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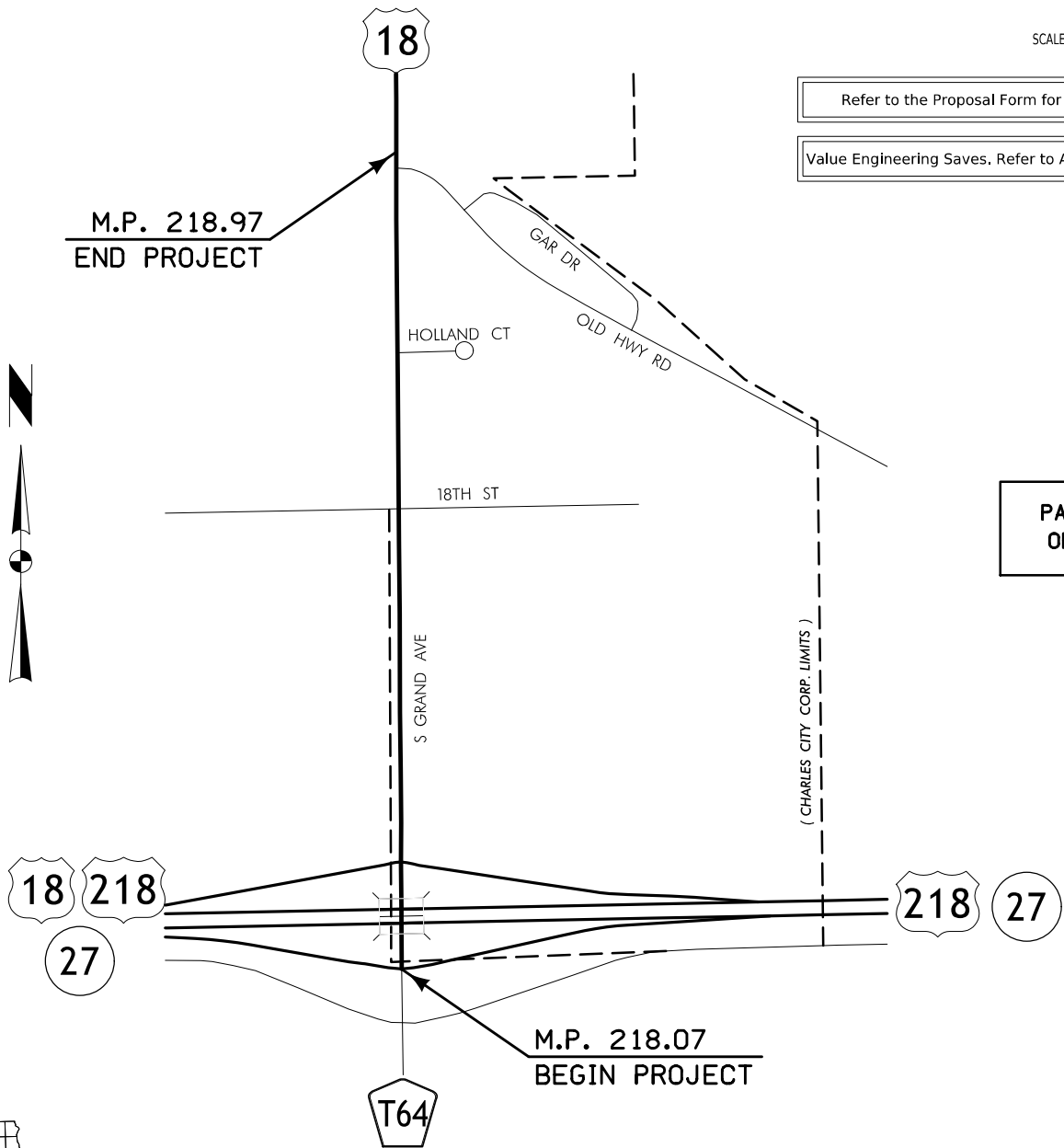


PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
FLOYD COUNTY
HMA RESURFACING w/ MILLING
From S US 218 Interchange
to Old Highway Rd in Charles City

