# CONSTRUCTION PLAN DRAWINGS FOR

ANN ARBOR PARKS & RECREATION FULLER PARK IMPROVEMENTS

SECTION 21 AND 28 T2S-R6E CITY OF ANN ARBOR WASHTENAW COUNTY, MICHIGAN

# UTILITIES AND MUNICIPALITIES

NAME OF OWNER

NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO BE SATISFIED AS TO ITS ACCURACY AND THE LOCATION OF EXISTING UTILITIES.

CONTACT

TYPE OF UTILITY

STORM SEWER

ATT	ERIKA BIERD EK2436@ATT.COM (800) 321—2000	TELEPHONE
ANN ARBOR CITY 301 E. HURON ANN ARBOR, MI 48104	DAVID FIEGEL DFIEGEL@A2GOV.ORG (734) 794-6410 EXT. 43662	LAND USE POTABLE WATER SANITARY SEWER STORM SEWER FIBER OPTICS ELECTRIC
COMCAST 41112 CONCEPT DR PLYMOUTH, MI 48170	RALPH TRUAX RALPH_TRUAX@CABLE.COMCAST.COM (734) 216-8097	CABLE TV
DTE ENERGY	MICHAEL D LOWE SEMI_GASDESIGN@DTEENERGY.COM SARA KIPP SARA.FORCE@DTEENERGY.COM (313) 407-5364 (248) 318-7839	ELECTRIC GAS
UNIVERSITY OF MICHIGAN 1239 KIPKE DR ANN ARBOR, MI 48109	TERRY RAMSEY TRAMSEY@UMICH.EDU (734) 660-4699	ELECTRIC FIBER OPTICS POTABLE WATER SANITARY SEWER

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**ENGINEER INFORMATION** 

ROWE PROFESSIONAL SERVICES COMPANY 540 S. SAGINAW ST., SUITE 200 FLINT, MI 48502 DOUG SCHULTZ, PLA (810) 869-5170

VICINITY MAP NOT TO SCALE

# OWNER INFORMATION

SITE LOCATION

1519 FULLER RD, ANN ARBOR, MI 48105

ANN ARBOR PARKS & RECREATION LAURIE TABACHNICK, AICP, ASST. PARKS PLANNER 301 E. HURON ST. ANN ARBOR, MICHIGAN 48104 PHONE: (734) 974-6320 EXT. 42541 EMAIL: LTABACHNICK@A2GOV.ORG

SCOTT SPOONER, PARKS AND RECREATION SERVICES DEPUTY MANAGER-MAINTENANCE 4251 STONE SCHOOL ROAD, ANN ARBOR, MICHIGAN 48108 PHONE: (734) 974-6320 EXT. 43319 EMAIL: SŚPOONER@A2GOV.ORG

PROJECT DESCRIPTION

BEND DRIVE.

## **LEGAL DESCRIPTION**

PARCEL NUMBER 09-09-21-400-001 LEGAL DESCRIPTION:

PRT S 1/2 SEC 21 & N 1/2 SEC 28 T2S R6E BD S BY FULLER ST NLY WLY & ELY BY HURON RIVER

GENERAL NOTES

FOR ALL CONSTRUCTION ACTIVITY THAT DISTURBS 5 ACRES OR MORE OF LAND, THE OWNER OF THE PROPERTY SHALL OBTAIN AN NPDES STORM WATER DISCHARGE PERMIT FOR CONSTRUCTION ACTIVITIES FROM THE EGLE AS REQUIRED UNDER P.A. 245. THE NOTICE OF COVERAGE APPLICATION SHALL BE SUBMITTED THROUGH THE EGLE MIWATERS WEB SITE. THE DISTURBED AREA FOR THIS PROJECT IS APPROXIMATELY 1.94 ACRES. A NPDES PERMIT IS NOT REQUIRED FOR THIS PROJECT.

NAME OF AND DISTANCE TO NEAREST LAKE, STREAM OR DRAIN: THE PARKING LOT RECONSTRUCTION PROJECT IS APPROXIMATELY 750 FEET FROM THE HURON RIVER, WHILE THE HMA PATH RECONSTRUCTION PROJECT ABUTS THE BRIDGE THAT CROSSES OVER THE HURON RIVER.

**PROJECT** 

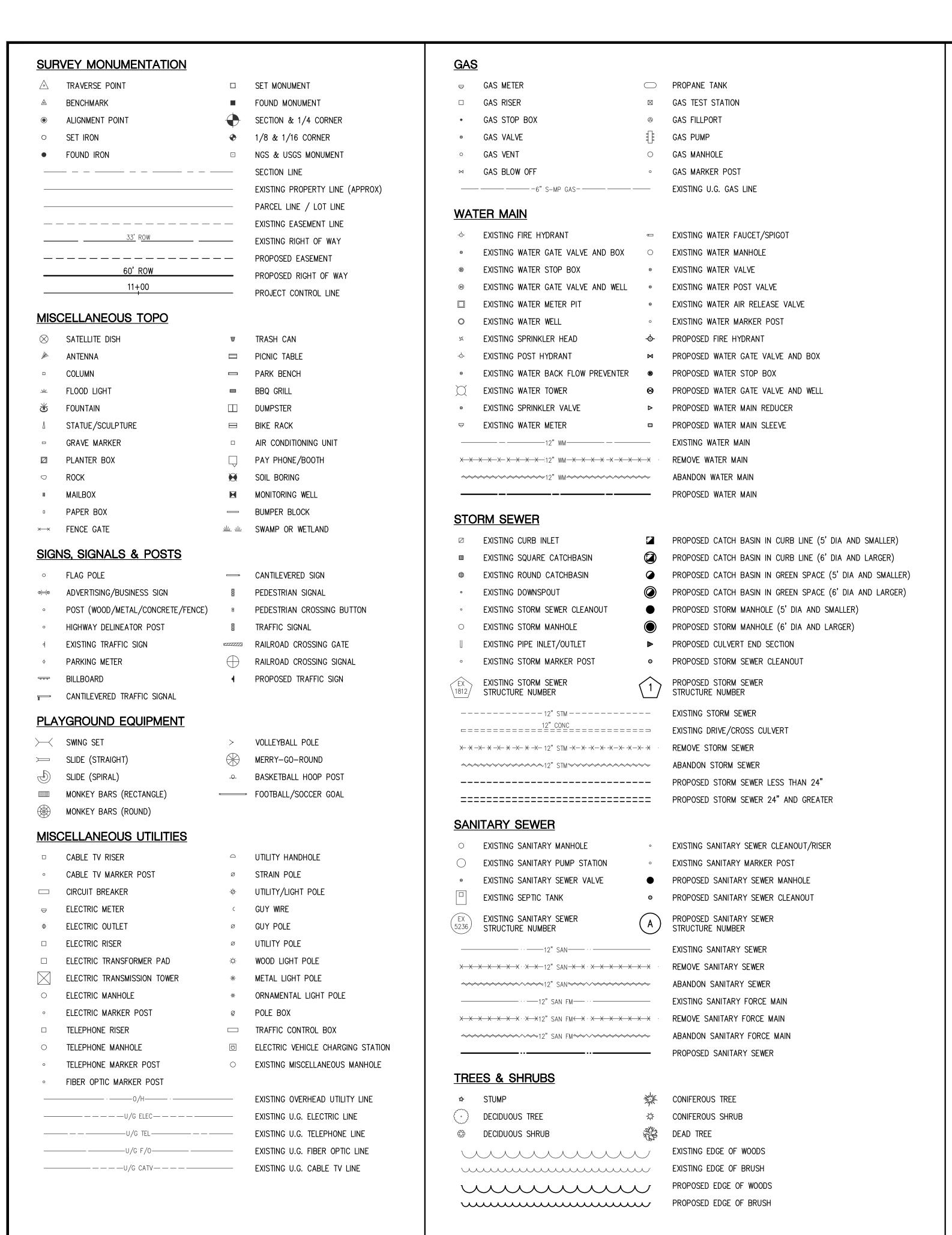
LOCATION

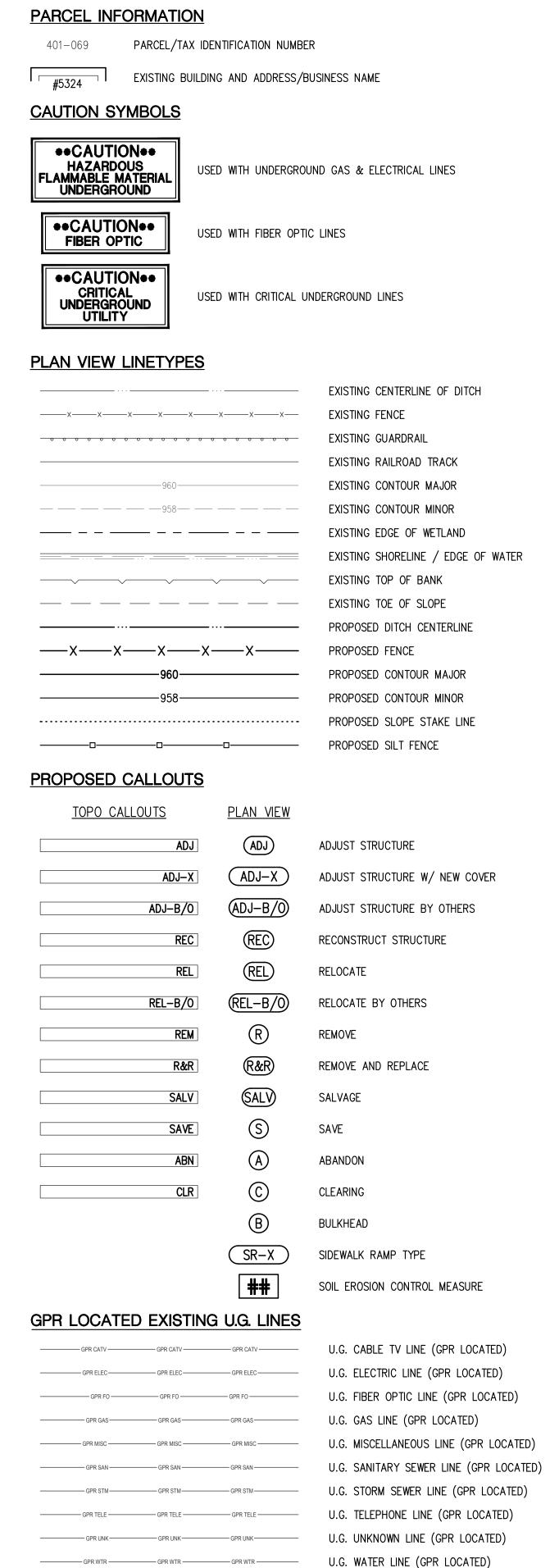
Know what's **below** 

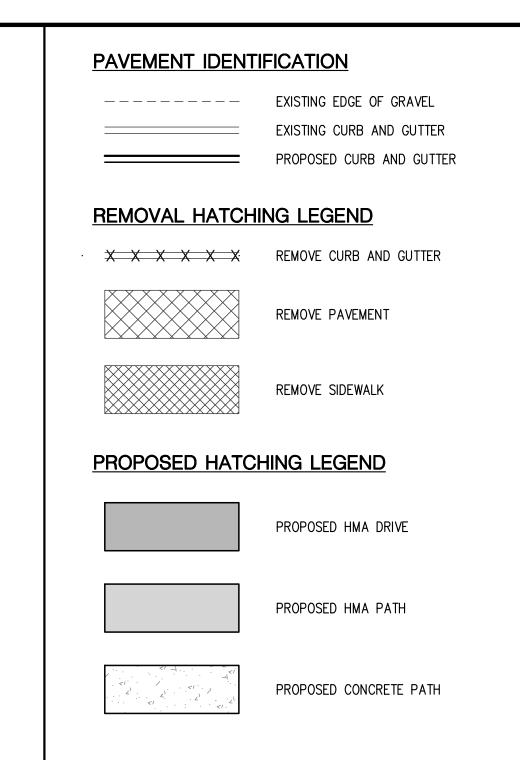
PLAN SUBMITTALS AND CHANGES BIDDING DOCUMENTS REV: DATE DESCRIPTION 9/9/24 ISSUED FOR BIDS

JOB No: 2400478

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PLAN SUBMITTALS AND CHANGES **BIDDING DOCUMENTS** REV: DATE DESCRIPTION 9/9/24 ISSUED FOR BIDS SHT# 2 OF 19 JOB No: 2400478

#### GENERAL CONSTRUCTION NOTES

#### EMERGENCY CONTACTS

BEFORE BEGINNING WORK ON THE PROJECT, THE CONTRACTOR SHALL PROVIDE THE OWNER AND ENGINEER WITH THE NAMES AND TELEPHONE NUMBERS OF EMERGENCY CONTACTS. AT LEAST ONE PERSON REPRESENTING THE CONTRACTOR SHALL BE AVAILABLE TO RESPOND TO EMERGENCIES THROUGHOUT THE LIFE OF THE PROJECT, 24 HOURS A DAY, 7 DAYS A WEEK.

#### UNDERGROUND UTILITY IDENTIFICATION AND LOCATION

THE CONTRACTOR SHALL CALL MISS DIG (1-800-482-7171) A MINIMUM OF THREE WORK DAYS IN ADVANCE OF BEGINNING EXCAVATION. THE CONTRACTOR IS RESPONSIBLE TO IDENTIFY AND NOTIFY UTILITY AGENCIES WITHIN THE PROJECT AREA WHICH DO NOT PARTICIPATE IN THE MISS DIG NOTIFICATION PROGRAM.

#### PUBLIC UTILITIES

EXISTING UTILITIES ARE SHOWN BASED UPON RECORDS AND LOCATIONS PROVIDED BY UTILITY AGENCIES. THE INFORMATION SHOWN IS CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. UNLESS THE PLANS SPECIFICALLY SHOW THAT EXISTING UTILITIES ARE TO BE MOVED, THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN EXISTING UTILITIES.

#### VERIFICATION OF UNDERGROUND UTILITIES

THE CONTRACTOR SHALL EXCAVATE AND LOCATE ALL EXISTING UTILITIES IN THE PROJECT AREA IN ADVANCE OF CONSTRUCTION TO VERIFY THEIR ACTUAL LOCATION. POTENTIAL CONFLICTS SHALL BE REPORTED TO THE ENGINEER. THE CONTRACTOR SHALL MAKE SUCH CHANGES TO GRADE AND ALIGNMENT OF PROPOSED WORK AS DIRECTED BY THE ENGINEER TO AVOID CONFLICTS. AT NO INCREASE IN COST TO THE OWNER.

#### UTILITY SERVICE

UNLESS SPECIFICALLY PROVIDED OTHERWISE IN THE CONTRACT DOCUMENTS, ALL EXISTING UTILITIES ARE TO REMAIN IN SERVICE DURING THE PROJECT.

#### SOIL BORINGS / PAVEMENT CORES

IF PROVIDED ON THE PLANS OR IN THE CONTRACT DOCUMENTS, LOGS OF SOIL BORINGS OR PAVEMENT CORES REPRESENT THE SUBSURFACE CONDITIONS ENCOUNTERED AT SPECIFIC POINTS. THE INFORMATION IS PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY.

#### MAINTAINING TRAFFIC

LOCAL AND EMERGENCY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES WITHIN THE PROJECT AREA.

WHEN EXCAVATION, FRESH CONCRETE, OR OTHER CONSTRUCTION WORK WILL RESULT IN THE CLOSURE OF A STREET OR DRIVEWAY FOR A PERIOD OF TIME, THE CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL AFFECTED RESIDENTS AND BUSINESSES IN ADVANCE.

THE CONTRACTOR SHALL NOTIFY EMERGENCY RESPONSE AGENCIES IN ADVANCE OF ROAD CLOSURES OR THE ESTABLISHMENT OF DETOURS.

THE CONTRACTOR SHALL IMPLEMENT THE PEDESTRIAN DETOUR PLAN (REFER TO SPECIFICATIONS).

#### TRAFFIC SIGNS

TRAFFIC SIGNS WHICH INTERFERE WITH CONSTRUCTION SHALL BE REMOVED AND REPLACED BY THE AGENCY HAVING JURISDICTION OVER THE STREETS OR ROADS IN THE PROJECT AREA. THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE AGENCY TO ARRANGE FOR REMOVAL OF THE SIGN AND IS RESPONSIBLE TO PAY ANY FEES ASSOCIATED WITH THE REMOVAL AND REPLACEMENT OF THE SIGNS.

THE CONTRACTOR SHALL COMPLETE ALL WORK IN AN EXPEDITIOUS MANNER AND SHALL NOT STOP WORK ON THE PROJECT ONCE BEGUN.

#### ALIGNMENT

ALIGNMENT AND GRADES FOR CURB AND GUTTER (INCLUDING THROUGH RAMPS AND DRIVEWAY OPENINGS) SHOWN ON THE PLANS ARE FOR THE TOP, BACK OF CURB, UNLESS SPECIFICALLY SHOWN OTHERWISE ON THE PLANS.

