

ALLEGAN COUNTY ROAD COMMISSION

22ND STREET RECONSTRUCTION PROJECT

144TH AVENUE TO 146TH AVENUE

DORR 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.

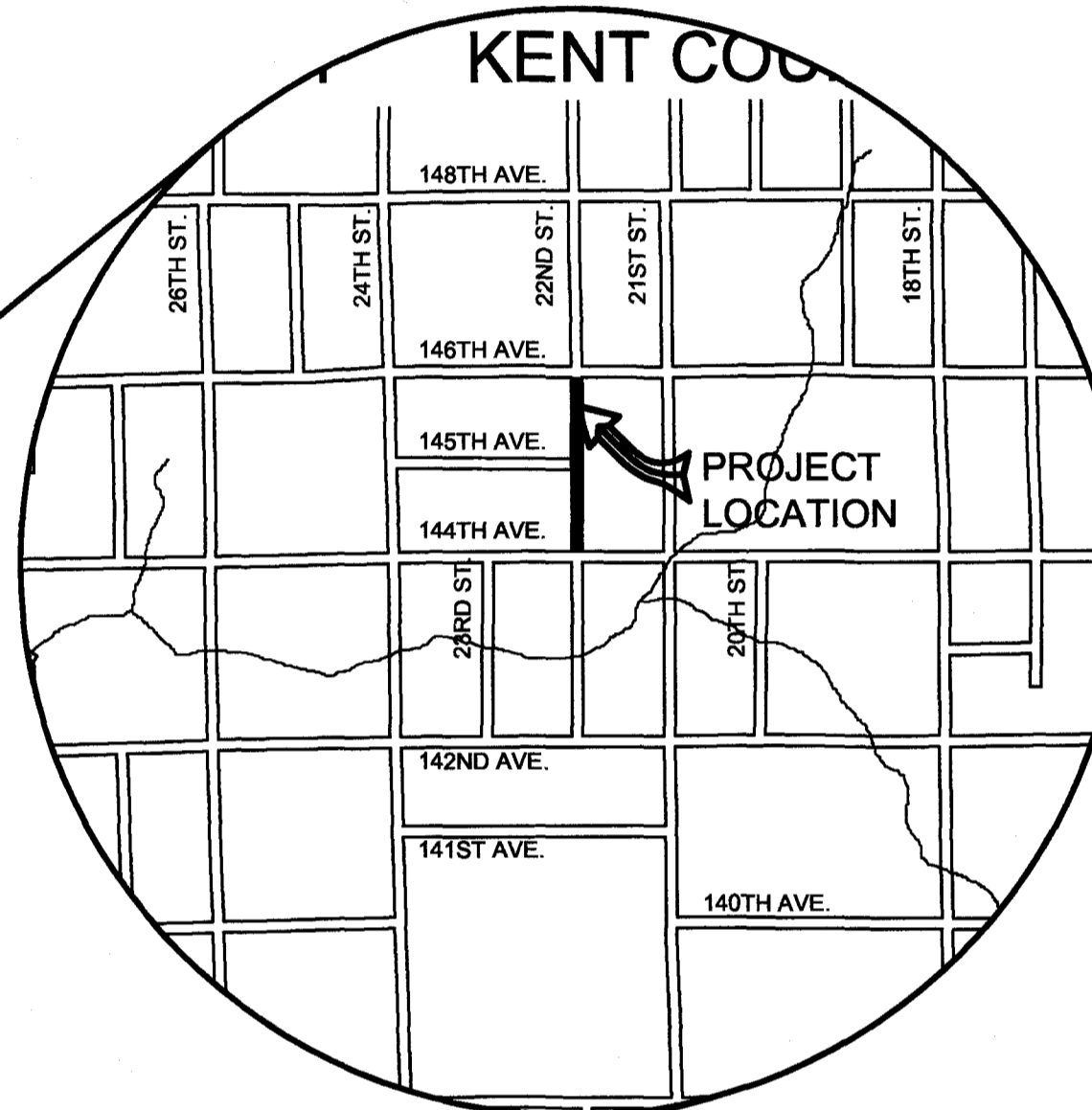
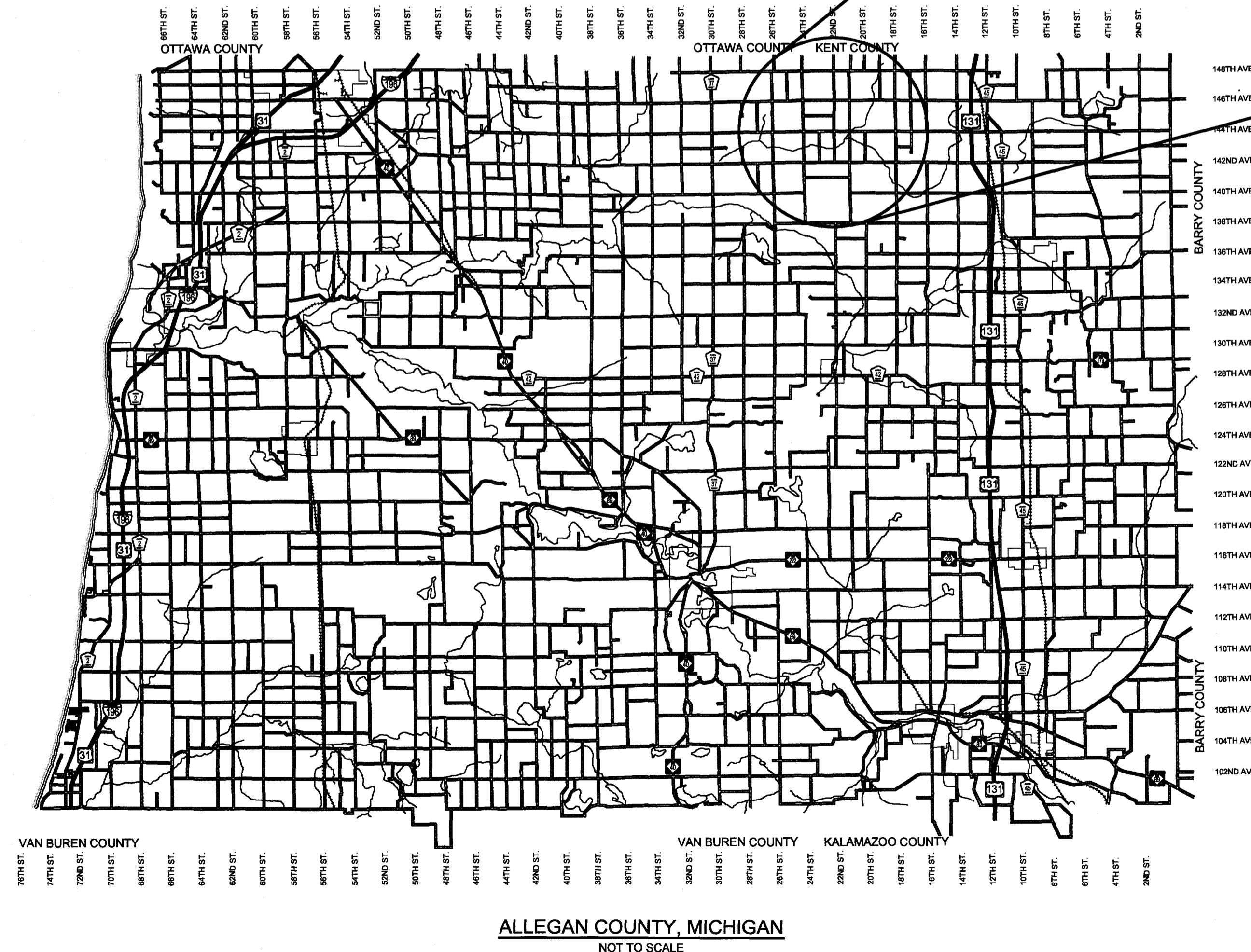
THE PLACING OF PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SHALL BE DONE IN ACCORDANCE WITH THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AS AMENDED.

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

ELECTRIC
CONSUMERS ENERGY
 4000 CLAY AVE, SW
 GRAND RAPIDS, MI 49548
 616-530-4185
 MS. KYLEE MAYCROFT
 grcivmp@cmsenergy.com

GREAT LAKES ENERGY
 1049 133RD AVENUE
 WAYLAND, MI 49348
 269-792-0532
 MR. JEFF HICKS
 jhicks@glenergy.com

TELEPHONE
AT&T
 955 36TH STREET
 GRAND RAPIDS, MI 49508
 616-246-7302
 MR. BRAD DYKENS
 bd1636@att.com

GAS
CONSUMERS ENERGY
 2500 E CORK ST
 KALAMAZOO, MI 49001
 269-337-2366
 MR. KYLE OAK
 kyle.oak@cmsenergy.com

*MISS DIG® 811

**Board of County Road Commissioners
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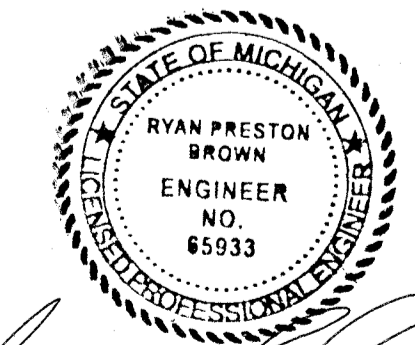
REVISIONS	1	2	3	4	5	6	7

22ND STREET RECONSTRUCTION PROJECT
 DORR TOWNSHIP - 144TH AVENUE TO 146TH AVENUE

COVER SHEET

CONTRACT FOR ROAD IMPROVEMENTS
 0.97 MILES OF ROADWAY RECONSTRUCTION INCLUDING CLEARING, GRADE ESTABLISHMENT, SAND SUBBASE, AGGREGATE BASE, CULVERT REPLACEMENTS, AND RESTORATION ON 22TH STREET FROM 144TH AVENUE TO 146TH AVENUE IN DORR TOWNSHIP, ALLEGAN COUNTY.

