

SHEET SCHEDULE

- 1.1 ARBOR HILLS PARK - PROJECT LOCATION AND SITE ACCESS
- 1.2 ARBOR HILLS PARK - DEMOLITION AND PROTECTION PLAN
- 1.3 ARBOR HILLS PARK - SITE PLAN
- 1.4 ARBOR HILLS PARK - GRADING AND EROSION CONTROL PLAN
- 1.5 ARBOR HILLS PARK - PATH HORIZONTAL ALIGNMENT
- 1.6 ARBOR HILLS PARK - DESIGN COMPUTATIONS
  
- 2.1 BADGER PARK - PROJECT LOCATION AND SITE ACCESS
- 2.2 BADGER PARK - DEMOLITION AND PROTECTION PLAN
- 2.3 BADGER PARK - SITE PLAN
- 2.4 BADGER PARK - GRADING AND EROSION CONTROL PLAN
- 2.5 BADGER PARK - DESIGN COMPUTATIONS
  
- 3.1 BERNIE'S BEACH PARK - PROJECT LOCATION AND SITE ACCESS
- 3.2 BERNIE'S BEACH PARK - DEMOLITION AND PROTECTION PLAN
- 3.3 BERNIE'S BEACH PARK - SITE PLAN
- 3.4 BERNIE'S BEACH PARK - GRADING AND EROSION CONTROL PLAN
- 3.5 BERNIE'S BEACH PARK - DESIGN COMPUTATIONS

SHEET SCHEDULE (CONTINUED)

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

SHEET SCHEDULE (CONTINUED)

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

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

*City-County Building, Suite 104  
 210 Martin Luther King, Jr. Blvd.  
 PO Box 2987  
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PROJECT:

*2015 PARK  
 PLAYGROUNDS -  
 GROUP 2*

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.

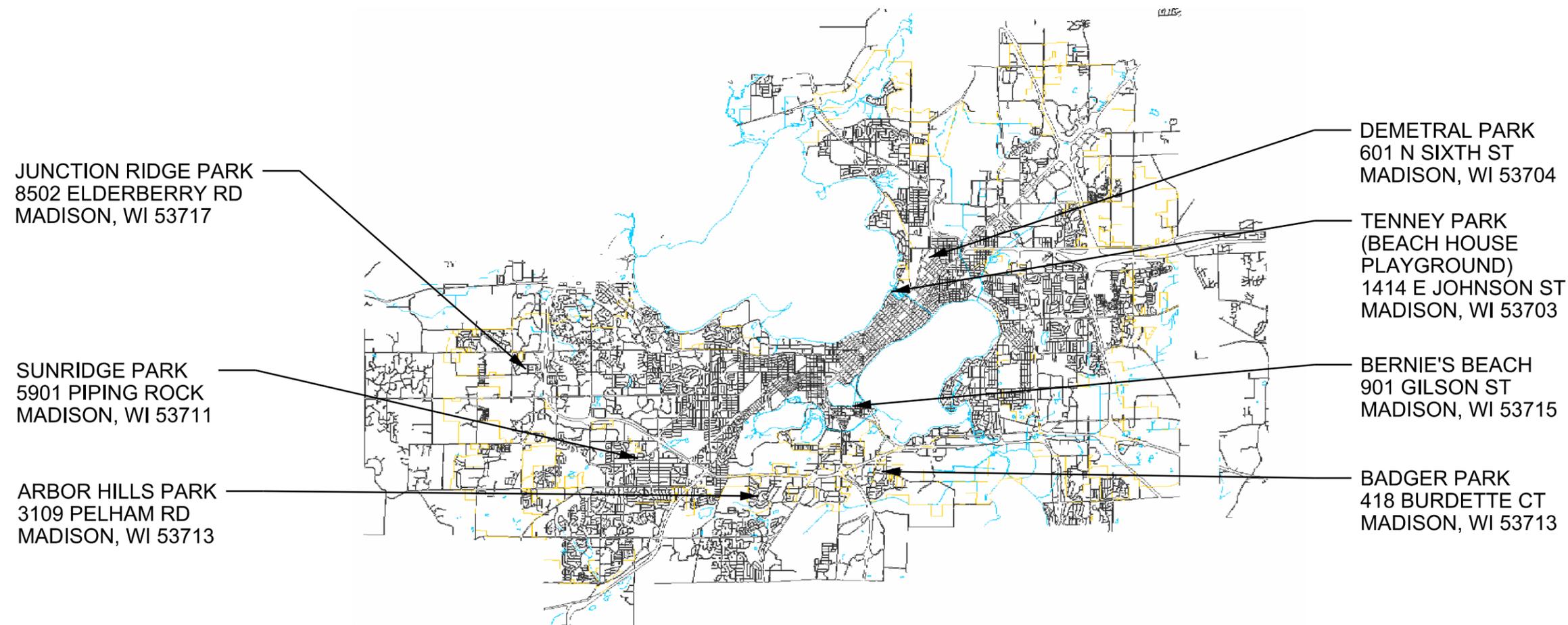
ITEM	DATE
Drawn by: SCL/KK	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

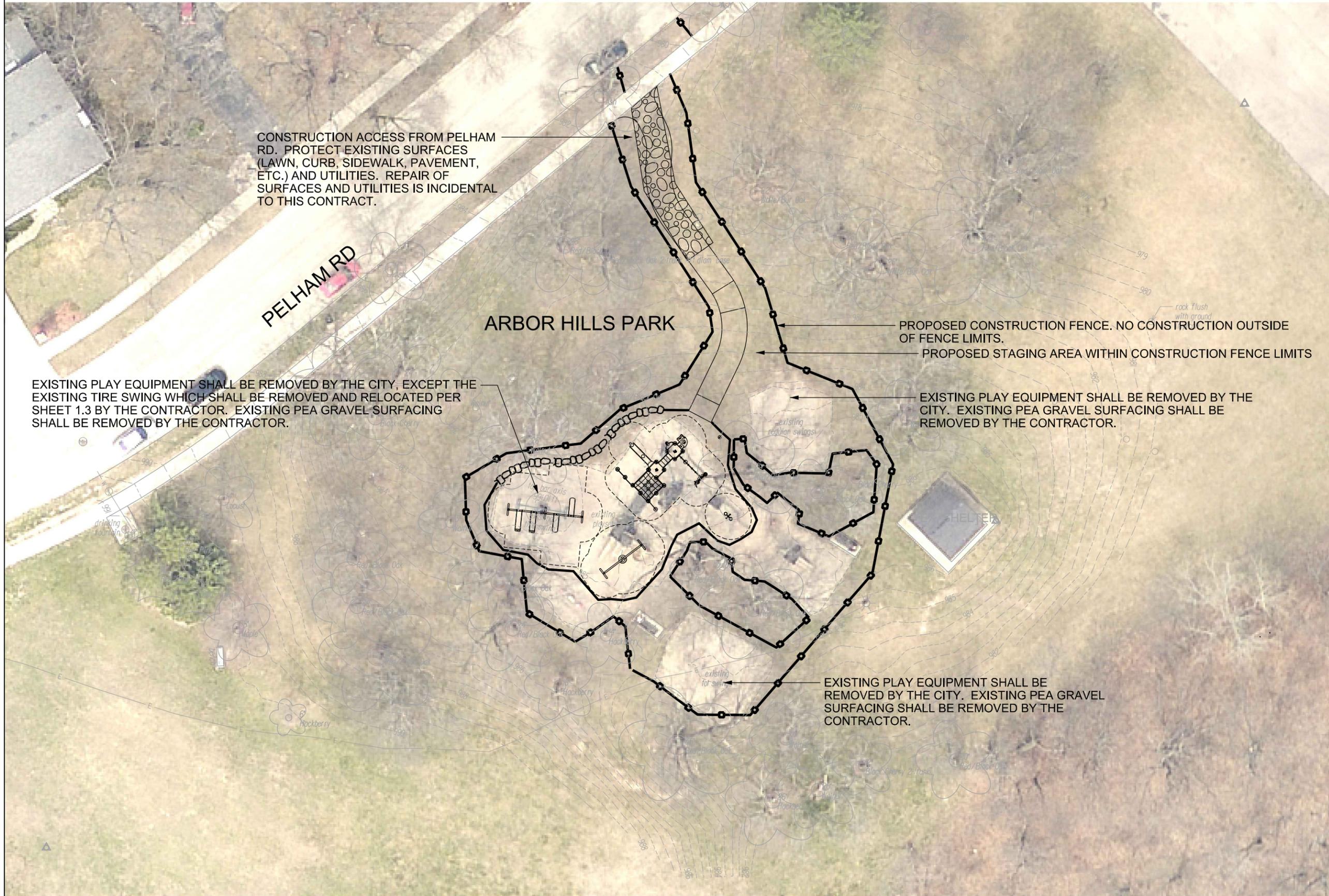
SHEET TITLE:

SHEET NUMBER:

## 2015 PARK PLAYGROUNDS - GROUP 2 CONTRACT 7493



NOTE:  
 1. SITE IS HEAVILY WOODED, THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO ENSURE EXISTING TREES ARE PROTECTED. TREE PROTECTION (NO ROOT CUT BID ITEMS) HAVE BEEN ADDED TO THIS CONTRACT. THE CONTRACTOR SHALL NOT DRIVE OUTSIDE OF CONSTRUCTION FENCE LIMITS.



CONSTRUCTION ACCESS FROM PELHAM RD. PROTECT EXISTING SURFACES (LAWN, CURB, SIDEWALK, PAVEMENT, ETC.) AND UTILITIES. REPAIR OF SURFACES AND UTILITIES IS INCIDENTAL TO THIS CONTRACT.

EXISTING PLAY EQUIPMENT SHALL BE REMOVED BY THE CITY, EXCEPT THE EXISTING TIRE SWING WHICH SHALL BE REMOVED AND RELOCATED PER SHEET 1.3 BY THE CONTRACTOR. EXISTING PEA GRAVEL SURFACING SHALL BE REMOVED BY THE CONTRACTOR.

ARBOR HILLS PARK

PROPOSED CONSTRUCTION FENCE. NO CONSTRUCTION OUTSIDE OF FENCE LIMITS.

PROPOSED STAGING AREA WITHIN CONSTRUCTION FENCE LIMITS

EXISTING PLAY EQUIPMENT SHALL BE REMOVED BY THE CITY. EXISTING PEA GRAVEL SURFACING SHALL BE REMOVED BY THE CONTRACTOR.

EXISTING PLAY EQUIPMENT SHALL BE REMOVED BY THE CITY. EXISTING PEA GRAVEL SURFACING SHALL BE REMOVED BY THE CONTRACTOR.

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*play*  
**MADISON  
 PARKS**

Graphical Scale



PROJECT:  
**2015  
 PLAYGROUND  
 IMPROVEMENTS  
 - GROUP 2**

**ARBOR HILLS PARK  
 3109 PELHAM RD  
 MADISON, WI 53713**

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ITEM	DATE
Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**PROJECT LOCATION  
 AND SITE ACCESS**

SHEET NUMBER:  
**1.1**

PELHAM RD

REMOVE EXISTING TOPSOIL AND EXCAVATE/FILL TO PROPOSED SUBGRADE

ARBOR HILLS PARK

PLACE CONSTRUCTION FENCE PRIOR TO CONSTRUCTION

REMOVE EXISTING PEA GRAVEL AND EXCAVATE/FILL TO PROPOSED SUBGRADE

EXISTING TIRE SWING TO BE RELOCATED BY CONTRACTOR, SEE SHEET 1.1 AND 1.3

PROTECT EXISTING BENCH

CAUTION: EXISTING ELECTRICAL LINE. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF UTILITIES DAMAGED DURING CONSTRUCTION.

PROTECT EXISTING BENCH

LEGEND

-  REMOVE EX. LAWN
-  REMOVE EX. PEA GRAVEL
-  PRO. CONSTRUCTION ENTRANCE
-  PRO. CONSTRUCTION FENCE
-  PRO. SILT SOCK
-  NO ROOT CUT PER BID ITEM 10803
-  EX. CONTOUR (INDEX)
-  EX. CONTOUR (INTER.)

NOTES

1.) THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY EXISTING UTILITIES, STRUCTURES, SIDEWALK, CURB, LAWN, PAVEMENT, ETC. DAMAGED THROUGH CONSTRUCTION ACTIVITIES AT THEIR OWN EXPENSE. REPAIRS MUST BE MADE IN ACCORDANCE WITH THE CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

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*play*  
**MADISON  
PARKS**

Graphical Scale  
0 30 ft 

PROJECT:  
**2015  
PLAYGROUND  
IMPROVEMENTS  
- GROUP 2**

**ARBOR HILLS PARK  
3109 PELHAM RD  
MADISON, WI 53713**

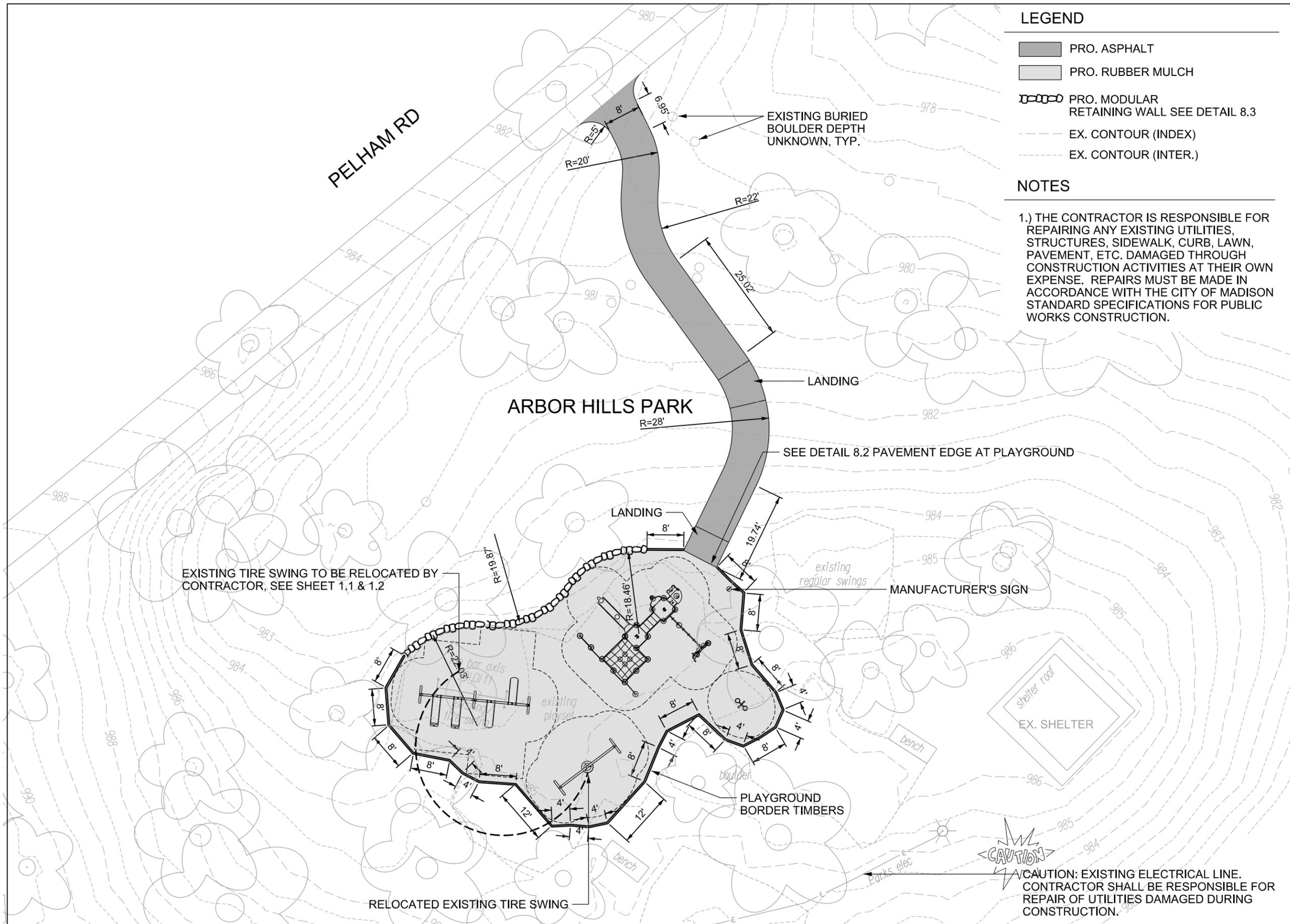
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ITEM	DATE
Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**DEMOLITION AND  
PROTECTION PLAN**

SHEET NUMBER:  
**1.2**



**LEGEND**

- PRO. ASPHALT
- PRO. RUBBER MULCH
- PRO. MODULAR RETAINING WALL SEE DETAIL 8.3
- EX. CONTOUR (INDEX)
- EX. CONTOUR (INTER.)

**NOTES**

1.) THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY EXISTING UTILITIES, STRUCTURES, SIDEWALK, CURB, LAWN, PAVEMENT, ETC. DAMAGED THROUGH CONSTRUCTION ACTIVITIES AT THEIR OWN EXPENSE. REPAIRS MUST BE MADE IN ACCORDANCE WITH THE CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

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*play*  
**MADISON**  
**PARKS**

Graphical Scale  
 0 20 ft



PROJECT:  
**2015**  
**PLAYGROUND**  
**IMPROVEMENTS**  
**- GROUP 2**

**ARBOR HILLS PARK**  
**3109 PELHAM RD**  
**MADISON, WI 53713**

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PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**SITE PLAN**

SHEET NUMBER:  
**1.3**

EDGE OF PLAYGROUND BORDER TIMBERS AND RETAINING WALL: 985.00  
 ELEVATION OF FINISHED PLAYGROUND SURFACE: 984.83 (ASSUMES 2" OF  
 COMPACTION. CONTRACTOR SHALL INSTALL RUBBER MULCH TO 985.00)  
 PLAYGROUND SUBGRADE ELEVATION: 984.25  
 ASPHALT AT PLAYGROUND ELEVATION: 984.83

PELHAM RD

ARBOR HILLS PARK

SEE SHEET 1.5 FOR  
 PROPOSED PATH  
 HORIZONTAL ALIGNMENT

EXISTING BURIED  
 BOULDER DEPTH  
 UNKNOWN, TYP.

LANDING

LANDING  
 existing  
 regular swings

shelter roof  
 EX. SHELTER

CAUTION

CAUTION: EXISTING ELECTRICAL LINE.  
 CONTRACTOR SHALL BE RESPONSIBLE FOR  
 REPAIR OF UTILITIES DAMAGED DURING  
 CONSTRUCTION.

LEGEND

-  PRO. SPOT EL.
-  PRO. ASPHALT
-  PRO. RUBBER MULCH
-  PRO. EROSION MATTING
-  PRO. CONSTRUCTION ENTRANCE
-  PRO. GRADING EXTENTS
-  PRO. CONSTRUCTION FENCE
-  PRO. SILT SOCK
-  PRO. CONTOUR (INDEX)
-  PRO. CONTOUR (INTER.)
-  EX. CONTOUR (INDEX)
-  EX. CONTOUR (INTER.)

NOTES

- 1.) PLACE 4 OZ. PERMEABLE NON-WOVEN LANDSCAPE FABRIC OVER ENTIRE PLAYGROUND SUBGRADE PER DETAIL 8.2.
- 2.) PLAYGROUND EQUIPMENT SHALL BE INSTALLED WITH APPROPRIATE ELEVATIONS RELATIVE TO PROPOSED FINISHED SURFACE ELEVATIONS FOR PLAYGROUND SURFACING AS DEFINED IN PLANS.
- 3.) DESIGN GRADES MEET AMERICAN WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN. CONTRACTOR MUST COMPLY WITH DESIGN GRADES.

