BID SET

5/6/2020

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

MAY, 2020

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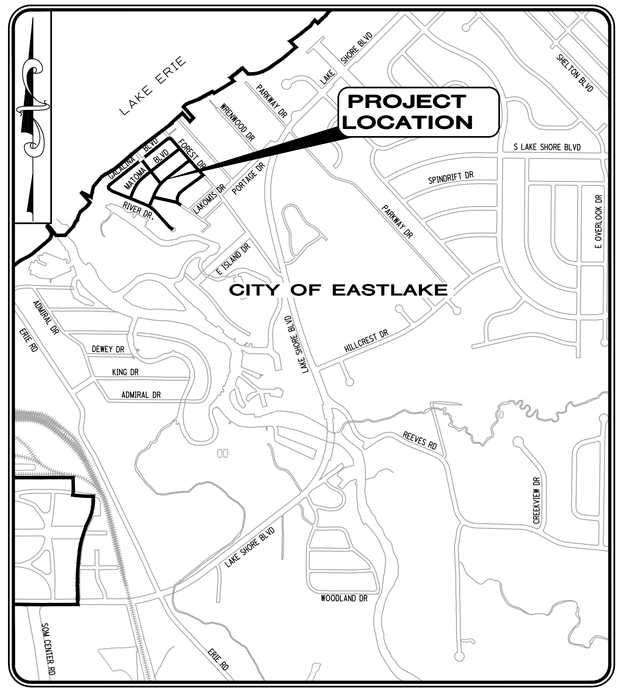

LOCATION MAP

1" = 1000'

OFFICIALS

DENNIS MORLEY. . . . . MAYOR
NICK RUBERTINO. . . . . SERVICE DIRECTOR
JOSEPH R. KLAMMER. . . . . LAW DIRECTOR
CAROL–ANN SCHINDEL. . . . . FINANCE DIRECTOR
THOMAS B. GWYDIR, P.E.. . . . . CITY ENGINEER

MEMBERS OF COUNCIL

JOHN MEYERS. . . . . PRESIDENT, WARD 2
MICHAEL ZUREN. . . . . VICE PRESIDENT, WARD 1
JASON KASUNICK. . . . . WARD 3
DAVID SPOTTON. . . . . WARD 4
JAMES OVERSTREET. . . . . AT LARGE
TODD GULLEY. . . . . AT LARGE
KIMBERLY C. EVERS. . . . . AT LARGE
ANNA RUBERTINO. . . . . CLERK

OHIO Utilities Protection SERVICE
Call Before You Dig

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1–800–362–2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON–MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: 1-800-925-0988

1. THE SURVEY SHOWN ON THESE PLANS WAS OBSERVED IN THE FIELD FOR CONSTRUCTION PURPOSES ONLY AND MAY NOT BE SUITABLE FOR PROPERTY LINE SURVEYS OR ANY OTHER PURPOSE.
2. UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS.
3. THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1–800–362–2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.

your trusted advisor
consultants → engineers architects planners

TIMOTHY R. LANNON — P.E. No. 58885 — DATE 5/6/20

STATE OF OHIO
TIMOTHY R. LANNON
58885
REGISTERED PROFESSIONAL ENGINEER

ENGINEER'S PROJECT No. 15060901

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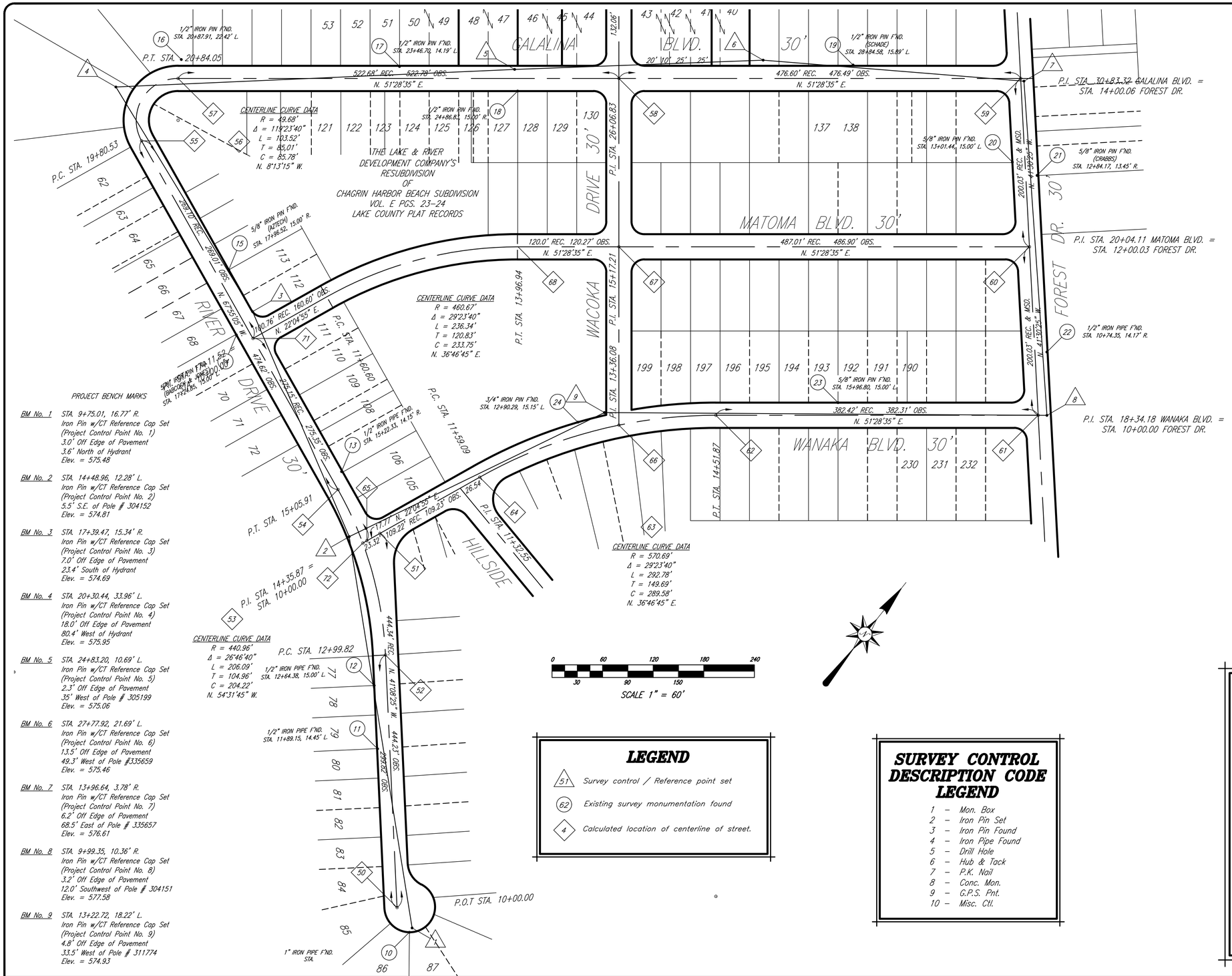

PROJECT BENCH MARKS

BM No. 1 STA. 9+75.01, 16.77' R.
Iron Pin w/CT Reference Cap Set
(Project Control Point No. 1)
3.0' Off Edge of Pavement
3.6' North of Hydrant
Elev. = 575.48

BM No. 2 STA. 14+48.96, 12.28' L.
Iron Pin w/CT Reference Cap Set
(Project Control Point No. 2)
5.5' S.E. of Pole # 304152
Elev. = 574.81

BM No. 3 STA. 17+39.47, 15.34' R.
Iron Pin w/CT Reference Cap Set
(Project Control Point No. 3)
7.0' Off Edge of Pavement
23.4' South of Hydrant
Elev. = 574.69

BM No. 4 STA. 20+30.44, 33.96' L.
Iron Pin w/CT Reference Cap Set
(Project Control Point No. 4)
18.0' Off Edge of Pavement
80.4' West of Hydrant
Elev. = 575.95

BM No. 5 STA. 24+83.20, 10.69' L.
Iron Pin w/CT Reference Cap Set
(Project Control Point No. 5)
2.3' Off Edge of Pavement
35' West of Pole # 305199
Elev. = 575.06

BM No. 6 STA. 27+77.92, 21.69' L.
Iron Pin w/CT Reference Cap Set
(Project Control Point No. 6)
13.5' Off Edge of Pavement
49.3' West of Pole #335659
Elev. = 575.46

BM No. 7 STA. 13+96.64, 3.78' R.
Iron Pin w/CT Reference Cap Set
(Project Control Point No. 7)
6.2' Off Edge of Pavement
68.5' East of Pole # 335657
Elev. = 576.61

BM No. 8 STA. 9+99.35, 10.36' R.
Iron Pin w/CT Reference Cap Set
(Project Control Point No. 8)
3.2' Off Edge of Pavement
12.0' Southwest of Pole # 304151
Elev. = 577.58

BM No. 9 STA. 13+22.72, 18.22' L.
Iron Pin w/CT Reference Cap Set
(Project Control Point No. 9)
4.8' Off Edge of Pavement
33.5' West of Pole # 311774
Elev. = 574.93

PROJECT CONTROL COORDINATES

PNTS	NORTHING	EASTING	ELEV	CODE
1	734137.138	2260496.852	575.479	2
2	734453.786	2260149.403	574.81	2
3	734591.245	2259893.544	574.69	2
4	734698.658	2259600.803	575.95	2
5	735009.526	2259957.757	575.06	2
6	735201.69	2260181.479	575.46	2
7	735374.879	2260439.013	576.61	2
8	735081.716	2260707.229	577.58	2
9	734757.432	2260294.569	574.93	2
10	734131.159	2260497.548	574.935	4
11	734277.866	2260332.455	574.336	4
12	734334.165	2260282.544	575.101	4
13	734508.512	2260094.31	574.693	4
14	734557.65	2259895.689	574.628	3
15	734612.365	2259840.549	573.454	3
16	734772.495	2259641.194	573.756	3
17	734927.246	2259848.778	575.022	3
18	734991.685	2259976.592	574.762	3
19	735263.588	2260268.529	574.867	3
20	735291.137	2260488.037	575.067	3
21	735297.059	2260520.782	574.959	3
22	735140.408	2260660.373	575.353	4
23	734939.229	2260503.985	575.564	3
24	734728.896	2260276.994	575.057	3
50	734144.928	2260467.778	0	10
51	734479.475	2260175.518	0	10
52	734370.726	2260270.522	0	10
53	734080.615	2259938.435	0	10
54	734489.23	2260104.205	0	10
55	734667.652	2259664.403	0	10
56	734713.688	2259683.08	0	10
57	734752.555	2259652.137	0	10
58	735078.161	2260061.131	0	10
59	735374.935	2260433.91	0	10
60	735225.137	2260566.473	0	10
61	735075.339	2260699.036	0	10
62	734837.223	2260399.938	0	10
63	734390.743	2260755.386	0	10
64	734605.283	2260226.557	0	10
65	734463.009	2260168.838	0	10
66	734756.437	2260317.259	0	10
67	734921.878	2260185.549	0	10
68	734847.419	2260092.021	0	10
71	734566.523	2259913.68	0	10
72	734457.865	2260166.751	0	10

LEGEND

- 51 — Survey control / Reference point set
- 62 — Existing survey monumentation found
- 4 — Calculated location of centerline of street.

SURVEY CONTROL DESCRIPTION CODE LEGEND

1 – Mon. Box
2 – Iron Pin Set
3 – Iron Pin Found
4 – Iron Pipe Found
5 – Drill Hole
6 – Hub & Tack
7 – P.K. Nail
8 – Conc. Mon.
9 – G.P.S. Pnt.
10 – Misc. Ctl.

SURVEYOR'S NOTES:

Project Control Coordinates for this project have been established in accordance with procedures detailing the conversion of "Grid" Coordinates to "Ground" Coordinates contained in the State of Ohio Deparment of Transportation Survey Manual Section 303.52 (May, 1995).

GPS/RTK observations utilizing the Ohio Co-ordinate System of 1983 (Zone 3401-Ohio NORTH) have been adjusted for use "on the Ground" by MULTIPLYING corresponding Ohio State Plane Grid coordinate values, expressed in units of U.S. Survey Feet, by a computed Project Adjustment Factor (PAF) of 1.0000342425. (PAF = 1/Avg. Combined Factor). All coordinates shown hereon are expressed as Project (Ground) Coordinates and should not be confused with Ohio State Plane Grid Coordinates.

Bearings shown hereon are based upon GPS/RTK observations utilizing the Ohio Department of Transportation's VRS network of Continuously Operating Reference Stations and are compatible with those obtained when projected onto the Ohio Co-ordinate System of 1983. The horizontal component of the VRS network is based upon the NAD83(2011) Reference Frame, 2010.0 Epoch/GRS80 Ellipsoid.

Vertical control data are based upon GPS derived orthometric heights expressed in terms of NAVD88 – 2012a Geoid and have been adjusted by means of conventional differential leveling methods. (Assumed average project height = 573.0 feet). Elevations shown hereon are expressed in units of U.S. Survey Feet.

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STATE OF OHIO · TIMOTHY R. LANNON 58885 · REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

SURVEY CONTROL

PROJECT NO:	
15060901	
DRAWING NAME	
SC-1	
SHEET	OF
2	27

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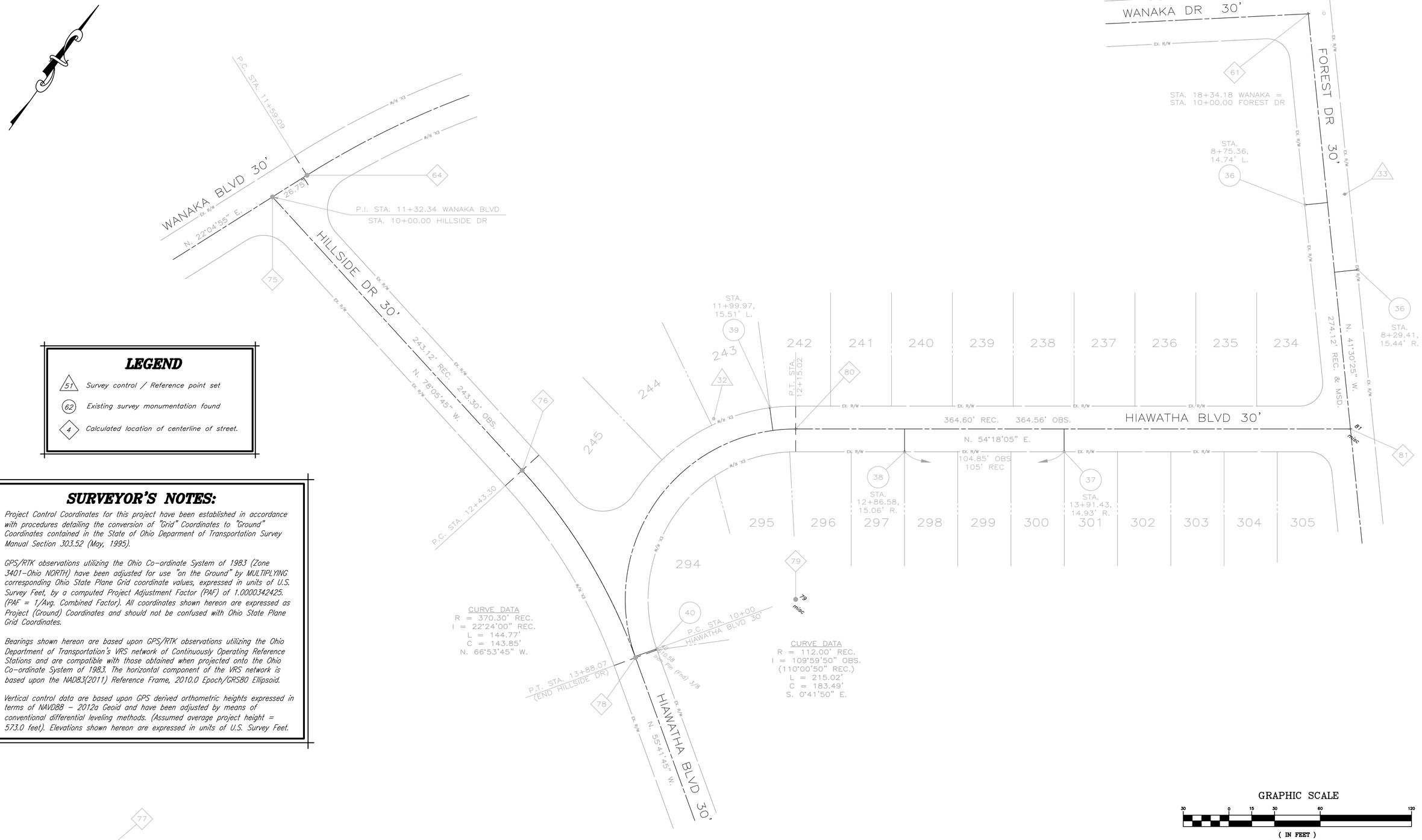

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GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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STATE OF OHIO — TIMOTHY R. LANNON 58885 — REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

SURVEY CONTROL

PROJECT NO:	
15060901	
DRAWING NAME	
SC-2	
SHEET	OF
3	27

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GENERAL

ALL WORK SHALL, AT ALL TIMES, BE SUBJECT TO THE DIRECT SUPERVISION OF THE EASTLAKE CITY ENGINEER OR THEIR DULY AUTHORIZED REPRESENTATIVE. ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL COMPLY WITH THE U.S. DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ACT.

PRE-CONSTRUCTION AUDIO-VIDEO COLOR RECORDING

THE CONTRACTOR SHALL PERFORM A PRECONSTRUCTION VIDEO RECORDING OF THE SITE. A DUPLICATE COPY OF ALL AUDIO-VIDEO COLOR RECORDING ALONG ALL PROPOSED WORK AREAS, ROADS, AND EASEMENT AREAS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO CONSTRUCTION. COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

CONSTRUCTION OBSERVATION

THE CONTRACTOR SHALL NOT COMMENCE WITH ANY FORM OF CONSTRUCTION WITHOUT CONTACTING MR. TOM GWYDIR (440) 530-2306 A MINIMUM OF 48 HOURS IN ADVANCE OF CONSTRUCTION ACTIVITY TO ARRANGE FOR OBSERVATION. IF ANY CHANGE IN THE WORK SCHEDULE BECOMES NECESSARY, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT MR. TOM GWYDIR TO AVOID UNNECESSARY OBSERVATION COSTS. IF NO NOTIFICATION IS MADE IN REGARDS TO CANCELLATION OF WORK, THE CONTRACTOR WILL BE CHARGED FOR THE TIME INCURRED.

LIMITS OF WORK

CONTRACTOR'S CONSTRUCTION OPERATIONS ARE TO BE CONFINED TO THE AREA WITHIN THE R/W AND THE PERMANENT PARCELS OWNED BY THE CITY OF EASTLAKE. THE CONTRACTOR SHALL USE THE APPROPRIATE CONSTRUCTION METHODS TO PREVENT DISRUPTION OF ANY AREAS OUTSIDE THE CONSTRUCTION LIMITS.

NOTICE TO BIDDERS

PRIOR TO ANY SUBSURFACE INVESTIGATION OF THE PROJECT, ALL BIDDERS SHALL OBTAIN APPROVAL FROM THE ENGINEER.

PRESERVATION OF PROPERTY CORNERS AND SURVEY MARKERS.

THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCH MARKS, PROPERTY CORNERS, REFERENCE POINTS, AND STAKES AND IN CASE OF DISTURBANCE, HE SHALL ENGAGE A REGISTERED SURVEYOR TO REPLACE THEM AT HIS EXPENSE AND SHALL BE RESPONSIBLE FOR ANY MISTAKES THAT MAY BE CAUSED BY THEIR LOSS OR DISTURBANCE.

DAMAGE TO OFFSITE PROPERTY

THE CONTRACTOR SHALL NOT DAMAGE ANY OFFSITE PROPERTY. ANY DAMAGED PROPERTY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL FURNISH THE CITY A WRITTEN REPORT INDICATING THE RESOLUTION OF ANY AND ALL PROPERTY DAMAGE CLAIMS FILED WITH THE CONTRACTOR BY ANY PARTY DURING THE CONSTRUCTION PERIOD. THE INFORMATION TO BE SUPPLIED SHALL INCLUDE, BUT NOT BE LIMITED TO, NAME OF CLAIMANT, DATE FILED WITH CONTRACTOR, NAME OF INSURANCE COMPANY AND/OR ADJUSTER HANDLING CLAIM, HOW CLAIM WAS RESOLVED AND IF CLAIM WAS NOT RESOLVED FOR THE FULL AMOUNT, A STATEMENT INDICATING THE REASON FOR SUCH ACTION. REQUESTS FOR PARTIAL PAYMENT OF ANY WORK PERFORMED WILL NOT BE PROCESSED UNTIL SAID CLAIMS ARE ADDRESSED TO THE CITY'S SATISFACTION.

EXISTING ITEMS OUTSIDE RIGHT-OF-WAY

THERE ARE NUMEROUS EXISTING FENCES, TREES, BUSHES, LANDSCAPE WALLS AND OTHER ITEMS ON PRIVATE PROPERTY ADJACENT TO THE WORK. THE CONTRACTOR SHALL TAKE THE NECESSARY ACTIONS TO ENSURE THESE EXISTING ITEMS ARE NOT DISTURBED OR DAMAGED. IF ANY DAMAGE DOES OCCUR THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OR REPAIR OF THE ITEMS AT NO ADDITIONAL COST.

TREE PROTECTION

TREE REMOVAL WILL BE LIMITED TO THAT NECESSARY FOR CONSTRUCTION AS SHOWN ON THE PLANS. NO TREE REMOVAL WILL BE PERMITTED OUTSIDE THE RIGHT-OF-WAY WITHOUT WRITTEN PERMISSION OF THE ENGINEER AND LAND OWNER. TREES WHICH ARE NOT REMOVED WILL BE PROTECTED BY ENSURING THAT TREES TO BE REMOVED ARE FELLED SO AS NOT TO INJURE THOSE REMAINING. THE CONTRACTOR SHALL USE SPECIAL CARE AND THE NECESSARY PRECAUTIONS AND METHODS TO AVOID DAMAGE TO TREES AND THEIR ROOT SYSTEMS WHICH ARE NOT CALLED FOR REMOVAL.

STATIONING AND LOCATIONS

ALL LOCATIONS AND ITEMS CALLED OUT BY STATION ARE SUBJECT TO ADJUSTMENT IN THE FIELD AS APPROVED BY THE ENGINEER.

EXISTING UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE RESPECTIVE UTILITIES AS REQUIRED BY O.R.C. SECTION 153.64.

BEFORE ANY WORK IS STARTED THAT WILL INTERFERE WITH THE EXISTING UTILITIES, THE CONTRACTOR SHALL CALL THE "OHIO UTILITIES PROTECTION SERVICE", AT 1-800-362-2764, FORTY-EIGHT (48) HOURS IN ADVANCE OF THE WORK. NON-MEMBER UTILITIES MUST BE CONTACTED DIRECTLY.

