WASHBURN UNIVERSITY

1920 SW COLLEGE AVE.

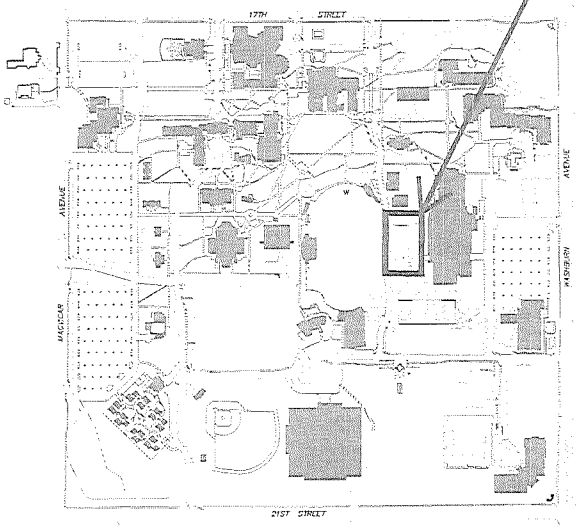
PARKING LOT # 13 DRAINAGE CHANNEL DEMOLITION

TOPEKA, KANSAS

MAY 2024

INDEX TO SHEETS

PROJECT LOCATIONS



WASHBURN CONTACTS

WASHBURN POLICE.....785-670-1153
FACILITIES SERVICES.....785-670-1149
PURCHASING.....785-670-2333
PROJECT COORDINATOR
LYNN CRIPPEN.....785-670-1552

PARKING LOT #13 DRAINAGE CHANNEL DEMO

DEPARTMENT OF FACILITIES SERVICES
WASHBURN UNIVERSITY
1920 SW COLLEGE AVE.

DRAWN BY: HRA 5-24

COVER & LOCATION MAP

SHEET:
G-001

DIVISION 2 - EXISTING CONDITIONS
SECTION 02 4119 – SELECTIVE DEMOLITION

PART 1 – GENERAL
1.1 DEFINITIONS
A. Remove: Detach items from existing construction and dispose of them off-site unless indicated to be salvaged or reinstalled.
B. Existing to Remain: Leave existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled
1.2 MATERIALS OWNERSHIP
A. Unless otherwise indicated, demolition waste becomes property of Contractor.
1.3 FIELD CONDITIONS
A. Owner will occupy portions of site immediately adjacent to selective demolition area.Conduct selective demolition so Owner's operations will not be disrupted.
B. Notify Project Coordinator of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
D. If suspected hazardous materials are encountered, do not disturb; immediately notify Owner. Hazardous materials will be removed by Owner under a separate contract.
E. Storage or sale of removed items or materials on-site is not permitted.
F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
1.4 COORDINATION
A. Arrange selective demolition schedule so as not to interfere with Owner's operations.
PART 2 – PRODUCTS
2.1 PERFORMANCE REQUIREMENTS
A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
B. Standards: Comply with ASSE A10.6 and NFPA 241.
PART 3 – EXECUTION
3.1 EXAMINATION
A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
B. Survey of Existing Conditions: Record existing conditions by use of measured drawings or preconstruction photographs or video.
3.2 PROTECTION
A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
B. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
C. Protect trees, electrical boxes, Streets, Parking Lot R and Parking Lot 13 that are to remain or that are exposed during selective demolition operations.
D. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
E. Strengthen or add new supports when required during progress of selective demolition.
F. Remove temporary barricades and protections where hazards no longer exist.
3.4 SELECTIVE DEMOLITION, GENERAL
A. General: Demolish and remove existing construction only to the extent required by installation and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
1. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
2. Dispose of demolished items and materials promptly.
B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities
3.5 CLEANING
A. Remove demolition waste materials from Project site and dispose of them in an EPA-approved construction and demolition waste landfill acceptable to authorities having jurisdiction.
1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
END OF SECTION 02 4119

