INDEX TO EXHIBITS

Docket No. C-2021-3026390

Hearing Date: August 23, 2023

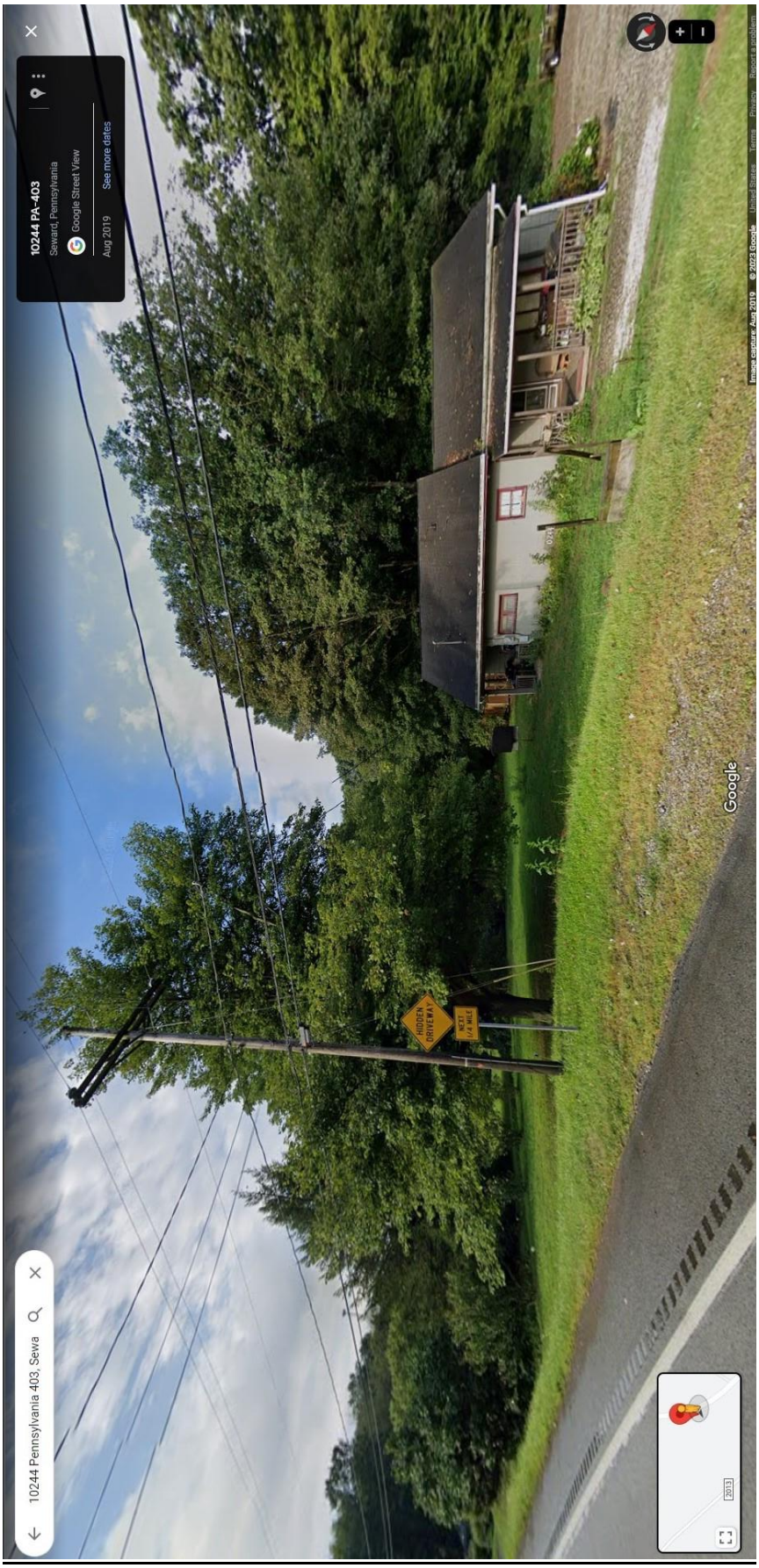
NUMBER	FOR IDENTIFICATION	IN EVIDENCE
Appellant Exhibit:		
2 - Photographs	55	63
3 - Photographs	55	63
4 - Photographs	55	63
5 - Photographs	55	63
6 - Photographs	55	63
7 - Danchanko Quote	55	63
8 - Application Guide for 2017 NESC Table 232-1	55	63
9 - PennDOT Packet	55	63
Verizon Exhibit:		
1 - Google Street View	96	103
2 - Deed Transfer **(Confidential)**	96	103
3 - Verizon Utility Pole Records	96	103

Turgeon Exhibit 2

08/24/23 JS
Appellant
2

Turgeon Exhibit 2

Turgeon Exhibit 2



Turgeon Exhibit 3

08/24/23 JS
Appellant
3

Turgeon Exhibit 3

Turgeon Exhibit 3

Turgeon Exhibit 4

08/24/23 JS
Appellant
4

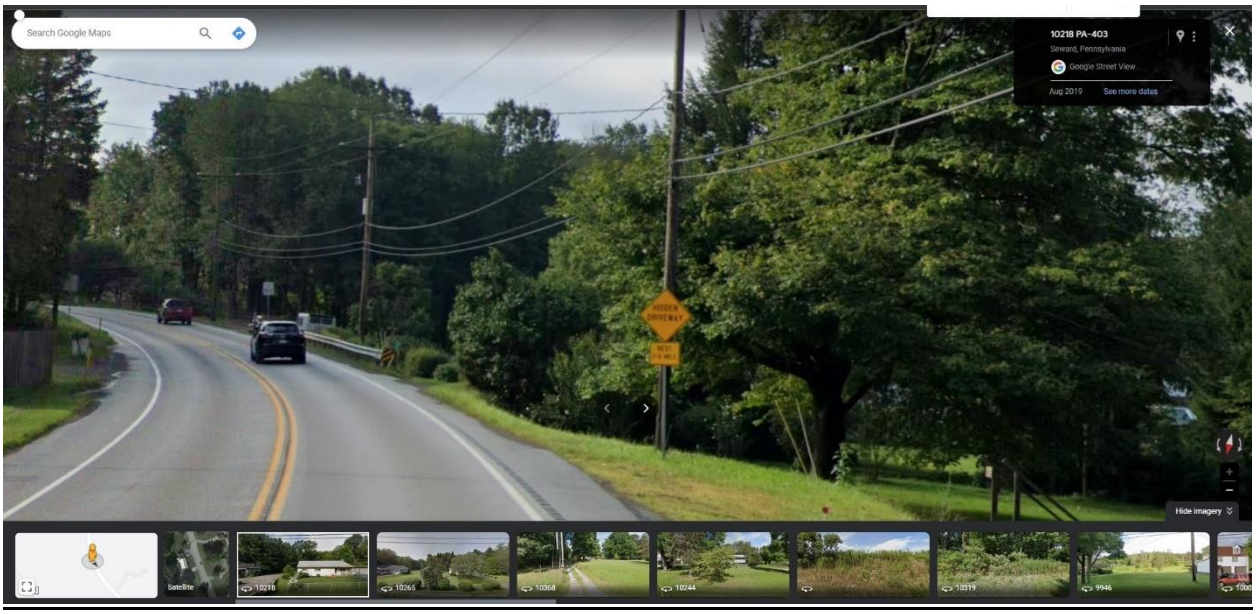
Turgeon Exhibit 4

Turgeon Exhibit 5

08/24/23 JS
Appellant
5

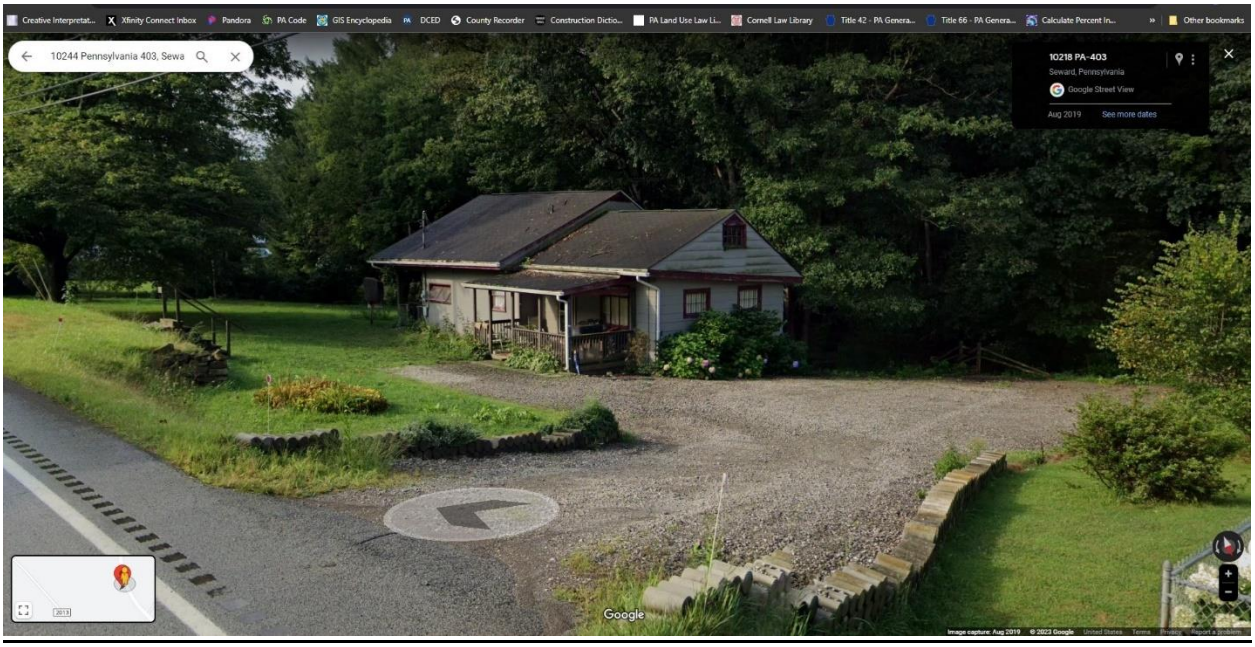
Turgeon Exhibit 5

Turgeon Exhibit 5



Turgeon Exhibit 5

Turgeon Exhibit 5

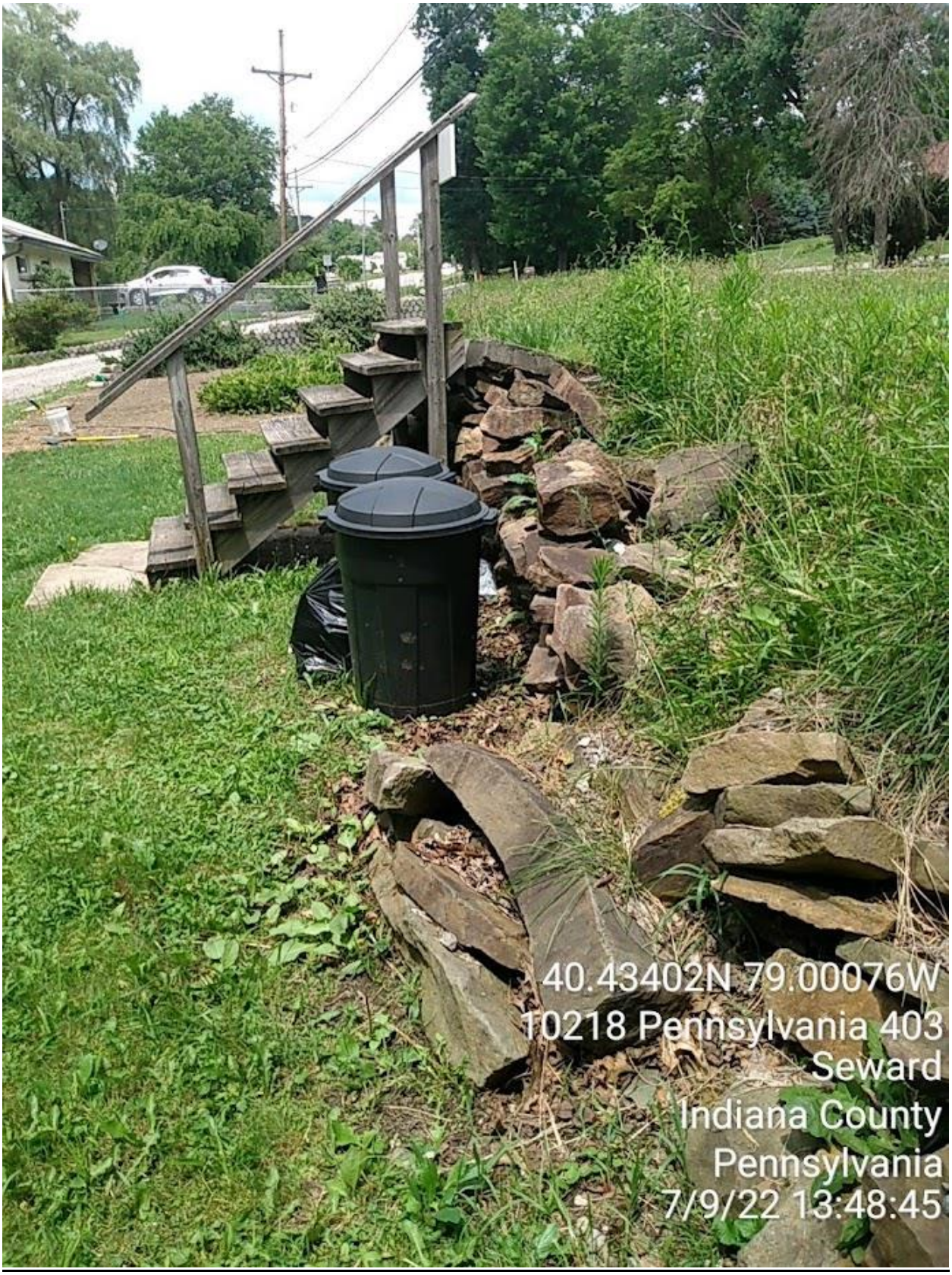


Turgeon Exhibit 5

Turgeon Exhibit 6

08/24/23 JS
Appellant
6

Turgeon Exhibit 6



Turgeon Exhibit 6

Turgeon Exhibit 6

Turgeon Exhibit 6

Turgeon Exhibit 6

Turgeon Exhibit 7

DANCHANKO INC
We Finish It Right!

Quote

DATE May 22, 2023

111 Old Orchard Way
Johnstown, PA 15905
Phone (814) 539-3089

Customer ID **Dana Turgeon**

Bill To:
10244 Route 403 Highwa
Seward, Pa 15954
248-1218
dturgeon1970@gmail.com

Job Site:
Same as bill to

Quotation valid until: 30 days

Certified Installers By:

American Concrete Institute

T.B.D. - To Be Determined

Comments or special instructions:

Description	AMOUNT
12" CMU Retaining Wall (69'x7')(24'x7)(24'x7') - Excavate/haul out of material, pour 4000 psi concrete for footer at 12" thick 2' wide with #4 rebar strands, install 12" CMUs, core fill with #4 rebar 32" O.C., install two rows of drainage pipe, back fill wall entirely with gravel with geo fabric separating gravel and soil.	$90,346.83
Concrete Steps (Approx. Twelve Steps at 4' Wide) - Forming, install gravel, install 10 gauge wire mesh, pour 4000 psi premium concrete, broom finish, and seal.	$4,682.39
Gravel Parking Area (69'x25') - Install gravel for parking area above new wall.	$3,062.84
Drywell (8'x5'x4') & Drainage (Approx. 150LF) - Excavate/haul out of material, install geo-fabric, install piping system, install gravel, backfill with excavated fill.	$8,520.78
Faux Stone - Apply scratch coat and install Appleridge's Textured Ledgestone faux stone in Cranapple color.	$32,103.53
Please Note - Utility Pole to be moved prior to Danchanko Inc. beginning work.	Please Note
Please Note - Flagger Force to be provided as needed.	Please Note
Please Note - Due to current economical conditions, Danchanko Inc. estimates that your project could experience an increase. We will confirm your price as your project approaches.	**Important Notice**
Please Note - When applicable, Danchanko Inc. will do a PA One Call to have utility lines marked before digging begins. However, Danchanko Inc. cannot be held responsible for unmarked or unknown underground utilities lines of any kind.	Please Note
Topsoil - Install topsoil around edges of work and/or tire ruts. Owner can waive this charge if they want to do the work themselves. Cost for purchase, delivery and spread cost is $185.00/ton. Your job is estimated to take (unknown) tons	Please Note
TOTAL	$138,716.37

If you would like to accept this quote, please call or email us to receive a written contract.
You will be put on our job schedule once your contract is returned.

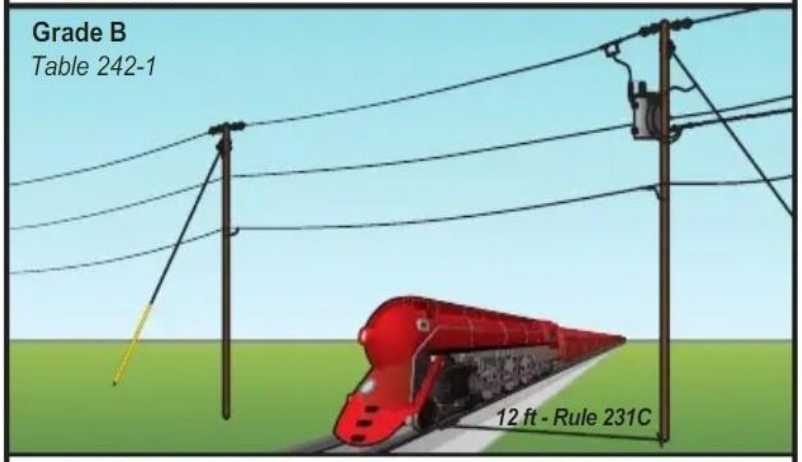
Thank you for considering Danchanko Inc.

08/24/23 JS
Appellant
7

Application Guide for 2017 NESC Table 232-1 - *see NESC for details and exceptions*

Railroads*

Grade B
Table 242-1



Vertical Clearance at Largest Vertical Sag *Table 232-1*

Neutral or Comm.	Grounded Span Guy	TPX	7.2/12.5 kV	14.4/25 kV	19.9/35 kV
23.5 ft		24.0 ft	26.5 ft		

**Railroad company may require greater clearance*

Trucks Over 8 Feet*

Grade B - for limited access highway
Grade C - over other areas subject to truck traffic
Table 242-1

Vertical Clearance at Largest Vertical Sag *Table 232-1*

Neutral or Comm.	Grounded Span Guy	TPX	7.2/12.5 kV	14.4/25 kV	19.9/35 kV
15.5 ft		16.0 ft	18.5 ft		

**DOT may require greater clearance*

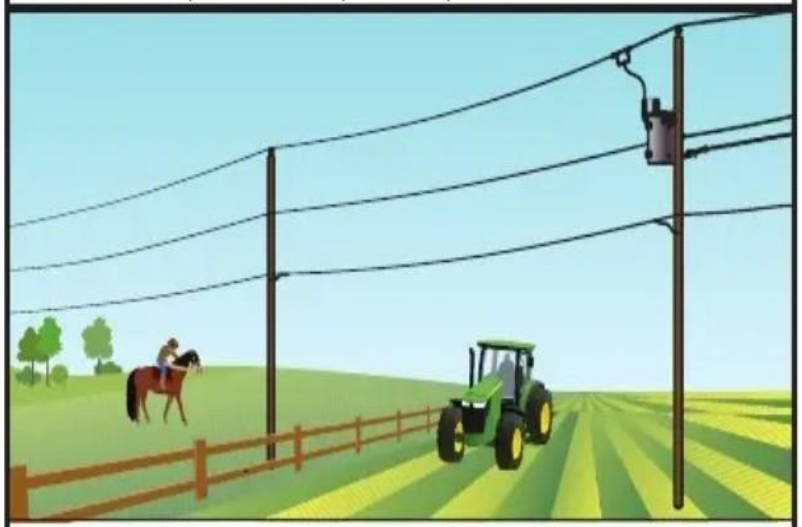
Water - No Sailboats

Vertical Clearance at Largest Vertical Sag *Table 232-1*

Neutral or Comm.	Grounded Span Guy	TPX	7.2/12.5 kV	14.4/25 kV	19.9/35 kV
14.0 ft		14.5 ft	17.0 ft		

**see NESC for sailboat clearances*

Over fields, orchards, forest, etc.



Vertical Clearance at Largest Vertical Sag *Table 232-1*

Neutral or Comm.	Grounded Span Guy	TPX	7.2/12.5 kV	14.4/25 kV	19.9/35 kV
15.5 ft		16.0 ft	18.5 ft		

**used by vehicles over 8 feet tall or riders on horseback*

Pedestrians Only*

Oversized Vehicles - greater than 14 feet in height

Turgeon Exhibit 9

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

DRAWINGS
FOR
CONSTRUCTION
OF

SR 403 CRAMER NORTH P.M.

STATE ROUTE 0403 SECTION 490

INDIANA COUNTY

EAST WHEATFIELD TOWNSHIP

FROM SEG. 0010 OFFSET 0000 TO SEG. 0100 OFFSET 1941 LENGTH 25,197 FT.
4.77 Miles

ECMS NO. 89652 WBS ELEMENT NO. P-8-00403-0-7-490-1040-373-1

FEDERAL PROJECT NO.

DESIGN DESIGNATION

HIGHWAY CLASSIFICATION	Rural Community Collector
DESIGN SPEED	50-55 MPH
PAVEMENT WIDTH	2 - 11 ft lanes
SHOULDER WIDTH	6ft

TRAFFIC DATA

CURRENT ADT	2011	3,438
DESIGN YEAR ADT	2021	4,030
DHV		415
D		50%
T		7%

PREPARED BY:
DISTRICT 10-0 PLANS UNIT

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
Brian N. Allen
ENGINEER
PE-051351-E

RECOMMENDED DATE 5/24/11

Scott Christ
DEPUTY SECRETARY

APPROVED DATE 5/24/11

Barry J. Schoch
SECRETARY OF TRANSPORTATION

(ON BEHALF OF THE GOVERNOR AS WELL AS HIMSELF)

DATE 5/23/11

Brian N. Allen
ASST DIST EXECUTIVE

RECOMMENDED DATE 5/23/11

Joseph B. Dubovi, Jr.
DISTRICT EXECUTIVE

INDIANA COUNTY
BITUMINOUS SURFACE IMPROVEMENT
SR 403 SEC 490 CRAMER NORTH P.M.

The description and location of the project is as follows: A Surface Improvement Project involving drainage, bituminous milling, bituminous overlay, guide rail removal/replacement and other miscellaneous construction, all as indicated on the drawings for the improvement of approximately (4.77 mi) of certain sections of STATE HIGHWAYS in INDIANA COUNTY, Commonwealth of Pennsylvania. This project consists of 1 work site on the following route·

STATE ROUTE 0403 SECTION 490, SEGMENT 0010 OFFSET 0000 to SEGMENT 0100 OFFSET 1941
EAST WHEATFIELD TOWNSHIP; (4.77 mi)

LEGAL RIGHT-OF-WAY NOTES:

The Legal Right-of-Way on SR 403, formerly LR 223, from Segment 0010/0000 to Segment 0050/1186 is variable in width from thirty feet (30') to one hundred ten feet (110') in width based on plan of LR 223 Section 3 signed by the governor on September 11, 1941.

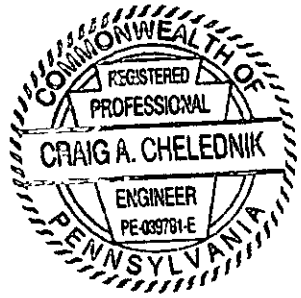
The Legal Right-of-Way on SR 403, formerly LR 223, from Segment 0050/1186 to Segment 0060/1217 is variable in width from fifty feet (50') to one hundred ten feet (110') based on plan of LR 223 Section 2 signed by the governor on February 13, 1930.

The Legal Right-of-Way on SR 403, formerly LR 223, from Segment 0060/1217 to Segment 0060/1924 is assumed thirty three feet (33') no records found

The Legal Right-of-Way on SR 403, formerly LR 223, from Segment 0070/0000 to Segment 0080/2495 is variable in width from forty five feet (45') to ninety five feet (95') based on plan of LR 223 Section 1 signed by the governor on May 28, 1928.