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS, AT NO ADDITIONAL EXPENSE TO THE CITY OF EASTLAKE, TO AVOID DAMAGE TO EXISTING UNDERGROUND AND OVERHEAD UTILITY LINES DURING THE ENTIRE PROJECT. IN THE EVENT OF DAMAGE TO EXISTING PUBLIC AND/OR PRIVATE UTILITIES, THE AGENCY CONCERNED SHALL BE NOTIFIED IMMEDIATELY AND ALL REPAIR WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE AGENCY AT NO ADDITIONAL EXPENSE TO THE CITY OF EASTLAKE, INCLUDING ANY INSPECTION FEES OR MAINTENANCE CREWS.

WHERE EXISTING POWER OR TELEPHONE POLES ARE IN CLOSE PROXIMITY TO WORK, THE CONTRACTOR SHALL COORDINATE HIS WORK EFFORTS WITH THOSE OF THE UTILITY COMPANIES SUCH THAT THE MAINTENANCE OF THEIR EXISTING FACILITIES CAN BE MAINTAINED AND PROTECTED DURING THE TIME WORK IS GOING ON ADJACENT TO THE POLE.

DELAYS TO THE CONTRACTOR AS A RESULT OF TIMING OF POLE RELOCATION OR PROTECTION SHALL NOT BE CONSIDERED COMPENSABLE DELAYS, AS IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS WORK IN CONFORMANCE TO THE UTILITY COMPANY'S SCHEDULE.

THE FOLLOWING UTILITY COMPANIES ARE KNOWN TO HAVE FACILITIES WITHIN THE PROJECT LIMITS:

GAS:
DOMINION EAST OHIO GAS
320 SPRINGSIDE DRIVE, STE. 320
AKRON, OHIO 44333
PHONE: (330) 664-2409
MR. BRYAN D. DAYTON

WATER:
LAKE COUNTY UTILITY DEPARTMENT
105 MAIN STREET
PAINESVILLE, OHIO 44077
PHONE: (440) 350-5775
MR. RANDY ROTHLISBERGER P.E.

SEWER:
CITY OF EASTLAKE
35150 LAKESHORE BLVD.
EASTLAKE, OHIO 44095
PHONE: (440) 951-1416
MR. NICK RUBERTINO
SERVICE DIRECTOR

TELEPHONE:
AT&T OHIO
13630 LORAIN AVE., 2nd FLOOR
CLEVELAND, OHIO 44111
PHONE: (216) 476-6142
MR. JAMES JANIS

ELECTRIC:
THE ILLUMINATING COMPANY
7755 AUBURN ROAD
PAINESVILLE, OHIO 44077
PHONE: (440) 358-4991
MR. TIM DENZLER

CABLE:
SPECTRUM (TIME-WARNER)
7820 DIVISION DRIVE
MENTOR, OHIO 44060
PHONE: (216) 575-8016
EXT: (216) 555-1101
MR MATHEW HANNAH
CONSTRUCTION COORDINATOR

ALL EXISTING STORM SEWERS AND STORM SERVICE LATERALS SHALL BE CONNECTED TO THE NEW SYSTEM AT THE PROPOSED NYLOPLAST BASINS (CONNECT TO THE 6" STUB OR MAKE FIELD CONNECTION WITH AN INSERTA-TEE), PROPOSED STORM MANHOLE, OR CONNECTED TO THE STORM SEWER MAIN WITH AN INSERTA-TEE.

THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING STORM LATERALS AT NO ADDITIONAL COST TO THE CITY AND DETERMINE IF THE STORM CONNECTION IS ACTIVE.

CERTAIN HOUSES MAY HAVE ONE OR MORE STORM LATERALS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH LATERAL OR LATERALS ARE ACTIVE, AND TO RECONNECT THE ACTIVE LATERALS. THE COST FOR THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE ITEMS.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND TESTING EACH LATERAL TO ASSURE PROPER CONNECTIONS TO THE STORM SEWER.

CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE PROPOSAL TO BE USED AS DIRECTED BY THE ENGINEER. THESE QUANTITIES CAN BE FOUND ON THE QUANTITY WORKSHEET IN SPECIFICATION 011100 - SUMMARY OF WORK.

THE CONTRACTOR SHALL SUPPLY ALL PIPE, BENDS, SPECIALS, AND ADAPTORS TO CONNECT TO EXISTING PIPING.

NO INACTIVE STORM OR SANITARY LATERALS SHALL BE RECONNECTED TO THE NEW SEWER.

THE CONTRACTOR SHALL EXPECT ONE UNDERGROUND GAS, WATER, STORM, SANITARY CONNECTION FOR EACH LOT (INCLUDING VACANT LOTS) ON BOTH SIDES OF THE STREET FOR THE ENTIRE PROJECT LENGTH. ELECTRIC, CABLE TV AND PHONE MAY ALSO BE FOUND UNDERGROUND WHETHER IT IS SHOWN OR NOT.

THE CONTRACTOR SHALL MAINTAIN THE FLOW TO/FROM ALL HOUSE UTILITY CONNECTIONS DURING CONSTRUCTION.

ALL UTILITY LINES CROSSING THE NEW TRENCH SHALL BE PROTECTED AND SUPPORTED WITH HARDWOOD PLANKS; OR REMOVED, REPLACED, RECONNECTED AND SUPPORTED ACROSS THE ENTIRE WIDTH OF THE TRENCH. IF ANY OF THESE LINES ARE DAMAGED DURING CONSTRUCTION, THEY SHALL BE REPLACED IN-KIND.

ALL EXISTING UTILITIES WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED WITH LIKE MATERIALS OR REPLACED, AS REQUIRED. THE COST OF UTILITY REPAIR/REPLACEMENT SHALL BE INCLUDED IN THE BID ITEMS.

TEMPORARY EROSION & SEDIMENTATION CONTROL (TESC)

1. SEDIMENT CONTROL SHALL BE ACCOMPLISHED BY HYDRO SEEDING AND MULCHING IMMEDIATELY UPON COMPLETION OF EXCAVATION OR FILL AND FINISH GRADING IN ACCORDANCE WITH ODOT ITEM 659 OR AS DIRECTED BY THE ENGINEER.
2. THE CONTRACTOR SHALL BEGIN THE RESTORATION PROCESS AS SOON AS CONSTRUCTION IS COMPLETED, PERMANENTLY STABILIZING EACH DISTURBED AREA WITH PERENNIAL VEGETATION INSTALLED ACCORDING TO THE RAINWATER AND LAND DEVELOPMENT MANUAL STANDARDS AND SPECIFICATIONS.
3. THE CONTRACTOR SHALL REMOVE DAILY ALL MUD, SOIL AND DEBRIS THAT MAY BE TRACKED ONTO EXISTING STREETS OR DRIVES BY HIS EQUIPMENT OR THAT OF SUBCONTRACTORS OR SUPPLIERS. THE CATCH BASINS ON THE STREETS NEAREST TO THE CONSTRUCTION AREAS SHALL BE CLEANED WEEKLY.
4. ALL MATERIALS TO BE DISPOSED OF OFF-SITE MUST BE DISPOSED OF IN AN ENVIRONMENTALLY SOUND MANNER IN ACCORDANCE WITH LOCAL STATE AND FEDERAL REGULATIONS. NO EXCESS MATERIALS ARE TO BE DISPOSED OF IN ANY WETLAND, FLOOD PLAIN OR OTHER ENVIRONMENTALLY SENSITIVE AREA.
5. EROSION CONTROL MEASURES AT THE DISPOSAL SITE MUST BE INSTALLED AND MAINTAINED UNTIL DISPOSAL IS COMPLETE AND THE DISPOSAL SITE IS PERMANENTLY STABILIZED.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY, WHEN ORDERED BY THE ENGINEER, WATER OR CALCIUM CHLORIDE FOR THE REDUCTION OF DUST NUISANCE ORIGINATING FROM HIS CONSTRUCTION ACTIVITIES. SUFFICIENT QUANTITIES OF CALCIUM CHLORIDE SHALL BE STORED ON THE JOB SITE AT ALL TIMES TO BE USED FOR DUST CONTROL UNTIL THE AREA IS SEEDED. THE COST OF WATER OR CALCIUM CHLORIDE DUST CONTROL SHALL BE INCLUDED IN THE COST OF OTHER BID ITEMS.
7. EXISTING SURFACE SOILS ON FOREST DR. ARE CONNEAUT SILTY LOAM (CwA). EXISTING SOILS ON RIVER DRIVE, WACOKA BOULEVARD, MATOMA DRIVE, & WANAKA BOULEVARD ARE TIOGA LOAM (Tg).
8. THE CONSTRUCTION AREA SHALL BE STABILIZED WITHIN TWO (2) DAYS OF THE MOST RECENT DISTURBANCE IF THAT AREA WILL REMAIN IDLE FOR MORE THAN 21 DAYS.
9. EROSION AND SEDIMENT CONTROL PRACTICES FOR INLET PROTECTION SHALL BE INSTALLED TO MINIMIZE SEDIMENT-LADEN WATER ENTERING ACTIVE STORM DRAIN SYSTEMS PER THE RAINWATER AND LAND DEVELOPMENT MANUAL.
10. ALL CONTROLS IN THE CONSTRUCTION AREA SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN ONE-HALF (1/2) INCH OF RAIN PER 24 HOUR PERIOD. INSPECTIONS WILL BE PERFORMED BY THE CITY ENGINEER. MAINTENANCE SHALL OCCUR AS DETAILED BELOW:

§ WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE, IT MUST BE REPAIRED OR MAINTAINED WITHIN THREE (3) DAYS OF THE INSPECTION.

§ WHEN PRACTICES DEPICTED ARE NOT INSTALLED.
IF INSPECTION REVEALS THAT A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE PLANS, THE CONTROL PRACTICE MUST BE IMPLEMENTED WITHIN TEN (10) DAYS FROM THE DATE OF THE INSPECTION.

11. ALL EROSION AND SEDIMENT CONTROL WORK AND PRACTICES SHALL BE INCLUDED IN THE COST OF OTHER BID ITEMS AND SHALL AT A MINIMUM CONFORM TO EASTLAKE ORDINANCE SECTIONS 906 AND 913.

STAGING AND STORAGE AREAS

THE CONTRACTOR SHALL COORDINATE A STAGING AREA ON THE SITE WITH THE ENGINEER AND SERVICE DIRECTOR. STORAGE OF MATERIALS AND EQUIPMENT SHALL ALSO BE COORDINATED WITH THE ENGINEER AND SERVICE DIRECTOR.

UTILITY POLE COORDINATION

UTILITY POLES, OWNED BY FIRST ENERGY, ARE LOCATED WITHIN CLOSE PROXIMITY OF THE PROPOSED SEWERS, LATERALS, AND INLET BASINS. DURING DESIGN, IT WAS OBSERVED THAT THE FOLLOWING UTILITIES HAVE AERIAL FACILITIES ON THESE LIGHT POLES:

1. FIRST ENERGY
2. SPECTRUM (TIME WARNER) CABLE
3. AT&T COMMUNICATIONS

POLES MAY NEED TO BE EITHER RELOCATED OR REPLACED AND THE LINES ELEVATED TO CLEAR THE PROPOSED FACILITY. INVOICES FOR COSTS INCURRED BY THE AFFECTED UTILITY COMPANIES ARE ELIGIBLE FOR REIMBURSEMENT (WITHOUT MARKUP) UNDER THE "UTILITY ALLOWANCE" WITHIN THE CONTRACT.

MATERIAL SPECIFICATIONS

MATERIAL SPECIFICATIONS CALLED FOR ON THE PLANS REPRESENT THE MINIMUM REQUIRED FOR EACH APPLICATION. THE OWNER MAY REQUEST OR THE CONTRACTOR MAY DESIRE TO SUBSTITUTE ALTERNATE MATERIALS. ANY SUCH SUBSTITUTIONS MUST BE EQUIVALENT IN QUALITY TO THE MATERIAL CALLED FOR AND MUST BE APPROVED IN WRITING BY THE APPROVING AGENCIES AND THE ENGINEER/CITY.

STORM SEWER PIPE 12" DIA. AND SMALLER SHALL BE PVC SDR 35 WITH BELL AND SPIGOT WATERTIGHT GASKETED JOINTS.

ALL STORM SEWER 15" TO 24" DIA. SHALL BE HIGH PERFORMANCE POLYPROPYLENE (HPPP) DUAL WALL, SMOOTH INTERIOR, WT PIPE; UNLESS OTHERWISE SHOWN ON PLANS. BELL AND SPIGOT JOINTS SHALL MEET ASTM D3212 FOR WATER TIGHT (WT) INSTALLATION.

MAXIMUM PERMITTED DIAMETER FOR DUAL WALL (HPPP), (WT) SHALL BE 24 INCHES; MAXIMUM PERMITTED DIAMETER EXCEEDING 24 INCH SHALL BE THE TRIPLE WALL, (HPPP), UP TO 60 INCHES.

APPROVED PIPE MANUFACTURERS: ADVANCED DRAINAGE SYSTEMS, INC. & HANCOR, INC.

SANITARY SEWER LATERALS BEING RELOCATED FOR CONFLICTS SHALL BE PVC SDR 26.

STORM SEWER LATERALS (6 INCH DIA.) AND INLET CROSS OVERS (8 INCH DIA.) SHALL BE PVC SDR 35 WITH VARIOUS BEND CONFIGURATIONS ALLOWING FOR MIN. 0.5% FALL ALONG PIPE RUNS.

SEWER MAIN CONNECTIONS TO EXISTING SEWERS SHALL BE MADE WITH MISSION COUPLINGS TO MATCH PROPOSED/EXISTING PIPE SIZE AND TYPE, OR APPROVED EQUAL.

ALL LATERAL TIE-INS TO PROPOSED OR EXISTING SEWER MAINS ARE TO BE MADE WITH INSERTA-TEES.

THE CONTRACTOR SHALL PROVIDE Z-LOK SEALS FOR THE NEW PRECAST STRUCTURES THAT FIT-UP WITH THE CORRUGATED HPPP. WHERE REQUIRED AND NEEDED AS A RESULT OF THE INABILITY TO USE THE Z-LOK, AN A-LOK COMPRESSION SEAL MAY BE USED ALONG WITH A SMOOTH OUTSIDE WALL PIPE ADAPTER OR BY THE USE OF A POLYPROPYLENE OVER-SLEEVE.

WHERE PIPE ANGLES AND PIPE CENTERLINE CLEARANCES WILL NOT ALLOW THE USE OF THE Z-LOK AND Z-LOK COMPRESSION SEALS, AT A MINIMUM AN A-LOK WATERSTOP SEAL AND GROUTED JOINT SHALL BE UTILIZED. ALL JOINTS MUST BE WATERTIGHT.

DEMOLISHED ITEMS

1. ALL PUMPS AND CASTINGS SHALL REMAIN THE PROPERTY OF THE CITY OF EASTLAKE. THEY SHALL BE CLEANED, POWER WASHED AND DELIVERED TO THE CITY.
2. CONTRACTOR SHALL ASSUME EXISTING PIPE MATERIAL MAY CONTAIN ASBESTOS AND SHALL HANDLE AND DISPOSE OF MATERIAL PROPERLY UNDER THE UNIT PAYMENT FOR THE "202-ASBESTOS PIPE REMOVED" BID ITEM. (FOR ANY EXISTING PIPE TO BE REMOVED OR REPLACED OR WHICH REQUIRES REPAIR)

GARBAGE COLLECTION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE TRANSFER OF ALL GARBAGE, GARBAGE CANS, AND RECYCLE BINS FROM THE DRIVEWAYS WITHIN THE CONSTRUCTION ZONE TO THE OPPOSITE SIDE OF THE ROADWAY. CONTRACTOR TO ALLOW ACCESS TO GARBAGE TRUCKS ONCE THE GARBAGE AND RECYCLABLE MATERIALS HAVE BEEN COLLECTED, ALL GARBAGE CANS AND RECYCLE BINS SHALL BE RETURNED TO THE APPROPRIATE DRIVEWAYS AND OUTSIDE OF THE CONSTRUCTION LIMITS, OR AS DIRECTED BY THE ENGINEER. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

your trusted advisor
consultants
engineers
architects
planners

STATE OF OHIO
TIMOTHY R. LANNON
58885
REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

GENERAL NOTES

PROJECT NO:	
15060901	
DRAWING NAME	
GN-1	
SHEET	OF
4	27

LOGISTICS

THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND SCHEDULE THE WORK SUCH THAT:

- EXISTING STORM SEWERS AND GROUND WATER ARE MAINTAINED THROUGHOUT THE PROJECT.
- DURING PUMP STATION ABANDONMENT THE CONTRACTOR SHALL PROVIDE OTHER MEANS TO MAINTAIN DRAINAGE. THE EXISTING PUMP STATIONS TO BE ABANDONED ARE INADEQUATE TO REMOVE HIGH FLOWS RESULTANT FROM HEAVY RAINS. ADDITIONALLY, THEY ARE INADEQUATE TO REMOVE WATER WHICH OVERTOPS THE DIKE DURING HIGH WIND AND STORM EVENTS; SIGNIFICANT FLOODING OF THE AREA CAN BE EXPECTED.
- EXISTING PUMP STATIONS TO BE ABANDONED SHALL BE REMOVED AND FILLED WITH LSM TO 2 FEET OF FINISH GRADE AND THEN RESTORED PER PLANS AND SPECIFICATIONS. ALL PIPES INCOMING TO THE EXISTING PUMP STATIONS SHALL BE CONNECTED THROUGH TO PROPOSED CATCH BASINS, STORM SEWERS OR MANHOLES.
- EXISTING PUMP STATION ELECTRICAL SERVICE SHALL BE ABANDONED AND SERVICE REMOVED AT UTILITY POLE.
- ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED PER PLANS AND SPECIFICATIONS AND MAINTAINED UNTIL ACCEPTED BY THE CITY OF EASTLAKE.
- CONTRACTOR SHALL SUPPORT EXISTING UTILITY POLES DURING STORM SEWER SYSTEM INSTALLATION.

LAKE COUNTY DEPARTMENT OF UTILITIES WATER NOTES

1. ONLY WATER/SEWER CONTRACTORS LICENSED BY THE LAKE COUNTY BOARD OF COMMISSIONERS MAY INSTALL WATER MAINS.
2. THIS APPROVAL BY THE LCDU SHALL EXPIRE IF THE WATERLINE CONSTRUCTION HAS NOT BEEN INITIATED BY A DEVELOPER WITHIN (12) MONTHS OF THE EFFECTIVE APPROVAL DATE AS SHOWN ON THE ORIGINALLY SUBMITTED FOR APPROVAL BLUEPRINT COPY. (THIS IS NOT TO BE CONSTRUED AS THE DATE THAT IS SHOWN ON THE ORIGINAL MYLAR TITLE SHEET.)
3. THE CONTRACTOR SHALL NOTIFY THE LCDU AT LEAST 48 HOURS IN ADVANCE OF ANY WORK IN THEIR SYSTEMS.
4. THE LCDU SHALL PERFORM INSPECTION SERVICES. THE COST OF INSPECTION SHALL BE INCLUDED AS PART OF THIS CONSTRUCTION PROJECT AT THE CURRENT BASE RATE AS ESTABLISHED BY THE LAKE COUNTY BOARD OF COMMISSIONERS. (SEE SECTION 7 FEE SCHEDULE) COST FOR LAKE COUNTY INSPECTION FEE AND OTHER FEES SHALL BE INCLUDED IN THE UNIT PRICES BID FOR OTHER WATERLINE ITEMS.
5. WATERLINE WORK SHALL NOT BEGIN UNTIL THE AREAS OF CONSTRUCTION ARE ROUGH GRADED.
6. ALL WATERLINES ON THIS PROJECT SHALL BE LAID AT THE ELEVATIONS AND GRADES SHOWN ON THE DRAWINGS. HIGH POINTS IN THE WATERLINE MUST OCCUR AT THE STATIONED HYDRANT TEE LOCATIONS.
7. ALL HYDRANTS SHALL BE POSITIONED SO THAT THE STEAMER NOZZLES POINT IN THE DIRECTION SHOWN ON THE PLANS.
8. THE PROPOSED WATERLINE SHALL HAVE 5' MINIMUM COVER OVER THE TOP OF PIPE AT ALL PLACES, EXCEPT AT SPECIFIC HYDRANT TEE LOCATIONS AS SHOWN ON THE PLANS.
9. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 304 OR 316 WITH ANTI-GALLING AGENT.
10. ALL SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR PRELIMINARY CHECKING. THE ENGINEER SHALL FORWARD CHECKED SHOP DRAWINGS TO THE LCDU FOR FINAL CHECKING AND APPROVAL.
11. THE LCDU SHALL PROVIDE WATER FOR THE NEW WATER MAIN WITHOUT COST FOR THE INITIAL OPERATION. ALL WATER FOR FLUSHING OPERATIONS SHALL BE PAID FOR BY THE CONTRACTOR AT CURRENT RATES AS ESTABLISHED BY THE LAKE COUNTY BOARD OF COMMISSIONERS PER 100 CUBIC FEET OF WATER USED. (SEE SECTION 7 FEE SCHEDULE)
12. ALL WATER MAIN PIPE SHALL BE DUCTILE IRON PIPE, ANSI A21.51, THICKNESS CLASS 52, UNLESS OTHERWISE SHOWN ON THE PLANS, WITH PUSH-ON JOINTS, CEMENT LINED ANSI A 21.4. FITTINGS TO BE FULL BODY-ONLY.
13. LOCATION OF STERILIZATION AND TESTING CONNECTIONS SHALL BE AS DIRECTED BY THE LCDU AND ALL COSTS ASSOCIATED WITH PLACING AND UTILIZING SAID STERILIZATION AND TESTING CONNECTIONS SHALL BE INCLUDED IN THE PRICE BID PER LINEAL FOOT OF THE WATER MAINS. NO BACTERIA SAMPLES ARE TO BE TAKEN FROM FIRE HYDRANTS.
14. LCDU WILL MAKE THE NECESSARY NEW SERVICE CONNECTION TAPS ON EXISTING LCDU MAINS FOR THE CONTRACTOR AT CURRENT RATES AS ESTABLISHED BY THE LAKE COUNTY BOARD OF COMMISSIONERS PER 8" AND GREATER TAPS WITHIN RIGHT OF WAY. (SEE SECTION 7 FEE SCHEDULE) SERVICE CONNECTIONS TO EXISTING BUILDINGS SHALL BE MADE BY THE CONTRACTOR.
15. NO WATER SERVICE CONNECTIONS TO ANY BUILDING SHALL BE PERMITTED PRIOR TO FINAL ACCEPTANCE BY THE LCDU INCLUDING RECTIFICATION OF ALL PUNCH LIST ITEMS.
16. ALL CURB STOP BOXES, VALVE BOXES, ETC. TO BE SET AS SHOWN ON THE PLANS. RIMS WILL BE RAISED OR LOWERED AND BOXES PLUMBED BY THE CONTRACTOR AT TIME OF HOUSE CONSTRUCTION WHEN FINAL YARD GRADING IS COMPLETED.
17. ALL PROJECT HYDRANTS SHALL HAVE A FIELD COAT OF APPROVED PAINT APPLIED BY THE CONTRACTOR WITH THE EXCEPTION OF HYDRANTS THAT ARE FACTORY PAINTED WITH A ONE COAT UV RESISTANT HIGH GLOSS 2-PART POLYURETHANE ENAMEL, COLOR AS SPECIFIED. IF THE COATING ON THE HYDRANT IS DAMAGED BEFORE INSTALLATION THE HYDRANT MUST BE PAINTED.
18. THE CONTRACTOR SHALL NOTIFY THE FIRE DEPARTMENT PRIOR TO ANY PRESSURE TESTING. FIRE DEPARTMENT SHALL WITNESS ANY PRESSURE TESTING.
19. ALL PROPOSED WATER LINES SHALL BE LAID OUT BY A REGISTERED SURVEYOR WITH GRADE STAKES AT A MINIMUM OF EVERY 50' AND AT ALL FITTINGS AND A CUT SHEET PROVIDED PRIOR TO CONSTRUCTION.
20. THE CONTRACTOR /DEVELOPER SHALL SUBMIT A THREE YEAR MAINTENANCE BOND TO THE COMMISSIONERS BY DEVELOPER IN THE AMOUNT OF TEN PERCENT OF THE FINAL CONSTRUCTION COSTS AS CERTIFIED BY THE DEVELOPER'S ENGINEER, FOR PUBLIC EXTENSION PROJECTS.

