

ROJECT AREA 20180125 BRAKIN RD CONTRACTOR (P&D) MILLED SHOULDER & EDGE OF PAVEMNT; & PLACED TEMPORARY TEMPORARY ASPHALT ALONG PATCHES (TYP.) THE WEST SIDE OF ROAD

| TOWN | RANGE | SECTION (s) | T3N | R22E | 32, 29 & 17 |

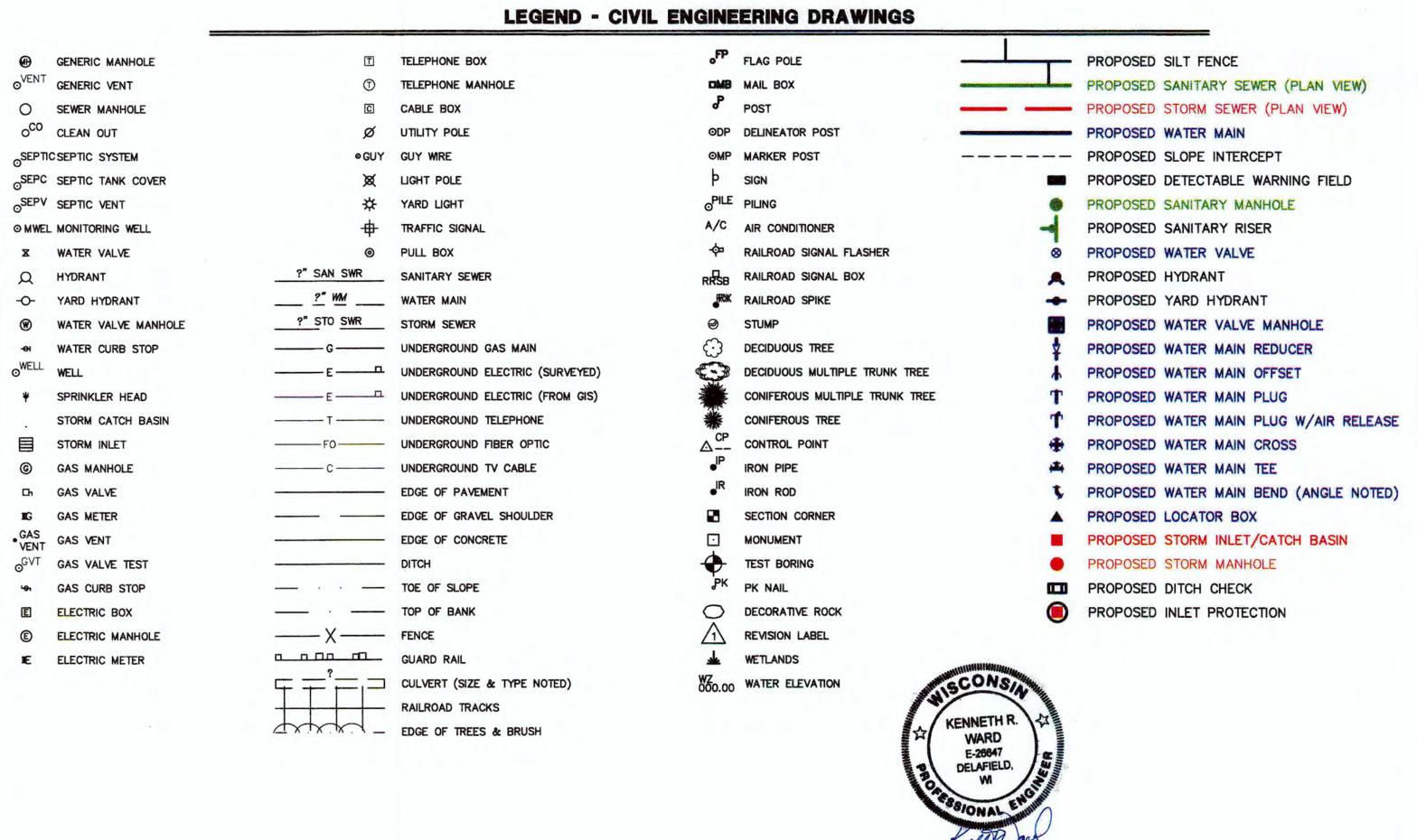
SCALE IN FEET

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CTH "KR"

1ST ST

C.T.H. "H" TRANSMISSION WATER MAIN PROJECT W-18-3 RACINE WATER & WASTEWATER UTILITY RACINE COUNTY, WISCONSIN



APPROVED FOR CONSTRUCTION

DATE: 116 18

BY: KTL



CHECKED BY: KRI

Chicago • Global Water Center • Fox Valley

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PROJECT NO. 8022-10019.200

C.T.H. "H" TRANSMISSION WATER MAIN

PROJECT W-18-3 RACINE WATER & WASTEWATER UTILITY RACINE COUNTY, WISCONSIN

SHEET NO.	LOCATION	DESCRIPTION					
	MISCELLANEOUS						
INDEX SHEET		INDEX SHEET					
<u>T</u>	RAFFIC CONTROL						
PV-01		PROPOSED PAVEMENT PLAN					
TC-02		PROPOSED PAVEMENT PLAN					
TC-03		PROPOSED PAVEMENT PLAN					
	WATER MAIN						
WM-01R-1	IN: 105TH STREET / CTH "H" PROPOSED WATER MAIN	FROM: 100' NORTH OF 1ST STREET / CTH "KR" TO: 1000' NORTH OF 1ST STREET / CTH "KR"					
WM-02R-1	IN: 105TH STREET / CTH "H" PROPOSED WATER MAIN	FROM: 1000' NORTH OF 1ST STREET / CTH "KR" TO: 400' NORTH OF PRAIRIE VIEW DRIVE					
WM-03R-2	IN: 105TH STREET / CTH "H" PROPOSED WATER MAIN	FROM: 400' NORTH OF PRAIRIE VIEW DRIVE TO: 1400' NORTH OF PRAIRIE VIEW DRIVE					
	IN: 105TH STREET / CTH "H" PROPOSED WATER MAIN	FROM: 1400' NORTH OF PRAIRIE VIEW DRIVE TO: 2400' NORTH OF PRAIRIE VIEW DRIVE					
	IN: 105TH STREET / CTH "H" PROPOSED WATER MAIN	FROM: 2400' NORTH OF PRAIRIE VIEW DRIVE TO: 3400' NORTH OF PRAIRIE VIEW DRIVE					
WM-06R-2	IN: 105TH STREET / CTH "H" PROPOSED WATER MAIN	FROM: 3400' NORTH OF PRAIRIE VIEW DRIVE TO: 4400' NORTH OF PRAIRIE VIEW DRIVE					
	IN: 105TH STREET / CTH "H" PROPOSED WATER MAIN	FROM: 4400' NORTH OF PRAIRIE VIEW DRIVE TO: 660' NORTH OF BRAUN ROAD					
	IN: 105TH STREET / CTH "H" PROPOSED WATER MAIN	FROM: 660' NORTH OF BRAUN ROAD TO: 1660' NORTH OF BRAUN ROAD					
	IN: 105TH STREET / CTH "H" PROPOSED WATER MAIN	FROM: 1660' NORTH OF BRAUN ROAD TO: 2660' NORTH OF BRAUN ROAD					
	IN: 105TH STREET / CTH "H" PROPOSED WATER MAIN	FROM: 2660' NORTH OF BRAUN ROAD TO: 3660' NORTH OF BRAUN ROAD					
WM-11R-2	IN: 105TH STREET / CTH "H" PROPOSED WATER MAIN	FROM: 500' SOUTH OF DURAND AVE / STH "11" TO: 1500' NORTH OF DURAND AVE / STH "11"					
WM-12R-1	IN: 105TH STREET / CTH "H" PROPOSED WATER MAIN	FROM: 1500' NORTH OF DURAND AVE / STH "11" TO: 2500' NORTH OF DURAND AVE / STH "11"					
WM-13R-1	IN: 105TH STREET / CTH "H" PROPOSED WATER MAIN	FROM: 400' SOUTH OF ENTERPRISE WAY TO: 1400' NORTH OF ENTERPRISE WAY					
WM-14R-1	IN: 105TH STREET / CTH "H" PROPOSED WATER MAIN	FROM: 1400' NORTH OF ENTERPRISE WAY TO: WEST ROAD					
WM-15R-1	IN: WEST ROAD PROPOSED WATER MAIN	FROM: 500' SOUTH OF STH "20" TO: 300' NORTH OF STH "20"					
WM-16	PROPOSED CROSSINGS						
WM-17	PROPOSED CROSSINGS						

