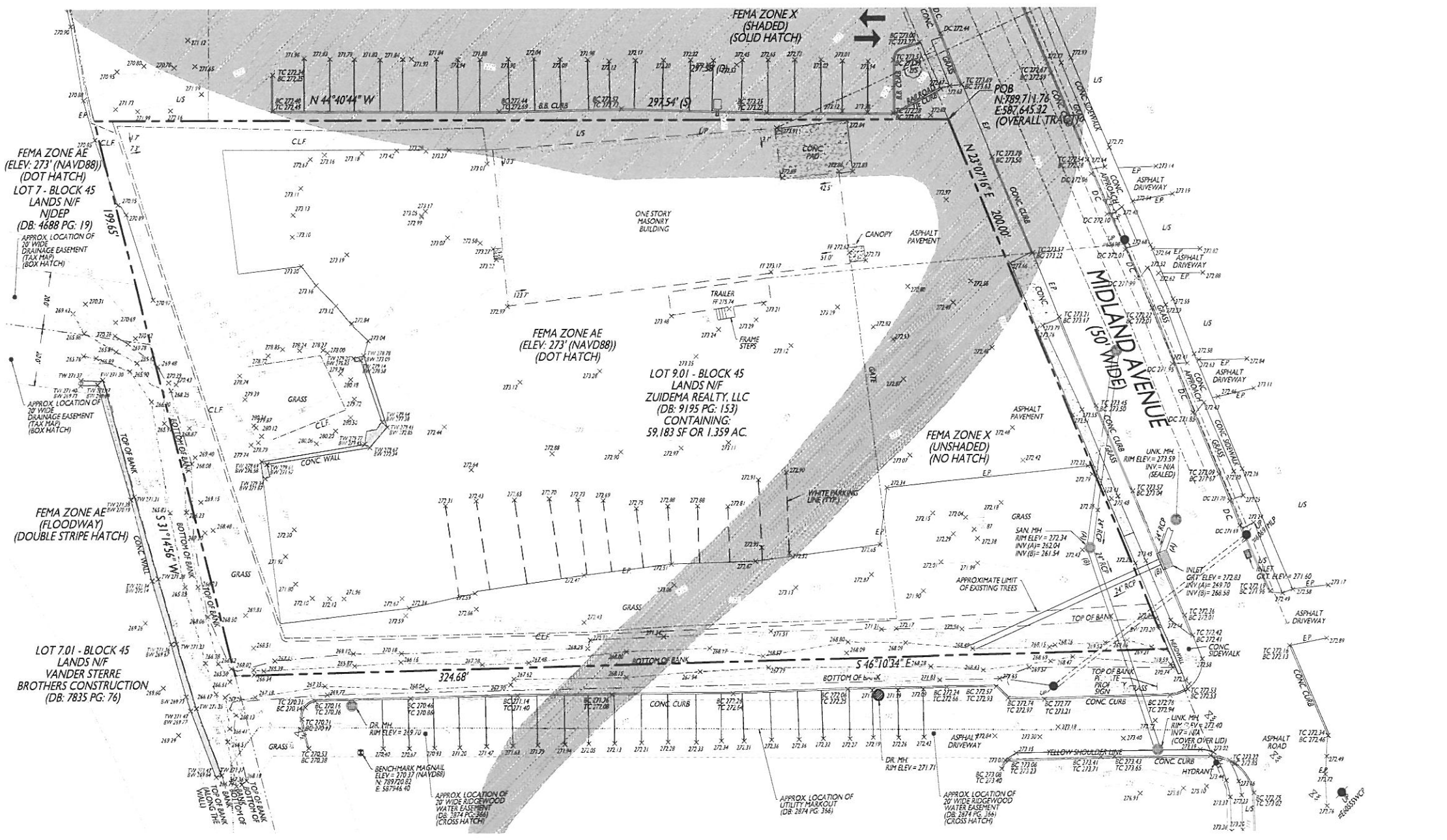
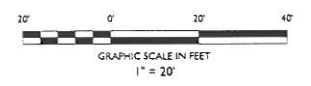


SYMBOL	DESCRIPTION
	BUILDING
	CONCRETE SIDEWALK / MAT
	FEMA ZONE X
	FEMA ZONE AE
	ASPHALT / CONCRETE CURB
	DEPRESSED CURB
	PROPERTY LINE
	ADJACENT PROPERTY LINE
	CHAIN LINK FENCE
	POLE
	LIGHT POLE
	SIGN
	WATER VALVE
	GAS VALVE
	FIRE HYDRANT
	DRAIN
	INLET
	MAN HOLE
	EDGE OF PAVEMENT
	OVERHEAD WIRE
	MAJOR CONTOUR
	MINOR CONTOUR
	GRADE SPOT SHOT
	TOP OF CURB SHOT
	BOTTOM OF CURB SHOT
	TOP OF WALL SHOT
	BOTTOM OF WALL SHOT
	LANDSCAPING
	ELEC METER
	BENCH MARK

SURVEY NOTES:
 1. THE SURVEY LISTED WITHIN THE PLAN REFERENCES ON THE COVER SHEET SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THE SURVEY AND ASSOCIATED DOCUMENTS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF THE SURVEY AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.



	FOR NIDEP SUBMISSION
BY	MAGR
DATE	01/01/2023
ISSUE	01
NOT APPROVED FOR CONSTRUCTION	
<p>STONEFIELD engineering & design</p> <p>Rutherford, NJ · New York, NY · Boston, MA Princeton, NJ · Tampa, FL · Detroit, MI www.stonefielddesign.com</p> <p>Headquarters: 92 Park Avenue, Rutherford, NJ 07070 Phone: 201-340-1468 · Fax: 201-340-4172</p>	
<p>SITE PLAN SET</p> <p>ZUIDEMA REALTY, LLC PROPOSED MULTI-FAMILY RESIDENTIAL BUILDING</p> <p>BLOCK 45, LOT 9.01 90 MIDLAND AVENUE BOROUGH OF MIDLAND PARK BERGEN COUNTY, NEW JERSEY</p>	
<p>AFTON M. SAVITZ, P.E. NEW JERSEY LICENSE NO. 51974 LICENSED PROFESSIONAL ENGINEER</p>	
<p>STONEFIELD engineering & design</p>	
SCALE: 1" = 20' PROJECT ID: RUT-220217	
TITLE: EXISTING CONDITIONS PLAN	
DRAWING: C-2	

LAND USE AND ZONING			
BLOCK 45, LOT 9-01			
MULTIFAMILY RESIDENTIAL (R-2) ZONE			
PROPOSED USE	REQUIRED	EXISTING	PROPOSED
GARDEN APARTMENTS	CONDITIONAL USE (V)		
ZONING REQUIREMENT	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	70,000 SF (1.61 AC)	59,183 SF (1.36 AC) (EN)	59,183 SF (1.36 AC) (EN)
MINIMUM LOT WIDTH	200 FT	199.7 FT (EN)	199.7 FT (EN)
MINIMUM LOT DEPTH	230 FT	297.5 FT	297.5 FT
MAXIMUM IMPERVIOUS COVERAGE	35% (20,714 SF)	63.4% (37,502 SF) (EN)	41.1% (24,328 SF) (V)
MAXIMUM BUILDING COVERAGE	25% (14,794 SF)	10.4% (6,140 SF)	24.2% (14,303 SF)
MAXIMUM FRONT YARD IMPERVIOUS COVERAGE	30% (1,803 SF)	66.2% (3,982 SF)	24.0% (1,443 SF)
MAXIMUM BUILDING HEIGHT	30 FT / 2.5 STORIES	14 FT / 1 STORY	30 FT / 3 STORIES (V)
MINIMUM FRONT YARD SETBACK	30 FT	42.5 FT	43.2 FT
MINIMUM SIDE YARD SETBACK (ONE)	15 FT	3.1 FT	15.0 FT
MINIMUM SIDE YARD SETBACK (BOTH)	...	129.2 FT	53.3 FT
MINIMUM REAR YARD SETBACK	30 FT	123.7 FT	74.0 FT

(V) VARIANCE
(EN) EXISTING NON-COMPLIANCE

CONDITIONAL USE REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 34-5.2 (A)	MAXIMUM NUMBER OF UNITS FOR 90% TO 100% ONE-BEDROOM UNITS 19 UNITS PER ACRE 1,359 AC X 19 UNITS / 1 AC = 25.8 UNITS TOTAL MAXIMUM 25 UNITS	6 ONE-BEDROOM 18 TWO-BEDROOM TOTAL 24 UNITS (V)
§ 34-5.2 (B)	MAXIMUM UNITS PER BUILDING 8	24 UNITS (V)
§ 34-5.2 (C)	MAXIMUM LENGTH OF BUILDING 180 FT	166.6 FT (V)
§ 34-5.2 (D)	UNIT REQUIREMENTS NUMBER OF ROOMS PER UNIT MAXIMUM NUMBER OF ROOMS PER UNIT 2 ROOMS MAXIMUM TWO-BEDROOM UNITS 20% MINIMUM FLOOR AREA PER UNIT: ONE-BEDROOM UNIT: 800 SF TWO-BEDROOM UNIT: 900 SF EXPOSURE & WINDOW REQUIREMENTS MINIMUM EXTERIOR EXPOSURES PER UNIT 2 EXTERIOR EXPOSURES MINIMUM NUMBER OF WINDOWS IN EACH EXPOSURE 1 WINDOW MINIMUM SOUND TRANSMISSION LOSS BETWEEN FLOORS AND CEILINGS 50 DECIBELS MINIMUM BASEMENT STORAGE FOR EACH UNIT: 500 CF	3 ROOMS 75% (V) 3 ROOMS 75% (V) 1 EXTERIOR EXPOSURE (V) 1 WINDOW 50 DECIBELS 0 CF (V)
§ 34-5.2 (I)	MINIMUM RECREATIONAL AREA JOINT RECREATIONAL USES 1,900 SF LOCATION: OTHER THAN FRONT YARD	1,780 SF (V) COMPLIES
§ 34-5.2 (M)(3)	LAUNDRY FACILITIES SHALL BE PROVIDED IN EACH BUILDING	DOES NOT COMPLY (V)
§ 34-5.2 (M)(4)	TRASH SHALL BE STORED AT ALL TIMES IN AIR-TIGHT COVERED CONTAINERS WHICH SHALL BE KEPT IN A CENTRALLY LOCATED, CONCEALED AREA OUTSIDE THE BUILDING	COMPLIES

(V) VARIANCE

OFF-STREET PARKING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 34-16.2	MINIMUM PARKING SPACE REQUIREMENT: RESIDENTIAL: 2 SPACES PER UNIT 24 UNITS X 2 SPACES / UNIT TOTAL REQUIRED: 48 SPACES	50 SPACES
RSIS REQUIREMENTS	MINIMUM PARKING SPACE REQUIREMENT: GARDEN APARTMENT 1 BEDROOM: 1.8 SPACES PER UNIT 4 UNITS X 1.8 SPACES / UNIT = 7.2 SPACES 2 BEDROOM: 2.0 SPACES PER UNIT 18 UNITS X 2.0 SPACES / UNIT = 36 SPACES TOTAL REQUIRED: 47 SPACES	50 SPACES
SENATE BILL S3223	MINIMUM REQUIRED MAKE-READY ELECTRIC VEHICLE SPACES: 15% OF PROPOSED OFF-STREET PARKING 50 PROPOSED SPACES X 0.15 = 7.5 = 8 TOTAL MAKE-READY SPACES MINIMUM REQUIRED ACCESSIBLE MAKE-READY ELECTRIC VEHICLE SPACES: 1% OF TOTAL MAKE-READY SPACES 8 MAKE-READY SPACES X 0.01 = 0.08 = 1 ACCESSIBLE MAKE-READY SPACE MINIMUM MAKE-READY ELECTRIC VEHICLE SPACE PARKING REDUCTION (50 PARKING SPACES X 0.1) = 5 SPACE REDUCTION (V)	9 SPACES 1 ACCESSIBLE SPACE 0 SPACE