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**MADISON  
 PARKS**

Graphical Scale  
 0 20 ft 

PROJECT:  
**2015  
 PLAYGROUND  
 IMPROVEMENTS  
 - GROUP 2**

**ARBOR HILLS PARK  
 3109 PELHAM RD  
 MADISON, WI 53713**

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Approved by:	xx-xx-xxxx

PUBLIC WORKS PROJECT #:  
**7493**

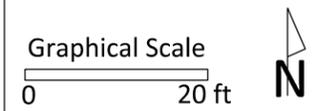
SHEET TITLE:  
**GRADING AND  
 EROSION CONTROL  
 PLAN**

SHEET NUMBER:  
**1.4**

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

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PROJECT:  
 2015  
 PLAYGROUND  
 IMPROVEMENTS  
 - GROUP 2

ARBOR HILLS PARK  
 3109 PELHAM RD  
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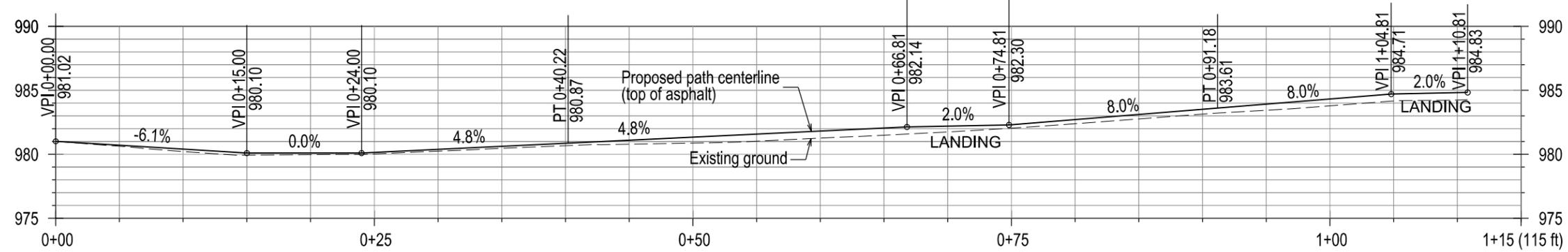
ITEM	DATE
Drawn by: DR	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**PATH HORIZONTAL  
 ALIGNMENT**

SHEET NUMBER:  
**1.5**

**Arbor Hills Park Playground Path (looking to east)**



Arbor Hills Park Playground - Earthwork Quantities											
City of Madison Public Works Contract											
Date Revised: 2/3/2015											
<b>Notes:</b>											
Positive volumes are cuts, negative volumes are fills.											
Not all parts of all surface models (Digital Terrain Models) are used for computations or intended for actual construction.											
Existing	ArborHills_Survey2014-08-28.dtm ("Ex")										
Proposed	Pro_2.dtm										

Sort	Grp	Material	Item	From Surface Model	To Surface Model	area (sq ft)	depth (ft)	Unfactored volume (cu ft)	Unfactored volume (cu yd)	Expansion Factor (%)	Factored (Uncompacted) Volume (cu yd)
1.1	Grass to Asphalt	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	1031	0.50	516	19.1	0%	19.1
1.2	Grass to Asphalt	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-12in	1031	varies	201	7.4	0%	7.4
1.3	Grass to Asphalt	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	1031	varies	-25	-0.9	0%	-0.9
1.4	Grass to Asphalt	Gravel (Path) Place	Place 9in depth gravel base out to 6in from pavement edge	n/a	n/a	1031	-0.75	-773	-28.6	0%	-28.6
1.5	Grass to Asphalt	Asphalt Place	Place 3in asphalt (includes ramp into playground)	n/a	n/a	912	-0.25	-228	-8.4	0%	-8.4
1.6	Grass to Asphalt	Topsoil Place	Place 3in topsoil on 6in wide gravel edge	n/a	n/a	119	-0.25	-30	-1.1	0%	-1.1
2.1	Grass to Grass	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	676	0.50	338	12.5	0%	12.5
2.2	Grass to Grass	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-6in	676	varies	17	0.6	0%	0.6
2.3	Grass to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-6in	676	varies	-109	-4.0	0%	-4.0
2.4	Grass to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	676	-0.50	-338	-12.5	0%	-12.5
3.1	Grass to Play Surface	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	426	0.50	213	7.9	0%	7.9
3.2	Grass to Play Surface	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-7in	426	varies	48	1.8	0%	1.8
3.3	Grass to Play Surface	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-7in	426	varies	-108	-4.0	0%	-4.0
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%	-11.8
4.1	Grass to Timbers	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	25	0.50	13	0.5	0%	0.5
4.2	Grass to Timbers	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-12in	25	varies	9	0.3	0%	0.3
4.3	Grass to Timbers	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	25	varies	-2	-0.1	0%	-0.1
4.4	Grass to Timbers	Border Timbers Place (placeholder volume)	Border Timbers (placeholder volume to balance volume comps)	n/a	n/a	25	-1.00	-25	-0.9	0%	-0.9
5.1	Grass to Wall	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	144	0.50	72	2.7	0%	2.7
5.2	Grass to Wall	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	982.71ft	144	varies	118	4.4	0%	4.4
5.3	Grass to Wall	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	982.71ft	144	varies	0	0.0	0%	0.0
5.4	Grass to Wall	Gravel (Wall) Place	Place 6in gravel base under wall & out 6in on front & sides up to bottom of proposed topsoil	n/a	n/a	144	varies	-92	-3.4	0%	-3.4
5.5	Grass to Wall	Gravel (Wall) Place	Place 12in wide gravel in back of wall up to play subgrade	n/a	n/a	51	-1.04	-53	-2.0	0%	-2.0
5.6	Grass to Wall	Wall Place (placeholder volume)	Place block retaining wall (placeholder volume to balance volume comps)	n/a	n/a	61	-1.79	-109	-4.0	0%	-4.0
5.7	Grass to Wall	Topsoil Place	Place 6in topsoil on 12in wide gravel behind retaining wall	n/a	n/a	32	-0.50	-16	-0.6	0%	-0.6
5.8	Grass to Wall	Play Surface Place	Place 9in uncompacted rubber chips (expected to compact to 7in)	n/a	n/a	51	-0.58	-30	-1.1	29%	-1.4
5.9	Grass to Wall	(placeholder volume)	Placeholder to reconcile retaining wall volumes with overall DTM difference because proposed DTM doesn't fully model wall	n/a	n/a	144	varies	27	1.0	0%	1.0
6.1	Play Surface to Grass	Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	1161	1.42	1645	60.9	0%	60.9
6.2	Play Surface to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-6in	1161	varies	-1177	-43.6	0%	-43.6
6.3	Play Surface to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	1161	-0.50	-581	-21.5	0%	-21.5

Row Labels	Sum of Factored (Uncompacted) Volume (cu yd)
(placeholder volume)	1.0
Asphalt Place	-8.4
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
<b>Grand Total</b>	<b>-55.9</b>

Bid Item	Quantity	Units	Relation to Table Above
20101 Excavation Cut	58	CY	= Subsoil Excavate + Topsoil 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) * -1.67
40102 Crushed Aggregate Base Course Gradation No. 2 & 3	57	tons	= (Gravel Place) * -2 ton/cubic yard
40201 3" Depth HMA Pavement Type E-0.3	18.2	tons	= Asphalt Place * -2.16 ton/cubic yard
90004 Playground Surfacing - Rubber	94	CY	= Play Surface Place * -1.10

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*play*  
**MADISON PARKS**

PROJECT:  
**2015 PLAYGROUND IMPROVEMENTS - GROUP 2**

**ARBOR HILLS PARK**  
**3109 PELHAM RD**  
**MADISON, WI 53713**

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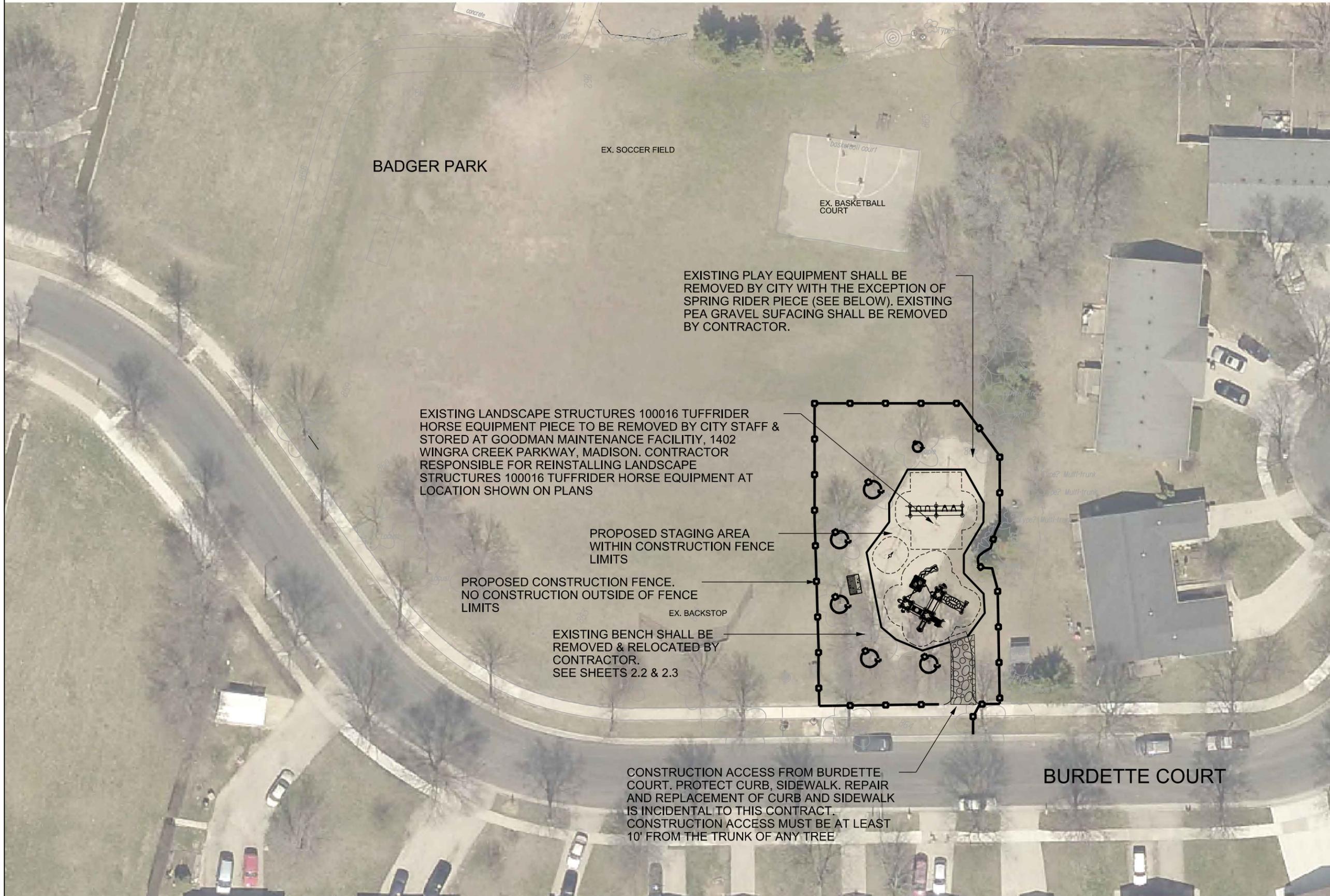
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Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**DESIGN COMPUTATIONS**

SHEET NUMBER:  
**1.6**

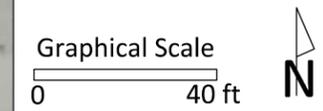
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*play*  
**MADISON  
 PARKS**



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	01-07-2015
Approved by:	xx-xx-xxxx

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**PROJECT LOCATION  
 AND SITE ACCESS**

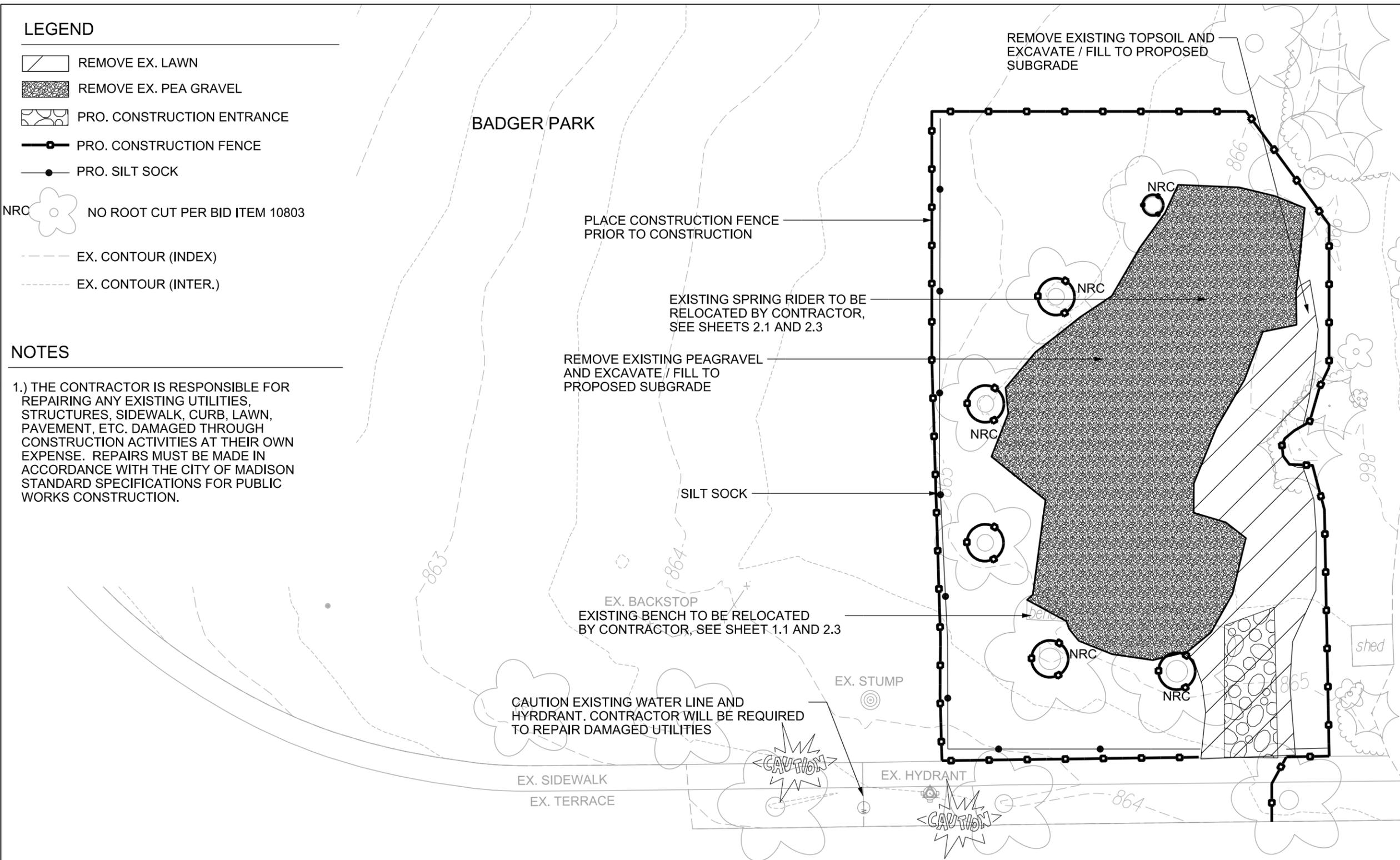
SHEET NUMBER:  
**2.1**

**LEGEND**

-  REMOVE EX. LAWN
-  REMOVE EX. PEA GRAVEL
-  PRO. CONSTRUCTION ENTRANCE
-  PRO. CONSTRUCTION FENCE
-  PRO. SILT SOCK
-  NRC NO ROOT CUT PER BID ITEM 10803
-  EX. CONTOUR (INDEX)
-  EX. CONTOUR (INTER.)

**NOTES**

1.) THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY EXISTING UTILITIES, STRUCTURES, SIDEWALK, CURB, LAWN, PAVEMENT, ETC. DAMAGED THROUGH CONSTRUCTION ACTIVITIES AT THEIR OWN EXPENSE. REPAIRS MUST BE MADE IN ACCORDANCE WITH THE CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.



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*play*  
**MADISON**  
**PARKS**

Graphical Scale

0 20 ft



PROJECT:

*2015*  
**PLAYGROUND**  
**IMPROVEMENTS**  
 - GROUP 3

*BADGER PARK*  
**418 BURDETTE COURT**  
**MADISON, WI 53713**

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ITEM	DATE
Drawn by: KK	1-02-2015
Approved by:	xx-xx-xxxx

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**DEMOLITION AND**  
**PROTECTION PLAN**

SHEET NUMBER:  
**2.2**

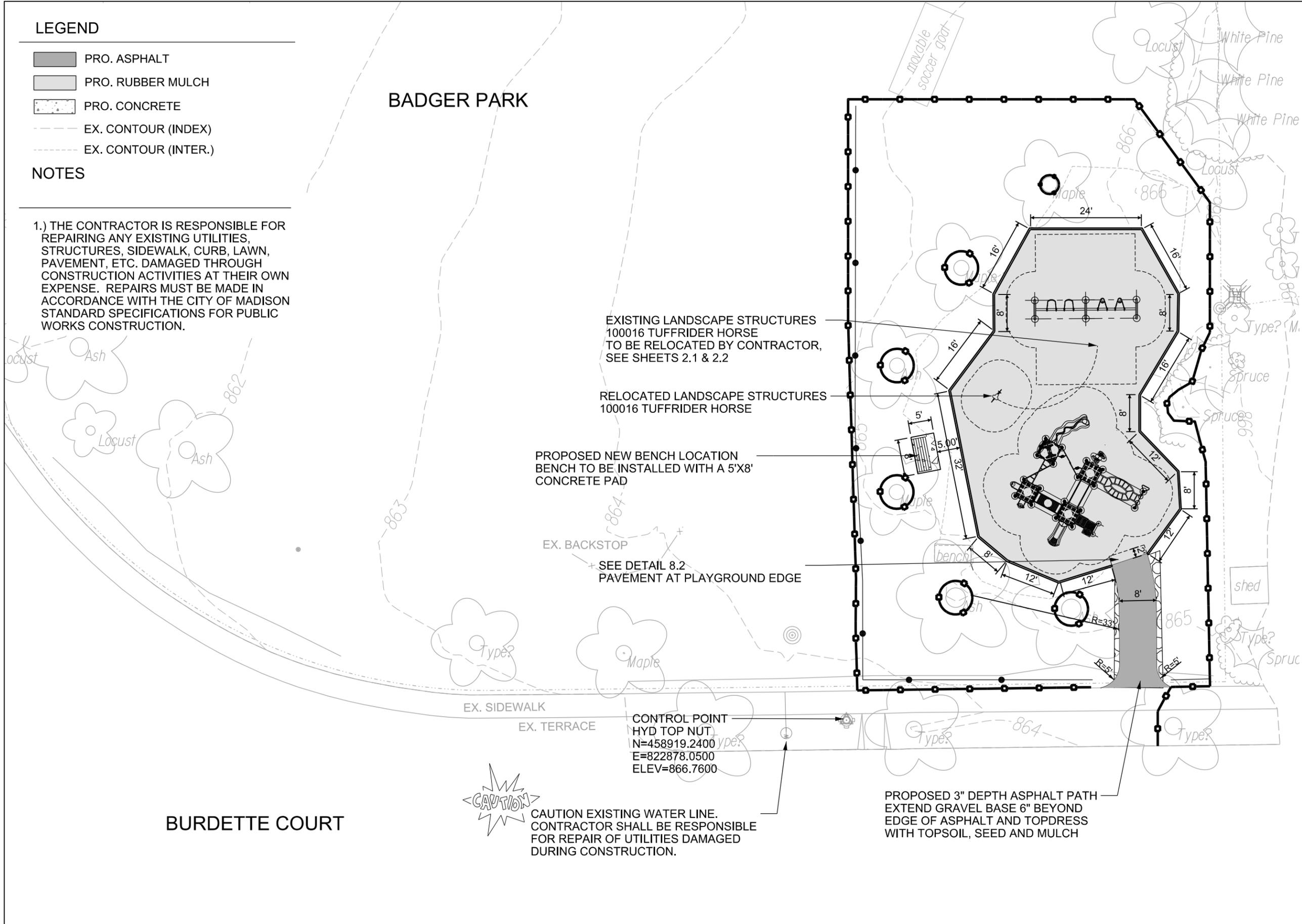
**LEGEND**

- PRO. ASPHALT
- PRO. RUBBER MULCH
- PRO. CONCRETE
- EX. CONTOUR (INDEX)
- EX. CONTOUR (INTER.)

