# Presbyterian Church of Lawrenceville

2688 Main Street

Tax Map 2 Block 5801 Sheet 55.01

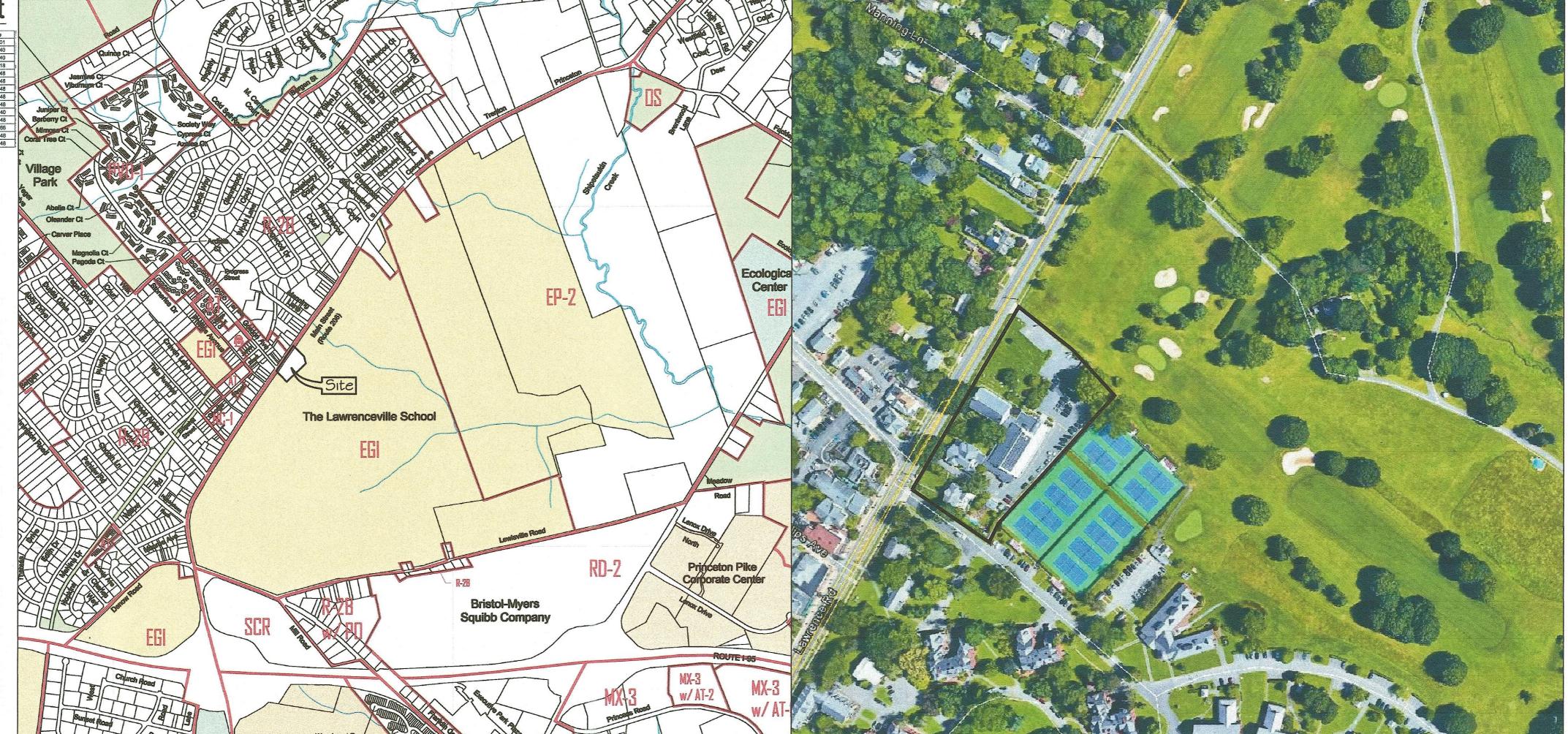
Lawrence Township Mercer County New Jersey



# Landowners Within 200 Feet

Block	Lot	Owner	Address	City / State	Zip
5709	3	2673 MAIN ST OWNER I,(M DVIR)	5-11 47TH AVE APT 5S	LONG ISLAND CITY, NY	11101
5709	4	BEARSNOUT LLC CO CHAMBERS WALK CAFE	974 LAWRENCEVILLE RD	PRINCETON, NJ	08540
5709	5.01	BUCKMILLER, LLC C/O WILLIAM HAMILL	974 LAWRENCEVILLE ROAD	PRINCETON, NJ	08540
5709	7	PLAYA 39, LLC	500 7TH AVENUE 7TH FLR	NEW YORK, NY	10018
5801	1.02	TRUSTEES OF LAWRENCEVILLE SCHOOL	PO BOX 6126	LAWRENCEVILLE, NJ	08648
6301	54	STEWART, RICHARD & LAUREN	2721 MAIN ST	LAWRENCE TOWNSHIP, NJ	08648
6301	55	TROWBRIDGE, MARK & SYLMARIE	2719 MAIN STREET	LAWRENCE TOWNSHIP, NJ	08648
6301	56	LEONARDI, CHARLES A & CATHIANNE	2711 MAIN ST	LAWRENCEVILLE, NJ	08648
6301	61	BROWN, MATTHEW & JOANNE ETAL	2705 MAIN STREET	LAWRENCE TOWNSHIP, NJ	08648
6301	62	HUCKEL, KIRK D ET UX	91 HUN RD	PRINCETON, NJ	08540
6301	63	2691 MAIN STREET HOLDINGS, LLC	2691 MAIN ST	LAWRENCE TOWNSHIP, NJ	08648
6301	64	GULDALIAN, JACK ETUX	15 BRIANNA RD	SOUTHAMPTON, PA	18966
6301	65	HULLFISH REAL ESTATE CO , LLC	35 CRAVEN LANE	LAWRENCEVILLE, NJ	08648
6301	66	HULLFISH REAL ESTATE CO . LLC	35 CRAVEN LANE	LAWRENCEVILLE, NJ	08648

Corporate Secretary Ewing-Lawrence Sewerage Authority 600 Whitehead Road Lawrenceville NJ 08648	Corporate Secretary Public Service Electric & Gas Company 60 Park Plaza, 4B Newark NJ 07101		
N.J. American Water 1025 Laurel Oak Road Voorhees NJ 08043 ATTN: Donna Short	Elizabethtown Gas Company One Elizabethtown Piaza Third Floor East Union NJ 07083-1975		
Corporate Secretary Trenton Water Works P. O. Box 528 Trenton NJ 08504	Corporate Secretary Verizon 540 Broad Street Newark, NJ 07101		
Aqua Water Company 2875 Erial Road Erial NJ 08081 ATTN: James Barbato	General Manager Comcast Cablevision 940 Prospect Street Trenton NJ 08618		
RCN Corporation 105 Camegie Center Princeton NJ 08540	Corporate Secretary AT&T 1 AT&T Way Bedminster NJ 07921		
Mercer County Planning Board 640 South Broad Street P. O. Box 8068 Trenton NJ 08650-8068	Corporate Secretary Jersey Central Power and Light 300 Madison Avenue Morristown NJ 07962		
Sun Pipe Line Company ATTN: R-O-W Department 1801 Market Street 28th Floor Paladelphia PA 19103-1699	Corporate Secretary Transcontinental Gas Pipe Line Corporation 2800 Post Oak Boulevard Houston TX 77056		
Sunoco Pipe Line, L.P. Right-of-way Department Montello Complex 525 Fritztown Road Sinking Spring PA 19608	Commissioner N.J. Department of Transportation 1035 Parkway Avenue, CN 600 Trenton NJ 08625		