PREPARED UNDER THE SUPERVISION OF:

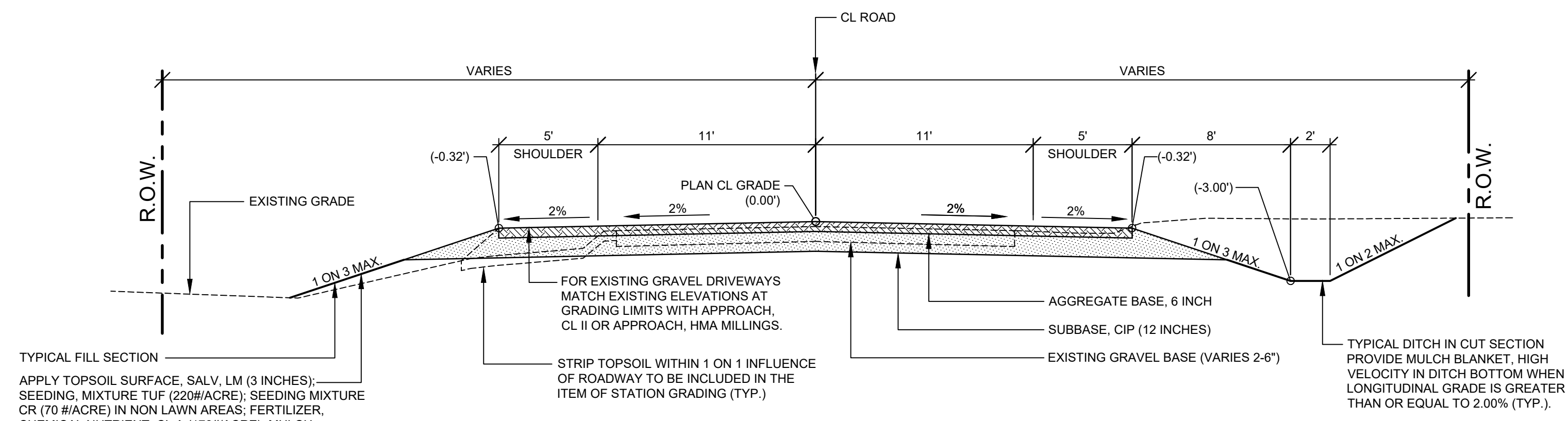


Ryan P. Brown

RYAN P. BROWN
 REGISTERED PROFESSIONAL ENGINEER No. 85933

DRAWN BY: RPB
 REVIEWED BY: JSE
 DATE: MAY, 2019
 SCALE: NONE

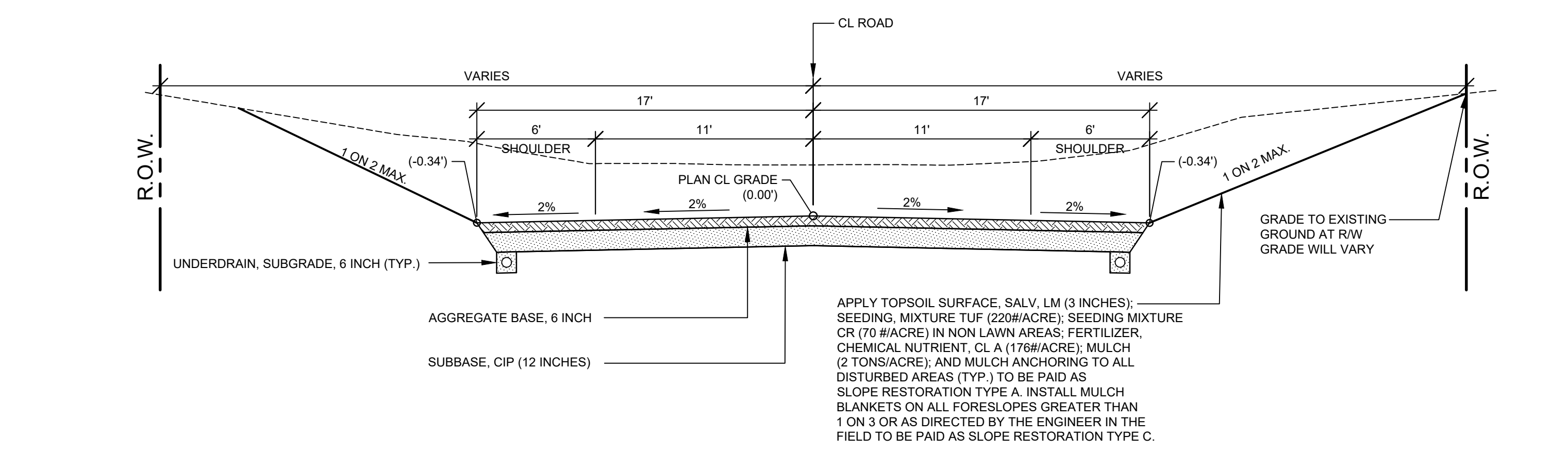
LH 4987 1



TYPICAL FILL SECTION
 APPLY TOPSOIL SURFACE, SALV. LM (3 INCHES); SEEDING, MIXTURE TUF (220#/ACRE); SEEDING MIXTURE CR (70 #/ACRE) IN NON LAWN AREAS; FERTILIZER, CHEMICAL NUTRIENT, CL A (176#/ACRE); MULCH (2 TONS/ACRE); AND MULCH ANCHORING TO ALL DISTURBED AREAS (TYP.) TO BE PAID AS SLOPE RESTORATION TYPE A. INSTALL MULCH BLANKETS ON ALL FORESLOPES GREATER THAN 1 ON 3 OR AS DIRECTED BY THE ENGINEER IN THE FIELD TO BE PAID AS SLOPE RESTORATION TYPE C.

TYPICAL SECTION - 22ND STREET

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



APPLY TOPSOIL SURFACE, SALV. LM (3 INCHES); SEEDING, MIXTURE TUF (220#/ACRE); SEEDING MIXTURE CR (70 #/ACRE) IN NON LAWN AREAS; FERTILIZER, CHEMICAL NUTRIENT, CL A (176#/ACRE); MULCH (2 TONS/ACRE); AND MULCH ANCHORING TO ALL DISTURBED AREAS (TYP.) TO BE PAID AS SLOPE RESTORATION TYPE A. INSTALL MULCH BLANKETS ON ALL FORESLOPES GREATER THAN 1 ON 3 OR AS DIRECTED BY THE ENGINEER IN THE FIELD TO BE PAID AS SLOPE RESTORATION TYPE C.

TYPICAL SECTION - VALLEY GUTTER

SCALE: 1" = 5'
 THIS SECTION APPLIES TO:
 STA. 31+85 TO 33+05 RIGHT ONLY

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

THE CONTRACTOR SHOULD NOTE THAT STATION GRADING WILL INCLUDE 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.

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

THE SOIL BORINGS WERE TAKEN BY GREAT LAKES DRILLING COMPANY, P.O. BOX 51, ALLEGAN, MI 49010 ON FEBRUARY 4, 2019. THE TEST BORINGS REPRESENT POINT INFORMATION AND MAY NOT HAVE ENCOUNTERED ALL THE TYPES AND MATERIALS WHICH ARE PRESENT AT THE SITE. THESE BORING LOGS DO NOT CONSTITUTE A GUARANTEE OF THE SOIL OR GROUNDWATER CONDITIONS, OR THAT THE TEST BORINGS ARE AN EXACT REPRESENTATION OF THE SOIL OR GROUNDWATER CONDITIONS AT ALL POINTS ON THE SITE.

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.

THE ITEM OF SUBBASE, CIP WILL BE PAID FOR AT PLAN QUANTITY EXCEPT IN THE CASE OF A DESIGN CHANGE OR DEMONSTRATED ERROR.

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), MDT SEED MIXTURE TUF (220#/ACRE); SEEDING MIXTURE CR (70 #/ACRE) IN NON LAWN AREAS; FERTILIZER, CHEMICAL NUTRIENT, CL A (176#/ACRE); AND MULCH AND MULCH ANCHORING (2 TON/ACRE) TO BE PAID AS SLOPE RESTORATION, TYPE A. SEE SESC PLAN FOR AREAS TO USE HIGH VELOCITY MULCH BLANKET, TO BE PAID AS SLOPE RESTORATION TYPE C.

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 TO BE PAID AS SLOPE RESTORATION TYPE C.

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 WILL BE INCLUDED IN THE NEW PIPE ITEM. IF THE ENGINEER DETERMINES THAT AN EXISTING TILE IS TOO LONG THE CONTRACTOR WILL 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.

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 1308 LINCOLN ROAD
 ALLEGAN, MICHIGAN 49010-9762
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22ND STREET RECONSTRUCTION PROJECT
 DORR TOWNSHIP - 144TH AVENUE TO 146TH AVENUE

TYPICAL SECTIONS, DETAILS, & NOTES

DRAWN BY: RPB
 REVIEWED BY: JSE
 DATE: MAY, 2019
 SCALE: AS NOTED

SOIL BORINGS

- SB #1**
 0 - 20" GRAVEL
 20" - 36" BROWN FINE TO MEDIUM FINE SAND
 TR FINE GRAVEL, TR TOPSOIL
 36" - 60" BROWN SILTY FINE SAND
 60" END OF BORING
- SB #2**
 0 - 14" GRAVEL
 14" - 60" BROWN SILTY CLAY,
 TR FINE GRAVEL
 60" END OF BORING

9+44 GUY WIRE 39.7'
 9+74 18 48.1'

12+11 GUY WIRE 27.1'
 12+19 POWER POLE 51.6'

REMOVE -16+04.24' STUMP 20.5'
 16+23 BM PP E SIDE 49.6'

05-007-017-00
 JAMES JUDE GRATZ TRUST
 2301 145TH AVE
 DORR, MI 49323

05-007-013-00
 ADRIAN & MARY POTTER TRUST
 2283 144TH AVE
 DORR, MI 49323

05-008-009-10
 RICHARD & SUSAN SNYDER
 2105 144TH AVE
 DORR, MI 49323

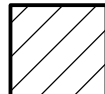
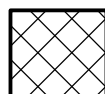

05-008-009-10
 RICHARD & SUSAN SNYDER
 2105 144TH AVE
 DORR, MI 49323

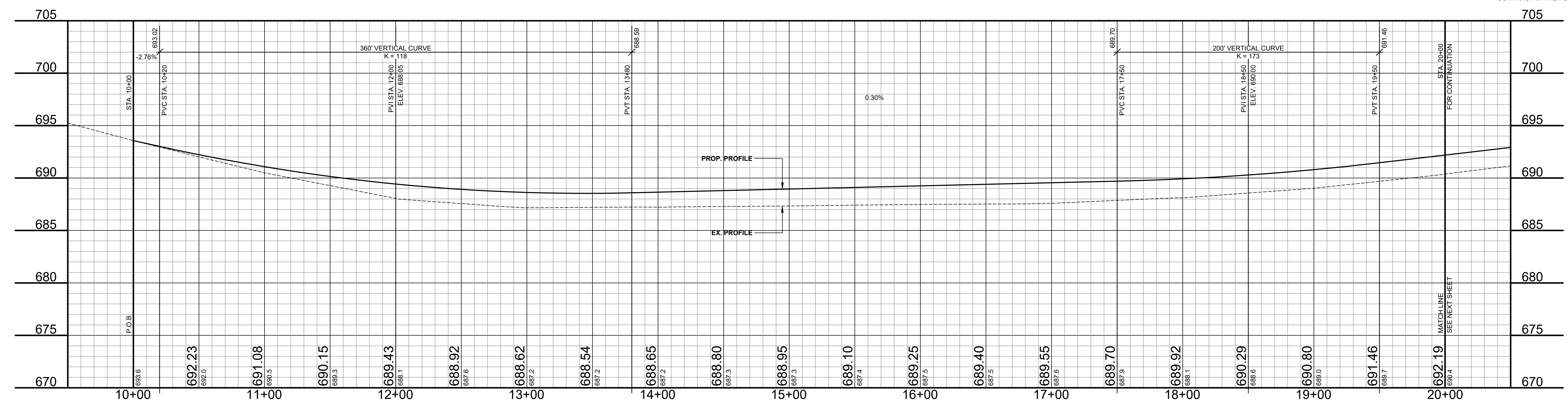
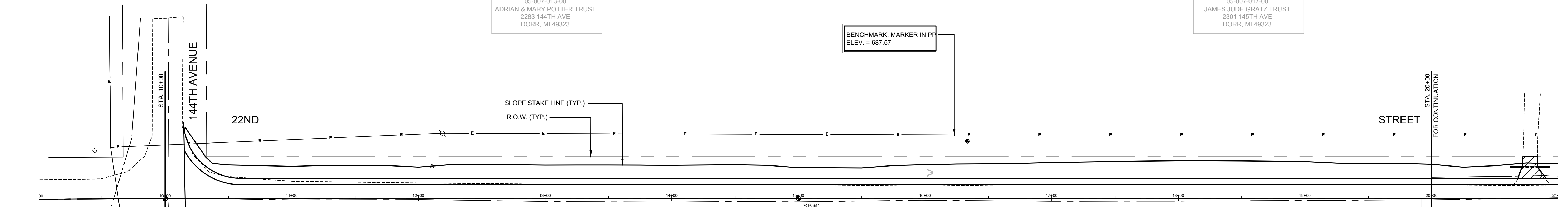
BENCHMARK MARKER IN PP
 ELEV. = 687.57

