

# MADISON WATER UTILITY

## MADISON, WISCONSIN

### CONTRACT NO. 7821, PROJECT NO. 10445

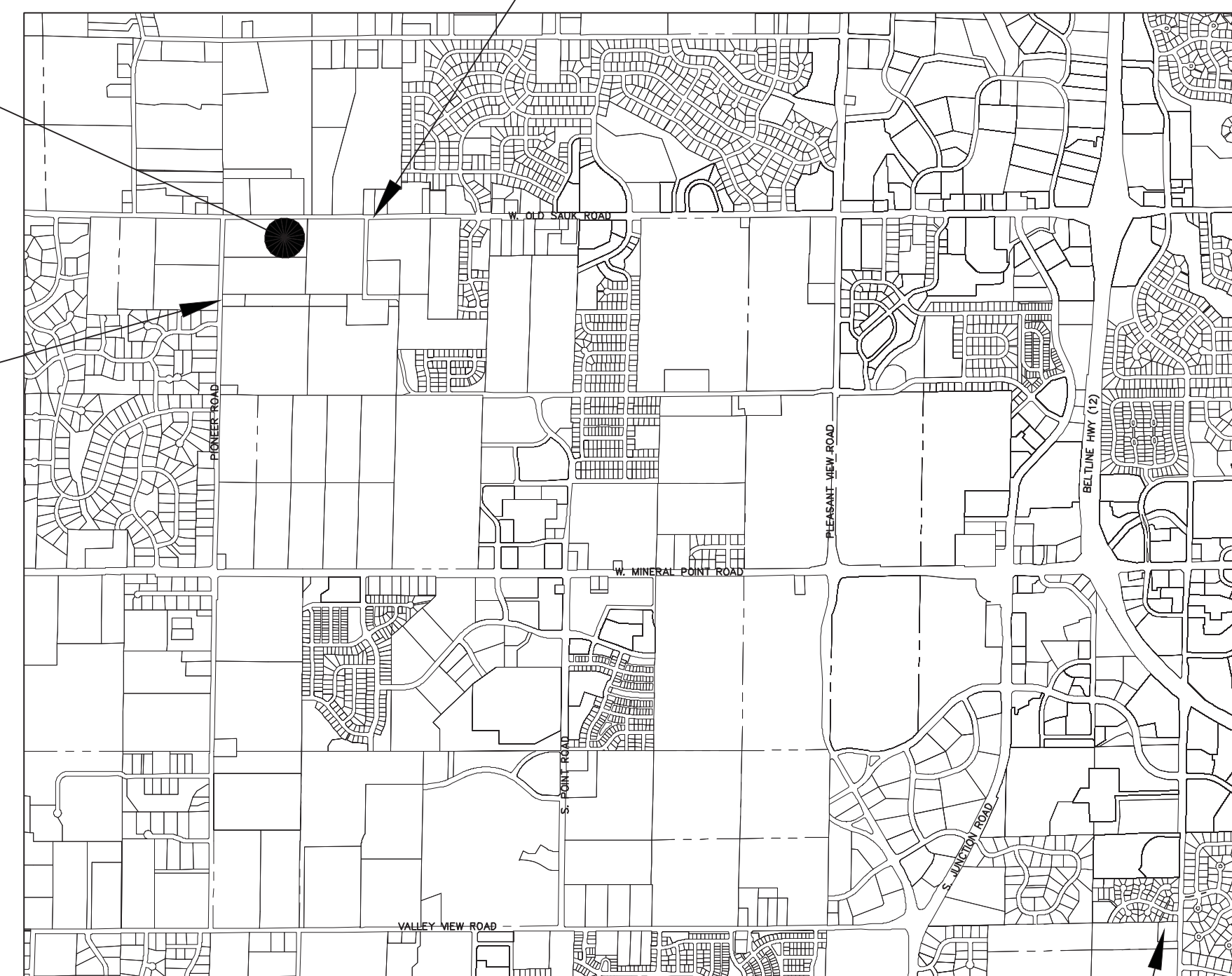
### BLACKHAWK WATER TOWER



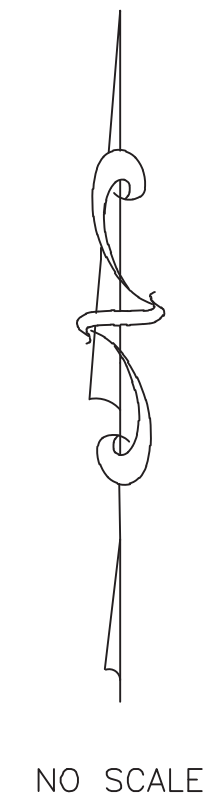
PROJECT LOCATION:  
10451 OLD SAUK ROAD

CONSTRUCTION TRAFFIC TO  
USE OLD SAUK ROAD  
(FROM EAST)

NO CONSTRUCTION TRAFFIC  
ON PIONEER ROAD



VICINITY MAP



EXISTING ELEVATED TANK 126  
910 S. HIGH POINT ROAD.  
(SEE SHT. M-6 FOR NEW  
ALTITUDE VALVE INSTALLATION  
& OUTLET PIPE MODIFICATIONS)

| DRAWING INDEX   |         |           |            |            |            |
|---|---------|-----------|------------|------------|------------|
| TITLE   | GENERAL | CIVIL     | STRUCTURAL | MECHANICAL | ELECTRICAL |
| LEGEND, ABBREVIATIONS, INDEX, GENERAL NOTES AND BENCHMARK | G-1     |           |            |            |            |
| OVERALL SITE PLAN   |         | C-1       |            |            |            |
| SITE AND UTILITY  |         | C-2       |            |            |            |
| GRADING PLAN  |         | C-3       |            |            |            |
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| COMPOSITE TANK SECTION                                    |         |           |            | M-3        |            |
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| WATER SUPPLY SCHEMATIC                                    |         |           |            | M-5        |            |
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| ELECTRICAL SITE PLAN                                      |         |           |            |            | E-1        |
| ELECTRICAL PLAN AND DETAILS                               |         |           |            |            | E-2        |
| ELECTRICAL SYMBOL LIST                                    |         |           |            |            | E-3        |

**EXISTING UTILITIES:**

WHERE THE DRAWINGS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES. THE INFORMATION IS INCLUDED ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. THE UTILITY LOCATIONS WERE DETERMINED FROM THE BEST AVAILABLE RECORDS. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER WITH RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE DRAWINGS REGARDING THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. THE CONTRACTOR SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION REGARDING THE LOCATION OF THE UTILITY FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THE FACILITIES.



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

**CALL DIGGERS HOTLINE**  
**1-800-242-8511**  
**TOLL FREE**

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

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WISCONSIN  
GERALD D. GROTH  
E-23728  
MADISON  
WIS.  
*Gerald D. Groth*  
PROJECT MANAGER

