

ADDENDUM NO. 2

NORTHWEST DEVELOPMENT AREA WATER AND SANITARY SEWER IMPROVEMENTS DAYTON INTERNATIONAL AIRPORT (10% MBE Participation)

TO ALL BIDDERS:

This addendum, including all articles and corrections listed below, shall be taken into account in preparing the "Bid Forms" and shall become part of the Contract.

All bidders are requested to attach this Addendum to the Bid Forms and return to the City.

ITEM NO. 1 – Bid Set Drawing Sheets

In the Drawing Set,

Remove Drawing Sheets No.'s: G1-5, G1-6, C2-8, C4-1

And

Replace with the following attached Drawing Sheet No.'s:

G1-5: General Notes

G1-6: Horizontal and Vertical Control Points

C2-8: Water Main Plan and Profile

C4-1: Water Meter Pit Site Plan & Details

ITEM NO. 2 – Bid Set Drawing Revisions

In the Drawing Set, Revise the following Drawing No.'s:

1. Drawing No.'s G-5, Water Note 5 and C4-2 Restrained Joint Table

The length of the restrained joint lengths shall be in accordance to the attached Restrained Joint Length Table.

2. Drawing No. C1-1 and C1-3

Add Note: Contractor to restore Perimeter Road and Dog Leg Road to Original Condition. All restoration cost to be included in Bid Item SPL-1: 6" HDPE IPS DR9 - Open Cut with exception of Aggregate Base (Item 304) and Asphalt (Item 403). Aggregate base and asphalt will be paid under their respective Bid Line Items.

3. Drawing No. C2-6, Sta: WM 55+50

Change: Base Bid: 16" Gate to 16" Restrained Plug

Add: Add. Alt #2: Delete 16" Restrained Plug and Install 1- 12 X 12 Tee, 2- 12" Gate Valves and 1 – 12" Restrained Plug. Tee to stub out towards Dog Leg.

4. Drawing No. C2-6, C2-7, C2-8, C4-1

Clarification and Revise: Water main installation from Sta 55+50 to 82+69 is under Additive Alternate No. 4 on the Bid Proposal Form. Change all references from Add. Alt #2 to Add Alt. #4.

Clarification and Revise: Water main installation to upsize from 12" to 16" is from Sta 55+50 to 80+10, Meter Pit Start. The piping under Mill Creek to remain 12" ductile iron pipe. Change all references from Add. Alt #3 to Add Alt. #7 and #8.

Clarification and Revise: The gravel road shown on Sheet C4-1 is for access to the meter pit. Change all references from Add. Alt #2 & #3 to Add Alt. #9.

5. Drawing No. C2-8 and C4-1

Change: "8" Badger Recordall Fire Service Meter" to "8" Badger Recordall Combo Meter"

Change: At Sta 82+69, "Connect to Existing 12" Watermain with 12 x 12 Tee and Valve" to "12" Water Main Tapping Valve and Sleeve by City of Dayton, Contractor to Dig & Excavate"

Add: 2 - 8" Underground Gate Valves to be connected to the 8 x 8 tees leading to second meter pit; 1 – 12" Valve at 12 x 8 Reducer

Add Note: Contractor shall excavate and backfill a trench for a DP&L Primary 3-Phase service from the designated DP&L start location to the Sanitary Sewer Pump Station as shown and noted on Drawing Sheet ES01. This includes boring and providing conduit under Mill Creek. Cost to be paid for under Base Bid – PUMP STATION WORK: ITEM SPL-6 DP&L TRENCH – EXCAVATE AND BACKFILL.

6. Drawing No. C3-4

Change: Sheet Name to Water and Sanitary Sewer Details

Change: Delete Box around 16" Casing Pipe. Casing Pipe to be 6" larger than OD of 12" Bell.

7. Drawing No. PS7-1

Add Note: The Sanitary Sewer Pump Station may be shifted to opposite side of Dog Leg Road at the direction of the Engineer. Any piping and related cost shall be paid for in the unit cost prices.

Add Note: The concrete slab will be 16 ft (W) x 25 ft (L) x 8 in (D); 4000 psi strength concrete; 2 – layers of #4 rebar with openings required for conduits and wet well and as shown on the plans. Construction shall be in accordance to City of Dayton Specifications Section 500 – Structures. Structural fill shall be placed under the slab.

All cost for this work shall be included in the Lump Sum cost for Pump Station Work - SP4.

Add Note: The wet well shall be backfilled as soon as possible with City of Dayton Item 615 - LSM 50# structural back fill. All cost for this work shall be included in the Lump Sum cost for Pump Station Work - SP4.

Add Note: The limits of asphalt paving to access the pump station will be determined in the field. Work for asphalt and base will be paid for under Item 304 and Item 403 in the Piping Work Base Bid Line Items.

ITEM NO. 3 – Bid Proposal Form

1. Bid Form: Delete the Original "Bid Form" and Replace with attached "Bid Form".
2. Replace Quantities on Drawing Sheet G1-3 with Revised Items and Quantities.
3. Add Alternate No. 10 to pay for rock excavation if encountered while tunneling under Mill Creek.
4. Bidder is directed to Special Provisions, Section F, for additional instructions on filling out the Bid Proposal Form.

ITEM NO. 4 – Contractor Questions and Clarifications

1. QUESTION: Can you define what areas at the pump station get concrete? Cannot tell if it is just the slab at the PS, transformer and generator or if it is the entire section.
Response: See Item No. 2 (7) above.
2. QUESTION: The alternates number on the bid form do not match the alternates on the plan but I think that bid form alternate #4 is shown as ALT 2 and 3 on the plans. It would also be great if the bid form was sequentially numbered, but the question is under the bid form alt #4 you have a pay item for 1,000 LF of 8" DI and another one for exc and backfill for same item, where is this work shown on the plans?
Response: See Item No. 2 above.
3. QUESTION Also under bid form alternate number 3 dewater pump station – under what criteria would this be used, pump size, GPM in hole.?
Response: Contractor to determine the size needed to maintain the excavated PS wet well dry and suitable for construction.
4. QUESTION On alternate #9, what profile do you want on the gravel drive and how do you want it to get to the meter pit, does this show on a drawing?
Response: See item No. 1 Revised Drawings. Gravel drive is to be profiled in such a way to drain water away from road and the pit. Construct at least 2" below top of pit.
5. QUESTION Can you clarify the completion times and liquidated damages for each phase? G2-1 note 2 says 45 days for all phases, table at the right of the sheet has 1A & 1B but nothing for 2A & 2B.?

Response: See Item No. 2 above. See table below

CONSTRUCTION PHASING TABLE				
PHASE NO.	DESCRIPTION		DURATION (CALENDAR DAYS)	LIQUIDATED DAMAGES PER DAY (\$)
1A	WATER MAIN - BASE BID, Sta 0+00 to Sta 55+50			1,000
1B	SANITARY SEWER - BASE BID Sta 0+00 to Concorde Dr MH Tie-in			1,000
	1B1	PUMP STATION - FUNCTIONAL		-
	1B2	SANITARY SEWER FROM STA 39-00 to STA 28 - 00 (OPEN CUT 1)		-
	1B3	SANITARY SEWER FROM STA 28 – 00 to STA 17-00 (DIRECTIONAL DRILLING 1)	7	2,000
	1B4	SANITARY SEWER STA 17-00 to STA 9-00 (DIRECTIONAL DRILLING 2)	7	2,000
	1B5	SANITARY SEWER STA 9-00 to STA 0-00 (OPEN CUT 1)		-
	1B6	PUMP STATION - RESTORATION	20	500
2	WATER MAIN - ADD ALTERNATE 4 (IF AWARDED) Sta 55+50 to End (12" Tap)		40	500

6. QUESTION For the Northwest Development project, is it the intent for the rock excavation alternate to cover boring through rock if that scenario takes place, or just open cut excavation? Alternate No. 6

Response: See Item 3.3 above

7. QUESTION Do you require the same length of restraint for a valve as you do a 90-degree bend or plug? Also, could send drawings with elevations called out for the contour lines? I'm having trouble seeing whether the 6" DIP hydrant runs will need 45-degree bends or not to make the hydrants the right height.

Response: The length for of a restraint for a valve is the same as for the 90-degrees bend or plug as per COD requirements. As for the hydrant the COD does not permit extensions. 45-degree bends must be used to bring fire hydrant to grade. See typical fire hydrant details. Contractor to field verify existing conditions.

8. QUESTION Do you know if it says somewhere in the specs or on the drawings that seeding is incidental to the pipe work. There is an item for 1500 SY of seeding but over the length of water main alone for the base bid that would only be around 2.5' wide.

Response: This has been increased already to 8000SY and 3000SY in the base bid and Add Alternate 4 to cover a 10' wide work area and anything outside the 10' area will be considered incidental.

9. QUESTION Does the drill under the runway/taxiway need to be sectioned as shown or could this be one shot?

Response: It could be one shot as long as you stay within the proposed limits.

10. QUESTION Will the runway/taxiway be shut down during drilling?

Response: Yes – the Runway will be shut down during working hours. Runway will reopen for air operation after working hours. Site has to be secured.

11. QUESTION Will the utilities along the path of the drill need to be exposed for a visual?
Response: The Contractor is responsible to locate all existing utilities along the path of the drilling operation.
12. QUESTION There are 2 bid items with 10" SDR 35 and 1 item for 10" SDR 35 pipe. The quantities do not match and should this be the 8" SDR 35 at the end of the forcemain?
Response: See updated Bid Form
13. QUESTION On sheet C2-1 it states to remove and re-install the flushing pit, do you have a detail of what that looks like and where it is to be installed?
Response: Details attached to this Addendum. New location to be Determined in the Vicinity of existing unit.
14. QUESTION Pump station site plan C3-1 and PS7-1 seem to be different.
Response: Use PS7-1 for the pump station construction
15. QUESTION Where is the 500' of 16" DI with structural fill used?
Response: See Updated Bid Form
16. QUESTION The bid form shows 2,509 LF of 6" FM by directional drilling, the plans do not show that much.
Response: See Updated Bid Form
17. QUESTION The detail on C4-1 check valve pit. Can you detail that a little, the detail does not appear to support the intended check valve, is it an 8" check valve?
Response: See Revised Detail

END OF ADDENDUM NO.2

**March 12, 2018
Keith Steeber, Acting Division Manager
Department of Public Works**

BID FORM

To: Director, Department of Public Works
The City of Dayton

The undersigned, having full knowledge of the site and the provisions of the plans and specifications for the following improvement, and the conditions of this bid, hereby agrees to furnish all services, labor, materials and equipment, and to construct in every respect complete:

DAYTON INTERNATIONAL AIRPORT
NORTHWEST DEVELOPMENT AREA WATER AND SEWER IMPROVEMENTS
10% MBE PARTICIPATION

in accordance with said plans and specifications on file in the office of the City Engineer at the unit prices hereinafter set forth.

BASE BID

ITEM	DESCRIPTION	EST. QUANT.	UNIT	UNIT PRICE	TOTALS
207	FILTER FABRIC FENCE	2,500	LF		
304	AGGREGATE BASE	100	CY		
403	ASPHALT CONCRETE, 4"	25	TN		
609	CONCRETE BARRIER CURB	100	LF		
614	MAINTAINING TRAFFIC	1	LS		
623	CONSTRUCTION LAYOUT AND AS-BUILT	1	LS		
624	MOBILIZATION	1	LS		
653	TOPSOIL FURNISHED AND PLACED, 4"	120	CY		
659	HYDRO-SEEDING AND MULCHING	8,000	SY		
810	EXCAVATION AND BACKFILL WITH NATIVE FILL, 10" SDR35	50	LF		
810	EXCAVATION AND BACKFILL WITH LSM STRUCTURAL FILL, 10" SDR35	61	LF		
810	EXCAVATION AND BACKFILL WITH NATIVE FILL, 6" DIP CL 51	249	LF		
810	EXCAVATION AND BACKFILL WITH STRUCTURAL FILL, 6" DIP CL 51	120	LF		
810	EXCAVATION AND BACKFILL WITH LSM STRUCTURAL FILL, 12" DIP CL 51	80	LF		
810	EXCAVATION AND BACKFILL WITH NATIVE FILL, 16" DIP CL 51	4,650	LF		
810	EXCAVATION AND BACKFILL WITH STRUCTURAL FILL, 16" DIP CL 51	900	LF		
824	DUCTILE IRON PIPE, 6" DIP CL 51 WITH POLYWRAP	369	LF		
824	DUCTILE IRON PIPE, 12" DIP CL 51 WITH POLYWRAP	80	LF		

