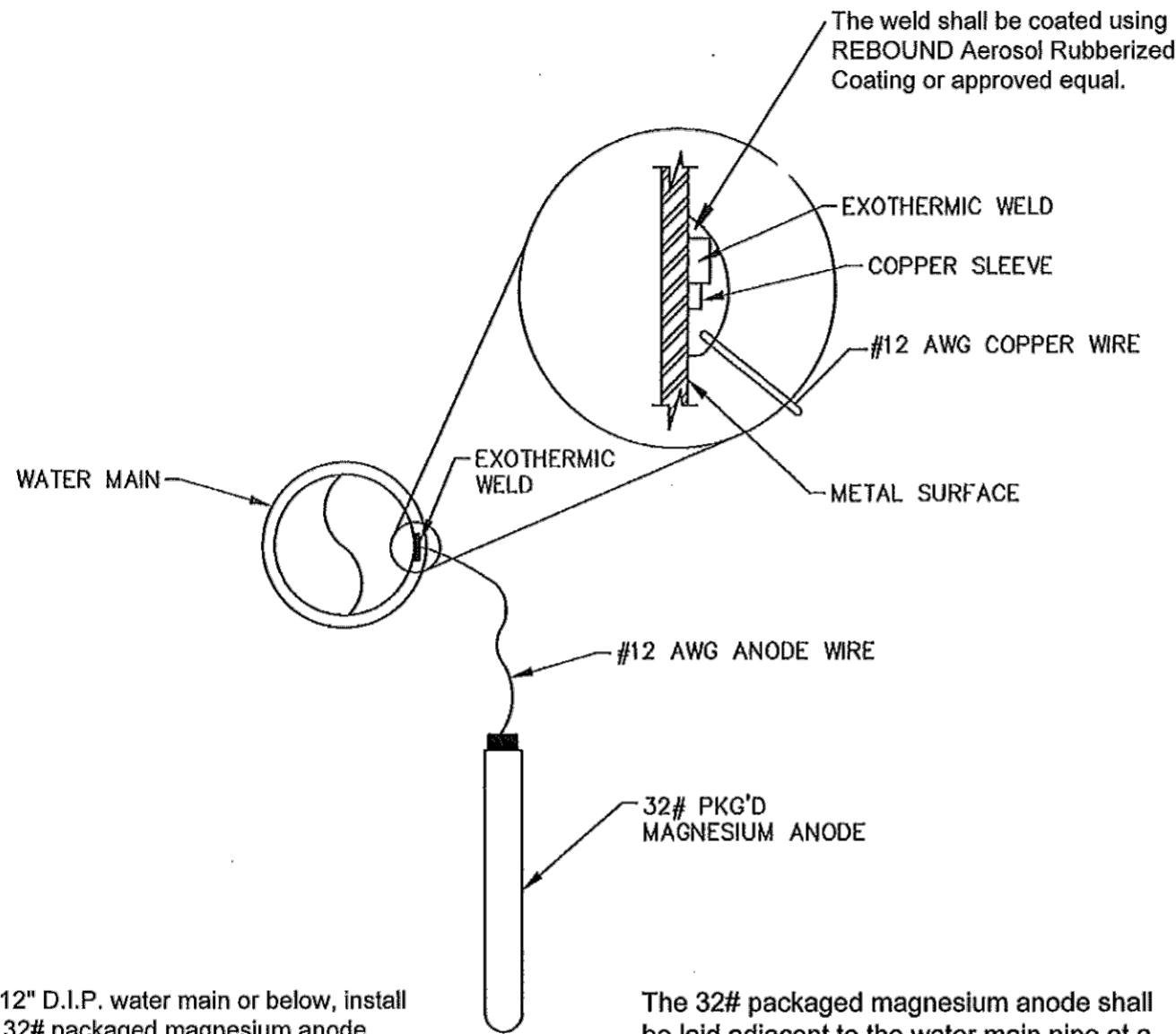


- NOTES:
1. STAGGER BALES TO COVER JOINTS IF MORE THAN 1 ROW IS USED.
  2. WHEN ROLLED EXCELSIOR IS USED, ANGLE STAKES IN THE DIRECTION OF FLOW, DRIVE THEM 2' ON CENTER, AND ENTWINE THE ENDS OF THE STAKES IN THE MESH ROLL COVERING.

DITCH CHECK STRAW BALE OR EXCELSIOR BARRIER  
NO SCALE



For 12" D.I.P. water main or below, install one 32# packaged magnesium anode.  
For 16" D.I.P. water main or above, install two 32# packaged magnesium anodes.

The 32# packaged magnesium anode shall be laid adjacent to the water main pipe at a point that allows for the greatest separation between anode and water main.

GALVANIC ANODE INSTALLATION  
N.T.S.

OAK CREEK WATER & SEWER UTILITY  
DATE: 2/11/2014  
SCALE: N.T.S.

