

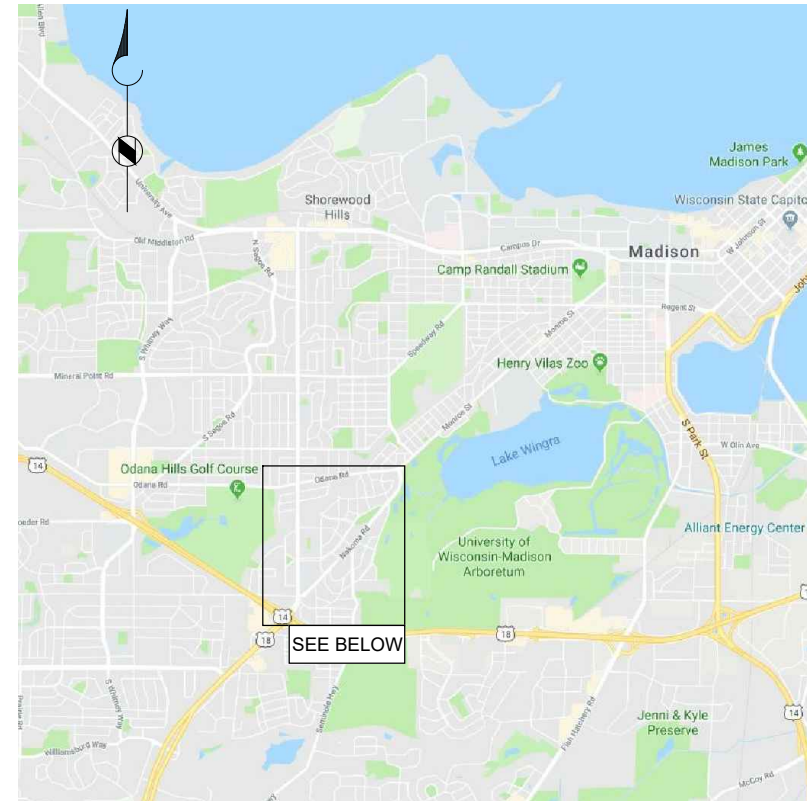
SOUTHWEST BIKEPATH CULVERT REPLACEMENT AT WAITE CIRCLE - 2019

CITY OF MADISON, WI

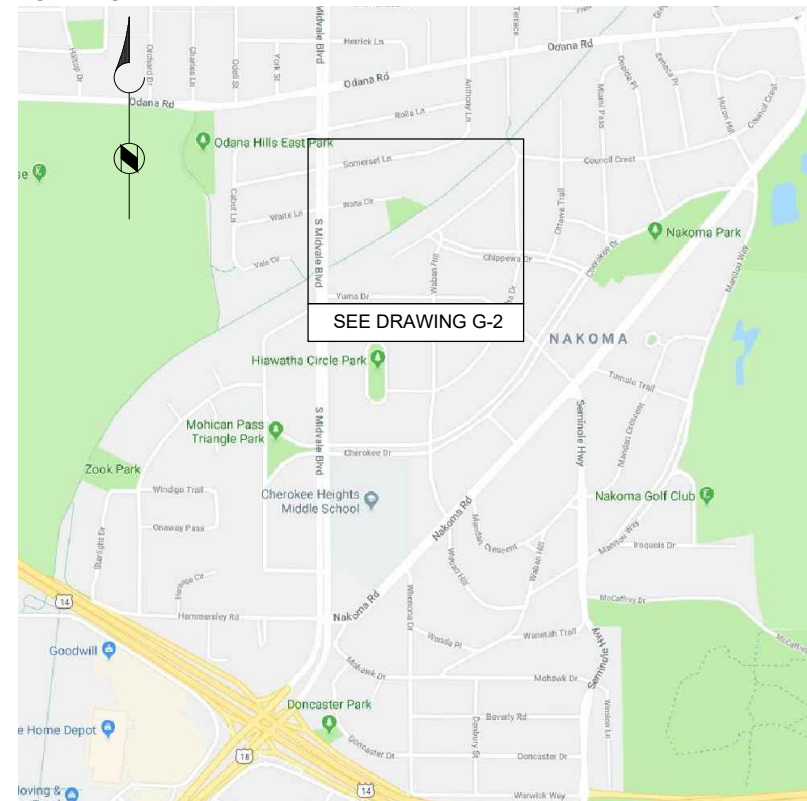
AUGUST, 2019

CITY PROJECT NO. 8466

VICINITY MAP



LOCATION MAP



INDEX OF DRAWINGS

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REVISED: 8/27/2019

CERTIFICATION IS NOT APPLICABLE TO DRAWING C-5A, DESIGNED BY THE CITY OF MADISON.

ADDENDUM 1
8/29/19
CHANGED ENTIRE
DRAWING

PREPARED FOR:



CITY OF MADISON
210 MARTIN LUTHER KING, JR BLVD.
MADISON, WI
(608) 266-4751

Brown AND Caldwell

BROWN AND CALDWELL
250 EAST WISCONSIN AVENUE
MILWAUKEE, WI 53202
(414) 273-8800

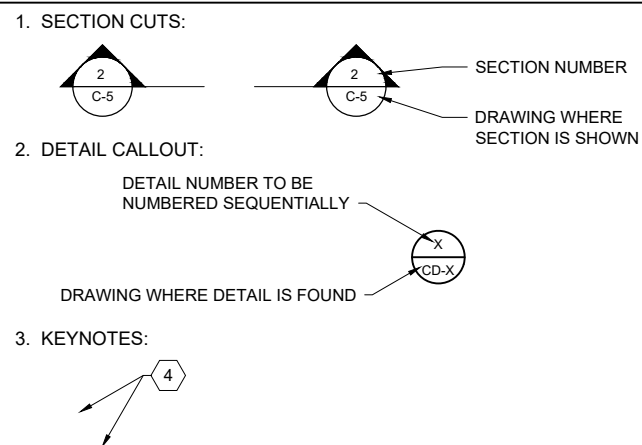
SURVEY SYMBOLS

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPERTY LINE
- FENCE
- BEAMGUARD
- GAS LINE
- FIBER OPTIC
- UNDERGROUND ELECTRIC LINE
- OVERHEAD UTILITY
- WATER MAIN
- SANITARY SEWER
- STORM DRAIN
- TREELINE
- CONTROL POINT
- PROPERTY IRON
- SIGN
- ELECTRIC PEDESTAL
- ELECTRIC HANDHOLE
- FIBER OPTIC MANHOLE
- GUY WIRE
- LIGHT POLE
- POWER POLE
- FIRE HYDRANT
- WATER VALVE
- SANITARY MANHOLE
- STORM INLET
- STORM MANHOLE
- SOIL BORING
- TREE, DECIDUOUS
- TREE, EVERGREEN
- EXISTING RIP RAP
- EXISTING GRAVEL DRIVE
- EXISTING CONCRETE
- EXISTING LANDSCAPE PLANTER

DESIGN SYMBOLS & ABBREVIATIONS

- PROPOSED CONTOUR, MAJOR
- PROPOSED CONTOUR, MINOR
- CONSTRUCTION LIMITS
- CONTRACTOR ACCESS
- CHAIN LINK FENCE
- CONSTRUCTION FENCE
- SILT FENCE
- INLET PROTECTION
- SEDIMENT LOG
- CLEAR & GRUB EXISTING SHRUB
- REMOVE EXISTING TREE
- REMOVE EXISTING RIP RAP (GROUTED)
- ASPHALT PAVEMENT REMOVAL
- CONSTRUCTION ENTRANCE
- STORM SEWER
- SANITARY SEWER
- SANITARY MANHOLE
- CONCRETE PAVEMENT
- RIP RAP AREA
- SIDE SLOPE AREA
- PERIMETER AREA
- TERRACE AREA
- UTILITY LINE OPENING
- BM BENCHMARK
- CP CONTROL POINT
- DBH DIAMETER AT BREAST HEIGHT
- MH MANHOLE
- SAS SANITARY ACCESS STRUCTURE
- MMSD MADISON METROPOLITAN SEWERAGE DISTRICT
- MG&E MADISON GAS & ELECTRIC CO.
- DNSTM DOWNSTREAM
- UPSTM UPSTREAM
- RT RIGHT
- LT LEFT

CROSS REFERENCING SYSTEM



UTILITIES COMPANIES THAT MAY BE AFFECTED BY THIS PROJECT

AGENCY	UTILITY LOCATION	ADDRESS	CONTACT	TELEPHONE
EMERGENCY				911
DIGGERS HOTLINE	N/A	14100 W. NATIONAL AVE NEW BERLIN, WI 53151		1-800-242-8511
CITY OF MADISON POLICE DEPT.	N/A	211 S. CARROLL ST MADISON, WI 53703	NON-EMERGENCY	608-255-2345
CITY OF MADISON FIRE DEPT.	N/A	314 W. DAYTON ST MADISON, WI 53703	EMERGENCY DISPATCH	608-255-2345
CITY OF MADISON UTILITIES - WATER	NORTH SIDE OF WAITE CIR. CHIPPEWA CT/COUNCIL CR	119 EAST OLIN AVE MADISON, WI 53713	WM BREAK / EMERGENCY AFTER HOURS	608-266-4661 608-266-4665
CITY OF MADISON UTILITIES - SANITARY	WAITE CIR. CHIPPEWA CT/COUNCIL CR	210 MLK JR. BLVD MADISON, WI 53703	MARK MODER	608-261-9250
CITY OF MADISON UTILITIES - ELECTRIC	SOUTH SIDE OF SOUTHWEST BIKE PATH	215 MLK JR. BLVD MADISON, WI 53703	BRIAN SMITH	608-261-9625
CITY OF MADISON ENGINEERING DIVISION	N/A	210 MLK JR. BLVD MADISON, WI 53703	CAROLINE BURGER	608-266-4913
CITY OF MADISON TRANSPORTATION DIVISION	SOUTH SIDE OF SOUTHWEST BIKE PATH	215 MLK JR. BLVD MADISON, WI 53703	MIKE BENZSCHAWEL	608-266-9031
MADISON GAS & ELECTRIC CO.	SOUTHWEST BIKE PATH CENTERLINE	623 RAILROAD ST MADISON, WI	SHAUN ENDRES	608-252-7373
MADISON METROPOLITAN SEWERAGE DISTRICT	FROM MIDVALE BLVD THROUGH BOX CULVERT	1610 MOORLAND RD MADISON, WI 53713	JEN HURLEBAUS	608-222-1201
AT&T DISTRIBUTION	N/A			262-446-9821
METROPOLITAN UNIFIED NETWORK CONSORTIUM	SOUTH SIDE OF SOUTHWEST BIKE PATH		DAN PARENTEAU	608-262-9501
CHARTER COMMUNICATIONS	N/A			262-446-9821
WISCONSIN INDEPENDENT NETWORK	N/A			262-446-9821
CCI SYSTEMS, INC.	N/A			262-446-9821
LEVEL 3 CENTURYLINK	N/A			877-366-8344

NOTES:

- ALL INFO ABOVE IS FROM DIGGERS HOTLINE TICKET CONFORMATION OBTAINED FROM BURSE SURVEYING AND ENGINEERING, INC.
- MAPS WERE NOT COLLECTED DURING DIGGERS HOTLINE PROCESS.
- CITY WATER MAIN, FIBER OPTIC AND UNDERGROUND ELECTRIC WERE NOT LOCATED VIA TOPOGRAPHIC SURVEY. THESE UTILITIES WERE DRAWN USING GIS INFORMATION FROM THE CITY OF MADISON DATABASE, AND HAVE LOCATE QUALITY LEVEL D.
- ALL OTHER UTILITIES IN THE CONSTRUCTION LIMITS HAVE LOCATE QUALITY LEVEL C.
- OVERHEAD UTILITIES ARE PRESENT WITHIN, AND NEARBY, THE PROJECT AREA. OWNER OF OVERHEAD UTILITIES ARE NOT IDENTIFIED.

FHWA LOCATE QUALITY TABLE

LEVEL D (QL-D)	LOCATES COME FROM EXISTING UTILITY RECORDS OR VERBAL RECOLLECTIONS.
LEVEL C (QL-C)	LOCATES USE ABOVE GRADE FEATURES TO MORE ACCURATELY LOCATE UNDERGROUND FACILITIES. SURVEY OF FEATURES REQUIRED.
LEVEL B (QL-B)	SURFACE GEOPHYSICAL METHODS ARE USED TO LOCATED UNDERGROUND FACILITIES HORIZONTALLY.
LEVEL A (QL-A)	LOCATES INVOLVE SUBSURFACE EXPLORATION SUCH AS POTHOLES TO ACCURATELY DETERMINE HORIZONTAL LOCATION & DEPTH.



SOUTHWEST BIKEPATH CULVERT REPLACEMENT AT WAITE CIRCLE - 2019

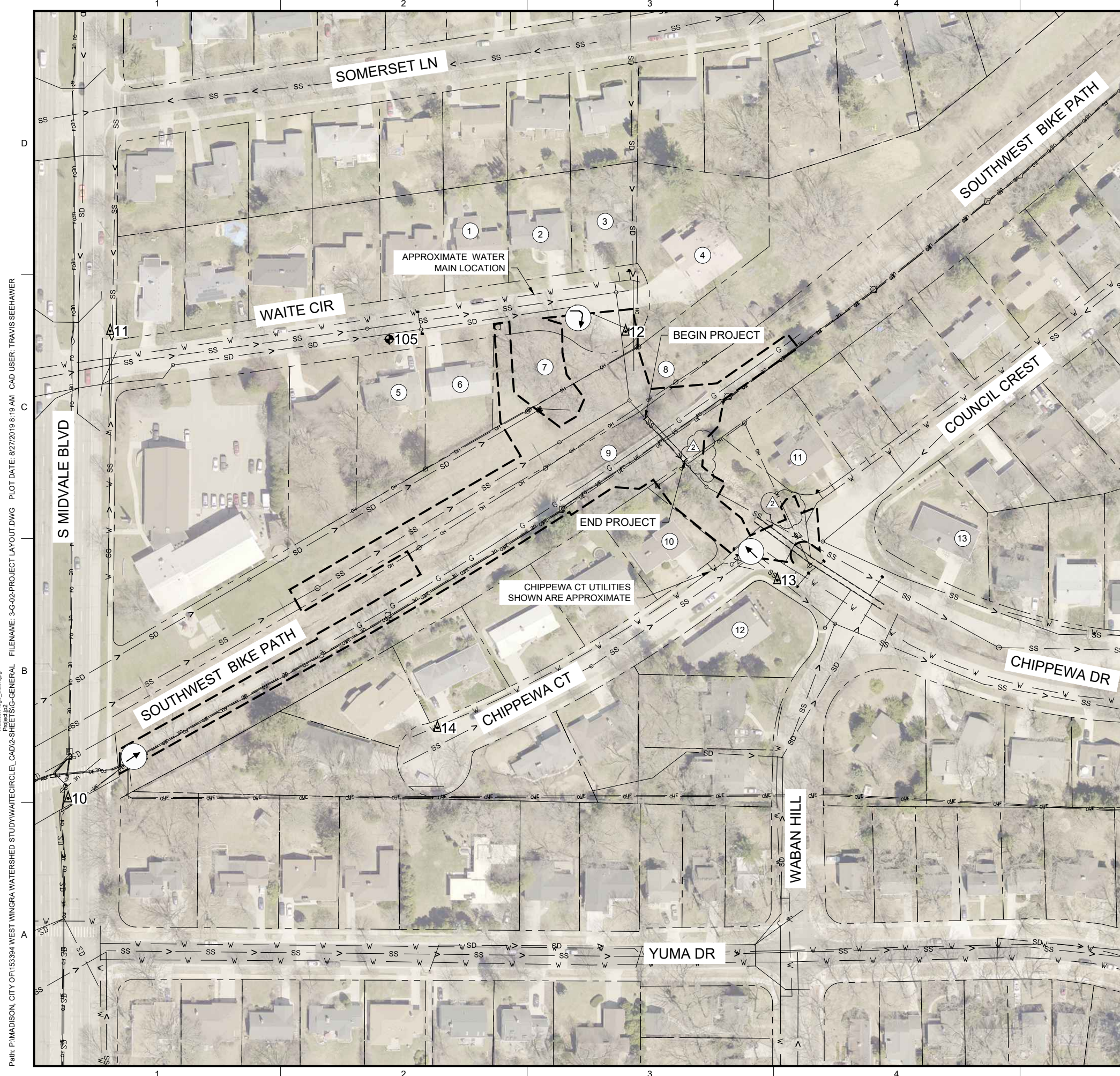
REVISIONS		
REV	DATE	DESCRIPTION
1	8/22/19	ISSUED FOR BID

DRAWN: T SEEHAWER
 CHECKED: C LUCIE
 APPROVED: A SHELTON
 FILENAME: 2-G-01.DWG
 BC PROJECT NUMBER: 153394
 CLIENT PROJECT NUMBER: 8466

GENERAL SYMBOLS, ABBREVIATIONS & UTILITY CONTACTS

DRAWING NUMBER
G-1
 SHEET NUMBER
 2 OF 25

Path: P:\MADISON, CITY OF\153394 WEST WINGRA WATERSHED STUDY\WATECIRCLE\CAD\2-SHEETS\IG-GENERAL FILENAME: 2-G-01.DWG PLOT DATE: 8/27/2019 11:21 AM CAD USER: TRAVIS SEEHAWER
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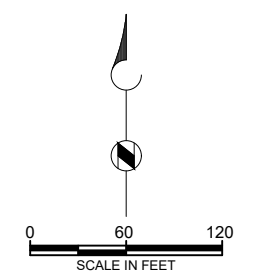


- ### ADJACENT PROPERTY OWNERS
- | | |
|---|--|
| ① PID #: 070929419351
CURTIS AND LEAH WITYNCSI
4318 WAITE CIRCLE
MADISON, WI 53711 | ⑧ PID #: 070929414012
CITY OF MADISON
210 MLK JR BLVD RM 115
MADISON, WI 53703 |
| ② PID #: 070929419369
ADAM & APHRA MEDNICK
4314 WAITE CIR
MADISON, WI 53711 | ⑨ PID #: 070929420176
BUREAU OF RAILS & HARBORS
STATE OF WI DEPT OF TRANS
833 S MIDVALE BLVD
2101 WRIGHT ST
MADISON, WI 53704 |
| ③ PID #: 070929419377
MATTHEW & REGINA MCGINN
4310 WAITE CIR
MADISON, WI 53711 | ⑩ PID #: 070929427213
ANTHONY DEGREGORIA
2 CHIPPEWA CT
MADISON, WI 53711 |
| ④ PID #: 070929419385
HARTING & MULLINS TRUST
4306 WAITE CIR
MADISON, WI 53711 | ⑪ PID #: 070929423104
HUDSON LIVING TRUST
4150 COUNCIL CREST
MADISON, WI 53711 |
| ⑤ PID #: 070929424037
HELEN AND BRIAN APEL
4321 WAITE CIRCLE
MADISON, WI 53711 | ⑫ PID #: 070929427130
SCOTT & VALERIE HOLEWINSKI
1 CHIPPEWA CT
MADISON, WI 53711 |
| ⑥ PID #: 070929424029
ELIZABETH JENKINS & JAMES THOMACK
4317 WAITE CIR
MADISON, WI 53711 | ⑬ PID #: 070929422057
SHANE & LAURA HUBBARD
4126 CHIPPEWA DR
MADISON, WI 53711 |
| ⑦ PID #: 070929424011
CITY OF MADISON PARKS- 4313 WAITE CIR
210 MLK JR BLVD RM 104
MADISON, WI 53703 | |

BENCHMARK				
Point #	Description	Elevation	Northing	Easting
105	BM / TP	959.64	473002.33	803644.55

CONTROL POINTS				
Point #	Description	Elevation	Northing	Easting
10	CP / CP10 .75SIR	972.54	472466.95	803270.12
11	CP / CP11 .75SIR	965.66	473011.90	803319.12
12	CP / CP12 .75SIR	957.54	473011.06	803920.20
13	CP / CP13 .75SIR	940.56	472721.37	804097.12
14	CP / CP14 .75SIR	960.81	472549.20	803700.78

SITE SURVEY CONDUCTED BY BURSE SURVEYING & ENGINEERING, INC. VERTICAL DATUM IS NAVD88 AND HORIZONTAL DATUM IS NAD 1983 HARN WISCONSIN COUNTY SYSTEM: DANE COUNTY.



**ADDENDUM 1
CHANGED
CONSTRUCTION
LIMITS**

SOUTHWEST BIKEPATH CULVERT REPLACEMENT AT WAITE CIRCLE - 2019

REVISIONS		
REV	DATE	DESCRIPTION
1	8/22/19	ISSUED FOR BID
2	8/29/19	ADDENDUM 1

DRAWN: T SEEHAWER
CHECKED: C LUCIE
APPROVED: A SHELTON
FILENAME: 3-G-02-PROJECT LAYOUT.DWG
BC PROJECT NUMBER: 153394
CLIENT PROJECT NUMBER: 8466

GENERAL PROJECT OVERVIEW & SURVEY CONTROL

DRAWING NUMBER: **G-2**
SHEET NUMBER: 3 OF 25

- #### LEGEND
- CONTRACTOR ACCESS
 - CONSTRUCTION LIMITS
 - BENCHMARK
 - CONTROL POINT

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 Madison-100_black.rvt
 Project: 32
 Sheet: 32

GENERAL NOTES

- 1. CONTRACTOR SHALL MAKE A REVIEW OF THE SITE TO DETERMINE EXISTING CONDITIONS. ANYTHING NOT SHOWN ON THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE CITY IMMEDIATELY AND SHALL NOT CONSTITUTE GROUNDS FOR AN EXTRA, UNLESS APPROVED BY CITY.
- 2. THE CONTRACTOR SHALL CONTACT THE CITY IMMEDIATELY IF ANY CONFLICTS ARE FOUND IN THE CONTRACT DOCUMENTS.
- 3. ALL WORK PERFORMED, AND ALL MATERIALS FURNISHED SHALL BE IN CONFORMANCE WITH THE LINES, GRADES, CROSS SECTIONS, DIMENSIONS AND MATERIAL REQUIREMENTS SHOWN IN THE PLANS OR INDICATED IN THE SPECIFICATIONS.
- 4. UNLESS OTHERWISE NOTED / SHOWN ON THE DRAWINGS WORK SHALL CONFORM TO THE CITY STANDARD DETAILS. DETAILS CAN BE FOUND IN PART 8 OF THE CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- 5. ALL CONSTRUCTION ACTIVITIES ARE TO BE CONFINED TO THE CONSTRUCTION LIMITS AS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL LIMIT DISTURBANCE TO THE PROJECT SITE WHEREVER PRACTICAL BY MEANS OF TRENCHING, SOIL RETENTION SYSTEMS OR TRACKING PADS.
- 6. THE CONTRACTOR SHALL PROVIDE EXCAVATION SUPPORT SYSTEMS TO PROTECT EXISTING UTILITIES AND ENSURE THAT ALL CONSTRUCTION ACTIVITIES AND EXCAVATIONS REMAIN WITHIN THE CONSTRUCTION LIMITS SHOWN.
- 7. UNLESS OTHERWISE APPROVED BY THE CITY, ALL TREES SHALL BE PROTECTED DURING CONSTRUCTION UNLESS DESIGNATED FOR REMOVAL ON DRAWING C-2.
- 8. WHERE POSSIBLE, ALL STUMPS SHALL BE GRUBBED. IF GRUBBING STUMPS WILL DAMAGE PROTECTED TREES, OR POTENTIALLY IMPACT UTILITIES, THEY SHALL BE GROUND FLUSH WITH THE PREPARED GRADE.
- 9. CONTRACTOR SHALL NOT TRAVERSE PRIVATE PROPERTY AT ANY TIME DURING CONSTRUCTION. TREES AND BRUSH ON PRIVATE PROPERTY SHALL NOT BE REMOVED, TRIMMED, LIMBED OR DISTURBED WITHOUT PERMISSION FROM THE CITY AND THE PROPERTY OWNER.
- 10. ANY AND ALL AREAS NOT SPECIFIED FOR CONTRACTOR'S ACTIVITIES WHICH ARE DISTURBED AND OR DAMAGED BY THE CONTRACTOR SHALL BE RESTORED TO THE STANDARDS OF THE CONTRACT DOCUMENTS TO THE EXISTING LOCATION, ELEVATION AND DIMENSION AND TO THE SATISFACTION OF THE CITY AT THE CONTRACTORS EXPENSE.
- 11. THE CONTRACTOR'S CONSTRUCTION MEANS AND METHODS SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL CONSTRUCTION AND SAFETY CODES. WHERE APPLICABLE THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LICENSES AND PERMITS AT ITS OWN EXPENSE UNLESS PREVIOUSLY OBTAINED BY THE CITY.
- 12. CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP EXCAVATIONS DRY AND SHALL PROVIDE ALL SHEETING, SHORING AND BRACING NECESSARY TO PROTECT ADJACENT STRUCTURES, UTILITIES, EXISTING PAVEMENT, OR TO MINIMIZE TRENCH WIDTH.
- 13. ALL MATERIAL SHALL BE NEW, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 14. FINISHED GRADE SHOWN ON THE DRAWINGS REFERS TO THE FINAL GRADE AFTER THE INSTALLATION OF FINAL GROUND STABILIZATION MEASURES.

REMOVAL AND ABANDONMENT NOTES

- 1. PROVIDE TEMPORARY BYPASS PUMPING, DIVERSION OF SEWER AND STORM FLOWS AND DEWATERING OF THE EXCAVATION PER THE REQUIREMENTS OF THE SPECIFICATIONS.
- 2. SAWCUT PAVEMENT ON THE LINES SHOWN ON THE DRAWINGS, AT THE NEAREST JOINT, OR AS DIRECTED BY THE CITY AND ENGINEER. REMOVE PAVEMENT FOR CONSTRUCTION. LIMITS OF REMOVAL SHALL BE LIMITED TO THE AREA DEPICTED IN THE DRAWINGS UNLESS OTHERWISE APPROVED BY THE CITY.
- 3. BIKE PATH AND OTHER PAVEMENTS SHALL BE PROTECTED OUTSIDE THE LIMITS SHOWN FOR REMOVAL. TRACKING MATS OR DUNNAGE SHALL BE PROVIDED BY THE CONTRACTOR TO PROTECT PAVEMENT AND ARE INCIDENTAL TO THE PROJECT.
- 4. REMOVE EXISTING STONE ARCH CULVERT, CONCRETE FLOOR, SLIPLINED 60-INCH HDPE PIPE, AND HEADWALLS. DISPOSE OF MATERIALS OFF-SITE AT LOCATION TO BE PROVIDED BY CONTRACTOR.
- 5. REMOVAL OF THE CONCRETE AROUND THE EXISTING SANITARY PIPE FROM MH 02-168 TO MH 02-167 IS INCIDENTAL TO THE REMOVE PIPE BID ITEM. SEE DRAWING C-3.