DIVISION 31 - EARTHWORK
SECTION 31 2000 EARTHMOVING

PART 1 – GENERAL
1.1 DEFINITIONS
A. Backfill: Soil material or controlled low-strength material used to fill an excavation.
B. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.
C. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.
F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
G. Fill: Soil materials used to raise existing grades.
1.2 FIELD CONDITIONS
A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earth-moving operations.
1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
PART 2 – PRODUCTS
2.1 SOIL MATERIALS
A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
B. Satisfactory Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM according to ASTM D 2487, or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
1. Liquid Limit: <45
2. Plasticity Index: <22
C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487, or a combination of these groups.
3. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
H. Drainage Course: Narrowly graded mixture of washed crushed stone or crushed or uncrushed gravel; ASTM D 448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2-inch sieve and zero to 5 percent passing a No. 8 (2.36-mm) sieve.
PART 3 – EXECUTION
3.1 PREPARATION
A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthmoving operations.
B. Protect and maintain erosion and sedimentation controls during earth-moving operations.
3.2 DEWATERING
A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.
3.3 EXCAVATION, GENERAL
A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.
2. Earth excavation includes excavating pavements and obstructions visible on surface; underground structures, utilities, and other items indicated to be removed; and soil, boulders, and other materials not classified as rock or unauthorized excavation.
a. Intermittent drilling; ram hammering; or ripping of material not classified as rock excavation is earth excavation.
3.4 SOIL FILL
A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
B. Place and compact fill material in layers to required elevations as follows:
1. Under grass and planted areas, use satisfactory soil material.
C. Place soil fill on subgrades free of mud, frost, snow, or ice.
3.5 SOIL MOISTURE CONTROL
A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.
3.6 COMPACTION OF SOIL BACKFILLS AND FILLS
A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
B. Place backfill and fill soil materials evenly on all sides of structures to required drainage slopes and uniformly along the full length of each structure.
C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 69
1. Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 85 percent.
3.7 GRADING
A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
3.8 PROTECTION
A. Protecting Graded Areas: Protect newly graded areas from traffic and erosion. Keep free of trash and debris.
B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
1. Scarify or remove and replace soil material to depth as directed by owner; reshape and recompact.
C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil mater compact, and reconstruct surfacing.
1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restorati to greatest extent possible.
3.9 DISPOSAL OF SURPLUS AND WASTE MATERIALS
A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.
B. Transport surplus satisfactory soil to designated storage are on Owner's property. Stockpile or spread soil as directed by Owner.
1. Remove waste materials, including unsatisfactory soil, trash and debris, and legally dispose of them off Owner's property.

END OF SECTION 31 2000

CONTINUED ON G102

PARKING LOT #13 DRAINAGE CHANNEL DEMO

DEPARTMENT OF FACILITIES SERVICES
WASHBURN UNIVERSITY
1675 SW DUROW RD.

DRAWN BY: HRA 4–24
SPECIFICATIONS
SHEET:
G101

ECTION 32 92 00 – TURF AND GRASSES

ART 1 GENERAL

.1 SUMMARY

. Section Includes

. New lawns and restoration of construction area by installation f topsoil, seed, sod, soil amendments, mulch, and erosion cont

ART 2 PRODUCTS

.1 TOPSOIL

. All topsoil shall be screened and pulverized.

. Topsoil depth indicated on plan and details.

. Topsoil must not be sourced from areas adjacent to or in ripline of Black Walnut/Jugl

.2 SOD

. Provide Number 1 Quality/Premium, including limitations on natch, weeds, diseases, nematodes, and insects, complying with Specifications for Turfgrass Sod Materials" in TPI's "Guideline pecifications to Turfgrass Sodding." Furnish viable sod of uniform ensity, color, and texture, strongly rooted, and capable of vigorous rowth and development when planted.

. Sod Species: Fescue cultivar, blend a minimum of 3 cultivars om the following list: 1. Rebounder, Michelangelo, Traverse 2, Black ail, Reflection, GTO, Thor, Paramount, Temple, Valkyrie LS, Avenger , Technique, 4th Millennium SRP, Rockwell, Titanium 2LS, Rowdy, egenerate, Leonardo, Falcon V, Firebird 2, Terrano, Maestro, Grande , Bloodhound and Hot Ro

ART 3 EXECUTION

.1 EXAMINATION

. Finish grades are to be inspected and approved by the Owner rior to start of restoration.

.2 DELIVERY AND STORAGE

. Delivery

. During Delivery: Protect sod from drying out

. Storage

. Sprinkle sod with water and cover with moist burlap, straw, or ther approved covering, and protect from exposure to wind and direct unlight. Covering should permit air circulation to alleviate heat evelopment. Sod must be installed within 24 hours of delivery.

