

BIDDERS BULLETIN

PROJECT: Wallace Public Schools
Classroom & Shop Addition
Wallace, Nebraska

BULLETIN NUMBER

BB-2

ISSUED BY:

Grant Creager

PROJECT #: 16-1026

DATE ISSUED: October 26th, 2016

This bulletin is issued by the Architect to all known bidders before receipt of proposals, for the purpose of explaining, interpreting, or modifying the original plans and specifications. When enumerated by the bidder upon the proposal sheet, the information or instructions given hereon will be equally binding upon all parties as if included in the original plans and specifications.
BIDDER MUST ENTER THE NUMBER OF THIS BULLETIN ON HIS PROPOSAL SHEET

GENERAL INFORMATION

BB-2, ITEM #1: ~ ~

~ ~

THE FOLLOWING ITEMS ARE APPLICABLE TO THE SPECIFICATIONS

BB-2, ITEM #2: Substitutions

The following products and manufacturers will be considered approved equal for the products in which they are listed below. However, this does not relieve the supplier from providing equipment as specified, and if equipment is submitted which does not meet the intent of the specifications, it will in fact be rejected.

~ ~

BB-2, Item #3: In reference to 31 3116 Termite Control & 312000 Earth Moving

*Refer to attached two specification sections. These sections are to replace current specifications.

BB-2, Item #4: In reference to section 02200: Excavation, Filling, & Grading

*In reference to the depth of the over-excavation, over-excavation is expected to be approximately 7' below the existing grade. Some areas are anticipated to be deeper in depth. Final depth to be determined by on site geo-technical representative to ensure competent materials and soil compactions at final depth are met. All excavated material is allowed to be re-installed. Approximately 40% in shrinkage is expected with existing material when re-installed and compacted. Additional fill material will be required.

THE FOLLOWING ITEMS ARE APPLICABLE TO THE DRAWINGS:

BB-2, Item #5: Civil Sheets C1-1 R1 & C3-0 R1

*See attached updated sheets

BB-2, Item #6: Reference to sheets A-601 & A-801

*In reference to all (3) Three overhead doors, remove note about 25psf wind load. No wind load required.

BB-2, Item #7: Reference to casework sheets

*Provide cabinet locks on "ALL" tall staff wardrobe "cabinet units" Refer to specifications for lock requirements.

*Casework construction to be based on drawing notes in lieu of specifications

*There are "NO" bulkheads above any cabinets

*Provide 5 knuckle institutional hinges in lieu of specified hinges

BB-2, Item #8: Reference to sheet A-701

*Wall section 6 should read PEMB Wall with 6" "STUD"

*General note #7 indicated all "exposed" gypsum to be impact rated. Installing impact rated gypsum on only the **first 8'-0"** above finish floor is acceptable.

END OF BB-2, See attachments. Mechanical & Electrical comments attached separately.

SECTION 31 3116
TERMITE CONTROL

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Chemical soil treatment.

1.02 REFERENCE STANDARDS

- A. Title 7, United States Code, 136 through 136y - Federal Insecticide, Fungicide and Rodenticide Act; United States Code; 1947 (Revised 2001).

1.03 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Indicate toxicants to be used, composition by percentage, dilution schedule, intended application rate.
- C. Test Reports: Indicate regulatory agency approval reports when required.
- D. Manufacturer's Application Instructions: Indicate caution requirements .
- E. Manufacturer's Certificate: Certify that toxicants meet or exceed specified requirements.
- F. Certificate of compliance from authority having jurisdiction indicating approval of toxicants.
- G. Record moisture content of soil before application.
- H. Maintenance Data: Indicate re-treatment schedule .
- I. Warranty: Submit warranty and ensure that forms have been completed in Owner's name.

1.04 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing this type of work and:
 - 1. Having minimum of two (2) documented experience.
 - 2. Approved by manufacturer of treatment materials.
 - 3. Licensed in Nebraska.

1.05 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Provide five (5) year installer's warranty against damage to building caused by termites.
 - 1. Include coverage for repairs to building and to contents damaged due to building damage. Repair damage and, if required, re-treat.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Manufacturers:
 - 1. Bayer Environmental Science Corp: www.backedbybayer.com/pest-management.
 - 2. FMC Professional Solutions;Prevail FT: www.fmcprosolutions.com.
 - 3. Syngenta Professional Products; Demon TC: www.syngentaprofessionalproducts.com.
 - 4. Substitutions: See Section 01 6000 - Product Requirements.

- B. Toxicant Chemical: EPA approved; synthetically color dyed to permit visual identification of treated soil.
- C. Diluent: Recommended by toxicant manufacturer.

2.02 MIXES

- A. Mix toxicant to manufacturer's instructions.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that soil surfaces are unfrozen, sufficiently dry to absorb toxicant, and ready to receive treatment.
- B. Verify final grading is complete.

3.02 APPLICATION

- A. Comply with requirements of U.S. EPA and applicable state and local codes.
- B. Inject toxicant in accordance with manufacturer's instructions.
- C. Apply toxicant at following locations:
 - 1. Under Slabs-on-Grade.
 - 2. At Both Sides of Foundation Surface.
- D. Under slabs, apply toxicant immediately prior to installation of vapor barrier.
- E. At foundation walls, apply toxicant immediately prior to finish grading work outside foundations.
- F. Apply extra treatment to structure penetration surfaces such as pipe or ducts, and soil penetrations such as grounding rods or posts.
- G. Re-treat disturbed treated soil with same toxicant as original treatment.
- H. If inspection or testing identifies the presence of termites, re-treat soil and re-test.

3.03 PROTECTION

- A. Do not permit soil grading over treated work.
- B. Post warning signs in areas of application.