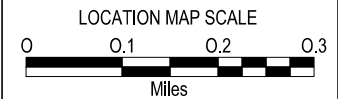
SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



PART OF THE CITY
OF CHARLES CITY



NB Ramps to Old Highway Road			
DESIGN DATA URBAN			
20 24	AADT	4550	V.P.D.
20 --	AADT	--	V.P.D.
20 --	DHV	--	V.P.H.
TRUCKS		7.14	%
Total			
Design ESALs		--	

REVISIONS		TOTAL
		13
PROJECT IDENTIFICATION NUMBER		
26-34-018-020		
PROJECT NUMBER		
NHSN-018-6(117)--2R-34		
R.O.W. PROJECT NUMBER		

MILEAGE SUMMARY			105-1 09-27-94
Div.	Location	Miles	
	M.P. 218.07 to M.P. 218.97	0.90	
		0.90	

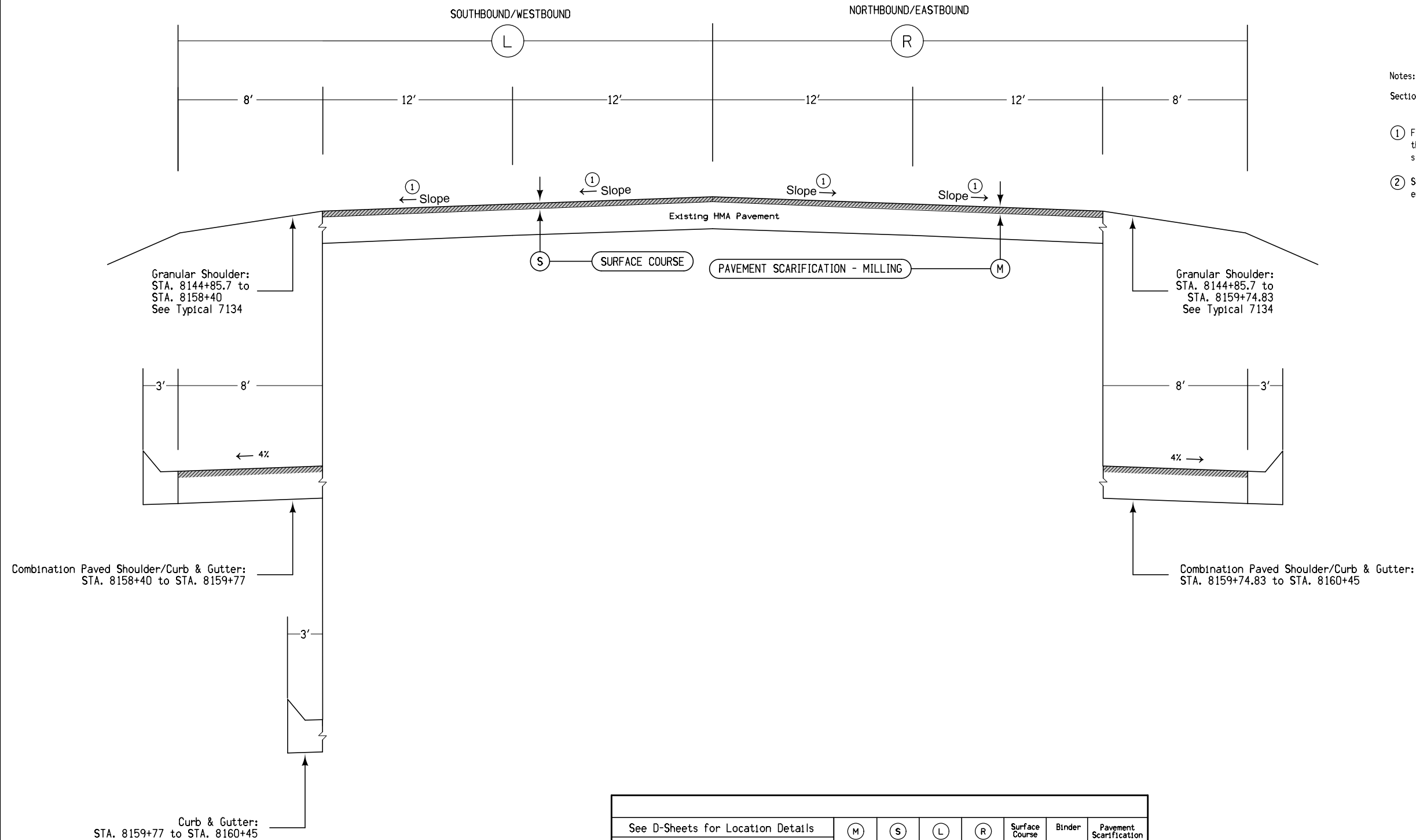
I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature: *D. Rolando* Date: 4/28/2026