CAUTION: UNDERGROUND
 COMMUNICATIONS UTILITIES

CAUTION: HAZARDOUS OR
 FLAMMABLE MATERIAL

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) (PAVING UNDER SEPERATE CONTRACT IN THE FUTURE)
-  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) (PAVING UNDER SEPERATE CONTRACT IN THE FUTURE)



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22ND STREET RECONSTRUCTION PROJECT
 DORR TOWNSHIP - 144TH AVENUE TO 146TH AVENUE
 PLAN & PROFILE - P.O.B TO STA. 20+00

DRAWN BY: RPB
 REVIEWED BY: JSE
 DATE: MAY, 2019
 SCALE: 1"= 40'H, 5V

SOIL BORINGS

- SB #3**
 0 - 6" GRAVEL
 6" - 15" BROWN SILTY CLAY, FINE TO MEDIUM SAND
 15" - 24" BROWN SILTY CLAY
 24" - 60" BROWN SANDY SILT, TR CLAY
 60" END OF BORING
- SB #4**
 0 - 12" GRAVEL
 12" - 22" DARK BROWN SILTY FINE TOWED SAND, TR TOPSOIL
 22" - 60" BROWN SILTY CLAY, TR FINE GRAVEL
 60" END OF BORING

REMOVE -20+66 CMP 17.6'

REMOVE -20+90 12 16.2'

05-007-017-00
 JAMES JUDE GRATZ TRUST
 2301 145TH AVE
 DORR, MI 49323

RELOCATE BY OTHERS -23+22 POWER POLE 48.8'
 REMOVE -23+30 27" MAPLE 19.9'
 REMOVE -23+34 27" MAPLE 22.6'

REMOVE -23+68 12" CHERRY 21.1'
 REMOVE -23+84 12" APPLE 25.6'
 REMOVE -23+94 15" MAPLE 21.7'

REMOVE -24+16 15" TRI 20.7'

REMOVE -24+49 15" MAPLE 19.0'
 REMOVE -24+53 15" MAPLE 19.2'
 REMOVE -24+55 15" MAPLE 19.2'
 REMOVE -24+62 15" MAPLE 19.2'
 REMOVE -24+75 12" MAPLE 17.8'

REMOVE -24+90 21" CHERRY 21.6'

REMOVE -25+34 12" MAPLE 18.7'

REMOVE -25+80 12" MAPLE 24.2'
 REMOVE -25+82 24" MAPLE 22.8'
 REMOVE -25+92 15" TW 20.4'

REMOVE -26+23 24" STUMP 24.3'
 REMOVE -26+34 POWER POLE 50.1'
 REMOVE -26+40 GUY WIRE 63.3'

REMOVE -26+63 24" CHERRY 18.7'
 REMOVE -26+77 24" CHERRY 19.5'

05-007-015-00
 BARTZ ENTERPRISES INC
 2376 108TH STREET
 BYRON CENTER, MI 49315

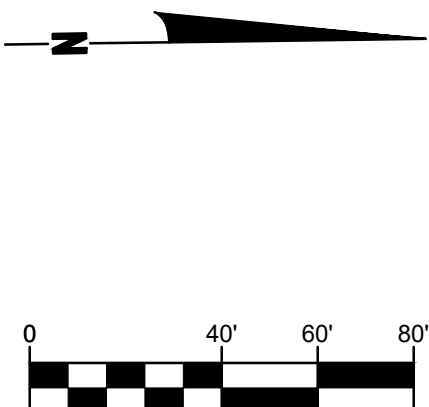
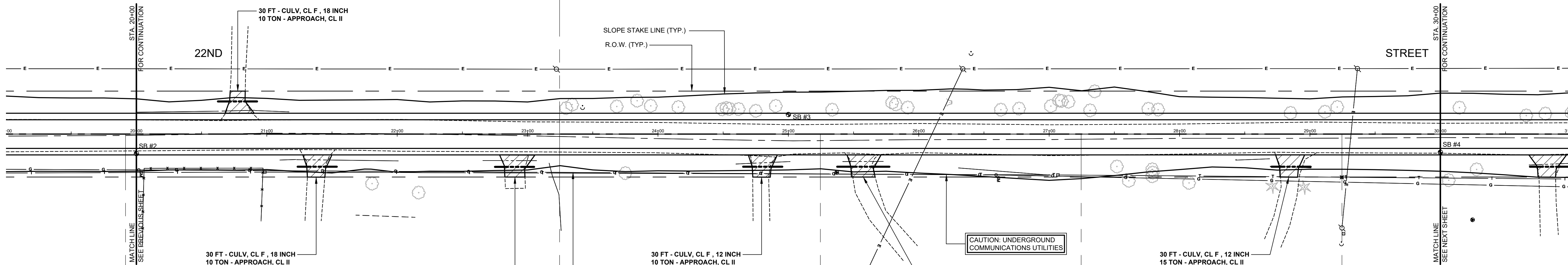
REMOVE -27+01 6" APPLE 21.5'
 REMOVE -27+08 6" APPLE 25.8'
 REMOVE -27+10 6" APPLE 25.4'
 REMOVE -27+13 6" APPLE 24.6'
 REMOVE -27+31 18" CHERRY 18.1'
 REMOVE -27+35 18" MAPLE 32.7'

REMOVE -27+76 12" CHERRY 19.4'
 REMOVE -27+84 36" CHERRY 18.8'

REMOVE -28+85 15" TW 16.2'

REMOVE -29+11 9" MAPLE 17.1'
 REMOVE -29+21 6" DEAD TREE 20.7'

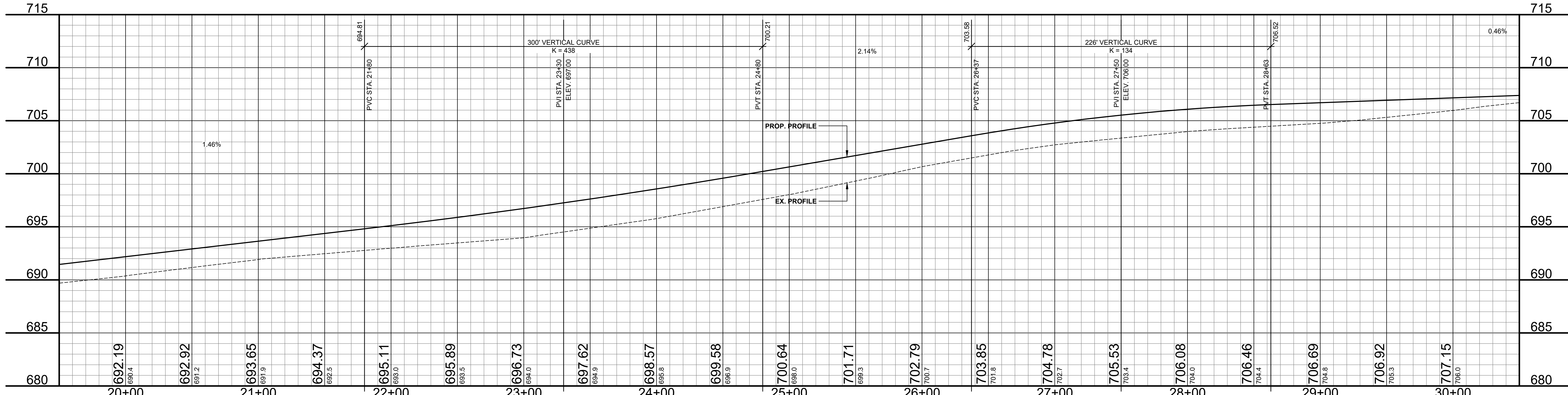
REMOVE -29+36 POWER POLE 50.3'



- 20+02 GAS MARKER POST 27.5'
- 20+05 FENCE WIRE 66.9'
- 20+05 FENCE WIRE 58.7'
- 20+06 FENCE WIRE 26.3' - REMOVE
- 20+80 MAILBOX 4440 16.1' - RELOCATE
- 20+82 MAILBOX 4439 16.7' - RELOCATE
- 20+98 FENCE WIRE 66.9'
- 20+99 TELE RISER BOX 29.2' - REMOVE
- 21+23 19 19.7' - REMOVE
- 21+54 CPP 20.0' - REMOVE
- 21+68 BUILDING HOUSE 62.2'
- 21+81 42" MAPLE 38.1'
- 22+14 BUILDING 63.9'
- 22+16 ORN MAPLE 45.0'
- 22+66 CPP 20.3' - REMOVE
- 23+07 19 20.4' - REMOVE
- 23+75 6" MAPLE 30.1' - REMOVE
- 24+60 CPP 23.0' - REMOVE
- 24+99 MAILBOX 4445 17.9' - RELOCATE
- 25+01 12 21.1' - REMOVE
- 25+42 12 21.1' - REMOVE
- 25+73 CPP 21.0' - REMOVE
- 25+79 MAILBOX 4485 18.0' - RELOCATE
- 26+58 GAS MARKER POST 31.4'
- 27+07 TELE RISER BOX 31.4'
- 27+52 12" TW 25.9' - REMOVE
- 27+61 12" MAPLE 35.9'
- 27+79 15" MAPLE 32.4' - REMOVE
- 27+79 6" MAPLE 27.1' - REMOVE
- 27+79 6" MAPLE 25.7' - REMOVE
- 28+07 6" MAPLE 37.5'
- 28+43 12 20.0' - REMOVE
- 28+43 12 19.5' - REMOVE
- 28+61 MAILBOX 4471 16.8' - RELOCATE
- 28+68 CPP 24.8' - REMOVE
- 28+71 ORN PINE 39.9'
- 28+98 ORN PINE 40.7'
- 29+01 12 25.9' - REMOVE
- 29+24 GUY WIRE 82.9'
- 29+24 FND CIR 33.2' - PRESERVE
- 29+25 TELE RISER BOX 76.5'
- 29+26 TELE RISER BOX 76.5'

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) (PAVING UNDER SEPARATE CONTRACT IN THE FUTURE)
- 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) (PAVING UNDER SEPARATE CONTRACT IN THE FUTURE)