**NOTES**

1.) THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY EXISTING UTILITIES, STRUCTURES, SIDEWALK, CURB, LAWN, PAVEMENT, ETC. DAMAGED THROUGH CONSTRUCTION ACTIVITIES AT THEIR OWN EXPENSE. REPAIRS MUST BE MADE IN ACCORDANCE WITH THE CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

**BADGER PARK**



**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

*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.

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

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**SITE PLAN**

SHEET NUMBER:  
**2.3**

**LEGEND**

-  PRO. SPOT EL.
-  PRO. RUBBER MULCH
-  PRO. CONCRETE
-  PRO. EROSION MATTING
-  PRO. CONSTRUCTION ENTRANCE
-  PRO. GRADING LIMITS
-  PRO. CONSTRUCTION FENCE
-  PRO. SILT SOCK
-  PRO. CONTOUR (INDEX)
-  PRO. CONTOUR (INTER.)
-  EX. CONTOUR (INDEX)
-  EX. CONTOUR (INTER.)

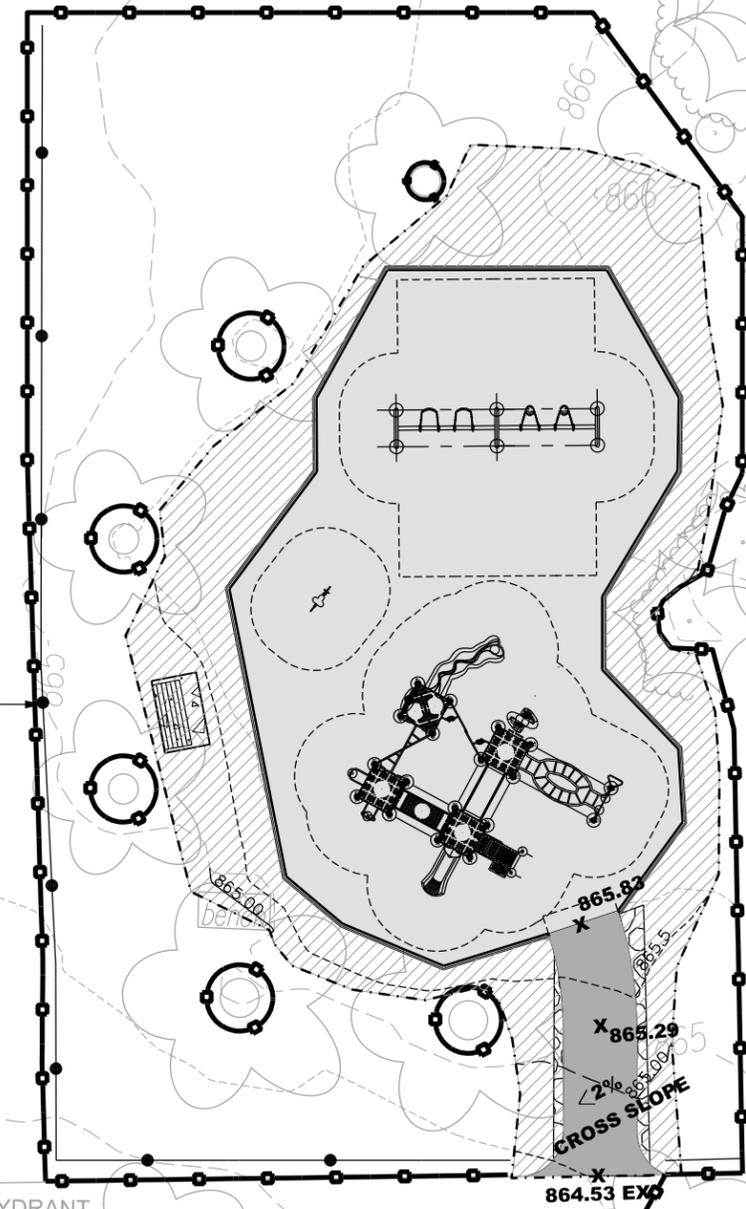
**NOTES**

- 1.) PLACE 4 OZ. PERMEABLE NON-WOVEN LANDSCAPE FABRIC OVER ENTIRE PLAYGROUND PER DETAIL 8.2.
- 2.) PLAYGROUND EQUIPMENT SHALL BE INSTALLED WITH APPROPRIATE ELEVATIONS RELATIVE TO PROPOSED FINISHED SURFACE ELEVATIONS FOR PLAYGROUND SURFACING AS DEFINED IN PLANS.

EDGE OF PLAYGROUND BORDER TIMBERS: 866.00  
 ELEVATION OF FINISHED PLAYGROUND SURFACE: 865.83  
 (ASSUMES 2' OF COMPACTION. CONTRACTOR SHALL  
 INSTALL RUBBER MULCH TO 866.00)  
 PLAYGROUND SUBGRADE ELEVATION: 865.25  
 ASPHALT AT PLAYGROUND ELEVATION: 865.83

BADGER PARK

BURDETTE COURT



CAUTION EXISTING WATER LINE AND HYDRANT. CONTRACTOR WILL BE REQUIRED TO REPAIR DAMAGED UTILITIES

CAUTION

CAUTION

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

City-County Building, Suite 104  
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*play*  
**MADISON  
 PARKS**

Graphical Scale  
 0 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:  
**GRADING AND  
 EROSION CONTROL  
 PLAN**

SHEET NUMBER:  
**2.4**

**Badger Park Playground - Earthwork Quantities**

City of Madison Public Works Contract  
Date Revised: 3/2/2015

**Notes:**  
Positive volumes are cuts, negative volumes are fills.  
Not all parts of all surface models (Digital Terrain Models) are used for computations or intended for actual construction.

Existing Badger\_Survey2014-09-18.dtm  
Proposed pro1.dtm

Sort	Grp	Material	Item	From Surface Model	To Surface Model	area (sq ft)	depth (ft)	Unfactored volume (cu ft)	Unfactored volume (cu yd)	Expansion Factor (%)	Factored (Uncompacted) Volume (cu yd)
1.1	Bench Pad to Grass	Concrete Excavate	Remove existing concrete bench pad (est 5in thick)	n/a	n/a	30	0.42	13	0.5	0%	0.5
1.2	Bench Pad to Grass	Gravel (Bench Pad) Excavate	Remove existing bench pad gravel base (est 2in thick)	n/a	n/a	30	0.17	5	0.2	0%	0.2
1.3	Bench Pad to Grass	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-7in	Pro-6in	30	varies	0	0.0	0%	0.0
1.4	Bench Pad to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-7in	Pro-6in	30	varies	-5	-0.2	0%	-0.2
1.5	Bench Pad to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	30	-0.50	-15	-0.6	0%	-0.6
2.1	Grass to Asphalt	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	282	0.50	141	5.2	0%	5.2
2.2	Grass to Asphalt	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-12in	282	varies	86	3.2	0%	3.2
2.3	Grass to Asphalt	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	282	varies	0	0.0	0%	0.0
2.4	Grass to Asphalt	Gravel (Path) Place	Place 9in gravel base, out 6in from asphalt edge	n/a	n/a	282	-0.75	-212	-7.8	0%	-7.8
2.5	Grass to Asphalt	Asphalt Place	Place 3in asphalt	n/a	n/a	247	-0.25	-62	-2.3	0%	-2.3
2.6	Grass to Asphalt	Topsoil Place	Place 3in topsoil on 6in wide gravel edge	n/a	n/a	35	-0.25	-9	-0.3	0%	-0.3
3.1	Grass to Bench Pad	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	51	0.50	26	0.9	0%	0.9
3.2	Grass to Bench Pad	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-7in	51	varies	2	0.1	0%	0.1
3.3	Grass to Bench Pad	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-7in	51	varies	0	0.0	0%	0.0
3.4	Grass to Bench Pad	Gravel (Bench Pad) Place	Place 2in gravel base, out 6in from concrete edge	n/a	n/a	51	-0.17	-9	-0.3	0%	-0.3
3.5	Grass to Bench Pad	Concrete Place	Place 5in concrete	n/a	n/a	39	-0.42	-16	-0.6	0%	-0.6
3.6	Grass to Bench Pad	Topsoil Place	Place 5in topsoil on 6in wide gravel edge	n/a	n/a	12	-0.42	-5	-0.2	0%	-0.2
4.1	Grass to Grass	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	699	0.50	350	12.9	0%	12.9
4.2	Grass to Grass	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-6in	699	varies	4	0.1	0%	0.1
4.3	Grass to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-6in	699	varies	-71	-2.6	0%	-2.6
4.4	Grass to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	699	-0.50	-350	-12.9	0%	-12.9
5.1	Grass to Play Surface	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	537	0.50	269	9.9	0%	9.9
5.2	Grass to Play Surface	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-7in	537	varies	66	2.4	0%	2.4
5.3	Grass to Play Surface	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-7in	537	varies	-18	-0.6	0%	-0.6
5.4	Grass to Play Surface	Play Surface Place	Place 7in compacted rubber chips (9in uncompacted)	n/a	n/a	537	-0.58	-313	-11.6	29%	-14.9
6.1	Grass to Timbers	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	25	0.50	13	0.5	0%	0.5
6.2	Grass to Timbers	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-12in	25	varies	8	0.3	0%	0.3
6.3	Grass to Timbers	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	25	varies	0	0.0	0%	0.0

6.4	Grass to Timbers	Timbers Place (placeholder volume)	Place border timbers (placeholder volume to balance volume comps)	n/a	n/a	25	-1.00	-25	-0.9	0%	-0.9
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%	0.1
7.2	Play Surface to Asphalt	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-12in	2	varies	0	0.0	0%	0.0
7.3	Play Surface to Asphalt	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-12in	2	varies	-1	0.0	0%	0.0
7.4	Play Surface to Asphalt	Gravel (Path) Place	Place 9in gravel base, out 6in from asphalt edge	n/a	n/a	2	-0.75	-2	-0.1	0%	-0.1
7.5	Play Surface to Asphalt	Asphalt Place	Place 3in asphalt	n/a	n/a	0	-0.25	0	0.0	0%	0.0
7.6	Play Surface to Asphalt	Topsoil Place	Place 3in topsoil on 6in wide gravel edge	n/a	n/a	2	-0.25	-1	0.0	0%	0.0
8.1	Play Surface to Bench Pad	Play Surface Excavate	Remove existing pea gravel (est 17 in depth)	n/a	n/a	3	1.42	4	0.2	0%	0.2
8.2	Play Surface to Bench Pad	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-7in	3	varies	0	0.0	0%	0.0
8.3	Play Surface to Bench Pad	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-7in	3	varies	-3	-0.1	0%	-0.1
8.4	Play Surface to Bench Pad	Gravel (Bench Pad) Place	Place 2in gravel base, out 6in from concrete edge	n/a	n/a	3	-0.17	-1	0.0	0%	0.0
8.5	Play Surface to Bench Pad	Concrete Place	Place 5in concrete	n/a	n/a	1	-0.42	0	0.0	0%	0.0
8.6	Play Surface to Bench Pad	Topsoil Place	Place 5in topsoil on 6in wide gravel edge	n/a	n/a	2	-0.42	-1	0.0	0%	0.0
9.1	Play Surface to Grass	Play Surface Excavate	Remove existing pea gravel (est 17 in depth)	n/a	n/a	981	1.42	1390	51.5	0%	51.5
9.2	Play Surface to Grass	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-6in	981	varies	0	0.0	0%	0.0
9.3	Play Surface to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-6in	981	varies	-1018	-37.7	0%	-37.7
9.4	Play Surface to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	981	-0.50	-491	-18.2	0%	-18.2
10.1	Play Surface to Play Surface	Play Surface Excavate	Remove existing pea gravel (est 17 in depth)	n/a	n/a	2278	1.42	3227	119.5	0%	119.5
10.2	Play Surface to Play Surface	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-7in	2278	varies	0	0.0	0%	0.0
10.3	Play Surface to Play Surface	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-7in	2278	varies	-2162	-80.1	0%	-80.1
10.4	Play Surface to Play Surface	Play Surface Place	Place 7in compacted rubber chips (9in uncompacted)	n/a	n/a	2278	-0.58	-1329	-49.2	29%	-63.3
11.1	Play Surface to Timbers	Play Surface Excavate	Remove existing pea gravel (est 17 in depth)	n/a	n/a	44	1.42	62	2.3	0%	2.3
11.2	Play Surface to Timbers	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-12in	44	varies	0	0.0	0%	0.0
11.3	Play Surface to Timbers	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-12in	44	varies	-33	-1.2	0%	-1.2
11.4	Play Surface to Timbers	Timbers Place (placeholder volume)	Place border timbers (placeholder volume to balance volume comps)	n/a	n/a	44	-1.00	-44	-1.6	0%	-1.6
12.1	Adjust	Play Surface Place	Increase play surface by 1/2 of path ramp gravel base volume = 1/2 x (23 sq ft x 7in)	n/a	n/a	23	-0.29	-7	-0.2	29%	-0.3
12.2	Adjust	Subsoil Excavate	Increase subsoil excavate by 1/2 of concrete ramp gravel base volume = 1/2 x (23 sq ft x 7in)	n/a	n/a	23	0.29	7	0.2	0%	0.2

**Badger Park Playground - Earthwork Quantities**

City of Madison Public Works Contract  
Date Revised: 3/2/2015

Derived from more detailed spreadsheet available from Parks Div

**Computation Summary**

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

Row Labels	Sum of Factored (Uncompacted) Volume (cu yd)
Asphalt Place	-2.3
Concrete Excavate	0.5
Concrete Place	-0.6
Gravel (Bench Pad) Excavate	0.2
Gravel (Bench Pad) Place	-0.3
Gravel (Path) Place	-7.9
Play Surface Excavate	173.6
Play Surface Place	-79.5
Subsoil Excavate	6.4
Subsoil Place	-122.6
Timbers Place (placeholder volume)	-2.6
Topsoil Excavate	29.5
Topsoil Place	-32.2
<b>Grand Total</b>	<b>-36.9</b>

Net subsoil 116 cu yd  
Net topsoil 3 cu yd  
Net topsoil & subsoil 119 cu yd

**Reorganized into bid table items**

Bid Item	Quantity	Units	Relation to Table Above
20101 Excavation Cut	36	CY	= Subsoil Excavate + Topsoil Excavate
20103 Excavation Cut - Pea Gravel	174	CY	= Play Surface Excavate
20201 Fill	-116	CY	= Subsoil Excavate + Subsoil Place
20221 Topsoil	193	SY	= (Topsoil Place) * 167
40102 Crushed Aggregate Base Course Gradation No. 2&3	16	tons	= (Gravel Place) * 2 ton/cubic yard
40201 3" Depth HMA Pavement Type E-0.3	4.9	tons	= Asphalt Place * 2.16 ton/cubic yard
90004 Playground Surfacing - Rubber	86	CY	= Play Surface Place * 1.10

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

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210 Martin Luther King, Jr. Blvd.  
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*play*  
**MADISON PARKS**

Graphical Scale  
0 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 NUMBER:  
**2.5**

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

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Madison, WI 53701-2987

*play*  
**MADISON  
PARKS**

Graphical Scale

0 30 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:  
**PROJECT LOCATION  
AND SITE ACCESS**

SHEET NUMBER:  
**3.1**

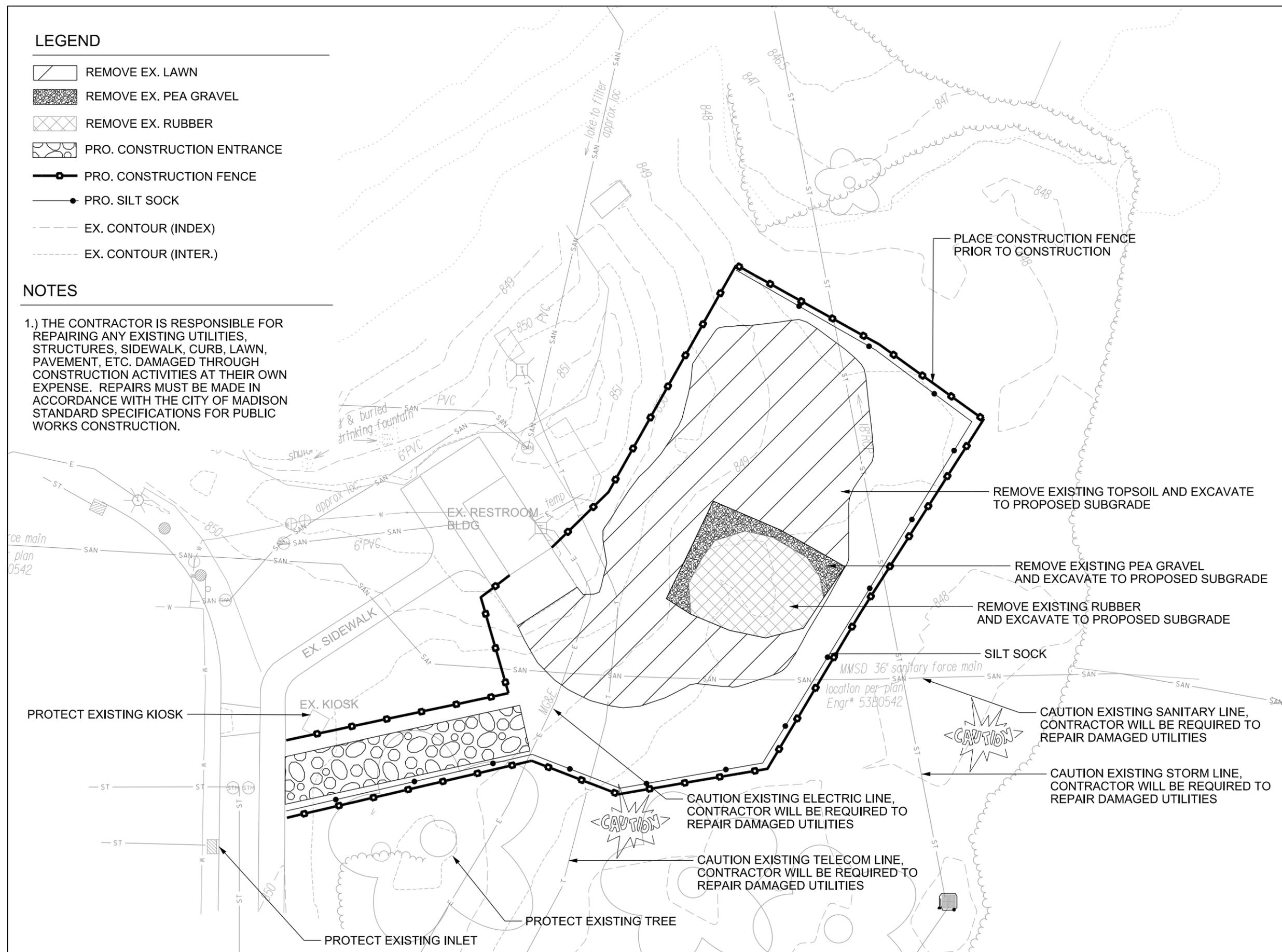


**LEGEND**

-  REMOVE EX. LAWN
-  REMOVE EX. PEA GRAVEL
-  REMOVE EX. RUBBER
-  PRO. CONSTRUCTION ENTRANCE
-  PRO. CONSTRUCTION FENCE
-  PRO. SILT SOCK
-  EX. CONTOUR (INDEX)
-  EX. CONTOUR (INTER.)

