

SECTION 31 20 00

EARTH MOVING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Excavation and backfilling for concrete flatwork, sidewalks, pavements, and landscape areas.
 - 2. Excavation and backfilling for building floor slabs, building foundations and structures.
 - 3. Excavation and backfilling for Synthetic Grass Surfacing.
 - 4. Excavation and backfilling for storm drainage systems.
 - 5. Excavation and backfilling for utility trenches and pits.
 - 6. Excavation and backfilling trenches where existing utilities are removed or modified.
 - 7. Temporary erosion and sedimentation control measures.
- B. Related Sections:
 - 1. Division 01 Sections.
 - 2. Division 03 Section "Cast-in-Place Concrete"
 - 3. Division 23, 26, and 27 Sections for underground mechanical, electrical, and telecommunications utilities and buried mechanical and electrical structures.
 - 4. Division 31 Section "Site Clearing" for site stripping, grubbing, stripping topsoil, and removal of above- and below-grade improvements and utilities.
 - 5. Division 32 Section "Turf and Grasses" and "Plants"
 - 6. Division 32 Section "Synthetic Grass Surfacing"
 - 7. Idaho Standards for Public Works Construction, Current Edition.
 - 8. Geotechnical Engineering Evaluation and Addenda as prepared by Materials Testing & Inspection, MTI File Number: B51328g; Flower Property.
 - 9. Geotechnical Engineering Evaluation and Addenda as prepared by Materials Testing & Inspection, MTI File Number: B180703g_Limitedgeo; New West Ada School District High School Site.
 - 10. SWPPP Documents.

1.2 DEFINITIONS

- A. Refer to Geotechnical Engineering Evaluation for additional information.
- B. Backfill: Soil material or controlled low-strength material used to fill an excavation.
 - 1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe. Initial backfill shall be Bedding Course
 - 2. Final Backfill: Backfill placed over initial backfill to fill a trench. Final Backfill shall be Bedding Course or Granular Structural Fill.
- C. Base Course (Crushed Aggregate Base): Aggregate layer placed between the base course and hot-mix asphalt paving or concrete flatwork or cast in place concrete.
- D. Subbase Course (Granular Structural Fill): Aggregate layer placed between the subgrade and Base Course.
- E. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.

- F. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.
- G. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.
- H. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
- I. Fill: Soil materials used to raise existing grades.
- J. Satisfactory Soil: Soil material in compliance with the Geotechnical Engineering Evaluation.
- K. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- L. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, base course or topsoil materials.
- M. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.3 SUBMITTALS

- A. Product Data: For each type of the following manufactured products required:
 - 1. Geotextiles and warning tapes.
- B. Material Test Reports: For each on-site and borrow soil material proposed for fill and backfill as follows:
 - 1. Classification according to ASTM D 2487.
 - 2. Laboratory compaction curve according to ASTM D 1557 (for rigid structures) or ASTM D 698 (for flexible pavements).
 - 3. Sieve analysis for all structural fill materials.
 - 4. Sieve analysis for all import material defined in this section.
- C. Operations & Maintenance Data: Submit Materials Testing reports for compaction testing of all subgrades and fill materials.

1.4 QUALITY ASSURANCE

- A. Pre-excavation Conference: Conduct conference at Project site.
- B. All gravel, base course, subbase, and other imported fill materials other than landscape fill and topsoil shall only be stockpiled in proposed impervious areas. No gravel or rock materials shall be stockpiled or temporarily placed in proposed landscape areas in order to prevent landscape areas from being contaminated with rock materials. If landscape areas become contaminated, the contractor shall restore them to specified requirements at no cost to the Owner.

1.5 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earthwork operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.
- B. Utility Locator Service: Notify utility locator service for area where Project is located

- before beginning earth moving operations. Contact locator service at 811 or 342.1585.
- C. Do not commence earthwork operations until temporary erosion- and sedimentation-control measures are in place.
- D. Soft Subgrade Conditions: This site consists of native silts and/or clays that are relatively high in moisture content and prone to pumping and rutting from rubber-tired construction equipment. Earth Moving methods which limit destabilizing areas of the site during earth moving activities shall be employed.
- E. Construction operations during dry, warm weather conditions will help to limit development of unstable subgrade conditions. Construction during wet weather may not be possible, depending on the amount of precipitation.
- F. SWPPP: Coordinate with SWPPP documents.
- G. Dust Control: Per Agency Having Jurisdiction.