**BAXTER & WOODMAN**  
Consulting Engineers

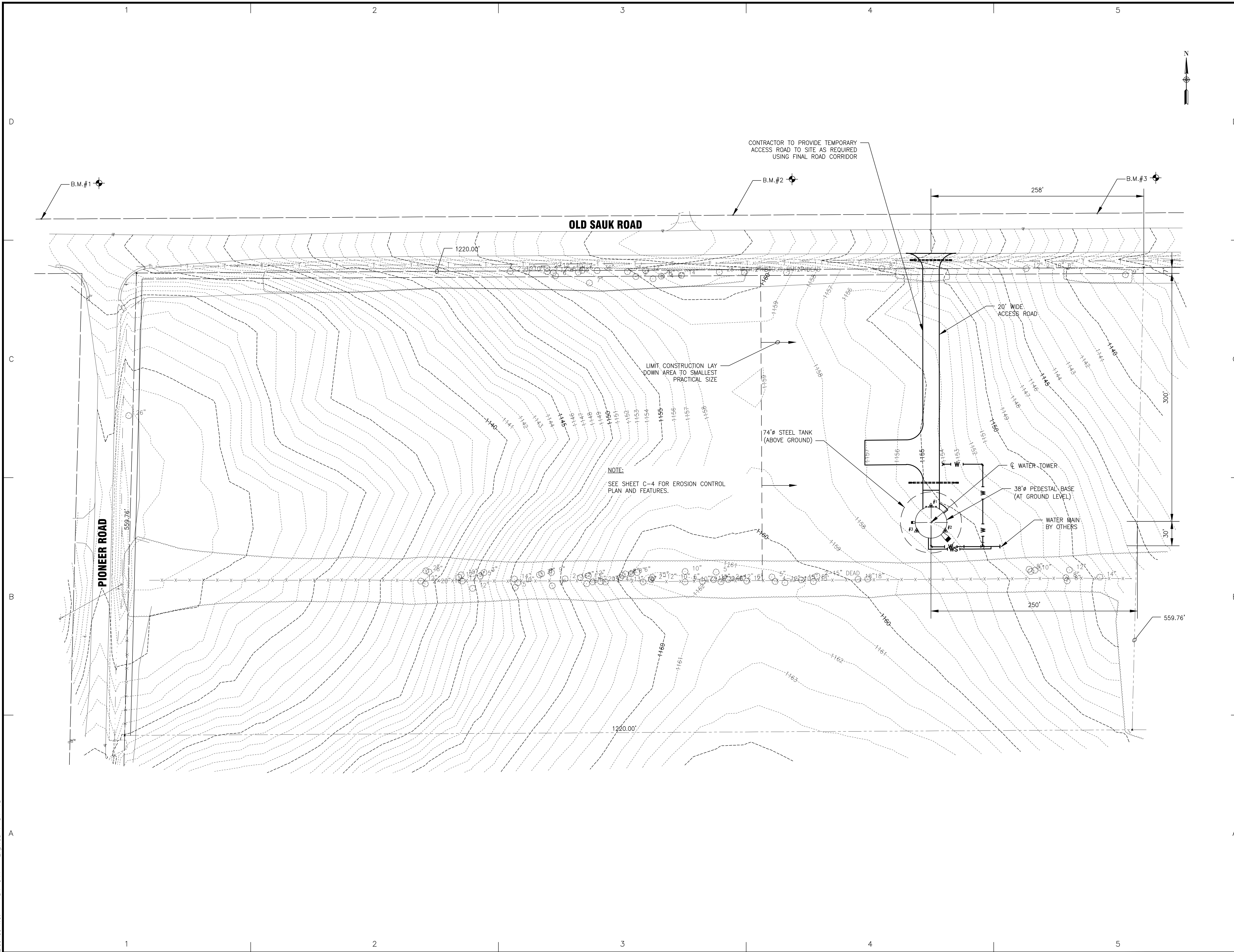
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BAXTER & WOODMAN, INC.  
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LICENSE NO. - 484-011 - EXPIRES 1/31/2018

PROJECT NO.: 150826.40 DATE: 12/27/16



I:\BURLINGTON\MADUD\150826-BLACKHAWK TOWER\CADD\DRAWINGS\DWG\40 - CURRENT\150826 TOPO C3D14.DWG OVERALL SITE PLAN  
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CONSULTANTS

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| NO. | DATE | DESCRIPTION |
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\* REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

1" = 5' 0" 1" = 2' 3"

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PLAN SHEET DESIGNATION

COVER

- G - GENERAL
- H - HAZARDOUS MATERIALS
- C - CIVIL
- L - LANDSCAPE
- S - STRUCTURAL
- A - ARCHITECTURAL
- I - INSTRUMENTATION
- Q - EQUIPMENT
- F - FIRE PROTECTION
- P - PLUMBING
- M - MECHANICAL
- E - ELECTRICAL
- T - TELECOMMUNICATIONS
- R - RESOURCE

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PROJECT NO: 150826.40

SCALE: 1" = 50'

DRAWING DATE: 12/27/16

DESIGNED BY: GDG

DRAWN BY: TLB

CHECKED BY: GDG

---

CLIENT

**MADISON WATER UTILITY**  
**MADISON, WISCONSIN**

**CONTRACT NO. 7821**  
**PROJECT NO. 10445**

**BLACKHAWK WATER TOWER**

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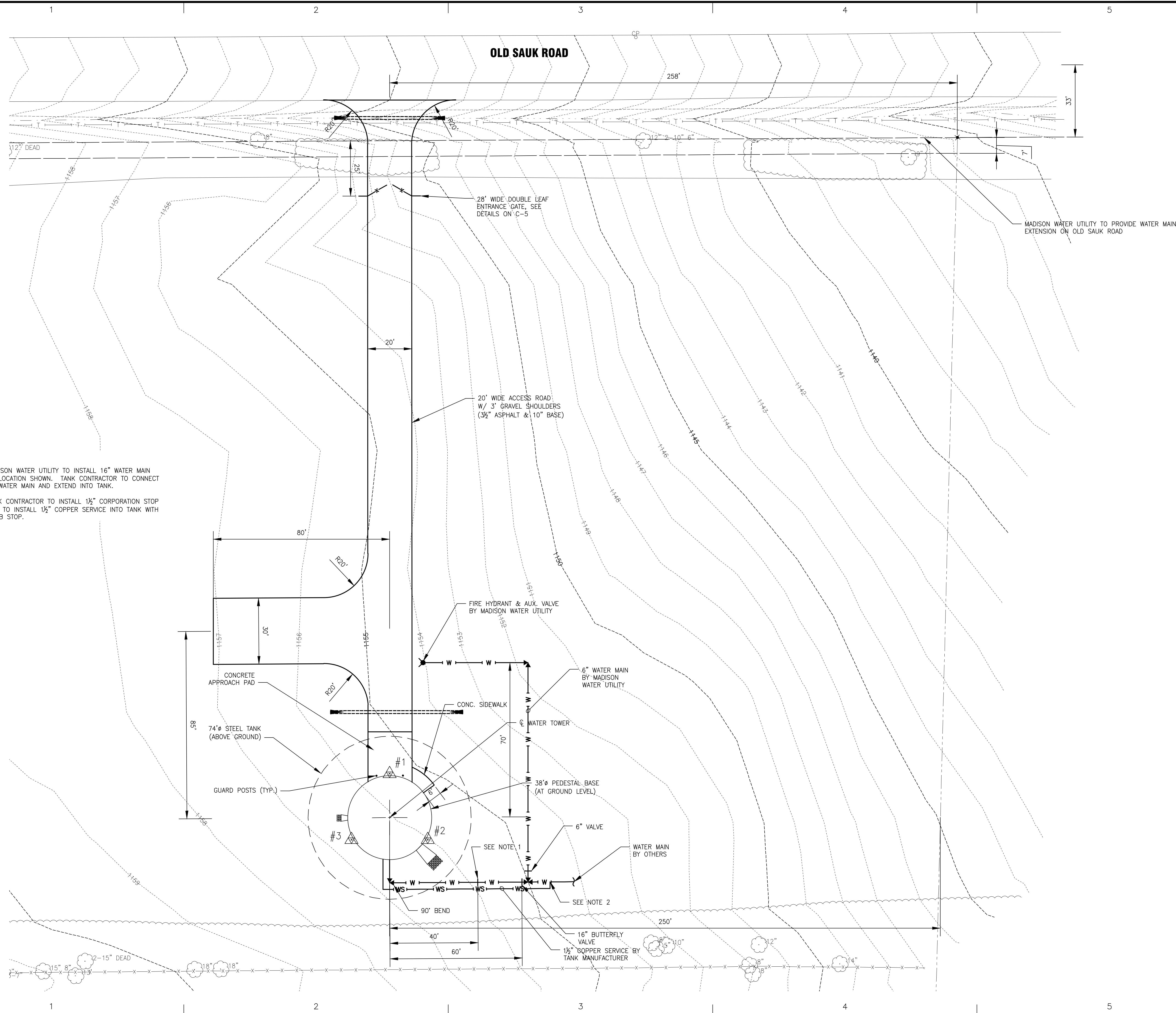
SHEET TITLE

**OVERALL SITE PLAN**

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**C-1**

I:\BURLINGTON\MADUD\150826-BLACKHAWK TOWER\CADD\DRAWINGS\DWG\40 - CURRENT\150826 TOPO C3D14.DWG SITE AND UTILITY  
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NOTES:

- MADISON WATER UTILITY TO INSTALL 16" WATER MAIN TO LOCATION SHOWN. TANK CONTRACTOR TO CONNECT TO WATER MAIN AND EXTEND INTO TANK.
- TANK CONTRACTOR TO INSTALL 1/2" CORPORATION STOP AND TO INSTALL 1/2" COPPER SERVICE INTO TANK WITH CURB STOP.



