

- RESTORE SURFACE PER TRENCH BACKFILL DETAIL.
- 2. CONNECTION WORK TO BE CONTAINED WITHIN EX PUBLIC R/W.
- 3. OWNER/ENGINEER WILL INSPECT DRAIN PIPE ENCOUNTERED AND EXPOSED BY THE CONTRACTOR. CONTRACTOR WILL CONNECT DRAIN LINES APPROVED TO BE CONNECTED BY OWNER/ENGINEER.

# DRAIN PIPE CONNECTION DETAIL

NOT TO SCALE

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LIMITS OF CONCRETE DRIVEWAY-

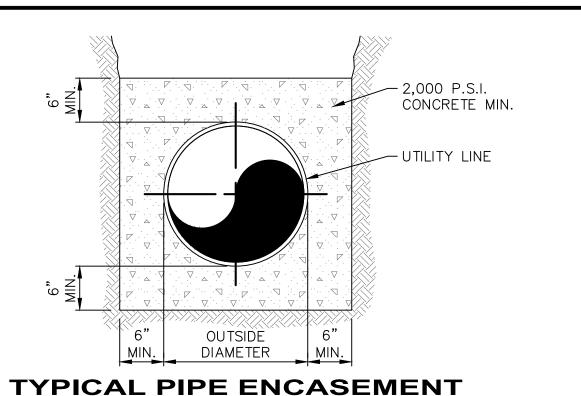
EDGE OF PAVEMENT/BACK OF CURB-

1'-0" FROM EDGES OF

CONC. PAVEMENT AND

CONSTRUCTION JOINT

(TYP. ALL SIDES)



CONCRETE AREA IMMEDIATELY SURROUNDING PROPOSED

DRAIN IN ORDER TO ENCOURAGE POSITIVE DRAINAGE

AND INCREASED STORMWATER CAPTURE

- PROPOSED TRENCH DRAIN

-CONSTRUCTION JOINT

TRENCH DRAIN TO BE SLOPED GENTLY TOWARDS TRENCH

# MAX. TOP OF CUT BACK EXISTING PAVEMENT 12"-TRENCH WIDTH AFTER BACKFILLING IS COMPLETE -WHERE NEW PAVEMENT MEETS (TYP EACH SIDE) EXISTING - SEAL EDGE W/ EXISTING GRADE FINISH GRADE 1 RUBBERIZED ASPHALT SEÁLANT SELECT BACKFILL: EXISTING PAVEMENT AGGREGATE BACKFILL UNDER ROADWAY, AND WITHIN A 45° ANGLE OF INFLUENCE FROM THE ROADWAY PAVEMENT SHALL PENNDOT SECTION 212 BE PENNDOT NO. 2A CLASS C STONE GEOTEXTILE CL. IV, TYPE A GRADATION UNLESS OTHERWISE STATED (AS REQUIRED PER FIELD IN NOTES. CONDITIONS) MAGNETIC DETECTABLE TRACER-TAPE 18" BELOW FINISH GRADE. FINAL BACKFILL COMPACTED IN MAXIMUM TRACER TAPE IDENTIFICATION 12" LAYERS (100% MODIFIED PROCTOR) LABEL SHALL MATCH UTILITY LINE TYPE. PIPE BEDDING: AASHTO NO. 67 OR 57 GRANULAR BEDDING & BACKFILL

# APPROVED BEDDING & BACKFILL:

- (1) SLAG NOT PERMITTED AS BEDDING OR BACKFILL IN ANY TRENCH.
- (2) 6" MIN SIDE BEDDING.
- (3) COMPACTED BACKFILL LAYERS SHALL CONFORM TO PENNDOT PUB 408. A MAXIMUM LIFT OF 8" IF VIBRATORY COMPACTED AND 4" MAXIMUM LIFT IF BY HAND OR MECHANICAL TAMPER.