GENERAL NOTES:

1. CONTRACTOR SHALL REMOVE SIGNS, MAILBOXES, ETC. DURING CONSTRUCTION. IMMEDIATELY AFTER PIPE INSTALLATION AND BACKFILL OCCURS, ALL SIGNS, MAILBOXES, ETC. SHALL BE RETURNED TO THEIR PREVIOUS LOCATION. ALL STOP SIGNS MUST BE DISPLAYED AT ALL TIMES.
2. 4-INCHES OF INSULATION IS REQUIRED WHEREVER COVER OVER THE TOP OF WATER MAIN AND/OR WATER LATERAL IS LESS THAN 6 FT. OR WHERE SHOWN ON PLANS. (INCIDENTAL TO PROPOSED WATER MAIN)
3. RESTRAINT OF PROPOSED WATER MAIN IS INCIDENTAL TO WATER MAIN CONSTRUCTION.
4. SUPPORTING OF POWER/LIGHT POLES ALONG THE ENTIRE PROJECT LIMITS FOR PROPOSED WATER MAIN IS INCIDENTAL TO PROPOSED WATER MAIN CONSTRUCTION.
5. LOCATION OF PROPOSED WATER LATERALS ON PLANS ARE APPROXIMATE. FINAL LOCATION SHALL BE DETERMINED IN FIELD DURING CONSTRUCTION.
6. CONTRACTOR SHALL REINSTATE ALL SUMP PUMP DISCHARGES DAMAGED DURING CONSTRUCTION OR EXTEND EXISTING DISCHARGES AS REQUIRED WITHIN THE PROJECT LIMITS. CONTRACTOR SHALL FURNISH NEW PIPE MATERIAL TO MATCH EXISTING PIPE, AND JOIN WITH A WATERTIGHT SEAL. (INCIDENTAL TO PROPOSED WATER MAIN)
7. THE BASE SURVEY AND PROPOSED LINEWORK WAS PREPARED BY BAXTER & WOODMAN, INC. IN APRIL, 2016. ALL UNDERGROUND UTILITIES AND STRUCTURES HAVE BEEN SHOWN TO A REASONABLE DEGREE OF ACCURACY AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE THERETO.
8. CONTRACTOR SHALL PROVIDE CLASS D CONCRETE BUTTRESS RESTRAINT AT ALL HORIZONTAL BENDS W/STANDARD DIMENSIONS PER FILE NO. 44 OF THE STANDARD SPECIFICATIONS. RESTRAIN VERTICAL BENDS AND LENGTH OF HYDRANT LEADS WITH MEGA LUGS OR APPROVED EQUAL. RESTRAINT OF PROPOSED WATER MAIN IS INCIDENTAL TO WATER MAIN CONSTRUCTION.
9. ALL STATIONS AND DIMENSIONS ARE TO CENTER OF STRUCTURE/FITTING OR OPERATING NUT OF HYDRANT.
10. COORDINATES IN THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (NAD 27). GROUND ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE CITY OF OAK CREEK VERTICAL DATUM (NGVD29-580.60').
11. CONTRACTOR SHALL INSTALL GALVANIC ANODE CORROSION PROTECTION AT EACH CONNECTION TO EXISTING DUCTILE IRON WATER MAIN.
12. CONTRACTOR SHALL INSTALL BRASS GROUNDING RODS AT ALL CONNECTIONS TO EXISTING WATER MAIN AND CONNECT TO TRACER WIRE WITH 5/8" GROUND ROD CLAMP MANUFACTURED BY STORM COPPER COMPONENTS OR EQUAL TO BE USED FOR FUTURE UTILITY LOCATING.
13. PVC FITTINGS SHALL BE USED ON ALL PVC PIPE. PVC FITTINGS 4" TO 12" IN DIAMETER SHALL BE INJECTION MOLDED AND COMPLY WITH THE REQUIREMENTS OF AWWA C907 AND BE CERTIFIED CSA B137.2. MOLDED FITTINGS WILL BE MADE OF PVC COMPOUND WITH A MINIMUM HYDROSTATIC DESIGN BASIS OF 4000 PSI. MOLDED FITTINGS MUST BE FACTORY MUTUAL APPROVED AND LISTED BY THE UNDERWRITER'S LABORATORIES INTERNATIONAL (ULI) IF A PARTICULAR TYPE OR PVC FITTING IS NOT MANUFACTURED OR UNAVAILABLE. THE CONTRACTOR MAY USE DUCTILE IRON FITTINGS ON A CASE BY CASE BASIS WITH THE APPROVAL OF THE UTILITY ENGINEER.
14. CONTRACTOR SHALL NOTIFY OAK CREEK WATER & SEWER UTILITY 48 HOURS BEFORE TAKING ANY WATER MAIN OUT OF SERVICE.
15. STAINLESS STEEL HARDWARE SHALL BE USED FOR ALL HYDRANTS, FITTINGS AND VALVES.
16. ALL HYDRANTS WILL BE SET SO THAT THE MAIN NOZZLE FACES THE ADJACENT STREET (INCIDENTAL).
17. THE CONTRACTOR SHALL PROVIDE APPROPRIATE EQUIPMENT TO FILL AND FLUSH NEW WATER MAINS.