(V) 1 MAKE-READY SPACE SHALL COUNT NO LESS THAN 2 PARKING SPACES FOR PURPOSES OF COMPLYING WITH A MINIMUM PARKING SPACE REQUIREMENT PROVIDED IT DOES NOT REDUCE MORE THAN 10% OF OTHERWISE REQUIRED PARKING SPACES

OFF-STREET PARKING REQUIREMENTS (CONT)		
CODE SECTION	REQUIRED	PROPOSED
§ 34-5.2 (G)(1)	OFF-STREET PARKING SETBACKS FRONT YARD SETBACK: 30 FT ALL OTHER PROPERTY LINES: 10 FT PRINCIPAL BUILDING: 15 FT	46.4 FT 15.0 FT 0 FT (V)
§ 34-5.2 (G)(2)	DRIVEWAY REQUIREMENTS MINIMUM NUMBER OF DRIVEWAYS: 2 (V) MINIMUM WIDTH: 10 FT MINIMUM DISTANCE FROM PROPERTY LINE OR BUILDING: 10 FT	2 DRIVEWAYS 16 FT (V) 33.7 FT
§ 32-6.2 (E)(3)	MINIMUM DISTANCE FROM INTERSECTION: 30 FT	237.6 FT
§ 32-6.2 (E)(4)	MINIMUM DISTANCE FROM DRIVEWAY ON ADJOINING PARCEL: 30 FT MINIMUM DISTANCE FROM ANOTHER DRIVEWAY ON THE SAME SITE: 30 FT	54.0 FT 64.9 FT
§ 32-6.2 (C)	MINIMUM PARKING AISLE WIDTH 90' PARKING: 24 FT	24 FT
§ 32-6.2 (D)(1)	MINIMUM PARKING DIMENSIONS 9 FT (W) X 18 FT (L)	9 FT X 18 FT
§ 32-6.2 (E)(6)	TWO-WAY DRIVEWAY INTERSECTION ANGLE: 90° (NO LESS THAN 60°)	90°
§ 32-6.2 (G)(3)	MINIMUM PARKING AREA SLOPE: 1%	1.0%
§ 32-6.2 (G)(4)	MAXIMUM DRIVEWAY SLOPE: 3%	4.3% (V)

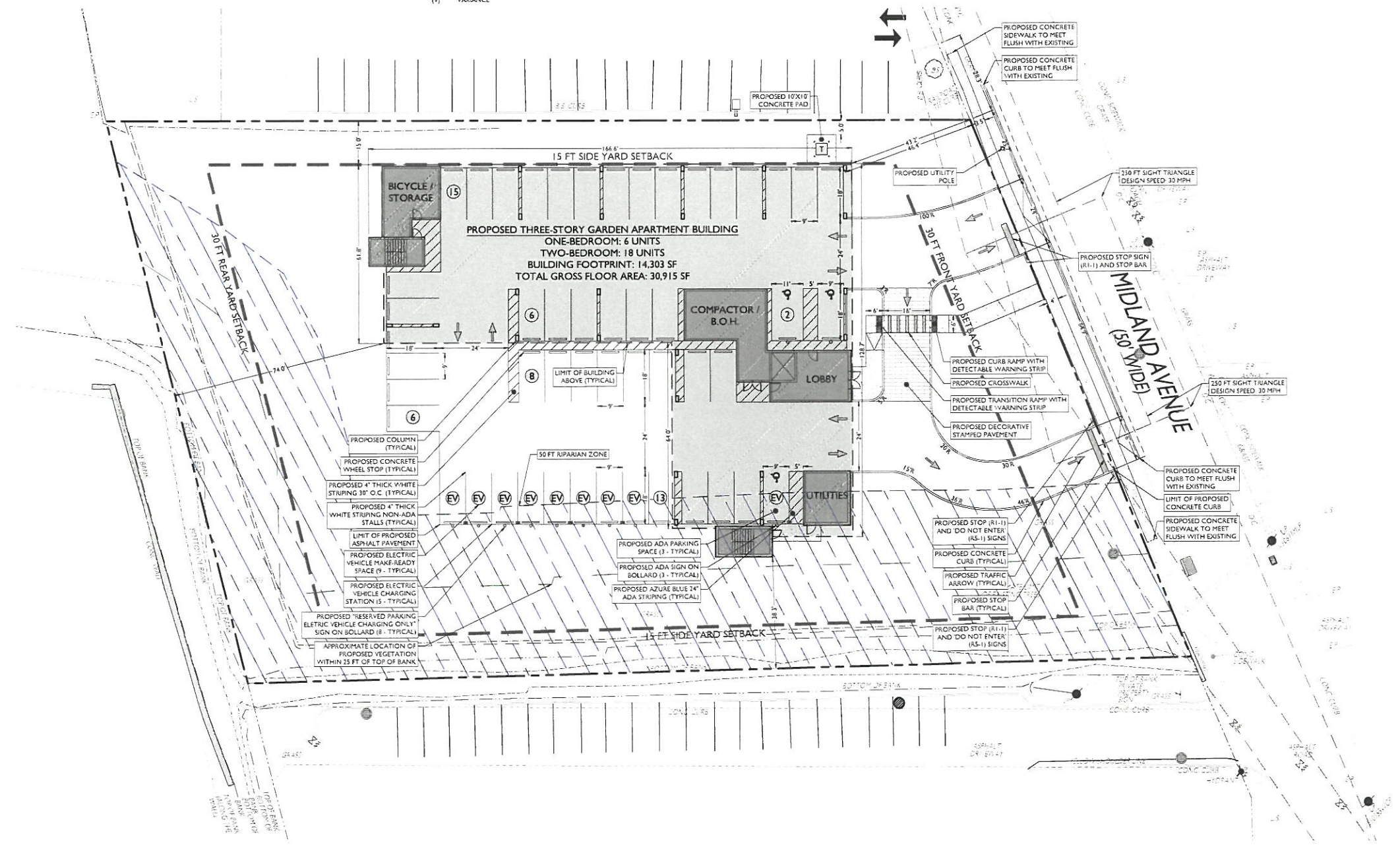
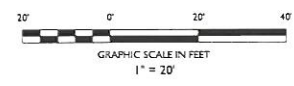
(V) VARIANCE
(V) TWO DRIVEWAYS ARE REQUIRED UNLESS THE PLANNING BOARD DETERMINES THAT ONE DRIVEWAY IS SUFFICIENT

OTHER REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 22-6.4 (B)(2)	MINIMUM SIDEWALK WIDTH CONNECTION TO MAIN ENTRANCE: 4 FT PUBLIC: 5 FT	4 FT 3.5 FT (EN)

(EN) EXISTING NON-COMPLIANCE

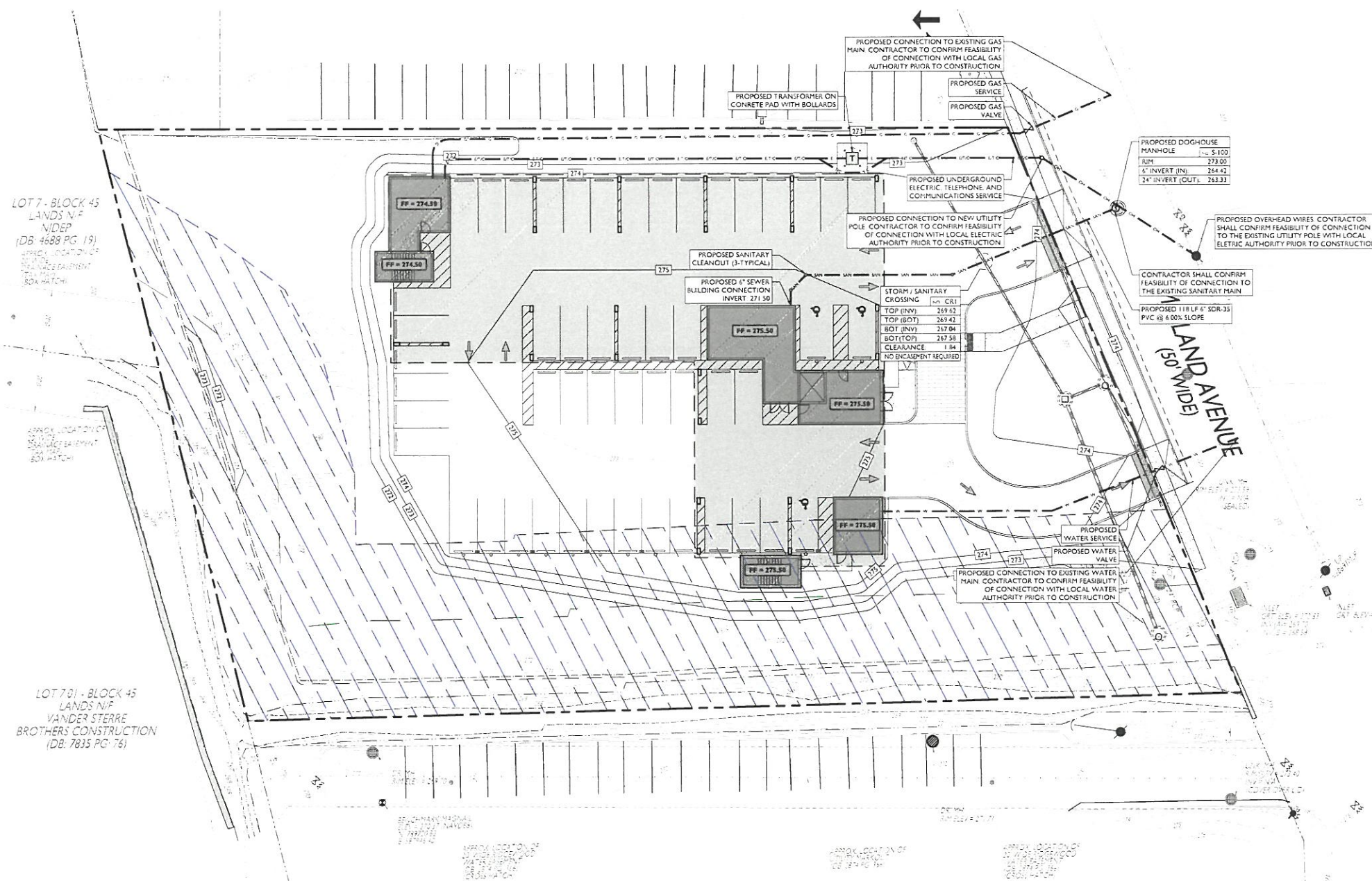
SYMBOL	DESCRIPTION
---	PROPERTY LINE
- - - -	SETBACK LINE
- . - . - .	SAWCUT LINE
=====	PROPOSED CURB
=====	PROPOSED DEPRESSED CURB
=====	PROPOSED FLUSH CURB
○ ○ ○	PROPOSED SIGNS / BOLLARDS
▭	PROPOSED BUILDING
▭	PROPOSED CONCRETE
▭	PROPOSED BUILDING DOORS
▭	RIPARIAN ZONE
▭	PROPOSED VEGETATION

- GENERAL NOTES**
- THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC PRIOR TO THE START OF CONSTRUCTION.
 - THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
 - ALL CONTRACTORS WILL TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
 - THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
 - THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
 - THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
 - THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTOR'S EXPENSE.
 - CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW BY STONEFIELD ENGINEERING & DESIGN, LLC. THE CONTRACTOR SHALL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
 - THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
 - THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
 - THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
 - SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.



