

CITY OF GOODLETTSVILLE FANNIN DRIVE STORMWATER INFRASTRUCTURE IMPROVEMENTS

GOODLETTSVILLE, DAVIDSON COUNTY, TN
SEPTEMBER 2020



VICINITY MAP
N.T.S.

RESOURCE LIST

PLANNING DEPARTMENT:
117 MEMORIAL DRIVE
GOODLETTSVILLE, TN 37072
(615) 851-2200

FIRE DEPARTMENT:
105 LONG HOLLOW PIKE
GOODLETTSVILLE, TN 37072
(615) 851-2245

BUILDING INSPECTION & CODES:
117 MEMORIAL DRIVE
GOODLETTSVILLE, TN 37072
(615) 851-2200

WATER:
MADISON SUBURBAN UTILITY DISTRICT
108 WEST WEBSTER STREET
MADISON, TN 37115
(615) 868-3201

GAS COMPANY:
PIEDMONT NATURAL GAS
83 CENTURY BLVD.
NASHVILLE, TN 37214
(615) 872-2405

ELECTRIC COMPANY:
NASHVILLE ELECTRIC SERVICE
1214 CHURCH STREET
NASHVILLE, TN 37246
(615) 736-6900

TELEPHONE COMPANY:
AT&T
P.O. BOX 105503
ATLANTA, GA 30348
(866) 620-6000

PUBLIC WORKS DEPARTMENT:
215 CARTWRIGHT STREET
GOODLETTSVILLE, TN 37072
(615) 851-2200

STORMWATER & SEWER:
215 CARTWRIGHT STREET
GOODLETTSVILLE, TN 37072
(615) 851-2200



VICINITY MAP
SCALE IN FEET
0 200 400

INDEX	
Sheet Number	Sheet Title
C000	COVER SHEET
C001	GENERAL NOTES
C100	EXISTING CONDITIONS
C200	PROPOSED CONDITIONS
C201	SLOPE REPAIR CROSS SECTIONS
C202	TRAFFIC CONTROL PLAN
C800	DETAILS
C801	DETAILS
C900	EPSC PLAN

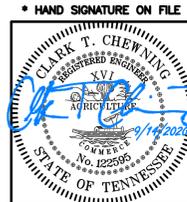
NO	DATE	REVISION RECORD

CEC
Civil & Environmental Consultants, Inc.
117 Seaboard Lane · Suite E-100 · Franklin, TN 37067
615-333-7797 · 800-763-2326
www.cecinc.com

**CITY OF GOODLETTSVILLE
FANNIN DRIVE STORMWATER
INFRASTRUCTURE IMPROVEMENTS
GOODLETTSVILLE, TN**

COVER SHEET

DATE: SEPTEMBER 2020	DRAWN BY: JTM
AS SHOWN	CHECKED BY: CTC
PROJECT NO: 193-804	APPROVED BY: JBS



CIVIL ENGINEER

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
117 SEABOARD LANE, SUITE E100
FRANKLIN, TENNESSEE 37067
PH: (615)-333-7797
CONTACT: JEFF SHAVER
EMAIL: JSHAVER@CECINC.COM

DEVELOPER/OWNER

CITY OF GOODLETTSVILLE
117 MEMORIAL DRIVE
GOODLETTSVILLE, TN 37072
PH: (615) 851-2200
CONTACT: GREG EDRINGTON
EMAIL: GEDRINGTON@GOODLETTSVILLE

