COMMUNITY PARK SITE PREPARATION PROJECT

PROJECT #08-002-006

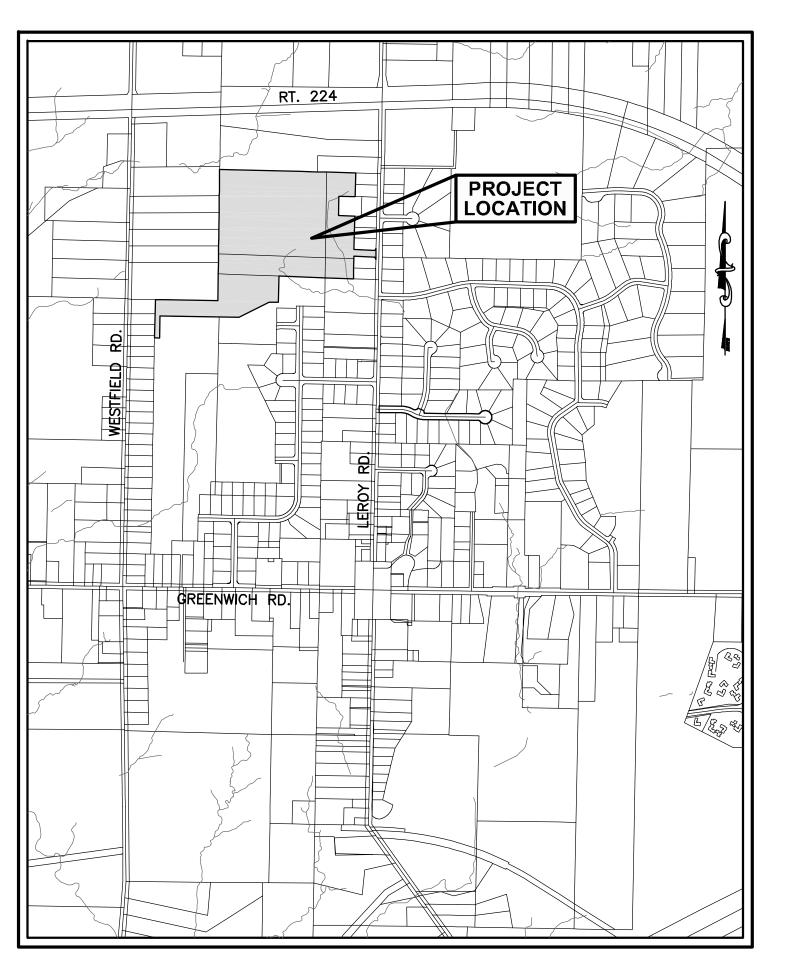
VILLAGE OF WESTFIELD CENTER

MEDINA COUNTY, OHIO

MAY 2010

SHEET INDEX

TITLE SHEET
DEMOLITION PLAN
OVERALL SITE PLAN
PARKING & ENTRANCE PLAN & PROFILE
TYP. SECTIONS, SPOT GRADING & LAYOUT PLAN
STANDARD DETAILS
STORM WATER POLLUTION PREVENTION PLAN
STORM WATER POLLUTION PREVENTION DETAILS



LOCATION MAP

VILLAGE OFFICIALS

THOMAS G. HORWEDEL	.MAYOR
SUSAN L. EWERS	ASURER
WILLIAM HUTSON	IRECTOR
DAVID L. PITSENBARGER	ENDENT

COUNCIL MEMBERS

TERRY BITTNER GREGORY A. OAKES, PRES. PRO TEM
PATRICIA A. EDINGTON RICHARD M. ROBBS
DARRYL CHIDSEY ANITA K. WEAVER

BOARD OF PUBLIC AFFAIRS

KENNETH POWELL, PRESIDENT

WAYNE J. NOALL

APPROVAL

MAYOR,

THOMAS G. HORWEDEL

DATE

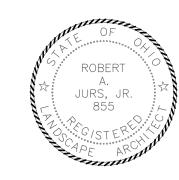
GARY EWERS

TWO WORKING DAYS

BEFORE YOU DIG

Call... 800-362-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS

MUST BE CALLED DIRECTLY



GENERAL

CONSTRUCTION OF THIS PROJECT SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND CONSTRUCTION DRAWINGS, LATEST ODOT STANDARD SPECIFICATIONS INCLUDING ALL CURRENT SUPPLEMENTAL SPECIFICATIONS AND STANDARD DRAWINGS.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON ALL DRAWINGS PRIOR TO PROCEEDING WITH CONSTRUCTION. (FIGURED DIMENSIONS ONLY SHALL BE USED). ANY DISCREPANCY BETWEEN ACTUAL AND GRAPHIC CONDITIONS SHALL BE REPORTED TO THE ENGINEER PRIOR TO PROCEEDING WITH ANY CONSTRUCTION.

ALL WORK CONTEMPLATED SHALL BE GOVERNED BY THE RULES, REGULATIONS AND SPECIFICATIONS OF THE VILLAGE, AND AT ALL TIMES SHALL BE SUBJECT TO THEIR DIRECT SUPERVISION AND

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE INSTALLING ANY PROPOSED PIPE, OR MANHOLES. ANY ADJUSTMENTS SHALL BE APPROVED BY THE ENGINEER.

ANY EXISTING PROPERTY, STRUCTURES OR UTILITY LINES DAMAGED IN OR OUTSIDE OF THE CONSTRUCTION LIMITS DURING THE CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ANY EXISTING SIGNS, MAILBOXES, PAPER BOXES, LANDSCAPE ITEMS OR FENCES DAMAGED DURING CONSTRUCTION OF THIS PROJECT, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL PRESERVE ALL CORNERSTONES, IRON PINS, CONCRETE MONUMENTS, OR ANY OTHER TYPE OF LAND MONUMENT. THE CONTRACTOR SHALL HAVE ALL LAND MONUMENTS IN THE PROXIMITY OF THE WORK REFERENCED. THE CONTRACTOR SHALL REPLACE DESTROYED OR DAMAGED MONUMENTS AND SHALL FURNISH A CERTIFICATION BY A REGISTERED SURVEYOR THAT THE MONUMENTS HAVE BEEN RESTORED.

ALL WORK PERFORMED UNDER THIS CONTRACT SHALL COMPLY WITH THE U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.

THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID TO PERSONALLY ASCERTAIN THE CONDITIONS OF THE WORK.

IT IS THE OBLIGATION AND THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION OF THE SURFACE AND SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS

UPON COMPLETION OF CONSTRUCTION, THE WORK AREA SHALL BE RETURNED AS NEAR AS POSSIBLE TO ITS ORIGINAL CONDITION.

THE CONTRACTOR SHALL WORK WITHIN DESIGNATED STREET RIGHT-OF-WAYS WHILE CONSTRUCTING THIS PROJECT UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

IMMEDIATELY UPON COMPLETION OF THE WORK, ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED BY THE CONTRACTOR AND UNLESS OTHERWISE SPECIFIED WILL REMAIN THE CONTRACTOR'S PROPERTY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ALL MATERIAL TESTING AND ALL PERMITS REQUIRED FOR THIS PROJECT.

THE VILLAGE RESERVES THE RIGHT TO KEEP IN THEIR POSSESSION ANY ITEM BEING DEMOLISHED OR REMOVED AS PART OF THIS CONTRACT. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL MATERIALS THAT ARE REMOVED OR DEMOLISHED AS PART OF THIS CONTRACT.

THE VILLAGE OF WESTFIELD CENTER WILL PAY FOR INSPECTION OF THE PROPOSED WORK.

A PRE-CONSTRUCTION CONFERENCE SCHEDULED BY THE ENGINEER SHALL BE HELD PRIOR TO ANY WORK STARTING. IN ADDITION, THE CONTRACTOR SHALL PROVIDE 48 HOUR NOTICE PRIOR TO BEGINNING WORK TO ARRANGE FOR INSPECTION.

THE STANDARD SPECIFICATIONS OF THE OHIO DEPARTMENT OF TRANSPORTATION, LATEST EDITION, INCLUDING ALL SUPPLEMENTAL SPECIFICATIONS AND STANDARD DRAWINGS, SHALL GOVERN THIS PROJECT. FOR THE PURPOSE OF THIS PLAN, REFERENCES TO DIRECTOR OR ENGINEER SHALL BE CONSTRUED TO MEAN THE DESIGN ENGINEER AND/OR HIS REPRESENTATIVE.

PRIOR TO SUBSURFACE INVESTIGATION OR ON-SITE EXAMINATION OF THE PROJECT, ALL BIDDERS OBTAIN APPROVAL FROM THE VILLAGE AND/OR THE PROPERTY OWNERS.

BEFORE ANY WORK IS STARTED ON THE PROJECT, AND AGAIN BEFORE FINAL ACCEPTANCE BY THE VILLAGE, REPRESENTATIVES OF THE VILLAGE AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE EXISTING SEWERS WITHIN THE WORK LIMITS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTIONS SHALL BE KEPT IN WRITING BY THE VILLAGE.

ALL NEW CONDUITS, INLETS, CATCH BASINS AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE VILLAGE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

SUBSURFACE CONDITIONS:

IT IS THE OBLIGATION AND RESPONSIBILITY OF THE BIDDER TO MAKE HIS OWN INVESTIGATIONS OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL. THE BIDDER MAY EXAMINE THE RECORDS OF ALL BORINGS, TEST EXCAVATIONS AND OTHER SUBSURFACE INVESTIGATIONS, IF ANY, MADE SOLELY FOR DESIGN PURPOSES FOR THE OWNER. SAID BORINGS. TEST EXCAVATIONS AND OTHER SUBSURFACE INVESTIGATIONS ARE NOT WARRANTED TO SHOW THE ACTUAL SUBSURFACE CONDITIONS. THE CONTRACTOR AGREES THAT HE WILL MAKE NO CLAIM AGAINST THE OWNER OR ENGINEER IF, IN CARRYING OUT THE WORK, HE FINDS THAT THE ACTUAL SUBSURFACE CONDITIONS ENCOUNTERED DO NOT CONFORM TO THOSE INDICATED BY SAID BORINGS, OR SHOWN ON THE PLAN, TEST EXCAVATIONS, AND OTHER SUBSURFACE INVESTIGATIONS.

MEASUREMENTS:

POLES, TREES, BUILDINGS, MANHOLES, AND OTHERS INDICATED ON THE PLANS ARE TO THE CENTER OF THE INDICATED OBJECT AND BEING AT RIGHT ANGLES FROM BASELINE STATIONING.

BENCHMARKS:

BENCHMARKS WHICH ARE GIVEN HEREON ARE BASED AS NOTED ON PLANS AND ARE THE BASIS OF THE PROPOSED CONSTRUCTION ELEVATIONS.

ACCESSIBILITY TO PRIVATE PROPERTY:

ACCESS TO ALL DRIVEWAYS AND PARKING AREAS WITHIN THE PROJECT WORK LIMITS SHALL BE MAINTAINED AT ALL TIMES.

THE CONTRACTOR SHALL NOTIFY ALL EMERGENCY AND PUBLIC SERVICES (FIRE DEPT., POLICE DEPT., SHERIFF DEPT., AMBULATORY, SCHOOLS AND THE POST OFFICE) ONE WEEK PRIOR TO ANY ROAD CLOSING OR DETOURS IN CONSIDERATION WITH THE CONSTRUCTION OF THIS CONTRACT. NOTIFICATION SHALL BE BY CERTIFIED LETTER WITH A COPY AND RETURN RECEIPT SUBMITTED TO THE ENGINEER.

