

ALLEGAN COUNTY ROAD COMMISSION

16TH STREET RECONSTRUCTION PROJECT 140TH AVENUE TO 142ND AVENUE DORR TOWNSHIP

UTILITY CONTACTS

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KALAMAZOO, MI 49001
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MISS DIG 811

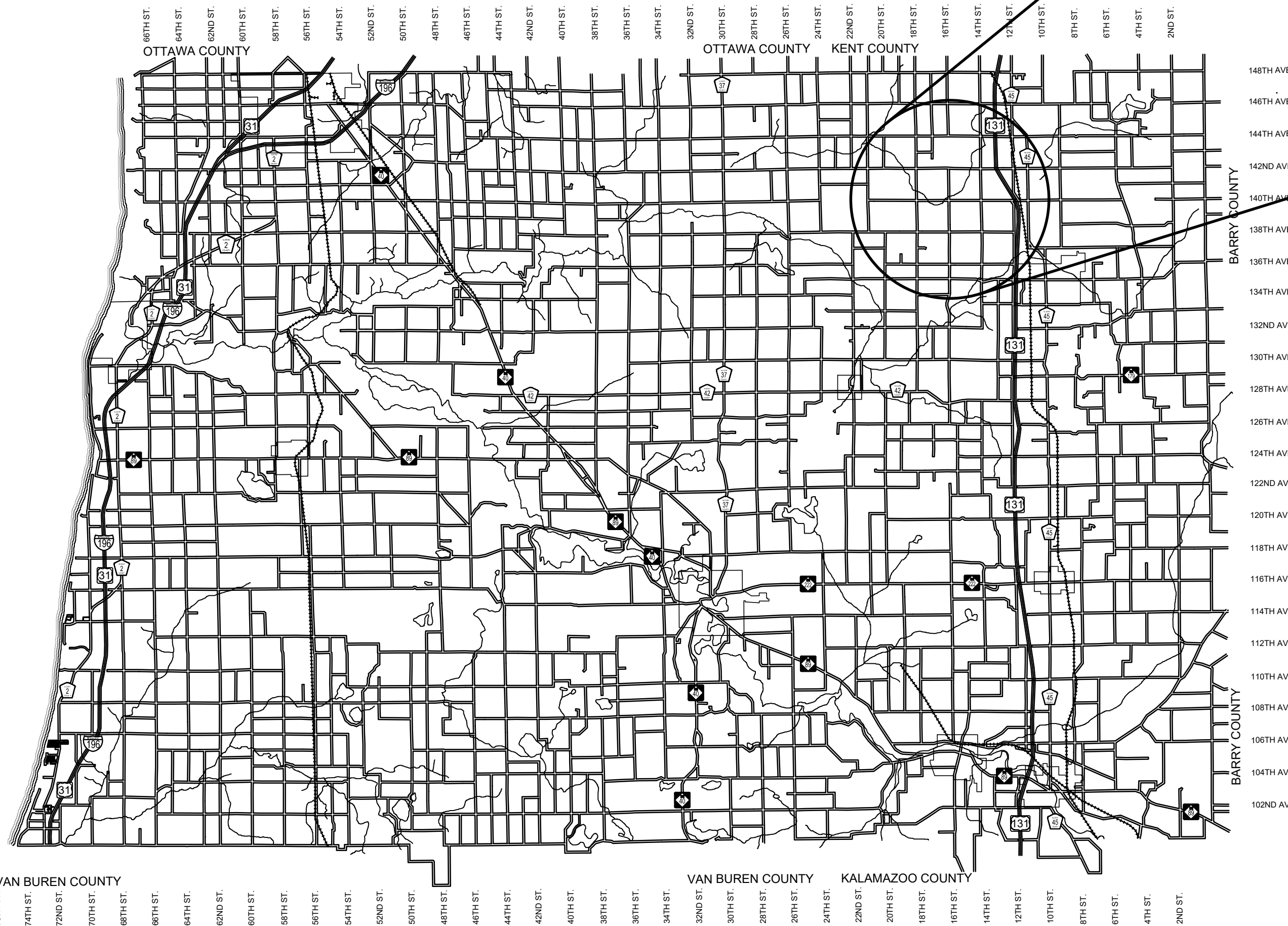
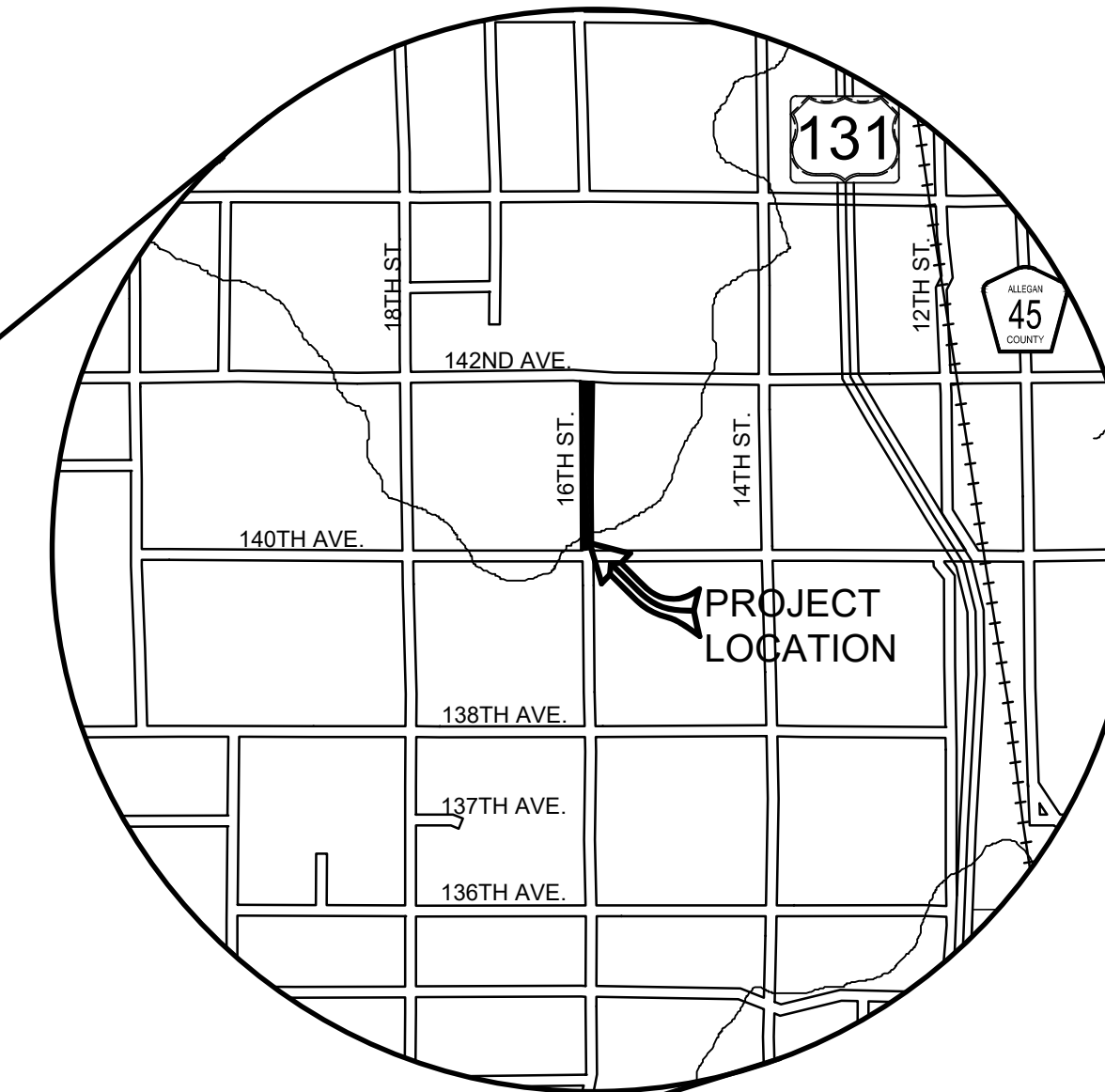
**Board of County Road Commissioners
Of Allegan County**
1308 LINCOLN ROAD
ALLEGAN, MICHIGAN 49010-9762
www.alleganroads.org
TELEPHONE (269) 673-2184 FAX (269) 673-5922

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 THUS 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.



ALLEGAN COUNTY, MICHIGAN
NOT TO SCALE

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16TH STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE
COVER SHEET

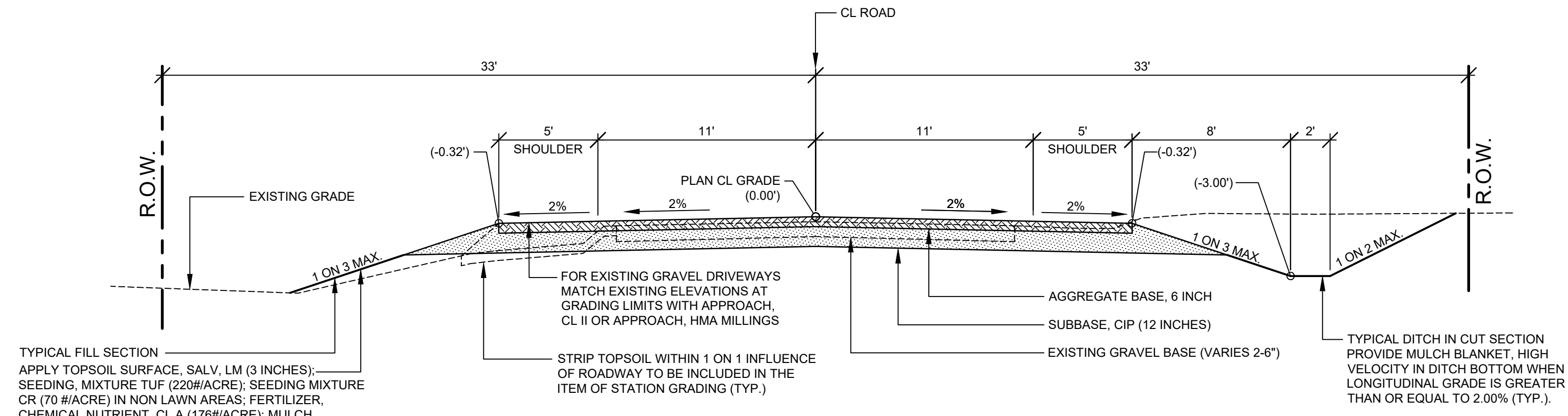
CONTRACT FOR ROAD IMPROVEMENTS
0.82 MILES OF ROADWAY RECONSTRUCTION INCLUDING CLEARING, GRADE ESTABLISHMENT, SAND SUBBASE, AGGREGATE BASE, CULVERT REPLACEMENTS, AND RESTORATION ON 16TH STREET FROM 140TH AVENUE TO 142ND AVENUE IN DORR TOWNSHIP, ALLEGAN COUNTY.