BASE BID CONTINUED

ITEM	DESCRIPTION	EST. QUANT.	UNIT	UNIT PRICE	TOTALS
824	DUCTILE IRON PIPE, 16" DIP CL 51 WITH POLYWRAP	5,550	LF		
825	PVC SEWER PIPE, 10" SDR 35	61	LF		
830	MANHOLE, TYPE A, 5-FT, CONCORDE DR	1	EA		
834	CONNECTION TO EXISTING SEWERS, CONCORDE DR	1	EA		
834	CONNECTION TO EXISTING WATER, SR40	1	EA		
840	6" GATE VALVE AND APPURTENANCE, INC VALVE BOX	10	EA		
840	12" GATE VALVE AND APPURTENANCE, INC VALVE BOX	1	EA		
840	16" GATE VALVE AND APPURTENANCE, INC VALVE BOX	4	EA		
843	FIRE HYDRANT	10	EA		
847	RESTRAINED PLUG – 16"	2	EA		
SPL-1	6" HDPE IPS DR9, OPEN CUT, BACKFILL WITH NATIVE SOIL WITH EXCEPTION OF STRUCTURAL FILL REQ'D IN ROADWAY AREAS	2,509	LF		
SPL-2	6" HDPE IPS DR9, DIRECTIONAL DRILL	1,298	LF		
SPL-3	4" AIR RELEASE, 4" PLUG VALVE AND PIPING, COMPLETE WITH AND TO INCLUDE 6 FT DIA MH	1	EA		

1. TOTAL BASE BID PIPING WORK: \$ _____

BASE BID

PUMP STATION WORK

ITEM	DESCRIPTION	EST. QUANT.	UNIT	UNIT PRICE	TOTALS
834	CONNECTION TO NEW SEWER	1	EA		
614	MAINTAINING TRAFFIC	1	LS		
623	CONSTRUCTION LAYOUT AND AS-BUILT	1	LS		
624	MOBILIZATION	1	LS		
SPL-4	PUMP STATION, INSTALLED COMPLETE; INCLUDES ALL SITEWORK, WETWELL & PUMP STATION, MECHANICAL & EMERGENCY GENERATOR, BOLLARDS, STRUCTURAL FILL, CONCRETE PAD & FINAL RESTORATION	1	LS		
SPL-5	ELECTRICAL WORK AS PER DRAWINGS	1	LS		
SPL-6	DP&L TRENCH – EXCAVATE & BACKFILL AS PER THE ELECTRICAL DRAWINGS. INCLUDING DIRECTIONAL DRILLING UNDER MILL CREEK	1	LS		
SPL-7	DP&L AID TO CONSTRUCTION	1	AL	\$21,000.00	\$21,000.00

2. TOTAL BASE BID PUMP STATION WORK \$ _____

TOTAL BASE BID (1 & 2): \$ _____

BASE BID ALTERNATES

ITEM	DESCRIPTION	EST. QUANT.	UNIT	UNIT PRICE	TOTALS
NO. 1	CONTINGENCY, AS DIRECTED BY OWNER	1	AL	\$150,000.00	\$150,000.00
NO. 2	ROCK EXCAVATION, ITEM 811, AS REQUIRED	100	CY		
NO. 3	DEWATERING – PUMP STATION, AS REQUIRED TO INSTALL WETWELL	1	LS		

TOTAL BASE BID ALTERNATES NO. 1 THRU NO. 3 \$ _____

ADDITIVE ALTERNATE NO. 4

WATER PIPING WORK FROM DEVELOPMENT TO APRON (STA 55+50 TO STA 82+69)

ITEM	DESCRIPTION	EST. QUANT.	UNIT	UNIT PRICE	TOTALS
207	FILTER FABRIC FENCE	3,000	LF		
304	AGGREGATE BASE	100	CY		
452	CONCRETE PAVEMENT, 16"	300	SY		
614	MAINTAINING TRAFFIC	1	LS		
623	CONSTRUCTION LAYOUT	1	LS		
624	MOBILIZATION	1	LS		
653	TOPSOIL FURNISHED AND PLACED, 4"	40	CY		
659	HYDRO-SEEDING AND MULCHING	3000	SY		
810	EXCAVATION AND BACKFILL WITH NATIVE FILL, 6" DIP CL 51	100	LF		
810	EXCAVATION AND BACKFILL WITH NATIVE FILL, 8" DIP CL 51	65	LF		
810	EXCAVATION AND BACKFILL WITH NATIVE FILL, 12" DIP CL 51	2,679	LF		
810	EXCAVATION AND BACKFILL WITH #304 STRUCTURAL FILL, 12" DIP CL 51	50	LF		
812	BORE & JACK – 20" CASING PIPE UNDER CREEK	175	LF		
824	DUCTILE IRON PIPE, 6" DIP CL 51 WITH POLYWRAP	120	LF		
824	DUCTILE IRON PIPE, 8" DIP CL 51 WITH POLYWRAP	65	LF		
824	DUCTILE IRON PIPE, 12" DIP CL 51 WITH POLYWRAP	2,679	LF		
840	6" GATE VALVE AND APPURTENANCE, INC VALVE BOX	4	EA		
840	8" GATE VALVE AND APPURTENANCE, INC VALVE BOX	2	EA		

ADDITIVE ALTERNATE NO. 4

WATER PIPING WORK FROM DEVELOPMENT TO APRON (STA 55+0 TO STA 82+69)

ITEM	DESCRIPTION	EST. QUANT.	UNIT	UNIT PRICE	TOTALS
840	12" GATE VALVE AND APPURTENANCE, INC VALVE BOX	5	EA		
843	FIRE HYDRANT	4	EA		
844	12" X 12" WATER MAIN TAP	1	AL	\$7,500.00	\$7,500.00
847	RESTRAINED PLUG – 12"	1	EA		
SPL-8	METER PIT, COMPLETE WITH METERS, CHECK VALVES, ISOLATION VALVES, PIPING PER DETAILED DRAWING (COD STANDARDS)	2	EA		

TOTAL ALTERNATE NO. 4: \$ _____

ALTERNATES WATER PIPING WORK FROM DEVELOPMENT TO APRON (STA 55+50 TO STA 82+69)

ITEM	DESCRIPTION	EST. QUANT.	UNIT	UNIT PRICE	TOTALS
NO. 5	CONTINGENCY – AS DIRECTED BY OWNER	1	AL	\$50,000.00	\$50,000.00
NO. 6	ROCK EXCAVATION, ITEM 811, AS REQUIRED	100	CY		
NO. 7	ADDITIONAL COST TO UPSIZE WATER MAIN FROM 12" TO 16" (ITEM 810 AND 824), FROM STA	2,679	LF		
NO. 8	ADDITIONAL COST TO UPSIZE WATER VALVE FROM 12" TO 16" (ITEM 840)	4	EA		
NO. 9	ROADWAY – PER SHEET C2-8, WM STA 69+75 TO METER PIT	1	LS		

TOTAL ALTERNATES NO. 5 THRU NO. 9 \$ _____

The consideration to be paid for the performance of the Contract of the above described project is provided as follows:

This information provides for the issuance of the tax-exempt form for the purchase of materials for this project.

<u>DESCRIPTION</u>	<u>CONSIDERATION FOR MATERIALS</u>	<u>CONSIDERATION FOR OBLIGATIONS</u>	<u>TOTAL \$</u>
TOTAL BASE BID (1&2)	\$ _____	\$ _____	\$ _____
TOTAL BASE BID ADD ALTERNATE NO. 1 (Contingency Allowance)	\$ _____	\$ _____	\$ _____
TOTAL BASE BID ADD ALTERNATE NO. 2	\$ _____	\$ _____	\$ _____
TOTAL BASE BID ADD ALTERNATE NO. 3	\$ _____	\$ _____	\$ _____
TOTAL ADD ALTERNATE NO. 4 (Water Pipe from Sta 55+50 to 82+69)	\$ _____	\$ _____	\$ _____
TOTAL ADD ALTERNATE NO. 5	\$ _____	\$ _____	\$ _____
TOTAL ADD ALTERNATE NO. 6	\$ _____	\$ _____	\$ _____
TOTAL ADD ALTERNATE NO. 7	\$ _____	\$ _____	\$ _____
TOTAL ADD ALTERNATE NO. 8	\$ _____	\$ _____	\$ _____
TOTAL ADD ALTERNATE NO. 9	\$ _____	\$ _____	\$ _____

The time of completion fixed by the City is **100 Calendar Days** from Notice to Proceed.

Following are the names of all persons, firms, and corporations interested in the above bid as principals. If none, state that "No person or party other than the bidder is interested in this Bid."

Name

Address

RESTRAINED JOINT LENGTHS

Sheet No.	From Sta:	To Sta:	Pipe size
C2-1	0+00	1+34	16"
	7+40	8+10	16"
	9+20	10+50	16"
	All Fittings		16"
	Fire Hydrant per Typical Detail		16"
C2-2	10+50	11+75	16"
	18+68	21+32	16"
	All Fittings		16"
	Fire Hydrant per Typical Detail		16"
C2-3	21+00	25+25	16"
	26+00	26+60	16"
	27+75	28+45	16"
	All Fittings		16"
	Fire Hydrant per Typical Detail		16"
C2-4	38+68	41+32	16"
	All Fittings		16"
	Fire Hydrant per Typical Detail		16"
C2-5	49+64	50+36	16"
	All Fittings		16"
	Fire Hydrant per Typical Detail		16"
C2-6	52+28	55+50	16"
	55+50	56+57	12"
	All Fittings		12"
	Fire Hydrant per Typical Detail		12"
C2-7	63+93	66+07	12"
	69+62	70+20	12"
	All Fittings		12"
	Fire Hydrant per Typical Detail		12"
C2-8	79+03	82+69	12"
	All Fittings		12"
	Fire Hydrant per Typical Detail		12"

Note: If Pipe is Increased to 16" from Sta 55+50 to Sta 82+69, then restrained joint length will be:

C2-6	55+50	56+82	16"
	All Fittings		16"
	Fire Hydrant per Typical Detail		16"
C2-7	63+53	66+32	16"
	69+62	70+20	16"
	All Fittings		16"
	Fire Hydrant per Typical Detail		16"
C2-8	78+78	82+69	16"/12"
	All Fittings		16"
	Fire Hydrant per Typical Detail		16"

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STANDARDS & SPECIFICATIONS

- 1. CITY OF DAYTON WATER ENGINEERING DESIGN STANDARDS FOR WATER, SANITARY SEWER, AND STORM SEWER FACILITIES. AVAILABLE ONLINE AT http://www.daytonwater.org/Index.php?page=design-standards.
2. CITY OF DAYTON CONSTRUCTION AND MATERIAL SPECIFICATIONS. AVAILABLE ONLINE AT http://www.daytonwater.org/index.php?page=constructions-and-material-specifications-document.
3. CITY OF DAYTON DEPARTMENT OF PUBLIC WORKS STANDARD CONSTRUCTION DRAWINGS. AVAILABLE ONLINE AT http://www.cityofdayton.org/departments/pw/ce/Pages/EngineeringDrawings.aspx.
4. CITY OF DAYTON DEPARTMENT OF PUBLIC WORKS RULES AND REGULATIONS FOR MAKING OPENINGS IN A PUBLIC WAY. AVAILABLE AT THE PUBLIC WORKS BUSINESS OFFICE, LOCATED ON THE 5TH FLOOR OF CITY HALL, 101 W. THIRD ST.

