

# ALLEGAN COUNTY ROAD COMMISSION

## 8TH STREET RECONSTRUCTION PROJECT

### M89 TO 106TH AVENUE

### GUN PLAIN TOWNSHIP

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS OR IN THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED THEREIN, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2012 MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION.

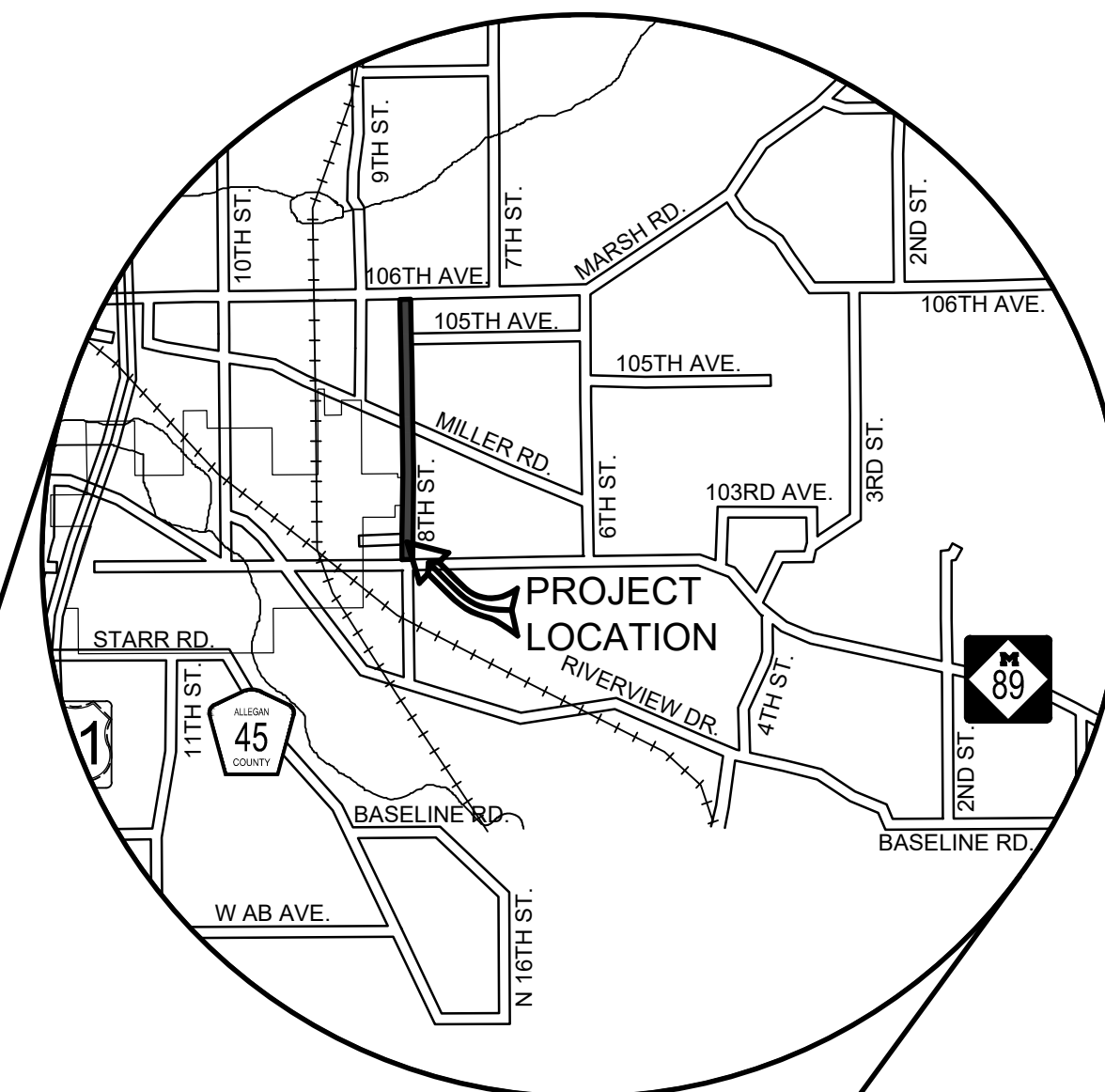
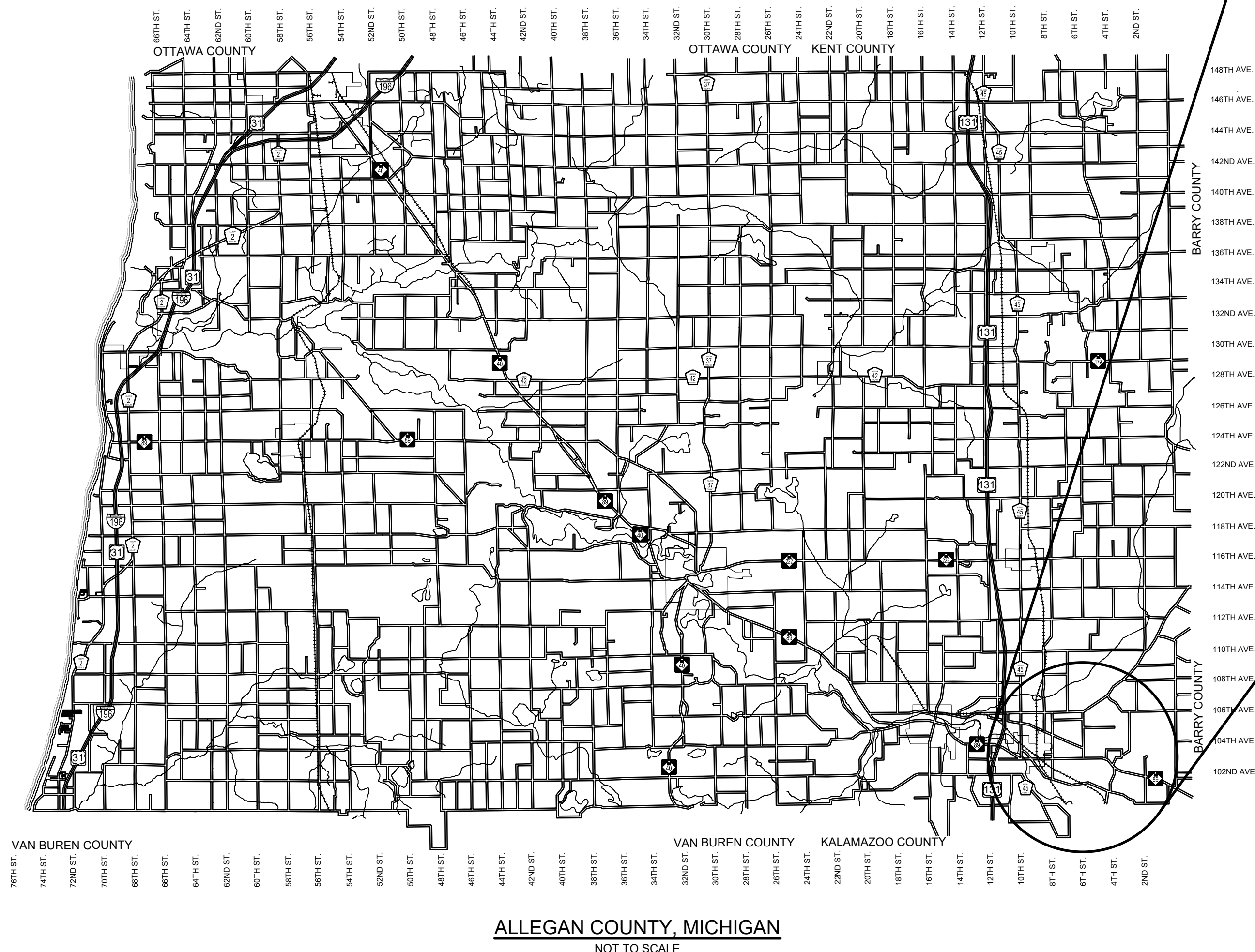
THE PLACING OF PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SHALL BE DONE IN ACCORDANCE WITH THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AS AMENDED.

THE IMPROVEMENTS COVERED BY THESE PLANS ARE IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2011 EDITION, A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS.

THE CONTRACTOR SHALL DIAL MISS DIG @ 811 FOR PROTECTION OF UNDER GROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

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UTILITY CONTACTS	
<b>ELECTRIC</b> CONSUMERS ENERGY 4000 CLAY AVE. SW GRAND RAPIDS, MI 49548 616-530-4284 MR. IAN MEREDITH grovimp@cnsenergy.com	<b>WATER AND SEWER</b> HORIZON OPERATION, LLC 4122 DIVISION STREET WAYLAND, MI 49348 MR. TOM ROOK rook@accn.org
<b>TELEPHONE</b> AT&T 2919 MILCORK STREET ROOM 101 KALAMAZOO, MI 49001 269-384-4436 MR. TODD SHIBAYAMA ts2385@att.com	<b>CITY OF PLAINWELL</b> 126 FAIRLANE STREET PLAINWELL, MI 49080 269-685-9363 MR. RICK UPDIKE rupdike@plainwell.org
<b>CABLE</b> CHARTER 4176 COMMERCIAL AVE PORTAGE, MI 49002 269-217-8152 MR. MARK BURKE mark.burke@charter.com	"MISS DIG" 811
<b>GAS</b> MICHIGAN GAS UTILITY MR. DAVID MAUER DAMaurer@michigangasutilities.com	

REVISIONS						
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**CONTRACT FOR ROAD IMPROVEMENTS**  
1.5 MILES OF ROADWAY RECONSTRUCTION INCLUDING CLEARING, GRADE ESTABLISHMENT, CULVERT REPLACEMENT, ADDING AGGREGATE, CRUSHING, SHAPING, HMA PAVING, AND RESTORATION ON 8TH STREET FROM M89 TO 106TH AVENUE IN GUN PLAIN TOWNSHIP, ALLEGAN COUNTY.

PREPARED UNDER THE SUPERVISION OF:

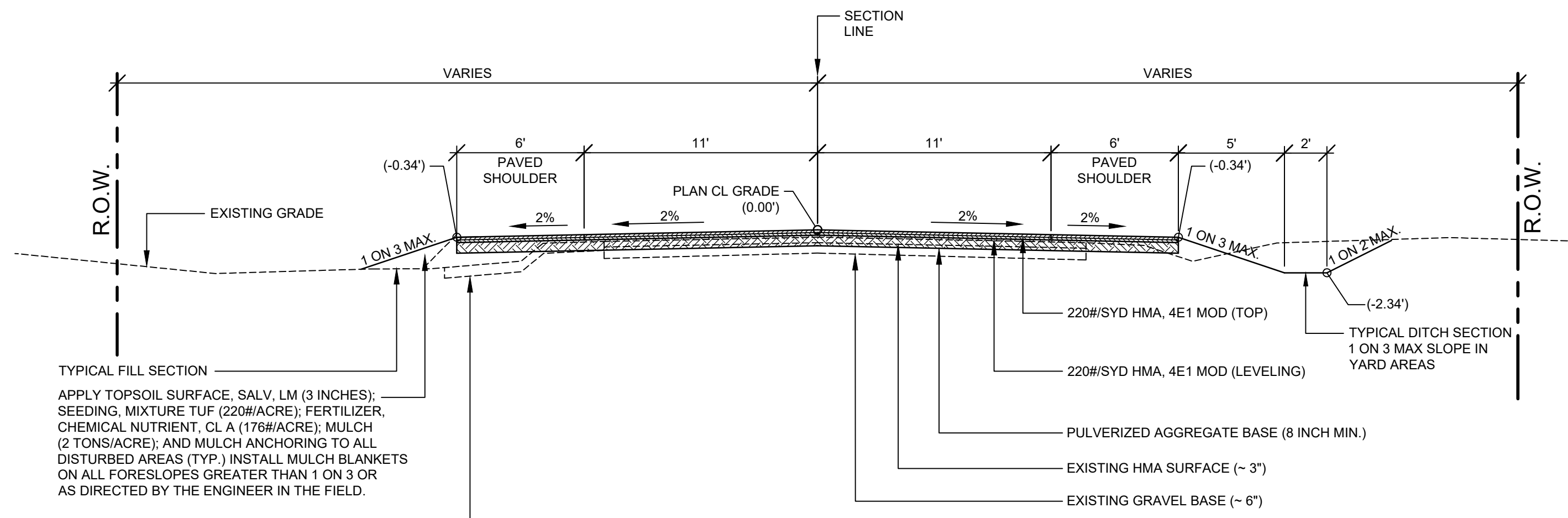
RYAN P. BROWN  
REGISTERED PROFESSIONAL ENGINEER No. 65933

**Board of County Road Commissioners  
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1308 LINCOLN ROAD  
ALLEGAN, MICHIGAN 49010-9762  
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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE  
COVER SHEET

DRAWN BY: RPB  
REVIEWED BY:  
DATE: AUGUST, 2018  
SCALE: NONE

LH 4927 1



TYPICAL FILL SECTION  
 APPLY TOPSOIL SURFACE, SALV. LM (3 INCHES); SEEDING MIXTURE TUF (220#/ACRE); FERTILIZER, CHEMICAL NUTRIENT, CL A (176#/ACRE); MULCH (2 TONS/ACRE); AND MULCH ANCHORING TO ALL DISTURBED AREAS (TYP.) INSTALL MULCH BLANKETS ON ALL FORESLOPES GREATER THAN 1 ON 3 OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

STRIP TOPSOIL WITHIN 1 ON 1 INFLUENCE OF ROADWAY TO BE INCLUDED IN THE ITEM OF STATION GRADING (TYP.)

**TYPICAL SECTION - 8TH STREET**

SCALE: 1" = 5'  
 THIS SECTION APPLIES TO:  
 P.O.B. TO P.O.E.



