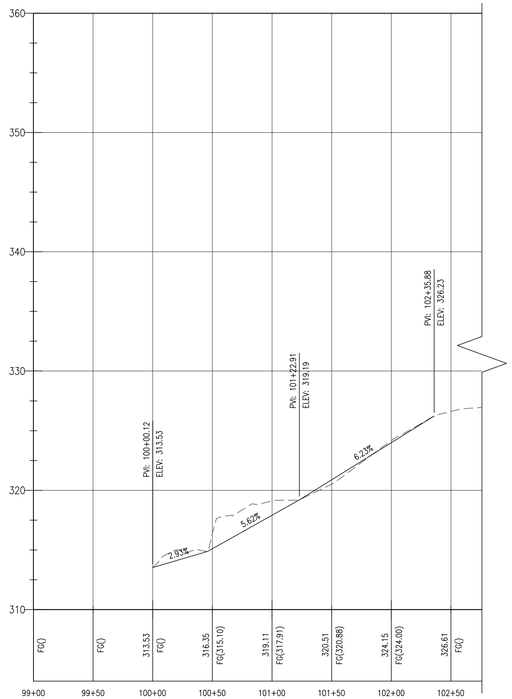
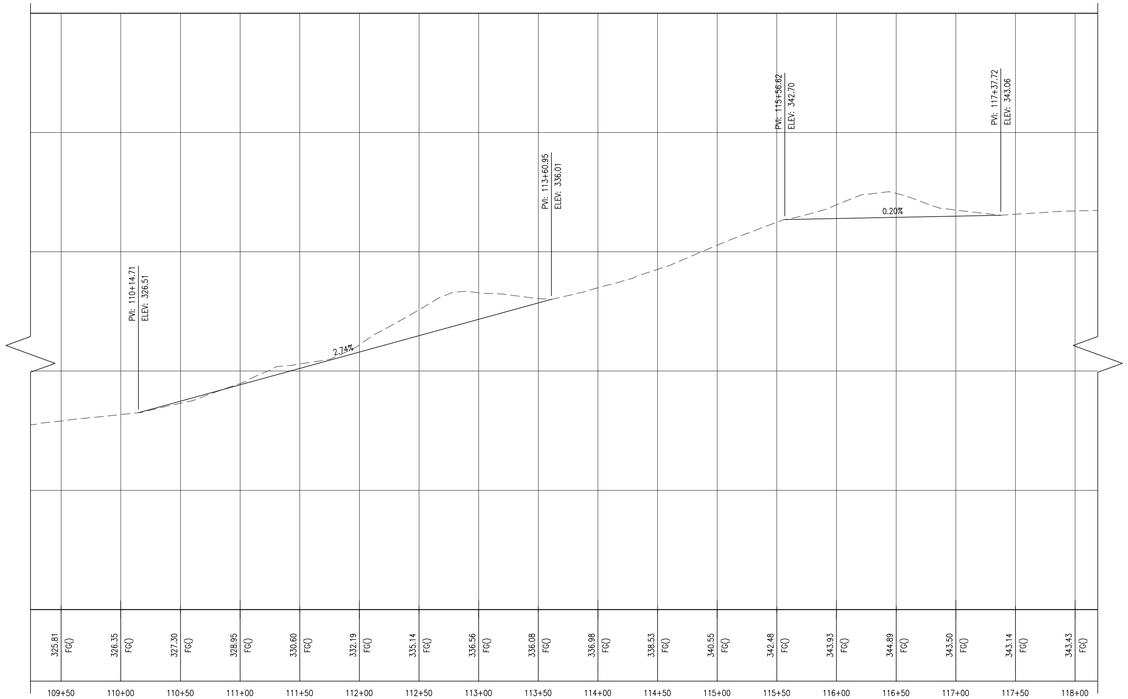
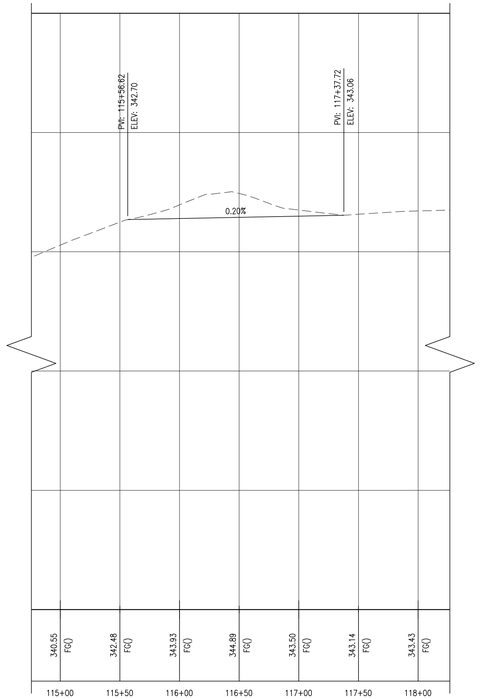


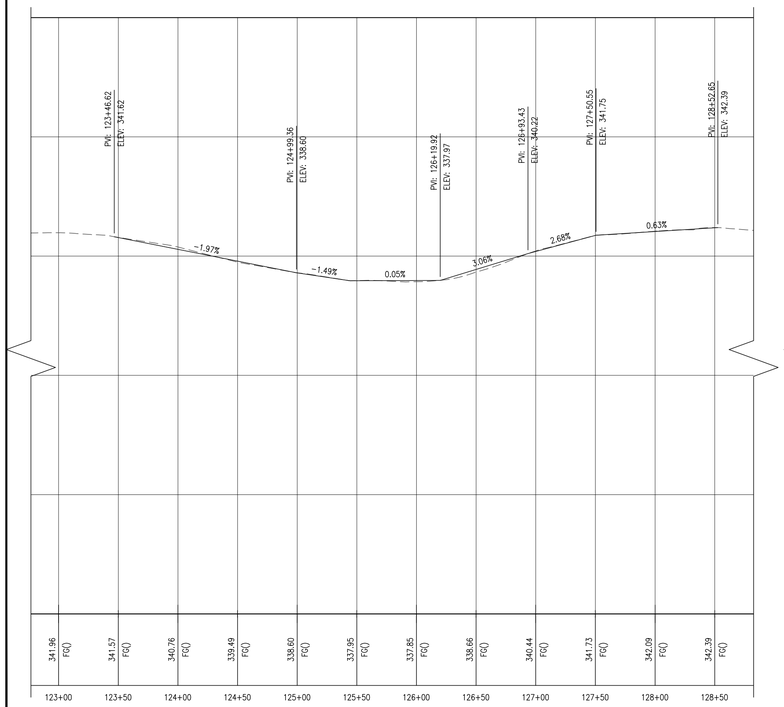
1 C3.14 PROFILE: STATION 100+00.12 - 102+35.88
SCALE: 1" = 60'



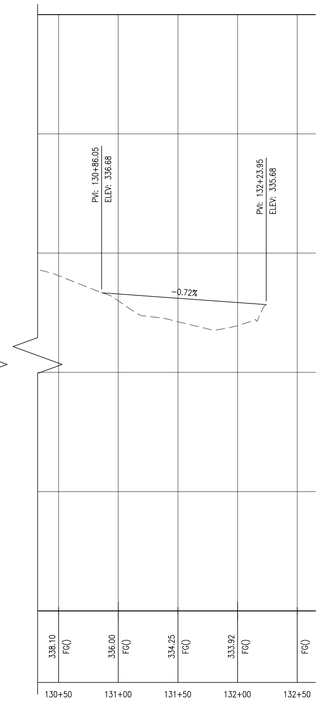
2 C3.14 PROFILE: STATION 100+14.71 - 117+37.72
SCALE: 1" = 60'



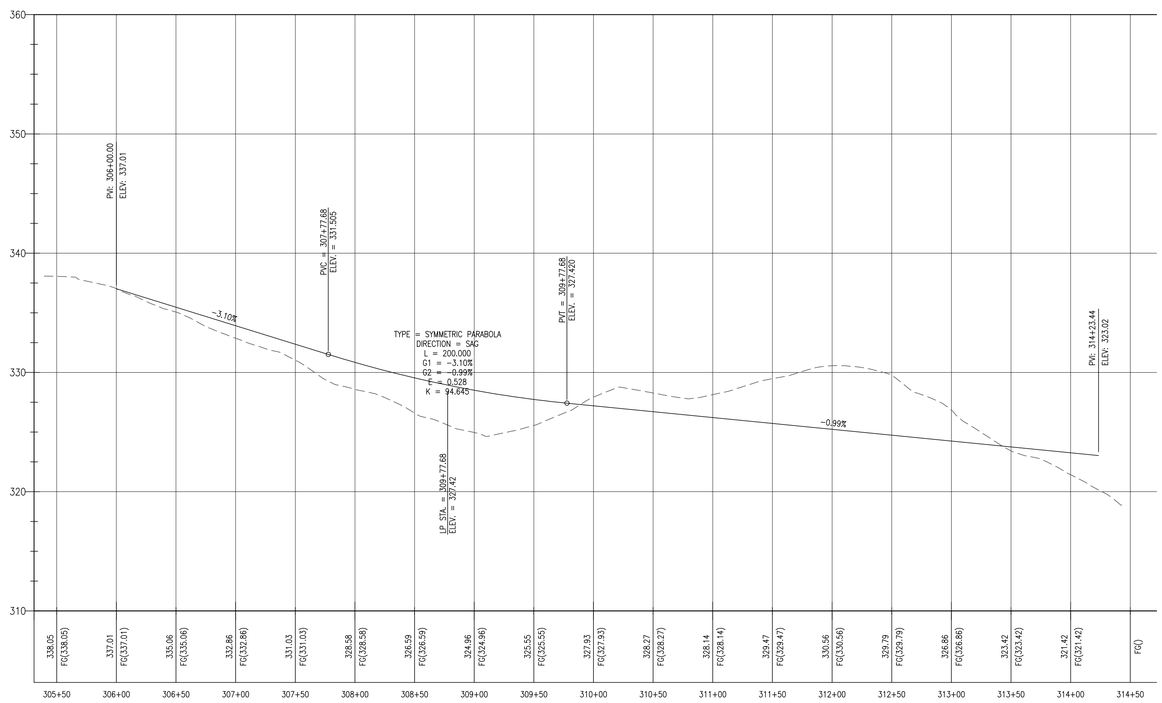
3 C3.14 PROFILE: STATION 115+56.62 - 117+37.72
SCALE: 1" = 60'