GENERAL NOTES

- 1. ALL EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE REQUIRED TO FIELD LOCATE EXACT LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES PRIOR TO SETTING GRADE AND ALIGNMENT. THE CITY OF DAYTON AND THE DEPARTMENT OF WATER ASSUME NO RESPONSIBILITY FOR THE ACCURACY OR DEPTH OF THE UNDERGROUND FACILITIES SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE SAME AND FOR ANY RESULTING CONTINGENT DAMAGE. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. ALL COST FOR LOCATING, REMOVING AND REPLACING OR RELOCATING THESE UTILITIES SHALL BE INCIDENTAL TO CONSTRUCTION. ALL UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE UTILITY OWNER'S SATISFACTION. THE EXACT LOCATION OF EXISTING UTILITIES SHALL BE DETERMINED BY HAND DIGGING, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES, WHETHER OR NOT SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, WHEN UNKNOWN OR INCORRECTLY LOCATED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY OWNER AND THE DEPARTMENT OF WATER FORTY-EIGHT HOURS PRIOR TO ANY CONSTRUCTION, EXCAVATION OR DIGGING, THE CONTRACTOR SHALL CALL AND NOTIFY THE OHIO UTILITIES PROTECTION SERVICES (OUPS) AT 1-600-362-2764. ALL OTHER AGENCIES, WHICH MIGHT HAVE UNDERGROUND UTILITIES IN THIS AREA AND ARE NOT MEMBERS OF OUPS, SHALL BE NOTIFIED DIRECTLY BY THE CONTRACTOR.
2. ALL WORK SHALL CONFORM TO THE CITY OF DAYTON, CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST EDITION). ALL WATER MAIN CONSTRUCTION AND MATERIAL SHALL BE IN ACCORDANCE WITH DEPARTMENT OF WATER ENGINEERING STANDARDS FOR WATER, SANITARY SEWER, AND STORM SEWER FACILITIES (LATEST EDITION). THESE DOCUMENTS ARE AVAILABLE ONLINE AT http://daytonwater.org.
3. NO CONSTRUCTION SHALL COMMENCE UNTIL A CITY OF DAYTON "STREET CUT" PERMIT HAS BEEN ISSUED AS REQUIRED. "STREET CUT" PERMITS ARE ISSUED BY THE DEPARTMENT OF PUBLIC WORKS, LOCATED ON THE 5TH FLOOR AT CITY HALL (101 W. 3rd ST.). CONTACT PUBLIC WORKS AT 937.333.3840. ROADWAY RESTORATION WITHIN THE CITY OF DAYTON CORPORATION LIMITS SHALL BE DONE IN COMPLIANCE WITH THE DEPARTMENT OF PUBLIC WORKS "RULES AND REGULATIONS FOR MAKING OPENINGS IN A PUBLIC WAY" (LATEST EDITION). WHERE LIMITS OF OPENING COME WITHIN THREE (3) FEET OF ANY EXISTING JOINT OR EDGE OF PAVEMENT, PAVEMENT SHALL BE REMOVED TO JOINT OR EDGE OF PAVEMENT. IN ADDITION, CONTRACTOR SHALL NOT HAVE MORE THAN THREE (3) BLOCKS OF A STREET IN TEMPORARY PAVEMENT AT ONE TIME, AND EXCAVATION ON ADDITIONAL STREET BLOCKS SHALL NOT BEGIN UNTIL THE FIRST THREE (3) BLOCKS HAVE FINAL PAVEMENT INSTALLED.
4. ALL PROJECT ORDERS (FIELD OR OFFICE), REQUESTS, CHANGES, ADDITIONS OR DELETIONS PERTAINING TO PUBLIC WATER MAIN, STORM SEWER, AND SANITARY SEWER FACILITIES SHALL BE ONLY BY DIRECTION OR REQUEST OF THE DEPARTMENT OF WATER.
5. ANY ADJACENT PROPERTY, INCLUDING WITHOUT LIMITATION ROADS, WALKS, SHRUBBERY, PLANTS, TREES OR TURF, DAMAGED DURING THE CONTRACTOR'S WORK SHALL BE PROPERLY REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE [COD CMS 107.08]. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL DOCUMENT THE EXISTING CONDITIONS WITHIN AND ADJACENT TO THE PROJECT LIMITS UTILIZING PHOTOGRAPHY AND VIDEOGRAPHY. THE DOCUMENTATION SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL EXISTING ROADS, WALKS, SHRUBBERY, PLANTS, TREES, TURF, DRIVEWAYS, CURBS, SIGNS, LANDSCAPING, CATCH BASINS, FENCES, WALLS, VISIBLE UTILITIES, AND BUILDINGS. SPECIAL ATTENTION SHALL BE PAID TO EXISTING CRACKS, FAULTS, FRACTURES, DEFECTS, ETC. THE CONTRACTOR SHALL NOTIFY THE CITY IN WRITING UPON COMPLETION OF THE DOCUMENTATION. THE CONTRACTOR SHALL MAKE THE DOCUMENTATION AVAILABLE TO THE CITY UPON REQUEST. THE COST OF DOCUMENTATION SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
6. THE CONTRACTOR SHALL NOTIFY IN WRITING RESIDENTS AND BUSINESSES AFFECTED BY STREET CLOSURES 14-DAYS PRIOR TO A TENTATIVE CLOSURE AND A MINIMUM OF 48 HOURS IN ADVANCE OF THE ACTUAL STREET CLOSING.

WATER NOTES

- 1. WATER MAINS, BENDS AND FITTINGS SHALL BE DUCTILE CAST IRON PIPE AND CONFORM TO ANSI A-21.51 (AWWA C151), CLASS 51 (UNLESS OTHERWISE NOTED).
2. THRUST BLOCKS ARE REQUIRED AT ALL FITTINGS.
3. THE LENGTH OF RESTRAINED JOINT REQUIREMENTS ARE INDICATED ON EACH PLAN AND PROFILE SHEET. RESTRAINED JOINT LENGTHS DETERMINED BY WATER DESIGN STANDARDS DRAWING NO. WA-4.
4. WELDING OF PIPE AND/OR APPURTENANCES IS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE CITY OF DAYTON, DEPARTMENT OF WATER.
5. WATER MAINS SHALL HAVE A MINIMUM COVER OF 4 FEET, 6 INCHES. WATER MAINS SHALL HAVE A MINIMUM OF 10 FEET HORIZONTAL SEPARATION (OUT-TO-OUT) FROM ANY STORM OR SANITARY SEWER.
6. WATER MAINS CROSSING ANY AND ALL SEWERS SHALL HAVE A MINIMUM VERTICAL SEPARATION OF 18 INCHES BETWEEN THE OUTSIDES OF THE PIPES (OUT TO OUT). ALSO, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SUCH THAT BOTH JOINTS WILL BE OF EQUAL DISTANT AND AS FAR FROM THE SEWER AS POSSIBLE. IF WATER MAIN CROSSES BELOW SANITARY SEWERS, THE SANITARY SEWER MUST BE WATER MAIN MATERIAL FOR THAT SPAN.
7. ONLY CITY OF DAYTON PERSONNEL SHALL OPERATE MAIN LINE WATER VALVES WITHIN THE DAYTON CORPORATION LIMITS.
8. ALL VALVE-OPERATING NUTS SHALL BE SET AT A MAXIMUM DEPTH OF 6 FEET. THE CONTRACTOR SHALL FURNISH AND INSTALL APPROVED EXTENSIONS AS REQUIRED.
9. THE CONTRACTOR SHALL BE ADVISED THAT ANY CLOSURE PIECES OR SLEEVES REQUIRED TO CONNECT SECTIONS OF THE CONCRETE MAIN LINE OR DUCTILE IRON CONNECTIONS, OTHER THAN THOSE SPECIFICALLY SHOWN ON THE CONSTRUCTION DRAWINGS, SHALL BE AT HIS EXPENSE.
10. ALL TAPS TO EXISTING WATER MAINS WILL BE MADE BY THE CITY OF DAYTON AT THE CONTRACTOR'S EXPENSE PER THE PROPOSAL FORM. THIS WORK WILL INCLUDE FURNISHING AND INSTALLING THE TAPPING SLEEVE AND VALVE AND MAKING THE TAP. ALL OTHER WORK INCLUDING EXCAVATION, BACKFILL, AND RESTORATION OVER THE TAPPED MAIN SHALL BE BY THE CONTRACTOR. THE CONTRACTOR SHALL ALSO PROVIDE MEANS FOR LIFTING, LOWERING, AND SUPPORTING TAPPING EQUIPMENT AND MATERIALS WITHIN THE EXCAVATION. CONTACT WATER ENGINEERING AT (937) 333-3742.
11. SERVICE CONNECTIONS SHALL NOT BE MADE TO THE WATER MAIN UNTIL THE MAIN LINE HAS BEEN INSPECTED, TESTED, DISINFECTED AND RELEASED FOR TAPS. ALL WATER SERVICE CONNECTIONS SHALL BE A MINIMUM OF 1" DIAMETER AND MINIMUM OF 5/8" WATER METER AND CONFORM TO THE CITY OF DAYTON STANDARDS FOR TAPS, SERVICES, METERS, AND BACKFLOW PREVENTION. (LA TEST EDITION).
12. KNOWN EXISTING SERVICES ARE SHOWN IN APPROXIMATE LOCATION. ALL ACTIVE SERVICES SHALL BE RECONNECTED TO THE NEW WATER MAIN.
13. NO WATER SERVICE BRANCH SHALL BE LAID IN THE SAME TRENCH WITH A SANITARY SEWER LATERAL.
14. NO ADDITIONS, DELETIONS, OR REVISIONS TO THE WATER MAIN ARE TO BE MADE WITHOUT WRITTEN APPROVAL BY THE DEPARTMENT OF WATER. WATER NOTES (CONTINUED)
15. DEPARTMENT OF WATER PERSONNEL WILL INSPECT THE WATER MAIN INSTALLATION.
16. CUTTING AND PLUGGING OF EXISTING WATER MAIN AND ABANDONMENT OF EXISTING VALVES AND HYDRANTS SHALL BE MADE AFTER THE PROPOSED WATER MAIN IS COMPLETELY INSTALLED, TESTED, AND RELEASED FOR SERVICE.
17. WHERE SHOWN ON THE PLANS, OR DIRECTED BY THE ENGINEER, THE ABANDONMENT OF AN EXISTING VALVE SHALL BE ACCOMPLISHED BY CLOSING THE VALVE, REMOVING THE VALVE BOX, AND RESTORATION OF THE PAVEMENT. ALL THE REMOVED VALVE BOXES SHALL BE DELIVERED TO THE DEPARTMENT OF WATER, DIVISION OF WATER DISTRIBUTION, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

- 18. FIRE HYDRANTS SHALL BE LOCATED 3-FEET FROM THE FACE OF THE CURB OR EDGE OF THE PAVEMENT AND 4-INCH OPENING TO FACE THE STREET. FIRE HYDRANTS LOCATED WITHIN THE WALK MUST COMPLY WITH ADA REGULATIONS.
19. LISTED BELOW ARE FIRE HYDRANTS APPROVED FOR USE IN THE CITY OF DAYTON:
19.1. CLOW MEDALLION
19.2. KENNEDY K81D
19.3. MUELLER SUPER CENTURION
20. EXTENSIONS ARE NOT ALLOWED ON FIRE HYDRANTS. 45° BEND FITTINGS WILL BE INSTALLED AS NEEDED TO ADJUST FIRE HYDRANTS TO GRADE.
21. THE EXISTING WATER MAIN SHALL REMAIN IN SERVICE UNTIL THE NEW WATER MAIN IS PRESSURE AND PURITY TESTED AND TAPS AND SERVICES ARE INSTALLED TO ALL PREMISES. IF THE NEW PROPOSED BRANCH CONNECTION IS AT THE SAME ELEVATION AS THE EXISTING MAIN, THEN THE CONTRACTOR SHALL STEEL PLATE THE BRANCH TEE AND VALVE AND INSTALL THE NEW BRANCH AFTER THE NEW MAIN IS BROUGHT INTO SERVICE AND THE EXISTING MAIN IS ABANDONED.
22. PROFILES FOR PROPOSED BRANCHES FROM THE WATER MAIN ARE NOT PROVIDED FOR THIS PROJECT. THE CONTRACTOR SHALL TIE-IN NEW BRANCHES TO THE MAIN WITH FITTINGS AS NEEDED. THE CONTRACTOR SHOULD BE AWARE THAT EXTRA FITTINGS MAY BE NECESSARY TO COMPLETE THE TIE-INS DUE TO ELEVATION DIFFERENCES AND OTHER EXISTING FIELD CONDITIONS. ALL FITTINGS REQUIRED TO COMPLETE THE BRANCH TIE-INS SHALL BE CONSIDERED TO BE INCLUDED IN THE COST FOR THE PIPE PER CMS 824.
23. WHERE APPROPRIATE COVER IS NOT ACHIEVED, FROST-PROOFING SHALL BE PERFORMED PER THE DETAILS INCLUDED IN THIS PLAN SET AND AS DIRECTED BY THE ENGINEER. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 810 "EXCAVATION AND BACKFILL"

VECTREN ENERGY DELIVERY OF OHIO - GAS OPERATIONS TRANSMISSION SYSTEM GUIDELINES FOR CONSTRUCTION ACTIVITIES ON RIGHTS-OF-WAY AND IN THE VICINITY OF GAS PIPELINES

GENERAL

NO CONSTRUCTION OR EXCAVATION ACTIVITIES OF ANY DESCRIPTION, INCLUDING BUILDING CONSTRUCTION AND DEMOLITION, BLASTING, GRADING, SIRIP MINING, TRENCHING FOR TILE, GAS, OIL, ELECTRIC, PHONE, WATER AND SEWER LINES, AND JOGGING OPERATIONS SHALL BE CONDUCTED WITHIN THE EASEMENT AREA OF GAS PIPELINES BEFORE VECTREN PERSONNEL HAVE ESTABLISHED THE ACTUAL LOCATION OF ITS GAS FACILITIES. SUITABLE ARRANGEMENTS CAN THEN BE MADE FOR THE PROTECTION OF VECTREN'S FACILITIES AND THE NEEDED WORKING AREAS FOR ACCESS THERETO. A VECTREN ON-SITE INSPECTOR WILL BE REQUIRED DURING ANY CONSTRUCTION ACTIVITY WITHIN A GAS EASEMENT. VECTREN DOES NOT WAIVE ANY RIGHTS IT MAY HAVE IN SUPPORT OF OR IN CONNECTION WITH THE USE AND OPERATION OF ITS FACILITIES IN THE AREA