PREPARED UNDER THE SUPERVISION OF:

RYAN P. BROWN
REGISTERED PROFESSIONAL ENGINEER No. 65933

DRAWN BY: RPB
REVIEWED BY:
DATE: MARCH, 2022
SCALE: NONE

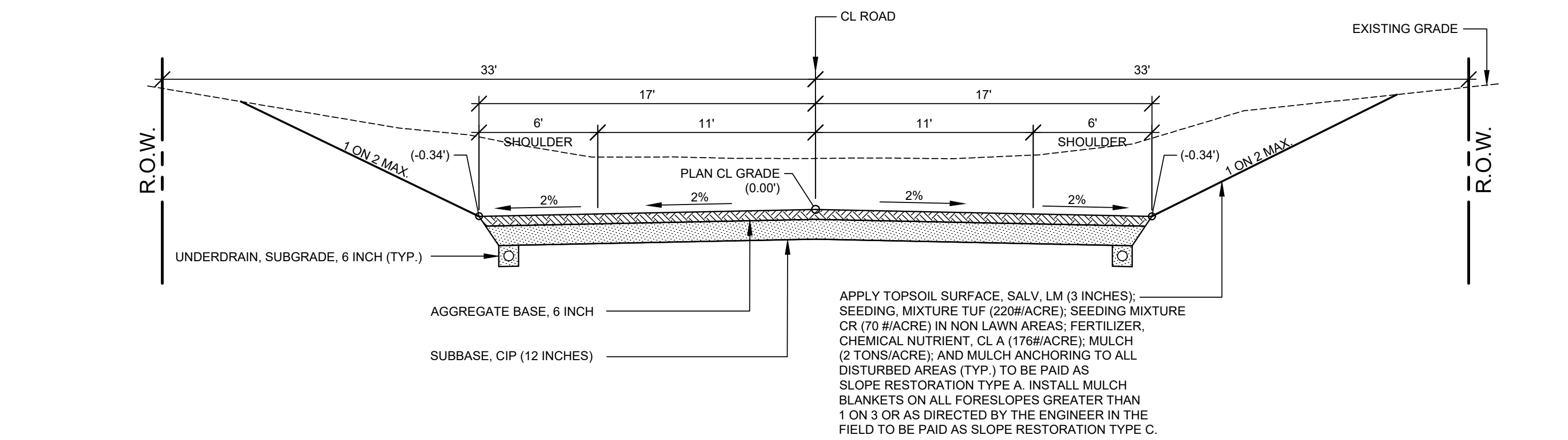
LH 400034 1



TYPICAL SECTION - 16TH STREET

SCALE: 1" = 5'

THIS SECTION APPLIES TO:
P.O.B TO P.O.E.



TYPICAL SECTION - VALLEY GUTTER

SCALE: 1" = 5'

THIS SECTION APPLIES TO:
STA. 18+00 TO 21+50 LEFT

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 OCTOBER 19, 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 THIS 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.

PRELIMINARY UTILITY COORDINATION WAS PERFORMED AND ALL UTILITIES HAVE VERIFIED LOCATIONS.

CONSUMERS GAS TRANSMISSION WILL NEED TO BE CONTACTED WHEN WORKING WITHIN 30 FEET OF THE HIGH PRESSURE GAS MAIN.

AT&T WILL BE ABANDONING THE CABLING ON THE WEST SIDE OF 16TH STREET AND WILL BE REMOVING PEDESTALS.

MISCELLANEOUS QUANTITIES

DESCRIPTION	QUANTITY	UNIT
SUBGRADE UNDERCUTTING, TYPE II	2,500	CYD
AGGREGATE, 6A	50	TON
GEOTEXTILE, STABILIZATION	5,000	SYD
RIPRAP, PLAIN	30	SYD
EROSION CONTROL, SILT FENCE	300	FT
EROSION CONTROL, CHECK DAM	675	FT
APPROACH, CL II	60	TON
APPROACH, HMA MILLINGS	15	TON
CULV, CL E, CONC, 18 INCH	40	FT
CULV END SECT, CONC, 18 INCH	2	EA
CULV, CL F, 12 INCH	80	FT
CULV, CL F, 18 INCH	120	FT
UNDERDRAIN, SUBGRADE, 6 INCH	100	FT
UNDERDRAIN, OUTLET, 6 INCH	10	FT
UNDERDRAIN, OUTLET ENDING, 6 INCH	1	EA

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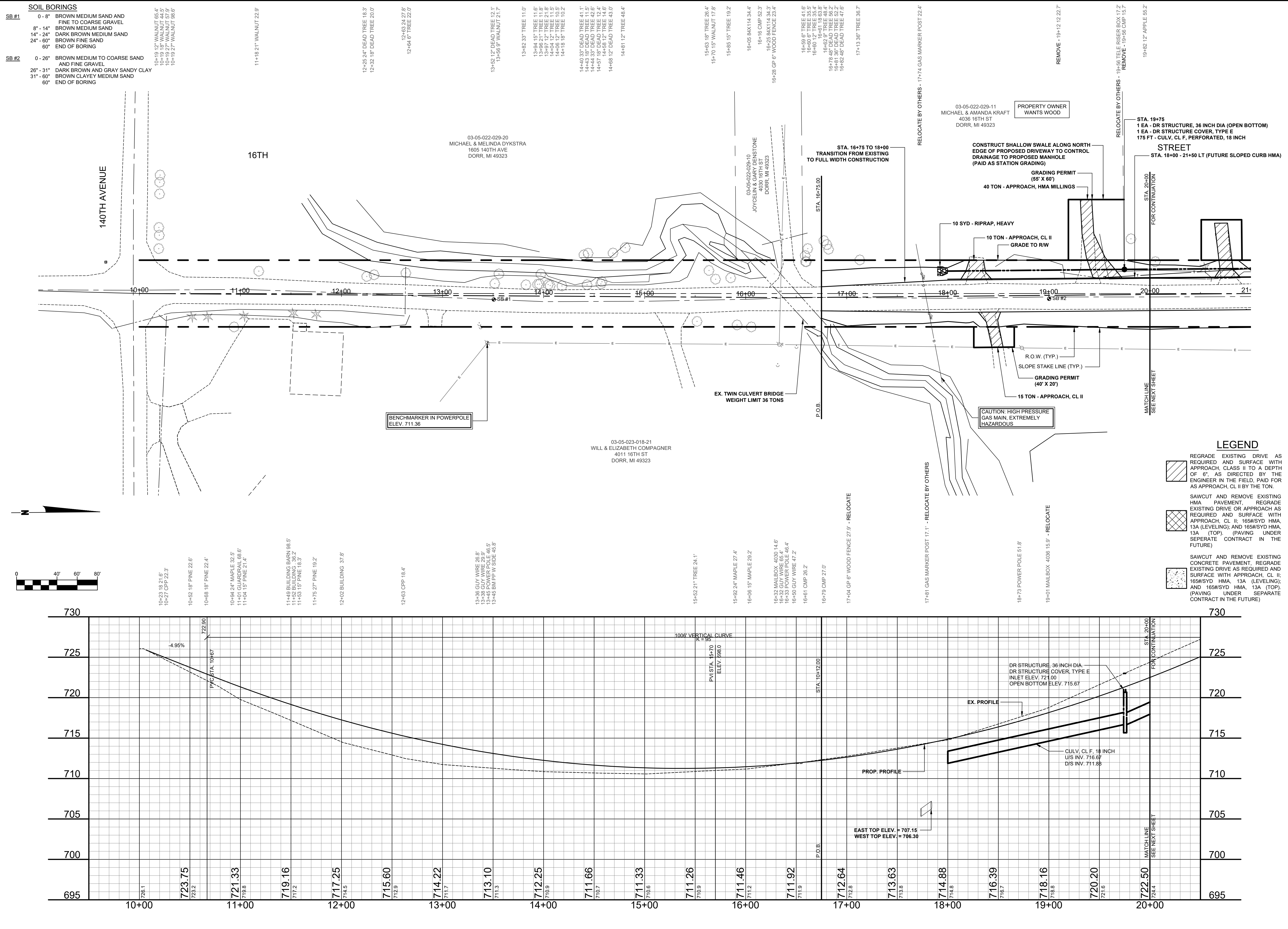
REVISIONS	1	2	3	4	5	6	7

16TH STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE

TYPICAL SECTIONS, DETAILS, & NOTES

DRAWN BY: RPB
REVIEWED BY:
DATE: FEBRUARY, 2022
SCALE: AS NOTED

LH 400034 2



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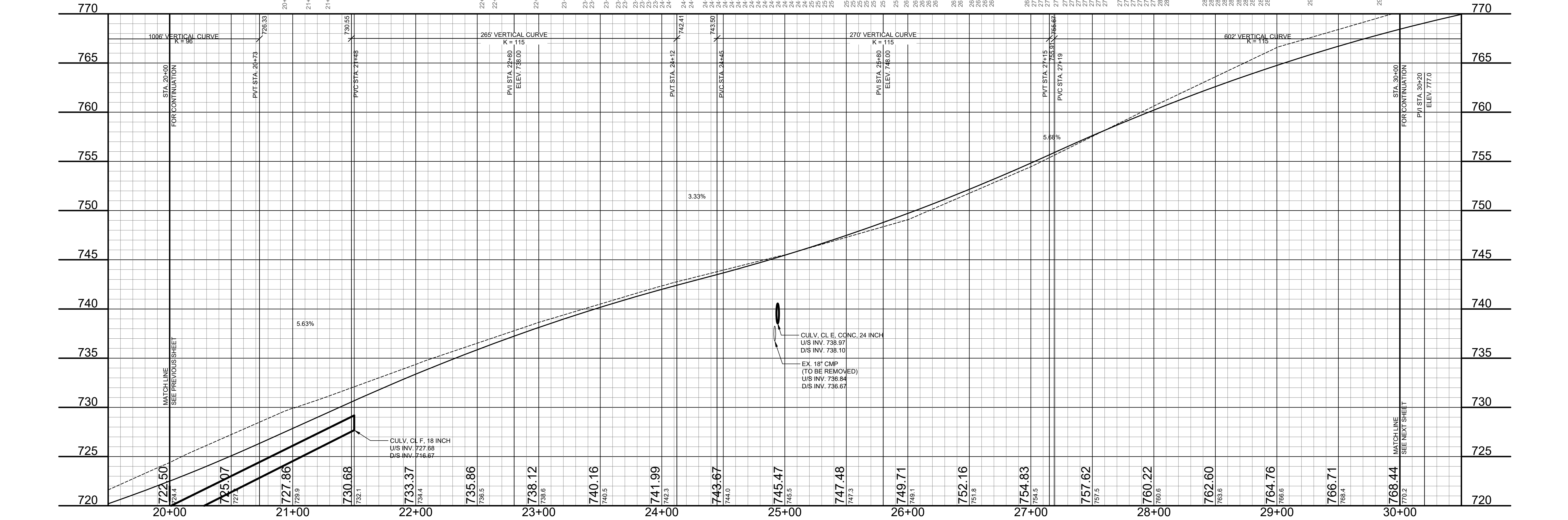
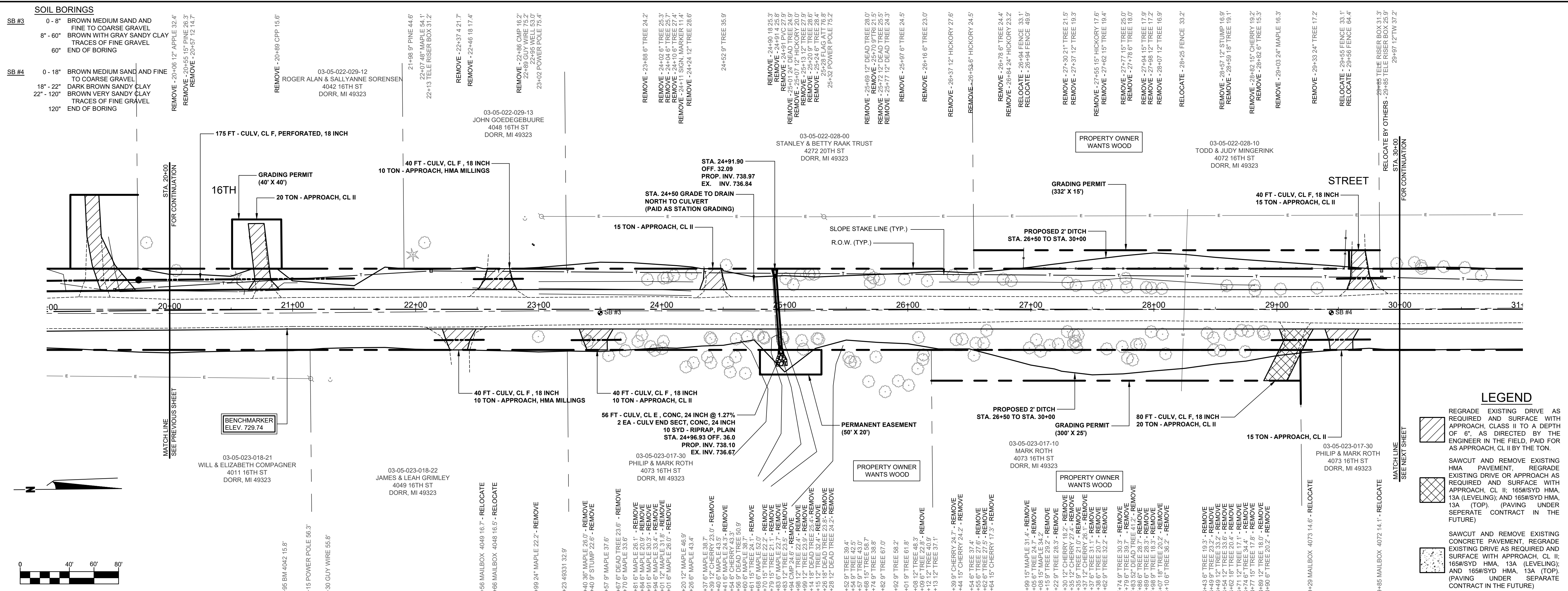
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16TH STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE

PLAN & PROFILE - P.O.B. TO STA. 20+00

DRAWN BY:
REVIEWED BY: RPB
DATE: FEBRUARY, 2022
SCALE: 1" = 40'H, 5'V

LH 400034 3



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DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE

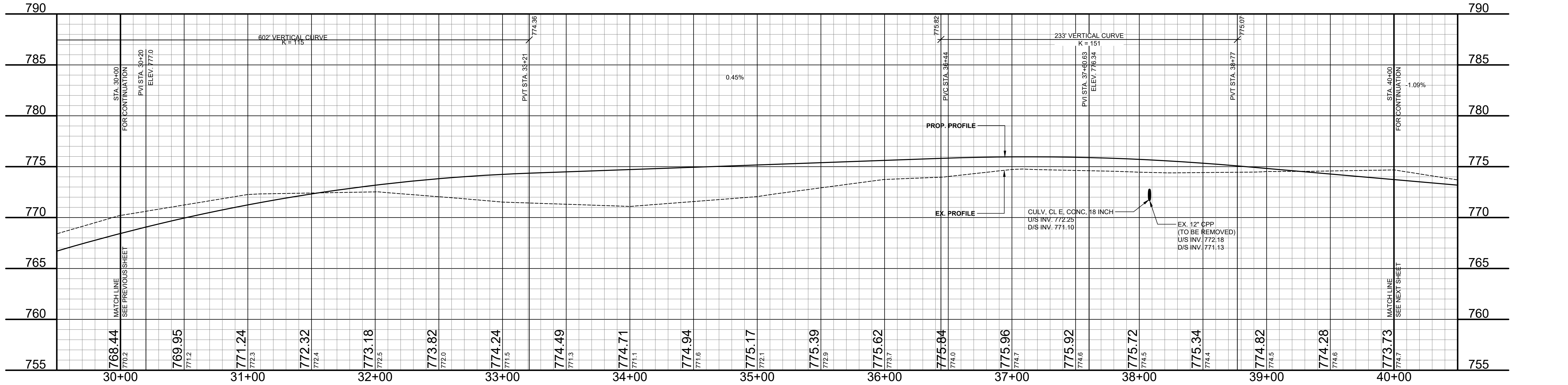
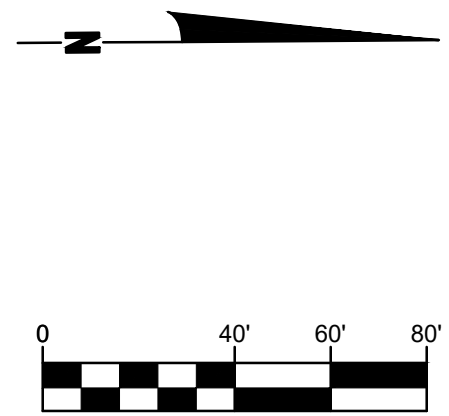
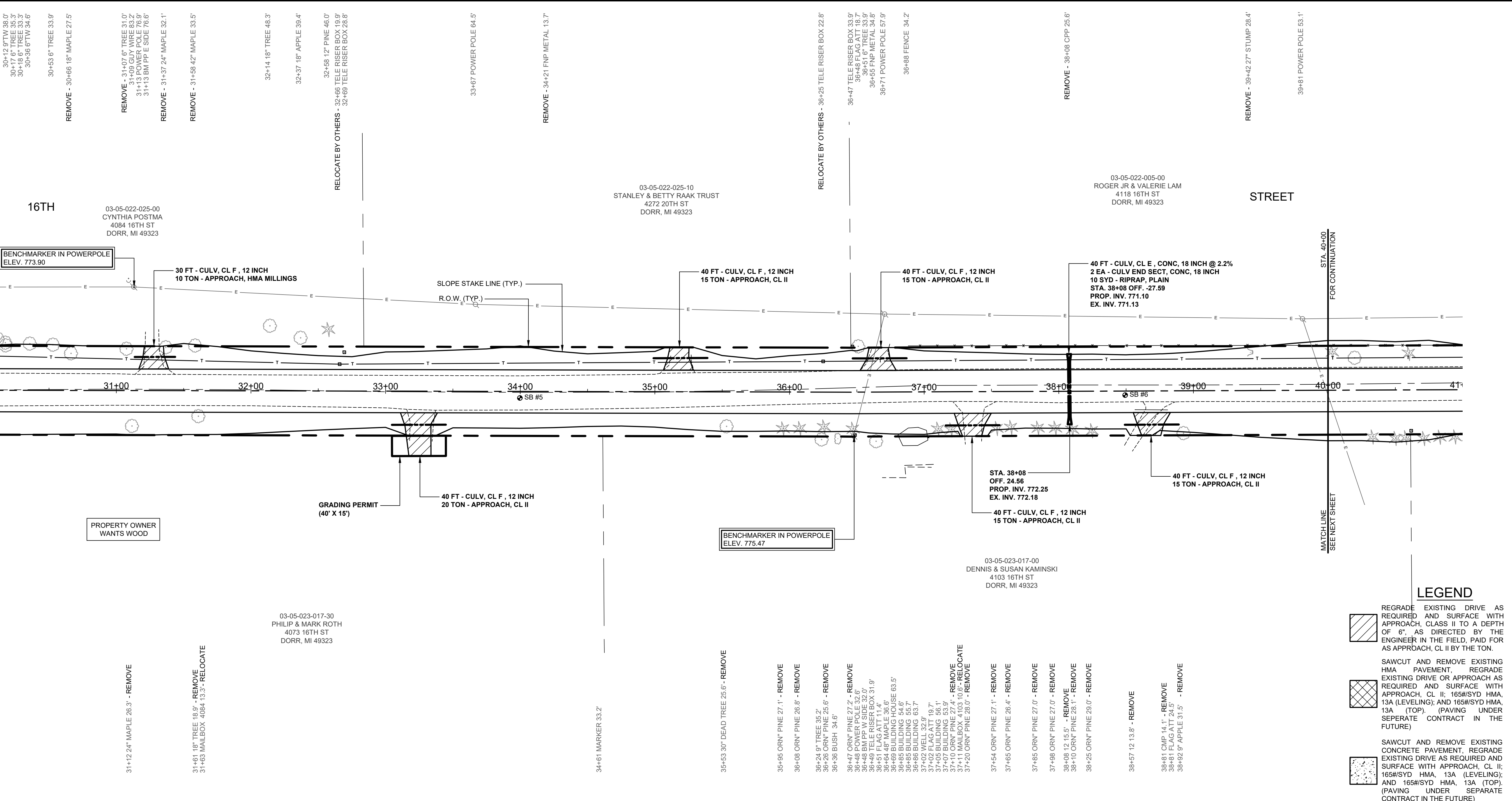
PLAN & PROFILE - STA. 20+00 TO STA. 30+00

DRAWN BY: _____
REVIEWED BY: RPB
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SB #5	SOIL BORINGS
0 - 13"	BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL
13" - 24"	DARK BROWN MED TO COARSE SAND
24" - 32"	DARK BROWN MED SAND
32" - 42"	DARK GRAY VERY SANDY CLAY
42" - 60"	BROWN VERY SANDY CLAY
60"	END OF BORING

SB #6	SOIL BORINGS
0 - 17"	BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL
17" - 26"	DARK BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL
26" - 36"	DARK BROWN SANDY CLAY TRACES OF GRAVEL
36" - 60"	BROWN SANDY CLAY
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) (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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16TH STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE
PLAN & PROFILE - STA. 30+00 TO STA. 40+00