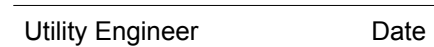
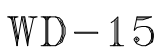
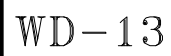
BENCHMARKS:



- B.M.#1 IN EAST FACE OF POWER POLE WITH LIGHT LOCATED ON WEST SIDE OF 15TH AVE. & WOODVIEW AVE.  
ELEV. = 86.64
- B.M.#2 EXISTING R.R. SPIKE IN EAST FACE OF POWER POLE WITH LIGHT LOCATED ON WEST SIDE OF 15TH AVE. ACROSS FROM DRIVEWAY OF HSE# 9280.  
ELEV. = 87.10
- B.M.#3 EXISTING R.R. SPIKE IN EAST FACE OF POWER POLE WITH LIGHT LOCATED ON WEST SIDE OF 15TH AVE. IN BETWEEN DRIVEWAYS FOR HSE# 9221 & 9211.  
ELEV. = 90.75
- B.M.#4 IN EAST FACE OF POWER POLE WITH LIGHT LOCATED ON WEST SIDE OF 15TH AVE. ACROSS FROM DRIVEWAY OF HSE# 9200.  
ELEV. = 100.49

SA. TB	CITY OF OAK CREEK, WISCONSIN			APPROVED BY	
ST. TB				UTILITY ENGINEER DATE	
W. TB				APPROVED BY	
G. TB				CITY ENGINEER DATE	
E. TB				SCALE	
T. TB				SHEET	
I. TB				PLAN	
TS. TB				HOR. N/A	
PP. TB				PROFILE	
				HOR. N/A	
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	OF				
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	FILE NO:16104-2C-2307				
	REVISION BY	DATE			

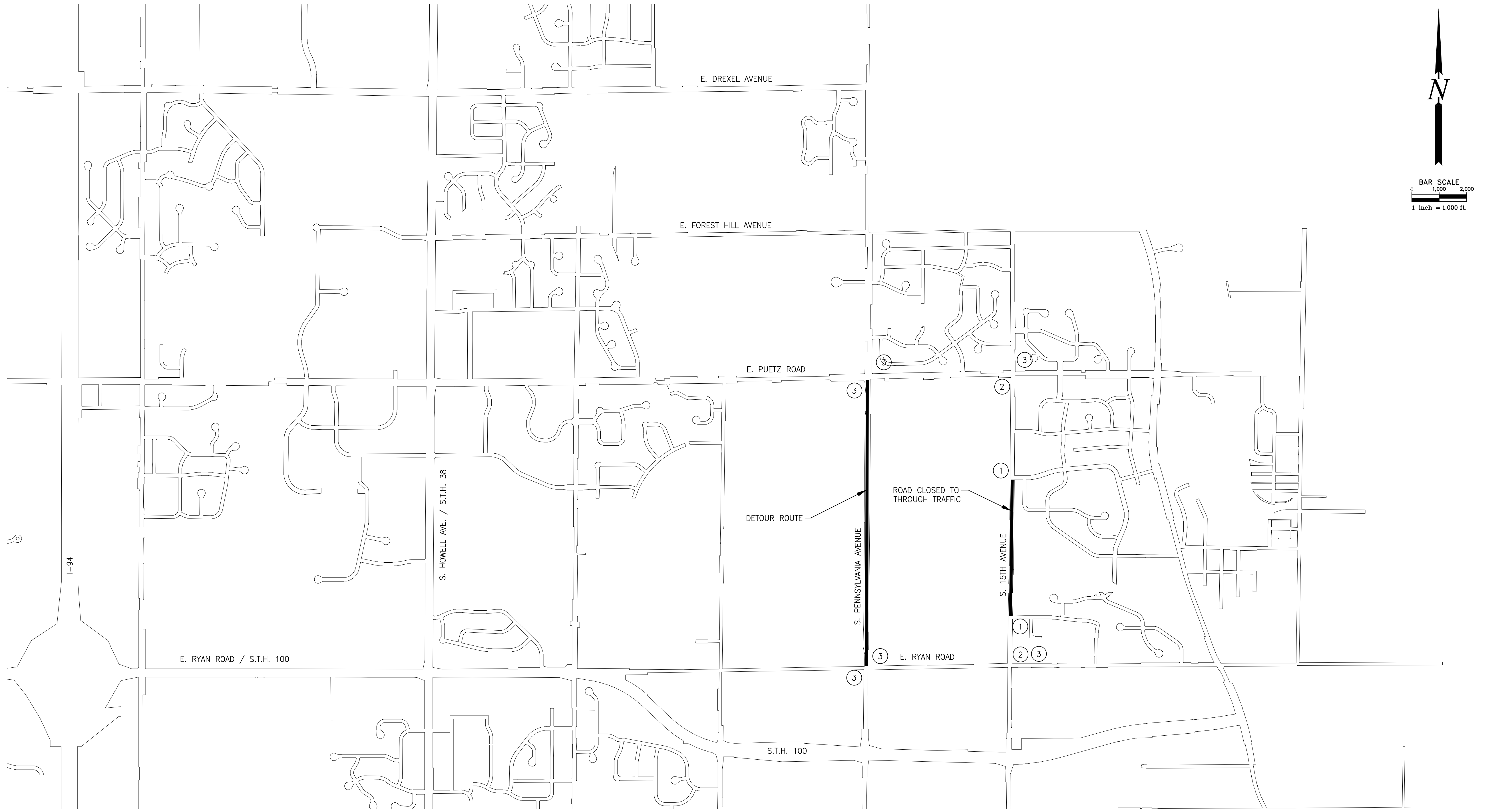
This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.