AGES: RM SQUARE_Full Color—Print;
EFS: rm2234c; RMLOGO—BRANCH OFFICES

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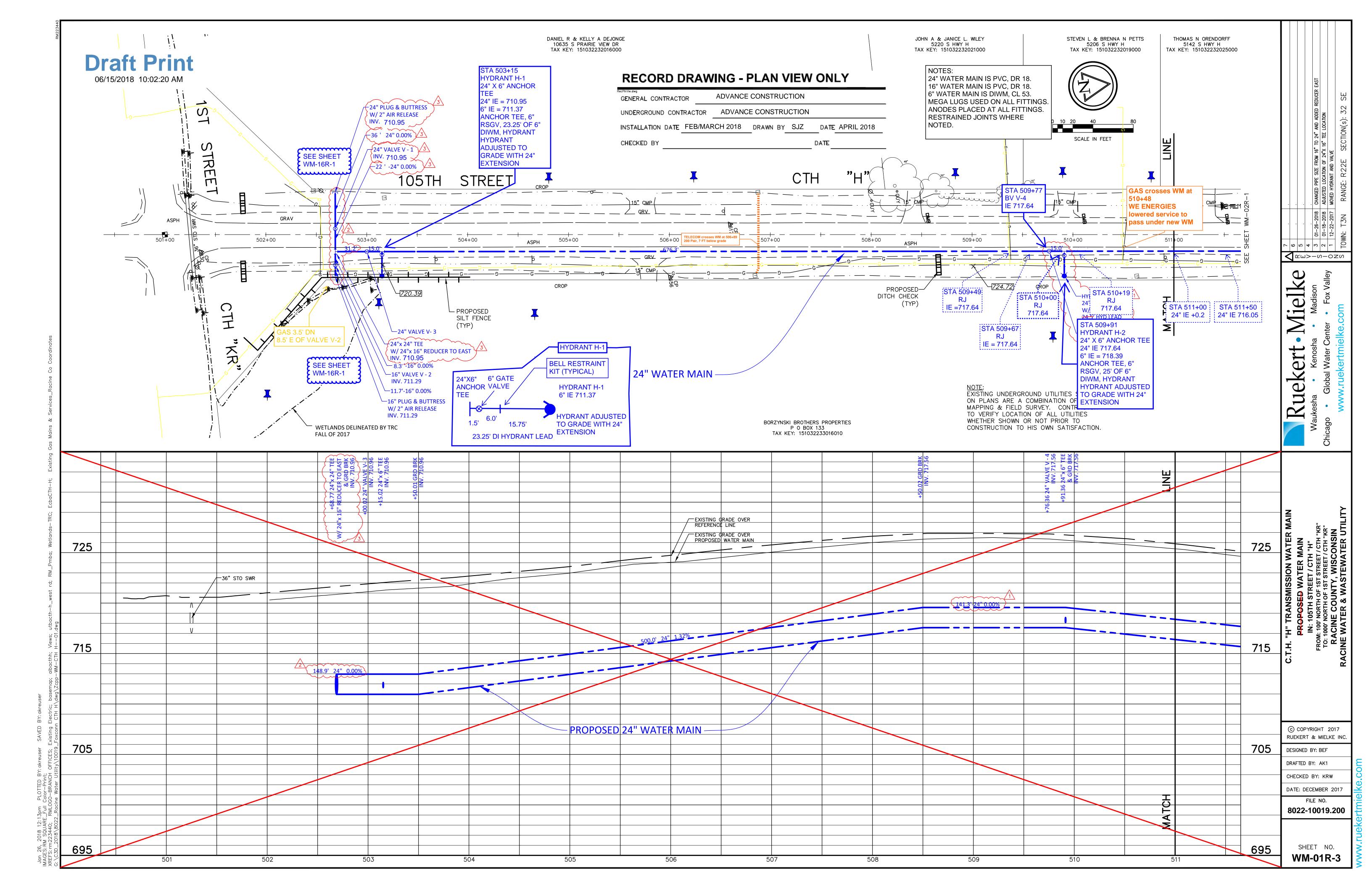
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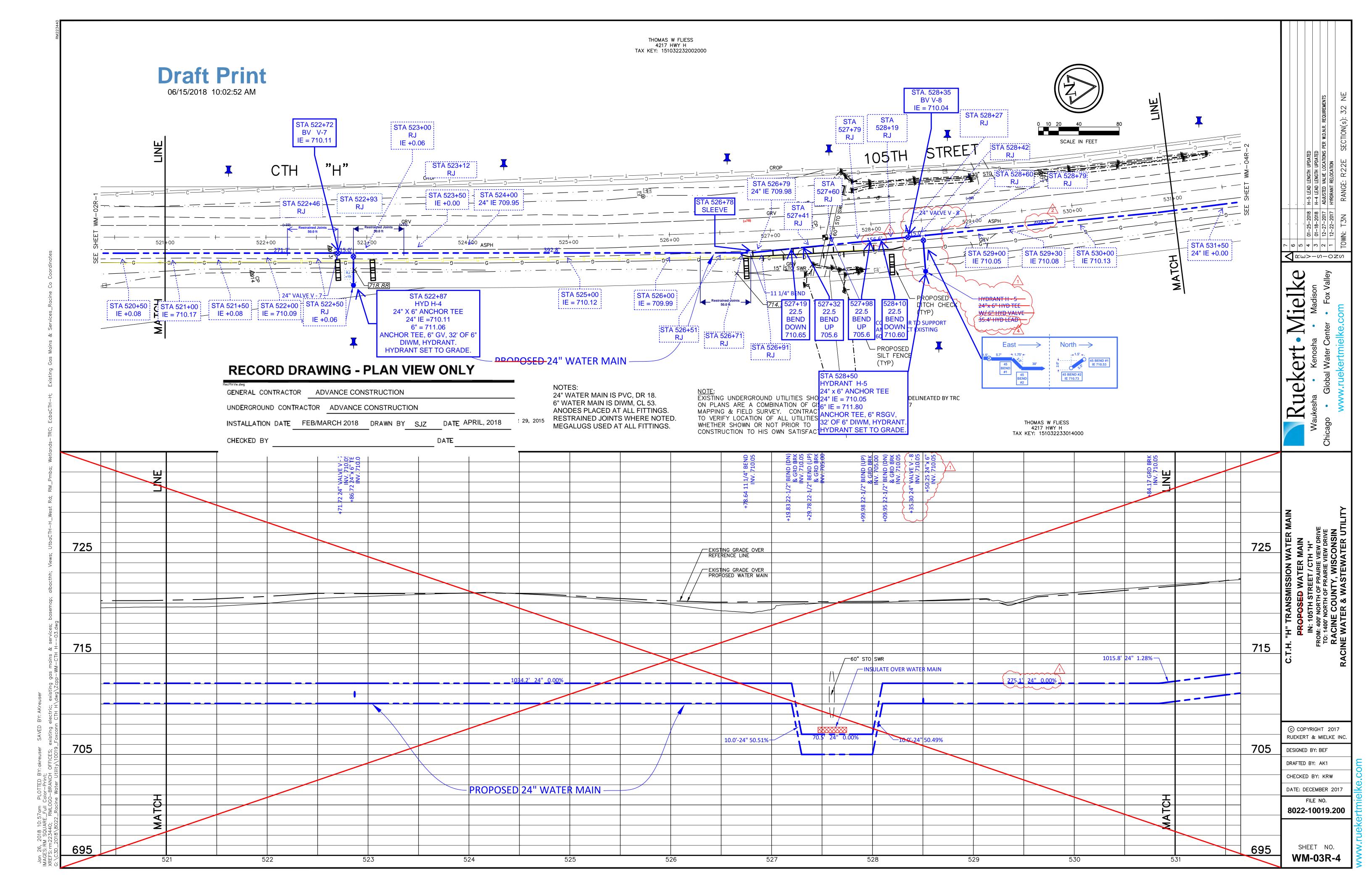
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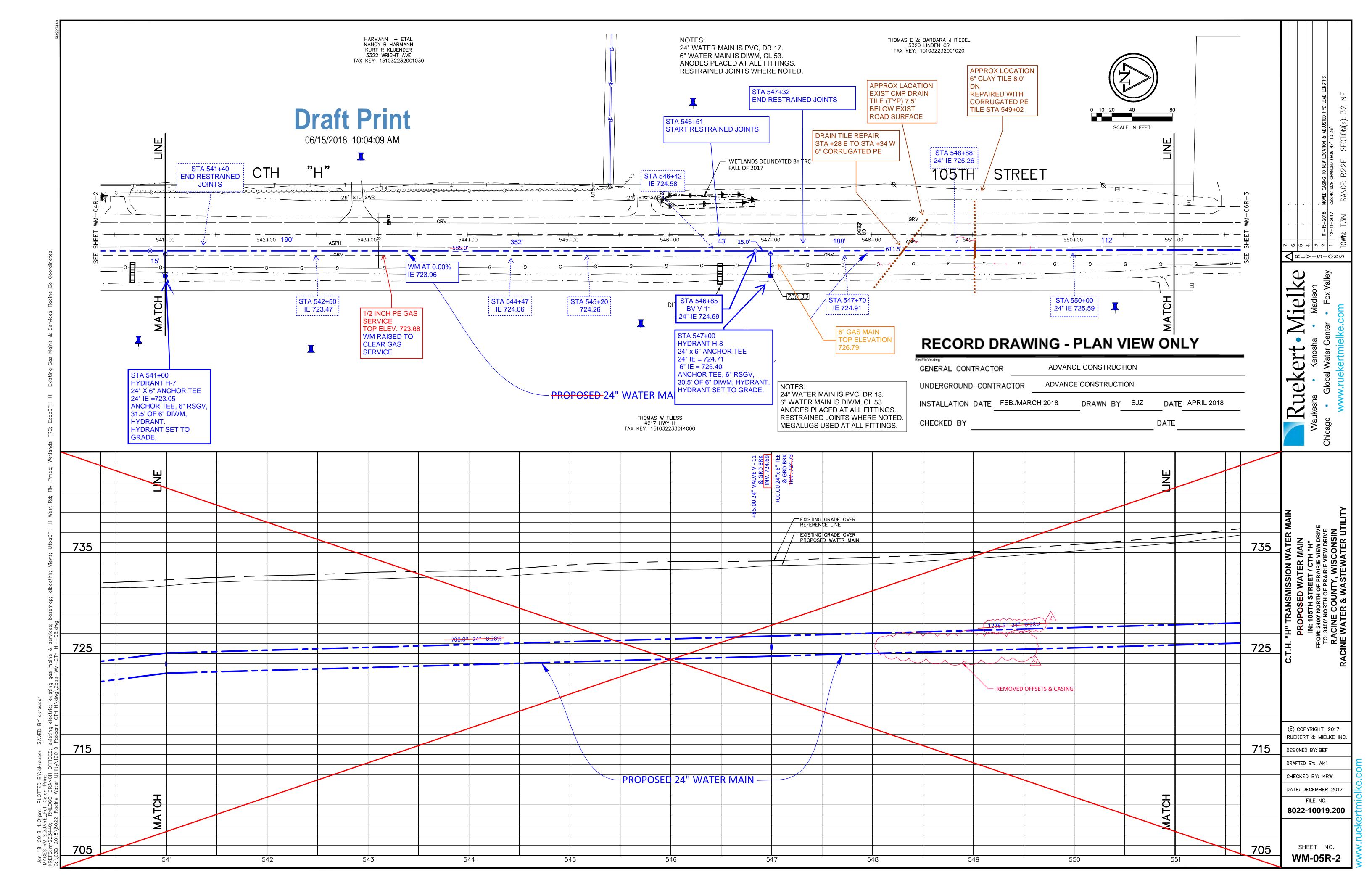
