

Madison, Wisconsin

CITY OF MADISON

MADISON WATER UTILITY

DEPARTMENT OF PUBLIC WORKS

PLAN OF PROPOSED IMPROVEMENT

PUBLIC IMPROVEMENT PROJECT APPROVED

NOVEMBER 1, 2016

BY THE COMMON COUNCIL OF MADISON, WISCONSIN

PUBLIC IMPROVEMENT DESIGN APPROVED BY:

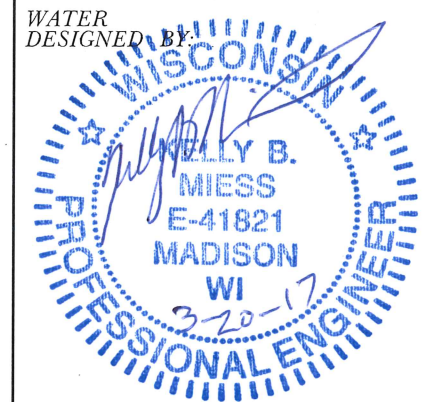
[Signature] 3/20/17
Principal Engineer Date
Madison Water Utility

INDEX OF SHEETS

SHEET NO.	1	TITLE SHEET
SHEET NO.	EG-1 TO EG-7	EROSION CONTROL PLAN
SHEET NO.	W-1 TO W-7	WATER PLAN & PROFILE
SHEET NO.	W-8 TO W-9	WATER PLAN OVERVIEW
SHEET NO.	W-10 TO W-15	WATER IMPACT PLAN
SHEET NO.	W-16	PRESSURE ZONE BOUNDARIES
SHEET NO.	W-17	WATER ESTIMATE OF MATERIALS
SHEET NO.	RW-1 TO RW-2	RELOCATED WALL PLAN
SHEET NO.	D-1 TO D-3	DETAILS
SHEET NO.	U-1 TO U-2	UTILITY PLAN & PROFILE & SCHEDULE
SHEET NO.	CU-1 TO CU-4	CONTRACTOR USE PLAN
SHEET NO.	RS-1 TO RS-4	RESTORATION PLAN

LAKEVIEW RESERVOIR PIPELINE IMPROVEMENTS PHASE 2

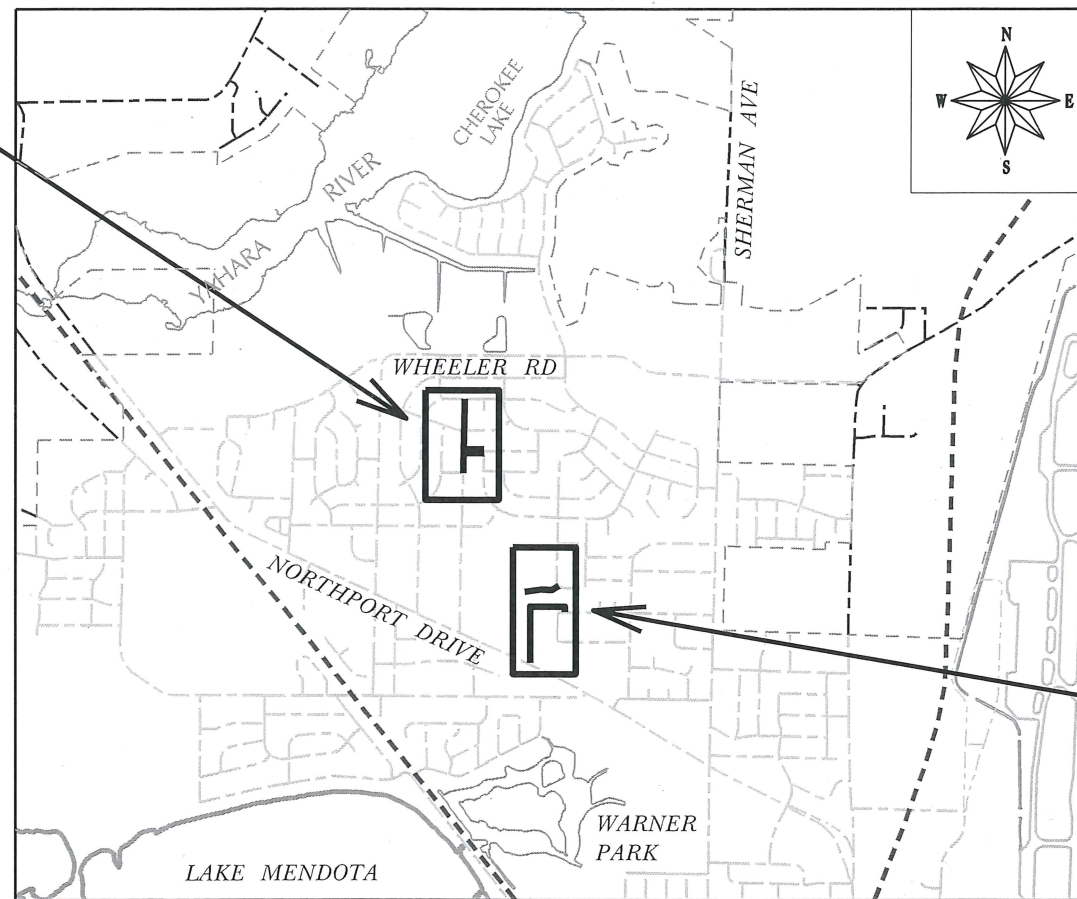
CITY PROJECT NO. 53W1903
MUNIS NO. 10439
CONTRACT NO. 7452



STORM SEWER DESIGNED BY:



CONSTRUCTION PROJECT LOCATION 2 (MELBY & MANDRAKE)



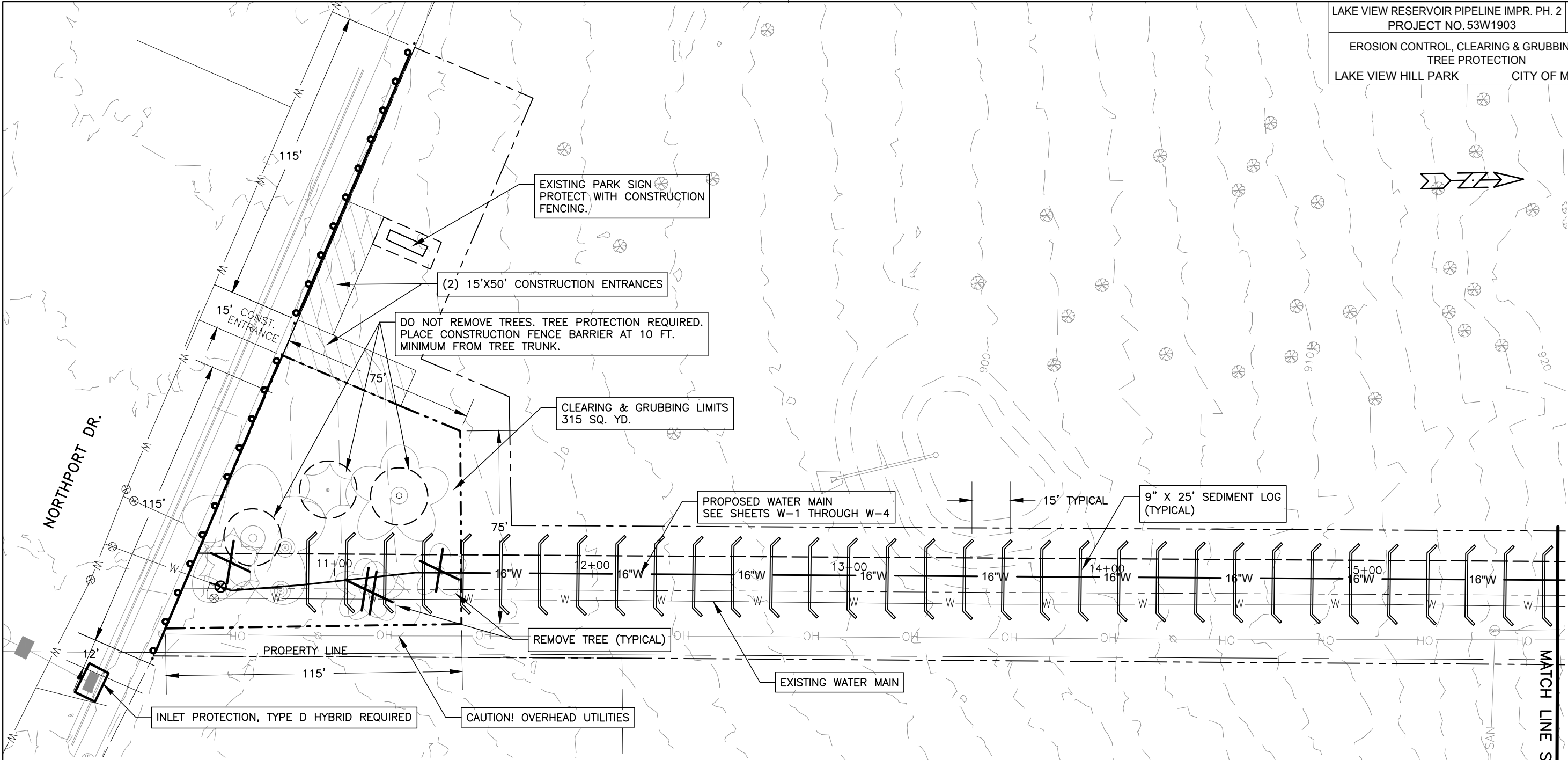
CONSTRUCTION PROJECT LOCATION 1 (LAKE VIEW HILL PARK / DANE CO. HUMAN SERVICES)

CONVENTIONAL SIGNS	
FIELD VERIFY ALL UTILITY LOCATIONS	
GAS	— G —
STORM SEWER	— ST —
SANITARY SEWER	— SAN —
WATER	— W —
BURIED ELECTRIC	— E —
OVERHEAD ELECTRIC	— OH —
POWER POLE	□
ADA COMPLIANT RAMP W/ DETECTABLE WARNING FIELD	▒
COMBUSTIBLE FLUIDS	☀

PLOT SCALE: _____
PLOT NAME: _____

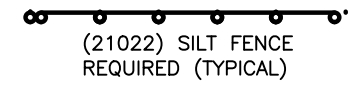
REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



EROSION CONTROL NOTES:

1. EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY.
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 CLEANING AS NEEDED ON A DAILY BASIS TO KEEP TRACKING TO A MINIMUM.
5. INLET PROTECTION SHALL BE INSTALLED WITHIN THE CONSTRUCTION LIMITS. ADDITIONAL INLET PROTECTION SHALL BE INSTALLED AS DIRECTED.
6. POLYMER SHALL BE APPLIED TO DISTURBED AREAS AS DIRECTED BY THE CONSTRUCTION ENGINEER.
7. SEE RESTORATION SHEETS FOR EROSION MAT REQUIREMENTS.



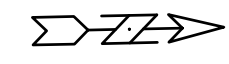
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PLOT NAME: #

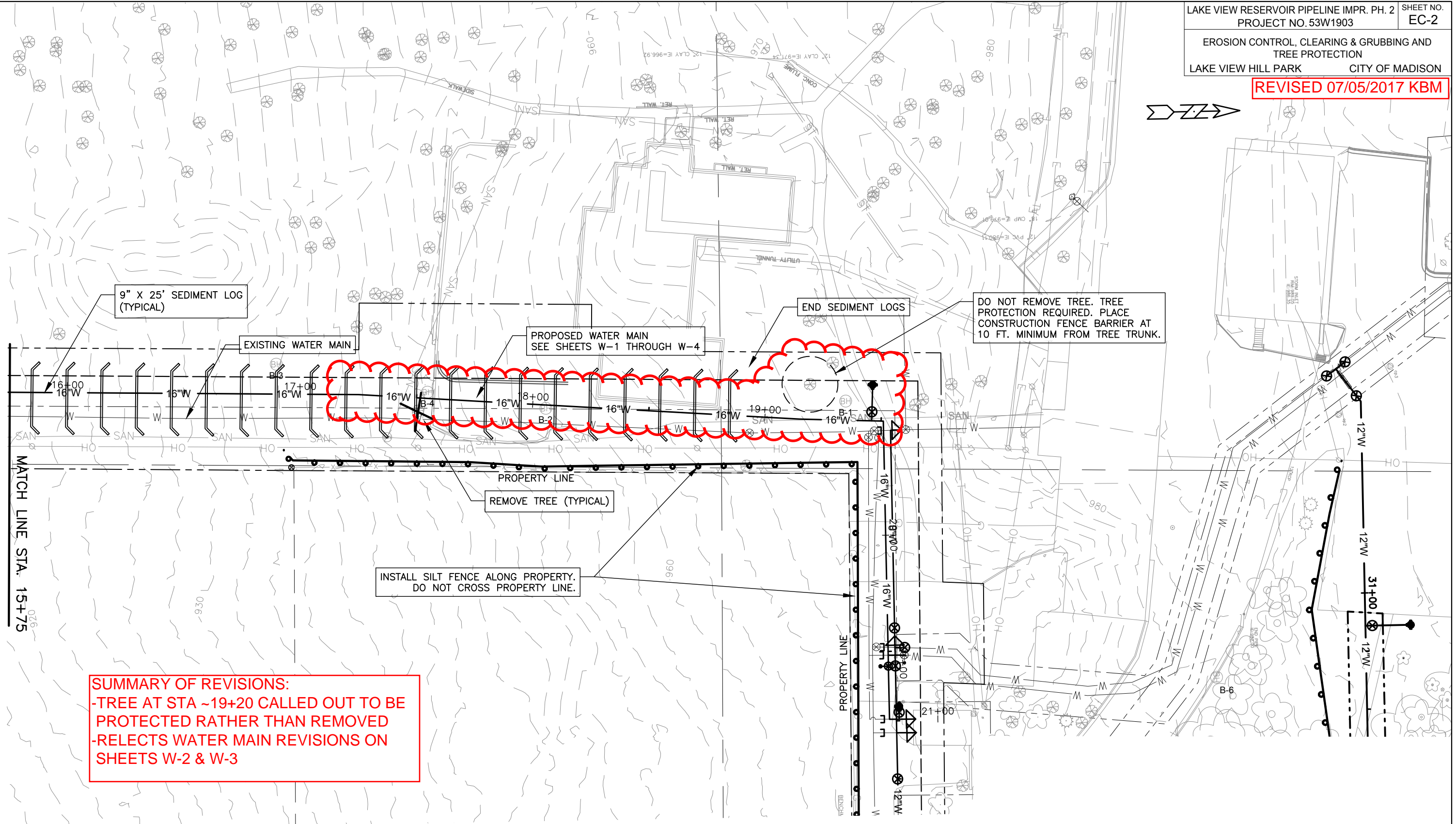
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ORIGINATOR: ---

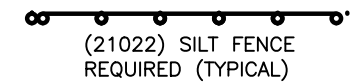
MATCH LINE STA. 15.



PLOT SCALE: 1"=40'
 PLOT NAME: #####
 REV. DATE: _____
 ORIGINATOR: _____



SUMMARY OF REVISIONS:
 -TREE AT STA ~19+20 CALLED OUT TO BE PROTECTED RATHER THAN REMOVED
 -RELECTS WATER MAIN REVISIONS ON SHEETS W-2 & W-3



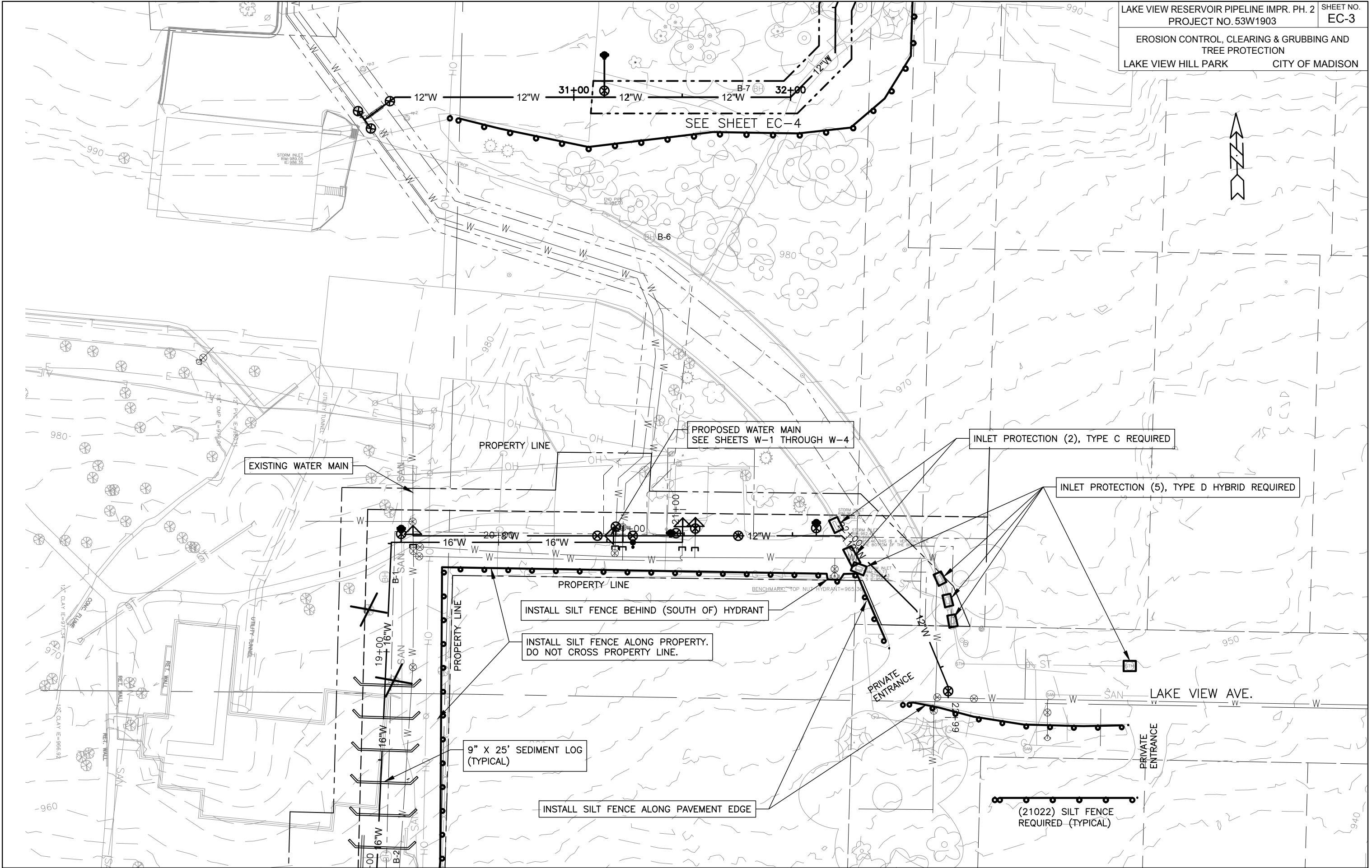


PLOT SCALE: 1"=40'

PLOT NAME: #####

REV. DATE: _____

ORIGINATOR: _____





EXISTING WATER MAIN

ESCH LN.

PRIVATE ENTRANCE

ACP #6031
 N=506097.6430
 E=824276.3120
 ELEV=1000.0080

INLET PROTECTION (2), TYPE D HYBRID
 REQUIRED AT INLETS AT THE INTERSECTION OF
 LONGVIEW ST. & KENWOOD ST. (NOT SHOWN).

LONGVIEW ST

DO NOT REMOVE TREES. TREE PROTECTION REQUIRED.
 PLACE CONSTRUCTION FENCE BARRIER AT 10 FT.
 MINIMUM FROM TREE TRUNK.

PROPERTY LINE

CLEARING & GRUBBING LIMITS
 88 SQ. YD.

PROPOSED WATER MAIN
 SEE SHEETS W-1 THROUGH W-4

7.5' 7.5'
 CLEARING & GRUBBING LIMITS

CAUTION: PROTECT ALL TREES AND ROOT
 SYSTEMS FROM DAMAGE AND SOIL COMPACTION

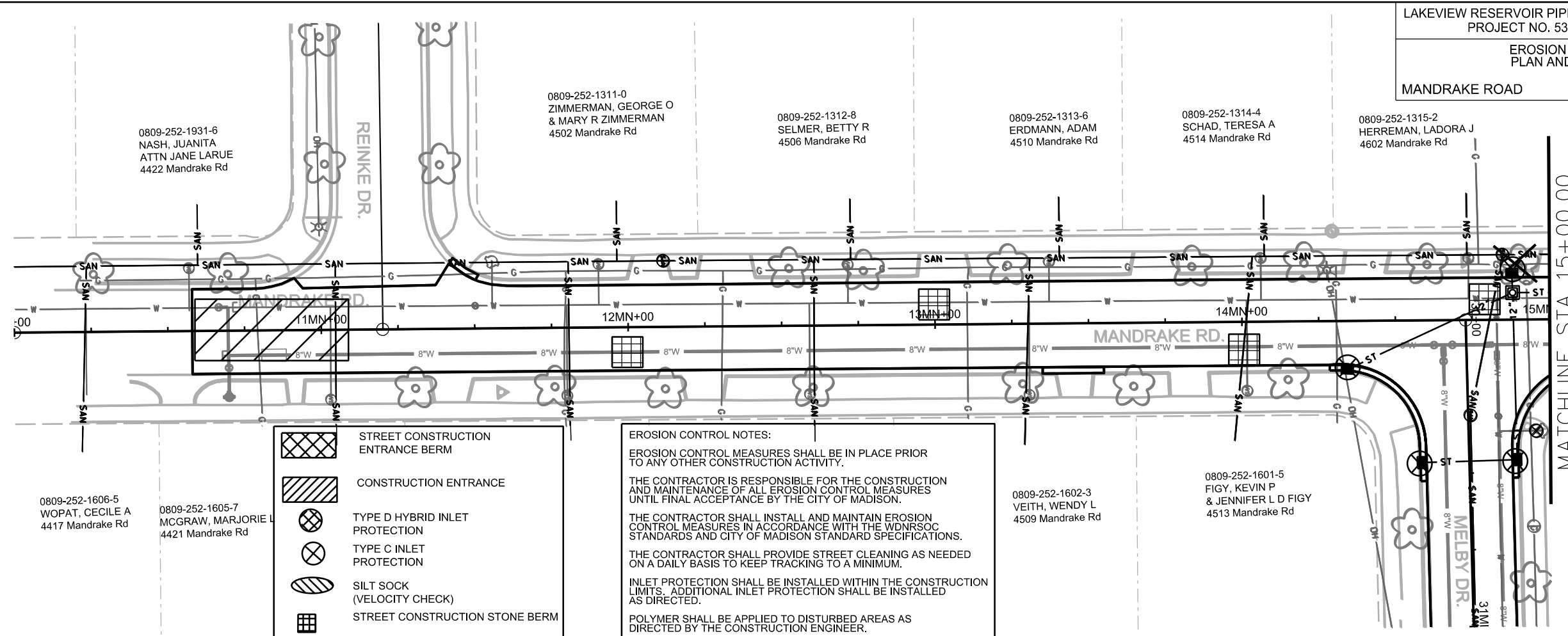
(21022) SILT FENCE
 REQUIRED (TYPICAL)

PLOT SCALE: 1"=40'

