

1930 Waterline Replacement Project

Center St., E. 2nd St., Walnut St., and Lincoln St.

Village of Cardington

Morrow County, Ohio

June, 2015



ARCHITECTS ENGINEERS PLANNERS

6650 W. SNOWVILLE RD., STE. A
BRECKSVILLE, OHIO 44141
330.657.2145

OHM-ADVISORS.COM



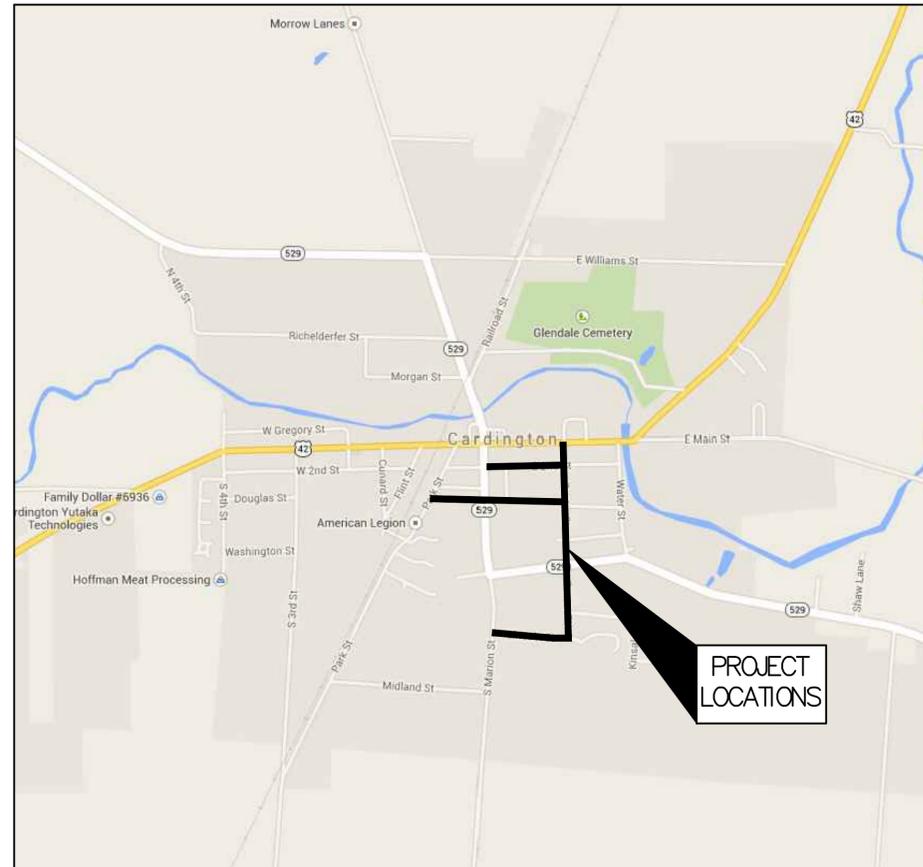
SRB

Scott R. Bickley, PE
Ohio Professional Engineer
#71470

ENGINEERING APPROVALS

APPROVAL BY: *David G. Krock* DATE 6/9/15
DAVID G. KROCK, VILLAGE ENGINEER

APPROVAL BY: _____ DATE _____
DANNY WOOD, VILLAGE ADMINISTRATOR



VICINITY MAP
NOT TO SCALE



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SURVEY PROVIDED BY:
SPAGNUOLO & ASSOCIATES, LLC
3057 West Market Street, Suite 201
Fairlawn, Ohio 44333
(330) 836-6661



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REVISIONS	
DATE	SHEETS
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REVISIONS:

HORIZONTAL:

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SCALE:

H: 1" =

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CITY/VILLAGE/TOWNSHIP:

CARDINGTON

COUNTY:

MORROW

PROJ. NO.:

3031-15-010

DATE:

June 2015

VILLAGE of CARDINGTON
1930'S WATERLINE REPLACEMENT

TITLE SHEET

DRAWING PATH: S:\WEB\Cardington\9 PUBLIC PROJECTS\9 PROJECTS\14729_1930 Waterline Replacement_LPWC and CDG\03 Design\07 - Plans\DWG\14729 Title Sheet.dwg Jul 14, 2015 - 12:59pm

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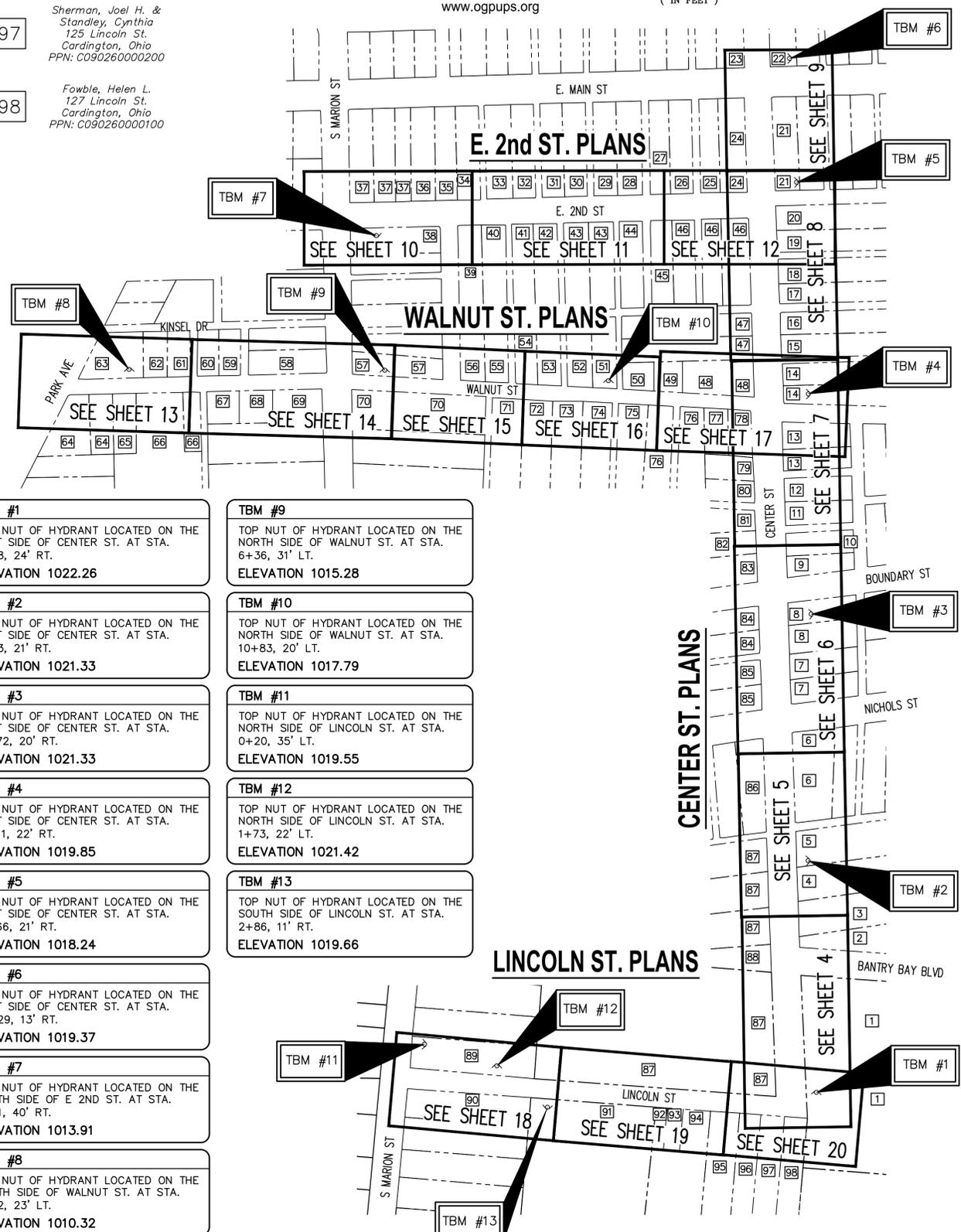
NORTH
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GRAPHIC SCALE
(IN FEET)

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STATE OF OHIO
SCOTT R. BICKLEY
E-71470
REGISTERED
PROFESSIONAL ENGINEER

Scott R. Bickley, PE
Ohio Professional Engineer
#71470

1	Gompf Funeral Home 440 Center St. Cardington, Ohio PPN: C090330001000	20	Harvey Keystone Inheritance Trust, Nathan A. Harvey, Trustee 200 Center St. Cardington, Ohio PPN: C090160005000 PPN: C090160005100	39	High, Cory A. 109 E. 2nd St. Cardington, Ohio PPN: C090150005400	58	Brake, Keith & Patti 105 W Walnut St. Cardington, Ohio PPN: C090140007100	77	Drury, Christine M. 129 E Walnut St. Cardington, Ohio PPN: C090210000200	95	Sherman, Joel H. 119 Lincoln St. Cardington, Ohio PPN: C090260000500
2	Davis, James P. & Pamela A. Center St. Cardington, Ohio PPN: C090270001600	21	Brown, Melissa S. 201 E Main St. Cardington, Ohio PPN: C090160001400	40	Robert & Esther Dutt Trustees of the Dutt Family Trust 111 E 2nd St. Cardington, Ohio PPN: C090150005300	59	Rowland, James & Deeja 107 W Walnut St. Cardington, Ohio PPN: C090140007000	78	Williamson, Mark F. & Tracy S. 131 Center St. Cardington, Ohio PPN: C090210000100	96	Hubbell, David L. & Sharon F. 123 Lincoln St. Cardington, Ohio PPN: C090260000300 PPN: C090260000400
3	Gompf, Donna J. 428 Center St. Cardington, Ohio PPN: C090270001500	22	OMW Farms Inc. 204 Main St. Cardington, Ohio PPN: C090160001600	41	Owens, Edith E. 115 E 2nd St. Cardington, Ohio PPN: C090150005200	60	Day, Patricia M. 109 W Walnut St. Cardington, Ohio PPN: C090140006900	79	Caldwell, Jerry L. & Kimberly A. 305 Center St. Cardington, Ohio PPN: C090210004400	97	Sherman, Joel H. & Standley, Cynthia 125 Lincoln St. Cardington, Ohio PPN: C090260000200
4	Shade, Melinda R. 426 Center St. Cardington, Ohio PPN: C090270001400	23	Hendrick, Mary C. 150 E Main St. Cardington, Ohio PPN: C090150002200	42	Folz, Terry S. & Singrey, Kelley L. 119 E 2nd St. Cardington, Ohio PPN: C090150005100	61	Robinson, Diana L. 111 W Walnut St. Cardington, Ohio PPN: C090140006800	80	Caldwell, Jerry L. & Kimberly A. 309 Center St. Cardington, Ohio PPN: C090210004300	98	Fowble, Helen L. 127 Lincoln St. Cardington, Ohio PPN: C090260000100
5	Nash, George B. 424 Center St. Cardington, Ohio PPN: C090270001300	24	Levings, Charles R. 101 Center St. Cardington, Ohio PPN: C090150004600	43	Brokaw, Michael A. & Jill C. 123 E 2nd St. Cardington, Ohio PPN: C090150004900 PPN: C090150005000	62	Green, Richard K. Trustee 113 W Walnut St. Cardington, Ohio PPN: C090140006700	81	Bruns, James K. 311 Center St. Cardington, Ohio PPN: C090210004100		
6	Gompf, Gene L. & Leanne S. 400 Center St. Cardington, Ohio PPN: C090270001200	25	McElroy, Robert S. & Darlene K. 149 E Main St. Cardington, Ohio PPN: C090150002700 PPN: C090150002701	44	Cochran, Richard L. & Rosalya A. Co-Trustees 127 E 2nd St. Cardington, Ohio PPN: C090150006600	63	Green Convertible Investment Property Trust 115 W Walnut St. Cardington, Ohio PPN: C090140006600	82	Elliott, Jennifer R. 313 Center St. Cardington, Ohio PPN: C090210003900		
7	Bingman, Donald F. 200 Nichols St. Cardington, Ohio PPN: C090220003300 PPN: C090220003400 PPN: C090220003600	26	McFarland, Corey L. & Stamper, Amanda A. 147 E Main St. Cardington, Ohio PPN: C090150002800	45	Cochran, Richard L. & Rosalya A. Co-Trustees 131 E 2nd St. Cardington, Ohio PPN: C090150004700	64	Cardington Community Improvement Corp 118 W Walnut St. Cardington, Ohio PPN: C090200002900 PPN: C090200003000	83	Arnold, Wayne L. & Gertrude A. 315 Center St. Cardington, Ohio PPN: C090210003700		
8	Harbour Portfolio VI LP 324 Center St. Cardington, Ohio PPN: C090220003100 PPN: C090220003200	27	Mosher, Michael & Carol 145 E Main St. Cardington, Ohio PPN: C090150002900	46	Elsa Inc. 203 Center St. Cardington, Ohio PPN: C090150007500	65	Hemingway, Tamara 116 W Walnut St. Cardington, Ohio PPN: C090200002700	84	Kinsell, Gale & Cheryl 327 Center St. Cardington, Ohio PPN: C090210003500 PPN: C090210003600		
9	Russell, Brian A. 312 Center St. Cardington, Ohio PPN: C090220001900	28	Perley, Rebekah E. 141 E Main St. Cardington, Ohio PPN: C090150003000	47	Armstrong, Merrie S. 209 Center St. Cardington, Ohio PPN: C090150007200	66	Fisher Keystone Inheritance Trust W Walnut St. Cardington, Ohio PPN: C090200002500	85	Brake, Keith L. & Patti 126 Nichols St. Cardington, Ohio PPN: C090210003400 PPN: C090210003401		
10	Robinson, Edward & Adrienne 310 Center St. Cardington, Ohio PPN: C090220001800	29	Wahl, Edward M. & Carol A. 139 E Main St. Cardington, Ohio PPN: C090150003100	48	Burkey, Christopher 211 Center St. Cardington, Ohio PPN: C090150007100	67	Cutler Properties 108 W Walnut St. Cardington, Ohio PPN: C090200002300	86	Smith, Larry A. & Jean M. 401 Center St. Cardington, Ohio PPN: C090260002500		
11	Nevoraski, Vernon R. & Alexander, Kristi L. 308 Center St. Cardington, Ohio PPN: C090220001700	30	Cooper, Kathleen M. 137 E Main St. Cardington, Ohio PPN: C090150003200	49	Kaval, Joseph K 126 E Walnut St. Cardington, Ohio PPN: C090150007000	68	Patrick, Gene A. 106 W Walnut St. Cardington, Ohio PPN: C090200002200	87	Board of Education 425 Center St. Cardington, Ohio PPN: C095260001400 PPN: C095260001600 PPN: C095260001700 PPN: C095260002000 PPN: C095260002100 PPN: C095260002300 PPN: C095260002400		
12	Smith, Beulah B. 306 Center St. Cardington, Ohio PPN: C090220001600	31	Frost, Scott A. 135 E Main St. Cardington, Ohio PPN: C090150003300	50	Cochran, Richard & Ann 124 E Walnut St. Cardington, Ohio PPN: C090150006900	69	Ramonedo, Robert & Nicole 301 S Marion St. Cardington, Ohio PPN: C090200002100	88	Gompf, Gene & Leanne 433 Center St. Cardington, Ohio PPN: C090260001800		
13	Few Residential Cardington LLC 304 Center St. Cardington, Ohio PPN: C090220001400 PPN: C090220001500	32	Zamba, Carolyn S. 133 E Main St. Cardington, Ohio PPN: C090150003500 PPN: C090150003400	51	Redman, Christopher 122 E Walnut St. Cardington, Ohio PPN: C090150006800	70	First Methodist Church of Cardington 300 S Marion St. Cardington, Ohio PPN: C090210001100	89	Haubert, Farrell M. 430 Marion St. Cardington, Ohio PPN: C090260004000		
14	Ray, Richard A. & Kimberly K. 212 Center St. Cardington, Ohio PPN: C090160005800 PPN: C090160005900	33	Lustritz, Mark J. & Tonya D. 131 E Main St. Cardington, Ohio PPN: C090150003600	52	Osborne, Helen M. 120 E Walnut St. Cardington, Ohio PPN: C090150006700	71	Butterfield, Margaret B. 113 E Walnut St. Cardington, Ohio PPN: C090210000900 PPN: C090210001000	90	Ullom, James T. & Linda S. 500 Marion St. Cardington, Ohio PPN: C090260000900 PPN: C090260001000		
15	Townsend, Joshua D. 210 Center St. Cardington, Ohio PPN: C090160005700	34	Farmers Citizens Bank 125 E Main St. Cardington, Ohio PPN: C090150003700 PPN: C090150003800 PPN: C090150003801	53	Thorne, Jerry & Sharlet E Walnut St. Cardington, Ohio PPN: C090150006600	72	Phelps, Wayne A. & Karen S. 117 E Walnut St. Cardington, Ohio PPN: C090210000800	91	Wilhelm, Angela M. 113 Lincoln St. Cardington, Ohio PPN: C090260000800		
16	Green Convertible Investment Property Trust 208 Center St. Cardington, Ohio PPN: C090160005600	35	Farmers Citizens Bank 123 E Main St. Cardington, Ohio PPN: C090150003900 PPN: C090150004000	54	Jeffrey, Jordan D. 114 E Walnut St. Cardington, Ohio PPN: C090150006500	73	Doubikin, Gina M. 119 E Walnut St. Cardington, Ohio PPN: C090210000700	92	Sherman, Joel H. Lincoln St. Cardington, Ohio PPN: C090320000101		
17	Lower, Ethel M. 206 Center St. Cardington, Ohio PPN: C090160005500	36	Lee, William K. & Susan M. 117 E Main St. Cardington, Ohio PPN: C090150004300	55	Arnold, Danny L. & Rebecca L. 112 E Walnut St. Cardington, Ohio PPN: C090150006400	74	Smith, Lynell 121 E Walnut St. Cardington, Ohio PPN: C090210000600	93	Sheriff, Harold E. Jr. 115 Lincoln St. Cardington, Ohio PPN: C090260000700		
18	Edmonson, Linda G. 204 Center St. Cardington, Ohio PPN: C090160005400	37	Good Felloz LLC 122 S Marion St. Cardington, Ohio PPN: C09015A001100	56	Goodman, Douglas G. & Bobbie L. 110 E Walnut St. Cardington, Ohio PPN: C090150006300	75	Weaver, Kenneth J. & Stephanie L. 123 E Walnut St. Cardington, Ohio PPN: C090210000500	94	Marcum, Casey D. 117 Lincoln St. Cardington, Ohio PPN: C090260000600		
19	Collins, Clara P. 202 Center St. Cardington, Ohio PPN: C090160005300	38	Miley, Mary E. 200 S Marion St. Cardington, Ohio PPN: C090150005500	57	Rine, Joseph A. 108 E Walnut St. Cardington, Ohio PPN: C090150006200	76	Fout, Tina R. 127 E Walnut St. Cardington, Ohio PPN: C090210000300 PPN: C090210000301	94			



DRAWING PATH: S:\EES\Projects\Public\Projects\14729_1930_Waterline Replacement\OPWC and C090303_Design\07 - Plans\DWG\14729_Schematic_Plan.dwg Jul 14, 2015 - 1:00pm

SHEET: DATE: Jun 2015; PROJ NUMBER: 303154930; ENG: SRS; PROJ LEAD: DBN; COUNTY: CARRINGTON; CITY/VILLAGE/TOWNSHIP: CARRINGTON; SCALE: H: 1"=10'; V: 1"=5'; REVISIONS: HORIZONTAL DATUM: VERTICAL DATUM: COPYRIGHT 2015 OHM ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF OHM AND THE SAME MAY NOT BE DUPLICATED, DISTRIBUTED, OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT OF OHM.

VILLAGE OF CARDINGTON
1930'S WATERLINE REPLACEMENT
SCHEMATIC PLAN

DRAWING PATH: S:\EES-Village of Cardington\9 PUBLIC PROJECTS\9 PROJECTS\14729-1930 Waterline Replacement\OPWC and CDBG\03 Design\07 - Plans\DWG\14729 General Notes.dwg Jul 14, 2015 - 1:00pm

GENERAL NOTES

THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS BOOK, 2013 EDITION, SHALL GOVERN ALL CONSTRUCTION ITEMS RELATED TO THIS PROJECT, UNLESS SPECIFICALLY MODIFIED IN THE BID DOCUMENTS.

THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE PROJECT, SITE CONDITIONS, WEATHER LIMITATIONS, SCHEDULE LIMITATIONS, PLANS, SPECIFICATIONS, STANDARD DRAWINGS AND ANY OTHER DOCUMENTS ASSOCIATED WITH THE PROJECT, PRIOR TO BIDDING ON THIS PROJECT.

ANY CHANGE ORDERS TO THE ORIGINAL CONTRACT DOCUMENTS MUST BE SUBMITTED IN WRITING BY THE CONTRACTOR, TO THE ENGINEER, FOR REVIEW AND APPROVAL / DISAPPROVAL BY THE OWNER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON SUSPECTING A PENDING CHANGE ORDER. THE OWNER WILL REVIEW EACH REQUEST IN A TIMELY FASHION. ANY WORK COMPLETED BY THE CONTRACTOR WITHOUT PRIOR WRITTEN AUTHORIZATION WILL NOT BE PAID BY THE OWNER (COST WILL BE BORNE BY THE CONTRACTOR).

ANY MODIFICATION TO THE WORK SHOWN ON THESE PLANS MUST HAVE PRIOR WRITTEN APPROVAL BY THE ENGINEER.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL REQUEST AND ATTEND A PRE-CONSTRUCTION MEETING.

AT THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL PROVIDE ALL SHOP DRAWINGS AND MATERIAL SHEETS FOR REVIEW, A LIST OF ALL SUBCONTRACTORS, A WRITTEN SCHEDULE FOR THE PROJECT, EMERGENCY NUMBERS, AND OTHER ITEMS REQUESTED BY THE ENGINEER, PRIOR TO BEGINNING ANY WORK ON THE PROJECT.

THE CONTRACTOR SHALL CONFINE WORK ACTIVITIES TO THE PROJECT AREA, UNLESS PRIVATE AGREEMENTS HAVE BEEN MADE BETWEEN THE CONTRACTOR AND PROPERTY OWNERS TO EXTEND ONTO PRIVATE PROPERTY. ALL DAMAGE TO AREAS BEYOND THE WORK LIMITS SHALL BE REPAIRED TO A CONDITION EQUAL TO OR BETTER THAN THE CONDITION BEFORE CONSTRUCTION. ALL COSTS FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THIS PROJECT.

ANY DAMAGE TO THE EXISTING ROADWAY DUE TO CONSTRUCTING OF THESE PLANS SHALL BE REPAIRED AT THE DIRECTION OF THE VILLAGE ENGINEER. PROJECT VIDEO SHALL SERVE AS A BASIS FOR PRE-CONSTRUCTION CONDITIONS.

ALL COSTS FOR THE WORK DESCRIBED ABOVE SHALL BE INCLUDED FOR PAYMENT WITH THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

THE VILLAGE OF CARDINGTON WILL NOT BE PROVIDING ANY AVAILABLE DUMP SITE. CONTRACTOR WILL NEED TO COORDINATE DISPOSAL OF SPOIL MATERIALS FROM THE PROJECT.

THIS PROJECT DOES REQUIRE DOMESTIC MATERIALS.

SAFETY

THE CONTRACTOR AND SUBCONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTION AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTOR(S) TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

THE ENGINEER RESERVES THE RIGHT TO SHUT-DOWN THE PROJECT WITH NO RESPONSIBILITY TO DELAY CLAIMS OR PROJECT SCHEDULE, SHOULD THE CONTRACTOR FAIL TO PROVIDE A SAFE ENVIRONMENT FOR WORKERS AND/OR THE PUBLIC.

ENVIRONMENTAL NOTES

NO EXCAVATION, GRADING, OR FILLING OPERATIONS SHALL BE PERFORMED IN ANY WETLANDS, STREAMS OR OTHER WATERS OF THE UNITED STATES. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND/OR MATERIALS IN ANY WETLANDS, STREAMS OR OTHER WATERS OF THE UNITED STATES. THE CONTRACTOR SHALL UTILIZE AN APPROVED DISPOSAL SITE FOR THE DISPOSAL OF ALL WASTE FILL MATERIALS. ALL EXCAVATED MATERIALS SHALL BE IMMEDIATELY STAGED IN OR REMOVED TO AN UPLAND SITE AND STABILIZED (I.E. SEEDED) TO PREVENT REDISTRIBUTION INTO ANY WATERS OF THE UNITED STATES. IMMEDIATE REMOVAL IS DEFINED BY THE UNITED STATES ARMY CORPS OF ENGINEERS AS DEPOSITING THE REMOVED MATERIALS DIRECTLY INTO A TRUCK AND REMOVING THE MATERIAL FROM THE SITE. THE APPROVED DISPOSAL SITE(S) SHALL NOT INCLUDE ANY WETLANDS, STREAMBANKS OR RIVERBANKS OR ANY 100-YEAR FLOOD PLAINS.

WATER COLUMN AND SEDIMENTATION IMPACTS SHALL BE KEPT TO A MINIMUM THROUGH THE USE OF BEST MANAGEMENT PRACTICES FOR SOIL EROSION AND SEDIMENT CONTROL. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SPECIFIED IN THE PLAN SHALL BE IN PLACE PRIOR TO ANY EXCAVATION, GRADING OR FILLING OPERATIONS AND INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. THEY SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND THE AREA IS STABILIZED AS ACCEPTED BY THE ENGINEER.

THE PROJECT HAS BEEN DESIGNED TO AVOID IMPACTS TO WETLANDS AREAS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR IMPACT THE ADJACENT WETLANDS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND/OR MATERIALS WITHIN WETLANDS AREAS. EXISTING WETLANDS AREAS SHALL BE FLAGGED BY THE VILLAGE OF CARDINGTON PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES WITHIN THESE LIMITS AND ADJACENT AREAS, INCLUDING ANY NECESSARY CLEARING AND GRUBBING ACTIVITIES. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO AVOID ALL IDENTIFIED WETLANDS AREAS BY MAINTAINING A VEGETATED BUFFER BETWEEN THE BOUNDARY OF THE ADJACENT WETLANDS AREAS AND THE PROJECT CONSTRUCTION LIMITS.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS) A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

STORM WATER POLLUTION PREVENTION PLAN

NO SWPPP IS REQUIRED FOR THIS PROJECT SINCE LESS THAN 1 ACRE WILL BE DISTURBED. DIRECTION FOR STORM WATER POLLUTION PROTECTION WILL BE GIVEN ON SITE AT TIME OF CONSTRUCTION.

UTILITIES

THE FOLLOWING UTILITIES MAY BE LOCATED WITHIN THE WORK LIMITS:

UTILITY & CONTACT (IF APPLICABLE)	PHONE
VILLAGE ENGINEER, SCOTT HINES	(740) 815-1498
VILLAGE OF CARDINGTON POLICE DEPARTMENT	(419) 864-8888
VILLAGE OF CARDINGTON FIRE DEPARTMENT	(419) 295-1370
OHIO EDISON, DAN DEEVILLE	(740) 382-7150
CENTURY LINK, STEVE AVL T	(419) 544-9483
COLUMBIA GAS	(800) 344-4077
DIRECT TV	(888) 303-9117
TIME WARNER CABLE, KEITH HARRIS	(866) 967-7510 EXT. 1231191
VILLAGE OF CARDINGTON UTILITIES, TOM REYNOLDS (STORM, WATER, WTP, SANITARY, WWTP)	(419) 864-7607
MORROW COUNTY ENGINEER, RANDY BUSH	(419) 947-4530
MORROW COUNTY SWCD	(419) 946-7923

CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE OHIO OIL AND GAS PRODUCERS UNDERGROUND PROTECTION SERVICE (OGPUPS), THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 12 HEADQUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION IN ALL AREAS.

OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)
OGPUPS 1-800-925-0988
ODOT 1-216-581-2100

EXISTING UTILITIES SHOWN ON THE PLANS ARE BASED UPON THE BEST AVAILABLE INFORMATION PROVIDED TO THE ENGINEER. THE CONTRACTOR SHALL EXPOSE ALL EXISTING UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION OF PROPOSED PIPES OR FACILITIES TO VERIFY THE REQUIRED VERTICAL AND HORIZONTAL CLEARANCE IS AVAILABLE. PRIOR TO CONSTRUCTION OF THE PROPOSED FACILITY, IN THE CASE OF CONFLICT BETWEEN UTILITIES, THE ENGINEER SHALL DETERMINE THE PROPOSED COURSE OF ACTION TO ELIMINATE THE CONFLICT. THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES, WHETHER SHOWN ON THESE PLANS OR NOT.

THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES. ALL EXISTING UTILITIES, SERVICE LINES, ETC., DAMAGED DURING CONSTRUCTION OF THE PROJECT SHALL BE REPAIRED TO THE SATISFACTION OF THE UTILITY OWNER.

AT ALL UTILITY CROSSINGS, THE TRENCH BACKFILL SHALL CONSIST OF COMPACTED GRANULAR MATERIAL BETWEEN THE PIPES.

ALL EXISTING MANHOLES, CATCH BASINS, UTILITY BOXES, VALVES BOXES, ETC. SHALL BE ADJUSTED TO MATCH THE FINISHED GRADE OF THE PROJECT.

STORM SEWER SYSTEM

ALL STORM STRUCTURES SHALL MEET THE REQUIREMENTS OF ODOT ITEM 611, CONSTRUCTED PER THE STANDARD DRAWING REFERENCED IN THE PLANS, OR AS MODIFIED BY SPECIFIC DETAILS INCLUDED IN THIS PLAN. ACCEPTABLE MATERIALS SHALL BE PRECAST CONCRETE ONLY.

ALL STORM GRATES SHALL BE "BICYCLE SAFE" AND "ADA COMPLIANT".

ALL STORM PIPES SHALL MEET THE REQUIREMENTS OF ODOT ITEM 611, OR AS MODIFIED BY SPECIFIC DETAILS INCLUDED IN THIS PLAN. ACCEPTABLE STORM SEWER MATERIALS SHALL BE RCP (706.02), HDPE (707.33), OR PVC (707.42, 707.43).

ALL STORM SEWERS UNDER PAVEMENT SHALL BE ODOT TYPE B. ALL DRIVE PIPES SHALL BE ODOT TYPE D. ALL CULVERTS SHALL BE ODOT TYPE A.

ALL UNDERDRAINS SHALL MEET THE REQUIREMENTS OF ODOT ITEM 605, OR AS MODIFIED BY SPECIFIC DETAILS INCLUDED IN THIS PLAN. ACCEPTABLE MATERIALS SHALL BE HDPE (707.31) OR PVC (707.41).

ALL ROOF DRAIN COLLECTORS SHALL MEET THE REQUIREMENTS OF ODOT ITEM 605, OR AS MODIFIED BY SPECIFIC DETAILS INCLUDED IN THIS PLAN. ACCEPTABLE MATERIALS SHALL BE HDPE (707.33) OR PVC (707.45).