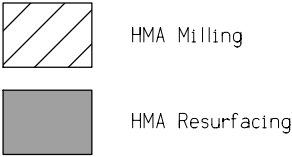
Printed or Typed Name: DUSTEN D. ROLANDO

My license renewal date is December 31, 2027

Pages or sheets covered by this seal: A.1, B.1-B.2, C.1-C.4, D.1-D.3, J.1-J.3



- Notes:
- Section shown in the direction of travel
- ① Finished slope shall match existing pavement except that the maximum allowable slope is 3.0%, minimum allowable slope is 2.0%.
- ② Stationing noted in Metric. Quantities are converted to english units.



See D-Sheets for Location Details		(M)	(S)	(L)	(R)	Surface Course	Binder	Pavement Scarification
Station to Station②		Inch	Inch	Feet	Feet	Tons	Tons	SY
8144+85.7	8158+40	1.5	1.5	24	24	1999.46	159.96	23697.30
8158+40	8159+74.83	1.5	1.5	32	24	232.24	18.58	2752.46
8159+74.83	8159+77	1.5	1.5	32	32	4.27	0.34	50.63
8159+77	8160+45	1.5	1.5	24	32	117.13	9.37	1388.18
Totals						2353.1	188.25	27888.60

TYPICAL CROSS SECTION
US 18 IN CHARLES CITY
HMA RESURFACING
4-LANE UNDIVIDED, (URBAN)



The diagram illustrates a cross-section of a road shoulder. Key components and labels include:

- HMA Resurfacing:** Indicated by a hatched area on the left side of the shoulder.
- Type 'B' Granular Shoulder:** The main shoulder material, shown with a stippled pattern.
- Existing Pavement:** The base layer on the left, indicated by a solid line.
- Existing Foreslope:** The sloped area on the right side of the shoulder.
- Dimensions and Markers:**
 - G:** A circular marker at the top center of the shoulder width.
 - Existing Shoulder Width:** A dimension line spanning the width of the granular shoulder.
 - 4%:** A slope indicator with an arrow pointing right, representing the shoulder's cross-slope.
 - T:** A circular marker with a downward arrow, likely representing a traffic load or sensor position.
 - 2'-0":** A dimension from the centerline to the edge of the granular shoulder.
 - 1'-0":** A dimension from the edge of the granular shoulder to the edge of the existing pavement.
 - 1:1:** A slope indicator for the existing foreslope.
 - ④:** A circled number 4, likely a stationing or measurement point.
 - ③:** A circled number 3, likely a stationing or measurement point.
 - ①:** A circled number 1, likely a stationing or measurement point.

[illegible]

- ① For quantity purposes, existing shoulder is assumed to be at 6%. Use median thickness ① for quantity.
- ② Outside Design Shoulder width is 10' (6' paved and 4' granular)
Inside Design Shoulder width is 6' (4' paved and 2' granular)
- ③ Existing shoulder surface to be shaped to a uniform cross slope prior to placing granular shoulder material. Shape to ensure the thickness of the granular material is not less than the thickness of resurfacing.
- ④ Place and compact material to the dashed lines; then blade and shape to foreslope that portion above the solid line in the outer 2' and roll with loaded truck tire.

