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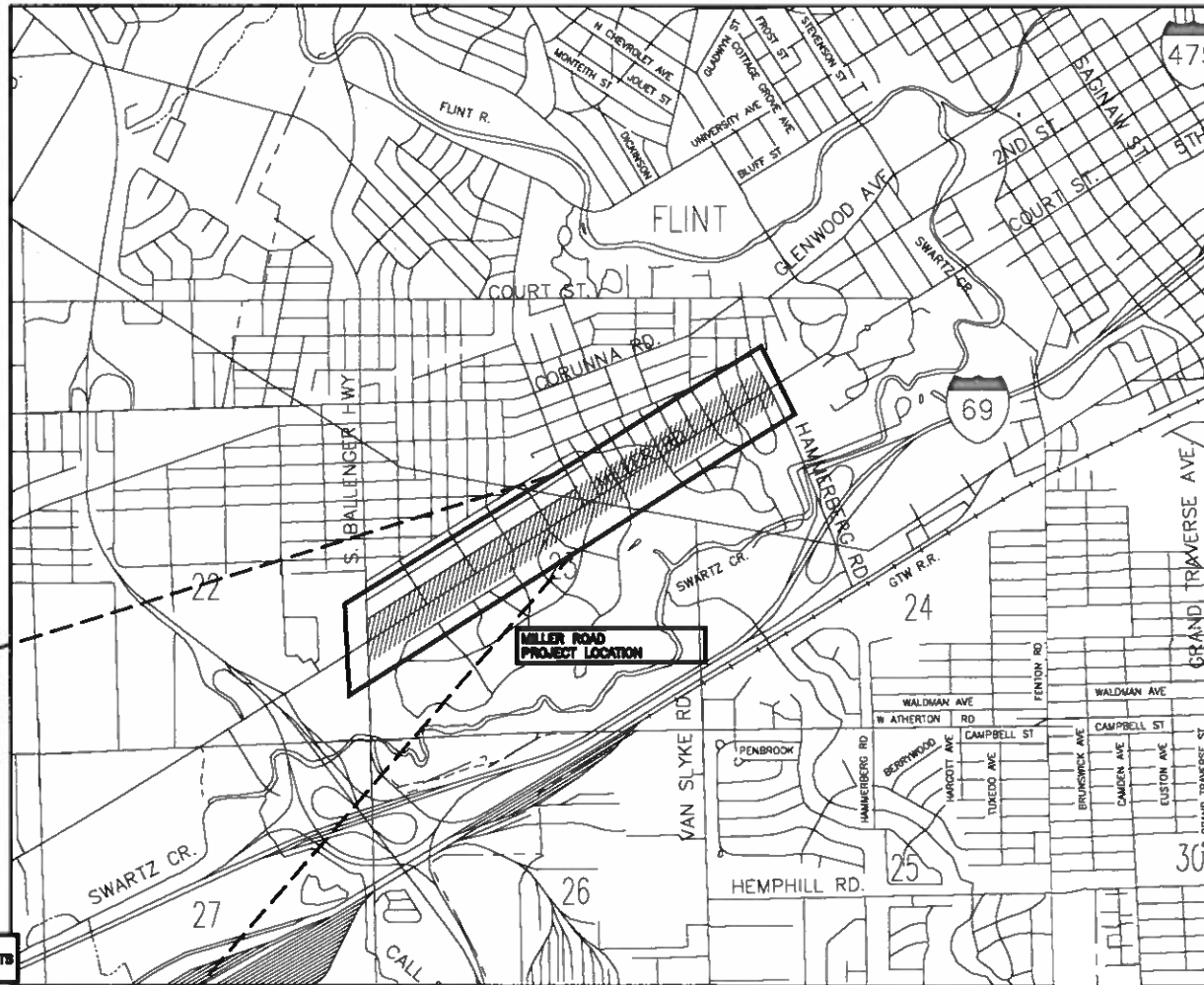
THE CITY OF FLINT
IN COOPERATION WITH THE
MICHIGAN DEPARTMENT OF TRANSPORTATION
AND FEDERAL HIGHWAY ADMINISTRATION
PLAN AND PROFILE OF PROPOSED
MILLER ROAD

CITY OF FLINT, GENESEE COUNTY, MICHIGAN
JOB NUMBER: 207665 CONTROL SECTION: 25000

THE DESIGN OF THIS ROAD IS BASED ON FEDERAL JR. GUIDELINES AND MDOT ROAD DESIGN MANUAL, NON-FREEMAN. THE CONSTRUCTION OF THIS ROAD SHALL BE PER THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2012 EDITION, AS AMENDED AND ANY SUPPLEMENTAL SPECIFICATIONS ISSUED IN THE PROJECT PROPOSAL. THE PLACEMENT OF PAVEMENT MARKINGS AND SIGNS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2011 EDITION, AS AMENDED.



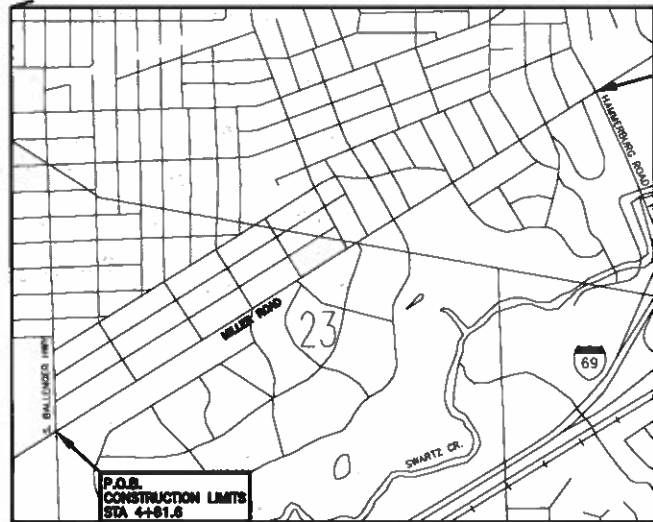
TRAFFIC DATA	
	ROBERT T. LONGWAY
POSTED SPEED	35 MPH
DESIGN SPEED (2021)	35 MPH
AVERAGE DAILY TRAFFIC (2021)	7623
% COMMERCIAL VEHICLES (2021 AND 2041)	5%
GROWTH FACTOR (2041)	1%
AVERAGE DAILY TRAFFIC (2041)	9301
% COMMERCIAL VEHICLES (2041)	5%



LOCATION MAP
1"=1/4 MILE

UTILITIES & MUNICIPALITIES

TELEPHONE AT&T ENGINEERING 54 NORTH MILL STREET, P.O. BOX 32 PONTIAC, MICHIGAN 48342 CONTACT: JEFF HEATH PHONE: 313.263.9939	CITY OF FLINT 1101 SOUTH SAGINAW STREET TRANSPORTATION (SOUTH) BUILDING FLINT, MI 48502 CONTACT: JOHN DALY, DIRECTOR PHONE: 810.786.7135
TELECOM COMLINK 1515 TURF LANE EAST LANSING, MI 48823 CONTACT: ZACK BOLLINGER PHONE: 517.742.4020	CITY OF FLINT WATER SERVICE CENTER 3310 EAST COURT STREET FLINT, MICHIGAN 48506 PHONE: 810.786.7202
ELECTRIC CONSUMERS ENERGY - ELECTRIC 3201 EAST COURT STREET FLINT, MICHIGAN 48501 CONTACT: TRACY MAHAR PHONE: 810.780.3506	CITY OF FLINT 1101 SOUTH SAGINAW STREET TRANSPORTATION (SOUTH) BUILDING FLINT, MI 48502 CONTACT: ROD McGAHA PHONE: 810.786.7135
GAS CONSUMERS ENERGY 3201 EAST COURT STREET FLINT, MICHIGAN 48501 CONTACT: MATT COX PHONE: 810.780.3486	CITY OF FLINT 1101 SOUTH SAGINAW STREET TRANSPORTATION (SOUTH) BUILDING FLINT, MI 48502 CONTACT: MARK ADAS PHONE: 810.786.7135



MILLER ROAD
1"=500 FEET

1.4 MILES OF RESURFACING OF EXISTING HMA PAVEMENT. INCLUDES CURB AND GUTTER REPLACEMENTS, PAVEMENT REPAIR, ADA RAMPS, DRAINAGE IMPROVEMENTS, PERMANENT SIGNING AND PAVEMENT MARKINGS.

JOB NO. 207665 SHEET 1 OF 41

SPALDING DeDECKER Engineering and Surveying Excellence Since 1954
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PREPARED UNDER THE SUPERVISION OF:
ARIANA JO JESKE
ENGINEER
No. 6201056798
05/19/2021
ARIANA JO JESKE, P.E., REG. NO. 6201056798

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL MARK L800,482,777 OR 811 OR 800 TO UNDETECTING A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING ANY OTHER SIGN LOCATION AND 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 "811 OR 800" ALERT SYSTEM.

2. IT IS THE INTENT THAT ALL GOVERNMENT CONCERNS ON THIS PROJECT BE PRESENTED AND THAT, WHERE NECESSARY, MOVEMENT BODIES BE PLACED OR ADJUSTED, WHETHER SHOWN OR NOT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING STAKES AND/OR FLAGGERS AT EACH PROPERTY BOUND TO ENSURE THAT THEY ARE NOT IMPAIRED OR DISPLACED DURING CONSTRUCTION OPERATIONS. IF PROPERTY BOUND ARE REMOVED OR DISPLACED DUE TO THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF THESE MARKS, WITH AN APPROVED LICENSED SURVEYOR ASSESSED IN THE STATE OF MICHIGAN, AT HIS OWN COST.

3. CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES, UNDERGROUNDS, AND EXISTING SANITARY OR STORM SEWERS, AND MARKED UNDER, STORM AND SANITARY LINES DURING CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COLLISION BETWEEN PLACING PROPOSED UTILITIES OR OTHER EXCAVATIONS BASED ARE FOUND TO BE IN CONFLICT, LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES IN THE PLANS ARE SHOWN BASED ON THE BEST INFORMATION MADE AVAILABLE TO THE ENGINEER. THE ENGINEER MAKES NO REPRESENTATION AS TO THE ACCURACY OF LOCATIONS SHOWN FOR UTILITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY COORDINATION WITH UTILITY OWNERS AND TO LOCATE ALL UTILITIES (HORIZONTAL AND VERTICAL) INCLUDING SERVICE LEADS PRIOR TO PERFORMING WORK EFFECTING MAJOR UTILITIES AND SERVICE LEADS (INCLUDING SERVICE LEADS TO PUBLIC WATER, STORM AND SANITARY SYSTEMS) AND TO PERFORM THE WORK IN A MANNER THAT DOES NOT HARM OR OBSTRUCT THE UTILITIES OR SERVICE LEADS. ALL COSTS TO PROTECT, REPAIR, OR TEMPORARILY DIVERT THEM RESTORE (TO THE SATISFACTION OF UTILITY OWNERS AND THE ENGINEER) UTILITIES AND SERVICE LEADS SHALL BE BORNE SOLELY BY THE CONTRACTOR.

4. CONTRACTOR IS RESPONSIBLE FOR METHODS TO PERFORM THE WORK EFFECTED BY EXISTING UTILITIES INCLUDING EXISTING PHONE CABLE DUCTS, CONDUITS, GAS LINES AND ALL OTHER UNDERGROUND STRUCTURES AND UTILITIES ENCOUNTERED. THE COSTS TO PERFORM THIS WORK WHICH MAY INCLUDE SHIELDING, TIE BORING, TUNNELING OR JACKETING PIPE AND DETERMINING SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES OF DRAINAGE AND UNDERPAVEMENT PAVEMENTS.

5. THE SOIL BORING AND PAVEMENT CORE LOSS RECORDS POINT INFORMATION, PRESENTATION OF THIS INFORMATION IN NO WAY IMPLIES THAT SUBSURFACE AND PAVEMENT CONDITIONS ARE THE SAME OTHER THAN THE EXACT LOCATION OF THE BORINGS AND CORES. REFER TO THE PLANS OR PROPOSAL FOR LOG OF BORINGS, IF PROVIDED.

SUBMITTAL OF THEIR BID SHALL BE CONSIDERED PRIMA FACIE EVIDENCE THAT BIDDERS (AND PROSPECTIVE SUB CONTRACTORS) HAVE PERFORMED SITE INVESTIGATIONS AND OTHERWISE INVESTIGATED THE EXISTING SURFACE AND SUBSURFACE CONDITIONS, INCLUDING REVIEW OF BORING LOGS WHICH MAY BE INCLUDED IN THE PLANS OR PROPOSAL, TO THE BIDDERS' SATISFACTION, AND HAS INCLUDED ALL COSTS RELATED TO SURFACE AND SUBSURFACE CONDITIONS IN THE CONTRACT UNIT PRICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES AND SANITARY SYSTEMS DUE TO SURFACE OR SUBSURFACE CONDITIONS SHALL NOT BE CONSIDERED AS A BASIS OF CLAIM BY THE CONTRACTOR FOR ADDITIONAL COMPENSATION OR CONTRACT BIE. ALL DETERMINING OF INTERFENCES OR GRADE BY ANY MEANS SHALL BE CONSIDERED TO HAVE BEEN INCLUDED IN THE CONTRACT UNIT PRICES OF EFFECTED CONTRACT PAVEMENT.

6. ELEVATIONS SHOWN ON THESE PLANS ARE FROM NAVD83 DATUM.

7. PRE-CAST STRUCTURES MAY BE UTILIZED AS APPROVED BY THE ENGINEER. HOWEVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN PRIOR HOLE ORIENTATION PRIOR TO ORDERING PRE-CAST STRUCTURE COMPONENTS. ALL COSTS TO REPLACE PRE-CAST STRUCTURE COMPONENTS THAT CAN NOT BE FIELD FIT SHALL BE BORNE SOLELY BY THE CONTRACTOR.

8. CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS FOR ANY NECESSARY ADJUSTMENTS TO THEIR UTILITIES. CONSIDERS EXISTING POWER/HAZARD POLES AND AIR/UTILITY/HAZARD POLES TO BE RELOCATED BY UTILITY OWNERS ONLY. PRIVATELY OWNED PUBLIC UTILITIES (INCLUDING AT-RISK AND CONSUMERS ENERGY) SPECIFIED FOR RELOCATION MAY OR MAY NOT BE RELOCATED PER PLAN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS WORK WITH THE UTILITY COMPANY AND SCHEDULE HIS WORK IN ACCORDANCE WITH THE UTILITY COMPANY'S SCHEDULE. THE CONTRACTOR SHALL BID AND PLAN THE WORK ACCORDINGLY.

9. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO KEEP CONSTRUCTION DEBRIS FROM ENTERING ANY UTILITY STRUCTURE. CONSTRUCTION DEBRIS WHICH ENTERS ANY UTILITY STRUCTURE OR SPILLED ON THE HIGH ROAD SHALL BE CLEANED UP (INCLUDING HIGHWAY TRUCK STRUCTURE CLEANUP) BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

10. SUBGRADE UNDERCUTTING WILL BE PAID FOR SEPARATELY. SUBGRADE UNDERCUTTING QUANTITIES SHOWN ON THESE PLANS OR IN THE PROPOSAL REPRESENT QUANTITIES FOR ESTIMATING PURPOSES ONLY. ACTUAL LIMITS OF SUBGRADE UNDERCUTTING WILL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION. IF REQUIRED, REMOVAL OF HAIL AND CONCRETE DRIVES, IRRESPECTLESS OF THICKNESS OR MATERIAL COMPOSITION, INCLUDING CALCULATING OR MILLING AS DIRECTED BY THE ENGINEER, SHALL BE INCLUDED IN PAVEMENT PAVE, AND MODIFIED.

ALL EXCESS EXCAVATED MATERIALS SHALL BE THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR AT AN APPROVED LOCATION PROVIDED BY THE CONTRACTOR, WITH WRITTEN PERMISSION OF THE PROPERTY OWNER THEREIN NOT GRANTED BY THE CONTRACTOR.

11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR COORDINATION WITH CITY DATABASE COLLECTION (CONTRACT 0157750000). THIS ARRANGEMENT AND COORDINATION MAY REQUIRE EFFORT, TIME AND COSTS TO THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTIMATING THE COSTS AND SCHEDULE FOR COORDINATION AND COSTS TO THE CONTRACTOR FOR DATABASE COLLECTION SHALL NOT BE CONSIDERED AS A BASIS OF CLAIMS FOR ADDITIONAL COMPENSATION OR EXTENSION OF CONTRACT TIME.

12. ALL UNDERGROUNDS SHALL BE CONSIDERED AS COMPLETE UNITS AND THEIR GRADES DETERMINED BEFORE CONSTRUCTION. CLOSURES OF INTERSECTIONS AND ANY TRAFFIC CLOSURES SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE CITY OF ANN ARBOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS PRIOR TO THE BEGINNING OF WORK. TRAFFIC CONTROL DEVICES, SIGNS AND TRAFFIC CONTROL DEVICES PROPOSED, WITH DETOUR ROUTES AND TRAFFIC SENSITIVITY CLEARLY DETICED ON DETAIL DRAWINGS, SHALL BE SUBMITTED FOR REVIEW AND APPROVAL. NO SIGNS OR TRAFFIC DEVICES FOR THIS TRAFFIC CONTROL, MAY BE PLACED WITHOUT WRITTEN APPROVAL. NOTIFICATION TO POLICE, EMERGENCY SERVICES, PUBLIC BUSING AND OTHERS WILL BE BY THE CITY. COSTS TO THE CONTRACTOR FOR TRAFFIC CONTROL, COORDINATION SHALL NOT BE CONSIDERED AS A BASIS OF CLAIMS FOR ADDITIONAL COMPENSATION OR EXTENSION OF CONTRACT TIME.

13. WHERE TREES WITHIN THE RIGHT-OF-WAY ARE NOT SPECIFIED FOR REMOVAL, IT IS INTENDED TO PROTECT THOSE TREES AND TO PERFORM THE WORK IN A MANNER WHICH PREVENTS DAMAGE TO THE TREES AND THEIR ROOTS. THE CONTRACTOR SHALL PROTECT TREES WITHIN THE RIGHT-OF-WAY NOT SPECIFIED FOR REMOVAL, AND SHALL INCLUDE ALL COSTS TO PROTECT THESE TREES IN THE CONTRACT UNIT PRICES OF EFFECTED PAVEMENT.

14. ALL REMOVED SIGNS AND POSTS SHALL REMAIN PROPERTY OF THE CITY. CONTRACTOR SHALL COORDINATE PICK UP OF ALL STOODLED SIGNS AND POSTS WITH CITY OF FLINT TRAFFIC ENGINEERING SUPERVISOR ROY MOGHA.

1. THE CONTRACTOR SHALL CONTROL DUST, CARRY OUT A PROGRAM OF DUST CONTROL, AND SHALL ALLOW NO ON-SITE BURNING, WITHOUT APPROVAL FROM THE LOCAL FIRE DEPARTMENT.
2. ALL WORK NECESSARY TO COMPLETE THIS PROJECT SHALL CONFORM TO ALL RELATED CITY CODES AND ORDINANCES.
3. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE GENESSEE COUNTY DRAIN COMMISSIONER, DIVISION OF SURFACE WATER MANAGEMENT (PHONE 810-728-1900) FOR SOIL EROSION & SEDIMENTATION CONTROL.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PROPERLY IDENTIFIED EXISTING WATER MAINS AND/OR EXISTING SEWERS DURING THE CONSTRUCTION OF THIS PROJECT.
5. THE LIMITS OF PAVEMENT REPAIR OR PAVEMENT REDRESSAL AS SHOWN ON THE PLANS ARE BASED ON A SITE REVIEW. THE ACTUAL LIMITS FOR REPLACEMENT WILL BE ESTABLISHED BY THE ENGINEER DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE PAVEMENT REDRESSAL OPERATIONS WITH THE ENGINEER PRIOR TO REPAIRING ANY PAVEMENT.
6. MAINTENANCE DRIVEWAY SHALL BE PLACED AS DIRECTED TO MAINTAIN ACCESS TO EX. DRIVEWAYS AS DIRECTED BY ENGINEER. THE COST IS CONSIDERED INCIDENTAL TO THE PROJECT.
7. ALL GOVERNMENT CORNERS ON THIS PROJECT SHALL BE PRESERVED. WHETHER SHOWN OR NOT, IT MAY BE NECESSARY TO PLACE OR ADJUST MONUMENT BORES, AS REQUIRED.
8. EARTHWORK QUANTITIES ARE COMPUTED BY THE AVERAGE END AREA METHOD BASED UPON GROUND SURVEY INFORMATION.
9. THE CONTRACTOR SHALL NOT PARK ANY VEHICLES OR STORE ANY EQUIPMENT ON PUBLIC RECREATIONAL PROPERTY. ACCESS TO THE RECREATIONAL PROPERTIES MUST ALSO BE MAINTAINED AT ALL TIMES. NON COMPLIANCE, EVEN WITHOUT THE KNOWLEDGE AND APPROVAL OF MOST PERSONNEL, COULD RESULT IN FINES/UP TO AND INCLUDING REMOVAL OF THE CONSTRUCTION CONTRACTOR AND LOSS OF FEDERAL FUNDING FOR THE PROJECT.
10. OWNERS OF EXISTING LAWN SPRINKLER SYSTEMS AND/OR LANDSCAPING SHALL BE NOTIFIED (IN WRITING WITH A COPY SENT TO THE ENGINEER) BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF ANY WORK TO BE DONE THAT WILL AFFECT THESE SYSTEMS AND/OR LANDSCAPING. IF THE PROPERTY OWNER FAILS TO RELOCATE THE LAWN SPRINKLER SYSTEM PRIOR TO THE CONTRACTOR BEGINNING WORK, AND IF THE CONTRACTOR CUTS THE SYSTEM DURING THE CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF THE PROPERTY OWNERS USE. IF THE CONTRACTOR SHALL PLACE THE SALINIZED SPRINKLER HEADS ON THE PROPERTY OWNERS PROPERTY IF THE PROPERTY OWNER FAILS TO RELOCATE THE LANDSCAPING PRIOR TO THE CONTRACTOR BEGINNING WORK, THE CONTRACTOR SHALL CONTINUALLY MAINTAIN THE LANDSCAPING TREES AND SHRUBS OVER ON THE PROPERTY OWNERS PROPERTY FOR THE PROPERTY OWNER. ANY OTHER MODIFICATION TO THE LAWN SPRINKLER SYSTEMS AND/OR LANDSCAPING, IS THE RESPONSIBILITY OF THE OWNER AND IS NOT PART OF THIS CONTRACT. THIS WORK IS INCLUDED IN OTHER ITEMS OF THE PROJECT.
11. THE CONTRACTOR SHALL PROVIDE THE PERMANENT TURF SEED MIXTURE ON THIS PROJECT SHALL BE 100%.

2. ALL ORDERS AND INSTRUCTIONS CONCERNING SMALL COUNTRY TO THE STANDARDS AND SPECIFICATIONS OF THE CITY OF PLANT AND ANNE HENDERSON COUNTY.

3. SMALL REPAIRING SHALL BE MADE BY THE CONTRACTOR TO CORRECT ANY DEFICIENCIES OF DESIGN AND CONSTRUCTION. CORRECTIVE REPAIRS SHALL BE COMPLETED WITHIN 10 BUSINESS DAYS OF NOTIFICATION.

4. GRASS AND ANY SEEDS FROM SEEDS OF THIS TYPE SHALL BE COVERED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY SIDEWALKS OR IN OTHER AREAS. THE SEEDS SHALL BE SOON REMOVED AND NOT ALLOWED TO COLLECT ON ANY SIDEWALKS OR IN OTHER AREAS.

5. ORDERS AND INSTRUCTIONS CONCERNING SEEDS ARE TO BE PLACED PRIOR TO OR BEFORE THE BEGINNING OF CONSTRUCTION. SEEDING CONTRACTS SHALL BE APPLIED AS A FURNISHING CONTRACT AGAINST ANY OF THE CITY OF PLANT AND ANNE HENDERSON COUNTY.

6. CONTRACTORS SHALL APPLY THE CITY OF PLANT AND ANNE HENDERSON COUNTY ORDERS AS REQUIRED AND AS SPECIFIED ON THESE PLANS. THE SMALL COUNTRY REPAIRS SHALL BE SOON REMOVED AND NOT ALLOWED TO COLLECT ON ANY SIDEWALKS OR IN OTHER AREAS. THE SEEDS SHALL BE SOON REMOVED AND NOT ALLOWED TO COLLECT ON ANY SIDEWALKS OR IN OTHER AREAS.

7. THE CITY OF PLANT AND ANNE HENDERSON COUNTY SHALL BE SOON REMOVED AND NOT ALLOWED TO COLLECT ON ANY SIDEWALKS OR IN OTHER AREAS. THE SEEDS SHALL BE SOON REMOVED AND NOT ALLOWED TO COLLECT ON ANY SIDEWALKS OR IN OTHER AREAS.

1. IMPLEMENTATION OF TEMPORARY EROSION CONTROL MEASURES AND PROTECTION OF STORM SEWER FACILITIES
2. EXCAVATION AND STRENGTHENING OF SOIL, PAVEMENT AND SEWER REMOVAL
3. PERIODIC MAINTENANCE OF AFFECTED EROSION CONTROL MEASURES, DURING ROAD IMPROVEMENTS
4. PERMANENT MEASURES: FINAL GRADING, SEEDING AND MULCHING

1. ALL SHIMS SHALL BE UNIFORM, RECTANGULAR, AND/OR ELIMATED ACCORDING TO THE CURRENT DESIGN OF "STANDARD SHIMS ON INTERIOR WALLS, CEILING" AND THE CURRENT DESIGN OF "STANDARD SHIMS ON REPAIRMENT OF TRANSPORTATION (ROAD) "STANDARD SPECIFICATIONS FOR CONSTRUCTION" ALL SHIMS ON THE PLANS OR IN THE LOGS THAT DO NOT HAVE A RECOMMENDATION ARE TO BE REMOVED.
2. THE SHIMS MUST BE REMOVED WITH THE PROFORM, AND NOT TO SCALE, BEING PREPARED ON PLAN SHEETS. THE SHIMS AND STRUCTURES SHALL BE FABRICATED IN ACCORDANCE TO TYPICAL PLANS, STANDARD AND/OR DETAILS AT LOCATIONS RECORDED.
3. REMOVAL AND INSTALLATION OF ALL SHIMS SHALL CONFORM WITH THE SHIMMER MANUFACTURER'S RECOMMENDATION AND OTHER RELEVANT CODES. SHIMS TO BE USED FOR TYPE 1 SHIMS WITH A 3' OVERLAP. SHIMS THAT ARE REMOVED ON TYPICAL SHEETS MAY BE REUSED.

STORM DRAINAGE

- PROPOSED WETLAND
- PROPOSED SAFETYWAY
- PROPOSED STORM SEWER
- PROPOSED BAY INLET
- PROPOSED ELECTRIC
- PROPOSED HYDRANT
- PROPOSED BAY VALVE & WELL (BVIW)
- PROPOSED TAPPING SLUICE, VALVE & WELL (TSLVW)

EDWARDS SETBACK PRESENT

HEAVY-DUTY SETBACK PRESENT

DEEP-ATRENGTH SETBACK PRESENT

CONCRETE PRESENT

MILL BITUMINOUS OVERLAY

MILL CONCRETE OVERLAY

PROPOSED SW MANHOLE (SWM)

PROPOSED STORM MANHOLE (SMH)

PROPOSED CATCH BASIN (CB)

PROPOSED PILEL (PIL)

PROPOSED END SECTION (ES)

PROPOSED FIELD CATCH BASIN (FCB) SLOPE OR ON STRUCTURE (OP) 1/8" BAR GRADE COVER

UTILITY CROSSING (SEE DATA TABLE)

STORM SEWER STRUCTURE

BAY STRUCT. TYPE

STRUCT. NO.

STRUCT. TYPE

SAFETYWAY STRUCTURE

SETBACK PRESENT

WETLAND STRUCTURE

STRUCT. NO.