Utility Engineer Date



SA.TB				CITY OF OAK CREEK, WISCONSIN			APPROVED BY				
ST.TB							 5-25-2016				
W.TB				DESIGNED BY			DATE	DRAWN BY	DATE	CHECKED BY	DATE
G.TB				G.V.			5/17/2016	T.B.	5/17/2016	G.V.	5/17/2016
E.TB				DETAILS			APPROVED BY				
T.TB							 5-25-16				
I.TB							CITY ENGINEER		DATE		
TS.TB							SCALE		SHEET		
PP.TB							PLAN		3		
				HOR.		N/A					
	PROFILE		OF								
	HOR.		N/A								
	VER.		N/A	7							
	REVISION BY	DATE						FILE NO:16104-3C-2308			





TRAFFIC CONTROL PLAN

TRAFFIC CONTROL NOTES

1. ALL TRAFFIC CONTROL SIGNAGE SHALL HAVE DIAMOND GRADE SHEETING PER WISDOT STANDARDS.
2. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO ENGINEER FOR REVIEW AND APPROVAL. A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION.
3. USE FLAGGERS AS NECESSARY TO DIRECT TRAFFIC AT WORK ZONES.

①

ROAD CLOSED TO THRU TRAFFIC  
R11-4

SIZE 2S

③

DETOUR  
M4-9R  
30"X24"