BACKFILL FOR ALL PIPES WITHIN THE INFLUENCE LINE OF THE PAVEMENT (STREET, DRIVEWAYS, SIDEWALKS, ETC.) SHALL BE FULL DEPTH COMPACTED GRANULAR EMBANKMENT MEETING THE REQUIREMENTS OF ODOT ITEM 611 OR ODOT ITEM 605, AS APPLICABLE. THE INFLUENCE LINE OF THE PAVEMENT IS DEFINED AS A LINE EXTENDING DOWNWARD AT A 45 DEGREE ANGLE FROM A POINT 2 FEET BEYOND THE PAVEMENT. COMPACTION AND TESTING REQUIREMENTS SHALL MEET THE ODOT SPECIFICATION.

ALL EXISTING PIPES, ROOF DRAINS, DRAIN TILES, SUMP PUMP CONNECTIONS, SPRING DRAINS, OR FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE CONNECTED TO THE STORM SEWER SYSTEM OR ROOF DRAIN COLLECTOR SYSTEM, AS DIRECTED BY THE ENGINEER.

ALL COSTS FOR THE WORK DESCRIBED ABOVE SHALL BE INCLUDED FOR PAYMENT WITH THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATION.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

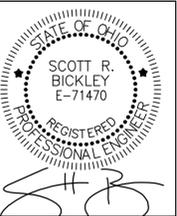
PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 ITEM.



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E-71470

Scott R. Bickley, PE
Ohio Professional Engineer
#71470

REVISIONS

VERT DATUM

HORIZONTAL DATUM

SCALE: V: 1"=10', H: 1"=10'

CITY/VILLAGE/TOWNSHIP: CARDINGTON

COUNTY: MORROW

CADD: P/W/EBM

PROJ/ISSR: DBN

ENG: SRS

DATE: Jun 2015

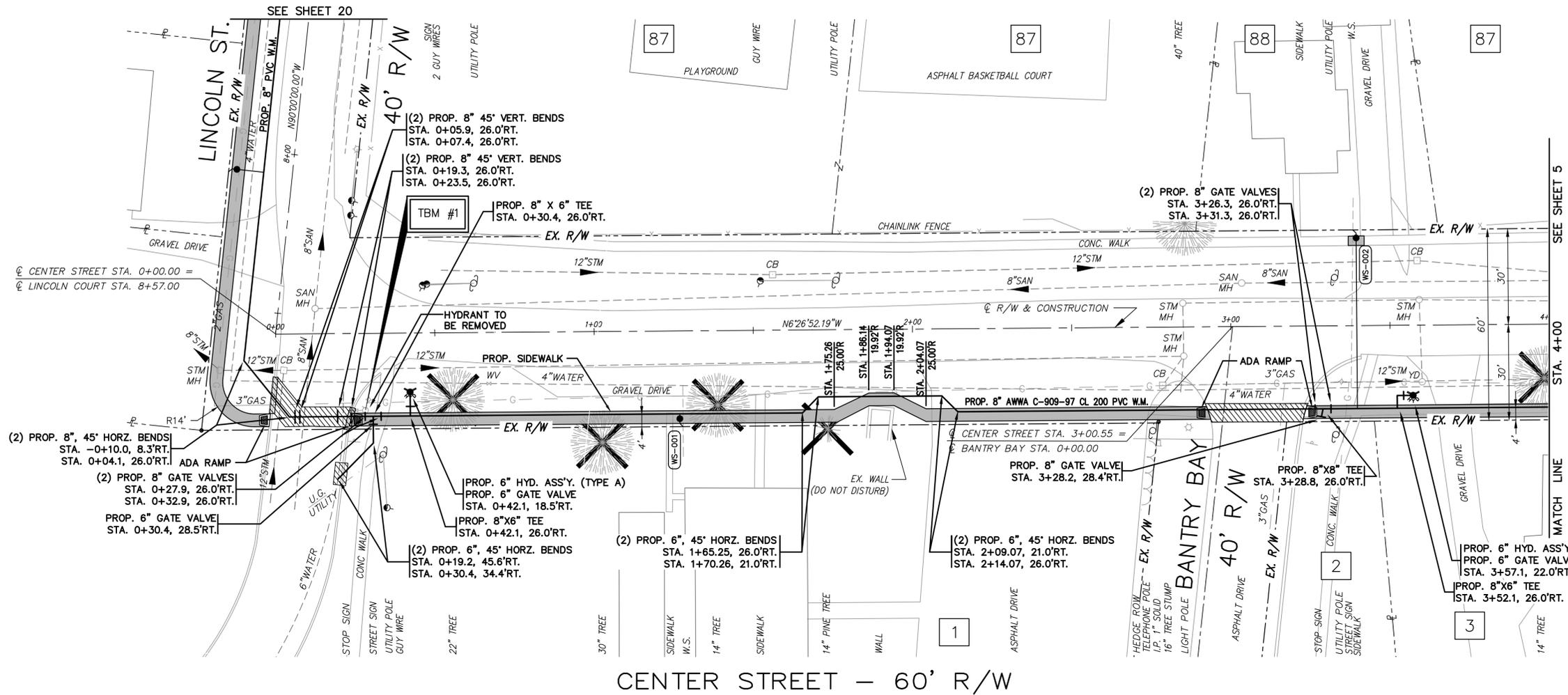
PROJ NUMBER: 3031154010

VILLAGE of CARDINGTON
1930'S WATERLINE REPLACEMENT

GENERAL NOTES

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DRAWING PATH: S:\SWEEB_Village of Cardington\9 PUBLIC PROJECTS\9 PROJECTS\14729 - 1930 Waterline Replacement_LPWC and CDBG\03 Design\07 - Plans\DWG\14729 Plan & Profiles.dwg Jul 14, 2015 - 1:01pm



CENTER STREET - 60' R/W



NORTH
GRAPHIC SCALE
(IN FEET)

TBM #1
TOP NUT OF HYDRANT LOCATED ON THE EAST SIDE OF CENTER ST. AT STA. 0+28, 24' RT.
ELEVATION 1022.26

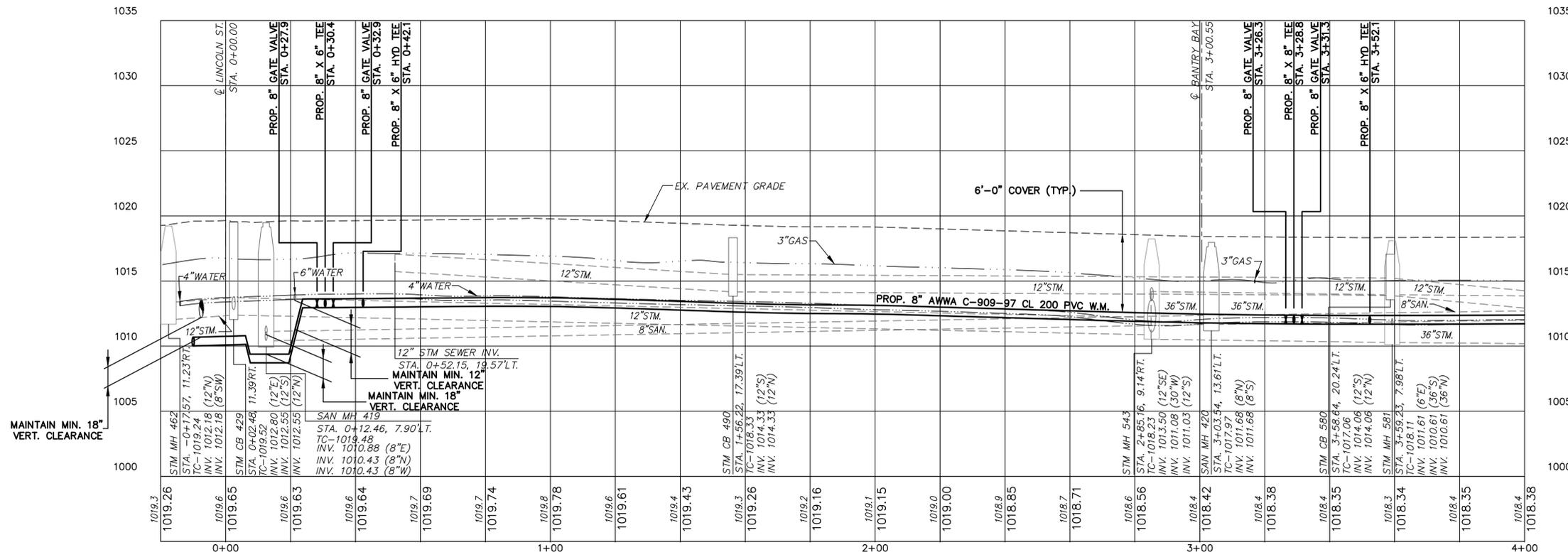


EXISTING TREE TO BE REMOVED (FINAL TREE REMOVAL TO BE DETERMINED BY ENGINEER AT TIME OF CONSTRUCTION)

PAVEMENT REPAIR (INCLUDING CURB, WHERE APPLICABLE)

CONSTRUCTION NOTES:
1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.

WS. #	STA.	OFFSET	LENGTH	SIZE
WS-001	1+27	26' RT	4.5'	3/4"
WS-002	3+40	26' RT	56.5'	3/4"



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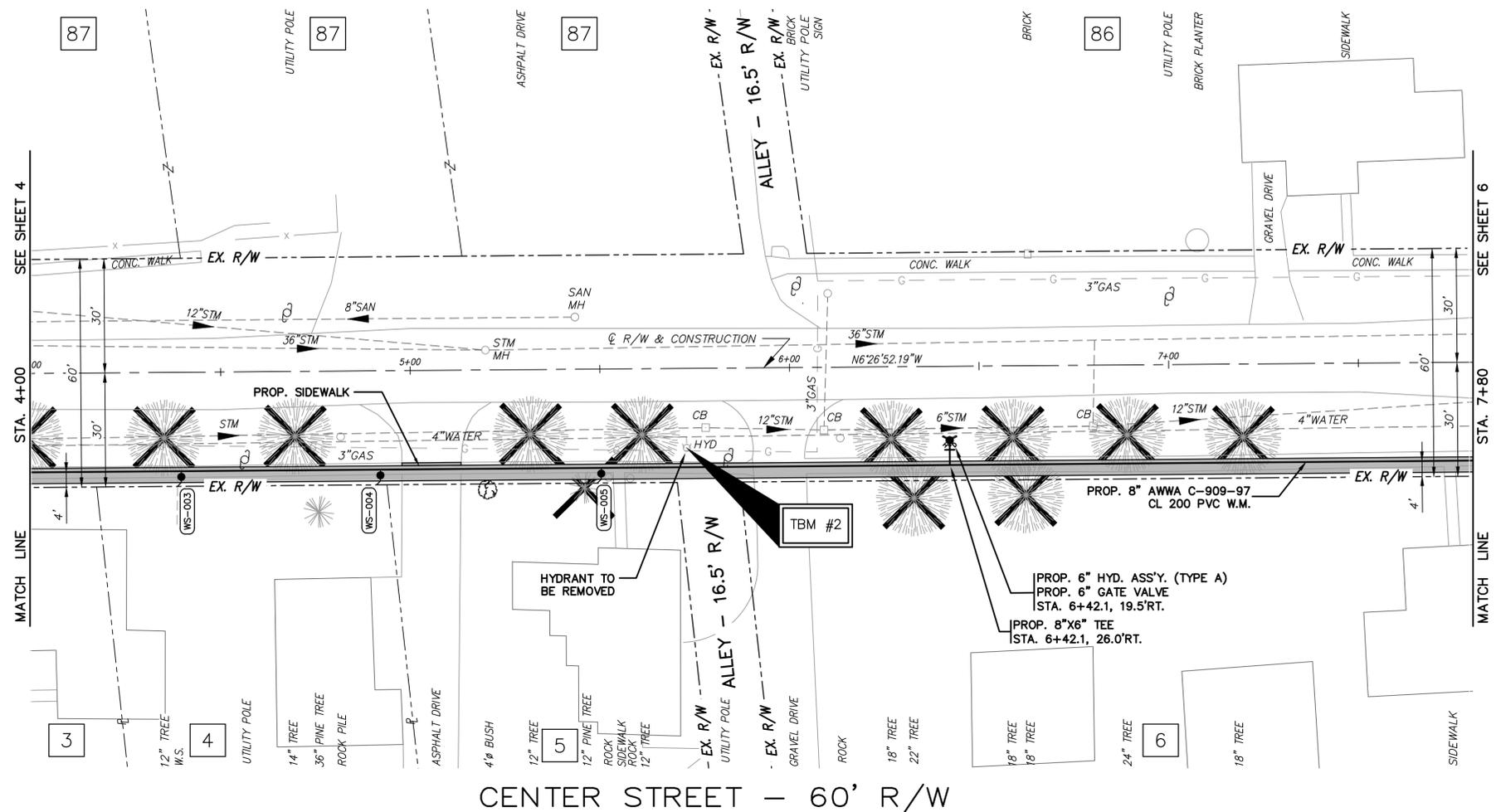
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STATE OF OHIO
SCOTT R. BICKLEY
E-71470
REGISTERED PROFESSIONAL ENGINEER
Scott R. Bickley, PE
Ohio Professional Engineer
#71470

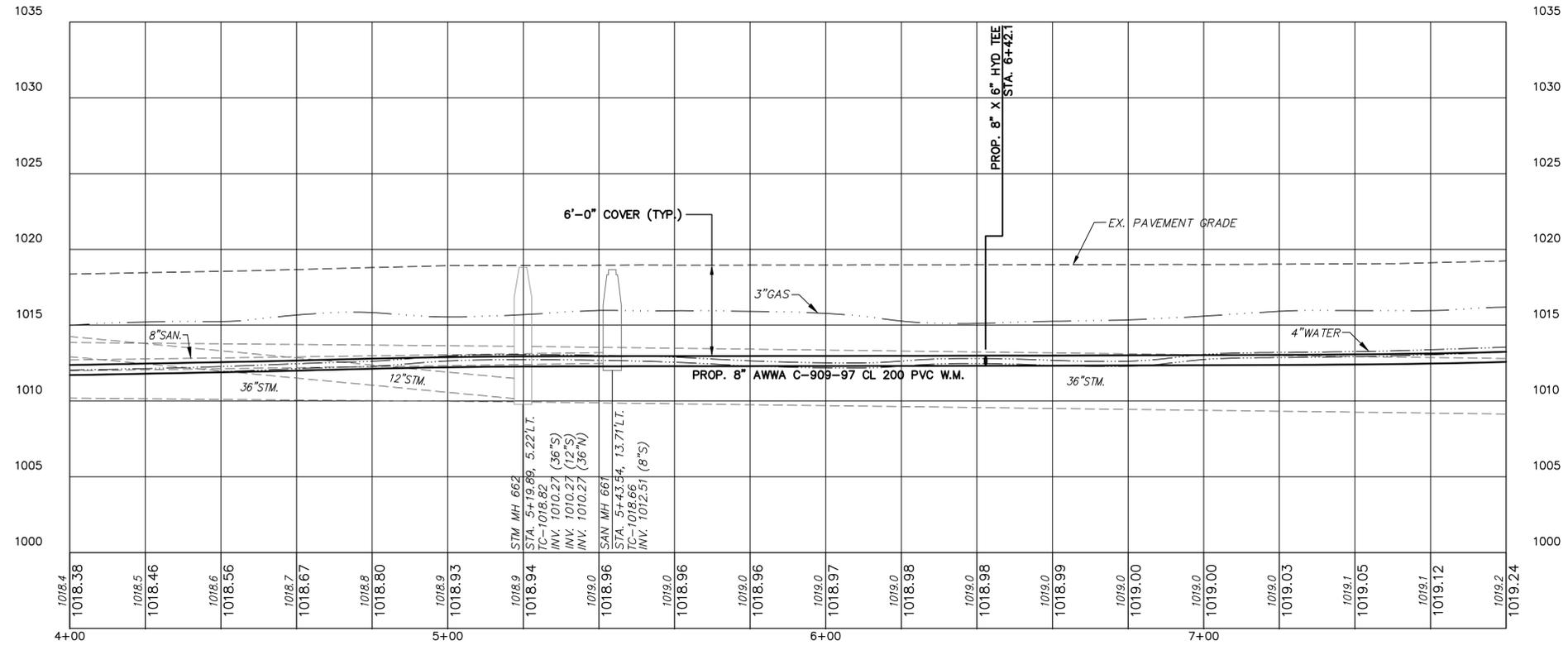
REVISIONS:
HORIZONTAL DATUM: VERTICAL DATUM:
SCALE: V: 1"= 1'
H: 1"= 1'
CITY/VILLAGE/TOWNSHIP: CARDINGTON
COUNTY: MORROW
CAD: P/W/EBM
PROJ/MGR: SRS
ENG: SRS
DATE: June 2015
3031154910

VILLAGE OF CARDINGTON
1930'S WATERLINE REPLACEMENT
PLAN & PROFILE CENTER ST. - STA. 0+00 TO STA. 4+00

DRAWING PATH: S:\MEETS_Village of Cardington\9 PUBLIC PROJECTS\9 PROJECTS\14729-1930 Waterline Replacement_LPWC and CDBG\03 Design\07 - Plans\DWG\14729 Plan & Profiles.dwg Jul 14, 2015 - 1:01 pm

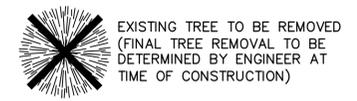


CENTER STREET - 60' R/W



NORTH
GRAPHIC SCALE
(IN FEET)

TBM #2
TOP NUT OF HYDRANT LOCATED ON THE EAST SIDE OF CENTER ST. AT STA. 5+73, 21" RT.
ELEVATION 1021.33



CONSTRUCTION NOTES:
1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.

WS. #	STA.	OFFSET	LENGTH	SIZE
WS-003	4+40	26' RT	4.5'	3/4"
WS-004	4+93	26' RT	4.5'	3/4"
WS-005	5+51	26' RT	4.5'	3/4"

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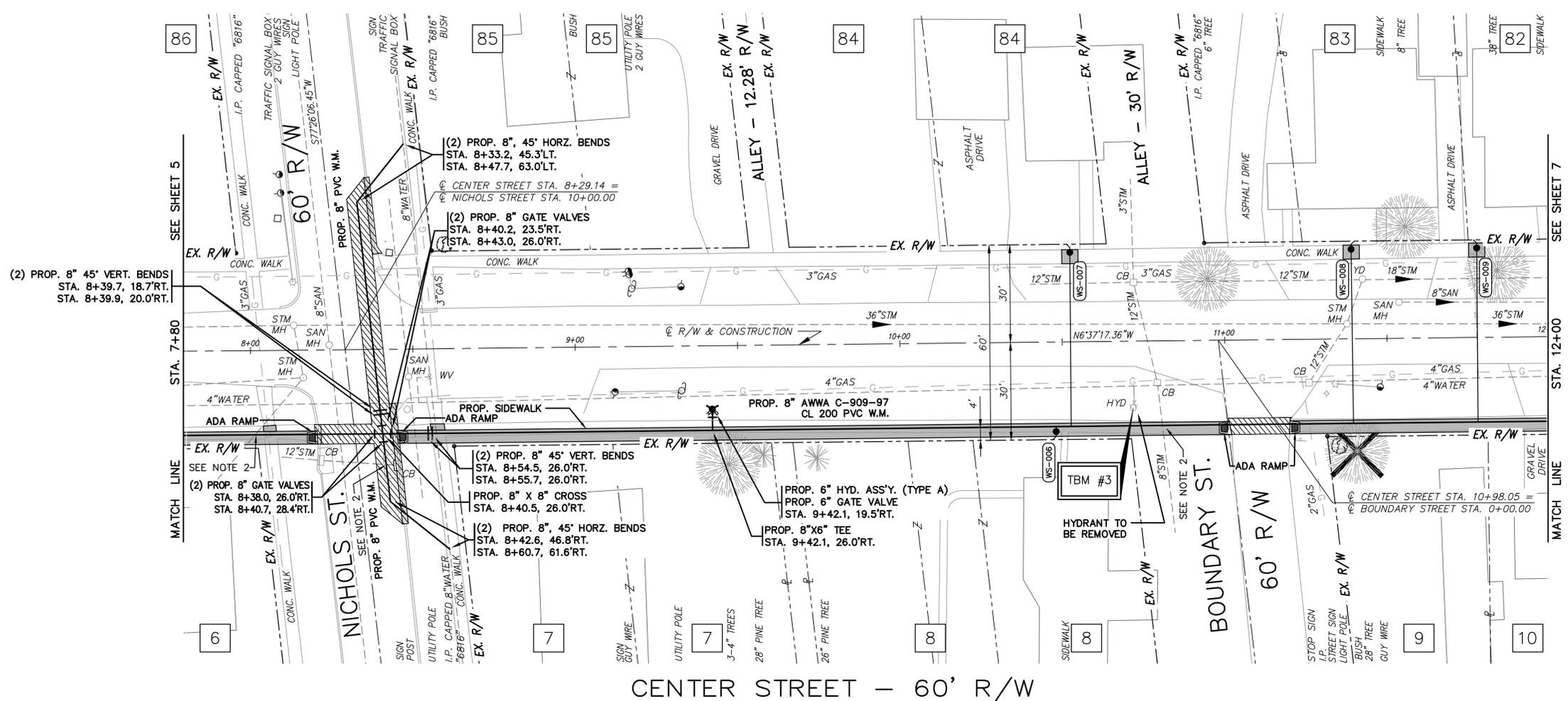
Scott R. Bickley, PE
Ohio Professional Engineer #71470

REVISIONS:

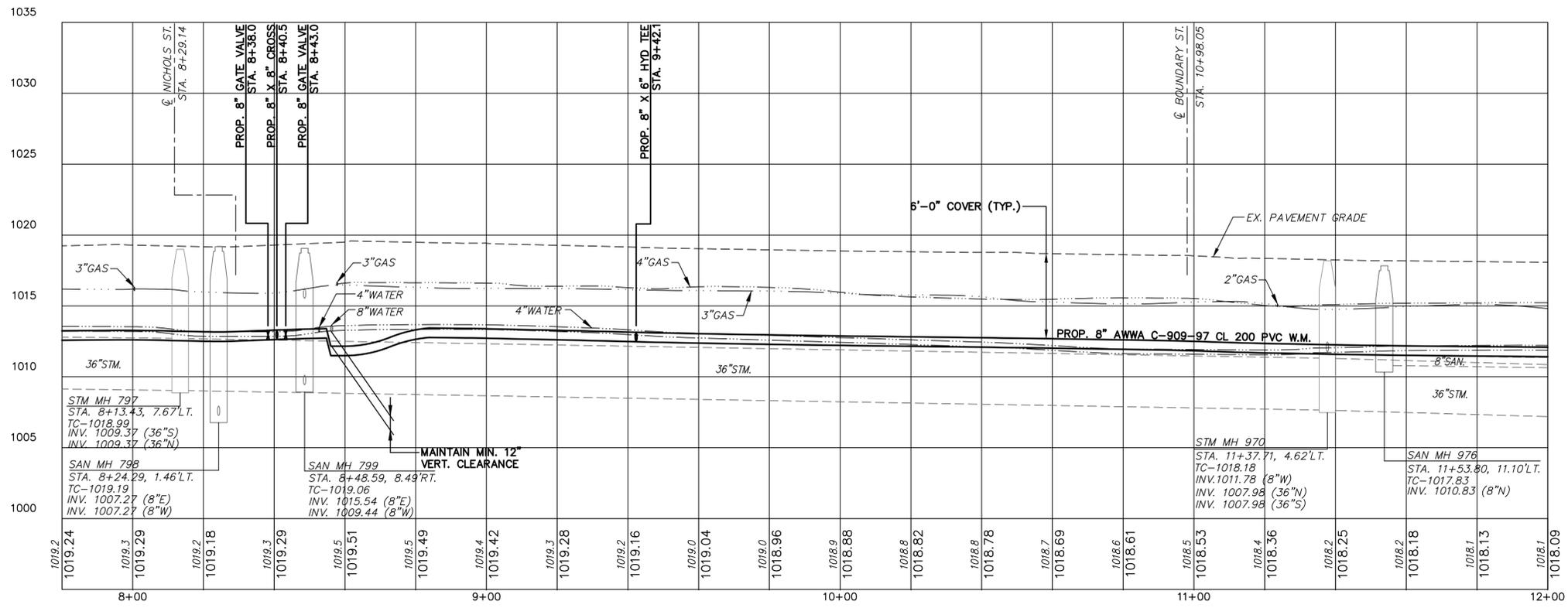
CITY/VILLAGE/TOWNSHIP: CARDINGTON
COUNTY: MORROW
SCALE: V: 1"=100'
H: 1"=10'
DATE: June 2015
PROJ NUMBER: 3031-15-010
PROJ MGR: BRN
ENGR: SRS
CADD: FPM/EBM
CONTRACT: 1930 WATERLINE REPLACEMENT
SHEET: 5 of 25

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CENTER STREET - 60' R/W



NORTH
GRAPHIC SCALE
(IN FEET)

TBM #3
TOP NUT OF HYDRANT LOCATED ON THE EAST SIDE OF CENTER ST. AT STA. 10+72, 20' RT.
ELEVATION 1021.33

- EXISTING TREE TO BE REMOVED (FINAL TREE REMOVAL TO BE DETERMINED BY ENGINEER AT TIME OF CONSTRUCTION)
- PAVEMENT REPAIR (INCLUDING CURB, WHERE APPLICABLE)

CONSTRUCTION NOTES:
1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.
2. DUE TO LACK OF ACCURATE INVERT INFORMATION AT THIS CROSSING, THE CONTRACTOR SHALL FIELD VERIFY LOCATION & ELEVATION OF EXISTING STORM SEWER PRIOR TO CROSSING. CONTRACTOR TO NOTIFY PROJECT ENGINEER IMMEDIATELY OF ANY CONFLICTS BETWEEN EXISTING STORM SEWER PIPE & PROPOSED 8" WATER.

WATER SERVICE CHART				
WS. #	STA.	OFFSET	LENGTH	SIZE
WS-006	10+49	26' RT	4.5'	3/4"
WS-007	10+53	26' RT	56.5'	3/4"
WS-008	11+39	26' RT	56.5'	3/4"
WS-009	11+78	26' RT	56.5'	3/4"

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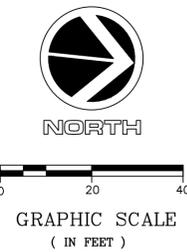
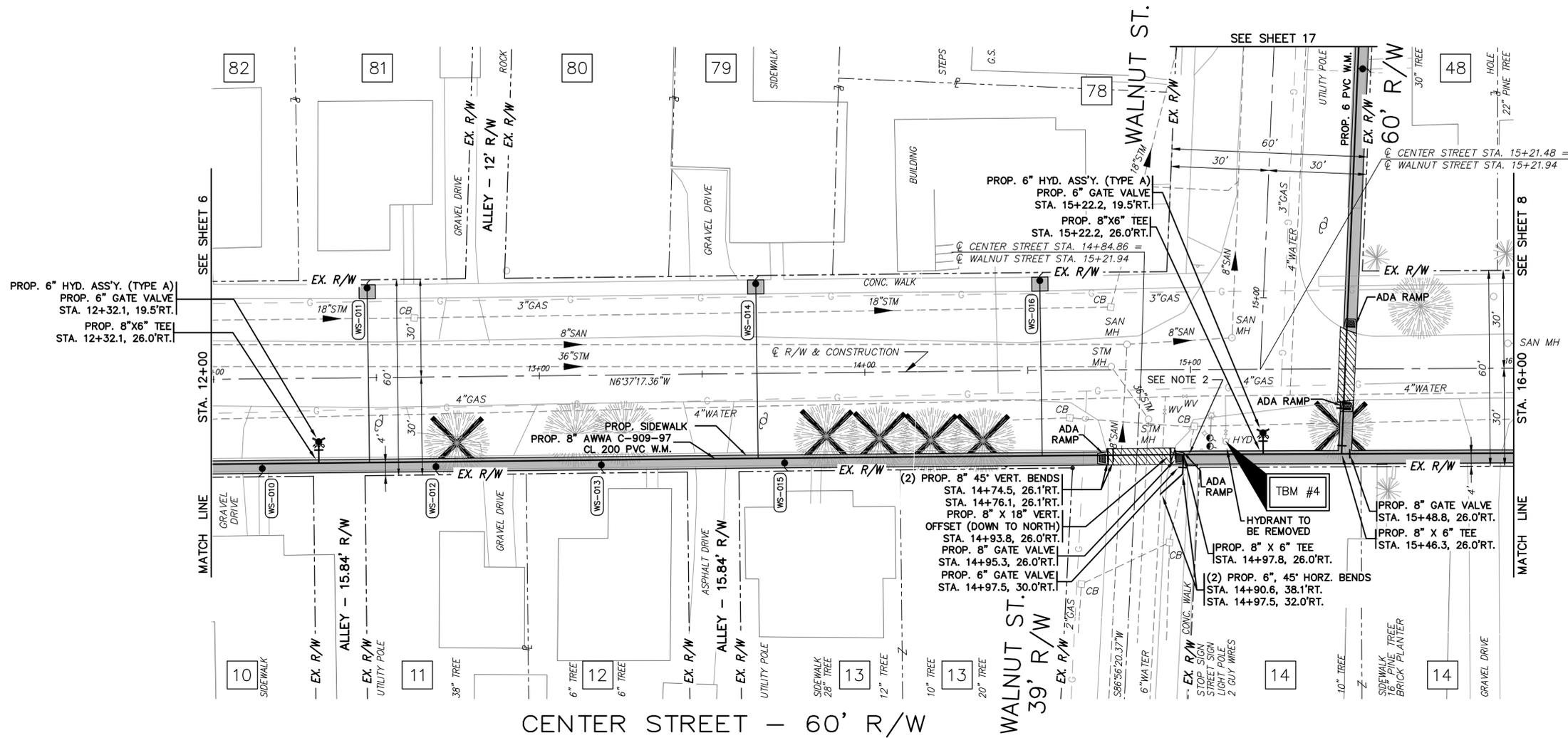
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E-71470
REGISTERED PROFESSIONAL ENGINEER
Scott R. Bickley, PE
Ohio Professional Engineer #71470

REVISIONS: _____
HORIZON DATUM: _____
VERTIC DATUM: _____
SCALE: _____
CITY/VILLAGE/TOWNSHIP: CARRINGTON
COUNTY: MORROW
CADD: FPM/EBM
PROJ MGR: DBN
ENG: SBB
DATE: June 2015
PROJ NUMBER: 3031-15-010

VILLAGE of CARRINGTON
1930'S WATERLINE REPLACEMENT
PLAN & PROFILE CENTER ST. - STA. 8+00 TO STA. 12+00



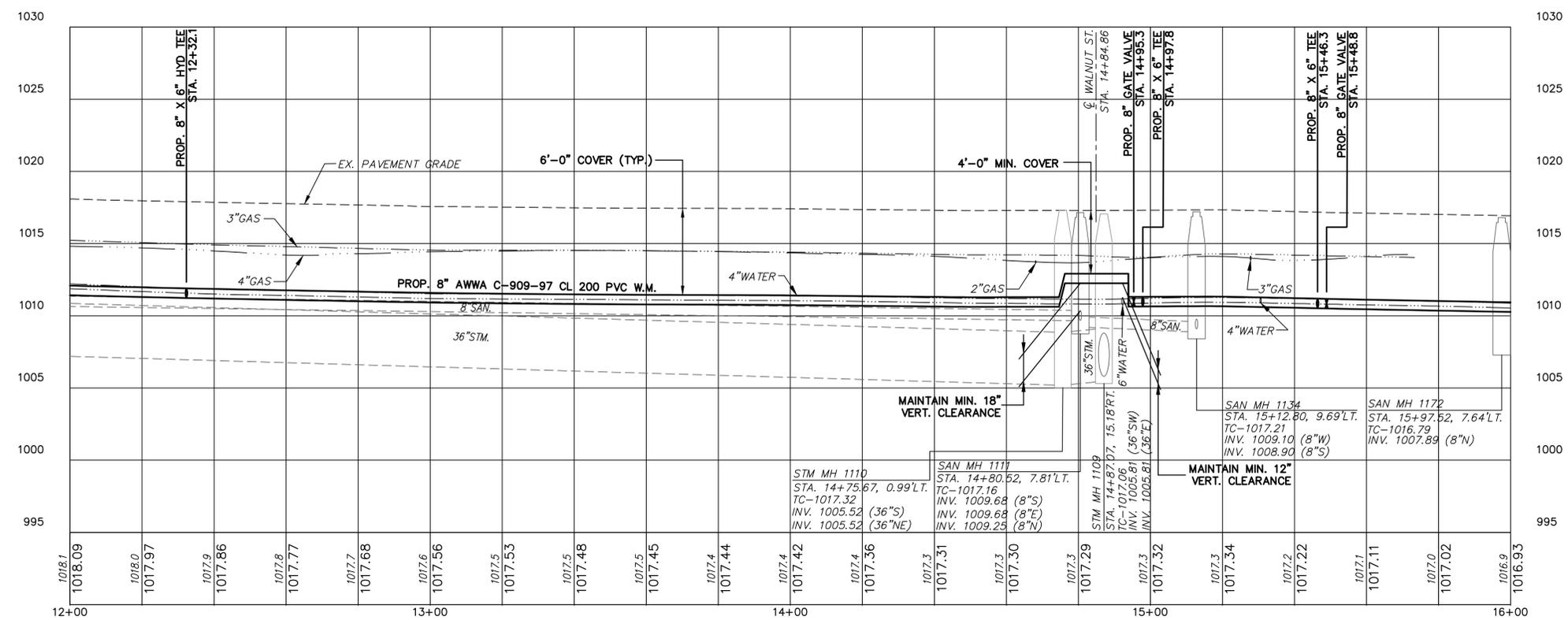
TBM #4
 TOP NUT OF HYDRANT LOCATED ON THE EAST SIDE OF CENTER ST. AT STA. 15+11, 22' RT.
ELEVATION 1019.85

EXISTING TREE TO BE REMOVED (FINAL TREE REMOVAL TO BE DETERMINED BY ENGINEER AT TIME OF CONSTRUCTION)

PAVEMENT REPAIR (INCLUDING CURB, WHERE APPLICABLE)

CONSTRUCTION NOTES:
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 2. DUE TO LACK OF ACCURATE INVERT INFORMATION AT THIS CROSSING, THE CONTRACTOR SHALL FIELD VERIFY LOCATION & ELEVATION OF EXISTING STORM SEWER PRIOR TO CROSSING. CONTRACTOR TO NOTIFY PROJECT ENGINEER IMMEDIATELY OF ANY CONFLICTS BETWEEN EXISTING STORM SEWER PIPE & PROPOSED 8" WATER.

