

Madison, Wisconsin

CITY OF MADISON

CITY ENGINEERING DIVISION

DEPARTMENT OF PUBLIC WORKS

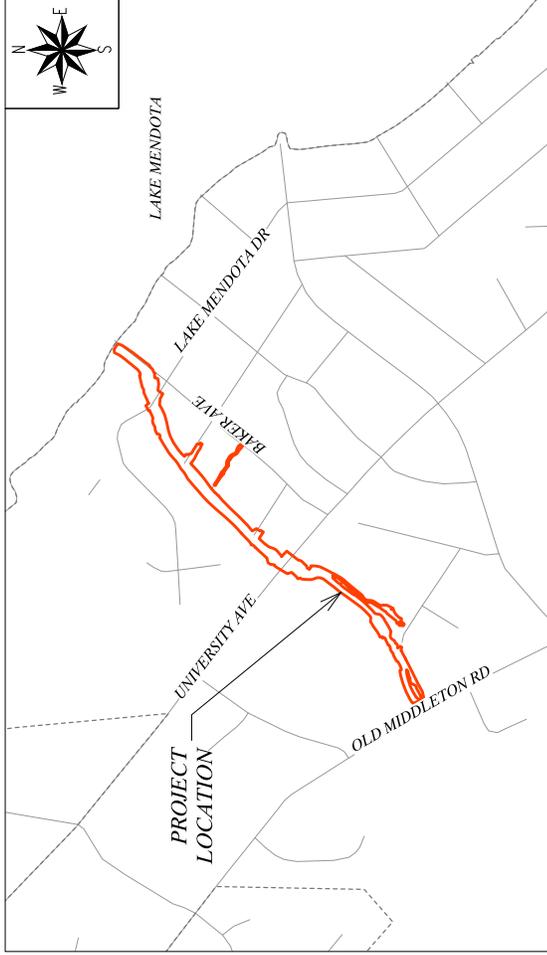
PLAN OF PROPOSED IMPROVEMENT

MENDOTA GRASSMAN GREENWAY

INDEX OF SHEETS

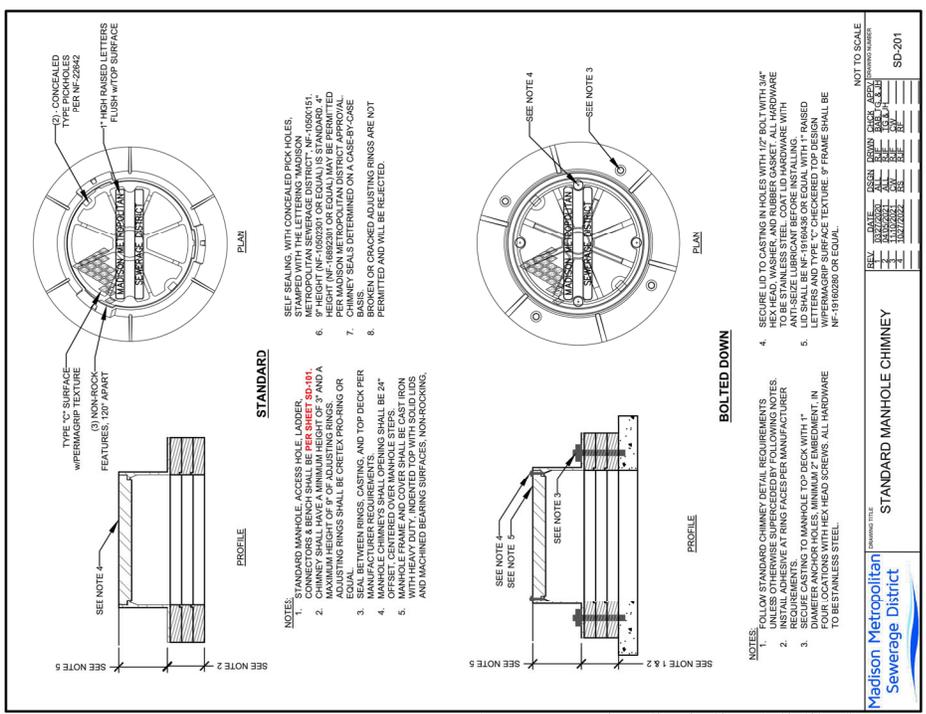
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CITY PROJECT NO. 12882
CONTRACT NO. 9439



PUBLIC IMPROVEMENT PROJECT APPROVED	APPROVED DATE	PUBLIC IMPROVEMENT DESIGN APPROVED BY:	GREENWAY, UTILITY, AND ROADWAY DESIGN BY:	CULVERT STRUCTURAL DESIGN BY:
				
		5/12/2023		

PROJECT DATE: 2023	NO.	DATE	REVISION
DESIGNED BY: [Blank]	NO.	DATE	REVISION
CHECKED BY: [Blank]	NO.	DATE	REVISION
PROJECT NO. 12882	TITLE SHEET		
MENDOTA GRASSMAN GREENWAY IMPROVEMENTS			
CITY OF MADISON			
DANE COUNTY, WISCONSIN			
 <small>ENGINEERING ARCHITECTURE SURVEYING PLANNING ENVIRONMENTAL CONSULTING CONSTRUCTION</small> <small>(608) 842-7778 www.msa-pc.com</small> <small>© 2023 MSA Professional Services, Inc.</small>			



TYPE 'C' SURFACE WIPERAGRIP TEXTURE FEATURES, 120° APART

CONCEALED TYPE PICKHOLES PER NF-2942

1/2" WASH PAVED LETTERS FLUSH TO TOP SURFACE

PLAN

PLAN

PROFILE

PROFILE

SEE NOTE 2

SEE NOTE 4

SEE NOTE 5

SEE NOTE 1 & 2

SEE NOTE 3

SEE NOTE 4

SEE NOTE 5

STANDARD

NOTES:

- STANDARD MANHOLE ACCESS LADDER SHALL BE CAST IN PLACE WITH THE MANHOLE CHIMNEY. CHIMNEY SHALL HAVE A MINIMUM HEIGHT OF 3' AND A MAXIMUM HEIGHT OF 9'. ADJUSTING RINGS, CASTING RINGS SHALL BE CRETEN, PROTRUDING OR EQUAL.
- SEAL BETWEEN RINGS, CASTING AND TOP DECK PER NF-1699201 OR EQUAL. MANHOLE CHIMNEYS SHALL BE CAST WITH HEAVY DUTY, INDENTED TOP WITH SOLID LIDS AND MACHINED BEARING SURFACES. NON-ROCKING.
- MANHOLE CHIMNEYS SHALL BE CAST WITH HEAVY DUTY, INDENTED TOP WITH SOLID LIDS AND MACHINED BEARING SURFACES. NON-ROCKING.
- MANHOLE CHIMNEYS SHALL BE CAST WITH HEAVY DUTY, INDENTED TOP WITH SOLID LIDS AND MACHINED BEARING SURFACES. NON-ROCKING.
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- MANHOLE CHIMNEYS SHALL BE CAST WITH HEAVY DUTY, INDENTED TOP WITH SOLID LIDS AND MACHINED BEARING SURFACES. NON-ROCKING.

SELF SEALING, WITH CONCEALED PICK HOLES. STAMPED WITH THE LETTERING "MADISON CITY OF MADISON WISCONSIN".

CHIMNEY SHALL BE CAST WITH HEAVY DUTY, INDENTED TOP WITH SOLID LIDS AND MACHINED BEARING SURFACES. NON-ROCKING.

CHIMNEY SHALL HAVE A MINIMUM HEIGHT OF 3' AND A MAXIMUM HEIGHT OF 9'. ADJUSTING RINGS, CASTING RINGS SHALL BE CRETEN, PROTRUDING OR EQUAL.

SEAL BETWEEN RINGS, CASTING AND TOP DECK PER NF-1699201 OR EQUAL. MANHOLE CHIMNEYS SHALL BE CAST WITH HEAVY DUTY, INDENTED TOP WITH SOLID LIDS AND MACHINED BEARING SURFACES. NON-ROCKING.

BOLTED DOWN

NOTES:

- FOLLOW STANDARD CHIMNEY DETAIL REQUIREMENTS UNLESS OTHERWISE SPECIFIED BY FOLLOWING NOTES.
- INSTALL CHIMNEY AND RINGS PER MANHOLE LID DETAIL REQUIREMENTS.
- MANHOLE CHIMNEYS SHALL BE CAST WITH HEAVY DUTY, INDENTED TOP WITH SOLID LIDS AND MACHINED BEARING SURFACES. NON-ROCKING.
- MANHOLE CHIMNEYS SHALL BE CAST WITH HEAVY DUTY, INDENTED TOP WITH SOLID LIDS AND MACHINED BEARING SURFACES. NON-ROCKING.
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PLAN

PLAN

PROFILE

PROFILE

SEE NOTE 1 & 2

SEE NOTE 3

SEE NOTE 4

SEE NOTE 5

SEE NOTE 1

SEE NOTE 2

SEE NOTE 3

SEE NOTE 4

SEE NOTE 5

SECURE LID TO CASTING IN HOLES WITH 1/2" BOLT WITH 3/4" HEX HEAD NUTS. ALL HARDWARE SHALL BE GALVANNEALIZED OR EQUAL. ALL HARDWARE SHALL BE ANTI-SIZE LUBRICANT BEFORE INSTALLING.

LETTERS AND TYPE 'C' CHECKERED TOP DESIGN WIPERAGRIP SURFACE TEXTURE. 9" FRAME SHALL BE NF-1916280 OR EQUAL.

REV.	DATE	BY	CHKD.	DESCRIPTION
1	10/10/2023	AK	AK	ISSUED FOR PERMITS
2	10/10/2023	AK	AK	REVISED PER COMMENTS
3	10/10/2023	AK	AK	REVISED PER COMMENTS
4	10/10/2023	AK	AK	REVISED PER COMMENTS
5	10/10/2023	AK	AK	REVISED PER COMMENTS

NOT TO SCALE

STANDARD MANHOLE CHIMNEY

SD-201

Madison Metropolitan Sewerage District

MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
CITY OF MADISON
DANE COUNTY, WISCONSIN

DETAILS - SANITARY

ENGINEERING | ARCHITECTURE | SURVEYING
PLANNING | ENVIRONMENTAL
CONSULTING | LANDSCAPE ARCHITECTURE
(608) 842-7779 www.msa-ps.com

MSA

PROJECT DATE	NO.	DATE	BY	REVISION
2023	1	10/10/2023	AK	ISSUED FOR PERMITS
2023	2	10/10/2023	AK	REVISED PER COMMENTS
2023	3	10/10/2023	AK	REVISED PER COMMENTS
2023	4	10/10/2023	AK	REVISED PER COMMENTS
2023	5	10/10/2023	AK	REVISED PER COMMENTS

PROJECT DATE: 2023
NO. 1
DATE: 10/10/2023
BY: AK
REVISION: ISSUED FOR PERMITS

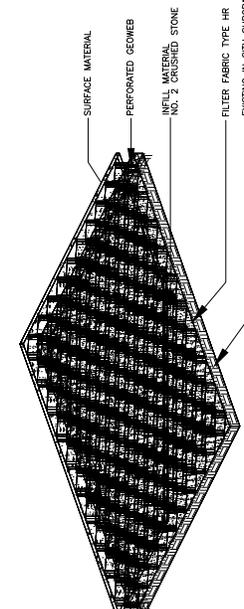
PROJECT DATE: 2023
NO. 2
DATE: 10/10/2023
BY: AK
REVISION: REVISED PER COMMENTS

PROJECT DATE: 2023
NO. 3
DATE: 10/10/2023
BY: AK
REVISION: REVISED PER COMMENTS

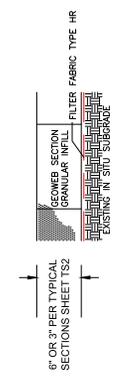
PROJECT DATE: 2023
NO. 4
DATE: 10/10/2023
BY: AK
REVISION: REVISED PER COMMENTS

PROJECT DATE: 2023
NO. 5
DATE: 10/10/2023
BY: AK
REVISION: REVISED PER COMMENTS

- NOTES:
1. PREPARE THE SUBGRADE AS SHOWN ON THE CONSTRUCTION DRAWINGS.
 2. VERIFY THAT THE SUBGRADE STRENGTH, IF REQUIRED, MEETS THE DESIGN REQUIREMENTS.
 3. VERIFY THAT THE SUBGRADE STRENGTH, IF REQUIRED, MEETS THE DESIGN REQUIREMENTS.
 4. WHERE REQUIRED, PROVIDE GEOTEXTILE SEPARATION WHERE REQUIRED.
 5. WHERE REQUIRED, PLACE AND COMPACT SUBGRADE.
 6. EXPAND THE GEOWEB SECTIONS INTO POSITION AND PLACE THE SPECIFIED INFILL MATERIAL TO 2 INCHES ABOVE CELL WALLS FOR 6" HIGH GEOWEB CELLS ONLY. PROVIDE TYPICAL SECTIONS SHEET T52.
 7. PROVIDE ADDITIONAL SURFACE MATERIAL, AS SPECIFIED.
 - 8.



ISOMETRIC - TYPICAL LOAD SUPPORT STRUCTURE



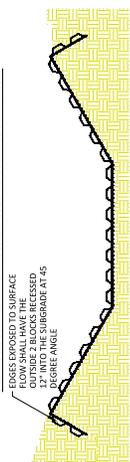
LOAD SUPPORT OVER SOFT SOIL AND AGGREGATE SURFACE STABILIZATION

PRESTO PRODUCTS CO.
 10000 WISCONSIN AVENUE
 WISCONSIN, WI 53148
 WWW.PRESTO.CO

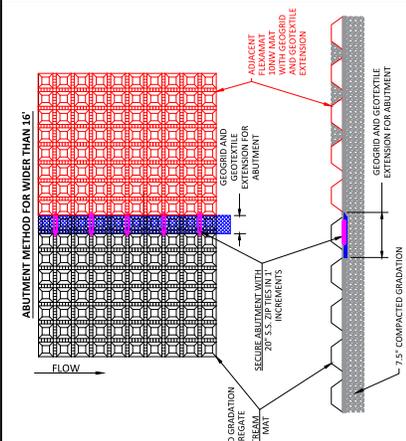
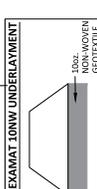
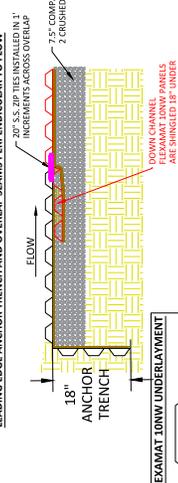
GENUINE GEOWEB®
 LOAD SUPPORT DETAILS
 PRESTO GEOWEB® AND PRESTO ANCHOR® ARE REGISTERED TRADEMARKS OF PRESTO PRODUCTS CO.
 DATE: NOVEMBER 2019
 SCALE: NTS
 SHEET: 1 OF 2
 FILE NAME: 041012.DWG

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METHOD FOR TREATING EDGES EXPOSED TO SURFACE SHEET FLOW



LEADING EDGE ANCHOR TRENCH AND OVERLAP SEAMS PERPENDICULAR TO FLOW



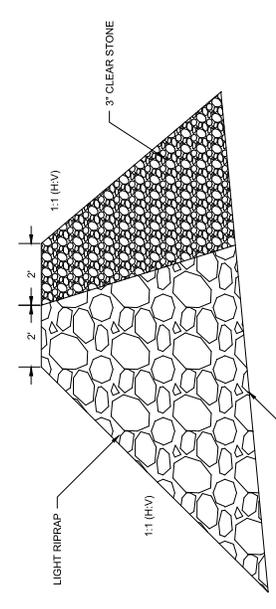
FLEXAMAT 10W CHANNEL - LAYOUT PARALLEL TO FLOW

- CONSTRUCTION NOTES:
1. THE CHANNEL AND MATS REPRESENTATIVE SHALL BE CONSTRUCTED FOR THE START OF THE INSTALLATION.
 2. GRADE CHANNELS SO THAT WATER WILL FLOW DOWN CENTER OF THE CHANNEL AND BE CONTAINED TO THE CHANNEL. ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND.
 3. FOR CHANNELS THAT ARE WIDER THAN 16\"/>
 - 3.1. PARALLEL WITH FLOW, THE ADJACENT MAT INSTALLATION OVER THE EXTENSION. ENSURE GEOWEB AND 10W UNDERLAYMENT EXTENSIONS ARE LAIN FLAT ON SUBGRADE PRIOR TO INSTALLING ADJACENT MATS.
 - 3.2. SECURE THE ABUTMENT PARALLEL WITH FLOW BY INSTALLING 20\"/>
 4. FOR ADDITIONAL SECTIONS OF MATS SECURE SEAM PERPENDICULAR TO FLOW BY OVERLAPPING THE DOWNSTREAM SECTION 18\"/>
 - 4.1. SECURE OVERLAP PERPENDICULAR TO FLOW BY INSTALLING 20\"/>
 5. AT THE END OF THE CHANNEL, THE BASE OF THE MATS SHALL BE A 45 DEGREE ANGLE. THE TRENCH SHALL BE FILLED AND COMPACTED WITH SUITABLE FILL, AS DETERMINED BY THE ENGINEER OF RECORD. EDGE OF PROTECTION, EMBANKMENT OR TERMINATION TRENCH, THE TRENCH SHALL BE FILLED AND COMPACTED WITH SUITABLE FILL, AS DETERMINED BY THE ENGINEER OF RECORD.

MOTZ ENTERPRISES, INC.
 Flexamat
 (513)772-6689
 info@flexamat.com
 Flexamat.com



REF - 1



REINFORCED STONE DITCH CHECK
 BID ITEM 90031

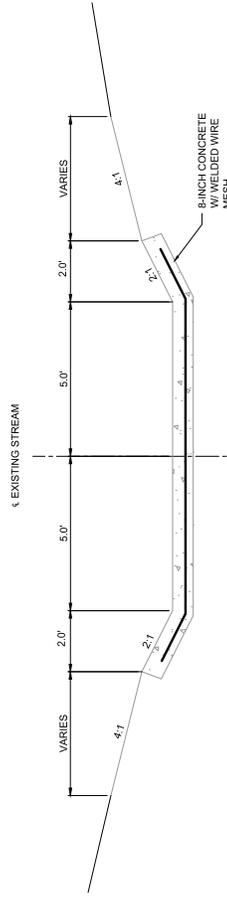
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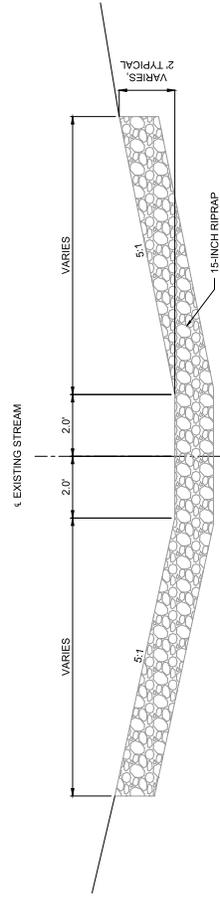


MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
 CITY OF MADISON
 DANE COUNTY, WISCONSIN

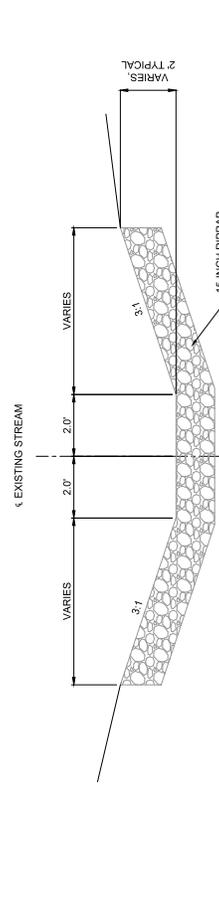
DETAILS - EROSION CONTROL
 PRODUCT NO. 12662
 SHEET G3



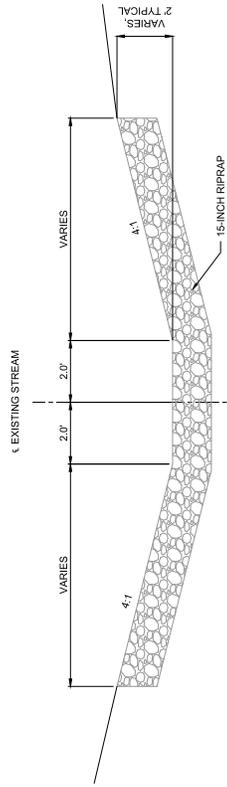
EXISTING GREENWAY - TYPICAL SECTION 1
STA 150+00 - 153+00



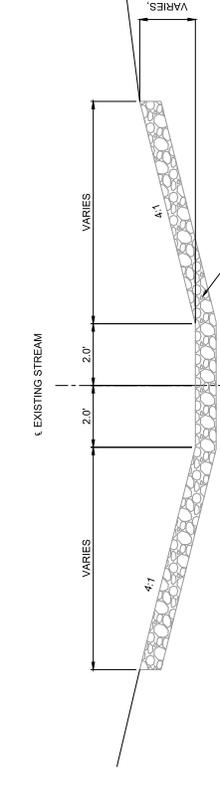
EXISTING GREENWAY - TYPICAL SECTION 2
STA 154+50 - 155+00



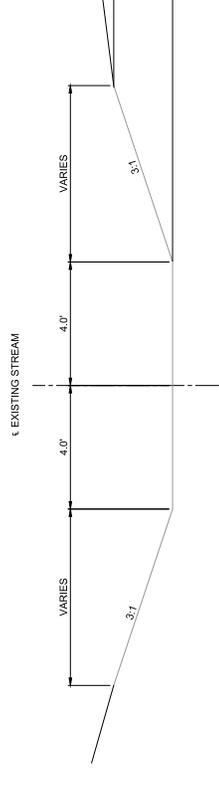
EXISTING GREENWAY - TYPICAL SECTION 3
STA 155+00 - STA 159+50



EXISTING GREENWAY - TYPICAL SECTION 4
STA 159+50 - STA 164+50



EXISTING GREENWAY - TYPICAL SECTION 5
STA 166+00 - STA 174+00



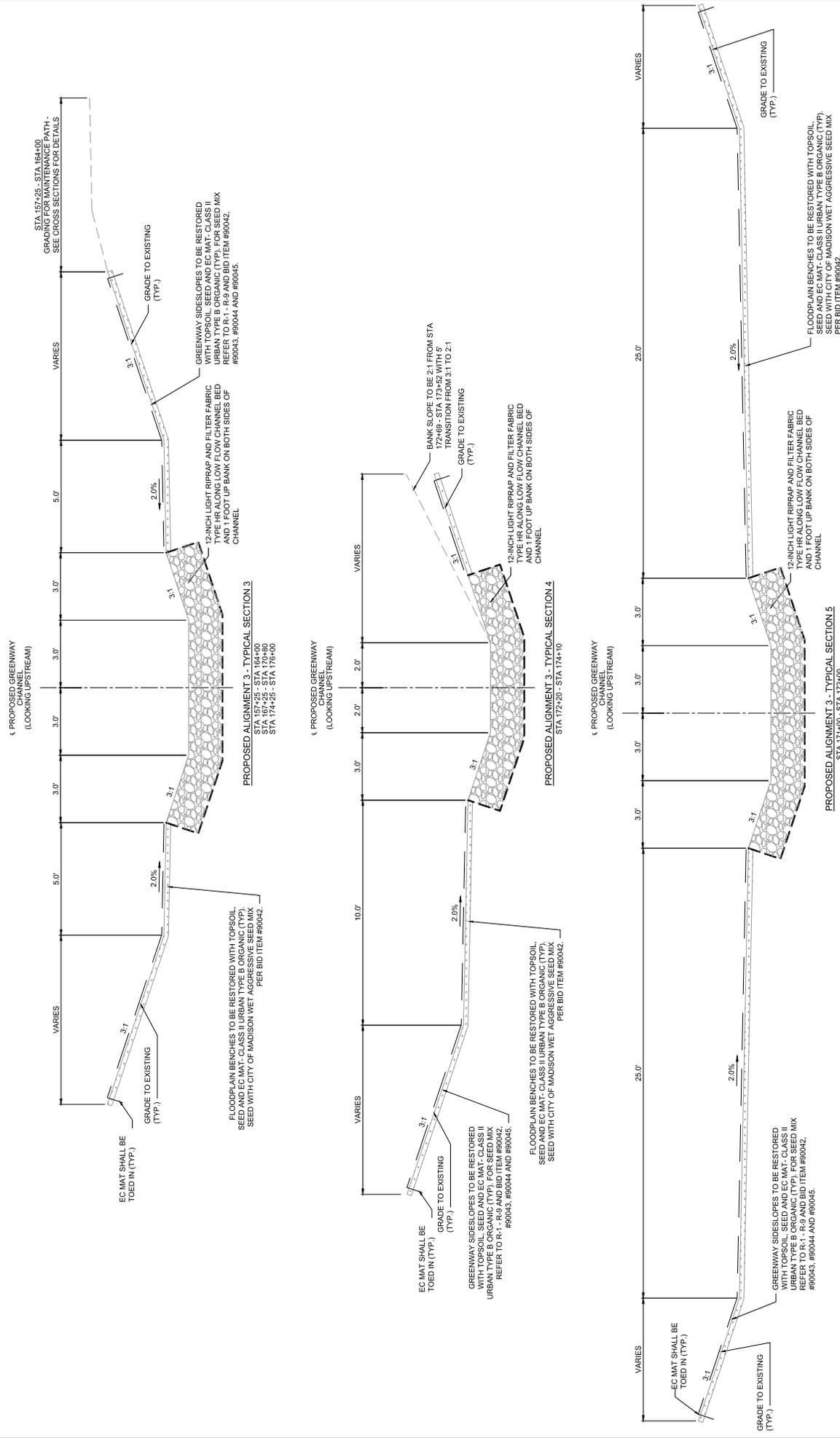
EXISTING GREENWAY - TYPICAL SECTION 6
STA 174+00 - STA 176+00

PROJECT DATE	NO.	DATE	REVISION	BY
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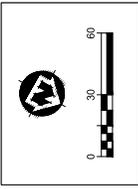
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MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
CITY OF MADISON
DANE COUNTY, WISCONSIN

EXISTING GREENWAY TYPICAL SECTIONS
PROJECT NO. 12662
SHEET 151



PROJECT DATE: 2023	NO.	DATE	REVISION
PLT DATE: 3/1/2023 12:53 PM, C:\000070007\17172\000\Computer Documents\0070113_Typical Sections.dwg	1		
DESIGNED BY: JF	2		
CHECKED BY: BK	3		
BY:			
 MSA ENGINEERING ARCHITECTURE SURVEYING PLANNING ENVIRONMENTAL (608) 242-7779 www.msa-ps.com <small>© 2018 Mendenhall-Morgan, Inc.</small>			
MENDOTA GRASSMAN GREENWAY IMPROVEMENTS		CITY OF MADISON	
DANE COUNTY, WISCONSIN			
PROPOSED GREENWAY TYPICAL SECTIONS			
PROJECT NO.	12862	DATE	IS3



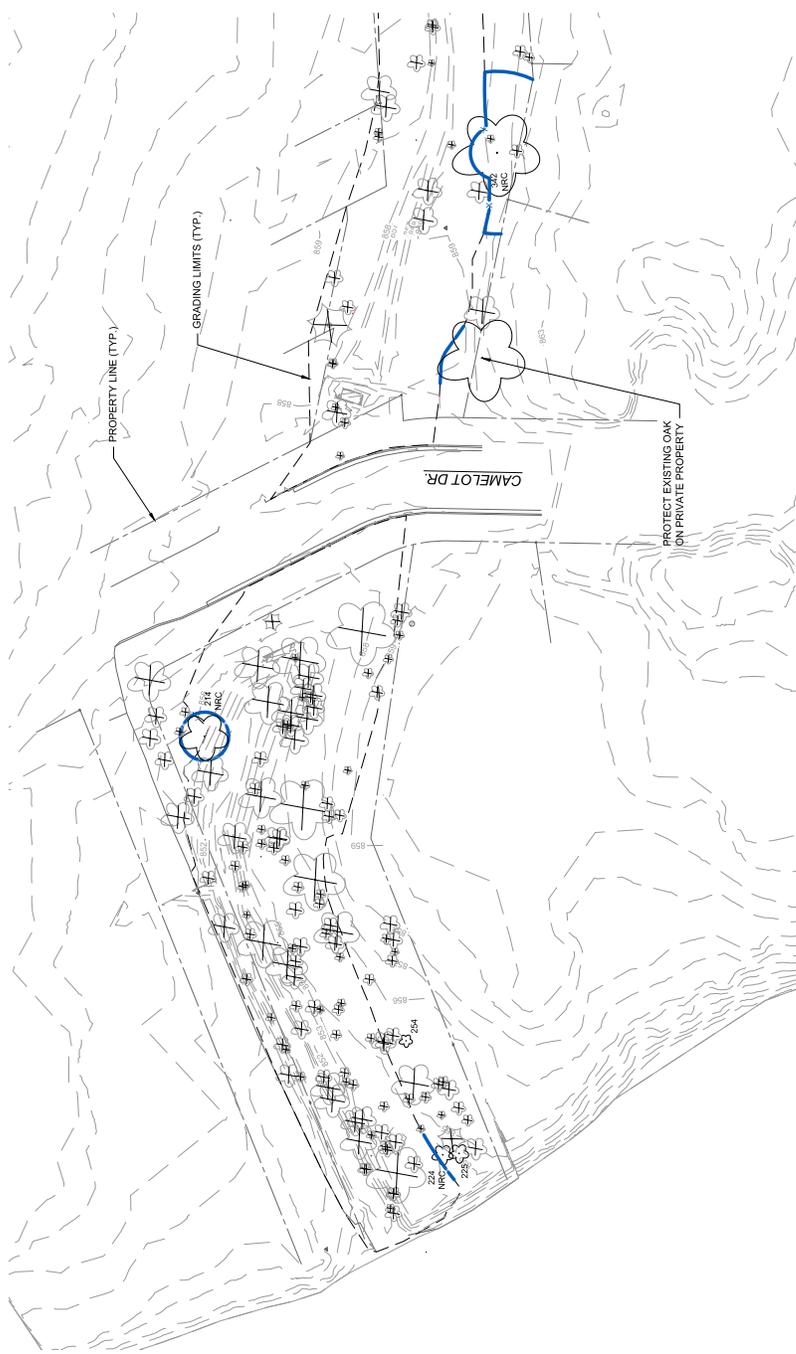
CLEARING AND GRUBBING NOTES:

- 1) TREES CALLED OUT WITH A LABEL ARE TREES THAT SHALL BE SAVED.
- 2) THE CLIENT SHALL CONSULT WITH THE ENGINEER PRIOR TO LIMBING ANY TREES THAT ARE TO REMAIN.
- 3) BRANCHES BROKEN ON SAVED TREES DURING THE FELLING OF ADJACENT TREES SHALL BE CUT OR LIMBED IN ACCORDANCE WITH THE STANDARD.
- 4) STUMPS WITHIN THE GRADING LIMITS SHALL BE GRUBBED.
- 5) STUMPS OUTSIDE OF THE GRADING LIMITS SHALL NOT BE GRUBBED. THEY SHALL BE CUT TO WITHIN 3" OF THE GROUND AND TREATED WITH HERBICIDE.
- 6) ALL QUESTIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
- 7) ALL EROSION CONTROL SHALL BE IN PLACE PRIOR TO TREE REMOVALS.
- 8) EXCESSIVE RUTTING FROM TREE REMOVALS SHALL NOT BE PERMITTED.
- 9) CONTRACTOR SHALL USE LOW GROUND PRESSURE EQUIPMENT IF COMPLETING REMOVALS ON THAWED SOIL.

TREE REMOVAL LEGEND

- 214 TREE TO REMAIN & TREE TAG NUMBER. SEE TABLE FOR DETAILS
- TREE TO BE REMOVED. SEE SHEETS TR4-TR6 FOR DETAILS
- INDIVIDUAL TREE PROTECTION FENCING. TO BE INSTALLED A MINIMUM OF 3 FEET AROUND TREE OR AT DAPLINE WHERE CALLED OUT ON PLANS
- TREE PROTECTION FENCING. INSTALL WHERE SHOWN ON PLANS
- NRC NO ROOT CUTTING PER #69009

TREES TO REMAIN		
TAG #	DBH	SPECIES
214	14.8, 22.10, 6.10	Silver Maple <i>Acer saccharinum</i>
224	9.5	Walnut <i>Juglans sp.</i>
225	9	Walnut <i>Juglans sp.</i>
254	6	Walnut <i>Juglans sp.</i>
342	39.5	Bur Oak <i>Quercus macrocarpa</i>



PROJECT DATE	NO.	DATE	BY
3/1/2023	01		

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MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
 CITY OF MADISON
 DANE COUNTY, WISCONSIN

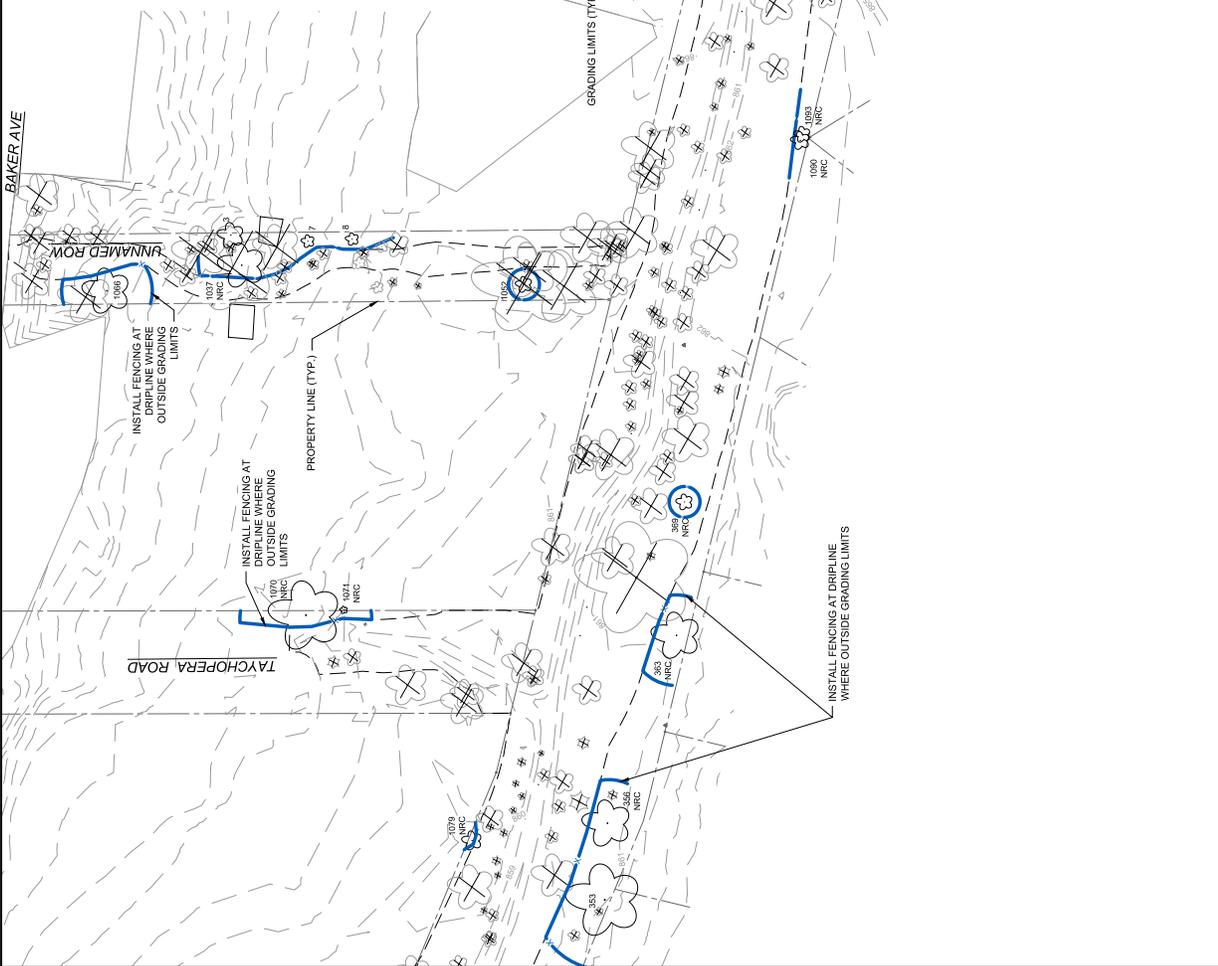
TREE REMOVAL PLAN
 PROJECT NO. 12862
 SHEET TRI

- CLEARING AND GRUBBING NOTES:
- 1) TREES CALLED OUT WITH A LABEL ARE TREES THAT SHALL BE SAVED.
 - 2) THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER PRIOR TO LIMBING ANY TREES THAT ARE TO REMAIN.
 - 3) BRANCHES BROKEN ON SAVED TREES DURING THE FELLING OF ADJACENT TREES SHALL BE CUT OR LIMBED IN ACCORDANCE WITH THE STANDARD.
 - 4) STUMPS WITHIN THE GRADING LIMITS SHALL BE GRUBBED.
 - 5) STUMPS OUTSIDE OF THE GRADING LIMITS SHALL NOT BE GRUBBED, THEY SHALL BE CUT TO WITHIN 3" OF THE GROUND AND TREATED WITH HERBICIDE.
 - 6) ALL QUESTIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.
 - 7) ALL EROSION CONTROL SHALL BE IN PLACE PRIOR TO TREE REMOVALS.
 - 8) EXCESSIVE RUTTING FROM TREE REMOVALS SHALL NOT BE PERMITTED.
 - 9) CONTRACTOR SHALL USE LOW GROUND PRESSURE EQUIPMENT IF COMPLETING REMOVALS ON THAWED SOIL.

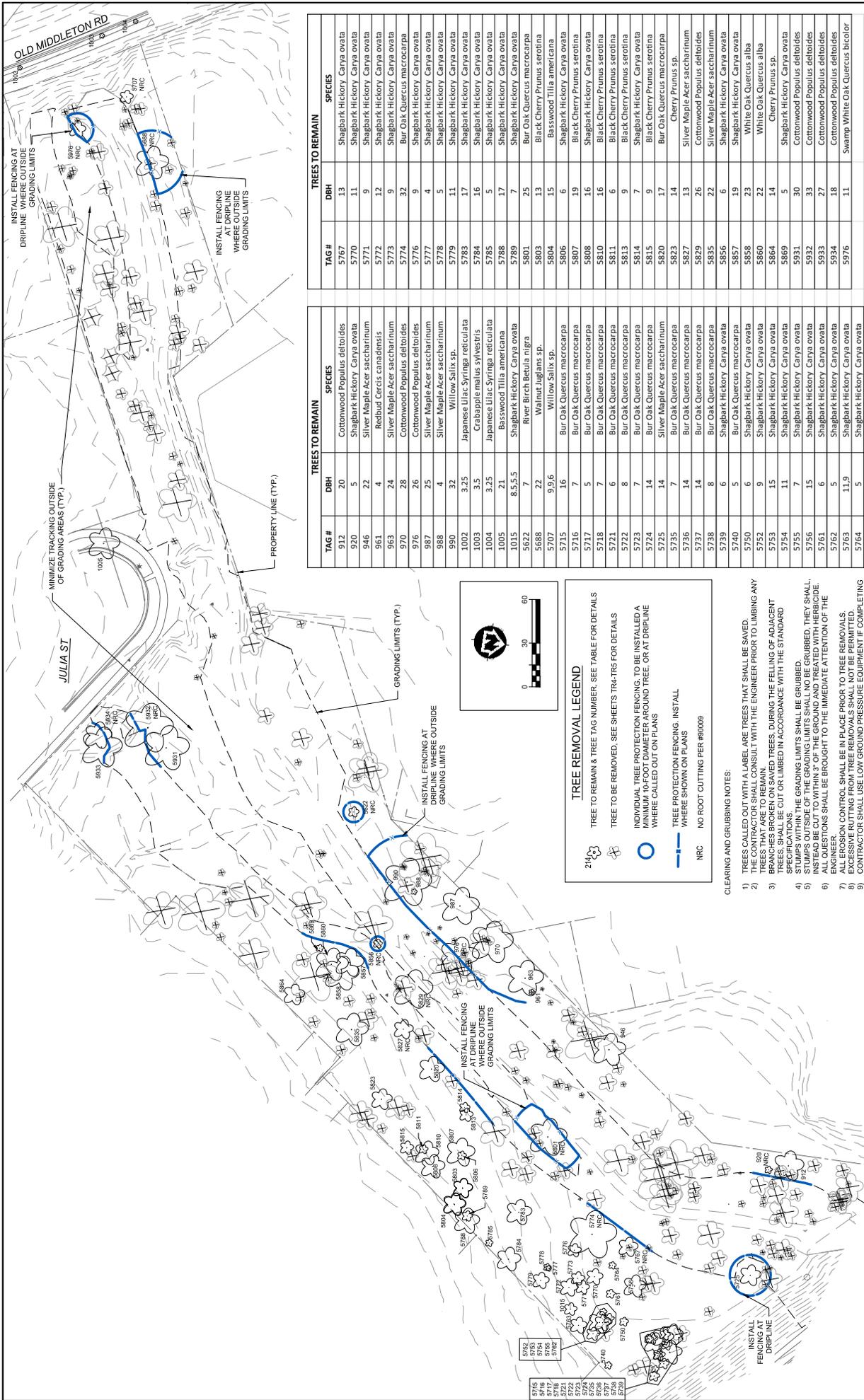
TREE REMOVAL LEGEND

- 214 (Tree symbol) TREE TO REMAIN & TREE TAG NUMBER, SEE TABLE FOR DETAILS
- (Tree symbol with X) TREE TO BE REMOVED, SEE SHEETS TRA-TR6 FOR DETAILS
- (Tree symbol with circle) INDIVIDUAL TREE PROTECTION FENCING, TO BE INSTALLED A MINIMUM 10-FOOT DIAMETER AROUND TREE, OR AT DRIPLINE WHERE CALLED OUT ON PLANS
- (Dashed line) TREE PROTECTION FENCING, INSTALL WHERE SHOWN ON PLANS
- NRC NO ROOT CUTTING PER #90009

TAG #	DBH	SPECIES
3	12	Unknown
7	7	Pine
8	10	Pine
353	34	Bur Oak Quercus macrocarpa
356	20.22	Bur Oak Quercus macrocarpa
363	22	White Oak Quercus alba
369	7.5	Shagbark Hickory Caryya ovata
402	10.5	Shagbark Hickory Caryya ovata
404	11	Shagbark Hickory Caryya ovata
405	9	Red Oak Quercus rubra
410	15	Shagbark Hickory Caryya ovata
411	16.5	Red Oak Quercus rubra
412	11.5	Shagbark Hickory Caryya ovata
414	5.5	Bur Oak Quercus macrocarpa
415	6	Bur Oak Quercus macrocarpa
416	13	Bur Oak Quercus macrocarpa
419	14.5	Bur Oak Quercus macrocarpa
420	9.5	Bur Oak Quercus macrocarpa
421	12.5	Bur Oak Quercus macrocarpa
422	15.5	Bur Oak Quercus macrocarpa
423A	4	Shagbark Hickory Caryya ovata
424	8.5	Shagbark Hickory Caryya ovata
426	18.5	Shagbark Hickory Caryya ovata
1018	29.5	Cottonwood Populus deltoides
1037	21	Black Oak Quercus velutina
1052	7.5	Oak Quercus
1066	21.5	Bur Oak Quercus macrocarpa Michx
1070	32.5	Red Oak Quercus rubra
1071	3.5	Bur Oak Quercus macrocarpa Michx
1079	9	Shagbark Hickory Caryya ovata
1090	8.5	Basswood Tilia americana
1093	7.5	Shagbark Hickory Caryya ovata



PROJECT DATE: 2023	NO.	DATE	BY
DESIGNED BY: [Signature]	NO.	DATE	BY
CHECKED BY: [Signature]	NO.	DATE	BY
PROJECT: MENDOTA GRASSMAN GREENWAY IMPROVEMENTS	REVISION		
CITY OF MADISON			
DANE COUNTY, WISCONSIN			
ENGINEERING ARCHITECTURE SURVEYING PLANNING ENVIRONMENTAL DESIGN LANDSCAPE ARCHITECTURE (608) 842-7779 www.msa-ps.com			
MSA			
PRODUCT NO. 12662			
DATE: 08/23			
DR: TR2			



TAG #	DBH	SPECIES
5767	13	Shagbark hickory,arya ovata
5770	11	Shagbark hickory,arya ovata
5771	12	Shagbark hickory,arya ovata
5772	12	Shagbark hickory,arya ovata
5773	9	Shagbark hickory,arya ovata
5774	32	Bur Oak,Quercus macrocarpa
5776	9	Shagbark hickory,arya ovata
5777	4	Shagbark hickory,arya ovata
5778	5	Shagbark hickory,arya ovata
5779	11	Shagbark hickory,arya ovata
5783	17	Shagbark hickory,arya ovata
5784	16	Shagbark hickory,arya ovata
5785	16	Shagbark hickory,arya ovata
5788	17	Shagbark hickory,arya ovata
5789	7	Shagbark hickory,arya ovata
5801	25	Bur Oak,Quercus macrocarpa
5803	13	Black Cherry,Prunus serotina
5804	15	Basswood,Tilia americana
5806	6	Shagbark hickory,arya ovata
5807	19	Black Cherry,Prunus serotina
5808	16	Shagbark hickory,arya ovata
5810	16	Black Cherry,Prunus serotina
5811	6	Black Cherry,Prunus serotina
5813	9	Black Cherry,Prunus serotina
5814	9	Shagbark hickory,arya ovata
5815	9	Black Cherry,Prunus serotina
5820	17	Bur Oak,Quercus macrocarpa
5823	14	Cherry,Prunus sp.
5827	13	Silver Maple,Acer saccharinum
5829	26	Cottonwood,Populus deltoides
5835	22	Silver Maple,Acer saccharinum
5856	6	Shagbark hickory,arya ovata
5857	19	Shagbark hickory,arya ovata
5860	23	White Oak,Quercus alba
5862	22	White Oak,Quercus alba
5864	14	Cherry,Prunus sp.
5869	5	Shagbark hickory,arya ovata
5931	30	Cottonwood,Populus deltoides
5932	33	Cottonwood,Populus deltoides
5933	27	Cottonwood,Populus deltoides
5934	18	Cottonwood,Populus deltoides
5976	11	Swamp,White Oak,Quercus bicolor

TAG #	DBH	SPECIES
912	20	Cottonwood,Populus deltoides
920	5	Shagbark hickory,arya ovata
946	22	Silver Maple,Acer saccharinum
961	4	Redbud,Cercis canadensis
963	24	Silver Maple,Acer saccharinum
970	28	Cottonwood,Populus deltoides
976	26	Cottonwood,Populus deltoides
987	25	Silver Maple,Acer saccharinum
988	4	Silver Maple,Acer saccharinum
990	32	Silver Maple,Acer saccharinum
1002	3.25	Willow,Salix sp.
1003	3.5	Japanese Ulae,Syringa reticulata
1004	3.25	Crabapple,malus sylvestris
1005	21	Japanese Ulae,Syringa reticulata
1015	8.5,5.5	Basswood,Tilia americana
5622	7	Shagbark hickory,arya ovata
5628	22	River Birch,Betula nigra
5688	7	Walnut,Juglans sp.
5707	9,9.6	Willow,Salix sp.
5715	16	Bur Oak,Quercus macrocarpa
5716	7	Bur Oak,Quercus macrocarpa
5717	5	Bur Oak,Quercus macrocarpa
5718	7	Bur Oak,Quercus macrocarpa
5721	6	Bur Oak,Quercus macrocarpa
5722	8	Bur Oak,Quercus macrocarpa
5723	7	Bur Oak,Quercus macrocarpa
5724	14	Bur Oak,Quercus macrocarpa
5725	14	Silver Maple,Acer saccharinum
5735	7	Bur Oak,Quercus macrocarpa
5736	14	Bur Oak,Quercus macrocarpa
5737	14	Bur Oak,Quercus macrocarpa
5738	8	Bur Oak,Quercus macrocarpa
5740	6	Shagbark hickory,arya ovata
5749	5	Bur Oak,Quercus macrocarpa
5750	9	Shagbark hickory,arya ovata
5752	6	Shagbark hickory,arya ovata
5753	15	Shagbark hickory,arya ovata
5754	11	Shagbark hickory,arya ovata
5755	7	Shagbark hickory,arya ovata
5756	15	Shagbark hickory,arya ovata
5761	6	Shagbark hickory,arya ovata
5762	5	Shagbark hickory,arya ovata
5763	11.9	Shagbark hickory,arya ovata
5764	5	Shagbark hickory,arya ovata

TREE REMOVAL LEGEND

TREE TO REMAIN & TREE TAG NUMBER. SEE TABLE FOR DETAILS

TREE TO BE REMOVED. SEE SHEETS TRA-TB5 FOR DETAILS

INDIVIDUAL TREE PROTECTION FENCING. TO BE INSTALLED A MINIMUM 10-FOOT DIAMETER AROUND TREE OR AT DRIPLINE WHERE CALLED OUT ON PLANS

TREE PROTECTION FENCING. INSTALL WHERE SHOWN ON PLANS

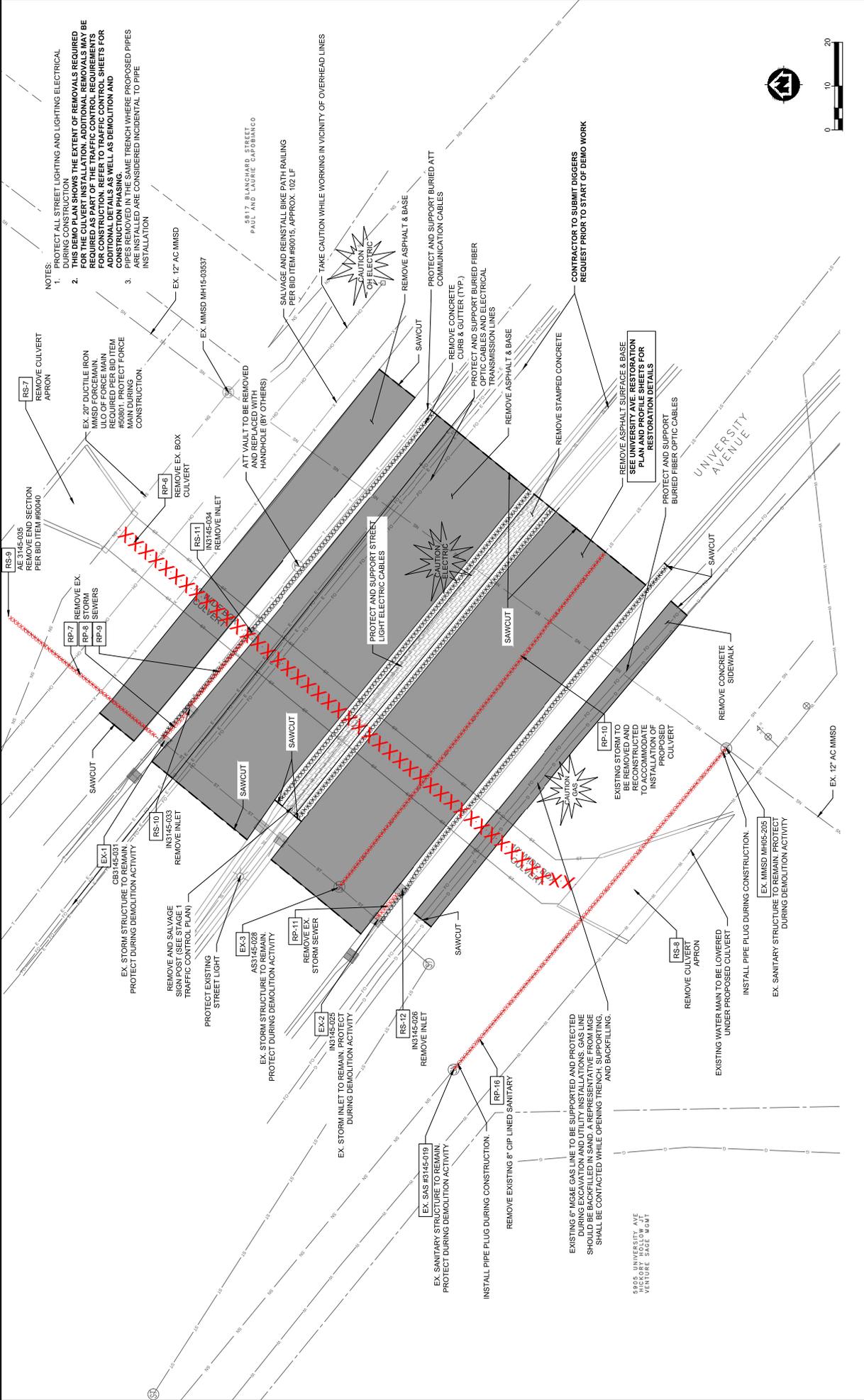
NRC NO ROOT CUTTING PER #9009

CLEARING AND GRUBBING NOTES:

- 1) TREES CALLED OUT WITH A LABEL ARE TREES THAT SHALL BE SAVED
- 2) THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER PRIOR TO LIMBING ANY TREES THAT ARE TO REMAIN
- 3) BRANCHES BROKEN OR SAVED TREES DURING THE FELLING OF ADJACENT TREES SHALL BE CUT TO WITHIN 2' OF THE GROUND AND TREATED WITH HERBICIDE.
- 4) STUMPS WITHIN THE GRADING LIMITS SHALL BE GRUBBED.
- 5) STUMPS OUTSIDE OF THE GRADING LIMITS SHALL NOT BE GRUBBED. THEY SHALL INSTEAD BE CUT TO WITHIN 2' OF THE GROUND AND TREATED WITH HERBICIDE.
- 6) ALL QUESTIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
- 7) ALL EROSION CONTROL SHALL BE IN PLACE PRIOR TO TREE REMOVALS
- 8) EXCESSIVE RUTTING FROM TREE REMOVALS SHALL NOT BE PERMITTED.
- 9) CONTRACTOR SHALL USE LOW GROUND PRESSURE EQUIPMENT IF COMPLETING REMOVALS ON THAWED SOIL.