The Legal Right-of-Way on SR 403, formerly LR 223, from Segment 0090/0000 to Segment 0100/0370 is variable in width from fifty feet (50') to seventy feet (70') based on plan of LR 223 Section 1 signed by the governor on May 28, 1928.

The Legal Right-of-Way on SR 403, formerly LR 223, from Segment 0100/0370 to Segment 0110/0687 is variable in width from fifty feet (50') to one hundred feet (100') based on plan of LR 223 Section R-7, signed by the governor on August 15, 1961



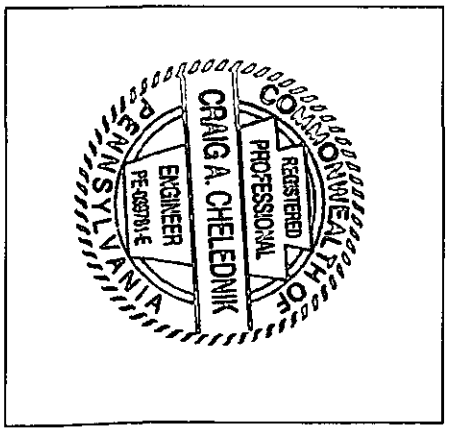
SR 403 SEC 490 CRAMER NORTH P.M.

TABULATION OF LOCATIONS

INDIANA COUNTY

SITE NO.	STATE ROUTE	LOCATION MAP NUMBER	MUNICIPALITY, TOWNSHIP, OR BORO	LIMITS OF WORK FROM SEG/OFF	LIMITS OF WORK TO SEG/OFF	OPEN LIMITS OF WORK SEG/OFF	OPEN LIMITS OF WORK SEG/OFF	ADT ESAL	TYPICAL
1	403	1	EAST WHEATFIELD TOWNSHIP	0010/0000	0100/1941	N/A	N/A	3,438 3.7mil	1

SEGMENT	SEGMENT LENGTH
0010	3254
0020	2415
0030	2562
0040	2217
0050	2396
0060	1924
0070	3490
0080	2495
0090	2503
0100	2096



Indiana County

SR 403 SEC 490 CRAMER NORTH P.M.

PA-ONE-CALL DESIGN SERIAL NUMBERS

SR	SEG/OFFSET - SEG/OFFSET		Serial Numbers	
403	0010/0000 - 0100/1941		20111101122	
			20111101127	
			20111101132	

TEN (10) WORKING DAYS PRIOR TO EXCAVATION THE CONTRACTOR MUST CONTACT THE PA ONE CALL SYSTEM, INC. PHONE 1-800-242-1776

Serial Numbers

PA-One-Call
Phone: 1-800-242-1776
www.paonecall.org

SEE CONTRACT SPECIAL PROVISIONS REGARDING CONTRACTOR NOTICE TO PA-ONE-CALL

LIST OF PUBLIC UTILITIES

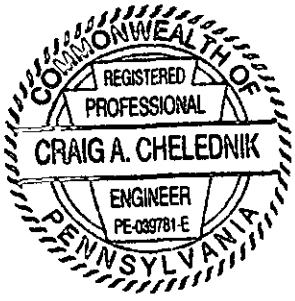
Highridge Water Authority
193 8th Street
New Florence, PA 15944
George Sulkosky (724) 459-8033

Equitrans LP
175 Industry Road
Waynesburg, PA 15370
Engineering Department (724) 852-7308

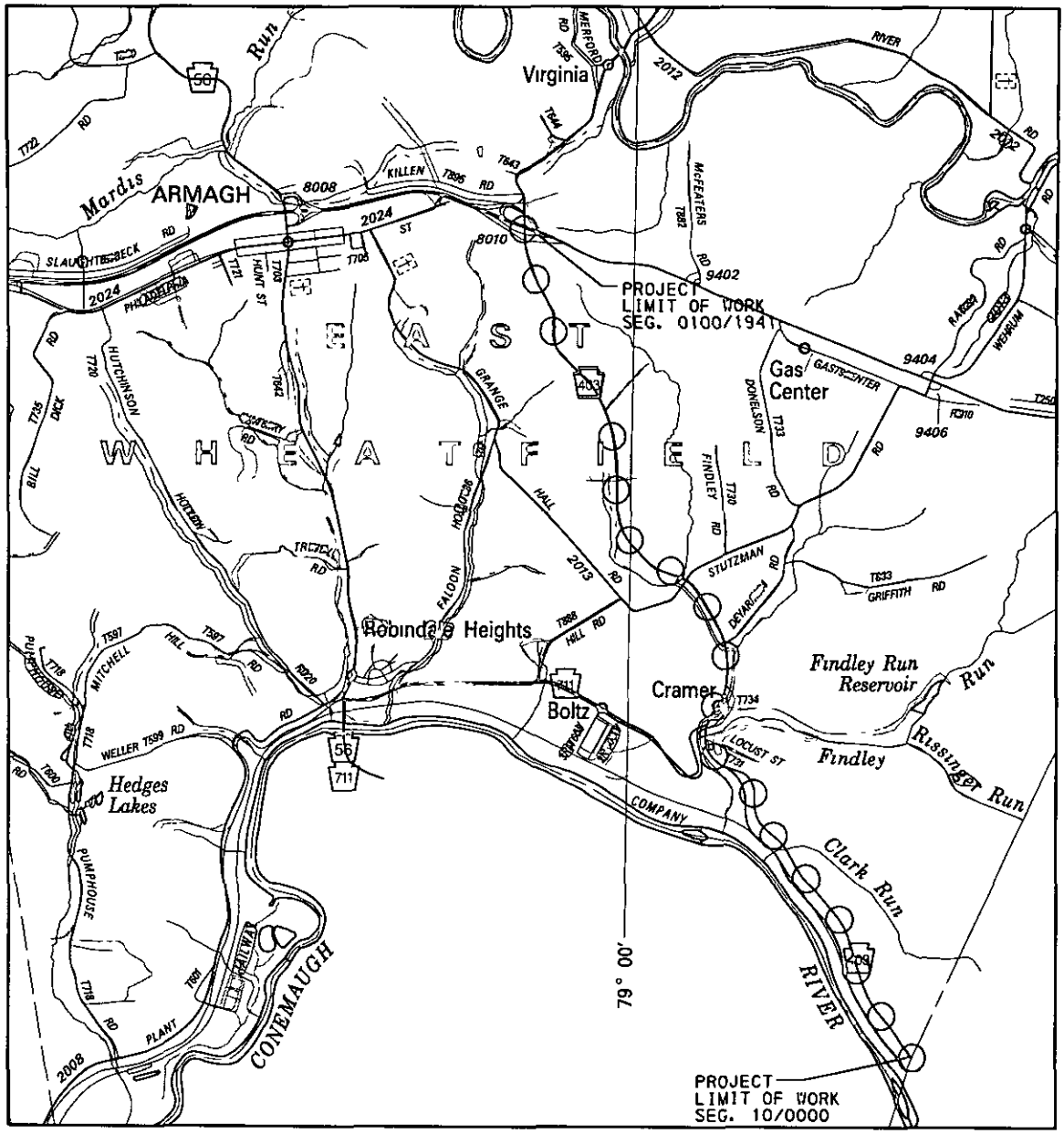
Enterprise Products
3691 SR 14 North
PO Box 312
Watkins Glen, NY 14891
Don Ayers (607) 936-1014

Sunoco Pipeline LP
525 Fritztown Road
Sinking Spring, PA 19608
(610) 670-3281

Spectra Energy
560 Pottstown Pike
Chester Springs, PA 19425
Bill Quinn (610) 458-8410



LOCATION MAP NO. 1



LEGEND

State highways and Township roads

Project

(X) Site Number

See Tabulations for Stations and Lengths.

NOT TO SCALE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CRAIG A. CHELEDNIK
ENGINEER
PE-039781-E

GENERAL NOTES

(Sheet 1 of 3)

A. GENERAL STATEMENTS

1 PENNDOT reserves the right to modify any or all of this work.

2 The completion date stated is for the work specified within this document, see the CPM Schedule.

3. Payment will not be paid for Bituminous or Paint items until all pavement markings on a site have been installed to the satisfaction of the Inspector-in-Charge. These estimates will be held until the entire site is properly completed.

4 Coordinate work with the Indiana County Maintenance Manager:

John Serian, (724) 357-2917

5 From Seg 0010/0000 to 0060/0000 only remove existing guiderail when ready to replace.

B. PAVING OPERATIONS

1 Perform no Bituminous Operations before participating in a Project Quality Control Meeting. Ensure that the Project Superintendent, Paving Foreman and NECEPT Technician attend the meeting. Other Attendees include the Assistant Construction Engineer, Inspector-in-Charge, Assistant Materials Engineer and the Department Quality Assurance Representative. The submitted Bituminous Quality Control Plan will be discussed and all Quality Control Testing per site will be determined.

2 The final determination of patching and driveway paving locations will be made and marked out by the Inspector-in-Charge.

3 Apply a bituminous tack coat on ALL pavement surfaces before placing the next bituminous lift.

4 Complete all Bituminous Paving by September 30th, 2011. See completion date and CPM milestones for specific information.

5 All application rates (#/SY or inch depth) and all roadway and shoulder widths stated are for informational purposes only.

6. Removal of debris and shoulder material higher than the existing roadway is incidental to the items of paving.

7 Place Sub Grade Drains on Mill and Fill Sites at 500 feet maximum spacing. Payment for milling and replacement SP HMA will be the same item as the adjacent work.

GENERAL NOTES (Continued)

(Sheet 2 of 3)

B. PAVING OPERATIONS (Continued)

8 Use a paver that places one-half the pavement width and the adjacent shoulder in one operation, unless otherwise directed.

9 Provide paving notches on all final bituminous courses, in accordance with RC-28. Do not cut more than 24 HOURS prior to paving.

10. Provide paving notches, 2 foot minimum, on all bituminous drives unless otherwise directed.

11 Pave a minimum of 2 feet on all drives and intersecting roads during the paving operation unless otherwise directed. Complete paving at intersections using the same paving items as the mainline paving.

12 Stop paving a minimum of 2 feet from all railroad tracks.

13 Pave Inlet Aprons and existing Bituminous Gutters and Wedge Curb, as indicated, unless otherwise directed. Payment for final Bituminous Course to be paid for as the same item as the adjacent paving.

14. Incorporate pneumatic-tire rollers for compacting leveling courses.

15 Seal final longitudinal widening, shoulder joints, and bituminous patches with PG 64-22 asphalt material if exposed area is the final product. Provide a 3-inch seal on each side of the exposed joint, 6-inches overall. This sealing is incidental to the SP HMA item.

C. MILLING

1 Use profile milling equipment for:

a) All bridges and bridge tapers (100 feet minimum.

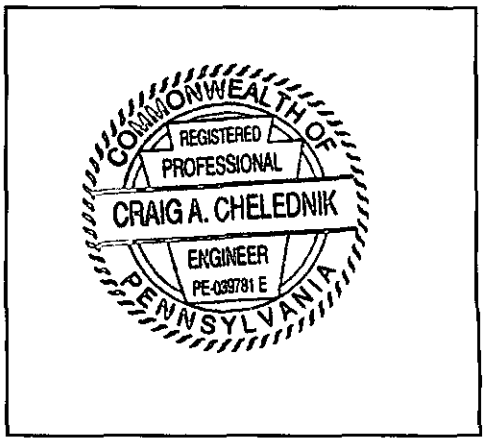
b) All widening and Type 6-SP Shoulder operations.

c) All pavement notches specified, 50 feet or greater.

d) Mill and fill areas greater than 100 SY.

Note: Do not leave roadway milling exposed for more than 6 calendar days from the start of milling, unless otherwise specified. See Section 491.1

2 When overhead clearances of an overpass of less than 17' 6" are encountered, mill the pavement below the overpass to maintain posted clearances. Mill tapers 1 inch in 50 feet minimum.



GENERAL NOTES (Continued)

(Sheet 3 of 3)

D. USE OF AVAILABLE EXCAVATION AND MILLING

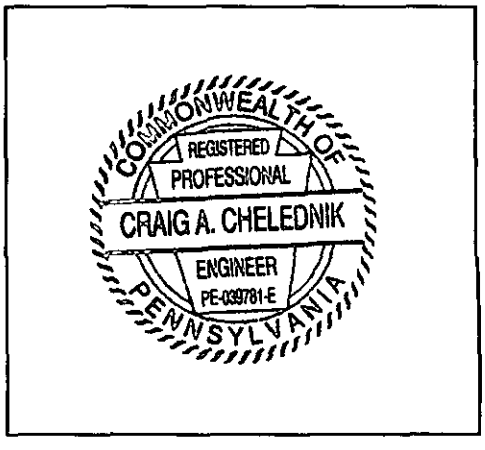
1. When excavating refer to Pub 408/2011Section 205.3(a).
2. Use all suitable excavated and milled material (contaminated) generated from a site for that site, unless otherwise noted, for Safety Slope and/or shoulder backup as noted in the Typicals. This backup is incidental to excavation and milling items.
3. If excavated or milled material (contaminated) is greater than 2 inches in size, process to obtain material less than 2 inches in size.
4. Properly dispose of any excess material not required to complete the work.

E. DETAILS, OTHER THAN THOSE INDICATED, ARE ON THE FOLLOWING STANDARD DRAWINGS:

RC-22M (4) JUNE 1, 2010
RC-28M (1) JUNE 1, 2010
RC-30M (5) JUNE 1, 2010
RC-45M (20) JUNE 1, 2010
RC-46M (45) JUNE 1, 2010
RC-52M (7) JUNE 1, 2010
RC-54M (7) JUNE 1, 2010
RC-64M (1) JUNE 1, 2010
RC-92M (1) JUNE 1, 2010

TC-8600 (11) JUNE 23, 2009
TC-8602 (4) JUNE 23, 2009
TC-8604 (4) JUNE 23, 2009
TC-8702B (9) MAY 25, 2007
TC-8716 (1) JUNE 23, 2009
TC-8717 (1) JUNE 23, 2009

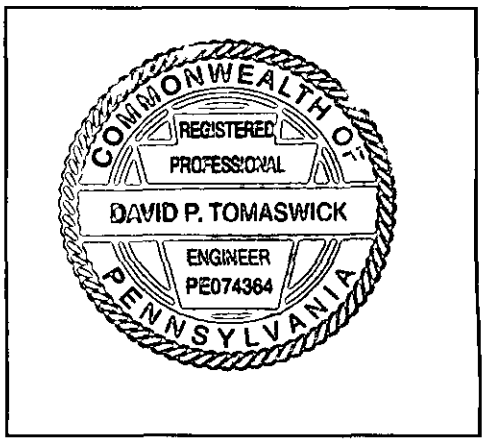
BD-6069M (2) SEPT. 20, 2010



MAINTENANCE AND PROTECTION OF TRAFFIC

(Sheet 1 of 4)

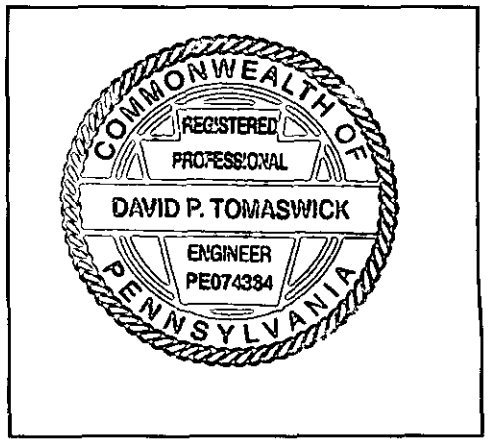
1. Non-Compliance of Maintenance and Protection of Traffic will apply to **ALL** work and potential hazards associated with this contract as determined by the Inspector-in-Charge.
2. No work permitted during Holiday periods of July 2nd - 4th (Saturday thru Monday) and September 3rd – September 5th (Saturday thru Monday), 2011. Contact PENNDOT's Community Relations Coordinator (724-357-2829) for additional events scheduled within or near Limits of Work in order to coordinate lane restrictions.
3. Adequately protect all potential hazards created by construction activities in accordance with Pub. 408/2011, 212, and 213 until such hazards are eliminated.
4. Use appropriate PATA Figure from Pub 213 for Work Zone Traffic Control.
5. All highway workers shall wear yellow/green (ANSI, Class 2) vests.
6. Flaggers shall wear yellow/green (ANSI, Class 2) vests and leggings.
7. In the event of open excavation in shoulder area during non-working hours, install Long Term signing at each end of project warning motorists of "SHOULDER WORK AHEAD" with type "B" flashing light, a minimum of two Long Term devices per opening, and an appropriate amount of orange fencing to protect open excavation. Maintain as such until operations are completed or excavation is safely backfilled.
8. Follow Drop Off treatment as outlined in Pub. 408/2011 Section 901.3 (j).
9. BACKUP BY CONTRACTOR: Complete all FINAL shoulder backup within 5 days of completion of site paving.
10. Use "BE PREPARED TO STOP" sign(s) between "ROAD WORK AHEAD" sign and "ONE LANE ROAD AHEAD" sign when queue backs up beyond first advanced warning sign. Relocate signs according to the corresponding distance chart.
11. The use of three (3) FLAGS is required on all Short-Term Signing.



MAINTENANCE AND PROTECTION OF TRAFFIC

(Sheet 2 of 4)

12. Do not leave Roadway Profile Milling exposed for more than 6 calendar days from the start of milling, see Section491.1 of Pub. 408/2011. Install Long Term "ROUGH ROAD" signs with type B lights in advance of the milled area until this surface is overlaid, unless otherwise directed.
13. Place Bituminous cold patch, with a minimum 12:1 taper to protect obstructions Curb To Curb (Manhole covers, Inlets, Water Valves, etc.), that are 2" or higher during construction operations.
14. Replace eradicated intersection pavement markings (including lane lines, turn arrows, stop bars and Railroad legends) prior to removing Traffic Control Devices at that location.
15. Maintain traffic control until all pavement markings and signing are approved by the Inspector-in-Charge.
16. Record locations of all existing Centerline and Shoulder Rumble Strips for future reference and replacement before beginning any operations on a site, and provide documentation to the Inspector-in-Charge.
17. Accurately mark all existing pavement markings for future reference and replacement before beginning any operations on a site, and provide documentation to the Inspector-in-Charge. Contact District Traffic Engineer or representative (724-357-0131) prior to final placement of Pavement Markings for location approval.
18. Temporarily fill paving notches with Bituminous Cold Patch or Bituminous Hot Mix and install Long Term "BUMP" signs with type B lights.



MAINTENANCE AND PROTECTION OF TRAFFIC

(Sheet 3 of 4)

19. PAINT LINES: Pub 212.407 – When lane line and center line pavement markings on more than 250 linear feet of highway are covered or destroyed by construction, they must be replaced before ending work each day, with standard pavement marking or with temporary pavement markings. (See Below)

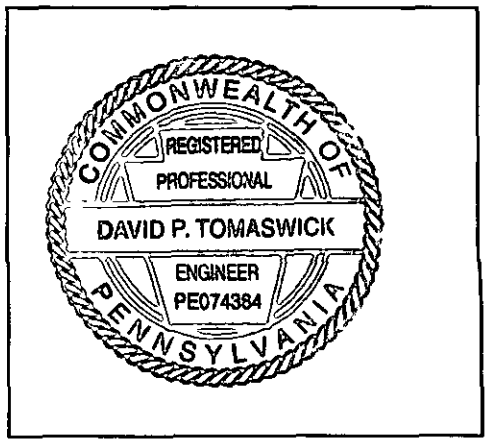
    TEMPORARY PAVEMENT MARKINGS (TPM) – are not to be in place for more than one week

    a) Solid double Yellow – place 2 foot yellow reflectorized tape, parallel sections, at 40 foot intervals for markings as a guideline for future painting, concurrently with the current day's paving operations. Install "DO NOT PASS" sign(s) and "NO PAVEMENT MARKINGS" sign(s) not to exceed more than ½ mile intervals.
    b) Broken White – (Only to be used on multi-lane highways) place 2 foot white reflectorized tape, at 80 foot intervals for markings as a guideline for painting, concurrently with the current day's paving operations. Install "NO PAVEMENT MARKINGS" sign(s) not to exceed more than ½ mile intervals.

    STANDARD PAVEMENT MARKINGS (SPM)

    a) Install above stated reflectorized tape as a guide for painting, concurrently with current day's paving operations.
    b) Paint Standard Pavement Markings on roadway.

20 On Final paint applications, paint 200' prior to the new pavement and 200' beyond the new pavement. Paint existing paint lines 50' on all roadways that intersect with the new pavement.



MAINTENANCE AND PROTECTION OF TRAFFIC

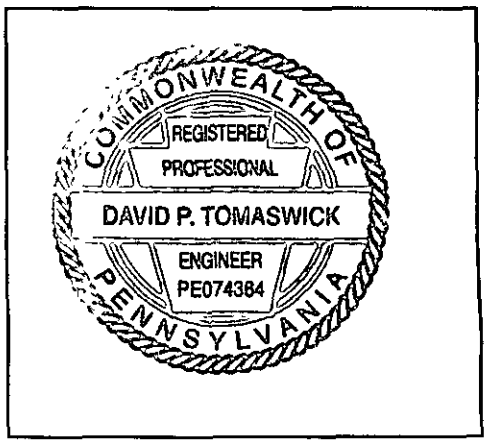
(Sheet 4 of 4)

TABULATION OF TRAFFIC CONTROL DEVICES

TABULATION OF QUANTITIES ARE MINIMUM APPLICATIONS AND IN NO WAY PRECLUDE THE INSTALLATION OF ADDITIONAL APPROVED SIGNS OR DEVICES.

INCLUDED IN ITEM NO. 0901-0001 (FOR INFORMATION ONLY)

Quantity	Description	Sign No.	Size
9	ROAD WORK	W20-1	36" x 36"
2	½ MILE	W30-1-4	20" x 6"
2	1500 FT	W30-1-3	20" x 6"
5	AHEAD	W30-1-6	20" x 6"
2	ROAD WORK NEXT MILES	G20-1	60" x 30"
2	END ROAD WORK	G20-2	60" x 24"
AS REQ.	FLAGGER SYMBOL	W20-7A	36" x 36"
AS REQ.	ONE LANE ROAD AHEAD	W20-4	36" x 36"
AS REQ.	BE PREPARED TO STOP	W3-4	36" x 36"
AS REQ	SHOULDER WORK AHEAD	W21-5	36" x 36"
AS REQ	NO GUIDE RAIL	W21-9A	30" x 30"
AS REQ	NONMETALLIC DEVICES (VERTICAL PANELS)		
13	TYPE III BARRICADE		
AS REQ	POST MOUNTED SIGNS		
AS REQ	TYPE B LIGHT (RED AND YELLOW)		
AS REQ	TEMPORARY PROTECTIVE FENCE		
AS REQ.	BITUMINOUS COLD PATCH		



INDIANA COUNTY

SR 403 CRAMER NORTH PM

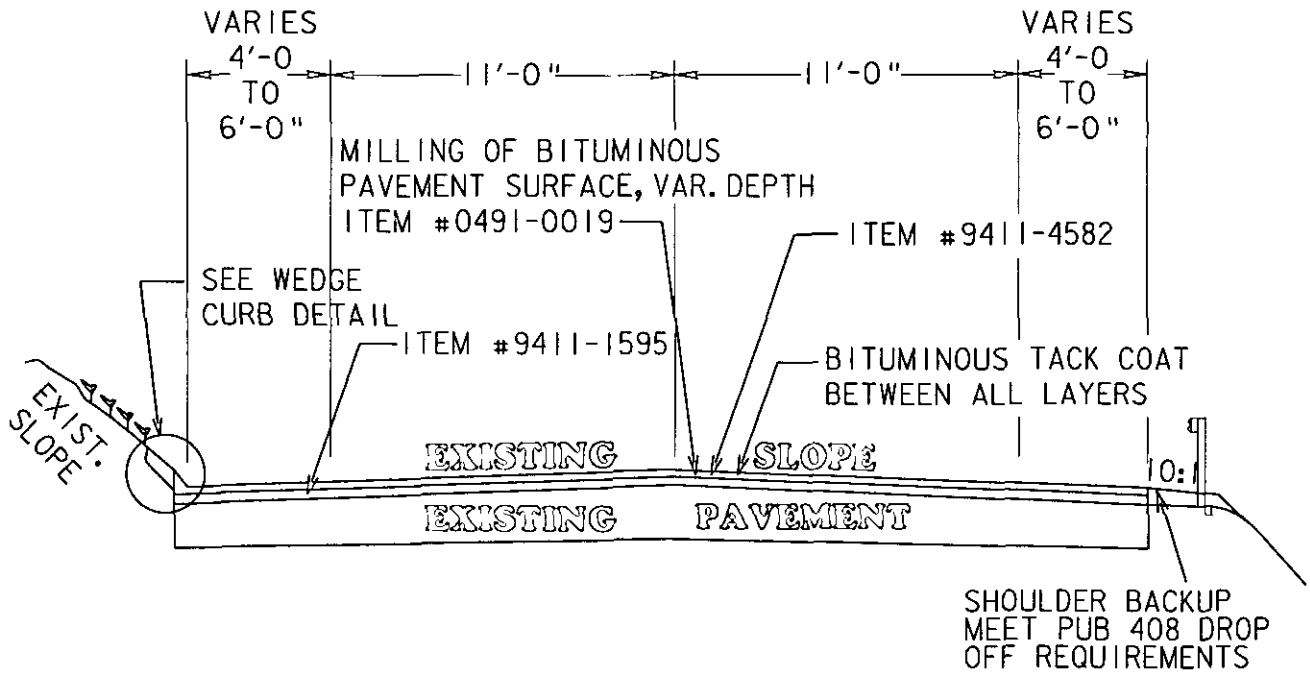
SR 403 SECTION 490

SITE SPECIFIC REQUIREMENTS

SR	Site
403	1

1 Description of Work Drainage, Bituminous Milling, Bituminous Overlay, Guide Rail Removal and Replacement, and other Miscellaneous Construction

TYPICAL # 1



SITE#	S.R.	SEG/OFF	TO	SEG/OFF
PAVING	403	0060/0000	TO	0100/1941
GUIDE RAIL	403	0010/0000	TO	0100/1941

NOTES: 1) MATCH EXISTING ROADWAY AND SHOULDER SLOPES.