END OF SECTION

SECTION 312000

EARTH MOVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Geotechnical investigation report entitled "Site Exploration and Geotechnical Engineering Report, Proposed Shop and Classroom Building, Wallace, Nebraska, (Twin Rivers Testing #2015-190)" dated January 13, 2016, and prepared by Twin Rivers Testing & Environmental, 602 E. Walker Road, North Platte, Nebraska, 69101.

1.2 SUMMARY

- A. Section Includes:
 - 1. Preparing subgrades for slabs-on-grade, walks, pavements, and turf and grasses.
 - 2. Excavating and backfilling for buildings and structures.
 - 3. Excavating and backfilling trenches for utilities and pits for buried utility structures.
- B. Related Sections:
 - 1. Section 015000 "Temporary Facilities and Controls" for temporary controls, utilities, and support facilities; also for temporary site fencing if not in another Section.
 - 2. Section 033000 "Cast-in-Place Concrete" for granular course if placed over vapor retarder and beneath the slab-on-grade.
 - 3. Section 311000 "Site Clearing" for site stripping, grubbing, stripping and stockpiling topsoil, and removal of above- and below-grade improvements and utilities.

1.3 DEFINITIONS

- A. 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.
 - 2. Final Backfill: Backfill placed over initial backfill to fill a trench.
- 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.
- D. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.
- E. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.

1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Architect. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
 2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Architect. Unauthorized excavation, as well as remedial work directed by Architect, shall be without additional compensation.
- F. Fill: Soil materials used to raise existing grades.
- G. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material 3/4 cu. yd. (0.57 cu. M) or more in volume that exceed a standard penetration resistance of 100 blows/2 inches (97 blows/50 mm) when tested by a geotechnical testing agency, according to ASTM D 1586.
- H. 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.
- I. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.
- J. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified testing agency.
- B. Product Data: For each type of the following manufactured products required:
1. Warning Tapes.
- C. Samples for Verification: For the following products, in sizes indicated below:
1. Warning Tape: 12 inches long; of each color.
- D. 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 698 or ASTM D 1557.
 3. LL, PL, and Proctor for each material
- E. In-place material density and inspection reports: Density testing results and inspection reports by the qualified testing agency to the Contractor and duplicate copies to the Architect within 10 days of testing or inspection.
- F. Pre-excavation photographs or video: Show existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damage caused by earth moving operations. Submit before earth moving begins.

1.5 QUALITY ASSURANCE

- A. Geotechnical Testing Agency: The Contractor will contract with an independent 3rd party laboratory for soils testing services. Contractor shall coordinate needed tests with testing agency, and cooperate with their recommendations and instructions.
- B. Geotechnical Testing Agency Qualifications: See Section 014000 "Quality Requirements".
- C. Codes and Standards: Perform earth moving operations complying with requirements of authorities having jurisdiction. Acquire permits to haul material over public ways as required by authorities having jurisdiction.
- D. Comply with the requirements of the Geotechnical Exploration report referenced in Section 1.1 B.

1.6 PROJECT 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.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.
 - 3. Coordinate with Owner to allow for continued access to the food service and receiving area throughout construction. Phase work as necessary to accommodate deliveries.
- B. Improvements on Adjoining Property: Authority for performing earth moving indicated on property adjoining Owner's property will be obtained by Owner before award of Contract.
 - 1. Do not proceed with work on adjoining property until directed by Architect.
- C. Utility Locator Service: Notify "One Call" for area where Project is located before beginning earth moving operations.
- D. Do not commence earth moving operations until temporary erosion- and sedimentation-control measures, are in place.
- E. Do not commence earth moving operations until plant-protection measures specified in Section 015639 "Temporary Tree and Plant Protection" are in place.
- F. The following practices are prohibited within protection zones:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Parking vehicles or equipment.
 - 3. Foot traffic.
 - 4. Erection of sheds or structures.
 - 5. Impoundment of water.
 - 6. Excavation or other digging unless otherwise indicated.
 - 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- G. Do not direct vehicle or equipment exhaust towards protection zones.

- H. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones.

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 **Silty Sand, Poorly Graded Sand, Lean Clay, Clayey Sand, or Sandy Clay** or a combination of these groups; free of rock or gravel larger than 2 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
 - 1. Liquid Limit: 45 or less.
 - 2. Plasticity Index: 25 or less.
- C. Unsatisfactory Soils: Those soils not meeting the classifications for Satisfactory Soils.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within -1% and +3% of optimum moisture content at time of compaction.
- D. Structural Fill: Satisfactory Soils with 100 percent passing a 3-inch sieve. All fill material shall be approved by the Geotechnical Engineer prior to importing to the site.
- E. Granular Cushion: A 6" thick layer of granular material conforming to ASTM D448 No. 10 gradation, with 100% passing the 3/8" sieve, 85-100% passing the No. 4 sieve, and 10-30% passing the No. 100 sieve. This layer shall be free draining, well-graded, and compacted by a minimum of 4 passes with a vibratory plate.
- F. Utility Trench Backfill Material: Bedding material shall be crushed limestone or crushed gravel. Bedding material shall be 3/8" minus material, and shall be well-graded. Bedding material shall be used from 4" below plastic pipes to 12" above top of pipe. Backfill material shall be similar to material excavated from the trench, shall be reasonably free from foots and other organics, trash, frozen material, and stones larger than 4" diameter. Limit stones to 3/4" diameter in zone 12" above pipe.
- G. Sand: ASTM C 33; fine aggregate.