**NOTES**

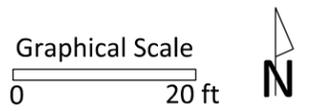
1.) THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY EXISTING UTILITIES, STRUCTURES, SIDEWALK, CURB, LAWN, PAVEMENT, ETC. DAMAGED THROUGH CONSTRUCTION ACTIVITIES AT THEIR OWN EXPENSE. REPAIRS MUST BE MADE IN ACCORDANCE WITH THE CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.



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*play*  
**MADISON**  
**PARKS**



PROJECT:  
**2015**  
**PLAYGROUND**  
**IMPROVEMENTS**  
**- GROUP 3**

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

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

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**DEMOLITION AND**  
**PROTECTION PLAN**

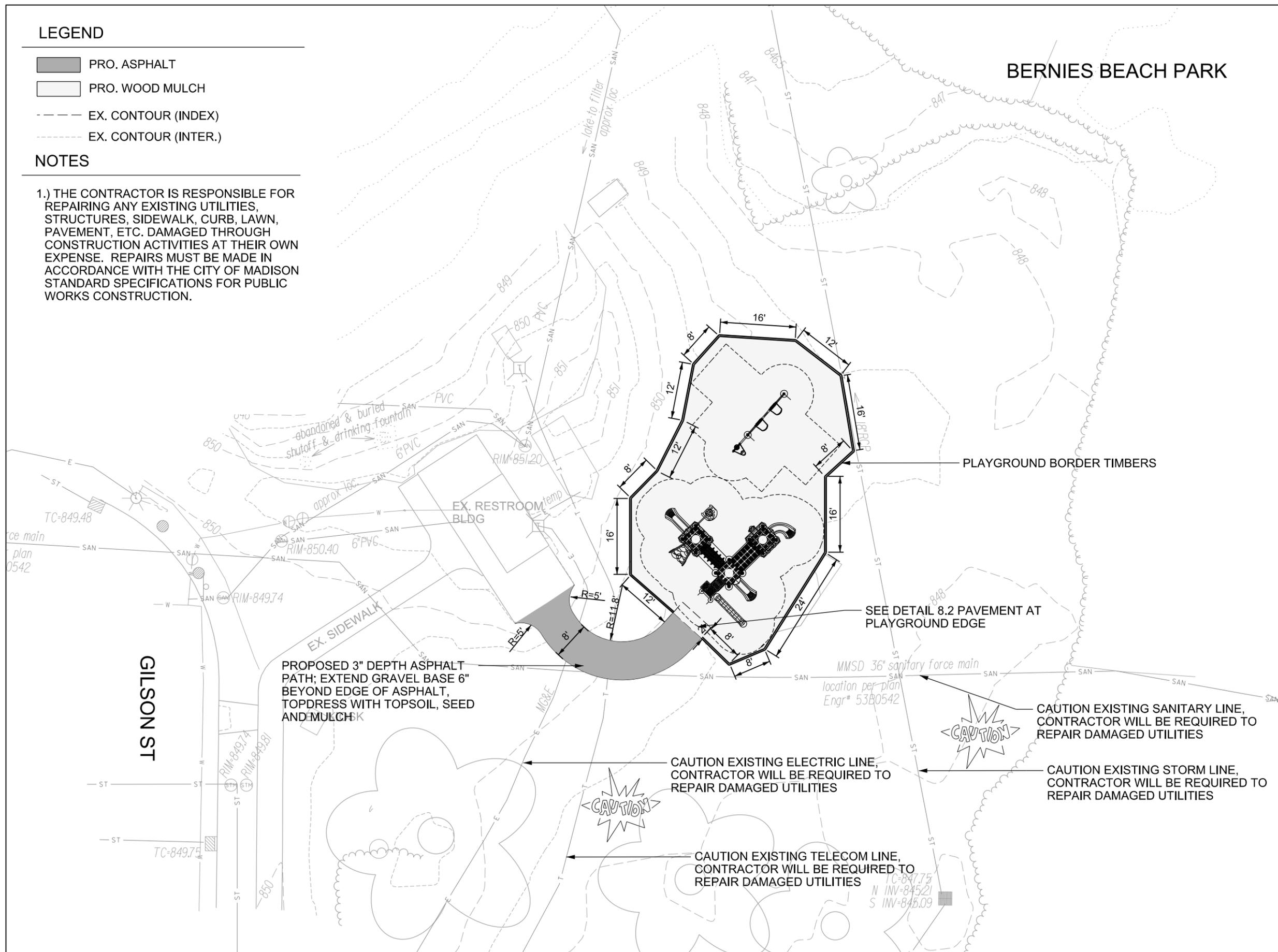
SHEET NUMBER:  
**3.2**

**LEGEND**

-  PRO. ASPHALT
-  PRO. WOOD MULCH
-  EX. CONTOUR (INDEX)
-  EX. CONTOUR (INTER.)

**NOTES**

1.) THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY EXISTING UTILITIES, STRUCTURES, SIDEWALK, CURB, LAWN, PAVEMENT, ETC. DAMAGED THROUGH CONSTRUCTION ACTIVITIES AT THEIR OWN EXPENSE. REPAIRS MUST BE MADE IN ACCORDANCE WITH THE CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.



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*play*  
**MADISON**  
**PARKS**

Graphical Scale



PROJECT:  
**2015**  
**PLAYGROUND**  
**IMPROVEMENTS**  
**- GROUP 3**

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

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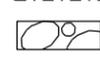
ITEM	DATE
Drawn by: KK	03-06-2015
Approved by:	xx-xx-xxxx

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**SITE PLAN**

SHEET NUMBER:  
**3.3**

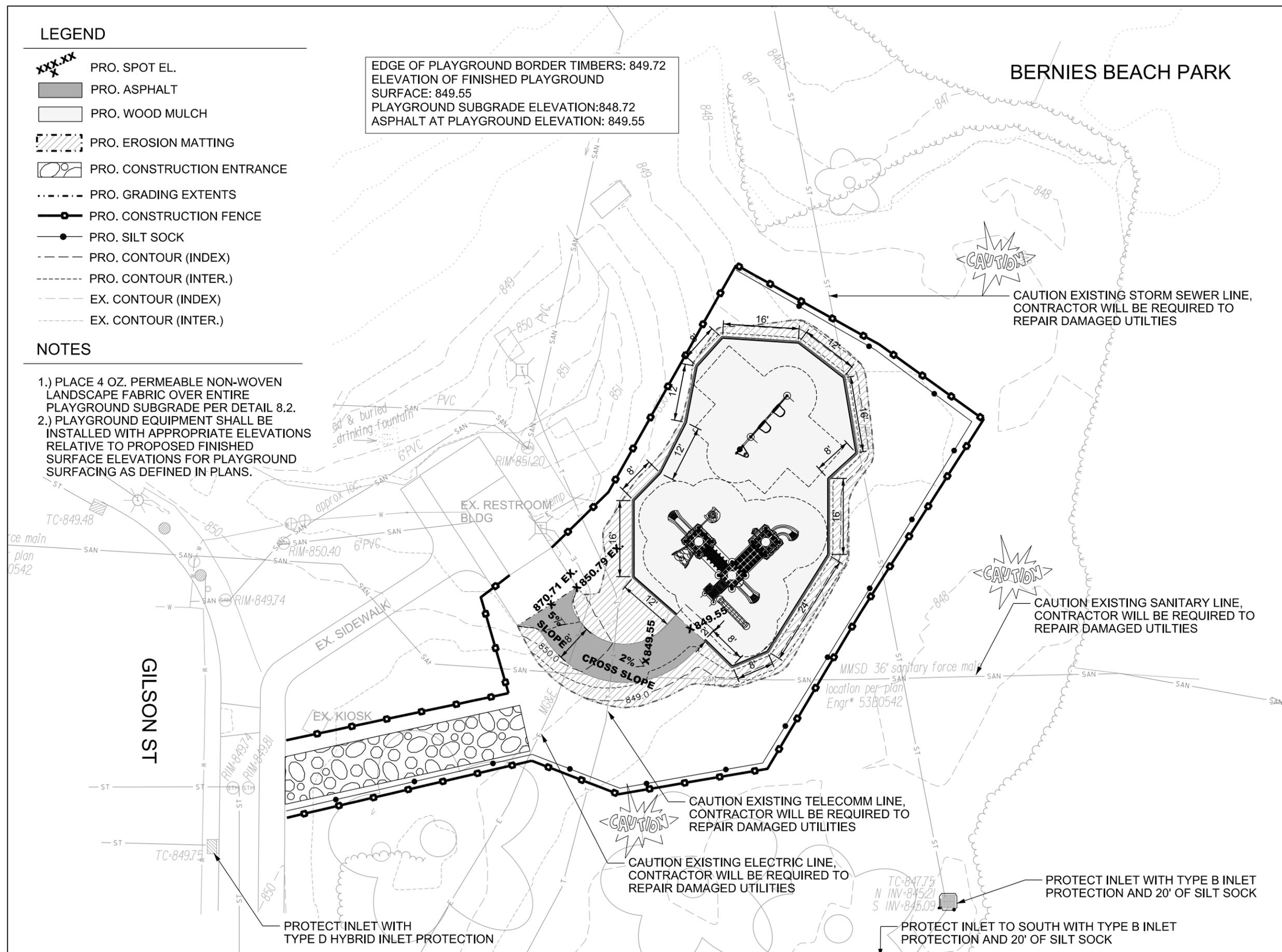
**LEGEND**

-  PRO. SPOT EL.
-  PRO. ASPHALT
-  PRO. WOOD MULCH
-  PRO. EROSION MATTING
-  PRO. CONSTRUCTION ENTRANCE
-  PRO. GRADING EXTENTS
-  PRO. CONSTRUCTION FENCE
-  PRO. SILT SOCK
-  PRO. CONTOUR (INDEX)
-  PRO. CONTOUR (INTER.)
-  EX. CONTOUR (INDEX)
-  EX. CONTOUR (INTER.)

**NOTES**

- 1.) PLACE 4 OZ. PERMEABLE NON-WOVEN LANDSCAPE FABRIC OVER ENTIRE PLAYGROUND SUBGRADE PER DETAIL 8.2.
- 2.) PLAYGROUND EQUIPMENT SHALL BE INSTALLED WITH APPROPRIATE ELEVATIONS RELATIVE TO PROPOSED FINISHED SURFACE ELEVATIONS FOR PLAYGROUND SURFACING AS DEFINED IN PLANS.

EDGE OF PLAYGROUND BORDER TIMBERS: 849.72  
 ELEVATION OF FINISHED PLAYGROUND SURFACE: 849.55  
 PLAYGROUND SUBGRADE ELEVATION: 848.72  
 ASPHALT AT PLAYGROUND ELEVATION: 849.55



**BERNIES BEACH PARK**

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

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 Madison, WI 53701-2987

*play*  
**MADISON  
 PARKS**

Graphical Scale  
 0 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:  
**GRADING AND  
 EROSION CONTROL  
 PLAN**

SHEET NUMBER:  
**3.4**

**Bernie's Beach Park Playground - Earthwork Quantities**

City of Madison Public Works Contract  
Date Revised: 3/3/2015

**Notes:**  
Positive volumes are cuts, negative volumes are fills.  
Not all parts of all surface models (Digital Terrain Models) are used for computations or intended for actual construction.

Existing Bernies\_Survey2014-08-15.dtm  
Proposed Pro1.dtm

Sort	Grp	Material	Item	From Surface Model	To Surface Model	area (sq ft)	depth (ft)	Unfactored volume (cu ft)	Unfactored volume (cu yd)	Expansion Factor (%)	Factored (Uncompacted) Volume (cu yd)
1.1	Grass to Asphalt	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	373	0.50	187	6.9	0%	6.9
1.2	Grass to Asphalt	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-12in	373	varies	3	0.1	0%	0.1
1.3	Grass to Asphalt	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	373	varies	-102	-3.8	0%	-3.8
1.4	Grass to Asphalt	Gravel (Path) Place	Place 9in gravel base, out to 6in from asphalt edge	n/a	n/a	373	-0.75	-280	-10.4	0%	-10.4
1.5	Grass to Asphalt	Asphalt Place	Place 3in asphalt	n/a	n/a	330	-0.25	-83	-3.1	0%	-3.1
1.6	Grass to Asphalt	Topsoil Place	Place 3in topsoil on 6in wide gravel edge	n/a	n/a	43	-0.25	-11	-0.4	0%	-0.4
2.1	Grass to Grass	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	941	0.50	471	17.4	0%	17.4
2.2	Grass to Grass	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-6in	941	varies	0	0.0	0%	0.0
2.3	Grass to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-6in	941	varies	-391	-14.5	0%	-14.5
2.4	Grass to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	941	-0.50	-471	-17.4	0%	-17.4
3.1	Grass to Play Surface	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	1553	0.50	777	28.8	0%	28.8
3.2	Grass to Play Surface	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-12in	1553	varies	168	6.2	0%	6.2
3.3	Grass to Play Surface	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	1553	varies	-306	-11.3	0%	-11.3
3.4	Grass to Play Surface	Play Surface Place	Place 12in wood chips	n/a	n/a	1553	-1.00	-1553	-57.5	0%	-57.5
4.1	Grass to Timbers	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	52	0.50	26	1.0	0%	1.0
4.2	Grass to Timbers	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-12in	52	varies	7	0.3	0%	0.3
4.3	Grass to Timbers	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	52	varies	-20	-0.7	0%	-0.7
4.4	Grass to Timbers	Timbers Place (placeholder volume)	Place border timbers (placeholder volume to balance volume computations)	n/a	n/a	52	-1.00	-52	-1.9	0%	-1.9
5.1	Play Surface to Asphalt	Play Surface (Rubber) Excavate	Remove rubber chips (est 6in depth)	n/a	n/a	3	0.50	2	0.1	0%	0.1
5.2	Play Surface to Asphalt	Play Surface (Pea Gravel) Excavate	Remove pea gravel under rubber chips (est 11in depth)	n/a	n/a	3	0.92	3	0.1	0%	0.1
5.3	Play Surface to Asphalt	Play Surface (Pea Gravel) Excavate	Remove pea gravel (est 17 in depth)	n/a	n/a	3	1.42	4	0.2	0%	0.2
5.4	Play Surface to Asphalt	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-12in	6	varies	0	0.0	0%	0.0
5.5	Play Surface to Asphalt	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-12in	6	varies	-8	-0.3	0%	-0.3
5.6	Play Surface to Asphalt	Gravel (Path) Place	Place 9in gravel base, out to 6in from asphalt edge	n/a	n/a	6	-0.75	-5	-0.2	0%	-0.2
5.7	Play Surface to Asphalt	Asphalt Place	Place 3in asphalt	n/a	n/a	3	-0.25	-1	0.0	0%	0.0
5.8	Play Surface to Asphalt	Topsoil Place	Place 3in topsoil on 6in wide gravel edge	n/a	n/a	3	-0.25	-1	0.0	0%	0.0
6.1	Play Surface to Grass	Play Surface (Rubber) Excavate	Remove rubber chips (est 6in depth)	n/a	n/a	43	0.50	22	0.8	0%	0.8
6.2	Play Surface to Grass	Play Surface (Pea Gravel) Excavate	Remove pea gravel under rubber chips (est 11in depth)	n/a	n/a	43	0.92	39	1.5	0%	1.5
6.3	Play Surface to Grass	Play Surface (Pea Gravel) Excavate	Remove pea gravel (est 17 in depth)	n/a	n/a	23	1.42	33	1.2	0%	1.2

6.4	Play Surface to Grass	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-6in	66	varies	0	0.0	0%	0.0
6.5	Play Surface to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-6in	66	varies	-113	-4.2	0%	-4.2
6.6	Play Surface to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	66	-0.50	-33	-1.2	0%	-1.2
7.1	Play Surface to Play Surface	Play Surface (Rubber) Excavate	Remove rubber chips (est 6in depth)	n/a	n/a	423	0.50	212	7.8	0%	7.8
7.2	Play Surface to Play Surface	Play Surface (Pea Gravel) Excavate	Remove pea gravel under rubber chips (est 11in depth)	n/a	n/a	423	0.92	388	14.4	0%	14.4
7.3	Play Surface to Play Surface	Play Surface (Pea Gravel) Excavate	Remove pea gravel (est 17 in depth)	n/a	n/a	152	1.42	215	8.0	0%	8.0
7.4	Play Surface to Play Surface	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-12in	575	varies	0	0.0	0%	0.0
7.5	Play Surface to Play Surface	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-12in	575	varies	-830	-30.7	0%	-30.7
7.6	Play Surface to Play Surface	Play Surface Place	Place 12in wood chips	n/a	n/a	575	-1.00	-575	-21.3	0%	-21.3
8.1	Play Surface to Timbers	Play Surface (Rubber) Excavate	Remove rubber chips (est 6in depth)	n/a	n/a	5	0.50	3	0.1	0%	0.1
8.2	Play Surface to Timbers	Play Surface (Pea Gravel) Excavate	Remove pea gravel under rubber chips (est 11in depth)	n/a	n/a	5	0.92	5	0.2	0%	0.2
8.3	Play Surface to Timbers	Play Surface (Pea Gravel) Excavate	Remove pea gravel (est 17 in depth)	n/a	n/a	2	1.42	3	0.1	0%	0.1
8.4	Play Surface to Timbers	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-12in	7	varies	0	0.0	0%	0.0
8.5	Play Surface to Timbers	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-12in	7	varies	-12	-0.4	0%	-0.4
8.6	Play Surface to Timbers	Timbers Place (placeholder volume)	Place border timbers (placeholder volume to balance volume computations)	n/a	n/a	7	-1.00	-7	-0.3	0%	-0.3
12.1	Adjust	Play Surface Place	Increase play surface by 1/2 of path ramp gravel base volume = 1/2 x (32 sq ft x 12in)	n/a	n/a	32	-0.50	-16	-0.6	0%	-0.6
12.2	Adjust	Subsoil Excavate	Increase subsoil excavate by 1/2 of concrete ramp gravel base volume = 1/2 x (32 sq ft x 12in)	n/a	n/a	32	0.50	16	0.6	0%	0.6

**Bernie's Beach Park Playground - Earthwork Quantities**

City of Madison Public Works Contract  
Date Revised: 3/3/2015

Derived from more detailed spreadsheet available from Parks Div

**Computation Summary**

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

Row Labels	Sum of Unfactored volume (cu yd)
Asphalt Place	-3.1
Gravel (Path) Place	-10.5
Play Surface (Pea Gravel) Excavate	25.5
Play Surface (Rubber) Excavate	8.8
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
<b>Grand Total</b>	<b>-84.7</b>

Net subsoil -59 cu yd  
Net topsoil 35 cu yd  
Net topsoil & subsoil -24 cu yd

**Reorganized into bid table items**

Bid Item	Quantity	Units	Relation to Table Above
20101 Excavation Cut	61	CY	= Subsoil Excavate + Topsoil Excavate
20103 Excavation Cut - Pea Gravel	34	CY	= Play Surface Excavate
20201 Fill	-59	CY	= Subsoil Excavate + Subsoil Place
20221 Topsoil	114	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	87	CY	= Play Surface Place * -1.10

**City of Madison**  
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*play*  
**MADISON PARKS**

Graphical Scale

0 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**

SHEET NUMBER:

**3.5**

**City of Madison**  
 Department of Public Works  
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*play*  
**MADISON**  
**PARKS**

Graphical Scale



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.