UTILITY NOTES

- 1. STATE LAW REQUIRES ANYONE EXCAVATING OR DRILLING IN THE GROUND WITH POWER EQUIPMENT IN THE STATE OF WISCONSIN TO CALL DIGGER'S HOTLINE AT 811 OR (800)242-8511 FOR UTILITY LOCATIONS AT LEAST 48 HOURS BEFORE STARTING WORK.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY OWNERS TO ASCERTAIN THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES BEFORE PERFORMING EXCAVATION OPERATIONS.
- 3. THE PLANS INDICATE THE APPROXIMATE LOCATION OF KNOWN UTILITIES ON THE PROJECT. SEE UTILITY INFORMATION / NOTES ON DRAWING G-1. IF THE CONTRACTOR DISCOVERS UTILITIES WHOSE EXISTENCE WAS NOT KNOWN, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY OWNER AND THE ENGINEER.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING ITEMS, UTILITIES, AND/OR STRUCTURES, THAT ARE NOT NOTED FOR REMOVAL OR ABANDONMENT, FROM DAMAGE DURING CONSTRUCTION. DAMAGE TO EXISTING UTILITIES RESULTING FROM THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 5. CONTRACTOR IS REQUIRED TO POTHOLE 12-INCH GAS MAIN PRIOR TO EXCAVATION TO BETTER DETERMINE LOCATION AND DEPTH. GAS MAIN HAS A CATHODIC PROTECTION SYSTEM THAT IS NOT SHOWN ON DRAWINGS. PROTECT CATHODIC PROTECTION SYSTEM DURING POTHOLING AND EXCAVATION. POTHOLING OF GAS MAIN SHALL BE PAID UNDER THE UTILITY LINE OPENING BID ITEM.
- 6. CONTRACTOR SHALL CONTACT MADISON GAS & ELECTRIC WHEN EXCAVATING WITHIN 3-FEET OF EXISTING GAS LINES. WATCH DOG IS REQUIRED TO BE ON SITE DURING POTHOLING, EXCAVATION WITHIN 3-FEET OF MAIN, DURING SUPPORT OF EXISTING GAS MAIN, AND BACKFILLING OPERATIONS. SUPPORT AND PROTECTION OF MG&E IS INCIDENTAL TO THE PROJECT. THE CONTRACTOR IS ENCOURAGED TO LIMIT THE EXPOSURE AND DURATION OF UTILITY SUPPORT.
- 7. MG&E GAS MAIN SHALL BE BEDDED PER THE DETAIL ON DRAWING CD-1. PROVIDE 3-FEET MINIMUM COVER OVER CROWN OF EXISTING GAS MAIN DURING FINAL RESTORATION, OR AS DIRECTED BY THE UTILITY
- 8. CONTRACTOR SHALL SUPPORT ALL EXISTING UTILITY PIPING, CONDUIT, DUCTWORK AND POLES EXPOSED DURING CONSTRUCTION BY MEANS ACCEPTABLE TO THE UTILITY OWNER AND ENGINEER. SUPPORT OF EXISTING UTILITIES IS INCIDENTAL TO THE PROJECT.
- 9. ALL STATIONING IS ALONG THE HORIZONTAL CENTERLINE OF THE EXISTING OR PROPOSED UTILITY.
- 10. PIPE LENGTHS AND SLOPES SHOWN ON DRAWINGS ARE CALCULATED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

EROSION CONTROL NOTES

- 1. EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY OTHER 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 WDNR SOC STANDARDS AND CITY OF MADISON STANDARD SPECIFICATIONS.
- 4. THE CONTRACTOR SHALL PROVIDE STREET SWEEPING AS DIRECTED BY THE CITY ON A DAILY BASIS TO KEEP TRACKING TO A MINIMUM.
- 5. ALL STORMWATER DRAINAGE IN THE PROJECT SHALL BE PERPETUATED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL STORM WATER CONTROL MEASURES NECESSARY WITHIN THE CHANNEL AND ASSOCIATED DRAINAGES.
- 6. NO CONSTRUCTION MATERIALS OR STOCKPILES SHALL BE STORED IN THE CHANNEL AND ASSOCIATED DRAINAGES.
- 7. ALL EROSION CONTROL MATTING SHALL BE OVERLAPPED SUCH THAT THE OVERLAP CORRESPONDS TO THE FLOW DIRECTION.
- 8. ADDITIONAL INLET PROTECTIONS MAY BE REQUIRED OUTSIDE THE LIMITS OF THE DRAWING VIEWPORTS. PROTECT ALL INLETS AT DOWNSTREAM RECEIVING LOCATIONS.
- 9. THE CONTRACTOR SHALL USE APPROPRIATE CONCRETE WASTE CATCHMENT. ALL POINTS ON THIS SITE DRAIN DIRECTLY TO LAKE WINGRA.
- 10. CONTRACTOR SHALL AVOID TRACKING WITHIN STORM CHANNEL DURING CONSTRUCTION. ANY CONSTRUCTION ACTIVITY WITHIN THE STORM CHANNEL SHALL BE PROPERLY PROTECTED WITH EROSION CONTROL BMPS.



SOUTHWEST BIKEPATH CULVERT REPLACEMENT AT WAITE CIRCLE - 2019

REVISIONS		
REV	DATE	DESCRIPTION
1	8/22/19	ISSUED FOR BID

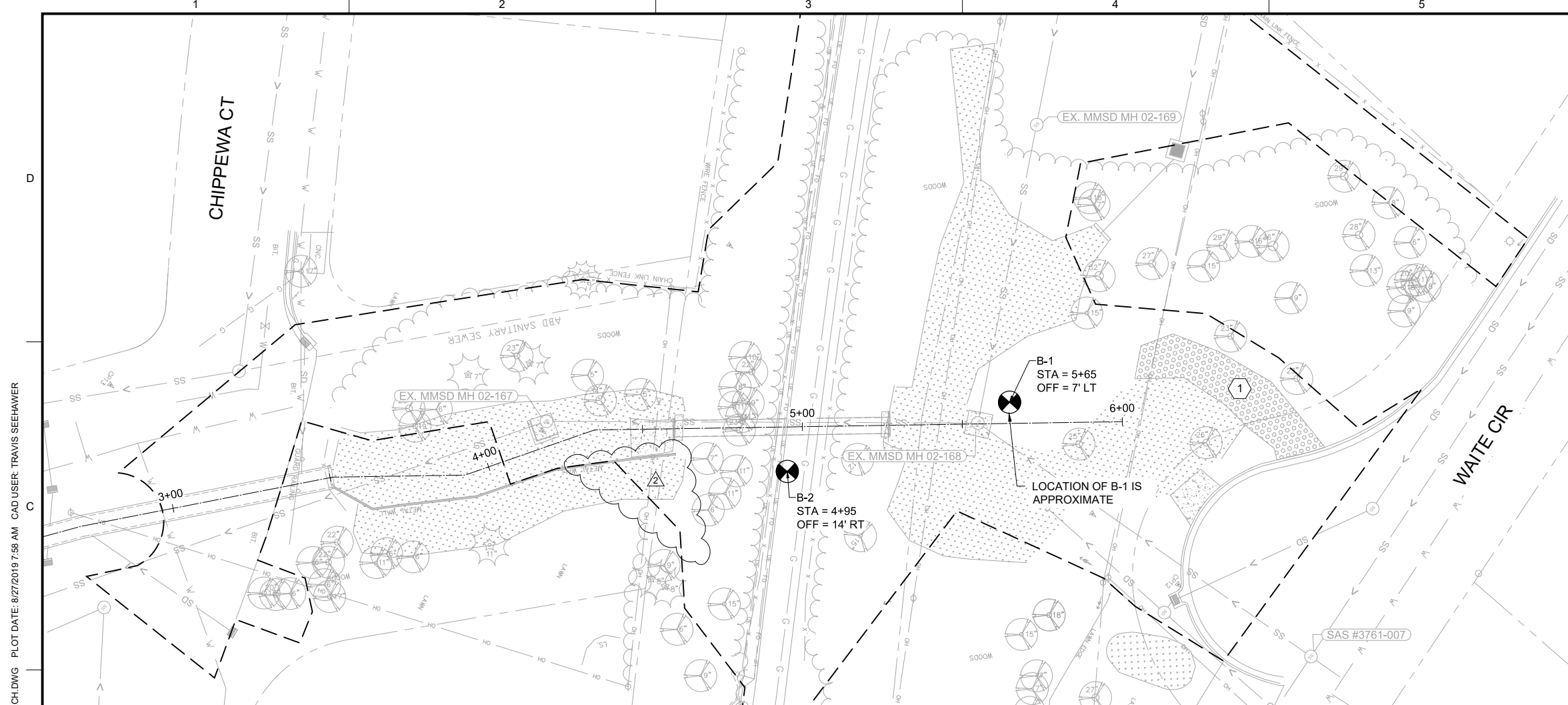
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 CHECKED: C LUCIE
 APPROVED: A SHELTON
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 BC PROJECT NUMBER: 153394
 CLIENT PROJECT NUMBER: 8466

GENERAL GENERAL NOTES

DRAWING NUMBER
G-3
 SHEET NUMBER
 4 OF 25

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Madison-log_black.jpg



LEGEND

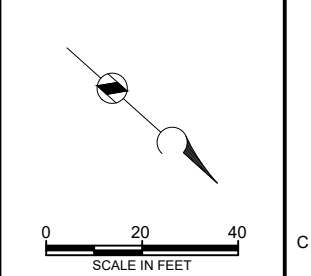
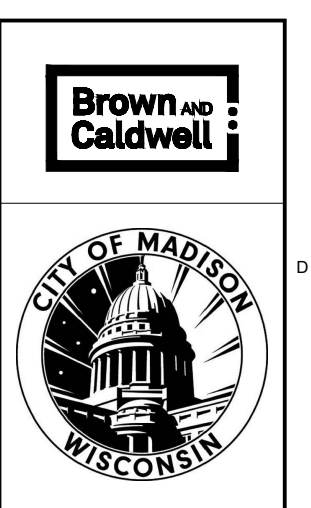
- CONSTRUCTION LIMITS
- ⊗ BORING LOCATION
- PAV PAVEMENT
- FILL FILL
- SP- POORLY GRADED SAND-SILTY SAND
- SM SILTY SAND

GENERAL NOTES

- SEE APPENDIX B FOR GEOTECHNICAL INVESTIGATION REPORT.
- THE PLAN & PROFILE SHOWN ARE OF THE EXISTING STORM CULVERT AND SANITARY SEWER. STATIONING SHOWN IS FOR EXISTING STORM CULVERT.
- CONTRACTOR SHALL OBTAIN ADDITIONAL SOIL INFORMATION AS NECESSARY TO PERFORM THE WORK. ADDITIONAL SOIL BORINGS ARE INCIDENTAL TO THE WORK.

KEY NOTES

- 1 EXISTING GRAVEL DRIVE
- 2 EXISTING 12" WELDED STEEL HIGH PRESSURE GAS MAIN AND CATHODIC PROTECTION SYSTEM.
- 3 EXISTING FIBER OPTIC AND CITY ELECTRICAL CONDUITS



**ADDENDUM 1
CHANGED
CONSTRUCTION
LIMITS**

**SOUTHWEST
BIKEPATH
CULVERT
REPLACEMENT AT
WAITE CIRCLE -
2019**

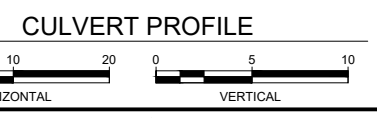
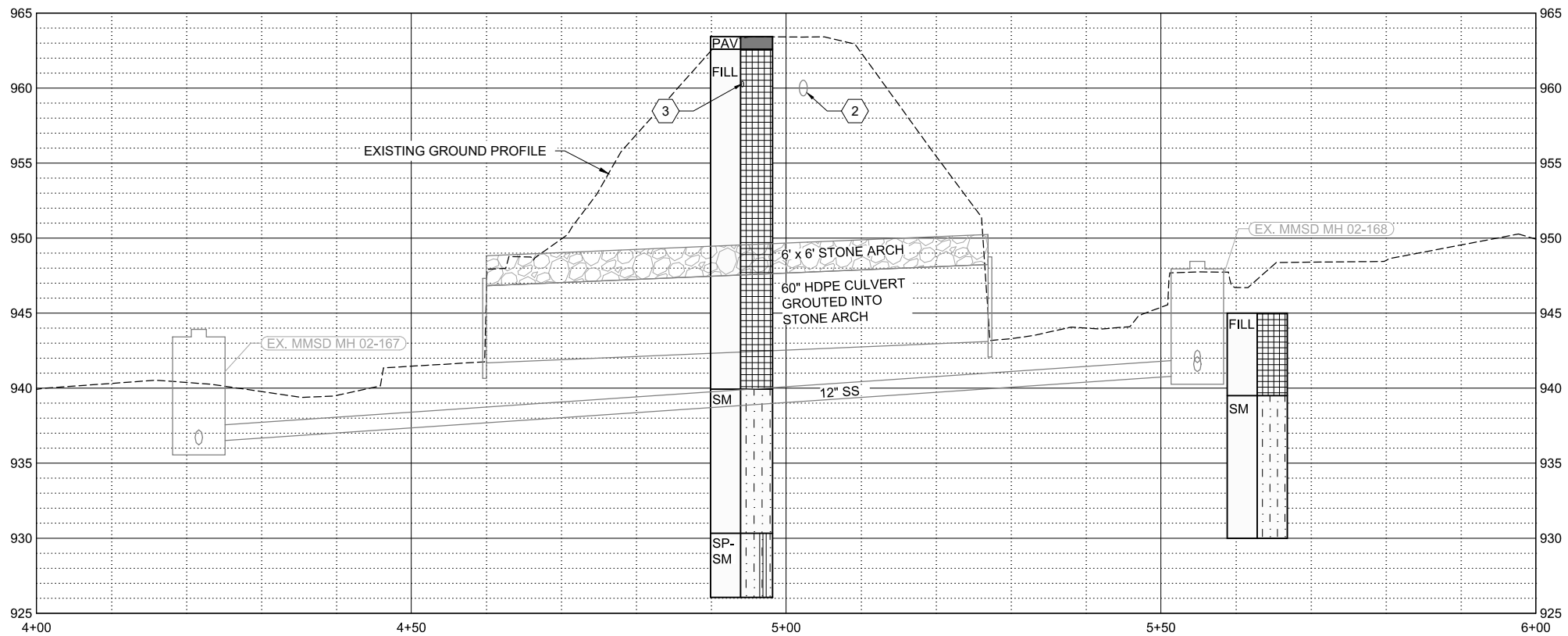
REVISIONS		
REV	DATE	DESCRIPTION
1	8/22/19	ISSUED FOR BID
2	8/29/19	ADDENDUM 1

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 CHECKED: C LUCIE
 APPROVED: A SHELTON
 FILENAME: 5-G-04-GEOTECH.DWG
 BC PROJECT NUMBER: 153394
 CLIENT PROJECT NUMBER: 8466

**GENERAL
GEOTECHNICAL
PLAN & PROFILE**

DRAWING NUMBER
G-4
 SHEET NUMBER
 5 OF 25

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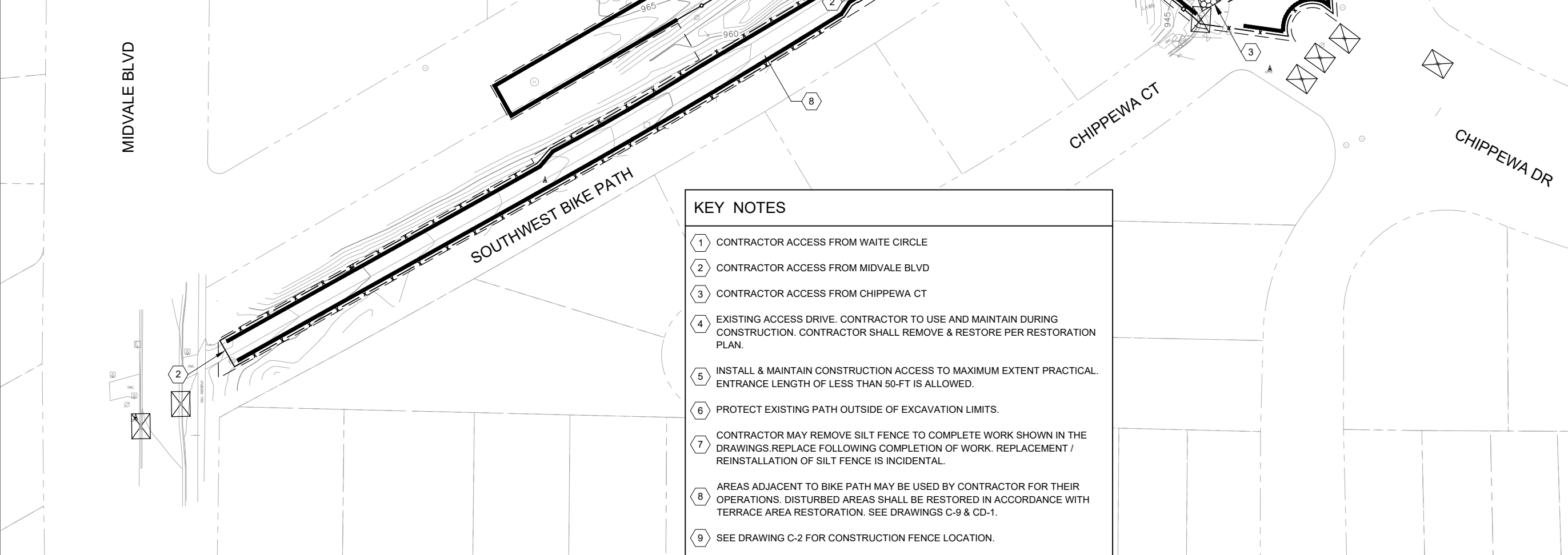
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LEGEND

- CONSTRUCTION LIMITS
- ➔ CONSTRUCTION ACCESS
- ▨ CONSTRUCTION ENTRANCE PER S.D.D.1.07
- SILT FENCE
- ▬ SILT SOCK
- ⊠ RIGID FRAME INLET PROTECTION (2 CD-2)
- x-x- CHAIN LINK FENCE
- ▬ CONSTRUCTION FENCE
- ▨ EXISTING RIP RAP
- ▨ EXISTING GRAVEL DRIVE

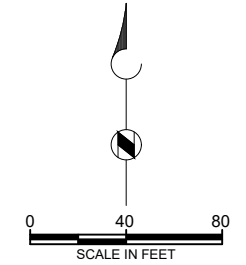
GENERAL NOTES

1. SEE DRAWING G-3 FOR EROSION CONTROL NOTES.
2. EROSION CONTROL DRAWINGS SHOWS EXISTING CONTOURS.
3. BIKE PATH DETOUR ROUTE REQUIRED. SEE SPECIFICATIONS.
4. SEE DRAWINGS C-8 & C-9 FOR RESTORATION AND PERMANENT EROSION CONTROL MEASURES.
5. SPECIFIC SOIL STOCKPILE AREAS ARE NOT IDENTIFIED. CONTRACTOR SHALL LOCATE STOCKPILES BASED ON SELECTED MEANS AND METHODS. CONTRACTOR SHALL PROVIDE APPROPRIATE EROSION CONTROL FOR STOCKPILE AREAS. STOCKPILES SHALL NOT BE LOCATED IN DRAINAGE-WAYS.
6. BIKE PATH AND OTHER PAVEMENTS SHALL BE PROTECTED OUTSIDE THE LIMITS SHOWN FOR REMOVAL. TRACKING MATS OR DUNNAGE TO PROTECT PAVEMENT SHALL BE PROVIDED BY THE CONTRACTOR AND ARE INCIDENTAL TO THE PROJECT.



KEY NOTES

- 1 CONTRACTOR ACCESS FROM WAITE CIRCLE
- 2 CONTRACTOR ACCESS FROM MIDVALE BLVD
- 3 CONTRACTOR ACCESS FROM CHIPPEWA CT
- 4 EXISTING ACCESS DRIVE. CONTRACTOR TO USE AND MAINTAIN DURING CONSTRUCTION. CONTRACTOR SHALL REMOVE & RESTORE PER RESTORATION PLAN.
- 5 INSTALL & MAINTAIN CONSTRUCTION ACCESS TO MAXIMUM EXTENT PRACTICAL. ENTRANCE LENGTH OF LESS THAN 50-FT IS ALLOWED.
- 6 PROTECT EXISTING PATH OUTSIDE OF EXCAVATION LIMITS.
- 7 CONTRACTOR MAY REMOVE SILT FENCE TO COMPLETE WORK SHOWN IN THE DRAWINGS. REPLACE FOLLOWING COMPLETION OF WORK. REPLACEMENT / REINSTALLATION OF SILT FENCE IS INCIDENTAL.
- 8 AREAS ADJACENT TO BIKE PATH MAY BE USED BY CONTRACTOR FOR THEIR OPERATIONS. DISTURBED AREAS SHALL BE RESTORED IN ACCORDANCE WITH TERRACE AREA RESTORATION. SEE DRAWINGS C-9 & CD-1.
- 9 SEE DRAWING C-2 FOR CONSTRUCTION FENCE LOCATION.



**ADDENDUM 1
CHANGED
ENTIRE
DRAWING**

**SOUTHWEST
BIKEPATH
CULVERT
REPLACEMENT AT
WAITE CIRCLE -
2019**

REVISIONS		
REV	DATE	DESCRIPTION
1	8/22/19	ISSUED FOR BID
2	8/29/19	ADDENDUM 1

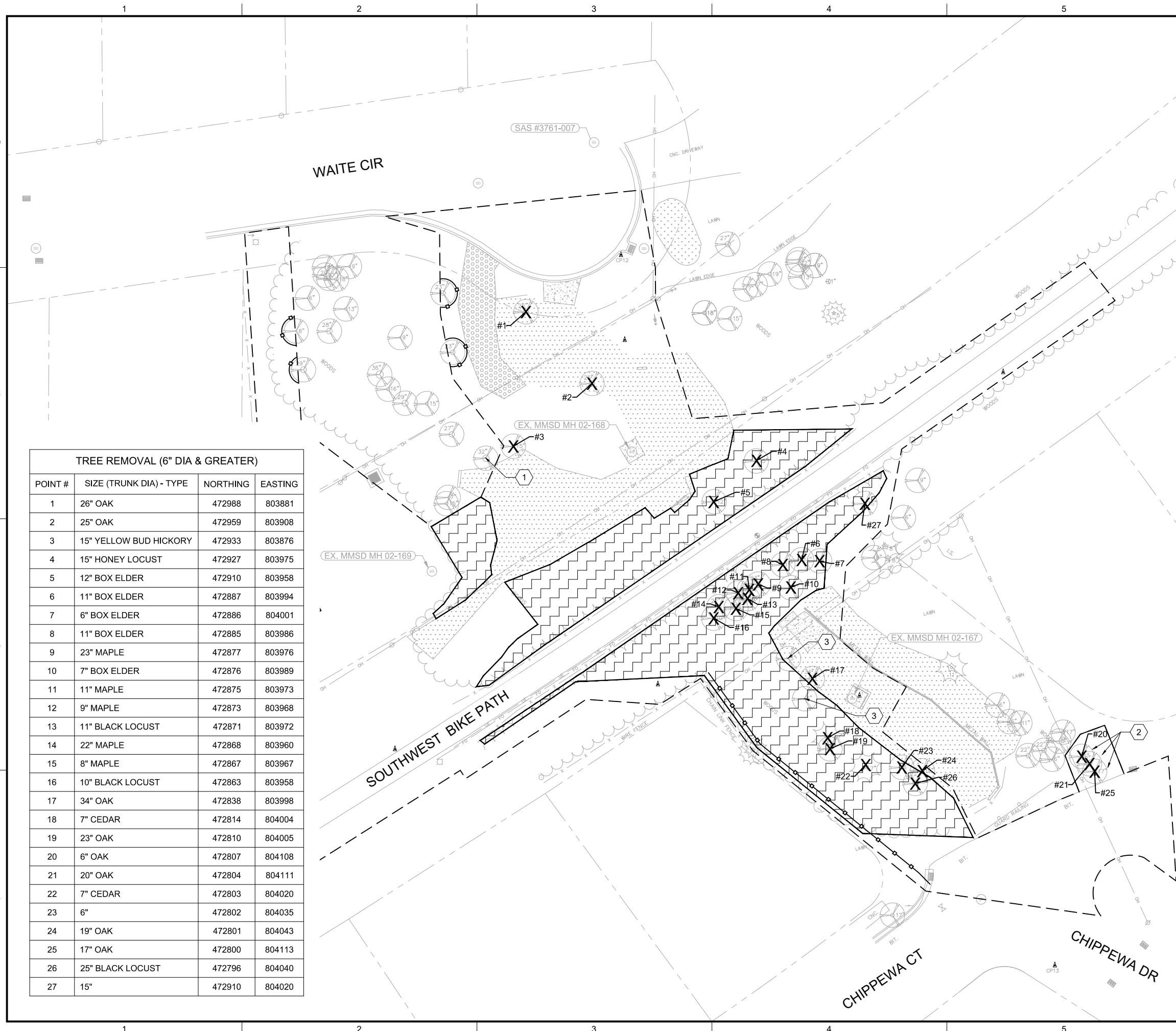
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 APPROVED: A SHELTON
 FILENAME
 6-C-01-EROSION CONTROL.DWG
 BC PROJECT NUMBER
 153394
 CLIENT PROJECT NUMBER
 8466

CIVIL

**EROSION CONTROL
PLAN**

 DRAWING NUMBER
C-1
 SHEET NUMBER
 6 OF 25

Path: P:\MADISON, CITY OF\153394 WEST WINGRA WATERSHED STUDY\WATERCIRCLE\CAD\2-SHEETS\CIVIL FILENAME: 7-C-02-TREE REMOVAL.DWG PLOT DATE: 8/27/2019 8:04 AM CAD USER: TRAVIS SEEHAWER
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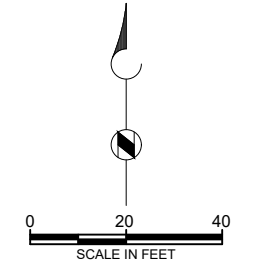
LEGEND

- CONSTRUCTION LIMITS
- X REMOVE EXISTING TREE
- [Hatched Box] CLEAR AND GRUB AREA
- [Dashed Line] CONSTRUCTION FENCE
- [Dotted Box] EXISTING RIP RAP
- [Cross-hatched Box] EXISTING GRAVEL DRIVE

- GENERAL NOTES**
1. TOPOGRAPHIC SURVEY IDENTIFIED TREES 6-INCHES DBH AND GREATER.
 2. TREE REMOVAL SHALL BE MEASURED BY PLAN QUANTITY BASED ON TREE SURVEY DATA.
 3. TREES LESS THAN 6-INCHES SHALL BE REMOVED AS NECESSARY FOR CONSTRUCTION. REMOVAL SHALL BE INCLUDED AS PART OF CLEARING & GRUBBING.
 4. TREES IDENTIFIED FOR REMOVAL ARE NOT SHOWN ON SUBSEQUENT PLAN DRAWINGS.
 5. PROTECT ALL TREES NOT DESIGNATED FOR REMOVAL UNLESS DIRECTED BY THE CITY OR ENGINEER. NO ROOT CUTTING. GRADE SHALL BE RESTORED TO MATCH EXISTING NEAR PROTECTED TREES.
 6. BIKE PATH DETOUR ROUTE REQUIRED. SEE SPECIFICATIONS.

- KEY NOTES**
- 1 PLACE FILL NEAR, AND BENEATH, TREE TO FILL VOID AREAS BENEATH TREE. DIRECT SURFACE RUNOFF AWAY FROM TREE. PLACE RIP RAP ON ALL GRADED AREAS. WORK SHALL BE INCIDENTAL
 - 2 REMOVE TREES AND GRUB STUMPS. RESTORE DISTURBED WITH TERRACE AREA, (1 CD-1)
 - 3 TREE LESS THAN 6-INCH DBH, INCLUDED AS PART OF CLEARING & GRUBBING (TYP.)

