2	Concrete	Subsoil Excavate	subgrade	Ex-6in	Pro-11in	59	varies	25	0.9	0%	0.9
	Grass to		Fill subsoil to proposed								
4.3	Concrete	Subsoil Place	subgrade	Ex-6in	Pro-11in	59	varies	0	0.0	0%	0.0
	Grass to		Place 6in gravel base out 6in								
4.4		Gravel Place	from pavement edge	n/a	n/a	59	-0.50	-30	-1.1	0%	-1.1
	Grass to										
4.5		Concrete Place	Place 5in concrete	n/a	n/a	49	-0.42	-20	-0.8	0%	-0.8
	Grass to		Place 5in topsoil around 6in								
4.6		Topsoil Place	wide gravel edge	n/a	n/a	10	-0.42	-4	-0.2	0%	-0.2
	Grass to										
5.1		Topsoil Excavate	Strip 6in topsoil	n/a	n/a	300	0.50	150	5.6	0%	5.6
	Grass to		Cut subsoil to proposed								1
5.2		Subsoil Excavate	subgrade	Ex-6in	Pro-6in	300	varies	1	0.0	0%	0.0
	Grass to		Fill subsoil to proposed								ĺ
5.3		Subsoil Place	subgrade	Ex-6in	Pro-6in	300	varies	-78	-2.9	0%	-2.
	Grass to			1.							1
5.4		Topsoil Place	Place 6in topsoil	n/a	n/a	300	-0.50	-150	-5.6	0%	-5.6
	Grass to Play										Ī
6.1		Topsoil Excavate	Strip 6in topsoil	n/a	n/a	883	0.50	442	16.4	0%	16.
	Grass to Play		Cut subsoil to proposed								
6.2		Subsoil Excavate	subgrade	Ex-6in	Pro-12in	883	varies	125	4.6	0%	4.
	Grass to Play		Fill subsoil to proposed								1
6.3		Subsoil Place	subgrade	Ex-6in	Pro-12in	883	varies	-24	-0.9	0%	-0.
	Grass to Play			1.							1
6.4	Surface	Play Surface Place	Place 12in wood mulch	n/a	n/a	883	-1.00	-883	-32.7	0%	-32.7

	Grass to										
7.1	Timbers	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	38	0.50	19	0.7	0%	0.7
	Grass to		Cut subsoil to proposed								
7.2	Timbers	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	38	varies	6	0.2	0%	0.2
	Grass to		Fill subsoil to proposed								
7.3	Timbers	Subsoil Place	subgrade	Ex-6in	Pro-12in	38	varies	-5	-0.2	0%	-0.2
			Border Timbers (placeholder								
	Grass to	Border Timbers Place	volume to balance volume								
7.4	Timbers	(placeholder volume)	comps)	n/a	n/a	38	-1.00	-38	-1.4	0%	-1.4
	Play Surface										
8.1	to Concrete	Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	45	1.42	64	2.4	0%	2.4
	Play Surface		Fill subsoil to proposed								
8.2	to Concrete	Subsoil Place	subgrade	Ex-17in	Pro-11in	45	varies	-58	-2.1	0%	-2.1
	Play Surface		Place 6in gravel base out 6in								
8.3	to Concrete	Gravel Place	from pavement edge	n/a	n/a	45	-0.50	-23	-0.8	0%	-0.8
	Play Surface										
8.4	to Concrete	Concrete Place	Place 5in concrete	n/a	n/a	32	-0.42	-13	-0.5	0%	-0.5
	Play Surface		Place 5in topsoil around 6in								
8.5		Topsoil Place	wide gravel edge	n/a	n/a	13	-0.42	-5	-0.2	0%	-0.2
	Play Surface										
9.1	to Grass	Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	1331	1.42	1886	69.8	0%	69.8
	Play Surface		Fill subsoil to proposed								
9.2	to Grass	Subsoil Place	subgrade	Ex-17in	Pro-6in	1331	varies	-1603	-59.4	0%	-59.4
	Play Surface										
9.3	to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	1331	-0.50	-666	-24.6	0%	-24.6
	Play Surface										
	to Play										
10.1	Surface	Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	1601	1.42	2268	84.0	0%	84.0
	Play Surface										
	to Play		Cut subsoil to proposed								
10.2	Surface	Subsoil Excavate	subgrade	Ex-17in	Pro-12in	1601	varies	0	0.0	0%	0.0
	Play Surface										
	to Play		Fill subsoil to proposed								
10.3	Surface	Subsoil Place	subgrade	Ex-17in	Pro-12in	1601	varies	-1456	-53.9	0%	-53.9
	Play Surface										
	to Play										
10.4	Surface	Play Surface Place	Place 12in wood mulch	n/a	n/a	1601	-1.00	-1601	-59.3	0%	-59.3
	Play Surface										
11.1	to Timbers	Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	25	1.42	35	1.3	0%	1.3
	Play Surface		Cut subsoil to proposed	L							
11.2	to Timbers	Subsoil Excavate	subgrade	Ex-17in	Pro-12in	25	varies	0	0.0	0%	0.0
	Play Surface		Fill subsoil to proposed	L							
11.3	to Timbers	Subsoil Place	subgrade	Ex-17in	Pro-12in	25	varies	-28	-1.0	0%	-1.0
		L	Place border timbers (12in								
		Border Timbers Place	tall). Placeholder volume to	l .						_	
11.4	to Timbers	(placeholder volume)	balance volume comps	n/a	n/a	25	-1.00	-25	-0.9	0%	-0.9

Junction Ridge Park Plays		vork (Quantities
City of Madison Public Works Con	itract		
Date Revised:	2/5/2015		
Dervied from more detailed spreads	sheet available from	Parks	Div
Computation Summary			
Positive volumes are cuts (materia	l available) negative	volum	os are fills (material needed)
r ositive volumes are cuts (materia	available), liegative	volulli	les are illis (material needed)
	Sum of Factored		
	(Uncom-pacted)		
Row Labels	Volume (cu yd)		
Border Timbers Place	voidine (cu yu)		
(placeholder volume)	-2.3		
Concrete Excavate	1.0		
Concrete Place	-1.3		
Gravel Excavate	1.2		
Gravel Place	-1.9		
Play Surface Excavate	157.5		
Play Surface Place	-92.1		
Subsoil Excavate	5.8		
Subsoil Place	-121.2		
Topsoil Excavate	23.7		
Topsoil Place	-31.7		
Grand Total	-61.3		
Grana roan	-01.0		
Net subsoil	-115	cu yd	
Net topsoil	-8	cu yd	
Net topsoil & subsoil	-123	cu yd	
Reorganized into bid table item	ıs		
Bid Item	Quantity	Units	Relation to Table Above
			= Subsoil Excavate + Topsoil
20101 Excavation Cut	32	CY	Excavate
20103 Excavation Cut - Pea			
Gravel	158	CY	= Play Surface Excavate
20201 Fill	115	CY	= Subsoil Excavate + Subsoil Place
20221 Topsoil	190	SY	= (Topsoil Place)/167
90004 Playground Surfacing -			
Wood Mulch	101	CY	= Play Surface Place * -1.10

City-County Building, Suite 104 210 Martin Luther King, Jr. Blvd. PO Box 2987 Madison, WI 53701-2987

play
MADISON
PARKS

PROJECT:

2015 PLAYGROUND IMPROVEMENTS - GROUUP 2

JUNCTION RIDGE PARK 8502 ELDERBERRY RD MADISON, WI 53717

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE
Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:

7493

SHEET TITLE:

DESIGN CALCULATIONS

SHEET NUMB

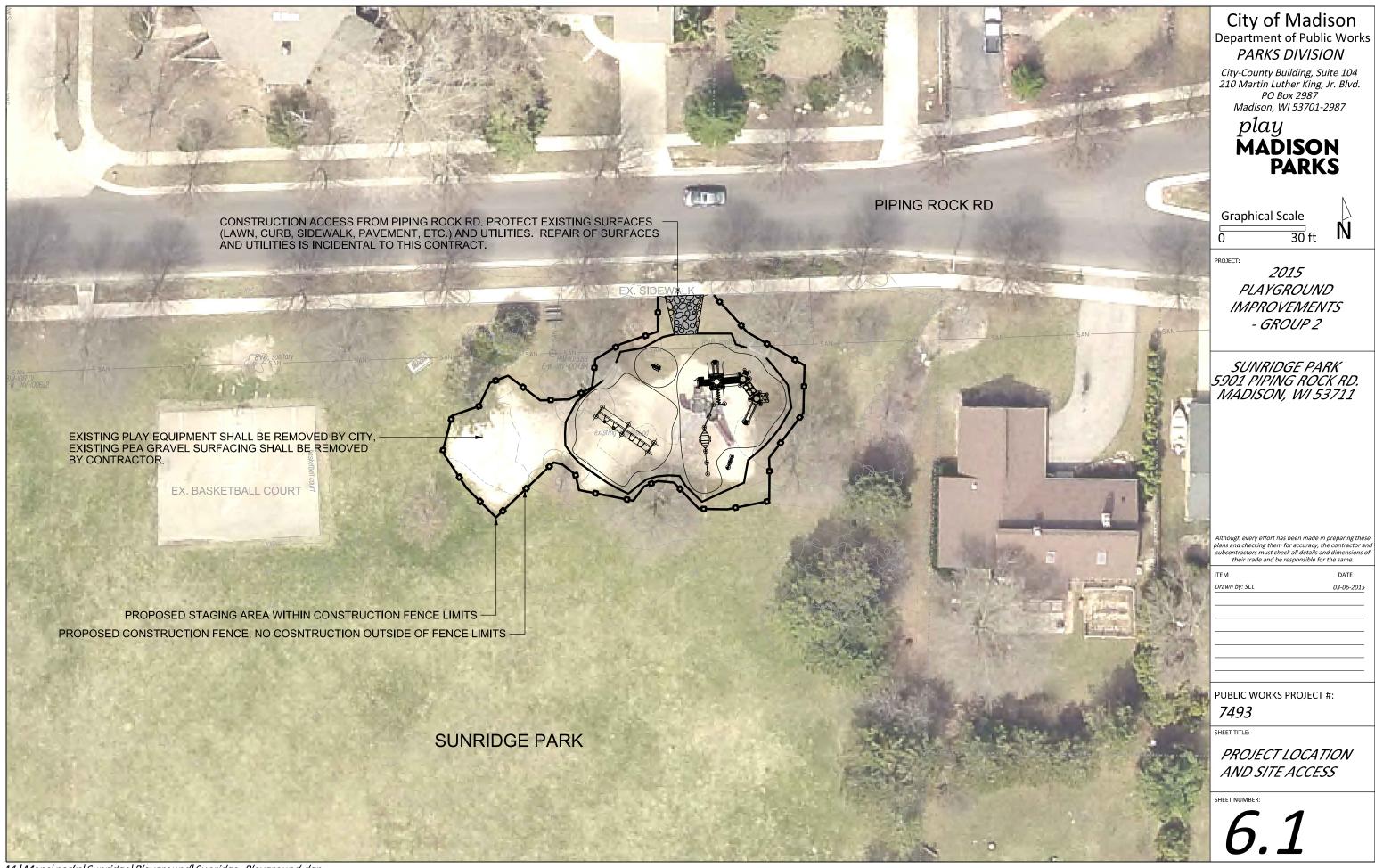
5.5

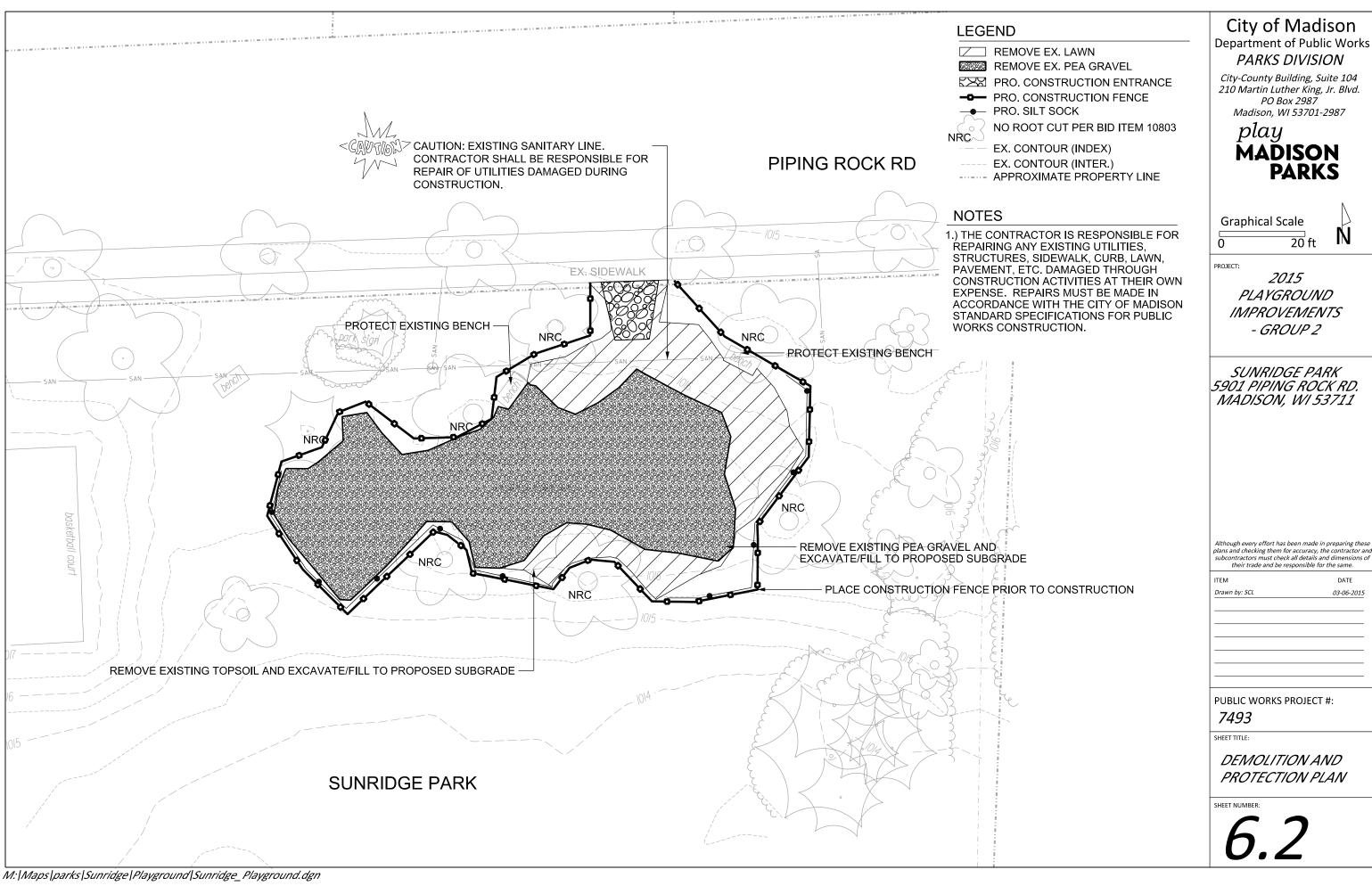
Junction Ridge Park Playground - Earthwork Quantities