SOIL EROSION:

THE CONTRACTOR SHALL IMPLEMENT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AT HIS OWN EXPENSE IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENTATION REGULATIONS OF THE OHIO DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES, AND AS STATED IN THE PROJECT SPECIFICATION.

RIGHTS-OF-WAY

IN ADDITION TO DIRECT REQUIREMENTS OF THE CONTRACT SPECIFICATIONS, THE CONTRACTOR SHALL OBSERVE AND CONFORM TO THE SPECIFIC REQUIREMENTS OF ALL RIGHT-OF-WAY, INCLUDING, BUT NOT LIMITED TO, EASEMENTS, COURT ENTRIES, RIGHT-OF-ENTRY, OR ACTION FILED IN COURT, IN ACCORDANCE WITH THE CODE OF THE APPLICABLE GOVERNING AGENCY. THE COST OF THE OPERATIONS NECESSARY TO FULFILL SUCH REQUIREMENTS SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

ACCESS TO ALL ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING MAIL SERVICE IN THE CONSTRUCTION AREA. PRIOR TO DISTURBING ANY MAIL BOXES, THE CONTRACTOR SHALL CONTACT THE POSTAL AUTHORITIES AND SHALL TEMPORARILY RELOCATE MAIL BOXES IN ACCORDANCE WITH THE REQUIREMENTS THEREOF THE CONTRACTOR SHALL RESTORE MAIL BOXES TO THEIR ORIGINAL CONDITION AND LOCATION. COST OF SAME SHALL BE INCLUDED IN THE UNIT PRICE BID FOR TEMPORARY REMOVAL & RELOCATION OF MAIL BOXES.

PROTECTION OF TREES & SHRUBS

IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXERCISE SPECIAL CARE TO TREES, SHRUBS AND THEIR ROOT SYSTEM. MACHINE EXCAVATION SHALL NOT BE USED WHEN, IN THE OPINION OF THE ENGINEER, IT WOULD ENDANGER TREE ROOTS. IN GENERAL, WHERE THE LINE OF TRENCH FALLS WITHIN THE LIMITS OF THE LIMB SPREAD, THE LEAVING OF HEADERS ACROSS THE PROTECT ROOTS WILL BE REQUIRED. THE OPERATION OF ALL EQUIPMENT, PARTICULARLY WHEN EMPLOYING BOOMS, THE STORAGE OF MATERIALS, AND THE DEPOSITION OF EXCAVATION, SHALL BE CONDUCTED IN A MANNER WHICH WILL NOT INJURE TREES, SHRUBS, TRUNKS, BRANCHES, OR THEIR TREE ROOTS UNLESS SUCH TREES & SHRUBS ARE DESIGNATED BY THE ENGINEER FOR REMOVAL.

UTILITY CROSSINGS

AT ALL UTILITY CROSSINGS, THE BACKFILL SHALL CONSIST OF COMPACTED GRANULAR MATERIAL BETWEEN THE DEEPER AND SHALLOWER PIPE. WHERE PROPOSED UTILITIES OR SERVICES CROSS PROPOSED OR EXISTING PAVEMENT AREAS, BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS.

DRIVEWAY CULVERTS AND PIPING

ALL CULVERTS AND ASSOCIATED STORM PIPING THAT IS DISTURBED DURING CONSTRUCTION SHALL BE REMOVED. ALL CONNECTIONS TO THE EXISTING STORM SYSTEM SHALL BE RECONNECTED TO THE NEW STORM SEWER.

PAVEMENT AND APRON REPLACEMENT

PARKING AREAS AND DRIVEWAYS SHALL BE REPLACED IN ACCORDANCE WITH THE SPECIFICATIONS. PAYMENT WILL BE MADE UNDER THE APPROPRIATE PAVEMENT REPLACEMENT ITEMS.

CATCH BASINS AND INLETS REMOVED OR ABANDONED

THE CASTINGS SHALL BE CAREFULLY REMOVED AND STORED WITHIN THE RIGHTS-OF-WAY FOR SALVAGE BY VILLAGE FORCES FOR ALL MANHOLES CATCH BASINS AND INLETS REMOVED OR ABANDONED.

CONSTRUCTION NOISE

IN ORDER TO MINIMIZE ADVERSE CONSTRUCTION NOISE IMPACTS, NO POWER-OPERATED CONSTRUCTION TYPE DEVICE SHALL BE OPERATED BETWEEN THE HOURS OF 10:00 P.M. TO 6:00 A.M. IN ADDITION, NO POWER—OPERATED CONSTRUCTION TYPE DEVICE SHALL BE OPERATED IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST, DIRT AND MUD DUE TO CONSTRUCTION IN THE PROJECT AREA DURING THE LIFE OF THE PROJECT. DUST CONTROL OPERATIONS SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH ITEM 616 OF THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT), CONSTRUCT AND MATERIALS SPECIFICATIONS. PAYMENT FOR DUST CONTROL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE VARIOUS SIZES OF SEWER LINE.

PROPERTY PINS

ALL PROPERTY PINS OR MONUMENTS WHICH ARE REMOVED OR DISTURBED DURING CONSTRUCTION SHALL BE REPLACED IN THE SAME LOCATION THEY OCCUPIED PRIOR TO CONSTRUCTION. THE COST OF REPLACING PROPERTY PINS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201 CLEARING AND GRUBBING. THIS WORK SHALL BE COMPLETED BY A PROFESSIONAL SURVEYOR REGISTERED IN THE STATE OF OHIO.

<u>SCHEDULE</u>

THE CONTRACTOR SHALL SUBMIT A TENTATIVE SCHEDULE OF THE VARIOUS PHASES OF WORK TO THE ENGINEER AND THE VILLAGE BEFORE STARTING CONSTRUCTION. SAID SCHEDULE SHALL BE BROUGHT UP TO DATE WEEKLY.

DEWATERING

IF IT IS NECESSARY FOR ANY EXCAVATION TO BE DEWATERED, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO DEWATER SAID EXCAVATION AT NO ADDITIONAL COST TO THE VILLAGE. THE METHOD OF DEWATERING SHALL BE APPROVED BY THE ENGINEER PRIOR TO DEWATERING. ALSO ANY REQUIRED TEMPORARY PLUMBING OF SEWAGE FLOW REQUIRED TO CONSTRUCT THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE VILLAGE. SEWER FLOW SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. UNDER NO CIRCUMSTANCES SHALL SANITARY SEWER FLOWS BE DISCHARGED ONTO THE GROUND OR STREET SURFACE, OR INTO ANY CATCH BASIN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKES REQUIRED.

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 AP-PROVING AGENCIES AND THE CONSULTING ENGINEER.

ALL SANITARY SEWERS AND LATERALS RUNNING UNDERNEATH PAVEMENT SHALL BE BACKFILLED WITH GRANULAR MATERIAL IN 6" LIFTS AND COMPACTED WITH A VIBRATORY-PLATE COMPACTOR.

CONTRACTOR SHALL INCLUDE COST OF GRANULAR BACKFILL UNDER ALL EXISTING AND PROPOSED PAVEMENTS IN PRICE BID PER LINEAR FOOT OF PIPE.

STANDARD CONSTRUCTION DRAWINGS

WHEREVER IN THE CONTRACT DOCUMENTS REFERENCE IS MADE TO CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CURRENT EDITION, THE PROVISIONS OF THE REFERENCED ITEM SHALL HAVE THE FULL FORCE AND EFFECT AS OF REPRODUCED HEREIN IN THEIR ENTIRETY. HOWEVER, THE METHOD OF MEASUREMENTS, BASIS OF PAVEMENTS AND PAY ITEMS SHALL BE DIRECTED IN THE MATERIAL SPECIFICATIONS OR BID PROPOSAL FORMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HIS OWN COPY OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESETTING ANY BENCH MARKS WHICH MAY BE DISTURBED DURING CONSTRUCTION.

MATERIAL TESTING AND PERMITS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ALL MATERIAL TESTING AND ALL PERMITS REQUIRED FOR THIS PROJECT.

IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVES-TIGATIONS OF SURFACE AND SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

UTILITIES AND PUBLIC SERVICE CORPORATIONS:

THE CONTRACTOR SHALL NOTIFY AT LEAST TWO WORKING DAYS BEFORE BREAKING GROUND ALL PUBLIC SERVICE CORPORATION, REGISTERED UNDERGROUND UTILITY PROTECTION SERVICE MEMBERS AND/OR NON-MEMBER OWNERS HAVING WIRE, POLES, PIPES, CONDUITS, OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION.

THE CONTRACTOR SHALL CALL OHIO UTILITIES PROTECTION SERVICE 1-800-362-2764 BEFORE DIGGING.

UTILITY COMPANY VERIFICATION

THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF THE UTILITY OR STRUCTURE AND ITS EFFECT ON THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE UTILITY COMPANIES.

GAS SERVICE LINES, ELECTRIC, TELEPHONE, AND CABLE LINES MAY NEED TO BE LOWERED ON ARLINGTON DRIVE DUE TO THE PROPOSED CEMENT STABILIZED SUBGRADE WORK ON THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING THESE POTENTIAL UTILITY RELOCATIONS BEFORE WORK BEGINS. ALL COSTS AND DELAYS ASSOCIATED WITH THIS WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.

A. THE UTILITIES WITHIN THE LIMITS OF THIS PROJECT ARE:

COLUMBIA GAS OF OHIO 7080 FRY ROAD MIDDLEBURG HEIGHTS, OHIO 44130 PHONE: 440/891-2428

OHIO EDISON/FIRST ENERGY 6326 LAKE AVE. ELYRIA, OHIO 44035 PHONE: 330/326-3207 ATT: NATALIE CAMP

6223 NORWALK RD. MEDINA, OHIO 44256 PHONE: 330/933-9216 ATT: BRENT FIALA

GATHERCO, INC. 5772 DRESSLER ROAD NW NORTH CANTON, OHIO 44720 PHONE: 330/498-9553

ATT: DAVE ROUSH

P.O. BOX 75

VILLAGE OF WESTFIELD CENTER

WESTFIELD CENTER, OHIO 44251

PHONE: 419/756-6091 - EXT. 5136

PHONE: 330/887-5151

TIME WARNER CABLE

1575 LEXINGTON AVE

MANSFIELD, OHIO 44901

MEDINA COUNTY SANITARY ENGINEER (COUNTY WATER) 791 W. SMITH ROAD MEDINA, OHIO 44256 PHONE: 330/723-9585

SANITARY SEWERS:

PIPE MATERIAL FOR SANITARY SEWERS SHALL BE PVC SDR 35 GRAVITY SEWER PIPE, (ASTM D-3034, D-3212) (REFER TO PLAN)

ALL SANITARY SEWERS MUST HAVE PREMIUM JOINTS.

NO SANITARY MANHOLES AND PREFERABLY NO SANITARY CONNECTIONS ARE TO BE CONSTRUCTED IN SIDEWALKS AND/OR DRIVEWAYS.

DEFLECTION TESTING, VIDEO TAPING AND AIR TESTING IN ACCORDANCE WITH ASTM F-1417 AND ASTM C-1244 SHALL BE REQUIRED. THE MAXIMUM ALLOWABLE DEFLECTION FOR FLEXIBLE PIPE IS 5%.