**TYPICAL SECTION
FOR TYPE 'B'
GRANULAR SHOULDER
ADJACENT TO HOT MIX ASPHALT RESURFACING**

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Roadway Items : Roadway Items

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
1	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	133.36	Refer to Typical 7135 for additional information.
2	2214-5145150	PAVEMENT SCARIFICATION, NOMINAL THICKNESS	SY	27,888.6	Refer to Typical DR-1 for additional information. Milling operation shall use Type 'N-2' notch per Standard Road Plan PR-202.
3	2303-0003380	HOT MIX ASPHALT MIXTURE THIN LIFT SURFACE COURSE, 3/8 IN. MIX	TON	2,353.1	Refer to Typical DR-1 for additional information. Resurfacing operation shall use Type 'N-2' notch per Standard Road Plan PR-202. Developmental Specification DS-23078 shall apply to this item.
4	2303-1264347	ASPHALT BINDER, PG 64-34E+, EXTREMELY HIGH TRAFFIC, 90% ELASTIC RECOVERY	TON	188.25	
5	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES	LS	1	
6	2317-7000120	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA PAVEMENT SMOOTHNESS (BY SCHEDULE)	EACH	6,548.24	
7	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	460.44	Refer to Typical DR-2 and Tabulation 108-22 for additional information.
8	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS	STA	230.22	
9	2528-8445110	TRAFFIC CONTROL	LS	1	Refer to Tabulation 108-23A for additional information.
10	2528-8445113	FLAGGERS	EACH	0	See Proposal.
11	2533-4980005	MOBILIZATION	LS	1	--

262_06
9/28/22

UTILITIES (NOT A POINT 25 PROJECT)

This is NOT a POINT 25 project and is not subject to the provisions of IAC 761-115.25.

<div>105_04 4/21/26</div> <div>STANDARDS</div> <div>The following Standards apply to construction work on this project.</div>		
Number	Date	Title
PM-110	10-15-24	Line Types
PM-115	04-15-25	Grooving for Line Types
PR-202	10-21-14	Notches for Resurfacing (with or without Runout)
PV-3	10-15-24	Safety Edge
SI-881	04-16-19	Special Signs for Workzones
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-402	04-18-23	Work Within 15 ft of Traveled Way
TC-419	04-18-23	Lane Closure on Undivided Highway
TC-482	04-19-22	Uneven Lanes

108_22

11/25/25

PAVEMENT MARKING LINE TYPES

Line factors based on 6-inch wide continuous line.

*BCY4 - Place on the same side of the roadway to match existing markings near the project.