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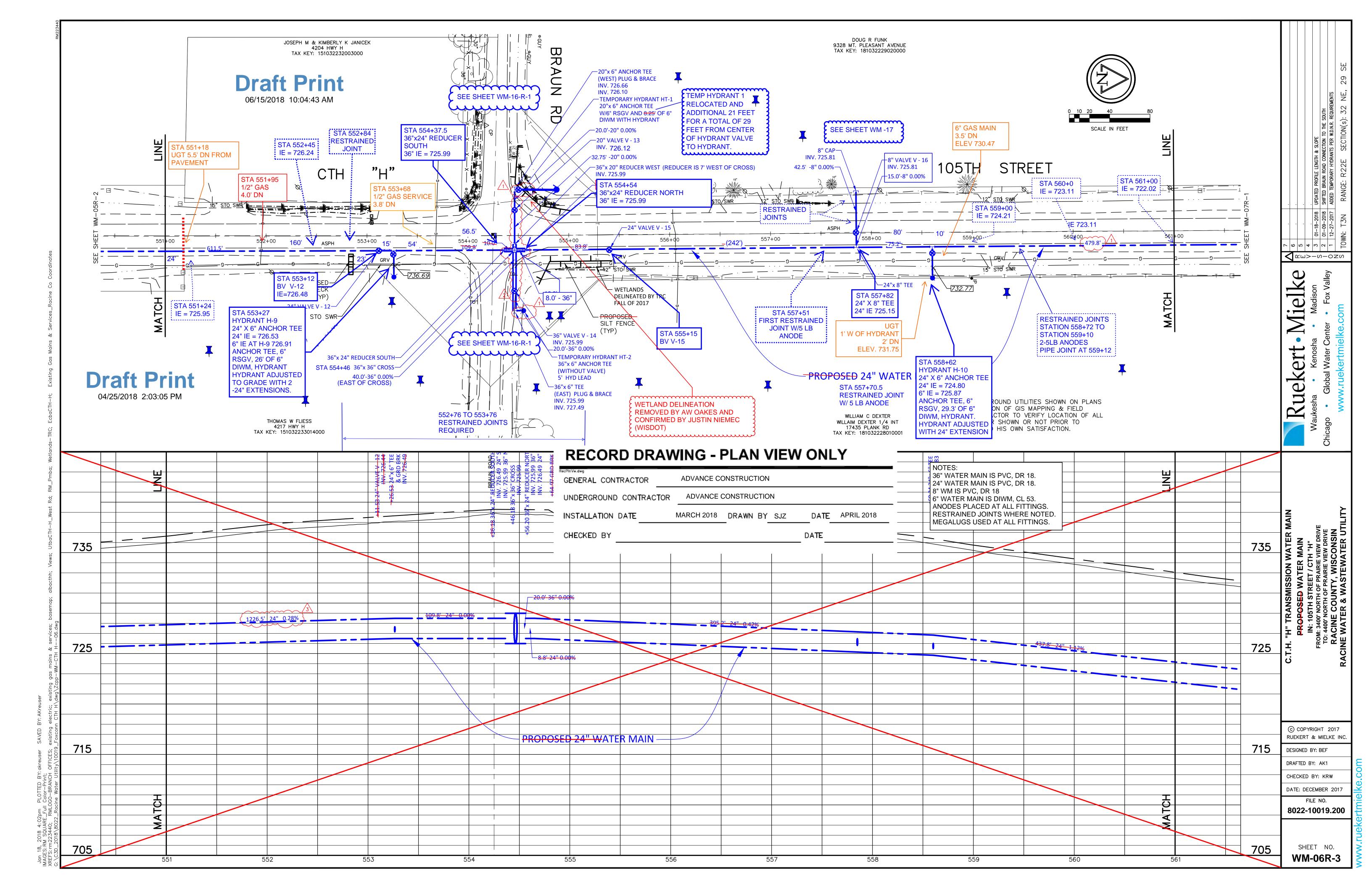
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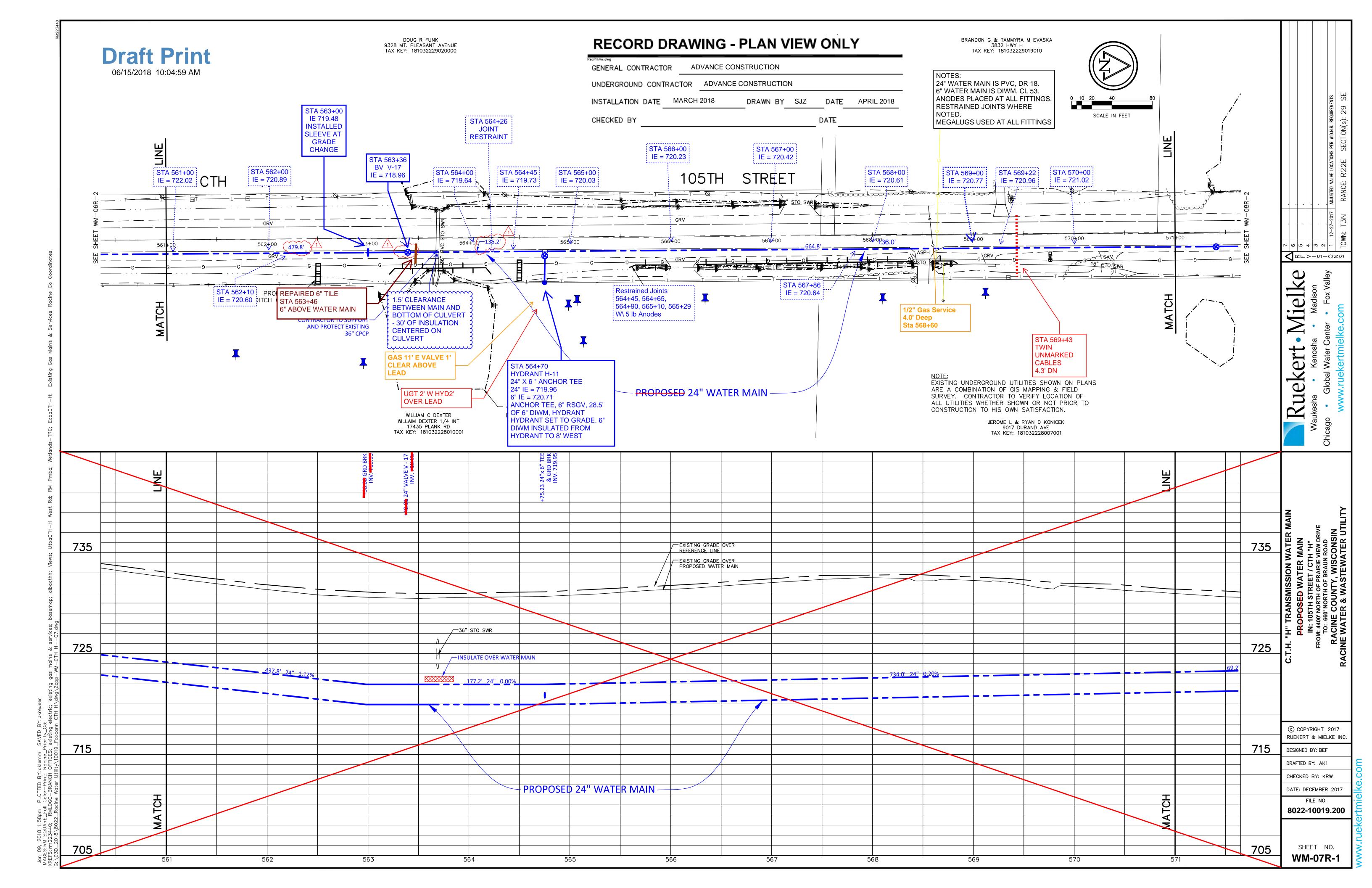
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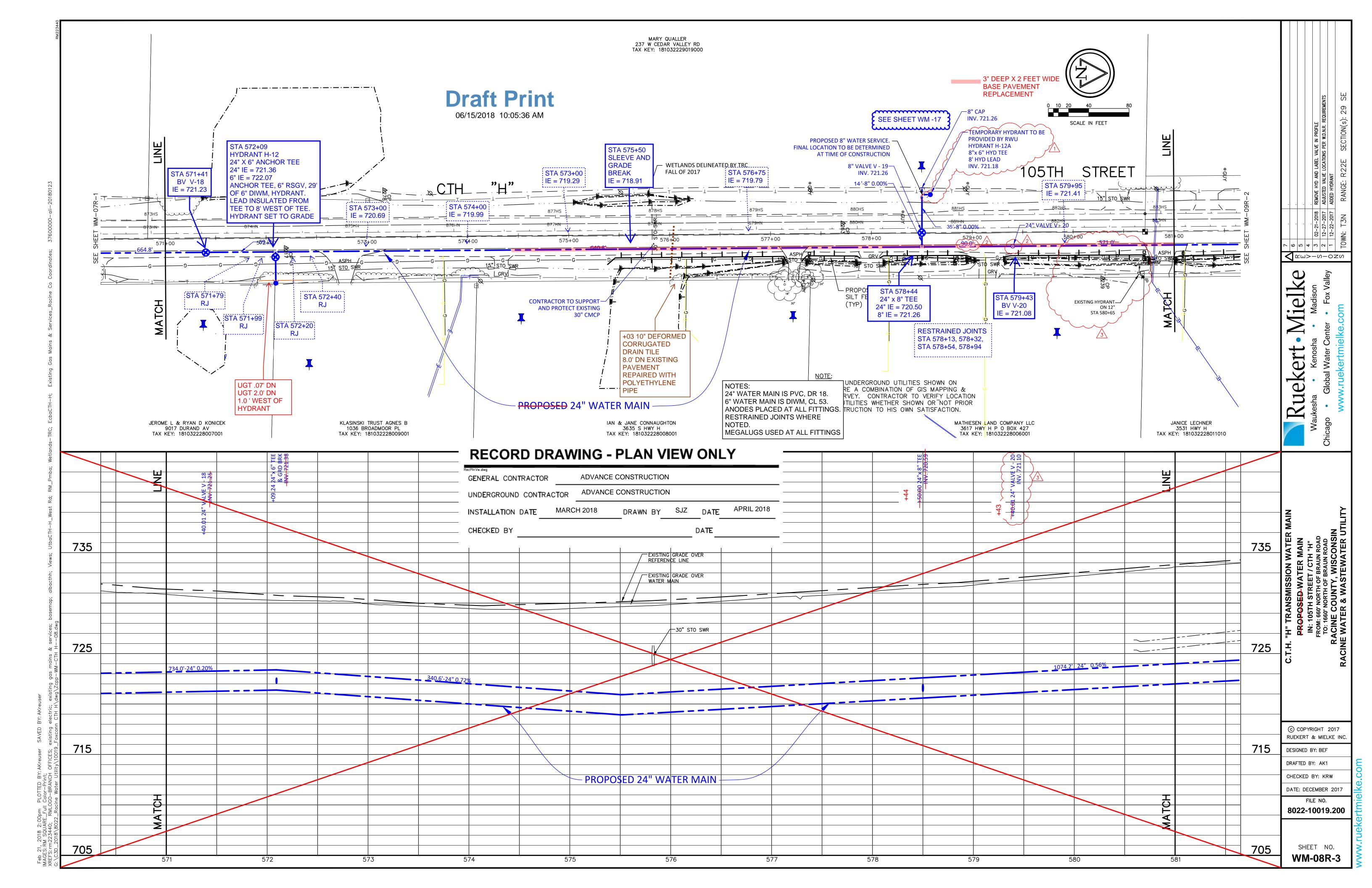