WATER SERVICE CHART				
WS. #	STA.	OFFSET	LENGTH	SIZE
WS-010	12+16	26' RT	4.5'	3/4"
WS-011	12+47	26' RT	56.5'	3/4"
WS-012	12+68	26' RT	4.5'	3/4"
WS-013	13+19	26' RT	4.5'	3/4"
WS-014	13+67	26' RT	56.5'	3/4"
WS-015	13+75	26' RT	4.5'	3/4"
WS-016	14+54	26' RT	56.5'	3/4"



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 E-71470
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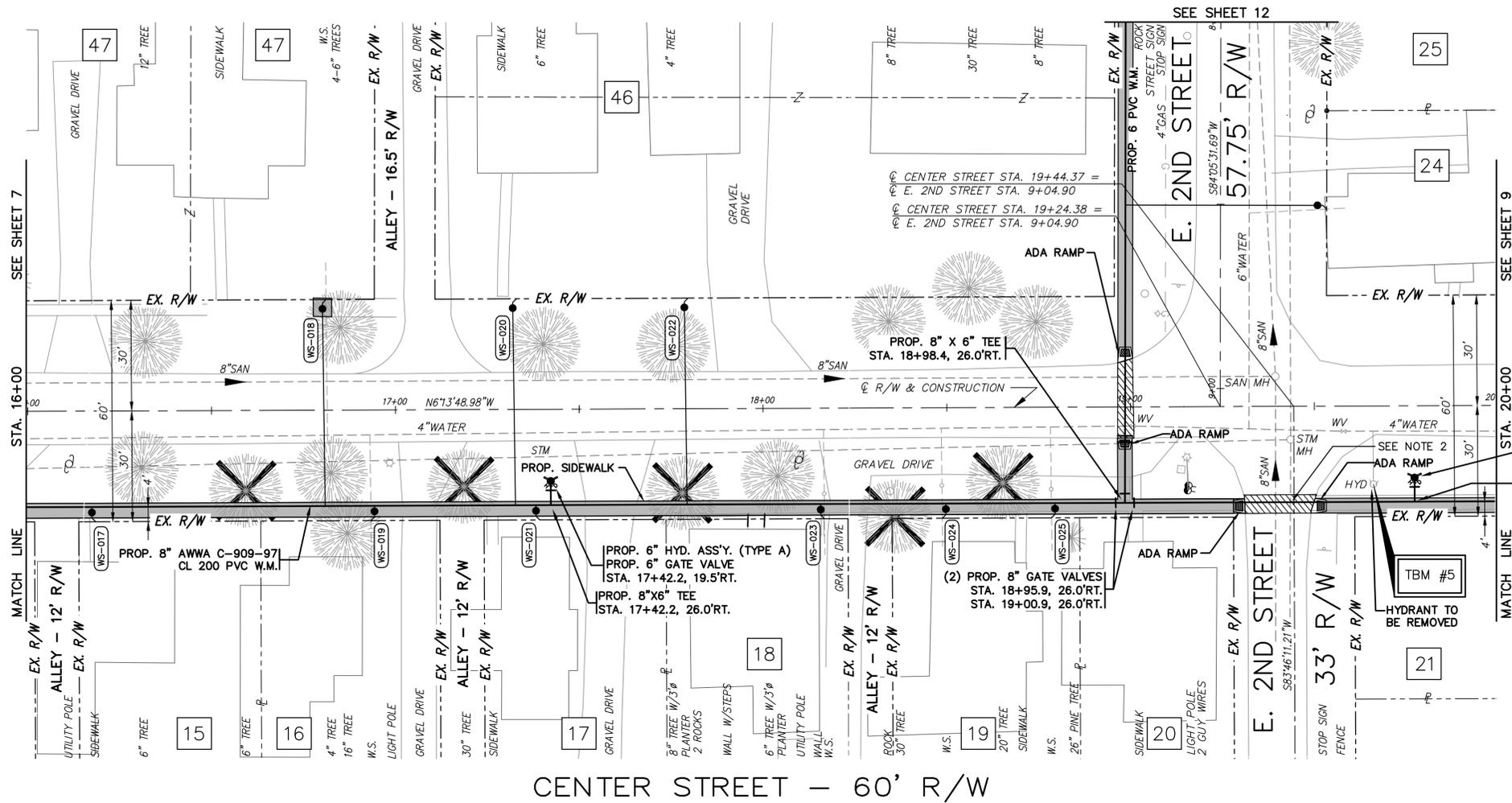
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 Ohio Professional Engineer
 #71470

REVISIONS:

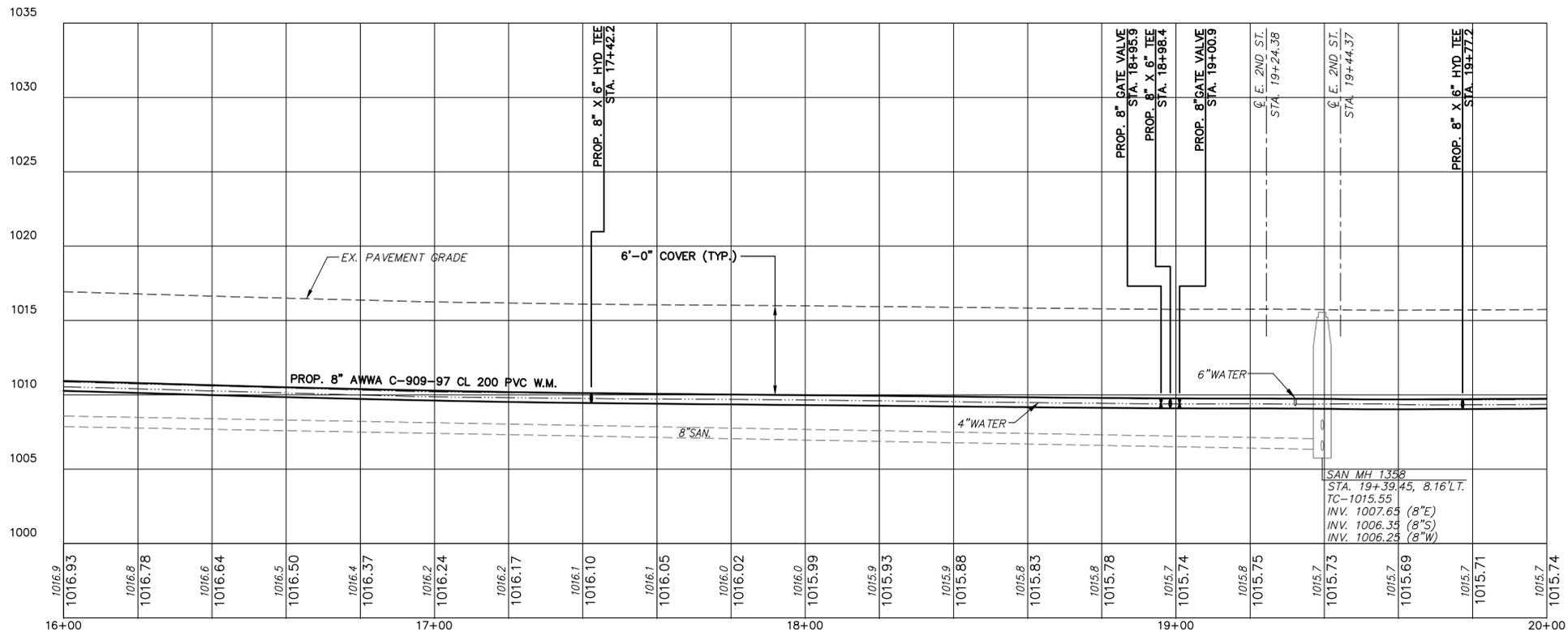
NO.	DATE	DESCRIPTION

CITY/VILLAGE/TOWNSHIP: CARDINGTON
 COUNTY: MORROW
 CAD: P/W/ERM
 PROJ/NGR: BBN
 ENG: SBB
 DATE: Jun 2015

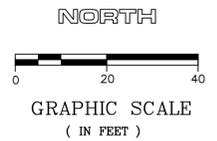
VILLAGE OF CARDINGTON
1930'S WATERLINE REPLACEMENT
PLAN & PROFILE CENTER ST. - STA. 12+00 TO STA. 16+00



CENTER STREET - 60' R/W



WATER SERVICE CHART				
WS. #	STA.	OFFSET	LENGTH	SIZE
WS-017	16+17	26' RT	4.5'	3/4"
WS-018	16+80	26' RT	56.5'	3/4"
WS-019	16+94	26' RT	4.5'	3/4"
WS-020	17+32	26' RT	56.5'	3/4"
WS-021	17+38	26' RT	4.5'	3/4"
WS-022	17+79	26' RT	56.5'	3/4"
WS-023	18+15	26' RT	4.5'	3/4"
WS-024	18+49	26' RT	4.5'	3/4"
WS-025	18+79	26' RT	4.5'	3/4"



TBM #5
 TOP NUT OF HYDRANT LOCATED ON THE EAST SIDE OF CENTER ST. AT STA. 19+66, 21' RT.
ELEVATION 1018.24

EXISTING TREE TO BE REMOVED (FINAL TREE REMOVAL TO BE DETERMINED BY ENGINEER AT TIME OF CONSTRUCTION)

PAVEMENT REPAIR (INCLUDING CURB, WHERE APPLICABLE)

CONSTRUCTION NOTES:
 1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.
 2. DUE TO LACK OF ACCURATE INVERT INFORMATION AT THIS CROSSING, THE CONTRACTOR SHALL FIELD VERIFY LOCATION & ELEVATION OF EXISTING STORM SEWER PRIOR TO CROSSING. CONTRACTOR TO NOTIFY PROJECT ENGINEER IMMEDIATELY OF ANY CONFLICTS BETWEEN EXISTING STORM SEWER PIPE & PROPOSED 8" WATER.

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STATE OF OHIO
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 E-71470
 REGISTERED PROFESSIONAL ENGINEER

 Scott R. Bickley, PE
 Ohio Professional Engineer #71470

REVISIONS:
 HORIZONTAL DATUM
 VERTICAL DATUM
 SCALE
 V: 1"=

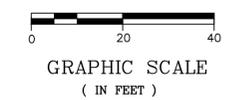
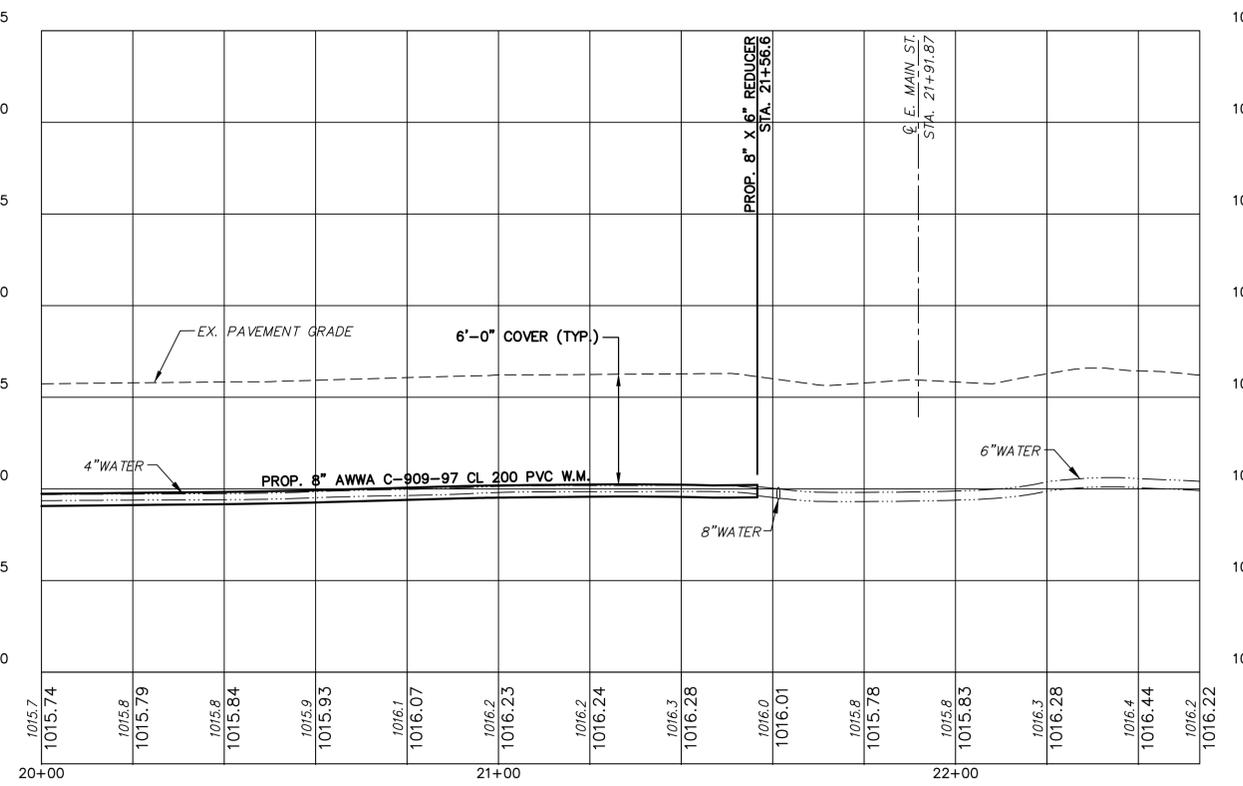
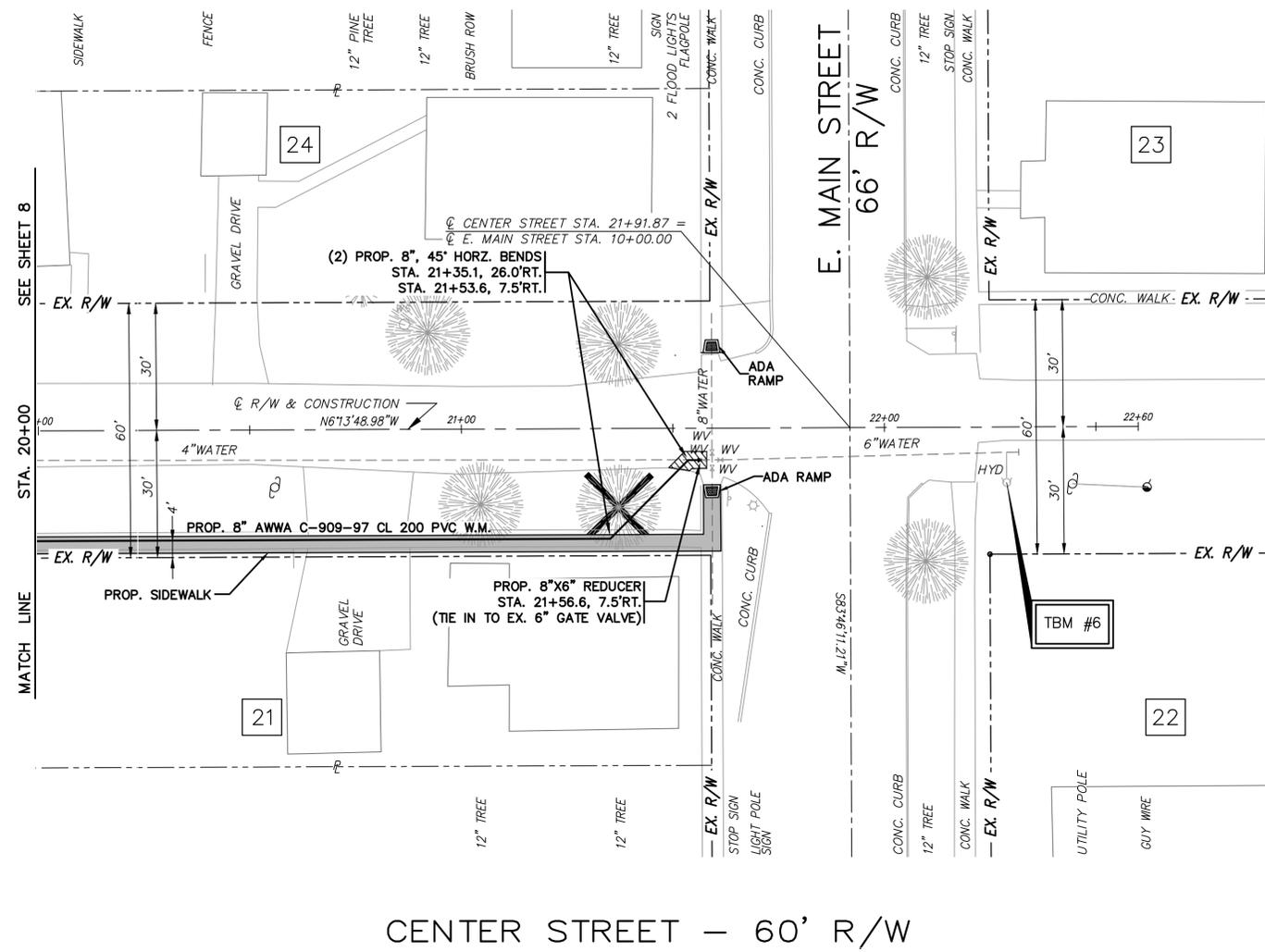
CITY/VILLAGE/TOWNSHIP: CARDINGTON
 COUNTY: MORROW
 CAD: FPM/EBM
 PROJ MGR: BBN
 ENG: SBB
 DATE: June 2015
 3031-15-010

VILLAGE OF CARDINGTON
 1930'S WATERLINE REPLACEMENT
 PLAN & PROFILE CENTER ST. - STA. 16+00 TO STA. 20+00

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DRAWING PATH: S:\EES\ Village of Cardington\9 PUBLIC PROJECTS\9 PROJECT\14729-1930 Waterline Replacement_LPWC and CDBG\03 Design\7 - Plans\DWG\14729 Plan & Profiles.dwg Jul 14, 2015 - 10:01pm



TBM #6
 TOP NUT OF HYDRANT LOCATED ON THE EAST SIDE OF CENTER ST. AT STA. 22+29, 13' RT.
ELEVATION 1019.37

- EXISTING TREE TO BE REMOVED (FINAL TREE REMOVAL TO BE DETERMINED BY ENGINEER AT TIME OF CONSTRUCTION)
- PAVEMENT REPAIR (INCLUDING CURB, WHERE APPLICABLE)

CONSTRUCTION NOTES:
 1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.

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 E-71470
 REGISTERED PROFESSIONAL ENGINEER

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 Ohio Professional Engineer #71470

REVISIONS:

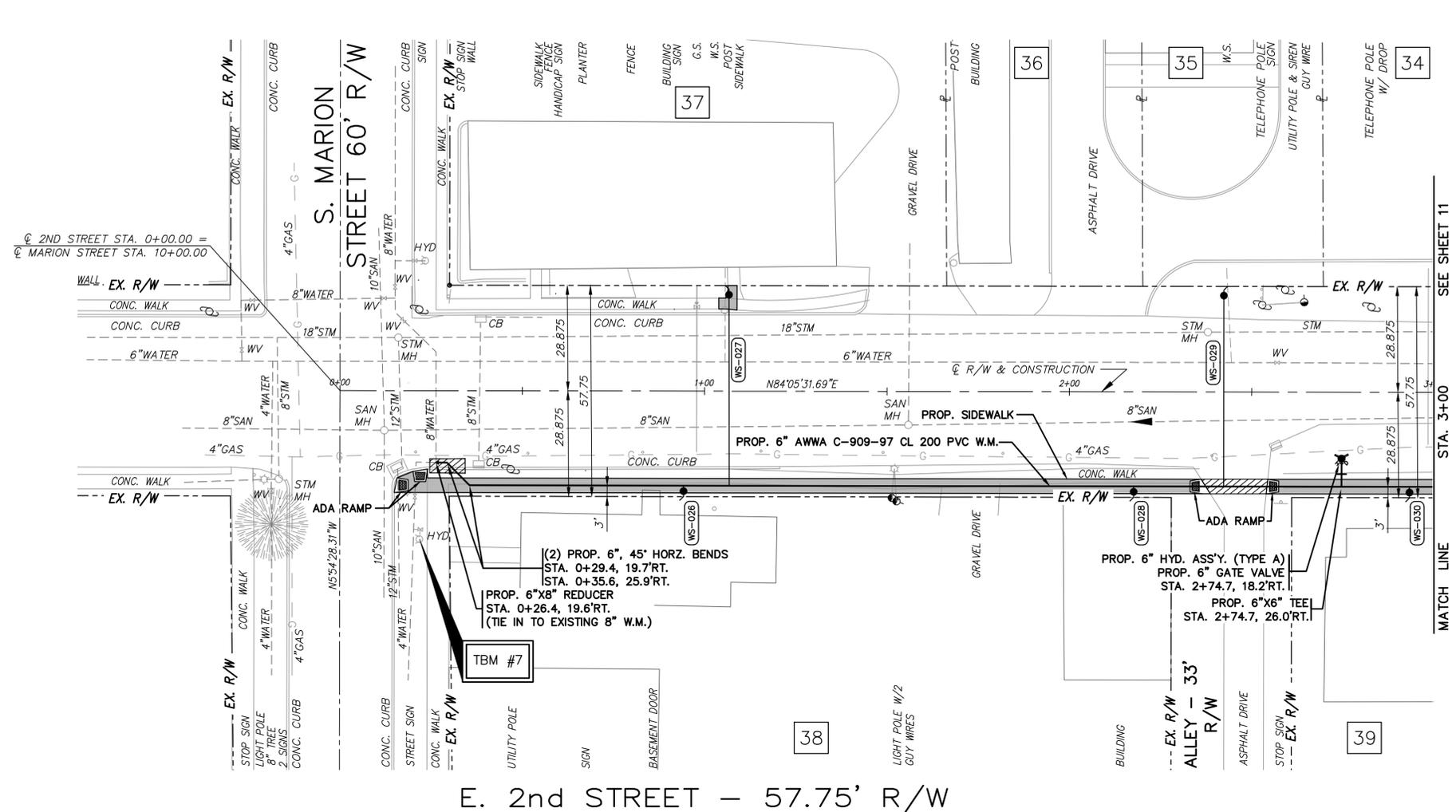
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 CITY/VILLAGE/TOWNSHIP CARBINGTON
 COUNTY MORROW
 CAD. PROJ. IGR. ENG. SRB
 DATE: Jun 2015
 PROJ. NUMBER: 3031-15-010
 V. SCALE: 1"=10'
 H. SCALE: 1"=10'

VILLAGE of CARDINGTON
1930'S WATERLINE REPLACEMENT
PLAN & PROFILE CENTER ST. - STA. 20+00 TO STA. 23+00

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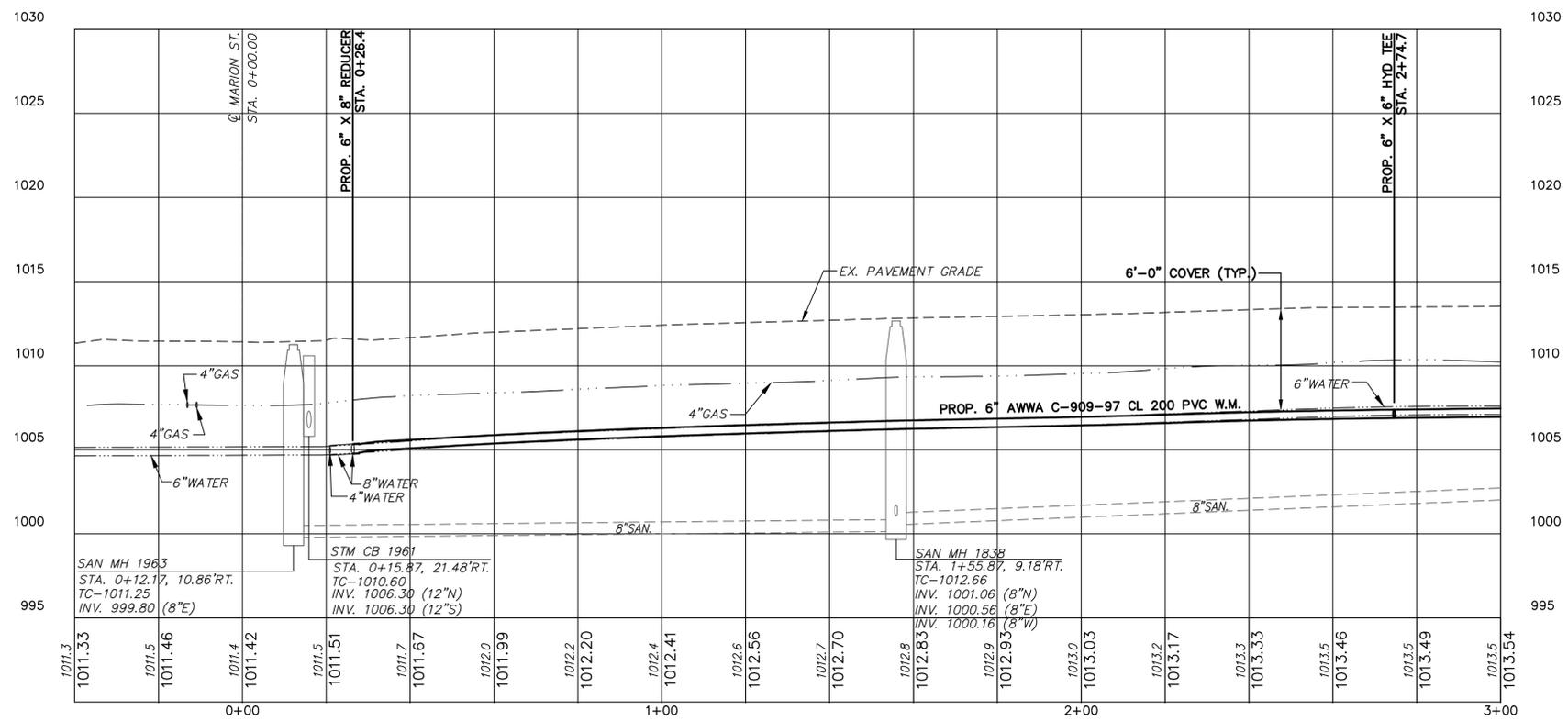
TBM #7
 TOP NUT OF HYDRANT LOCATED ON THE SOUTH SIDE OF E 2ND ST. AT STA. 0+21.40' RT.
 ELEVATION 1013.91

PAVEMENT REPAIR (INCLUDING CURB, WHERE APPLICABLE)

CONSTRUCTION NOTES:
 1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.