TREE REMOVAL (6" DIA & GREATER)			
POINT #	SIZE (TRUNK DIA) - TYPE	NORTHING	EASTING
1	26" OAK	472988	803881
2	25" OAK	472959	803908
3	15" YELLOW BUD HICKORY	472933	803876
4	15" HONEY LOCUST	472927	803975
5	12" BOX ELDER	472910	803958
6	11" BOX ELDER	472887	803994
7	6" BOX ELDER	472886	804001
8	11" BOX ELDER	472885	803986
9	23" MAPLE	472877	803976
10	7" BOX ELDER	472876	803989
11	11" MAPLE	472875	803973
12	9" MAPLE	472873	803968
13	11" BLACK LOCUST	472871	803972
14	22" MAPLE	472868	803960
15	8" MAPLE	472867	803967
16	10" BLACK LOCUST	472863	803958
17	34" OAK	472838	803998
18	7" CEDAR	472814	804004
19	23" OAK	472810	804005
20	6" OAK	472807	804108
21	20" OAK	472804	804111
22	7" CEDAR	472803	804020
23	6"	472802	804035
24	19" OAK	472801	804043
25	17" OAK	472800	804113
26	25" BLACK LOCUST	472796	804040
27	15"	472910	804020



**ADDENDUM 1
CHANGED
ENTIRE
DRAWING**

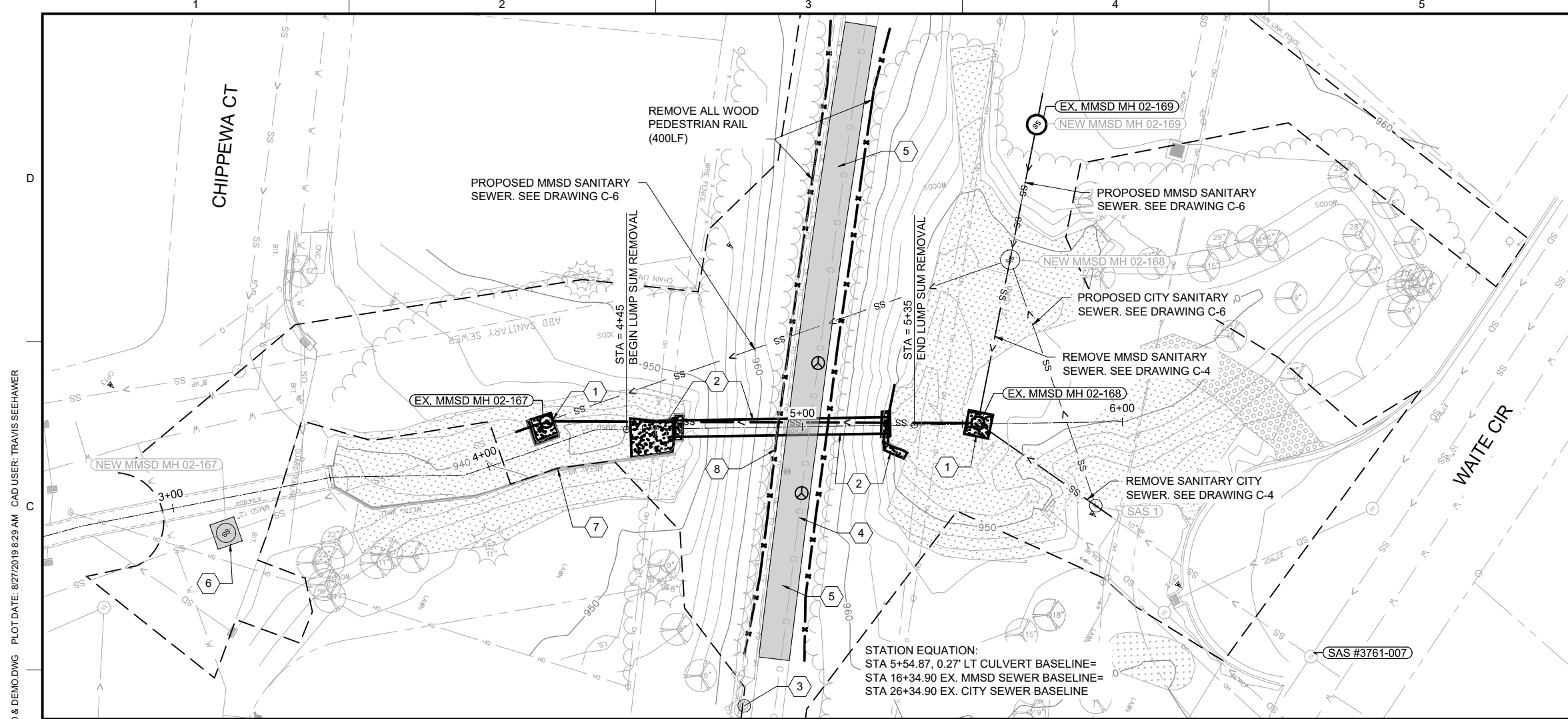
**SOUTHWEST
BIKEPATH
CULVERT
REPLACEMENT AT
WAITE CIRCLE -
2019**

REVISIONS		
REV	DATE	DESCRIPTION
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2	8/29/19	ADDENDUM 1

DRAWN: T SEEHAWER
 CHECKED: C LUCIE
 APPROVED: A SHELTON
 FILENAME
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 BC PROJECT NUMBER
 153394
 CLIENT PROJECT NUMBER
 8466

**CIVIL
CLEARING,
GRUBBING AND
TREE REMOVAL
PLAN**

DRAWING NUMBER
C-2
 SHEET NUMBER
 7 OF 25

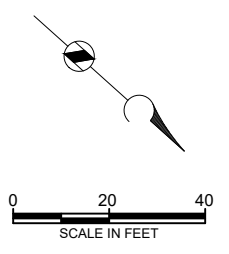


LEGEND

- CONSTRUCTION LIMITS
- BITUMINOUS PAVEMENT REMOVAL
- ▨ EXISTING GRAVEL DRIVE
- ▨ EXISTING RIP RAP
- ⊙ UTILITY LINE OPENING (ULO)

- GENERAL NOTES**
1. UTILITIES SHOWN IN CHIPPEWA COURT HAVE NOT BEEN LOCATED VIA SURVEY. CONTRACTOR SHALL CONDUCT DIGGER'S HOTLINE LOCATE PRIOR TO EXCAVATION.
 2. CONTOURS SHOWN ARE 2 FOOT.
 3. REMOVALS FROM STA. 4+25 TO STA. 5+35 SHALL BE PAID FOR UNDER LUMP SUM REMOVAL.
 4. CITY SANITARY SEWER, MMSD SANITARY SEWER AND CITY BOX CULVERT UTILIZE SEPARATE EXISTING ALIGNMENTS. SEE STATION EQUATION FOR COMMON POINT.
 5. BIKE PATH DETOUR ROUTE REQUIRED. SEE SPECIFICATIONS.
 6. SEE DRAWING C-10 FOR SANITARY SEWER SCHEDULE.

- KEY NOTES**
1. SANITARY STRUCTURE IS A 6-FOOT BY 6-FOOT REINFORCED CONCRETE BOX WITH REINFORCED CONCRETE TOP SLAB
 2. REMOVE EXISTING STONE ARCH, 60-INCH HDPE SLIP LINED PIPE, CONCRETE BASE SLAB, CONCRETE ENCASED SANITARY PIPE, CONCRETE HEADWALLS AND ALL ELSE FROM STA 4+45 TO STA 5+35. THIS WORK IS INCIDENTAL TO THE REMOVE BOX CULVERT BID ITEM.
 3. EXISTING BIKE PATH LIGHT POLE. CONTRACTOR MAY REMOVE, SALVAGE AND REINSTALL AS NEEDED TO PERFORM THE WORK. COORDINATE WITH CITY OF MADISON TRAFFIC ENGINEERING DEPARTMENT, MIKE BENZSCHAWEL (608) 266-9031, 48 HOURS PRIOR TO REMOVAL OF POLES AND FIXTURES. IF LIGHT BASES ARE TO BE REMOVED, COORDINATE WITH CITY TRAFFIC ENGINEERING TO REMOVE AND REPLACE. THIS WORK IS INCIDENTAL TO THE PROJECT.
 4. SUPPORT & PROTECT 12" WELDED STEEL HIGH PRESSURE GAS MAIN DURING POTHOLING, EXCAVATION AND REMOVAL. PROTECTION OF EXISTING UTILITIES IS INCIDENTAL TO THE PROJECT.
 5. SAWCUT EXISTING ASPHALT PATH.
 6. SAWCUT & REMOVE ASPHALT TO INSTALL NEW MMSD MH 02-167 IN CHIPPEWA COURT.
 7. PROTECT METAL SHEET PILE WALL.
 8. PROTECT CITY ELECTRICAL AND FIBER OPTIC CONDUITS. SUPPORT & PROTECTION OF EXISTING UTILITIES IS INCIDENTAL TO THE PROJECT.
 9. REMOVE EXISTING CIPP LINED 12" VCP SEWER AS NECESSARY FOR PROPOSED CONNECTION ON DRAWING C-6. REMOVAL IS INCIDENTAL TO THE PROPOSED SANITARY SEWER PIPE.



**ADDENDUM 1
CHANGED
ENTIRE
DRAWING**

**SOUTHWEST
BIKEPATH
CULVERT
REPLACEMENT AT
WAITE CIRCLE -
2019**

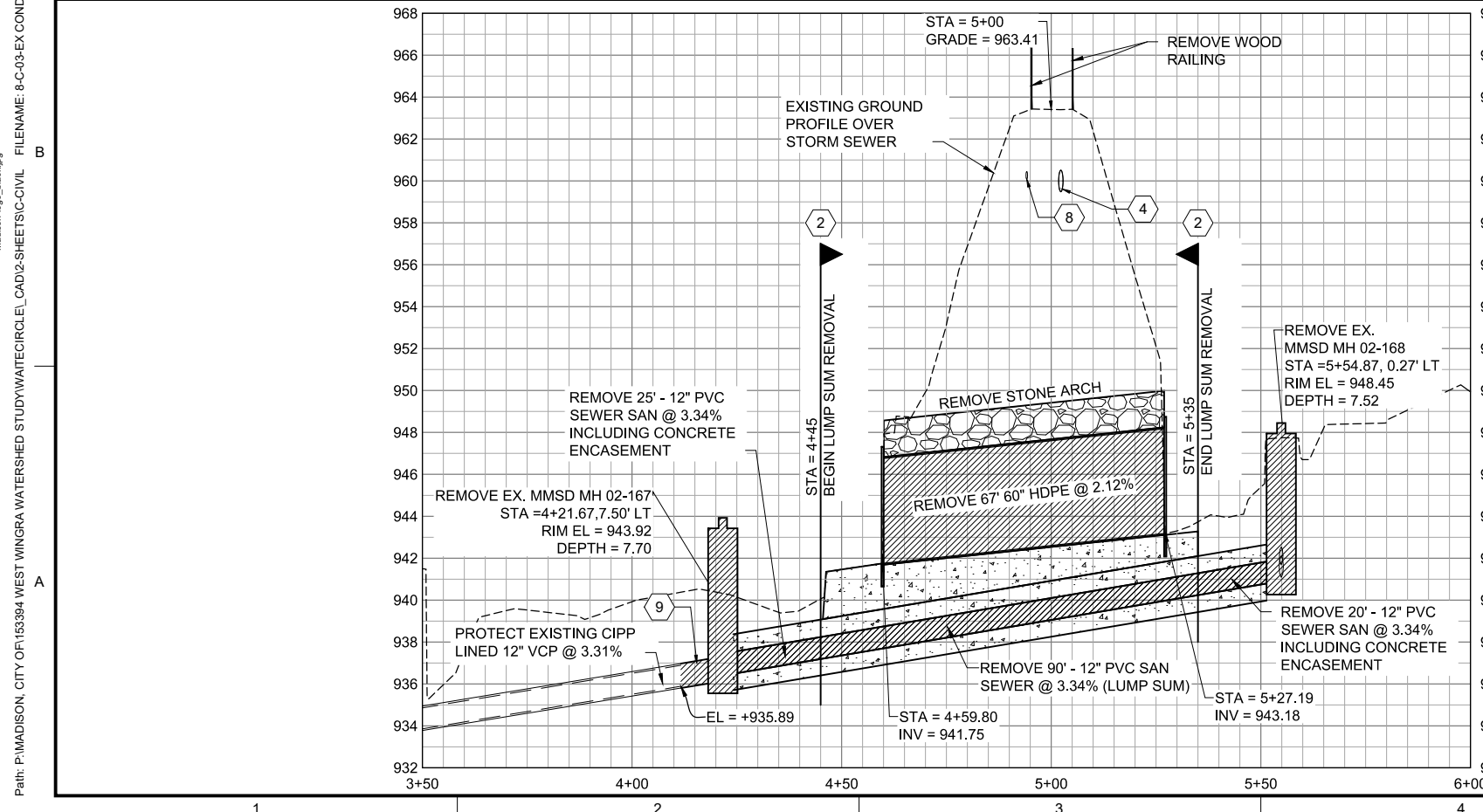
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2	8/29/19	ADDENDUM 1

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 CHECKED: C LUCIE
 APPROVED: A SHELTON

FILENAME
 5-C-02-EX COND & DEMO CULVERT.DWG
 BC PROJECT NUMBER
 153394
 CLIENT PROJECT NUMBER
 8466

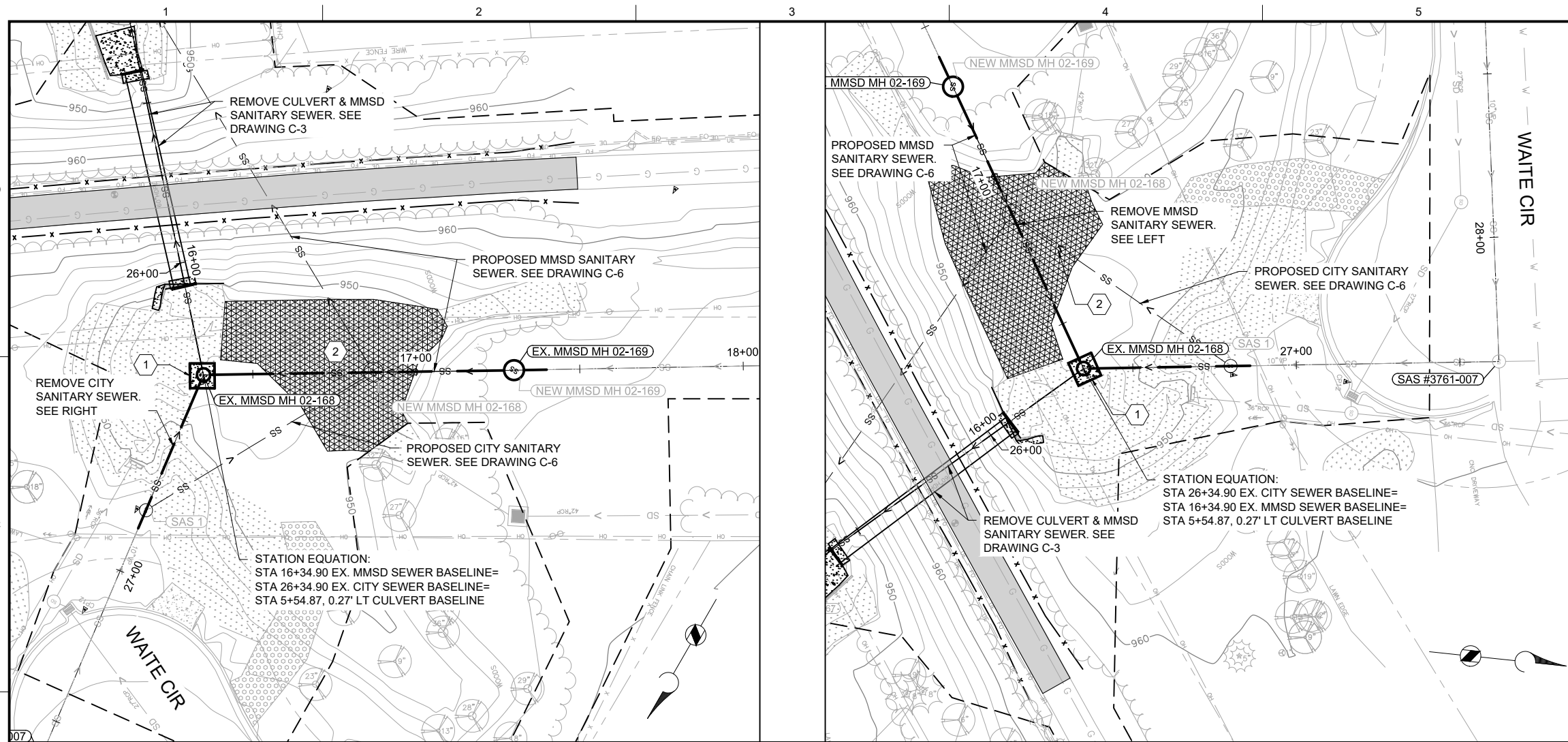
**CIVIL
REMOVAL PLAN &
PROFILE - BOX
CULVERT &
SANITARY SEWER**

DRAWING NUMBER
C-3
 SHEET NUMBER
 8 OF 25



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LEGEND

- CONSTRUCTION LIMITS
- [Hatched Box] BITUMINOUS PAVEMENT REMOVAL
- [Cross-hatched Box] REMOVE EXISTING GROUTED RIP RAP
- [Dotted Box] EXISTING GRAVEL DRIVE
- [Stippled Box] EXISTING RIP RAP

- GENERAL NOTES**
1. CONTOURS SHOWN ARE 2 FOOT.
 2. UPSTREAM AND DOWNSTREAM FLOW CHANNELS HAVE VARYING DEGREES AND SIZES OF RIP RAP. CONTRACTOR SHALL REMOVE RIP RAP AS REQUIRED TO PERFORM THE WORK. RIP RAP REMOVAL IS INCIDENTAL TO OTHER ITEMS IN THE BID.
 3. CITY SANITARY SEWER, MMSD SANITARY SEWER AND CITY BOX CULVERT UTILIZE SEPARATE EXISTING ALIGNMENTS. SEE STATION EQUATION FOR COMMON POINT.
 4. SEE DRAWING C-10 FOR SANITARY SEWER SCHEDULE.

- KEY NOTES**
- 1 SANITARY STRUCTURE IS A 6-FOOT BY 6-FOOT REINFORCED CONCRETE BOX WITH REINFORCED CONCRETE TOP SLAB.
 - 2 REMOVE GROUTED RIP RAP AS SHOWN. REMOVAL OF GROUTED RIP RAP AND RIP RAP IS INCIDENTAL TO THE REMOVE, SALVAGE AND DISPOSE OF RIP RAP AND GROUTED RIP RAP BID ITEM.
 - 3 REMOVE EXISTING 12" PVC SEWER AS NECESSARY FOR PROPOSED OUTSIDE DROP ON DRAWING C-6. REMOVAL IS INCIDENTAL TO THE PROPOSED WORK.



**ADDENDUM 1
CHANGED
ENTIRE
DRAWING**

**SOUTHWEST
BIKEPATH
CULVERT
REPLACEMENT AT
WAITE CIRCLE -
2019**

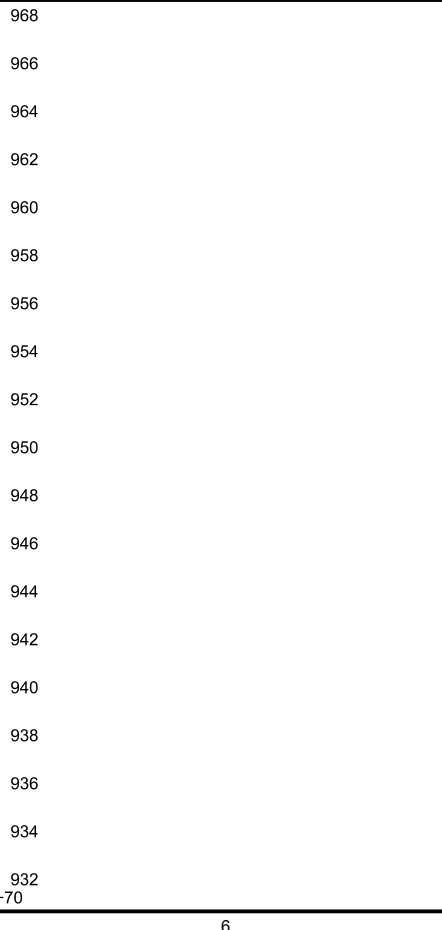
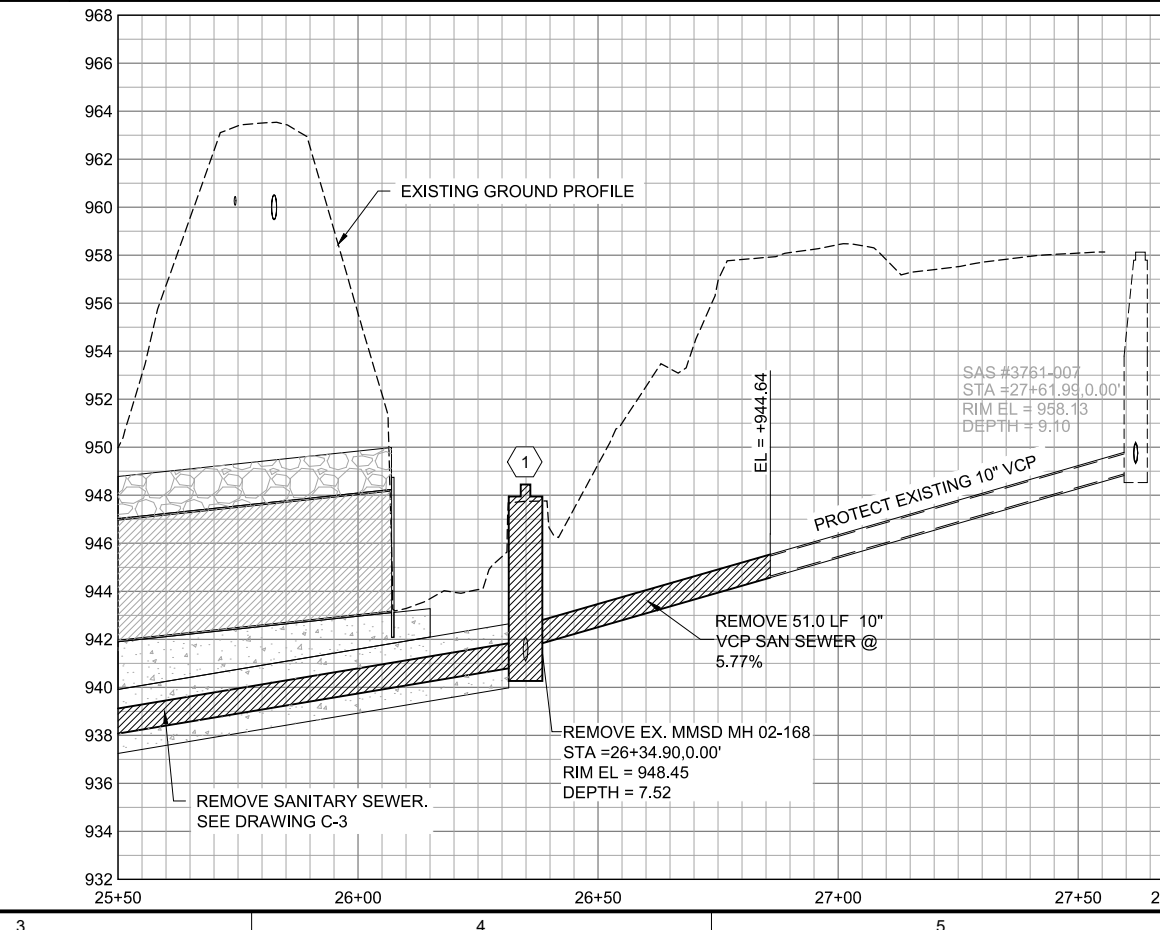
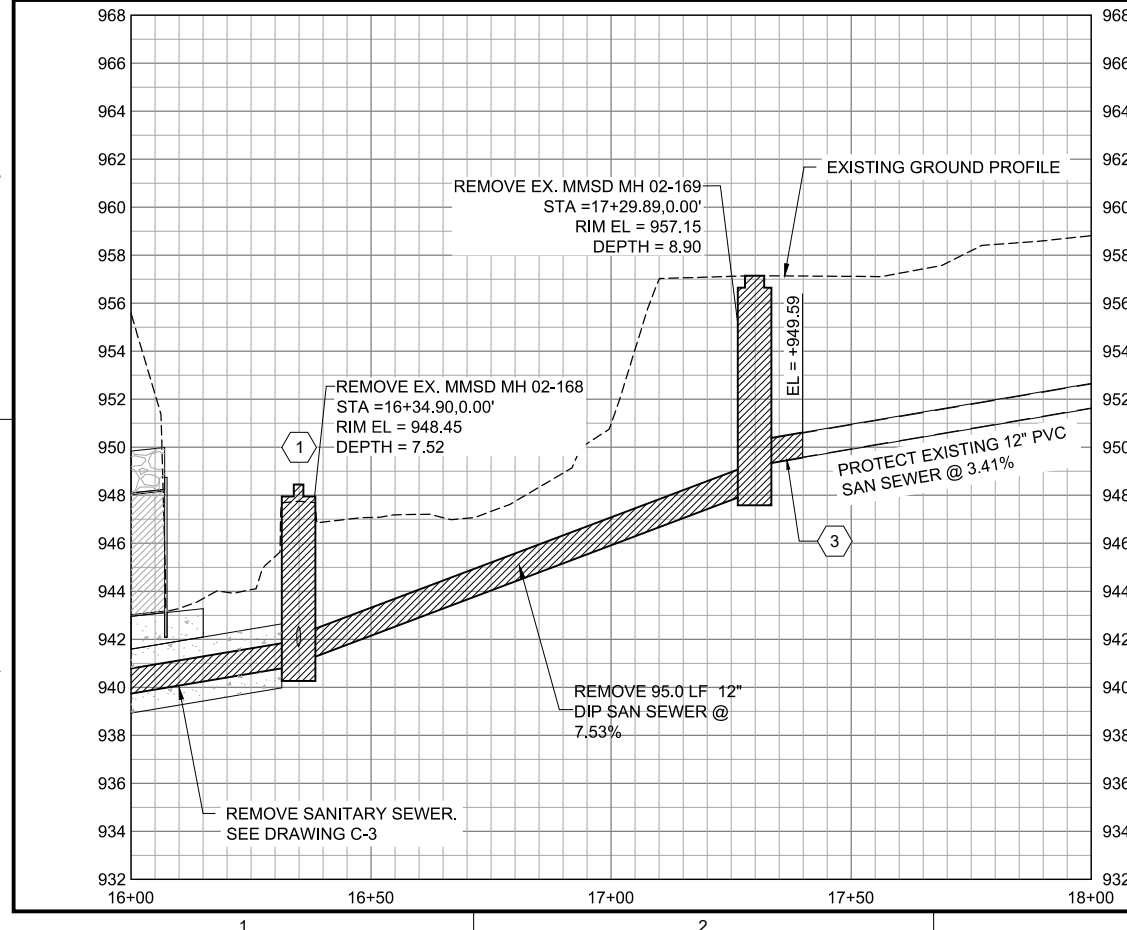
REVISIONS

REV	DATE	DESCRIPTION
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2	8/29/19	ADDENDUM 1