PLOT NAME: #####

REV. DATE: _____

ORIGINATOR: _____



0809-252-1931-6
NASH, JUANITA
ATTN JANE LARUE
4422 Mandrake Rd

0809-252-1311-0
ZIMMERMAN, GEORGE O
& MARY R ZIMMERMAN
4502 Mandrake Rd

0809-252-1312-8
SELMER, BETTY R
4506 Mandrake Rd

0809-252-1313-6
ERDMANN, ADAM
4510 Mandrake Rd

0809-252-1314-4
SCHAD, TERESA A
4514 Mandrake Rd







0809-252-1315-2
HERREMAN, LADORA J
4602 Mandrake Rd

0809-252-1606-5
WOPAT, CECILE A
4417 Mandrake Rd

0809-252-1605-7
MCGRAW, MARJORIE L
4421 Mandrake Rd

0809-252-1602-3
VEITH, WENDY L
4509 Mandrake Rd

0809-252-1601-5
FIGY, KEVIN P
& JENNIFER L D FIGY
4513 Mandrake Rd

-  STREET CONSTRUCTION ENTRANCE BERM
-  CONSTRUCTION ENTRANCE
-  TYPE D HYBRID INLET PROTECTION
-  TYPE C INLET PROTECTION
-  SILT SOCK (VELOCITY CHECK)
-  STREET CONSTRUCTION STONE BERM

EROSION CONTROL NOTES:

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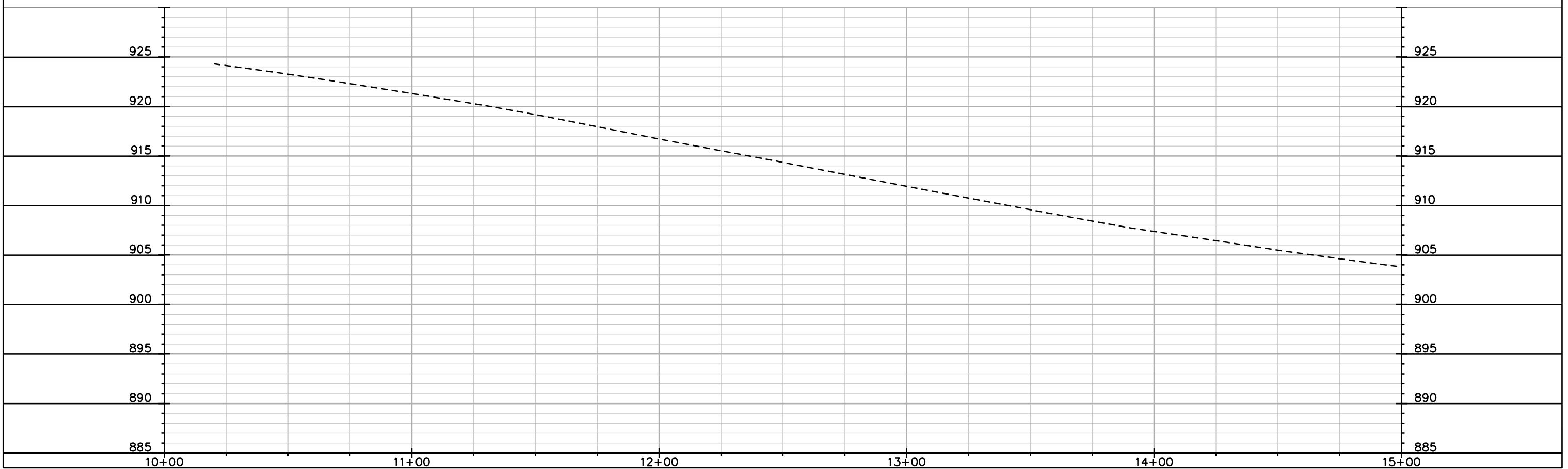
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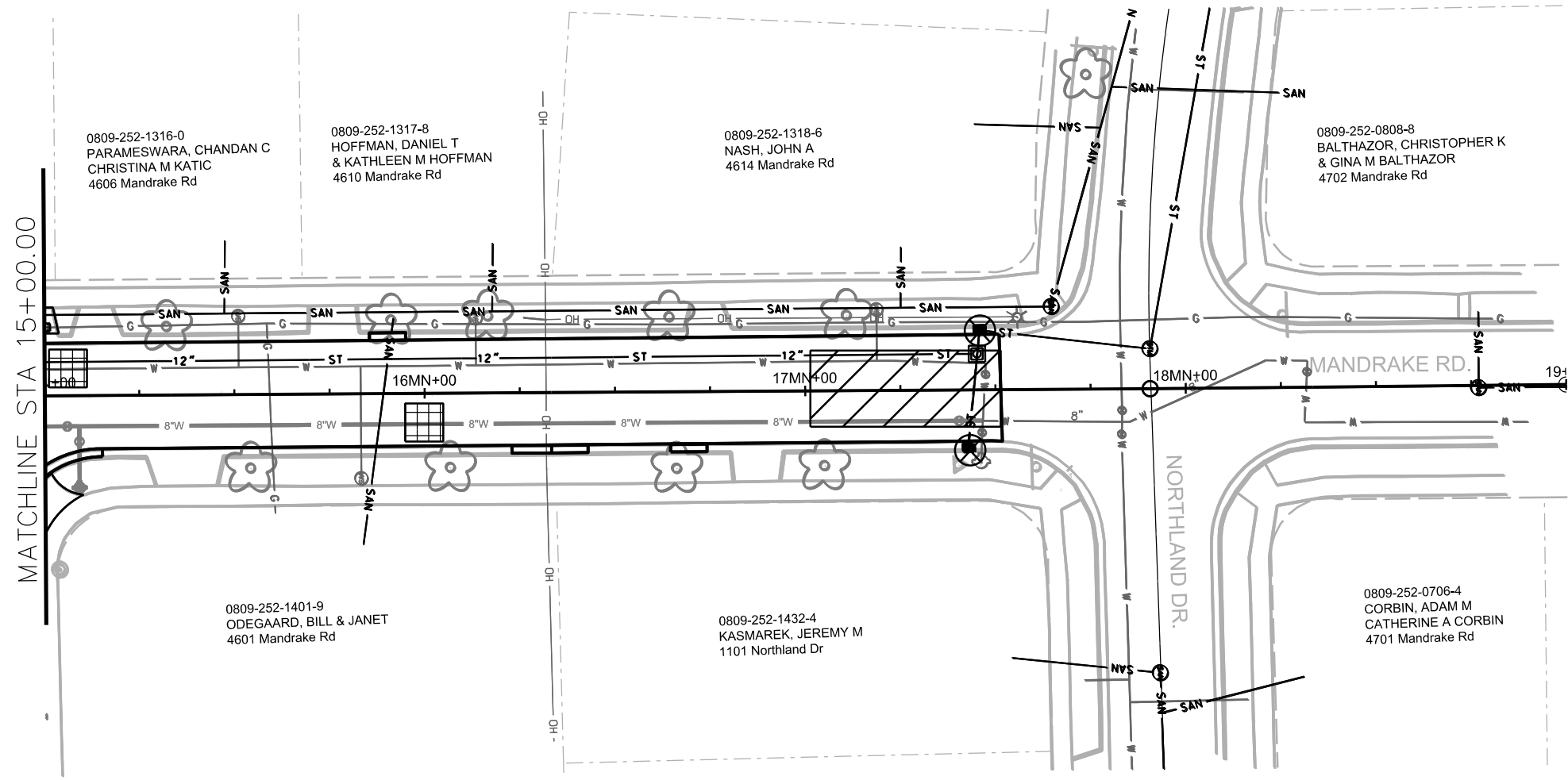


PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



- STREET CONSTRUCTION ENTRANCE BERM
- CONSTRUCTION ENTRANCE
- TYPE D HYBRID INLET PROTECTION
- TYPE C INLET PROTECTION
- SILT SOCK (VELOCITY CHECK)
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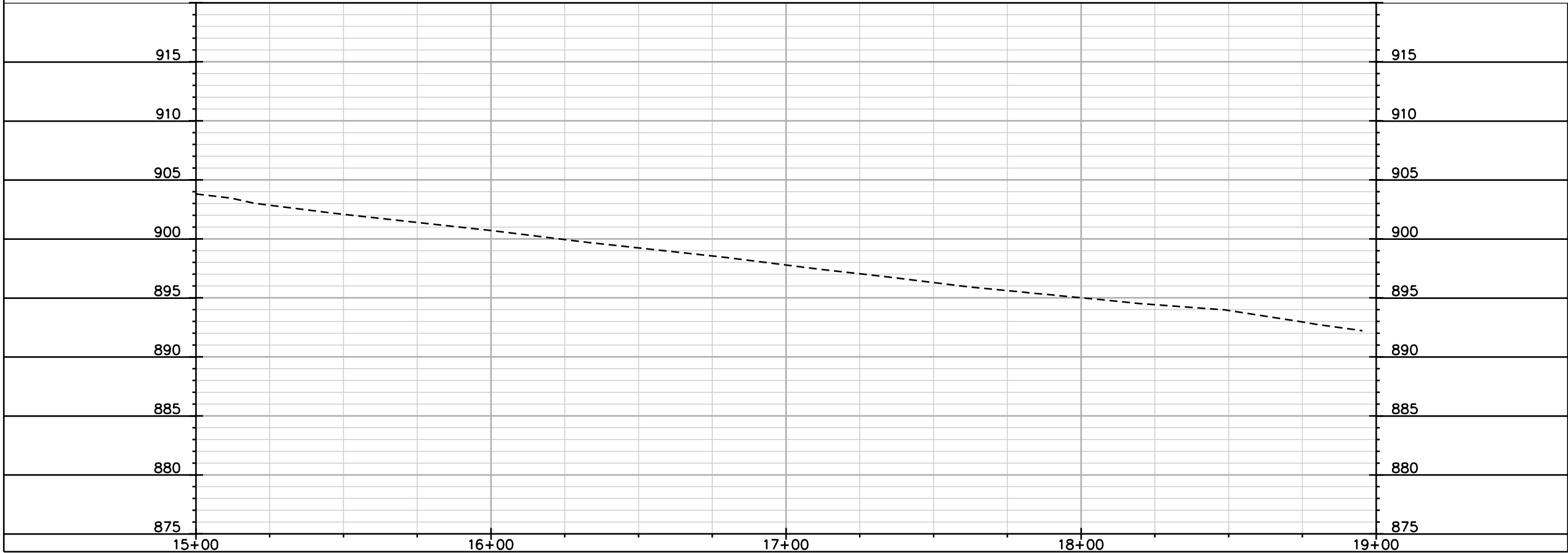
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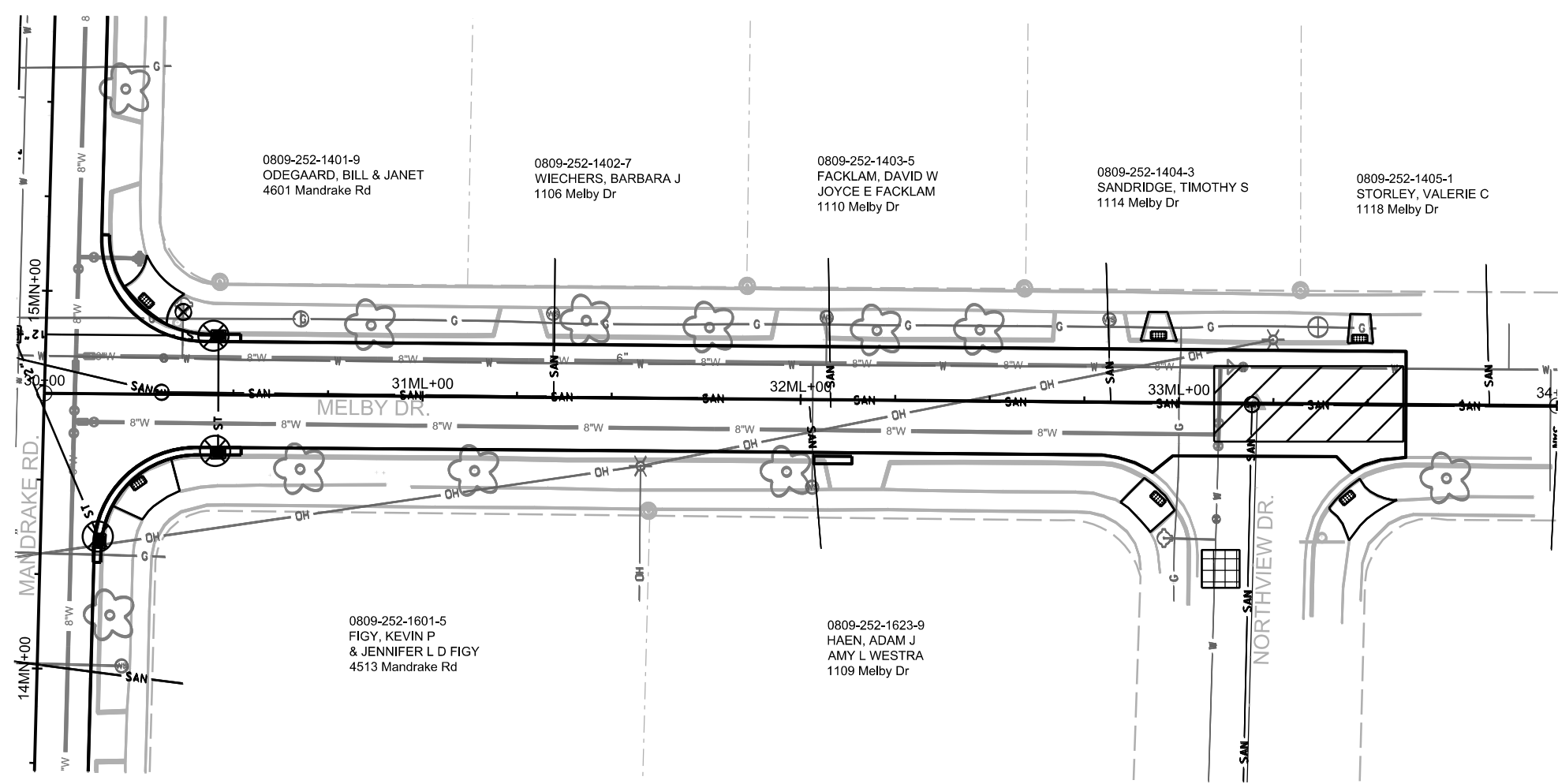


PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



- STREET CONSTRUCTION ENTRANCE BERM
- CONSTRUCTION ENTRANCE
- TYPE D HYBRID INLET PROTECTION
- TYPE C INLET PROTECTION
- SILT SOCK (VELOCITY CHECK)
- STREET CONSTRUCTION STONE BERM

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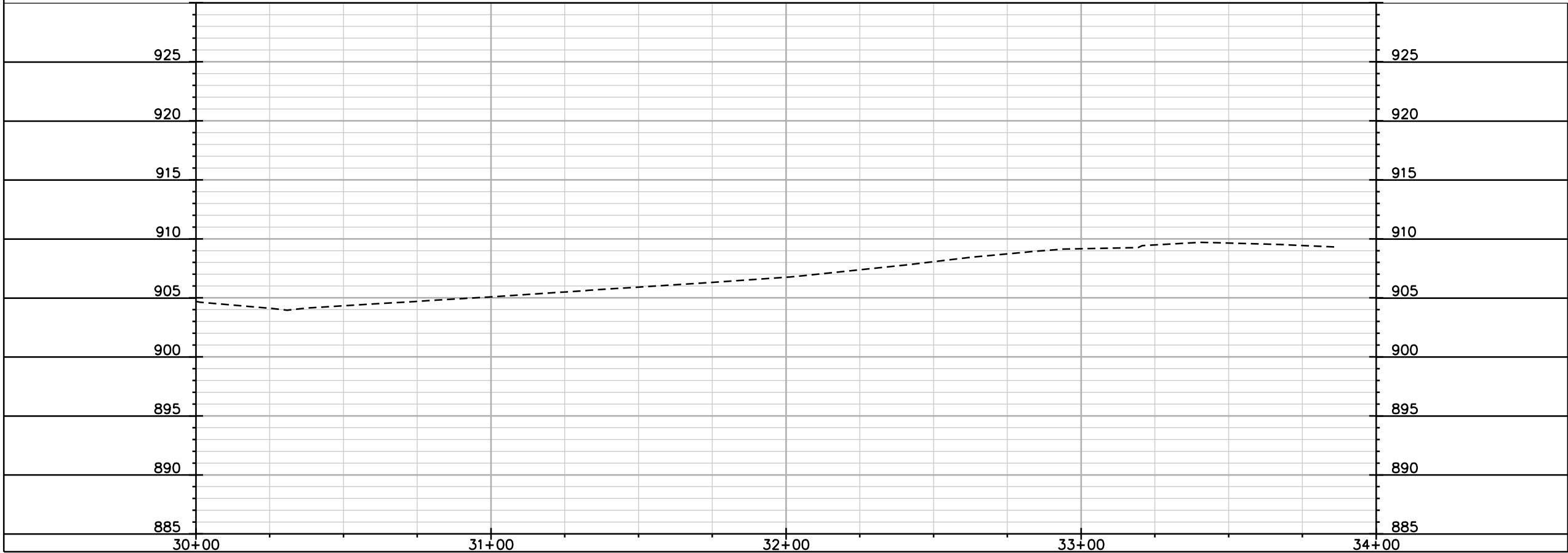
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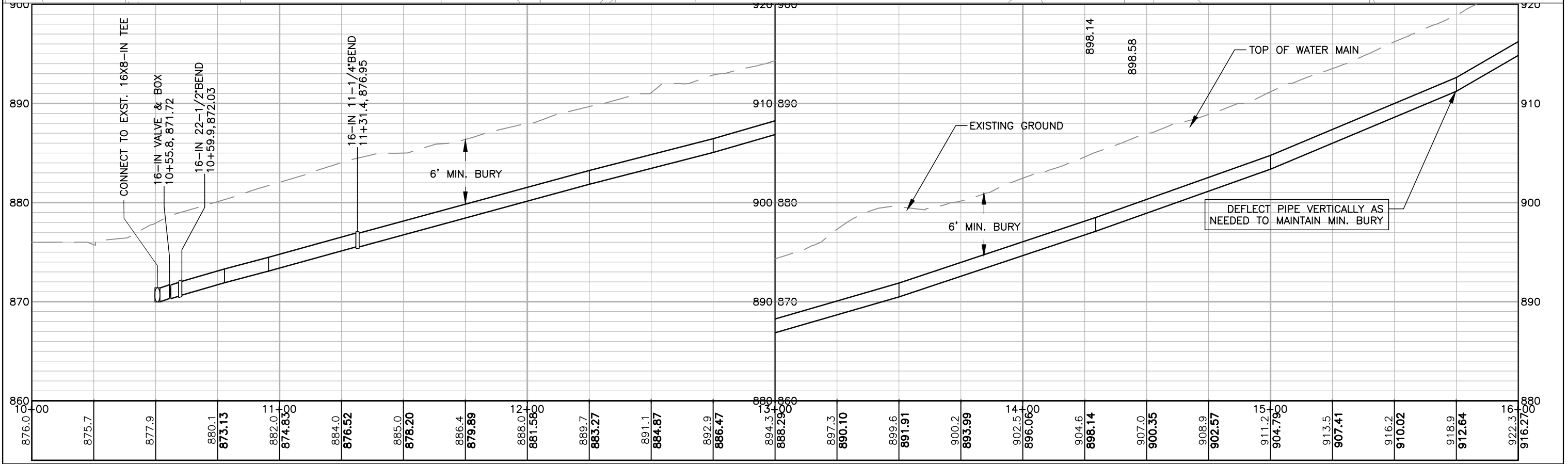
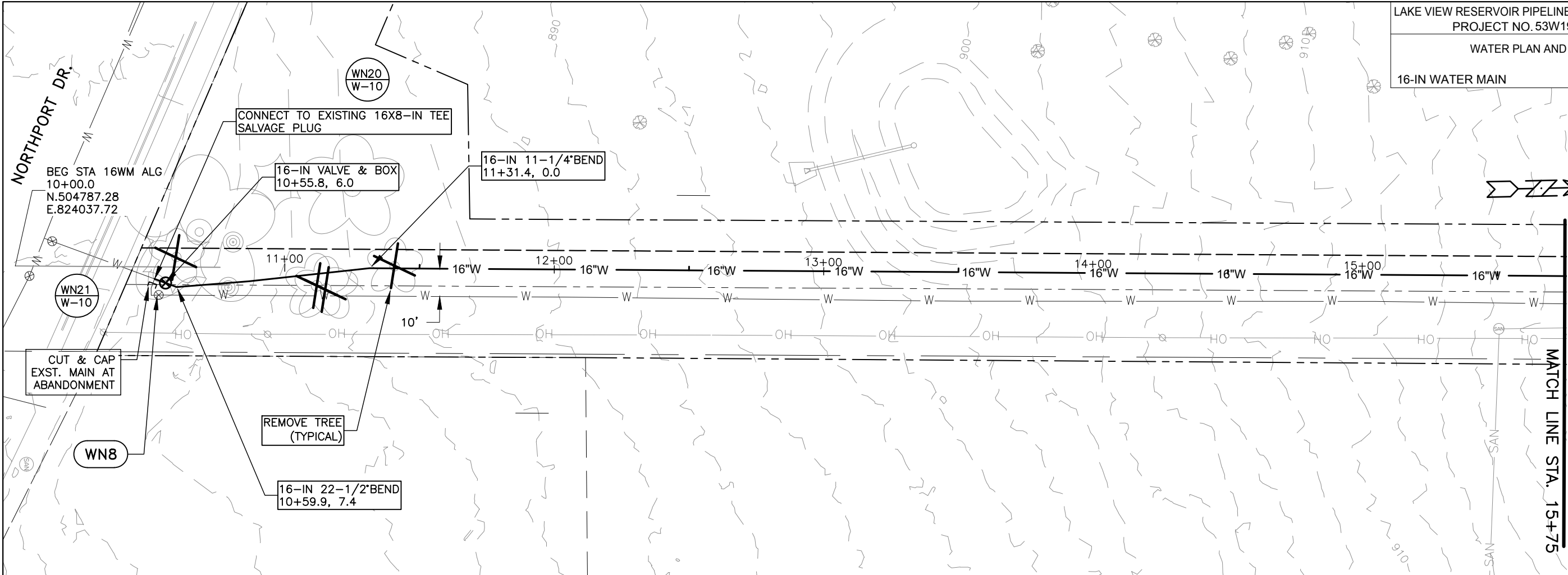


PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



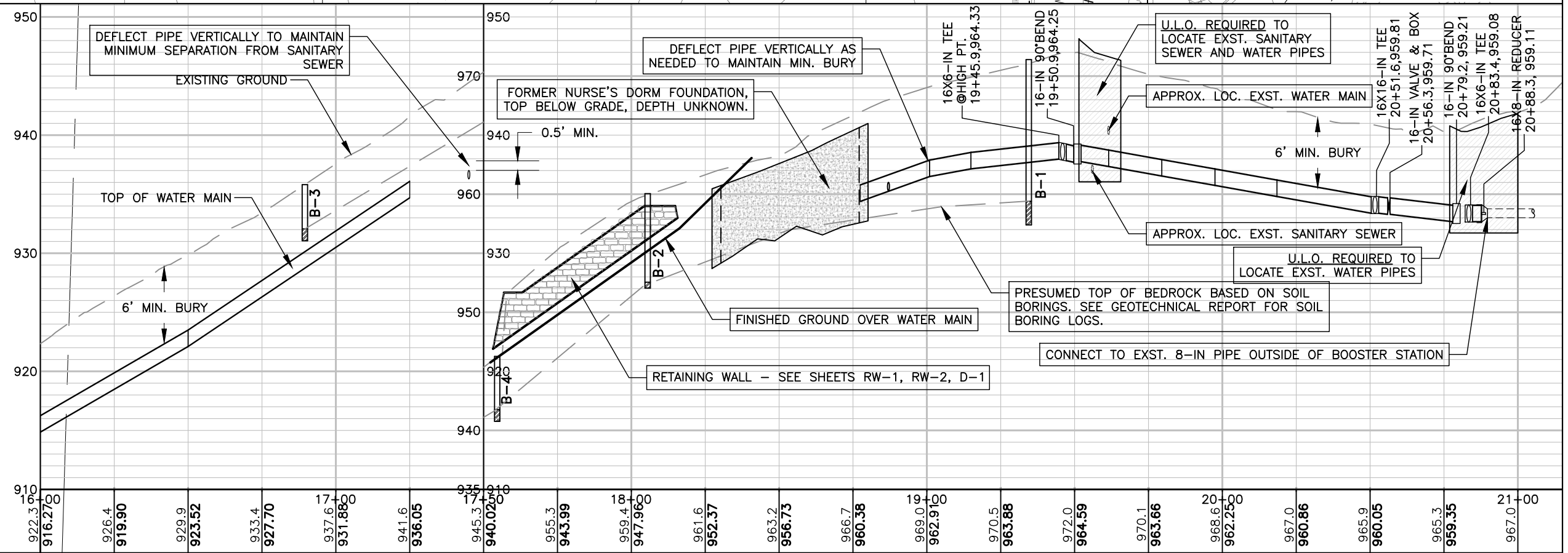
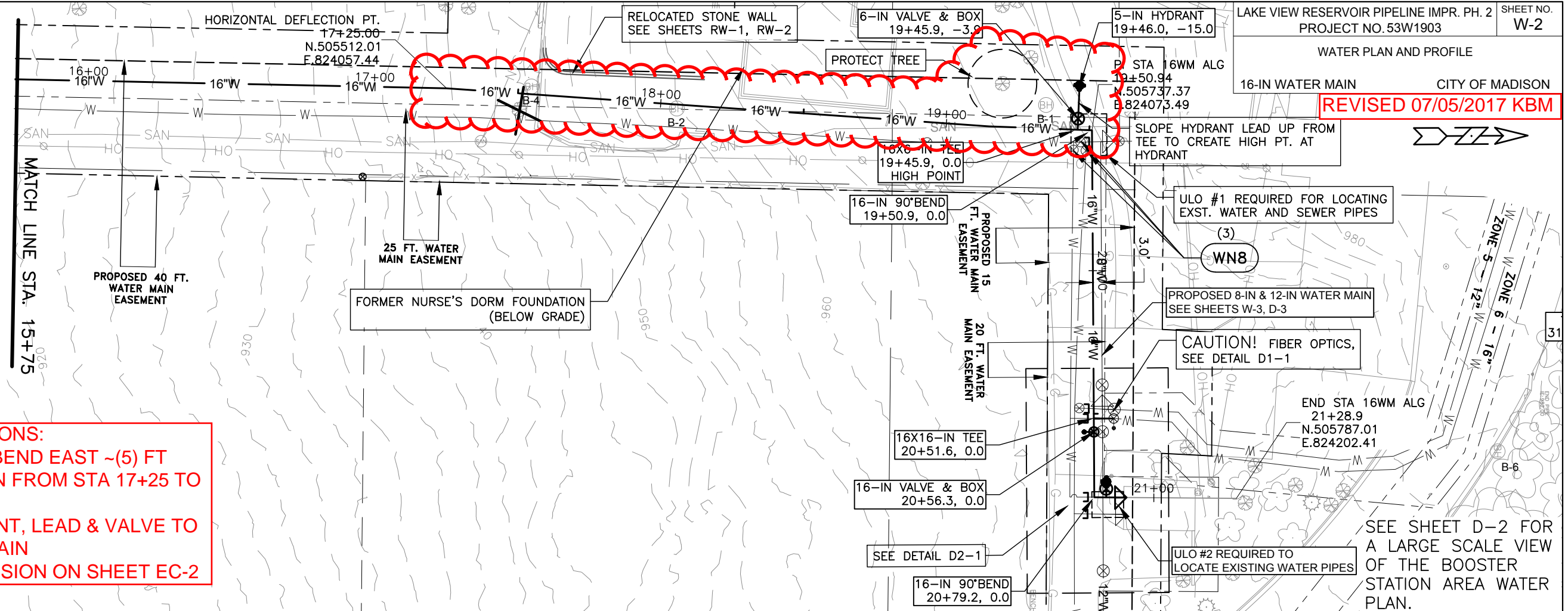
PLOT SCALE: 1"=40'

PLOT NAME: #####

REV. DATE: -----

ORIGINATOR: ---

SUMMARY OF REVISIONS:
 -MOVED 16" 90-DGR BEND EAST ~(5) FT
 -DEFLECTED 16" MAIN FROM STA 17+25 TO NEW TEE LOCATION
 -RELOCATED HYDRANT, LEAD & VALVE TO WEST SIDE OF 16" MAIN
 -RELECTS TREE REVISION ON SHEET EC-2

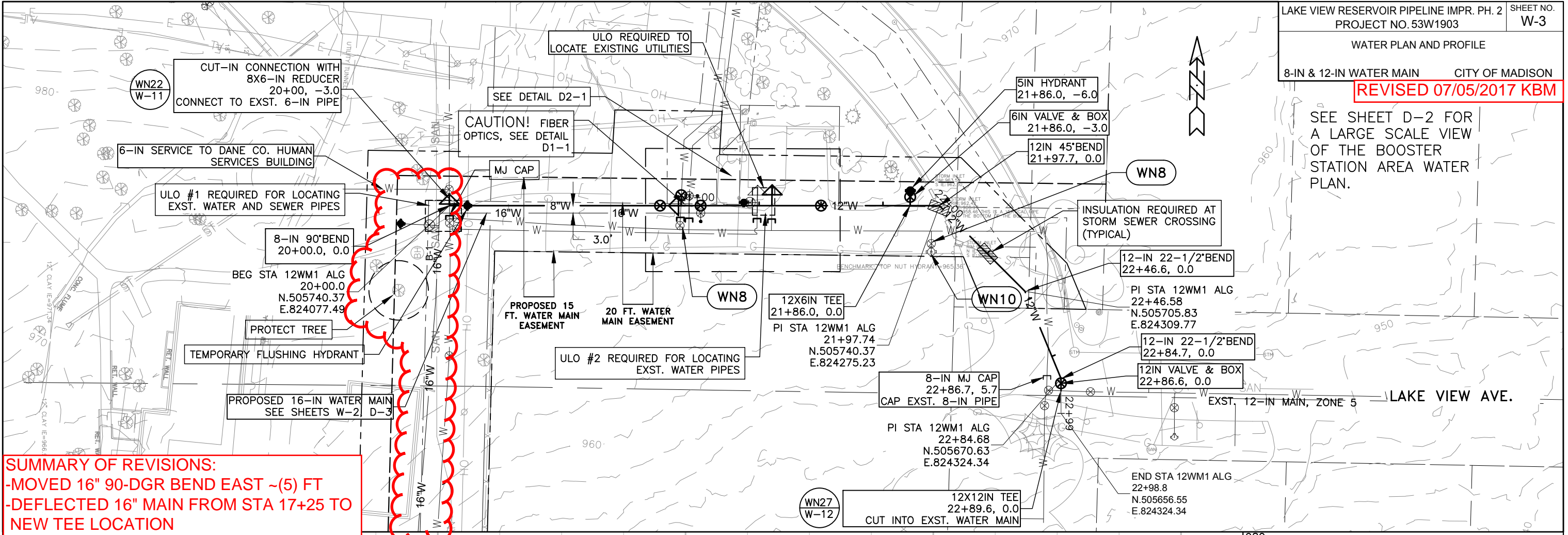


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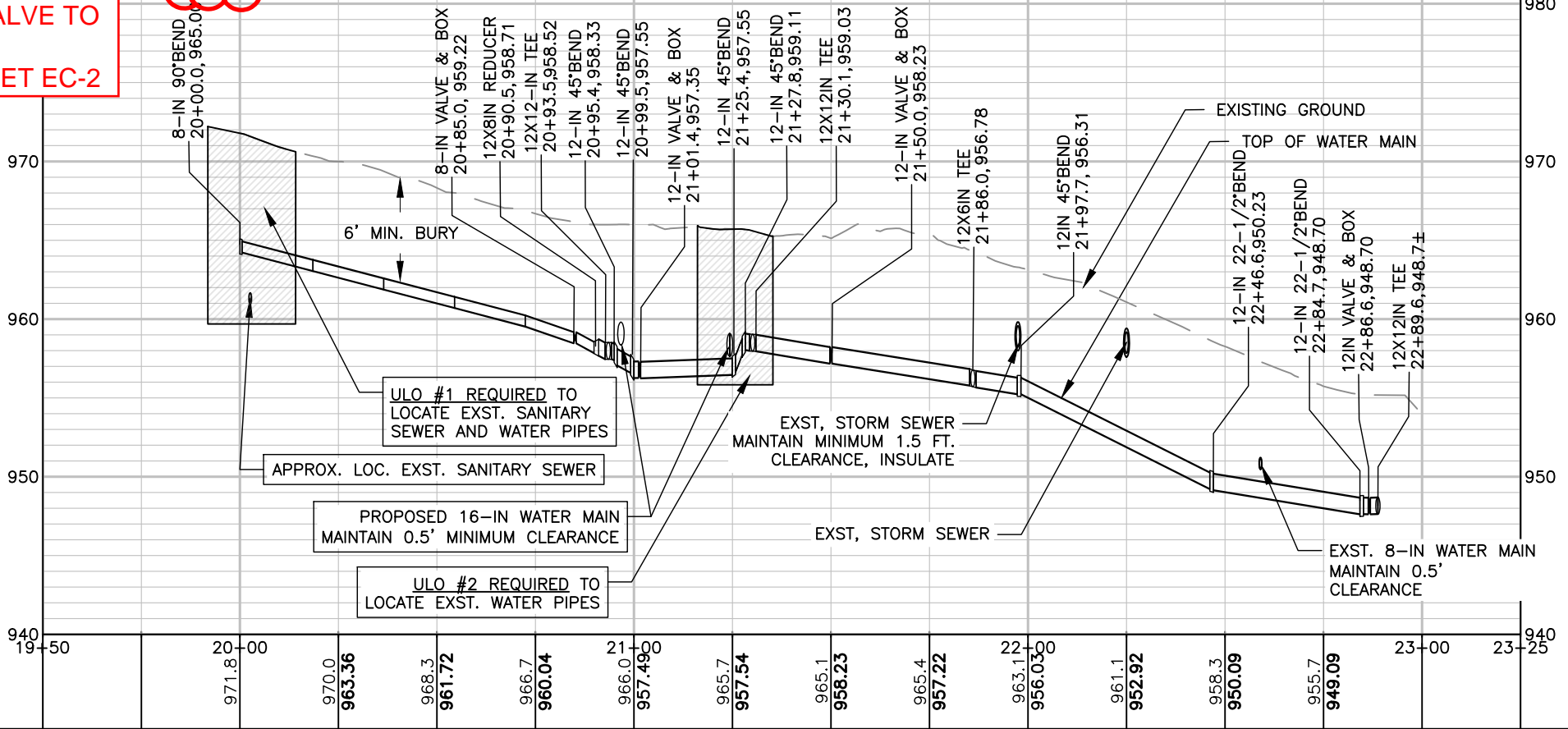
REV. DATE: -----

ORIGINATOR: -----

SEE SHEET D-2 FOR A LARGE SCALE VIEW OF THE BOOSTER STATION AREA WATER PLAN.

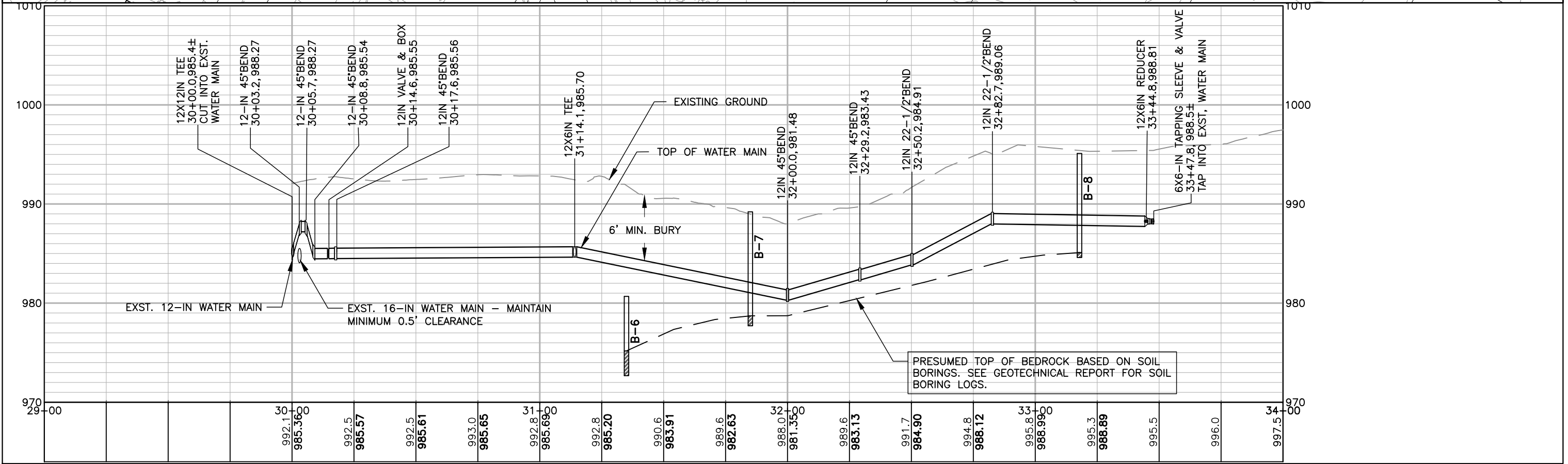
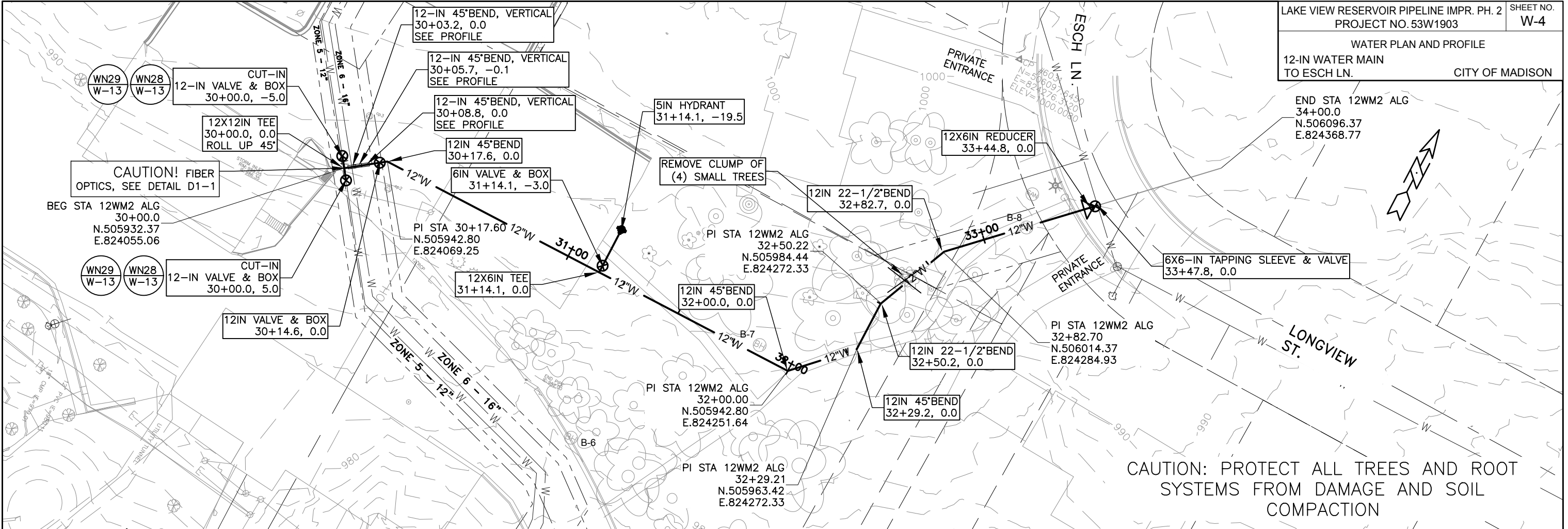


SUMMARY OF REVISIONS:
 -MOVED 16" 90-DGR BEND EAST ~ (5) FT
 -DEFLECTED 16" MAIN FROM STA 17+25 TO NEW TEE LOCATION
 -RELOCATED HYDRANT, LEAD & VALVE TO WEST SIDE OF 16" MAIN
 -RELECTS TREE REVISION ON SHEET EC-2

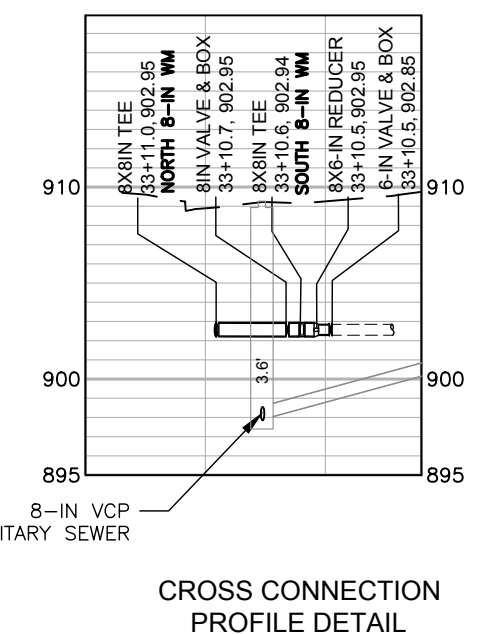
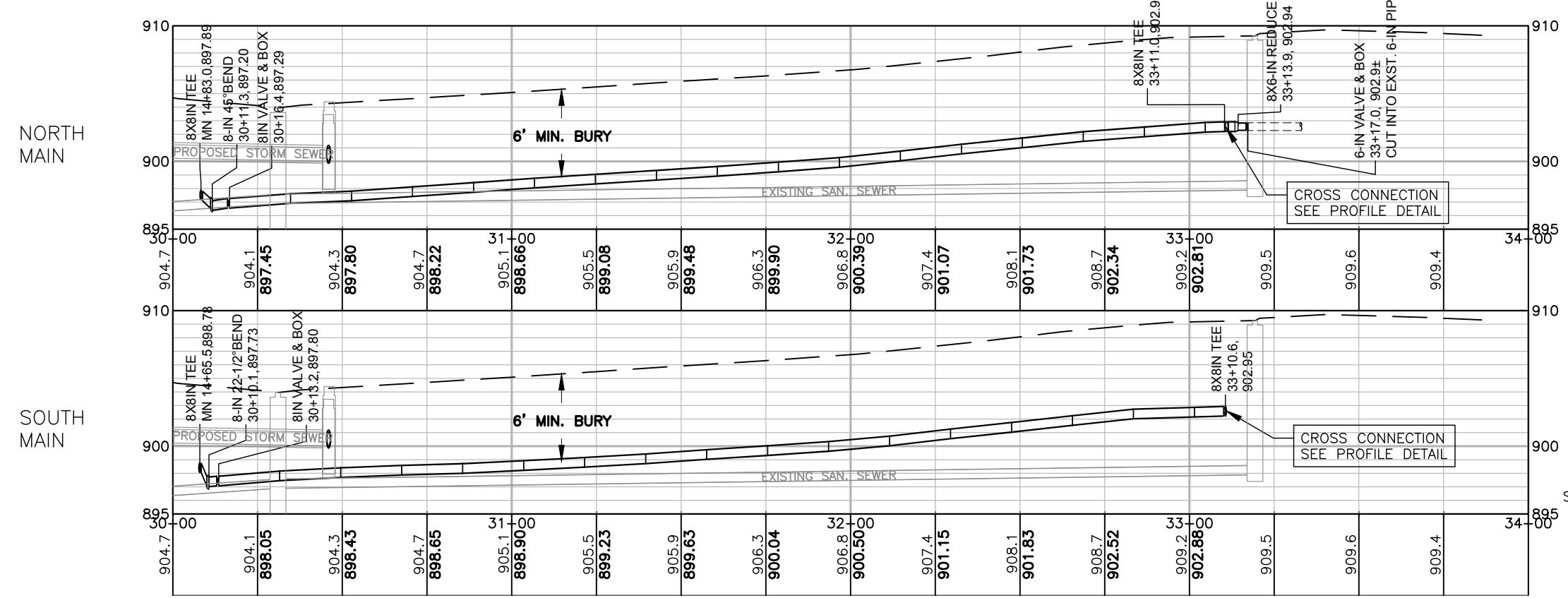
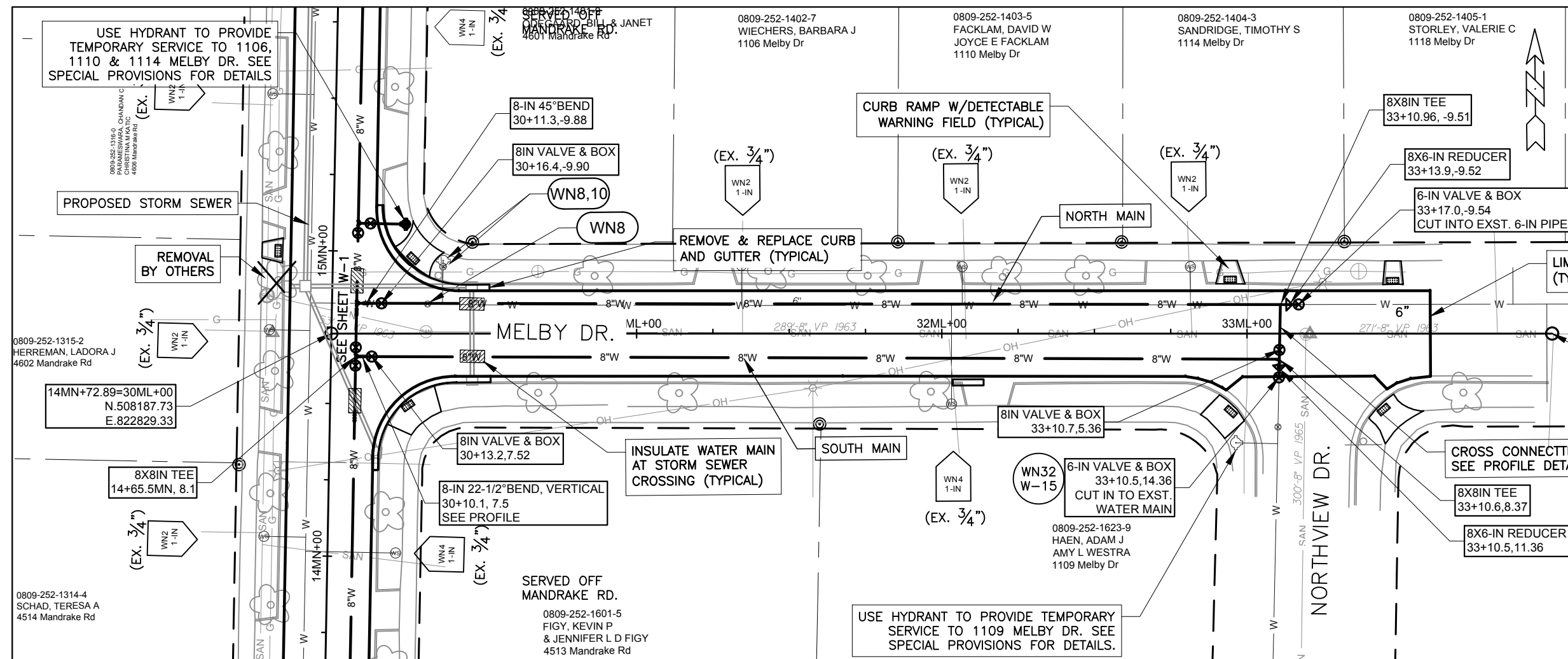