STRUCT. TYPE

THE FOLLOWING ITEMS OF WORK SHALL BE DONE AS THEY APPLY THROUGHOUT THE PROJECT AS DIRECTED BY THE ENGINEER. THESE ITEMS ARE NOT DETAILLED OR INCLUDED ON THE PLAN SHEET

1	LS	MOBILIZATION MAX
400	FT	CURB AND CUTTER, REM
80	CYD	NON HAZ CONTAMINATED MATERIAL HANDLING AND DISPOSAL, LM
880	CYD	SUBGRADE UNDERCUTTING, TYPE 1
900	FT	EXPLOSIONARY INVESTIGATION, METCHAL
90	TON	HMA, 3EYD
72	TON	HMA, 4EYD
100	TON	HMA, 6EYD
400	FT	CURB AND CUTTER, CONC, DET F4

240	FT	PAYT JOINT AND CRACK REPR, DET 7
240	FT	PAYT JOINT AND CRACK REPR, DET 8
75	TON	HAND PATCHING

1 EA DR STRUCTURE, REM
60 FT SEWER, REM, LESS THAN 24 INCH
120 FT SEWER, CJ, 12 INCH, 2R SET B
100 FT WEDD TAPPING SEWER AND CULV PIPE
0 EA GR STRUCTURE, 24 INCH DIA
0 EA GR STRUCTURE COVER, TYPE K
0 EA DR STRUCTURE, TAP, 12 INCH
5 FT GR STRUCTURE, ADA, ADD DEP/IN

[illegible]

NOTE: REFER TO THE DETOUR PLAN SHEET FOR ADDITIONAL DETAILS.

143	EA	EROSION CONTROL, BUILT PROTECTION, FABRIC DROP
10,000	FT	EROSION CONTROL, SILT FENCE

3100 STD TURF ESTABLISHMENT, PERFORMANCE

WHERE THE FOLLOWING ITEMS ARE CALLED FOR IN THE PLANS THEY ARE TO BE CONSTRUCTED ACCORDING TO THE STANDARDS SHOWN BELOW, OPPOSITE EACH ITEM, UNLESS OTHERWISE NOTED.

1-1-D	BRIDGE STRUCTURES
1-2-D	COVED D
1-3-D	COVER K
1-4-D	DETECTABLE RAMP AND DETECTABLE WARNING DETAILS
1-5-D	EMERGENCY OPENINGS & APPROACHES AND CONCREE SIDEWALK
1-6-D	CONCRETE CURB AND CONCREE CURB & GUTTER
1-7-D	LOCATION OF BRIDGEHEAD JOINTS IN PLAIN CONCRETE PAVEMENT
1-8-D	CONCRETE PAVEMENT REPAIR
1-9-D	REPAIRS AND FILLING AROUND PIPE CULVERTS
1-10-D	UTILITY TRENCHES
1-11-D	SEAL, DRAINAGE & SEPARATION CONTROL MECHANISMS
1-12-D	SANITARY AND TRUCK PLANTING

WHERE THE FOLLOWING ITEMS ARE CALLED FOR IN THE PLANS THEY ARE TO BE CONSTRUCTED ACCORDING TO THE STANDARDS WHICH FOLLOW OPPOSITE EACH ITEM, UNLESS OTHERWISE NOTED.

0000	4, 6, AND 8 VALUES
0040a	WLB-LANE UNIMPROVED - 1 LANE CLOSURE - NO SPEED REDUCTION
0040b	CLOSING OF ONE-HALF OF A FOUR LANE UNIMPROVED ROADWAY USING A SINGLE STEP DOWN IN SPEED LANE
0040c	CLOSING OF TWO ADJACENT LANES THROUGH A FIVE-LANE UNIMPROVED ROADWAY, NO SPEED REDUCTION
0040d	PAVEMENT ARROW AND MESSAGE DETAILS
000-000-F	INTERSECTION, STOP BAR, AND CROSSWALK MARKINGS
000-045-C	GROUND EMBED SIGN SUPPORTS FOR TEMP SIGNS
000-000-A	TEMPORARY TRAFFIC CONTROL DEVICES

811
One call before you dig.
 Call before you dig.

FOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES CAN BE IDENTIFY WITH PREPARED ARCHITECTURAL DRAWINGS AND THE FIELD CALL WHEN DO A RECORDING DATA FROM TO CONSTRUCTION.

UTILITY MOTE

UTILITY INFORMATION ON THE DRAWING MAY BE FROM INFORMATION DISCLOSED TO THIS FROM BY THE MUNICIPAL UTILITY COMPANIES, AND THE CITY OF CHICAGO. OTHER PRIVATE SOURCES UNDERGROUND UTILITIES WHICH ARE ON PRIVATE PROPERTY ARE USUALLY NOT DELIVERED UPON A UTILITY COMPANIES, PLEASE BE PLANE THEIR LOCATION, IF SHOWING UPON THE SURVEY, ARE APPRECIATED FROM FOUNDED PART INFORMATION, AND IS LOCATED BY THIS FROM FROM SOURCES WHICH ARE UNDERSTAND NO GUARANTEE IS GIVEN AS TO THE CORRECT OR ACCURACY THEREOF.

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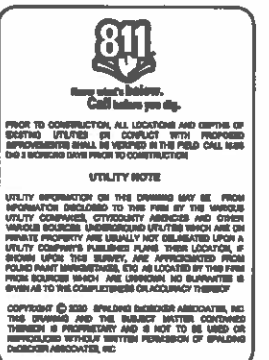
MILLER ROAD RESURFACING FROM BALLENGER HWY TO HAMMERBERG RD		
NOTES AND LEGEND		
CITY OF FLINT 1101 SOUTH BAGDAW STREET FLINT, MI 48902 (810) 786-7165		
NO.	DATE	REVISION
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY		
DRAWN BY BRUCE CARLSTROM	DATE 04/07/2021	
DESIGNED BY BRUCE CARLSTROM	DATE 04/07/2021	
CHECKED BY FRANK ET MAN MOER	DATE 04/07/2021	
ARIANA JESKE	DATE 04/07/2021	
DESIGNED BY JEREMY SCHROTT		
DESIGNED BY JEREMY SCHROTT		
JOB NO. 207665	DRAWING NO. 2	
SCALE NTS		
SHEET NO. 2 OF 41		

WATER MAIN NOTES

3. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY 72 HOURS PRIOR TO BEGINNING, THE CITY OF FLINT TRANSPORTATION DEPARTMENT, BETTY WEIDMAN AT (810) 766-7343 EXT. 2801, THE CITY ENGINEER, MARK ADAS AT (810) 766-7135 EXT. 2603, AND THE DEPARTMENT OF PUBLIC WORKS DIRECTOR, ROB BINSKIC AT (810) 766-7202. THE CONTRACTOR SHALL PROVIDE ALL THE DEPARTMENTS AND PERSONS MENTIONED ABOVE WITH AN ESTIMATED SCHEDULE OF TASKS WITH ASSOCIATED DATES IN WRITTEN FORM.
4. ALL MATERIALS AND CONSTRUCTION PROCEDURES SHALL COMPLY WITH THE CURRENT CITY OF FLINT STANDARD DETAILS AND MOST STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2012 EDITION. SEE SPECIAL PROVISION FOR WATER MAIN SPECIFICATIONS IN BID PROPOSAL.
5. HDPE PIPE MAY BE USED ONLY FOR DIRECTIONAL DRILL INSTALLATION. FOR ALL OTHER INSTALLATION METHODS ALL PUBLIC WATER MAIN SHALL BE CLASS 52 ZINC COATED DUCTILE IRON, CLASS 54 ZINC COATED DUCTILE IRON PIPE, OR C-900 POLYVINYL CHLORIDE PIPE AS DEFINED IN THE BID PROPOSAL. THE PIPE SHALL BE BELL AND SPIGOT OR MECHANICAL JOINT FOR FITTINGS FITTED WITH A RUBBER GASKET.
6. GATE VALVES SHALL BE MANUFACTURED FROM GRAY CAST IRON MEETING OR EXCEEDING AWWA C509. VALVES OUTSIDE PAVED AREAS WILL BE PLACED IN A 3 PIECE SCREW STYLE, GRAY IRON (ASTM A48, CLASS 30A) WITH COAL TAR ASPHALTIC DIP VALVE BOX (BIBBY OR SIMILAR APPROVED). VALVES IN PAVED AREAS SHALL BE PLACED IN A GATEWELL STRUCTURE. GATEWELL STRUCTURES SHALL HAVE DIAMETER AS SPECIFIED IN THE PLANS AND DETAIL SHEET.
7. CHECK VALVES SHALL BE MANUFACTURED FROM GRAY CAST IRON MEETING OR EXCEEDING ASTM A126 GRADE B. VALVES SHALL COMPLY WITH AWWA C508, LATEST VERSION. VALVES SHALL ALLOW FOR CLEAR WATERWAY OPENING. CLAPPER ARM SHALL BE MADE OF DUCTILE IRON CONFORMING TO ASTM A536 GRADE 85-42-12. THE DISC SHALL NOT CONTACT THE BODY WHEN THE VALVE IS IN THE FULL OPEN POSITION. CHECK VALVE SHAFTS ARE TO BE STAINLESS STEEL WITH CORROSION RESISTANT BEARINGS. CHECK VALVES TO BE AMERICAN FLUID CONTROL 50-5C SWING CHECK VALVE OR APPROVED EQUAL.
8. PRIOR TO REQUESTING A FINAL PRESSURE TEST, THE CONTRACTOR SHALL BE REQUIRED TO DO THE FOLLOWING ITEMS:
- CONDUCT A PRELIMINARY PRESSURE TEST ON THE SYSTEM.
 - OBTAIN TWO (2) CONSECUTIVE SAFE BACTERIOLOGICAL SAMPLES, OBTAINED AT LEAST 24 HOURS APART FOR EACH RUN OF PIPE, NOT TO EXCEED 1,200 FEET.
 - PROVIDE ALL RECORDS REFLECTING ACTUAL CONSTRUCTION CONDITIONS AND AS MEASURED QUANTITIES AND LOCATIONS.
 - PROVIDE PASSING DENSITY CHECKS ON COMPACTED SAND BACKFILL.
 - PROVIDE MATERIAL CERTIFICATION.
 - COMPLETE FINAL ADJUSTMENTS TO GRADE OF FIRE HYDRANT AND VALVE COVERS AND PROPER CAP COLORING CODING, USING THE TWO PART COATING SYSTEM AS DEFINED IN SPECIAL PROVISION.
9. WHERE SANITARY LEADS OR OTHER UTILITIES ARE ENCOUNTERED, THE CONTRACTOR SHALL MAKE ADJUSTMENTS TO PROVIDE CONTINUOUS SERVICE TO PROPERTIES ALONG THE ROUTE OF CONSTRUCTION, UNLESS OTHERWISE PROVIDED IN THE PLANS AND SPECIFICATIONS ELSEWHERE FOR THIS PROJECT. PAYMENT FOR ALL WORK AND COSTS, INCLUDING THE RECONSTRUCTION OF SANITARY SEWER AND DRAIN LEADS TO ACCOMMODATE CONSTRUCTION OR ADJUSTING WATER MAIN CONSTRUCTION, TO CLEAR EXISTING SERVICES, SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICES OF WATER MAIN PAY ITEMS.
10. CONNECTIONS TO EXISTING WATER MAINS AND VALVES SHALL BE INSPECTED/SUPERVISED BY THE CITY OF FLINT STAFF, WITH ALL LABOR, MATERIAL AND EQUIPMENT PROVIDED BY THE CONTRACTOR. ALL CHLORINATION AND PRESSURE TESTING SHALL BE DONE IN ACCORDANCE WITH THE PLANS AND THE OPENING AND CLOSING OF EXISTING VALVES AND SERVICE LEAD CONNECTIONS SHALL BE PERFORMED BY THE CITY OF FLINT STAFF. A FULL DIAMETER TAPPING SLEEVE IS REQUIRED FOR ALL PRESSURE TAPS. A GATEWELL STRUCTURE SHALL BE REQUIRED AROUND ALL PRESSURE TAPS, WITH GATEWELL SIZE AND DETAILS SHOWN ON THE DETAIL SHEET FOUND ELSEWHERE IN THESE PLANS.
11. ALL WATER MAIN SHALL HAVE A MINIMUM COVER OVER THE TOP OF THE PIPE OF 5.5' FROM FINISHED GRADE. THE PIPE SHALL BE Laid ON A 4" PREPARED CLASS II SAND CUSHION WITH RECESSES TO ACCOMMODATE PIPE BELLS. REFER TO MDOT UTILITY TRENCH DETAIL R-83-C.
12. CONTRACTOR SHALL RESTRAIN ALL THRUST IN THE SYSTEM BY THE USE OF THRUST BLOCKS, RESTRAINED-TIE RODDED JOINTS, MEGA-LUG LOCKING RETAINING RINGS OR ENGINEER APPROVED EQUAL. ALL HYDRANTS, TEES, VERTICAL OR HORIZONTAL BENDS AND FUTURE VALVE CONNECTIONS SHALL BE RESTRAINED. CONTRACTOR SHALL SUBMIT A SCHEDULE OF RESTRAINT METHODS AND LOCATIONS TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. THREADED RODDING SHALL HAVE OWNER AND ENGINEER APPROVAL PRIOR TO BEING INCORPORATED INTO PROJECT CONSTRUCTION.
13. EXISTING GATEWELLS SHALL BE REMOVED (MINIMUM 2 FT BELOW SUBBASE) AS NOTED ON THE PLAN SHEETS, AND PAID AS PAY ITEM WATER STRUCTURE, ABANDON. PAY ITEM WATER STRUCTURE, ABANDON SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY TO REMOVE CASTING FRAME, COVER, STRUCTURE, AND PLACE AND CONCRETE CLASS II GRANULAR BACKFILL INSIDE OF STRUCTURE PER SPECIAL PROVISION IN BID PROPOSAL. EXCEPT AS NOTED ELSEWHERE IN THESE PLANS OR BID PROPOSAL FOR REINSTALLATION OF EXISTING UNDAMAGED STRUCTURE CASTINGS: 1) EXISTING COVERS AND CASTINGS SHALL BE SALVAGED; AND 2) SALVAGED MATERIALS WILL BE DELIVERED TO THE APPROVED ON-SITE STOCKPILING LOCATION BY THE CONTRACTOR FOR CITY FORCES TO COLLECT. VALVE BOXES TO BE ABANDONED SHALL BE KNOCKED DOWN (MINIMUM 2 FT BELOW SUB BASE) AND FILLED WITH CONCRETE, PAID AS PAY ITEM WATER STRUCTURE, ABANDON.
14. THE PROJECT SHALL REQUIRE FINAL RESTORATION IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL GROUND SURFACES SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER PRIOR TO FINAL CONTRACT APPROVAL.
15. WATER MAINS SHALL BE CHLORINATED IN ACCORDANCE WITH AWWA C651-14, PRESSURE TESTED IN ACCORDANCE WITH AWWA C600-05 AND DISINFECTED IN ACCORDANCE WITH AWWA C651-99. ALL MATERIAL AND EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR. WATER MAINS SHALL BE TESTED TO 150 PSI FOR TWO HOURS. ALLOWABLE LEAKAGE IS 0.092 GPM X LENGTH OF TESTED PIPING (FT) X NOMINAL PIPE DIAMETER (INCHES) / 1,000 FT. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE CITY OF FLINT WATER SERVICE CENTER AT 810.766.7202, 72 HOURS PRIOR TO TESTING OF WATER MAIN AND SHALL NOT TEST UNTIL A REPRESENTATIVE OF THE WATER DISTRIBUTION CENTER IS ON SITE. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE CITY OF FLINT WATER SERVICE CENTER, AT THE DISTRIBUTION CENTER, AND CITY OF FLINT, AT THE UTILITIES DEPARTMENT, A DETAILED DESCRIPTION OF TESTING PROCEDURES AND CHLORINATION LIMITS FOR APPROVAL. THE CONTRACTOR WILL NOT TEST MORE THAN 1,200' OF WATER MAIN AT ANY TIME. DURING TESTING, THE CONTRACTOR WILL PROVIDE A FORM INDICATING THE LENGTH OF PIPE BY STATIONS, LOCATION OF TESTING AND BLOWOFF, AND PRESSURE TEST RESULTS WHICH WILL BE SIGNED BY THE CONTRACTOR'S REPRESENTATIVE AND WATER DISTRIBUTION REPRESENTATIVE. THE CONTRACTOR IS REQUIRED TO UTILIZE A MINIMUM OF 2' BLOWOFFS AND VALVES (BRASS OR COPPER MATERIAL ONLY) FOR TESTING. ALL DISCHARGED CHLORINATED WATER MUST BE DISCHARGED INTO SANITARY SEWER SYSTEM.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALL PROCEDURES AND COSTS FOR COORDINATION WITH ALL CITY DEPARTMENTS FOR WATER MAIN CONSTRUCTION AND INCLUDE ALL COSTS AND TIME IN THEIR BID AND PROGRESS SCHEDULE.
16. CONTRACTOR SHALL HAVE THE OPTION OF PRESSURE TESTING THE WATER MAIN AGAINST THE VALVE. IF THE VALVE LEAKS, THE CONTRACTOR SHALL MAKE REPAIRS (OR REPLACE) AND REPEAT THE PRESSURE TEST AGAINST THE VALVE OR CONSTRUCTED CAP. ALL COSTS FOR VALVE REPAIR, REPLACEMENT, OR TEMPORARY FITTINGS REQUIRED FOR PRESSURE TESTING SHALL BE CONSIDERED TO HAVE BEEN INCLUDED IN THE COST OF THE CONTRACT PAY ITEM FOR PRESSURE TESTING AND WILL NOT BE PAID FOR SEPARATELY.

15. THE CONTRACTOR SHALL PROVIDE CORPORATIONS (TO BE SUPERVISED BY THE CITY OF FLINT) ON THE WATER LINE FOR PRESSURE TESTING, CHLORINE ADDITION AND BLOW-OFF PURPOSES. THE CORPORATIONS SHALL HAVE COPPER PIPE EXTENDING TO THE GROUND SURFACE. THE CONTRACTOR SHALL REMOVE THE COPPER LINE UPON A SATISFACTORY TEST AND INSTALL A PLUG ON THE CORPORATION. AS A MINIMUM, CONTRACTOR SHALL PLACE A 2" CORPORATION WITH MUELLER THREADS INLET AND COPPER THREADS OUTLET ON EACH SIDE OF THE VALVES FOR TESTING AND CHLORINATION. THE CONTRACTOR IS REQUIRED TO CONFORM TO THE CURRENT MDOE STANDARDS AND THE CITY OF FLINT REQUIREMENTS FOR WATER MAIN TESTING. HYDRANT SAMPLING IS NOT ACCEPTABLE.
16. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH SHOP DRAWINGS AND MATERIAL CERTIFICATIONS, TO THE ENGINEER AND THE CITY OF FLINT WATER SERVICE CENTER VERIFYING THAT ALL WATER MAIN (AND APPURTENANCES) ITEMS USED ON THE PROJECT MEET THE REQUIREMENTS AND APPROVAL OF THE ENGINEER, CITY OF FLINT, AND MDOE STANDARDS, AS APPLICABLE.
17. MINIMUM HORIZONTAL DISTANCE BETWEEN SEWERS AND WATER MAIN SHALL BE 10'. VERTICAL SEPARATION SHALL BE 18".
18. THE CONTRACTOR SHALL ENCASE THE WATER MAIN IN CONCRETE FOR 3' BEYOND THE LIMITS WHERE VERTICAL SEPARATION BETWEEN WATER MAIN AND OTHER UTILITY IS LESS THAN 18". COST IS INCLUDED IN THE PRICES BID FOR THE WATER MAIN PAY ITEMS. DETAIL SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER PRIOR TO PLACEMENT.
19. NO CONNECTION TO THE EXISTING WATER MAIN WILL BE MADE UNTIL APPROVAL OF THE PROPOSED WATER MAIN IS RECEIVED. THE CONTRACTOR MUST MAINTAIN SERVICE AT ALL TIMES EXCEPT DURING SERVICE LEAD INSTALLATIONS. CONTRACTOR SHALL NOTIFY RESIDENTS OF TEMPORARY SERVICE DISRUPTION A MINIMUM OF 24 HOURS IN ADVANCE.
20. ALL IN LINE BENDS, FITTINGS, TEES, SLOO SLEEVES, REDUCERS, AND FIRE HYDRANTS SHALL BE CONSTRUCTED WITH MECHANICAL JOINTS, AND ENCASED IN 8 MIL POLYETHYLENE. THE POLYETHYLENE FILM TUBE SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C 105/A21.5, METHOD A AND SHALL INCLUDE TAPING THE ENDS TO THE ENCASEMENT. METHOD A CONSISTS OF CUTTING THE POLYETHYLENE TUBE 2 FEET LONGER THAN THE PIPE TO PROVIDE AN OVERLAP AT THE JOINTS. THE COST OF THE POLYETHYLENE ENCASEMENT SHALL BE INCLUDED IN THE PRICES BID FOR THE WATER MAIN PAY ITEMS. RESTRAINING METHODS SHALL CONFORM TO STANDARD WATER DETAIL SHEET.
21. A MDOE WATER MAIN PERMIT HAS BEEN OBTAINED BY THE CITY OF FLINT PRIOR TO CONSTRUCTION. CHLORINATION/DISINFECTION PERFORMANCE AND ACCEPTANCE ARE THE RESPONSIBILITY OF THE CITY OF FLINT, AS PROVIDED FOR AND WITH SUCH LIMITATIONS, AS DESCRIBED IN THE SPECIAL PROVISION FOR WATER MAIN WORK IN THE BID PROPOSAL.
22. THE CONTRACTOR SHALL SUPPLY VALVES AND SOLID MECHANICAL JOINT SLEEVES, AS NOTED ON THE PLANS, THAT WILL FIT THE EXISTING MAINS. CONTACT THE CITY OF FLINT WATER SERVICE CENTER FOR PRE-APPROVED CITY VENDORS. ALL FITTINGS SHALL BE RIGHT HAND OPEN.
23. HYDRANTS SHALL BE MUELLER SUPER CENTURION OR EAST JORDON BR-250 CONFORMING TO CURRENT AWWA C-502. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, LOCATE ALL HYDRANTS 2.0' CLEAR FROM THE RIGHT OF WAY, SERVICE CURB BOXES AND HYDRANT VALVE BOXES 2.0' MIN. BEHIND PROPOSED CURB AND 0.3' MIN. FROM PROPOSED SIDEWALK. SEE FIRE HYDRANT DETAIL SHEET 7 FOR MORE INFORMATION.

1. THE COVERS OF ALL EXISTING AND PROPOSED CURB INLET CATCH BASIN DRAINAGE STRUCTURES INCORPORATED INTO THE PROPOSED WORK SHALL BE REMOVED AND REPLACED WITH: 1) FOR STRAIGHT FACE CURB, NEW 500 POUND CF-3 CASTINGS; AND, 2) FOR CURB CUTS, NEW 490 POUND CF-4 CASTINGS. SEE CITY OF FLINT CASTING DETAILS SHEET 6 AND SPECIAL PROVISION.
2. THE COVERS OF ALL EXISTING AND PROPOSED MUNICIPAL MANHOLE STRUCTURES (WATER, STORM AND SANITARY) INCORPORATED INTO THE PROPOSED WORK SHALL BE REMOVED AND REPLACED WITH: 1) FOR SANITARY, NEW 380 POUND CF-1 CASTINGS; 2) FOR STORM, NEW 380 POUND CF-2 CASTINGS; AND, 3) FOR WATER, NEW 380 POUND CF-6 CASTINGS. SEE CITY OF FLINT CASTING DETAILS SHEET 6 AND SPECIAL PROVISION.
3. THE COVERS OF ALL EXISTING AND PROPOSED NON-MUNICIPAL UTILITY MANHOLES (TELEPHONE FOR EXAMPLE) SHALL BE ADJUSTED TO FINAL SURFACE ELEVATION BY THE OWNER'S OF THOSE FACILITIES, AS COORDINATED BY THE CONTRACTOR.