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\* REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

PLAN SHEET DESIGNATION

- COVER
- GEN - GENERAL
- HMZ - HAZARDOUS MATERIALS
- CIV - CIVIL
- LAND - LANDSCAPE
- STR - STRUCTURAL
- ARCH - ARCHITECTURAL
- INST - INSTRUMENTATION
- EQUIP - EQUIPMENT
- FIRE - FIRE PROTECTION
- PLUMB - PLUMBING
- MECH - MECHANICAL
- ELECT - ELECTRICAL
- TELECOM - TELECOMMUNICATIONS
- RES - RESOURCE

PROJECT NO: 150826.40

SCALE: 1" = 20'  
 DRAWING DATE: 12/27/16  
 DESIGNED BY: GDG  
 DRAWN BY: TLB  
 CHECKED BY: GDG

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**MADISON WATER UTILITY  
 MADISON, WISCONSIN**

**CONTRACT NO. 7821  
 PROJECT NO. 10445**

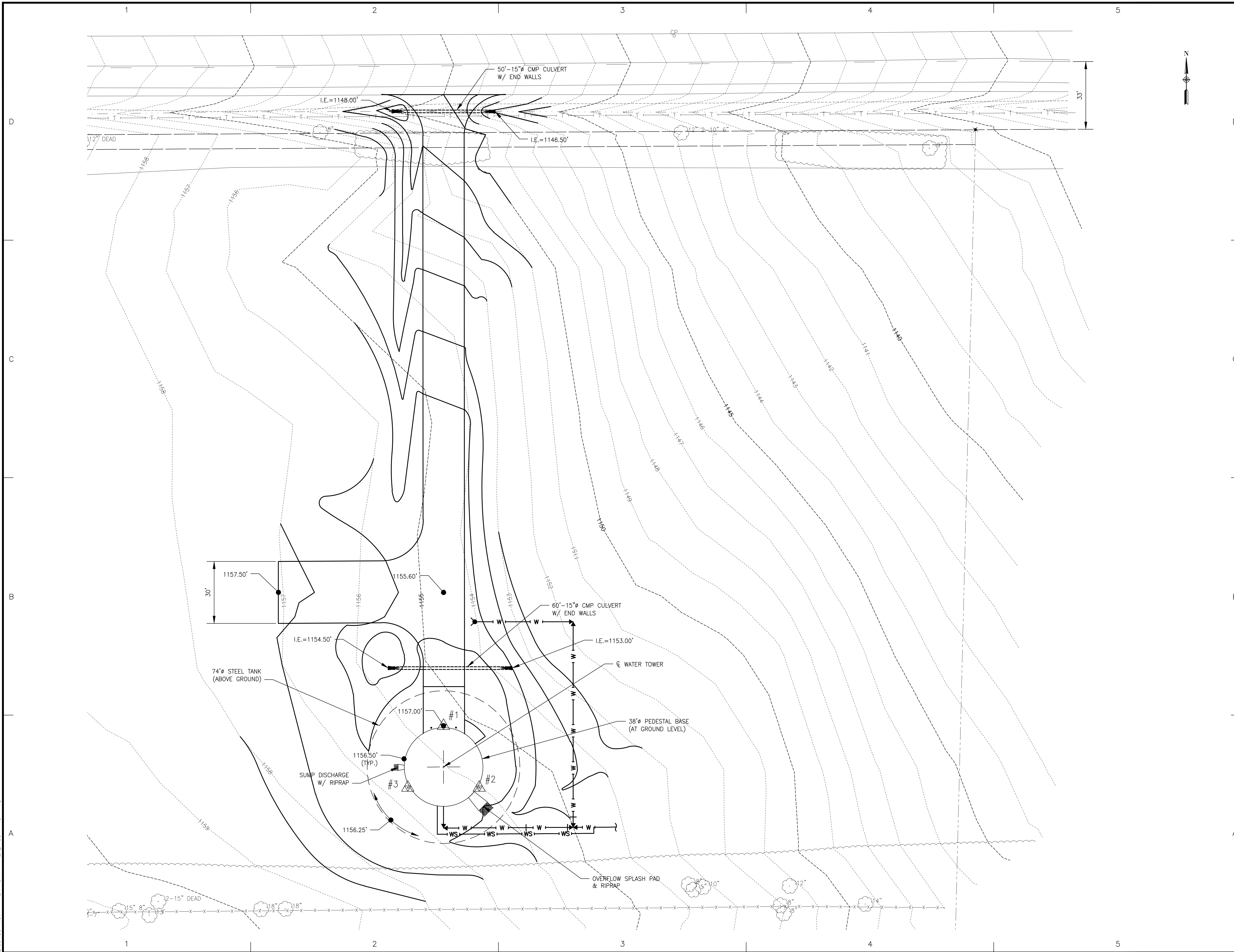
**BLACKHAWK WATER TOWER**

SHEET TITLE

**SITE AND UTILITY  
 PLAN**

**C-2**

I:\BURLINGTON\MADUD\150826-BLACKHAWK TOWER\CADD\DRAWINGS\DWG\40 - CURRENT\150826 TOPO C3D14.DWG GRADING PLAN  
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\* - REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

**PLAN SHEET DESIGNATION**

COVER  
 G - GENERAL  
 H - HAZARDOUS MATERIALS  
 C - CIVIL  
 L - LANDSCAPE  
 S - STRUCTURAL  
 A - ARCHITECTURAL  
 I - INSTRUMENTATION  
 E - EQUIPMENT  
 F - FIRE PROTECTION  
 P - PLUMBING  
 M - MECHANICAL  
 EL - ELECTRICAL  
 T - TELECOMMUNICATIONS  
 R - RESOURCE

PROJECT NO: 150826.40  
 SCALE: 1" = 20'  
 DRAWING DATE: 12/27/16  
 DESIGNED BY: GDG  
 DRAWN BY: TLB  
 CHECKED BY: GDG