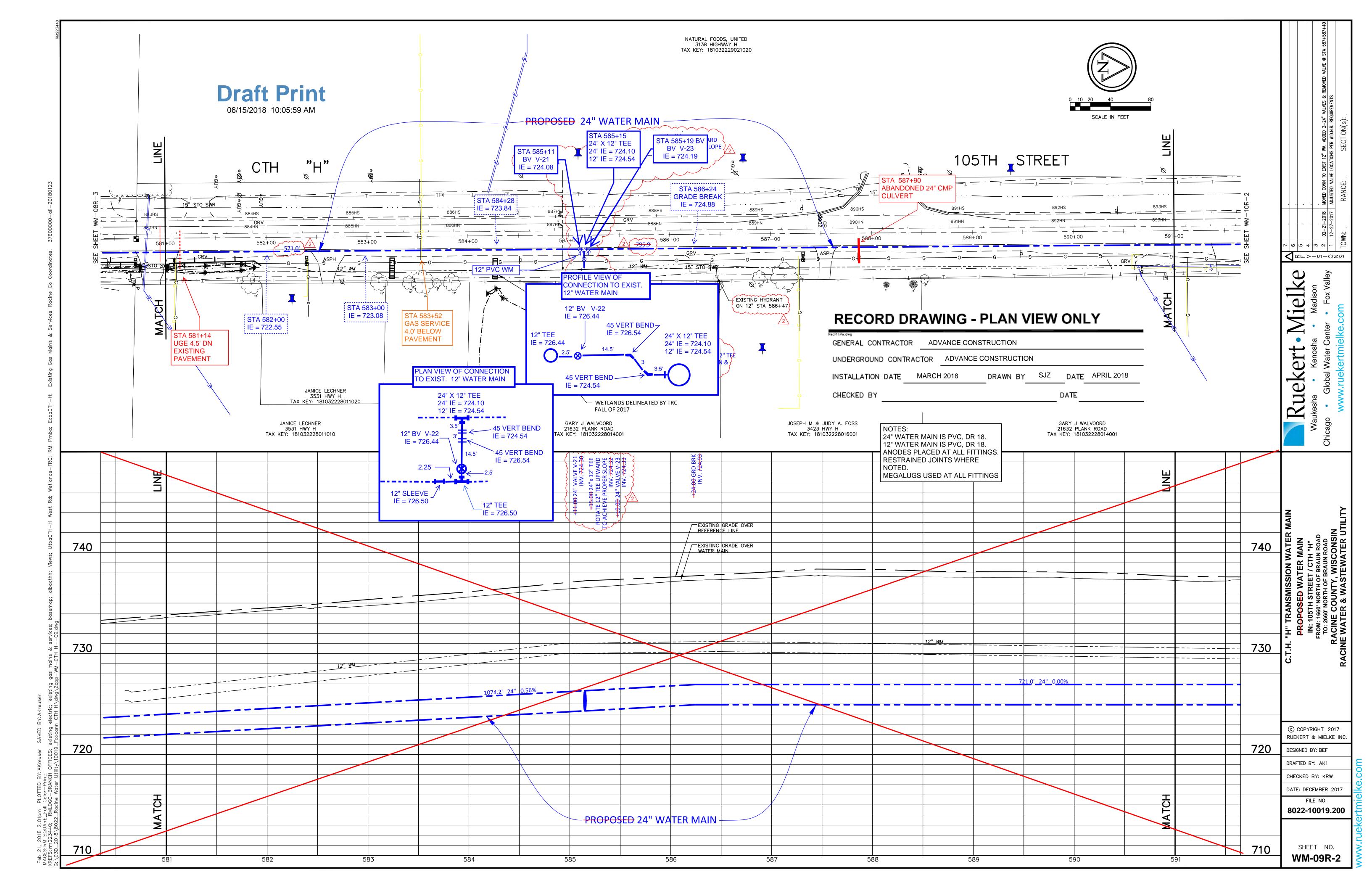


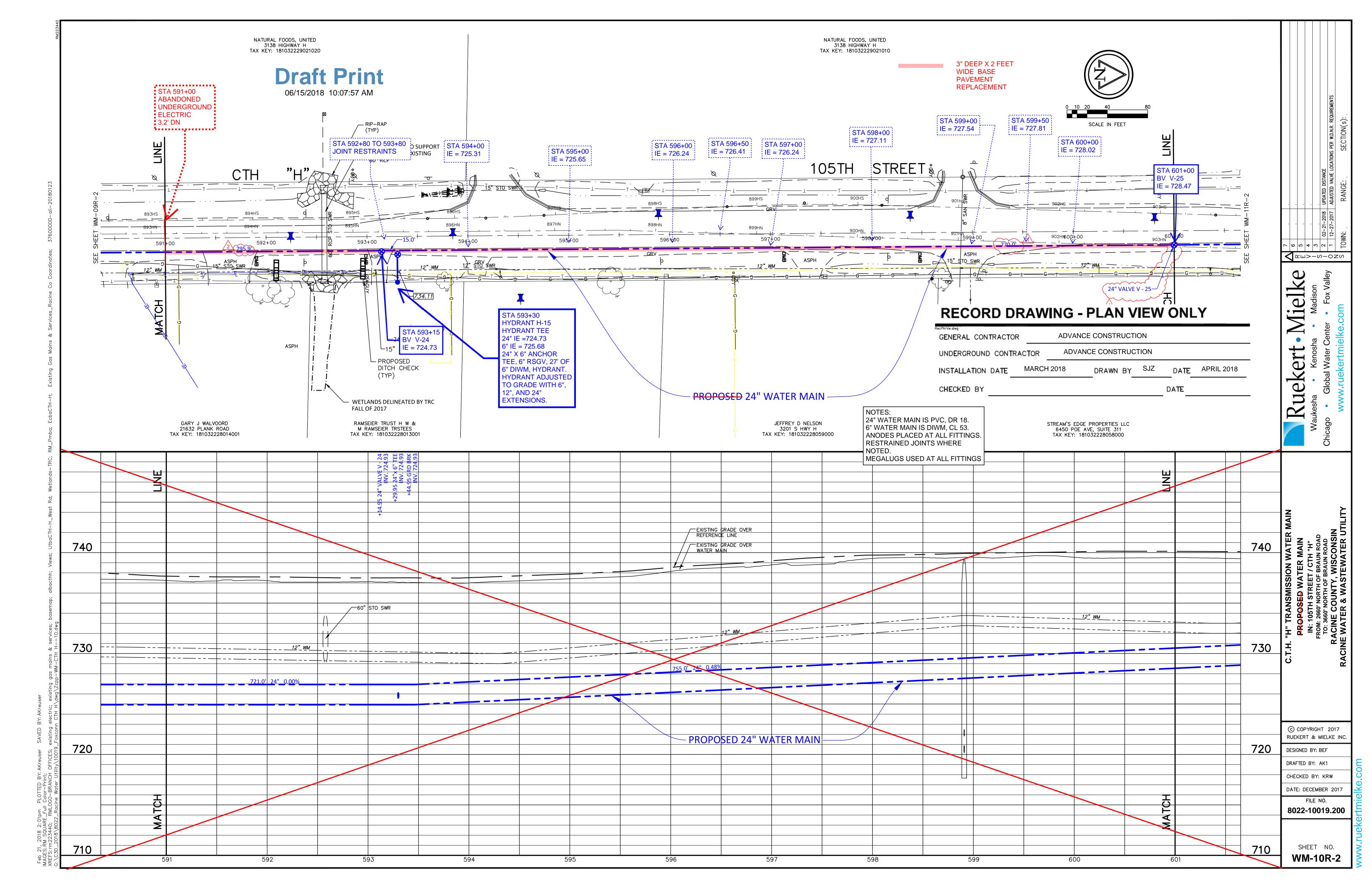


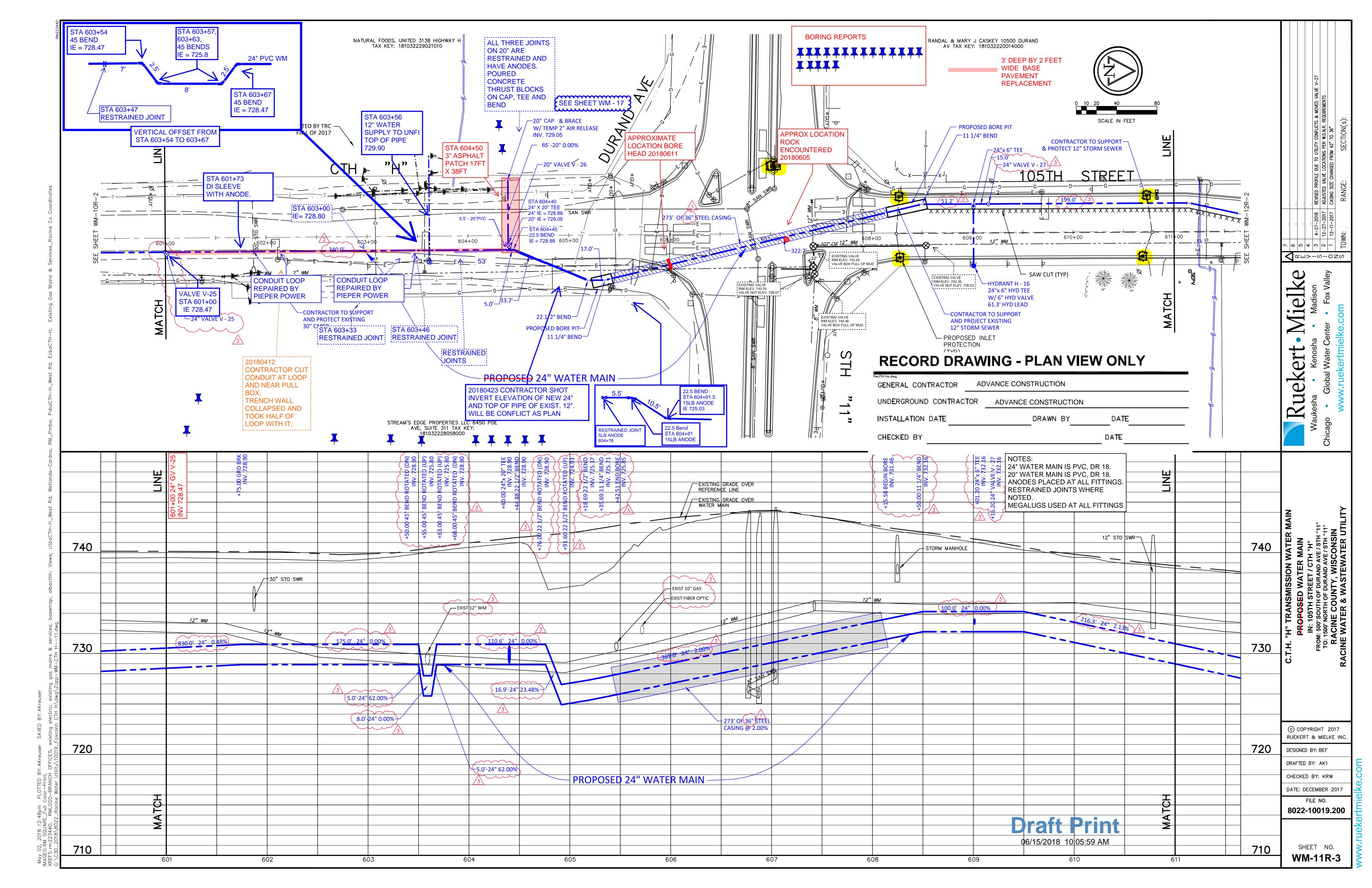


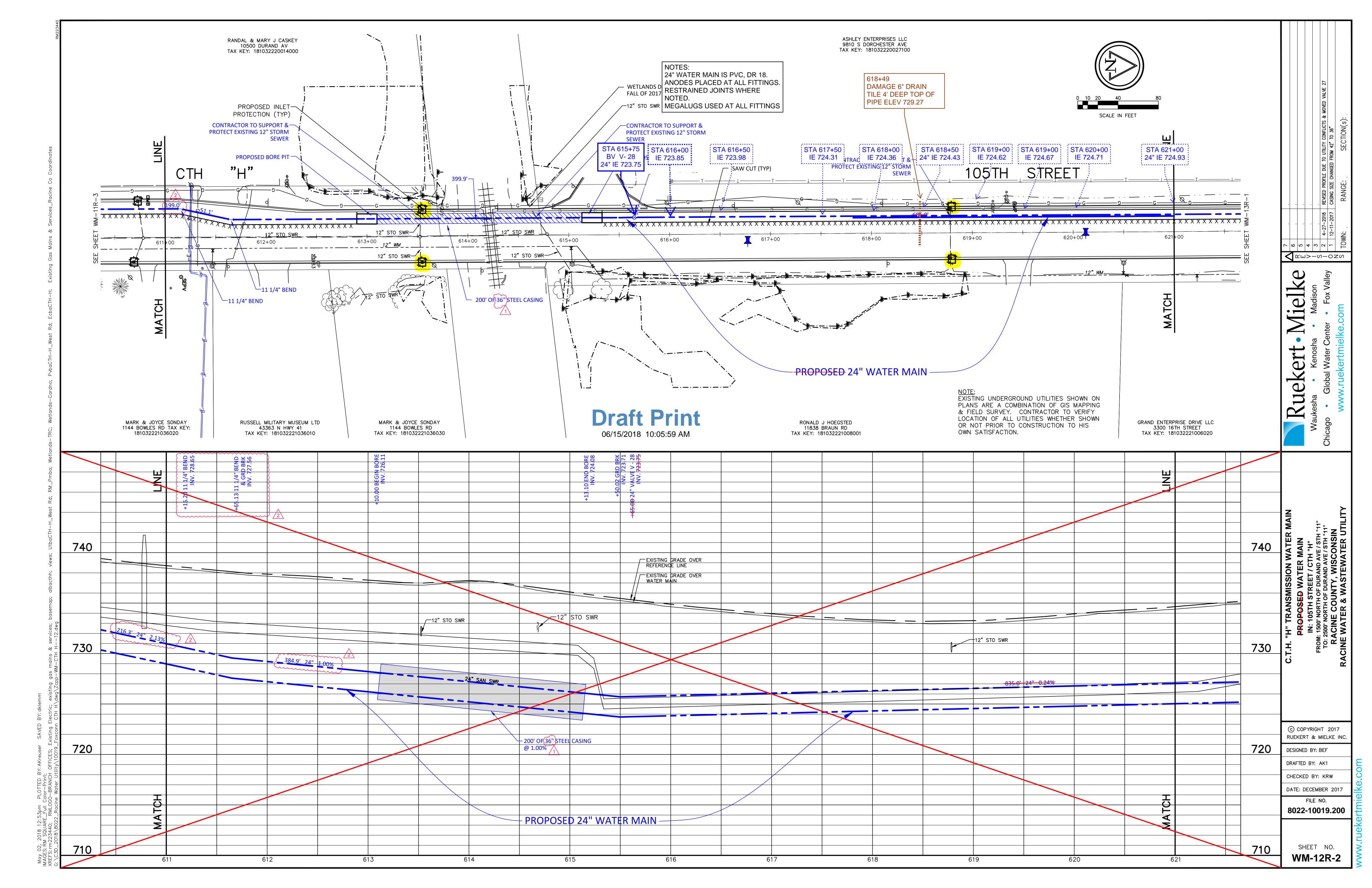