2.2 CONTROLLED LOW-STRENGTH MATERIAL

- A. Controlled Low-Strength Material: Self-compacting, flowable concrete material produced from the following:
 - 1. Portland Cement: ASTM C 150, **Type I** or **Type II**.
 - 2. Fly Ash: ASTM C 618, Class C or F.
 - 3. Normal-Weight Aggregate: ASTM C 33, **3/8-inch** nominal maximum aggregate size.
 - 4. Foaming Agent: ASTM C 869.
 - 5. Water: ASTM C 94/C 94M.
 - 6. Air-Entraining Admixture: ASTM C 260.

- B. Produce conventional-weight, controlled low-strength material with 140-psi (965-kPa) compressive strength when tested according to ASTM C 495.

2.3 ACCESSORIES

- A. Detectable Warning Tape: Acid and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic core encased in protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored as follows:
 - 1. Yellow: Gas, oil, steam and dangerous materials
 - 2. Blue: Water systems
 - 3. Green: Sewer Systems.

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 earth moving operations.
- B. Stake utility trenches and verify existing utility inverts and locations to assure that utilities can be constructed as designed. Excavate and expose existing utilities and tunnels along the utility route prior to opening other sections of trench. If conflicts occur between actual conditions and conditions shown on the Drawings, contact the Architect.
- C. Protect and maintain erosion and sedimentation controls during earth moving operations.
- D. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials. Do not commence grading operations when low temperatures prohibit placing fill on non-frozen surfaces. When frost depths are minimal, the frozen surface material may be stripped and stockpiled to allow excavation and placement of non-frozen material. Frozen surface material shall not be used as fill material, but shall be stockpiled until such time as material thaws.
- E. Adjust moisture content of excavated material to within specified tolerances prior to installing fill.

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. Comply with local codes, ordinances, and requirements of authorities having jurisdiction to maintain stable excavations.
- B. Brace, shore, or install other means necessary to protect adjacent structures from movement, settlement, or collapse. Damage resulting from movement shall be repaired at the Contractor's expense.
- C. Remove vegetation, topsoil, debris, wet and unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placing fills.
- D. 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. Remove rock to lines and grades indicated to permit installation of permanent construction without exceeding the following dimensions:
 - a. 24 inches (600 mm) outside of concrete forms other than at footings.
 - b. 12 inches (300 mm) outside of concrete forms at footings.
 - c. 6 inches (150 mm) outside of minimum required dimensions of concrete cast against grade.
 - d. Outside dimensions of concrete walls indicated to be cast against rock without forms or exterior waterproofing treatments.
 - e. 6 inches (150 mm) beneath bottom of concrete slabs-on-grade.
 - f. 6 inches (150 mm) beneath pipe in trenches, and the greater of 24 inches (600 mm) wider than pipe or 42 inches (1065 mm) wide.
 - g. 6 inches (150 mm) beneath pipe in trenches, and the greater of 24 inches (600 mm) wider than pipe or 42 inches (1065 mm) wide.

3.4 ROUGH GRADING SUBGRADE PREPARATION

- A. Prior to placement of fill in areas that is below design grade, proof-roll the resulting subgrade from site clearing operations in the presence of the testing agency.
 - 1. Soft or unsatisfactory soils shall be overexcavated to depths and limits as determined by the representative of the testing agency, replaced with satisfactory soils, and compacted and moisture conditioned to specified limits.
- B. After site clearing and proof-rolling operations and prior to placement of fill in areas that are below design grade, scarify the upper 8 inches of the subgrade, adjust the moisture contents to within specified limits, and compact to specified densities.
 - 1. Scarification and recompaction shall occur in the presence of a representative from the testing agency.

3.5 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch (25 mm). If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
 - 1. Excavations for Footings and Foundations: Overexcavate below bearing elevation a depth of 2 times the footing width or 3 feet minimum, whichever is deeper. Cutback slopes should not exceed a slope of 1:1. Moisture condition and recompact subgrade to a minimum of 95% of maximum standard dry density. Backfill from overexcavated subgrade depth to the footing bearing elevation with structural fill. Compact structural fill with a vibratory roller with a minimum weight of 10 tons. Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.
 - 2. Excavations for floor slabs: Overexcavate below floor slabs to a depth of 24". Moisture condition and recompact subgrade below this excavation limit. Backfill with 18" of Structural Fill. Install 6" of granular cushion above structural fill and directly below pavement subgrade elevation.
 - 3. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1 inch (25 mm). Do not disturb bottom of excavations intended as bearing surfaces.
- B. Excavations at Edges of Tree- and Plant-Protection Zones:
 - 1. Excavate by hand to indicated lines, cross sections, elevations, and subgrades. Use narrow-tine spading forks to comb soil and expose roots. Do not break, tear, or chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.
 - 2. Cut and protect roots according to requirements in Section 015639 "Temporary Tree and Plant Protection."

3.6 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.
- B. Scarify and/or overexcavate material to a depth of 18" below sidewalk. Backfill with suitable material, moisture condition, and recompact. Extend overexcavation to 24" outside of pavement line.

3.7 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
 - 1. Beyond building perimeter, excavate trenches to allow installation of top of pipe below frost line.
- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches (300 mm) higher than top of pipe or conduit unless otherwise indicated.