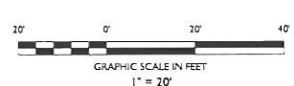
FOR NIDEP SUBMISSION		DATE	ISSUE
01/09/23	MAGR		
NOT APPROVED FOR CONSTRUCTION			
STONEFIELD engineering & design		Rutherford, NJ · New York, NY · Boston, MA Princeton, NJ · Tampa, FL · Detroit, MI www.stonefielddesign.com	
ZUIDEMA REALTY, LLC		Headquarters: 92 Park Avenue, Rutherford, NJ 07070 Phone: 201-340-4468 · Fax: 201-340-4472	
PROPOSED MULTI-FAMILY RESIDENTIAL BUILDING		BLOCK 45, LOT 9-01 90 MIDLAND AVENUE BOROUGH OF MIDLAND PARK BERGEN COUNTY, NEW JERSEY	
STONEFIELD engineering & design		AFTON M. SAVITZ, P.E. NEW JERSEY LICENSE NO. 57674 LICENSED PROFESSIONAL ENGINEER	
SCALE: 1" = 20'		PROJECT ID: RUT-120217	
TITLE: SITE PLAN			
DRAWING: C-3			

Z:\AUTOCAD\2023\1217 ZUIDEMA REALTY - 90 MIDLAND AVENUE - RESIDENTIAL PLAN SET\PROTOTYPING\NIDEP PLAN SET\NIDEP-18.BUILDING



SYMBOL	DESCRIPTION
---	PROPERTY LINE
— SAN —	PROPOSED SANITARY LATERAL
— W —	PROPOSED DOMESTIC WATER SERVICE
— E/T/C —	PROPOSED ELECTRICAL/DATA CONDUITS
— T.C —	PROPOSED DATA CONDUITS
— E —	PROPOSED ELECTRIC CONDUITS
— OH —	PROPOSED OVERHEAD WIRES
— G —	PROPOSED GAS LINE
⊗	PROPOSED VALVE
⊙	PROPOSED SANITARY MANHOLE / CLEANOUT
⊕	PROPOSED UTILITY POLE
⊞	PROPOSED TRANSFORMER ON CONCRETE PAD WITH BOLLARDS

- DRAINAGE AND UTILITY NOTES**
1. THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
 2. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
 3. A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASUREMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
 4. ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASUREMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
 5. THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR WATER AND SANITARY SEWER CONNECTION IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
 6. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AUTHORITY.
 7. CONTRACTOR SHALL START CONSTRUCTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP-GRADE.
 8. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN CAPPED, ABANDONED, OR RELOCATED BASED ON THE DEMOLITION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
 9. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.



DATE	BY	DESCRIPTION
01/16/2023	MAGR	FOR NIDEP SUBMISSION
01		ISSUE

NOT APPROVED FOR CONSTRUCTION

STONEFIELD
engineering & design

Rutherford, NJ · New York, NY · Boston, MA
Princeton, NJ · Tampa, FL · Detroit, MI
www.stonefielddesign.com

Headquarters: 92 Park Avenue, Rutherford, NJ 07070
Phone: 201.340.4468 Fax: 201.340.4472

SITE PLAN SET

ZUIDEMA REALTY, LLC
PROPOSED MULTI-FAMILY
RESIDENTIAL BUILDING

BLOCK 45, LOT 8.01
90 MIDLAND AVENUE
BERGEN COUNTY, NEW JERSEY

AFTON M. SAVITZ, P.E.
NEW JERSEY LICENSE NO. 35747
LICENSED PROFESSIONAL ENGINEER

STONEFIELD
engineering & design

SCALE: 1" = 20' PROJECT ID: RUT-220217

TITLE: UTILITY PLAN

DRAWING: C-5

LOT 7 - BLOCK 45
LANDS N/F
NIDEP
(DB: 4688 PG. 19)
APPROX. LOCATION OF
SOAK PILE/PERMEABLE
SOAK PATCH

APPROX. LOCATION OF
SOAK PILE/PERMEABLE
SOAK PATCH

LOT 7.01 - BLOCK 45
LANDS N/F
VANDER STERRE
BROTHERS CONSTRUCTION
(DB: 7835 PG. 76)

7: AUTH: RUC/AMR/BJB/AMT 1/16/23 7: AFTON M. SAVITZ, P.E. 90 MIDLAND AVENUE BERGEN COUNTY, NJ 07070 PROJECT ID: RUT-220217

- STABILIZATION SPECIFICATIONS:**
- TEMPORARY SEEDING AND MULCHING
GROUND LIMESTONE - APPLIED UNIFORMLY ACCORDING TO SOIL TEST RECOMMENDATIONS
FERTILIZER - APPLY 11 LBS./1,000 SF OF 10-10-10 OR EQUIVALENT WITH 30% WATER INSOLUBLE NITROGEN (UNLESS A SOIL TEST INDICATES OTHERWISE) WORKED INTO THE SOIL A MINIMUM OF 4"
SEED - PERENNIAL RYEGRASS 100 LBS./ACRE (2.3 LBS./1,000 SF) OR OTHER APPROVED SEED, PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1
MULCH - UNROTTED STRAW OR HAY AT A RATE OF 70 TO 90 LBS./1,000 SF APPLIED TO ACHIEVE 95% SOIL SURFACE COVERAGE. MULCH SHALL BE ANCHORED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).
 - PERMANENT SEEDING AND MULCHING
TOPSOIL - UNIFORM APPLICATION TO A DEPTH OF 5" (UNSETTLED)
GROUND LIMESTONE - APPLIED UNIFORMLY ACCORDING TO SOIL TEST RECOMMENDATIONS
FERTILIZER - APPLY 11 LBS./1,000 SF OF 10-10-10 OR EQUIVALENT WITH 30% WATER INSOLUBLE NITROGEN (UNLESS A SOIL TEST INDICATES OTHERWISE) WORKED INTO THE SOIL A MINIMUM OF 4"
SEED - TURF TYPE TALL FESCUE (BLEND OF 3 CULTIVARS) 350 LBS./ACRE (8 LBS./1,000 SF) OR OTHER APPROVED SEEDS, PLANT BETWEEN MARCH 1 AND OCTOBER 1 (SUMMER SEEDINGS REQUIRE IRRIGATION)
MULCH - UNROTTED STRAW OR HAY AT A RATE OF 70 TO 90 LBS./1,000 SF APPLIED TO ACHIEVE 95% SOIL SURFACE COVERAGE. MULCH SHALL BE ANCHORED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).

SOIL CHARACTERISTICS CHART		
TYPE OF SOIL	HALEDON-URBAN LAND COMPLEX (H-UBS)	URBAN LAND (UR)
PERCENT OF SITE COVERAGE	3.8%	14.2%
HYDROLOGIC SOIL GROUP	C	UNRANKED
DEPTH TO RESTRICTIVE LAYER	24 TO 36 INCHES TO FRAGIPAN	--
SOIL PERMEABILITY	0.06 TO 0.20 IN / HR.	--
DEPTH TO WATER TABLE	7 TO 18 INCHES	--

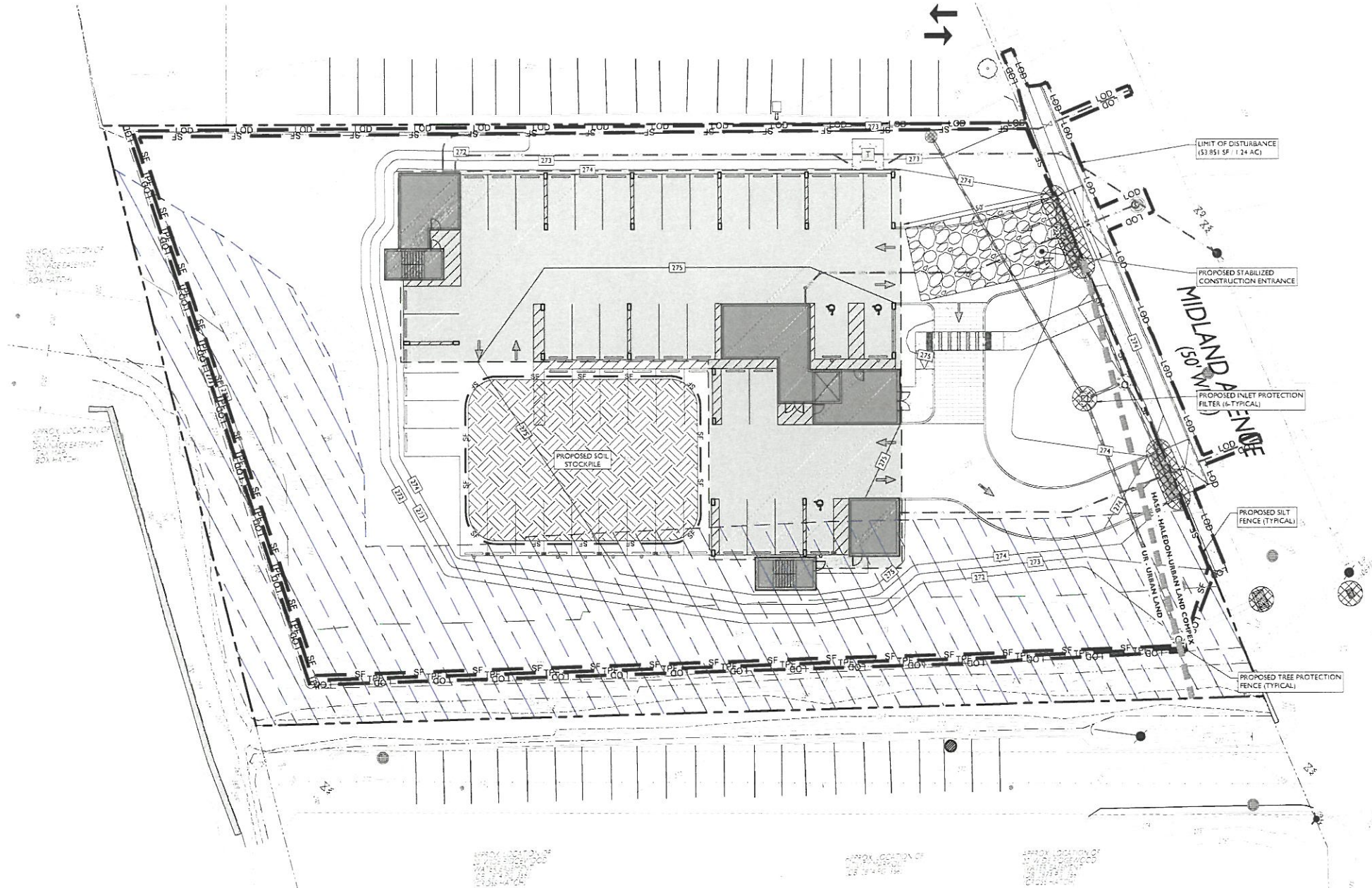
THE SUBJECT PROPERTY IS LOCATED WITHIN AN URBAN REDEVELOPMENT AREA (METROPOLITAN PLANNING AREA (PA1)) AND IS THEREFORE EXEMPT FROM COMPACTION REMEDIATION

- DUST CONTROL NOTES**
- MULCHES - SEE STANDARD OF STABILIZATION WITH MULCHES ONLY, PG. 5-1
 - VEGETATIVE COVER - SEE STANDARD FOR TEMPORARY VEGETATIVE COVER, PG. 7-1, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION PG. 4-1 AND PERMANENT STABILIZATION WITH SOD, PG. 6-1
 - SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS) KEEP TRAFFIC OFF THESE AREAS
 - TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHisel-TYPE PLOWS, SPACED ABOUT 12 INCHES APART AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
 - SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET
 - 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 A 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 AROUND PLANTS
 - STONES - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL



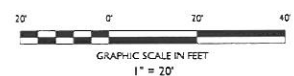
Know what's below
Call before you dig.