**NPY4 - Estimating purposes only. No Passing Zone Lines will be located in the field.

***MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.17

CBW6: Crosswalk Bar (White) @ 10.00

CLW6: Crosswalk Line (White) @ 2.00

DLW4: Dotted Line (White) @ 0.22

ELW6: Edge Line Right (White) @ 1.00

MNY6: Median Nose (Yellow) @ 1.00

RLY4: Ramp Edge Line Left (Yellow) @ 0.67

SPW4: Sloped Curb 4" (White) @ 2.16

STY6: Standard Curb 6" (Yellow) @ 2.03

BCY6: Broken Centerline (Yellow) @ 0.25

CHW8: Channelizing Line (White) @ 1.33

DCY4: Double Centerline (Yellow) @ 1.34

DLW6: Dotted Line (White) @ 0.33

ELY4: Edge Line Left (Yellow) @ 0.67

NPY4: No Passing Zone Line (Yellow) @ 0.84

RLY6: Ramp Edge Line Left (Yellow) @ 1.00

SPW6: Sloped Curb 6" (White) @ 2.28

YLW2: Yield Line (White) @ 1.15

BLC6: Broken Line Contrast (White/Black) @ 0.50

CHW10: Channelizing Line (White) @ 1.67

DCY6: Double Centerline (Yellow) @ 2.00

DLY4: Dotted Line (Yellow) @ 0.22

ELY6: Edge Line Left (Yellow) @ 1.00

NPY6: No Passing Zone Line (Yellow) @ 1.25

RLW4: Ramp Edge Line Right (White) @ 0.67

SPY4: Sloped Curb 4" (Yellow) @ 2.16