CITY OF FLINT NOTE SHEET

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JOB NO 207665		DRAWN NO 04/07/2021	
SCALE NTS		SHEET NO 3 OF 41	



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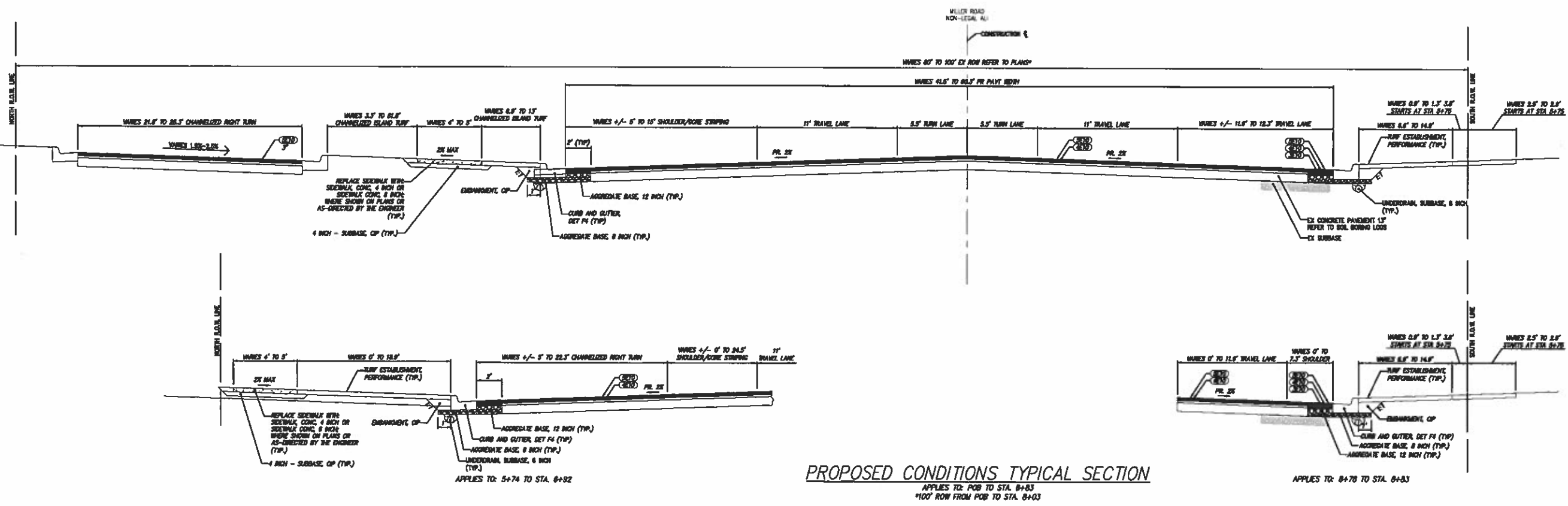
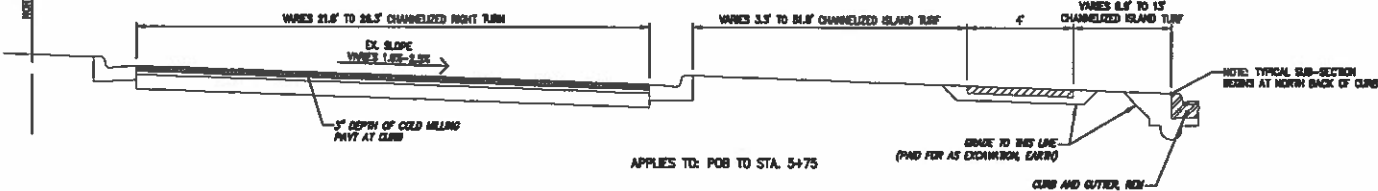
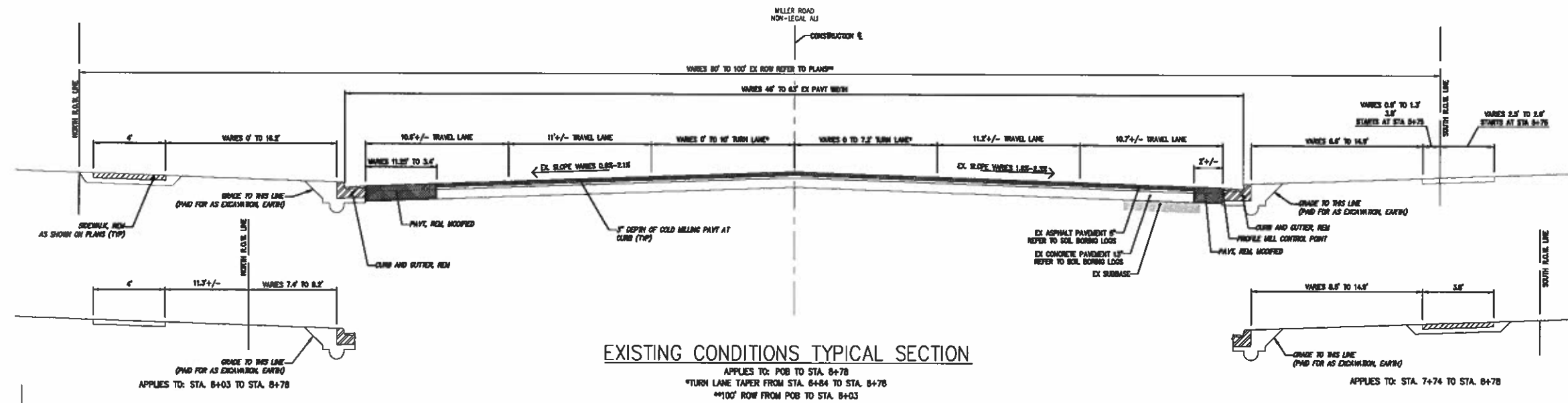
**MILLER ROAD
RESURFACING
FROM BALLENGER HWY
TO HAMMERBERG RD**

TYPICAL SECTIONS
FROM POB
TO STA 8+83

CITY OF FLINT
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FLINT, MI 48902
(517) 766-7165

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NO.	DATE	REVISION





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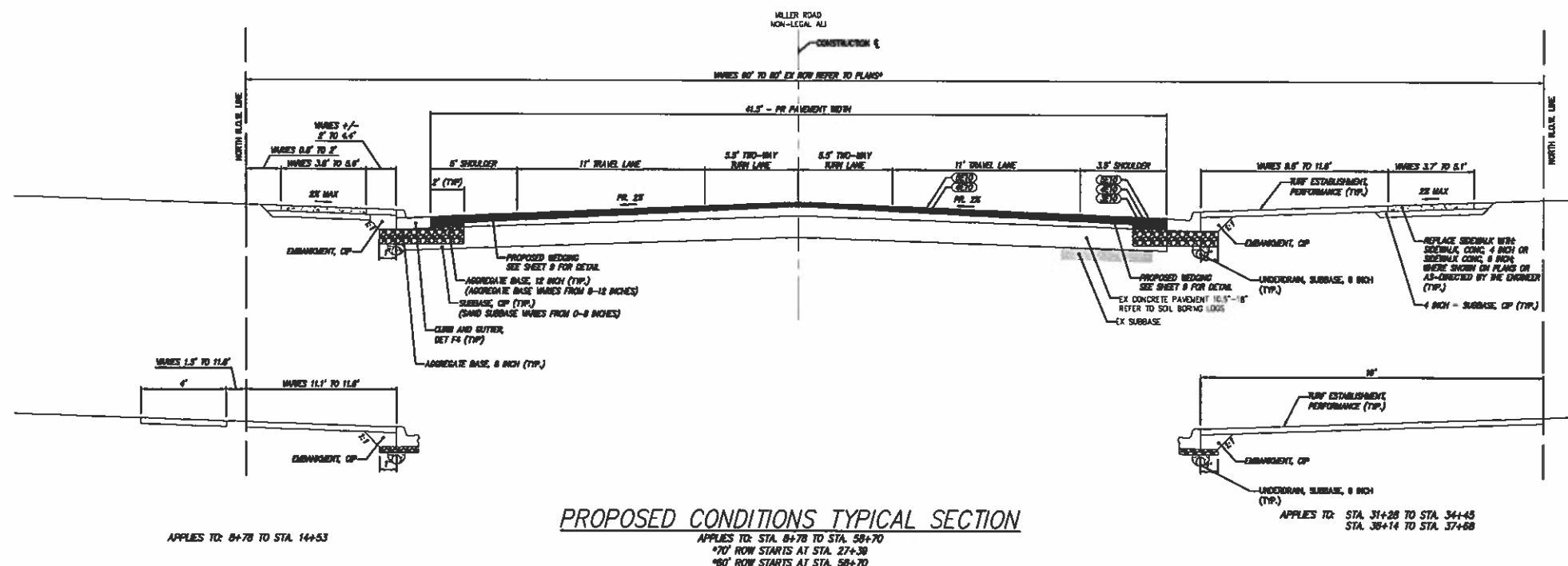
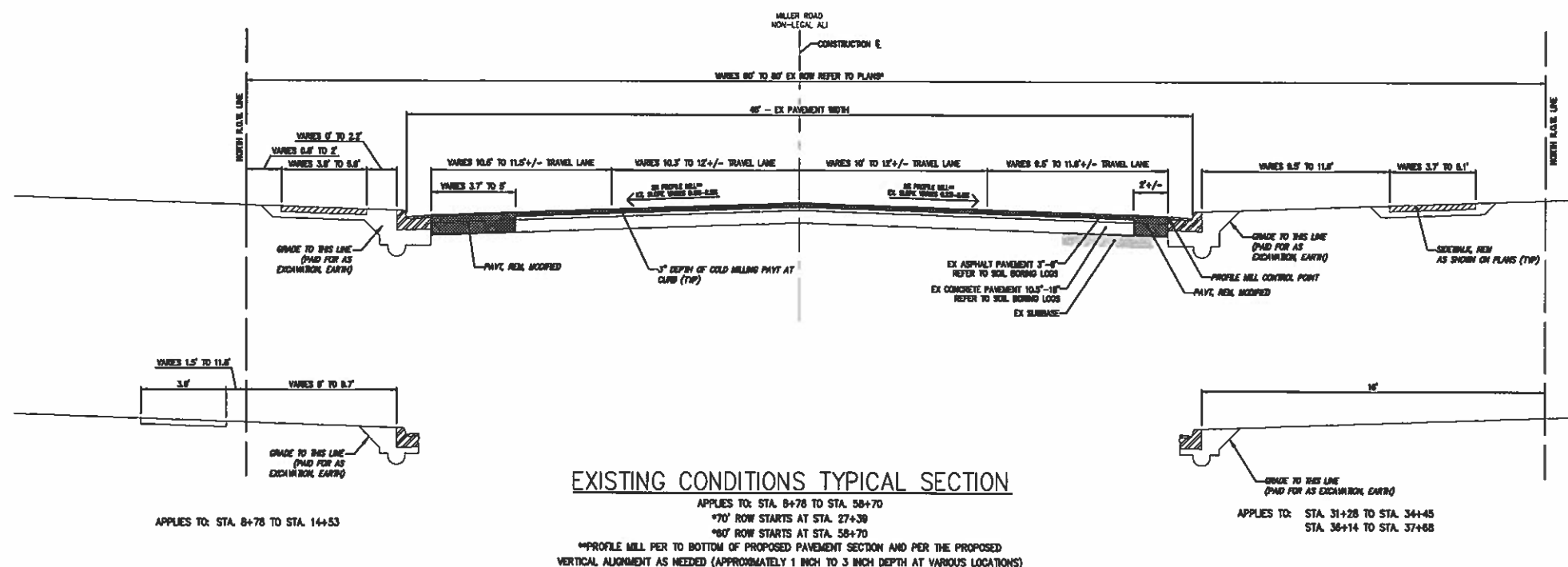
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TYPICAL SECTIONS
FROM STA. 8+78
TO STA. 58+70

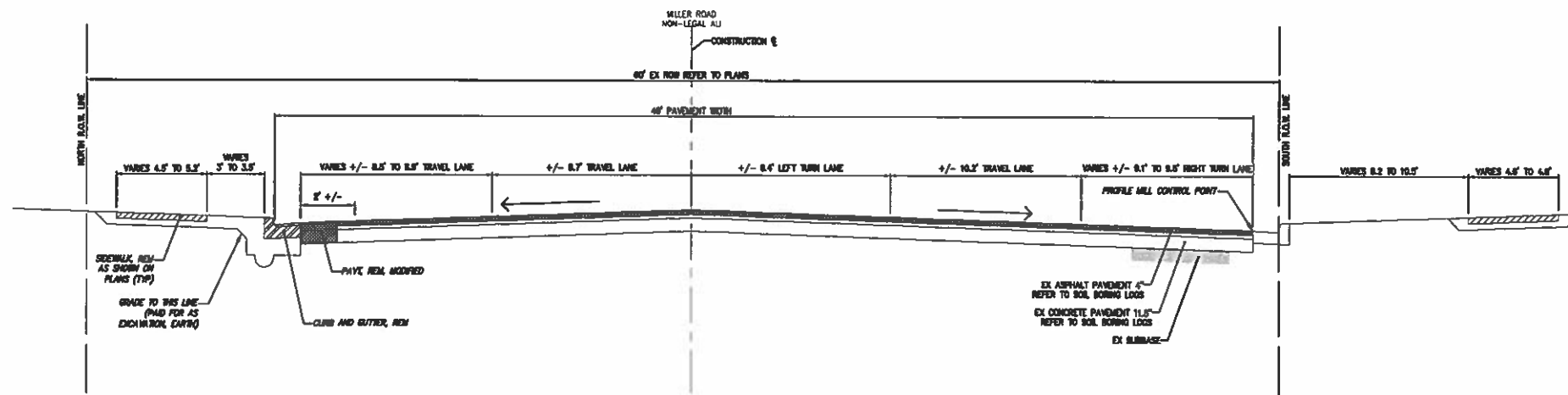
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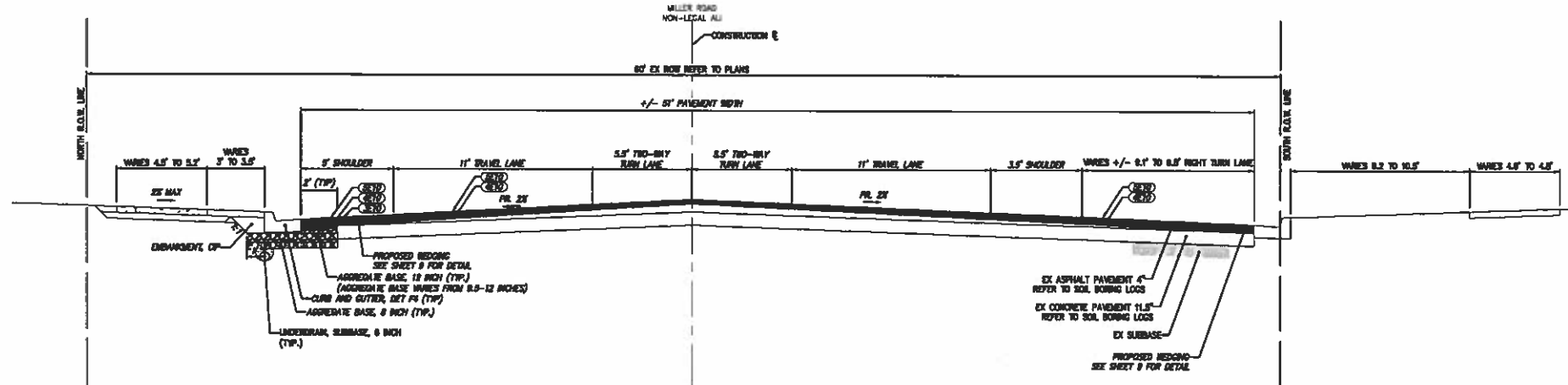
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PROJECT MANAGER ARIANA JESKE	DATE 04/07/2021
DEPARTMENT MANAGER APPROVAL JEREMY SCHROTT	DATE 04/07/2021
JOB NO. 207666	DRAWING NO.
SCALE NTS	SHEET NO. 5 OF 41



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PROPOSED CONDITIONS TYPICAL SECTION
APPLIES TO: STA. 76+22 TO POE



PROPOSED CONDITIONS TYPICAL SECTION
APPLIES TO: STA. 76+22 TO POE

HOT MIX ASPHALT (HMA) APPLICATION CHART				
PAY ITEM	ESTIMATED DEPTH	RATE (LB/SYD)	PERFORMANCE GRADE	REMARKS
HMA, SE10	1.5"	185	58-28	TOP COURSE, AWM-260
HMA, 4E10	1.5"	185	58-28	LEVELING COURSE
HMA, 3E10	VARIES	VARIES	58-28	HMA WEDGING
HMA, 3E10	3.0"	330	58-28	BASE COURSE
HMA APPROACH	6.0"	660	58-28	HMA, SE10, 4E10 & 3E10 FOR USE ON INTERSECTION APPROACHES
HAND PATCHING	VARIES	VARIES	58-28	HMA, SE10, 4E10, & 3E10 FOR USE AS NEEDED

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**MILLER ROAD
RESURFACING
FROM BALLENGER HWY
TO HAMMERBERG RD**

TYPICAL SECTIONS
FROM STA 76+22
TO POE

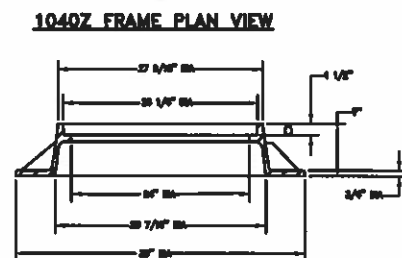
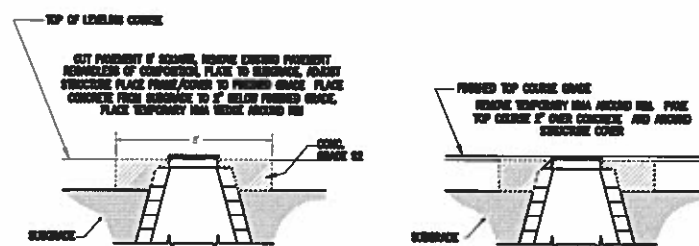
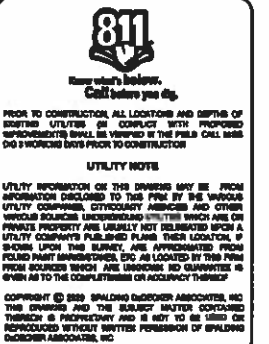
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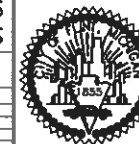
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BRUCE CARLSTROM		
CHIEF		
PROJECT MANAGER		
ARIANA JESKE		
DEPARTMENT MANAGER APPROVAL		
JEREMY SCHROTT		
JOB NO.		
207666		
SCALE		
NTS		



DRAINAGE STRUCTURE COVERS						
COVER	CF-1	CF-2	CF-3	CF-4	CF-5	CF-6
COVER TYPE	ELW ERGO HINGED COVER W/ C/W LOCKS, STAMPED CITY OF FLINT - SANDARY PER DETAILS ON THIS SHEET.	ELW ERGO HINGED COVER W/ C/W LOCKS, STAMPED CITY OF FLINT - STORM PER DETAILS ON THIS SHEET.	CURB FACE ELW 7000 2, T1 & M1	CURB OUT ELW 7000 M	REZ HANE ELW 1040 2 & O2	ELW ERGO HINGED COVER W/ C/W LOCKS, STAMPED CITY OF FLINT - WATER PER DETAILS ON THIS SHEET.
PRODUCT NUMBER	001040687L01	001040688L01	00700033C001	0070001010 00700044	103801	001040688L01

DEPARTMENT OF PUBLIC WORKS
ENGINEERING AND UTILITIES

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CHECKED BY:	
SCALE: NO SCALE	SHEET



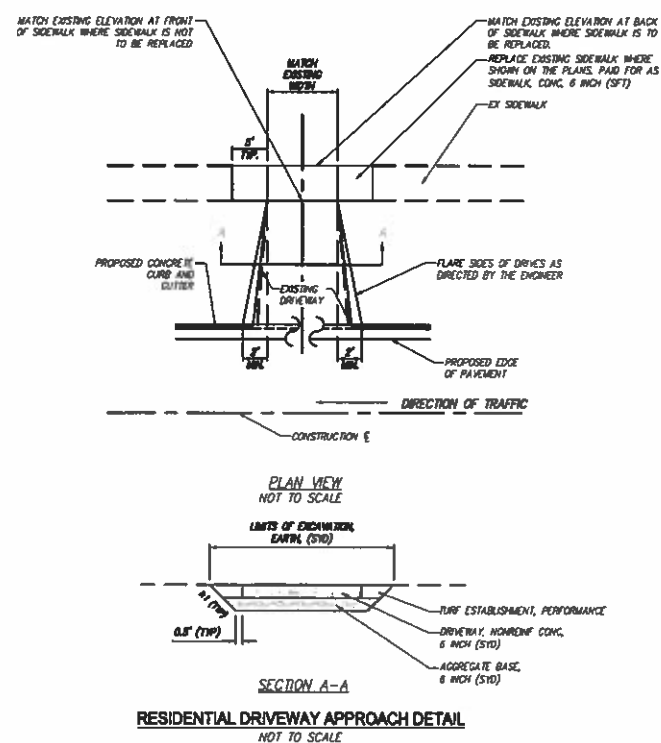
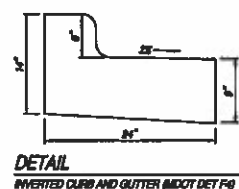
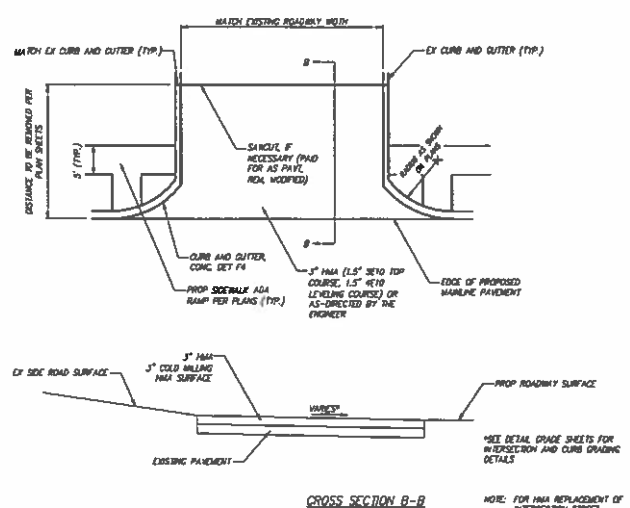
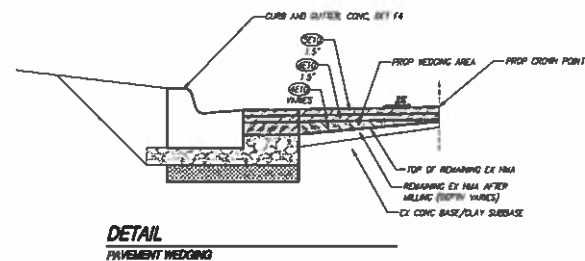
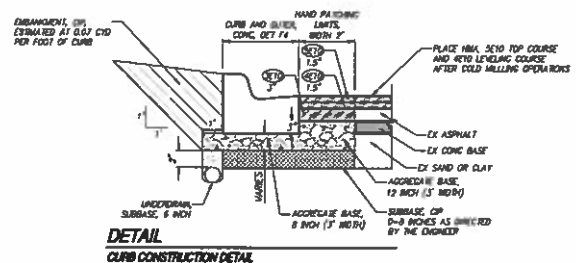
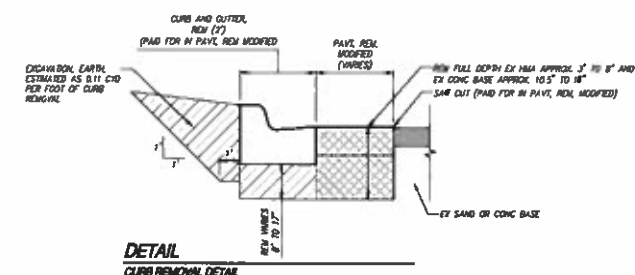
**MILLER ROAD
RESURFACING
FROM BALLENGER HWY
TO HAMMERBERG RD**

DETAILS 1

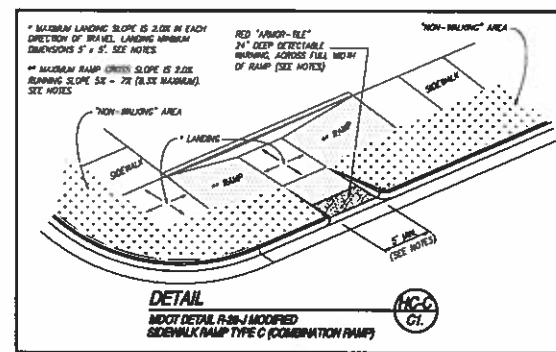
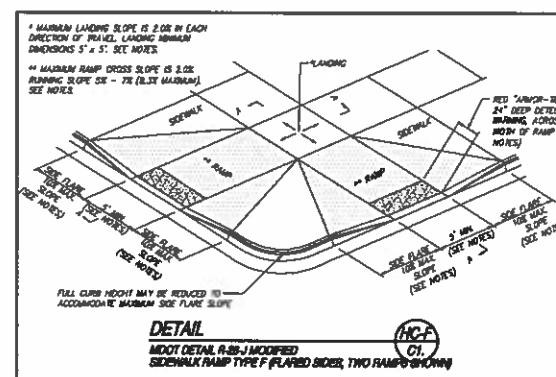
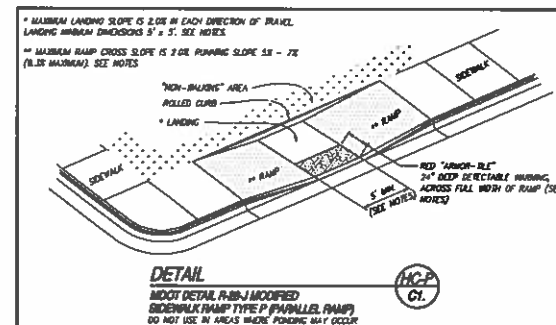
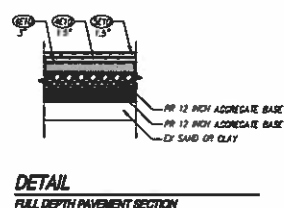
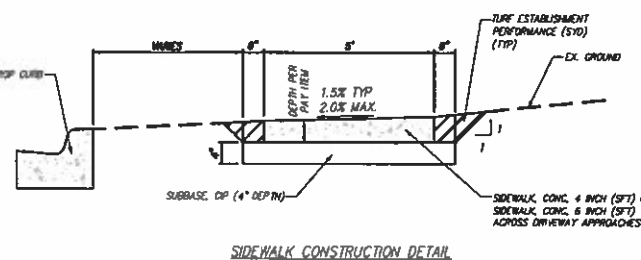
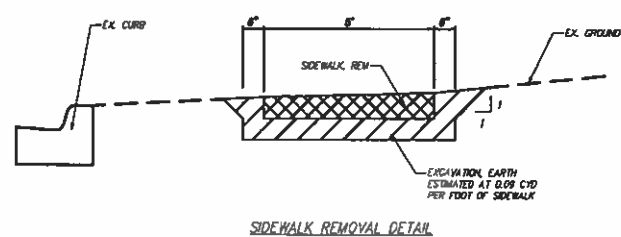
CITY OF FLINT
1101 SOUTH SAGINAW STREET
FLINT, MI 48502
(810) 766-7165

NO.	DATE	REVISION

VERIFY SCALES	
BAR IS ONE INCH ON ORIGINAL DRAWING'S	
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALE ACCORDINGLY	
DESIGNER BRUCE CARLSTROM	DATE
CHECKER BRUCE CARLSTROM	DATE
SHEETED	DATE 04/07/2021
PROJECT MANAGER ARIANA JESKE	SID PLOT DATE 04/07/2021
DEPARTMENT MANAGER APPROVAL MYRE SCHROT	DATE 04/07/2021
207665	DRAWING NO
SCALE NTS	SHEET NO 8 OF 41

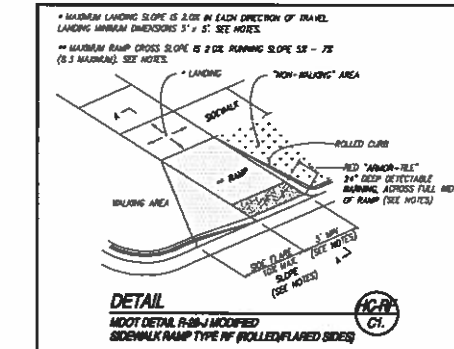
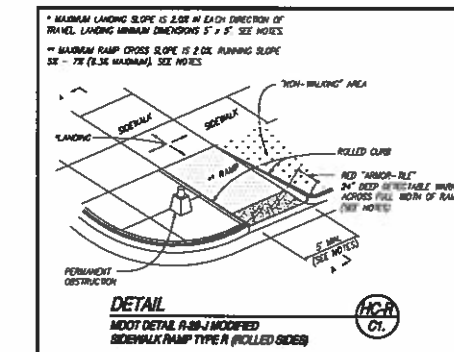
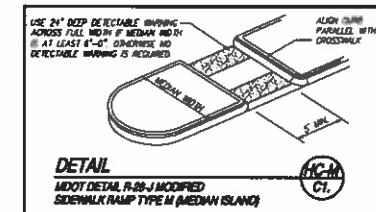
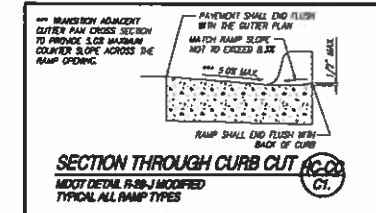
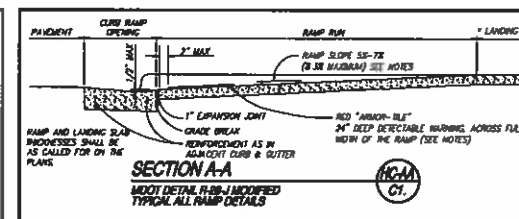


- NOTES:
1. ALL PREPARATION WORK, INCLUDING EDGE TRIMMING, PAYMENT REMOVE, GRADING, EXCAVATION AND BACKFILLMENT SHALL BE INCLUDED IN THE PAY ITEM "EXCAVATION, EARTH, MODIFIED" (SYD).
 2. CONSTRUCTION JOINTS AT EXISTING SURFACES SHALL BE BUTT JOINTS. FEATHERED JOINTS WILL NOT BE ALLOWED WHEN CONSTRUCTING DRIVE APPROACHES.
 3. DRIVE PROFILE: PER R-29 SERIES.
 4. REMOVING EXISTING DRIVEWAY PAYMENT SHALL BE PAID FOR AS "PAVT, REM, MODIFIED" (SYD) AS SPECIFIED IN THE PLANS.