SYMBOL	DESCRIPTION
---	PROPERTY BOUNDARY
- - - -	ADJACENT PROPERTY BOUNDARY
LOD	PROPOSED LIMIT OF DISTURBANCE
SF	PROPOSED SILT FENCE
TPF	PROPOSED TREE PROTECTION FENCE
[Symbol]	PROPOSED STOCKPILE & EQUIPMENT STORAGE
[Symbol]	PROPOSED STABILIZED CONSTRUCTION ENTRANCE
[Symbol]	PROPOSED INLET PROTECTION FILTER



BERGEN COUNTY SOIL CONSERVATION DISTRICT SOIL EROSION AND SEDIMENT CONTROL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS
- THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL IN COMPLIANCE WITH LOCAL, STATE AND FEDERAL AIR QUALITY STANDARDS
- THE CONTRACTOR IS RESPONSIBLE TO INSPECT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES WEEKLY AND AFTER A PRECIPITATION EVENT GREATER THAN 1 INCH. THE CONTRACTOR SHALL MAINTAIN AN INSPECTION LOG ON SITE AND DOCUMENT CORRECTIVE ACTION TAKEN THROUGHOUT THE COURSE OF CONSTRUCTION AS REQUIRED
- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY (NJ STANDARDS), AND WILL BE INSTALLED IN PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT STABILIZATION IS ESTABLISHED
- ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING AND MULCHING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH UNROTTED STRAW OR HAY AT A RATE OF 2 TONS PER ACRE ANCHORED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER)
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF 2 TONS PER ACRE, ACCORDING TO THE NJ STANDARDS
- STABILIZATION SPECIFICATIONS:
 - TEMPORARY SEEDING AND MULCHING
GROUND LIMESTONE - APPLIED UNIFORMLY ACCORDING TO SOIL TEST RECOMMENDATIONS
FERTILIZER - APPLY 11 LBS./1,000 SF OF 10-10-10 OR EQUIVALENT WITH 30% WATER INSOLUBLE NITROGEN (UNLESS A SOIL TEST INDICATES OTHERWISE) WORKED INTO THE SOIL A MINIMUM OF 4"
SEED - PERENNIAL RYEGRASS 100 LBS./ACRE (2.3 LBS./1,000 SF) OR OTHER APPROVED SEED, PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1
MULCH - UNROTTED STRAW OR HAY AT A RATE OF 70 TO 90 LBS./1,000 SF APPLIED TO ACHIEVE 95% SOIL SURFACE COVERAGE. MULCH SHALL BE ANCHORED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER)
 - PERMANENT SEEDING AND MULCHING
TOPSOIL - UNIFORM APPLICATION TO AN AVERAGE DEPTH OF 5", MINIMUM OF 4" FIRMS IN PLACE IS REQUIRED
GROUND LIMESTONE - APPLIED UNIFORMLY ACCORDING TO SOIL TEST RECOMMENDATIONS
FERTILIZER - APPLY 11 LBS./1,000 SF OF 10-10-10 OR EQUIVALENT WITH 30% WATER INSOLUBLE NITROGEN (UNLESS A SOIL TEST INDICATES OTHERWISE) WORKED INTO THE SOIL A MINIMUM OF 4"
SEED - TURF TYPE TALL FESCUE (BLEND OF 3 CULTIVARS) 350 LBS./ACRE (8 LBS./1,000 SF) OR OTHER APPROVED SEEDS, PLANT BETWEEN MARCH 1 AND OCTOBER 1 (SUMMER SEEDINGS REQUIRE IRRIGATION)
MULCH - UNROTTED STRAW OR HAY AT A RATE OF 70 TO 90 LBS./1,000 SF APPLIED TO ACHIEVE 95% SOIL SURFACE COVERAGE. MULCH SHALL BE ANCHORED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER)
- THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES
- SOIL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS, INCLUDING AFTER EVERY STORM EVENT
- STOCKPILES ARE NOT TO BE LOCATED WITHIN 50' OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES SHALL BE CONTAINED BY A HAYBALE SEDIMENT BARRIER OR SILT FENCE
- A CRUSHED STONE VEHICLE WHEEL-CLEANING BLANKET WILL BE INSTALLED WHENEVER A CONSTRUCTION ACCESS ROAD INTERSECTS ANY PAVED ROADWAY. SAID BLANKET WILL BE COMPOSED OF 1" - 3/4" CRUSHED STONE, 8" THICK, WILL BE AT LEAST 30' X 100' AND SHOULD BE UNDERLAIN WITH A SUITABLE SYNTHETIC SEDIMENT FILTER FABRIC AND MAINTAINED
- MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT EXCEED 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT
- DRIVEWAYS MUST BE STABILIZED WITH 1" - 2 1/2" CRUSHED STONE OR SUBBASE PRIOR TO INDIVIDUAL LOT CONSTRUCTION
- ALL SOIL WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS WILL BE REMOVED IMMEDIATELY. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES
- CATCH BASIN INLETS WILL BE PROTECTED WITH AN INLET FILTER DESIGNED IN ACCORDANCE WITH SECTION 18-1.1 OF THE NJ STANDARDS
- STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL
- DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT CONTROL BAG OR OTHER APPROVED FILTER IN ACCORDANCE WITH SECTION 14-1 OF THE NJ STANDARDS
- DUST SHALL BE CONTROLLED VIA THE APPLICATION OF WATER, CALCIUM CHLORIDE OR OTHER APPROVED METHOD IN ACCORDANCE WITH SECTION 16-1 OF THE NJ STANDARDS
- AREAS TO REMAIN AFTER CONSTRUCTION ARE TO BE PROTECTED WITH A SUITABLE FENCE INSTALLED AT THE DRIP LINE OR BEYOND IN ACCORDANCE WITH SECTION 9-1 OF THE NJ STANDARDS
- THE PROJECT OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFF-SITE AS A RESULT OF CONSTRUCTION OF THE PROJECT
- ANY REVISION TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL PRIOR TO IMPLEMENTATION IN THE FIELD
- A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE THROUGHOUT CONSTRUCTION
- THE BERGEN COUNTY SOIL CONSERVATION DISTRICT MUST BE NOTIFIED IN WRITING, AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBANCE. BERGEN COUNTY SCED, 700 KINDERKAMP ROAD, SUITE 104, ORADELL, NJ 07649 TEL: 201-261-4407; FAX: 201-261-7373
- THE BERGEN COUNTY SOIL CONSERVATION DISTRICT MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE ON OR OFF-SITE EROSION PROBLEMS DURING CONSTRUCTION
- THE OWNER MUST OBTAIN A DISTRICT ISSUED REPORT OF COMPLIANCE PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY. THE DISTRICT REQUIRES AT LEAST ONE WEEK'S NOTICE TO FACILITATE THE SCHEDULING OF ALL REPORT OF COMPLIANCE INSPECTIONS. ALL SITE WORK MUST BE COMPLETED, INCLUDING TEMPORARY/PERMANENT STABILIZATION OF ALL EXPOSED AREAS, PRIOR TO THE ISSUANCE OF A REPORT OF COMPLIANCE BY THE DISTRICT.



DATE	BY	DESCRIPTION
01/02/2013	MAGR	FOR NIDEP SUBMISSION
01		ISSUE

NOT APPROVED FOR CONSTRUCTION

STONEFIELD
engineering & design

Rutherford, NJ · New York, NY · Boston, MA
Princeton, NJ · Tampa, FL · Detroit, MI
www.stonefielddesign.com

Headquarters: 92 Park Avenue, Rutherford, NJ 07070
Phone 201.340.4468 · Fax 201.340.4472

SITE PLAN SET

ZUIDEMA REALTY, LLC

PROPOSED MULTI-FAMILY RESIDENTIAL BUILDING

BLOCK 45, LOT 9.01
90 MIDLAND AVENUE
BOROUGH OF MIDLAND PARK
BERGEN COUNTY, NEW JERSEY

AFTON M. SAVITZ, P.E.
NEW JERSEY LICENSE NO. 52781
LICENSED PROFESSIONAL ENGINEER

STONEFIELD
engineering & design

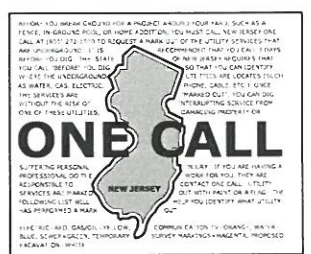
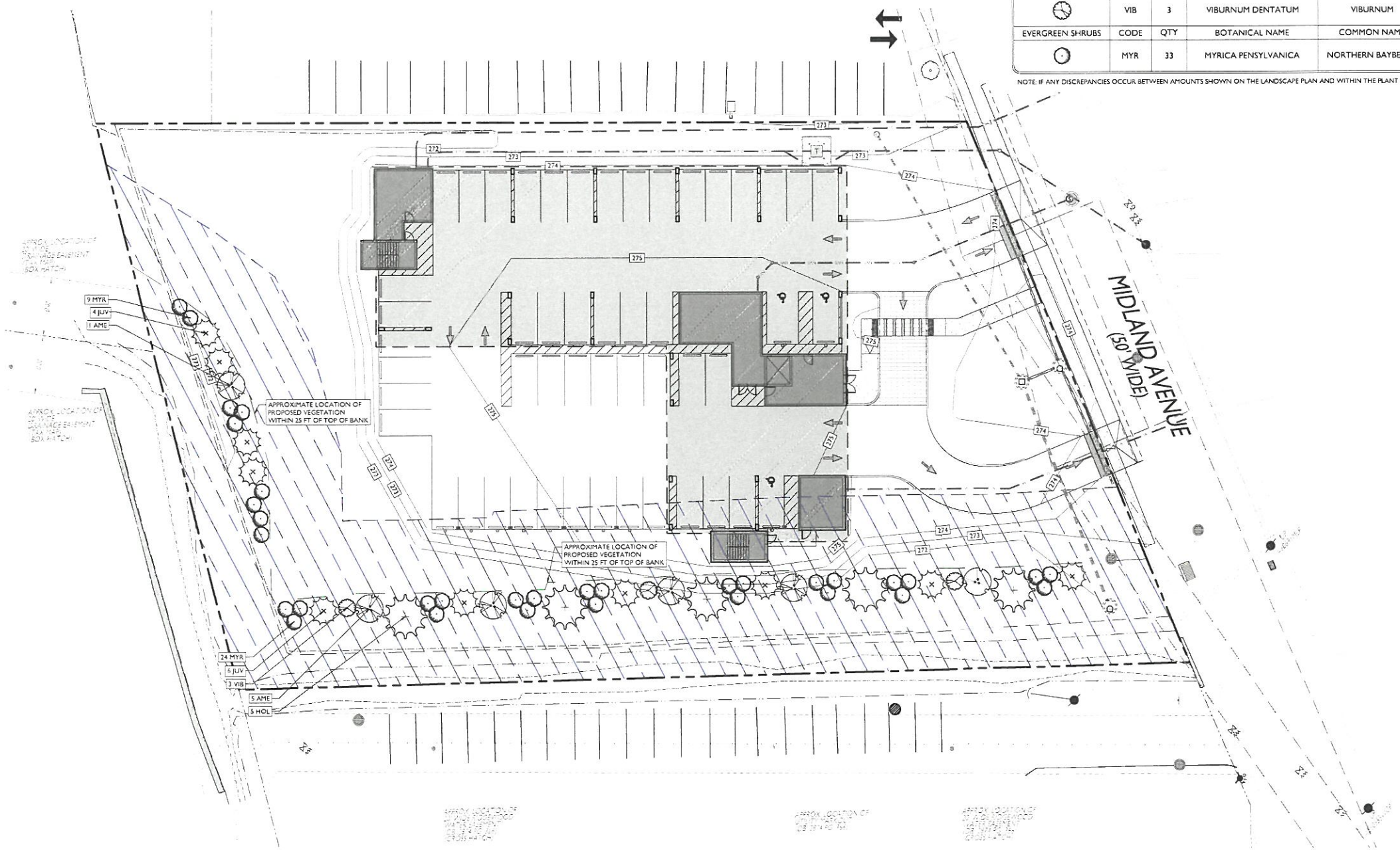
SCALE: 1" = 20' PROJECT ID: RUT-220217

TITLE:
SOIL EROSION & SEDIMENT CONTROL PLAN

DRAWING:
C-6

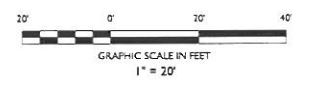
PLANT SCHEDULE						
TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	AME	6	AMELANCHIER CANADENSIS	SERVICEBERRY	6' - 7' HT	B&B
EVERGREEN TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	HOL	5	ILEX OPACA	AMERICAN HOLLY	6' - 7' HT	B&B
	JUV	10	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	6' - 7' HT	B&B
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	VIB	3	VIBURNUM DENTATUM	VIBURNUM	18" - 24"	POT
EVERGREEN SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	MYR	33	MYRICA PENNSYLVANICA	NORTHERN BAYBERRY	18" - 24"	POT

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE



IRRIGATION NOTE:
 IRRIGATION CONTRACTOR TO PROVIDE A DESIGN FOR AN IRRIGATION SYSTEM SEPARATING PLANTING BEDS FROM LAWN AREA. PRIOR TO CONSTRUCTION, DESIGN IS TO BE SUBMITTED TO THE PROJECT LANDSCAPE DESIGNER FOR REVIEW AND APPROVAL. WHERE POSSIBLE, DRIP IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES SUCH AS RAIN SENSORS SHALL BE IMPLEMENTED. CONTRACTOR TO VERIFY MAXIMUM ON-SITE DYNAMIC WATER PRESSURE AVAILABLE. MEASURED IN PSI. PRESSURE REDUCING DEVICES OR BOOSTER PUMPS SHALL BE PROVIDED TO MEET SYSTEM PRESSURE REQUIREMENTS. DESIGN TO SHOW ALL VALVES, PIPING, HEADS, BACKFLOW PREVENTION, METERS, CONTROLLERS, AND SLEEVES WITHIN Hardscape AREAS.