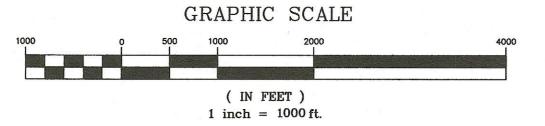


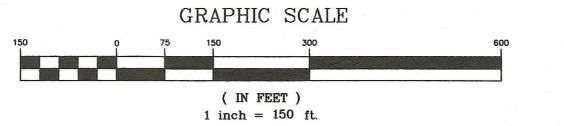
# Lawrence Township Zoning Map

Scale: 1"=1,000'

# Aerial Map

Scale: 1"=150'





# **ZONING TABLE**

EGI Zoning District - Education, Government & Institutions

	Required
Requirement	
Minimum Lot Size	5.0 Acres
Minimum Lot Frontage	300 ft.
Minimum Lot Width	300 ft.
Minimum Lot Depth	600 ft.
Minimum Setback - Front	100 ft.
Minimum Setback - Side	100 ft.
Minimum Setback - Rear Yard	100 ft.
Minimum Setback for Accessory Uses	75 ft.
Minimum Setback for Accessory Uses	75 ft.
Maximum Impervious Surface Ratio	0.60
Maximum Floor Area Ratio	0.20
Maximum Height - Principal Building	50 ft.
Maximum Building Height - Accessory Use	30 ft.

## Owner & Applicant

Owner: Lawrenceville Presbyterian Church Applicant: Presbyterian Church of Lawrenceville

- 1. Cover Sheet-Key Map
- 2. Plan of Existing Conditions
- 3. Site Plan
- 5. Site Development Plan
- 6. Soil Disturbance Plan
- 8. Construction Details.

	Required
Requirement	
Minimum Lot Size	5.0 Acres
Minimum Lot Frontage	300 ft.
Minimum Lot Width	300 ft.
Minimum Lot Depth	600 ft.
Minimum Setback - Front	100 ft.
Minimum Setback - Side	100 ft.
Minimum Setback - Rear Yard	100 ft.
Minimum Setback for Accessory Uses	75 ft.
Minimum Setback for Accessory Uses	75 ft.
Maximum Impervious Surface Ratio	0.60
Maximum Floor Area Ratio	0.20
Maximum Height - Principal Building	50 ft.
Maximum Building Height - Accessory Use	30 ft.

Dr. Jeffrey A. Vamos, Pastor 2688 Main Street Lawrenceville, NJ 08648-1701 609-896-1212, Ext. 101

## Plan List

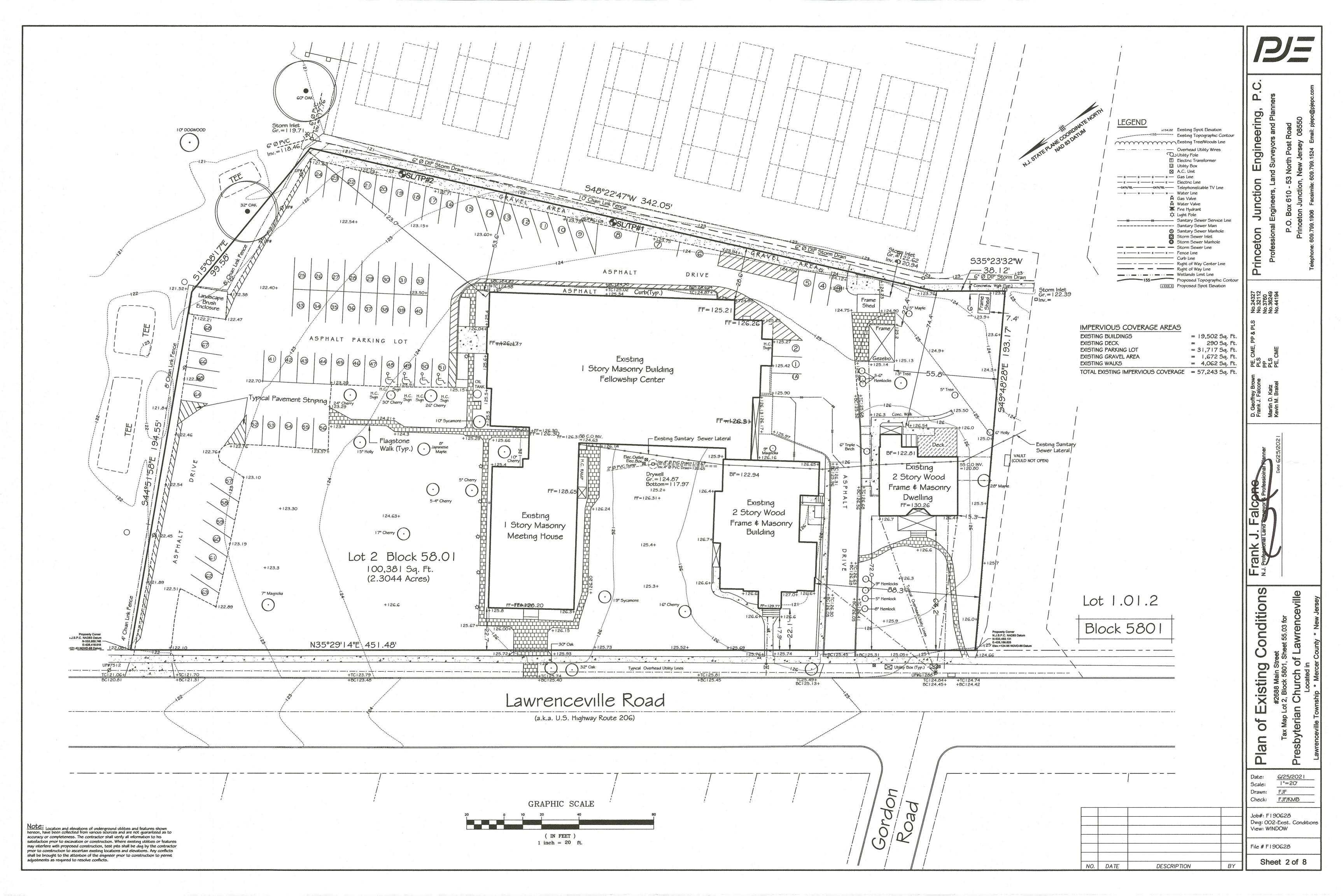
- 4. Site Plan Detail
- 7. Soil Disturbance Detail Plan