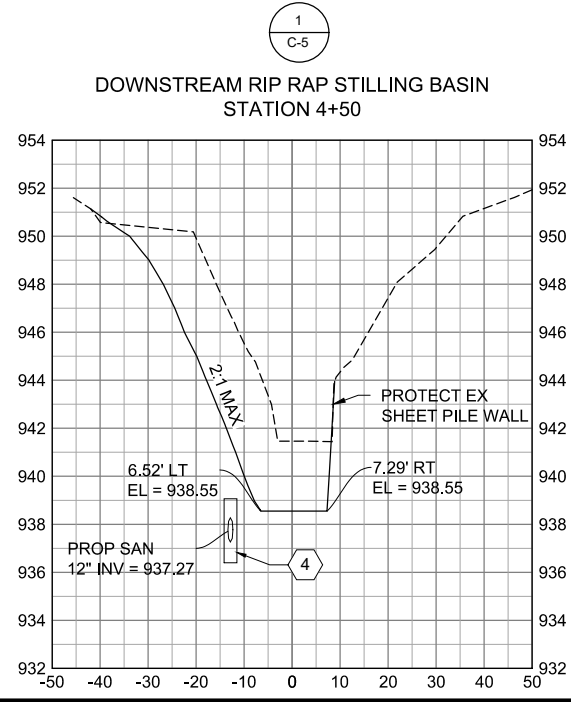
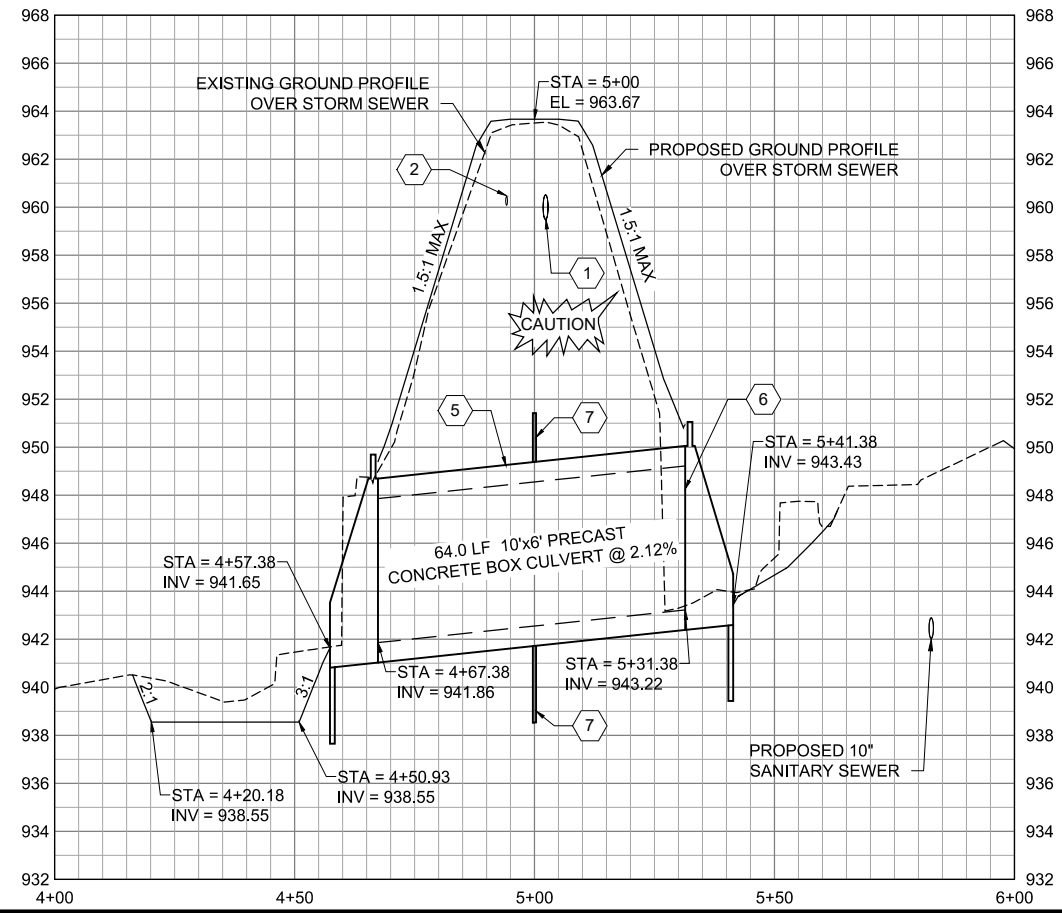
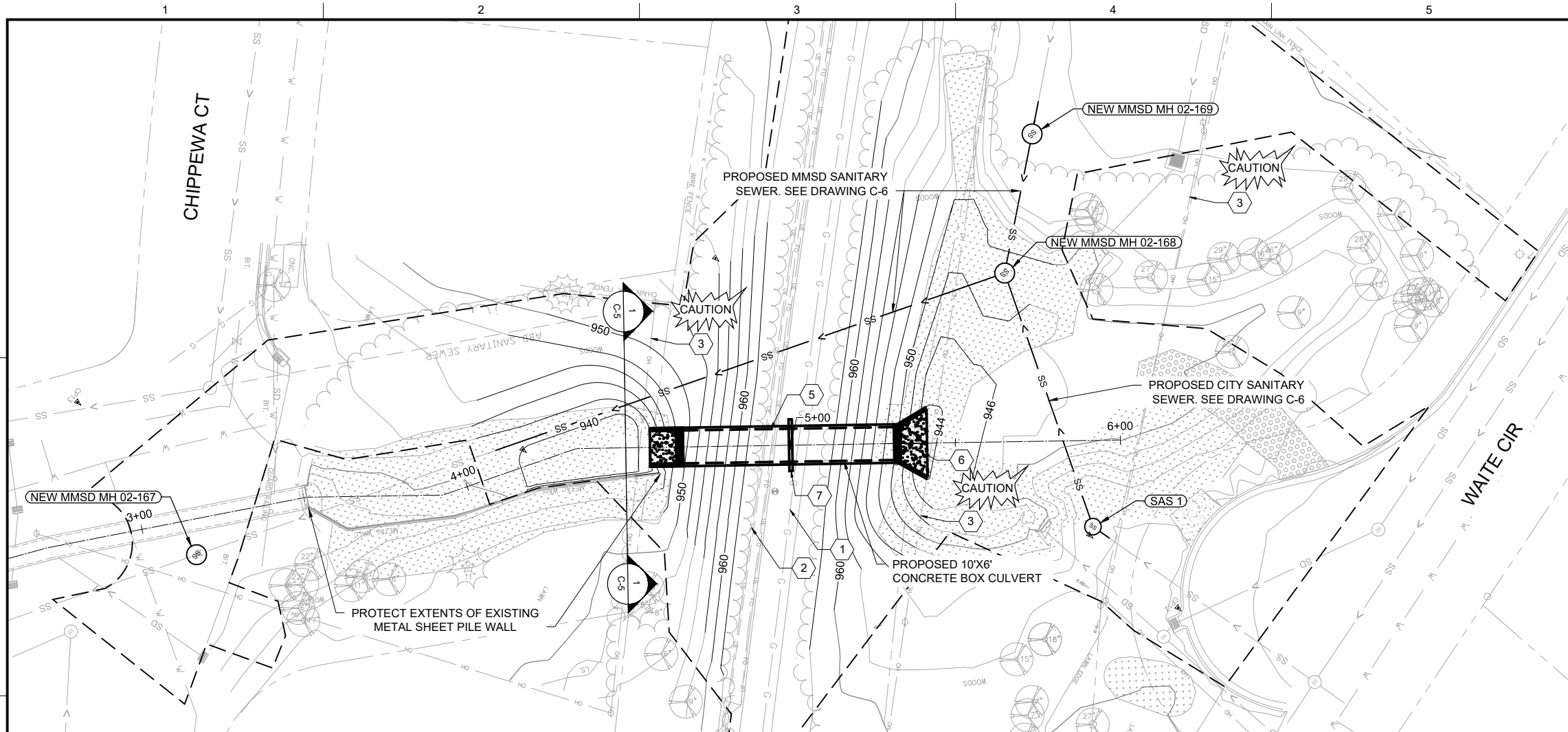
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 BC PROJECT NUMBER: 153394
 CLIENT PROJECT NUMBER: 8466

**CIVIL
REMOVAL PLAN &
PROFILE -
SANITARY SEWER**

DRAWING NUMBER
C-4
SHEET NUMBER
9 OF 25



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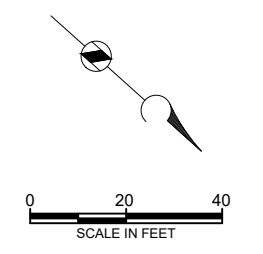
LEGEND
 --- CONSTRUCTION LIMITS

GENERAL NOTES

- CONTOURS SHOWN ARE 2 FOOT.
- BOX CULVERT TYPICAL TRENCH, 4 CD-3
- FOR ADDITIONAL INFORMATION ON PROPOSED RIP RAP AND DOWNSTREAM STILLING BASIN SEE DETAIL, 1 CD-1

KEY NOTES

- 1 SUPPORT & PROTECT 12" WELDED HIGH PRESSURE STEEL GAS MAIN AS NEEDED TO PERFORM THE WORK. PROTECTION OF EXISTING UTILITIES IS INCIDENTAL TO THE PROJECT.
- 2 SUPPORT AND PROTECT CITY ELECTRICAL AND FIBER OPTIC CONDUITS. PROTECTION OF EXISTING UTILITIES IS INCIDENTAL TO THE PROJECT.
- 3 CAUTION OVERHEAD UTILITY.
- 4 ENCASE PROPOSED SANITARY SEWER IN CONCRETE. SEE DRAWING C-6 AND, 6 CD-4
- 5 PRECAST BOX CULVERT AND WINGWALLS HAVE BEEN PURCHASED BY THE CITY OF MADISON FOR INSTALLATION BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR DELIVERY COORDINATION AND FOR UNLOADING FROM THE TRUCK TO THE SITE. SEE APPENDIX C FOR ADDITIONAL DETAILS.
- 6 BOX CULVERT RESTRICTOR PLATE INSTALLED AT UPSTREAM END SECTION. REFER TO DRAWINGS S-1 THROUGH S-3 FOR AND ADDITIONAL INFORMATION.
- 7 ANTI - SEEP COLLAR SHALL BE INSTALLED AT STA 5+00. REFER TO DRAWINGS S-1 THROUGH S-3 FOR ADDITIONAL INFORMATION.



**ADDENDUM 1
CHANGED
ENTIRE
DRAWING**

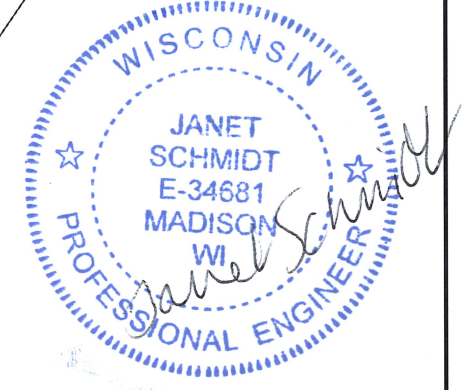
**SOUTHWEST
BIKEPATH
CULVERT
REPLACEMENT AT
WAITE CIRCLE -
2019**

REVISIONS		
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2	8/29/19	ADDENDUM 1

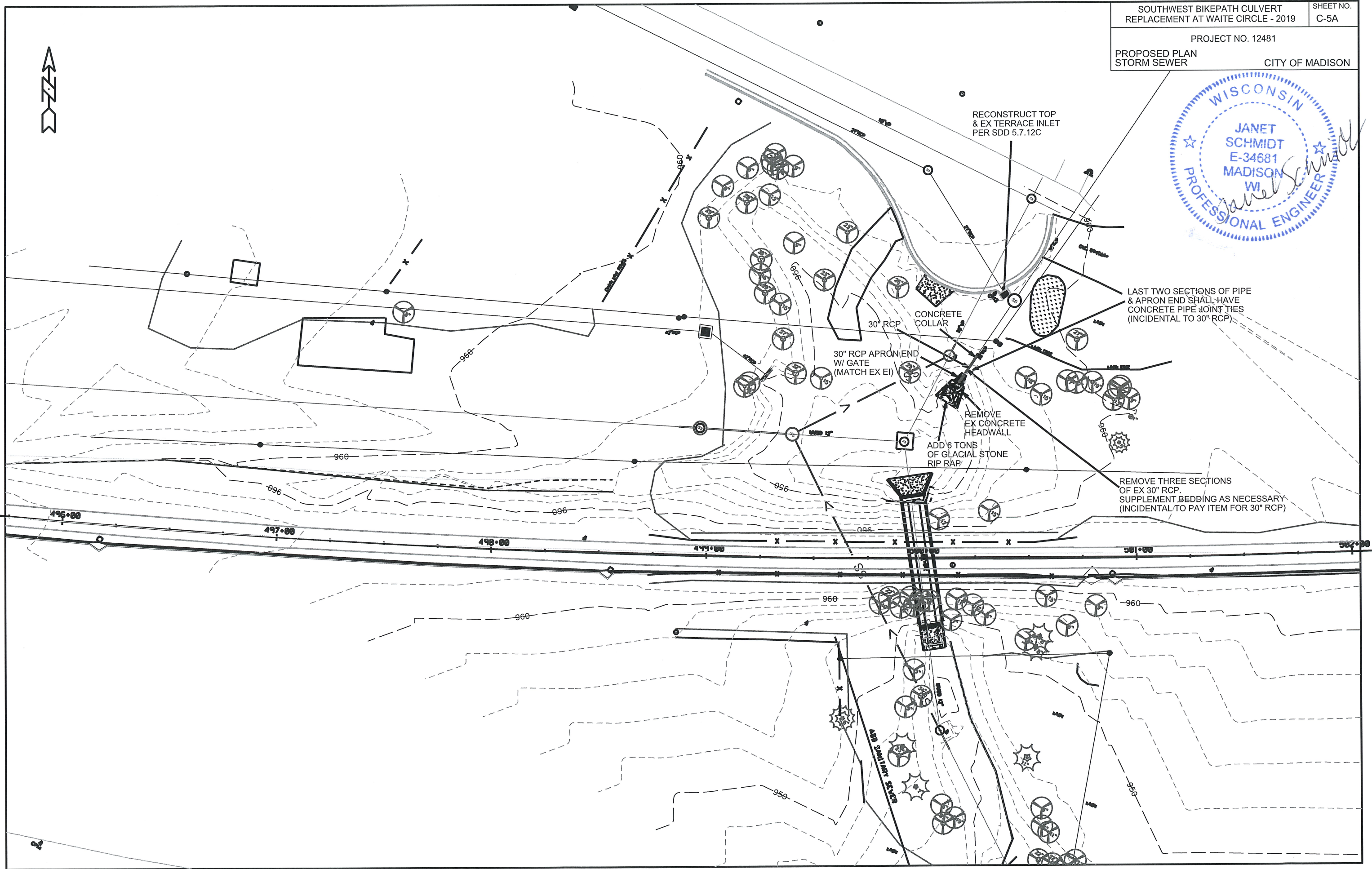
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 8466

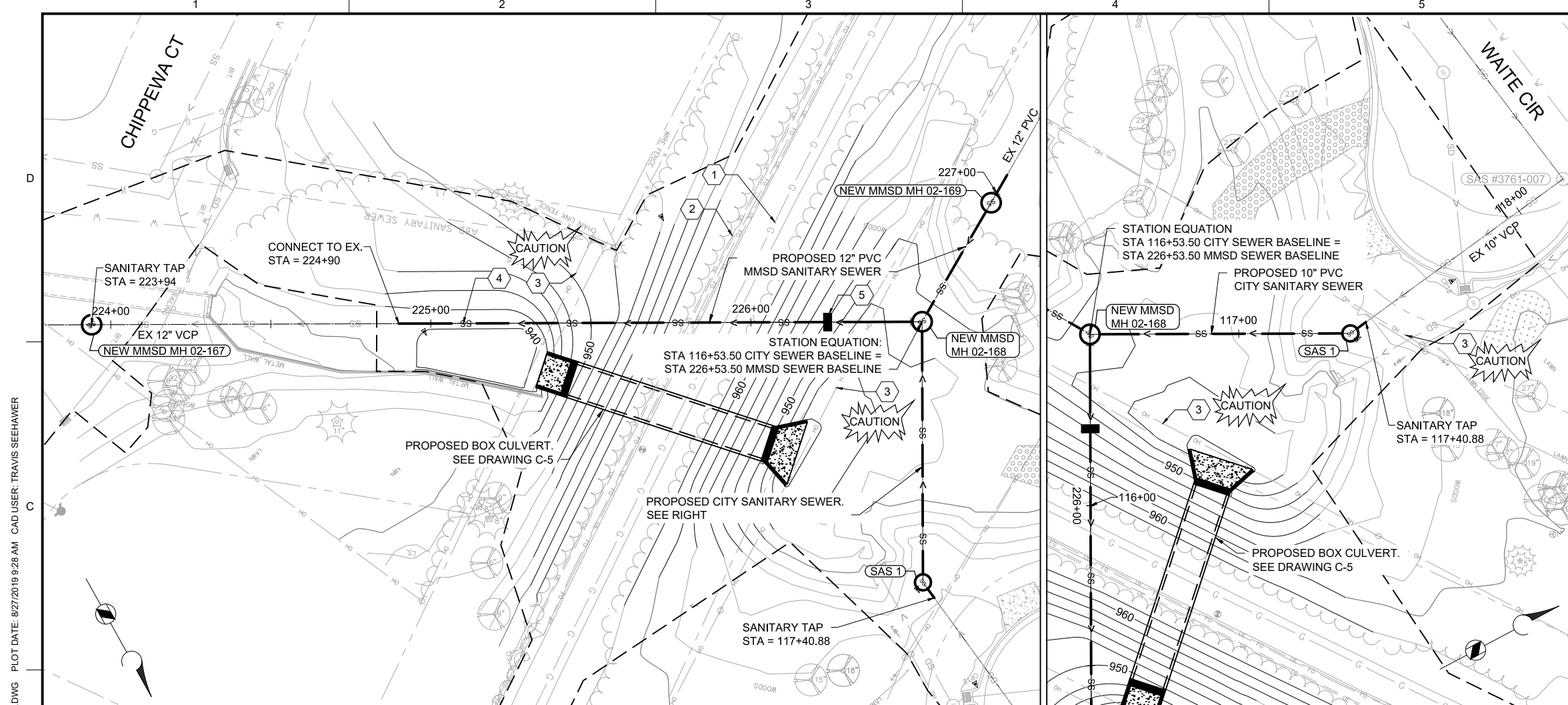
**CIVIL
PROPOSED PLAN &
PROFILE - BOX
CULVERT**

DRAWING NUMBER
C-5
 SHEET NUMBER
 10 OF 25



PLOT SCALE: _____
 PLOT NAME: _____
 REV. DATE: _____
 ORIGINATOR: CITY OF MADISON, STREETS DIVISION





- LEGEND**
- CONSTRUCTION LIMITS
- GENERAL NOTES**
- CONTOURS SHOWN ARE 2 FOOT.
 - SANITARY SEWER TYPICAL TRENCH, (3) CD-3
 - CITY AND MMSD SANITARY SEWERS ARE ON SEPARATE ALIGNMENTS. SEE STATION EQUATION FOR COMMON POINT.
 - SEE DRAWING C-10 FOR SANITARY SEWER SCHEDULE.

- KEY NOTES**
- SUPPORT & PROTECT 12" WELDED STEEL HIGH PRESSURE GAS MAIN AS NEEDED TO PERFORM THE WORK. PROTECTION OF EXISTING UTILITIES IS INCIDENTAL TO THE PROJECT.
 - SUPPORT AND PROTECT CITY ELECTRICAL AND FIBER OPTIC CONDUITS. PROTECTION OF EXISTING UTILITIES IS INCIDENTAL TO THE PROJECT.
 - CAUTION OVERHEAD UTILITY
 - ENCASE PROPOSED SANITARY SEWER IN CONCRETE. SEE DETAIL, (6) CD-4
 - INSTALL TRENCH DAM, (7) CD-4
 - PROVIDE 2" THICK X 4' WIDE STYROFOAM IN ACCORDANCE WITH S.D.D. 7.03. WORK IS INCIDENTAL TO PROPOSED SANITARY PIPE.
 - STUB PIPE NEEDED TO CONNECT TO EXISTING SANITARY SEWER IS INCIDENTAL TO THE SANITARY SEWER TAP BID ITEM.
 - STUB PIPE NEEDED TO CONNECT OUTSIDE DROP IS INCIDENTAL TO THE PROPOSED WORK.

0 20 40
SCALE IN FEET

**ADDENDUM 1
CHANGED
ENTIRE
DRAWING**

**SOUTHWEST
BIKEPATH
CULVERT
REPLACEMENT AT
WAITE CIRCLE -
2019**

REVISIONS

REV	DATE	DESCRIPTION
1	8/22/19	ISSUED FOR BID
2	8/29/19	ADDENDUM 1

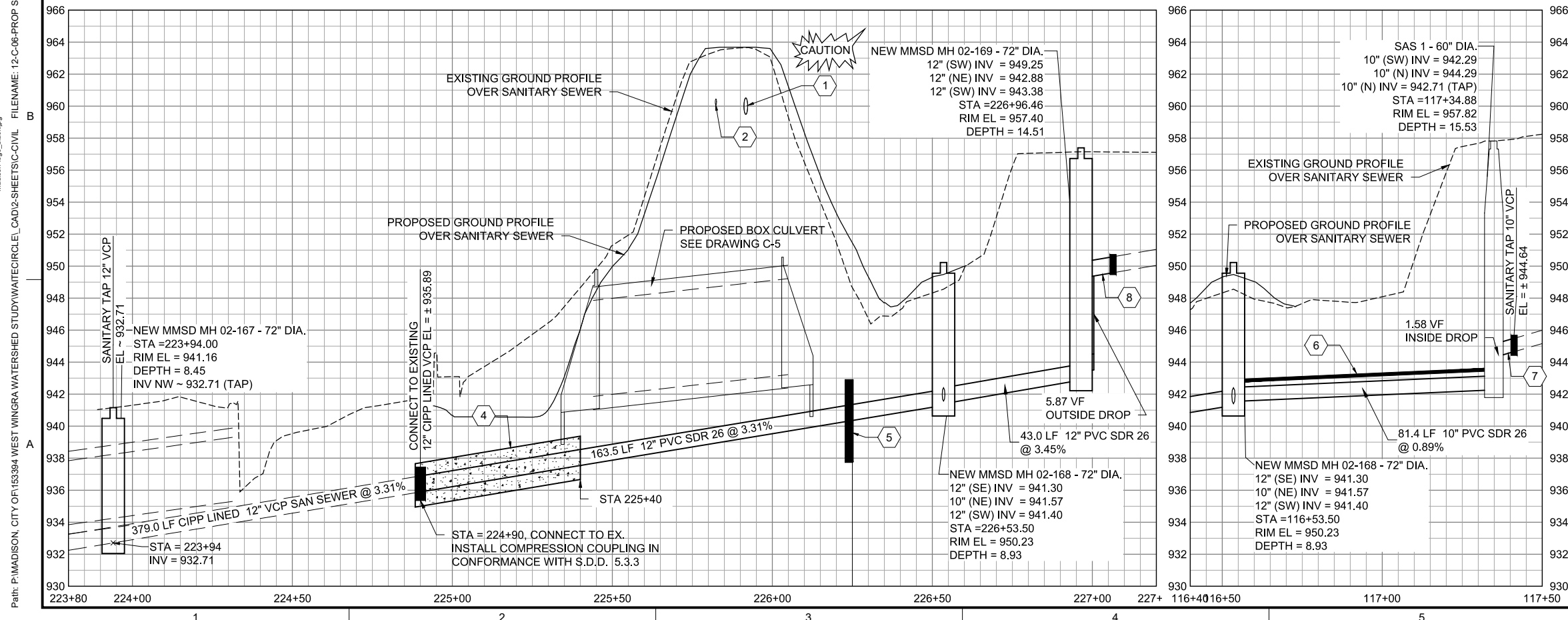
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153394
CLIENT PROJECT NUMBER
8466

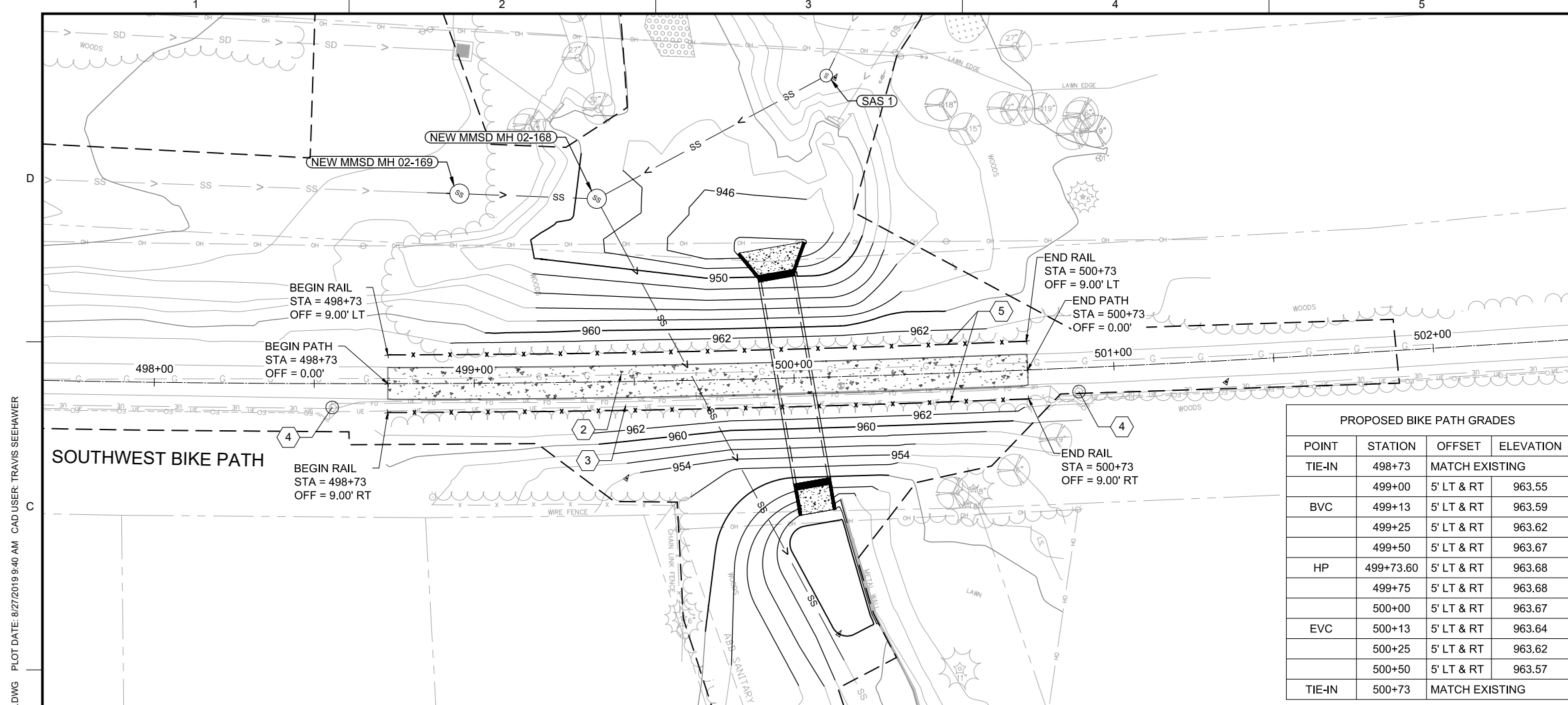
CIVIL

**PROPOSED PLAN &
PROFILE -
SANITARY SEWER**

DRAWING NUMBER
C-6
SHEET NUMBER
12 OF 25



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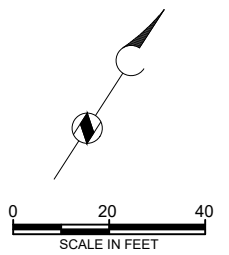
PROPOSED BIKE PATH GRADES			
POINT	STATION	OFFSET	ELEVATION
TIE-IN	498+73	MATCH EXISTING	
	499+00	5' LT & RT	963.55
BVC	499+13	5' LT & RT	963.59
	499+25	5' LT & RT	963.62
	499+50	5' LT & RT	963.67
HP	499+73.60	5' LT & RT	963.68
	499+75	5' LT & RT	963.68
	500+00	5' LT & RT	963.67
EVC	500+13	5' LT & RT	963.64
	500+25	5' LT & RT	963.62
	500+50	5' LT & RT	963.57
TIE-IN	500+73	MATCH EXISTING	

LEGEND

- CONSTRUCTION LIMITS
- x-x- PROPOSED RAILING
- [Pattern] PROPOSED CONCRETE PAVEMENT

- GENERAL NOTES**
- CONTOURS SHOWN ARE 2 FOOT.
 - ALL LABELED CONTOURS AND SPOT GRADES SHOWN ARE PROPOSED.
 - BIKE PATH DETOUR ROUTE REQUIRED. SEE SPECIFICATIONS.
 - TYPICAL SECTION 1 CD-1

- KEY NOTES**
- MINIMUM COVER OVER GAS MAIN SHALL BE 3-FEET.
 - SUPPORT & PROTECT 12" WELDED STEEL HIGH PRESSURE GAS MAIN DURING POTHOLING, EXCAVATION AND REMOVAL. PROTECTION OF EXISTING UTILITIES IS INCIDENTAL TO THE PROJECT.
 - PROTECT CITY ELECTRICAL AND FIBER OPTIC CONDUITS. SUPPORT & PROTECTION OF EXISTING UTILITIES IS INCIDENTAL TO THE PROJECT.
 - EXISTING CITY LIGHT POLES. CONTRACTOR MAY REMOVE, SALVAGE, AND REINSTALL. SEE DRAWING C-3 FOR ADDITIONAL INFORMATION.
 - PROPOSED RAILING & 5 CD-4 & 9 CD-6