- SIDEWALK RAMP NOTES (MDOT DETAIL R-28-J MODIFIED)**

- [illegible]



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Prior to construction, all locations and depths of existing utilities in conflict with proposed excavation shall be determined. The following shall be done 2 WORKING DAYS prior to construction:

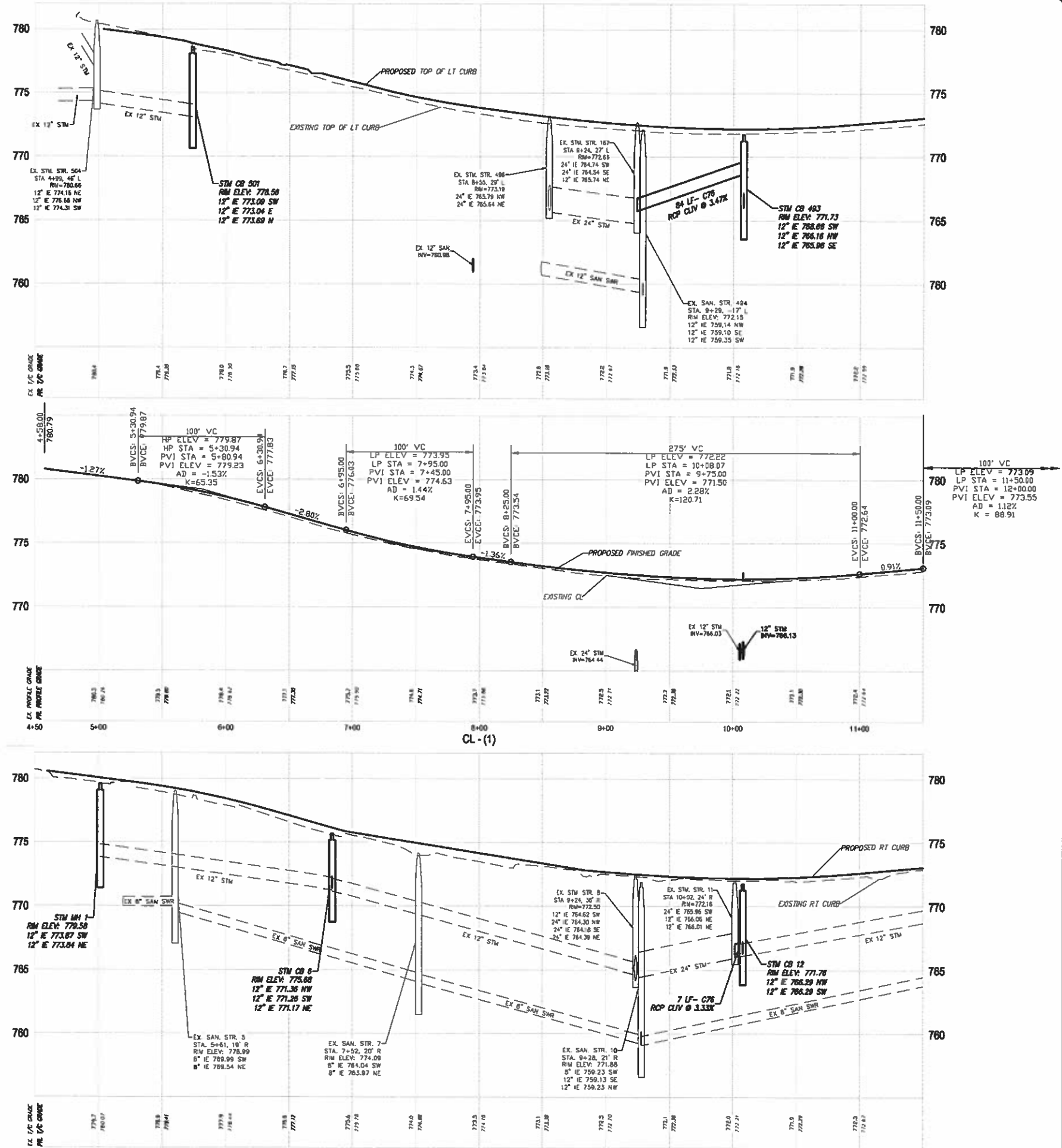
UTILITY NOTE

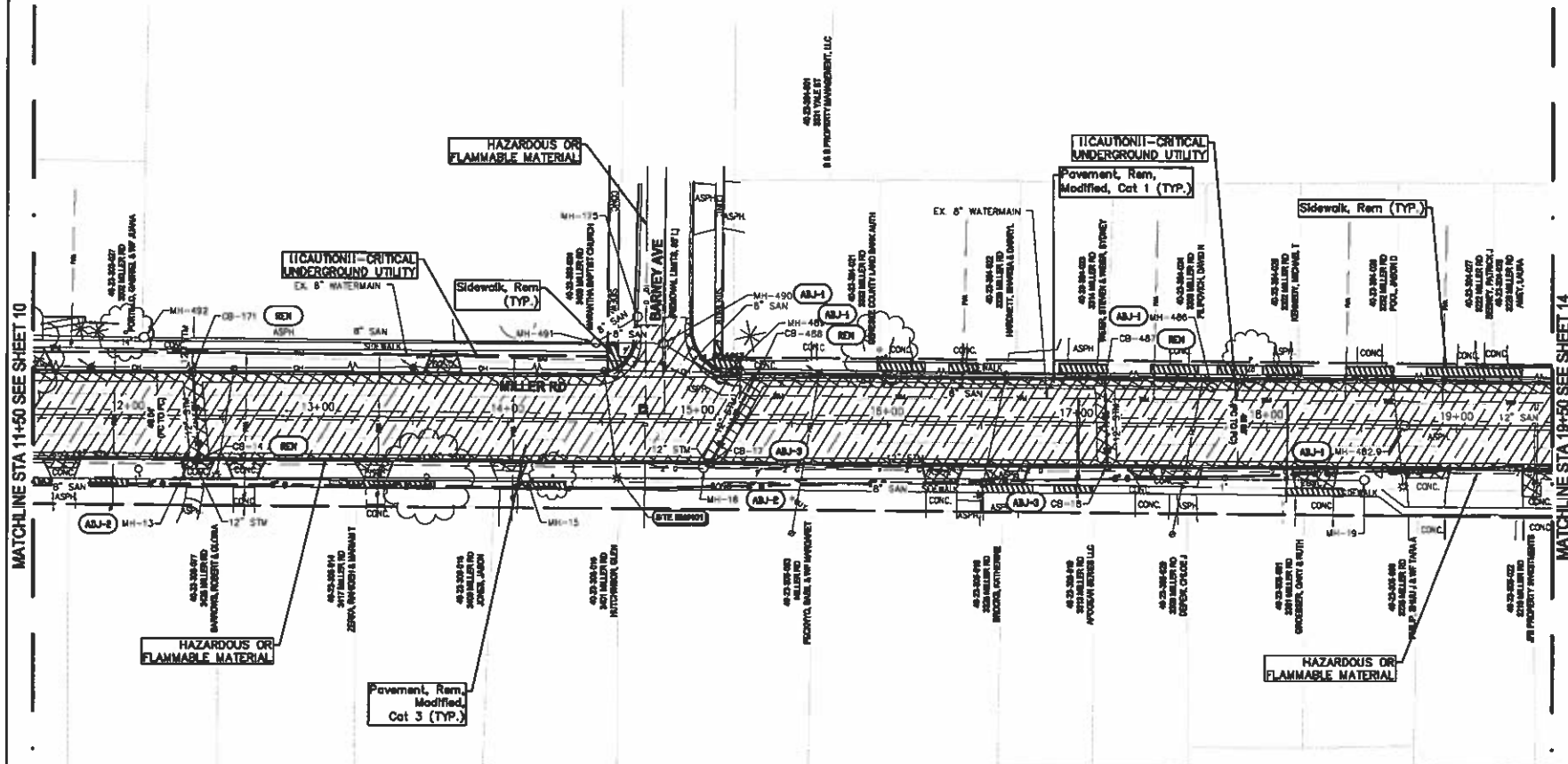
UTILITY INFORMATION ON THE DRAWING MAY BE FROM INFORMATION DISCLOSED TO THIS FIRM BY THE UTILITY COMPANY. THE UTILITY COMPANY'S NAME AND ADDRESS SHALL BE LISTED. THE LOCATION AND DEPTHS OF ALL UTILITY SOURCES UNDERGROUND UTILITIES WHICH ARE OF PRIMARY IMPORTANCE ARE LIKELY NOT DELINEATED ON THE DRAWING. THEREFORE, THE UTILITY COMPANY SHALL BE SHOWN UPON THE SURVEY. AN APPROPRIATE FIRM SHALL BE CONTACTED TO LOCATE ALL UTILITIES FROM THE UTILITY SOURCES WHICH ARE UNDERGROUND UTILITIES. THE UTILITY COMPANY SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES.

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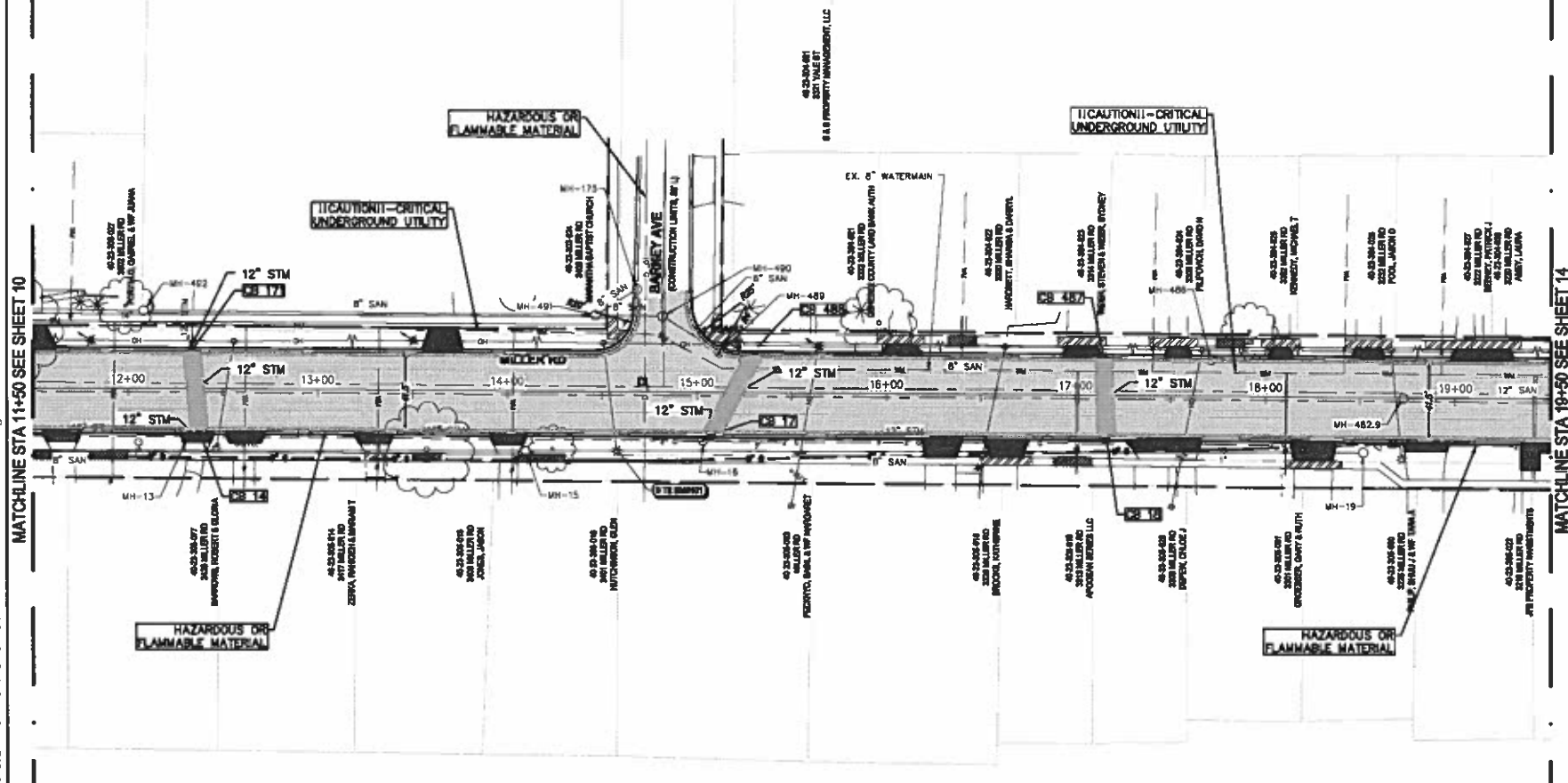
**MILLER ROAD
RESURFACING
FROM BALLENGER HWY
TO HAMMERBERG RD**

DETAILS 2		
CITY OF FLINT 1101 SOUTH SAWHAY STREET FLINT, MI 48902 (810) 788-7165		
NO.	DATE	REVISION
VERIFIED SCALES BARS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY		
OWNER BRUCE CARLSTROM	DATE	
DESIGNER BRUCE CARLSTROM	DATE	
CHECKED	DATE 04/07/2021	
PROJECT MANAGER ARIANA JESKE	S&P PLAN DATE 04/07/2021	
DEPARTMENT MANAGER APPROVAL JEREMY SCHROT	DATE 04/07/2021	
JOB NO. 207665	DRAWING NO.	
SCALE NTS	SHEET NO. 9 OF 41	





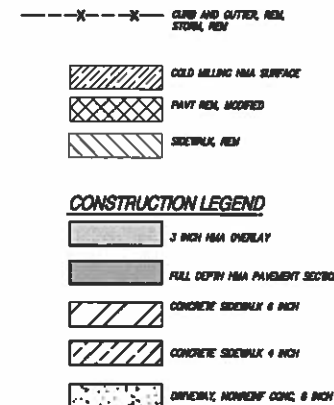
ROAD REMOVAL PLAN



ROAD CONSTRUCTION PLAN

BENCHMARK
DESCRIPTION: BENCHMARK - SET BENCHMARK 1E,
NORTH FACE OF LIGHT POLE ON SOUTH SIDE
OF MILLER RD. OPPOSITE BARNETT AVE.
N=443007.255
E=153307.518
ELEV=762.19

REMOVAL LEGEND



MAINLINE QUANTITIES

QUANTITIES THIS SHEET			
Pay Item Co.	Pay Item	Unit	Qty
2030011	Dr Structure, Rem	Ea	6
2030015	Sewer, Rem, Less than 24 inch	Fl	153
2040050	Pavt. Rem, Modified	Syd	1170
2040055	Sidewalk, Rem	Syd	204
2050010	Embankment, C/P	Cyd	130
2050016	Excavation, Earth	Cyd	210
3010002	Subbase, C/P	Cyd	80
3020018	Aggregate Base, 6 inch	Syd	310
3020020	Aggregate Base, 8 inch	Syd	540
3020030	Aggregate Base, 12 inch	Syd	500
4020800	Sewer, C/P E, 12 inch, Tr Det B	Fl	151
4030006	Dr Structure Cover, Adj, Case 1	Ea	5
4030006	Dr Structure Cover, Adj, Case 2	Ea	1
4030050	Dr Structure Cover, Type K	Ea	6
4030210	Dr Structure, 48 inch dia	Ea	6
4030312	Dr Structure, Top, 12 inch	Ea	4
4040063	Underdrain, Subbase, 6 inch	Fl	1620
5010002	Cold Milling HMA Surface	Syd	3325
5010025	Hand Patching	Ton	10
5010046	HMA, 3E10	Ton	90
5010052	HMA, 4E10	Ton	560
5010058	HMA, 5E10	Ton	350
6010005	Driveway, Nonreinfc Conc, 6 inch	Syd	280
6020038	Curb and Gutter, Conc, Det F4	Fl	1620
6037001	Detachable Warning Surface, Modified	Fl	10
6030030	Curb Ramp Opening, Conc	Fl	10
6030038	Sidewalk Ramp, Conc, 6 inch	Sl	84
6030044	Sidewalk, Conc, 4 inch	Sl	533
6030046	Sidewalk, Conc, 6 inch	Sl	1068
6187002	Turf Establishment, Performance	Syd	1220

NOTES:

- WHERE STRUCTURE ADJ-1, ADJ-2, AND ADJ-3 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, AND 3 CORRESPOND TO CITY OF FLINT CASTING DETAILS CF-1, CF-2, AND CF-3, RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS CF-1 AND CF-2 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE B". CASTINGS CF-3 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE K". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MDOT STANDARD PLANS.
- EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TAP AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
- WHERE PIPES ARE DESIGNATED FOR REMOVAL, THEY ARE TO BE REMOVED TO AN EXISTING STRUCTURE WHICH WILL REMAIN IN PLACE. THE PIPE OPENING IN THE STRUCTURE SHALL BE REPAIRED/BULKHEADED WITH BRICK AND MORTAR AS DIRECTED BY THE ENGINEER.
- MDOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
- WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
- FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.

Proposed Storm Structure Table				
Structure Name	RIM ELEVATION	STATION/OFFSET	STRUCTURE SIZE	COVER TYPE
171	773.76	12+33.79, -22.20, L	48	Cover K
14	773.87	12+37.95, 20.86, R	48	Cover K
17	779.38	15+07.51, 20.73, R	48	Cover K
488	779.80	15+30.42, -22.20, L	48	Cover K
487	783.58	17+14.66, -22.20, L	48	Cover K
18	783.60	17+18.30, 20.87, R	48	Cover K

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GRAPHIC SCALE

0 10 20 40
(IN FEET)
1 inch = 40 ft.



PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF
EXISTING UTILITIES (IN CONFLICT WITH PROPOSED
IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. CALL 888
ONE-8-NEEDS BEFORE YOU BEGIN TO CONSTRUCT.

UTILITY NOTE

UTILITY INFORMATION ON THIS DRAWING MAY BE FROM
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PRIVATE PROPERTY ARE USUALLY NOT DEPICTED UPON A
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KNOWN UPON THIS SURVEY, ARE APPROXIMATED FROM
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**MILLER ROAD
RESURFACING
FROM BALLENGER HWY
TO HAMMERBERG RD**

REMOVAL & CONSTRUCTION
FROM STA 11+50
TO STA 19+50

CITY OF FLINT
1101 SOUTH SAGINAW STREET
FLINT, MI 48602
(810) 766-7165

NO.	DATE	REVISION

VERIFY SCALES	
BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	
DESIGNER BRUCE CARLSTROM	DATE
DRAWN BY BRUCE CARLSTROM	DATE
CHECKED 	DATE
PROJECT MANAGER ARIANA JESKE	DATE
TECHNICAL MANAGER APPROVAL JEREMY SCHROT	DATE
207665	207665
SCALE 1:40	SHEET NO 12 OF 41



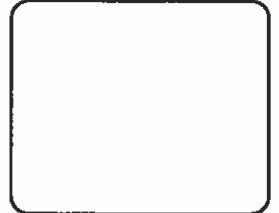
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PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES IN CONFLICT WITH PROPOSED IMPROVEMENTS SHALL BE VERIFIED IN THE FIELD CALL 811 OR 1 WORKER INFO PRIOR TO CONSTRUCTION

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MILLER ROAD RESURFACING FROM BALLENGER HWY TO HAMMERBERG RD

TRIPLE PROFILE - STA 11+50 TO STA 19+50

FROM STA 11+50 TO STA 19+50

CITY OF FLINT 1101 SOUTH BALLENGER STREET FLINT, MI 48502 (517) 785-7165		
NO.	DATE	REVISION
VERIFY SCALES BARS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY		
DESIGNER SHANE LAMPE	DATE	
DRAWN BY JACOB KLENHENZ	DATE	
CHECKED 	DATE	04/07/2021
PROJECT MANAGER ARIANA JESKE	DATE	04/07/2021
CONSTRUCTION MANAGER APPROVAL JEREMY SCHROTT	DATE	04/07/2021
JOB NO. 207665	DRAWING NO.	
SCALE HORIZ: 1"=40' VERT: 1"=4'	SHEET NO. 13 OF 41	



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Fax: (313) 309-7301

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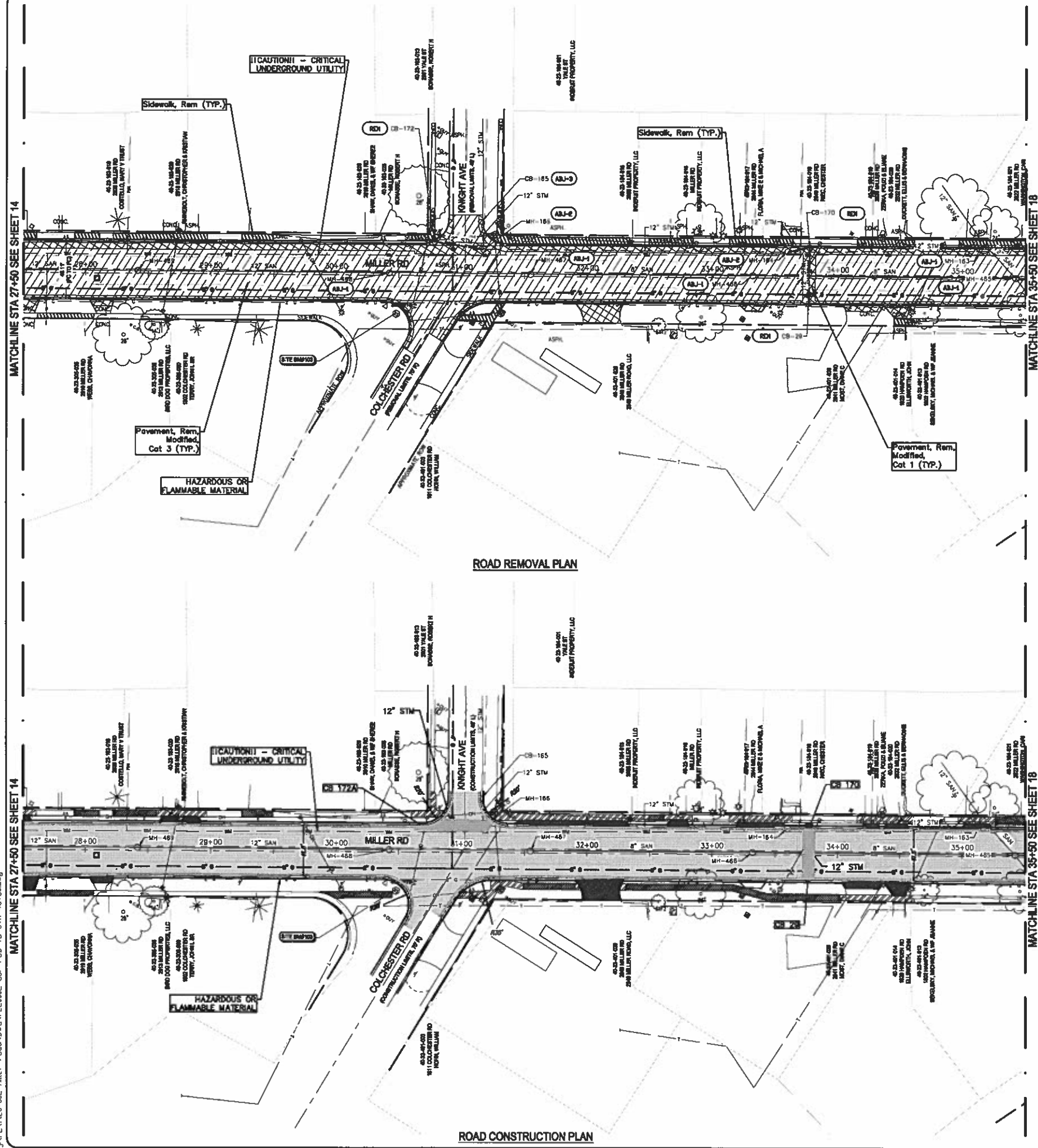
**MILLER ROAD
RESURFACING
FROM BALLENGER HWY
TO HAMMERBERG RD**

TRIPLE PROFILE 3 - STA 19+50 TO STA 27+50

FROM STA 19+50
TO STA 27+50

CITY OF FLINT
1101 SOUTH BAGINAW STREET
FLINT, MI 48602
(810) 766-7168

NO.	DATE	REVISION
1	04/07/2021	DATE
2	04/07/2021	DATE
3	04/07/2021	DATE
4	04/07/2021	DATE
5	04/07/2021	DATE
6	04/07/2021	DATE
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99	04/07/2021	DATE
100	04/07/2021	DATE



ROAD REMOVAL PLAN

ROAD CONSTRUCTION PLAN

BENCHMARK

DESCRIPTION: BENCHMARK - SET BENCHMARK TO
NORTH FACE OF GUY POLE AT SOUTHWEST
CORNER OF MILLER RD. AND COLCHESTER
RD.
ELEVATION: 777.85
DATE: 4/12/2021

REMOVAL LEGEND

- X---X--- CURE AND GUTTER, REM.
STORM, REM.
- COLD MILLING HMA SURFACE
- PAV. REM. MODIFIED
- SEWER, REM.
- 3 INCH HMA OVERLAY
- FULL DEPTH HMA PAVEMENT SECTION
- CONCRETE SIDEWALK 6 INCH
- CONCRETE SIDEWALK 4 INCH
- DRIVEWAY, NONREIN. CONC. 6 INCH

CONSTRUCTION LEGEND

MAINLINE QUANTITIES

QUANTITIES THIS SHEET			
Pay Item Co	Pay Item	Unit	Qty
2030011	Dr. Structure, Rem.	Ea	3
2030015	Sewer, Rem., Less than 24 inch	Ft	102
2040050	Pav. Rem. Modified	Syd	1070
2040055	Sidewalk, Rem.	Syd	313
2050010	Embankment, C/P	Cyd	130
2050016	Excavation, Earth	Cyd	270
3010002	Subbase, C/P	Cyd	120
3020016	Aggregate Base, 6 inch	Syd	230
3020020	Aggregate Base, 8 inch	Syd	545
3020030	Aggregate Base, 12 inch	Syd	460
4020000	Sewer, C/E, 12 inch, T/Det B	Fi	93
4030005	Dr. Structure Cover, Adj. Case 1	Ea	8
4030008	Dr. Structure Cover, Adj. Case 2	Ea	1
4030050	Dr. Structure Cover, Type K	Ea	3
4030210	Dr. Structure, 48 inch dia	Ea	2
4030220	Dr. Structure, 60 inch dia	Ea	1
4030312	Dr. Structure, Tap, 12 inch	Ea	2
4040003	Underdrain, Subbase, 6 inch	Fi	1635
5010002	Cold Milling HMA Surface	Syd	3480
5010025	Hand Patching	Ton	10
5010048	HMA, 3E10	Ton	85
5010052	HMA, 4E10	Ton	510
5010058	HMA, 6E10	Ton	300
6010005	Driveway, Nonrein. Conc. 6 inch	Syd	185
6020038	Curb and Gutter, Conc., Det F4	Fi	1635
6037001	Detectable Warning Surface, Modified	Fi	20
6030030	Curb Ramp Opening, Conc.	Fi	20
6030036	Sidewalk Ramp, Conc., 6 inch	Sf	240
6030044	Sidewalk, Conc., 4 inch	Sf	2112
6030048	Sidewalk, Conc., 6 inch	Sf	2610
6167002	Turf Establishment, Performance	Syd	1040

NOTES:

- WHERE STRUCTURE ADJ-1, ADJ-2, AND ADJ-3 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, AND 3 CORRESPOND TO CITY OF FLINT CASTING DETAILS CF-1, CF-2, AND CF-3, RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS CF-1 AND CF-2 ARE PAID FOR AS PAY ITEM "DR. STRUCTURE COVER, TYPE B". CASTINGS CF-3 ARE PAID FOR AS PAY ITEM "DR. STRUCTURE COVER, TYPE K". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MDT STANDARD PLANS.
- EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TAP AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
- WHERE PIPES ARE DESIGNATED FOR REMOVAL, THEY ARE TO BE REMOVED TO AN EXISTING STRUCTURE WHICH WILL REMAIN IN PLACE. THE PIPE OPENING IN THE STRUCTURE SHALL BE REPAIRED/BULKHEADED WITH BRICK AND MORTAR AS DIRECTED BY THE ENGINEER.
- MDOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
- WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
- FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.

Proposed Storm Structure Table				
Structure Name	RIM ELEVATION	STATION/OFFSET	STRUCTURE SIZE	COVER TYPE
172A	777.60	30+67.22, -22.20, L	48	Cover K
29A	772.01	33+78.74, 20.70, R	48	Cover K
170	771.97	33+77.22, -22.20, L	60	Cover K

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Fax: (313) 309-7101

27333 Meadowbrook Rd., Suite 210
Novi, MI 48377
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(800) 598-1600

GRAPHIC SCALE
0 10 20 30
(IN FEET)
1 inch = 40 ft.