- C. 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. For pipes and conduit less than 6 inches (150 mm) in nominal diameter, hand-excavate trench bottoms and support pipe and conduit on an undisturbed subgrade.
 - 2. For pipes and conduit 6 inches (150 mm) or larger in nominal diameter, shape bottom of trench to support bottom 90 degrees of pipe or conduit circumference. Fill depressions with tamped sand backfill.
 - 3. For flat-bottomed, multiple-duct conduit units, hand-excavate trench bottoms and support conduit on an undisturbed subgrade.
 - 4. Excavate trenches 6 inches (150 mm) deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.
- D. Trench Bottoms: Excavate trenches 4 inches (100 mm) deeper than bottom of pipe and conduit elevations to allow for bedding course. Hand-excavate deeper for bells of pipe.
 - 1. Excavate trenches 6 inches (150 mm) deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

3.8 SUBGRADE INSPECTION

- A. Notify Architect and geotechnical testing agency representative when excavations have reached required subgrade.
- B. If Architect or geotechnical testing agency determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
- C. Proof-roll subgrade below the building slabs and pavements with a pneumatic-tired and loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades. For areas of subgrade not large enough for proof rolling using the above method, coordinate an acceptable alternative with the geotechnical engineer.
 - 1. Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph (5 km/h).
 - 2. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Architect, and replace with compacted backfill or fill as directed.
- D. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Architect, without additional compensation.

3.9 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi (17.2 MPa), may be used when approved by Architect.
 - 1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by Architect.

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. Cover to prevent windblown dust.
 - 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.
 - 2. Coordinate with Owner for stockpile locations

3.11 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 - 1. Construction below finish grade including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
 - 2. Surveying locations of underground utilities for Record Documents.
 - 3. Testing and inspecting underground utilities.
 - 4. Removing concrete formwork.
 - 5. Removing trash and debris.
 - 6. Removing temporary shoring and bracing, and sheeting.
 - 7. Installing permanent or temporary horizontal bracing on horizontally supported walls.
- B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.12 UTILITY TRENCH BACKFILL

- A. Place backfill on subgrades free of mud, frost, snow, or ice.
- B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
- C. Use a Class B bedding for gravity sewer lines and class C bedding for pressure lines as indicated on the drawings and as recommended by the pipe manufacturer.
- D. Trenches under Footings: Backfill trenches excavated under footings and within 18 inches (450 mm) of bottom of footings with satisfactory soil; fill with concrete to elevation of bottom of footings.
- E. Backfill voids with satisfactory soil while removing shoring and bracing.
- F. Place and compact initial backfill of satisfactory soil, to a height of 12 inches (300 mm) over the pipe or conduit.
 - 1. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.
- G. Controlled Low-Strength Material: Place initial backfill of controlled low-strength material to a height of 12 inches (300 mm) over the pipe or conduit. Coordinate backfilling with utilities testing.

- H. Place and compact final backfill of satisfactory soil to final subgrade elevation.
- I. Controlled Low-Strength Material: Place final backfill of controlled low-strength material to final subgrade elevation.
- J. Repair settlements and finish top of backfill trench as specified.
- K. Install warning tape directly above utilities, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

3.13 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.
 2. Under walks and pavements, use 18" structural fill.
 3. Under steps and ramps, use 18" structural fill
 4. Under building slabs, use 18" structural fill material with 6" granular cushion above.
 5. Under footings and foundations, use structural fill to a depth of twice the footing width or 3' below bearing elevation, whichever requires the greater amount of structural fill.
- C. Place soil fill on subgrades free of mud, frost, snow, or ice.

3.14 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within -2% and +3% of optimum moisture content. Under floor slabs, the moisture content is -0% to +3% if 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 3 percent and is too wet to compact to specified dry unit weight.

3.15 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place backfill and fill soil materials in layers not more than 9 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 elevations, and uniformly along the full length of each structure. Backfill structures with satisfactory material.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 698 or ASTM D 1557:
 1. Under foundations, overexcavate to a depth of twice the footing width below the bearing elevation, or a minimum of 3' below the bearing elevation, whichever is deeper.

Recompact top 6 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent.

2. Under floors, overexcavate and/or scarify to a depth of 24" below bottom of floor slab. Scarify and recompact top 6" of subgrade. Install 18" of Structural Fill compacted to 95% of maximum dry density. Install 6" granular cushion above structural fill.
3. Under walkways, scarify and recompact top 18 inches below subgrade and compact each layer of backfill or fill soil material at 95 percent.
4. Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 95 percent.
5. For utility trenches, compact each layer of initial and final backfill soil material at 95 percent.

3.16 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 (25 mm).
 2. Walks: Plus or minus 1 inch (25 mm).
 3. Pavements: Plus or minus 1/2 inch (13 mm).
- C. Grading inside Building Lines: Finish subgrade to a tolerance of 1/4 inch when tested with a 10-foot straightedge.

3.17 FIELD QUALITY CONTROL

- A. Special Inspections: Retain a geotechnical testing agency to complete the following quality control items:
 1. Determine prior to placement of fill that site has been prepared in compliance with requirements.
 2. Determine that fill material and maximum lift thickness comply with requirements.
 3. Determine, at the required frequency, that in-place density of compacted fill complies with requirements.
- B. Testing Agency: Contractor 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 earth moving 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 test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:
 - 1. Paved and Building Slab Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 2000 sq. ft. (186 sq. m) or less of paved area or building slab, 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 (30 m) or less of wall length, but no fewer than two tests.
 - 3. Trench Backfill: At each compacted initial and final backfill layer, at least one test for every 150 feet (46 m) or less of trench length, but no fewer than two tests.
- 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; recompact and retest until specified compaction is obtained.