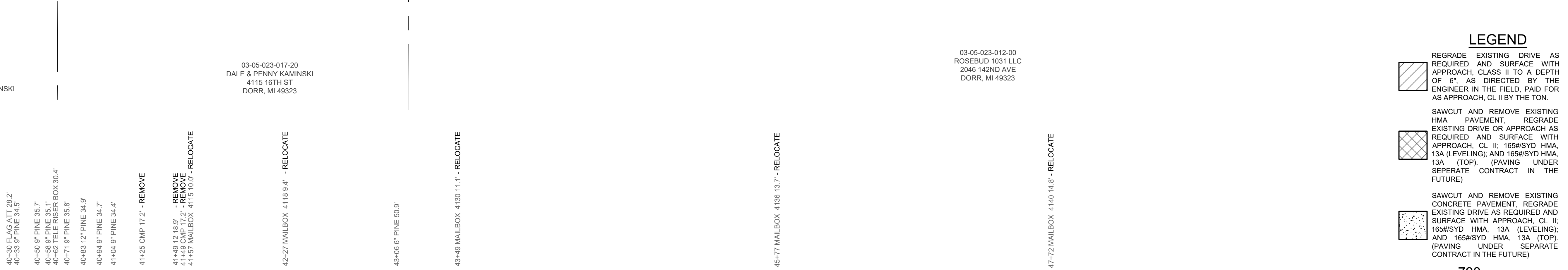
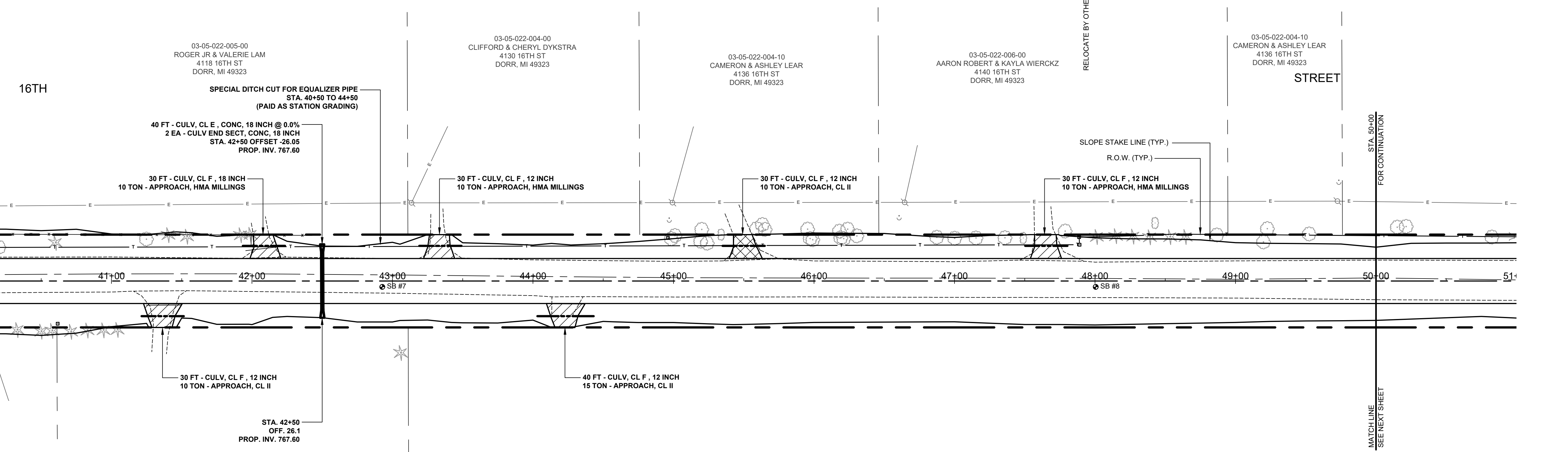
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SCALE: 1"= 40'H, 5'V

LH 400034 5

SB #7	SOIL BORINGS
0 - 12"	BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL
12" - 22"	BROWN MED TO COARSE SAND
22" - 60"	DARK BROWN COARSE SAND AND FINE TO COARSE GRAVEL
60"	END OF BORING

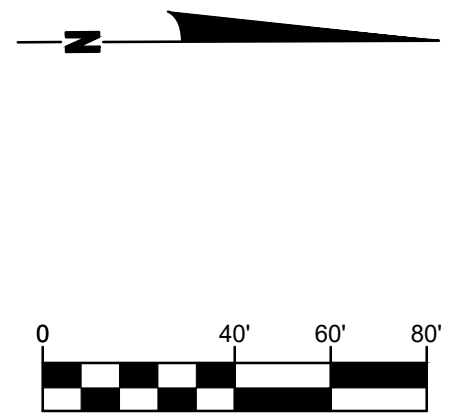
SB #8	SOIL BORINGS
0 - 5"	BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL
5" - 78"	BROWN SLIGHTLY SANDY CLAY TRACES FINE GRAVEL
78" - 120"	BROWN SANDY SILTY CLAY
120"	END OF BORING

REMOVE -40+03.12' PINE 28.7'
REMOVE -40+20.27' MAPLE 24.0'
REMOVE -40+60.6' PINE 27.4'
REMOVE -41+25.15' MAPLE 28.8'
REMOVE -41+41.12' PINE 33.0'
REMOVE -41+54.12' PINE 31.8'
REMOVE -41+62.15' PINE 32.8'
REMOVE -41+66.12' PINE 33.2'
RELOCATE -41+68' FENCE 32.0'
RELOCATE -42+14' FENCE 32.6'
REMOVE -42+19' CMP 24.4'
RELOCATE -42+43' FENCE 32.4'
43+14' POWER POLE 55.6'
43+24' SIGN, 4130 23.2'
REMOVE -43+25' SIGN, 4130 27.3'
44+96' TELE RISER BOX 30.9'
REMOVE -44+98.9' MAPLE 30.0'
REMOVE -44+99' POWER POLE 55.7'
REMOVE -45+18.6' MAPLE 28.5'
REMOVE -45+20.9' MAPLE 36.7'
REMOVE -45+34' BUSH 33.0'
REMOVE -45+36' SIGN, 4136 27.6'
45+37' SIGN, 4136 33.6'
45+59.12' MAPLE 37.1'
45+59.16' MAPLE 40.1'
45+66.6' MAPLE 36.0'
REMOVE -45+69.6' TREE 36.5'
REMOVE -45+69.6' TREE 29.3'
REMOVE -46+18.6' TREE 35.4'
REMOVE -46+21.6' TREE 30.1'
REMOVE -46+24.6' TREE 36.6'
REMOVE -46+30.36' TREE 32.1'
46+61' GUY WIRE 46.4'
46+65' POWER POLE 55.9'
REMOVE -46+87.30' TREE 31.1'
REMOVE -47+00.21' TREE 30.3'
REMOVE -47+15.30' TREE 30.6'
REMOVE -47+38.27' TREE 30.7'
REMOVE -47+48' BUSH 30.6'
47+79.15' TW 35.5'
47+89' TELE RISER BOX 31.2'
REMOVE -48+01' ORN' PINE 31.7'
REMOVE -48+15' ORN' PINE 32.2'
48+25' FLAG ATT 32.1'
REMOVE -48+39' ORN' PINE 31.4'
48+43' BUSH 41.3'
REMOVE -48+54' ORN' PINE 31.6'
REMOVE -48+65' ORN' PINE 31.7'
REMOVE -48+87.18' TREE 32.7'
REMOVE -49+30.8' TREE 27.6'
49+23.8' TREE 37.2'
49+52.6' TREE 33.4'
49+73' POWER POLE 56.8'
49+74' GUY WIRE 71.6'



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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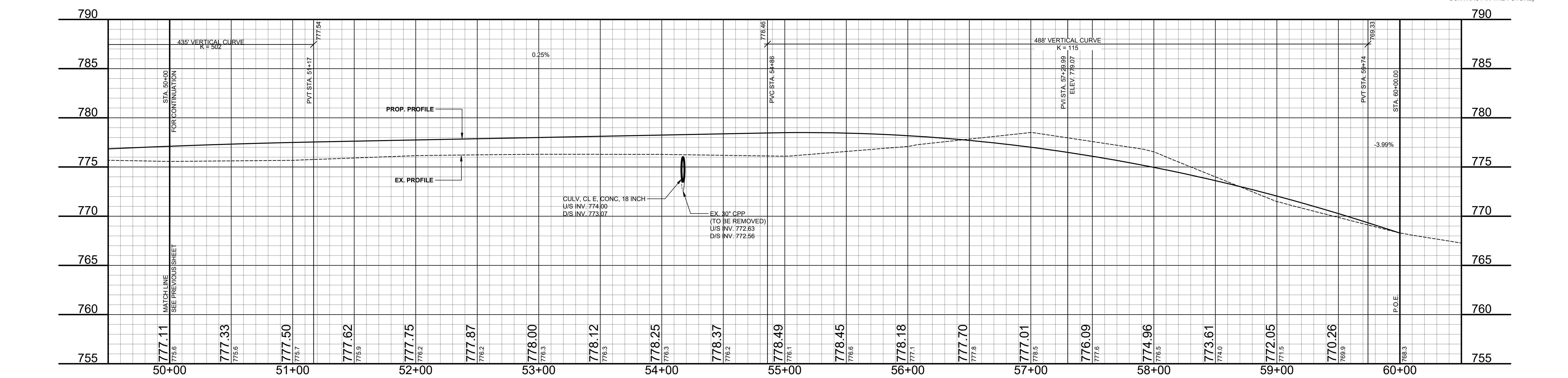
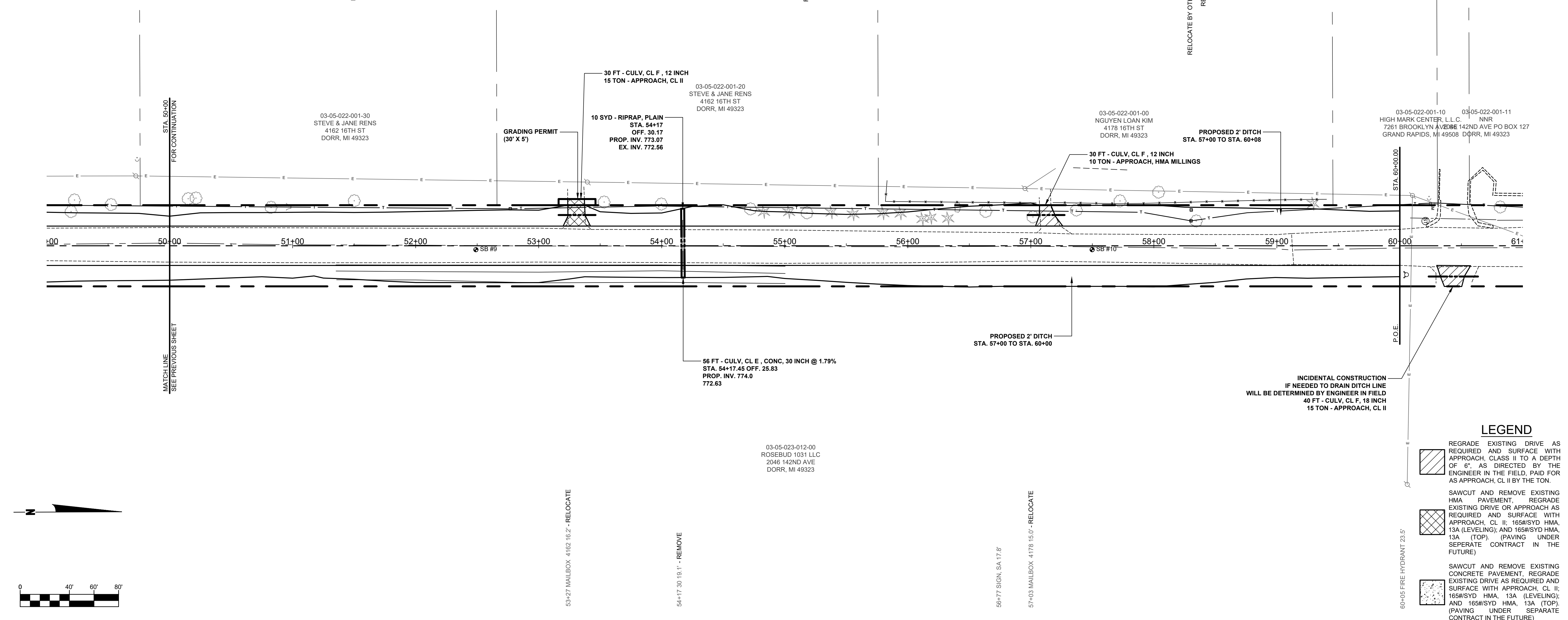
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DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE
PLAN & PROFILE - STA. 40+00 TO STA. 50+00