2) MILL AND PAVE BACK DRIVEWAYS AND SIDE ROADS AS NEEDED TO OBTAIN SMOOTH TRANSITION.

3) MOVE GUIDE RAIL TO WITHIN 6" TO EDGE OF SHOULDER AS NEEDED TO OBTAIN FIRM FOUNDATION TO INSTALL. OTHERWISE KEEP 2'-0" FROM EDGE OF SHOULDER. USE 7 FT LONG POSTS AS NEEDED. SEE GUIDE RAIL TABSHEET.

4) RPS TESTING IS NOT REQUIRED ON SHOULDERS.

APPLICATION RATES (FOR INFORMATION ONLY)
SP HMA WEARING 9.5MM - 1½"
SP HMA LEVELING 9.5MM - 115# PER 1"/SY

NOT TO SCALE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CRAIG A. CHELEDNIK
ENGINEER
PE-039781-E

BITUMINOUS WEDGE CURB

DETAIL # 2

NOTES:
1) INSTALL BITUMINOUS WEDGE CURB AT LOCATIONS INDICATED IN THE TAB SHEETS, AND AS DIRECTED BY THE INSPECTOR-IN-CHARGE, IN SECTIONS WHERE EROSION IS EVIDENT OR WHERE NECESSARY TO DIRECT ROADWAY WATER TO AN INLET (INCLUDING BEHIND ALL INLETS).
2) LOCATIONS CAN BE ADDED OR ELIMINATED AS DIRECTED BY INSPECTOR-IN-CHARGE.
3) ADJUST HEIGHT AT DRIVEWAYS TO 3" MAXIMUM.
4) BITUMINOUS WEDGE CURB PAID AS SQUARE YARDS WITH THE FINAL BITUMIMOUS COURSE UNLESS OTHERWISE INDICATED.
5) DO NOT MILL OFF EXISTING WEDGE IF IT IS IN GOOD CONDITION.

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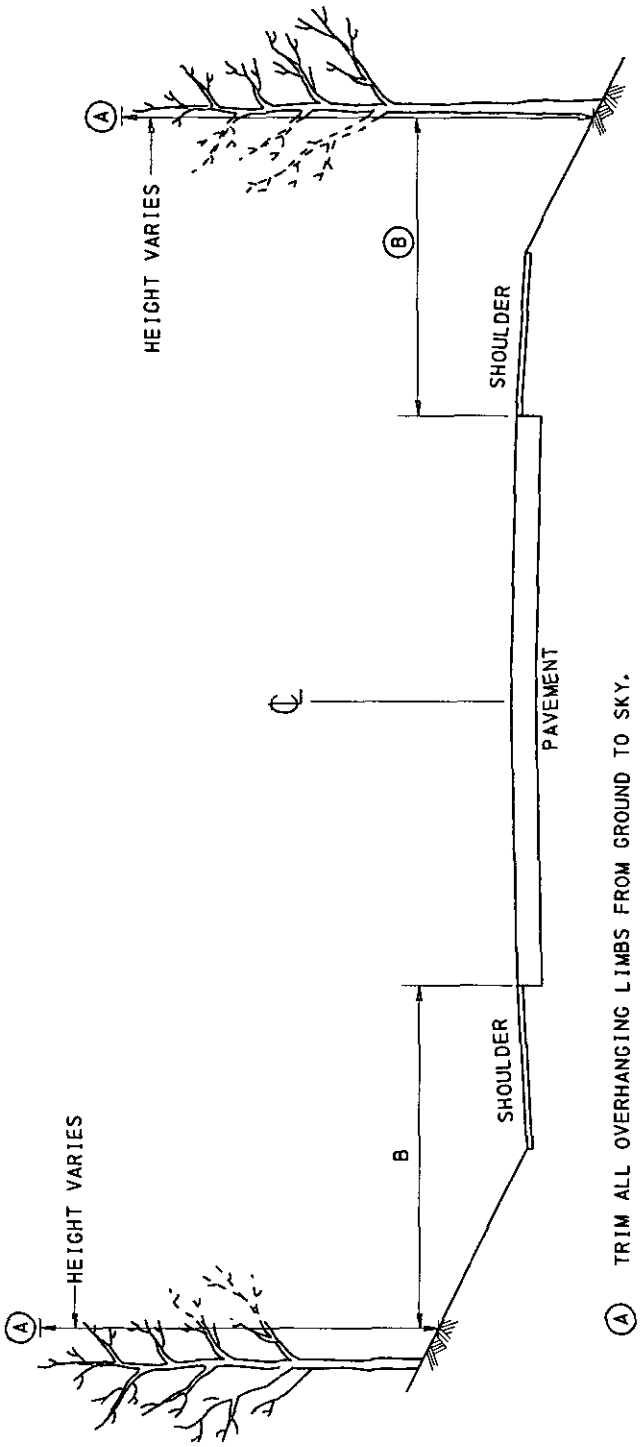
ENGINEER
PE-039781-E

TREE REMOVAL AND TRIMMING

DETAIL # 3

ITEM NO. 9810-0000



(A) TRIM ALL OVERHANGING LIMBS FROM GROUND TO SKY.

(B) CLEAR ALL BRUSH AND TREES TO THE RIGHT OF WAY OR 50' FROM THE EDGE OF TRAVEL LANE, WHICHEVER IS LESS.

NOTE: 1) CLEAR ALL BRUSH AND TREES, TREAT ALL STUMPS AND ROOTS, ETC. IN ACCORDANCE WITH SECTION 810 OF PUB 408.
2) TREES IN LAWN AREAS WILL BE REVIEWED BY PENNDOT PERSONNEL AND DETERMINE HOW TO TRIM.
3) SEE RC-92M FOR MORE DETAILS.
4) SEE PAGE 2 FOR RIGHT OF WAY DIMENSIONS.

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ENGINEER
PE-039781 E

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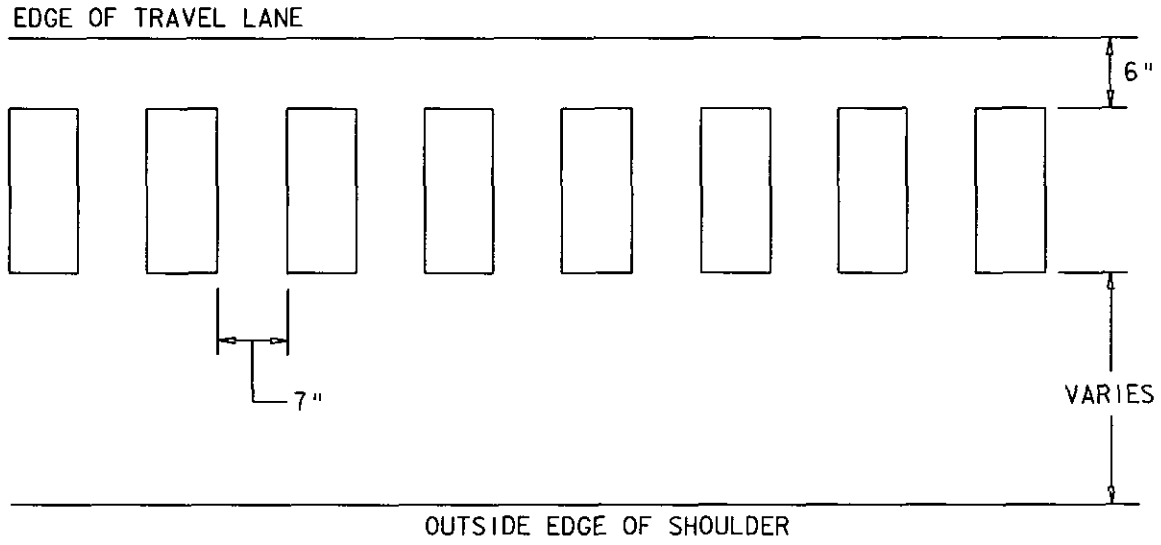
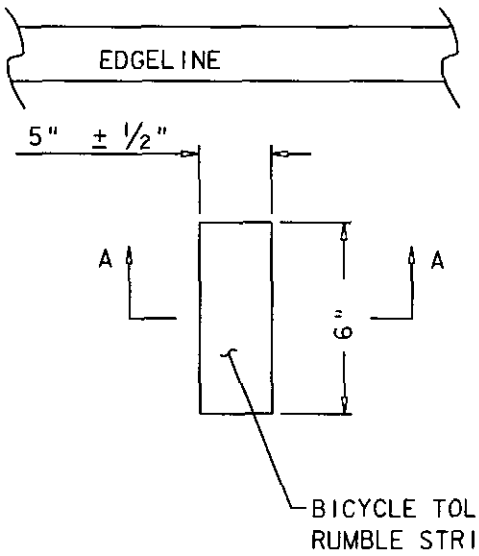
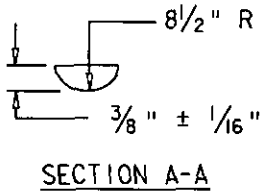
EDGELINE RUMBLE STRIP DETAIL

DETAIL # 4







SECTION A-A

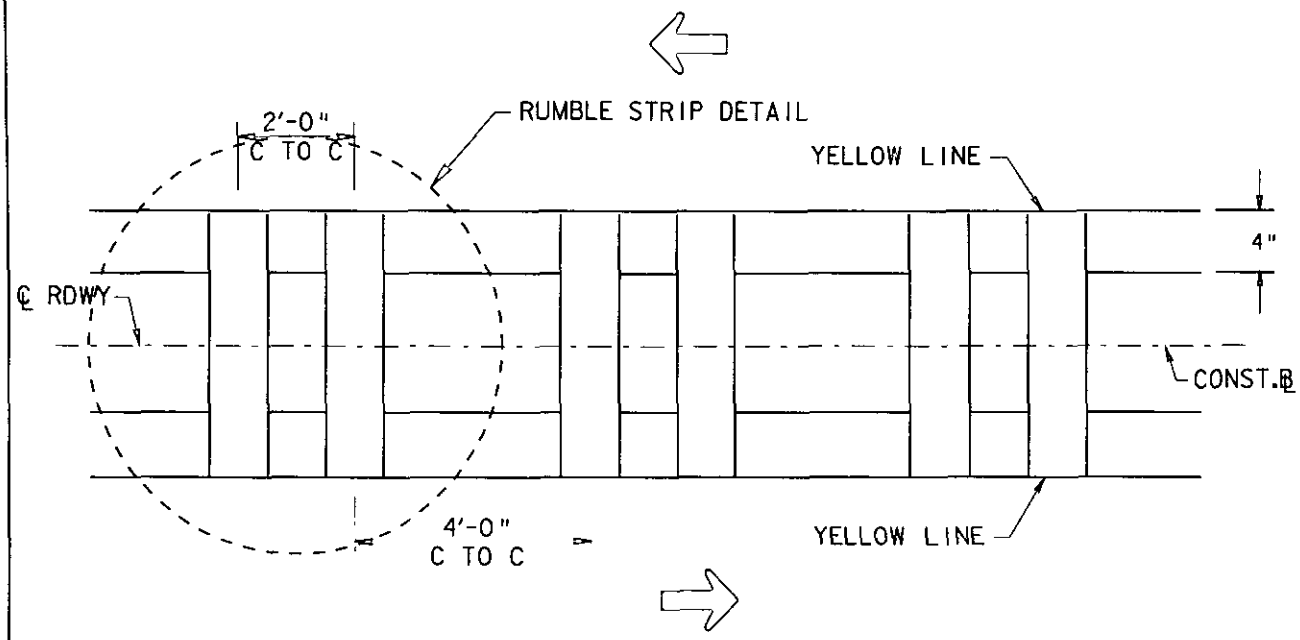
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CRAIG A. CHELEDNIK
ENGINEER
PE-039781-E

NOT TO SCALE

CENTERLINE RUMBLE STRIP DETAIL

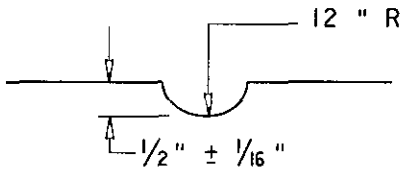
DETAIL # 5

ITEM # 9660-0001

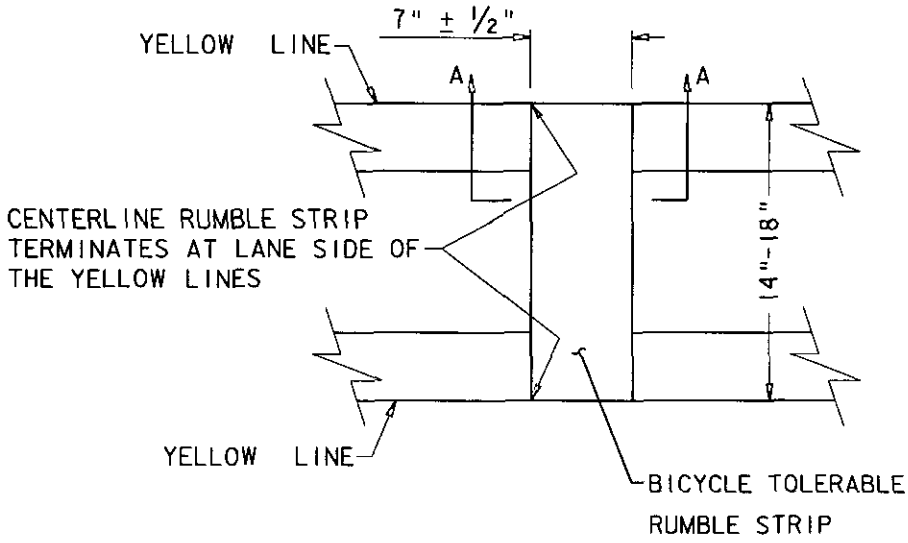


1.) DO NOT INSTALL RUMBLE STRIPS THROUGH INTERSECTIONS OR PASSING ZONES.

2.) RUMBLE STRIPS MAY BE MOVED SLIGHTLY TO AVOID REFLECTIVE PAVEMENT MARKER LENSES.



SECTION A-A

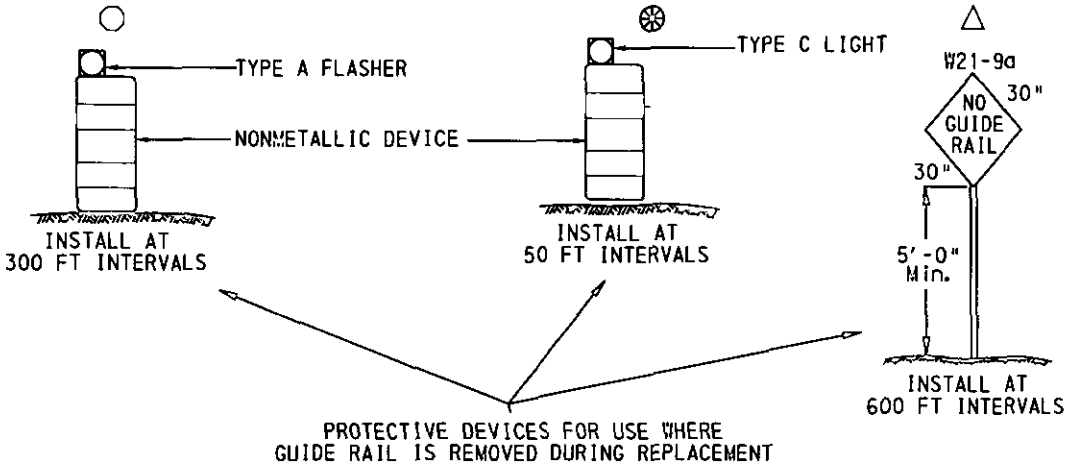


NOT TO SCALE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CRAIG A. CHELEDNIK
ENGINEER
PE-039781-E

GUIDE RAIL SIGNING DIAGRAM

DETAIL # 6



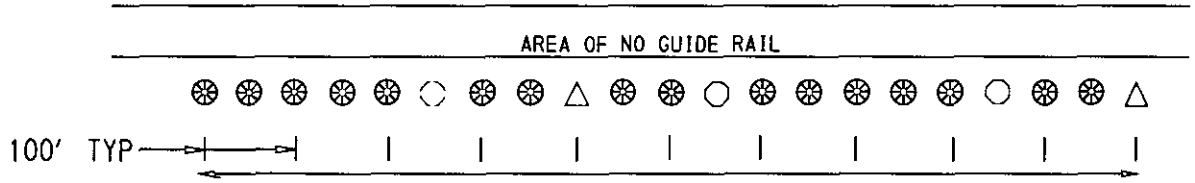


DIAGRAM SHOWS MINIMUM SIGNING.
INSTALL ADDITIONAL SIGNS DURING
CONSTRUCTION, IF REQUIRED
OR AS DIRECTED

CONFORM TO PUBLICATION 213
FOR ADVANCE SIGNING

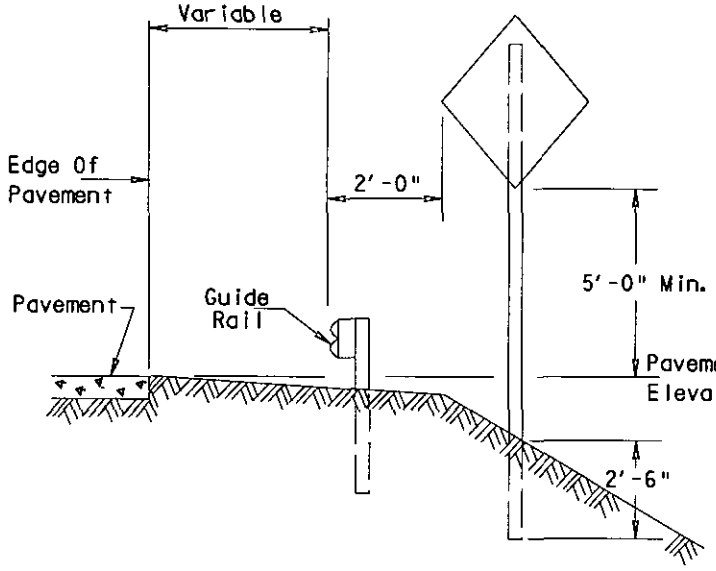
SIGNS ARE INCIDENTAL TO THE GUIDE RAIL REMOVED.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CRAIG A. CHELEDNIK
ENGINEER
PE-039781-E

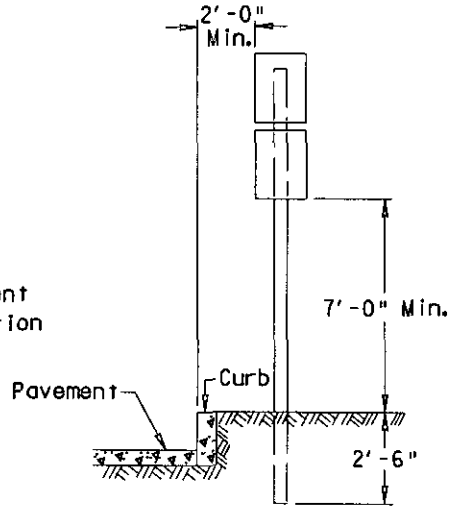
NOT TO SCALE

SIGN HEIGHT AND LATERAL POSITION DETAIL # 7

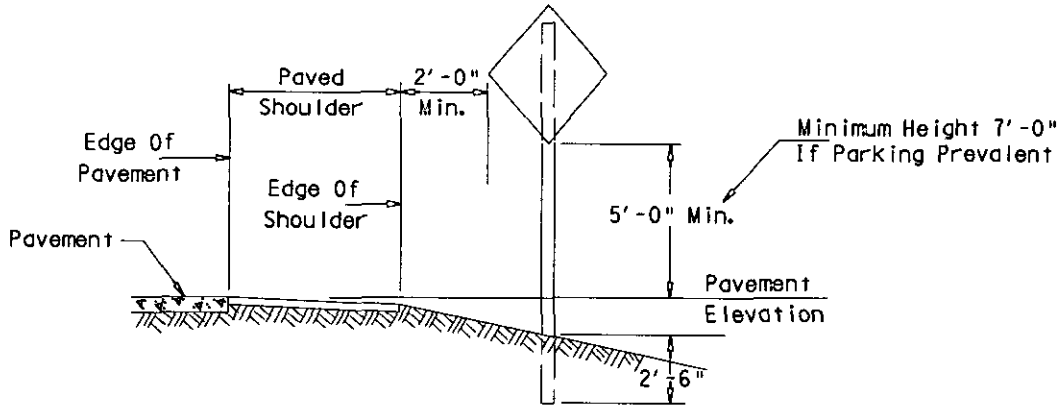
GUIDE RAIL AREA



URBAN AREA



RURAL AREA, FILL SECTION



* For Other Details - See Traffic Control Signing Standard TC-77028, And Contract Special Provisions .