1.6 WARRANTY

- A. Contractor shall warrant work as provided by the General and Supplementary Conditions and Division 01 Specifications.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations. Materials shall be in compliance with Geotechnical Engineering Evaluation.
- B. Structural Fill: Native, near surface lean clay soils are suitable for and may be used for structural fill or backfill in compliance with the Geotechnical Evaluation. Lean clay soils are not allowed for use as structural fill at building foundations and floor slabs.
- C. Subbase Course (Granular Structural Fill):
 - 1. 6-Inch minus select, clean, granular soil with no more than 50 percent oversize (greater than 3/4-Inch) material and no more than 12 percent fines (passing No. 200 sieve). Refer to the ISPWC Section 801 for material gradation and requirements.
- D. Base Course (Crushed Aggregate Base):
 - 1. 3/4" maximum size- complying with ISPWC Section 802 – 3/4-inch (Type I) for material gradation and requirements.
 - 2. Crushed Aggregate Base as defined herein shall be used as Free Draining Granular Mat as indicated by the geotechnical engineering report.
- E. Bedding Course: Type I bedding material Per ISPWC Section 305 – in compliance with the following material gradation:

Sieve Size	Percent Passing
1-inch	100
3/4-inch	80-100
3/8-inch	20-70
No. 4	5-20
No. 8	0-5
No. 200	0-3

F. Drain Rock: Per ISPWC Section 801 – in compliance with the following material gradation:

Sieve Size	Percent Passing
3-inch	100
1-inch	25-60
3/8-inch	0-4
No. 200	0-2

G. Filter Sand: Per ISPWC Section 801 – in compliance with the following material gradation:

Sieve Size	Percent Passing
3/8-inch	100
No. 4	95-100
No. 16	45-80
No. 50	10-30
No. 100	2-10
No. 200	0-4

H. Topsoil Material: Refer to Specification Section 329200.

I. Landing Pit Sand: Jump Sand – Refer to Specification Section 323300.

J. Synthetic Grass Surfacing Base Material: Provide Drainage Course and Bedding Course material in compliance with the following material gradation and as shown on the drawings.

1. Aggregates shall be clean, hard, strong durable crushed or natural angular mineral particles.
2. Submit sieve analysis and sample for approval prior to placement.
3. Aggregate shall be minimum 90% fractured face.

Sieve Size	Percent Passing
Drainage Course	
3/4-Inch Chip (ASTM No. 57)	
1 1/2-inch	100
1-inch	95-100
1/2-inch	25-60
No. 4	0-10
No. 8	0-5
Sieve Size	Percent Passing
Bedding Course	
3/8-Inch Chip (ASTM No. 8)	
1/2-inch	100
3/8-inch	85-100
No. 4	10-30
No. 8	0-10
No. 16	0-5

K. Decorative Mulch and Landscape Boulders: Refer to Specification Section 329300.

2.2 GEOTEXTILES

A. Drainage Geotextile: TenCate Mirifi 140N, or approved equal. Nonwoven needle-punched geotextile, manufactured for subsurface drainage applications.

2.3 ACCESSORIES

- A. Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility; colored as follows:
 - 1. Red: Electric.
 - 2. Yellow: Gas, oil, steam, and dangerous materials.
 - 3. Orange: Telephone and other communications.
 - 4. Blue: Water systems.
 - 5. Green: Sewer systems.

PART 3 - EXECUTION

3.1 SITE PREPARATION

- A. Refer to Geotechnical Engineering Evaluation for additional information.
- B. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- C. Protect and maintain erosion and sedimentation controls during earthwork operations.
- D. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.
- E. The site shall be watered as required to moisture condition the native soils.
- F. Notify Architect of unexpected subgrade conditions and discontinue affected work in area until notified to resume work.

3.2 EXCAVATION: GENERAL

- A. Refer to Geotechnical Engineering Evaluation for additional information.
- B. All excavation depths noted in this section shall be from existing ground surface. Total excavation depth from existing ground elevation may be greater than depth listed. Coordinate with drawings for more information.
- C. Identify required lines, levels, contours and datum.
- D. Protect above and below grade utilities which are to remain.
- E. Grade top perimeter of excavation to prevent surface water from draining into excavation.
- F. Following excavation to subgrade and prior to fill placement; subgrade surfaces shall be proof rolled in the presence of the geotechnical engineer. Correct Soft Subgrade Soil areas as identified and directed by the Geotechnical Engineer. Proof rolling of subgrade soils shall be accomplished using a heavy rubber-tired, fully loaded, tandem-axle dump truck or equivalent.
- G. Inspection & compaction testing shall be completed per the Division 01 Specifications.