CLEAN WATER CONNECTIONS TO THE SANITARY SEWER WILL NOT BE PERMITTED.

OPEN TRENCHES

THE CONTRACTOR SHALL MAINTAIN TYPE 11 BARRICADES OR STANDARD TRAFFIC BARRELS AT 50-FOOT INTERVALS ALONG UNPROTECTED TRENCHES. ALL AREAS SHALL BE RETURNED TO NORMAL TRAFFIC CONDITIONS AT THE END OF EACH WORK DAY. FENCES MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER TO PROTECT PEDESTRIAN TRAFFIC.

IF A SANITARY M.H. IS PLACED IN A DITCH. THE DITCH SHALL BE RELOCATED AROUND THE MANHOLE TO MAINTAIN FLOW IN THE DITCH.

STORM SEWERS:

PIPE MATERIAL FOR STORM SEWERS SHALL BE TYPE B CONDUIT ITEM 706.02 AND AS SHOWN ON THESE PLANS.

ALL FIELD TILE ENCOUNTERED SHALL BE TIED INTO STORM SEWER. ANY FIELD TILE INTERCEPTED BY OTHER EXCAVATIONS SHALL BE RECONNECTED.

CONNECTIONS TO EXISTING PIPE

WHERE THE PLANS PROVIDE FOR PROPOSED CONDUIT TO BE CONNECTED TO OR TO CROSS EITHER OVER OR UNDER AN EXISTING PIPE, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED CONDUIT. PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT 603 CONDUIT ITEMS.

ALL OPEN END EXISTING STORM SEWER PIPE ABANDONED IN PLACE SHALL BE PLUGGED. THE COST OF SUCH PIPE PLUGGING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS UNDER THIS CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE.

LOCATION OF SANITARY SEWER LATERALS, DOWNSPOUT LINES AND WATER SERVICE LINES ARE APPROXIMATE. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXACT LOCATION AND NUMBER IN THE FIELD AND ASSURE THAT ALL UTILITY LINES ARE RECONNECTED. THE COST OF LOCATING LINES SHALL BE INCLUDED WITH THE UNIT PRICE BID FOR THE VARIOUS TYPES AND SIZES OF PIPE.

HOUSE CONNECTIONS

EXISTING ROOF DRAINS, FOOTER DRAINS OR YARD DRAINS, DISTURBED BY THE PROPOSED WORK SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS BY CONNECTING TO A STORM SEWER, DRAINAGE DITCH, MANHOLE OR CATCH BASIN.

ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

THE LOCATION, TYPE, SIZE AND GRADE OF REQUIRED REPLACEMENTS WILL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION. ALL KNOWN DRAINS ARE SHOWN ON THE PLAN SHEETS.

ITEM 604 CATCH BASINS

WHERE VILLAGE OF WESTFIELD CENTER SINGLE AND DOUBLE CATCH BASINS ARE CALLED FOR IN THE PLAN, IT MEANS RESPECTIVELY, STANDARD NO. 3A AND STANDARD NO. 3 MODIFIED PER PLAN.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT, AND AGAIN BEFORE FINAL ACCEPTANCE BY THE VILLAGE, REPRESENTATIVES OF THE VILLAGE AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTIONS SHALL BE KEPT IN WRITING BY

ALL NEW CONDUITS, INLETS, CATCH BASINS AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE VILLAGE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE PERTINENT 603 CONDUIT ITEMS OF THE CONTRACT.

PAVEMENT NOTES

FOOT IN LENGTH.

ALL PAVEMENT DETAILS, MATERIALS, AND WORKMANSHIP SHALL CONFORM TO THE LATEST STATE OF OHIO DEPARTMENT OF TRANSPORTATION "CONSTRUCTION AND MATERIALS SPECIFICATIONS", OR AS MODIFIED BY THE CONTRACT DRAWINGS OR THE SPECIFICATIONS. IN THE EVENT OF A DISCREPANCY, THE CONTRACT DRAWINGS SHALL SUPERSEDE THE ODOT SPECIFICATIONS.

TRAFFIC SHALL NOT BE EXPOSED TO LONGITUDINAL VERTICAL FACES DURING NON-WORKING HOURS.

TRANSVERSE VERTICAL FACES SHALL BE TEMPORARILY RAMPED A MINIMUM OF 10

ALL CASTINGS SHALL BE ADJUSTED TO GRADE PRIOR TO THE PLACEMENT OF THE CONCRETE

ALL WATER METER MANHOLES AND VALVES SHALL BE ADJUSTED TO GRADE BY THE USE OF ADJUSTING RINGS.

MAINTAINING TRAFFIC

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, SATISFACTORY BARRIERS, LIGHTING, FLAG MEN, TEMPORARY GUARDRAIL, AND SUCH OTHER TRAFFIC CONTROL DEVICES AS PROVIDED IN OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS SO AS TO AVOID DAMAGE AND/OR INJURY TO VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION.

PAYMENT FOR LABOR AND EQUIPMENT REQUIRED FOR THE CONSTRICTION, MAINTENANCE AND SUBSEQUENT REMOVAL OF APPROACHES, CROSSOVERS, DRIVEWAYS, BARRICADES, LIGHTS, SIGNS, AND SIGN SUPPORTS, SHALL BE INCLUDED IN THE PRICE BID FOR 7" O.D.O.T. ITEM 452

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. A MINIMUM OF ALTERNATING ONE WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL UTILIZE FLAGGERS DURING LANE CLOSURES. TRAFFIC SHALL BE MAINTAINED, AS SHOWN IN O.D.OT. STANDARD CONSTRUCTION DRAWING MT-97.10.

ALL VILLAGE STREETS SHALL HAVE A MINIMUM OF ONE 11' LANE MAINTAINED AT ALL TIMES. DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES TO ALLOW ACCESS BY LOCAL TRAFFIC.

<u>SAWED JOINTS</u>

IN REMOVING FLEXIBLE OR RIGID PAVEMENT, DRIVES, SIDEWALK AND PARKING LOTS, ETC., A NEAT JOINT WITH A MINIMUM DEPTH OF FOUR (4) INCHES SHALL BE CUT WITH AN APPROVED POWER SAW. THE COST OF THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT ITEM.

<u>CONCRETE</u>

LIMESTONE AGGREGATE SHALL BE USED IN THE PORTLAND CEMENT CONCRETE FOR PAVEMENT, CURBS AND SIDEWALKS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION SIGNING AND TRAFFIC CONTROL AS DIRECTED BY THE PLANS AND THE ENGINEER. ALL WORK, SIGN LAYOUTS, AND MATERIALS USED SHALL CONFORM TO THE SPECIFICATIONS SET FORTH IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC MAINTENANCE AND SAFETY CONTROL DEVICES DURING ALL CONSTRUCTION WORK AS PER THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

BEFORE OPENING THE ROAD TO TRAFFIC AND THE FINAL INSPECTION OF THE PROJECT.

