STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD DRAWING(S):

F-1.1	DATED	7-16-04
MH-1.2	REVISED	1-20-06

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

837	DATED	4-20-07
937	DATED	4-20-07

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17th EDITION, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

HS25, AND THE ALTERNATE MILITARY LOADING. FUTURE WEARING SURFACE (FWS) OF 60 POUNDS PER SQUARE FOOT.

DESIGN DATA

STRUCTURAL STEEL (TEMPORARY SHEETING) - ASTM A328, MINIMUM YIELD STRENGTH 39,000 PSI

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

UTILITY LINES

THE UTILITY(IES) SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

PROPOSED WORK SEQUENCE

WORK AREA 1:

1. VERIFY EXISTING PRIVATE ULITITIES HAVE BEEN RELOCATED (GAS, POLE, TELEPHONE CABLE, AND TELEPHONE BOX).
2. RELOCATE EXISTING WATERLINE AS DETAILED IN ROADWAY PLANS.
3. RE-ROUTE EXISTING SANITARY FLOW FOR EXISTING 27" SANITARY PIPE.
4. RE-ROUTE EXISTING STORM WATER FLOW FOR EXISTING 72" STORM PIPE.
5. REMOVE EXISTING 27" SANITARY AND 72" STORM RCP TO THE LIMITS SHOWN IN THE PLANS.
6. CONSTRUCT MANHOLE AND PHASE 1 OF PROPOSED 72" STORM RCP.
7. CONSTRUCT TEMPORARY E. 367TH STREET RUN-AROUND.
8. PLACE TEMPORARY SHEETING
9. PROVIDE FOR GROUNDWATER RUN-OFF CONTROL AND DRAINAGE.
10. EXCAVATE FOR WORK AREA 1 TO LIMITS SHOWN IN PLANS.
11. PREPARE WORK PAD FOR PIPE PLACEMENT AND STABILIZE 1.5:1 SLOPES WITH SHOTCRETE.
12. PLACE PROPOSED 132" DIA. HDPE PIPE TO LIMITS SHOWN IN PLANS.
13. GROUT AND CONNECT LATERAL TIE-INS.
14. CONSTRUCT HEADWALL FOOTING
15. CONSTRUCT PHASE 2 OF PROPOSED 72" STORM RCP.
16. CONSTRUCT HEADWALL.
17. CONSTRUCT PROPOSED 27" SANITARY PIPE.
18. BACKFILL WORK AREA 1 EXCAVATION PIT AND RESTORE ALL ROADWAY, TREELAWN, AND OTHER SURFACE FEATURES EFFECTED BY THE CONSTRUCTION TO THEIR ORIGINAL CONDITION.

WORK AREA 2:

1. RE-ROUTE EXISTING STORM WATER FLOW FOR EXISTING 24" STORM PIPE.
2. PROVIDE FOR GROUNDWATER RUN-OFF CONTROL AND DRAINAGE.
3. EXCAVATE FOR WORK AREA 2 TO LIMITS SHOWN IN PLANS.
4. PREPARE WORK PAD FOR PIPE PLACEMENT.
5. PLACE PROPOSED 90" DIA. HDPE PIPE TO LIMITS SHOWN IN PLANS.
6. BACKFILL WORK AREA 1 EXCAVATION PIT AND RESTORE ALL TREELAWN, AND OTHER SURFACE FEATURES EFFECTED BY THE CONSTRUCTION TO THEIR ORIGINAL CONDITION. REPLACE PORTION OF FENCE AS SHOWN ON ROADWAY PLANS.

CONSTRUCTION ISSUES AT WORK AREA NUMBER 1

VEHICULAR ACCESS TO THE PROPERTIES SOUTH OF LAKELAND BOULEVARD VIA E. 367TH STREET MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION OPERATIONS.