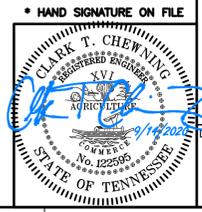
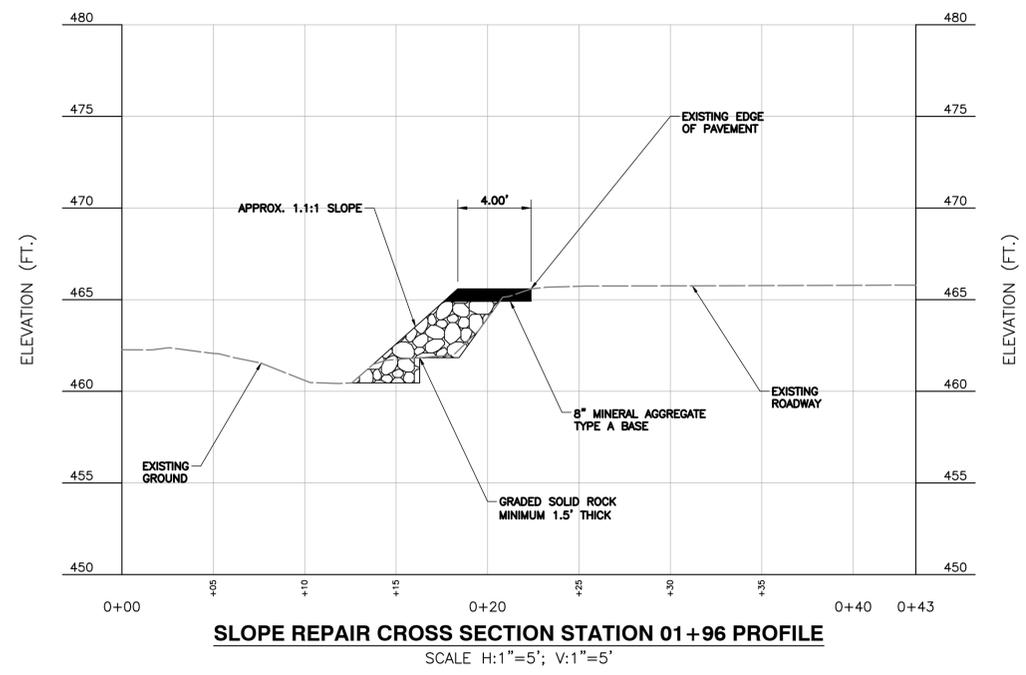
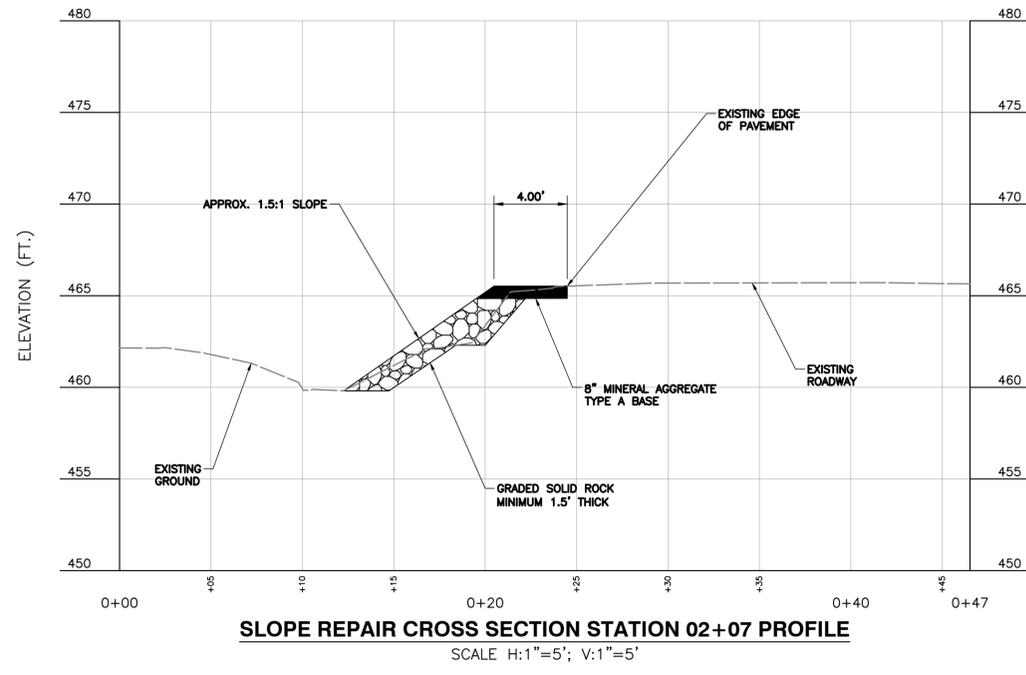
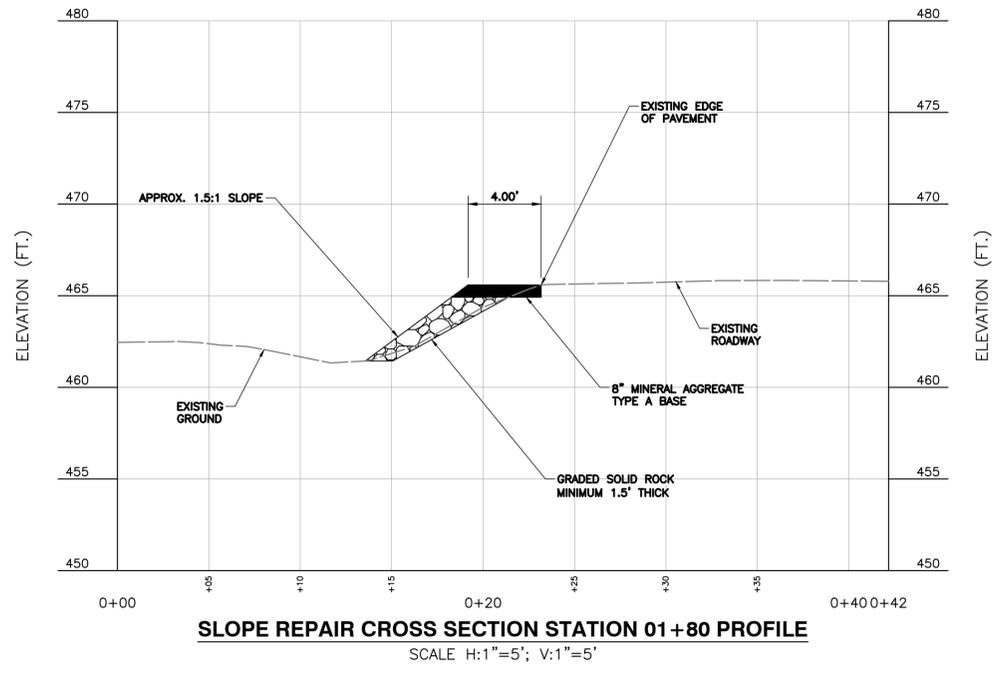
SURVEYOR