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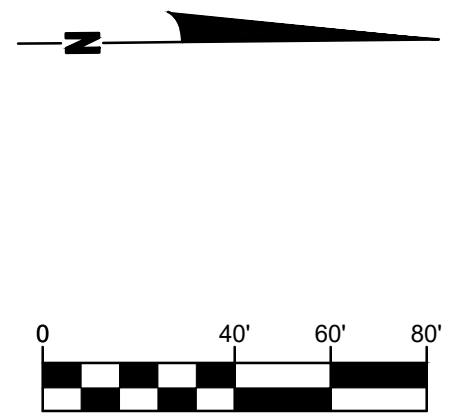
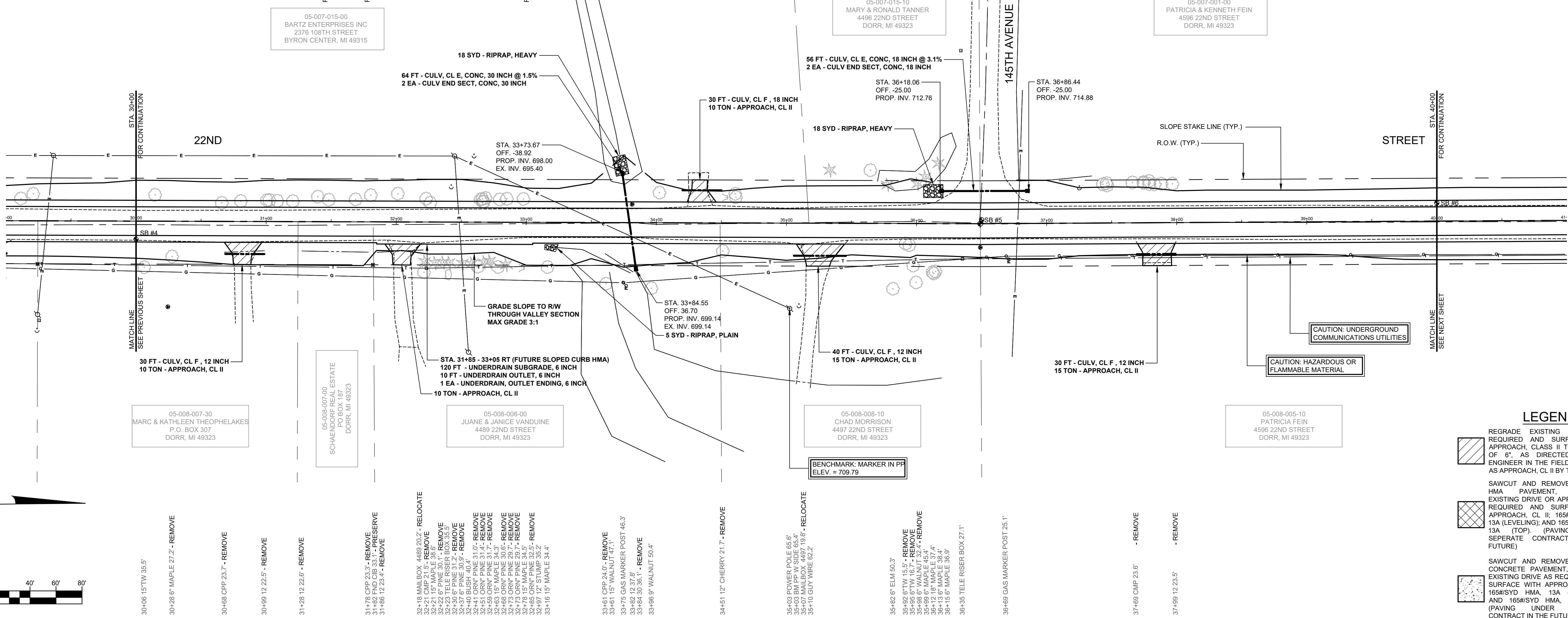
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 PLAN & PROFILE - STA. 20+00 TO STA. 30+00

DRAWN BY: RPB
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 DATE: MAY, 2019
 SCALE: 1"= 40'H, 5V

SOIL BORINGS

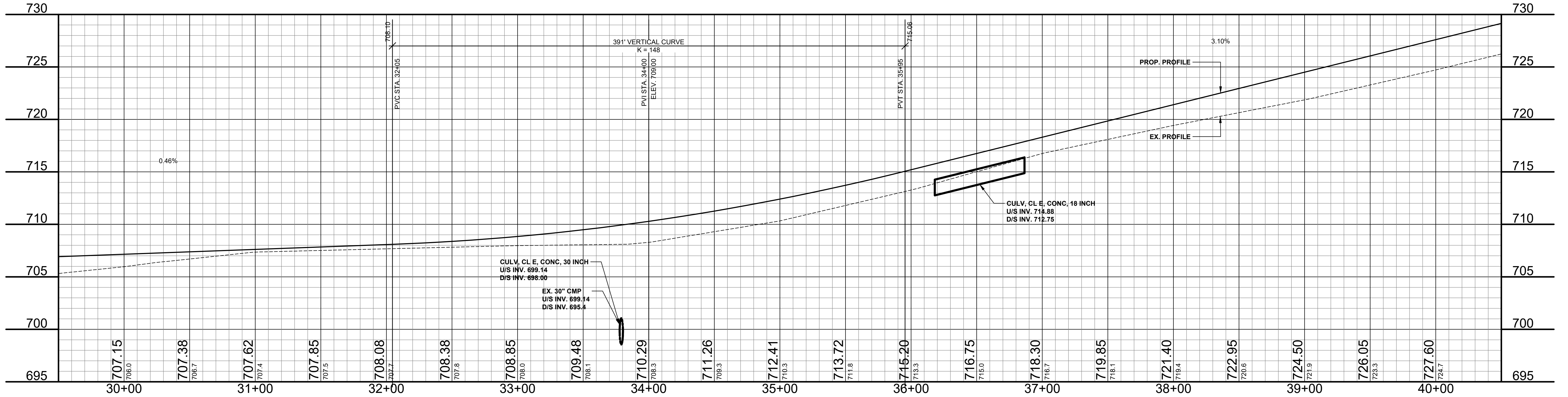
SB #5	0 - 12" GRAVEL
	12" - 60" BROWN SILTY SANDY CLAY, TR FINE GRAVEL
	60" END OF BORING
SB #6	0 - 12" GRAVEL
	12" - 60" BROWN SILTY SANDY CLAY, TR FINE GRAVEL
	60" END OF BORING

- REMOVE -30+15.36' MAPLE 20.2'
- REMOVE -30+66.15' TW 14.2'
- REMOVE -30+81.15' TW 15.6'
- REMOVE -31+01.12' MAPLE 16.4'
- REMOVE -31+02.12' MAPLE 16.5'
- REMOVE -31+05.12' MAPLE 15.9'
- REMOVE -31+21.9' MAPLE 15.7'
- REMOVE -31+40.9' MAPLE 19.2'
- REMOVE -31+48.12' DEAD TREE 16.9'
- REMOVE -31+69.9' MAPLE 17.2'
- REMOVE -31+80.15' DEAD TREE 20.5'
- REMOVE -32+01.6' CHERRY 21.7'
- REMOVE -32+23.9' CHERRY 17.9'
- REMOVE -32+26.6' MAPLE 14.8'
- REMOVE -32+42.4' GUY WIRE 28.5'
- REMOVE -32+45.4' POWER POLE 58.6'
- REMOVE -32+60.4' GUY WIRE 52.3'
- REMOVE -32+65.12' CHERRY 17.4'
- REMOVE -32+67.6' CHERRY 15.6'
- REMOVE -32+67.6' CHERRY 15.9'
- REMOVE -32+69.12' CHERRY 19.9'
- REMOVE -32+85.6' MAPLE 18.0'
- REMOVE -32+88.15' DEAD TREE 17.9'
- REMOVE -34+53.18' STUMP 19.6'
- REMOVE -34+61.15' POPLAR 23.8'
- REMOVE -34+61.12' POPLAR 13.8'
- REMOVE -34+92.6' TW 15.5'
- REMOVE -34+95.6' TW 16.7'
- REMOVE -35+96.6' WALNUT 15.2'
- REMOVE -36+12.15' MAPLE 37.4'
- REMOVE -36+13.6' MAPLE 38.4'
- REMOVE -36+15.6' MAPLE 36.9'
- REMOVE -37+43.15' POPLAR 29.8'
- REMOVE -37+45.15' POPLAR 30.9'
- REMOVE -37+47.15' POPLAR 28.9'
- REMOVE -37+66.6' POPLAR 31.0'
- REMOVE -37+75.12' POPLAR 31.2'
- REMOVE -37+75.6' POPLAR 30.5'
- REMOVE -37+79.6' POPLAR 29.8'
- REMOVE -37+83.6' POPLAR 29.4'
- REMOVE -37+89.12' POPLAR 29.8'



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) (PAVING UNDER SEPARATE CONTRACT IN THE FUTURE)
	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) (PAVING UNDER SEPARATE CONTRACT IN THE FUTURE)



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22ND STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 144TH AVENUE TO 146TH AVENUE
PLAN & PROFILE - STA. 30+00 TO STA. 40+00

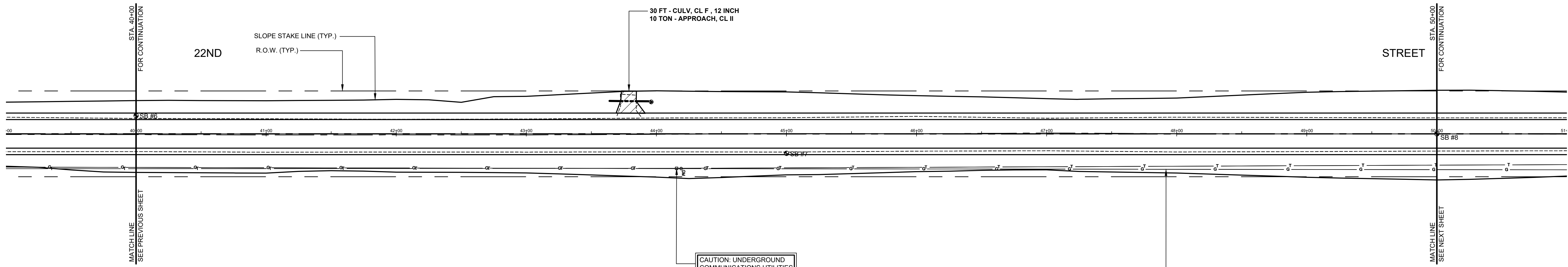
DRAWN BY: RPB
REVIEWED BY: JSE
DATE: MAY, 2019
SCALE: 1"= 40'H, 5'V