BLW4: Broken Lane Line (White) @ 0.17

CHY8: Channelizing Line (Yellow) @ 1.33

DDY4: Double Dotted Line (Yellow) @ 0.44

DLY6: Dotted Line (Yellow) @ 0.33

LDW8: Lane Drop (White) @ 0.33

RLW6: Ramp Edge Line Right (White) @ 1.00

SLW4: Solid Lane Line (White) @ 0.67

SPY6: Sloped Curb 6" (Yellow) @ 2.28

BLW6: Broken Lane Line (White) @ 0.25

CHY10: Channelizing Line (Yellow) @ 1.67

DDY6: Double Dotted Line (Yellow) @ 0.67

ELW4: Edge Line Right (White) @ 0.67

LDW10: Lane Drop (White) @ 0.42

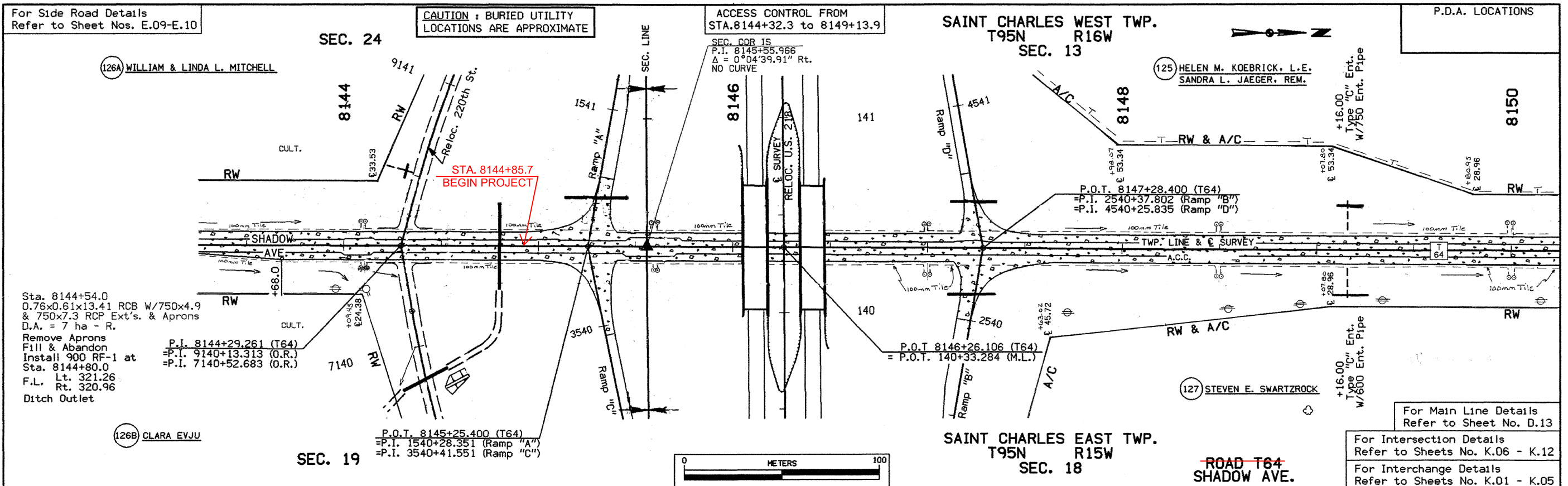
SLW6: Solid Lane Line (White) @ 1.00

STW6: Standard Curb 6" (Yellow) @ 2.03

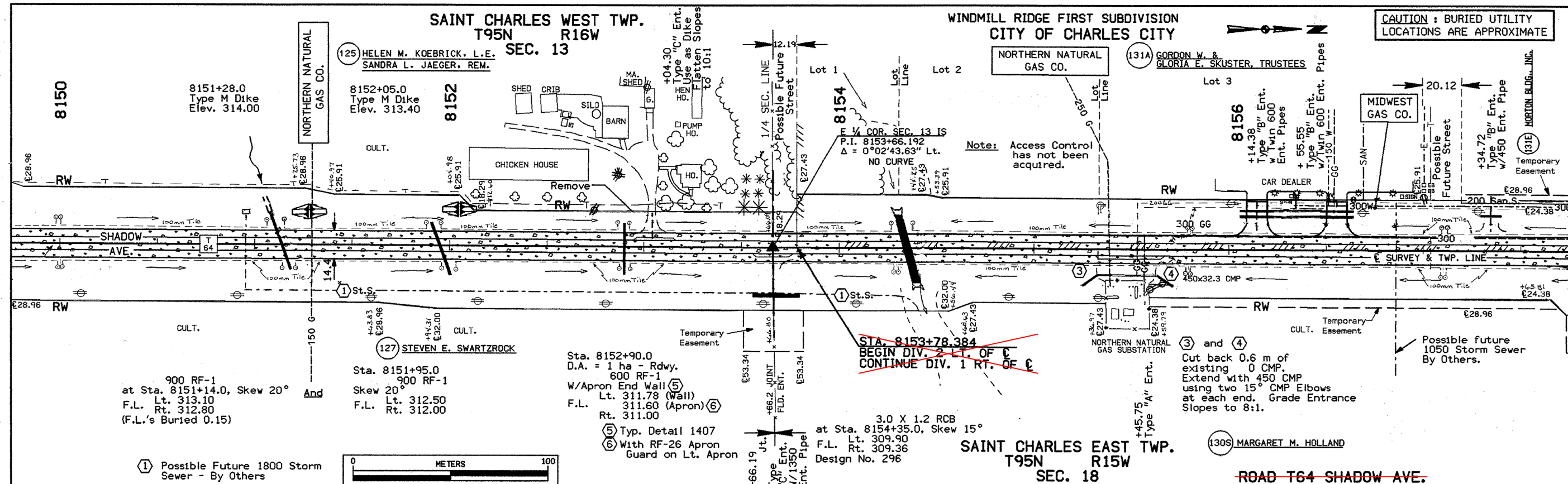
Line No.	Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	BLW6 Factored (STA)	DCY6 Factored (STA)	ELW6 Factored (STA)	Remarks
1.0	US 18	8144+85.70	8160+45.00	All	Waterborne/Solvent Paint	x	x	x	No		25.58	102.32	102.32	Following Milling/Resurfacing
2.0	US 18	8144+85.70	8160+45.00	All	Waterborne/Solvent Paint	x	x	x	Yes	230.22	25.58	102.32	102.32	Final Placement
Total:										230.22	51.16	204.64	204.64	

Stationing recorded in Metric - quantity values converted to english.