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PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF
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IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD CALL 811
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UTILITY INFORMATION ON THIS DRAWING MAY BE FROM
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MILLER ROAD
RESURFACING
FROM BALLEGGER HWY
TO HAMMERBERG RD

REMOVAL & CONSTRUCTION
FROM STA 27+50
TO STA 35+50

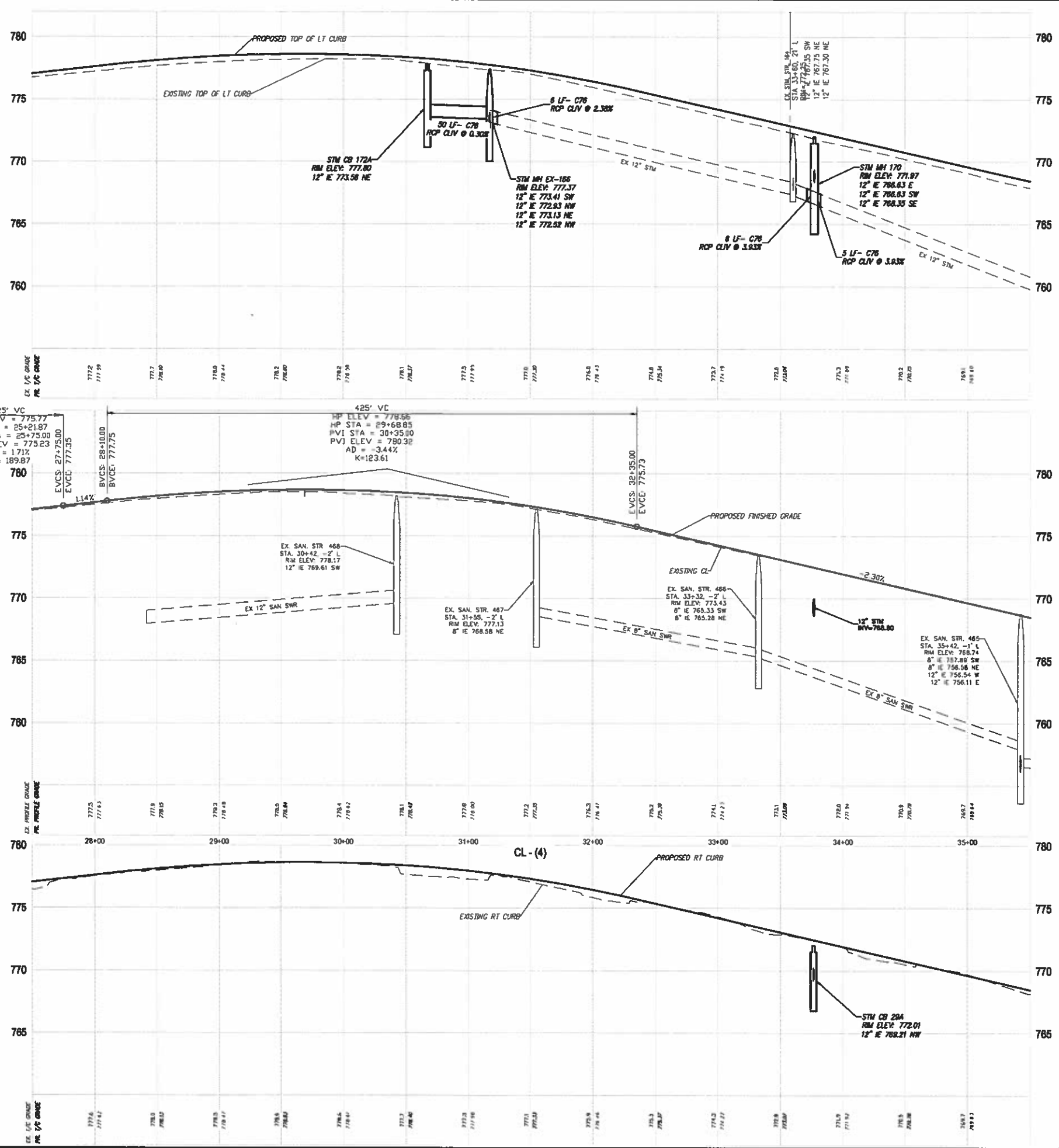
CITY OF FLINT
1101 SOUTH SAGINAW STREET
FLINT, MI 48902
(810) 786-7165

NO.	DATE	REVISION

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY.

DATE	BY	DATE
04/07/2021	BRUCE CARL STROM	
04/07/2021	BRUCE CARL STROM	
04/07/2021		
04/07/2021		
04/07/2021		
04/07/2021		

207665
SCALE: 1:40
SHEET NO: 16 OF 41



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UTILITY NOTES

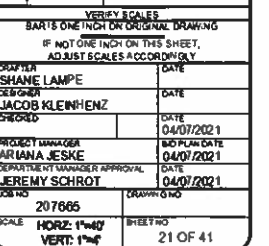
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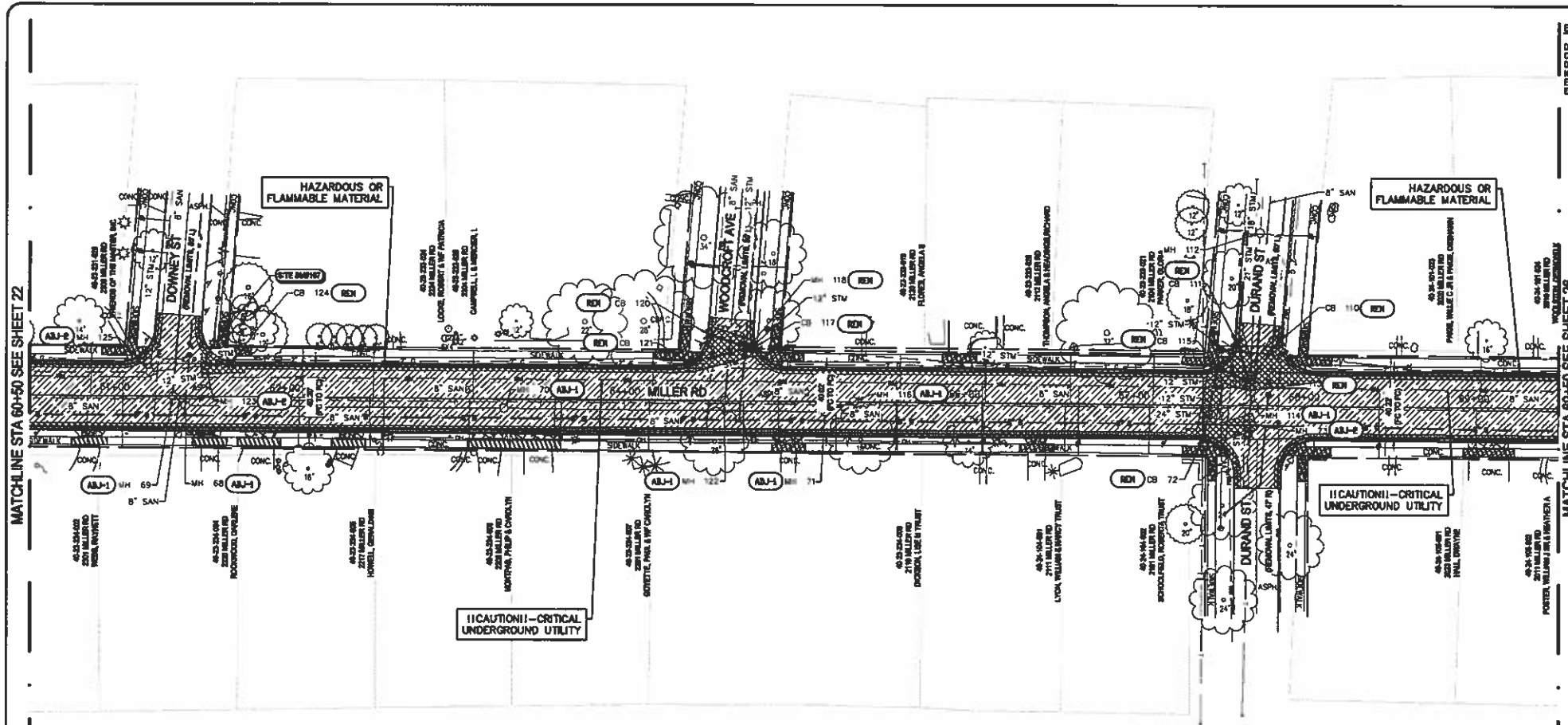
**MILLER ROAD
RESURFACING
FROM BALLENGER HWY
TO HAMMERBERG RD**

TRIPLE PROFILE - STA 27+50 TO STA 35+50
FROM STA 27+50
TO STA 35+50

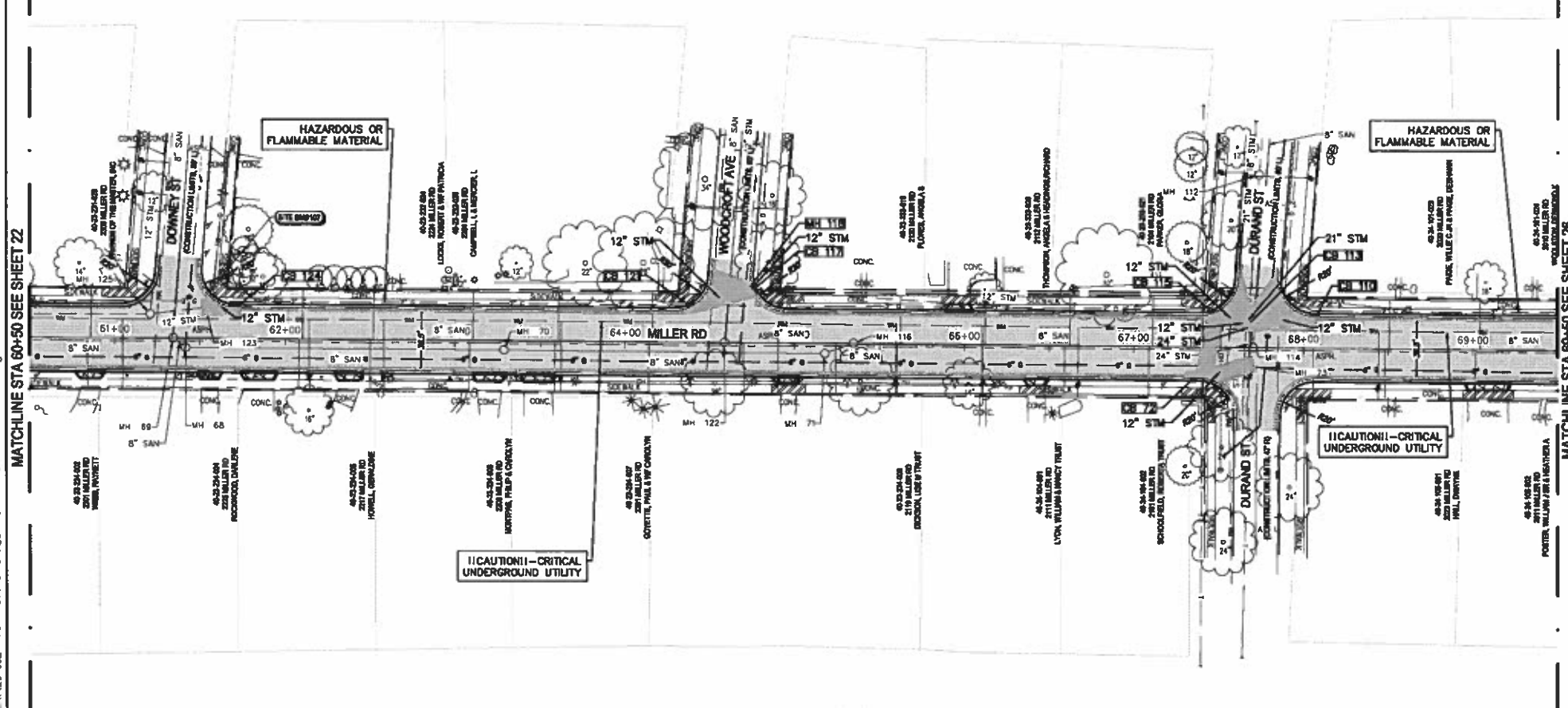
CITY OF FLINT 1101 SOUTH BAGINAW STREET FLINT, MI 48902 (810) 765-7155		
NO.	DATE	REVISION
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY		
DESIGNED BY SHANE LAMPE	DATE	
CHECKED BY JACOB KLENNHENZ	DATE	
PROJECT MANAGER ARIANA JESKE	DATE	
DEPARTMENT MANAGER APPROVAL JEREMY SCHROTT	DATE	
JOB NO. 207665	DRAWING NO.	
SCALE HORIZ: 1"=40' VERT: 1"=4'	SHEET NO.	17 OF 41



Printed: Apr 12, 2021, 3:58 PM by user: 1049 - Saved: 4/12/2021 by user: 1072
PLAN: 102-002 Miller Road Resurfacing from Ballenger Hwy to Hammerberg Rd



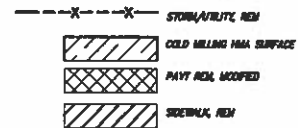
ROAD REMOVAL PLAN



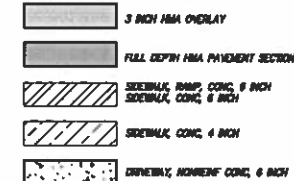
ROAD CONSTRUCTION PLAN

BENCHMARKS
DESCRIPTION: BENCHMARK, THE SOUTH FACE
OF UTILITY POLE AT INTERSECTION OF MILLER RD. AND
DOWNEY ST.
N=3473.91550
E=13287771.8000
ELEVATION

REMOVAL LEGEND



CONSTRUCTION LEGEND



MAINLINE QUANTITIES

QUANTITIES THIS SHEET			
Pay Item Co	Pay Item	Unit	Qty
2030011	Dr Structure, Rem	Ea	10
2030015	Sewer, Rem, Less than 24 inch	Fl	172
2040050	Pavt, Rem, Modified	Syd	1180
2040055	Sidewalk, Rem	Syd	300
2050018	Embankment, C/P	Cyd	150
2050019	Excavation, Earth	Cyd	240
3010002	Subbase, C/P	Cyd	68
3020015	Aggregate Base, 6 inch	Syd	105
3020020	Aggregate Base, 8 inch	Syd	625
3020030	Aggregate Base, 12 inch	Syd	850
4020800	Sewer, C/P, 12 inch, Tr Det B	Fl	149
4030005	Dr Structure Cover, Adj. Case 1	Ea	10
4030010	Dr Structure Cover, Type B	Ea	2
4030050	Dr Structure Cover, Type K	Ea	6
4030200	Dr Structure, 24 inch dia	Ea	1
4030210	Dr Structure, 48 inch dia	Ea	5
4030220	Dr Structure, 60 inch dia	Ea	2
4030312	Dr Structure, Tap, 12 inch	Ea	4
4040083	Underdrain, Subbase, 6 inch	Fl	1870
5010002	Cold Milling HMA Surface	Syd	3500
5010025	Hand Patching	Ton	10
5010046	HMA, 3E10	Ton	125
5010052	HMA, 4E10	Ton	515
5010058	HMA, SE10	Ton	370
8010005	Driveway, Nonreinforced Conc, 6 inch	Syd	80
8020038	Curb and Gutter, Conc, Det F4	Fl	1870
8037001	Detachable Warning Surface, Modified	Fl	40
8030030	Curb Ramp Opening, Conc	Fl	40
8030038	Sidewalk Ramp, Conc, 6 inch	Sf	357
8030044	Sidewalk, Conc, 4 inch	Sf	0
8030048	Sidewalk, Conc, 6 inch	Sf	1652
8167002	Turf Establishment, Performance	Syd	785

NOTES:

- WHERE STRUCTURE ADJ-1, ADJ-2, AND ADJ-3 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, AND 3 CORRESPOND TO CITY OF FLINT CASTING DETAILS CF-1, CF-2, AND CF-3, RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO THE GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS CF-1 AND CF-2 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE B". CASTINGS CF-3 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE K". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MDOT STANDARD PLANS.
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- FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.

Proposed Storm Structure Table					
Structure Name	RIM ELEVATION	STATION/OFFSET	STRUCTURE SIZE	COVER TYPE	
124	772.74	61+71.94, -20.70, L	48	Cover K	
121	772.49	64+38.92, -23.10, L	48	Cover K	
118	771.91	64+72.32, -33.02, L	60	Cover B	
117	771.71	64+76.14, -33.30, L	24	Cover K	
72	762.80	67+35.44, 17.20, R	48	Cover K	
115	762.74	67+46.59, -21.98, L	48	Cover K	
113	761.77	67+67.41, -13.35, L	80	Cover B	
110	760.44	68+07.47, -20.70, L	48	Cover K	

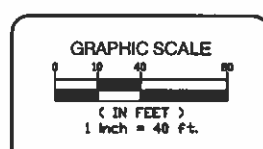
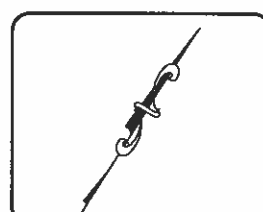
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FROM TO CONSTRUCTION: ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES IN CONFLICT WITH PROPOSED IMPROVEMENTS SHALL BE VERIFIED IN THE FIELD ON SITE AND A WORKING DRAWING PRIOR TO CONSTRUCTION.

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MILLER ROAD RESURFACING FROM BALLENGER HWY TO HAMMERBERG RD

REMOVAL & CONSTRUCTION FROM STA 60+50 TO STA 69+50

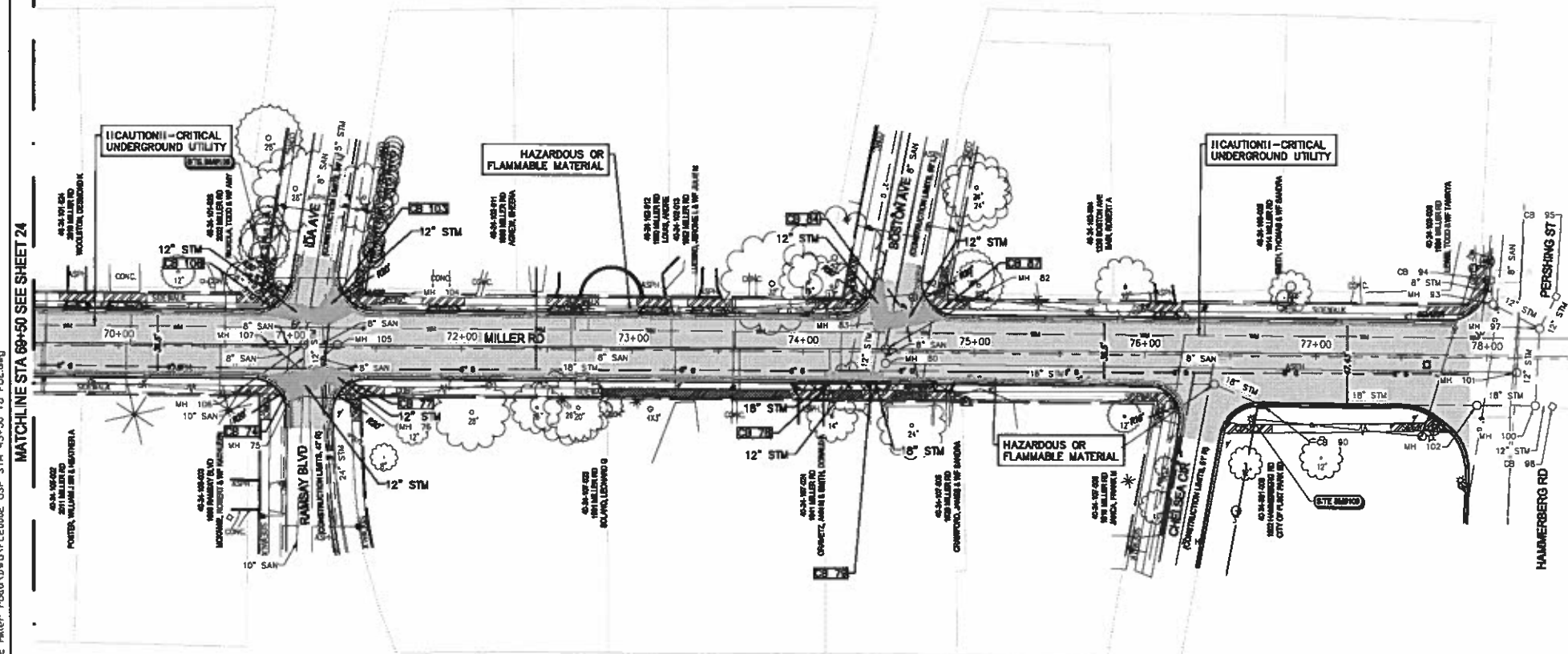
CITY OF FLINT
1101 SOUTH BAYVIEW STREET
FLINT, MI 48602
(810) 786-7155

NO.	DATE	REVISION

VERIFY SCALE:
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET,
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DATE: 04/07/2021
DRAWN BY: BRUCE CARL STROM
CHECKED BY: BRUCE CARL STROM
PROJECT MANAGER: ARIANA JESKE
DATE: 04/07/2021
JOB NO: 207865
SHEET NO: 24 OF 41

UNIFY SCALES	
BAR IS ONE INCH ON ORIGINAL DRAWING	
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	
OWNER SHANE LAMPE	DATE
DESIGNER JACOB KLEINHENZ	DATE
PROJECT MANAGER ARIANA JESKE	DATE
DEPARTMENT MANAGER APPROVAL JEREMY SCHROT	DATE
207665	DRAWING NO
HORIZ: 1"=40'	SHEET NO
VERT: 1"=4'	25 OF 41



ROAD CONSTRUCTION PLAN

DESCRIPTION: BRANDS - SET BEACH TIE, NORTH FACE OF
LIGHT POLE AT SOUTHEAST QUADRANT OF MILLER RD. AND
CHELSEA CL.
N=646287.5360
E=13298084.4150
EL=765.30

 COLD MILLING HMA SURFACE
 PAVT RES, MODIFIED
 SKEWALIC, RES

 SIDEWALK, RAMP, CONC. 8 INCH
SIDEWALK, CONC. 8 INCH

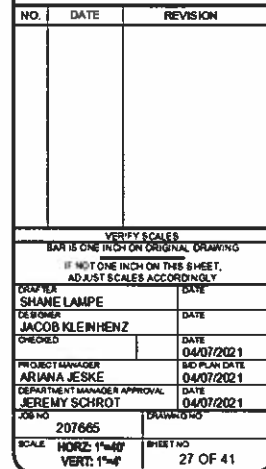
 SIDEWALK, CONC. 6 INCH

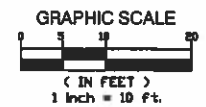
 DRIVEWAY, NONREF. CONC. 8 INCH

Pay Item Co	Pay Item	Unit	Qty
2030011	Dr Structure, Rem	Ea	10
2030015	Sewer, Rem, Less than 24 inch	Ft	188
2040050	Pent, Rem, Modified	Syd	965
2040055	Sidewalk, Rem	Syd	413
2050010	Embankment, C/P	Cyd	130
2050016	Excavation, Earth	Cyd	240
3010002	Subbase, C/P	Cyd	85
3020018	Aggregate Base, 6 inch	Syd	95
3020020	Aggregate Base, 8 inch	Syd	530
3020030	Aggregate Base, 12 inch	Syd	530
4020800	Sewer, Cl E, 12 inch, Tr Det B	Ft	174
4021230	Sewer Bulkhead, 12 inch	Ea	3
4030005	Dr Structure Cover, Adj, Case 1	Ea	11
4030010	Dr Structure Cover, Type B	Ea	1
4030050	Dr Structure Cover, Type K	Ea	7
4030210	Dr Structure, 48 inch dia	Ea	8
4030312	Dr Structure, Tao, 12 inch	Ea	9
5010002	Cold Milling HMA Surface	Syd	3550
5010025	Hand Patching	Ton	10
5010046	HMA, 3E10	Ton	95
5010052	HMA, 4E10	Ton	780
5010058	HMA, 5E10	Ton	370
8010005	Orbwey, Nonrelet Conc, 6 inch	Syd	70
8020038	Cur and Gutter, Conc, Det F4	Ft	1580
8037001	Detectable Warning Surface, Modified	Ft	55
8030030	Cur Ramp Opening, Conc	Ft	85
8030036	Sidewalk Ramp, Conc, 6 inch	Sft	421
8030044	Sidewalk, Conc, 4 inch	Sft	732
8030046	Sidewalk, Conc, 6 inch	Sft	2643
8167002	Turf Establishment, Performance	Syd	890

- NOTES:
1. WHERE STRUCTURE ADJ-1, ADJ-2, AND ADJ-3 ARE INDICATED ON THE PLANS, NUMBERS 1, 2, AND 3 CORRESPOND TO CITY OF FLINT CASTING DETAILS CF-1, CF-2, AND CF-3, RESPECTIVELY. THE STRUCTURES ARE TO BE ADJUSTED TO FINAL GRADE WITH NEW STRUCTURE FRAMES AND COVERS AS INDICATED ON THE LEGEND SHEET AND THE CITY OF FLINT CASTING DETAILS SHEET. CASTINGS CF-1 AND CF-2 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE B". CASTINGS CF-3 ARE PAID FOR AS PAY ITEM "DR STRUCTURE COVER, TYPE K". ALL OTHER STRUCTURE COVER TYPES WILL REFER TO MDOT STANDARD PLANS.
 2. EXISTING STORM STRUCTURES THAT ARE TO BE TAPPED WITH A PROPOSED STORM SEWER ARE INDICATED IN THE STRUCTURE TABLE AS ST-###. THE "ST" INDICATES STRUCTURE TAP AND THE NUMBER (###) INDICATES THE EXISTING STORM STRUCTURE WHICH IS BEING TAPPED.
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 4. MDOT SOIL EROSION CONTROL MEASURE 29 IS INDICATED IN THE TOP PORTION OF THE SHEET FOR EXISTING STORM STRUCTURES WHICH ARE TO BE PROTECTED. SOIL EROSION CONTROL MEASURE 29 SHALL ALSO BE APPLIED TO EACH PROPOSED STORM CATCH BASIN WHICH IS INDICATED IN THE STRUCTURE TABLE AS CB-##.
 5. WHERE CATCH BASIN RIM ELEVATIONS ARE INDICATED ON THESE PLANS, THE ELEVATION LISTED REPRESENTS THE EDGE OF PAVEMENT ELEVATION.
 6. FOR ADDITIONAL CURB RADIUS INFORMATION AND DETAILED INTERSECTION GRADING, REFER TO THE DETAILED INTERSECTION GRADING SHEETS.

Structure Name	RIM ELEVATION	STATION/OFFSET	STRUCTURE SIZE	COVER TYPE
108	754.72	70+69.51, -22.81, L	48	Cover K
74	754.33	70+98.80, 29.00, R	48	Cover K
103	754.59	71+28.82, -32.61, L	48	Cover K
77	754.28	71+34.78, 19.78, R	48	Cover K
78	758.87	74+17.50, 17.20, R	48	Cover K
79	759.34	74+03.38, 16.57, R	48	Type B
84	759.34	74+42.01, -39.75, L	48	Cover K
87	760.04	74+78.54, -23.47, L	48	Cover K





UTILITY NOTE
PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES (IN CONFLICT WITH PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. CALL 800-811-1111 FOR MORE INFORMATION.