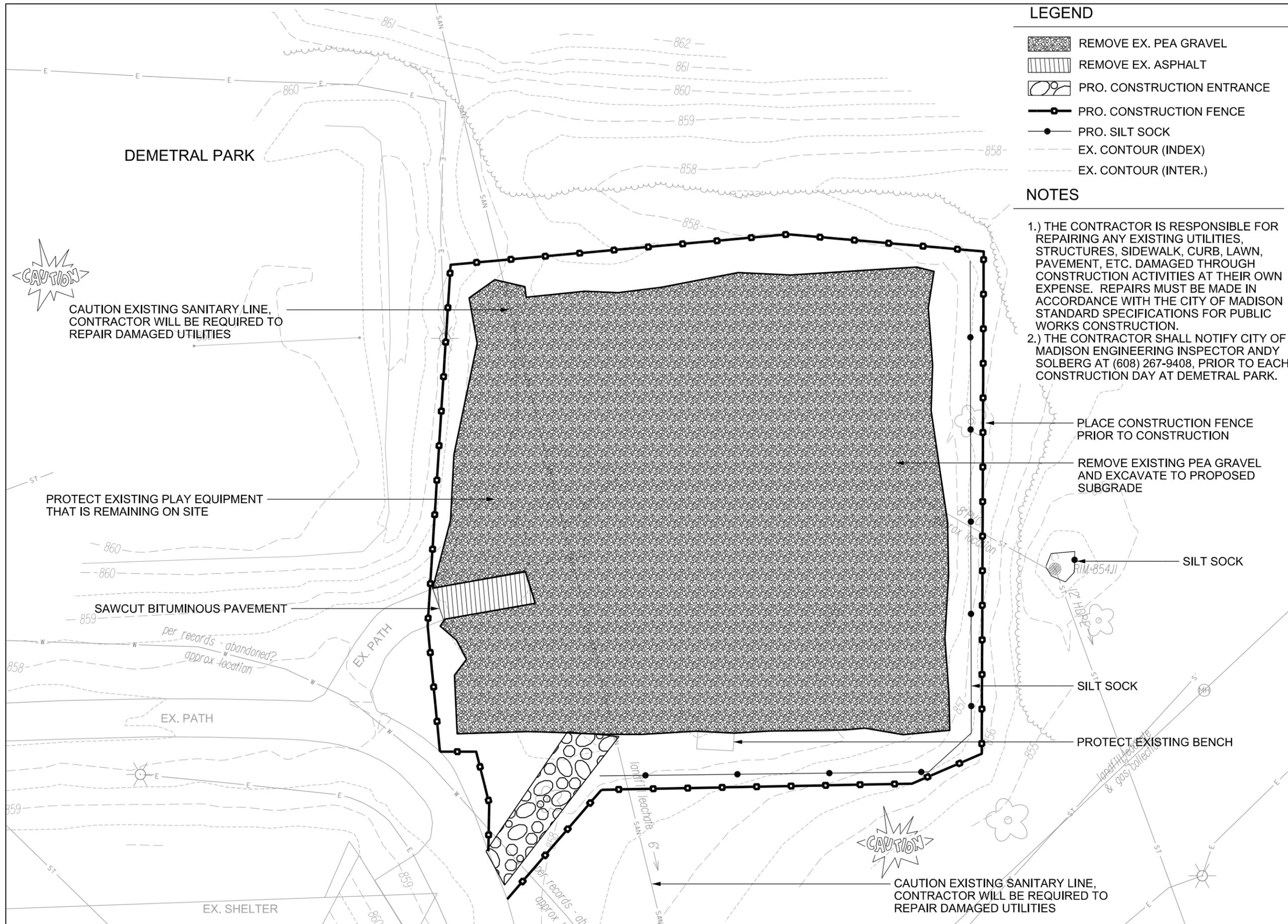
ITEM	DATE
Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**PROJECT LOCATION**  
**AND SITE ACCESS**

SHEET NUMBER:  
**4.1**





**LEGEND**

-  REMOVE EX. PEA GRAVEL
-  REMOVE EX. ASPHALT
-  PRO. CONSTRUCTION ENTRANCE
-  PRO. CONSTRUCTION FENCE
-  PRO. SILT SOCK
-  EX. CONTOUR (INDEX)
-  EX. CONTOUR (INTER.)

**NOTES**

- 1.) THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY EXISTING UTILITIES, STRUCTURES, SIDEWALK, CURB, LAWN, PAVEMENT, ETC. DAMAGED THROUGH CONSTRUCTION ACTIVITIES AT THEIR OWN EXPENSE. REPAIRS MUST BE MADE IN ACCORDANCE WITH THE CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- 2.) THE CONTRACTOR SHALL NOTIFY CITY OF MADISON ENGINEERING INSPECTOR ANDY SOLBERG AT (608) 267-9408, PRIOR TO EACH CONSTRUCTION DAY AT DEMETRAL PARK.

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 Department of Public Works  
**PARKS DIVISION**

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*play*  
**MADISON**  
**PARKS**

Graphical Scale



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:  
**DEMOLITION AND**  
**PROTECTION PLAN**

SHEET NUMBER:  
**4.2**



Drain Tile Lengths & Slopes from intersection to intersection			
From	To	Length (ft)	Slope (%)
A	B	5.86	-4.2
B	C	2.88	-1.39
C	D	13.21	-1.51
D	E	1	-1
E	F	11.35	-1
F	G	2.22	-1
G	N	39.49	-1.5
N	O	26.91	-2
H	B	35.6	-0.1
K	C	28.13	-1
I	D	33.25	-1.46
L	E	22.23	-2.23
J	F	38.3	-1.58
M	G	32.77	-1.91

Drain Tile Invert (Flowline) Elevations		
Point	Invert (ft)	Distance from top of timbers 859.04 (INCHES)
A	857.29	21.05
B	857.04	24.00
C	857.00	24.48
D	856.80	26.88
E	856.79	27.00
F	856.68	28.32
G	856.66	28.56
H	857.29	21.05
I	857.29	21.05
J	857.29	21.00
K	857.29	21.05
L	857.29	21.00
M	857.29	21.00
N	856.06	35.76
O	855.53	42.12

EDGE OF PLAYGROUND BORDER TIMBERS: 859.04  
 ELEVATION OF FINISHED PLAYGROUND SURFACE: 858.87  
 PLAYGROUND SUBGRADE ELEVATION: 857.87

### LEGEND

- PRO. SPOT EL.
- PRO. WOOD MULCH
- PRO. EROSION MATTING
- PRO. CONSTRUCTION ENTRANCE
- PRO. GRADING EXTENTS
- PRO. CONSTRUCTION FENCE
- PRO. SILT SOCK
- PRO. DRAIN TILE
- PRO. CONTOUR (INDEX)
- PRO. CONTOUR (INTER.)
- EX. CONTOUR (INDEX)
- EX. CONTOUR (INTER.)

- ### NOTES
- 1.) PLACE 4 OZ. PERMEABLE NON-WOVEN LANDSCAPE FABRIC OVER ENTIRE PLAYGROUND SUBGRADE PER DETAIL 8.2.
  - 2.) PLAYGROUND EQUIPMENT SHALL BE INSTALLED WITH APPROPRIATE ELEVATIONS RELATIVE TO PROPOSED FINISHED SURFACE ELEVATIONS FOR PLAYGROUND SURFACING AS DEFINED IN PLANS.
  - 3.) THE CONTRACTOR SHALL NOTIFY CITY OF MADISON ENGINEERING INSPECTOR ANDY SOLBERG AT (608) 267-9408, PRIOR TO EACH CONSTRUCTION DAY AT DEMETRAL PARK.

**City of Madison**  
 Department of Public Works  
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*play*  
**MADISON PARKS**

Graphical Scale  
 0 20 ft

PROJECT:  
**2015 PARK PLAYGROUNDS - GROUP 2**

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

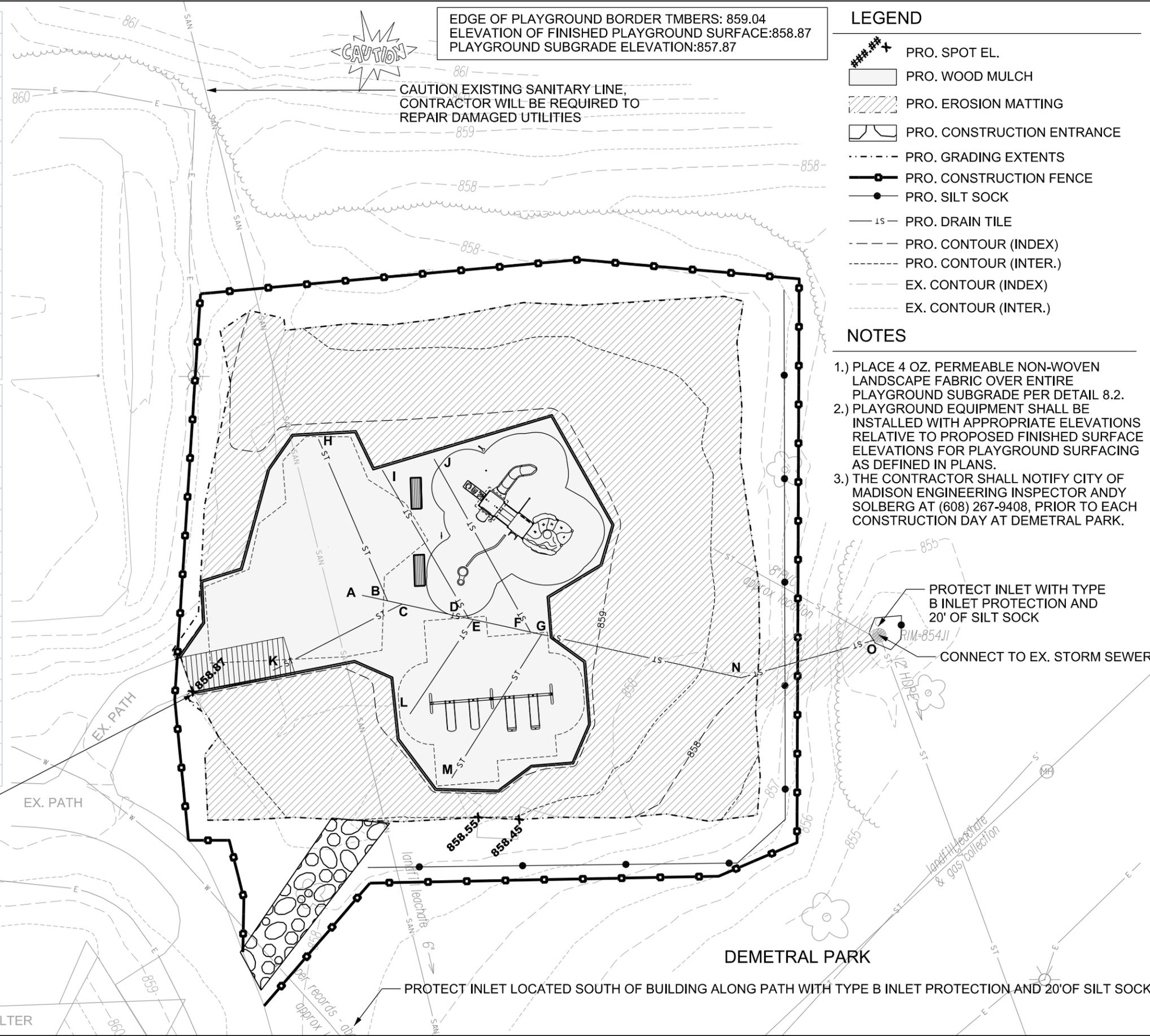
Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE
Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**GRADING AND EROSION CONTROL PLAN**

SHEET NUMBER:  
**4.4**



EXISTING PATH AT ~ 858.45 AT PLAYGROUND. PATH SHALL BE RECONSTRUCTED BY OTHERS.

PROTECT INLET WITH TYPE B INLET PROTECTION AND 20' OF SILT SOCK

CONNECT TO EX. STORM SEWER

PROTECT INLET LOCATED SOUTH OF BUILDING ALONG PATH WITH TYPE B INLET PROTECTION AND 20' OF SILT SOCK

**Demetral Park Playground - Earthwork Quantities**

City of Madison Public Works Contract  
Date Revised: 2/2/2015

**Notes:**

Positive volumes are cuts, negative volumes are fills.  
Not all parts of all surface models (Digital Terrain Models) are used for computations or intended for actual construction.

Existing Demetral\_Survey2014-10-23\_PlayComb.dtm  
Proposed Pro\_1.dtm

Sort	Grp	Material	Item	From Surface Model	To Surface Model	area (sq ft)	depth (ft)	Unfactored volume (cu ft)	Unfactored volume (cu yd)	Expansion Factor (%)	Factored (Uncompacted) Volume (cu yd)
1.1	Grass to Grass	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	34	0.50	17	0.6	0%	0.6
1.2	Grass to Grass	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-6in	34	varies	0	0.0	0%	0.0
1.3	Grass to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-6in	34	varies	-4	-0.1	0%	-0.1
1.4	Grass to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	34	-0.50	-17	-0.6	0%	-0.6
3.1	Grass to Play Surface	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	6	0.50	3	0.1	0%	0.1
3.2	Grass to Play Surface	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-12in	6	varies	3	0.1	0%	0.1
3.3	Grass to Play Surface	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	6	varies	0	0.0	0%	0.0
3.4	Grass to Play Surface	Play Surface Place	Place 12in wood mulch	n/a	n/a	6	-1.00	-6	-0.2	0%	-0.2
4.1	Grass to Timbers	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	4	0.50	2	0.1	0%	0.1
4.2	Grass to Timbers	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-12in	4	varies	2	0.1	0%	0.1
4.3	Grass to Timbers	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	4	varies	0	0.0	0%	0.0
4.4	Grass to Timbers	Border Timbers Place (placeholder volume)	Border Timbers (placeholder volume to balance volume comps)	n/a	n/a	4	-1.00	-4	-0.1	0%	-0.1
5.1	Play Surface to Grass	Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	6448	1.42	9135	338.3	0%	338.3
5.2	Play Surface to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-6in	6448	varies	-8301	-307.4	0%	-307.4
5.3	Play Surface to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	6448	-0.50	-3224	-119.4	0%	-119.4
6.1	Play Surface to Play Surface	Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	3733	1.42	5288	195.9	0%	195.9
6.2	Play Surface to Play Surface	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-12in	3733	varies	0	0.0	0%	0.0
6.3	Play Surface to Play Surface	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-12in	3733	varies	-3679	-136.3	0%	-136.3
6.4	Play Surface to Play Surface	Play Surface Place	Place 12in wood mulch	n/a	n/a	3733	-1.00	-3733	-138.3	0%	-138.3
7.1	Play Surface to Timbers	Play Surface Excavate	Remove est. 17in pea gravel	n/a	n/a	89	1.42	126	4.7	0%	4.7
7.2	Play Surface to Timbers	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-12in	89	varies	0	0.0	0%	0.0
7.3	Play Surface to Timbers	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-12in	89	varies	-102	-3.8	0%	-3.8
7.4	Play Surface to Timbers	Border Timbers Place (placeholder volume)	Place border timbers (12in tall). Placeholder volume to balance volume comps	n/a	n/a	89	-1.00	-89	-3.3	0%	-3.3
8.1	Adjust	Subsoil Excavate	Drain tile - approx 300 ft x 1ft wide x average 2 ft deep	n/a	n/a	300	2.00	600	22.2	0%	22.2
8.2	Adjust	Drain Tile Stone Place	Drain tile stone - approx 230 ft x 1ft wide x average 2 ft deep (approx - includes volume of pipe itself)	n/a	n/a	230	-2.00	-460	-17.0	0%	-17.0
8.3	Adjust	Subsoil Place	Drain Tile subsoil replacement outside playground - approx 70 ft x 1ft wide x average 2 ft deep (approx - includes volume of pipe itself)	n/a	n/a	70	-2.00	-140	-5.2	0%	-5.2

**Demetral Park Playground - Earthwork Quantities**

City of Madison Public Works Contract  
Date Revised: 2/2/2015

Derived from more detailed spreadsheet available from Parks Div

**Computation Summary**

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

Row Labels	Sum of Factored (Uncompacted) Volume (cu yd)
Border Timbers Place (placeholder volume)	-3.4
Drain Tile Stone Place	-17.0
Play Surface Excavate	538.9
Play Surface Place	-138.5
Subsoil Excavate	22.4
Subsoil Place	-452.8
Topsoil Excavate	0.8
Topsoil Place	-120.0
<b>Grand Total</b>	<b>-169.7</b>

Net subsoil	-430 cu yd
Net topsoil	-119 cu yd
Net topsoil & subsoil	-550 cu yd

**Reorganized into bid table items**

Bid Item	Quantity	Units	Relation to Table Above
20101 Excavation Cut	23	CY	= Subsoil Excavate + Topsoil Excavate
20103 Excavation Cut - Pea Gravel	539	CY	= Play Surface Excavate
20201 Fill	-430	CY	= Subsoil Excavate + Subsoil Place
20221 Topsoil	719	SY	= (Topsoil Place)/-. 167
40102 Crushed Aggregate Base Course Gradation No. 2 & 3	0	tons	= (Gravel Place) * -2 ton/cubic yard
40201 3" Depth HMA Pavement Type E-0.3	0.0	tons	= Asphalt Place * -2.16 ton/cubic yard
90003 Playground Surfacing - Wood Mulch	152	CY	= Play Surface Place * -1.10

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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 NUMBER:  
**4.5**

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

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*play*  
**MADISON  
 PARKS**

Graphical Scale



PROJECT:

*2015  
 PLAYGROUND  
 IMPROVEMENTS  
 - GROUP 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:  
**PROJECT LOCATION  
 AND SITE ACCESS**

SHEET NUMBER:  
**5.1**

EXISTING PLAY EQUIPMENT SHALL BE REMOVED BY CITY.  
 EXISTING PEA GRAVEL SURFACING SHALL BE REMOVED BY CONTRACTOR.

PROPOSED CONSTRUCTION FENCE. NO CONSTRUCTION OUTSIDE OF FENCE LIMITS.