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STATE OF OHIO · TIMOTHY R. LANNON 58885 · REGISTERED PROFESSIONAL ENGINEER

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THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

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GN-2	
SHEET	OF
5	27

ITEM 614 – MAINTAINING TRAFFIC

ONE WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES FOR LOCAL TRAFFIC AND EMERGENCY VEHICLES. LOCAL ACCESS TO ABUTTING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES. ACCESS TO ALL DRIVEWAYS SHALL ALSO BE MAINTAINED AT ALL TIMES.

PART WIDTH CONSTRUCTION, ONE LANE WIDTH, SHALL BE USED DURING THE PERFORMANCE OF PAVING OPERATIONS.

ALL CONSTRUCTION TRAFFIC CONTROL DEVICES USED FOR THIS PROJECT SHALL CONFORM TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, HEREINAFTER REFERRED TO AS THE MANUAL, AND SHALL BE FURNISHED, ERECTED, MAINTAINED, RELOCATED AND REMOVED BY THE CONTRACTOR.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY SAFEGUARDS, SUCH AS BARRICADES, LIGHTING, FLAGGERS, PLASTIC DRUMS, FLASHING ARROW PANELS AND SUCH OTHER TRAFFIC CONTROL DEVICES AS PROVIDED IN ITEM 614, MAINTAINING TRAFFIC, SO AS TO AVOID DAMAGE AND/OR INJURY TO VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION. WHENEVER THE ENGINEER DEEMS IT NECESSARY, HE MAY DIRECT THAT ADDITIONAL OR ALTERNATIVE DEVICES BE USED. ALSO, THE CONTRACTOR SHALL PROVIDE SUFFICIENT ADDITIONAL BARRICADES, ETC. TO PROTECT THE FRESH PAVEMENT DURING THE CURING PERIOD FROM VEHICLES WHICH MAY DRIVE AROUND OR THROUGH THE TRAFFIC CONTROL.

TRAFFIC CONTROL DEVICES SHALL BE SET UP PRIOR TO THE START OF CONSTRUCTION AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH SPECIAL CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED AND SHALL BE IMMEDIATELY REMOVED THEREAFTER. WHERE OPERATIONS ARE PERFORMED IN PHASES, THERE SHALL BE IN PLACE ONLY THOSE DEVICES THAT APPLY TO THE CONDITION PRESENT DURING THE PHASE–IN PROGRESS. ALL SIGNS WITH MESSAGES WHICH DO NOT APPLY DURING A CERTAIN PERIOD SHALL BE COVERED OR SET ASIDE OUT OF THE VIEW OF TRAFFIC. CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED IN ACCORDANCE WITH SECTION 641.10 OF THE OHIO SPECIFICATIONS BEFORE ANY SECTION OF ROADWAY IS MADE AVAILABLE TO USE BY TRAFFIC.

ALL PERMANENT AND TEMPORARY PAVEMENT MARKINGS ARE TO BE MAINTAINED THROUGHOUT THE PROJECT. ANY DAMAGED OR FADED PAVEMENT MARKINGS SHALL BE CORRECTED WITHIN EIGHT HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE PROBLEM. IF WEATHER IS NOT CONDUSIVE TO PAVEMENT MARKING INSTALLATION THEN REPAIRS SHALL BE MADE ON THE FIRST WEATHER PERMISSIVE DAY AFTER NOTIFICATION.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ODOT ITEM 614 APPLICABLE SECTIONS OF THE SPECIFICATIONS AS WELL AS THE MANUAL. PAYMENT FOR ALL LABOR. EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN, UNLESS OTHERWISE SEPARATELY ITEMIZED IN THE PLANS.

WORK HOURS

NO WEEKEND WORK OR WORK BETWEEN THE HOURS OF 9:00 PM TO 7:00 AM SHALL BE PERMITTED UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE ENGINEER.

PROVIDING CONTINUOUS ACCESS TO RESIDENCES AND BUSINESSES

TWO WEEKS PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE SCHEDULE OF CONSTRUCTION OPERATIONS ALONG WITH PLANS SHOWING TRAFFIC CONTROL FOR EACH PHASE OF CONSTRUCTION. INCLUDED SHALL BE DETAILS OF THE PROPOSED METHODS TO MAINTAIN SAFE AND CONTINUOUS ACCESS FOR PASSENGER VEHICLES, TRUCKS AND SAFETY EQUIPMENT TO ALL ADJOINING PROPERTIES AND INTERSECTING STREETS. THESE PLANS SHALL INCLUDE ALL TEMPORARY MATERIALS NECESSARY TO PROVIDE SAFE, ADEQUATE DRIVE SURFACES TO ALL ADJOINING PROPERTIES. THE COST FOR ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO PROVIDE CONTINUOUS ACCESS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ODOT ITEM 614, MAINTAINING TRAFFIC. PLANS MUST BE SUBMITTED TO THE ENGINEER AND APPROVED PRIOR TO COMMENCING ANY WORK

SHOULD THE ENGINEER, AT ANY TIME PRIOR TO OR DURING CONSTRUCTION, DEEM ANY PART OF THE CONTRACTOR'S PLANS FOR SAFE AND CONTINUOUS ACCESS TO RESIDENCES AND BUSINESSES INADEQUATE, ADDITIONAL MATERIALS, CLOSURES AND/OR DIVERSIONS SHALL BE REQUIRED AT NO ADDITIONAL COST TO THE CITY.

NOTIFICATION OF PROPERTY OWNERS

THE CONTRACTOR SHALL NOTIFY ALL RESIDENCES AND BUSINESSES ALONG THE PROJECT ROUTE IN WRITING AT LEAST FORTY–EIGHT (48) HOURS PRIOR TO COMMENCING WORK. SUCH NOTICE SHALL INCLUDE, AT A MINIMUM, A BRIEF PROJECT DESCRIPTION, TENTATIVE CONSTRUCTION SCHEDULE, LIMITS OF CONSTRUCTION, THE CONTRACTOR'S NAME, ADDRESS AND PHONE NUMBER, AS WELL AS A CONTACT PERSON'S NAME AND EMERGENCY PHONE NUMBER WHERE HE COULD BE REACHED DURING NON–WORK HOURS. THE NOTICE SHALL ALSO REQUEST THAT THE PROPERTY OWNERS PROVIDE INFORMATION TO THE CONTRACTOR AND/OR CITY OF MENTOR REGARDING THE LOCATIONS OF ANY UNDERGROUND PET FENCING, LAWN SPRINKLER SYSTEMS, YARD LIGHTING, WIRING AND ANY OTHER FACILITIES THAT ARE UNDERGROUND IN THE VICINITY OF THE PROJECT. THE NOTICE SHALL BE REVIEWED AND APPROVED BY THE CITY OF MENTOR PRIOR TO BEING DISTRIBUTED. ALL COSTS ASSOCIATED WITH THE ABOVE SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ODOT ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN.

FAILURE TO COMPLY

FOR ANY FAILURE TO COMPLY WITH PROVISIONS FOR TRAFFIC CONTROL SET OUT IN THESE PLANS AND NOTES OR WITH THE PROVISIONS OF THE MANUAL, THE HIGHWAY IN THE VICINITY OF THE WORK AREA SHALL BE CONSIDERED IN A CONDITION UNACCEPTABLE FOR THE SAFETY AND CONVENIENT USE BY THE TRAVELING PUBLIC. ANY FAILURE TO KEEP THE HIGHWAY IN THE VICINITY OF THE WORKING AREA IN A CONDITION ACCEPTABLE FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC SHALL BE CONSIDERED A BREACH OF THIS CONTRACT. WORK SHALL BE SUSPENDED UNTIL THE CONTRACTOR COMPLIES WITH THE PROVISIONS OF THE AFOREMENTIONED ITEMS.

MATERIALS FOR MAINTAINING TRAFFIC

SIGNS

SIGN DIMENSION AND SPECIFICATIONS, INCLUDING LETTER SIZES, SHALL BE AS PROVIDED IN THE MANUAL OR SIGN DESIGN DRAWINGS PROVIDED IN THESE PLANS. THE SIGNS SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER PRIOR TO THE START OF THE PROJECT. ALL COST FOR INSTALLING, MAINTAINING AND SUBSEQUENT REMOVAL OF SAID SIGNS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ODOT ITEM 614 – MAINTAINING TRAFFIC, AS PER PLAN.

NOTIFICATION

THE CITY OF EASTLAKE POLICE, FIRE, & PUBLIC WORKS DEPARTMENTS, AND CITY ENGINEER SHALL BE NOTIFIED AT LEAST ONE (1) WEEK PRIOR TO THE ACTUAL START OF CONSTRUCTION.

CITY OF EASTLAKE POLICE DEPARTMENT:		
	LARRY REIK, CHIEF	440–951–1400 EXT. 1120
CITY OF EASTLAKE FIRE DEPARTMENT:		
	TED WHITTINGTON, CHIEF	440–951–2287 EXT. 1201
CITY OF EASTLAKE ENGINEER:		
	THOMAS GWYDIR, P.E.	440–530–2306
CITY OF EASTLAKE DEPARTMENT OF PUBLIC SERVICE, LANDS, AND PARKS:		
	NICK RUBERTINO, DIRECTOR	440–951–2200 EXT. 1400

SIGN SUPPORTS

SIGN SUPPORTS SHALL BE OF SUFFICIENT SIZES AND HEIGHT TO SUPPORT THE SIGNS AT THE HEIGHT INDICATED IN THE MANUAL. SUPPORTS SHALL ALSO BE ADEQUATE IN MASS AND STABILITY TO PREVENT SIGNS FROM BEING BLOWN OVER BY WIND OR VECULAR–GENERATED AIR TURBULENCE. ALL COSTS FOR INSTALLING, MAINTAINING AND SUBSEQUENT REMOVAL OF SAID SIGNS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 – MAINTAINING TRAFFIC.

PROJECT PHASING

IT IS THE DESIRE OF THE CITY OF EASTLAKE TO HAVE THE CONTRACT WORK PROCEED IN AN ORDERLY AND NEAT MANNER IN ORDER TO KEEP THE DISRUPTION TO THE RESIDENTS TO A MINIMUM. THUSLY THE CONTRACTOR IS TO PREPARE AND IMPLEMENT A WORK PHASING PLAN, APPROVED BY THE DIRECTOR OF PUBLIC SERVICE AND THE ENGINEER, INCLUSIVE OF THE FOLLOWING REQUIREMENTS:

1) CONTRACTOR MAY PERFORM FULL WIDTH CONSTRUCTION BUT SHALL MAINTAIN ACCESS TO ALL RESIDENTS AT ALL TIMES, WITH THE EXCEPTION BEING TO CLOSE A ROAD FOR A DAY TO ALLOW FOR THE CONTRACTOR TO INSTALL THE PAVEMENT BASE COURSE.
2) THE CONTRACTOR SHALL BE REQUIRED TO DETERMINE THE ELEVATION OF ALL EXISTING UTILITIES (INCLUDING SEWER LATERALS AND MAINS) ACROSS THE NEW STORM SEWER SUFFICIENTLY ENOUGH IN ADVANCE TO MAKE ADJUSTMENTS IN LINE OR GRADE OF THE NEW STORM SEWER. ALL CROSSINGS WITHIN 250' OF THE MAIN SEWER INSTALLATION WORK SHALL BE VERIFIED AS THE WORK OPERATIONS PROGRESS.
3) DRIVE APRON ACCESS IS TO BE MAINTAINED AT ALL TIMES EXCEPTING DURING CONCRETE PLACEMENT AND CURING.

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STATE OF OHIO
TIMOTHY R. LANNON
58885
REGISTERED PROFESSIONAL ENGINEER

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THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

MAINTENANCE OF TRAFFIC

PROJECT NO:	
15060901	
DRAWING NAME	
MOT-1	
SHEET	OF
6	27

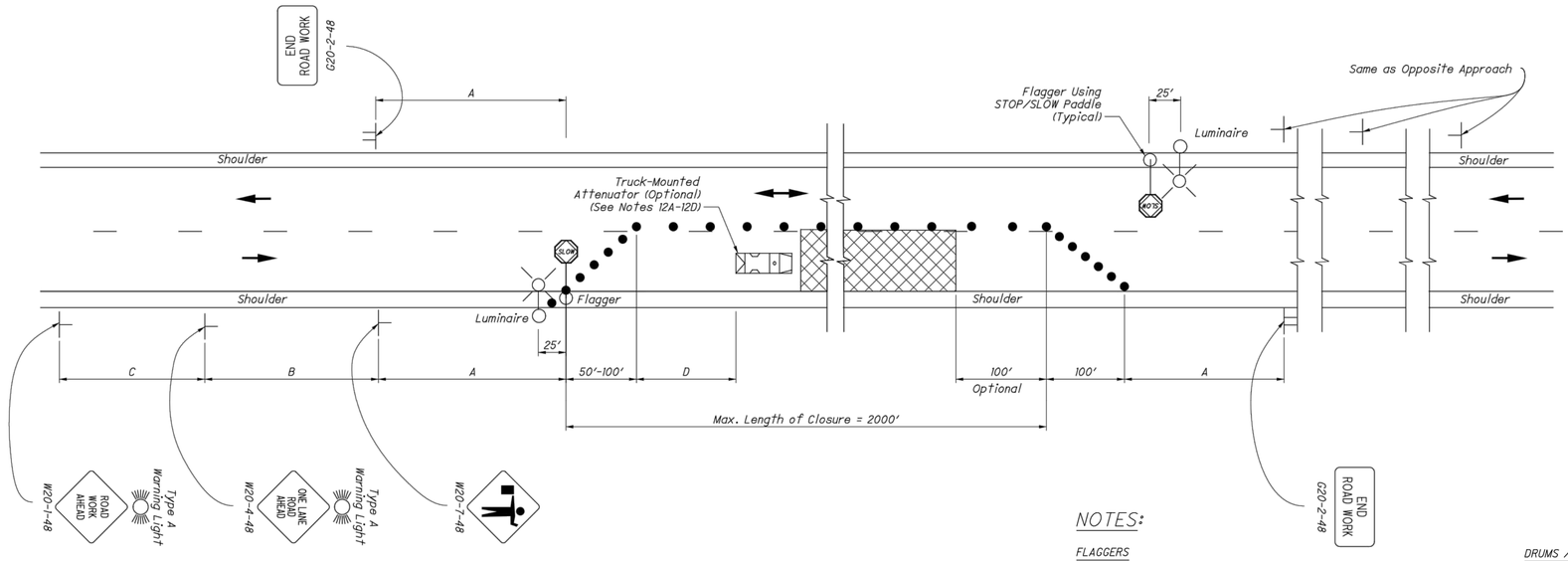

TABLE I (SIGN SPACING)

ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
Two-Lane (≤ 40 MPH)	100	100	100
Two-Lane (45-50 MPH)	350	350	350
Two-Lane (55-60 MPH)	500	500	500

TABLE II

SPEED LIMIT (MPH)	BUFFER (D) (FT) MIN.
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570

LEGEND

- WORK AREA
- DRUMS/CONES
- DIRECTION OF TRAVEL
- SHADOW VEHICLE

NOTES:

FLAGGERS

1. Flaggers, one for each direction, shall be used to control traffic continuously for as long as a one lane operation is in effect. The flaggers shall be able to communicate with each other at all times.

LENGTH OF CLOSURE

2. Several small work areas close together should be combined into one work zone. However, the closure shall not be more than 2000' long unless approved by the Engineer. The minimum length between closures shall be 2000'. Only one side of the road shall be closed in any one work zone.

SIGN LOCATION AND SPACING

3A. The minimum spacing between work zone signs is shown in Table I. Maximum spacing should not be greater than 1.5 times the distances shown in Table I.

3B. Sign spacing should be adjusted to avoid conflict with existing signs. Minimum spacing to existing signs shall be 200' for speeds of 45 mph or less and a minimum of 400' for speeds of 50 mph or greater.

3C. The location of the advance warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway alignment.

ADJUSTMENTS FOR SIGHT DISTANCE

4. The location of the flagger station and the advance warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway alignment.

BASIC SIGNING

5A. ROAD WORK AHEAD (W20-1) signs shall be provided on entrance ramps or roadways entering the work limits.

5B. END ROAD WORK (G20-2) signs are only required for lane closures of more than 1 day. It is intended that these signs be placed on the mainline, on all exit ramps, and on roadways exiting the work limits.

5C. Overlapping of signing for adjacent projects should be avoided where the messages could be confusing. Any ROAD WORK AHEAD (W20-1) or END ROAD WORK (G20-2) sign which falls within the limits of another traffic control zone shall be omitted or covered during the period when both projects are active.

SIGNING DETAILS

6A. The Advisory Speed (W13-1P) plaque shall be used when specified in the plan.

6B. 36" warning signs may be used when the approach speed limit is 40 mph or less.

FLASHING WARNING LIGHTS

7. Type A flashing warning lights shown on the ROAD WORK AHEAD (W20-1) signs and on the LANE CLOSED AHEAD (W20-5) signs are required whenever a night lane closure is necessary.

DRUMS / CONES

8A. Drum spacing shall be as follows:

a) Spacing along the closure shall be 40' center-to-center.
b) Spacing along the approach taper shall be 10' center-to-center.

8B. Cones may be substituted for drums as follows:

a) Cones used for daytime traffic control shall have a minimum height of 28".
b) Cones used for nighttime traffic control shall have a minimum height of 42".
c) Use of cones at night shall be prohibited along tapers.

8C. Provisions shall be made to stabilize the cones and drums to prevent them from blowing over.

8D. A minimum of two drums shall be used to close the paved shoulder.

(RESERVED FOR FUTURE USE)

9A. (intentionally blank)

AREA ILLUMINATION

10A. Adequate area illumination of each flagger station shall be provided at night. Use of portable flood lighting is acceptable. Luminaires shall be located adjacent to each flagger station.

10B. To ensure the adequacy of floodlight placement and the elimination of glare, the Contractor and the Engineer shall drive through the worksite each night when the lighting is in place. Light placement and shielding shall be adjusted to the satisfaction of the Engineer.

INTERSECTION / DRIVEWAY ACCESS

11. Within the length of closure, provision shall be made to control traffic entering from intersecting streets and major drives as necessary to prevent wrong-way movements and to keep vehicles off of new pavement not ready for traffic. The Contractor shall:

a) Place across the closed lane, either three drums (cones) or barricades, and/or
b) Provide an additional flagger at every public street intersection and major driveway.

Drums (cones) placed across the closed lane shall be located 25' beyond the projected pavement edges of the driveway or cross highway, as shown in Standard Construction Drawings (SCDs MT-97.11 or MT-97.12. For barricades, see SCD MT-101.60.

Existing STOP signs shall be relocated as necessary to assure proper location for the traffic conditions.

The method of control shall be subject to the approval of the Engineer.

SHADOW VEHICLE

12A. The shadow vehicle shall be in place and unoccupied whenever workers are in the work area. This vehicle shall be removed from the pavement whenver workers are not in the work area.

12B. The shadow vehicle shall be equipped with a high-intensity yellow rotating, flashing, oscillating, or strobe light(s).

12C. The vehicle shall be equipped with a truck-mounted attenuator when called for in the plans.

12D. Other protective devices may be used in lieu of the shadow vehicle shown when approved by the Engineer.

CHIP SEAL OPERATIONS

13. For chip seal operations, additional signing shall be incorporated in the advanced warning area.

a) The LOOSE GRAVEL (W8-7) and FRESH TAR (W21-2) signs shall both be used in advance of the chip seal operation.
b) Repeat the LOOSE GRAVEL sign with a 35 mph Advisory Speed (W13-1) plaque every half mile per CMS 422.09.
c) The FRESH TAR and the LOOSE GRAVEL signs shall both be used for signing of side roads intersecting the work area.