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REGISTERED PROFESSIONAL
CRAIG A. CHELEDNIK
ENGINEER
PE-039781-E

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* For other details - See Traffic - Control Signing Standard TC8702B

SUMMARY OF ITEMS

CALCS BY AHR
INPUT BY JSF
CHKD BY AHR

◇ - SEE SPECIAL PROVISIONS

District 10-0, INDIANA County	
Group No.	
State Project No.	
ECMS No.	89652

\DS1\SR 403 CRAMER NORTH PM\403PM MDB

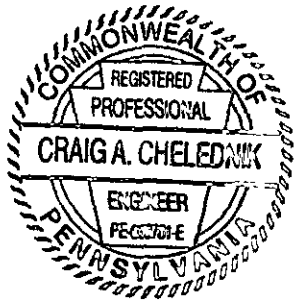
5/24/2011 7 59 32 AM

QTY	ITEM NO / UNIT	DESCRIPTION	DESIGN #	FOR TAB SEE SHEET
100	0203 0004 CY	CLASS 1B EXCAVATION		25
175	0204 0010 LF	CLEANING EXISTING DITCHES		27
15	0205 0264 CY	SELECTED BORROW EXCAVATION ROCK, CLASS R-4		27
500	0213 0001 DOLLA	TEMPORARY PROJECT AIR POLLUTION CONTROL		NO TAB
200	0309 0537 TON	SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BASE COURSE, PG 64-22, 3 TO < 10 MILLION ESALS, 25.0 MM MIX		25
445	0350 0121 TON	SUBBASE (NO. 2A)		25, 28
2250	9411 1595 TON	WARM MIX ASPHALT (WMA) WEARING COURSE (LEVELING), PG 64-22, 3 TO <10 MILLION ESALS, 9.5MM MIX, SRL-L ◇		25
45945	9411 4582 SY	WARM MIX ASPHALT (WMA) WEARING COURSE, RPS, PG 64-22, 3 TO <10 MILLION ESALS, 9.5MM MIX, 1 1/2" DEPTH, SRL-H ◇		25
90390	0460 0001 SY	BITUMINOUS TACK COAT		25
3550	4461 0001 SY	BITUMINOUS PRIME COAT MODIFIED ◇		28
45445	0491 0019 SY	MILLING OF BITUMINOUS PAVEMENT SURFACE, VARIABLE DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR		25
750	0601 5901 LF	CLEANING EXISTING PIPE CULVERTS, DIAMETERS UP TO AND INCLUDING 36"		27, NO TAB
24	0601 7313 LF	18" REINFORCED CONCRETE PIPE, TYPE B, 15' - 1.5' FILL		27
2	0606 0050 SET	GRADE ADJUSTMENT OF EXISTING INLETS		27
	0608 0001 LS	MOBILIZATION		NO TAB
	0609 0003 LS	INSPECTOR'S FIELD OFFICE AND INSPECTION FACILITIES, TYPE B		NO TAB

SUMMARY OF ITEMS

CALCS BY AHR
INPUT BY JSF
CHKD BY: AHR

◇ - SEE SPECIAL PROVISIONS



District 10-0, INDIANA County
Group No.
State Project No.
ECMS No. 89652

\\DS1\SR 403 CRAMER NORTH PM\403PM MDB

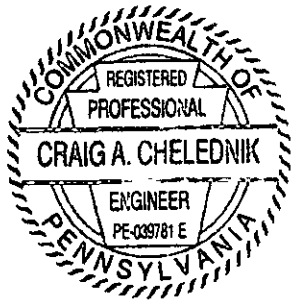
5/24/2011 7:59 32 AM

QTY	ITEM NO / UNIT	DESCRIPTION	DESIGN #	FOR TAB SEE SHEET
X	0609 0009 LS	EQUIPMENT PACKAGE ◇		NO TAB
1000	0610 0002 LF	6" PIPE UNDERDRAIN TYPE I BACKFILL		25
500	0612 0010 LF	SUBGRADE DRAINS, INCLUDING SHOULDER RESTORATION		25
16	0619 0470 EACH	PERMANENT IMPACT ATTENUATING DEVICE, TYPE II, TEST LEVEL 3 (ENERGY ABSORBING TERMINALS, TANGENT)		26
12	0620 0400 EACH	TERMINAL SECTION, SINGLE		26
12683	0620 0503 LF	REMOVE EXISTING GUIDE RAIL (CONTRACTOR'S PROPERTY)		26
100	0620 0595 LF	STRUCTURE MOUNTED GUIDE RAIL		26
3	0620 0863 EACH	ANCHOR TERMINAL, BACKSLOPE		26
21	0620 0900 EACH	REMOVE CONCRETE ANCHORAGE		26
12639	0620 1075 LF	TYPE 2-S GUIDE RAIL		26
100	0620 1100 LF	TYPE 2-SC GUIDE RAIL		26
4	0620 1250 EACH	TYPE 2 STRONG POST END TREATMENT		26
X	0686 0040 LS	CONSTRUCTION SURVEYING, TYPE C		NO TAB
X	0689 0002 LS	NETWORK SCHEDULE		NO TAB
100	0802 0001 CY	TOPSOIL FURNISHED AND PLACED		28
25	0804 0011 LB	SEEDING AND SOIL SUPPLEMENTS - FORMULA B		28

SUMMARY OF ITEMS

CALCS BY AHR
INPUT BY JSF
CHKD BY AHR

◇ - SEE SPECIAL PROVISIONS



District 10-0, INDIANA County
Group No.
State Project No.
ECMS No. 89652

\DS1\SR 403 CRAMER NORTH PM\403PM MDB

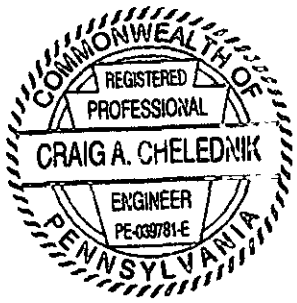
5/24/2011 7 59 32 AM

QTY	ITEM NO / UNIT	DESCRIPTION	DESIGN #	FOR TAB SEE SHEET
25	0804 0013 LB	SEEDING AND SOIL SUPPLEMENTS - FORMULA D		28
1	0805 0024 TON	MULCHING - WOOD FIBER		28
500	0845 0002 DOLLA	UNFORESEEN WATER POLLUTION CONTROL		NO TAB
	0901 0001 LS	MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION		NO TAB
20	0901 0231 DAY	ADDITIONAL WARNING LIGHTS, TYPE B		NO TAB
20	0901 0232 DAY	ADDITIONAL WARNING LIGHTS, TYPE C		NO TAB
300	0901 0240 SF	ADDITIONAL TRAFFIC CONTROL SIGNS		NO TAB
195	0931 0001 SF	POST MOUNTED SIGNS, TYPE B		29-34
55	0935 0001 SF	POST MOUNTED SIGNS, TYPE F		29-34
20	0937 0105 EACH	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (Y/Y)		29-34
30	0937 0107 EACH	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (W/W)		29-34
40	0937 0333 EACH	FLEXIBLE DELINEATOR POST, GROUND-MOUNT TYPE GM-2, YELLOW POST WITH YELLOW/BLANK SHEETING		29-34
1	0941 0001 EACH	RESET POST MOUNTED SIGNS, TYPE B		29-34
1	0945 0001 EACH	RESET POST MOUNTED SIGNS, TYPE F		29-34
50400	0962 1000 LF	4" WHITE WATERBORNE PAVEMENT MARKINGS		35
50400	0962 1005 LF	4" YELLOW WATERBORNE PAVEMENT MARKINGS		35

SUMMARY OF ITEMS

CALCS BY AHR
INPUT BY JSF
CHKD BY AHR

◇ - SEE SPECIAL PROVISIONS



District 10-0, INDIANA County
Group No.
State Project No.
ECMS No. 89652

G \DS1\SR 403 CRAMER NORTH PM\403PM MDB

5/24/2011 7 59 32 AM

QTY	ITEM NO / UNIT	DESCRIPTION		DESIGN #	FOR TAB SEE SHEET
25200	4964 0001 LF	4" WHITE EPOXY PAVEMENT MARKINGS MODIFIED	◇		35
25200	4964 0002 LF	4" YELLOW EPOXY PAVEMENT MARKINGS MODIFIED	◇		35
9558	9660 0001 LF	MILLED CENTERLINE RUMBLE STRIPS	◇		28
8175	9660 0030 LF	MILLED EDGELINE RUMBLE STRIPS	◇		28
	9810 0000 LS	TREE REMOVAL AND TRIMMING	◇		NO TAB

CALCS BY AHR
INPUT BY JSF
CHKD BY AHR

TABULATION OF QUANTITIES

ROADWAY

SHEET 25 OF 35
ROUTE 403
SECTION 490

DISTRICT 10-0 GR
COUNTY INDIANA
ECMS # 89652

EAST WHEATFIELD TWP

0203 0004 CY CLASS 1B EXCAVATION	0309 0537 TON SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BASE COURSE, PG 64-22, 3 TO < 10 MILLION ESALS, 25 0 MM MIX	0350 0121 TON SUBBASE (NO 2A)	9411 1595 TON WARM MIX ASPHALT (WMA) WEARING COURSE (LEVELING), PG 64-22, 3 TO <10 MILLION ESALS, 9 5MM MIX, SRL-L	9411 4582 SY WARM MIX ASPHALT (WMA) WEARING COURSE, RPS, PG 64-22, 3 TO <10 MILLION ESALS, 9 5MM MIX, 1 1/2" DEPTH, SRL-H	0460 0001 SY BITUMINOUS TACK COAT	0491 0019 SY MILLING OF BITUMINOUS PAVEMENT SURFACE, VARIABLE DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR	0610 0002 LF 6" PIPE UNDERDRAIN TYPE I BACKFILL	0612 0010 LF SUBGRADE DRAINS, INCLUDING SHOULDER RESTORATION	ITEM NUMBER UNIT REMARKS	SIDE	SEGMENTS/OFFSETS
									SR 403		
100	200	90					1000		AS DIRECTED - PATCHING		0100/1941 TO 0060/0000
						44445		500	AS DIRECTED - ROADWAY PREP		0100/1941 TO 0060/0000
				500	500				BITUMINOUS WEDGE CURB		0100/1941 TO 0060/0000
		100		1000	1000	1000			DRIVEWAYS		0100/1941 TO 0060/0000
			2250	44445	88890				OVERLAY		0100/1941 TO 0060/0000
100	200	190	2250	45945	90390	45445	1000	500	TOTALS		

G \ds1\SR 403 CRAMER NORTH PM\403pm MDB 5/24/2011 7 42 47 AM

CALCS BY AHR
INPUT BY JSF
CHKD BY AHR

TABULATION OF QUANTITIES

ROUTE 403
SECTION 490

GUIDE RAIL

DISTRICT 10-0 GR.
COUNTY INDIANA
ECMS # 89652

EAST WHEATFIELD TWP

0619 0470 EACH PERMANENT IMPACT ATTENUATING DEVICE, TYPE II, TEST LEVEL 3 (ENERGY ABSORBING TERMINALS, TANGENT)	0620 0400 EACH TERMINAL SECTION, SINGLE	0620 0503 LF REMOVE EXISTING GUIDE RAIL (CONTRACTOR'S PROPERTY)	0620 0595 LF STRUCTURE MOUNTED GUIDE RAIL	0620 0863 EACH ANCHOR TERMINAL, BACKSLOPE	0620 0900 EACH REMOVE CONCRETE ANCHORAGE	0620 1075 LF TYPE 2-S GUIDE RAIL	0620 1100 LF TYPE 2-SC GUIDE RAIL	0620 1250 EACH TYPE 2 STRONG POST END TREATMENT	ITEM NUMBER UNIT REMARKS	SIDE	SEGMENTS/OFFSETS
									SR 403		
1		5838			1	5838			CONNECT TO EXISTING, REPLACE BANK ANCHOR WITH TL3	LT	0010/0000 TO 0030/0300
2		662			2	662 5			TL3-2S-TL3	LT	0030/0612 TO 0030/1267
	1	387 5		1		388			DRIVE RADIUS-2S-BANK ANCHOR	RT	0030/0802 TO 0030/1182
1	1	1050				1050			TL3-2S-DRIVE RADIUS	LT	0040/1267 TO 0050/0100
	1	212	37 5		1	250	25	1	DRIVE RADIUS LOCUST ST-2S-2SC-SM-2SC-2S-RADIUS FRONT ST	RT	0040/2154 TO 0050/0084
	2	212	37 5		1	150	25		DRIVE RADIUS-2S-2SC-SM-2SC-2S-DRIVE RADIUS	LT	0050/0232 TO 0050/0380
	1	162	25	1		112 5	25		BANK ANCHOR-2S-2SC-SM-2SC-2S-DRIVE RADIUS	RT	0050/0359 TO 0050/0464
1		387				362 5	25		TL3-2S-2SC-CONNECT TO CHESNUT ST- 7 FT LONG POSTS	RT	0050/0718 TO 0050/1098
1		200			1	200			RADIUS ON CHESTNUT STREET-2S-TL3	RT	0050/1098 TO 0050/1288
2		450			2	450			TL3-2S-TL3	RT	0050/1415 TO 0050/1858
2		425			2	425			TL3-2S-TL3	LT	0060/0887 TO 0060/1309
	1	137				137 5		1	RADIUS STUTZMAN ROAD-2S-DRIVE RADIUS-7FT LONG POSTS	RT	0070/0000 TO 0070/0137
1		162			1	212 5		1	RADIUS STUTZMAN TO SIDE ROAD-2S-TL3	LT	0070/0000 TO 0070/0158
2		150			2	150			TL3-2S-TL3	LT	0070/1964 TO 0070/2112
1	1	137			2	137 5			DRIVE RADIUS-2S-TL3	LT	0070/2407 TO 0070/2534
1		412			1	412 5		1	RADIUS GEORGE LANE-2S-TL3	RT	0080/1858 TO 0000/2238
	1	812		1	1	812 5			BANK ANCHOR-2S-DRIVE RADIUS 7FT LONG POSTS	RT	0090/1562 TO 0090/2365
	2	412			2	412 5			DRIVE RADIUS-2S-DRIVE RADIUS 7FT LONG POSTS	RT	0090/2386 TO 0100/0279
1	1	475			2	475			TL3-2S-DRIVE RADIUS-7FT LONG POSTS	LT	0100/0992 TO 0100/1457
16	12	12682 5	100	3	21	12638 5	100	4	TOTALS		

G \ds1\SR 403 CRAMER NORTH PM\403pm MDB 5/18/2011 2 56 31 PM

CALCS BY AHR
INPUT BY JSF
CHKD BY AHR

TABULATION OF QUANTITIES

DRAINAGE

ROUTE 403
SECTION 490

DISTRICT 10-0 GR
COUNTY INDIANA
ECMS # 89652

EAST WHEATFIELD TWP

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CRAIG A. CHELEDNIK
ENGINEER
PE-039781 E

0204 0010 LF CLEANING EXISTING DITCHES	0205 0264 CY SELECTED BORROW EXCAVATION ROCK, CLASS R-	0601 5901 LF CLEANING EXISTING PIPE CULVERTS, DIAMETERS UP TO AND INCLUDING 36"	0601 7313 LF 18" REINFORCED CONCRETE PIPE, TYPE B, 15' - 1 5' FILL	0606 0050 SET GRADE ADJUSTMENT OF EXISTING INLETS					ITEM NUMBER UNIT	REMARKS	SIDE	SEGMENTS/OFFSETS
										SR 403		
175	15	250	24	2						AS DIRECTED		0010/0000 TO 0100/1491
175	15	250	24	2						TOTALS		

G \ds1\SR 403 CRAMER NORTH PM\403pm MDB 5/18/2011 2 56 39 PM

CALCS BY AHR
INPUB BY JSF
CHKD BY AHR

TABULATION OF QUANTITIES

MISCELLANEOUS

SHEET 28 OF 35
ROUTE 403
SECTION 490

DISTRICT 10-0 GR
COUNTY . INDIANA
ECMS # 89652

EAST WHEATFIELD TWP

SUBBASE (NO 2A) 0350 0121 TON	BITUMINOUS PRIME COAT MODIFIED 4461 0001 SY	TOPSOIL FURNISHED AND PLACED 0802 0001 CY	SEEDING AND SOIL SUPPLEMENTS - FORMULA B 0804 0011 LB	SEEDING AND SOIL SUPPLEMENTS - FORMULA D 0804 0013 LB	MULCHING - WOOD FIBER 0805 0024 TON		MILLED CENTERLINE RUMBLE STRIPS 9660 0001 LF	MILLED EDGELINE RUMBLE STRIPS 9660 0030 LF	ITEM NUMBER / UNIT / REMARKS	SIDE	SEGMENTS/OFFSETS
									SR 403 - GUIDE RAIL AREA		
255	3550								ADD SUBBASE AND PRIMECOAT IN GUIDERAIL AREAS		0100/1941 TO 0030/0300
									SR 403 - RUMBLE STRIPS		
								480	EDGE LINE SR 403 ON RIGHT	RT	0060/0000 TO 0060/0480
							700		CENTER LINE SR 403	CL	0060/0000 TO 0060/0700
								1020	EDGE LINE SR 403 ON RIGHT	RT	0060/1185 TO 0070/0280
							3544		CENTER LINE SR 403	CL	0060/1185 TO 0070/2805
								770	EDGE LINE SR 403 ON LEFT	LT	0070/0480 TO 0070/1250
								1025	EDGE LINE SR 403 ON LEFT	LT	0070/1575 TO 0070/2600
								1173	EDGE LINE SR 403 ON RIGHT	RT	0080/0589 TO 0080/1762
							5118		CENTER LINE SR 403	CL	0080/0680 TO 0100/0800
								973	EDGE LINE SR 403 ON RIGHT	RT	0080/2148 TO 0090/0626
								1274	EDGE LINE SR 403 ON RIGHT	RT	0090/0426 TO 0090/1700
								1035	EDGE LINE SR 403 ON RIGHT	RT	0090/1700 TO 0100/0232
								425	EDGE LINE SR 403 ON LEFT	LT	0100/0375 TO 0100/0800
							196		CENTER LINE SR 403	CL	0100/1295 TO 0100/1491
									SR 403 - SEEDING		
		100	25	25	1				ENTIRE PROJECT - SEED AS DIRECTED		
255	3550	100	25	25	1		9558	8175	**TOTALS**		

G \ds1\SR 403 CRAMER NORTH PM\403pm MDB 5/18/2011 2 56 56 PM

CALCS BY ARD
INPUT BY ARD
CHKD BY ARD

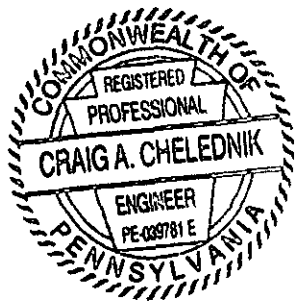
TABULATION OF QUANTITIES

SHEET 29 OF 35
ROUTE 403
SECTION 490

SIGNING AND PAVEMENT MARKING PLAN

DISTRICT 10-0 GR.
COUNTY · INDIANA
ECMS # 89652

EAST WHEATFIELD TWP



POST MOUNTED SIGNS, TYPE B 0931 0001 SF	POST MOUNTED SIGNS, TYPE F 0935 0001 SF	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (Y/Y) 0937 0105 EACH	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (W/W) 0937 0107 EACH	FLEXIBLE DELINEATOR POST, GROUND-MOUNT TYPE GM-2, YELLOW POST WITH YELLOW/BLANK SHEETING 0937 0333 EACH	RESET POST MOUNTED SIGNS, TYPE B 0941 0001 EACH	NOMENCLATURE	SIZE	FACING DIRECTION	ITEM NUMBER UNIT REMARKS	SIDE	SEGMENTS/OFFSETS
		20	30	40					ENTIRE PROJECT		
52						R1-1	30X30	EAST	STOP SIGN	RT	0060/0020
5						R2-1	24X30	SOUTH	SPEED LIMIT SIGN 50 MPH	RT	0060/0255
75						R2-2-1	30X36	NORTH	TRUCKS OVER 21000 LBS 35 MPH SIGN	LT	0060/0525
625						W1-4L	30X30	SOUTH	LEFT REVERSE CURVE SIGN	RT	0060/1052
625						W2-1	30X30	SOUTH	CROSS ROAD SIGN	RT	0060/1323
	533					W16-8A	48X16	SOUTH	DOUBLE-LINE ADVANCE STREET NAME SIGN - (LT) GRANGE HALL	RT	0060/1323
5						R2-1	24X30	NORTH	SPEED LIMIT SIGN 50 MPH	LT	0060/1787
75						R2-2-1	30X36	NORTH	TRUCKS OVER 21000 LB S 35 MPH SIGN	LT	0060/1875
	45					I40-1	36X18	SOUTH	ADOPT-A-HIGHWAY NEXT 2 MILES SIGN	RT	0060/1885
	3					I43-2	36X12	SOUTH	GROUP NAME SIGN - KEYSTONE / OFF ROAD RIDERS	RT	0060/1885
9						PIBH#298 731	36X36	SOUTH	KEEP PA BEAUTIFUL FOLD DOWN SIGN	RT	0060/1885
52						R1-1	30X30	WEST	STOP SIGN	LT	0060/1910
52						R1-1	30X30	EAST	STOP SIGN	RT	0060/1963
625						W1-2R	30X30	SOUTH	RIGHT CURVE SIGN	RT	0070/1415
625						W1-4L	30X30	NORTH	LEFT REVERSE CURVE SIGN	LT	0070/1670
75						NORTH	30X36	NORTH	TRUCKS OVER 21000 LB S 35 MPH SIGN	LT	0070/2455
5						R2-1	24X30	SOUTH	SPEED LIMIT SIGN 50 MPH	RT	0070/2455
625						W1-2L	30X30	NORTH	LEFT CURVE SIGN	LT	0070/2934
625						W1-2L	30X30	SOUTH	LEFT CURVE SIGN	RT	0080/1214
	225					W13-1	18X18	SOUTH	ADVISORY SPEED PLAQUE 40 MPH	RT	0090/0640
625						W1-4R	30X30	SOUTH	RIGHT REVERSE CURVE SIGN	RT	0090/0640
5						R2-1	24X30	NORTH	SPEED LIMIT SIGN 50 MPH	LT	0090/0925
	225					W13-1	18X18	NORTH	ADVISORY SPEED PLAQUE 40 MPH	LT	0100/0380
625						W1-4R	30X30	NORTH	RIGHT REVERSE CURVE SIGN	LT	0100/0380
5						R2-1	24X30	SOUTH	SPEED LIMIT SIGN 50 MPH	RT	0100/0525

CALCS BY ARD
INPUT BY ARD
CHKD BY ARD

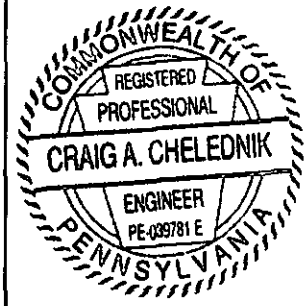
TABULATION OF QUANTITIES

SIGNING AND PAVEMENT MARKING PLAN

SHEET 30 OF 35
ROUTE 403
SECTION 490

DISTRICT 10-0 GR
COUNTY INDIANA
ECMS # 89652

EAST WHEATFIELD TWP



RESET POST MOUNTED SIGNS, TYPE F	NOMENCLATURE	SIZE	FACING DIRECTION	ITEM NUMBER	UNIT	REMARKS	SIDE	SEGMENTS/OFFSETS
				0945	0001	EACH		
						ENTIRE PROJECT		
	R1-1	30X30	EAST			STOP SIGN	RT	0060/0020
	R2-1	24X30	SOUTH			SPEED LIMIT SIGN 50 MPH	RT	0060/0255
	R2-2-1	30X36	NORTH			TRUCKS OVER 21000 LBS 35 MPH SIGN	LT	0060/0525
	W1-4L	30X30	SOUTH			LEFT REVERSE CURVE SIGN	RT	0060/1052
	W2-1	30X30	SOUTH			CROSS ROAD SIGN	RT	0060/1323
	W16-8A	48X16	SOUTH			DOUBLE-LINE ADVANCE STREET NAME SIGN - (LT) GRANGE HALL	RT	0060/1323
	R2-1	24X30	NORTH			SPEED LIMIT SIGN 50 MPH	LT	0060/1787
	R2-2-1	30X36	NORTH			TRUCKS OVER 21000 LB S 35 MPH SIGN	LT	0060/1875
	I40-1	36X18	SOUTH			ADOPT-A-HIGHWAY NEXT 2 MILES SIGN	RT	0060/1885
	I43-2	36X12	SOUTH			GROUP NAME SIGN - KEYSTONE / OFF ROAD RIDERS	RT	0060/1885
	PIBH#298 731	36X36	SOUTH			KEEP PA BEAUTIFUL FOLD DOWN SIGN	RT	0060/1885
	R1-1	30X30	WEST			STOP SIGN	LT	0060/1910
	R1-1	30X30	EAST			STOP SIGN	RT	0060/1963
	W1-2R	30X30	SOUTH			RIGHT CURVE SIGN	RT	0070/1415
	W1-4L	30X30	NORTH			LEFT REVERSE CURVE SIGN	LT	0070/1670
	NORTH	30X36	NORTH			TRUCKS OVER 21000 LB S 35 MPH SIGN	LT	0070/2455
	R2-1	24X30	SOUTH			SPEED LIMIT SIGN 50 MPH	RT	0070/2455
	W1-2L	30X30	NORTH			LEFT CURVE SIGN	LT	0070/2934
	W1-2L	30X30	SOUTH			LEFT CURVE SIGN	RT	0080/1214
	W13-1	18X18	SOUTH			ADVISORY SPEED PLAQUE 40 MPH	RT	0090/0640
	W1-4R	30X30	SOUTH			RIGHT REVERSE CURVE SIGN	RT	0090/0640
	R2-1	24X30	NORTH			SPEED LIMIT SIGN 50 MPH	LT	0090/0925
	W13-1	18X18	NORTH			ADVISORY SPEED PLAQUE 40 MPH	LT	0100/0380
	W1-4R	30X30	NORTH			RIGHT REVERSE CURVE SIGN	LT	0100/0380
	R2-1	24X30	SOUTH			SPEED LIMIT SIGN 50 MPH	RT	0100/0525