WATER SERVICE CHART				
WS. #	STA.	OFFSET	LENGTH	SIZE
WS-026	0+94	26' RT	3.0'	3/4"
WS-027	1+07	26' RT	55.0'	3/4"
WS-028	2+18	26' RT	3.0'	3/4"
WS-029	2+42	26' RT	55.0'	3/4"
WS-030	2+93	26' RT	3.0'	3/4"

E. 2nd STREET - 57.75' R/W



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 E-71470
 REGISTERED PROFESSIONAL ENGINEER

SRB
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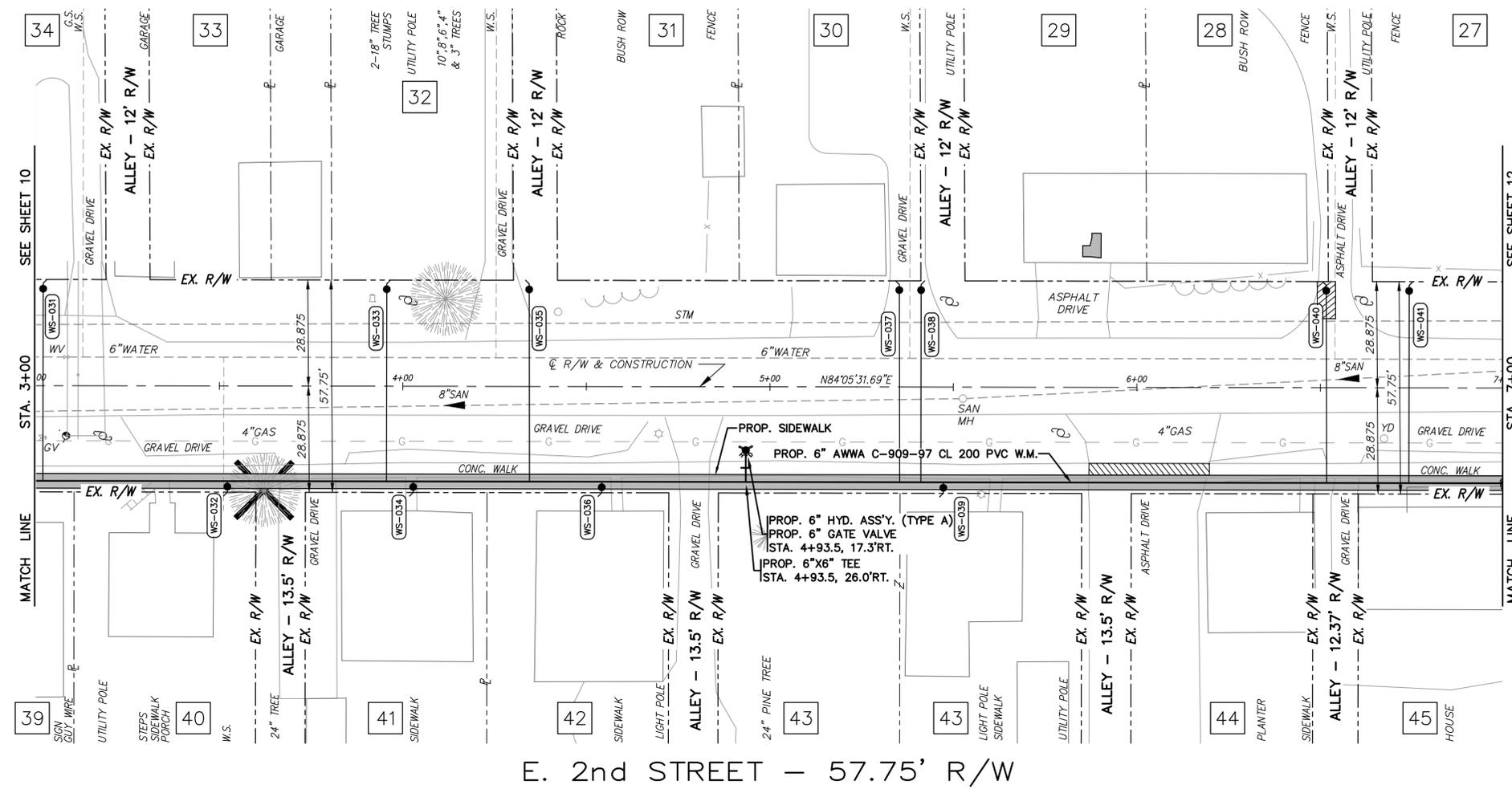
REVISIONS:

NO.	DATE	DESCRIPTION

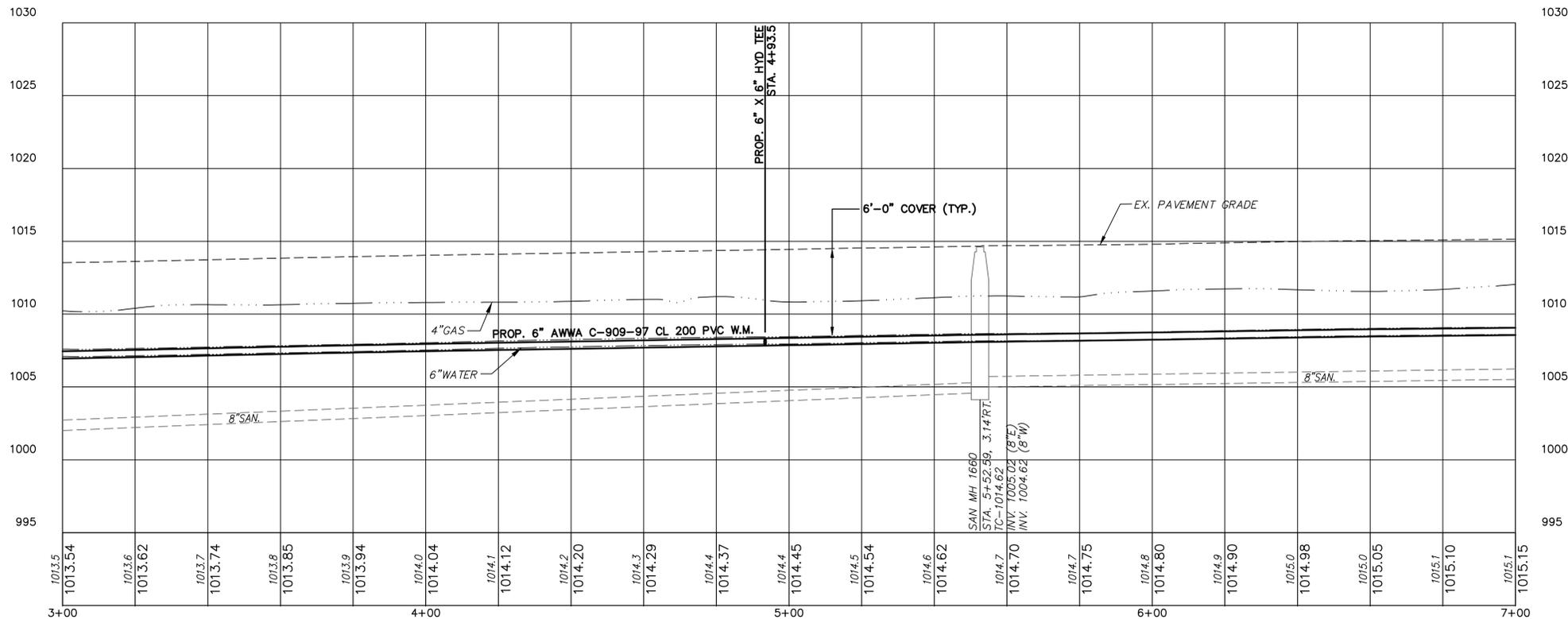
DATE: Jun 2015
 PROJ. NUMBER: 3031154010
 ENG. SRS
 COUNTY: MORROW
 CITY/VILLAGE/TOWNSHIP: CARDINGTON
 SCALE: V: 1"=10', H: 1"=10'

VILLAGE OF CARDINGTON
 1930'S WATERLINE REPLACEMENT
 PLAN & PROFILE E. 2ND ST. - STA. 0+00 TO STA. 4+00

DRAWING PATH: S:\WEBS\Projects\Public\Projects\14729_1930 Waterline Replacement_LPWC and CDBG\03 Design\07 - Plans\DWG\14729 Plan & Profiles.dwg Jul 14, 2015 - 1:02pm

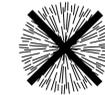


E. 2nd STREET - 57.75' R/W



NORTH
0 20 40
GRAPHIC SCALE
(IN FEET)

TBM #7
TOP NUT OF HYDRANT LOCATED ON THE SOUTH SIDE OF E 2ND ST. AT STA. 0+21, 37' RT.
ELEVATION 1013.91



EXISTING TREE TO BE REMOVED (FINAL TREE REMOVAL TO BE DETERMINED BY ENGINEER AT TIME OF CONSTRUCTION)



PAVEMENT REPAIR (INCLUDING CURB, WHERE APPLICABLE)

CONSTRUCTION NOTES:
1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.

WS. #	STA.	OFFSET	LENGTH	SIZE
WS-031	3+02	26' RT	55.0'	3/4"
WS-032	3+52	26' RT	3.0'	3/4"
WS-033	3+96	26' RT	55.0'	3/4"
WS-034	4+03	26' RT	3.0'	3/4"
WS-035	4+35	26' RT	55.0'	3/4"
WS-036	4+54	26' RT	3.0'	3/4"
WS-037	5+35	26' RT	55.0'	3/4"
WS-038	5+41	26' RT	55.0'	3/4"
WS-039	5+47	26' RT	3.0'	3/4"
WS-040	6+52	26' RT	55.0'	3/4"
WS-041	6+74	26' RT	55.0'	3/4"

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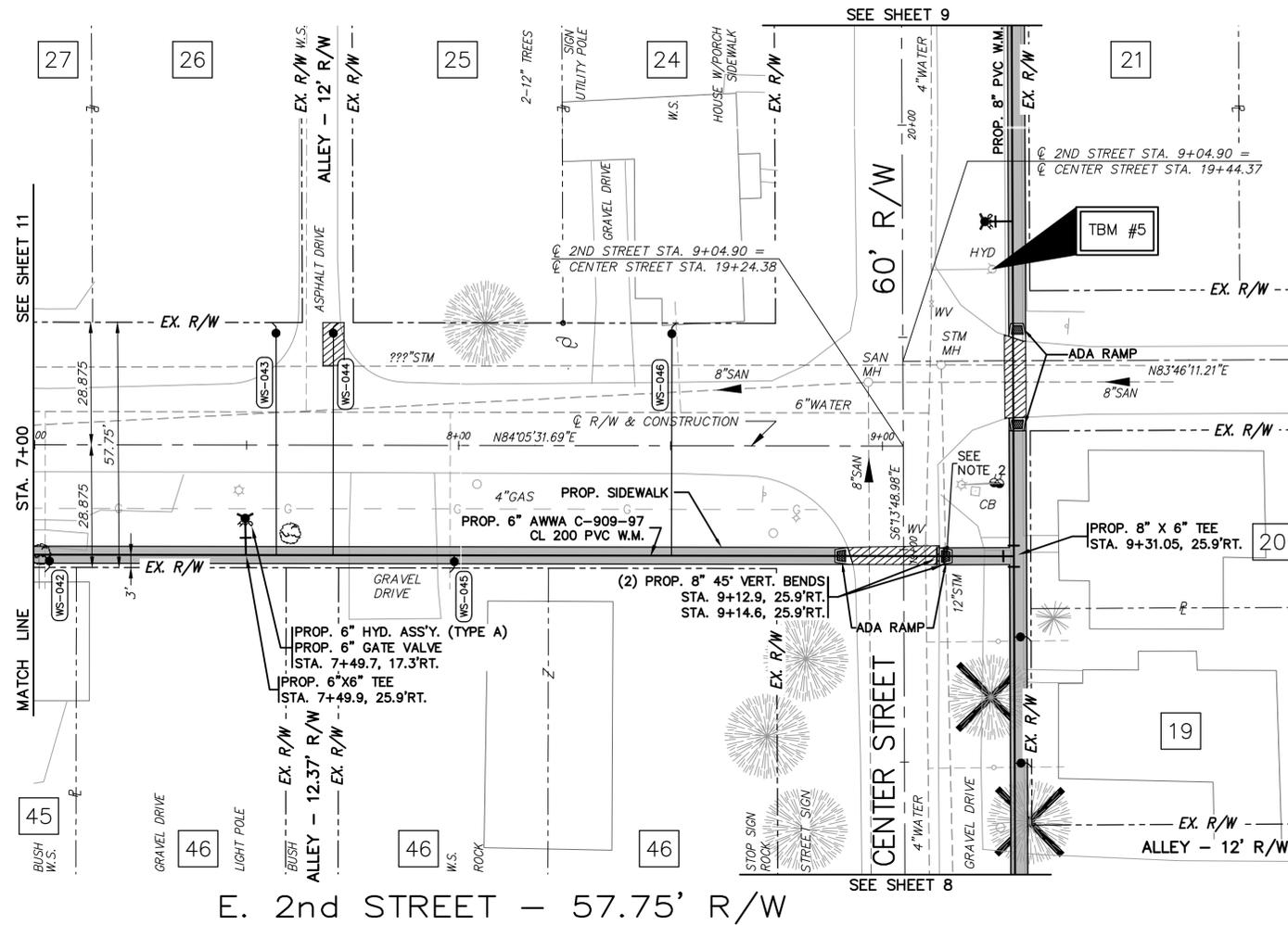
Scott R. Bickley, PE
Ohio Professional Engineer
#71470

REVISIONS

CITY/VILLAGE/TOWNSHIP: CARDINGTON
COUNTY: MORROW
SCALE: H: 1"=100' V: 1"=10'
DATE: June 2015
PROJ NUMBER: 303154010
PROJ MGR: ERM
ENGR: SBG
CADD: ERM
FPI/ERM
V: 1"=10'

VILLAGE OF CARDINGTON
1930'S WATERLINE REPLACEMENT
PLAN & PROFILE E. 2ND ST. - STA. 4+00 TO STA. 8+00

DRAWING PATH: S:\EES_Village of Cardington\9 PUBLIC PROJECTS\9 PROJECTS\14729_1930 Waterline Replacement_LPWC and CDG\03 Design\07 - Plans\DWG\14729_Plan & Profiles.dwg Jul 14, 2015 - 1:02pm



NORTH
 0 20 40
 GRAPHIC SCALE
 (IN FEET)

TBM #5
 TOP NUT OF HYDRANT LOCATED ON THE EAST SIDE OF CENTER ST. AT STA. 19+66, 21' RT.
 ELEVATION 1018.24



EXISTING TREE TO BE REMOVED (FINAL TREE REMOVAL TO BE DETERMINED BY ENGINEER AT TIME OF CONSTRUCTION)

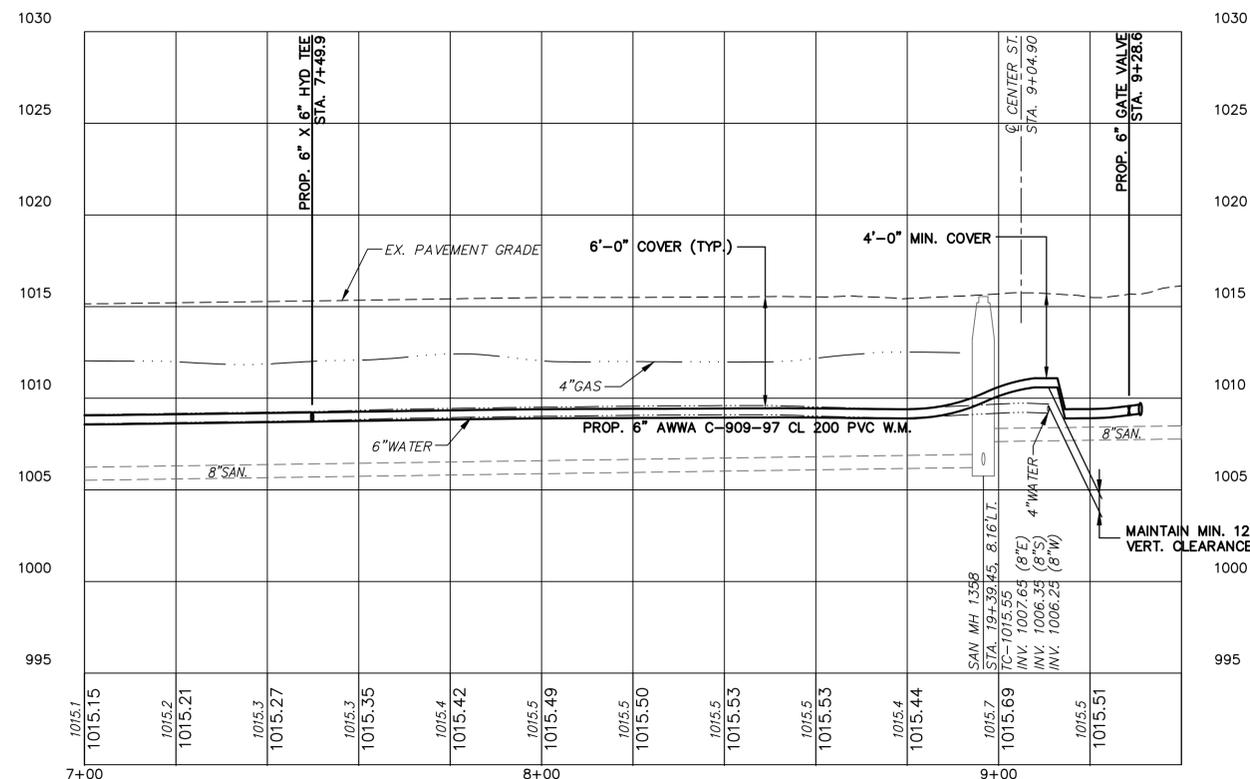


PAVEMENT REPAIR (INCLUDING CURB, WHERE APPLICABLE)

CONSTRUCTION NOTES:

1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.
2. DUE TO LACK OF ACCURATE INVERT INFORMATION AT THIS CROSSING, THE CONTRACTOR SHALL FIELD VERIFY LOCATION & ELEVATION OF EXISTING STORM SEWER PRIOR TO CROSSING. CONTRACTOR TO NOTIFY PROJECT ENGINEER IMMEDIATELY OF ANY CONFLICTS BETWEEN EXISTING STORM SEWER PIPE & PROPOSED 6" WATER.

WATER SERVICE CHART				
WS. #	STA.	OFFSET	LENGTH	SIZE
WS-042	7+04	26' RT	3.0'	3/4"
WS-043	7+57	26' RT	55.0'	3/4"
WS-044	7+70	26' RT	55.0'	3/4"
WS-045	7+99	26' RT	3.0'	3/4"
WS-046	8+50	26' RT	55.0'	3/4"



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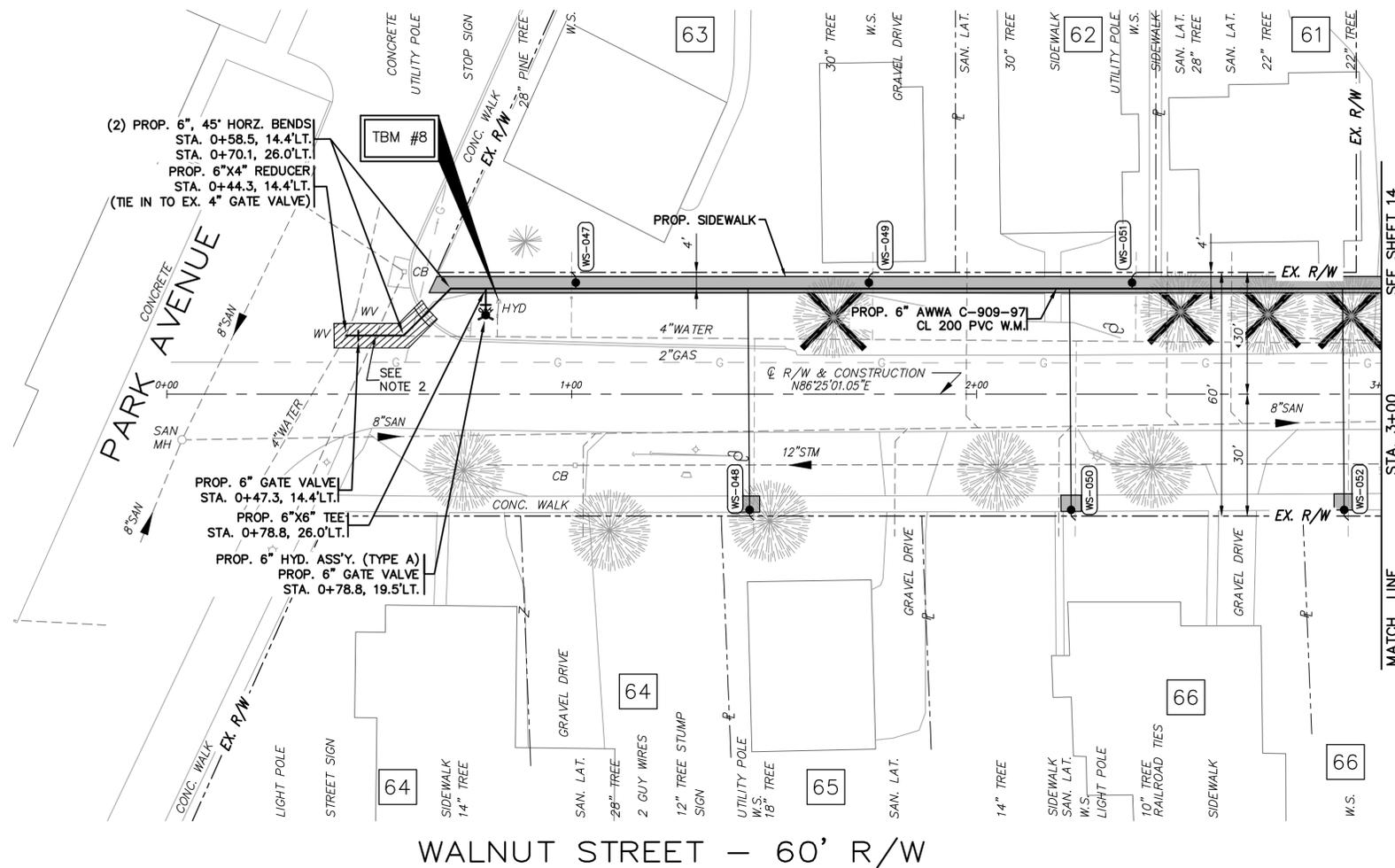
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 6650 W. SNOWVILLE RD., STE. A
 BRECKSVILLE, OHIO 44141
 330.657.2145
 OHM-ADVISORS.COM

STATE OF OHIO
 SCOTT R. BICKLEY
 E-71470
 REGISTERED PROFESSIONAL ENGINEER
 Scott R. Bickley, PE
 Ohio Professional Engineer #71470

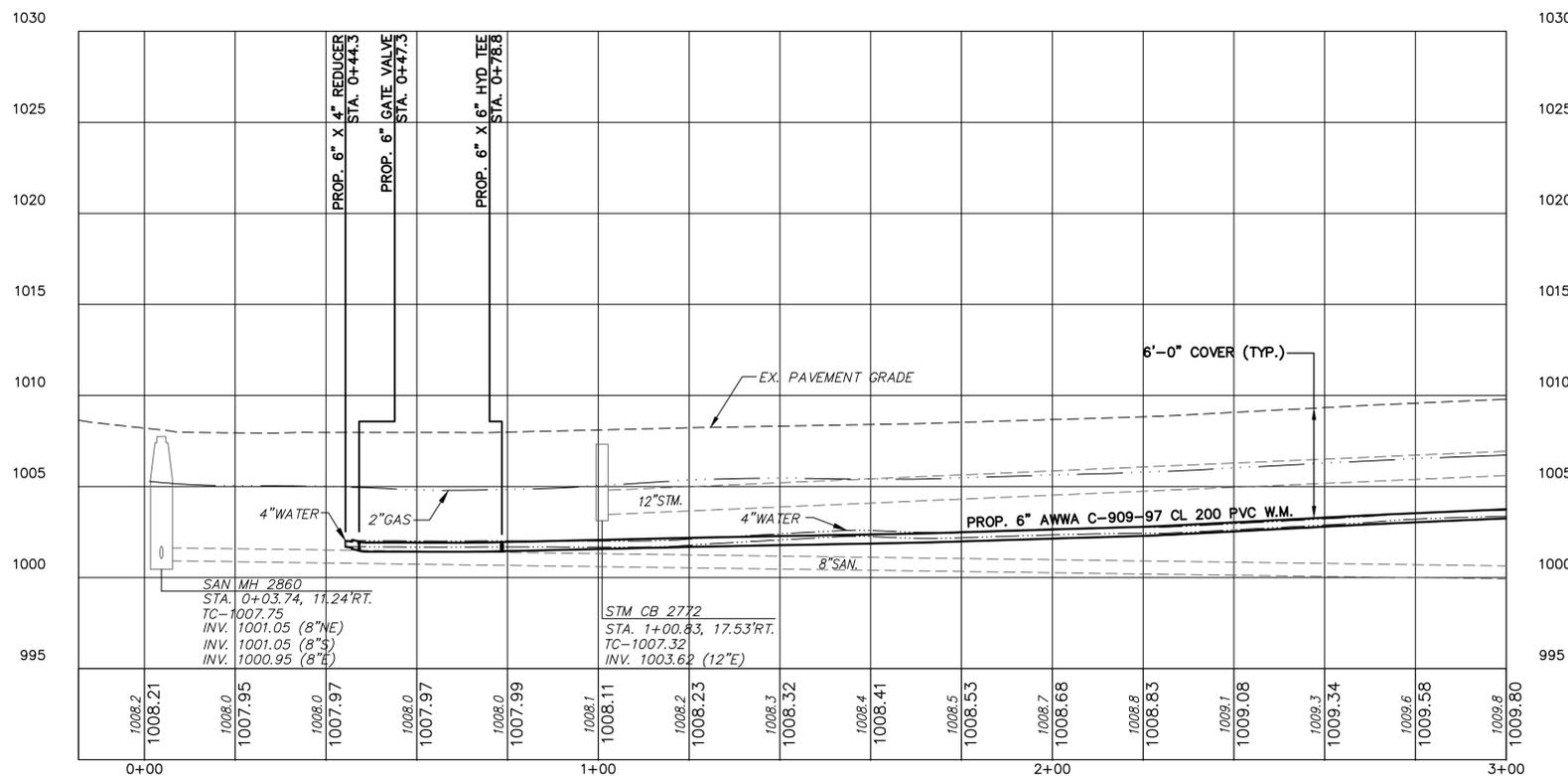
REVISIONS:
 HORIZONTAL
 VERTICAL
 SCALE
 CITY/VILLAGE/TOWNSHIP
 COUNTY
 CAD
 PROJ/AGR
 PROJ/NO
 ENG
 SB
 DATE
 Jun 2015

VILLAGE OF CARDINGTON
 1930'S WATERLINE REPLACEMENT
 PLAN & PROFILE E. 2ND ST. - STA. 8+00 TO STA. 10+00

DRAWING PATH: S:\WEB\ Villages of Cardington\9 PUBLIC PROJECTS\9 PROJECTS\14729 - 1930 Waterline Replacement\OPWC and CDBG\03 Design\07 - Plans\DWG\14729\Plan & Profiles.dwg Jul 14, 2015 - 1:02pm



WALNUT STREET - 60' R/W



NORTH
GRAPHIC SCALE
(IN FEET)

TBM #8
TOP NUT OF HYDRANT LOCATED ON THE NORTH SIDE OF WALNUT ST. AT STA. 0+82, 23' LT.
ELEVATION 1010.32

EXISTING TREE TO BE REMOVED (FINAL TREE REMOVAL TO BE DETERMINED BY ENGINEER AT TIME OF CONSTRUCTION)

PAVEMENT REPAIR (INCLUDING CURB, WHERE APPLICABLE)

CONSTRUCTION NOTES:
1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.
2. DUE TO LACK OF ACCURATE INVERT INFORMATION AT THIS CROSSING, THE CONTRACTOR SHALL FIELD VERIFY LOCATION & ELEVATION OF EXISTING STORM SEWER PRIOR TO CROSSING. CONTRACTOR TO NOTIFY PROJECT ENGINEER IMMEDIATELY OF ANY CONFLICTS BETWEEN EXISTING STORM SEWER PIPE & PROPOSED 6" WATER.