PLOT SCALE: 1"=40'
 PLOT NAME: #####
 REV. DATE: _____
 ORIGINATOR: _____

END STA 12WM2 ALG 34+00.0
 N.506096.37
 E.824368.77



PLOT SCALE: 1"=40'
 PLOT NAME: #####
 REV. DATE: _____
 ORIGINATOR: _____



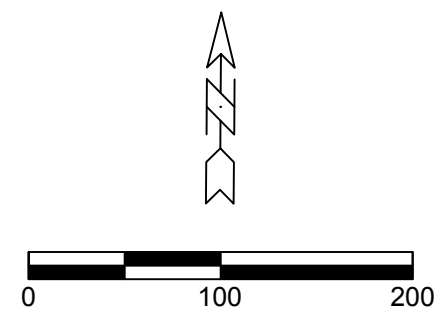
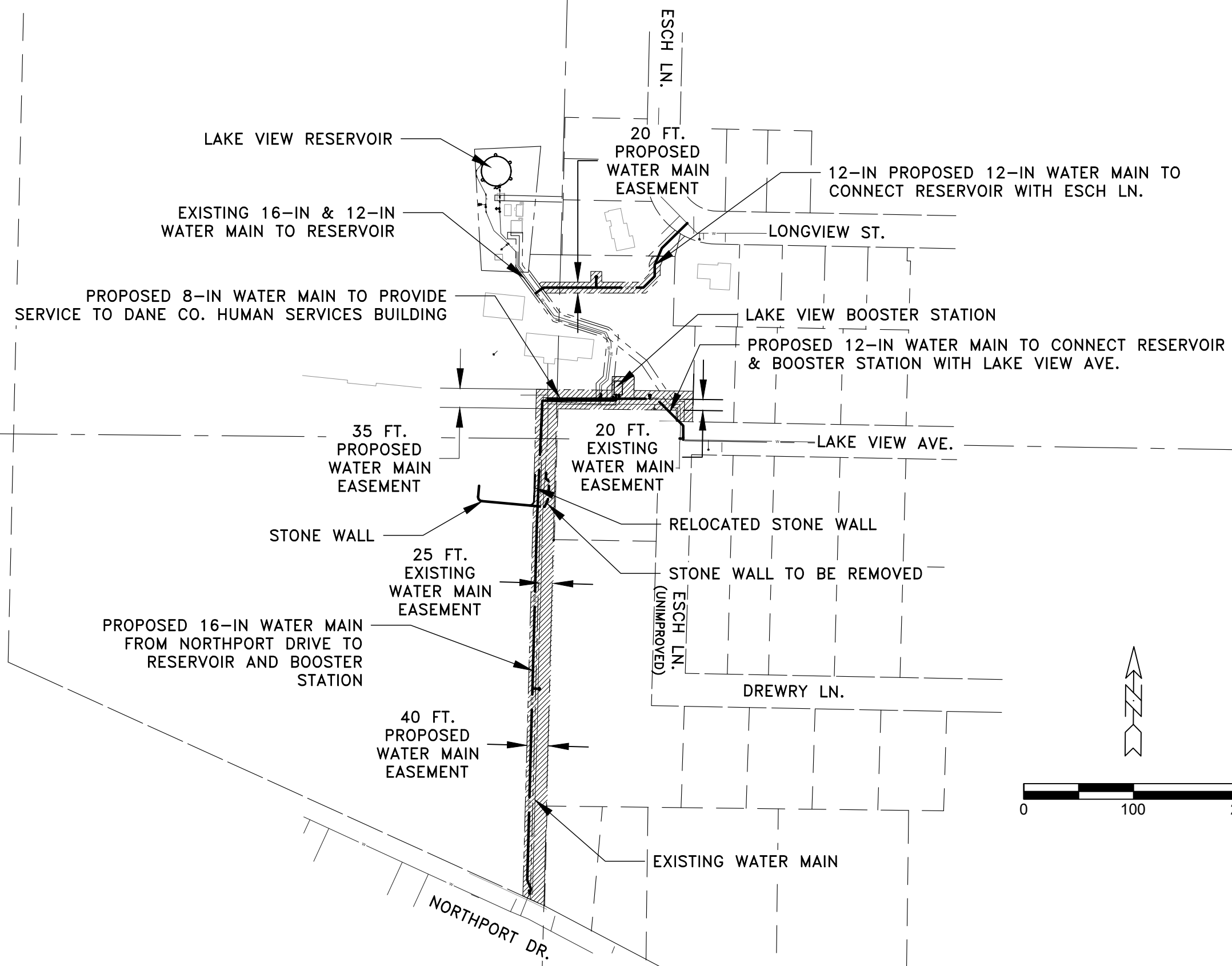
CROSS CONNECTION
PROFILE DETAIL

PLOT SCALE: 1"=40'

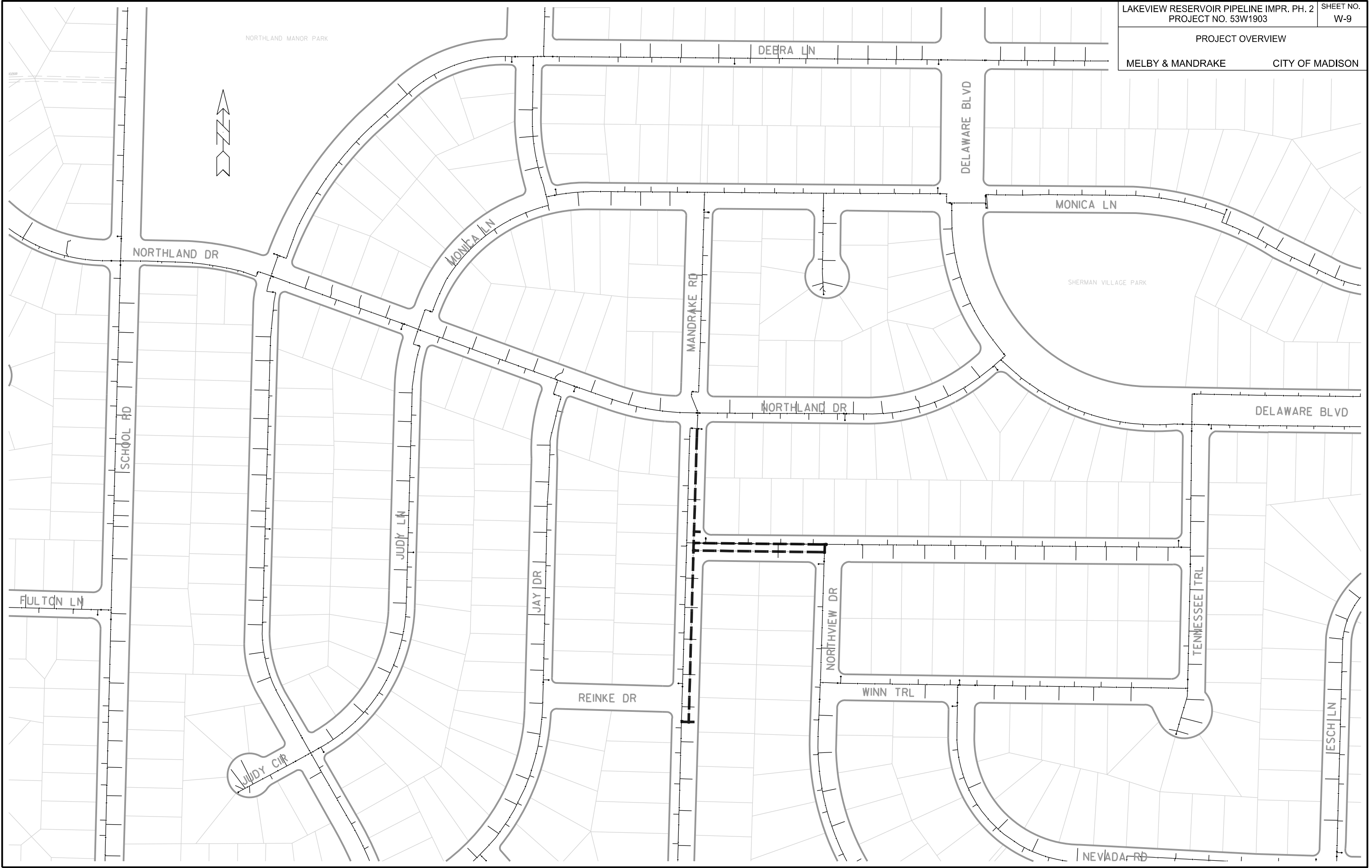
PLOT NAME: #####

REV. DATE: ----

ORIGINATOR: ----



- PROPERTY LINE
- EASEMENT BOUNDARY LINE
- SECTION LINE
- RIGHT-OF-WAY LINE
- ////// PERMANENT EASEMENT REQUIRED



PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



DANE COUNTY HUMAN SERVICES
LAKE VIEW HILL PARK

1202

1405

1417

WN20 W-1 PLUG REMOVAL CONNECTION
NORTHPORT AT DANE COUNTY HS

ISOLATION VALVES:
- V-1566 (8" DCHS AT NORTHPORT)
- V-1567 (12" DCHS AT NORTHPORT)

SECONDARY VALVES:
- V-1568 (12" NORTHPORT AT DCHS)
- V-1569 (12" NORTHPORT AT DCHS)
- V-5 (8" WEST OF BOOSTER STATION
PARKING LOT, SEE W-11)

NOTIFICATION
- MADISON WATER UTILITY

WN21 W-1 CUT & CAP/PLUG EXISTING MAIN
NORTHPORT AT DANE COUNTY HS

ISOLATION VALVES:
- V-1566 (8" DCHS AT NORTHPORT)
- V-1567 (12" DCHS AT NORTHPORT)
- NEW 16" (DCHS AT NORTHPORT)

SECONDARY VALVES:
- V-1568 (12" NORTHPORT AT DCHS)
- V-1569 (12" NORTHPORT AT DCHS)
- V-5 (8" WEST OF BOOSTER STATION
PARKING LOT, SEE W-11)

NOTIFICATION
- MADISON WATER UTILITY

NOTE:
- OPERATION TO BE PERFORMED
ONLY AFTER PROPOSED 16-IN
MAIN IS CONNECTED AT NORTH-
PORT DR (WN20), 16-IN FEED TO
THE RESERVOIR (WN24) AND THE
BOOSTER STATION (WN25). EXISTING
8-IN MAIN TO REMAIN FUNCTIONAL
UNTIL THEN

TO VALVE V-5
SEE W-11

PROPOSED ZONE 6
8-IN (ZONE 6)

NEW 16" V-1566

V-1569 V-1567 V-1568

12-IN (ZONE 6)

NORTHPORT DR

1402

1406

1410 1414

1422

1305

1313

1315

DISCLAIMER NOTE:
THE WATER IMPACT PLAN IS PROVIDED FOR REFERENCE PURPOSES
TO AIDE PLANNING CONNECTION POINT ISOLATION AND PREPARING
NOTIFICATION LISTS DURING PLANNED OUTAGES. REQUEST ANY
ALTERNATIVE CONNECTION METHODS IN WRITING, PER SPECS.

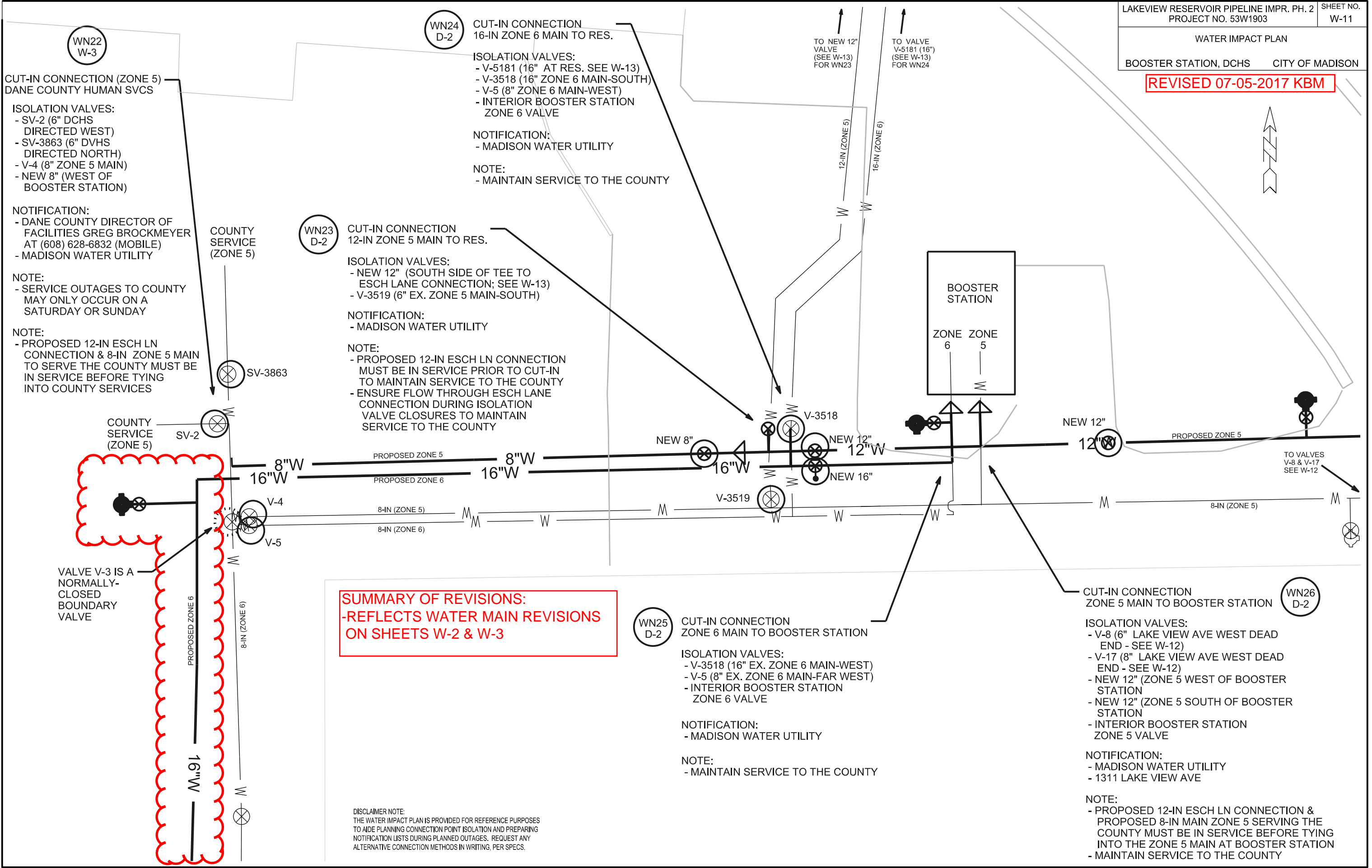
PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

REVISED 07-05-2017 KBM



WN22 W-3

CUT-IN CONNECTION (ZONE 5)
DANE COUNTY HUMAN SVCS

ISOLATION VALVES:
- SV-2 (6" DCHS DIRECTED WEST)
- SV-3863 (6" DVHS DIRECTED NORTH)
- V-4 (8" ZONE 5 MAIN)
- NEW 8" (WEST OF BOOSTER STATION)

NOTIFICATION:
- DANE COUNTY DIRECTOR OF FACILITIES GREG BROCKMEYER AT (608) 628-6832 (MOBILE)
- MADISON WATER UTILITY

NOTE:
- SERVICE OUTAGES TO COUNTY MAY ONLY OCCUR ON A SATURDAY OR SUNDAY

WN23 D-2

CUT-IN CONNECTION
12-IN ZONE 5 MAIN TO RES.

ISOLATION VALVES:
- NEW 12" (SOUTH SIDE OF TEE TO ESCH LANE CONNECTION; SEE W-13)
- V-3519 (6" EX. ZONE 5 MAIN-SOUTH)

NOTIFICATION:
- MADISON WATER UTILITY

NOTE:
- PROPOSED 12-IN ESCH LN CONNECTION & 8-IN ZONE 5 MAIN TO SERVE THE COUNTY MUST BE IN SERVICE BEFORE TYING INTO COUNTY SERVICES

WN24 D-2

CUT-IN CONNECTION
16-IN ZONE 6 MAIN TO RES.

ISOLATION VALVES:
- V-5181 (16" AT RES. SEE W-13)
- V-3518 (16" ZONE 6 MAIN-SOUTH)
- V-5 (8" ZONE 6 MAIN-WEST)
- INTERIOR BOOSTER STATION ZONE 6 VALVE

NOTIFICATION:
- MADISON WATER UTILITY

NOTE:
- MAINTAIN SERVICE TO THE COUNTY

WN25 D-2

CUT-IN CONNECTION
ZONE 6 MAIN TO BOOSTER STATION

ISOLATION VALVES:
- V-3518 (16" EX. ZONE 6 MAIN-WEST)
- V-5 (8" EX. ZONE 6 MAIN-FAR WEST)
- INTERIOR BOOSTER STATION ZONE 6 VALVE

NOTIFICATION:
- MADISON WATER UTILITY

NOTE:
- MAINTAIN SERVICE TO THE COUNTY

WN26 D-2

CUT-IN CONNECTION
ZONE 5 MAIN TO BOOSTER STATION

ISOLATION VALVES:
- V-8 (6" LAKE VIEW AVE WEST DEAD END - SEE W-12)
- V-17 (8" LAKE VIEW AVE WEST DEAD END - SEE W-12)
- NEW 12" (ZONE 5 WEST OF BOOSTER STATION)
- NEW 12" (ZONE 5 SOUTH OF BOOSTER STATION)
- INTERIOR BOOSTER STATION ZONE 5 VALVE

NOTIFICATION:
- MADISON WATER UTILITY
- 1311 LAKE VIEW AVE

NOTE:
- PROPOSED 12-IN ESCH LN CONNECTION & PROPOSED 8-IN MAIN ZONE 5 SERVING THE COUNTY MUST BE IN SERVICE BEFORE TYING INTO THE ZONE 5 MAIN AT BOOSTER STATION
- MAINTAIN SERVICE TO THE COUNTY

**SUMMARY OF REVISIONS:
-REFLECTS WATER MAIN REVISIONS ON SHEETS W-2 & W-3**

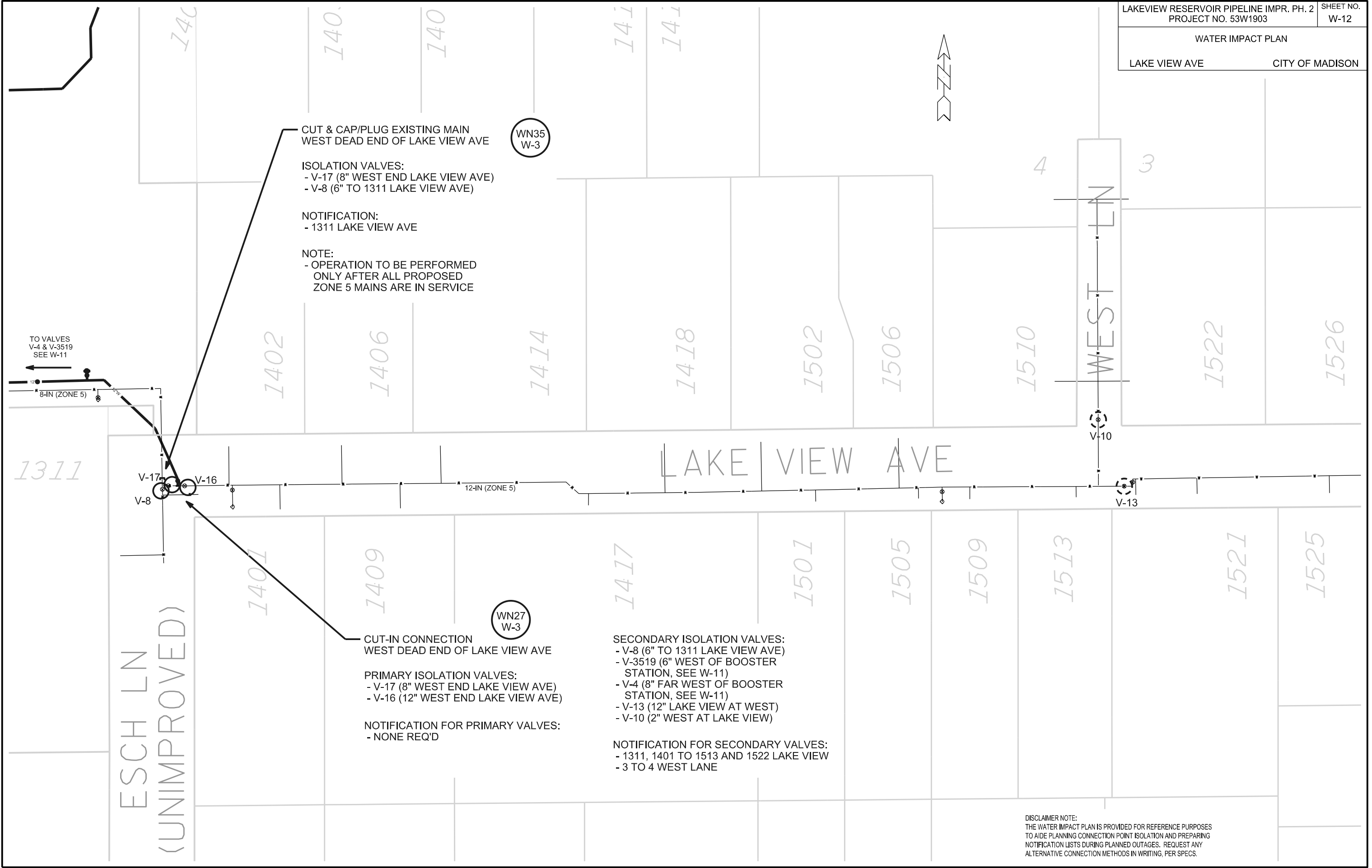
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PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



CUT & CAP/PLUG EXISTING MAIN
WEST DEAD END OF LAKE VIEW AVE

ISOLATION VALVES:
- V-17 (8" WEST END LAKE VIEW AVE)
- V-8 (6" TO 1311 LAKE VIEW AVE)

NOTIFICATION:
- 1311 LAKE VIEW AVE

NOTE:
- OPERATION TO BE PERFORMED ONLY AFTER ALL PROPOSED ZONE 5 MAINS ARE IN SERVICE

CUT-IN CONNECTION
WEST DEAD END OF LAKE VIEW AVE

PRIMARY ISOLATION VALVES:
- V-17 (8" WEST END LAKE VIEW AVE)
- V-16 (12" WEST END LAKE VIEW AVE)

NOTIFICATION FOR PRIMARY VALVES:
- NONE REQ'D

SECONDARY ISOLATION VALVES:
- V-8 (6" TO 1311 LAKE VIEW AVE)
- V-3519 (6" WEST OF BOOSTER STATION, SEE W-11)
- V-4 (8" FAR WEST OF BOOSTER STATION, SEE W-11)
- V-13 (12" LAKE VIEW AT WEST)
- V-10 (2" WEST AT LAKE VIEW)