## **SPECIFICATION NOTES:**

SUPERPAVE ASPHALT MIX DESIGN: HMA WEARING COURSE PG64-22, 0.3 TO 3.0 MILLION SEALS, 11/2" DEPTH, 9.5MM MIX, SRL-L HMA BINDER COURSE PG64-22, 0.3 TO 3.0 MILLION SEALS, 4" DEPTH, 19MM MIX

- (A)  $(1\frac{1}{2})^{2}$  MINOR AND/OR 2" MAJOR) PENNDOT SECTION 409 9.5MM SUPERPAVE HMA WEARING COURSE
- (B)  $(2\frac{1}{2}$ " MINOR AND/OR 4" MAJOR) PENNDOT SECTION 409 19MM SUPERPAVE HMA BINDER COURSE
- © 12" MINOR AND/OR 12" MAJOR PENNDOT SECTION 350, No. 2A SUBBASE MATERIAL COMPACTED 100% STANDARD PROCTOR
- (D) SUBGRADE SHALL BE COMPACTED AND PREPARED ACCORDING TO PENNDOT SECTION 206 & 210
- E IF EXISTING PAVEMENT THICKNESS IS GREATER THAN PROPOSED SECTION, CONTRACTOR SHALL MATCH EXISTING PAVEMENT THICKNESS & PROFILE

# TRENCH BACKFILL DETAIL PAVED AREAS

NOT TO SCALE

APPROVED BEDDING & BACKFILL:

4" COMPACTED SCREENED IMPORTED —

TOPSOIL W/SURFACE RESTORATION

MAGNETIC DETECTABLE TRACER

TRACER TAPE IDENTIFICATION LABEL SHALL MATCH UTILITY

TAPE 18" BELOW FINISH GRADE.

IN ALL LAWN AREAS.

SLAG NOT PERMITTED AS BEDDING OR BACKFILL IN ANY TRENCH.

SANITARY SEWER NOTES:

CONSEAL)

LIFT HOLES OF ANY KIND.

6" MIN SIDE BEDDING.

COMPACTED BACKFILL LAYERS SHALL CONFORM TO PENNDOT PUB 408. A MAXIMUM LIFT OF 8" IF VIBRATORY COMPACTED AND 4" MAXIMUM LIFT IF BY HAND OR MECHANICAL TAMPER.

MAX. TOP OF

| FINISH GRADE

FINAL BACKFILL:

PIPE BEDDING:

CLEAN EXCAVATED SOIL

COMPACTED IN 12" LAYERS

(95% STANDARD PROCTOR)

NO STONES LARGER THAN

DELETERIOUS MATTER SUCH AS TRASH OR ORGANICS.

4" IN DIAMETER & NO

AASHTO NO. 67 OR 57

GRANULAR BEDDING & BACKFILL

TRENCH WIDTH

# TRENCH BACKFILL DETAIL

SELECT BACKFILL TO BE USED WITHIN A 45° OF INFLUENCE FROM THE ROADWAY PAVEMENT.

**UNPAVED AREAS** NOT TO SCALE

1. EXCEPT AS NOTED ALL MANHOLE FRAMES AND COVERS SHALL BE EAST JORDAN IRON

FRAME AND COVER PATTERN No. R-1753-A. WATERTIGHT MANHOLES DESIGNATED AS

WORKS FRAME PATTERN AND COVER PATTERN No. 1890Z1 OR NEENAH FOUNDRY

"WT" ON THE DRAWINGS SHALL BE EAST JORDAN IRON WORKS No. 1893 DOUBLE

SECTIONS SHALL BE MANUFACTURED AND FURNISHED AS SOLID SECTION WITHOUT

3. MANHOLE CONCRETE WATERPROOFING - ALL MANHOLES SHALL BE PRECAST WITH A

4. INTERIOR - THOROSEAL INSIDE OF SANITARY MANHOLES ONLY, FULL DEPTH. (ANY

5. EXTERIOR JOINT - ALL EXTERIOR MANHOLE JOINTS SHALL BE SEALED WITH 24" WIDE

JOINTS CONFORMING TO ASTM F-1249, ASTM E-154, AND ASTM D-1709. (I.E.

