

# COMMUNITY PARK SITE PREPARATION PROJECT

PROJECT #08-002-006

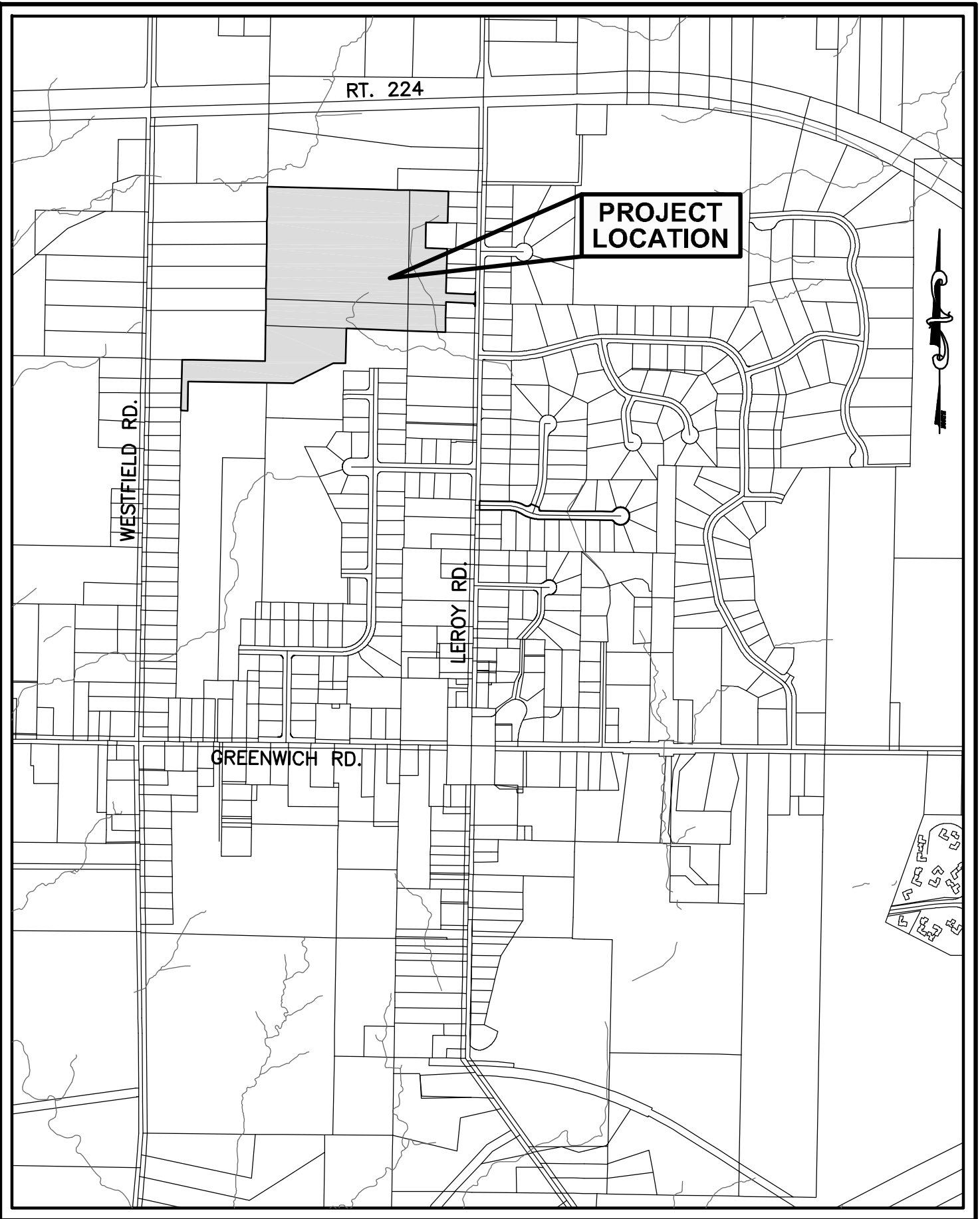
## VILLAGE OF WESTFIELD CENTER

MEDINA COUNTY, OHIO

MAY 2010

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### LOCATION MAP

NOT TO SCALE

### VILLAGE OFFICIALS

THOMAS G. HORWEDEL.....MAYOR  
SUSAN L. EWERS.....CLERK-TREASURER  
WILLIAM HUTSON.....LAW DIRECTOR  
DAVID L. PITSENBARGER.....VILLAGE SUPERINTENDENT

