

## **UTILITY NOTES**

- . LOCATION OF EXISTING UTILITIES TO BE DETERMINED IN THE FIELD PRIOR TO CONSTRUCTION.
- 2. CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY OWNER FOR
- INSPECTIONS. 3. CONTRACTOR SHALL VERIFY LOCATION & DEPTH OF EXISTING UTILITIES PRIOR
- TO COMMENCEMENT OF CONSTRUCTION OF PROPOSED UTILITIES.
- 4. ALL UTILITY STRUCTURES, CLEANOUTS, TOP SLABS, FRAMES AND GRATES WITHIN THE PAVEMENT AREAS SHALL BE TRAFFIC-BEARING. 5. TRAFFIC SURCHARGE LOADING SHALL BE CONSIDERED IN ALL PAVED AREAS
- AND SHALL BE BASED ON HS-20 LIVE LOAD.
- UTILITY CROSSINGS SHALL BE PER THE UTILITY PROVIDERS SPECIFICATIONS WITH THE MORE STRINGENT REQUIREMENTS GOVERNING.
- COMPACTED FILLS ARE TO BE MADE TO A MINIMUM OF THREE (3) FEET ABOVE THE CROWN OF ANY PROPOSED SEWER PRIOR TO CUTTING OF TRENCHES FOR PLACEMENT OF SAID SEWERS. ALL FILLS SHALL BE CONTROLLED, COMPACTED AND INSPECTED BY AN APPROVED TESTING LABORATORY OR AN INSPECTOR FROM THE APPROPRIATE GOVERNMENTAL AGENCY.
- EACH UTILITY CONTRACTOR IS TO ADJUST ANY UTILITY ELEMENT INTENDED TO BE FLUSH WITH GRADE (CLEANOUTS, MANHOLES, CATCH BASINS, INLETS, ETC.) THAT IS AFFECTED BY SITE WORK, ASPHALT OVERLAYS OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT.
- CONTRACTOR SHALL STORE CONSTRUCTION MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS TO PREVENT DELETERIOUS MATERIALS FROM BECOMING AFFIXED OR DETERIORATION FROM SUN EXPOSURE.
- 10. ALL CONNECTIONS TO EXISTING STORM SEWER STRUCTURES SHALL BE MADE USING A DIAMOND CORE DRILL.
- ALL CATCH BASINS TO BE PER ODOT STANDARD CONSTRUCTION DRAWINGS. 12. ITEM NUMBERS REFER TO THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS AND BUTLER COUNTY REQUIREMENTS AND STANDARDS FOR SUBDIVISIONS. WHEN IN CONFLICT. THE COUNTY REQUIREMENTS SHALL PREVAIL.
- 13. ITEMS THAT PERTAIN TO UNDERGROUND UTILITIES SUCH AS WATERMAIN PIPE SANITARY SEWER PIPE, WATER VALVES AND MANHOLE FRAMES AND COVERS, ETC., WILL REMAIN UNDER SPECIFICATIONS OF THE UTILITY SERVING THE AREA. STORM SEWERS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUTLER COUNTY ENGINEER.
- WATER MAIN MATERIALS, VALVES, FIRE HYDRANTS, FITTINGS AND APPURTENANCES, INSTALLATION AND INSPECTION TO BE AS PER DIVISION 2 OF THE BUTLER COUNTY STANDARD SPECIFICATIONS AND DETAIL FOR WATER AND SANITARY SEWER CONSTRUCTION, USING CLASS 53 DUCTILE IRON AS PER AWWA C-151 WITH 4' MINIMUM COVER.
- 5. PRIVATE WATER MAIN MATERIALS, VALVES, FIRE HYDRANTS, FITTINGS AND APPURTENANCES, INSTALLATION AND INSPECTION TO BE AS PER DIVISION 2 OF THE BUTLER COUNTY STANDARD SPECIFICATIONS AND DETAIL FOR WATER AND SANITARY SEWER CONSTRUCTION, USING CLASS 53 DUCTILE IRON OR AWWA C-900 CLASS 200 DR14 WITH LOCATOR TAPE AND 4' MINIMUM COVER.