②

ROAD CLOSED AHEAD  
W20-3A

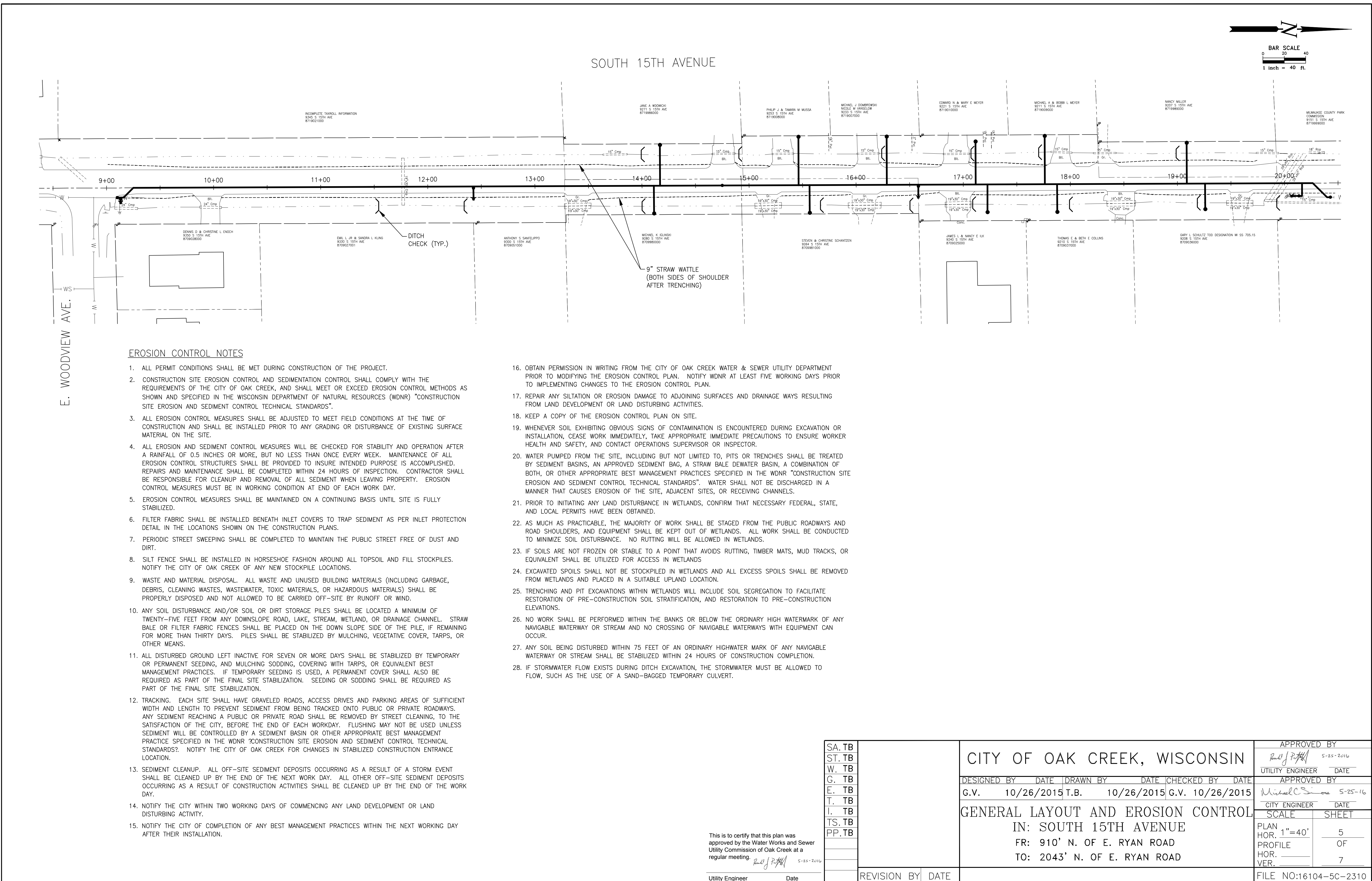
SIZE 2S

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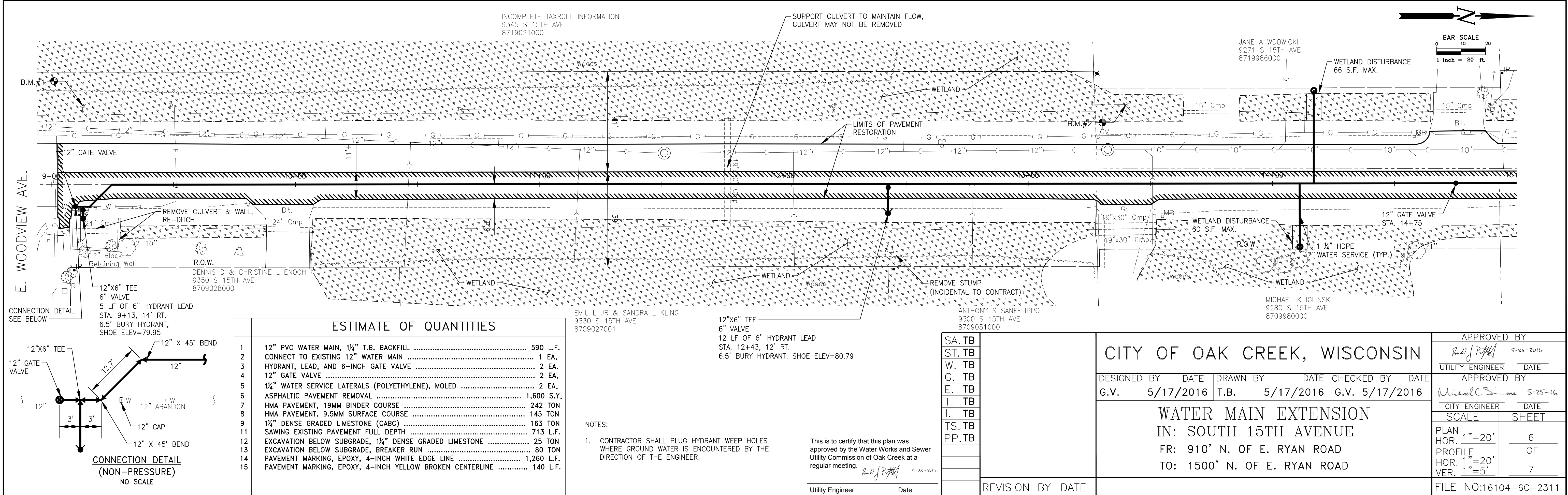
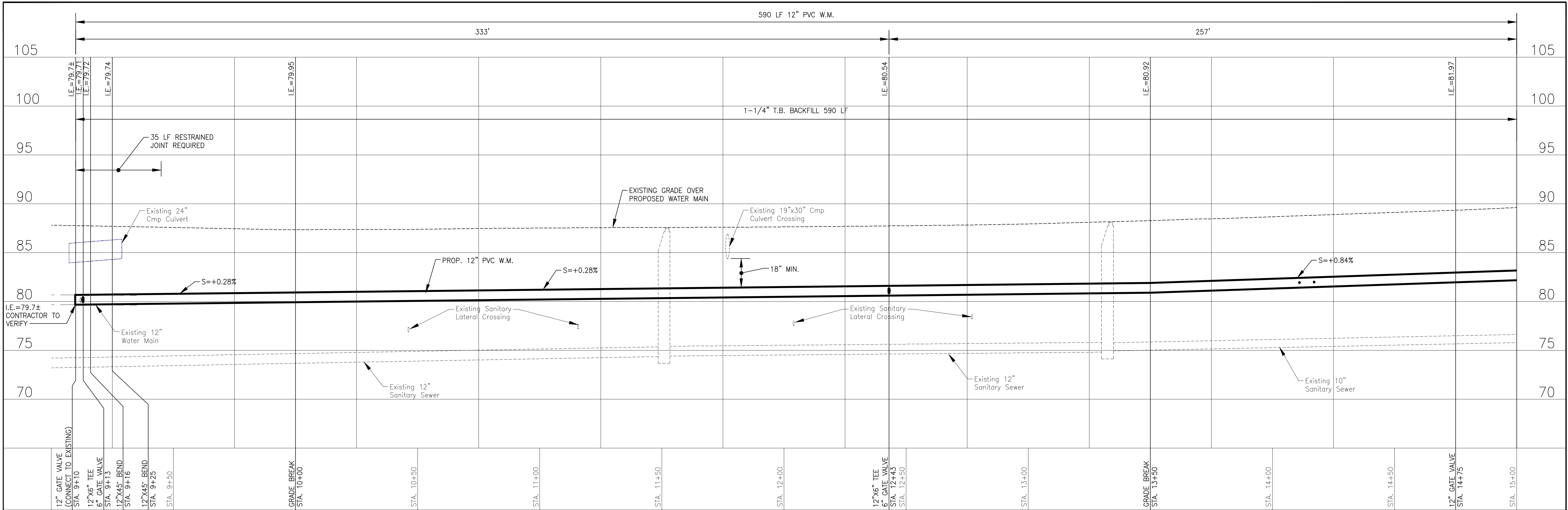
\_\_\_\_\_  
Utility Engineer