NOTIFICATION FOR SECONDARY VALVES:
- 1311, 1401 TO 1513 AND 1522 LAKE VIEW
- 3 TO 4 WEST LANE

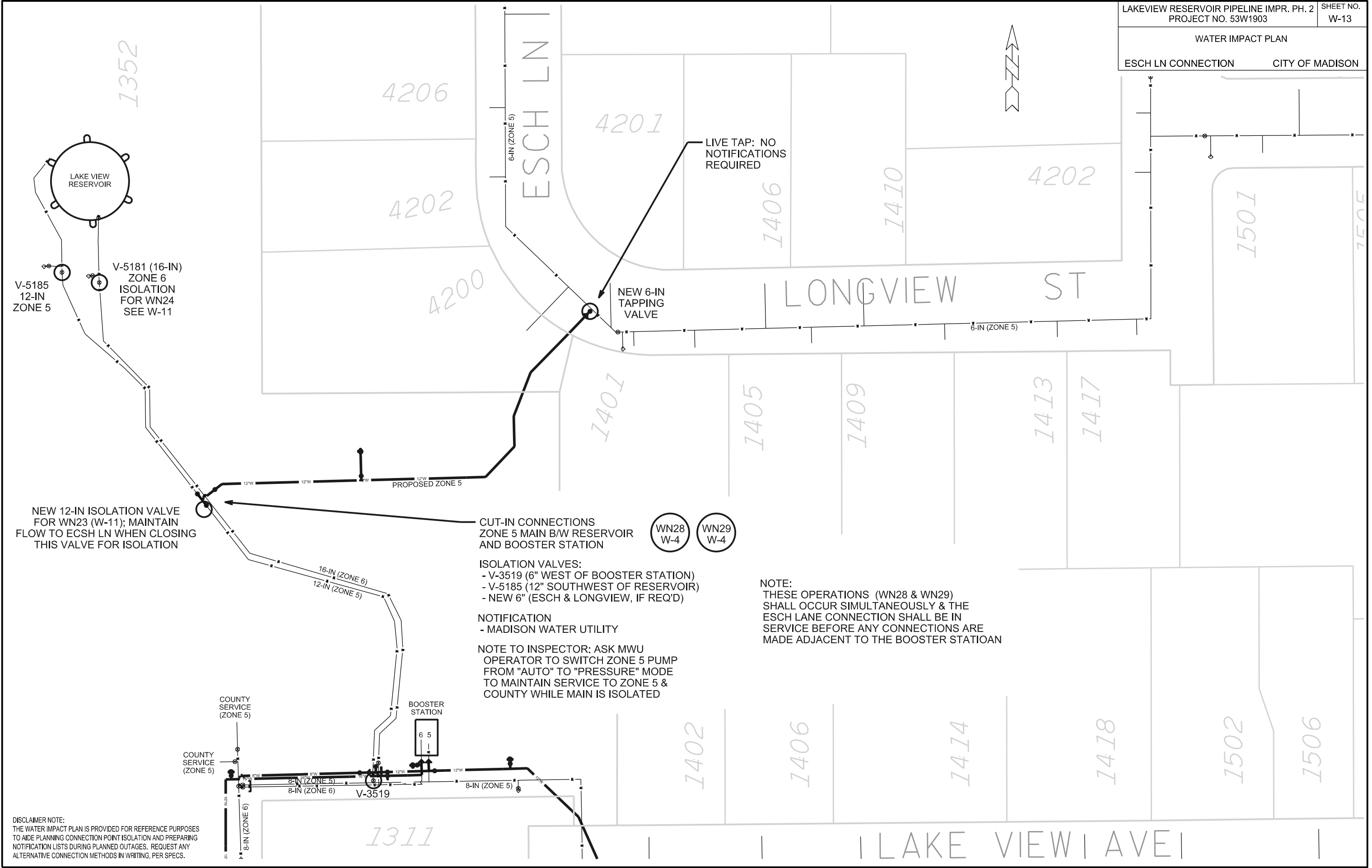
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PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



NEW 12-IN ISOLATION VALVE FOR WN23 (W-11); MAINTAIN FLOW TO EC SH LN WHEN CLOSING THIS VALVE FOR ISOLATION

CUT-IN CONNECTIONS ZONE 5 MAIN B/W RESERVOIR AND BOOSTER STATION



ISOLATION VALVES:
 - V-3519 (6" WEST OF BOOSTER STATION)
 - V-5185 (12" SOUTHWEST OF RESERVOIR)
 - NEW 6" (ESCH & LONGVIEW, IF REQ'D)

NOTIFICATION
 - MADISON WATER UTILITY

NOTE TO INSPECTOR: ASK MWU OPERATOR TO SWITCH ZONE 5 PUMP FROM "AUTO" TO "PRESSURE" MODE TO MAINTAIN SERVICE TO ZONE 5 & COUNTY WHILE MAIN IS ISOLATED

NOTE:
 THESE OPERATIONS (WN28 & WN29) SHALL OCCUR SIMULTANEOUSLY & THE ESCH LANE CONNECTION SHALL BE IN SERVICE BEFORE ANY CONNECTIONS ARE MADE ADJACENT TO THE BOOSTER STATION

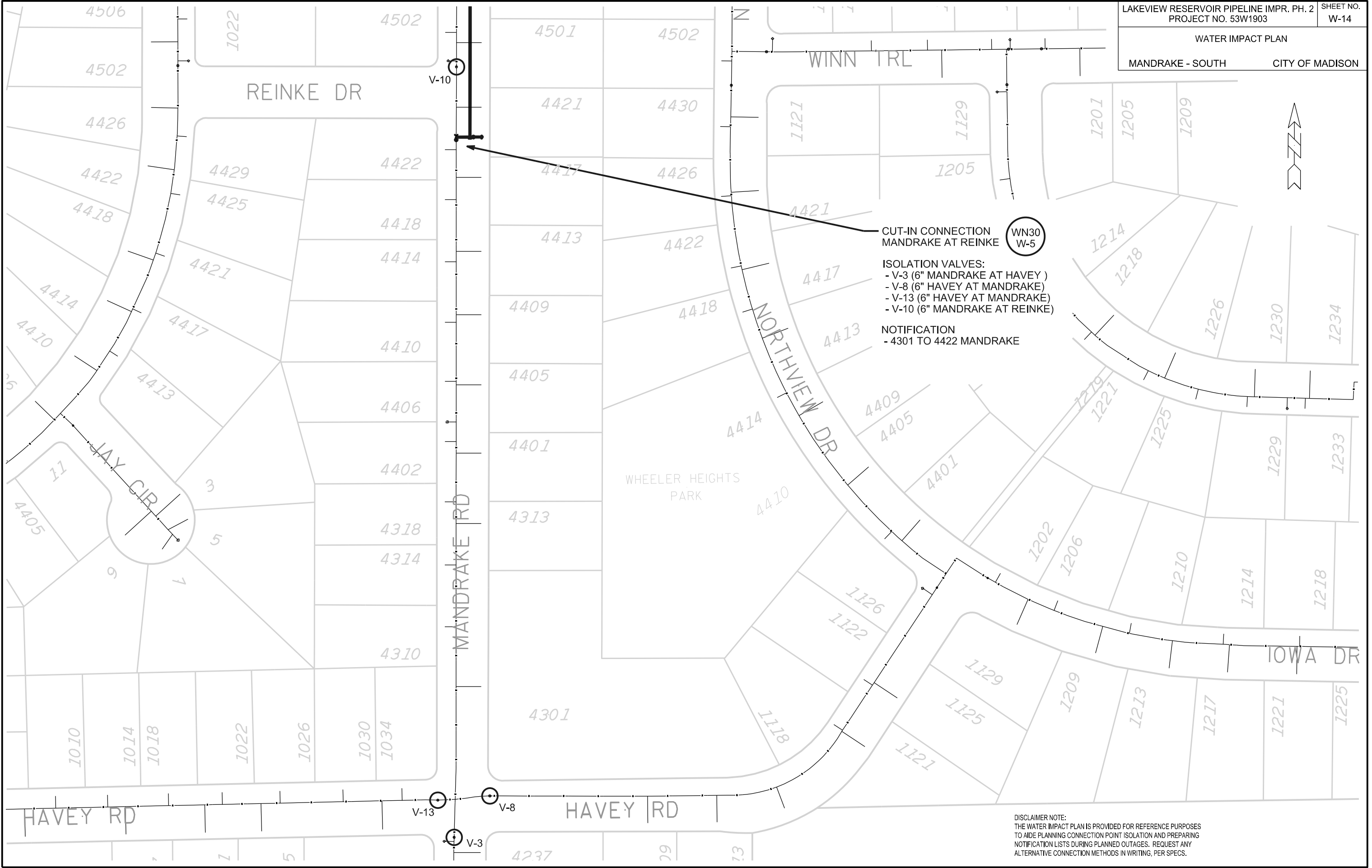
DISCLAIMER NOTE:
 THE WATER IMPACT PLAN IS PROVIDED FOR REFERENCE PURPOSES TO AIDE PLANNING CONNECTION POINT ISOLATION AND PREPARING NOTIFICATION LISTS DURING PLANNED OUTAGES. REQUEST ANY ALTERNATIVE CONNECTION METHODS IN WRITING, PER SPECS.

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



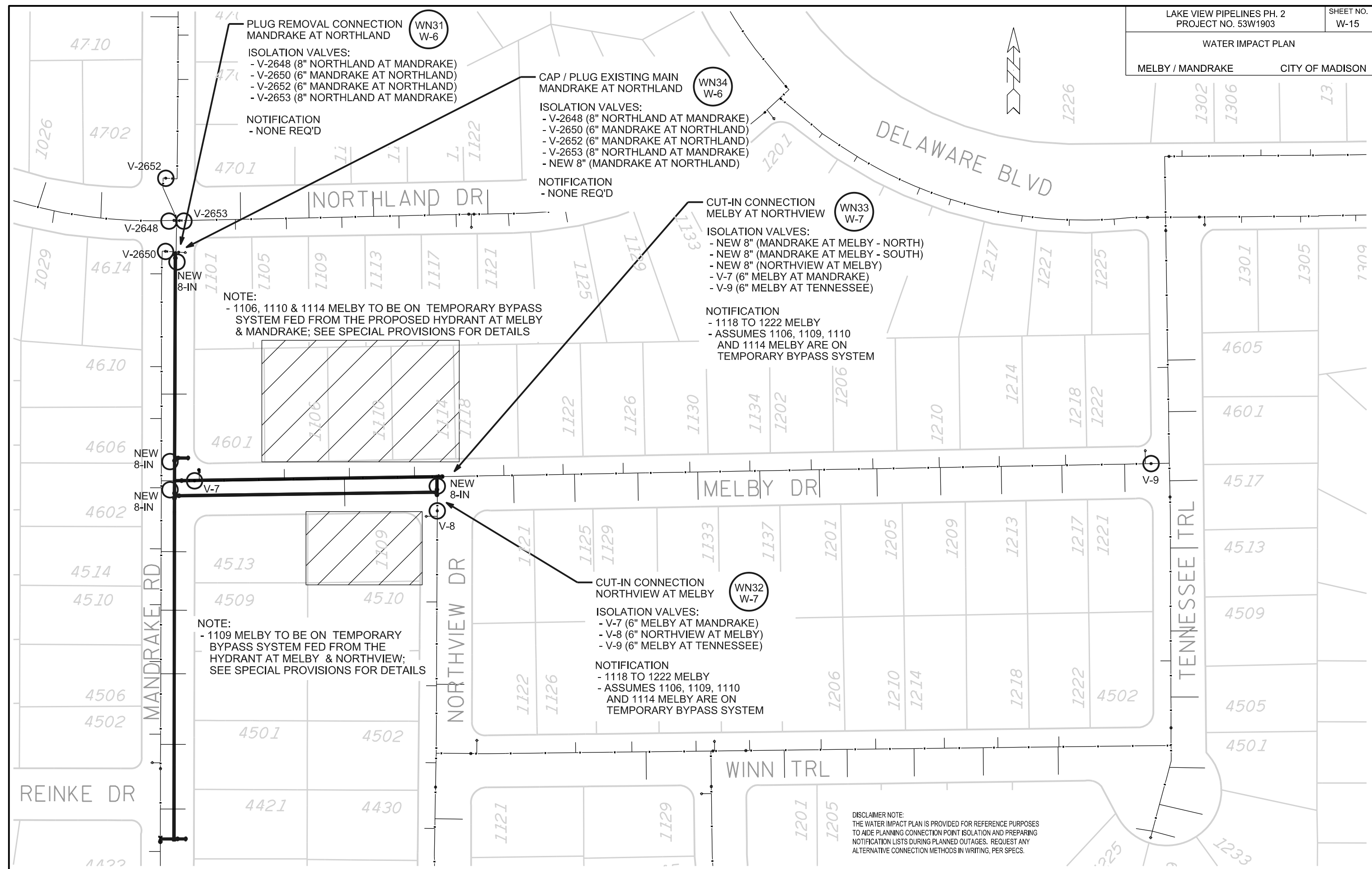
CUT-IN CONNECTION
 MANDRAKE AT REINKE **WN30 W-5**

ISOLATION VALVES:
 - V-3 (6" MANDRAKE AT HAVEY)
 - V-8 (6" HAVEY AT MANDRAKE)
 - V-13 (6" HAVEY AT MANDRAKE)
 - V-10 (6" MANDRAKE AT REINKE)

NOTIFICATION
 - 4301 TO 4422 MANDRAKE

DISCLAIMER NOTE:
 THE WATER IMPACT PLAN IS PROVIDED FOR REFERENCE PURPOSES TO AIDE PLANNING CONNECTION POINT ISOLATION AND PREPARING NOTIFICATION LISTS DURING PLANNED OUTAGES. REQUEST ANY ALTERNATIVE CONNECTION METHODS IN WRITING, PER SPECS.

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



**PLUG REMOVAL CONNECTION
MANDRAKE AT NORTHLAND** (WN31 W-6)

ISOLATION VALVES:
 - V-2648 (8" NORTHLAND AT MANDRAKE)
 - V-2650 (6" MANDRAKE AT NORTHLAND)
 - V-2652 (6" MANDRAKE AT NORTHLAND)
 - V-2653 (8" NORTHLAND AT MANDRAKE)

NOTIFICATION
 - NONE REQ'D

**CAP / PLUG EXISTING MAIN
MANDRAKE AT NORTHLAND** (WN34 W-6)

ISOLATION VALVES:
 - V-2648 (8" NORTHLAND AT MANDRAKE)
 - V-2650 (6" MANDRAKE AT NORTHLAND)
 - V-2652 (6" MANDRAKE AT NORTHLAND)
 - V-2653 (8" NORTHLAND AT MANDRAKE)
 - NEW 8" (MANDRAKE AT NORTHLAND)

NOTIFICATION
 - NONE REQ'D

**CUT-IN CONNECTION
MELBY AT NORTHVIEW** (WN33 W-7)

ISOLATION VALVES:
 - NEW 8" (MANDRAKE AT MELBY - NORTH)
 - NEW 8" (MANDRAKE AT MELBY - SOUTH)
 - NEW 8" (NORTHVIEW AT MELBY)
 - V-7 (6" MELBY AT MANDRAKE)
 - V-9 (6" MELBY AT TENNESSEE)

NOTIFICATION
 - 1118 TO 1222 MELBY
 - ASSUMES 1106, 1109, 1110
 AND 1114 MELBY ARE ON
 TEMPORARY BYPASS SYSTEM

**CUT-IN CONNECTION
NORTHVIEW AT MELBY** (WN32 W-7)

ISOLATION VALVES:
 - V-7 (6" MELBY AT MANDRAKE)
 - V-8 (6" NORTHVIEW AT MELBY)
 - V-9 (6" MELBY AT TENNESSEE)

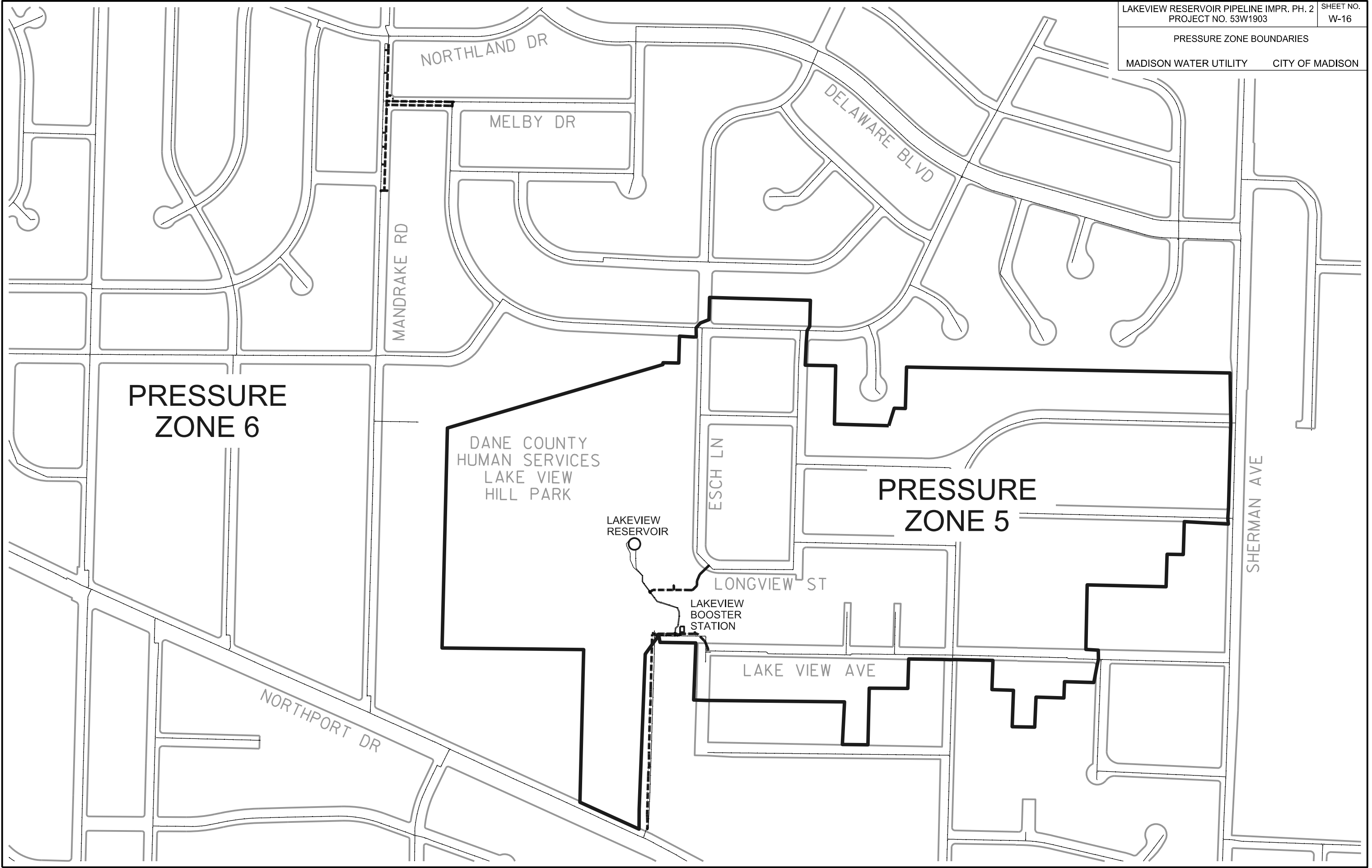
NOTIFICATION
 - 1118 TO 1222 MELBY
 - ASSUMES 1106, 1109, 1110
 AND 1114 MELBY ARE ON
 TEMPORARY BYPASS SYSTEM

NOTE:
 - 1106, 1110 & 1114 MELBY TO BE ON TEMPORARY BYPASS
 SYSTEM FED FROM THE PROPOSED HYDRANT AT MELBY
 & MANDRAKE; SEE SPECIAL PROVISIONS FOR DETAILS

NOTE:
 - 1109 MELBY TO BE ON TEMPORARY
 BYPASS SYSTEM FED FROM THE
 HYDRANT AT MELBY & NORTHVIEW;
 SEE SPECIAL PROVISIONS FOR DETAILS

DISCLAIMER NOTE:
 THE WATER IMPACT PLAN IS PROVIDED FOR REFERENCE PURPOSES
 TO AIDE PLANNING CONNECTION POINT ISOLATION AND PREPARING
 NOTIFICATION LISTS DURING PLANNED OUTAGES. REQUEST ANY
 ALTERNATIVE CONNECTION METHODS IN WRITING, PER SPECS.

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



PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

CONSTRUCTION NOTES:

1. CONSTRUCT NEW WATER MAIN 6.0' BELOW FINISHED GRADE, UNLESS OTHERWISE NOTED. INSULATE MAIN WITH POLYSTYRENE BOARD AT UTILITY CROSSINGS OR OTHER AREAS IDENTIFIED BY ENGINEER AS HAVING INADEQUATE COVER.
2. VERIFY SIZE OF EXISTING WATER SERVICES AND RECONNECT SERVICES AS INDICATED.
3. MINIMIZE DISRUPTION OF SERVICE TO EXISTING CUSTOMERS. NOTIFY PER CONTRACT REQUIREMENTS OF ANY PLANNED WATER OUTAGE.
4. THE EXISTING UTILITIES SHOWN ON THIS PLAN REPRESENT THE BEST INFORMATION AVAILABLE TO THE WATER UTILITY AT THE TIME OF PLAN PREPARATION. CONTRACTOR IS RESPONSIBLE FOR HAVING EACH UTILITY LOCATED PRIOR TO COMMENCING WORK.

ESTIMATE OF MATERIALS SUPPLIED BY CONTRACTOR:

* ESTIMATE OF MATERIALS IS FOR INFORMATION ONLY. ENGINEER DOES NOT GUARANTEE ACCURACY OF MATERIAL TAKE-OFF.

- | | |
|----------------------------------|----------------------------------|
| 88-FT 6-IN PIPE | 4 - 12-IN 22-1/2° BEND |
| 1400-FT 8-IN PIPE | 10 - 12-IN 45° BEND |
| 540-FT 12-IN PIPE | 1 - 12-IN X 6-IN REDUCER |
| 1050-FT 16-IN PIPE | 2 - 12-IN X 8-IN REDUCER |
| 3385-FT POLYWRAP | 2 - 12-IN X 6-IN TEE |
| 56-FT 2-IN INSULATION (7 SHEETS) | 4 - 12-IN X 12-IN TEE |
| 9 - 6-IN VALVE & BOX | 1 - 16-IN 11/14° BEND |
| 9 - 8-IN VALVE & BOX | 1 - 16-IN 22-1/2° BEND |
| 7 - 12-IN VALVE & BOX | 2 - 16-IN 90° BEND |
| 2 - 16-IN VALVE & BOX | 1 - 16-IN X 8-IN REDUCER |
| 1 - 6-IN 90° BEND | 2 - 16-IN X 6-IN TEE |
| 4 - 8-IN 45° BEND | 1 - 16-IN X 16-IN TEE |
| 1 - 8-IN 90° BEND | 6 - 5-IN HYDRANT (PERMANENT) |
| 1 - 8-IN X 6-IN TEE | 2 - 5-IN HYDRANT (TEMP FLUSHING) |
| 4 - 8-IN X 8-IN TEE | 1-IN COPPER SERVICE (AS NEEDED) |
| 1 - 8-IN X 6-IN CROSS | |
| 2 - 8-IN X 6-IN REDUCER | |
| 1 - 8-IN X 12-IN OFFSET | |
| 1 - 8-IN MJ PLUG | |
| 7 - 8-IN MJ CAP | |

MATERIALS SUPPLIED BY CITY:

* ESTIMATE OF MATERIALS IS FOR INFORMATION ONLY. ENGINEER DOES NOT GUARANTEE ACCURACY OF MATERIAL TAKE-OFF.

- 1 - 6-IN X 6-IN TAPPING SLEEVE W/VALVE & BOX

ESTIMATE OF MATERIALS SALVAGED:

* ESTIMATE OF MATERIALS IS FOR INFORMATION ONLY. ENGINEER DOES NOT GUARANTEE ACCURACY OF MATERIAL TAKE-OFF.