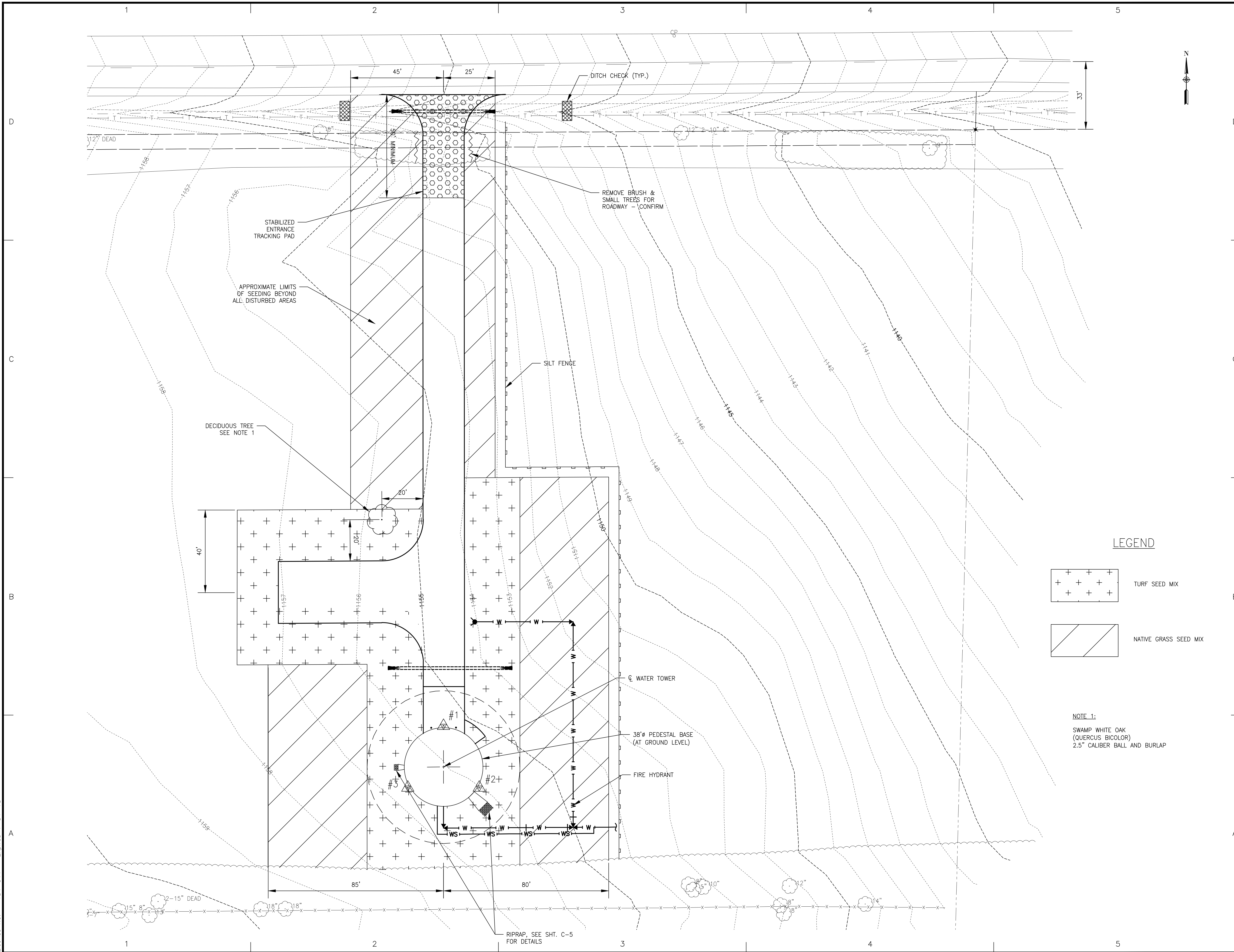
CLIENT  
**MADISON WATER UTILITY**  
**MADISON, WISCONSIN**

**CONTRACT NO. 7821**  
**PROJECT NO. 10445**  
**BLACKHAWK WATER TOWER**

SHEET TITLE  
**GRADING PLAN**

**C-3**

I:\BURLINGTON\MADUD\150826-BLACKHAWK TOWER\CADD\DRAWINGS\DWG\40 - CURRENT\150826 TOPO C3D14.DWG LANDSCAPE PLAN  
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\* REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

PLAN SHEET DESIGNATION

|       |                     |
|-------|---------------------|
| COVER |                     |
| LEG   | GENERAL             |
| HAZ   | HAZARDOUS MATERIALS |
| CIV   | CIVIL               |
| LAND  | LANDSCAPE           |
| STR   | STRUCTURAL          |
| ARCH  | ARCHITECTURAL       |
| INST  | INSTRUMENTATION     |
| EQUI  | EQUIPMENT           |
| FIRE  | FIRE PROTECTION     |
| PLUM  | PLUMBING            |
| MECH  | MECHANICAL          |
| ELECT | ELECTRICAL          |
| TELE  | TELECOMMUNICATIONS  |
| RES   | RESOURCE            |

|               |           |
|---------------|-----------|
| PROJECT NO:   | 150826.40 |
| SCALE:        | 1" = 20'  |
| DRAWING DATE: | 12/27/16  |
| DESIGNED BY:  | GDC       |
| DRAWN BY:     | TLB       |
| CHECKED BY:   | GDC       |

CLIENT

**MADISON WATER UTILITY  
MADISON, WISCONSIN**

**CONTRACT NO. 7821  
PROJECT NO. 10445**

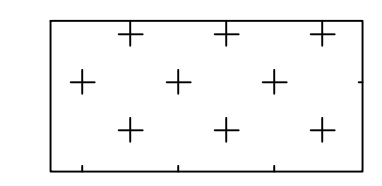
**BLACKHAWK WATER TOWER**

SHEET TITLE

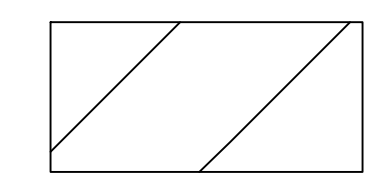
**LANDSCAPE AND  
EROSION CONTROL PLAN**