DRAWN BY:
REVIEWED BY: RPB
DATE: FEBRUARY, 2022
SCALE: 1"= 40'H, 5'V

LH 400034 6

SOIL BORINGS	
SB #9	0 - 16" BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL 16" - 60" BROWN SLIGHTLY SANDY CLAY TRACES OF FINE GRAVEL 60" END OF BORING
SB #10	0 - 7" BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL 7" - 18" BROWN FINE TO MED SAND 18" - 120" BROWN CLAY WITH TRACES OF COARSE GRAVEL 120" 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) (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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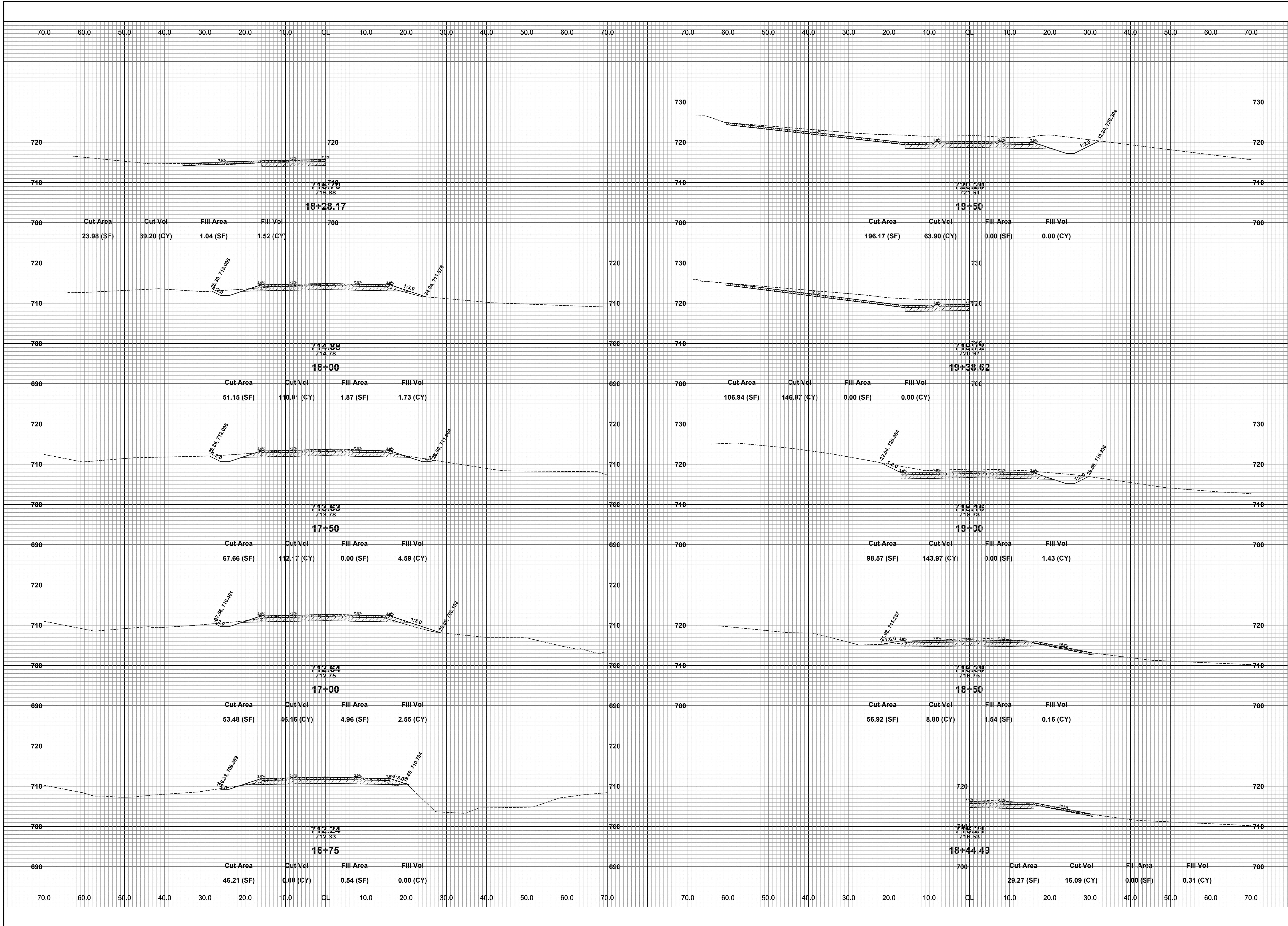
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DATE: FEBRUARY, 2022
SCALE: 1"= 40'H, 5V

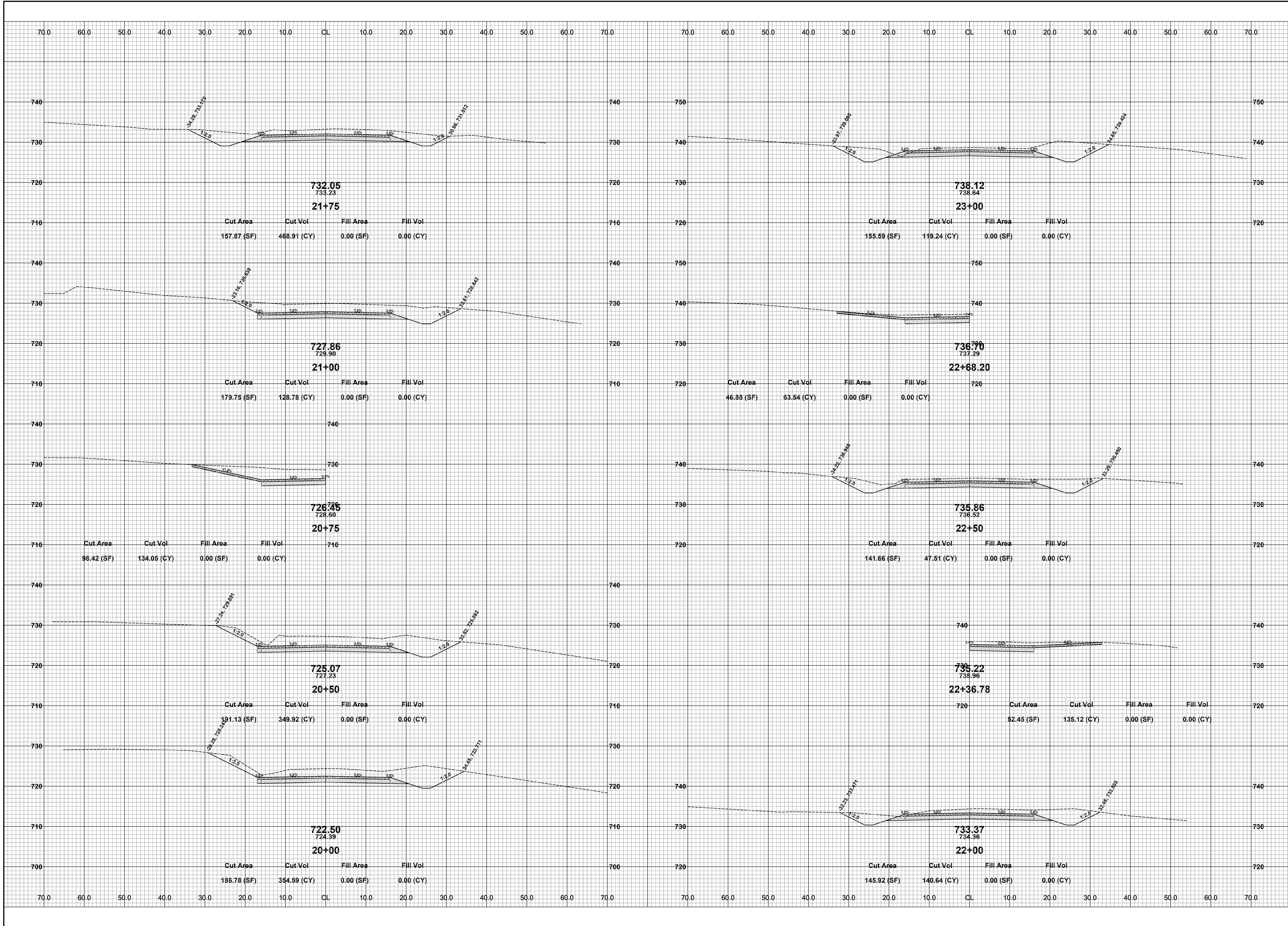
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16TH STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE
CROSS SECTIONS - P.O.B. TO STA. 19+50

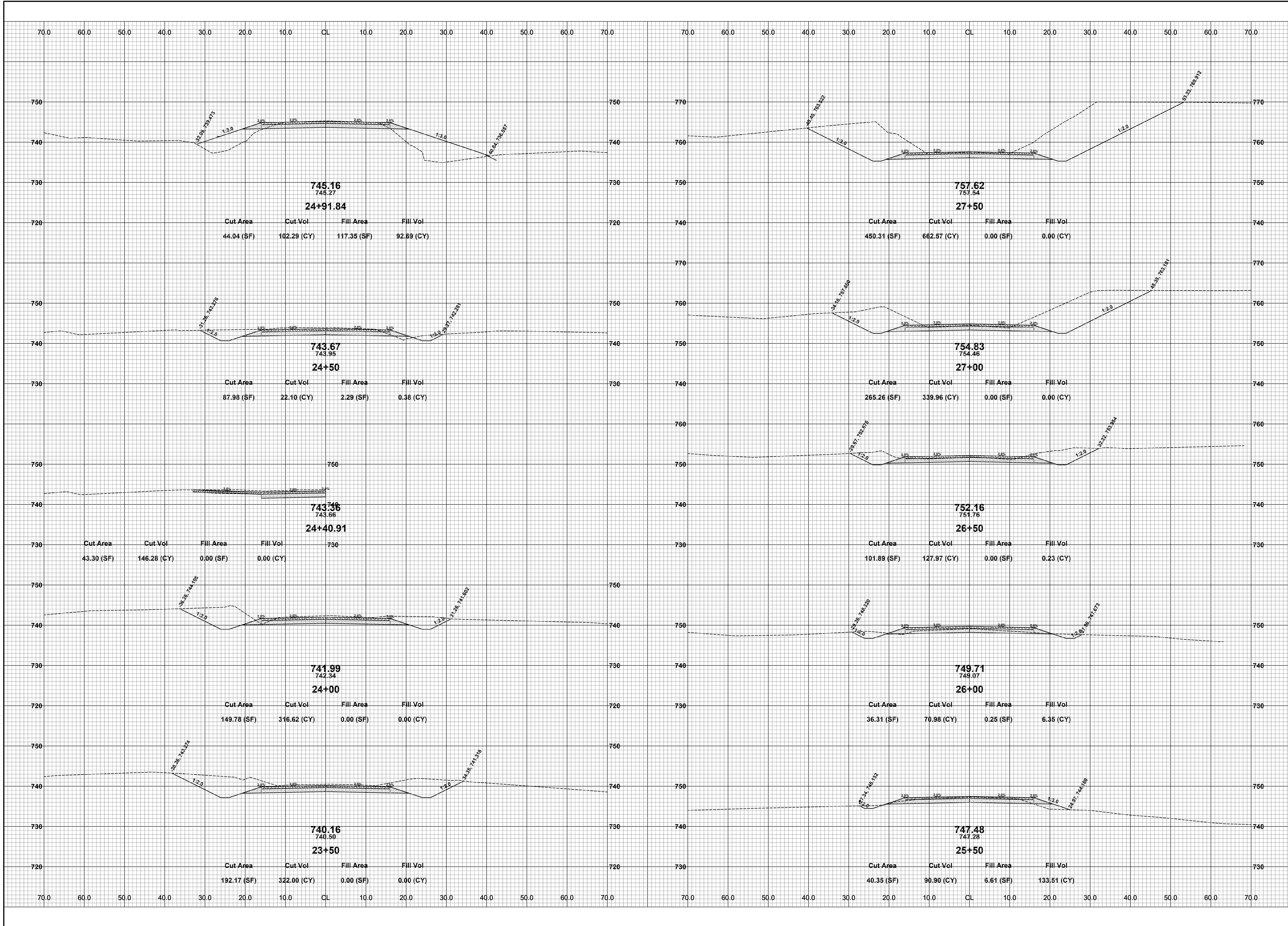
DRAWN BY:
REVIEWED BY: RPB
DATE: MARCH, 2022
SCALE: 1"= 10'