THE HORIZONTAL ALIGNMENT SHOWN ON THE DRAWINGS FOR DRAINAGE STRUCTURES LOCATED IN THE CURB LINE IS TO THE CENTER OF THE CASTING.

THE HORIZONTAL ALIGNMENT SHOWN ON THE DRAWINGS FOR DRAINAGE STRUCTURES WHICH ARE NOT IN THE CURB LINE AND FOR MANHOLES IS TO THE CENTER OF THE STRUCTURE.

WHERE RIM ELEVATIONS ARE PROVIDED ON THE PLANS FOR MANHOLE CASTINGS. THE ELEVATION PROVIDED IS FOR THE TOP OF THE CASTING.

WHERE RIM ELEVATIONS ARE PROVIDED FOR INLET TYPE CASTINGS. THE ELEVATIONS ARE PROVIDED AS

• CURB INLETS – THE ELEVATION OF THE TOP OF CURB

ALL OTHER INLETS — THE ELEVATION OF THE FLOW LINE

WHERE RIM ELEVATIONS ARE PROVIDED ON THE PLANS FOR INLETS OR MANHOLE CASTINGS. THE ELEVATIONS PROVIDED ARE CONSIDERED PRELIMINARY. THE CONTRACTOR SHALL MAKE THE FINAL ADJUSTMENT FOLLOWING THE ESTABLISHMENT OF ACTUAL GRADING AND PAVEMENT ELEVATIONS.

## CONSTRUCTION STAKING

WHEN CONSTRUCTION STAKING IS TO BE PROVIDED BY THE ENGINEER OR OWNER, THE CONTRACTOR SHALL REQUEST STAKING AT LEAST THREE WORKING DAYS IN ADVANCE.

WHEN CONSTRUCTION STAKING IS TO BE PROVIDED BY THE ENGINEER OR OWNER, STAKING WILL BE PROVIDED ONE TIME. THE CONTRACTOR SHALL PROTECT AND PRESERVE SURVEY CONTROL AND STAKING. RE-STAKING WILL BE AT THE CONTRACTOR'S EXPENSE.

## SURVEY CORNERS, BENCHMARKS, AND CONTROL POINTS

THE CONTRACTOR SHALL PRESERVE ALL GOVERNMENT CORNERS, PROPERTY CORNERS, BENCHMARKS, SURVEY CONTROL POINTS AND OTHER SURVEY POINTS WITHIN THE PROJECT AREA. WHERE CORNERS, BENCHMARKS, OR SURVEY POINTS ARE ENCOUNTERED WHICH WILL BE DISTURBED BY THE CONTRACTOR'S ACTIVITIES; A LICENSED SURVEYOR SHALL WITNESS THE POINT BEFORE DISTURBANCE AND SHALL RE-SET THE POINT FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL PAY THE SURVEYOR TO WITNESS AND TO RE-SET THE POINTS.

#### PROTECTION OF TREES, SHRUBS, AND LANDSCAPING

ALL TREES, SHRUBS, AND LANDSCAPING WITHIN THE CONSTRUCTION AREA WHICH ARE NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. DAMAGED TREES, SHRUBS, AND LANDSCAPING SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

#### CONSTRUCTION SIGNING AND BARRICADING

THE CONTRACTOR SHALL PROTECT HAZARDOUS AREAS WITH BARRICADES. BARRICADES LEFT IN PLACE AFTER SUNSET SHALL BE LIGHTED.

THE CONTRACTOR SHALL PROVIDE SUITABLE SANDBAGS OR OTHER SUITABLE MEASURES FOR ANCHORING OF TEMPORARY SIGNS AND BARRICADES, TO PREVENT THEIR TIPPING OR DISPLACEMENT BY WIND OR AIR FLOW FROM VEHICLES.

THE CONTRACTOR SHALL PROVIDE SIGNING, BARRICADES, TRAFFIC REGULATORS, CONES, AND OTHER TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCY HAVING JURISDICTION OVER STREETS OR ROADS IN THE PROJECT AREA, THE CURRENT MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND THE PLANS AND SPECIFICATIONS.

THE CONTRACTOR SHALL COVER OR REMOVE TEMPORARY SIGNS DURING PERIODS WHEN THEY ARE NOT APPROPRIATE.

#### TURF ESTABLISHMENT

ALL DISTURBED AREAS WHICH ARE NOT TO BE SURFACED WITH PAVEMENT, AGGREGATE OR OTHER APPROVED SURFACES SHALL BE ESTABLISHED WITH TURF.

TURF AREAS SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE.

DISTURBED AREAS SHALL BE SURFACED WITH THREE INCHES OF SCREENED TOPSOIL.

THE CONTRACTOR IS RESPONSIBLE TO ESTABLISH TURF WHICH IS SUBSTANTIALLY FREE OF BARE SPOTS AND FREE OF WEEDS. THE GROUND SURFACE IN TURF AREAS SHALL BE SMOOTH AND PROVIDE A NATURAL TRANSITION TO ADJACENT, UNDISTURBED AREAS.

THE CONTRACTOR IS RESPONSIBLE TO PROVIDE WATERING, WEEDING, RESEEDING, AND REWORKING AS NECESSARY TO ESTABLISH TURF AREAS TO THE REQUIRED STANDARD.

#### EARTHWORK

THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF THE EARTHWORK QUANTITIES, AND BASE THEIR BID ON THEIR DETERMINATION OF THE QUANTITIES OF WORK REQUIRED.

IF ADDITIONAL FILL MATERIAL MUST BE PROVIDED TO ATTAIN THE FINISH GRADES SHOWN ON THE PLANS, THE CONTRACTOR SHALL PROVIDE THE REQUIRED FILL MATERIAL, UNLESS A SPECIFIC BORROW AREA IS IDENTIFIED ON THE PLANS.

EXCESS SOILS RESULTING FROM EXCAVATION AND EARTHWORK SHALL BECOME THE CONTRACTOR'S PROPERTY AND DISPOSED OF PROPERLY, UNLESS AN AREA(S) HAS BEEN DESIGNATED FOR STOCKPILING OR "BLENDING IN" THE EXCESS MATERIAL WITHIN THE PROJECT LIMITS.

#### BACKFILL AND EMBANKMENT

BACKFILL OF AN EXCAVATION UNDER OR WITHIN THE ONE ON ONE INFLUENCE OF AN EXISTING OR PROPOSED ROAD, SIDEWALK, DRIVEWAY, PAVEMENT, OR AGGREGATE SURFACE, SHALL BE SAND, MEETING THE REQUIREMENTS OF GRANULAR MATERIAL CLASS III AS DESCRIBED IN THE CURRENT MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION. THE SAND BACKFILL SHALL BE COMPACTED TO AT LEAST 95% OF ITS MAXIMUM UNIT WEIGHT.

BACKFILL OF AN EXCAVATION WHICH IS NOT UNDER OR WITHIN THE ONE ON ONE INFLUENCE OF AN EXISTING OR PROPOSED ROAD, SIDEWALK, DRIVEWAY, PAVEMENT, OR AGGREGATE SURFACE MAY BE SUITABLE EXCAVATED MATERIAL OR OTHER SOIL, WHICH IS FREE OF ORGANIC MATTER, STONES AND ROCKS, ROOTS BROKEN CONCRETE, FROZEN MATERIAL, OR DEBRIS. THE BACKFILL SHALL BE COMPACTED TO AT LEAST 90% OF ITS MAXIMUM UNIT WEIGHT.

THE CONTRACTOR SHALL INDICATE THE SOURCE OF SAND USED FOR BACKFILL TO THE ENGINEER, AND PROVIDE THE ENGINEER WITH THE RESULTS OF A GRADATION TEST PERFORMED ON A SAMPLE OF THE SAND. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN ADVANCE OF USING SAND FROM OTHER SOURCES.

EMBANKMENT USED TO BUILD THE SUBGRADE TO REQUIRED ELEVATION SHALL BE SUITABLE SOIL EXCAVATED FROM THE PROJECT SITE, OR FURNISHED BY THE CONTRACTOR FROM OTHER SOURCES. SUITABLE SOIL IS FREE FROM ORGANIC MATTER, ROCKS AND STONES, FROZEN MATERIAL, BROKEN CONCRETE, AND DEBRIS.

EMBANKMENT CONSTRUCTED OF GRANULAR SOILS SHALL BE COMPACTED IN LIFTS NOT EXCEEDING 10 INCHES TO AT LEAST 95% OF ITS MAXIMUM UNIT WEIGHT.

EMBANKMENT CONSTRUCTED OF COHESIVE SOILS SHALL BE COMPACTED IN LIFTS NOT EXCEEDING 10 INCHES TO AT LEAST 95% OF ITS MAXIMUM UNIT WEIGHT.

#### DENSITY TESTING

THE MAXIMUM UNIT WEIGHT OF SAND AND OTHER GRANULAR SOILS WILL BE DETERMINED BY THE ONE POINT CONE TEST, AS DESCRIBED IN THE MICHIGAN DEPARTMENT OF TRANSPORTATION'S DENSITY TESTING AND INSPECTION MANUAL, EXCEPT WHEN ANOTHER TEST METHOD IS SPECIFIED.

THE MAXIMUM UNIT WEIGHT OF COHESIVE SOILS WILL BE DETERMINED BY THE ONE POINT PROCTOR TEST, AS DESCRIBED IN THE MICHIGAN DEPARTMENT OF TRANSPORTATION'S DENSITY TESTING AND INSPECTION MANUAL, EXCEPT WHEN ANOTHER TEST METHOD IS SPECIFIED.

#### WORK HOURS

UNLESS PROVIDED OTHERWISE IN THE CONTRACT DOCUMENTS OR LIMITED BY LOCAL ORDINANCE, THE CONTRACTOR SHALL WORK WITHIN OF THE FOLLOWING TIMES, UNLESS OTHERWISE APPROVED BY THE OWNER: MONDAY THROUGH FRIDAY 7 A.M. TO 8 P.M. SATURDAY 8 A.M. TO 6 P.M.

THE CONTRACTOR SHALL NOT WORK ON SUNDAYS OR HOLIDAYS, UNLESS OTHERWISE APPROVED BY THE

#### DRAINAGE

THE CONTRACTOR SHALL MAINTAIN DRAINAGE OF THE PROJECT AREA AND ADJACENT AREAS. WHERE EXISTING DRAINAGE FACILITIES ARE DISTURBED OR BLOCKED BY CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY PROVISIONS FOR DRAINAGE.

WHERE CONSTRUCTION HAS DISTURBED EXISTING DITCHES, SWALES, OR OTHER DRAINAGE FACILITIES; THE CONTRACTOR SHALL RESTORE THEM TO THEIR GRADES AND DIMENSIONS WHICH EXISTED PRIOR TO THE BEGINNING OF CONSTRUCTION, UNLESS DIRECTED OTHERWISE.

DRAINAGE SHALL NOT BE REROUTED ONTO ADJACENT PROPERTIES NOR ALLOWED TO DRAIN ONTO ADJACENT PROPERTIES AT AN INCREASED RATE, AS A RESULT OF THE CONTRACTOR'S WORK.

#### PAVING PROJECTS

#### ADJUSTING STRUCTURES

WHERE CASTINGS FOR MANHOLES, CATCH BASINS, INLETS, VALVE BOXES, AND MONUMENT BOXES ARE TO BE ADJUSTED TO MEET A NEW PAVEMENT SURFACE ELEVATION, THE FINAL ADJUSTMENT SHALL NOT BE COMPLETED UNTIL ALL PAVEMENT COURSES HAVE BEEN PLACED EXCEPT THE FINAL COURSE. THE FINAL ADJUSTMENT SHALL BE COMPLETED JUST PRIOR TO PLACEMENT OF THE FINAL COURSE OF PAVEMENT.

THE MATERIALS AND PROCEDURES FOR ADJUSTING STRUCTURES SHALL MEET THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION OVER THE ROAD AND UTILITIES.

#### SUBGRADE PREPARATION

TOPSOIL, PEAT, AND ORGANIC MATERIAL SHALL BE EXCAVATED AND REMOVED.

SOFT AND YIELDING SOILS SHALL BE REMOVED OR DRIED IF THE RESULT OF EXCESSIVE MOISTURE CONTENT.

PRIOR TO CONSTRUCTING FILLS, SUBBASE, OR PAVEMENT ON A SUBGRADE; THE SUBGRADE SHALL BE PROOF-ROLLED TO DETERMINE THE SUITABILITY OF THE SUBGRADE. THE CONTRACTOR SHALL DRIVE A HEAVY PIECE OF WHEELED CONSTRUCTION EQUIPMENT OVER THE SUBGRADE WHILE THE ENGINEER IS OBSERVING. THE CONSTRUCTION OF FILLS, SUBBASE, OR PAVEMENTS SHALL NOT PROCEED UNTIL THE SUBGRADE HAS BEEN DEMONSTRATED TO BE FREE OF SOFT AREAS.

THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN THE MOISTURE CONTENT OF SUBGRADE SOILS WITHIN A SUITABLE RANGE TO ALLOW FOR COMPACTION TO THE REQUIRED DENSITY. WHEN THE SOIL IS TOO DRY, THE CONTRACTOR SHALL ADD WATER. WHEN THE SOIL IS TOO WET, THE CONTRACTOR SHALL PROVIDE DRAINAGE OR AERATE THE SOIL.

THE SURFACE OF THE SUBGRADE SHALL BE COMPACTED TO AT LEAST 95% OF ITS MAXIMUM UNIT WEIGHT, PRIOR TO CONSTRUCTING FILLS, SUBBASE, OR PAVEMENTS.

#### CURB AND GUTTERS

FORECAST OR THREATENING.

THE CONTRACTOR SHALL DETERMINE THE LOCATION AND DIMENSIONS OF CURB OPENINGS FOR DRIVEWAYS, RAMPS, AND DRAINAGE STRUCTURES.

#### HOT MIX ASPHALT (HMA) PAVING

PAVEMENTS WHICH ARE TO BE OVERLAID WITH A NEW PAVEMENT COURSE SHALL BE SWEPT TO REMOVE ALL DIRT AND DEBRIS.

A BITUMINOUS BOND COAT SHALL BE APPLIED TO PAVEMENTS WHICH ARE TO BE OVERLAID WITH A NEW PAVEMENT COURSE AND ALLOWED TO CURE PRIOR TO CONSTRUCTING THE NEW PAVEMENT COURSE.

HMA PAVEMENT SHALL NOT BE PLACED WHEN THE SURFACE BEING OVERLAID IS WET, OR WHEN RAIN IS

10' WIDE PATH, 2073' LENGTH						
DESCRIPTION	QUANTITY	UNITS				
Pavt, Rem	1950	Syd				
Fence, Rem	60	Ft				
HMA, 5EML	200	Tons				
HMA, 4EML	200	Tons				
Conc, 6 inch	2800	Sft				
Aggregate Base, 8 inch	2250	Syd				
Aggregate Base, 5 inch	350	Syd				
Detectable Warning Surface	50	Ft				
Sign, Salv	2	Ea				
Chain Link Fence, 4' Ht	60	Ft				
Utility Covers, Adjust	10	Ea				
Clearing	1	LSUM				
Earthwork	1	LSUM				
Erosion Control, Silt Fence	4000	Ft				
Erosion Control, Inlet Protection, Fabric Drop	8	Ea				
Turf Establishment	1	LSUM				
Maintaining Traffic	1	LSUM				
Construction Staking	1	LSUM				
Audio-Video Construction Area Survey	1	LSUM				
Mobilization	1	LSUM				
Detour Signage and Barricading	1	LSUM				

PARKING LOT						
DESCRIPTION	QUANTITY	UNITS				
Pavt, Rem	5705	Syd				
HMA, 5EML	550	Tons				
HMA, 4EML	900	Tons				
Aggregate Base, 8 inch	5705	Syd				
Curb and Gutter, Replacement	180	Ft				
Geotextile, Stabilization	5705	Syd				
Geotextile, Separator	5705	Syd				
Pavement Markings	1	LSUM				
Earthwork	1	LSUM				
Erosion Control, Gravel Access Approach	1	Ea				
Maintaining Traffic	1	LSUM				
Construction Staking	1	LSUM				
Audio-Video Construction Area Survey	1	LSUM				
Mobilization	1	LSUM				

NOTE: QUANTITIES SHOWN ARE FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION FOR QUANTITIES AS SHOWN ON THESE PLANS.