**C-4**

LEGEND



TURF SEED MIX



NATIVE GRASS SEED MIX

NOTE 1:  
SWAMP WHITE OAK  
(QUERCUS BICOLOR)  
2.5" CALIBER BALL AND BURLAP

RIPRAP, SEE SHT. C-5  
FOR DETAILS

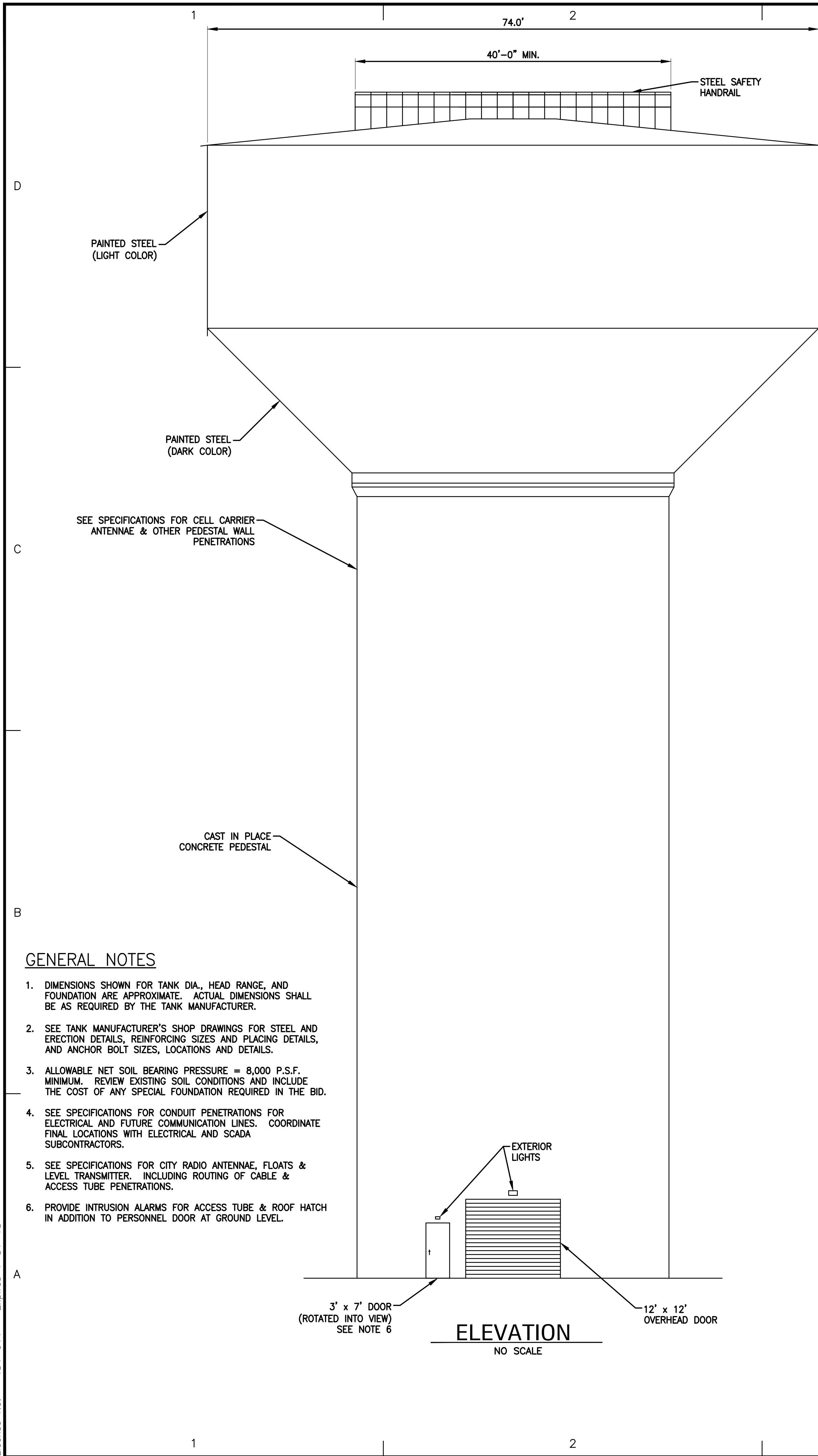






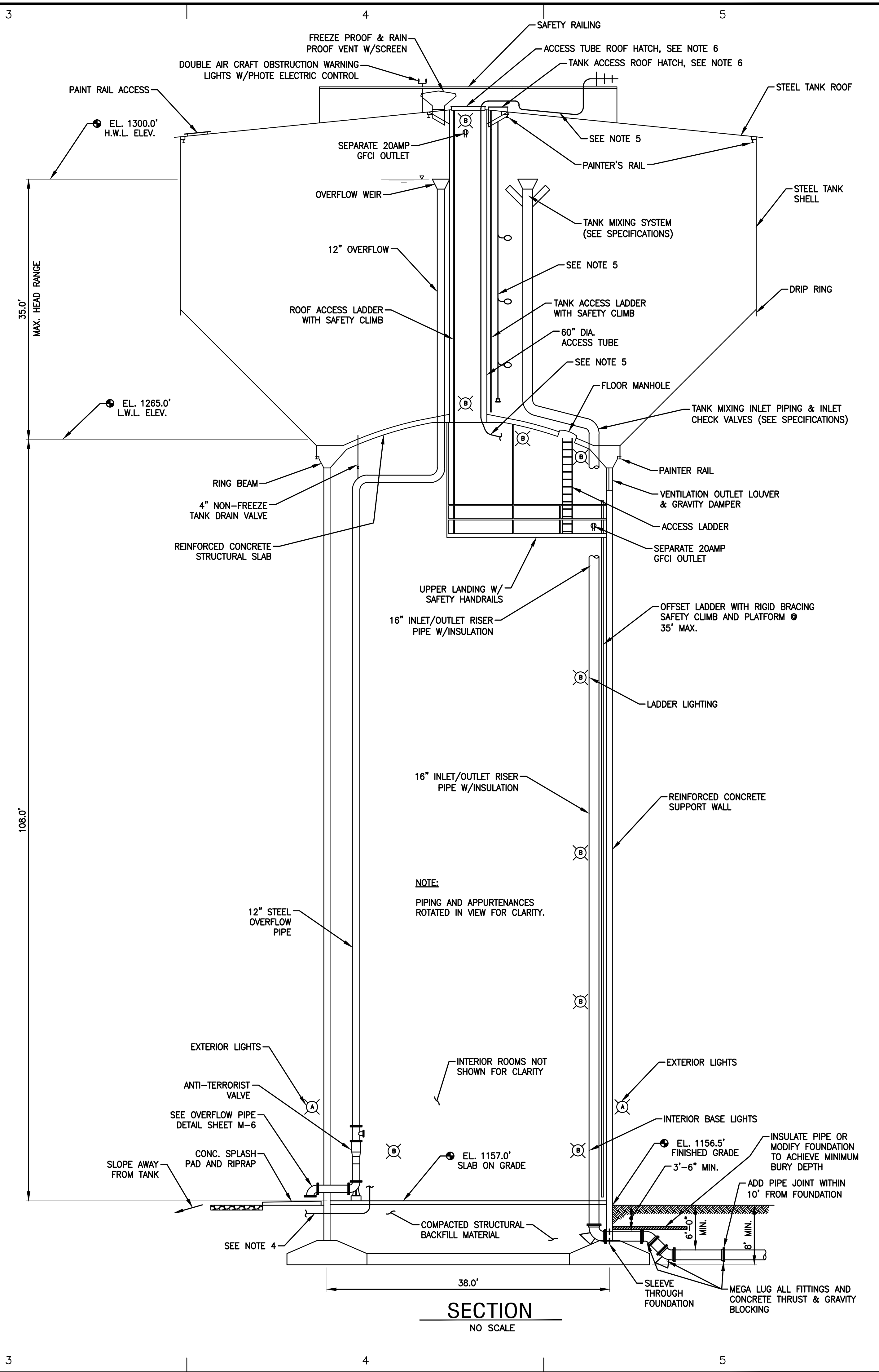


I:\BURLINGTON\MADUD\150826-BLACKHAWK TOWER\CADD\DRAWINGS\DWG\BLACKHAWK TOWER\SHEETS\MECHANICAL\M-2 BUILDING ELEVATION & SECTION.DWG M-2 BUILDING ELEVATION & SECTION  
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**GENERAL NOTES**

- DIMENSIONS SHOWN FOR TANK DIA., HEAD RANGE, AND FOUNDATION ARE APPROXIMATE. ACTUAL DIMENSIONS SHALL BE AS REQUIRED BY THE TANK MANUFACTURER.
- SEE TANK MANUFACTURER'S SHOP DRAWINGS FOR STEEL AND ERECTION DETAILS, REINFORCING SIZES AND PLACING DETAILS, AND ANCHOR BOLT SIZES, LOCATIONS AND DETAILS.
- ALLOWABLE NET SOIL BEARING PRESSURE = 8,000 P.S.F. MINIMUM. REVIEW EXISTING SOIL CONDITIONS AND INCLUDE THE COST OF ANY SPECIAL FOUNDATION REQUIRED IN THE BID.
- SEE SPECIFICATIONS FOR CONDUIT PENETRATIONS FOR ELECTRICAL AND FUTURE COMMUNICATION LINES. COORDINATE FINAL LOCATIONS WITH ELECTRICAL AND SCADA SUBCONTRACTORS.
- SEE SPECIFICATIONS FOR CITY RADIO ANTENNAE, FLOATS & LEVEL TRANSMITTER. INCLUDING ROUTING OF CABLE & ACCESS TUBE PENETRATIONS.
- PROVIDE INTRUSION ALARMS FOR ACCESS TUBE & ROOF HATCH IN ADDITION TO PERSONNEL DOOR AT GROUND LEVEL.



**SECTION NO SCALE**



CONSULTANTS

| NO. | DATE | DESCRIPTION |
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REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

**PLAN SHEET DESIGNATION**

|   |                     |
|---|---------------------|
| C | COVER               |
| G | GENERAL             |
| H | HAZARDOUS MATERIALS |
| O | CIVIL               |
| L | LANDSCAPE           |
| S | STRUCTURAL          |
| A | ARCHITECTURAL       |
| I | INSTRUMENTATION     |
| E | EQUIPMENT           |
| F | FIRE PROTECTION     |
| P | PLUMBING            |
| M | MECHANICAL          |
| E | ELECTRICAL          |
| T | TELECOMMUNICATIONS  |
| R | RESOURCE            |

**PROJECT NO: 150826.40**

|               |          |
|---------------|----------|
| SCALE:        | AS NOTED |
| DRAWING DATE: |          |
| DESIGNED BY:  | GDG      |
| DRAWN BY:     | TLB      |
| CHECKED BY:   | GDG      |