**ADDENDUM 1
CHANGED
ENTIRE
DRAWING**

**SOUTHWEST BIKEPATH
CULVERT
REPLACEMENT AT
WAITE CIRCLE -
2019**

REVISIONS

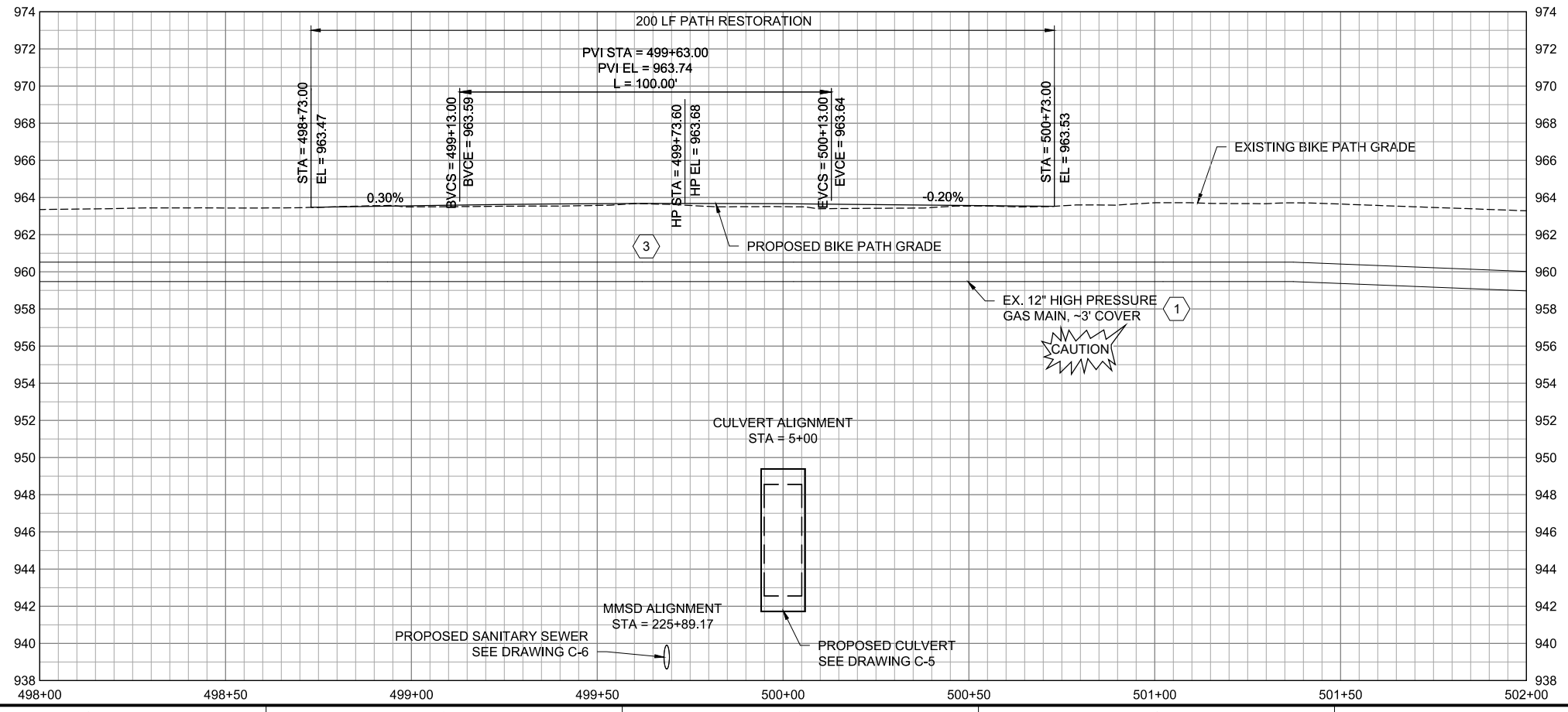
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1	8/22/19	ISSUED FOR BID
2	8/29/19	ADDENDUM 1

DRAWN: T SEEHAWER
 CHECKED: C LUCIE
 APPROVED: A SHELTON
 FILENAME: 12-C-07-BIKE PATH.DWG
 BC PROJECT NUMBER: 153394
 CLIENT PROJECT NUMBER: 8466

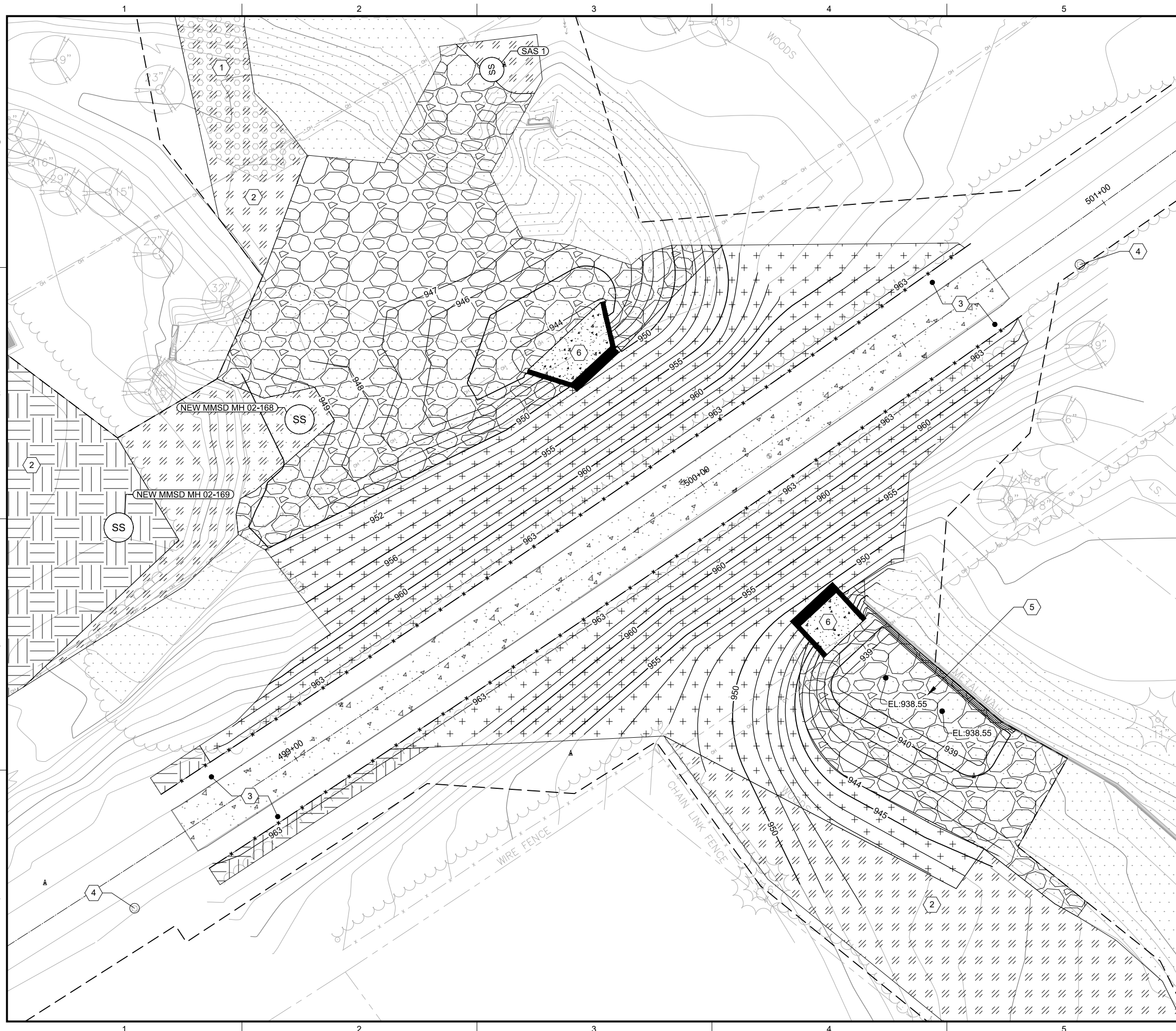
**CIVIL
PROPOSED PLAN &
PROFILE - BIKE
PATH**

DRAWING NUMBER
C-7
 SHEET NUMBER
13 OF 25

Path: P:\MADISON, CITY OF\153394 WEST WINGRA WATERSHED STUDY\WATERCIRCLE\CAD\2-SHEETS\CIVIL FILENAME: 12-C-07-BIKE PATH.DWG PLOT DATE: 8/27/2019 9:40 AM CAD USER: TRAVIS SEEHAWER



Path: P:\MADISON, CITY OF\153394 WEST WINGRA WATERSHED STUDY\WATERCIRCLE\CAD\2-SHEETS\CIVIL FILENAME: 14-C-08-GRADING PLAN.DWG PLOT DATE: 8/27/2019 9:45 AM CAD USER: TRAVIS SEEHAWER

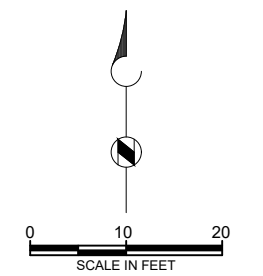


LEGEND

- CONSTRUCTION LIMITS
- x-x- PROPOSED RAILING (5/CD-4) (10/CD-7)
- 4 PROPOSED CONCRETE PAVEMENT
- 6 PROPOSED RIP RAP AREA
- + + + PROPOSED SIDE SLOPE AREA
- x x x PROPOSED PERIMETER AREA
- T PROPOSED TERRACE AREA

- GENERAL NOTES**
- REPLACE BIKE PATH PER DRAWING C-7, AND (1/CD-1)
 - LIMIT OF PAVEMENT RESTORATION SHALL BE LIMITED TO THE AREA DEPICTED ON THE DRAWINGS UNLESS OTHERWISE DIRECTED BY THE CITY.
 - BIKE PATH AND OTHER PAVEMENTS SHALL BE PROTECTED OUTSIDE THE LIMITS SHOWN FOR REMOVAL. TRACKING MATS OR DUNNAGE TO PROTECT PAVEMENT SHALL BE PROVIDED BY THE CONTRACTOR AND ARE INCIDENTAL TO THE PROJECT.
 - FOR ADDITIONAL RESTORATION INFORMATION SEE, (1/CD-1)

- KEY NOTES**
- REMOVE EXISTING GRAVEL DRIVE TO EXISTING GRADES AS SHOWN ON THE PLANS.
 - RESTORE ACTUAL DISTURBED ACCESS AREA OR AS DIRECTED BY THE CITY.
 - RESTORE AGGREGATE PATH SHOULDERS. SEE, (1/CD-1)
 - EXISTING CITY LIGHT POLES. CONTRACTOR MAY REMOVE, SALVAGE, AND REINSTALL. SEE DRAWING C-3 FOR ADDITIONAL INFORMATION.
 - RIPRAP STILLING BASIN. FOR ADDITIONAL INFORMATION SEE, (1/C-5) & (1/CD-1)
 - PROPOSED PRECAST CULVERT END SECTION. REFER TO DRAWING C-5.



ADDENDUM 1 CHANGED ENTIRE DRAWING

SOUTHWEST BIKEPATH CULVERT REPLACEMENT AT WAITE CIRCLE - 2019

REVISIONS

REV	DATE	DESCRIPTION
1	8/22/19	ISSUED FOR BID
2	8/29/19	ADDENDUM 1

DRAWN: T SEEHAWER
 CHECKED: C LUCIE
 APPROVED: A SHELTON
 FILENAME: 13-C-08-RESTORATION PLAN.DWG
 BC PROJECT NUMBER: 153394
 CLIENT PROJECT NUMBER: 8466

CIVIL
PROPOSED GRADING & RESTORATION PLAN

DRAWING NUMBER: **C-8**
 SHEET NUMBER: 14 OF 25

Path: P:\MADISON, CITY OF\153394 WEST WINGRA WATERSHED STUDY\WATECIRCLE\CAD\2-SHEETS\CIVIL FILENAME: 15-C-08-RESTORATION PLAN.DWG PLOT DATE: 8/27/2019 9:51 AM CAD USER: TRAVIS SEEHAWER
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LEGEND

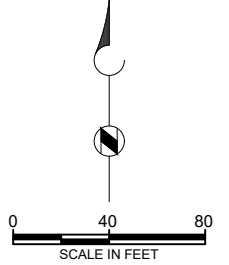
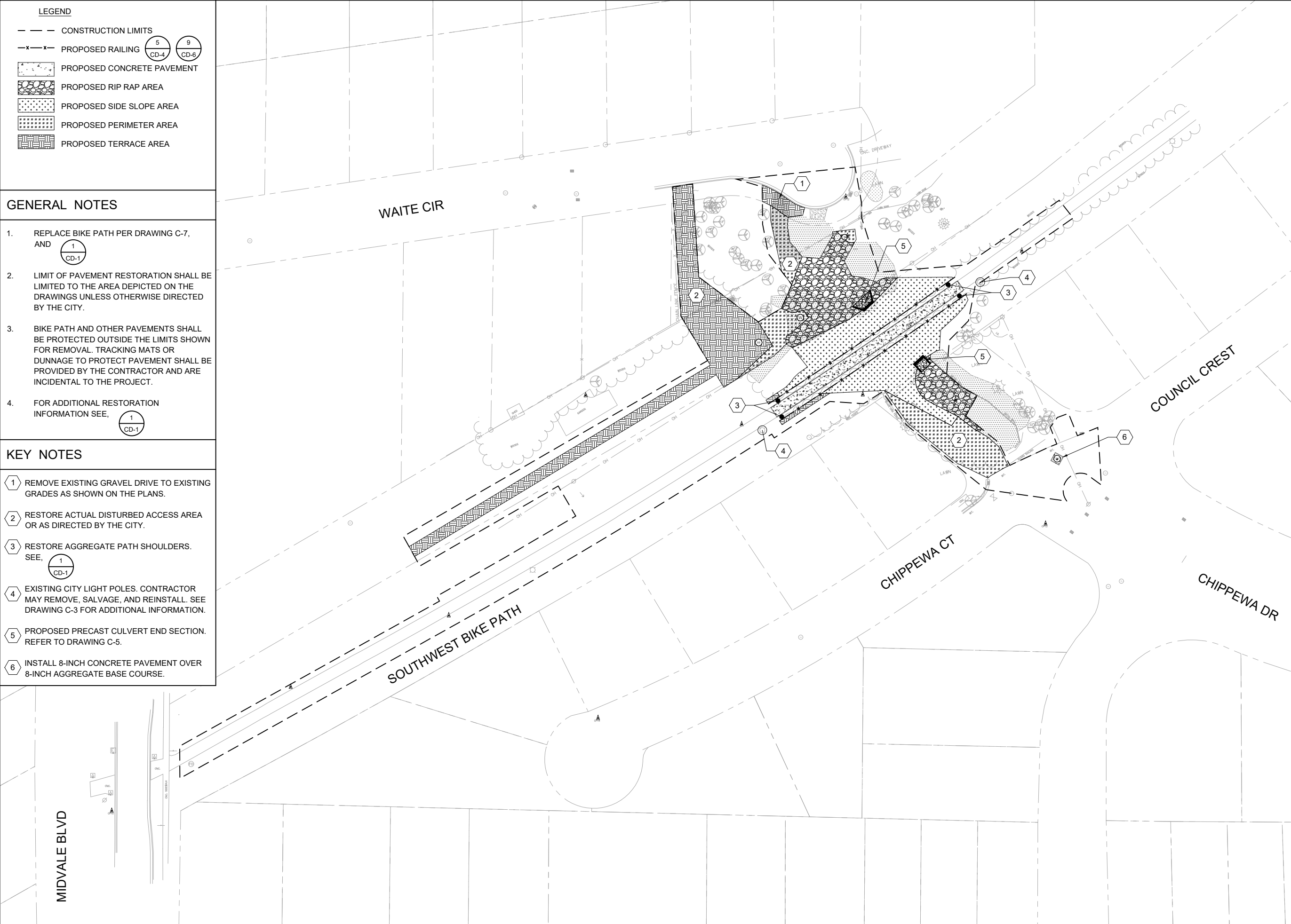
- CONSTRUCTION LIMITS
- x-x- PROPOSED RAILING 5 9
CD-4 CD-6
- PROPOSED CONCRETE PAVEMENT
- PROPOSED RIP RAP AREA
- PROPOSED SIDE SLOPE AREA
- PROPOSED PERIMETER AREA
- PROPOSED TERRACE AREA

GENERAL NOTES

1. REPLACE BIKE PATH PER DRAWING C-7, AND 1
CD-1
2. LIMIT OF PAVEMENT RESTORATION SHALL BE LIMITED TO THE AREA DEPICTED ON THE DRAWINGS UNLESS OTHERWISE DIRECTED BY THE CITY.
3. BIKE PATH AND OTHER PAVEMENTS SHALL BE PROTECTED OUTSIDE THE LIMITS SHOWN FOR REMOVAL. TRACKING MATS OR DUNNAGE TO PROTECT PAVEMENT SHALL BE PROVIDED BY THE CONTRACTOR AND ARE INCIDENTAL TO THE PROJECT.
4. FOR ADDITIONAL RESTORATION INFORMATION SEE, 1
CD-1

KEY NOTES

- 1 REMOVE EXISTING GRAVEL DRIVE TO EXISTING GRADES AS SHOWN ON THE PLANS.
- 2 RESTORE ACTUAL DISTURBED ACCESS AREA OR AS DIRECTED BY THE CITY.
- 3 RESTORE AGGREGATE PATH SHOULDERS. SEE, 1
CD-1
- 4 EXISTING CITY LIGHT POLES. CONTRACTOR MAY REMOVE, SALVAGE, AND REINSTALL. SEE DRAWING C-3 FOR ADDITIONAL INFORMATION.
- 5 PROPOSED PRECAST CULVERT END SECTION. REFER TO DRAWING C-5.
- 6 INSTALL 8-INCH CONCRETE PAVEMENT OVER 8-INCH AGGREGATE BASE COURSE.



**ADDENDUM 1
 CHANGED
 ENTIRE
 DRAWING**

**SOUTHWEST
 BIKEPATH
 CULVERT
 REPLACEMENT AT
 WAITE CIRCLE -
 2019**

REVISIONS		
REV	DATE	DESCRIPTION
1	8/22/19	ISSUED FOR BID
2	8/29/19	ADDENDUM 1

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 CHECKED: C LUCIE
 APPROVED: A SHELTON
 FILENAME
 13-C-08-RESTORATION PLAN.DWG
 BC PROJECT NUMBER
 153394
 CLIENT PROJECT NUMBER
 8466

**CIVIL
 PROPOSED
 RESTORATION PLAN**

DRAWING NUMBER
C-9
 SHEET NUMBER
 15 OF 25

SANITARY SEWER SCHEDULE

PROPOSED SANITARY STRUCTURES

SAS NO.	STATION	LOCATION (OFFSET)	TOP OF CASTING EL	OUT INVERT	DEPTH	NOTES
NEW MMSD MH 02-167	223+94.00	LT-0	941.16	932.71	8.45	(1),(3),(4),(6)
NEW MMSD MH 02-168	226+53.50	LT-0	950.23	941.30	8.93	(1),(2),(3),(4),(6),(7)
NEW MMSD MH 02-169	226+96.46	LT-0	957.40	942.88	14.51	(1),(3),(4),(6),(7)
SAS 1	117+34.88	LT-0	957.82	942.29	15.53	(3),(5)

PROPOSED SANITARY PIPES

FROM (DNSTM)	TO (UPSTM)	DNSTM INVERT	UPSTM INVERT	PLAN (PAY) (LF)	SLOPE (%)	SIZE DIA. (IN)	PVC TYPE	NOTES
STA 224+90.00	NEW MMSD MH 02-168	935.89	941.30	163.5	3.31%	12	SDR-26 PVC	
NEW MMSD MH02-168	NEW MMSD MH 02-169	941.40	942.88	43.0	3.45%	12	SDR-26 PVC	
NEW MMSD MH02-168	SAS 1	941.57	942.29	81.4	0.89%	10	SDR-26 PVC	(11)

INSIDE/ OUTSIDE DROPS

STRUCTURE NO.	LOCATION	OFFSET	TYPE OF DROP	SIZE DIA. (IN)	INVERT	INVERT DROP
NEW MMSD MH 02-169	226+96.46	LT-0	OUTSIDE DROP	12"	949.25	943.38 V.F. 5.87
SAS 1	117+34.88	LT-0	INSIDE DROP	10"	944.29	942.71 1.58

STRUCTURE REMOVAL AND ABANDONMENTS

STRUCTURE NAME	STATION	LOCATION (OFFSET)	TOP OF CASTING EL	OUT INVERT	DEPTH	NOTES
MMSD MH 02-167	4+20.68	LT-5.97	943.92	936.22	7.70	
MMSD MH 02-168	5+54.87	LT-0.27	948.45	940.93	7.52	
MMSD MH 02-169	17+29.89	LT 0'	957.15	948.25	8.90	

SANITARY SEWER REMOVALS AND ABANDONMENTS

FROM (DNSTM)	TO (UPSTM)	LENGTH (LF)	PAID (Y/N)	PLAN (PAY) (LF)	SIZE DIA. (IN)	PIPE TYPE	NOTES
MMSD MH 02-167	STA 4+45	25.0	Y	25.0	12	PVC	(8)
STA 4+45	STA 5+35	90.0	Y	0.0	12	PVC	(9)
STA 5+35	MMSD MH 02-168	20.0	Y	20.0	12	PVC	(8)
MMSD MH 02-168	MMSD MH 02-169	95.0	Y	52.0	12	DIP	(10)
MMSD MH 02-168	STA 26+85.90	51.0	Y	51.0	10	VCP	

NOTES:

- CONTRACTOR SHALL NOTIFY RAY SCHNEIDER (608)347-3628, RAYS@MADSEWER.ORG 5 DAYS PRIOR TO BEGINNING MMSD SANITARY SEWER WORK TO ARRANGE FOR PERMITTING AND INSPECTION. MMSD MANHOLE AND SEWER WORK SHALL CONFORM TO THE SPECIFICATION CRITERIA. CONTRACTOR RESPONSIBLE FOR MMSD PERMIT FEE (\$1125) MMSD CASTINGS REQUIRED. (MMSD WILL SUPPLY MANHOLE CASTINGS & FRAMES (NO COST TO CONTRACTOR).)
- CONTRACTOR SHALL INSTALL INTERNAL CHIMNEY SEAL IN CONFORMANCE WITH S.D.D. 5.7.17
- CONTRACTOR SHALL INSTALL EXTERNAL SEWER ACCESS STRUCTURE JOINT SEAL
- STRUCTURE SHALL BE 6' DIAMETER
- STRUCTURE SHALL BE 5' DIAMETER
- PROVIDE SAS RESISTANT COATING BID ITEM 90015
- BOLT DOWN CASTING
- REMOVAL OF CONCRETE ENCASEMENT INCIDENTAL TO PIPE REMOVAL
- 90 LF PIPE REMOVAL INCLUDED IN LUMP SUM - REMOVE EXISTING STONE ARCH CULVERT (BID ITEM 90003). SEE DRAWING C-3.
- REMOVE GROUTED RIP RAP AS SHOWN ON DRAWING C-4. INCIDENTAL TO BID ITEM 90005.
- INSULATE SANITARY SEWER IN CONFORMANCE WITH S.D.D. 7.0.3. INCIDENTAL TO SEWER PIPE



**ADDENDUM 1
CHANGED
ENTIRE
DRAWING**

**SOUTHWEST
BIKEPATH
CULVERT
REPLACEMENT AT
WAITE CIRCLE -
2019**

REVISIONS		
REV	DATE	DESCRIPTION
1	8/22/19	ISSUED FOR BID
2	8/29/19	ADDENDUM 1

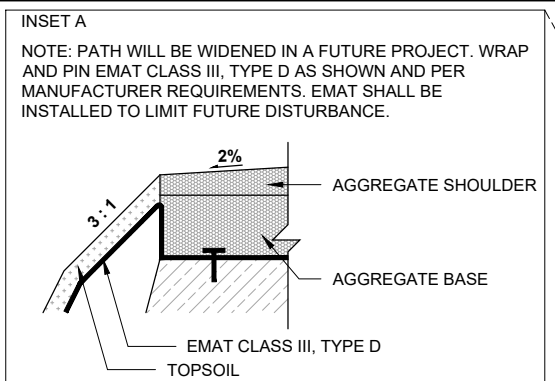
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 APPROVED: A SHELTON
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 BC PROJECT NUMBER
 153394
 CLIENT PROJECT NUMBER
 8466

**CIVIL
SANITARY SEWER
SCHEDULE**

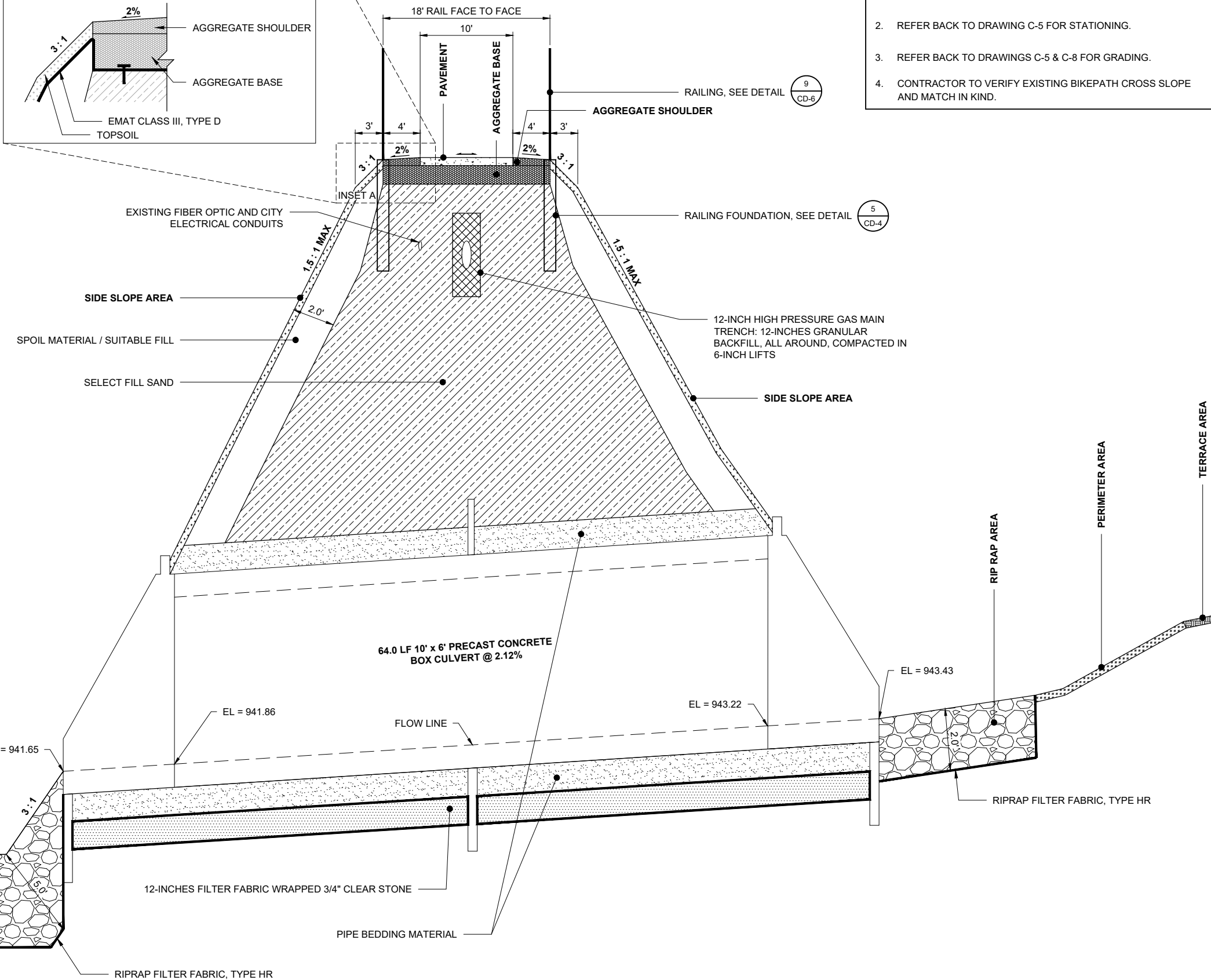
DRAWING NUMBER
C-10
SHEET NUMBER
16 OF 25

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- ### RESTORATION NOTES
- ROADWAY PATCH** AS PER DRAWING C-9 IN ACCORDANCE WITH THESE REQUIREMENTS:
- 8-INCH CONCRETE
 - 8-INCH CRUSHED AGGREGATE BASE COURSE (GRADATION NO. 2)
- BIKEPATH**
- 3 1/2-INCH CONCRETE
 - 3 1/2-INCH CRUSHED AGGREGATE SHOULDER (GRADATION NO. 3)
 - 8-INCH CRUSHED AGGREGATE BASE COURSE (GRADATION NO. 2)
- RIP RAP AREA**
AREA DESIGNATED AS RIP RAP AREA SHALL BE RESTORED WITH THE FOLLOWING MATERIALS. SEE SPECIFICATIONS.
- RIP RAP UPSTREAM OF CULVERT SHALL BE HEAVY RIP RAP - GLACIAL FIELD STONE WITH A THICKNESS AS SHOWN.
 - RIP RAP DOWNSTREAM OF CULVERT SHALL BE EXTRA HEAVY RIP RAP WITH A THICKNESS AS SHOWN.
- SIDE SLOPE AREA (ALL SLOPES ≥ 2:1)**
AREA DESIGNATED AS SIDE SLOPE AREA SHALL BE RESTORED WITH THE FOLLOWING MATERIALS. SEE SPECIFICATIONS.
- 4-INCHES TOPSOIL.
 - EROSION MAT CLASS III, TYPE D.
 - TOPSOIL FILL OF EROSION MATT CLASS III, TYPE D.
 - WOODY UNDERSTORY SEED MIX.
 - COVER CROP.
 - EROSION MAT CLASS II, TYPE C - ORGANIC. INSTALL WITH METAL ANCHORS
- PERIMETER AREA**
AREA DESIGNATED AS PERIMETER AREA SHALL BE RESTORED WITH THE FOLLOWING MATERIALS. SEE SPECIFICATIONS.
- 4-INCHES TOPSOIL.
 - WOODY UNDERSORY SEED MIX.
 - COVER CROP.
 - EROSION MAT CLASS II, TYPE C - ORGANIC.
- TERRACE AREA**
AREA DESIGNATED AS TERRACE AREA SHALL BE RESTORED WITH THE FOLLOWING MATERIALS. SEE SPECIFICATIONS.
- 4-INCHES TOPSOIL.
 - TERRACE SEED MIX.
 - EROSION MAT CLASS I, TYPE B - ORGANIC.
- AREAS ADJACENT TO BIKE PATH USED FOR CONTRACTOR'S OPERATIONS AS PER DRAWING C-1 SHALL BE RESTORED IN ACCORDANCE WITH THESE REQUIREMENTS.