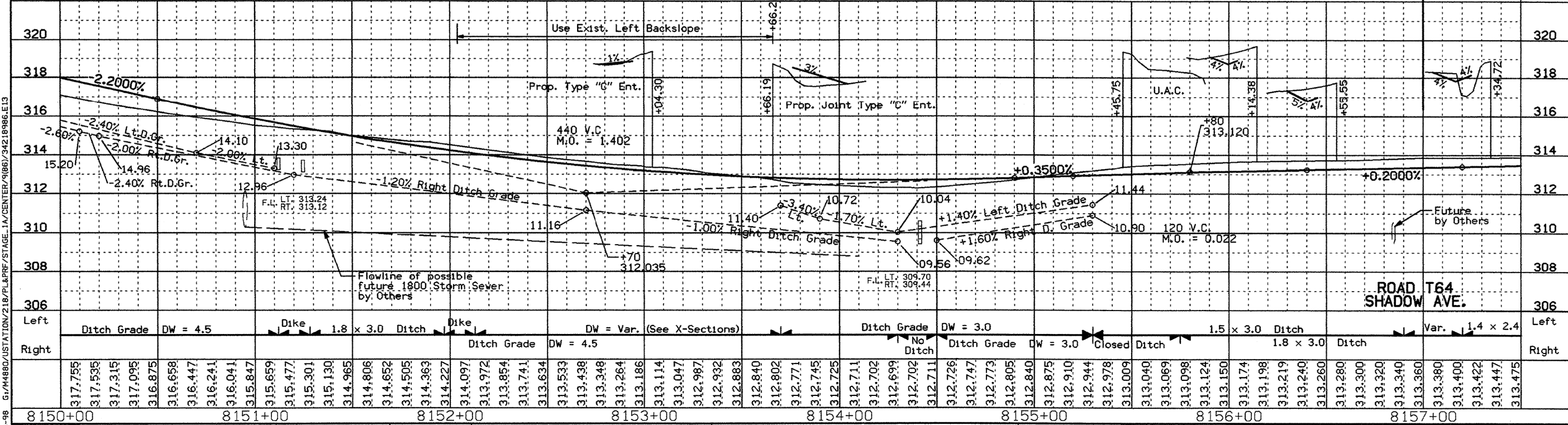
P.D.A. LOCATIONS

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AS-BUILT PLANS: FOR INFORMATION ONLY

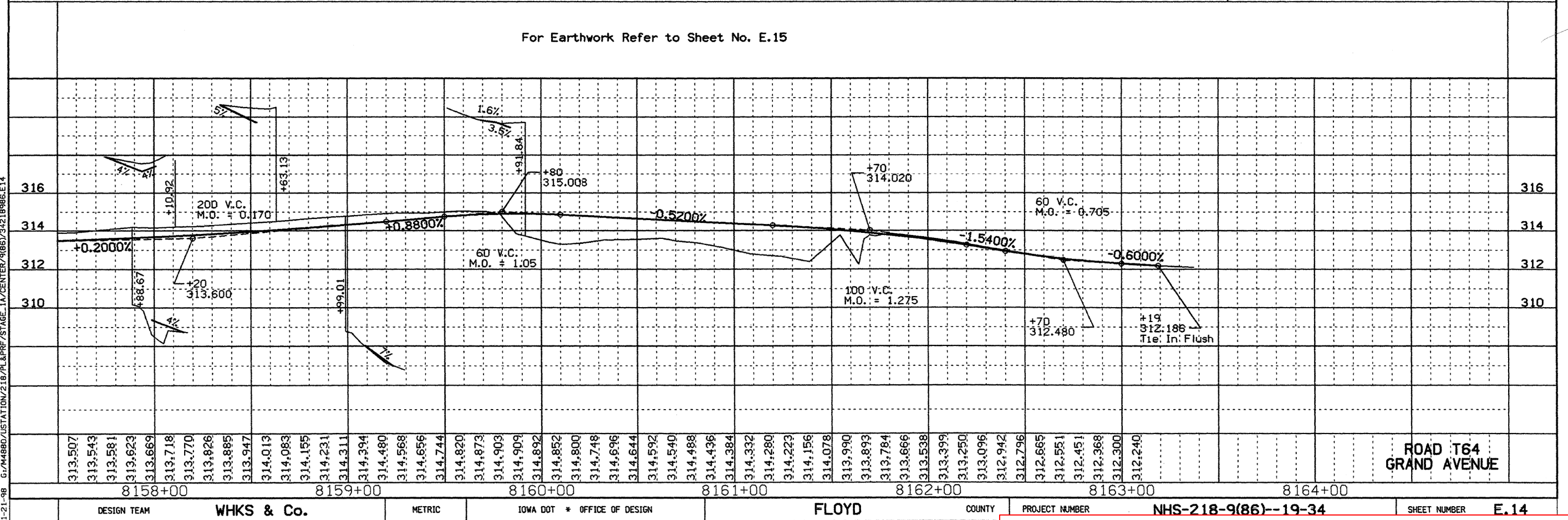
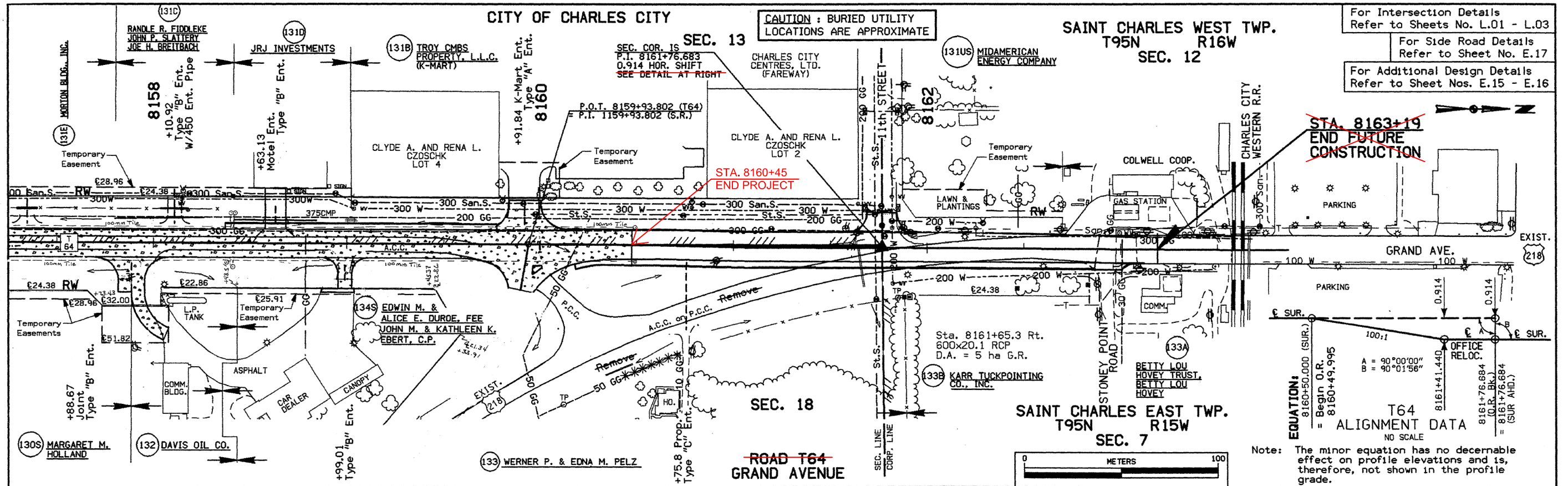