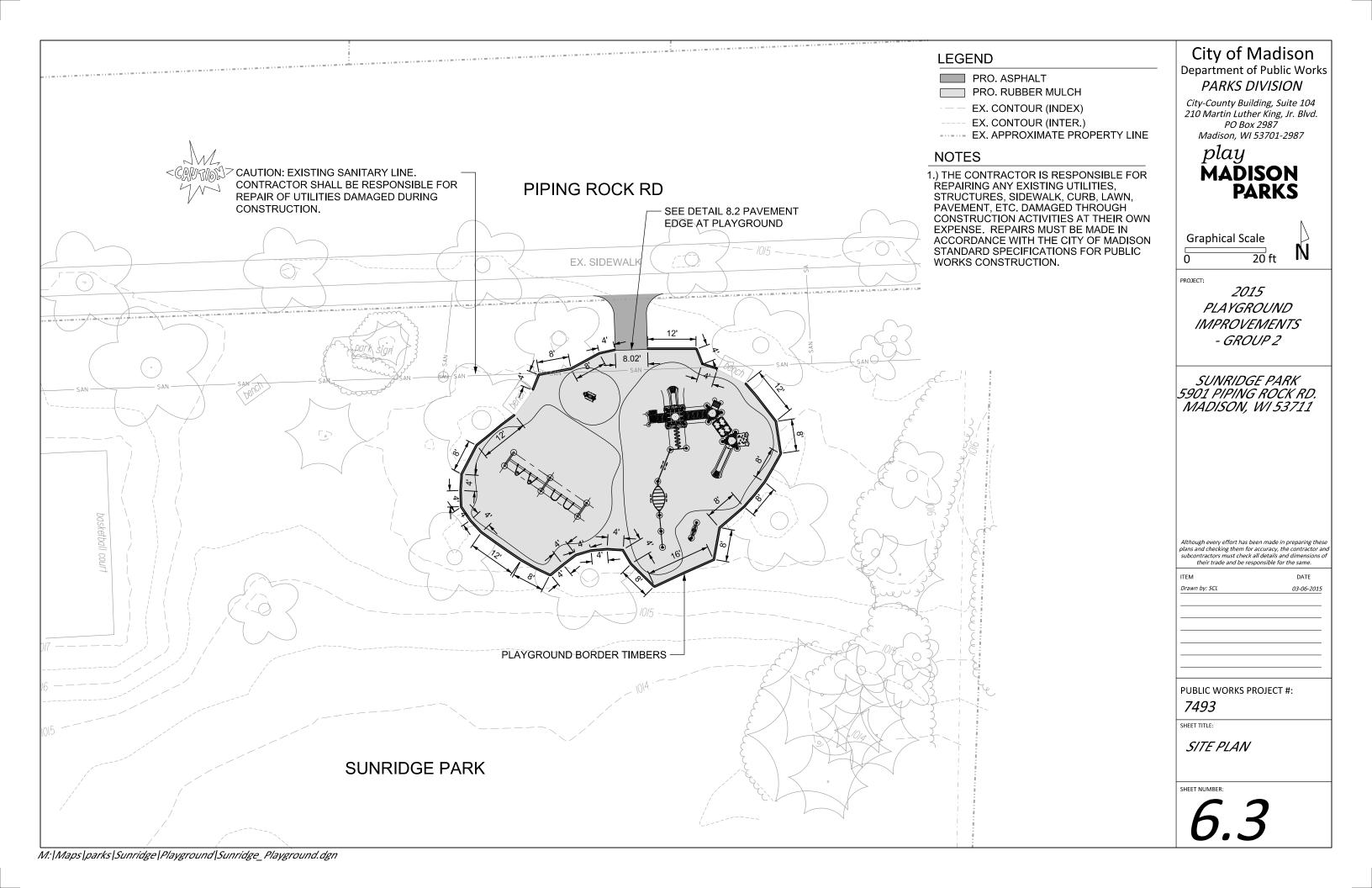
City of Madison Public Works Contract

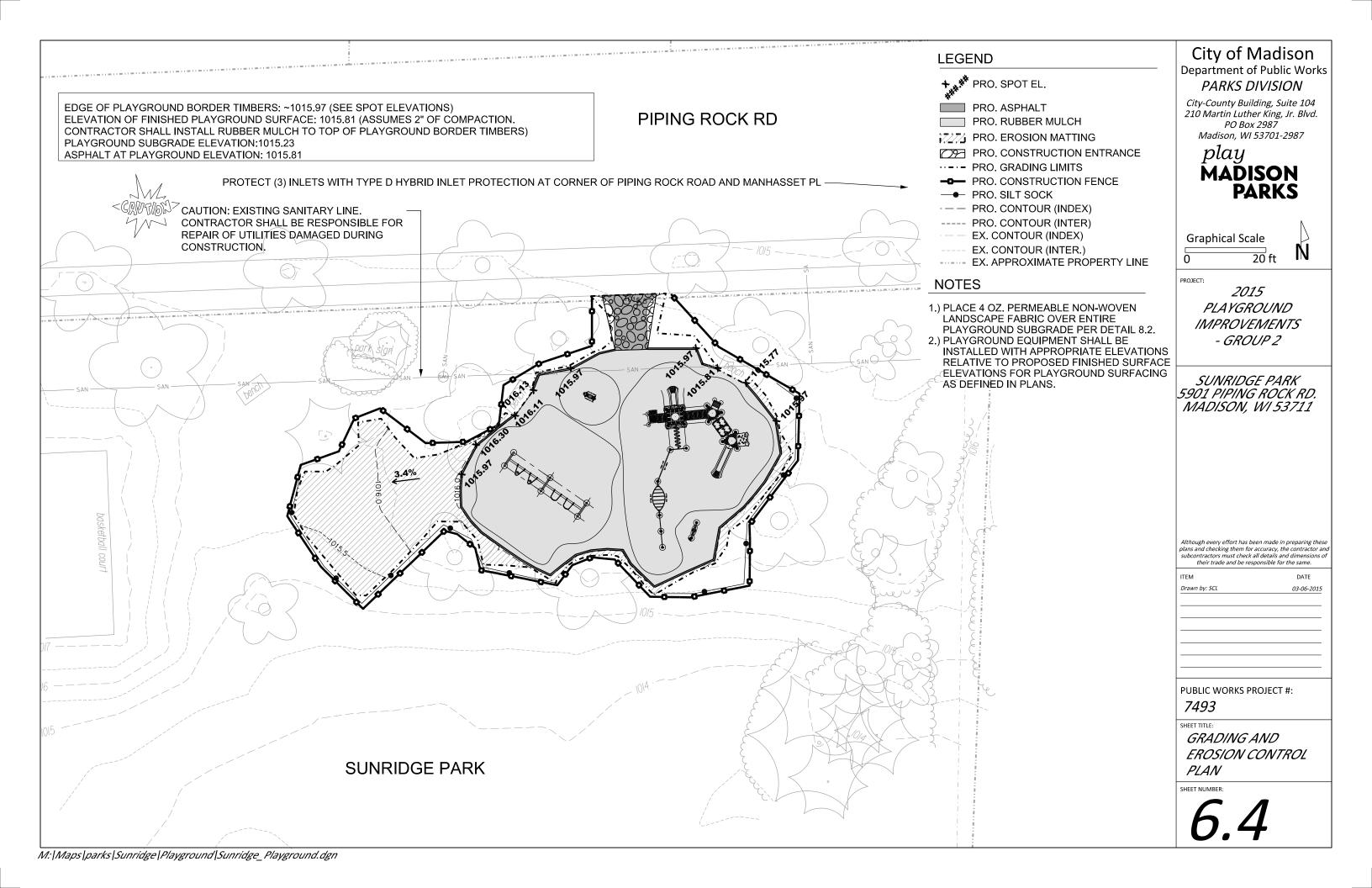
Date Revised:

Notes:









	•	Public Works Contract	-								
	Date Revised:	1/29/201	5								
	Notes:										
		es are cuts, negative volum	nes are fills.								
	Not all parts of	all surface models (Digital	Terrain Models) are used for co	mputations	or intended	for actual	construction.				
		0 11 0 001100	00. #								
	Existing Proposed	Sunridge_Survey2014-08- Pro_1.dtm	28.dtm								
	Порозец	1 10_1.dt111									
											Facto
								Unfac-	Unfac-	Expan-	(Unc
				From	To			tored	tored	sion	pact
	Grp	Material	Item	Surface Model	Surface Model	area (sq ft)	depth (ft)	volume (cu ft)	volume (cu yd)	Factor (%)	Volui (cu y
	Grass to	Material	Rem	Woder	Wode	(54 11)	acpair (it)	(ca n)	(ca ya)	(79)	(ca y
1.1	Asphalt	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	156	0.50	78	2.9	0%	
	Grass to		Cut subsoil to proposed								
1.2	Asphalt	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	156	varies	70	2.6	0%	
1.3	Grass to Asphalt	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	156	varies	0	0.0	0%	
1.3	Aspirali	Subsoil Flace	Place 9in depth gravel base	EX-OIII	F10-12III	130	varies	0	0.0	076	
	Grass to		out to 6in from pavement								
1.4	Asphalt	Gravel (Path) Place	edge	n/a	n/a	156	-0.75	-117	-4.3	0%	
	Grass to		Place 3in asphalt (includes								
1.5	Asphalt Grass to	Asphalt Place	ramp into playground)	n/a	n/a	134	-0.25	-34	-1.2	0%	
1.6	Grass to Asphalt	Topsoil Place	Place 3in topsoil on 6in wide gravel edge	n/a	n/a	22	-0.25	-6	-0.2	0%	
	Grass to		5.2.10. 0490		1		5.20	-	U.Z	1 70	
2.1	Grass	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	250	0.50	125	4.6	0%	
	Grass to		Cut subsoil to proposed								
2.2	Grass to	Subsoil Excavate	subgrade	Ex-6in	Pro-6in	250	varies	20	0.7	0%	
2.3	Grass to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-6in	250	varies	-14	-0.5	0%	
0	Grass to	Capon Flace	Sabgrado		1 10-011	200	va.163	-14	-0.5	0 78	
2.4	Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	250	-0.50	-125	-4.6	0%	
	Grass to Play										
3.1	Surface	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	1112	0.50	556	20.6	0%	- :
3.2	Grass to Play Surface	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-7in	1112	varies	455	16.8	0%	
J.Z	Grass to Play	Subsoil Excavate	Fill subsoil to proposed	EX-OIII	FIO-/III	1112	varies	455	10.0	076	
3.3	Surface	Subsoil Place	subgrade	Ex-6in	Pro-7in	1112	varies	-3	-0.1	0%	
			Place 9in uncompacted								
	Grass to Play		rubber chips (expected to								
3.4	Surface Grass to	Play Surface Place	compact to 7in)	n/a	n/a	1112	-0.58	-649	-24.0	29%	-
4.1	Grass to Timbers	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	47	0.50	24	0.9	0%	
7.1	Grass to	Topson Excavate	Cut subsoil to proposed	II/a	II/a	47	0.50	24	0.3	070	
4.2	Timbers	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	47	varies	27	1.0	0%	
	Grass to		Fill subsoil to proposed								
4.3	Timbers	Subsoil Place	subgrade	Ex-6in	Pro-12in	47	varies	0	0.0	0%	
	Grass to	Border Timbers Place	Border Timbers (placeholder volume to balance volume								
4.4	Timbers	(placeholder volume)	comps)	n/a	n/a	47	-1.00	-47	-1.7	0%	
	Play Surface	(pracerretaer retaine)	00								
5.1	to Grass	Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	1160	1.42	1643	60.9	0%	
	Play Surface		Fill subsoil to proposed								
5.2	to Grass	Subsoil Place	subgrade	Ex-17in	Pro-6in	1160	varies	-1022	-37.9	0%	-:
5.3	Play Surface to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	1160	-0.50	-580	-21.5	0%	-:
٥.٥	Play Surface	TOPOUTT IAUC	r lade our topson	11/4	iva	1 100	-0.00	-500	-21.5	0-76	<u> </u>
	to Play										
6.1	Surface	Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	2085	1.42	2954	109.4	0%	10
	Play Surface										
6 2	to Play Surface	Subsoil Execute	Cut subsoil to proposed	Ev. 17in	Pro-7in	2085	varios	0	0.0	0%	
6.2	Play Surface	Subsoil Excavate	subgrade	Ex-17in	F10-/ IN	2005	varies	0	0.0	0%	
	to Play		Fill subsoil to proposed								
6.3	Surface	Subsoil Place	subgrade	Ex-17in	Pro-7in	2085	varies	-456	-16.9	0%	-
	Play Surface		Place 9in uncompacted								
ه ۾	to Play	Play Surface DI	rubber chips (expected to	n/o	n/c	2005	0.50	4040	AE 0	2004	
6.4	Surface Play Surface	Play Surface Place	compact to 7in)	n/a	n/a	2085	-0.58	-1216	-45.0	29%	-
7.1	to Timbers	Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	16	1.42	23	0.8	0%	
	Play Surface	, I made Endurate	Cut subsoil to proposed		1			20	0.0	1 70	
7.2	to Timbers	Subsoil Excavate	subgrade	Ex-17in	Pro-12in	16	varies	1	0.0	0%	
	Play Surface		Fill subsoil to proposed								
7.3	to Timbers	Subsoil Place	subgrade	Ex-17in	Pro-12in	16	varies	-1	0.0	0%	
	Play Surface	Border Timbers Place	Place border timbers (12in tall). Placeholder volume to								
7.4	to Timbers	(placeholder volume)	balance volume comps	n/a	n/a	16	-1.00	-16	-0.6	0%	
, . T		w- account (all to)	Increase play surface by 1/2			'3	1.00	-10	-5.0	1 70	
			of asphalt ramp gravel base								
			volume = 1/2 x (2.25 ft x 9 ft	[.							
		Play Surface Place	x 7 in)	n/a	n/a	20	-0.29	-6	-0.2	0%	
8.1	Adjust									1	1
8.1	Adjust		Increase subsoil excavate by								
3.1	Adjust		Increase subsoil excavate by 1/2 of asphalt ramp gravel base volume = 1/2 x (2.25 ft								