TREES TO BE REMOVED			TREES TO BE REMOVED			TREES TO BE REMOVED			TREES TO BE REMOVED			TREES TO BE REMOVED			TREES TO BE REMOVED		
TAG #	DBH	SPECIES	TAG #	DBH	SPECIES	TAG #	DBH	SPECIES	TAG #	DBH	SPECIES	TAG #	DBH	SPECIES	TAG #	DBH	SPECIES
1	34.5	Unknown	259	7.5	Green Ash Fraxinus pennsylvanica	327	4.3,4	Buckthorn Rhamnus cathartica	441	15	Boxelder Acer negundo	480	6	Em Ulmas sp.	879	4	Boxelder Acer negundo
9	10	Dead snag	260	5	Boxelder Acer negundo	328	24,14,19	Willow Salix sp.	442	10.5,7	Boxelder Acer negundo	481	3,2,2	Silver Maple Acer saccharinum	880	10	Em Ulmas sp.
10	4	Pear	261	5	Em Ulmas sp.	329	31	Cottonwood Populus deltoides	443	44	Cottonwood Populus deltoides	482	5,5	Mulberry Morus sp.	881	10	Willow Salix sp.
11	2	Ginkgo biloba	262	9	Boxelder Acer negundo	330	4.5	Silver Maple Acer saccharinum	444	3,3,3,2,2	Boxelder Acer negundo	483	10	Mulberry Morus sp.	882	8	Em Ulmas sp.
202	5	Green Ash Fraxinus pennsylvanica	263	8	Boxelder Acer negundo	332	6	Silver Maple Acer saccharinum	445	47,7	Boxelder Acer negundo	484	19	Mulberry Morus sp.	883	4	Em Ulmas sp.
203	11	Boxelder Acer negundo	264	4	Boxelder Acer negundo	333	9	Red Cedar Juniperus virginiana	446	13,7,5	Black Locust Robinia pseudoacacia	485	6	Mulberry Morus sp.	884	15	Cottonwood Populus deltoides
204	4,4,2	Mulberry Morus sp.	265	5,5	Boxelder Acer negundo	334	9,5	Silver Maple Acer saccharinum	447	4	Boxelder Acer negundo	486	7	Mulberry Morus sp.	885	10	Em Ulmas sp.
205	7,5	Mulberry Morus sp.	266	4,5	Boxelder Acer negundo	335	16	Boxelder Acer negundo	448	4	Black Locust Robinia pseudoacacia	487	18	Mulberry Morus sp.	886	4	Boxelder Acer negundo
206	5,5	Buckthorn Rhamnus cathartica	267	5,5	Em Ulmas sp.	336	13	Black Locust Robinia pseudoacacia	449	8	Boxelder Acer negundo	488	12	Cherry Prunus sp.	887	7	Boxelder Acer negundo
207	6,6	Willow Salix sp.	268	6	Mulberry Morus sp.	337	10,5	Black Cherry Prunus serotina	450	7	Black Locust Robinia pseudoacacia	489	14	Bur Oak Quercus macrocarpa	888	5	Boxelder Acer negundo
208	14	Walnut Juglans sp.	269	4	Mulberry Morus sp.	338	13	Black Locust Robinia pseudoacacia	451	8	Boxelder Acer negundo	490	8,7	Mulberry Morus sp.	889	5	Boxelder Acer negundo
209	7,5	Em Ulmas sp.	270	8,5	Black Locust Robinia pseudoacacia	339	13	Black Locust Robinia pseudoacacia	452	5	Boxelder Acer negundo	491	24	Red Oak Quercus rubra	890	5	Buckthorn Rhamnus cathartica
210	15	Willow Salix sp.	271	5,4,5	Mulberry Morus sp.	340	6,5	Black Cherry Prunus serotina	453	4	Em Ulmas sp.	492	5	Mulberry Morus sp.	891	29,10	Cottonwood Populus deltoides
211	9,2	Green Ash Fraxinus pennsylvanica	272	9	Black Locust Robinia pseudoacacia	341	4	Black Cherry Prunus serotina	454	3,2,2	Silver Maple Acer saccharinum	493	6	Mulberry Morus sp.	892	5,3,3	Buckthorn Rhamnus cathartica
212	16,5	Willow Salix sp.	273	4,5	Em Ulmas sp.	342	5	Boxelder Acer negundo	455	4	Buckthorn Rhamnus cathartica	494	7	Mulberry Morus sp.	893	20,9,5	Boxelder Acer negundo
213	8,5	Green Ash Fraxinus pennsylvanica	274	5,5	Boxelder Acer negundo	343	11	Mulberry Morus sp.	456	4	Mulberry Morus sp.	495	5	Hackberry Celtis occidentalis	894	6	Em Ulmas sp.
215	4,5	Silver Maple Acer saccharinum	275	11	Mulberry Morus sp.	344	6,5	Black Locust Robinia pseudoacacia	457	4	Buckthorn Rhamnus cathartica	496	4	Mulberry Morus sp.	895	7	Silver Maple Acer saccharinum
216	10	Silver Maple Acer saccharinum	276	19	Willow Salix sp.	345	4	Black Locust Robinia pseudoacacia	458	4	Buckthorn Rhamnus cathartica	497	15	Black Locust Robinia pseudoacacia	896	7	Silver Maple Acer saccharinum
217	10	Boxelder Acer negundo	277	7	Em Ulmas sp.	346	5,5,4	Black Cherry Prunus serotina	459	20	Mulberry Morus sp.	498	4,2	Boxelder Acer negundo	897	16	Cottonwood Populus deltoides
218	5	Boxelder Acer negundo	278	8,5	Boxelder Acer negundo	347	6	Mulberry Morus sp.	460	5,5	Mulberry Morus sp.	499	4	Boxelder Acer negundo	898	5	Buckthorn Rhamnus cathartica
219	19,5	Boxelder Acer negundo	279	20,5	Willow Salix sp.	348	5	Red Pine Pinus resinosa	461	4	Buckthorn Rhamnus cathartica	500	6,3	Mulberry Morus sp.	901	13	Cottonwood Populus deltoides
220	20,12,5	Willow Salix sp.	280	8	Em Ulmas sp.	349	6,6,5	Red Pine Pinus resinosa	462	5,5	Mulberry Morus sp.	501	6	Silver Maple Acer saccharinum	902	15	Silver Maple Acer saccharinum
221	7,6	Em Ulmas sp.	281	8	Mulberry Morus sp.	350	5,5,4	White Pine Pinus strobus	463	20	Mulberry Morus sp.	502	5	Boxelder Acer negundo	903	19	Cottonwood Populus deltoides
222	4,5	Willow Salix sp.	282	9	Em Ulmas sp.	351	4	Cottonwood Populus deltoides	464	5,5	Mulberry Morus sp.	503	4	Boxelder Acer negundo	904	4	Boxelder Acer negundo
223	4,6,5	Em Ulmas sp.	283	5	Em Ulmas sp.	352	20	Buckthorn Rhamnus cathartica	465	6	Mulberry Morus sp.	504	5,2	Buckthorn Rhamnus cathartica	905	10	Silver Maple Acer saccharinum
223	4,6,5	Em Ulmas sp.	284	23	Willow Salix sp.	353	6,5	Mulberry Morus sp.	466	10	Mulberry Morus sp.	505	10	Cottonwood Populus deltoides	906	6	Silver Maple Acer saccharinum
223	4,6,5	Em Ulmas sp.	285	6	Willow Salix sp.	354	6	Em Ulmas sp.	467	10	Mulberry Morus sp.	506	11	Mulberry Morus sp.	907	20	Cottonwood Populus deltoides
235	4	Silver Maple Acer saccharinum	286	5,5	Craoba MaLus sp.	355	6,5	Em Ulmas sp.	468	5	Mulberry Morus sp.	507	7	Silver Maple Acer saccharinum	908	6	Boxelder Acer negundo
236	4,3	Walnut Juglans sp.	287	5	Walnut Juglans sp.	356	11	Mulberry Morus sp.	469	4	Buckthorn Rhamnus cathartica	508	5	Boxelder Acer negundo	909	4	Buckthorn Rhamnus cathartica
237	6,5	Walnut Juglans sp.	288	28	Cottonwood Populus deltoides	357	10	Red Pine Pinus resinosa	470	10	Mulberry Morus sp.	509	4	Boxelder Acer negundo	910	9	Em Ulmas sp.
238	9,5	Walnut Juglans sp.	289	5,5	Boxelder Acer negundo	358	11	Mulberry Morus sp.	471	18	Mulberry Morus sp.	510	6	Boxelder Acer negundo	911	8	Silver Maple Acer saccharinum
239	8,5	Mulberry Morus sp.	290	4	Walnut Juglans sp.	359	6	Em Ulmas sp.	472	18	Mulberry Morus sp.	511	8	Silver Maple Acer saccharinum	912	7	Silver Maple Acer saccharinum
240	16,5	Willow Salix sp.	291	5	Walnut Juglans sp.	360	5	Red Pine Pinus resinosa	473	18	Mulberry Morus sp.	512	10	Mulberry Morus sp.	913	7	Silver Maple Acer saccharinum
241	4,5	Green Ash Fraxinus pennsylvanica	292	4,5	Walnut Juglans sp.	361	6	White Pine Pinus strobus	474	18	Mulberry Morus sp.	513	10	Mulberry Morus sp.	914	13	Cottonwood Populus deltoides
242	5,5	Em Ulmas sp.	293	4,5	Walnut Juglans sp.	362	13,5	Cottonwood Populus deltoides	475	6	Em Ulmas sp.	514	5	Mulberry Morus sp.	915	13	Cottonwood Populus deltoides
243	6,4	Boxelder Acer negundo	294	5,5	Walnut Juglans sp.	363	20	Mulberry Morus sp.	476	6	Em Ulmas sp.	515	6,5	Mulberry Morus sp.	916	15	Boxelder Acer negundo
244	6,5,3	Em Ulmas sp.	295	6,5	Boxelder Acer negundo	364	5,3	White Spruce Picea glauca	477	6	Em Ulmas sp.	516	4	Mulberry Morus sp.	917	5,2	Boxelder Acer negundo
245	5,5	Em Ulmas sp.	296	15	Walnut Juglans sp.	365	20	Mulberry Morus sp.	478	7	Em Ulmas sp.	517	4	Mulberry Morus sp.	918	4	Cherry Prunus sp.
246	5	Mulberry Morus sp.	297	5	Walnut Juglans sp.	366	4,5	White Spruce Picea glauca	479	7	Em Ulmas sp.	518	4	Mulberry Morus sp.	919	13	Em Ulmas sp.
247	13	Cottonwood Populus deltoides	298	6,5	Walnut Juglans sp.	367	6	Boxelder Acer negundo	480	6	Em Ulmas sp.	519	15	Poplar populus sp.	920	7	Em Ulmas sp.
248	12,5	Silver Maple Acer saccharinum	299	9,5	Boxelder Acer negundo	368	17	Bur Oak Quercus macrocarpa	481	3,2,2	Silver Maple Acer saccharinum	520	4	Poplar populus sp.	921	5	Boxelder Acer negundo
249	19,5	Willow Salix sp.	300	12	Black Locust Robinia pseudoacacia	369	6	Boxelder Acer negundo	482	5,5	Mulberry Morus sp.	521	5	Poplar populus sp.	922	7	Em Ulmas sp.
250	16	Willow Salix sp.	301	4,5	Boxelder Acer negundo	370	12,5	Shagbark Hickory Carya ovata	483	10	Mulberry Morus sp.	522	16	Silver Maple Acer saccharinum	923	9	Boxelder Acer negundo
251	15,5	Cottonwood Populus deltoides	302	6,5	Black Locust Robinia pseudoacacia	371	7	Walnut Juglans sp.	484	19	Em Ulmas sp.	523	4	Poplar populus sp.	924	9	Boxelder Acer negundo
252	4,5	Green Ash Fraxinus pennsylvanica	303	19,5	Willow Salix sp.	372	2,2	Bur Oak Quercus macrocarpa	485	6	Mulberry Morus sp.	524	25	Poplar populus sp.	925	9	Boxelder Acer negundo
253	5,5	Green Ash Fraxinus pennsylvanica	304	29,15	Black Locust Robinia pseudoacacia	373	4	Maple Acer sp.	486	12	Cherry Prunus sp.	525	6	Mulberry Morus sp.	926	9	Boxelder Acer negundo
255	8	Boxelder Acer negundo	305	6,5	Black Locust Robinia pseudoacacia	374	15	White Oak Quercus alba	487	12	Cherry Prunus sp.	526	4	Buckthorn Rhamnus cathartica	927	5	Boxelder Acer negundo
256	11	Willow Salix sp.	306	6	Boxelder Acer negundo	375	13,5	Mulberry Morus sp.	488	12	Cherry Prunus sp.	527	6	Bur Oak Quercus macrocarpa	928	4	Buckthorn Rhamnus cathartica
257	7	Boxelder Acer negundo	307	7	Boxelder Acer negundo	376	5,5,4,2	White Cedar Thuja occidentalis	489	14	Bur Oak Quercus macrocarpa	528	4	Buckthorn Rhamnus cathartica	929	23	Cottonwood Populus deltoides
258	5,5	Green Ash Fraxinus pennsylvanica	308	4,5	Boxelder Acer negundo	377	6,6,2	White Cedar Thuja occidentalis	490	8,7	Mulberry Morus sp.	529	4	Buckthorn Rhamnus cathartica	930	14	Mulberry Morus sp.
259	16	Willow Salix sp.	309	4	Boxelder Acer negundo	378	9,4,5	Silver Maple Acer saccharinum	491	24	Red Oak Quercus rubra	530	5	Boxelder Acer negundo	931	4	Boxelder Acer negundo
259	16	Willow Salix sp.	310	7,5	Boxelder Acer negundo	379	7,4,5	Mulberry Morus sp.	492	5	Mulberry Morus sp.	531	5	Mulberry Morus sp.	932	37	Cottonwood Populus deltoides
259	16	Willow Salix sp.	311	13	Black Locust Robinia pseudoacacia	380	10,5	Mulberry Morus sp.	493	6	Mulberry Morus sp.	532	6	Mulberry Morus sp.	933	31	Cottonwood Populus deltoides
259	16	Willow Salix sp.	312	9	Boxelder Acer negundo	381	10,5	Mulberry Morus sp.	494	7	Mulberry Morus sp.	533	6	Mulberry Morus sp.			
259	16	Willow Salix sp.	313	6	Black Locust Robinia pseudoacacia	382	22	Boxelder Acer negundo	495	5	Hackberry Celtis occidentalis	534	6	Em Ulmas sp.			
259	16	Willow Salix sp.	314	10,5	Em Ulmas sp.	383	7	Silver Maple Acer saccharinum	496	4	Mulberry Morus sp.	535	4	Boxelder Acer negundo			
259	16	Willow Salix sp.	315	20,5	Willow Salix sp.	384	7	Silver Maple Acer saccharinum	497	15	Black Locust Robinia pseudoacacia	536	5	Boxelder Acer negundo			
259	16	Willow Salix sp.	316	17	Black Locust Robinia pseudoacacia	385	6	Walnut Juglans sp.	498	4,2	Boxelder Acer negundo	537	4	Boxelder Acer negundo			
259	16	Willow Salix sp.	317	14,5	Black Locust Robinia pseudoacacia	386	6	Walnut Juglans sp.	499	4	Boxelder Acer negundo	538	4	Boxelder Acer negundo			
259	16	Willow Salix sp.	318	10	Boxelder Acer negundo	387	7	Silver Maple Acer saccharinum	500	6,3	Mulberry Morus sp.	539	4	Boxelder Acer negundo			
259	16	Willow Salix sp.	319	6,5	Black Locust Robinia pseudoacacia	388	6	Walnut Juglans sp.	501	6	Silver Maple Acer saccharinum	540	5	Boxelder Acer negundo			
259	16	Willow Salix sp.	320	12	Black Locust Robinia pseudoacacia	389	4	Boxelder Acer negundo	502	5	Boxelder Acer negundo	541	5	Boxelder Acer negundo			
259	16	Willow Salix sp.	321	4	Boxelder Acer negundo	390	4	Boxelder Acer negundo	503	4	Boxelder Acer negundo	542	5	Boxelder Acer negundo			
259	16	Willow Salix sp.	322	11	Black Locust Robinia pseudoacacia	391	13,5	Cottonwood Populus deltoides	504	5	Boxelder Acer negundo	543	5	Boxelder Acer negundo			
259	16	Willow Salix sp.	323	14,10,8	Black Locust Robinia pseudoacacia	392	4	Silver Maple Acer saccharinum	505	10	Cottonwood Populus deltoides	544	5	Boxelder Acer negundo			
259	16	Willow Salix sp.	324	7	Silver Maple Acer saccharinum	393	20	Green Ash Fraxinus pennsylvanica	506	11	Mulberry Morus sp.	545	5	Boxelder Acer negundo			
259	16	Willow Salix sp.	325	5	Silver Maple Acer saccharinum	394	4	Green Ash Fraxinus pennsylvanica	507	7	Silver Maple Acer saccharinum	546	5	Boxelder Acer negundo			
259	16	Willow Salix sp.	326	4,5	Silver Maple Acer saccharinum	395	10,5	Boxelder Acer negundo	508	5	Boxelder Acer negundo	547	5	Boxelder Acer negundo			
259	16	Willow Salix sp.	327	12	Cottonwood Populus deltoides</												

TREES TO BE REMOVED			TREES TO BE REMOVED			TREES TO BE REMOVED			TREES TO BE REMOVED			TREES TO BE REMOVED		
TAG #	DBH	SPECIES	TAG #	DBH	SPECIES	TAG #	DBH	SPECIES	TAG #	DBH	SPECIES	TAG #	DBH	SPECIES
934	26	Cottonwood Populus deltoides	5642	6	Green Ash Fraxinus pennsylvanica	5817	16	Bowlder Acer negundo	5876	24	White Pine Pinus strobus	5946	10	Mulberry Morus sp.
935	6	Bowlder Acer negundo	5643	15	Bowlder Acer negundo	5818	10	Black Cherry Prunus serotina	5877	9	White Oak Quercus alba	5947	10	Mulberry Morus sp.
936	8	Bowlder Acer negundo	5644	13	Elm Ulmas sp.	5819	10	Bowlder Acer negundo	5878	24	Bur Oak Quercus macrocarpa	5948	8	Bowlder Acer negundo
937	6	Bowlder Acer negundo	5645	14	Bowlder Acer negundo	5822	5	Elm Ulmas sp.	5879	5	Bowlder Acer negundo	5949	13	White Spruce Picea pungens
938	14	Cottonwood Populus deltoides	5646	11	Green Ash Fraxinus pennsylvanica	5824	14	Cherry Prunus sp.	5881	6	Bowlder Acer negundo	5950	4	Mulberry Morus sp.
939	21	Mulberry Morus sp.	5647	16	Bowlder Acer negundo	5825	16	Bowlder Acer negundo	5882	33	Bur Oak Quercus macrocarpa	5951	21	Bowlder Acer negundo
940	8	Mulberry Morus sp.	5648	6	Bowlder Acer negundo	5828	5	Bowlder Acer negundo	5883	6	Bowlder Acer negundo	5952	5	White Spruce Picea glauca
941	4	Buckhorn Rhamnus cathartica	5649	7	Bowlder Acer negundo	5830	15	Cottonwood Populus deltoides	5884	8	Bowlder Acer negundo	5953	5	Green Ash Fraxinus pennsylvanica
942	4	Buckhorn Rhamnus cathartica	5650	9	Bowlder Acer negundo	5831	5	Silver Maple Acer saccharinum	5885	3	Bowlder Acer negundo	5954	15	White Spruce Picea glauca
943	12	Bowlder Acer negundo	5651	6	Bowlder Acer negundo	5832	7	Bowlder Acer negundo	5886	10	Bowlder Acer negundo	5955	18	Mulberry Morus sp.
944	8	Silver Maple Acer saccharinum	5652	14	Elm Ulmas sp.	5833	6	Elm Ulmas sp.	5887	5	Bowlder Acer negundo	5956	11	Black Locust Robinia pseudoacacia
945	4,4,2	Buckhorn Rhamnus cathartica	5653	6	Bowlder Acer negundo	5834	14	Elm Ulmas sp.	5888	31	Bur Oak Quercus macrocarpa	5957	13,8	Bowlder Acer negundo
947	12	Willow Salix sp.	5654	8,2	Bowlder Acer negundo	5836	8	Bowlder Acer negundo	5889	5	Bowlder Acer negundo	5958	4	Bowlder Acer negundo
948	34	Willow Salix sp.	5655	6	Bowlder Acer negundo	5847	8	Cherry Prunus sp.	5890	5	White Oak Quercus alba	5959	17	Mulberry Morus sp.
949	8	Green Ash Fraxinus pennsylvanica	5656	4	Bowlder Acer negundo	5848	8	Bowlder Acer negundo	5891	6	Bowlder Acer negundo	5960	13	Bowlder Acer negundo
950	5	Bowlder Acer negundo	5657	8	Bowlder Acer negundo	5849	8	Bowlder Acer negundo	5892	4	Bowlder Acer negundo	5961	6	Mulberry Morus sp.
951	7	Willow Salix sp.	5658	6	Mulberry Morus sp.	5859	7	Cherry Prunus sp.	5893	6	Bowlder Acer negundo	5962	6	Mulberry Morus sp.
952	5	Bowlder Acer negundo	5659	6	Bowlder Acer negundo	5861	6	Cherry Prunus sp.	5894	3	Bowlder Acer negundo	5963	3	Pear
953	11	Bowlder Acer negundo	5660	6	Bowlder Acer negundo	5862	33	Bur Oak Quercus macrocarpa	5895	3	Bowlder Acer negundo	5964	24	Walnut Juglans sp.
954	4	Buckhorn Rhamnus cathartica	5661	7,7	Bowlder Acer negundo	5863	7	Bowlder Acer negundo	5896	5	Bowlder Acer negundo	5965	4	Black Locust Robinia pseudoacacia
955	3,2	Buckhorn Rhamnus cathartica	5662	9	Bowlder Acer negundo	5864	10	Bowlder Acer negundo	5897	25	Red Oak Quercus rubra	5966	8,3	Black Locust Robinia pseudoacacia
956	4	Bowlder Acer negundo	5663	8	Bowlder Acer negundo	5865	7	Bowlder Acer negundo	5898	4	Bowlder Acer negundo			
957	11	Cottonwood Populus deltoides	5664	14	Elm Ulmas sp.	5870	27	Silver Maple Acer saccharinum	5899	5,4	Bowlder Acer negundo			
958	13	Bowlder Acer negundo	5665	6	Bowlder Acer negundo	5871	5	Bowlder Acer negundo	5901	4	Bowlder Acer negundo			
959	4	Green Ash Fraxinus pennsylvanica	5666	8	Bowlder Acer negundo	5872	7	Bowlder Acer negundo	5902	6	Bowlder Acer negundo			
960	3,2,1	Buckhorn Rhamnus cathartica	5667	4	Bowlder Acer negundo	5873	8	Bowlder Acer negundo	5903	4	Bowlder Acer negundo			
961	13	Buckhorn Rhamnus cathartica	5668	6	Bowlder Acer negundo	5874	11,3	Bowlder Acer negundo	5904	6	Bowlder Acer negundo			
962	7,4	Mulberry Morus sp.	5669	6	Bowlder Acer negundo	5875	21	White Pine Pinus strobus	5905	2	White Cedar Thuja occidentalis			
963	19	Cottonwood Populus deltoides	5670	6	Bowlder Acer negundo	5876	21	White Oak Quercus alba	5906	4	Bowlder Acer negundo			
967	14	Cottonwood Populus deltoides	5671	16,3	Silver Maple Acer saccharinum	5877	9	White Pine Pinus strobus	5907	4	Bowlder Acer negundo			
968	5	Bowlder Acer negundo	5672	5	Bowlder Acer negundo	5878	24	Bur Oak Quercus macrocarpa	5908	31	Bur Oak Quercus macrocarpa			
969	4	Bowlder Acer negundo	5673	7	Bowlder Acer negundo	5879	5	Bowlder Acer negundo	5909	5	Bowlder Acer negundo			
971	4	Buckhorn Rhamnus cathartica	5674	11,3,5	Maple Acer	5880	31	Bur Oak Quercus macrocarpa	5910	4	Bowlder Acer negundo			
972	4	Buckhorn Rhamnus cathartica	5675	19	Maple Acer	5881	6	Bowlder Acer negundo	5911	6	Bowlder Acer negundo			
973	5	Buckhorn Rhamnus cathartica	5676	4,5	Blue Spruce Picea pungens	5882	32	Bowlder Acer negundo	5912	4	Bowlder Acer negundo			
974	17	Mulberry Morus sp.	5677	8	Bowlder Acer negundo	5883	6	Bowlder Acer negundo	5913	4	Bowlder Acer negundo			
975	6	Bowlder Acer negundo	5678	19	Crabapple malus sylvestris	5884	3	Bowlder Acer negundo	5914	3	Bowlder Acer negundo			
976	5	Bowlder Acer negundo	5679	8	Blue Spruce Picea pungens	5885	3	Bowlder Acer negundo	5915	2	White Cedar Thuja occidentalis			
978	25	Cottonwood Populus deltoides	5680	12,5	Black Cherry Prunus serotina	5886	32	Bowlder Acer negundo	5916	5,2	White Cedar Thuja occidentalis			
979	11	Bowlder Acer negundo	5681	8,2	Green Ash Fraxinus pennsylvanica	5887	6	Bowlder Acer negundo	5917	26,26	Cottonwood Populus deltoides			
981	4	Buckhorn Rhamnus cathartica	5682	21	White Spruce Picea glauca	5888	5	Bowlder Acer negundo	5918	14	Willow Salix sp.			
982	4	Buckhorn Rhamnus cathartica	5683	5	Bowlder Acer negundo	5889	6	Bowlder Acer negundo	5919	14	Willow Salix sp.			
983	3,1,1,1	Buckhorn Rhamnus cathartica	5684	18	Bowlder Acer negundo	5890	5	Bowlder Acer negundo	5920	4	Hackberry Celtis occidentalis			
984	4	Silver Maple Acer saccharinum	5685	4	Bowlder Acer negundo	5891	6	Bowlder Acer negundo	5921	6	Basswood Tilia americana			
985	4,2	Bowlder Acer negundo	5686	4	Bowlder Acer negundo	5892	4	Bowlder Acer negundo	5922	13	Mulberry Morus sp.			
986	3,2,2	Buckhorn Rhamnus cathartica	5687	7	Elm Ulmas sp.	5893	6	Bowlder Acer negundo	5923	8,5	Mulberry Morus sp.			
989	12	Buckhorn Rhamnus cathartica	5688	4,5	Blue Spruce Picea pungens	5894	5	Basswood Tilia americana	5924	5	Basswood Tilia americana			
991	4	Buckhorn Rhamnus cathartica	5689	3,5	Bowlder Acer negundo	5895	16	Walnut Juglans sp.	5925	16	Walnut Juglans sp.			
992	4,2,1	Buckhorn Rhamnus cathartica	5690	3,5	Bowlder Acer negundo	5896	10	Mulberry Morus sp.	5926	10	Mulberry Morus sp.			
993	4	Bowlder Acer negundo	5691	3,5	Green Ash Fraxinus pennsylvanica	5897	12	Bowlder Acer negundo	5927	10	Green Ash Fraxinus pennsylvanica			
994	6	Elm Ulmas sp.	5692	4,3	Aronia, Thuja occidentalis	5898	13	Blue Spruce Picea pungens	5928	13	Blue Spruce Picea pungens			
995	14	Elm Ulmas sp.	5693	3,5,3,5	Aronia, Thuja occidentalis	5899	5	Buckhorn Rhamnus cathartica	5929	13	White Spruce Picea glauca			
996	34	Willow Salix sp.	5694	4,5	Blue Spruce Picea pungens	5900	4	Bowlder Acer negundo	5930	4	Mulberry Morus sp.			
997	5,3	Buckhorn Rhamnus cathartica	5695	3,5	Blue Spruce Picea pungens	5901	5	Walnut Juglans sp.	5931	21	Bowlder Acer negundo			
998	8	Mulberry Morus sp.	5696	3,5	Blue Spruce Picea pungens	5902	5	Bowlder Acer negundo	5932	5	White Spruce Picea glauca			
1001	5,5	Elm Ulmas sp.	5697	6	Mulberry Morus sp.	5903	4,2	Buckhorn Rhamnus cathartica	5933	6	Bowlder Acer negundo			
1006	13	Bowlder Acer negundo	5698	7	Willow Salix sp.	5904	11	Bowlder Acer negundo	5934	6	Bowlder Acer negundo			
1007	5	Maple Acer	5699	27	Mulberry Morus sp.	5905	13	Buckhorn Rhamnus cathartica	5935	18	Mulberry Morus sp.			
1008	5,5	Buckhorn Rhamnus Cathartica L.	5700	5	Walnut Juglans sp.	5906	4,4	Buckhorn Rhamnus cathartica	5936	10	Mulberry Morus sp.			
1010	10,5	Elm Ulmas sp.	5701	11	Walnut Juglans sp.	5907	11	Bowlder Acer negundo	5937	10	Green Ash Fraxinus pennsylvanica			
1011	9,5	Maple Acer	5702	7	Bowlder Acer negundo	5908	11	Bowlder Acer negundo	5938	13	Blue Spruce Picea glauca			
1012	3	Japanese Liriodendron reticulata	5703	9	Bowlder Acer negundo	5909	12	Bowlder Acer negundo	5939	13	White Spruce Picea glauca			
1013	3	Pear	5704	9	Bowlder Acer negundo	5910	12	Bowlder Acer negundo	5940	4	Mulberry Morus sp.			
1014	2	Ginkgo biloba	5705	9	Bowlder Acer negundo	5911	9	Bowlder Acer negundo	5941	4	Hackberry Celtis occidentalis			
1016	7,5	White Spruce Picea glauca	5706	4	Buckhorn Rhamnus cathartica	5912	11	Bowlder Acer negundo	5942	6	Basswood Tilia americana			
1017	11	White Spruce Picea glauca	5707	5	Blue Spruce Picea pungens	5913	11	Bowlder Acer negundo	5943	6	Mulberry Morus sp.			
1019	20	Black Walnut Juglans Nigra L.	5708	17	Blue Spruce Picea pungens	5914	15	Bowlder Acer negundo	5944	5	Basswood Tilia americana			
			5709	14	Maple Acer	5915	16	Walnut Juglans sp.	5945	16	Walnut Juglans sp.			
			5710	14	Maple Acer	5916	16	Walnut Juglans sp.	5946	10	Mulberry Morus sp.			
			5711	16,3	Silver Maple Acer saccharinum	5917	10	Green Ash Fraxinus pennsylvanica	5947	10	Green Ash Fraxinus pennsylvanica			
			5712	8	Bowlder Acer negundo	5918	12	Bowlder Acer negundo	5948	13	Blue Spruce Picea glauca			
			5713	7	Bowlder Acer negundo	5919	12	Bowlder Acer negundo	5949	13	White Spruce Picea glauca			
			5714	11,3	Bowlder Acer negundo	5920	4	Bowlder Acer negundo	5950	4	Mulberry Morus sp.			
			5715	9	Bowlder Acer negundo	5921	5	Walnut Juglans sp.	5951	21	Bowlder Acer negundo			
			5716	13	Bowlder Acer negundo	5922	5	Buckhorn Rhamnus cathartica	5952	5	White Spruce Picea glauca			
			5717	24	Black Walnut Juglans Nigra L.	5923	4,2	Buckhorn Rhamnus cathartica	5953	5	Green Ash Fraxinus pennsylvanica			
			5718	7	Elm Ulmas sp.	5924	15	White Spruce Picea glauca	5954	15	White Spruce Picea glauca			
			5719	17	Maple Acer	5925	13	Bowlder Acer negundo	5955	18	Mulberry Morus sp.			
			5720	13,5,20	Mulberry Morus sp.	5926	11	Bowlder Acer negundo	5956	11	Black Locust Robinia pseudoacacia			
			5721	19	Maple Acer	5927	11	Bowlder Acer negundo	5957	13,8	Bowlder Acer negundo			
			5722	8	Crabapple malus sylvestris	5928	7	Bowlder Acer negundo	5958	4	Bowlder Acer negundo			
			5723	12,5	Blue Spruce Picea pungens	5929	12	Bowlder Acer negundo	5959	4	Mulberry Morus sp.			
			5724	8,2	Green Ash Fraxinus pennsylvanica	5930	12	Bowlder Acer negundo	5960	17	Mulberry Morus sp.			
			5725	21	White Spruce Picea glauca	5931	12	Bowlder Acer negundo	5961	13	Bowlder Acer negundo			
			5726	21	White Spruce Picea glauca	5932	11	Bowlder Acer negundo	5962	6	Bowlder Acer negundo			
			5727	5	Bowlder Acer negundo	5933	11	Bowlder Acer negundo	5963	6	Mulberry Morus sp.			
			5728	4	Buckhorn Rhamnus cathart									



- NOTES:
1. PROTECT ALL STREET LIGHTING AND LIGHTING ELECTRICAL.
 2. THIS DEMO PLAN SHOWS THE EXTENT OF REMOVALS REQUIRED FOR THE CURB CUT INSTALLATION. ADDITIONAL REMOVALS MAY BE REQUIRED AS PART OF THE TRAFFIC CONTROL REQUIREMENTS FOR CONSTRUCTION. REFER TO TRAFFIC CONTROL SHEETS FOR CONSTRUCTION PHASING, AS WELL AS DEMOLITION AND CONSTRUCTION PHASING.
 3. PIPES REMOVED IN THE SAME TRENCH WHERE PROPOSED PIPES ARE INSTALLED ARE CONSIDERED INCIDENTAL TO PIPE INSTALLATION.

PROJECT DATE: 2023	NO.	DATE	BY
DESIGNED BY: [Redacted]	1		
CHECKED BY: [Redacted]	2		
DATE: 11/28/23 10:58 PM	3		

REVISION	NO.	DATE	BY

PROJECT NO. 12862	UNIVERSITY AVE DEMOLITION PLAN
PROJECT NAME	MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
CITY OF MADISON	DANE COUNTY, WISCONSIN



ENGINEERING ARCHITECTURE | SURVEYING
 PLANNING | ENVIRONMENTAL
 CONSULTING | LANDSCAPE ARCHITECTURE
 (608) 242-7779 www.msa-pc.com

5825 UNIVERSITY AVE
 MADISON, WI 53706
 VENTURE SAGE MGMT

DESIGN DATA

LIVE LOAD: DESIGN LOAD = HL-93
 EARTH LOAD: DESIGNED FOR FILL HEIGHT RANGE OF 0.5 TO 3.5 FEET
 MATERIAL PROPERTIES:
 CONCRETE MASONRY $f_c = 4,000$ P.S.I.
 CONCRETE MASONRY (PRECAST BARREL) $f_c = 5,000$ P.S.I.
 BAR STEEL REINFORCEMENT $f_y = 60,000$ P.S.I.
 WELDED WIRE FABRIC $f_y = 65,000$ P.S.I.

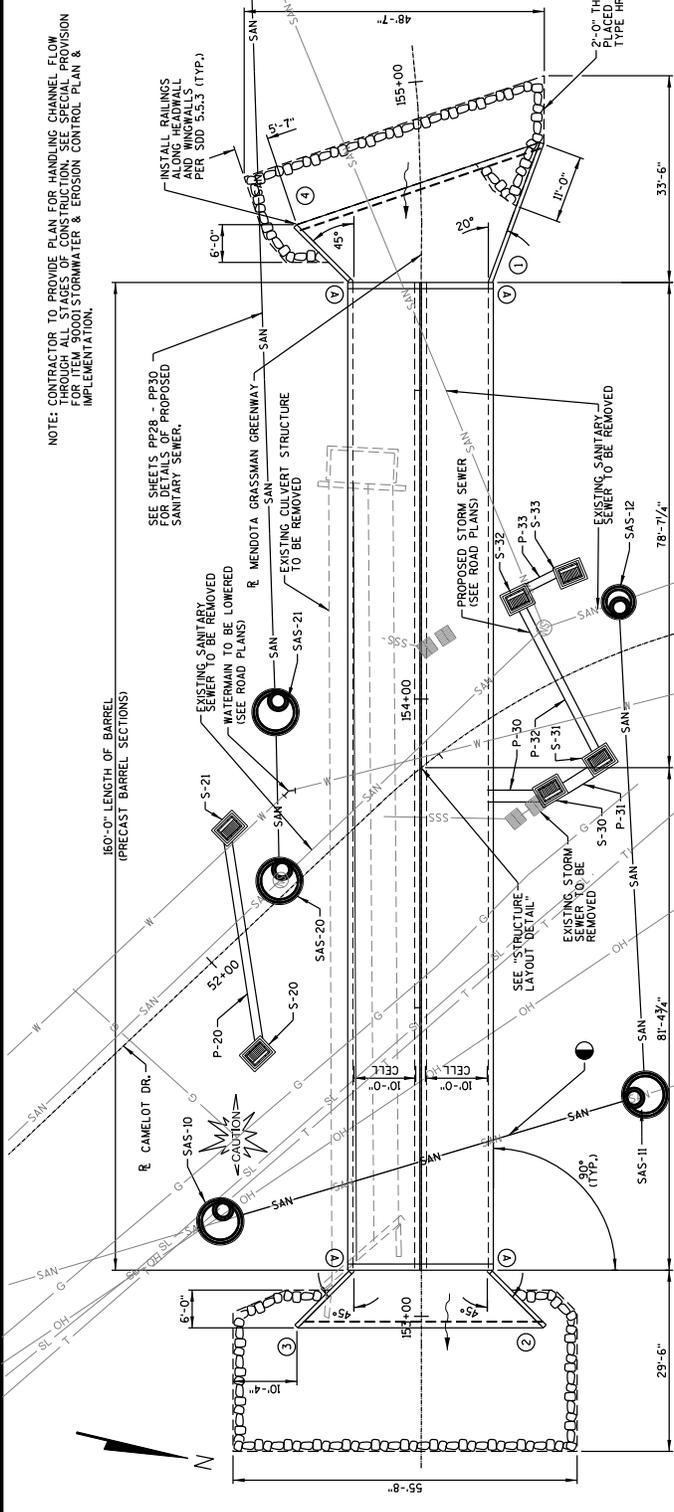
HYDRAULIC DATA

100-YEAR FREQUENCY
 DRAINAGE AREA = 0.80 SQ.MI.
 $Q_{100} = 171$ CFS
 VELOCITY = 5.1 FPS
 WATERWAY AREA = 16 SF
 HIGH WATER H_2 ELEVATION = EL. 857.69
 OVERTOPPING ROADWAY = N/A
 SCOUR CODE = 6
 2-YEAR FREQUENCY
 $Q_2 = 206$ CFS
 HIGH WATER H_2 ELEVATION = EL. 854.44
 VELOCITY = 5.0 FPS

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES & NOTES
3. SUBSURFACE EXPLORATION

NOTE: CONTRACTOR TO PROVIDE PLAN FOR HANDLING CHANNEL FLOW THROUGH ALL STAGES OF CONSTRUCTION. SEE SPECIAL PROVISION FOR DETAILS OF PROPOSED STORMWATER & EROSION CONTROL PLAN & IMPLEMENTATION.

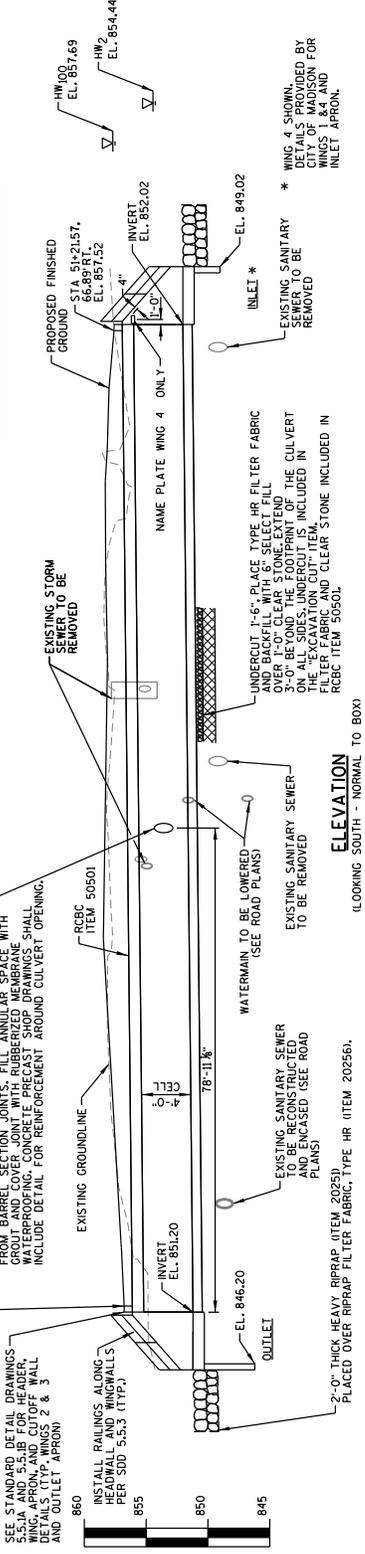


LEGEND

- - INDICATES WING NUMBER
- - SANITARY SEWER (SEE ROAD PLANS)
- - STORM SEWER (SEE ROAD PLANS)
- - ADJUST WINGWALL THICKNESS AT CORNERS TO MATCH BOX CULVERT SIDE WALL THICKNESS OVER A LONGITUDINAL DISTANCE NO MORE THAN 4 FEET AND NO LESS THAN 2 FEET.
- - EXISTING SANITARY SEWER TO BE REMOVED AND REPLACED WITH 16-INCH DIAMETER SANITARY WORK SHALL BE DONE AFTER EXISTING CULVERTS HAVE BEEN REMOVED AND PRIOR TO INSTALLING NEW CULVERTS.

PROPOSED 18-INCH STORM SEWER TO PENETRATE AT BOX CULVERT. THE STORM SEWER PENETRATION SHALL BE LOCATED 2'-6" FROM FROM BARREL SECTION JOINTS. FILL ANNULAR SPACE WITH GROUT AND COVER JOINT WITH RUBBERIZED MEMBRANE SHALL INCLUDE DETAIL FOR REINFORCEMENT AROUND CULVERT OPENING.

STRUCTURE LAYOUT DETAIL



ELEVATION

(LOOKING SOUTH - NORMAL TO BOX)

* WING 4 SHOWN. DETAILS FOR WING 1 & 4 AND INLET APRON.

NO.	DATE	REVISION	BY

GENERAL PLAN	
Project Name:	CAMELOT DRIVE OVER MENDOTA GRASSMAN GREENWAY STRUCTURE B-13-0900
County:	DANE
Design Firm:	ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
Engineer:	JFM Checked: KHB
Designer:	JFM Checked: KHB
City:	MADISON
Address:	1702 PARKWAY STREET, MADISON WI 53704
Phone:	(608) 242-7779
Website:	www.msa-ps.com
Project Number:	12882
Sheet:	01 of 04



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STRUCTURE ESTIMATED QUANTITIES

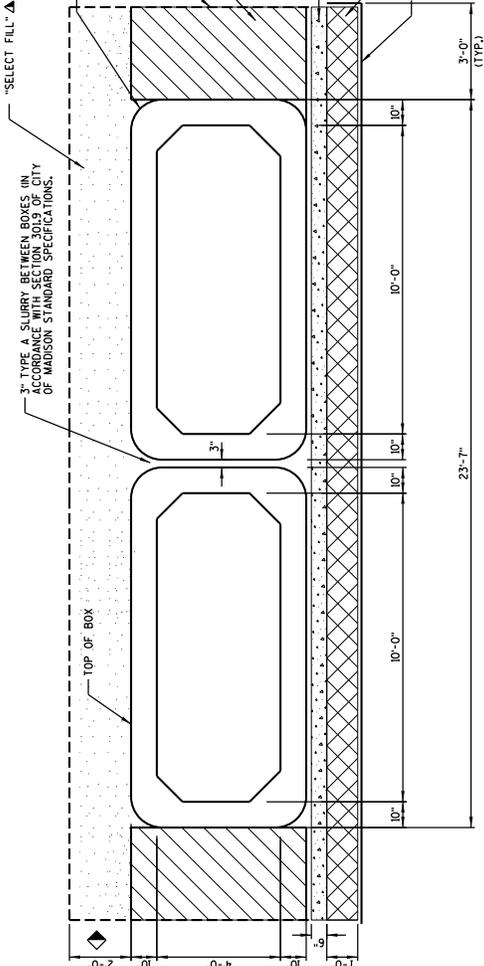
ITEM NUMBER	BID ITEM	UNIT	TOTAL
20101	EXCAVATION CUT	CY	2400
20204	SELECT FILL	TON	920
20251	HEAVY RIPRAP - GRAVEL FIELD STONE	CY	130
20256	RIPPAP FILTER FABRIC, TYPE HR	SY	215
30341	TYPE A SLURRY	CY	64
50501.1	PRECAST REINFORCED CONCRETE BOX CULVERT - B-13-0900	LF	320
50511.1	BOX CULVERT WINGWALLS, 3-13-0900, OUTLET END	EA	1
90001	STORM CONTROL PLAN AND IMPLEMENTATION	LS	1
90003	REMOVE EXISTING TWIN 48" PIPES (CAMELOT)	LS	1
90005	TEMPORARY SHORING B-13-0900	SF	225
90006	CULVERT WINGWALL RAILINGS	LF	106
90007	BOX CULVERT WINGWALLS, 3-13-0900, INLET END	EA	1

*** INCLUDES CAST-IN PLACE HEADER, WINGWALLS, APRON, CUTOFF WALL, AND ALL INCLUDED REINFORCING AND ADHESIVE ANCHOR CONNECTIONS AS SHOWN ON STANDARD DETAIL DRAWINGS 5.5.1A AND 5.5.1B. EACH UNIT FOR THE "BOX CULVERT WINGWALL" ITEM IS QUANTIFIED AS THE TOTAL CONSTRUCTION OF THE INLET END IN ACCORDANCE WITH DETAILS PROVIDED BY THE CITY OF MADISON FOR WINGS 1 & 4 AND INLET APRON.

▲ INCLUDES CAST-IN PLACE HEADER, WINGWALLS, APRON, CUTOFF WALL, AND ALL INCLUDED REINFORCING AND ADHESIVE ANCHOR CONNECTIONS AS SHOWN ON THE PLANS. EACH UNIT FOR THE "BOX CULVERT WINGWALL" ITEM IS QUANTIFIED AS THE TOTAL OF ALL ELEMENTS NECESSARY TO CONSTRUCT THE INLET END IN ACCORDANCE WITH DETAILS PROVIDED BY THE CITY OF MADISON FOR WINGS 1 & 4 AND INLET APRON.

◆ A TEMPORARY WATER DIVERSION SHALL BE PROVIDED TO ESTABLISH DRY CONDITIONS DURING CONSTRUCTION OF THE BOX CULVERTS.

◆ PLACE CRUSHED AGGREGATE BASE COURSE TO TOP OF BOX IN LIEU OF "SELECT FILL" IF THE ROADWAY CRUSHED AGGREGATE BASE COURSE ENDOACHES WITHIN THESE LIMITS.



TYPICAL SECTION THRU CULVERT

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

SEE ROADWAY PLANS FOR ADDITIONAL INFORMATION REGARDING PROPOSED UTILITY LOCATIONS.

THIS STRUCTURE WILL REPLACE EXISTING TWIN 48" STEEL PIPE CULVERTS WITH CONCRETE HEADWALLS AND WINGS.

REMOVAL OF THE EXISTING STRUCTURE WILL BE PAID FOR UNDER (90003) BID ITEM "REMOVE EXISTING TWIN 48" PIPES (CAMELOT)". THE UPPER LIMITS OF "EXCAVATION CUT" SHALL BE THE EXISTING GROUND LINE. THE EXCAVATION QUANTITY ASSUMES 1.5H : 1.0V CUT SLOPES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAVD 88 (1991) ADJUSTED, AND WERE ESTABLISHED AT THE SITE USING GPS TECHNOLOGY.

CONSTRUCT STRUCTURE IN STAGES CONFORMING TO THE TRAFFIC STAGING PLAN.

STAGING FOR REMOVAL OF THE EXISTING STRUCTURE AND THE TEMPORARY WATER DIVERSION IS TO BE COORDINATED AND DETERMINED BY THE CONTRACTOR.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE WISDOT STANDARD SPECIFICATIONS AND WISDOT STANDARD DETAIL DRAWING (SD01)2A3. NAME PLATE IS INCIDENTAL TO "BOX CULVERT WINGWALLS, B-13-0900, INLET END".

THE CENTER OF STORM SEWER PENETRATIONS SHALL BE LOCATED A MINIMUM OF 2'-6" FROM BARREL SECTION JOINTS. ADJUST LENGTH OF PRECAST BARREL SECTIONS TO ACCOMMODATE STORM SEWER PENETRATIONS.

PRECAST CONCRETE ELEMENTS SHALL BE PROVIDED WITH SUITABLE LIFTING DEVICES FOR HANDLING AND PLACEMENT OF THE ELEMENTS. NOT MORE THAN FOUR (4) HOLES MAY BE CAST-DILLED OR OTHERWISE NEATLY MADE IN THE SHELL OF EACH PIECE OF BOX SECTION FOR HANDLING. THE HOLES SHALL BE TAPERED UNLESS DRILLED. HOLES SHALL BE FILLED WITH PORTLAND CEMENT MORTAR EXCEPT TAPERED HOLES MAY BE FILLED WITH CONCRETE PLUGS SECURED WITH PORTLAND CEMENT MORTAR OR OTHER APPROVED ADHESIVE.

MEMBER THICKNESSES SHOWN ON THIS PLAN ARE BASED ON ENGINEERING JUDGEMENT. CONTRACTOR SHALL HAVE A REGISTERED ENGINEER DESIGN PRECAST BOX CULVERTS AND PROVIDE SEALED DRAWINGS TO THE CITY OF MADISON FOR APPROVAL. ENGINEER DESIGN THICKNESSES SHOWN ON THIS PLAN REQUIRE MODIFICATION, ADJUST WINGWALL, HEADWALL, APRON, AND REINFORCEMENT DIMENSIONS AS NECESSARY.

DETAILS FOR MATERIALS, FABRICATION, CONSTRUCTION AND DESIGN OF PRECAST BOX CULVERTS NOT SHOWN OR DETAILED ON THESE PLANS SHALL BE IN ACCORDANCE WITH THE CURRENT ASTM SPECIFICATION (C577) AND AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, EXCEPT THAT THE CONCRETE MIXTURE SHALL CONTAIN NOT LESS THAN 565 LBS. OF CEMENTITIOUS MATERIALS PER CUBIC YARD.

THE DESIGN OF PRECAST BOX CULVERTS WITH ALL FILL HEIGHTS SHALL BE AS STATED IN ASTM C1677.

JOINT TIES ARE REQUIRED AT ALL BOX CULVERT JOINTS IN ACCORDANCE WITH CITY OF MADISON STANDARD DETAIL DRAWING 5.4.6.

SEAL BOX CULVERT JOINTS IN ACCORDANCE WITH SECTION 505.3A14 OF THE CITY OF MADISON STANDARD SPECIFICATIONS.

*4 EPOXY COATED DEFORMED BARS TO BE PLACED IN END SECTIONS DURING FABRICATION OF THE BOX CULVERT. ALL DOWEL BARS SHALL BE INCIDENTAL TO RCBC ITEM 50500.

▲ ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE, TYPE A SLURRY, OR THE ROADWAY PAVEMENT SHALL BE BACKFILLED WITH "SELECT FILL" WITHIN THE LENGTH OF THE BOX.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "TYPE A SLURRY" REQUIRED ON THE BOX CULVERT SIZES FOR A WIDTH OF 3 FEET AS SHOWN IN THE TYPICAL SECTION THRU CULVERT. THE LIMITS OF "TYPE A SLURRY" SHALL RUN BELOW THE ROAD AND EXTEND TO 3 FEET BEYOND THE BACK OF CURB ON EACH END.

"SELECT FILL" REQUIRED BEHIND BOX CULVERT SIDES AND APRON WINGS STARTING 3 FEET BEYOND THE BACK OF CURB AND EXTENDING TO THE WING TIPS FOR A WIDTH OF 3 FEET. SLURRY OR FILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO "EXCAVATION CUT".

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE CITY OF MADISON STANDARD SPECIFICATIONS ARTICLE 505.

PAY LIMITS OF "SELECT FILL" AND "TYPE A SLURRY".

BACKFILL WITH "TYPE A SLURRY" BEHIND BOX WALLS TO THE TOP OF BOX WITHIN LIMITS SHOWN IN ACCORDANCE WITH SECTION 301.9 OF CITY OF MADISON STANDARD SPECIFICATIONS. PLACE "TYPE A SLURRY" BELOW THE ROAD AND EXTEND TO 3 FEET BEYOND THE BACK OF CURB.

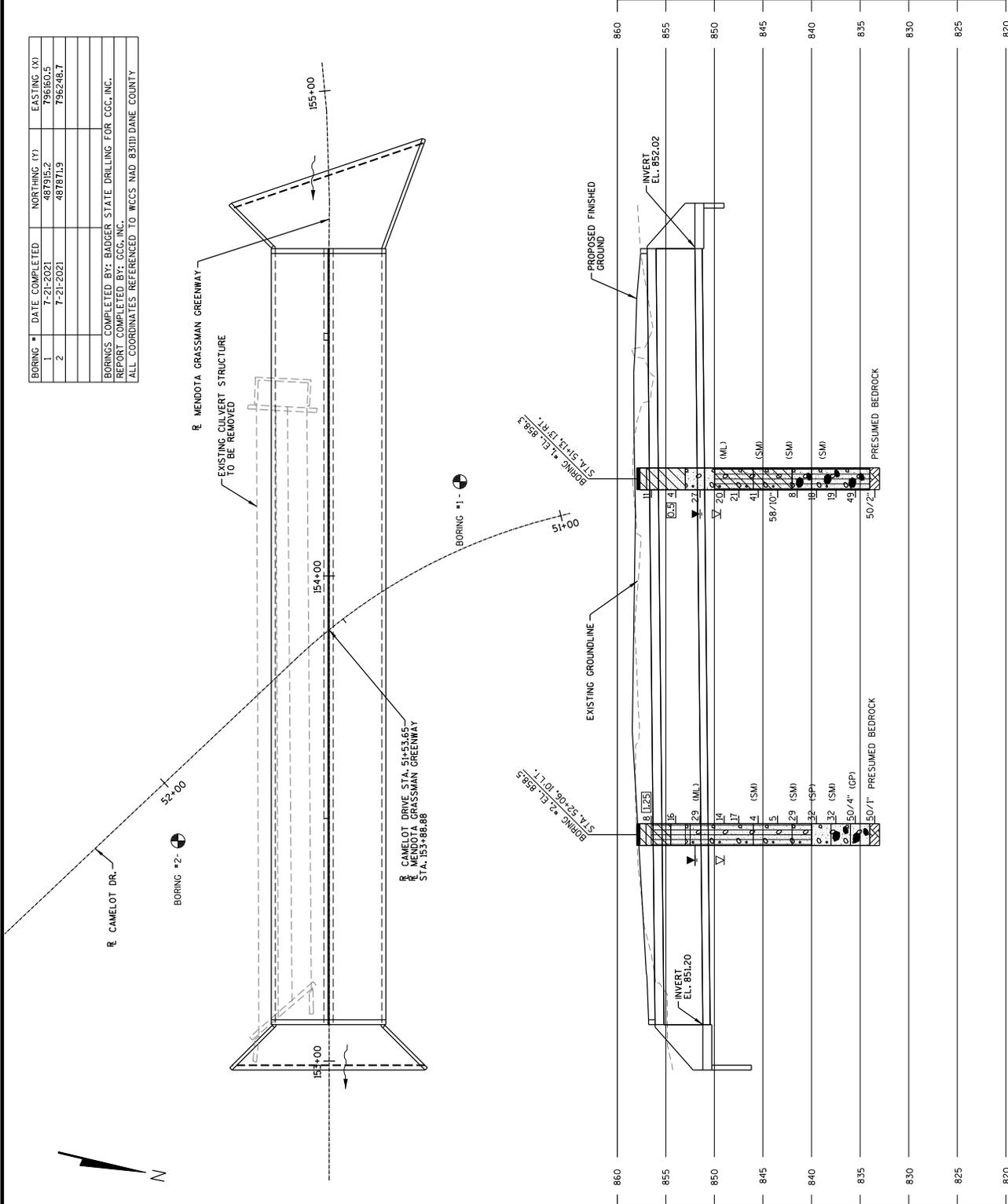
"SELECT FILL" AS SHOWN BETWEEN ENDS OF BARREL, NOT REQUIRED BELOW APRONS.

3" CLEAR STONE (INCIDENTAL TO RCBC ITEM 50500)
WOOD TYPE HR FILTER FABRIC
INCIDENTAL TO RCBC ITEM 50500

No.	Date	Revision	By
ENGINEERING ARCHITECTURE SURVEYING 1302 PARKWAY STREET, MADISON WI 53704 (608) 242-7779 www.msa-ps.com C:\msa\msoffice\			
Drawn By	Checked	KHB	
STRUCTURE		B-13-0900	
CROSS SECTION, QUANTITIES & NOTES		SHEET 2 OF 4	
PROJECT NUMBER		12882	

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	7-21-2021	487815.2	796248.5
2	7-21-2021	487871.9	796248.7

BORINGS COMPLETED BY: BADGER STATE DRILLING FOR CGC, INC.
 REPORT COMPLETED BY: CGC, INC.
 ALL COORDINATES REFERENCED TO WCCS NAD 83(10) DANE COUNTY



ENGINEERING ARCHITECTURE SURVEYING
 1302 PARKWAY STREET, MADISON WI 53704
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 www.msa-ps.com

No.	Date	Revision	By

STRUCTURE B-13-0900

Drawn By: EKK
 Checked: KHB

SUBSURFACE EXPLORATION

SHEET 3 OF 4
 PROJECT NUMBER: 12882



NOTE: ALL BARS TO BE EPOXY COATED.

SPLASH PAD 8" THICK #4 BARS SPACED EVENLY AT APPROXIMATELY 24" CENTERS BOTH WAYS, 3" CLEAR FROM BOTTOM OF PAD.

FOR UPSTREAM BOX CULVERTS, THE ENTRANCE SHALL HAVE 45° CHAMFERED ROOF AND SIDE EDGES. MITER ALL EXPOSED REINFORCING JOINTS AT 45°.

WINGWALLS SHALL BE ONE CONTINUOUS POUR FROM CONSTRUCTION JOINT ABOVE CONSTRUCTION JOINT AT SPLASH PAD

REINFORCEMENT DETAIL FOR DIMENSIONS AND INSERT FOR ORIENTATION. 1/2" FELTS TO BE PLACED EACH JOINT AND AT CONNECTION TO WINGWALLS.

CONCRETE BOX

INSET

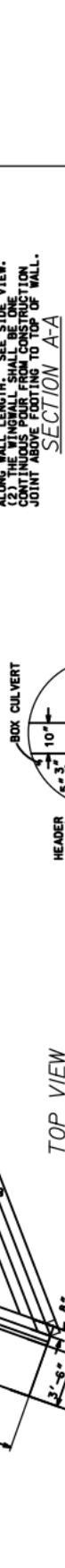
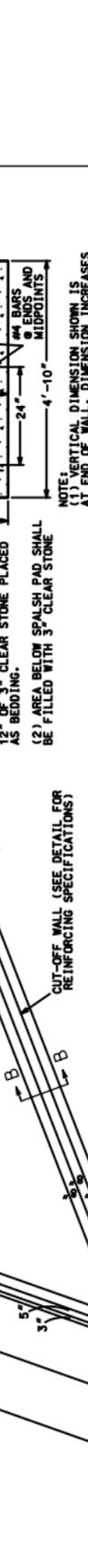
CUT-OFF WALL (SEE DETAIL FOR REINFORCING SPECIFICATIONS)

TOP VIEW WITH SPLASHPAD

WINGWALLS WITH SPLASHPAD

FOR UPSTREAM BOX CULVERTS, THE ENTRANCE SHALL HAVE 45° CHAMFERED ROOF AND SIDE EDGES. MITER ALL EXPOSED REINFORCING JOINTS AT 45°.

WINGWALLS SHALL BE ONE CONTINUOUS POUR FROM CONSTRUCTION JOINT ABOVE CONSTRUCTION JOINT AT SPLASH PAD



BEDDING NOTES:

(1) ALL FOOTINGS SHALL HAVE 12" OF 3" CLEAR STONE PLACED AS BEDDING.

(2) AREA BELOW SPLASH PAD SHALL BE FILLED WITH 3" CLEAR STONE

NOTE:

(1) VERTICAL DIMENSION SHOWN IS AT END OF WALL. DIMENSION INCREASES ALONG WALL LENGTH. SEE SIDE VIEW.

(2) MINIMUM CLEARANCE BETWEEN CONTINUOUS POUR FROM CONSTRUCTION JOINT ABOVE FOOTING TO TOP OF WALL.

STEEL CONNECTION NOTES:

(1) CONNECTION OF SPLASH PAD TO BOX CULVERTS: REINFORCING BARS SPACED EVENLY ON APPROXIMATELY 24" CENTERS. SPLASH PAD FLOOR WITH 2" CLEAR SPACING EACH SIDE.

(2) CONNECTION OF WINGWALL TO BOX CULVERT: REINFORCING BARS SPACED EVENLY ON APPROXIMATELY 24" CENTERS. ONE LEG DRIVEN INTO SIDE OF BOX, AND THE OTHER EMBEDDED 6" INTO THE WINGWALL. BARS SHALL HAVE 2" CLEAR SPACING TOP AND BOTTOM. (SAME EACH WINGWALL)

(3) CONNECTION OF SPLASH PAD TO WINGWALLS: #4 REBAR FIELD BENT WITH 12" DIMENSIONS OF 12"x8" SPACED EVENLY ON APPROXIMATELY 12" CENTERS. THE 8" LEG EMBEDDED INTO THE SPLASH PAD AND THE 12" LEG CENTERED IN THE SPLASH PAD AND THE WINGWALL. WINGWALLS SHALL BE ONE CONTINUOUS POUR FROM CONSTRUCTION JOINT ABOVE FOOTING TO TOP OF THE WALL. THERE SHOULD BE NO CONSTRUCTION JOINT AT PAD ELEVATION.

(4) CONNECTION OF SPLASH PAD TO THE CUT-OFF WALL: (SEE CUT-OFF WALL DETAIL) THE #4 BAR REINFORCING OF THE CUT-OFF WALL SHALL BE FIELD BENT INTO A 6" AND 12" LEG EMBEDDED INTO THE SPLASH PAD AND THE WINGWALL ON APPROXIMATELY 24" CENTERS. THE 8" LEG ALTERNATES INTO FOOTING LEG AND 6" EMBEDDED INTO SPLASH PAD. THE BARS SHALL BE CENTERED IN THE CUT-OFF WALL.

SECTION A-A

WINGWALL DETAIL AT END OF WALL

HEADER TO BE CHAMFERED MATCHING WINGWALLS

2" MIN. CLEAR BETWEEN REINFORCEMENT AND EDGE OF HEADER

1/2" FELTS AT EACH JOINT

FOOTING

21'-92"

8'-0" SPLASH PAD

2'-0" SPLASH PAD

10'-0" WINGWALL WIDTH

3'-0" CLEAR

3'-0" CLEAR

SECTION B-B

CUT-OFF WALL DETAIL

WINGWALLS WITH SPLASHPAD

VARIES

8'-0" SPLASH PAD

2'-0" SPLASH PAD

10'-0" WINGWALL WIDTH

3'-0" CLEAR

3'-0" CLEAR

SECTION A-A

WINGWALL DETAIL AT END OF WALL

HEADER TO BE CHAMFERED MATCHING WINGWALLS

2" MIN. CLEAR BETWEEN REINFORCEMENT AND EDGE OF HEADER

1/2" FELTS AT EACH JOINT

FOOTING

21'-92"

8'-0" SPLASH PAD

2'-0" SPLASH PAD

10'-0" WINGWALL WIDTH

3'-0" CLEAR

3'-0" CLEAR

INSET

BOX CULVERT

10" WINGWALL

12" WINGWALL

12" WINGWALL

12" WINGWALL

5'-0" SPLASH PAD

2'-0" SPLASH PAD

10'-0" WINGWALL WIDTH

3'-0" CLEAR

3'-0" CLEAR

TOP VIEW

WINGWALLS WITH SPLASHPAD

VARIES

8'-0" SPLASH PAD

2'-0" SPLASH PAD

10'-0" WINGWALL WIDTH

3'-0" CLEAR

3'-0" CLEAR

FRONT VIEW

WINGWALLS WITH SPLASHPAD

VARIES

8'-0" SPLASH PAD

2'-0" SPLASH PAD

10'-0" WINGWALL WIDTH

3'-0" CLEAR

3'-0" CLEAR

SECTION B-B

CUT-OFF WALL DETAIL

WINGWALLS WITH SPLASHPAD

VARIES

8'-0" SPLASH PAD

2'-0" SPLASH PAD

10'-0" WINGWALL WIDTH

3'-0" CLEAR

3'-0" CLEAR

SECTION A-A

WINGWALL DETAIL AT END OF WALL

HEADER TO BE CHAMFERED MATCHING WINGWALLS

2" MIN. CLEAR BETWEEN REINFORCEMENT AND EDGE OF HEADER

1/2" FELTS AT EACH JOINT

FOOTING

21'-92"

8'-0" SPLASH PAD

2'-0" SPLASH PAD

10'-0" WINGWALL WIDTH

3'-0" CLEAR

3'-0" CLEAR

VERTICAL REINFORCEMENT PER SECTION STAGGERED

#4 BARS EACH SIDE WITH 12" CENTER TO CENTER.

HORIZONTAL REINFORCEMENT PER SECTION: (12" + 2" x 1" - 4") OF #4 BAR CENTERED BOTH DIRECTION IN PROPOSED BOX CULVERT HEADER.