4 C3.14 PROFILE: STATION 123+46.62 - 128+52.65
SCALE: 1" = 60'



5 C3.14 PROFILE: STATION 130+86.05 - 132+23.95
SCALE: 1" = 60'



6 C3.14 PROFILE: STATION 306+00 - 314+23.44
SCALE: 1" = 60'

0' 60' 120' 180'
SCALE: 1" = 60'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

PROFILES

SEAL:

WALTER J. HOEY, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

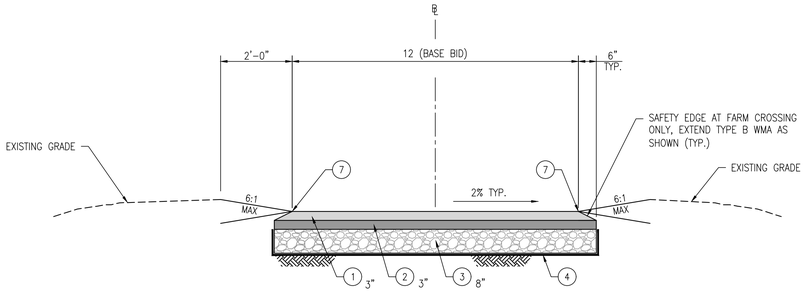
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 60'

SHEET NO.: C3.14

CONTRACT NO.: 2016-WCCSP-100

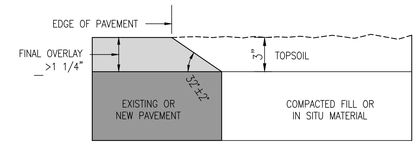


FARM CROSSING TRAIL SECTION

STATION 113+90 - STATION 114+10,
STATION 130+80 - STATION 140+00
STATION 123+90 - STATION 124+10

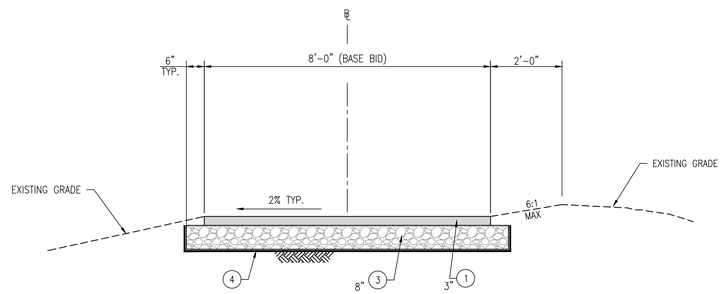
3 / C4.1 SCALE: 1/2"= 1'-0"

NOTE:
ENGINEER TO DETERMINE LOCATION AND LENGTH OF FARM CROSSING IN THE FIELD. TOTAL LENGTH TO BE 100 LINEAR FEET FOR BIDDING PURPOSES.



MODIFIED SAFETY EDGE

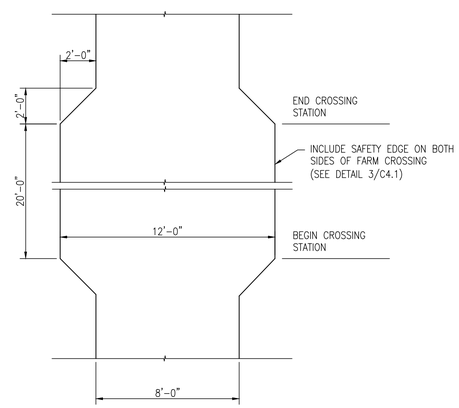
6 / C4.1 SCALE: NTS



TYPICAL TRAIL SECTION

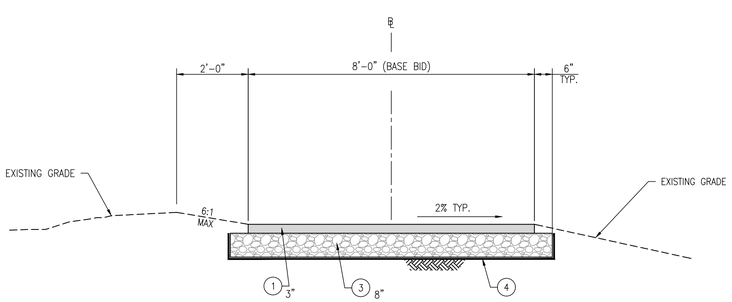
STATION 101+02.64 - STATION 103+00
STATION 110+50 - STATION 113+90
STATION 114+10 - STATION 116+28.97

2 / C4.1 SCALE: 1/2"= 1'-0"



FARM CROSSING PLAN

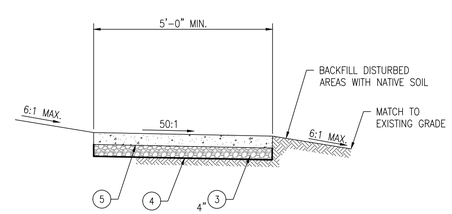
5 / C4.1 SCALE: 1/4"= 1'-0"



TYPICAL TRAIL SECTION

STATION 100+00 - STATION 101+02.64
STATION 103+00 - STATION 110+50.00
STATION 116+28.97 - STATION 123+90
STATION 124+10 - STATION 130+80
STATION 300+00 - STATION 314+00

1 / C4.1 SCALE: 1/2"= 1'-0"



PCC SIDEWALK SECTION

4 / C4.1 SCALE: 1/2"= 1'-0"

LEGEND

1. WMA, SUPERPAVE,TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE); (ITEM 401801) (PLACE IN 2 EQUAL LIFTS)
2. WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22; (ITEM 732002)
3. GRADED AGGREGATE BASE COURSE, TYPE B; (ITEM 302005) CONTRACTOR TO ADD GABC AND GRADE EXISTING GRAVEL BASE AS REQUIRED TO PROVIDE LEVEL BASE FOR PAVING.
4. GEOTEXTILES SEPARATION: (ITEM 713002)
5. 4" P.C.C. SIDEWALK; (ITEM 705001)
   CONSTRUCTION & EXPANSION JOINTS:
   1. PLACE CONSTRUCTION JOINTS TRAVERSE TO DIRECTION OF TRAVEL.
   2. SIDEWALKS SHALL HAVE CONSTRUCTION JOINTS AT SPACING EQUAL TO THE WIDTH OF THE SIDEWALK
   3. PROVIDE ADDITIONAL EXPANSION JOINTS WHERE SIDEWALK ABUTS INTERSECTING SIDEWALKS, OR FIXED STRUCTURES.
   4. THE SURFACE EDGES OF THE SLAB SHALL BE ROUNDED TO A 1/4" RADIUS WITH AN APPROVED FINISHING TOOL.
   5. PROVIDE 1/2" JOINT CORK FILLER AT EXPANSION JOINTS.
   6. SIDEWALK SHALL HAVE TINED FINISH TRANSVERSE TO DIRECTION OF TRAVEL)
6. TOPSOIL, 6" DEPTH; (ITEM 732002)
   VEGETATIVE STABILIZATION – PERMANENT SEEDING;
   STABILIZATION MATTING – SLOPE (SM-S)
7. SAFETY EDGE (SEE DETAIL THIS SHEET)

NOTES:

1. TRANSITION FROM 9 FOOT WIDE PAVEMENT TO 15 FOOT WIDE PAVEMENT BETWEEN STATION 518+73 AND STATION 519+33. TOTAL LENGTH OF TRANSITION TO BE 60 LINEAR FEET.
2. SEE CROSS SECTION SHEETS C5.1 TO C5.18 FOR SPECIFIC CROSS SLOPES TO BE CONSTRUCTED.
3. PROPOSED PAVED TRAIL STATION 100+00 TO STATION 313+37± SHOWN 8'-0" WIDE, MAXIMUM. CONTRACTOR SHALL ADJUST WIDTH PLUS OR MINUS AS DIRECTED BY THE ENGINEER TO ACCOMMODATE EXISTING TREES AND OTHER FEATURES.
4. RUTS AND DEPRESSIONS IN THE EXISTING GRAVEL SURFACE OF SMITH MILL ROAD SHALL BE ADDRESSED AND FILLED USING GABC MATERIAL TO PROVIDE A STABLE, UNIFORM SURFACE FOR PAVING.
5. CROSS SLOPE ON NEW TRAIL PAVEMENT SHALL BE PITCHED LEFT OR RIGHT AS REQUIRED TO PROVIDE POSITIVE DRAINAGE ACROSS TRAIL AND NOT TRAP SURFACE RUNNOFF. MAXIMUM CROSS SLOPE SHALL BE 2% (50:1).
6. ITEM NUMBERS THAT HAVE A "0" FOR THE FOURTH DIGIT, REFER TO DELDOT "STANDARD SPECIFICATIONS". IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE DELDOT STANDARD SPECIFICATIONS EITHER ONLINE OR HARD COPY FROM DELDOT TO REFERENCE THESE ITEMS.