PLAN DATE: SEPTEMBER	PROJECT MGR: DRS	- PEVIEWED: AJW
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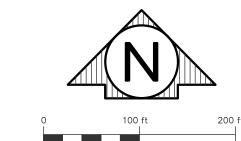
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# PROPOSED PATH ALIGNMENT

#### BENCHMARK DATA TABLE

10+06.52 55.57' RT CUT "X" TOP SOUTHWESTERLY ANCHOR BOLT LIGHT POLE BASE IN MEDIAN OF FULLER ROAD, 4'± SOUTH OF BACK OF CURB, 32'± WEST OF GAS PIPELINE MARKER 772.83 769.27 15+21.24 154.30' LT TURN ARROW ON HYDRANT, 8'± WEST OF FENCE AROUND POOL, 57'± NORTH OF MAILBOX #1519

#### TRAVERSE POINT DATA TABLE

TP 1 TP 2	NORTHING 287580.1575 287509.9455 287452.6325	EASTING 13295952.5755 13295913.1475 13295588.8255	STATION 14+78.46 14+35.62 10+97.87	OFFSET 57.99' LT 10.19' RT 17.96' RT	DESCRIPTION SET 1/2" IRON WITH "ROWE TRAV" CAP IN CURB ISLAND, 45'± NORTH OF "FULLER PARK" ENTRANCE SIGN, 8'± EAST OF BACK OF CURB SET 1/2" IRON WITH "ROWE TRAV" CAP, 45'± WEST NORTHWEST OF "FULLER PARK" ENTRANCE SIGN, 3'± WEST OF BACK OF CURB SET 1/2" IRON WITH "ROWE TRAV" CAP, 45'± WEST OF "U OF M" ROAD SIGN, 8'± NORTH OF BACK OF CURB, FULLER ROAD
TP 4 TP 7 TP 8	287367.7535 287784.9345 287697.0825 287666.7815	13295360.0233 13295213.2175 13295902.4945 13295686.9655 13295451.1075	7+14.91 14+38.55 12+29.70 10+51.00	6.14' RT 264.99' LT 191.76' LT 233.22' LT	SET 1/2" IRON WITH "ROWE TRAV" CAP, 2.5'± NORTH OF STONE WALL, 270'± EAST OF CENTERLINE MAIDEN LANE  SET 1/2" IRON WITH "ROWE TRAV" CAP, 62'± NORTHWEST OF EASTERLY PILLAR OF SOLAR PANEL ARRAY, 8'± NORTHWEST OF NORTHWEST CORNER CONCRETE PAD  SET 1/2" IRON WITH "ROWE TRAV" CAP, 51'± WEST OF WESTERLY PILLAR OF SOLAR PANEL ARRAY, 4'± NORTHWEST OF BACK OF CURB  SET 1/2" IRON WITH "ROWE TRAV" CAP, 38'± WEST OF NO PARKING SIGN, 8'± EAST OF EDGE OF GRAVEL DRIVE

#### ALIGNMENT POINT DATA TABLE

ALIGINIVI		DATA TABLE			
NUMBER	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
AP 801	287317.8952	13294995.7329	4+90.00	0.00' RT	POINT OF BEGINNING OF THE PROPOSED PATH ALIGNMENT
AP 802	287333.3038	13295031.4716	5+28.92	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 803	287361.5715	13295130.5536	6+32.24	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 804	287388.7753	13295312.0744	8+15.79	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 805	287463.8938	13295569.9443	10+85.19	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 806	287478.2084	13295602.1575	11 + 20.44	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 807	287507.9385	13295727.0053	12+49.51	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 808	287513.5484	13295840.4893	13+63.13	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 809	287515.5036	13295862.9231	13+85.66	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 810	287517.6712	13295880.2479	14+03.12	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 811	287519.6264	13295902.6817	14+25.64	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 812	287524.9598	13296010.5735	15+33.67	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 813	287526.2927	13296024.4384	15+47.60	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 814	287529.0017	13296043.3489	15+66.70	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 815	287530.4702	13296060.8502	15+84.28	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 816	287531.4384	13296099.3658	16+22.80	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 817	287527.2594	13296130.5910	16+54.44	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 818	287520.3375	13296153.6839	16+78.55	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 819	287516.1874	13296185.8736	17+11.15	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 820	287523.3063	13296390.4567	19+15.85	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 821	287523.8704	13296416.1986	19+41.60	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 822	287524.6856	13296506.4337	20 + 31.84	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 823	287525.7266	13296543.9031	20+69.33	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 824	287531.2830	13296663.2561	21+88.81	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 825	287531.4025	13296678.7808	22+04.34	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 826	287531.0836	13296689.0231	22+14.59	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 827	287531.2031	13296704.5478	22 + 30.11	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 828	287542.9709	13296957.3273	24+83.17	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 829	287544.1116	13296965.1273	24+91.06	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 830	287544.6614	13296967.3364	24+93.34	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 831	287545.8021	13296975.1365	25+01.24	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 832	287546.9753	13297000.3371	25 + 26.46	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 833	287546.5642	13297008.2093	25 + 34.36	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 834	287546.2220	13297010.4599	25+36.64	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 835	287545.8109	13297018.3322	25+44.53	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 836	287548.1708	13297069.0252	25+95.28	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT
AP 837	287548.4413	13297080.6914	26+06.95	0.00' RT	POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT
AP 838	287548.4367	13297108.9771	26+35.24	0.00' RT	POINT OF CURVATURE OF THE PROPOSED PATH ALIGNMENT

0.00' RT

0.00' RT

OFFSET

61.73' LT

N/A

26 + 50.18

27+79.01

STATION

8+08.35

N/A

13297123.9086

13297252.5124

13297936.7645

13295295.5705

EASTING

287556.5545

SCOR 401 287570.5565

SCOR 402 287448.7195

NUMBER

SECTION CORNER DATA TABLE

ALIG	NMENT LINE	DATA
LINE #	BEARING	DISTANCE
L1	N66°40'37"E	38.92'
L2	N81°28'36"E	183.55
L3	N66°02'28"E	35.25'
L4	N87°10'12"E	113.62'
L5	N82°52'05"E	17.46'
L6	N87°10'12"E	108.02
L7	N81°50'52"E	19.10'
L8	N88°33'36"E	38.53'
L9	S73°18'52"E	24.11'
L10	N88°00'26"E	204.71
L11	N89°28'57"E	90.24'
L12	N87°20'05"E	119.48'
L13	S88°13'00"E	10.25
L14	N87°20'05"E	253.05'
L15	N76°01'29"E	2.28'
L16	N87°20'05"E	25.23'
L17	S81°21'20"E	2.28'
L18	N87°20'05"E	50.75
L19	S89°59'27"E	28.29'
L20	N86°35'07"E	128.83'

ALIGNMENT CURVE DATA													
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD DISTANCE								
C1	103.32'	400.00'	14°48'00"	N74°04'37"E	103.04								
C2	269.40'	1000.00'	15°26'08"	N73°45'32"E	268.59'								
C3	129.07'	350.00'	21°07'44"	N76°36'20"E	128.34'								
C4	22.52'	300.00'	4°18'06"	N85°01'09"E	22.52'								
C5	22.52'	300.00'	4°18'06"	N85°01'09"E	22.52'								
C6	13.93'	150.00'	5°19'20"	N84°30'32"E	13.93'								
C7	17.57'	150.00'	6°42'44"	N85°12'14"E	17.56'								
C8	31.64'	100.00'	18°07'33"	S82°22'38"E	31.50'								
C9	32.60'	100.00'	18°40'43"	S82°39'13"E	32.46'								
C10	25.75	1000.00'	1°28'31"	N88°44'41"E	25.75'								
C11	37.49	1000.00'	2°08'52"	N88°24'31"E	37.48'								
C12	15.53'	200.00'	4°26'55"	N89°33'32"E	15.53'								
C13	15.53'	200.00'	4°26'55"	N89°33'32"E	15.53'								
C14	7.90'	40.00'	11°18'36"	N81°40'47"E	7.88'								
C15	7.90'	40.00'	11°18'36"	N81°40'47"E	7.88'								
C16	7.90'	40.00'	11°18'36"	S87°00'38"E	7.88'								
C17	7.90'	40.00'	11°18'36"	S87°00'38"E	7.88'								
C18	11.67'	250.00'	2°40'29"	N88°40'19"E	11.67'								
C19	14.94'	250.00'	3°25'27"	N88°17'50"E	14.94'								

AND RECREATION PROVEMENTS

SCOR 401—

PLAN SUBMITTALS AND CHANGES BIDDING DOCUMENTS

ALIGNMENT POINT

AP 832─\\ KNOWN R.O.W. ENDS AT INTERSECTION WITH EXISTING PATH. NO RELIABLE R.O.W. INFORMATION WEST OF THERE. \\\_C15 AP 825 L13 AP 829— FULLER ROAD

G-9, SECTION CORNER COMMON TO SECTIONS 21, 22, 27 & 28, T2S-R6E, ANN ARBOR TOWNSHIP, WASHTENAW COUNTY. FOUND MONUMENT IN BROKEN MONUMENT BOX. F-9, QUARTER CORNER COMMON TO SECTIONS 21 & 28, T2S-R6E, ANN ARBOR TOWNSHIP, WASHTENAW COUNTY. FOUND IRON WITH CAP #48278.

POINT OF TANGENCY OF THE PROPOSED PATH ALIGNMENT

POINT OF ENDING OF THE PROPOSED PATH ALIGNMENT

SECTION CORNER

> VERTICAL DATUM IS NAVD88 HORIZONTAL DATUM IS MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE NAD83 (2011) UNITS ARE INTERNATIONAL FEET ALIGNMENT IS BASED UPON BEST FIT CENTERLINE OF PROPOSED PATH

N87°21'32"E 2644.00'



DATE DESCRIPTION
9/9/24 ISSUED FOR BIDS

REV:

SOUTH LINE SE 1/4 SECTION 21

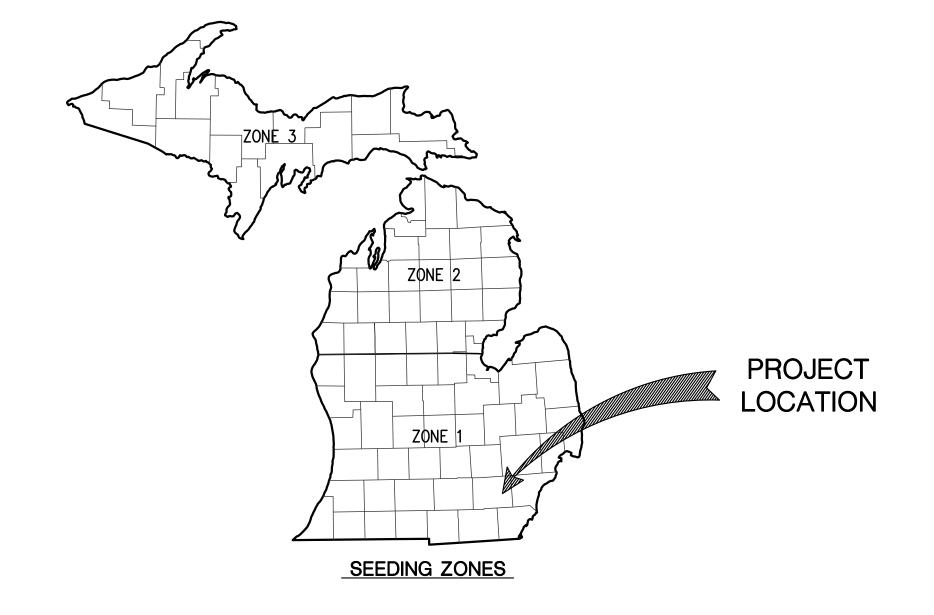
LEGEND

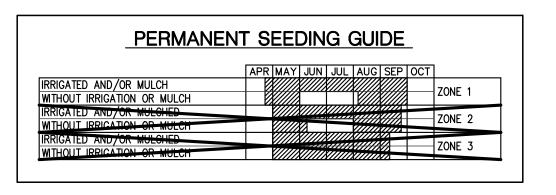
NOTES:

JOB No: 2400478

# MICHIGAN UNIFIED KEYING SYSTEM SOIL FROSION SEDIMENTATION CONTROL MEASURES

50	JIL E	NOSION	O		ЛП	VIE	_ `	1	H	111	<b>JIN</b>	C	UNIRUL	IV		Hi				O
* 1	NDICATES APPLICABILITY O ONE OR MORE OF TH	OF A SPECIFIC CONTROL MEASURE E SEVEN PROBLEM AREAS	SLOPES	STREAMS AND WATERWAYS	SURFACE DRAINAGEWAYS	ENCLOSED DRAINAGE (Inlet & Outfall Control)	LARGE FLAT SURFACE AREAS	BORROW AND STOCKPILE AREAS	ADJACENT PROPERTIES					SLOPES	STREAMS AND WATERWAYS	SURFACE DRAINAGEWAYS	ENCLOSED DRAINAGE (Inlet & Outfall Control)	LARGE FLAT SURFACE AREAS	BORROW AND STOCKPILE AREAS	ADJACENT PROPERTIES
KEY	DETAIL	CHARACTERISTICS	Α	В	C	D	E	F	G	KEY	DETAIL		CHARACTERISTICS	Α	В	C	D	E	F	G
1	STRIPPING & STOCKPILING TOPSOIL	TOPSOIL MAY BE STOCKPILED ABOVE BORROW AREAS TO ACT AS A DIVERSION. STOCKPILE SHOULD BE TEMPORARILY SEEDED.	*				*	*		28	DROP SPILLWAY	Y	SLOWS VELOCITY OF FLOW, REDUCING EROSIVE CAPACITY		*	*				
2	SELECTIVE GRADING & SHAPING	WATER CAN BE DIVERTED TO MINIMIZE EROSION. FLATTER SLOPES EASE EROSION PROBLEMS.	*				*	*	*	29	PIPE DROP	Annum manum	REDUCES RUNOFF VELOCITY REMOVES SEDIMENT AND TURBIDITY CAN BE DESIGNED TO HANDLE LARGE VOLUMES OF FLOW			*				
3	GRUBBING OMITTED	SAVES COST OF GRUBBING, PROVIDES NEW SPROUTS, RETAINS EXISTING ROOT MAT SYSTEM, REDUCES WIND FALL AT NEW FOREST EDGE DISCOURAGES EQUIPMENT ENTRANCE	*				*		*	30	PIPE SPILLWAY	Y mmanumum	REMOVES SEDIMENT AND TURBIDITY FROM RUNOFF MAY BE PART OF PERMANENT EROSION CONTROL PLAN			*				
4	VEGETATIVE STABILIZATION	MAY UTILIZE A VARIETY OF PLANT MATERIAL STABILIZES SOIL SLOWS RUNOFF VELOCITY FILTERS SEDIMENT FROM RUNOFF	*	*	*		*	*	*	31	ENERGY DISSIPA		SLOWS RUNOFF VELOCITY TO NON-EROSIVE LEVEL PERMITS SEDIMENT COLLECTION FROM RUNOFF	*		*	*			
5	SEEDING	INEXPENSIVE AND VERY EFFECTIVE STABILIZES SOIL, THUS MINIMIZING EROSION PERMITS RUNOFF TO INFILTRATE SOIL, REDUCING RUNOFF VOLUME SHOULD INCLUDE PREPARED TOPSOIL BED	*		*		*	*	*	32	LEVEL SPREADE	ER	CONVERTS COLLECTED CHANNEL OR PIPE FLOW BACK TO SHEET FLOW AVOIDS CHANNEL EASEMENTS AND CONSTRUCTION OFF PROJECT SITE SIMPLE TO CONSTRUCT			*				
6	SEEDING WITH MULCH AND/OR MATTING	FACILITATES ESTABLISHMENT OF VEGETATIVE COVER EFFECTIVE FOR DRAINAGEWAYS WITH LOW VELOCITY EASILY PLACED IN SMALL QUANTITIES BY INEXPERIENCED PERSONNEL SHOULD INCLUDE PREPARED TOPSOIL BED	*		*			*	*	33	SEDIMENTATION T	TRAP	MAY BE CONSTRUCTED OF A VARIETY OF MATERIALS TRAPS SEDIMENT AND REDUCES VELOCITY OF FLOW CAN BE CLEANED AND EXPANDED AS NEEDED		*	*				
7	HYDRO-SEEDING	EFFECTIVE ON LARGE AREAS MULCH TACKING AGENT USED TO PROVIDE IMMEDIATE PROTECTION UNTIL GRASS IS ROOTED SHOULD INCLUDE PREPARED TOPSOIL BED	*				*	*	*	34	SEDIMENT BASIN		TRAPS SEDIMENT RELEASES RUNOFF AT NON-EROSIVE RATES CONTROLS RUNOFF AT SYSTEM OUTLETS CAN BE VISUAL AMENITIES		*	*	*			
8	SODDING	PROVIDES IMMEDIATE PROTECTION CAN BE USED ON STEEP SLOPES WHERE SEED MAY BE DIFFICULT TO ESTABLISH EASY TO PLACE; MAY BE REPAIRED IF DAMAGED SHOULD INCLUDE PREPARED TOPSOIL BED	*		*		*	*	*	35	STORM SEWER	S.B.	SYSTEM REMOVES COLLECTED RUNOFF FROM SITE, PARTICULARLY FROM PAVED AREAS CAN ACCEPT LARGE CONCENTRATIONS OF RUNOFF CONDUCTS RUNOFF TO MUNICIPAL SEWER SYSTEM OR STABILIZED OUTFALL LOCATION USE CATCH BASINS TO COLLECT SEDIMENT					*		*
9	VEGETATIVE BUFFER STRIP	SLOWS RUNOFF VELOCITY FILTERS SEDIMENT FROM RUNOFF REDUCES VOLUME OF RUNOFF ON SLOPES	*	*					*	36	CATCH BASIN, DRAIN	N INLET	COLLECTS HIGH VELOCITY CONCENTRATED RUNOFF MAY USE FILTER CLOTH OVER INLET					*		*
10	MULCHING	USED ALONE TO PROTECT EXPOSED AREAS FOR SHORT PERIODS PROTECTS SOIL FROM IMPACT OF FALLING RAIN PRESERVES SOIL MOISTURE AND PROTECTS GERMINATING SEED FROM TEMPERATURE EXTREMES	*				*	*		37	SOD FILTER		INEXPENSIVE AND EASY TO CONSTRUCT PROVIDES IMMEDIATE PROTECTION PROTECTS AREAS AROUND INLETS FROM EROSION				*			
11	ROUGHENED SURFACE	REDUCES VELOCITY AND INCREASES INFILTRATION RATES COLLECTS SEDIMENT HOLDS WATER, SEED, AND MULCH BETTER THAN SMOOTH SURFACES	*				*			38	STRAW BALE FILT	TER	INEXPENSIVE AND EASY TO CONSTRUCT CAN BE LOCATED AS NECESSARY TO COLLECT SEDIMENT MAY BE USED IN CONJUNCTION WITH SNOW FENCE FOR ADDED STABILITY				*			*
12	COMPACTION	HELPS HOLD SOIL IN PLACE, MAKING EXPOSED AREAS LESS VULNERABLE TO EROSION	*				*			39	ROCK FILTER		CAN UTILIZE MATERIAL FOUND ON SITE EASY TO CONSTRUCT FILTERS SEDIMENT FROM RUNOFF				*			*
13	RIPRAP, RUBBLE, GABIONS	USED WHERE VEGETATION IS NOT EASILY ESTABLISHED EFFECTIVE FOR HIGH VELOCITIES OR HIGH CONCENTRATIONS PERMITS RUNOFF TO INFILTRATE SOIL DISSIPATES ENERGY FLOW AT SYSTEM OUTLETS	*	*	*					40	INLET SEDIMENT T	-paramanana	EASY TO SHAPE COLLECTS SEDIMENT MAY BE CLEANED AND EXPANDED AS NEEDED				*			
14	AGGREGATE COVER	STABILIZES SOIL SURFACE, THUS MINIMIZING EROSION PERMITS CONSTRUCTION TRAFFIC IN ADVERSE WEATHER MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS					*			41	STONE AND ROCK O		MAY BE ROCK OR CLEAN RUBBLE MINIMIZES STREAM TURBIDITY INEXPENSIVE MAY ALSO SERVE AS DITCH CHECK OR SEDIMENT TRAP		*					
15	PAVING	PROTECTS AREAS WHICH CANNOT OTHERWISE BE PROTECTED, BUT INCREASES RUNOFF VOLUME AND VELOCITY IRREGULAR SURFACE WILL HELP SLOW VELOCITY	*				*			42	TEMPORARY CULVI	Junio.	ELIMINATES STREAM TURBULENCE AND TURBIDITY PROVIDES UNOBSTRUCTED PASSAGE FOR FISH AND OTHER WATER LIFE CAPACITY FOR NORMAL FLOW CAN BE PROVIDED WITH STORM WATER FLOWING OVER ROADWAY		*					
16	CURB & GUTTER	KEEPS HIGH VELOCITY RUNOFF ON PAVED AREAS FROM LEAVING PAVED SURFACE COLLECTS AND CONDUCTS RUNOFF TO ENCLOSED DRAINAGE SYSTEM OR PREPARED DRAINAGEWAY					*		*	43	CULVERT SEDIMENT		EASY TO INSTALL AT INLET KEEPS CULVERT CLEAN AND FREE FLOWING MAY BE CONSTRUCTED OF LUMBER OR LOGS		*					*
17	BENCHES	REDUCES RUNOFF VELOCITY BY REDUCING EFFECTIVE SLOPE LENGTH COLLECTS SEDIMENT PROVIDES ACCESS TO SLOPES FOR SEEDING, MULCHING AND MAINTENANCE	*					*		44	CULVERT SEDIMEN	gamana pin	DEFLECTS CURRENTS AWAY FROM STREAMBANK AREAS		*					
18	DIVERSION BERM	DIVERTS WATER FROM VULNERABLE AREAS COLLECTS AND DIRECTS WATER TO PREPARED DRAINAGEWAYS MAY BE PLACED AS PART OF NORMAL CONSTRUCTION OPERATION	*					*	*	45	TEMP. STREAM CHANNEL	L CHANGE	NEW CHANNEL KEEPS NORMAL FLOWS AWAY FROM CONSTRUCTION REQUIRES STATE PERMIT		*					
19	DIVERSION DITCH	COLLECTS AND DIVERTS WATER TO REDUCE EROSION POTENTIAL MAY BE INCORPORATED IN PERMANENT PROJECT DRAINAGE SYSTEMS	*					*	*	46	SHEET PILINGS	S <u>gammunuuu</u> uuummun	PROTECTS ERODIBLE BANK AREAS FROM STREAM CURRENTS DURING CONSTRUCTION MINIMAL DISRUPTION WHEN REMOVED		*				Щ	
20	BERM & DITCH	DIVERTS WATER TO A PREPARED DRAINAGEWAY MAY BE USED AT INTERVALS ACROSS SLOPE FACE TO REDUCE EFFECTIVE SLOPE LENGTH	*					*	*	47			WORK CAN BE CONTINUED DURING MOST ANTICIPATED STREAM CONDITIONS CLEAR WATER CAN BE PUMPED DIRECTLY BACK INTO STREAM		*			$\bigsqcup$	Щ	
21	FILTER BERM	CONSTRUCTED OF GRAVEL OR STONE INTERCEPTS AND DIVERTS RUNOFF TO STABILIZED AREAS OR PREPARED DRAINAGE SYSTEMS SLOWS RUNOFF AND COLLECTS SEDIMENT	*	*					*	48	CONSTRUCTION I		PERMITS WORK TO CONTINUE DURING NORMAL STREAM STAGES CONTROLLED FLOODING CAN BE ACCOMPLISHED DURING PERIODS OF INACTIVITY		*				Щ	
22	BRUSH FILTER	USES SLASH AND LOGS FROM CLEARING OPERATIONS CAN BE COVERED AND SEEDED RATHER THAN REMOVED ELIMINATES NEED FOR BURNING OR REMOVAL OF MATERIAL FROM SITE							*	49	CHECK DAMS		REDUCES FLOW VELOCITY CATCHES SEDIMENT CAN BE CONSTRUCTED OF LOGS, STRAW, HAY ROCK, LUMBER, MASONRY, OR SAND BAGS		*	*			Щ	
23	BARE CHANNEL	LEAST EXPENSIVE FORM OF DRAINAGEWAY MAY BE USED ONLY WHERE GRADIENT IS VERY LOW AND WITH SOILS OF MINIMUM EROSION POTENTIAL			*					50	WEIR		CONTROLS SEDIMENTATION IN LARGE STREAMS CAUSES MINIMAL TURBIDITY		*	*			Щ	
24	GRASSED WATERWAY	MUCH MORE STABLE FORM OF DRAINAGEWAY THAN BARE CHANNEL GRASS TENDS TO SLOW RUNOFF AND FILTER OUT SEDIMENT USED WHERE BARE CHANNEL WOULD BE ERODED			*					51	RETAINING WAL		REDUCES GRADIENT WHERE SLOPES ARE EXTREMELY STEEP PERMITS RETENTION OF EXISTING VEGETATION, KEEPING SOIL STABLE IN CRITICAL AREAS MINIMIZES MAINTENANCE	*						*
25	SLOPE DRAIN (SURFACE PIPE)	PREVENTS EROSION ON SLOPES WHEN RUNOFF CANNOT BE DIVERTED TO EDGE OF SLOPE AREA USUALLY PERMANENT CAN BE CONSTRUCTED OR EXTENDED AS GRADING PROGRESSES	*							52	SEEPAGE CONTR	KOL	PREVENTS PIPING AND SOIL SLIPPAGE ON CUT SLOPES	*					Щ	*
26	SLOPE DRAIN (SUPSUPEACE RIPE)	PREVENTS EROSION ON SLOPES WHEN RUNOFF CANNOT BE DIVERTED TO EDGE OF SLOPE AREA USUALLY PERMANENT CAN BE CONSTRUCTED OR EXTENDED AS GRADING PROGRESSES	*							53	WINDBREAK		MINIMIZES WIND EROSION MAY BE SNOW FENCE					*	Щ	
27	SLOPE DRAIN (SUBSURFACE PIPE)	PREVENTS EROSION ON SLOPES WHEN RUNOFF CANNOT BE DIVERTED TO EDGE OF SLOPE AREA USUALLY PERMANENT CAN BE CONSTRUCTED AS GRADING PROGRESSES	*							54	SILT FENCE	annamana)	USES GEOTEXTILE FABRIC AND POSTS OR POLES. EASY TO CONSTRUCT AND LOCATE AS NECESSARY.			*				*



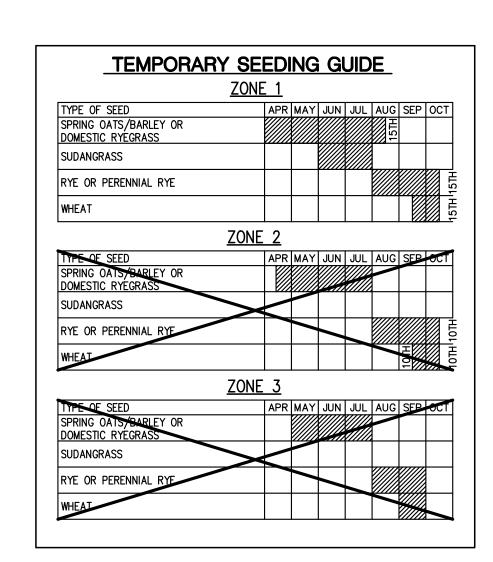


### SOIL EROSION & SEDIMENTATION CONTROL

DEVELOPER/PROPERTY OWNER SHALL SUBMIT A DETAILED EROSION CONTROL PLAN AND OBTAIN A SOIL EROSION & SEDIMENTATION CONTROL PERMIT PRIOR TO ANY EARTH CHANGES. CONSTRUCTION OPERATION SHALL BE SCHEDULED AND PERFORMED SO THAT PREVENTATIVE EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO EXCAVATION AND TEMPORARY STABILIZATION MEASURES ARE IN PLACE IMMEDIATELY FOLLOWING BACKFILLING AND/OR GRADING BORROW AND FILL DISPOSAL AREAS WILL BE SELECTED AND APPROVED AT TIME OF PLAN REVIEW. SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION. 5. CLEANUP WILL BE DONE IN A MANNER TO ENSURE THAT EROSION CONTROL MEASURES ARE NOT

6. THE PROJECT WILL CONTINUALLY BE INSPECTED FOR SOIL EROSION AND SEDIMENTATION CONTROL COMPLIANCE. DEFICIENCIES WILL BE CORRECTED BY THE DEVELOPER WITHIN 24 HOURS. TEMPORARY EROSION CONTROL MEASURES SHALL BE COMPLETELY REMOVED BY THE DEVELOPER UPON ESTABLISHMENT OF PERMANENT CONTROL MEASURES. ALL TEMPORARY SOIL EROSION CONTROL MEASURES MUST BE REMOVED FROM ROAD RIGHT-OF-WAY AREAS

PRIOR TO ACCEPTANCE OF STREETS FOR ROUTINE MAINTENANCE. VEGETATION MUST BE ACCEPTABLY ESTABLISHED PRIOR TO FINAL RELEASE OF THE CONSTRUCTION GUARANTEE BY THE DESIGNATED SOIL EROSION SEDIMENTATION CONTROL AGENT.



SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE												
CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
STRIP & STOCKPILE TOPSOIL												
ROUGH GRADE SEDIMENT CONTROL												
TEMP. CONTROL MEASURES												
STORM FACILITIES												
TEMP. CONSTRUCTION ROADS												
SITE CONSTRUCTION												
PERM. CONTROL MEASURES												
FINISH GRADING												

## CONSTRUCTION SEQUENCE

1. IMPLEMENTATION OF TEMPORARY EROSION CONTROL MEASURES; SELECTIVE GRADING, DIVERSIONS AS REQUIRED IN FIELD, PROTECTION OF STORM SEWER FACILITIES. EXCAVATION AND STOCKPILING OF SOIL. 6. PERIODIC MAINTENANCE OF AFFECTED EROSION CONTROL MEASURES. 4. PERMANENT MEASURES; FINAL GRADING, SEEDING AND MULCHING.

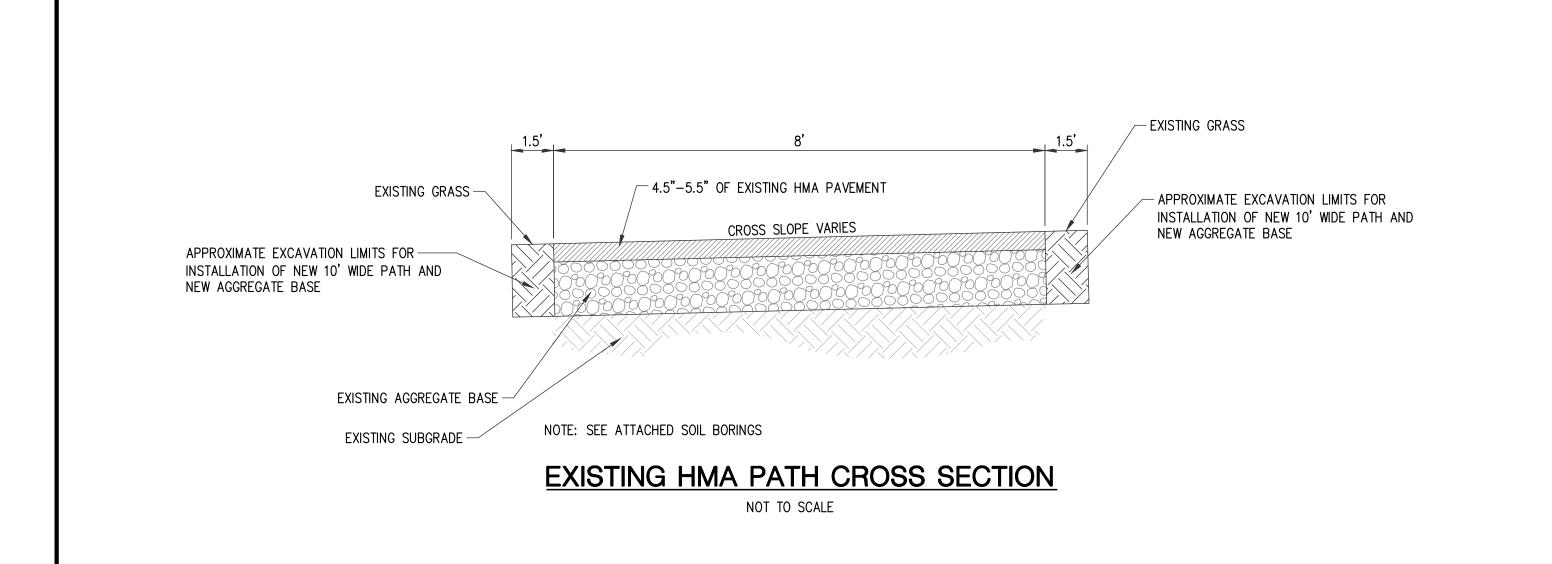


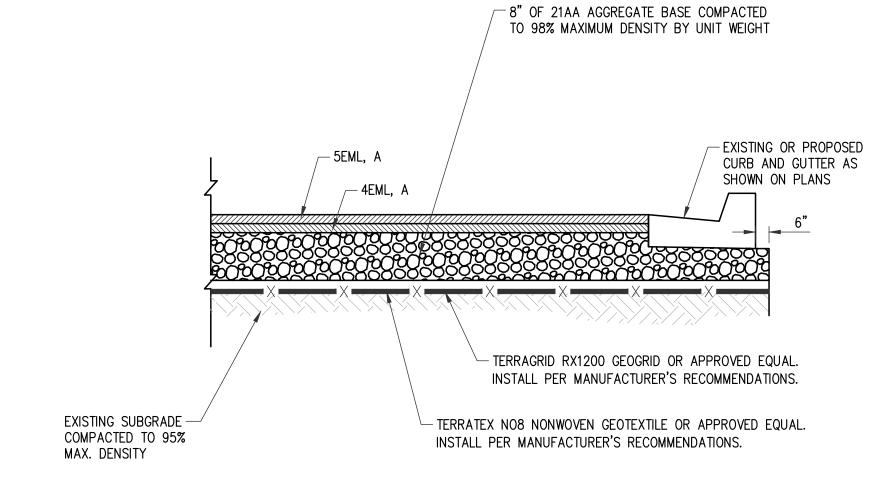
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PLA	N SUBMITTALS AND CHANGES	
	BIDDING DOCUMENTS	REV:
DATE	DESCRIPTION	
9/9/24	ISSUED FOR BIDS	
		SHT# 5 OF 19
		3111# O OI 10
		JOB No: 2400478