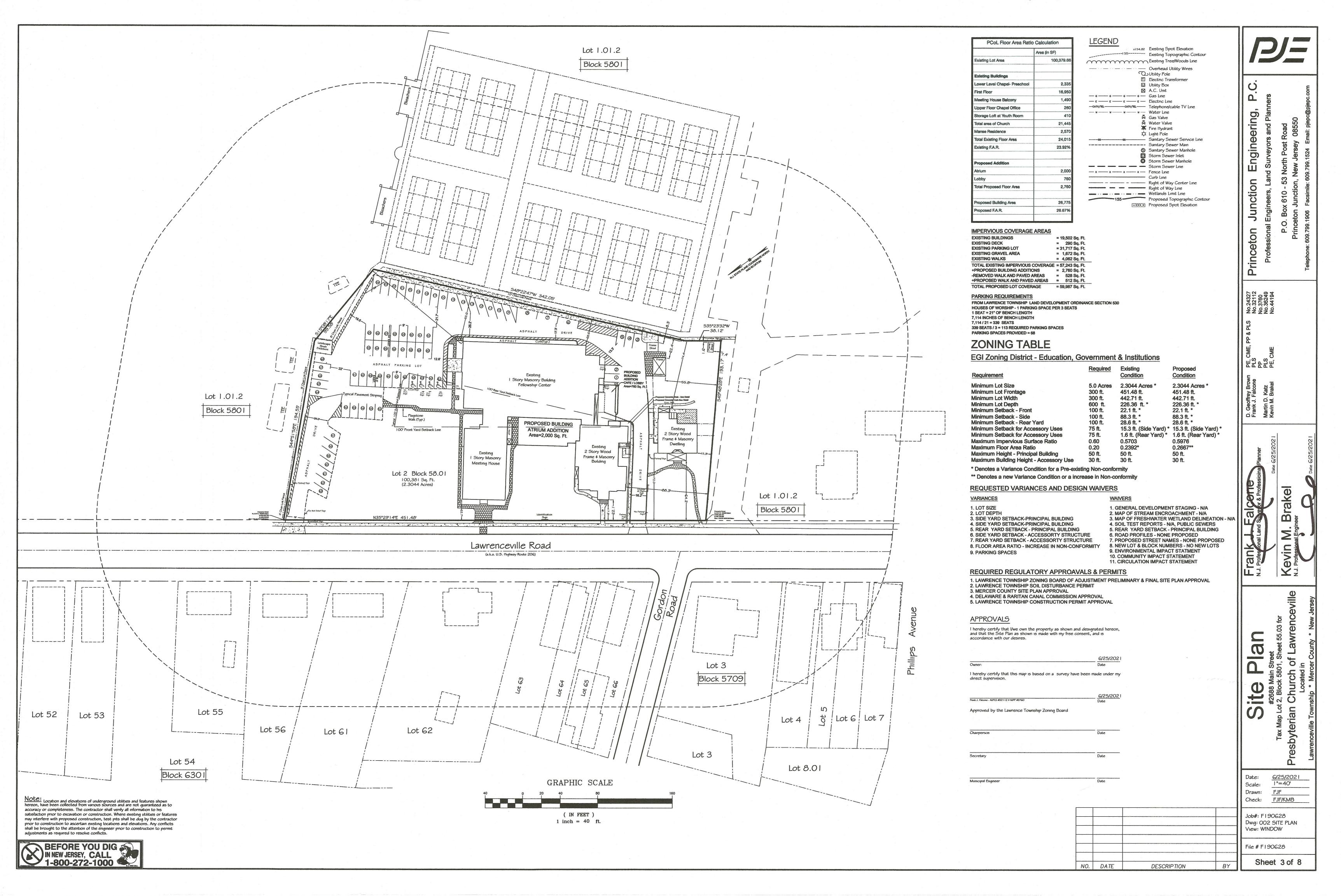
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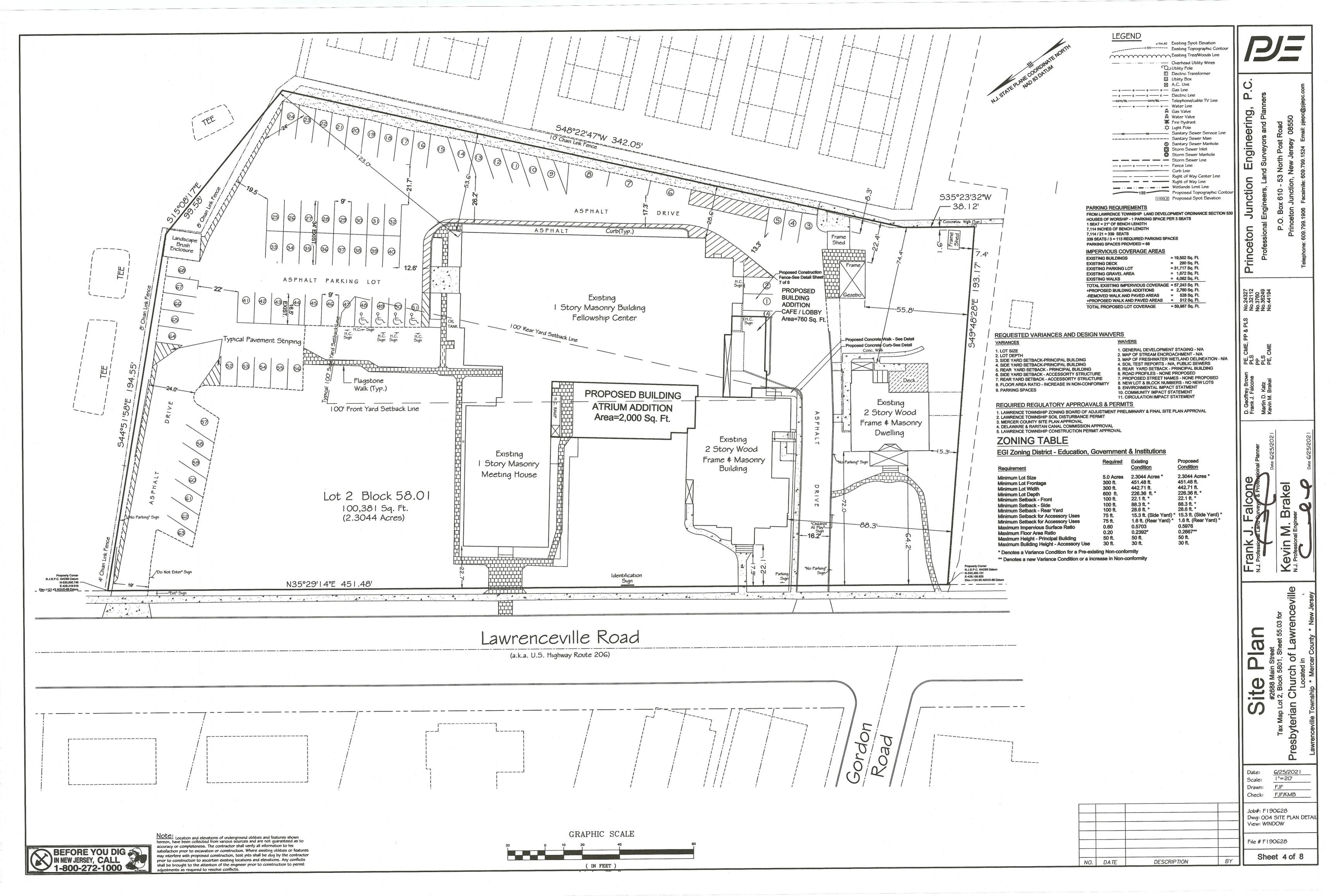