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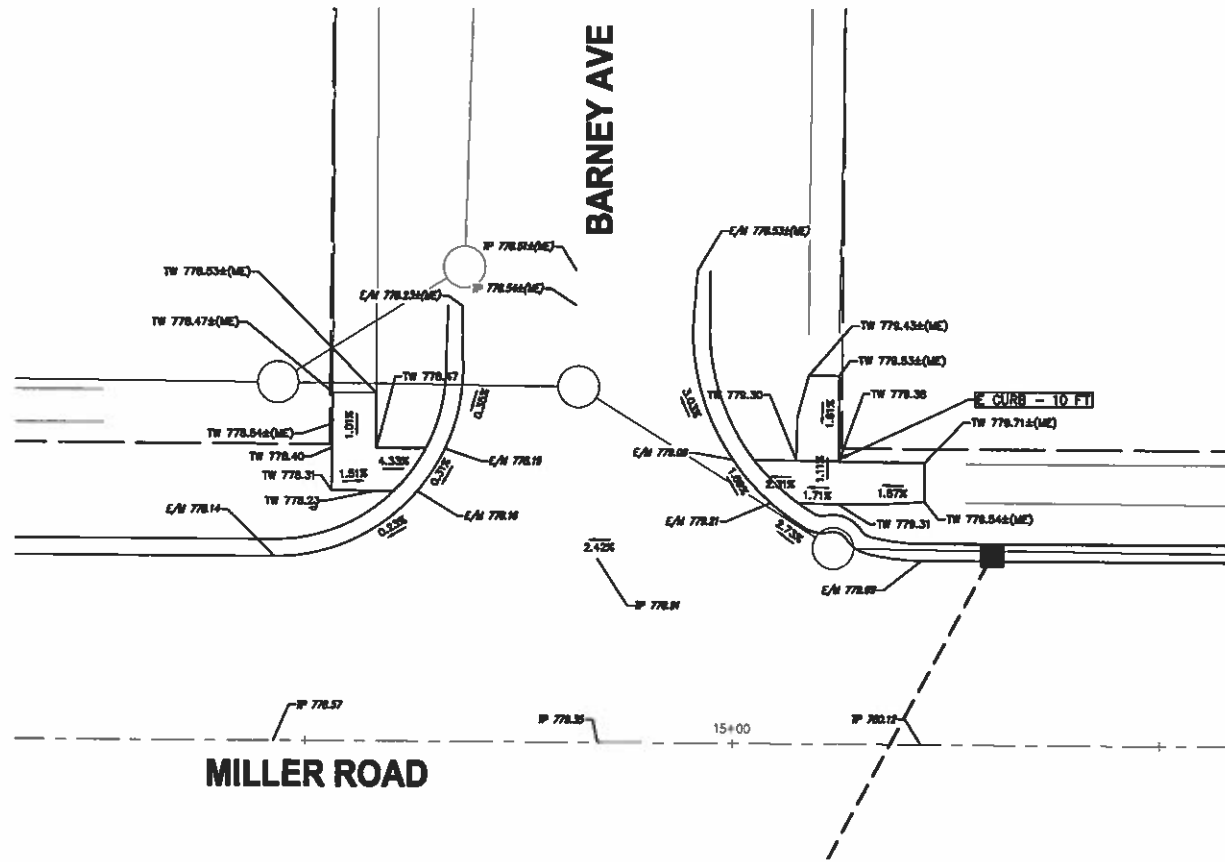
**MILLER ROAD
RESURFACING
FROM BALLENGER HWY
TO HAMMERBERG RD**

DETAIL GRADES 1

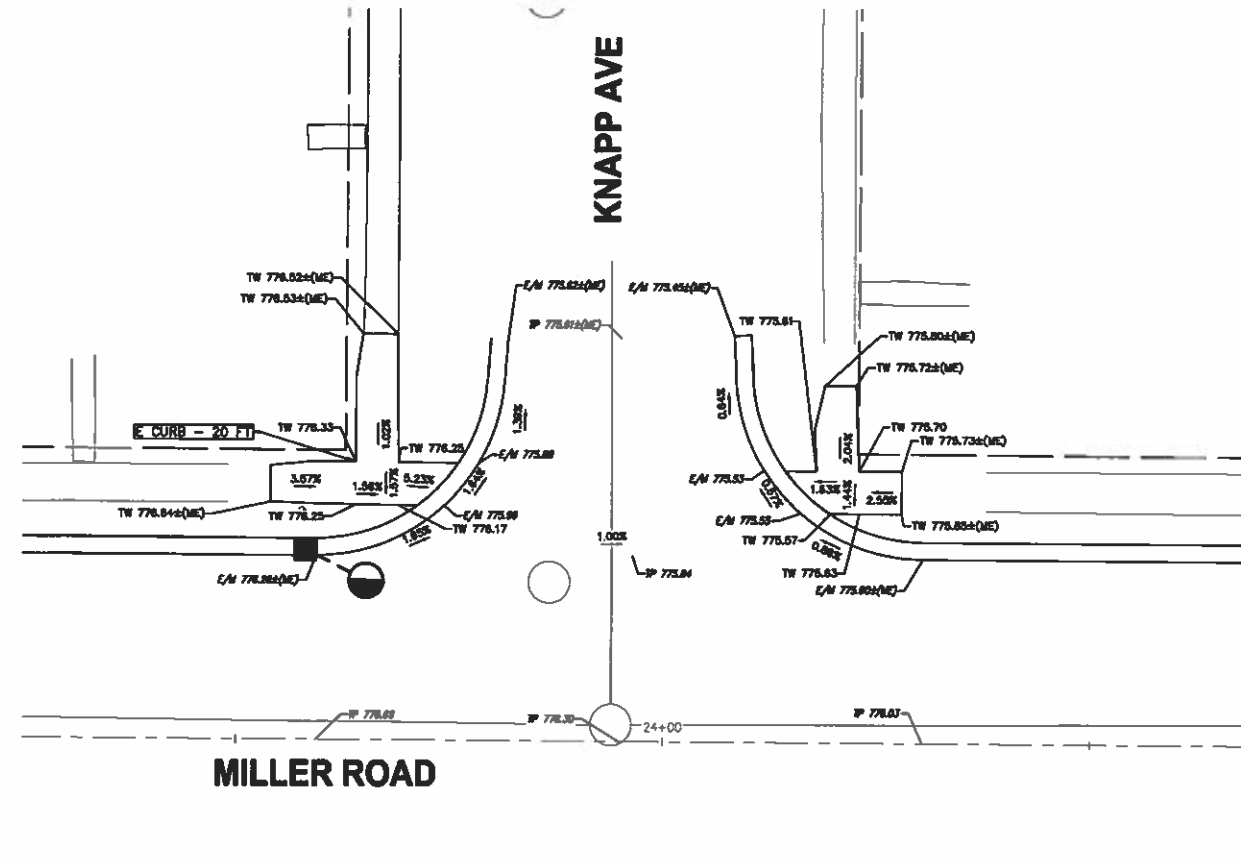
CITY OF FLINT
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FLINT, MI 48902
(810) 785-7165

NO.	DATE	REVISION

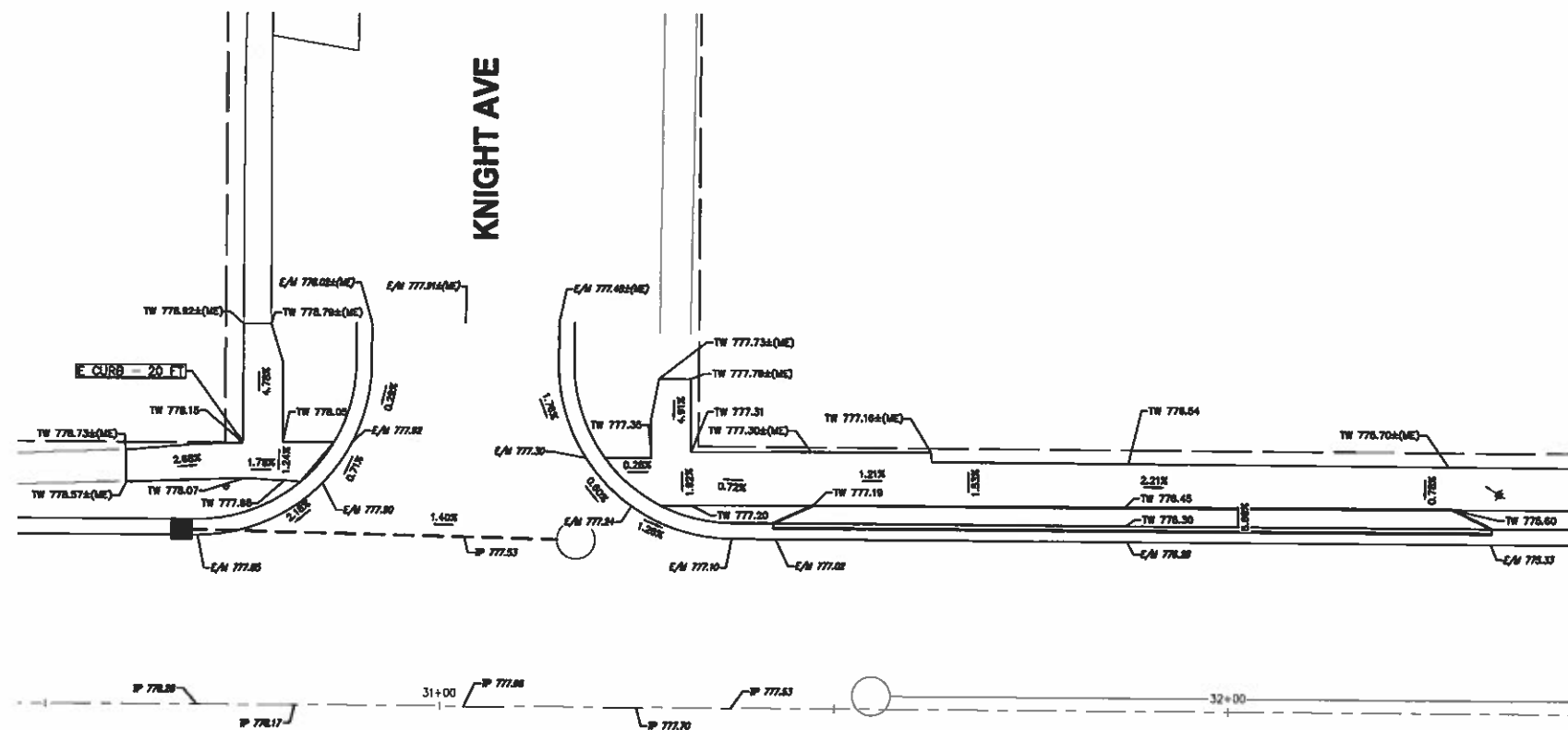
VERIFY SCALES	
BARS ONE INCH ON ORIGINAL DRAWING	
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	
DESIGNED BY BRUCE CARLSTROM	DATE 04/07/2021
DRAWN BY BRUCE CARLSTROM	DATE 04/07/2021
CHECKED BY ARIANNA JESKE	DATE 04/07/2021
PROJECT MANAGER JEREMY SCHIOT	DATE 04/07/2021
JOB NO. 207665	DRAWING NO. 28 OF 41
SCALE 1" = 10'	



BARNEY AVE INTERSECTION



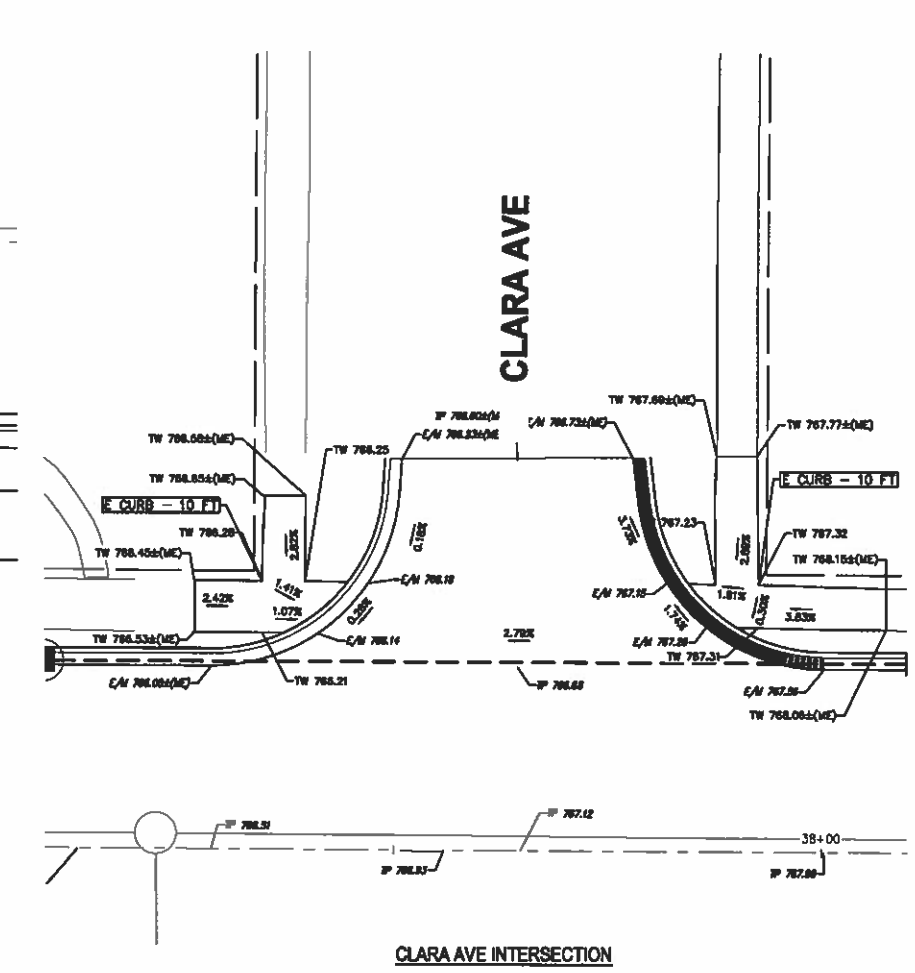
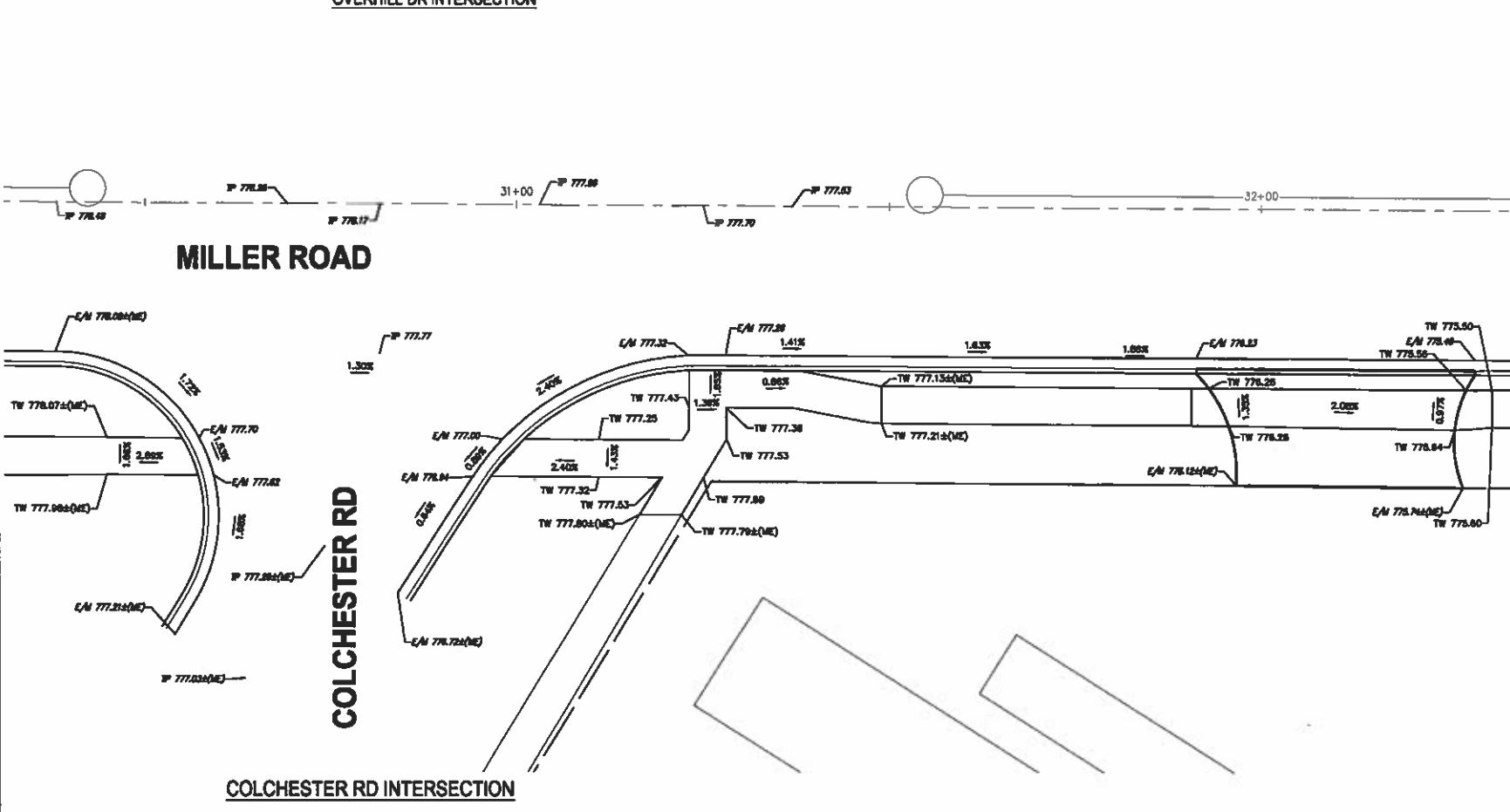
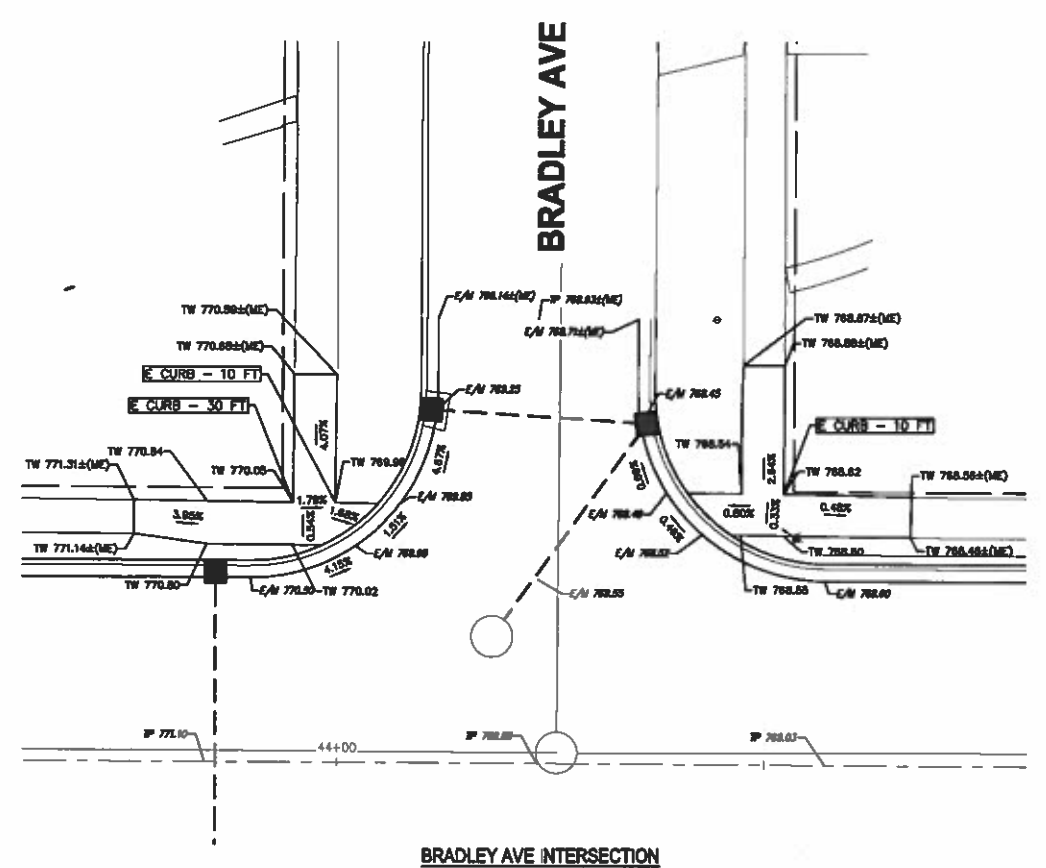
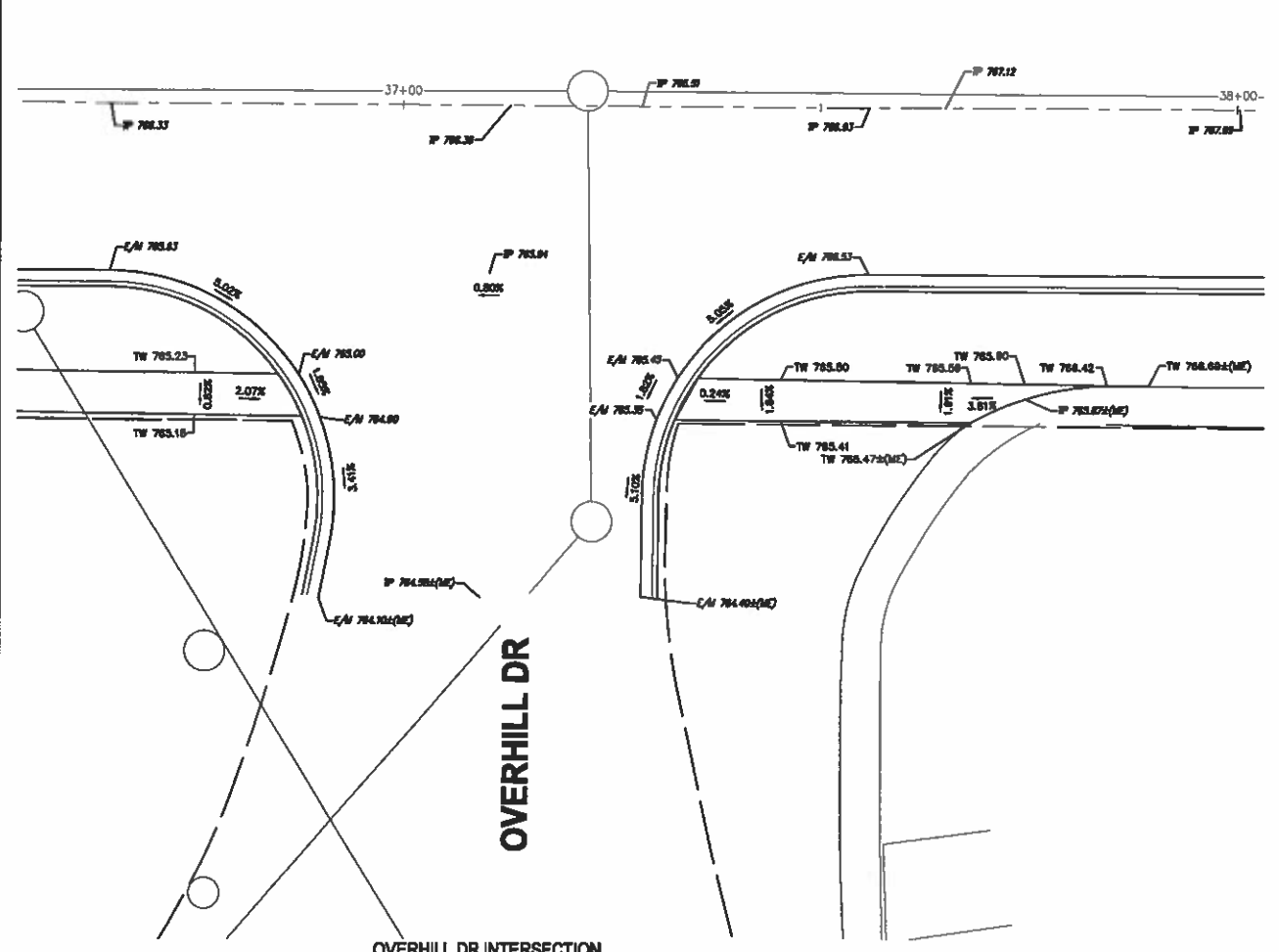
KNAPP AVE INTERSECTION



MILLER ROAD

KNIGHT AVE INTERSECTION

Plotted: Apr 12, 2021, 4:2 PM by user: 1049 - Saved: 4/9/2021 by user: 1030
J:\FLY-002 Miller Road\DWG\LEVEL 2002 DETAILED GRADING.dwg



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GRAPHIC SCALE
(IN FEET)
1 inch = 10 ft.

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MILLER ROAD RESURFACING FROM BALLENGER HWY TO HAMMERBERG RD
DETAIL GRADES 2

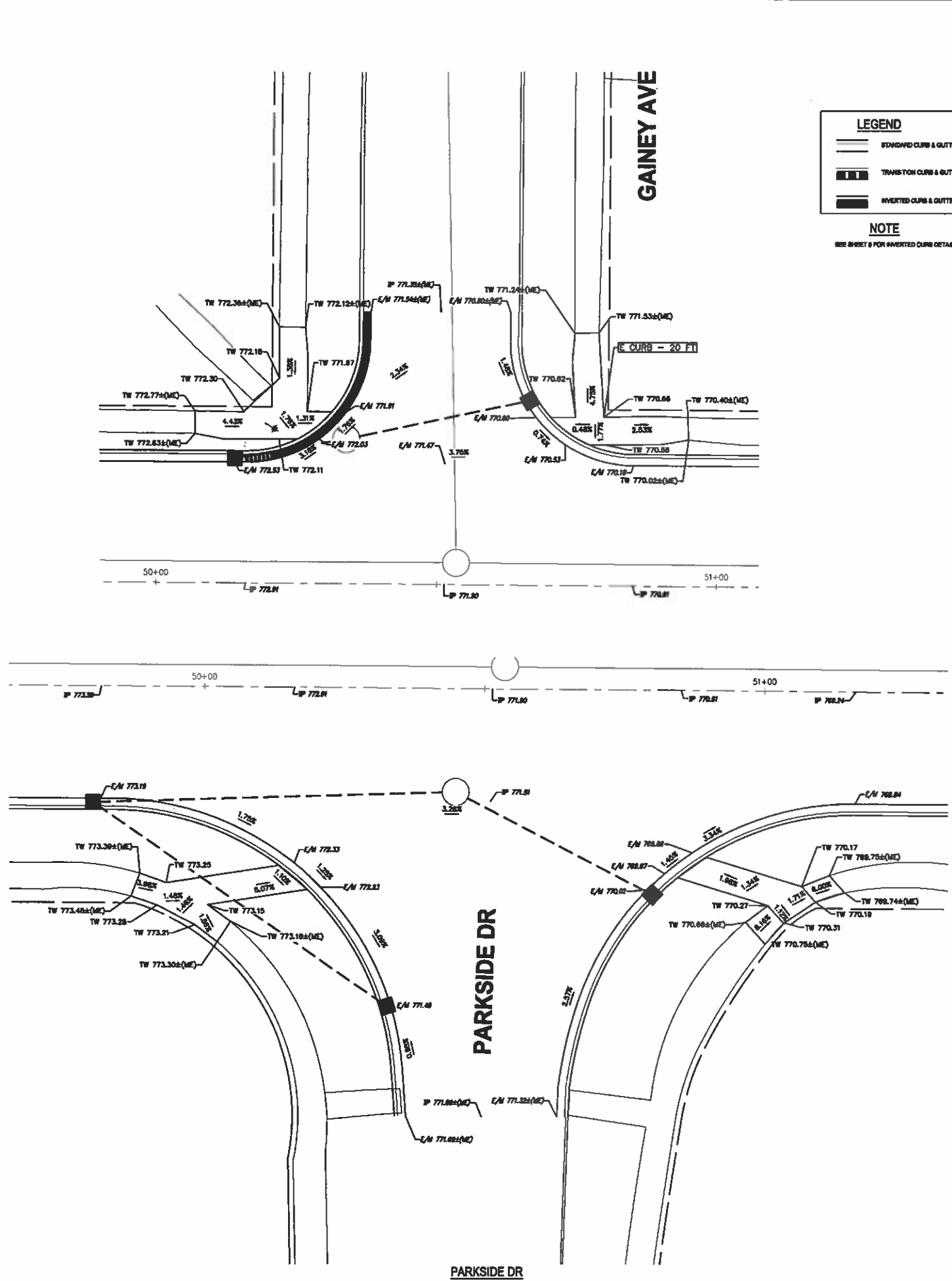
CITY OF FLINT
1101 SOUTH SAGINAW STREET
FLINT, MI 48902
(810) 768-7165

NO.	DATE	REVISION

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY.