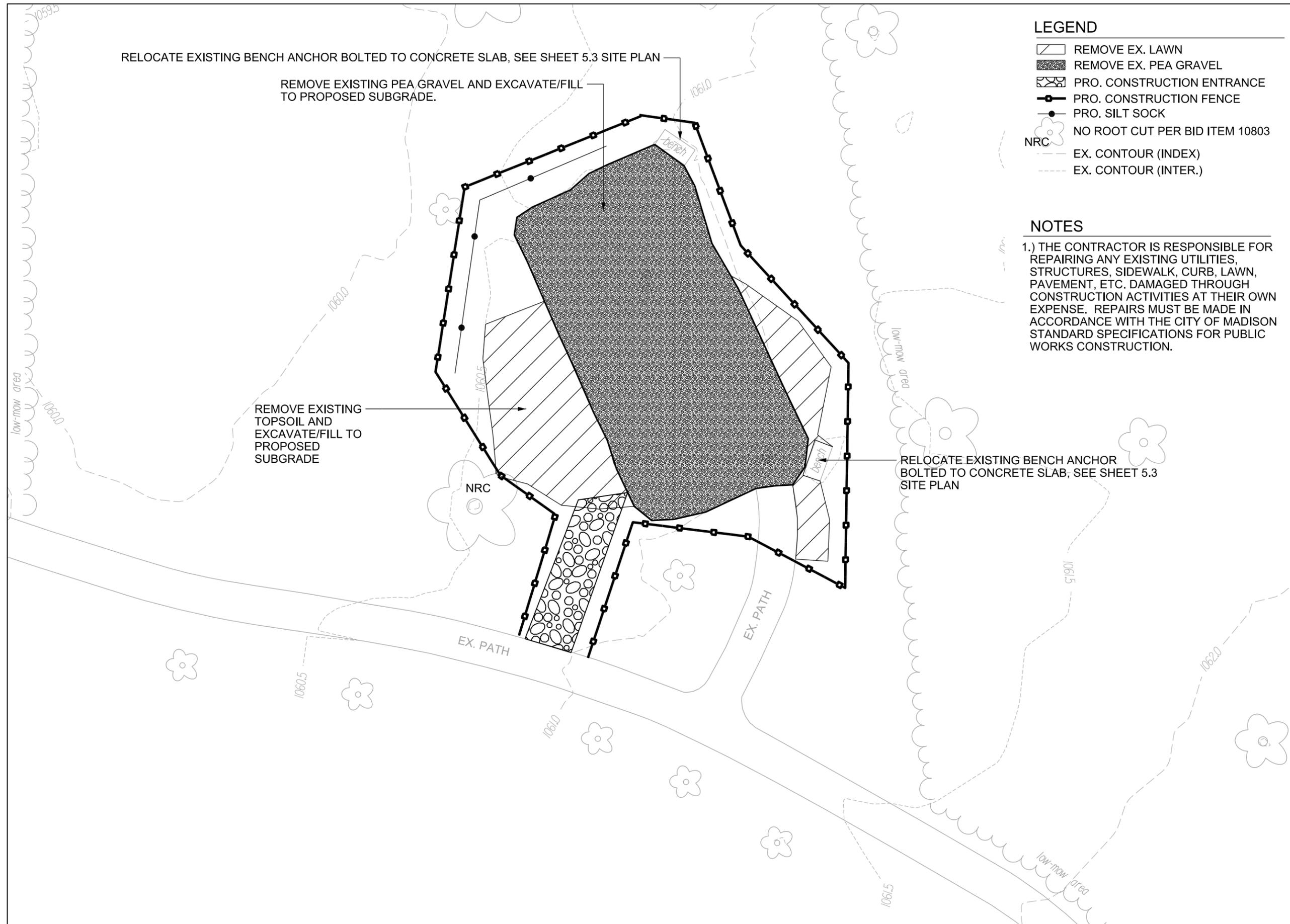
PROPOSED STAGING AREA WITHIN CONSTRUCTION FENCE LIMITS

JUNCTION RIDGE PARK

EX. PATH

EX. PATH

CONSTRUCTION ACCESS FROM JUNCTION RIDGE PARK PATH VIA AUGUSTA DRIVE. PROTECT EXISTING SURFACES (LAWN, CURB, SIDEWALK, PAVEMENT, ETC.) AND UTILITIES. REPAIR OF SURFACES AND UTILITIES IS INCIDENTAL TO THIS CONTRACT.



**LEGEND**

- REMOVE EX. LAWN
- REMOVE EX. PEA GRAVEL
- PRO. CONSTRUCTION ENTRANCE
- PRO. CONSTRUCTION FENCE
- PRO. SILT SOCK
- NO ROOT CUT PER BID ITEM 10803
- EX. CONTOUR (INDEX)
- EX. CONTOUR (INTER.)

**NOTES**

1.) THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY EXISTING UTILITIES, STRUCTURES, SIDEWALK, CURB, LAWN, PAVEMENT, ETC. DAMAGED THROUGH CONSTRUCTION ACTIVITIES AT THEIR OWN EXPENSE. REPAIRS MUST BE MADE IN ACCORDANCE WITH THE CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

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

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PO Box 2987  
Madison, WI 53701-2987

*play*  
**MADISON  
PARKS**



PROJECT:  
*2015  
PLAYGROUND  
IMPROVEMENTS  
- GROUP 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**

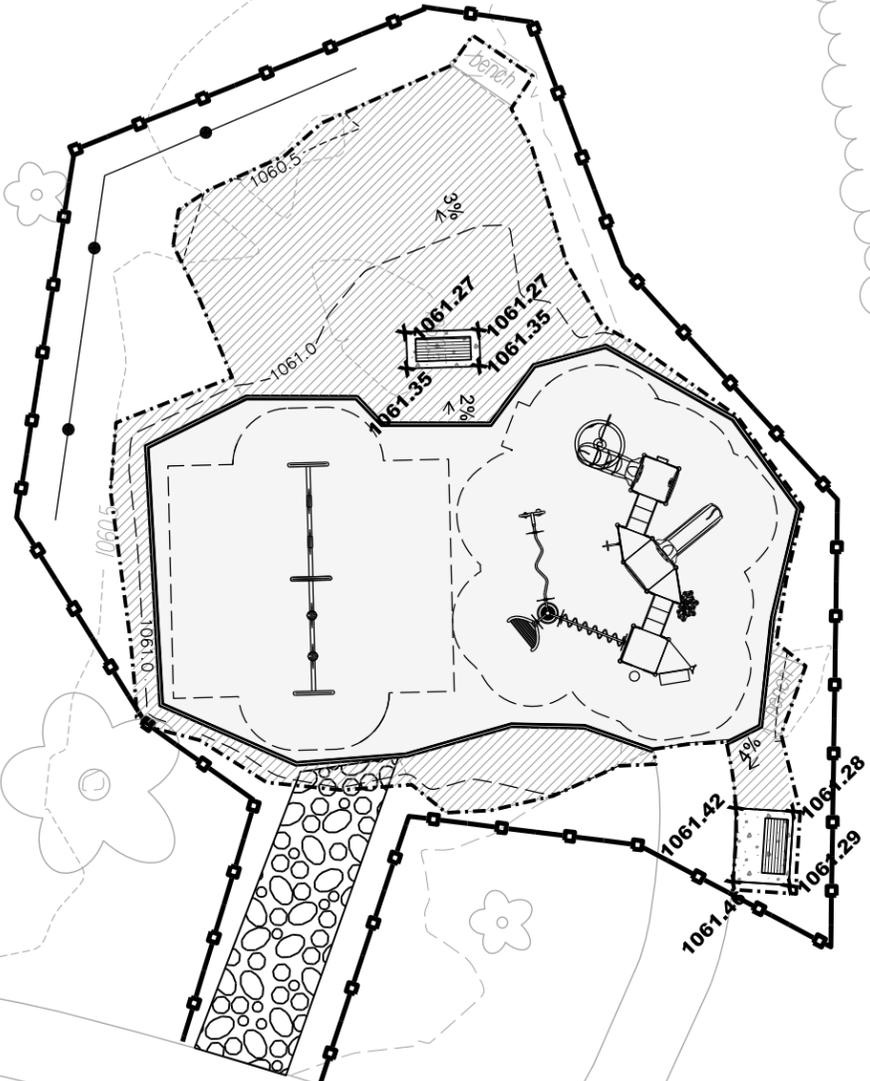
SHEET TITLE:  
**DEMOLITION AND  
PROTECTION PLAN**

SHEET NUMBER:  
**5.2**



EDGE OF PLAYGROUND BORDER TIMBERS: 1061.46  
 ELEVATION OF FINISHED PLAYGROUND SURFACE: 1061.29  
 PLAYGROUND SUBGRADE ELEVATION: 1060.29

JUNCTION RIDGE PARK



LEGEND

- ###+ PRO. SPOT EL.
- PRO. ASPHALT
- ▨ PRO. WOOD MULCH
- PRO. CONCRETE
- ▨ PRO. EROSION MATTING
- ▨ PRO. CONSTRUCTION ENTRANCE
- - - PRO. GRADING LIMITS
- PRO. CONSTRUCTION FENCE
- PRO. SILT SOCK
- - - PRO. CONTOUR (INDEX)
- - - PRO. CONTOUR (INTER.)
- - - EX. CONTOUR (INDEX)
- - - EX. CONTOUR (INTER.)

NOTES

- 1.) PLACE 4 OZ. PERMEABLE NON-WOVEN LANDSCAPE FABRIC OVER ENTIRE PLAYGROUND SUBGRADE PER DETAIL 8.2.
- 2.) PLAYGROUND EQUIPMENT SHALL BE INSTALLED WITH APPROPRIATE ELEVATIONS RELATIVE TO PROPOSED FINISHED SURFACE ELEVATIONS FOR PLAYGROUND SURFACING AS DEFINED IN PLANS.

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**PARKS DIVISION**

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Graphical Scale



PROJECT:

*2015  
 PLAYGROUND  
 IMPROVEMENTS  
 - GROUP 2*

*JUNCTION RIDGE PARK  
 8502 ELDERBERRY RD  
 MADISON, WI 53717*

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ITEM	DATE
Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**GRADING AND  
 EROSION CONTROL  
 PLAN**

SHEET NUMBER:  
**5.4**

**Junction Ridge Park Playground - Earthwork Quantities**

City of Madison Public Works Contract  
Date Revised: 2/5/2015

**Notes:**  
Positive volumes are cuts, negative volumes are fills.  
Not all parts of all surface models (Digital Terrain Models) are used for computations or intended for actual construction.

Existing Demetral\_Survey2014-10-23\_PlayComb.dtm  
Proposed Pro\_1.dtm

Sort	Grp	Material	Item	From Surface Model	To Surface Model	area (sq ft)	depth (ft)	Unfactored volume (cu ft)	Unfactored volume (cu yd)	Expansion Factor (%)	Factored (Uncompacted) Volume (cu yd)
1.1	Concrete to Grass	Concrete Excavate	Remove existing concrete bench pad (assumed 5in depth)	n/a	n/a	57	0.42	24	0.9	0%	0.9
1.2	Concrete to Grass	Gravel Excavate	Remove existing gravel base (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 subgrade	Ex-11in	Pro-6in	57	varies	0	0.0	0%	0.0
1.4	Concrete to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-11in	Pro-6in	57	varies	-20	-0.7	0%	-0.7
1.5	Concrete to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	57	-0.50	-29	-1.1	0%	-1.1
2.1	Concrete to Play Surface	Concrete Excavate	Remove existing concrete bench pad (assumed 5in depth)	n/a	n/a	4	0.42	2	0.1	0%	0.1
2.2	Concrete to Play Surface	Gravel Excavate	Remove existing gravel base (assumed 6in depth)	n/a	n/a	4	0.50	2	0.1	0%	0.1
2.3	Concrete to Play Surface	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-11in	Pro-12in	4	varies	1	0.0	0%	0.0
2.4	Concrete to Play Surface	Subsoil Place	Fill subsoil to proposed subgrade	Ex-11in	Pro-12in	4	varies	0	0.0	0%	0.0
2.5	Concrete to Play Surface	Play Surface Place	Place 12in wood chips	n/a	n/a	4	-1.00	-4	-0.1	0%	-0.1
3.1	Concrete to Timbers	Concrete Excavate	Remove existing concrete bench pad (assumed 5in depth)	n/a	n/a	2	0.42	1	0.0	0%	0.0
3.2	Concrete to Timbers	Gravel Excavate	Remove existing gravel base (assumed 6in depth)	n/a	n/a	2	0.50	1	0.0	0%	0.0
3.3	Concrete to Timbers	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-11in	Pro-12in	2	varies	0	0.0	0%	0.0
3.4	Concrete to Timbers	Subsoil Place	Fill subsoil to proposed subgrade	Ex-11in	Pro-12in	2	varies	0	0.0	0%	0.0
3.5	Concrete to Timbers	Topsoil Place	Place 6in topsoil	n/a	n/a	2	-0.50	-1	0.0	0%	0.0
4.1	Grass to Concrete	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	59	0.50	30	1.1	0%	1.1
4.2	Grass to Concrete	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-11in	59	varies	25	0.9	0%	0.9
4.3	Grass to Concrete	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-11in	59	varies	0	0.0	0%	0.0
4.4	Grass to Concrete	Gravel Place	Place 6in gravel base out 6in from pavement edge	n/a	n/a	59	-0.50	-30	-1.1	0%	-1.1
4.5	Grass to Concrete	Concrete Place	Place 5in concrete	n/a	n/a	49	-0.42	-20	-0.8	0%	-0.8
4.6	Grass to Concrete	Topsoil Place	Place 5in topsoil around 6in wide gravel edge	n/a	n/a	10	-0.42	-4	-0.2	0%	-0.2
5.1	Grass to Grass	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	300	0.50	150	5.6	0%	5.6
5.2	Grass to Grass	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-6in	300	varies	1	0.0	0%	0.0
5.3	Grass to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-6in	300	varies	-78	-2.9	0%	-2.9
5.4	Grass to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	300	-0.50	-150	-5.6	0%	-5.6
6.1	Grass to Play Surface	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	883	0.50	442	16.4	0%	16.4
6.2	Grass to Play Surface	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-12in	883	varies	125	4.6	0%	4.6
6.3	Grass to Play Surface	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	883	varies	-24	-0.9	0%	-0.9
6.4	Grass to Play Surface	Play Surface Place	Place 12in wood mulch	n/a	n/a	883	-1.00	-883	-32.7	0%	-32.7

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

**Junction Ridge Park Playground - Earthwork Quantities**

City of Madison Public Works Contract  
Date Revised: 2/5/2015

Derived from more detailed spreadsheet available from Parks Div

**Computation Summary**

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

Row Labels	Sum of Factored (Uncompacted) Volume (cu yd)
Border Timbers Place (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
<b>Grand Total</b>	<b>-61.3</b>

Net subsoil	-115 cu yd
Net topsoil	-8 cu yd
Net topsoil & subsoil	-123 cu yd

**Reorganized into bid table items**

Bid Item	Quantity	Units	Relation to Table Above
20101 Excavation Cut	32	CY	= Subsoil Excavate + Topsoil 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

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*play*  
**MADISON PARKS**

PROJECT:

*2015*  
**PLAYGROUND IMPROVEMENTS**  
**- GROUP 2**

**JUNCTION RIDGE PARK**  
**8502 ELDERBERRY RD**  
**MADISON, WI 53717**

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ITEM DATE  
Drawn by: SCL 03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

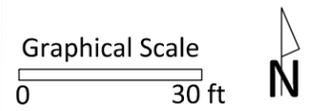
SHEET TITLE:  
**DESIGN CALCULATIONS**

SHEET NUMBER:  
**5.5**



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

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PROJECT:  
**2015  
 PLAYGROUND  
 IMPROVEMENTS  
 - GROUP 2**

**SUNRIDGE PARK  
 5901 PIPING ROCK RD.  
 MADISON, WI 53711**

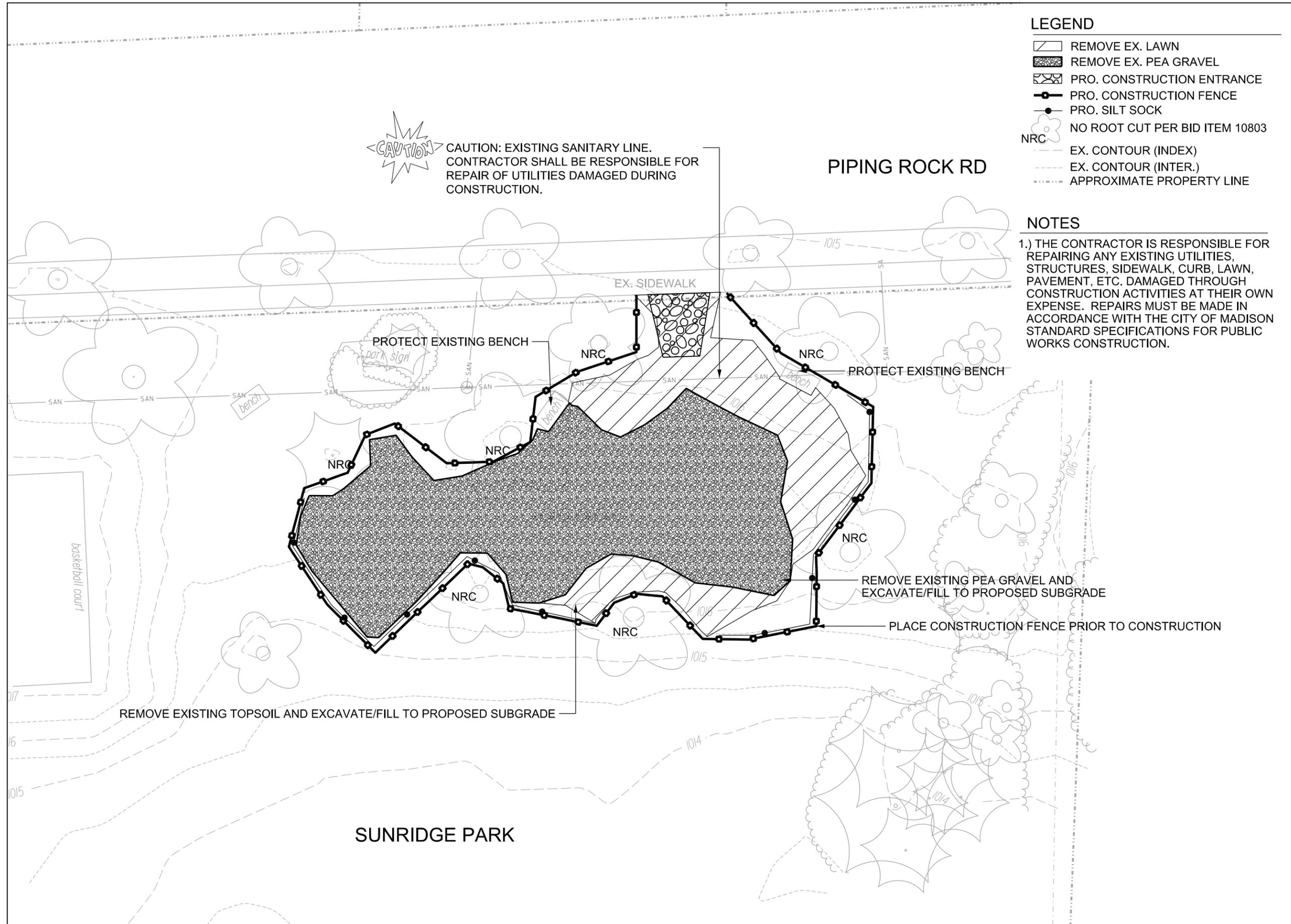
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ITEM	DATE
Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**PROJECT LOCATION  
 AND SITE ACCESS**