BOX CULVERT HEADER REINFORCEMENT DETAIL

21'-92"

8'-0" SPLASH PAD

2'-0" SPLASH PAD

10'-0" WINGWALL WIDTH

3'-0" CLEAR

3'-0" CLEAR

TOP VIEW

WINGWALLS WITH SPLASHPAD

VARIES

8'-0" SPLASH PAD

2'-0" SPLASH PAD

10'-0" WINGWALL WIDTH

3'-0" CLEAR

3'-0" CLEAR

No.	Date	Revision	By



MSA

ENGINEERING ARCHITECTURE SURVEYING
1302 PARKWAY STREET, MADISON WI 53704
(608) 242-7779
www.msa-ps.com

STRUCTURE B-13-0900

Drawn By: _____
Checked: _____
Placed: _____

BOX CULVERT WINGWALL

UPSTREAM CAMELOT DRIVE

CULVERT

CITY OF MADISON
ENGINEERING DIVISION

DRAWING NOT TO SCALE

2021

PROJECT NUMBER: 12882

SHEET 4 OF 4

UPSTREAM CAMELOT DRIVE CULVERT

STRUCTURE ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	TOTAL
Z0201	EXCAVATION CUT	CY	5800
Z0204	SELECT FILL	TON	1160
Z0251	HEAVY RIPRAP - GLACIAL FIELD STONE	CY	82
Z0256	RIPRAP FILTER FABRIC, TYPE HR	SY	142
S0501.2	PRECAST REINFORCED CONCRETE BOX CULVERT - C-13-2088	LF	164
S0511.2	BOX CULVERT WING WALLS, C-13-2088	EA	2
S0001	STORM CONTROL PLAN AND IMPLEMENTATION	LS	1
S0002	REMOVE EXISTING STRUCTURE C-13-2044	LS	1
S0004	TEMPORARY SHORING C-13-2088	SF	2600
S0006	CULVERT WINGWALL RAILINGS	LF	86

*** INCLUDES CAST-IN-PLACE HEADER, WINGWALLS, APRON, CUTOFF WALL, AND ALL INCLUDED REINFORCING AND ADHESIVE ANCHOR CONNECTIONS AS SHOWN ON STANDARD DETAIL DRAWINGS 5.5.1A AND 5.5.1B. THE TOTAL OF ALL ELEMENTS NECESSARY TO CONSTRUCT THE INLET, END OR OUTLET END IN ACCORDANCE WITH STANDARD DETAIL DRAWINGS.

◆ A TEMPORARY WATER DIVERSION SHALL BE PROVIDED TO ESTABLISH DRY CONDITIONS DURING CONSTRUCTION OF THE BOX CULVERTS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

SEE ROADWAY PLANS FOR ADDITIONAL INFORMATION REGARDING PROPOSED UTILITY LOCATIONS.

THIS STRUCTURE WILL REPLACE EXISTING STRUCTURE C-13-2044, A 6'-0" X 10'-0" REINFORCED CONCRETE BOX CULVERT.

REMOVAL OF THE EXISTING STRUCTURE WILL BE PAID FOR UNDER 190002 BID ITEM "REMOVE EXISTING STRUCTURE C-13-2044".

THE UPPER LIMITS OF "EXCAVATION CUT" SHALL BE THE EXISTING GROUND LINE. THE EXCAVATION QUANTITY ASSUMES 1.5H:1.0V CUT SLOPES AS SHOWN IN THE "EXCAVATION CUT DETAIL," THIS SHEET.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAVD 88 (1991 ADJUSTED), AND WERE ESTABLISHED AT THE SITE USING GPS TECHNOLOGY.

CONSTRUCT STRUCTURE IN STAGES CONFORMING TO THE TRAFFIC STAGING PLAN.

STAGING FOR REMOVAL OF THE EXISTING STRUCTURE AND THE TEMPORARY WATER DIVERSION IS TO BE COORDINATED AND DETERMINED BY THE CONTRACTOR.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE WISDOT STANDARD SPECIFICATIONS AND WISDOT STANDARD DETAIL DRAWING 500112A3. NAME PLATE IS INCIDENTAL TO "BOX CULVERT WINGWALLS, C-13-2088".

THE CENTER OF STORM SEWER PENETRATIONS SHALL BE LOCATED A MINIMUM OF 2'-6" FROM BARREL SECTION JOINTS. ADJUST LENGTH OF PRECAST BARREL SECTIONS TO ACCOMMODATE STORM SEWER PENETRATIONS.

PRECAST CONCRETE ELEMENTS SHALL BE PROVIDED WITH SUITABLE LIFTING DEVICES FOR HANDLING AND PLACEMENT OF THE ELEMENTS. NOT MORE THAN FOUR (4) HOLES MAY BE CAST, DRILLED, OR OTHERWISE MADE IN THE SHELL OF EACH ELEMENT. HOLES SHALL BE TAPERED UNLESS DRILLED. HOLES SHALL BE FILLED WITH PORTLAND CEMENT MORTAR EXCEPT TAPERED HOLES MAY BE FILLED WITH CONCRETE PLUG SECURED WITH PORTLAND CEMENT MORTAR OR OTHER APPROVED ADHESIVE.

EXISTING RETAINING WALL STRUCTURE R-13-188 SHALL REMAIN AND ITS MSE REINFORCING STRAPS SHALL NOT BE DISTURBED OR DAMAGED DURING CONSTRUCTION OF STRUCTURE C-13-2088.

MEMBER THICKNESSES SHOWN ON THIS PLAN ARE BASED ON ENGINEERING JUDGEMENT. CONTRACTOR SHALL HAVE A REGISTERED ENGINEER DESIGN THE PRECAST BOX CULVERTS AND PROVIDE SEALED DRAWINGS TO THE CITY OF MADISON FOR APPROVAL. THE THICKNESSES SHOWN ON THIS PLAN REQUIRE MODIFICATION, ADJUST WINGWALL, HEADWALL, APRON, AND REINFORCEMENT DIMENSIONS, AS NECESSARY.

DETAILS FOR MATERIALS, FABRICATION, CONSTRUCTION AND DESIGN OF PRECAST BOX CULVERTS NOT SHOWN OR STATED ON THESE DRAWINGS SHALL BE INCIDENTAL TO "EXCAVATION CUT DETAIL," THIS SHEET. ALL MATERIALS SHALL BE CEMENTITIOUS MATERIALS PER CUBIC YARD, EXCEPT THAT THE CONCRETE MIXTURE SHALL CONTAIN NOT LESS THAN 265 LBS. OF CEMENTITIOUS MATERIALS PER CUBIC YARD.

THE DESIGN OF PRECAST BOX CULVERTS WITH ALL FILL HEIGHTS SHALL BE AS STATED IN ASTM C1577.

JOINT TIES ARE REQUIRED AT ALL BOX CULVERT JOINTS IN ACCORDANCE WITH CITY OF MADISON STANDARD DETAIL DRAWING 5.4.6.

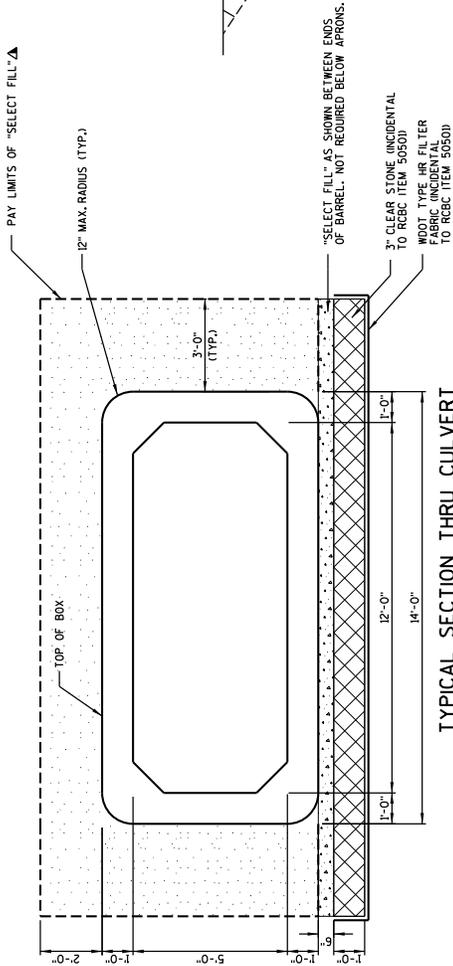
SEAL BOX CULVERT JOINTS IN ACCORDANCE WITH SECTION 505.3144 OF THE CITY OF MADISON STANDARD SPECIFICATIONS.

*4 EPOXY COATED DEFORMED BARS TO BE PLACED IN END SECTIONS DURING FABRICATION OF THE BOX CULVERT. ALL DOWEL BARS SHALL BE INCIDENTAL TO RCBC ITEM 50501.

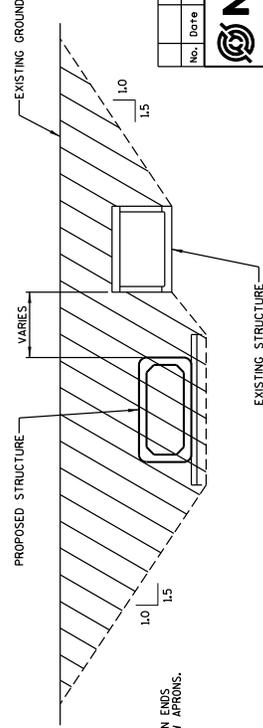
▲ ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH "SELECT FILL" TO AN ELEVATION 2 FEET ABOVE THE TOP OF THE BOX EXCEPT AS FOLLOWS. AREAS OCCUPIED BY THE EXISTING BOX CULVERT THAT ARE MORE THAN 2 FEET ABOVE THE TOP OF THE BOX SHALL BE BACKFILLED WITH "SELECT FILL" TO AN ELEVATION 2 FEET ABOVE THE TOP OF THE BOX. AREAS OCCUPIED BY THE EXISTING BOX CULVERT THAT ARE MORE THAN 2 FEET BELOW THE ROADWAY SURFACE SHALL BE BACKFILLED WITH EXCAVATION CUT MATERIAL BACKFILLING WITH EXCAVATION CUT MATERIAL SHALL BE INCIDENTAL TO "EXCAVATION CUT," MATERIAL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH ARTICLE 202 OF THE CITY OF MADISON STANDARD SPECIFICATIONS.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. *SELECT FILL IS REQUIRED ON THE BOX CULVERT SIDES AND BEHIND APRON WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO "EXCAVATION CUT."

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE CITY OF MADISON STANDARD SPECIFICATIONS ARTICLE 505.



TYPICAL SECTION THRU CULVERT



EXCAVATION CUT DETAIL

No.	Date	Revision	By

MSA
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 1302 BRANBAZ STREET, MADISON, WI 53704
 (608) 242-7222 www.msa-ps.com

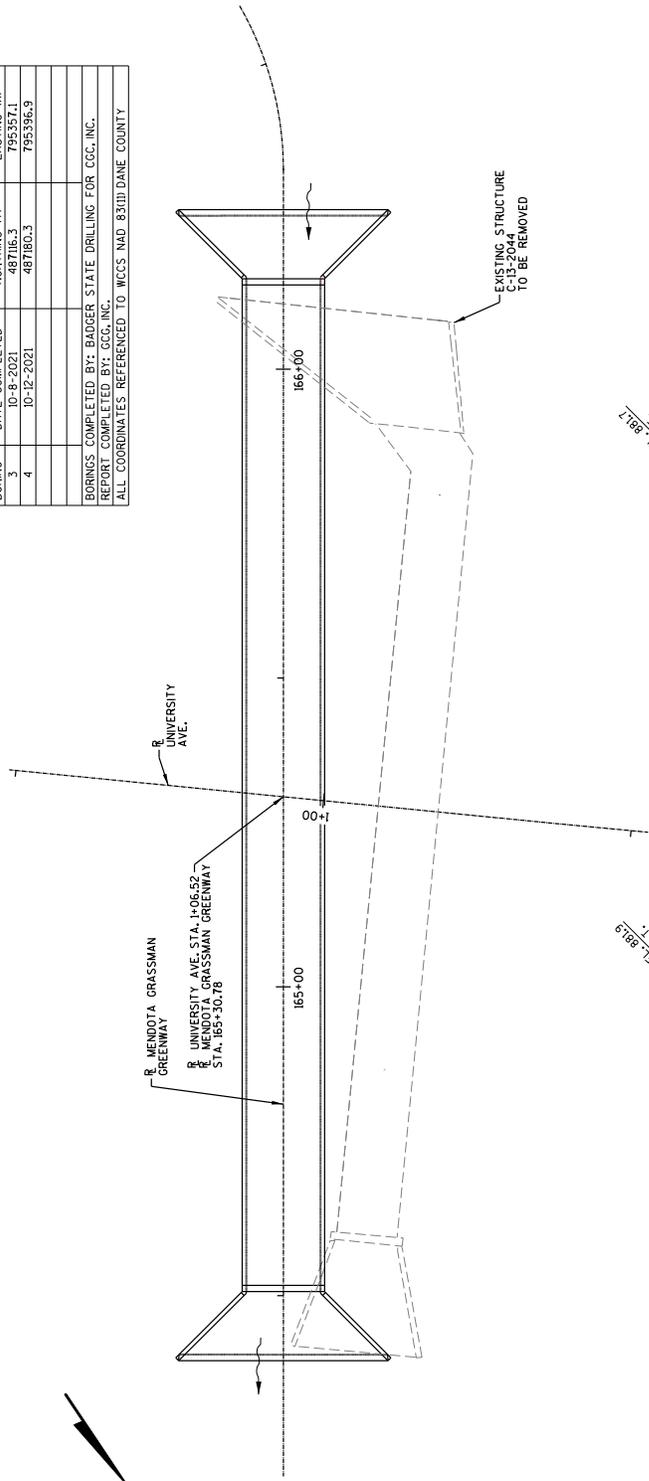
Drawn By	EKK	Checked	KHB
STRUCTURE C-13-2088			
CROSS SECTION, QUANTITIES & NOTES			
SHEET 2 OF 3			PROJECT NUMBER
			12882

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
3	10-09-2021	487180.3	795397.6
4	10-12-2021	487180.3	795396.9

BORINGS COMPLETED BY: BADGER STATE DRILLING FOR CGC, INC.
 REPORT COMPLETED BY: CGC, INC.
 ALL COORDINATES REFERENCED TO WCCS NAD 83(10) DANE COUNTY

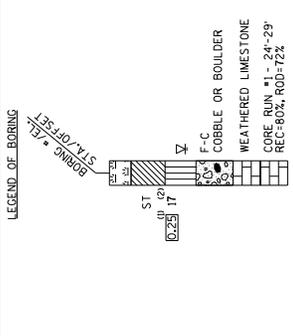
BORING #3

BORING #4



MATERIAL SYMBOLS

ASPHALT	CONCRETE	SAND	BOULDERS OR COBBLES	SHALE	TOPSOIL	FILL	CLAY	LIMESTONE	SANDSTONE	PEAT	GRAVEL	SILT	BEDROCK (UNKNOW)	IGNEOUS/META
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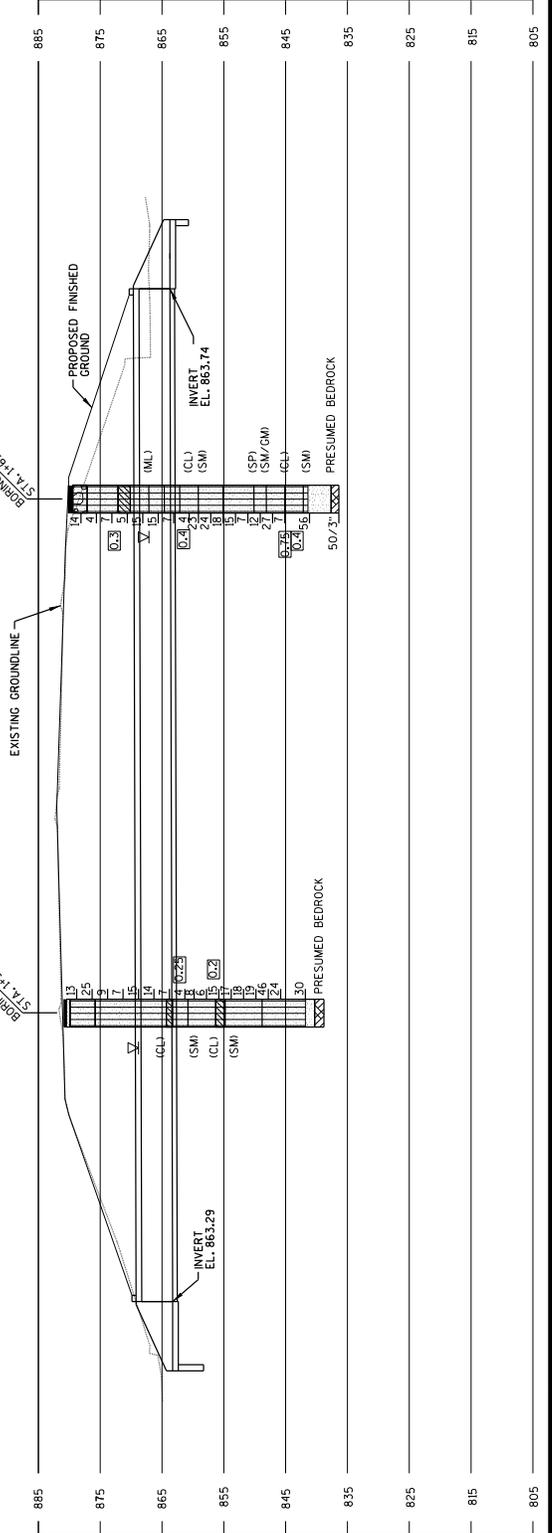


UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (15PS)
 UNLESS OTHERWISE SPECIFIED THE SPT 'N' VALUE IS BASED ON A 60 LB. STANDARD PENETRATION CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION
 AT TIME OF DRILLING
 END OF DRILLING
 AFTER DRILLING

ABBREVIATIONS
 F-FINE M-MEDIUM C-COURSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION
 BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION ON THE SUBSURFACE CONDITIONS AND MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, IT DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW BETWEEN OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS, GROUNDWATER LEVELS AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

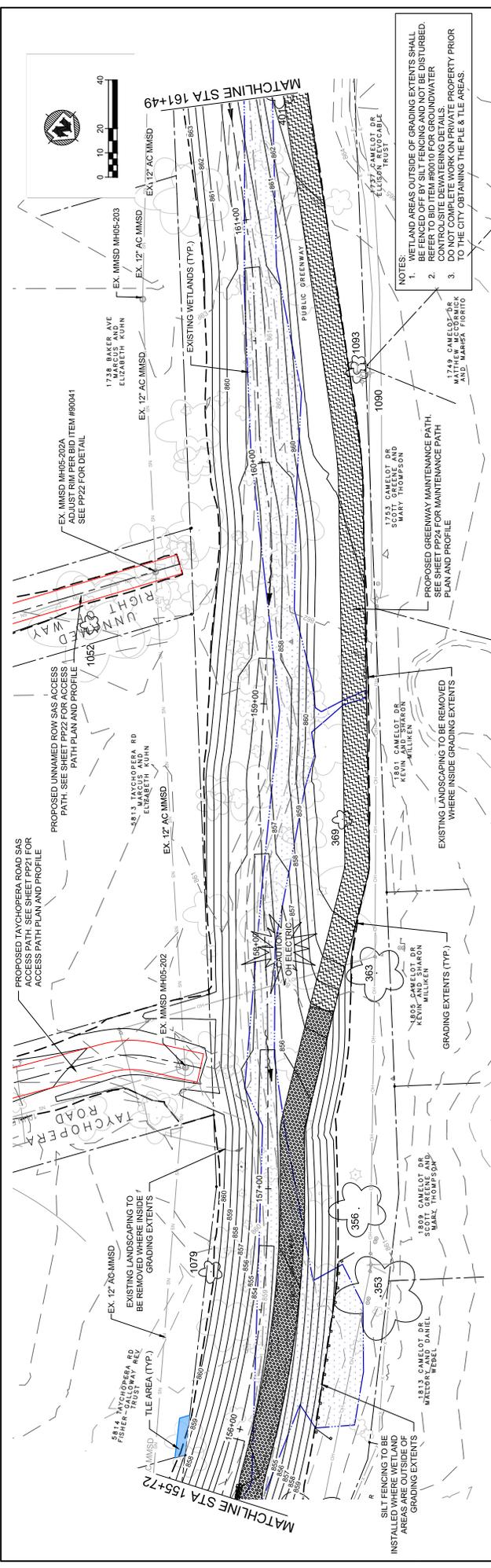


No.	Date	Revision	By

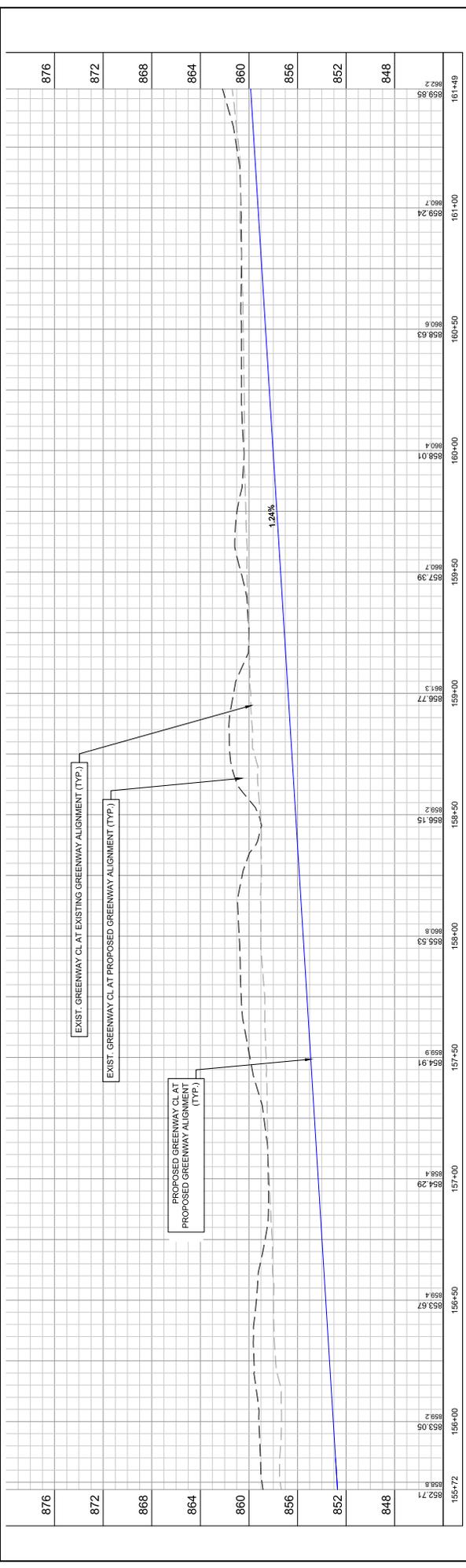


STRUCTURE C-13-2088
 Drawn By: EKK
 Checked: KHB

SUBSURFACE EXPLORATION
 SHEET 3 OF 3
 PROJECT NUMBER 12882



NOTES:
 1. SILT AND AREAS OUTSIDE OF GRADING EXTENTS SHALL BE FENCED OFF BY SILT FENCING AND NOT BE DISTURBED.
 2. REFER TO BID ITEM #80010 FOR GROUNDWATER CONTROL/SITE DEWATERING DETAILS.
 3. DO NOT COMPLETE WORK ON PRIVATE PROPERTY PRIOR TO THE CITY OBTAINING THE PERMITS AREAS.



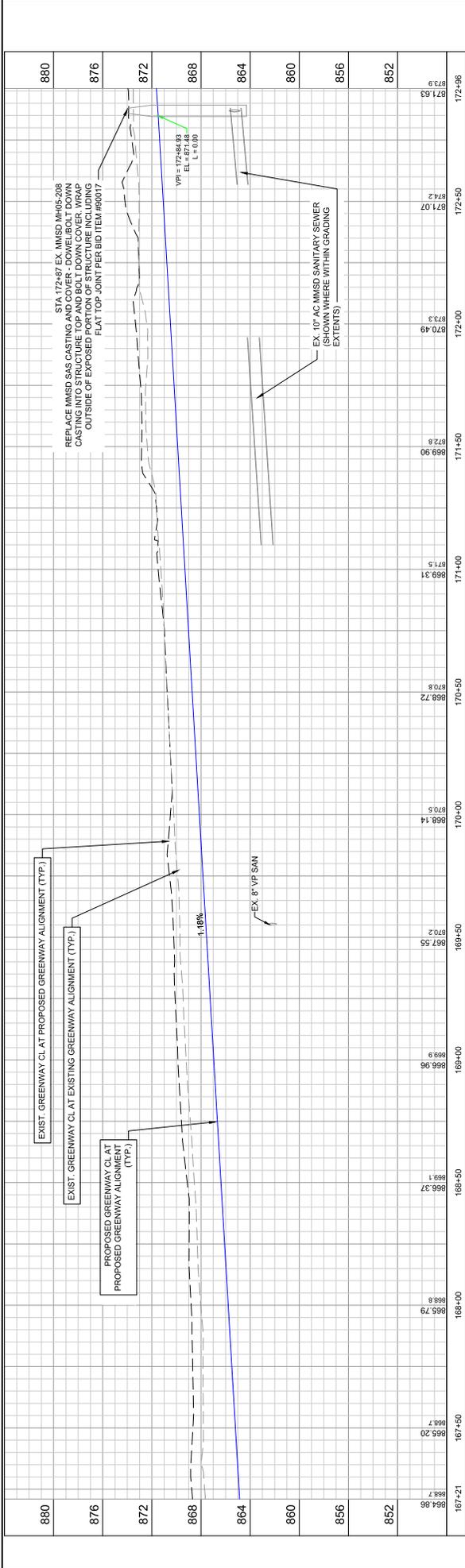
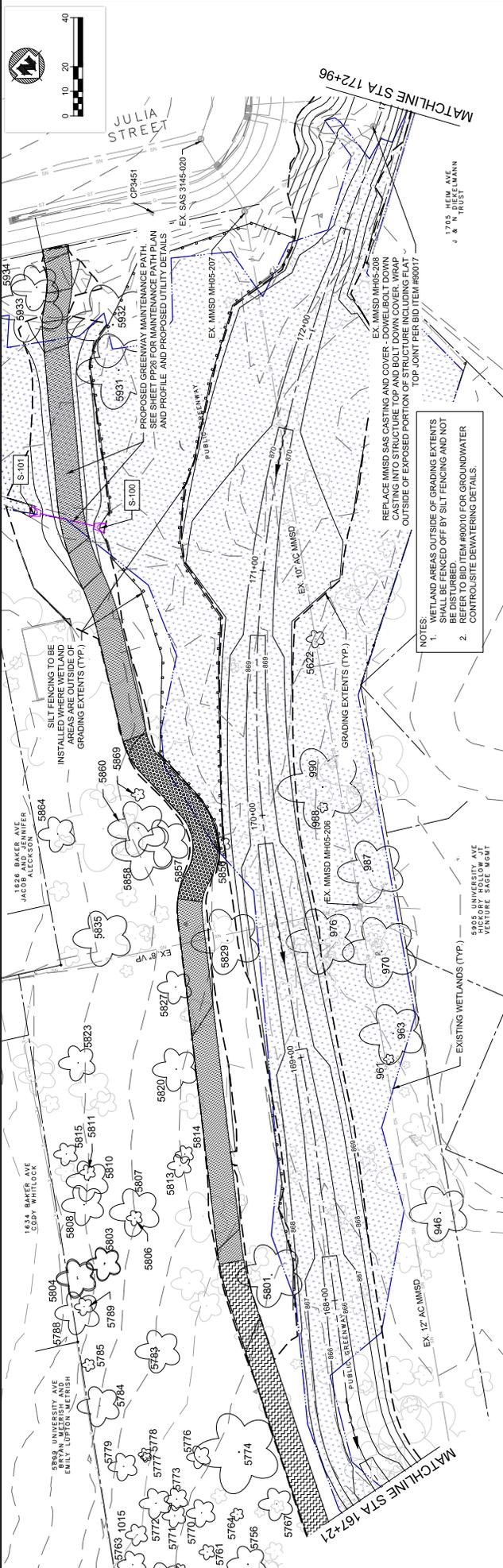
STATION	ELEVATION	DESCRIPTION
876	859.88	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
872	860.7	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
868	860.7	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
864	860.7	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
860	860.7	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
856	860.7	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
852	860.7	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
848	860.7	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
155+72	859.88	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
156+00	859.88	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
157+00	859.88	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
158+00	859.88	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
159+00	859.88	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
160+00	859.88	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
161+00	859.88	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)
161+49	859.88	EXIST. GREENWAY CL AT EXISTING GREENWAY ALIGNMENT (TYP.)

MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
 CITY OF MADISON
 DANE COUNTY, WISCONSIN

MSA
 ENGINEERING ARCHITECTURE SURVEYING
 FINANCIAL PLANNING ENVIRONMENTAL
 (608) 842-7779 www.msa-je.com

PROJECT NO.	12862
PROJECT DATE	
PROJECT DATE	Monday, May 1, 2023 12:55:58 PM
PROJECT DATE	0:000000790037117P-CAD-D-Communication Document\032117 Park & Profile - Proposed Stream\03.2.09g
PROJECT NO.	12862
PROJECT DATE	
PROJECT DATE	Monday, May 1, 2023 12:55:58 PM
PROJECT DATE	0:000000790037117P-CAD-D-Communication Document\032117 Park & Profile - Proposed Stream\03.2.09g

PROJECT NO. 12862
 SHEET PP17



PROJECT NO. 12862

DATE 08/23/2023

PP18

ENGINEERING ARCHITECTURE | SUPERVISING ENGINEER
FUNDING | PLANNING | ENVIRONMENTAL
DESIGNED BY: JEF
CHECKED BY: BK
PROJECT DATE: Monday, May 1, 2023 12:58:15 PM. C:\00000730073117\CAD\Drawings\12862\Drawings\032317 PP18 & Profile - Proposed Greenway.dwg

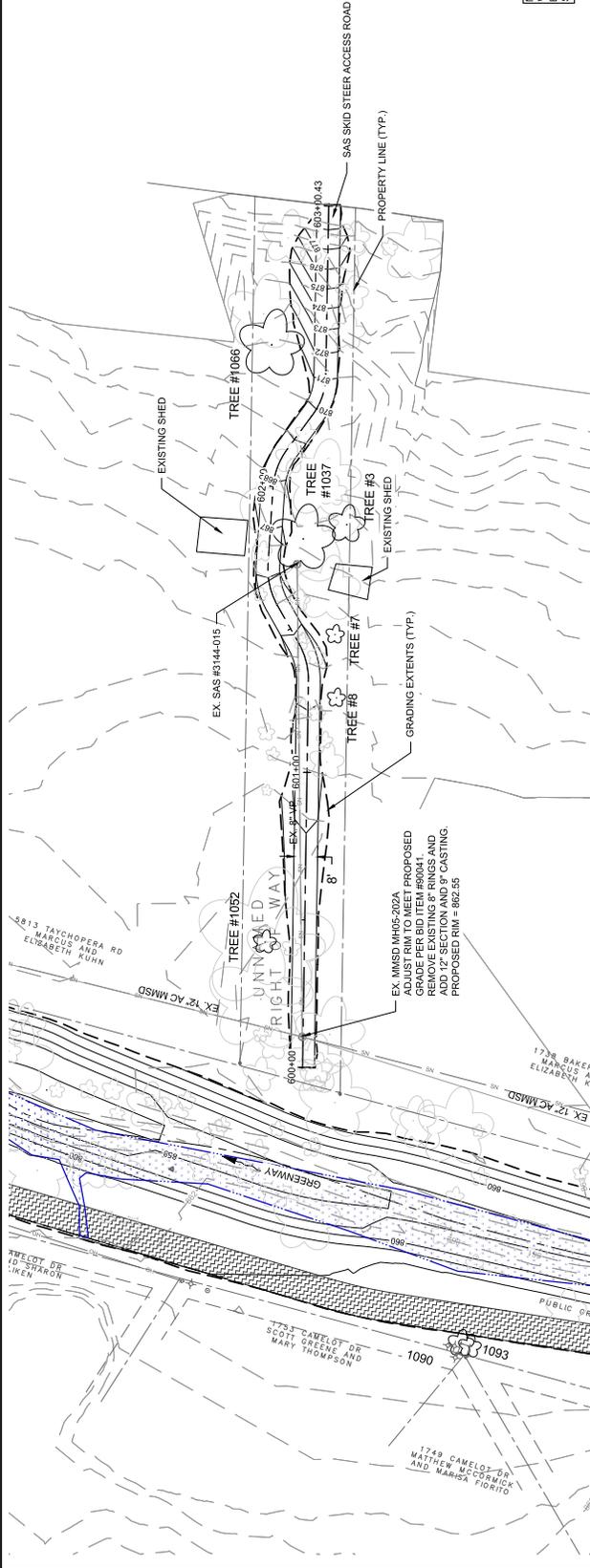
MSA
 ENGINEERING ARCHITECTURE | SUPERVISING ENGINEER
 FUNDING | PLANNING | ENVIRONMENTAL
 DESIGNED BY: JEF
 CHECKED BY: BK
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MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
CITY OF MADISON
DANE COUNTY, WISCONSIN

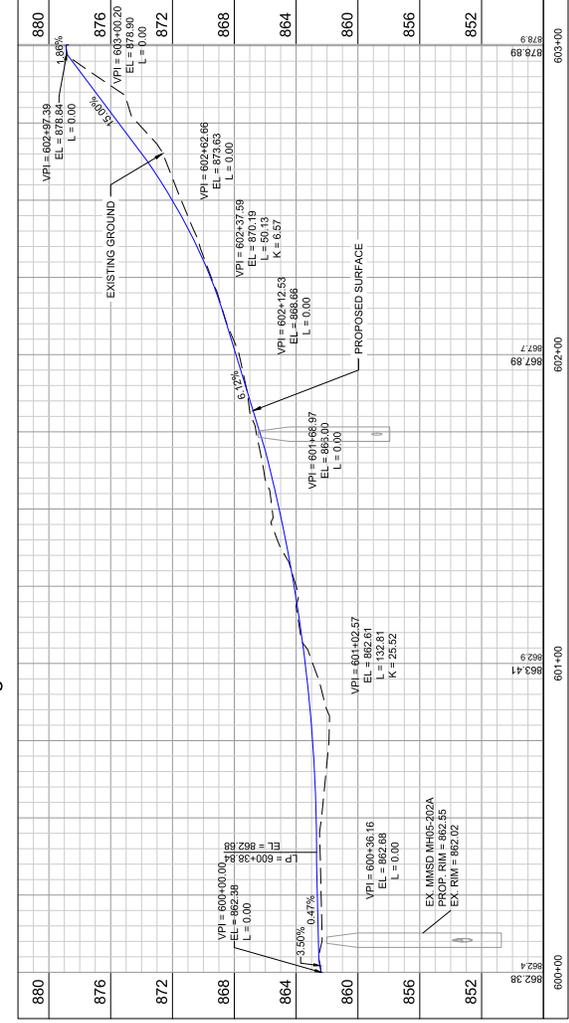
PLAN & PROFILE - GREENWAY



NOTE:
WETLAND AREAS OUTSIDE OF GRADING EXTENTS SHALL BE FENCED OFF BY SILT FENCING AND NOT BE DISTURBED. SEE SHEETS PP17 - PP20 FOR FENCING LOCATIONS

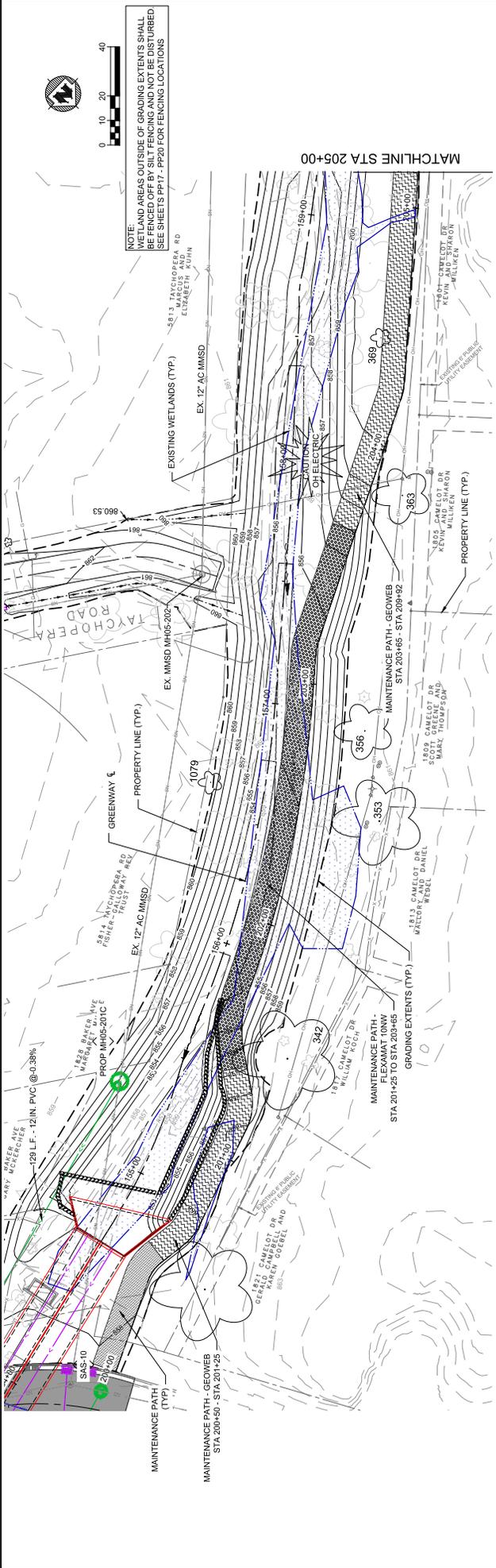


Alignment - Unnamed ROW Path PROFILE

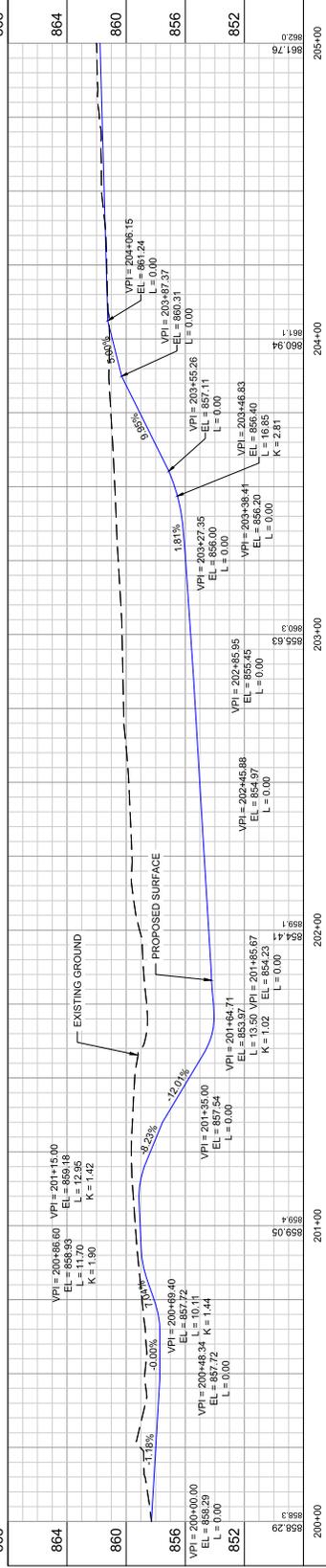


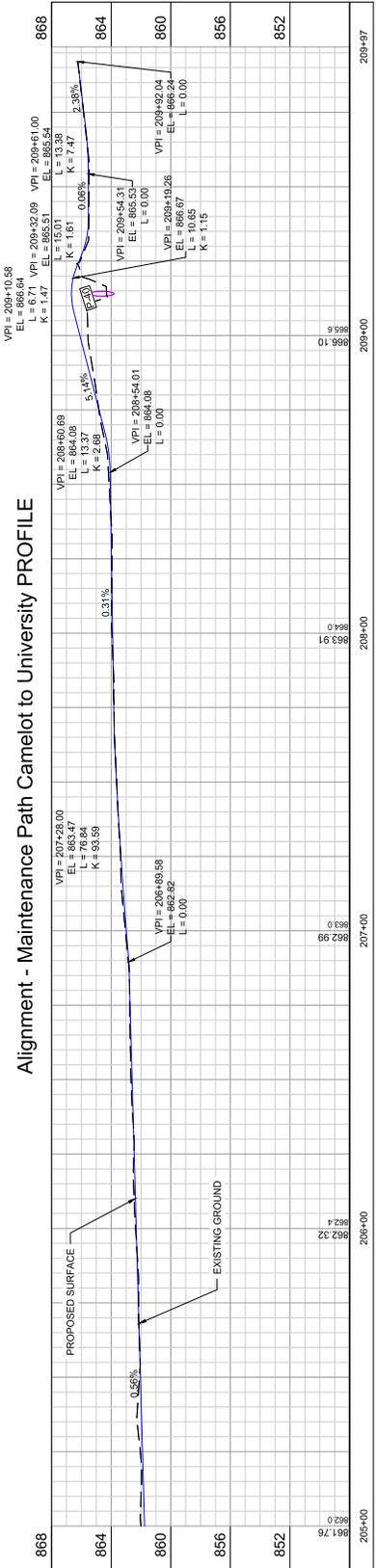
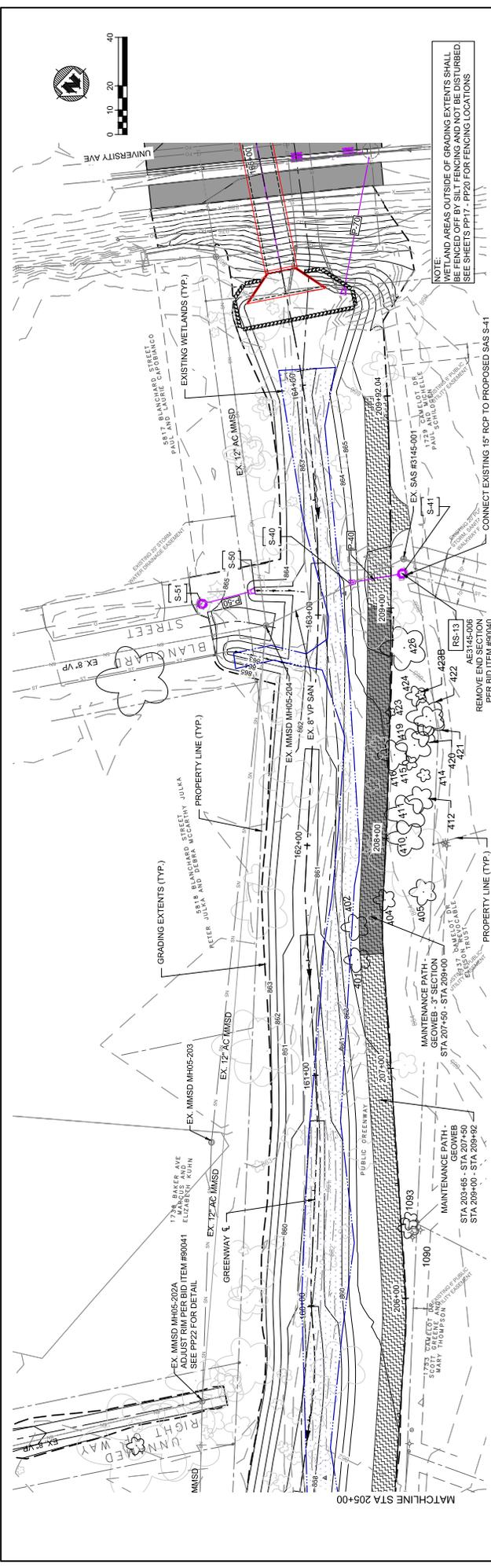
NOTE:
SEE SHEET CS21 UNNAMED ROW SAS ACCESS ROAD CROSS SECTIONS FOR DETAILS

PROJECT DATE: 2023		NO.		DATE		REVISION		PLAN & PROFILE - UNNAMED ACCESS ROAD SAS ACCESS PATH	
CHECKED BY:	DESIGNED BY:	NO.	DATE						
CHECKED BY:	DESIGNED BY:	NO.	DATE						
CHECKED BY:	DESIGNED BY:	NO.	DATE						
PROJECT: MENDOTA GRASSMAN GREENWAY IMPROVEMENTS				CITY OF MADISON					
DANE COUNTY, WISCONSIN				DANE COUNTY, WISCONSIN					
ENGINEERING ARCHITECTURE SURVEYING PLANNING ENVIRONMENTAL LANDSCAPE ARCHITECTURE (608) 242-7779 www.msa-ps.com				MSA					
PROJECT NO. 12662				PP22					



Alignment - Maintenance Path Camelot to University Profile



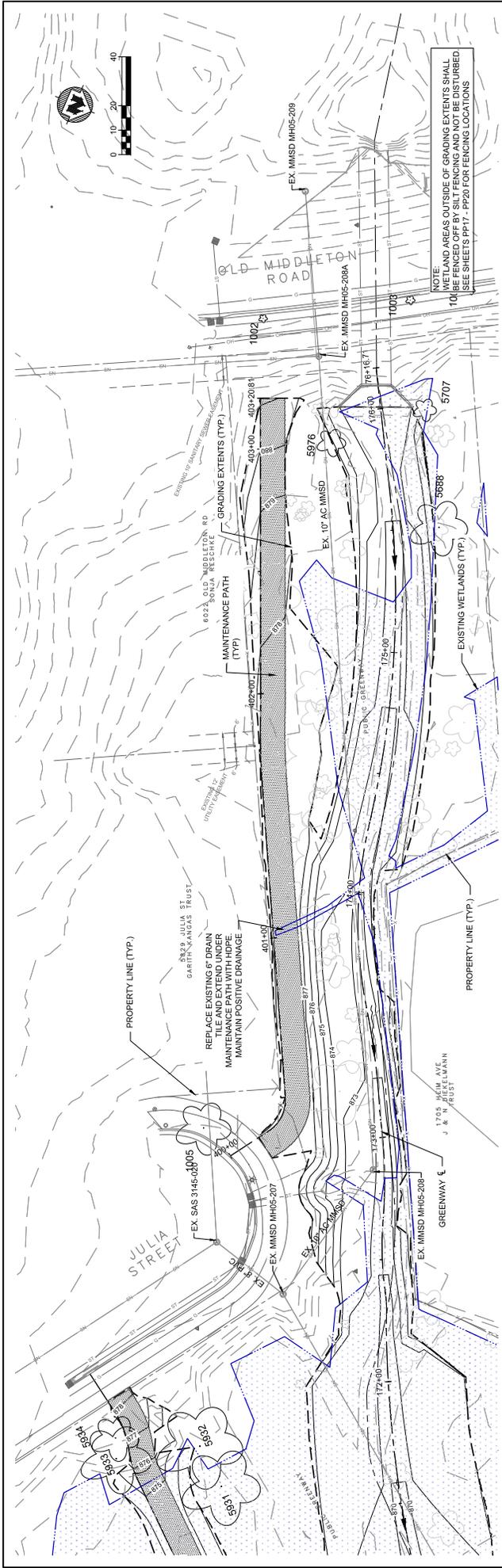


Alignment - Maintenance Path Camelot to University PROFILE

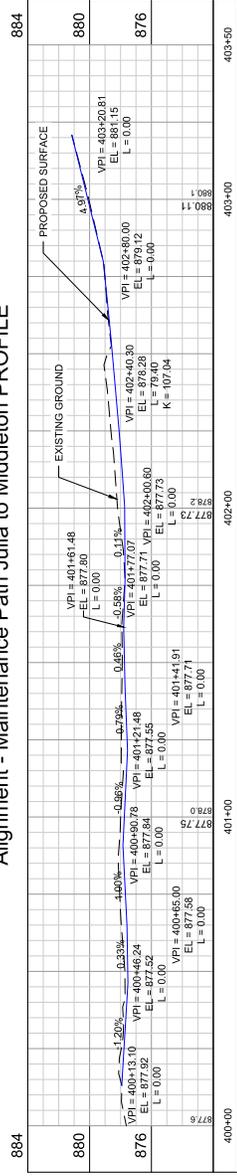
PROJECT DATE	2023	NO.	DATE	BY
DESIGNED BY
CHECKED BY
REVISION

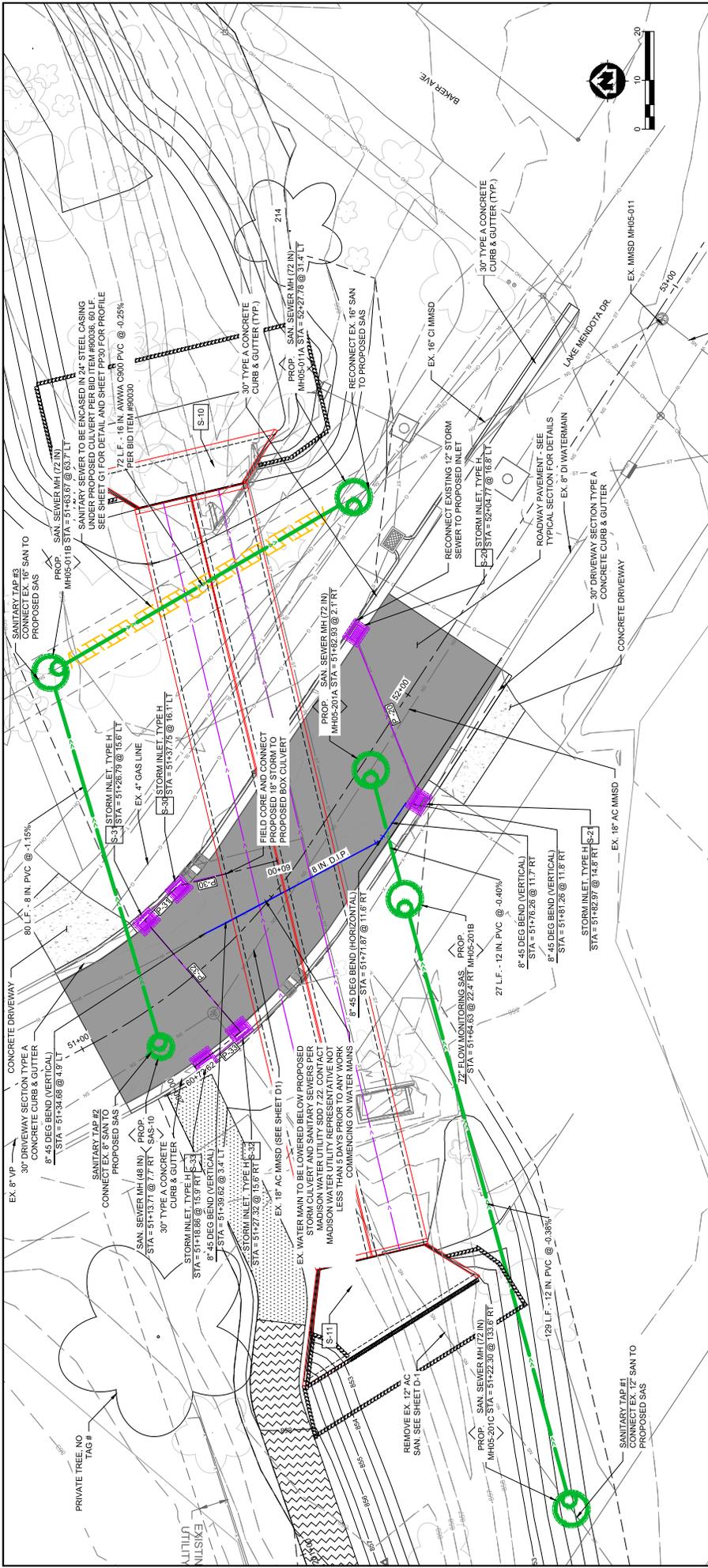
PROJECT DATE: 2023 PROJECT NO: 12862 SHEET: PP25	PLAN & PROFILE - MAINTENANCE PATH CAMELOT DR. TO UNIVERSITY AVE
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MENDOTA GRASSMAN GREENWAY IMPROVEMENTS CITY OF MADISON DANE COUNTY, WISCONSIN	ENGINEERING ARCHITECTURE SURVEYING FUNDING PLANNING ENVIRONMENTAL MSA (608) 842-7779 www.msa-ia.com
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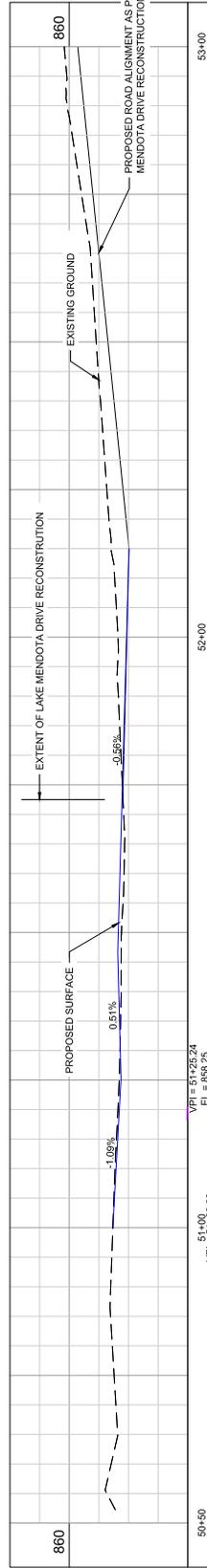


Alignment - Maintenance Path Julia to Middleton Profile





CAMELOT DRIVE CL PROFILE



Station	Station
50+00	52+00
51+00	53+00
VPI = 51+46.71 EL = 858.25 L = 0.00	VPI = 52+15.00 EL = 857.98 L = 0.00
VPI = 51+46.71 EL = 858.25 L = 0.00	VPI = 51+46.71 EL = 858.25 L = 0.00

NOTE: ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
SUPPORT AND PROTECTION DETAILS

PROJECT NO.	12662
DATE	PP28

CAMELOT DR. RESTORATION PLAN AND PROFILE

MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
CITY OF MADISON
DANE COUNTY, WISCONSIN

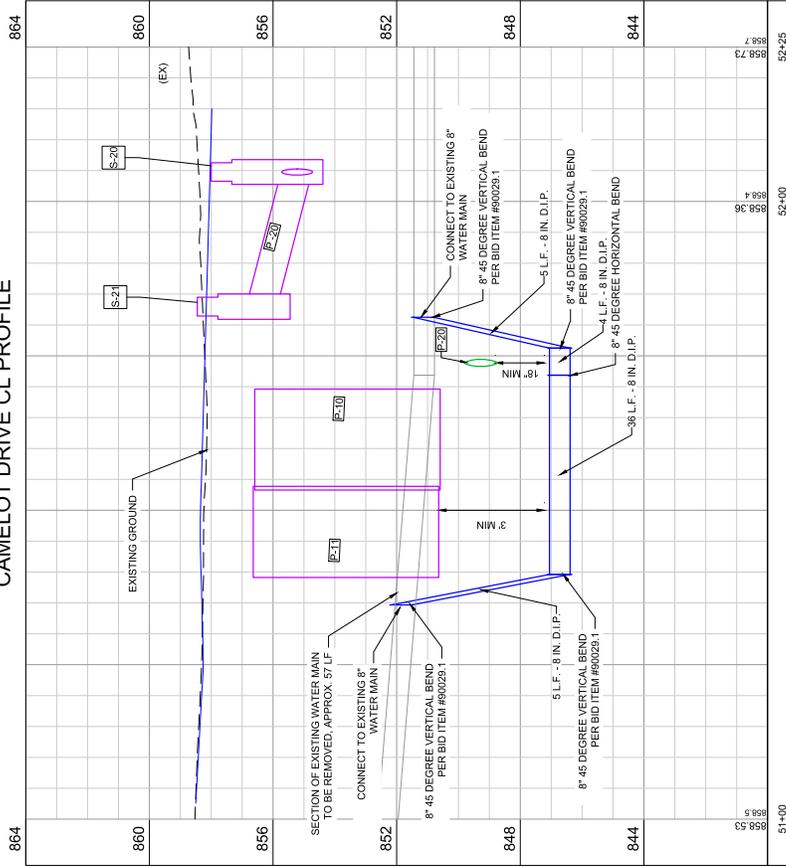
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2015
3015
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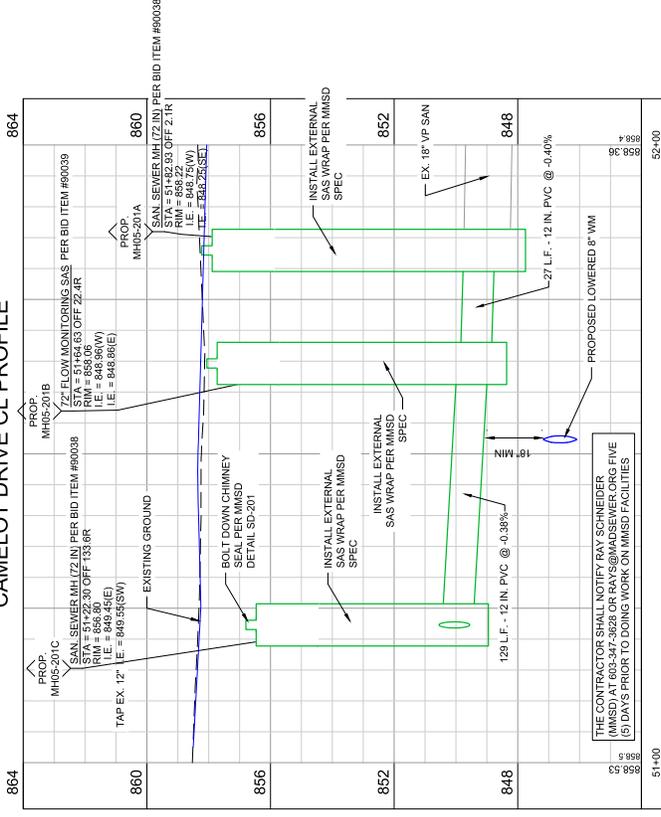
PROJECT DATE	NO.	DATE	REVISION
PROJECT DATE: 2023	NO.	DATE	REVISION
PROJECT DATE: 2023	NO.	DATE	REVISION
PROJECT DATE: 2023	NO.	DATE	REVISION

PROJECT DATE: 2023
PROJECT NO.: 12662
DATE: PP28

CAMELOT DRIVE CL PROFILE



CAMELOT DRIVE CL PROFILE



SEE SHEET PP28 FOR PLAN VIEW

PROJECT DATE: 2023	NO.	DATE	BY
DESIGNED BY: [Redacted]	NO.	DATE	BY
CHECKED BY: [Redacted]	NO.	DATE	BY
APPROVED BY: [Redacted]	NO.	DATE	BY

MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
 CITY OF MADISON
 DANE COUNTY, WISCONSIN

CAMELOT DR. UTILITY PROFILES

PROJECT NO:
12662
SHEET:
PP29

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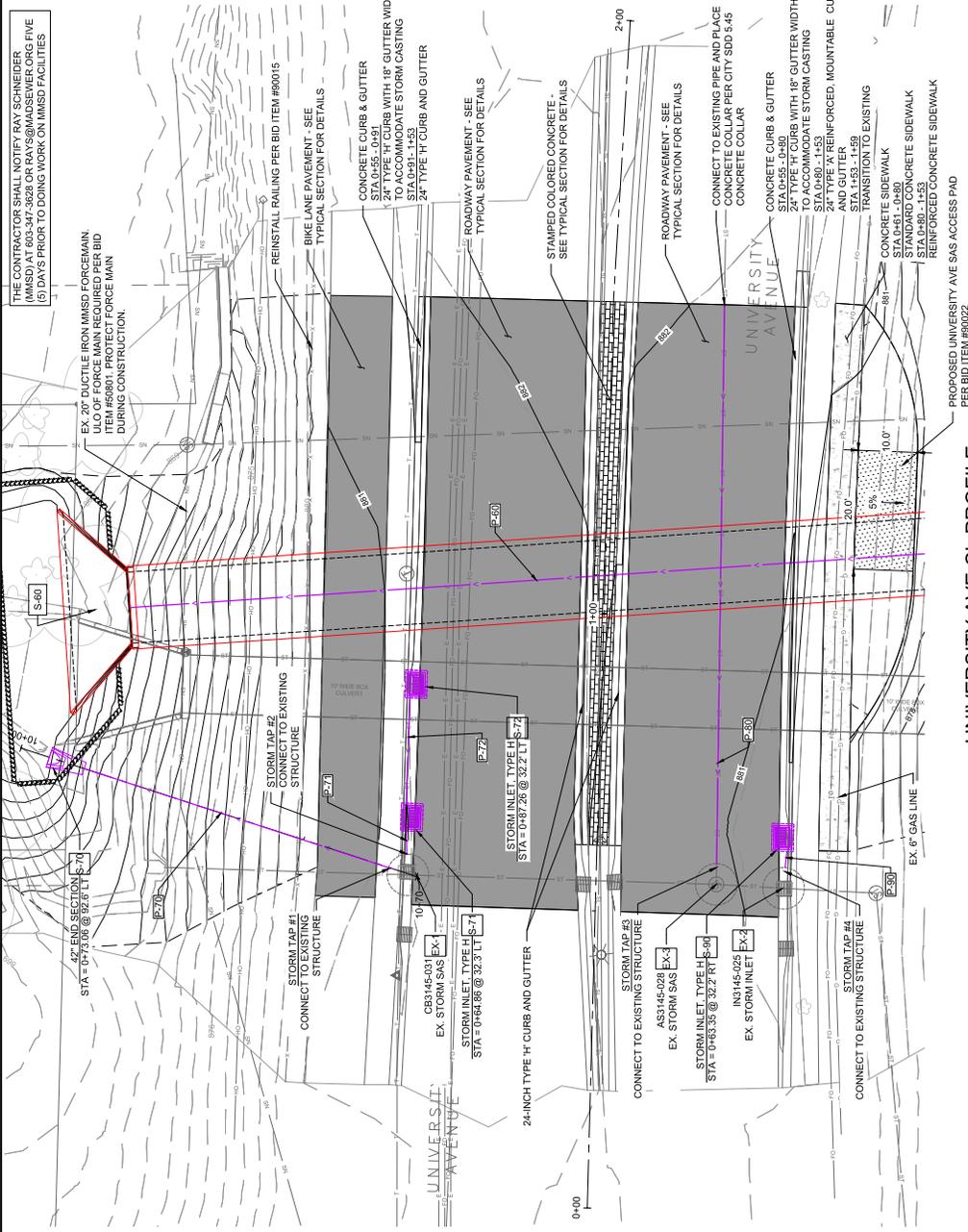
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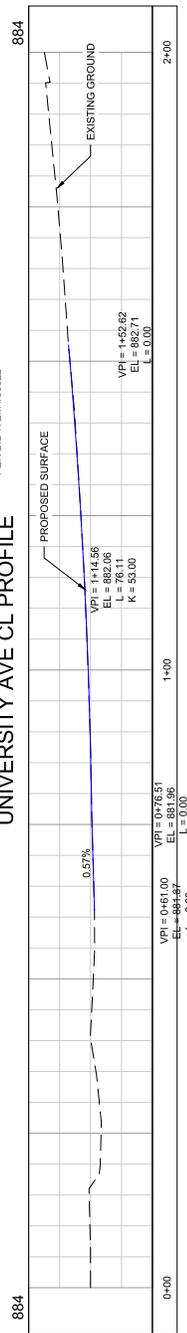
NOTE:
 1. THIS PLAN SHOWS THE EXTENT OF RESTORATION REQUIRED FOR THE CULVERT AND OTHER UTILITY INSTALLATIONS. ADDITIONAL RESTORATION WORK MAY BE REQUIRED AS PART OF THE TRAFFIC CONTROL AND CONSTRUCTION PHASING. REFER TO TRAFFIC CONTROL SHEETS FOR ADDITIONAL DETAILS AS WELL AS CONSTRUCTION PHASING.
 2. BID ITEM #600.0 FOR UTILITY SUPPORT AND PROTECTION DETAILS.