TEMPORARY EXCAVATION IS REQUIRED DURING CONSTRUCTION TO ESTABLISH WORK AREA NUMBER 1 AT AN ELEVATION NECESSARY FOR PUSHING THE 132-INCH TYPE B POLYETHYLENE LINER PIPE (132-INCH HDPE) INTO THE EXISTING 180-INCH CMP THROUGH THE INLET END. THE TEMPORARY EXCAVATION WILL REQUIRE A PORTION OF E. 367TH STREET IMMEDIATELY SOUTH OF LAKELAND BOULEVARD TO BE TEMPORARILY CLOSED TO VEHICULAR AND PEDESTRIAN USE, AS SHOWN ON THE LAYOUT PLAN. THIS WILL REQUIRE A TEMPORARY RUN-AROUND TO BE CONSTRUCTED TO PROVIDE VEHICULAR ACCESS.

THE CONTRACTOR IS ALERTED TO THE FACT THAT BEFORE THE TEMPORARY EXCAVATION OF WORK AREA NUMBER 1 CAN BEGIN, THE EXISTING WATERLINE MUST BE RELOCATED, SEE ROADWAY PLAN SHEET 1033.

THE CONTRACTOR IS ALERTED TO THE FACT THAT BEFORE THE TEMPORARY EXCAVATION OF WORK AREA NUMBER 1 CAN BEGIN THE EXISTING GAS LINE, TELEPHONE CABLE AND JUNCTION BOX MUST BE RELOCATED, BY OTHERS, AS NOTED ON THE PLANS.

PARALLEL TO E. 367TH STREET IS AN EXISTING 72-INCH STORM RCP THAT FLOWS INTO THE INLET OF THE EXISTING 180-INCH CMP. THE CURRENT ALIGNMENT OF THE EXISTING 72-INCH RCP IS IN CONFLICT WITH THE TEMPORARY EXCAVATION REQUIRED FOR WORK AREA NUMBER 1. THE CONTRACTOR IS REQUIRED TO REMOVE AND REPLACE THE EXISTING 72-INCH RCP IN A MINIMUM OF TWO PHASES AS DESCRIBED BELOW.

DURING CONSTRUCTION ALL STORM WATER FLOWING THROUGH THE EXISTING 72-INCH RCP MUST BE MAINTAINED. ANY TEMPORARY DIVERSION OF THE STORM WATER AROUND WORK AREA NUMBER 1 IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE TEMPORARY STORM WATER BYPASS SYSTEM USED BY THE CONTRACTOR TO DIVERT THE STORM WATER IS SUBJECT TO THE APPROVAL OF THE ENGINEER. ALL CONTRACTOR EXPENSES RELATED TO DIVERTING THE STORM WATER INCLUDING THE TEMPORARY STORM WATER BYPASS SYSTEM PROVIDED BY THE CONTRACTOR ARE INCIDENTAL TO ITEM 837, 132" LINER PIPE, TYPE B POLYETHYLENE, AS PER PLAN.

IMMEDIATELY TO THE SOUTH OF THE REQUIRED WORK AREA EXCAVATION IS A DRIVEWAY FROM E. 367TH STREET LEADING ONTO THE MARGIOTTA PARCEL, PARCEL 14. THE CONTRACTOR IS ALERTED TO THE FACT THAT ACCESS TO THE MARGIOTTA PARCEL VIA A DRIVEWAY FROM E. 367TH STREET MUST BE MAINTAINED IN ORDER TO ACCOMMODATE THE TURNING RADIUS OF WB-50 TRUCK TRAFFIC. A TURNOFF FROM THE MAIN TEMPORARY RUN-AROUND WAS DESIGNED TO ACCOMMODATE THE REQUIREMENTS OF THE MARGIOTTA PARCEL.

THE CONTRACTOR IS ALERTED TO THE FACT THAT THE MAIN TEMPORARY RUN-AROUND CAN NOT BE CONSTRUCTED ON TOP OF THE EXISTING 72-INCH RCP UNTIL THAT SECTION OF THE 72-INCH RCP IS REMOVED AND REPLACED.