City of Madison Public Works	Contract		
Date Revised	1/29/2015		
Dervied from more detailed spr	eadsheet available from Parks	Div	
Computation Summary			
Positive volumes are cuts (mat	erial available), negative volume	es are fills (r	naterial needed)
	0 (5 ()(0)	1	
Naw Labala	Sum of Factored (Uncom-		
Row Labels Asphalt Place	pacted) Volume (cu yd) -1.2		
Rorder Timbers Place	-1.2		
placeholder volume)	-2.3		
Gravel (Path) Place	-4.3		
lay Surface Excavate	171.1		
lay Surface Place	-89.0		
ubsoil Excavate	21.4		
Subsoil Place	-55.4		
psoil Excavate	29.0		
opsoil Place	-26.3		
rand Total	42.9		
let subsoil	-34	cu yd	
et topsoil	3	cu yd	
et topsoil & subsoil	-31	cu yd	
Reorganized into bid table i	tems		
id Item	Quantity	Units	Relation to Table Above
			= Subsoil Excavate + Topsoil
0101 Excavation Cut	50	CY	Excavate
0103 Excavation Cut - Pea		.	5, 6, 5
Gravel		CY	= Play Surface Excavate
0201 Fill		CY	= Subsoil Excavate + Subsoil Place
0221 Topsoil	158	SY	= (Topsoil Place)/167
10102 Crushed Aggregate Base Course Gradation No. 2			
		tono	= (Crayol Blood) * 2 tan/auhia ward
& 3 10201 3" Depth HMA	9	tons	= (Gravel Place) * -2 ton/cubic yard = Asphalt Place * -2.16 ton/cubic
Pavement Type E-0.3	2.7	tons	·
0003 Playground Surfacing -	2.1	tons	yard
cubber Mulch	OR	CY	= Play Surface Place * -1.10
AUDDEL MILICIT	1 90	01	- Flay Sullace Flace -1.10

City-County Building, Suite 104 210 Martin Luther King, Jr. Blvd. PO Box 2987 Madison, WI 53701-2987

play
MADISON
PARKS

PROJECT:

2015 PLAYGROUND IMPROVEMENTS - GROUP 2

SUNRIDGE PARK 5901 PIPING ROCK RD. MADISON, WI 53711

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE						
Drawn by: SCL	03-06-2015						

PUBLIC WORKS PROJECT #:

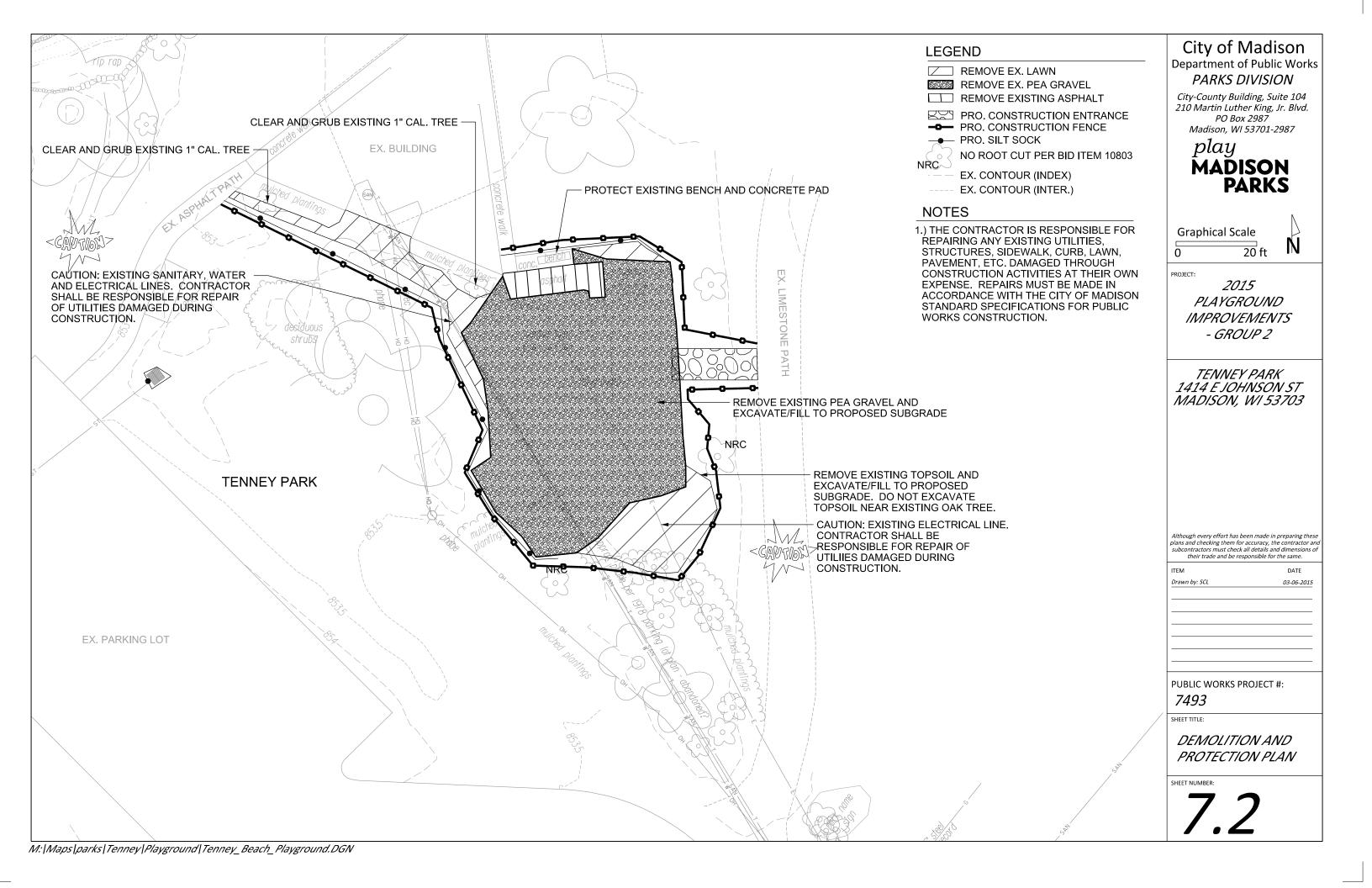
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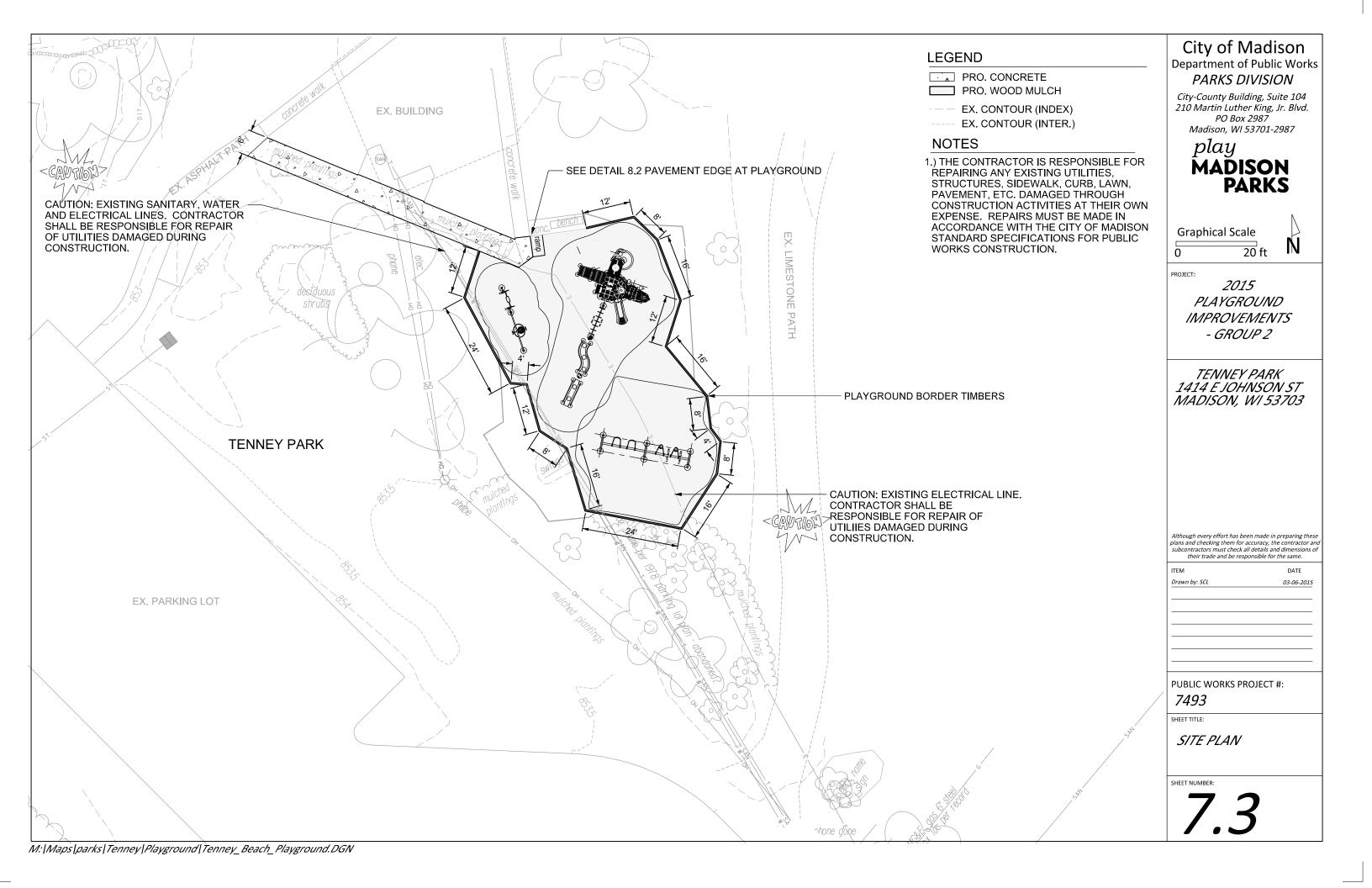
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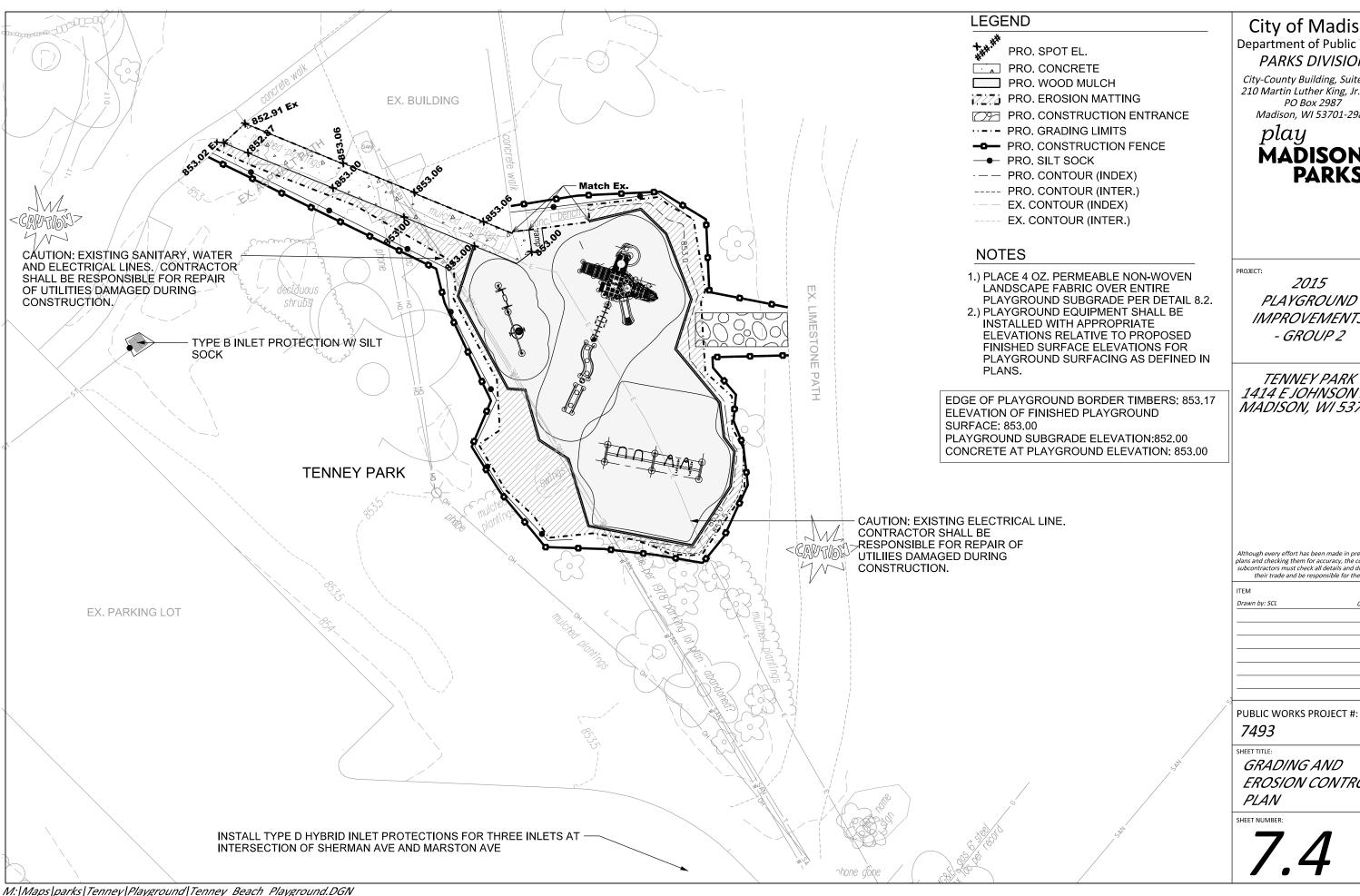
DESIGN CALCULATIONS

SHEET NUMB









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MADISON PARKS

2015 **PLAYGROUND IMPROVEMENTS** - GROUP 2

TENNEY PARK 1414 E JOHNSON ST MADISON, WI 53703

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE
Drawn by: SCL	03-06-2015
	·