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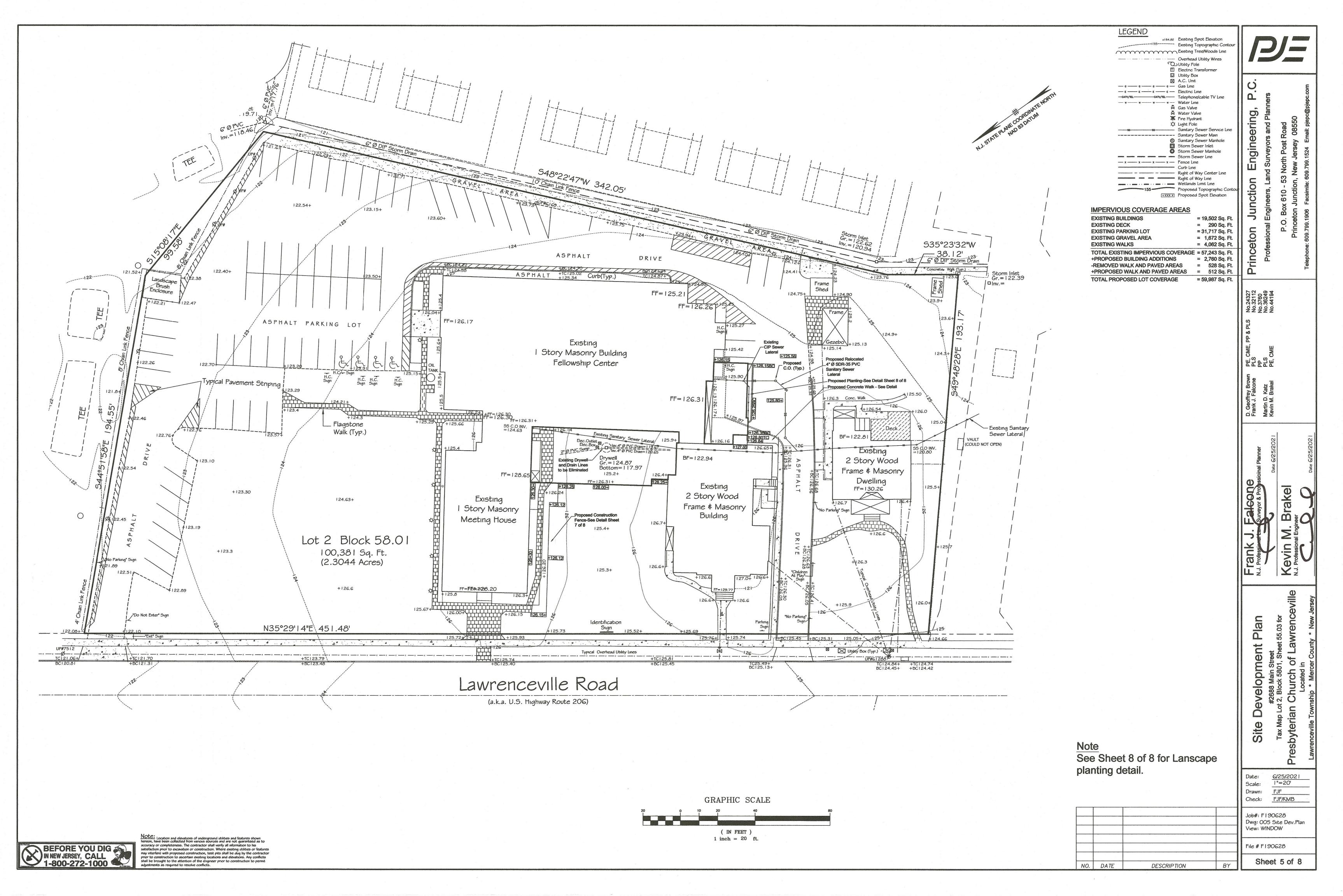
Job#: F190628 Dwg: 001-COVER-KEY MAP View: WINDOW