THE CONTRACTOR IS ALERTED TO THE FACT THE TURNOFF FROM THE MAIN TEMPORARY RUN-AROUND ONTO THE MARGIOTTA PARCEL CAN NOT BE CONSTRUCTED UNTIL A SECTION OF THE EXISTING 72-INCH RCP IS REMOVED AND REPLACED SUCH THAT IT WILL PENETRATE THE 1.5 (HORIZONTAL) TO 1.0 (VERTICAL) SLOPE OF THE TEMPORARY EXCAVATION FOR WORK AREA NUMBER 1. THE REMAINING SECTION OF 72-INCH RCP CAN BE PLACED AFTER ALL NECESSARY CONSTRUCTION OPERATIONS FOR LINING THE EXISTING 180-INCH CMP ARE COMPLETE.

THE CONTRACTOR IS ALERTED TO THE FACT THAT BEFORE PHASE 1 OF THE EXISTING 72-INCH REMOVAL CAN BEGIN, THE EXISTING GAS LINE, TELEPHONE CABLE, AND POWER POLE MUST BE RELOCATED, BY OTHERS, AS INDICATED ON THE PLANS.

THE CONTRACTOR IS TO PROVIDE FOR TEMPORARY BYPASS PUMPING OF THE EXISTING 27-INCH SANITARY SEWER LINE, SUBJECT TO THE APPROVAL OF THE ENGINEER, SO THAT THE CONTRACTOR CAN REMOVE A SECTION OF THE EXISTING 27-INCH SANITARY SEWER LINE ENABLING THE TEMPORARY EXCAVATION OF WORK AREA NUMBER 1. THE CONTRACTOR WILL BE RESPONSIBLE FOR NOT DAMAGING THE EXISTING JUNCTION BOXES AT EACH END OF THE EXISTING 27-INCH SANITARY SEWER LINE BEING REMOVED. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING THE EXISTING 27-INCH SANITARY LINE AFTER CONSTRUCTION OPERATIONS FOR PUSHING AND GROUTING THE PROPOSED 132-HDPE ARE COMPLETE, SUBJECT TO THE APPROVAL OF THE ENGINEER. ALL CONTRACTOR EXPENSES RELATED TO THE TEMPORARY BYPASS PUMPING OF THE EXISTING 27-INCH SANITARY SEWER LINE, AND THE REMOVAL AND REPLACEMENT OF THE SANITARY SEWER LINE ARE INCIDENTAL TO ITEM 837, 132" LINER PIPE, TYPE B POLYETHYLENE, AS PER PLAN.

ABBREVIATIONS:

ELEV. = ELEVATION
TYP. = TYPICAL
MIN. = MINIMUM
STA. = STATION
SPA. = SPACES
CONST. = CONSTRUCTION
EL. ELEVATION
C.I.P. = CAST-IN-PLACE
BRG. = BEARING
EX. = EXISTING
PROP. = PROPOSED
A.P.P. = AS PER PLAN
O/O = OUT TO OUT
CLR. = CLEAR
LT. = LEFT
BM = BENCHMARK
Q = DISCHARGE
V = VELOCITY
SQ = SQUARE
SAN = SANITARY SEWER
F = FAHRENHEIT
TELE. = TELEPHONE CABLE
RSC = RING STIFFNESS CLASS
RT. = RIGHT
EST. = ESTIMATE
INV. = INVERT
CONC. = CONCRETE
EA. = EACH
STD. = STANDARD
DWG. = DRAWING
DIA. = DIAMETER
E.B. = EASTBOUND
W.B. = WESTBOUND
W.P. = WORK POINT
C/C = CENTER TO CENTER
STRUCT. = STRUCTURE
TEMP. = TEMPORARY
HDPE = HIGH DENSITY POLYETHYLENE
CMP = CORRURGATED METAL PIPE
RCP = REINFORCED CONCRETE PIPE
ST = STORM SEWER
HW = HIGH WATER

TEMPORARY EXCAVATION OF WORK AREA NUMBER 1

WORK SHALL INCLUDE TEMPORARY SHEETING.