KS AND RECREATION IMPROVEMENTS

NAW COUNTY
ROSION KEY

I ARBOR PARKS
FULLER PARK IN
WASHTENA
SOIL ERO

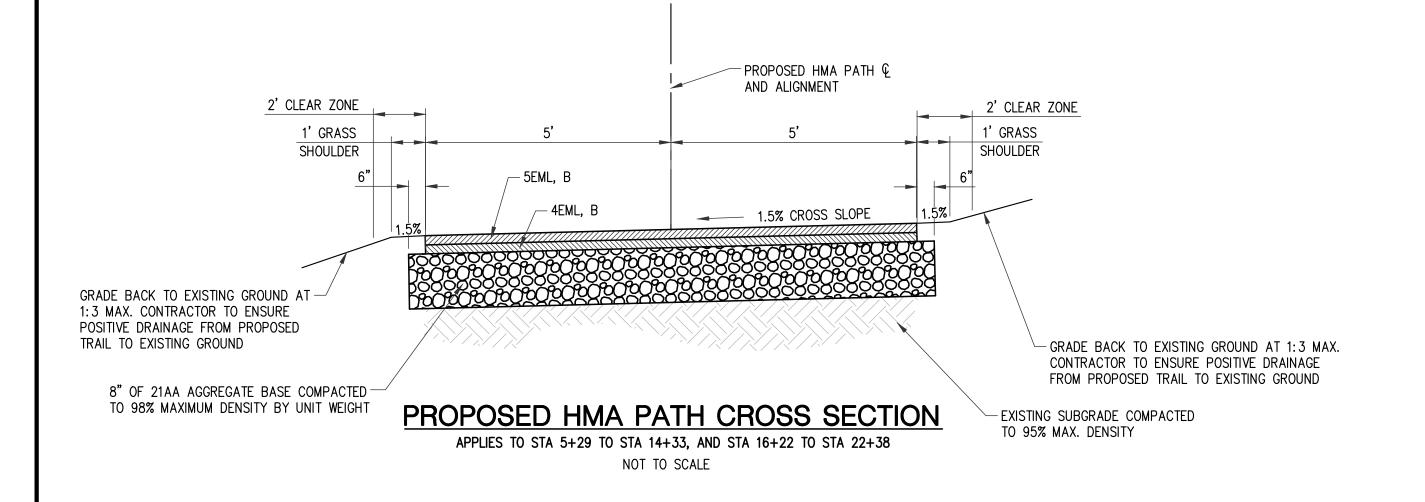


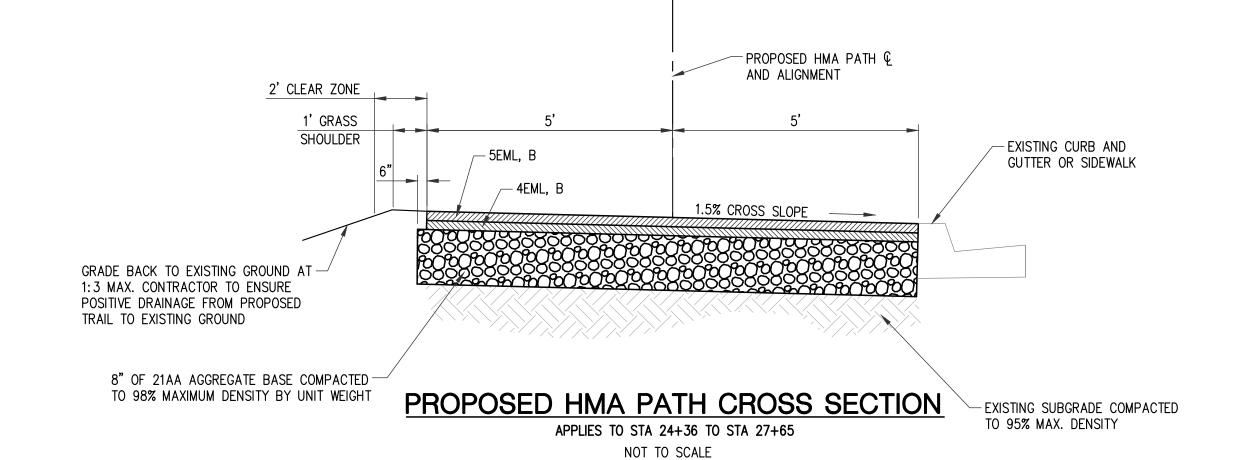


# PROPOSED HMA DRIVE/PARKING LOT CROSS SECTION

NOT TO SCALE

PROPOSED HMA DRIVE APPLICATION CHART					
IDENT NO	ITEM	HMA PAVEMENT	THICKNESS	PERFORMANCE GRADE	COMMENTS
5EML, A	HMA, 5EML	HMA, 5EML	1.5"	58-28	TOP COURSE
4EML, A	HMA, 4EML	HMA, 4EML	2.5"	58-28	LEVELING COURSE
RAP SHALL BE LIMITED TO TIER 1 DESIGN (17% MAX RAP BY BINDER WEIGHT)					
BOND COAT RATE SHALL BE 0.05 TO 0.15 GAL/SYD					
TOP COURSE AGG. WEAR INDEX (AWI) EL = 220 MIN					





PROPOSED HMA PATH APPLICATION CHART					
IDENT NO	ITEM	HMA PAVEMENT	THICKNESS	PERFORMANCE GRADE	COMMENTS
5EML, B	HMA, 5EML	HMA, 5EML	1.5"	58-28	TOP COURSE
4EML, B	HMA, 4EML	HMA, 4EML	1.5"	58-28	LEVELING COURSE
RAP SHALL BE LIMITED TO TIER 1 DESIGN (17% MAX RAP BY BINDER WEIGHT)					
BOND COAT RATE SHALL BE 0.05 TO 0.15 GAL/SYD					
TOP COURSE AGG. WEAR INDEX (AWI) EL = 220 MIN					



Know what's <b>below. Call</b> before you dig.

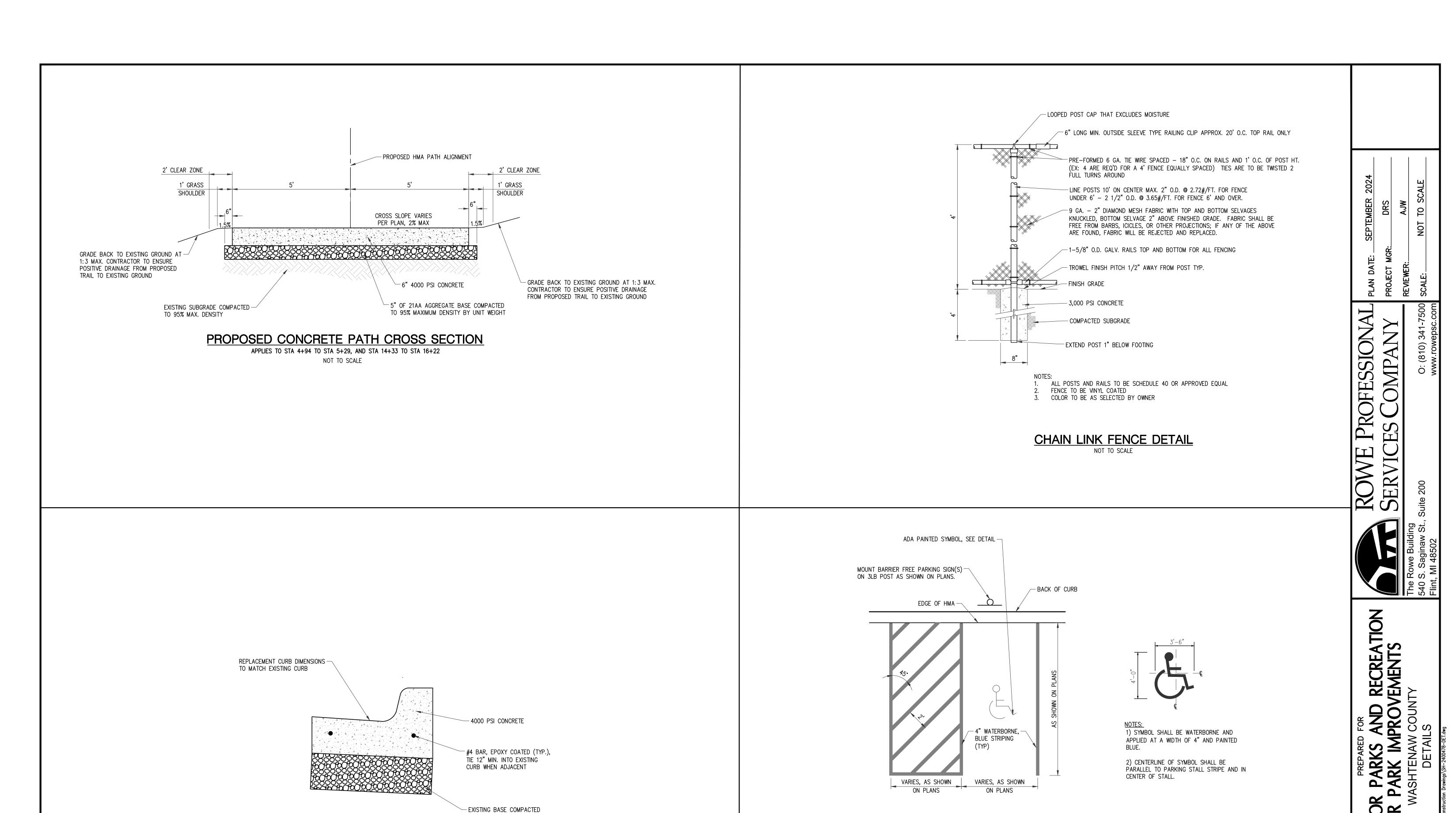
	<b>Jan</b> before you dig.	
PLA	N SUBMITTALS AND CHANGES	
	BIDDING DOCUMENTS	REV:
DATE	DESCRIPTION	
9/9/24	ISSUED FOR BIDS	
		SHT# 6 OF 19
		SHI# O OF 13
		JOB No: 2400478

SERVICI

O: (810) ;