- 1. CROSSING PIPELINES WITH HEAVY EQUIPMENT DURING CONSTRUCTION, TO ADEQUATELY PROTECT VECTREN'S PIPELINES FROM DAMAGE, WHICH WOULD BE CAUSED BY THE CROSSING OF HEAVY EQUIPMENT, CONCRETE, STEEL PLATES, MATS, DIRT PADS OR OTHER PROTECTIVE MATERIALS APPROVED BY VECTREN MAY BE REQUIRED. VECTREN SHALL BE CONTACTED FOR SUGGESTED PROTECTIVE METHODS. THE ADDITIONAL OVER-BURDEN SHALL BE REMOVED AFTER CONSTRUCTION UNLESS OTHERWISE DIRECTED BY VECTREN'S PERSONNEL.
2. EXCAVATION IN VICINITY OF PIPELINES
A) NO EXCAVATION WITH POWERED MACHINERY SHALL BE MADE ON THE PIPELINE RIGHT-OF-WAY WITHOUT PRIOR NOTIFICATION TO VECTREN'S GAS OPERATIONS PERSONNEL.
B) ALL EXCAVATIONS THAT ARE DONE ABOVE, BELOW OR WITHIN 3 FEET OF EITHER SIDE OF THE PIPELINE SHALL BE HAND DUG.
3. BLASTING
CONTRACTOR IS TO NOTIFY VECTREN AT LEAST 5 BUSINESS DAYS PRIOR TO BLASTING. NO BLASTING IS ALLOWED WITHIN VECTREN'S RIGHT-OF-WAY. THE PEAK PARTICLE VELOCITY MEASUREMENT AT THE PIPELINE SHALL NOT EXCEED 5.0 INCH PER SECOND FOR WELDED STEEL PIPE AND 1.0 INCH PER SECOND FOR COUPLED STEEL PIPE. THE SEISMIC SHOCK FROM ANY BLASTING AFFECTING VECTREN 'S PIPELINE SHALL BE MONITORED AND RECORDED AT THE PIPELINE BY A SEISMOGRAPH TO BE FURNISHED BY THE BLASTING CONTRACTOR AT THEIR EXPENSE. CONTRACTOR TO PROVIDE VECTREN COPIES OF ANY SUCH READINGS.

RIGHTS-OF-WAY

TO MAINTAIN UNOBSTRUCTED RIGHTS-OF-WAY TO PERMIT VECTREN TO ADEQUATELY OPERATE ITS PIPELINES, THE MINIMUM STANDARDS LISTED BELOW ARE TO BE USED AS GUIDELINES:

- 1. THE EXISTING COVER OR A MINIMUM OF 36 INCHES OF BACKFILL OVER THE TOP OF THE PIPELINE(S) SHOULD BE MAINTAINED. FOR LANDSCAPING OR GRADING PURPOSES, 4 FEET MAXIMUM COVER IS PERMISSIBLE. THE MINIMUM EARTH COVER OVER PIPELINE AT ALL STREET AND ALL ROAD CROSSINGS, INCLUDING THE ADJACENT DITCH LINE, SHALL BE 36 INCHES, AND 60 INCHES MINIMUM COVER AT STREAM AND RIVER CROSSINGS.
2. ALL UNDERGROUND CROSSINGS OF THE PIPELINE MUST CROSS UNDERNEATH THE PIPELINE AND MAINTAIN A VERTICAL CLEARANCE OF AT LEAST 24 INCHES FOR A MINIMUM OF 10 FEET ON EITHER SIDE OF THE PIPELINE. PRIMARY ELECTRIC, FIBER OPTIC AND TELEPHONE IS TO BE SLEEVED IN CONDUIT AND ENCASED IN CONCRETE (TINTED RED FOR ELECTRIC AND ORANGE FOR COMMUNICATIONS) A MINIMUM OF 10 FEET OTHER SIDE OF PIPELINE.
3. NO ABOVE GROUND OR BELOW GROUND STRUCTURE OF ANY TYPE SHALL BE PLACED WITHIN 25 FEET OF ANY PIPELINE.
4. PIPELINE EASEMENT WILL NOT BE SHARED WITH OTHER UTILITIES. ALL WATER VALVES, CURB BOXES, MANHOLES, FIRE HYDRANTS, ETC. ARE TO BE LOCATED OUTSIDE THE EASEMENT.
5. CHAIN LINK AND STOCKADE FENCES ARE ALLOWED WITHIN THE ASEMENT WITH THE FOLLOWING LIMITATIONS:
A) NO FENCE IS TO PARALLEL THE PIPELINE WITHIN 10 FEET.
B) A FENCE CROSSING THE PIPELINE CANT HAVE POSTS NO CLOSER THAN 5 FEET ON EITHER SIDE OF THE PIPELINE. A 3 FOOT GATE, REQUIRED FOR VECTREN PIPE PATROLLING, SHOULD BE INSTALLED NO CLOSER THAN 5 FEET FROM THE PIPELINE, BUT NO FURTHER THAN 25 FEET FROM THE PIPELINE.
6. STREETS, FENCES AND FOREIGN UTILITY CROSSINGS SHOULD CROSS PIPELINES AT OR AS NEAR 90° AS PRACTICAL, BUT NOT LESS THAN 45°. PARKING LOTS MAY BE INSTALLED WITHIN THE PIPELINE RIGHT-OF-WAY, BUT PREFERABLY NOT DIRECTLY OVERTOP OF THE PIPELINES. IF INSTALLED OVER THE PIPELINE, EXCAVATION FOR SUB BASE MUST NOT BE WITHIN 2 FEET FROM THE TOP OF THE PIPELINE. IF THE PARKING LOT ADJOINS A BUILDING WALL, A GREEN SPACE IS NEEDED BETWEEN THE PIPELINE AND THE BUILDING TO RELIEVE ANY GAS TRAPPED UNDER THE PAVEMENT IN THE EVENT OF A GAS LEAK.
7. CASING SHALL BE INSTALLED AT PROJECTS EXPENSE, IF MANDATED BY STATE, COUNTY OR TOWNSHIP REGULATIONS AT EACH CROSSING OF A PROPOSED ROAD OR STREET, IF NECESSARY, TO PROTECT THE PIPELINE FROM CONSTRUCTION ACTIVITIES. OTHER PROTECTIVE MEASURES MAY BE USED INSTEAD OF CASING IF APPROPRIATE AND APPROVED BY ALL INVOLVED PARTIES.
8. SEPTIC TANKS AND LEACH FIELDS SHOULD BE PLACED SO THEY WILL DRAIN FROM THE PIPELINES WHERE PRACTICAL BUT IN NO CASE SHALL THEY BE PLACED ON THE RIGHT-OF-WAY OUTLINED ABOVE.
9. THE RIGHT-OF-WAY MAY BE PLANTED IN LAWN AND SMALL ORNAMENTAL SHRUBS (MATURE HEIGHT NO GREATER THAN 4 FEET) AND MAY BE USED FOR NORMAL AGRICULTURAL PURPOSES. NO OTHER PLANTING MAY BE MADE ON THE RIGHT-OF-WAY. NO NEW TREES ARE TO BE PLANTED WITHIN THE EASEMENT AND EXISTING TREES WILL BE REMOVED IF WITHIN 15 FEET OF THE PIPELINE.

NOTE: THESE GUIDELINES SUPERSEDE ANY AND ALL PRIOR GUIDELINES AND/OR DIRECTIVES OUTLINING POLICY AND PROCEDURE PERTAINING TO LIMITING ACTIVITIES AND PLACEMENTS ON OR IMMEDIATELY ADJACENT TO THE VECTREN FACILITIES BY OUTSIDE PARTIES OR INDIVIDUALS. EXISTENCE OF OR THE RAMIFICATIONS FROM THE IMPLEMENTATION OF PRIOR GUIDELINES WILL NOT DICTATE, DIRECT, OR PROVIDE FOR EXEMPTION OF ANY OF THE ABOVE GUIDELINES.



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BID SET

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3581 Terminal Drive
Dayton, Ohio 45377



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Principal-in-Charge Andrew M. Holesko
Project Manager Jeff Bonecutter, P.E.
Designed by Joseph J. Jacobs, P.E.

Revisions

Table with 4 columns: No., Date, By, Description. Row 1: 1, 1/29/18, JWH, ISSUED FOR CONSTRUCTION. Row 2: 2, 3/9/18, JJW, BID ADDENDUM #2.

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Location

Dayton International Airport (DAY)
Town/City: VANDALIA
County: MONTGOMERY State: OHIO

Project Name
WATER & SANITARY SEWER IMPROVEMENT NW DEVELOPMENT AREA

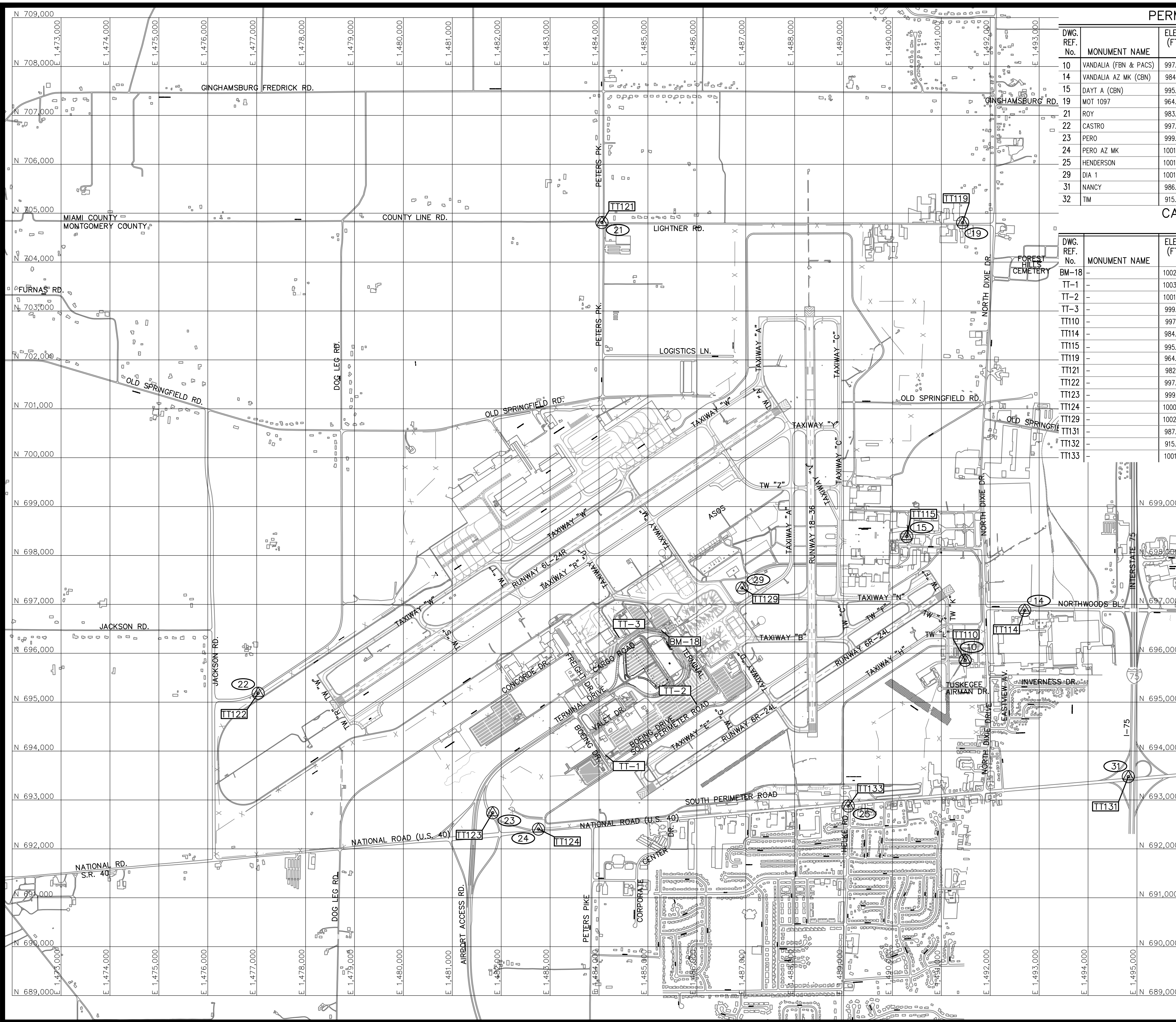
Project No. 20111339.040B

Date FEBRUARY 2018

Drawing Title
GENERAL NOTES

Drawing No. G1-5

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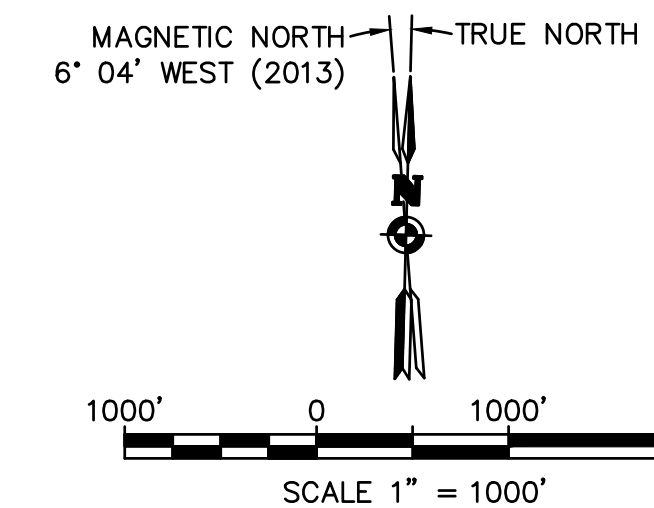