CALCS BY ARD
INPUT BY ARD
CHKD BY ARD

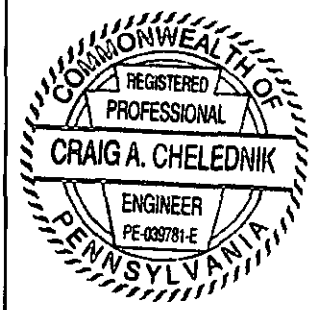
TABULATION OF QUANTITIES

SIGNING AND PAVEMENT MARKING PLAN

SHEET 31 OF 35
ROUTE 403
SECTION 490

DISTRICT 10-0 GR
COUNTY INDIANA
ECMS # 89652

EAST WHEATFIELD TWP



POST MOUNTED SIGNS, TYPE B 0931 0001 SF	POST MOUNTED SIGNS, TYPE F 0935 0001 SF	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (Y/Y) 0937 0105 EACH	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (W/W) 0937 0107 EACH	FLEXIBLE DELINEATOR POST, GROUND-MOUNT TYPE GM-2, YELLOW POST WITH YELLOW/BLANK SHEETING 0937 0333 EACH	RESET POST MOUNTED SIGNS, TYPE B 0941 0001 EACH	NOMENCLATURE	SIZE	FACING DIRECTION	ITEM NUMBER UNIT REMARKS	SIDE	SEGMENTS/OFFSETS
	2 19					M2-1	21X15	SOUTH	JUNCTION MARKER	RT	0100/1025
4						M1-4	24X24	SOUTH	U S ROUTE MARKER (U S 22)	RT	0100/1025
	2 19					M5-1R	21X15	SOUTH	ADVANCE 90 DEGREE RIGHT TURN MARKER	RT	0100/1175
	2					M3-2	24X12	SOUTH	EAST MARKER	RT	0100/1175
	2 19					M6-3	21X15	SOUTH	STRIAGHT THROUGH MARKER	RT	0100/1175
4						M1-4	24X24	SOUTH	U S ROUTE MARKER (U S 22)	RT	0100/1175
4						M1-4	24X24	SOUTH	U S ROUTE MARKER (U S 22)	RT	0100/1175
	2					M3-4	24X12	SOUTH	WEST MARKER	RT	0100/1175
4 5						I40-1	36X18	NORTH	ADOPT-A-HIGHWAY NEXT 2 MILES SIGN	LT	0100/1400
	4 5					I40-1	36X18	NORTH	ADOPT-A-HIGHWAY NEXT 2 MILES SIGN	LT	0100/1400
	3					I43-2	36X12	NORTH	GROUP NAME SIGN - KEYSTONE / OFF ROAD RIDERS	LT	0100/1400
9						PIBH#298 731	36X36	NORTH	KEEP PA BEAUTIFUL FOLD DOWN SIGN	LT	0100/1400
12						D1-2A	72X24	SOUTH	DOUBLE-LINE DESTINATION MILEAGE SIGN - (ST) BLAIRSVILLE	RT	0100/1466
						D7-4	72X24	SOUTH	GHOST TOWN TRAIL	RT	0100/1466
					1	D7-4	72X24	SOUTH	DILLTOWN B&B / ANTIQUES & GIFTS	RT	0100/1580
	2					M3-3	24X12	NORTH	NORTH MARKER	LT	0100/1650
5						M1-5	30X24	NORTH	PENNSYLVANIA ROUTE MARKER (PA ROUTE 403)	LT	0100/1650
4 5						I40-1	36X18	SOUTH	ADOPT-A-HIGHWAY NEXT 2 MILES SIGN	RT	0100/1685
	3					D15-1	18X24	SOUTH	EMERGERGENCY DETOUR ORANGE TRAILBLAZER SIGN (RT)	RT	0100/1685
	3					I43-2	36X12	SOUTH	GROUP NAME SIGN -WALKER / CHRISTMAS TREES	RT	0100/1685
12						D2-2	72X24	NORTH	DOUBLE-LINE DISTANCE SIGN - CRAMER 3 / JOHNSTOWN 9	LT	0100/1700
	3					D15-1	18X24	NORTH	EMERGENCY DETOUR BLUE TRAILBLAZER SIGN (ST)	LT	0100/1700
	2 19					M6-1	21X15	SOUTH	90 DEGREE TURN MARKER	RT	0100/1870
	2					M3-2	24X12	SOUTH	EAST MARKER	RT	0100/1870
	2 19					M6-3	21X15	SOUTH	STRIAGHT THROUGH MARKER	RT	0100/1870
4						M1-4	24X24	SOUTH	U S ROUTE MARKER (U S 22)	RT	0100/1870
4						M1-4	24X24	SOUTH	U S ROUTE MARKER (U S 22)	RT	0100/1870

CALCS BY ARD
INPUT BY ARD
CHKD BY ARD

TABULATION OF QUANTITIES

SIGNING AND PAVEMENT MARKING PLAN

SHEET 32 OF 35
ROUTE 403
SECTION 490

DISTRICT 10-0 GR
COUNTY INDIANA
ECMS # 89652

EAST WHEATFIELD TWP

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CRAIG A. CHELEDNIK
ENGINEER
PE-039781-E

RESET POST MOUNTED SIGNS, TYPE F	NOMENCLATURE	SIZE	FACING DIRECTION	ITEM NUMBER	UNIT	REMARKS	SIDE	SEGMENTS/OFFSETS
				0945	0001	EACH		
	M2-1	21X15	SOUTH			JUNCTION MARKER	RT	0100/1025
	M1-4	24X24	SOUTH			U S ROUTE MARKER (U S 22)	RT	0100/1025
	M5-1R	21X15	SOUTH			ADVANCE 90 DEGREE RIGHT TURN MARKER	RT	0100/1175
	M3-2	24X12	SOUTH			EAST MARKER	RT	0100/1175
	M6-3	21X15	SOUTH			STRIAGHT THROUGH MARKER	RT	0100/1175
	M1-4	24X24	SOUTH			U S ROUTE MARKER (U S 22)	RT	0100/1175
	M1-4	24X24	SOUTH			U S ROUTE MARKER (U S 22)	RT	0100/1175
	M3-4	24X12	SOUTH			WEST MARKER	RT	0100/1175
	I40-1	36X18	NORTH			ADOPT-A-HIGHWAY NEXT 2 MILES SIGN	LT	0100/1400
	I40-1	36X18	NORTH			ADOPT-A-HIGHWAY NEXT 2 MILES SIGN	LT	0100/1400
	I43-2	36X12	NORTH			GROUP NAME SIGN - KEYSTONE / OFF ROAD RIDERS	LT	0100/1400
	PIBH#298 731	36X36	NORTH			KEEP PA BEAUTIFUL FOLD DOWN SIGN	LT	0100/1400
	D1-2A	72X24	SOUTH			DOUBLE-LINE DESTINATION MILEAGE SIGN - (ST) BLAIRSVILLE	RT	0100/1466
1	D7-4	72X24	SOUTH			GHOST TOWN TRAIL	RT	0100/1466
	D7-4	72X24	SOUTH			DILLTOWN B&B / ANTIQUES & GIFTS	RT	0100/1580
	M3-3	24X12	NORTH			NORTH MARKER	LT	0100/1650
	M1-5	30X24	NORTH			PENNSYLVANIA ROUTE MARKER (PA ROUTE 403)	LT	0100/1650
	I40-1	36X18	SOUTH			ADOPT-A-HIGHWAY NEXT 2 MILES SIGN	RT	0100/1685
	D15-1	18X24	SOUTH			EMERGERGENCY DETOUR ORANGE TRAILBLAZER SIGN (RT)	RT	0100/1685
	I43-2	36X12	SOUTH			GROUP NAME SIGN -WALKER / CHRISTMAS TREES	RT	0100/1685
	D2-2	72X24	NORTH			DOUBLE-LINE DISTANCE SIGN - CRAMER 3 / JOHNSTOWN 9	LT	0100/1700
	D15-1	18X24	NORTH			EMERGENCY DETOUR BLUE TRAILBLAZER SIGN (ST)	LT	0100/1700
	M6-1	21X15	SOUTH			90 DEGREE TURN MARKER	RT	0100/1870
	M3-2	24X12	SOUTH			EAST MARKER	RT	0100/1870
	M6-3	21X15	SOUTH			STRIAGHT THROUGH MARKER	RT	0100/1870
	M1-4	24X24	SOUTH			U S ROUTE MARKER (U S 22)	RT	0100/1870
	M1-4	24X24	SOUTH			U S ROUTE MARKER (U S 22)	RT	0100/1870

CALCS BY ARD
INPUT BY ARD
CHKD BY ARD

TABULATION OF QUANTITIES

SHEET 33 OF 35
ROUTE 403
SECTION 490

SIGNING AND PAVEMENT MARKING PLAN

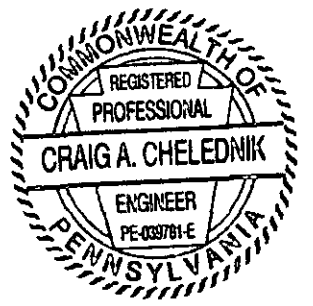
DISTRICT 10-0 GR
COUNTY INDIANA
ECMS # 89652

EAST WHEATFIELD TWP

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CRAIG A. CHELEDNIK
ENGINEER
PE-039781-E

POST MOUNTED SIGNS, TYPE B 0931 0001 SF	POST MOUNTED SIGNS, TYPE F 0935 0001 SF	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (Y/Y) 0937 0105 EACH	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (W/W) 0937 0107 EACH	FLEXIBLE DELINEATOR POST, GROUND-MOUNT TYPE GM-2, YELLOW POST WITH YELLOW/BLANK SHEETING 0937 0333 EACH	RESET POST MOUNTED SIGNS, TYPE B 0941 0001 EACH	NOMENCLATURE	SIZE	FACING DIRECTION	ITEM NUMBER / UNIT / REMARKS	SIDE	SEGMENTS/OFFSETS
	2					M3-4	24X12	SOUTH	WEST MARKER	RT	0100/1870
5 2						R1-1	30X30	WEST	STOP SIGN	LT	0100/1930
194 3	54 78	20	30	40	1				TOTALS		

G \ds1\SR 403 CRAMER NORTH PM\signs MDB 5/18/2011 3 00 09 PM



CALCS BY ARD
INPUT BY ARD
CHKD BY ARD

TABULATION OF QUANTITIES

SIGNING AND PAVEMENT MARKING PLAN

SHEET 34 OF 35
ROUTE 403
SECTION 490

DISTRICT 10-0 GR
COUNTY INDIANA EAST WHEATFIELD TWP
ECMS # 89652

CRAIG A. CHELEDNIK
PE-039781-E

RESET POST MOUNTED SIGNS, TYPE F 0945 0001 EACH						NOMENCLATURE	SIZE	FACING DIRECTION	REMARKS	SIDE	SEGMENTS/OFFSETS
						M3-4	24X12	SOUTH	WEST MARKER	RT	0100/1870
						R1-1	30X30	WEST	STOP SIGN	LT	0100/1930
1									TOTALS		

CALCS BY RJC
INPUT BY ARD
CHKD BY TWW

TABULATION OF QUANTITIES

PAVEMENT MARKINGS

SHEET 35 OF 35
ROUTE 403
SECTION 490

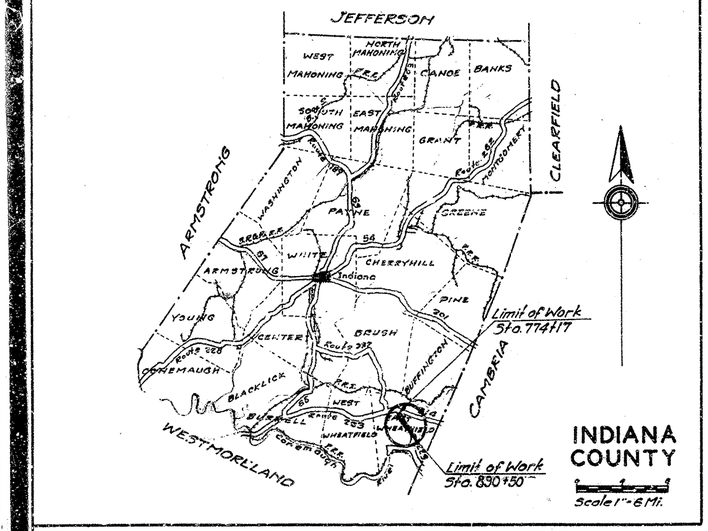
DISTRICT: 10-0 GR
COUNTY INDIANA
ECMS # 89652

EAST WHEATFIELD TWP

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CRAIG A. CHELEDNIK
ENGINEER
PE-039781-E

4" WHITE WATERBORNE PAVEMENT MARKINGS 0962 1000 LF	4" YELLOW WATERBORNE PAVEMENT MARKINGS 0962 1005 LF	4" WHITE EPOXY PAVEMENT MARKINGS MODIFIED 4964 0001 LF	4" YELLOW EPOXY PAVEMENT MARKINGS MODIFIED 4964 0002 LF	ITEM NUMBER UNIT	REMARKS	SIDE	SEGMENTS/OFFSETS
					STATE ROUTE 403		
50400	50400	25200	25200		ENTIRE PROJECT		
50400	50400	25200	25200		TOTALS		

G \ds1\SR 403 CRAMER NORTH PM\signs MDB 5/18/2011 3 01 40 PM



COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF HIGHWAYS

DRAWINGS FOR CONSTRUCTION OF

ROUTE NO. 223 SECTION NO. 1

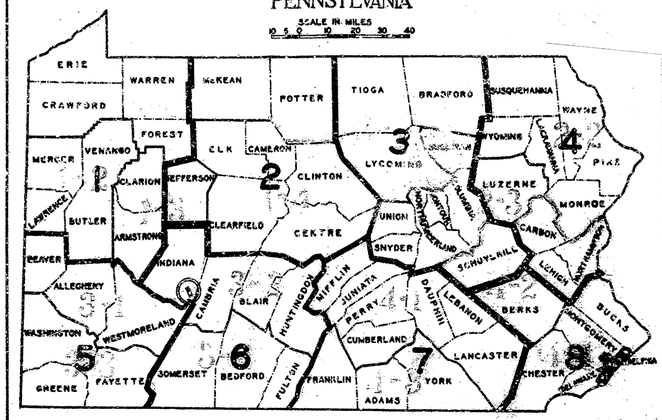
IN INDIANA COUNTY

From Sta. 774+17 To Sta. 890+50

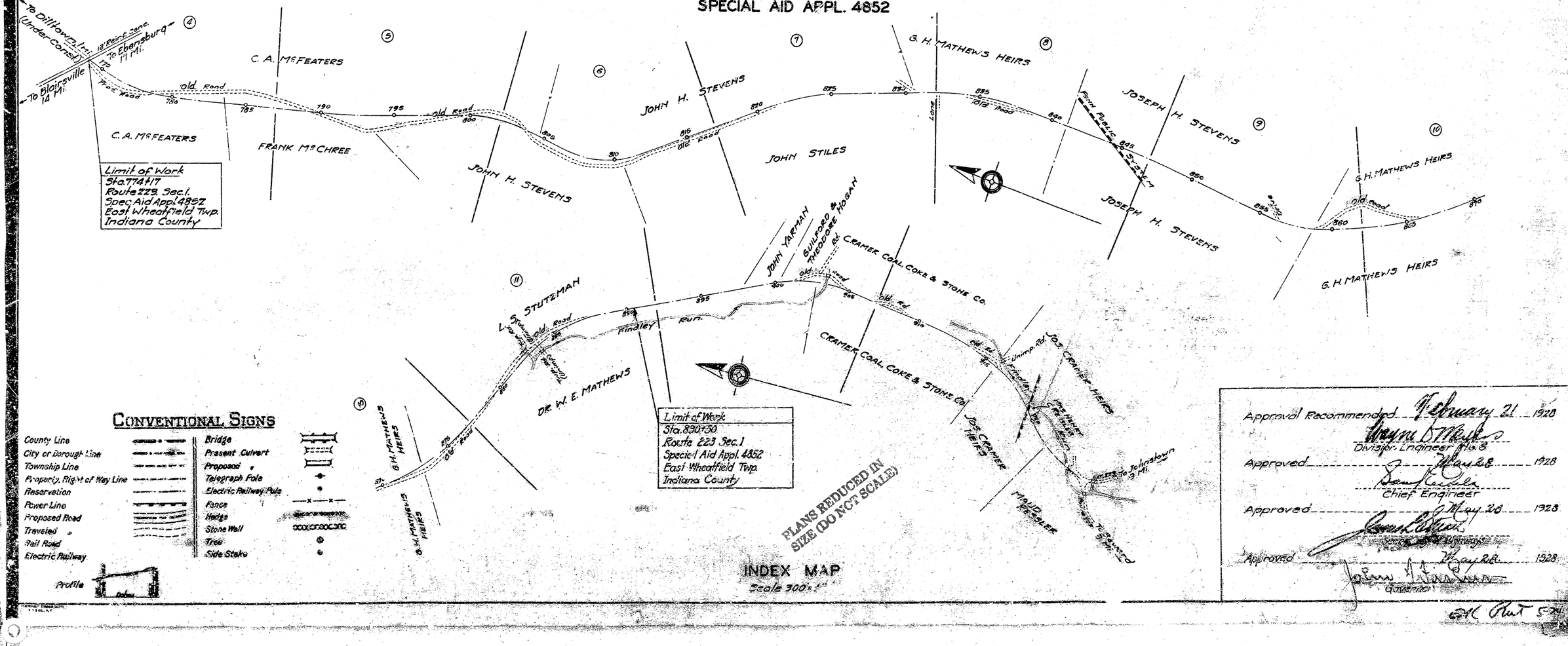
Length 11,664.96 Ft.

Scales { Plan: 1 In. = 50 Ft.
Profile: Hor. 1 In = 50 Ft. Vert. 1 In. = 10 Ft.

SPECIAL AID APPL. 4852



SPEC. AID	DIVISION	COUNTY	TOWNSHIP	BOROUGH	ROUTE	SECT.	APPL.	AUTH.	TOTAL SHEETS
	6	Indiana	E. Wheatfield		223	1	Sp. A 4852		11



CONVENTIONAL SIGNS

County Line	Bridge
City or Borough Line	Present Culvert
Township Line	Proposed "
Property, Right of Way Line	Telegraph Pole
Reservation	Electric Railway Pole
Power Line	Fence
Proposed Road	Hedge
Traveled "	Stone Wall
Rail Road	Tree
Electric Railway	Side Stake

Profile

Approval Recommended February 21 1928
Wayne D. Mark
Division Engineer No. 6

Approved May 28 1928
Sam Eckels
Chief Engineer

Approved May 28 1928
Chief Engineer

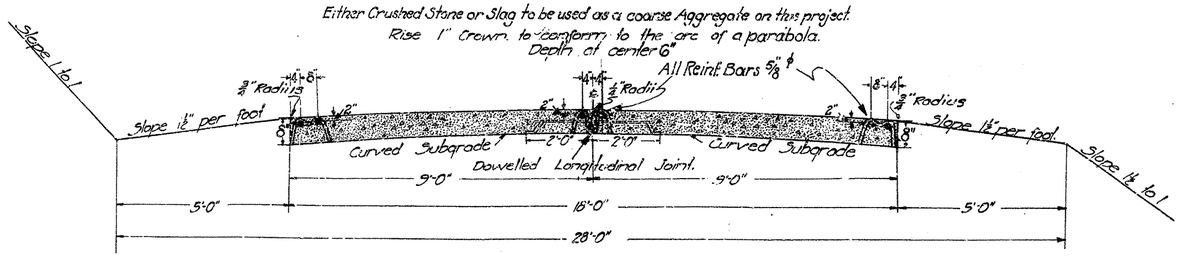
Approved May 28 1928
John A. Sinclair
Governor

GJC Rust 5-24-28

Div.	County	Route	Sec.	Sheet
6	Indiana	229	1	2 of 11

Special Aid Appl. 4852
East Wheatfield Twp.

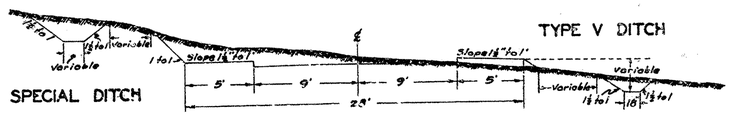
Either Crushed Stone or Slag to be used as a coarse Aggregate on this project.
Rise 1" Crown to conform to the arc of a parabola.
Depth at center 6"



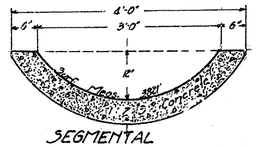
REINFORCED

ONE COURSE PORTLAND CEMENT CONCRETE

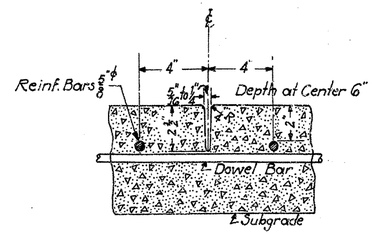
For Details see Sheet "B" attached



TYPICAL SECTION OF TYPE V AND SPECIAL DITCH



SEGMENTAL



SKETCH SHOWING ALTERNATE METHOD OF CONSTRUCTING DOWELLED LONGITUDINAL CENTER JOINT AS PROVIDED FOR IN THE SPECIAL REQUIREMENTS

EQUATIONS

Beginning of Project Sta. 774+70		
Sta. 774+70 to Sta. 826+99.31		5282.31 ft.
" 826+99.31 Back = 826+83.31 Ahead	+10.00'	
" 826+83.31 to Sta. 840+98.71		1409.40 "
" 840+98.71 Back = 841+04.07 Ahead	-5.36'	
" 841+04.07 to Sta. 889+11.33		4807.26 "
" 889+11.33 Back = 885+34.01 Ahead	+27.32'	
" 888+84.01 to Sta. 890+50		165.39 "
Overall Length of project.		11,664.96

Tabulation of Standard Wire Rope Guard Fence Required.
Not included in Contract

Stations			Left	Right
775+50	to	776+00	250	
775+50	"	778+20		270
784+00	"	789+00		500
797+00	"	800+00		300
797+30	"	801+60	460	
803+30	"	808+60	530	
804+30	"	807+00		270
828+20	"	830+60	210	
830+50	"	831+90		140
832+20	"	833+30		110
837+00	"	842+00		500
840+00	"	841+00	100	
858+30	"	864+00		550
871+00	"	874+00		300
881+20	"	883+20	130	
884+00	"	885+40		140
885+00	"	886+00	120	120
Totals			1860	3200

GENERAL NOTES

Original Legal Right of Way 33 feet in width.

Before work shall be started and materials ordered the contractor shall meet and consult with the Division Engineer relative to materials, equipment and all arrangements for prosecuting the work.

The top of all headwalls, copings, and bridge floors to be parallel to the grade line. Culverts shall not be placed until staked and ordered placed by the Engineer.

The grade line represents the profile of the finished surface of pavement along the center line of the proposed construction.

Expansion joints are indicated by "x" and apply to concrete pavement only. After Sept. 15th additional expansion joints shall be placed in accordance with paragraph 156-a of the specifications.

Tile Underdrain to be placed where directed by the Engineer.

The ends of paving sections shall be constructed with an additional depth as shown on the drawings for thickened edge pavements.

All intersections with connecting roads and streets shall be warped when so directed by the Engineer.

Subgrade Testers to be constructed so that points are not more than (⅛") one-eighth of an inch above the theoretical subgrade elevation. When any marks or indentations are made by the Tester the subgrade is to be lowered to the required depth and the Subgrade Tester again passed over the subgrade after all marks are removed.