3.3 EXCAVATION AND BACKFILL AT GEOTECHNICAL TEST PITS

- A. Refer to geotechnical engineering evaluation for location and depth of test pits.
- B. Excavate full depth of test pit until undisturbed, native subgrade is encountered.
- C. Place Granular Structural Fill to total depth necessary to bring test pit to proposed subgrade elevation. Place in maximum 12-IN loose lifts and compact to a minimum of 95% per ASTM D1557.
- D. Surface of compacted structural fill shall be smooth, even surface. Remove ridges and fill

depressions.

- E. Coordinate placement and grade with Excavation for Structures, Building Slabs, Building Foundations, Concrete Flatwork & Pavements, this section.
- F. Inspection & compaction testing shall be completed per the Division 01 Specifications.

3.4 EXCAVATION FOR STRUCTURES, BUILDING SLABS AND BUILDING FOUNDATIONS

- A. Excavate to indicated lines, cross sections, elevations and subgrades.
- B. All excavation depths noted in this section shall be from existing surface grades.
- C. Existing top soil material must be completely removed from below building slabs and building foundation elements. Coordinate with specification section 311000.
- D. Existing lean clay soils must be removed from below building foundations and floor slab to expose proper bearing soils. Excavation depth shall vary, refer to specification section 311000 and geotechnical soils evaluation. Excavate area shown on drawings. Stockpile excavated material on site as directed by the Construction Manager.
- E. The exposed subgrade shall be proof-rolled and approved by the Geotechnical Engineer.
- F. Repair soft subgrade soil areas as identified and directed by the Owner's Representative.

3.5 EXCAVATION FOR CONCRETE FLATWORK, WALKS, AND PAVEMENTS

- A. Excavate to indicated lines, cross sections, elevations and subgrades.
- B. Existing top soil material must be completely removed from below concrete flatwork, walks, and pavement elements. Coordinate with specification section 311000.
- C. The exposed subgrade shall be proof-rolled and approved by the Geotechnical Engineer.
- D. Repair soft subgrade soil areas as identified and directed by the Owner's Representative.
- E. Excavate to adequate depth for placement of Subbase Course and Base Course Soil Materials.

3.6 EXCAVATION FOR SYNTHETIC GRASS SURFACING

- A. Excavate to indicated lines, cross sections, elevations and subgrades.
- B. Existing top soil material must be completely removed from below synthetic grass surfacing. Coordinate with specification section 311000.
- C. The exposed subgrade shall be proof-rolled and approved by the Geotechnical Engineer.
- D. Repair soft subgrade soil areas as identified and directed by the Owner's Representative.
- E. Excavate to adequate depth for placement of Subbase Course, Drainage Course and Bedding Course Soil Materials.

3.7 EXCAVATION FOR UTILITY TRENCHES

- A. Comply with the requirements of the ISPWC and the Local Agency Having Jurisdiction Standard Specifications.
- B. Excavate trenches to indicated gradients, lines, depths and elevations. Utility cover shall be per Division 33 and the Drawings.
- C. Excavate trenches to a minimum width of 24" plus pipe or conduit outside diameter. Provide uniform clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated.
- D. Remove excavated soil material and dispose of off Owner's property.
- E. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and

support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.

1. Excavate trenches 6-IN deeper than elevation required in rock or other unyielding bearing material, 4 inches deeper elsewhere, to allow for bedding course.

3.8 EXCAVATION FOR LANDSCAPE AREAS

- A. Excavate to indicated lines, cross sections, elevations and subgrades.
- B. The exposed subgrade shall be visually inspected and approved by the Owner's Representative.
- C. Repair soft subgrade soil areas as identified and directed by the Owner's Representative.
- D. Excavate to 12-IN depth below proposed finished landscape surface elevation for placement of topsoil at all landscape areas, coordinate with drawings and specification section 329200 and 929300.