- ### GENERAL NOTES
- INSTALL RESTORATION IN ACCORDANCE WITH MANUFACTURE'S REQUIREMENTS.
 - REFER BACK TO DRAWING C-5 FOR STATIONING.
 - REFER BACK TO DRAWINGS C-5 & C-8 FOR GRADING.
 - CONTRACTOR TO VERIFY EXISTING BIKEPATH CROSS SLOPE AND MATCH IN KIND.



**ADDENDUM 1
CHANGED
ENTIRE
DRAWING**

**SOUTHWEST
BIKEPATH
CULVERT
REPLACEMENT AT
WAITE CIRCLE -
2019**

REV	DATE	DESCRIPTION
1	8/22/19	ISSUED FOR BID
2	8/29/19	ADDENDUM 1

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 CHECKED: C LUCIE
 APPROVED: A SHELTON
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 BC PROJECT NUMBER: 153394
 CLIENT PROJECT NUMBER: 8466

**CIVIL
TYPICAL SECTION**

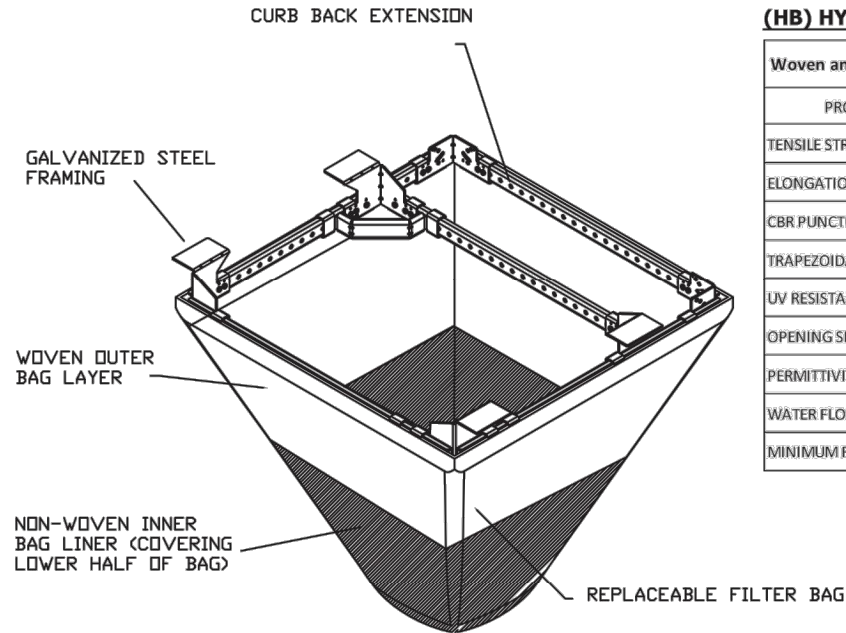
DRAWING NUMBER
CD-1
 SHEET NUMBER
17 OF 25

1 TYPICAL SECTION (APPROXIMATE STA 500+00 - LOOKING WEST)
 CD-1 SCALE: NTS

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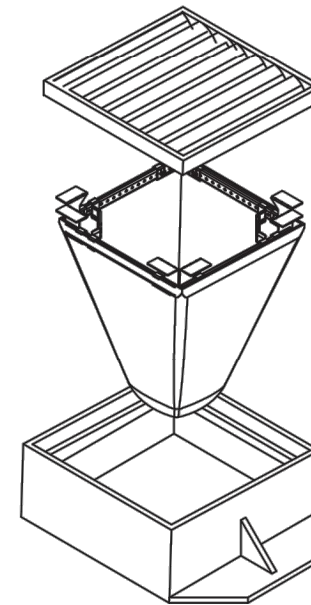
FLEXSTORM INLET FILTERS TO MEET DANE COUNTY EROSION CONTROL STANDARDS



(HB) HYBRID FILTER BAG SPECIFICATIONS:

Woven and Non-Woven Geotextile Filter Bag Properties (Minimum Average Roll Values)			
PROPERTY	TEST METHOD	WOVEN (OUTER)	NON-WOVEN (LINER)
TENSILE STRENGTH	ASTM D4632	350 x 225 Lbs	100 Lbs
ELONGATION	ASTM D4632	20% x 15%	50%
CBR PUNCTURE	ASTM D6241	1000 Lbs	65 Lbs
TRAPEZOIDAL TEAR	ASTM D4533	110 x 75 Lbs	45 Lbs
UV RESISTANCE	ASTM D4355	90%	70%
OPENING SIZE (AOS)	ASTM D4751	20 US STD SIEVE	40 US STD SIEVE
PERMITTIVITY	ASTM D4491	1.5 Sec ⁻¹	2.0 Sec ⁻¹
WATER FLOW RATE	ASTM D4491	200 gal/min/ft ²	145 gal/min/ft ²
MINIMUM FILTER BAG VOLUME		2 CUBIC FT	

CATCH-IT INLET FILTER (Temporary Inlet Protection)							
Neenah Casting	Inlet Type	Grate Size	Opening Size	Bag Cap (ft ³)	Flow Ratings (CFS)		ADS P/N
					HB (Hybrid Bag)	Bypass	
3067	Curb Box	35.25 x 17.75	33.0 x 15.0	4.4	2.0	5.8	62LCBEXTHB
3246A	Curb Box	35.75 x 23.875	33.5 x 21.0	4.2	1.1	3.3	62LCB3624HB
3030	Square/Rect (SQ)	23 x 16	20.5 x 13.5	1.6	0.7	2.2	62MCB2316HB
3067-C	Square/Rect (SQ)	35.25 x 17.75	33 x 15	3.2	1.0	5.2	62LSQ3618HB
R-2501	Round (RD)	~26	~24	2.3	0.8	5.2	62MRD26HB
R-1772/2560	Round (RD)	22.25-23.5	20.5-21	1.5	0.6	4.6	62MRD22HB



Installation Instructions:

1. Remove grate from the drainage structure
2. Clean stone and dirt from ledge (lip) of drainage structure
3. Drop the inlet filter through the clear opening such that the hangers rest firmly on the lip of the structure
4. Replace the grate and confirm it is not elevated more than 1/8"

Maintenance Guidelines:

1. Empty the sediment bag if more than half filled with sediment and debris
2. Remove the grate, engage the lifting points, and lift filter from the drainage structure
3. Dispose of sediment and debris as directed by the Engineer or Maintenance Contract
4. Alternatively, an industrial vacuum can be used to collect sediment from filter bag



SIZE	DRAWN BY	DWG NO	REV
C	DG	INLET_FILTERS	A
SCALE	SHEET 1 OF 1		



SOUTHWEST BIKEPATH
 CULVERT REPLACEMENT AT
 WAITE CIRCLE - 2019

REVISIONS		
REV	DATE	DESCRIPTION
1	8/22/19	ISSUED FOR BID

DRAWN:
 CHECKED:
 APPROVED:
 FILENAME
 18-CD-02-INLET PROTECTION.DWG
 BC PROJECT NUMBER
 153394
 CLIENT PROJECT NUMBER
 8466

CIVIL
 EROSION CONTROL
 DETAILS

DRAWING NUMBER
CD-2
 SHEET NUMBER
 18 OF 25

2 RIGID FRAME INLET PROTECTION
 CD-2 SCALE: NTS

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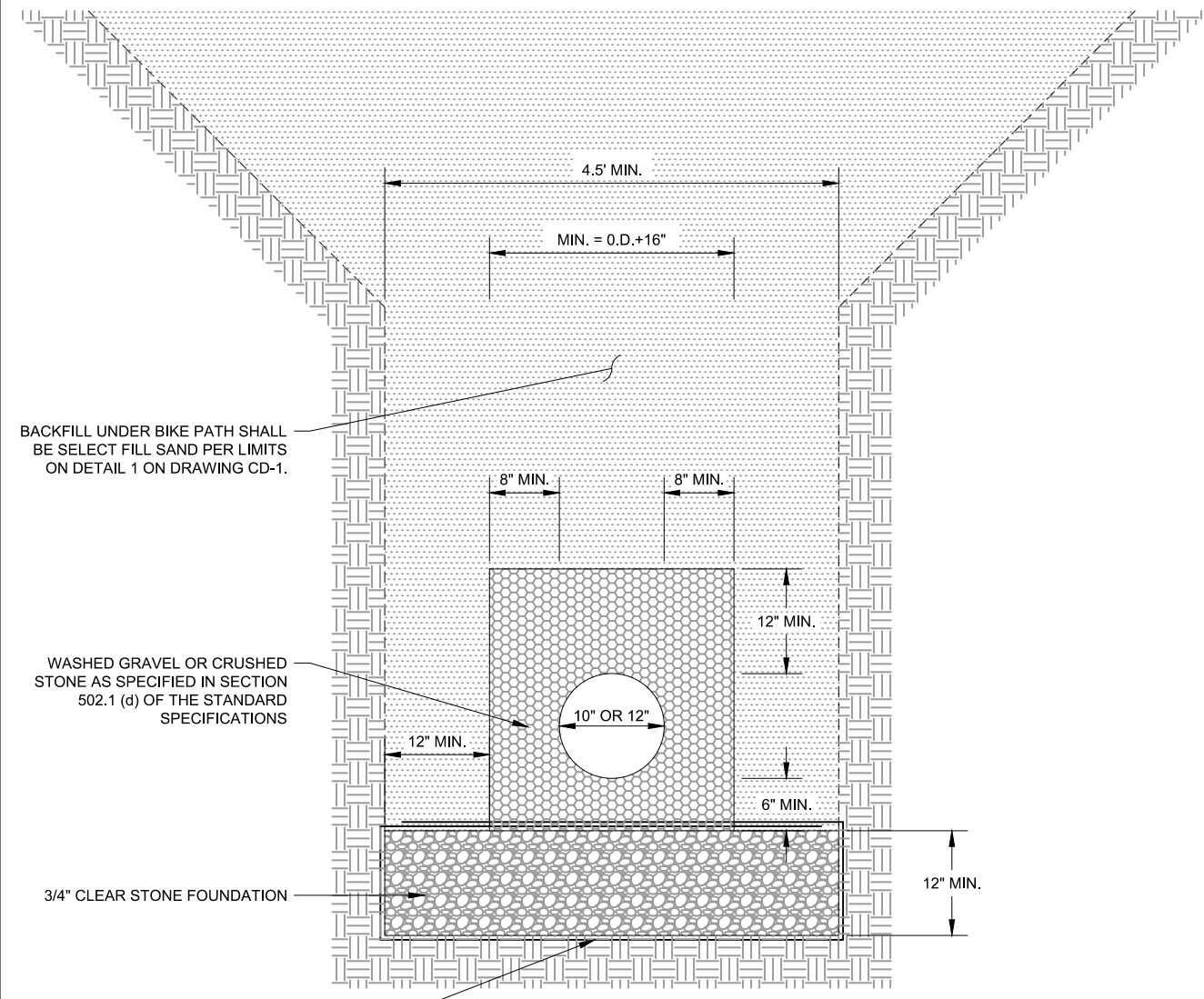
SOUTHWEST BIKEPATH CULVERT REPLACEMENT AT WAITE CIRCLE - 2019

REVISIONS		
REV	DATE	DESCRIPTION
1	8/22/19	ISSUED FOR BID

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 CHECKED: M WEGNER
 APPROVED: A SHELTON
 FILENAME: 19-CD-03-TRENCH SECTION.DWG
 BC PROJECT NUMBER: 153394
 CLIENT PROJECT NUMBER: 8466

CIVIL
TYPICAL TRENCH DETAILS

DRAWING NUMBER
CD-3
 SHEET NUMBER
 19 OF 25



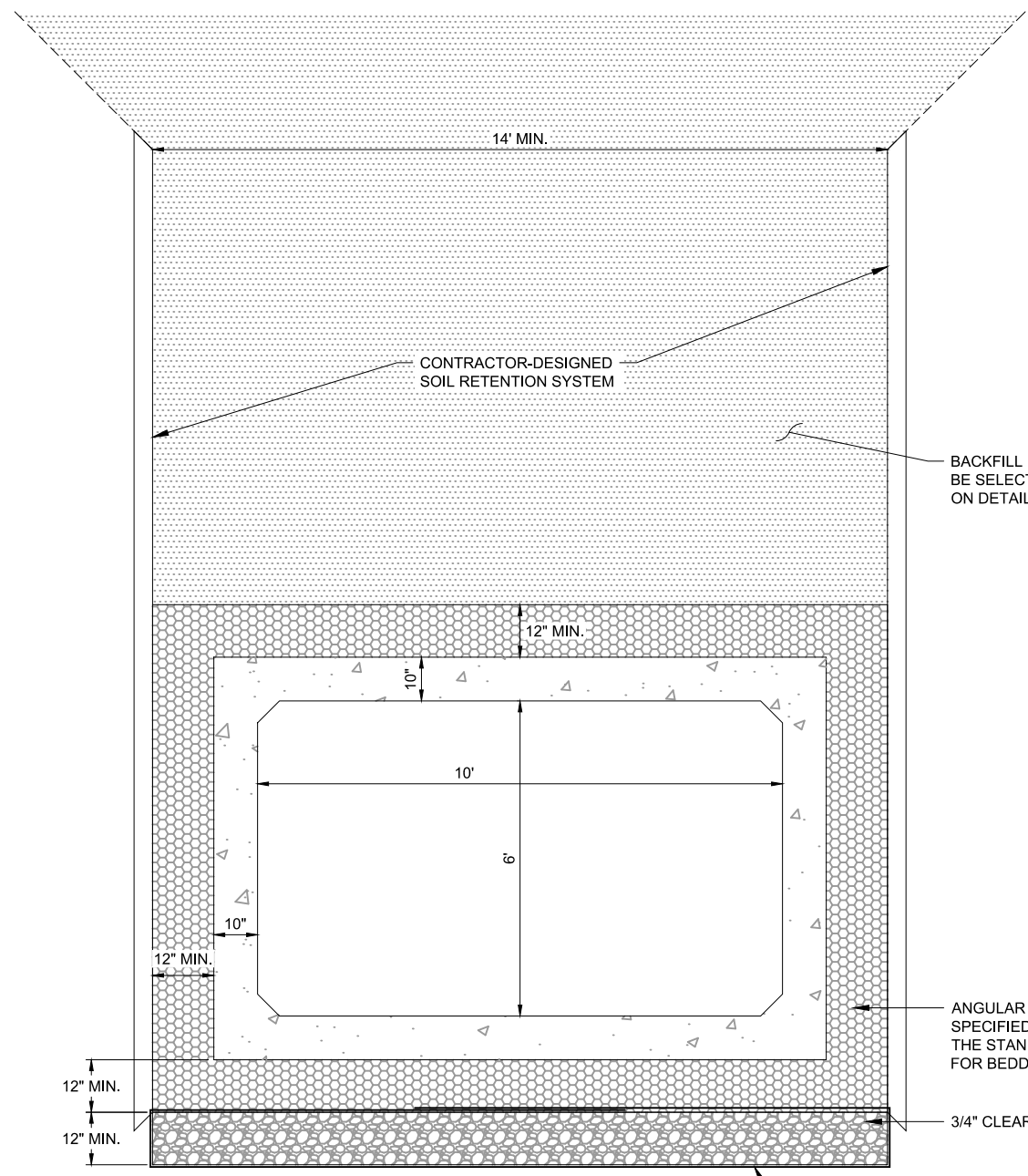
BACKFILL UNDER BIKE PATH SHALL BE SELECT FILL SAND PER LIMITS ON DETAIL 1 ON DRAWING CD-1.

WASHED GRAVEL OR CRUSHED STONE AS SPECIFIED IN SECTION 502.1 (d) OF THE STANDARD SPECIFICATIONS

3/4" CLEAR STONE FOUNDATION

WRAP PIPE FOUNDATION MATERIAL IN RIPRAP FILTER FABRIC. OVERLAP FABRIC 24-INCHES, MINIMUM. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

3 SANITARY SEWER TYPICAL TRENCH
 CD-3 SCALE: NTS



CONTRACTOR-DESIGNED SOIL RETENTION SYSTEM

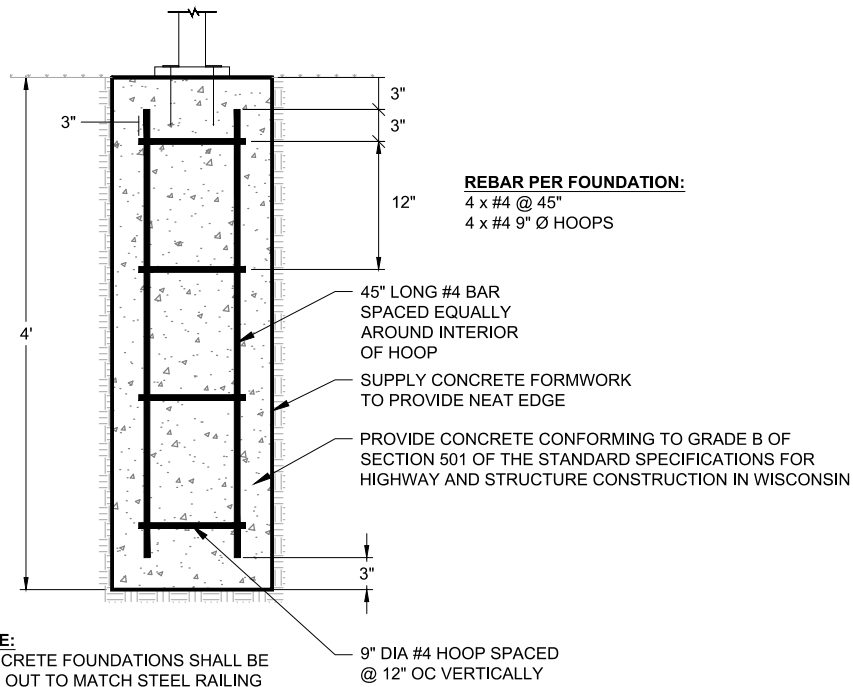
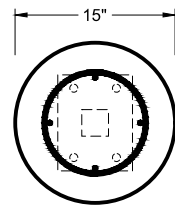
BACKFILL UNDER BIKE PATH SHALL BE SELECT FILL SAND PER LIMITS ON DETAIL 1 ON DRAWING CD-1.

ANGULAR CRUSHED ROCK AS SPECIFIED IN SECTION 502.1 (d) OF THE STANDARD SPECIFICATIONS FOR BEDDING SEWER PIPE.

WRAP PIPE FOUNDATION MATERIAL IN RIPRAP FILTER FABRIC. OVERLAP FABRIC 24-INCHES, MINIMUM. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

4 BOX CULVERT TYPICAL TRENCH
 CD-3 SCALE: NTS

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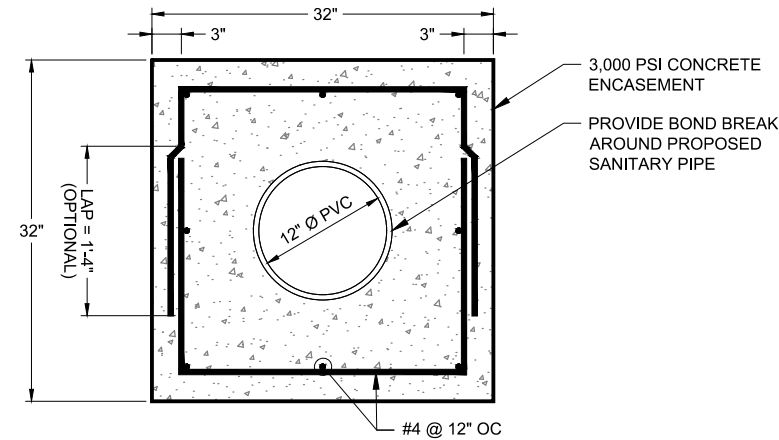


NOTE:
 CONCRETE FOUNDATIONS SHALL BE LAID OUT TO MATCH STEEL RAILING POSTS. USE CONCRETE FORMS AND SET REBAR CAGE AS SHOWN. FINISH CONCRETE PER SPECIFICATIONS.

REBAR PER FOUNDATION:
 4 x #4 @ 45"
 4 x #4 9" Ø HOOPS

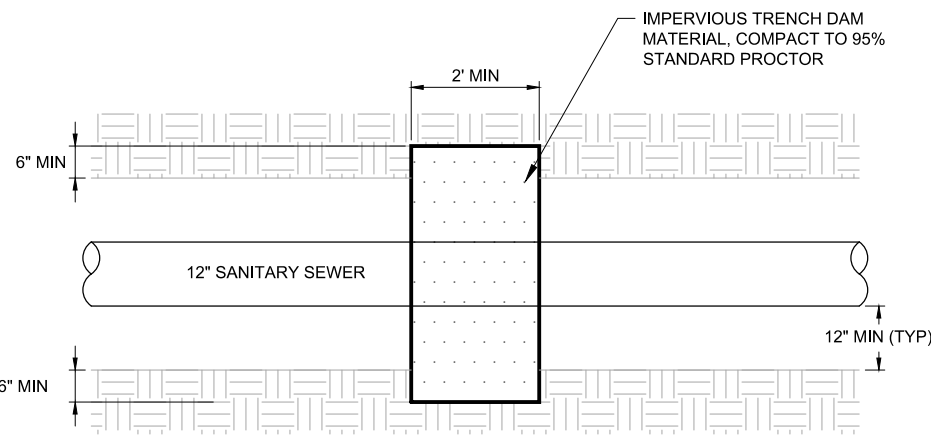
- 45" LONG #4 BAR SPACED EQUALLY AROUND INTERIOR OF HOOP
- SUPPLY CONCRETE FORMWORK TO PROVIDE NEAT EDGE
- PROVIDE CONCRETE CONFORMING TO GRADE B OF SECTION 501 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION IN WISCONSIN
- 9" DIA #4 HOOP SPACED @ 12" OC VERTICALLY

5 RAILING FOUNDATION
 CD-4 SCALE: NTS

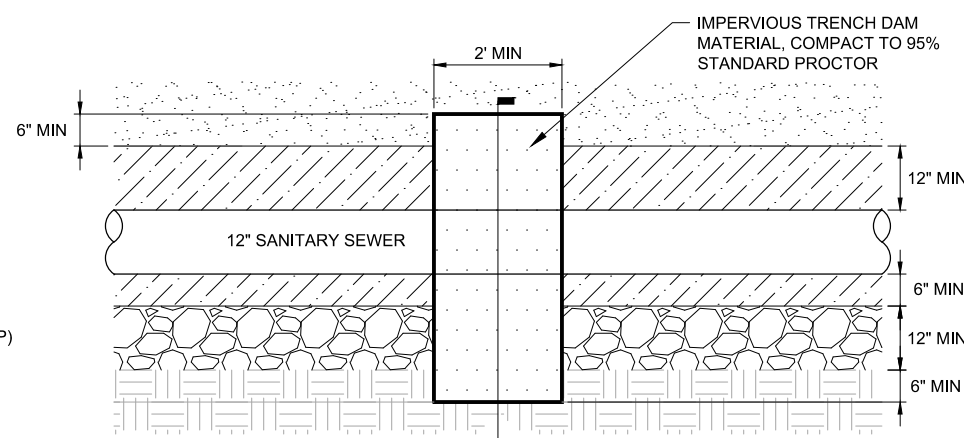


NOTE:
 INSTALL 50 LF, STA 224+90 TO STA 225+40. SEE DRAWING C-6

6 SANITARY SEWER CONCRETE ENCASEMENT
 CD-4 SCALE: NTS

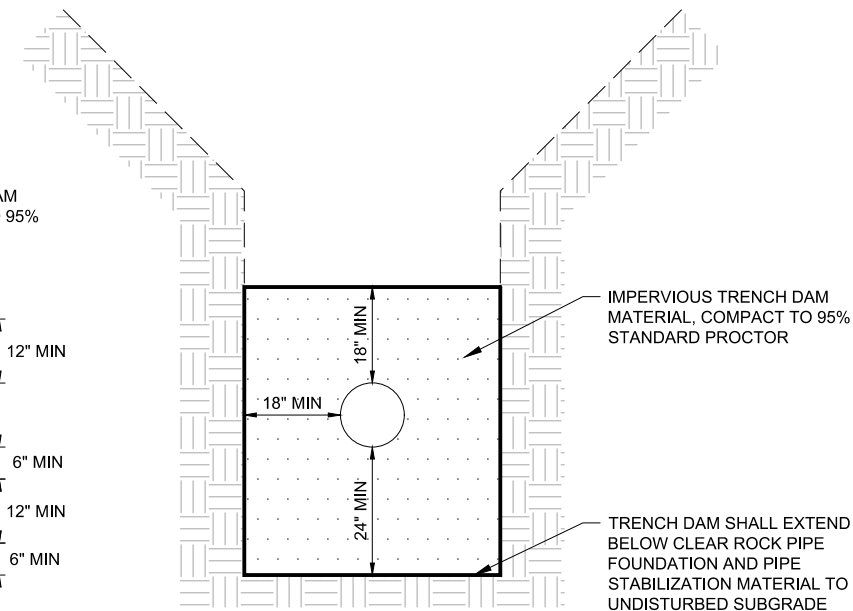


PLAN



PROFILE

SEE SECTION VIEW (RIGHT)