**MADISON WATER UTILITY  
MADISON, WISCONSIN**

**CONTRACT NO. 7821  
PROJECT NO. 10445**

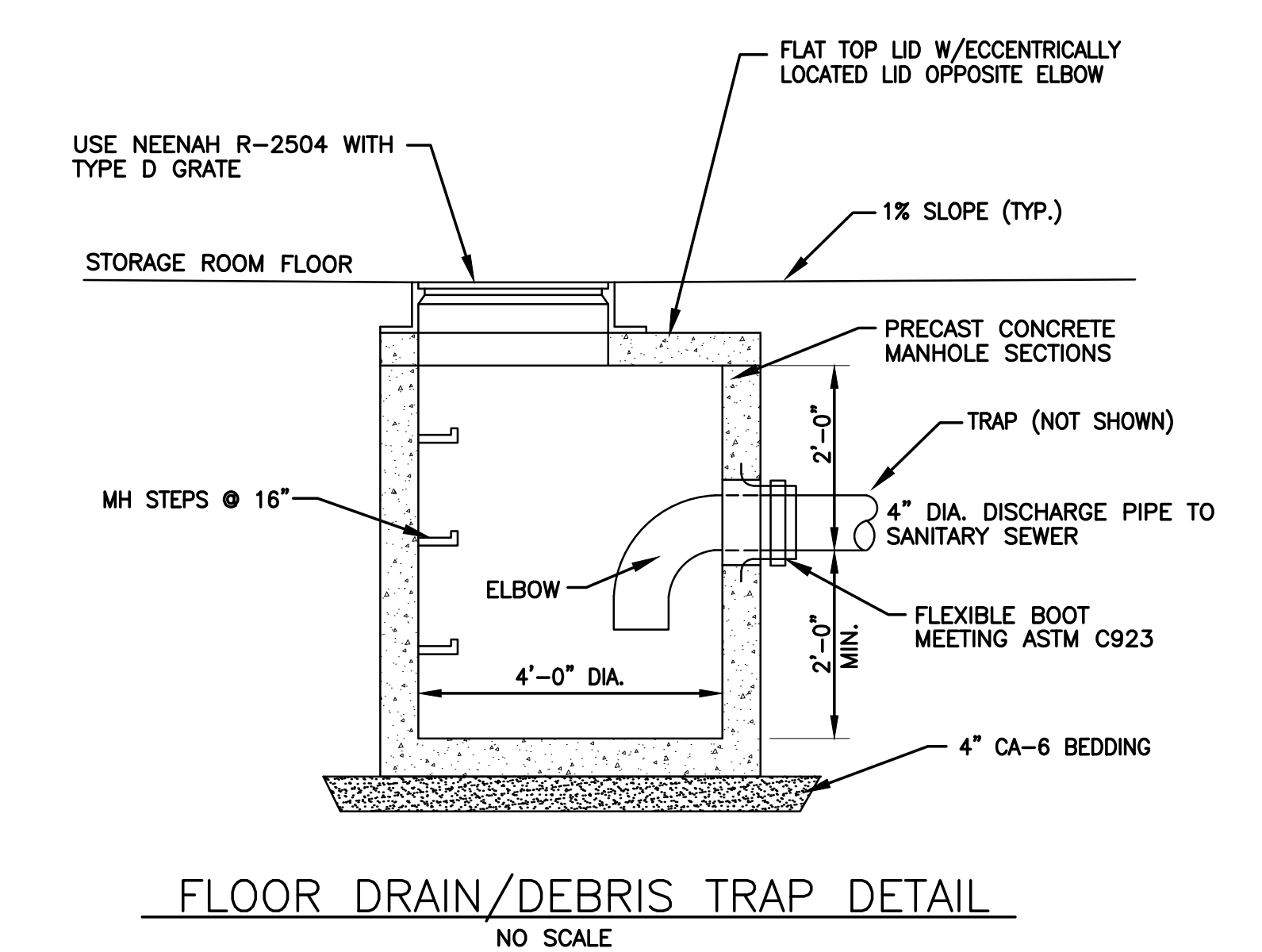
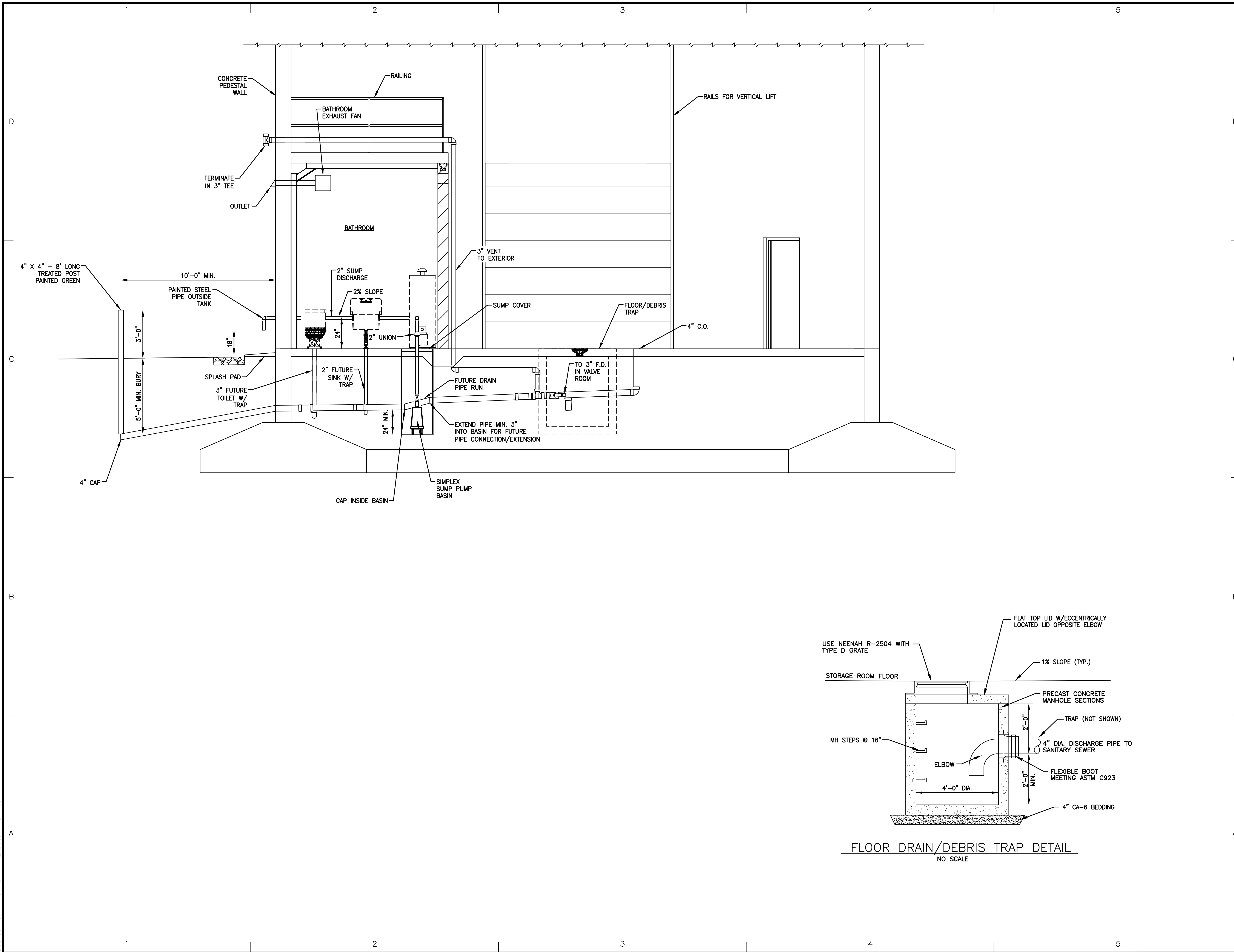
**BLACKHAWK WATER TOWER**

**SHEET TITLE  
BUILDING ELEVATION & SECTION**

**M-2**



I:\BURLINGTON\MADUD\150826--BLACKHAWK TOWER\CADD\DRAWINGS\DWG\BLACKHAWK TOWER\SHEETS\MECHANICAL\M-4 PLUMBING DRAIN SCHEMATIC.DWG M-4 PLUMBING DRAIN SCHEMATIC  
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CONSULTANTS

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REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