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STATE OF OHIO — TIMOTHY R. LANNON 58885 — REGISTERED PROFESSIONAL ENGINEER

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THE CITY OF EASTLAKE

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LAKE COUNTY, OHIO

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MAINTENANCE OF TRAFFIC

PROJECT NO:	
15060901	
DRAWING NAME	
MOT-2	
SHEET	OF
7	27

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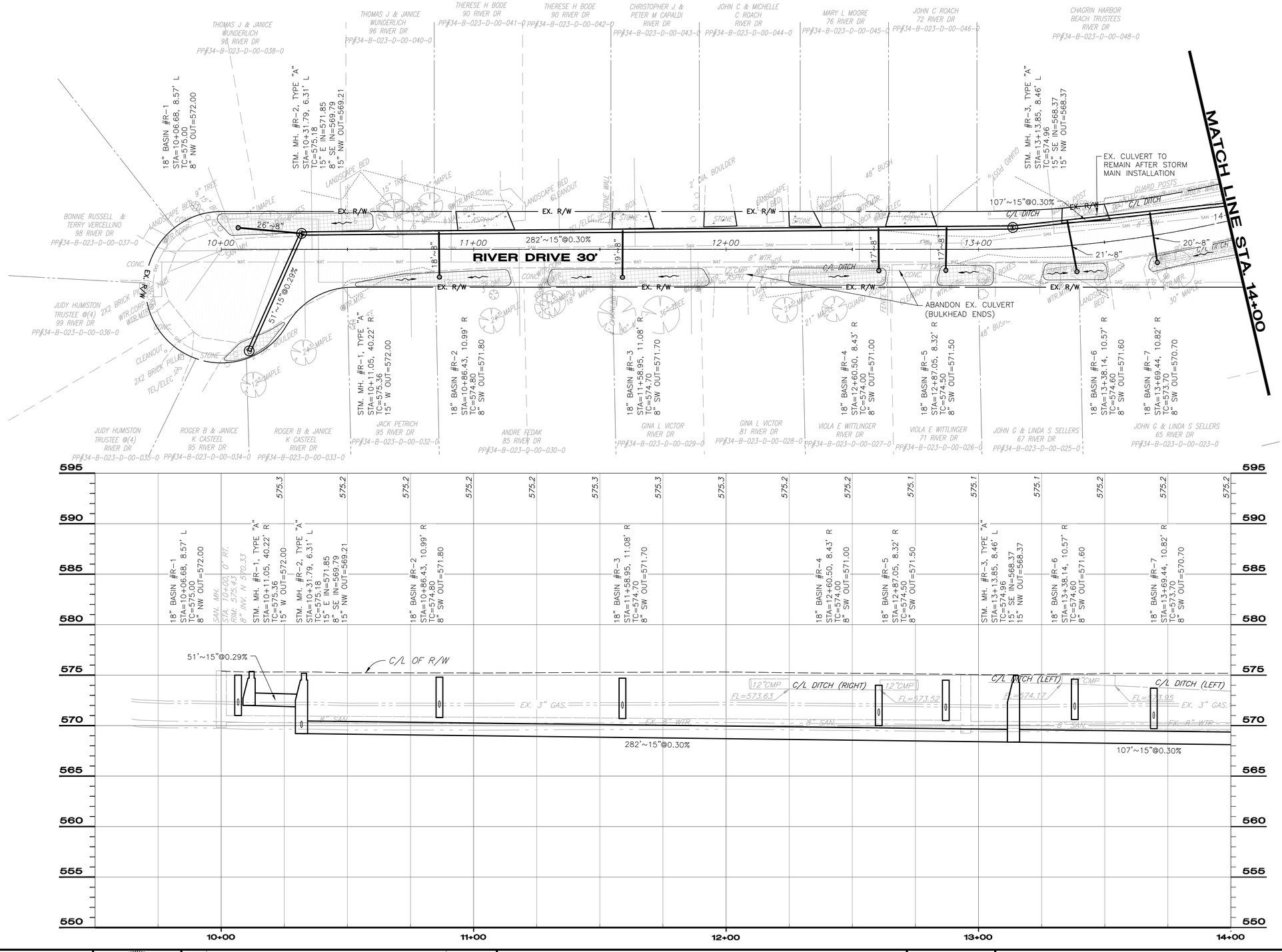

BAR SCALE
20' 10' 0' 20'
SCALE: 1"=20'

NOTES:
1. FINAL LOCATIONS OF PROPOSED NYLOPLAST BASINS MAY BE SLIGHTLY ALTERED IN THE FIELD TO AVOID DISCOVERED CONFLICTS WITH UTILITIES.
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LEGEND

DRIVE APRON REPLACEMENT (SEE DRIVE SCHEDULE)

PROVIDE POSITIVE DRAINAGE TO DRAINAGE STRUCTURE

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STATE OF OHIO
TIMOTHY R. LANNON
58885
REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

RIVER DRIVE PLAN AND PROFILE

STA. 10+00 TO STA. 14+00

PROJECT NO:	
15060901	
DRAWING NAME	
PP-1	
SHEET	OF
8	27

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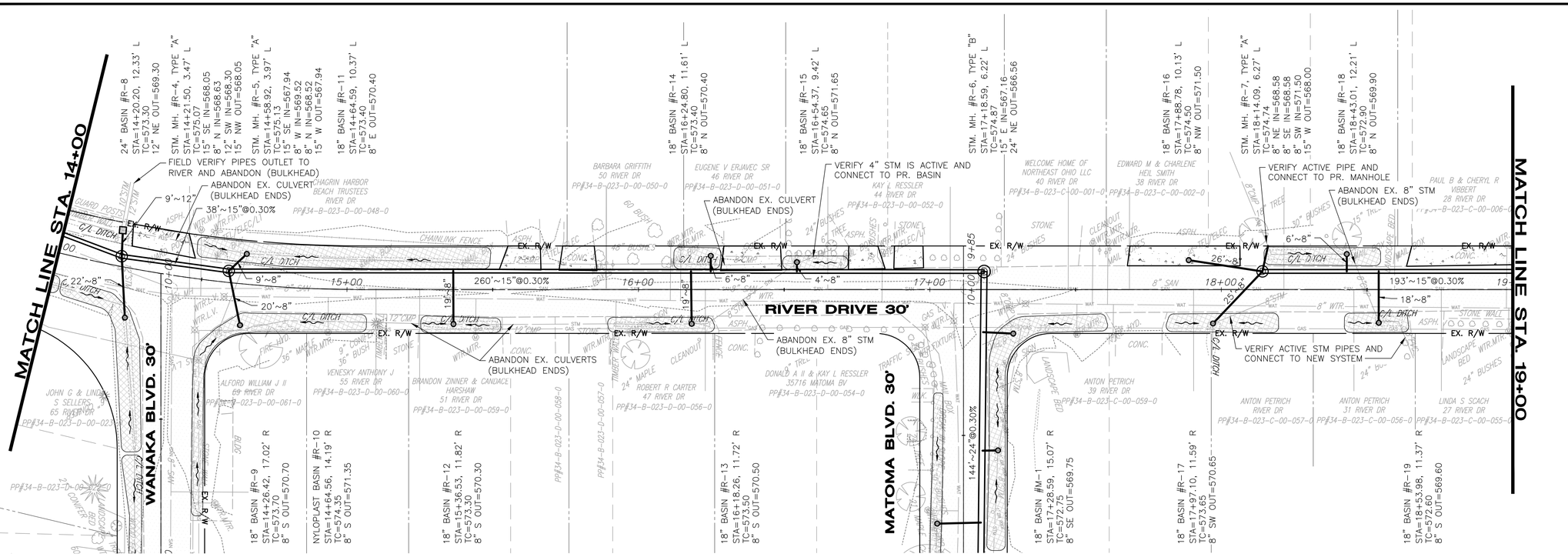

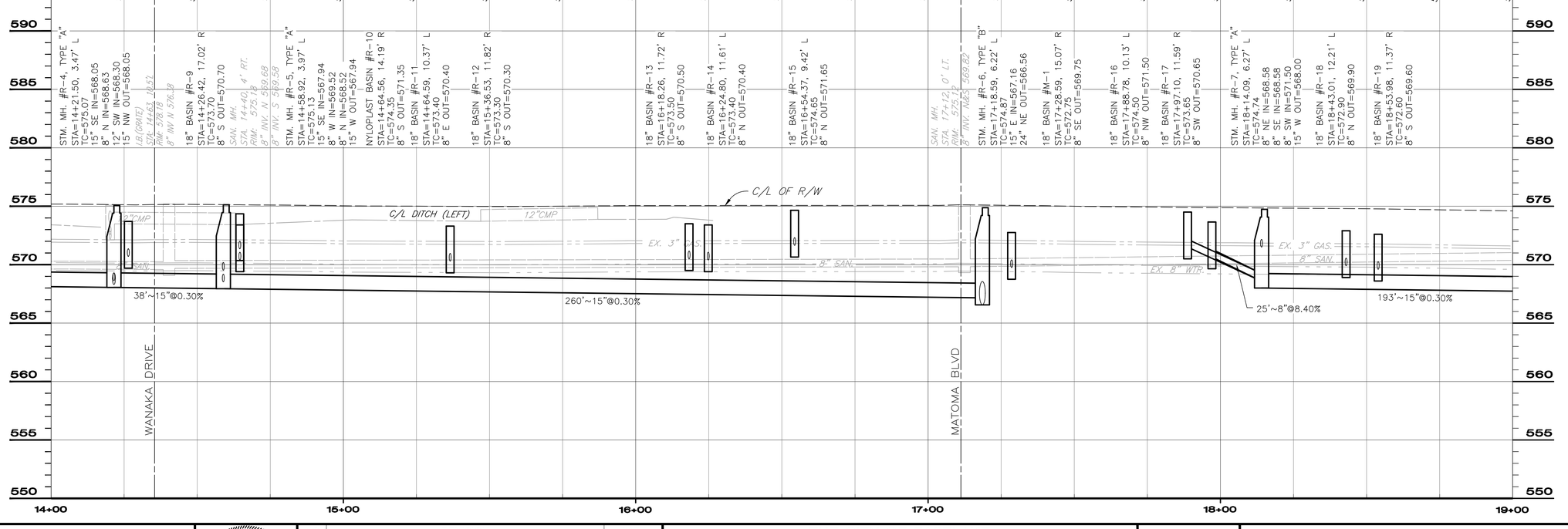

BAR SCALE
20' 10' 0' 20'
SCALE: 1"=20'

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LEGEND

DRIVE APRON REPLACEMENT (SEE DRIVE SCHEDULE)

PROVIDE POSITIVE DRAINAGE TO DRAINAGE STRUCTURE

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STATE OF OHIO
TIMOTHY R. LANNON
58885
REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

RIVER DRIVE PLAN AND PROFILE

STA. 14+00 TO STA. 19+00

PROJECT NO:	
15060901	
DRAWING NAME	
PP-2	
SHEET	OF
9	27

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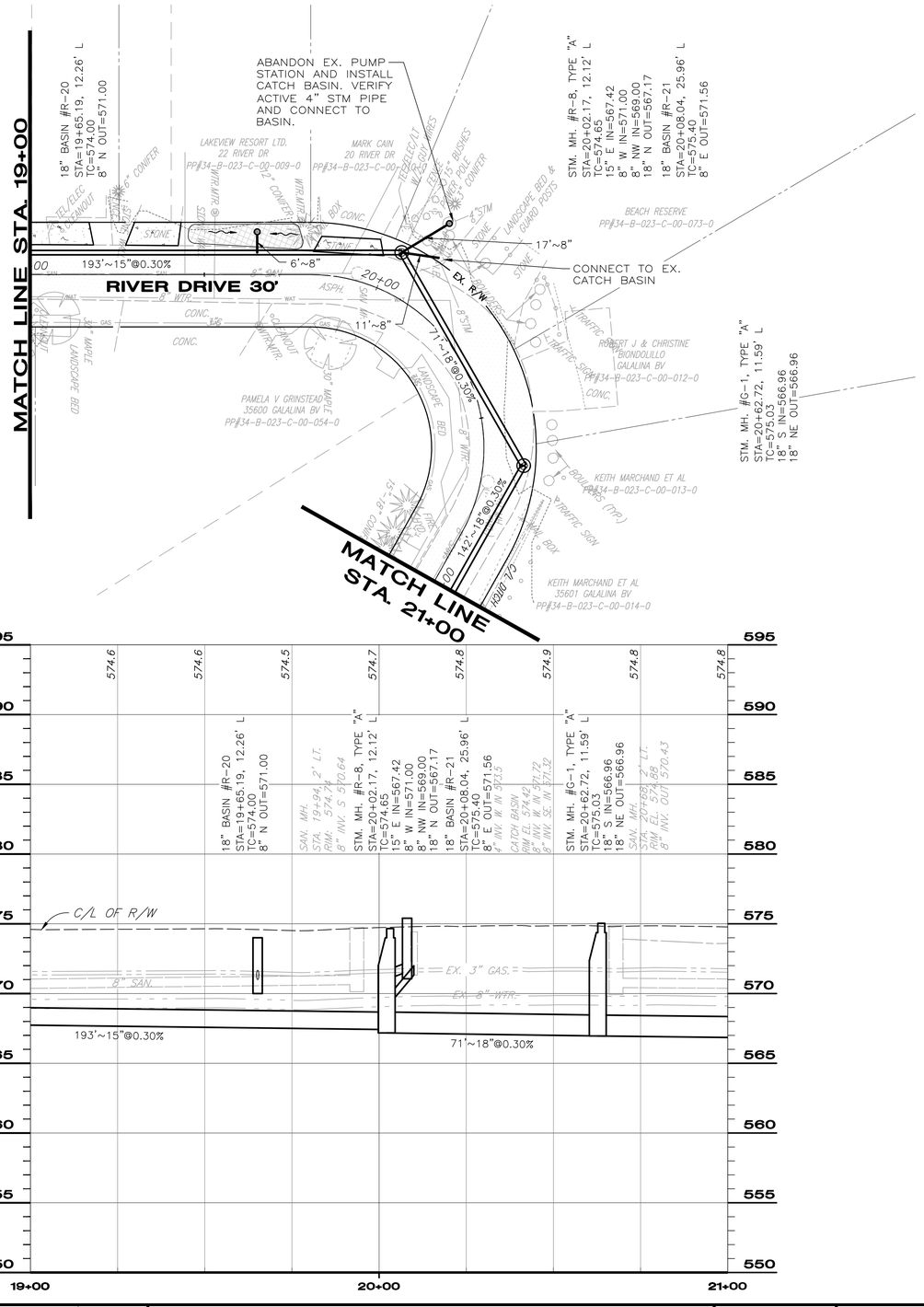

BAR SCALE
20' 10' 0' 20'
SCALE: 1"=20'

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LEGEND

DRIVE APRON REPLACEMENT (SEE DRIVE SCHEDULE)

PROVIDE POSITIVE DRAINAGE TO DRAINAGE STRUCTURE

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STATE OF OHIO
TIMOTHY R. LANNON
58885
REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

RIVER DRIVE PLAN AND PROFILE

STA. 19+00 TO STA. 21+00

PROJECT NO:	
15060901	
DRAWING NAME	
PP-3	
SHEET	OF
10	27

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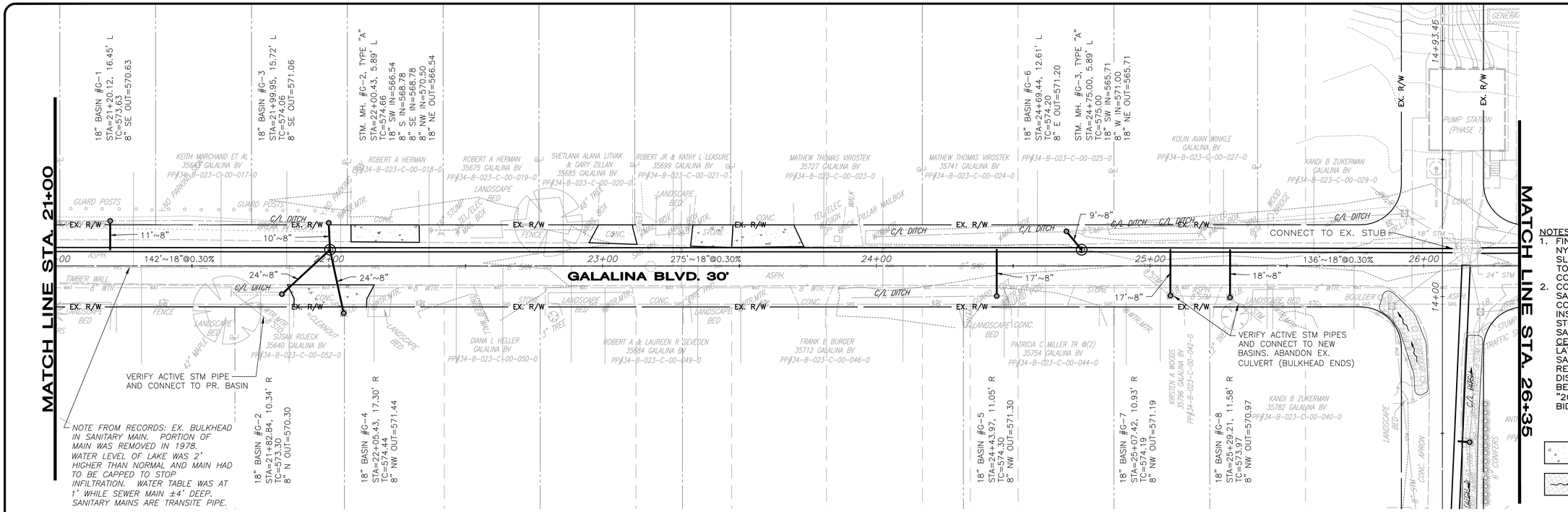

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LEGEND

DRIVE APRON REPLACEMENT (SEE DRIVE SCHEDULE)

PROVIDE POSITIVE DRAINAGE TO DRAINAGE STRUCTURE

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STATE OF OHIO · TIMOTHY R. LANNON 58885 · REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

GALALINA BOULEVARD PLAN AND PROFILE

STA. 21+00 TO STA. 26+35

PROJECT NO:	
15060901	
DRAWING NAME	
PP-4	
SHEET	OF
11	27

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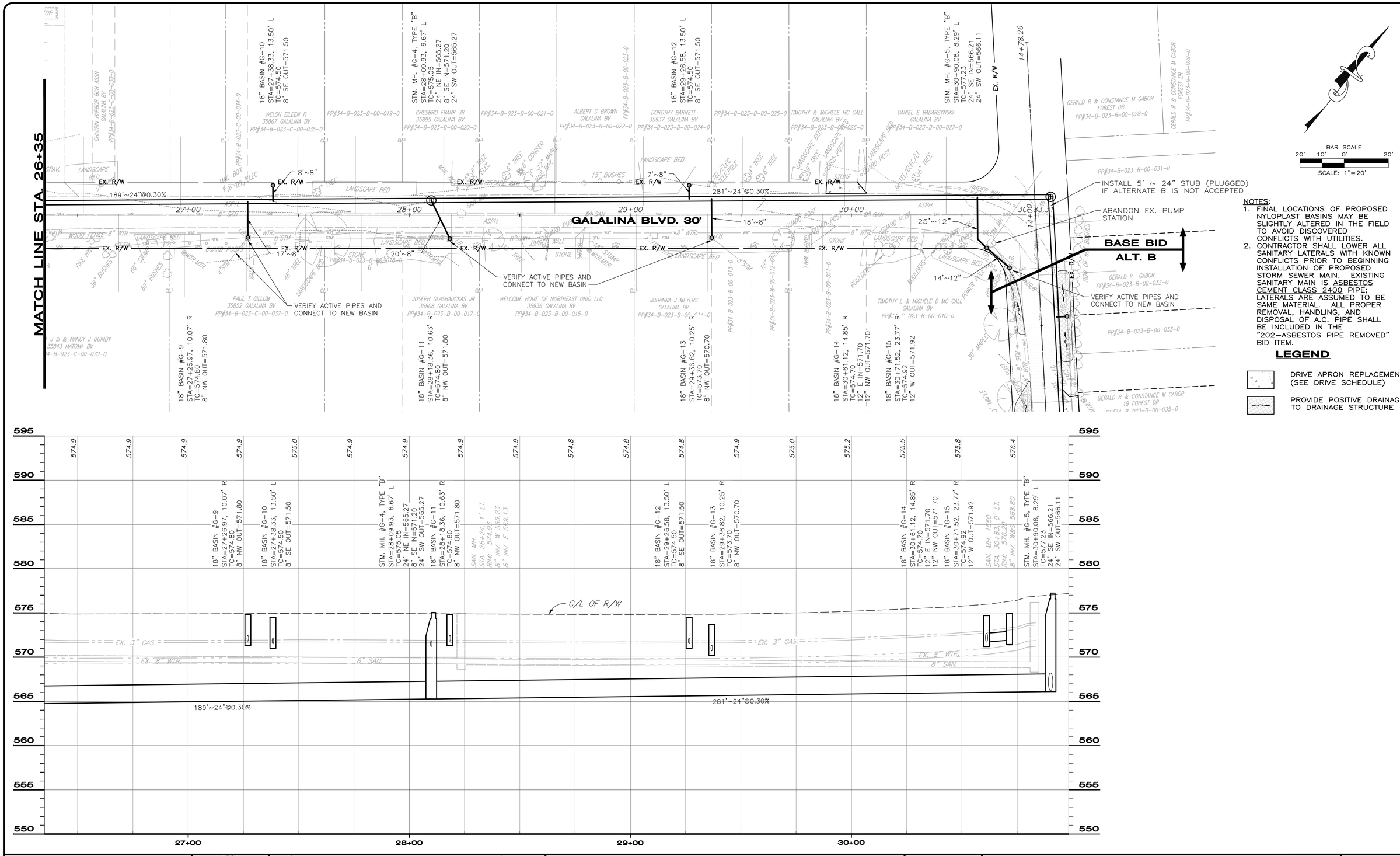

BAR SCALE
20' 10' 0' 20'
SCALE: 1"=20'

NOTES:
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LEGEND

DRIVE APRON REPLACEMENT (SEE DRIVE SCHEDULE)

PROVIDE POSITIVE DRAINAGE TO DRAINAGE STRUCTURE

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STATE OF OHIO
TIMOTHY R. LANNON
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REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

GALALINA BOULEVARD PLAN AND PROFILE

STA. 26+35 TO STA. 30+98

PROJECT NO:	
15060901	
DRAWING NAME	
PP-5	
SHEET	OF
12	27

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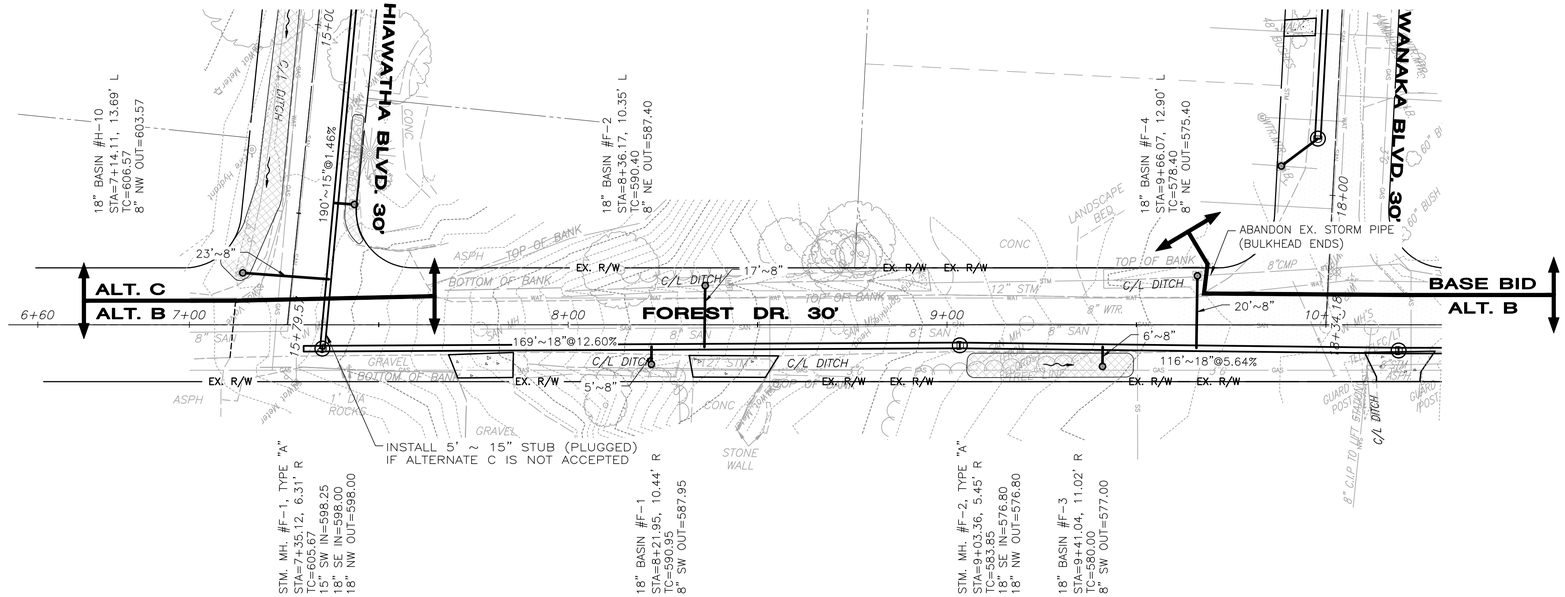