- LANDSCAPING NOTES**
1. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
 2. THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
 3. THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 3 INCH LAYER OF MULCH.
 4. THE MAXIMUM SLOPE ALLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE 3 FEET HORIZONTAL TO 1 FOOT VERTICAL (3:1 SLOPE) UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
 5. THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS IN AREA OF LANDSCAPING DISTURBANCE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION WITHIN AREAS OF DISTURBANCE.
 6. THE CONTRACTOR SHALL ENSURE THAT ALL DISTURBED LANDSCAPED AREAS ARE GRADED TO MEET FINISH AT THE ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ADJUST CHANGES IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING AREAS.



	FOR NIDEP SUBMISSION
MAGR	BY
01/09/2023	DATE
01	ISSUE

NOT APPROVED FOR CONSTRUCTION

STONEFIELD

engineering & design

Rutherford, NJ · New York, NY · Boston, MA
 Princeton, NJ · Tampa, FL · Detroit, MI
www.stonefielddesign.com

Headquarters: 92 Park Avenue, Rutherford, NJ 07070
 Phone: 201.340.4468 · Fax: 201.340.4472

ZUIDEMA REALTY, LLC

PROPOSED MULTI-FAMILY
 RESIDENTIAL BUILDING

BLOCK 45, LOT 9.01
 90 MIDLAND AVENUE
 BOROUGH OF MIDLAND PARK
 BERGEN COUNTY, NEW JERSEY

STONEFIELD

engineering & design

AFTON M. SAVITZ, P.E.
 NEW JERSEY LICENSE NO. 57874
 LICENSED PROFESSIONAL ENGINEER

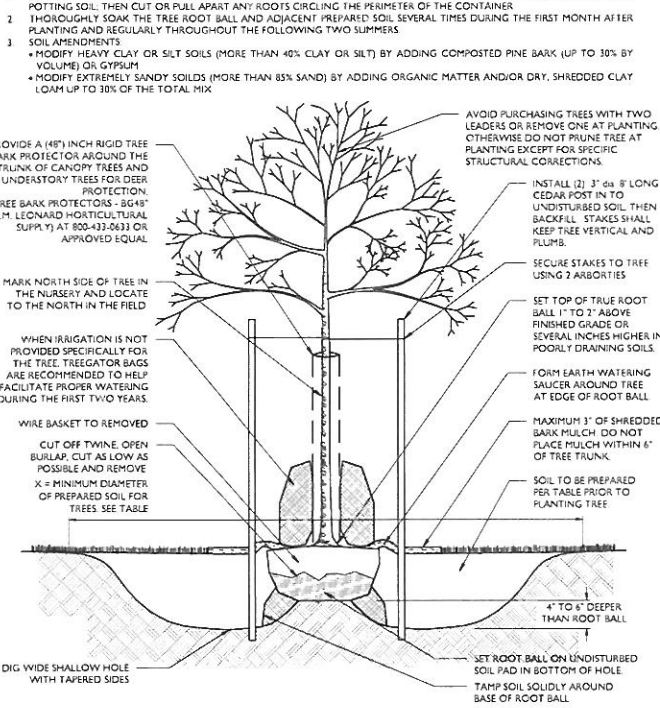
SCALE: 1" = 20' PROJECT ID: RUT-22017

TITLE:
LANDSCAPING PLAN

DRAWING:
C-8

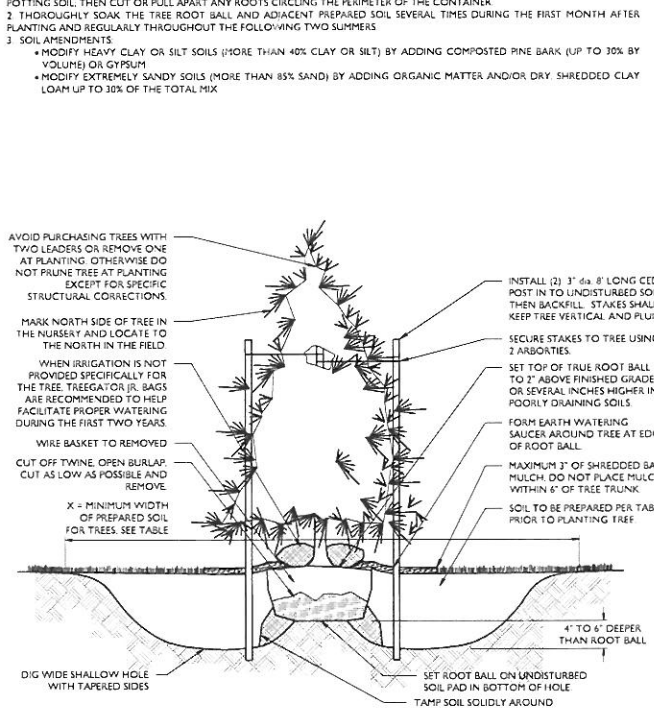
NOTES

- FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL. THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
- THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
- SOIL AMENDMENTS:
 - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM.
 - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.



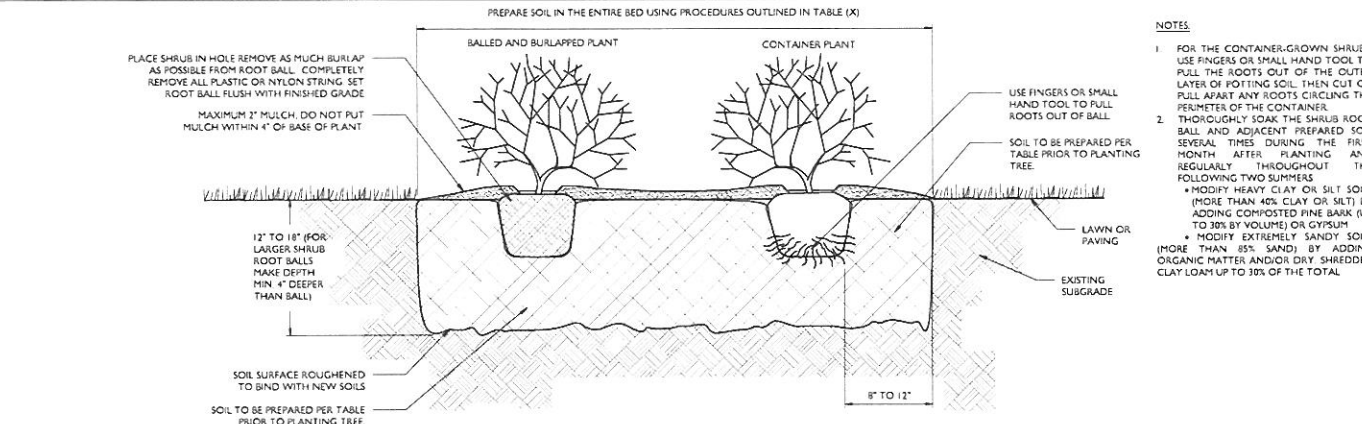
NOTES

- FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL. THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
- THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
- SOIL AMENDMENTS:
 - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM.
 - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.



DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE

CONIFEROUS TREE PLANTING DETAIL
NOT TO SCALE

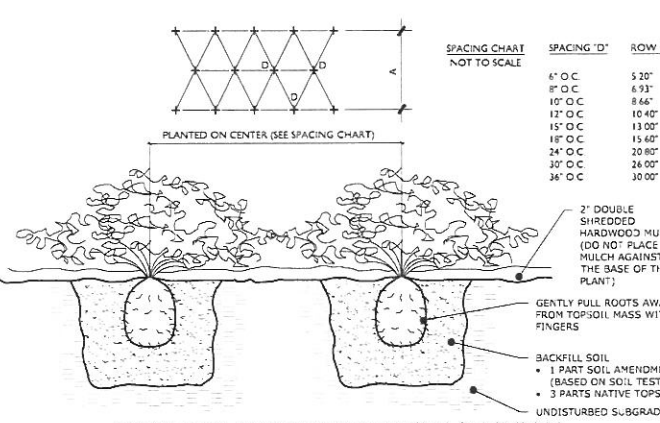


DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL
NOT TO SCALE

DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL
NOT TO SCALE

NOTES

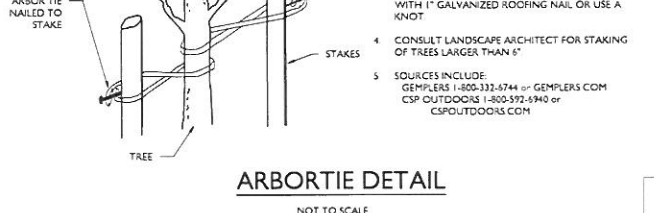
- THOROUGHLY SOAK THE GROUND COVER ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
- SOIL AMENDMENTS:
 - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM.
 - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
- ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE-EMERGENT PER MANUFACTURER'S SPECIFICATIONS.



GROUND COVER/PERENNIAL/ANNUAL PLANTING DETAIL
NOT TO SCALE

NOTES

- FOR THE CONTAINER-GROWN SHRUB, USE FINGERS OR SMALL HAND TOOL TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL. THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
- THOROUGHLY SOAK THE SHRUB ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
 - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM.
 - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.



ARBORTIE DETAIL
NOT TO SCALE

INSTALLATION GUIDELINES

- LOOP TIE AROUND TREE AND NAIL TO CEDAR STAKE.
- REMOVE ALL STAKING AND TIES AT END OF FIRST GROWING SEASON.
- FOLD ENDS OF ARBOR TIE BACK, SECURE TO STAKES WITH 1" GALVANIZED ROOFING NAIL OR USE A KNOT.
- CONSULT LANDSCAPE ARCHITECT FOR STAKING OF TREES LARGER THAN 6".
- SOURCES INCLUDE:
 - GENPERS 1-800-332-8741 or GENPERS.COM
 - CSP OUTDOORS 1-800-972-4940 or CSPOUTDOORS.COM

ARBORTIE DETAIL
NOT TO SCALE

GENERAL LANDSCAPING NOTES:

- THE LANDSCAPE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK IN ACCORDANCE WITH THESE SPECIFICATIONS, APPROVED OR FINAL DRAWINGS, AND INSTRUCTIONS PROVIDED BY THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIAL, OR OWNER/OWNER'S REPRESENTATIVE. ALL WORK COMPLETED AND MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH THE INTENTION OF THE SPECIFICATIONS, DRAWINGS, AND INSTRUCTIONS AND EXECUTED WITH THE STANDARD LEVEL OF CARE FOR THE LANDSCAPE INDUSTRY.
- WORK MUST BE CARRIED OUT ONLY DURING WEATHER CONDITIONS FAVORABLE TO LANDSCAPE CONSTRUCTION AND TO THE HEALTH AND WELFARE OF PLANTS. THE SUITABILITY OF SUCH WEATHER CONDITIONS SHALL BE DETERMINED BY THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL.
- IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR, BEFORE ORDERING OR PURCHASING MATERIALS, TO PROVIDE SAMPLES OF THOSE MATERIALS TO THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL FOR APPROVAL, IF SO REQUESTED.
- IF SAMPLES ARE REQUESTED, THE LANDSCAPE CONTRACTOR IS TO SUBMIT CERTIFICATION TAGS FROM TREES, SHRUBS AND SEED VERIFYING TYPE AND PURITY.
- UNLESS OTHERWISE AUTHORIZED BY THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL, THE LANDSCAPE CONTRACTOR SHALL PROVIDE NOTICE (48 HRS) IN ADVANCE OF THE ANTICIPATED DELIVERY DATES OF ANY PLANT MATERIALS TO THE PROJECT SITE. A LEGIBLE COPY OF THE INVOICE, SHOWING VARIETIES AND SIZES OF MATERIALS INCLUDED FOR EACH SHIPMENT SHALL BE FURNISHED TO THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL.
- THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL RESERVES THE RIGHT TO INSPECT AND REJECT PLANTS AT ANY TIME AND AT ANY PLACE.