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

TYPICAL SECTIONS

SEAL:

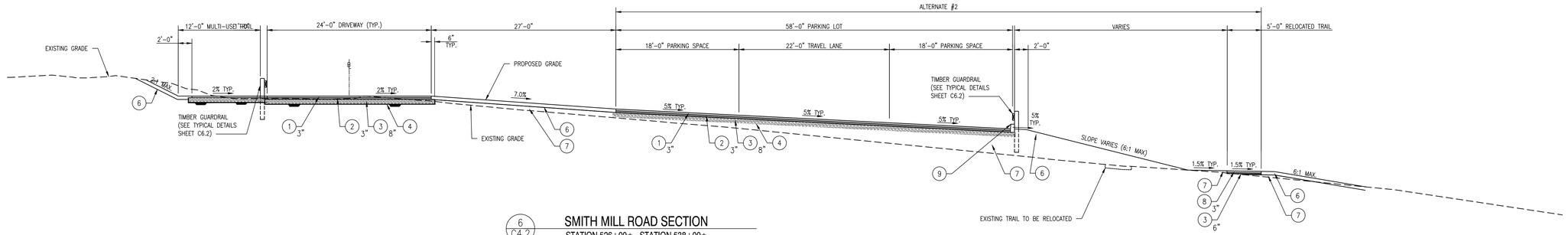
WALTER J. HOEY, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:
CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901
CEI CONTRACT NO.: 125002.17

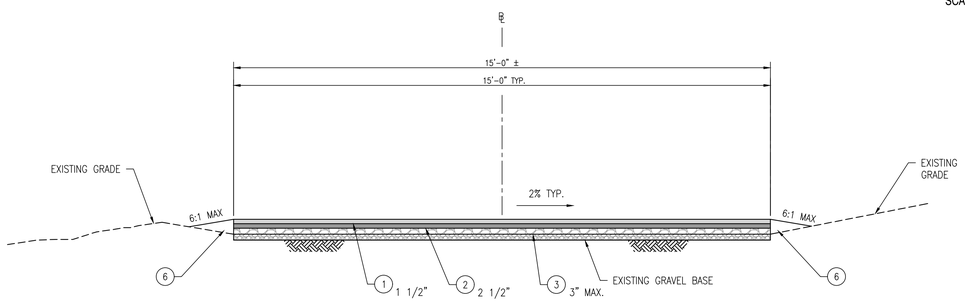
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH
DRAWN BY: DLD
CHECKED BY: SLR
DATE: NOVEMBER 14, 2016
SCALE:
SHEET NO.: C4.1
CONTRACT NO.: 2016-WCCSP-100

C:\PROJECTS\125002.02 (DNREC Civil Engineering Services - 2012)\125002.02_(Tri-Valley Trail Concept Plan)\CADD FILES\Sheets\PrelimConstructionSet\C4.1 TYPICAL SECTIONS.dwg, 11/15/2016 3:31 AM

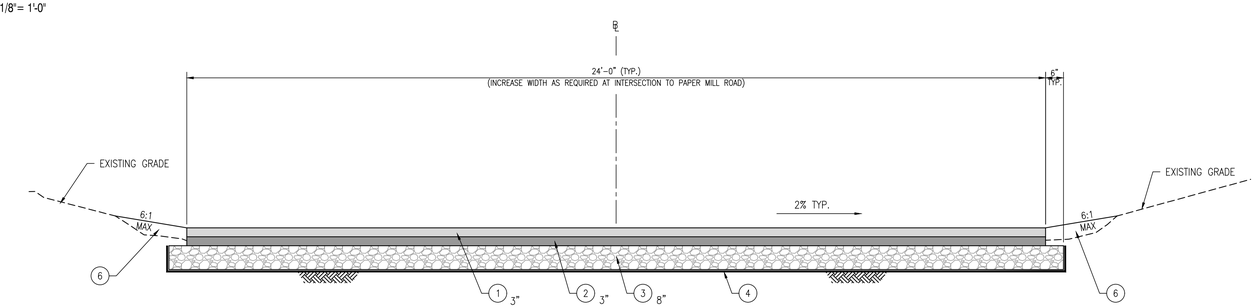


6 / C4.2 SMITH MILL ROAD SECTION
STATION 526+00± - STATION 538+00±
SCALE: 1/8"= 1'-0"

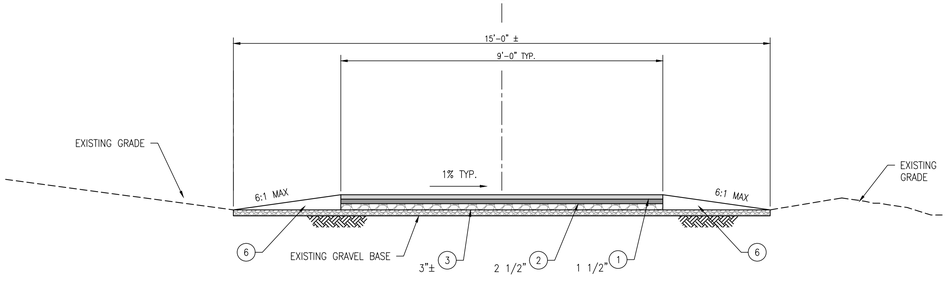


3 / C4.2 SMITH MILL ROAD SECTION
STATION 518+73 - STATION 526+00
SCALE: 1/2"= 1'-0"

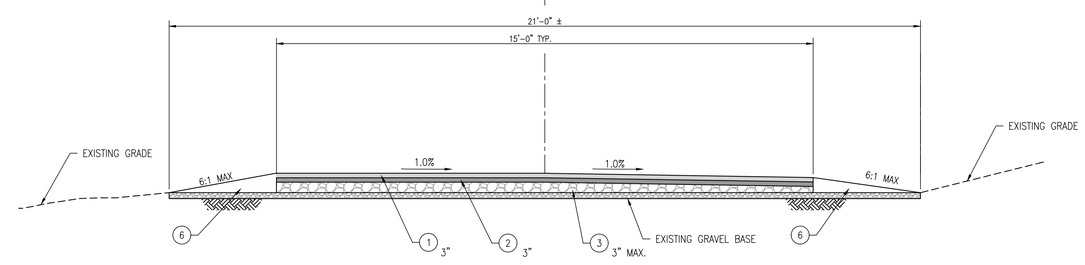
NOTE:
TRANSITION FROM 9'-0" WIDE SECTION TO 15'-0" WIDE SECTION, STATION 518+25 TO STATION 518+73.



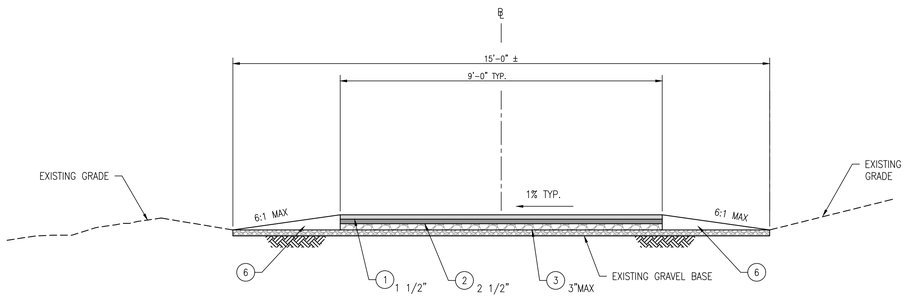
5 / C4.1 SMITH MILL ROAD SECTION
STATION 535+25 - STATION 538+91
SCALE: 1/2"= 1'-0"



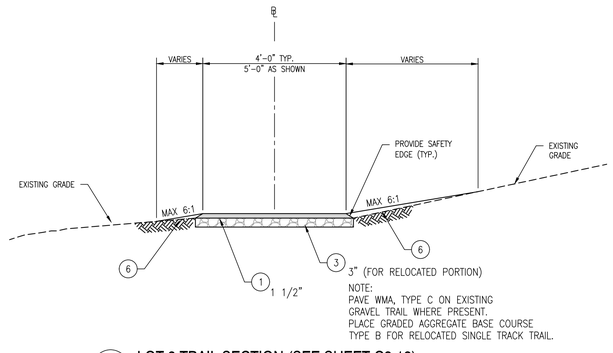
2 / C4.2 SMITH MILL ROAD SECTION
STATION 503+50 - STATION 510+75
SCALE: 1/2"= 1'-0"



4 / C4.2 SMITH MILL ROAD SECTION
STATION 526+00 - STATION 535+25
SCALE: 1/2"= 1'-0"



1 / C4.2 SMITH MILL ROAD SECTION
STATION 500+00 - STATION 503+50
STATION 510+75 - STATION 518+25
SCALE: 1/2"= 1'-0"



NOTE:
PAVE WMA, TYPE C ON EXISTING GRAVEL TRAIL WHERE PRESENT.
PLACE GRADED AGGREGATE BASE COURSE TYPE B FOR RELOCATED SINGLE TRACK TRAIL.