CIVIL AND ENVIRONMENTAL CONSULTANTS, INC.
117 SEABOARD LANE, SUITE E100
FRANKLIN, TENNESSEE 37067
PH: (615)-577-9368
CONTACT: STEPHEN VANDER HORST
EMAIL: SVANDERHORST@CECINC.COM

DRAWING NO: **C000**

A:\2019\193-804-C000\Drawings\193-804-C000-COVER SHEET.dwg (2020/09/15/15:56:16/2020 - cshaver) - LF: 9/16/2020 5:23 PM

F:\2019\193-804-CAD\DWG\C201 - CROSS SECTIONS.dwg[SLOPE REPAIR CROSS SECTIONS] LS(02/27/2020 - final) - LP 9/16/2020 5:23 PM



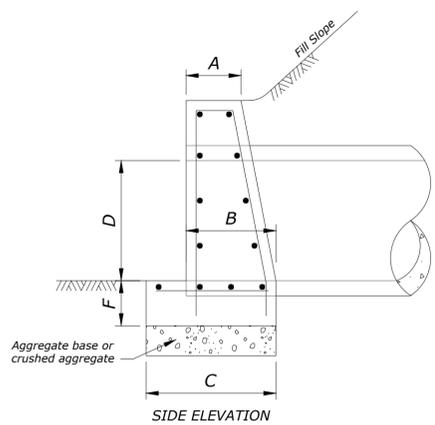
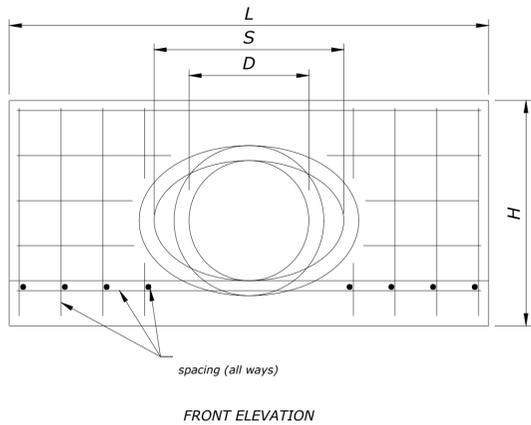
NO.	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
 117 Seaboard Lane - Suite E-100 - Franklin, TN 37067
 615-333-7797 · 800-763-2326
 www.cechinc.com