\_\_\_\_\_  
Date

SA.TB	CITY OF OAK CREEK, WISCONSIN			APPROVED BY	
ST.TB				_____ 5-25-2016	
W.TB				UTILITY ENGINEER DATE	
G.TB				APPROVED BY	
E.TB				_____ 5-25-16	
T.TB				CITY ENGINEER DATE	
I.TB				SCALE	SHEET
TS.TB	TRAFFIC CONTROL PLAN			PLAN HOR.	N/A 4
PP.TB				PROFILE HOR.	N/A OF
				VER.	N/A 7
	REVISION BY DATE			FILE NO:16104-4C-2309	







ESTIMATE OF QUANTITIES

1	12" PVC WATER MAIN, 1 1/4" T.B. BACKFILL .....	590 L.F.
2	CONNECT TO EXISTING 12" WATER MAIN .....	1 EA.
3	HYDRANT, LEAD, AND 6-INCH GATE VALVE .....	2 EA.
4	12" GATE VALVE .....	2 EA.
5	1 1/2" WATER SERVICE LATERALS (POLYETHYLENE), MOLED .....	2 EA.
6	ASPHALTIC PAVEMENT REMOVAL .....	1,600 S.Y.
7	HMA PAVEMENT, 19MM BINDER COURSE .....	242 TON
8	HMA PAVEMENT, 9.5MM SURFACE COURSE .....	145 TON
9	1 1/2" DENSE GRADED LIMESTONE (CABC) .....	163 TON
11	SAWING EXISTING PAVEMENT FULL DEPTH .....	713 L.F.
12	EXCAVATION BELOW SUBGRADE, 1 1/4" DENSE GRADED LIMESTONE .....	25 TON
13	EXCAVATION BELOW SUBGRADE, BREAKER RUN .....	80 TON
14	PAVEMENT MARKING, EPOXY, 4-INCH WHITE EDGE LINE .....	1,260 L.F.
15	PAVEMENT MARKING, EPOXY, 4-INCH YELLOW BROKEN CENTERLINE .....	140 L.F.

NOTES:

- CONTRACTOR SHALL PLUG HYDRANT WEEP HOLES WHERE GROUND WATER IS ENCOUNTERED BY THE DIRECTION OF THE ENGINEER.

This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.