STOP SIGNS, TRAFFIC CONTROL SIGNS, AND STREET IDENTIFICATION SIGNS SHALL BE INSTALLED



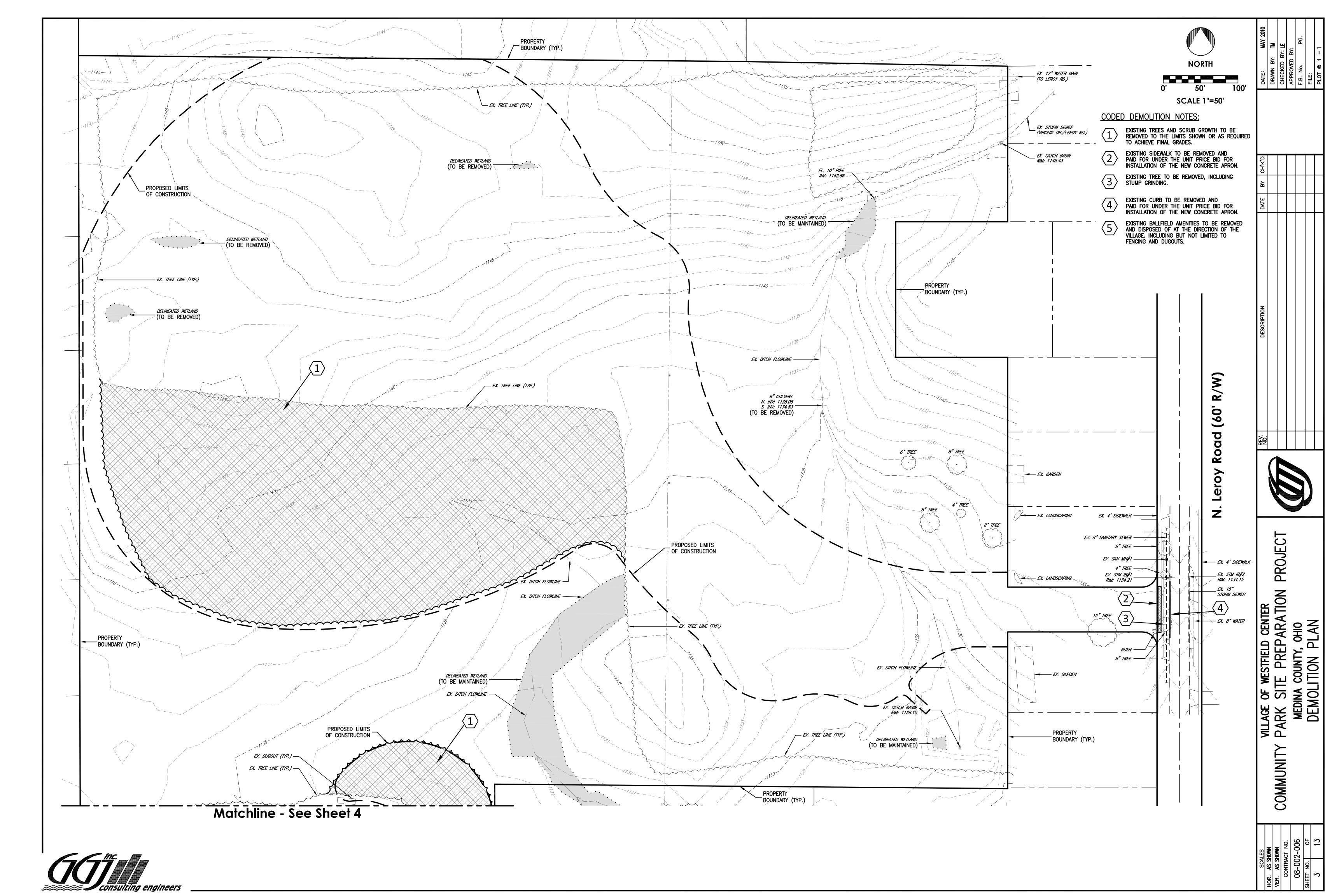


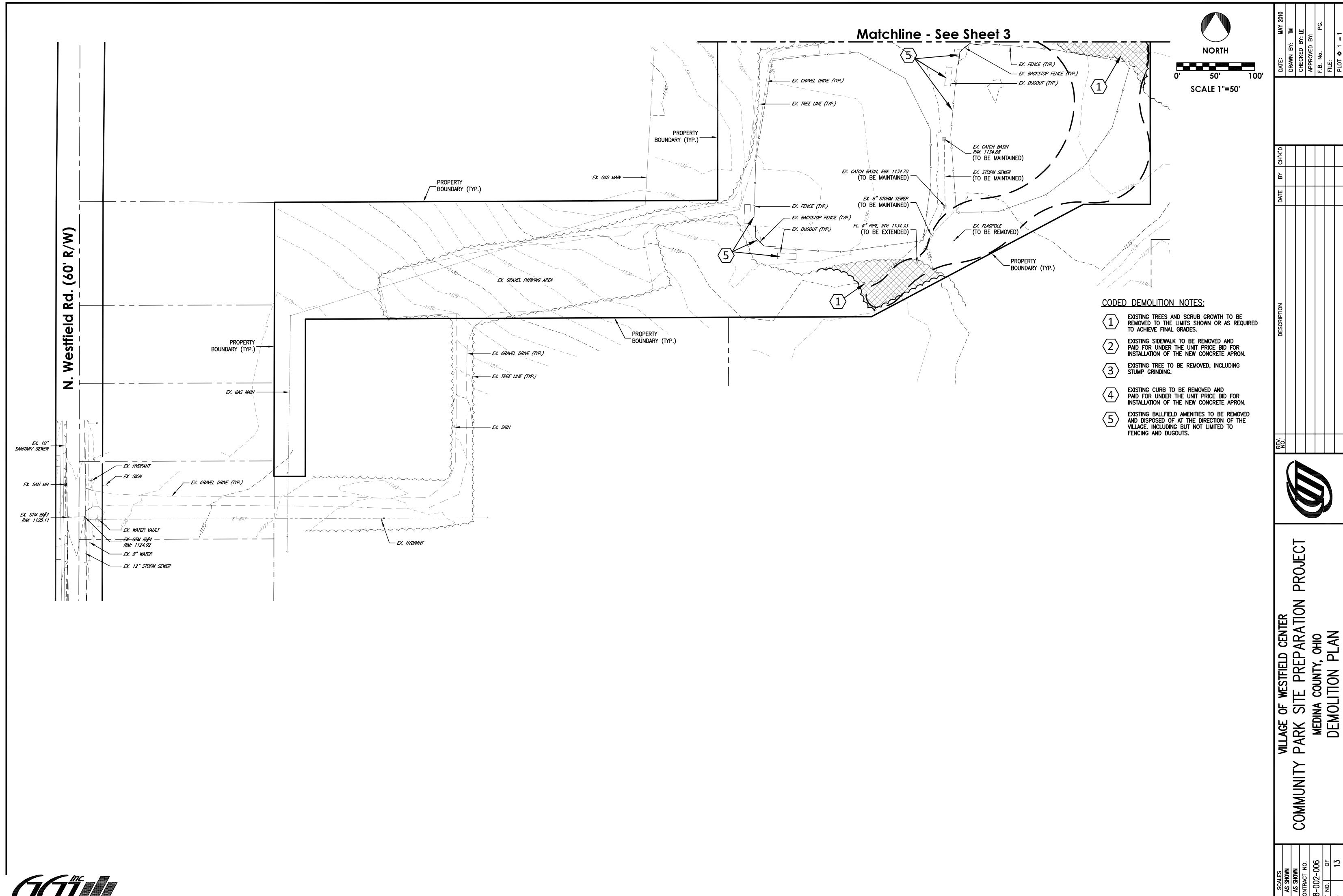
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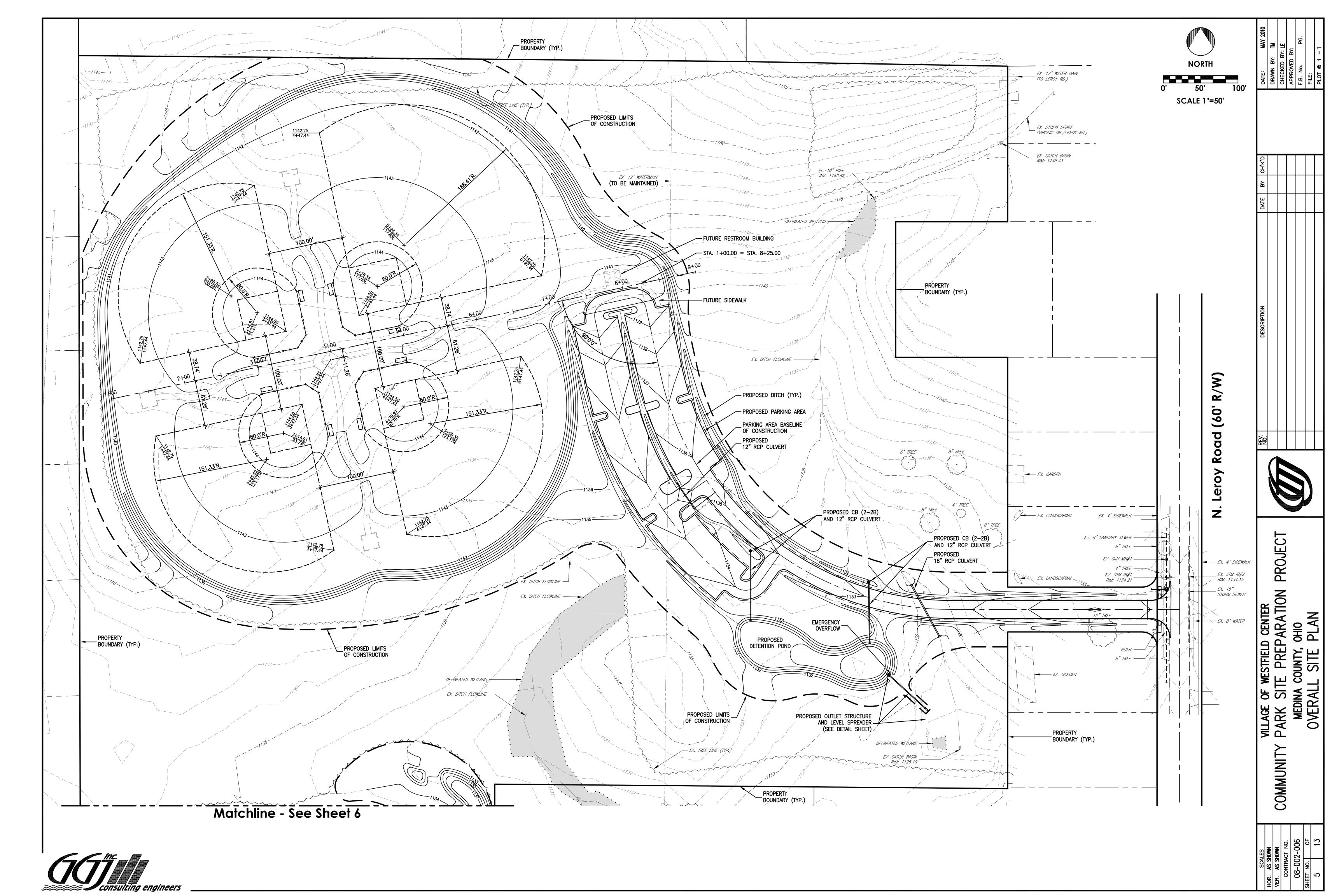
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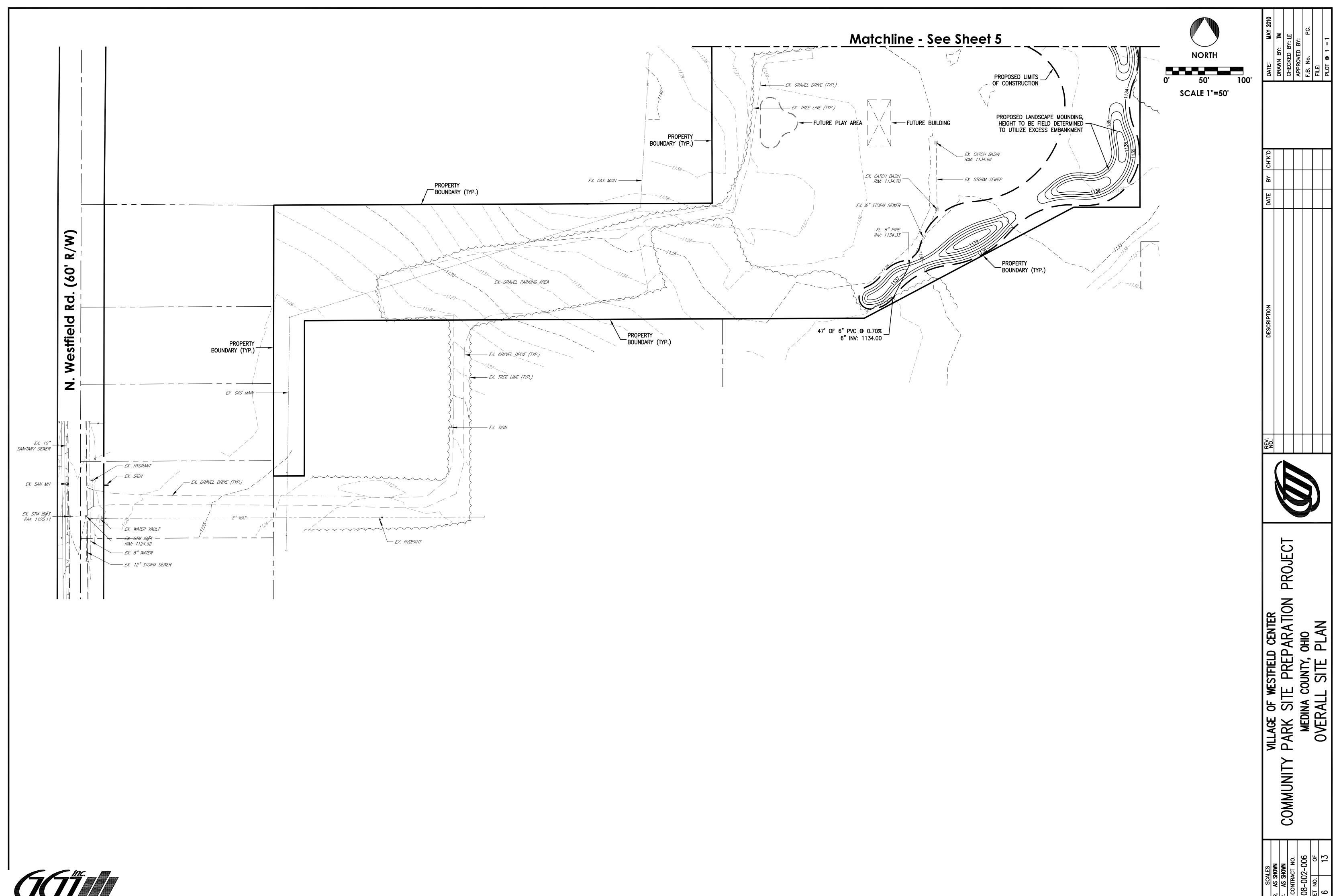
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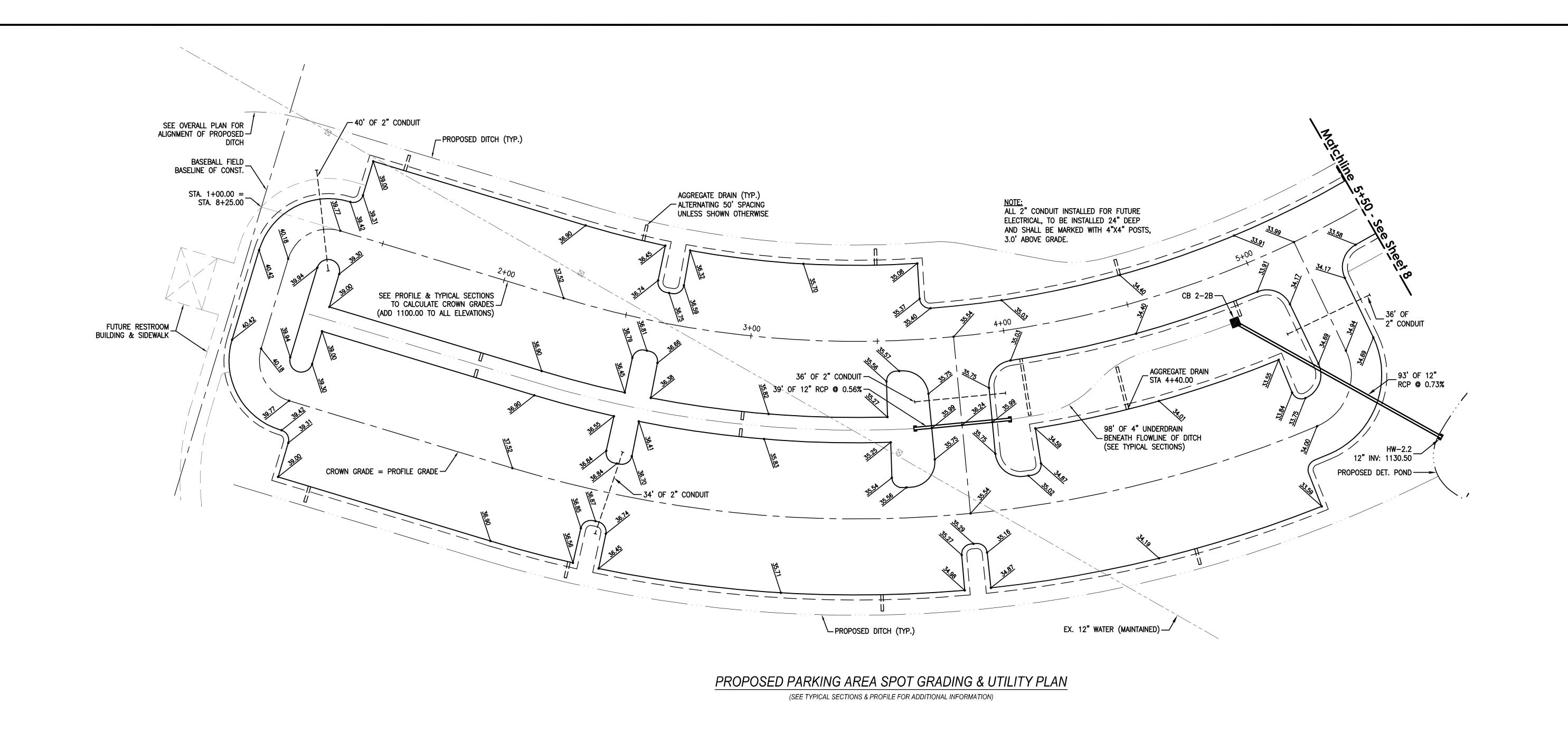