GRADING AND **EROSION CONTROL**

												_						_
			I - Earthwork Quantities										Play Surface				sting pea gravel (est. 17 in	
		n Public Works Contract	-									8.1		Play Surface Excavate	depth)		(651. 17 111	n/a
	Date Revised:	2/5/2015	0										Play Surface				to proposed	Ī
	Notes:											8.2		Subsoil Excavate	subgra		o proposed	Ex-17
		es are cuts, negative volume										8.3	Play Surface to Grass	Subsoil Place	subgra		5 proposed	Ex-17
	Not all parts of	all surface models (Digital	Terrain Models) are used for co	mputations of	or intended	for actua	construction.						Play Surface		1 3 1			T
	Existing	Tenney_Surv2013-11-01_B	BeachComb.dtm									8.4		Topsoil Place	Place			n/a
	Proposed	Pro_1.dtm											Play Surface to Play				sting pea gravel	
												9.1		Play Surface Excavate	depth)		(est. 17 in	n/a
								Unfac-	Unfac-	Expan-	Factored (Uncom-		Play Surface	,	127		-	T
				From	To			tored	tored	sion	pacted)		to Play				to proposed	
	_			Surface	Surface	area		volume	volume	Factor	Volume	9.2		Subsoil Excavate	subgra	ade		Ex-17
ort	Grp	Material	Remove estimated 3in	Model	Model	(sq ft)	depth (ft)	(cu ft)	(cu yd)	(%)	(cu yd)		Play Surface to Play		Fill sul	bsoil t	o proposed	
	Asphalt to		asphalt in existing									9.3		Subsoil Place	subgra			Ex-17
1.1		Asphalt Excavate	playground	n/a	n/a	44	0.25	11	0.4	0%	0.4		Play Surface					
	Asphalt to		Remove estimated 6in gravel	,			0.50			20/		04	to Play	Diay Curface Diace			vood mulch play	2/2
1.2	Concrete Asphalt to	Gravel Excavate	base in existing playground Cut subsoil to proposed	n/a	n/a	44	0.50	22	0.8	0%	0.8	9.4	Surface I	Play Surface Place	surface		sting pea gravel	n/a
1.3		Subsoil Excavate	subgrade	Ex-9in	Pro-11in	44	varies	3	0.1	0%	0.1		Play Surface		1		(est. 17 in	
	Asphalt to		Fill subsoil to proposed									10.1		Play Surface Excavate	depth)			n/a
1.4	Concrete	Subsoil Place	subgrade	Ex-9in	Pro-11in	44	varies	0	0.0	0%	0.0	10.0	Play Surface	Pubasil Evanuata			to proposed	Ev. 43
	Asphalt to		Place 6in deep gravel base									10.2	to Timbers S Play Surface	Subsoil Excavate	subgra Fill sub		o proposed	Ex-17
1.5	1 '	Gravel Place	out to 6in from concrete edge	n/a	n/a	44	-0.50	-22	-0.8	0%	-0.8	10.3		Subsoil Place	subgra		. p. sp 3000	Ex-17
	Asphalt to	0	Di Si						_						Place I	border	r timbers	1
1.6	Concrete	Concrete Place	Place 5in concrete Place 5in wood mulch play	n/a	n/a	41	-0.42	-17	-0.6	0%	-0.6	40.		Border Timbers Place	**		to balance	n/-
	Asphalt to		surface on 6in wide gravel									10.4	to Timbers	(placeholder volume)	volume		y surface by 1/2	n/a
1.7		Play Surface Place	edge	n/a	n/a	3	-0.42	-1	0.0	0%	0.0						ramp gravel base	
			Remove estimated 3in												volume		2 x (39 sq ft x	
2.1	Asphalt to Play Surface	Asphalt Excavate	asphalt in existing playground	n/a	n/a	124	0.25	31	1 4	0%	1.1	11.1	Adjust	Play Surface Place	12in)			n/a
۷. ا	Asphalt to	Asphan Excavate	Remove estimated 6in gravel	n/a	n/a	124	0.20	31	1.1	U%	1.1						osoil excavate by ete ramp gravel	
2.2	Play Surface	Gravel Excavate	base in existing playground	n/a	n/a	124	0.50	62	2.3	0%	2.3						e = 1/2 x (39 sq ft	
0.0	Asphalt to	Out il Fue t-	Cut subsoil to proposed	F., 0:-	D 40i-	404		45	0.5	00/	0.5	11.2	Adjust	Subsoil Excavate	x 12in)			n/a
2.3	Play Surface Asphalt to	Subsoil Excavate	subgrade Fill subsoil to proposed	Ex-9in	Pro-12in	124	varies	15	0.5	0%	0.5							
2.4		Subsoil Place	subgrade	Ex-9in	Pro-12in	124	varies	0	0.0	0%	0.0		-	ach Playground -	Earth	wor	k Quantities	;
	Asphalt to		Place 12in wood mulch play									City of		c Works Contract				
2.5		Play Surface Place	surface	n/a	n/a	124	-1.00	-124	-4.6	0%	-4.6		Date Revise	d: 2/5/	2015			
3.1	Grass to Concrete	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	439	0.50	220	8.1	0%	8.1	D	1.6	to the state of th			I. Di	
0.1	Grass to	Topoon Excusate	Cut subsoil to proposed	TI/ G	TIV G	100	0.00	ZZU	0.1	070	0.1	Dervied	from more det	tailed spreadsheet avail	able fro	ım Pa	irks Div	
3.2		Subsoil Excavate	subgrade	Ex-6in	Pro-11in	439	varies	138	5.1	0%	5.1	Comp	utation Summ	arv				
2.2	Grass to	Subseil Blees	Fill subsoil to proposed	Ev Sin	Dro 11in	420	veries	_		00/	0.0			cuts (material available) negat	tive vo	lumes are fills	(mate)
3.3	Concrete	Subsoil Place	subgrade	Ex-6in	Pro-11in	439	varies	0	0.0	0%	0.0	1 031114	e volumes are v	cuts (material available	, negati	.ivc vo	iumes are ims	mater
	Grass to		Place 6in deep gravel base											Sum of Factored				
3.4		Gravel Place	out to 6in from concrete edge	n/a	n/a	439	-0.50	-220	-8.1	0%	-8.1			(Uncom-pacted)				
3.5	Grass to Concrete	Concrete Place	Place 5in concrete	n/a	n/a	405	-0.42	-169	-6.3	0%	-6.3	Row L	abels	Volume (cu yd)				
3.3	Grass to	Concrete Flace	Place 5in topsoil on 6in wide	11/a	II/a	403	-0.42	-109	-0.3	076	-0.3		t Excavate	voiding (ou yu)	1.6			
3.6		Topsoil Place	gravel edge	n/a	n/a	34	-0.42	-14	-0.5	0%	-0.5		Timbers Place					
	Grass to											(placel	nolder volume)		-2.4			
4.1	Grass Grass to	Topsoil Excavate	Strip 6in topsoil Cut subsoil to proposed	n/a	n/a	404	0.50	202	7.5	0%	7.5	Concre	te Place		-7.3			
4.2		Subsoil Excavate	subgrade	Ex-6in	Pro-11in	404	varies	3	0.1	0%	0.1		Excavate		3.1			
	Grass to		Fill subsoil to proposed									Gravel			-9.6			
4.3		Subsoil Place	subgrade	Ex-6in	Pro-11in	404	varies	-75	-2.8	0%	-2.8		urface Excavat		157.1			
4.4	Grass to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	404	-0.50	-202	-7.5	0%	-7.5		urface Place I Excavate		10.0			
	Grass to Play	·											l Place		10.5 -80.6			
5.1		Topsoil Excavate	Strip 6in topsoil	n/a	n/a	447	0.50	224	8.3	0%	8.3		l Excavate		24.5			
5.2	Grass to Play Surface	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-12in	447	varies	99	3.7	0%	3.7	Topsoi			-18.2			
5.2	Grass to Play	Subsoil Excavate	Fill subsoil to proposed	EX-OIII	F10-12III	447	varies	99	3.1	076	3.1	Grand			-31.4			
5.3		Subsoil Place	subgrade	Ex-6in	Pro-12in	447	varies	-9	-0.3	0%	-0.3							
	Grass to Play		Place 12in wood mulch play															
5.4	Surface Grass to	Play Surface Place	surface	n/a	n/a	447	-1.00	-447	-16.6	0%	-16.6	Net su			-70 cı	,		
6.1		Topsoil Excavate	Strip 6in topsoil	n/a	n/a	33	0.50	17	0.6	0%	0.6	Net top				u yd		
	Grass to		Cut subsoil to proposed					· · · · ·	J			Net top	soil & subsoil		-64 cı	u yd		
6.2		Subsoil Excavate	subgrade	Ex-6in	Pro-12in	33	varies	7	0.3	0%	0.3				_			
6.3	Grass to Timbers	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	33	varies	-3	-0.1	0%	-0.1	Pacre	anizod into bi	d table items	+			
0.3	mineis	CADSON I IACE	Place border timbers	_^-JIII	10-12111	33	valles	-3	-0.1	U7/0	-0.1	Reorg	umzeu milo Di	a abic licilis				
	Grass to	Border Timbers Place	(placeholder to balance										Bid Item	Quantity	U	Jnits	Relation	to Ta
6.4	Timbers	(placeholder volume)	volume comps)	n/a	n/a	33	-1.00	-33	-1.2	0%	-1.2			2,00,101	+		= Asphalt Exc	
	Play Surface		Remove existing pea gravel play surface (est. 17 in		1												Excavate + Su	
7.1		Play Surface Excavate	depth)	n/a	n/a	34	1.42	48	1.8	0%	1.8	20101	Excavation Cut	t	40 C		Topsoil Excava	
	Play Surface		Cut subsoil to proposed									20103	Excavation Cut					
7.2		Subsoil Excavate		Ex-17in	Pro-11in	34	varies	0	0.0	0%	0.0	Pea G			157 C		= Play Surface	
	Play Surface to Concrete	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-11in	34	varies	-20	-0.7	0%	-0.7	20201			-70 C		= Subsoil Exc	
72	10 CONCIECE	Cubson Flace	Subgrade	EX-17111	10-11111	34	varies	-20	-0.7	076	-0.7		Topsoil		109 S	Y	= (Topsoil Pla	ce)/1
7.3			Place 6in deep gravel base										Play ground					
	Play Surface			1 /	n/a	34	-0.50	-17	-0.6	0%	-0.6	Surfaci	ng - Wood	1				o Plac
7.3	to Concrete	Gravel Place	out to 6in from concrete edge	n/a	11/4							N / 1 - 1-		1	40410	·V I		120
7.4	to Concrete Play Surface										0.4	Mulch			121 C	Υ	= Play Surface	C I Ido
	to Concrete Play Surface	Gravel Place Concrete Place	Place 5in concrete	n/a n/a	n/a	28	-0.42	-12			-0.4	Mulch			121 C	Υ	= Play Surfac	<u>c i ido</u>
7.4	to Concrete Play Surface										-0.4	Mulch			121 C	Υ	= Play Surfac	c i iac