THE 1.5:1 SLOPES SHALL BE COATED WITH SHOTCRETE TO PROTECT THE SLOPES FROM PRECIPITATION AND ANY ANTICIPATED CONSTRUCTION TRAFFIC. THE CONTRACTOR SHALL PREPARE AND MAINTAIN THE 2:1 SLOPES AND WORK PAD SUCH THAT CONSTRUCTION OPERATIONS CAN BE SAFELY PERFORMED, SUBJECT TO THE APPROVAL OF THE ENGINEER.

THE 2:1 SLOPES SHALL BE USED FOR HEAVIER CONSTRUCTION TRAFFIC SUCH A TRACKED VEHICLES. TRACKED VEHICULAR LOADS SHALL NOT EXCEED 3.0 KSF UNLESS APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL PROVIDE NECESSARY GROUNDWATER AND RUNOFF CONTROL AND DRAINAGE. ALL GROUNDWATER AND RUNOFF COLLECTED MUST MEET ALL FEDERAL, STATE, AND LOCAL STANDARDS BEFORE IT IS RELEASED TO RECEIVING WATERS OR SEWER SYSTEMS.

THE CONTRACTOR SHALL RESTORE ALL ROADWAY, SHRUBS, TREES, AND OTHER SURFACE FEATURES TO THEIR ORIGINAL CONDITION, UNLESS OTHERWISE DIRECTED BY THE ENGINEER, AT NO ADDITIONAL COST. SEE SHEET 11 / 11 FOR PAVEMENT ELEVATIONS AND GRADING DETAILS.

PAYMENT:
ALL COSTS ASSOCIATED WITH THE TEMPORARY EXCAVATION OF WORK AREA NUMBER 1 ARE INCIDENTAL TO ITEM 837, 132" LINER PIPE, TYPE B POLYETHYLENE, AS PER PLAN.

CONSTRUCTION ISSUES FOR THE EXISTING CULVERT

DURING CONSTRUCTION ALL STORM WATER FLOWING THROUGH THE EXISTING 180-INCH CMP AND THE NINE (9) LATERALS CURRENTLY FLOWING INTO THE EXISTING 180-INCH CMP MUST BE MAINTAINED. ANY TEMPORARY DIVERSION OF THE STORM WATER IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE TEMPORARY STORM WATER BYPASS SYSTEM USED BY THE CONTRACTOR TO DIVERT STORM WATER IS SUBJECT TO THE APPROVAL OF THE ENGINEER. ALL CONTRACTOR EXPENSES RELATED TO DIVERTING THE STORM WATER INCLUDING THE TEMPORARY BYPASS SYSTEM PROVIDED BY THE CONTRACTOR ARE INCIDENTAL TO ITEM 837, 132" LINER PIPE, TYPE B POLYETHYLENE, AS PER PLAN.

DURING CONSTRUCTION ALL STORM WATER FLOWING THROUGH THE EXISTING 120-INCH CMP MUST BE MAINTAINED. ANY TEMPORARY DIVERSION OF THE STORM WATER IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE TEMPORARY STORM WATER BYPASS SYSTEM USED BY THE CONTRACTOR TO DIVERT STORM WATER IS SUBJECT TO THE APPROVAL OF THE ENGINEER. ALL CONTRACTOR EXPENSES RELATED TO DIVERTING THE STORM WATER INCLUDING THE TEMPORARY BYPASS SYSTEM PROVIDED BY THE CONTRACTOR ARE INCIDENTAL TO ITEM 837, 90" LINER PIPE, TYPE B POLYETHYLENE, AS PER PLAN.

CONSTRUCTION ISSUES AT WORK AREA NUMBER 2

WORK AREA NUMBER 2 IS REQUIRED AT AN ELEVATION NECESSARY FOR PUSHING THE 90-INCH TYPE B POLYETHYLENE LINER PIPE (90-INCH HDPE) INTO THE EXISTING 120-INCH CMP THROUGH THE OUTLET END.