PROTECTION OF EXISTING VEGETATION NOTES:

- BEFORE COMMENCING WORK, ALL EXISTING VEGETATION WHICH COULD BE IMPACTED AS A RESULT OF THE PROPOSED CONSTRUCTION ACTIVITIES MUST BE PROTECTED FROM DAMAGE BY THE INSTALLATION OF TREE PROTECTION FENCING. FENCING SHALL BE LOCATED AT THE DHP LINE OR LIMIT OF DISTURBANCE AS DEPICTED WITHIN THE APPROVED OR FINAL PLAN SET. ESTABLISHING THE PROTECTION ZONE: FENCE INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE PROTECTION FENCE DETAIL." NO WORK WILL BE DONE UNTIL THIS REQUIREMENT IS FULFILLED. THE FENCING SHALL BE INSPECTED REGULARLY BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
- IN ORDER TO AVOID DAMAGE TO ROOTS, BARK OR LOWER BRANCHES, NO VEHICLE, EQUIPMENT, DEBRIS, OR OTHER MATERIALS SHALL BE DRIVEN, PARKED OR PLACED WITHIN THE TREE PROTECTION ZONE. ALL ON-SITE CONTRACTORS SHALL USE ANY AND ALL PRECAUTIONARY MEASURES WHEN PERFORMING WORK AROUND TREES, WALKS, PAVEMENTS, UTILITIES, AND ANY OTHER FEATURES EITHER EXISTING OR PREVIOUSLY INSTALLED UNDER THIS CONTRACT.
- IN CASE INSTANCES WHERE EXCAVATING, FILL, OR GRADING IS REQUIRED WITHIN THE DHP LINE OF TREES TO REMAIN, THE WORK SHALL BE PERFORMED AS FOLLOWS:
 - TRENCHING: WHEN TRENCHING OCCURS AROUND TREES TO REMAIN, THE TREE ROOTS SHALL NOT BE CUT, BUT THE TRENCH SHALL BE TUNNELED UNDER OR AROUND THE ROOTS BY CAREFUL HAND DIGGING AND WITHOUT INJURY TO THE ROOTS. NO ROOTS, LIMBS, OR WOODS ARE TO HAVE ANY PAINT OR MATERIAL APPLIED TO ANY SURFACE.
 - RASING GRADES: WHEN THE GRADE AT AN EXISTING TREE IS BELOW THE NEW FINISHED GRADE, AND IS NOT EXCEEDING 6 INCHES (6") IS REQUIRED. CLEAN, WASHED GRAVEL FROM ONE TO TWO INCHES (1" - 2") IN FILL SHALL BE PLACED DIRECTLY AROUND THE TREE TRUNK. THE GRAVEL SHALL EXTEND OUT FROM THE TRUNK ON ALL SIDES A MINIMUM OF 18 INCHES (18") AND FINISH APPROXIMATELY TWO INCHES (2") ABOVE THE FINISH GRADE AT TREE. INSTALL GRAVEL BEFORE ANY EARTH FILL IS PLACED. NEW EARTH FILL SHALL NOT BE LEFT IN CONTACT WITH THE TRUNK OF ANY TREE REQUIRING FILL. WHERE FILL EXCEEDING 6 INCHES (6") IS REQUIRED, A DRY LAD TREE WELL SHALL BE CONSTRUCTED IF APPLICABLE. TREE WELL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE WELL DETAIL."
 - LOWERING GRADES: EXISTING TREES LOCATED IN AREAS WHERE THE NEW FINISHED GRADE IS TO BE LOWERED, SHALL HAVE RE-GRADING WORK DONE BY HAND TO THE INDICATED ELEVATION, NO GREATER THAN SIX INCHES (6") ROOTS SHALL BE CUT CLEANLY THREE INCHES (3") BELOW FINISHED GRADE UNDER THE DIRECTION OF A LICENSED ARBORIST WHERE CUT EXCEEDING 4 INCHES (4") IS REQUIRED. A DRY LAD RETAINING WALL SHALL BE CONSTRUCTED IF APPLICABLE. THE RETAINING WALL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE RETAINING WALL DETAIL."

SOIL PREPARATION AND MULCH NOTES:

- LANDSCAPE CONTRACTOR SHALL OBTAIN A SOIL TEST OF THE IN-SITU TOPSOIL BY A CERTIFIED SOIL LABORATORY PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL ALLOW FOR A TWO WEEK TURNAROUND TIME FROM SUBMITTAL OF SAMPLE TO NOTIFICATION OF RESULTS.
- BASED ON SOIL TEST RESULTS, ADJUST THE RATES OF LIME AND FERTILIZER THAT SHALL BE MIXED INTO THE TOP SIX INCHES (6") OF TOPSOIL. THE LIME AND FERTILIZER RATES PROVIDED WITHIN THE "SOIL SPECIFICATION" OR "SOD SPECIFICATION" IS APPROXIMATE AND FOR BIDDING PURPOSES ONLY. IF ADDITIONAL AMENDMENTS ARE NECESSARY, ADJUST THE TOPSOIL AS FOLLOWS:
 - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM.
 - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
- TOPSOIL SHALL BE FERTILE, FRIABLE, NATURAL TOPSOIL OF LOAMING CHARACTER, WITHOUT ADMIXTURE OF SUBSOIL MATERIAL OBTAINED FROM A WELL-DRAINABLE AREA. FREE FROM ALL CLAY, LIMES, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS AND OTHER FOREIGN MATERIAL GREATER THAN ONE INCH (1").
- TOPSOIL SHALL HAVE A PH RANGE OF 6.0 TO 6.5. TOPSOIL SHALL NOT CONTAIN LESS THAN SIX ORGANIC MATTER BY WEIGHT.
- OBTAIN TOPSOIL ONLY FROM LOCAL SOURCES OR FROM AREAS HAVING SIMILAR SOIL CHARACTERISTICS TO THAT FOUND AT THE PROJECT SITE.
- CONTRACTOR SHALL PROVIDE A SIX INCH (6") DEEP LAYER OF TOPSOIL IN ALL PLANTING AREAS. TOPSOIL SHALL BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN SOIL CONDITIONS.
- UNLESS OTHERWISE NOTED IN THE CONTRACT, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE GRADING WITHIN THE DISTURBED AREA OF THE SITE.
- LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE SUB-GRADE ELEVATION MEETS THE FINISHED GRADE ELEVATION (LESS THE REQUIRED TOPSOIL), IN ACCORDANCE WITH THE APPROVED OR FINAL GRADING PLAN.
- ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THE APPROVED OR FINAL CONSTRUCTION SET UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE DESIGNER OR MUNICIPAL OFFICIAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SURFACE AND SUBSURFACE PLANT BED DRAINAGE PRIOR TO THE INSTALLATION OF PLANTINGS. IF POOR DRAINAGE CONDITIONS EXIST, CORRECTIVE ACTION SHALL BE TAKEN PRIOR TO INSTALLATION. ALL PLANTING AND LAWN AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW A FREE FLOW OF SURFACE WATER.
- DOUBLE SHREDDED HARDWOOD MULCH OR APPROVED EQUAL SHALL BE USED AS A THREE INCH (3") TOP DRESSING IN ALL SHRUB PLANTING BEDS AND AROUND ALL TREES PLANTED BY LANDSCAPE CONTRACTOR. GROUND COVER, PERENNIAL, AND ANNUAL PLANTING BEDS SHALL BE MULCHED WITH A TWO INCH (2") TOP DRESSING. SINGLE TREES OR SHRUBS SHALL BE MULCHED TO AVOID CONTACT WITH TRUNK OR PLANT STEM. MULCH SHALL BE OF SUFFICIENT CHARACTER AS NOT TO BE EASILY DISPLACED BY WIND OR WATER RUNOFF.
- WHENEVER POSSIBLE, THE SOIL PREPARATION AREA SHALL BE CONNECTED FROM PLANTING TO PLANTING.
- SOIL SHALL BE LOOSENED WITH A BACKHOE OR OTHER LARGE COARSE-TILING EQUIPMENT UNLESS THE SOIL IS FROZEN OR EXCESSIVELY WET. TILING THAT PRODUCES LARGE, COARSE CHUNKS OF SOIL IS PREFERABLE TO TILING THAT RESULTS IN FINE GRAINS UNIFORM IN TEXTURE. AFTER THE AREA IS LOOSENED IT SHALL NOT BE DRIVEN OVER BY ANY VEHICLE.
- APPLY PRE-EMERGENT WEED CONTROL TO ALL PLANT BEDS PRIOR TO MULCHING. ENSURE COMPATIBILITY BETWEEN PRODUCT AND PLANT MATERIAL.
- ALL PLANTING SOIL SHALL BE AMENDED WITH THE FOLLOWING:
 - MYCORRIZAL TREE SAVER - A DRY GRANULAR MYCORRHIZAL FUNGI INOCULANT THAT IS MIXED IN THE BACKFILL WHEN PLANTING TREES AND SHRUBS. IT CONTAINS SPORES OF BOTH ECTOMYCORRHIZAL AND VA MYCORRHIZAL FUNGI (VAM), BENEFICIAL RHIZOSPHERE BACTERIA, TERRA SOLS SUPERABSORBENT HYDROGEL, TO REDUCE WATER LEACHING, AND SELECTED ORGANIC MICROBIAL NUTRIENTS.
 - DIRECTIONS FOR USE: USE 1 OZ PER EACH FOOT DIAMETER OF THE ROOT BALL, OR 1 OZ PER INCH CALIPER. MIX INTO THE BACKFILL WHEN TRANSPLANTING TREES AND SHRUBS. MIX PRODUCT IN A RING-SHAPED VOLUME OF SOIL AROUND THE UPPER PORTION OF THE ROOT BALL, EXTENDING FROM THE SOIL SURFACE TO A DEPTH OF ABOUT 8 INCHES, AND EXTENDING OUT FROM THE ROOT BALL AROUND THE PERIMETER OF THE BACKFILL TO A DEPTH OF 12 INCHES.
 - MYCORRIZAL TREE SAVER IS EFFECTIVE FOR ALL TREE AND SHRUB SPECIES EXCEPT AGNOSPORA, AZALEAS, AND MOUNTAIN LAUREL, WHICH REQUIRE ECTOMYCORRHIZAE.
 - SOIL PH: THE FUNGI IN THIS PRODUCT WERE CHOSEN BASED ON THEIR ABILITY TO SURVIVE AND COLONIZE PLANT ROOTS IN A PH RANGE OF 5 TO 7.
 - FUNGICIDES: THE USE OF CERTAIN FUNGICIDES CAN HAVE A DETRIMENTAL EFFECT ON THE INOCULATION PROGRAM. SOIL APPLICATION OF ANY FUNGICIDE IS NOT RECOMMENDED FOR TWO WEEKS AFTER APPLICATION.
 - OTHER PESTICIDES: HERBICIDES AND INSECTICIDES DO NOT NORMALLY INTERFERE WITH MYCORRHIZAL FUNGAL DEVELOPMENT, BUT MAY INHIBIT THE GROWTH OF SOME TREE AND SHRUB SPECIES IF NOT USED PROPERLY.