THE CONTRACTOR SHALL NOTIFY RAY SCHNEIDER ENGINEERING ARCHITECTURE SURVEYING (SAS) PRIOR TO DOING WORK ON MMSD FACILITIES.

EX. 20" DUCTILE IRON MMSD FORCE MAIN ULO OF FORCE MAIN REQUIRED PER BID ITEM #600.0. PROTECT FORCE MAIN DURING CONSTRUCTION.



UNIVERSITY AVE CL PROFILE



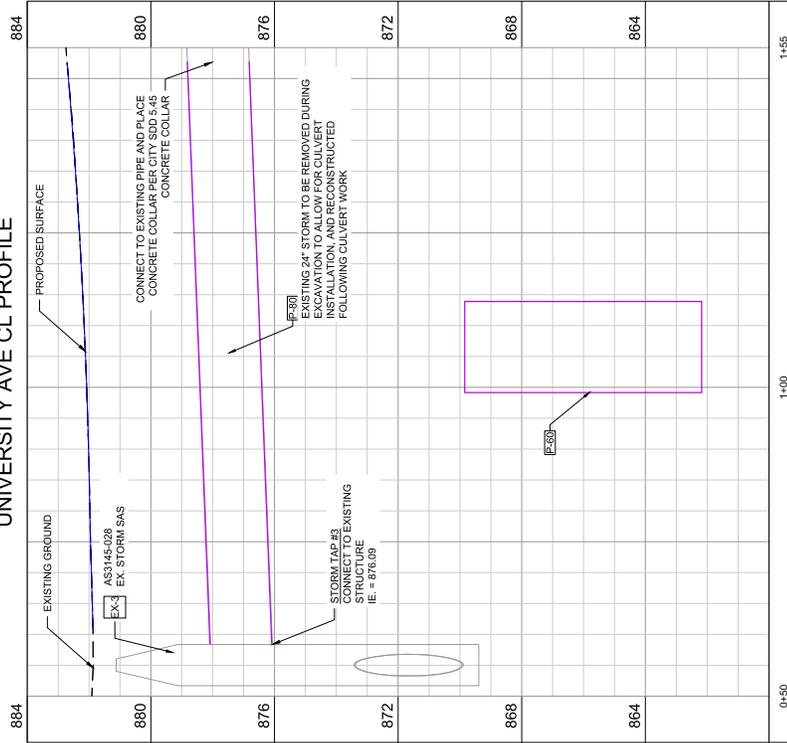
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DESIGNED BY: [Signature]	884		
CHECKED BY: [Signature]			
PROJECT: MENDOTA GRASSMAN GREENWAY IMPROVEMENTS			
CLIENT: CITY OF MADISON			
LOCATION: DANE COUNTY, WISCONSIN			
PROJECT NO: 12662			
DRAWING NO: PP31			

ENGINEERING ARCHITECTURE SURVEYING
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 300 S. MONROE ST., SUITE 200
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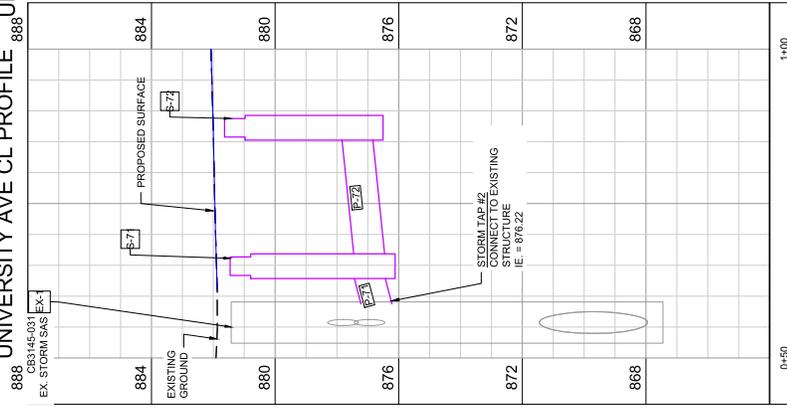


UNIVERSITY AVE RESTORATION PLAN AND PROFILE

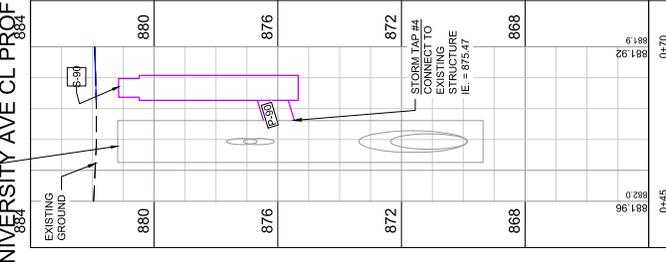
UNIVERSITY AVE CL PROFILE



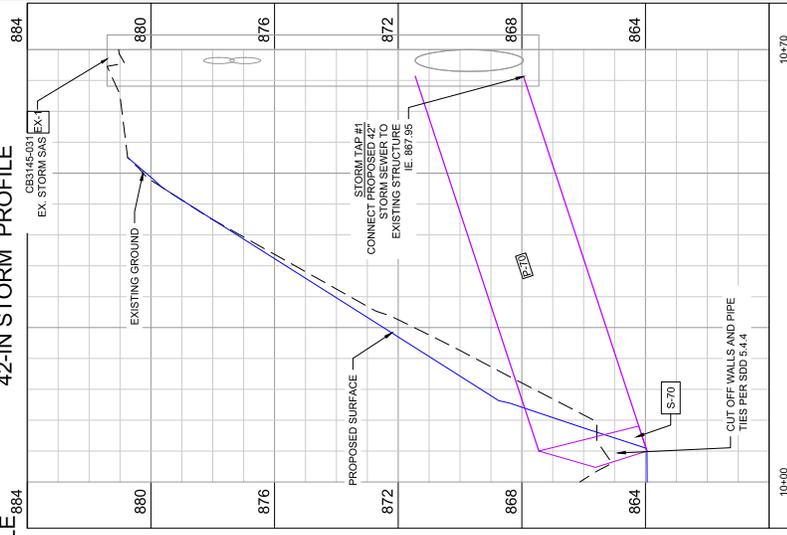
UNIVERSITY AVE CL PROFILE



UNIVERSITY AVE CL PROFILE



42-IN STORM PROFILE



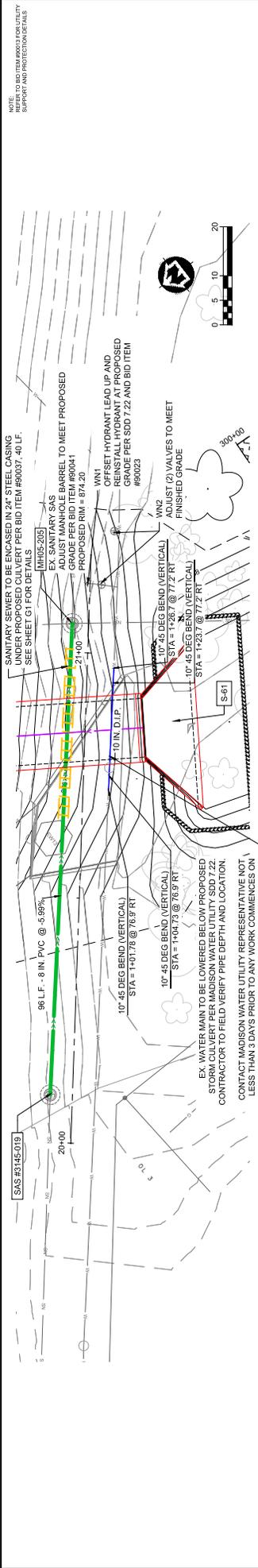
IN3145-025 EX-4
EX. STORM INLET

PROJECT DATE	NO.	DATE	BY
2/2/25			

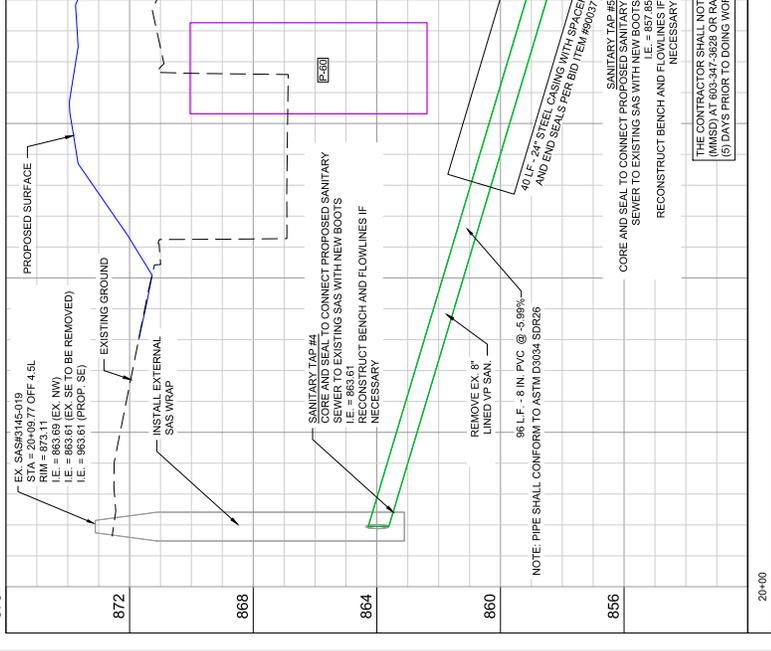
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MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
 CITY OF MADISON
 DANE COUNTY, WISCONSIN

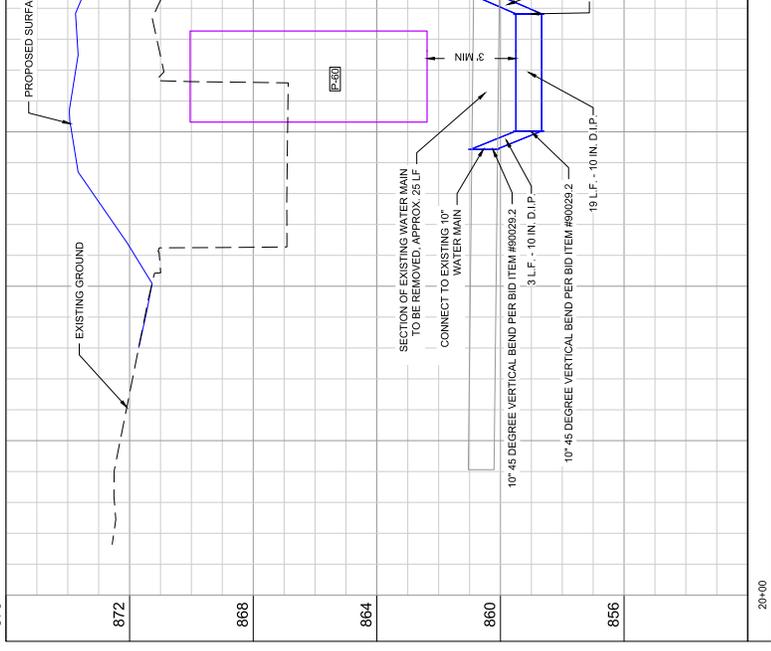
UNIVERSITY AVE STORM PROFILES
PROJECT NO. 12862 SHEET PP-02



UNIVERSITY AVE SAN AND WM PROFILE



UNIVERSITY AVE SAN AND WM PROFILE



PROJECT DATE	NO.	DATE	BY
02/25	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		

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 CONSULTING | LANDSCAPE ARCHITECTURE
 300 S. MOUNTAIN VIEW AVENUE, SUITE 200
 MADISON, WISCONSIN 53706
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MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
 CITY OF MADISON
 DANE COUNTY, WISCONSIN

UNIVERSITY AVE SANITARY AND WATER PLAN AND
 PROFILES

STRUC. NO.	SHEET	STATION	LOCATION (OFFSET)	ID. NO.	TYPE
RS-1	D1 - CAMELOT DR. DEMOLITION PLAN	DOWNSTREAM APRON			CULVERT APRON
RS-2	D1 - CAMELOT DR. DEMOLITION PLAN	UPSTREAM APRON			CULVERT APRON AND DROP STRUCTURE
RS-3	D1 - CAMELOT DR. DEMOLITION PLAN	5144.56	RT 44.98		APRON
RS-4	D1 - CAMELOT DR. DEMOLITION PLAN	5204.75	LT 46.01		DOUBLE INLET STRUCTURE
RS-5	D1 - CAMELOT DR. DEMOLITION PLAN	5148.82	RT 43.91		TYPE "H" INLET
RS-6	D2 - UNIVERSITY AVE DEMOLITION PLAN	DOWNSTREAM APRON			CULVERT APRON
RS-7	D2 - UNIVERSITY AVE DEMOLITION PLAN	UPSTREAM APRON			CULVERT APRON AND DROP STRUCTURE
RS-8	D2 - UNIVERSITY AVE DEMOLITION PLAN	0455.14	LT 47.78	A13145-025	APRON
RS-9	D2 - UNIVERSITY AVE DEMOLITION PLAN	0464.87	LT 52.44	A13145-033	42" CEMENT CONCRETE
RS-10	D2 - UNIVERSITY AVE DEMOLITION PLAN	0467.22	LT 52.25	IN13145-034	TYPE "H" INLET
RS-11	D2 - UNIVERSITY AVE DEMOLITION PLAN	0467.22	RT 51.84	IN13145-036	TYPE "H" INLET
RS-12	P225 - PLAN & PROFILE - MAINTENANCE PATH CAMELOT DR. TO UNIVERSITY AVE	209+15.28	RT 5.00	A13145-006	15" APRON ENDWALL
RS-13	P225 - PLAN & PROFILE - MAINTENANCE PATH CAMELOT DR. TO UNIVERSITY AVE	209+30.38	RT 9.94	A13145-006	12" APRON ENDWALL
RS-14	P225 - PLAN & PROFILE - MAINTENANCE PATH CAMELOT DR. TO UNIVERSITY AVE	209+30.38	RT 9.94		

REMOVAL NO.	REMOVE FROM	REMOVE TO	LGTH (FT)	PIPE SIZE (IN.)	PIPE TYPE	PAID (Y/N)	SHEET WHERE REMOVALS SHOWN
RP-1	RS-1	RS-2	123	48	CMP CULVERT	Y	D1 - CAMELOT DR. DEMOLITION PLAN
RP-2	RS-1	RS-2	123	48	CMP CULVERT	Y	D1 - CAMELOT DR. DEMOLITION PLAN
RP-3	RS-1	RS-3	24	12	RP	N	D1 - CAMELOT DR. DEMOLITION PLAN
RP-4	RS-1	RS-3	24	12	RP	N	D1 - CAMELOT DR. DEMOLITION PLAN
RP-5	RS-5	RS-6	34	12	RP	N	D1 - CAMELOT DR. DEMOLITION PLAN
RP-6	RS-7	RS-8	133	72 x 72	BOX CULVERT	Y	D2 - UNIVERSITY AVE DEMOLITION PLAN
RP-7	RS-9	RS-1	44	42	RP	Y	D2 - UNIVERSITY AVE DEMOLITION PLAN
RP-8	RS-9	RS-10	8	12	RP	N	D2 - UNIVERSITY AVE DEMOLITION PLAN
RP-9	RS-9	RS-10	8	12	RP	N	D2 - UNIVERSITY AVE DEMOLITION PLAN
RP-10	RS-5	SEE PLANS	58	24	RP	N	D2 - UNIVERSITY AVE DEMOLITION PLAN
RP-11	RS-2	RS-12	8	12	RP	N	D2 - UNIVERSITY AVE DEMOLITION PLAN
RP-12	SEE PLANS	SEE PLANS	21	18	SLOT DRAIN AND CMP	Y	P221 - P&P T&C/OPE&A SAS ACCESS PATH

PROPOSED SANITARY STRUCTURE REMOVALS				
STRUC. NO.	SHEET	STATION	LOCATION (OFFSET)	DEPTH (FT)
RS-15	D1 - CAMELOT DR. DEMOLITION PLAN	5142.58	RT 8.54	3.54

SANITARY PIPE REMOVALS								
REMOVAL NO.	REMOVE FROM	REMOVE TO	LGTH (FT)	PIPE SIZE (IN.)	PIPE TYPE	PAID (Y/N)	SHEET WHERE REMOVALS SHOWN	PAID LENGTH
RP-12	MHS-201A	MHS-201	59	18	ASBESTOS CEMENT PIPE	Y	D1 - CAMELOT DR. DEMOLITION PLAN	59
RP-13	MHS-201	SAS-10	33	8	VP PIPE	Y	D1 - CAMELOT DR. DEMOLITION PLAN	33
RP-14	MHS-201	MHS-201C	28	12	ASBESTOS CEMENT PIPE	Y	D1 - CAMELOT DR. DEMOLITION PLAN	28
RP-15	MHS-201	MHS-201	21	12	UNLINED VCP	N	D1 - CAMELOT DR. DEMOLITION PLAN	0
RP-16	MHS-205	SAS 3145-019	96	8	UNLINED VCP	N	D2 - UNIVERSITY AVE DEMOLITION PLAN	0

NOTES:

- PIPES REMOVED IN THE SAME TRENCH WHERE PROPOSED PIPES ARE INSTALLED ARE CONSIDERED INCIDENTAL TO PIPE INSTALLATION.
- REMOVAL OF EXISTING CULVERTS, APRONS AND DROP STRUCTURES ARE INCLUDED IN THE PRICE OF THE PROPOSED CULVERTS.

PROPOSED STORM PIPES											
PIPE NO.	FROM (DN/ST)	TO (UP/ST)	DISCH. E.I.	INLET E.I.	PAY LENGTH (FT)	PIPE LGTH (FT)	SLOPE (%)	PIPE SIZE (IN.)	TYPE	NOTES	
P-10	S-10	S-11	851.20	852.02	160	160	0.51%	120 x 48	CONCRETE BOX CULVERT		
P-11	S-10	S-11	851.20	852.02	160	160	0.51%	120 x 48	CONCRETE BOX CULVERT		
P-20	S-20	S-21	854.78	855.82	31	31	3.35%	12	TYPE STORM		
P-30	S-11	S-30	853.00	853.07	11	9	0.76%	18	TYPE STORM		
P-31	S-30	S-31	853.07	853.12	10	6	0.60%	18	TYPE STORM		
P-32	S-31	S-32	853.02	853.94	31	27	1.28%	12	TYPE STORM		
P-33	S-32	S-33	853.94	854.01	10	6	1.17%	12	TYPE STORM		
P-40	S-40	S-41	863.80	864.04	23	22	1.09%	15	TYPE STORM		
P-50	S-50	S-51	862.95	863.10	23	22	0.68%	12	TYPE STORM		
P-60	S-60	S-61	863.29	863.74	164	164	0.27%	144 x 60	CONCRETE BOX CULVERT		
P-70	S-70	EX-1	863.95	867.95	65	61	6.96%	42	TYPE STORM	STORM TAP #1	
P-71	EX-1	S-71	876.22	876.45	8	5	4.60%	12	TYPE STORM	STORM TAP #2	
P-72	S-71	S-72	876.45	876.84	22	19	2.00%	12	TYPE STORM		
P-80	NA	NA	876.04	876.82	94	94	0.89%	24	TYPE STORM	STORM TAP #3	
P-90	EX-2	S-90	875.47	875.67	8	3	6.07%	12	TYPE STORM	STORM TAP #4	
P-100	S-100	S-101	871.60	871.85	31	26	0.86%	15	TYPE STORM		
P-110	S-110	S-111	861.59	861.65	7	5	82.00%	12	TYPE STORM		
P-111	S-111	NA	861.65	861.80	23	22	0.66%	SLOT DRAIN & 12" OVER 12" PVC SDP-35			

NOTES:
 1. FOR STORM PIPES, LENGTH FROM CENTER OF STATION TO CENTER OF STRUCTURE PIPE LENGTH IS ACTUAL LENGTH OF PIPE FROM STRUCTURE FROM CENTER OF PIPE TO CENTER OF STRUCTURE. PIPE LENGTH FOR SANITARY PIPES PIPE LENGTH, PAY LENGTH, AND SLOPE ARE CALCULATED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
 2. ALL SANITARY AND STORM PIPE DRAWINGS TO BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL. (888-288-9272) (JOBRENCHCITYOFMADISON.COM)
 3. APPROXIMATE DISCHARGE E.I. GIVEN ADJUST E.I. AND PIPE SLOPE IN THE FIELD.
 4. TOP OF CASTING (TOC) GRADE GIVEN IS THE BACK OF CURB FOR STRUCTURES WITH THE TERRACE ROADS, AND THE FINISHED GRADE FOR STRUCTURES IN ALL REINFORCED CONCRETE PIPES TO BE CLASS III UNLESS OTHERWISE NOTED.
 5. SURVEYOR TO CONFIRM THAT ALL INLET STATION / OFFSETS LINE UP WITH PROPOSED CURB AND GUTTER.
 6. ALL STORM STRUCTURES TO BE FIELD POURED UNLESS APPROVED BY CITY.

PROPOSED STORM STRUCTURES											
STRAIN. NO.	SHEET	STATION	LOCATION (OFFSET)	TYPE	TOP OF CASTING	E.I.	DEPTH (FT)	NOTES			
S-10	PP18 - PLAN & PROFILE - GREENWAY	152+98.12	0.00	CULVERT WINGWALL	N/A	851.20 (120" x 48" BOX CULVERT)	N/A				
S-11	PP18 - PLAN & PROFILE - GREENWAY	154+76.85	0.00	CULVERT WINGWALL	N/A	852.02 (120" x 48" BOX CULVERT)	N/A				
S-20	PP28 - CAMELOT DR. RESTORATION PLAN AND PROFILE	52+04.77	RT-16.87	STORM INLET, TYPE H	858.00	854.82 (12" DIA)	3.28	W/R: 3067-7004-V			
S-21	PP28 - CAMELOT DR. RESTORATION PLAN AND PROFILE	51+62.97	RT-14.81	STORM INLET, TYPE H	858.45	855.76 (12" DIA)	2.67	W/R: 3067-7004-V			
S-30	PP28 - CAMELOT DR. RESTORATION PLAN AND PROFILE	51+97.75	RT-16.37	STORM INLET, TYPE H	858.62	853.07 (18" DIA)	5.55	W/R: 3067-7004-V			
S-31	PP28 - CAMELOT DR. RESTORATION PLAN AND PROFILE	51+26.79	RT-15.64	STORM INLET, TYPE H	858.36	853.94 (12" DIA)	5.42	W/R: 3067-7004-V			
S-32	PP28 - CAMELOT DR. RESTORATION PLAN AND PROFILE	51+27.32	RT-15.55	STORM INLET, TYPE H	858.22	853.94 (12" DIA)	4.30	W/R: 3067-7004-V			
S-33	PP28 - CAMELOT DR. RESTORATION PLAN AND PROFILE	51+18.86	RT-15.97	STORM INLET, TYPE H	858.24	854.01 (12" DIA)	4.27	W/R: 3067-7004-V			
S-40	PP25 - PLAN & PROFILE - MAINTENANCE PATH CAMELOT DR. TO UNIVERSITY AVE	209+10.92	RT-18.05	15" END SECTION	865.32	863.80 (15" DIA)	N/A	FIELD POURED W/R: 3067-7004-V			
S-41	PP25 - PLAN & PROFILE - MAINTENANCE PATH CAMELOT DR. TO UNIVERSITY AVE	209+14.91	RT-5.00	36" STORM SAS	866.48	864.01 (15" DIA)	2.44	FIELD POURED W/R: 3067-7004-V			
S-50	PP23 - PLAN & PROFILE - BLANCHARD ST SAS ACCESS PATH	700+11.61	RT-14.20	12" END SECTION	864.18	862.95 (12" DIA)	N/A				
S-51	PP23 - PLAN & PROFILE - BLANCHARD ST SAS ACCESS PATH	700+30.08	RT-9.94	36" STORM SAS	865.35	863.10 (12" DIA)	2.25	FIELD POURED W/R: 3067-7004-V			
S-60	PP26 - PLAN & PROFILE - GREENWAY	164+39.45	0.00	CULVERT WINGWALL	N/A	863.29 (144" x 60" BOX CULVERT)	N/A				
S-61	PP26 - PLAN & PROFILE - GREENWAY	166+25.85	0.00	CULVERT WINGWALL	N/A	863.74 (144" x 60" BOX CULVERT)	N/A				
S-70	PP31 - UNIVERSITY AVE RESTORATION PLAN AND PROFILE	0+79.06	RT-92.56	42" END SECTION	867.91	869.95 (42" DIA)	N/A				
S-71	PP31 - UNIVERSITY AVE RESTORATION PLAN AND PROFILE	0+44.86	RT-32.27	STORM INLET, TYPE H	861.45	876.45 (12" DIA)	5.00	W/R: 3067-7004-V			
S-72	PP31 - UNIVERSITY AVE RESTORATION PLAN AND PROFILE	0+67.26	RT-32.27	STORM INLET, TYPE H	861.64	876.84 (12" DIA)	4.80	W/R: 3067-7004-V			
S-80	PP31 - UNIVERSITY AVE RESTORATION PLAN AND PROFILE	0+63.35	RT-32.27	STORM INLET, TYPE H	861.15	875.67 (12" DIA)	5.48	W/R: 3067-7004-V			
S-100	PP26 - PLAN & PROFILE - MAINTENANCE PATH UNIVERSITY AVE TO ILLIA ST	50+66.26	RT-11.17	15" END SECTION	873.16	871.60 (15" DIA)	N/A				
S-101	PP26 - PLAN & PROFILE - MAINTENANCE PATH UNIVERSITY AVE TO ILLIA ST	50+69.16	RT-11.36	15" END SECTION	873.37	871.85 (15" DIA)	N/A				
S-110	PP21 - PLAN & PROFILE - TAVCHOPRA SAS ACCESS PATH	500+88.74	RT-10.77	12" END SECTION	N/A	863.59	N/A				
S-111	PP21 - PLAN & PROFILE - TAVCHOPRA SAS ACCESS PATH	500+97.98	RT-11.69	STORM INLET, TYPE H	863.00	863.65 (12" DIA)	1.35	W/R: 1878-876 AND 3" SWMP			

PROPOSED SANITARY STRUCTURES											
STRAIN. NO.	SHEET	STATION	LOCATION (OFFSET)	TYPE	TOP OF CASTING	E.I.	DEPTH (FT)	NOTES			
MH05-011A	PP28 - CAMELOT DR. RESTORATION PLAN AND PROFILE	52+27.78	RT-31.45	72" SANITARY SAS	857.27	847.99 (EX 16" SD) 848.00 (16" C900 HW)	9.28	(1), (2), MH60			
MH05-011B	PP28 - CAMELOT DR. RESTORATION PLAN AND PROFILE	51+63.67	RT-63.74	72" SANITARY SAS	858.43	848.18 (EX 16" SD) 848.51 (16" C900 HW)	10.25	(1), (2), MH60, SANITARY TAP #3			
SAS-10	PP28 - CAMELOT DR. RESTORATION PLAN AND PROFILE	51+13.71	RT-7.72	48" SANITARY SAS	858.13	864.43 (EX 16" SD) 860.03 (16" C900 HW)	8.70	(3), (4), SANITARY TAP #2			
MH05-201A	PP28 - CAMELOT DR. RESTORATION PLAN AND PROFILE	51+82.93	RT-2.08	72" SANITARY SAS	858.22	848.25 (EX 16" SD) 848.75 (12" PVC W)	9.97	(1), (2), MH60			
MH05-201B	PP28 - CAMELOT DR. RESTORATION PLAN AND PROFILE	51+64.63	RT-32.40	72" FLOW MONITORING SAS	858.06	848.86 (12" PVC C) 848.96 (12" PVC W)	9.30	SEE SHEET G1 FOR DETAIL. MH TO USE P-CASTING AND 3" ADJUSTMENT RING (1), (2), MH60			
MH05-201C	PP28 - CAMELOT DR. RESTORATION PLAN AND PROFILE	51+22.30	RT-13.61	72" SANITARY SAS	856.80	848.65 (12" PVC C) 848.35 (12" PVC W)	7.35	(1), (2), MH60 SANITARY TAP #1			

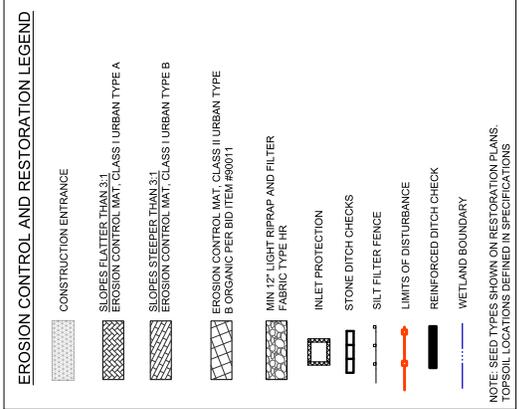
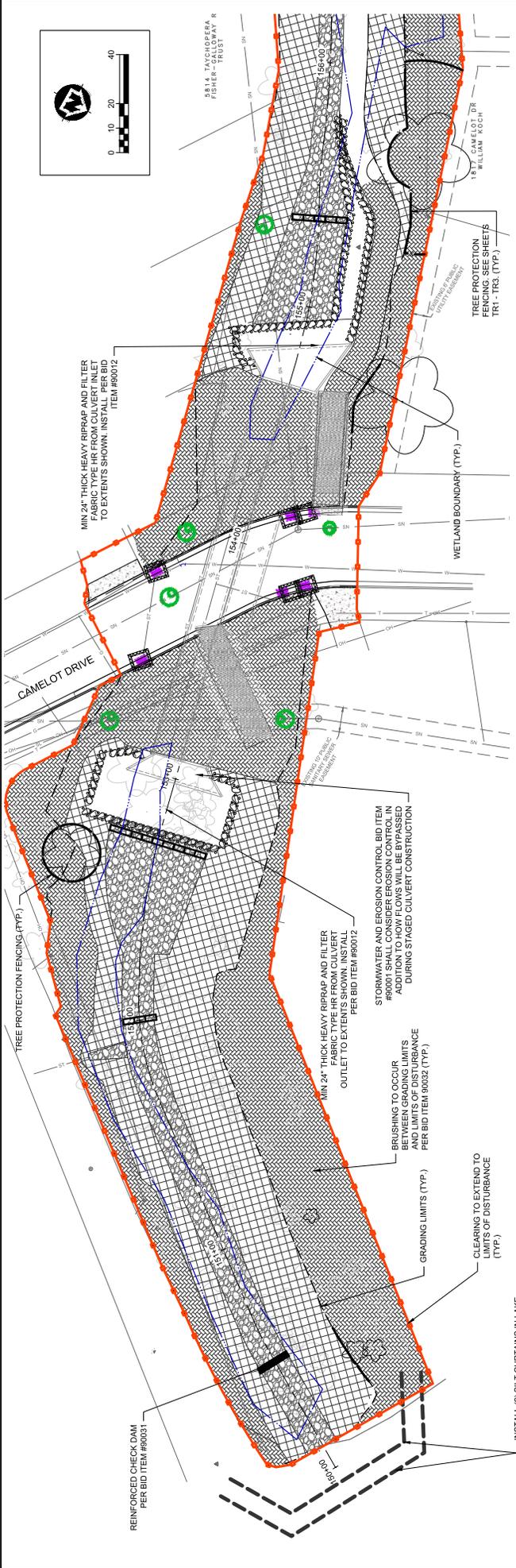
SANITARY SAS ADJUSTMENT SCHEDULE											
ID NO.	SHEET	STATION	OFFSET	EX. ELEVATION	ADJUSTED ELEVATION	DIFFERENCE	NOTES				
MH05-MH05-200A	PP22 - PLAN & PROFILE - UNNAMED ACCESS ROAD SAS ACCESS PATH	600+10.39	RT-0.27	862.02	862.53	+0.51	REMOVE EX. RINGS AND ADD 12" SECTION AND STANDARD P-CASTING				
MH05-MH05-200B	PP19 - PLAN & PROFILE - GREENWAY	172+87	RT-4.60	874.01	N/A	N/A	REFLECT MH05 SAS CASTING AND COVER - DOWN/LOAD/ DRAIN CASTING INTO STRUCTURE TOP AND BOLT DOWN COVER. WRAP OUTSIDE OF EXPOSED PORTION OF STRUCTURE INCLUDING FLAT TOP JOINTER BID				
MH05-MH05-200C	PP33 - UNIVERSITY AVE SANITARY AND WATER PLAN AND PROFILES	21+05.93	RT-3.34	871.71	874.20	+2.49	INSTALL EXTERNAL SAS WRAP AND STANDARD CASTING. RECONSTRUCT BENCH AND FLOWLINES IF NECESSARY				

MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
 CITY OF MADISON
 DANE COUNTY, WISCONSIN

PROJECT NO. 12682
 SHEET SCHZ

PROPOSED PIPE AND STRUCTURE SCHEDULES

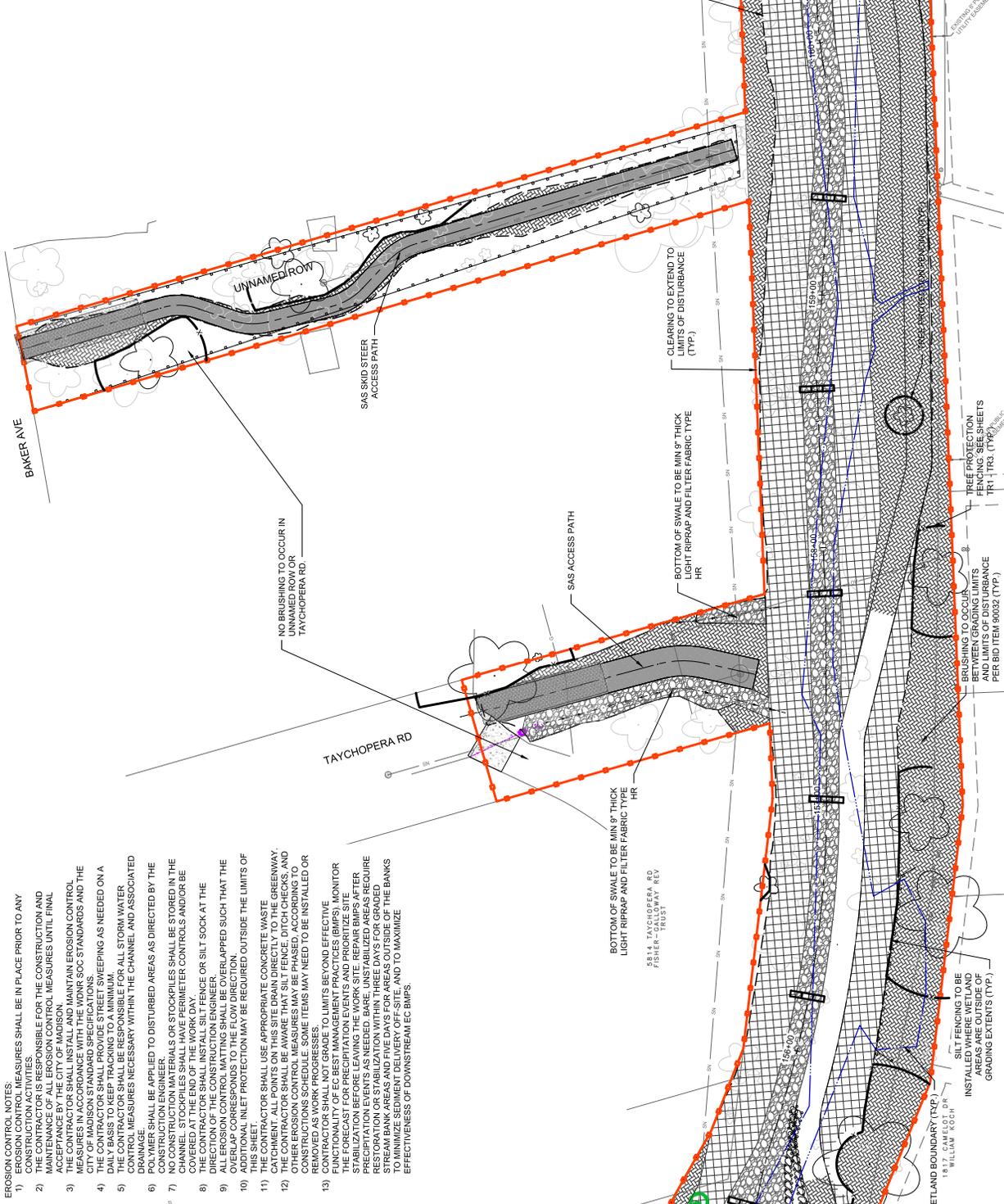
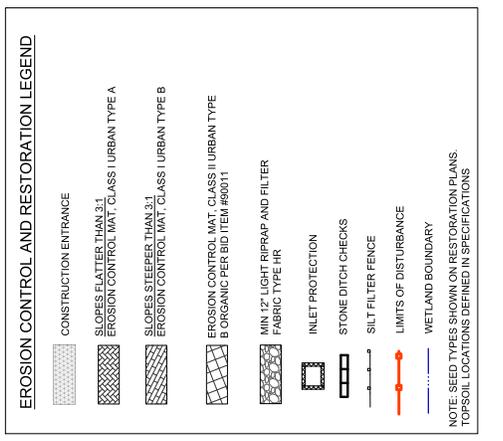
ENGINEERING ARCHITECTURE | SURVEYING
 FUNDING | PLANNING | ENVIRONMENTAL
 DESIGN | CONSTRUCTION | MANAGEMENT
 (608) 832-7778 www.msa-pe.com
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- ### EROSION CONTROL NOTES:
- 1) EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITIES.
 - 2) THE CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES UNTIL FINAL ACCEPTANCE BY THE CITY OF MADISON.
 - 3) THE CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE WDRN SOC STANDARDS AND THE CITY OF MADISON SPECIFICATIONS.
 - 4) THE CONTRACTOR SHALL PROVIDE STREET SWEEPING AS NEEDED ON A DAILY BASIS TO KEEP TRACKING TO A MINIMUM.
 - 5) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL STORM WATER CONTROL MEASURES NECESSARY WITHIN THE CHANNEL AND ASSOCIATED POLYMER SHALL BE APPLIED TO DISTURBED AREAS AS DIRECTED BY THE CONSTRUCTION ENGINEER.
 - 6) NO CONSTRUCTION MATERIALS OR STOCKPILES SHALL BE STORED IN THE CHANNEL. STOCKPILES SHALL HAVE PERIMETER CONTROLS AND/OR BE COVERED TO PREVENT EROSION.
 - 7) THE CONTRACTOR SHALL INSTALL SILT FENCE OR SILT SOCK AT THE DIRECTION OF THE CONSTRUCTION ENGINEER.
 - 8) ALL EROSION CONTROL MATTING SHALL BE OVERLAPPED SUCH THAT THE ADDITIONAL INLET PROTECTION MAY BE REQUIRED OUTSIDE THE LIMITS OF THIS SHEET.
 - 9) THE CONTRACTOR SHALL USE APPROPRIATE CONCRETE WASTE CATCHMENT. ALL POINTS ON THIS SITE DRAIN DIRECTLY TO THE GREENWAY.
 - 10) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND OTHER EROSION CONTROL MEASURES THAT MAY BE PHASED ACCORDING TO CONSTRUCTION SCHEDULE. SOME ITEMS MAY NEED TO BE INSTALLED OR REMOVED AS WORK PROGRESSES.
 - 11) CONTRACTOR SHALL MAKE IT A PRIORITY TO MONITOR PRECIPITATION FORECAST FOR PRECIPITATION EVENTS AND PRIORITIZE SITE STABILIZATION BEFORE LEAVING THE WORK SITE. REPAIR BMPs AFTER PRECIPITATION EVENTS AS NEEDED. BARE, UNSTABILIZED AREAS REQUIRE REPAIR AND PROTECTION TO PREVENT EROSION OF THE STREAM BANK AREAS AND FIVE DAYS FOR AREAS OUTSIDE OF THE BANKS TO MINIMIZE SEDIMENT DELIVERY OFF-SITE, AND TO MAXIMIZE EFFECTIVENESS OF DOWNSTREAM EC BMPs.

PROJECT NO. 12662		SHEET 1		ECL	
EROSION CONTROL AND RESTORATION PLAN					
MENDOTA GRASSMAN GREENWAY IMPROVEMENTS					
CITY OF MADISON DANE COUNTY, WISCONSIN					
ENGINEERING ARCHITECTURE SURVEYING PLANNING ENVIRONMENTAL DESIGN LANDSCAPE ARCHITECTURE (608) 842-7779 www.msa-ia.com		MSA			
PROJECT DATE	NO.	DATE	REVISION		
ISSUED	01	01/2024	ISSUED		
CHECKED BY: JEF	02	02/2024	REVISION		
CHECKED BY: BK	03	03/2024	REVISION		
PROJECT DATE: Monday, May 1, 2023 10:24 PM. C:\900023920371125420\Construction\Drawings\037112 Erosion Control & Restoration (Sheet).dwg					

- EROSION CONTROL NOTES:**
- 1) EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITIES.
 - 2) THE CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES UNTIL FINAL ACCEPTANCE BY THE CITY OF MADISON.
 - 3) THE CONTRACTOR SHALL MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE WDR SOC STANDARDS AND THE CITY OF MADISON STANDARD SPECIFICATIONS.
 - 4) THE CONTRACTOR SHALL PROVIDE STREET SWEEPING AS NEEDED ON A DAILY BASIS TO PREVENT DEBRIS FROM ACCUMULATING IN THE CHANNEL AND TO PREVENT BLOCKAGES TO ALL STORM WATER CONTROL MEASURES NECESSARY WITHIN THE CHANNEL AND ASSOCIATED DRAINAGE.
 - 5) POLYMER SHALL BE APPLIED TO DISTURBED AREAS AS DIRECTED BY THE CITY OF MADISON.
 - 6) ALL CONSTRUCTION MATERIALS OR STOCKPILES SHALL BE STORED IN THE CHANNEL. STOCKPILES SHALL HAVE PERIMETER CONTROLS AND/OR BE COVERED AT THE END OF THE WORK DAY.
 - 7) THE CONTRACTOR SHALL INSTALL SILT FENCE OR SILT SOCK AT THE DOWNSTREAM END OF ALL EROSION CONTROL MEASURING SUCH THAT THE OVERLAP CORRESPONDS TO THE FLOW DIRECTION.
 - 8) ADDITIONAL INLET PROTECTION MAY BE REQUIRED OUTSIDE THE LIMITS OF THE CHANNEL.
 - 9) THE CONTRACTOR SHALL USE APPROPRIATE CONCRETE WASTE CATCHMENT. ALL POINTS ON THIS SITE DRAIN DIRECTLY TO THE GREENWAY. THE CONTRACTOR SHALL BE AWARE THAT SILT FENCE, DITCH CHECKS, AND OTHER EROSION CONTROL MEASURES MAY BE PHASED, ACCORDING TO THE PROGRESS OF THE WORK. ITEMS MAY NEED TO BE INSTALLED OR REMOVED AS WORK PROGRESSES.
 - 10) CONTRACTOR SHALL NOT GRADE TO LIMITS BEYOND EFFECTIVE FUNCTIONALITY OF EC BEST MANAGEMENT PRACTICES (BMPs). MONITOR THE FORECAST FOR PRECIPITATION EVENTS AND PRIORITIZE SITE PREPARATION AND STABILIZATION WITHIN THREE DAYS FOR GRADED STREAM BANK AREAS AND FIVE DAYS FOR AREAS OUTSIDE OF THE BANKS TO MINIMIZE DELIVERY OF SEDIMENT TO THE GREENWAY AND TO MAXIMIZE EFFECTIVENESS OF DOWNSTREAM EC BMPs.



EROSION CONTROL AND RESTORATION PLAN

MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
 CITY OF MADISON
 DANE COUNTY, WISCONSIN

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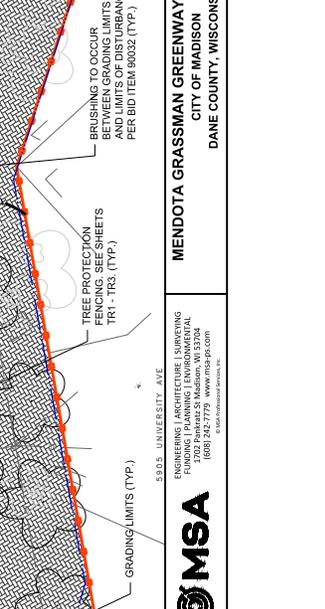
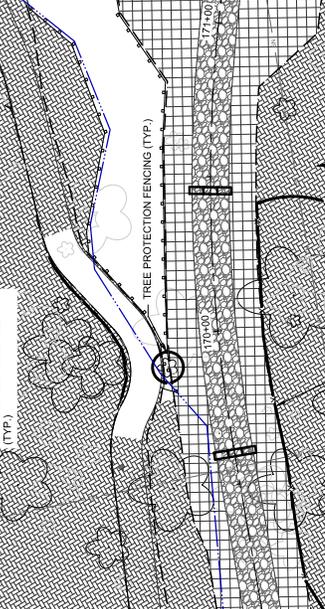
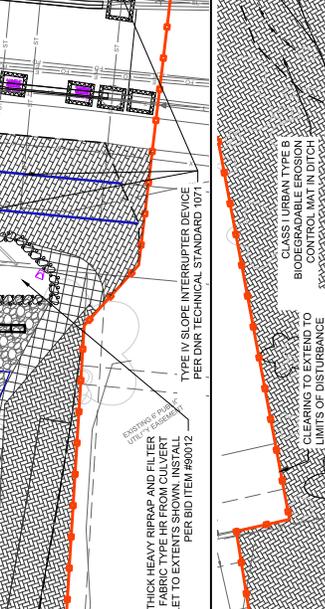
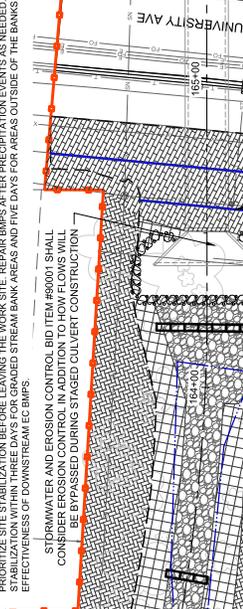
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- EROSION CONTROL NOTES:**
- 1) EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITIES.
 - 2) THE CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES UNTIL FINAL ACCEPTANCE BY THE CITY OF MADISON.
 - 3) THE CONTRACTOR SHALL PROVIDE STREET SWEEPING AS NEEDED ON A DAILY BASIS TO KEEP TRACKING TO A MINIMUM.
 - 4) THE CONTRACTOR SHALL PROVIDE STREET SWEEPING AS NEEDED ON A DAILY BASIS TO KEEP TRACKING TO A MINIMUM.
 - 5) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL STORM WATER CONTROL MEASURES NECESSARY WITHIN THE CHANNEL AND ASSOCIATED DRAINAGE.
 - 6) NO CONSTRUCTION MATERIALS OR STOCKPILES SHALL BE STORED IN THE CHANNEL. STOCKPILES SHALL HAVE PERIMETER CONTROLS AND/OR BE COVERED AT THE END OF THE WORK DAY.
 - 7) NO CONSTRUCTION MATERIALS OR STOCKPILES SHALL BE STORED IN THE CHANNEL. STOCKPILES SHALL HAVE PERIMETER CONTROLS AND/OR BE COVERED AT THE END OF THE WORK DAY.
 - 8) THE CONTRACTOR SHALL INSTALL SILT FENCE OR SILT SOCK AT THE DIRECTION OF THE CONSTRUCTION ENGINEER.
 - 9) ALL EROSION CONTROL MATTING SHALL BE OVERLAPPED SUCH THAT THE OVERLAP CORRESPONDS TO THE FLOW DIRECTION.
 - 10) THE CONTRACTOR SHALL USE APPROPRIATE CONCRETE WASTE CATCHMENT ALL POINTS ON THIS SITE DRAIN DIRECTLY TO THE GREENWAY.
 - 11) THE CONTRACTOR SHALL BE AWARE THAT SILT FENCE, DITCH CHECKS, AND OTHER EROSION CONTROL MEASURES MAY BE PHASED, ACCORDING TO CONSTRUCTION SCHEDULE. SOME EROSION CONTROL MEASURES MAY BE PHASED.
 - 12) THE CONTRACTOR SHALL BE AWARE THAT SILT FENCE, DITCH CHECKS, AND OTHER EROSION CONTROL MEASURES MAY BE PHASED, ACCORDING TO CONSTRUCTION SCHEDULE. SOME EROSION CONTROL MEASURES MAY BE PHASED.
 - 13) CONTRACTOR SHALL NOT GRADE TO LIMITS BEYOND EFFECTIVE FUNCTIONALITY OF BEST MANAGEMENT PRACTICES (BMPs). MONITOR THE FORECAST FOR PRECIPITATION EVENTS AND PRIORITIZE SITE STABILIZATION BEFORE LEAVING THE WORK SITE. REPAIR BMPs AFTER PRECIPITATION EVENTS AS NEEDED. UNSTABILIZED AREAS REQUIRE RESTORATION OR STABILIZATION WITHIN THREE DAYS FOR GRADED STREAM BANK AREAS AND FIVE DAYS FOR AREAS OUTSIDE OF THE BANKS TO MINIMIZE SEDIMENT DELIVERY OFF-SITE, AND TO MAXIMIZE EFFECTIVENESS OF DOWNSTREAM EC BMPs.

- 14) STORMWATER AND EROSION CONTROL BID ITEM #90001 SHALL CONSIDER EROSION CONTROL IN ADDITION TO HOW FLOWS WILL BE DISAPSED DURING STAGED CULVERT CONSTRUCTION.
- 15) TYPE IV SLOPE INTERRUPTER DEVICE PER DNR TECHNICAL STANDARD 1071 PER BID ITEM #90012.
- 16) MIN 24" THICK HEAVY RIPRAP AND FILTER FABRIC TYPE HR FROM CULVERT INLET OUTLET TO EXTENTS SHOWN. INSTALL PER BID ITEM #90012.
- 17) MIN 24" THICK HEAVY RIPRAP AND FILTER FABRIC TYPE HR FROM CULVERT INLET OUTLET TO EXTENTS SHOWN. INSTALL PER BID ITEM #90012.
- 18) CLASS I URBAN TYPE B BIODEGRADABLE EROSION CONTROL MAT IN DITCH.
- 19) CLEARING TO EXTEND TO LIMITS OF DISTURBANCE (TYP).
- 20) TREE PROTECTION FENCING SEE SHEETS TR1 - TR3 (TYP).
- 21) BRUSHING TO OCCUR BETWEEN GRADING LIMITS AND TREE PROTECTION FENCING PER BID ITEM 90032 (TYP).
- 22) GRADING LIMITS (TYP).
- 23) TREE PROTECTION FENCING SEE SHEETS TR1 - TR3 (TYP).
- 24) SILT FENCING TO BE INSTALLED IN AREAS OUTSIDE OF GRADING EXTENTS (TYP).
- 25) WETLAND BOUNDARY (TYP).
- 26) 1700 NEW AVE. J. & N. TRUST CLEANLINE
- 27) JULIA ST
- 28) UNIVERSITY AVE
- 29) BLANCHARD ST
- 30) SAS ACCESS PATH
- 31) PETER JULKA AND DEBRA MCCARTHY JULKA
- 32) 6514 BLANCHARD STREET
- 33) 165+00
- 34) 164+00
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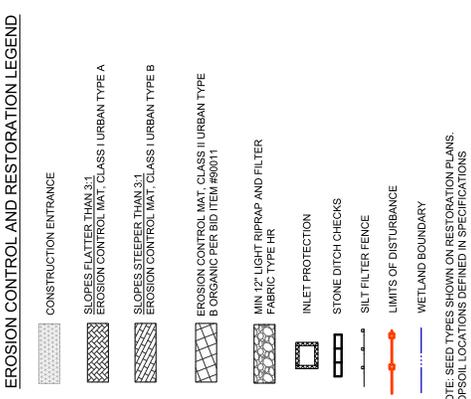
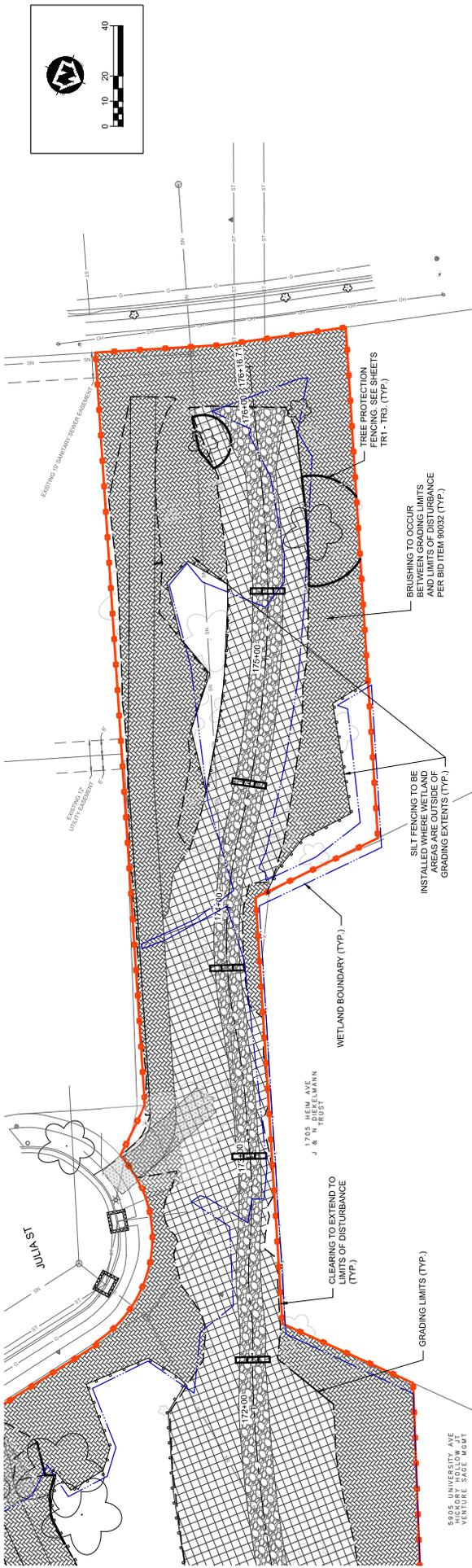
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05/20/23	02	05/20/23	REVISED BY: JZ
05/20/23	03	05/20/23	CHECKED BY: BK

PROJECT NO. 12662
SHEET 003
ECS

MSA
ENGINEERING ARCHITECTURE SURVEYING
PLANNING LANDSCAPE ARCHITECTURE
1700 NEW AVE. J. & N. TRUST CLEANLINE
MADISON, WI 53706
(608) 242-7779 www.msa-inc.com
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MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
CITY OF MADISON
DANE COUNTY, WISCONSIN

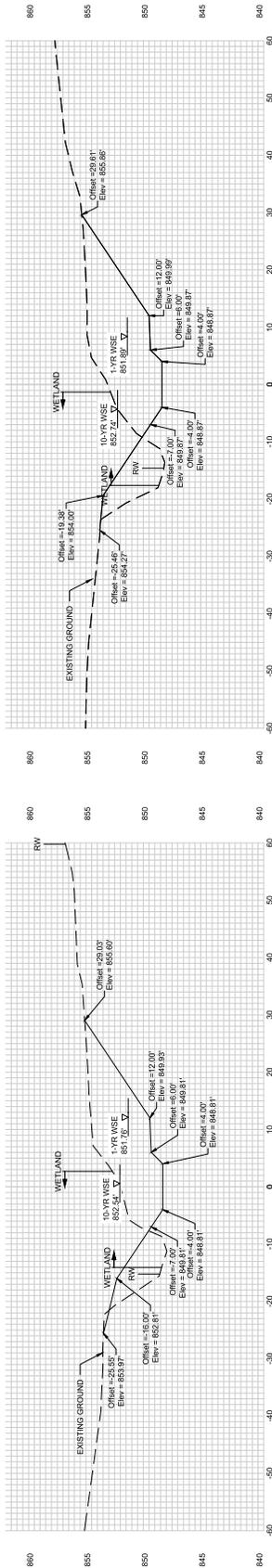
EROSION CONTROL AND RESTORATION PLAN



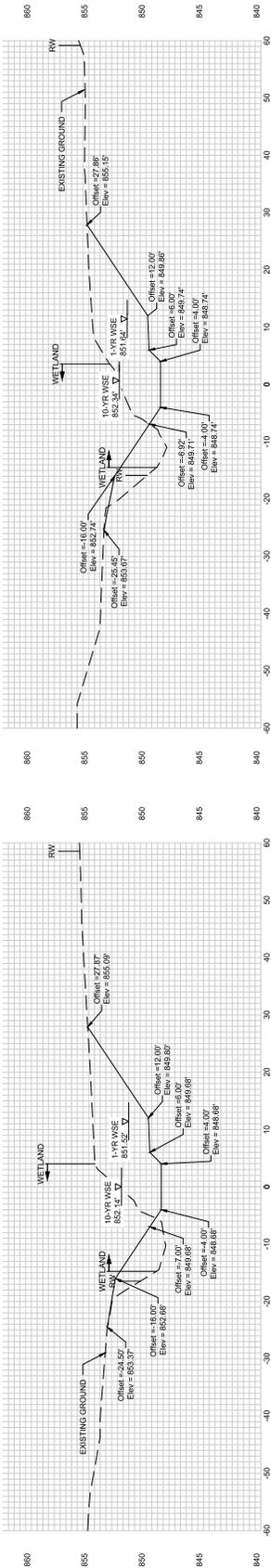
- EROSION CONTROL NOTES:**
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 - 5) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL STORM WATER CONTROL MEASURES NECESSARY WITHIN THE CHANNEL AND ASSOCIATED DRAINAGE.
 - 6) POLYMER SHALL BE APPLIED TO DISTURBED AREAS AS DIRECTED BY THE CONTRACTOR'S SUPERVISOR.
 - 7) NO CONSTRUCTION MATERIALS OR STOCKPILES SHALL BE STORED IN THE CHANNEL OR ON THE CHANNEL BANKS.
 - 8) COVERED AT THE END OF THE WORK DAY.
 - 9) ALL EROSION CONTROL MATTING SHALL BE OVERLAPPED SUCH THAT THE OVERLAP CORRESPONDS TO THE FLOW DIRECTION.
 - 10) ADDITIONAL INLET PROTECTION MAY BE REQUIRED OUTSIDE THE LIMITS OF THIS GREENWAY.
 - 11) THE CONTRACTOR SHALL USE APPROPRIATE CONCRETE WASTE CATCHMENT.
 - 12) ALL POINTS ON THIS SITE DRAIN DIRECTLY TO THE GREENWAY.
 - 13) OTHER EROSION CONTROL MEASURES MAY BE PHASED, ACCORDING TO THE CONTRACTOR'S SUPERVISOR. ITEMS MAY NEED TO BE INSTALLED OR REMOVED AS WORK PROGRESSES.
 - 14) CONTRACTOR SHALL NOT GRADE TO LIMITS BEYOND EFFECTIVE FUNCTIONALITY OF EC BEST MANAGEMENT PRACTICES (BMPs). MONITOR THE FORECAST FOR UNSTABILIZED AREAS REQUIRING RESTORATION OR STABILIZATION WITHIN THREE DAYS FOR GRADED STREAM BANK AREAS AND FIVE DAYS FOR AREAS OUTSIDE OF THE BANKS TO MINIMIZE SEDIMENT DELIVERY OFF-SITE, AND TO MAXIMIZE EFFECTIVENESS OF DOWNSTREAM EC BMPs.