PERMANENT MONUMENTATION

DWG. REF. No.	MONUMENT NAME	ELEV. (FT)	SPC (sFT)		MONUMENT DESCRIPTION
			NORTHING	EASTING	
10	VANDALIA (FBN & PACS)	997.56	695856.8563	1491486.8858	TRIANG. STA DISK-TOP OF CONC. MONU.
14	VANDALIA AZ MK (CBN)	984.81	696879.1114	1492704.7281	AZ MK DISK-TOP OF CONC. MONU.
15	DAYT A (CBN)	995.46	698388.8571	1490293.2712	STAINLESS STEEL ROD IN SLEEVE
19	MOT 1097	964.44	704806.0785	1491434.7012	ALUMINUM ALLOY ROD IN SLEEVE
21	ROY	983.37	704809.6426	1484060.1333	SURVEY DISK SURROUNDED BY CONC.
22	CASTRO	997.38	695182.7104	1477030.7642	SURVEY DISK SURROUNDED BY CONC.
23	PERO	999.33	692738.8278	1481825.3214	SURVEY DISK SURROUNDED BY CONC.
24	PERO AZ MK	1001.08	692404.2784	1482762.0119	SURVEY DISK SURROUNDED BY CONC.
25	HENDERSON	1001.63	692877.0108	1489096.0291	SURVEY DISK SURROUNDED BY CONC.
29	DIA 1	1001.94	697336.0542	1486923.9432	SURVEY DISK SURROUNDED BY CONC.
31	NANCY	986.87	693478.1773	1494823.9893	SURVEY DISK SURROUNDED BY CONC.
32	TIM	915.60	704785.0420	1495026.2908	SURVEY DISK SURROUNDED BY CONC.

CALIBRATION POINTS

DWG. REF. No.	MONUMENT NAME	ELEV. (FT)	SPC (sFT)		MONUMENT DESCRIPTION
			NORTHING	EASTING	
BM-18		1002.49	696465.392	1485276.101	CONCRETE MONUMENT
TT-1		1003.63	693916.252	1484133.979	CONCRETE MONUMENT
TT-2		1001.70	694960.830	1485993.409	CONCRETE MONUMENT
TT-3		999.14	696325.054	1484410.747	"X" IN RIM OF MANHOLE
TT110		997.51	695856.760	1491486.894	VANDALIA (FBN & PACS)
TT114		984.84	696879.166	1492704.776	VANDALIA AZ MK (CBN)
TT115		995.38	698388.873	1490293.302	DAYT A (CBN)
TT119		964.37	704805.842	1491434.688	MOT 1097
TT121		982.01	704809.618	1484060.161	ROY
TT122		997.27	695182.707	1477030.717	CASTRO
TT123		999.19	692738.867	1481825.295	PERO
TT124		1000.87	692404.390	1482762.060	PERO AZ MK
TT129		1002.02	697336.151	1486923.820	DIA 1
TT131		987.05	693478.245	1494824.046	NANCY AZ MK
TT132		915.75	704785.019	1495026.244	TIM AZ MK
TT133		1001.61	692876.983	1489095.936	HENDERSON



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Submittal **BID SET**

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Revisions

No.	Date	By	Description
1	1/29/18	MWF	ISSUED FOR CONSTRUCTION
2	3/9/18	JJJ	BID ADDENDUM #2

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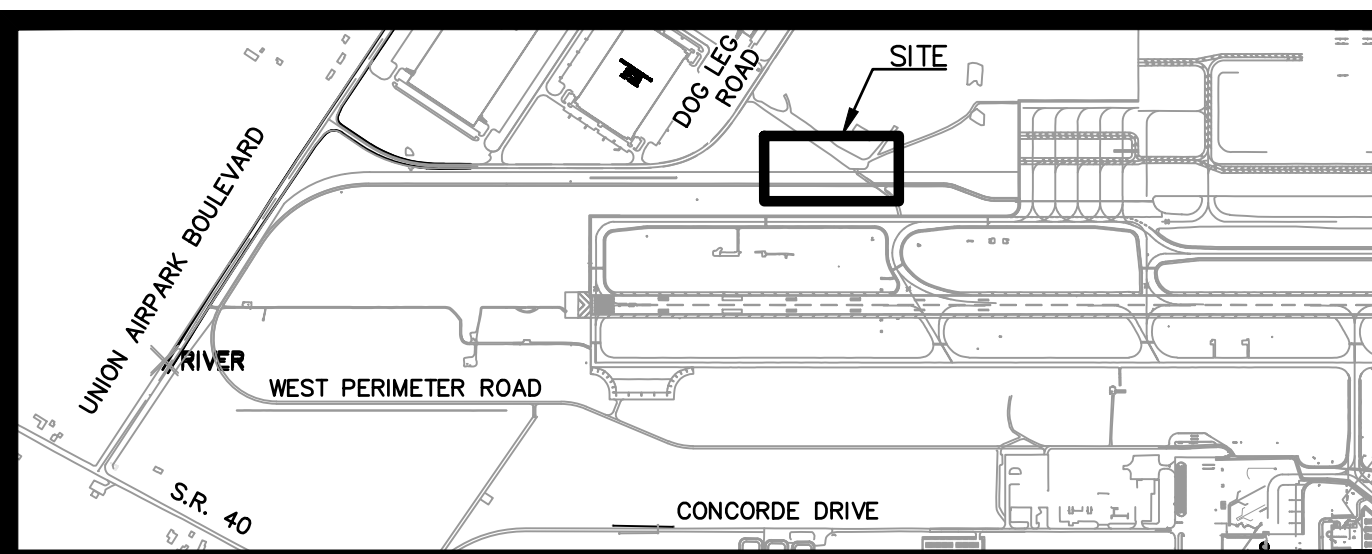
Project No.
20111339.040B

Date
FEBRUARY 2018

Drawing Title
HORIZONTAL AND VERTICAL CONTROL PLAN

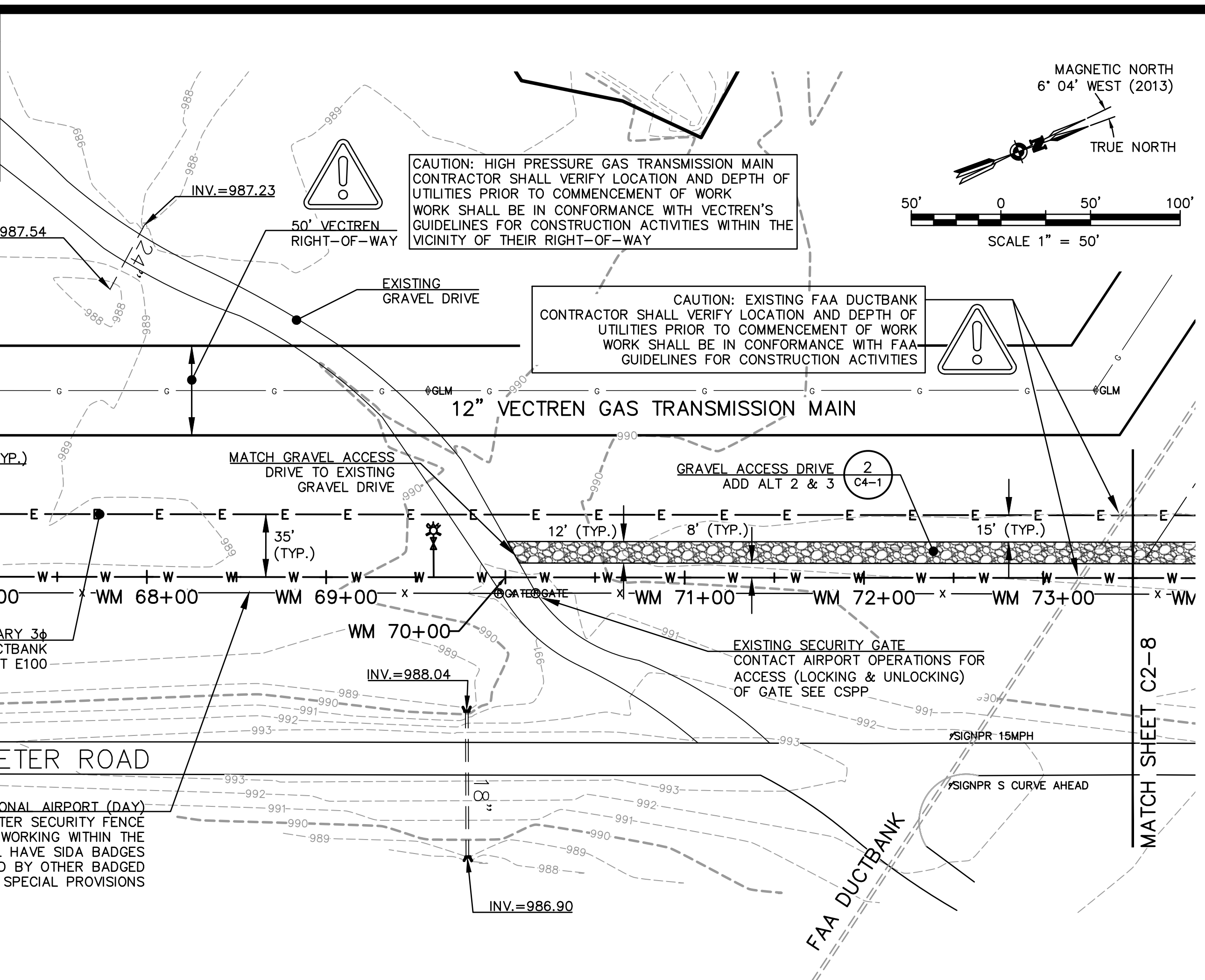
Drawing No.
G1-6

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- RESTRAINED JOINT LENGTHS**
- STA. 63+93 TO 66+07 (VALVE)
 - STA. 69+60 TO 69+96 (MAIN)
 - ALL FITTINGS
 - ALL HYDRANT BRANCHES



- LEGEND**
- PROPOSED**
- LIMIT OF SAWCUT
 - LIMIT OF EXCAVATION
 - LIMIT OF PIT FOR BORING/JACKING/RECEIVING OF PIPE
 - JACKED/DRILLED SECTION OF PIPE
 - PAVEMENT SECTION (ASPHALT OR CONCRETE)
 - TREE LINE
 - W --- WATERMAIN
 - FM --- SANITARY FORCEMAIN
 - S --- SANITARY MANHOLE & PIPE
 - E --- ELECTRIC LINE
- EXISTING**
- SIGN
 - BOLLARD
 - PARKING GATE
 - STORM MANHOLE & INLET
 - TRENCH DRAIN
 - CLEANOUT
 - INVERT
 - SPRINKLER
 - HEADWALL
 - SANITARY MANHOLE & LINE
 - OIL/WATER SEPARATOR
 - GLYCOL MANHOLE
 - FIRE HYDRANT
 - WATER METER & MANHOLE
 - VALVE
 - ELECTRICAL MANHOLE
 - ELECTRICAL HANDHOLE
 - PULL BOX
 - JUNCTION BOX
 - BASE CAN
 - ELECTRICAL BOX
 - ELECTRICAL METER
 - TRANSFORMER
 - UTILITY POLE
 - LIGHT POLE
 - SPOT LIGHT
 - DUCTBANK MARKER
 - COMM. MANHOLE
 - CABLE MARKER
 - TELEPHONE PEDESTAL
 - COMMUNICATIONS BOX
 - TRAFFIC BOX
 - GAS MARKER, METER, REGULATOR
 - MONITOR WELL
 - A/C UNIT
 - FENCE
 - GUARDRAIL
 - UNDERDRAIN
 - STORM LINE
 - WATER LINE
 - IRRIGATION SLEEVE
 - CONDUIT (HASH = # OF CABLES)
 - DUCT BANK
 - GAS --- NATURAL GAS LINE
 - GLY --- GLYCOL FORCE MAIN
 - F --- FUEL LINE
 - E --- ELECTRIC LINE
 - FM --- SANITARY FORCEMAIN
 - SS --- SANITARY SEWER
 - --- DITCH

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Project No.