SHEET NUMBER:  
**6.1**



**LEGEND**

- REMOVE EX. LAWN
- REMOVE EX. PEA GRAVEL
- PRO. CONSTRUCTION ENTRANCE
- PRO. CONSTRUCTION FENCE
- PRO. SILT SOCK
- NO ROOT CUT PER BID ITEM 10803
- NRC
- EX. CONTOUR (INDEX)
- EX. CONTOUR (INTER.)
- APPROXIMATE PROPERTY LINE

**NOTES**

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*play*  
**MADISON PARKS**

Graphical Scale

0 20 ft



PROJECT:

*2015  
PLAYGROUND  
IMPROVEMENTS  
- GROUP 2*

*SUNRIDGE PARK  
5901 PIPING ROCK RD.  
MADISON, WI 53711*

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PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**DEMOLITION AND PROTECTION PLAN**

SHEET NUMBER:  
**6.2**



EDGE OF PLAYGROUND BORDER TIMBERS: ~1015.97 (SEE SPOT ELEVATIONS)  
 ELEVATION OF FINISHED PLAYGROUND SURFACE: 1015.81 (ASSUMES 2" OF COMPACTION.  
 CONTRACTOR SHALL INSTALL RUBBER MULCH TO TOP OF PLAYGROUND BORDER TIMBERS)  
 PLAYGROUND SUBGRADE ELEVATION: 1015.23  
 ASPHALT AT PLAYGROUND ELEVATION: 1015.81

PIPING ROCK RD

PROTECT (3) INLETS WITH TYPE D HYBRID INLET PROTECTION AT CORNER OF PIPING ROCK ROAD AND MANHASSET PL



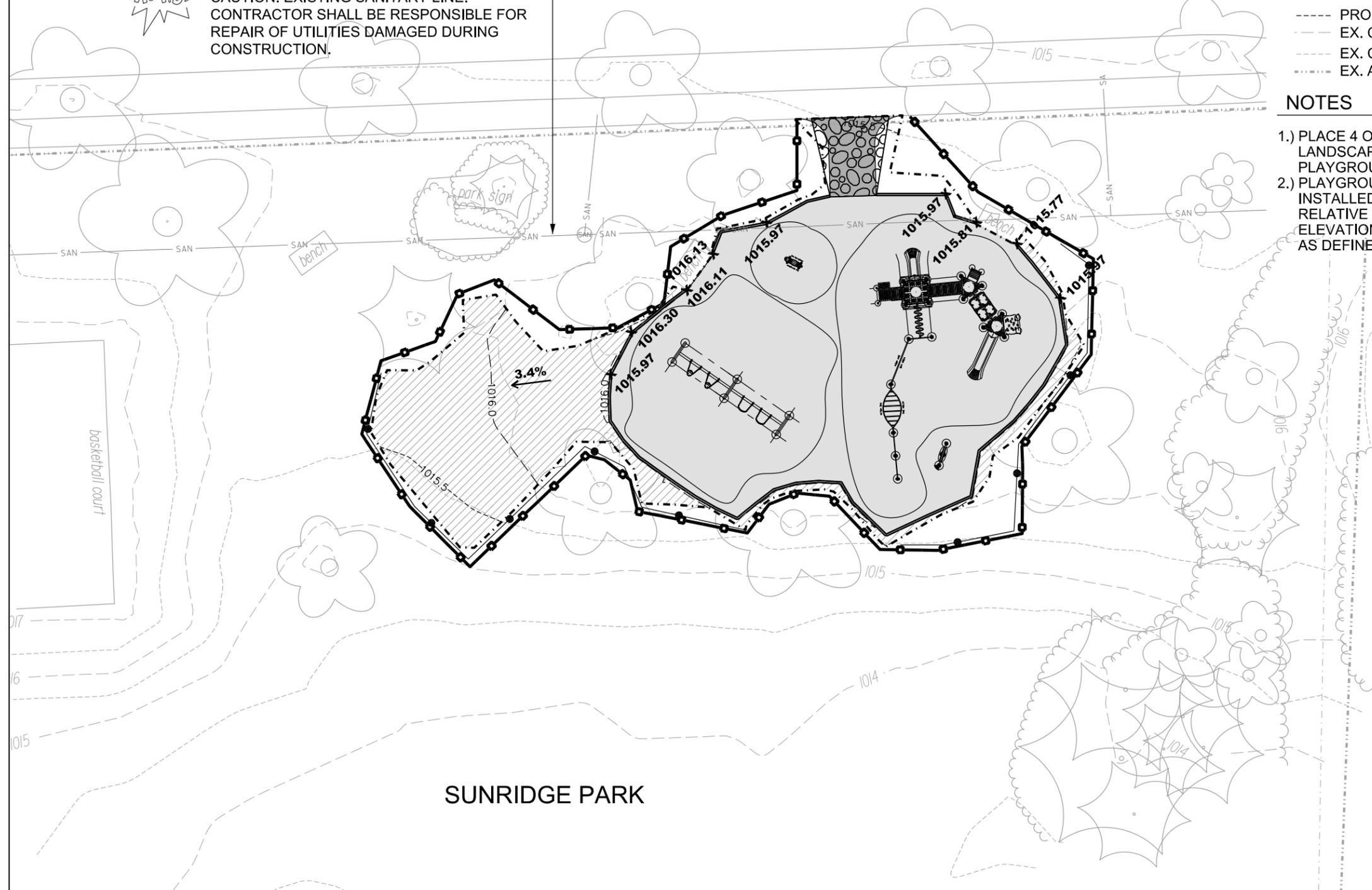
CAUTION: EXISTING SANITARY LINE.  
 CONTRACTOR SHALL BE RESPONSIBLE FOR  
 REPAIR OF UTILITIES DAMAGED DURING  
 CONSTRUCTION.

LEGEND

- PRO. SPOT EL.
- PRO. ASPHALT
- PRO. RUBBER MULCH
- PRO. EROSION MATTING
- PRO. CONSTRUCTION ENTRANCE
- PRO. GRADING LIMITS
- PRO. CONSTRUCTION FENCE
- PRO. SILT SOCK
- PRO. CONTOUR (INDEX)
- PRO. CONTOUR (INTER)
- EX. CONTOUR (INDEX)
- EX. CONTOUR (INTER.)
- EX. APPROXIMATE PROPERTY LINE

NOTES

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*play*  
**MADISON  
 PARKS**

Graphical Scale  
 0 20 ft



PROJECT:  
**2015  
 PLAYGROUND  
 IMPROVEMENTS  
 - GROUP 2**

**SUNRIDGE PARK  
 5901 PIPING ROCK RD.  
 MADISON, WI 53711**

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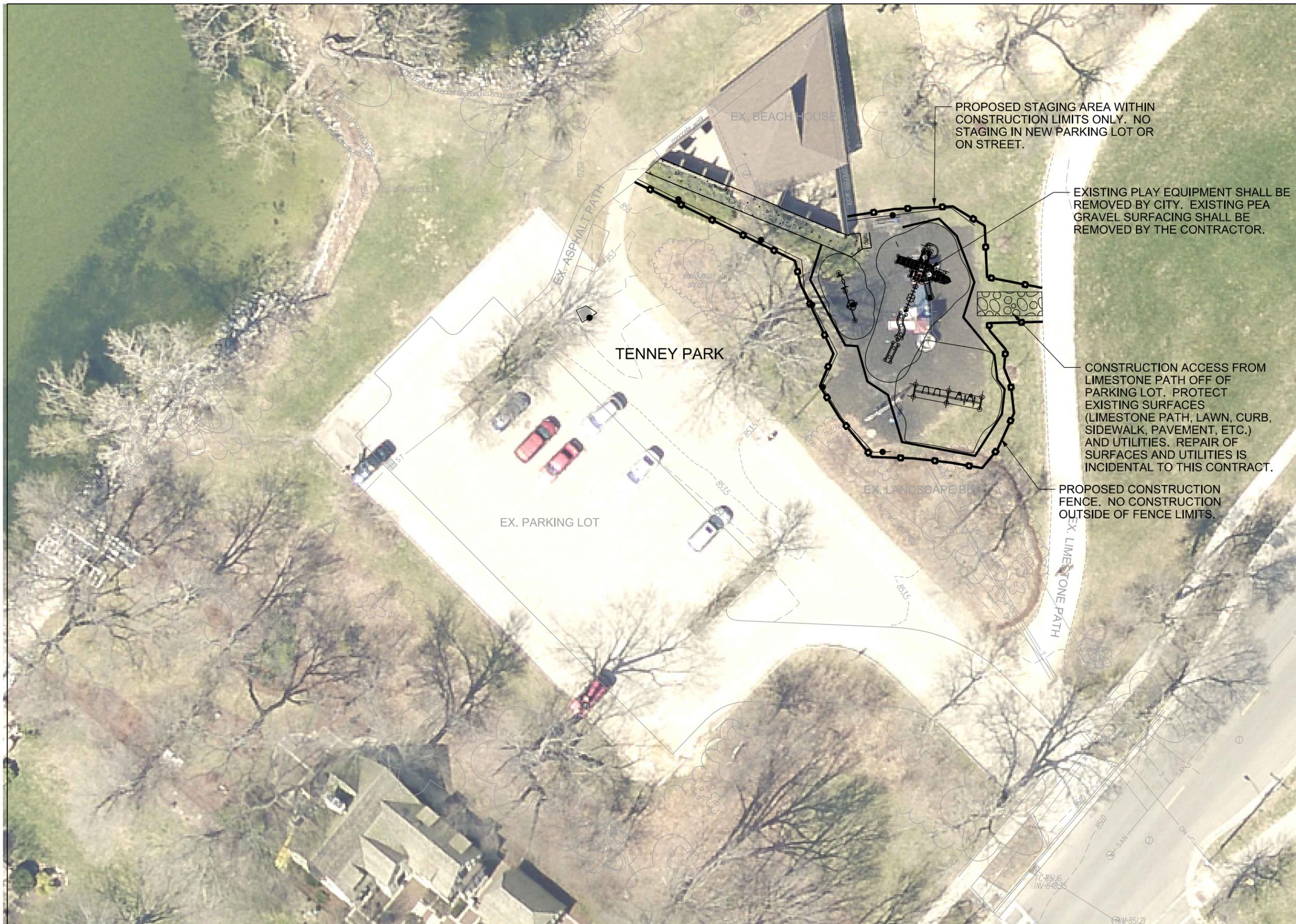
ITEM	DATE
Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**GRADING AND  
 EROSION CONTROL  
 PLAN**

SHEET NUMBER:  
**6.4**





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*play*  
**MADISON  
 PARKS**

Graphical Scale  
 0 30 ft

PROJECT:  
**2015  
 PLAYGROUND  
 IMPROVEMENTS  
 - GROUP 2**

**TENNEY PARK  
 1414 E JOHNSON ST  
 MADISON, WI 53703**

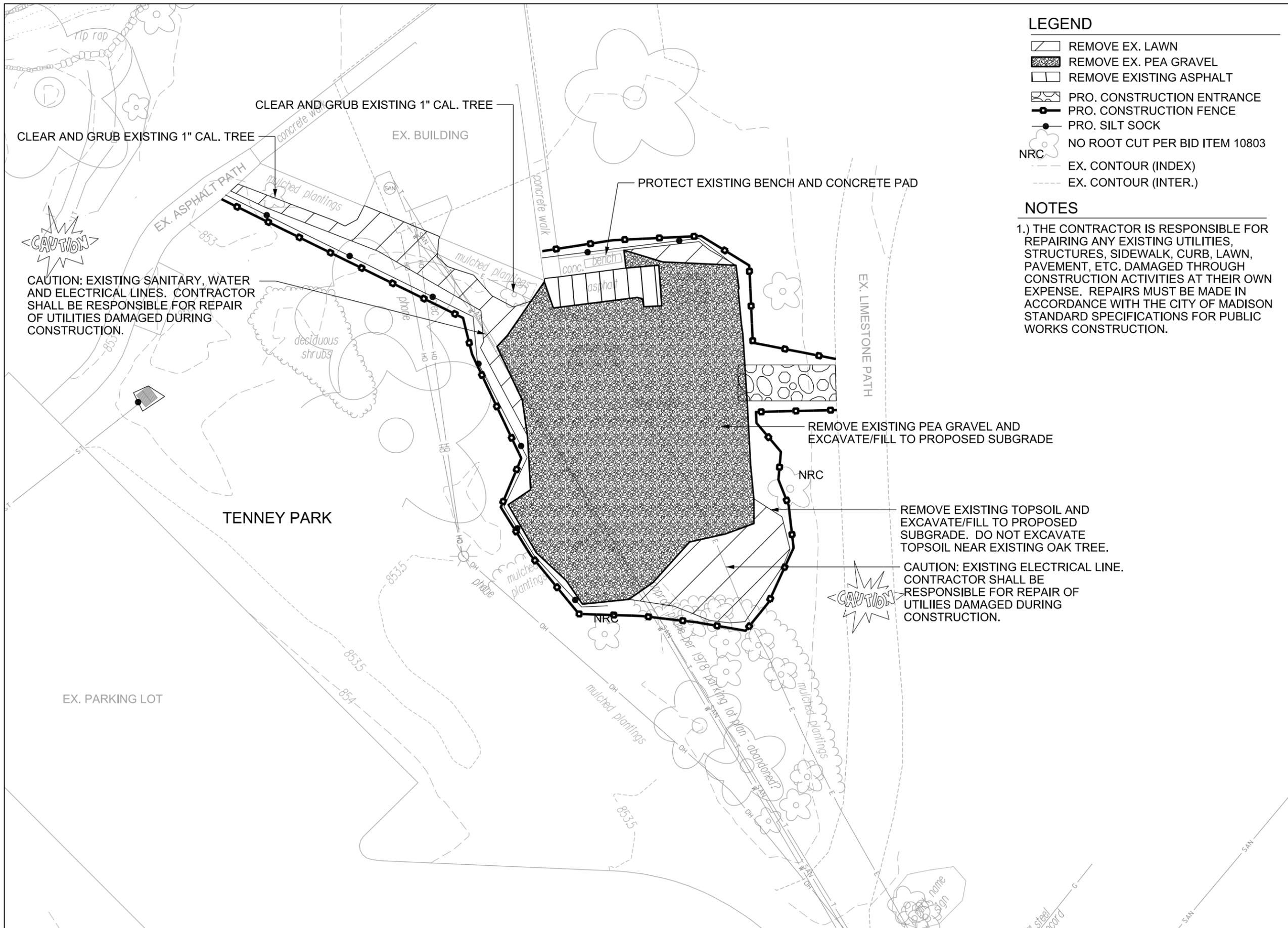
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ITEM	DATE
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PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**PROJECT LOCATION  
 AND SITE ACCESS**

SHEET NUMBER:  
**7.1**



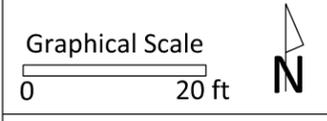
**LEGEND**

- REMOVE EX. LAWN
- REMOVE EX. PEA GRAVEL
- REMOVE EXISTING ASPHALT
- PRO. CONSTRUCTION ENTRANCE
- PRO. CONSTRUCTION FENCE
- PRO. SILT SOCK
- NRC
- EX. CONTOUR (INDEX)
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**MADISON**  
**PARKS**



PROJECT:  
*2015*  
**PLAYGROUND**  
**IMPROVEMENTS**  
 - GROUP 2

**TENNEY PARK**  
 1414 E JOHNSON ST  
 MADISON, WI 53703

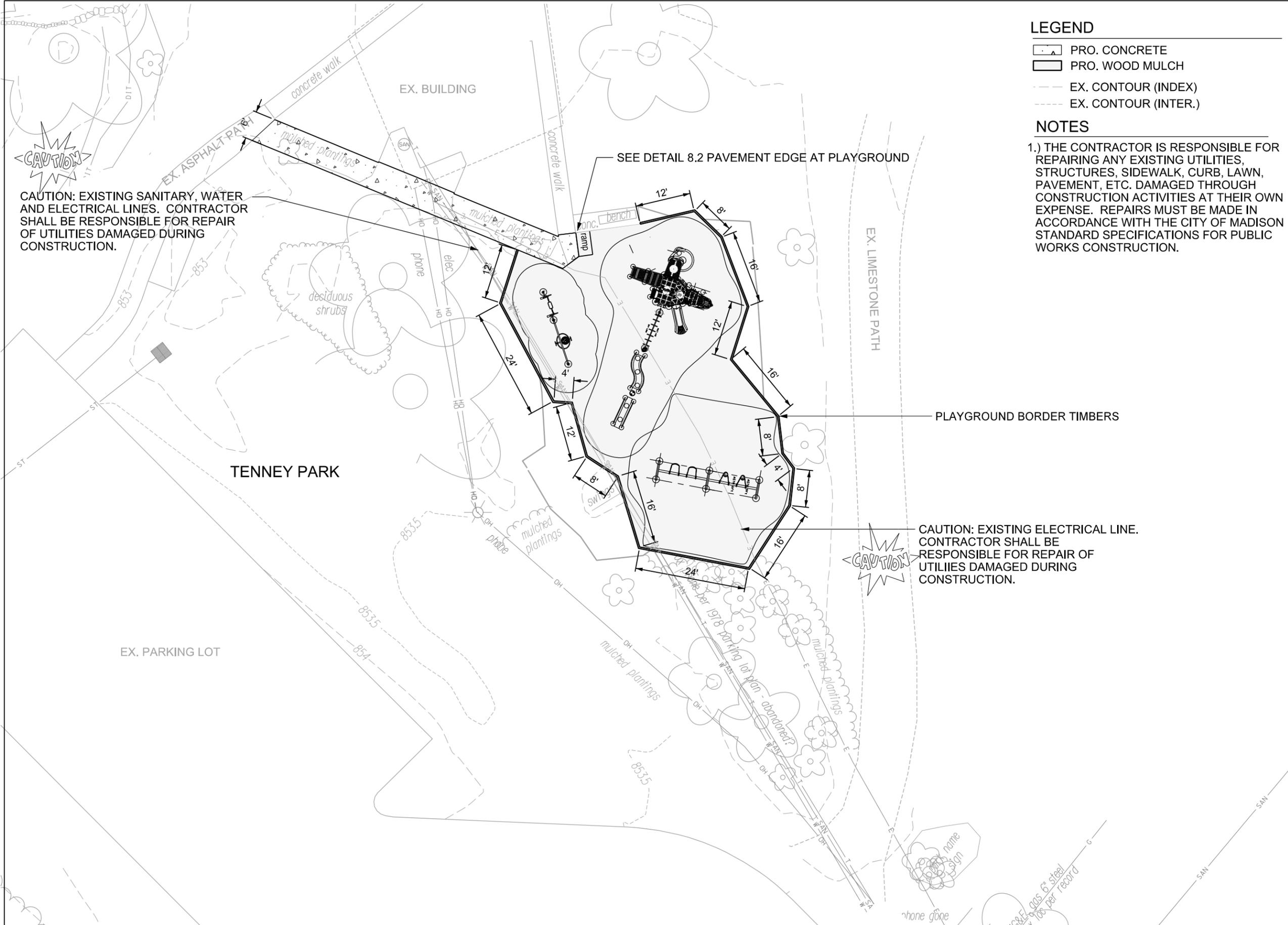
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Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**DEMOLITION AND PROTECTION PLAN**

SHEET NUMBER:  
**7.2**



**LEGEND**

- PRO. CONCRETE
- PRO. WOOD MULCH
- EX. CONTOUR (INDEX)
- EX. CONTOUR (INTER.)