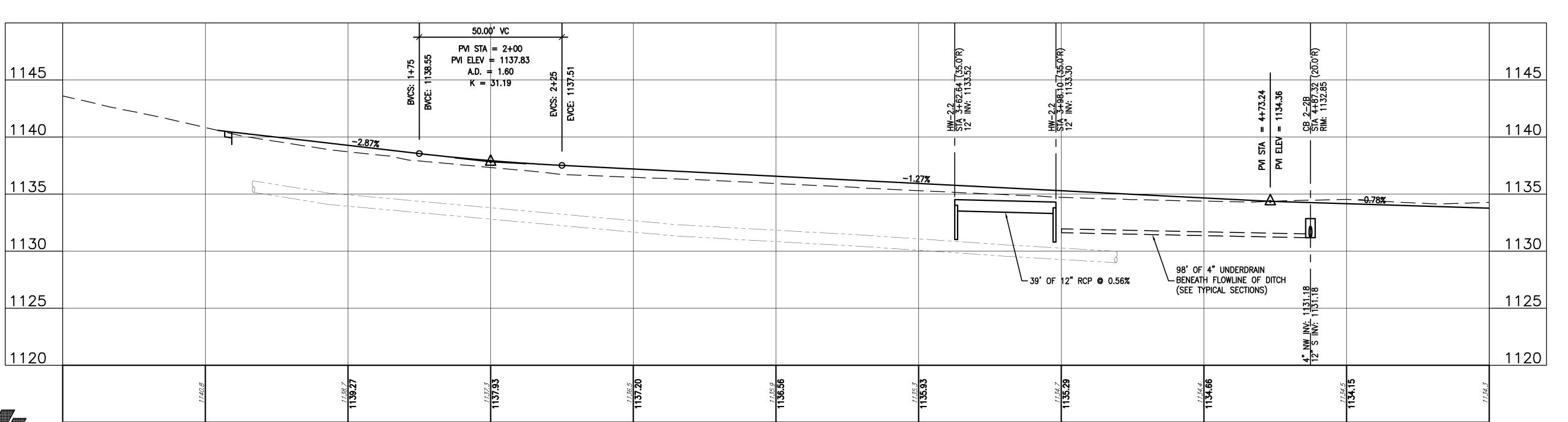












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VILLAGE OF WESTFIELD CENTER

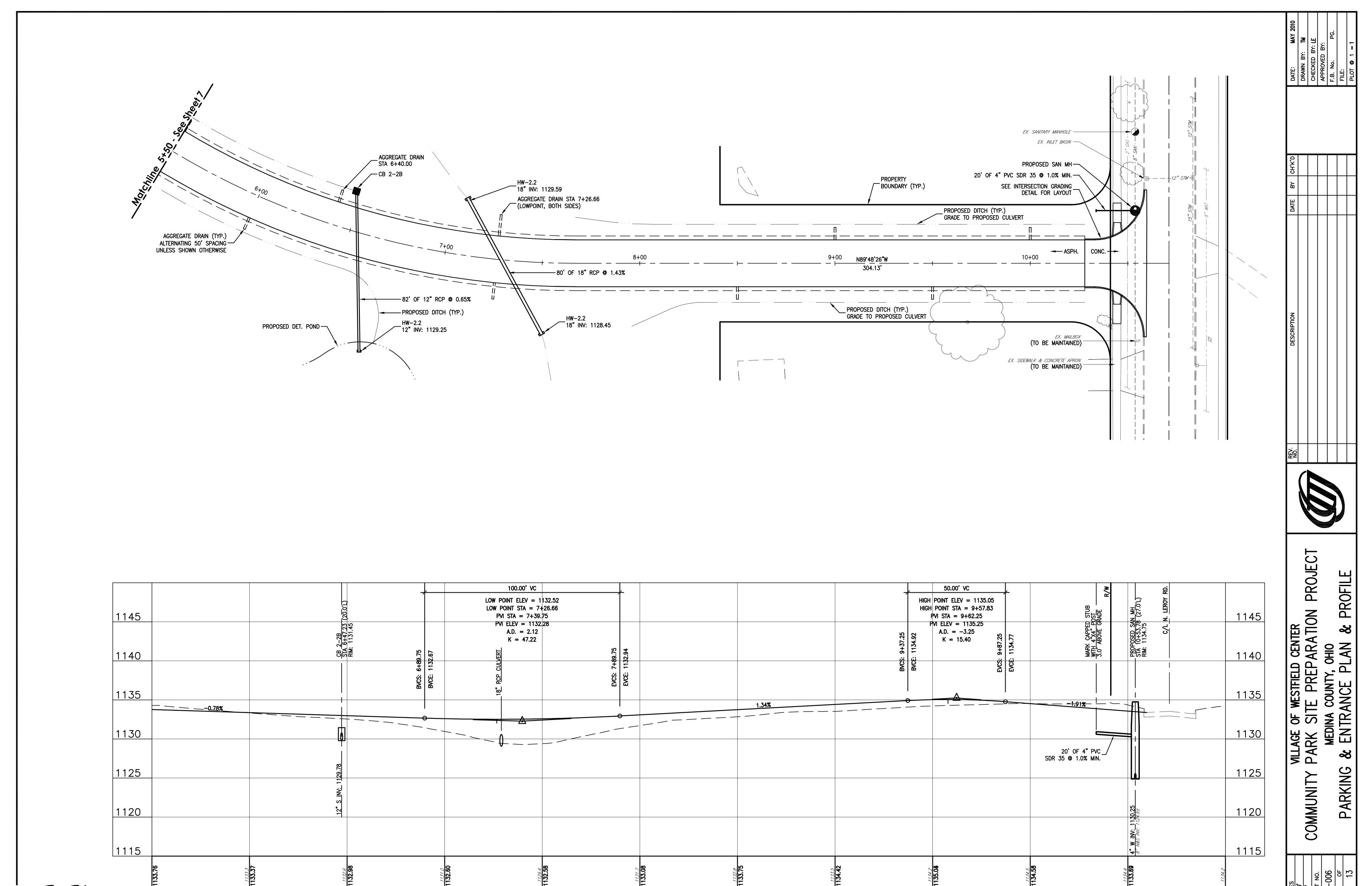
PARK SITE PREPARATION F

MEDINA COUNTY, OHIO

& ENTRANCE PLAN & PRC

& PROFILE

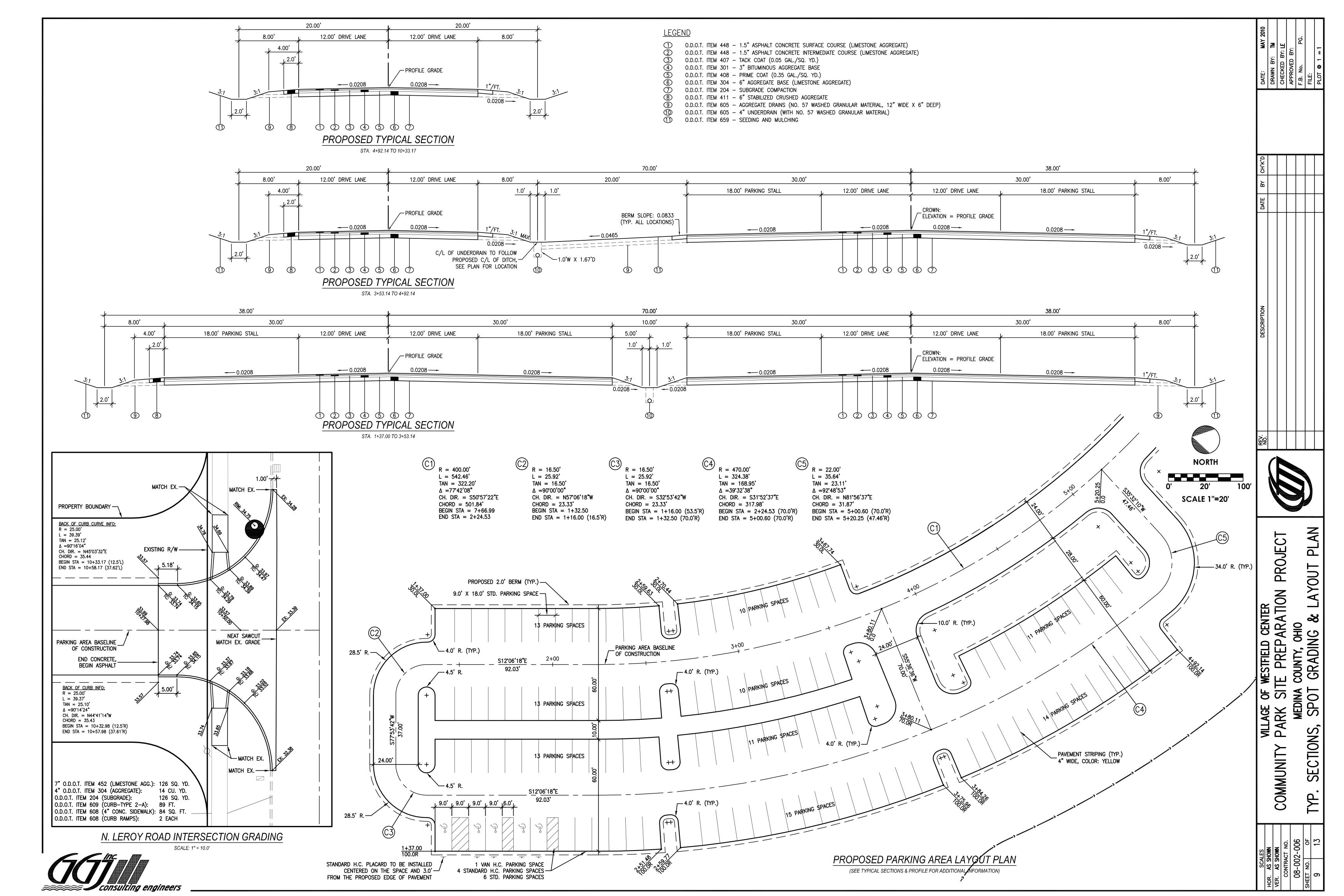