### 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.....GARY EWERS

### APPROVAL

MAYOR,

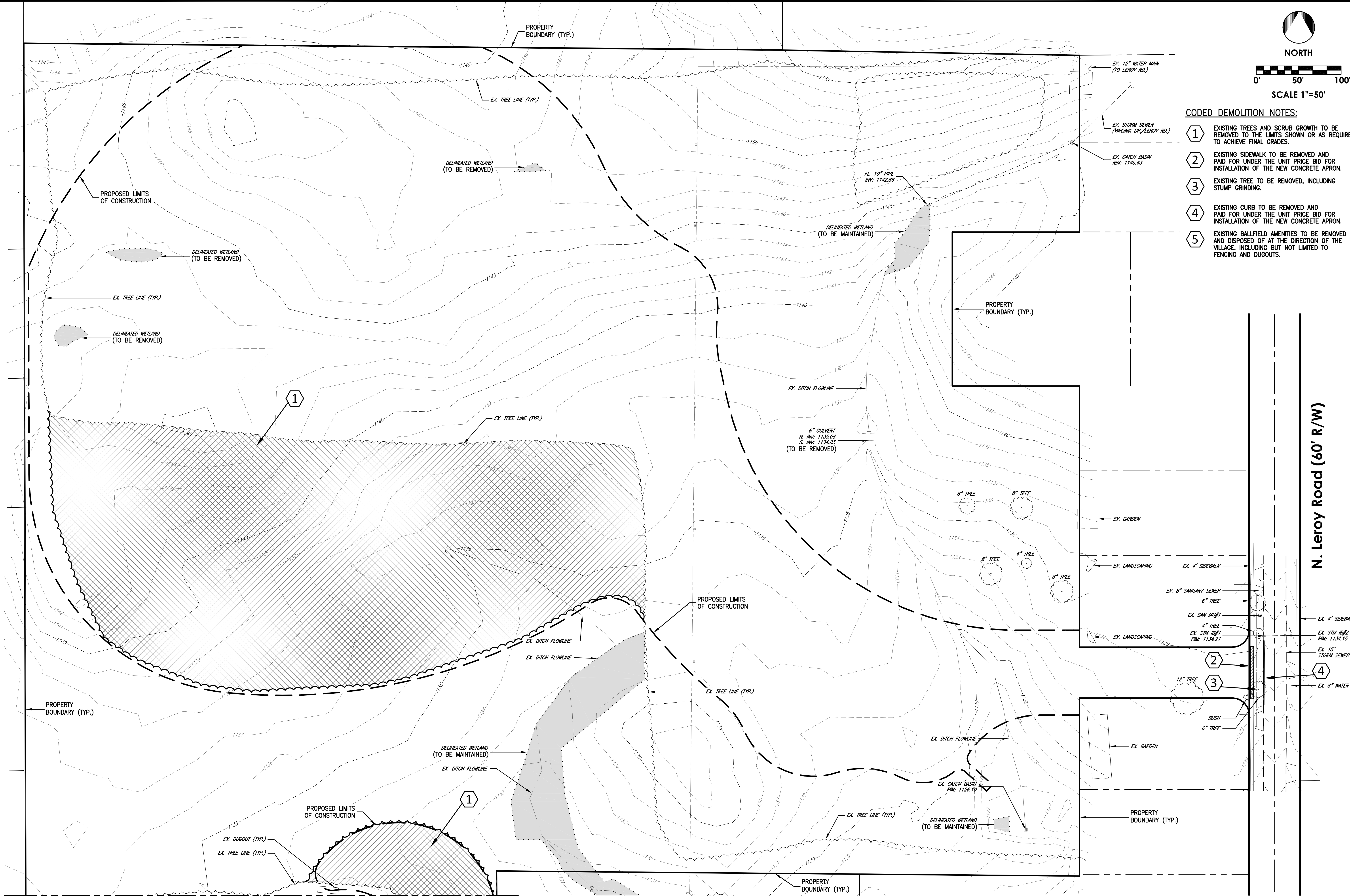
THOMAS G. HORWEDEL.....DATE

UNDERGROUND UTILITIES  
TWO WORKING DAYS  
**BEFORE YOU DIG**  
Call... 800-362-2764 (Toll Free)  
OHIO UTILITIES PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY

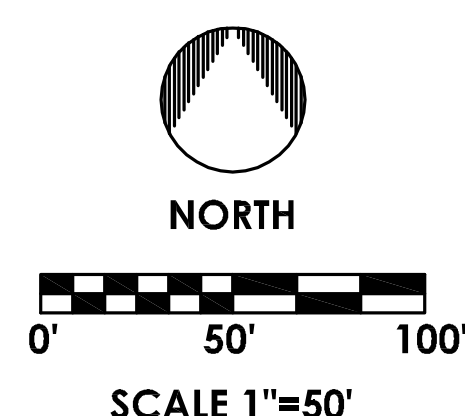
ROBERT A. JURS, JR., R.L.A., #855.....DATE







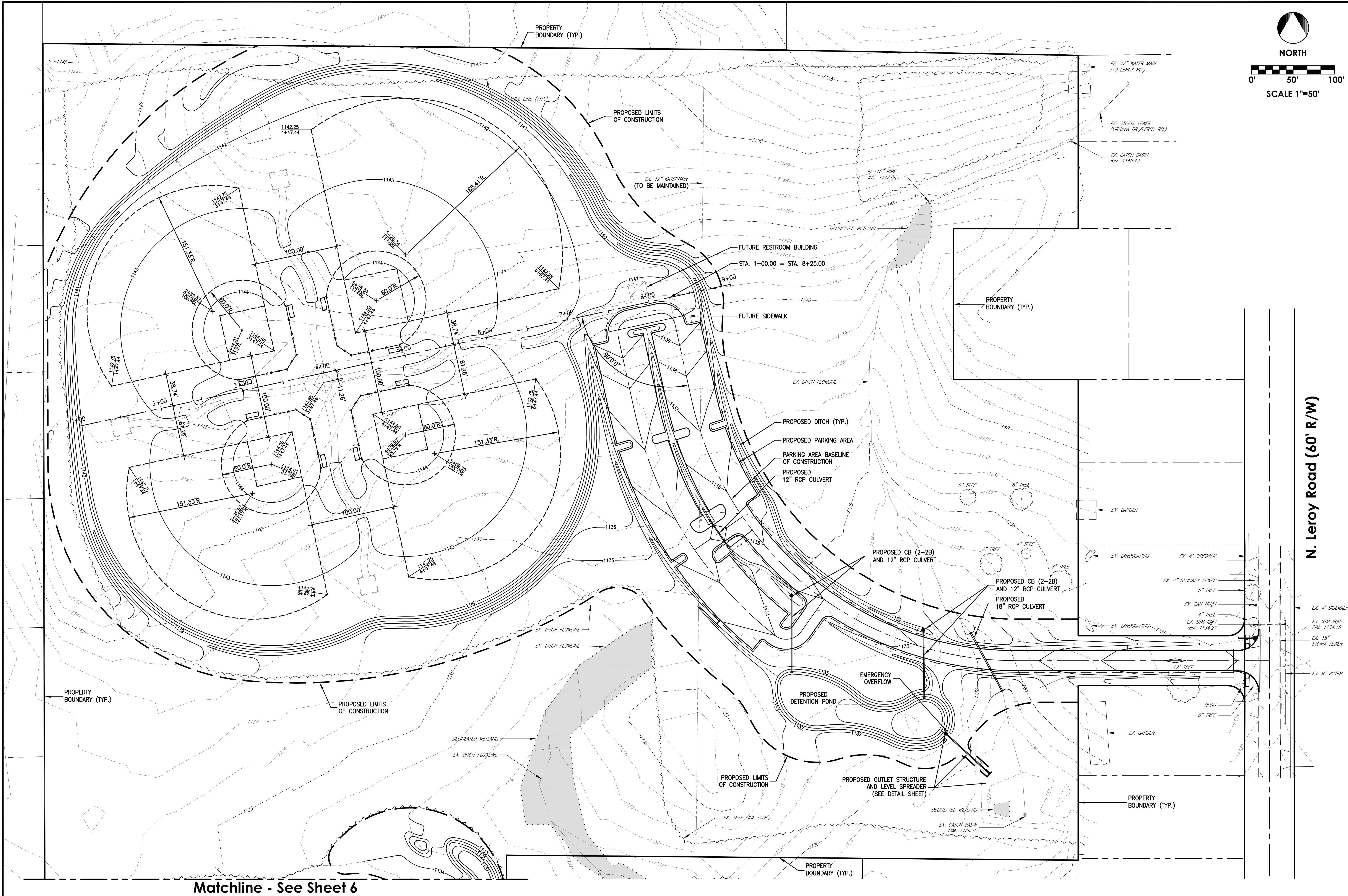
- CODED DEMOLITION NOTES:**
- 1 EXISTING TREES AND SCRUB GROWTH TO BE REMOVED TO THE LIMITS SHOWN OR AS REQUIRED TO ACHIEVE FINAL GRADES.
  - 2 EXISTING SIDEWALK TO BE REMOVED AND PAID FOR UNDER THE UNIT PRICE BID FOR INSTALLATION OF THE NEW CONCRETE APRON.
  - 3 EXISTING TREE TO BE REMOVED, INCLUDING STUMP GRINDING.
  - 4 EXISTING CURB TO BE REMOVED AND PAID FOR UNDER THE UNIT PRICE BID FOR INSTALLATION OF THE NEW CONCRETE APRON.
  - 5 EXISTING BALLFIELD AMENITIES TO BE REMOVED AND DISPOSED OF AT THE DIRECTION OF THE VILLAGE, INCLUDING BUT NOT LIMITED TO FENCING AND DUGOUTS.