SOIL BORINGS

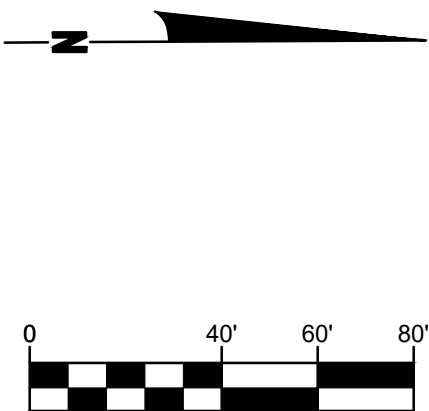
- SB #7**
 0 - 6" GRAVEL
 6" - 24" BROWN SILTY CLAY, TR FINE GRAVEL
 24" - 96" BROWN SILTY SANDY CLAY, TR FINE GRAVEL
 96" END OF BORING
- SB #8**
 0 - 10" GRAVEL
 10" - 19" BROWN AND DARK BROWN SILTY CLAY, FINE TO MEDIUM SAND WITH FINE GRAVEL
 19" - 60" BROWN SILTY CLAY WITH SILTY FINE SAND
 60" END OF BORING

05-007-001-00
 PATRICIA & KENNETH FEIN
 4596 22ND STREET
 DORR, MI 49323

05-008-005-10
 PATRICIA FEIN
 4596 22ND STREET
 DORR, MI 49323

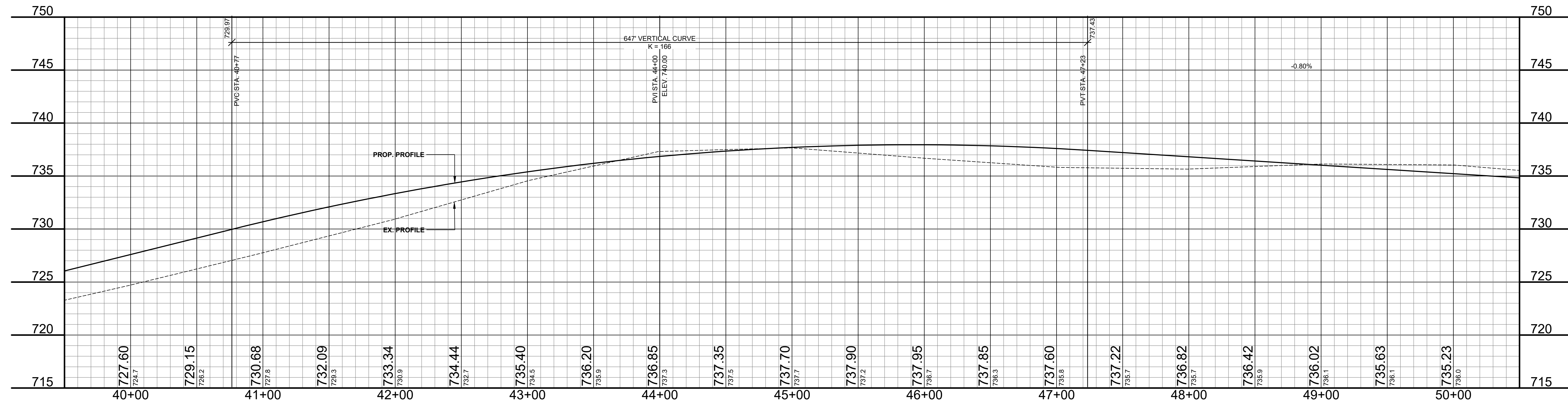


44+16 TELE RISER BOX 26.5' - RELOCATE BY OTHERS
 44+19 GAS MARKER POST 26.7' - RELOCATE BY OTHERS



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.
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22ND STREET RECONSTRUCTION PROJECT
 DORR TOWNSHIP - 144TH AVENUE TO 146TH AVENUE
 PLAN & PROFILE - STA. 40+00 TO STA. 50+00

DRAWN BY: RPB
 REVIEWED BY: JSE
 DATE: MAY, 2019
 SCALE: 1"= 40'H, 5V

SOIL BORINGS

SB #9	0 - 9" GRAVEL
	9" - 60" BROWN SILTY SANDY CLAY, TR FINE GRAVEL
	60" END OF BORING
SB #10	0 - 5" GRAVEL
	5" - 60" BROWN SILTY CLAY, TR FINE GRAVEL
	60" - 96" BROWN SILTY FINE TO MEDIUM FINE SAND, TR COARSE SAND, TR FINE GRAVEL
	96" END OF BORING

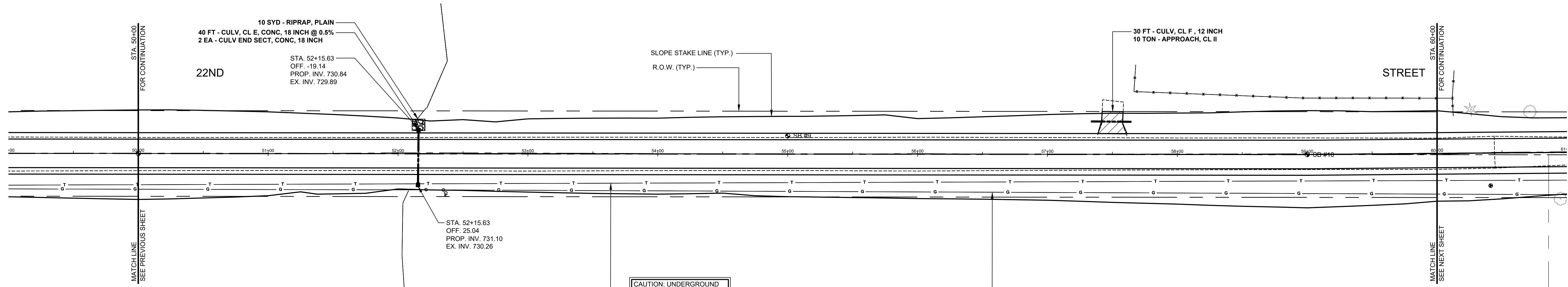
REMOVE -52+13 CATCH BASIN 23.6'
 REMOVE -52+13.6 24.4'
 REMOVE -52+23 TILE 36.5'
 52+38 TILE 71.4'

05-007-001-00
 PATRICIA & KENNETH FEIN
 4596 22ND STREET
 DORR, MI 49323

REMOVE -57+34 CMP 25.1'

REMOVE -57+64 12 24.7'
 57+68 14.1 14.1'
 57+68 FENCE 2 68.9'

58+97 FENCE WIRE 43.5'

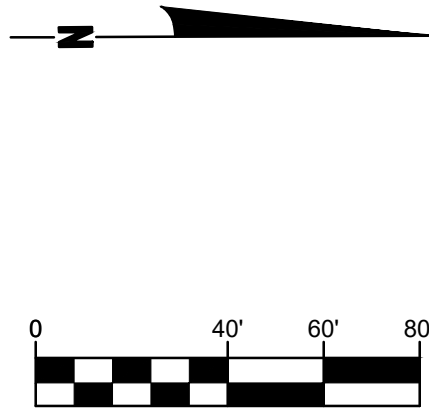


CAUTION: UNDERGROUND COMMUNICATIONS UTILITIES

CAUTION: HAZARDOUS OR FLAMMABLE MATERIAL

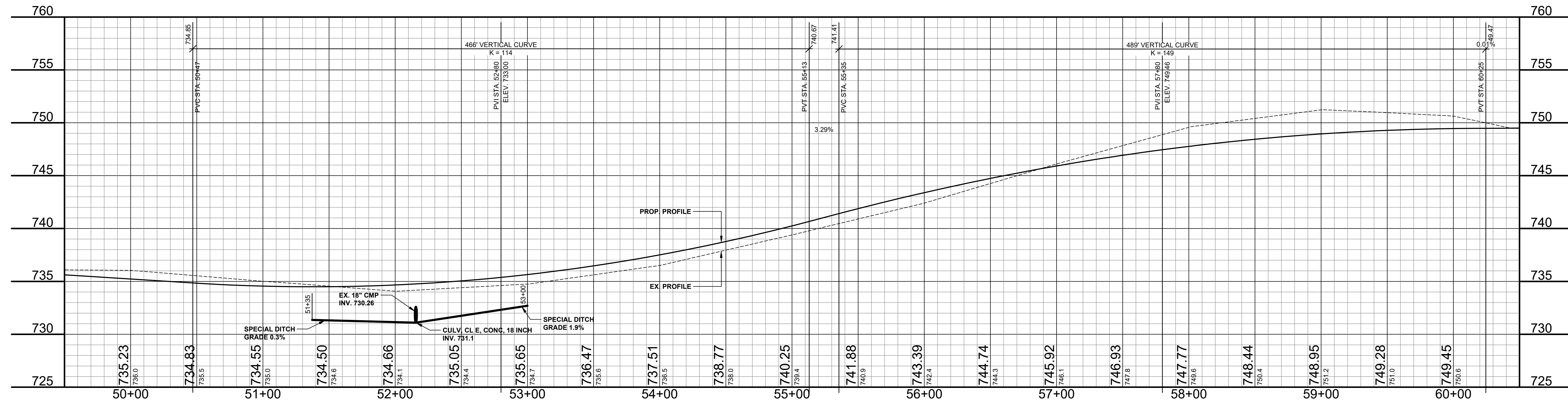
05-008-005-10
 PATRICIA FEIN
 4596 22ND STREET
 DORR, MI 49323