HEALTHY STAKE MICROBIOLOGICAL TABLETS 12-8-8

- FERTILIZER TABLETS ARE PLACED IN THE UPPER 4 INCHES OF BACKFILL SOIL WHEN PLANTING TREES AND SHRUBS.
- TABLETS ARE FORMULATED FOR LONG-TERM RELEASE BY SLOW BIODEGRADATION, AND LAST UP TO 3 YEARS AFTER PLANTING. TABLETS CONTAIN 12-8-8 NPK FERTILIZER, AS WELL AS A MINIMUM OF SEVEN PERCENT (7%) HUMIC ACID BY WEIGHT. MICROBIAL NUTRIENTS DERIVED FROM SEA KELP, PROTEIN BY-PRODUCTS, AND YUCCA SCHIDIGERA, AND A COMPLEMENT OF BENEFICIAL RHIZOSPHERE BACTERIA. THE STANDARD 21 GRAM TABLET SPECIFIED HERE DIRECTION FOR USE: FOR PLANTING BALLED & BURLAPPED (BAB) TREES AND SHRUBS, MEASURE THE THICKNESS OF THE TRUNK, AND USE ABOUT 1 TABLET (1-G) PER HALF-INCH. PLACE THE TABLET DIRECTLY NEXT TO THE ROOT BALL, EVENLY DISTRIBUTED AROUND ITS PERIMETER, AT A DEPTH OF ABOUT 4 INCHES.

IRRIGATION DURING ESTABLISHMENT

SIZE AT PLANTING	IRRIGATION FOR VITALITY	IRRIGATION FOR SURVIVAL
< 2" CALIPER	DAILY FOR TWO WEEKS EVERY OTHER DAY FOR TWO MONTHS. WEEKLY UNTIL ESTABLISHED.	TWO TO THREE TIMES WEEKLY FOR TWO TO THREE MONTHS.
2-4 CALIPER	DAILY FOR ONE MONTH EVERY OTHER DAY FOR THREE MONTHS. WEEKLY UNTIL ESTABLISHED.	TWO TO THREE TIMES WEEKLY FOR THREE TO FOUR MONTHS.
4-7" CALIPER	DAILY FOR SIX WEEKS EVERY OTHER DAY FOR FIVE MONTHS. WEEKLY UNTIL ESTABLISHED.	TWICE WEEKLY FOR FOUR TO FIVE MONTHS.

TABLE NOTES

- AT EACH IRRIGATION, APPLY TWO TO THREE GALLONS PER INCH TRUNK CALIPER TO THE ROOT BALL SURFACE. APPLY IT IN A MANNER SO ALL WATER SOAKS THE ENTIRE ROOT BALL. DO NOT WATER IF ROOT BALL IS WET/SATURATED ON THE IRRIGATION DAY.
- WHEN IRRIGATING FOR VITALITY, DELETE DAILY IRRIGATION WHEN PLANTING IN WINTER OR WHEN PLANTING IN COOL CLIMATES. ESTABLISHMENT TAKES THREE TO FOUR MONTHS PER INCH TRUNK CALIPER. NEVER APPLY IRRIGATION IF THE SOIL IS SATURATED.
- WHEN IRRIGATING FOR SURVIVAL, TREES TAKE MUCH LONGER TO ESTABLISH THAN REGULARLY IRRIGATED TREES. IRRIGATION MAY BE REQUIRED IN THE NORMAL, HOT, DRY PORTIONS OF THE FOLLOWING YEAR.

PLANT QUALITY AND HANDLING NOTES:

- ALL PLANT MATERIAL SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004) OR LATEST REVISION AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
- IN ALL CASES, BOTANICAL NAMES LISTED WITHIN THE APPROVED OR FINAL PLAN SET SHALL TAKE PRECEDENCE OVER INSTALLED NAMES.
- ALL PLANTS SHALL BE OF SELECTED SPECIMEN QUALITY, EXCEPTIONALLY HEALTHY, TIGHTLY KNIT, SO TRAINED OR FAVORED IN THEIR DEVELOPMENT AND APPEARANCE AS TO BE SUPERIOR IN FORM, NUMBER OF BRANCHES, COMPACTNESS AND SYMMETRY. ALL PLANTS SHALL HAVE A NORMAL HABIT OR SOUND, HEALTHY, VIGOROUS PLANTS WITH WELL DEVELOPED ROOT SYSTEM. PLANTS SHALL BE FREE OF DISEASE, INSECT PESTS, EGGS OR LARVAE.
- PLANTS SHALL NOT BE PRUNED BEFORE DELIVERY. TREES WITH ABRASION OF THE BARK, SUNKCALDS, DISFIGURING KNOTS OR FRESH CUTS OR LIMBS OVER ONE AND ONE-FOURTH INCHES (1-1/4") WHICH HAVE NOT COMPLETELY CALLOUSED SHALL BE REJECTED.
- ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH AND BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE.
- THE ROOT SYSTEM OF EACH PLANT SHALL BE WELL PROVIDED WITH FIBROUS ROOTS. ALL PARTS SHALL BE SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF.
- ALL PLANTS DESIGNATED BALL AND BURLAP (BAB) MUST BE MOVED WITH THE ROOT SYSTEM AS SOLID UNITS WITH BALLS OF EARTH FIRMLY WRAPPED WITH BURLAP. THE DIAMETER AND DEPTH OF THE BALLS OF EARTH MUST BE SUFFICIENT TO ENCOMPASS THE FIBROUS ROOT FEEDING SYSTEMS NECESSARY FOR THE HEALTHY DEVELOPMENT OF THE PLANT. NO PLANT SHALL BE ACCEPTED WHEN THE BALL OF EARTH SURROUNDING ITS ROOTS HAS BEEN BADLY CRACKED OR BROKEN. PREPARATORY TO OR DURING THE PROCESS OF PLANTING, THE BALLS SHALL REMAIN INTACT DURING ALL OPERATIONS. ALL PLANTS THAT CANNOT BE PLANTED AT ONCE MUST BE HELED-IN BY SETTING IN THE GROUND AND COVERING THE BALLS WITH SOIL OR MULCH AND THEN WATERING. HEMP BURLAP AND TWINE IS PREFERABLE TO TREATED IF TREATED BURLAP IS USED. ALL TWINE IS TO BE CUT FROM AROUND THE TRUNK AND ALL BURLAP IS TO BE REMOVED.
- PLANTS TRANSPORTED TO THE PROJECT IN OPEN VEHICLES SHALL BE COVERED WITH TARP OR OTHER SUITABLE COVERS SECURELY FASTENED TO THE BODY OF THE VEHICLE TO PREVENT INJURY TO THE PLANTS. CLOSED VEHICLES SHALL BE ADEQUATELY VENTILATED TO PREVENT OVERHEATING OF THE PLANTS. EVIDENCE OF INADEQUATE PROTECTION FOLLOWING DIGGING OR HANDLING WHILE IN TRANSIT, OR IMPROPER HANDLING OR STORAGE SHALL BE CAUSE FOR REJECTION OF PLANT MATERIAL. ALL PLANTS SHALL BE KEPT MOST FRESH, AND PROTECTED SUCH PROTECTION SHALL ENCOMPASS THE ENTIRE PERIOD DURING WHICH THE PLANTS ARE IN TRANSIT, BEING HANDLED, OR ARE IN TEMPORARY STORAGE.
- PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE CORRESPONDING LANDSCAPE PLAN AND PLANTING DETAILS.
- LANDSCAPE CONTRACTOR SHALL MAKE BEST EFFORT TO INSTALL PLANTINGS ON THE SAME DAY AS DELIVERY. IF PLANTS ARE NOT PLANTED IMMEDIATELY ON SITE, PROPER CARE SHALL BE TAKEN TO PLACE THE PLANTINGS IN PARTIAL SHADE WHEN PLANTS ARE KEPT MOST OF THE DAY. PLANTS KEPT MOST OF THE DAY SHOULD BE COVERED WITH MOISTENED MULCH OR AGED WOODCHIPS. PROPER IRRIGATION SHALL BE SUPPLIED SO AS TO NOT ALLOW THE ROOT BALL TO DRY OUT. PLANTINGS SHALL BE UNTIED AND PROPER SPACING SHALL BE ALLOTTED FOR AIR CIRCULATION AND TO PREVENT DISEASE. WILTING AND LEAF LOSS: PLANTS THAT REMAIN UNPLANTED FOR A PERIOD OF THE GREATER THAN THREE (3) DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH AND WATERED AS REQUIRED TO PRESERVE ROOT MOISTURE.
- NO PLANT MATERIAL SHALL BE PLANTED IN MUDDY OR FROZEN SOIL.
- PLANTS WITH INJURED ROOTS OR BRANCHES SHALL BE PRUNED PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY DISEASED OR INJURED PLANTS SHALL BE REMOVED.
- IF ROCK OR OTHER UNDERGROUND OBSTRUCTION IS ENCOUNTERED, THE LANDSCAPE DESIGNER RESERVES THE RIGHT TO RELOCATE OR ENLARGE PLANTING PITS OR DELETE PLANT MATERIAL FROM THE CONTRACT.
- IF PLANTS ARE PROPOSED WITHIN SIGHT TRIANGLES, TREES SHALL BE UNLIMBED AND MAINTAINED TO A HEIGHT OF EIGHT FEET (8') ABOVE GRADE AND SHRUBS, GROUND COVER, PERENNIALS AND ANNUALS MAINTAINED TO A HEIGHT NOT TO EXCEED TWO FEET (2') ABOVE GRADE UNLESS OTHERWISE NOTED OR SPECIFIED BY THE GOVERNING MUNICIPALITY OR AGENCY.
- INSTALLATION SHALL OCCUR DURING THE FOLLOWING SEASONS:
 - PLANTS (MARCH 15 - DECEMBER 15)
 - LAWNS (MARCH 15 - JUNE 15 OR SEPTEMBER 1 - DECEMBER 1)
- THE FOLLOWING TREES ARE SUSCEPTIBLE TO TRANSPLANT SHOCK AND SHALL NOT BE PLANTED DURING THE FALL SEASON (STARTING SEPTEMBER 15):
 - ACER VARIETIES
 - ACER BURGERSIANUM
 - ACER FREEMANII
 - ACER RUBRUM
 - ACER SACCHARINUM
 - BETULA VARIETIES
 - CARPINUS VARIETIES
 - CELRUS DEODARA
 - CORNUS VARIETIES
 - CFRIDIOPHYLLUM VARIETIES
 - CERCIS CANADENSIS
 - LIQUIDAMBAR VARIETIES
 - CORNUS VARIETIES
 - CRATAEGUS VARIETIES
 - CRATAEGUS VARIETIES
 - CUPRESSOCYPRIS LIEBLANDI
 - FAGUS VARIETIES
 - HALESIA VARIETIES
 - ILEX X FOSTERII
 - ILEX NELLE STEVENS
 - ILEX OPACA
 - JUNIPERUS VIRGINIANA
 - KOELERUTERIA PANICULATA
 - LIQUIDAMBAR VARIETIES
 - LIQUIDAMBAR VARIETIES
 - CORNUS VARIETIES
 - MAHONIA LEAF
 - NYSSA SYLVAICA
 - OSTRYA VIRGINIANA
 - PINUS NIGRA
 - PLATANUS VARIETIES
 - POPULUS VARIETIES
 - PRUNUS VARIETIES
 - PYLAEUS VARIETIES
 - QUERCUS VARIETIES (NOT Q. PALUSTRIS)
 - SALIX WEeping VARIETIES
 - SORBUS VARIETIES
 - TAXODIUM VARIETIES
 - TAXUS B. REPANDENS
 - TILIA TOMENTOSA VARIETIES
 - ULMUS PARVIFOLIA VARIETIES
 - ZELKOVA VARIETIES
- IF A PROPOSED PLANT IS UNAVAILABLE OR ON THE FALL DIGGING HAZARD LIST, AN EQUIVALENT SPECIES OF THE SAME SIZE SHALL BE REQUESTED FOR SUBSTITUTION. ALL SUBSTITUTIONS SHALL BE APPROVED BY THE PROJECT LANDSCAPE DESIGNER OR MUNICIPAL OFFICIAL PRIOR TO ORDERING AND INSTALLATION.
- DURING THE COURSE OF CONSTRUCTION/PLANT INSTALLATION, EXCESS AND WASTE MATERIALS SHALL BE CONTINUOUSLY AND PROMPTLY REMOVED AT THE END OF EACH WORK DAY. ALL DEBRIS, MATERIALS, AND TOOLS SHALL BE PROMPTLY STOCKPILED OR DISPOSED OF IN ALL PAVED AREAS SHALL BE CLEANED.
- THE LANDSCAPE CONTRACTOR SHALL DISPOSE OF ALL RUBBISH AND EXCESS SOIL AT HIS EXPENSE TO AN OFF-SITE LOCATION AS APPROVED BY THE LOCAL MUNICIPALITY.
- A 90-DAY MAINTENANCE PERIOD SHALL BEGIN IMMEDIATELY AFTER ALL PLANTS HAVE BEEN SATISFACTORILY INSTALLED.
- MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO, REPLACING MULCH THAT HAS BEEN DISPLACED BY EXOSION OR OTHER MEANS, REPAIRING AND RESTRAPPING WATER RINGS OR SAUCERS, MAINTAINING STAKES AND CUTS IF ORIGINALLY REQUIRED, WATERING WHEN NEEDED OR DIRECTED, WEEDING, PRUNING, SPRAYING, FERTILIZING, MOWING THE LAWN, AND PERFORMING ANY OTHER WORK REQUIRED TO KEEP THE PLANTS IN A HEALTHY CONDITION.
- MOW ALL GRASS AREAS AT REGULAR INTERVALS TO KEEP THE GRASS HEIGHT FROM EXCEEDING THREE INCHES (3"). MOWING SHALL BE PERFORMED ONLY WHEN GRASS IS DRY. MOWING BLADE SHALL BE SET TO REMOVE NO MORE THAN ONE THIRD (1/3) OF THE GRASS LENGTH. WHEN THE AMOUNT OF GRASS IS HEAVY, IT SHALL BE REMOVED TO PREVENT DESTRUCTION OF THE UNDERLYING TURF. MOW GRASS AREAS IN SUCH A MANNER AS TO PREVENT CLIPPINGS FROM BLOWING ON PAVED AREAS, AND SIDEWALKS. CLEANUP AFTER MOWING SHALL INCLUDE SWEEPING OR BLOWING OF PAVED AREAS AND SIDEWALKS.
- GRASSED AREAS DAMAGED DURING THE PROCESS OF THE WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL RESTORE THE DISTURBED AREAS TO A CONDITION SATISFACTORY TO THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIAL, OR OWNER/OWNER'S REPRESENTATIVE. THIS MAY INCLUDE FILLING TO GRADE, FERTILIZING, SEEDING, AND MULCHING.
- SHOULD THE OWNER REQUIRE MAINTENANCE BEYOND THE STANDARD 90-DAY MAINTENANCE PERIOD, A SEPARATE CONTRACT SHALL BE ESTABLISHED.
- LANDSCAPE CONTRACTOR SHALL WATER NEW PLANTINGS FROM TIME OF INSTALL AND THROUGHOUT REQUIRED 90-DAY MAINTENANCE PERIOD UNTIL PLANTS ARE ESTABLISHED. IF ON-SITE WATER IS NOT AVAILABLE AT THE PROJECT LOCATION, THE LANDSCAPE CONTRACTOR SHALL FURNISH IT BY MEANS OF A WATERING TRUCK OR OTHER ACCEPTABLE MANNER.
- THE QUANTITY OF WATER APPLIED AT ONE TIME SHALL BE SUFFICIENT TO PENETRATE THE SOIL TO A MINIMUM OF EIGHT INCHES (8") IN SHRUB BEDS AND SIX INCHES (6") IN TURF AREAS AT A RATE WHICH WILL PREVENT SATURATION OF THE SOIL.
- IF AN AUTOMATIC IRRIGATION SYSTEM HAS BEEN INSTALLED, IT CAN BE USED FOR WATERING PLANT MATERIAL. HOWEVER, FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY OF PLANT HEALTH AND ESTABLISHMENT.