NONE

WATER UTILITY ULO SCHEDULE:

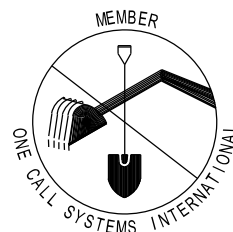
ULO NO.	STATION	OFFSET	DESCRIPTION	SHEET NO.	REMARKS
1	19"16WM"+50	LT	8-IN WATER; 8-IN SANITARY	W-2, W-3	AT 16-IN 90° BEND TO EAST
2	20"16WM"+85	RT	(2) 8-IN WATER	W-2, W-3, D-2	AT BOOSTER STATION

- WN1 REPLACE THE EXISTING LEAD SERVICE WITH A NEW COPPER SERVICE.
- WN2 EXTEND AND RECONNECT THE EXISTING COPPER SERVICE TO THE NEW WATER MAIN.
- WN3 EXISTING SERVICE TO BE ABANDONED WHEN THE WATER MAIN IS CUT OFF.
- WN4 DISCONNECT FROM THE OLD WATER MAIN AND RECONNECT THE EXISTING COPPER WATER SERVICE LATERAL TO THE NEW WATER MAIN.
- WN5 RELOCATE THE EXISTING FIRE HYDRANT.
- WN6 ABANDON WATER VALVE ACCESS STRUCTURE.
- WN7 FURNISH AND INSTALL THE NEW TOP SECTION FOR THE WATER ACCESS STRUCTURE.
- WN8 ABANDON THE VALVE BOX.
- WN9 FURNISH THE DITCH, COMPACTION, AND ALL MATERIALS AND LABOR FOR THE INSTALLATION OF NEW SERVICE LATERAL.
- WN10 REMOVE AND SALVAGE EXISTING HYDRANT
- WN11 REPLACE THE EXISTING COPPER SERVICE WITH A COPPER SERVICE
- WN20+ SEE WATER IMPACT PLAN FOR CONNECTION POINT ISOLATION AND WATER SHUT-OFF NOTIFICATION INFORMATION.

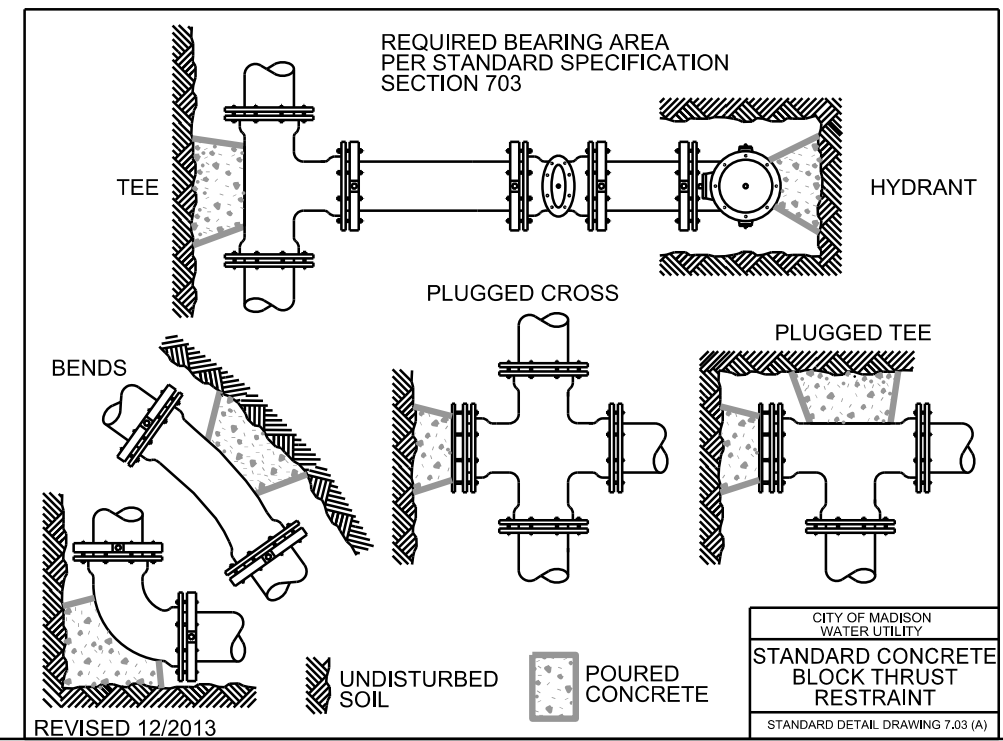
TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
 TOLL FREE
 811 OR 1-800-242-8511
 FAX-A-LOCATE 1-800-338-3860
 TDD (FOR HEARING IMPAIRED) 1-800-542-2289

WIS. STATUTE 182.0175 (1974)
 REQUIRES MIN. OF 3 WORK DAYS
 NOTICE BEFORE YOU EXCAVATE.

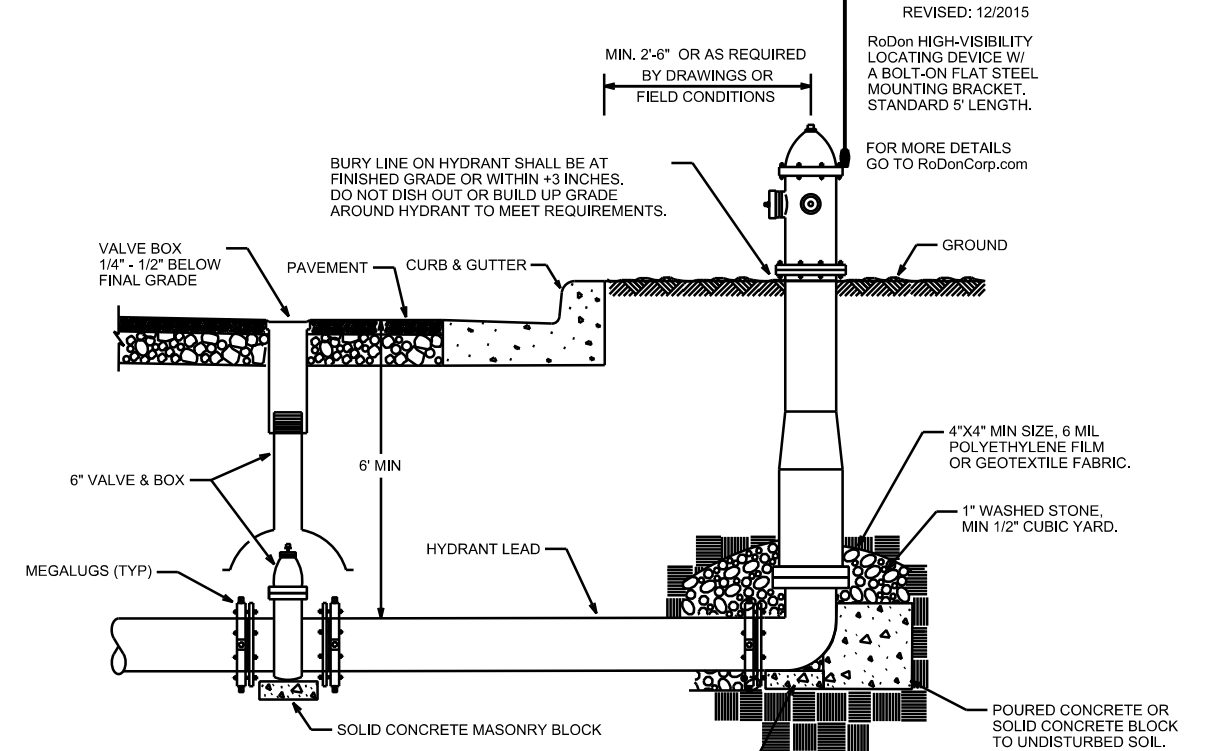


DISCLAIMER NOTE:
 UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING WORK.



PART VII - WATER MAINS AND SERVICE LATERALS

DETAIL DRAWING NO. 7.04



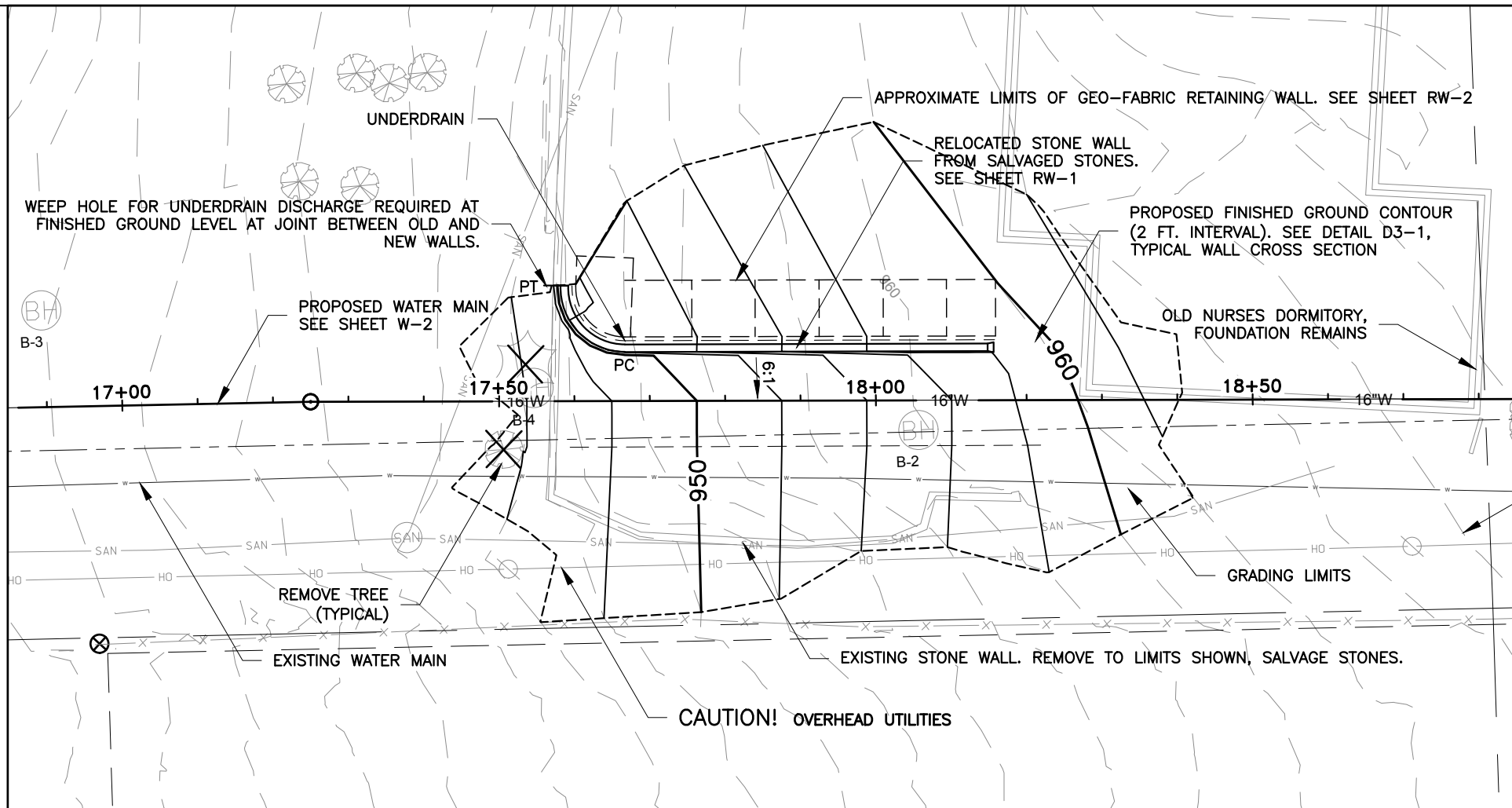
NOTE:

1. RESTRAIN ENTIRE LENGTH OF HYDRANT LEAD FROM THE TEE THROUGH THE VALVE TO THE HYDRANT AS SPECIFIED USING JOINT RESTRAINTS PER SECTION 703.10

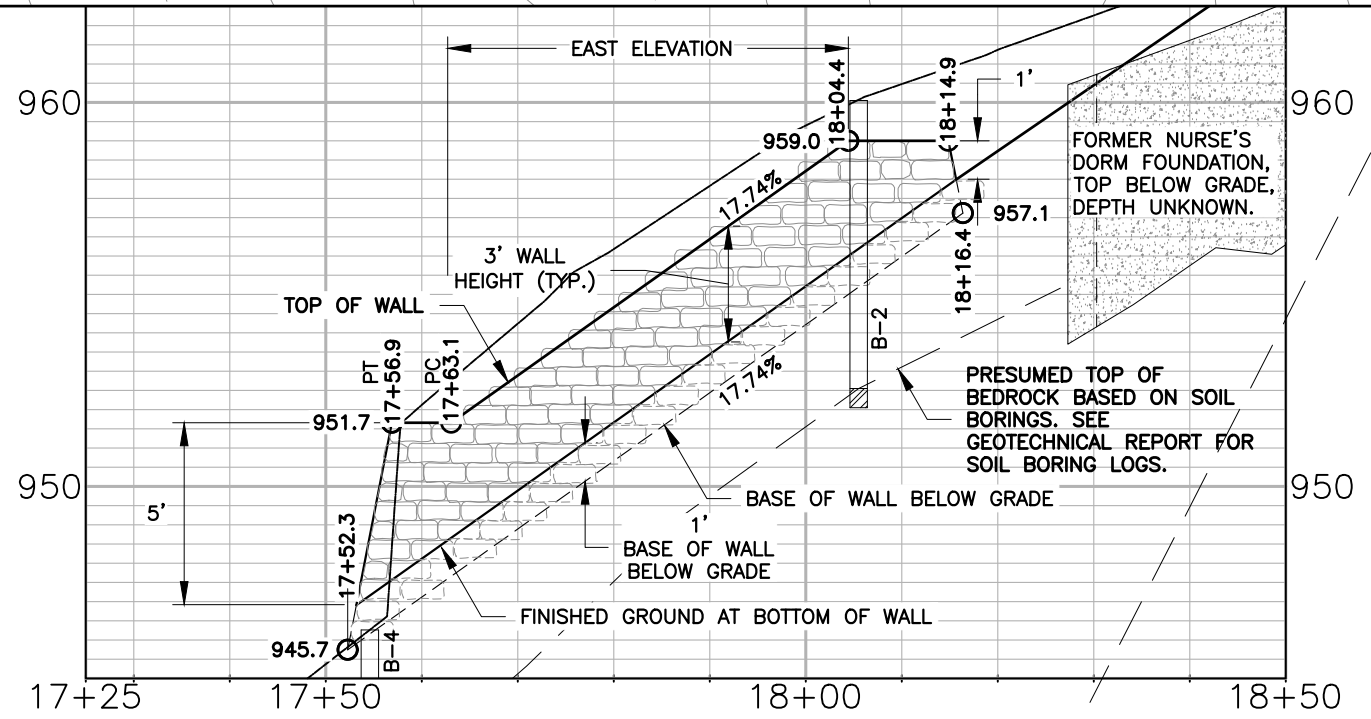
CITY OF MADISON
 WATER UTILITY

NOT TO SCALE

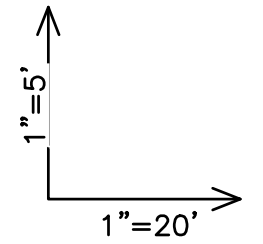
TYPICAL HYDRANT INSTALLATION



PLOT SCALE: 1"=40'
PLOT NAME: #####

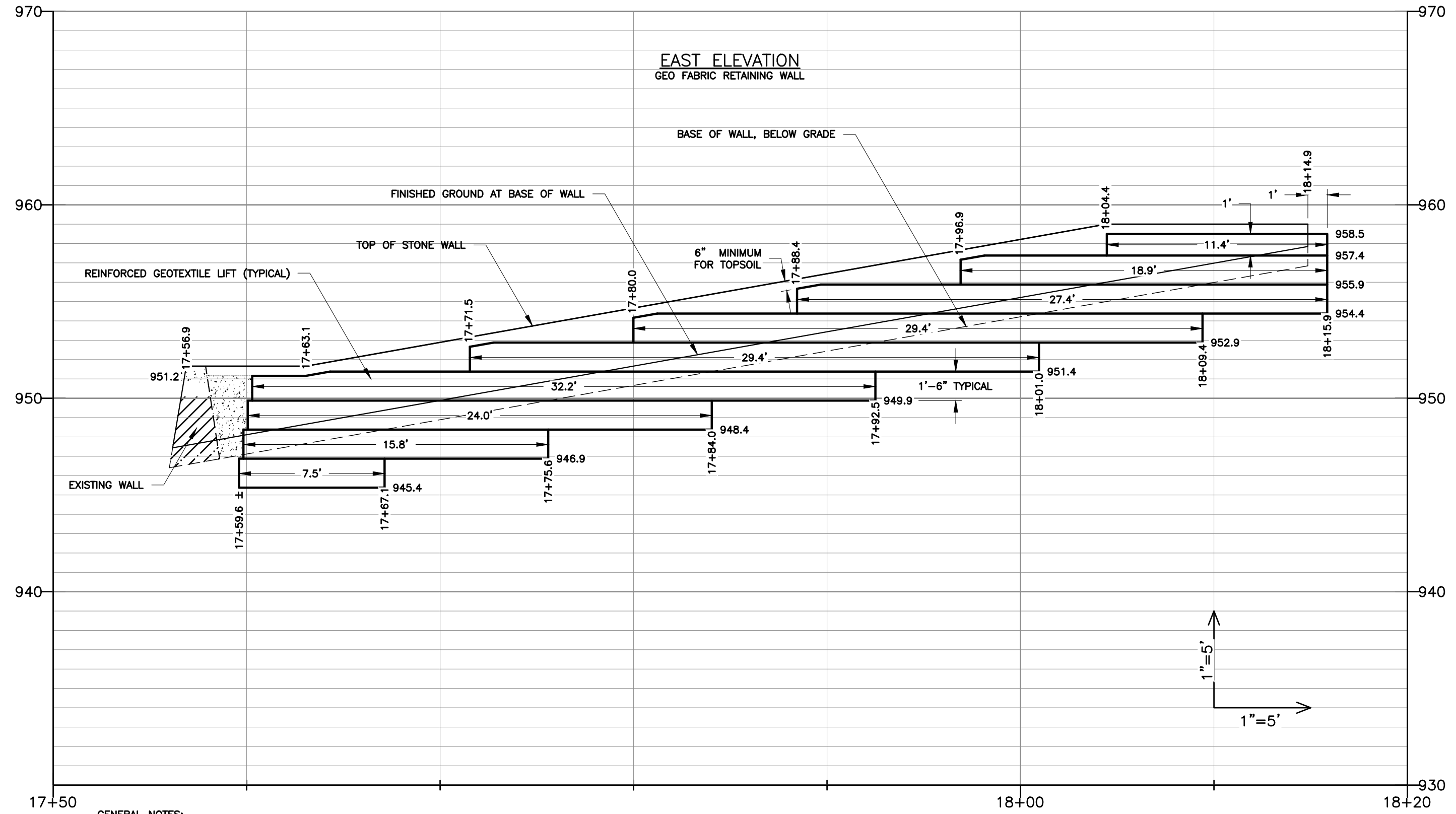


TOP OF WALL ELEV.	BASE OF WALL BELOW GRADE ELEV.
951.7	947.1
952.9	948.9
954.7	950.7
956.4	952.4
958.2	954.21
959.0	956.0
960.4	958.0
962.9	960.4

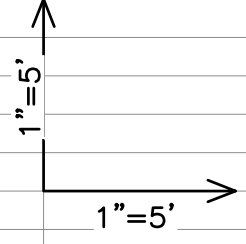


REV. DATE: _____

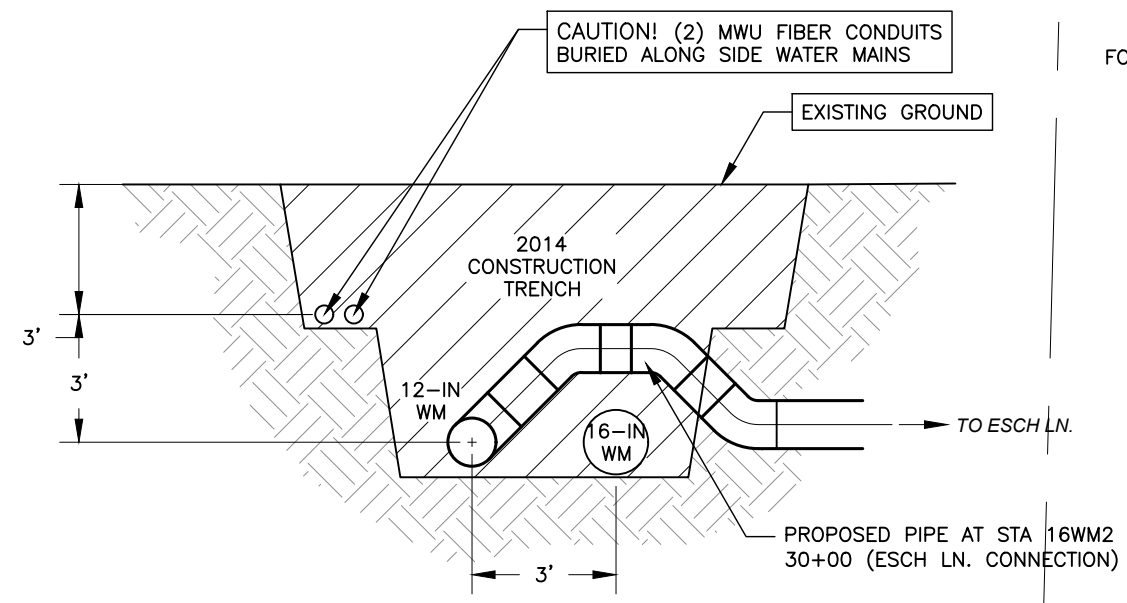
ORIGINATOR: Wudat



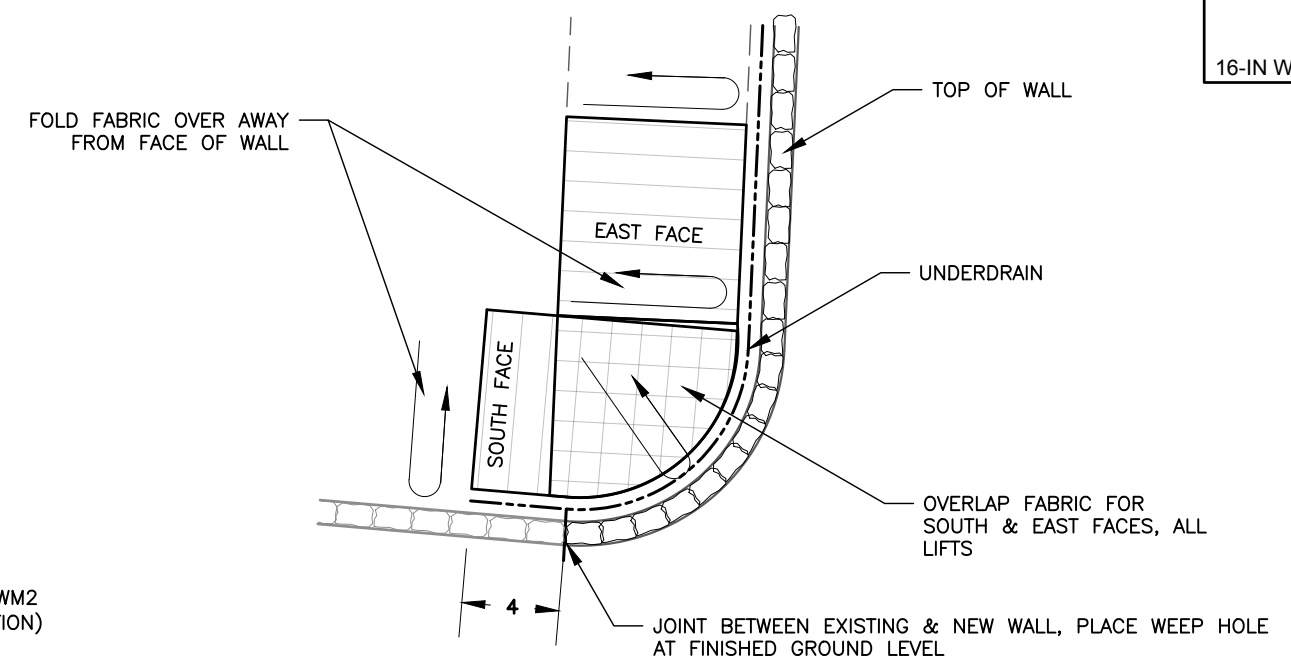
- GENERAL NOTES:**
1. STRUCTURAL COMPOSITION OF EXISTING WALL IS UNKNOWN.
 2. REFER TO AND HOLD TYPICAL WALL CROSS SECTION DIMENSIONS.
 3. BEGIN FABRIC RETENTION SYSTEM ON SOUTH FACE OF WALL 4 FT. WEST OF JOINT BETWEEN NEW AND EXISTING WALL. SEE DETAIL D1-5.