PROJECT NO. 12662		SHEET ECA	
EROSION CONTROL AND RESTORATION PLAN			
MENDOTTA GRASSMAN GREENWAY IMPROVEMENTS		CITY OF MADISON	
ENGINEERING ARCHITECTURE SURVEYING PLANNING ENVIRONMENTAL DESIGN CONSTRUCTION MANAGEMENT (608) 242-7779 www.msa-pe.com		DANE COUNTY, WISCONSIN	
PROJECT DATE	NO.	DATE	BY
ISSUED BY: JZ	1		
CHECKED BY: BK	2		
PROJECT DATE	NO.	DATE	BY
ISSUED BY: JZ	1		
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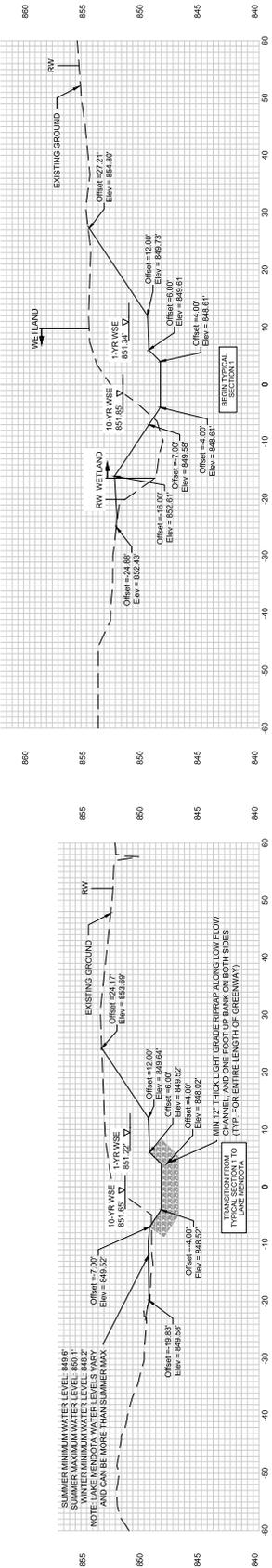
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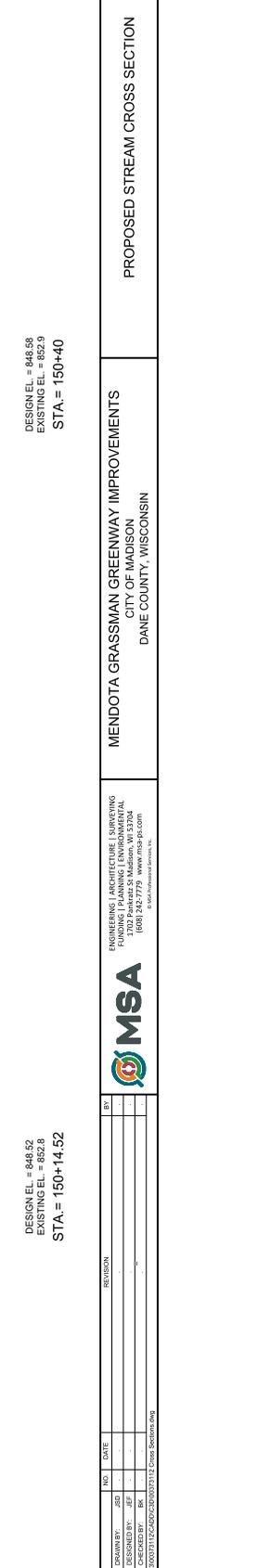
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EXISTING EL = 852.5
STA = 151+25



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EXISTING EL = 852.3
STA = 151+00



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EXISTING EL = 852.8
STA = 150+75

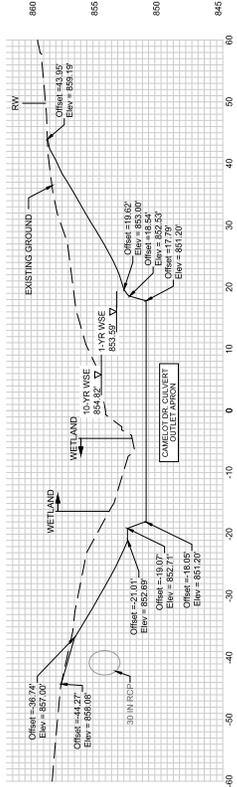


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STA = 150+40

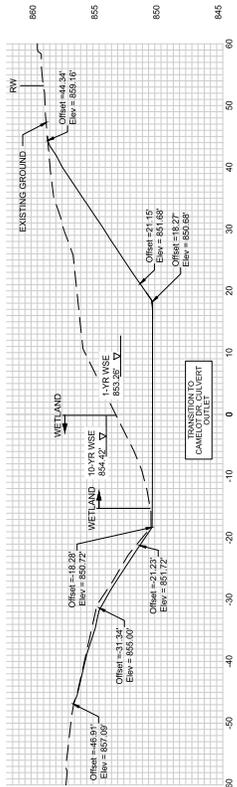
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WINTER MINIMUM WATER LEVEL: 848.2'
NOTE: MINIMUM WATER LEVELS ARE BASED ON 10-YR WSE AND CAN BE MORE THAN SUMMER MAX.
MIN 12" THICK LIGHT GRADE BERMAP ALONG LOW FLOW TYPICAL SECTION TO (TYP FOR ENTIRE LENGTH OF GREENWAY)
CORE BERMAP

PROJECT DATE: 2023	NO.	DATE	BY
CHECKED BY: BK	REVISION		
DESIGNED BY: SF			
CHECKED BY: BK			
PROJECT NO: 12862	MENDOTA GRASSMAN GREENWAY IMPROVEMENTS		
SHEET: CSI	CITY OF MADISON		
	DANE COUNTY, WISCONSIN		
	PROPOSED STREAM CROSS SECTION		

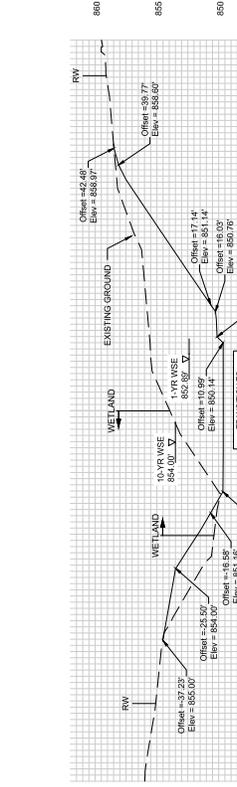
LOOKING UPSTREAM



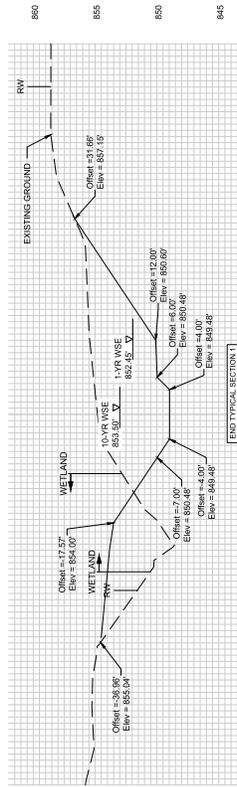
DESIGN EL. = 851.20
EXISTING EL. = 854.5
STA. = 153+00



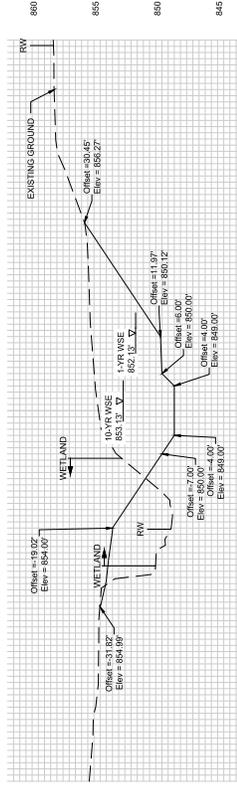
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STA. = 152+75



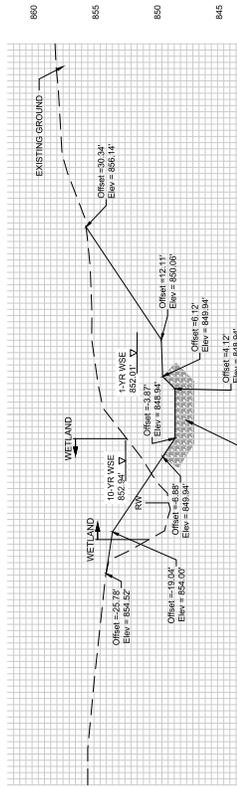
DESIGN EL. = 850.14
EXISTING EL. = 854.5
STA. = 152+50



DESIGN EL. = 849.48
EXISTING EL. = 853.3
STA. = 152+20



DESIGN EL. = 849.00
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STA. = 151+98.62



DESIGN EL. = 848.94
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STA. = 151+75

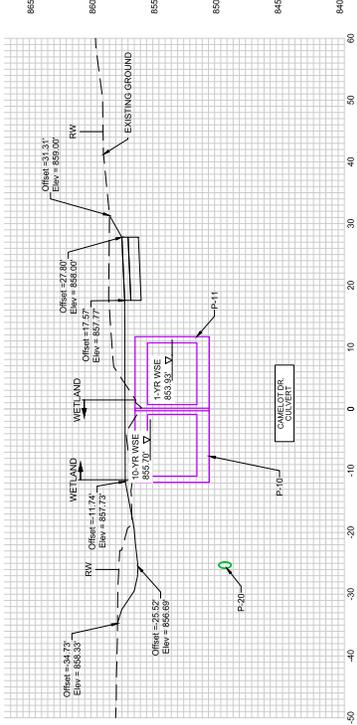
PROJECT DATE: 2023	NO.	DATE	BY
DESIGNED BY: [Signature]	1		
CHECKED BY: [Signature]	2		
PROJECT NO. 1120000170001112	NO.	DATE	BY
PROJECT NAME: MENDOTA GRASSMAN GREENWAY IMPROVEMENTS	1		
CITY OF MADISON	2		
DANE COUNTY, WISCONSIN	3		
PROJ. NO. 12862	NO.	DATE	BY
PROJECT NAME: MENDOTA GRASSMAN GREENWAY IMPROVEMENTS	1		
CITY OF MADISON	2		
DANE COUNTY, WISCONSIN	3		
PROJ. NO. 12862	NO.	DATE	BY
PROJECT NAME: MENDOTA GRASSMAN GREENWAY IMPROVEMENTS	1		
CITY OF MADISON	2		
DANE COUNTY, WISCONSIN	3		

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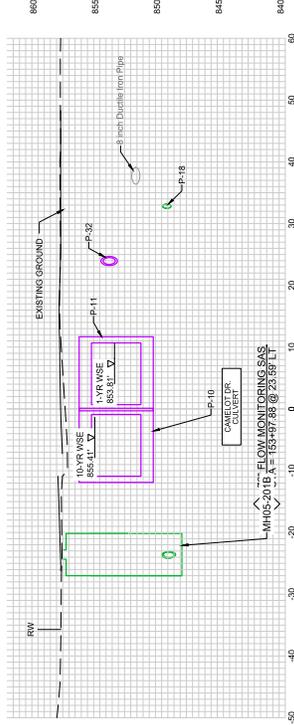


PROJ. NO. 12862
PROJECT NAME: MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
CITY OF MADISON
DANE COUNTY, WISCONSIN

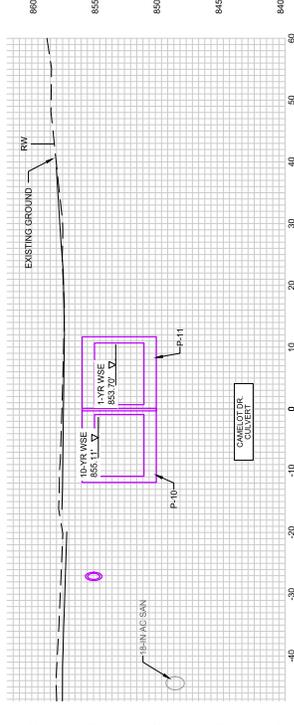
LOOKING UPSTREAM



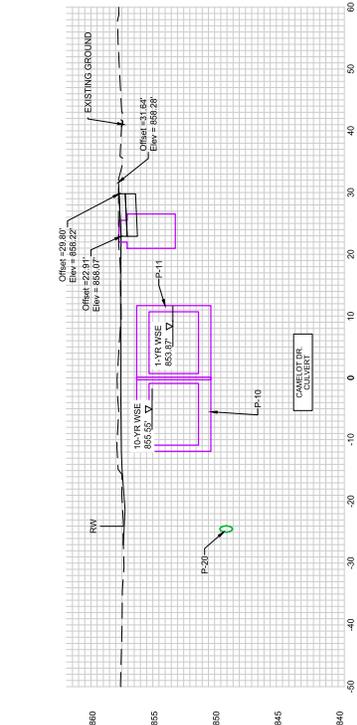
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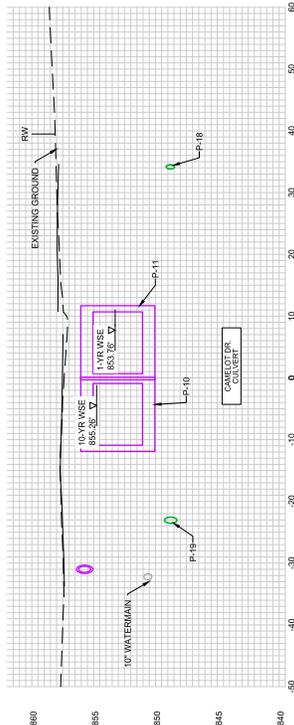
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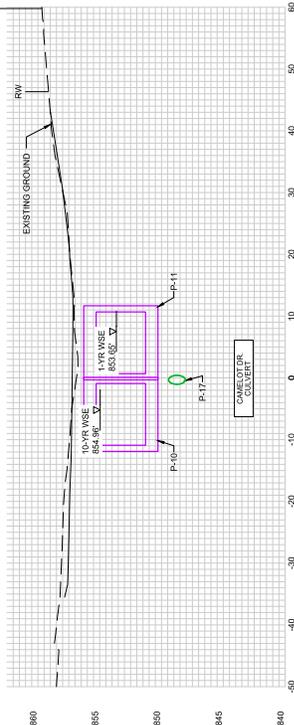
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STA = 153+50



DESIGN EL. = 858.03
EXISTING EL. = 858.4
STA = 154+25



DESIGN EL. = 858.03
EXISTING EL. = 857.9
STA = 153+75

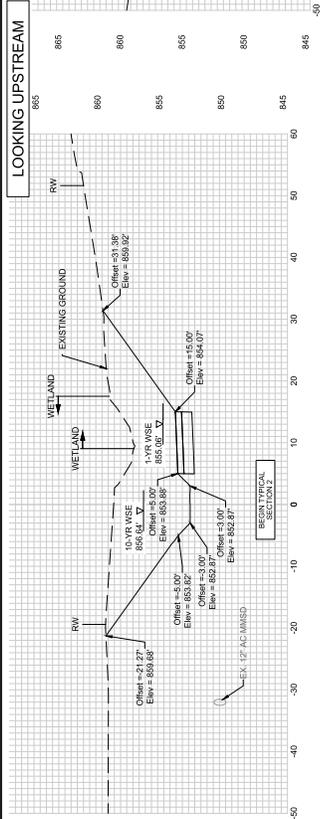


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STA = 153+25

PROJECT DATE: 2023		NO.		DATE		BY	
DESIGNED BY: JZ	CHECKED BY: BK	1	2	1	2	1	2
PROJECT NAME: 2110281144.PIN_010000170001112CAD02/20000112_Cross Section.rwg		REVISION		NO.		DATE	
PROJECT NO: 12662		SHEET		DATE		BY	
SHEET		DATE		BY		PROJECT NAME	
CS3						MENDOTA GRASSMAN GREENWAY IMPROVEMENTS CITY OF MADISON DANE COUNTY, WISCONSIN	
						PROPOSED STREAM CROSS SECTION	

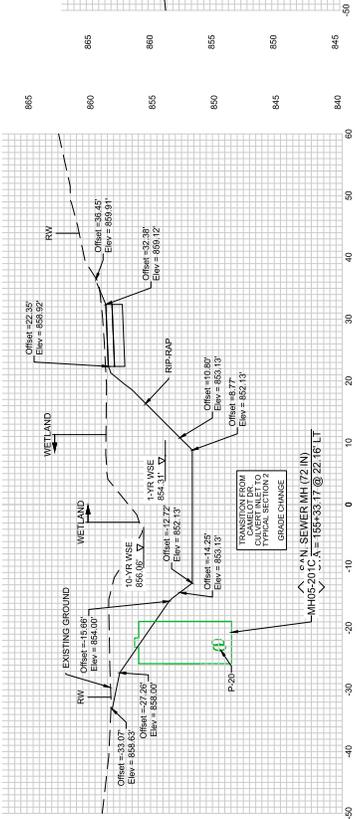


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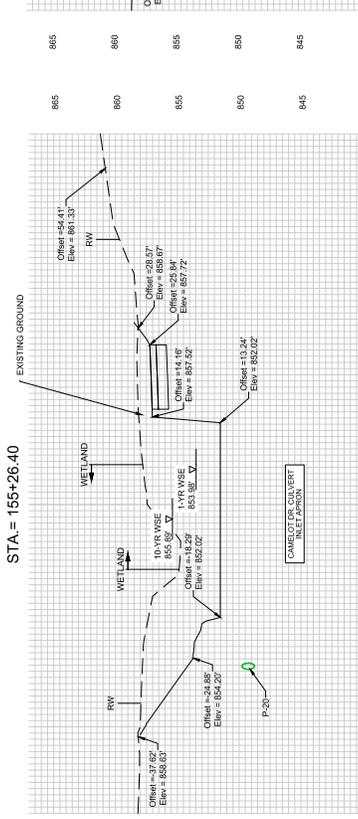


LOOKING UPSTREAM

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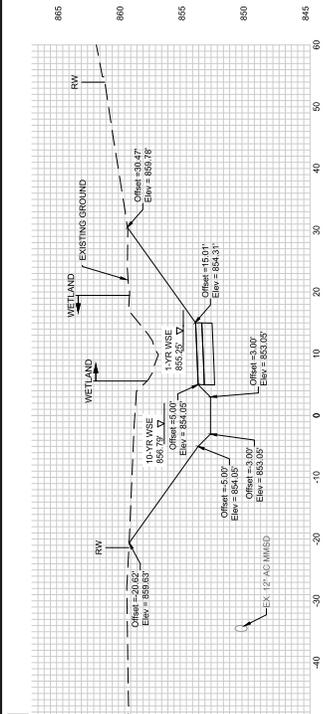
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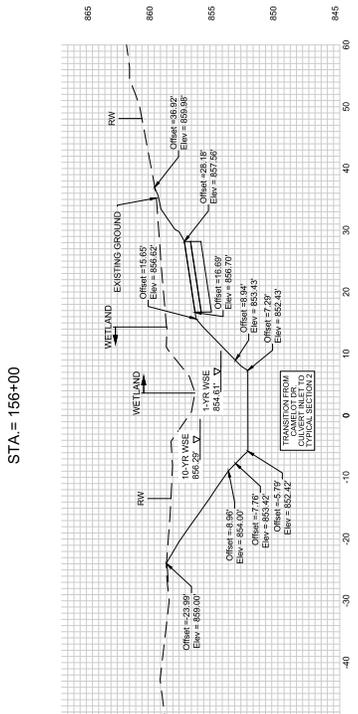
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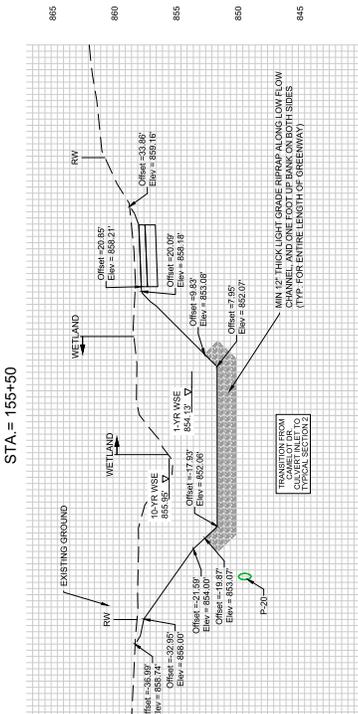
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DESIGN EL. = 853.05
EXISTING EL. = 859.2
STA = 156+00



DESIGN EL. = 852.43
EXISTING EL. = 857.2
STA = 156+00



DESIGN EL. = 852.07
EXISTING EL. = 858.3
STA = 156+00



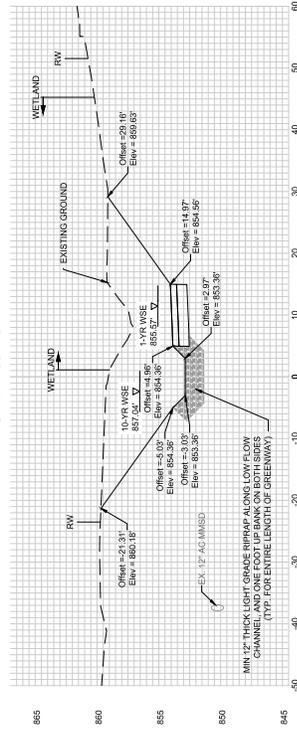
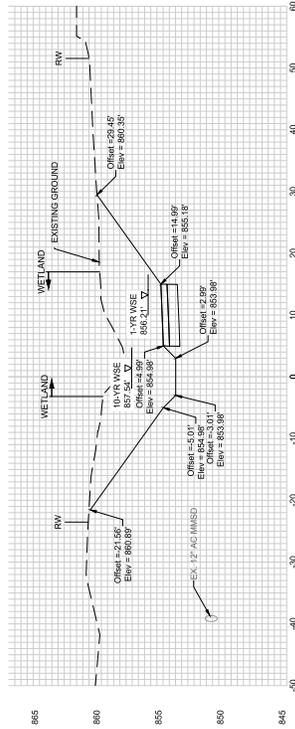
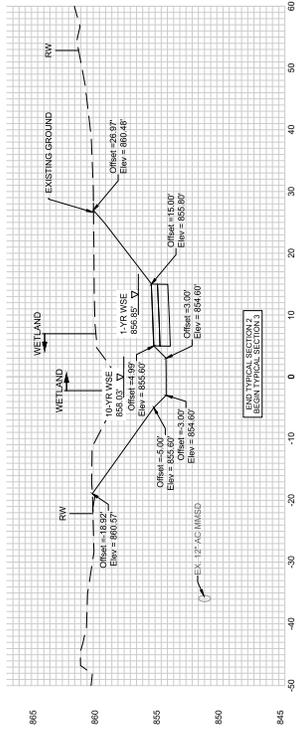
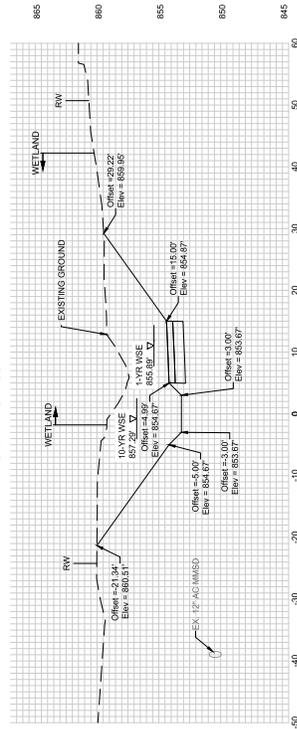
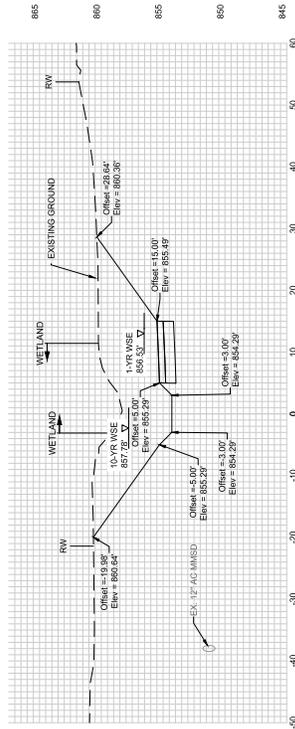
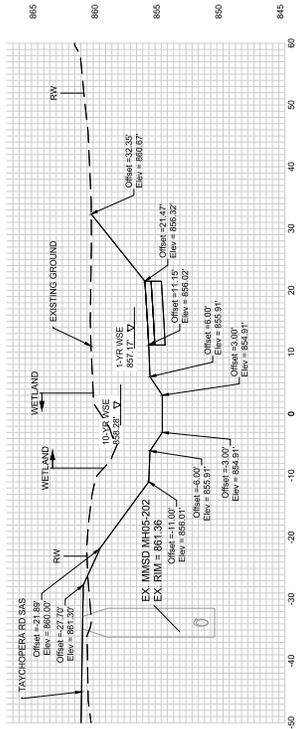
DESIGN EL. = 852.07
EXISTING EL. = 858.3
STA = 156+00

PROJECT DATE: 2023		NO.		DATE		REVISION	
DESIGNED BY: [Signature]	NO. 1	DATE		REVISION			
CHECKED BY: [Signature]	NO. 2	DATE		REVISION			
PROJECT NO. 12862	NO. 1	DATE		REVISION			
PROJECT NAME: MENDOTA GRASSMAN GREENWAY IMPROVEMENTS	NO. 2	DATE		REVISION			
CITY OF MADISON	NO. 3	DATE		REVISION			
DANE COUNTY, WISCONSIN	NO. 4	DATE		REVISION			
PROPOSED STREAM CROSS SECTION				PROJECT NO. 12862			
MENDOTA GRASSMAN GREENWAY IMPROVEMENTS				SHEET CS4			



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PROJECT DATE: 2023	NO.	DATE	BY
DESIGNED BY: [Signature]	NO.	DATE	BY
CHECKED BY: [Signature]	NO.	DATE	BY
PROJECT NO: 20230112	NO.	DATE	BY
PROJECT NAME: MENDOTA GRASSMAN GREENWAY IMPROVEMENTS	NO.	DATE	BY
PROJECT LOCATION: CITY OF MADISON, DANE COUNTY, WISCONSIN	NO.	DATE	BY
PROJECT SCALE: AS SHOWN	NO.	DATE	BY
PROJECT DRAWN BY: [Signature]	NO.	DATE	BY
PROJECT CHECKED BY: [Signature]	NO.	DATE	BY
PROJECT DATE: 2023	NO.	DATE	BY
PROJECT NO: 20230112	NO.	DATE	BY
PROJECT NAME: MENDOTA GRASSMAN GREENWAY IMPROVEMENTS	NO.	DATE	BY
PROJECT LOCATION: CITY OF MADISON, DANE COUNTY, WISCONSIN	NO.	DATE	BY
PROJECT SCALE: AS SHOWN	NO.	DATE	BY
PROJECT DRAWN BY: [Signature]	NO.	DATE	BY
PROJECT CHECKED BY: [Signature]	NO.	DATE	BY

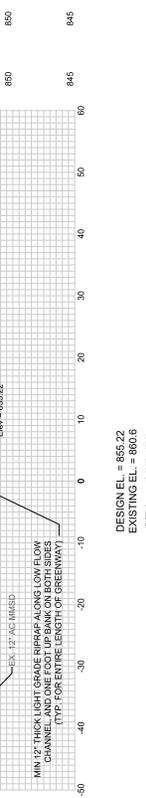
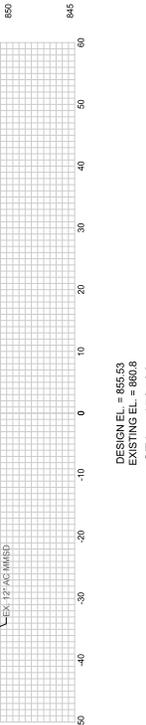
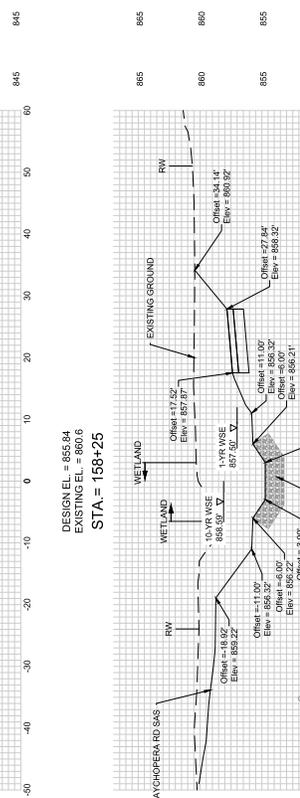
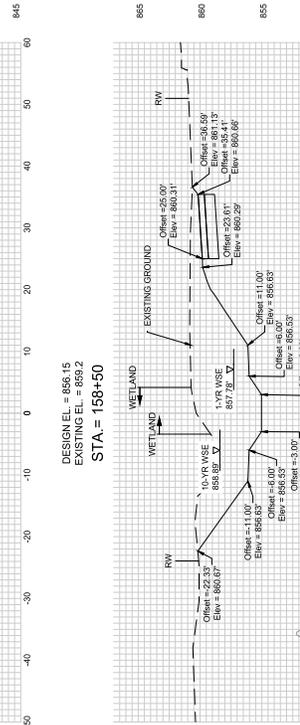
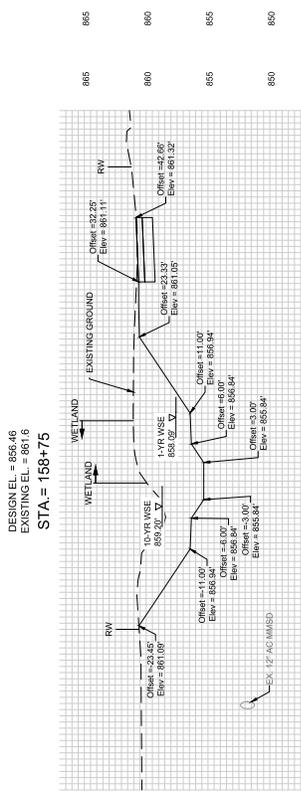
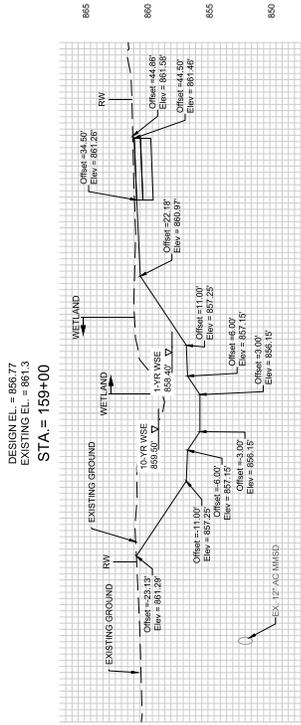
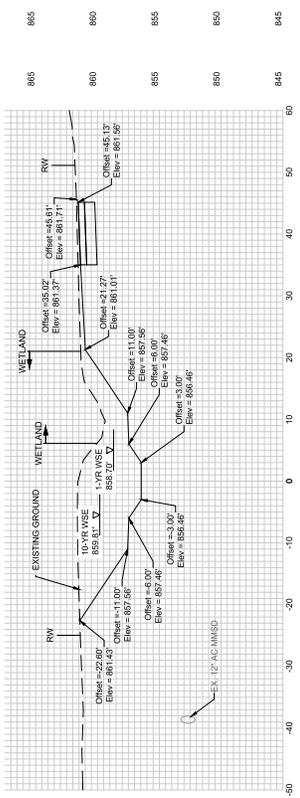
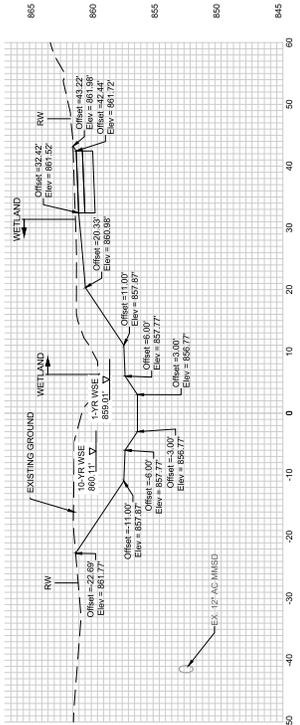


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PROPOSED STREAM CROSS SECTION

PROJECT NO: 12662
DATE: 2023
BY: CS5

LOOKING UPSTREAM



PROPOSED STREAM CROSS SECTION

PROJECT DATE	NO.	DATE	BY
2023	1		
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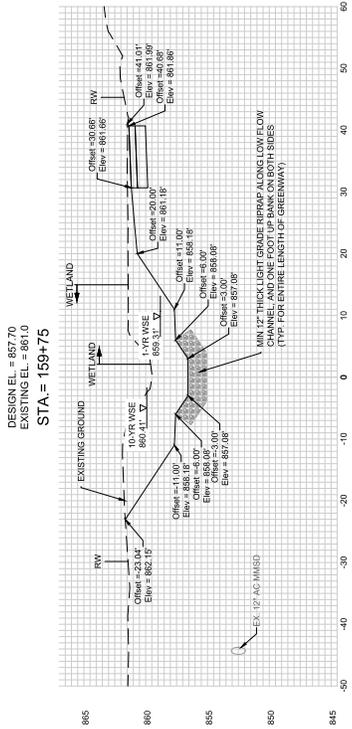
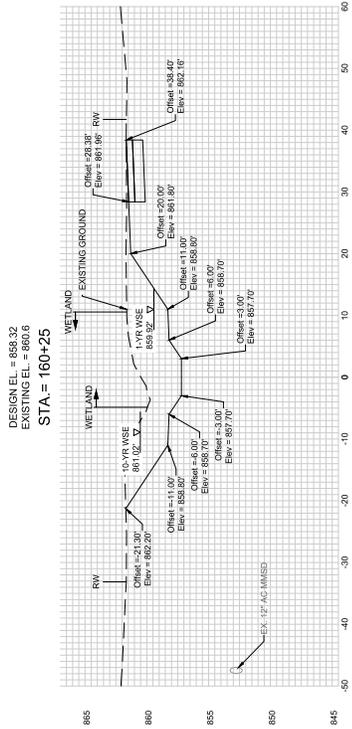
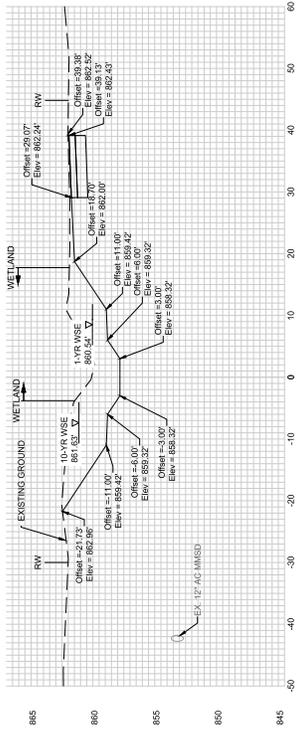
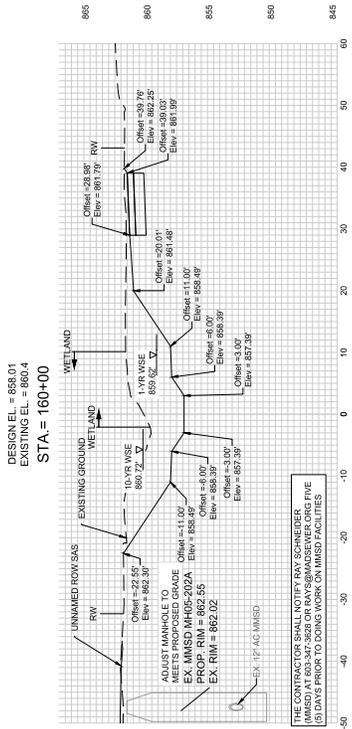
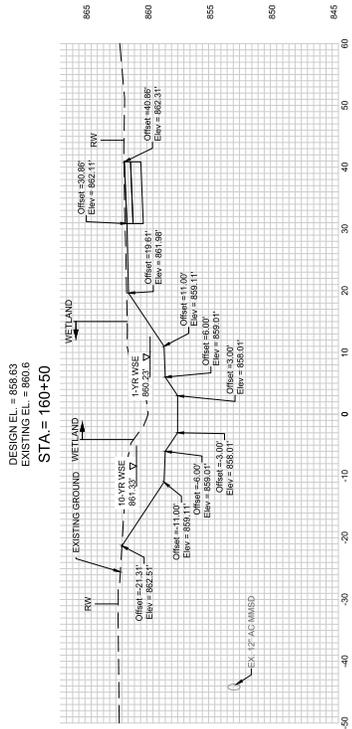
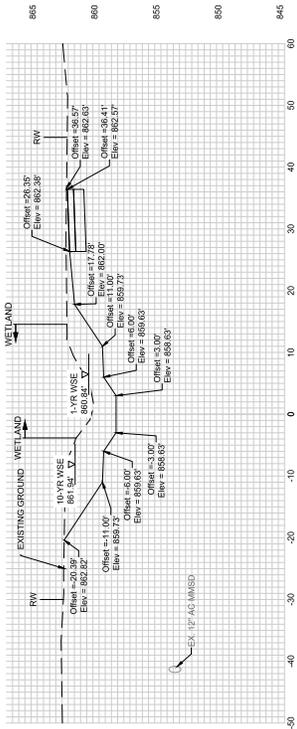
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LOOKING UPSTREAM



THE CONTRACTOR SHALL NOTIFY RAY SCHNEIDER FIVE (5) DAYS PRIOR TO DOING WORK ON MMSD FACILITIES.

PROJECT DATE: 2023	NO.	DATE	REVISION
DESIGNED BY: [Signature]	1		
CHECKED BY: [Signature]	2		
PROJECT NO: 2023001112	NO.	DATE	REVISION
PROJECT NAME: 159+00	1		
PROJECT LOCATION: 159+00	2		
PROJECT DESCRIPTION: 159+00	3		
PROJECT DRAWING NO: 159+00	4		
PROJECT DATE: 2023	5		
PROJECT LOCATION: 159+00	6		
PROJECT DESCRIPTION: 159+00	7		
PROJECT DRAWING NO: 159+00	8		

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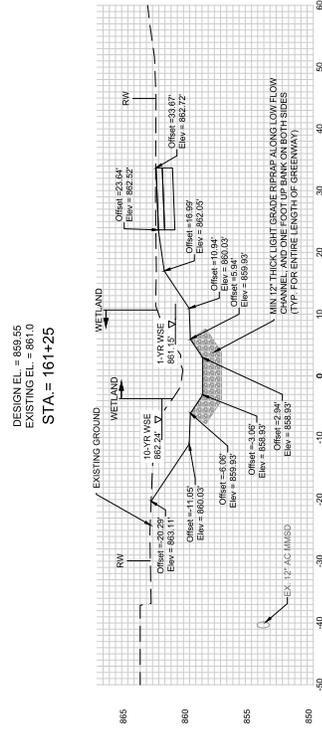
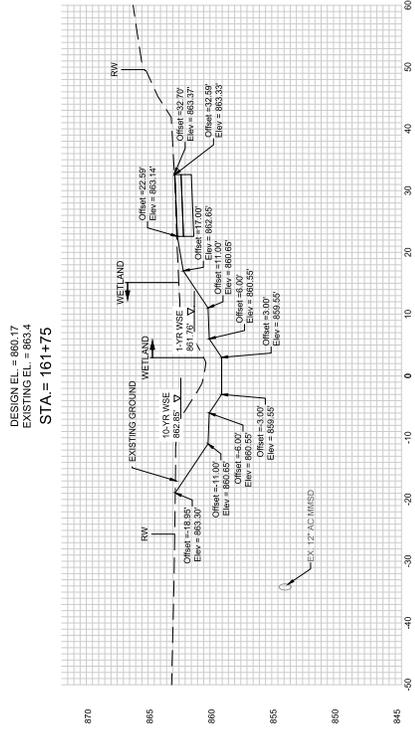
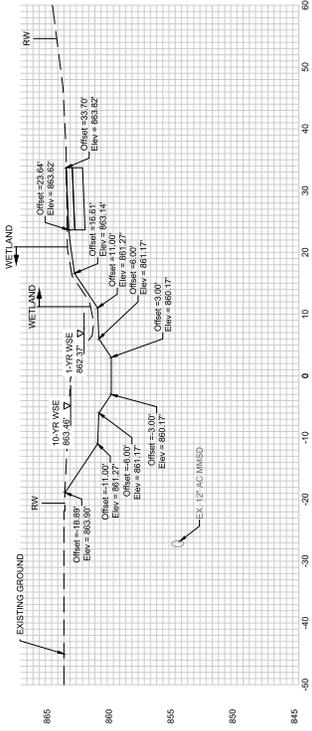
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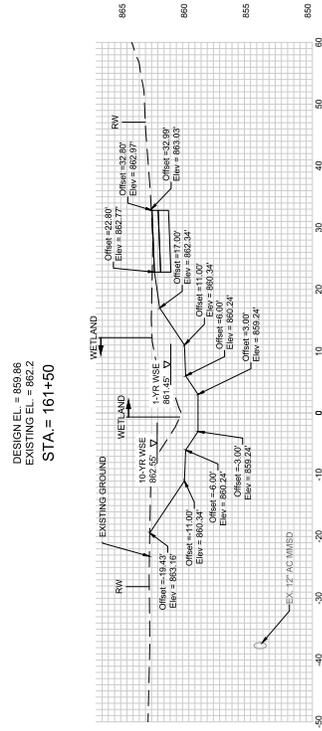
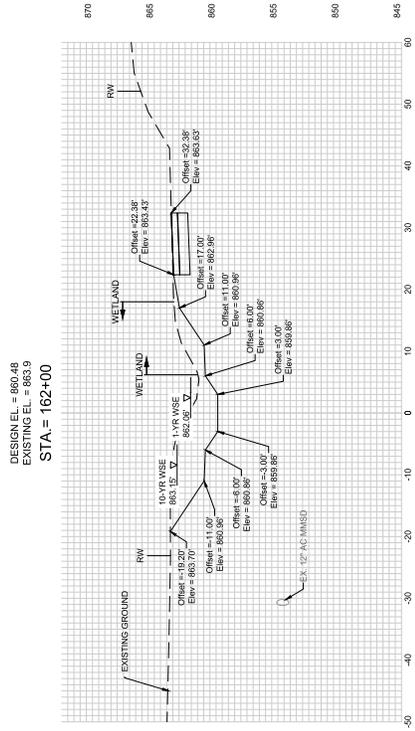
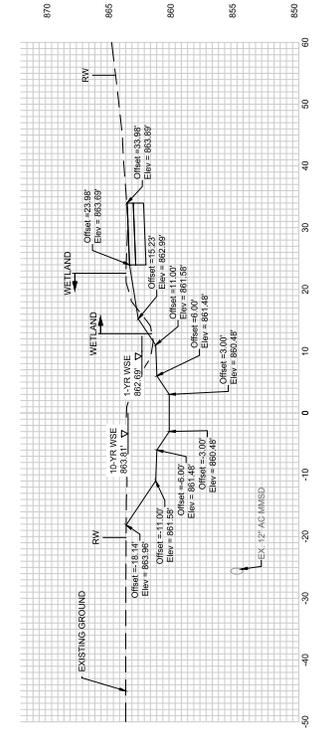
MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
 CITY OF MADISON
 DANE COUNTY, WISCONSIN

PROPOSED STREAM CROSS SECTION

LOOKING UPSTREAM



DESIGN EL = 859.55
 EXISTING EL = 861.0
 STA = 161+25



DESIGN EL = 859.74
 EXISTING EL = 860.7
 STA = 161+00

PROJECT DATE: 2023		NO.		DATE		BY		REVISION	
DESIGNED BY:	CHK'D BY:	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE
DESIGNED BY:	CHK'D BY:								
CHECKED BY:	BY:								

PROJECT NO.	12662
SHEET	CS6

PROJECT NAME:	MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
CITY:	CITY OF MADISON
COUNTY:	DANE COUNTY, WISCONSIN

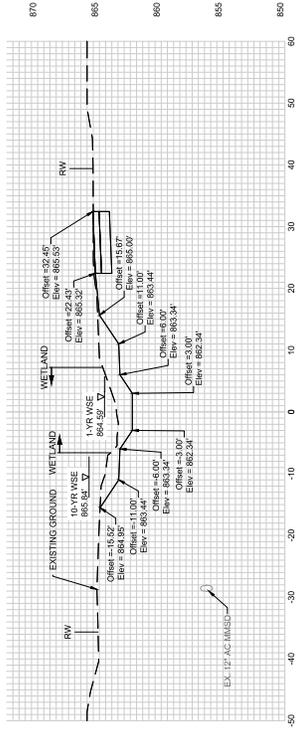
PROJECT NAME:	MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
CITY:	CITY OF MADISON
COUNTY:	DANE COUNTY, WISCONSIN



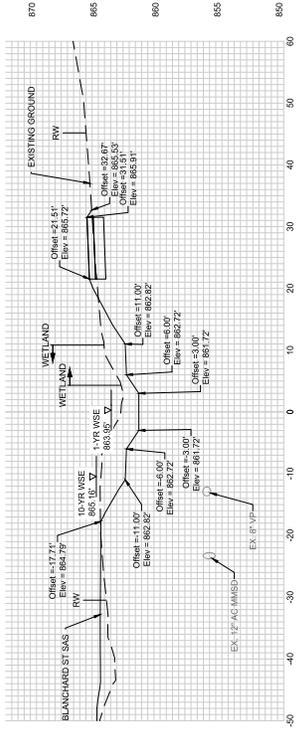
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PROPOSED STREAM CROSS SECTION

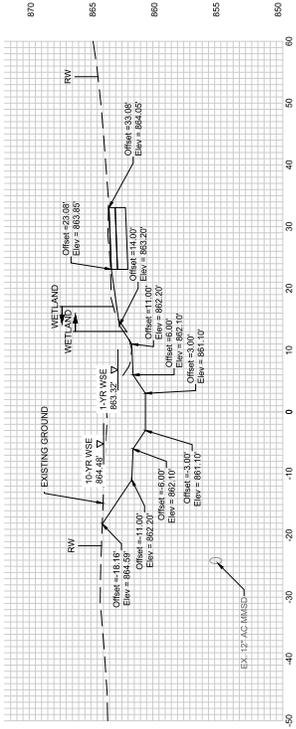
LOOKING UPSTREAM



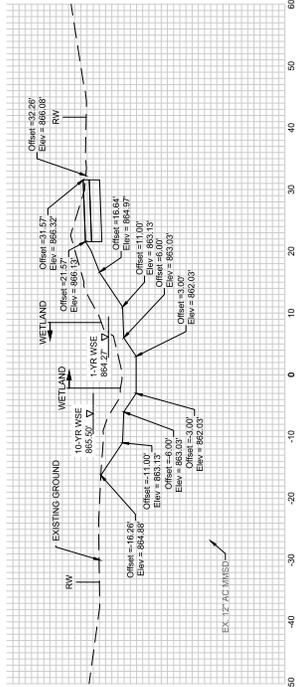
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STA = 163+50



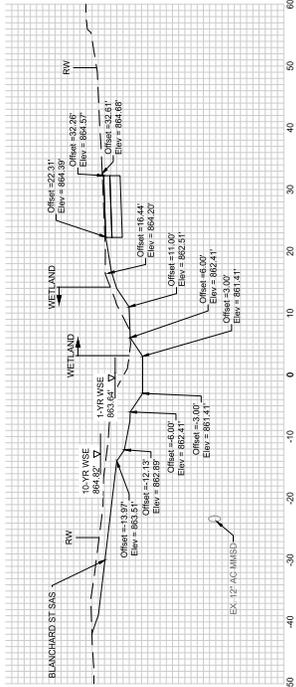
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STA = 163+00



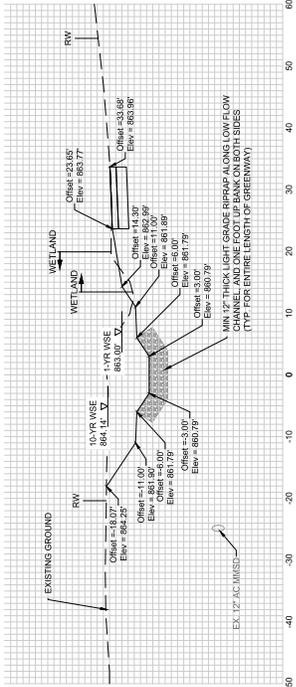
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EXISTING EL = 863.2
STA = 163+25



DESIGN EL = 861.41
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STA = 162+75



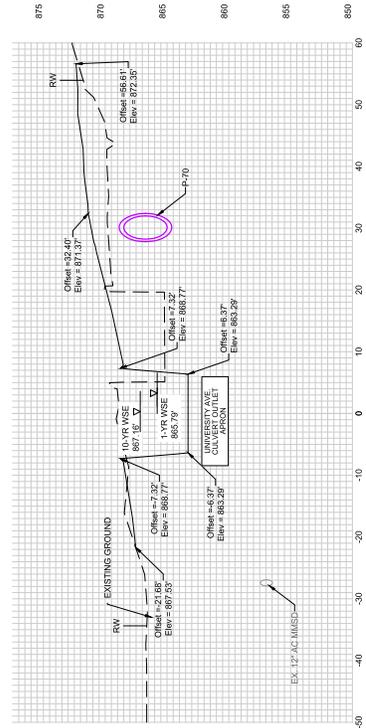
DESIGN EL = 860.79
EXISTING EL = 864.2
STA = 162+25

PROJECT DATE: 2023		NO.		DATE		BY	
DESIGNED BY: [Signature]	NO.	DATE	BY	REVISION			
CHECKED BY: [Signature]	NO.	DATE	BY	REVISION			
<p>PROJECT: MENDOTA GRASSMAN GREENWAY IMPROVEMENTS</p> <p>CITY OF MADISON</p> <p>DANE COUNTY, WISCONSIN</p> <p>PROPOSED STREAM CROSS SECTION</p>							
<p>PRODUCT NO: 12662</p> <p>SHEET: CS9</p>							

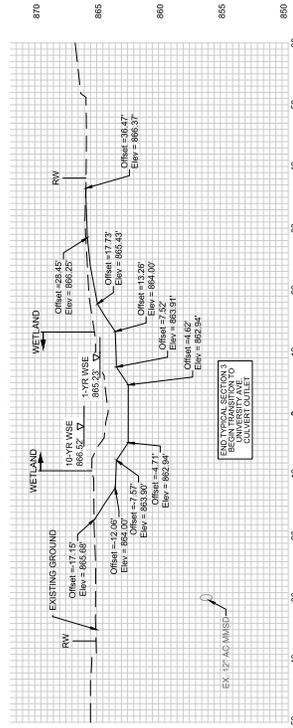
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MIN 12" THICK LIGHT GRADE RPPRAP ALONG LOWFLOW CHANNELS AND RPPRAP ALONG BOTH SIDES OF CHANNELS (LENGTH OF GREENWAY)

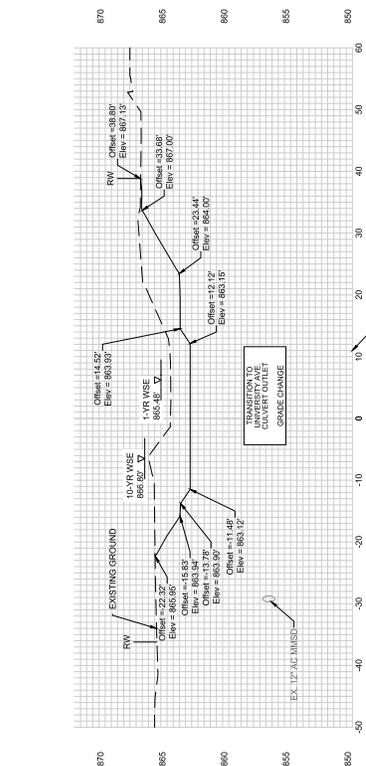
LOOKING UPSTREAM



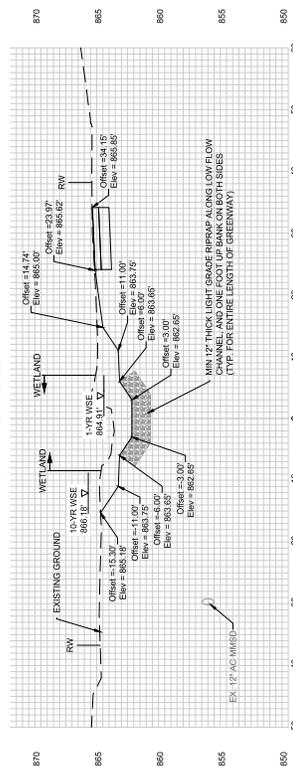
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STA. = 164+50.0



DESIGN EL. = 862.94
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STA. = 164+00



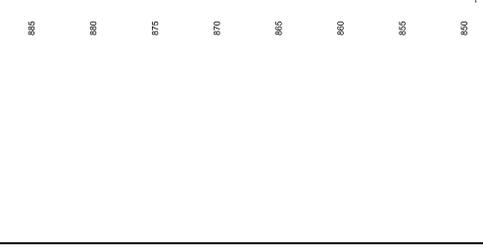
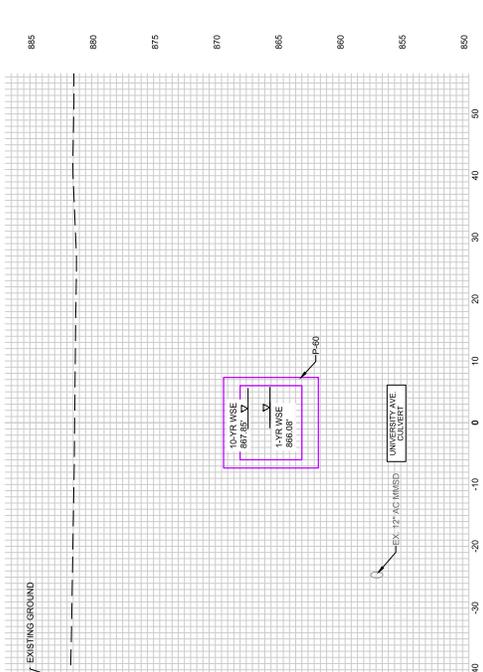
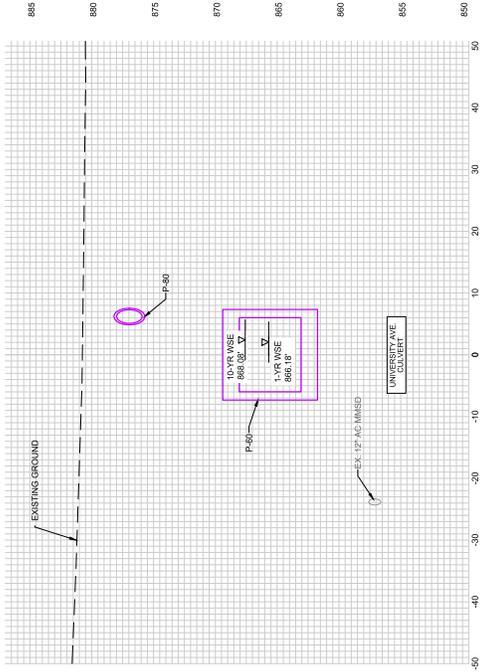
DESIGN EL. = 863.12
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STA. = 164+20.03



DESIGN EL. = 862.65
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STA. = 163+75

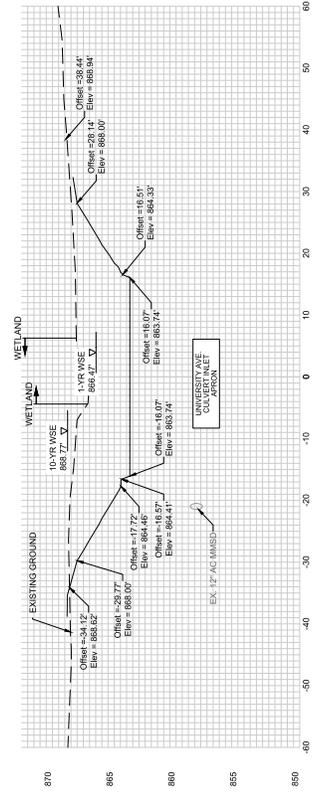
PROJECT DATE: 2023	NO.:	DATE:	BY:
CHECKED BY: BK	NO.:	DATE:	BY:
DESIGNED BY: BK	NO.:	DATE:	BY:
SCALE:	NO.:	DATE:	BY:
REVISION:	NO.:	DATE:	BY:
PROJECT NO. 12662	PROPOSED STREAM CROSS SECTION		
CITY OF MADISON	MENDOTA GRASSMAN GREENWAY IMPROVEMENTS		
DANE COUNTY, WISCONSIN	MENDOTA GRASSMAN GREENWAY IMPROVEMENTS		
	CITY OF MADISON		
	DANE COUNTY, WISCONSIN		
	ENGINEERING ARCHITECTURE SURVEYING		
	FUNDING PLANNING ENVIRONMENTAL		
	(608) 832-7778 www.msa-ps.com		
	© 2023 MSA Engineering, Inc.		