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PLAN SHEET DESIGNATION

COVER = GENERAL  
 H.G. = HAZARDOUS MATERIALS  
 C. = CIVIL  
 L. = LANDSCAPE  
 S. = STRUCTURAL  
 A. = ARCHITECTURAL  
 I. = INSTRUMENTATION  
 E. = EQUIPMENT  
 F. = FIRE PROTECTION  
 P. = PLUMBING  
 M. = MECHANICAL  
 E. = ELECTRICAL  
 T. = TELECOMMUNICATIONS  
 R. = RESOURCE

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PROJECT NO: 150826.40

SCALE: AS NOTED  
 DRAWING DATE:  
 DESIGNED BY: GDG  
 DRAWN BY: TLB  
 CHECKED BY: GDG

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CLIENT

**MADISON WATER UTILITY  
MADISON, WISCONSIN**

**CONTRACT NO. 7821  
PROJECT NO. 10445**

**BLACKHAWK WATER TOWER**

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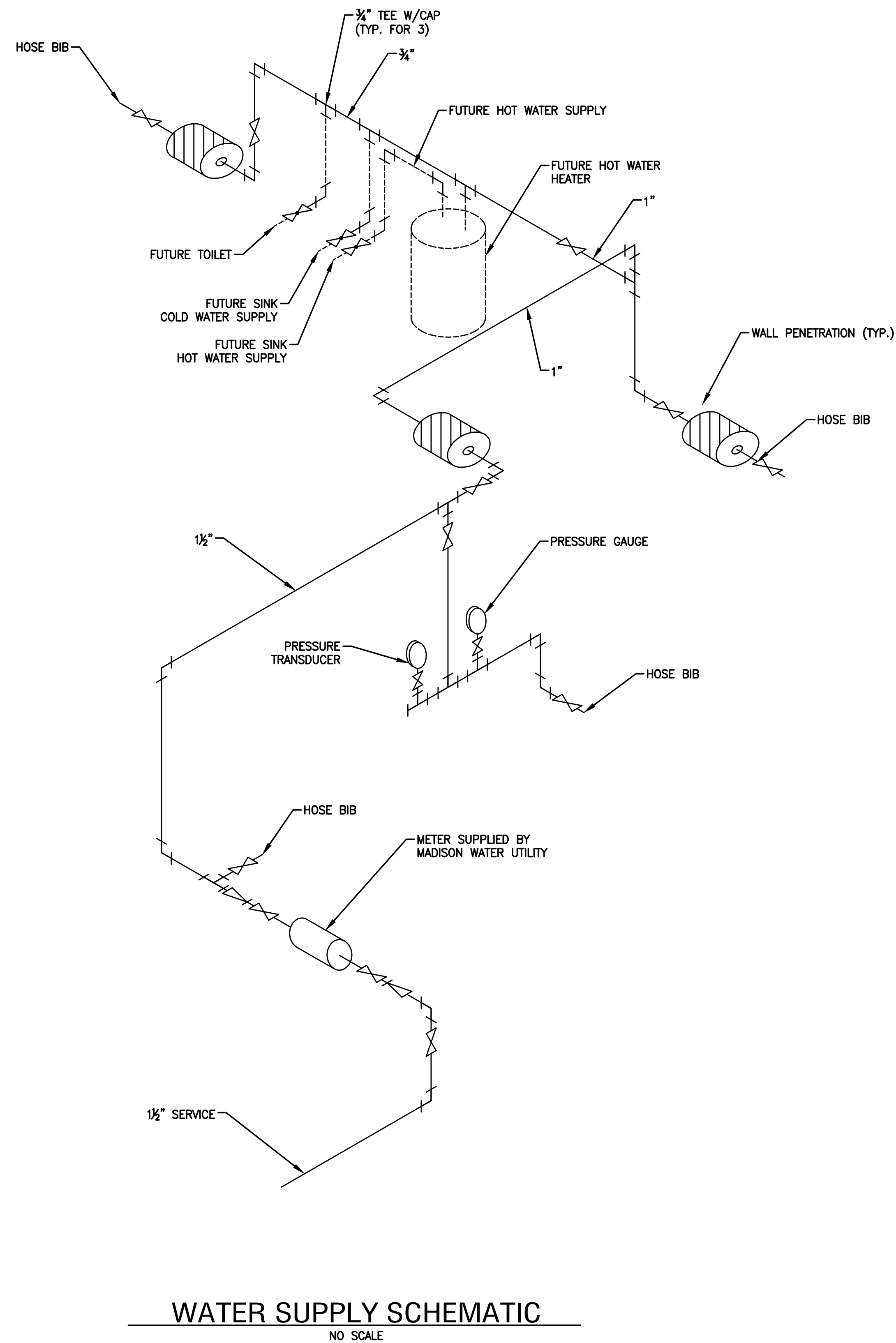
SHEET TITLE

**PLUMBING DRAIN SCHEMATIC**

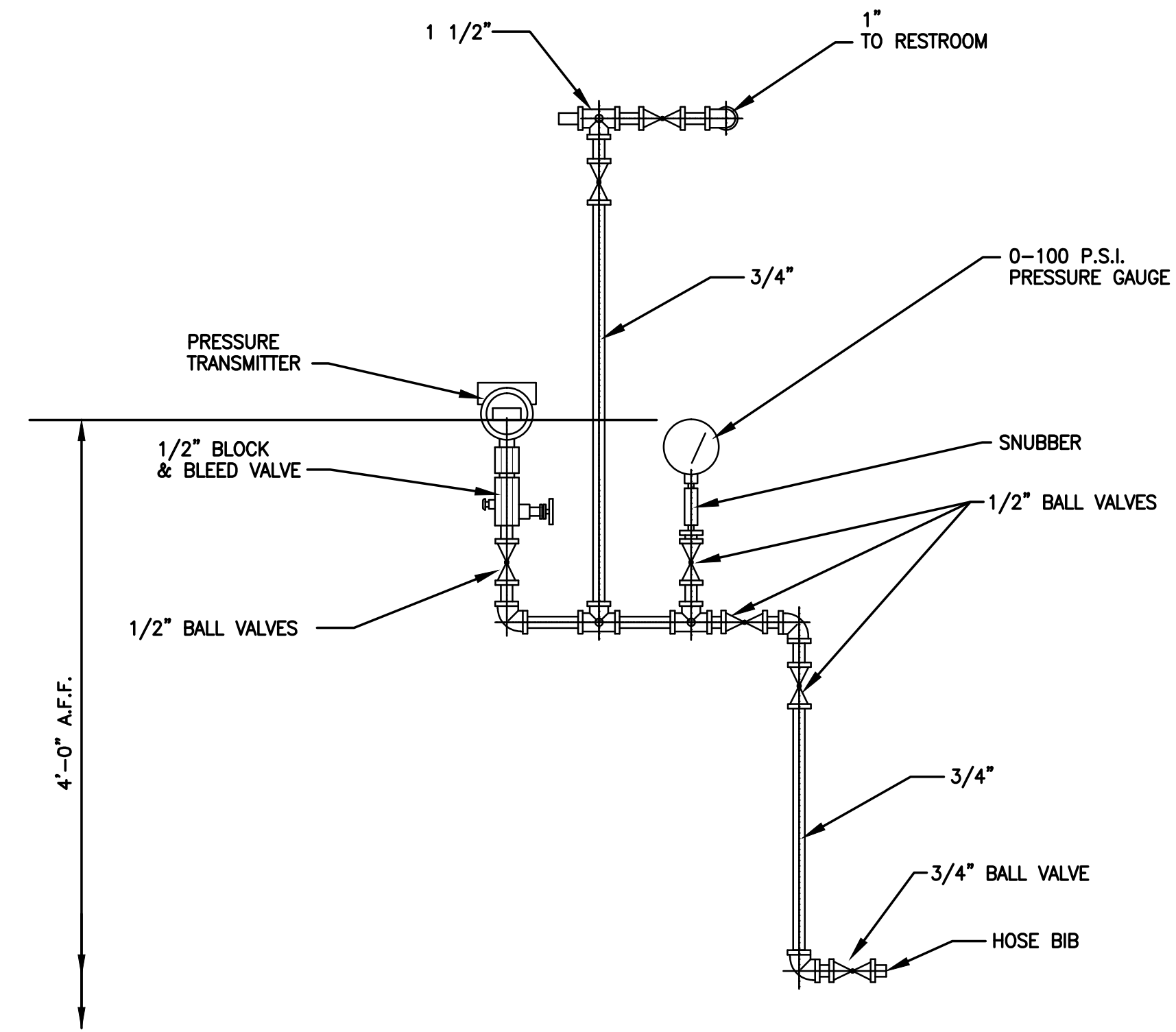
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M-4