No transverse expansion joint shall be placed within ten (10) feet of any culvert pipe, new culvert or bridge.

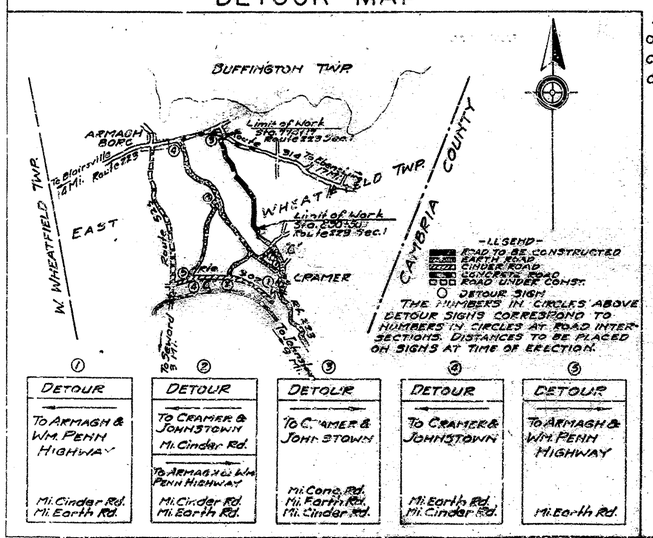
Required width of Right of Way is 50' plus additional width as determined by slopes and widened curves.

The Contractor shall place a white flag approximately 30" square to a staff some 3' above the ground at a conspicuous point at the end of each grading section.

All existing drainage structures are to be removed unless otherwise specified.

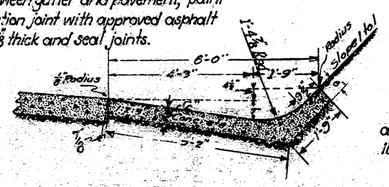
Overall Length of Project 11,664.96 Ft.

DETOUR MAP



①	②	③	④	⑤
DETOUR	DETOUR	DETOUR	DETOUR	DETOUR
To Armagh & Wm. Penn Highway	To Cramer & Johnstown	To Cramer & Johnstown	To Cramer & Johnstown	To Armagh & Wm. Penn Highway
Mi. Cinder Rd.	Mi. Cinder Rd.			
Mi. Earth Rd.	To Armagh & Wm. Penn Highway	Mi. Conc. Rd.	Mi. Earth Rd.	Mi. Earth Rd.
	Mi. Cinder Rd.	Mi. Earth Rd.	Mi. Cinder Rd.	
	Mi. Earth Rd.	Mi. Cinder Rd.		

Between butting ends of sections of gutter and between gutter and pavement, paint construction joint with approved asphalt or tar ⅛" thick and seal joints.



To be constructed in alternate sections of 10 Feet.

PLAIN CEMENT CONCRETE GUTTER

Type or combination of Types to be definitely determined by the Engineer during Construction.

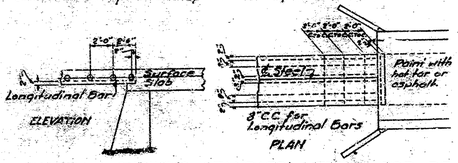
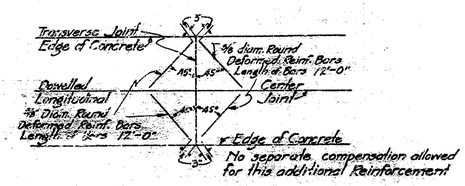


DIAGRAM SHOWING STANDARD METHOD FOR REINFORCING ROADWAY SLAB ADJACENT TO BRIDGE

To be used in multiples of 2'-0"

18' PAVEMENT



No separate compensation allowed for this additional Reinforcement

PLAN OF ADDITIONAL REINFORCEMENT AT ALL TRANSVERSE JOINTS AND AT ENDS OF PAVEMENT

Div.	County	Route	Sec.
6	Indiana	259	1

Sp. A. Appl. 4852
East Wheatfield Townsh.

GRADING ANALYSIS

THE FOLLOWING INFORMATION ON THE ESTIMATED AMOUNTS AND DISPOSITION OF THE GRADING QUANTITIES HAS BEEN USED BY THE DEPARTMENT OF HIGHWAYS IN ITS PRELIMINARY ESTIMATES FOR THIS PROJECT AND SHALL NOT BE TAKEN OR USED AS A WAIVER OF THE PROVISIONS OF THE SPECIFICATIONS.

STATIONS	CLASSIFICATION	CHARACTER	CUT	FILL	SWELL %	SHRINKAGE %	AVAILABLE CUT	FILL + SHRINKAGE	EXCESS CUT	EXCESS FILL	WASTE	CLASS 1 EXCAV.	CLASS 2 EXCAV.	REMARKS
774+17-780+00	Roadway	50% S.Shale 50% Earth	713	1398		20	713	1678		965		713		
776+50	Open Ditch		17								17		17	
780+00-790+00	Roadway	50% S.Shale 50% Earth	2945	1759		20	2945	2111	834			2945		
790+00-800+00	Roadway	50% S.Shale 50% Earth	808	1569		20	808	1883		1075		808		
786+00-795+50	T.U.D.						85		85					
793+00	Outlet Ditch		50								50		50	
797+50	Outlet Ditch		23								23		23	
800+00-810+00	Roadway	10% L.Rock 90% S.Shale	2892	5842		10	2892	6426		3534		2892		
808+50	Inlet Ditch		26								26		26	
800+50-805+75	T.U.D.						29		29					
805+00-810+00	T.U.D.						18		18					
810+00-820+00	Roadway	50% S.Shale 50% H.Shale	2424	303		10	2424	333	2091			2424		
810+00-816+00	T.U.D.						108		108					
816+00	Outlet Ditch		6								6		6	
820+00-830+00	Roadway	50% S.Shale 50% H.Shale	3031	153		10	3031	168	2863			3031		
826+50	Outlet Ditch		30								30		30	
830+00-840+00	Roadway	Soft Shale	290	3419		20	290	4103		3813		290		
830+45	Pipe Removal		2								2		2	
830+70	Side Road			40				48		48				
832+10	Side Road			5				6		6				
832+10	Pipe Removal		2								2		2	
836+50	Outlet Ditch		15								15		15	
840+00-850+00	Roadway	Soft Shale	1063	1223		20	1063	1468		405		1063		
840+75	Outlet Ditch		5								5		5	
840+95	Pipe Removal		4								4		4	
844+00	Outlet Ditch		12								12		12	
850+00-860+00	Roadway	40% H.Shale 60% S.Shale	705	739		10	705	813		108		705		
848+50-853+00	T.U.D.						94		94					
852+50	Outlet Ditch		30								30		30	
854+50	Outlet Ditch		60				40		40		20		60	
855+75	Pipe Removal		2								2		2	
857+10	Outlet Ditch		55				35		35		20		55	
857+70	Pipe Removal		2								2		2	
860+00-870+00	Roadway	50% L.Rock 50% S.Shale	967	777		15	327	894	73			967		
862+50	Outlet Ditch		8								8		8	
870+00-880+00	Roadway	5% L.Rock 95% S.Shale	1810	563		15	1810	647	1163			1810		
871+00	Outlet Ditch		6								6		6	
875+00	Outlet Ditch		11								11		11	
880+00-890+50	Roadway	Earth	987	2473		20	987	2975		1988		987		
883+00	Bridge		111								111		111	
883+50	Side Road			200		20		240		240				
885+00	Outlet Ditch		10								10		10	
883+00	Old Arch		44								44		44	
886+50-887+50	Tile Drain						36		36					
887+00	Pipe Removal		4								4		4	
890+00	Outlet Ditch		5								5		5	
Totals			19175	20469			19080	23733	7469	12182	465	18635	540	

GRADING ANALYSIS

STATIONS	CLASSIFICATION	CHARACTER	CUT	FILL	SWELL %	SHRINKAGE %	AVAILABLE CUT	FILL + SHRINKAGE	EXCESS CUT	EXCESS FILL	WASTE	CLASS 1 EXCAV.	CLASS 2 EXCAV.	REMARKS

GRADING SECTIONS

STA. TO STA.	LENGTH	TOTAL CUT	WASTE	AVAILABLE CUT	FILL + SHRINKAGE	EXCESS CUT	EXCESS FILL	REMARKS
774+17-810+50	3633	8148	116	8164	12098		3934	1321 C.Y. Tile Exc. Available
810+50-860+00	4955	7064	150	7116	6339	177		202 " " " "
860+00-870+50	1077	3963	199	3800	4756		956	36 " " " "
	11665							
Totals		19175	465	19080	23733	177	4890	370

SUMMARY OF EXCAVATION

	CLASS 1	CLASS 2	REMARKS
Roadway	18635		
Inlet and Outlet Ditch		363	
Bridge		111	
Pipe Removal		16	
Removing Old Arches		44	
Totals	18635	540	

Traced by
Final by

Div.	County	Route	Sec.	Sheet
6	Indiana	223	1	4 of 11

Sp. A. Appl. 4852
East Wheatfield Township.

Limit of Work
Route 223 Sec. 1.
Sp. A. Appl. 4852
East Wheatfield Twp.
Indiana County

B.M. Elev. 1582.41
Spike in root of 10" Cherry Stub
Left of Sta. 774 + 45

Place 230 Lin. Ft. of Standard Wire Rope Guard Fence on left
From Sta. 775+50 to Sta. 778+00
(Not included in Contract)

B.M. Elev. 1593.60
Left of Sta. 780 + 43
Spike in Side of 18" Oak

100' Ultimate Width Right of Way

Station 774+17

To Ebensburg 17 Mi.

24"-12" C.M. Pipe

Route 3148

Δ 27°-28' L
D 6°-00'
T 233.48'
L 457.78'

Superelevate Curve ¼" per foot

50' Radius

25' Radius

Required Width of Right of Way

To Blairsville 14 Mi.

To Dittown Under Const. 17 Mi.

12" R.C. Pipe

10" Cherry Stub

Sign

Route 223 (18' R.Conc.)

Remove Conc. Apron

S 13°-06' W

Drainage

C. A. McFeaters (cultivated)

P.I. 779+31.12

P.O.T. 779+98.68

26°-30'

C. A. McFeaters 634+20

3" Thorn

8" Oak

8" Maple

8" Cherry

3" Oak

8" Cherry

Old Road

Proposed 80' Ultimate Width Right of Way.

S 12°-22' E

Required Width of Right of Way

85' Radius

200' Radius

Proposed 80' Ultimate Width Right of Way

24"-12" C.M. Pipe

Road

Drainage

C. A. McFeaters

Pave Approach at Intersection
32 Sq. Yds. Reinf. Conc. Pavement

Place 270 Lin. Ft. of Standard Wire Rope Guard Fence on right
From Sta. 775+50 to Sta. 778+20
(Not included in Contract)

P.I. 777+06.82

Open ditch on right Sta. 776 +50
17 Cu. Yds. Excav. (Class 2)

C. A. McFeaters
(Cultivated)

Frank Mc Chree

The ends of paving section shall be constructed with an additional depth as shown on the drawings for thickened edge pavements.

Place 500 Lin. Ft. of Standard Wire Rope Guard Fence on right
From Sta. 784+00 to Sta. 789+00
(Not included in Contract)

Limit of Work
Route 223 Sec. 1
Sp. A. Appl. 4852
East Wheatfield Twp.
Indiana County

P.I. Sta. 775+00
Elev. 1580.04
V.C. = 150'

The grade line represents the profile of the finished surface of pavement along the center line of the proposed construction

P.I. Sta. 781+50
Elev. 1587.97
V.C. 300'

To Pittsburg Profile Route 223

Profile Route 914 To Ebensburg

Sta. 774+17 to Sta. 780+00 Cut 713 Cu. Yds. Fill 1398 " "

Sta. 780+00 to Sta. 790+00 Cut 2345 Cu. Yds. Fill 1759 " "

-2.08%

+1.22%

-2.40%

Datum 1540

Traced by H.J.C.Ra. G.J.E.T.
Final by

Div. *	County	Route	Sec.	Sheet
6	Indiana	223	1	5 of 11.

Sp. A. Appl. 4852
East Wheatfield Township.

Place 950 Lin. Ft. of 4" Tile Underdrain on Left
Sta. 86+00 to Sta. 95+50
30 Lin. Ft. of 4" Tile Outlets

✓Place 32 Lin. Ft. of 15" Reinf. Conc. Pipe
✓Build 1 Type "E" Endwall on Left
" 1 " "B" " " Right
Open Outlet Ditch on Right
50 Cu. Yds. of Excav. (Class 2)

B.M. Elev. 1558.08
Spike in root of 24" Oak
40' Left of Sta. 795+80

Place 460 Lin. Ft. of Standard Wire Rope
Guard Fence on Left.
From Sta. 797+00 to Sta. 801+60
(Not included in Contract)

Place 30 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on Left.
" 1 " "B" " " Right

✓Place 38 Lin. Ft. of 15" Reinf. Conc. Pipe
✓Build 2 Type "D" Endwalls
✓Open Outlet Ditch on Right
✓23 Cu. Yds. of Excav. (Class 2)

Place 300 Lin. Ft. of Standard Wire
Rope Guard Fence on Right.
From Sta. 797+00 to Sta. 800+00
(Not included in Contract)

Traced by W.J.C. G.J.E.
Final by

Div.	County	Route	Sec	Sheet
6	Indiana	223	1	6 of 11

Sp. A. Appl. 4852
East Wheatfield Township

✓ Place 65 Lin. Ft. of 15" Reinf. Conc. Pipe
✓ Build 2 Type "D" Endwalls

Place 700 Lin. Ft. of 4" Tile Underdrain on Left
Sta. 809+00 to Sta. 816+00
50 Lin. Ft. of 4" Tile Outlets

✓ Place 30 Lin. Ft. of 15" Reinf. Conc. Pipe
✓ Build 2 Type "B" Endwalls
✓ Open Outlet Ditch on Right
6 Cu. Yds. of Excav. (Class 2)

P.I. 801+64.55

C. A. McFeaters (Cultivated)

Place 530 Lin. Ft. of Standard Wire Rope Guard Fence on Left From Sta. 803+30 to Sta. 808+60 (Not included in Contract)

Δ = 49°-58½'L
D = 8°-00'
T = 334.06'
L = 624.69'

Superelevate Curve ½" per ft.

P.C. 806+31.97

P.T. 812+56.66

John H. Stevens (Cultivated)

Proposed 80' Ultimate Width Right of Way

Required Width of Right-of-Way

Δ = 34°-52½'R
D = 8°-00'
T = 225.08'
L = 435.94'

Superelevate Curve ½" per ft.

P.T. 803+75.45

24"-12" C.M.P. Pipe

S 09°-47'W

S 40°-11'E

Old Road

Place 325 Lin. Ft. of 4" Tile Underdrain on Right
Sta. 800+50 to Sta. 803+75
10 Lin. Ft. of 4" Tile Outlets

✓ Place 750 Lin. Ft. of 4" Tile Underdrain on Rt.
Sta. 808+50 to Sta. 815+00
✓ 50 Lin. Ft. of 4" Tile Outlets

John Stevens (Cultivated)

Place 270 Lin. Ft. of Standard Wire Rope Guard Fence on Right From Sta. 804+30 to Sta. 807+00 (Not included in Contract)

✓ Place 40 Lin. Ft. of 15" Reinf. Conc. Pipe
✓ Build 1 Type "E" Endwall on Right
" 1 " "D" " " Left
✓ Open Inlet Ditch on Right
26 Cu. Yds. Excav. (Class 2)

P.I. 809+65.00

John Stiles (Cultivated)

P.I. Sta. 812+00
Elev. 1581.44
V.C. 300'

P.I. Sta. 816+00
Elev. 1570.82
V.C. 300'

The Fill between Sta. 804+25 and Sta. 807+00 shall be placed and rolled in 4" layers, and allowed to settle at least two months before pavement is placed.

Natural grade as per levels taken

-1.77%

-2.66%

+2.50%

Construction Profile

Sta. 800+00 to Sta. 810+00 Cut 2892 Cu. Yds. Fill 3842 " "

Sta. 810+00 to Sta. 820+00 Cut 2424 Cu. Yds. Fill 393 " "

Datum 1530

	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817
	150	150	150	150	150	150	150	150	150	175	175	125	150	150	175	125	150	175	150	175	125	150	175	150	175	125	150	175	150	175
	1570.5	1570.2	1566.9	1566.3	1563.6	1559.7	1557.4	1557.9	1561.4	1565.4	1571.7	1576.6	1580.8	1585.6	1587.6	1585.5	1578.8	1580.3	1579.3	1578.8	1575.0	1573.7	1572.6	1571.0	1570.8	1572.5	1571.2	1572.7
	1563.77	1564.65	1565.54	1566.42	1566.90	1566.19	1569.07	1563.95	1563.60	1565.72	1570.25	1576.49	1576.27	1577.02	1576.14	1577.91	1578.79	1579.18	1579.43	1579.70	1579.82	1579.85	1579.76	1579.63	1579.37	1579.04	1578.61	1578.07	1577.46	1576.13	1574.80	1574.13	1573.69	1573.29	1573.01	1572.82	1572.75	1572.78	1572.93	1573.18	1574.45	1576.53

Datum 1530

Traced by J.B.L. Jr. J.F.C.
Final by

Dist.	County	Route	Sec.	Sheet
6	Indiana	22	1	7 of 11

Sp. A. Appl. 4832
East Wheatfield Township.

John H. Stevens

Place 32 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on Right
" 1 " "B" " " Left
Open Outlet Ditch on Left - 30 Cu. Yds. Excav. (Class 2)

Place 210 Lin. Ft. of Standard Wire Rope Guard Fence on left
From Sta. 828+50 to Sta. 830+60
(Not included in Contract)

B. H. Mathews Heirs.

Grade Side Road on Left
40 Cu. Yds. of Fill

P.O.T. 821+49.26

P.I. 824+56.56

Proposed 80 Ft. Ultimate Width Right of Way

S 40°-11' E

Drainage

Required Width of Right of Way

John Stiles

P.I. Sta. 821+75
Elev. 1585.19
V.C. 700'
P.C. 822+08.89

Δ = 19°-37' R
D = 4°-00'
T = 247.67'
L = 490.42'
Superelevate ½ per foot

B.M. Elev. 1575.11
Spike in root of 40" Twin Hickory
Right of Sta. 822+77

675+37

P.T. 826+59.31 Back =
826+89.31 Ahead

S 20°-34' E

Drainage

Remove Old Pipe
2 Cu. Yds. Excav. (Class 2)

Required Width of Right of Way

(orchard)

Proposed 80 Ft. Ultimate Width Right of Way

P.C. 830+69.36

John Stiles

Grade Lane on Rt.
5 Cu. Yds. of Fill

12.50% Const. Profile

Consl. Profile

-2.00%

Lane to Left

Lane Rt.

From Sta. 820+00 to Sta. 830+00 Cut 3031 Cu. Yds.
" " " " " " Fill 158 " "

60'

Datum 1470.

Sta.	Const. Elev.	Ground Elev.
817	1572.7	1575.33
818	1573.99	1574.8
819	1574.57	1577.6
820	1575.82	1576.44
821	1576.6	1577.02
822	1577.48	1580.4
823	1577.86	1578.12
824	1579.3	1578.29
825	1578.34	1578.30
826	1577.5	1578.15
827	1576.7	1577.91
828	1576.8	1577.56
829	1577.11	1576.55
830	1575.8	1575.89
831	1574.6	1576.13
832	1574.26	1573.30
	1574.8	1572.23
	1572.2	1571.06
	1569.78	1568.40
	1571.4	1566.42
	1566.3	1565.34
	1562.8	1561.87
	1559.98	1557.98
	1559.9	1555.89
	1555.5	1553.69
	1550.7	1551.44
	1545.4	1546.94
	1542.44	1545.4
	1537.04	1538.5
	1532.54	1533.7
	1528.04	1529.4
	1523.54	1524.1
	1519.04	1519.4
	1514.54	1514.7
	1510.04	1510.1
	1505.54	1502.8
	1501.04	1496.2
	1496.54	1493.5
	1492.04	1491.6

P.C. 826+89.31 Back =
826+89.31 Ahead

Traced by J.B.L.T. W.J.C.T.L.
Final by

Div.	County	Route	Sec.	Sheet
6	Indiana	223	1	8 of 11

Sp. A. Appl. 4852
East Wheatfield Township

G. H. Mathews Heirs

Joseph H. Stevens

John Stiles

Joseph H. Stevens

Proposed 80' Ultimate Width Right of Way Line

Required Width of Right-of-Way

Place 42 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 2 Type "D" Endwalls
Open Inlet Ditch on Left
5 Cu. Yds. Excav. (Class 2)

Place 30 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on Left
" 1 " "B" " " Right
Open Outlet Ditch on Right
15 Cu. Yds. Excav. (Class 2)

Survey P.I. 835+89.54

Place 100 Lin. Ft. of Standard Wire Rope Guard Fence on Lt. From Sta. 840+00 to Sta. 841+00 (Not included in Contract)

Remove Old Pipe
4 Cu. Yds. Excav. (Class 2)

Penn Public System Steel Tower

10" Corr. Metal Pipe

Proposed 80' Ultimate Width Right of Way Line

Required Width of Right-of-Way

Apple Trees

6" Maples

4" Oak

10" Oaks

8" Oak

Dead Oak

3" Thorn

8" Hickory

24" Oak

6" Poplar

Triple Oak

6" Oak

12" Oak

10" Maple

6" Oak

10" Maples

10" Oak

8" Cherry

6" Oak

8" & 16" Maple

9" Oak

10" Oak

8" Oak

10" Oak

22" Oak

10" Oak

2-15" C.M.P. Pipes

6" Hedgewood

2-2" Bolts

Drainage Lane

22" & 12" Box

Remove Old Drain

2 Cu. Yds. Excav. (Class 2)

Survey P.C. 833+29.95

Place 110 Lin. Ft. of Standard Wire Rope Guard Fence on Rt. From Sta. 832+20 to Sta. 833+30 (Not included in Contract)

Grade Lane on Rt.
5 Cu. Yds. of Fill

(Cultivated)

Survey P.T. 838+44.40

8" Walnut

Survey Data
Δ = 20°-34½' R
D = 4°-00'
T = 260.01
L = 514.17'

Const. Data
Δ = 20°-34½' R
D = 2°-00'
T = 519.98
L = 1028.75

Const. P.T. 840+38.71 Back = Sta. 841+04.07 Ahead

Place 36 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on Left
" 1 " "D" " " Right

S 5°00'-00½" W

Tension Line

P.C. 846+43.82

B.M. Elev. 1468.78
Bent Spike in root of 24" Oak
Right of Sta. 835+92

P.I. Sta. 835+50
Elev. 1460.54
V.C. 400'

-9.00%

Prelim. Land to Rt.

Place 500 Lin. Ft. of Standard Wire Rope Guard Fence on Right From Sta. 837+00 to Sta. 842+00 (Not included in Contract)

Sta. 830+00 to Sta. 840+00 Cut 290 Cu. Yds.
" " " " " Fill 3413 " "

Const. Profile

-2.62%

The Fill between Sta. 839+50 and Sta. 841+00 shall be allowed to settle 2 months before pavement is placed.