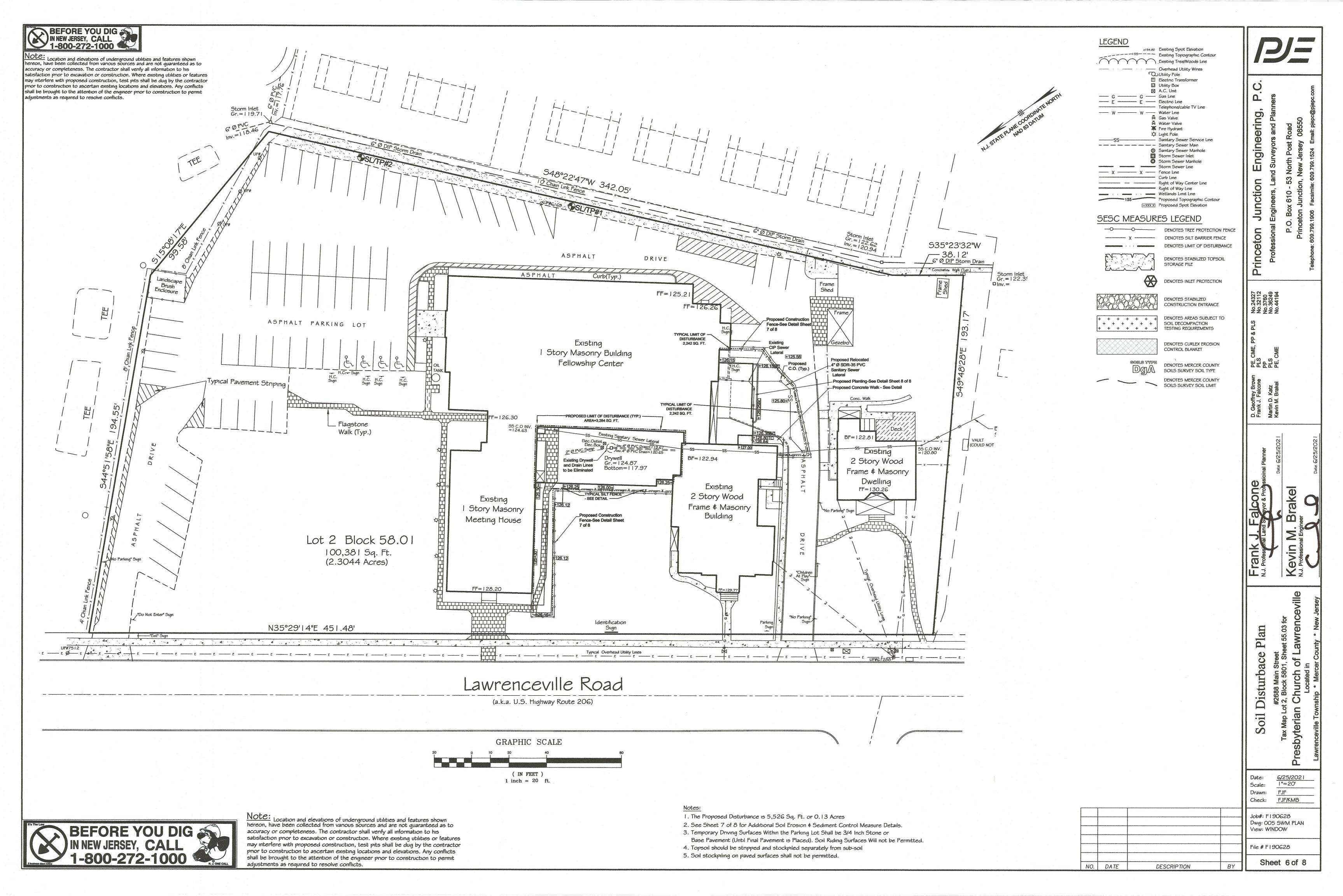
File # F190628 Sheet 1 of 8

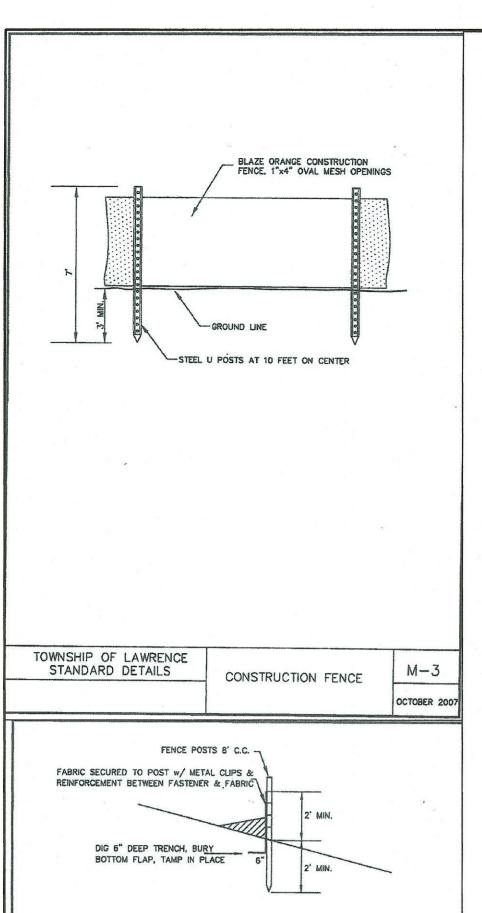


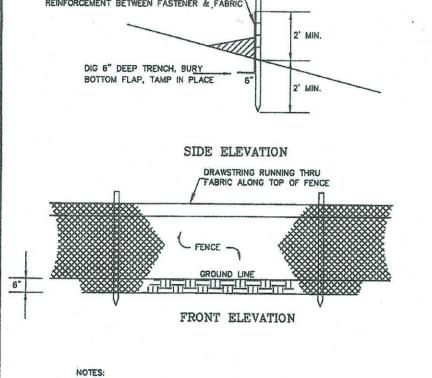












. PLACE SILT FENCE AT LOCATIONS SHOWN ON THE SOIL EROSION AND

3. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL

SILT FENCE

OCTOBER 20

4. SILT FENCE SHALL REMAIN IN PLACE FOR THE DURATION OF THE

2. SILT FENCE SHALL BE INSTALLED SO WATER CANNOT BYPASS

SEDIMENT CONTROL PLAN.

TOWNSHIP OF LAWRENCE

STANDARD DETAILS

BE MADE AS CONDITIONS WARRANT.

PROJECT UNLESS OTHERWISE INSTRUCTED.

## Standard For Temporary Vegetative Cover For Soil Stabilization

## Site Preparation

- A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading, pg. 19—1.
- B. Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42.
- Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.).

A. Apply ground limestone and fertilizer according to soil test recommendations such as offered by Rutgers Cooperative Extension. Soil sample mailers are available from the local Rutgers Cooperative Extension offices. Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-20-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise. Apply limestone at the rate of 2 tons/acre unless soil testing indicates otherwise. Calcium carbonate is the equivalent and standard for measuring the ability of liming materials to neutralize soil acidity and supply calcium and magnesium to grasses and legumes. Table 7–1 is a general guideline for limestone application.

## TABLE 7-1

Limestone <sup>1</sup> Application Rate by Soil Texture				
SOIL TEXTURE	TONS/ACRE	LBS./1000 SQ. FT.		
Clay, clay loam, and high organic soil	3	135		
Sandy loam, loam, silt loam	2	90		
Loamy sand, sand	1	45		

- 1. Pulverized dolomitic limestone is preferred for most soils south of the
- B. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or discing operation should be on the general contour. Continue tillage until a reasonably uniform seedbed is
- C. Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must
- D. For Soils high in sulfides or having a pH of 4 or less refer to Standard for Management of High Acid Producing Soils, pg. 1-1.

A. Select seed from recommendation in Table 7-2.

SEED SELECTIONS	SEEDING RATE <sup>1</sup> (pounds)		OPTIMUM SEEDING DATE <sup>2</sup> Based on Plant Hardiness Zone <sup>3</sup>	OPTIMUM SEED
	Per Acre	Per 1000 sq. ft.	ZONE 6b	DEPTH <sup>4</sup> (inches)
COOL SEASON GRASSES	10 10			
1. Perrenial Ryegrass	100	1.0	March 1 - May 15 August 15 - October 1	0.5
2. Spring Oats	86	2.0	March 1 May 15 August 15 October 1	1.0
3. Winter Barley	96	2.2	August 15 - October 1	1.0
4. Winter Cereal Rye	112	2.8	August 1 - November 15	1.0
WARM SEASON GRASSES				
5. Pearl Millet	20	0.5	May 15 — August 15	1.0
6. Millet (German or Hungarian)	30	0.7	May 15 — August 15	1.0
7. Weeping Lovegrass	5	0.2	May 15 - August 15	0.25

- Seeding rate for warm season grass, selections 5-7 shall be adjusted to reflect the amount of Pure Line Seed (PLS) as
  determined by a germination test result. No adjustment is required for cool season grasses.
   May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
- Conventional Seeding. Apply seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil, to a depth of 1/4 to 1/2 inch, by raking or dragging.
- Hydroseeding is a broadcast seeding method usually involving a truck or trailer mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short fibered mulch may be applied with a hydroseeder following seeding. (also see Section IV Mulching) Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. Poor seed to soil contact occurs reducing seed germination and growth. Hydroseeding may be used for areas too steep for conventional equipment to traverse or too obstructed with rocks, stumps, etc.
- D. After seeding, firming the soil with a corrugated roller will assure good seed—to—soil contact, restore capillarity, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site

Mulching is required on all seeding. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed in compliance with this mulching requirement.