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16TH STREET RECONSTRUCTION PROJECT
 DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE
 CROSS SECTIONS - STA. 20+00 TO STA. 23+00

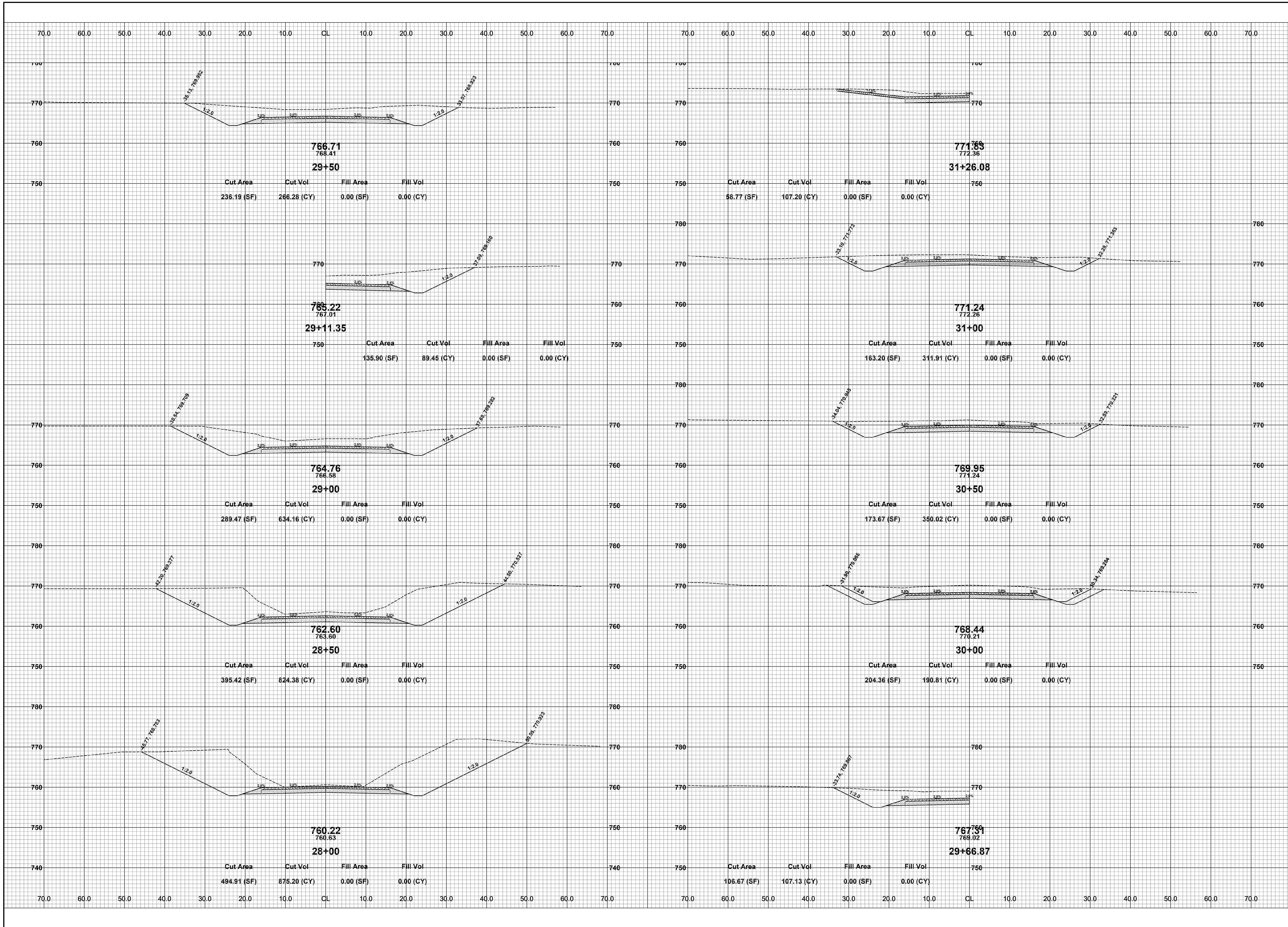
DRAWN BY:
 REVIEWED BY: RPB
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 SCALE: 1"= 10'



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16TH STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE
CROSS SECTIONS - STA. 23+50 TO STA. 27+50

DRAWN BY:
REVIEWED BY: RPB
DATE: MARCH, 2022
SCALE: 1"= 10'



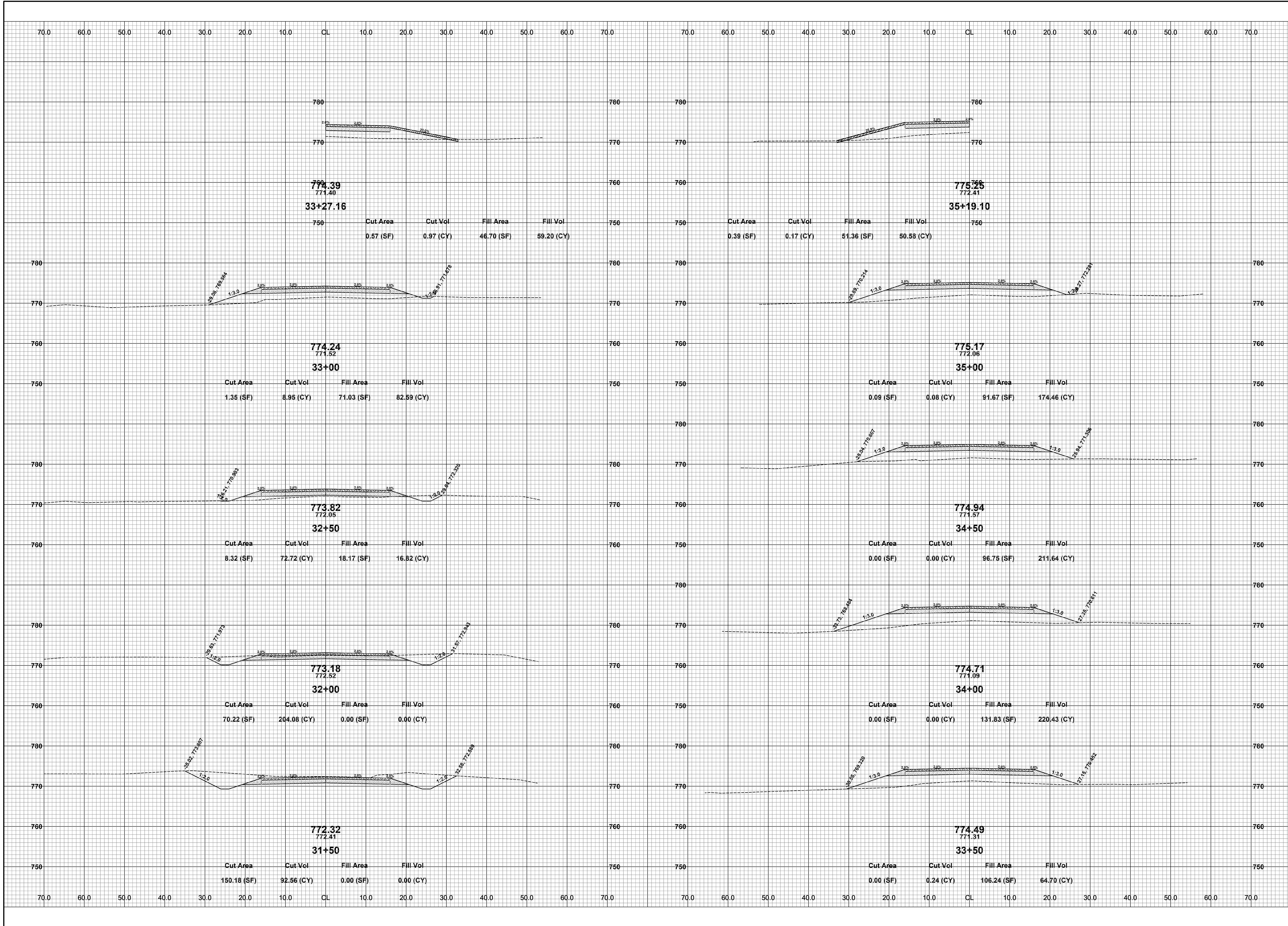
**Board of County Road Commissioners
 Of Allegan County**
 1308 LINCOLN ROAD
 ALLEGAN, MICHIGAN 49010-9762
 TELEPHONE (269) 673-2184 www.alleganroads.org FAX (269) 673-5922

REVISIONS

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16TH STREET RECONSTRUCTION PROJECT
 DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE
 CROSS SECTIONS - STA. 28+00 TO STA. 31+26.08

DRAWN BY:
 REVIEWED BY: RPB
 DATE: MARCH, 2022
 SCALE: 1"= 10'