52+15 CPP 24.1' - REMOVE
 52+35 GAS MARKER POST 27.9' - RELOCATE BY OTHERS



LEGEND

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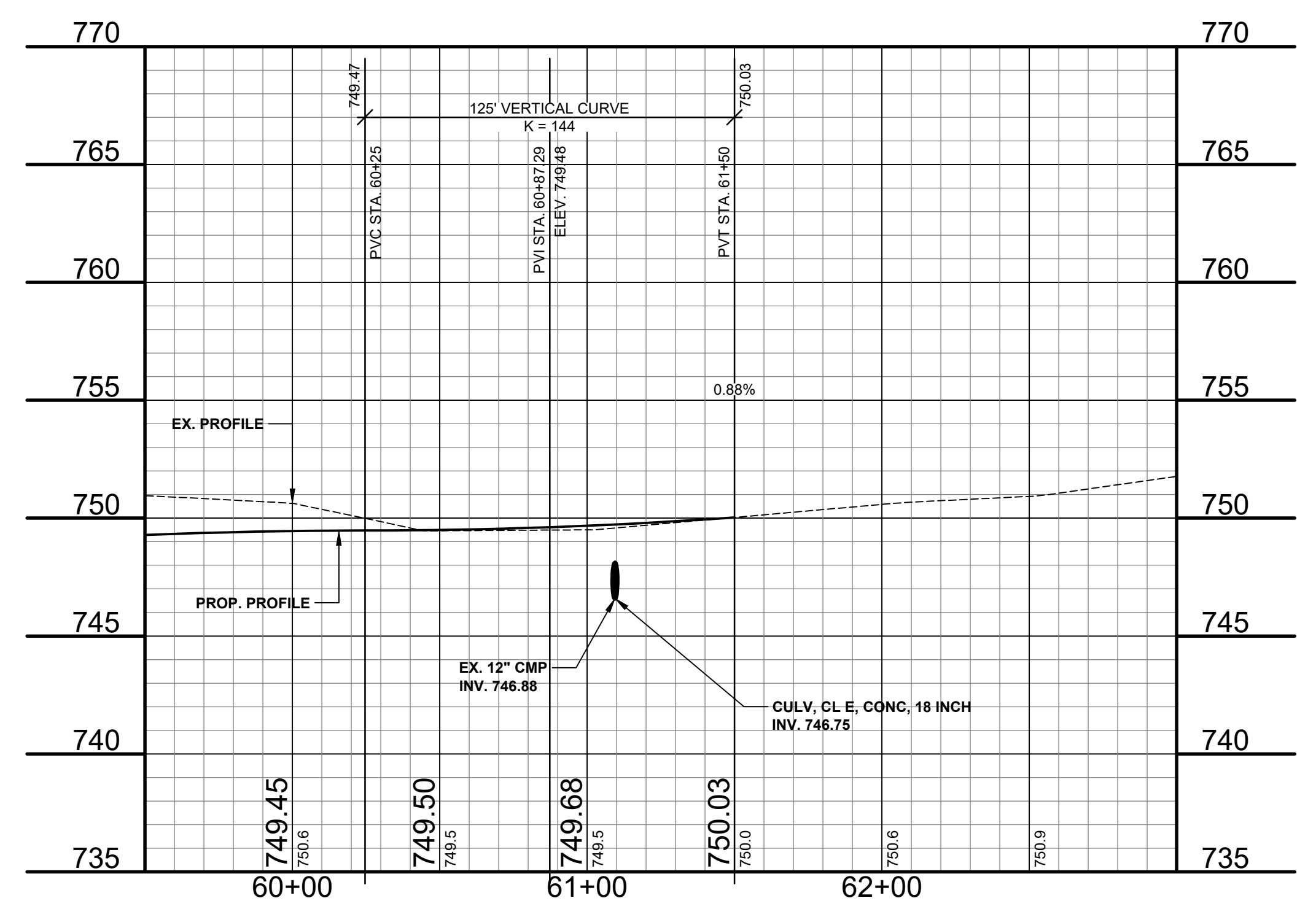
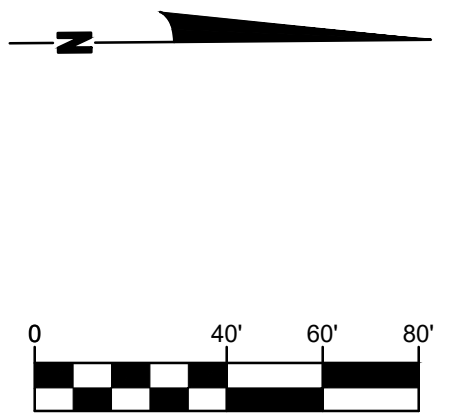
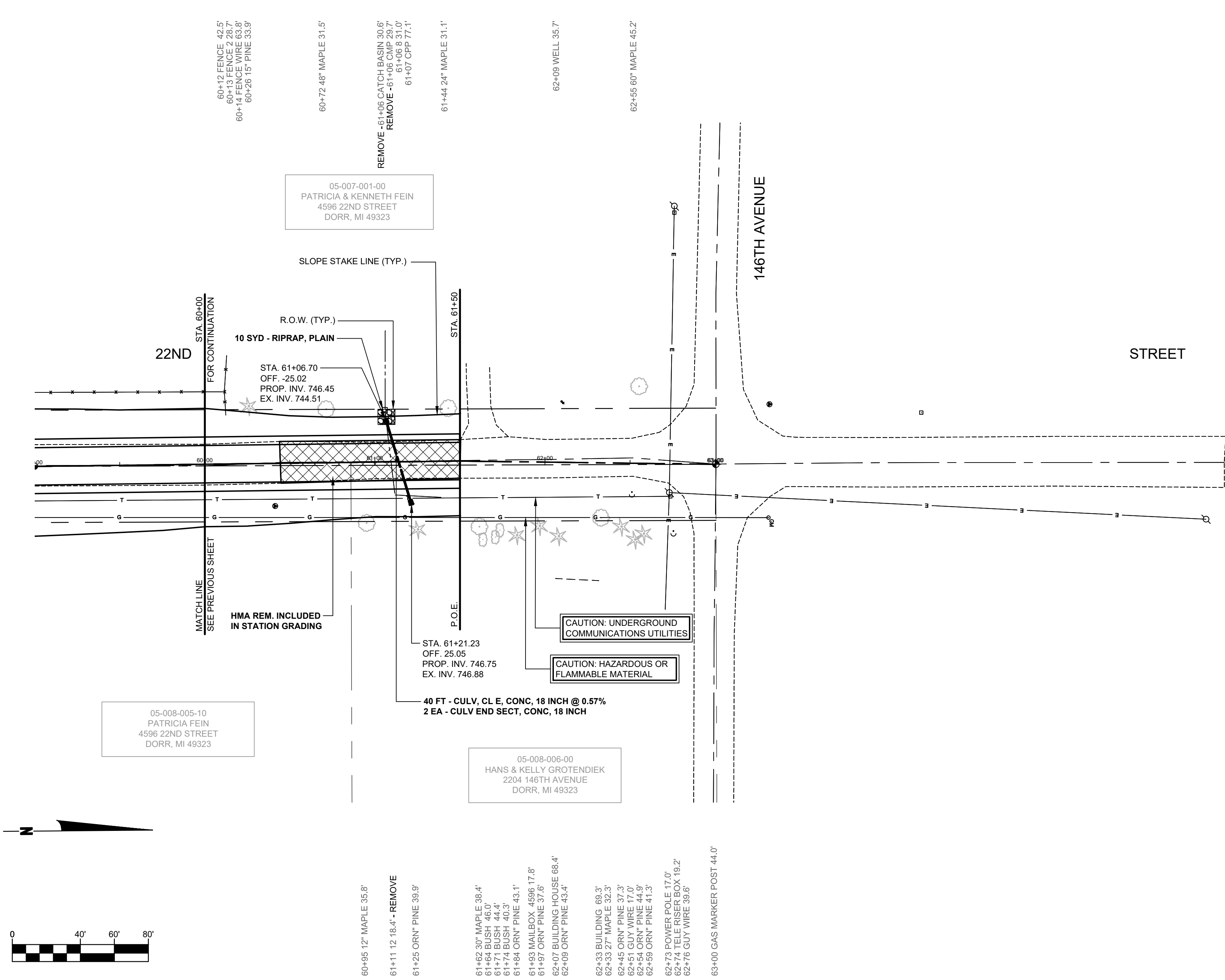
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22ND STREET RECONSTRUCTION PROJECT
 DORR TOWNSHIP - 144TH AVENUE TO 146TH AVENUE
 PLAN & PROFILE - STA. 50+00 TO STA. 60+00

DRAWN BY: RPB
 REVIEWED BY: JSE
 DATE: MAY, 2019
 SCALE: 1"= 40'H, 5V



- 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.
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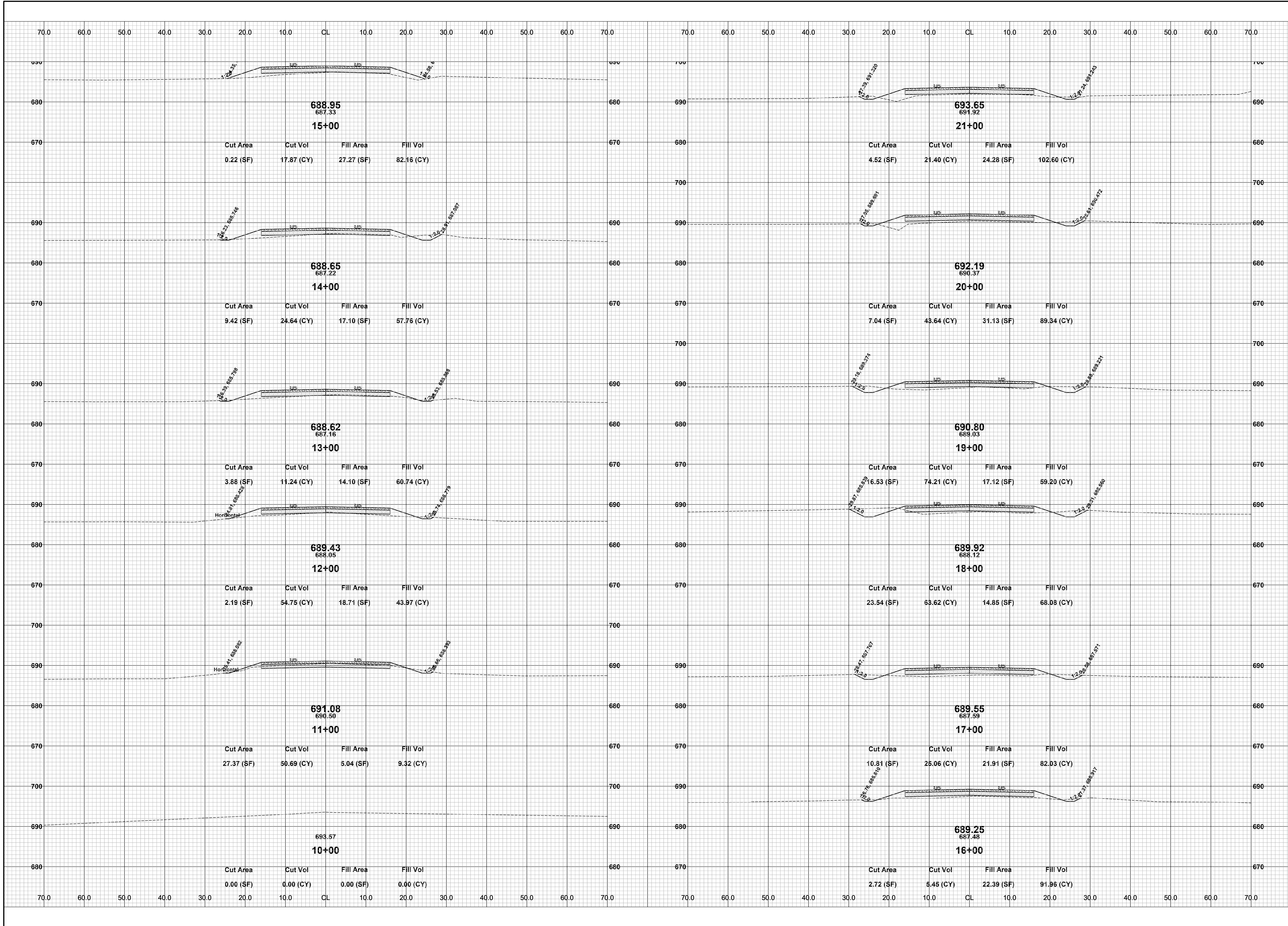
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22ND STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 144TH AVENUE TO 146TH AVENUE

PLAN & PROFILE - STA. 60+00 TO P.O.E.