- Straw or Hay. Unrotted small grain straw, hay free of seeds, or salt hay to be applied at the rate of 1-1/2 to 2 tons per acre (70-90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch—binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper—blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed. Application. Spread mulch uniformly by hand or mechanically so that approximately 85% of the soil surface will be covered. For uniform distribution of hand—spread mulch, divide area into approximately 1,000 square feet sections and distribute 70-90 pounds within each section. Anchoring shall be accomplished immediately after placement to minimize loss by wind or water, This may be done by one of the following methods, depending upon the size of the area,
- Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cris—cross and a square pattern. Secure twine around each peg with two or more round turns.
- Mulch Nettings. Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.
- 3. Crimper (mulch anchoring coulter tool). A tractor—drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tackifying or adhesive agent is required
- 4. Liquid Mulch-Binders.-May be used to anchor salt hay, hay or straw mulch
- a. Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.
- (1) Emulsified asphalt (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CRS-1, and CRS-2). Apply 0.04 gal./sq. yd. or 194 gal./acre on flat areas and on slopes less than 8 feet or more high, use 0.075 gal./sq. yd. or 363 gal./acre. These materials may be difficult to
- hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turfgrass. Use at rates and weather conditions as recommended by the manufacturer to anchor mulch materials. Many new products are available, some of which may need further evaluation for use in this state.
- (3) Synthetic Binders High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates recommended by th manufacturer and remain tacky until germination of grass.

Note: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products.

- B. Wood-fiber or paper fiber mulch. Shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at the rate of 1,500 pounds per acre (or as recommended by the product manufacturer) and may be applied by a hydroseeder. This mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum
- C. Pelletized mulch. Compressed and extruded paper and/or wood fiber product, which may contain co-polymers, tackifiers, fertilizers and coloring agents. The dry pellets, when applied to a seeded area and watered, form a mulch mat. Pelletized mulch shall be applied in accordance with the manufacturers recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60-75 lb./1,000 square feet and activated with 0.2 to 0.4 inches of areas, seeded areas where weed-seed free mulch is desired or on sites where straw mulch and

Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.

## Standard For Permanent Vegetative Cover For Soil Stabilization

## Site Preparation

- A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading, pg. 19-1.
- B. Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42.
- C. Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.).

## 2. Seedbed Preparation

A. Apply ground limestone and fertilizer according to soil test recommendations such as offered b Rutgers Cooperative Extension. Soil sample mailers are available from the local Rutgers Cooperative Extension offices. Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-20-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise. Apply limestone at the rate of 2 tons/acre unless soil testing indicates otherwise. Calcium carbonate is the equivalent and standard for measuring the ability of liming materials to neutralize soil acidity and supply calcium and magnesium to grasses and legumes. Table 7-1 is a general guideline for limestone application.

## TABLE 4-1

Limestone <sup>1</sup> Applie	cation Rate by Soil Tex	ture
SOIL TEXTURE	TONS/ACRE	LBS./1000 SQ. FT.
Clay, clay loam, and high organic soil	3	135
Sandy loam, loam, silt loam	2	90
Loamy sand, sand	1	45

- 1. Pulverized dolomitic limestone is preferred for most soils south of the
- B. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or discing operation should be on the general contour. Continue tillage until a reasonably uniform seedbed is
- C. Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.).
- Soils having a pH of 4 or less or containing iron sulfide shall be covered with a minimum of 12 inches of soil having a pH of 5 or more before initiating seedbed preparation. See Standard for Management of High Acid Producing Soils, pg. 1–1.

A. Use seed mixture below from Table 4-3 of the standards or use mixture recommended by Rutgers Cooperative Extension or Natural Resources Conservation Service which is approved by the Soil Conservation District. Seed germination shall have been tested within 12 months of the planting date. No seed shall be accepted with a germination test date more than 12 months old unless

	Mixture No. 15: General Lawn  * Recreation		
CEED CELECTIONS	PLANTI	NG RATES	ZONE 6b
SEED SELECTIONS	LBS./AC.	LBS./1000 S.F.	1
Hard Fescue	120	2.7	March 1 - April 30
Perrenial Rye Grass	30	0.7	August 15 - November 1
Kentucky Blue Grass	40	0.9	
Mixture No. 12 Outlet Wat	erway	NG RATES	
SEED SELECTIONS	LBS./AC.	LBS./1000 S.F.	1
Tall Fescue (turf type)	50	1.1	March 1 - April 30
Perrenial Rye Grass	5	0.1	August 15 - November 1
	1	1	1

- Seeding rates specified are required when a report of compliance is requested prior to actual
  establishment of permanent vegetation. Up to 50% reduction in rates may be used when
  permanent vegetation is established prior to a report of compliance inspection. These rates
  apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative
- Warm season mixtures are grasses and legumes which maximize growth at high temperatures, generally 85°F and above. See Table 4-3 (pg.407), mixtures 1 to 7. Planting rates for warm season grasses shall be the amount of Pure Live Seed (PLS) as determined
- Cool Season Mixtures are grasses and legumes which maximize growth at temperatures below 85°F. Many grasses become active at 65°F. See Table 3, mixtures 8-20. Adjustment of planting rates to compensate for the amount of Pure Live Seed is not required for

## 3. Seeding continued

- C. Hydroseeding is a broadcast seeding method usually involving a truck or trailer mounted tank, with

Mulching is required on all seeding. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

- Application. Spread mulch uniformly by hand or mechanically so that approximately 85% of the soil surface will be covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square feet sections and distribute 70 90 pounds within each section. Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. his may be done by one of the following methods, depending upon the size of the area,
- Mulch Nettings. Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.
- into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate 4. Liquid Mulch-Binders.-May be used to anchor salt hay, hay or straw mulch
- a. Applications should be heavier at edges where wind may catch the mulch, in valleys, and
- (1) Emulsified asphalt (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CRS-1, and CRS-2). Apply 0.04 gal./sq. yd. or 194 gal./acre on flat areas and on slopes less than 8 feet or more high, use 0.075 gal./sq. yd. or 363 gal./acre. These materials may be difficult to apply uniformly and will discolor surfaces.
- (2) Organic and Vegetable Based Binders Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turfgrass. Use at rates and weather conditions as recommended by the manufacturer to anchor mulch naterials. Many new products are available, some of which may need further
- (3) Synthetic Binders High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates recommended by the
- C. Pelletized mulch. Compressed and extruded paper and/or wood fiber product, which may contain co-polymers, tackifiers, fertilizers and coloring agents. The dry pellets, when applied to a seeded area and watered, forms mulch mat. Pelletized mulch shall be pplied in accordance with the manufacturers recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60-75 lb./1,000 square feet and activated with 0.2 to 0.4 inches of water. This material has been found to be beneficial for use on small lawn or renovation ackifier agent are not practical or desirable.
- 5. Irrigation (where feasible)
- If soil moisture is deficient, and mulch is not used, supply new seedings with adequate water (a minimum of 1/4 inch twice a day until vegetation is well established). This is especially true who seedings are made in abnormally dry or hot weather or on droughty sites.