WATER SERVICE CHART				
WS. #	STA.	OFFSET	LENGTH	SIZE
WS-047	1+01	26' LT	4.5'	3/4"
WS-048	1+44	26' LT	56.0'	3/4"
WS-049	1+74	26' LT	4.5'	3/4"
WS-050	2+23	26' LT	56.0'	3/4"
WS-051	2+39	26' LT	4.5'	3/4"
WS-052	2+91	26' LT	56.0'	3/4"

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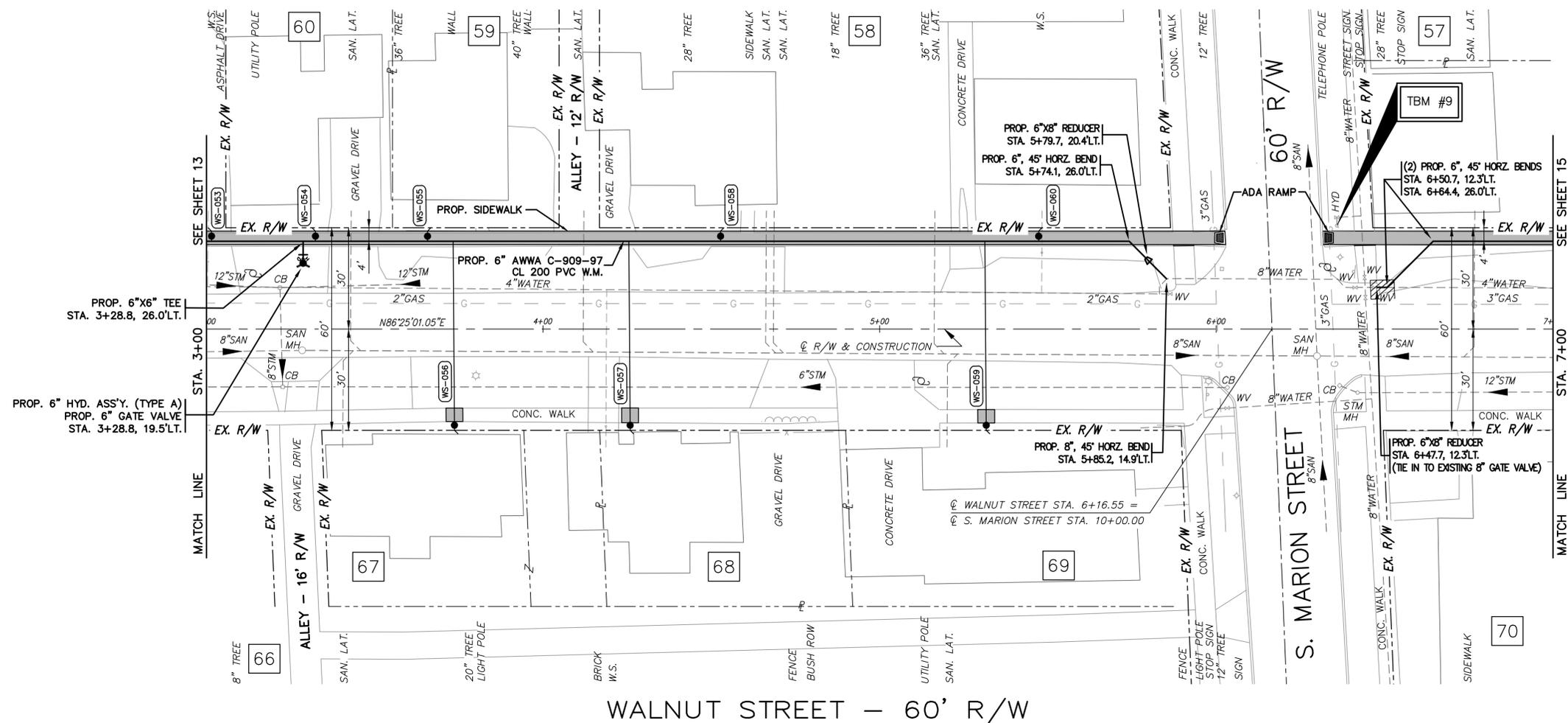
STATE OF OHIO
SCOTT R. BICKLEY
E-71470
REGISTERED PROFESSIONAL ENGINEER

Scott R. Bickley, PE
Ohio Professional Engineer #71470

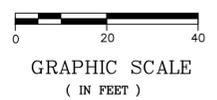
REVISIONS:
HORIZONTAL DATUM
VERTICAL DATUM
SCALE
V: 1"=40'
H: 1"=40'

CITY/VILLAGE/TOWNSHIP: CARDINGTON
COUNTY: MORROW
PROJ. NO.: 3031154910
DATE: June 2015
VILLAGE OF CARDINGTON
1930'S WATERLINE REPLACEMENT
PLAN & PROFILE WALNUT ST. - STA. 0+00 TO STA. 3+00

DRAWING PATH: S:\EES_Village of Cardington\9 PUBLIC PROJECTS\9 PROJECTS\14729 - 1930 Waterline Replacement_LPWC and CDBG\03 Design\07 - Plans\DWG\14729 Plan & Profiles.dwg Jul 14, 2015 - 1:02pm



WALNUT STREET - 60' R/W

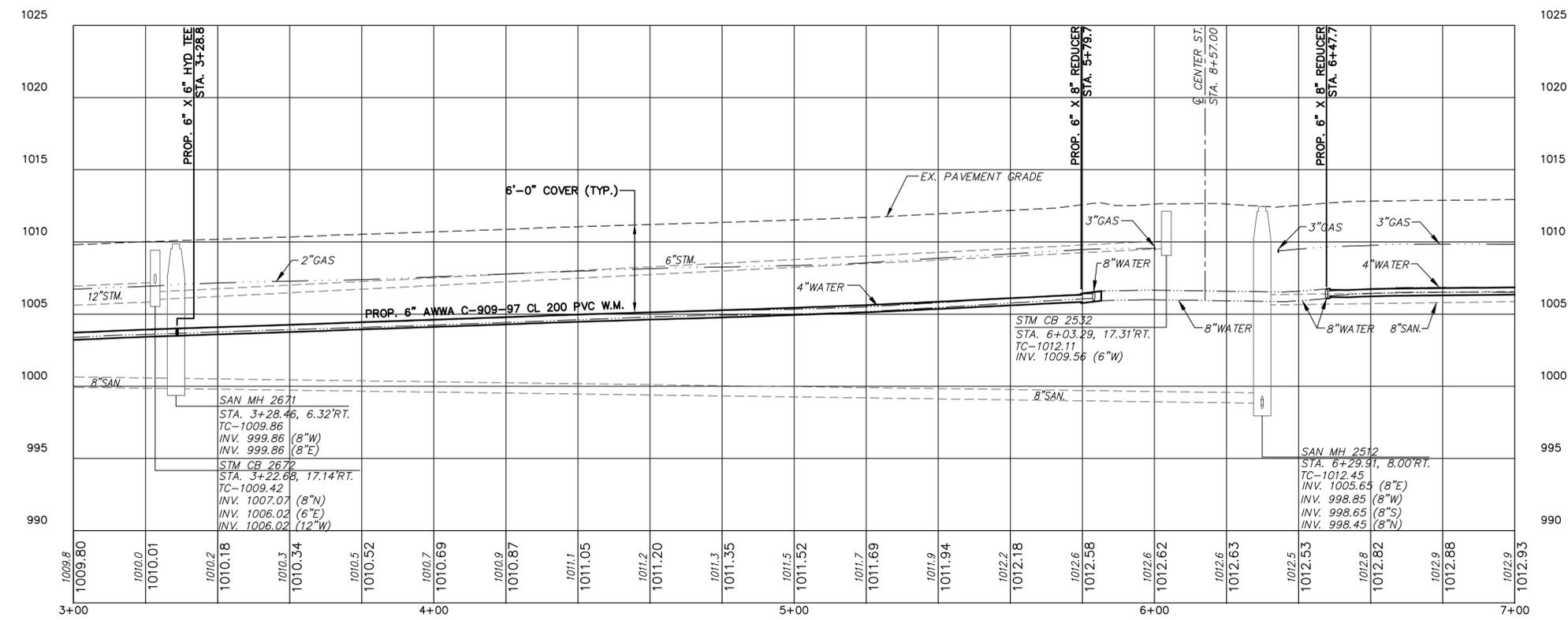


TBM #9
 TOP NUT OF HYDRANT LOCATED ON THE NORTH SIDE OF WALNUT ST. AT STA. 6+36, 31' LT.
 ELEVATION 1015.28

CONSTRUCTION NOTES:
 1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.

PAVEMENT REPAIR (INCLUDING CURB, WHERE APPLICABLE)

WATER SERVICE CHART				
WS. #	STA.	OFFSET	LENGTH	SIZE
WS-053	3+02	26' LT	4.5'	3/4"
WS-054	3+33	26' LT	4.5'	3/4"
WS-055	3+66	26' LT	4.5'	3/4"
WS-056	3+73	26' LT	56.0'	3/4"
WS-057	4+26	26' LT	56.0'	3/4"
WS-058	4+53	26' LT	4.5'	3/4"
WS-059	5+32	26' LT	56.0'	3/4"
WS-060	5+48	26' LT	4.5'	3/4"



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STATE OF OHIO
 SCOTT R. BICKLEY
 E-71470
 REGISTERED PROFESSIONAL ENGINEER

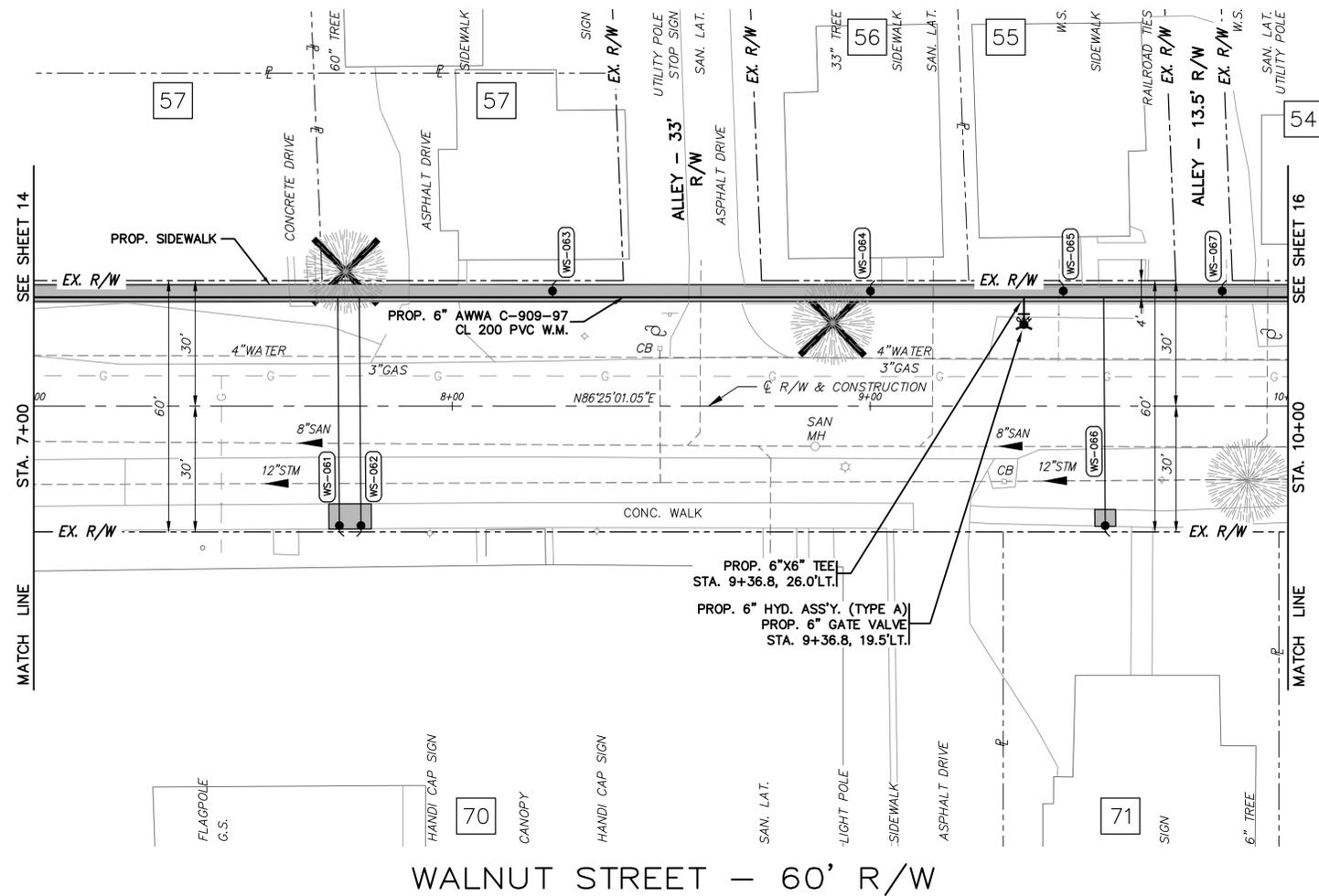
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 Ohio Professional Engineer #71470

REVISIONS

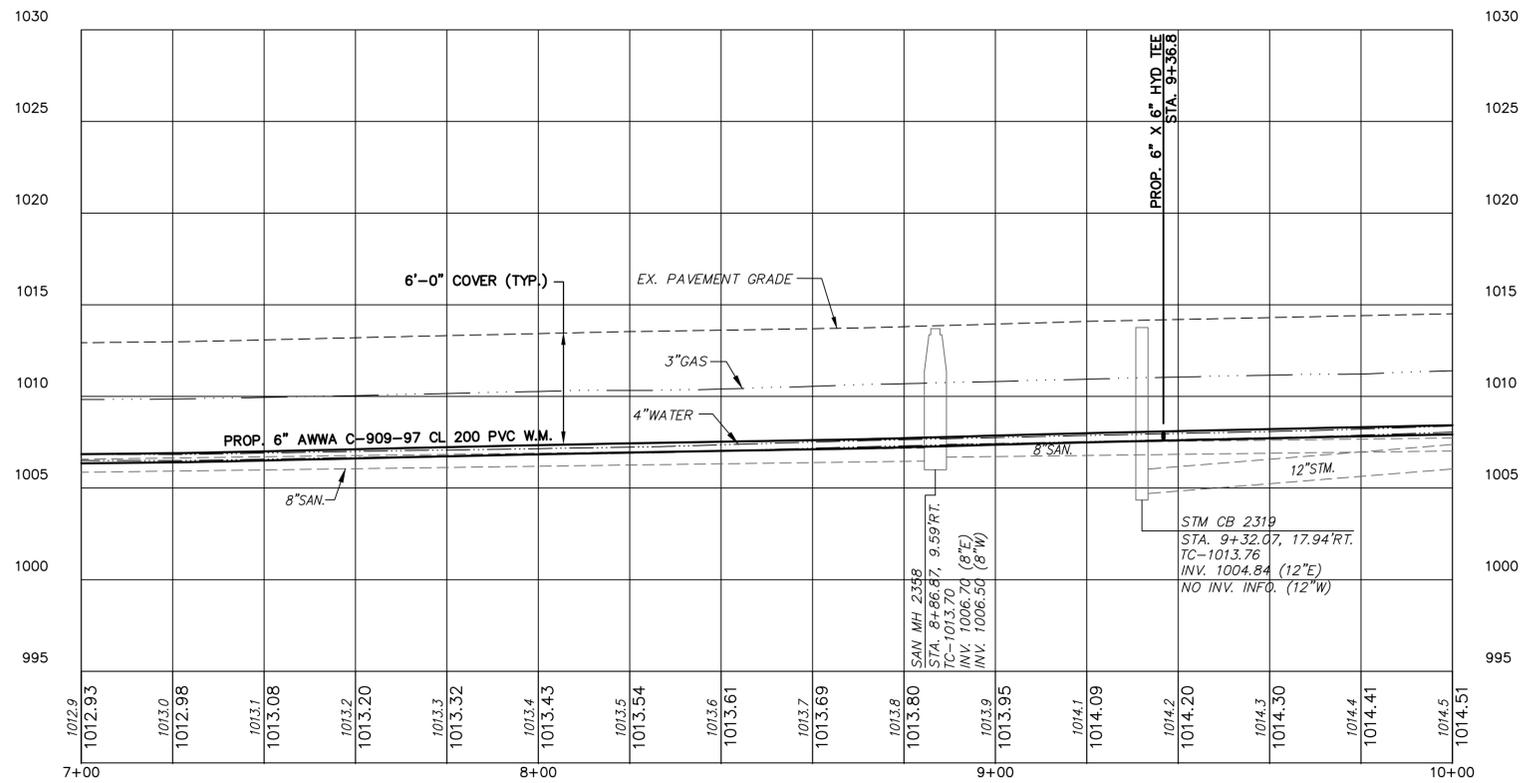
HORIZONTUM VERTICUM

DATE: June 2015
 PROJ NUMBER: 3031-15-010
 ENG: SRS
 PROJ MGR: DBN
 CAD: FJM/EBM
 COUNTY: MORROW
 CITY/VILLAGE/TOWNSHIP: CARDINGTON
 SCALE: H: 1"=10', V: 1"=4'

VILLAGE OF CARDINGTON
 1930'S WATERLINE REPLACEMENT
 PLAN & PROFILE WALNUT ST. - STA. 3+00 TO STA. 7+00



WALNUT STREET - 60' R/W



NORTH



GRAPHIC SCALE
(IN FEET)

TBM #9
TOP NUT OF HYDRANT LOCATED ON THE NORTH SIDE OF WALNUT ST. AT STA. 6+36, 35' LT.
ELEVATION 1015.28

TBM #10
TOP NUT OF HYDRANT LOCATED ON THE NORTH SIDE OF WALNUT ST. AT STA. 10+83, 20' LT.
ELEVATION 1017.79



EXISTING TREE TO BE REMOVED
(FINAL TREE REMOVAL TO BE DETERMINED BY ENGINEER AT TIME OF CONSTRUCTION)

CONSTRUCTION NOTES:

1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.

WATER SERVICE CHART				
WS. #	STA.	OFFSET	LENGTH	SIZE
WS-061	7+73	26' LT	56.0'	3/4"
WS-062	7+78	26' LT	56.0'	3/4"
WS-063	8+24	26' LT	4.5'	3/4"
WS-064	9+00	26' LT	4.5'	3/4"
WS-065	9+47	26' LT	4.5'	3/4"
WS-066	9+56	26' LT	56.0'	3/4"
WS-067	9+85	26' LT	4.5'	3/4"



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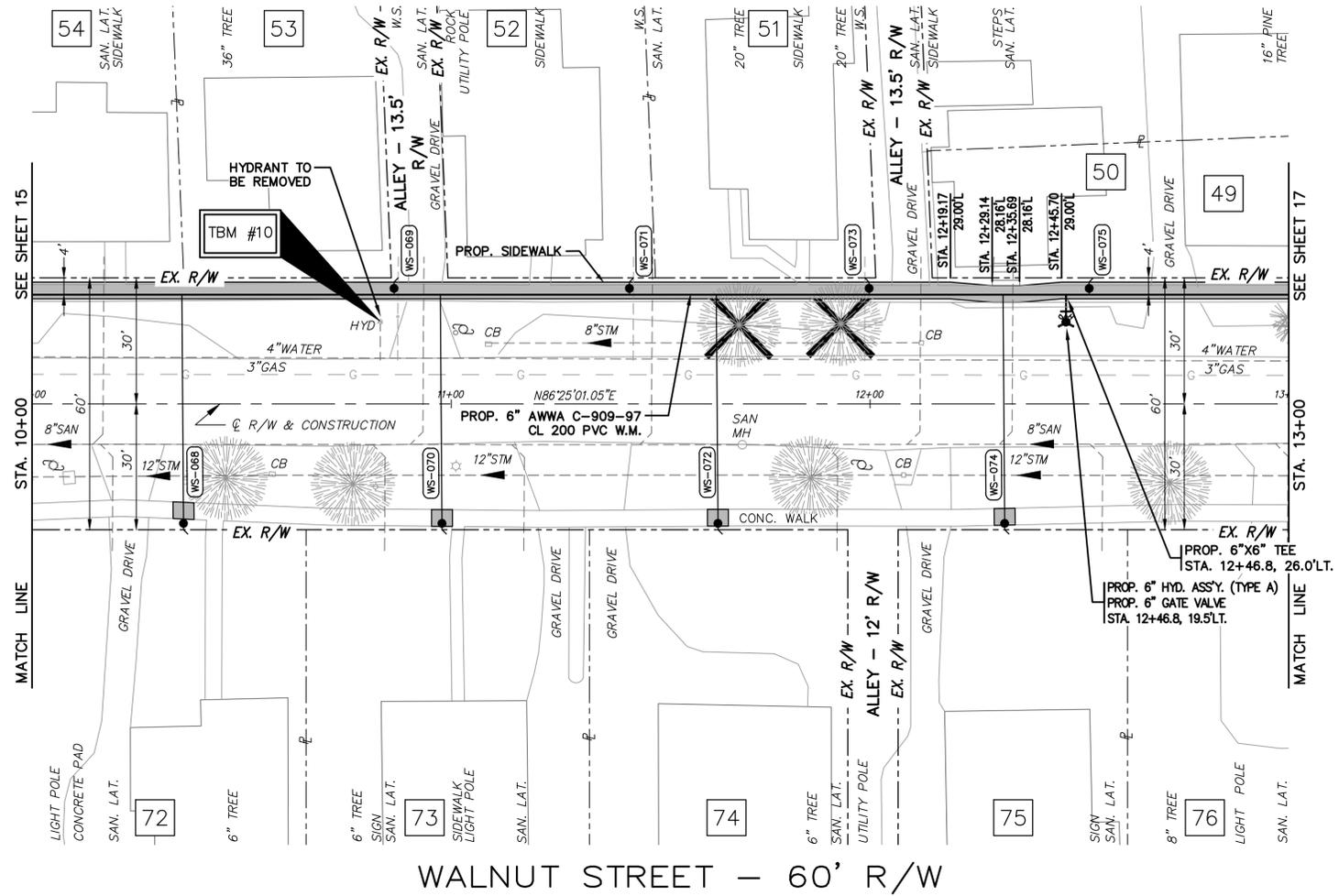
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Ohio Professional Engineer
#71470

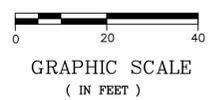
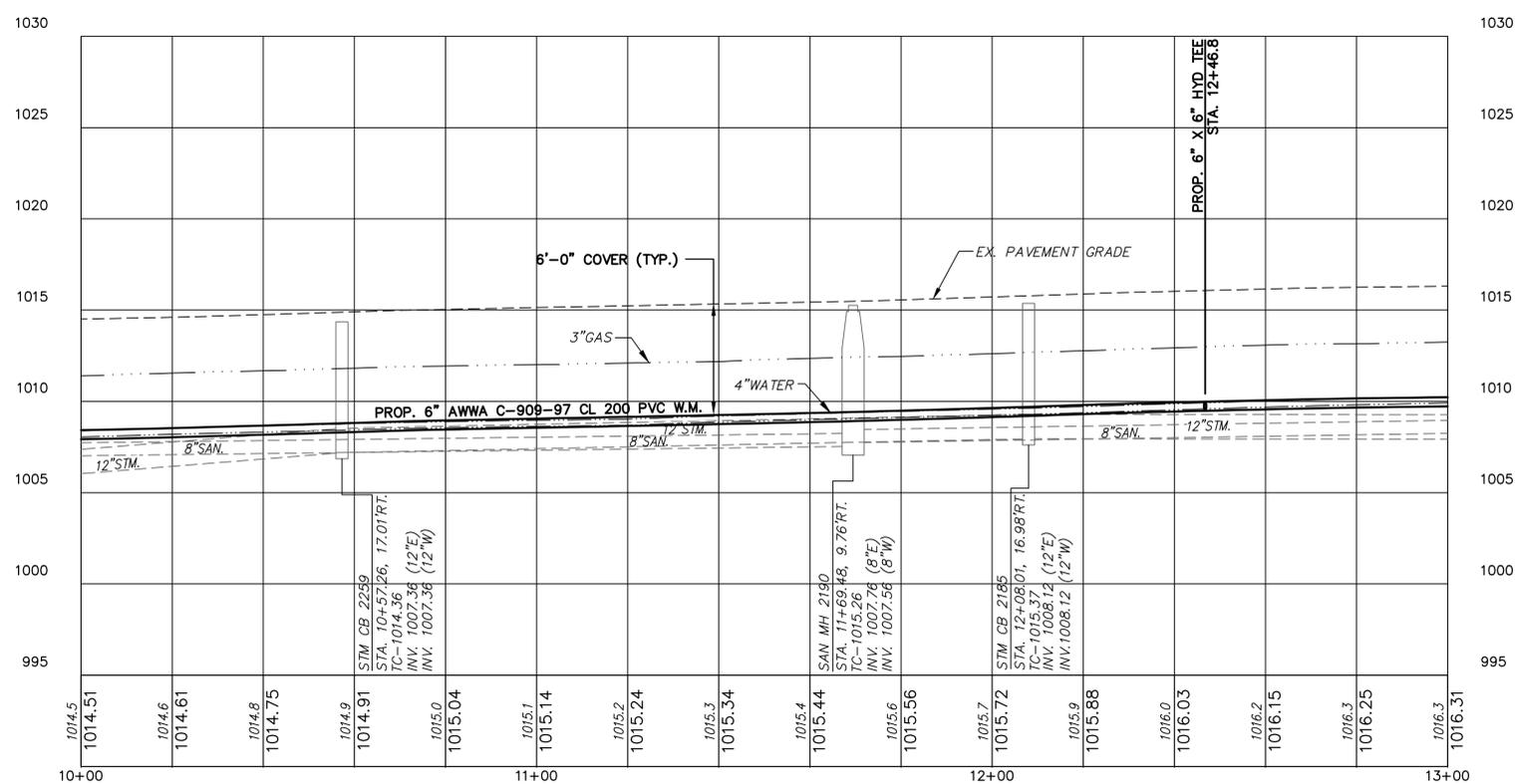
REVISIONS: _____
HORIZ. DATUM: _____
VERT. DATUM: _____

CITY/VILLAGE/TOWNSHIP: CARDINGTON
COUNTY: MORROW
SCALE: H: 1"=40' V: 1"=10'
DATE: June 2015
PROJ. NUMBER: 303115-010
ENG. SRB
PROJ. MGR. DBN
CADD. ERM
FPM/ERM
MORROW

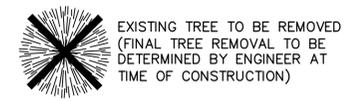
VILLAGE of CARDINGTON
1930'S WATERLINE REPLACEMENT
PLAN & PROFILE WALNUT ST. - STA. 7+00 TO STA. 10+00



WALNUT STREET - 60' R/W



TBM #10
 TOP NUT OF HYDRANT LOCATED ON THE NORTH SIDE OF WALNUT ST. AT STA. 10+83, 20' LT.
ELEVATION 1017.79



EXISTING TREE TO BE REMOVED (FINAL TREE REMOVAL TO BE DETERMINED BY ENGINEER AT TIME OF CONSTRUCTION)

CONSTRUCTION NOTES:
 1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.

WS. #	STA.	OFFSET	LENGTH	SIZE
WS-068	10+36	26' LT	56.0'	3/4"
WS-069	10+87	26' LT	4.5'	3/4"
WS-070	10+98	26' LT	56.0'	3/4"
WS-071	11+43	26' LT	4.5'	3/4"
WS-072	11+64	26' LT	56.0'	3/4"
WS-073	12+00	26' LT	4.5'	3/4"
WS-074	12+32	26' LT	56.0'	3/4"
WS-075	12+53	26' LT	4.5'	3/4"

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 Ohio Professional Engineer #71470

REVISIONS	HORIZONTAL DATUM	VERTICAL DATUM

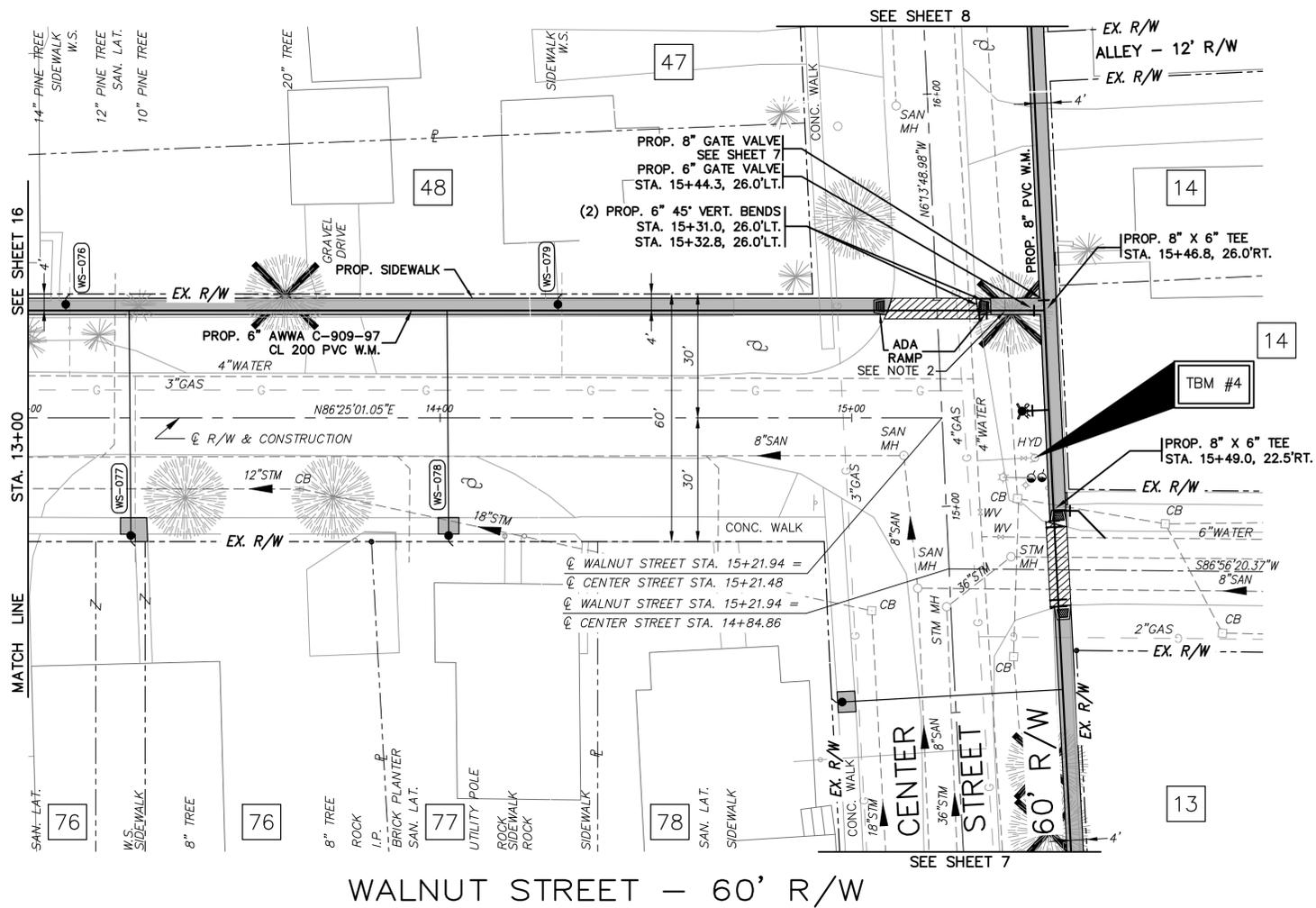
DATE: June 2015
 PROJ NUMBER: 3031-15-010
 COUNTY: MORROW
 CITY/VILLAGE/TOWNSHIP: CARDINGTON
 SCALE: V: 1"=100'
 H: 1"=10'
 SHEET: 16 of 25

VILLAGE OF CARDINGTON
 1930'S WATERLINE REPLACEMENT
 PLAN & PROFILE WALNUT ST. - STA. 10+00 TO STA. 13+00

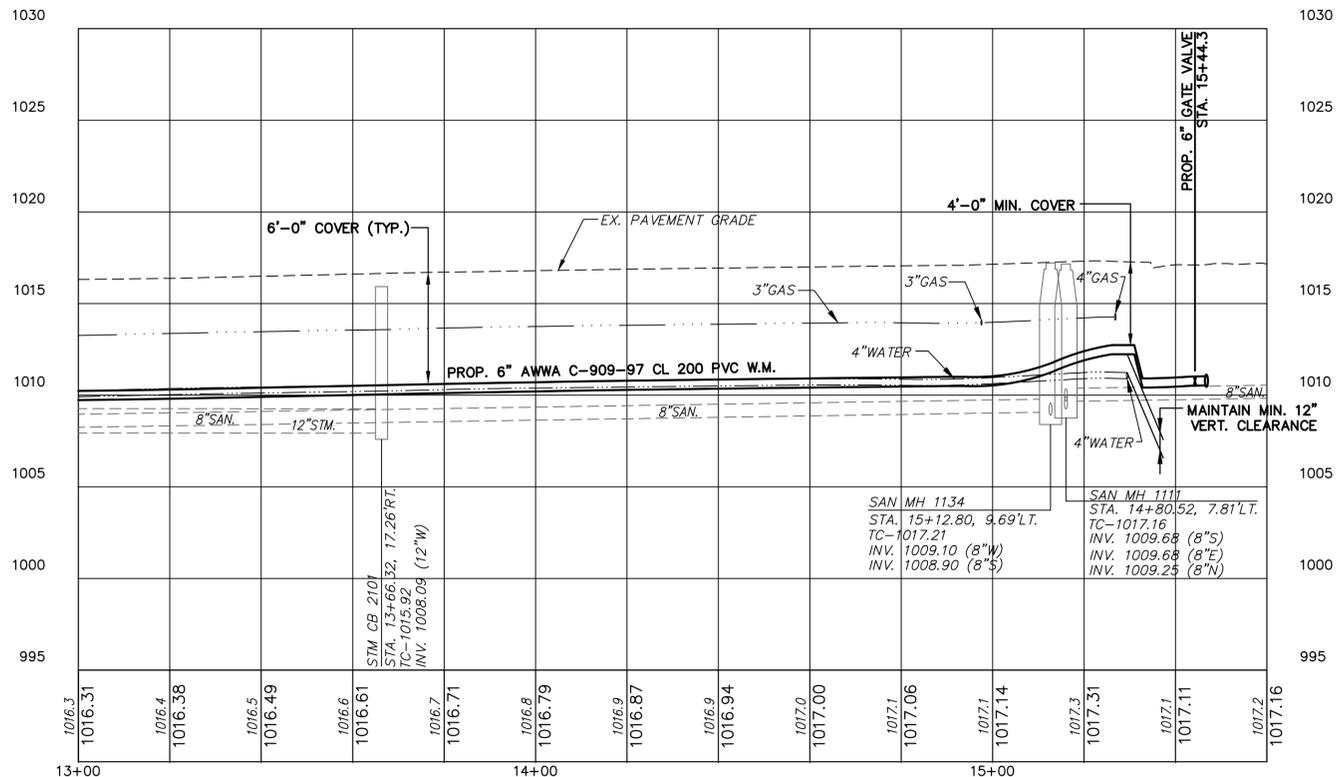
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WALNUT STREET - 60' R/W



TBM #4
 TOP NUT OF HYDRANT LOCATED ON THE EAST SIDE OF CENTER ST. AT STA. 15+11, 22' RT.
 ELEVATION 1019.85

- EXISTING TREE TO BE REMOVED (FINAL TREE REMOVAL TO BE DETERMINED BY ENGINEER AT TIME OF CONSTRUCTION)
- PAVEMENT REPAIR (INCLUDING CURB, WHERE APPLICABLE)

CONSTRUCTION NOTES:
 1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.
 2. DUE TO LACK OF ACCURATE INVERT INFORMATION AT THIS CROSSING, THE CONTRACTOR SHALL FIELD VERIFY LOCATION & ELEVATION OF EXISTING STORM SEWER PRIOR TO CROSSING. CONTRACTOR TO NOTIFY PROJECT ENGINEER IMMEDIATELY OF ANY CONFLICTS BETWEEN EXISTING STORM SEWER PIPE & PROPOSED 6" WATER.