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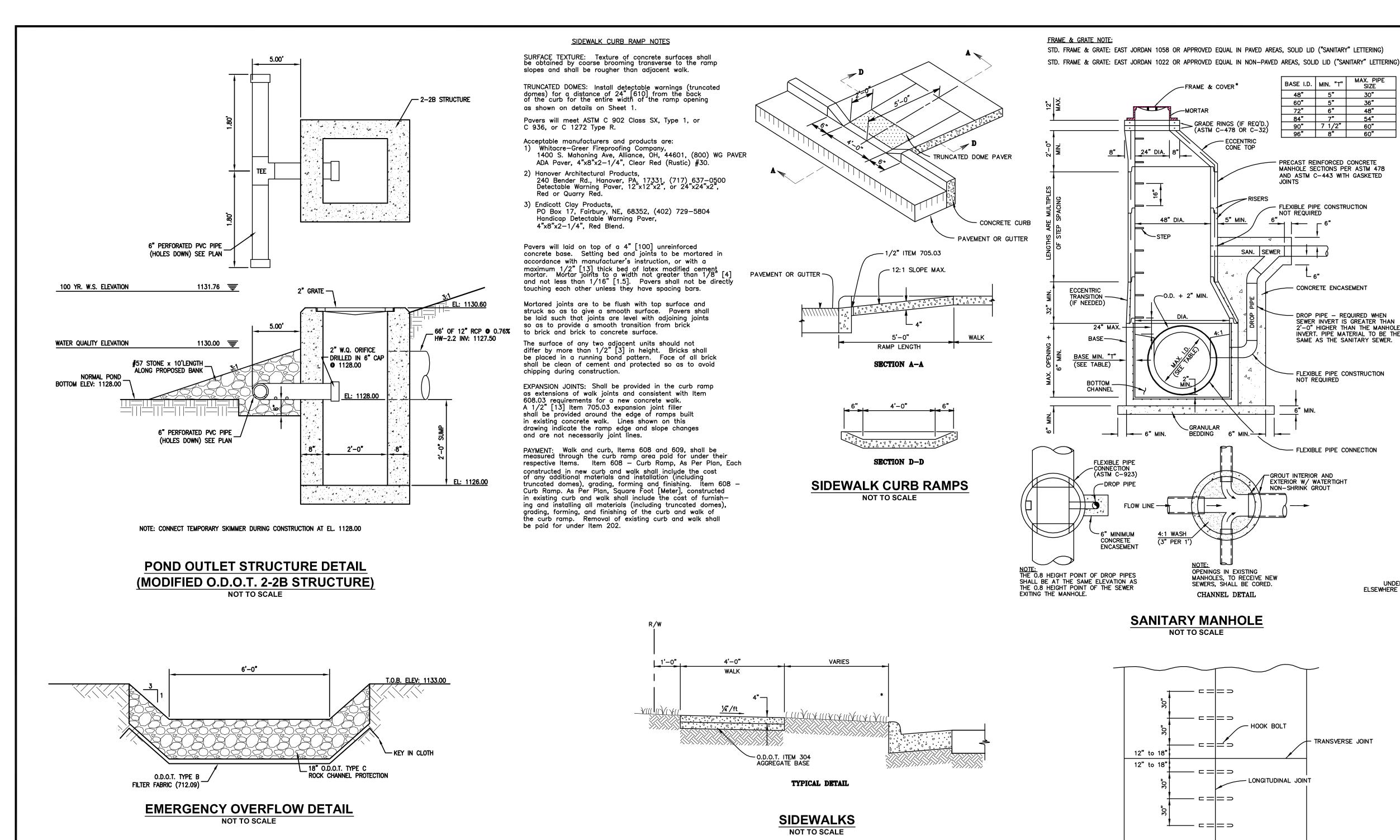


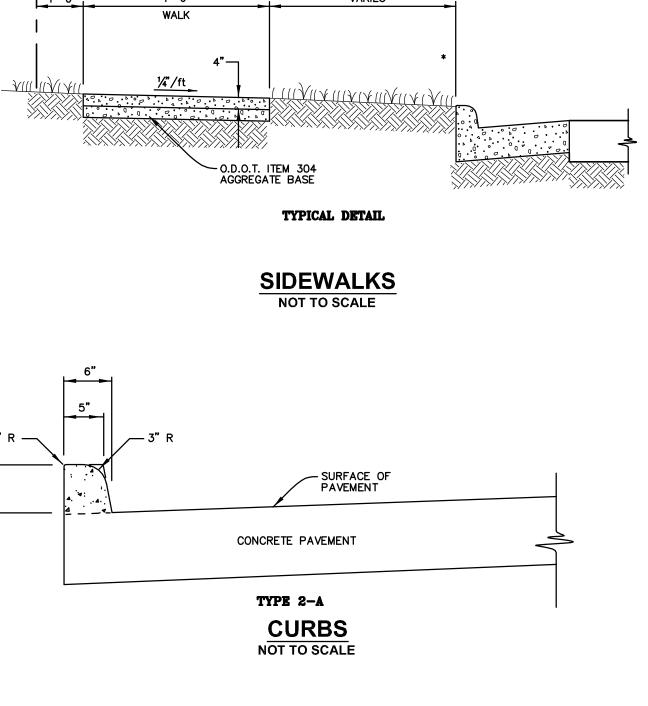
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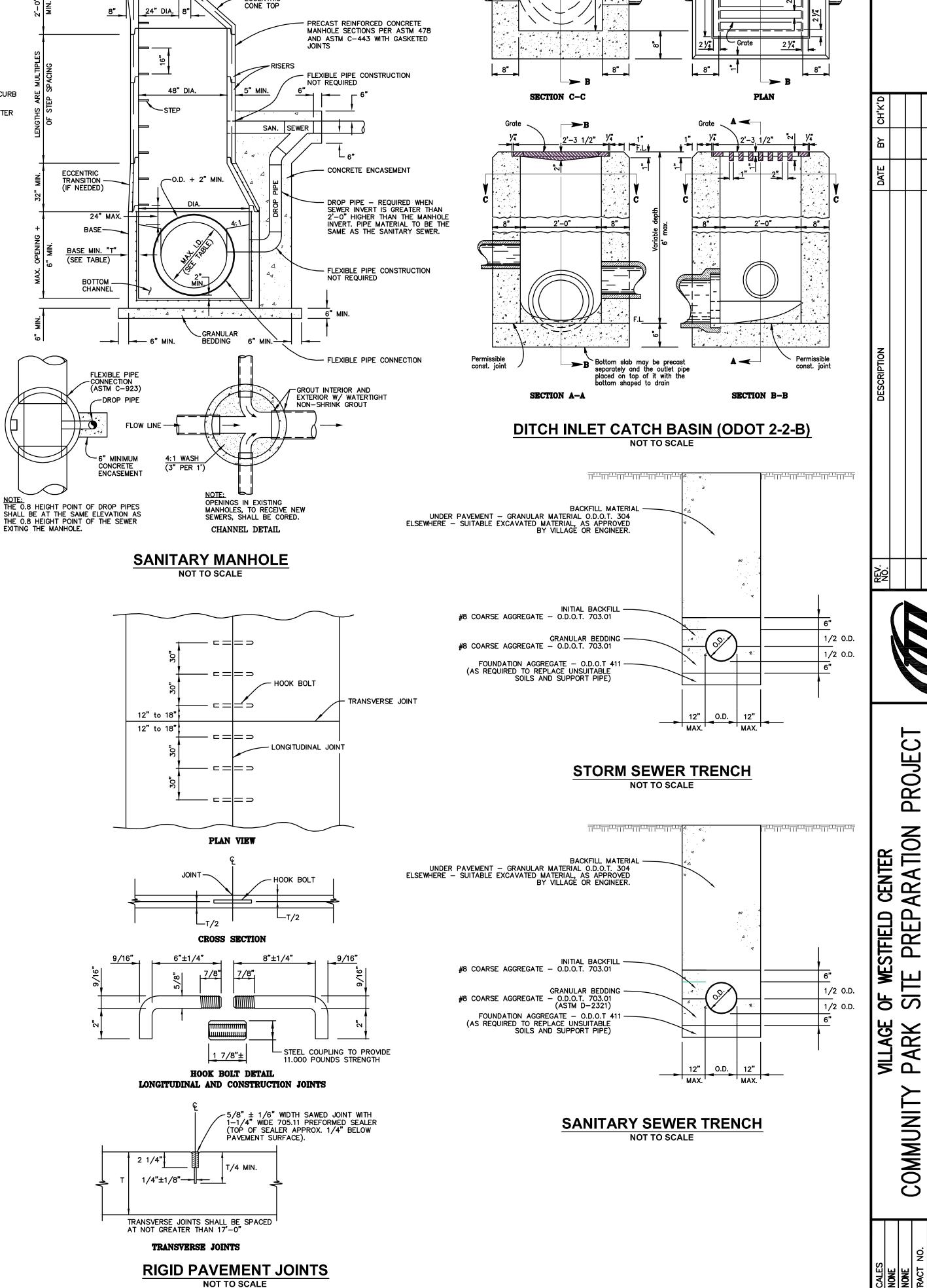
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BASE I.D. MIN. "T"

-FRAME & COVER*

GRADE RINGS (IF REQ'D.)
(ASTM C-478 OR C-32)