**CITY OF GOODLETTSVILLE
 FANNIN DRIVE STORMWATER
 INFRASTRUCTURE IMPROVEMENTS
 GOODLETTSVILLE, TN**

SLOPE REPAIR CROSS SECTIONS	
DATE: SEPTEMBER 2020	DRAWN BY: JTM
DWG SCALE: AS SHOWN	CHECKED BY: CTC
PROJECT NO: 193-804	APPROVED BY: JBS

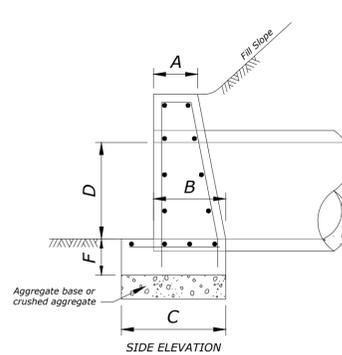
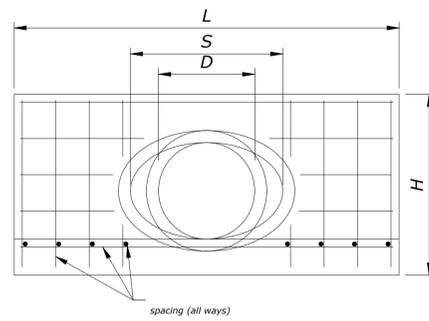
DRAWING NO.: **C201**



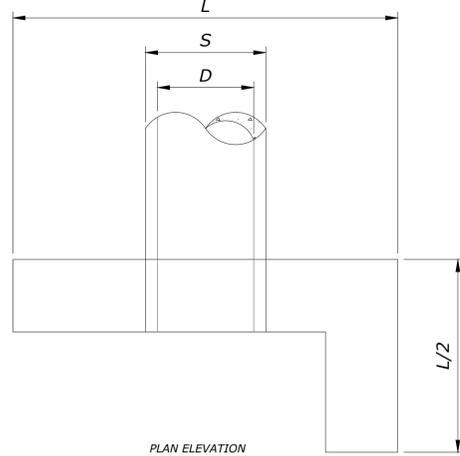
- NOTE:**
1. Orient all headwalls parallel to the roadway centerline unless otherwise indicated in the plans or by the CO.
 2. When pipes are on a skew, adapt and lengthen headwalls as directed.
 3. Chamfer all exposed corners not rounded to $\frac{3}{4}$ ".
 4. Construct headwalls using dimensions shown under values for 1V:1.5H slope, unless otherwise designated by the CO.

HEADWALL FOR ELLIPTICAL PIPE											
SIZE OF ELLIPTICAL PIPE CULVERT (SPAN x RISE)											
	23' x 14'	30' x 19'	34' x 22'	38' x 24'	42' x 27'	45' x 29'	49' x 32'	53' x 34'	60' x 38'	68' x 43'	76' x 48'
A	0'-8"	0'-9"	0'-10"	0'-10"	0'-11"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
B	1'-2"	1'-5"	1'-6"	1'-8"	1'-9"	1'-10"	1'-11"	1'-11"	1'-11"	2'-0"	2'-1"
C	1'-8"	1'-11"	2'-1"	2'-4"	2'-5"	2'-7"	2'-8"	2'-9"	3'-3"	3'-6"	3'-9"
D	1'-2"	1'-7"	1'-10"	2'-0"	2'-3"	2'-5"	2'-8"	2'-10"	3'-2"	3'-7"	4'-0"
F	0'-8"	0'-8"	0'-9"	0'-9"	0'-9"	0'-9"	0'-9"	0'-9"	0'-9"	0'-9"	0'-9"
H	2'-10"	3'-3"	3'-7"	3'-9"	4'-0"	4'-2"	4'-5"	4'-7"	4'-11"	5'-4"	5'-9"
L	5'-5"	7'-2"	8'-6"	9'-2"	10'-2"	10'-11"	12'-1"	12'-11"	13'-0"	13'-0"	14'-0"
S	1'-11"	2'-6"	2'-10"	3'-2"	3'-6"	3'-9"	4'-1"	4'-5"	5'-0"	5'-8"	6'-4"

DETAIL 400
STRAIGHT ENDWALL
N.T.S.