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**TOWNSHIP HALL PARKING LOT MILLING**

HMA SURFACE, REM 1.5" SYD  
 220#/SYD HMA, 4E1 MOD  
 APPROX. AREA = 4320 SYD

ALL MILLINGS WILL BE PLACED IN TOWNSHIP OWNED ENTRANCE TO SOCCER FIELDS DIRECTLY NORTH OF TOWNSHIP HALL.

ITEM	AWI	YIELD	PERFORMANCE GRADE
HMA, 4E1, MOD (TOP)	260	220#/SYD	P.G. 64 - 28
HMA, 4E1, MOD (LEVELING)		220#/SYD	P.G. 64 - 28
HMA BOND COAT (NOT A PAY ITEM)		0.05 TO 0.15 GAL/SYD	SS - 1h

**HMA APPLICATION TABLE**

**PROJECT NOTES**

THE "2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND "STANDARD PLANS" BY THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) ARE HEREBY INCORPORATED INTO THESE CONTRACT DOCUMENTS. COPIES OF THESE STANDARDS ARE AVAILABLE FOR INSPECTION AT THE OFFICE OF THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE ALLEGAN COUNTY ROAD COMMISSION TO NOTIFY THEM THAT WORK IS COMMENCING.

THE CONTRACTOR SHOULD NOTE THAT STATION GRADING INCLUDES THE REMOVAL OF FENCES, CULVERTS, BRUSH, TREES SMALLER THAN 6", CONCRETE FOUNDATIONS, AND MISCELLANEOUS ITEMS AS REQUIRED AND WILL ALSO INCLUDE ALL EARTH EXCAVATION, EMBANKMENT, AND ALL OTHER OPERATIONS NECESSARY TO DEVELOP THE DESIRED CROSS SECTION. ALL TOPSOIL AND OTHER UNSUITABLE MATERIAL LOCATED BENEATH THE PROPOSED PAVEMENT SECTION WILL BE REMOVED TO THE SUBGRADE ELEVATION AS PART OF STATION GRADING. ALL TOPSOIL REMOVED MAY BE STOCKPILED AND REUSED AS TOPSOIL SURFACE, SALV. LM.

WHEN PLAN AND PROFILE SHEETS NOTE A CHANGE IN THE EXISTING PROFILE, THE CONTRACTOR WILL REMOVE AND STOCKPILE THE PULVERIZED AGGREGATE BASE, CUT OR FILL THE STATIONS TO PROPOSED CLAY GRADE, AND REDISTRIBUTE THE PULVERIZED AGGREGATE BASE TO A MINIMUM DEPTH OF 6 INCHES. THIS WORK WILL BE INCLUDED IN THE ITEM OF STATION GRADING. UNSUITABLE MATERIAL LOCATED BELOW THE CLAY GRADE WILL BE REMOVED AND REPLACED WITH GRANULAR CL II MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD AND PAID FOR AS SUBGRADE UNDERCUTTING, TYPE II.

ALL FILL FOR THIS PROJECT MUST BE OBTAINED AND FURNISHED BY THE CONTRACTOR. ALL REQUIRED FILL WILL BE SELECTED EXCAVATED MATERIAL FROM THE SITE APPROVED BY THE ENGINEER, OR MDOT CLASS II GRANULAR MATERIAL FROM BORROW. EXCESS FILL SHALL BE REMOVED FROM SITE BY THE CONTRACTOR. NO BORROW OR SOIL REMOVAL ARRANGEMENTS HAVE BEEN PREARRANGED FOR THIS PROJECT AND SHALL BE THE TOTAL RESPONSIBILITY OF THE CONTRACTOR.

SEE PLAN AND PROFILE SHEETS FOR SOIL BORING DATA.

DRIVE REPLACEMENT WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

AS PART OF THIS PROJECT THE CONTRACTOR WILL COORDINATE WITH THE ALLEGAN COUNTY ROAD COMMISSION TO PRESERVE AND RESET ALL GOVERNMENT CORNERS WITHIN THE PROJECT LIMITS.

CONTRACTOR WILL RELOCATE ALL MAILBOXES TO A TEMPORARY CENTRAL LOCATION APPROVED BY THE POSTAL SERVICE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL INSTALL A 1" x 3" STAKE WITH THE RESPECTIVE PROPERTY ADDRESS WRITTEN ON IT IN THE FRONT YARD OF EACH RESIDENCE TO ASSIST WITH IDENTIFICATION FOR EMERGENCY VEHICLES. PAYMENT FOR RELOCATION WILL BE INCLUDED IN THE ITEM OF PROJECT CLEANUP. AT THE COMPLETION OF THE PROJECT SAID MAILBOXES SHALL BE RESET AT THEIR APPROPRIATE LOCATIONS.

ALL DISTURBED AREAS NOT TO BE PAVED WILL BE RESTORED WITH TOPSOIL SURFACE, SALV. LM (3 INCHES), MDOT SEED MIXTURE TUF (220#/ACRE), FERTILIZER, CHEMICAL NUTRIENT, CL A (176#/ACRE); AND MULCH AND MULCH ANCHORING (2 TON/ACRE). TO BE PAID AS RESTORATION (LUMP SUM).

ADEQUATE DUST CONTROL MEASURES WILL BE MAINTAINED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER IN THE FIELD, TO BE INCLUDED IN THE VARIOUS ITEMS OF WORK.

MULCH BLANKET, HIGH VELOCITY WILL BE PLACED ON THE BOTTOM OF ALL DITCHES WHEN THE LONGITUDINAL GRADE IS GREATER THAN OR EQUAL TO 2.00% UNLESS OTHERWISE NOTED, OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

WHEN FIELD DRAIN TILES ARE ENCOUNTERED IN THE EXISTING DITCHES, THE CONTRACTOR WILL EXTEND THEM AS REQUIRED WITH UNDERDRAIN, SUBGRADE 4" OR 6" AND ADJUST THE DITCH GRADES AS NECESSARY TO PROVIDE POSITIVE DRAINAGE AS DIRECTED BY THE ENGINEER IN THE FIELD. THE COST OF THE CONNECTION SHALL BE INCLUDED IN THE NEW PIPE ITEM. IF THE ENGINEER DETERMINES THAT AN EXISTING TILE IS TOO LONG THE CONTRACTOR SHALL REMOVE THE TILE AS NECESSARY, TO BE INCLUDED IN THE ITEM OF STATION GRADING.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EXISTING DRAINAGE PATTERNS, AND WILL RESOLVE ANY DRAINAGE PROBLEMS ON ADJACENT PROPERTIES WHICH MAY RESULT FROM THE CONTRACTOR'S ACTIVITIES.

DATUM REFERS TO NAVD88 DATUM.

DIMENSIONS TAKE PRECEDENCE OVER SCALE. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD.

**UTILITY NOTES**

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR WILL CONTACT "MISS DIG" AT 811, A MINIMUM OF 72 HOURS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE CONTRACTOR WILL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND WILL CONDUCT HIS OPERATIONS IN A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.

COORDINATION WILL BE REQUIRED TO MAINTAIN ACCESS WITH GUN PLAIN TOWNSHIP FIRE DEPARTMENT.

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 Of Allegan County**

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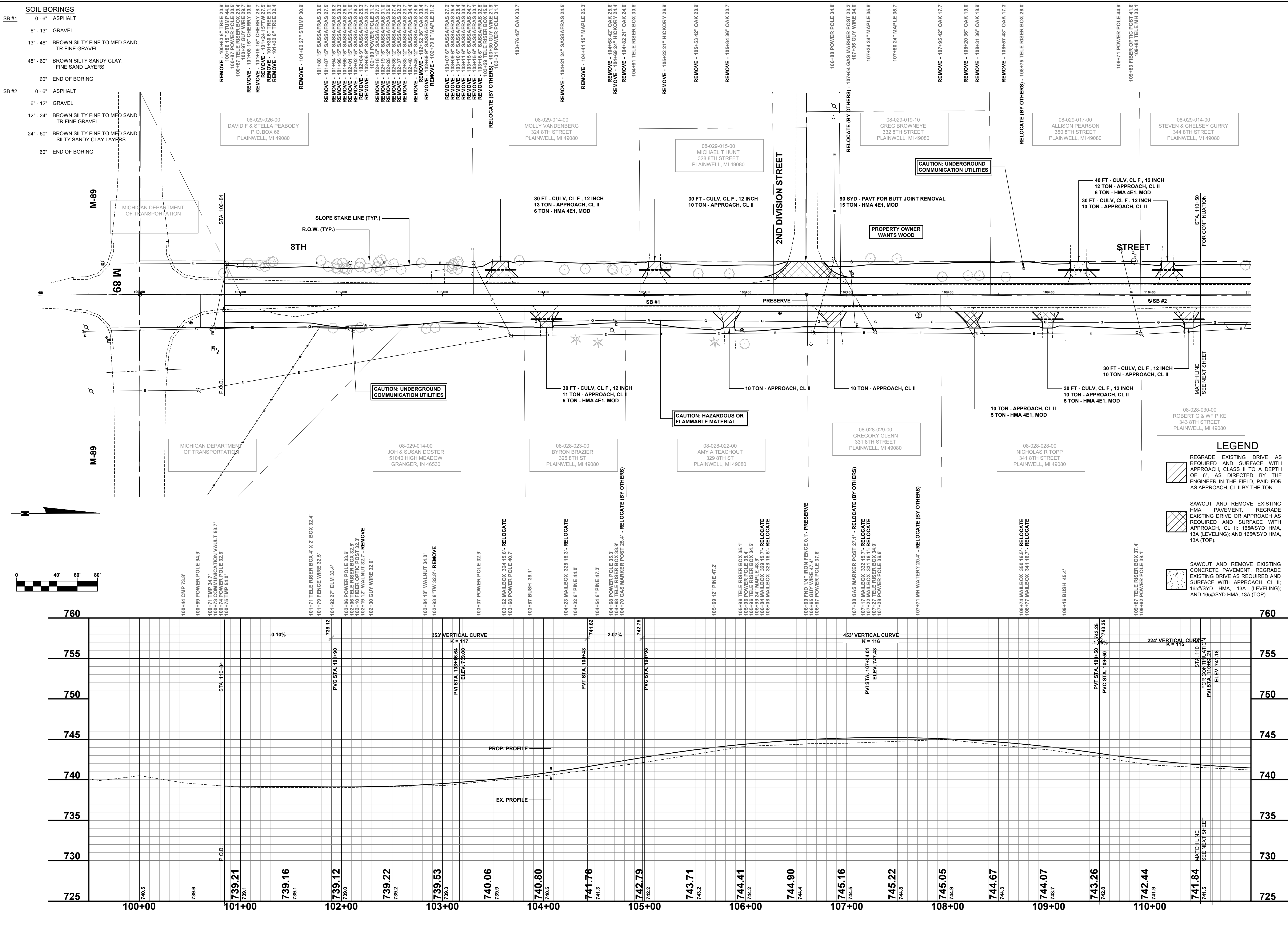
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**8TH STREET RECONSTRUCTION PROJECT**  
 GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE

TYPICAL SECTIONS, DETAILS, & NOTES

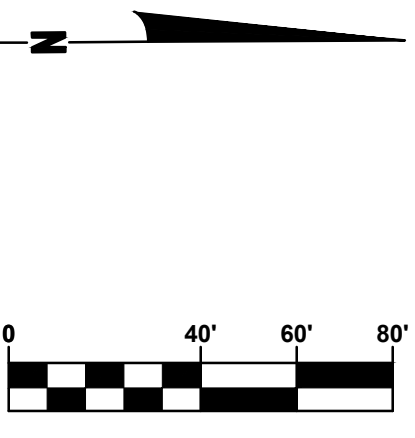
DRAWN BY:	R.P.B.
REVIEWED BY:	
DATE:	JUNE, 2018
SCALE:	AS NOTED

LH 4927 2



**SOIL BORINGS**

SB #1	0 - 6" ASPHALT
	6" - 13" GRAVEL
	13" - 48" BROWN SILTY FINE TO MED SAND, TR FINE GRAVEL
	48" - 60" BROWN SILTY SANDY CLAY, FINE SAND LAYERS
	60" END OF BORING
SB #2	0 - 6" ASPHALT
	6" - 12" GRAVEL
	12" - 24" BROWN SILTY FINE TO MED SAND, TR FINE GRAVEL
	24" - 60" BROWN SILTY FINE TO MED SAND, SILTY SANDY CLAY LAYERS
	60" END OF BORING



**LEGEND**

- REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CLASS II TO A DEPTH OF 6" AS DIRECTED BY THE ENGINEER IN THE FIELD, PAID FOR AS APPROACH, CL II BY THE TON.
- SAWCUT AND REMOVE EXISTING HMA PAVEMENT, REGRADE EXISTING DRIVE OR APPROACH AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP).
- SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT, REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP).