Utility Engineer Date

SA. TB  
ST. TB  
W. TB  
G. TB  
E. TB  
T. TB  
I. TB  
TS. TB  
PP. TB

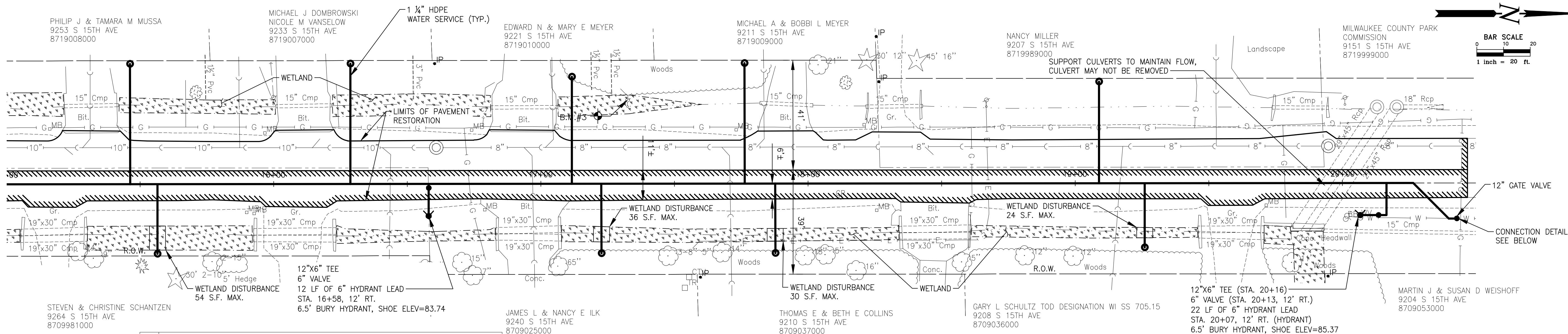
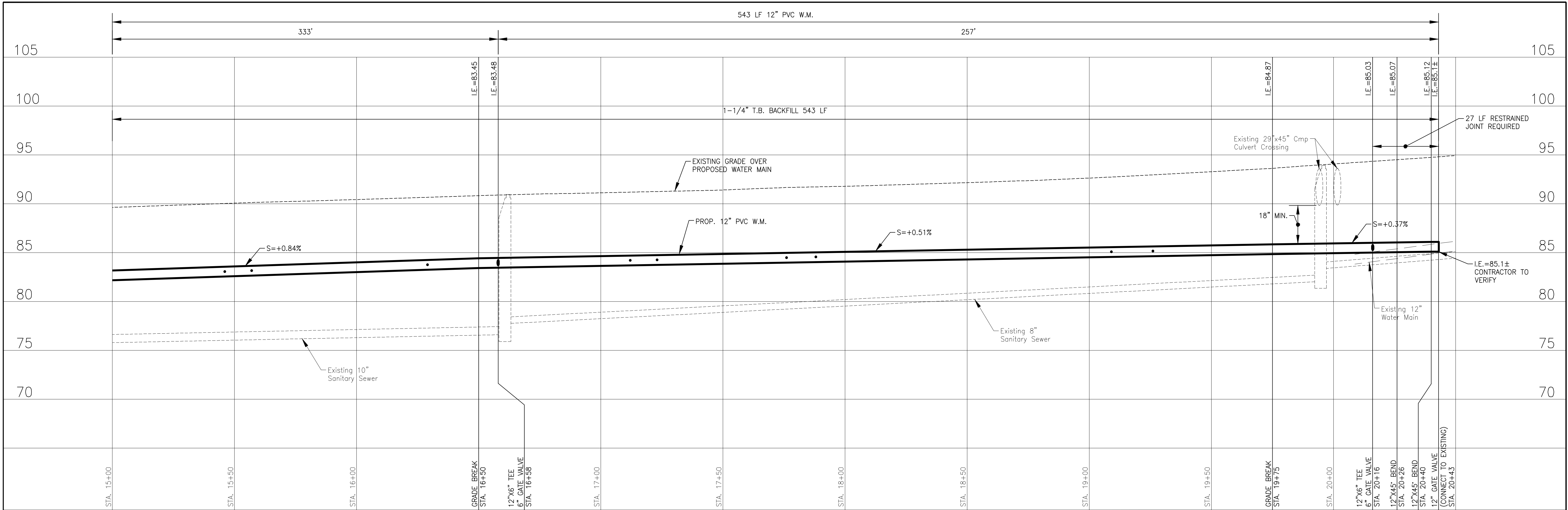
REVISION BY DATE