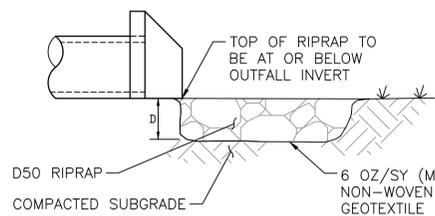
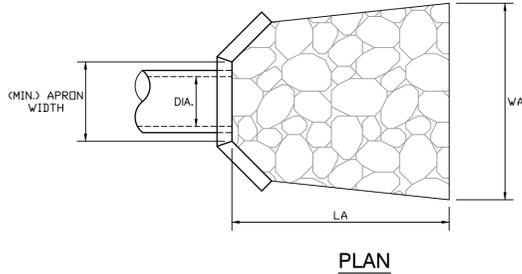


HEADWALL FOR ELLIPTICAL PIPE											
SIZE OF ELLIPTICAL PIPE CULVERT (SPAN x RISE)											
	23' x 14'	30' x 19'	34' x 22'	38' x 24'	42' x 27'	45' x 29'	49' x 32'	53' x 34'	60' x 38'	68' x 43'	76' x 48'
A	0'-8"	0'-9"	0'-10"	0'-10"	0'-11"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
B	1'-2"	1'-5"	1'-6"	1'-8"	1'-9"	1'-10"	1'-11"	1'-11"	1'-11"	2'-0"	2'-1"
C	1'-8"	1'-11"	2'-1"	2'-4"	2'-5"	2'-7"	2'-8"	2'-9"	3'-3"	3'-6"	3'-9"
D	1'-2"	1'-7"	1'-10"	2'-0"	2'-3"	2'-5"	2'-8"	2'-10"	3'-2"	3'-7"	4'-0"
F	0'-8"	0'-8"	0'-9"	0'-9"	0'-9"	0'-9"	0'-9"	0'-9"	0'-9"	0'-9"	0'-9"
H	2'-10"	3'-3"	3'-7"	3'-9"	4'-0"	4'-2"	4'-5"	4'-7"	4'-11"	5'-4"	5'-9"
L	5'-5"	7'-2"	8'-6"	9'-2"	10'-2"	10'-11"	12'-1"	12'-11"	13'-0"	13'-0"	14'-0"
S	1'-11"	2'-6"	2'-10"	3'-2"	3'-6"	3'-9"	4'-1"	4'-5"	5'-0"	5'-8"	6'-4"



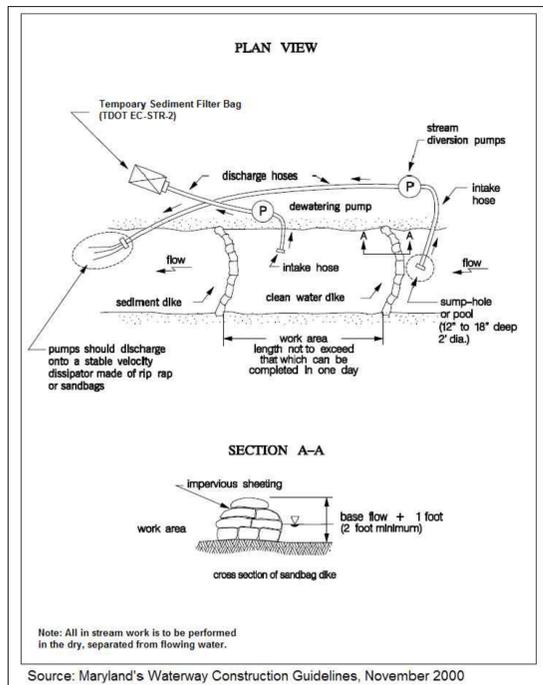
- NOTE:**
1. Orient all headwalls parallel to the roadway centerline unless otherwise indicated in the plans or by the CO.
 2. When pipes are on a skew, adapt and lengthen headwalls as directed.
 3. Chamfer all exposed corners not rounded to $\frac{3}{4}$ ".
 4. Construct headwalls using dimensions shown under values for 1V:1.5H slope, unless otherwise designated by the CO.

DETAIL 401
L ENDWALL
N.T.S.