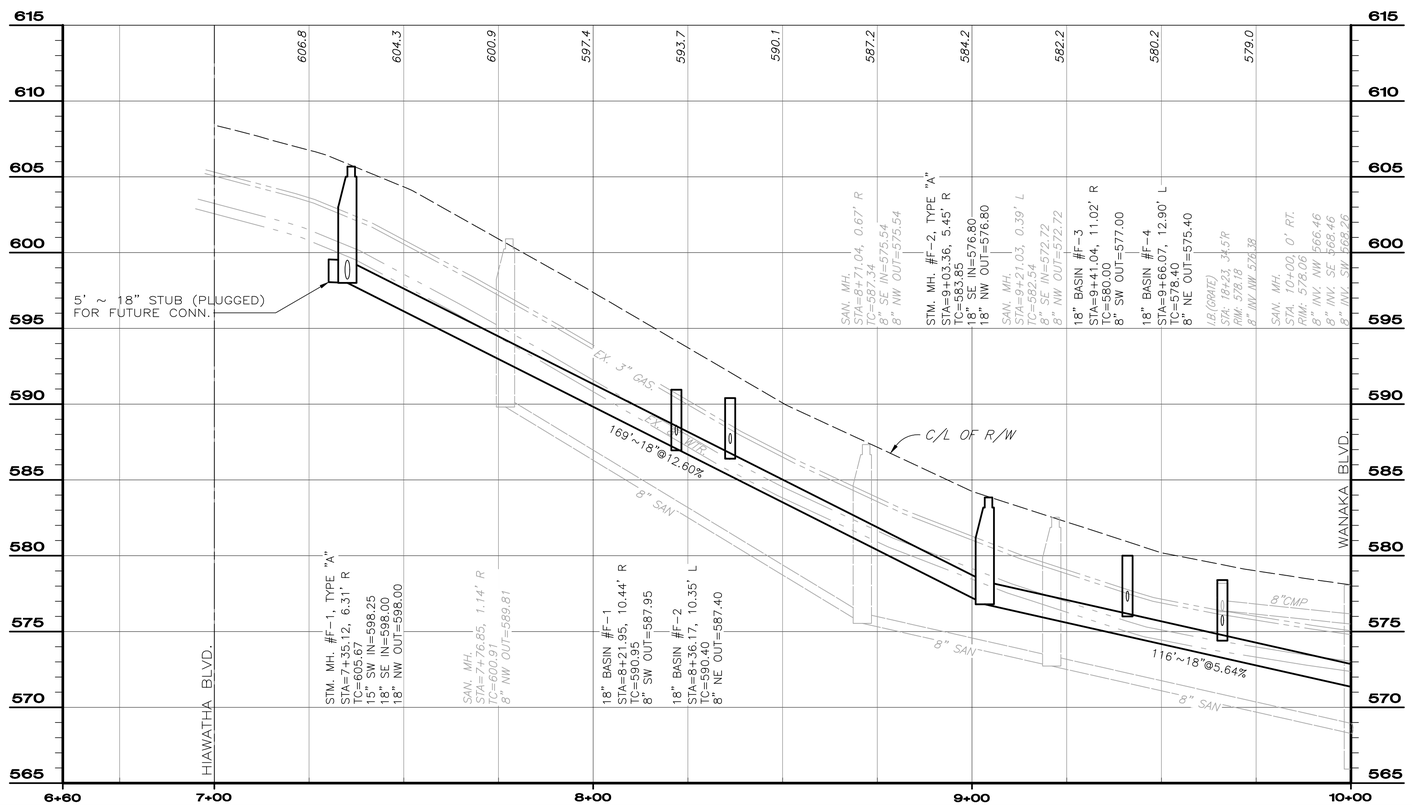

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LEGEND

DRIVE APRON REPLACEMENT (SEE DRIVE SCHEDULE)

PROVIDE POSITIVE DRAINAGE TO DRAINAGE STRUCTURE

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STATE OF OHIO — TIMOTHY R. LANNON 58885 — REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

FOREST DRIVE PLAN AND PROFILE

STA. 6+60 TO STA. 10+00

PROJECT NO:	
15060901	
DRAWING NAME	
PP-6	
SHEET	OF
13	27

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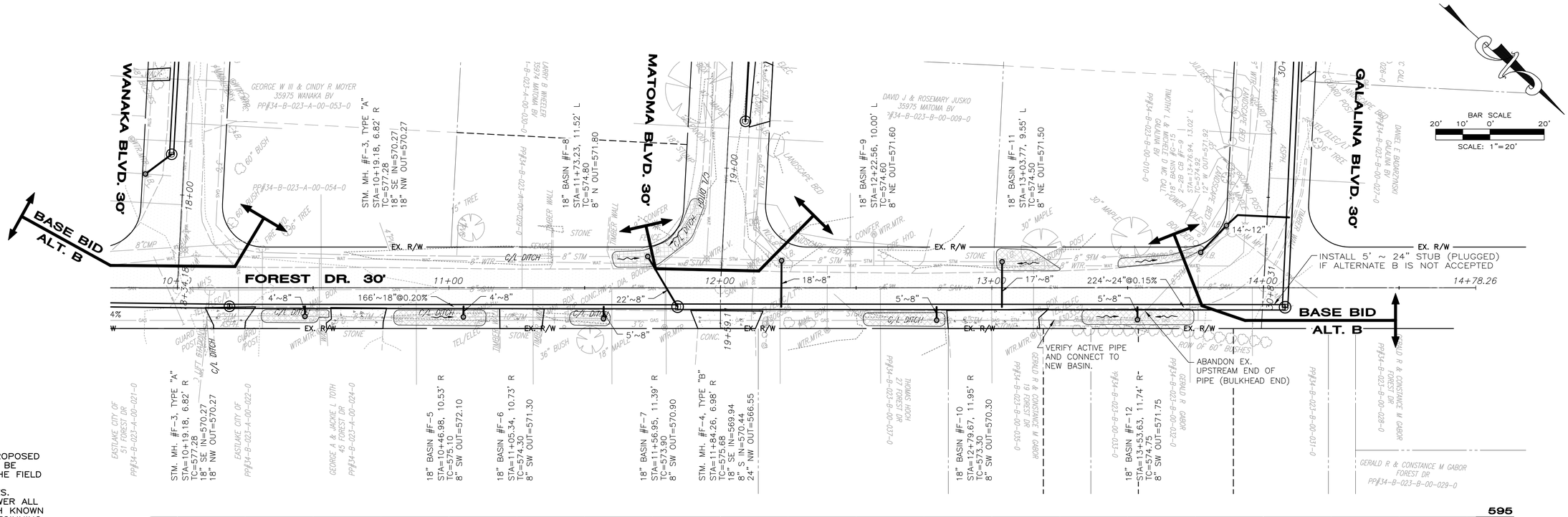

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LEGEND

DRIVE APRON REPLACEMENT (SEE DRIVE SCHEDULE)

PROVIDE POSITIVE DRAINAGE TO DRAINAGE STRUCTURE

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architects
planners

STATE OF OHIO
TIMOTHY R. LANNON
58885
REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

FOREST DRIVE PLAN AND PROFILE

STA. 10+00 TO STA. 14+78

PROJECT NO:	
15060901	
DRAWING NAME	
PP-7	
SHEET	OF
14	27

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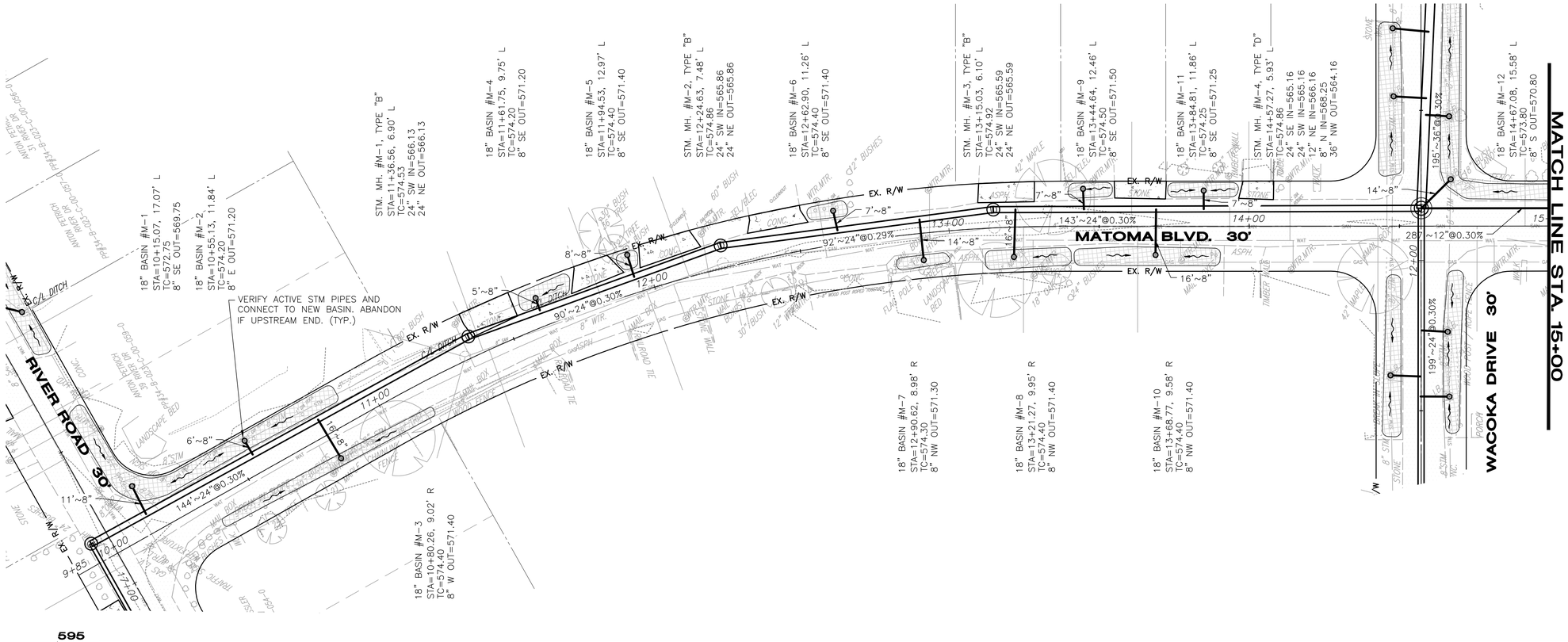

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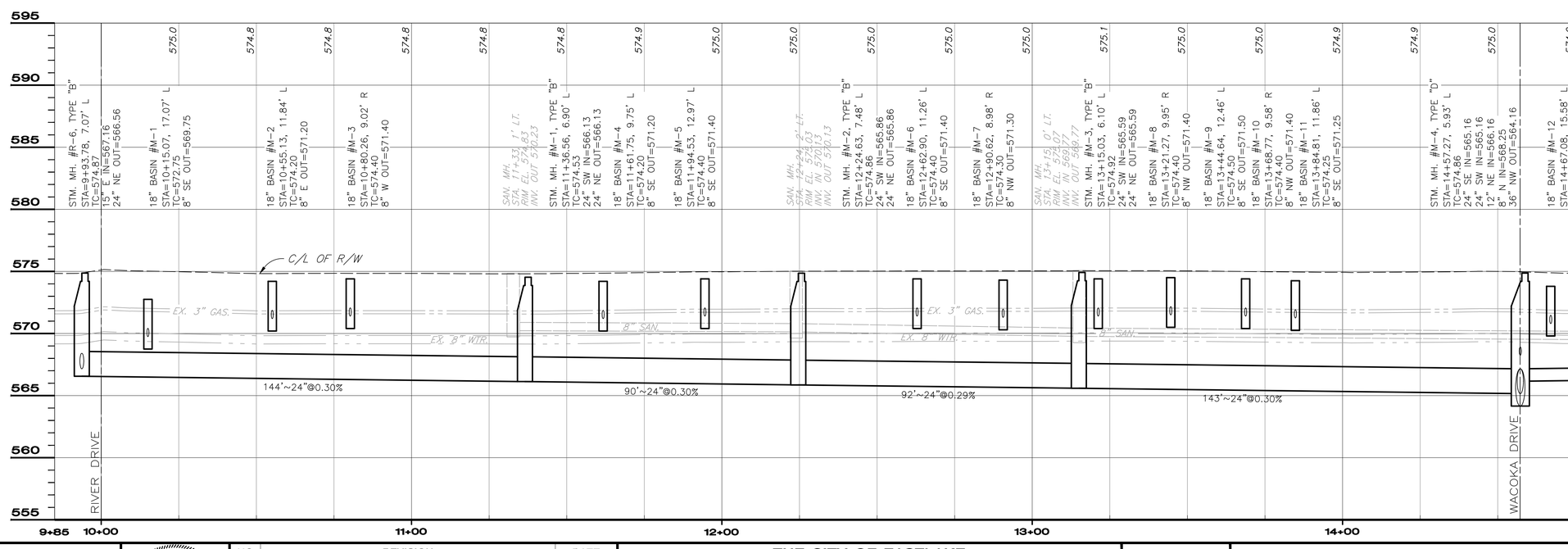
LEGEND

DRIVE APRON REPLACEMENT (SEE DRIVE SCHEDULE)

PROVIDE POSITIVE DRAINAGE TO DRAINAGE STRUCTURE



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STATE OF OHIO — TIMOTHY R. LANNON 58885 — REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

MATOMA BOULEVARD PLAN AND PROFILE

STA. 10+00 TO STA. 15+00

PROJECT NO:	
15060901	
DRAWING NAME	
PP-8	
SHEET	OF
15	27

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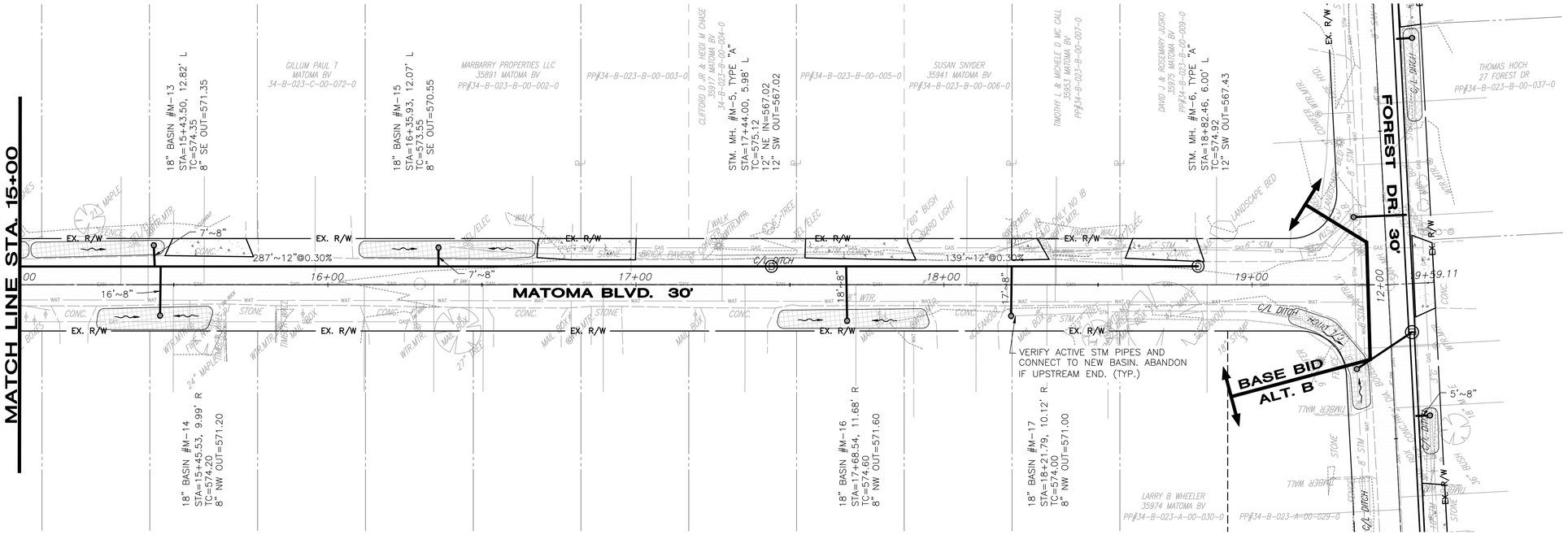

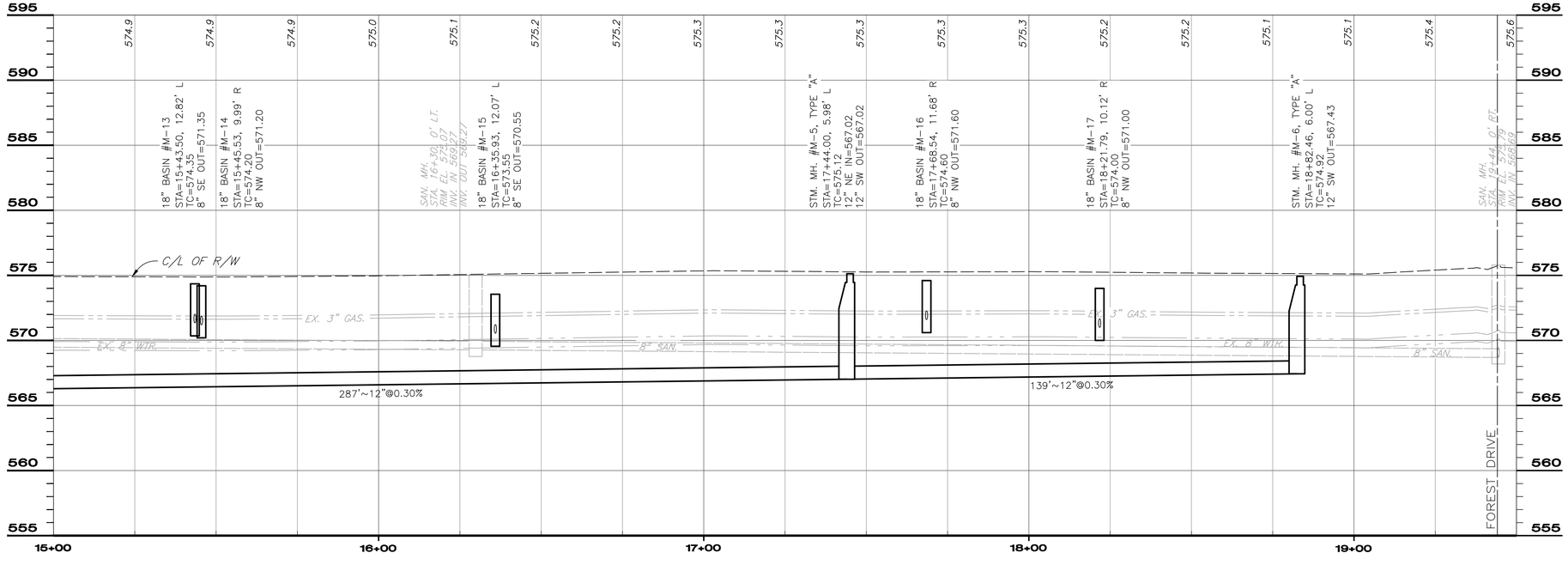

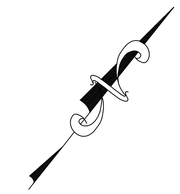

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LEGEND

DRIVE APRON REPLACEMENT (SEE DRIVE SCHEDULE)

PROVIDE POSITIVE DRAINAGE TO DRAINAGE STRUCTURE

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STATE OF OHIO · TIMOTHY R. LANNON 58885 · REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

MATOMA BOULEVARD PLAN AND PROFILE

STA. 15+00 TO STA. 19+50

PROJECT NO:	
15060901	
DRAWING NAME	
PP-9	
SHEET	OF
16	27

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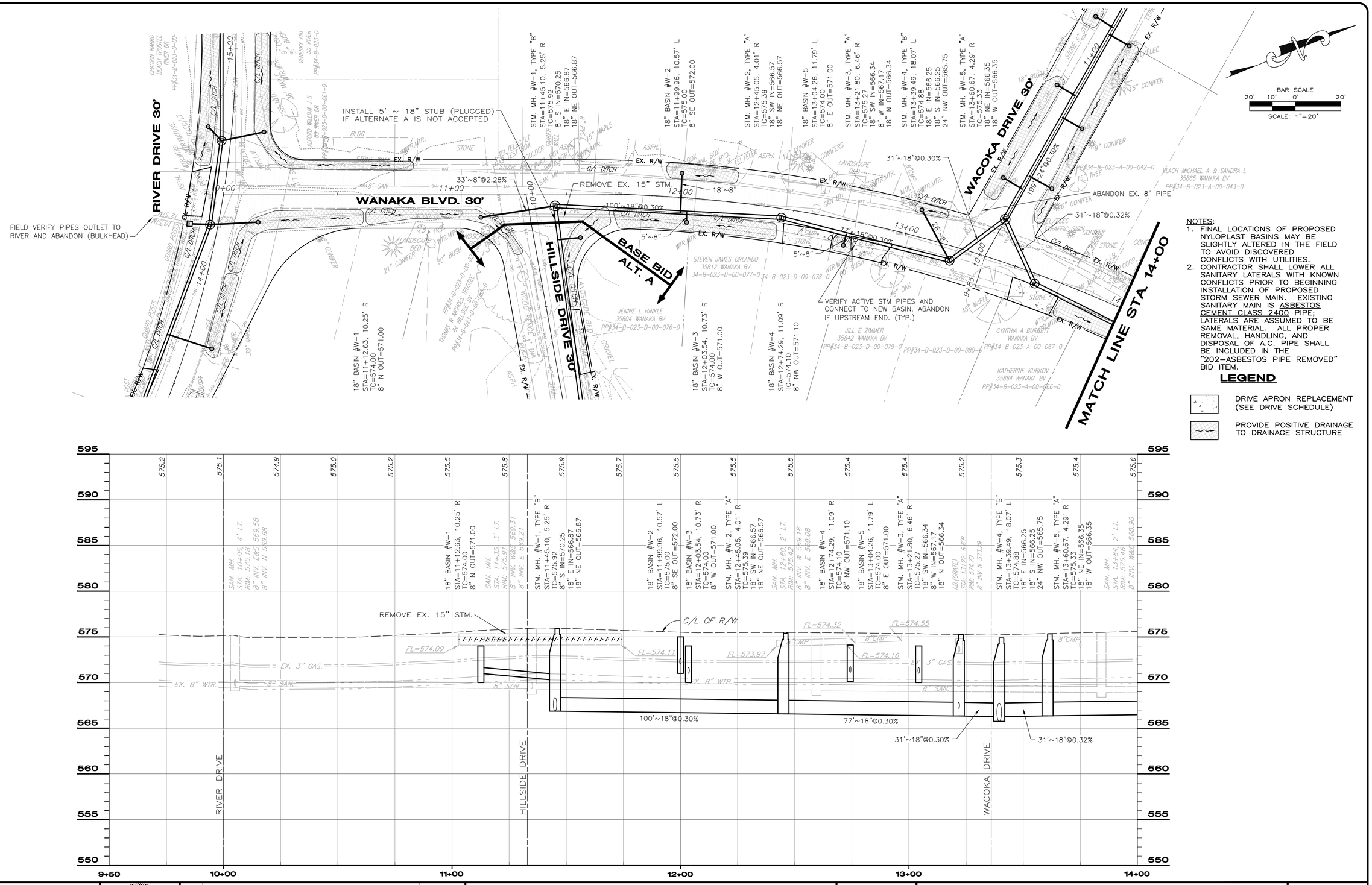