3.18 PROTECTION

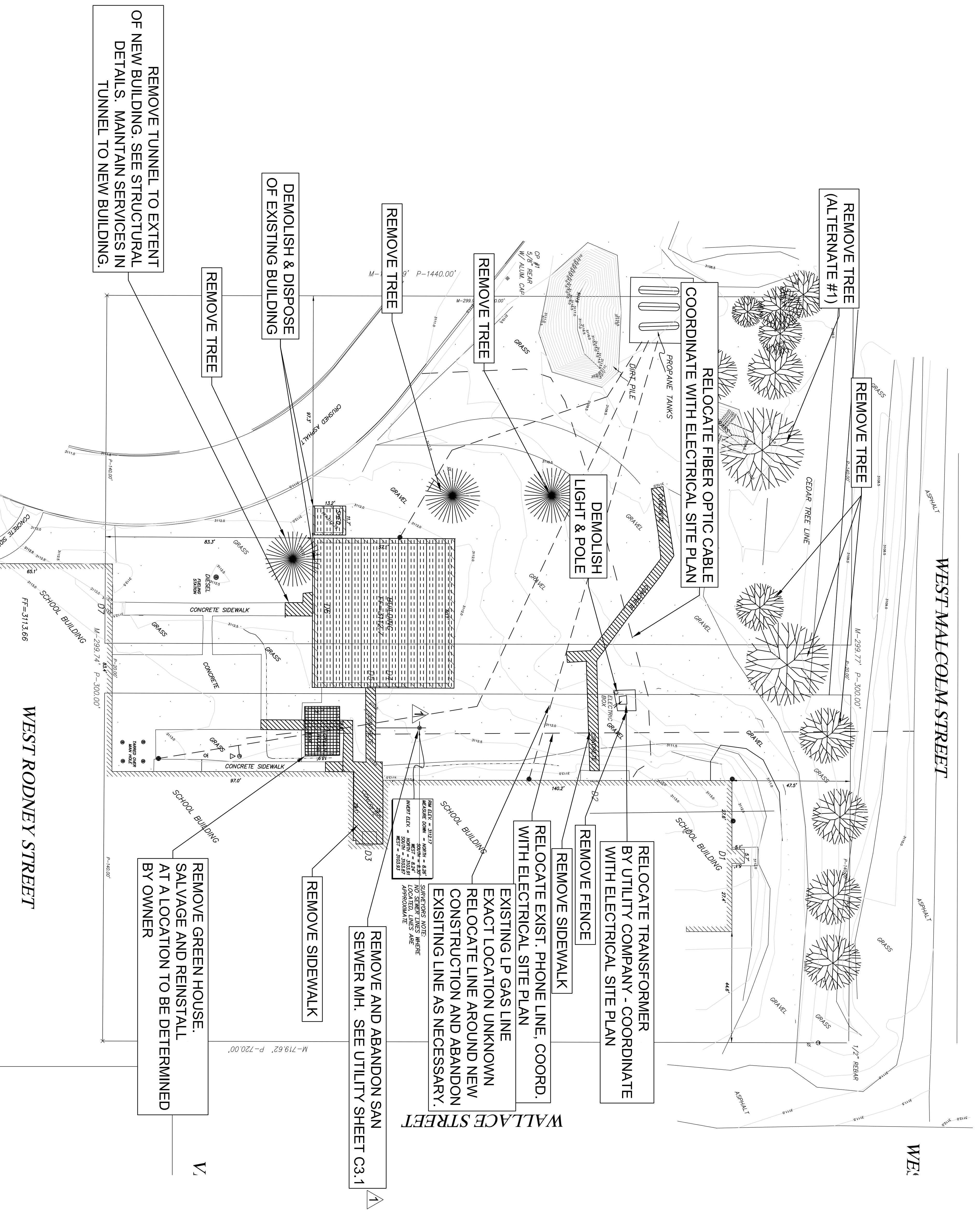
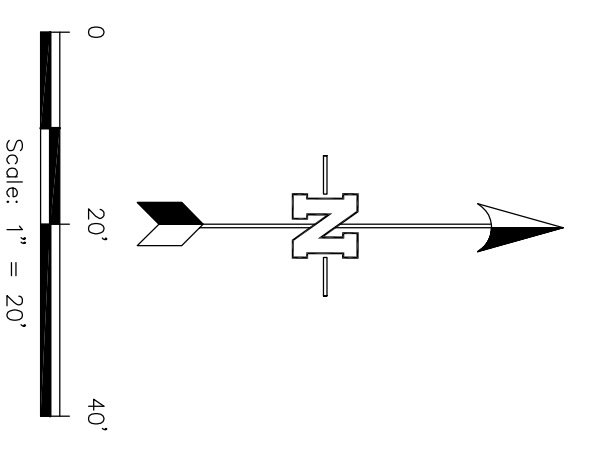
- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
 - 1. Scarify or remove and replace soil material to depth as directed by Architect; reshape and recompact.
- 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.

3.19 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 Architect.
 - 1. Remove waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.



END OF SECTION



WEST MALCOLM STREET

WEST RODNEY STREET

WALLACE STREET

REMOVE TUNNEL TO EXTENT OF NEW BUILDING. SEE STRUCTURAL DETAILS. MAINTAIN SERVICES IN TUNNEL TO NEW BUILDING.

DEMOLISH & DISPOSE OF EXISTING BUILDING

REMOVE TREE

REMOVE TREE

REMOVE TREE (ALTERNATE #1)

REMOVE TREE

RELOCATE FIBER OPTIC CABLE COORDINATE WITH ELECTRICAL SITE PLAN

DEMOLISH LIGHT & POLE

RELOCATE TRANSFORMER BY UTILITY COMPANY - COORDINATE WITH ELECTRICAL SITE PLAN

REMOVE FENCE

RELOCATE EXIST. PHONE LINE, COORD. WITH ELECTRICAL SITE PLAN

REMOVE SIDEWALK

EXISTING LP GAS LINE EXACT LOCATION UNKNOWN RELOCATE LINE AROUND NEW CONSTRUCTION AND ABANDON EXISTING LINE AS NECESSARY.