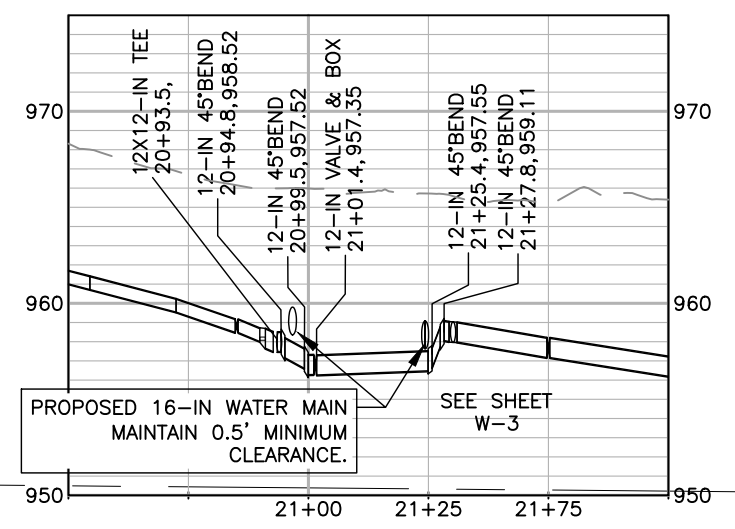
PLOT SCALE: 1"=40'
 PLOT NAME: #####
 REV. DATE: _____
 ORIGINATOR: Wudat



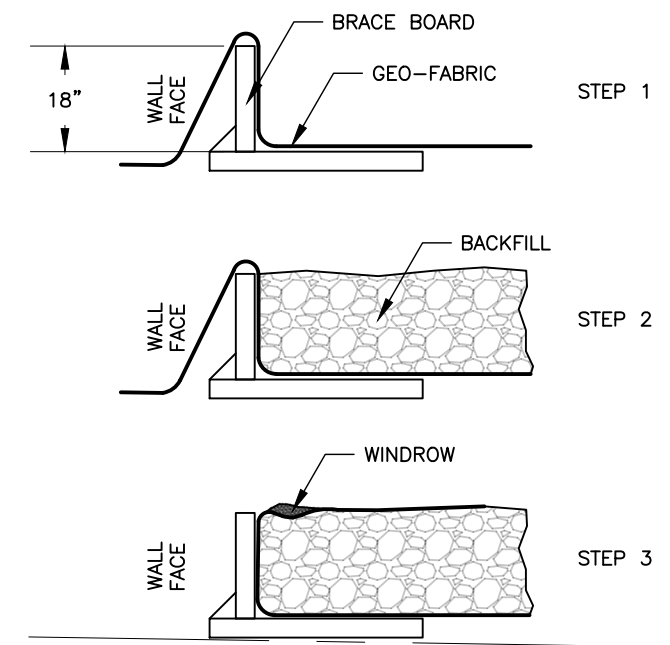
DETAIL D1-1
 CROSS SECTION
 LOOKING NORTHERLY AT EXISTING 12-IN & 16-IN WATER MAINS WITH BURIED FIBER OPTIC CONDUIT FROM BOOSTER STATION TO RESERVOIR



DETAIL D1-3
 PLAN VIEW
 FABRIC RETENTION SYSTEM AT JUNCTION OF OLD AND NEW WALLS



DETAIL D1-2
 PROFILE VIEW, 12-IN WM1
 LOOKING NORTH AT BOOSTER STATION



DETAIL D1-4
 CONSTRUCTION SEQUENCE OF GEO-FABRIC RETENTION SYSTEM
 SHOWING ONE 18" LIFT

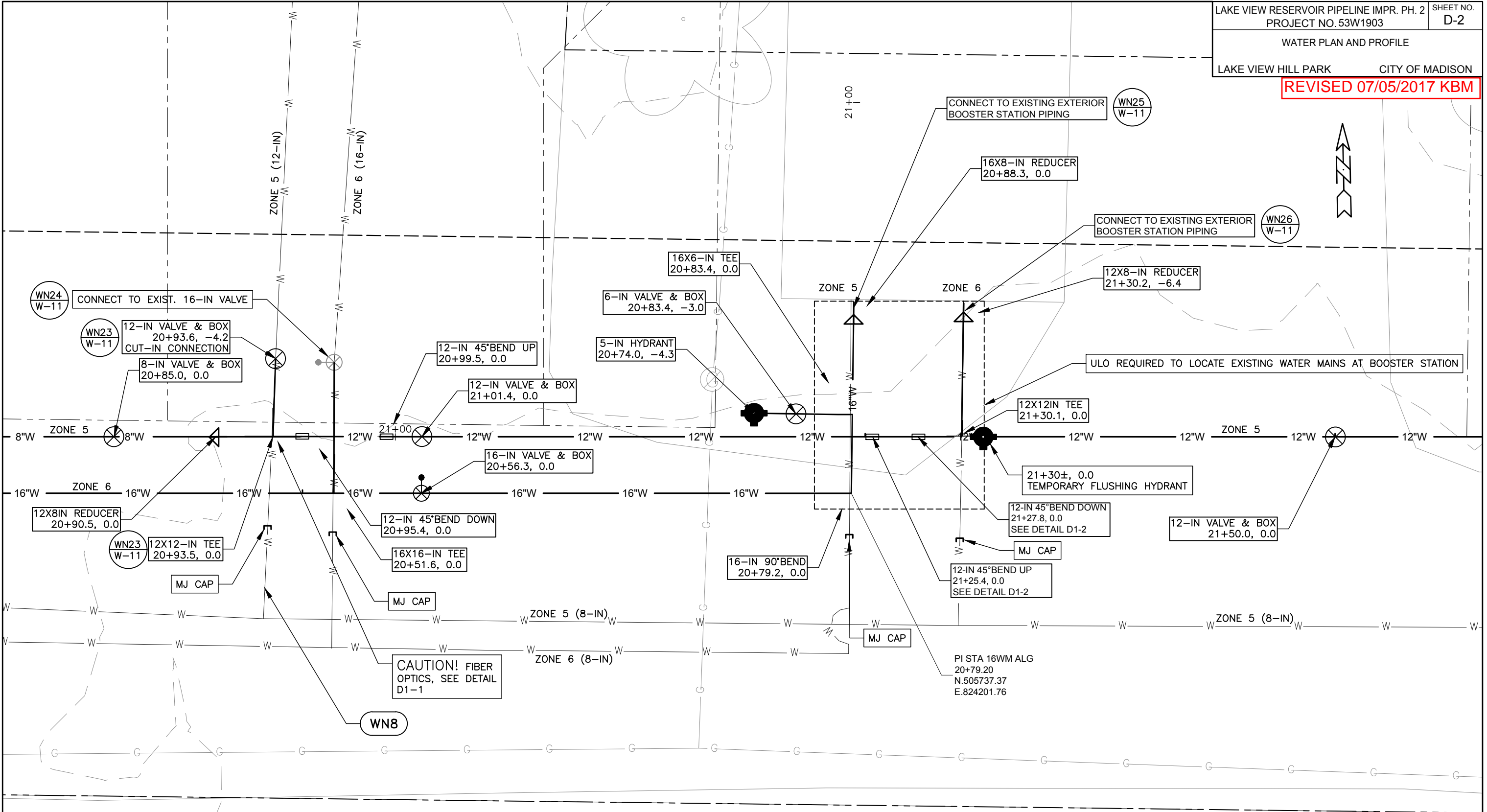
PLOT SCALE: 1"=40'

PLOT NAME: #####

REV. DATE: _____

ORIGINATOR: _____

REVISED 07/05/2017 KBM

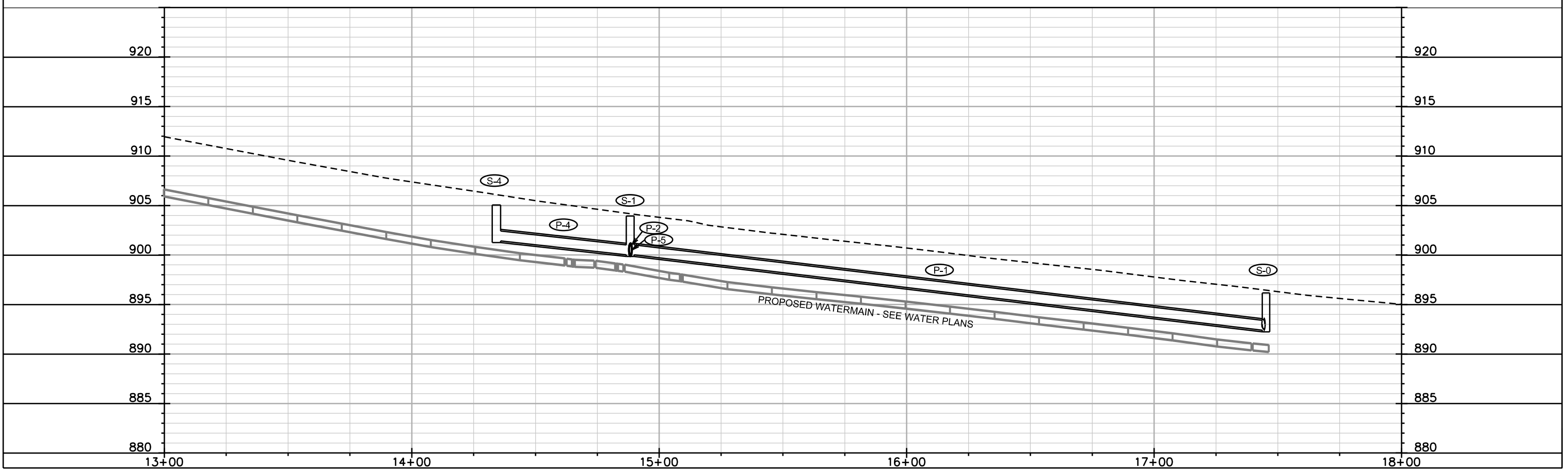
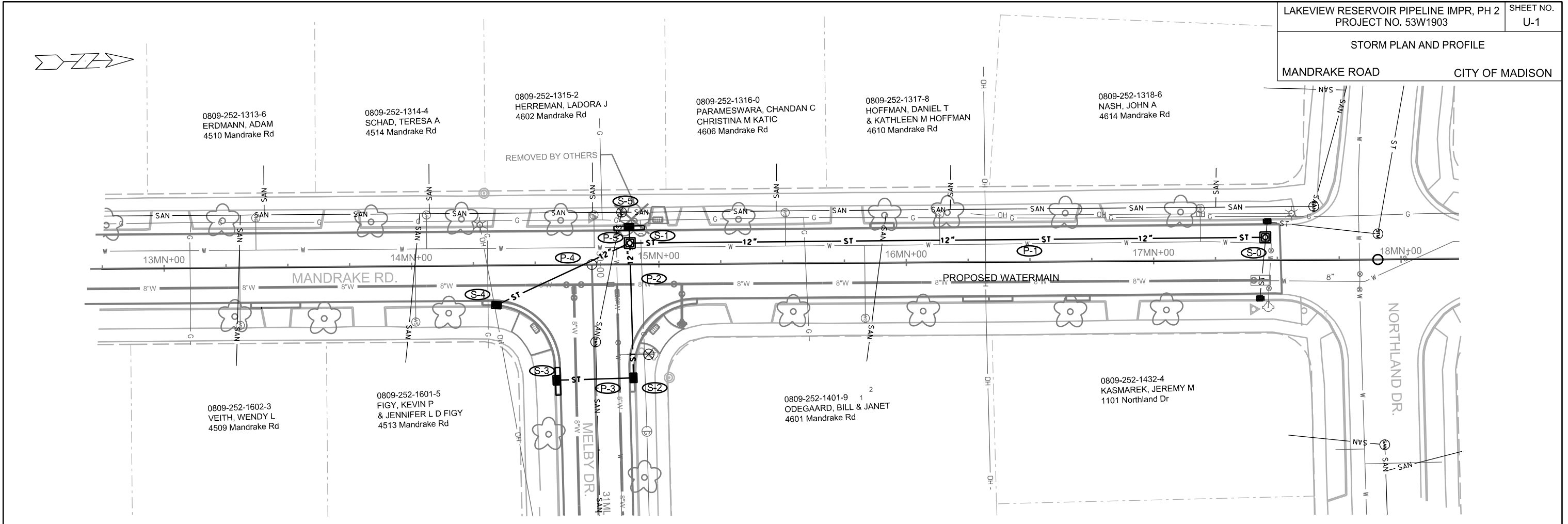


DETAIL D2-1
 PLAN VIEW
 16-IN & 12-IN WATER MAINS AT BOOSTER STATION

SUMMARY OF REVISIONS:
 -RELECTS NEW STATIONING DUE TO WATER MAIN REVISIONS ON SHEETS W-2 & W-3

PLOT SCALE: 1"=40'
 PLOT NAME: #####
 REV. DATE: _____
 ORIGINATOR: _____

STORM PLAN AND PROFILE
MANDRAKE ROAD CITY OF MADISON



PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

STORM SEWER SCHEDULE

LAKEVIEW RESERVOIR PIPELINE IMPR, PH 2	SHEET NO.
PROJECT NO. 53W1903	U-2
STORM SEWER SCHEDULE	
MANDRAKE ROAD	CITY OF MADISON

PROPOSED STRUCTURES

STRUC. NO.	STATION	LOCATION (OFFSET)	TYPE	TOP OF CASTING	E.I.	DEPTH	NOTES
MANDRAKE ROAD							
S-0	17+45.19	LT-9.47	3X3 SAS	896.17	892.40	3.77	W/R-1550-0054; (1)
S-1	14+88.27	LT-8.80	3X3 SAS	903.85	900.02	3.83	W/R-1550-0054
S-2	14+89.42	RT-45.65	H INLET	903.93	900.27	3.66	W/R-3067-7004-V
S-3	14+58.22	RT-46.41	H INLET	904.93	900.57	4.36	W/R-3067-7004-V
S-4	14+34.21	RT-15.83	H INLET	905.50	901.42	4.08	W/R-3067-7004-V
S-5	14+88.03	LT-15.24	H INLET	904.12	900.06	4.06	W/R-3067-7004-V

PIPES

PIPE NO.	FROM (DNSTM)	TO (UPSTM)	DISCH. E.I.	INLET E.I.	PLAN (PAY) LGTH (FT)	PIPE LGTH (FT)	SLOPE (%)	PIPE SIZE	TYPE	NOTES
MANDRAKE ROAD										
P-1	S-0	S-1	892.4	900.02	257.0	254.0	3.00%	12"	RCP	(1)
P-2	S-1	S-2	900.02	900.27	54.5	51.5	0.50%	12"	RCP	
P-3	S-2	S-3	900.27	900.57	31.0	29.0	1.00%	12"	RCP	
P-4	S-1	S-4	900.02	901.42	59.5	56.0	2.50%	12"	RCP	
P-5	S-1	S-5	900.02	900.06	6.5	4.0	1.00%	12"	RCP	

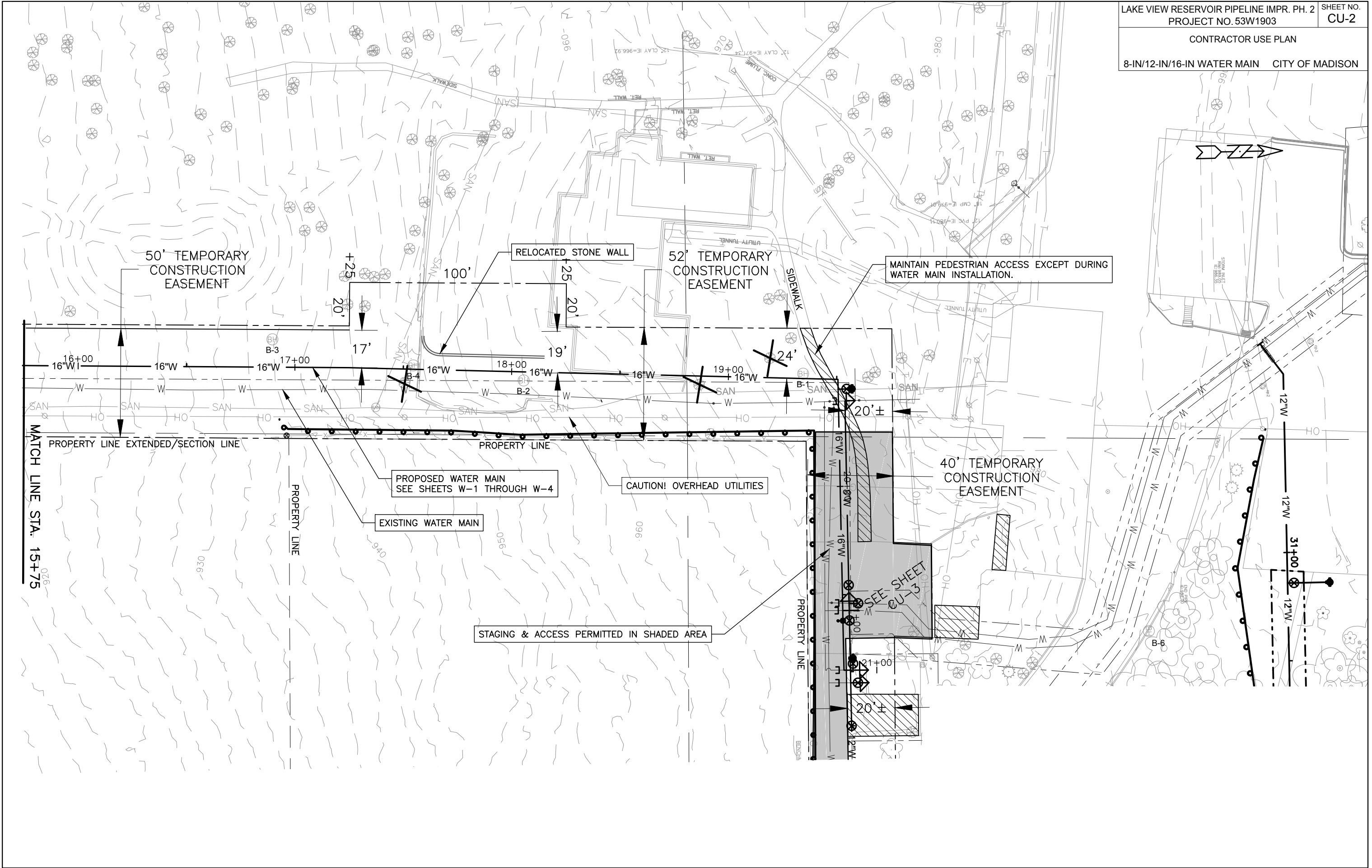
NOTE: PLAN LENGTH IS FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE. PIPE LENGTH IS ACTUAL LENGTH OF PIPE FROM STRUCTURE WALL TO STRUCTURE WALL. SLOPE CALCULATED USING PIPE LENGTH.

SPECIFIC NOTES:

(1) MATCH EXISTING PIPE INVERT

STANDARD NOTES:

- ABBREVIATIONS: AE = APRON ENDWALL; RCP = REINFORCED CONCRETE PIPE; HERCP = HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE; DNA = DOES NOT APPLY; SAS = SEWER ACCESS STRUCTURE; LP = LOW POINT INLET STRUCTURE; FP = FIELD POURED STRUCTURE; TR = TOP OF CONCRETE ROOF; NCM = NO CROWN MATCH FOR PIPES
- APPROXIMATE DISCHARGE E.I. GIVEN, ADJUST E.I. AND PIPE SLOPE IN THE FIELD.
- TOP OF CASTING GRADE GIVEN IS THE TOP OF CURB FOR INLET STRUCTURES AND THE FLOWLINE OF THE CLOSED CASTING FOR SAS's.
- TOP OF CONCRETE ROOF (TR) IS 1.25' BELOW TOP OF CASTING UNLESS OTHERWISE NOTED.
- ALL REINFORCED CONCRETE PIPES TO BE CLASS III UNLESS OTHERWISE NOTED.
- SURVEYOR TO CONFIRM THAT ALL INLET STATION / OFFSETS LINE UP WITH PROPOSED CURB AND GUTTER.
- ALL STRUCTURES CALLED OUT AS FIELD POURED SHALL BE FIELD POURED. ALL OTHER STRUCTURES (NOT INDICATED AS FIELD POURED) SHALL BE SUBMITTED TO CITY ENGINEERING FOR APPROVAL IF PRECAST STRUCTURES ARE PREFERRED. CONTACT ERIC DUNDEE OF CITY ENGINEERING AT (608) 266-4913 FOR PRECAST APPROVALS, OR FAX SHOP DRAWINGS TO (608) 264-9275, OR EMAIL SHOP DRAWINGS TO EDUNDEE@CITYOFMADISON.COM



PLOT SCALE: 1"=40'

PLOT NAME: #####

REV. DATE: _____

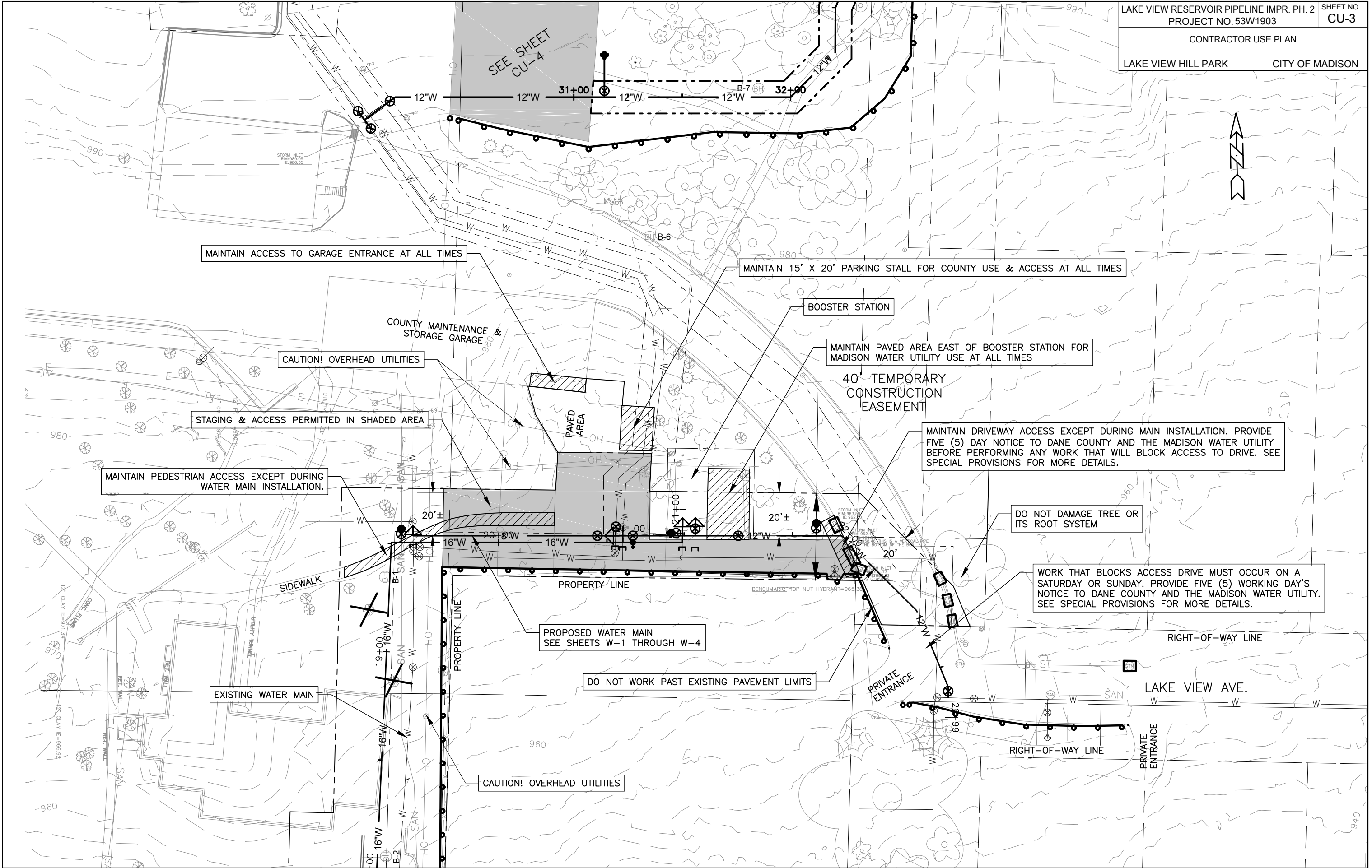
ORIGINATOR: _____

PLOT SCALE: 1"=40'

PLOT NAME: #####

REV. DATE: _____

ORIGINATOR: _____



CONTRACTOR MAY STAGE IN PUBLIC
RIGHT-OF-WAY IN ACCORDANCE WITH
MAINTENANCE OF TRAFFIC

PROTECT PRIVATE DRIVEWAY
FROM DAMAGE. NEEDED
REPAIRS TO BE AT
CONTRACTOR'S EXPENSE.

