

**UTILITIES**

THERE ARE NO KNOWN UNDERGROUND, OR OVERHEAD UTILITIES, WITHIN THE PROJECT CONSTRUCTION LIMITS.

**CLEARING AND GRUBBING**

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

**WORK LIMITS**

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

**SURVEYING PARAMETERS**

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE THIS SHEET OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

**PROJECT CONTROL**

POSITIONING METHOD: ODOT VRS  
MONUMENT TYPE: TYPE A

**VERTICAL POSITIONING**

ORTHOMETRIC HEIGHT DATUM: NAVD 88  
GEOID: GEOID 12A

**HORIZONTAL POSITIONING**

REFERENCE FRAME: NAD 83 (2011)  
ELLIPSOID: GRS 1980  
MAP PROJECTION: LAMBERT CONFORMAL CONIC  
COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE  
COMBINED SCALE FACTOR: 1.00004623347108  
ORIGIN OF COORDINATE SYSTEM: N 738240.628, E 2408427.005

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

Removed the line "Trees will be cut by others prior to the sale of this project."

**SEEDING AND MULCHING**

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SOIL ANALYSIS TEST 2 EACH  
128 CY x 1 TEST/10000 = 0.013 < 2

659, TOPSOIL 128 CU. YD.  
1154 SY x 111 CY / 1000 SY = 128.09 CY

659, REPAIR SEEDING AND MULCHING 58 SQ. YD.  
1154 SY x 5% = 57.7 SY

659, COMMERCIAL FERTILIZER 0.17 TON  
1154 SY x 9 x 30 LB/1000 SY / 2000 LB/TON = 0.16 TON  
58 SY x 9 x 20 LB/1000 SY / 2000 LB/TON = 0.005 TON  
0.16 + 0.005 = 0.165 TON

659, LIME 0.24 ACRES  
1154 SY x 9 ÷ 43560 = 0.20

659, WATER 7 M. GAL.  
1154 x 9 x 300 GAL/1000 SF x 2 APP/1000 SF = 6.23 M.GAL  
58 x 9 x 300 GAL/1000 SF x 1 APP/1000 SF = 0.16 M.GAL  
6.23 + 0.16 = 6.39 M. GAL

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

**ITEM 202, PAVEMENT REMOVED, AS PER PLAN**

THE EXISTING PAVEMENT BUILD-UP VARIES. IT IS ASSUMED THAT THE ASPHALT HAS A DEPTH OF 6" EXCEPT AROUND STA. 712+50±, WHERE IT GOES TO 24" AND THE CONCRETE HAS A DEPTH OF 8" EXCEPT AT STA. 713+22.00, WHERE IT GOES TO 4".

THIS INFORMATION IS BASED OFF OF THE SOIL BORINGS AND SHOULD BE CONSIDERED APPROXIMATE.

**ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), AS PER PLAN, (PG70-22M)**

FOLLOW SPECIFICATION 703.05 EXCEPT DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED "SR" OR "SRH" ACCORDING TO THE OFFICE OF MATERIAL'S MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

**ENDANGERED BAT HABITAT REMOVAL**

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

**CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL**

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

**ITEM 606 - GUARDRAIL, TYPE MGS HALF POST SPACING, AS PER PLAN**

FOLLOW CONSTRUCTION AND MATERIAL SPECIFICATION 606, AND THE MGS STANDARD CONSTRUCTION DRAWINGS EXCEPT PROVIDE 6" BLOCKOUTS AND STEEL POSTS.

**PART-WIDTH CONSTRUCTION**

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

**ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT**

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING 18" IN DIAMETER CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

LOCATE THE BULKHEADS AT THE LIMITS OF THE AREA TO BE FILLED, AS INDICATED ON THE PLANS. THE BULKHEADS CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

PUMP THE FILL MATERIAL INTO PLACE OR BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS- SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH IS FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR IS THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED PER 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

**PAVEMENT MARKING**

THE CONTRACTOR SHALL INSTALL PAVEMENT MARKINGS WITHIN THE PROJECT LIMITS.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 646 - EDGE LINE, 6"  
STA. 710+09.00 TO STA. 714+90.00 (L.T.) = 0.09 MILE  
STA. 711+60.00 TO STA. 713+85.00 (RT.) = 0.04 MILE  
TOTAL 0.13 MILE

ITEM 646 - CENTER LINE  
STA. 711+60.00 TO STA. 713+35.00 = 0.03 MILE

**RAISED PAVEMENT MARKERS (RPM)**

THE CONTRACTOR SHALL REMOVE ALL EXISTING RAISED PAVEMENT MARKERS AND INSTALL NEW RPMS WITHIN THE PROJECT LIMITS. SPACING FOR THE NEW RPMS SHALL BE 40'.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 621 - RAISED PAVEMENT MARKER REMOVED  
STA. 711+60.00 TO STA. 713+35.00 = 4 EACH

ITEM 621 - RPM  
STA. 711+60.00 TO STA. 713+35.00 = 4 EACH

**ITEM 611 - 24" CONDUIT, BORED OR JACKED, TYPE A, AS PER PLAN**

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN 23 FEET TO THE EDGE OF PAVEMENT. PROVIDE A STEEL CASING PIPE CONFORMING TO 748.06. JOINTS WITH A CIRCUMFERENCIAL FULLY PENETRATING B-U4B WELD THAT IS PERFORMED BY AN ODOT APPROVED FIELD WELDER OR MACHINED INTERLOCKING JOINTS ARE PERMITTED. THE INSTALLED CASING PIPE IS THE STORM WATER CONVEYANCE CARRIER UNLESS OTHERWISE SPECIFIED IN THE PLANS. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE.

HORIZONTAL AND VERTICAL CONTROL							
POINT ID	NORTHING	EASTING	ELEVATION	CODE	DESCRIPTION	STATION	OFFSET
S669	738093.228	2408429.950	998.77	CNPT	IRON PIN	711+77.56	-16.00 LT
S670	738240.628	2408427.005	1010.15	CNPT	IRON PIN	713+20.36	20.67 RT
CL1	738022.792	2408466.148	N/A	SMSS		711+00.00	CL
CL2	738320.315	2408383.380	N/A	SMSS		714+08.82	CL

CALCULATED  
TKB  
CHECKED  
DAH

GENERAL NOTES

BEL - 149 - 13.63

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