STAGE 1A	Cut = 8,963	Fill + 30% To S.R. T64 Sta. 8154+50 = 4,983 To S.R. T64 Sta. 8154+50 = 3,110 To S.R. T64 Sta. 8154+50 = 8,963	Cut From S.R. T64 Sta. 8152+70 = 6,089 To S.R. T64 Sta. 8152+70 = 3,110 To S.R. T64 Sta. 8152+70 = 9,199	Topsoil Unsuit. C-3 = 794	Fill + 30% To S.R. T64 Sta. 8158+70 = 8,894 To S.R. T64 Sta. 8158+70 = 3,055 To S.R. T64 Sta. 8158+70 = 9,199	STAGE 1A
STAGE 1B						STAGE 1B
STAGE 1C					See Sheet E.15 for Stages 1A, 1B and 1C Earthwork	STAGE 1C



8150+00	8151+00	8152+00	8153+00	8154+00	8155+00	8156+00	8157+00
DESIGN TEAM	WHKS & Co.	METRIC	IOWA DOT * OFFICE OF DESIGN	FLOYD	COUNTY	PROJECT NUMBER	NHS-218-9(86)--19-34
						SHEET NUMBER	E.13

AS-BUILT PLANS: FOR INFORMATION ONLY



AS-BUILT PLANS: FOR INFORMATION ONLY

108_23A
8/15/22

TRAFFIC CONTROL PLAN

Through traffic shall be maintained at all times.

511 TRAVEL RESTRICTIONS										108_25 3/28/24
Line No.	Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No. or Structure ID or FHWA No.	Type of Restriction	Existing Measurement	Remarks
1.0	US 18	Both	Floyd					None		No travel restrictions anticipated

111_01
10/14/22

COORDINATED OPERATIONS

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
	To be discussed at PreCon