Sta. 840+00 to Sta. 850+00 Cut 1063 Cu. Yds.
" " " " " Fill 1223 " "

Joseph H. Stevens

Place 30 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on Left
" 1 " "B" " " Right
Open Outlet Ditch on Right
15 Cu. Yds. Excav. (Class 2)

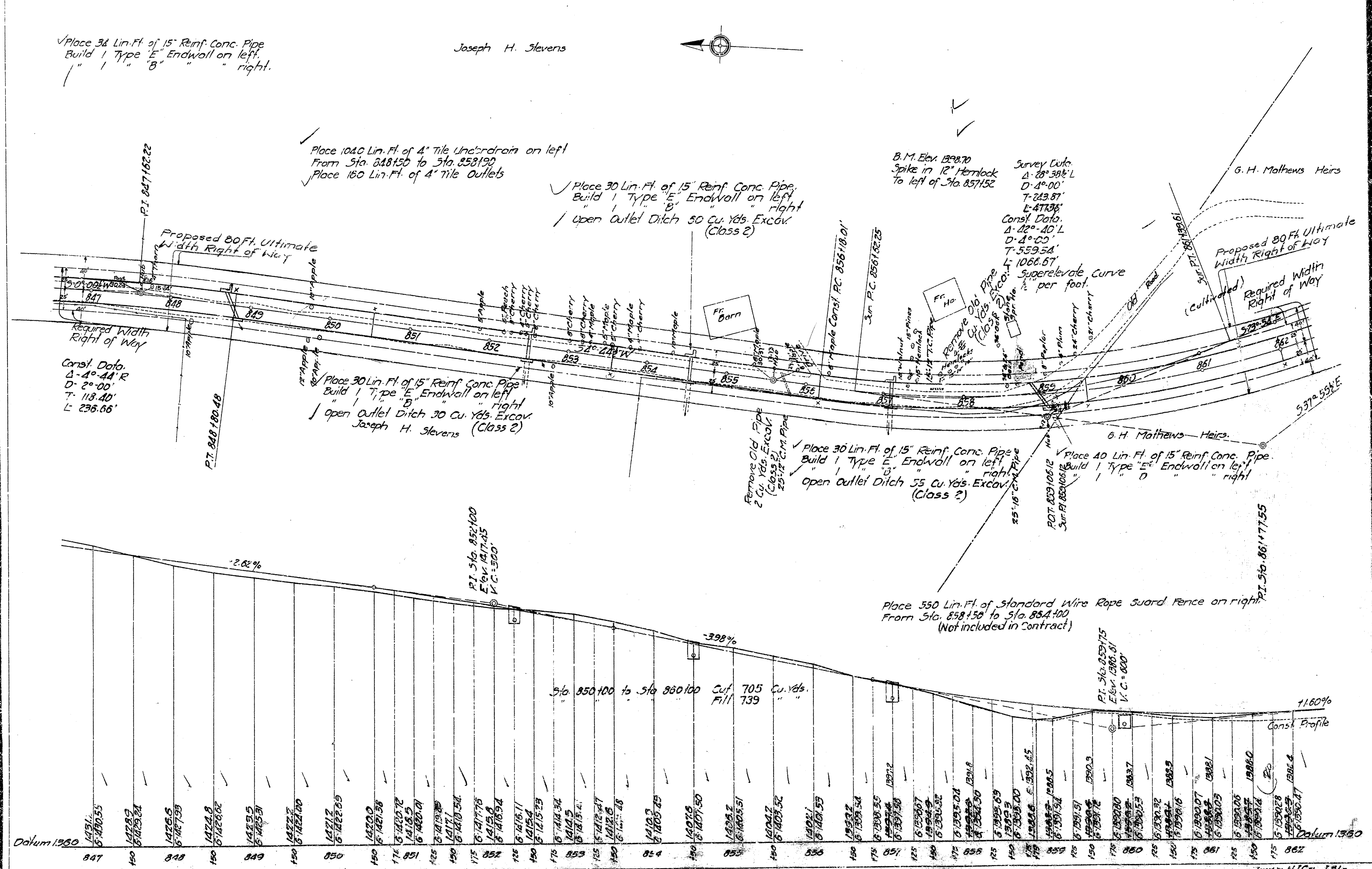
Sta.	Ft.	Ft.	G
832	1457.6	1288.8	1468.0 G-1471.2.04
833	1462.6		G-1467.54
834	1467.5		G-1483.04
835	1472.4		G-1478.54
836	1476.34		G-1474.24
837	1472.24		G-1472.24
838	1469.9		G-1470.34
839	1468.54		G-1468.54
840	1465.23		G-1466.89
841	1464.2		G-1463.73
842	1462.33		G-1462.33
843	1461.0		G-1461.02
844	1459.83		G-1459.83
845	1458.3		G-1458.72
846	1457.72		G-1457.72
847	1456.81		G-1456.81
848	1456.01		G-1456.01
849	1455.4		G-1455.30
850	1452.4		G-1453.99
851	1450.6		G-1450.6
852	1447.9		G-1447.79
853	1446.6		G-1452.68
854	1444.1		G-1451.37
855	1442.6		G-1450.06
856	1441.9		G-1448.75
857	1441.9		G-1447.44
858	1441.9		G-1446.13
859	1444.0		G-1444.96
860	1443.1		G-1443.65
861	1441.9		G-1442.34
862	1440.8		G-1441.03
863	1439.2		G-1439.72
864	1438.5		G-1438.41
865	1438.8		G-1437.10
866	1436.5		G-1435.79
867	1435.8		G-1434.48
868	1434.9		G-1433.17
869	1433.2		G-1431.86
870	1431.2		G-1430.55

Datum 1410. Datum 1413.

Traced by W.J.C.H. F.B.L.H.
Final by

Div.	County	Route	Sec.	Sheet
6	Indiana	223	1	9 of 11

Sp. A. Appl. 4852
East Wheatfield Twp.



Place 32 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on left.
" 1 " "B" " " right.

Place 1040 Lin. Ft. of 4" Tile Underdrain on left
From Sta. 848+50 to Sta. 858+90
Place 160 Lin. Ft. of 4" Tile Outlets

Place 30 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on left
" 1 " "B" " " right
1 Open Outlet Ditch 30 Cu. Yds. Excav.
(Class 2)

B.M. Elev. 1398.70
Spike in 12" Hemlock
To left of Sta. 857+52

Survey Data.
Δ- 68° 38½' L
D- 4°-00'
T- 243.87'
L- 477.36'

Const. Data.
Δ- 42°-40' L
D- 4°-00'
T- 559.54'
L- 1066.67'
Superelevate Curve ½" per foot.

Const. Data.
Δ- 4°-44' R
D- 2°-00'
T- 118.40'
L- 236.66'

Place 30 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on left
" 1 " "B" " " right
1 Open Outlet Ditch 30 Cu. Yds. Excav.
Joseph H. Stevens (Class 2)

Place 30 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on left
" 1 " "B" " " right
Open Outlet Ditch 55 Cu. Yds. Excav.
(Class 2)

Place 40 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on left
" 1 " "D" " " right

Place 550 Lin. Ft. of Standard Wire Rope Guard Fence on right
From Sta. 858+50 to Sta. 864+00
(Not included in Contract)

Sta. 850+00 to Sta. 860+00 Cut 705 Cu. Yds.
" " " " Fill 739 " "

Traced by W.J.C. J.G.L.
Final by

Div	County	Route	Sec.	Sheet
6	Indiana	223	1	10 of 11

Sp. A. Appl. 4852
East Wheatfield Township

Const. Data
Δ = 42°-40' L
D = 4°-00'
T = 559.54'
L = 1066.67'

Old Road

Superelevate Curve
½" per ft.

Required Width of Right-of-Way

G. H. Mathews Heirs

Survey Data
Δ = 14°-18½' L
D = 4°-00'
D = 179.82'
L = 357.71'

Survey P.C. 864+25.49

Survey Sta. 862 863 S 23°-54' E 864 865 866 867 868 869 870 871 872 873 874 875 876 877

Const. P.T. 866+84.68

Survey P.T. 867+83.20

√ Place 30 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on Left
" 1 " "B" " " Right
/ Open Outlet Ditch on Right
6 Cu. Yds. of Excav. (Class 2)

Survey Data
Δ = 24°-50' L
D = 4°-00'
T = 315.43'
L = 620.82'

Const. Data
Δ = 30°-19' L
D = 4°-00'
T = 388.14'
L = 757.92'

Superelevate Curve ½" per ft.

L. S. Stutzman

Const. P.C. 870+80.90

Survey P.C. 870+96.57

Survey P.T. 871+17.39

Proposed 80' Ultimate Width Right of Way

Survey S 63°-01½' E

Required Width of Right-of-Way

√ Place 30 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on Left
" 1 " "B" " " Right
open Inlet Ditch on Left - 5 Cu. Yds. Excav. (Class 2)
" Outlet " " Right - 3 " " " (" 2)

Proposed 80' Ultimate Width Right of Way

Survey P.I. 866+05.31

B.M. Elev. 1394.65
Spike in root of 30" Oak
Rt. of Sta. 868+60

G. H. Mathews Heirs

Drainage

Survey P.I. 874+12.00

Dr. Const. P.I. 874+69.04

W. E. Mathews.

Place 300 Lin. Ft. of Standard Wire Rope Guard Fence on Right. From Sta. 871+00 to Sta. 874+00 (Not included in Contract)

√ Place 30 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on Left
" 1 " "B" " " Right
Open Outlet Ditch on Right
/ 11 Cu. Yds. of Excav. (Class 2)

P.I. Sta. 867+00
Elev. 1398.21
V.C. 300'

+1.60%

Construction Profile

-2.10%

Construction Profile

P.I. Sta. 875+50
Elev. 1380.10
V.C. 400'

-4.85%

Sta. 860+00 to Sta. 870+00 Cut 967 Cu. Yds.
" " " " " Fill 777 " "

Sta. 870+00 to Sta. 880+00 Cut 1810 Cu. Yds.
" " " " " Fill 563 " "

Datum 1340.0

Traced by W.J.C. - B.J.E.
Final by

Place 30 Lin. Ft. of 4' Tile Underdrain on Lt. Sta. 886+50 to Sta. 887+50
4 Cu. Yds. of Excav. (Class B)

Place 40 Lin. Ft. of 24" R.C.P. Pipe Culvert at the Face of the Stone Fence at Sta. 888+80 to Sta. 889+00
Not Included in Contract

Place 40 Lin. Ft. of 24" R.C.P. Pipe
Build 1 Type 'D' Endwall on Left
Clean Gutter Ditch on Rt.
2 Cu. Yds. of Excav. (Class B)

Place 30 Lin. Ft. of 6" R.C.P. Pipe
Build 1 Type 'E' Endwall on Left
Clean Gutter Ditch on Right
1 Cu. Yds. of Excav. (Class B)

Place 30 Lin. Ft. of 6" R.C.P. Pipe
Build 1 Type 'E' Endwall on Left
Clean Gutter Ditch on Right
1 Cu. Yds. of Excav. (Class B)

Place Approach Ramp
Sta. 882+50
4 Sq. Yds. Plain Cem. Conc. Pvmt.

Place Approach Ramp
Sta. 890+50
4 Sq. Yds. Plain Cem. Conc. Pvmt.

Place Approach Ramp
Sta. 891+50
4 Sq. Yds. Plain Cem. Conc. Pvmt.

Place 90 Lin. Ft. of Standard Wire Rope Guard Fence on Left from Sta. 881+50 to Sta. 883+40
(Not Included in Contract)

Stone Arch Bridge
Concrete Parapets
Span 66'
Clear 25'

Remove Old Arch Bridge
44 Cu. Yds. of Excavation (Class B)

L. S. Stutzman

Grade Road Approach on Rt.
60 Cu. Yds. of Fill

Stone Bridge
Span 65'
Clear 22'

Pave Road Approach on Rt.
45' x 2'
10 Sq. Yds. Plain Cem. Conc. Pvmt.

Survey Data
Δ = 38°-31' R
D = 6°-00'
T = 333.78'
L = 641.54'

Curve Data
Δ = 43°-49' R
D = 8°-00'
T = 385.75'
L = 736.6'

Build Concrete Arch
Span 2 Clear 8'6" Skew 90° Length 41.5'
345 Cu. Yds. Class 'B' Conc.
Excavation (Class B)
15.938 Sub No 89 Item 2.16
2078 Cu. Yds. Class 'B' Conc. for Structure
5937 Lbs. Plain Steel Bars
Water Proofing
See Sheet No. for Details

Place 110 Lin. Ft. of Standard Wire Rope Guard Fence on Right from Sta. 882+00 to Sta. 883+40
(Not Included in Contract)

Place 120 Lin. Ft. of Standard Wire Rope Guard Fence on Right from Sta. 883+80 to Sta. 885+00
(Not Included in Contract)

Dr. W. E. Mathews

Dr. W. E. Mathews

Findley

L. S. Stutzman

BM. Elev. 1238.78
Spike in side of 12" Birch
Left of Sta. 891+65

Proposed Right of Way Line

Removed Width of Right-of-Way

Removed Width of Right-of-Way

Remove Old Arch Bridge

Construction Profile

-4.85%

-.06%

Profile of Stream Left Bridge

Profile of Stream Right

Sta. 880+00 to Sta. 890+20 Cut 387 Cu. Yds.

Sta. 891+00 to Sta. 892+00

Datum 1200

Datum 1200

To A. Appl. 1952
East Wheatfield Township

Div	County	Route	Sec.	Sheet
6	Indiana	223	1	12 of 13

Sp. A. Appl. 4852
East Wheatfield Township.

Place 100 Lin. Ft. of Standard Wire Rope Guard Fence on Lt.
From Sta. 901+50 to Sta. 902+50

Place 160 Lin. Ft. of Standard Wire Rope Guard Fence on Lt.
From Sta. 903+20 to Sta. 904+80

Guilford & Theodore Hogan

Place 32 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on left
" 1 " "B" " " right
Open Outlet Ditch 50 Cu. Yds. Excav. (Class 2)

L. S. Stutzman

Place 32 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on left
" 1 " "B" " " right
Open Outlet Ditch 70 Cu. Yds. Excav. (Class 2)

John Yarman

B.M. Elev. 1279.43
Nail in root 9" Birch
To left of Sta. 902+70

Grade Road App. on left,
50 Cu. Yds. Fill
Pave Road App. on left 45'x2'
10 Sq. Yds. Plain Cem. Conc. Pavement.

Stone Arch
Span 7.3'
Clear 3.6'

Cramer Coal Coke & Stone Company.

Place 30 Lin. Ft. 18" Reinf. Conc. Pipe
Build 1 Type "B" Endwall on left
" 1 " E " right
Open Outlet Ditch 20 Cu. Yds. Excav. (Class 2)

15-12" C.M. Pipe
Remove Old Pipe & Cu. Yds. Excav. (Class 2)

Proposed 80' Ultimate Width Right of Way

P.O.T. 893+96.85

Required Width Right of Way

Dr. W. E. Mathews.

Finley Run

End of Woods

12" C.M. Pipe
Remove Old Pipe
Cu. Yds. Excav. (Class 2)

P.C. 900+41.83
Remove Old Pipe & Cu. Yds. Excav. (Class 2)
21-12" C.M. Pipe

Remove Old Bridge
46 Cu. Yds. Excav. (Class 2)

Run

Finley

Sign

Δ-31°-31½' R
D-6°-00'
T-269.66
L-525.41'

P.T. 903+10.66

Proposed 80' Ultimate Width Right of Way

Corner Sign

Required Width Right of Way.

Cramer Coal Coke & Stone Company

Superelevate Curve ½" per foot.

Place 70 Lin. Ft. of Standard Wire Rope Guard Fence on right From Sta. 902+50 to Sta. 903+20

P.T. 905+65.41

Place 32 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "E" Endwall on left
" 1 " "B" " " right
Open Outlet Ditch 35 Cu. Yds. Excav. (Class 2)

Build Reinf. Conc. Bridge
Span 14' Clear 6' Skew: 75° Lt. Len. 26.92'
23.4 Cu. Yds. Class "A" Conc.
41.5 " " "B" "
27.1.7 Lbs. Plain Steel Bars
32 Sq. Yds. Wearing Surface
Water Clearance 5
Plan Nos. S-180 S-192
71 Cu. Yds. Excav. Class 2

Reinf. App. Slabs to Bridge
56 Bars ½"ø x 20' } 1032 Lbs
44 Bars ½"ø x 8'-9" }

42# Fabric Reinforcement to be placed in Conc. Wearing Surface in accordance with paragraph 146-C and 159 C. of the specifications.

Place 315 Lin. Ft. of 4" Tile Underdrain on right
From Sta. 903+25 to Sta. 907+00
40 Lin. Ft. 4" Tile Outlets.

Place Special Ditch on right (15" Deep)
5' from Top of Slope, as directed by Engineer
From Sta. 904+50 to Sta. 909+00
93 Cu. Yds. Excav. (Class 2)

P.I. Sta. 891+50
Elev. 1339.00
V.C. = 400'

P.I. Sta. 901+75
Elev. 1283.49
V.C. = 200'

-4.64%

-1.68%

Sta. 890+00 to Sta. 900 Cut 1314 Cu. Yds.
" " " " " Fill 257

Profile Stream Right

Profile Stream left.

Sta. 900+00 to Sta. 910+00 Cut 2800 Cu. Yds
" " " " " Fill 1705 " "

Datum	1250.0	1275.2	1300.0	1319.8	1296.8	1294.7	1292.1	1289.5	1285.0	1281.8	1277.3	1276.7	1278.7	1277.6	1278.2	1277.3	1276.5	1279.1	1280.1	Datum	1250.0
	6'1327.67	6'1326.82	6'1325.91	6'1324.95	6'1323.94	6'1322.85	6'1321.73	6'1320.41	6'1319.09	6'1317.78	6'1316.46	6'1315.14	6'1313.82	6'1312.51	6'1311.19	6'1309.87	6'1308.55	6'1307.24	6'1305.92	6'1304.60	6'1303.28	6'1302.13	6'1301.02	6'1299.92	6'1298.81	6'1297.70	6'1296.59	6'1295.49	6'1294.39	6'1293.29	6'1292.18	6'1291.08	6'1289.98	6'1288.87	6'1287.77	6'1286.67	6'1285.56	6'1284.46	6'1283.36	6'1282.25	6'1281.15	6'1280.05	6'1278.94	6'1277.84	6'1276.74	6'1275.63	6'1274.53	6'1273.43	6'1272.32	6'1271.22	6'1270.12	6'1269.01	6'1267.91	6'1266.80	6'1265.70	6'1264.60	6'1263.49	6'1262.39	6'1261.29	6'1260.18	6'1259.08	6'1257.98	6'1256.87	6'1255.77	6'1254.67	6'1253.56	6'1252.46	6'1251.36	6'1250.25

Div.	County	Route	Sec.		
6	Indiana	223		130	13

Sp. A. Appl. 4852
East Wheatfield Twp.

Place 1080 Lin. Ft. of Wire Rope Guard Fence on Left From Sta. 908+20 to 919+00

Place 555 Cu. Yds. of Rip rap on left (12" Deep) From Sta. 916+00 to Sta. 917+25

Place 36 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "D" Endwall on left
" 1 " "E" " " right

Place 30 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "B" Endwall on left
" 1 " "E" " " right
Open Outlet Dith 10 Cu. Yds. Excav. (Class 2)

Place 36 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 1 Type "D" Endwall on Left
" 1 " "E" " " Right

Place 38 Lin. Ft. of 15" Reinf. Conc. Pipe
Build 2 Type "D" Endwalls

Grade Road App. on Lt. 75 Cu. Yds. Fill

Channel Change 87 Cu. Yds. Excav. (Class 1)

The end of paving section shall be constructed with an additional depth as shown on the drawings for thickened edge pavement

Limit of Paving
Sta. 919+73.88
Route 223 Sec. 1
Spec. Aid Appl. 4852
Indiana Co.

Limit of Work
Sta. 920+13.00
Route 223 Sec. 1
Spec. Aid Appl. 4852
Indiana Co.

Survey Data
Δ = 16°-11½' R
D = 4°-00'
T = 203.80'
L = 404.79'

Const. Data
Δ = 16°-11½' R
D = 2°-44'-16"
T = 297.12'
L = 590.14'

Δ = 27°-02' R
D = 9°-30'
T = 145.13'
L = 284.56'

Place 330 Lin. Ft. of Wire Rope Guard Fence on Right From Sta. 909+20 to Sta. 912+50

Remove Old Pipe 2 Cu. Yds. Excav. (Class 2)

Superelevate Curve ½" per foot

Superelevate Curve ½" per foot

Place Apron 18'×2' Sta. 919+73.88 4 Sq. Yds. Plain Cem. Conc. Pave.

Place 200 Lin. Ft. of 4" Tile Underdrain on right From Sta. 907+00 to Sta. 909+00
Place 40 Lin. Ft. of 4" Tile Outlets

Place Special Ditch on right (15" Deep) 5' from edge of slope, as directed by the Eng'r From Sta. 913+00 to Sta. 915+50 72 Cu. Yds. Excavation (Class 2)

The Grade Line represents the profile of the finished surface of pavement along the center line of the proposed construction

Sta. 910+00 to Sta. 920+13 Cut 2539 Cu. Yds.
" " " " " Fill 3248 " "

5000. 6-20-27

PRINTED ON "IMPERIAL" TRACING CLOTH K & E CO., N. Y.

Traced by W. J. C.