THE CONTRACTOR IS ALERTED TO THE FACT THAT CONSTRUCTION OPERATIONS IN AND AROUND WORK AREA 2 MUST BE PERFORMED WITHIN THE EXISTING LIMITED ACCESS RIGHT-OF-WAY (EX LA).

THE CONTRACTOR IS ALERTED TO THE FACT THAT CONSTRUCTION OPERATIONS MUST NOT CAUSE ANY EFFECT TO THE PROPERTY OUTSIDE OF THE EXISTING LIMITED ACCESS RIGHT-OF-WAY (EX LA).

THE CONTRACTOR IS ALERTED TO THE FACT THAT THE LENGTH AVAILABLE FOR PUSHING THE 90-INCH HDPE IS LIMITED.

DURING CONSTRUCTION ALL STORM WATER FLOWING THROUGH THE EXISTING 120-INCH CMP MUST BE MAINTAINED. ANY TEMPORARY DIVERSION OF THE STORM WATER AROUND WORK AREA NUMBER 2 IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE TEMPORARY STORM WATER BYPASS SYSTEM USED BY THE CONTRACTOR TO DIVERT THE STORM WATER IS SUBJECT TO THE APPROVAL OF THE ENGINEER. ALL CONTRACTOR EXPENSES RELATED TO DIVERTING THE STORM WATER INCLUDING THE TEMPORARY STORM WATER BYPASS SYSTEM PROVIDED BY THE CONTRACTOR ARE INCIDENTAL TO ITEM 837, 90" LINER PIPE, TYPE B POLYETHYLENE, AS PER PLAN.

TEMPORARY EXCAVATION OF WORK AREA NUMBER 2

THE 1.5:1 SLOPES SHALL NOT BE USED FOR HEAVY CONSTRUCTION TRAFFIC.

THE CONTRACTOR SHALL PREPARE AND MAINTAIN THE 2:1 SLOPES AND WORK PAD SUCH THAT CONTRUCTION OPERATIONS CAN BE SAFELY PERFORMED, SUBJECT TO THE APPROVAL OF THE ENGINEER.

THE 2:1 SLOPES SHALL BE USED FOR HEAVIER CONSTRUCTION TRAFFIC SUCH A TRACKED VEHICLES. TRACKED VEHICULAR LOADS SHALL NOT EXCEED 3.0 KSF UNLESS APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL PROVIDE NECESSARY GROUNDWATER AND RUNOFF CONTROL AND DRAINAGE. ALL GROUNDWATER AND RUNOFF COLLECTED MUST MEET ALL FEDERAL, STATE, AND LOCAL STANDARDS BEFORE IT IS RELEASED TO RECEIVING WATERS OF SEWER SYSTEMS.

THE CONTRACTOR SHALL RESTORE ALL ROADWAY, SHRUBS, TREES, AND OTHER SURFACE FEATURES TO THEIR ORIGINAL CONDITION, UNLESS OTHERWISE DIRECTED BY THE ENGINEER, AT NO ADDITIONAL COST. SEE ROADWAY PLANS FOR EXISTING FENCE RELOCATION.

PAYMENT:

ALL COSTS ASSOCIATED WITH THE TEMPORARY EXCAVATION OF WORK AREA NUMBER 2 ARE INCIDENTAL TO ITEM 837, 90" LINER PIPE, TYPE B POLYETHYLENE, AS PER PLAN.

DESIGN AGENCY
PARSONS BRINCKERHOFF
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CLEVELAND, OHIO 44113

DESIGNED PWP | DRAWN NAL | CHECKED BMG | REVIEWED RJO | DATE 6-19-08 | REVISED | STRUCTURE FILE NUMBER 4300548

GENERAL NOTES I
BRIDGE NO. LAK-2-0395
STATE ROUTE 2 OVER TRIBUTARY OF CHAGRIN RIVER

LAK-2-3.32
PID No. 13486

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