.3 PREPARATION

.2 TURF AREA PREPARATION

. General: Prepare planting area for soil placement.

. Reduce elevation of planting soil to allow for soil thickness of od.

. Moisten prepared area before planting if soil is dry. Water oroughly and allow surface to dry before planting. Do not create uddy soil.

. Before planting, obtain Owner's acceptance of finish grading; estore planting areas if eroded or otherwise disturbed after finish rading.

.4 PLACING SOD

. Lay sod within 24 hours of harvesting. Do not lay sod if ormant or if ground is frozen or muddy.

. Lay sod to form a solid mass with tightly fitted joints. Butt ends nd sides of sod; do not stretch or overlap. Stagger sod strips or pads o offset joints in adjacent courses. Avoid damage to soil or sod during nstallation. Tamp and roll lightly to ensure contact with soil, eliminate air pockets, and form a smooth surface. Work sifted soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.

1. Lay sod across slopes exceeding 1:3.

2. Anchor sod on slopes exceeding 1:6 with wood pegs or steel staples spaced as recommended by sod manufacturer but not less than two anchors per sod strip to prevent slippage.

C. Saturate sod with fine water spray within two hours of planting. During first week after planting, water daily or more frequently as necessary to maintain moist soil to a minimum depth of 1-1/2 inches below sod.

3.5 TOPSOIL

A. Place topsoil subgrade. Final in place depth shall be as shown on the drawings.

B. Surface of topsoil shall conform to the final grade. Depth must match dimension indicated on the plan and detail set.

C. Place topsoil so as not to compact underlying soils. Do not compact topsoil.

END OF SECTION 32 92 00

SECTION 33 40 00 DRAINAGE

PART 1 GENERAL

1.1 DEFINITIONS

A. PVC: Polyvinyl chloride plastic

1.2 SUBMITTALS

A. Product Data: For the following as used on the project:

1. Pipe material

2. Special pipe fittings, special fittings between dissimilar pipe materials, etc.

3. Drains

PART 2 PRODUCTS

2.1 PIPE

A. Polyvinyl Chloride (PVC) pipe 4 inch in diameter shall be DR 18 and conform to AWWA C900. PVC pipe 6" to 10" shall be SDR 26 and conform to ASTM 3034.

B. Polyvinyl Chloride Perforated pipe and fittings shall conform to ASTM F758.

1. Couplings: Manufacturer's standard.

2.2 JOINTS

A. PVC pipe joints shall conform to ASTM D 3212 and ASTM F477 specifications.

2.3 CLEANOUTS

A. PVC Cleanouts: ASTM D 3034, PVC cleanout threaded plug and threaded pipe hub.

2.4 GEOTEXTILE FILTER FABRICS

A. Description: Fabric of PP or polyester fibers or combination of both, with flow rate range from 110 to 330 gpm/sq. ft. when tested according to ASTM D 4491.

1. Structure Type: Nonwoven, needle-punched continuous filament.

2. Style(s): Flat and sock.

PART 3 EXECUTION

3.1 PIPE

A. Open Trench Construction

1. No pipe shall be installed in the trench until excavation has been properly constructed per the plans and details to at least two (2) pipe lengths beyond the section of pipe being installed and the bottom of trench has been properly shaped.

2. Batter boards where used shall be placed into position properly. Boards shall be nominal 1 x 4 inch lumber, planed on all four sides to parallel faces. The boards and all location stakes must be protected from injury or change of location.

3. Pipe shall be so laid that after the sewer is completed the interior surface shall conform accurately to the grades and alignments fixed and given in the Plans.

5. Pipes shall be fitted together and matched so that when laid, they form a pipeline with a smooth and uniform invert.

3.2 DRAINS

A. Grates

1. 4" Round Structural Foam Polyolefin Grate with UV inhibitor. ADA compliant.

2. Color: Green

3. Manufacturers

a. NDS

b. Or equal.

B. Piping

1. 4" PVC Sewer and Drain piping

3.4 UNDERDRAIN SYSTEMS

A. Pipe shall be laid per paragraph 3.1 and per the details on the plans.

B. Prior to placing granular backfill and bedding, line trench with drainage fabric according to the details. Overlap trench sides.

C. The pipe shall be laid with the perforations facing down.

3.5 PIPING INSTALLATION

A. Install piping beginning at low points of system, true to grades and alignment indicated with unbroken continuity of invert. Bed piping with full bearing in filtering material. Install to provide with slope to provide good drainage flow (minimum 1.0 percent) and according to manufacturer's instructions.