-MORTAR

All grate edges to be rounded 1/4"radii

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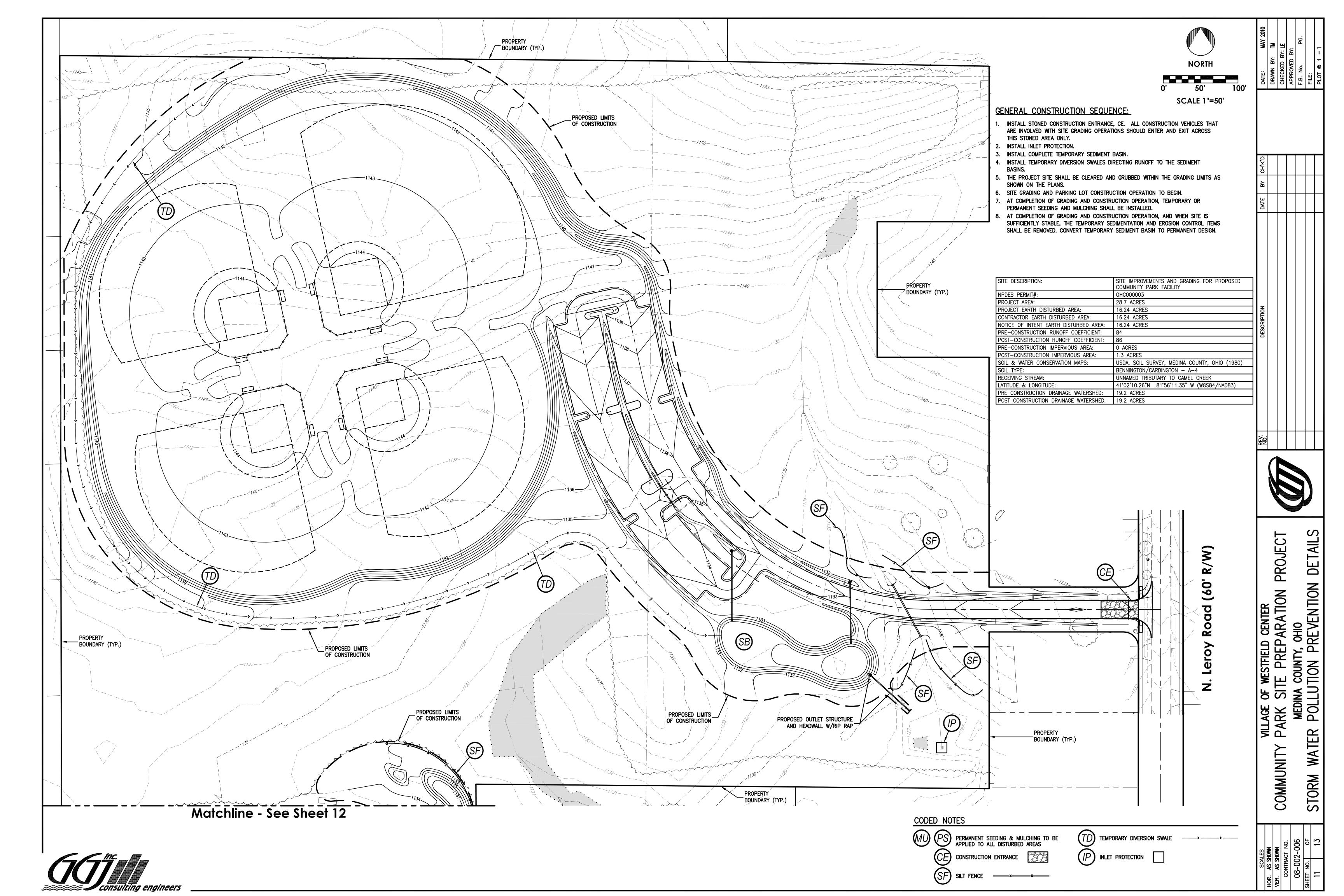
COUNTY, OHIO

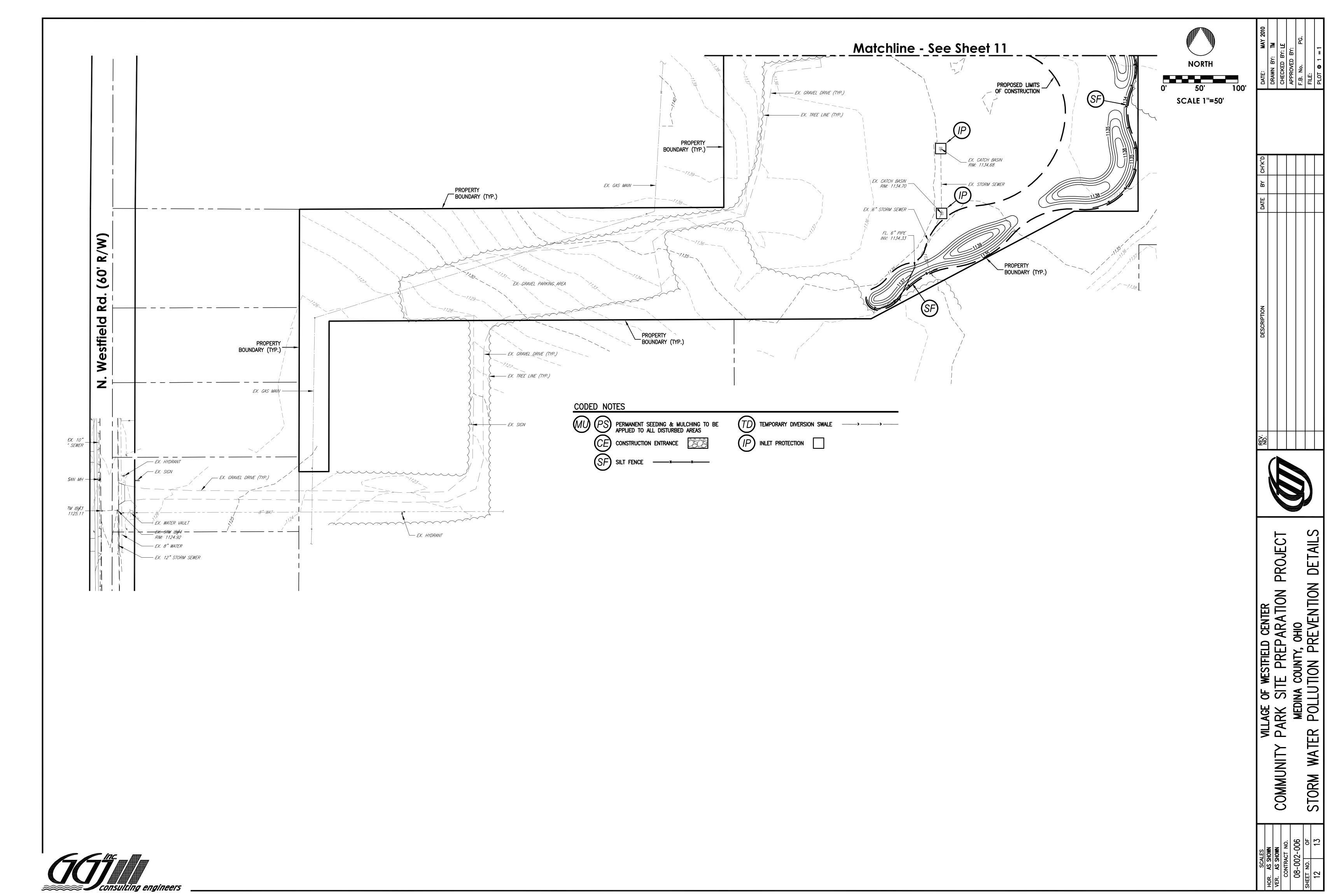
MEDINA STAND/

COMMUNITY

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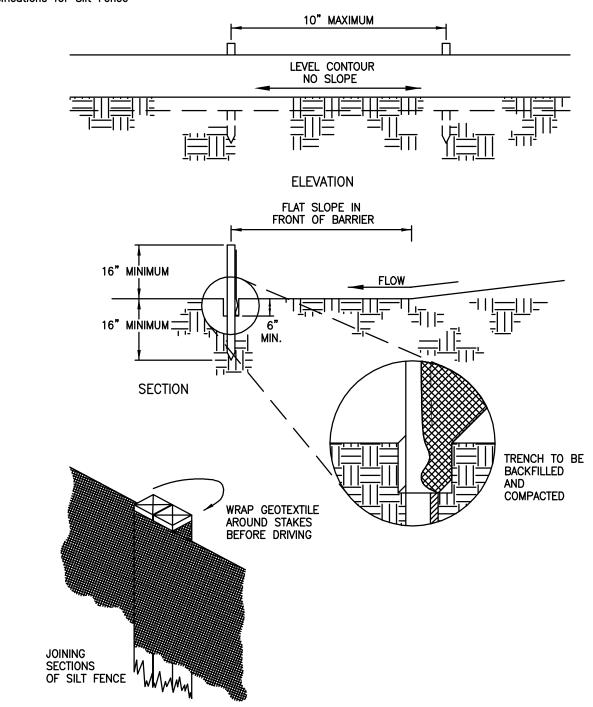




Description

Silt fence is a sediment—trapping practice utilizing a geotextile fence, topography and vegetation to cause sediment deposition. Silt fence reduces runoff's ability to transport sediment by ponding runoff and dissipating small rills of concentrated flow into uniform sheet flow.

Specifications for Silt Fence



Specifications for Silt Fence

- Silt fence shall be constructed before upslope land disturbance begins.
- 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.
- 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.
- 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
- 6. The height of the silt fence shall be a minimum of 16 inches above the original ground surface.
- 7. 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 sultable device which will ensure an adequately uniform trench depth.
- 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.
- Seams between section of silt fence shall be overlapped with the end stakes of each section wrapped together before driving into the ground.
- 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.

Criteria for Silt Fence Materials:

Fence Posts—The length shall be a minimum of 32 inches long. Wood posts will be 2-by-2 inch hardwood of sound quality. The maximum spacing between posts shall be 10 feet.

2. 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

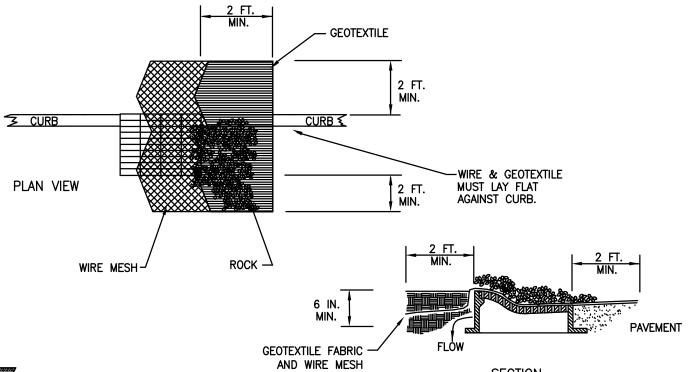
STORM DRAIN INLET PROTECTION



Description

Storm drain inlet protection consists of a geotextile barrier supported around or across a storm drain inlet. It is used to prevent sediment-laden water from entering a storm drain system. It reduces the rate at which sediment—laden water may enter an inlet, thereby causing ponding and settling of sediment.