SECTION

7 SANITARY SEWER TRENCH DAM
 CD-4 SCALE: NTS



SOUTHWEST BIKEPATH CULVERT REPLACEMENT AT WAITE CIRCLE - 2019

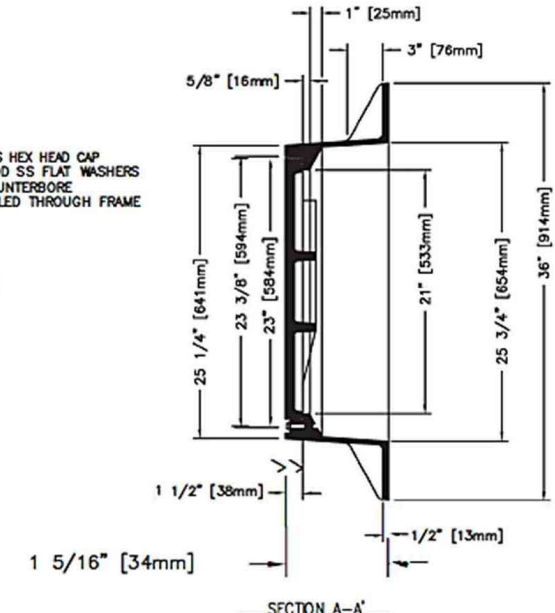
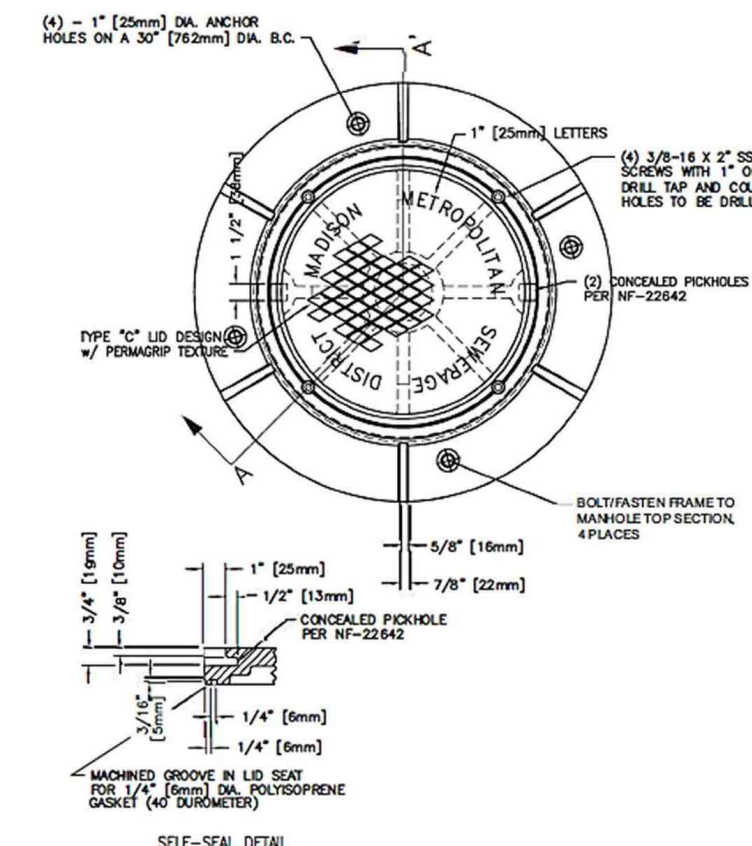
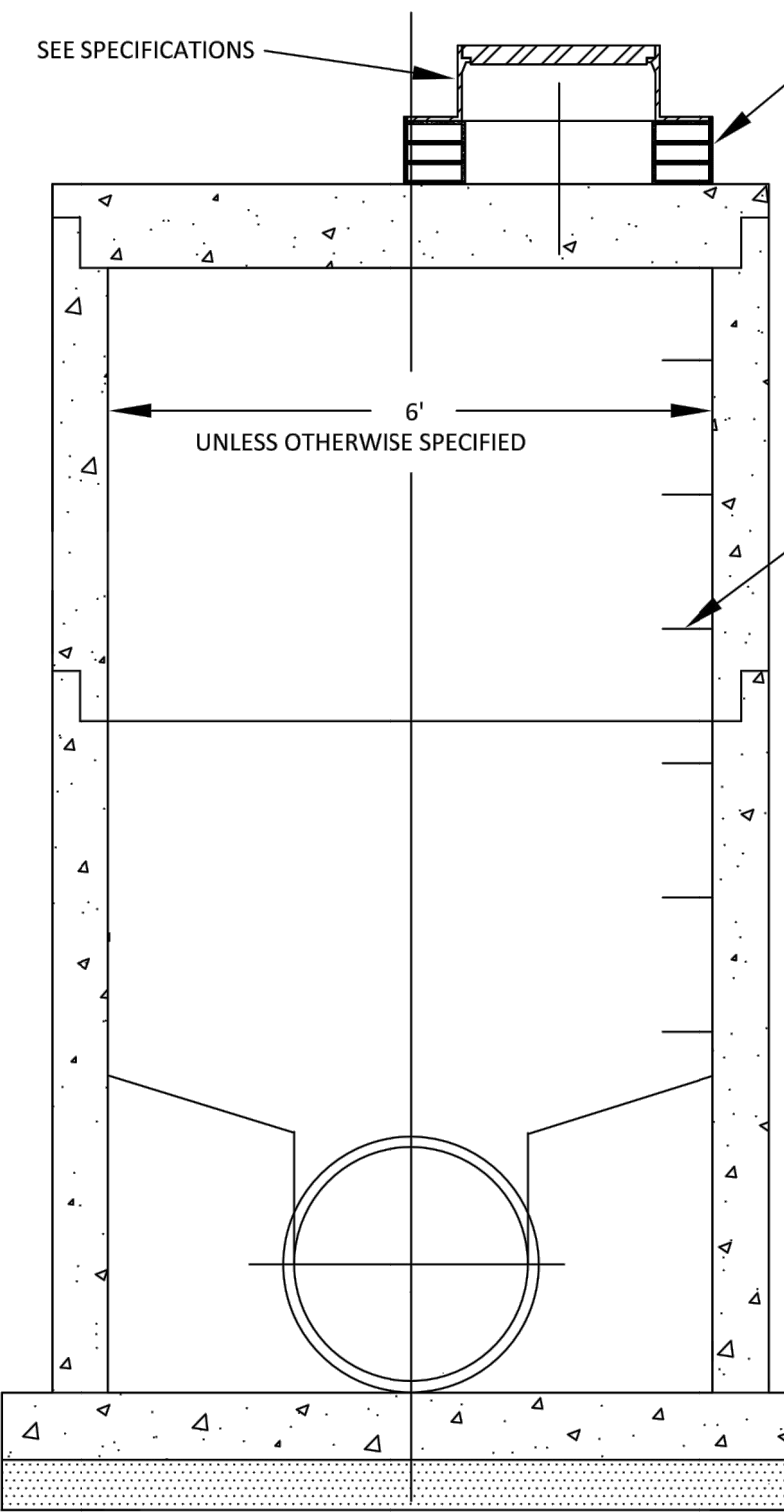
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 BC PROJECT NUMBER: 153394
 CLIENT PROJECT NUMBER: 8466

CIVIL CONSTRUCTION DETAILS

DRAWING NUMBER:
CD-4
 SHEET NUMBER:
 20 OF 25

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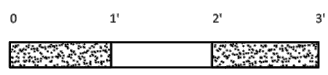
SELF-SEAL DETAIL
QUARTER SCALE

NOTE: ALL DIMENSIONS ARE SHOWN IN INCHES AND [MILLIMETERS].
 COMPONENT NO: LID = 1050-0112, FRAME = 1550-0002
 MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
 FINISH: NOT PAINTED
 WEIGHT: LID = 120#, FRAME = 203#

DR. JJJ	SCALE: 1/8"=1'	TITLE: R-1550 BOLTED GASKET LID AND FRAME MADISON METROPOLITAN SEWERAGE DISTRICT
CHK. HSH		
APP. JJJ	DATE: 2-2-2017	NEENAH FOUNDRY COMPANY NF-1550T23

NOTES

- MANHOLE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE, CONSTRUCTED IN ACCORDANCE WITH ASTM C-478.
- THE BASE THICKNESS SHALL BE 8 INCHES FOR DEPTHS 10 FEET OR LESS AND 12 INCHES FOR DEPTHS OVER 10 FEET.
- STEPS, M.A. INDUSTRIES OR EQUAL, SHALL BE PLACED TO MATCH EXISTING LOWER BARREL SECTIONS, NO MORE THAN 16 INCHES ON CENTER.
- MANHOLE CHIMNEYS SHALL HAVE FROM 3 TO 9 INCHES OF ADJUSTING RINGS AS MANUFACTURED BY CRETEX, INC OR EQUAL. TOP RING IN PAVED SURFACE SHALL BE RUBBER. OTHER RINGS SHALL BE PLASTIC.
- MANHOLE FRAME AND COVERS SHALL BE NEENAH R-1550 NON-ROCKING UNLESS OTHERWISE SPECIFIED. COVERS SHALL BE CHECKERED TOP DESIGN WITH SELF SEALING GASKETS AND CONCEALED PICK HOLES. COVERS SHALL BE LETTERED "MADISON METROPOLITAN SEWERAGE DISTRICT". ALL COVERS SHALL BE BOLT-DOWN.
- PROVIDE INTERNAL CHIMNEY SEAL SUCH AS COR-FLEX AT ALL MH CASTINGS. CHIMNEY SEALS SHALL BE LOW OR MEDIUM DENSITY POLYETHYLENE INTERNAL BARRIERS AS MANUFACTURED BY AP/M PERMAFORM OR EQUAL.



8 MMSD MH
 CD-5 SCALE: NTS



**ADDENDUM 1
 CHANGED DETAIL
 NUMBER AND
 DRAWING NUMBER**

**SOUTHWEST
 BIKEPATH
 CULVERT
 REPLACEMENT AT
 WAITE CIRCLE -
 2019**

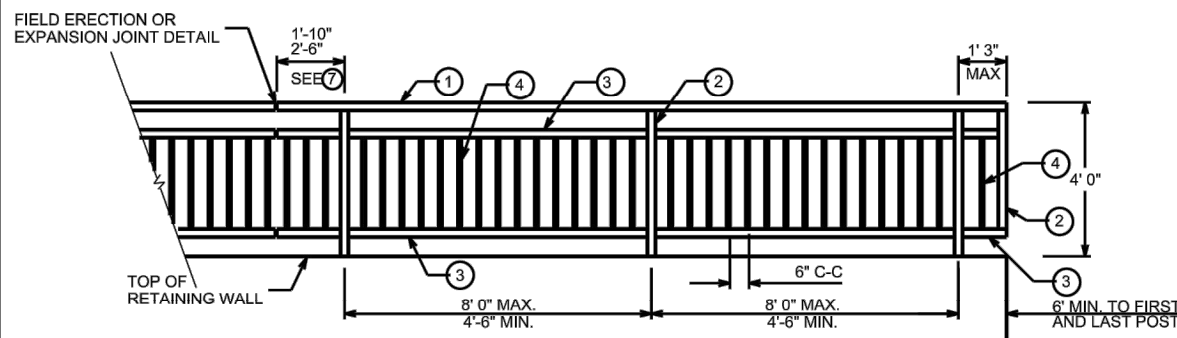
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REV	DATE	DESCRIPTION
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2	8/29/19	ADDENDUM 1

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 BC PROJECT NUMBER: 153394
 CLIENT PROJECT NUMBER: 8466

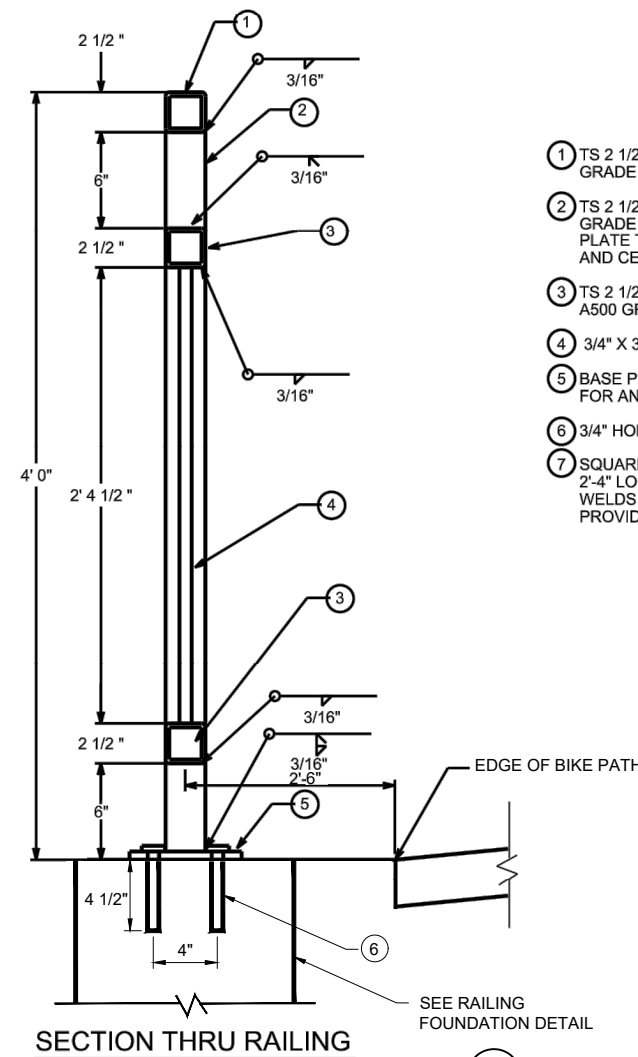
**CIVIL
 STANDARD DETAILS
 - MMSD**

DRAWING NUMBER:
CD-5
 SHEET NUMBER:
 21 OF 25

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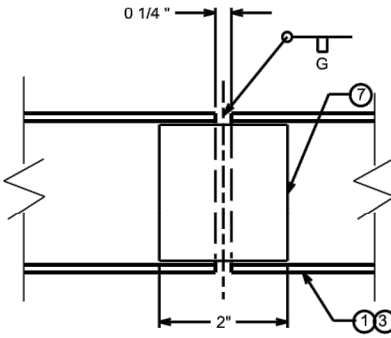
RAILING - ELEVATION



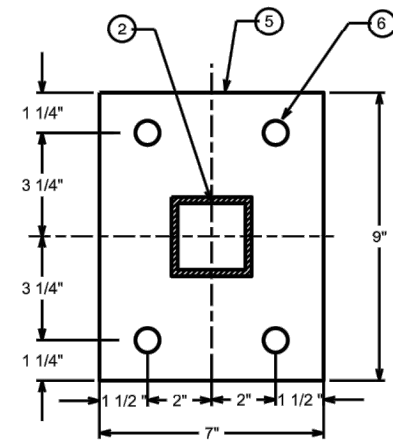
SECTION THRU RAILING

- LEGEND**
- 1 TS 2 1/2" X 2 1/2" X 0.188" STRUCTURAL TUBING CONFORMING TO ASTM DESIGNATION A501 OR A500 GRADE B.
 - 2 TS 2 1/2" X 2 1/2" X 0.188" STRUCTURAL TUBING CONFORMING TO ASTM DESIGNATION A501 OR A500 GRADE B. CUT BOTTOM OF POST TO MATCH SLOPE OF TOP OF WALL. HOLD 1/16" ABOVE BASE PLATE TO ALLOW POST AND BASE PLATE TO BE WELDED TOGETHER. PLACE POST VERTICAL AND CENTERED ON THE BASE PLATE.
 - 3 TS 2 1/2" X 2 1/2" X 0.188" STRUCTURAL TUBING CONFORMING TO ASTM DESIGNATION A501 OR A500 GRADE B.
 - 4 3/4" X 3/4" STEEL BAR STOCK
 - 5 BASE PLATE 1/2" X 9" X 7" CONFORMING TO ASTM DESIGNATION A709 GRADE 36 WITH 3/4" HOLES FOR ANCHOR BOLTS. WELD TO VERTICAL POSTS AS SHOWN.
 - 6 3/4" HOLE FOR CONCRETE MASONRY ANCHORS, TYPE S, 5/8". PULLOUT STRENGTH SHALL BE 3.6 KIPS.
 - 7 SQUARE SLEEVE FABRICATED FROM 1/2" COLD DRAWN STEEL ALLOY CONFORMING TO ASTM A331 2'-4" LONG AT EXPANSION JOINTS AND 1'-10" LONG AT FIELD JOINTS. PROVIDE 1/2" DIA. SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF NO. 3. PROVIDE 3/8" DIA. X 1/2" WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.

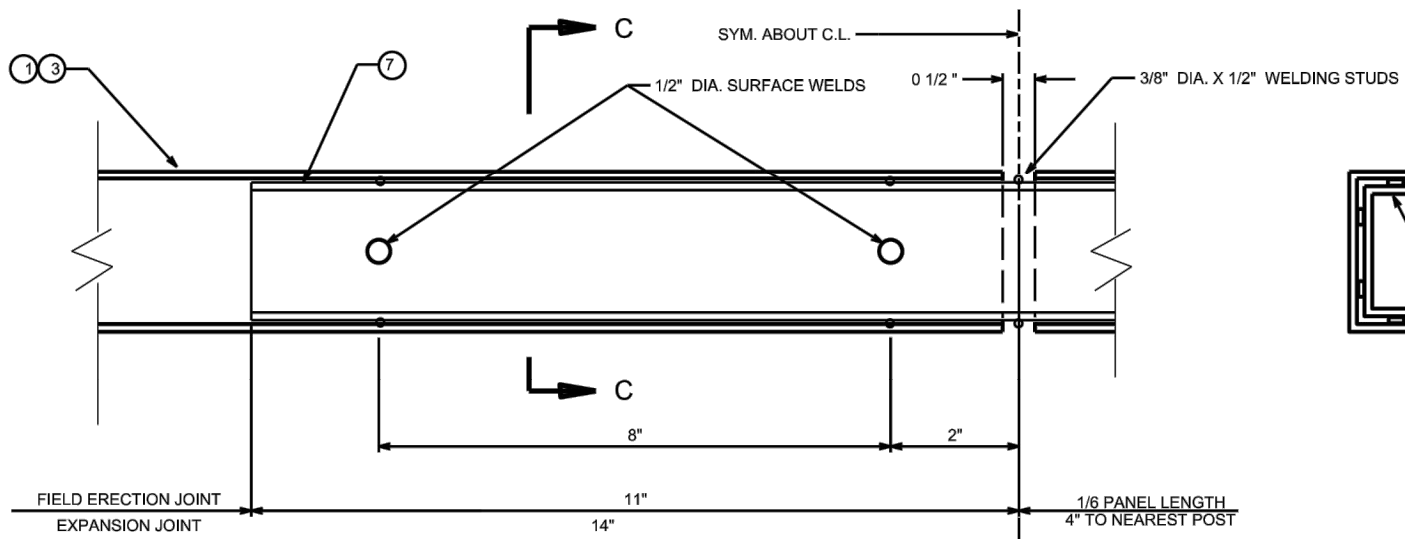
- GENERAL NOTES**
- BID ITEM SHALL BE "STEEL RAILING TYPE 1" WHICH INCLUDES ALL ITEMS SHOWN INCLUDING GALVANIZED COATING
- RAILING SHALL BE FABRICATED IN 2 OR 3 PANEL LENGTHS.
- POST BASE PLATES NO. 5 SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP, AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
- BASE PLATES AND SHIMS TO BE ASTM A709, GRADE 36, ALL GALVANIZED AFTER FABRICATION.
- SHIMS SHALL BE USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.
- CAULK AROUND PERIMETER OF BASE PLATES WITH NON-STAINING GREY NON-BITUMINOUS JOINT SEALER.
- ALL MATERIALS EXCEPT ANCHOR BOLTS NO. 6 SHALL BE GALVANIZED AFTER FABRICATION.
- RAILING IS TO BE GALVANIZED AND PAINTED. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS, STEEL TUBING AND STEEL PIPE SHALL BE GIVEN A NO. 6 BLAST CLEANING PER S.S.P.C. SPECIFICATIONS. PAINT OVER GALVANIZING WITH APPROVED TIE COAT AND TOP COAT.
- VERTICAL MEMBERS (POSTS AND PICKETS) SHALL BE PLUMB. HORIZONTAL MEMBERS SHALL BE PARALLEL TO TOP OF WALL.
- ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF ASTM 307, BOLTS NUTS AND WASHERS SHALL BE GALVANIZED.
- VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING.
- DEFLECTIONS AT CURVES SHALL BE AT POST LOCATIONS ONLY. NO DEFLECTIONS PERMITTED AT ERECTION OR EXPANSION JOINTS.
- SUBMIT SHOP DRAWINGS FOR ENGINEER'S REVIEW AND APPROVAL PRIOR TO FABRICATION.
- RAILING SHALL BE INSTALLED 18" OFFSET FACE TO FACE SHOWN ON DRAWING C-8 AND



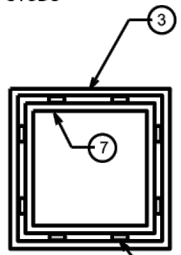
SHOP RAIL SPLICE DETAIL
(SHOW LOCATION ON SHOP DRAWINGS)



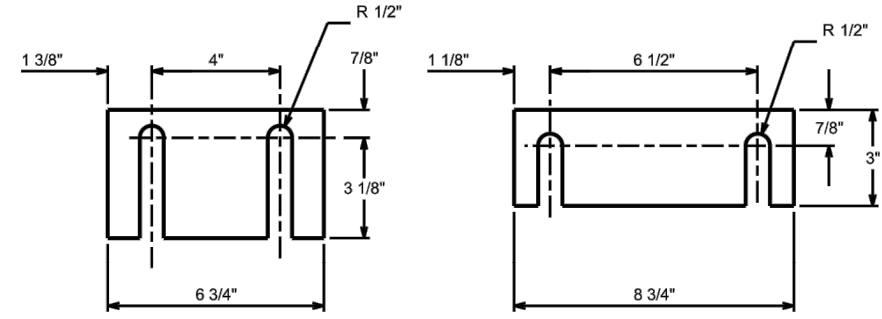
RAILING BASE PLATE



FIELD ERECTION / EXPANSION JOINT DETAIL



SECTION C-C



SHIM PLATE DETAILS

1/16" THICK MATERIAL
TWO EACH REQUIRED PER POST

9 RAILING
 CD-6 SCALE: NTS



ADDENDUM 1
 CHANGED DETAIL
 NUMBER AND
 DRAWING NUMBER

**SOUTHWEST
 BIKEPATH
 CULVERT
 REPLACEMENT AT
 WAITE CIRCLE -
 2019**

REVISIONS		
REV	DATE	DESCRIPTION
1	8/22/19	ISSUED FOR BID
2	8/29/19	ADDENDUM 1

DRAWN:
 CHECKED:
 APPROVED:
 FILENAME
 22-CD-06-RAIL.DWG
 BC PROJECT NUMBER
 153394
 CLIENT PROJECT NUMBER
 8466

**CIVIL
 RAILING DETAIL**

DRAWING NUMBER
CD-6
 SHEET NUMBER
 22 OF 25

GENERAL

- G 1 SCOPE
THE GENERAL NOTES AND TYPICAL DETAILS ARE GENERAL AND APPLY TO THE ENTIRE PROJECT EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY.
- G 2 PRECEDENCE
IF THERE IS A CONFLICT BETWEEN PROJECT SPECIFICATIONS AND STRUCTURAL DRAWINGS, INCLUDING STRUCTURAL NOTES, CONTACT THE STRUCTURAL ENGINEER OF RECORD FOR CLARIFICATION. SPECIFIC NOTES AND DETAILS ON DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
- G 3 DIMENSIONS
STRUCTURAL DIMENSIONS CONTROLLED BY OR RELATED TO THE MECHANICAL OR ELECTRICAL EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION DIMENSIONS AND NOTIFYING CONSTRUCTION MANAGER OF DISCREPANCIES IN A TIMELY FASHION.
- G 4 PROVISIONS FOR EQUIPMENT
MECHANICAL AND ELECTRICAL EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES AND EMBEDMENTS NOT SPECIFIED ON THE STRUCTURAL DRAWINGS, BUT SPECIFIED ON OTHER CONTRACT DRAWINGS, SHALL BE PROVIDED PRIOR TO CASTING CONCRETE.
- G 5 MEANS, METHODS & CONSTRUCTION LOADS
CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. CONTRACTOR IS RESPONSIBLE FOR MEANS, METHODS AND SEQUENCE OF CONSTRUCTION, AND SHALL MAKE ADEQUATE PROVISION TO MAINTAIN THE INTEGRITY OF ALL STRUCTURES AT ALL STAGES OF CONSTRUCTION. DETERMINATION OF AND PROVISIONS FOR CONSTRUCTION LOADING SHALL BE PROVIDED BY THE CONTRACTOR.
- G 6 SAFETY
CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO ENSURE THE SAFETY OF WORKERS AND VISITORS TO THE SITE, INCLUDING BUT NOT LIMITED TO SHORING, BRACING AND ACCESS RESTRICTION. COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY CODES AND STANDARDS.
- G 7 DRAINAGE SURFACES
SLOPE DRAINAGE SURFACES UNIFORMLY TO DRAIN. SLOPE SHALL BE 1/8" TO 1/4" PER FOOT EXCEPT WHERE NOTED OTHERWISE ON THE PLANS.
- G 8 OPENINGS
OPENINGS THROUGH NEW AND EXISTING WALLS AND SLABS FOR PIPES, DUCTS, CONDUITS, ETC., ARE NOT ALL SHOWN ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL COORDINATE WITH OTHER DISCIPLINES AND PROVIDE THESE OPENINGS IN ACCORDANCE WITH THE OTHER CONTRACT DOCUMENTS.

DESIGN CRITERIA

- D 1 GOVERNING BUILDING CODE
CONSTRUCTION SHALL BE IN ACCORDANCE WITH 2018 WISCONSIN BUILDING CODE. THIS CODE SHALL GOVERN EXCEPT WHERE OTHER APPLICABLE CODES OR CONTRACT PROVISIONS ARE MORE RESTRICTIVE.
- D 2 LIVE LOADS
1. LIVE LOADS PER ASCE 7-10 TABLE 4-1
- D 3 WIND
BASIC WIND SPEED 115 MPH
EXPOSURE CATEGORY C
RISK CATEGORY II
TOPOGRAPHIC FACTOR $K_{zt} = 1.0$
- D 6 SEISMIC
MCE ACCELERATION, SHORT PERIOD $S_s = 0.085 g$
MCE ACCELERATION, 1-SEC PERIOD $S_1 = 0.046 g$
SITE CLASS D
DESIGN ACCEL, SHORT PERIOD $S_{DS} = 0.09 g$
DESIGN ACCEL, 1-SEC PERIOD $S_{D1} = 0.074 g$
STRUCTURAL OCCUPANCY CATEGORY II
SEISMIC IMPORTANCE FACTOR $I = 1.25$ $I_p = 1.00$,
EXCEPT FOR FIRE PROTECTION SYSTEM AND
COMPONENTS CONTAINING HAZARDOUS MATERIALS $I_p = 1.50$
SEISMIC DESIGN CATEGORY B
BASINS AND VAULTS:
ALL OTHER SELF-SUPPORTING STRUCTURES
(ASCE 7-10, TABLE 15.4-2) $R = 1.25$ $\Omega_o = 2$
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

FOUNDATION

- F 1 DESIGN BASIS
FOUNDATION DESIGN IS BASED ON RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL INVESTIGATION REPORT IN APPENDIX B. CONTRACTOR SHALL FOLLOW THE PROJECT SPECIFICATIONS AND TAKE INTO CONSIDERATION RECOMMENDATIONS CONTAINED IN THE REPORT. NOTIFY THE CONSTRUCTION MANAGER OF CONFLICTS BETWEEN SPECIFICATIONS AND THE REPORT RECOMMENDATIONS FOR RESOLUTION.
- F 2 ALLOWABLE BEARING PRESSURE
SHALLOW FOUNDATIONS SHALL BEAR ON AT LEAST 2 FEET OF STRUCTURAL FILL AND HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 3,000 PSF.
- F 3 MINIMUM FOUNDATION PREPARATION
ALL NEW FOUNDATIONS AND SLAB ON GRADE FLOORS SHALL BE SUPPORTED ON A MINIMUM OF 2 FEET OF PROPERLY PLACED AND COMPACTED STRUCTURAL FILL (SEE GEOTECHNICAL REPORT).
- F 4 DIFFERING CONDITIONS
FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION WHICH DIFFER FROM THOSE INDICATED IN THE REPORT SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER. CONTRACTOR IS RESPONSIBLE FOR REPLACING WORK CONDUCTED AFTER SUCH NOTIFICATION BUT BEFORE CONSTRUCTION MANAGER PROVIDES ADDITIONAL DIRECTIONS.
- F 5 EXCAVATION, DE-WATERING & SAFETY
CONTRACTOR SHALL PROVIDE FOR ALL DE-WATERING OF EXCAVATIONS, AND DESIGN / PROVIDE ALL CRIBBING, SHORING AND BRACING REQUIRED FOR SAFETY AND TO ALLOW CONSTRUCTION OF THE WORK PRESENTED HEREIN.
- F 6 STRUCTURAL BACKFILL
UNLESS NOTED OTHERWISE, STRUCTURAL BACKFILL SHALL BE PLACED IN UNIFORM LAYERS AND SHALL BE BROUGHT UP UNIFORMLY AROUND THE STRUCTURE. ADDITIONALLY, BACKFILL SHALL BE BROUGHT UP UNIFORMLY ON BOTH SIDES OF FOUNDATION WALLS. SEE SPECIFICATION 02200 FOR ADDITIONAL INFORMATION.