LONGVIEW ST

ESCH LN.
RIGHT-OF-WAY

STAGING AREA
(SHADED AREA) AVAILABLE
FOR A MAXIMUM OF 30
CALENDAR DAYS DURING
INSTALLATION OF ESCH LN.
CONNECTION ONLY. PROVIDE
A MINIMUM OF 5 WORKING
DAYS NOTICE BEFORE
OCCUPYING.

OFF LIMITS
NO STAGING ALLOWED

MAINTAIN VEHICULAR & PEDESTRIAN TRAFFIC FLOW BY WAY OF DRIVEWAY
AND DANE CO. HUMAN SERVICES BUILDING AT ALL TIMES
(TYPICAL)

USE EQUIPMENT SIZED TO MAINTAIN
MAXIMUM 15 FT. WIDTH OF DISTURBANCE

TO DANE CO.
HUMAN SERVICES

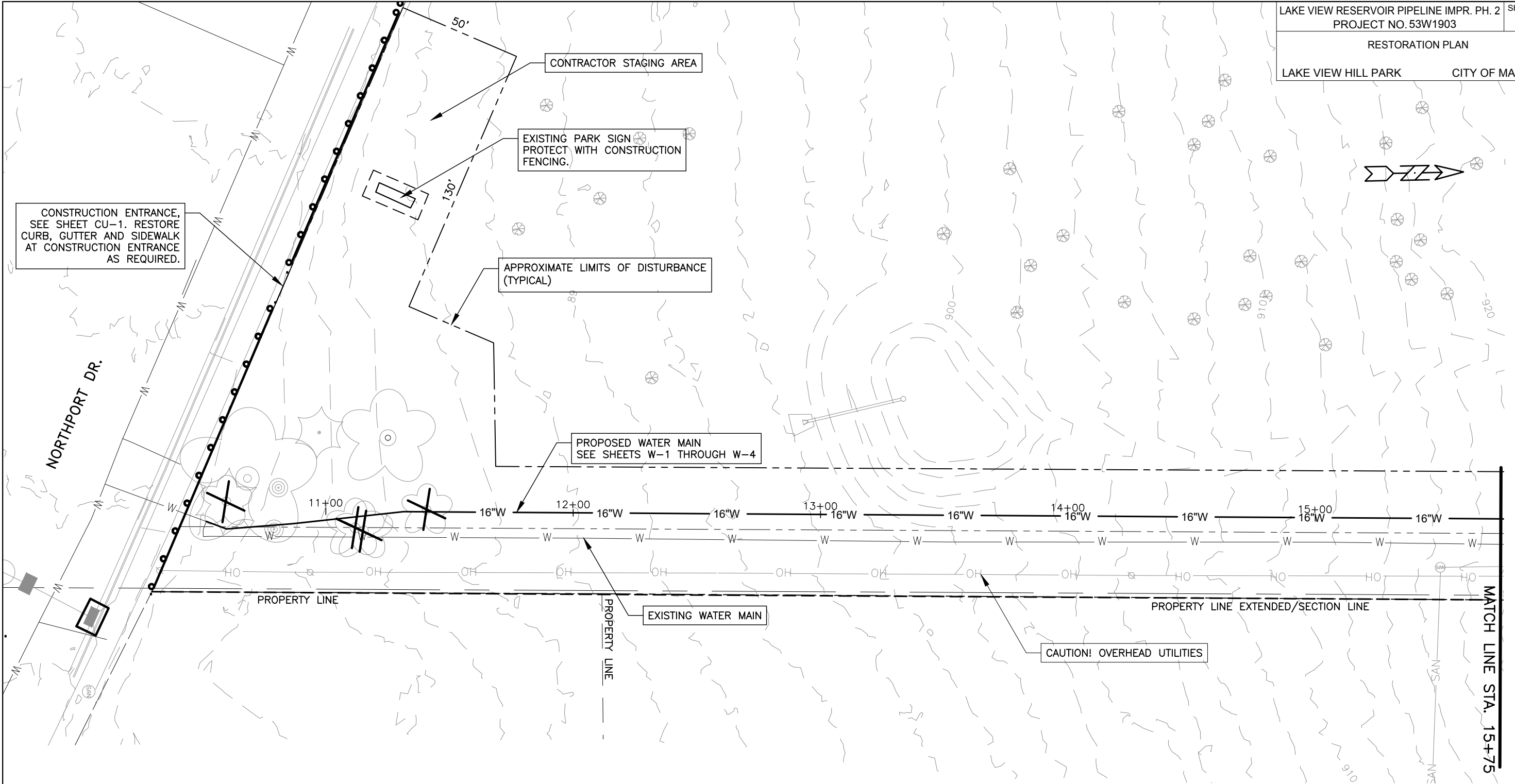
SEE SHEET
CU-3

PLOT SCALE: 1"=40'

PLOT NAME: #####

REV. DATE: _____

ORIGINATOR: _____



RESTORATION NOTES

1. RESTORE ALL DISTURBED AREAS TO ORIGINAL GRADE EXCEPT WHERE NOTED.
2. SEED & MAT DISTURBED LANDSCAPED AREAS WITH CLASS1 TYPE A ORGANIC MATTING AND SUN TERRACE SEED MIX, EXCEPT WHERE NOTED.
3. INSTALL MATTING WITHIN THREE DAYS OF SEEDING.

PLOT SCALE: 1"=40'

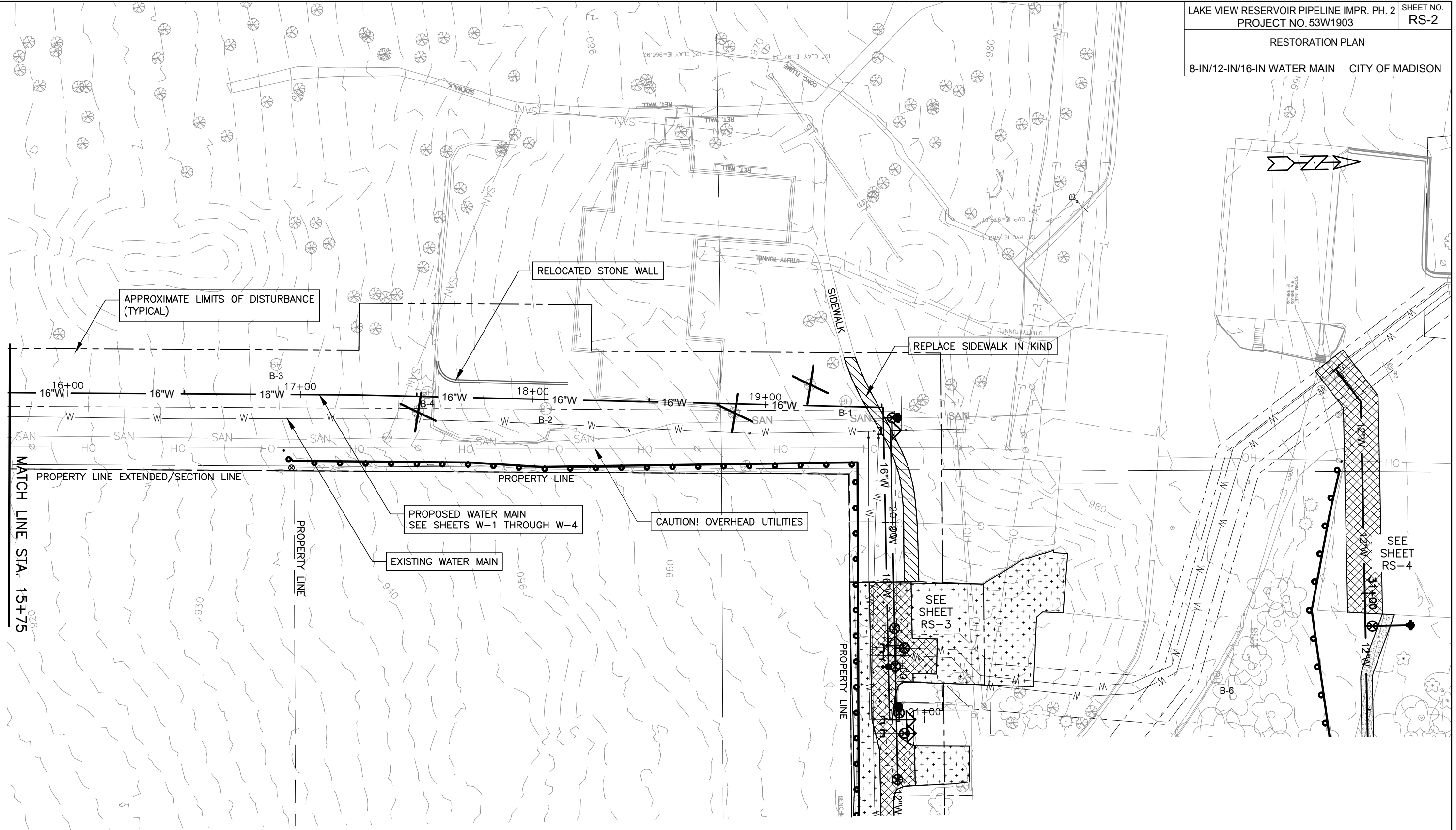
PLOT NAME: #####

REV. DATE: _____

ORIGINATOR: _____

RESTORATION PLAN

8-IN/12-IN/16-IN WATER MAIN CITY OF MADISON



RESTORATION NOTES

1. RESTORE ALL DISTURBED AREAS TO ORIGINAL GRADE EXCEPT WHERE NOTED.
2. SEED & MAT DISTURBED LANDSCAPED AREAS WITH CLASS1 TYPE A ORGANIC MATTING AND SUN TERRACE SEED MIX, EXCEPT WHERE NOTED.
3. INSTALL MATTING WITHIN THREE DAYS OF SEEDING.

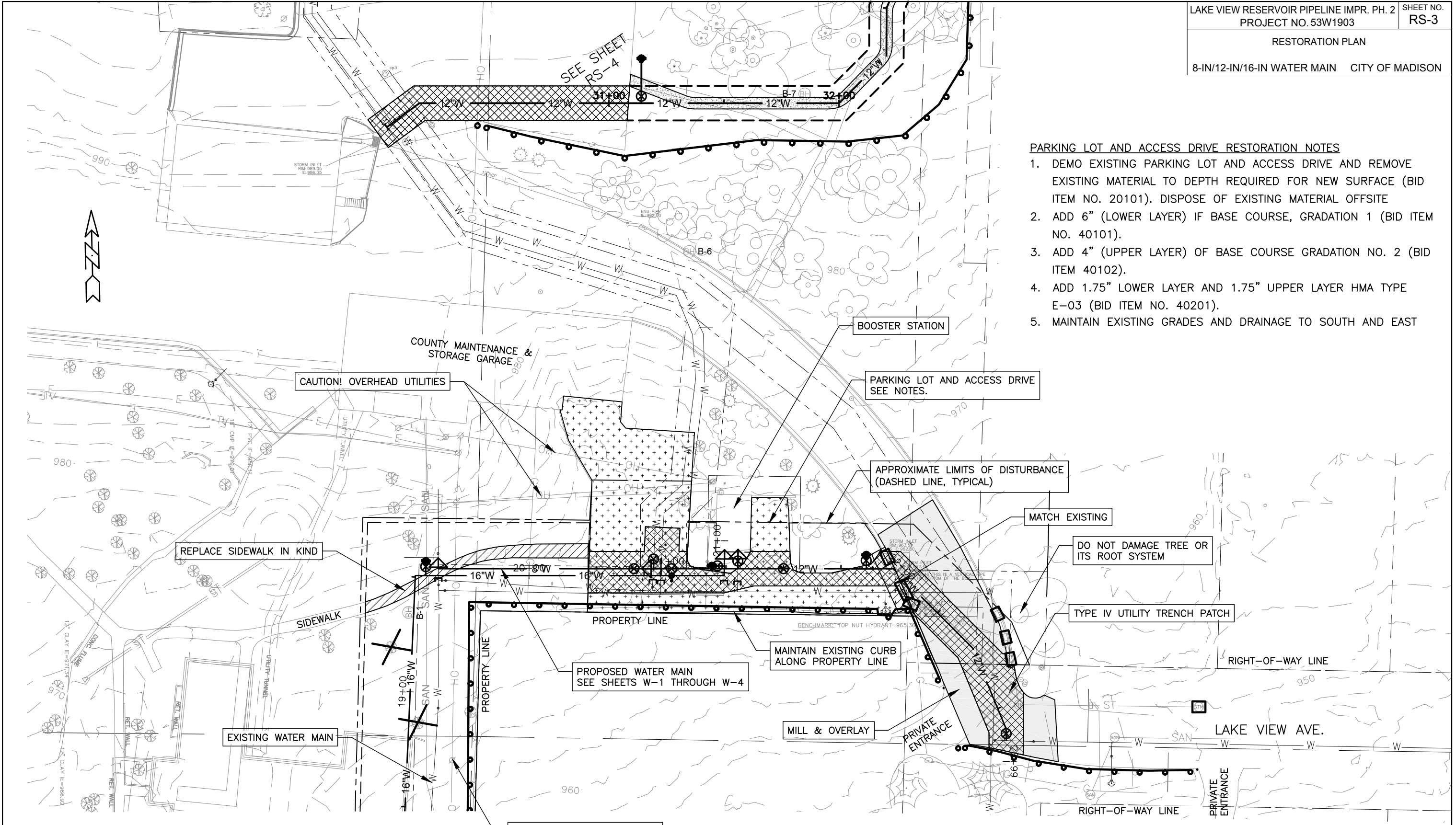
PLOT SCALE: 1"=40'

PLOT NAME: #####

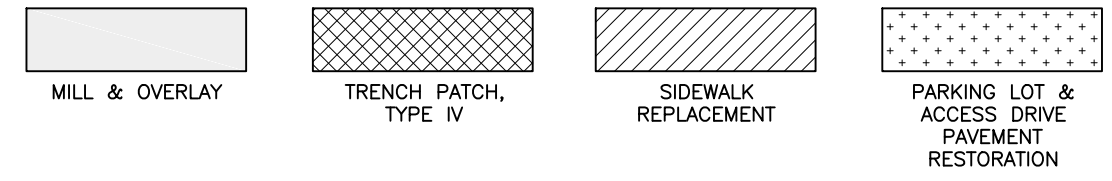
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ORIGINATOR: _____

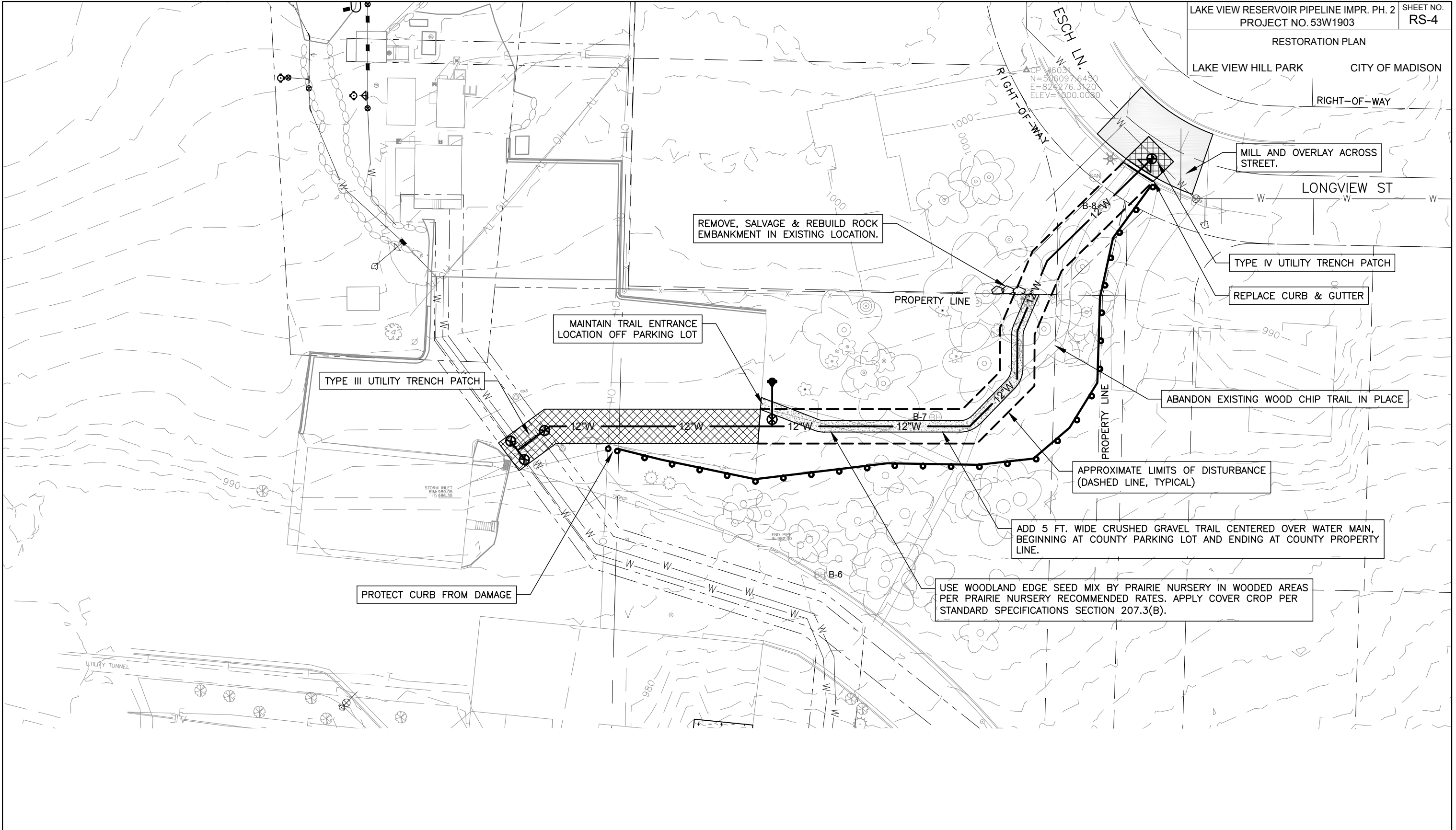
- PARKING LOT AND ACCESS DRIVE RESTORATION NOTES**
1. DEMO EXISTING PARKING LOT AND ACCESS DRIVE AND REMOVE EXISTING MATERIAL TO DEPTH REQUIRED FOR NEW SURFACE (BID ITEM NO. 20101). DISPOSE OF EXISTING MATERIAL OFFSITE
 2. ADD 6" (LOWER LAYER) IF BASE COURSE, GRADATION 1 (BID ITEM NO. 40101).
 3. ADD 4" (UPPER LAYER) OF BASE COURSE GRADATION NO. 2 (BID ITEM 40102).
 4. ADD 1.75" LOWER LAYER AND 1.75" UPPER LAYER HMA TYPE E-03 (BID ITEM NO. 40201).
 5. MAINTAIN EXISTING GRADES AND DRAINAGE TO SOUTH AND EAST



- GENERAL RESTORATION NOTES**
1. RESTORE ALL DISTURBED AREAS TO ORIGINAL GRADE EXCEPT WHERE NOTED.
 2. SEED & MAT DISTURBED LANDSCAPED AREAS WITH CLASS1 TYPE A ORGANIC MATTING AND SUN TERRACE SEED MIX, EXCEPT WHERE NOTED.
 3. INSTALL MATTING WITHIN THREE DAYS OF SEEDING.



PLOT SCALE: 1"=40'
 PLOT NAME: #####
 REV. DATE: _____
 ORIGINATOR: ---



REMOVE, SALVAGE & REBUILD ROCK EMBANKMENT IN EXISTING LOCATION.

MAINTAIN TRAIL ENTRANCE LOCATION OFF PARKING LOT

TYPE III UTILITY TRENCH PATCH

MILL AND OVERLAY ACROSS STREET.

TYPE IV UTILITY TRENCH PATCH

REPLACE CURB & GUTTER

ABANDON EXISTING WOOD CHIP TRAIL IN PLACE

APPROXIMATE LIMITS OF DISTURBANCE (DASHED LINE, TYPICAL)

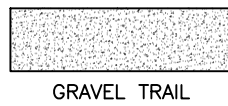
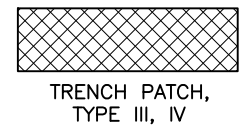
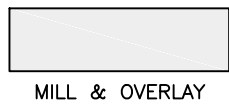
ADD 5 FT. WIDE CRUSHED GRAVEL TRAIL CENTERED OVER WATER MAIN, BEGINNING AT COUNTY PARKING LOT AND ENDING AT COUNTY PROPERTY LINE.

USE WOODLAND EDGE SEED MIX BY PRAIRIE NURSERY IN WOODED AREAS PER PRAIRIE NURSERY RECOMMENDED RATES. APPLY COVER CROP PER STANDARD SPECIFICATIONS SECTION 207.3(B).

PROTECT CURB FROM DAMAGE

GENERAL RESTORATION NOTES

1. RESTORE ALL DISTURBED AREAS TO ORIGINAL GRADE EXCEPT WHERE NOTED.
2. SEED & MAT DISTURBED LANDSCAPED AREAS WITH CLASS1 TYPE A ORGANIC MATTING AND SUN TERRACE SEED MIX, EXCEPT WHERE NOTED.
3. INSTALL MATTING WITHIN THREE DAYS OF SEEDING.



PLOT SCALE: 1"=40'

PLOT NAME: #####

REV. DATE: _____

ORIGINATOR: _____