7 / C4.2 LOT 3 TRAIL SECTION (SEE SHEET C3.13)
SCALE: 1/2"= 1'-0"

LEGEND

1. WMA, SUPERPAVE,TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE); (ITEM 401801) (PLACE IN 2 EQUAL LIFTS)
2. WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22; (ITEM 732002)
3. GRADED AGGREGATE BASE COURSE, TYPE B; (ITEM 302005) CONTRACTOR TO ADD GABC AND GRADE EXISTING GRAVEL BASE AS REQUIRED TO PROVIDE LEVEL BASE FOR PAVING.
4. GEOTEXTILES SEPARATION: (ITEM 713002)
5. 4" P.C.C. SIDEWALK; (ITEM 705001)
   CONSTRUCTION & EXPANSION JOINTS:
   1. PLACE CONSTRUCTION JOINTS TRAVERSE TO DIRECTION OF TRAVEL.
   2. SIDEWALKS SHALL HAVE CONSTRUCTION JOINTS AT SPACING EQUAL TO THE WIDTH OF THE SIDEWALK
   3. PROVIDE ADDITIONAL EXPANSION JOINTS WHERE SIDEWALK ABUTS INTERSECTING SIDEWALKS, OR FIXED STRUCTURES.
   4. THE SURFACE EDGES OF THE SLAB SHALL BE ROUNDED TO A 1/4" RADIUS WITH AN APPROVED FINISHING TOOL.
   5. PROVIDE 1/2" JOINT CORK FILLER AT EXPANSION JOINTS.
   6. SIDEWALK SHALL HAVE TINED FINISH TRANSVERSE TO DIRECTION OF TRAVEL)
6. TOPSOIL, 6" DEPTH; (ITEM 732002) VEGETATIVE STABILIZATION – PERMANENT SEEDING; STABILIZATION MATTING – SLOPE (SM-S)
7. BORROW, TYPE F; (ITEM 209006)
8. DE NO. 3 STONE; (ITEM 302011)
9. PCC CURB TYPE 1-8 (ITEM 701010 – EXPOSED FACE HEIGHT VARIES)

REVISIONS:
DATE: DESCRIPTION: BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

TYPICAL SECTIONS

SEAL:
WALTER J. HOEY II
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:
CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH
DRAWN BY: DLD
CHECKED BY: SLR
DATE: NOVEMBER 14, 2016
SCALE: AS NOTED
SHEET NO.: C4.2
CONTRACT NO.: 2016-WCCSP-100

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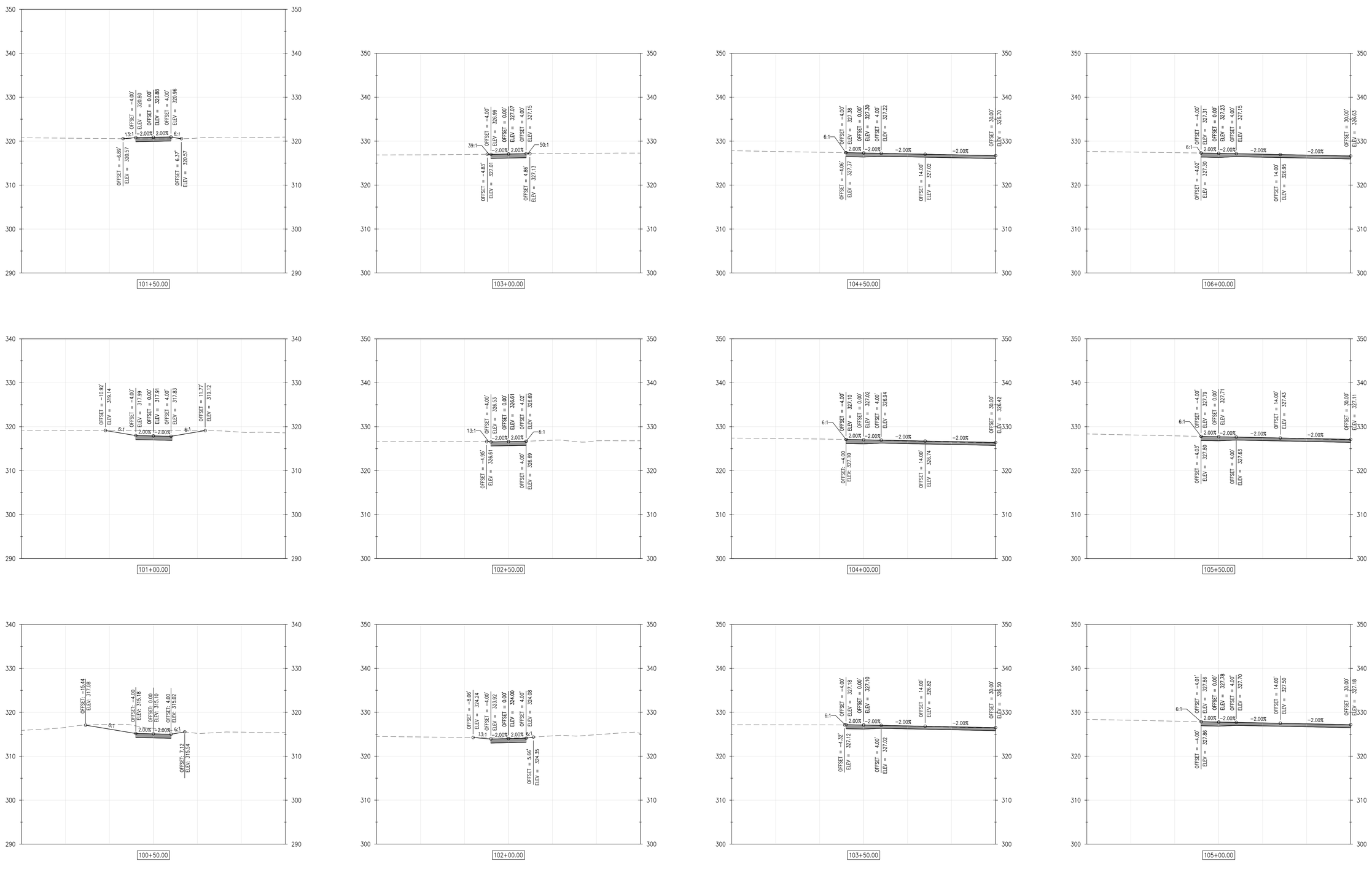


REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:

WALTER J. HOEY III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

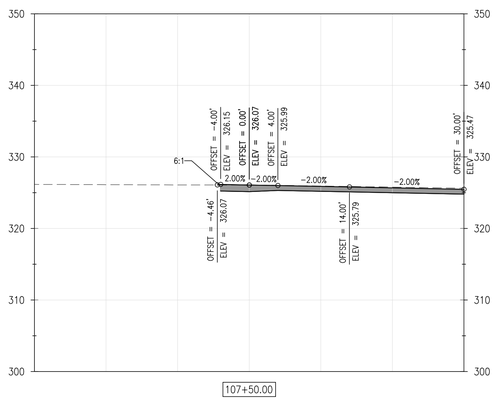
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 10'

SHEET NO.: C5.1

CONTRACT NO.: 2016-WCCSP-100



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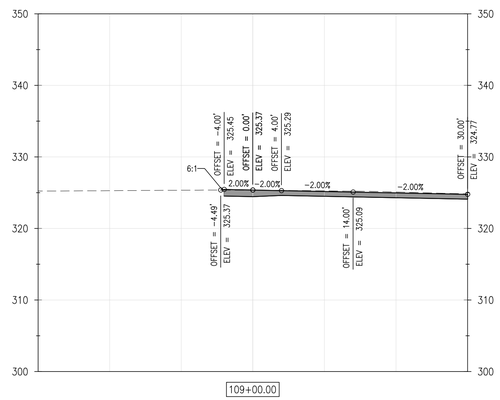

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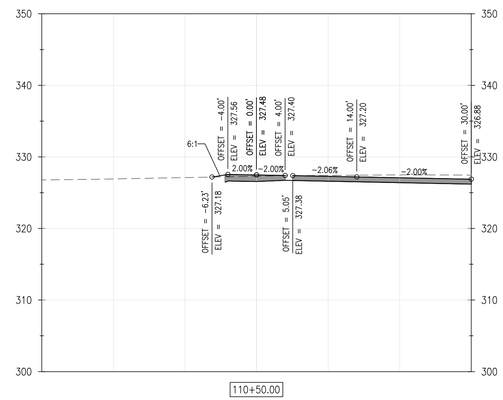

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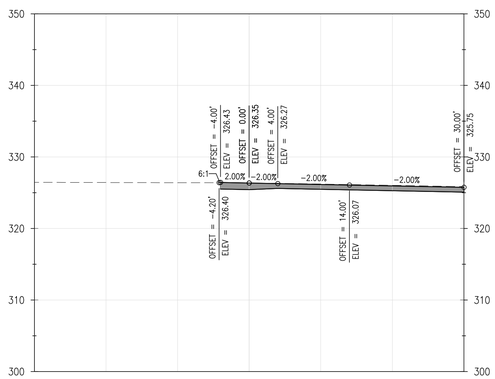

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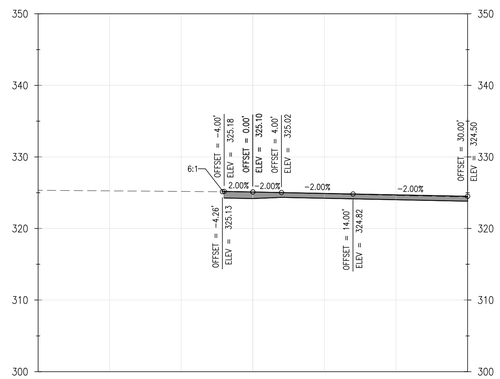

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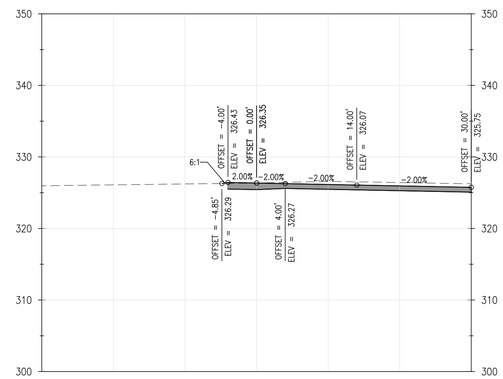