WATER SERVICE CHART				
WS. #	STA.	OFFSET	LENGTH	SIZE
WS-076	13+10	26' LT	4.5'	3/4"
WS-077	13+25	26' LT	56.0'	3/4"
WS-078	14+02	26' LT	56.0'	3/4"
WS-079	14+29	26' LT	4.5'	3/4"

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 Ohio Professional Engineer #71470

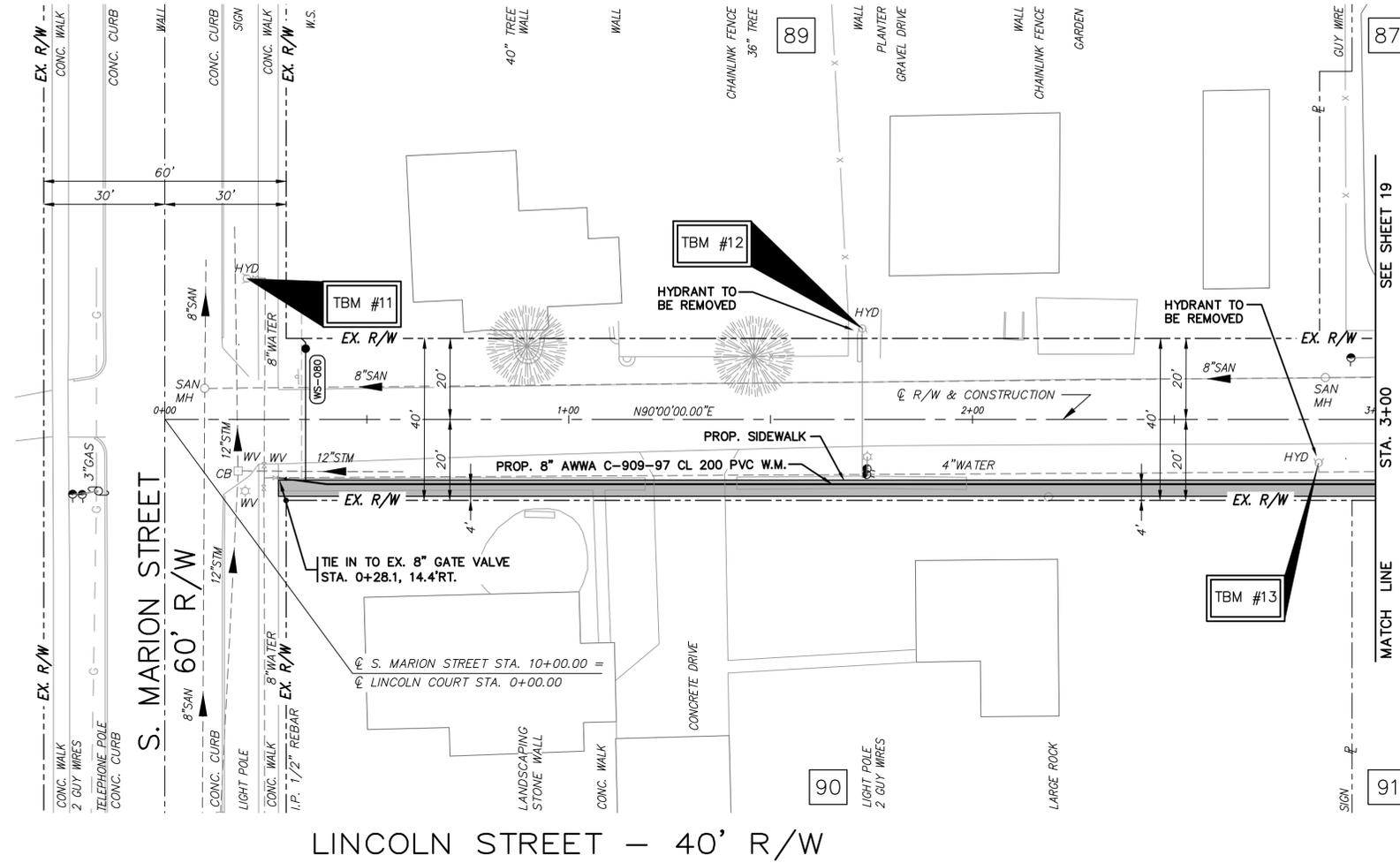
REVISIONS	CITY/VILLAGE/TOWNSHIP	COUNTY	CADD	PROJ/USR	ENG	SRG	DATE
	CARDINGTON	MORROW	FPW/EBM	SRB			June 2015

VILLAGE OF CARDINGTON
 1930'S WATERLINE REPLACEMENT
 PLAN & PROFILE WALNUT ST. - STA. 13+00 TO STA. 16+00

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DRAWING PATH: S:\EES_Village of Cardington\9 PUBLIC PROJECTS\9 PROJECTS\14729-1930 Waterline Replacement_LPWC and CDBG\03 Design\07 - Plans\DWG\14729\Plan & Profiles.dwg Jul 14, 2015 - 1:03pm

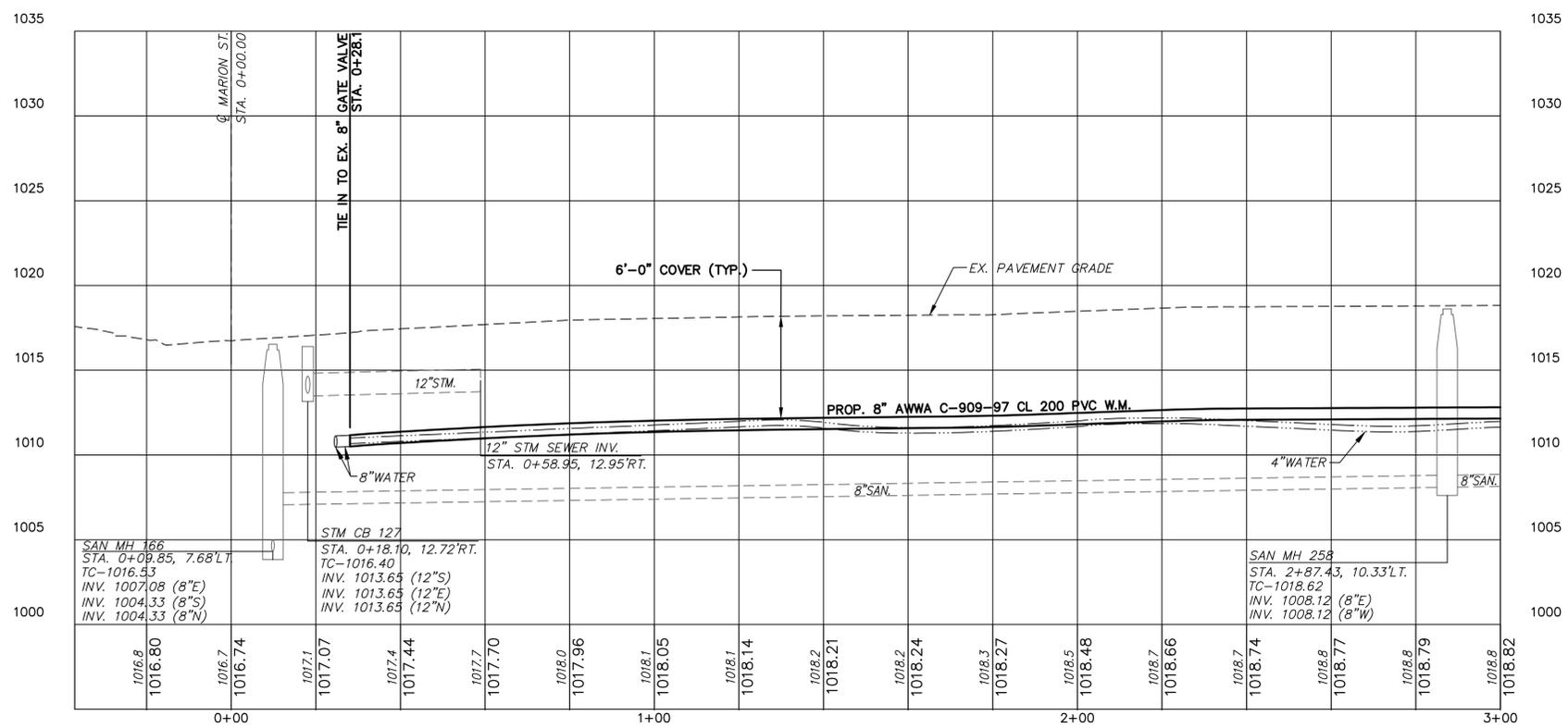


NORTH
GRAPHIC SCALE
(IN FEET)

- TBM #11**
TOP NUT OF HYDRANT LOCATED ON THE NORTH SIDE OF LINCOLN ST. AT STA. 0+20, 35' LT.
ELEVATION 1019.55
- TBM #12**
TOP NUT OF HYDRANT LOCATED ON THE NORTH SIDE OF LINCOLN ST. AT STA. 1+73, 22' LT.
ELEVATION 1021.42
- TBM #13**
TOP NUT OF HYDRANT LOCATED ON THE SOUTH SIDE OF LINCOLN ST. AT STA. 2+86, 11' RT.
ELEVATION 1019.66

CONSTRUCTION NOTES:
1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.

WS. #	STA.	OFFSET	LENGTH	SIZE
WS-080	0+35	15' RT	36.0'	3/4"



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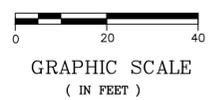
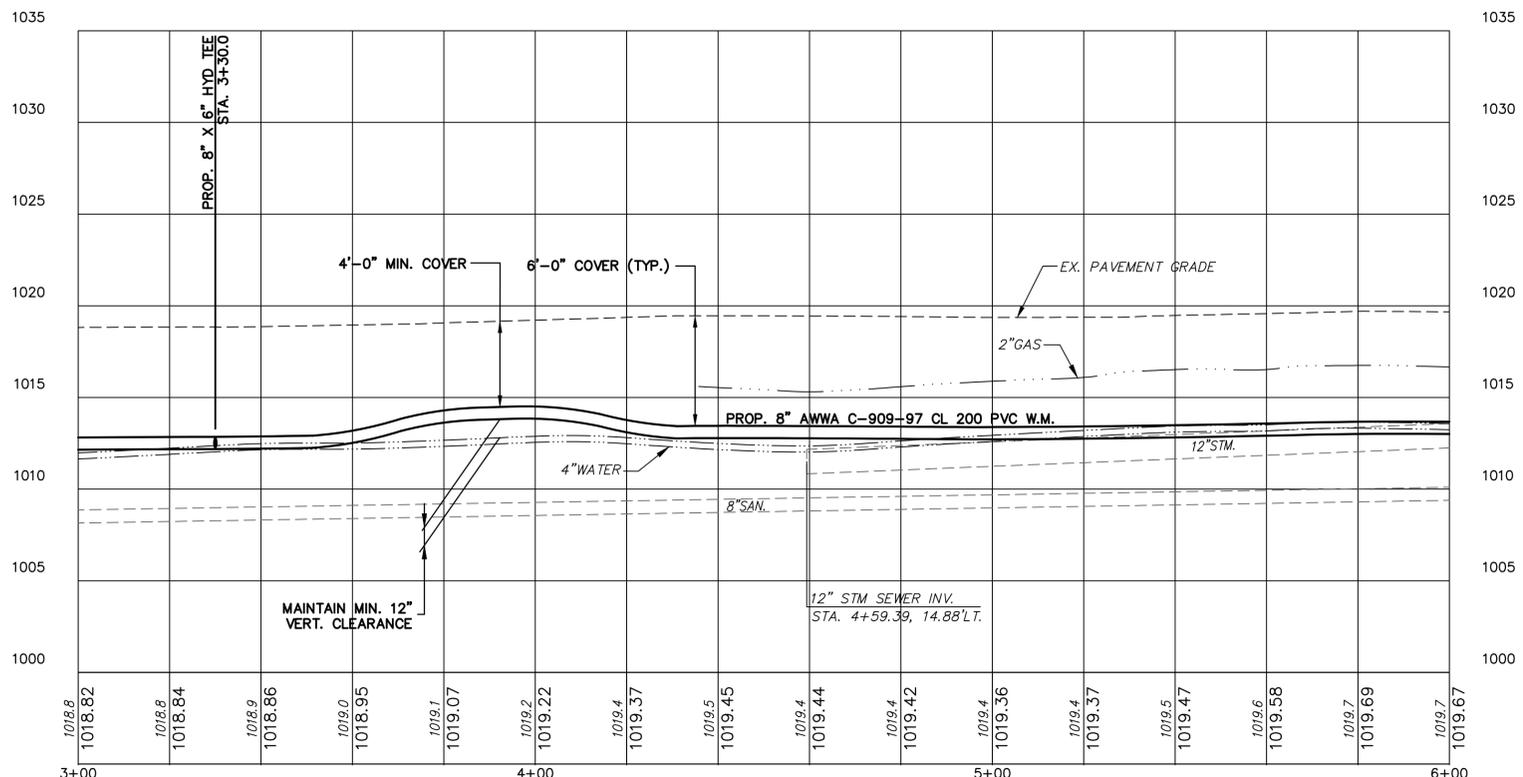
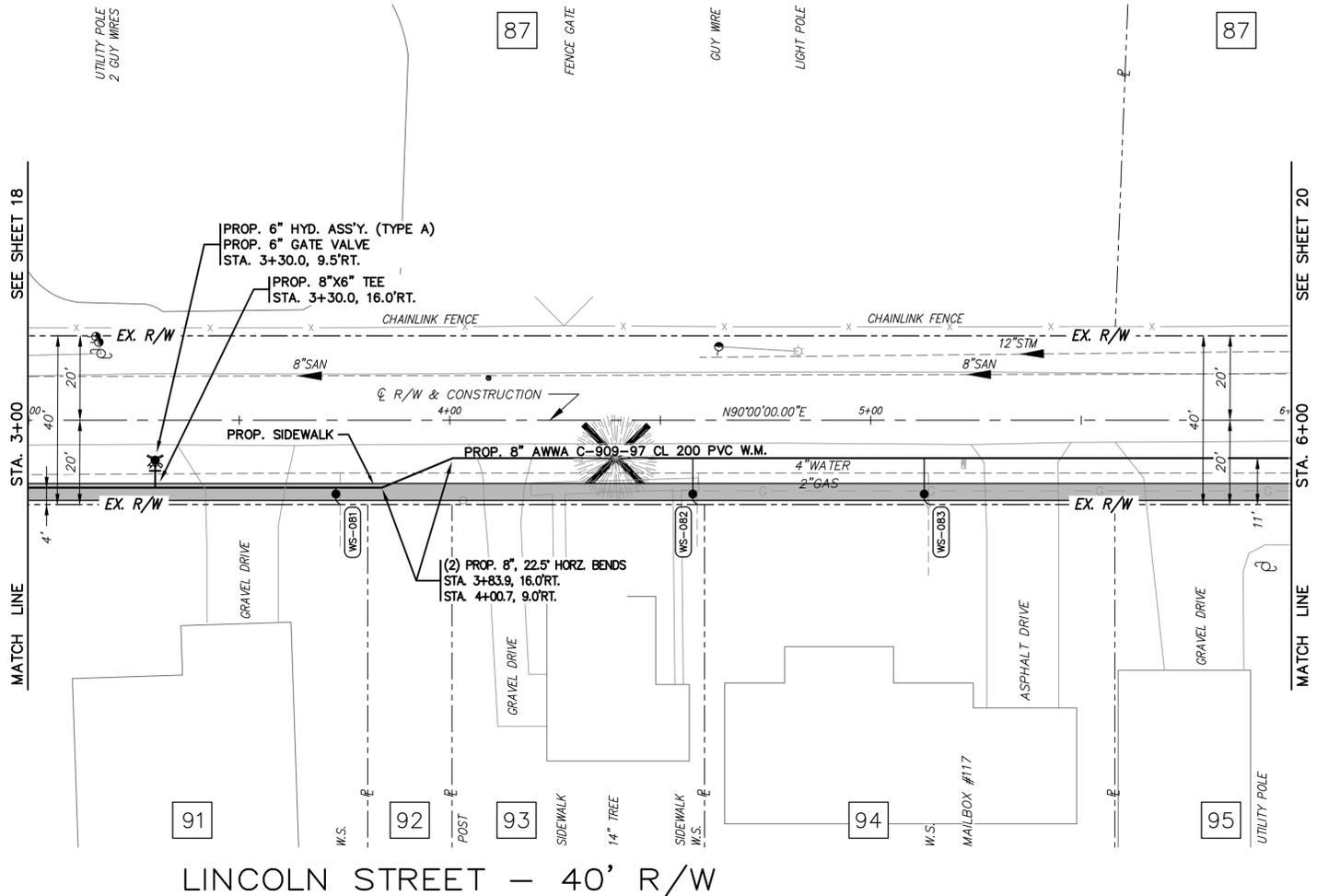
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STATE OF OHIO
SCOTT R. BICKLEY
E-71470
REGISTERED PROFESSIONAL ENGINEER
Scott R. Bickley, PE
Ohio Professional Engineer #71470

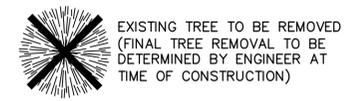
REVISIONS: _____
HORIZONTUM: _____
VERTICUM: _____
SCALE: V: 1"= _____
H: 1"= _____
CITY/VILLAGE/TOWNSHIP: CARDINGTON
COUNTY: MORROW
CADD: F/W/EBM
PROJ/AGR: S/B
ENG: S/B
DATE: June 2015
PROJ NUMBER: 3031-15-010

VILLAGE of CARDINGTON
1930'S WATERLINE REPLACEMENT
PLAN & PROFILE LINCOLN ST. - STA. 0+00 TO STA. 4+00

DRAWING PATH: S:\WEB\ Villages of Cardington\9 PUBLIC PROJECTS\9 PROJECTS\14729-1930 Waterline Replacement_LPWC and CDBG\03 Design\07 - Plans\DWG\14729 Plan & Profiles.dwg Jul 14, 2015 - 1:09pm



TBM #13
 TOP NUT OF HYDRANT LOCATED ON THE SOUTH SIDE OF LINCOLN ST. AT STA. 2+86, 11' RT.
ELEVATION 1019.66



CONSTRUCTION NOTES:
 1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.

WATER SERVICE CHART				
WS. #	STA.	OFFSET	LENGTH	SIZE
WS-081	3+73	16' RT	4.5'	3/4"
WS-082	4+58	9' RT	11.5'	3/4"
WS-083	5+13	9' RT	11.5'	3/4"

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 Ohio Professional Engineer #71470

REVISIONS:

NO.	DATE	DESCRIPTION

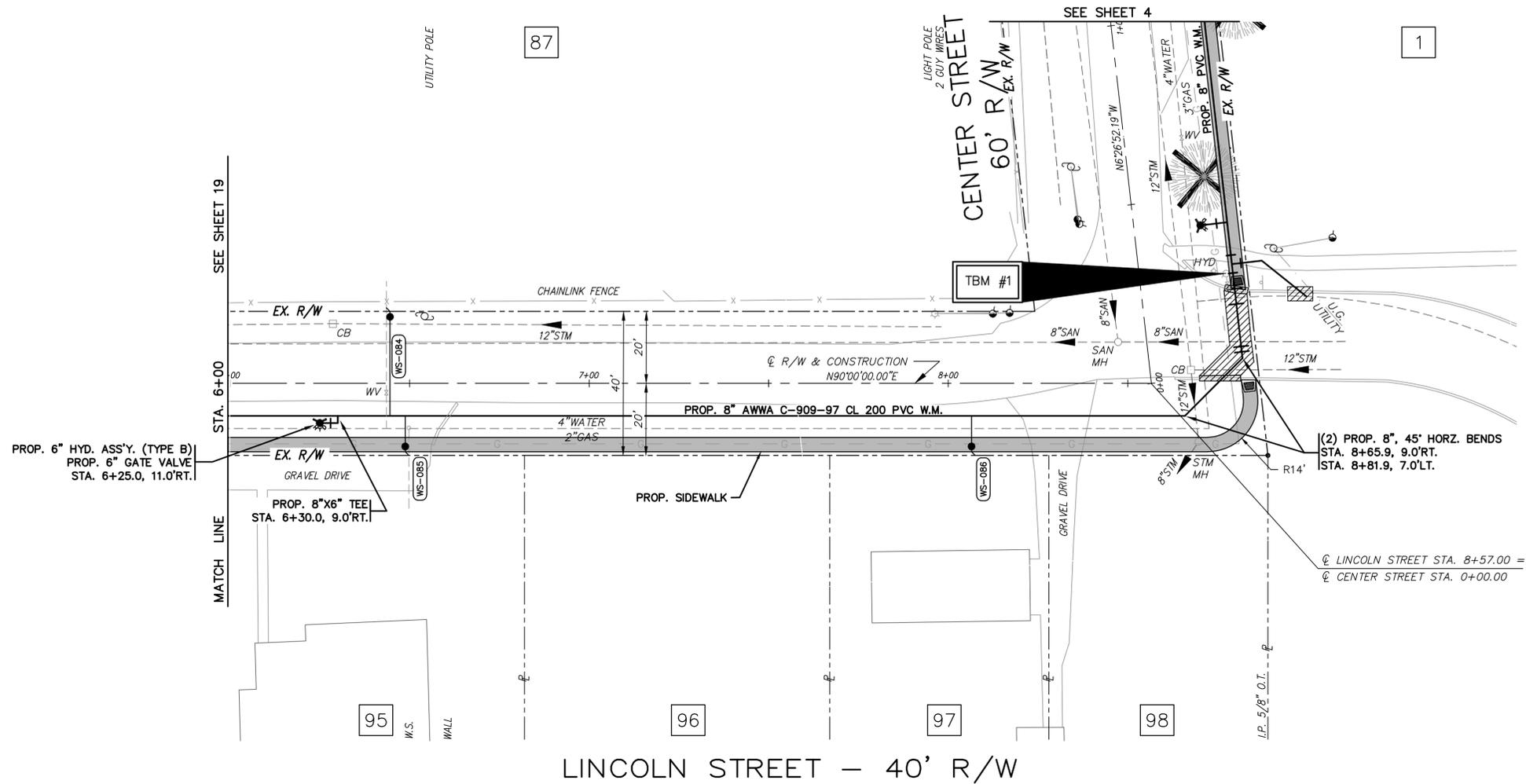
CITY/VILLAGE/TOWNSHIP: CARDINGTON
 COUNTY: MORROW
 CAD: FPM/EBM
 PROJ MGR: BRN
 ENG: SBB
 DATE: June 2015

VILLAGE OF CARDINGTON
1930'S WATERLINE REPLACEMENT
PLAN & PROFILE LINCOLN ST. - STA. 4+00 TO STA. 8+00

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DRAWING PATH: S:\E\EE\Projects\Public\Projects\14729_1930\Waterline Replacement_LPWC and CDBG\03 Design\07 - Plans\DWG\14729_Plan & Profiles.dwg Jul 14, 2015 - 1:03pm



NORTH
 0 20 40
 GRAPHIC SCALE
 (IN FEET)

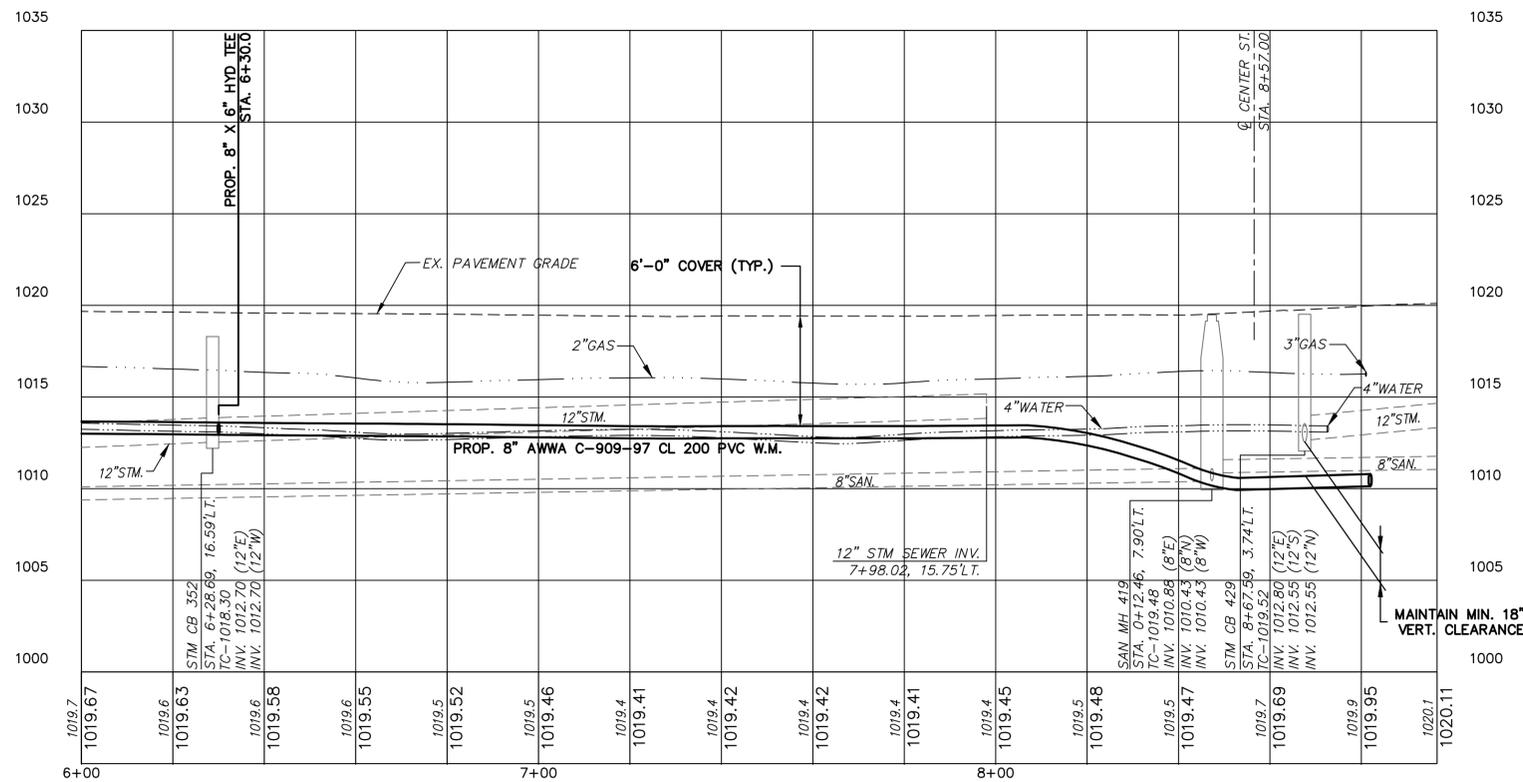
TBM #1
 TOP NUT OF HYDRANT LOCATED ON THE EAST SIDE OF CENTER ST. AT STA. 0+28, 24' RT.
 ELEVATION 1022.26

EXISTING TREE TO BE REMOVED (FINAL TREE REMOVAL TO BE DETERMINED BY ENGINEER AT TIME OF CONSTRUCTION)

PAVEMENT REPAIR (INCLUDING CURB, WHERE APPLICABLE)

CONSTRUCTION NOTES:
 1. BASIS OF BEARINGS ARE FOR RELATIVE ORIENTATION WITHIN THE PROJECT ONLY AND ARE NOT NECESSARILY SET TO A STATE PLANE COORDINATE SYSTEM.