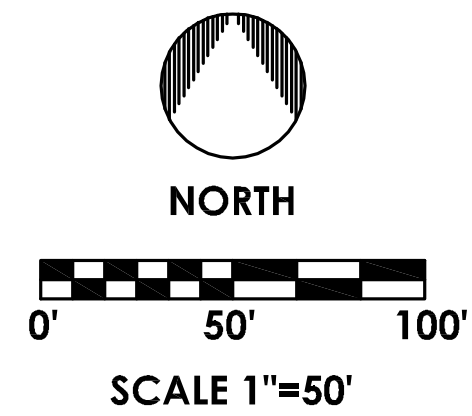
Matchline - See Sheet 4

DATE: MAY 2010		DRAWN BY: TM		CHECKED BY: LE		APPROVED BY: PG		FILE: PLOT 1 = 1	
DESCRIPTION		CH/K/D	BY	DATE	DATE	DATE	DATE	DATE	DATE
REV		NO	NO	NO	NO	NO	NO	NO	NO
VILLAGE OF WESTFIELD CENTER COMMUNITY PARK SITE PREPARATION PROJECT MEDINA COUNTY, OHIO DEMOLITION PLAN									
SCALES		HOR. AS SHOWN VER. AS SHOWN CONTRACT NO. 08-002-006 SHEET NO. 3 OF 13							





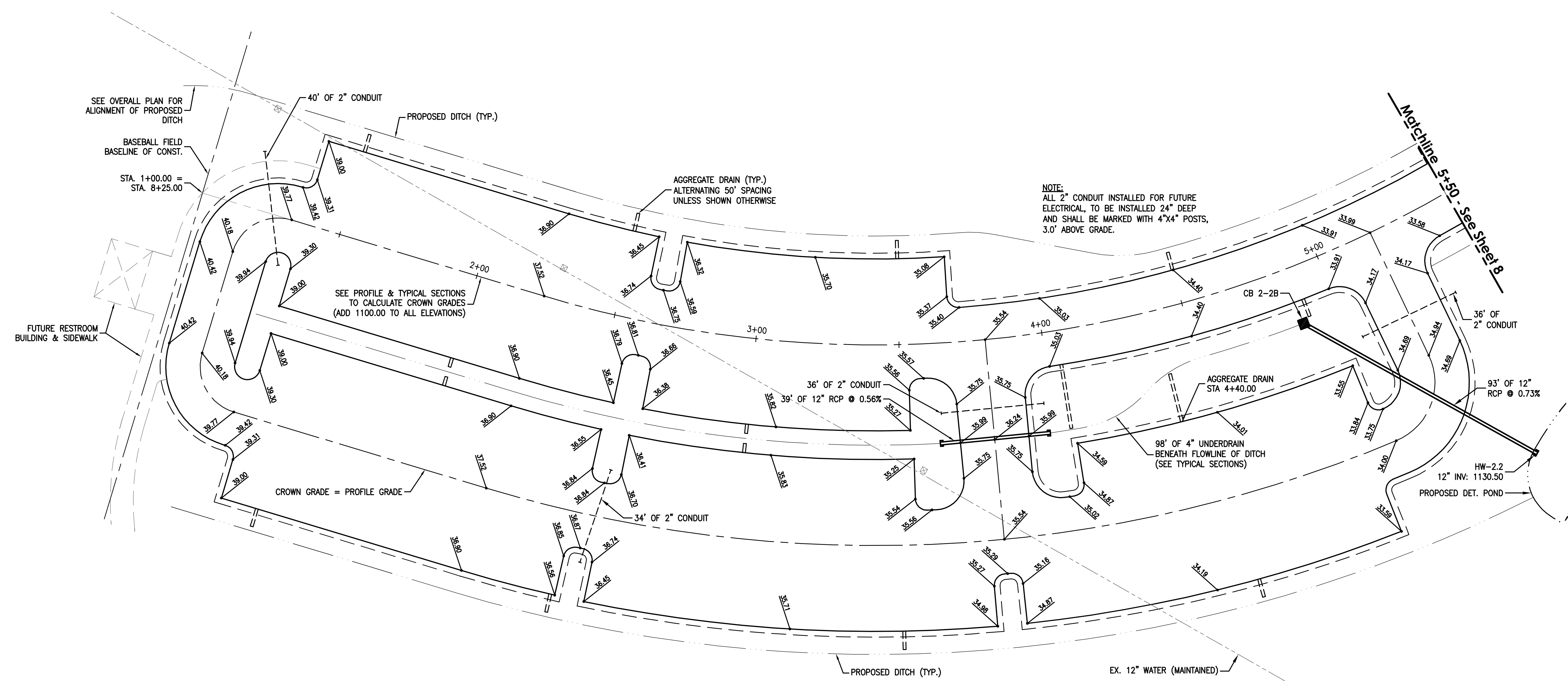
Matchline - See Sheet 6



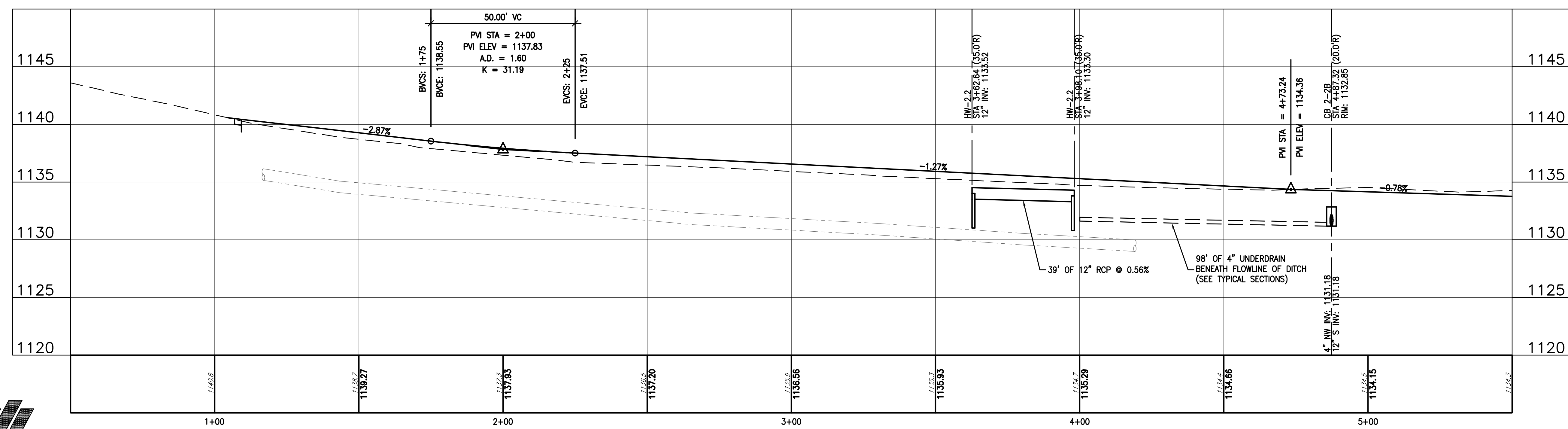
N. Leroy Road (60' R/W)


SCALES		DATE		CHK'D			
HOR. AS SHOWN		DATE		BY			
VER. AS SHOWN							
CONTRACT NO.							
08-002-006							
SHEET NO. OF							
5 13							