Final by

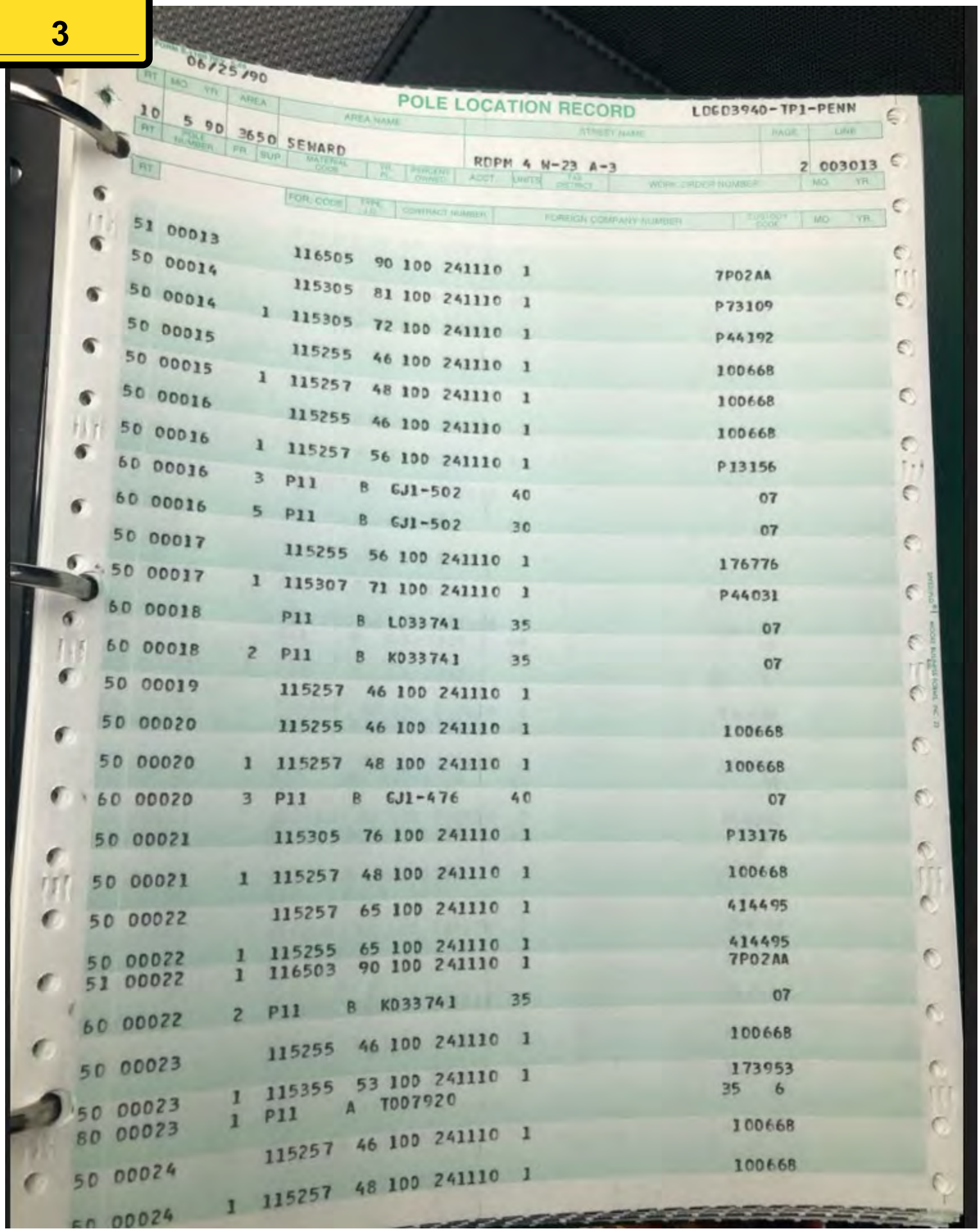
08/24/23 JS

DEFENDANT

1

08/24/23 JS
DEFENDANT
3

Verizon Exhibit 3



POLE LOCATION RECORD

LD603940-TP1-PENN

06/25/90

10 5 90 3650 SEWARD RDPM 4 W-23 A-3 2 003013

51	00013												
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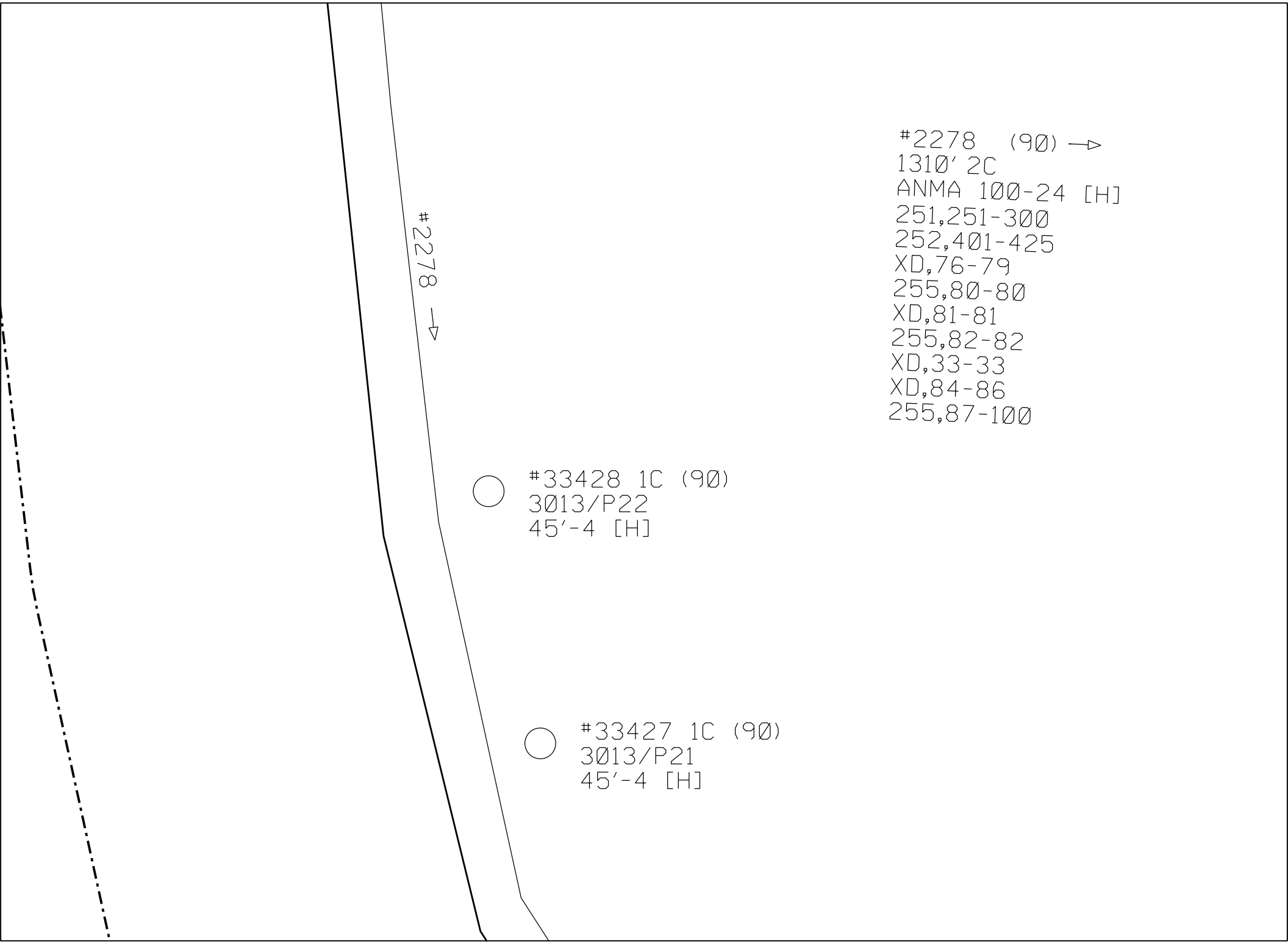
50	00014		1	115305	81	100	241110	1				P73109	
50	00015			115305	72	100	241110	1				P44192	
50	00015		1	115255	46	100	241110	1				100668	
50	00016			115257	48	100	241110	1				100668	
50	00016		1	115255	46	100	241110	1				100668	
60	00016		1	115257	56	100	241110	1				P13156	
60	00016		3	P11	B	GJ1-502		40				07	
60	00016		5	P11	B	GJ1-502		30				07	
50	00017			115255	56	100	241110	1				176776	
50	00017		1	115307	71	100	241110	1				P44031	
60	00018			P11	B	L033741		35				07	
60	00018		2	P11	B	K033741		35				07	
50	00019			115257	46	100	241110	1					
50	00020			115255	46	100	241110	1				100668	
50	00020		1	115257	48	100	241110	1				100668	
60	00020		3	P11	B	GJ1-476		40				07	
50	00021			115305	76	100	241110	1				P13176	
50	00021		1	115257	48	100	241110	1				100668	
50	00022			115257	65	100	241110	1				414495	
50	00022		1	115255	65	100	241110	1				414495	
51	00022		1	116503	90	100	241110	1				7P02AA	
60	00022		2	P11	B	K033741		35				07	
50	00023			115255	46	100	241110	1				100668	
50	00023		1	115355	53	100	241110	1				173953	
80	00023		1	P11	A	T007920						35 6	
50	00024			115257	46	100	241110	1				100668	
50	00024		1	115257	48	100	241110	1				100668	


#2278 →
#2278 (90) →
1310' 2C
ANMA 100-24 [H]
251,251-300
252,401-425
XD,76-79
255,80-80
XD,81-81
255,82-82
XD,33-33
XD,84-86
255,87-100
#33428 1C (90)
3013/P22
45'-4 [H]
#33427 1C (90)
3013/P21
45'-4 [H]

Verizon Exhibit 4

08/24/23 JS

DEFENDANT

4


4A
HIDDEN
DRIVEWAY
NEXT
1/4 MILE


4B
HIDDEN
DRIVEWAY
NEXT
1/4 MILE


4C
15103


4D

4E


4F
15103
GTE
3018
21


4G


4H


14FT
15FT

Table 232-1—
Vertical clearance of wires, conductors, and cables above ground, roadway, rail, or water surfaces

(Voltages are phase to ground for effectively grounded circuits and those other circuits where all ground faults are cleared by promptly de-energizing the faulted section, both initially and following subsequent breaker operations. See the definitions section for voltages of other systems.
See Rules 232A, 232B1, 232C1a, and 232D4.)

Nature of surface underneath wires, conductors, or cables	Insulated communication conductors and cable; messengers; overhead shield/surge-protection wires; guys; [6,11] neutral conductors meeting Rule 230E1; supply cables meeting Rule 230C1 (ft)	Noninsulated communication conductors; supply cables of 0 to 750 V meeting Rule 230C2 or 230C3 (ft)	Supply cables over 750 V meeting Rule 230C2 or 230C3; open supply conductors, 0 to 750 V [3] (ft)	Open supply conductors, over 750 V to 22 kV [25] (ft)	Trolley and electrified railroad contact conductors and associated span or messenger wires [1]	
					0 to 750 V to ground (ft)	Over 750 V to 22 kV [25] to ground (ft)
Where wires, conductors, or cables cross over or overhang						
1. Track rails of railroads (except electrified railroads using overhead trolley conductors) [2, 16, 22]	23.5	24.0	24.5	26.5	22.0 [4]	22.0 [4]
2. Roads, streets, and other areas subject to truck traffic [23]	15.5	16.0	16.5	18.5	18.0 [5]	20.0 [5]
3. Driveways, established parking areas, and alleys [23]	15.5 [7, 13]	16.0 [7, 13]	16.5 [7]	18.5	18.0 [5]	20.0 [5]
4. Other areas traversed by vehicles, such as cultivated, grazing, forest, and orchard lands, industrial sites, commercial sites, etc. [26]	15.5	16.0	16.5	18.5	—	—
5. Spaces and ways subject to pedestrians or restricted traffic only [9]	9.5	12.0 [8]	12.5 [8]	14.5	16.0	18.0
6. Water areas not suitable for sailboating or where sailboating is prohibited [21]	14.0	14.5	15.0	17.0	—	—

Table 232-1—
Vertical clearance of wires, conductors, and cables above ground, roadway, rail, or water surfaces

(Voltages are phase to ground for effectively grounded circuits and those other circuits where all ground faults are cleared by promptly de-energizing the faulted section, both initially and following subsequent breaker operations. See the definitions section for voltages of other systems.
See Rules 232A, 232B1, 232C1a, and 232D4.)

Nature of surface underneath wires, conductors, or cables	Insulated communication conductors and cable; messengers; overhead shield/surge-protection wires; guys; [6, 11] neutral conductors meeting Rule 230E1; supply cables meeting Rule 230C1 (ft)	Noninsulated communi-cation conductors; supply cables of 0 to 750 V meeting Rule 230C2 or 230C3 (ft)	Supply cables over 750 V meeting Rule 230C2 or 230C3; open supply conductors, 0 to 750 V [3] (ft)	Open supply conduc-tors, over 750 V to 22 kV [25] (ft)	Trolley and electrified railroad contact conductors and associated span or messenger wires [1]	
					0 to 750 V to ground (ft)	Over 750 V to 22 kV[25] to ground (ft)
7. Water areas suitable for sailboating including lakes, ponds, reser-voirs, tidal waters, rivers, streams, and canals with an unobstructed surface area of [18, 19, 20, 21]						
a. Less than 20 acres	17.5	18.0	18.5	20.5	—	—
b. 20 to 200 acres	25.5	26.0	26.5	28.5	—	—
c. Over 200 to 2000 acres	31.5	32.0	32.5	34.5	—	—
d. Over 2000 acres	37.5	38.0	38.5	40.5	—	—
8. Established boat ramps and associated rigging areas; areas posted with sign(s) for rigging or launching sail boats	Clearance aboveground shall be 5 ft greater than in 7 above, for the type of water areas served by the launching site					
Where wires, conductors, or cables run along and within the limits of highways or other road rights-of-way but do not overhang the roadway						
9. Roads, streets, or alleys	15.5 [24]	16.0	16.5	18.5	18.0 [5]	20.0 [5]
10. Roads where it is unlikely that vehicles will be crossing under the line	13.5 [10, 12]	14.0 [10]	14.5 [10]	16.5	18.0 [5]	20.0 [5]

[1] Where subways, tunnels, or bridges require it, less clearance above ground or rails than required by Table 232-1 may be used locally. The trolley and electrified railroad contact conductor should be graded gradually from the regular construction down to the reduced elevation.

[2] For wires, conductors, or cables crossing over mine, logging, and similar railways that handle only cars lower than standard freight cars, the clearance may be reduced by an amount equal to the difference in height between the highest loaded car handled and 20 ft, but the clearance shall not be reduced below that required for street crossings.

[3] Does not include neutral conductors meeting Rule 230E1.

[4] In communities where 21 ft has been established, this clearance may be continued if carefully maintained. The

elevation of the contact conductor should be the same in the crossing and next adjacent spans. (See Rule 225D2 for conditions that must be met where uniform height above rail is impractical.)

[5] In communities where 16 ft has been established for trolley and electrified railroad contact conductors 0 to 750 V to ground, or 18 ft for trolley and electrified railroad contact conductors exceeding 750 V, or where local conditions make it impractical to obtain the clearance given in the table, these reduced clearances may be used if carefully maintained.

[6] These clearance values also apply to guy insulators.

[7] Where vehicles exceeding 8 ft in height are not normally encountered nor reasonably anticipated, service drop(s) clearances over residential driveways only may be reduced to the following:

		(ft)
(a)	Insulated supply service drops limited to 300 V to ground	12.5
(b)	Insulated drip loops of supply service drops limited to 300 V to ground	10.5
(c)	Supply service drops limited to 150 V to ground and meeting Rule 230C1 or 230C3	12.0
(d)	Drip loops only of service drops limited to 150 V to ground and meeting Rule 230C1 or 230C3	10.0
(e)	Insulated communication service drops	11.5

[8] These clearances values for service drops to residential buildings only may be reduced to the following:

		(ft)
(a)	Insulated supply service drops limited to 300 V to ground	10.5
(b)	Insulated drip loops of supply service drops limited to 300 V to ground	10.5
(c)	Supply service drops limited to 150 V to ground and meeting Rule 230C3	10.0
(d)	Drip loops only of supply service drops limited to 150 V to ground and meeting Rule 230C3	10.0

[9] Spaces and ways subject to persons on foot or restricted traffic only are those areas where riders on horses or other large animals, vehicles, or other mobile units exceeding a total height of 8 ft are prohibited by regulation or permanent terrain configurations, or are otherwise not normally encountered nor reasonably anticipated.

[10] Where a supply or communication line along a road is located relative to fences, ditches, embankments, or other terrain features so that the ground under the line would not be expected to be traveled except by pedestrians, the clearances may be reduced to the following values:

		(ft)
(a)	Insulated communication conductor and communication cables	9.5
(b)	Conductors of other communication circuits	9.5
(c)	Supply cables of any voltage meeting Rule 230C1 and neutral conductors meeting Rule 230E1	9.5
(d)	Insulated supply conductors limited to 300 V to ground	12.5
(e)	Insulated supply cables limited to 150 V to ground meeting Rule 230C2 or 230C3	10.0
(f)	Guys	9.5

[11] No clearance from ground is required for anchor guys not crossing tracks, rails, streets, driveways, roads, or pathways.

[12] This clearance may be reduced to 13 ft for communication conductors and guys.

[13] Where this construction crosses over or runs along (a) alleys, non-residential driveways, or parking lots not subject to truck traffic, or (b) residential driveways, this clearance may be reduced to 15 ft.

[14] This footnote not used in this edition.

[15] This footnote not used in this edition.

[16] Adjacent to tunnels and overhead bridges that restrict the height of loaded rail cars to less than 20 ft, these clearances may be reduced by the difference between the highest loaded rail car handled and 20 ft, if mutually agreed to by the parties at interest.

[17] This footnote not used in this edition.

[18] The surface area used to identify required clearances and the surface level from which these clearances are to be measured, shall be determined as follows:

(a) For controlled impoundments, use the design high-water level.

(b) For all other water bodies, use one of the following:

1. the ordinary high-water mark,
2. information from the governmental authority exercising jurisdiction, or
3. other credible resources.

NOTE: See the Code of Federal Regulations for additional information for ordinary high-water mark.

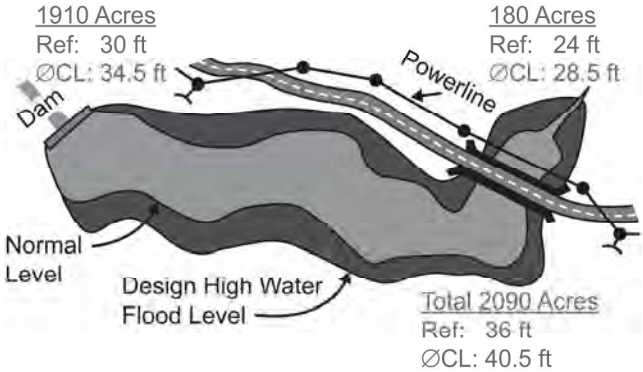
[19] The clearance over portions of a canal, river, or stream normally used to provide access for sailboats to a larger body of water shall be the same as that required for the larger body of water. For all other portions of rivers, streams, and canals the clearance requirement shall be based upon the largest surface area of any 1 mi long segment that includes the crossing.

[20] Where a bridge or other overwater obstruction restricts vessel height to less than the applicable reference height given in Table 232-3, the required clearance may be reduced by the difference between the reference height and the overwater obstruction height for the area of the body of water over which the line crosses, except that the reduced clearance shall be not less than that required for the surface area on the line-crossing side of the obstruction.

EXAMPLE: If a 2090 acre lake (over 2000 acres; reference height 36 ft) consists of 1910 acres (200 to 2000 acres; reference height 30 ft) on one side of a bridge and 180 acres (20 to 200 acres; reference height 24 ft) on the other side of the bridge, the required line clearance must be not less than that required for an over 2000 acre lake as required by Table 232-1 unless the bridge height above design high water is less than the reference height of 36 ft.

If the line is placed on the 180 acre side and the bridge height above design high water is less than 36 ft, but more than 24 ft, the required line clearance is reduced from that required by a lake of over 2000 acres by the difference between the bridge clearance and 36 ft. If the bridge height above design high water is less than 24 ft, the required clearance remains at that required for a 20 to 200 acre lake. See following figure.

Similarly, if the line is placed on the 1910 acre side and the bridge height above design high water is less than 36 ft, but more than 30 ft, the required line clearance is reduced from that required by a lake of over 2000 acres by the difference between the bridge clearance and 36 ft. If the bridge height above design high water is less than 30 ft, the required clearance remains at that required for a 200 to 2000 acre lake.



Power line on small lake side of bridge

[21]Where the U.S. Army Corps of Engineers, or the state, or surrogate thereof has issued a crossing permit, clearances of that permit shall govern.

[22]See Rule 234I for the required horizontal and diagonal clearances to rail cars.

[23]For the purpose of this rule, trucks are defined as any vehicle exceeding 8 ft in height. Areas not subject to truck traffic are areas where truck traffic is not normally encountered nor reasonably anticipated.

[24]Communication cables and conductors may have a clearance of not less than 15 ft where poles are back of curbs or other deterrents to vehicular traffic.

[25]See Rule 232C1 for additional clearances required for voltages exceeding 22 kV.

[26]When designing a line to accommodate vehicles exceeding 14 ft in height, these clearance values shall be increased by the difference between the known height of the vehicle and 14 ft.

National Electrical Safety Code that will facilitate compliance with the above provisions and which are consistent with sound engineering and economic considerations.

j. On projects of considerable length which are primarily resurfacing, involve short sections of reconstruction of the minor (non-complex) project type, e.g.: widening, drainage, guide rail, etc. Both Items C. and I. may be utilized. Item C. shall be applied where work is confined to shoulder limits and Item I. applied within reconstruction areas.

k. Above ground utility facilities to be installed or relocated within right-of-way of limited access highways must be in accordance with current Department occupancy policies concerning such right-of-way, AASHTO and, where applicable, 23 CFR Part 645. On these highways, above ground utility facilities must not be located less than 30 feet from the outside edge of through traffic lane or 20 feet from the outside edge of the ramp travel lane.

l. Occupancy of any portion of a freeway gore area (where traffic movements diverge) is discouraged and requests therefore will be considered only where justified by engineering or economic considerations. No above ground facilities will be permitted within 250 feet from trailing section of a freeway gore area that is graded to a 1:4 slope or flatter.

m. Where economic or engineering considerations suggest placement of above ground utility facilities at locations not consistent with the provisions of this policy, consideration will be given to utility's request to use Department approved impact attenuating devices, crash cushions or breakaway supports. The utility owner will be responsible for installation, material and maintenance of these types of facilities. The utility must provide insurance and indemnification of the Commonwealth.

n. Within highway right-of-way, joint use of poles by two or more utilities will be encouraged. Where conditions warrant, the Department may limit certain areas of right-of-way to the installation of one joint pole line.

o. Prestressed concrete modular poles and steel reinforcement for utility poles are unacceptable for installation within the Department's roadway right-of-way unless the facility is 30 feet or more from the outer edge of the through travel lane or in a protected area, or meets the requirements of Chapter 459.

p. Any modification to the safety standard set forth in this Chapter will be field viewed by the Central Office Utility Relocation Unit, District Utility Relocation Unit, and Traffic Safety Engineer. The modification may be allowed when all parties concur and an approval letter is issued by the District Executive. Full documentation must be kept of all modifications allowed.

q. Proposed materials and methods for fiberglass wrapped poles must be approved on an individual basis. General guidelines for fiberglass wrapped installations are listed below.

- A permit is required for layered fiberglass cloth pole restoration. The permit application must state that a layered fiberglass cloth restoration will be used (i.e., restore existing pole with fiberglass wrap) and must also include a certification that the restored pole will not exceed 100% of the new pole strength as determined by the American National Standards Institute.

- A fiberglass wrap restoration may not be used for damaged poles; fiberglass wrap restoration should only be used on decayed poles with a deteriorated ground line pole section.

- Fiberglass cloth pole restoration may be used only if the existing pole is in compliance with the current Americans with Disabilities Act (A.D.A.) location requirements.

D. Underground Utility Facilities

1. Accommodation of Underground Utility Facilities Within State Highway Right-of-Way. The requirements for installation of underground utility facilities within the right-of-way of highways under the jurisdiction of the Department will vary with type of facility, site conditions, type of highway and the degree of access control. Where law or ordinance of public authority prescribe more stringent controls than specified

§ 459.9. Special conditions, aboveground facilities.

(a) *General rule*. A permit will not be issued to install aboveground facilities at a location which the Department determines to have a high accident potential.

(b) *Location of aboveground facilities*. The location of an aboveground facility shall be:

(1) Within nonlimited access right-of-way.

(i) New poles and other aboveground facilities shall be installed outside the highway clear zone as near the right-of-way line as practicable, under the permit and applicable provisions of Design Manual, Parts 2 and 5.

(ii) Replacement of poles and other aboveground facilities shall comply with the permit and applicable provisions of Design Manual, Part 5.

(iii) Installation of poles and other aboveground facilities in locations where highway guide rail or curb exists shall comply with the permit and applicable provisions of Design Manual, Parts 2 and 5.

(2) Installation of poles, guys and other aboveground facilities within limited access right-of-way shall comply with applicable provisions of the Federal Highway Program Manual—Volume 6, Chapter 6, section 3; the A.A.S.H.T.O. ‘‘Policy on the Accommodation of Utilities on Freeways’’; and Design Manual, Part 5.

(c) *Location of wires, cables or conductors*. A wire, cable or conductor which overhangs a portion of the right-of-way shall be placed to provide a minimum vertical clearance of 18 feet over the pavement and shoulder, except where the National Electrical Safety Code requires vertical clearances in excess of 18 feet due to voltage or span lengths.

(d) *Guys*. A guy shall be placed and insulated in the following manner:

(1) A guy shall be placed to avoid interference with vehicular or pedestrian traffic.

(2) A guy shall be insulated or grounded in compliance with the National Electrical Safety Code.

(e) *Identification of poles*. A pole shall bear the name or initials of the facility owner and the pole numbers assigned by the facility owner.

(f) *Seismograph—vibroseis method*. Seismograph—vibroseis method shall comply with the following:

(1) Seismograph operations by other than the vibroseis method will not be permitted.

(2) A permit will not be issued to authorize seismograph operations within limited access highway right-of-way.

(3) Wherever possible, seismograph operations shall be performed entirely off the pavement and shoulder to lessen interference to traffic.

(g) *Modular concrete replacement units, metal reinforcing collars and similar devices*.

(1) Modular concrete replacement units, metal reinforcing collars and similar devices may not be placed in State highway right-of-way unless located:

(i) Thirty feet or more beyond the edge of pavement under Design Manual, Part 2, Chapter 12.

(ii) At the top of a slope (2:1 or greater) or at least 8 feet beyond the toe of the slope.

(iii) Beyond parallel drainage ditches.

(iv) Beyond the specified deflection distance for the type guide rail in front of the location, under Design Manual, Part 2.

(2) No permit will be issued for the placement of a new facility, or for the repair, modification, reinforcement or replacement of an existing facility, by modular concrete replacement units, metal reinforcing collars or similar devices unless the facility is located in compliance with paragraph (1).

Authority

The provisions of this § 459.9 amended under sections 411, 420 and 702 of the State Highway Law (36 P. S. § § 670-411, 670-420 and 670-702).

Source

The provisions of this § 459.9 adopted July 13, 1979, effective August 13, 1979, 9 Pa.B. 2338; amended August 7, 1981, effective August 8, 1981, 11 Pa.B. 2779; amended January 20, 1989, effective March 22, 1989, 19 Pa.B. 241. Immediately preceding text appears at serial pages (63782) and (113653).

Cross References

This section cited in 67 Pa. Code § 459.6 (relating to emergency work); and 67 Pa. Code § 459.7 (relating to general conditions).

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