6. ALL MANHOLE FRAME TOPS SHALL BE ADJUSTED TO MATCH SURROUNDING FINISH

PENNDOT No 2A TYPE A OR C STONE COMPACT TO 100% MAX. DENSITY. RESTORE

SHALL BE 48". WHERE MANHOLE DEPTH EXCEEDS 15'-0", MANHOLE DIAMETER SHALL

7. ABANDONED MANHOLES - FILL TROUGH & BASE WITH CONCRETE TO 4" ABOVE CROWN OF PIPES. REMOVE CONE SECTION, FRAME AND COVER. BACKFILL WITH

SURFACE OF ROAD OR LAWN CONDITION AS APPROPRIATE FOR LOCATION.

8. WHERE MANHOLE DEPTH IS LESS THAN OR EQUAL TO 15'-0", MANHOLE DIAMETER

POLYOLEFIN BACKED WATERTIGHT WRAP ON PROPERLY PRIMED CONCRETE STRUCTURE

COLOR BUT GRAY). ALL JOINTS AND CONNECTIONS TO BE WATER PLUGGED.

EXTERIOR - 16 MIL. COAL TAR EPOXY EXTERIOR COATING.

GRADE UNLESS OTHERWISE SPECIFIED.

BE 60" AND APPROVED BY AUTHORITY.

CRYSTALLINE CONCRETE WATERPROOFING/PROTECTION ADMIXTURE CONFORMING TO

ASTM C-266, ASTM C-856, ASTM C-39 BS 1881, AND ASTM C-666. (I.E. XYPEX)

2. THE LATEST REVISIONS OF A.S.T.M. DESIGNATION C-478; ALL PRECAST CONCRETE

COVER FROST PROOF ASSEMBLY OR NEENAH PATTERN NO. R-1755-F2.

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PROJECT NO. 180302

DISCIPLINE CIVIL SHEET NAME

CD-2 **23** 

CAST IRON MANHOLE FRAME &-EMBEDDED 3" - 2 REQ'D. COVER, COVER TO BEAR THE WORDS "HERMITAGE SANITARY SEWER" \ 28¾" DIA -SET FRAME ON DOUBLE ROW OF FLEXIBLE BUTYL RESIN CONCRETE SEALANT -ADJUSTING COLLARS (3" MIN.-12" MAX.), PLASTER INSIDE AND OUT WITH 1/2" mymym CEMENT MORTAR. MANHOLE STEPS 16" O.C FLAT SLAB TRANSITION SECTION, 29" DIA FIRST STEP NOT MORE H20 LOAD CAPACITY THAN 2'-0" BELOW TOP OF FRAME. MAKE STEP PROJECTION 31/2" IF IN 29" DIA. SECTION. -DOUBLE ROW OF FLEXIBLE BUTYL RESIN CONCRETE SEALANT (TYP. ALL SECTION JOINTS) 4'-0" DIA 24" & UNDER 5'-0" DIA 27" THRU 42"

> STANDARD SHALLOW PRECAST SANITARY SEWER MANHOLE DETAIL NOT TO SCALE

-3/4" DIA. S.S ANCHOR BOLT.

# NOTES:

- TRENCH DRAIN SHALL BE 4" WIDTH NDS DURA SLOPE WITH A DEPTH OF 6", OR APPROVED TRENCH DRAIN SHALL BE 4 WIDTH NOS DONA SLOTE WITH A BELL-SAFE, ADA-COMPLIANT METAL GRATE SUBSTITUTE. TRENCH DRAIN SHALL BE INSTALLED WITH A HEEL-SAFE, ADA-COMPLIANT METAL GRATE
- 2 TRENCH DRAIN TO BE CONNECTED TO NEAREST CATCH BASIN WITH 4" DIA. HDPE PIPE AT A 1% MIN. SLOPE

# TRENCH DRAIN PLACEMENT AND **INSTALLATION DETAIL** NOT TO SCALE