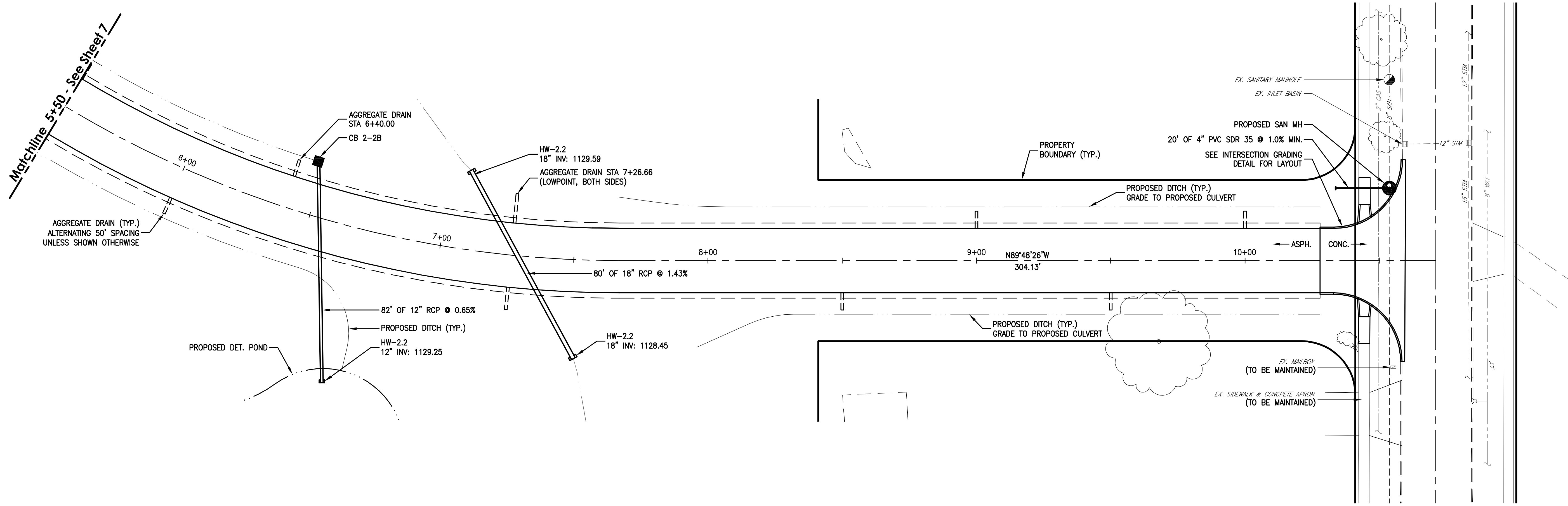
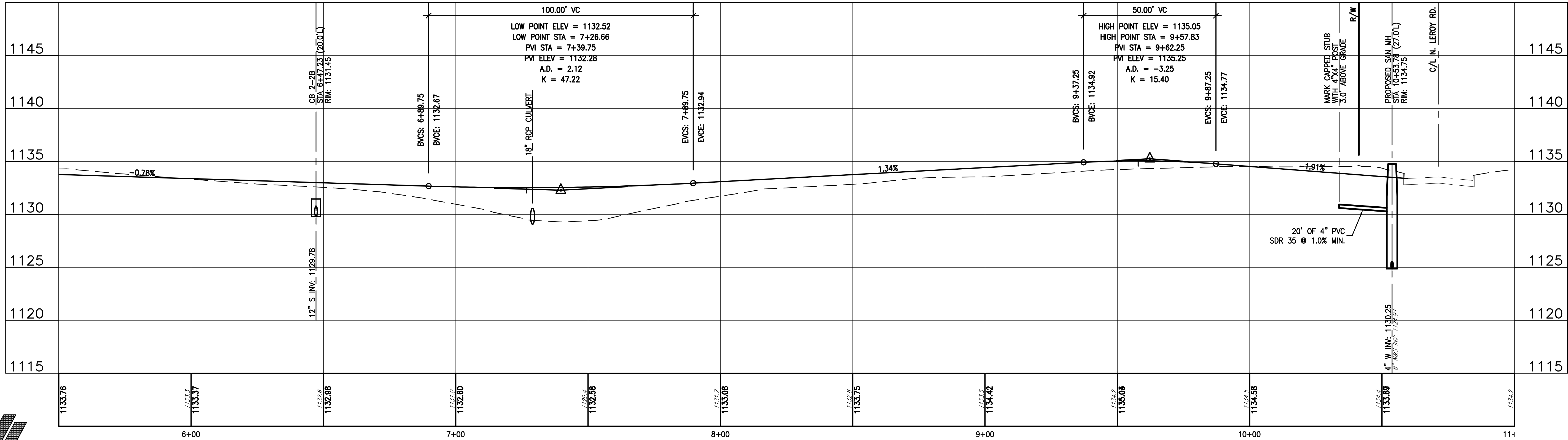




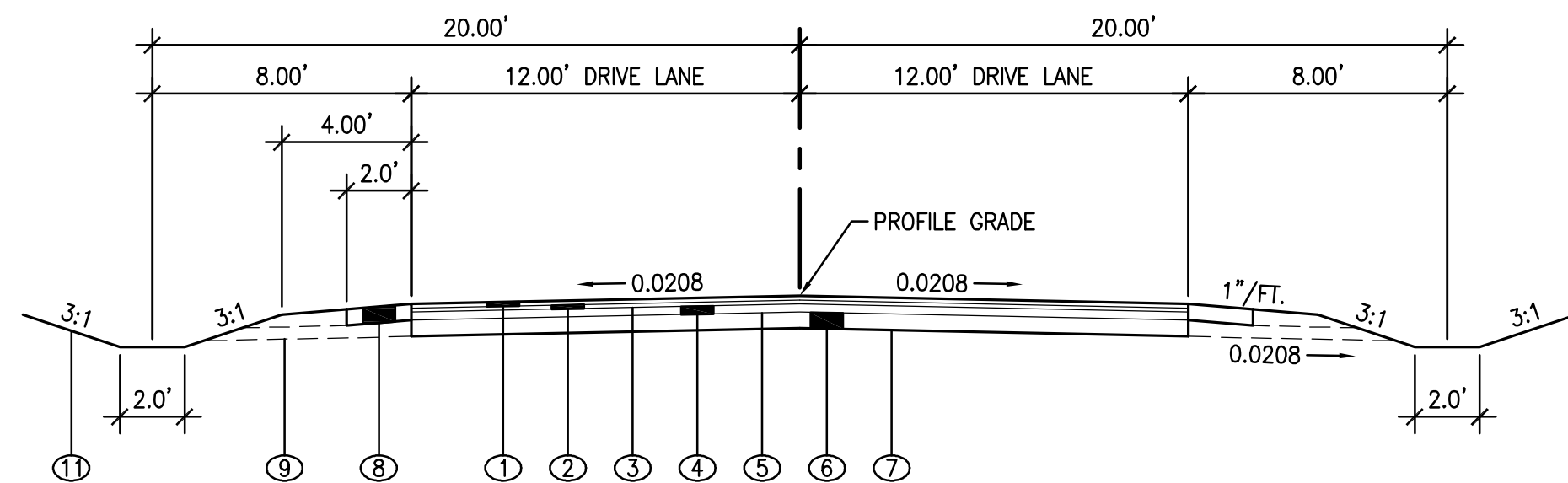
PROPOSED PARKING AREA SPOT GRADING & UTILITY PLAN  
(SEE TYPICAL SECTIONS & PROFILE FOR ADDITIONAL INFORMATION)