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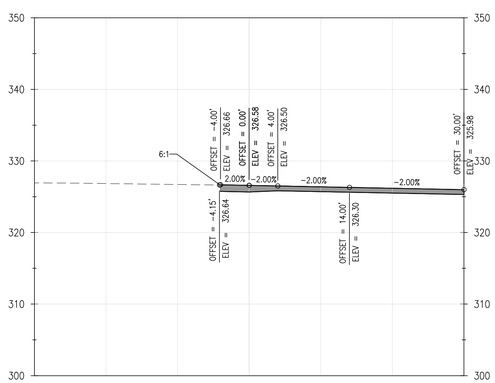

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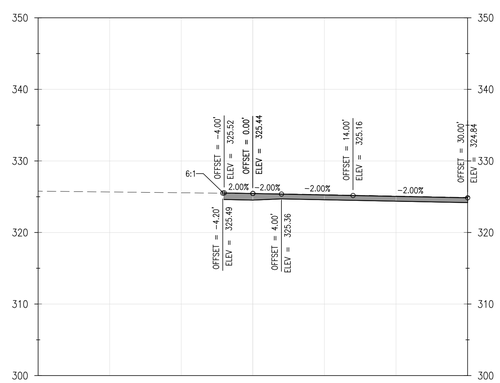

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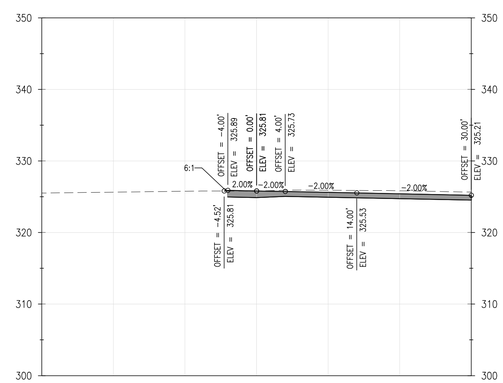

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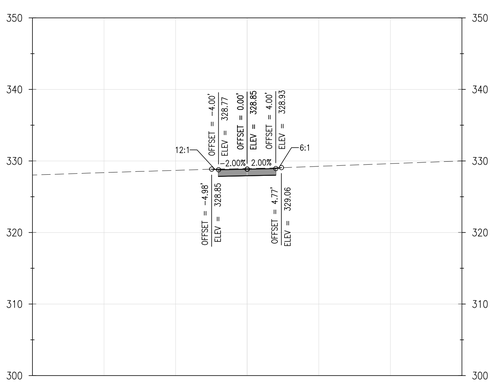


111+00.00

0' 10' 20' 30'

SCALE: 1" = 10'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:

WALTER J. HOEY III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

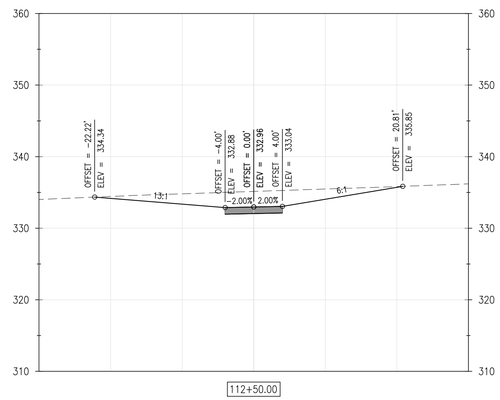
CHECKED BY: SLR

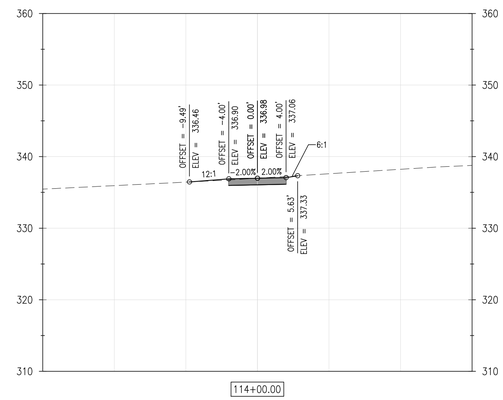
DATE: NOVEMBER 14, 2016

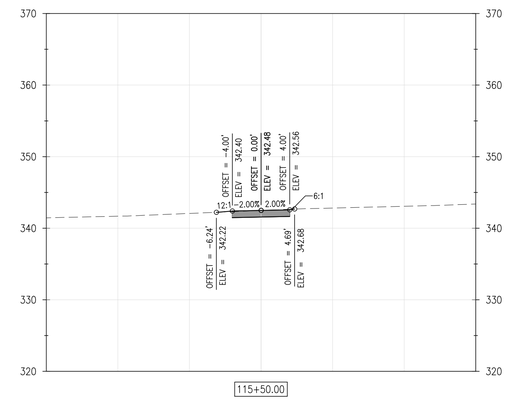
SCALE: 1" = 10'

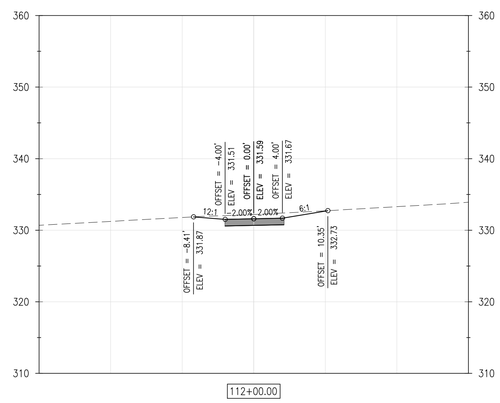
SHEET NO.: C5.2

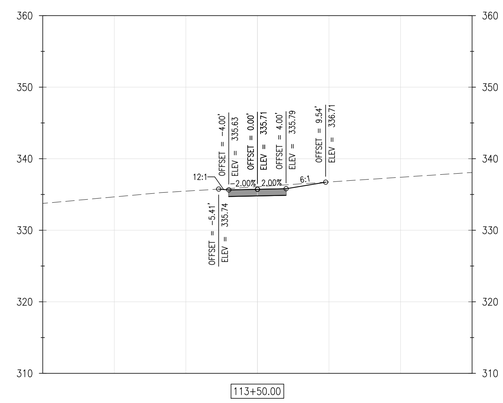
CONTRACT NO.: 2016-WCCSP-100

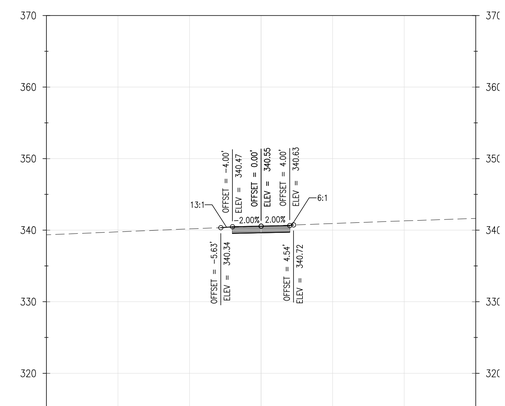


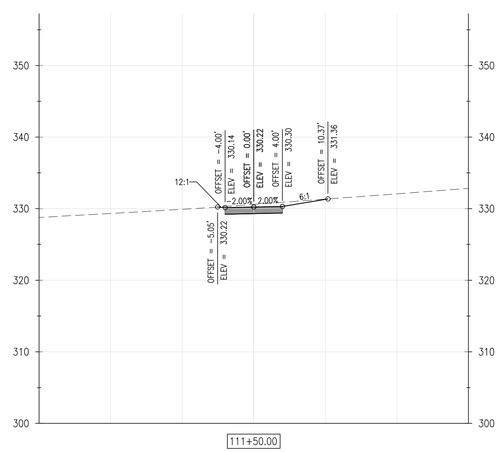


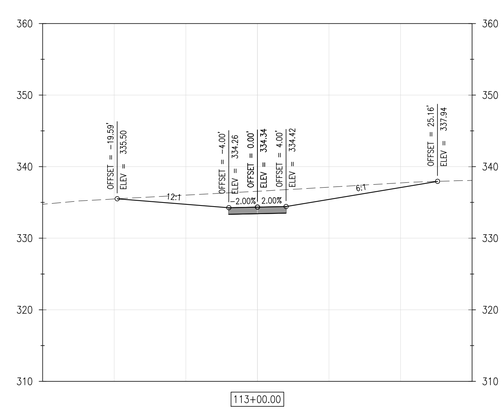


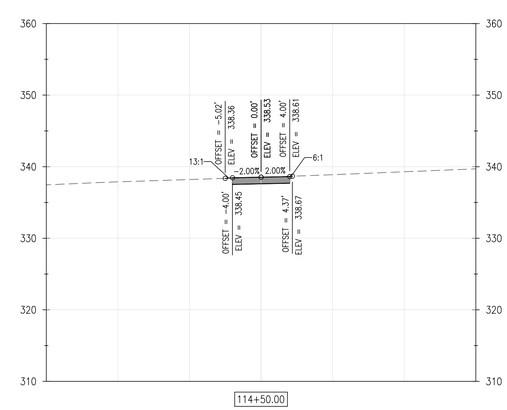












REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:

WALTER J. HOFF, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

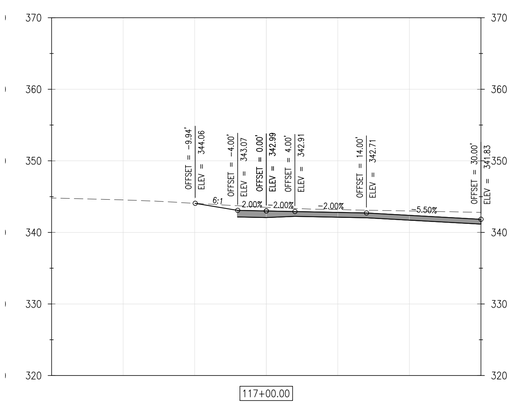
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 10'