WATER SERVICE CHART				
WS. #	STA.	OFFSET	LENGTH	SIZE
WS-084	6+45	9' RT	29.0'	3/4"
WS-085	6+49	9' RT	11.5'	3/4"
WS-086	8+06	9' RT	11.5'	3/4"



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 REGISTERED PROFESSIONAL ENGINEER

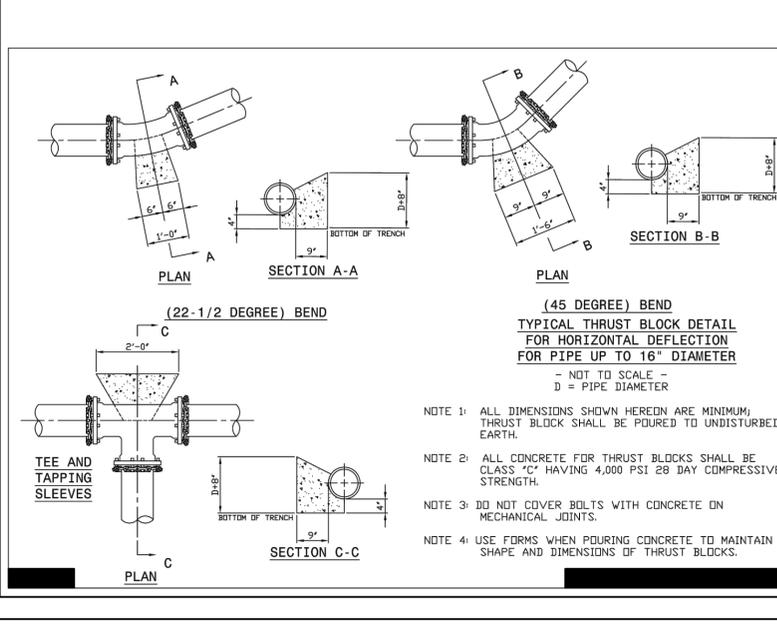
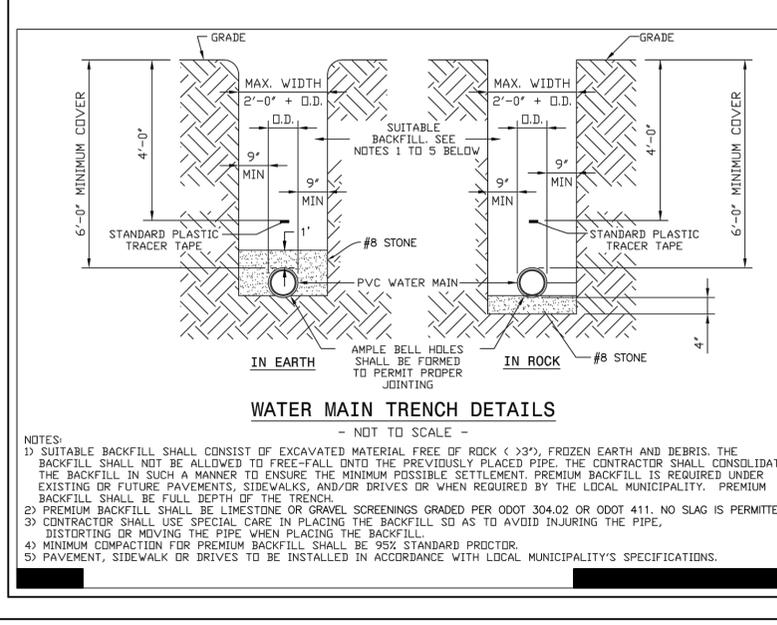
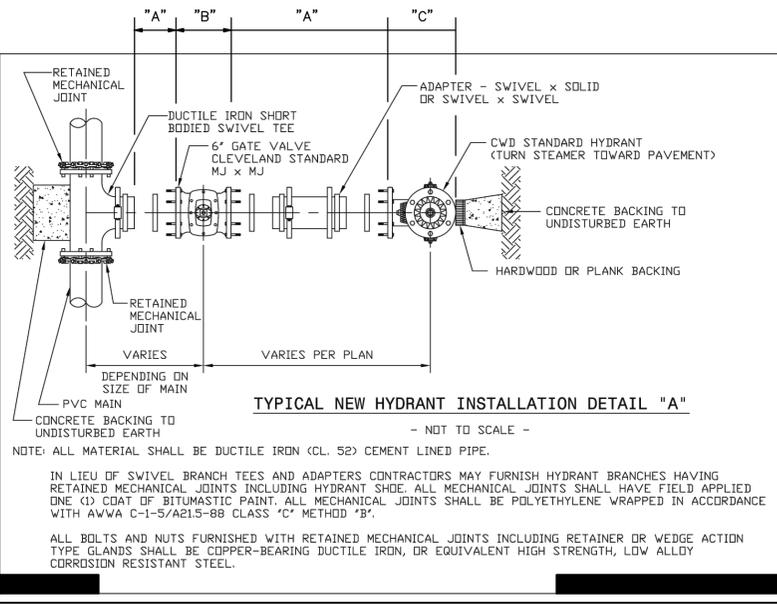
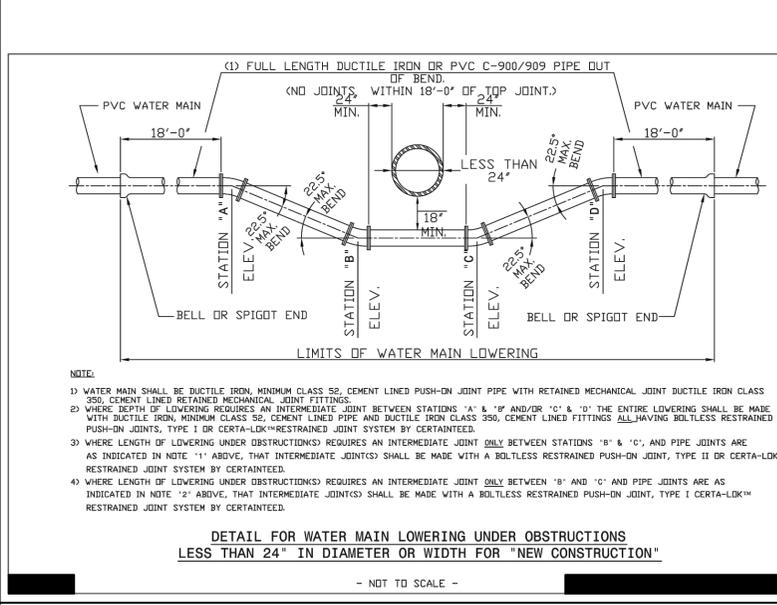
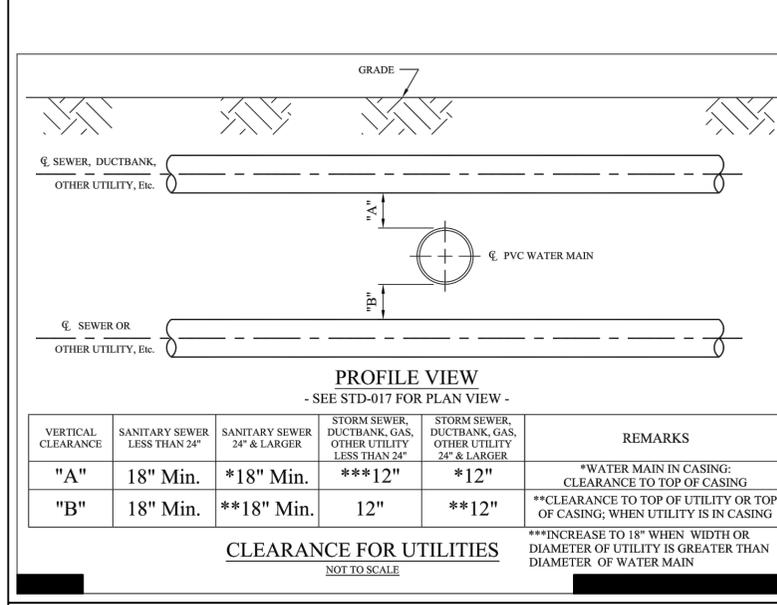
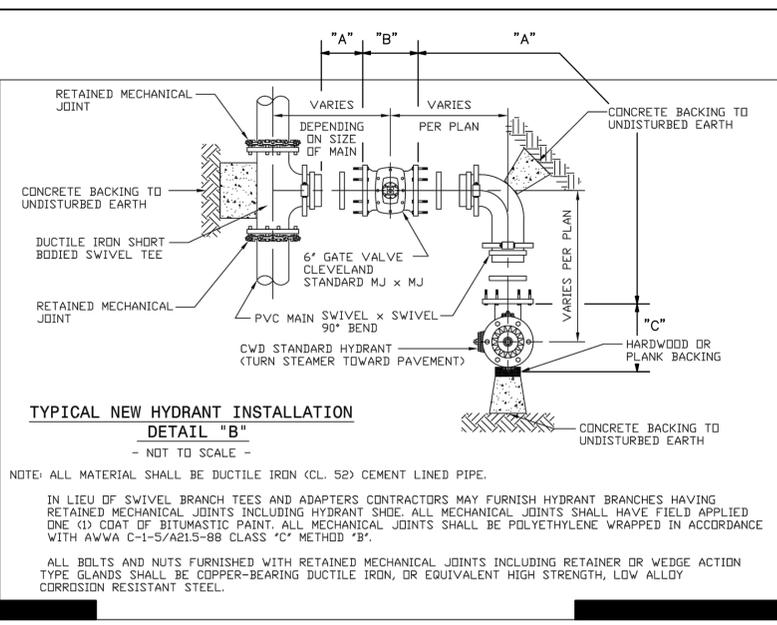
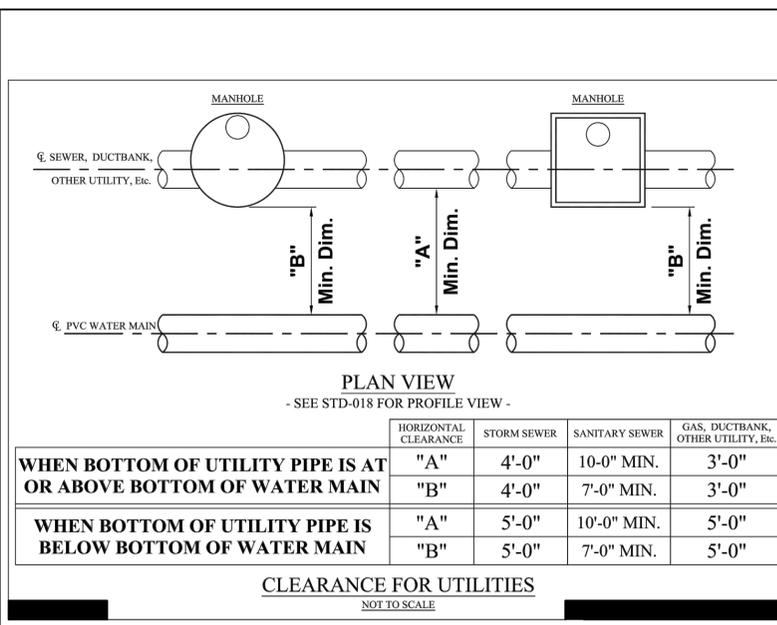
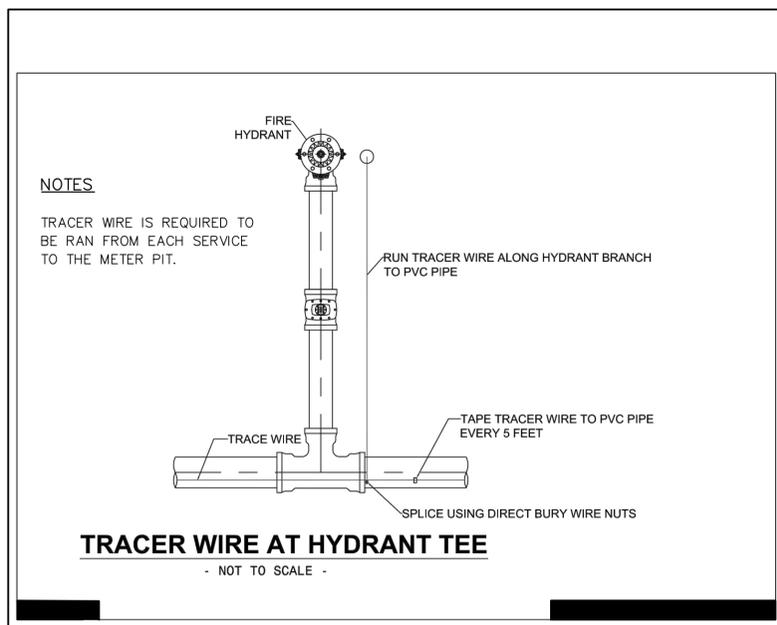
 Scott R. Bickley, PE
 Ohio Professional Engineer
 #71470

REVISIONS

NO.	DATE	DESCRIPTION

CITY/VILLAGE/TOWNSHIP: CARRINGTON
 COUNTY: MORROW
 CAD: P/W/ERM
 PROJ/AGR: DBN
 ENG: SBB
 DATE: June 2015
 SCALE: H: 1"=100' V: 1"=10'
 VILLAGE OF CARRINGTON
 1930'S WATERLINE REPLACEMENT
 PLAN & PROFILE LINCOLN ST. - STA. 8+00 TO STA. 10+00

DRAWING PATH: S:\WEB\Projects\Public Projects\1930 Waterline Replacement\OPWC and CDBG\03 Design\07 - Plans\DWG\14729 Details.dwg Jul 14, 2015 - 1:04pm



DIMENSION LEGEND: SEE NOTES, SHEET 3:

ITEM "A"
FIRE HYDRANT PAY ITEM: 6" WATER MAIN

ITEM "B"
FIRE HYDRANT PAY ITEM: 6" GATE VALVE

ITEM "C"
FIRE HYDRANT PAY ITEM: FIRE HYDRANT ASSEMBLY

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WATER LEAKS, BREAKS AND REPAIRS

ANY/ALL LEAKS, BREAKS, REPAIRS, ETC. TO THE NEW/PROPOSED WATER MAINS AND SERVICES SHALL BE FIXED/REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

ANY/ALL LEAKS, BREAKS, REPAIRS, ETC. TO THE EXISTING WATER MAINS AND SERVICES (EXCEPT AS DESCRIBED IN ITEM #9 ABOVE) SHALL BE FIXED/REPLACED AS FOLLOWS:

SERVICES AND APPURTENANCES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

MAINS AND APPURTENANCES SHALL BE REPAIRED BY THE CONTRACTOR AT THE PRICE APPROVED BY THE ENGINEER, USING ITEM SPECIAL - ALLOWANCE FOR UNFORESEEN CONDITIONS AT NO COST TO THE PROJECT.

FIRE HYDRANTS AND APPURTENANCES SHALL BE REPAIRED AND PAID AS DESCRIBED ABOVE FOR "MAINS".

DUE TO THE AGE AND CONDITION OF THE EXISTING WATER MAIN AND SERVICES, THE CONTRACTOR SHALL ANTICIPATE THE LIKELIHOOD OF LEAKS AND BREAKS IN THE EXISTING WATER MAINS. GIVEN THE PROXIMITY OF THE PROPOSED WORK IN RELATION TO THE EXISTING WATER MAINS, THE CONTRACTOR SHALL USE CAUTION NOT TO DISRUPT THE EXISTING MAINS OR SERVICES.

GIVEN THE ABOVE UNDERSTANDING, DELAY CLAIMS AND OTHER COSTS ASSOCIATED WITH THE LEAKS, BREAKS, REPAIRS, ETC. SHALL NOT BE PAID, ALL REQUESTS SHALL BE REJECTED.

THE CONTRACTOR MAY REQUEST ADDITIONAL TIME IN THE PROJECT SCHEDULE, HOWEVER, PROVIDED THE REQUEST IS MADE IN WRITING.

WATER MAIN PAY ITEMS:

THIS NOTE HAS BEEN PROVIDED TO OUTLINE HOW THE VARIOUS PAY ITEMS RELATIVE TO WATER MAINS SHALL BE PAID. ALL COSTS TO COMPLETE THE ENTIRE WATER MAIN AND APPURTENANCES, TESTING, ETC., SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BY THE CONTRACTOR WHETHER INDIVIDUALLY ITEMIZED BELOW OR NOT.

WATER MAINS SHALL BE PAID (PER L.F.) FOR ALL WORK REQUIRED TO CONSTRUCT THE WATER MAIN, ALL FITTINGS SHOWN ON THE DRAWINGS, BLOCKING, RESTRAINTS, ETC. DUE TO THE NUMBER OF UTILITY CROSSINGS AND THEIR PROXIMITY TO THE NEW WATER MAIN, THE CONTRACTOR SHALL "POT-HOLE" AND LOCATE UTILITY CROSSING DEPTHS AND HORIZONTAL LOCATIONS IN ADVANCE OF THE PIPE LAYING CREW. REPORT ALL DATA FROM "POT-HOLING" EFFORTS TO THE ENGINEER SO A DETERMINATION CAN BE MADE RELATIVE TO AVOIDING UPCOMING UTILITY CROSSINGS. IT IS THE GOAL OF THE ENGINEER TO MINIMIZE THE NUMBER OF MECHANICAL JOINT BENDS IN THE WATER MAIN. UTILIZE JOINT DEFLECTIONS WHERE POSSIBLE AND AS AUTHORIZED BY THE PROJECT ENGINEER TO AVOID UTILITY CONFLICTS.

ADDITIONAL MECHANICAL JOINT FITTINGS SHALL BE PAID (PER POUND) FOR ALL WORK REQUIRED TO CONSTRUCT FITTINGS WHICH ARE NOT SHOWN ON THE DRAWINGS, BUT ARE REQUIRED AND AUTHORIZED BY THE ENGINEER. THE CONTRACTOR SHALL BE PAID FOR THE ACTUAL WEIGHT OF THE FITTING (TEE, BEND, ETC.) PLUS THE WEIGHT OF THE GLANDS FOR THE FITTING. THE COST PAID PER POUND OF FITTING SHALL INCLUDE ALL COSTS RELATIVE TO THE WORK, INCLUDING LOSS OF PRODUCTION, BLOCKING, RESTRAINTS, ADDITIONAL EXCAVATION AND BACKFILL, AND ANY OTHER COST ASSOCIATED WITH THE WORK. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE VARIOUS FITTINGS AND APPURTENANCES READILY AVAILABLE ON-SITE FOR 6" AND 8" MAINS. ALL COSTS FOR LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM SPECIAL - ADDITIONAL DUCTILE IRON FITTINGS (AS DIRECTED BY THE ENGINEER).

AN ESTIMATED QUANTITY OF 1000 POUNDS HAS BEEN INCLUDED IN THE BID TAB FOR THIS ITEM.

ITEM SPECIAL - ADDITIONAL DUCTILE IRON FITTINGS (AS DIRECTED BY THE ENGINEER) 1000 POUNDS.

WATER VALVES AND VALVE BOX SHALL BE PAID (PER EACH) FOR ALL WORK REQUIRED TO CONSTRUCT VALVES REQUIRED FOR THE PROJECT. THIS WORK SHALL INCLUDE ALL EXCAVATION AND BACKFILL REQUIRED.

CHLORINATION STATION SHALL BE PAID (PER EACH) FOR ALL WORK REQUIRED TO PLACE, OPERATE, AND REMOVE AT EACH LOCATION SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THIS WORK SHALL INCLUDE ALL EXCAVATION AND BACKFILL REQUIRED.

WATER SERVICE PAY ITEMS:

THIS NOTE HAS BEEN PROVIDED TO OUTLINE HOW THE VARIOUS PAY ITEMS RELATIVE TO WATER SERVICES SHALL BE PAID. ALL COSTS TO COMPLETE THE ENTIRE WATER SERVICE CONNECTION, TESTING, ETC. SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BY THE CONTRACTOR WHETHER INDIVIDUALLY ITEMIZED BELOW OR NOT.

SERVICE LINES SHALL BE PAID (PER L.F.) FOR ALL WORK REQUIRED TO TAP THE MAIN AND CONSTRUCT A NEW SERVICE LINE TO THE EXISTING SERVICE BOX (OR NEW SERVICE BOX), AS WELL AS ANY SERVICE LINE REQUIRED BEYOND THE SERVICE BOX TO RECONNECT TO THE EXISTING SERVICE LINE. THIS ITEM SHALL INCLUDE REMOVAL OR ABANDONMENT OF ANY EXISTING SERVICE LINES AND ANY ASSOCIATED COSTS THERETO. ALL SERVICE LINES 2" IN DIAMETER OR SMALLER SHALL BE BORED (NOT OPEN CUT). 3" AND LARGER SERVICE LINES MAY BE BORED OR OPEN CUT.

SERVICE BOXES (METER PITS) SHALL BE PAID (PER EACH) FOR ALL WORK REQUIRED TO CONSTRUCT THE NEW SERVICE BOX AND ABANDON, REMOVE OR ADJUST EXISTING SERVICE BOX.

THESE PLANS AND CONTRACT DOCUMENTS SHALL GOVERN ALL WORK REQUIRED FOR PROPER INSTALLATION, TESTING AND USE OF FACILITIES.

FIRE HYDRANT PAY ITEMS:

THIS NOTE HAS BEEN PROVIDED TO OUTLINE HOW THE VARIOUS PAY ITEMS RELATIVE TO FIRE HYDRANTS SHALL BE PAID. SEE THE FIRE HYDRANT DETAILS FOR A VISUAL REPRESENTATION OF WHAT IS DESCRIBED BELOW.

FIRE HYDRANT ASSEMBLY SHALL BE PAID (PER EACH) FOR ALL WORK REQUIRED TO CONSTRUCT THE SECTION OF THE DETAIL FROM THE HYDRANT DOWN TO THE 90° VERTICAL BEND, INCLUDING ALL APPURTENANCES.

6" GATE VALVE FOR THE HYDRANT SHALL BE PAID (PER EACH) FOR ALL WORK REQUIRED TO CONSTRUCT VALVE AND VALVE BOX AND APPURTENANCES SHOWN IN THE DETAIL

6" WATER MAIN SHALL BE PAID (PER L.F.) TO CONSTRUCT ALL WATER MAIN REQUIRED BETWEEN THE HYDRANT ASSEMBLY AND THE VALVE, AND BETWEEN THE VALVE AND THE WATER MAIN.

THE HYDRANT TEE AT THE MAIN SHALL BE INCLUDED IN THE UNIT PRICE BID FOR WATER MAIN CONSTRUCTION.

NOTES FOR NEW PVC WATER MAIN INSTALLATION

GENERAL

- ALL WATER WORK REQUIRED. WHETHER SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, SHALL BE AT THE EXPENSE OF THE PROJECT.
- THE INFORMATION SHOWN ON THESE PLANS ARE TAKEN FROM EXISTING AVAILABLE RECORDS AND THEIR ACCURACY IS NOT GUARANTEED.
- CALL THE WATER DEPARTMENT AT 419-864-7607 TO SCHEDULE A PRECONSTRUCTION MEETING. THE OPERATION OF ANY VALVE OR ALTERATION OF ANY PART OF THE WATER SYSTEM BY CONTRACTORS OR THEIR EMPLOYEES IS PROHIBITED WITHOUT THE SUPERVISION OF THE INSPECTOR.
- THE MUNICIPALITY SHALL REQUIRE THAT THE PROJECT'S PROFESSIONAL ENGINEER OBTAIN ACTUAL FIELD MEASUREMENTS OF THE MAIN DURING INSTALLATION AND SHALL FURNISH THE VILLAGE OF CARDINGTON INSPECTOR WITH RECORD PRINTS IN A FORM ACCEPTABLE TO THE DIVISION OF WATER AS WELL AS TWO COPIES OF RECORD (AS BUILT) PRINTS BEFORE THE PRESSURE TEST AND CHLORINATION OF THE MAIN.
- FOR THE PURPOSES OF CHLORINATION AND BACTERIOLOGICAL TESTING OF THE WATER MAIN THE CONTRACTOR SHALL PROVIDE AND INSTALL AT EACH OF THE CHLORINATION PIT LOCATIONS SHOWN AND AT OTHER LOCATIONS DETERMINED BY THE DIVISION OF WATER FLUSHING/SAMPLING TAPS OF SIZES TO BE DETERMINED BY THE WATER DEPARTMENT CHLORINATION PITS SHALL BE SIX (6) FOOT SQUARE MEETING OSHA STANDARDS.

6. A TWO YEAR WARRANTY COMMENCING FROM THE DATE OF ACCEPTANCE OF THE FINAL CHLORINATION OF THE WATER MAIN INSTALLATION SHALL BE PROVIDED BY THE BUILDER/DEVELOPER AND/OR CONTRACTOR FOR ALL WATER MAINS AND SERVICE CONNECTION WORK PERFORMED BY THE CONTRACTOR, INCLUDING RETAPS, SHOULD ANY LEAKS OCCUR AND REPAIRS BE REQUIRED DUE TO DEFECTIVE MATERIAL OR POOR WORKMANSHIP.

7. USE BACKFILL MATERIAL AS SPECIFIED AND COMPACT SUFFICIENTLY IN THOSE AREAS WHERE EXISTING MAINS AND WATER SERVICE CONNECTIONS ARE EXPOSED (SEE WATER MAIN TRENCH DETAIL SHEET 21.)

8. ALL MATERIALS, INCLUDING BUT NOT LIMITED TO WATER MAINS, FIRE HYDRANTS, VALVES, CONNECTION MATERIALS AND OTHER WATER APPURTENANCES SHALL BE NEW AND UNUSED AND SHALL CONFORM TO THE MOST CURRENT DIVISION OF WATER SPECIFICATIONS ALL MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH WATER DEPARTMENT'S STANDARDS.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING WATER MAINS AND APPURTENANCES THEREOF WITHIN CONNECTING THE NEW WATER MAIN FOR THE HYDROSTATIC TEST ALL REPAIRS TO DAMAGED EXISTING FACILITIES SHALL BE MADE BY THE CONTRACTOR AT THE CONTRACT'S EXPENSE. TO THE SATISFACTION OF THE CONSTRUCTION MANAGER. (SEE ALTERNATE TESTING DETAILS SHEET 21)

10. ALL HYDROSTATIC PRESSURE TESTING SHALL BE DONE BY THE CONTRACTOR IN THE PRESENCE OF THE VILLAGE OF CARDINGTON INSPECTOR. THE HYDROSTATIC TEST PRESSURE SHALL BE 75 PSI ABOVE THE STATIC PRESSURE PREVAILING AT THE SITE, BUT IN NO CASE LESS THAN 150 PSI. THE PRESSURE TEST SHALL BE FOR A DURATION OF TWO (2) HOURS WITH THE PRESSURE BEING MAINTAINED WITHIN 5 PSI OF THE REQUIRED TEST PRESSURE SHOULD THE PRESSURE TEST FAIL THE CONTRACTOR SHALL FIND AND CORRECT THE DEFICIENCIES TO THE SATISFACTION OF THE WATER DEPARTMENT AND REPEAT THE TWO (2) HOUR TEST.

WATER MAINS

11A. ALL PIPE, UNLESS OTHERWISE CALLED FOR, SHALL BE POLYVINYL CHLORIDE (PVC) PRESSURE PIPE IN ACCORDANCE AWWA C-900-97 CLASS 200 200 PSI OR BETTER JOINTS SHALL BE MADE UTILIZING A STAB TYPE RUBBER GASKETED BELL & SPIGOT. SOLVENT CEMENT TYPE JOINTS WILL NOT BE PERMITTED STANDARD PLASTIC TRACER TAPE IS TO BE BURIED 4'-0" AND LOCATED DIRECTLY ABOVE THE WATER MAIN.

11B. ALL FITTINGS, UNLESS OTHERWISE CALLED FOR SHALL BE APPROVED DUCTILE IRON CLASS 350 CEMENT LINED OR FUSION BONDED EPOXY COATED ALL FITTINGS AND PIPE CONNECTED TO FITTINGS SHALL BE RESTRAINED USING A RETAINED MECHANICAL JOINT CONFORMING TO THE MATERIAL AND PERFORMANCE REQUIREMENTS OF ANSI/AWWA C-110/421.10 AND ANDSI/AWWA C-111-A21.11 OR COMPACT FITTINGS IN ACCORDANCE WITH ANSI/AWWA C-153/A21.53 EXCEPT FOR ANCHOR TEES, REDUCERS OR OTHER SPECIAL CIRCUMSTANCES WHEN DIRECTED BY THE ENGINEER. ALL FITTINGS ARE TO HAVE BELL ENDS.

11C. ALL BOLTS AND NUTS ON ALL RETAINED MECHANICAL JOINTS SHALL HAVE FIELD APPLIES ONE (1) COAT OF BITUMASTIC PAINTING FOLLOWED BY AN ENCASEMENT OF POLYETHYLENE WRAPPING IN ACCORDANCE WITH ANSI/AWWA C-105/4215-BB, CLASS C METHOD B.

11D. WHERE SHOWN ON THE PLANS OR WHEN OTHERWISE CALLED FOR, DUCTILE IRON PIPE AND FITTINGS SHALL HAVE AN APPROVED 'TYPE I' OR 'TYPE II' BOLTLESS RESTRAINED PUSH-ON JOINTS TO THE LIMITS SHOWN ON THE DRAWINGS WHERE NOTED (AWWA C-900 RJ) PVC BOLTLESS RESTRAINED PIPE MAY BE USED

11E. AT THE END OF EACH WORKDAY, THE CONTRACTOR SHALL PLUG ALL OPEN PIPE ENDS WITH WATER TIGHT PLUGS AS PER THE PREVENTATIVE AND CORRECTIVE MEASURES DURING CONSTRUCTION SECTION OF THE MOST CURRENT REVISION OF AWWA C-651 AS TO PREVENT THE INFILTRATION OR INTRUSION OF ANY FOREIGN OBJECTS OR MATERIALS. DATE STAMPED DIGITAL PHOTOS SHALL BE PROVIDED FOR EACH WORKDAY DEMONSTRATING THAT PROPER AWWA C-651 METHODS WERE USED TO PLUG ALL OPEN WATER MAIN ENDS. EACH PHOTO SHALL CLEARLY IDENTIFY THE STATION AT WHICH THE PIPE IS PLUGGED. THE STATIONING SHALL BE SHOWN BY THE USE OF A STATION MARKER PLACED AT THE PLUGGED PIPE END.

PHOTOS SHALL BE SUBMITTED ON A DAILY BASIS UNLESS OTHERWISE DEFINED BY THE VILLAGE OF CARDINGTON INSPECTOR OR ENGINEER. ALL PHOTOS TAKEN OVER THE COURSE OF THE PROJECT SHALL BE SUBMITTED BY THE CONTRACTOR AS PART OF THE AS-BUILT SUBMITTAL. AS-BUILTS SHALL BE CONSIDERED INCOMPLETE WITHOUT SAID COLLECTION OF DIGITAL PHOTOS.

11F. ALL PVC PIPE SHALL BE INSTALLED WITH A CONTINUOUS RUN OF INSULATED #12 GAUGE COPPER WIRE TAPED TO THE TOP OF THE PIPE EVERY 5 FEET. BRING TRACE WIRE TO THE SURFACE AT EVERY VALVE BOX OR HYDRANT (SEE DETAIL, SHEET 22). ALL SPLICES OR CONNECTIONS TO THE WIRE ARE TO BE MADE USING APPROVED DIRECT BURY LUGS OR NUTS. SHOULD THE TYPE OF PIPE CHANGE TO DUCTILE IRON PIPE, THEN THE TRACE WIRE SHOULD BE TERMINATED AT THE FIRST VALVE BOX OR HYDRANT AFTER THE TRANSITION IS MADE.

HYDRANTS:

12A. IN ALL HYDRANT INSTALLATIONS THE CONTRACTOR SHALL FACE ALL HYDRANTS 4 (STEAMER) NOZZLE TOWARD THE PAVEMENT PRIOR TO TESTING AND CHLORINATION OF WATER MAINS. CONTRACTOR SHALL CONSULT WITH THE LOCAL MUNICIPALITY'S ENGINEERING OR SERVICE DEPARTMENT TO OBTAIN HYDRANT MODEL AND NOZZLE THREAD REQUIREMENTS IF NOT INDICATED ON THE APPROVED PLANS.

12B. HYDRANT ASSEMBLIES SHALL BE CONSTRUCTED OF DUCTILE IRON (CL 52) CEMENT LINED PIPE.

12C. ALL HYDRANTS MUST BE MUELLER "A423 SUPER CENTURION WITH STAINLESS FASTENERS" OR EQUAL.