VILLAGE OF WESTFIELD CENTER COMMUNITY PARK SITE PREPARATION PROJECT MEDINA COUNTY, OHIO PARKING & ENTRANCE PLAN & PROFILE				REV. NO.		DESCRIPTION		DATE		BY		CH/K'D		DATE: MAY 2010		DRAWN BY: TM		CHECKED BY: LE		APPROVED BY:		F.B. No. PG.		FILE:		PLOT 1 = 1	
SCALES		CONTRACT NO.		SHEET NO.		OF																					
HOR. 1"=20'		08-002-006		7		13																					
VER. 1"=5'																											

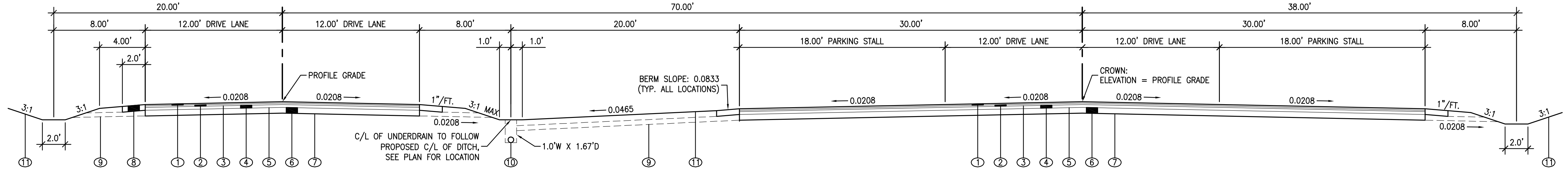


SCALES		DATE: MAY 2010	
HOR. 1"=20'	DATE	BY	CHK'D
VER. 1"=5'	DATE	BY	CHK'D
CONTRACT NO.	DESCRIPTION		
08-002-006			
SHEET NO. OF			
8 13			
VILLAGE OF WESTFIELD CENTER		DRAWN BY: TM	
COMMUNITY PARK SITE PREPARATION PROJECT		CHECKED BY: LE	
MEDINA COUNTY, OHIO		APPROVED BY:	
PARKING & ENTRANCE PLAN & PROFILE		F.B. No.	
		PG.	
		FILE:	
		PLOT 1 = 1	