DATE	DATE
BRUCE CARLSTROM	
BRUCE CARLSTROM	
CHIEF	
PROJECT MANAGER	
ARIANA JESKE	
DEPARTMENT MANAGER APPROVAL	
JEREMY SCHROT	

207665
SCALE 1 10
SHEET NO 29 OF 41



MILLER ROAD RESURFACING FROM BALLENGER HWY TO HAMMERBERG RD DETAIL GRADES 3		
CITY OF FLINT 1101 SOUTH SAGINAW STREET FLINT, MI 48802 (810) 766-7165		
NO.	DATE	REVISION
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY		
SPOILER BRUCE CARL STROM	DATE	
DESIGNER BRUCE CARL STROM	DATE	
CHECKED JEREMY SCHROT	DATE	DATE
PROJECT MANAGER ARIANA JESKE	DATE	DATE
DEPARTMENT MANAGER APPROVAL JEREMY SCHROT		DATE
JOB NO. 207665	DRAWING NO. 30 OF 41	
SCALE 1"=10'	SHEET NO. 30 OF 41	

LEGEND

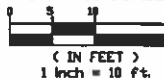


NOTE

SEE SHEET 9 FOR INVERTED CURB DETAIL.



GRAPHIC SCALE



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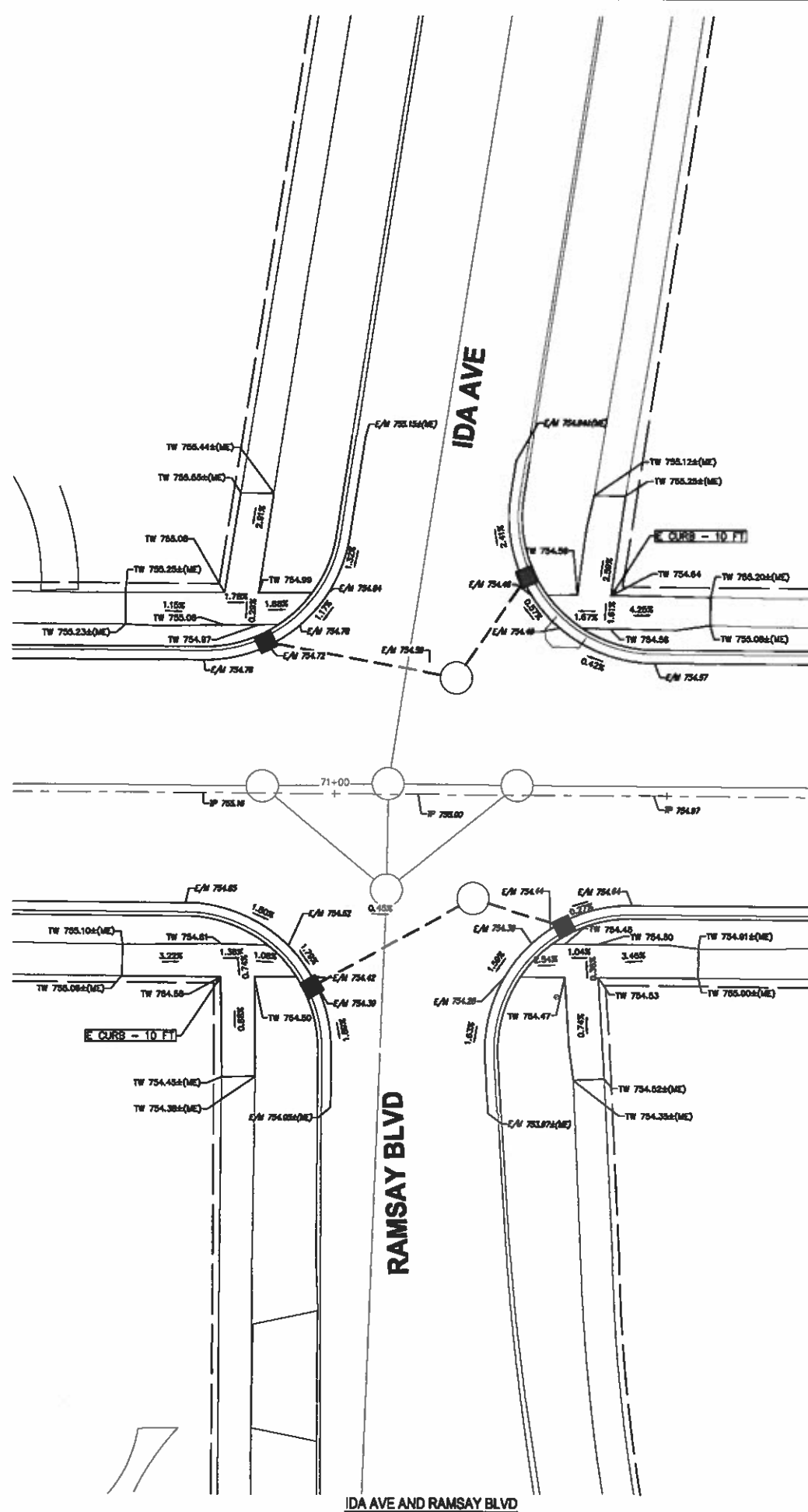
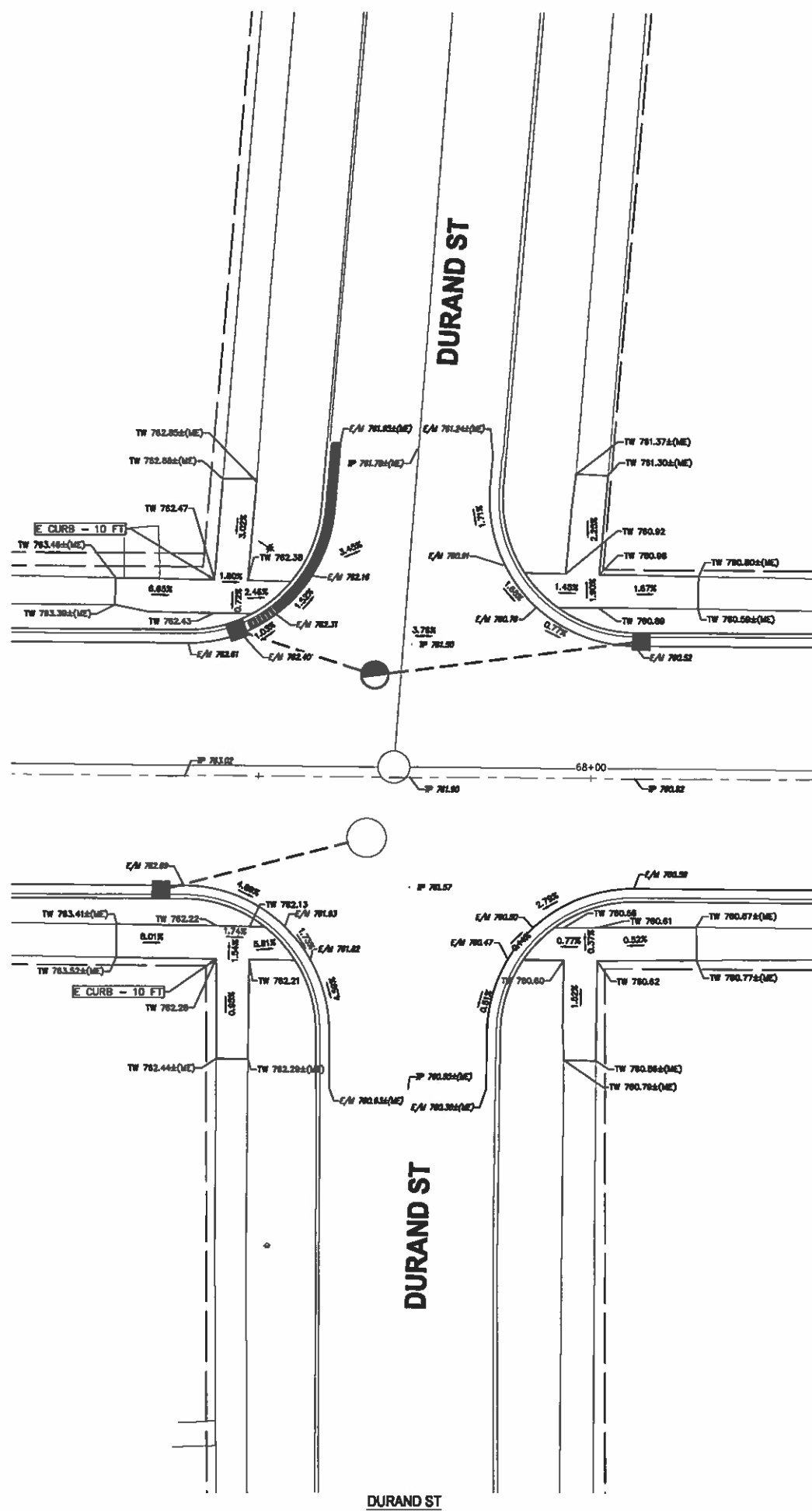
**MILLER ROAD
RESURFACING
FROM BALLENGER HWY
TO HAMMERBERG RD**

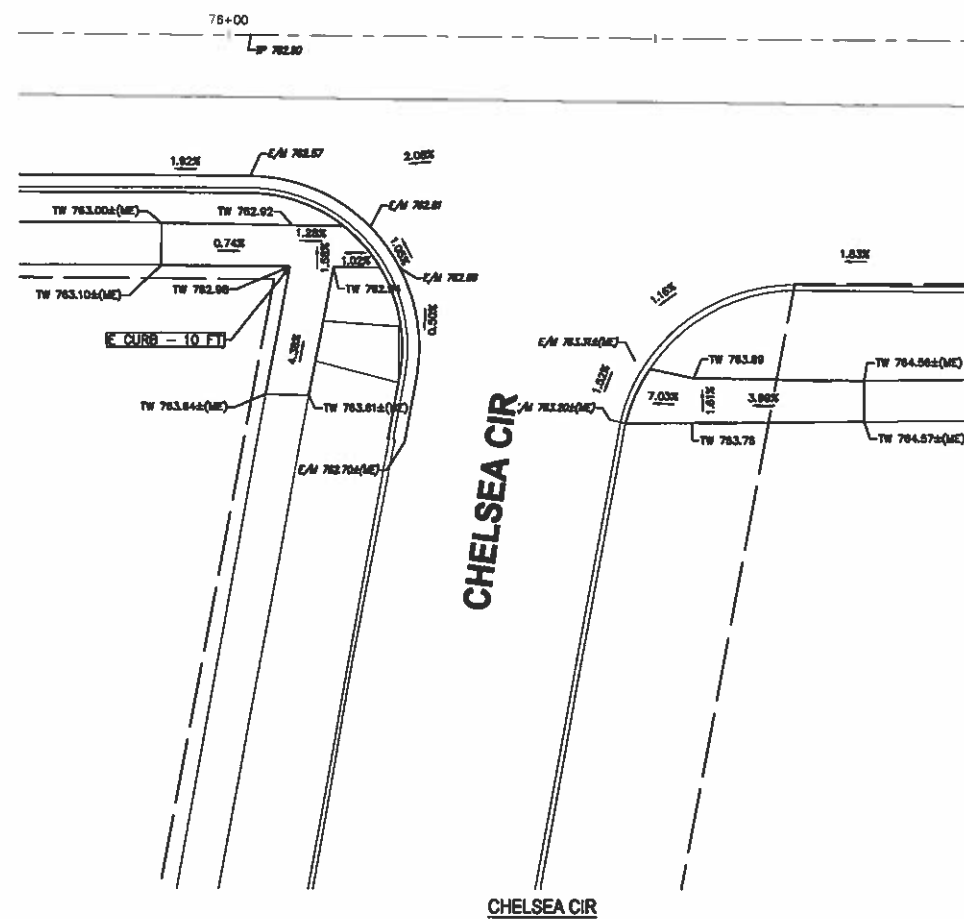
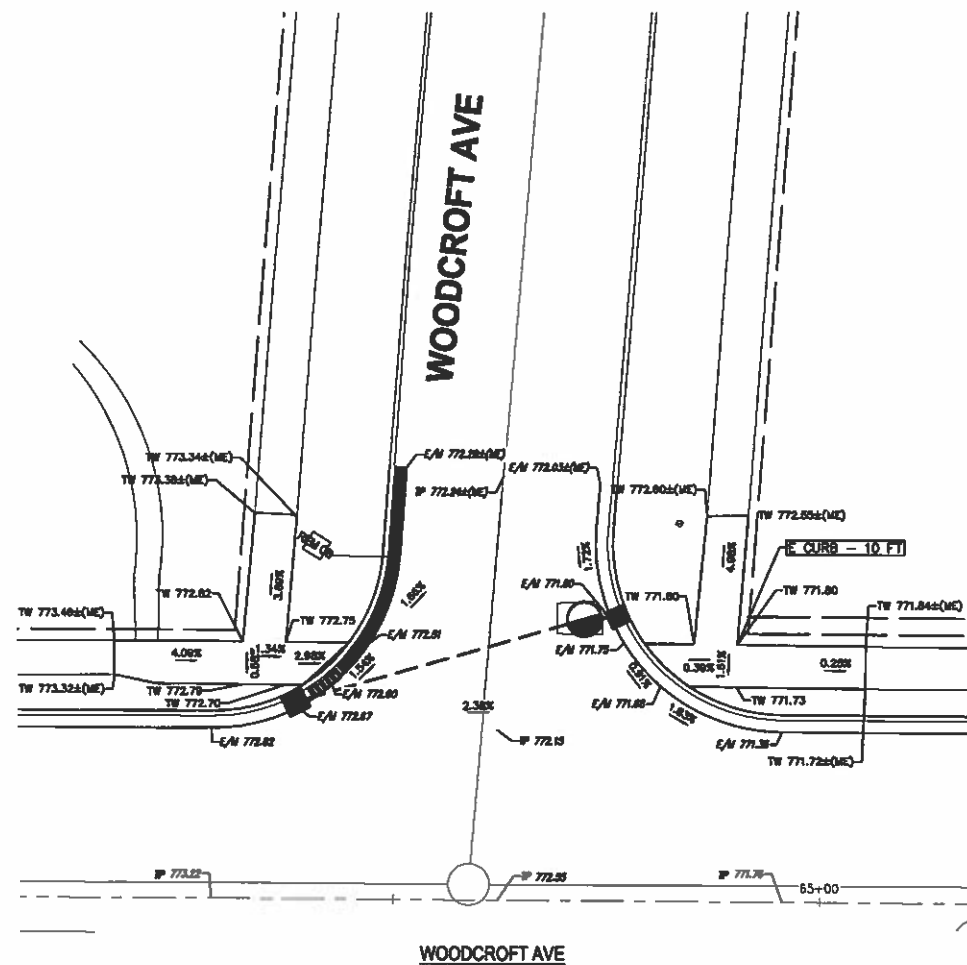
DETAIL GRADES 5

CITY OF PONTIAC
1101 SOUTH BAGNAY STREET
PONTIAC, MI 48302
(810) 766-7165

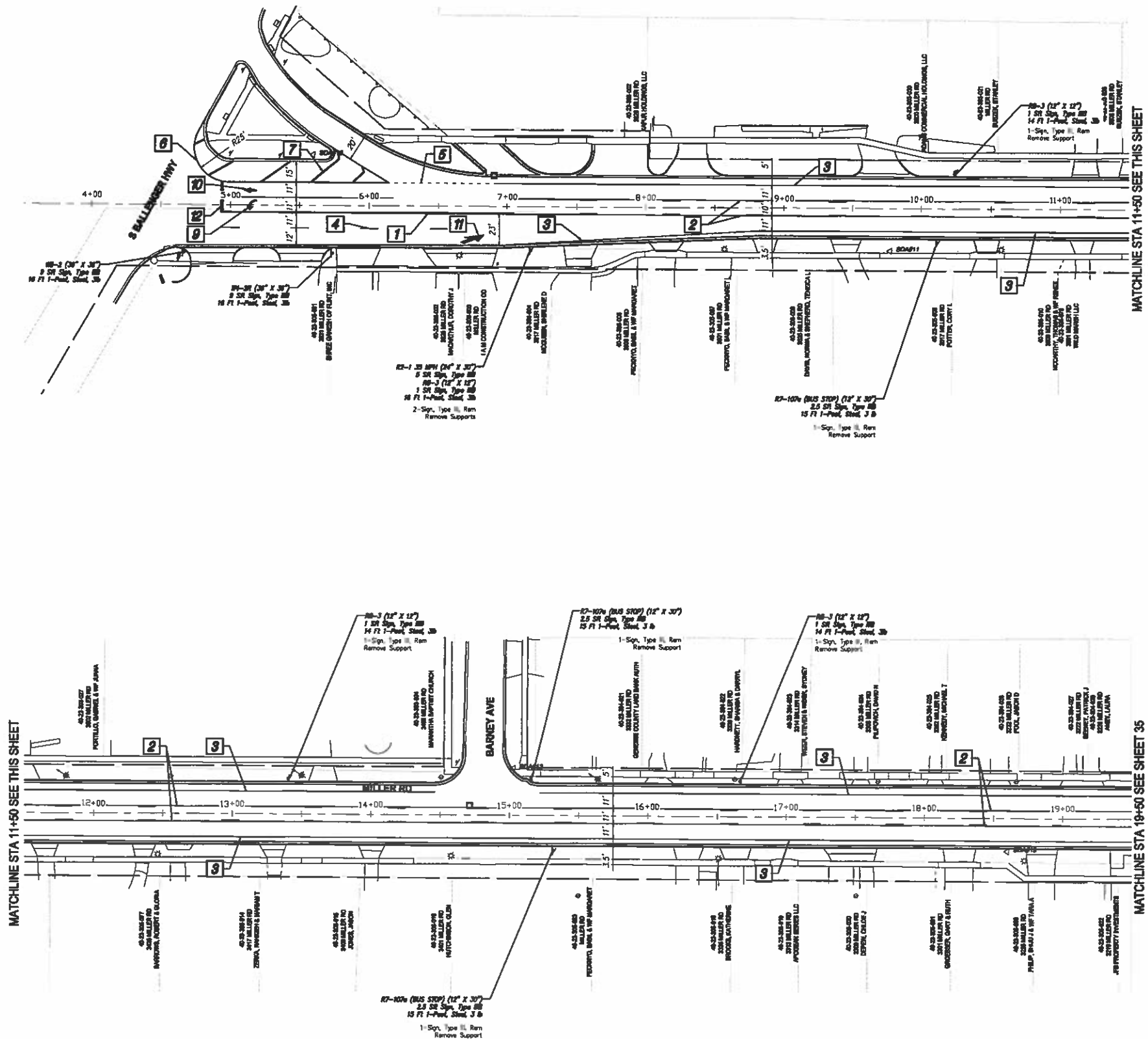
NO.	DATE	REVISION

VERIFY SCALES	
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DESIGNED BY BRUCE CARLSTROM	DATE
DRAWN BY BRUCE CARLSTROM	DATE
CHECKED BY JEREMY SCHROTT	DATE
PROJECT MANAGER ARIANA JESKE	DATE
DEPARTMENT MANAGER APPROVAL JEREMY SCHROTT	DATE
207665	DRAWN BY
SCALE 1" = 10'	SHEET NO. 32 OF 41





VERIFY SCALES	
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DRAWER	DATE
BRUCE CARLSTROM	
DESIGNER	DATE
BRUCE CARLSTROM	
CHECKED	DATE
	04/07/2021
PROJECT MANAGER	SUB PLAN DATE
ARIANA JESKE	04/07/2021
DEPARTMENT MANAGER / APPROVAL	DATE
JEREMY SCHROT	04/07/2021
JOB NO.	DRAWING NO.
207665	
SHEET	OF 22
1 10	33 OF 41



QUANTITIES THIS SHEET			
Pay Item Co	Pay Item	Unit	Qty
8100371	Post, Steel, 3 lb	Ft	135
8100403	Sign, Type II, Ram	Ea	8
8100406	Sign, Type IIB	SB	25.5
8110045	Pav Mfg, Only Cold Plastic, 24 inch, Stop Bar	Ft	22
8110083	Pav Mfg, Only Cold Plastic, LT Turn Arrow Symbol	Ea	1
8110078	Pav Mfg, Only Cold Plastic, Thru Arrow Symbol	Ea	1
8110050	Pav Mfg, Only Cold Plastic, Merge Arrow Symbol	Ea	1
8110153	Pav Mfg, Sprayable Thermopl, 4 inch, White	Ft	2634
8110154	Pav Mfg, Sprayable Thermopl, 4 inch, Yellow	Ft	3865
8110155	Pav Mfg, Sprayable Thermopl, 6 inch, White	Ft	247
8110156	Pav Mfg, Sprayable Thermopl, 12 inch, White	Ft	102

NOTES

- 1 4 INCH, YELLOW (DOUBLE SOLID)
- 2 4 INCH, YELLOW (SOLID & BROKEN) (12.5" MARK, 37.5" GAP)
- 3 4 INCH, WHITE (SOLID)
- 4 4 INCH, WHITE (BROKEN) (12.5" MARK, 37.5" GAP)
- 5 4 INCH, WHITE (BROKEN) (2" MARK, 4" GAP)
- 6 8 INCH, WHITE (SOLID)
- 7 12 INCH, WHITE (SOLID)
- 8 ONLY COLD PLASTIC, RT TURN ARROW
- 9 ONLY COLD PLASTIC, LT TURN ARROW
- 10 ONLY COLD PLASTIC, THRU ARROW
- 11 ONLY COLD PLASTIC, MERGE ARROW
- 12 ONLY COLD PLASTIC, 24 INCH STOP BAR

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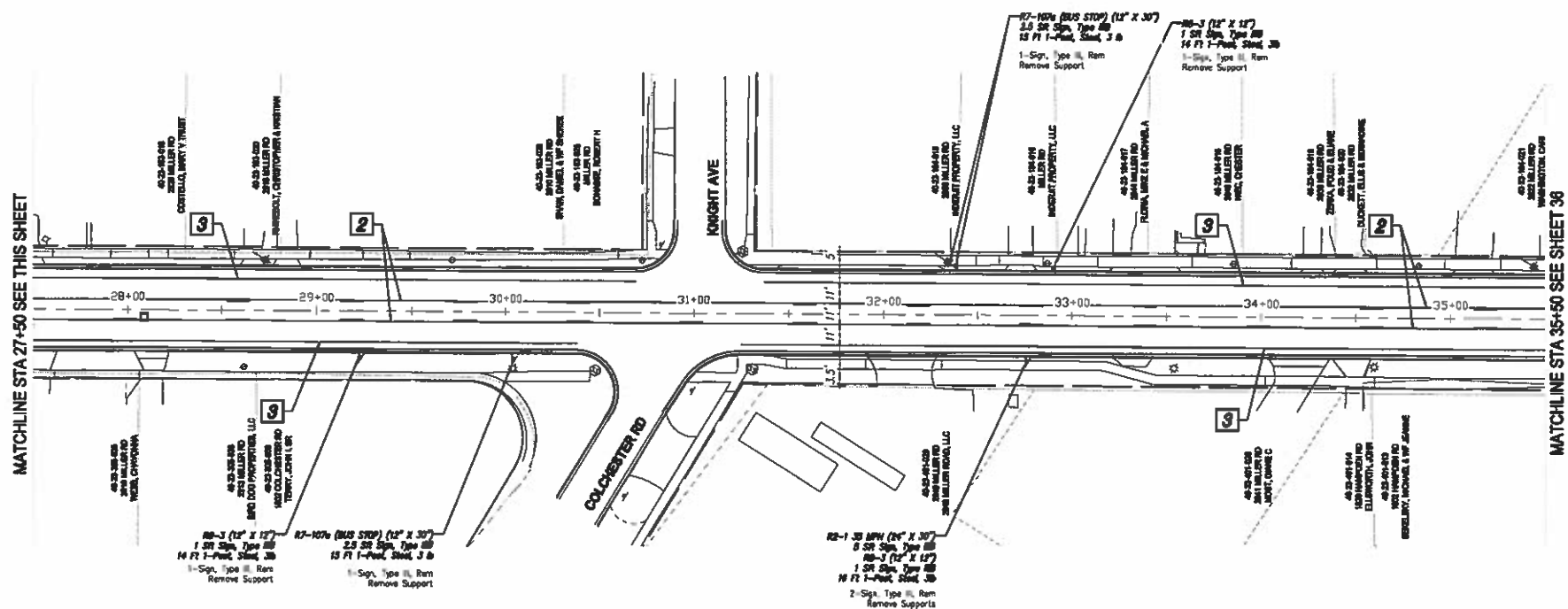
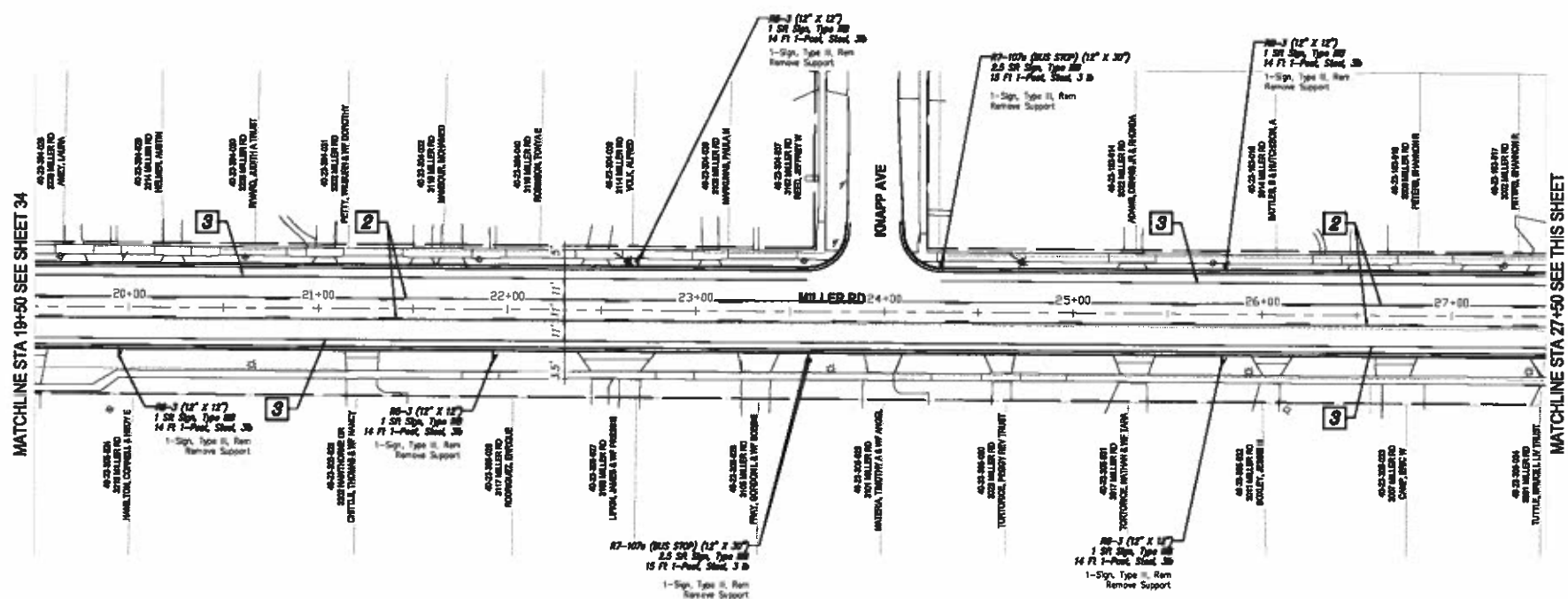
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MILLER ROAD RESURFACING FROM BALLENGER HWY TO HAMMERBERG RD