3.9 SUBGRADE INSPECTION

- A. Notify Construction Manager when excavations have reached required subgrade elevations.
- B. Prior to placement of subbase course fill material at building areas, the exposed subsoil surface should be proof-rolled under the observation of the Geotechnical Engineer or observed as noted in this section.
- C. Cut out soft or otherwise unsuitable areas of subgrade not capable of supporting structural loads. Backfill with Granular Structural Fill and compact to density equal to or greater than requirements for subsequent backfill material. Prior to placing Granular Structural Fill, the geotechnical engineer shall evaluate the over-excavated subgrade to determine if a Geotextile should be placed on the over-excavated subgrade.
- D. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by the Construction Manager.

3.10 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Protect as necessary to prevent windblown dust.
 1. Stockpile soil materials away from edge of excavations.
 2. Coordinate stockpile requirements with the requirements of the Agency Having Jurisdiction and the SWPPP documents and acceptable BMP's.

3.11 BACKFILL - GENERAL

- A. Upon approved preparation and compaction of subgrade, placement of Subbase & Base Course shall proceed.
- B. Place Backfill materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Surface of Backfill shall be smooth, even surface. Remove ridges and fill depressions as required to meet finish grades.
- D. Coordinate placement with Specification Section 033000 and Civil, Architectural and Structural Drawings.

3.12 STRUCTURAL FILL - GENERAL

- A. Refer to Geotechnical Engineering Evaluation for additional information. Soils for use as Structural Fill shall be as defined by this section and are not allowed for use below building foundations or building floor slabs.
- B. Soils for use as Structural Fill include non-expansive clay soils as defined by the Geotechnical Evaluation. Additional Effort and care will be required when dealing with these fine-grained materials. These materials require very high moisture contents for compaction and require a long time to dry out if natural moisture contents are too high. This makes moisture content, lift thickness, and compactive effort difficult to control.
- C. Lift thickness should not exceed 6-inches (loose), and fill material moisture should be closely monitored at both the working elevation and the elevation of material already placed. Moisture contents must not exceed optimum, but be within 2 percent of optimum to facilitate compaction. Overly wet materials must be removed and air-dried or replaced with more suitable material.
- D. Each layer of fill should be compacted by pads-foot or sheeps-foot roller (or equivalent), to a minimum of 95% of maximum dry density, as determined by ASTM D698.
- E. After placement, fine-grained soils must be protected from degradation resulting from construction traffic or subsequent construction.

3.13 GRANULAR STRUCTURAL FILL - GENERAL

- A. Soils for use as Granular Structural Fill shall be as defined by this section.
- B. Fill materials should be placed in layers not to exceed 12-IN loose thickness.
- C. Granular Structural Fill material should be moisture-conditioned to achieve optimum moisture content prior to compaction.
- D. Each layer of fill should be compacted to the following density:
 - 1. Below Flexible Pavements: A minimum of 95% of maximum dry density, as determined by ASTM D 1557 or 95% of ASTM D698.
 - 2. Below Synthetic Grass Surfacing: A minimum of 92% of maximum dry density, as determined by ASTM D698.
 - 3. Below Building Foundations, Building Floor Slab, Structures and Rigid Pavements: A minimum of 95% of maximum dry density, as determined by ASTM D 1557.

3.14 SUBBASE COURSE FILL

- A. Upon approved preparation and observed proof-rolling of subgrade, placement of Subbase Course Fill shall proceed where indicated.
- B. Place Subbase Course Fill as required to achieve correct subgrade elevation for placement of Base Course fill and indicated surface improvements. Place Subbase Course fill in maximum 12-inch loose lifts and compact as noted below.
- C. Surface of Subbase Course Fill shall be smooth, even surface. Remove ridges and fill depressions as required to meet finish grades.
- D. Each layer of fill should be compacted to the following density:
 - 1. Below Flexible Pavements: A minimum of 95% of maximum dry density, as determined by ASTM D 1557 or 95% of ASTM D698.
 - 2. Below Synthetic Grass Surfacing: A minimum of 92% of maximum dry density, as determined by ASTM D698.

3. Below Building Foundations, Building Floor Slab, Structures and Rigid Pavements: A minimum of 95% of maximum dry density, as determined by ASTM D 1557.
- E. Coordinate with Section 321813 for as-built survey requirements at synthetic turf field.