B. Use increasers, reducers and couplings made for different sizes or materials of pipes and fittings being connected.

C. Install PVC piping according to ASTM D 2321.

D. Drawings indicate general arrangement of piping. Install piping as indicated to extent practical. Where specific installation is not indicated, follow best practices and manufacturer's instructions.

E. Clean interior of piping of dirt and superfluous materials flush with water.

END OF SECTION 33 40 00

END OF SECTION

PARKING LOT #13 DRAINAGE CHANNEL DEMO

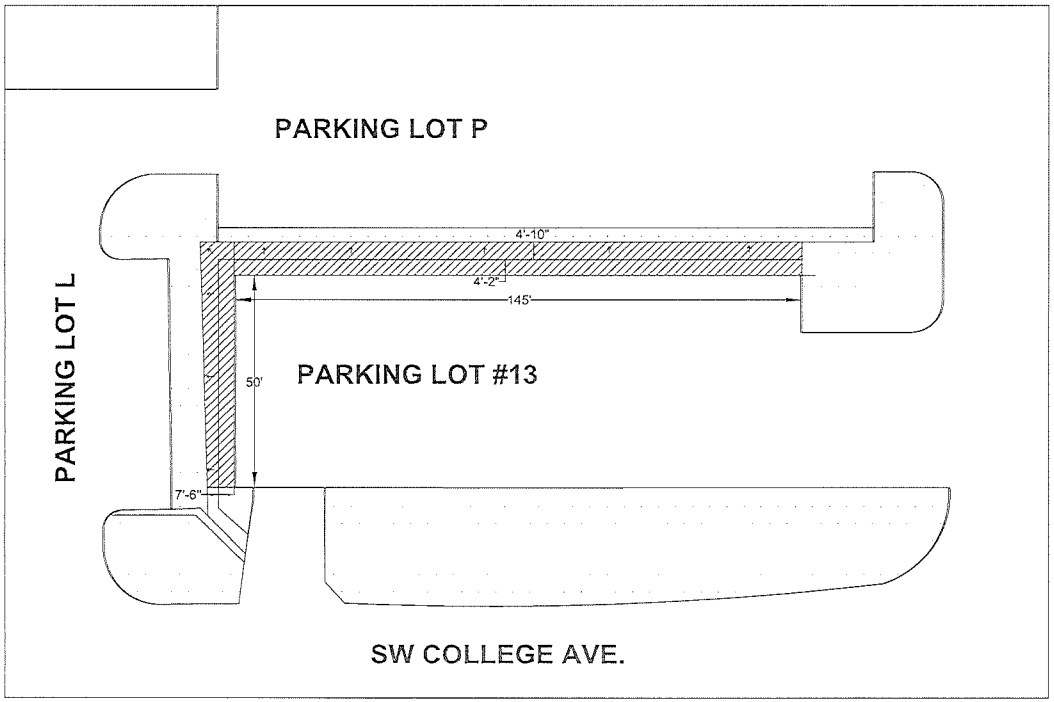
DEPARTMENT OF FACILITIES SERVICES
WASHBURN UNIVERSITY
1675 SW DUROW RD.