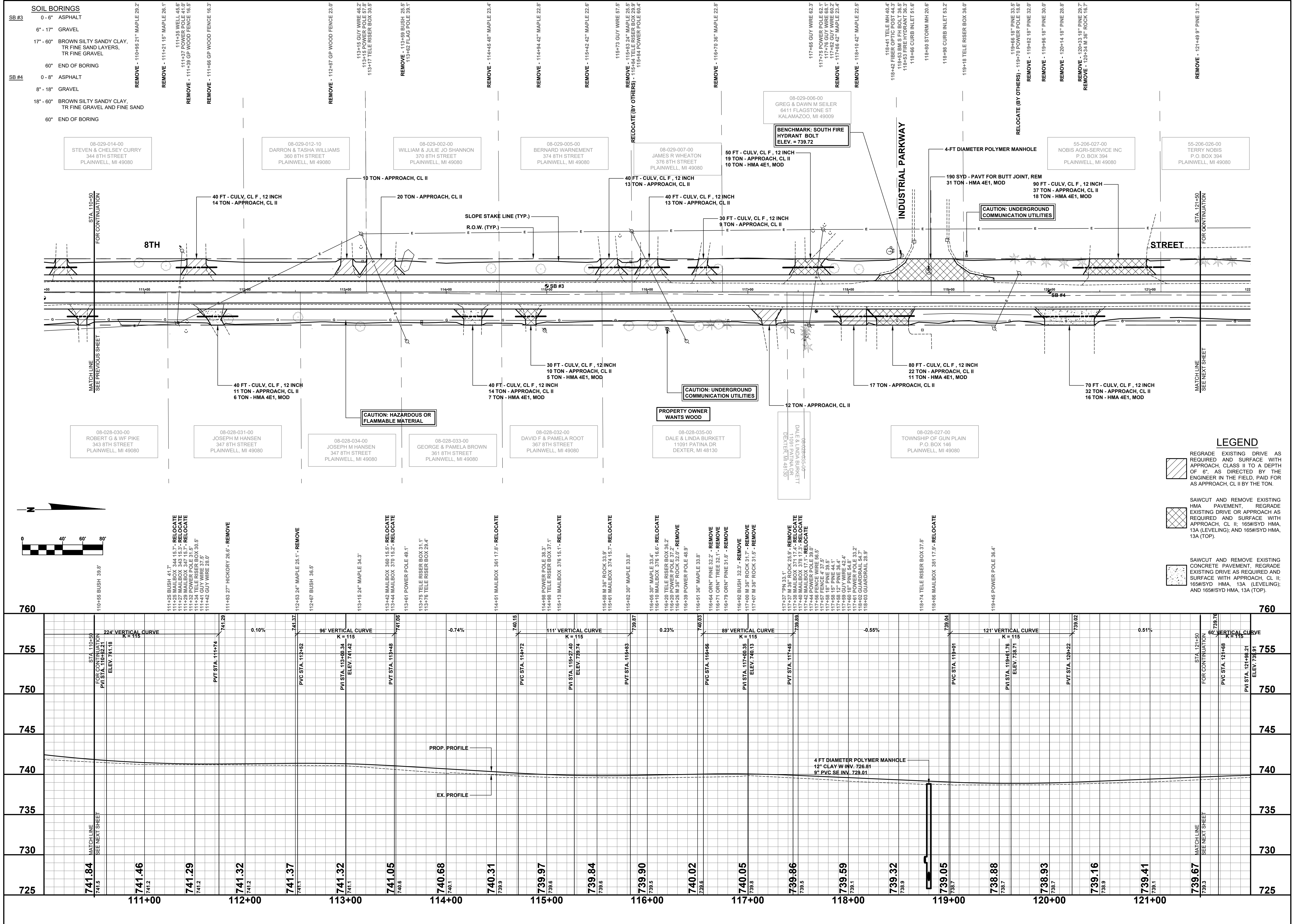
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**REVISIONS**

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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE  
PLAN & PROFILE - STA. 100+00 TO STA. 110+00

DRAWN BY: R.P.B.  
REVIEWED BY: J.S.E.  
DATE: AUGUST, 2018  
SCALE: 1"= 40'H, 5'V



**SOIL BORINGS**

SB #3	0 - 6" ASPHALT	REMOVE - 110+95.21" MAPLE 28.2'
	6" - 17" GRAVEL	REMOVE - 111+21.15" MAPLE 26.1'
	17" - 60" BROWN SILTY SANDY CLAY, TR FINE SAND LAYERS, TR FINE GRAVEL	114+35 NELA 46.6' 114+37 POWER POLE 48.0' REMOVE - 111+39 GP WOOD FENCE 16.5'
	60" END OF BORING	REMOVE - 111+86 GP WOOD FENCE 16.3'
SB #4	0 - 8" ASPHALT	REMOVE - 112+97 GP WOOD FENCE 23.0'
	8" - 18" GRAVEL	113+15 GUY WIRE 46.2' 113+15 POWER POLE 57.8' 113+17 TELE RISER BOX 30.5'
	18" - 60" BROWN SILTY SANDY CLAY, TR FINE GRAVEL AND FINE SAND	REMOVE - 113+59 BUSH 26.5' 113+62 FLAG POLE 39.1'
	60" END OF BORING	REMOVE - 114+45 48" MAPLE 23.4'

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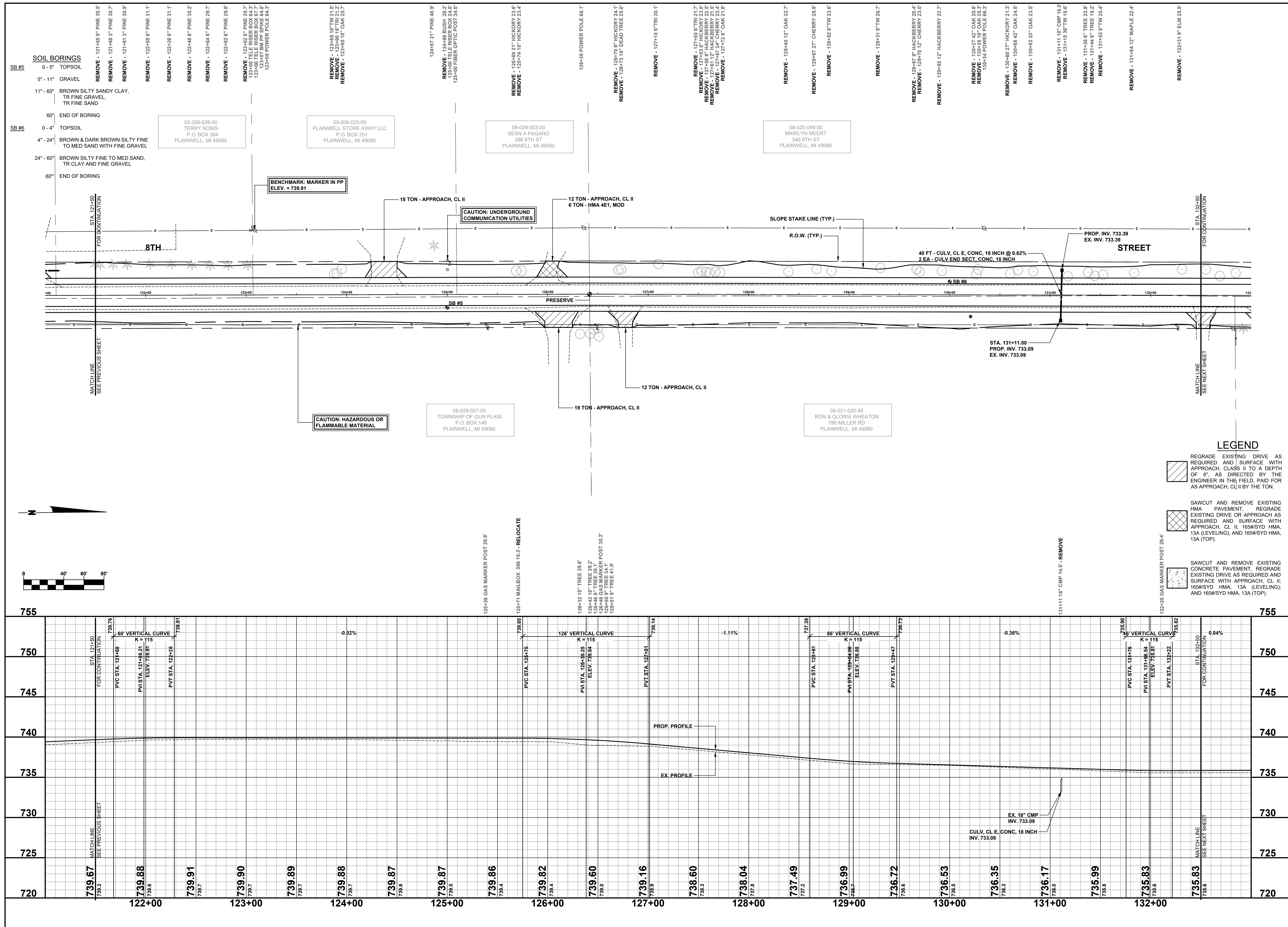
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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE

PLAN & PROFILE - STA. 111+00 TO STA. 121+00

DRAWN BY: R.P.B.  
REVIEWED BY: J.S.E.  
DATE: AUGUST, 2018  
SCALE: 1"= 40'H, 5'V



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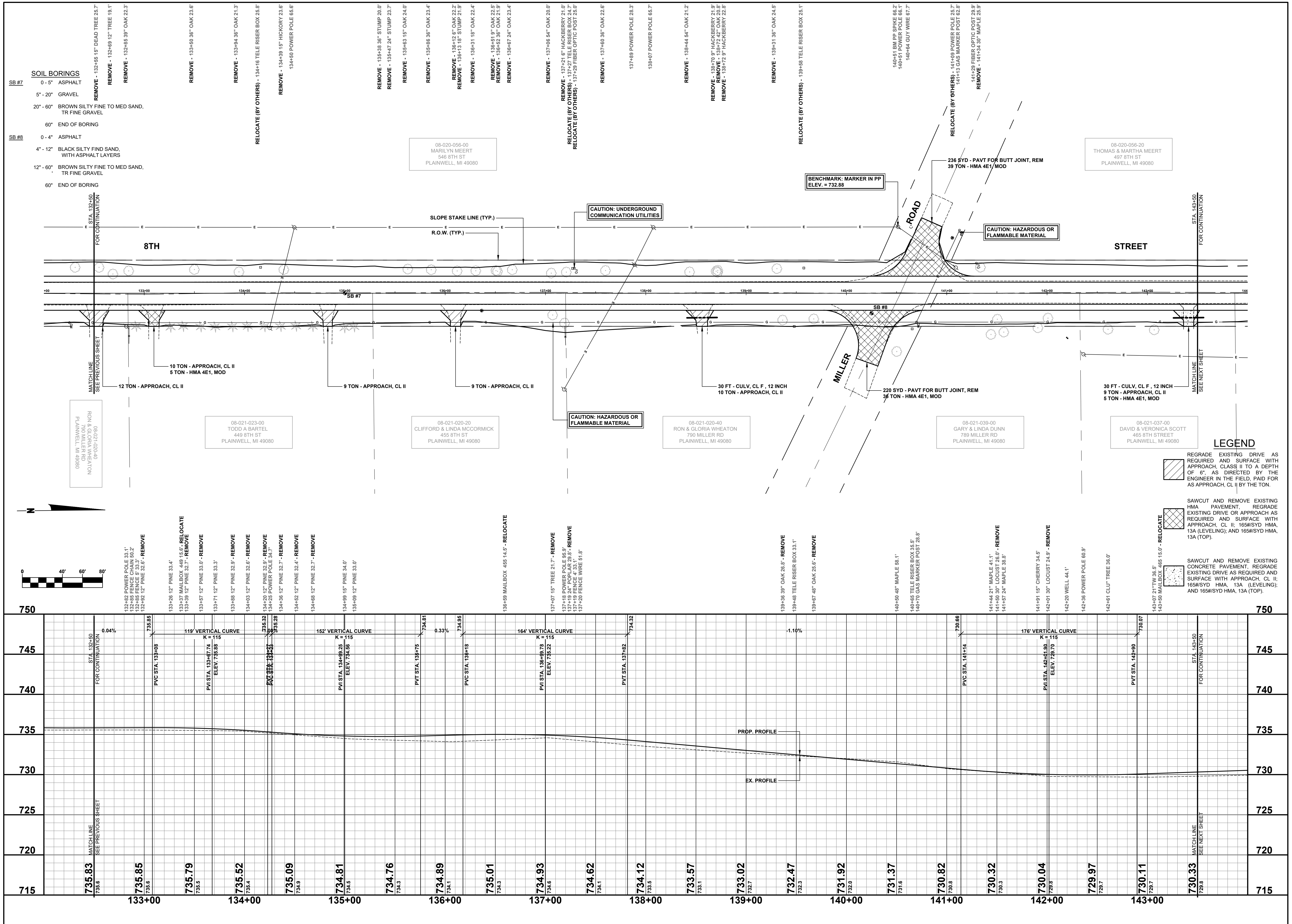
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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE

PLAN & PROFILE - STA. 122+00 TO STA. 132+00

DRAWN BY: R.P.B.  
REVIEWED BY: J.S.E.  
DATE: AUGUST, 2018  
SCALE: 1"= 40'H, 5'V



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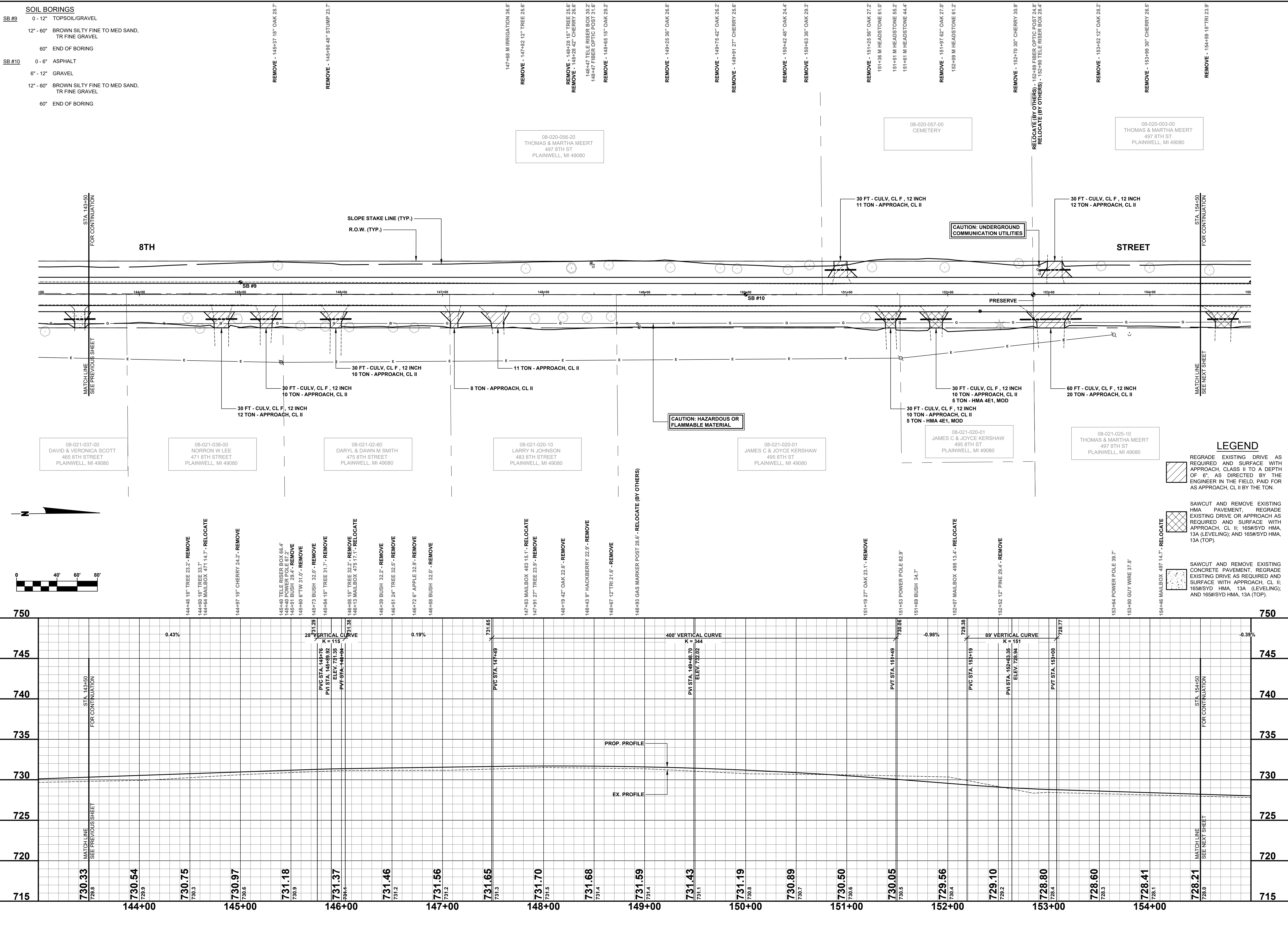
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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE

PLAN & PROFILE - STA. 133+00 TO STA. 143+00

DRAWN BY: R.P.B.  
REVIEWED BY: J.S.E.  
DATE: AUGUST, 2018  
SCALE: 1"= 40'H, 5'V



**SOIL BORINGS**

SB #9	0 - 12" TOPSOIL/GRAVEL
	12" - 60" BROWN SILTY FINE TO MED SAND, TR FINE GRAVEL
	60" END OF BORING
SB #10	0 - 6" ASPHALT
	6" - 12" GRAVEL
	12" - 60" BROWN SILTY FINE TO MED SAND, TR FINE GRAVEL
	60" END OF BORING

REMOVE - 145+37 18" OAK 28.7'  
 REMOVE - 145+90 48" STUMP 23.7'  
 147+68 M IRRIGATION 36.8'  
 REMOVE - 147+82 12" TREE 26.6'  
 REMOVE - 148+28 15" TREE 26.6'  
 REMOVE - 148+28 42" CHERRY 26.6'  
 148+47 TELE RISER BOX 30.2'  
 148+47 FIBER OPTIC POST 31.6'  
 REMOVE - 148+65 15" OAK 29.2'  
 REMOVE - 149+35 36" OAK 26.8'  
 REMOVE - 149+75 42" OAK 26.2'  
 REMOVE - 149+91 27" CHERRY 26.6'  
 REMOVE - 150+42 36" OAK 24.4'  
 REMOVE - 150+63 36" OAK 29.3'  
 REMOVE - 151+25 36" OAK 27.2'  
 151+36 M HEADSTONE 61.0'  
 151+51 M HEADSTONE 55.2'  
 151+61 M HEADSTONE 44.4'  
 REMOVE - 151+97 62" OAK 27.0'  
 152+09 M HEADSTONE 61.2'  
 REMOVE - 152+70 30" CHERRY 30.9'  
 RELOCATE (BY OTHERS) - 152+89 FIBER OPTIC POST 24.8'  
 RELOCATE (BY OTHERS) - 152+90 TELE RISER BOX 28.4'  
 REMOVE - 153+52 12" OAK 28.2'  
 REMOVE - 153+99 30" CHERRY 26.6'  
 REMOVE - 154+99 15" TRI 23.9'

08-020-056-20  
 THOMAS & MARTHA MEERT  
 497 8TH ST  
 PLAINWELL, MI 49080

08-020-057-00  
 CEMETERY

08-020-003-00  
 THOMAS & MARTHA MEERT  
 497 8TH ST  
 PLAINWELL, MI 49080

08-021-037-00  
 DAVID & VERONICA SCOTT  
 465 8TH STREET  
 PLAINWELL, MI 49080

08-021-038-00  
 NORRON W LEE  
 471 8TH STREET  
 PLAINWELL, MI 49080

08-021-02-60  
 DARYL & DAWN M SMITH  
 475 8TH STREET  
 PLAINWELL, MI 49080

08-021-020-10  
 LARRY N JOHNSON  
 483 8TH STREET  
 PLAINWELL, MI 49080

08-021-020-01  
 JAMES C & JOYCE KERSHAW  
 495 8TH ST  
 PLAINWELL, MI 49080

08-021-020-01  
 JAMES C & JOYCE KERSHAW  
 495 8TH ST  
 PLAINWELL, MI 49080

08-021-025-10  
 THOMAS & MARTHA MEERT  
 497 8TH ST  
 PLAINWELL, MI 49080

**LEGEND**

- REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH CLASS II TO A DEPTH OF 6" AS DIRECTED BY THE ENGINEER IN THE FIELD. PAID FOR AS APPROACH, CL II BY THE TON.
- SAWCUT AND REMOVE EXISTING HMA PAVEMENT. REGRADE EXISTING DRIVE OR APPROACH AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP).
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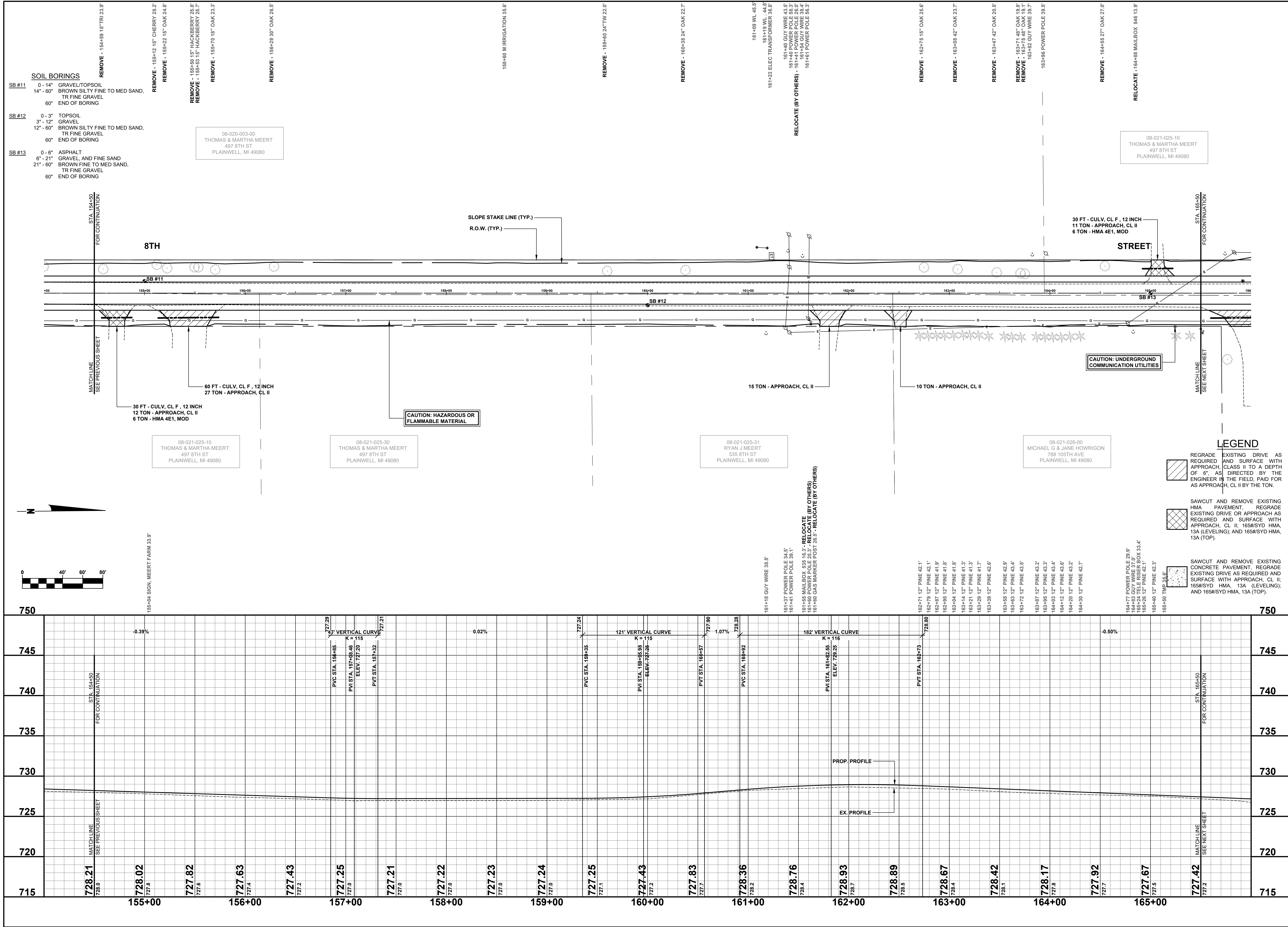
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REVISIONS

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**8TH STREET RECONSTRUCTION PROJECT**  
 GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE  
 PLAN & PROFILE - STA. 144+00 TO STA. 154+00

DRAWN BY: R.P.B.  
 REVIEWED BY: J.S.E.  
 DATE: AUGUST, 2018  
 SCALE: 1"= 40'H, 5V



**SOIL BORINGS**

SB #11 0 - 14" GRAVEL/TOPSOIL  
14" - 60" BROWN SILTY FINE TO MED SAND,  
TR FINE GRAVEL  
60" END OF BORING

SB #12 0 - 3" TOPSOIL  
3" - 12" GRAVEL  
12" - 60" BROWN SILTY FINE TO MED SAND,  
TR FINE GRAVEL  
60" END OF BORING

SB #13 0 - 6" ASPHALT  
6" - 21" GRAVEL, AND FINE SAND  
21" - 60" BROWN FINE TO MED SAND,  
TR FINE GRAVEL  
60" END OF BORING