SHEET NO.: C5.3

CONTRACT NO.: 2016-WCCSP-100



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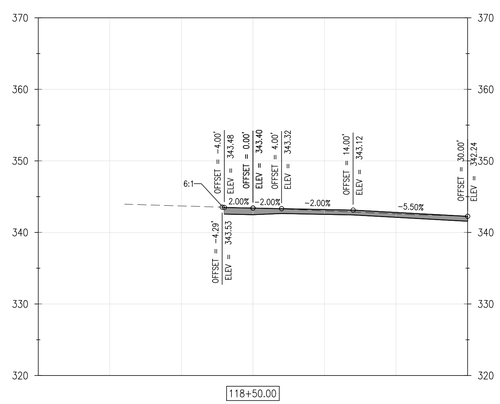

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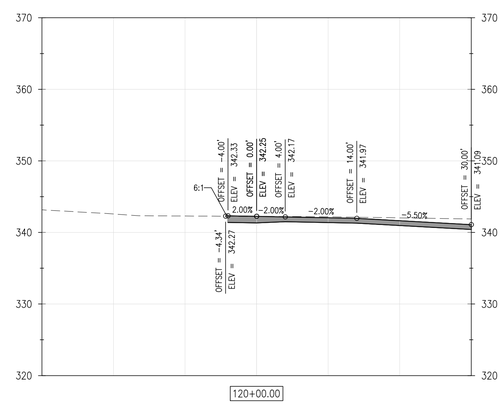

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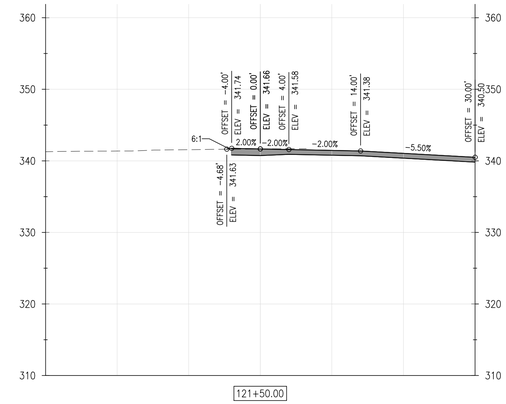

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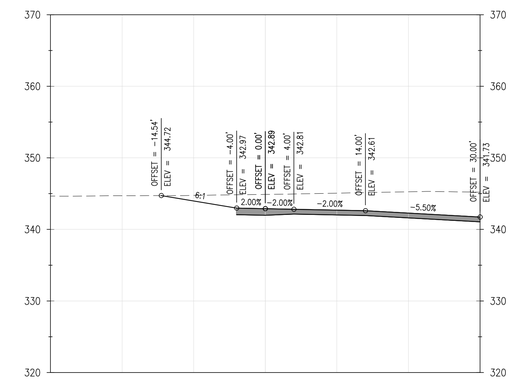

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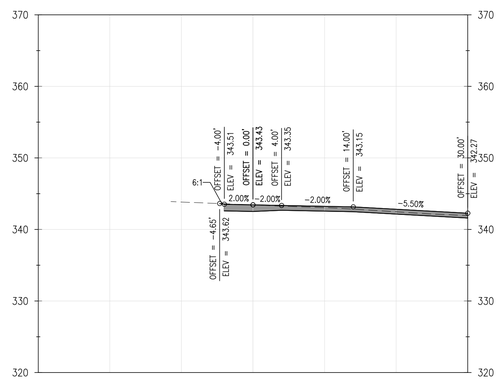

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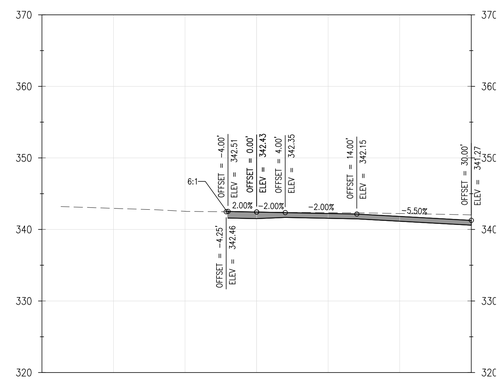

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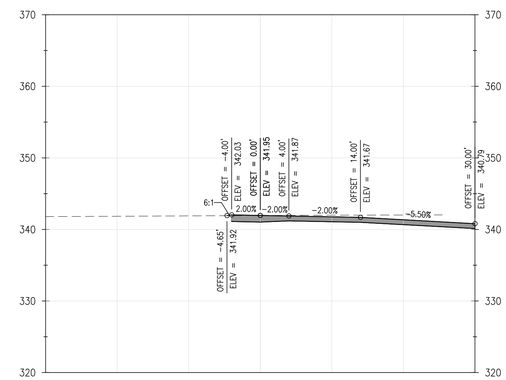

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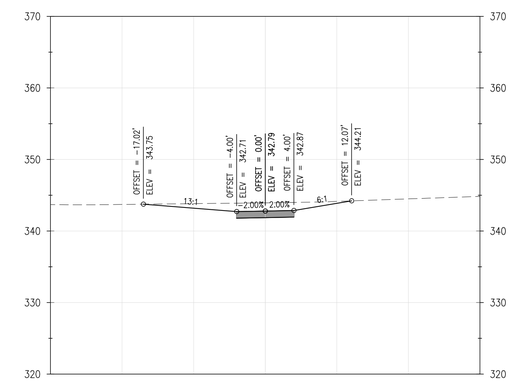

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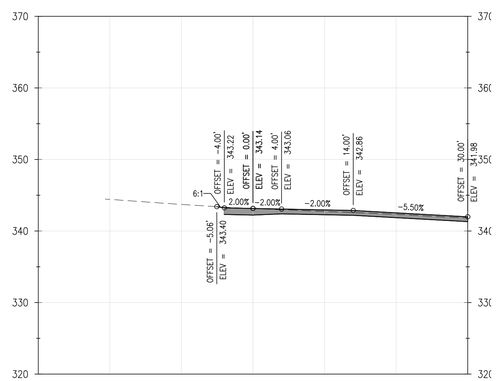

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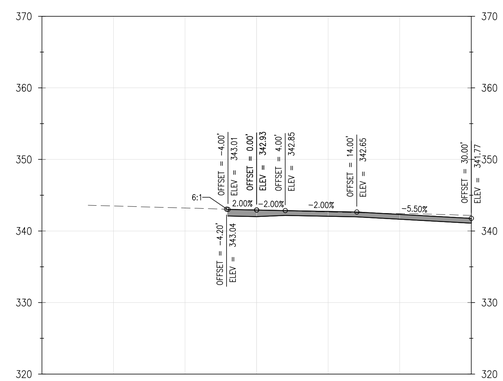

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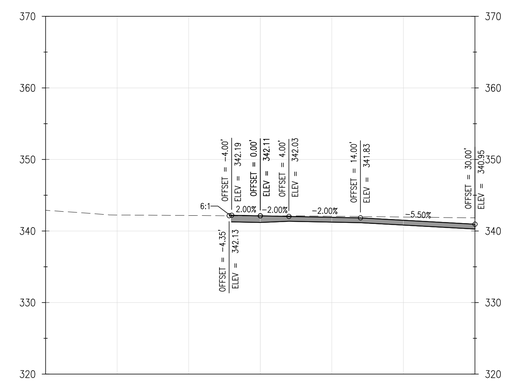

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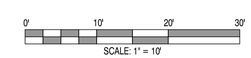


REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:

WALTER J. HOEY, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

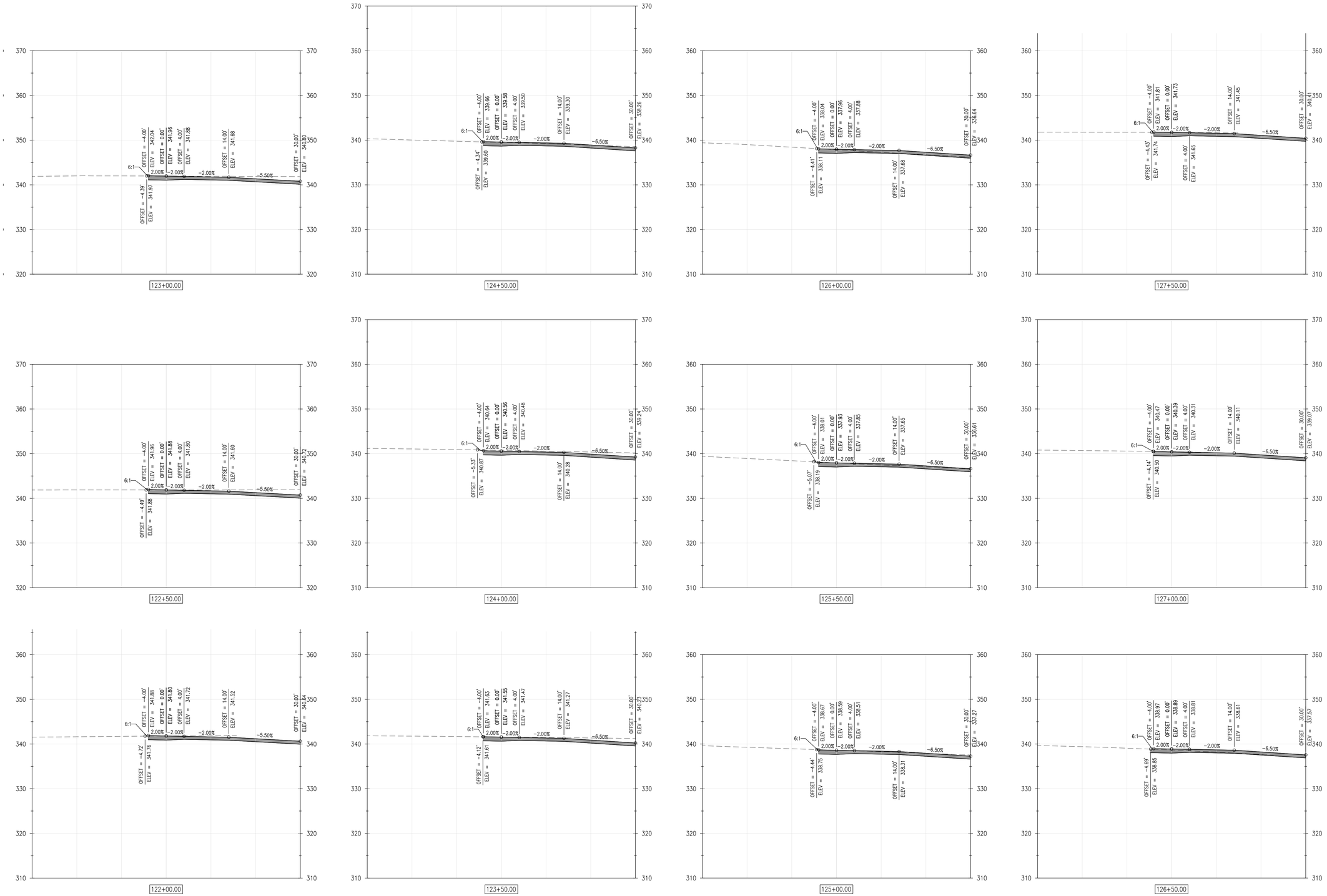
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 10'