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Date

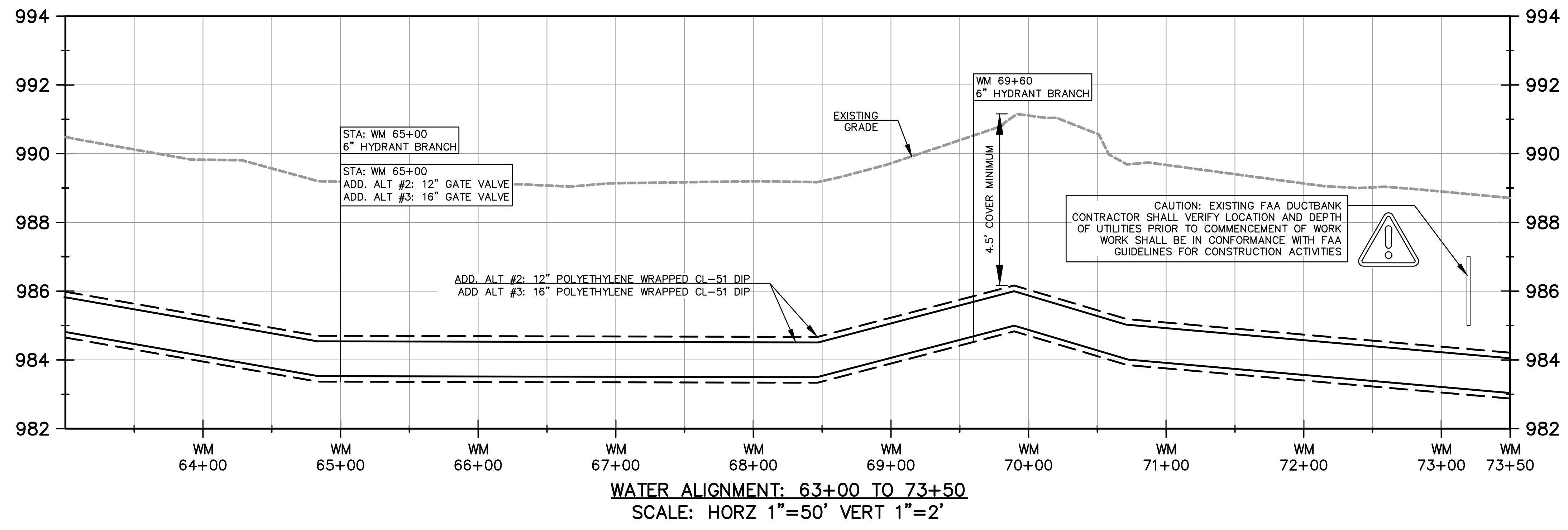
FEBRUARY 2018

Drawing Title

WATERMAIN PLAN AND PROFILE

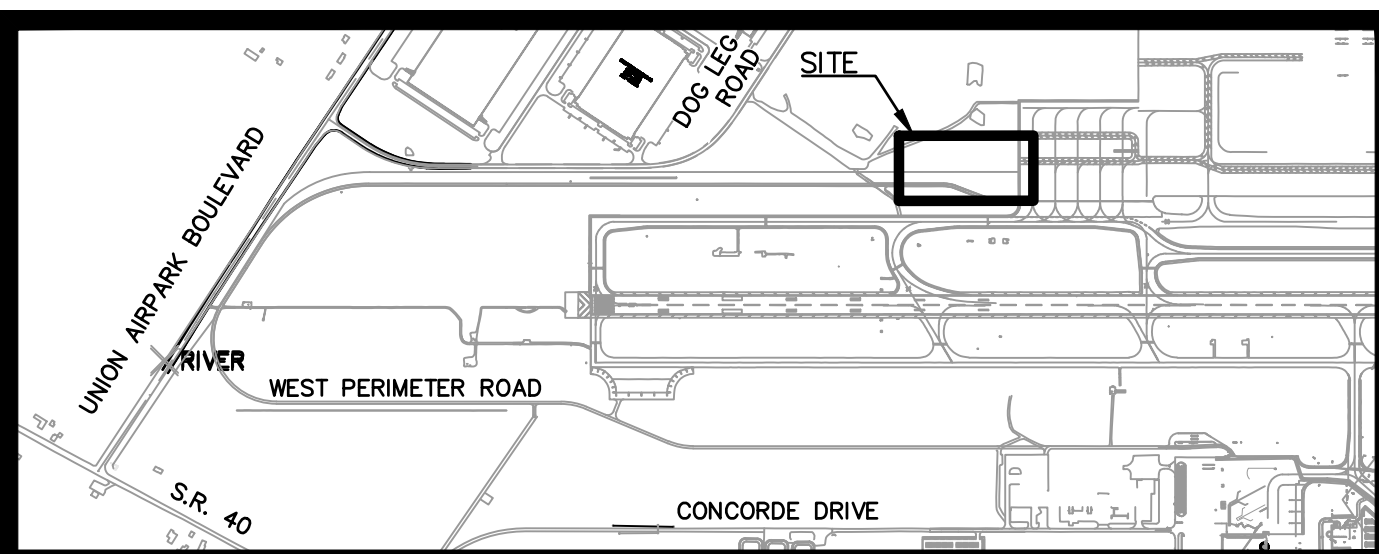
Drawing No.

C2-7



WATER ALIGNMENT: 63+00 TO 73+50
 SCALE: HORZ 1"=50' VERT 1"=2'

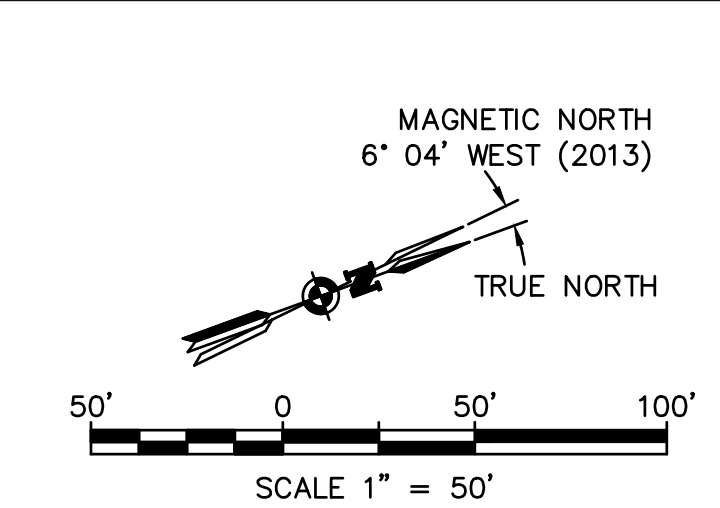
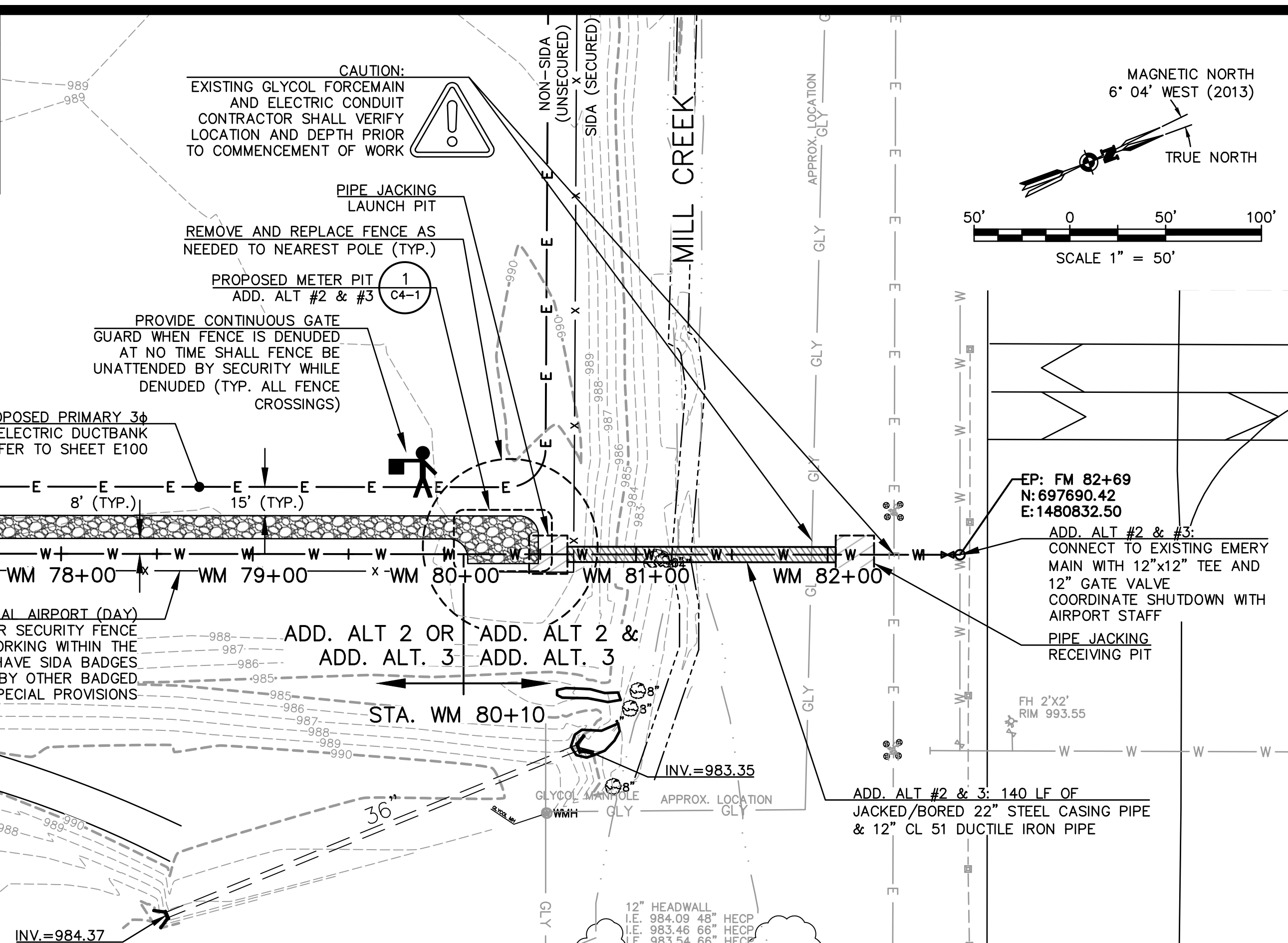
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 - W --- WATERMAIN
 - FM --- SANITARY FORCEMAIN
 - S --- SANITARY MANHOLE & PIPE
 - E --- ELECTRIC LINE
- EXISTING**
- SIGN
 - BOLLARD
 - PARKING GATE
 - STORM MANHOLE & INLET
 - TRENCH DRAIN
 - CLEANOUT
 - INVERT
 - SPRINKLER
 - HEADWALL
 - SANITARY MANHOLE & LINE
 - OIL/WATER SEPARATOR
 - GLYCOL MANHOLE
 - FIRE HYDRANT
 - WATER METER & MANHOLE
 - VALVE
 - ELECTRICAL MANHOLE
 - ELECTRICAL HANDHOLE
 - PULL BOX
 - JUNCTION BOX
 - BASE CAN
 - ELECTRICAL BOX
 - ELECTRICAL METER
 - TRANSFORMER
 - UTILITY POLE
 - LIGHT POLE
 - SPOT LIGHT
 - DUCTBANK MARKER
 - COMM. MANHOLE
 - CABLE MARKER
 - TELEPHONE PEDESTAL
 - COMMUNICATIONS BOX
 - TRAFFIC BOX
 - GAS MARKER, METER, REGULATOR
 - MONITOR WELL
 - A/C UNIT
 - FENCE
 - GUARDRAIL
 - UNDERDRAIN
 - STORM LINE
 - WATER LINE
 - IRRIGATION SLEEVE
 - CONDUIT (HASH = # OF CABLES)
 - DUCT BANK
 - GAS --- NATURAL GAS LINE
 - GLY --- GLYCOL FORCE MAIN
 - F --- FUEL LINE
 - E --- ELECTRIC LINE
 - FM --- SANITARY FORCEMAIN
 - SS --- SANITARY SEWER
 - --- DITCH

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Client

City of Dayton
 at Dayton International Airport
 3581 Terminal Drive
 Dayton, Ohio 45377

Passero Associates
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Principal-in-Charge: Andrew M. Holesko
 Project Manager: Jeff Bonecutter, P.E.
 Designed by: Joseph J. Jacobs, P.E.

Revisions			
No.	Date	By	Description
1	1/29/18	MMF	ISSUED FOR CONSTRUCTION
2	3/9/18	JUJ	BID ADDENDUM #2

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Location

Dayton International Airport (DAY)
 Town/City: VANDALIA
 County: MONTGOMERY State: OHIO

Project Name

WATER & SANITARY SEWER IMPROVEMENT NW DEVELOPMENT AREA

Project No.

