NORTHERN KENTUCKY WATER DISTRICT
FT THOMAS WATER TREATMENT PLANT
36" RAW WATER MAIN PROJECT

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COMMISSIONER

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OWNER SITE LOCATION
NORTHERN KENTUCKY WATER DISTRICT
700 ALEXANDRIA PIKE
FORT THOMAS, KY 41075
PHONE (859) 441-0462

OWNER BUSINESS OFFICE
NORTHERN KENTUCKY WATER DISTRICT
2835 CRESCENT SPRINGS ROAD
P.O. BOX 18640
Erlanger, KY 41018-0640
PHONE (859) 578-8698
FAX (859) 578-7893

PRESIDENT/CEO
C. RONALD LOVAN, P.E.

VICINITY MAP

FORT THOMAS WATER TREATMENT PLANT SITE
NORTHERN KENTUCKY WATER DISTRICT
FT THOMAS WATER TREATMENT PLANT
36" RAW WATER MAIN PROJECT

PLAN AND PROFILE
STA. 0+00 TO 5+00

* SEE PIPE MATERIAL GENERAL NOTES ON SHEET 15 AND SPECIFICATIONS FOR ALLOWABLE PIPE MATERIALS.

2. CATHODIC PROTECTION CODED NOTES FOR STEEL OR DUCTILE IRON PIPE. ALL METALLIC PIPE SECTIONS SHALL BE BONDED TOGETHER. SEE TYPICAL BONDING DETAILS IN SPECIFICATION SECTION 02660.

3. CATHODIC PROTECTION CODED NOTES FOR PVC/HDR METALLIC VALVES AND FITTINGS.
   C. SEE CORPRO DRAWING NO. D1-33661-C DETAIL ‘C’ - SHEET 15.
   E. SEE CORPRO DRAWING NO. D1-33661-C DETAIL ‘E’ - SHEET 16.
   F. SEE CORPRO DRAWING NO. D1-33661-C DETAIL ‘F’ - SHEET 16.

4. INSULATED FLANGE CONNECTION AT EXISTING CROSS PIPE CONNECTION.

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SEE PIPE MATERIAL GENERAL NOTES ON SHEET 10 AND SPECIFICATIONS FOR ALLOWABLE PIPE MATERIALS.
1. PROVIDE FULL LENGTH OF PIPE ON EACH SIDE OF RESTRAINED JOINT FITTINGS.
2. CATHODE PROTECTION CODED NOTES FOR STEEL OR DUCTILE IRON PIPE. ALL METALLIC PIPE SECTIONS SHALL BE BONDED TOGETHER. SEE TYPICAL BONDING DETAILS IN SPECIFICATION SECTION 02660.
   B. SEE CORPRO DRAWING NO. D1-33659-C DETAIL 'B' - SHEET 14.
   C. SEE CORPRO DRAWING NO. D1-33659-C DETAIL 'C' - SHEET 14.
3. CATHODE PROTECTION CODED NOTES FOR PVC/HDPE METALLIC VALVES AND FITTINGS.
   A. SEE CORPRO DRAWING NO. D1-33661-C DETAIL 'A' - SHEET 15.
   B. SEE CORPRO DRAWING NO. D1-33661-C DETAIL 'B' - SHEET 15.
   C. SEE CORPRO DRAWING NO. D1-33661-C DETAIL 'C' - SHEET 15.
   D. SEE CORPRO DRAWING NO. D1-33661-C DETAIL 'D' - SHEET 15.
   E. SEE CORPRO DRAWING NO. D1-33661-C DETAIL 'E' - SHEET 16.
   F. SEE CORPRO DRAWING NO. D1-33661-C DETAIL 'F' - SHEET 16.
4. INSULATED FLANGE CONNECTION AT EXISTING CROSS PIPE CONNECTION.
1. **Cathodic Protection Coded Notes for Steel or Ductile Iron Pipe**: All metallic pipe sections shall be bonded together. See typical bonding details in specification section 02660.

2. **Cathodic Protection Coded Notes for PVC/HDPE Metallic Valves and Fittings**: See Corpro Drawing No. D1-33661-C Detail 'A' - Sheet 15.

3. **Cathodic Protection Coded Notes for Insulated Flange Connection at Existing Cross/Pipe Connection**: See Corpro Drawing No. D1-33661-C Detail 'C' - Sheet 15.

4. **Insulated Flange Connection at Existing Cross/pipe Connection**.

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* See pipe material general bonding & protective coatings in the specifications for allowable pipe materials.

**Coded Notes**: Water main alignment and profile plan.

**Horizontal Scale**: 020'40'

**Vertical Scale**: 10'20'

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* SEE PIPE MATERIAL GENERAL BONDING & PROTECTIVE COATINGS IN SPECIFICATIONS FOR ALLOWABLE PIPE MATERIALS.

**Coded Notes**: Water main alignment and profile plan.

**Horizontal Scale**: 020'40'

**Vertical Scale**: 10'20'

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* SEE PIPE MATERIAL GENERAL BONDING & PROTECTIVE COATINGS IN SPECIFICATIONS FOR ALLOWABLE PIPE MATERIALS.
PROPOSED CONCRETE DITCH GRADE OVER STORM SEWER (0.5% MIN SLOPE FROM HIGH POINT (H.P.) TO STORM INLETS)

EXISTING DITCH BOTTOM GRADE

EXISTING EDGE OF DRIVE

NEW ASPHALT PAVEMENT. SLOPED TO DITCH - SEE PAVEMENT REPLACEMENT DETAIL SHEET 10

EXISTING STONE DITCH BOTTOM AND SIDE SLOPE TO REMAIN

6" FORMED CLASS A PLAIN CONCRETE DITCH ALONG EDGE OF DRIVE - KTC SECTION 709 WITH LIGHT BROOM FINISH - SLOPE PER NEW STORM SEWER PROFILE NOTES. PROVIDE CONTROL JOINTS AT 4' SPACING AND PREFORMED EXPANSION JOINTS AT CATCH BASINS AND HIGH POINTS.