VALVES:

13. ALL VALVES SHALL BE AN APPROVED MODEL RESILIENT SEATED GATE VALVES AS PER THE MOST CURRENT VERSION OF AWWA C509 OR C515.

13A. ALL VALVES AND VALVE BOXES SHALL BE MUELLER BRAND OR EQUAL.

CONNECTIONS:

14. WATER CONNECTIONS SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY AND ARE NOT PART OF THE WATER MAIN APPROVAL. ADDITIONAL PERMITS FOR SERVICE CONNECTIONS MUST BE OBTAINED FROM THE DIVISION OF WATER PRIOR TO INSTALLATION OF ANY PORTION OF THE SERVICE CONNECTIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO ARRANGE FOR PERMITS FOR ALL SIZE WATER SERVICE CONNECTIONS BEFORE PERFORMING ANY WORK.

15. ONE INCH SERVICE CONNECTIONS SHALL BE PERMITTED TO SERVICE HOMES BASED ON THE FOLLOWING CRITERIA:

- PEAK FLOW DEMANDS DO NOT EXCEED 25 GPM FOR AN INDIVIDUAL HOME/UNIT. INCLUSIVE OF ALL USAGE(FIRE, DOMESTIC AND/OR IRRIGATION) AND
- LENGTH OF ONE INCH CONNECTION DOES NOT EXCEED 50 FEET AS MEASURED FROM THE MAIN TO THE CURB VALVE.

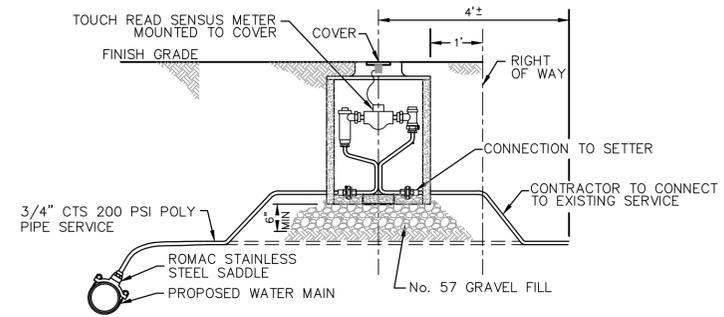
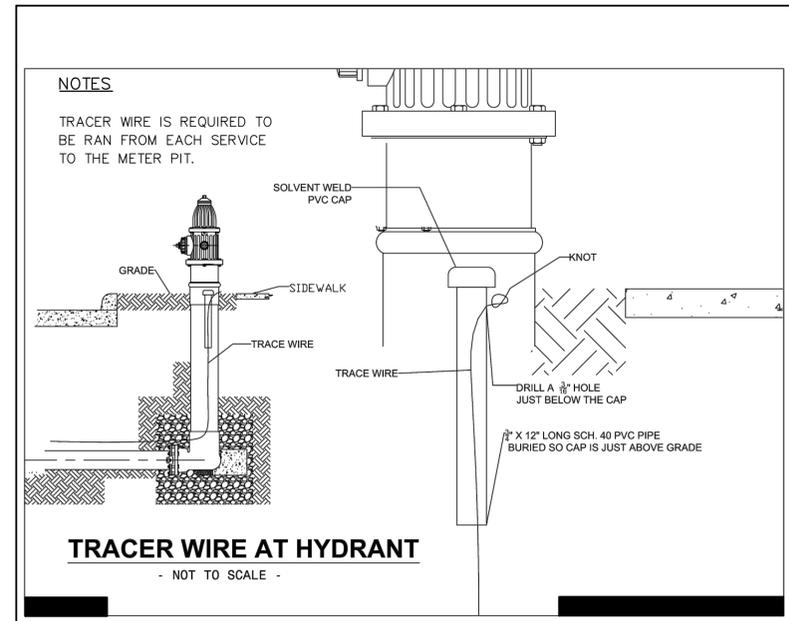
ANY SERVICE REQUESTS DIFFERING FROM THE STATED CRITERIA SHALL REQUIRE THE SUBMITTAL OF A COMPLETE WATER SERVICE APPLICATION. PEAK DEMANDS ARE TO BE ASSESSED ON APPLICATION AND SETBACKS ARE TO SHOWN ON AN ACCOMPANYING SITE PLAN. SITE PLANS SHALL SHOW WATER METER VAULTS IN THE RIGHT OF WAY OR IN AN EASEMENT CONTIGUOUS TO THE RIGHT OF WAY FOR ANY HOMES/UNITS WITH SETBACKS GREATER THAN 150 FEET. EASEMENTS ARE TO BE PROVIDED WITH THE SERVICE CONNECTION APPLICATION SUBMITTAL.

16. ALL WATER MAIN CURB VALVE BOXES AND METER VAULTS WILL BE INSTALLED IN GRASS AREAS WHEN POSSIBLE.

17. SERVICE SADDLES SHALL BE USED FOR ALL SERVICE CONNECTIONS. THE OUTLET SHALL BE TAPPED WITH EITHER AWWA TAPER (CC) OR AWWA F.I.P.T. THREADS. SADDLES SHALL BE MANUFACTURED IN ACCORDANCE WITH ALL APPLICABLE PARTS OF ANSI/AWWA C800-NSF 61 CERTIFIED, AND BE APPROVED BY THE DIVISION OF WATER.

EMERGENCIES:

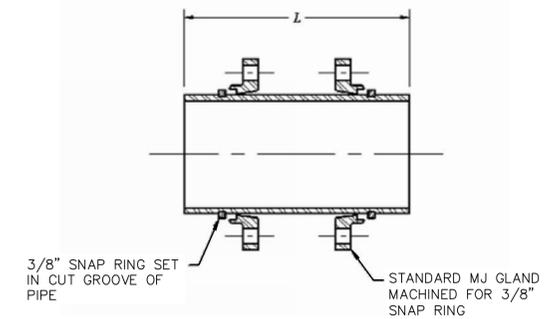
18. IF A WATER MAIN OR SERVICE CONNECTION BREAK OCCURS DURING CONSTRUCTION AND EMERGENCY ASSISTANCE IS REQUIRED, PLEASE NOTIFY THE VILLAGE OF CARDINGTON FIRE DEPT. AT 419-210-0557.



NOTES

- COMPACT SOIL AROUND METER PIT. FINE GRADE AND REMOVE ALL ROCKS AND DEBRIS. SEED AND MULCH ALL GRASS AREAS DISTURBED BY CONSTRUCTION.
- REPLACE GRAVEL PAVEMENT AREAS TO ORIGINAL CONDITION. PROVIDE MIN. 4" GRAVEL WHERE DISTURBED.
- REMOVE EXCESS FILL OFFSITE OR ADD SUITABLE FILL AS REQUIRED.
- COMPLETE AS-BUILT RECORD FOR EACH PROPERTY WHEN METER PIT IS INSTALLED.
- CONTRACTOR SHALL OBTAIN RIGHT-OF-WAY PERMIT AND OTHER LOCAL PERMITS WHERE REQUIRED.
- ALL METER SETTINGS AND FITTINGS SHALL BE MUELLER BRAND OR EQUAL.

TYPICAL METER INSTALLATION



NOTES

- TOLERANCE ON LENGTH OF PIPE SHALL BE 0.25"
- ABOVE MATERIALS SHALL MEET ALL APPLICABLE SECTIONS OF A.N.S.I A21.10, A21.15, A21.50, A21.51, B2.1, B16.1 / AWWA C110, C115, C150,C151 AND ALL REVISIONS THERETO.
- ANCHOR PIPE MATERIAL SHALL BE DUCTILE-IRON LINING SHALL BE IN ACCORDANCE WITH ANSI A21.4.
- PUSHER GLAND ANSI / AWWA A21.10 / C110, A21.53 / C153.
- COUPLINGS SHALL BE USED AT EACH TEE, CROSS & HYDRANT PER THE DIRECTION OF THE ENGINEER.
- LENGTH OF COUPLING SHOULD BE AS REQUIRED, MINIMUM LENGTH.

ANCHOR COUPLING DETAIL

OHM
ARCHITECTS ENGINEERS PLANNERS
6650 W. SNOWVILLE RD., STE. A
BRECKSVILLE, OHIO 44141
330.657.2145
OHM-ADVISORS.COM

STATE OF OHIO
SCOTT R. BICKLEY
E-71470
REGISTERED PROFESSIONAL ENGINEER
Scott R. Bickley, PE
Ohio Professional Engineer
#71470

REVISIONS
DATE
DESCRIPTION

HORIZONTAL DATUM
VERTICAL DATUM
SCALE
V: 1"= 10'
H: 1"= 10'

CITY/VILLAGE/TOWNSHIP
CARDINGTON

COUNTY
MORROW

CADD
P/W/ E/M

PROJ/UGR
DBN

ENG
SBS

PROJ NUMBER
3031154310

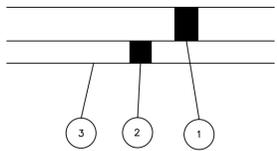
VILLAGE OF CARDINGTON
1930'S WATERLINE REPLACEMENT
WATER DETAILS & NOTES

DRAWING PATH: S:\WEB\ Village of Cardington\ PUBLIC PROJECTS\9 PROJECTS\14729-1930 Waterline Replacement_OPWC and CDB\03 Design\7 - Plans\DWG\14729 Details.dwg Jul 14, 2015 - 1:04pm

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CONCRETE DRIVEWAY DETAIL

(ITEM SPECIAL - CONCRETE DRIVEWAY)*



LEGEND

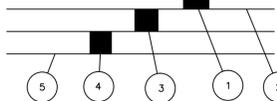
- 1 ITEM 452 6" FIBER-REINFORCED PORTLAND CEMENT CONCRETE, CLASS MS
- 2 ITEM 304 4" AGGREGATE BASE
- 3 ITEM 204 SUBGRADE COMPACTION

* ALL COSTS FOR ITEM SPECIAL - CONCRETE DRIVEWAY SHALL BE INCLUDED IN THE UNIT COST BID (INCLUDING SAWCUT, REMOVAL OF EXISTING PAVEMENT, AND ALL ITEMS SHOWN). ALL REPLACEMENTS TO BE A MINIMUM OF 4' WIDE OR TO THE NEAREST JOINT.

NOTE: 2" WIDE ASPHALT APRON SHALL BE CONSTRUCTED PER THE PAVEMENT BUILDUP SHOWN ON THE ASPHALT DRIVEWAY DETAIL. ALL COSTS FOR THIS WORK SHALL BE INCLUDED AND PAID FOR UNDER ITEM SPECIAL - CONCRETE DRIVEWAY.

ASPHALT DRIVEWAY DETAIL

(ITEM SPECIAL - ASPHALT DRIVEWAY)*



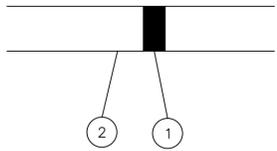
LEGEND

- 1 ITEM 448 1 1/2" ASPHALT CONCRETE, SURFACE COURSE (RESIDENTIAL)
- 2 ITEM 448 2" ASPHALT CONCRETE, SURFACE COURSE (COMMERCIAL)
- 3 ITEM 407 TACK COAT
- 4 ITEM 448 2 1/2" ASPHALT CONCRETE, INTERMEDIATE COURSE (RESIDENTIAL)
- 5 ITEM 301 4" BITUMINOUS AGGREGATE BASE (COMMERCIAL)
- 6 ITEM 304 6" AGGREGATE BASE
- 7 ITEM 204 SUBGRADE COMPACTION

* ALL COSTS FOR ITEM SPECIAL - ASPHALT DRIVEWAY SHALL BE INCLUDED IN THE UNIT COST BID (INCLUDING SAWCUT, REMOVAL OF EXISTING PAVEMENT, AND ALL ITEMS SHOWN). ALL REPLACEMENTS TO BE A MINIMUM OF 4' WIDE OR TO THE NEAREST JOINT.

AGGREGATE DRIVEWAY DETAIL

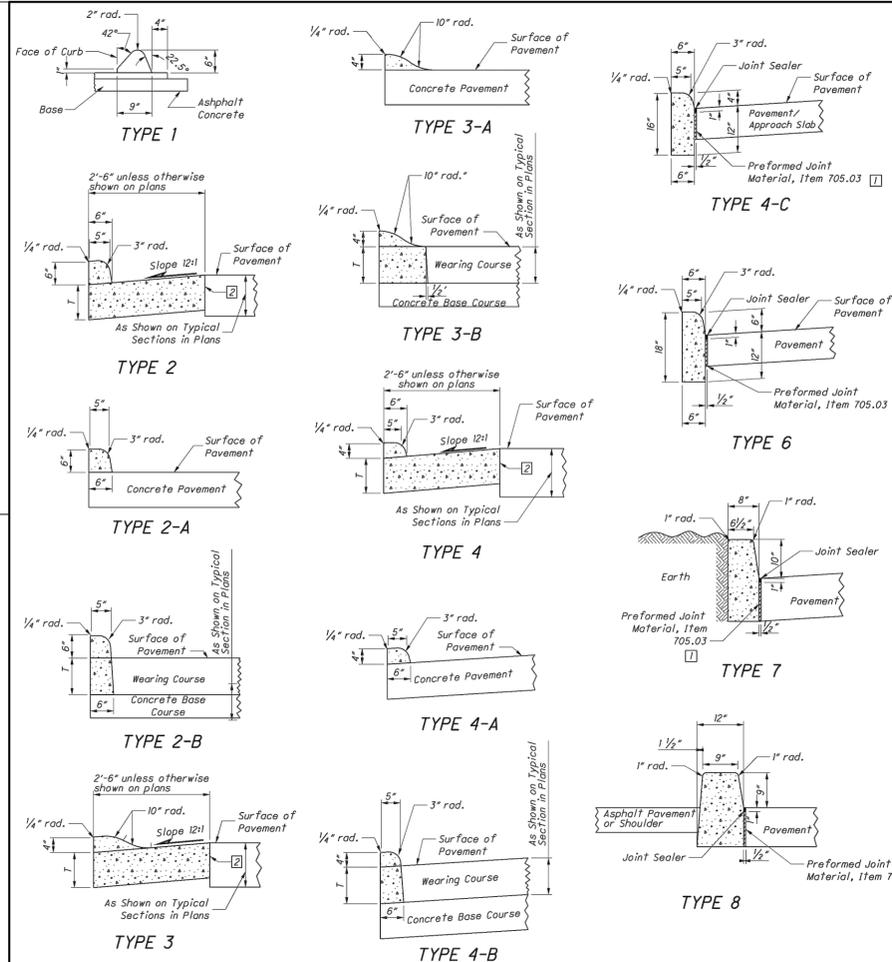
(ITEM SPECIAL - AGGREGATE DRIVEWAY)*



LEGEND

- 1 ITEM 304 8" AGGREGATE BASE (6" 304 BASE) (2" MATCH EXISTING KIND)
- 2 ITEM 204 SUBGRADE COMPACTION

* ALL COSTS FOR ITEM SPECIAL - AGGREGATE DRIVEWAY SHALL BE INCLUDED IN THE UNIT COST BID (INCLUDING REMOVAL OF EXISTING PAVEMENT AND ALL ITEMS SHOWN).



NOTES

GENERAL: This drawing shows alternate types of curb that may be used on various types of pavement. The typical section of the project shows the type to be used, also the thickness of the edge of the pavement or the edge of the curb and gutter section.

JOINTS: 1" expansion joints shall extend up to the top of the curb and shall be constructed in the curb and gutter section in such a manner that the joint seal will extend the full width of the gutter and into the curb face a sufficient distance to seal the joint to an elevation of at least 2" above the flow line of the gutter. Dowel bars shall be used in the curb and gutter section of expansion joints and to the surface of the pavement.

Transverse expansion joint material shall meet the requirements of Item 705.03.

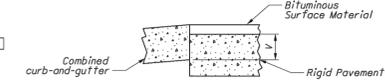
GUTTER PLATE THICKNESS: Thickness of gutter plate "T" shall be 9" unless otherwise shown on the plans.

TOLERANCES: Dimensional tolerances are as follows:
Curbs: 1/8" to +1/4"
Gutters: 0 to +1/2"

LEGEND

1 Expansion joint material and joint sealer are not required for the portion of the curb that is adjacent to a flexible pavement type. Both materials are required, as detailed, for the full height of rigid pavement and concrete bases.

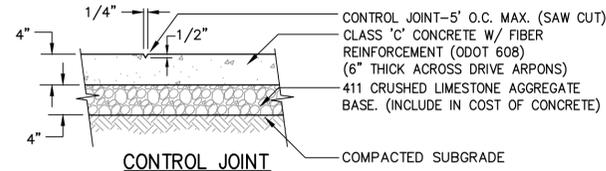
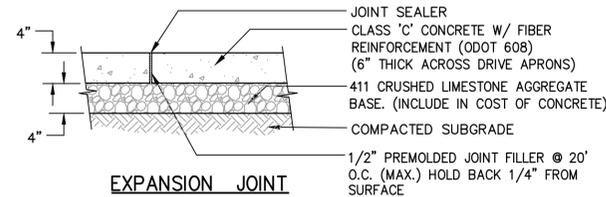
2 Butt joints shall be provided between combined curb-and-gutter and new or existing rigid pavements, with tie bars or hook bolts provided at intervals of 5'. See SCD BP-2.1 for details of tie bars and hook bolts. If the combined curb-and-gutter adjoins a new rigid base or an existing rigid base or pavement that is to be surfaced with bituminous material, a butt joint shall also be provided. However, tie bars or hook bolts shall be omitted when the vertical overlap ("V" in detail below) between the curb-and-gutter and rigid pavement is less than 7".



NOTES:

- 1. 1/2" EXPANSION JOINTS AT ALL CURBS, WALKS, WALLS AND OTHER FIXED OBJECTS.
- 2. CONTROL JOINT-5' O.C. MAX. OR AS SHOWN ON DRAWINGS.
- 3. CROSS SLOPE AT 1/4" PER FOOT MIN. TO DRAIN.
- 4. MEDIUM BROOM FINISH.

*ALL COSTS FOR ITEM SPECIAL - 4" CONCRETE WALK SHALL BE INCLUDED IN THE UNIT COST BID (INCLUDING SAWCUT, REMOVAL OF EXISTING PAVEMENT, AND ALL ITEMS SHOWN). ALL REPLACEMENTS TO BE A MINIMUM OF 4' WIDE OR TO THE NEAREST JOINT.



TYPICAL CONCRETE WALK DETAIL
ITEM SPECIAL - 4' WIDE CONCRETE WALK

STATE OF OHIO DEPARTMENT OF TRANSPORTATION
 ADMINISTRATOR
 Michael Blume
 7-19-2015 DATE
 OFFICE OF ROADWAY ENGINEERING
 M. Ruppe
 STATE OF OHIO DEPARTMENT OF TRANSPORTATION
 DIVISION OF PUBLIC CONSTRUCTION DIVISION
 CONCRETE CURBS AND GUTTER
 COMBINED CURB AND GUTTER
 THIS DRAWING REPLACES BP-5.1 DATED 7-28-00.
 REVISIONS:
 1 / 1
 HORIZ. DATUM
 VERT. DATUM
 SCALE
 V: 1"=1'
 H: 1"=1'
 COUNTY
 CARRINGTON
 CITY/VILLAGE/TOWNSHIP
 MORROW
 CAD. COUNTY
 CAD. COUNTY
 PROJ. MGR.
 PROJ. MGR.
 ENGR.
 ENGR.
 DATE
 DATE
 3031-15-010
 3031-15-010

OHM
 ARCHITECTS ENGINEERS PLANNERS
 6650 W. SNOWVILLE RD., STE. A
 BRECKSVILLE, OHIO 44141
 330.657.2145
 OHM-ADVISORS.COM

STATE OF OHIO
 SCOTT R. BICKLEY
 E-71470
 REGISTERED PROFESSIONAL ENGINEER
 Scott R. Bickley, PE
 Ohio Professional Engineer
 #71470

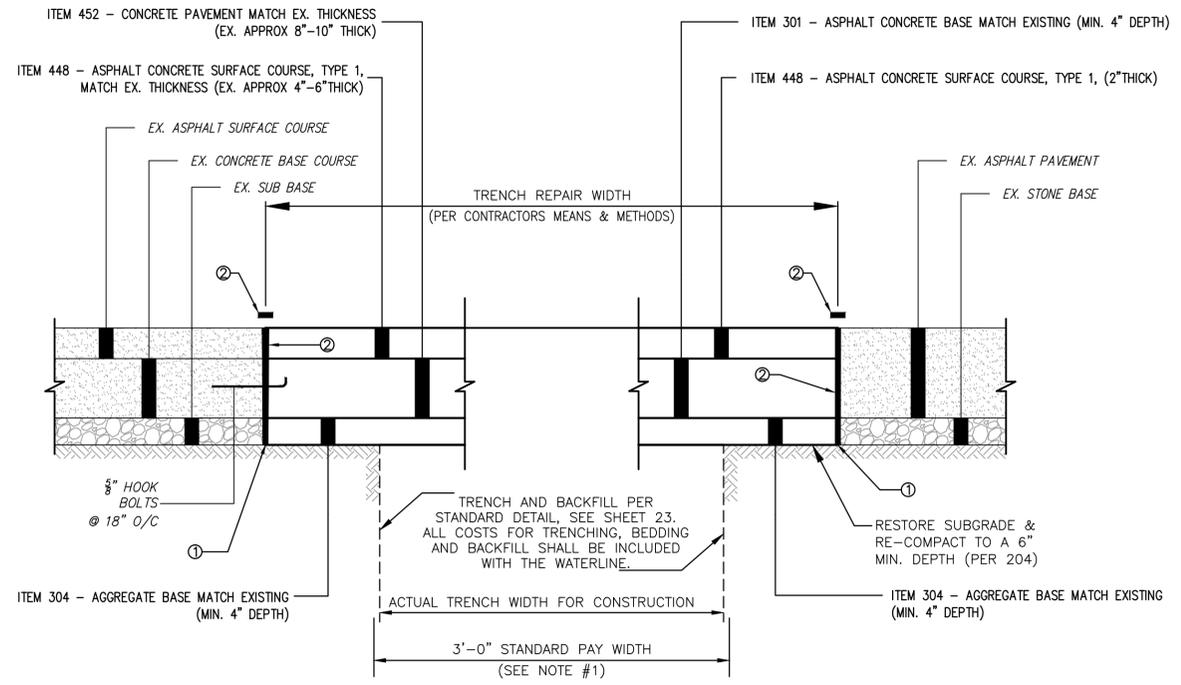
BP-5.1
 CONCRETE CURBS AND GUTTER
 COMBINED CURB AND GUTTER

VILLAGE of CARRINGTON
 1930'S WATERLINE REPLACEMENT
 PAVEMENT DETAILS

DRAWING PATH: S:\EES_Village of Carrington\9 PUBLIC PROJECTS\9 PROJECTS\14729-1930 Waterline Replacement_LPWC and CDG\03 Design\07 - Plans\DWG\14729 Details.dwg Jul 14, 2015 - 1:04pm

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DRAWING PATH: S:\EES\ Village of Cardington\ PUBLIC PROJECTS\ 1930 Waterline Replacement\ OPWC and CDBG\ 03 Design\ 07 - Plans\ DWG\ 14729 Details.dwg Jul 14, 2015 - 1:04pm



LEGEND
 ① ITEM SPECIAL - SAWCUT PERIMETER (PROVIDE CLEAN, STRAIGHT EDGE)
 ② ITEM 423 - CRACK SEALING, TYPE III (ENTIRE PERIMETER JOINT)

EX. COMPOSITE ASPHALT/CONCRETE TRENCH REPAIR

EX. ASPHALT PAVEMENT TRENCH REPAIR

- NOTES:**
1. THE QUANTITIES SHOWN IN THE GENERAL SUMMARY ARE BASED UPON THE STANDARD TRENCH PAY WIDTH AS SHOWN. IT IS EXPECTED THAT TYPICAL TRENCH WIDTHS WILL BE 42" TO 48" MINIMUM FOR THE CONTRACTOR TO PERFORM THE WORK IN ACCORDANCE WITH SAFETY AND STANDARDS. THE CONTRACTOR SHALL INCLUDE THE COSTS FOR TRENCH REPAIR WIDTHS EXCEEDING 3'-0", IN THE UNIT PRICE BID FOR THIS ITEM.
 2. THE THICKNESS SHOWN FOR THE PAVEMENT SECTION REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE. IF THE THICKNESS OF ASPHALT OR CONCRETE VARIES, ON AVERAGE, BY LESS THAN 1" THEN NO ADD OR DEDUCT IN UNIT COST SHALL BE DUE EITHER PARTY. IF THE AVERAGE THICKNESS OF ASPHALT OR CONCRETE VARIES BY MORE THAN 1" THEN A PRORATED VALUE WILL BE ADDED TO, OR DEDUCTED FROM, THE UNIT PRICE BID. THE PRORATED AMOUNT SHALL BE BASED UPON THE FOLLOWING UNIT PRICES FOR MATERIAL ONLY (\$100/C.Y. - 452). "AVERAGE THICKNESS" SHALL BE BASED UPON MEASUREMENTS AT 50' INTERVALS FOR THE ENTIRE LENGTH OF THE PROJECT.
 3. AS PART OF THE CONTRACTORS WORK OPERATIONS, MEANS AND METHODS, ETC. ALL REPAIRS TO LAWN AREAS AND PAVEMENT AREAS NECESSARY TO CONSTRUCT THE WATER MAIN SHALL BE INCLUDED IN THIS TRENCH REPAIR PAY ITEM. PAVEMENT REPAIRS SHALL BE COMPLETED IN ACCORDANCE WITH THIS DETAIL AND LAWN AREAS SHALL BE REPAIRED IN ACCORDANCE WITH THE "SITE RESTORATION" NOTE LOCATED ON THIS SHEET.
 4. THE COST FOR ALL SAWCUTTING, PAVEMENT REMOVAL/DISPOSAL, REPLACEMENT OF DISTURBED CONCRETE CURB, CONSTRUCTION OF NEW PAVEMENT ITEMS AS SHOWN AND AS REFERENCED SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM SPECIAL - TRENCH REPAIR, AS PER PLAN.
 5. IF THE PROJECT IS COMPLETED DURING THE WINTER MONTHS WHEN HOT MIX ASPHALT IS NOT AVAILABLE THE ROADWAY TRENCH CROSSINGS WILL NEED TO BE CAPPED WITH 3" COLD MIX ASPHALT AND MAINTAINED UNTIL THE HOT MIX IS AVAILABLE FOR FINAL PAVEMENT REPAIR. IF NEEDED, THIS WILL BE PAID FOR UNDER ITEM SPECIAL - CONTINGENCY ALLOWANCE.

ITEM SPECIAL - TRENCH REPAIR, AS PER PLAN

SITE RESTORATION

- THE CONTRACTOR SHALL REPAIR ALL DISTURBED AREAS AS DESCRIBED BELOW:
- PREPARE AREAS FOR TOPSOIL AND SEEDING PER ITEM 653 AND ITEM 659.
 - PLACE 2" OF TOPSOIL MEETING THE REQUIREMENTS OF ITEM 653.
 - HYDROSEED AND WATER LAWN AREAS WITH A SEED MIX MEETING THE REQUIREMENTS OF ITEM 659 (CLASS 1, LAWN MIXTURE).
 - COST FOR THIS WORK HAS BEEN INCLUDED IN THE TRENCH REPAIR, 1" SERVICE BRANCH, AND 1" CURB BOX AND STOP PAY ITEMS.

TRENCH SAFETY AND BACKFILL

DUE TO THE PROXIMITY OF THE TRENCH TO THE TRAVELED LANES AND DRIVEWAYS, IT IS IMPORTANT THAT THE CONTRACTOR KEEP COMPACTION AND BACKFILL OPERATIONS AS CLOSE AS POSSIBLE TO THE PIPE LAYING OPERATIONS. THE GOAL IS TO MAINTAIN THE HIGHEST LEVEL OF SAFETY FOR WORKERS AND THE PUBLIC (PEDESTRIANS, CYCLISTS, MOTORISTS, ETC.)

THE TRENCH SHALL BE BACKFILLED AND COMPACTED FULL DEPTH (TO THE BOTTOM OF THE TRENCH REPAIR PAVEMENT) AT ALL TIMES OR SECURELY PLATED, UNLESS THE CONTRACTOR IS WORKING IN THE IMMEDIATE AREA.

IF THE ENGINEER DETERMINES THAT THE BACKFILL OPERATIONS ARE NOT STAYING CLOSE ENOUGH TO PIPE OPERATIONS, THE ENGINEER SHALL HALT OPERATIONS UNTIL BACKFILL OPERATIONS CATCH UP. ALL COSTS SHALL BE BORNE BY THE CONTRACTOR - DELAY CLAIMS WILL BE REJECTED.

ALL COSTS SHALL BE INCLUDED IN THE VARIOUS WATERLINE ITEMS.

BACKFILL, TRENCH WALLS, AND DEWATERING

ALL BACKFILL REQUIRED FOR THIS PROJECT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS WATERLINE ITEMS. ADDITIONAL QUANTITIES FOR BACKFILL MATERIAL SHALL BE ANTICIPATED BY THE CONTRACTOR AND SHALL NOT BE INCLUDED IN ANY CHANGE ORDER REQUESTS AND WILL NOT BE APPROVED.

SOME EXAMPLES MAY INCLUDE ADDITIONAL BACKFILL REQUIRED AT BORING LOCATIONS, NAVIGATING AROUND EXISTING STRUCTURES, TESTING OPERATIONS, RECONNECTING SERVICES, AT CHLORINATION AND FLUSHING ASSEMBLIES, AREAS WHERE SPOT TRENCH REPAIRS ARE REQUIRED, TRENCH WALL SLOUGHING/COLLAPSING, ETC.

THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT TRENCH WALLS FROM SLOUGHING/COLLAPSING BY USING BEST MEANS & METHODS. PROTECTION OF NEARBY UTILITIES AND ADJACENT PAVEMENT FAILURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

DEWATERING OF THE TRENCH USING TYPICAL MEANS & METHODS IS THE RESPONSIBILITY OF THE CONTRACTOR. NO ADDITIONAL PAYMENT SHALL BE REQUESTED OR MADE FOR DEWATERING OF THE TRENCH TO ALLOW CONSTRUCTION OPERATIONS.

ALL COSTS SHALL BE INCLUDED WITH THE VARIOUS WATERLINE ITEMS.

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Scott R. Bickley, PE
 Ohio Professional Engineer
 #71470

REVISIONS:	VERT. DATUM
	HORIZ. DATUM
	SCALE
	V. 1" = 1'
	H. 1" = 1'
	CITY/VILLAGE/TOWNSHIP
	CARDINGTON
	COUNTY
	MORROW
	CADD
	FW/E/EM
	PROJ. NO.
	3031-15-010
	ENG
	SRB
	DATE
	June 2015

VILLAGE of CARDINGTON
 1930'S WATERLINE REPLACEMENT
 PAVEMENT DETAILS

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