LOOKING UPSTREAM

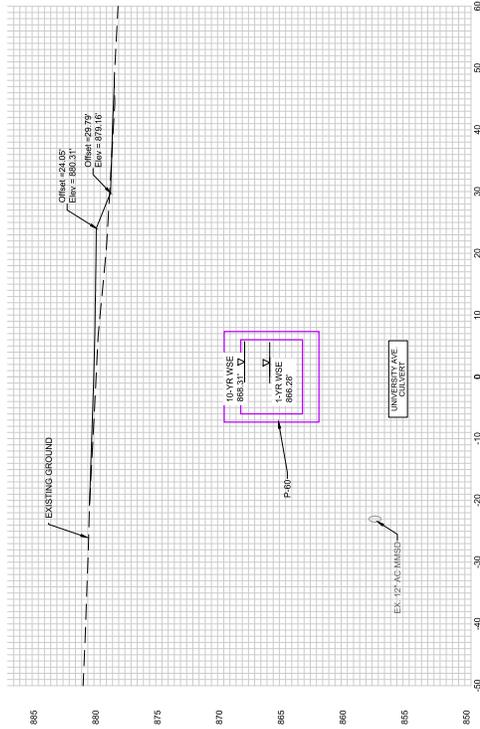


PROJECT DATE: 2023		NO.		DATE		BY	
DESIGNED BY: JZ	CHECKED BY: BK	1	2				
							
ENGINEERING ARCHITECTURE SURVEYING FUNDING PLANNING ENVIRONMENTAL CONSULTING LANDSCAPE ARCHITECTURE (608) 842-7778 www.msa-inc.com <small>© 2023 MSA Incorporated, Inc.</small>							
MENDOTA GRASSMAN GREENWAY IMPROVEMENTS				PROPOSED STREAM CROSS SECTION			
CITY OF MADISON				DANE COUNTY, WISCONSIN			

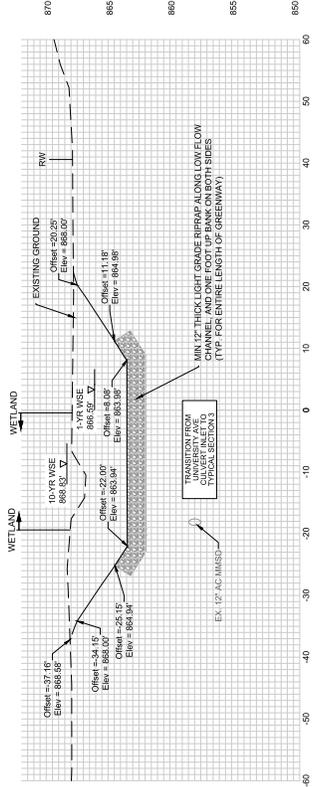
LOOKING UPSTREAM



DESIGN EL. = 866.74
 EXISTING EL. = 867.0
 STA = 165+25



DESIGN EL. = 866.51
 EXISTING EL. = 860.3
 STA = 165+75



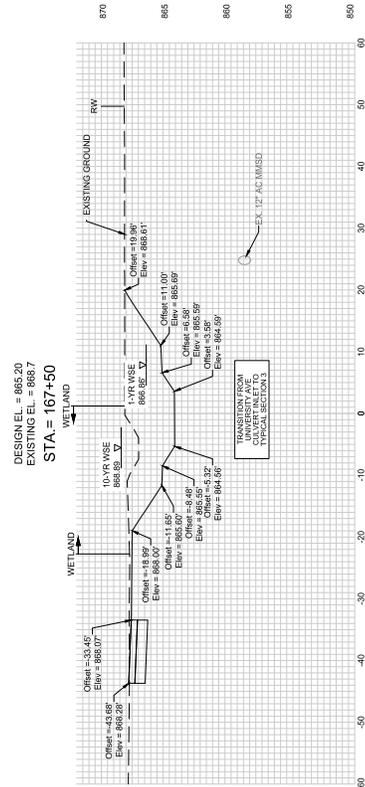
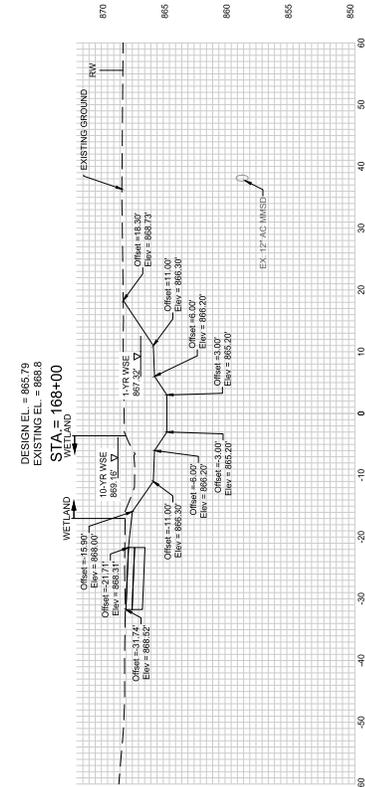
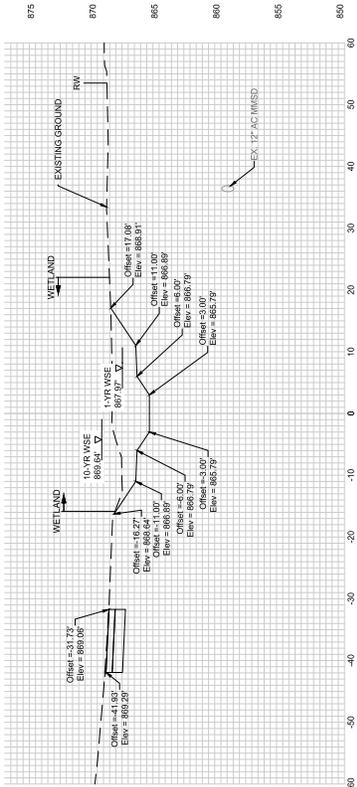
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 STA = 166+50



DESIGN EL. = 874.66
 EXISTING EL. = 871.8
 STA = 166+00

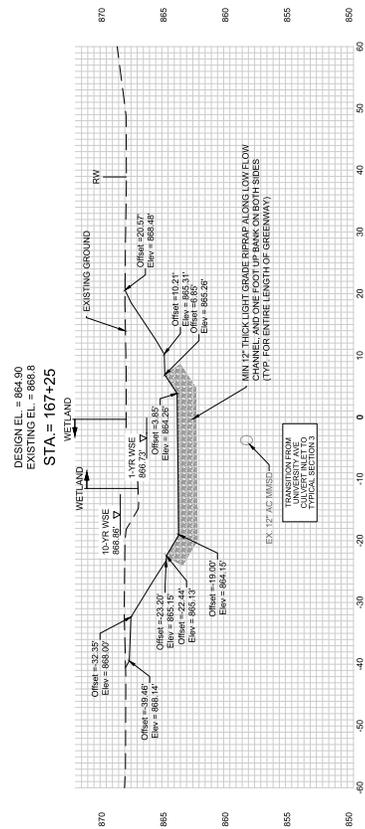
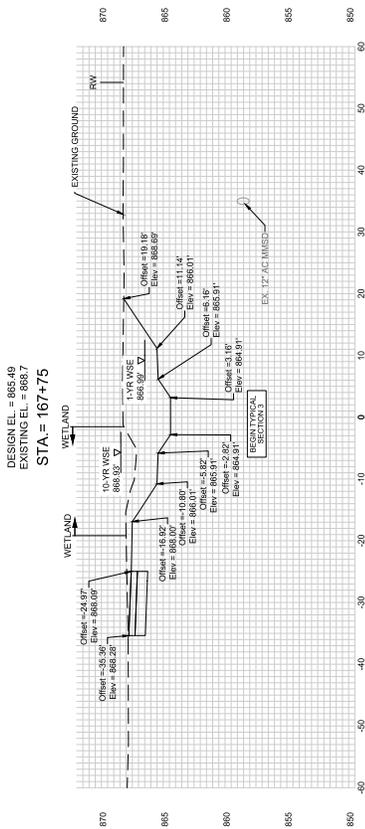
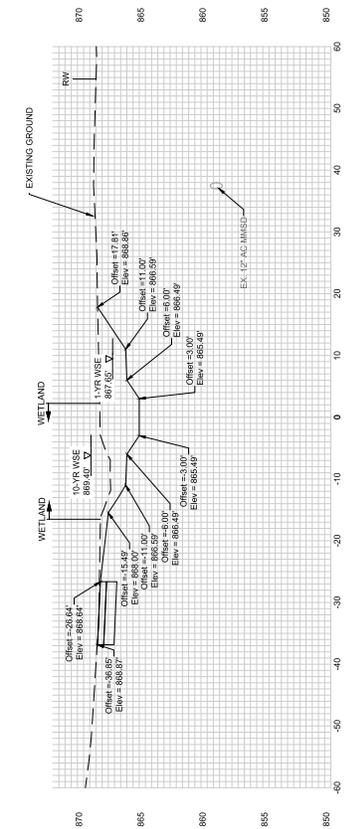
PROJECT DATE: 2023	NO.	DATE	BY
CHECKED BY: BK	NO.	DATE	BY
DESIGNED BY: BK	NO.	DATE	BY
CREATED BY: BK	NO.	DATE	BY
<p>PROJECT: MENDOTA GRASSMAN GREENWAY IMPROVEMENTS</p> <p>CITY OF MADISON</p> <p>DANE COUNTY, WISCONSIN</p> <p>PROPOSED STREAM CROSS SECTION</p>			
<p>PRODUCT NO. 12662</p> <p>DATE 08/23</p> <p>CS12</p>			<p>ENGINEERING ARCHITECTURE SURVEYING</p> <p>FUNDING PLANNING ENVIRONMENTAL</p> <p>DESIGN CONSTRUCTION MAINTENANCE</p> <p>(608) 832-7775 www.msa-ps.com</p> <p>© 2023 MSA Engineering, Inc.</p>

LOOKING UPSTREAM



DESIGN EL = 885.79
EXISTING EL = 868.6
STA = 168+00

DESIGN EL = 865.20
EXISTING EL = 868.7
STA = 167+50



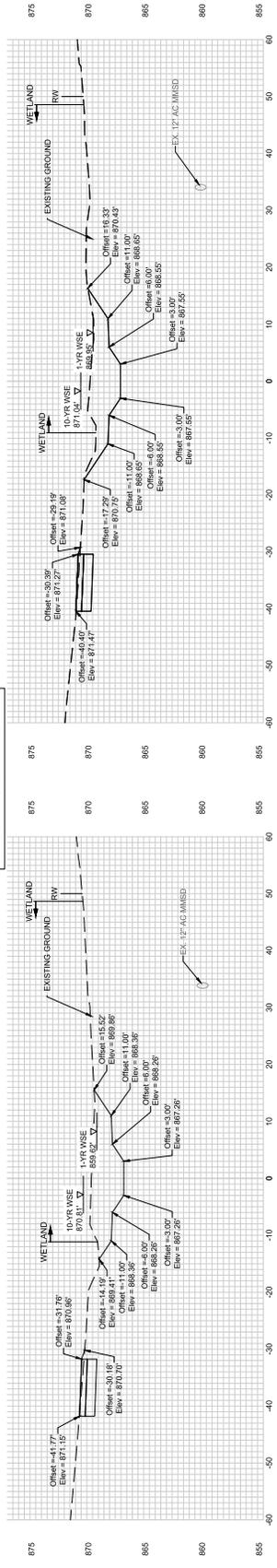
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STA = 167+75

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STA = 167+25

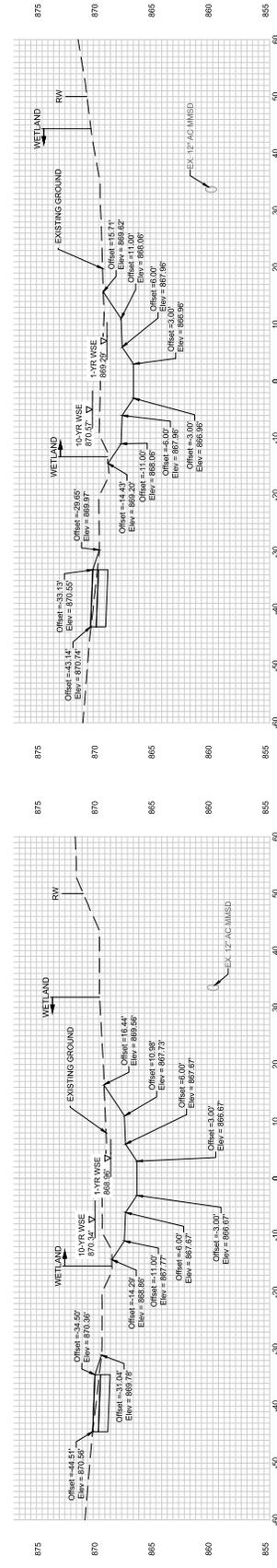
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STA = 166+75

DESIGN EL = 864.58
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STA = 167+00

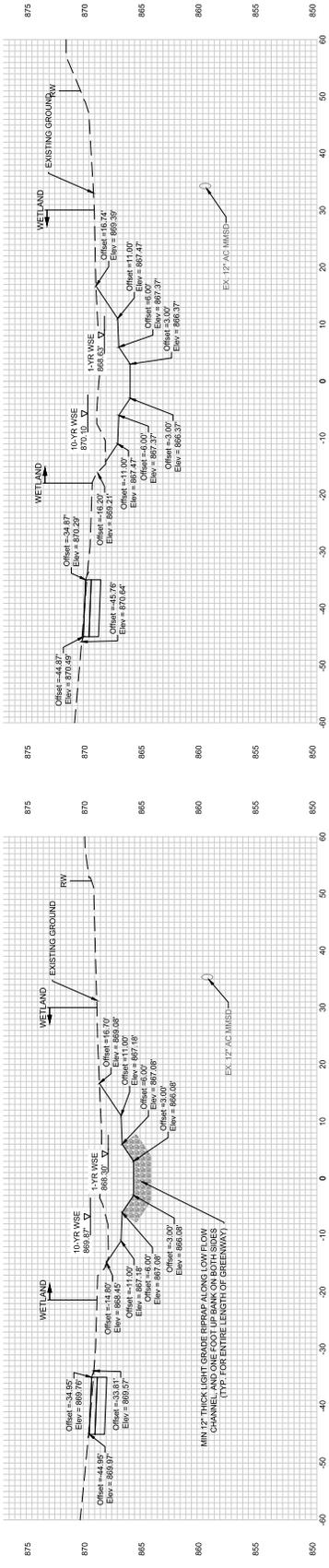
LOOKING UPSTREAM



DESIGN EL. = 867.55
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STA. = 169+50



DESIGN EL. = 866.67
EXISTING EL. = 869.6
STA. = 168+75



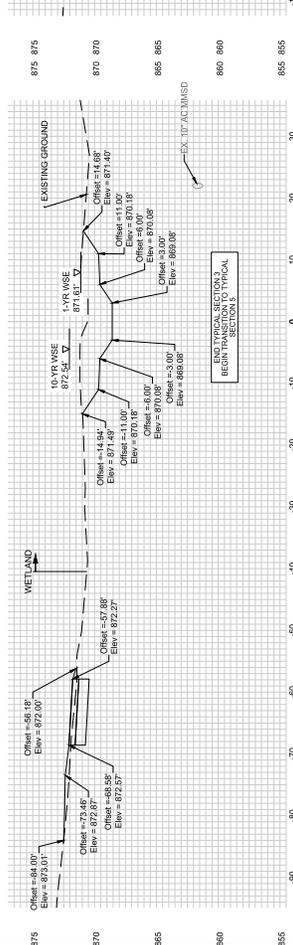
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STA. = 168+00

DESIGN EL. = 865.08
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STA. = 168+25

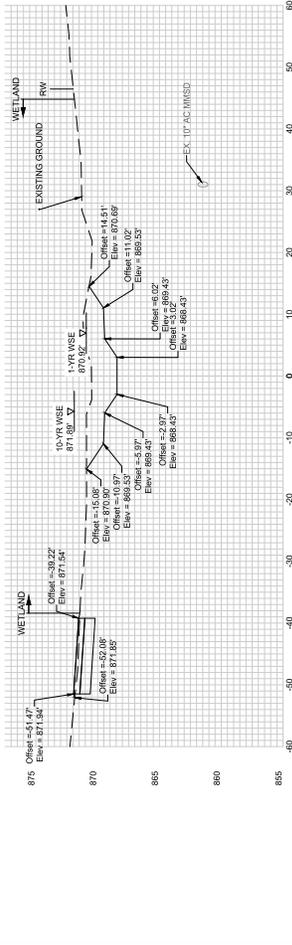
MIN 12" THICK LIGHT GRADE RIPRAP ALONG LOW FLOW CHANNEL AND ONE FOOT UP BANK ON BOTH SIDES (12' FOR ENTIRE LENGTH OF GREENWAY)

PROJECT DATE: 2023	NO.	DATE	BY
DRAWN BY: AS	1		
DESIGNED BY: BF			
CHECKED BY: BK			
<p>REVISION</p>			
<p>ENGINEERING ARCHITECTURE SURVEYING PLANNING ENVIRONMENTAL CONSULTING INC. (MSA) (608) 832-7779 www.msa-ps.com © 2023 MSA Engineering, Inc.</p>			
<p>MENDOTA GRASSMAN GREENWAY IMPROVEMENTS CITY OF MADISON DANE COUNTY, WISCONSIN</p>			<p>PROPOSED STREAM CROSS SECTION</p>
<p>12662 CS14</p>			

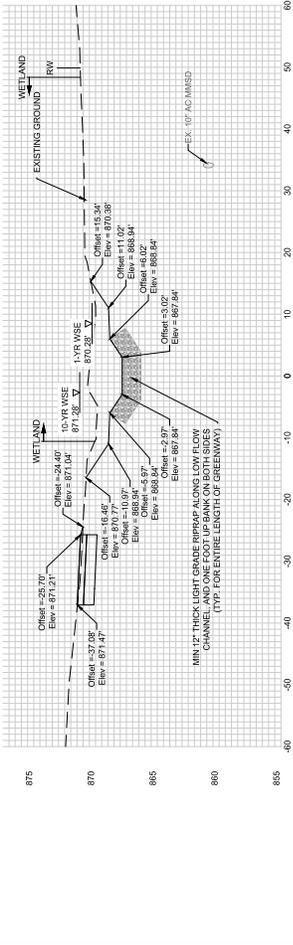
LOOKING UPSTREAM



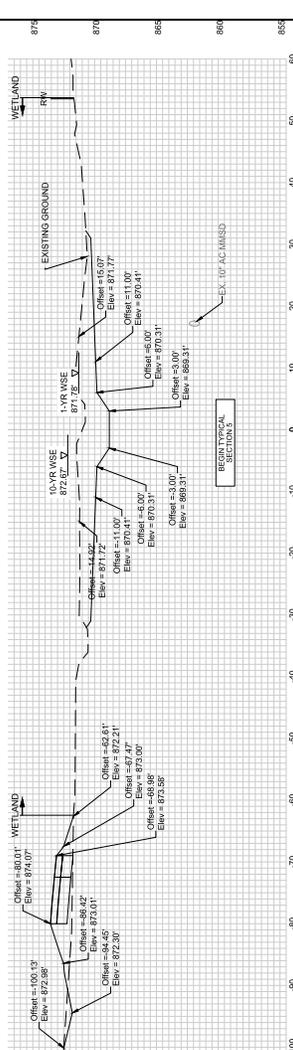
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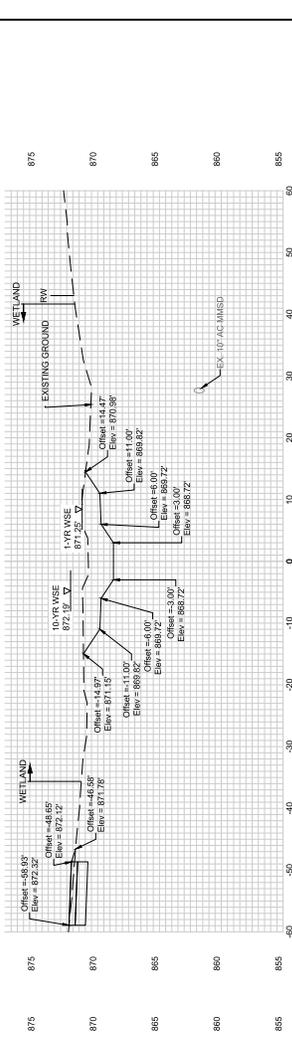
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STA = 170+25



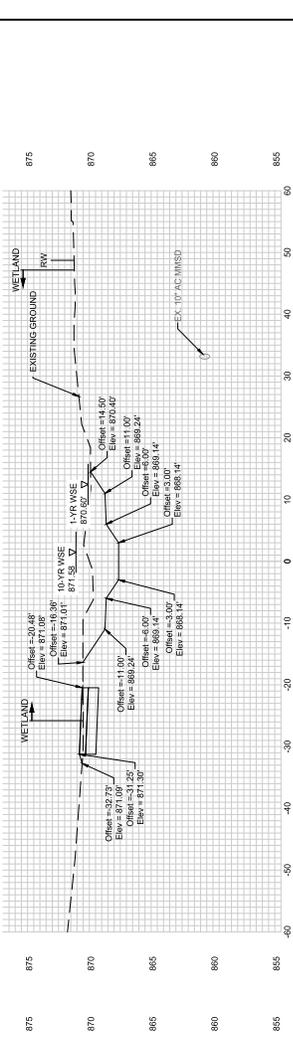
DESIGN EL. = 867.64
EXISTING EL. = 870.66
STA = 169+75



DESIGN EL. = 869.91
EXISTING EL. = 874.5
STA = 171+00



DESIGN EL. = 868.72
EXISTING EL. = 870.8
STA = 170+50



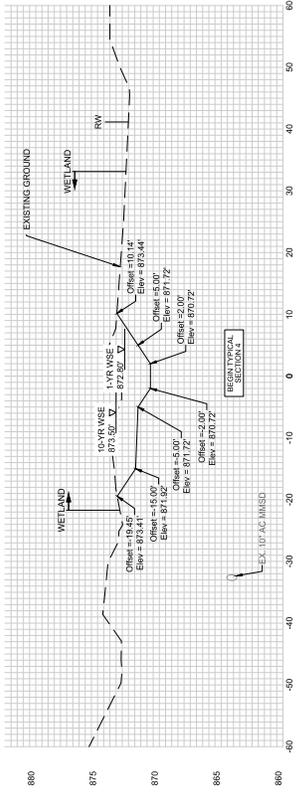
DESIGN EL. = 868.14
EXISTING EL. = 870.5
STA = 170+00

PROJECT DATE	NO.	DATE	REVISION
PROJECT DATE: 2023	NO.	DATE	REVISION
DESIGNED BY: [Signature]	NO.	DATE	REVISION
CHECKED BY: [Signature]	NO.	DATE	REVISION
PROJECT NO. 12662	NO.	DATE	REVISION
CLIENT CS15	NO.	DATE	REVISION

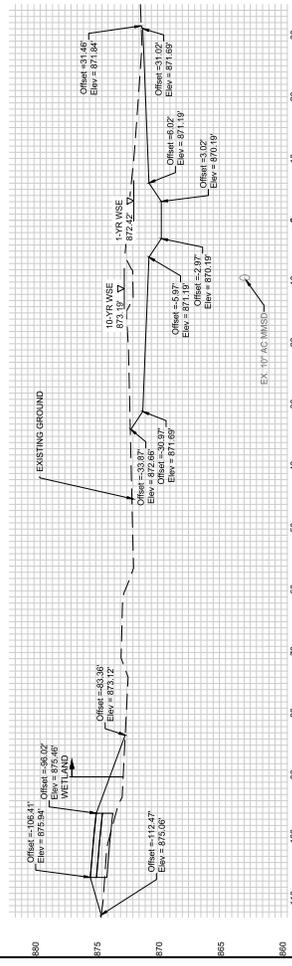
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PLANNING LANDSCAPE ARCHITECTURE
CITY OF MADISON
DANE COUNTY, WISCONSIN
(608) 832-7775 www.msa-ps.com

PROPOSED STREAM CROSS SECTION

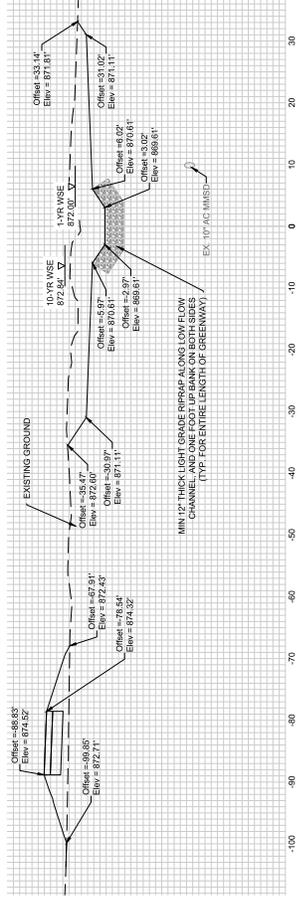
LOOKING UPSTREAM



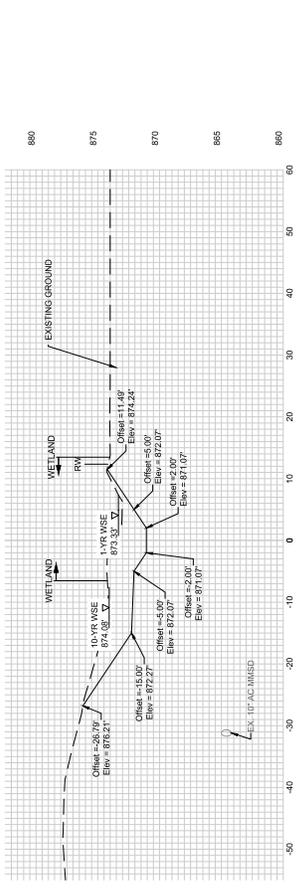
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STA = 172+20



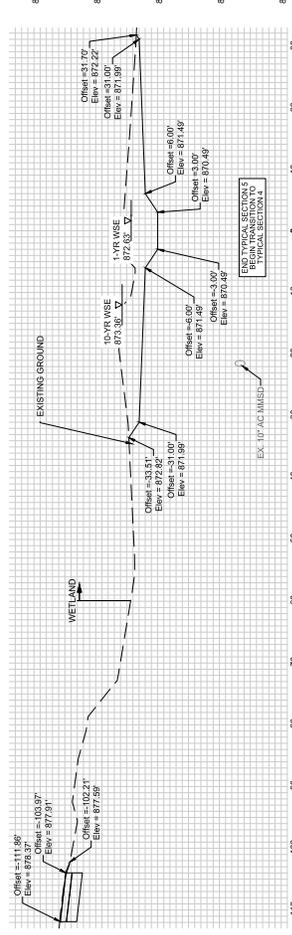
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EXISTING EL = 872.9
STA = 171+75



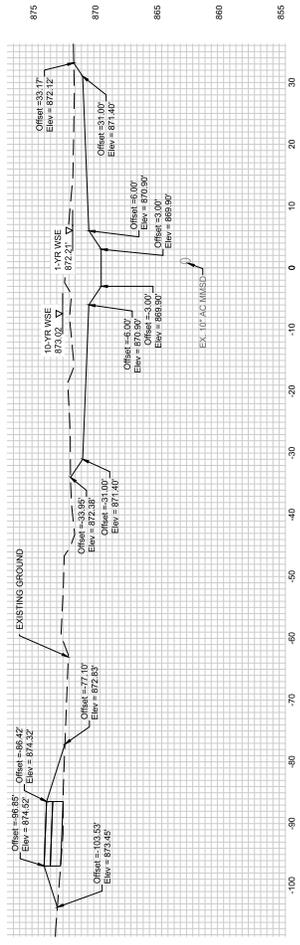
DESIGN EL = 869.61
EXISTING EL = 871.6
STA = 171+25



DESIGN EL = 871.07
EXISTING EL = 874.2
STA = 172+50



DESIGN EL = 870.49
EXISTING EL = 870.3
STA = 172+00



DESIGN EL = 869.90
EXISTING EL = 872.8
STA = 171+50

PROJECT DATE	NO.	DATE	BY
PROJECT DATE: 2023	NO.	DATE	BY
DESIGNED BY: JZ	NO.	DATE	BY
CHECKED BY: BK	NO.	DATE	BY
PROJECT NO: 2023	NO.	DATE	BY
PROJECT DATE: 2023	NO.	DATE	BY
PROJECT NO: 2023	NO.	DATE	BY
PROJECT DATE: 2023	NO.	DATE	BY

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PLANNING | ENVIRONMENTAL
CITY OF MADISON
DANE COUNTY, WISCONSIN
(608) 242-7775 www.msa-ps.com

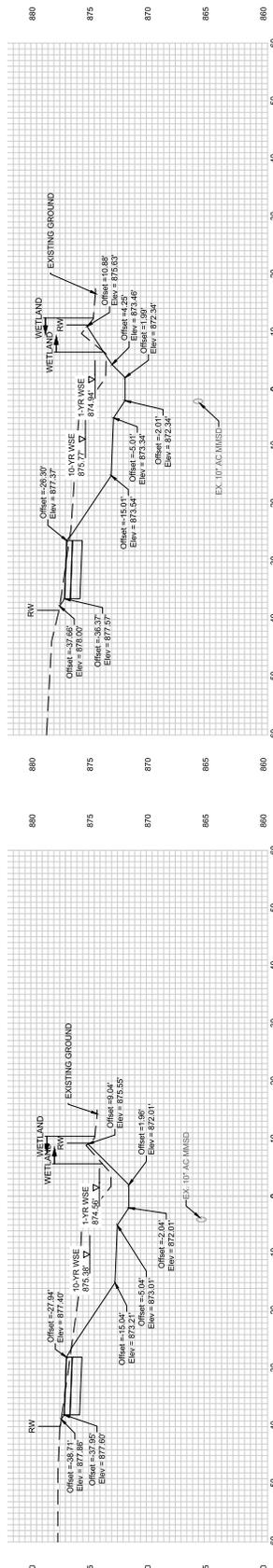


MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
CITY OF MADISON
DANE COUNTY, WISCONSIN

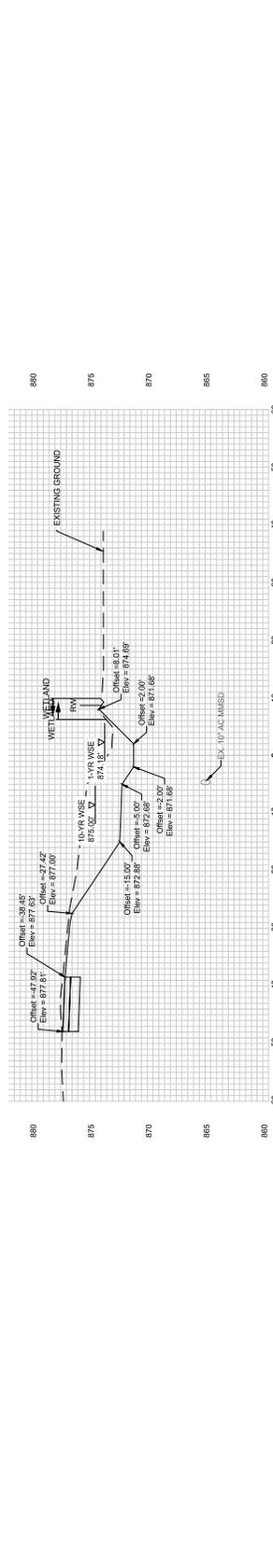
PROPOSED STREAM CROSS SECTION

PRODUCT NO: 12862
DATE: 08/16/23
CS16

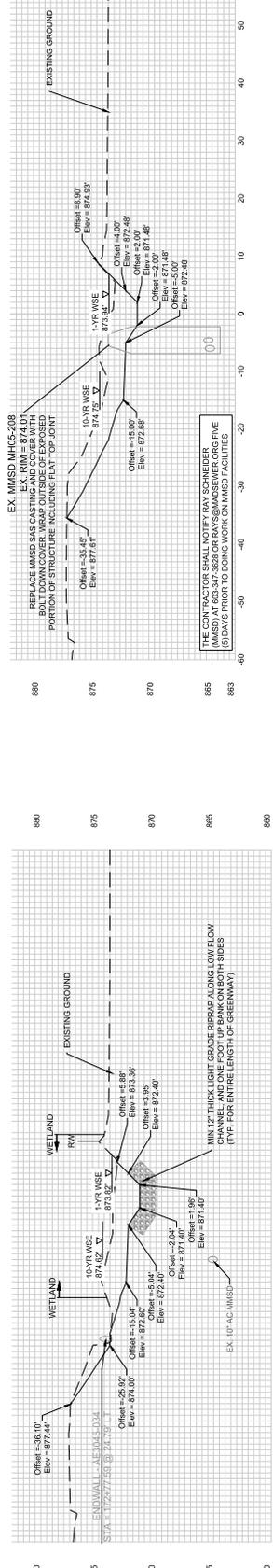
LOOKING UPSTREAM



DESIGN EL = 879.01
EXISTING EL = 874.2
STA = 173+25



DESIGN EL = 871.65
EXISTING EL = 870.9
STA = 173+50



DESIGN EL = 871.40
EXISTING EL = 873.7
STA = 172+77.71



DESIGN EL = 873.89
EXISTING EL = 873.9
STA = 172+84.93

PROJECT DATE	NO.	DATE	BY
PROJECT DATE: 2023	NO.	DATE	BY
DRAWN BY: [blank]	NO.	DATE	BY
CHECKED BY: [blank]	NO.	DATE	BY



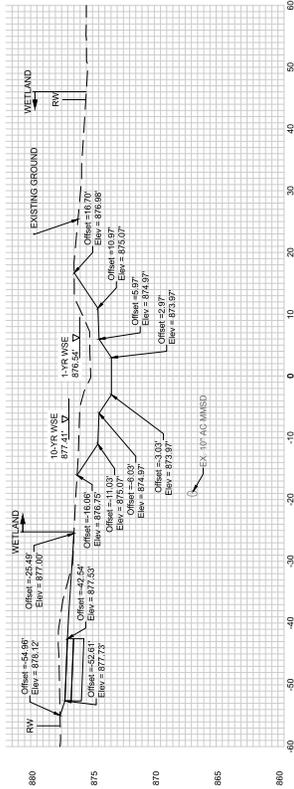
ENGINEERING ARCHITECTURE SURVEYING
FUNDING PLANNING ENVIRONMENTAL
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MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
CITY OF MADISON
DANE COUNTY, WISCONSIN

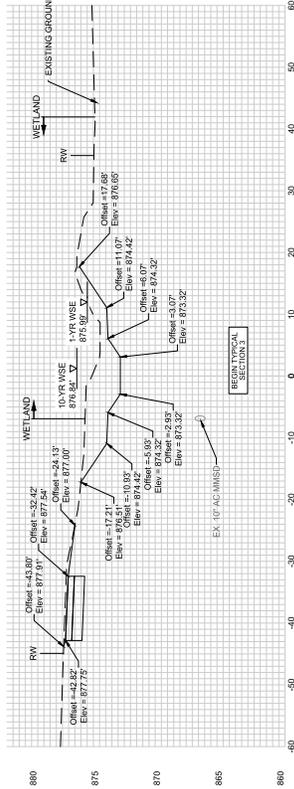
PROPOSED STREAM CROSS SECTION

PROJECT NO: 12662
SHEET: CS17

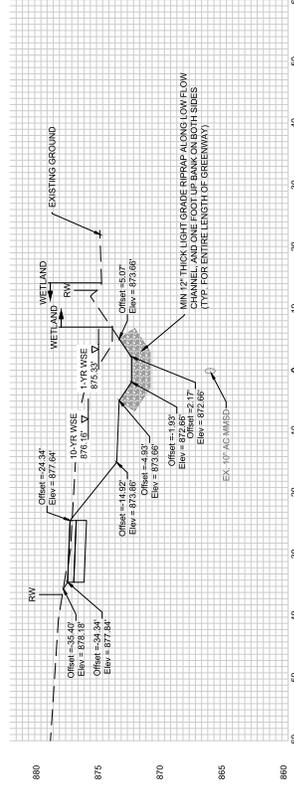
LOOKING UPSTREAM



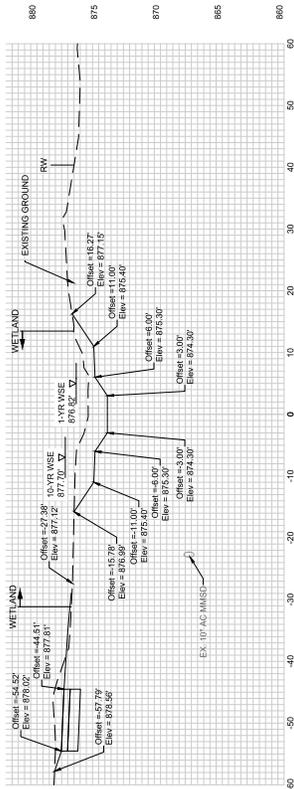
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STA = 174+75



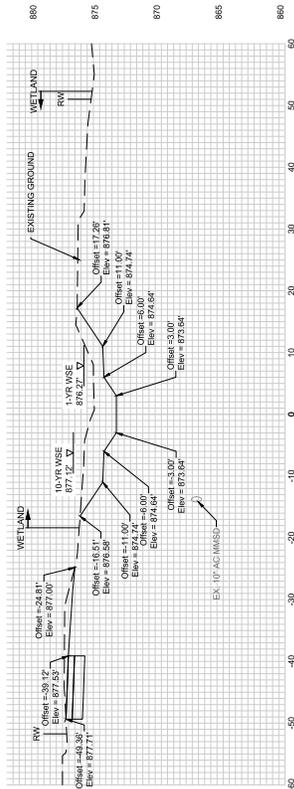
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STA = 174+25



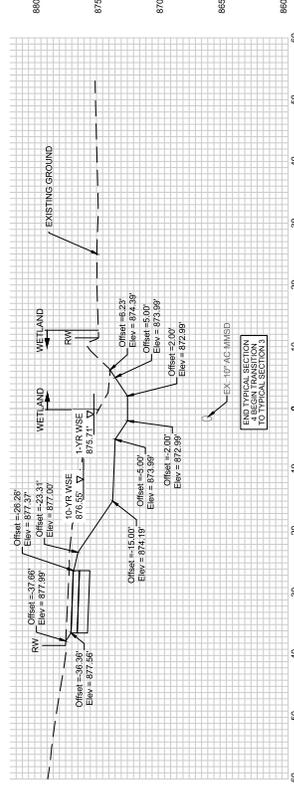
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EXISTING EL = 875.6
STA = 173+75



DESIGN EL = 874.30
EXISTING EL = 875.8
STA = 175+00



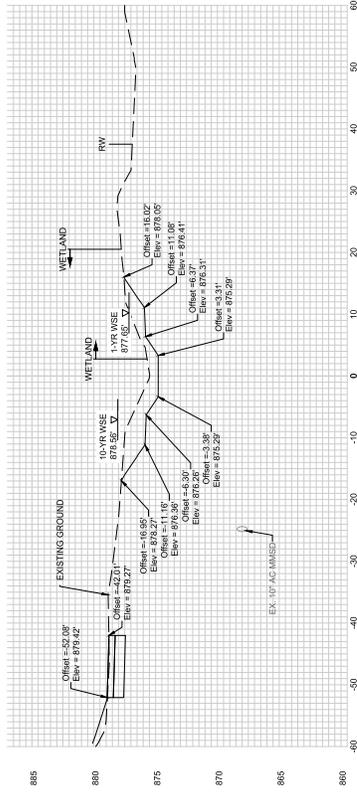
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EXISTING EL = 875.6
STA = 174+50



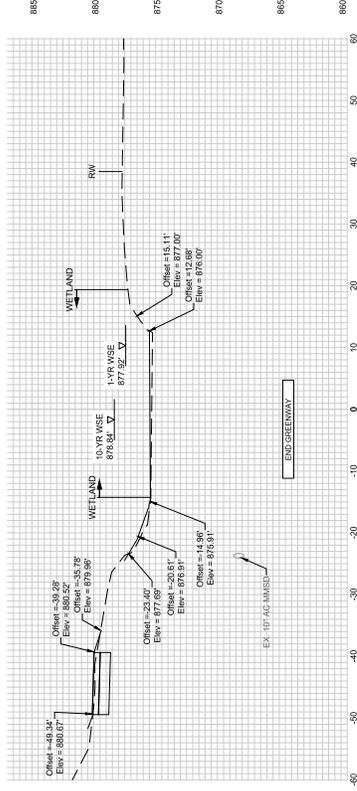
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STA = 174+00

PROJECT DATE: 2023		NO.		DATE		REVISION	
DESIGNED BY: JZ	CHECKED BY: BK	NO.	DATE	NO.	DATE	NO.	DATE
PROJECT NAME: 311028117.PK (S:\000017000117\23CAD\230503112 Cross Section.rwg)		PROJECT NO: 12862		SHEET: 11		PROJECT TITLE: MENDOTA GRASSMAN GREENWAY IMPROVEMENTS	
CITY OF MADISON		DANE COUNTY, WISCONSIN		MENDOTA GRASSMAN GREENWAY IMPROVEMENTS		PROPOSED STREAM CROSS SECTION	
ENGINEERING ARCHITECTURE SURVEYING FUNDING PLANNING ENVIRONMENTAL CONSULTANTS, INC. (608) 832-7779 www.msa-ps.com		MSA		MENDOTA GRASSMAN GREENWAY IMPROVEMENTS		PROPOSED STREAM CROSS SECTION	

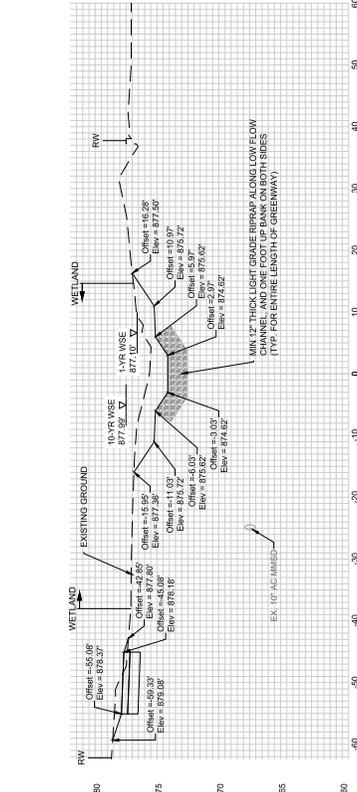
LOOKING UPSTREAM



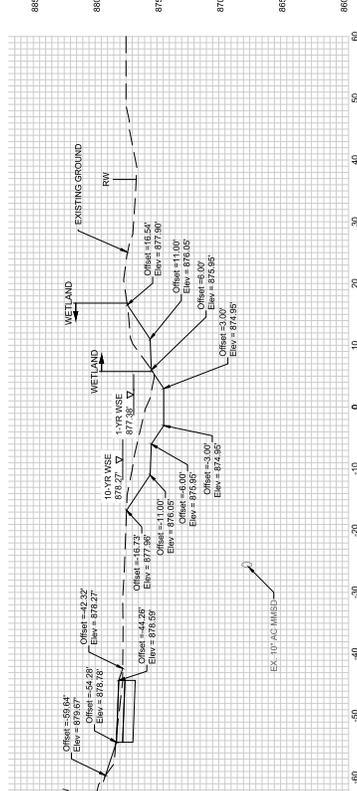
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STA. = 175+75



DESIGN EL. = 875.96
EXISTING EL. = 875.8
STA. = 175+99.07



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STA. = 175+50



DESIGN EL. = 874.95
EXISTING EL. = 876.4
STA. = 175+50

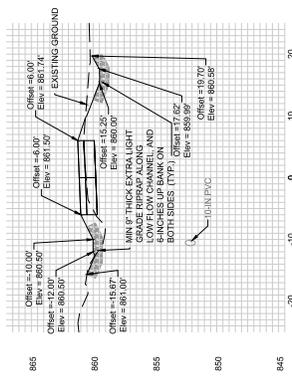
PROJECT DATE	NO.	DATE	BY
2023	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		

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MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
CITY OF MADISON
DANE COUNTY, WISCONSIN

PROPOSED STREAM CROSS SECTION

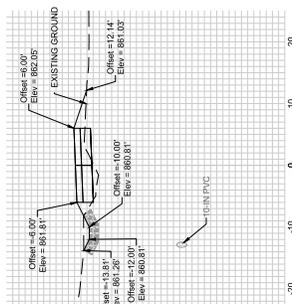
PROJECT NO.
12862
SHEET
CS19



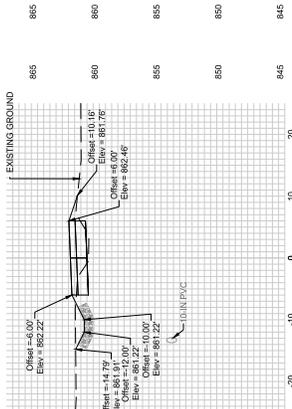
DESIGN EL. = 861.62
 EXISTING EL. = 861.1
 STA = 500+25



DESIGN EL. = 861.93
 EXISTING EL. = 860.4
 STA = 500+50



DESIGN EL. = 862.34
 EXISTING EL. = 860.9
 STA = 500+75



DESIGN EL. = 863.06
 EXISTING EL. = 861.8
 STA = 501+00

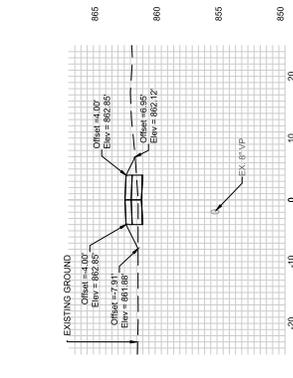
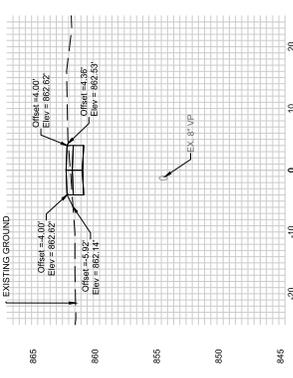
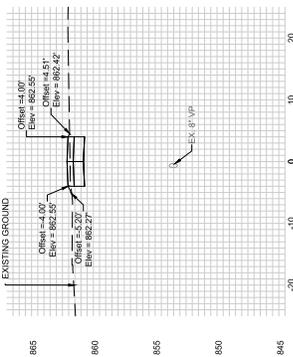
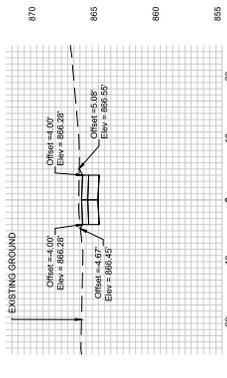
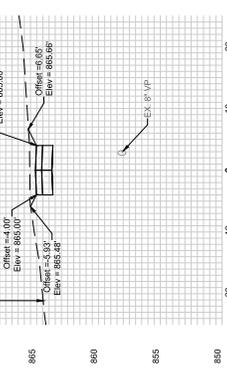
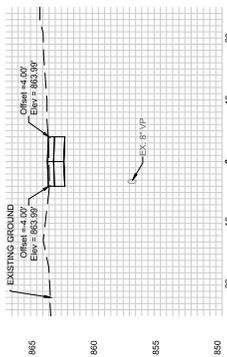
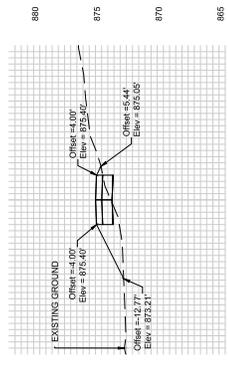
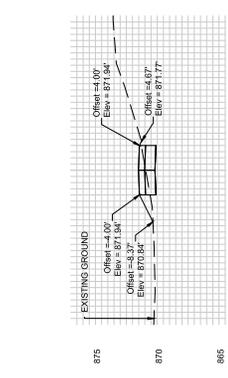
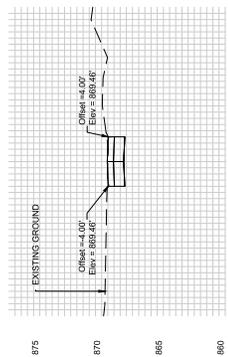


STA = 500+06.01

PROJECT DATE	NO.	DATE	BY
3/15/2023	1		

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MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
 CITY OF MADISON
 DANE COUNTY, WISCONSIN



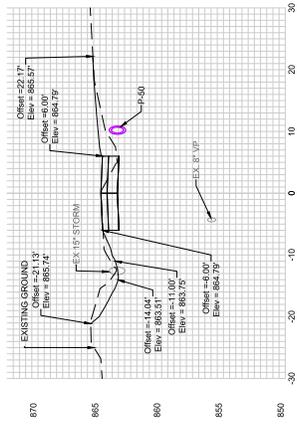
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STA. = 602+00

DESIGN EL. = 863.41
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STA. = 601+00

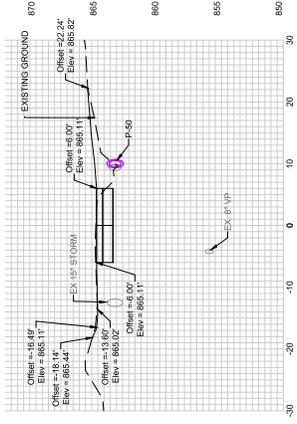
PROJECT DATE	NO.	DATE	REVISION
PROJECT DATE: 2025	NO.	DATE	REVISION
DESIGNED BY: BK	NO.	DATE	REVISION
CHECKED BY: BK	NO.	DATE	REVISION

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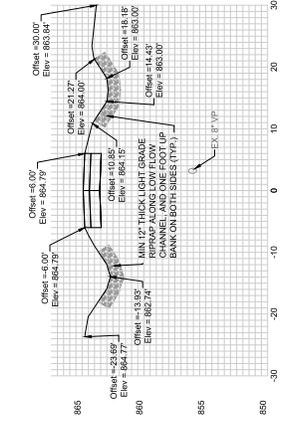
MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
 CITY OF MADISON
 DANE COUNTY, WISCONSIN



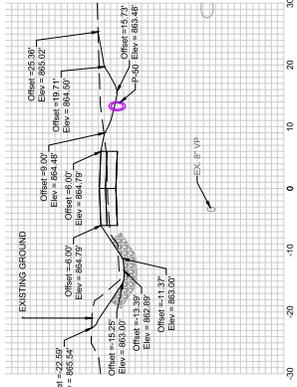
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 STA = 700+24.56



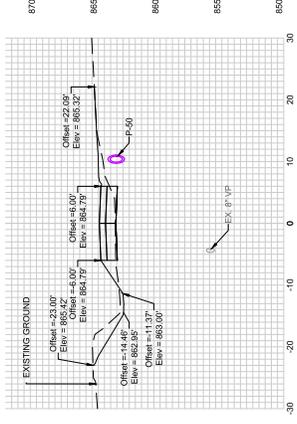
DESIGN EL. = 865.11
 EXISTING EL. = 865.2
 STA = 700+28.55



DESIGN EL. = 864.61
 EXISTING EL. = 864.9
 STA = 700+00



DESIGN EL. = 864.61
 EXISTING EL. = 864.2
 STA = 700+13.55

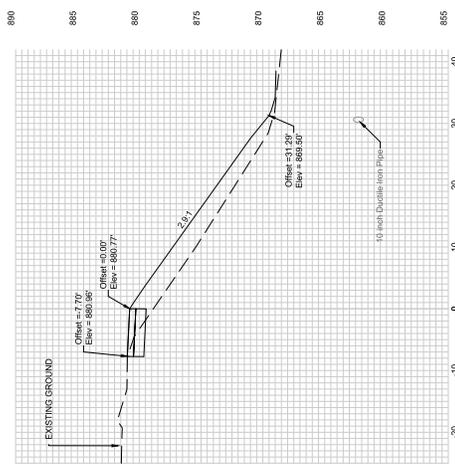


DESIGN EL. = 864.61
 EXISTING EL. = 863.6
 STA = 700+20.83

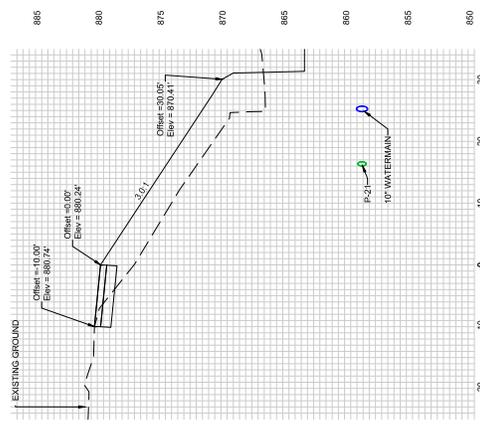
PROJECT DATE	NO.	DATE	BY
2023	1		REVISION
	2		
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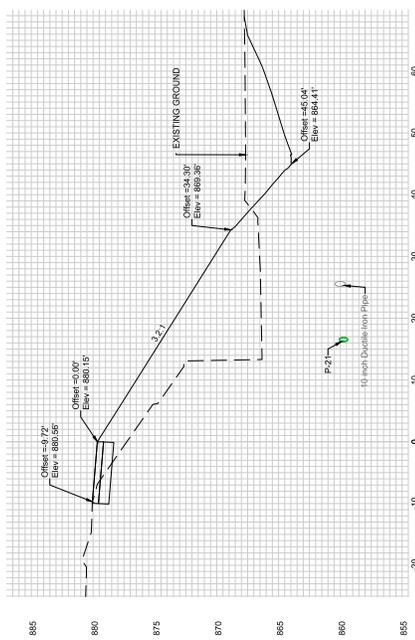
MENDOTA GRASSMAN GREENWAY IMPROVEMENTS
 CITY OF MADISON
 DANE COUNTY, WISCONSIN



DESIGN EL. = 880.77
 EXISTING EL. = 878.9
 STA = 800+65

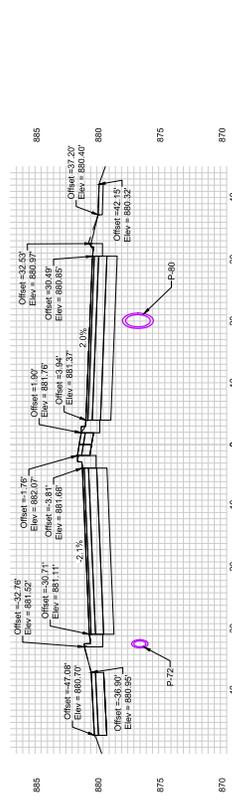
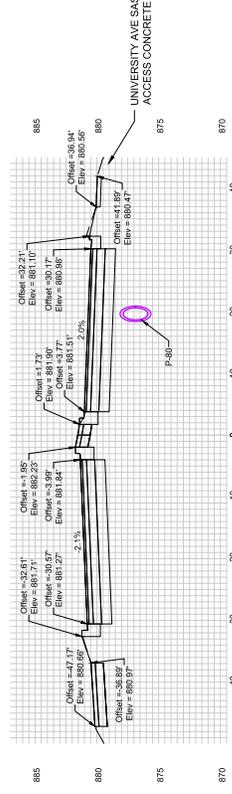
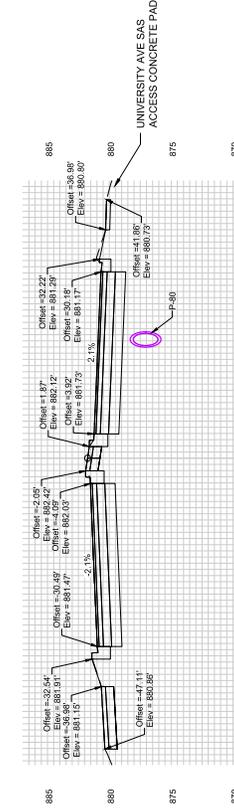
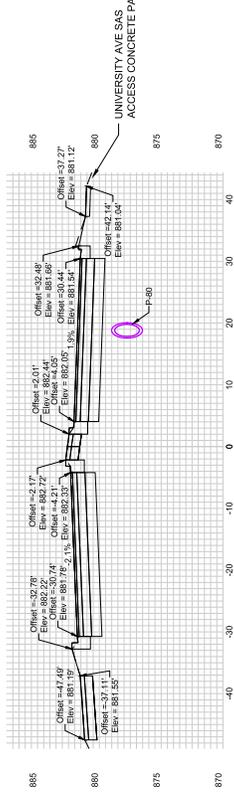


DESIGN EL. = 880.24
 EXISTING EL. = 877.5
 STA = 800+42.50



DESIGN EL. = 880.15
 EXISTING EL. = 877.8
 STA = 800+25

PROJECT DATE: 2023		NO.	DATE	BY
DESIGNED BY: [Signature]	NO.	DATE	BY	
CHECKED BY: [Signature]	NO.	DATE	BY	
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UNIVERSITY AVE SAS ACCESS ROAD CROSS SECTION			MENDOTA GRASSMAN GREENWAY IMPROVEMENTS	
CITY OF MADISON			DANE COUNTY, WISCONSIN	
PROJECT NO. 12662		SHEET		
DATE 08/23		CS23		

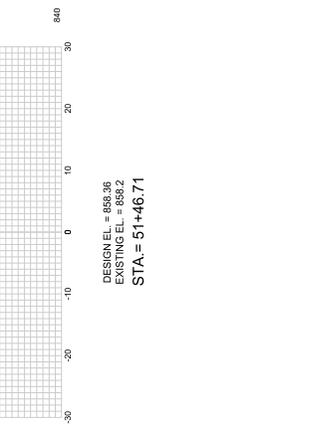
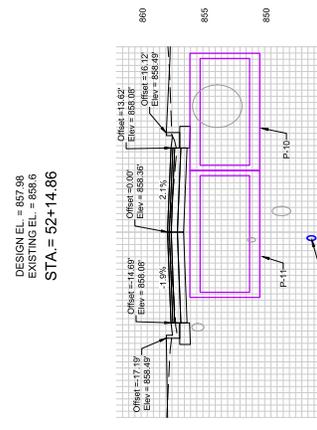
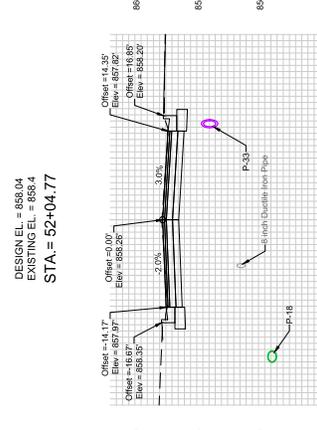
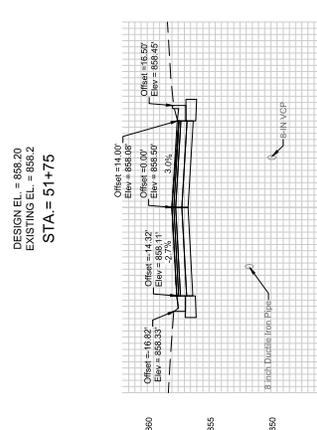
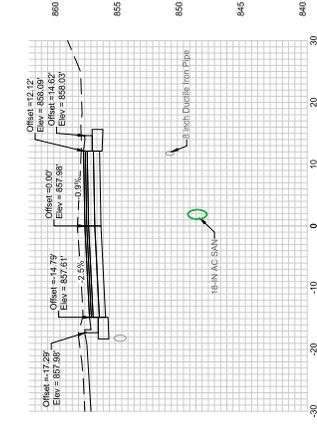
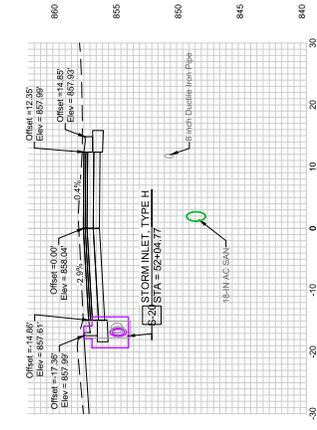
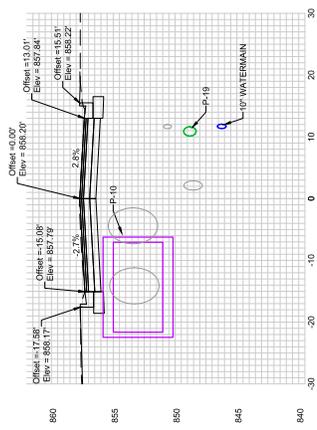