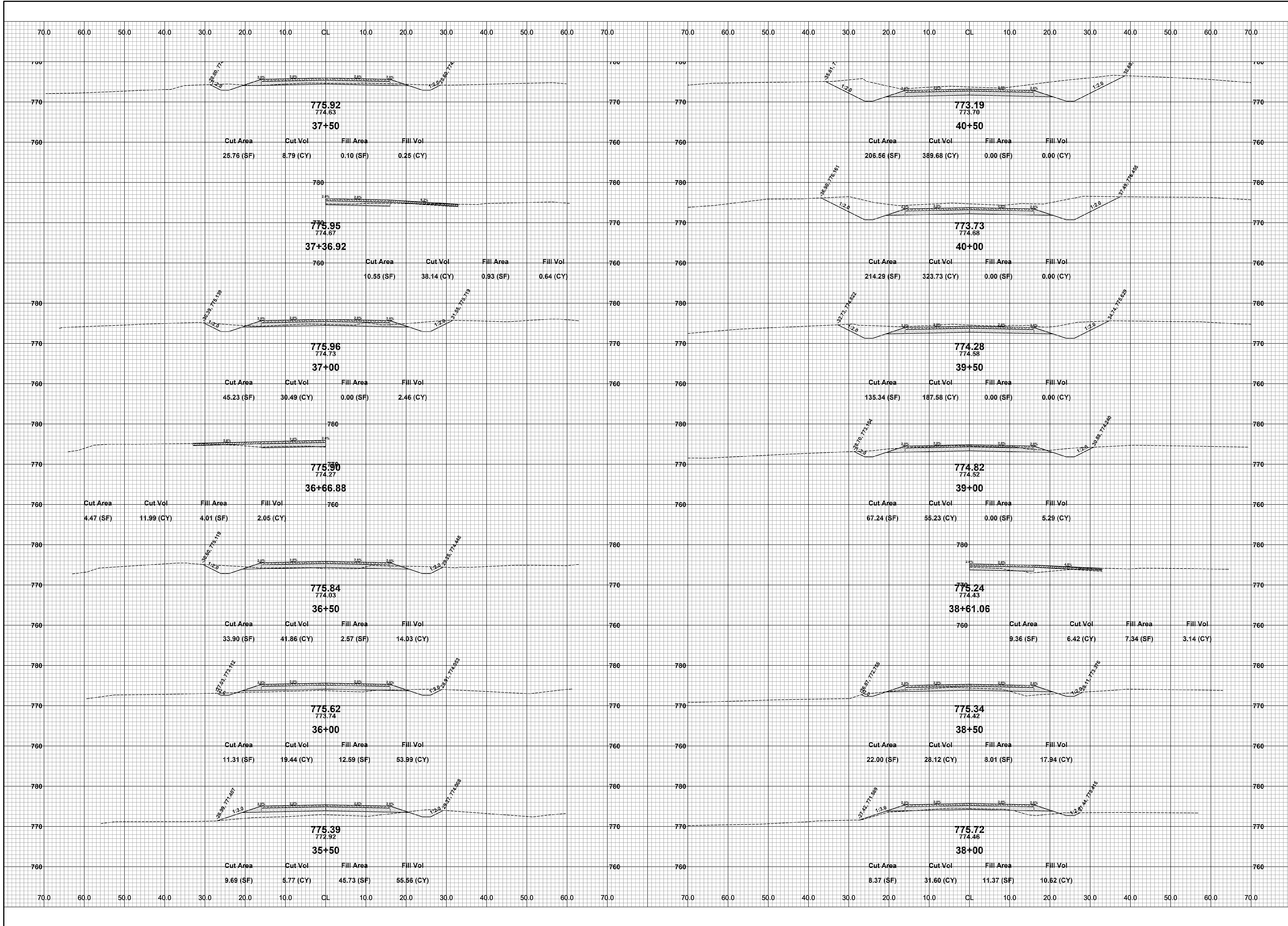


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16TH STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE
CROSS SECTIONS - STA. 31+50 TO STA. 35+19.10

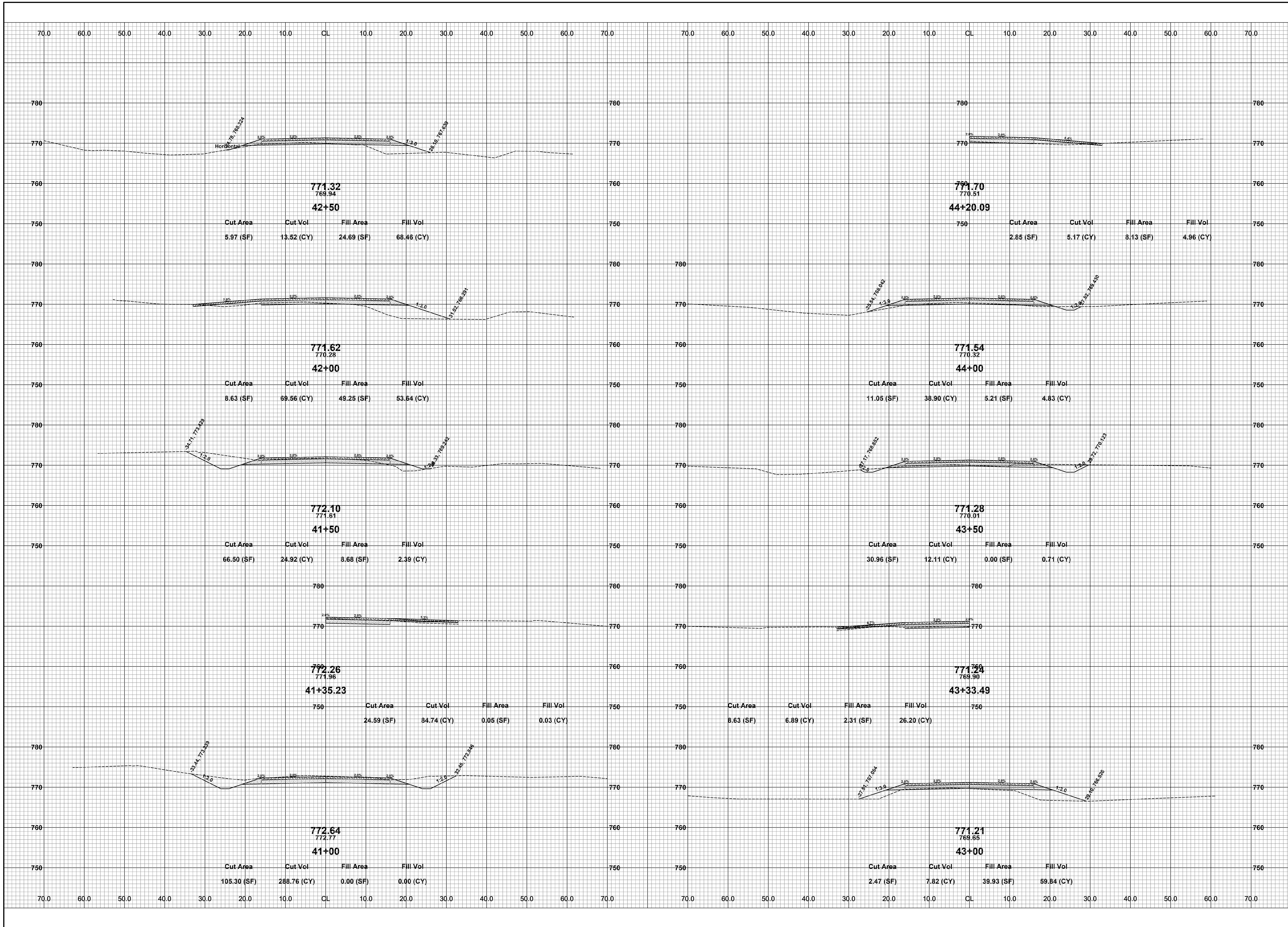
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SCALE: 1"= 10'



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16TH STREET RECONSTRUCTION PROJECT
 DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE
 CROSS SECTIONS - STA. 35+50 TO STA. 40+50

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 DATE: MARCH, 2022
 SCALE: 1"= 10'

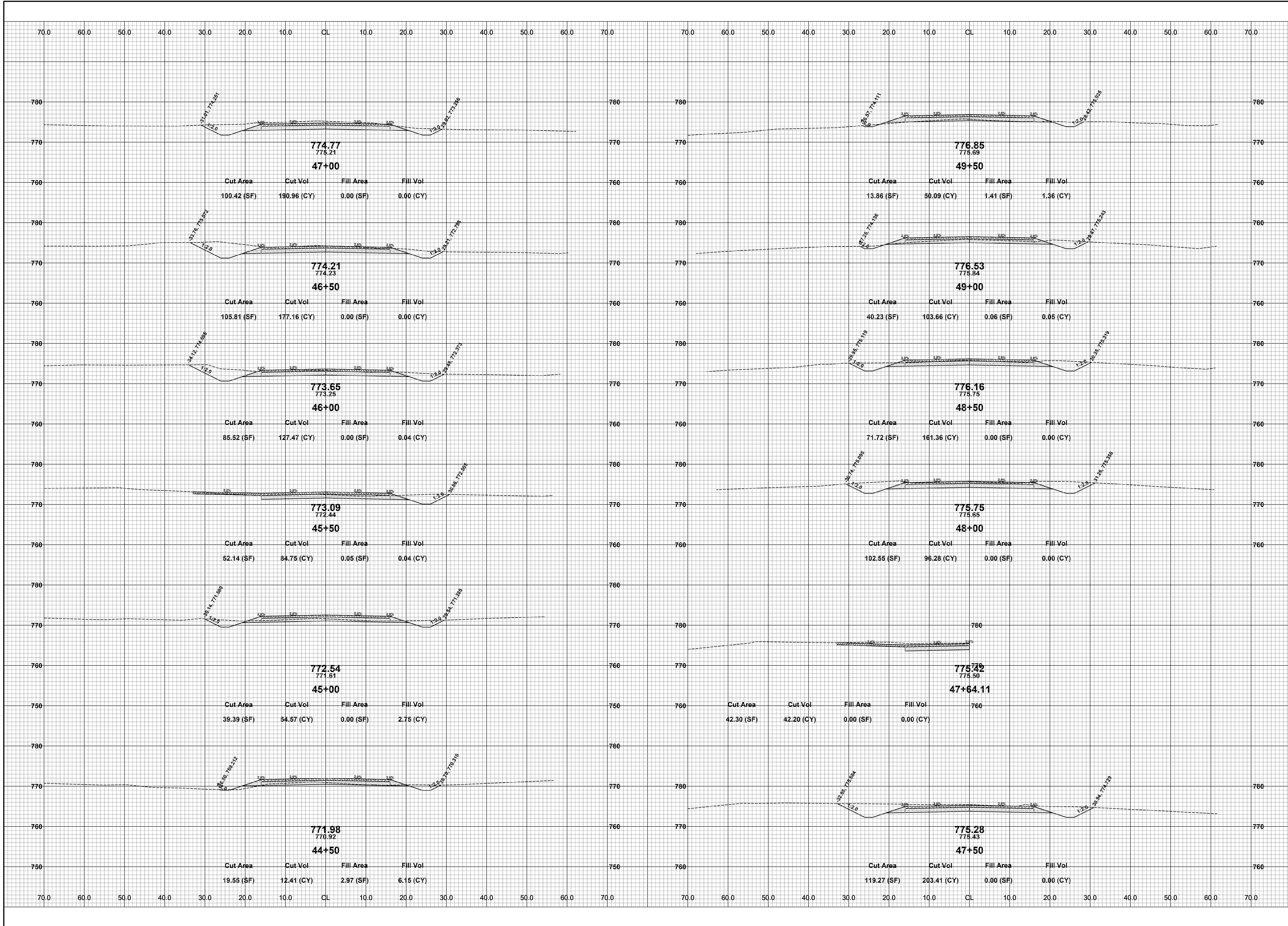


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16TH STREET RECONSTRUCTION PROJECT
 DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE
 CROSS SECTIONS - STA. 41+00 TO STA. 44+20.09