08-020-003-00  
THOMAS & MARTHA MEERT  
497 8TH ST  
PLAINWELL, MI 49080

08-021-025-10  
THOMAS & MARTHA MEERT  
497 8TH ST  
PLAINWELL, MI 49080

08-021-025-30  
THOMAS & MARTHA MEERT  
497 8TH ST  
PLAINWELL, MI 49080

08-021-025-31  
RYAN J MEERT  
535 8TH ST  
PLAINWELL, MI 49080

08-021-026-00  
MICHAEL G & JANE HOWRIGON  
788 105TH AVE  
PLAINWELL, MI 49080

08-021-025-10  
THOMAS & MARTHA MEERT  
497 8TH ST  
PLAINWELL, MI 49080

**LEGEND**

- REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CLASS II TO A DEPTH OF 6" AS DIRECTED BY THE ENGINEER IN THE FIELD, PAID FOR AS APPROACH, CL II BY THE TON.
- SAWCUT AND REMOVE EXISTING HMA PAVEMENT, REGRADE EXISTING DRIVE OR APPROACH AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP).
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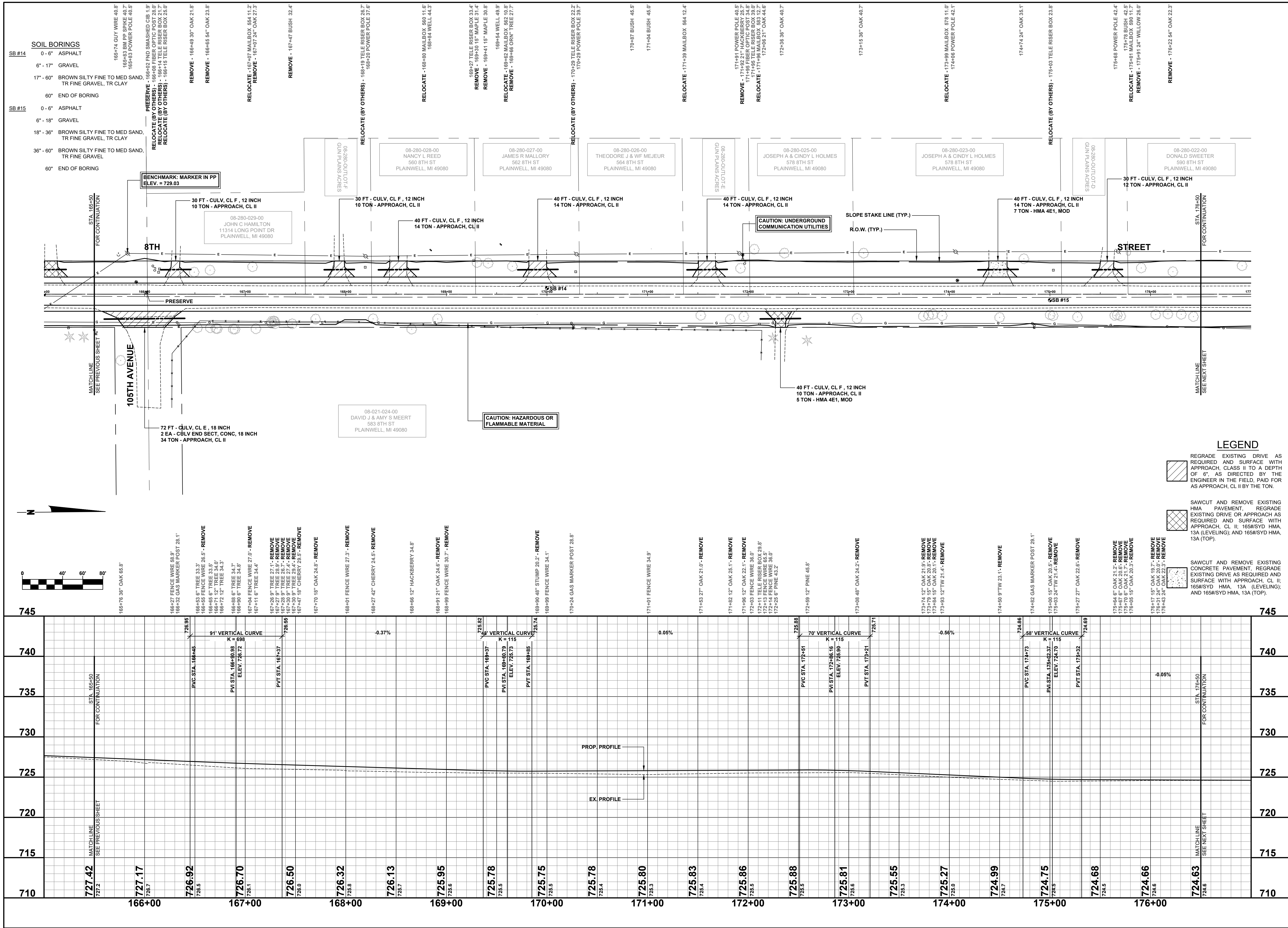
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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE

PLAN & PROFILE - STA. 155+00 TO STA. 165+00

DRAWN BY: R.P.B.  
REVIEWED BY: J.S.E.  
DATE: AUGUST, 2018  
SCALE: 1"= 40'H, 5'V





**Board of County Road Commissioners  
Of Allegan County**

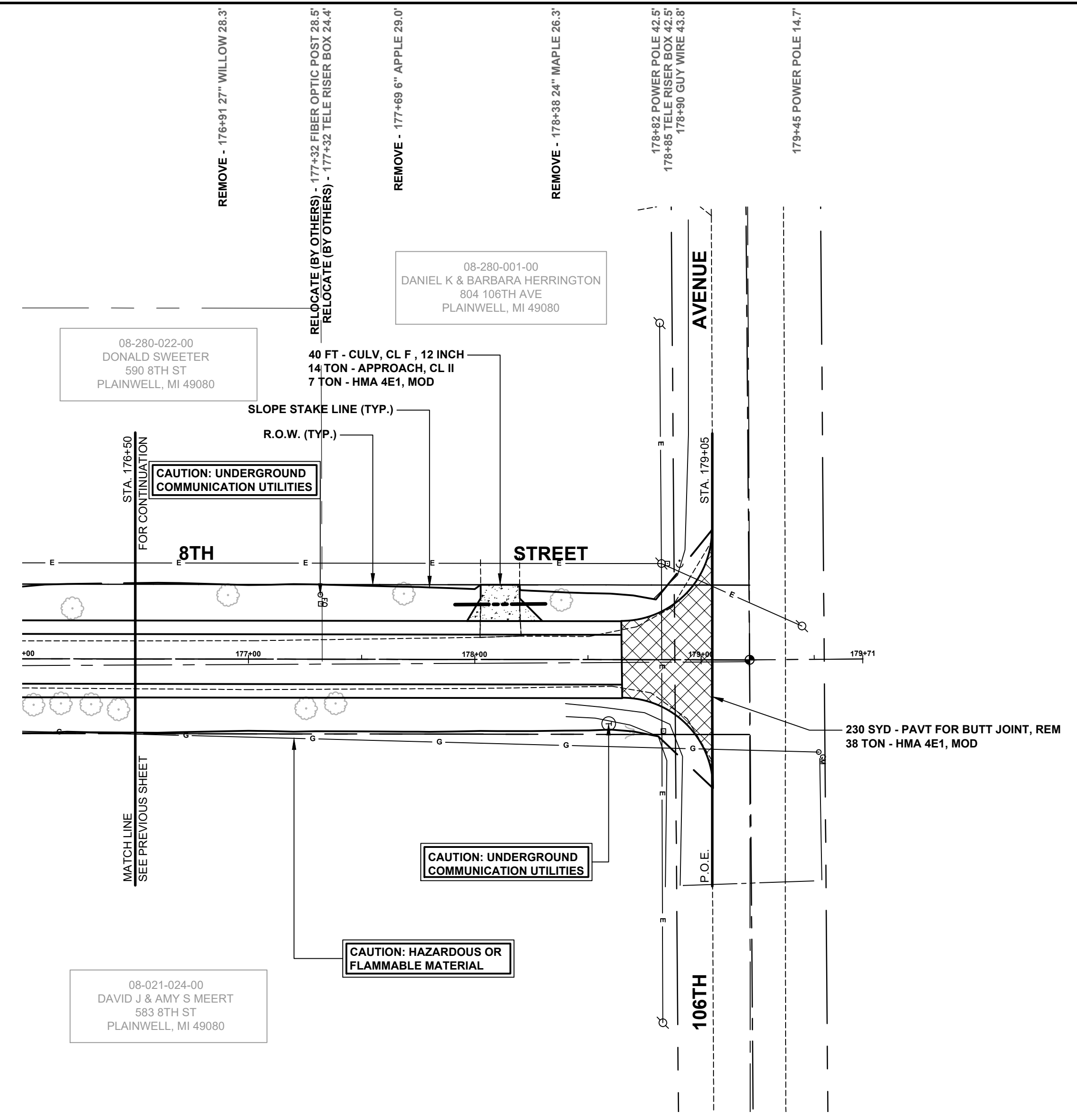
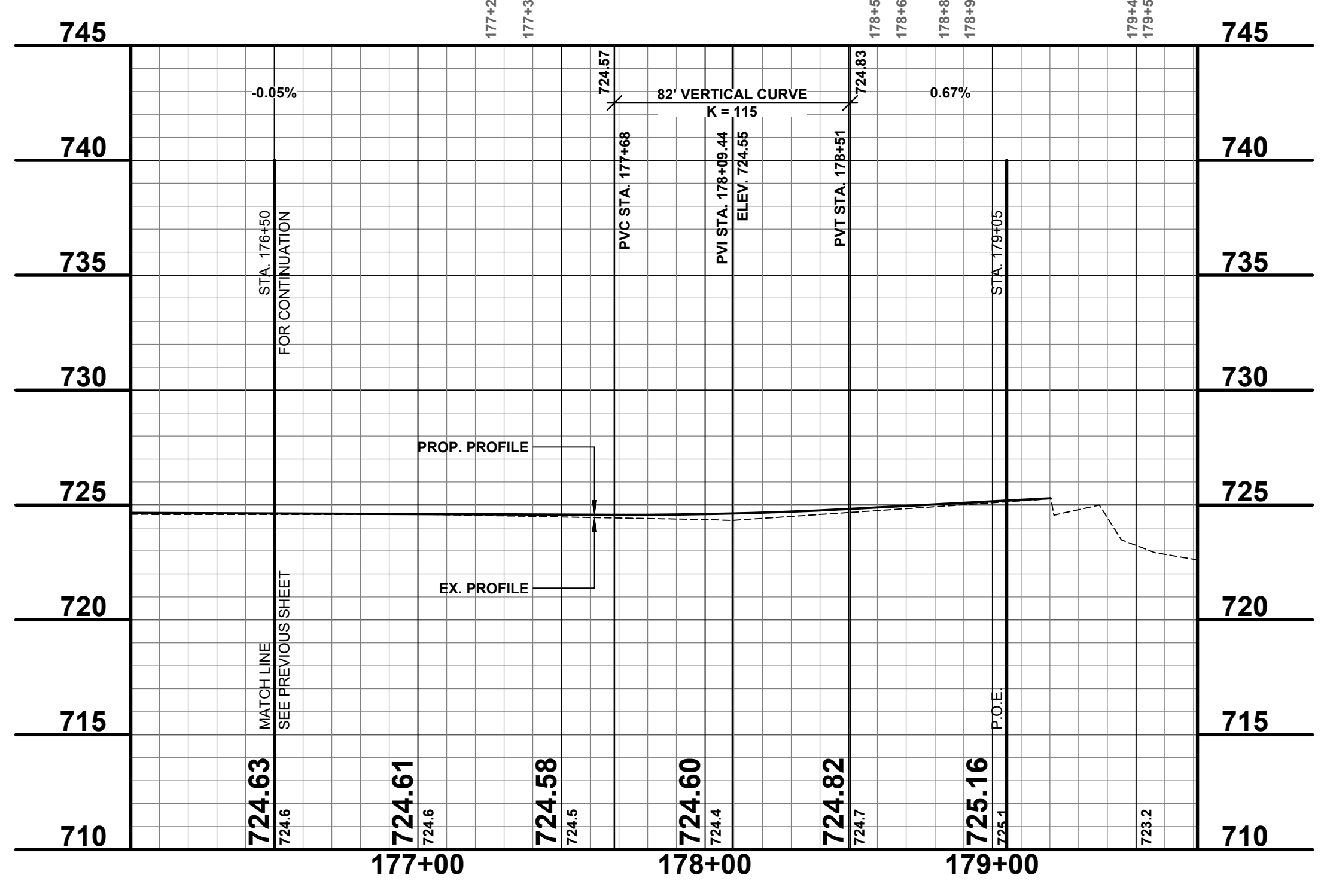
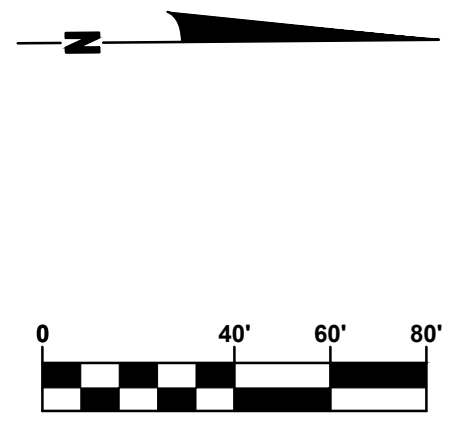
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ALLEGAN, MICHIGAN 49010-9762  
www.alleganroads.org FAX (269) 673-5922  
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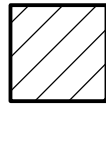
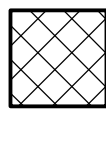

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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE

PLAN & PROFILE - STA. 166+00 TO STA. 176+00

DRAWN BY: R.P.B.  
REVIEWED BY: J.S.E.  
DATE: AUGUST, 2018  
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- LEGEND**
-  REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CLASS II TO A DEPTH OF 6" AS DIRECTED BY THE ENGINEER IN THE FIELD, PAID FOR AS APPROACH, CL II BY THE TON.
  -  SAWCUT AND REMOVE EXISTING HMA PAVEMENT, REGRADE EXISTING DRIVE OR APPROACH AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP).
  -  SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT, REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP).

08-280-022-00  
DONALD SWEETER  
590 8TH ST  
PLAINWELL, MI 49080

40 FT - CULV, CL F, 12 INCH  
14 TON - APPROACH, CL II  
7 TON - HMA 4E1, MOD

08-280-001-00  
DANIEL K & BARBARA HERRINGTON  
804 106TH AVE  
PLAINWELL, MI 49080

08-021-024-00  
DAVID J & AMY S MEERT  
583 8TH ST  
PLAINWELL, MI 49080

SLOPE STAKE LINE (TYP.)

R.O.W. (TYP.)