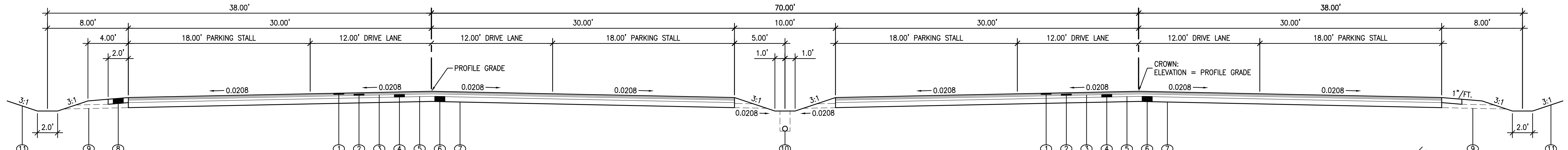
PROPOSED TYPICAL SECTION

STA. 4+92.14 TO 10+33.17



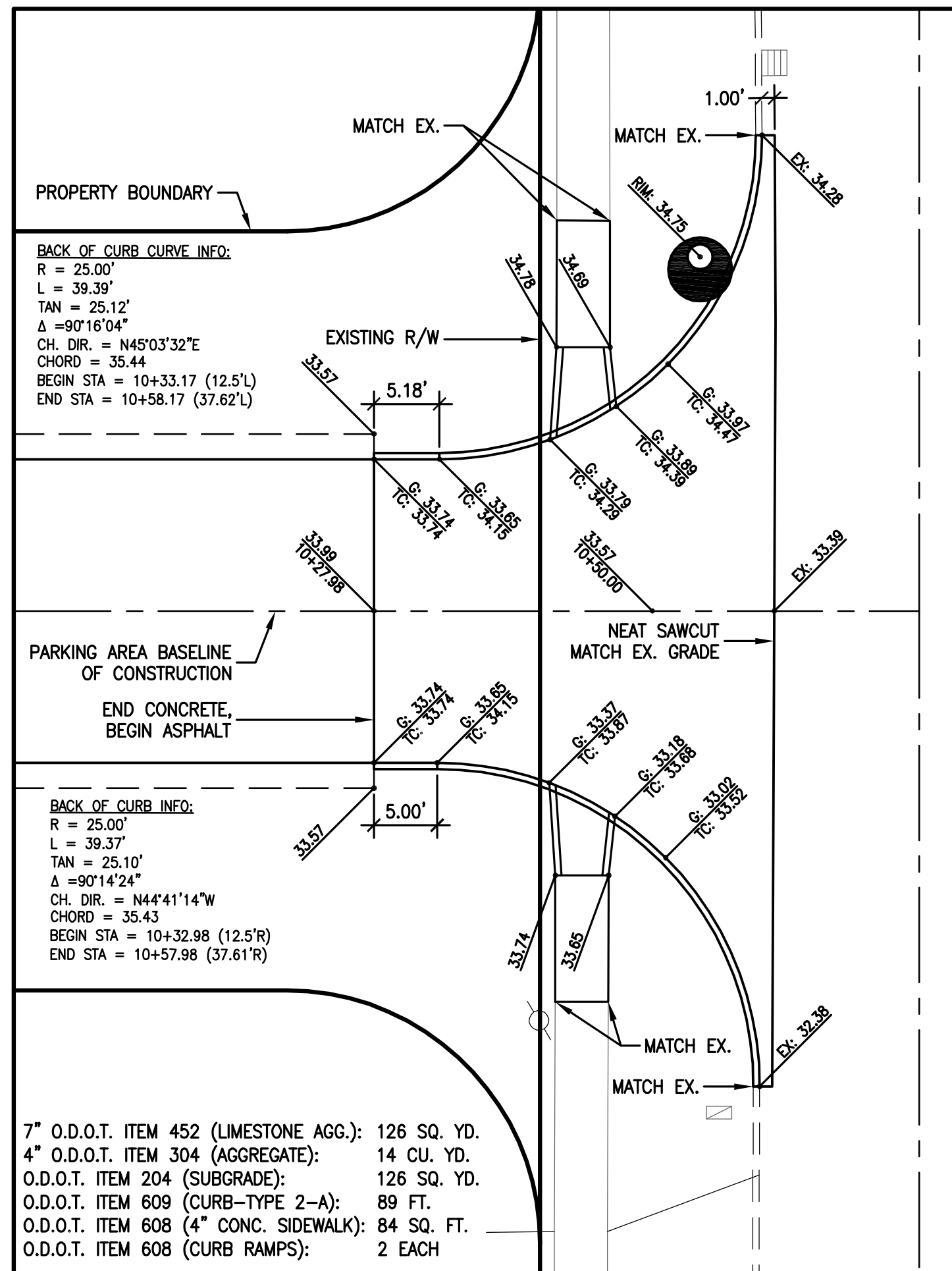
PROPOSED TYPICAL SECTION

STA. 3+53.14 TO 4+92.14



PROPOSED TYPICAL SECTION

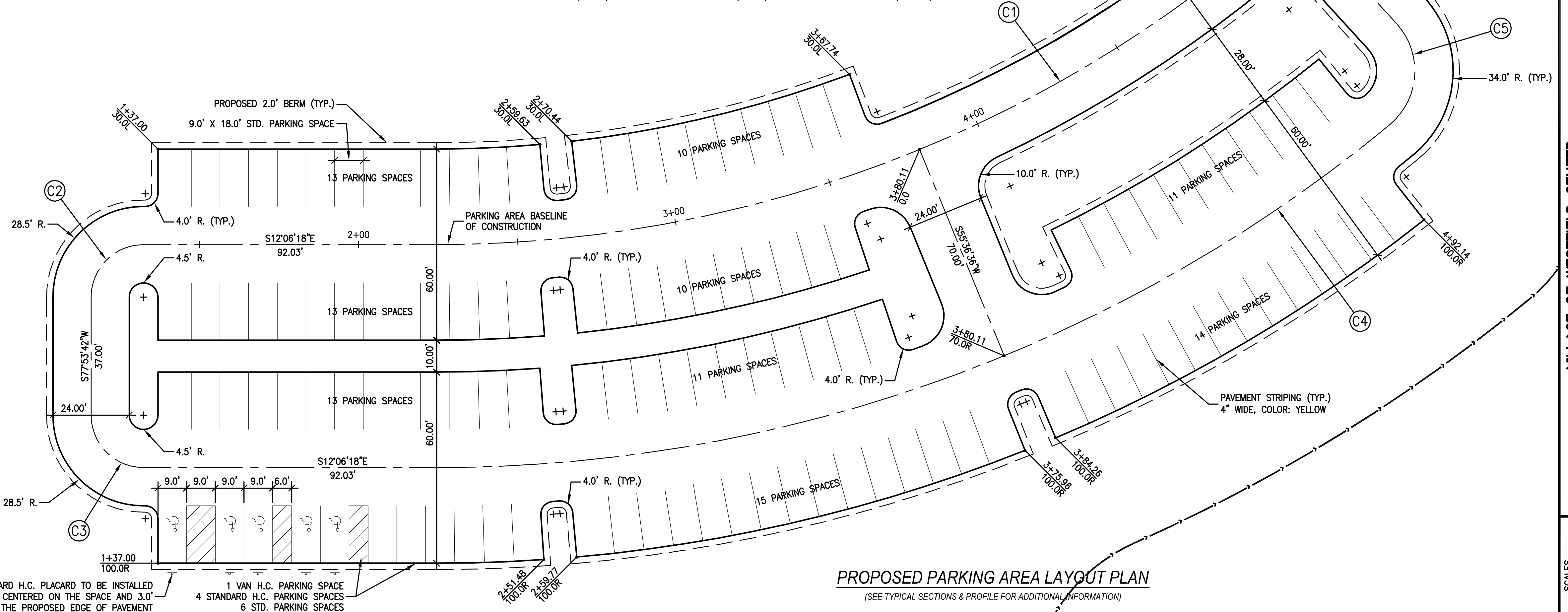
STA. 1+37.00 TO 3+53.14



N. LEROY ROAD INTERSECTION GRADING

SCALE: 1" = 10.0'

- LEGEND
- ① O.D.O.T. ITEM 448 - 1.5" ASPHALT CONCRETE SURFACE COURSE (LIMESTONE AGGREGATE)
  - ② O.D.O.T. ITEM 448 - 1.5" ASPHALT CONCRETE INTERMEDIATE COURSE (LIMESTONE AGGREGATE)
  - ③ O.D.O.T. ITEM 407 - TACK COAT (0.05 GAL./SQ. YD.)
  - ④ O.D.O.T. ITEM 301 - 3" BITUMINOUS AGGREGATE BASE
  - ⑤ O.D.O.T. ITEM 408 - PRIME COAT (0.35 GAL./SQ. YD.)
  - ⑥ O.D.O.T. ITEM 304 - 6" AGGREGATE BASE (LIMESTONE AGGREGATE)
  - ⑦ O.D.O.T. ITEM 204 - SUBGRADE COMPACTION
  - ⑧ O.D.O.T. ITEM 411 - 6" STABILIZED CRUSHED AGGREGATE
  - ⑨ O.D.O.T. ITEM 605 - AGGREGATE DRAINS (NO. 57 WASHED GRANULAR MATERIAL, 12" WIDE X 6" DEEP)
  - ⑩ O.D.O.T. ITEM 605 - 4" UNDERDRAIN (WITH NO. 57 WASHED GRANULAR MATERIAL)
  - ⑪ O.D.O.T. ITEM 659 - SEEDING AND MULCHING
- ① R = 400.00'  
L = 542.46'  
TAN = 322.20°  
Δ = 77°42'08"  
CH. DIR. = S50°57'22"E  
CHORD = 501.84'  
BEGIN STA = 7+66.99  
END STA = 2+24.53
- ② R = 16.50'  
L = 25.92'  
TAN = 16.50°  
Δ = 90°00'00"  
CH. DIR. = N57°06'18"W  
CHORD = 23.33'  
BEGIN STA = 1+32.50  
END STA = 1+16.00 (16.5'R)
- ③ R = 16.50'  
L = 25.92'  
TAN = 16.50°  
Δ = 90°00'00"  
CH. DIR. = S32°53'42"W  
CHORD = 23.33'  
BEGIN STA = 1+16.00 (53.5'R)  
END STA = 1+32.50 (70.0'R)
- ④ R = 470.00'  
L = 324.38'  
TAN = 168.95°  
Δ = 39°32'38"  
CH. DIR. = S31°52'37"E  
CHORD = 317.98'  
BEGIN STA = 2+24.53 (70.0'R)  
END STA = 5+00.60 (70.0'R)
- ⑤ R = 22.00'  
L = 35.84'  
TAN = 23.11°  
Δ = 92°48'53"  
CH. DIR. = N81°56'37"E  
CHORD = 31.87'  
BEGIN STA = 5+00.60 (70.0'R)  
END STA = 5+20.25 (47.46'R)

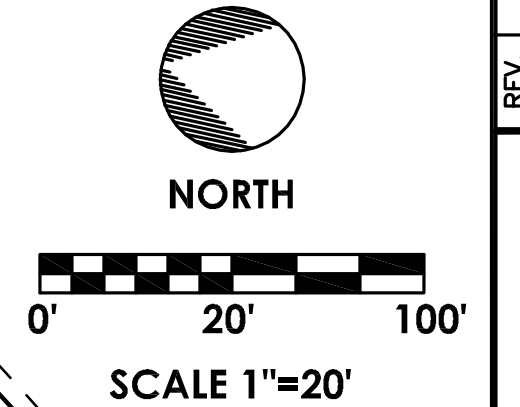


PROPOSED PARKING AREA LAYOUT PLAN

(SEE TYPICAL SECTIONS & PROFILE FOR ADDITIONAL INFORMATION)