REMOVE AND ABANDON SAN SEWER MH. SEE UTILITY SHEET C3.1

REMOVE SIDEWALK

REMOVE GREEN HOUSE. SALVAGE AND REINSTALL AT A LOCATION TO BE DETERMINED BY OWNER

NOTE: SURVEY POINTS LOCATED WHERE SHOWN. LOCATED LINES ARE APPROXIMATE.

NOTE: ELEVATION = 3112.17' NORTH = 8.84' SOUTH = 8.84' WEST = 4.24' EAST = 4.24' HEIGHT = 3103.27' AREA = 3103.27'

FT=3113.66

V

1

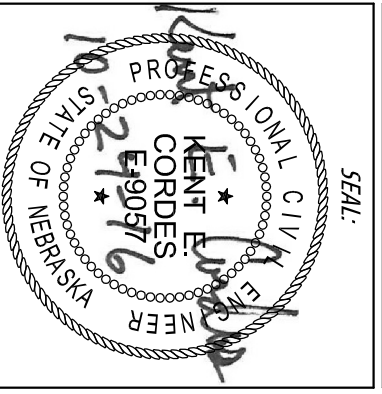
We Bring Your Concept To Reality

WHAT'S THE BD? Visit Us At www.bdconstruction.com

WALLACE PUBLIC SCHOOLS

SITE DEMOLITION

WALLACE, NEBRASKA



PROJECT NO: 15-02-022

DRAWN BY: K. CORDES

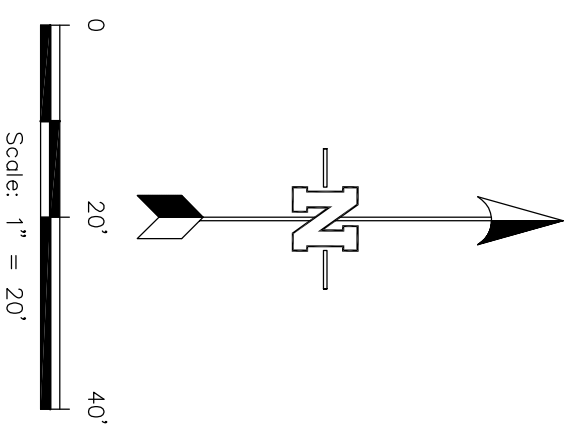
DATE: 10.26.2016

SHEET NO: C1.1

BD construction
 209 East 6th Street
 Post Office Box 726
 Kearney, NE 68848
 TEL 308.234.1836

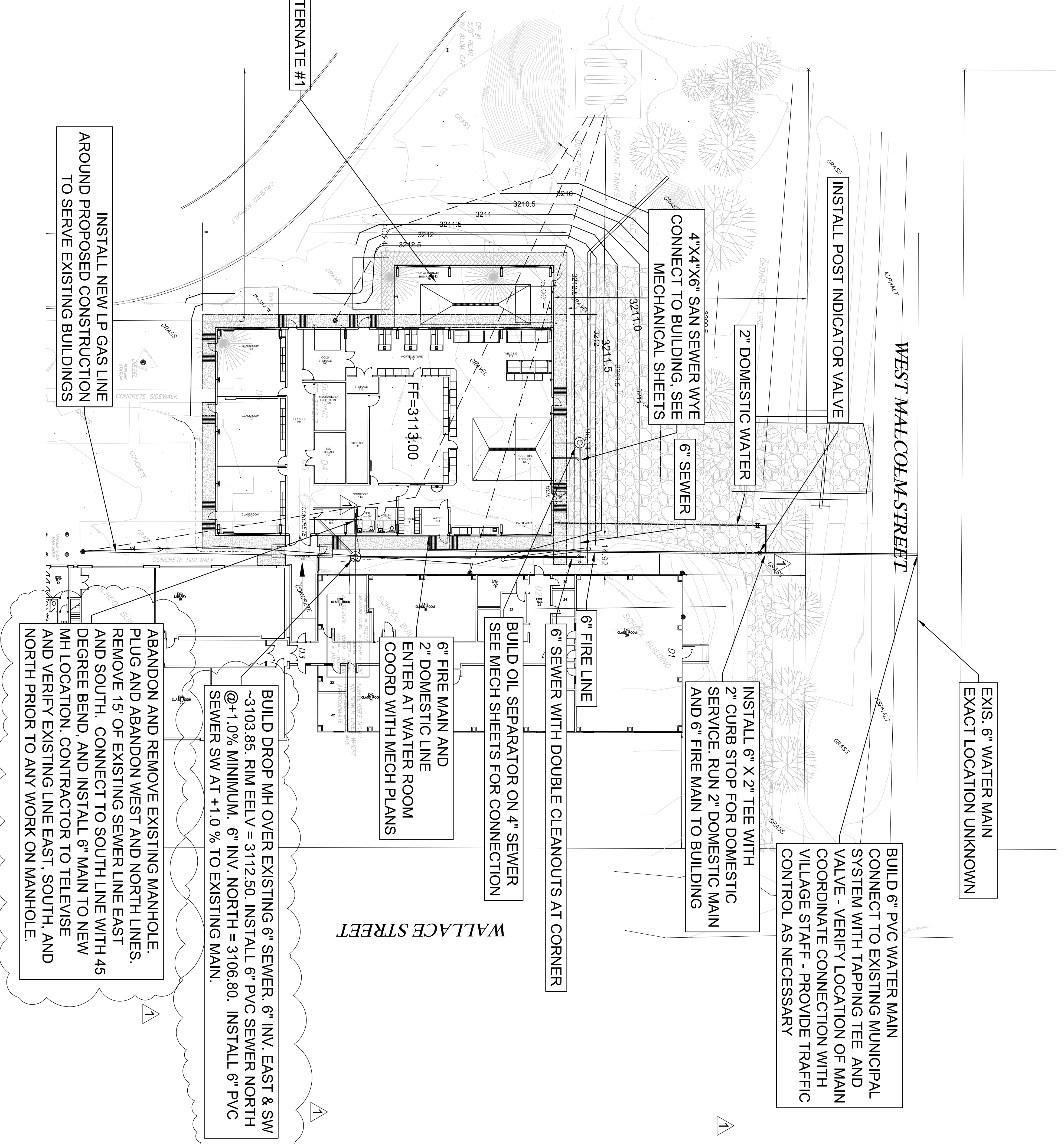
DRAWINGS ARE THE SOLE PROPERTY OF BD CONSTRUCTION, INC./KEARNEY, WHO RETAINS ALL RIGHTS THEREIN PROVIDED BY THE COMMON LAW AND STATUTES OF THE STATE OF NEBRASKA, AND ANY REPRODUCTION OR TRANSMITTAL THEREOF WITHOUT THE EXPRESS WRITTEN CONSENT OF BD CONSTRUCTION IS STRICTLY PROHIBITED.