CAUTION: UNDERGROUND COMMUNICATION UTILITIES

CAUTION: UNDERGROUND COMMUNICATION UTILITIES

CAUTION: HAZARDOUS OR FLAMMABLE MATERIAL

MATCH LINE  
SEE PREVIOUS SHEET

106TH AVENUE

REMOVE - 176+81.27" WILLOW 28.3'

RELOCATE (BY OTHERS) - 177+32 FIBER OPTIC POST 28.5'  
RELOCATE (BY OTHERS) - 177+32 TELE RISER BOX 24.4'

REMOVE - 177+68.6" APPLE 29.0'

REMOVE - 178+38.24" MAPLE 26.3'

178+82 POWER POLE 42.5'  
178+85 TELE RISER BOX 42.5'  
178+90 GUY WIRE 43.8'

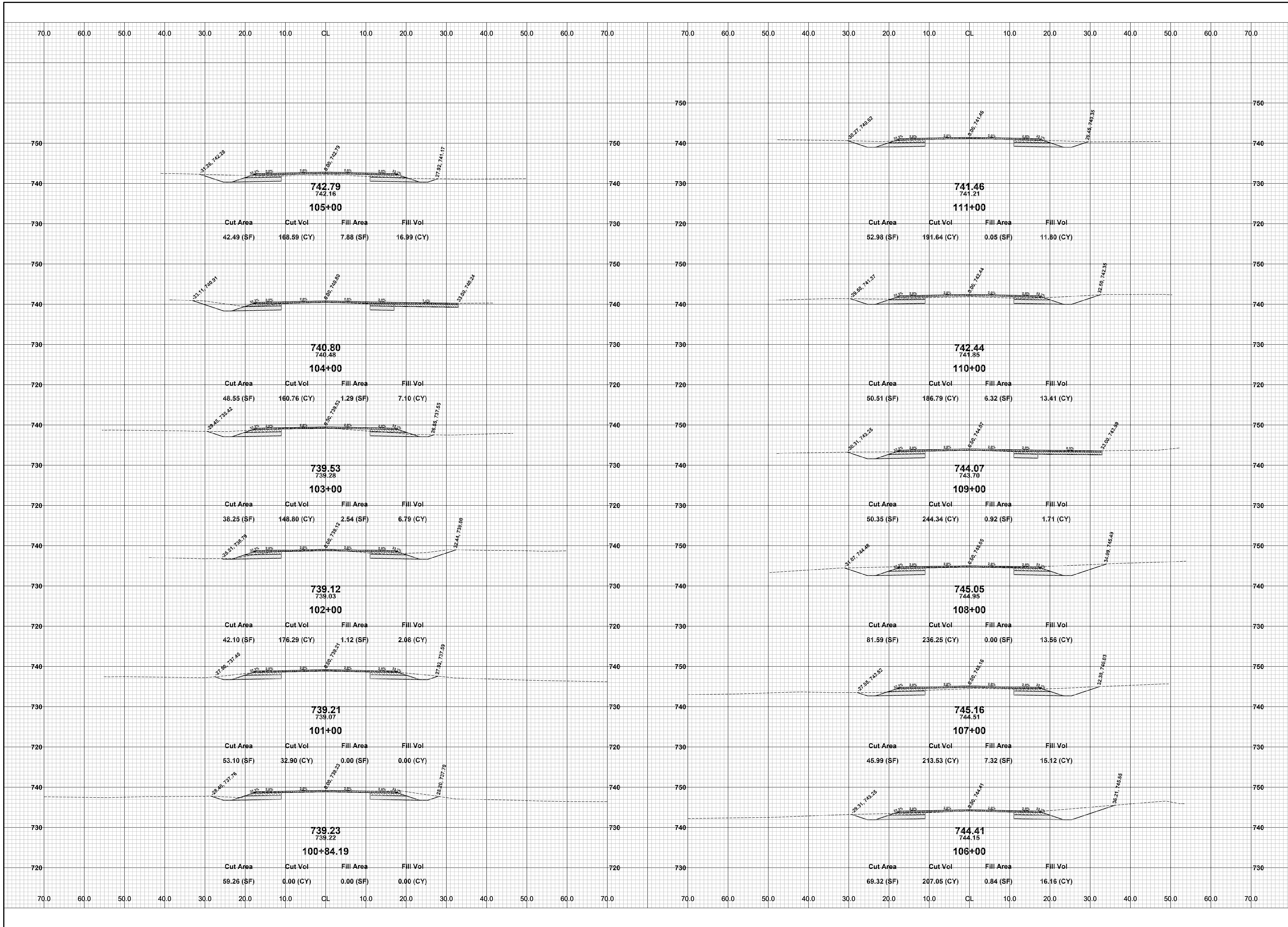
179+45 POWER POLE 14.7'

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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE  
  
PLAN & PROFILE - STA. 177+00 TO STA. P.O.E.

DRAWN BY: R.P.B.  
REVIEWED BY: J.S.E.  
DATE: AUGUST, 2018  
SCALE: 1"= 40'H, 5'V



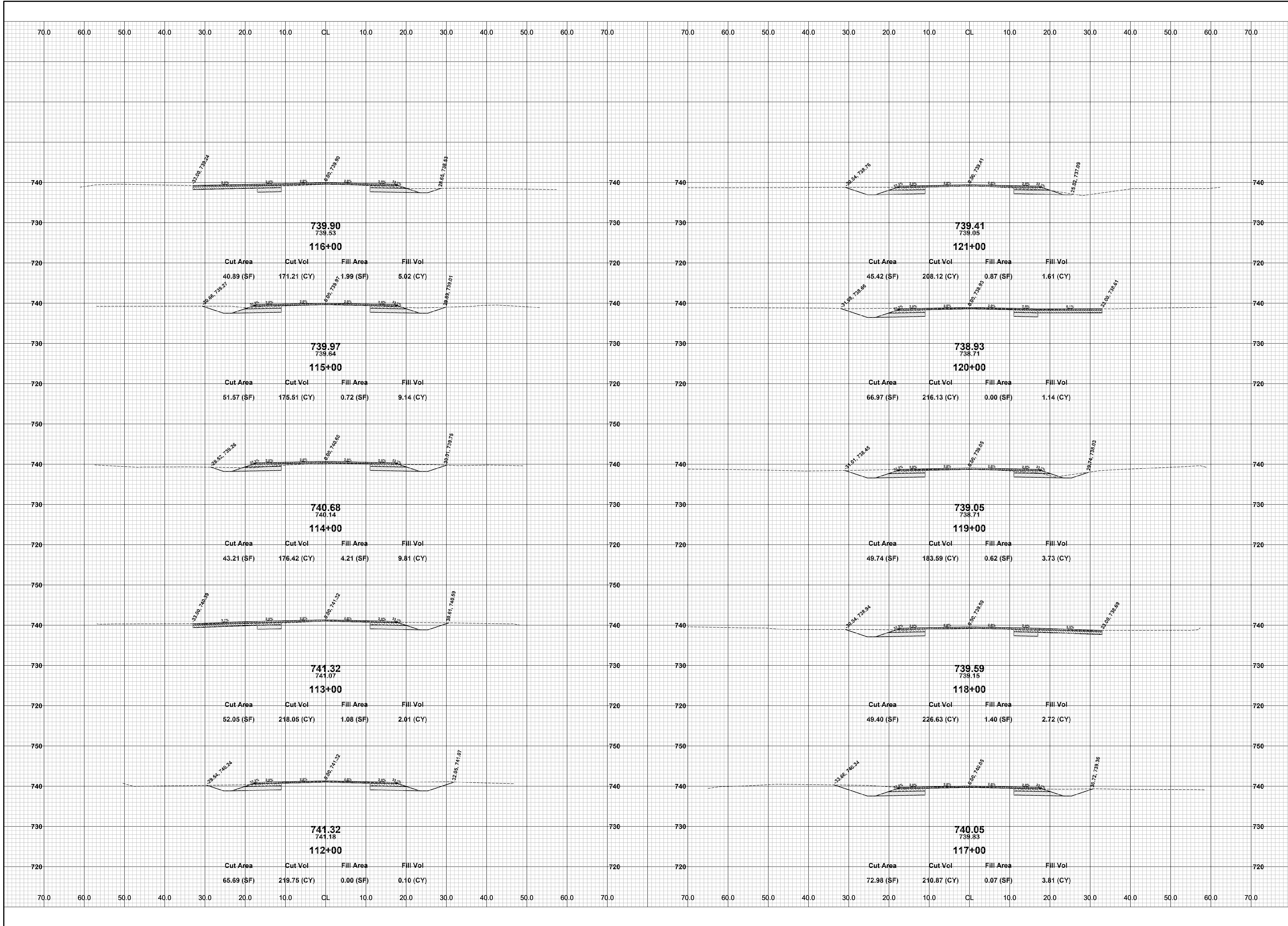
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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE  
CROSS SECTIONS - STA. 100+84.19 TO STA. 111+00

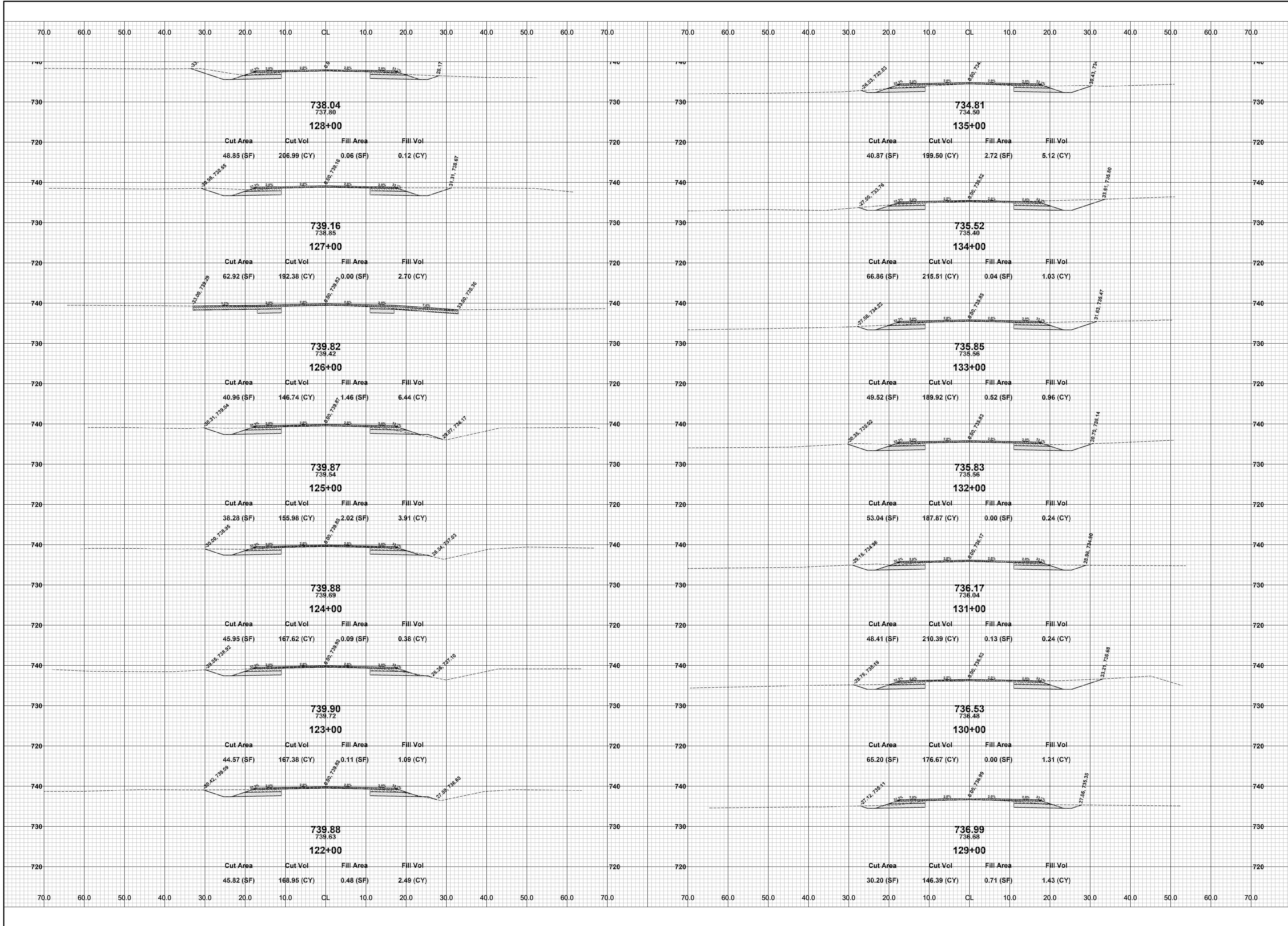
DRAWN BY: RPB  
REVIEWED BY: JSE  
DATE: AUGUST, 2018  
SCALE: 1"= 10'



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**8TH STREET RECONSTRUCTION PROJECT**  
 GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE  
 CROSS SECTIONS - STA. 112+00 TO STA. 121+00

DRAWN BY: RPB  
 REVIEWED BY: JSE  
 DATE: AUGUST, 2018  
 SCALE: 1"= 10'