SHEET NO.: C5.4

CONTRACT NO.: 2016-WCCSP-100



REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:

WALTER J. PICKETT, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

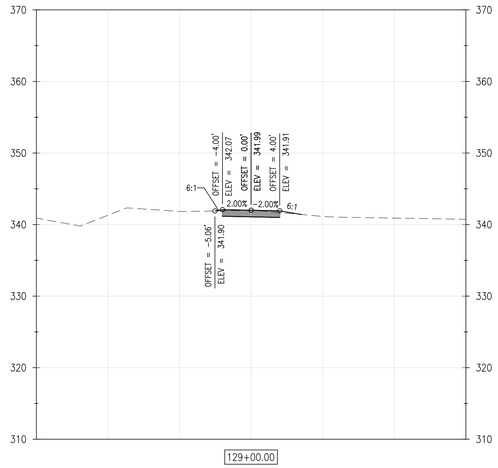
CHECKED BY: SLR

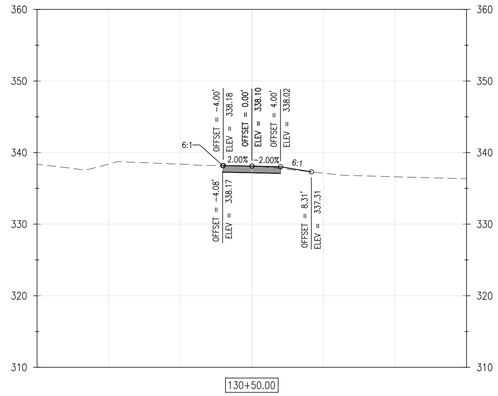
DATE: NOVEMBER 14, 2016

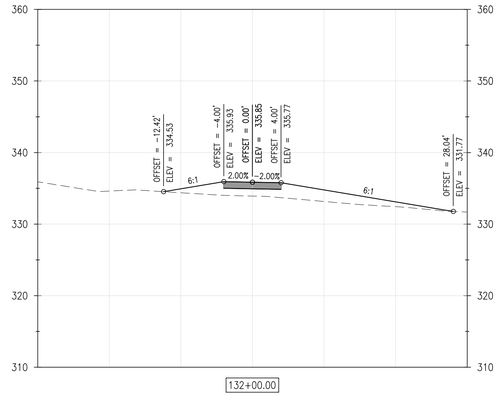
SCALE: 1" = 10'

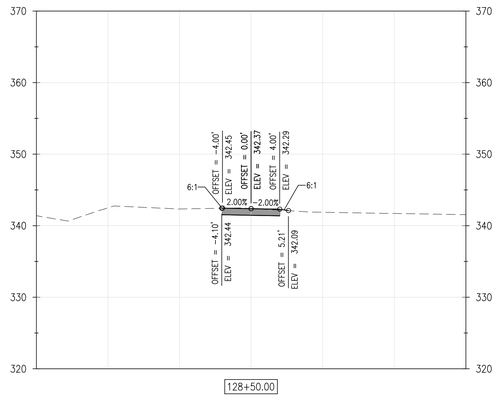
SHEET NO.: C5.5

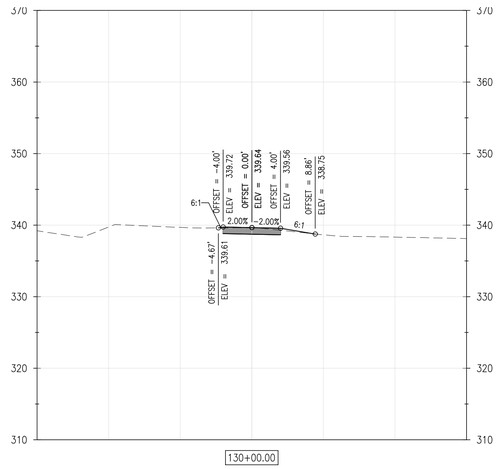
CONTRACT NO.: 2016-WCCSP-100

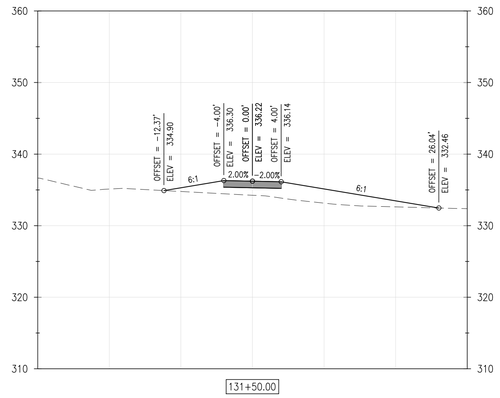


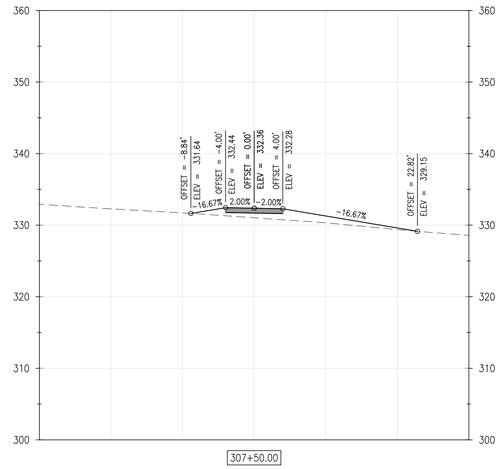


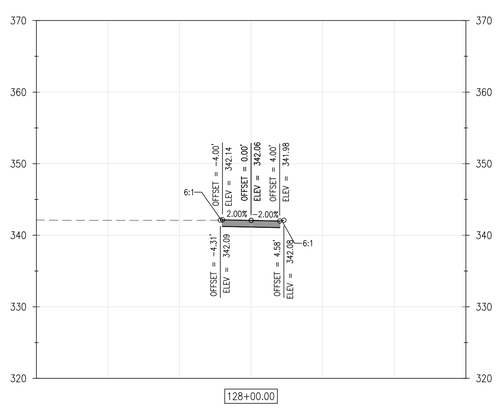


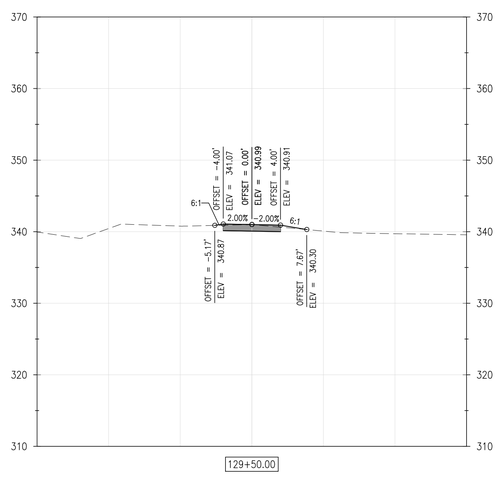


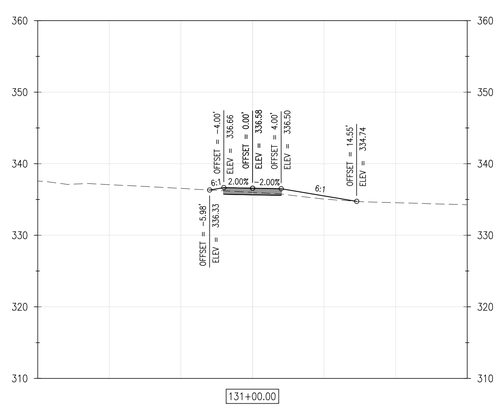


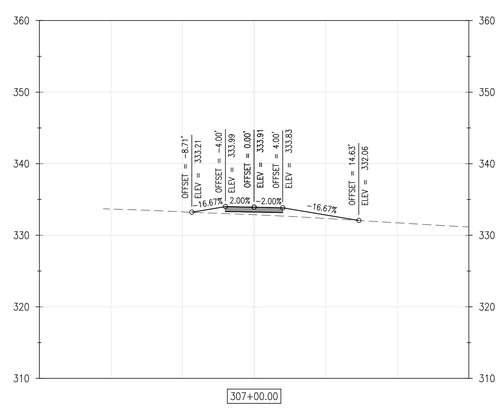


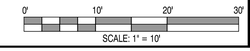












REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:

WALTER J. HOEY, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

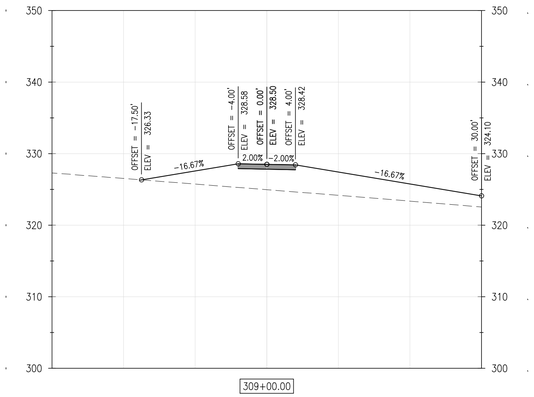
CHECKED BY: SLR

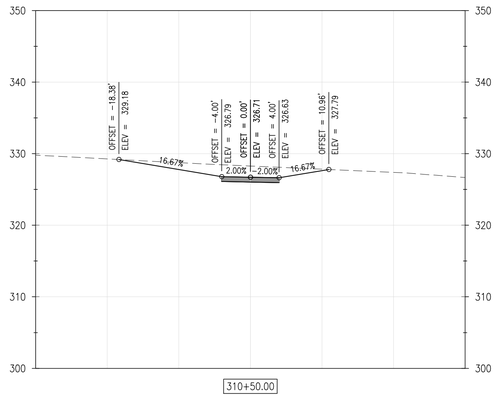
DATE: NOVEMBER 14, 2016

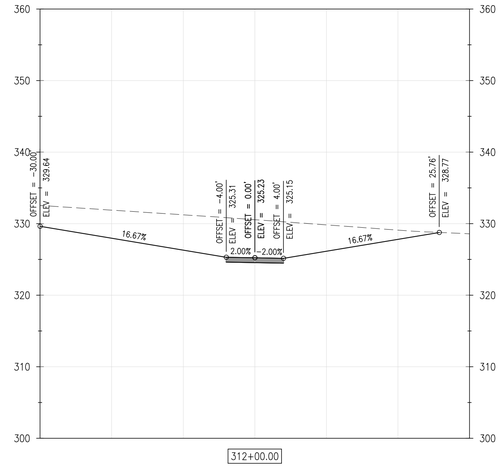
SCALE: 1" = 10'

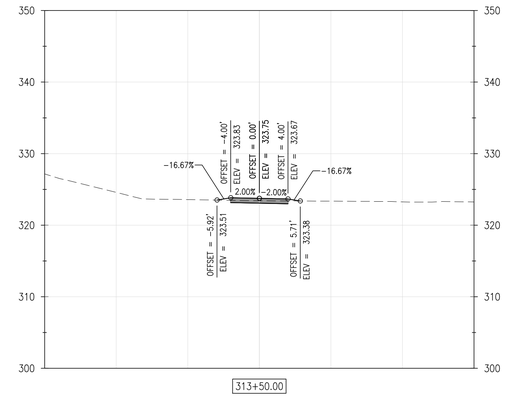
SHEET NO.: C5.6

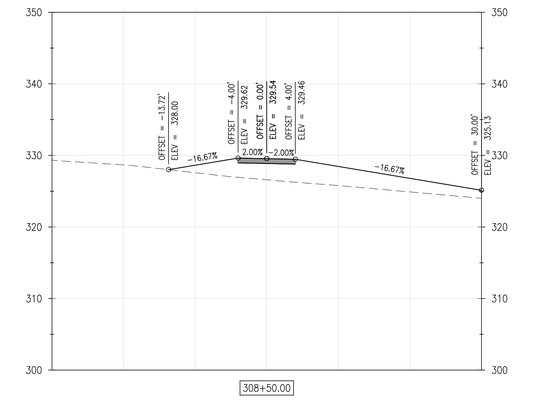
CONTRACT NO.: 2016-WCCSP-100

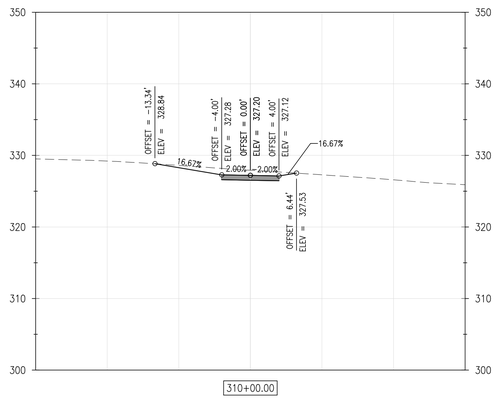


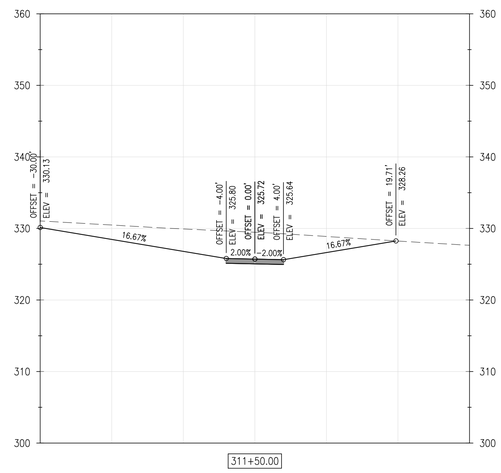


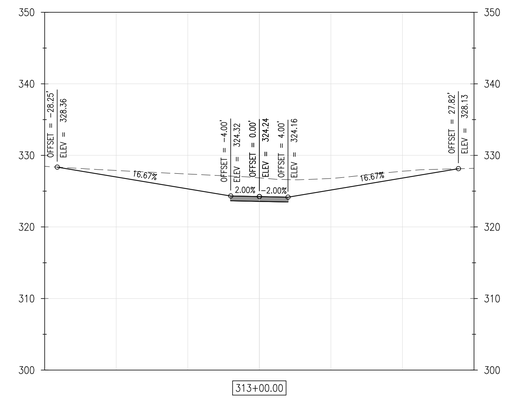


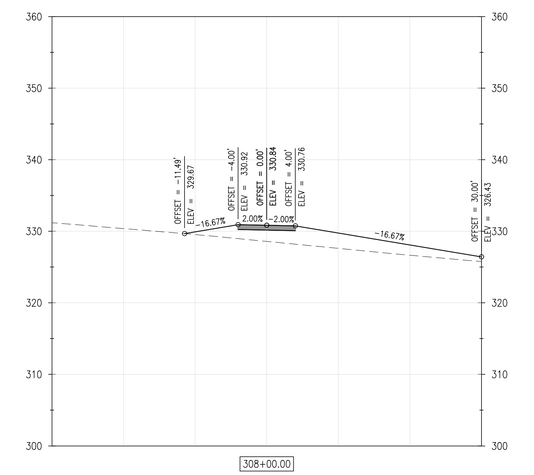


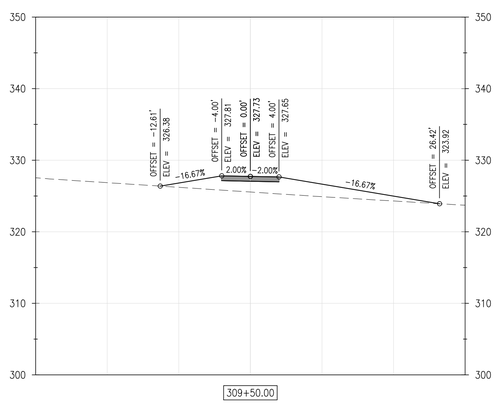


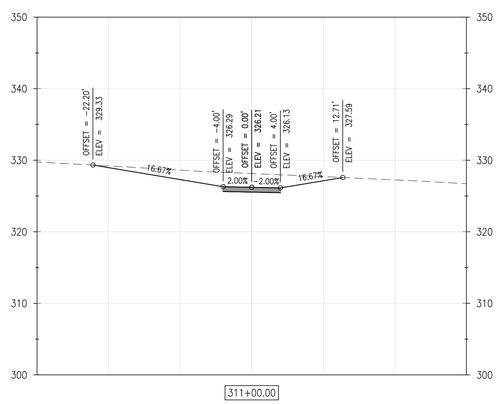


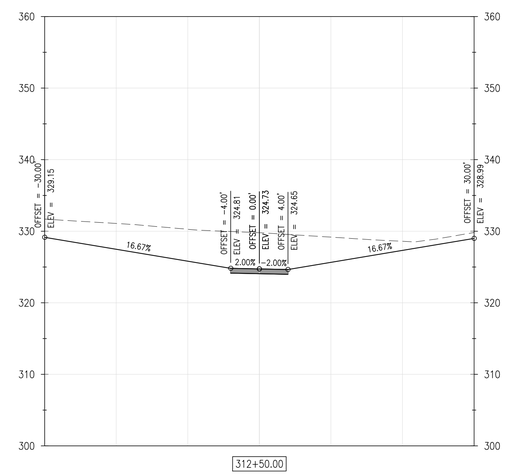












0' 10' 20' 30'
SCALE: 1" = 10'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:

WALTER J. HOEY, III
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4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 10'

SHEET NO.: C5.7

CONTRACT NO.: 2016-WCCSP-100