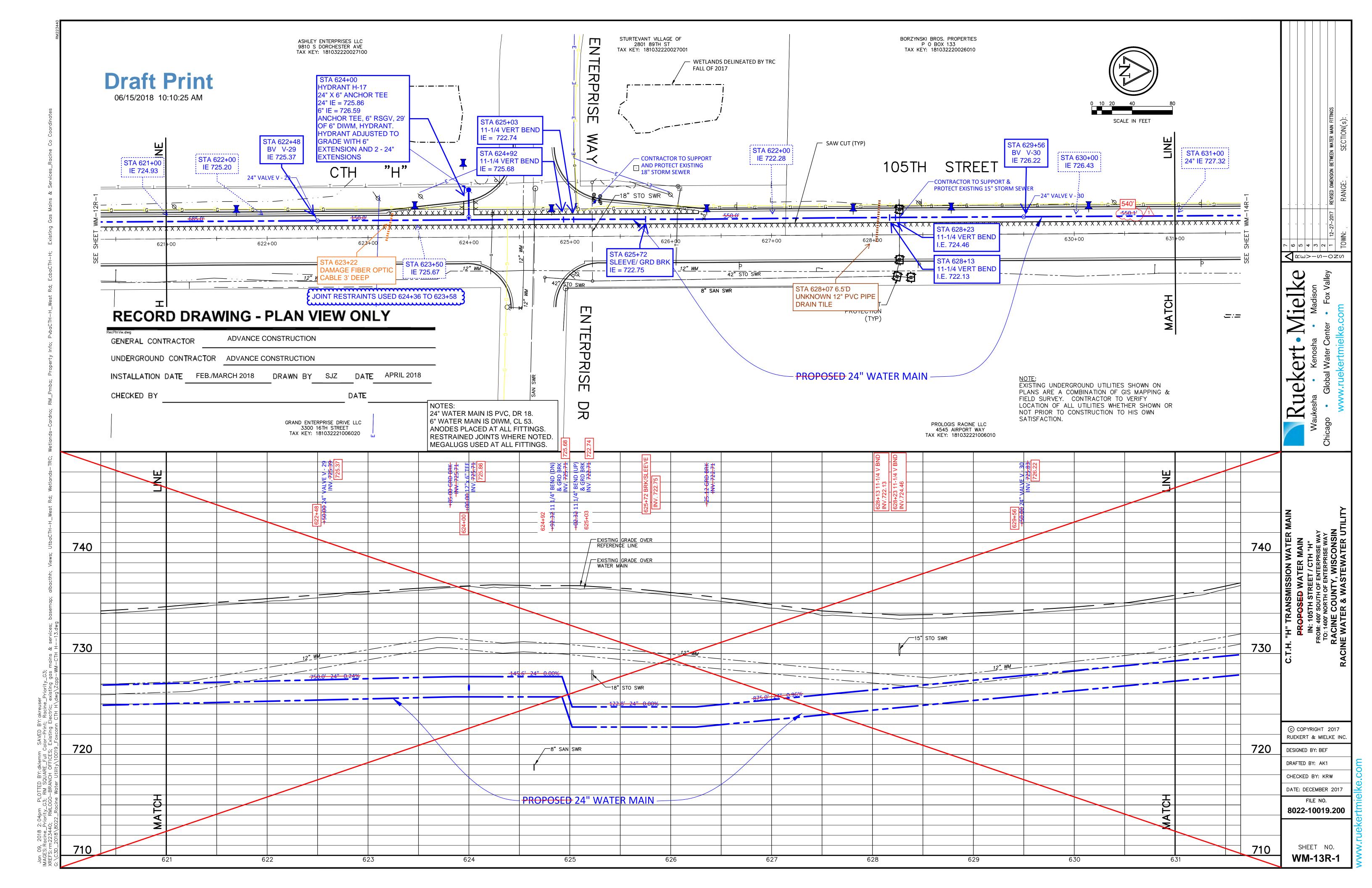


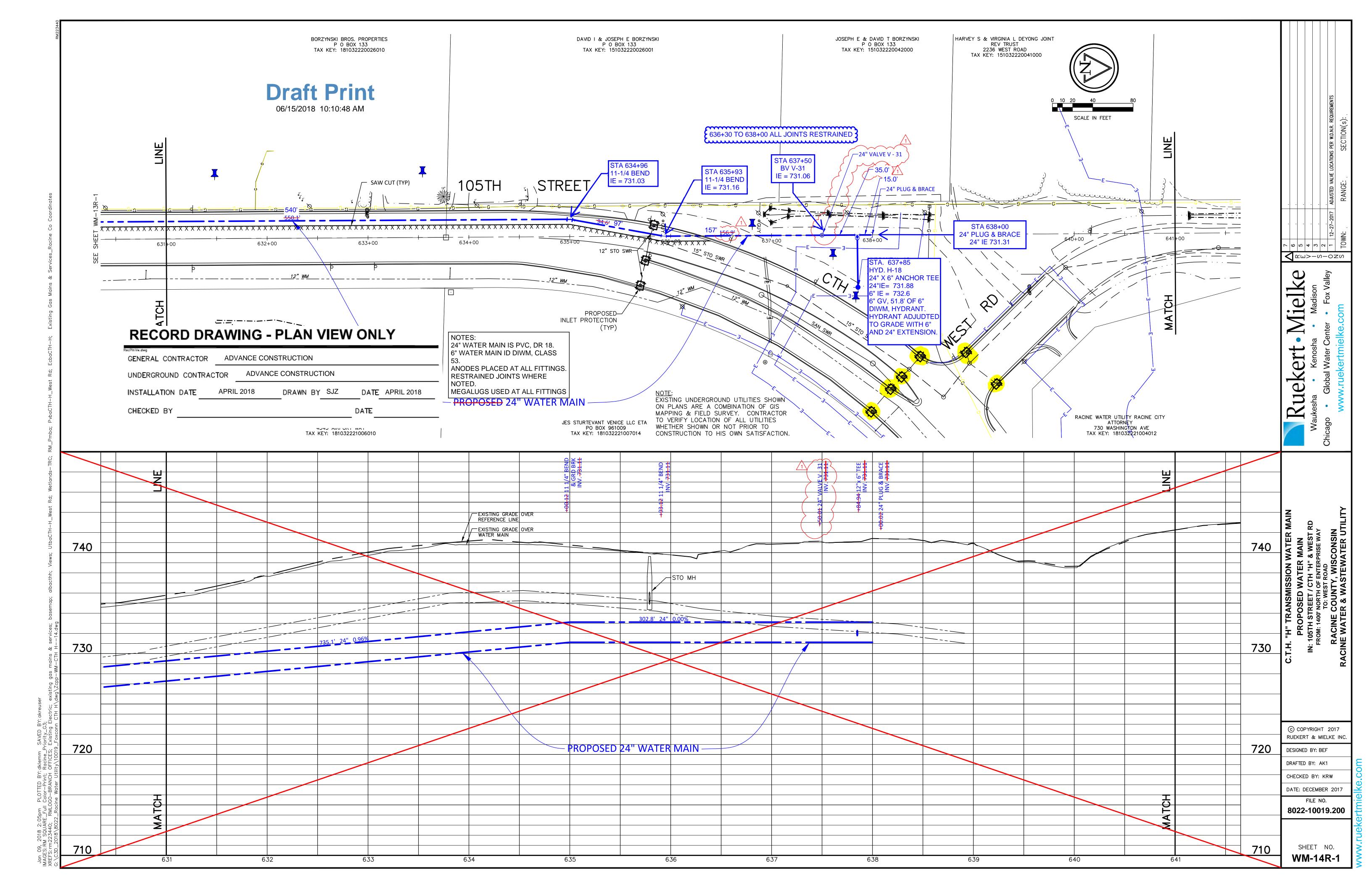


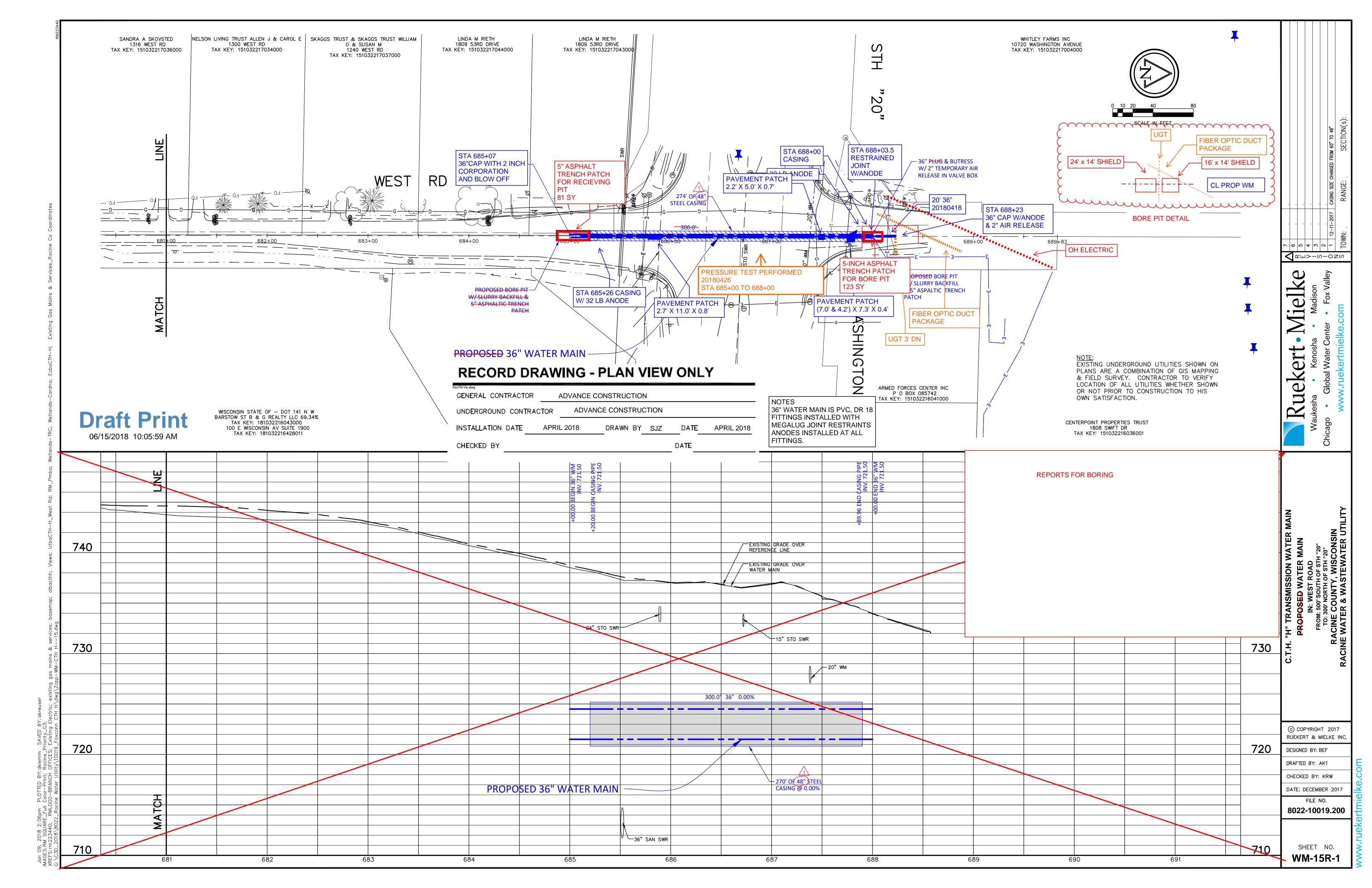


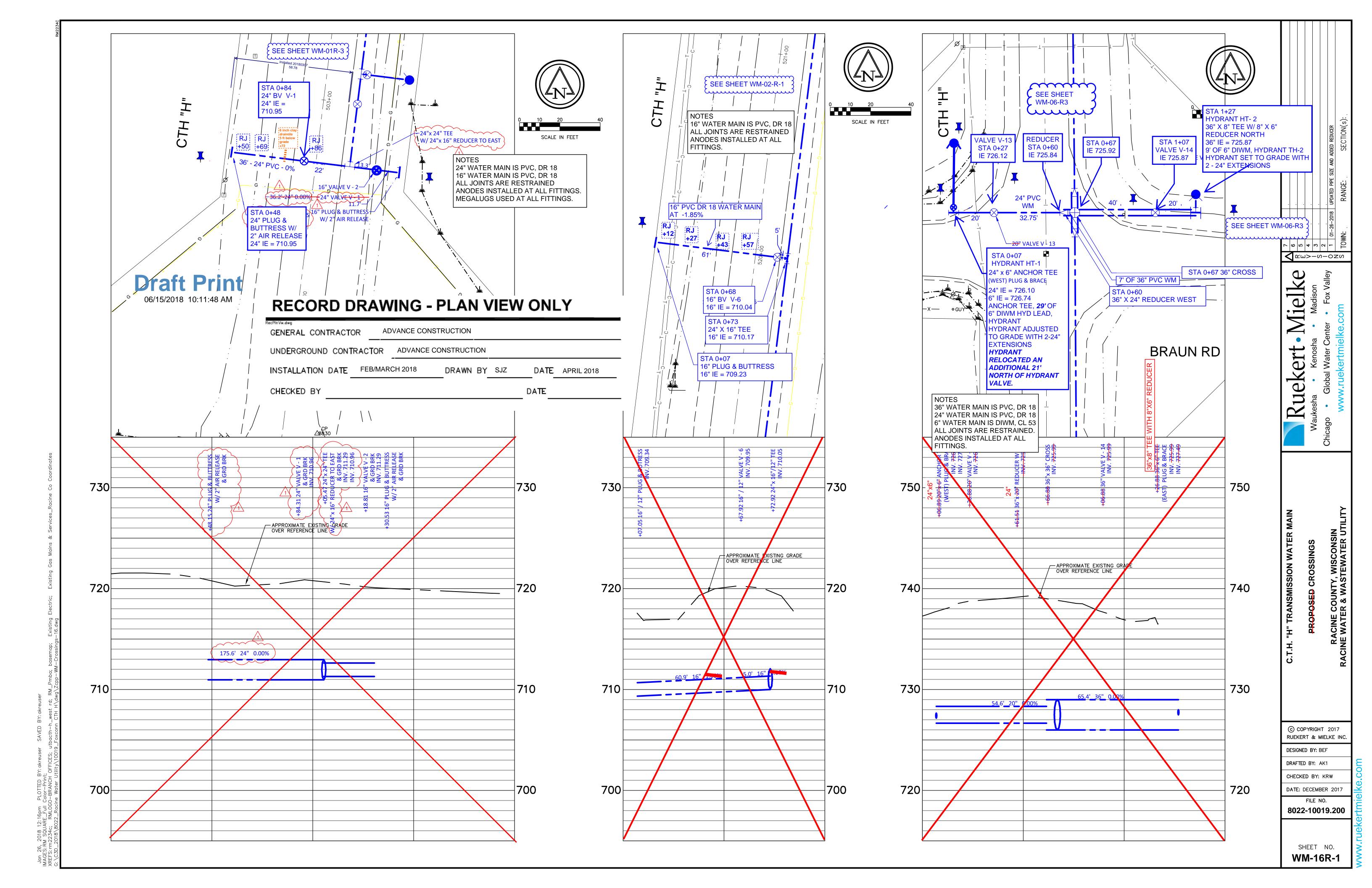