DRAWN BY: HRA 4-24

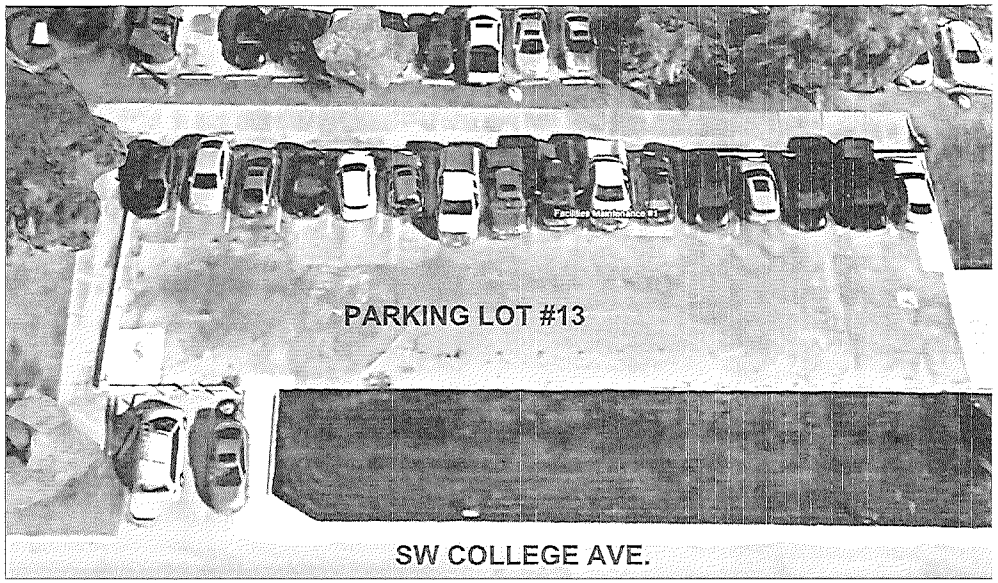
SPECIFICATIONS

SHEET:
G102

DEMOLITION PLAN:



SITE AERIAL:



LEGEND

DEMOLISH CONCRETE DRAINAGE CHANNEL

NOTE:

1. PROTECT PARKING LOT 13 SUPPORT WALL AND CONCRETE PAD TO REMAIN.

PARKING LOT #13 DRAINAGE CHANNEL DEMO

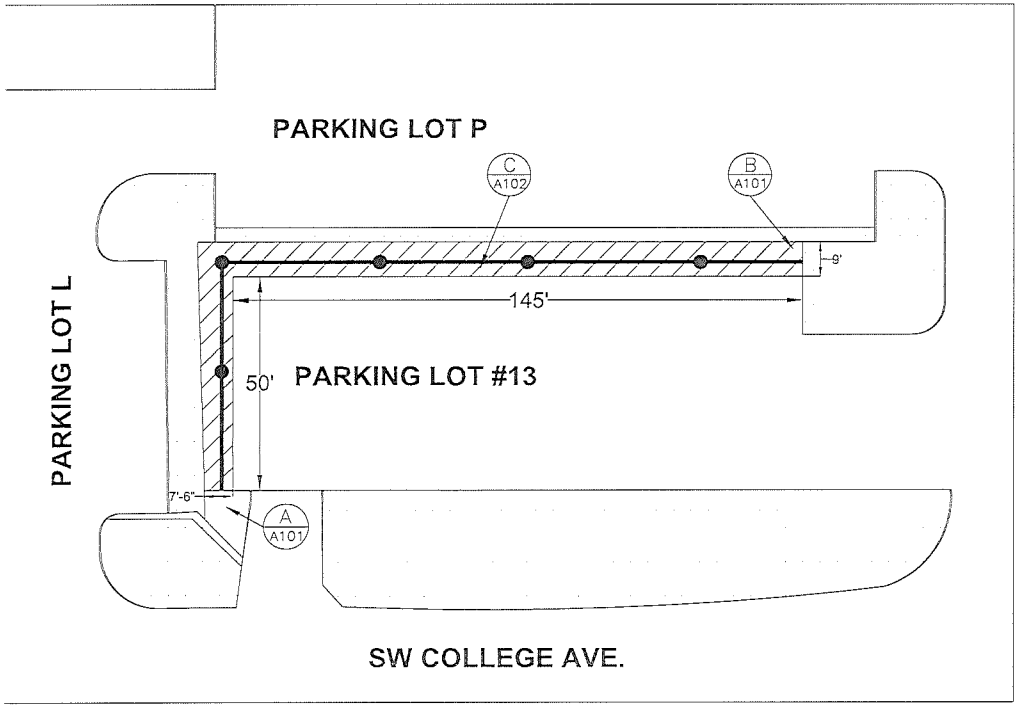
DEPARTMENT OF FACILITIES SERVICES
WASHBURN UNIVERSITY
1920 SW COLLEGE AVE.