3.15 BASE COURSE FILL

- A. Upon approved placement and compaction of Subbase Course Fill, placement of Base Course Fill shall proceed.
- B. Place and compact Base Course material in layers to required elevations. Place in maximum 6-IN loose lifts.
- C. Place Base Course materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- D. Surface of Base Course shall be smooth, even surface. Remove ridges and fill depressions as required to meet finish grades.
- E. Base Course Fill at Structures, Building Slabs and Building Foundations:
 1. Building Floor Slabs: Place a 4-inch layer of compacted Base Course.
 2. Structures: Compacted depth as shown on the Drawings.
 3. Building Foundations: Not required – refer to structural drawings for more information.
 4. Coordinate with Specification Section 033000 and Architectural and Structural Drawings.
- F. Base Course at Pavement, Curbs and Walks:
 1. Asphalt Paving: Compacted depth as indicated on the drawings.
 2. Concrete Flatwork, Curbs & Walks: Compacted depth as indicated on the drawings.
- G. Place Base Course in maximum 6-IN thick loose lifts to bottom of structure, building slab, pavement, curb or walk. Base Course shall be moisture conditioned to within 2 percent of the optimum moisture.
- H. Each layer of Base Course fill should be compacted to the following density:
 1. Below Structures and Rigid Pavements: A minimum of 95% of maximum dry density, as determined by ASTM D 1557.
 2. Below Flexible Pavements: A minimum of 95% of the maximum dry density as determined by ASTM D 698.

3.16 DRAINAGE COURSE AND BEDDING COURSE FILL

- A. Synthetic Grass Surfacing: Place in compliance with Section 321813 and Drawings.
- B. Drainage Course and Bedding Course shall be compacted, firm and unyielding. Proof roll in the presence of the geotechnical engineer.
- C. Contractor shall add sand fines to bedding course fill as necessary to ensure surface of bedding course is firm and unyielding.
- D. Refer to Section 321813 for surface tolerance of bedding course.
- E. As-Built Topographic Survey – Contractor shall coordinate with Owner’s Representative for as built survey to confirm tolerance is met. Coordinate with specification section 312000 for as-built topographic survey requirements prior to installation of turf.
 1. Subbase Course: As-Built subbase course surface prior to placement of drainage course.
 2. Bedding Course: As-Built bedding course surface prior to placement of turf.

3.17 LANDSCAPE FILL

- A. Coordinate placement of topsoil with Specification Sections 329200 and 329300.

3.18 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.
 - 1. Provide a smooth transition between adjacent existing grades and new grades.
 - 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 - 1. Turf or Unpaved Areas: Plus or minus 1 inch.
 - 2. Walks: Plus or minus 1 inch.
 - 3. Pavements: Plus or minus 1/2 inch.
- C. Site drainage should be directed away from structural areas, to avoid ponding of waters during storm events.
- D. Grading inside Building Lines: Finish subgrade to a tolerance of 1/4 inch when tested with a 10-foot straightedge.

3.19 FIELD QUALITY CONTROL

- A. Perform field inspection and testing under provisions of Division 1.
- B. Testing Agency: Owner will engage a qualified geotechnical engineering testing agency to perform tests and inspections.
- C. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.
- D. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Architect.
- E. Testing agency will perform compaction testing at the following locations and frequencies:
 - 1. Asphalt Pavement, Walks and Building Slab Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 5,000 SF (Building Slab) and every 10,000 SF (paved areas) but in no case fewer than three tests.
 - 2. Foundation Wall Backfill: At each compacted backfill layer, at least one test for every 100 feet or less of wall length, but no fewer than two tests.
 - 3. Trench Backfill: At each compacted initial and final backfill layer (maximum 8" lifts), at least one test for every 100 feet or less of trench length, but no fewer than two tests.
 - 4. Synthetic Grass Surfacing: At subgrade and at each compacted fill and backfill layer, at least one test for every 20,000 SF but in no case fewer than three tests.
 - 5. Landscape Fill: At subgrade and at each compacted fill and backfill layer, at least one test for every 40,000 SF but in no case fewer than two tests.
 - 6. Geotechnical Test Pits: one test at each compacted fill layer at each test pit.
- F. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials

to depth required; re-compact and retest until specified compaction is obtained.

3.20 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, 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 Architect; reshape and re-compact.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.21 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 areas on Owner's property. Stockpile or spread soil as directed by Construction Manager.

END OF SECTION 31 20 00