PAVEMENT MARKING AND SIGNS FROM POB TO STA 19+50

CITY OF FLINT 1101 SOUTH BAYVIEW STREET FLINT, MI 48602 (810) 766-7165		
NO.	DATE	REVISION
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY		
DRAWN BY JACOB KLEINHENZ	DATE	
DESIGNED BY JACOB KLEINHENZ	DATE	
CHECKED BY 	DATE	04/07/2021
PROJECT MANAGER ARIANA JESKE	DATE	04/07/2021
PROJECT ENGINEER JEREMY SCHIOT	DATE	04/07/2021
JOB NO. 207665	DRAWING NO.	
SCALE 1:40	SHEET NO. 34 OF 41	



QUANTITIES THIS SHEET			
Pay Item Co	Pay Item	Unit	Qty
8100371	Post, Steel, 3 lb	Fl	174
8100403	Sign, Type III, Ram	EA	13
8100405	Sign, Type III	EA	23
810153	Pav. Mfg. Sprayable Thermop. 4 inch, White	Fl	2875
810154	Pav. Mfg. Sprayable Thermop. 4 inch, Yellow	Fl	4100

NOTES

- 1 INCH, YELLOW (DOUBLE SOLID)
- 4 INCH, YELLOW (SOLID & BROKEN) (12.5' MARK, 37.5' GAP)
- 4 INCH, WHITE (SOLID)
- 4 INCH, WHITE (BROKEN) (12.5' MARK, 37.5' GAP)
- 4 INCH, WHITE (BROKEN) (2' MARK, 4' GAP)
- 8 INCH, WHITE (SOLID)
- 12 INCH, WHITE (SOLID)
- ONLY COLD PLASTIC, RT TURN ARROW
- ONLY COLD PLASTIC, LT TURN ARROW
- ONLY COLD PLASTIC, THRU ARROW
- ONLY COLD PLASTIC, MERGE ARROW
- ONLY COLD PLASTIC, 24 INCH STOP BAR

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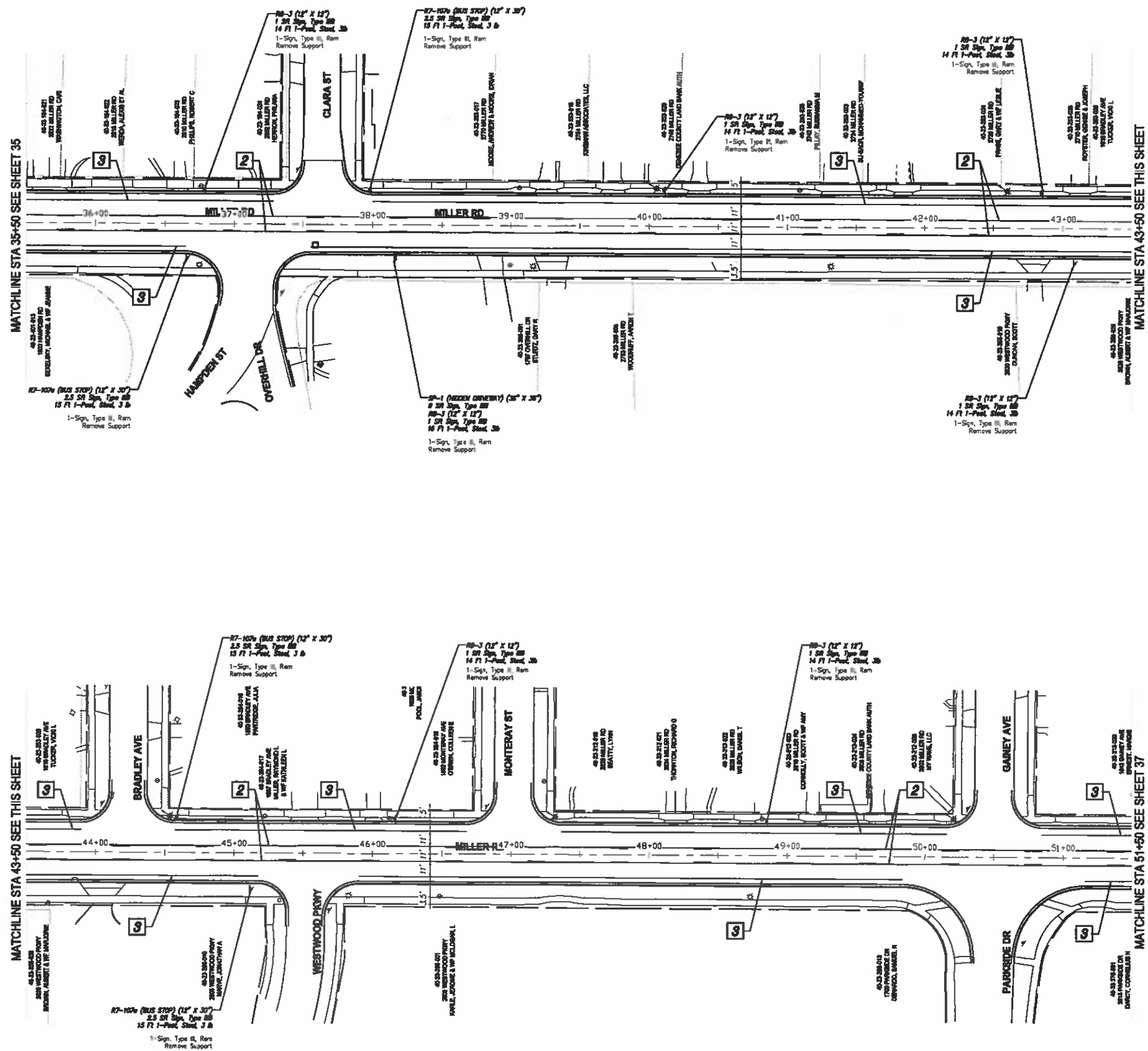
MILLER ROAD RESURFACING FROM BALLENGER HWY TO HAMMERBERG RD

PAVEMENT MARKING AND SIGNS
FROM STA 19+50
TO STA 35+50

CITY OF FLINT
1101 SOUTH BAGNAY STREET
FLINT, MI 48602
(810) 766-7165

NO.	DATE	REVISION

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DRAWN BY JACOB KLEINHENZ	DATE 04/07/2021
CHECKED BY JACOB KLEINHENZ	DATE 04/07/2021
PROJECT MANAGER ARIANA JESKE	DATE 04/07/2021
EXECUTIVE MANAGER APPROVAL JEREMY SCHROIT	DATE 04/07/2021
JOB NO. 207665	DRAWING NO.
SCALE 1:40	SHEET NO. 35 OF 41



QUANTITIES THIS SHEET			
Pay Item Co	Pay Item	Unit	Qty
8100371	Post, Steel, 3 lb	Ft	180
8100403	Sign, Type II, Rem	Ea	11
8100405	Sign, Type IIB	Sr	28
8110153	Pav Mfg, Sprayable Thermop, 4 inch, White	Ft	2027
8110154	Pav Mfg, Sprayable Thermop, 4 inch, Yellow	Ft	4181

NOTES

- 1 4 INCH, YELLOW (DOUBLE SOLID)
- 2 4 INCH, YELLOW (SOLID & BROKEN) (12.5' MARK, 37.5' GAP)
- 3 4 INCH, WHITE (SOLID)
- 4 4 INCH, WHITE (BROKEN) (12.5' MARK, 37.5' GAP)
- 5 4 INCH, WHITE (BROKEN) (2' MARK, 4' GAP)
- 6 6 INCH, WHITE (SOLID)
- 7 12 INCH, WHITE (SOLID)
- 8 ONLY COLD PLASTIC, RT TURN ARROW
- 9 ONLY COLD PLASTIC, LT TURN ARROW
- 10 ONLY COLD PLASTIC, THRU ARROW
- 11 ONLY COLD PLASTIC, MERGE ARROW
- 12 ONLY COLD PLASTIC, 24 INCH STOP BAR

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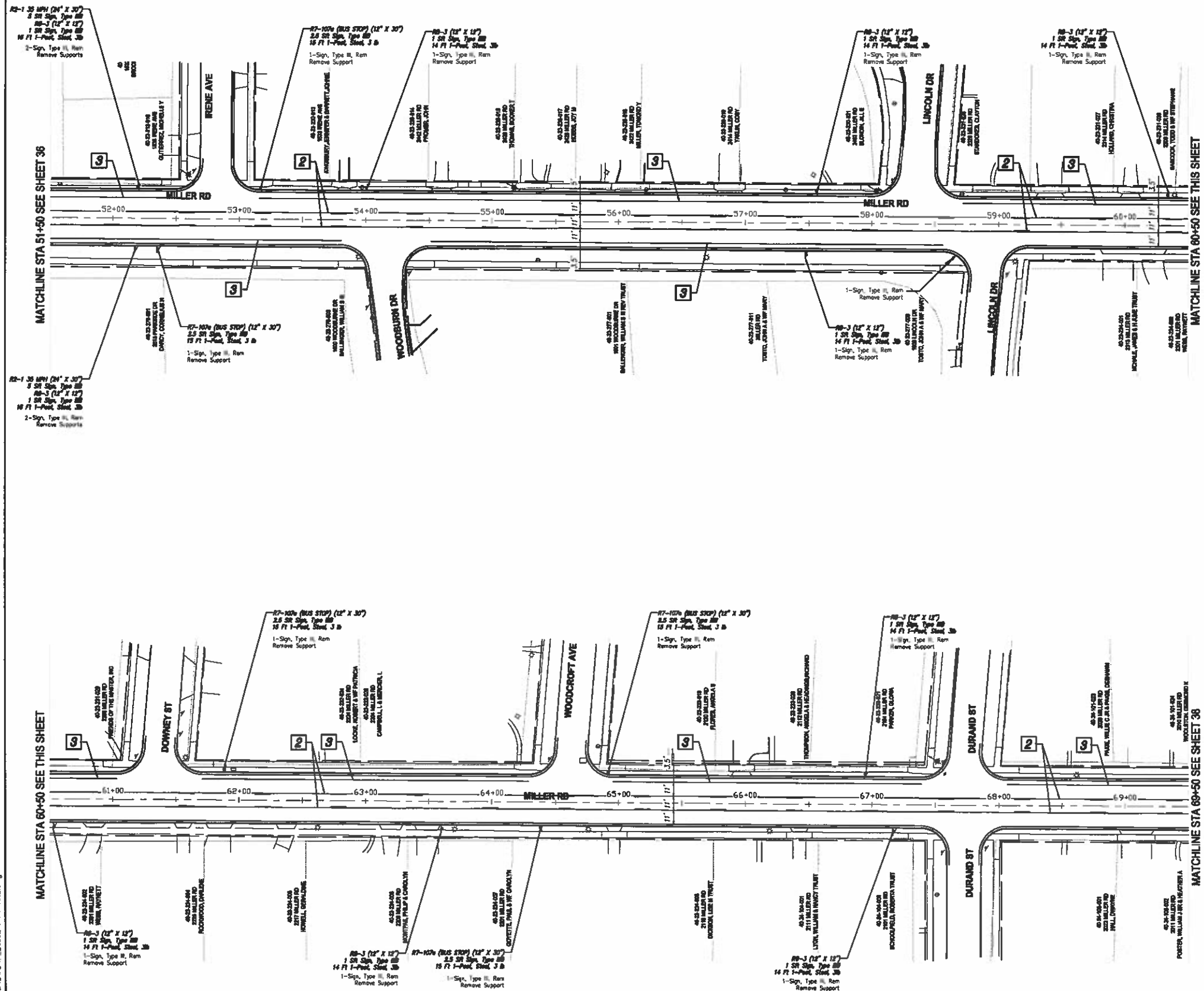
MILLER ROAD RESURFACING FROM BALLENGER HWY TO HAMMERBERG RD

PAVEMENT MARKING AND SIGNS
FROM STA 35+50
TO STA 51+50

QTY OF FLINT
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FLINT, MI 48602
(810) 786-7165

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CHECKED BY JACOB KLEINHENZ	DATE
DRAWN BY ARIANA JESKE	DATE
PROJECT MANAGER JEREMY SCHROTT	DATE
207665	DRAWING NO.
1:40	SHEET NO. 36 OF 41



QUANTITIES THIS SHEET			
Pay Item Co	Pay Item	Unit	Qty
8100371	Post, Steel, 3 lb	Fl	219
8100403	Sign, Type III, Rem	Ea	18
8100405	Sign, Type III	Sq	32.5
8110153	Pav. Mfg. Sprayable Thermop. 4 inch, White	Fl	2096
8110154	Pav. Mfg. Sprayable Thermop. 4 inch, Yellow	Fl	4880

NOTES

- 1 4 INCH, YELLOW (DOUBLE SOLID)
- 2 4 INCH, YELLOW (SOLID & BROKEN) (12.5' MARK, 37.5' GAP)
- 3 4 INCH, WHITE (SOLID)
- 4 4 INCH, WHITE (BROKEN) (12.5' MARK, 37.5' GAP)
- 5 4 INCH, WHITE (BROKEN) (2' MARK, 4' GAP)
- 6 8 INCH, WHITE (SOLID)
- 7 12 INCH, WHITE (SOLID)
- 8 ONLY COLD PLASTIC, RT TURN ARROW
- 9 ONLY COLD PLASTIC, LT TURN ARROW
- 10 ONLY COLD PLASTIC, THRU ARROW
- 11 ONLY COLD PLASTIC, MERGE ARROW
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UTILITY NOTES

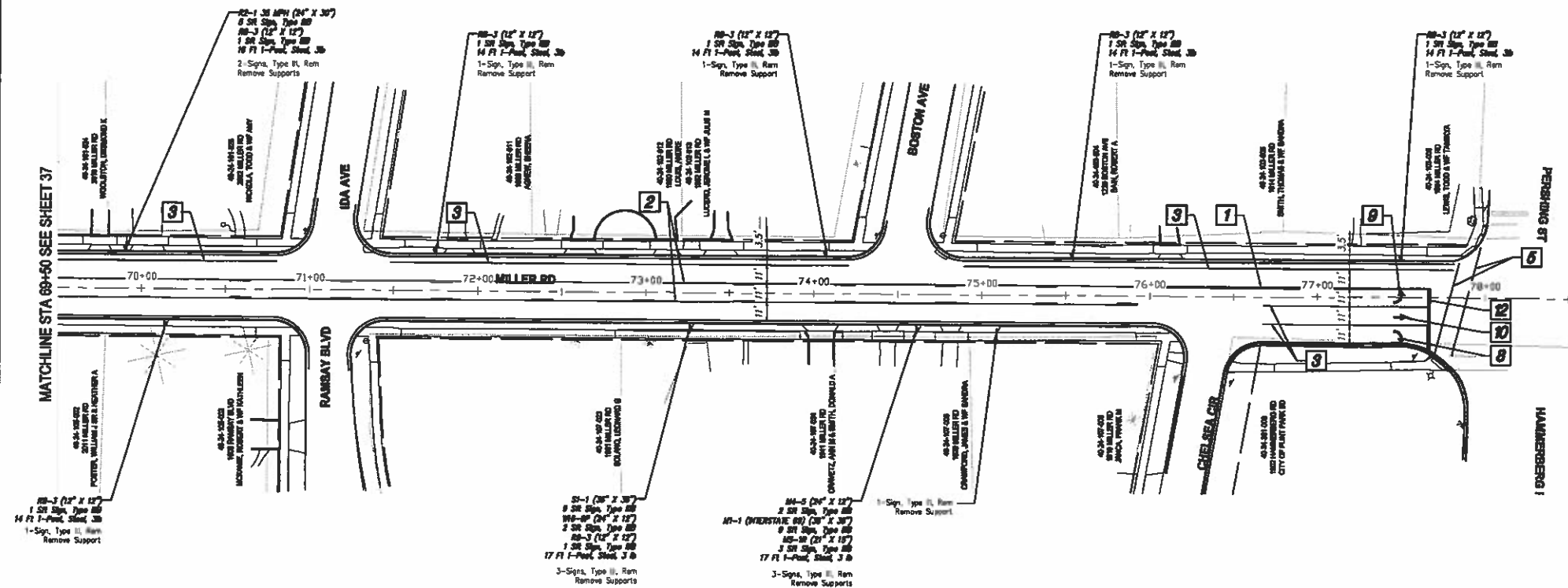
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MILLER ROAD RESURFACING FROM BALLENGER HWY TO HAMMERBERG RD

PAVEMENT MARKING AND SIGNS FROM STA 51+50 TO STA 69+50

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NO.	REVISION
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	
DRAWN BY JACOB KLEINHENZ	DATE
CHECKED BY JACOB KLEINHENZ	DATE 04/07/2021
PROJECT MANAGER ARIANA JESKE	DATE 04/07/2021
DESIGN/PROJECT MANAGER APPROVAL JEREMY SCHROEDER	DATE 04/07/2021
JOB NO. 207665	DRAWING NO. 37 OF 41



QUANTITIES THIS SHEET			
Pay Item Co	Pay Item	Unit	Qty
8100371	Post, Steel, 3 lb	Ft	120
8100403	Sign, Type II, Rem	Ea	14
8100405	Sign, Type II	Sr	37.5
8110045	Paint Mktg, Only Cold Plastic, 24 inch, Stop Bar	Ea	37
8110063	Paint Mktg, Only Cold Plastic, Lt Turn Arrow Symbol	Ea	1
8110071	Paint Mktg, Only Cold Plastic, Rt Turn Arrow Symbol	Ea	1
8110078	Paint Mktg, Only Cold Plastic, Thru Arrow Symbol	Ea	1
8110153	Paint Mktg, Sprayable Thermopl, 4 inch, White	Ft	893
8110154	Paint Mktg, Sprayable Thermopl, 4 inch, Yellow	Ft	2019
8110155	Paint Mktg, Sprayable Thermopl, 5 inch, White	Ft	123

NOTES

- 1 4 INCH, YELLOW (DOUBLE SOLID)
- 2 4 INCH, YELLOW (SOLID & BROKEN) (12.5' MARK, 37.5' GAP)
- 3 4 INCH, WHITE (SOLID)
- 4 4 INCH, WHITE (BROKEN) (12.5' MARK, 37.5' GAP)
- 5 4 INCH, WHITE (BROKEN) (2' MARK, 4' GAP)
- 6 6 INCH, WHITE (SOLID)
- 7 12 INCH, WHITE (SOLID)
- 8 ONLY COLD PLASTIC, RT TURN ARROW
- 9 ONLY COLD PLASTIC, LT TURN ARROW
- 10 ONLY COLD PLASTIC, THRU ARROW
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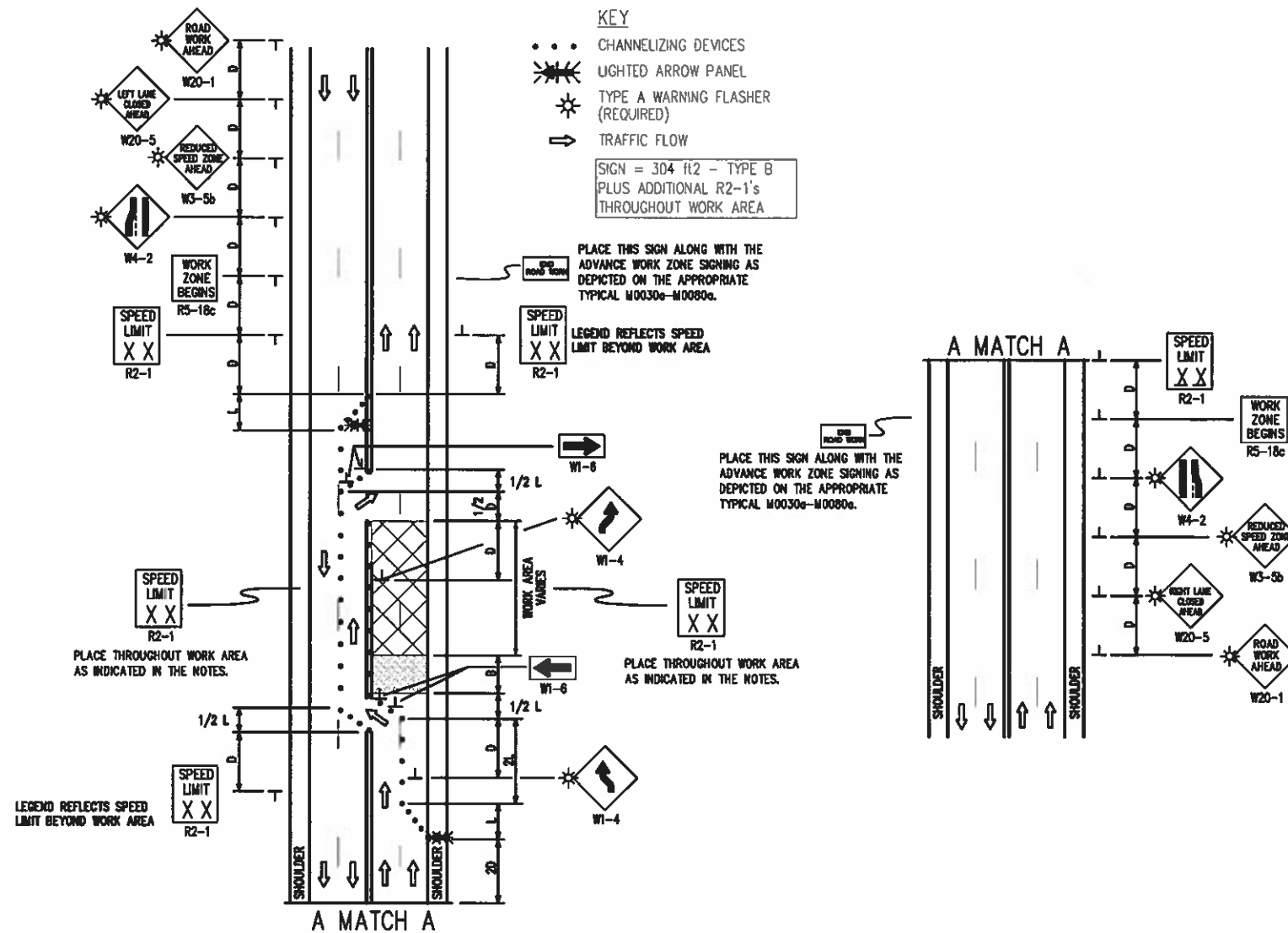
MILLER ROAD RESURFACING FROM BALLENGER HWY TO HAMBERG RD

PAVEMENT MARKING AND SIGNS FROM STA 69+50 TO POE

CITY OF FLINT
1101 SOUTH BAGS NAW STREET
FLINT, MI 48602
(810) 786-7188

NO.	DATE	REVISION

VERIFY SCALES	
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	
DATE	DATE
JACOB KLEINHEINZ	JACOB KLEINHEINZ
DESIGNED	DATE
JACOB KLEINHEINZ	04/07/2021
CHECKED	DATE
JACOB KLEINHEINZ	04/07/2021
PROJECT MANAGER	DATE
ARIANA JESKE	04/07/2021
DEPARTMENT MANAGER APPROVAL	DATE
JEREMY SCHROIT	04/07/2021
207665	DRAWING NO.
1:40	SHEET NO.
	38 OF 41



MILLER ROAD MAINTENANCE OF TRAFFIC PLAN

S BALLENGER HWY TO HAMMERBERG RD

STAGE 1: TWO LANES CLOSED. TWO-WAY TRAFFIC MAINTAINED ON TWO SOUTH LANES

STAGE 2: TWO LANES CLOSED. TWO-WAY TRAFFIC MAINTAINED ON NORTH SIDE OF ROADWAY.

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MILLER ROAD RESURFACING FROM BALLENGER HWY TO HAMMERBERG RD

STAGING PLAN STAGE 1

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1101 SOUTH SAGINAW STREET
FLINT, MI 48902
(810) 786-7186

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ERUM IMAM	DATE
CHECKED	DATE
PROJECT MANAGER	DATE
ARIANA JESKE	04/07/2021
DEPARTMENT MANAGER/APPROVAL	DATE
JEREMY SCHROT	04/07/2021
AS NO	DRAWING NO
207665	
SCALE	SHEET NO
NTS	39 OF 41

JOB NO. S-20-031 LOG OF SOIL BORING NO. 7
PROJECT: Miller Road
LOCATION: Flint, Michigan
DATE: 7/21/20 SURFACE ELEVATION: Existing

Sample & Type	Depth	Lognet	Soil Description	SPT Blows per F.	Moisture %	Nuclear Wt. LOG	Unc. Comp. FOOT	Wt. %		
	1		8" Asphalt							
			1'1" Concrete							
7A SS	2		2'0" Clay - Firm, Moist, Sandy, Variegated w/Green Till	1						
				3						
SS	3		Clay - Firm, Moist, Sandy, Variegated w/wood Pebble	4						
	4									
7B SS	5		Clay - Soft, Moist, Sandy, Variegated w/wood Pebble	5						
				6						
	6		End of Boring							
	7									
	8									
	9									
	10									
	11									
	12									
	13									
	14									
	15									
	16									
	17									
	18									
	19									
	20									
	21									
TYPE OF SAMPLE			BORING PLUGGED WITH NATURAL SOIL		GROUNDWATER OBSERVATIONS					
D - DISTURBED			* The soil descriptions shown on the logs are from visual observations. No classification tests were performed. Standard Penetration Test - Driving 1" GO Sampler 1" With 1400 Hammer Falling 38". Count Made At 6" Intervals.		G.W. ENCOUNTERED AT				FT.	INS.
U.L. - UNDIST. LAYER					G.W. ENCOUNTERED AT				FT.	INS.
S.T. - SHALLOW TUBE					G.W. ON COMPLETION AT				FT.	INS.
S.S. - BAULT SPOON					G.W. AFTER 1 HOUR				FT.	INS.
R.C. - ROCK CORE					G.W. VOLUMES				None	

JOB NO. 8-20-031 LOG OF SOIL BORING NO. 8
PROJECT: Miller Road
LOCATION: Flint, Michigan
DATE: 7/21/28 SURFACE ELEVATION: Existing

Borehole # Type	Depth	Logmark	Soil Description	SPT Blow #s/2'	Moisture %	Natural Wt 2.75	Grav. Comp. #s/2'	Gr. %
	1		4" Asphalt 11.5" Concrete					
BA	2			3				
SB	3			4				
	4		Clay - Stiff, Mold, Sandy, Brown w/oco Pebble	5				
SB	5			5				
SS	6		8'8" End of Boring	6				
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
TYPE OF SAMPLE			BORING PLUGGED WITH NATURAL SOIL			GROUNDWATER OBSERVATIONS		
D - DISTURBED			* The soil descriptions shown on the logs are from visual observations. No classification tests were performed. Standard Penetration Test - Driving 2" OD Sampler 1" With 140# Hammer Falling 30"; Count Made At 6" Intervals			G.W. ENCOUNTERED AT		
U - UNDIST. (HBR)						FT.		
S.T. - SPLIT TUBE						G.W. ENCOUNTERED AT		
S.S. - SPLIT SPION						FT.		
R.C. - ROCK CORE						G.W. ON COMPLETION		
OTHER						G.W. AFTER 1 HOUR		
						FT.		
						G.W. VOLUMES		
						None		

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**MILLER ROAD
RESURFACING
FROM BALLENGER HWY
TO HAMMERBERG RD**

SOIL BORINGS 7-8
FROM STA XX+XX
TO STA XX+XX

CITY OF FLINT
1101 SOUTH SAGINAW STREET
FLINT, MI 48502
(810) 705-7165

NO.	DATE	REVISION

VERIFY SCALES

IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY

AUTHOR BRUCE CARLSTROM	DATE
DEBIBER BRUCE CARLSTROM	DATE
CHANGED	DATE 04/07/2021
PROJECT MANAGER ARIANA JESKE	SIG PLAN DATE 04/07/2021
DEPARTMENT MANAGER APPROVAL JEREMY SCHROT	DATE 04/07/2021
JOB NO 207865	DEPARTMENT
SCALE	SHEET NO 41 OF 41