STANDARD H.C. PLACARD TO BE INSTALLED  
CENTERED ON THE SPACE AND 3.0'  
FROM THE PROPOSED EDGE OF PAVEMENT

1 VAN H.C. PARKING SPACE  
4 STANDARD H.C. PARKING SPACES  
6 STD. PARKING SPACES

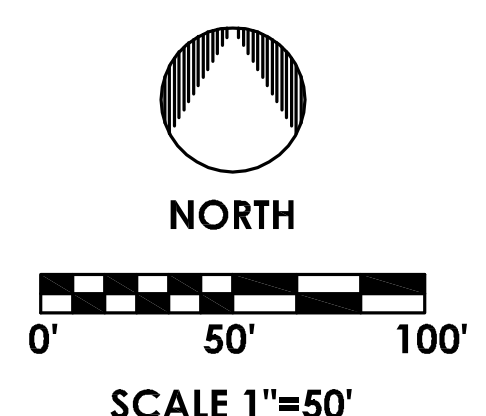
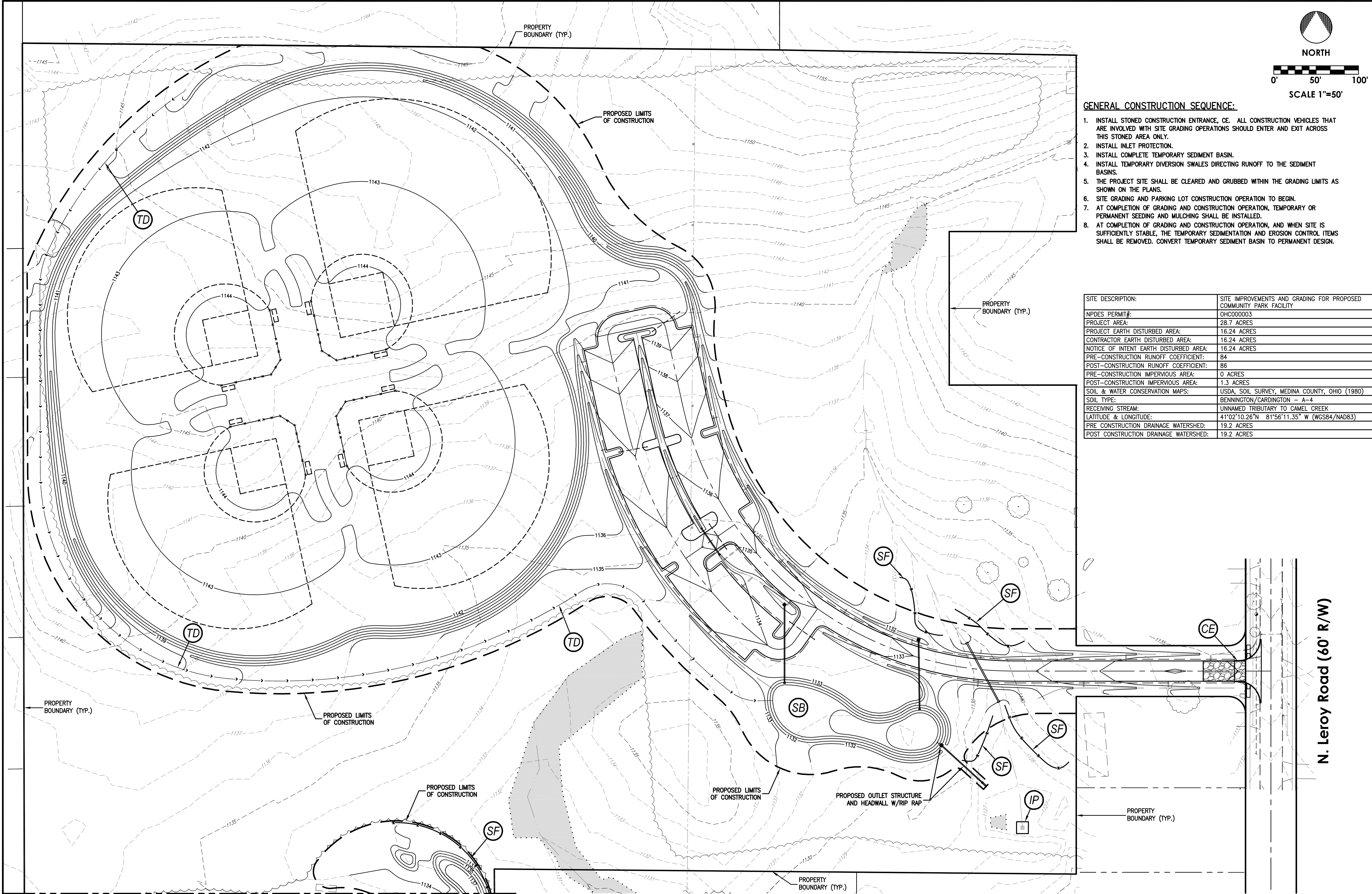


VILLAGE OF WESTFIELD CENTER  
COMMUNITY PARK SITE PREPARATION PROJECT  
MEDINA COUNTY, OHIO  
TYP. SECTIONS, SPOT GRADING & LAYOUT PLAN

DATE:	MAY 2010
DRAWN BY:	TM
CHECKED BY:	LE
APPROVED BY:	PG
FILE:	
PLOT:	1 = 1







- GENERAL CONSTRUCTION SEQUENCE:**
1. INSTALL STONED CONSTRUCTION ENTRANCE, CE. ALL CONSTRUCTION VEHICLES THAT ARE INVOLVED WITH SITE GRADING OPERATIONS SHOULD ENTER AND EXIT ACROSS THIS STONED AREA ONLY.
  2. INSTALL INLET PROTECTION.
  3. INSTALL COMPLETE TEMPORARY SEDIMENT BASIN.
  4. INSTALL TEMPORARY DIVERSION SWALES DIRECTING RUNOFF TO THE SEDIMENT BASINS.
  5. THE PROJECT SITE SHALL BE CLEARED AND GRUBBED WITHIN THE GRADING LIMITS AS SHOWN ON THE PLANS.
  6. SITE GRADING AND PARKING LOT CONSTRUCTION OPERATION TO BEGIN.
  7. AT COMPLETION OF GRADING AND CONSTRUCTION OPERATION, TEMPORARY OR PERMANENT SEEDING AND MULCHING SHALL BE INSTALLED.
  8. AT COMPLETION OF GRADING AND CONSTRUCTION OPERATION, AND WHEN SITE IS SUFFICIENTLY STABLE, THE TEMPORARY SEDIMENTATION AND EROSION CONTROL ITEMS SHALL BE REMOVED. CONVERT TEMPORARY SEDIMENT BASIN TO PERMANENT DESIGN.