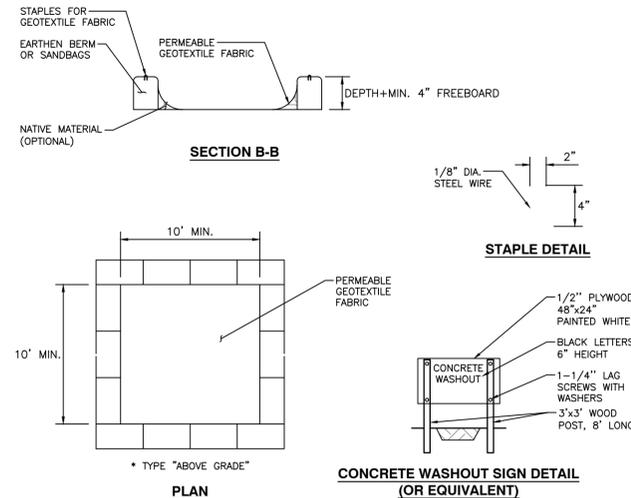


APRON NUMBER	MIN. APRON WIDTH	LA	WA	D	RIPRAP CLASSIFICATION
A	8'	11'	8'	1.5'	CLASS "A"
B	10'	10'	10'	1.5'	CLASS "A"
C	10'	6'	10'	1.5'	CLASS "A"
D	10'	10'	10'	1.5'	CLASS "A"
E	15'	8'	15'	1.5'	CLASS "A"
F	13'	14'	13'	2.5'	CLASS "B"

DETAIL 402
RIPRAP APRON
N.T.S.

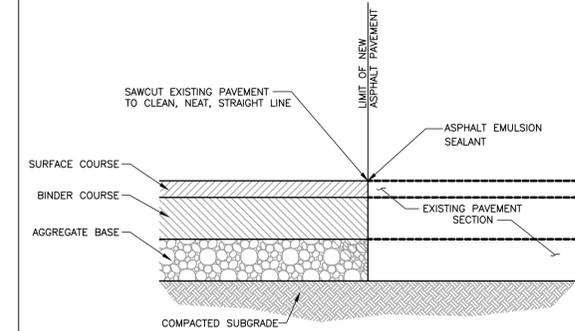


DETAIL 403
PUMP AROUND BYPASS
N.T.S.



- NOTES:**
1. ACTUAL LAYOUT DETERMINED IN FIELD.
 2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 5 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

DETAIL 404
CONCRETE WASHOUT FACILITY
N.T.S.



- NOTES:**
1. PROVIDE TACK COAT ALONG SAWCUT TO BIND EXISTING PAVEMENT TO NEW PAVEMENT FOR AREAS WITH PATCHING AND OVERLAY. PROVIDE TACK COAT TO BIND EXISTING PAVEMENT WITH NEW ASPHALT.

DETAIL 405
PAVEMENT SAWCUT
N.T.S.



REVISION RECORD

NO.	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
117 Seaboard Lane - Suite E-100 - Franklin, TN 37067
615-333-7797 • 800-763-2326
www.cedinc.com

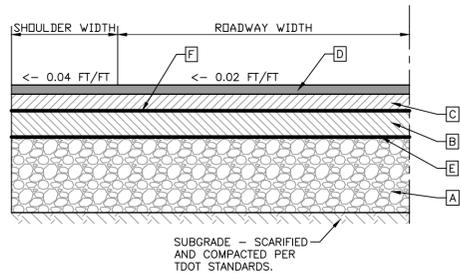
CITY OF GOODLETTSVILLE
FANNIN DRIVE STORMWATER
INFRASTRUCTURE IMPROVEMENTS
GOODLETTSVILLE, TN

STANDARD DETAIL DRAWINGS

DATE: SEPTEMBER 2020 [DRAWN BY: JTM] [CHECKED BY: CTC] [AS SHOWN]
PROJECT NO: 193-804
APPROVED BY: JBS

DRAWING NO.: **C800**

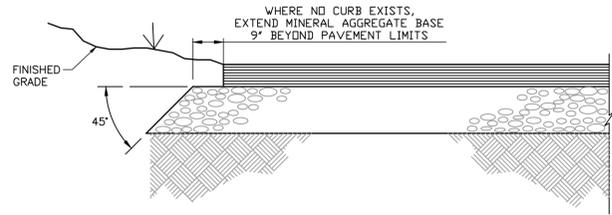
P:\2019\193-804-C800\DWG\C800.dwg (C:\Users\jtm\OneDrive - DETAILS.dwg) LSC(2/27/2020 - 1:04:51 PM) - Lr: 8/16/2020 8:23 PM