CONCRETE

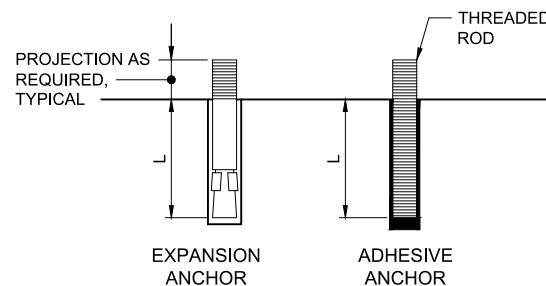
- C 1 APPLICABLE CODES
CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITIONS OF ACI-301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE", AND THE FOLLOWING CODES:
ACI 318 - "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
ACI 350 (FOR LIQUID CONTAINING STRUCTURES) - "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES"
- C 2 REINFORCING STEEL DETAILS
ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH ACI DETAILING MANUAL (ACI SP-66), LATEST EDITION.
- C 3 DESIGN STRENGTH
1. STRUCTURAL CAST-IN-PLACE CONCRETE $f_c = 4,500$ PSI
2. REINFORCED STEEL ASTM A615,
GRADE 60 DEFORMED BARS UNLESS OTHERWISE NOTED
- C 4 CONCRETE COVER
CONCRETE COVER FOR REINFORCING BARS SHALL CONFORM TO ACI 350 AND AS FOLLOWS WITH MINIMUM COVER OF ONE BAR DIAMETER:
1. CONCRETE CAST AGAINST EARTH 3"
2. CONCRETE EXPOSED TO EARTH,
WASTEWATER, CHEMICALS OR WEATHER 2"
3. CONCRETE NOT EXPOSED TO EARTH,
WASTEWATER, CHEMICALS OR WEATHER 1-1/2"
- C 5 BAR DEVELOPMENT AND LAP SPLICE LENGTH
SEE TABLE AT THE END OF THESE STRUCTURAL NOTES. IN SLABS, BEAMS, GRIDERS AND HORIZONTAL REINFORCING AT WALLS, SPLICES OF ADJACENT REINFORCING STEEL BARS SHALL BE STAGGERED AT LEAST ONE SPLICE LENGTH, UNLESS OTHERWISE SPECIFIED.
- C 6 STANDARD HOOKS
BARS ENDING IN RIGHT ANGLE BENDS OR HOOKS SHALL CONFORM TO THE REQUIREMENTS OF PARAGRAPH 7.1 ACI-318. PROVIDE STANDARD HOOK IN BARS WHICH TERMINATE AT WALL OR SLAB INTERSECTIONS THAT PROVIDE LESS THAN THE SPECIFIED DEVELOPMENT LENGTH.
- C 7 CHAMFERS
EXCEPT AS OTHERWISE REQUIRED, EXPOSED CONCRETE CORNERS AND EDGES SHALL HAVE 3/4" CHAMFERS. RE-ENTRANT CORNERS SHALL NOT HAVE FILLETS.
- C 8 ANCHOR BOLTS
ANCHOR BOLTS SHALL BE STAINLESS STEEL TYPE 316 MATERIAL UNLESS OTHERWISE NOTED (SEE SPECIFICATIONS).

CONCRETE (continued)

- C 9 COMPATIBLE FINISHES
CURING COMPOUNDS AND OTHER SURFACE TREATMENTS, CONCRETE ADMIXTURES AND SUB-SLAB DRAINAGE SHALL BE REVIEWED BY CONTRACTOR AND CERTIFIED COMPATIBLE WITH FINISHES TO BE APPLIED LATER IN THE CONSTRUCTION SEQUENCE.
- C10 VAPOR BARRIER BELOW SLAB ON GRADE
VAPOR BARRIER, WHERE NOTED ON THE DRAWINGS, SHALL BE 10 MIL MINIMUM CLASS A OR B PLASTIC WATER VAPOR RETARDER PER ASTM E1745. INSTALL PER ASTM E1643. LAP JOINTS 6" AND SEAL WITH MANUFACTURER'S RECOMMENDED TAPE OR ADHESIVE.

STEEL

- ST 1 ALL STRUCTURAL STEEL WORK SHALL BE IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (AISC 360-05) AND AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" (AISC 303-05). IN SEISMIC DESIGN CATEGORIES D, E AND F, THE PROVISIONS OF AISC 341-05, "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS, INCLUDING SUPPLEMENT No. 1", SHALL ALSO APPLY.
- ST 2 MATERIALS
1. STEEL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992. OTHER STEEL SHAPES AND PLATES SHALL CONFORM TO ASTM A36.
2. STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A53 TYPES E OR S, GRADE B. STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500 GRADE B ($F_y = 46$ KSI).
3. ALL STAINLESS STEEL SHALL BE TYPE 316 MEETING ASTM A276 FOR BARS AND SHAPES, AND ASTM A240 FOR PLATES, UNLESS OTHERWISE SPECIFIED. ALL STAINLESS STEEL SHALL BE PASSIVATED PER ASTM A380.
- ST 3 WELDING
1. WELDING SHALL CONFORM TO AWS D1.1-1 AND AISC 341-05.
2. ELECTRODES FOR SHOP AND FIELD WELDS SHALL CONFORM TO AWS A5.1 OR A5.5, CLASS E70XX.
3. STAINLESS STEEL WELDING SHALL CONFORM TO AWS D1.6 WITH A5.4 OR A5.9 ELECTRODES.
- ST 4 BOLTS
STRUCTURAL BOLTS AT STEEL FRAMING SHALL BE GALVANIZED AND CONFORM TO ASTM A325N (TYPE 1). HIGH STRENGTH BOLTS SHALL BE FULLY TENSIONED UNLESS CONNECTING HSS SHAPES OR OTHERWISE NOTED.
- ST 5 EXPANSION ANCHORS SHALL BE STAINLESS STEEL "KWIK BOLT TZ" BY HILTI INC. OR EQUAL.



MINIMUM EMBEDMENT LENGTH, L		
DIAMETER	EXPANSION ANCHOR	ADHESIVE ANCHOR
3/8"	3 1/2"	4 1/2"
1/2"	4 3/4"	6"
5/8"	5 1/2"	7 1/2"
3/4"	6 1/2"	9"
7/8"	-	10 1/2"
1"	-	12"

- NOTES:
- MINIMUM EMBEDMENT LENGTH PER SCHEDULE UNLESS INDICATED OTHERWISE ON DRAWINGS.
 - CONFORM TO ICC EVALUATION SERVICE REPORT (ES REPORT) REQUIREMENTS AND MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION.
 - THREADED RODS SHALL BE TYPE 316 STAINLESS STEEL MATERIAL UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
 - ADHESIVE ANCHOR EMBEDMENT LENGTHS ARE BASED ON HILTI HIT-RE 500 V3 ADHESIVE IN 4000 PSI CONCRETE. SUBMIT ICC ES REPORT FOR ALTERNATE PRODUCTS.
 - EXPANSION ANCHOR EMBEDMENT LENGTHS ARE BASED ON HILTI KWIK BOLT TZ STAINLESS STEEL ANCHORS IN 4000 PSI NORMAL WEIGHT CONCRETE. SUBMIT ICC EVALUATION SERVICE REPORT (ES REPORT) FOR ALTERNATE PRODUCTS.
 - HOLE DIAMETER SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

CONCRETE ANCHORS
DETAIL **A**
SCALE: NONE



SOUTHWEST BIKEPATH CULVERT REPLACEMENT AT WAITE CIRCLE - 2019

REVISIONS		
REV	DATE	DESCRIPTION
1	8/22/19	ISSUED FOR BID

DRAWN: K PARK
CHECKED: A SHELTON
APPROVED: K PARK
FILENAME: XX-S-01-GENERAL NOTE.DWG
BC PROJECT NUMBER: 153394
CLIENT PROJECT NUMBER: 8466

STRUCTURAL
GENERAL NOTES AND STANDARD DETAIL

DRAWING NUMBER
S-1
SHEET NUMBER
23 OF 25

Path: P:\MADISON, CITY OF\153394 WEST WINGRA WATERSHED STUDY\WATERCIRCLE\CAD\2-SHEETS\IS-STRUCTURAL FILENAME: XX-S-01-GENERAL NOTE.DWG PLOT DATE: 8/27/2019 11:27 AM CAD USER: TRAVIS SEEHAWER Madison-log_black.jpg

SPECIAL INSPECTIONS

SI 1 AN INDEPENDENT TESTING COMPANY RETAINED BY THE OWNER AND APPROVED BY THE BUILDING OFFICIAL SHALL INSPECT THE FOLLOWING (SEE TABLE 1):

1. SOIL COMPACTION AT FOUNDATIONS.
2. REINFORCING BAR, CONCRETE PLACEMENT AND TAKING OF CONCRETE TEST SPECIMENS.
3. ANCHOR BOLTS.
4. FIELD WELDING OF STRUCTURAL STEEL AND ALUMINUM.
5. SHOP WELDING OF STRUCTURAL STEEL EXCEPT WHERE WELDING IS DONE IN AN APPROVED FABRICATOR'S SHOP IN ACCORDANCE WITH THE PROVISIONS OF THE GOVERNING BUILDING CODE.
6. EXPANSION ANCHOR INSTALLATION.
7. ANCHORS INSTALLED USING EPOXY ADHESIVE.

SI 2 CONTRACTOR SHALL NOTIFY THE TESTING COMPANY FOR ALL INSPECTIONS.

STRUCTURAL OBSERVATIONS

SO 1 THE OWNER SHALL RETAIN A REGISTERED DESIGN PROFESSIONAL TO PERFORM STRUCTURAL OBSERVATIONS. THE CONSTRUCTION MANAGER SHALL NOTIFY THE OWNER AT LEAST 48 HOURS BEFORE A DESIGNATED WORK IS TO BE COVERED.

SO 2 REQUIRED STRUCTURAL OBSERVATIONS INCLUDE:

1. FOUNDATIONS PREPARED FOR CONCRETE PLACEMENT.
2. ANCHORS INSTALLED USING EPOXY ADHESIVE.

STRUCTURAL DEFERRED SUBMITTALS

SDS 1 THE CONTRACTOR SHALL SUBMIT DRAWINGS AND CALCULATIONS BEARING THE SEAL OF A PROFESSIONAL ENGINEER LICENSED IN WISCONSIN TO THE ENGINEER FOR REVIEW.

STRUCTURAL DEFERRED SUBMITTALS INCLUDE:

1. PRECAST CONCRETE CULVERT.
2. GUARDRAILS AND HANDRAILS.
3. CONSTRUCTION SHORING.

QUALITY ASSURANCE NOTES

1. THE QUALITY OF THE WORKMANSHIP AND THE QUALITY OF THE MATERIALS OF CONSTRUCTION ARE GOVERNED BY THE INTERNATIONAL BUILDING CODE, 2015 EDITION (IBC).
2. ALL NEW STRUCTURES AND MODIFICATIONS TO EXISTING STRUCTURES TO BE CONSTRUCTED AS A PART OF THIS PROJECT ARE CLASSIFIED AS OCCUPANT CATEGORY III, WASTE WATER TREATMENT FACILITY, IN ACCORDANCE WITH THE IBC. THE STRUCTURES ARE CLASSIFIED AS SEISMIC DESIGN CATEGORY D.
3. TO ASSURE THE QUALITY OF THE CONSTRUCTION OF THIS PROJECT, STRUCTURAL TESTS, SPECIAL INSPECTION AND STRUCTURAL OBSERVATION WILL BE PERFORMED IN ACCORDANCE WITH IBC, CHAPTER 17.
4. WHERE FREQUENCY OF INSPECTION IS SPECIFIED TO BE CONTINUOUS, THE SPECIAL INSPECTOR IS EXPECTED TO BE PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED AND PROVIDING FULL-TIME OBSERVATION OF THE WORK REQUIRING SPECIAL INSPECTION.
5. WHERE FREQUENCY OF INSPECTION IS SPECIFIED TO BE PERIODIC, THE SPECIAL INSPECTOR IS EXPECTED TO BE PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK (PRIOR TO THE NEXT CONSTRUCTION TASK).
6. SPECIAL INSPECTIONS ARE IN ADDITION TO INSPECTIONS BY THE BUILDING OFFICIALS. CONSTRUCTION IS SUBJECT TO INSPECTION BY THE BUILDING OFFICIAL. COORDINATE WITH BUILDING DEPARTMENT TO DETERMINE REQUIRED INSPECTIONS.
7. CONTRACTOR SHALL PROVIDE ACCESS TO THE WORK FOR REQUIRED INSPECTIONS. CONTRACTOR SHALL PROVIDE NOTIFICATION IN ADVANCE OF REQUIRED INSPECTIONS, TESTING AND STRUCTURAL OBSERVATIONS.

TABLE 1				
REQUIRED SPECIAL INSPECTIONS - STRUCTURAL SYSTEMS				
SYSTEM OR MATERIAL	REQUIRED INSPECTION	FREQUENCY OF INSPECTION		REMARKS
		CONTINUOUS	PERIODIC	
SOILS	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X	
	VERIFY SOIL MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE DESIGN BEARING CAPACITY		X	
	VERIFY USE OF DRAIN ROCK BEHIND RETAINING WALLS		X	
CONCRETE	INSPECT FORMWORK FOR LOCATION AND DIMENSIONS OF MEMBER BEING FORMED		X	
	VERIFY MATERIAL FOR REINFORCEMENT		X	CONTRACTOR TO SUBMIT CERTIFIED MILL TEST REPORTS
	REINFORCING STEEL PLACEMENT		X	
	INSPECT POST-INSTALLED CONCRETE ANCHORS	X		INSPECTION TO CONFORM TO IBC AND TO ANCHOR MANUFACTURER'S RECOMMENDATIONS AND ICC REPORTS
	VERIFY USE OF REQUIRED CONCRETE MIX DESIGN(S)		X	
	AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND TEMPERATURE OF CONCRETE	X		CONTINUOUS DURING PREPARATION OF SAMPLES
	CONCRETE PLACEMENT	X		
	INSPECTION FOR MAINTENANCE OF CURING PROCEDURES AND TEMPERATURE		X	VERIFY APPROPRIATE CURING METHOD HAS BEEN IMPLEMENTED AFTER EACH POUR
	VERIFY IN-SITU CONCRETE STRENGTH PRIOR TO REMOVAL OF SHORES AND FORMS FROM STRUCTURAL SLABS AND BEAMS		X	
STRUCTURAL STEEL AND ALUMINUM	FABRICATION OF STRUCTURAL ELEMENTS			FABRICATOR SHALL BE APPROVED IN ACCORDANCE WITH IBC, CHAPTER 17 TO PERFORM WORK WITHOUT SPECIAL INSPECTION
	VERIFY MATERIAL OF ANCHOR BOLTS AND THREADED RODS		X	CONTRACTOR TO SUBMIT MANUFACTURER'S CERTIFIED TEST REPORTS

TABLE 2			
REQUIRED TESTING FOR SPECIAL INSPECTIONS			
SYSTEM OR MATERIAL	TESTING		REMARKS
	CODE OR STANDARD REFERENCE	FREQUENCY	
GEOTECHNICAL			
PREPARED SUBGRADE DENSITY	ASTM D6938	EACH 300 SF OF PREPARED SUBGRADE	PER GEOTECHNICAL REPORT
FILL IN-PLACE DENSITY	ASTM D6938	EACH 300 SF OF EACH LIFT PLACED EACH DAY	PER GEOTECHNICAL REPORT
CONCRETE			
CONCRETE COMPRESSIVE STRENGTH	ASTM C31,ASTM C39,ASTM C172	SEE SPECIFICATION 03300	
CONCRETE SLUMP	ASTM C143	WHENEVER CYLINDERS ARE CAST	
CONCRETE AIR CONTENT	ASTM C231	WHENEVER CYLINDERS ARE CAST	
CONCRETE TEMPERATURE	ASTM C1064	WHENEVER CYLINDERS ARE CAST	
CEMENTITIOUS AND EPOXY GROUT COMPRESSIVE STRENGTH	ASTM C942 (CEMENTITIOUS) ASTM C579 (EPOXY)		TEST 2" CUBES FOR EACH GROUT SHIPMENT TO THE FIELD



SOUTHWEST BIKEPATH CULVERT REPLACEMENT AT WAITE CIRCLE - 2019

REVISIONS		
REV	DATE	DESCRIPTION
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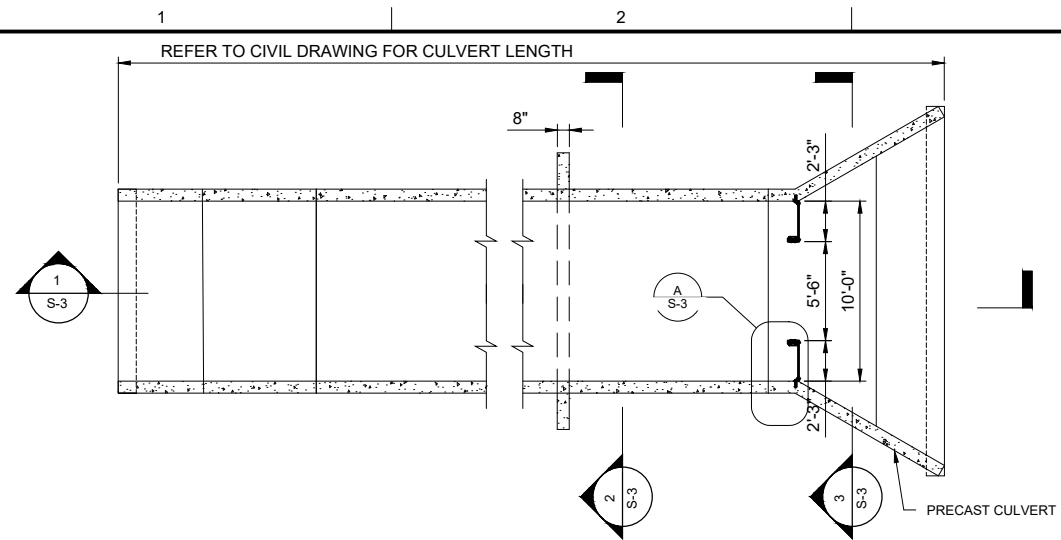
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 CHECKED: A SHELTON
 APPROVED: K PARK
 FILENAME: XX-S-02-SPECIAL INSPECTION NOTE.DWG
 BC PROJECT NUMBER: 153394
 CLIENT PROJECT NUMBER: 8466

STRUCTURAL SPECIAL INSPECTION NOTES

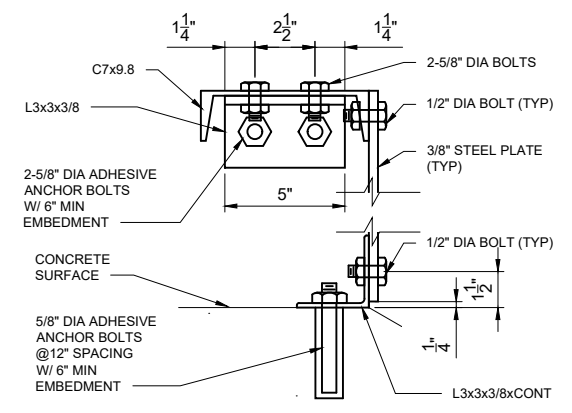
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S-2
 SHEET NUMBER
 24 OF 25

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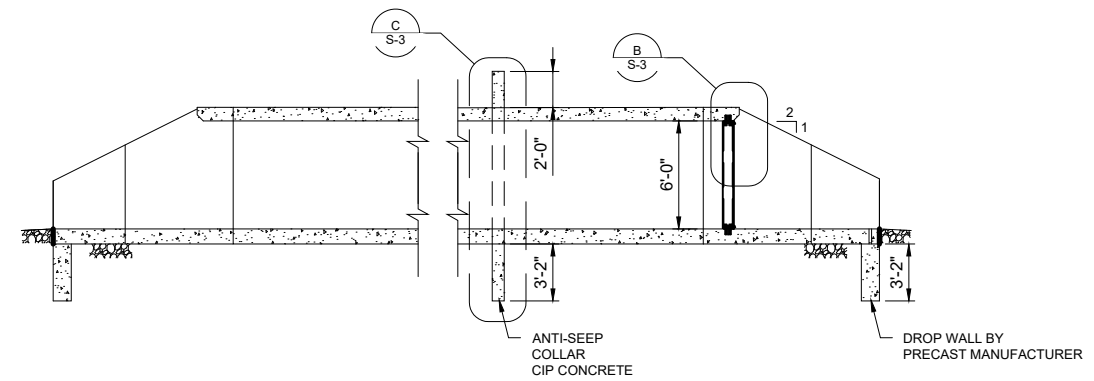
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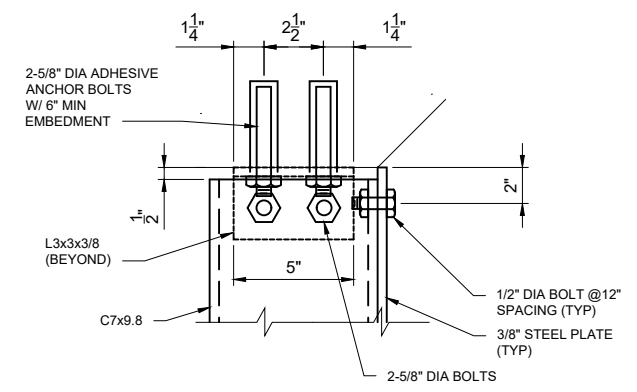
PLAN VIEW
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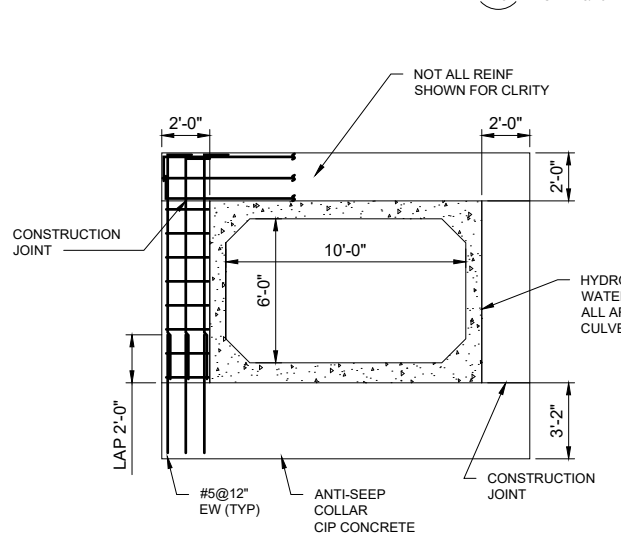
DETAIL A
SCALE: 3" = 1'-0"



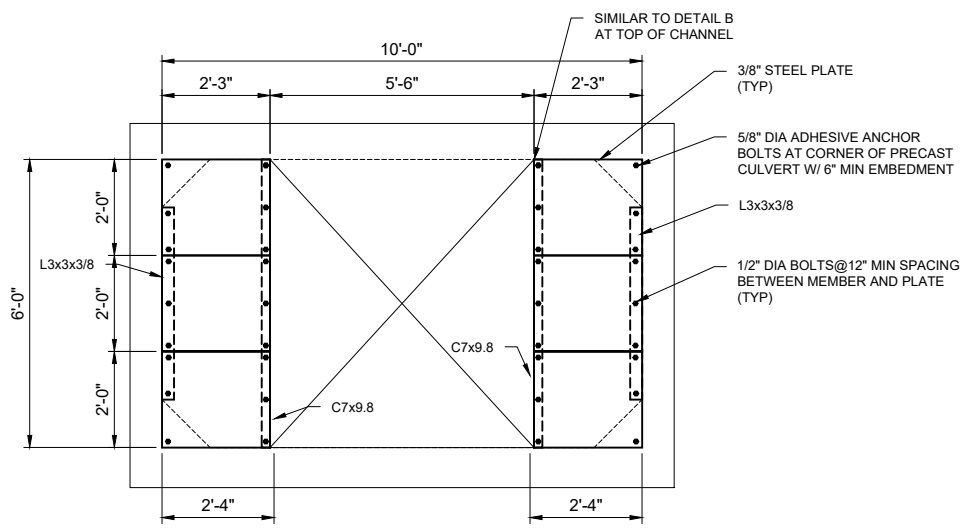
SECTION 1
SCALE: 3/16" = 1'-0"



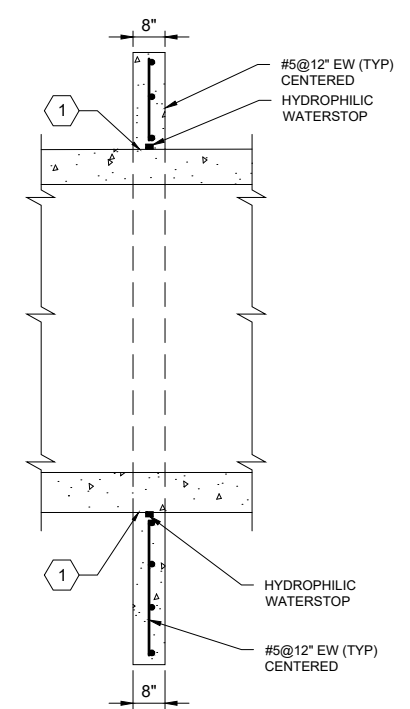
DETAIL B
SCALE: 3" = 1'-0"



SECTION 2
SCALE: 1/4" = 1'-0"



SECTION 3
SCALE: 1/2" = 1'-0"



DETAIL C
SCALE: 1/2" = 1'-0"

GENERAL NOTES

1. STEEL MEMBER AND PLATE SHALL BE A36 GRADE STEEL.
2. ADHESIVE ANCHOR BOLTS SHALL BE STAINLESS STEEL TYPE 316.

KEY NOTES

1. CONCRETE SURFACE SHALL BE CLEANED AND ROUGHENED FOR BONDING.



SOUTHWEST BIKEPATH CULVERT REPLACEMENT AT WAITE CIRCLE - 2019

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DRAWN: K PARK
 CHECKED: A SHELTON
 APPROVED: K PARK
 FILENAME: XX-S-03-PLAN SECTIONS AND DETAILS.DWG
 BC PROJECT NUMBER: 153394
 CLIENT PROJECT NUMBER: 8466

STRUCTURAL PLAN, SECTIONS AND DETAILS

DRAWING NUMBER:
S-3
 SHEET NUMBER:
 25 OF 25