SITE DESCRIPTION:	SITE IMPROVEMENTS AND GRADING FOR PROPOSED COMMUNITY PARK FACILITY
NPDES PERMIT#:	OHCO00003
PROJECT AREA:	28.7 ACRES
PROJECT EARTH DISTURBED AREA:	16.24 ACRES
CONTRACTOR EARTH DISTURBED AREA:	16.24 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	16.24 ACRES
PRE-CONSTRUCTION RUNOFF COEFFICIENT:	84
POST-CONSTRUCTION RUNOFF COEFFICIENT:	86
PRE-CONSTRUCTION IMPERVIOUS AREA:	0 ACRES
POST-CONSTRUCTION IMPERVIOUS AREA:	1.3 ACRES
SOIL & WATER CONSERVATION MAPS:	USDA, SOIL SURVEY, MEDINA COUNTY, OHIO (1980)
SOIL TYPE:	BENNINGTON/CARDINGTON - A-4
RECEIVING STREAM:	UNNAMED TRIBUTARY TO CAMEL CREEK
LATITUDE & LONGITUDE:	41°02'10.26"N 81°56'11.35" W (WGS84/NAD83)
PRE CONSTRUCTION DRAINAGE WATERSHED:	19.2 ACRES
POST CONSTRUCTION DRAINAGE WATERSHED:	19.2 ACRES

N. Leroy Road (60' R/W)

Matchline - See Sheet 12

CODED NOTES	
MU	PERMANENT SEEDING & MULCHING TO BE APPLIED TO ALL DISTURBED AREAS
CE	CONSTRUCTION ENTRANCE
SF	SILT FENCE
TD	TEMPORARY DIVERSION SWALE
IP	INLET PROTECTION



DATE: MAY 2010  
DRAWN BY: TM  
CHECKED BY: LE  
APPROVED BY: PG  
FILE: PG  
PLOT: 1 = 1

DESCRIPTION

REV

VILLAGE OF WESTFIELD CENTER  
COMMUNITY PARK SITE PREPARATION PROJECT  
MEDINA COUNTY, OHIO  
STORM WATER POLLUTION PREVENTION DETAILS

SCALES  
HOR. AS SHOWN  
VER. AS SHOWN  
CONTRACT NO.  
08-002-006  
SHEET NO. 11 OF 13



**SF**

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.

Diagram illustrating a level contour with no slope. The contour is represented by a horizontal line. A dimension line above the line indicates a maximum distance of 10' between two points. The text "LEVEL CONTOUR NO SLOPE" is written below the line, with arrows pointing left and right.

JOINING SECTIONS OF SILT FENCE

WATER FLOW BEFORE

1. 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./ft <sup>2</sup> maximum	
Equivalent Opening Size	40–80	US Std. sieve CW-02215
Ultraviolet Radiation Stability	90% minimum	ASTM-G-26

IP

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.

The image contains two technical drawings of a rock riprap structure, labeled 'PLAN VIEW' and 'SECTION'.

**PLAN VIEW:** This drawing shows a top-down perspective of a trapezoidal structure. The top horizontal edge is labeled '2 FT. MIN.' with a dimension line. The right vertical edge is labeled '2 FT. MIN.' with a dimension line. The left vertical edge is labeled '2 FT. MIN.' with a dimension line. The bottom horizontal edge is labeled '2 FT. MIN.' with a dimension line. The structure is filled with a cross-hatched pattern representing 'ROCK'. A 'WIRE MESH' is shown as a grid pattern on the left side. A 'CURB' is indicated on the left and right sides. A 'GEOTEXTILE' is shown as a horizontal line at the bottom. A 'WIRE & GEOTEXTILE MUST LAY FLAT AGAINST CURB.' is written near the bottom right corner.

**SECTION:** This drawing shows a cross-section of the structure. The top horizontal edge is labeled '2 FT. MIN.' with a dimension line. The bottom horizontal edge is labeled '2 FT. MIN.' with a dimension line. The left vertical edge is labeled '6 IN. MIN.' with a dimension line. The structure is filled with a cross-hatched pattern representing 'ROCK'. A 'WIRE MESH' is shown as a grid pattern on the left side. A 'GEOTEXTILE FABRIC AND WIRE MESH' is shown as a horizontal line at the bottom. A 'CURB' is indicated on the left and right sides. A 'FLOW' arrow points from left to right. The structure is labeled 'PAVEMENT' on the right side.

IP

1. Inlet protection shall be constructed either before upslope land disturbance begins or before the storm drain becomes operational.
2. 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 each side. Geotextile cloth and wire mesh shall be anchored 2' behind curb with earth.
3. Geotextile cloth shall have an equivalent opening size (EOS) of 20-40 sieve and be resistant to sunlight. It shall be at least the same size as the wire mesh.
4. 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.
5. 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.

A technical diagram of a wire mesh frame assembly. The frame is rectangular, constructed from a 2"x4" frame. The interior of the frame is filled with a material represented by a cross-hatch pattern, labeled "GEOTEXTILE OVER WIRE MESH BACKING". The frame is supported by four legs. The height of the frame is indicated as 18" on the left side. The width of the frame is indicated as 18" at the bottom. The frame is shown sitting on a surface of small circles, representing gravel or a similar base material. The frame is shown in a perspective view, with the front and side legs visible. The frame is shown in a perspective view, with the front and side legs visible.

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 dike shall be at least 6 inches higher than the top of the frame.

**CE**

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.

1. Stone Size—Two-inch stone shall be used, or recycled concrete equivalent.
2. 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).
3. Thickness—The stone layer shall be at least 6 inches thick.
4. Width—The entrance shall be at least 10 feet wide, but not less than the full width at points where ingress or egress occurs.
5. 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.
6. 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.
7. 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.
8. Maintenance—Top dressing of additional stone shall be applied as conditions demand. Mud spilled, tracked, washed or tramped onto public roads, or any surface where runoff is not checked by sedimentation controls, shall be removed immediately. Removal shall be accomplished by scraping or sweeping.
9. 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.

**TD**

Divergence Slopes Shall Not be Steeper Than 1:1

Seed and Mulch Entire Divergence

10' for Drainage Area < 5 Acres  
12' for Drainage Area > 5 Acres

Compacted Earth Fill

SECTION

1. Diversion shall be compacted by traversing with tracked earth-moving equipment.
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 above.
3. Diversions shall be stabilized with vegetation and check dams or the following treatments:

Temporary Diversion Stabilization Treatment			
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	Mattin
5 - 8%	Seed and Straw	Mattin	Mattin
8 - 20%	Seed and Straw	Mattin	Engineered

**Note:** Diversionals with steeper slopes or greater drainage areas are beyond the scope of this standard and must be designed for stability.

Seed, straw and mottin used shall meet the Specifications for Temporary Seeding, Mulching and Mottin.

PS

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.

1. 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. Subsoiling shall not be done on slip-prone areas where soil preparation should be limited to what is necessary for establishing vegetation.
2. The site shall be graded as needed to permit the use of conventional equipment for seedbed preparation and seeding.
3. Resoil shall be applied where needed to establish vegetation.

1. 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.
2. 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 analysis.
3. 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 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 seeding.

1. Seedlings 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 type of seeding.
  - 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 firm following seeding operations with a cultipacker, roller, or light drag. On sloping land, seeding operations should be on the contour where feasible.

1. 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 seedling shall be mulched.
2. Materials
  - 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 on the soil surface to be covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square foot sections and spread two 45 lb. bales of straw in each section.
  - Hydroseedsers—If wood-cellulose fiber is used, it shall be used at 2,000 lb. per acre or 46 lb. per 1,000 square feet.
  - Other—Other acceptable mulches include mulch matings 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 gallons per acre.
  - 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 mulch-cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lb. per 100 gallons of wood cellulose fiber.

PS

1. 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.
2. Excessive irrigation rates shall be avoided and irrigation monitored to prevent erosion and damage from runoff.

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

Note: Other approved seed species may be substituted.

1. 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.
2. Maintenance fertilization rates shall be established by soil test recommendations or by using the rates shown in the following table.