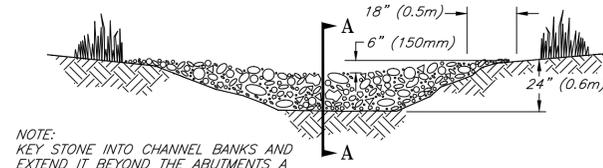
- A 10" THICK, MINERAL AGGREGATE, TYPE A BASE, GRADING D (ITEM 303-01)
- B 4" THICK, BASE COURSE, ASPHALT CONCRETE MIX (PG64-22)(BPMB-HM) GRADING A (ITEM 307-01.01) - STANDARD DUTY ASPHALT.
- C 2" THICK, BINDER COURSE, ASPHALT CONCRETE MIX (PG64-22)(BPMB-HM) GRADING B (ITEM 307-01.06) - STANDARD DUTY ASPHALT.
- D 1.25" THICK, SURFACE COURSE, ACS MIX (PG64-22) GRADING D (ITEM 411-01.10) - STANDARD DUTY ASPHALT.
- E PRIME COAT BITUMINOUS MATERIAL FOR PRIME COAT @ 0.30-0.35 GAL/S.Y. AGGREGATE FOR COVER MATERIAL @ 8-12 LBS/S.Y.
- F TACK COAT BITUMINOUS MATERIAL FOR TACK COAT @ 0.05-0.01 GAL/S.Y.

- NOTES:**
- PERFORMANCE GRADE MIX DESIGNATION IS BASED ON ADT AND EXPECTED USE:
- FOR LESS THAN 10,000 ADT: PG64-22, STANDARD DUTY ASPHALT.
 - MATERIALS AND CONSTRUCTION PROCEDURES SHALL BE IN ACCORDANCE WITH THE TENNESSEE DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, LATEST EDITION. SECTION 903.05 FOR AGGREGATE BASE COURSE MATERIAL; SECTION 903.06 FOR HOT MIX ASPHALT BASE COURSE; AND SECTION 903.11 FOR SURFACE COURSE.
 - CONTRACTOR SHALL SUBMIT A MIX DESIGN FOR ENGINEERING REVIEW AND RECEIVE APPROVAL PRIOR TO PAVING OPERATIONS.
 - ALL PAVEMENT JOINTS SHALL BE SQUARE WITHOUT FEATHERING.
 - SEAL ALL JOINTS WITH AN APPROVED SEALANT.
 - THE SUBGRADE MATERIALS SHALL BE PROOF ROLLED AND/OR SCARIFIED AND COMPACTED PRIOR TO PLACEMENT OF BASE MATERIAL. EXISTING SUBGRADE MATERIALS THAT ARE UNSUITABLE SHALL BE REMOVED AND REPLACED WITH COMPACTED SELECT MATERIAL.

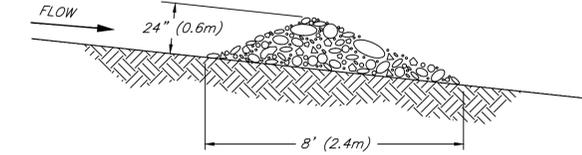
DETAIL 406
ASPHALT PAVEMENT SECTIONS
N.T.S.



DETAIL 407
UNCURBED PAVEMENT EDGE
N.T.S.

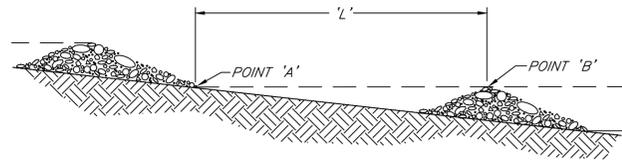


VIEW LOOKING UPSTREAM



SECTION A - A

'L' = THE DISTANCE SUCH THAT POINTS 'A' AND 'B' ARE OF EQUAL ELEVATION.



SPACING BETWEEN CHECK DAMS

DETAIL 408
ROCK CHECK DAM
N.T.S.

NO.	DATE	DESCRIPTION

C&E
Civil & Environmental Consultants, Inc.
117 Seaboard Lane - Suite E-100 - Franklin, TN 37067
615-333-7797 · 800-763-2326
www.cceinc.com

CITY OF GOODLETTSVILLE
FANNIN DRIVE STORMWATER
INFRASTRUCTURE IMPROVEMENTS
GOODLETTSVILLE, TN

STANDARD DETAIL DRAWINGS

DATE:	SEPTEMBER 2020	DRAWN BY:	JTM
DWG SCALE:	AS SHOWN	CHECKED BY:	CTC
PROJECT NO.:	193-804	APPROVED BY:	JBS



DRAWING NO.:
C801