REVISIONS	BY
10/24/2016	KEC



- NOTES:
1. ALL WATER MAINS SHALL HAVE MINIMUM 5' BURY DEPTH.
 2. COORDINATE UTILITY SERVICE ENTRANCES WITH MECHANICAL, ELECTRICAL, AND FIRE PROTECTION DRAWINGS.
 3. COMPLY WITH ALL APPLICABLE FIRE PROTECTION CODES FOR FIRE MAIN AND POST INDICATOR VALVE.
 4. COORDINATE WITH ELECTRICAL SITE PLAN FOR LOCATION OF TRANSFORMER, POWER LINES, AND SITE LIGHTING.
 5. CONTACT UTILITIES FOR LOCATES PRIOR TO EXCAVATION. IF CONFLICTS ARE DISCOVERED, NOTIFY THE ARCHITECT.
 6. LOCATE ALL UNDERGROUND UTILITIES AND GUARD AND PROTECT THEM DURING OVEREXCAVATION OF THE SITE.
 7. EXCAVATION, TRENCHING, AND BACKFILLING FOR UTILITY MAINS SHALL COMPLY WITH THE GEOTECHNICAL REPORT.

BID ALTERNATE #1



EXIS. 6" WATER MAIN
EXACT LOCATION UNKNOWN

BUILD 6" PVC WATER MAIN
CONNECT TO EXISTING MUNICIPAL SYSTEM WITH TAPPING TEE AND VALVE - VERIFY LOCATION OF MAIN COORDINATE CONNECTION WITH VILLAGE STAFF - PROVIDE TRAFFIC CONTROL AS NECESSARY

INSTALL 6" X 2" TEE WITH
2" CURB STOP FOR DOMESTIC SERVICE. RUN 2" DOMESTIC MAIN AND 6" FIRE MAIN TO BUILDING

6" SEWER WITH DOUBLE CLEANOUTS AT CORNER

BUILD OIL SEPARATOR ON 4" SEWER
SEE MECH SHEETS FOR CONNECTION

6" FIRE MAIN AND
2" DOMESTIC LINE
ENTER AT WATER ROOM
COORD WITH MECH PLANS

BUILD DROP MH OVER EXISTING 6" SEWER. 6" INV. EAST & SW ~3103.85. RIM EELV = 3112.50. INSTALL 6" PVC SEWER NORTH @+1.0% MINIMUM. 6" INV. NORTH = 3106.80. INSTALL 6" PVC SEWER SW AT +1.0% TO EXISTING MAIN.

ABANDON AND REMOVE EXISTING MANHOLE.
PLUG AND ABANDON WEST AND NORTH LINES.
REMOVE 15' OF EXISTING SEWER LINE EAST AND SOUTH. CONNECT TO SOUTH LINE WITH 45 DEGREE BEND, AND INSTALL 6" MAIN TO NEW MH LOCATION. CONTRACTOR TO TELEWISE AND VERIFY EXISTING LINE EAST, SOUTH, AND NORTH PRIOR TO ANY WORK ON MANHOLE.

