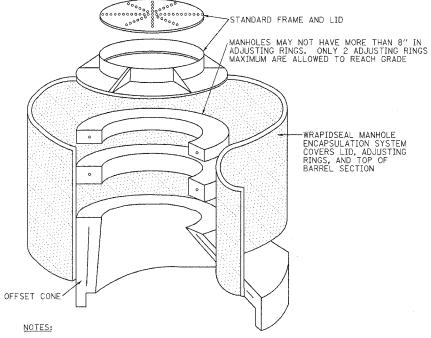
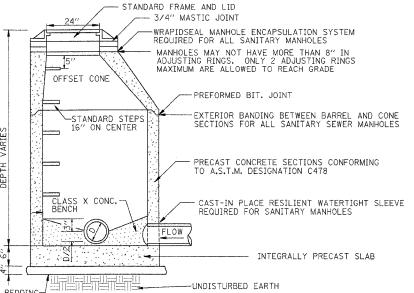


- STANDARD BEDDING MATERIAL FOR NON-PLASTIC PIPE INCLUDING ALL WATERMAIN SHALL BE WELL COMPACTED, WASHED, 1/4" TO 3/4" CRUSHED STONE, ASTM 448, SIZE CA-7.
- 2. STANDARD BEDDING MATERIAL FOR PLASTIC PIPE SHALL CONFORM TO ASTM D2321, CLASS II NON-ANGULAR AGGREGATE EXCEPT THE MAXIMUM SIZE SHALL BE $\frac{1}{2}$ ".
- 3. SELECT, WELL COMPACTED EXCAVATED MATERIAL SHALL BE PLACED TO LINE "A" IF STANDARD BEDDING MATERIAL IS NOT REQUIRED TO LINE "A." VOIDS LEFT BY SHEETING SHALL BE FILLED WITH STANDARD BEDDING MATERIAL AS THE SHEETING IS REMOVED.
 - TYPICAL TRENCH AND STANDARD BEDDING



- WRAPIDSEAL SHALL BE INSTALLED ON ALL SANITARY SEWER MANHOLES. WRAPIDSEAL MANHOLE ENCAPSULATION SYSTEMS ARE REQUIRED, ANY OTHER PRODUCTS OR OTHER DESIGN SOLUTIONS SHALL REQUIRE THE APPROVAL OF THE VILLAGE ENGINEER OR DIRECTOR OF PUBLIC WORKS.
- 3. WRAPIDSEAL SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND INSTRUCTIONS.

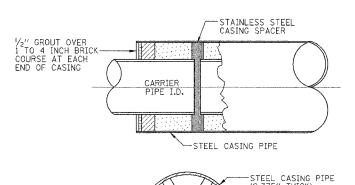


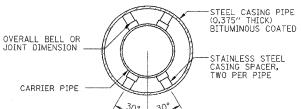
- FOR SEWERS 24 INCHES OR LESS IN DIAMETER, USE 48 INCH MANHOLES; FOR SEWERS MORE THAN 24" INCHES IN DIAMETER, USE 60" INCH MANHOLES.
- 2. FOR VITRIFIED CLAY PIPE SEWERS, LOCATE A BELL OR SPIGOT AS APPROPRIATE JUST OUTSIDE THE MANHOLE WALL TO PROVIDE
- A PIVOT POINT FOR ANY DIFFERENT MOVEMENT.

 3. WRAPIDSEAL MANHOLE ENCAPSULATION SYSTEM REQUIRED FOR ALL SANITARY SEWER MANHOLES. (SEE EXHIBIT NO. 4)

 4. WATER TIGHT SEALENT REQUIRED FOR ALL SANITARY SEWER MANHOLES.

SANITARY MANHOLE





NOTES:

FLOW

- ON TOP AND BOTTOM UTILIZING TWO CASING SPACERS EQUALLY SPACED PER LENGTH OF PIPE.
- 2. THE SANITARY SEWER MAIN SHALL BE CLASS 52 DUCTILE IRON PIPE, 'CENTER SPACED' AND RESTAINED ON TOP AND BOTTOM UTILIZING TWO CASING SPACERS EQUALLY SPACED PER LENGTH OF PIPE.
- 4. CASING IS TO BE SEALED AT BOTH ENDS WITH A MASONARY
- UTILIZING U.S. PIPE FIELD LOCK GASKETS OR APPROVED EQUAL.

1'' = 25mm, 1 Foot = 300mm

DATE: 03-11-05

REVISIONS NAME DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION ILLINOIS ROUTE 22 E. OF BUESCHING RD TO QUENTIN RD DETAILS

SANITARY SEWER AND WATER MAIN RELOCATION

> DRAWN BY: JJH CHECKED BY: WS

SHEETS NO.

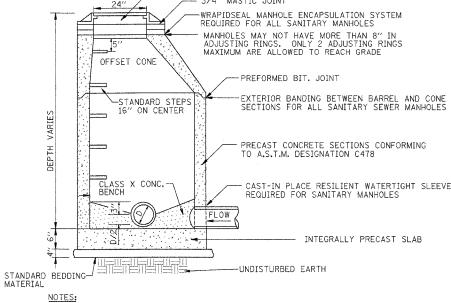
318 104

LAKE

1.00 TO 100.00 % GRADE

TO STA.

FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT



PIPE CASING DETAIL GRAEF, ANHALT, SCHLOEMER & ASSOCIATES, INC. ENGINEERS & SCIENTISTS 8501 W. Higgins Rood; Suite 280 Chloage, Illinois 60631 (773) 399-0112

WRAPIDSEAL MANHOLE ENCAPSULATION SYSTEM

2. THE BEDDING UNDER THE WYE FITTING AND STUB SHALL BE CAREFULLY COMPACTED TO PREVENT THE WYE FITTING FROM ROTATING.

1. THIS EXHIBIT IS APPLICABLE TO FOUR (4) OR (6) INCH SANITARY SERVICE CONNECTIONS ONLY. LARGER DIAMETER SANITARY SEWER CONNECTIONS SHALL BE MADE AT MANHOLES ONLY.

SANITARY SERVICE CONNECTION

3. THE SANITARY SERVICE CONNECTION PIPE SHALL BE LAID IN A STRAIGHT LINE AND AT A UNIFORM GRADIENT FROM THE TOP OF THE RISE FROM THE MAIN LINE TO THREE (3) FEET BEYOND THE RIGHT-OF-WAY LINE.

4. SECURELY PLUG THE END OF THE SERVICE CONNECTION.

CONTRACT NO. 62030

WYE FITTING

MAIN LINE SANITARY SEWER

1/8TH BEND

337

STA.

20 WR-6

-STANDARD BEDDING MATERIAL, CA-6 OR SAND

UNDISTURBED EARTH

1. THE WATER MAIN SHALL BE 'CENTER SPACED' AND RESTRAINED

- 3. CASING SPACERS ARE TO BE POWERSEAL MODEL 48-10 STAINLESS STEEL OR APPROVED EQUAL.
- 5. WATER MAIN JOINTS WITHIN THE CASING SHALL BE RESTRAINED