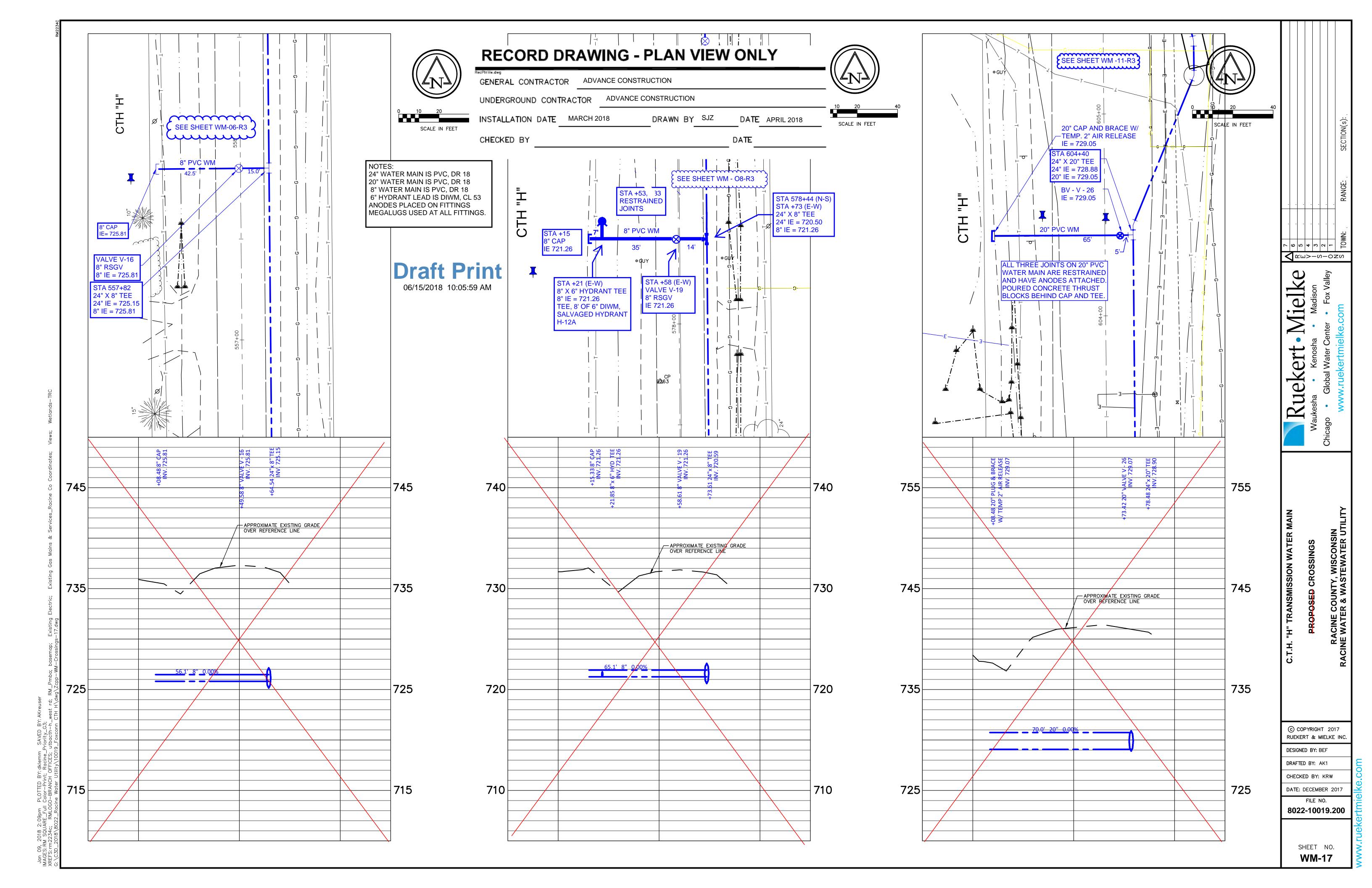










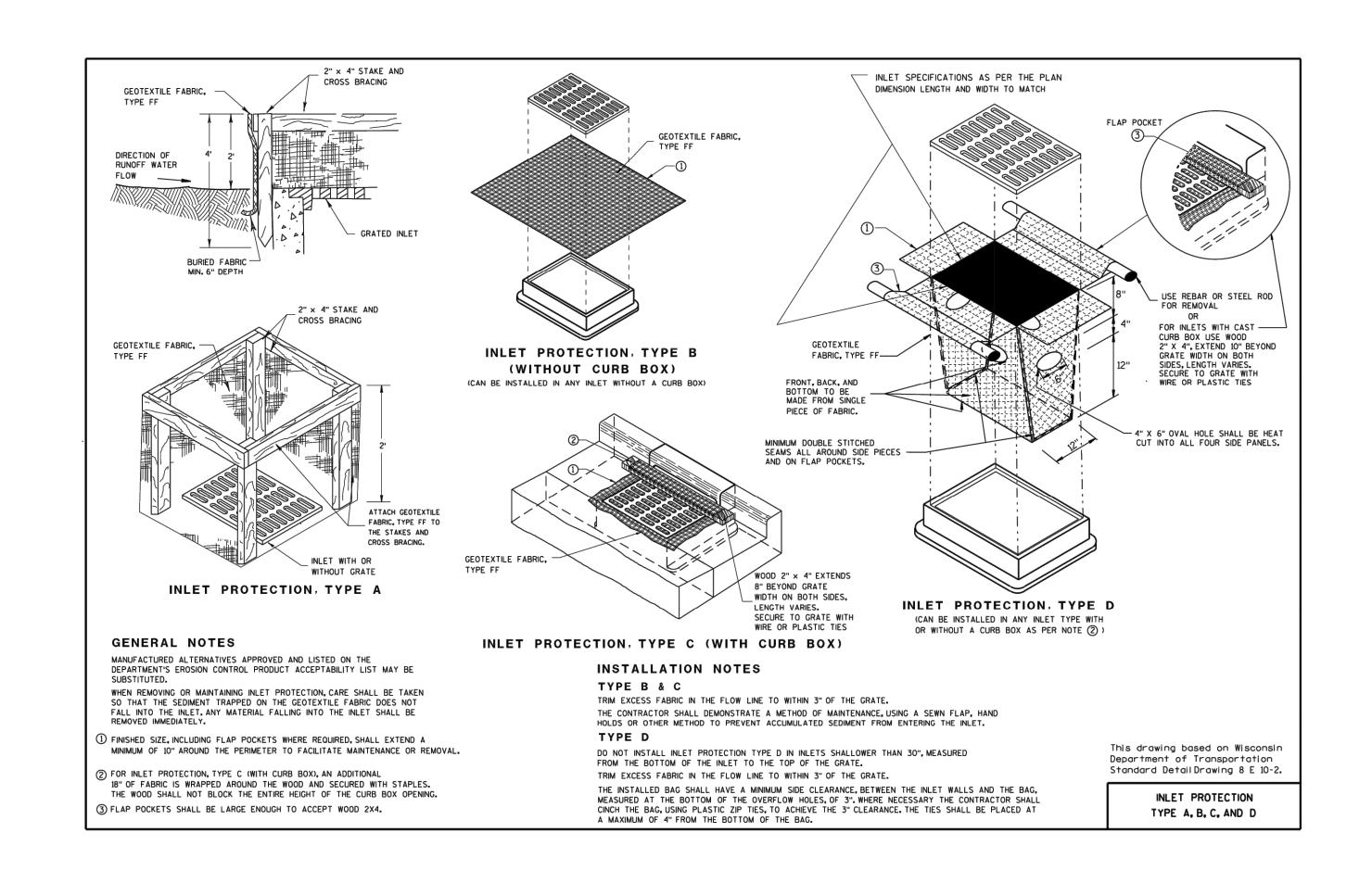


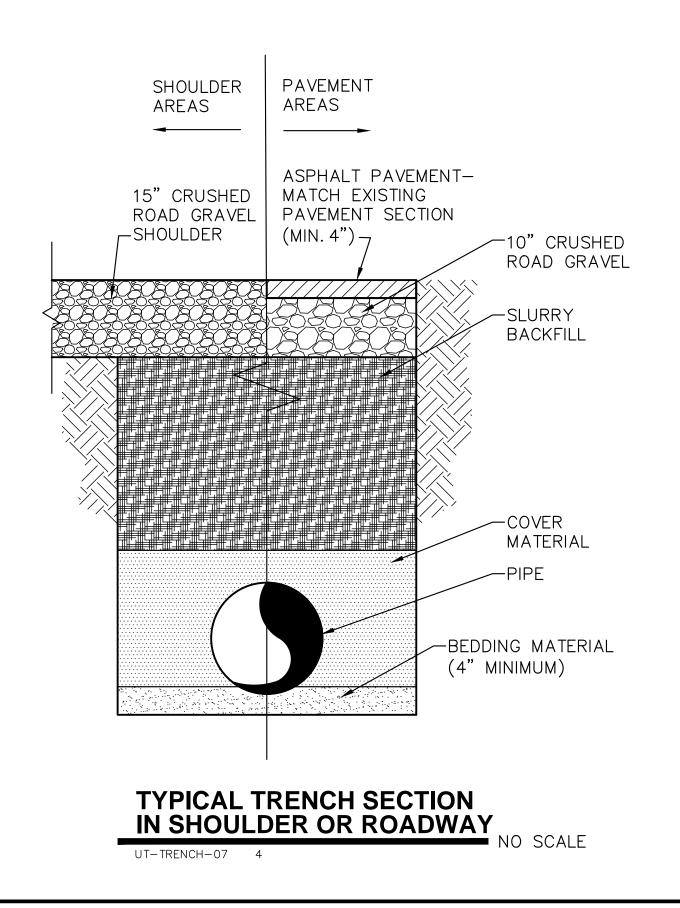
EROSION CONTROL NOTES:

- 1. INSPECTION OF ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE DONE ONCE PER WEEK AND AFTER EVERY PRECIPITATION EVENT OF 1/2-INCH OR GREATER.
- 2. CONTRACTOR SHALL REPAIR DEFICIENT EROSION AND SEDIMENT CONTROL MEASURES WITHIN 24—HOURS AFTER INSPECTION. ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES NOT SHOWN ON THIS PLAN MAY BE NECESSARY AS A RESULT OF CONSTRUCTION PRACTICES OR AS DIRECTED BY CITY AND/OR ENGINEER.
- 3. CONTRACTOR SHALL NOTIFY AND OBTAIN WRITTEN ACCEPTANCE FROM ENGINEER OF PROPOSED CHANGES TO THE EROSION CONTROL PLAN AND/OR SEQUENCE PRIOR TO IMPLEMENTING THE CHANGE.
- 4. ENGINEER IS UNDER NO OBLIGATION TO ALTER THE CONSTRUCTION SEQUENCE AND/OR EROSION CONTROL PLAN.
- 5. EXCESS MATERIAL THAT IS HAULED OFF SITE SHALL BE CONTRACTOR'S RESPONSIBILITY. CONTRACTOR SHALL OBTAIN PROPER PERMIT APPROVALS FOR EACH FILL SITE. EROSION AND SEDIMENT CONTROL MEASURES, RESTORATION AND STABILIZATION AT FILL SITE IS CONTRACTOR'S RESPONSIBILITY. CONTRACTOR TO NOTIFY OWNER OF ALL FILL AND BORROW SITES.
- 6. CONTRACTOR SHALL SWEEP STREETS ADJACENT TO PROJECT AT THE END OF EACH DAY.
- 7. ALL INSTALLATION, MAINTENANCE AND REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE WISCONSIN DNR TECHNICAL STANDARDS AND THE SLOPE PROTECTION AND EROSION CONTROL SPECIFICATION SECTION 312500.
- 8. IF DEWATERING IS NECESSARY, CONTRACTOR SHALL PROVIDE PROPER DEWATERING SEDIMENT CONTROL DEVICE. DISCHARGE OF SEDIMENT LADEN WATER TO THE STORM SEWER OR SURFACE WATER IS PROHIBITED. DEWATERING STRUCTURE(S) SHALL MEET DNR TECHNICAL STANDARD 1061 & SHALL HAVE SCOUR CONTROL DUE TO WINTER WEATHER CONDITIONS.
- 9. PROVIDE WETLAND RESTORATION SEEDING AND MULCH FOR ALL DISTURBED WETLAND AREAS PER SPECIFICATION.

- GENERAL CONSTRUCTION SEQUENCE:

 1. INSTALL TRAFFIC CONTROL MEASURES.
- 2. INSTALL AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO ANY LAND DISTURBING ACTIVITIES, AS SHOWN ON DRAWINGS AND DIRECTED BY ENGINEER.
- 3. STAGE WORK CONSTRUCTION BY WORK LOCATION.
- 4. BEGIN CONSTRUCTION ACTIVITIES AS SHOWN ON DRAWINGS AND SPECIFICATIONS.
- 5. COMPLETE WATER MAIN EXTENSION.
- 6. COMPLETE CULVERTS AND DITCH GRADING.
- 7. REPAIR DRIVEWAY APPROACHES.
- 8. INSTALL OR ADJUST EROSION CONTROL MEASURES IN NEW FACILITIES. INSTALL ADDITIONAL EROSION CONTROL MEASURES AS NECESSARY.
- 9. STABILIZE NEWLY GRADED AREAS WITHIN 7 DAYS OF BEING INACTIVE.
- 10. COMPLETE FINAL RESTORATION INCLUDING BUT NOT LIMITED TO: SEEDING, TOPSOIL, EROSION MAT.
- 11. REMOVE EROSION AND SEDIMENT CONTROL DEVICES AFTER 80% OF VEGETATION HAS BEEN ESTABLISHED IN ALL RESTORED AREAS. RESTORE DISTURBED AREAS AROUND REMOVED DEVICES, CLEAN OUT STORM WATER STRUCTURES, AND CLEAN SITE.





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RACINE COUNTY, WISCONS
INE WATER & WASTEWATER

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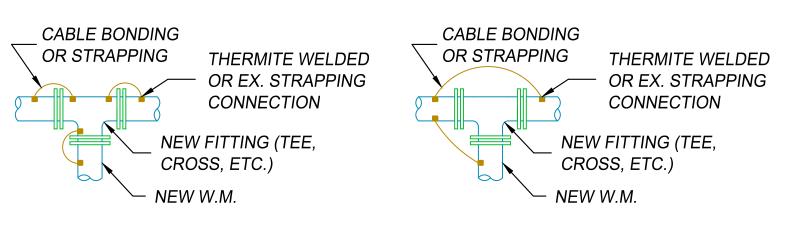
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DATE: DECEMBER 2017

FILE NO. **8022-10019.200**

SHEET NO. **DT-01**



METHOD 1 METHOD 2

1. AT VALVE LOCATIONS, CABLE BONDING OR STRAPPING SHALL GO AROUND VALVE. 2. THERMITE WELDED CONNECTIONS SHALL BE COMPLETELY COATED WITH AN APPROVED BITUMASTIC COATING (KOPPERS 50, 505, OR EQUAL)

CABLE BONDING OR STRAPPING DETAIL FOR DUCTILE IRON PIPE

N.T.S.

ANNODE CONNECTION DETAIL

-THERMITE WELD

THERMITE WELD

6" MINIMUM

PLAN VIEW

¬— PROFILE VIEW

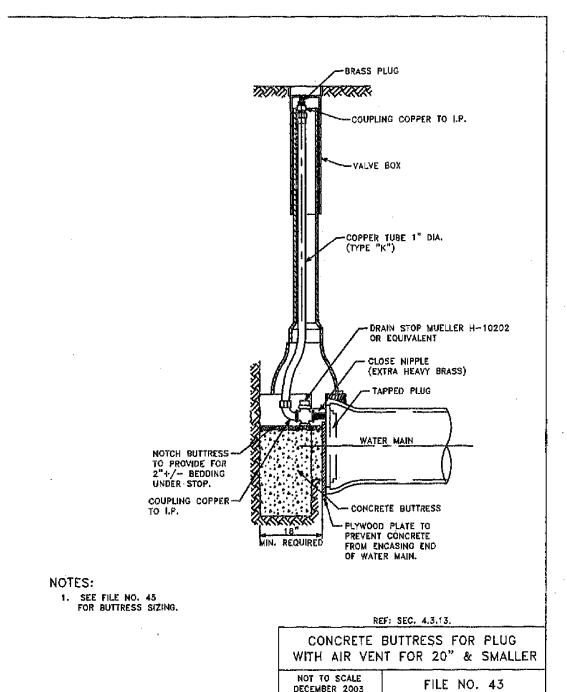
D.I. PIPE & FITTINGS (SIZE VARIES)

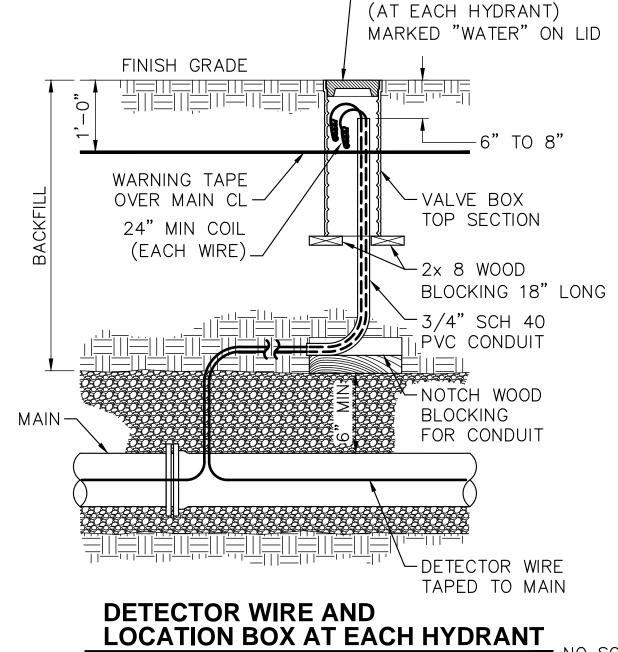
ANODE

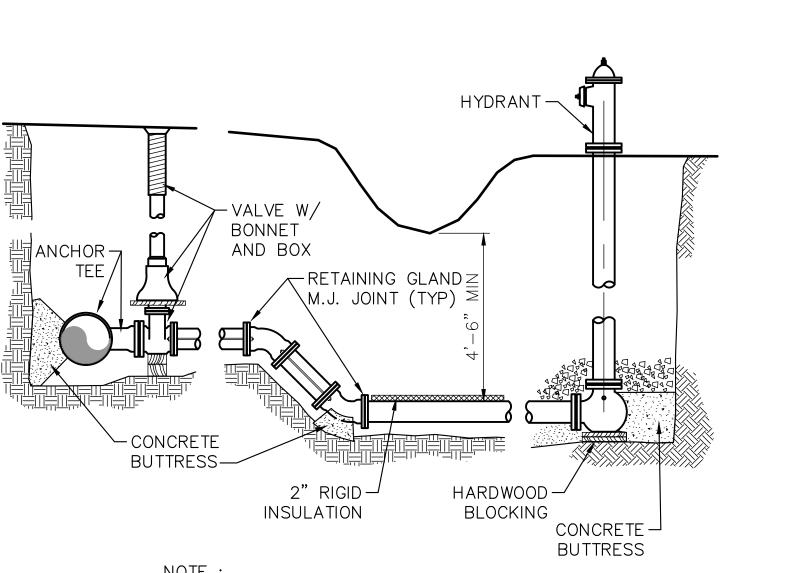
2' MINIMUM

──D.I. PIPE & FITTINGS (SIZE VARIES)

-LOCATOR BOX





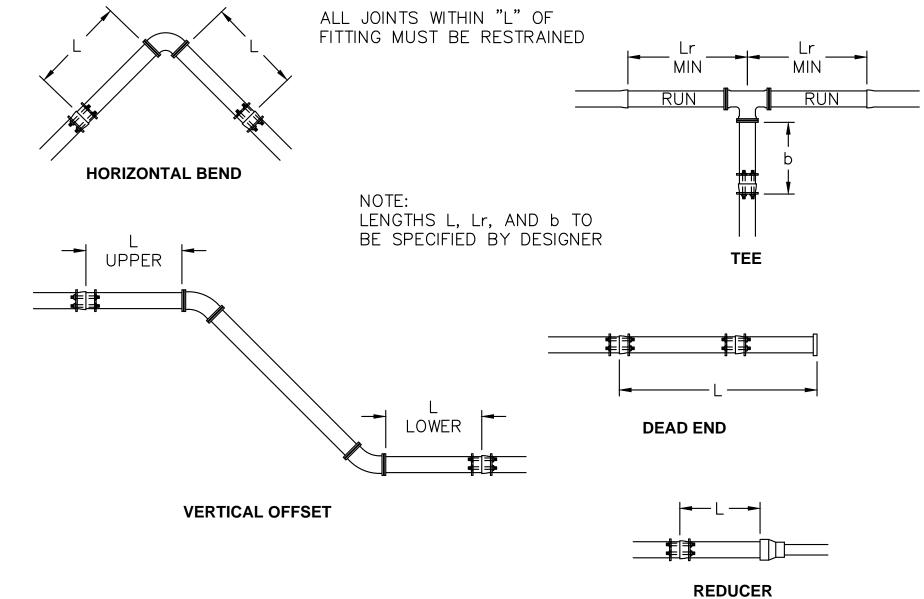


TOP BEND TO HAVE RETAINING GLANDS

AND STRAPPING.