-11	8.1	to Grass	Play Surface Excavate	depth)	n/a	n/a	551	1.42	781	28.9	0%	28.9
- 1		Play Surface		Cut subsoil to proposed								
-11	8.2	to Grass	Subsoil Excavate	subgrade	Ex-17in	Pro-6in	551	varies	0	0.0	0%	0.0
- 1		Play Surface		Fill subsoil to proposed								
Н	8.3	to Grass	Subsoil Place	subgrade	Ex-17in	Pro-6in	551	varies	-575	-21.3	0%	-21.3
1		Play Surface										
Н	8.4	to Grass	Topsoil Place		n/a	n/a	551	-0.50	-276	-10.2	0%	-10.2
1		Play Surface		Remove existing pea gravel								
П		to Play		play surface (est. 17 in					1			
il	9.1		Play Surface Excavate	depth)	n/a	n/a	2377	1.42	3367	124.7	0%	124.7
П		Play Surface										
П		to Play		Cut subsoil to proposed					1			
П	9.2		Subsoil Excavate	subgrade	Ex-17in	Pro-12in	2377	varies	0	0.0	0%	0.0
П		Play Surface										
11		to Play		Fill subsoil to proposed					ĺ			
Ш	9.3	Surface	Subsoil Place	subgrade	Ex-17in	Pro-12in	2377	varies	-1471	-54.5	0%	-54.5
Ш		Play Surface							1			
П		to Play		Place 12in wood mulch play					ĺ			
Ш	9.4	Surface	Play Surface Place	surface	n/a	n/a	2377	-1.00	-2377	-88.0	0%	-88.0
				Remove existing pea gravel					ĺ			
П		Play Surface		play surface (est. 17 in					ĺ			
١	10.1		Play Surface Excavate		n/a	n/a	33	1.42	47	1.7	0%	1.7
П		Play Surface		Cut subsoil to proposed					ĺ			
П	10.2		Subsoil Excavate	•	Ex-17in	Pro-12in	33	varies	0	0.0	0%	0.0
П		Play Surface		Fill subsoil to proposed					ĺ			
	10.3	to Timbers	Subsoil Place		Ex-17in	Pro-12in	33	varies	-23	-0.9	0%	-0.9
П				Place border timbers					ĺ			
H			Border Timbers Place	(placeholder to balance					1			
Ш	10.4	to Timbers	(placeholder volume)	volume comps)	n/a	n/a	33	-1.00	-33	-1.2	0%	-1.2
П				Increase play surface by 1/2					ĺ			
Ш				of concrete ramp gravel base					ĺ			
				volume = 1/2 x (39 sq ft x					ĺ			
Ш	11.1	Adjust	Play Surface Place	12in)	n/a	n/a	39	-0.50	-20	-0.7	0%	-0.7
Ш				Increase subsoil excavate by					ĺ			
Ш	ļ			1/2 of concrete ramp gravel								
ı			L	base volume = 1/2 x (39 sq ft		1.						
iΙ	11.2	Adjust	Subsoil Excavate	x 12in)	n/a	n/a	39	0.50	20	0.7	0%	0.7

aterial needed)

. commo romanico are ca	(material available), neg	julivo ve	Julies are illis (material needed)
	Cum of England		
Row Labels			
	1.6		
Border Timbers Place			
(placeholder volume)	-2.4		
Concrete Place	-7.3		
Gravel Excavate	3.1		
Gravel Place	-9.6		
Play Surface Excavate	157.1		
Play Surface Place	-110.0		
Subsoil Excavate	10.5		
Subsoil Place	-80.6		
Topsoil Excavate	24.5		
Topsoil Place			
Grand Total	-31.4		
Net topsoil			
Net topsoil & subsoil	-64	cu yd	
Reorganized into bid	table items		
Bid Item	Quantity	Units	Relation to Table Above
			= Asphalt Excavate + Gravel
			Excavate + Subsoil Excavate +
20101 Excavation Cut	40	CY	Topsoil Excavate
Pea Gravel			= Play Surface Excavate
			= Subsoil Excavate + Subsoil Place
	109	SY	= (Topsoil Place)/167
Mulch	121	CY	= Play Surface Place * -1.10
	Row Labe Is Asphalt Excavate Border Timbers Place (placeholder volume) Concrete Place Gravel Excavate Play Surface Excavate Play Surface Place Subsoil Excavate Subsoil Place Topsoil Excavate Topsoil Place Grand Total Net subsoil Net topsoil Net topsoil & subsoil Reorganized into bid Bid Item 20101 Excavation Cut 20103 Excavation Cut 20103 Excavation Cut	Sum of Factored (Uncom-pacted)	Sum of Factored (Uncom-pacted) Row Labels ▼ Volume (cu yd) Asphalt Excavate 1.6 Border Timbers Place (placeholder volume) Concrete Place -7.3 Gravel Excavate 3.1 Gravel Place -9.6 Play Surface Excavate 157.1 Play Surface Place -110.0 Subsoil Excavate 10.5 Subsoil Place -80.6 Topsoil Excavate 24.5 Topsoil Place -18.2 Grand Total -31.4 Net subsoil Place -18.2 Grand Total -31.4 Reorganized into bid table items Bid Item Quantity Units 20101 Excavation Cut 40 CY 20201 Fill -70 CY 20201 Fill -70 CY 202021 Topsoil 90004 Play ground Surfacing - Wood

City of Madison Department of Public Works **PARKS DIVISION**

City-County Building, Suite 104 210 Martin Luther King, Jr. Blvd. PO Box 2987 Madison, WI 53701-2987

play MADISON PARKS

PROJECT:

2015 PLAYGROUND *IMPROVEMENTS* - GROUP 2

TENNEY PARK 1414 E JOHNSON ST MADISON, WI 53703

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

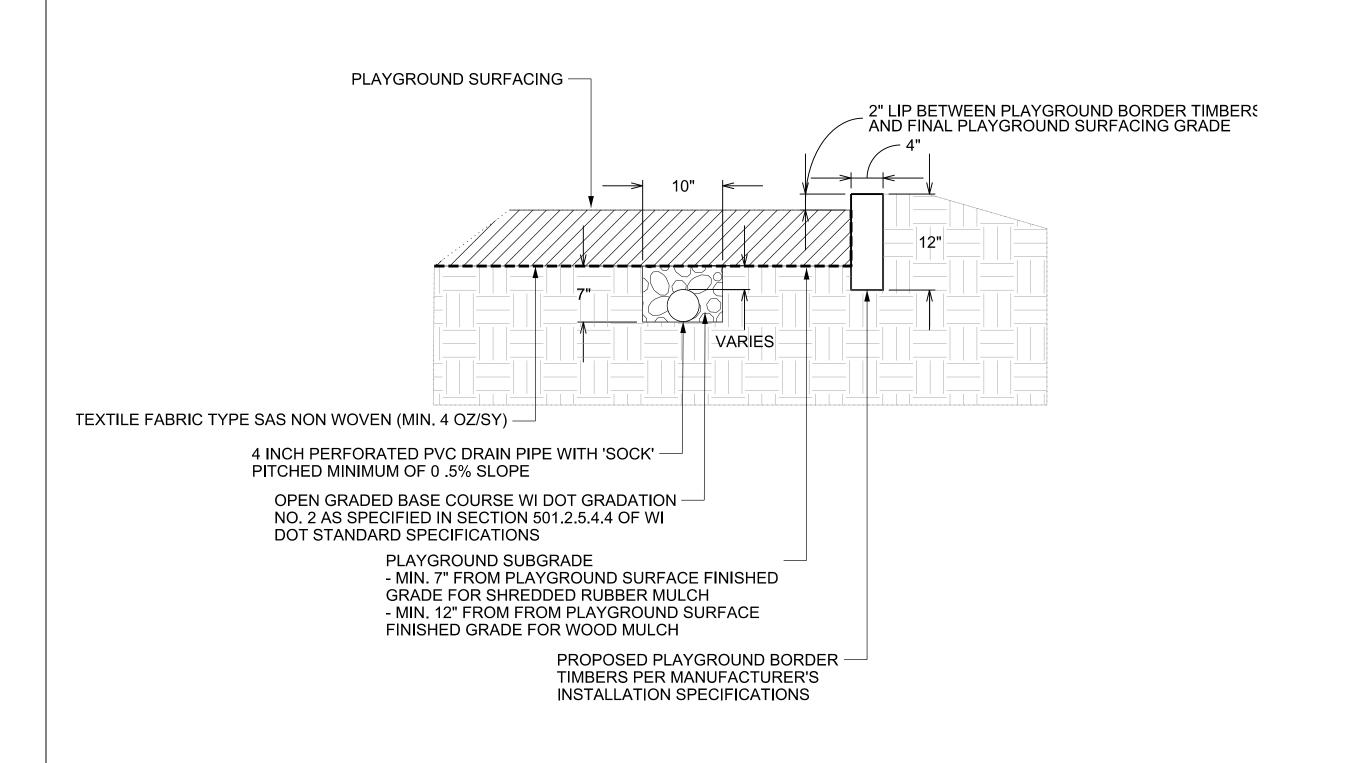
DATE						
03-06-2015						

PUBLIC WORKS PROJECT #: 7493

SHEET TITLE:

DESIGN CALCULATIONS

SHEET NUMBER:



City-County Building, Suite 104 210 Martin Luther King, Jr. Blvd. PO Box 2987 Madison, WI 53701-2987

play
MADISON
PARKS

PROJECT:

2015 PARK PLAYGROUNDS -GROUP 2

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ITEM DATE

Drawn by: SCL/KK 03-06-2015

PUBLIC WORKS PROJECT #:

7439

SHEET TI

TYPICAL PLAYGROUND SURFACING WITH UNDERDRAIN

SHEET NUMBER:

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play MADISON PARKS

PROJECT:

2015 PARK PLAYGROUNDS -GROUP 2

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Drawn by: SCL/KK 03-06-2015

PUBLIC WORKS PROJECT #:

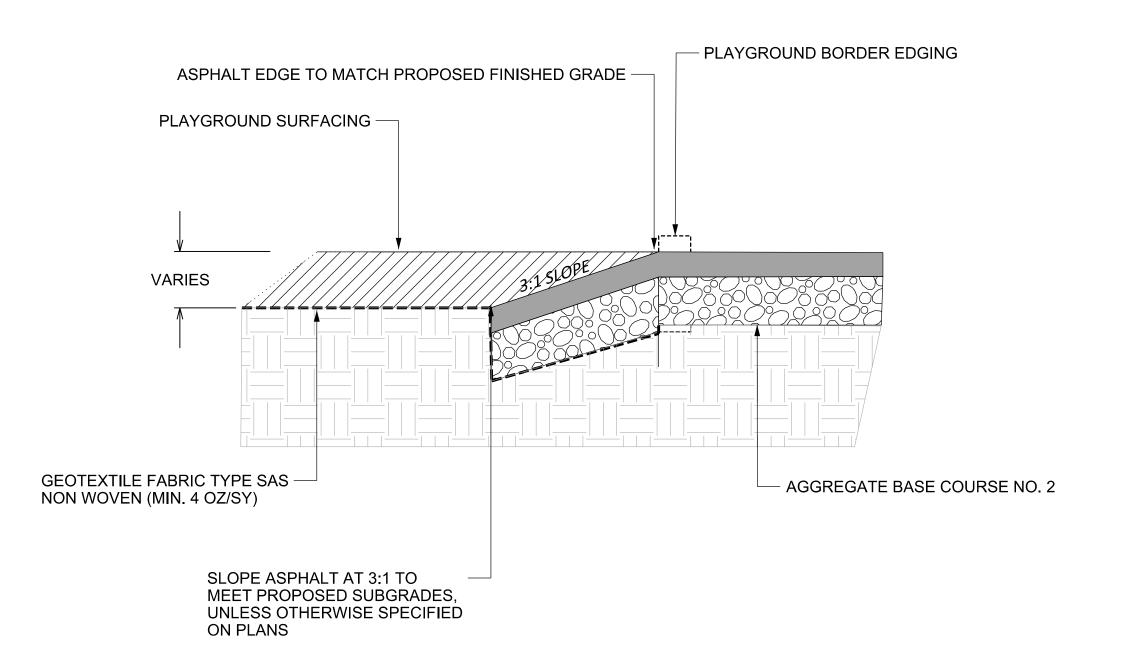
7493

SHEET TI

PAVEMENT EDGE AT PLAYGROUND

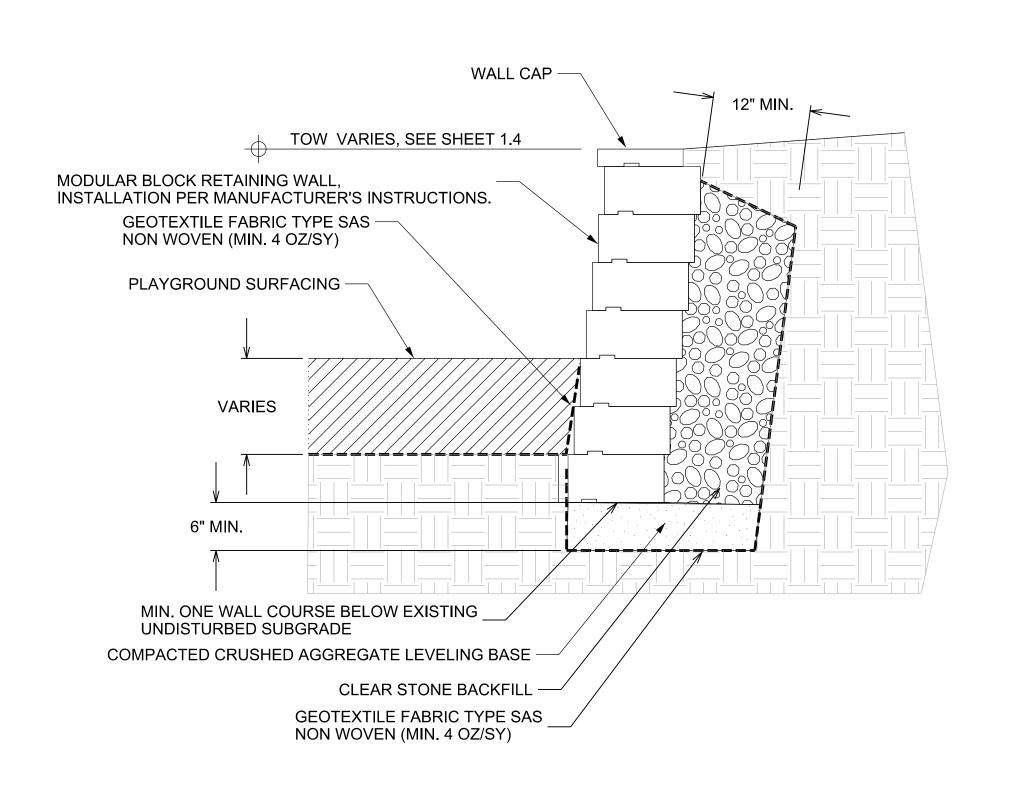
SHEET NUME

8.2



NOTE: AT TENNEY PARK PLAYGROUND THE PAVEMENT EDGE IS CONCRETE, NOT ASPHALT. THE CONTRACTOR SHALL FOLLOW THE ABOVE DETAIL, SLOPING THE CONCRETE AT 3:1 TO MEET PROPOSED SUBGRADES. BASE COURSE MATERIAL AND DEPTHS FOR CONCRETE SHALL FOLLOW THE CITY OF MADISON STANDARD

SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.



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play
MADISON
PARKS

PROJECT:

2015 PARK PLAYGROUNDS -GROUP 2

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ITEM DATE

Drawn by: SCL/KK 03-06-2015

PUBLIC WORKS PROJECT #:

7493

SHEET TITLE:

MODULAR BLOCK
RETAINING WALL

SHEET NUM