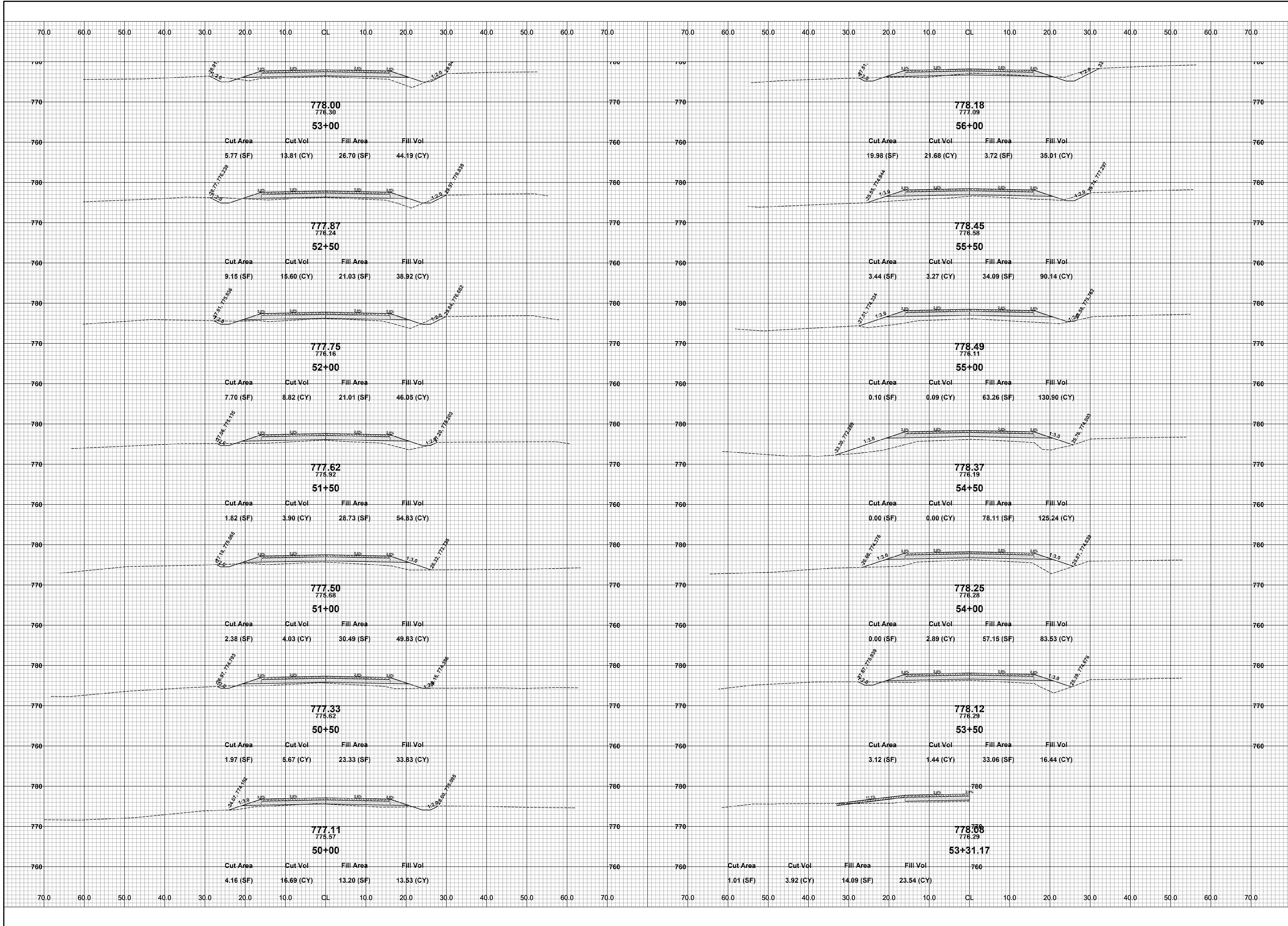
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16TH STREET RECONSTRUCTION PROJECT
 DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE
 CROSS SECTIONS - STA. 44+50 TO STA. 49+50

DRAWN BY:
 REVIEWED BY: RPB
 DATE: MARCH, 2022
 SCALE: 1" = 10'



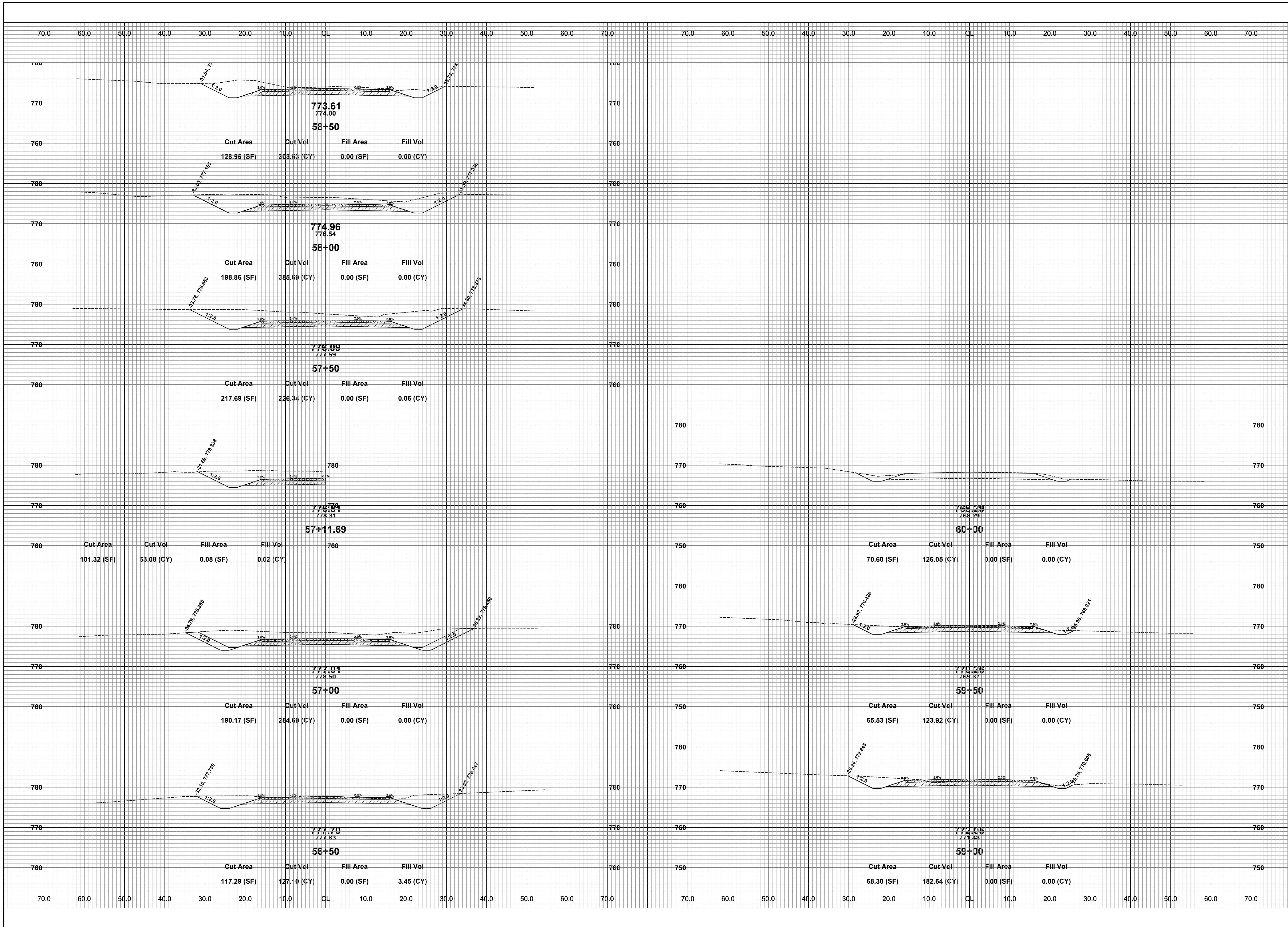
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16TH STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE
CROSS SECTIONS - STA. 50+00 TO STA. 56+00

DRAWN BY:
REVIEWED BY: RPB
DATE: MARCH, 2022
SCALE: 1"= 10'

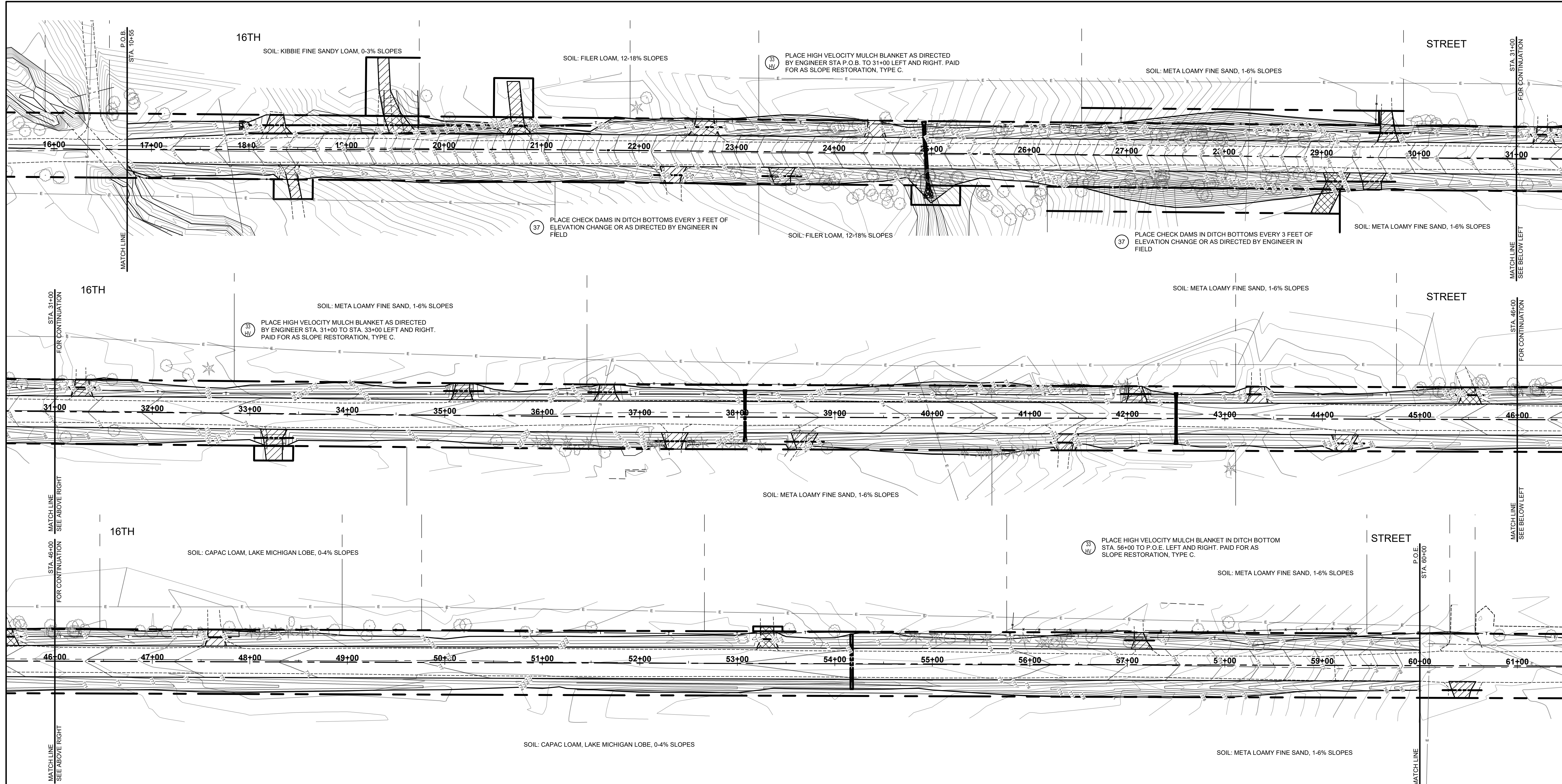


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16TH STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE
CROSS SECTIONS - STA. 58+50 TO P.O.E.

DRAWN BY:
REVIEWED BY: RPB
DATE: MARCH, 2022
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 SODDING 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.
- ALL DISTURBED AREAS NOT PAVED OR GRAVELED SHALL BE RESTORED UNDER THE PAY ITEM SLOPE RESTORATION TYPE A. THIS PAY ITEM INCLUDES PLACING MDOT 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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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16TH STREET RECONSTRUCTION PROJECT
DORR TOWNSHIP - 140TH AVENUE TO 142ND AVENUE
SOIL EROSION & SEDIMENTATION CONTROL PLAN P.O.B. TO P.O.E.

DRAWN BY:
REVIEWED BY: RPB
DATE: FEBRUARY, 2022
SCALE: 1" = 50'