DRAWN BY: RPB
REVIEWED BY: JSE
DATE: MAY, 2019
SCALE: 1"= 40'H, 5'V

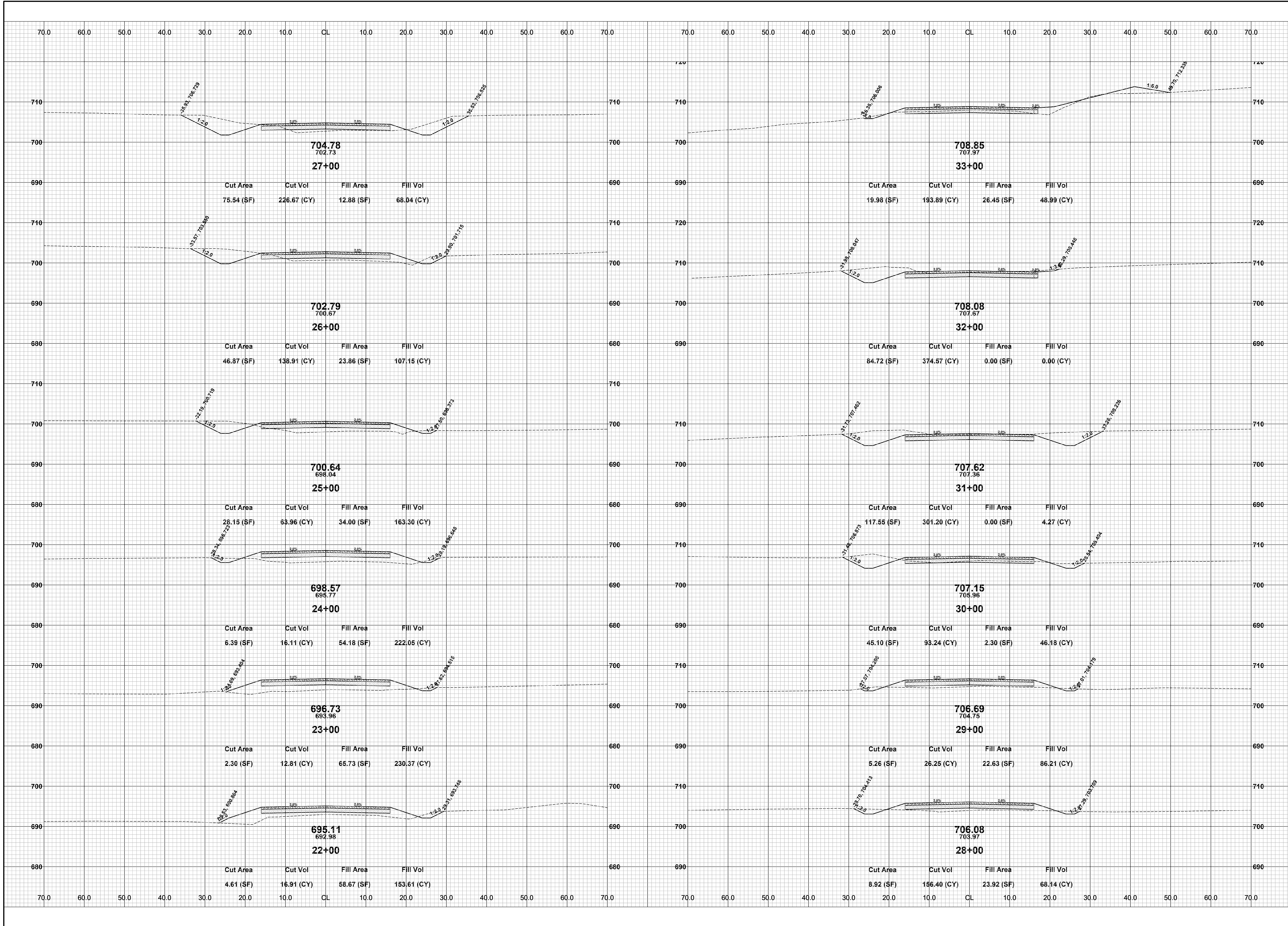
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22ND STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 144TH AVENUE TO 146TH AVENUE
CROSS SECTIONS - STA. 10+00 TO STA. 21+00

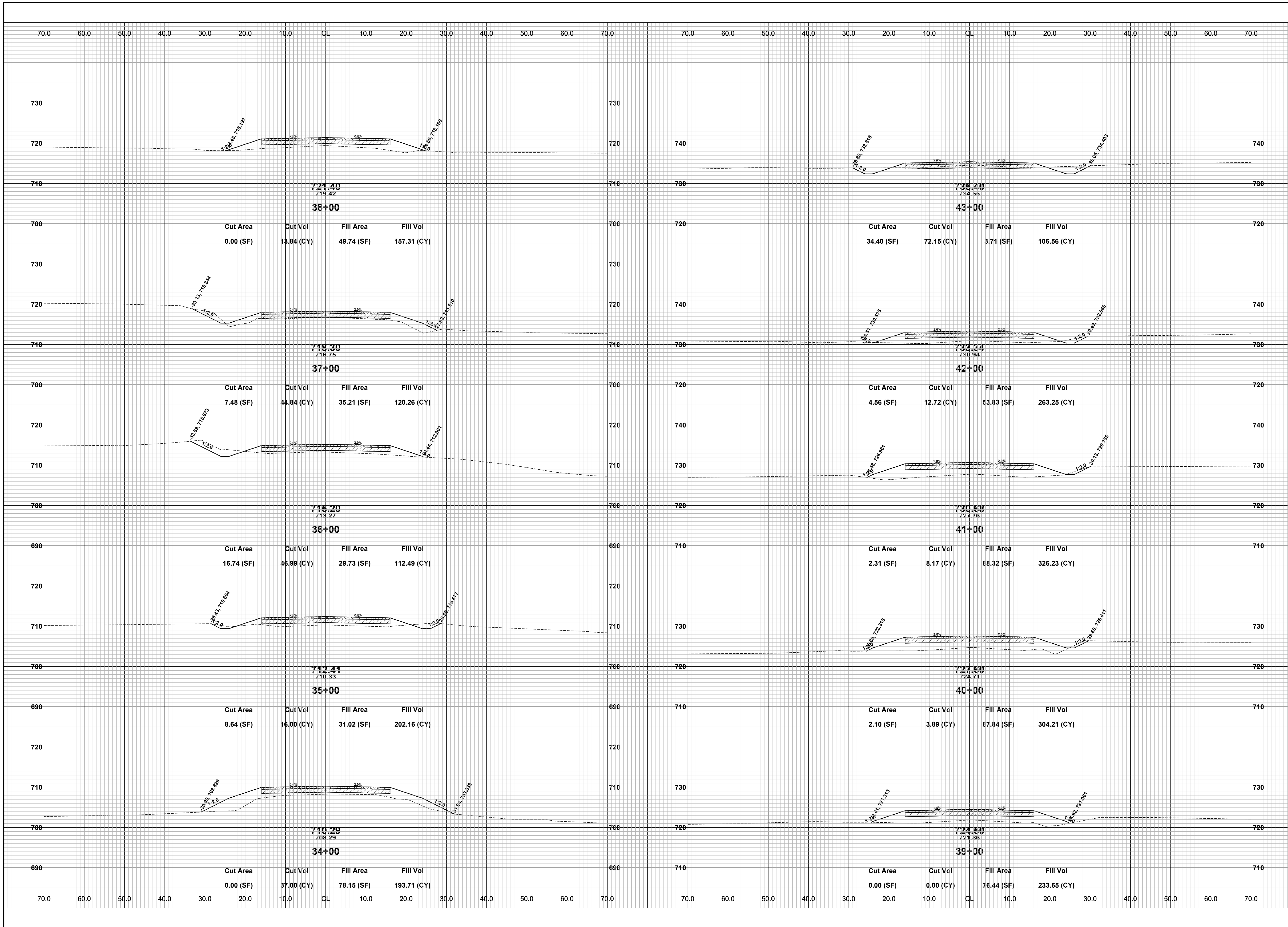
DRAWN BY: RPB
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SCALE: 1"= 10'



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22ND STREET RECONSTRUCTION PROJECT
 DORR TOWNSHIP - 144TH AVENUE TO 146TH AVENUE
 CROSS SECTIONS - STA. 22+00 TO STA. 33+00

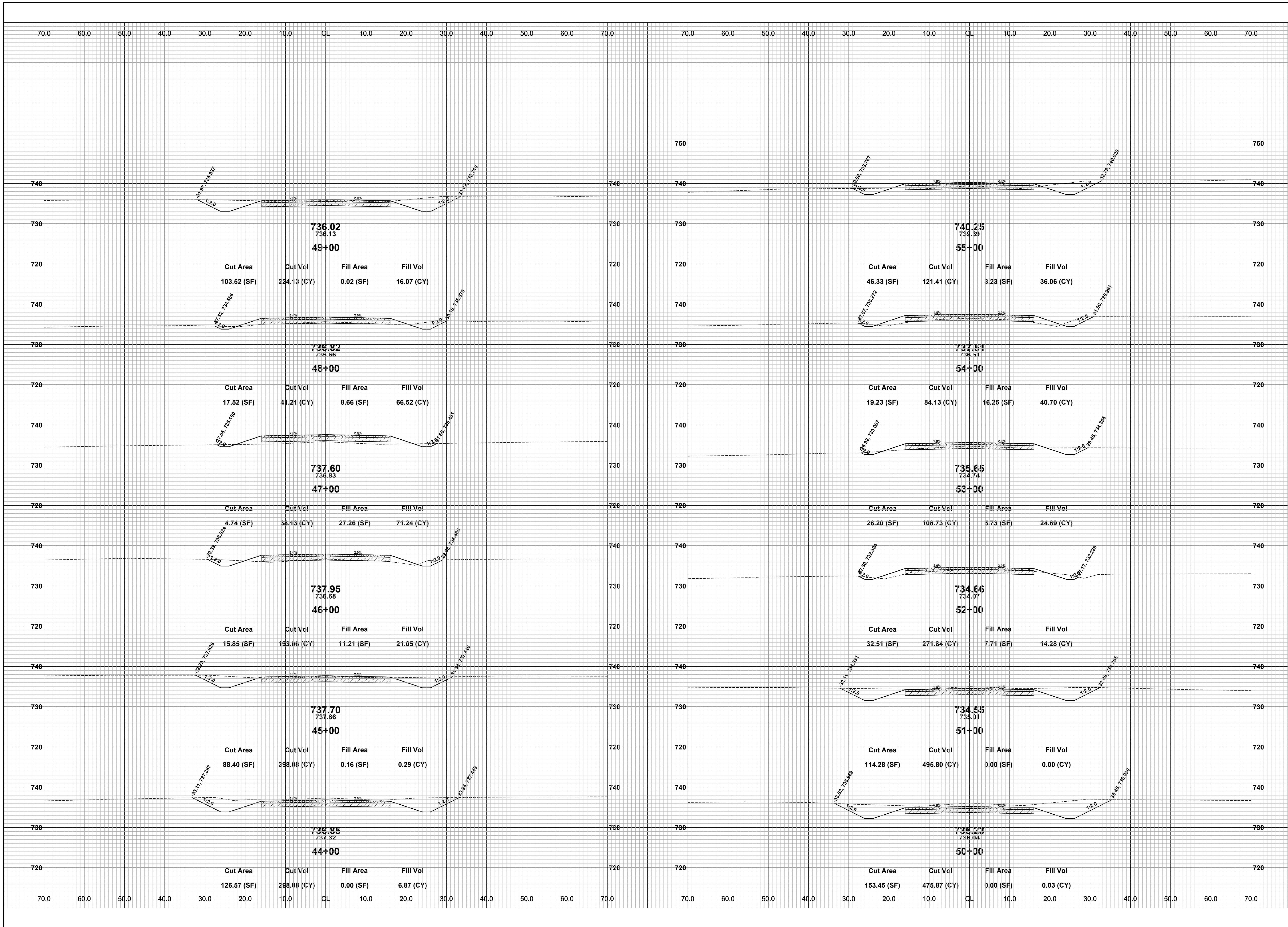
DRAWN BY: RPB
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22ND STREET RECONSTRUCTION PROJECT
 DORR TOWNSHIP - 144TH AVENUE TO 146TH AVENUE
 CROSS SECTIONS - STA. 34+00 TO STA. 43+00