S AND RECREATION
MPROVEMENTS

W COUNTY
AILS



TO 95% MAX. DENSITY

**CURB REPLACEMENT DETAIL** 

NOT TO SCALE

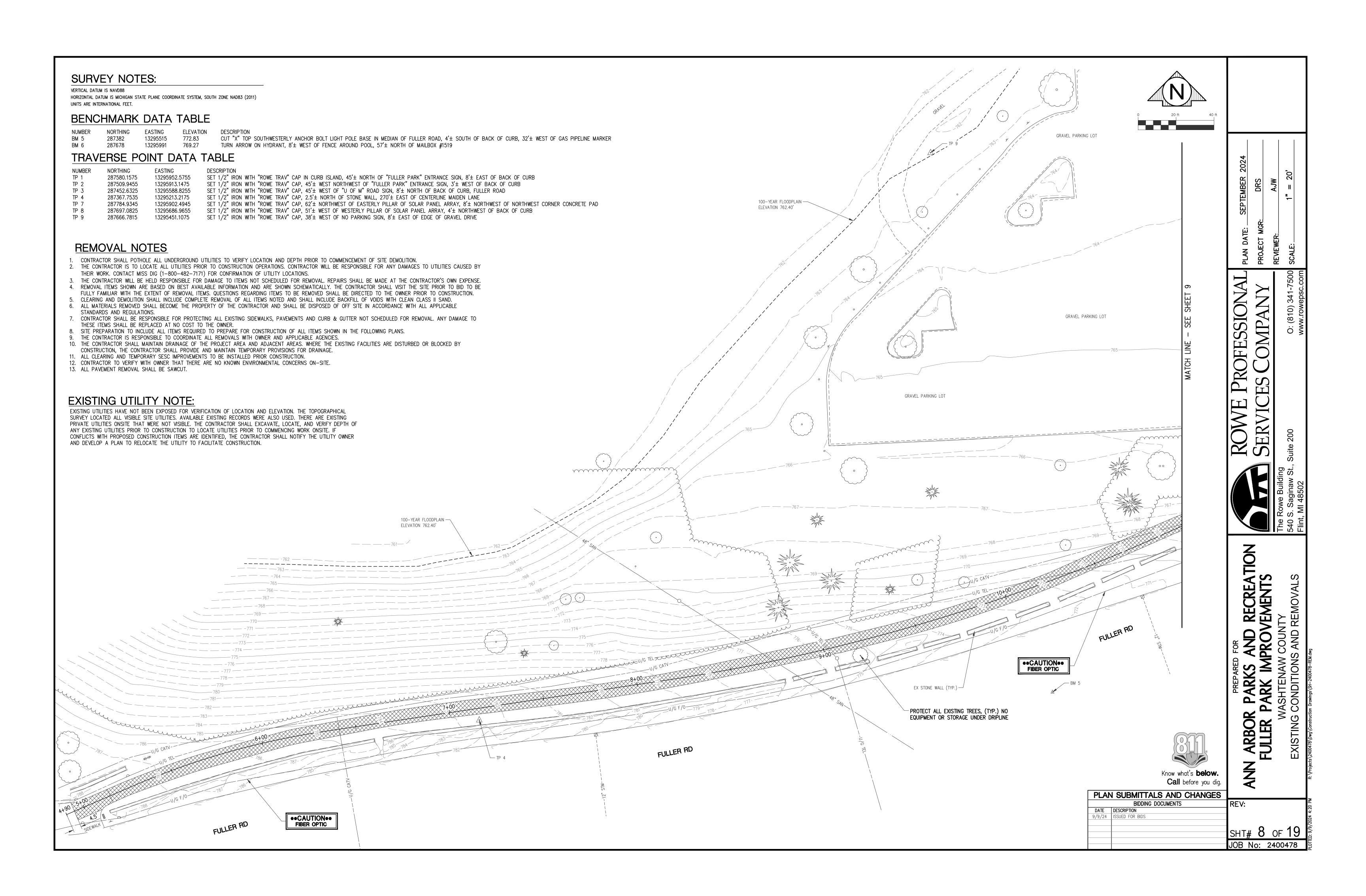
BARRIER FREE PARKING SIGNAGE, SYMBOL, AND PAVEMENT MARKINGS

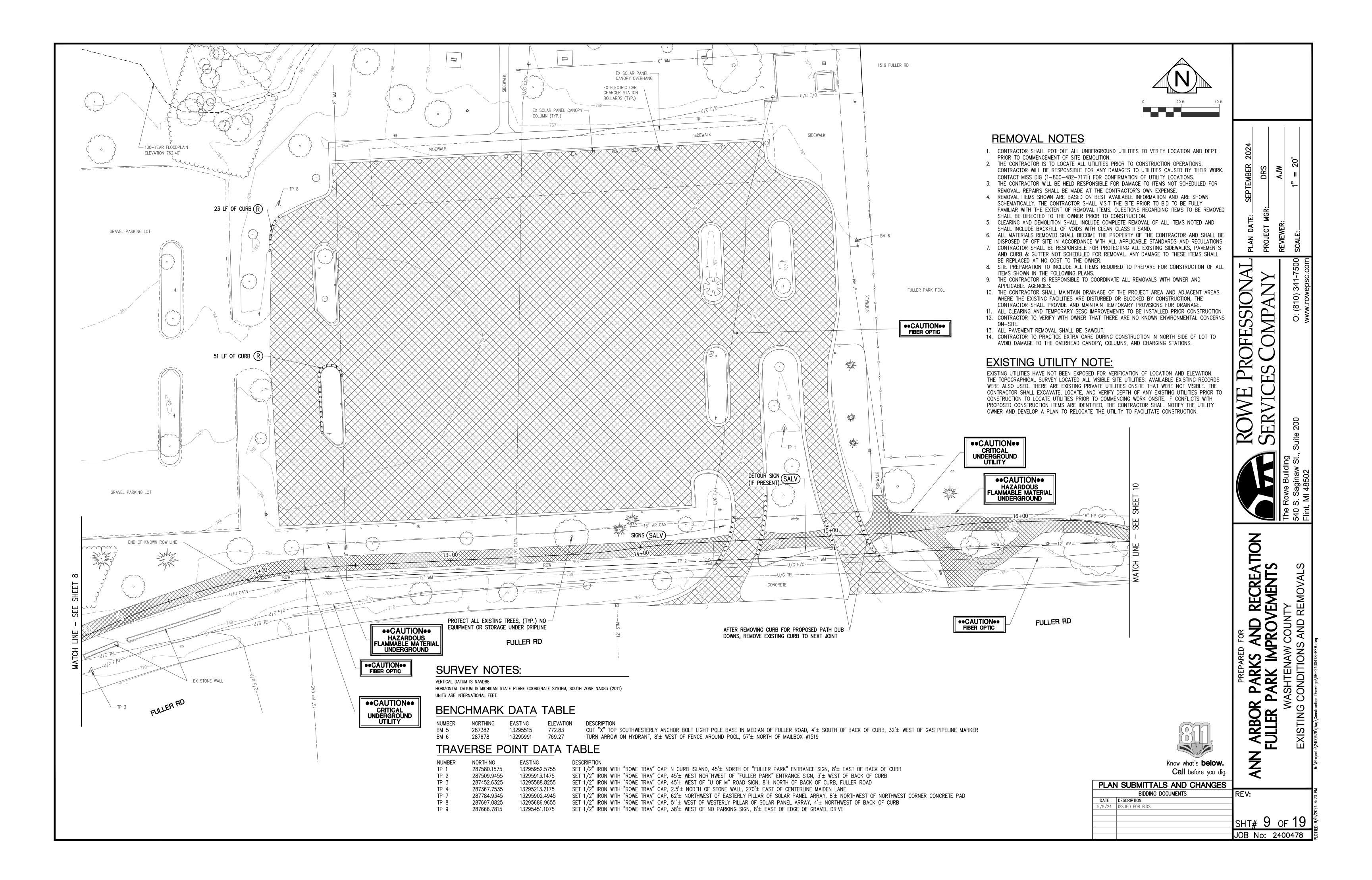
NOT TO SCALE

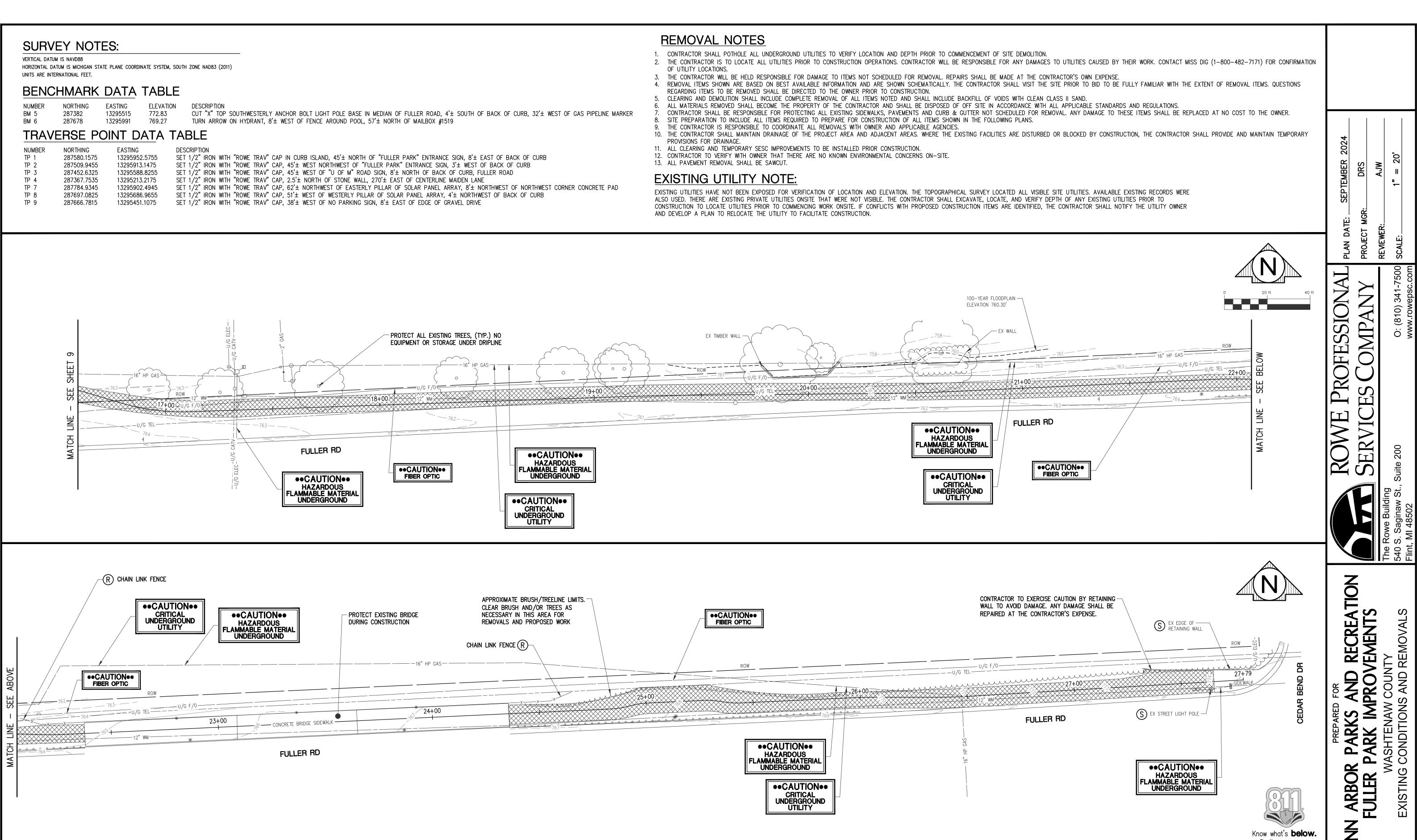


Know what's **below.** 

PLAN SUBMITTALS AND CHANGES BIDDING DOCUMENTS REV: DATE DESCRIPTION
9/9/24 ISSUED FOR BIDS JOB No: 2400478







PLAN SUBMITTALS AND CHANGES

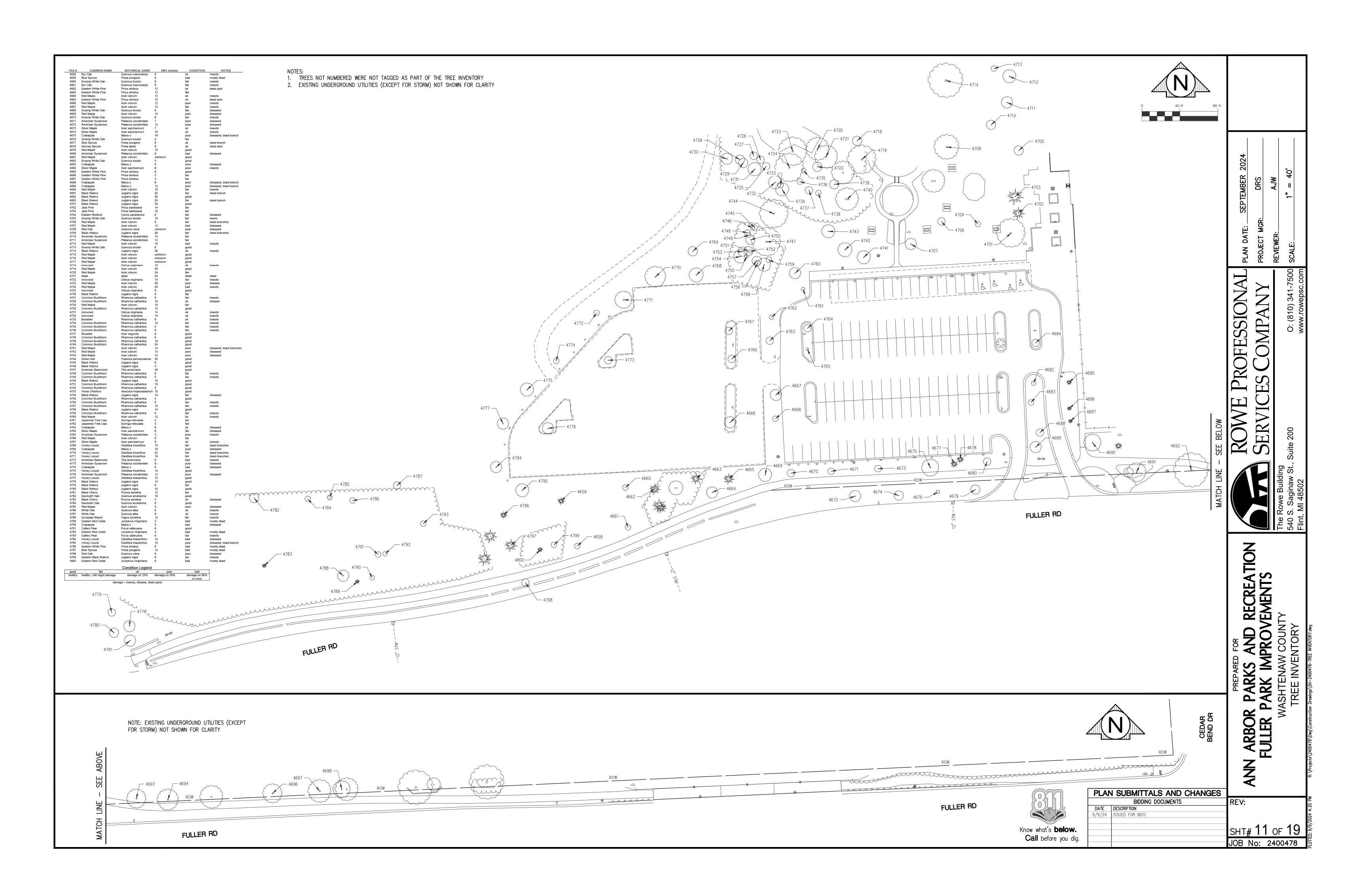
BIDDING DOCUMENTS

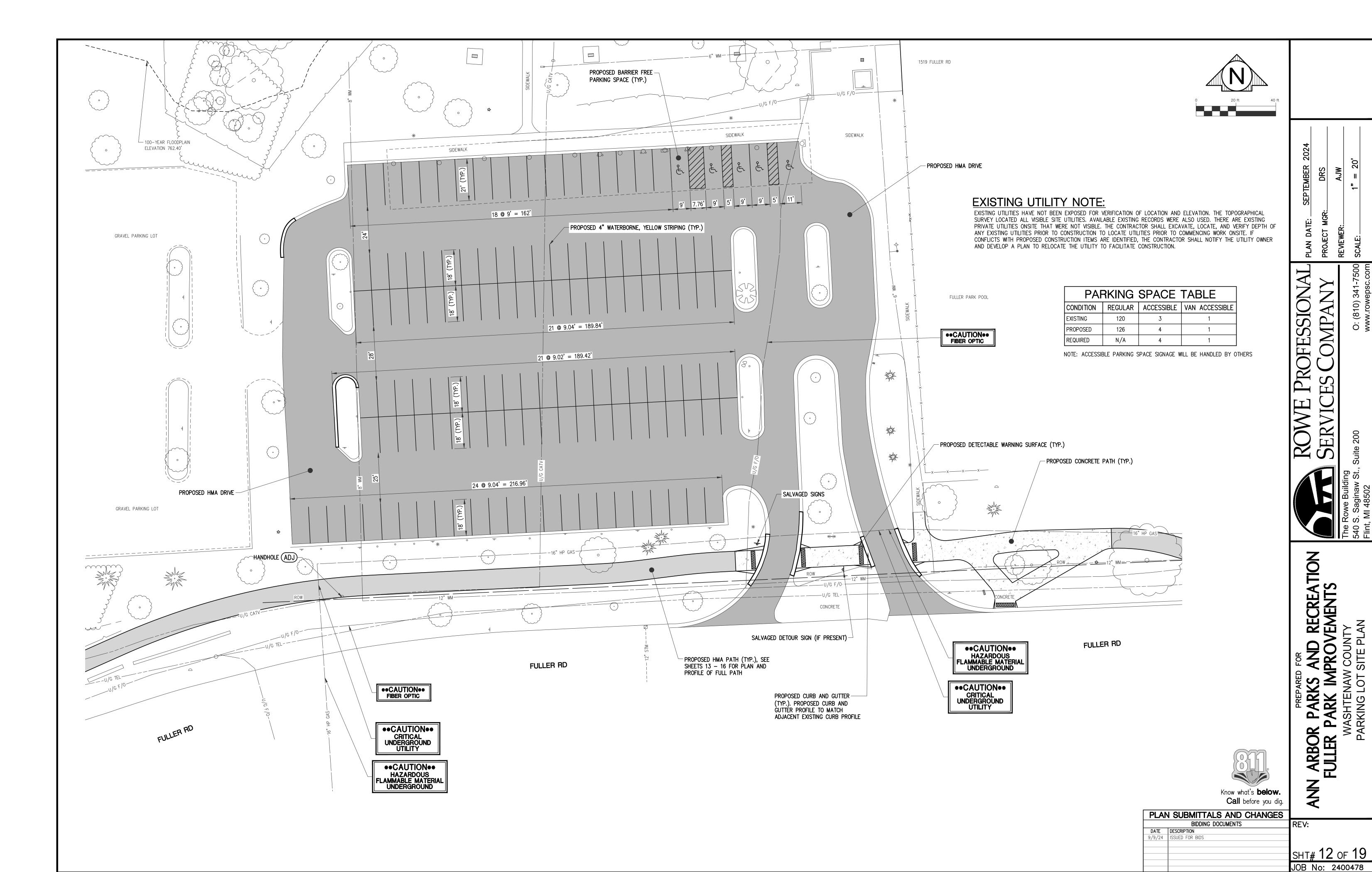
DATE DESCRIPTION

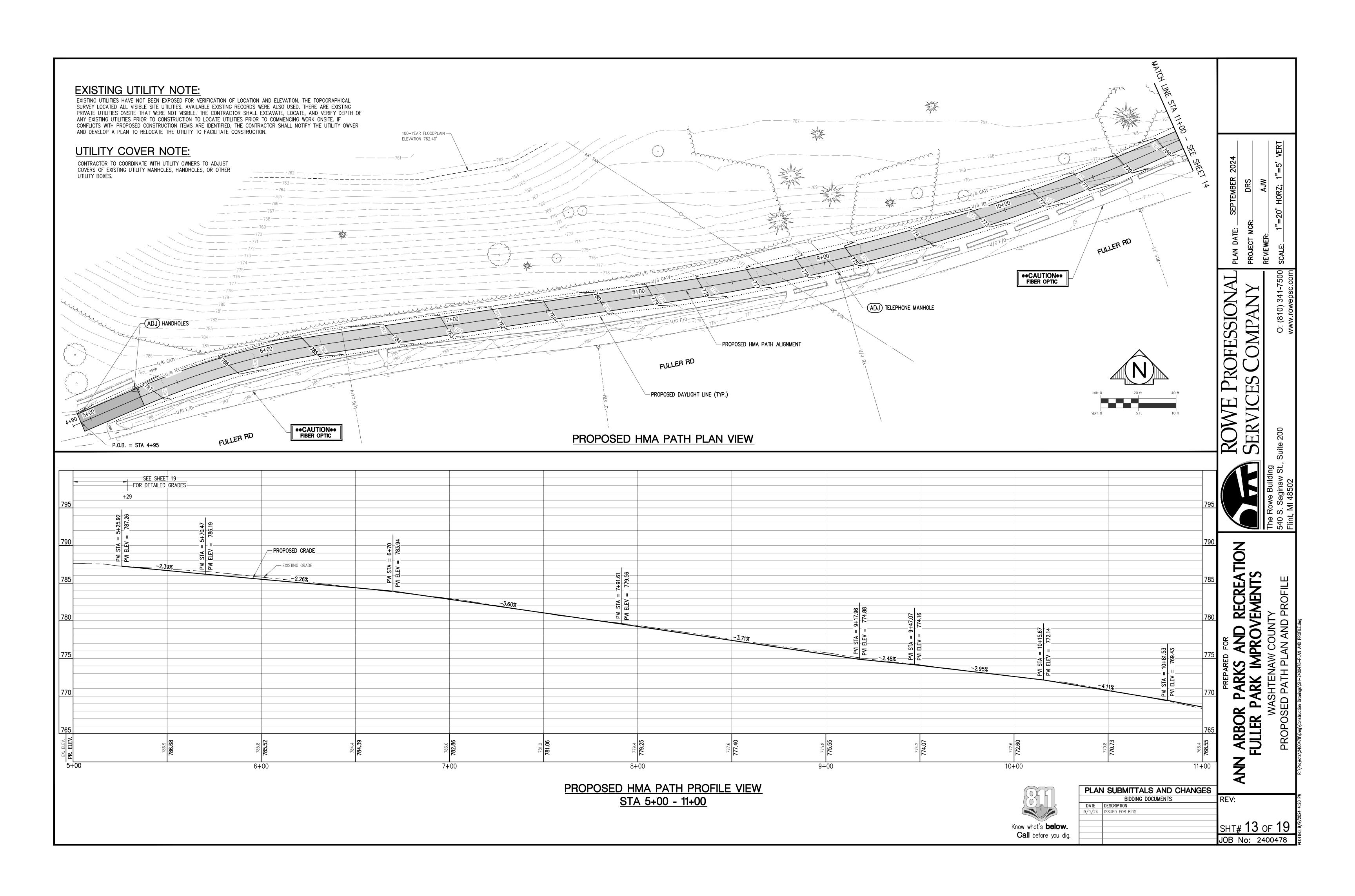
9/9/24 ISSUED FOR BIDS

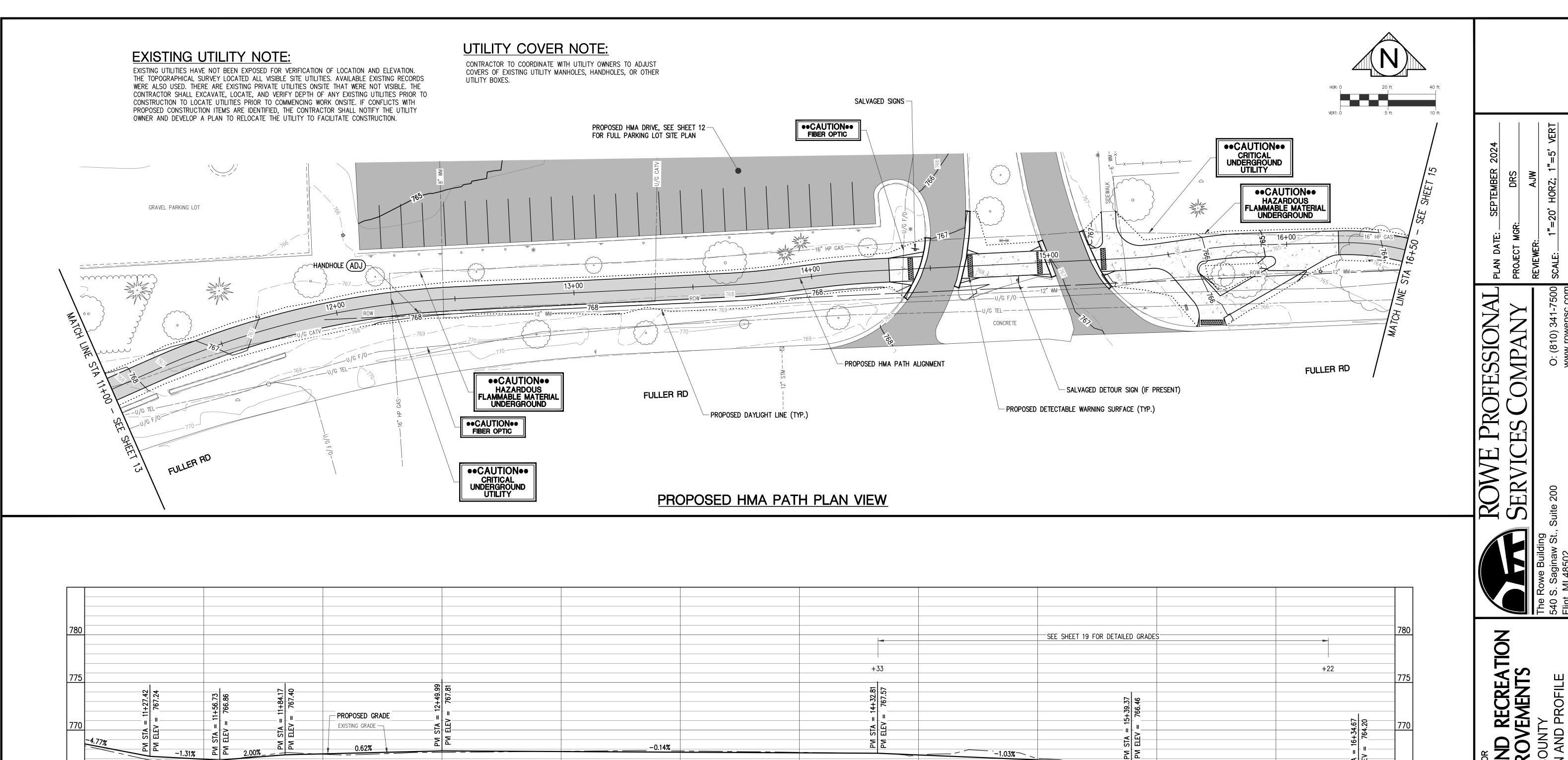
SHT# 10 OF 19

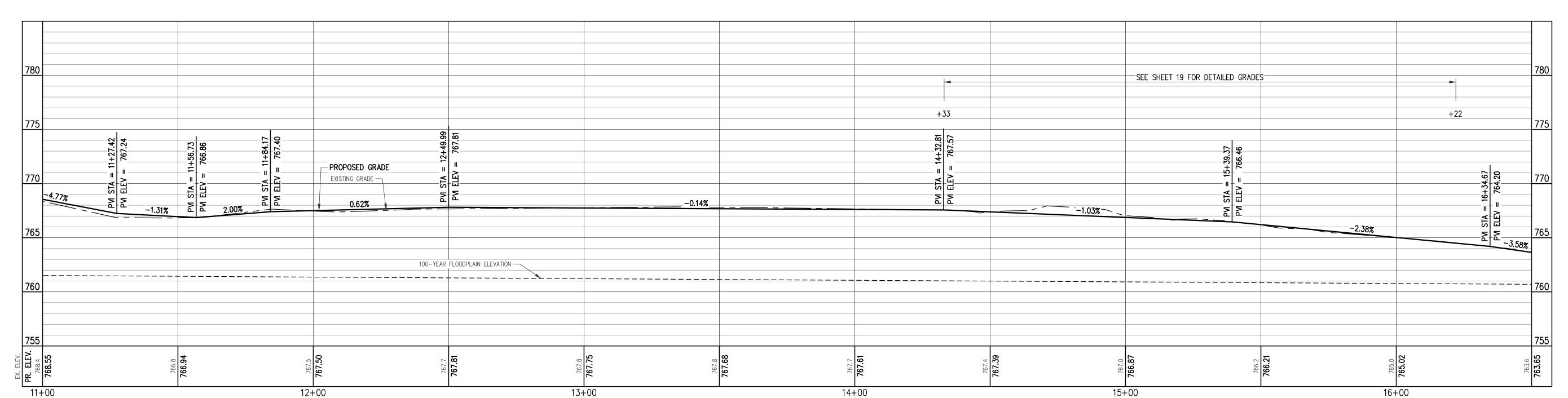
JOB No: 2400478











PROPOSED HMA PATH PROFILE VIEW

STA 11+00 - 16+50



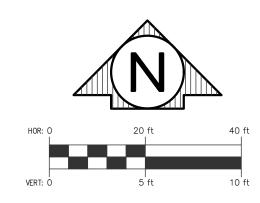
PLAI	N SUBMITTALS AND CHANGES
	BIDDING DOCUMENTS
DATE	DESCRIPTION
9/9/24	ISSUED FOR BIDS

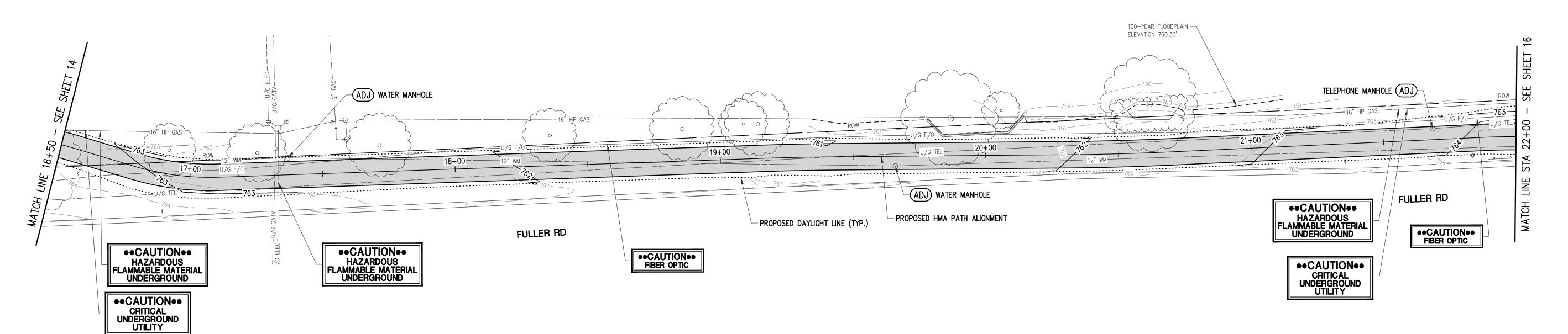