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LEGEND

DRIVE APRON REPLACEMENT (SEE DRIVE SCHEDULE)

PROVIDE POSITIVE DRAINAGE TO DRAINAGE STRUCTURE

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STATE OF OHIO — TIMOTHY R. LANNON 58885 — REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

WANAKA BOULEVARD PLAN AND PROFILE

STA. 10+00 TO STA. 14+00

PROJECT NO:	
15060901	
DRAWING NAME	
PP-10	
SHEET	OF
17	27

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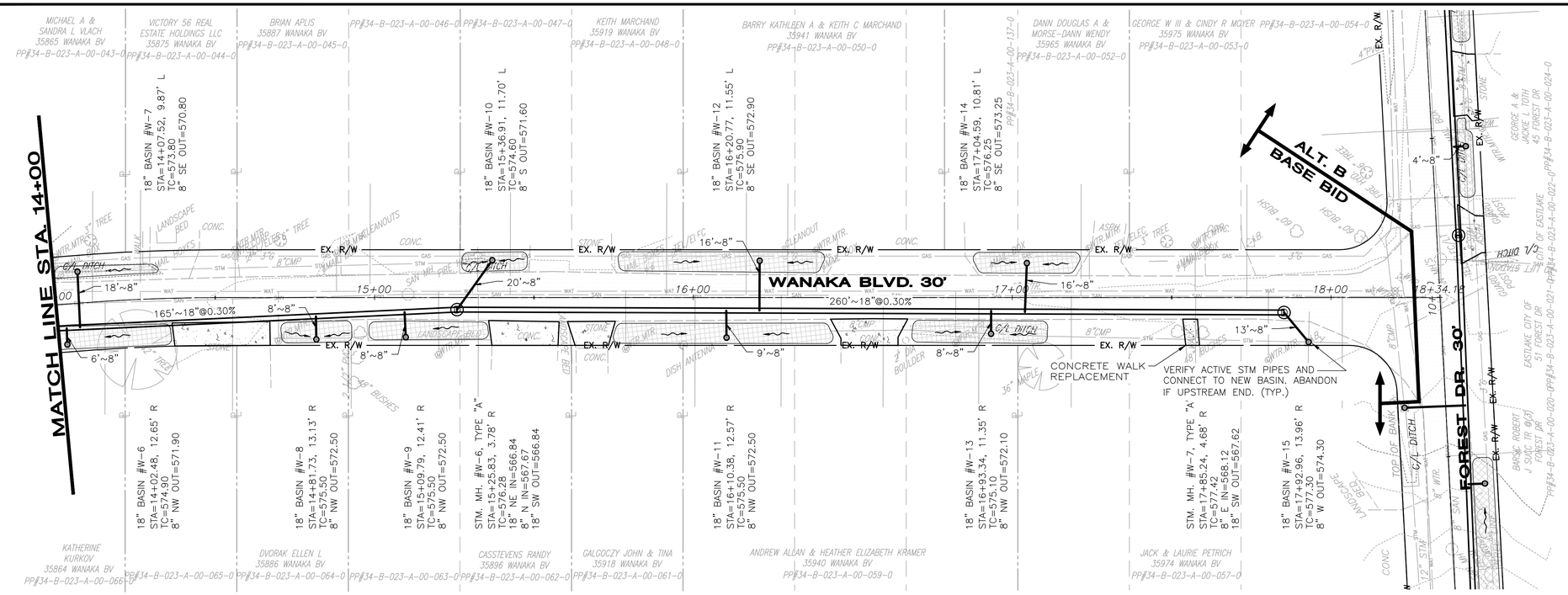

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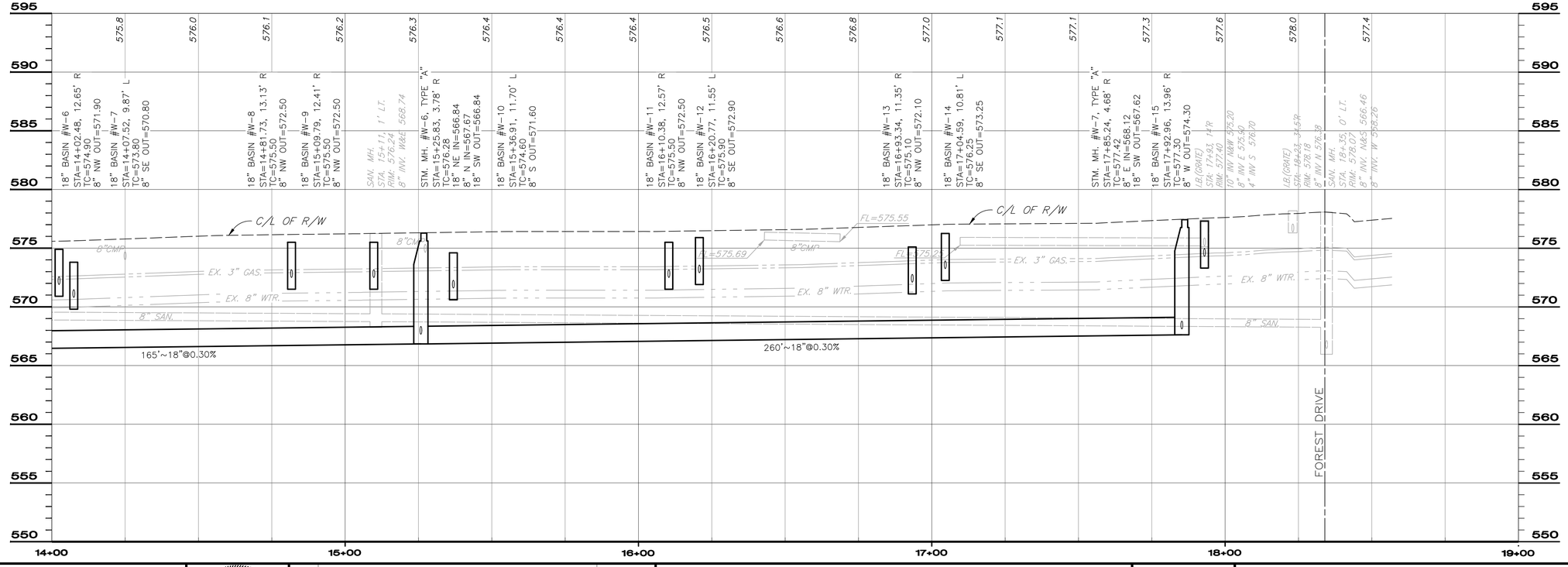
LEGEND

DRIVE APRON REPLACEMENT (SEE DRIVE SCHEDULE)

PROVIDE POSITIVE DRAINAGE TO DRAINAGE STRUCTURE



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STATE OF OHIO TIMOTHY R. LANNON 58885 REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

WANAKA BOULEVARD PLAN AND PROFILE

STA. 14+00 TO STA. 18+56

PROJECT NO:	
15060901	
DRAWING NAME	
PP-11	
SHEET	OF
18	27

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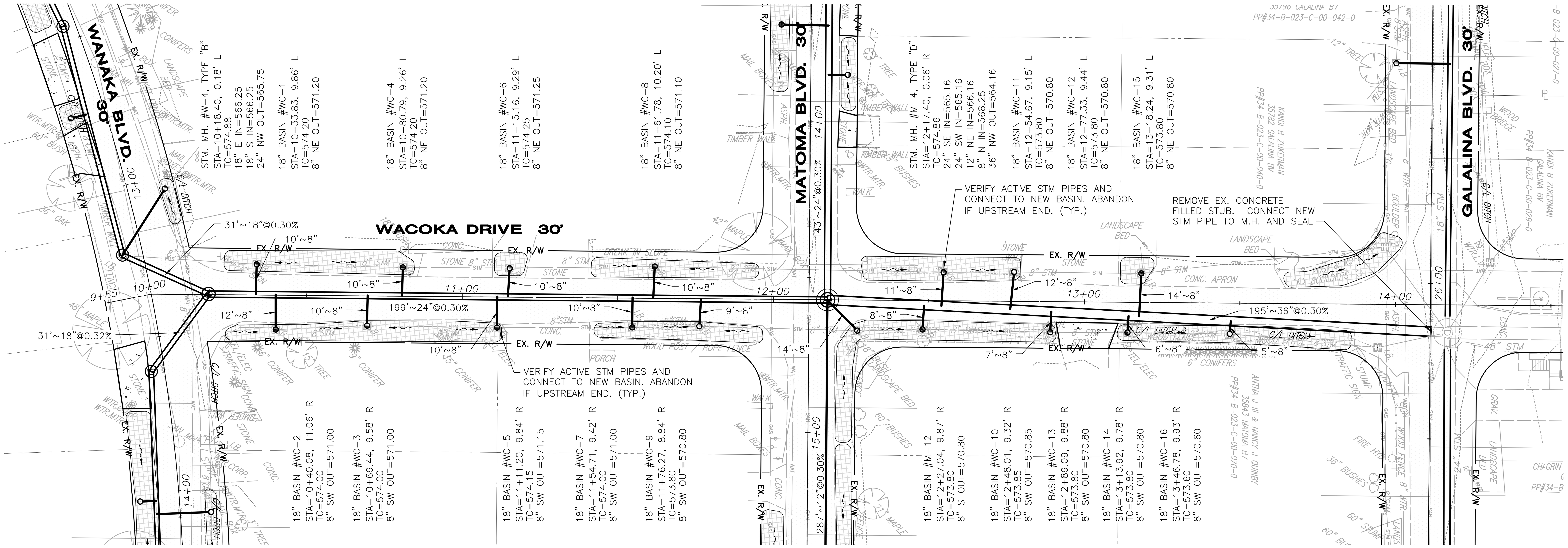

BAR SCALE
20' 10' 0' 20'
SCALE: 1"=20'

NOTES:

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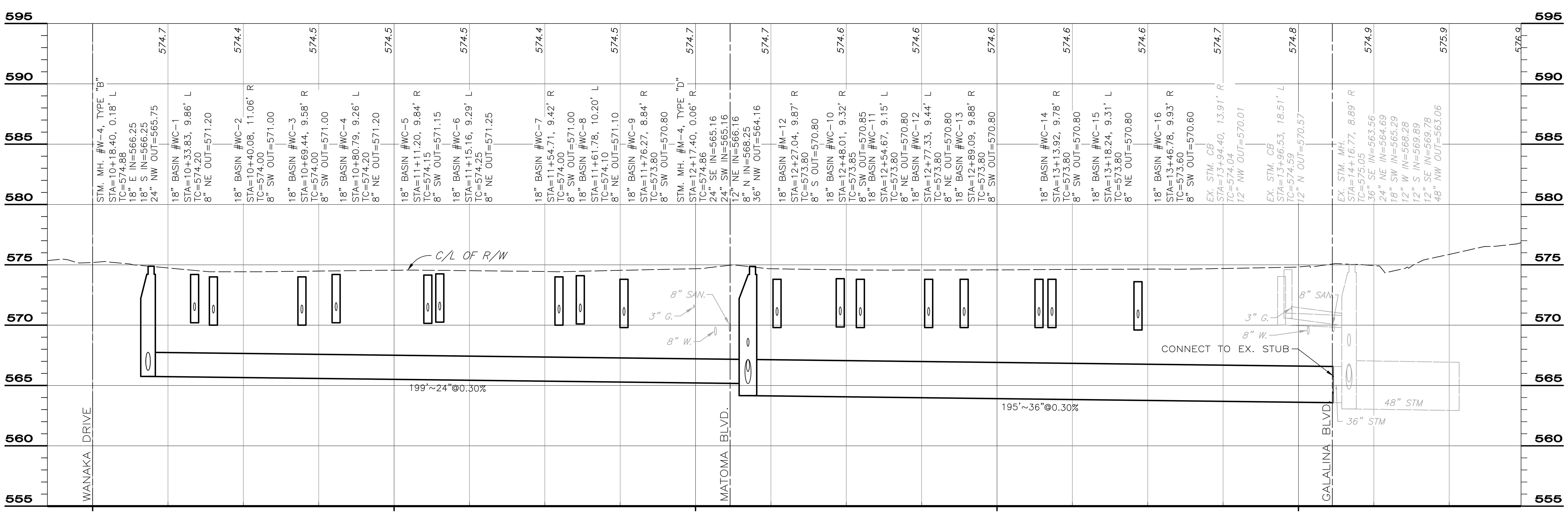
LEGEND

DRIVE APRON REPLACEMENT (SEE DRIVE SCHEDULE)

PROVIDE POSITIVE DRAINAGE TO DRAINAGE STRUCTURE



NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

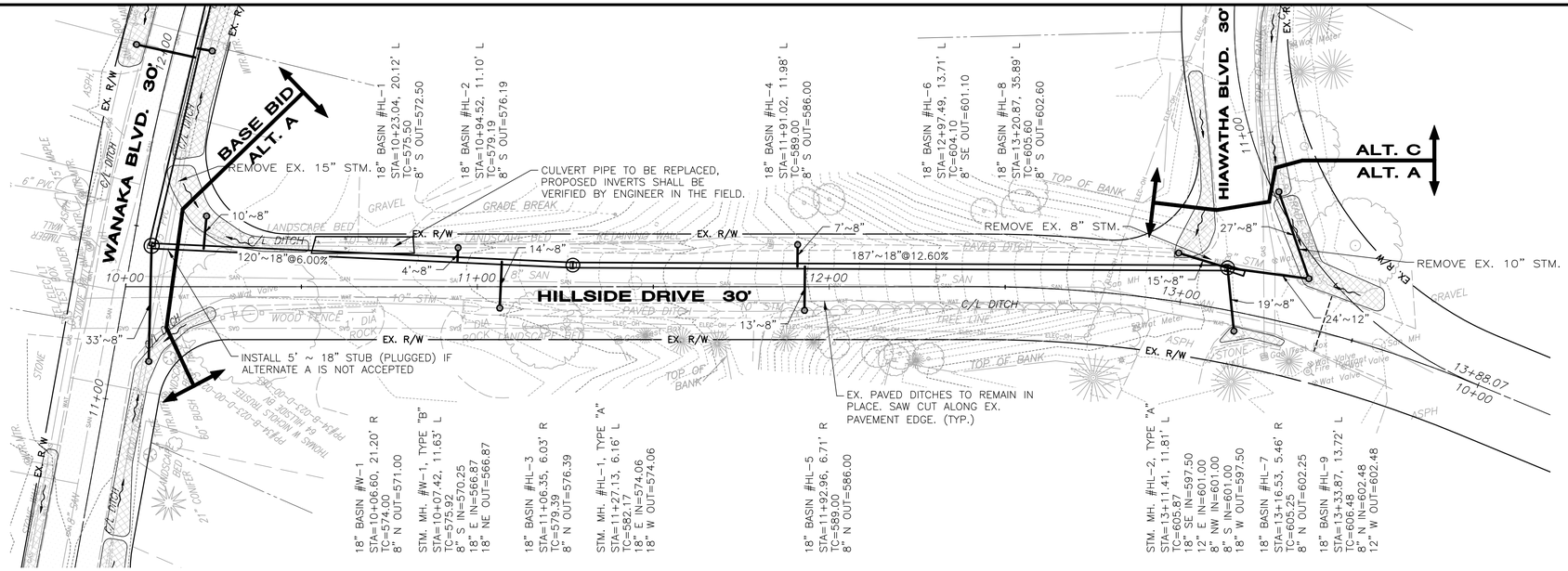
SCALE: AS SHOWN
DATE: 4/30/2020
DESIGNED BY: TRL
DRAWN BY: JNS
CHECKED BY: MPC

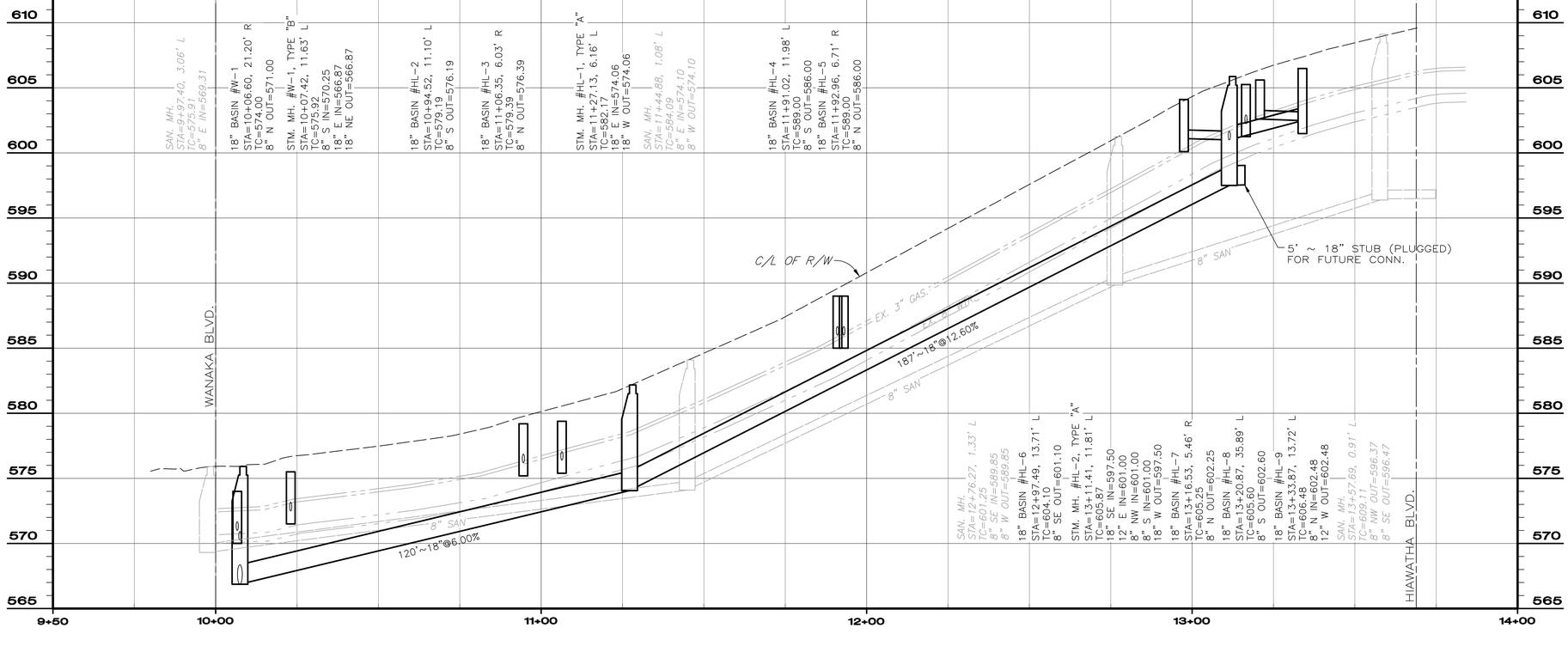
WACOKA DRIVE PLAN AND PROFILE

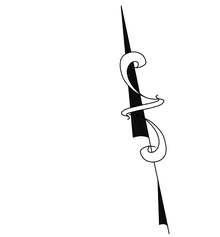
STA. 10+00 TO STA. 14+50

PROJECT NO: 15060901
DRAWING NAME: PP-12
SHEET 19 OF 27

CT your trusted advisor consultants → engineers architects planners







NOTES:
1. FINAL LOCATIONS OF PROPOSED NYLOPLAST BASINS MAY BE SLIGHTLY ALTERED IN THE FIELD TO AVOID DISCOVERED CONFLICTS WITH UTILITIES.
2. CONTRACTOR SHALL LOWER ALL SANITARY LATERALS WITH KNOWN CONFLICTS PRIOR TO BEGINNING INSTALLATION OF PROPOSED STORM SEWER MAIN. EXISTING SANITARY MAIN IS ASBESTOS CEMENT CLASS 2400 PIPE; LATERALS ARE ASSUMED TO BE SAME MATERIAL. ALL PROPER REMOVAL, HANDLING, AND DISPOSAL OF A.C. PIPE SHALL BE INCLUDED IN THE "202–ASBESTOS PIPE REMOVED" BID ITEM.

LEGEND

DRIVE APRON REPLACEMENT (SEE DRIVE SCHEDULE)

PROVIDE POSITIVE DRAINAGE TO DRAINAGE STRUCTURE

your trusted advisor
consultants
engineers
architects
planners

STATE OF OHIO
TIMOTHY R. LANNON
58885
REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

HILLSIDE DRIVE PLAN AND PROFILE

STA. 10+00 TO STA. 13+88

PROJECT NO:	
15060901	
DRAWING NAME	
PP-13	
SHEET	OF
20	27

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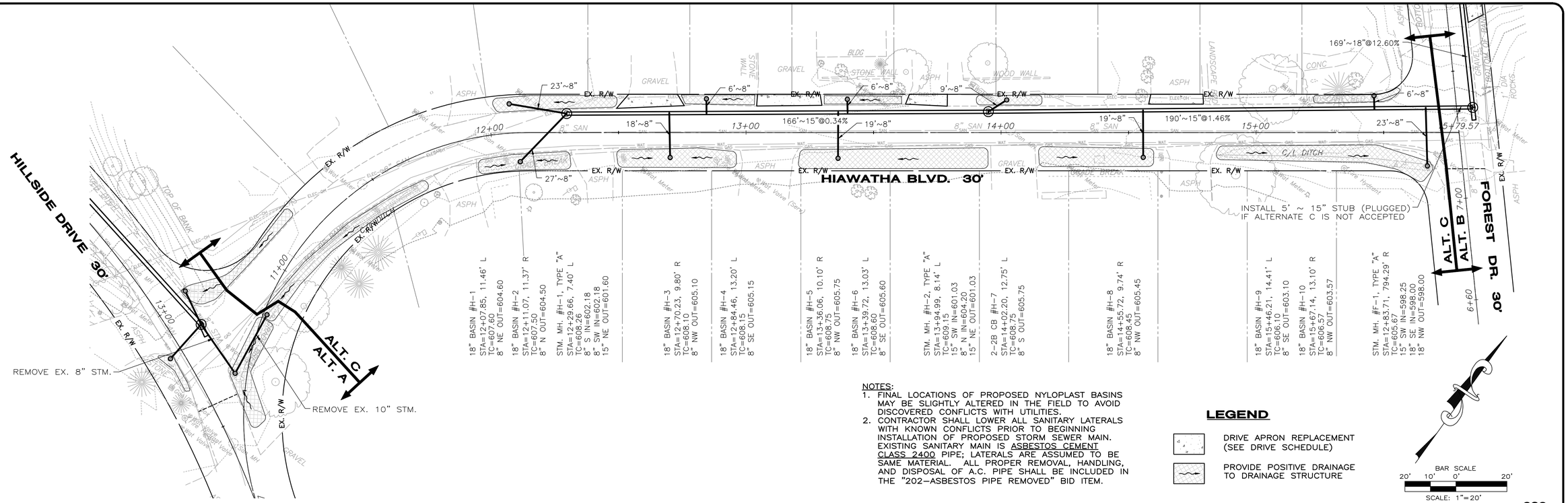

NOTES:
1. FINAL LOCATIONS OF PROPOSED NYLOPLAST BASINS MAY BE SLIGHTLY ALTERED IN THE FIELD TO AVOID DISCOVERED CONFLICTS WITH UTILITIES.
2. CONTRACTOR SHALL LOWER ALL SANITARY LATERALS WITH KNOWN CONFLICTS PRIOR TO BEGINNING INSTALLATION OF PROPOSED STORM SEWER MAIN. EXISTING SANITARY MAIN IS ASBESTOS CEMENT CLASS 2400 PIPE; LATERALS ARE ASSUMED TO BE SAME MATERIAL. ALL PROPER REMOVAL, HANDLING, AND DISPOSAL OF A.C. PIPE SHALL BE INCLUDED IN THE "202-ASBESTOS PIPE REMOVED" BID ITEM.