PROJECT DATE	NO.	DATE	BY
2023	1		
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PLANNING | ENVIRONMENTAL
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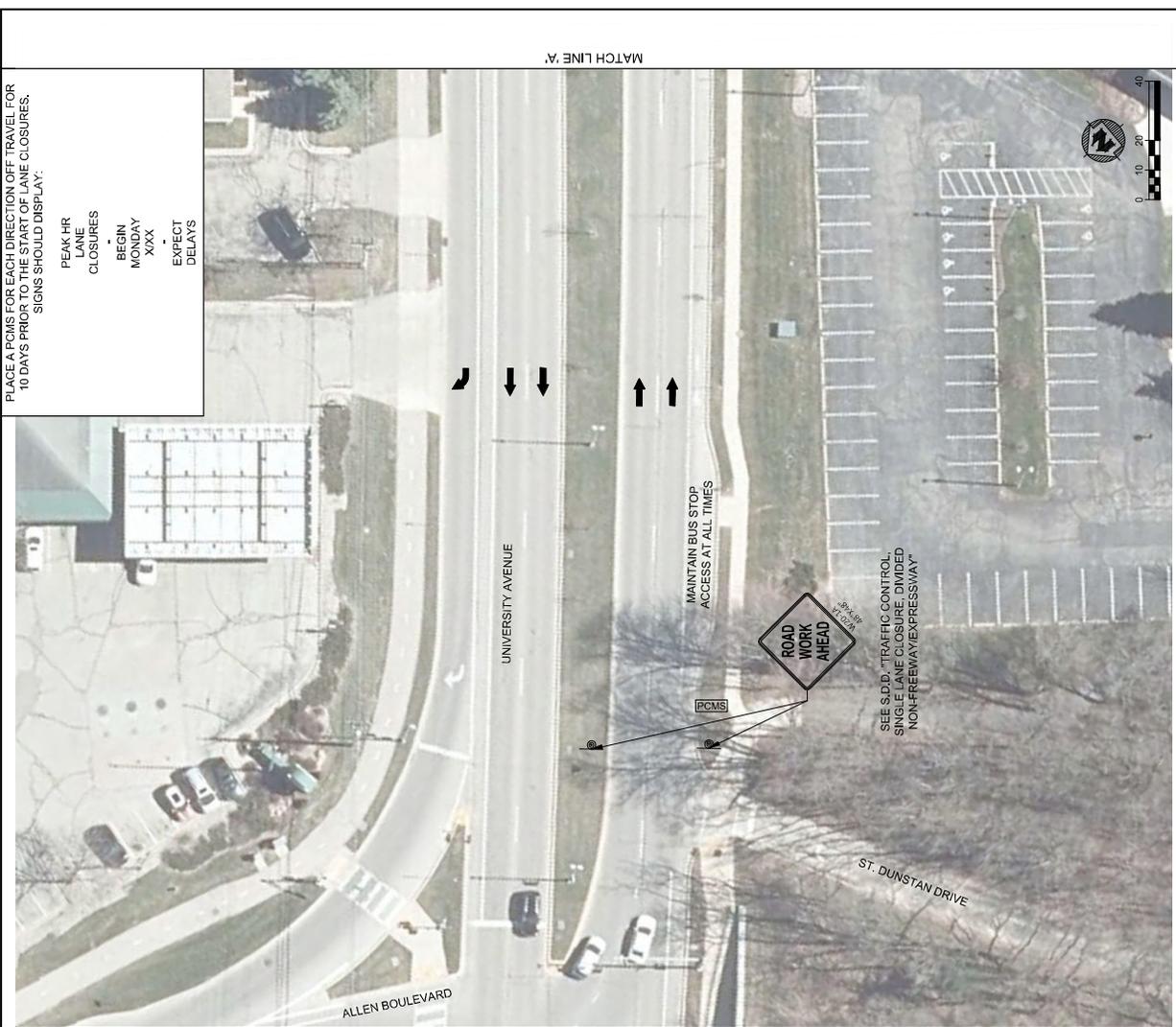
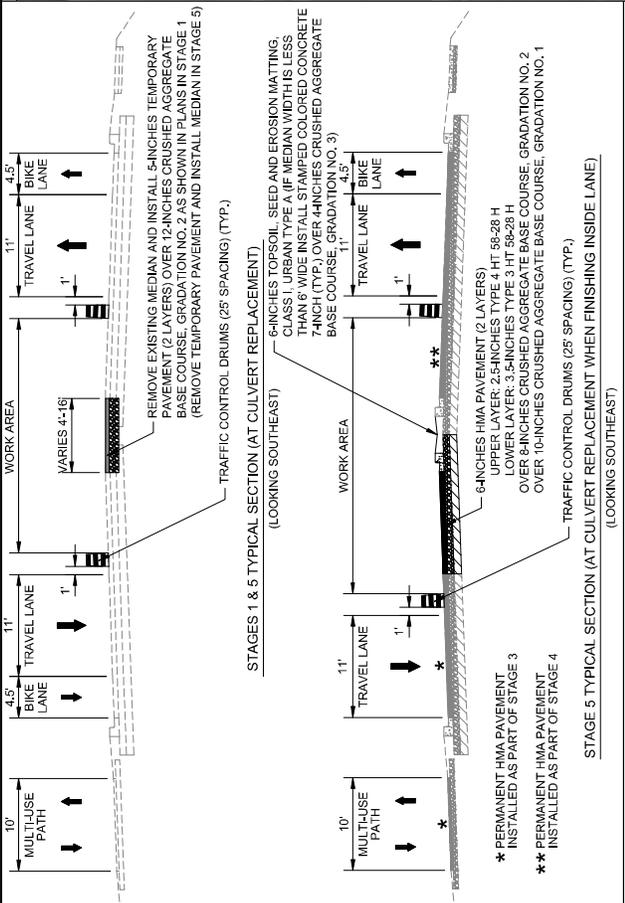
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PROJECT DATE: 2023	NO.	DATE	BY
DESIGNED BY: [Signature]	NO.	DATE	BY
CHECKED BY: [Signature]	NO.	DATE	BY
PROJECT NO. 12862	NO.	DATE	BY
PROJECT NAME: CAMELOT DRIVE ROADWAY RESTORATION CROSS SECTIONS	NO.	DATE	BY
PROJECT LOCATION: MENDOTA GRASSMAN GREENWAY IMPROVEMENTS CITY OF MADISON DANE COUNTY, WISCONSIN	NO.	DATE	BY
PROJECT DRAWING NO. CS25	NO.	DATE	BY



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LEGEND

- WORK AREA
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS
- TRAFFIC CONTROL DRUMS WITH TRAFFIC CONTROL WARNING LIGHTS TYPE C
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST AND BASE
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL ARROW BOARDS
- TRAFFIC CONTROL SIGNS PCMS
- MARKING REMOVAL LINE

XXXXX
XXXXX

5-INCHES TEMPORARY PAVEMENT (2 LAYERS) OVER 12-INCHES CRUSHED AGGREGATE BASE COURSE, GRADATION NO. 2

NO.	DATE	REVISION
1		
2		
3		



PROJECT NAME	MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT				PROJECT NO.	00073112
PROJECT DATE					DATE	TC 2
DESIGNED BY	MSA	DATE		REVISION		
CHECKED BY	MSA	DATE				
DATE	3/1/2023	TIME	11:17 AM	SCALE	AS SHOWN	



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 CULVERT REPLACEMENT
 CITY OF MADISON, DANE COUNTY, WI

TRAFFIC CONTROL PLAN - STAGES 1 & 5

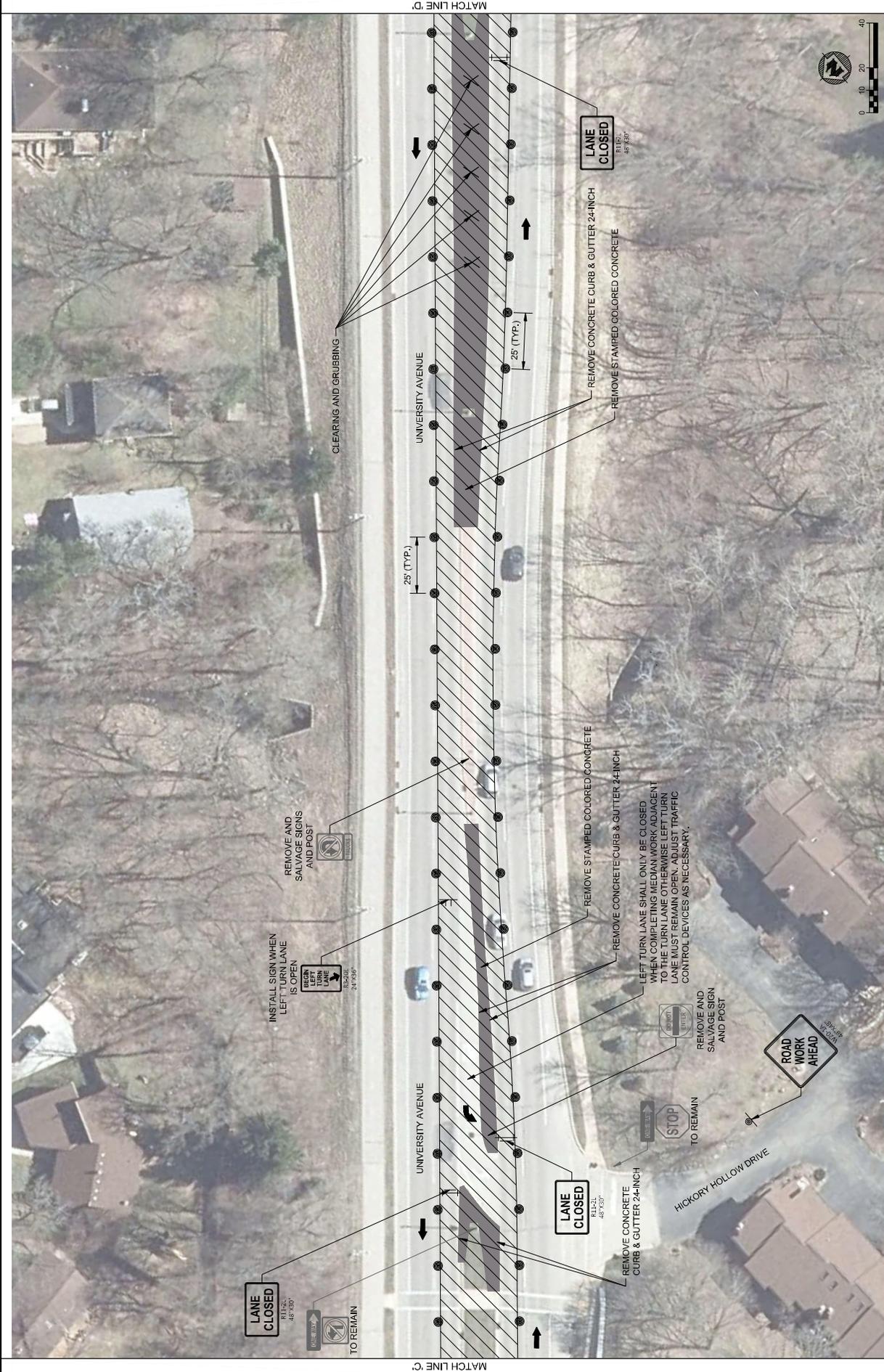


SEE S.D.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"

PROJECT DATE	002/31/24	PROJECT TITLE	MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT
PROJECT NO.	00073112	CITY OF MADISON, DANE COUNTY, WI	
DATE			
TC 3			

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REV	DATE	DESCRIPTION
1	-	-
2	-	-
3	-	-



PROJECT NAME	MENDOTA-GRASSMAN UNIVERSITY AVENUE		
PROJECT DATE	CULVERT REPLACEMENT		
PROJECT NO.	00073112		
DATE	TC 4		
DESIGNED BY	MSA	DATE	
CHECKED BY	MSA	DATE	
APPROVED BY	MSA	DATE	
CONTRACT NO.		CONTRACT DATE	
CONTRACT VALUE		CONTRACT TYPE	
CONTRACT LOCATION		CONTRACT STATUS	
CONTRACT DESCRIPTION		CONTRACT COMMENTS	

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TRAFFIC CONTROL PLAN - STAGES 1 & 5

MENDOTA-GRASSMAN UNIVERSITY AVENUE
 CULVERT REPLACEMENT
 CITY OF MADISON, DANE COUNTY, WI

PLACE A FORM FOR EACH DIRECTION OFF TRAVEL FOR 10 DAYS PRIOR TO THE START OF LANE CLOSURES. SIGNS SHOULD DISPLAY:

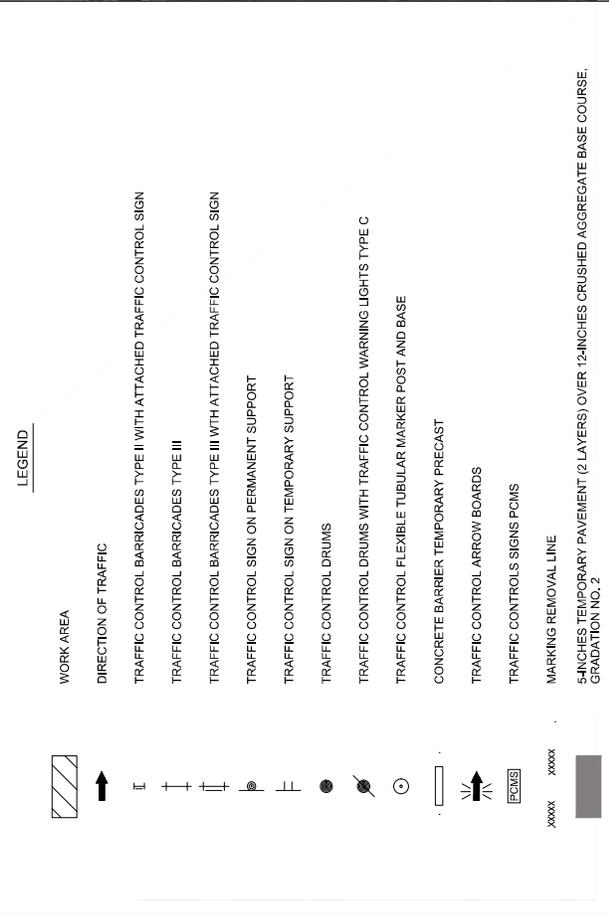
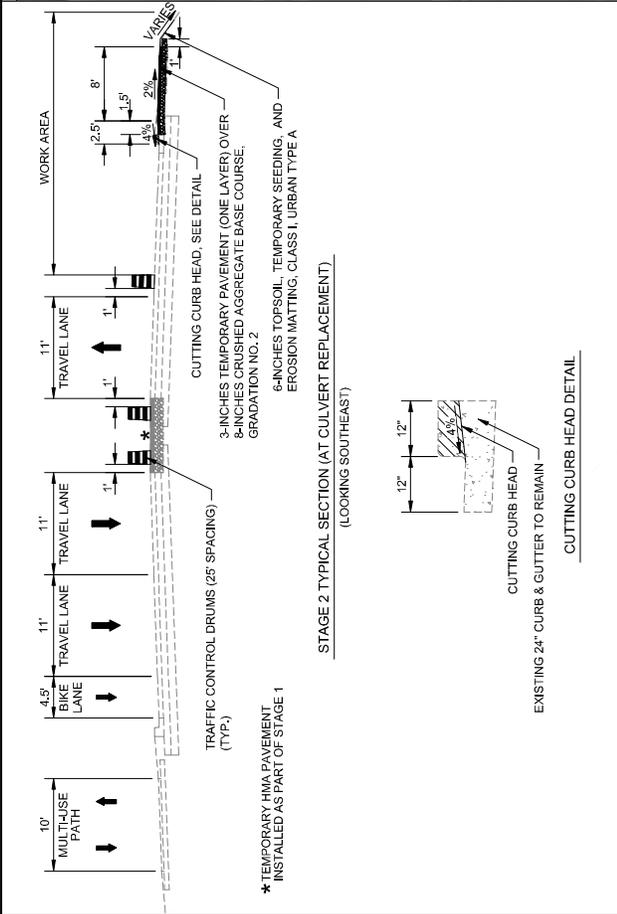
- PEAK HR
- LANE CLOSURES
- BEGIN MONDAY XXXX
- EXPECT DELAYS



PROJECT DATE	NO.	DATE	REVISION
3/1/2023	1	3/1/2023	ISSUED FOR PERMIT
	2		
	3		

PROJECT NAME	MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT
CITY OF	MADISON, DANE COUNTY, WI
PROJECT NO.	00073112
DATE	TC 6

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FUNDING PLANNING ENVIRONMENTAL	
DESIGN CONSTRUCTION	
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LEGEND

- WORK AREA
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS
- TRAFFIC CONTROL DRUMS WITH TRAFFIC CONTROL WARNING LIGHTS TYPE C
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST AND BASE
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL ARROW BOARDS
- TRAFFIC CONTROL SIGNS POIS
- MARKING REMOVAL LINE

XXXXX
XXXXX

5-INCHES TEMPORARY PAVEMENT (2 LAYERS) OVER 12-INCHES CRUSHED AGGREGATE BASE COURSE, GRADATION NO. 2

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**MENDOTA-GRASSMAN UNIVERSITY AVENUE
CULVERT REPLACEMENT
CITY OF MADISON, DANE COUNTY, WI**

TRAFFIC CONTROL PLAN - STAGE 2

PROJECT NO. 00073112
DATE: TC.7



PROJECT NAME	MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT CITY OF MADISON, DANE COUNTY, WI			
PROJECT NO.	00073112			
DATE	TC 6			
DESIGNED BY	MSA	DATE		REVISION
CHECKED BY	MSA	DATE		
DATE	3/1/2017	DATE		

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TRAFFIC CONTROL PLAN - STAGE 2

PROJECT NO. 00073112
 DATE TC 6



PROJECT NO. 00073112	PROJECT TITLE MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT CITY OF MADISON, DANE COUNTY, WI	DATE TC 9	
ENGINEERING ARCHITECTURE SUPERVISING PLANNING ENVIRONMENTAL DESIGN (608) 242-7775 www.msa-inc.com © 2015 MSA Incorporated, Madison, WI			
PROJECT NAME	NO.	DATE	BY
DESIGNED BY	2	-	-
CHECKED BY	3	-	-
DATE	3/13/15	3/13/15	3/13/15



PROJECT NAME	DATE	NO.	BY	REVISION
UNIVERSITY AVENUE	02/20/24	1	MSA	
DESIGNED BY		2	MSA	
CHECKED BY		3	MSA	

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**MENDOTA-GRASSMAN UNIVERSITY AVENUE
 CULVERT REPLACEMENT
 CITY OF MADISON, DANE COUNTY, WI**

PROJECT NO.
00073112
 SHEET
TC 10

TRAFFIC CONTROL PLAN - STAGE 2

MATCH LINE C
 MATCH LINE D



PROJECT DATE: 02/20/23	DATE: 02/20/23	NO.:	DATE:	BY:
DESIGNED BY: BSA	2	REVISION:		
CHECKED BY: BSA	3			
PROJECT NAME: MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT				
CITY OF MADISON, DANE COUNTY, WI				
PROJECT NO: 00073112				
SCALE: TC 11				


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TRAFFIC CONTROL PLAN - STAGE 2

MATCH LINE E

MATCH LINE D



PROJECT NO. 00073112	DATE TC 12		
TRAFFIC CONTROL PLAN - STAGE 2			
MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT CITY OF MADISON, DANE COUNTY, WI			
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PROJECT DATE	DATE	NO.	DESCRIPTION
REVISED BY: BSM	2		
CHECKED BY: BSM	3		
DATE: 3/12/2012 11:30 AM			

ROAD WORK AHEAD

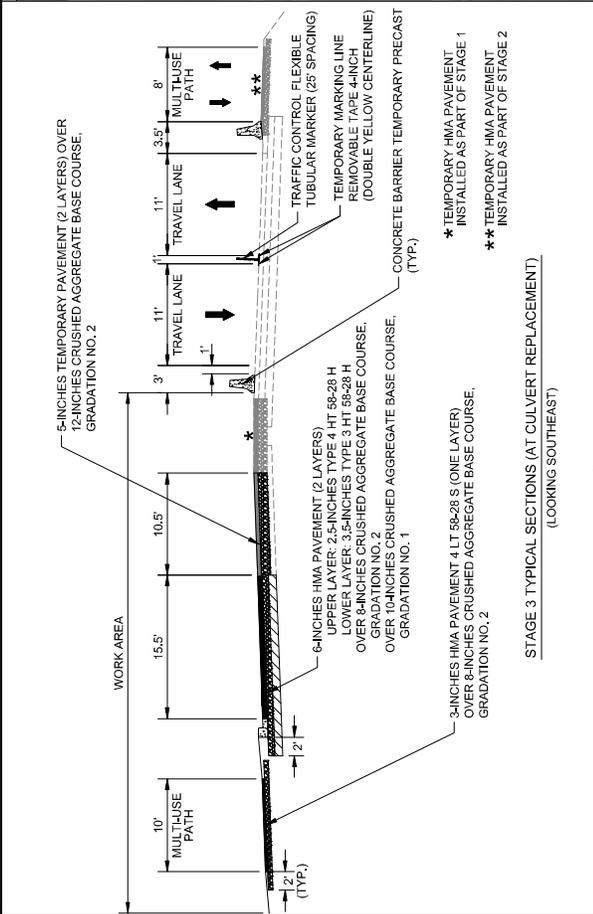
SPEED LIMIT 35 TO REMAIN

END ROAD WORK

MAINTAIN BUS STOP ACCESS AT ALL TIMES

MAINTAIN BUS STOP ACCESS AT ALL TIMES

MATCH LINE E.



STAGE 3 TYPICAL SECTIONS (AT CULVERT REPLACEMENT) (LOOKING SOUTHEAST)

LEGEND

WORK AREA

DIRECTION OF TRAFFIC

TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED TRAFFIC CONTROL SIGN

TRAFFIC CONTROL BARRICADES TYPE III

TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED TRAFFIC CONTROL SIGN

TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUMS

TRAFFIC CONTROL DRUMS WITH TRAFFIC CONTROL WARNING LIGHTS TYPE C

TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST AND BASE

CONCRETE BARRIER TEMPORARY PRECAST

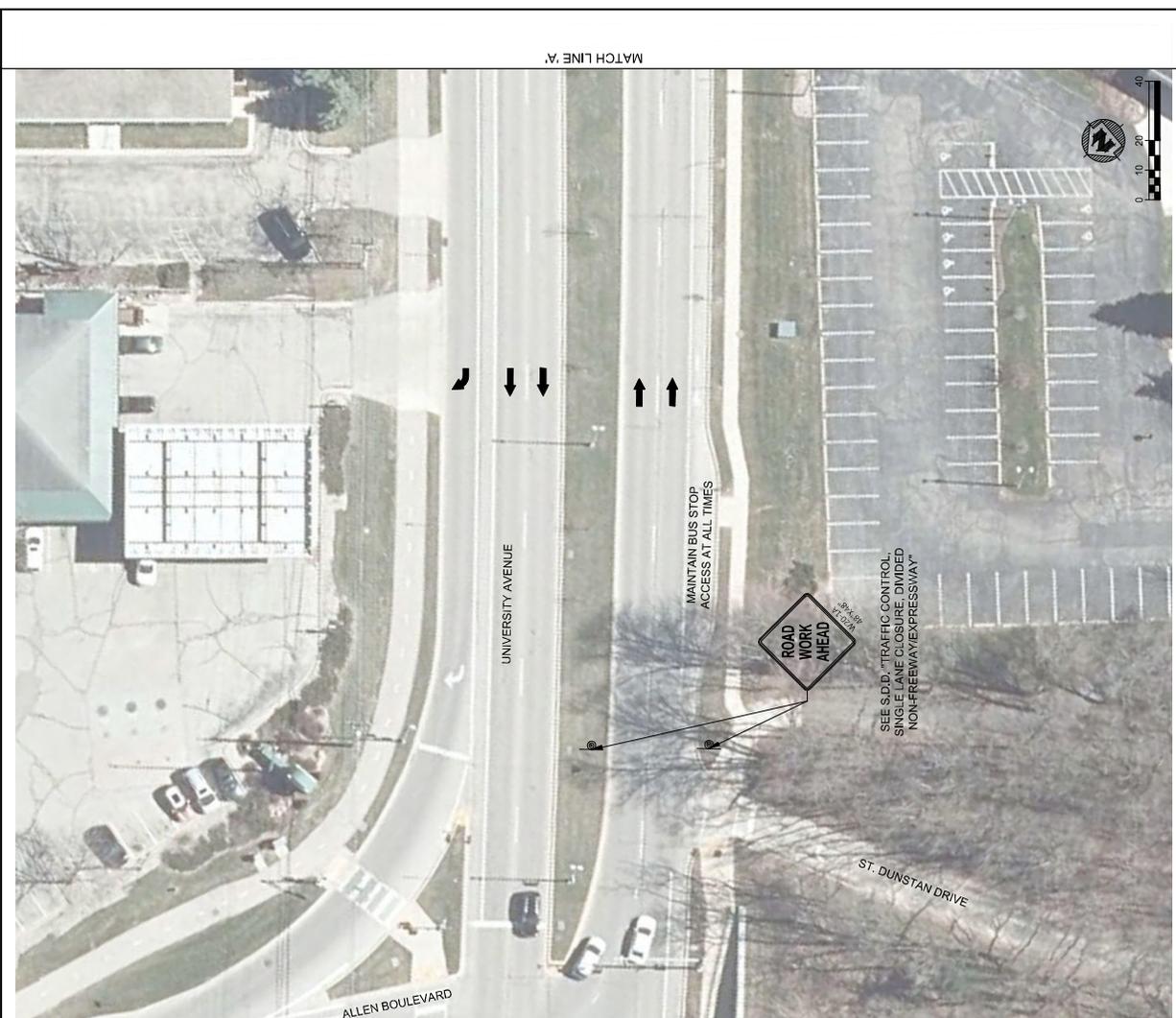
TRAFFIC CONTROL ARROW BOARDS

TRAFFIC CONTROL SIGNS PCMS

MARKING REMOVAL LINE

5-INCHES TEMPORARY PAVEMENT (2 LAYERS) OVER 12-INCHES CRUSHED AGGREGATE BASE COURSE, GRADATION NO. 2

FLAGS, 16" X 16" MIN., (ORANGE)



PROJECT DATE	NO.	DATE	REVISION
	DESIGNED BY: BSH	2	-
	CHECKED BY: BSH	3	-
	DATE: 01/06/2017		

PROJECT NO. 00073112

DATE TC 13

MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT

CITY OF MADISON, DANE COUNTY, WI

TRAFFIC CONTROL PLAN - STAGE 3

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PROJECT NAME	MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT CITY OF MADISON, DANE COUNTY, WI			PROJECT NO.	00073112
DATE				SCALE	TC 14
NO.	DATE	BY	REVISION		
1					
2					
3					
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PROJECT DATE					
DATE					
BY					
CHECKED BY					
DATE					



PROJECT DATE	NO.	DATE	BY
0007/3112 <td>1 <td> <td>REVISION</td> </td></td>	1 <td> <td>REVISION</td> </td>	<td>REVISION</td>	REVISION
	2		
	3		

PROJECT NAME: MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT
 CITY OF MADISON, DANE COUNTY, WI

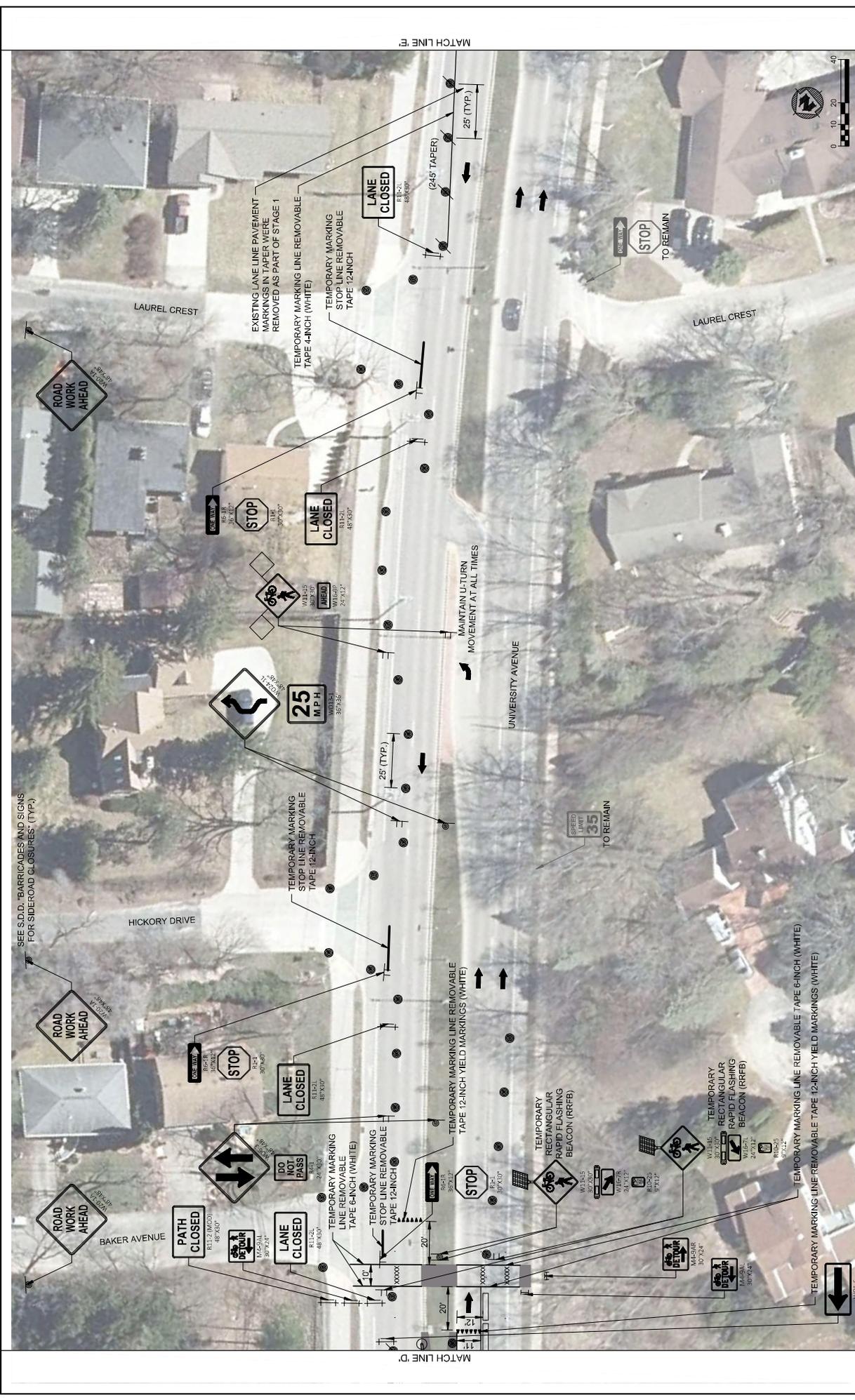
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TRAFFIC CONTROL PLAN - STAGE 3

SEE S.I.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"

PROJECT NO. 0007/3112
 SHEET NO. TC 15



SEE S.D.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (TYP.)

PROJECT NAME		00073112	
PROJECT DATE		TC 17	
TRAFFIC CONTROL PLAN - STAGE 3			
ENGINEERING ARCHITECTURE SURVEYING PLANNING ENVIRONMENTAL CONSULTING		MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT CITY OF MADISON, DANE COUNTY, WI	
		SEE S.D.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (TYP.)	
REV	DATE	BY	REVISION
1			
2			
3			



PROJECT DATE	NO.	DATE	REVISION
2/1/2023	1	2/1/2023	1
	2		2
	3		3

PROJECT NAME: MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT
 CITY OF MADISON, DANE COUNTY, WI

PROJECT NO: 00073112
 SHEET: TC 18

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TRAFFIC CONTROL PLAN - STAGE 3

MENDOTA-GRASSMAN UNIVERSITY AVENUE
 CULVERT REPLACEMENT
 CITY OF MADISON, DANE COUNTY, WI

SEE S.D.D. "TRAFFIC CONTROL"
 SINGLE LANE CLOSURE, DIVIDED
 NON-FREEWAY/EXPRESSWAY

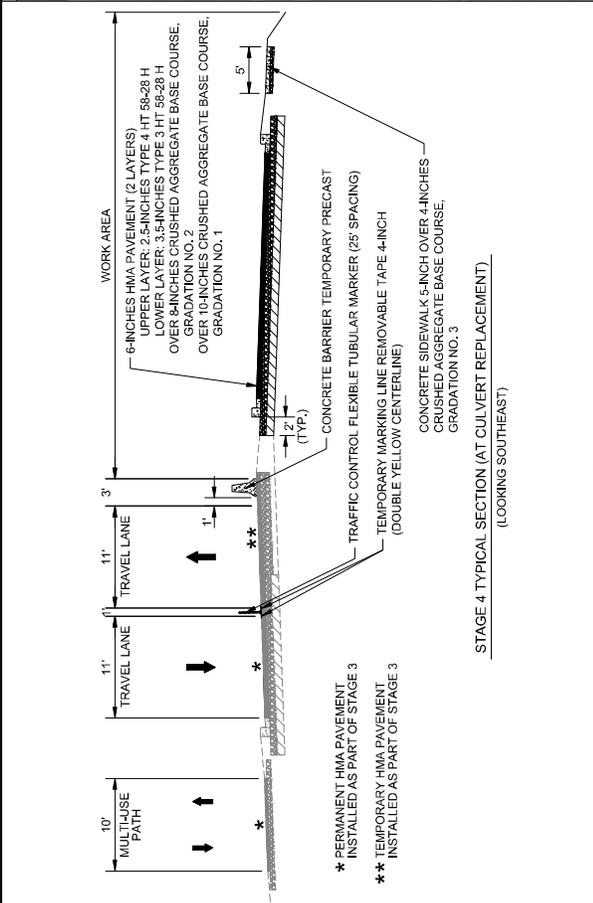


INSTALL SIGNS AT FRITZ AVENUE INTERSECTION

INSTALL SIGNS AT NORMAN WAY INTERSECTION

SEE S.D.D. "TRAFFIC CONTROL"
 SINGLE LANE CLOSURE, DIVIDED
 NON-FREEWAY/EXPRESSWAY

MATCH LINE 'E'



- LEGEND**
- WORK AREA
 - DIRECTION OF TRAFFIC
 - TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED TRAFFIC CONTROL SIGN
 - TRAFFIC CONTROL BARRICADES TYPE III
 - TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED TRAFFIC CONTROL SIGN
 - TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
 - TRAFFIC CONTROL SIGN ON TEMPORARY SUPPORT
 - TRAFFIC CONTROL DRUMS
 - TRAFFIC CONTROL DRUMS WITH TRAFFIC CONTROL WARNING LIGHTS TYPE C
 - TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST AND BASE
 - CONCRETE BARRIER TEMPORARY PRECAST
 - TRAFFIC CONTROL ARROW BOARDS
 - TRAFFIC CONTROL SIGNS PCMS
 - MARKING REMOVAL LINE
 - 5-INCHES TEMPORARY PAVEMENT (2 LAYERS) OVER 12-INCHES CRUSHED AGGREGATE BASE COURSE
GRADATION NO. 2
 - FLAGS: 16" X 16" MIN. (ORANGE)





MATCH LINE B

MATCH LINE A

PROJECT NAME		DATE		REV		BY	
MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT CITY OF MADISON, DANE COUNTY, WI		-		2		-	
PROJECT NO.		DATE		REV		BY	
00073112		-		3		-	
SHEET NO.		DATE		REV		BY	
TC 20		-		-		-	
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TRAFFIC CONTROL PLAN - STAGE 4

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 CULVERT REPLACEMENT
 CITY OF MADISON, DANE COUNTY, WI

SEE S.D.D. "TRAFFIC CONTROL, DIVIDED SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY"

SEE S.D.D. "TRAFFIC CONTROL, DIVIDED SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY"

SEE S.D.D. "TRAFFIC CONTROL, DIVIDED SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY"

SEE S.D.D. "TRAFFIC CONTROL, DIVIDED SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY"

END ROAD WORK
CONCRETE ASPHALT

STOP
 TO REMAIN

STOP
 TO REMAIN

SPEED LIMIT 35
 TO REMAIN

RIGHT LANE CLOSED AHEAD

BIKE LANE CLOSED AHEAD

BIKE LANE CLOSED AHEAD

OVERLOOK PASS

UNIVERSITY AVENUE





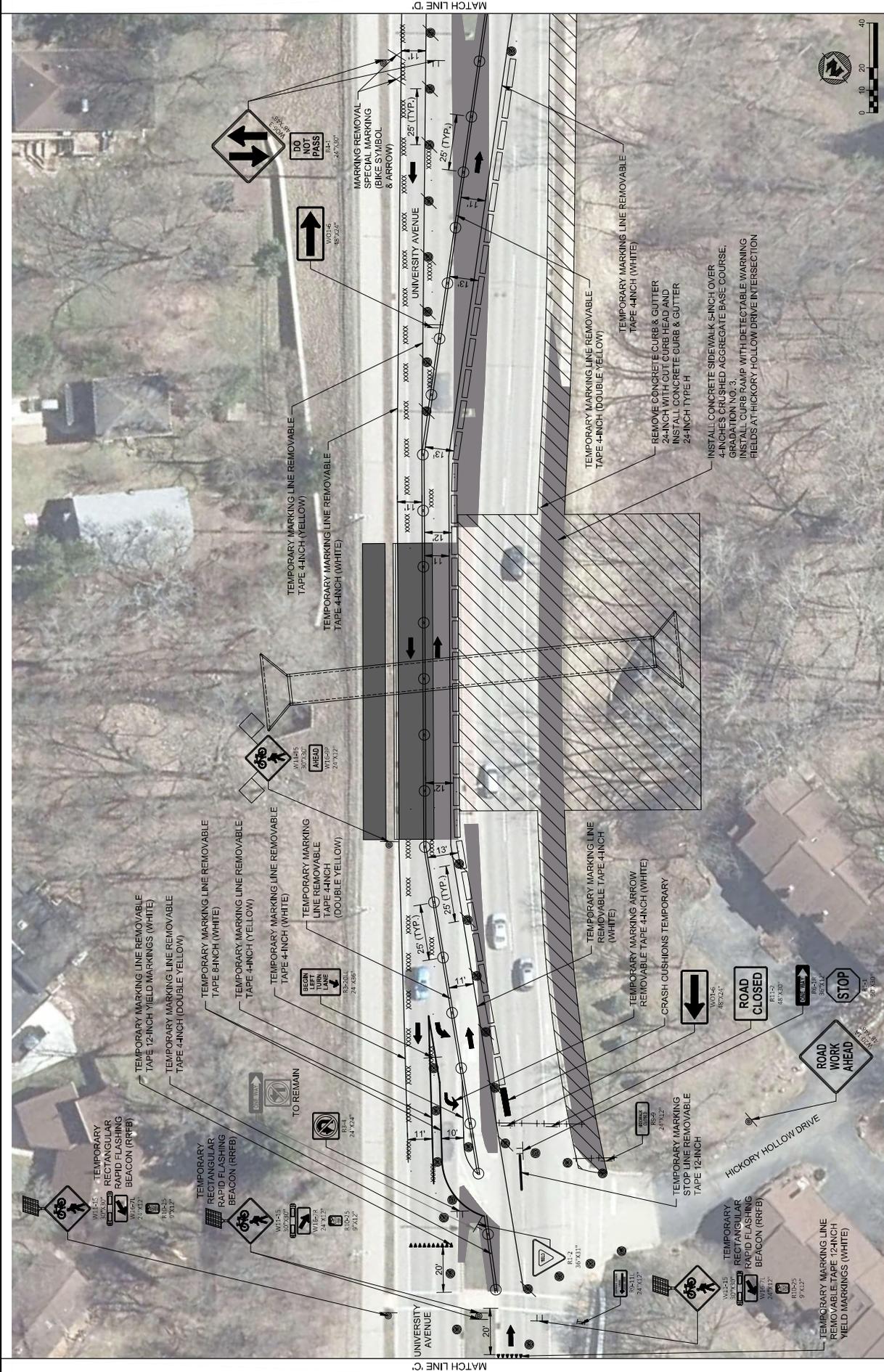
SEE S.I.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"

PROJECT DATE	NO.	DATE	REVISION
	1		
	2		
	3		

PROJECT NO. 00073112
 SHEET NO. TC 21

MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT
 CITY OF MADISON, DANE COUNTY, WI

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NO.	DATE	BY	REVISION
1			
2			
3			

PROJECT DATE: 02/28/2023
 PROJECT NAME: TRAFFIC CONTROL PLAN - STAGE 4
 PROJECT NO: 00073112
 SHEET NO: TC 22

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**MENDOTA-GRASSMAN UNIVERSITY AVENUE
 CULVERT REPLACEMENT
 CITY OF MADISON, DANE COUNTY, WI**

TRAFFIC CONTROL PLAN - STAGE 4

PROJECT NO: 00073112
 SHEET NO: TC 22



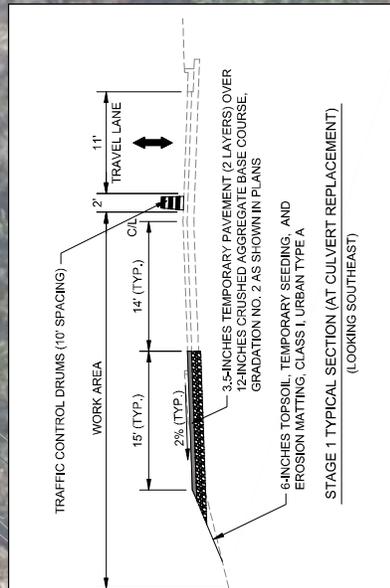
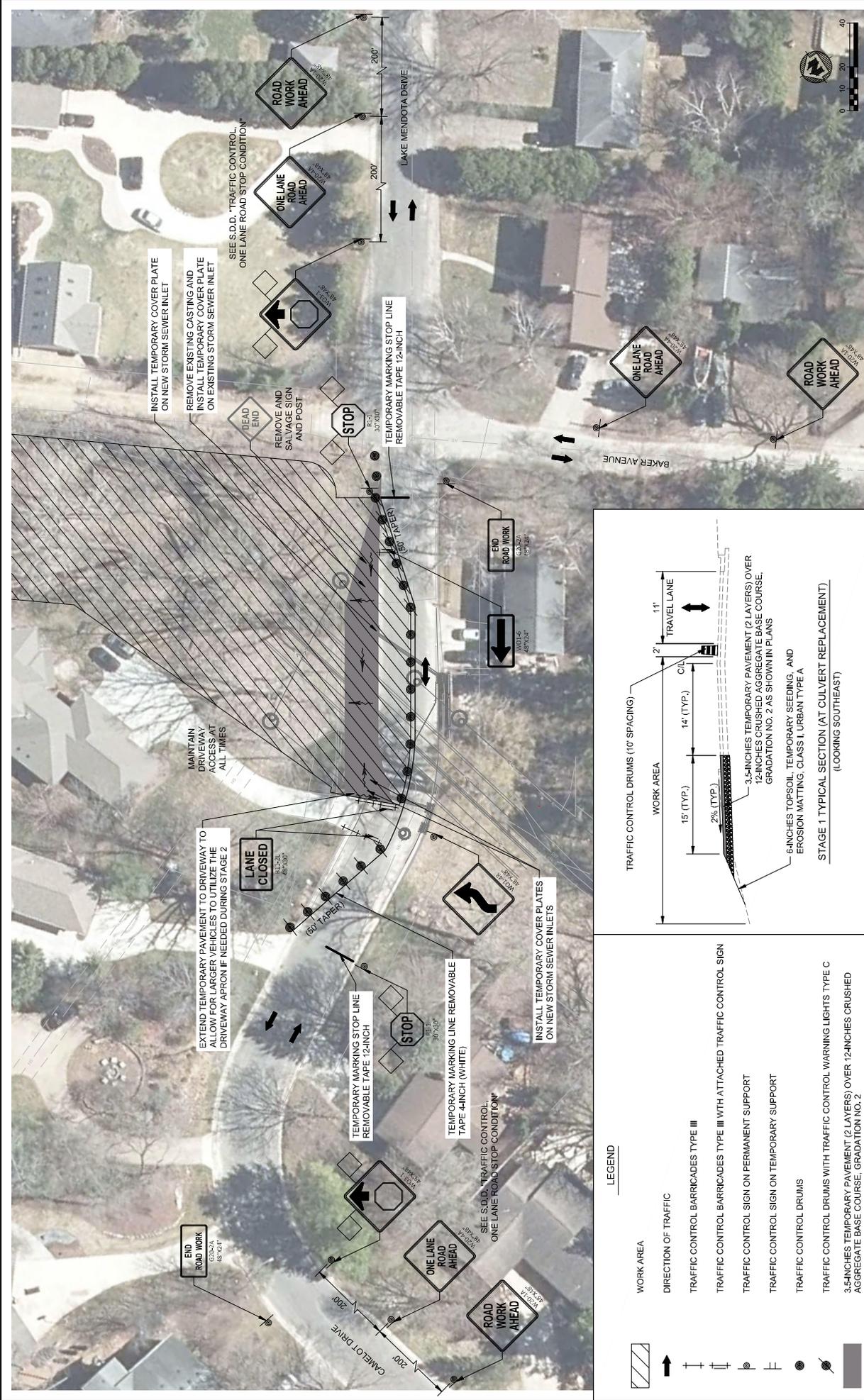
NO.	DATE	REVISION
1	02/24/24	ISSUED FOR PERMIT
2	03/28/24	REVISED BY: [Name]
3	04/08/24	REVISED BY: [Name]

PROJECT DATE: 02/24/24
 PROJECT NO: 00073112
 PROJECT NAME: MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT
 CITY OF MADISON, DANE COUNTY, WI

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TRAFFIC CONTROL PLAN - STAGE 4

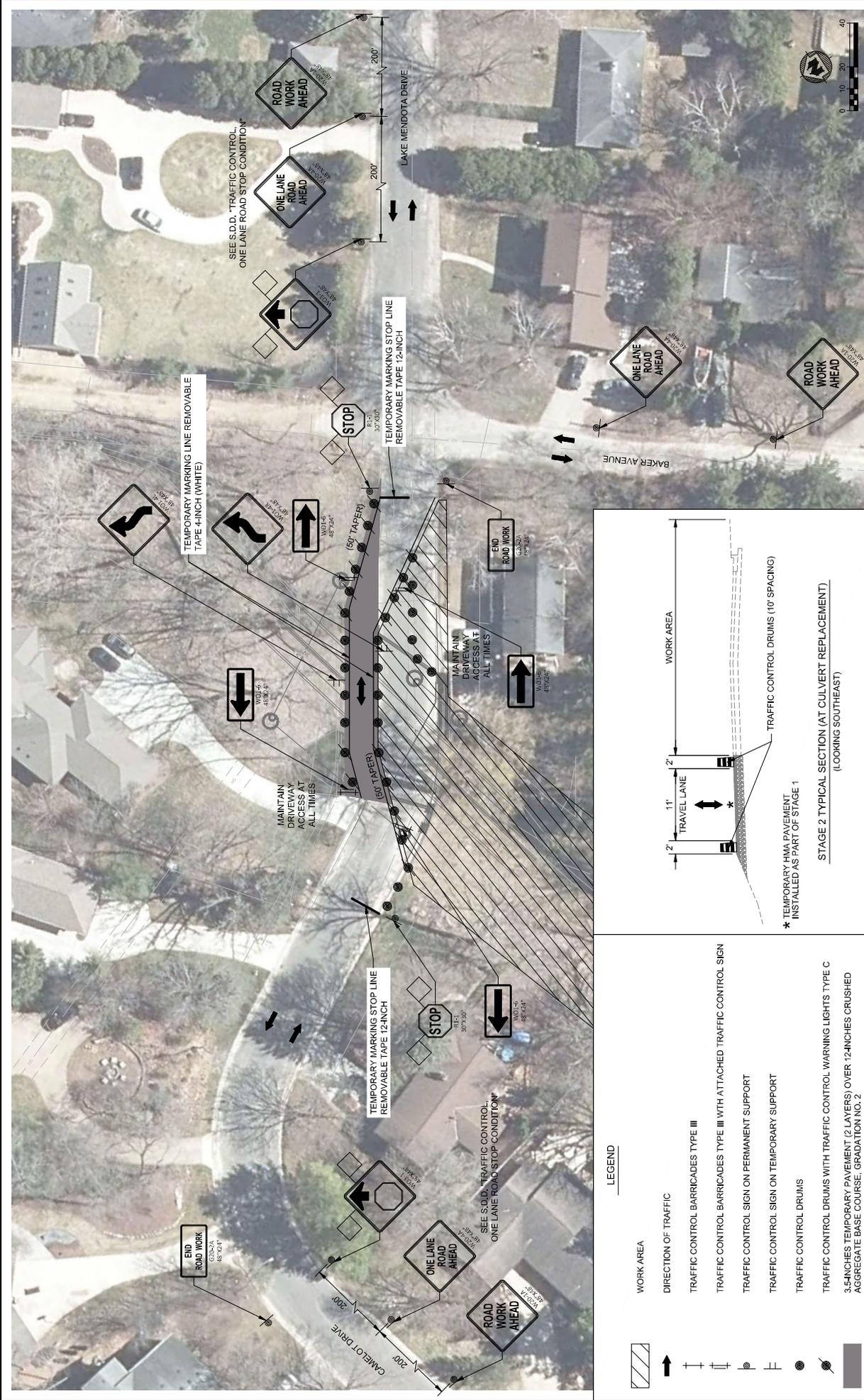
PROJECT NO: 00073112
 SHEET: TC 23



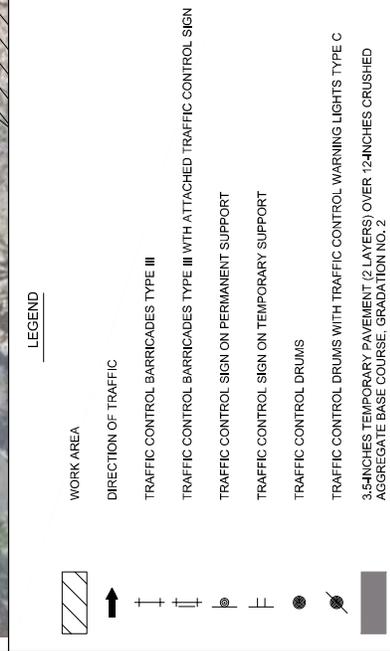
LEGEND

- WORK AREA
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS
- TRAFFIC CONTROL DRUMS WITH TRAFFIC CONTROL WARNING LIGHTS TYPE C
- 3.5-INCHES TEMPORARY PAVEMENT (2 LAYERS) OVER 12-INCHES CRUSHED AGGREGATE BASE COURSE, GRADATION NO. 2

NO.	DATE	REVISION
1		
2		
3		



PROJECT NO. 00073112		DATE TC 26	
PROJECT NAME TRAFFIC CONTROL PLAN - CAMELOT DRIVE STAGE 2		PROJECT LOCATION MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT CITY OF MADISON, DANE COUNTY, WI	
ENGINEERING ARCHITECTURE SURVEYING PLANNING ENVIRONMENTAL MSA (608) 242-7775 www.msa-jp.com <small>© 2018 Mendenhall-Morris Inc.</small>			
REV	DATE	DESCRIPTION	BY
1	10/15/18	ISSUED FOR PERMITS	...
2	10/15/18	ISSUED FOR PERMITS	...
3	10/15/18	ISSUED FOR PERMITS	...



LEGEND

- WORK AREA
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS
- TRAFFIC CONTROL DRUMS WITH TRAFFIC CONTROL WARNING LIGHTS TYPE C
- 3.5-INCHES TEMPORARY PAVEMENT (2 LAYERS) OVER 12-INCHES CRUSHED AGGREGATE BASE COURSE GRADATION NO. 2



SDD 15D32 Traffic Control, One Lane Road Stop Condition

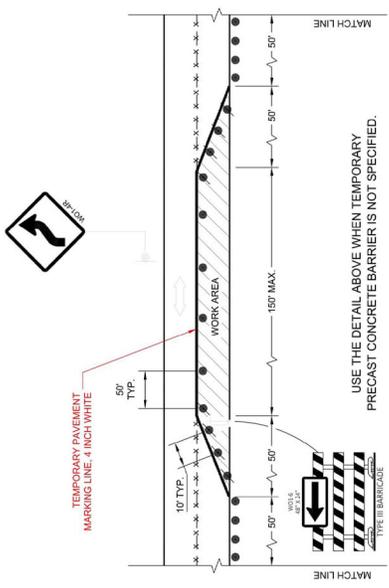
LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLAGS, 16" X 16" MIN. (ORANGE)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- ASPHALTIC PAVEMENT WIDENING
- CONCRETE BARRIER TEMPORARY PRECAST

GENERAL NOTES

- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT COVER UP WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
- THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "W" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL, "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.
- REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.
- 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 35 MPH OR 35 - 40 MPH. USE 350 FOOT TYPICAL SPACING FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.
- DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.
- TEMPORARY PAVEMENT MARKING LINE - 18 INCH WHITE STOP LINE.
- THE FOOT TEMPORARY PAVEMENT MARKING LINE 4 INCH (POSSIBLE 1/2 INCH) WHEN THE DISTANCE FOR THE PRECEDING NO-PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
- SEE SDD 16C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.

USE THE DETAIL ABOVE WHEN TEMPORARY PRECAST CONCRETE BARRIER IS NOT SPECIFIED.



TEMPORARY PAVEMENT MARKING LINE, 4 INCH WHITE, EDGE LINE AND OFFSET THE TEMPORARY EDGE LINE IF THE DISTANCE FROM THE EDGE LINE TO CONCRETE BARRIER WALL IS LESS THAN 9'

TEMPORARY PAVEMENT MARKING LINE, 4 INCH WHITE

ASPHALTIC PAVEMENT SHOULDER WIDENING 200' TYPICAL OR AS INDICATED IN PLANS

WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 10 FEET)

NO PASSING ZONE

ONE LANE ROAD AHEAD

MAX. ROAD WIDTH

ROAD WORK AHEAD

STOP

NO PASSING ZONE

ONE LANE ROAD AHEAD

MAX. ROAD WIDTH

ROAD WORK AHEAD

END ROAD WORK

NO PASSING ZONE

ONE LANE ROAD AHEAD

MAX. ROAD WIDTH

ROAD WORK AHEAD

STOP

NO PASSING ZONE

ONE LANE ROAD AHEAD

MAX. ROAD WIDTH

ROAD WORK AHEAD

STOP

NO PASSING ZONE

ONE LANE ROAD AHEAD

MAX. ROAD WIDTH

ROAD WORK AHEAD

STOP

NO PASSING ZONE

ONE LANE ROAD AHEAD

MAX. ROAD WIDTH

ROAD WORK AHEAD

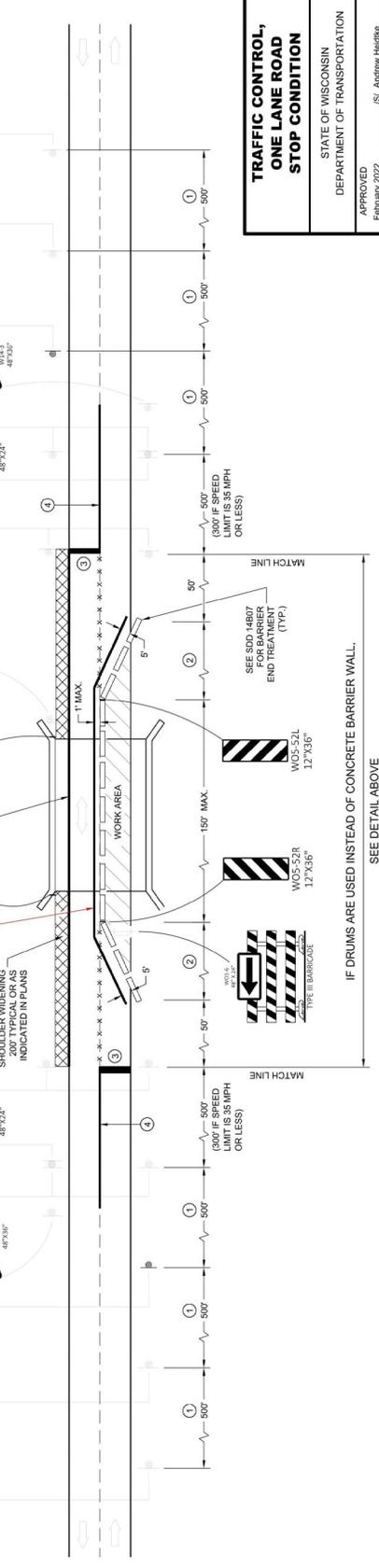
STOP

NO PASSING ZONE

ONE LANE ROAD AHEAD

MAX. ROAD WIDTH

ROAD WORK AHEAD



IF DRUMS ARE USED INSTEAD OF CONCRETE BARRIER WALL, SEE DETAIL ABOVE

TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED: _____ DATE: _____
DESIGNED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
WORK ZONE ENGINEER

SDD 15D32 - 06

SDD 15D32 - 06

PROJECT DATE:	NO.	DATE	REVISION
10/19/2022 11:17 AM	1		
	2		
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CITY OF MADISON, DANE COUNTY, WI

TRAFFIC CONTROL PLAN - DETAILS

PROJECT NO.
00073112
SHEET
TC 27



SDD 15D20-a Traffic Control, Single Lane Closure, Divided Non-Freeway/Expressway

LEGEND

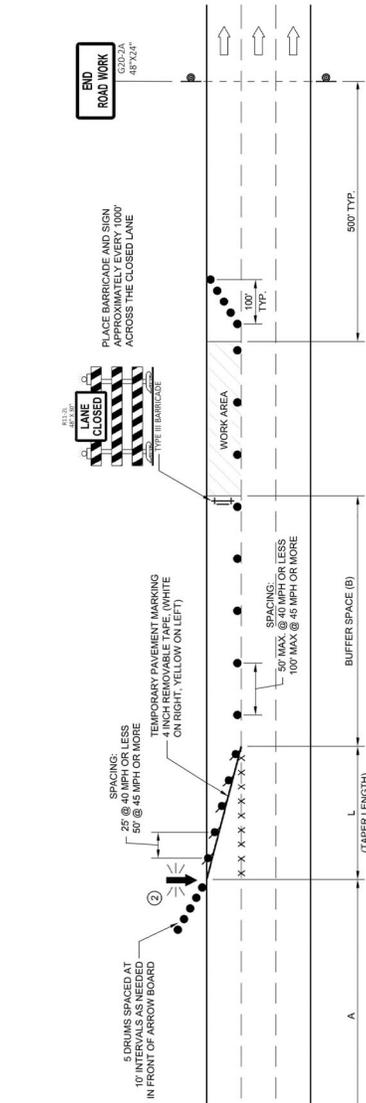
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE 'C' STEADY BURN LIGHT
- TYPE 'H' BARRICADE WITH ATTACHED SIGN
- TYPE 'X' WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

- FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.
- THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.
- THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION. ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"x36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.
- "NO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.
- ALL SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL, "IN USE" SHALL BE REMOVED OR DIMMED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR DOWNED SIGNS.
- SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE INSTALLED ON TEMPORARY SUPPORTS.
- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (50' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

- REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKINGS, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.
- CONSIDER GEOMETRIES, WORK ZONE LOCATIONS, SIGNS, AND ARROW BOARDS, SO THE APPROXIMATE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.
- BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY MOVED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.
- CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

- 1 OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- 2 WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) SPACE (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	65'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED:
DATE:

DESIGNED BY:
DATE:

SAFETY ENGINEER

SDD 15D20 - 05a

SDD 15D20 - 05a

PROJECT NO. 00073112
SHEET NO. TC 28

PROJECT NAME: MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT
CITY OF MADISON, DANE COUNTY, WI

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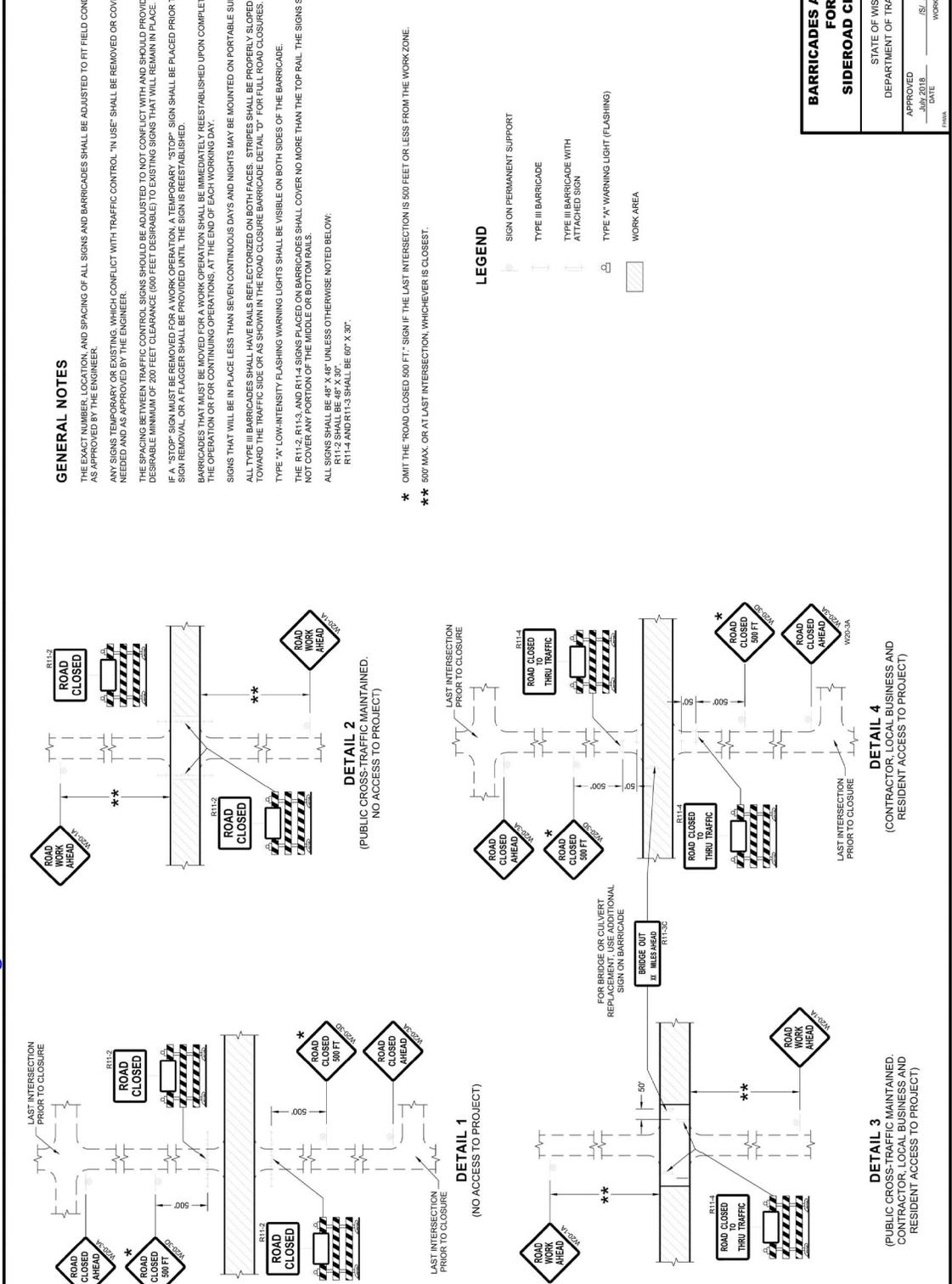
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NO.	DATE	BY	REVISION
1			
2			
3			

PROJECT DATE: 31/08/2018
PROJECT NO.: 00073112
SHEET NO.: TC 28



SDD 15C03 Barricades and Signs for Sideroad Closures



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARILY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE MOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW.