Specifications for Curb Inlet Protection



STORM DRAIN INLET PROTECTION (CONTINUED)

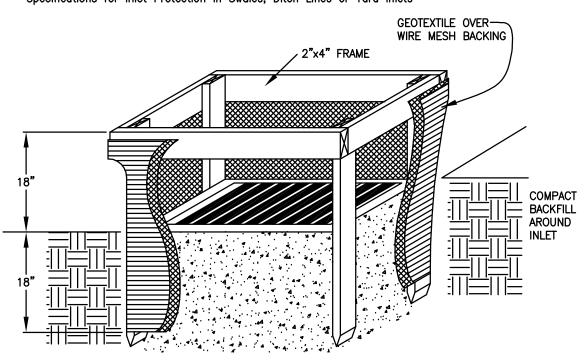


Specifications for Curb Inlet Protection

- Inlet protection shall be constructed either before upslope land disturbance begins or before the storm
- The wire mesh shall be of sufficient strength to support fabric and stone. It shall be a continuous piece with a minimum width of 6' and 4' longer than the throat length of the inlet, 2 feet on
- Geotextile cloth shall have an equivalent opening size (EOS) of 20-40 sieve and be resistant to
- The wire mesh and geotextile cloth shall be formed to the concrete gutter and against the face of the curb on both sides of the inlet.
- Two-inch stone shall be placed over the wire mesh and geotextile in such a manner as to prevent water from entering the inlet under or around the geotextile cloth.

Specifications for Inlet Protection in Swales, Ditch Lines or Yard Inlets

sunlight. It shall be at least the same size as the wire mesh.



Specifications for Inlet Protection in Swales, Ditch Lines or Yard Inlets

of the cloth are not fastened to the same post.

- Inlet protection shall be constructed either before upslope land disturbance begins or before the storm drain becomes operational.
- The earth around the inlet shall be excavated completely to a depth at least 18 inches.
- 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.
- 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.
- 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
- 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.
- 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.

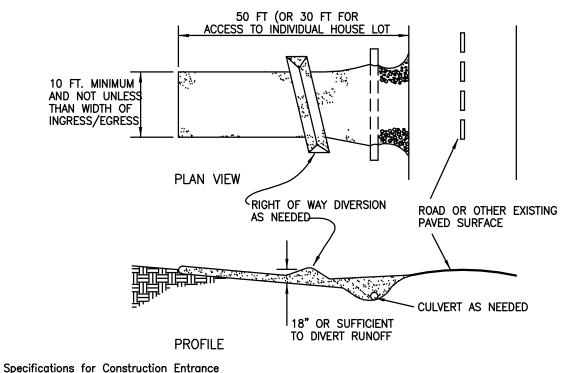
CONSTRUCTION ENTRANCE



Description

A construction entrance is a stabilized pad of aggregate over a geotextile base and is used to reduce the amount of mud tracked off-site with construction traffic.

Specifications for Construction Entrance

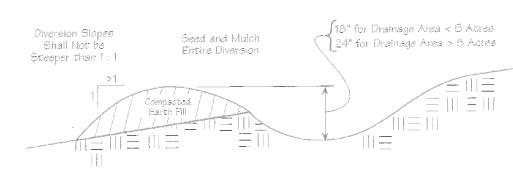


- Stone Size--Two-inch stone shall be used, or recycled concrete equivalent.
- Length—The construction entrance shall be as long as required to stabilize high traffic areas but not less than 50 feet. (except on single residence lot where a 30-foot minimum length applies).
- Thickness—The stone layer shall be at least 6 inches thick.
- Width--The entrance shall be at least 10 feet wide, but not less than the full width at points where
- Bedding—A geotextile shall be placed over the entire area prior to placing stone. It shall have a Grab
- Tensile Strength of at least 200 lb. and a Mullen Burst Strength of at least 190 lb. Culvert—A pipe or culvert shall be constructed under the entrance if needed to prevent surface water
- flowing across the entrance from being directed out onto paved surfaces. Water Bar--A water bar shall be constructed as part of the construction entrance if needed to prevent
- surface runoff from flowing the length of the construction entrance and out onto paved surfaces. Maintenance—Top dressing of additional stone shall be applied as conditions demand. Mud spilled. dropped, washed or tracked onto public roads, or any surface where runoff is not checked by sediment controls, shall be removed immediately. Removal shall be accomplished by scraping or sweeping.
- Construction entrances shall not be relied upon to remove mud from vehicles and prevent off-site tracking. Vehicles that enter and leave the construction site shall be restricted from muddy areas.

TEMPORARY DIVERSION SWALE

above.





- Diversion shall be compacted by traversing 3. Diversions shall be stabilized with with tracked earth-moving equipment. vegetation and check dams or the following treatments:
- 2. Diversions shall not be breached or lowered to allow construction traffic to cross; instead the top width may be made wider and side slopes made flatter than specified

Diversion Slope	< 2 ac.	2 - 5 ac.	5 - 10 ac.
0 - 3%	Seed and Straw	Seed and Straw	Seed and Straw
3 - 5%	Seed and Straw	Seed and Straw	Matting
5 - 8%	Seed and Straw	Matting	Matting
8 - 20%	Seed and Straw	Matting	Engineered

Description

Permanent seeding includes the seedbed preparation, seeding, and the establishment of perennial vegetation used to permanently stabilize soil, prevent sediment pollution, reduce runoff by promoting infiltration, and provide stormwater quality benefits offered by dense vegetation.

Specifications for Permanent Seeding

Site Preparation

- A subsoiler, plow or other implement shall be used to reduce soil compaction and allow maximum infiltration. (Maximizing infiltration will help control both runoff rate and water quality.) Subsoiling should be done when the soil moisture is low enough to allow the soil to crack or fracture. Subsoilin shall not be done on slip-prone areas where soil preparation should be limited to what is necessary for
- The site shall be graded as needed to permit the use of conventional equipment for seedbed preparation and seeding.
- Resoil shall be applied where needed to establish vegetation

- Lime—Agricultural ground limestone shall be applied to acid soil as recommended by a soil test. In lieu of a soil test, lime shall be applied at the rate of 100 lb. per 1,000 square feet or 2 tons per acre.
- Fertilizer—Fertilizer shall be applied as recommended by a soil test. In lieu of a soil test, fertilizer shall be applied at a rate of 12 lb. per 1,000 square feet or 500 lb. per acre of 10-10-10 or 12-12-12
- The lime and fertilizer shall be worked into the soil with a disk harrow, spring—tooth harrow, or other suitable field implement to a depth of 3 inches. On sloping land, the soil shall be worked on the contour.

Seeding Dates and Soil Conditions

Seeding should be done March 1 to May 31 or August 1 to September 30. These seeding dates are ideal but, with the use of additional mulch and irrigation, seedings may be made any time throughout the growing season. Tillage/seedbed preparation should be done when the soil is dry enough to crumble and not form ribbons when compressed by hand. For winter seeding, see the following section on dormant

- Seedings shall not be planted from October 1 through November 20. During this period, the seeds are likely to germinate but probably will not be able to survive the winter.
- 2. The following methods may be used for "Dormant Seeding":
 - From October 1 through November 20, prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After November 20, and before March 15, broadcast the selected seed mixture. Increase the seeding rates by 50% for this type of seeding.
 - From November 20 through March 15, when soil conditions permit, prepare the seedbed, lime and fertilizer, apply the selected seed mixture, mulch and anchor. Increase the seeding rates by 50% for this
 - Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder, or hydro-seeded (slurry may include seed and fertilizer) on a firm, moist seedbed.
- Where feasible, except when a cultipacker type seeder is used, the seedbed should be firmed following seeding operations with a cultipacker, roller, or light drag. On sloping land, seeding operations should be

Mulching

- Mulch material shall be applied immediately after seeding. Seedings made during optimum seeding dates and with favorable soil conditions and on very flat areas may not need mulch to achieve adequate stabilization. Dormant seeding shall be mulched.
- Straw—If straw is used, it shall be unrotted small—grain straw applied at the rate of 2 tons per acre or 90 lb. per 1,000 square feet (two to three bales). The mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square feet sections and spread two 45 lb. bales of straw in each section.
- Hydroseeders--If wood-cellulose fiber is used, it shall be used at 2,000 lb. per acre or 46 lb. per 1,000
- Other—Other acceptable mulches include mulch mattings applied according to manufacturer's
- recommendations or wood chips applied at 6 tons per acre. 3. Straw Mulch Anchoring Methods

Straw mulch shall be anchored immediately to minimize loss by wind or water.

- Mechanical—A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 inches.
- Mulch Nettings——Nettings shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
- Asphalt Emulsion—Asphalt shall be applied as recommended by the manufacturer or at the rate of 160
- Synthetic Binders——Synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petroset, Terra Tack or equal may be used at rates recommended by the manufacturer.
- Wood—Cellulose Fiber——Wood—cellulose fiber binder shall be applied at a net dry weight of 750 lb. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lb. per 100 gallons of wood cellulose fiber.

PERMANENT SEEDING (CONTINUED)



- Permanent seeding shall include irrigation to establish vegetation during dry or hot weather or on adverse site conditions as needed for adequate moisture for seed germination and plant growth.
- Excessive irrigation rates shall be avoided and irrigation monitored to prevent erosion and damage

Seed Mix	Seeding Rate				
	lb./ac.	lb./1,000 ft. ²	Notes:		
	General	Use			
Creeping Red Fescue Domestic Ryegrass Kentucky Bluegrass	20-40 10-20 10-20	1/2 - 1 1/4 - 1/2 1/4 - 1/2			
Tall Fescue	40	1			
Dwarf Fescue	40	1			
	Steep Banks or Cut Slopes				
Tall Fescue	40	1			
Crown Vetch Tall Fescue	10 20	1/4 1/2	Do not seed later than Augu		
Flat Pea Tall Fescue	20 20	1/2 1/2	Do not seed later than Augu		
	Road Ditches	and Swales			
Tall Fescue	40	1			
Dwarf Fescue Kentucky Bluegrass	90 5	2 1/4			
	Law	'n			
Kentucky Bluegrass Perennial Ryegrass	60 60	1 1/2 1 1/2			
Kentucky Bluegrass Creeping Red Fescue	60 60	1 1/2 1 1/2	For shaded areas		

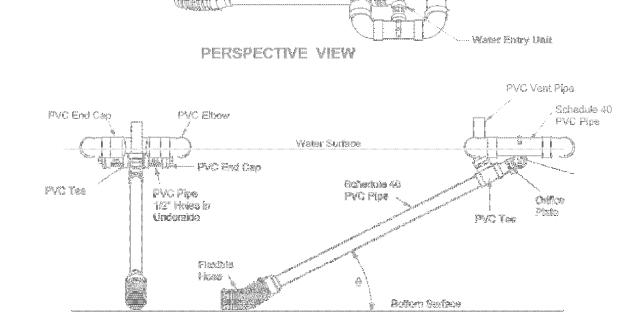
Specifications for Maintenance of Permanent Seeding

END VIEW

- Permanent seeding shall not be considered established for at least 1 full year from the time of planting. Seeded areas shall be inspected for failure and vegetation reestablished as needed. Depending on site conditions, it may be necessary to irrigate, fertilize, overseed, or reestablish plantings in order to provide permanent vegetation for adequate erosion control.
- Maintenance fertilization rates shall be established by soil test recommendations or by using the rates shown in the following table.

Arm Assembly





FRONT VIEW

BKIMMER

Date Sec W. Frekulett. Date: Sec W. V.S.

Deby April 17, 1957



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