I:\BURLINGTON\MADUD\150826--BLACKHAWK TOWER\CADD\DRAWINGS\DWG\BLACKHAWK TOWER\SHEETS\MECHANICAL\M-5 WATER SUPPLY SCHEMATIC.DWG M-5 WATER SUPPLY SCHEMATIC  
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**WATER SUPPLY SCHEMATIC**  
NO SCALE



**PRESSURE TRANSMITTER  
PIPING DETAIL**  
NO SCALE



CONSULTANTS

| NO. | DATE | DESCRIPTION |
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\* - REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

PLAN SHEET DESIGNATION

- C O V E R
- G E N E R A L
- H A Z A R D O U S M A T E R I A L S
- C I V I L
- L A N D S C A P E
- S T R U C T U R A L
- A R C H I T E C T U R A L
- I N S T R U M E N T A T I O N
- E Q U I P M E N T
- F I R E P R O T E C T I O N
- P L U M B I N G
- M E C H A N I C A L
- E L E C T R I C A L
- T E L E C O M M U N I C A T I O N S
- R E S O U R C E

PROJECT NO: 150826.40

SCALE: AS NOTED

DRAWING DATE:

DESIGNED BY: GDG

DRAWN BY: TLB

CHECKED BY: GDG

CLIENT

**MADISON WATER UTILITY  
MADISON, WISCONSIN**

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**BLACKHAWK WATER TOWER**

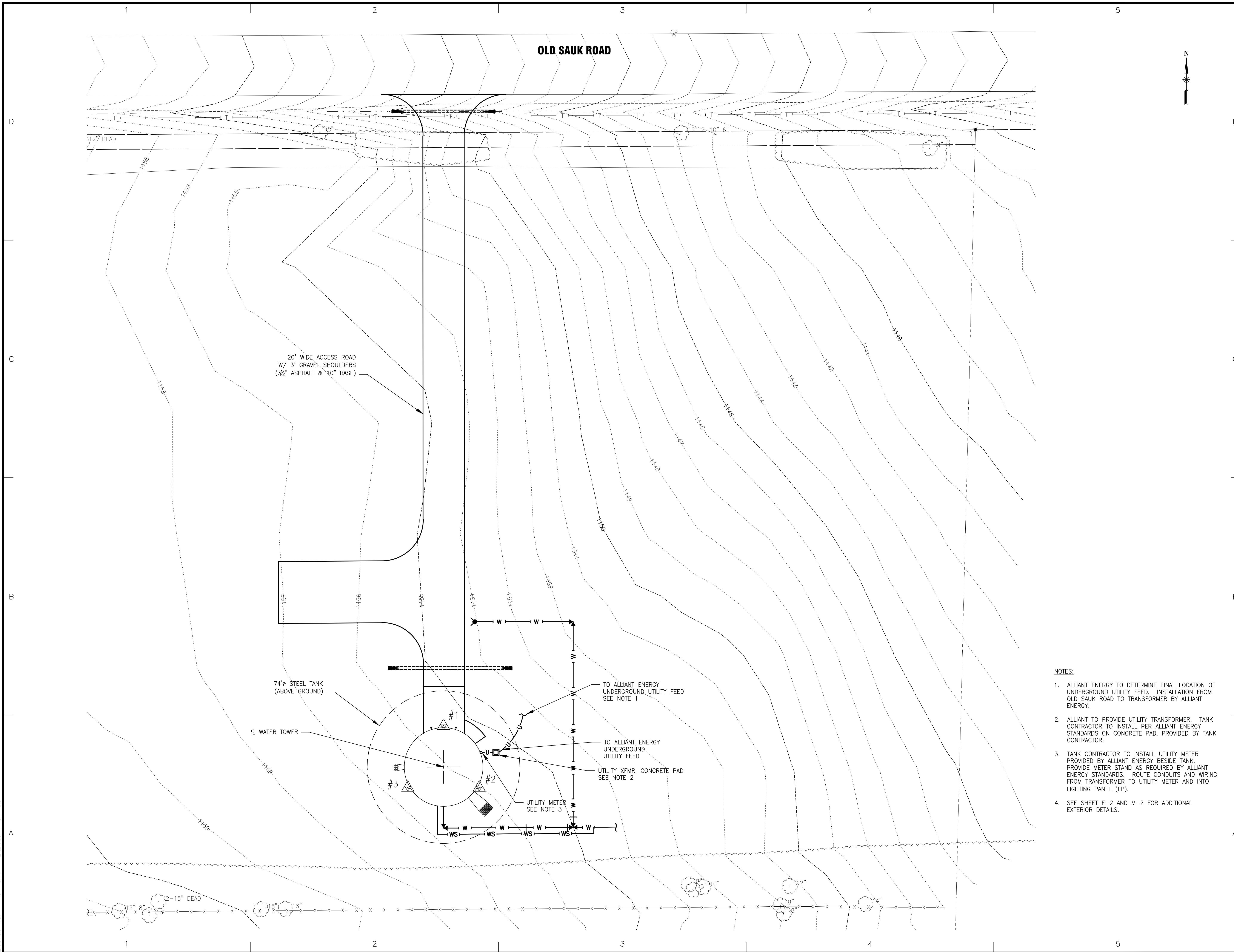
SHEET TITLE

**WATER SUPPLY SCHEMATIC**

**M-5**



I:\BURLINGTON\MADUD\150826-BLACKHAWK TOWER\CADD\DRAWINGS\DWG\40 - CURRENT\150826 TOPO C3D14.DWG ELECTRICAL SITE PLAN  
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**BAXTER & WOODMAN**  
Consulting Engineers

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CONSULTANTS

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\* - REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

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PLAN SHEET DESIGNATION

COVER

G - GENERAL  
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 M - MECHANICAL  
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 R - RESOURCE

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PROJECT NO: 150826.40

SCALE: 1" = 20'

DRAWING DATE: 12/27/16

DESIGNED BY: PVT

DRAWN BY: TLB

CHECKED BY: GDC

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CLIENT

**MADISON WATER UTILITY**  
**MADISON, WISCONSIN**

**CONTRACT NO. 7821**  
**PROJECT NO. 10445**

**BLACKHAWK WATER TOWER**

---

SHEET TITLE

**ELECTRICAL SITE PLAN**

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**E-1**

- NOTES:
- ALLIANT ENERGY TO DETERMINE FINAL LOCATION OF UNDERGROUND UTILITY FEED. INSTALLATION FROM OLD SAUK ROAD TO TRANSFORMER BY ALLIANT ENERGY.
  - ALLIANT TO PROVIDE UTILITY TRANSFORMER. TANK CONTRACTOR TO INSTALL PER ALLIANT ENERGY STANDARDS ON CONCRETE PAD, PROVIDED BY TANK CONTRACTOR.
  - TANK CONTRACTOR TO INSTALL UTILITY METER PROVIDED BY ALLIANT ENERGY BESIDE TANK. PROVIDE METER STAND AS REQUIRED BY ALLIANT ENERGY STANDARDS. ROUTE CONDUITS AND WIRING FROM TRANSFORMER TO UTILITY METER AND INTO LIGHTING PANEL (LP).
  - SEE SHEET E-2 AND M-2 FOR ADDITIONAL EXTERIOR DETAILS.