TYPICAL OFFSET FOR HYDRANTS
NO SCALE

WT-HYD-OFFSET 32



JOINT RESTRAINT DISTANCE (FT) PER FITTING

FITTING TYPE Horizontal Bend - 45° Horizontal Bend - 11.25° Horizontal Bend - 22.5° Horizontal Bend - 90°	4" 10 5 8 16	6" 10 5 8 20	8" 12 5 8 25	12" 16 5 10 32	16" 20 8 10 40	20" 26 8 15 52	24" 31 8 16 63	30" 37 10 20 77	36" 44 12 23 90
*Restrain LARGER sized pipe Reducer - Diameter x 4" Reducer - Diameter x 6" Reducer - Diameter x 12" Reducer - Diameter x 16" Reducer - Diameter x 20" Reducer - Diameter x 24" Reducer - Diameter x 30"	- - - -	25 - - - -	50 25 - -	60 60 50 -	80 100 80 50 -	130 125 120 100 50	164 158 149 126 93 51	204 199 192 173 147 114 73	244 240 234 219 197 169 136 75
Dead End	40	40	60	90	120	150	170	209	248
Tee or Cross - Run Tee - 4" Branch Tee - 6" Branch Tee - 8" Branch Tee - 12" Branch Tee - 16" Branch Tee - 20" Branch Tee - 24" Branch Tee - 30" Branch Tee - 36" Branch	10 8 - - - -	10 6 8 - - -	10 6 6 10 - -	20 6 6 6 12 -	30 6 6 6 6 30	40 6 6 6 10 50	50 6 6 36 62 95 126	60 6 6 22 50 86 118	70 6 6 8 38 76 110
Vertical Bend - 45° - Upper Vertical Bend - 45° - Lower Vertical Bend - 22.5° - Upper Vertical Bend - 22.5° - Lower Vertical Bend - 11.25° - Upper Vertical Bend - 11.25° - Lower	12 5 8 4 6 4	20 5 10 5 6 4	26 6 14 5 8 4	40 10 18 8 10 4	50 12 24 8 12 4	60 14 28 8 14 6	73 17 35 9 18 6	89 20 43 11 21 6	105 24 51 13 25 8

*Un-restrained sleeve fittings not allowed within the above distances

JOINT RESTRAINT DETAIL
WT-BR-03 4 NO SCALE

~8022-10014 Foxconn Water Supply > PROJECT MANUAL TEMPLATE > Joint Restraint Distance Per Fitting 4 through 36 inches.docx~

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CONSTRUCTION DETAILS

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DATE: DECEMBER 2017

8022-10019.200

SHEET NO. **DT-02**

EC-DITCH-07 16

4' GRAVEL TOPSOIL, FERTILIZER, -SEED & EROSION MAT ALL-**►** SHOULDER DISTURBED AREAS (TYP) (TYP) SLOPE INTERCEPT

1. PROVIDE RAPID PHOTODEGRADABLE MAT WITH BIODEGRADABLE PEGS.

2. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

GROUND SURFACE

TYPICAL DITCH RESTORATION DETAIL

-DITCH CHECK WEIR 1 3/4"x 1 3/4" HARDWOOD 3' LONG STAKES 2'-0" O.C. (TYP) TAPER LAST 5' OFF ROLLS UPHILL -DRIVE STAKES 15 DEGREES AT BOTH ENDS OF TO A 2' DEPTH LOGS TO RETAIN FLOW (TYP)

─ STAKES TAPERED ENDS -EROSION LOG <u>PLAN</u> 6" MIN OVERLAP

DIRECTION OF FLOW IN DITCH

OR AS REQUIRED BY_ MANUFACTURER IF MORE RESTRICTIVE

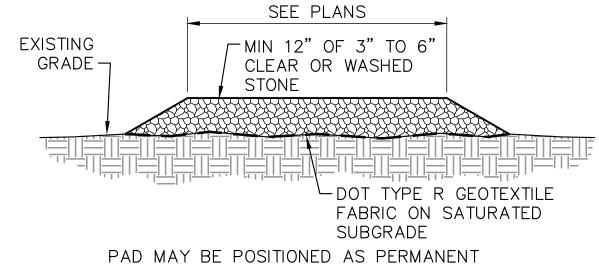
TYPICAL PERIMETER CONTROL INSTALLATION

INSTALLED HEIGHT IS MEASURED FROM THE UPSLOPE GROUND SURFACE TO THE TOP OF THE PRODUCT. DUE TO SETTLEMENT AND/ OR DEFORMATION, THE INSTALLED HEIGHT MAY NOT BE EQUIVALENT TO THE NOMINAL DIAMETER OF THE PRODUCT.

2" MIN ENTRENCHMENT -

_INSTALLED HEIGHT

CROSS SECTION



DRIVEWAY SUBBASE IF PLACED ON MINERAL SOIL AND IT MEETS BEARING & COMPACTION REQUIREMENTS BEFORE BASE PLACEMENT.

TRACKING PAD

NO SCALE EC-GNL-03 1

PROFILE

DITCH CHECK SHALL BE INSTALLED SO THAT THE ENDS OF THE CHECK ARE HIGHER IN ELEVATION THAN THE MIDDLE IN ORDER TO FORM A WEIR.

MANUFACTURED DITCH CHECK AND PERIMETER CONTROL DETAIL

NO SCALE

SHEET NO.

CONSTRUCTION DETAILS

elk

ert

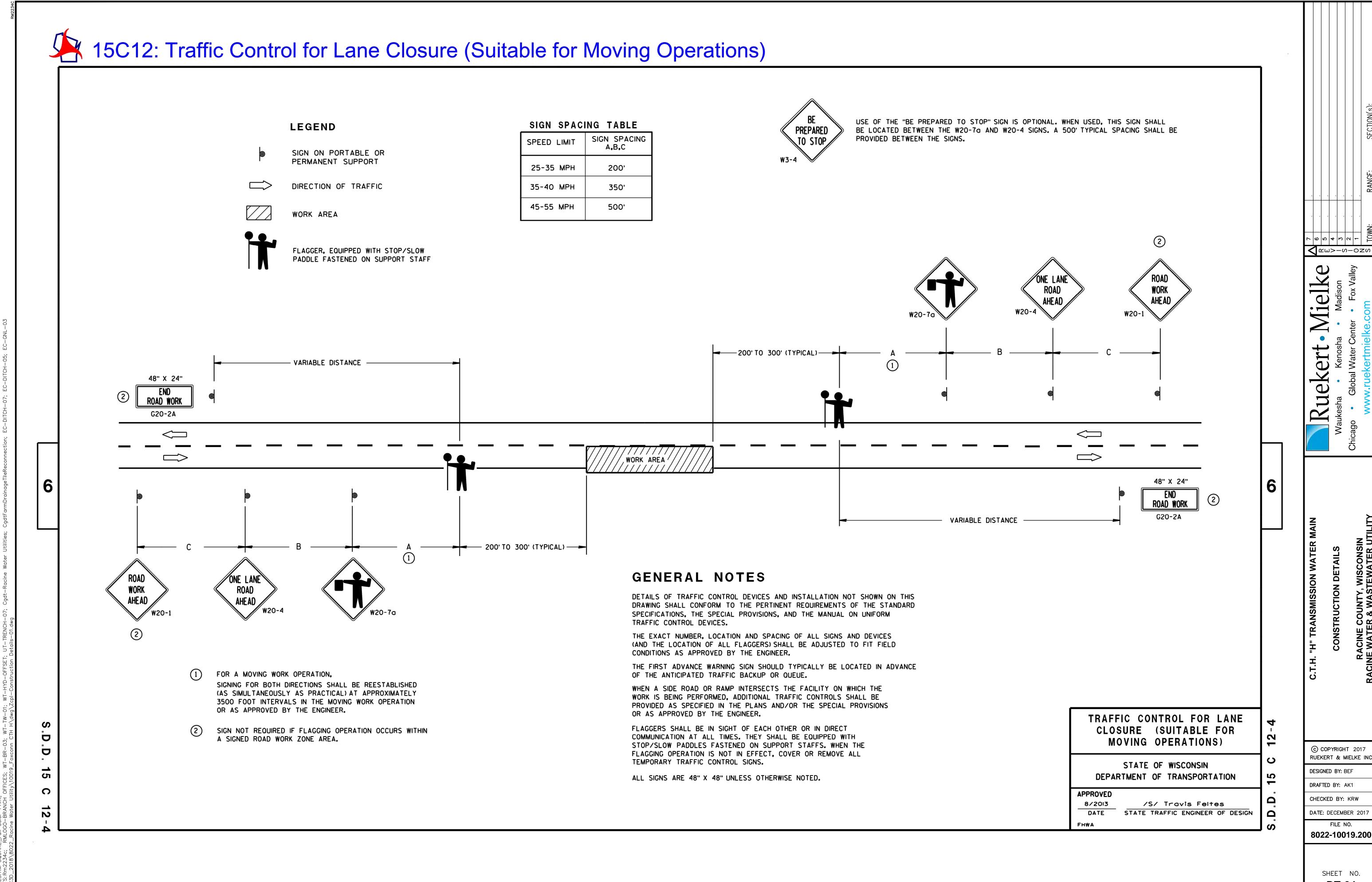
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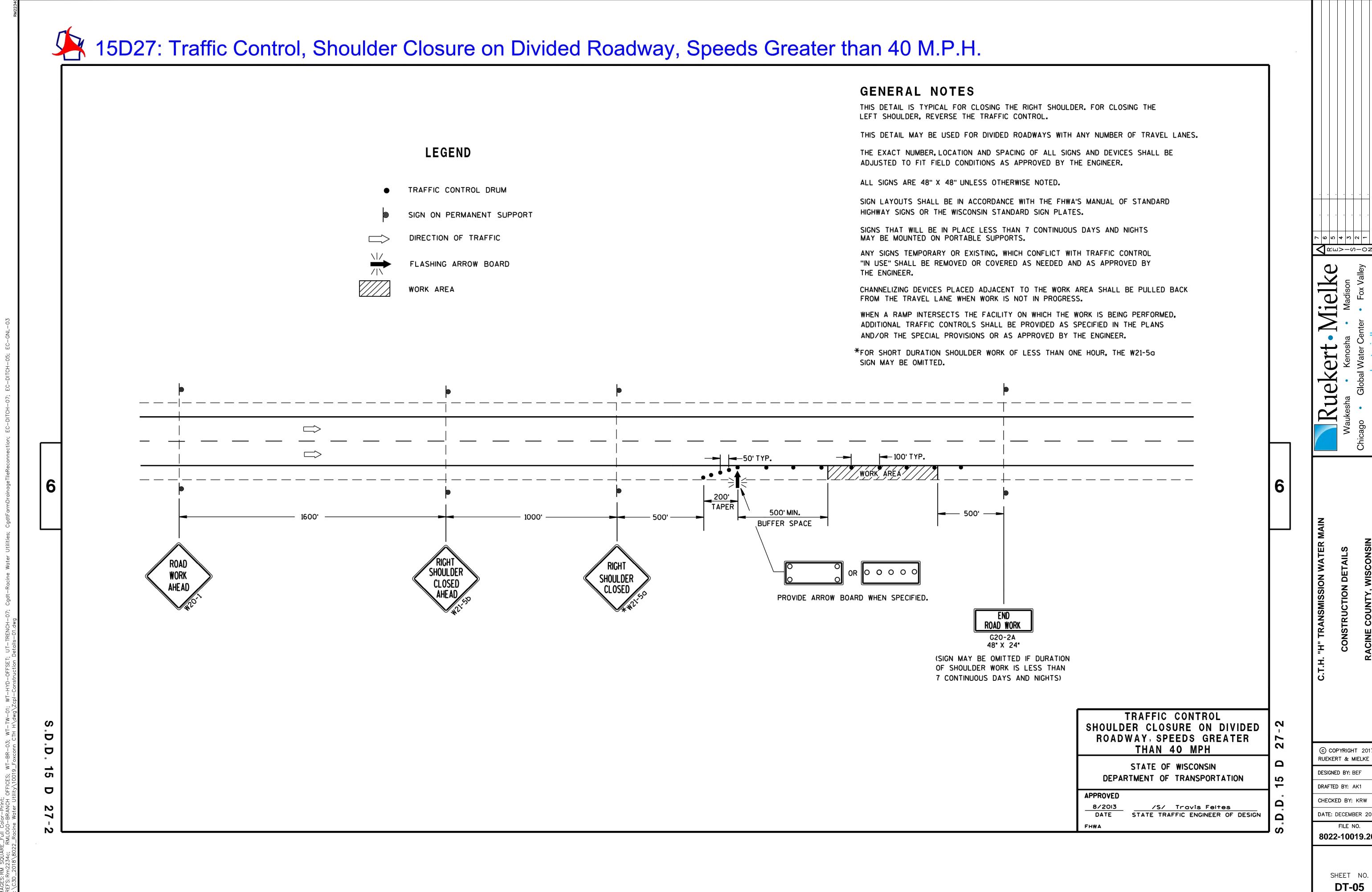
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DT-03



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SHEET NO. **DT-04**



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