LEGEND

DRIVE APRON REPLACEMENT (SEE DRIVE SCHEDULE)

PROVIDE POSITIVE DRAINAGE TO DRAINAGE STRUCTURE

BAR SCALE
20' 10' 0' 20'
SCALE: 1"=20'

your trusted advisor consultants — engineers architects planners

STATE OF OHIO
TIMOTHY R. LANNON
58885
REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

HIAWATHA BOULEVARD PLAN AND PROFILE
STA. 10+00 TO STA. 15+80

PROJECT NO:	
15060901	
DRAWING NAME	
PP-14	
SHEET	OF
21	27

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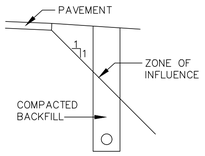
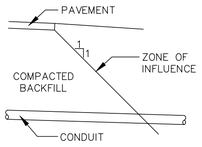
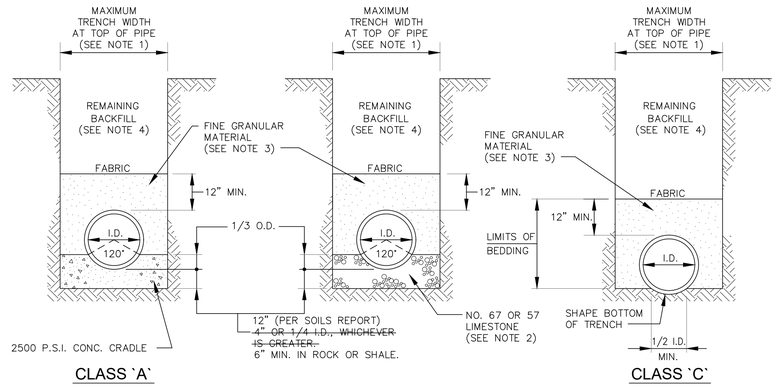


PARALLEL
ZONE OF INFLUENCE



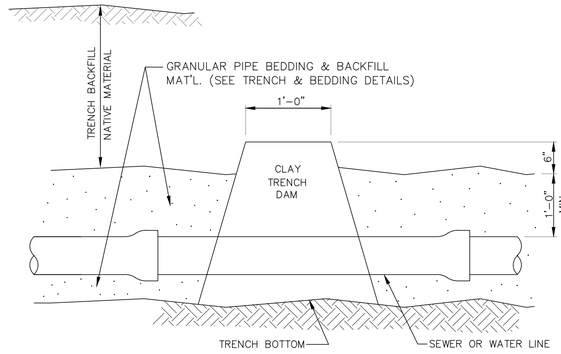
TRANSVERSE
ZONE OF INFLUENCE



NOTES:

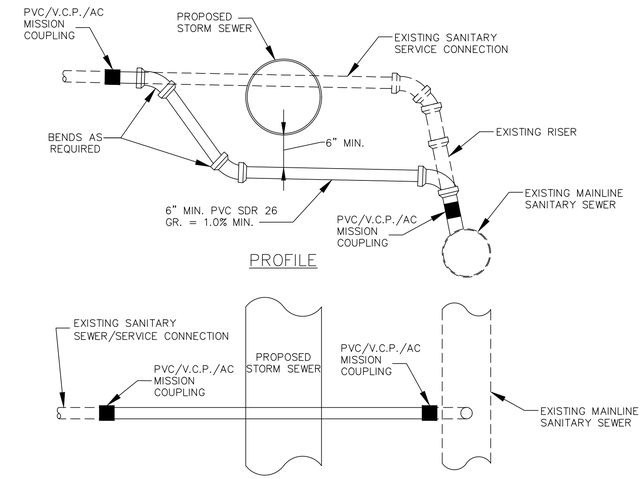
1. MAXIMUM TRENCH AT TOP OF PIPE SHALL BE O.D.+ 24" FOR ALL PIPES UP TO AND INCLUDING 24" I.D.; O.D.+ 30" FOR PIPE LARGER THAN 24" I.D. TO 66" I.D.; AND O.D.+ 48" FOR PIPE SIZES 72" AND OVER.
2. PIPE BEDDING SHALL BE NO. 67 OR NO. 57 LIMESTONE.
3. BACKFILL UNDER PAVEMENT AND STRUCTURES OR WITHIN A 1:1 ZONE OF INFLUENCE PARALLEL OR TRANSVERSE TO PAVEMENT OR STRUCTURES SHALL BE NO. 67 OR NO. 57 LIMESTONE TO 12" ABOVE TOP OF PIPE. IN AREAS OUTSIDE THE ZONE OF INFLUENCE, SELECT FRIABLE ON SITE MATERIAL APPROVED BY THE ENGINNER MAY BE USED FOR REINFORCED CONCRETE PIPE AND DUCTILE IRON PIPE. NO. 57 STONE SHALL BE USED FOR PVC PIPE, VITRIFIED CLAY PIPE AND POLYETHYLENE PLASTIC PIPE. ALL PIPE BACKFILL SHALL BE TAMPED IN 4" LIFTS COMPACTED TO 98% OF STANDARD PROCTOR DENSITY.
4. REMAINING BACKFILL UNDER PAVEMENT AND STRUCTURES OR WITHIN A 1:1 ZONE OF INFLUENCE PARALLEL OR TRANSVERSE TO PAVEMENT AND STRUCTURES SHALL BE O.D.O.T. ITEM 304 LIMESTONE TO TOP OF TRENCH. IN AREAS OUTSIDE THE ZONE OF INFLUENCE, SELECT ON SITE MATERIAL APPROVED BY THE ENGINEER MAY BE USED. ALL TRENCH BACKFILL SHALL BE TAMPED IN 4" LIFTS COMPACTED TO 98% OF STANDARD PROCTOR DENSITY. PLACE GEOTEXTILE FABRIC IN ACCORDANCE WITH ODOT 712.09. TYPA A, BETWEEN NO. 57 OR 67 STONE AND REMAINING BACKFILL.
5. ALL BEDDING SHALL BE CLASS 'B' UNLESS OTHERWISE NOTED ON THE PLANS OR AUTHORIZED BY THE ENGINEER. CLASS 'A' BEDDING SHALL BE USED FOR ALL RCP, POLYETHYLENE PLASTIC AND VCP PIPE UNDER PAVED AREAS WITH LESS THAN 18" COVER TO PAVEMENT SUBGRADE.
6. WATERLINE BEDDING SHALL BE CLASS 'C'.
7. SLAG SHALL NOT BE USED.
8. CLAY TRENCH DAMS SHALL BE REQUIRED, A MINIMUM OF ONE EACH CENTERED BETWEEN EACH SET OF MANHOLES.

TRENCH & BEDDING DETAILS

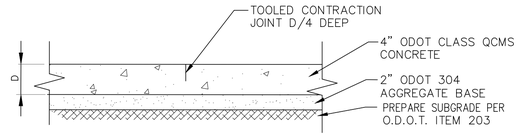


TRENCH DAM DETAIL

1/89 SD-2-14



SANITARY CONNECTION MODIFICATION DETAIL



STANDARDS: (UNLESS OTHERWISE NOTE ON PLANS)

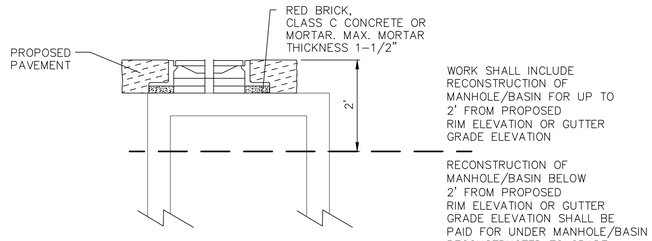
CONCRETE: CLASS QCMS
WIDTH: 5'-0"
THICKNESS: 4"
CROSS SLOPE: 1/4"/FT. (UNLESS OTHERWISE NOTED)

NOTE:

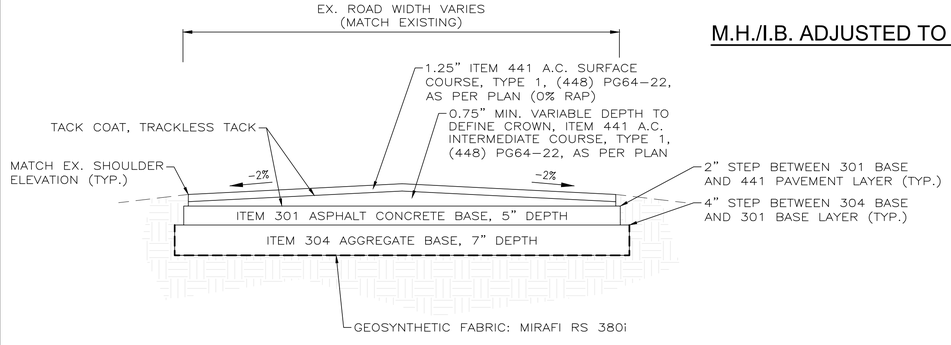
WALK TO BE DIVIDED INTO EQUALLY SPACED BLOCKS AT APPROXIMATELY 3' INTERVALS. EXPANSION JOINT FILLER 1/2" THICK SHALL BE INSTALLED BETWEEN WALK AND ANY FIXED STRUCTURE EXTENDING FOR THE FULL DEPTH OF THE SIDEWALK. THE EXPANSION JOINT FILLER SHALL BE 1" THICK WHERE WALK IS INSTALLED AGAINST BACK OF CURB.

CONCRETE SIDEWALK DETAIL

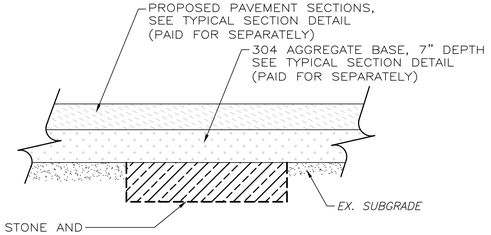
N.T.S.



M.H./I.B. ADJUSTED TO GRADE

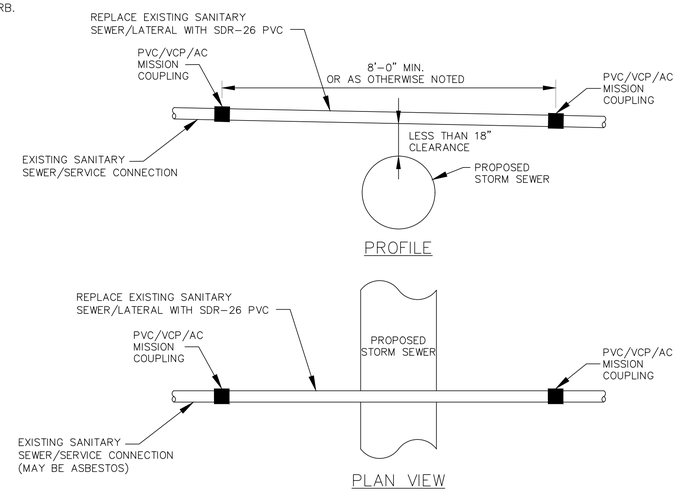


PAVEMENT REPLACEMENT TYPICAL SECTION



ADDITIONAL SUBGRADE REPLACEMENT DETAIL (ITEM 204)

NOTE: ITEM SHALL BE USED AS DIRECTED



SANITARY CONNECTION REPLACEMENT DETAIL

N.T.S.

NOTE: SANITARY CONNECTION REPLACEMENT IS REQUIRED ONLY WHEN THE CLEARANCE BETWEEN THE EXISTING SANITARY SEWER/SANITARY LATERAL AND PROPOSED STORM SEWER IS LESS THAN 18".

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STATE OF OHIO · TIMOTHY R. LANNON 58885 · REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

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LAKE COUNTY, OHIO

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PROJECT NO:	
15060901	
DRAWING NAME	
DET-1	
SHEET	OF
22	27

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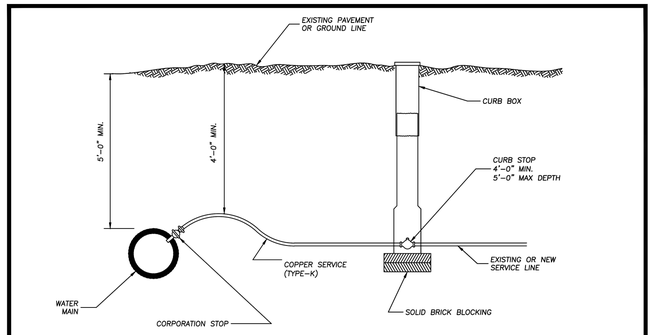
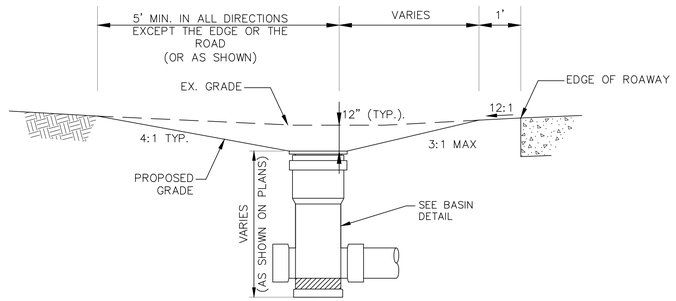


NOTES:

1. IF CURB STOP AND BOX FALL IN DITCH LINE MOVE BOTH TOWARD BUILDING OUT OF DITCH, BUT KEEP BOTH INSIDE THE RIGHT-OF-WAY. CURB STOP AND BOX TO BE A MINIMUM OF 5'-0" FROM BACK OF CURB OR EDGE OF PAVEMENT. SHOULD A CONFLICT OCCUR WITH OTHER UTILITIES OR STRUCTURES, LOCATION SHALL BE APPROVED BY SANITARY ENGINEER. CURB BOXES TO BE LOCATED OUTSIDE ALL PAVED AREAS. ALL FITTINGS TO BE OF THE FLARED TYPE.
2. ALL MATERIALS SHALL BE AS LISTED IN THE LCDU APPROVED MATERIAL LIST.
3. CURB STOP SHALL BE SET SUCH THAT THE OPERATING LEVER RUNS PERPENDICULAR TO THE MAIN WHEN IN THE "ON" POSITION.

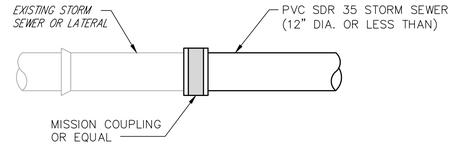
FIG 2.25.2

LAKE COUNTY DEPARTMENT OF UTILITIES		
SERVICE TIE IN FOR INSIDE METER LESS THAN 2" DIA		
DATE: 8-17	DRAWN BY: DDB	SCALE: NONE

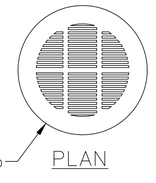


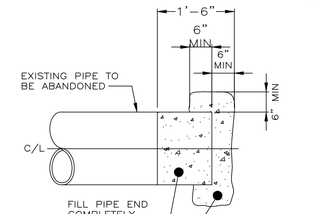
TYPICAL GRADING AT BASIN

N.T.S.



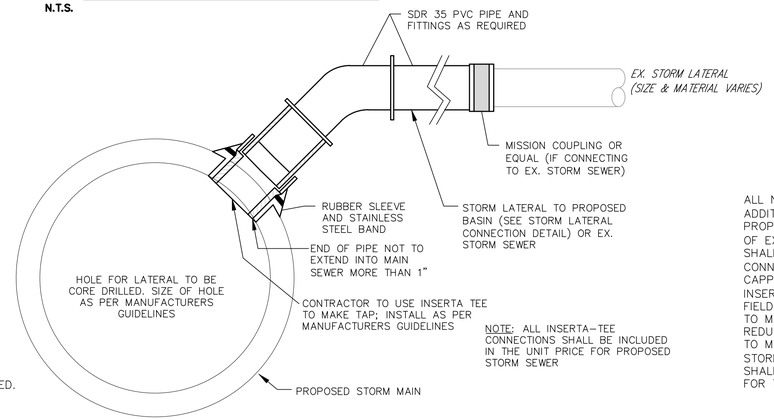
CONNECTION TO EX. STORM SEWER





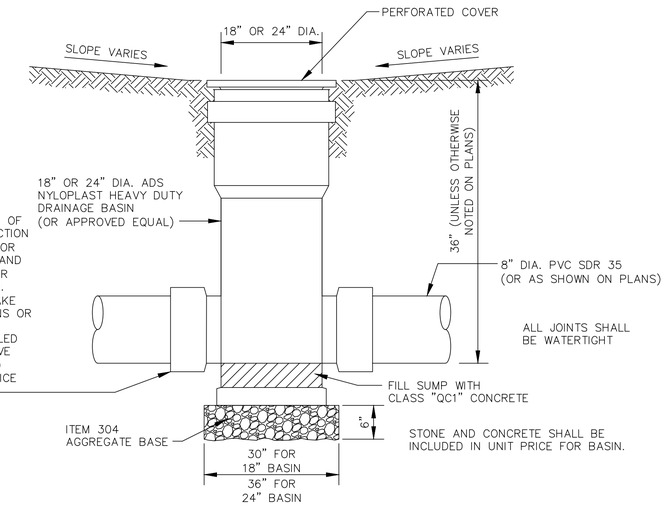
NOTE: ALL ABANDONED IN-PLACE PIPING SHALL HAVE ENDS CAPPED. BULKHEAD SHALL BE INCLUDED IN BID PRICE FOR PIPE & STRUCTURE REMOVED.

PIPE BULKHEAD



NOTE: ALL INSERTA-TEE CONNECTIONS SHALL BE INCLUDED IN THE UNIT PRICE FOR PROPOSED STORM SEWER

INSERTA-TEE CONNECTION

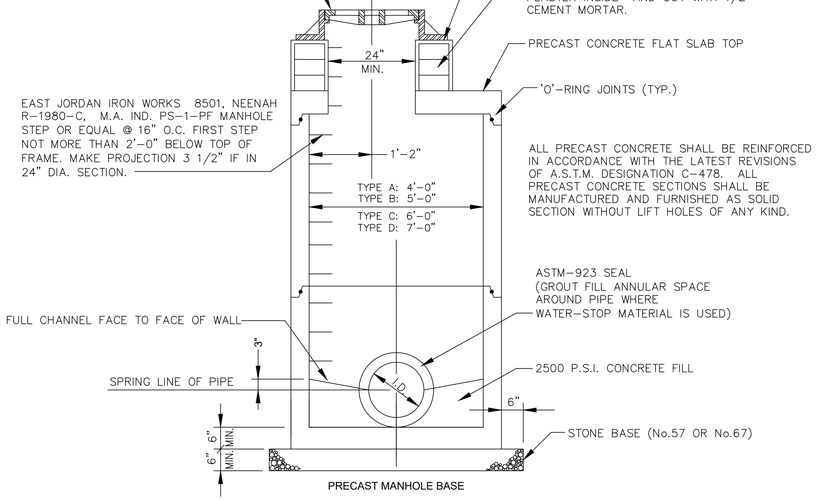


ALL NYLOPLAST BASINS SHALL HAVE ADDITIONAL 8" INVERT TEE OPPOSITE OF PROPOSED OUTLET PIPE FOR CONNECTION OF EXISTING STORM PIPE (CONTRACTOR SHALL VERIFY ACTIVE STORM PIPES AND CONNECT TO NEW STORM SYSTEM) OR CAPPED TEE FOR FUTURE EXTENSION. INSERTA-TEE'S MAY BE USED TO MAKE FIELD ADJUSTMENTS FOR PIPE TIE-INS OR TO MAKE ADDITIONAL CONNECTIONS. REDUCER FITTINGS SHALL BE INSTALLED TO MAKE CONNECTIONS TO EX. ACTIVE STORM PIPE LESS THAN 8" DIA. AND SHALL BE INCLUDED IN THE UNIT PRICE FOR THE PIPE INSTALLED.

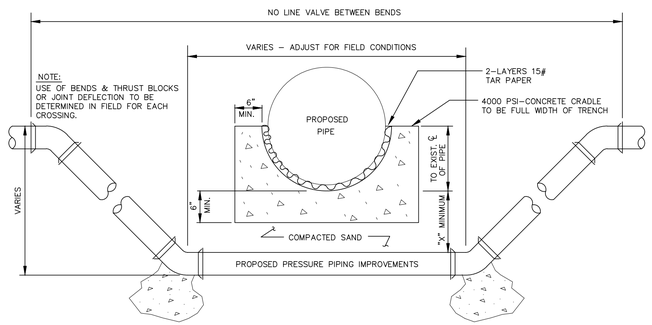
NYLOPLAST BASIN

(OR APPROVED EQUAL)

EAST JORDAN IRON WORKS 1710 FRAME OR APPROVED EQUAL W/TYPE M GRATE, OR AS DIRECTED BY THE ENGINEER. MAKE FLUSH WITH PAVEMENT OR EARTH. RIM ELEVATION TO BE SET AS SHOWN ON THE PLANS. IN THE EVENT THAT FIELD CONDITIONS WARRANT A RIM ADJUSTMENT AS DETERMINED BY THE ENGINEER OR THE CITY, THE RIM ELEVATION SHALL BE MODIFIED ACCORDINGLY AT NO ADDITIONAL COST TO THE CITY.