CITY OF OAK CREEK, WISCONSIN

DESIGNED BY DATE DRAWN BY DATE CHECKED BY DATE  
G.V. 5/17/2016 T.B. 5/17/2016 G.V. 5/17/2016

WATER MAIN EXTENSION  
IN: SOUTH 15TH AVENUE  
FR: 910' N. OF E. RYAN ROAD  
TO: 1500' N. OF E. RYAN ROAD

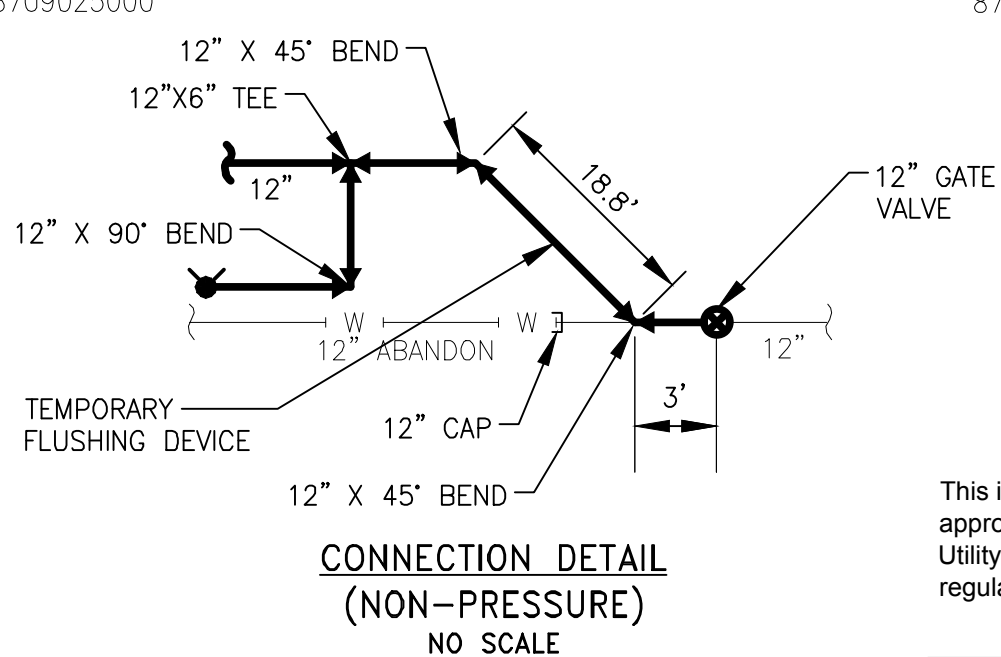
APPROVED BY  
UTILITY ENGINEER DATE  
APPROVED BY  
CITY ENGINEER DATE  
SCALE SHEET  
PLAN HOR. 1"=20' 6  
PROFILE HOR. 1"=20' OF  
VER. 1"=5' 7  
FILE NO:16104-6C-2311



NOTES:

- CONTRACTOR SHALL PLUG HYDRANT WEEP HOLES WHERE GROUND WATER IS ENCOUNTERED BY THE DIRECTION OF THE ENGINEER.
- EXCAVATE AND INSTALL CURB STOPS ON WEST SIDE OF STREET WITH NO DISTURBANCE TO WETLANDS.

ESTIMATE OF QUANTITIES	
1	12" PVC WATER MAIN, 1 1/4" T.B. BACKFILL ..... 543 L.F.
2	CONNECT TO EXISTING 12" WATER MAIN ..... 1 EA.
3	HYDRANT, LEAD, AND 6-INCH GATE VALVE ..... 2 EA.
4	12" GATE VALVE ..... 1 EA.
5	1 1/4" WATER SERVICE LATERALS (POLYETHYLENE), MOLED ..... 9 EA.
6	ASPHALTIC PAVEMENT REMOVAL ..... 1,500 S.Y.
7	HMA PAVEMENT, 19MM BINDER COURSE ..... 222 TON
8	HMA PAVEMENT, 9.5MM SURFACE COURSE ..... 133 TON
9	1 1/4" DENSE GRADED LIMESTONE (CABC) ..... 117 TON
11	SAWING EXISTING PAVEMENT FULL DEPTH ..... 687 L.F.
12	EXCAVATION BELOW SUBGRADE, 1 1/4" DENSE GRADED LIMESTONE ..... 25 TON
13	EXCAVATION BELOW SUBGRADE, BREAKER RUN ..... 75 TON
14	PAVEMENT MARKING, EPOXY, 4-INCH WHITE EDGE LINE ..... 1,155 L.F.
15	PAVEMENT MARKING, EPOXY, 4-INCH YELLOW BROKEN CENTERLINE ..... 150 L.F.



This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.

Utility Engineer Date

SA.TB  
ST.TB  
W.TB  
G.TB  
E.TB  
T.TB  
I.TB  
TS.TB  
PP.TB

REVISION	BY	DATE

CITY OF OAK CREEK, WISCONSIN

DESIGNED BY	DATE	DRAWN BY	DATE	CHECKED BY	DATE
G.V.	5/17/2016	T.B.	5/17/2016	G.V.	5/17/2016

WATER MAIN EXTENSION  
IN: SOUTH 15TH AVENUE  
FR: 1500' N. OF E. RYAN ROAD  
TO: 2043' N. OF E. RYAN ROAD

APPROVED BY	
<i>Paul J. P.</i>	5-25-2016
UTILITY ENGINEER	DATE
APPROVED BY	
<i>Michael S.</i>	5-25-16
CITY ENGINEER	DATE
SCALE	SHEET
PLAN HOR. 1"=20'	7
PROFILE HOR. 1"=20' VER. 1"=5'	OF 7
FILE NO:16104-7C-2312	