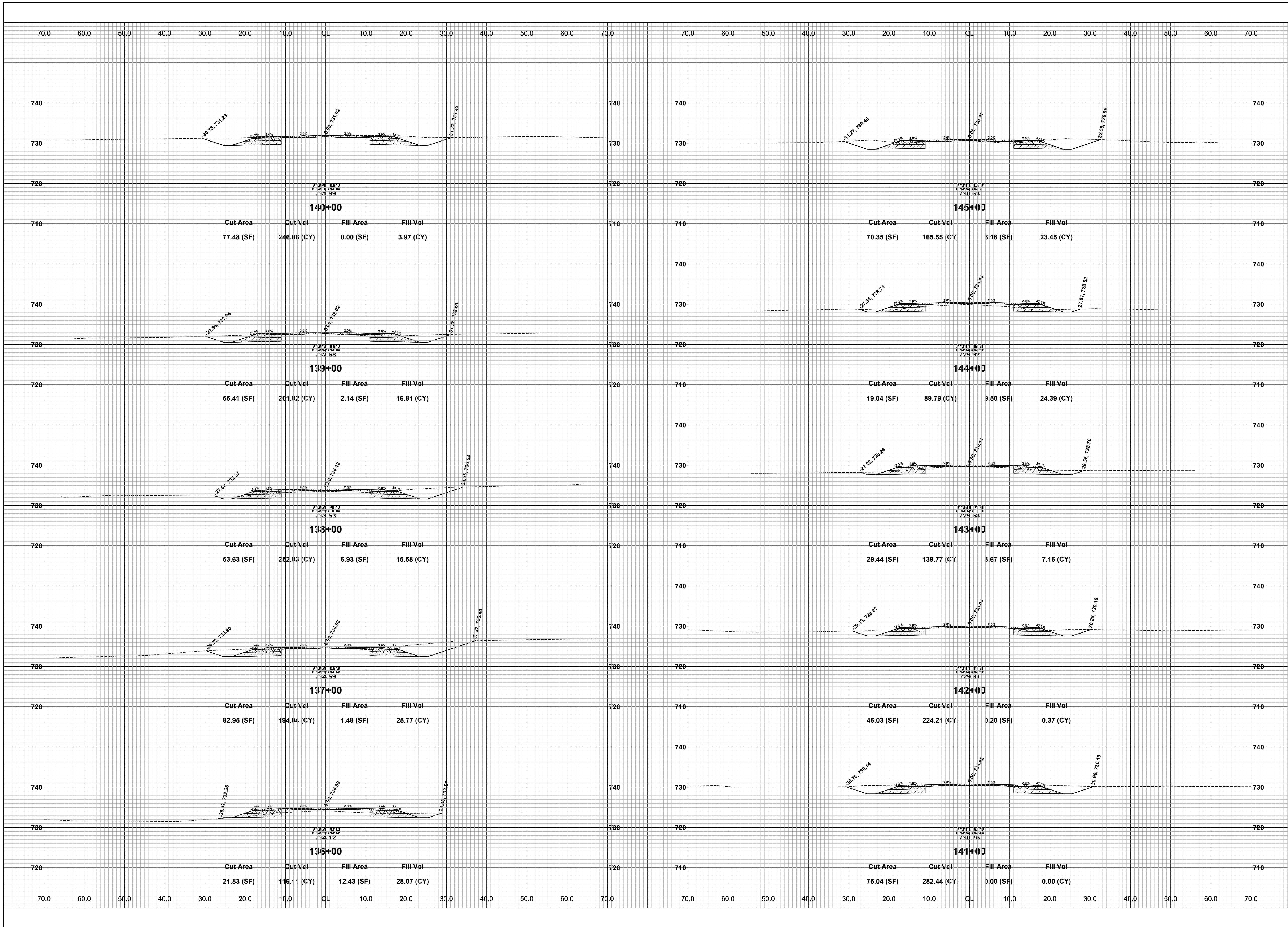


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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE  
CROSS SECTIONS - STA. 122+00 TO STA. 135+00

DRAWN BY: RPB  
REVIEWED BY: JSE  
DATE: AUGUST, 2018  
SCALE: 1"= 10'

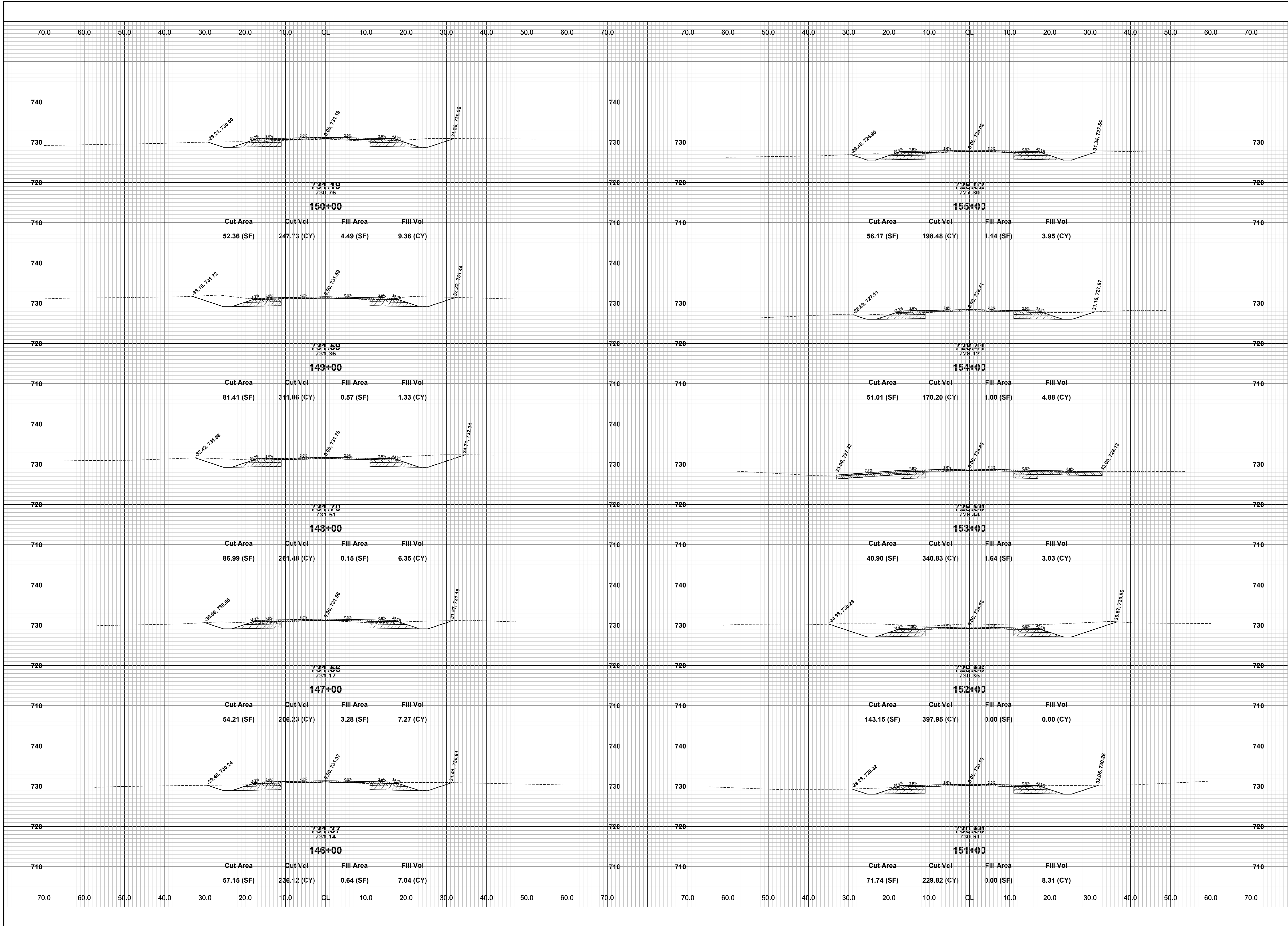


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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE  
CROSS SECTIONS - STA. 136+00 TO STA. 145+00

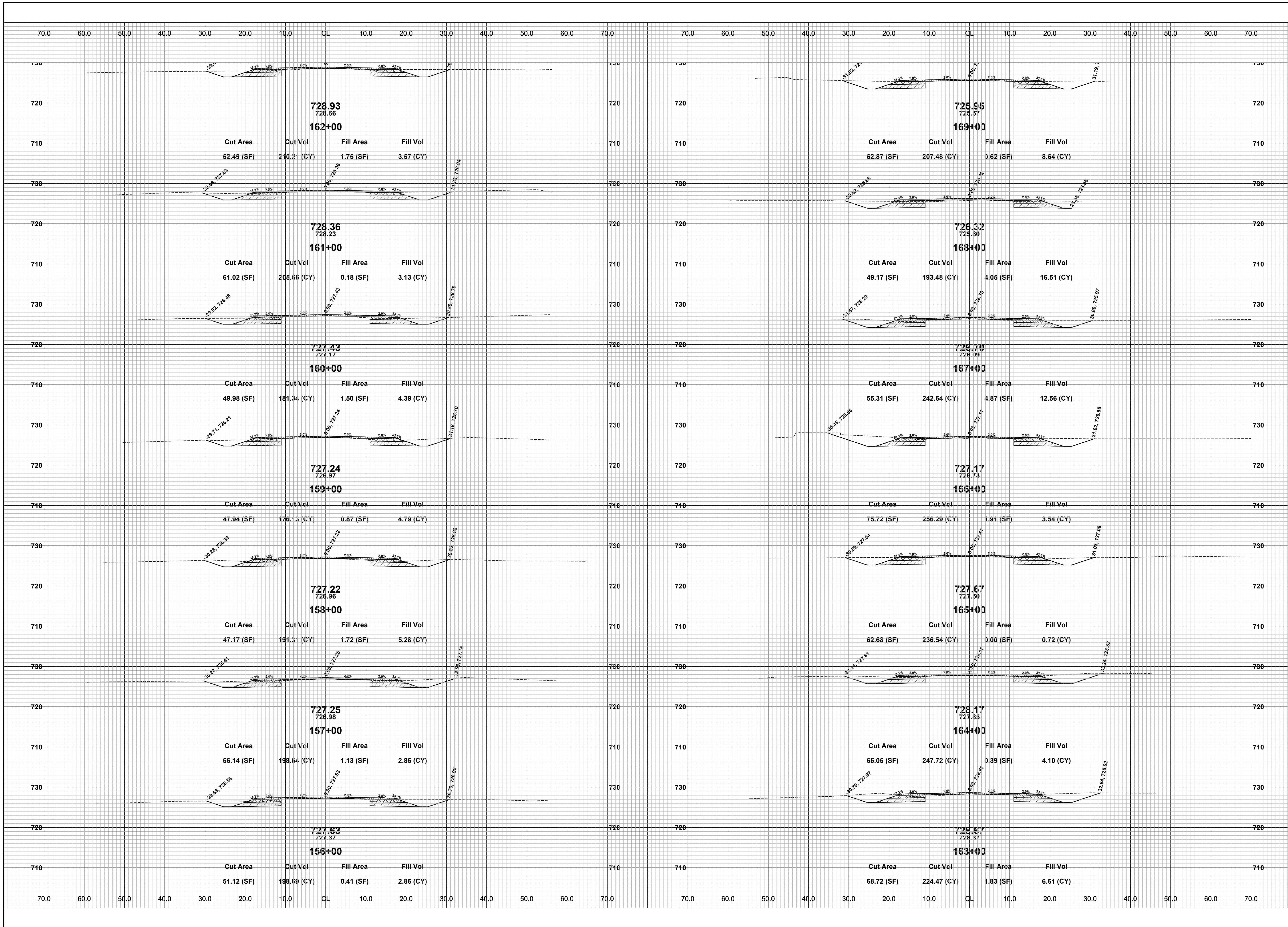
DRAWN BY: RPB  
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SCALE: 1"= 10'



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**8TH STREET RECONSTRUCTION PROJECT**  
 GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE  
 CROSS SECTIONS - STA. 146+00 TO STA. 155+00

DRAWN BY: RPB  
 REVIEWED BY: JSE  
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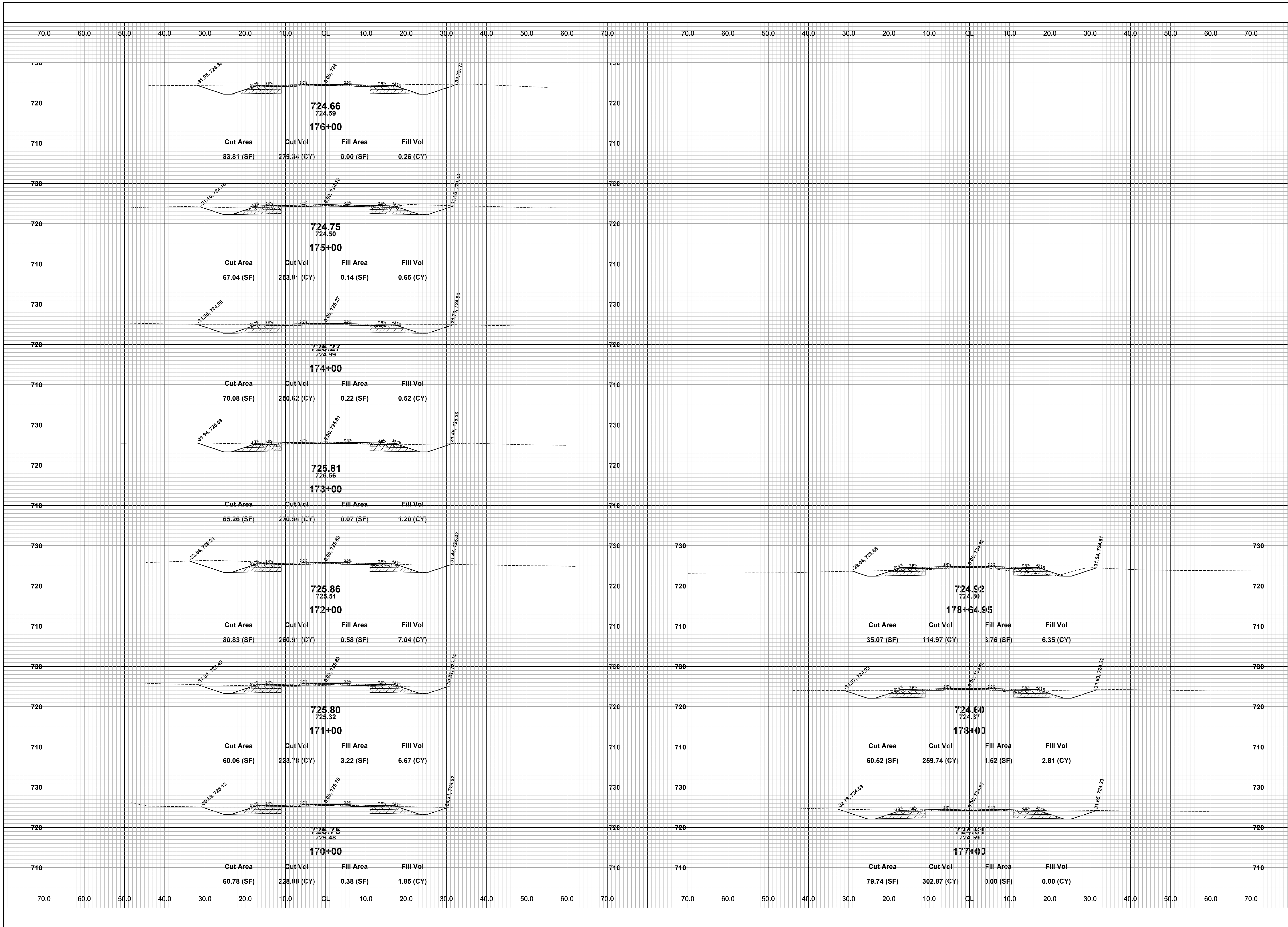
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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE  
CROSS SECTIONS - STA. 156+00 TO STA. 169+00