INSTALL NEW LP GAS LINE
AROUND PROPOSED CONSTRUCTION
TO SERVE EXISTING BUILDINGS

4"X4"X6" SAN SEWER WYE
CONNECT TO BUILDING, SEE
MECHANICAL SHEETS

2" DOMESTIC WATER

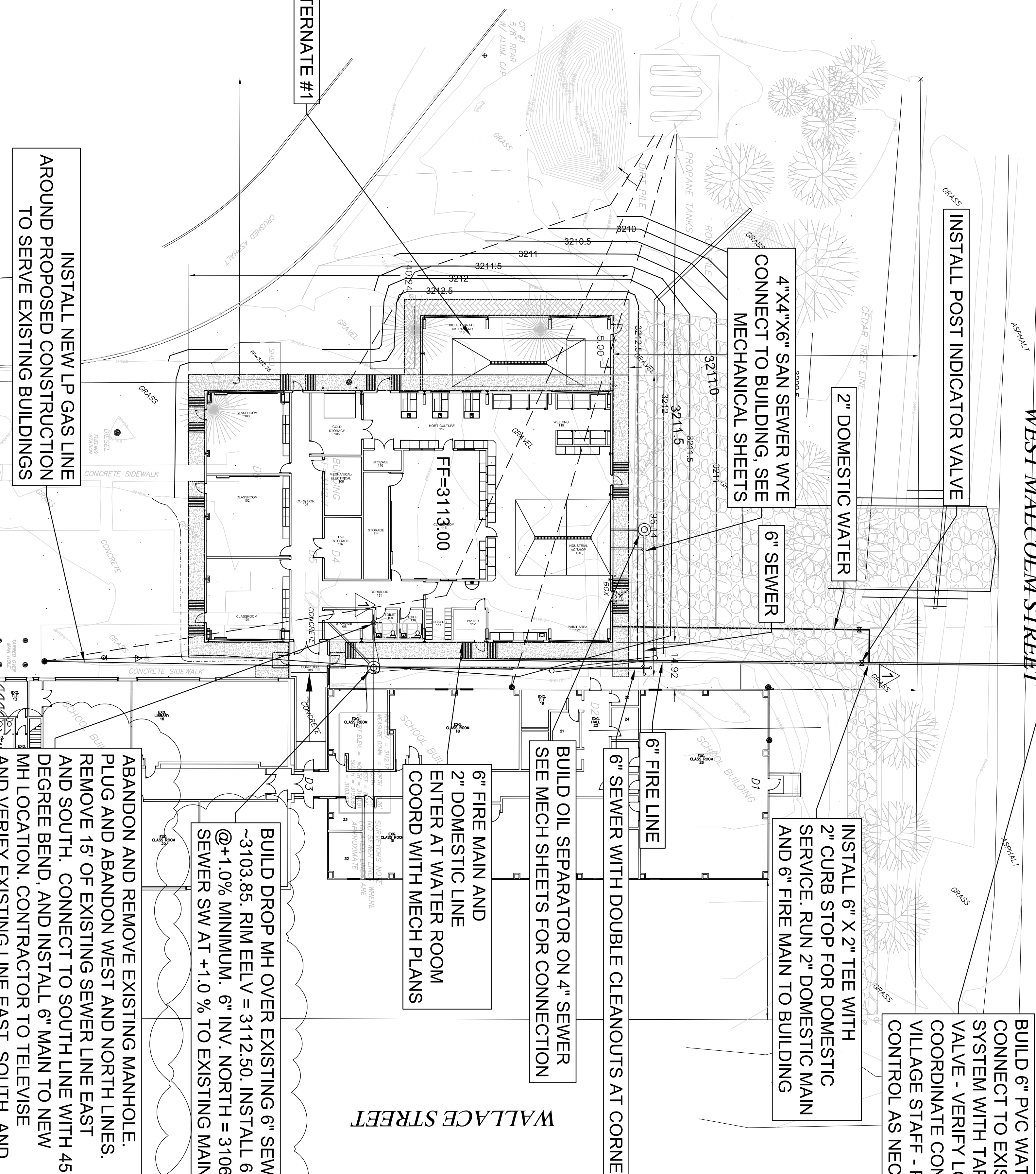
INSTALL POST INDICATOR VALVE

6" SEWER

6" FIRE LINE

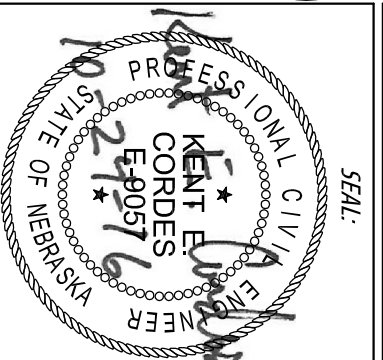

FF=3113.00

WALLACE STREET



We Bring Your Concept To Reality

WHAT'S THE BD? Visit Us At www.bdconstruction.com

	<p>WALLACE PUBLIC SCHOOLS</p> <h2 style="margin: 0;">UTILITY PLAN</h2> <p>WALLACE, NEBRASKA</p>	<p>PROJECT NO: 15-02-022</p> <p>DRAWN BY: K. CORDES</p> <p>DATE: 10.24.2016</p> <p style="font-size: 24pt; font-weight: bold;">C3.0</p>	<p>BY KEC</p> <p>DATE 10/24/2016</p>	 <p>BD construction 209 East 6th Street Post Office Box 726 Kearney, NE 68848 TEL 308.234.1836</p> <p style="font-size: 8pt;">DRAWINGS ARE THE SOLE PROPERTY OF BD CONSTRUCTION, INC./KEARNEY, WHO RETAINS ALL RIGHTS THEREIN PROVIDED BY THE COMMON LAW AND STATUTES OF THE STATE OF NEBRASKA, AND ANY REPRODUCTION OR TRANSMITTAL THEREOF WITHOUT THE EXPRESS WRITTEN CONSENT OF BD CONSTRUCTION IS STRICTLY PROHIBITED.</p>
---	---	---	--	--

Addendum 2



www.specializedeng.com

Date: 10/26/2016

Project Name: Wallace Public Schools - Shop Replacement

Project #: 16071

General Specification Items:

GS1. The following manufacturers are approved to bid the project. Approval to bid does not constitute acceptance of the product for use in the building. Final approval must be obtained through the formal shop drawing submittal process. The list is presented by product application and not necessarily by specification reference.

A. Control Dampers

1. Air Balance, Inc.

B. Exhaust Fans

1. Twin City Fan

C. Gas Detection System

1. Armstrong Monitoring

D. Gas Fired Radiant Heaters

1. Ambirad

E. Infrared & Gas Unit Heaters

1. Re-Verber-Ray

F. Louvers

1. Air Balance, Inc.
2. L&D
3. United Enertech

G. Plumbing Fixtures

1. Acorn
2. Zurn

H. Roof Hoods

1. Twin City Fan

Submitted By: Jeremy Klima & Ben Schmitt

eme