- 16. SANITARY SEWER MATERIALS, INSTALLATION AND INSPECTION TO BE AS PER DIVISION 3 OF THE BUTLER COUNTY STANDARD SPECIFICATIONS AND DETAIL FOR WATER AND SANITARY SEWER CONSTRUCTION, USING SECTION 3110 FOR PVC SDR-35 & 26 PIPE; SECTION 3140 FOR ABS OR PVC COMPOSITE PIPE; SECTION 3410 FOR MANHOLES. 17. CROSSINGS
- 17.1. WHENEVER A SANITARY SEWER AND WATER MAIN MUST CROSS, THE SEWER SHALL BE AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES MEASURED BETWEEN THE OUTSIDE PIPE WALLS, BELOW THE BOTTOM OF THE WATER MAIN.
- 17.2. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18 INCH VERTICAL SEPARATION, THE WATER MAIN SHALL BE RELOCATED OR THE SEWER SHALL BE CONSTRUCTED AS FOLLOWS: 17.2.1. A SEWER PASSING OVER OR UNDER THE WATER MAIN SHALL BE
- ENCASED OR CONSTRUCTED OF MATERIALS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION FOR A MINIMUM DISTANCE OF 10 FEET ON EACH SIDE OF THE WATER MAIN.
- THE SEWER CROSSING SHALL BE CONSTRUCTED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.
- WHERE A WATER MAIN PASSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.
- 18. STORM SEWER PIPE SHALL HAVE A MANNING'S "N" VALUE OF 0.012 OR LESS AND MEET THE REQUIREMENTS AS FOLLOWS:
- 18.1. PVC PIPE AS PER ODOT 707.42 OR 707.45. 18.2. HDPE PIPE AS PER ODOT ODOT 707.33.
- 19. DEFLECTION TESTING FOR STORM SEWERS AND CULVERTS 19.1. 15% OF ALL STORM SEWERS SHALL BE TESTED FOR DEFLECTION WITHIN THIRTY DAYS AFTER THEY ARE COMPLETE. BUTLER COUNTY ENGINEER OR HIS DESIGNATED REPRESENTATIVE WILL DETERMINE WHAT 15% SHALL BE TESTED. IF ANY STORM SEWER IN THE ORIGINAL 15% IS FOUND OUT OF COMPLIANCE, DEFLECTION TESTS WILL BE REQUIRED ON 100% OF THE REMAINING STORM SEWER. A VERTICAL RING DEFLECTION GREATER THAN 5% WILL NOT BE ALLOWED. THIS DEFLECTION IS DEFINED AS 5% REDUCTION IN THE VERTICAL BASE OR AVERAGE INSIDE DIAMETER. THE METHOD OF TESTING SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. IF RIGID BALLS OR MANDRELS ARE USED TO TEST PIPE DEFLECTION, NO MECHANICAL PULLING DEVICES SHALL BE USED. THE DEFLECTION TEST MAY BE CONDUCTED WITH A NINE PRONG MANDREL, A BALL OR A CYLINDER OR ANOTHER MANNER ACCEPTABLE TO THE BUTLER COUNTY ENGINEER OR HIS DESIGNATED REPRESENTATIVE. THE TESTING WILL BE ACCOMPLISHED FROM MANHOLE TO MANHOLE OR CATCHBASIN TO CATCHBASIN, FOLLOWING THE COMPLETE FLUSHING OF THE LINE. THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT REQUIRED TO COMPLETE THE DEFLECTION TESTING. THE DEFLECTION TEST SHALL BE WITNESSED BY THE COUNTY ENGINEER OR HIS DESIGNATED REPRESENTATIVE. ANY SECTION OF PIPE THAT FAILS TO MEET THE AFOREMENTIONED REQUIREMENTS SHALL BE REROUNDED BY A PROCEDURE ACCEPTABLE TO THE COUNTY OR BE EXCAVATED AND EITHER BE RELAYED OR REPLACED,