STORM MANHOLE



CONCRETE CRADLE CONDITIONS

a) IF SANITARY OR STORM SEWER PIPE JOINT IS WITHIN PROPOSED IMPROVEMENT TRENCH LIMITS
b) IF CROSSING A WATER LINE AT ANY POINT
c) IF CROSSING SPACE IS LESS THAN MIN. SPACE OF CRADLE BELOW PIPE BOTTOM PLUS "X" DIMENSION THEN OMIT SAND FILL AND USE CONCRETE

"X" DIMENSION REQUIREMENTS:

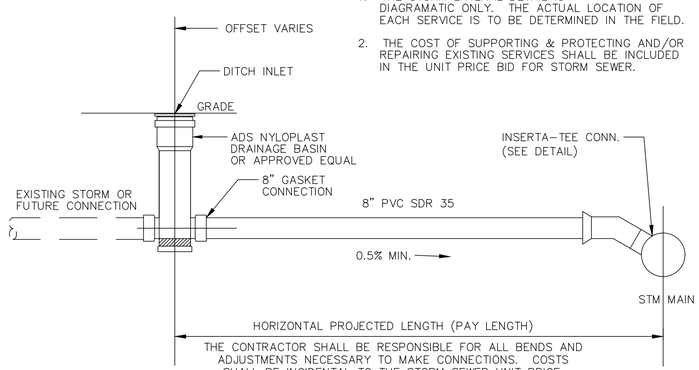
a) 6" FOR WATER LINE CROSSING (ALSO FOR GAS & O.B.T. LINES w/NO CRADLE NEEDED)
b) 18" FOR SANITARY OR STORM SEWER PIPE
c) IF CROSSING SPACE IS MORE THAN MIN. SPACE OF CRADLE BELOW PIPE BOTTOM PLUS AFOREMENTIONED "X" DIMENSION THEN EXTEND "X" DIMENSION TO MAKE UP DIFFERENCE.

PIPE LOWERING DETAIL

NOTE:
THE MAKE AND MODEL OF ALL WATERMAIN/SERVICE APPURTENANCES SHALL BE AS SPECIFIED IN THE MOST CURRENT VERSION OF THE L.C.D.U. RULES AND REGULATIONS SECTION 6, APPROVED MATERIALS- WATER

NOTES

1. THE STORM LATERAL DETAIL IS DIAGRAMATIC ONLY. THE ACTUAL LOCATION OF EACH SERVICE IS TO BE DETERMINED IN THE FIELD.
2. THE COST OF SUPPORTING & PROTECTING AND/OR REPAIRING EXISTING SERVICES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR STORM SEWER.



THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BENDS AND ADJUSTMENTS NECESSARY TO MAKE CONNECTIONS. COSTS SHALL BE INCIDENTAL TO THE STORM SEWER UNIT PRICE.

STORM LATERAL CONNECTION

NO SCALE

your trusted advisor consultants — engineers architects planners

STATE OF OHIO — TIMOTHY R. LANNON 58885 — REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

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15060901	
DRAWING NAME	
DET-2	
SHEET	OF
23	27

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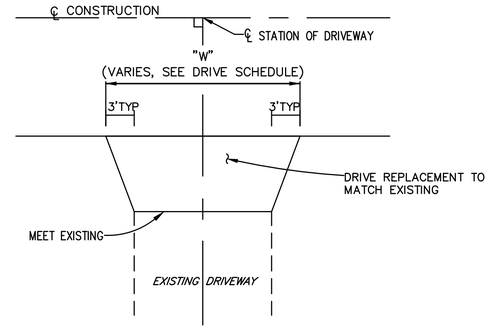
DRIVE APRON REPLACEMENT SCHEDULE

ALIGNMENT	STATION	SIDE	EX. APRON TYPE	AREA SQ.FT.	"W" FT.	TYPE "A" PAVEMENT REPLACEMENT (CONCRETE)	TYPE "C" PAVEMENT REPLACEMENT (ASPHALT)	TYPE "T" PAVEMENT REPLACEMENT (ASPHALT, COMMERCIAL)
RIVER DR.	11+03	LT	ASPHALT	156.1	22.4		156.1	
	11+63	LT	STONE	105.2	16.7		105.2	
	11+98	LT	STONE	74.4	13.1		74.4	
	12+31	LT	STONE	65.9	12.6		65.9	
	12+73	LT	ASPHALT	107.7	20.3		107.7	
	13+44	LT	ASPHALT	110.9	19.4			110.9
	14+36	LT	ASPHALT	159.7	22.1			159.7
	15+59	LT	ASPHALT	103.6	14.3			103.6
	15+79	LT	CONCRETE	99.7	13.0	99.7		
	16+39	LT	CONCRETE	169.8	21.0	169.8		
	16+78	LT	ASPHALT	89.3	12.6		89.3	
	16+93	LT	STONE	76.0	10.2		76.0	
	17+87	LT	ASPHALT	259.2	38.7		259.2	
	18+91	LT	CONCRETE	351.5	54.8	351.5		
	19+35	LT	STONE	94.4	15.1		94.4	
	19+90	LT	STONE	84.5	20.2		84.5	
GALALINA BLVD.	22+01	RT	CONCRETE	227.5	31.8	227.5		
	22+15	LT	CONCRETE	157.0	25.0	157.0		
	23+04	LT	CONCRETE	102.3	17.6	102.3		
	23+40	LT	STONE	119.1	15.0		119.1	
	23+60	LT	CONCRETE	196.7	26.4	196.7		
	29+48	LT	STONE	82.8	18.5		82.8	
FOREST DR.	7+77	RT	STONE	100.8	17.1		100.8	
	8+44	RT	CONCRETE	121.4	23.6	121.4		
	10+20	RT	ASPHALT	112.2	18.6		112.2	
	10+67	RT	STONE	154.5	20.6		154.5	
	11+27	RT	STONE	116.1	16.4		116.1	
	12+00	RT	CONCRETE	156.0	26.6	156.0		
	13+01	RT	STONE	238.7	37.5		238.7	
MATOMA BLVD.	11+46	LT	STONE	149.9	16.3		149.9	
	11+83	LT	STONE	117.6	18.8		117.6	
	12+08	LT	CONCRETE	133.7	21.3	133.7		
	12+44	LT	CONCRETE	108.3	20.5	108.3		
	13+19	LT	ASPHALT	122.6	18.8		122.6	
	13+64	LT	STONE	98.5	16.9		98.5	
	14+02	LT	STONE	65.1	11.6		65.1	
	15+61	LT	CONCRETE	149.7	28.8	149.7		
	16+84	LT	ASPH/STONE	215.8	32.0		215.8	
	17+73	LT	CONCRETE	227.4	36.0	227.4		
	18+28	LT	CONCRETE	70.5	12.2	70.5		
	18+72	LT	CONCRETE	160.5	25.6	160.5		
WANAKA BLVD.	12+58	RT	STONE	186.5	22.2		186.5	
	12+86	RT	ASPHALT	135.8	18.5		135.8	
	13+62	RT	STONE	201.9	21.9		201.9	
	14+52	RT	STONE	223.1	30.6		223.1	
	15+47	RT	CONCRETE	163.1	22.1	163.1		
	15+68	RT	STONE	95.8	15.0		95.8	
	16+55	RT	CONCRETE	167.6	24.2	167.6		
WACOKA DR.	13+01	RT	STONE	146.4	19.9		146.4	
HILLSIDE DR.	10+67	LT	ASPHALT	133.9	29.2		133.9	
HIAWATHA BLVD.	12+63	LT	STONE	113.8	26.6		113.8	
	13+17	LT	STONE	112.3	25.6		112.3	
	13+71	LT	ASPHALT	67.1	16.4		67.1	
	14+69	LT	ASPHALT	81.4	21.5		81.4	
			TOTAL (SQ. FT.)	2,762.7		4,304.4		374.2

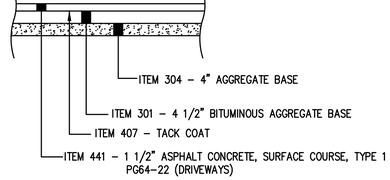
NOTE:
THE LOCATIONS AND DIMENSIONS GIVEN ON THIS SCHEDULE ARE APPROXIMATE. EXACT LOCATIONS AND DIMENSIONS MAY BE REVISED IN THE FIELD BY THE ENGINEER TO BETTER FIT VARYING FIELD CONDITIONS.



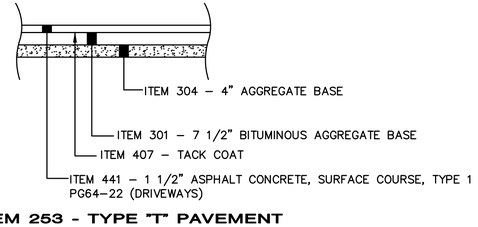
TYPICAL DRIVE REPLACEMENT PLAN
NO SCALE

NOTES:

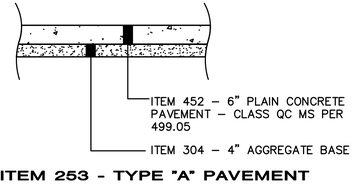
1. CONCRETE DRIVES TO BE REPLACED TO THE NEAREST PAVEMENT JOINT OR AS DIRECTED BY THE ENGINEER.
2. ALL JOINTS SHALL BE FORMED (NOT SAWCUT).
3. THE SURFACE OF ALL DRIVE APRONS, DRIVEWAYS AND SIDEWALKS SHALL HAVE A MEDIUM BROOM FINISH AND WINDOW PANE DOUBLE STRUCK EDGING.



ITEM 253 - TYPE "C" PAVEMENT REPLACEMENT (ASPHALT), DRIVEWAY, APRON OR PARKING LOT, AS PER PLAN
(Residential Asphalt Drives)



ITEM 253 - TYPE "T" PAVEMENT REPLACEMENT (ASPHALT), DRIVEWAY, APRON OR PARKING LOT, AS PER PLAN
(Commercial Asphalt Drives)



ITEM 253 - TYPE "A" PAVEMENT REPLACEMENT (CONCRETE), DRIVEWAY, APRON OR PARKING LOT, AS PER PLAN
(Residential Concrete Drives)

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STATE OF OHIO · TIMOTHY R. LANNON 58885 · REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

DRIVE SCHEDULE

PROJECT NO:	
15060901	
DRAWING NAME	
DS-1	
SHEET	OF
24	27

RESTORATION/SEDIMENTATION AND EROSION CONTROL

1. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES AND OTHER AREAS AS SHOWN ON PLANS SHALL BE PROPERLY RESTORED WITH 4" OF TOPSOIL, SEEDING AND MULCHING PER THE SPECIFICATIONS.

2. IN ALL DISTURBED AREAS THE CONTOURS WILL BE RESTORED IN A MANNER THAT MAINTAINS EXISTING DRAINAGE PATTERNS. FOLLOWED BY SEEDING AND MULCHING. IF, DUE TO WEATHER, FINAL GRADING CANNOT BE ACCOMPLISHED IMMEDIATELY, TEMPORARY SEEDING & MULCHING, WITHIN SEVEN DAYS, WILL BE USED UNTIL FINAL RESTORATION CAN OCCUR.

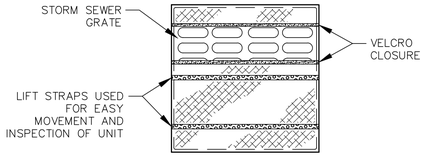
3. SILT FENCING SHALL BE EXTRA STRENGTH SYNTHETIC FILTER FABRIC HAVING A MINIMUM FLOW RATE OF 0.3 GA/SQ.FT/MINUTE AND SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0°F. TO 120°F. SEE STANDARD DETAIL.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING INSPECTIONS OF ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER ALL STORMS THAT PRODUCE MORE THAN ONE-HALF (1/2") INCH TOTAL RAINFALL. ANY NEEDED REPAIRS SHALL BE PERFORMED IMMEDIATELY. THE CONTRACTOR SHALL DOCUMENT ALL INSPECTIONS AND ANY REPAIRS THAT ARE DONE TO MAINTAIN EFFICIENCY.

5. CONTRACTOR SHALL REMOVE DAILY ALL MUD, SOIL AND DEBRIS THAT MAY BE TRACKED ONTO EXISTING STREETS, DRIVES OR WALKS BY HIS EQUIPMENT OR THAT OF SUBCONTRACTORS OR SUPPLIERS.

6. THE INSTALLED EROSION CONTROL FEATURES MUST NOT ACT IN A MANNER THAT CAUSES THE AREA TO FLOOD.

7. THE CONTRACTOR IS TO PLUG ANY OPEN ENDS OF INSTALLED SEWER AND ALL OTHER CONNECTING PIPES NOT PROTECTED BY EROSION CONTROLS, SUCH THAT AGGREGATES DO NOT CLOG THE NEW SEWER SYSTEM OR ENTER THE NEW PUMP STATION.



DANDY BAG (INLET PROTECTION ALTERNATE)

NOT TO SCALE

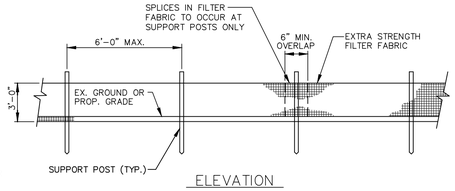
NOTES:

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
3. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.
4. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FEET (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
5. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
6. THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
7. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8 INCHES OF CLOTH ARE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6-INCH-DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.
8. SEAMS BETWEEN SECTION OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.
9. MAINTENANCE – SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.
10. SILT FENCE MATERIALS

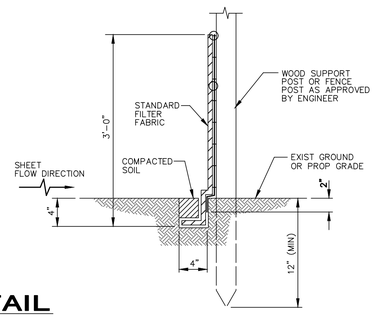
A. FENCE POSTS – THE LENGTH SHALL BE A MINIMUM OF 32 INCHES LONG. WOOD POSTS WILL BE 2 X 2 INCH HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FEET.

B. SILT FENCE FABRIC (SEE CHART BELOW):

FABRIC PROPERTIES	VALUES	TEST METHOD
GRAB TENSILE STRENGTH	90 LB. MINIMUM	ASTM D 1682
MULLEN BURST STRENGTH	190 PSI MINIMUM	ASTM D 3786
SLURRY FLOW RATE	0.3 GAL./MIN./F2 MAXIMUM	
EQUIVALENT OPENING SIZE	40-80	US STD. SIEVE CW-02215
ULTRAVIOLET RADIATION STABILITY	90% MINIMUM	ASTM-G-26



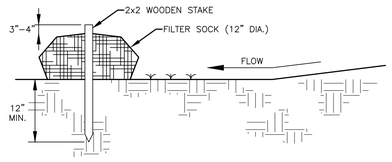
ELEVATION



SECTION

SILT FENCE DETAIL

NOT TO SCALE



MATERIALS – COMPOST USED FOR FILTER SOCKS SHALL BE WEED, PATHOGEN AND INSECT FREE AND FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH. THEY SHALL BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER AND CONSIST OF PARTICLES RANGING FROM 3/8" TO 2".

INSTALLATION:

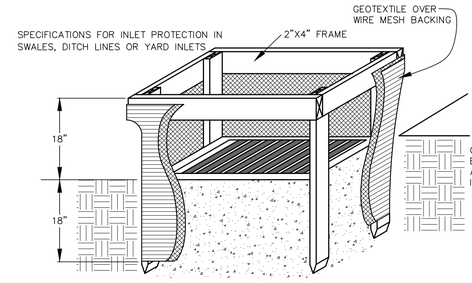
1. FILTER SOCKS WILL BE PLACED ON A LEVEL LINE ACROSS SLOPES; GENERALLY PARALLEL TO THE BASE OF THE SLOPE OR OTHER AFFECTED AREA. ON SLOPES APPROACHING 2:1; ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND AS NEEDED MID-SLOPE.
2. FILTER SOCKS INTENDED TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, SHALL BE SEEDED AT THE TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION.
3. FILTER SOCKS ARE NOT TO BE USED IN CONCENTRATED FLOW SITUATIONS OR IN RUNOFF CHANNELS.

MAINTENANCE:

1. ROUTINELY INSPECT FILTER SOCKS AFTER EACH SIGNIFICANT RAIN, MAINTAINING FILTER SOCKS IN A FUNCTIONAL CONDITION AT ALL TIMES.
2. REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTER SOCKS WHEN THEY REACH 1/3 OF THE EXPOSED HEIGHT OF THE PRACTICE.
3. WHERE THE FILTER SOCK DETERIORATES OR FAILS, IT WILL BE REPAIRED OR REPLACED WITH A MORE EFFECTIVE ALTERNATIVE.
4. REMOVAL – FILTER SOCKS WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED IN SUCH A WAY AS TO FACILITATE AND NOT OBSTRUCT SEEDINGS.

FILTER SOCK (SILT FENCE ALTERNATE)

NO SCALE



SPECIFICATIONS FOR INLET PROTECTION IN SWALES, DITCH LINES OR YARD INLETS

1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
2. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 INCHES.
3. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2-BY-4-INCH CONSTRUCTION-GRADE LUMBER. THE 2-BY-4-INCH POSTS SHALL BE DRIVEN 1 FOOT INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2-BY-4-INCH FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
4. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
5. GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18 INCHES BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
6. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6 INCH LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
7. A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION AND IF RUNOFF BYPASSING THE INLET WILL NOT FLOW TO A SETTLING POND. THE TOP OF EARTH DIKES SHALL BE AT LEAST 6 INCHES HIGHER THAN THE TOP OF THE FRAME.

INLET PROTECTION

NOT TO SCALE

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STATE OF OHIO
TIMOTHY R. LANNON
58885
REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

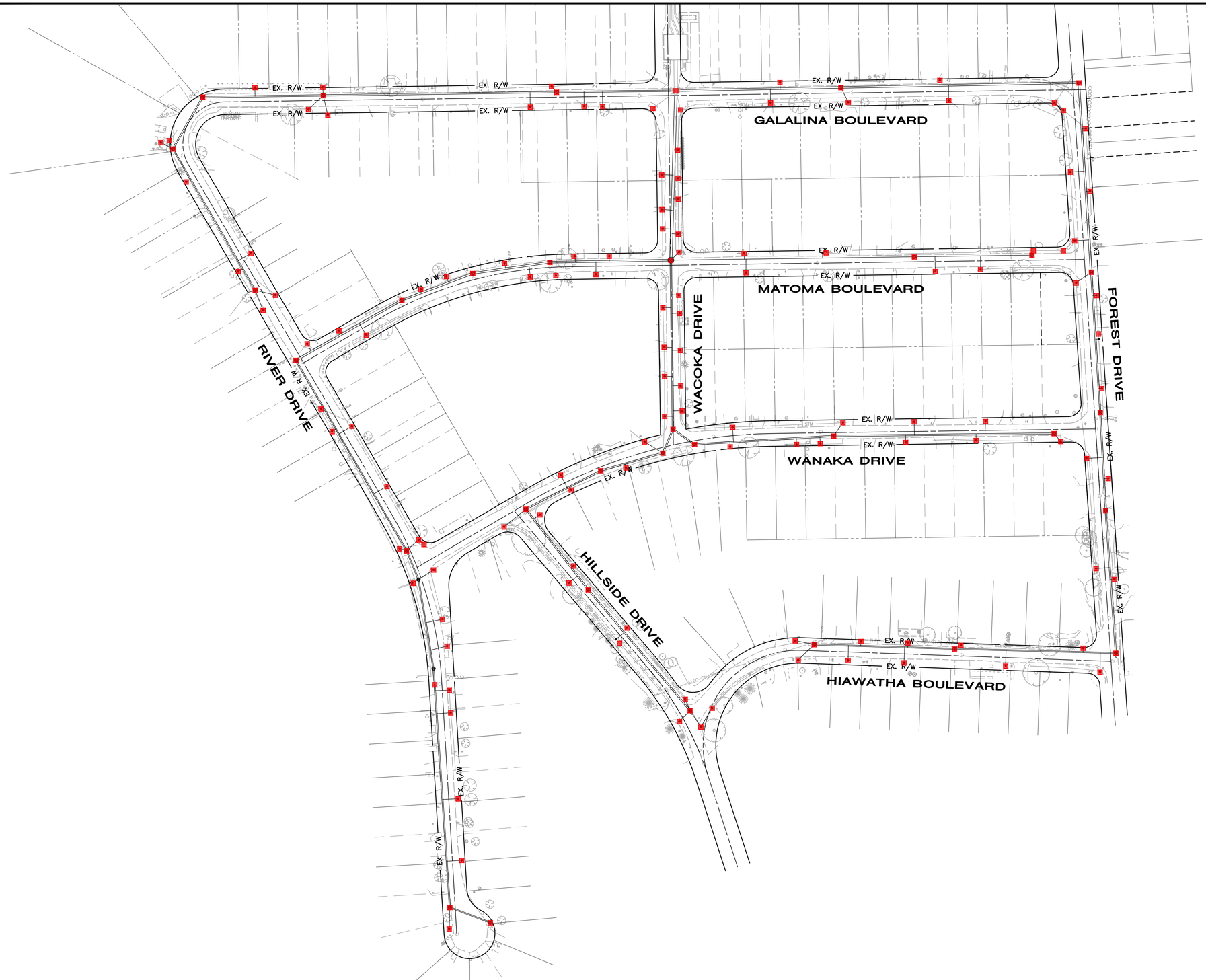
PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

EROSION AND SEDIMENT CONTROL

PROJECT NO:	
15060901	
DRAWING NAME	
ESC-1	
SHEET	OF
25	27



BAR SCALE
60' 30' 0' 60'
SCALE: 1"=60'

LEGEND

INLET PROTECTION

NOTE: CONTRACTOR IS TO PROVIDE INLET PROTECTION ON ALL NEW AND EXISTING CATCH BASINS AND INLET MANHOLES THROUGHOUT THE DURATION OF THE PROJECT.

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STATE OF OHIO
TIMOTHY R. LANNON
58885
REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

EROSION AND SEDIMENT CONTROL

PROJECT NO:	
15060901	
DRAWING NAME	
ESC-2	
SHEET	OF
26	27

BAR SCALE
60' 30' 0' 60'
SCALE: 1"=60'

LEGEND

BASE BID	PAVEMENT REPLACEMENT LIMITS TYPE C PAVEMENT REPLACEMENT (SEE DETAIL)
ALTERNATE A	PAVEMENT REPLACEMENT LIMITS TYPE C PAVEMENT REPLACEMENT (SEE DETAIL)
ALTERNATE B	PAVEMENT REPLACEMENT LIMITS TYPE C PAVEMENT REPLACEMENT (SEE DETAIL)
ALTERNATE C	PAVEMENT REPLACEMENT LIMITS TYPE C PAVEMENT REPLACEMENT (SEE DETAIL)

TOTAL REPLACEMENT AREA

BASE BID = 7,490 SY
ALT. A = 539 SY
ALT. B = 1,090 SY
ALT. C = 913 SY

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STATE OF OHIO
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58885
REGISTERED PROFESSIONAL ENGINEER

NO	REVISION	DATE

THE CITY OF EASTLAKE

PHASE 2: GALALINA AREA STORM SEWER IMPROVEMENTS

LAKE COUNTY, OHIO

SCALE:	AS SHOWN
DATE:	4/30/2020
DESIGNED BY:	TRL
DRAWN BY:	JNS
CHECKED BY:	MPC

PAVEMENT LIMITS

PROJECT NO:	
15060901	
DRAWING NAME	
PL-1	
SHEET	OF
27	27

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