DRAWN BY: RPB  
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SCALE: 1"= 10'

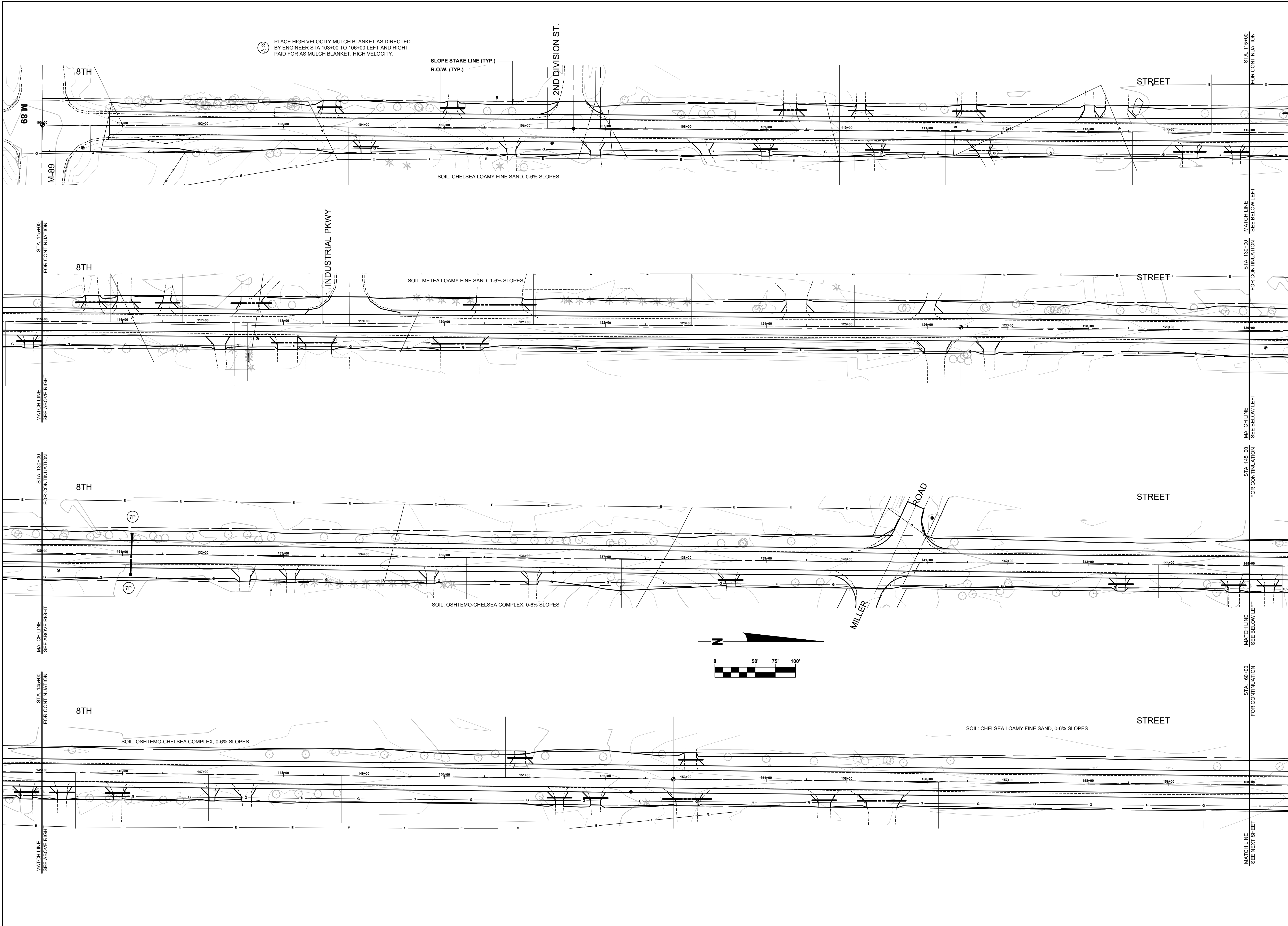




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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE  
CROSS SECTIONS - STA. 179+00 TO STA. 178+64.95

DRAWN BY: RPB  
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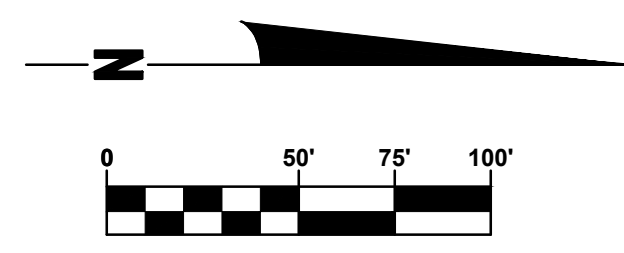
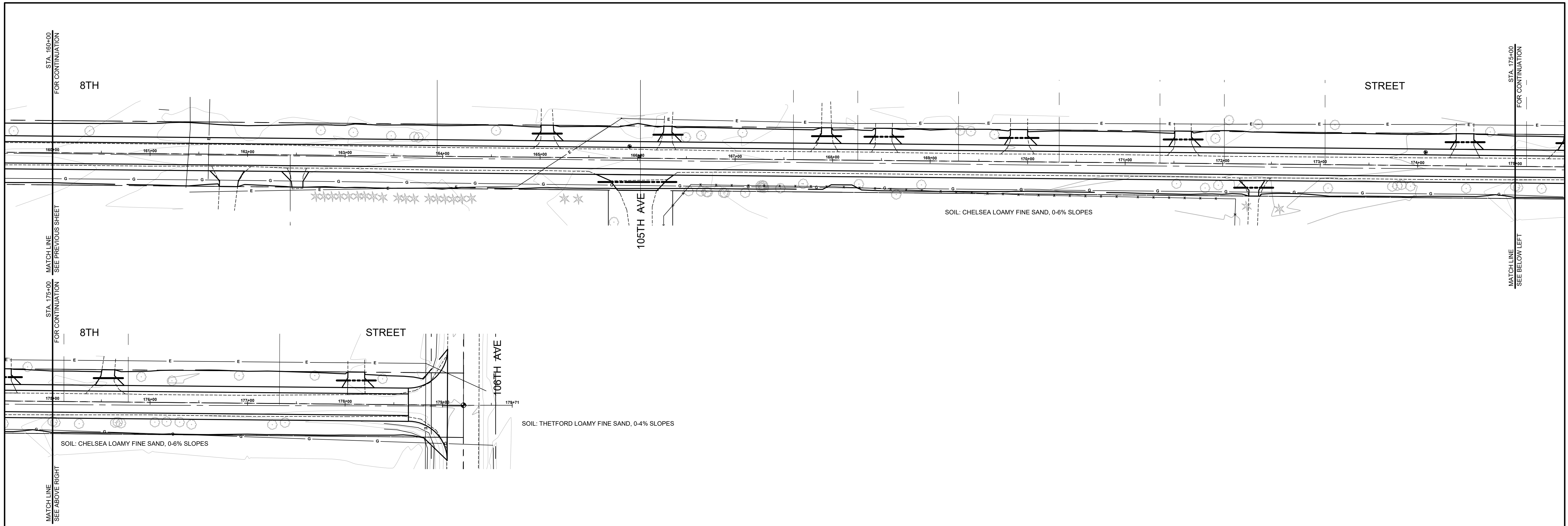


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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE  
SOIL EROSION & SEDIMENTATION CONTROL PLAN

DRAWN BY: RPB  
REVIEWED BY: JSE  
DATE: AUGUST, 2018  
SCALE: 1" = 50'



**SOIL EROSION & SEDIMENTATION CONTROL NOTES**

1. ALL CONSTRUCTION METHODS WILL BE DONE IN COMPLIANCE WITH THE MICHIGAN SOIL EROSION AND SEDIMENTATION CONTROL ACT. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING A "SOIL EROSION PERMIT" FROM THE COUNTY AND/OR A "PERMIT BY RULE/NOTICE OF COVERAGE" FROM THE MDOE PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLYING WITH ALL REQUIREMENTS OF THE COUNTY "SOIL EROSION PERMIT" AND FOR ALL CERTIFIED STORM WATER INSPECTION SERVICE REQUIRED BY THE "PERMIT BY RULE." EROSION CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS AND WILL NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR PROVIDING ALL REQUIRED EROSION CONTROL MEASURES.
  2. AVOID UNNECESSARY DISTURBING OR REMOVING OF EXISTING VEGETATED TOPSOIL OR EARTH COVER. THESE COVER AREAS ACT AS SEDIMENT FILTERS.
  3. ALL TEMPORARY SOIL EROSION PROTECTION WILL REMAIN IN PLACE UNTIL REMOVAL IS REQUIRED FOR FINAL CLEAN UP AND APPROVAL.
  4. GEOTEXTILE SILT FENCE WILL BE INSTALLED AS REQUIRED WHEN CROSSING CREEKS OR WHEN ADJACENT TO WETLANDS OR SURFACE WATER BODIES TO PREVENT SILTATION AND ELSEWHERE AS DIRECTED BY THE ENGINEER. SEEDING AND/OR SODDING WILL BE INSTALLED ON CREEK BANKS IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION.
  5. MAINTENANCE, CLEANING, AND REMOVAL OF THE VARIOUS SEDIMENT CONTROL MEASURES WILL BE INCLUDED IN THE VARIOUS EROSION CONTROL ITEMS.
  6. SOIL TYPE LOCATIONS ARE APPROXIMATED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE'S WEB SOIL SURVEY MAPS. DETAILED PROPERTIES FOR EACH SOIL TYPE CAN BE FOUND ON THEIR WEBSITE: [WEBSOILSURVEY.NRCS.USDA.GOV](http://WEBSOILSURVEY.NRCS.USDA.GOV)
- NUMBER IN CIRCLE REFERS TO NUMBERED DETAILS ON MDOE STANDARD PLAN R-96 SERIES, SOIL EROSION & SEDIMENTATION CONTROL MEASURES. "P" DENOTES PERMANENT MEASURE AND "T" DENOTES TEMPORARY MEASURE. SOIL EROSION CONTROL PLANS DENOTE MINIMUM EROSION MEASURES REQUIRED AS DESCRIBED BELOW.
- (3P) ALL DISTURBED AREAS NOT PAVED OR GRAVELED SHALL BE RESTORED UNDER THE PAY ITEM RESTORATION (LUMP SUM). THIS PAY ITEM INCLUDES PLACING MDOE SEEDING MIXTURE TUF APPLIED AT A RATE OF 220 LB/ACRE, FERTILIZER, CHEMICAL NUTRIENT, CL A APPLIED AT A RATE OF 176 LB/ACRE, MULCH AT A RATE OF 2 TON/ACRE AND MULCH ANCHORING.
  - (3T) TEMPORARY SEEDING WILL BE PLACED AT LOCATIONS DETERMINED BY THE ENGINEER IN THE FIELD AND WILL INCLUDE SEEDING MIXTURE, OR APPLIED AT A RATE OF 70 LB/ACRE AND MULCH.
  - (4T) DUST CONTROL MAY BE REQUIRED ON THE SUBGRADE CONSTRUCTION AND WILL INCLUDE APPLYING FRESH WATER TO BE INCLUDED IN THE ITEM OF EMBANKMENT. DUST CONTROL ON THE AGGREGATE BASE COURSE WILL BE ACCOMPLISHED BY APPLYING FRESH WATER (INCLUDED IN THE ITEM OF AGGREGATE BASE, 6 INCH) AS DIRECTED BY THE PROJECT ENGINEER.
  - (7P) INSTALL RIPRAP, PLAIN AS DIRECTED BY THE ENGINEER IN THE FIELD. THE RIPRAP, PLAIN PAY ITEM WILL INCLUDE A GEOTEXTILE UNDERLAYMENT.
  - (26T) SILT FENCE WILL BE INSTALLED AT CREEK CROSSINGS, ADJACENT TO ALL WETLANDS AND SURFACE WATERS, AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. EACH SILT FENCE WILL BE INSTALLED GENERALLY ALONG THE SAME CONTOUR ELEVATION.
  - (32) CONTRACTOR WILL PROVIDE DOZER TRACKING PERPENDICULAR TO THE SLOPE TO REDUCE WATER AND WIND EROSION. THIS WILL BE PERFORMED AT LOCATIONS SHOWN OR AS DIRECTED BY THE ENGINEER IN THE FIELD, TO BE INCLUDED IN THE ITEM OF EMBANKMENT.
  - (35/36) HIGH VELOCITY MULCH BLANKETS WILL BE USED ON STEEP BANKS. PROVIDE MULCH BLANKET, HIGH VELOCITY CENTERED ON ALL DITCH BOTTOMS WITH A LONGITUDINAL GRADE OF 2.00% OR GREATER AND AT OTHER LOCATIONS AS DIRECTED BY THE ENGINEER IN THE FIELD.
  - (37) CHECK DAMS WILL BE INSTALLED AT THE LOCATIONS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

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**8TH STREET RECONSTRUCTION PROJECT**  
GUN PLAIN TOWNSHIP - M89 TO 106TH AVENUE  
SOIL EROSION & SEDIMENTATION CONTROL PLAN

DRAWN BY: RPB  
REVIEWED BY: JSE  
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