- AND RETESTED UNTIL THE REQUIREMENTS ARE MET. 20. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
- 21. ALL CATCH BASINS WITH A DEPTH GREATER THAN 4.5' SHALL BE PROVIDED WITH STEPS. STEPS SHALL MEET THE REQUIREMENTS OF ODOT STD. 604 AND SHALL CONFORM TO THE DETAILS AS SHOWN ON BUTLER COUNTY STANDARD DRAWING MH-1A.
- 22. ALL BUILDINGS TO BE SERVED BY THE PUBLIC SEWER SYSTEM SHALL BE CONSTRUCTED SO AS TO PROVIDE A MINIMUM OF FOUR FEET (4') OF VERTICAL SEPARATION BETWEEN THE PUBLIC SANITARY SEWER, AT THE POINT OF CONNECTION, AND THE LOWEST BUILDING LEVEL SERVED BY A GRAVITY SEWER CONNECTION. IN ADDITION, SAID BUILDING LEVEL SHALL BE AT LEAST ONE (1) FOOT ABOVE THE LOWEST POINT OF FREE-OVERFLOW (NON-SEALED MANHOLE COVER) UPSTREAM OF ANY TREATMENT FACILITY OF WASTEWATER PUMPING FACILITY THAT RECEIVES THE DISCHARGE FROM SAID BUILDING. SAID MINIMUM SERVICE LEVELS SHALL BE RECORDED ON THE "AS-BUILT" PLANS FOR THE DEVELOPMENT WHICH WILL BE KEPT ON FILE IN THE OFFICE OF THE BUTLER COUNTY WATER AND SEWER DEPARTMENT.
- 23. BUTLER COUNTY WATER AND SEWER DEPARTMENT OF DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE RELOCATION, REPAIR, OR REPLACEMENT OF ANY OTHER UTILITY INSTALLED WITHIN FIVE (5) FEET OF THE CENTER LINE OF ANY SANITARY SEWER MAIN OR WATER MAIN.
- 24. ALL WATER MAIN VALVES TO HAVE A MINIMUM DEPTH OF 2.5' FROM PROPOSED GRADE TO THE TOP OF THE VALVE OPERATING NUT. 25. PROVIDE THE BUTLER COUNTY ENGINEER'S OFFICE WITH A 48 HOUR NOTICE PRIOR TO CONSTRUCTION, INCLUDING SANITARY INSTALLATION. PHONE
- 26. THE GENERAL CONTRACTOR SHALL APPLY AND PAY FOR ALL ASSOCIATED FEES REQUIRED FOR INSTALLATION OF UTILITIES UNLESS NOTED OTHERWISE.
- 27. STORM STRUCTURES 20, 21 AND 22 ARE PER THE ORIGINAL MENARD'S CROSSING DEVELOPMENT PLAN.

State Pla	ane N	AD83	GPS	S Obser	vations
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	SCA	ALE:	1" =	40'	

Item		Revision Description	Date Drwn	Drwn
1	REVISIONS	REVISIONS TO PLANS PER INTERNAL REVIEW	05/21/15 DGB	DGB
2	REVISIONS	REVISIONS PER BC. WATER & SEWER COMMENTS	06/22/15	DGB
3	REVISED 1;	REVISED 12" WATER TO 10" PER BC. WATER & SEWER COMMENT.	06/29/15	DGB
4	REVISIONS	REVISIONS PER BC. WATER & SEWER COMMENTS	8/7/15	TAC
5	WATER ASI	WATER ASBUILT DRAWINGS	11-11-15 DGB	DGB
9	REVISED B	REVISED BUILDING SIZE - BUILDING 7 & 8 PER CLIENT	08-07-19	JLE
7	REVISIONS	REVISIONS TO PLAN, BUILDING 10 & 11 REMOVED	09-06-19 MGS	MGS
8	REVISIONS	REVISIONS TO PLANS PER CLIENT COMMENTS	10-17-19	MGS

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