R11-2 SHALL BE 48" X 30".

R11-4 AND R11-3 SHALL BE 80" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

- LEGEND**
- SIGN ON PERMANENT SUPPORT
 - TYPE III BARRICADE
 - TYPE III BARRICADE WITH ATTACHED SIGN
 - TYPE "A" WARNING LIGHT (FLASHING)
 - WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED _____	/S/ Andrew Holsko WORK ZONE ENGINEER
DATE _____	

SDD 15C03 - 05

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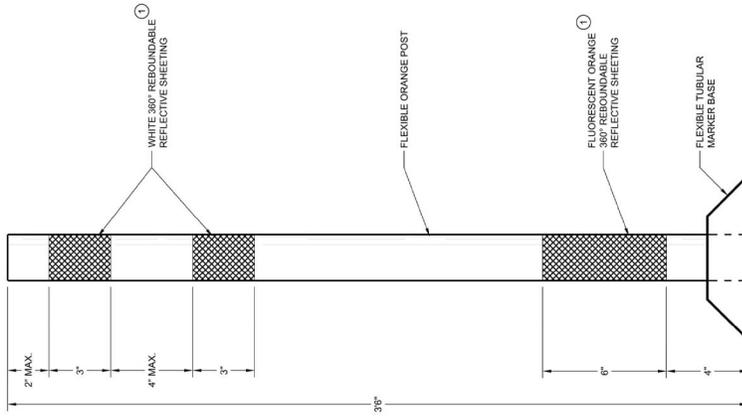
SDD 15C03 - 05

PROJECT NO. 00073112	DATE TC 29
MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT CITY OF MADISON, DANE COUNTY, WI	
ENGINEERING ARCHITECTURE SURVEYING FUNDING PLANNING ENVIRONMENTAL (608) 242-7775 www.msa-inc.com <small>© 2018 Mendenhall-Morris Inc.</small>	
PROJECT DATE: 3/1/2023	DATE: 3/1/2023
DESIGNED BY: BSH	CHECKED BY: BSH
DRAWN BY: BSH	SCALE: 1" = 50'
DATE: 3/1/2023	DATE: 3/1/2023

TRAFFIC CONTROL PLAN - DETAILS



SDD 15C11-a Channelizing Devices, Flexible Tubular Marker Post



GENERAL NOTES

- DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO THE MANUFACTURER. POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.
- THE ADHESIVE AGENT OR DUTY TAG FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE 801'S.
- REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

FLEXIBLE TUBULAR MARKER POST WORK ZONE

CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____
DATE: 11/19/2021
BY: Andrew Holsko
WORK ZONE ENGINEER

SDD 15C11 - 09a

PROJECT DATE:	NO.	DATE	REVISION
3/1/2003	1		
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CITY OF MADISON, DANE COUNTY, WI

TRAFFIC CONTROL PLAN - DETAILS

PROJECT NO.
00073112
SHEET
TC-30

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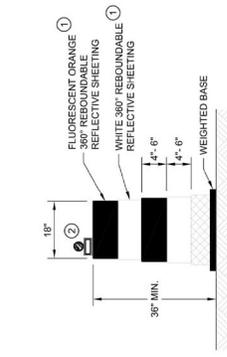
SDD 15C11 - 09a



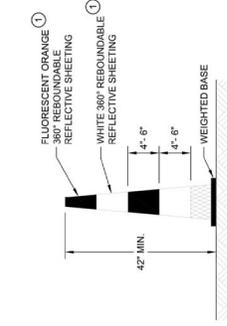
SDD 15C11-b Channelizing Devices, Drums, Barricades and Vertical Panels

GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN

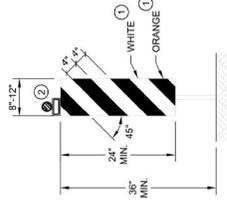


DRUM



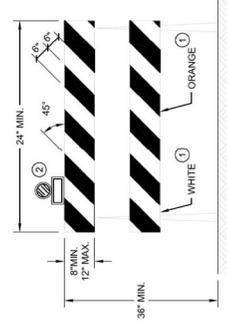
42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS



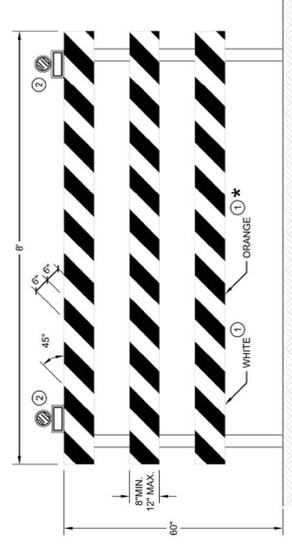
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.
* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

SDD 15C11 - 09b

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____
DATE _____

BY: Andrew Holsko
WORK ZONE ENGINEER

PROJECT DATE	NO.	DATE	REVISION
3/1/2023	1		
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MENDOTA-GRASSMAN UNIVERSITY AVENUE
CULVERT REPLACEMENT
CITY OF MADISON, DANE COUNTY, WI

TRAFFIC CONTROL PLAN - DETAILS

PROJECT NO.
00073112

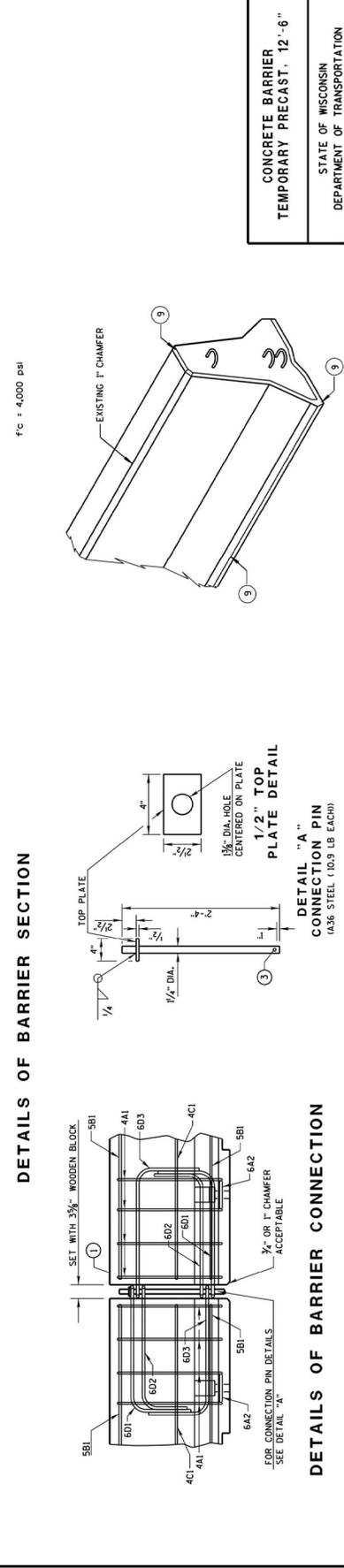
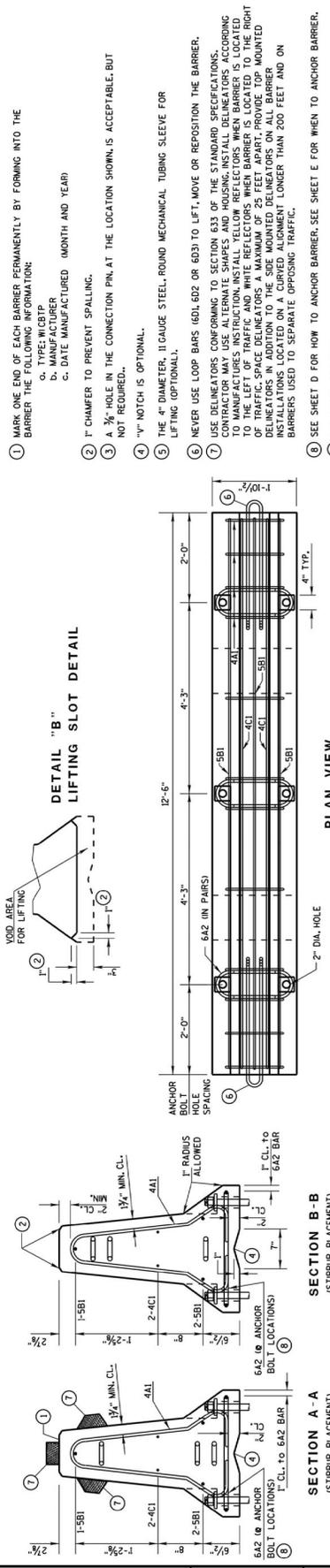
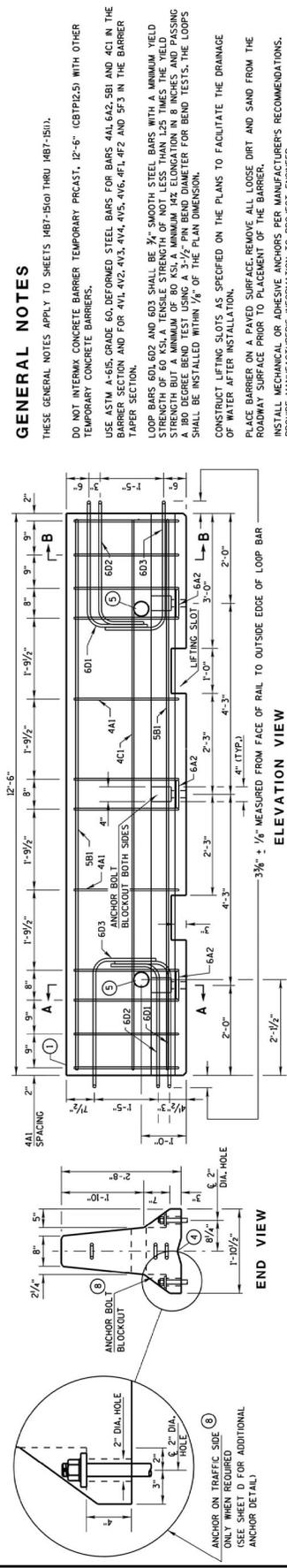
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TC 31

SDD 15C11 - 09b

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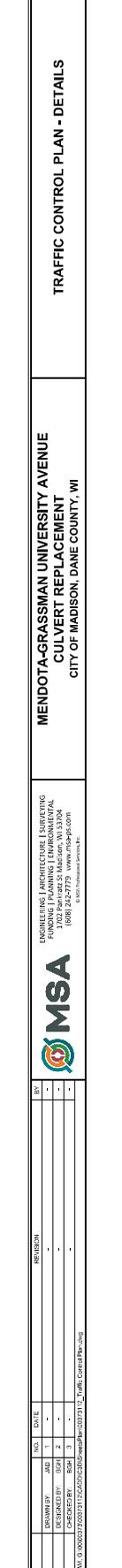
SDD 14B7-a Concrete Barrier Temporary Precast



GENERAL NOTES
 THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).
 DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" (CBTP2.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.
 USE ASTM A-655 GRADE 60 DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.
 LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE 3/4" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI. A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH IS REQUIRED. BARS 6D1, 6D2 AND 6D3 SHALL BE 180 DEGREE BEND TEST USING A 3/4" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN 1/4" OF THE PLAN DIMENSION.
 CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.
 PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.
 INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

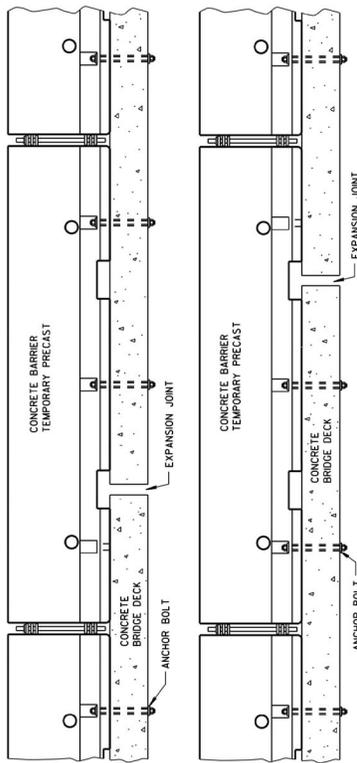
- 1 MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 a. TYPE, W/CBTP
 b. MANUFACTURER
 c. DATE MANUFACTURED (MONTH AND YEAR)
- 2 1" CHAMFER TO PREVENT SPALLING.
- 3 A 1/2" HOLE IN THE CONNECTION PIN AT THE LOCATION SHOWN IS ACCEPTABLE, BUT NOT REQUIRED.
- 4 1/4" NOTCH IS OPTIONAL.
- 5 THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING IS OPTIONAL.
- 6 NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.
- 7 USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURER'S INSTRUCTIONS. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. DELINEATORS SHALL BE 18" HIGH. DELINEATORS SHALL BE MOUNTED ON DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER MOUNTED INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.
- 8 SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.
- 9 1" CHAMFER OPTIONAL.

f.c. = 4,000 psi

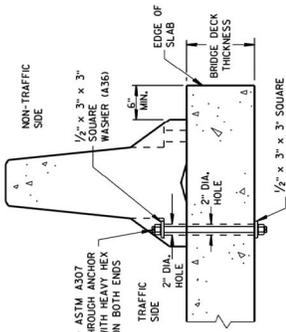


CONCRETE BARRIER
 TEMPORARY PRECAST - 12'-6"
 STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

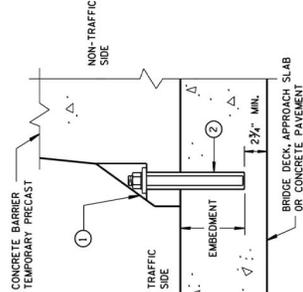
SDD 14B7-d Concrete Barrier Temporary Precast



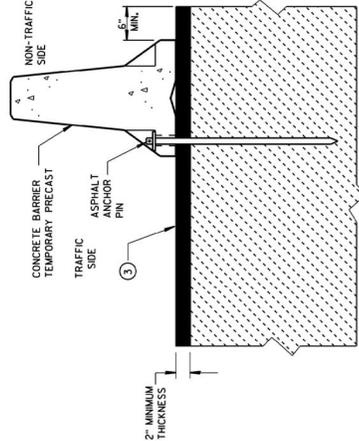
TREATMENT AT BRIDGE DECK EXPANSION JOINTS
 (NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



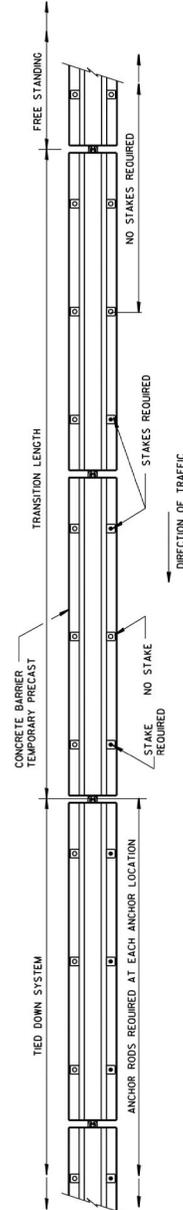
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK
 (DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT
 (DO NOT USE ON CONCRETE WITH AN ASPHALT OVERLAY)



STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE

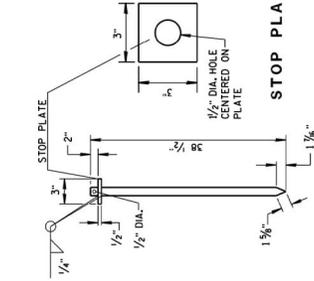


PLAN VIEW
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM
 (PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY, IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

GENERAL NOTES

SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.
 REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6890 TYPE II RUBBERIZED CRACK FILLER.

- 1) 1/8" DIAMETER A307 THREADED ROD, 1/2" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.
- 2) ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1800 PSI AND 1/2" EMBEDMENT. SEE 603.2 AND 603.3.12 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.
- 3) ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.

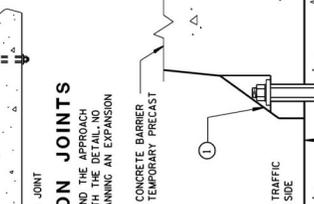


ASPHALT ANCHOR PIN (ASTM A36 STEEL)

GENERAL NOTES

SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.
 REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6890 TYPE II RUBBERIZED CRACK FILLER.

- 1) 1/8" DIAMETER A307 THREADED ROD, 1/2" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.
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- 3) ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.



ASPHALT ANCHOR PIN (ASTM A36 STEEL)

S.D.D. 14 B 7-15d

CONCRETE BARRIER TEMPORARY PRECAST - 12'-6"
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

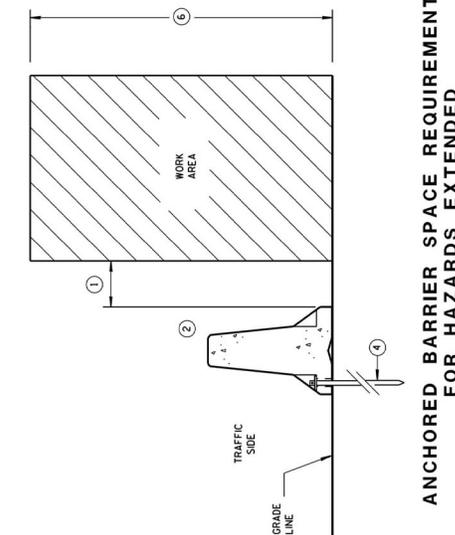
PROJECT NO. 00073112	DATE TC-33
MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT CITY OF MADISON, DANE COUNTY, WI	
DESIGNED BY BSH	CHECKED BY BSH
DATE 2	DATE 3
NO. OF SHEETS 2	TOTAL SHEETS 2
PROJECT DATE 2/2/2013	SCALE AS SHOWN



TRAFFIC CONTROL PLAN - DETAILS

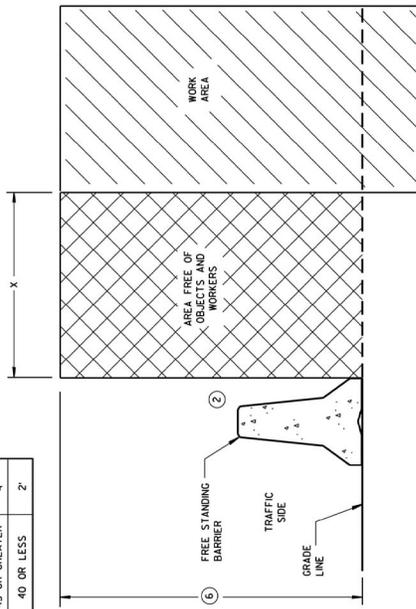
S.D.D. 14 B 7-15d

SDD 14B7-e Concrete Barrier Temporary Precast

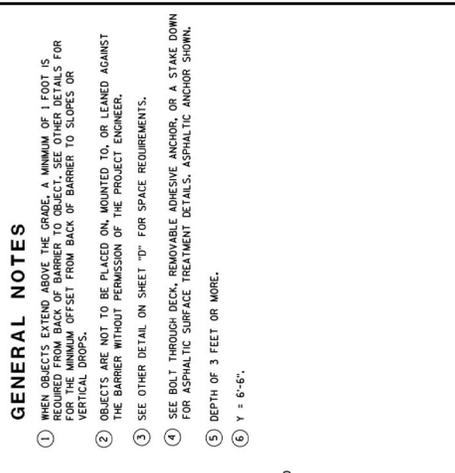


ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

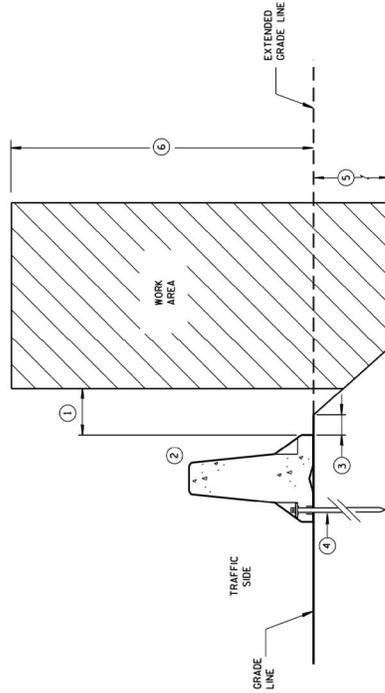
POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



FREE STANDING BARRIER SPACE REQUIREMENTS



ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS



ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

GENERAL NOTES

- 1 WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR OTHER MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
- 2 OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
- 3 SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
- 4 SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
- 5 DEPTH OF 3 FEET OR MORE.
- 6 Y = 6'-6".

S.D.D. 14 B 7-15e

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PROJECT DATE	ISSUE DATE	NO.	DATE	BY	REVISION
		DESIGNED BY	BSH	2	
		CHECKED BY	BSH	3	

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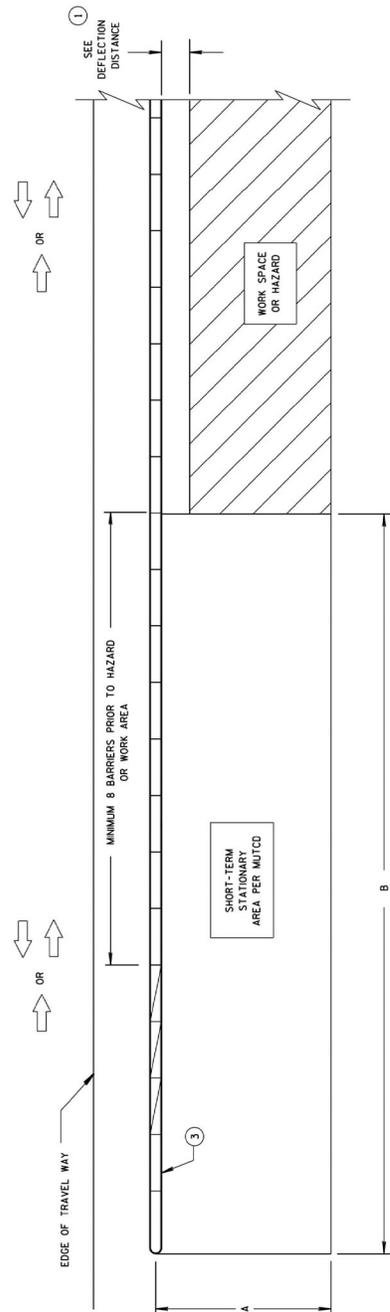


MENDOTA-GRASSMAN UNIVERSITY AVENUE
CULVERT REPLACEMENT
CITY OF MADISON, DANE COUNTY, WI

TRAFFIC CONTROL PLAN - DETAILS

PROJECT NO.
00073112
SHEET
TC-34

SDD 14B8-a End Treatments and General Note



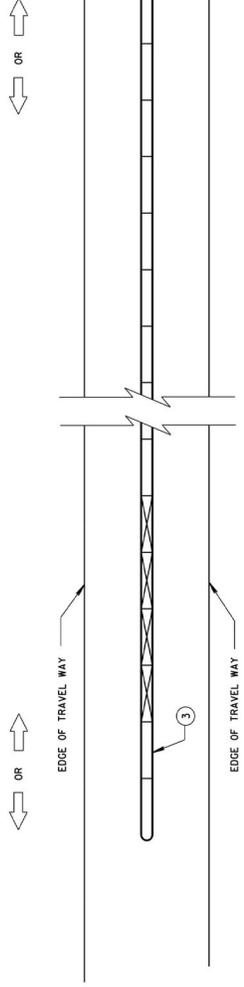
DIMENSION A TABLE

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT.	MAX. FT.
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1500	ALL	8	10

DIMENSION B TABLE

POSTED SPEEDS MPH	DIMENSION B FT.
25	15
30	15
35	200
40	250
45	305
50	360
55	425
60	510
65	645

CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

GENERAL NOTES

- SEE STANDARD DETAIL DRAWING M8T FOR MORE INFORMATION.
- DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.
- ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.
- TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

- FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURER'S DETAILS.
- SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.
- FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING M8T.
- VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.
- ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 8-2a

PROJECT DATE	NO.	DATE	BY	REVISION
3/1/2003	1			
	2			
	3			

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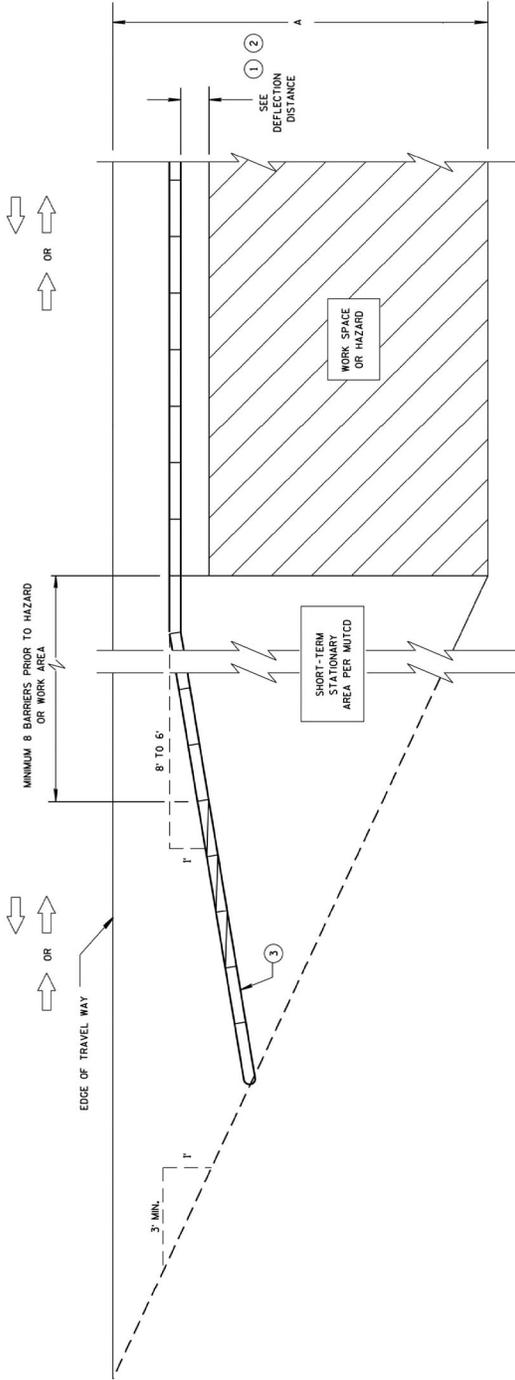
MENDOTA-GRASSMAN UNIVERSITY AVENUE
CULVERT REPLACEMENT
CITY OF MADISON, DANE COUNTY, WI

TRAFFIC CONTROL PLAN - DETAILS

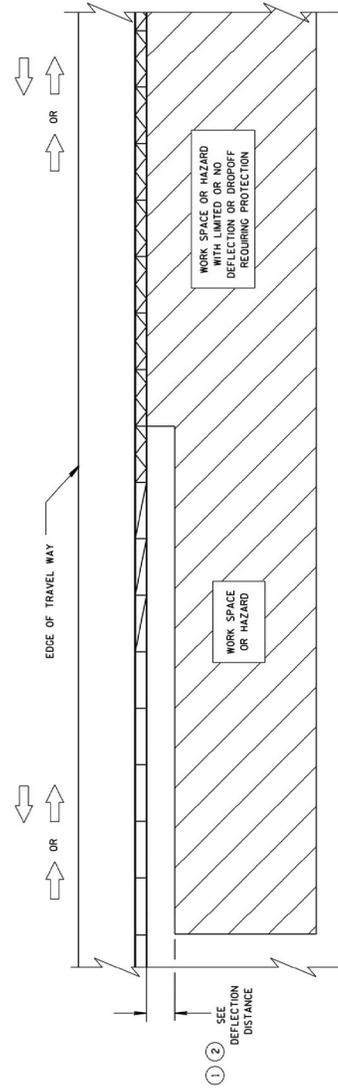
PROJECT NO.
00073112
SHEET
TC-35



SDD 14B8-b End Treatments and Transitions from Unanchored barrier to Anchored Barrier



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 8-2b

6

S.D.D. 14 B 8-2b

6

PROJECT NAME	DATE	NO.	DATE	BY	REVISION
		1			
		2			
		3			

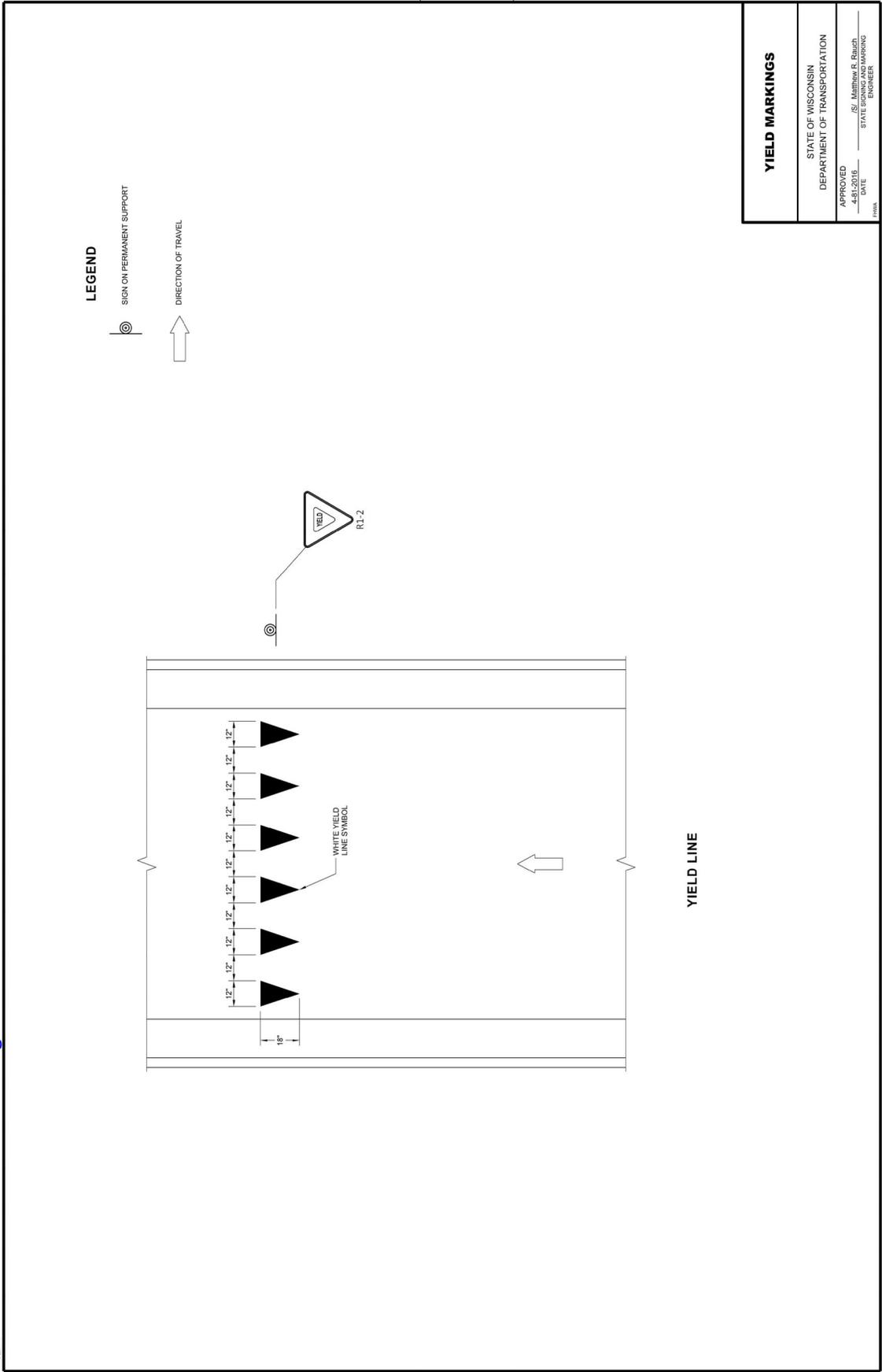
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MENDOTA-GRASSMAN UNIVERSITY AVENUE
CULVERT REPLACEMENT
CITY OF MADISON, DANE COUNTY, WI

TRAFFIC CONTROL PLAN - DETAILS

PROJECT NO.
00073112
SHEET
TC-36

SDD 15C20 Yield Markings



SDD 15C20 - 02

YIELD MARKINGS
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED _____ DATE _____
BY: Matthew B. Branch STATE ENGINEER AND MARKING ENGINEER

PROJECT NO. 00073112	DATE TC 37
TRAFFIC CONTROL PLAN - DETAILS	
MENDOTA-GRASSMAN UNIVERSITY AVENUE CULVERT REPLACEMENT CITY OF MADISON, DANE COUNTY, WI	
 <small>ENGINEERING ARCHITECTURE SURVEYING PLANNING PLANNING ENVIRONMENTAL (608) 242-7772 www.msa-jpo.com</small>	
PROJECT DATE: 3/1/2003	DATE: 3/1/2003
DESIGNED BY: BSB	DATE: 3/1/2003
CHECKED BY: BSB	DATE: 3/1/2003
INSTRUC	DATE: 3/1/2003

SDD 15C20 - 02

6

6

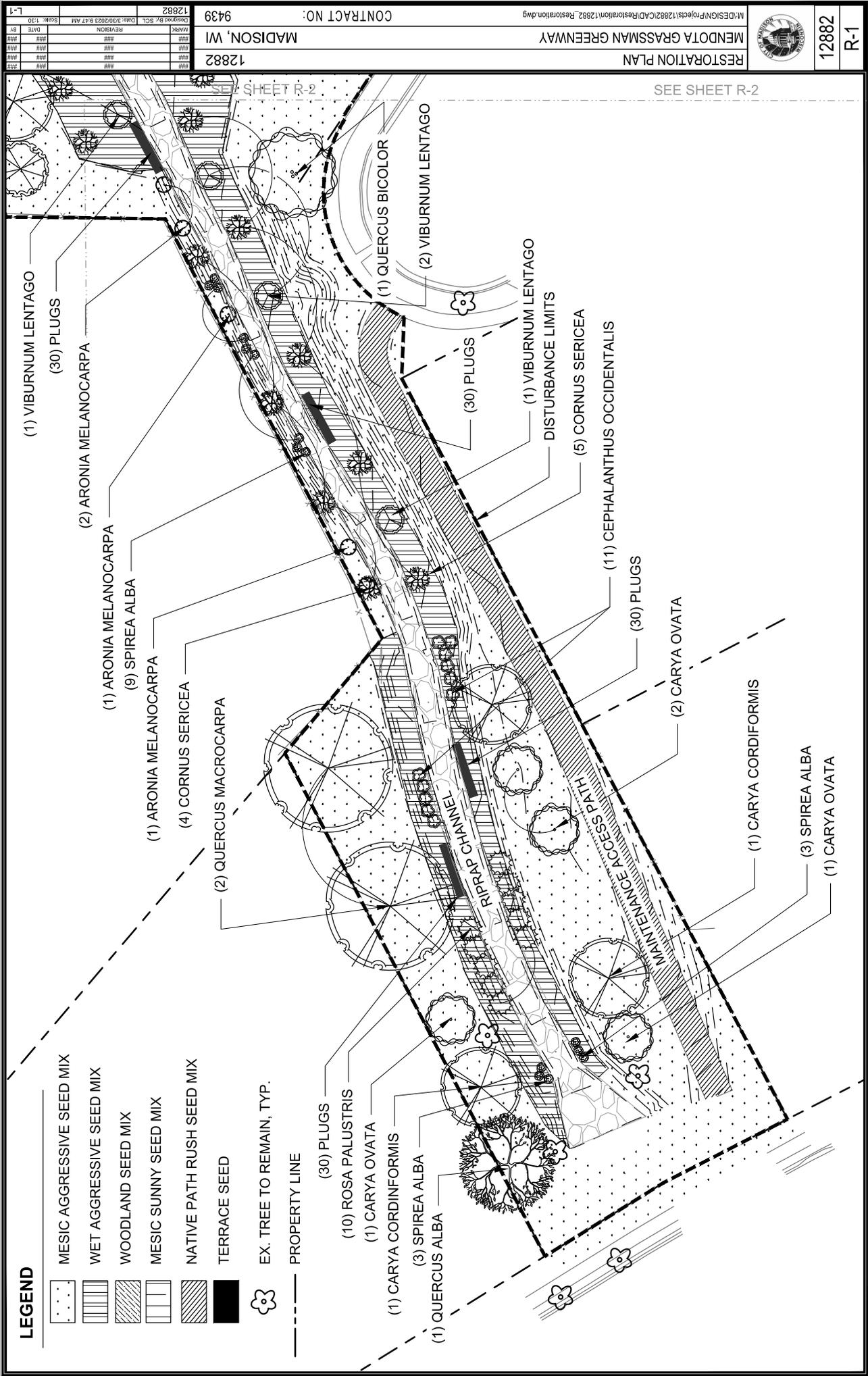
LEGEND

-  MESIC AGGRESSIVE SEED MIX
-  WET AGGRESSIVE SEED MIX
-  WOODLAND SEED MIX
-  MESIC SUNNY SEED MIX
-  NATIVE PATH RUSH SEED MIX
-  TERRACE SEED



EX. TREE TO REMAIN, TYP.

PROPERTY LINE



(1) VIBURNUM LENTAGO

(30) PLUGS

(2) ARONIA MELANOCARPA

(1) ARONIA MELANOCARPA

(9) SPIREA ALBA

(1) ARONIA MELANOCARPA

(4) CORNUS SERICEA

(2) QUERCUS MACROCARPA

(30) PLUGS

(10) ROSA PALUSTRIS

(1) CARYA OVATA

(1) CARYA CORDIFORMIS

(3) SPIREA ALBA

(1) QUERCUS ALBA

(2) QUERCUS BICOLOR

(2) VIBURNUM LENTAGO

(1) VIBURNUM LENTAGO

(30) PLUGS

(1) VIBURNUM LENTAGO

DISTURBANCE LIMITS

(5) CORNUS SERICEA

(11) CEPHALANTHUS OCCIDENTALIS

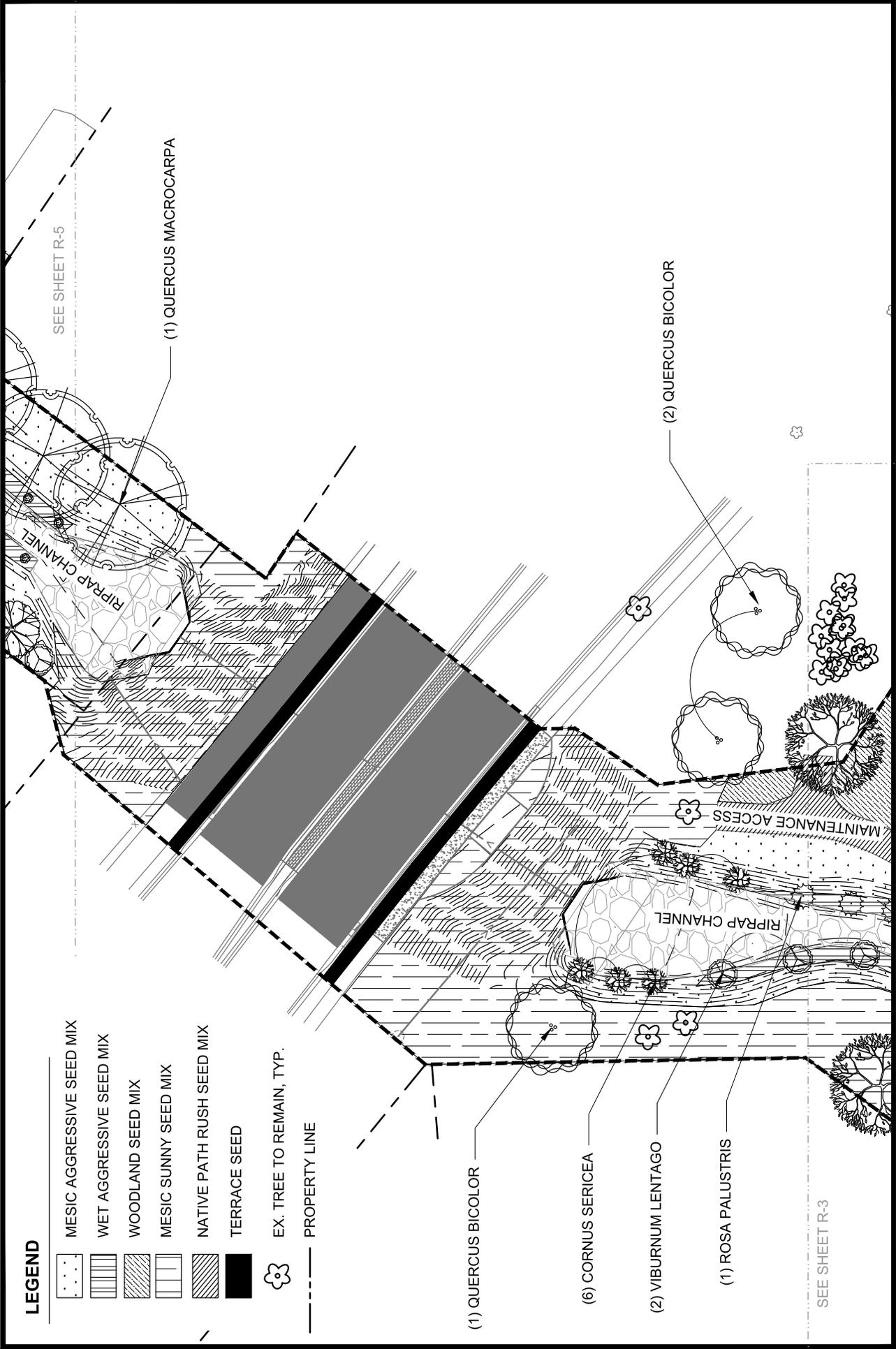
(30) PLUGS

(2) CARYA OVATA

(1) CARYA CORDIFORMIS

(3) SPIREA ALBA

(1) CARYA OVATA



LEGEND

- MESIC AGGRESSIVE SEED MIX
- WET AGGRESSIVE SEED MIX
- WOODLAND SEED MIX
- MESIC SUNNY SEED MIX
- NATIVE PATH RUSH SEED MIX
- TERRACE SEED
- EX. TREE TO REMAIN, TYP.
- PROPERTY LINE

(1) QUERCUS BICOLOR

(6) CORNUS SERICEA

(2) VIBURNUM LENTAGO

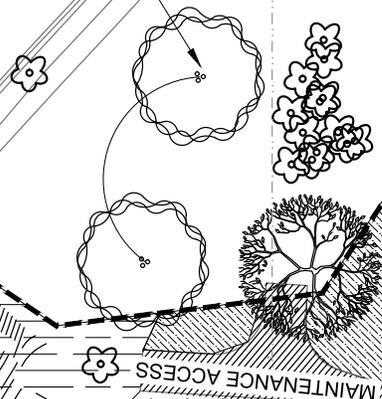
(1) ROSA PALUSTRIS

(1) QUERCUS MACROCARPA

(2) QUERCUS BICOLOR

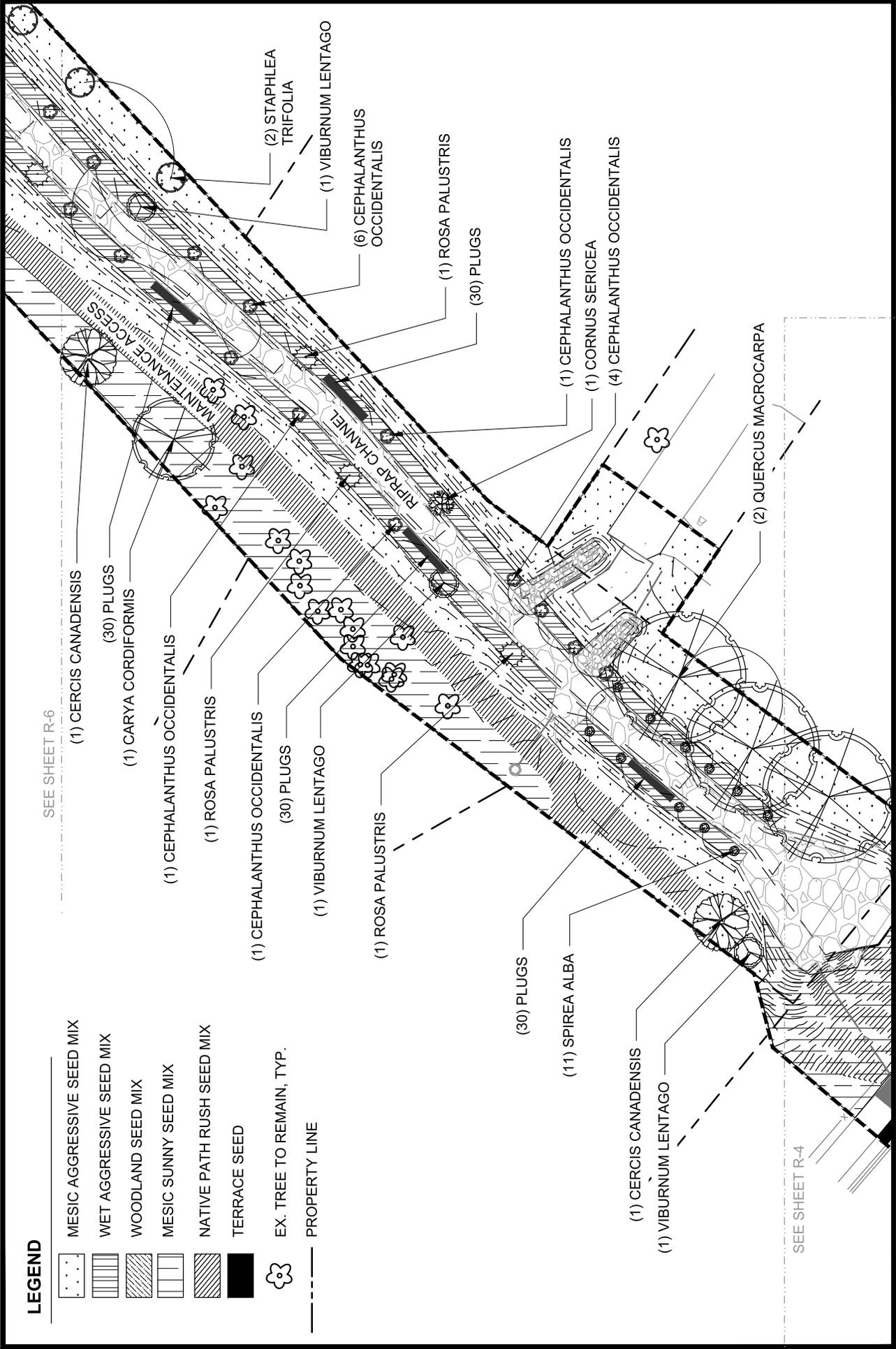
SEE SHEET R-5

SEE SHEET R-3





12882
 R-5

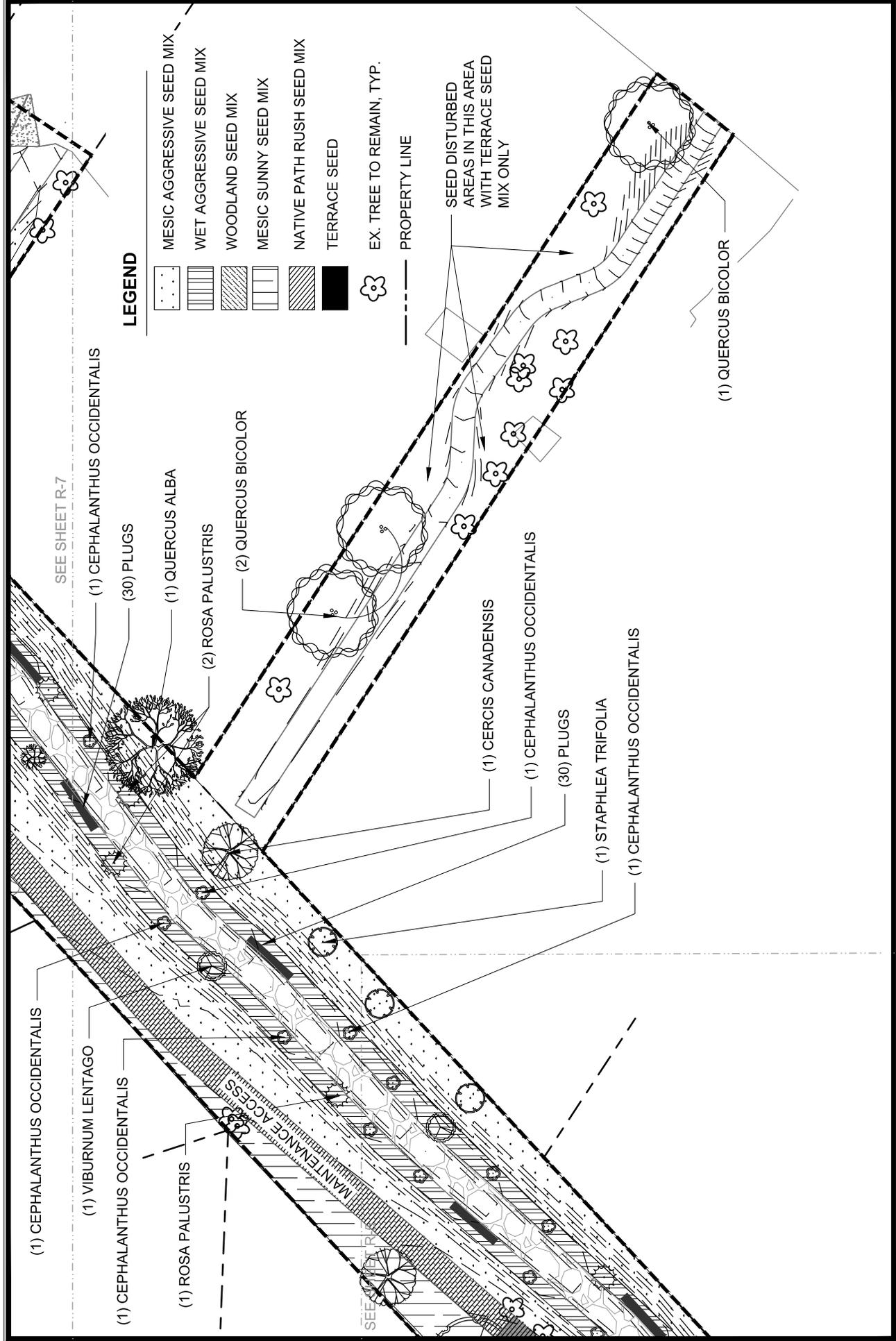


LEGEND

- MESIC AGGRESSIVE SEED MIX
- WET AGGRESSIVE SEED MIX
- WOODLAND SEED MIX
- MESIC SUNNY SEED MIX
- NATIVE PATH RUSH SEED MIX
- TERRACE SEED
- EX. TREE TO REMAIN, TYP.
- PROPERTY LINE

SEE SHEET R-6

SEE SHEET R-4



LEGEND

- MESIC AGGRESSIVE SEED MIX
- WET AGGRESSIVE SEED MIX
- WOODLAND SEED MIX
- MESIC SUNNY SEED MIX
- NATIVE PATH RUSH SEED MIX
- TERRACE SEED
- EX. TREE TO REMAIN, TYP.
- PROPERTY LINE

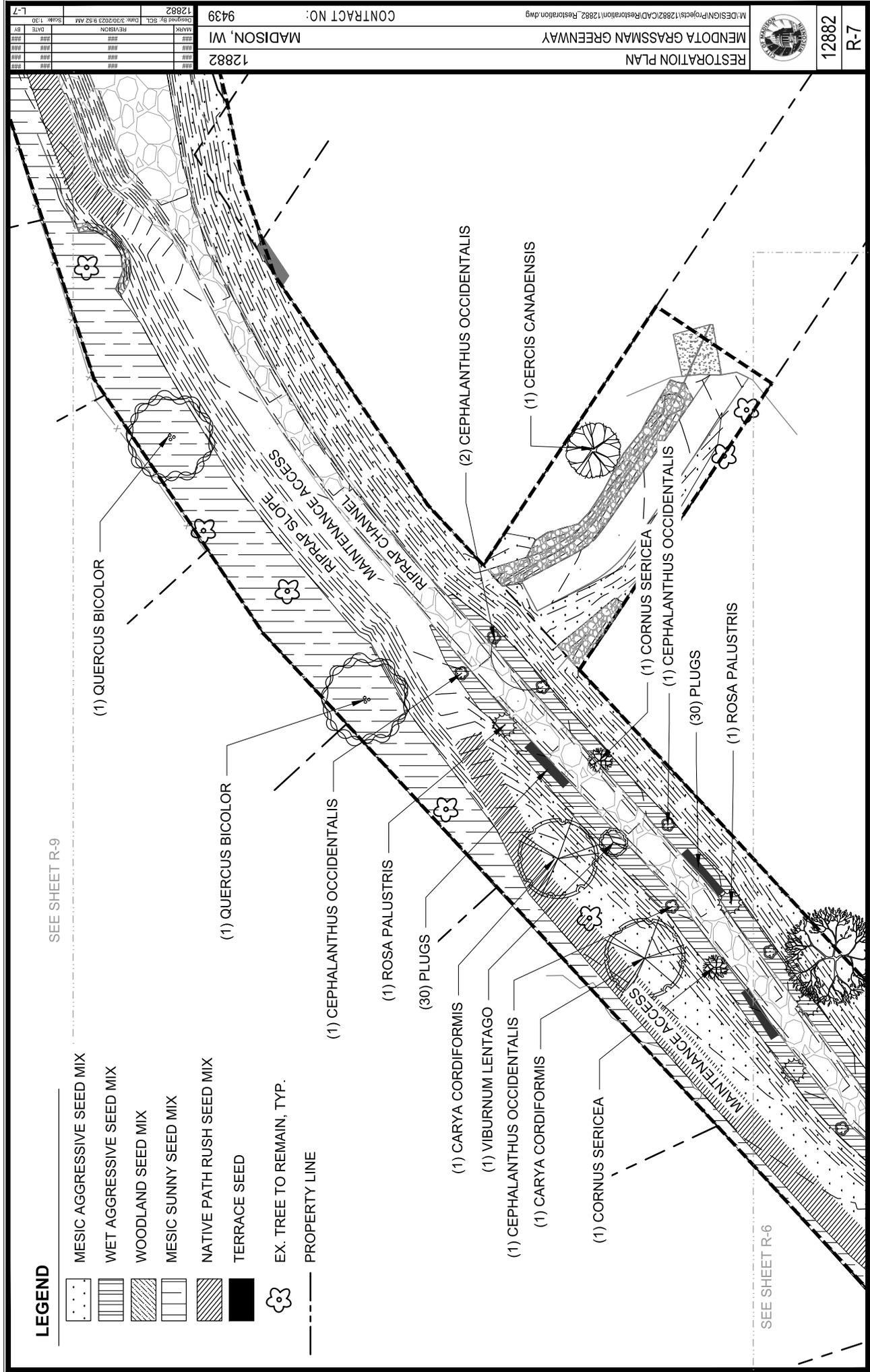
LEGEND

-  MESIC AGGRESSIVE SEED MIX
-  WET AGGRESSIVE SEED MIX
-  WOODLAND SEED MIX
-  MESIC SUNNY SEED MIX
-  NATIVE PATH RUSH SEED MIX
-  TERRACE SEED

 EX. TREE TO REMAIN, TYP.

 PROPERTY LINE

SEE SHEET R-9



SEE SHEET R-6



12882
R-9

LEGEND

-  MESIC AGGRESSIVE SEED MIX
-  WET AGGRESSIVE SEED MIX
-  WOODLAND SEED MIX
-  MESIC SUNNY SEED MIX
-  NATIVE PATH RUSH SEED MIX
-  TERRACE SEED
-  EX. TREE TO REMAIN, TYP.
-  PROPERTY LINE