NEW ASPHALT BASE COURSE

NEW ASPHALT DRIVE

18.67' @ 9.27%

30" -- STM

STA 6+00 H.P.

CONC DITCH - EL-803.8

STA 8+00 H.P.

CONC DITCH - EL-803.5

STA 8+00 H.P.

CONC DITCH - EL-803.5

* STORM PIPE SHALL HAVE SOIL TIGHT JOINTS. USE 11.25° BENDS ALONG PIPE TO MAINTAIN ALIGNMENT ALONG EXISTING STONE DITCH.

REBUILD DITCH STONE SIDE SLOPE TO MATCH EXISTING DITCH SLOPE USE STONE SALVAGED DURING MAIN INSTALLATION OR REMOVED FROM NORTH RESERVOIR DITCH. MORTAR STONE JOINTS TO CONFORM TO KTC SECTION 601.
1. THIS DRAWING TITLE BLOCK IS DESIGNED FOR MULTIPLE BURGESS & NIPPLE OFFICES TO USE. TO CHANGE THE OFFICE ADDRESS YOU MUST FIRST UNLOCK THE LAYER G-ANNO-TTLB-LOGO.

2. THEN BY SELECTING THE LOGO YOU WILL ACTIVATE A ROLL DOWN (BLUE ARROW) THAT WILL ALLOW YOU TO SWITCH THE OFFICE ADDRESS.

3. GO BACK TO THE LAYER TOOL PALETTE AND RELOCK THE LAYER G-ANNO-TTLB-LOGO.
NORTHERN KENTUCKY WATER DISTRICT
FT THOMAS WATER TREATMENT PLANT
36" RAW WATER MAIN PROJECT

**WATER MAIN DETAILS**

**GB**

**GB**

**DWB**

**DWB**

**PR51569**

**AUG, 2013**

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**NWKD STD DWG 106 - AIR RELEASE VALVE**

**FLUSH HYDRANT ASSEMBLY INSTALLATION WITH BLOCKING**

**SCALE** NINE

**B**

**SIZES OF PIPE**

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**CONCRETE BACKING FOR HORIZONTAL & VERTICAL UP BENDS AND TEES**

**SCALE** NINE

**CONCRETE BACKING FOR VERTICAL DOWN BENDS**

**SCALE** NINE

**VALVE BOX BASE, CONCRETE**

**SCALE** NINE

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EXISTING STONE OUTLET STRUCTURE TO BE REMOVED.

EXIST 30" RAW WATER MAIN OUTLET TO REMAIN.

CL NEW 36" RAW WATER MAIN OUTLET

FILL AREA BETWEEN EXIST STONE RESERVOIR LINER AND NEW OUTLET STRUCTURE WITH CONCRETE (MIN. 8" THICK).

CONCRETE & REINFORCEMENT NOTES:

1. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMpressive STRENGTH OF 4000 PSI AND SHALL COMPLY WITH KTC CLASS AA SECTION 601 WITH ORDINARY SURFACE FINISH.

2. STEEL REINFORCEMENT SHALL BE GRADE 60 AND SHALL COMPLY WITH KTC SECTION 602.

3. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" ACI 318.

4. ALL REINFORCEMENT DETAILS SHALL CONFORM TO "DETAILS AND DETAILING REINFORCEMENT " ACI 315.

5. PROVIDE 3/4" CHAMFER ON ALL EXPOSED CORNERS OF WALLS AND SLABS.

6. CONCRETE PROTECTION (COVER FOR REINFORCEMENT BARS) SHALL BE 3" WHEN CAST AGAINST EARTH AND 2" WHEN EXPOSED TO EARTH OR WEATHER FOLLOWING REMOVAL OF FORMS.

7. PROVIDE ADEQUATE SUPPORT FOR REINFORCING TO MAINTAIN REQUIRED SPACING AND PROTECTION.

8. CONCRETE CURB, IRON FENCE AND GATE.

NORTHERN KENTUCKY WATER DISTRICT
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100% REVIEW - NOT FOR CONSTRUCTION
CATHODIC PROTECTION DETAILS STEEL & DUCTILE IRON PIPE

DETAI A - PLUMB TO GRADE TEST STATION AT STA. 0000

DETAI B - PLUMB TO GRADE TEST STATION AT STA. 1140

DETAI C - PLUMB TO GRADE TEST STATION AT STA. 3400 ON LATERAL

DETAI D - PLUMB TO GRADE TEST STATION AT STA. 3400
BURGESS & NIPLE, INC.
CINCINNATI, OHIO

CATHODIC PROTECTION
SYSTEM DETAILS
FOR 36" RAW WATER MAIN PROJECT
AT THE FORT THOMAS PLANT
FOR NORTHERN KENTUCKY WATER DISTRICT
FORT THOMAS, KENTUCKY

DETAIL A = Flush-To-Grade Test Station at Elbows and Pipe Ends

DETAIL B = Flush-To-Grade Test Station at Single Pipe Bend

DETAIL C = Flush-To-Grade Test Station at 90° Bend and 11.25° Bend

DETAIL D = Flush-To-Grade Test Station at Pipe Tee and Butterfly Valves

DETAIL E = Flush-To-Grade Test Station at Pipe Tee and Butterfly Valves

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