20111339.040B

Date

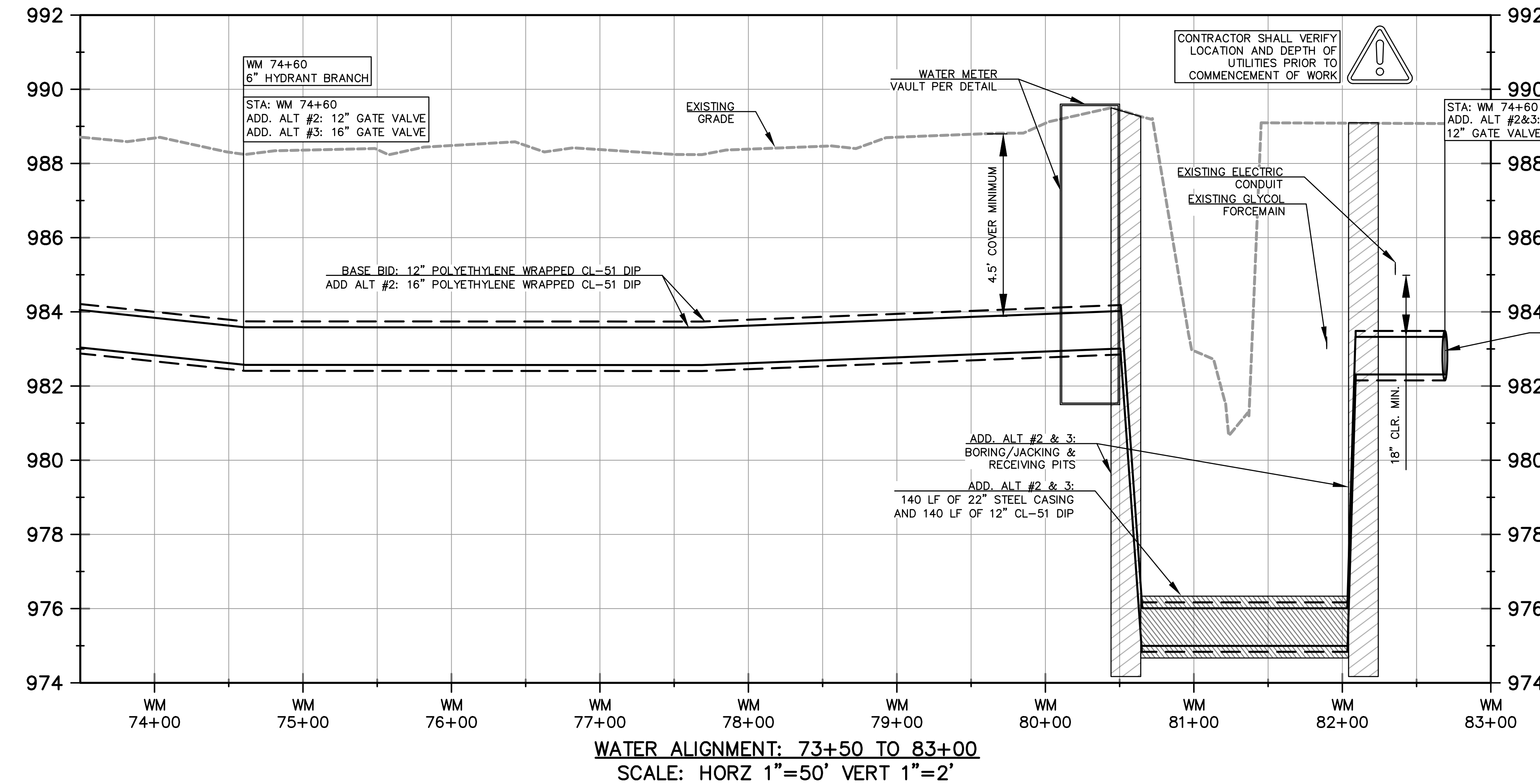
FEBRUARY 2018

Drawing Title

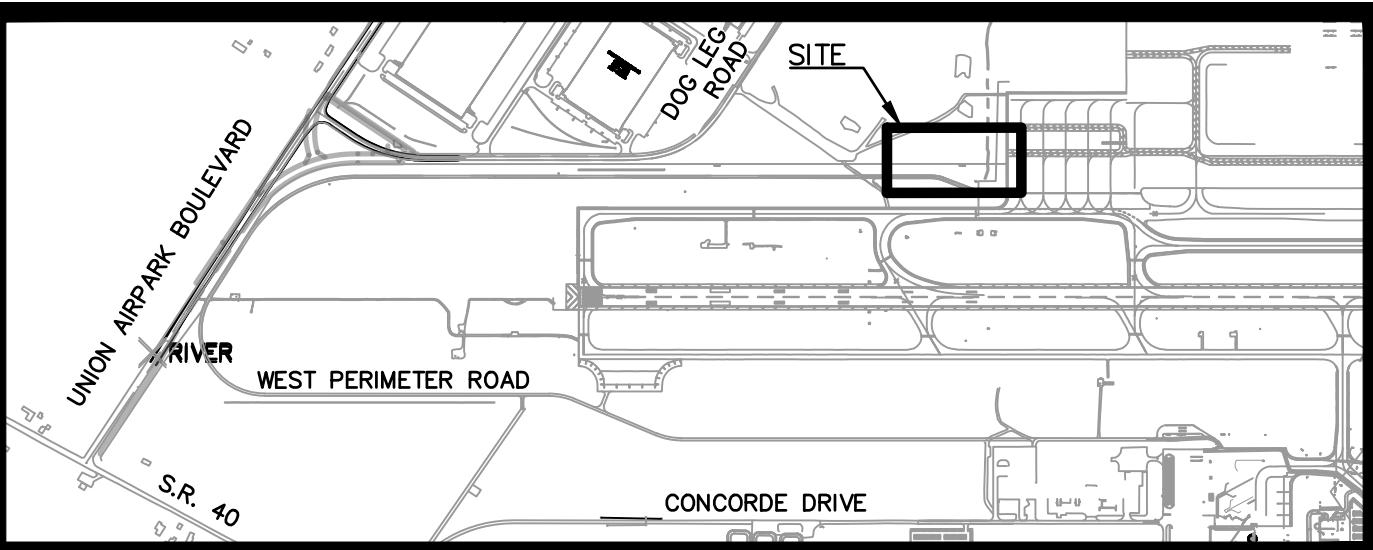
WATERMAIN PLAN AND PROFILE

Drawing No.

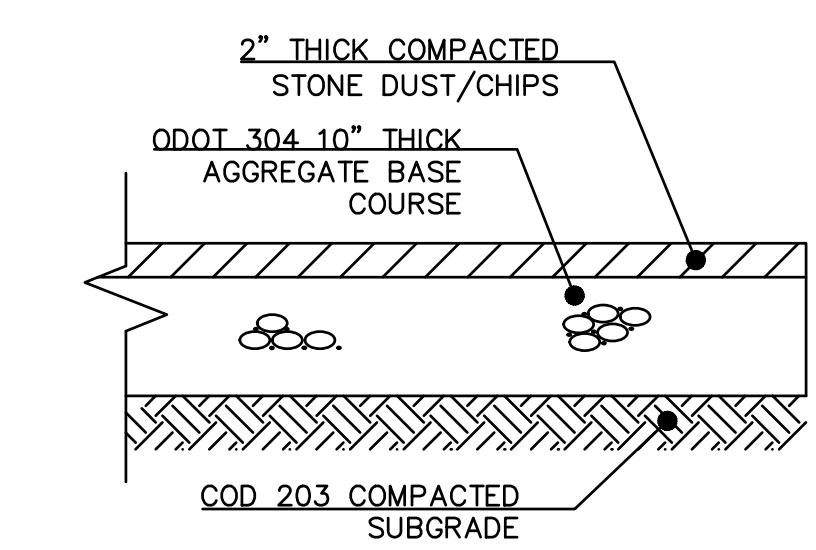
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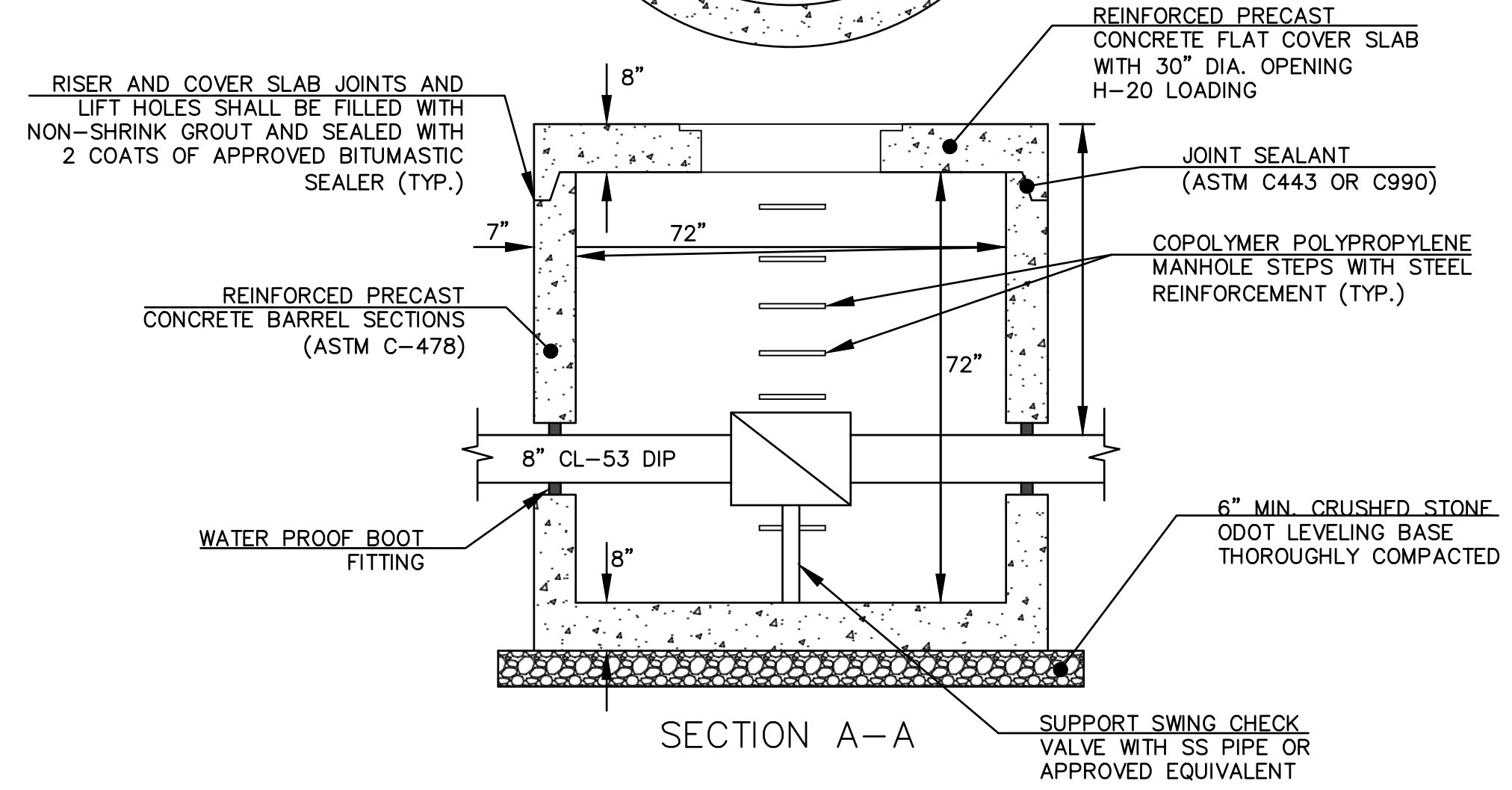