DRAWN BY: HRA 3-24

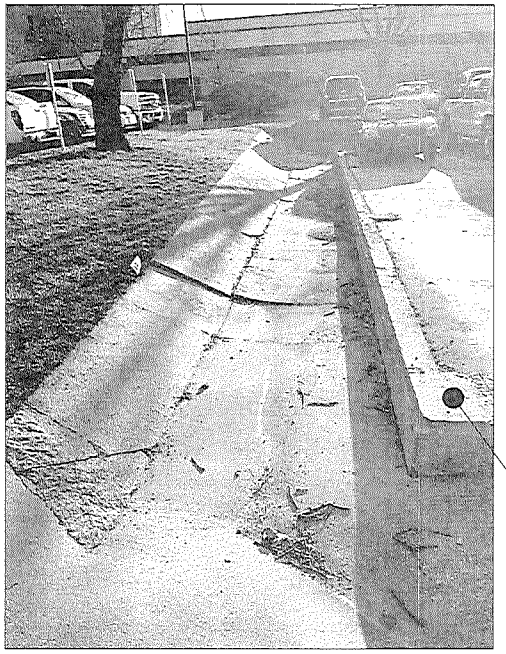
PL 13 DEMOLITION PLAN

SHEET:
A100

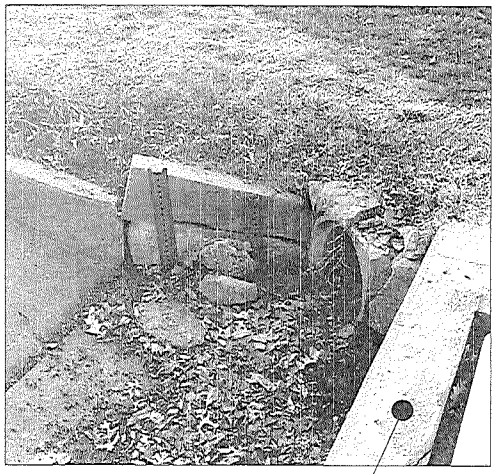
LANDSCAPE PLAN:



A A101 PHOTO 1: DAYLIGHT END



B A101 PHOTO 2: STORM SEWER



LEGEND

- DRAIN
- 4" PERFORATED PVC
- SOD–FESCUE
- EXISTING GRASS

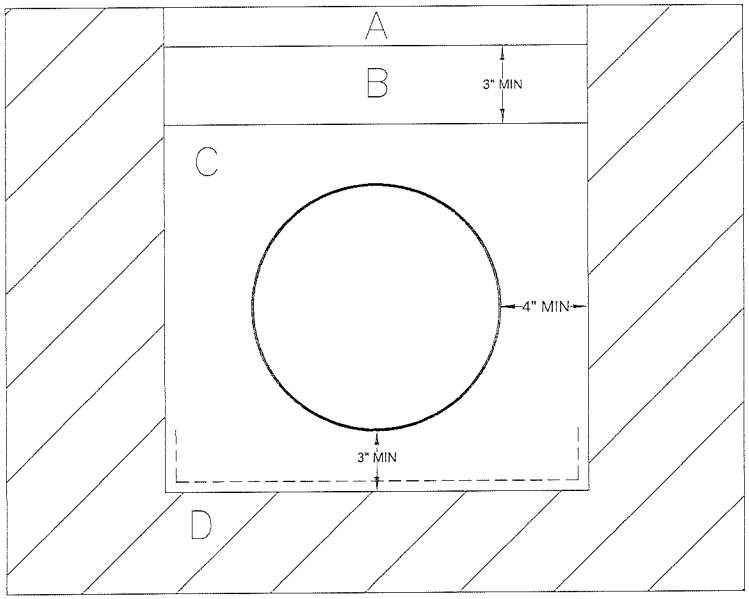
NOTES:

1. PROVIDE TOP OF GRADE TO PARKING LOT 13 TOP OF CURB.
2. LIMIT STEEP SLOPES IN FINAL GRADING WHILE MAINTAINING DRAINAGE.

PARKING LOT #13 DRAINAGE CHANNEL DEMO

DEPARTMENT OF FACILITIES SERVICES
WASHBURN UNIVERSITY
1920 SW COLLEGE AVE.

DRAWN BY: HRA 3–24
PL 13 LANDSCAPE PLAN
SHEET:
A101



C
A102

DETAIL 1: DRAIN PIPE CROSS SECTION

LEGEND

A SOD–FESCUE
B TOP SOIL
C GRAVEL
D FILL
--- GEOTEXTILE FILTER FABRIC
— 4" PERFORATED PVC

PARKING LOT #13 DRAINAGE CHANNEL DEMO

DEPARTMENT OF FACILITIES SERVICES
WASHBURN UNIVERSITY
1920 SW COLLEGE AVE.

DRAWN BY: HRA 3–24
DETAILS
SHEET:
A102