# **EXISTING UTILITY NOTE:**

EXISTING UTILITIES HAVE NOT BEEN EXPOSED FOR VERIFICATION OF LOCATION AND ELEVATION. THE TOPOGRAPHICAL SURVEY LOCATED ALL VISIBLE SITE UTILITIES. AVAILABLE EXISTING RECORDS WERE ALSO USED. THERE ARE EXISTING PRIVATE UTILITIES ONSITE THAT WERE NOT VISIBLE. THE CONTRACTOR SHALL EXCAVATE, LOCATE, AND VERIFY DEPTH OF ANY EXISTING UTILITIES PRIOR TO CONSTRUCTION TO LOCATE UTILITIES PRIOR TO COMMENCING WORK ONSITE. IF CONFLICTS WITH PROPOSED CONSTRUCTION ITEMS ARE IDENTIFIED, THE CONTRACTOR SHALL NOTIFY THE UTILITY OWNER AND DEVELOP A PLAN TO RELOCATE THE UTILITY TO FACILITATE CONSTRUCTION.

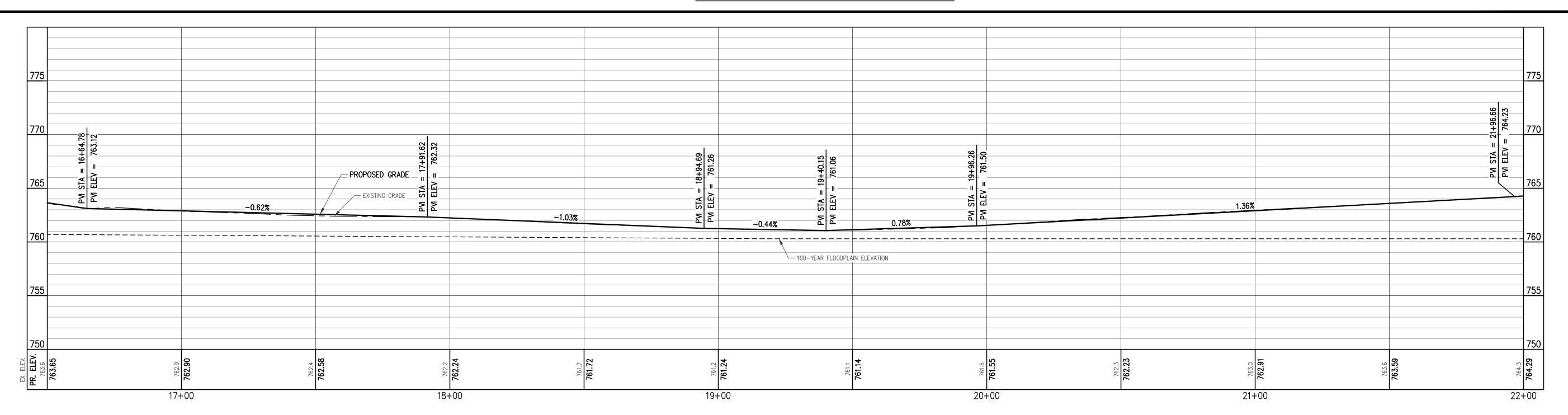
# **UTILITY COVER NOTE:**

CONTRACTOR TO COORDINATE WITH UTILITY OWNERS TO ADJUST COVERS OF EXISTING UTILITY MANHOLES, HANDHOLES, OR OTHER UTILITY BOXES.





# PROPOSED HMA PATH PLAN VIEW



PROPOSED HMA PATH PROFILE VIEW

STA 16+50 - 22+00



PLAN SUBMITTALS AND CHANGES					
	BIDDING DOCUMENTS				
DATE	DESCRIPTION				
9/9/24	ISSUED FOR BIDS				

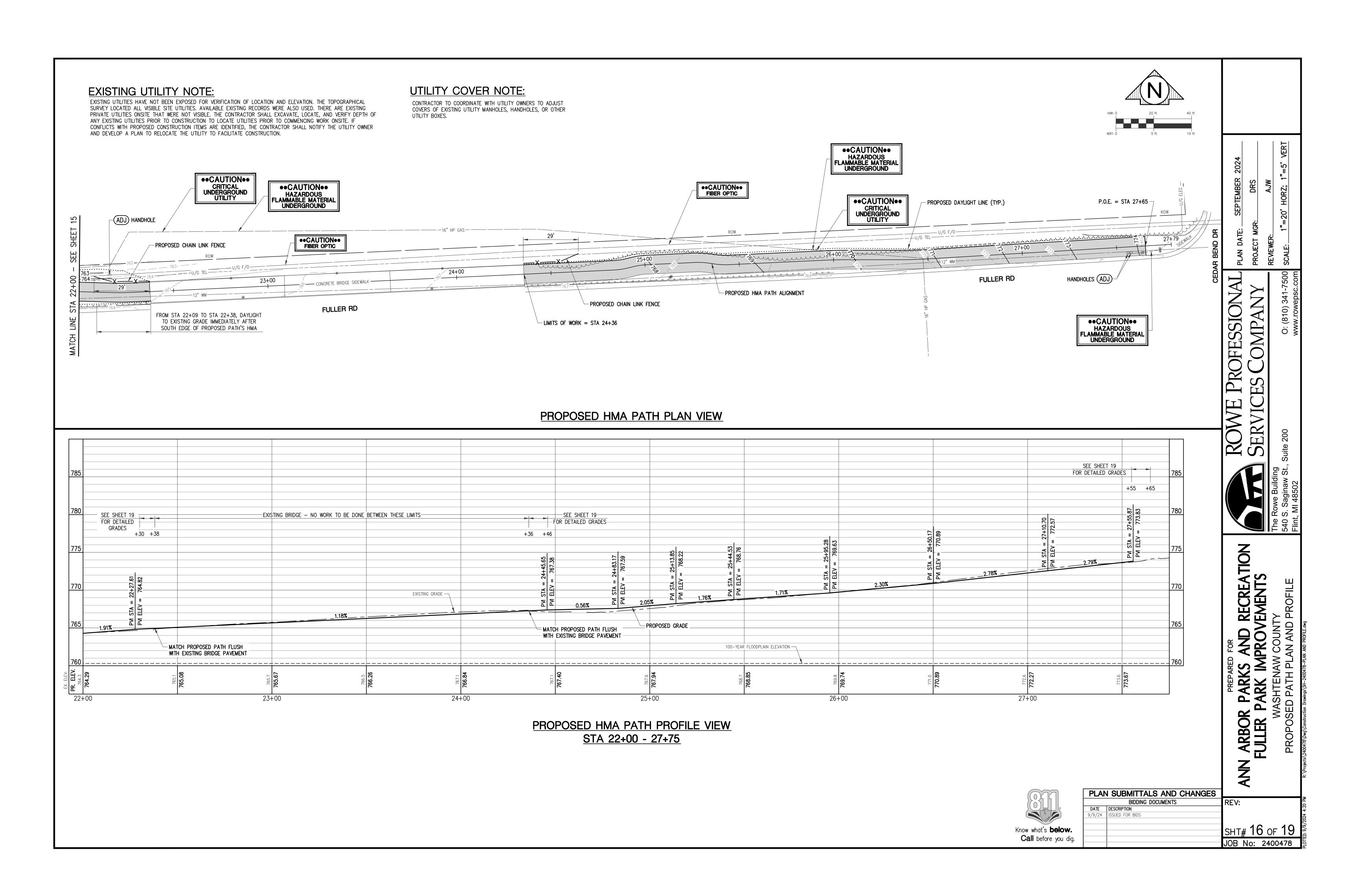
S REV:

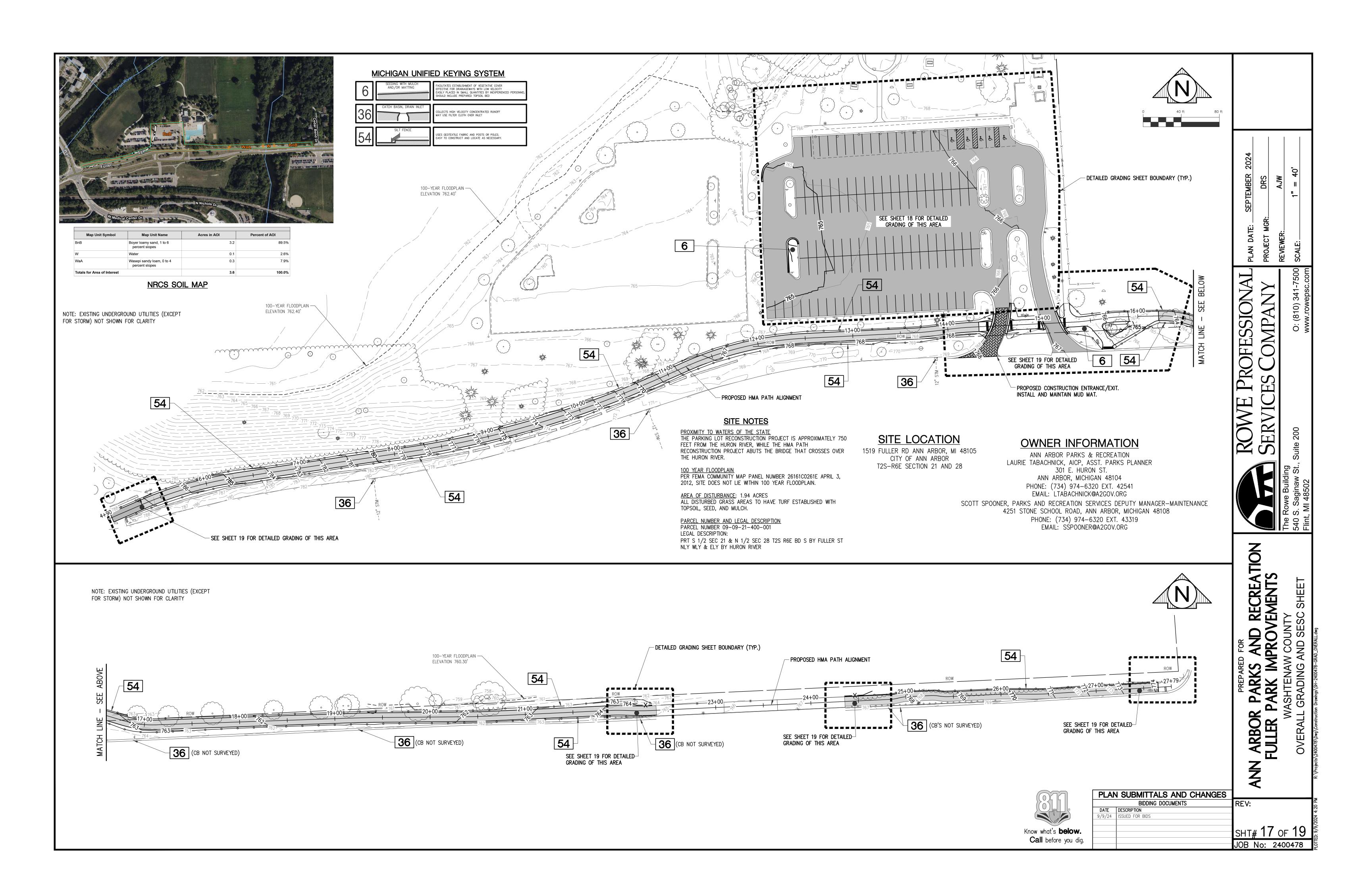
SHT# 15 OF 1

JOB No: 240047

O: (810) 341-79

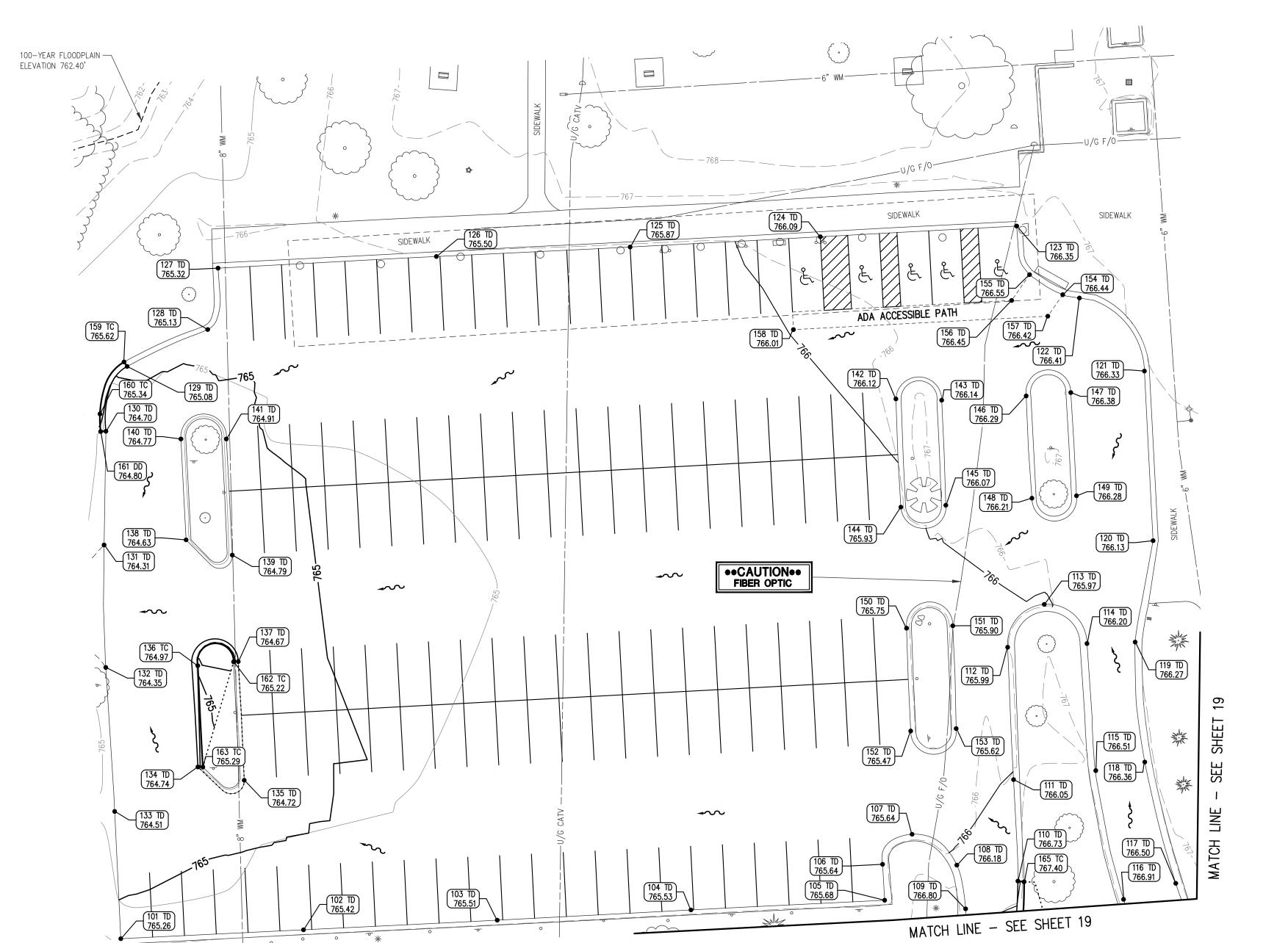
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# **EXISTING UTILITY NOTE:**

EXISTING UTILITIES HAVE NOT BEEN EXPOSED FOR VERIFICATION OF LOCATION AND ELEVATION. THE TOPOGRAPHICAL SURVEY LOCATED ALL VISIBLE SITE UTILITIES. AVAILABLE EXISTING RECORDS WERE ALSO USED. THERE ARE EXISTING PRIVATE UTILITIES ONSITE THAT WERE NOT VISIBLE. THE CONTRACTOR SHALL EXCAVATE, LOCATE, AND VERIFY DEPTH OF ANY EXISTING UTILITIES PRIOR TO CONSTRUCTION TO LOCATE UTILITIES PRIOR TO COMMENCING WORK ONSITE. IF CONFLICTS WITH PROPOSED CONSTRUCTION ITEMS ARE IDENTIFIED, THE CONTRACTOR SHALL NOTIFY THE UTILITY OWNER AND DEVELOP A PLAN TO RELOCATE THE UTILITY TO FACILITATE CONSTRUCTION.



GRADING TABLE				
POINT	ELEVATION	DESCRIPTION	NORTHING	EASTING
101	TD=765.26	ME	287528.51	13295687.49
102	TD=765.42	ME	287531.03	13295739.30
103	TD=765.51	ME	287533.75	13295794.23
104	TD=765.53	ME	287536.66	13295849.15
105	TD=765.68	ME	287539.41	13295904.08
106	TD=765.64	ME	287549.61	13295903.48
107	TD=765.64	ME	287558.13	13295911.85
108	TD=766.18	ME	287549.38	13295924.54
109	TD=766.80	ME	287536.97	13295927.03
110	TD=766.73	ME	287544.85	13295941.85
111	TD=766.05	ME	287573.63	13295940.62
112	TD=765.99	ME	287611.18	13295938.95
113	TD=765.97	ME	287623.34	13295949.33
114	TD=766.20	ME	287612.22	13295961.44
115	TD=766.51	ME	287576.18	13295963.94
116	TD=766.91	ME	287576.18	13295971.81
117	TD=766.50	ME ME	287544.20	13295986.61
118	TD=766.36	ME ME	287578.62	13295977.83
119	TD=766.27	ME	287612.64	13295975.10
120	TD=766.13	ME	287641.40	13295980.19
121	TD=766.33	ME	287689.52	13295977.74
122	TD=766.41	ME	287710.24	13295959.30
123	TD=766.35	ME	287730.65	13295941.51
124	TD=766.09	ME	287727.61	13295885.83
125	TD=765.87	ME	287724.71	13295831.91
126	TD=765.50	ME	287722.02	13295776.98
127	TD=765.32	ME	287718.71	13295715.07
128	TD=765.13	ME	287701.30	13295712.14
129	TD=765.08	ME	287690.83	13295689.29
130	TD=764.70	ME	287672.45	13295683.28
131	TD=764.31	ME	287640.19	13295682.75
132	TD=764.35	ME	287605.43	13295683.24
133	TD=764.51	ME	287564.59	13295685.75
134	TD=764.74	ME	287577.21	13295709.36
135	TD=764.72	ME	287573.43	13295722.49
136	TC=764.97		287605.96	13295709.32
137	TD=764.67	ME	287607.11	13295720.79
138	TD=764.63	ME	287641.64	13295706.01
139	TD=764.79	ME	287637.32	13295719.11
140	TD=764.77	ME	287670.26	13295704.53
141	TD=764.91	ME	287670.25	13295717.43
142	TD=766.12	ME	287681.63	13295907.27
143	TD=766.14	ME	287681.25	13295920.24
144	TD=765.93	ME	287650.92	13295908.67
145	TD=766.07	ME	287651.45	13295921.42
146	TD=766.29	ME	287682.46	13295944.20
147	TD=766.38	ME	287683.41	13295956.85
148	TD=766.21	ME	287653.46	13295945.84
149	TD=766.28	ME	287654.15	13295958.46
150	TD=765.75	ME	287616.58	13295910.29
151	TD=765.79	ME	287617.25	13295923.39
152	TD=765.47	ME	287587.41	13295911.46
153	TD=765.62	ME	287588.11	13295924.36
154	TD=766.44	ME	287711.18	13295954.57
155	TD=766.55	ME	287716.87	13295945.17
156	TD=766.45		287709.55	13295940.09
157	TD=766.42		287705.08	13295950.33

158 TD=766.01

160 TC=765.34

162

159 TC=765.62 ME

163 TC=765.29 ME

165 TC=767.40 ME

DD=764.80 TC

TC=765.22 ME

287701.28 13295878.21

287692.10 | 13295688.41 |

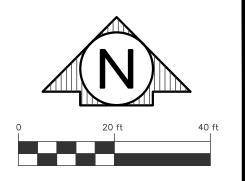
287677.35 | 13295681.59

287672.37 | 13295681.78

287577.17 13295710.75 287544.64 13295943.61

13295719.48

287607.04



# GRADING LEGEND

TC - TOP OF CURB
TD - TOP OF HMA DRIVE
PA - TOP OF HMA PATH

PC - POINT OF CURVATURE DD - DUB DOWN (ADD 0.45' FOR FULL HEIGHT CURB)

CO - TOP OF CONCRETE PATH

ME - MATCH EXISTING FLOW DIRECTION

O: (810) ;

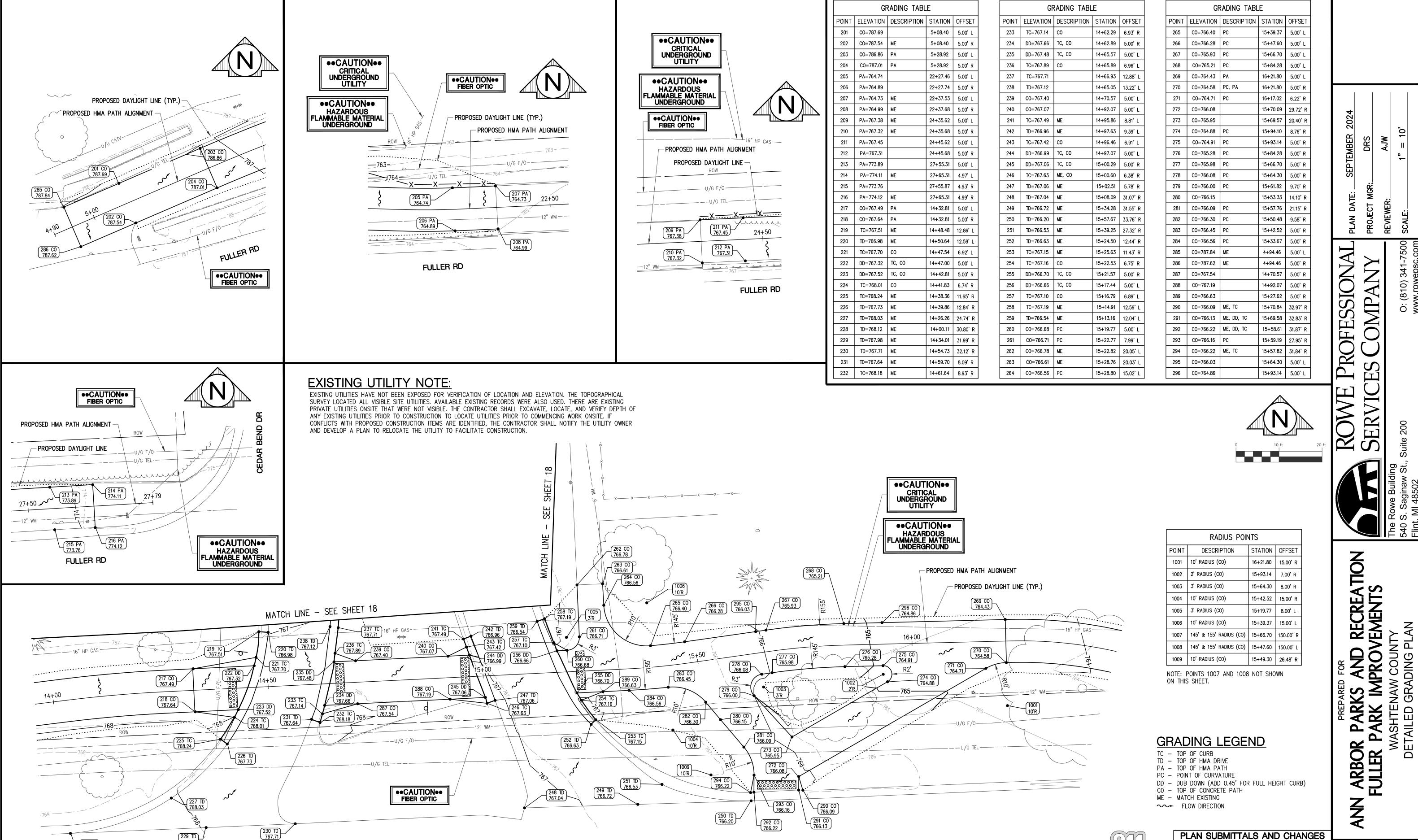
SERVIC



ARBOR PARKS AND RECREATION FULLER PARK IMPROVEMENTS

WASHTENAW COUNTY
DETAILED GRADING PLAN

_			₹
	PLA	N SUBMITTALS AND CHANGES	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		BIDDING DOCUMENTS	REV:
	DATE	DESCRIPTION	
	9/9/24	ISSUED FOR BIDS	
			40
Know what's <b>below.</b>			SHT# 18 OF
Call before you dig.			JOB No: 24004



228 TD 768.12

**FULLER RD** 



		{
PLA	N SUBMITTALS AND CHANGES	
	BIDDING DOCUMENTS	REV:
DATE	DESCRIPTION	
9/9/24	ISSUED FOR BIDS	
		SHT# 19 OF 19
		JOB No: 2400478

(810)