Since slow release nitrogen fertilizer (water insoluble) is prescribed in Section II.A. Seedbed Preparation in this Standard, no follow—up of topdressing is mandatory. An exception may be made where gross nitrogen deficiency exists to the extent that turf failure may develop. In that instance, topdress with 10—10—10 or equivalent at 400 pounds per acre or 10 pounds per 1,000 square feet

Establishing Permanent Vegetative Stabilization

These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative cover (of the seeded species) and mowed

- B. Conventional Seeding is performed by applying seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil within 24 hours of seedbed preparation to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch
- an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short fibered mulch may be applied with hydroseeder following seeding. (also see Section IV Mulching below) Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. Poor seed to soil contact occurs reducing seed germination and growth. Hydroseeding may be used for areas too steep for conventional equipment
- restore capillarity, and improve seedling emergence. This is the preferred method. When performe on the contour, sheet erosion will be minimized and water conservation on site will be maximized.

- A. Straw or Hay. Unrotted small grain straw, hay free of seeds, or salt hay to be applied at the rate of 1-1/2 to 2 tons per acre (70-90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch-binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.
- Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cris—cross and a square pattern. Secure twine around each peg with two or more round turns.

Crimper (mulch anchoring coulter tool). A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches

- Note: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products.
- B. Wood-fiber or paper fiber mulch. Shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at the rate of 1,500 pounds per acre (or as recommended by the product manufacturer) and may be applied by a hydroseeder. This mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum
- Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.

- The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rates in Table 4-3 (pg. 4-7) are required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in application rates may be used when permanent vegetation is established prior to requesting a Report of Compliance from the district.

# Soil Erosion & Sediment Control Notes

All Sail Erosion and Sediment Control Practices shall be installed prior to any major soil disturbances construction traffic, will immediately receive a temporary seeding. If the season prevents the establishment of a temporary cover, the disturbed areas shall be mulched with straw, or

Construction Sequence

ROUGH GRADE SITE. REMOVE EXCESS FILL MATERIAL OFFSITE.

AFTER ENTIRE DISTURBED AREA HAS BEEN STABILIZED WITH PERMANENT VEGETATIVE COVER, REMOVE

ITEM TIME PERIOD DESCRIPTION - CONSTRUCTION ACTIVITY

INSTALL SEPTIC SYSTEM EXPANSION.

NSTALL LANDSCAPING, STABILIZE IMMEDIATELY

15 DAYS

NSTALL ALL SOIL EROSION CONTROL MEASURES

- Permanent vegetation shall be seeded or sodded on all exposed areas within ten days after final
- 4. All work shall be done in accordance with the State Standards for Soil Erosion and Sediment
- ments in order to stabilize streets, roads, driveways and parking areas. In areas where no utilities are present, the sub-base shall be installed within 15 days of preliminary grading. Immediately following initial disturbance or rough grading all critical areas subject to erosion (i.e. steep slopes and roadway embankments) shall receive a temporary seeding in combination with straw mulch or a suitable equivalent, at a rate of two tons per acre, according to State Standards.
- Any steep slopes receiving pipeline installation shall be backfilled and stabilized daily as the
- Traffic control Standards require the installation of a stabilized construction entrance as shown on the
- In accordance with the Standard for Permanent Vegetative Cover for Soil Stabilization, any soil having a PH of 4 or less or containing iron sulfides shall be covered with a minimum of 12 inches of soil having a PH of 5 or more prior to seed bed preparation.
- 10. The Mercer County Soil Conservation District shall be notified 72 hours in advance of any land disturbing activity.
- accomplished, any soil which will not provide a suitable environment to support adequate vegetative ground cover, shall be removed or treated in such a way as to permently adjust the soil conditions and render it suitable for vegetative ground cover. If the removal or treatment of soil will not provide suitable conditions, non-vegetation means of permanent
- provisions of the certified plan for soil erosion and sediment control have been complied with for permanent measures, all site work for site plans and all work around individual lots in subdivisions must be completed prior to the district issuing a report of compliance for the District issuing a report of compliance for the issuance of a certificate of occupancy by the
- 13. Conduit outlet protection must be installed at all required outfalls prior to the drainage system
- 14. Any changes to certified Soil Erosion and Sediment Control Plans will require the submission of revised Soil Erosion and Sediment Control Plans to the District for Re-certification. The revised plans must meet all current State Soil Erosion and Sediment Control Standards.
- 15. The Mercer County Soil Conservation District shall be notified of any changes in ownership
- 16. Mulching to the Standards is required for obtaining a conditional report of compliance. Conditionals
- 17. Contractor is responsible for keeping all adjacent roads clean during construction of project. 18. The developer shall be responsible for remediating any erosion of sediment problems that may arise as a result of ongoing construction at the request of the Mercer County Soil Conservation District.

19. Hydroseeding is a two step process. The first step includes seed, fertilizer, lime ect. along with minimal amounts of mulch to promote consistency, good seed to soil contact, and give a visual

indication of coverage. Upon completion of seeding operation, hydro-mulch should be applied at a rate of 1,500 lbs per acre in a second step. The use of hydro-mulch, as opposed to straw, is limited to optimum seeding dates as listed in the standards. O. Erosion Control netting such as curlex (or approved equal) shall be installed in all construction

## Standards for Dust Control

The following methods should be considered for controlling dust Mulches: See standards for stabilization with mulches only

Vegetative Coverage: See standards for : Temporary Vegetative Cover, Permanent Vegetative Cover,

Permanent Stabilization with Sod (p.6-1)

Spray-On Adhesives: On Mineral soils (not effective on muck soils). Keep traffic off these areas

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GAL./ACRE
Anionic asphalt emulsion	7:1	Coarse Spray	1200
Latex emulsion	12.5:1	Fine Spray	235
Resin in water	4:1	Fine Spray	300
Polyacrylamide (PAM)—spray on Polyacrylamide (PAM)—dry spread	Apply occording to manufacturer's instructions. May also be used on additive to sediment besins to floculate and precipitate suspenceolloids. See Sediment Basin Standard, p. 26-1		
Acidulated Soy Bean Soap Stick	None	Coarse Spray	1200

Tillage: To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin Plowing on windward side of sight. Chisel-type plows spaced about 12" apart, and spring-toothed harrows are examples of equipment which may produce the desired effect

Barriers: Solid board fences, snow fences, burlap fences, crate walls, bales of hay, and similar material can be used to control air currents and soil blowing Calcium Chloride: Shall be in the form of loose, dry granules or flakes fine enough to feed through commonly used spreaders at the rate that will keep surface moist but not cause pollution or plant damage. If used on steeper slopes then use other practices to prevent washing into streams or accumulation