DRAWN BY: RPB
 REVIEWED BY: JSE
 DATE: MAY, 2019
 SCALE: 1" = 10'

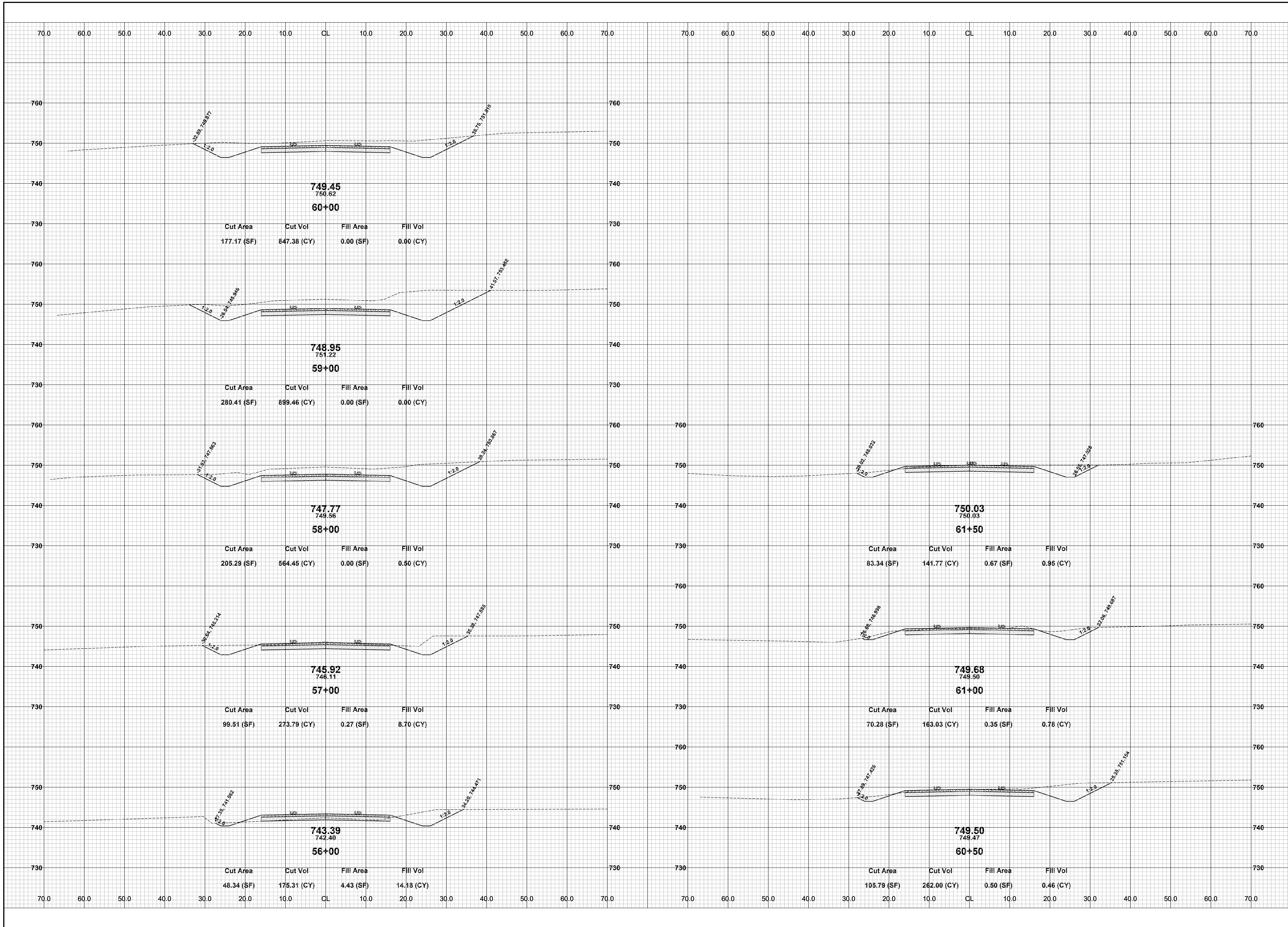


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22ND STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 144TH AVENUE TO 146TH AVENUE
CROSS SECTIONS - STA. 44+00 TO STA. 55+00

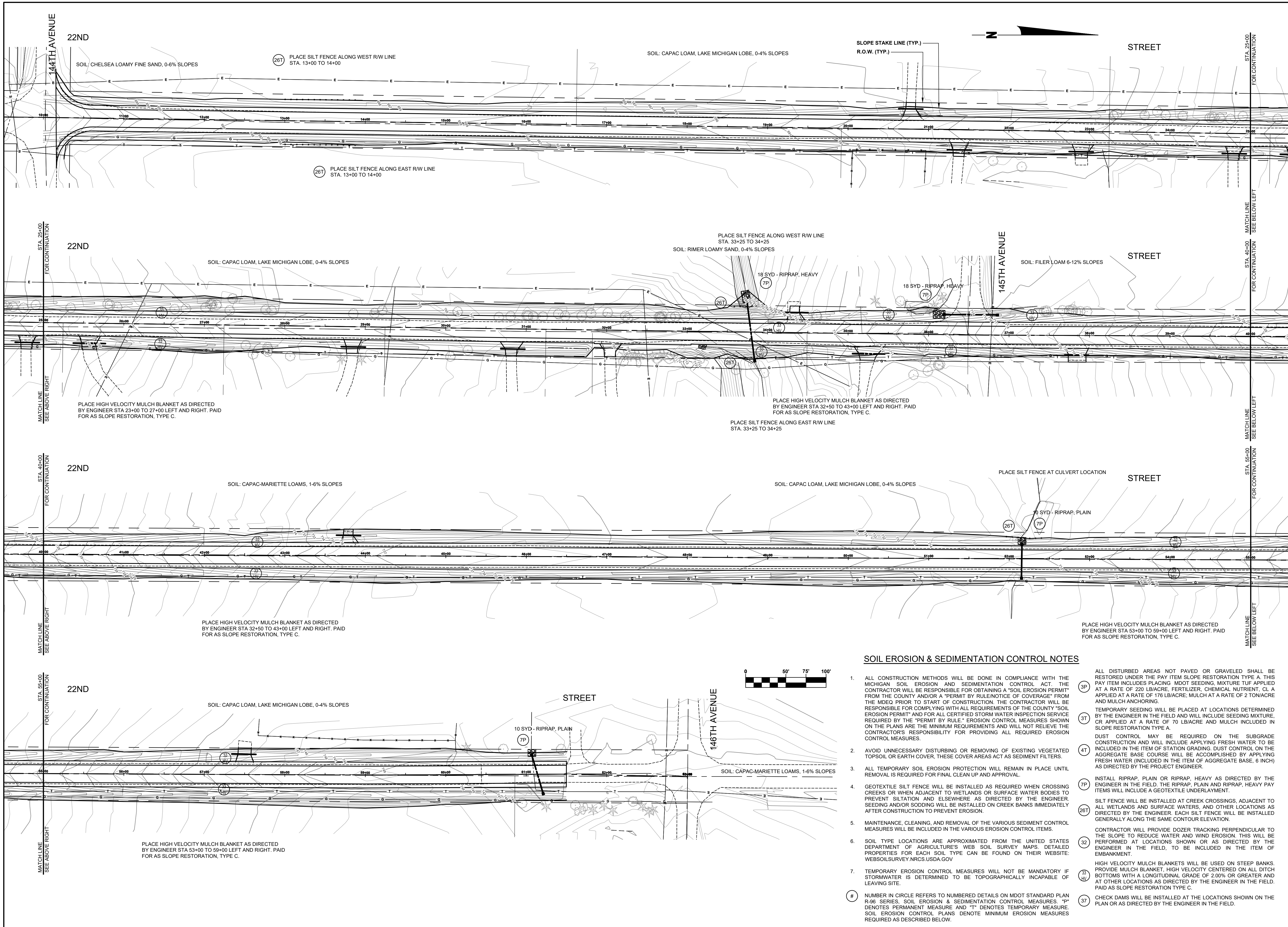
DRAWN BY: RPB
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DATE: MAY, 2019
SCALE: 1" = 10'



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22ND STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 144TH AVENUE TO 146TH AVENUE
CROSS SECTIONS - STA. 56+00 TO STA. 61+50

DRAWN BY: RPB
REVIEWED BY: JSE
DATE: MAY, 2019
SCALE: 1"= 10'



SOIL EROSION & SEDIMENTATION CONTROL NOTES

- 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 MDEQ 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.
 - AVOID UNNECESSARY DISTURBING OR REMOVING OF EXISTING VEGETATED TOPSOIL OR EARTH COVER, THESE COVER AREAS ACT AS SEDIMENT FILTERS.
 - ALL TEMPORARY SOIL EROSION PROTECTION WILL REMAIN IN PLACE UNTIL REMOVAL IS REQUIRED FOR FINAL CLEAN UP AND APPROVAL.
 - 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 SODDINGS WILL BE INSTALLED ON CREEK BANKS IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION.
 - MAINTENANCE, CLEANING, AND REMOVAL OF THE VARIOUS SEDIMENT CONTROL MEASURES WILL BE INCLUDED IN THE VARIOUS EROSION CONTROL ITEMS.
 - 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
 - TEMPORARY EROSION CONTROL MEASURES WILL NOT BE MANDATORY IF STORMWATER IS DETERMINED TO BE TOPOGRAPHICALLY INCAPABLE OF LEAVING SITE.
- # NUMBER IN CIRCLE REFERS TO NUMBERED DETAILS ON MDOT 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 SLOPE RESTORATION TYPE A. THIS PAY ITEM INCLUDES PLACING MIDOT 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 INCLUDED IN SLOPE RESTORATION TYPE A.
- 4T DUST CONTROL MAY BE REQUIRED ON THE SUBGRADE CONSTRUCTION AND WILL INCLUDE APPLYING FRESH WATER TO BE INCLUDED IN THE ITEM OF STATION GRADING. 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 OR RIPRAP, HEAVY AS DIRECTED BY THE ENGINEER IN THE FIELD. THE RIPRAP, PLAIN AND RIPRAP, HEAVY PAY ITEMS 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.
- 3H 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, PAID AS SLOPE RESTORATION TYPE C.
- 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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22ND STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 144TH AVENUE TO 146TH AVENUE
SOIL EROSION & SEDIMENTATION CONTROL PLAN

DRAWN BY: RPB
REVIEWED BY: JSE
DATE: MAY, 2019
SCALE: 1" = 50'