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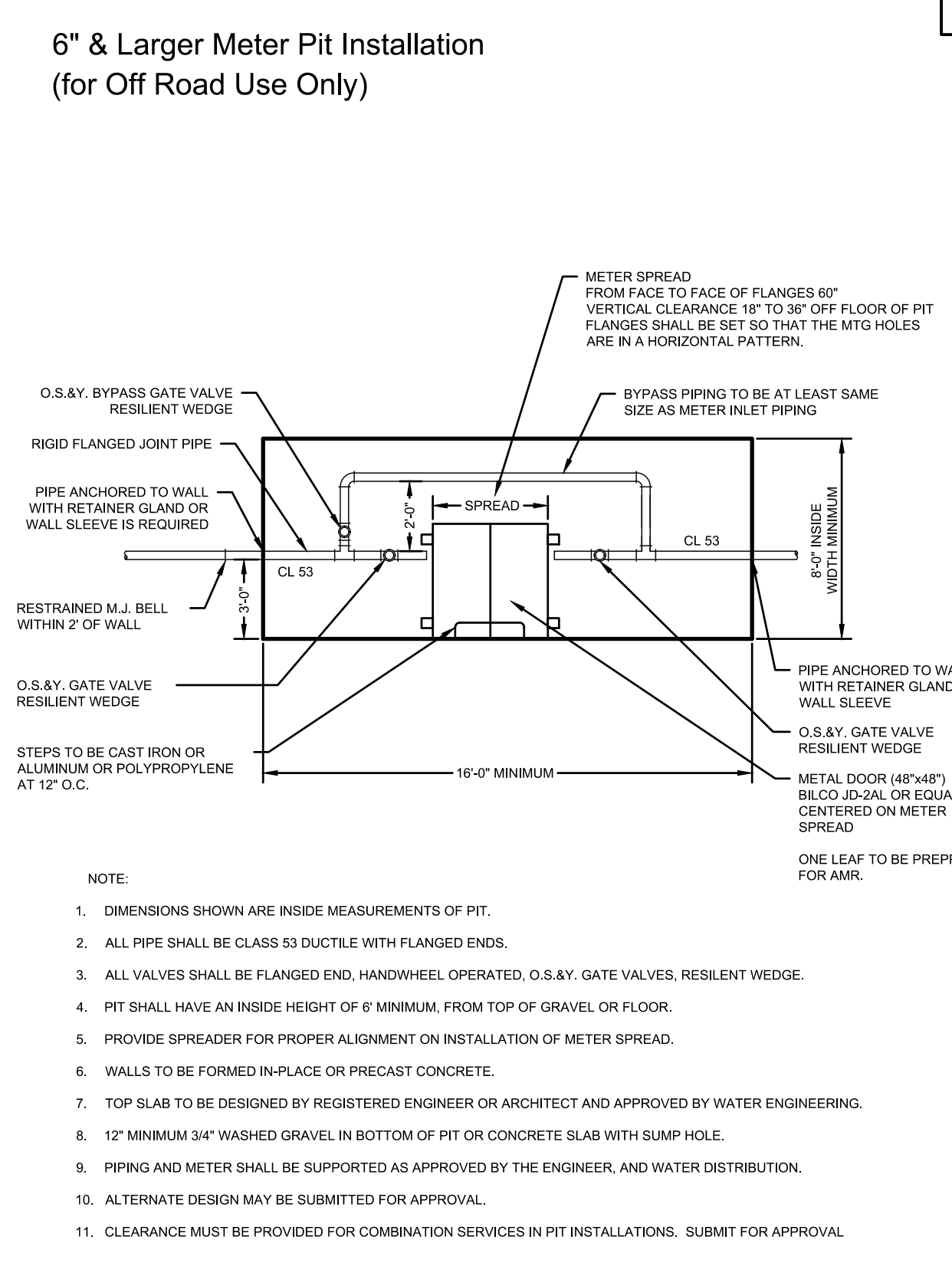
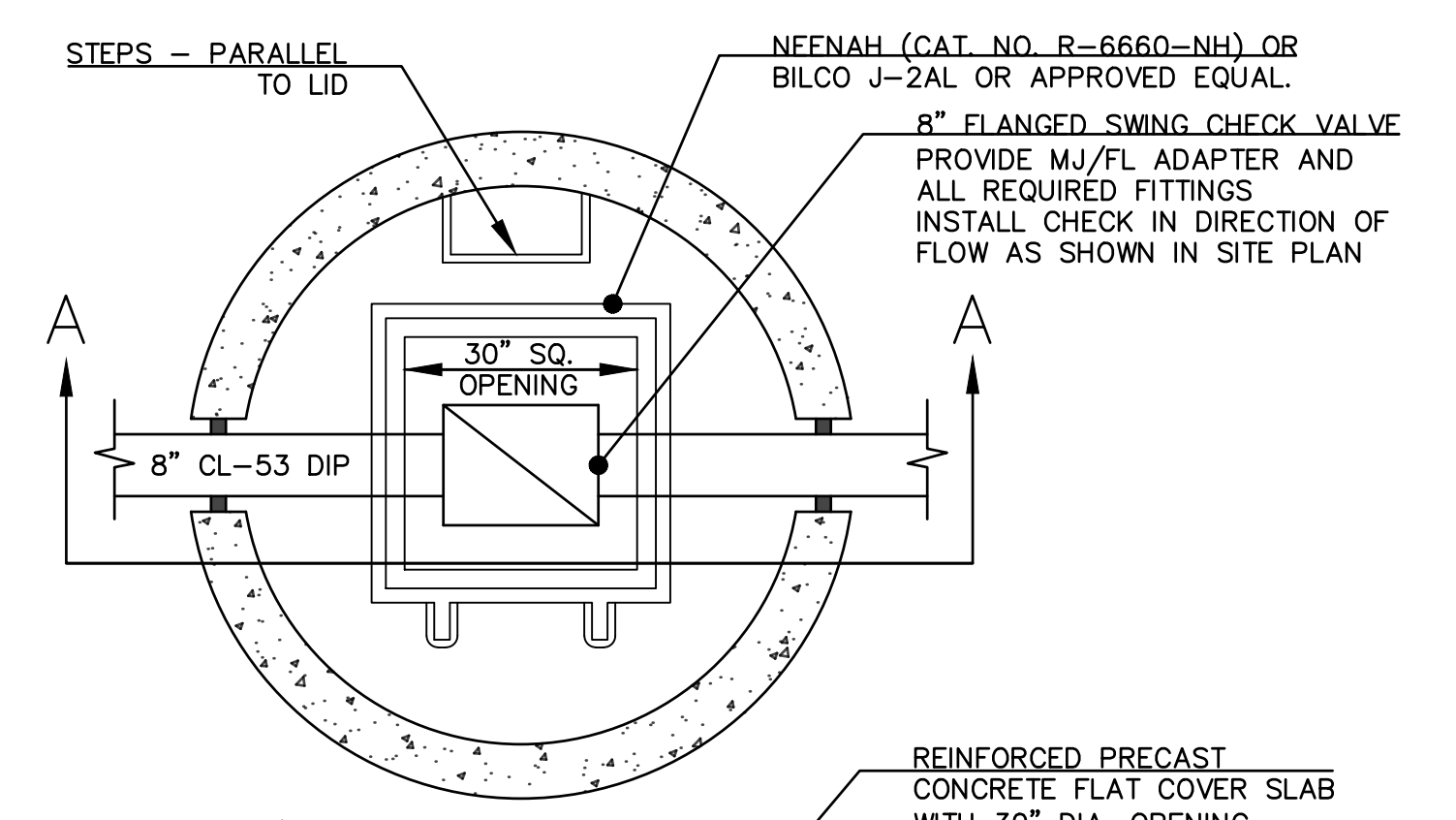


2 GRAVEL ACCESS DRIVE SECTION
NOT TO SCALE

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY



3 CHECK VALVE PIT DETAIL
NOT TO SCALE

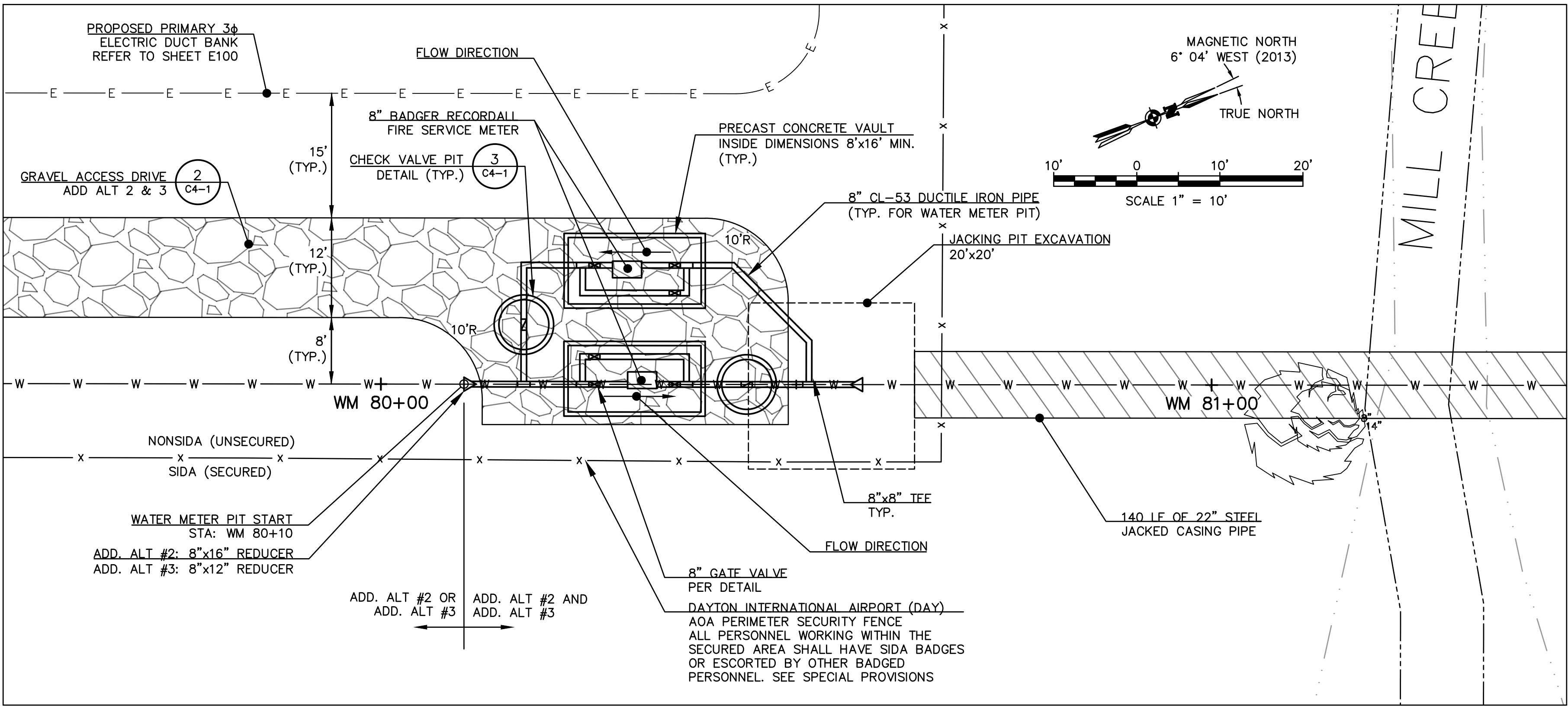
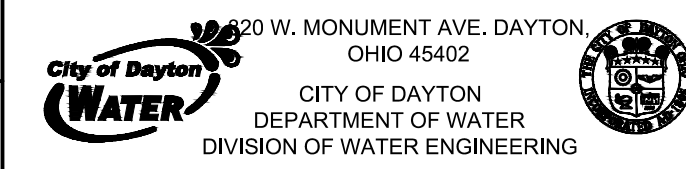


- NOTE:
- DIMENSIONS SHOWN ARE INSIDE MEASUREMENTS OF PIT.
 - ALL PIPE SHALL BE CLASS 53 DUCTILE WITH FLANGED ENDS.
 - ALL VALVES SHALL BE FLANGED END, HANDWHEEL OPERATED, O.S.&Y. GATE VALVES, RESILIENT WEDGE.
 - PIT SHALL HAVE AN INSIDE HEIGHT OF 6' MINIMUM, FROM TOP OF GRAVEL OR FLOOR.
 - PROVIDE SPREADER FOR PROPER ALIGNMENT ON INSTALLATION OF METER SPREAD.
 - WALLS TO BE FORMED IN-PLACE OR PRECAST CONCRETE.
 - TOP SLAB TO BE DESIGNED BY REGISTERED ENGINEER OR ARCHITECT AND APPROVED BY WATER ENGINEERING.
 - 12" MINIMUM 3/4" WASHED GRAVEL IN BOTTOM OF PIT OR CONCRETE SLAB WITH SUMP HOLE.
 - PIPING AND METER SHALL BE SUPPORTED AS APPROVED BY THE ENGINEER, AND WATER DISTRIBUTION.
 - ALTERNATE DESIGN MAY BE SUBMITTED FOR APPROVAL.
 - CLEARANCE MUST BE PROVIDED FOR COMBINATION SERVICES IN PIT INSTALLATIONS. SUBMIT FOR APPROVAL.

GENERAL NOTE: CONTACT WATER ENGINEERING FOR ANY SITUATION NOT COVERED IN STANDARDS

NO.	DATE	REVISIONS

METER LAYOUT INSTALLATION
DRAWING NO. D-21
SCALE: NOT TO SCALE
DRAWN: SEPT 2013 BY: JBS



1 WATER METER PIT SITE PLAN
SCALE: AS SHOWN

D-21

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Town/City: VANDALIA
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Project Name
WATER & SANITARY SEWER IMPROVEMENT NW DEVELOPMENT AREA

Project No.
20111339.040B

Date
FEBRUARY 2018

Drawing Title
WATER METER PIT SITE PLAN & DETAILS

Drawing No.
C4-1