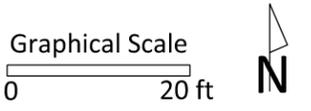
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*play*  
**MADISON**  
**PARKS**



PROJECT:  
*2015*  
**PLAYGROUND**  
**IMPROVEMENTS**  
 - GROUP 2

**TENNEY PARK**  
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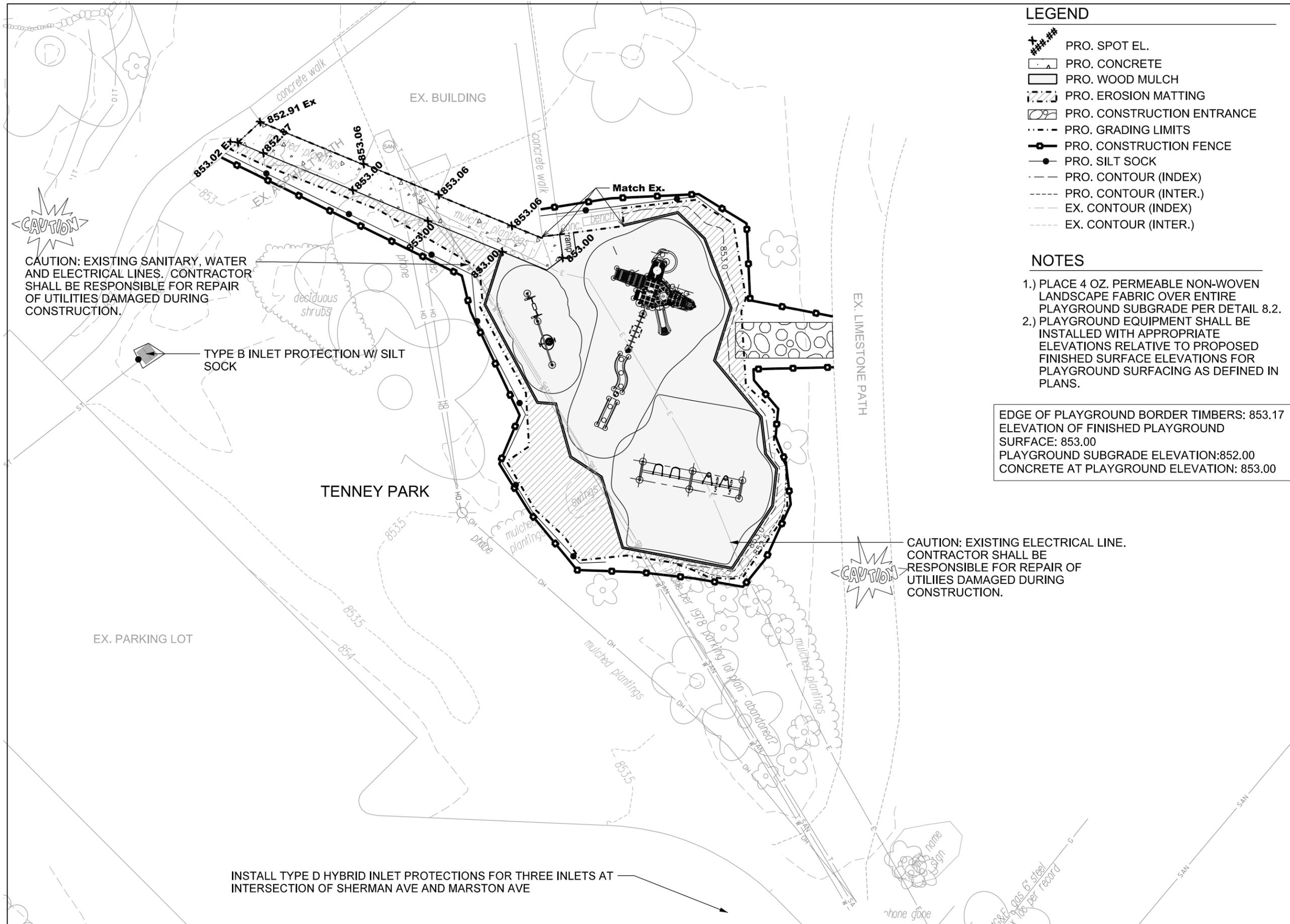
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ITEM	DATE
Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**SITE PLAN**

SHEET NUMBER:  
**7.3**



**LEGEND**

- PRO. SPOT EL.
- PRO. CONCRETE
- PRO. WOOD MULCH
- PRO. EROSION MATTING
- PRO. CONSTRUCTION ENTRANCE
- PRO. GRADING LIMITS
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- PRO. CONTOUR (INDEX)
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**NOTES**

- 1.) PLACE 4 OZ. PERMEABLE NON-WOVEN LANDSCAPE FABRIC OVER ENTIRE PLAYGROUND SUBGRADE PER DETAIL 8.2.
- 2.) PLAYGROUND EQUIPMENT SHALL BE INSTALLED WITH APPROPRIATE ELEVATIONS RELATIVE TO PROPOSED FINISHED SURFACE ELEVATIONS FOR PLAYGROUND SURFACING AS DEFINED IN PLANS.

EDGE OF PLAYGROUND BORDER TIMBERS: 853.17  
 ELEVATION OF FINISHED PLAYGROUND SURFACE: 853.00  
 PLAYGROUND SUBGRADE ELEVATION: 852.00  
 CONCRETE AT PLAYGROUND ELEVATION: 853.00

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**PARKS DIVISION**  
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 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.

ITEM	DATE
Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**GRADING AND EROSION CONTROL PLAN**

SHEET NUMBER:  
**7.4**

Tenney Park Beach Playground - Earthwork Quantities											
City of Madison Public Works Contract											
Date Revised: 2/5/2015											
<b>Notes:</b>											
Positive volumes are cuts, negative volumes are fills.											
Not all parts of all surface models (Digital Terrain Models) are used for computations or intended for actual construction.											
Existing	Tenney_Sun2013-11-01_BeachComb.dtm										
Proposed	Pro_1.dtm										

Sort	Grp	Material	Item	From Surface Model	To Surface Model	area (sq ft)	depth (ft)	Unfactored volume (cu ft)	Unfactored volume (cu yd)	Expansion Factor (%)	Factored (Uncompacted) Volume (cu yd)
1.1	Asphalt to Concrete	Asphalt Excavate	Remove estimated 3in asphalt in existing playground	n/a	n/a	44	0.25	11	0.4	0%	0.4
1.2	Asphalt to Concrete	Gravel Excavate	Remove estimated 6in gravel base in existing playground	n/a	n/a	44	0.50	22	0.8	0%	0.8
1.3	Asphalt to Concrete	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-9in	Pro-11in	44	varies	3	0.1	0%	0.1
1.4	Asphalt to Concrete	Subsoil Place	Fill subsoil to proposed subgrade	Ex-9in	Pro-11in	44	varies	0	0.0	0%	0.0
1.5	Asphalt to Concrete	Gravel Place	Place 6in deep gravel base out to 6in from concrete edge	n/a	n/a	44	-0.50	-22	-0.8	0%	-0.8
1.6	Asphalt to Concrete	Concrete Place	Place 5in concrete	n/a	n/a	41	-0.42	-17	-0.6	0%	-0.6
1.7	Asphalt to Concrete	Play Surface Place	Place 5in wood mulch play surface on 6in wide gravel edge	n/a	n/a	3	-0.42	-1	0.0	0%	0.0
2.1	Asphalt to Play Surface	Asphalt Excavate	Remove estimated 3in asphalt in existing playground	n/a	n/a	124	0.25	31	1.1	0%	1.1
2.2	Asphalt to Play Surface	Gravel Excavate	Remove estimated 6in gravel base in existing playground	n/a	n/a	124	0.50	62	2.3	0%	2.3
2.3	Play Surface	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-9in	Pro-12in	124	varies	15	0.5	0%	0.5
2.4	Play Surface	Subsoil Place	Fill subsoil to proposed subgrade	Ex-9in	Pro-12in	124	varies	0	0.0	0%	0.0
2.5	Play Surface	Play Surface Place	Place 12in wood mulch play surface	n/a	n/a	124	-1.00	-124	-4.6	0%	-4.6
3.1	Grass to Concrete	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	439	0.50	220	8.1	0%	8.1
3.2	Grass to Concrete	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-11in	439	varies	138	5.1	0%	5.1
3.3	Grass to Concrete	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-11in	439	varies	0	0.0	0%	0.0
3.4	Grass to Concrete	Gravel Place	Place 6in deep gravel base out to 6in from concrete edge	n/a	n/a	439	-0.50	-220	-8.1	0%	-8.1
3.5	Grass to Concrete	Concrete Place	Place 5in concrete	n/a	n/a	405	-0.42	-169	-6.3	0%	-6.3
3.6	Grass to Concrete	Topsoil Place	Place 5in topsoil on 6in wide gravel edge	n/a	n/a	34	-0.42	-14	-0.5	0%	-0.5
4.1	Grass to Grass	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	404	0.50	202	7.5	0%	7.5
4.2	Grass to Grass	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-11in	404	varies	3	0.1	0%	0.1
4.3	Grass to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-11in	404	varies	-75	-2.8	0%	-2.8
4.4	Grass to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	404	-0.50	-202	-7.5	0%	-7.5
5.1	Grass to Play Surface	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	447	0.50	224	8.3	0%	8.3
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
5.3	Grass to Play Surface	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	447	varies	-9	-0.3	0%	-0.3
5.4	Grass to Play Surface	Play Surface Place	Place 12in wood mulch play surface	n/a	n/a	447	-1.00	-447	-16.6	0%	-16.6
6.1	Grass to Timbers	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	33	0.50	17	0.6	0%	0.6
6.2	Grass to Timbers	Subsoil Excavate	Cut subsoil to proposed 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
6.4	Grass to Timbers	Border Timbers Place (placeholder volume)	Place border timbers (placeholder to balance volume comps)	n/a	n/a	33	-1.00	-33	-1.2	0%	-1.2
7.1	Play Surface to Concrete	Play Surface Excavate	Remove existing pea gravel play surface (est. 17 in depth)	n/a	n/a	34	1.42	48	1.8	0%	1.8
7.2	Play Surface to Concrete	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-11in	34	varies	0	0.0	0%	0.0
7.3	Play Surface to Concrete	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-11in	34	varies	-20	-0.7	0%	-0.7
7.4	Play Surface to Concrete	Gravel Place	Place 6in deep gravel base out to 6in from concrete edge	n/a	n/a	34	-0.50	-17	-0.6	0%	-0.6
7.5	Play Surface to Concrete	Concrete Place	Place 5in concrete	n/a	n/a	28	-0.42	-12	-0.4	0%	-0.4
7.6	Play Surface to Concrete	Play Surface Place	Place 5in wood mulch play surface on 6in wide gravel edge	n/a	n/a	6	-0.42	-3	-0.1	0%	-0.1

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

Tenney Park Beach Playground - Earthwork Quantities											
City of Madison Public Works Contract											
Date Revised: 2/5/2015											

Derived from more detailed spreadsheet available from Parks Div

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

Row Labels	Sum of Factored (Uncompacted) Volume (cu yd)
Asphalt Excavate	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	-18.2
<b>Grand Total</b>	<b>-31.4</b>
Net subsoil	-70 cu yd
Net topsoil	6 cu yd
Net topsoil & subsoil	-64 cu yd

**Reorganized into bid table items**

Bid Item	Quantity	Units	Relation to Table Above
20101 Excavation Cut	40	CY	= Asphalt Excavate + Gravel Excavate + Subsoil Excavate + Topsoil Excavate
20103 Excavation Cut - Pea Gravel	157	CY	= Play Surface Excavate
20201 Fill	-70	CY	= Subsoil Excavate + Subsoil Place
20221 Topsoil	109	SY	= (Topsoil Place)-.167
90004 Playground Surfacing - Wood Mulch	121	CY	= Play Surface Place * -1.10

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*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.*

ITEM	DATE
Drawn by: SCL	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
*DESIGN*  
**CALCULATIONS**

SHEET NUMBER:  
**7.5**

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PROJECT:

*2015 PARK  
 PLAYGROUNDS -  
 GROUP 2*

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ITEM	DATE
Drawn by: SCL/KK	03-06-2015

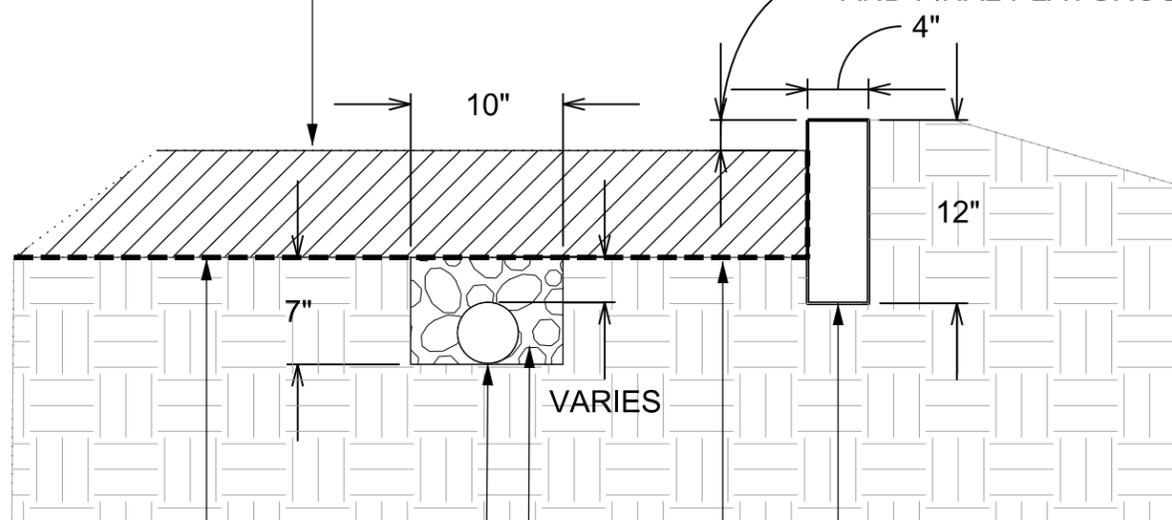
PUBLIC WORKS PROJECT #:  
**7439**

SHEET TITLE:  
**TYPICAL PLAYGROUND  
 SURFACING WITH  
 UNDERDRAIN**

SHEET NUMBER:  
**8.1**

PLAYGROUND SURFACING

2" LIP BETWEEN PLAYGROUND BORDER TIMBERS AND FINAL PLAYGROUND SURFACING GRADE



TEXTILE FABRIC TYPE SAS NON WOVEN (MIN. 4 OZ/SY)

4 INCH PERFORATED PVC DRAIN PIPE WITH 'SOCK'  
 PITCHED MINIMUM OF 0.5% SLOPE

OPEN GRADED BASE COURSE WI DOT GRADATION  
 NO. 2 AS SPECIFIED IN SECTION 501.2.5.4.4 OF WI  
 DOT STANDARD SPECIFICATIONS

PLAYGROUND SUBGRADE  
 - MIN. 7" FROM PLAYGROUND SURFACE FINISHED  
 GRADE FOR SHREDDED RUBBER MULCH  
 - MIN. 12" FROM FROM PLAYGROUND SURFACE  
 FINISHED GRADE FOR WOOD MULCH

PROPOSED PLAYGROUND BORDER  
 TIMBERS PER MANUFACTURER'S  
 INSTALLATION SPECIFICATIONS

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PROJECT:

*2015 PARK  
 PLAYGROUNDS -  
 GROUP 2*

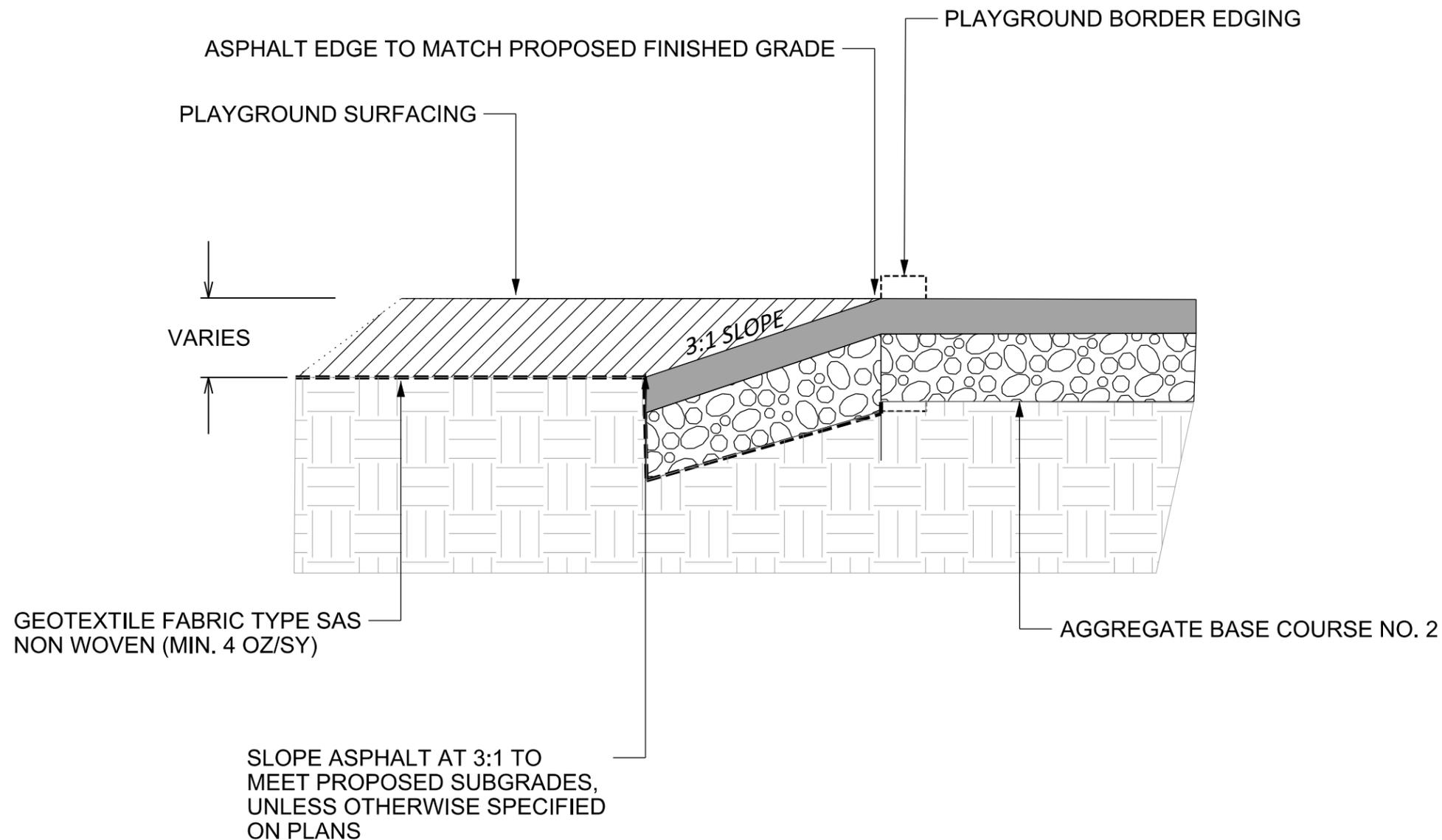
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ITEM	DATE
Drawn by: SCL/KK	03-06-2015

PUBLIC WORKS PROJECT #:  
**7493**

SHEET TITLE:  
**PAVEMENT EDGE  
 AT PLAYGROUND**

SHEET NUMBER:  
**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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**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 NUMBER:

**8.3**