## Standard For Management Of High Acid Producing Soils

- 1. Limit the excavation area and exposure time when high acid producing soils are encountered.
- Topsoil stripped from the site shall be stored separately from temporarily stockpiled high acid
- Stockpiles of high acid producing soil should be located on level land to minimize its movement, Temporarily stockpiled high acid producing soil material to be exposed more that 30 days should be covered with properly anchored, heavy grade sheets of polyethylene where possible. If not possible, stockpiles shall be covered with a minimum of 3 to 6 inches of wood chips to minimize
- erosion of the stockpile. Silt fence shall be installed at the toe of slope to contain movement of the stockpiled material. Topsoil shall not be applied to the stockpiles to prevent topsoil contamination with high acid producing soil. High acid producing soils with a pH of 4 or less, or containing iron sulfide, (including borrow from cuts) shall be ultimately placed or buried with limestone applied at the rate of 6 tons per acre (or 275 pounds per 1,000 square feet of surface area) and covered with a minimum of 12 inches of settled soil with a pH of 5 or more except as follows:
- a. Areas where trees or shrubs are to be planted shall be covered with a minimum of 24
- inches of soil with a pH or 5 or more.

  b. Disposal areas shall not be located within 24 inches of any surface of a slope or bank, such as berms, stream banks, ditches and others to prevent potential lateral leaching
- Equipment used for movement of high acid producing soils should be cleaned at the end of each day to prevent spreading of high acid soil materials to other parts of the site, into streams or
- Non vegetative erosion control practices (stone tracking pads, strategically placed limestone dheck dam, silt fence, wood chips) should be installed to limit the movement of high acid producing soils from, around or off the site.

Following burial or removal of high acid producing soil, topsoiling and seeding of the site, (see Temporary Vegetative Cover for Soil Stabilization, pg. 7—1, Permanent Vegetative Cover for Soil Stabilization, pg. 4—1 and topsoiling, pg. 8—1) monitoring should continue for approximately to 12 months to assure there is adequate stabilization and that no high acid soil problems emerge. If problems still exist the affected area must be treated as indicated above to corre Monitoring of areas where high acid producing soil has been placed or buried should be perform for at least 2 years or longer if problems occur, to assure there is no migration of potential

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BY

# Standard For Topsoiling

Mulch Only

Standard For Stabilization With

- A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading.
- A. Unrotted small—grain straw, or salt hay at 2.0 tp 2.5 tons per acre is spread uniformly at 90 to 115 pounds per 1,000 square feet and anchored with a mulch anchoring tool, liquid mulch binders, or netting tie down. Other suitable materials may be used if approved by the Soil Conservation District. B. Asphalt emulsion is recommended at the rate of 600 to 1,200 gallons per acre. This is suitable for a limited period of time where travel by people, animals, or machines is not
- Synthetic or organic soil stabilizers may be used under suitable conditions and in quantities as recommended by the manufacturer.
- D. Wood—fiber or paper—fiber mulch at the rate of 1,500 pounds per acre (or according to the manufacturer's requirements) may be applied by a hydroseeder. E. Mulch netting, such as paper jute, excelsior, cotton, or plastic, may be used. F. Woodchips applied uniformly to a minimum depth of 2 inches may be used. Woodchips will not be used on areas where flowing water could wash them into an inlet and plug it.
- G. Gravel, crushed stone, or slag at the rate of 9 cubic yards per 1,000 sq. ft. applied uniformly to a minimum depth of 3 inches may be used. Size 2 or 3 (ASTM C-33) is recommended. should be accomplished immediately after placement of hay or strain
- mulch to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area and steepness of slopes. A. Peg and Twine— Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cris—cross and a square pattern. Secure twine around each peg with two or more round turns.
- B. Mulch Nettings— Staple paper, cotton, or plastic nettings over mulch. Use a degradable netting in areas to be mowed. Netting is usually available in rolls 4 feet wide and up to 300 feet long Crimper Mulch Anchoring Coulter Tool— A tractor—drawn implement especially designed to punch and anchor mulch into the soil surface. This practice affords maximum erosion control, but its use is limited to those slopes upon which the tractor can operate safely. Soil penetration should be about 3 to 4 inches. On sloping land, the operation should be on the contour.
- Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. Remainder of area should be uniform in appearance. Emulsified asphalt— (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CRS-1, and CRS-2). Apply 0.04 gal./sq.yd. or 194 gal./acre on flat areas and on slopes less than 8 feet
- or more high, use 0.075 gal./sq.yd. or 363 gal./acre. These materials may be difficult to apply uniformly and will discolor surfaces. Organic and Vegetable Based Binders— Naturally occurring, powder based, hydrophilis materials that mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turfgrass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer.
- c. Synthetic Binders— High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

- A. Topsoil should be friable, loamy, free of debris, objectionable weeds and stones, and contain no toxic substance or adverse chemical or physical condition that may be harmful to plant growth. Soluble salts should not be excessive (conductivity less than 0.5 millimhos per centimeter. More than 0.5 millimhos may desicate seedlings and adversely impact growth). Topsoil hauled in from offsite should have a minimum organic matter content of 2.75%. Organic
- B. Topsoil substitute is a soil material which may have been amended with sand, silt, clay, organic matter, fertilizer or lime and has the appearance of topsoil. Topsoil substitutes may be utilized on sites with insufficient topsoil for establishing permanent vegetation. All topsoil substitute materials shall meet the requirements of topsoil noted above. Soil tests shall be performed to determine the components of sand, silt, clay, organic matter, soluble
- A. Field exploration should be made to determine whether quantity and/or quality or surface B. Stripping should be confined to the immediate construction area.
- C. Where feasible, lime may be applied before stripping at a rate determined by soil tests to bring the soil pH to approximately 6.5. In lieu of soil tests, see lime rate guide in seedbed preparation for Permanent Vegetative Cover for Soil Stabilization, pg. 4—1. D. A 4-6 inch stripping depth is common, but may vary depending on the particular soil. E. Stockpiles of topsoil should be situated so as not to obstruct natural drainage or cause
- Stockpiles should be vegetated in accordance with standards previously described herein; see standards for Permanent (pg. 4-1) or Temporary (pg. 7-1) Vegetative Cover for Soil Stabilization. Weeds should not be allowed to grow on stockpiles.

2. Stripping and Stockpiling

- A. Grade at the onset of the optimal seeding period so as to minimize the duration and area of exposure of disturbed soil to erosion. Immediately proceed to establish vegetative cover in accordance with the specified seed mixture. Time is of the essence.
- B. Grade as needed and feasible to permit the use of conventional equipment for seedbed

As guidance for ideal conditions, subsoil should be tested for lime requirement. Limestone, if needed, should be applied to bring soil to a pH of approximately 6.5 and incorporated into the soil as nearly as practical to a depth of 4 inches.

D. Immediately prior to topsoiling, the surface should be scarified 6" to 12" where there has been soil compaction. This will help insure a good bond between the topsoil and subsoil. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.). E. Employ needed erosion control practices such as diversions, grade stabilization structures, channel stabilization measures, sedimentation basins, and waterways. See Standards 11

- A. Topsoil should be handled only when it is dry enough to work without damaging soil structure; i.e., less than field capacity (see glossary).
- of 4.0 or less or containing iron sulfide shall be covered with a minimum depth of 12 inches of soil having a pH of 5.0 or more, in accordance with the Standard for Management of High Acid Producing Soil (pg. 1-1).