PLANT MATERIAL GUARANTEE NOTES:

- THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR (1 YR) FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIAL, OR OWNER/OWNER'S REPRESENTATIVE.
- THE LANDSCAPE CONTRACTOR SHALL REMOVE AND REPLACE DYING, DEAD, OR DEFECTIVE PLANT MATERIAL AT HIS EXPENSE. THE LANDSCAPE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY HIS COMPANY'S OPERATIONS.
- ALL REPLACEMENT PLANTS SHALL BE OF THE SAME SPECIES AND SIZE AS SPECIFIED ON THE APPROVED OR FINAL PLAN SET. REPLACEMENTS RESULTING FROM REMOVAL, LOSS, OR DAMAGE DUE TO OCCUPANCY OF THE PROJECT IN ANY PART, VANDALISM, PHYSICAL DAMAGE BY ANIMALS, VEHICLES, ETC., AND LOSSES DUE TO CURTAILMENT OF WATER BY LOCAL AUTHORITIES SHALL BE APPROVED AND PAID FOR BY THE OWNER.
- THE CONTRACTOR SHALL INSTRUCT THE OWNER AS TO THE PROPER CARE AND MAINTENANCE OF ALL PLANTINGS.

LAWN (SEED OR SOD) NOTES:

- SEED MIXTURE SHALL BE FRESH, CLEAN, NEW CROP SEED. SOD SHALL BE STRONGLY ROOTED, UNIFORM IN THICKNESS AND FREE OF WEEDS, DISEASE, AND PESTS.
- SEED MIXTURE SHALL BE PURCHASED FROM A RECOGNIZED DISTRIBUTOR AND SHALL BE COMPOSED OF THE MIX OR BLEND WITHIN THE PROVIDED "SEED SPECIFICATION" OR "SOD SPECIFICATION".
- REFERENCE LANDSCAPE PLAN FOR AREAS TO BE SEED OR LAID WITH SOD.
- SEEDING SHALL NOT BE PERFORMED IN WINDY WEATHER. IF THE SEASON OF THE PROJECT COMPLETION PROHIBITS PERMANENT STABILIZATION, TEMPORARY STABILIZATION SHALL BE PROVIDED IN ACCORDANCE WITH THE "TEMPORARY SEEDING SPECIFICATION".
- PROTECT NEW LAWN AREAS AGAINST TRESPASSING WHILE THE SEED IS GERMINATING. FURNISH AND INSTALL FENCES, SIGNS, BARRIERS OR OTHER NECESSARY TEMPORARY PROTECTIVE DEVICES. DAMAGE RESULTING FROM TRESPASS, EROSION, WASH-OUT, SETTLEMENT, OR OTHER CAUSES SHALL BE REPAIRED BY THE LANDSCAPE CONTRACTOR AT HIS EXPENSE. REMOVE ALL FENCES, SIGNS, BARRIERS OR OTHER TEMPORARY PROTECTIVE DEVICES ONCE LAWN HAS BEEN ESTABLISHED.

STONEFIELD
engineering & design

Rutherford, NJ · New York, NY · Boston, MA
Princeton, NJ · Tampa, FL · Detroit, MI
www.stonefieldeng.com

Headquarters: 92 Park Avenue, Rutherford, NJ 07070
Phone: 201.340.4468 · Fax: 201.340.4472

ZUIDEMA REALTY, LLC
PROPOSED MULTI-FAMILY RESIDENTIAL BUILDING

SITE PLAN SET

BLOCK 45, LOT 9.01
90 HIGHLAND AVENUE
BOROUGH OF HIGHLAND PARK
BERGEN COUNTY, NEW JERSEY

AFTON M. SAVITZ, P.E.
NEW JERSEY LICENSE No. 17574
LICENSED PROFESSIONAL ENGINEER

STONEFIELD
engineering & design

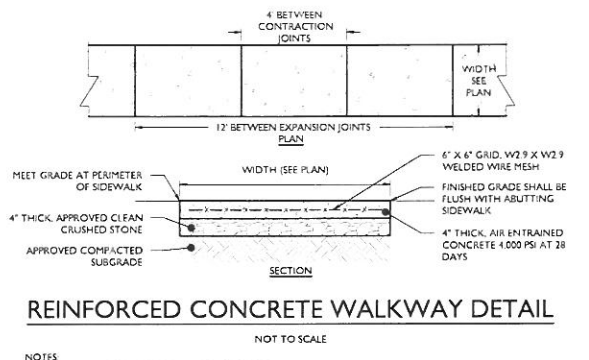
SCALE: AS SHOWN PROJECT ID: RUT-220121

TITLE:

LANDSCAPING DETAILS

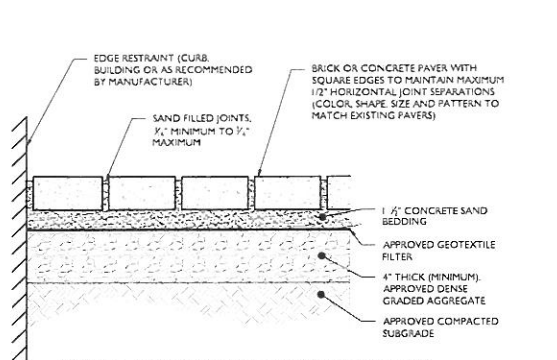
DRAWING:

C-9

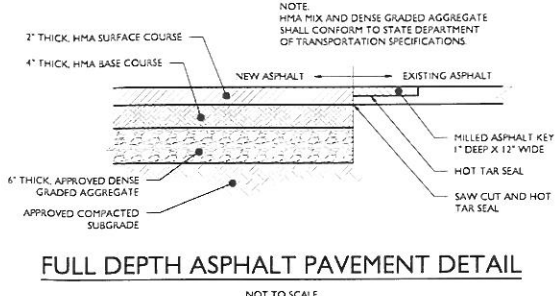


REINFORCED CONCRETE WALKWAY DETAIL
NOT TO SCALE

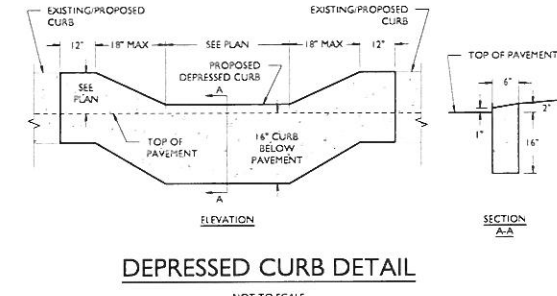
NOTES
1. MAXIMUM CROSS SLOPE SHALL BE 1/4" PER FOOT.
2. 1/2" EXPANSION JOINTS SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM THE SURFACE.
3. 1" DEEP BY 1/2" WIDE TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT 4' INTERVALS.
4. EXPANSION JOINT SHALL BE PROVIDED WHERE ADJACENT TO A BUILDING.



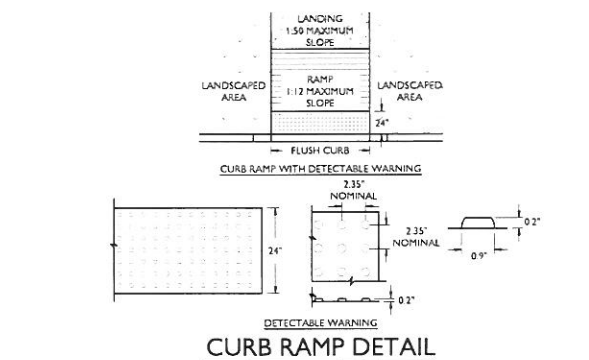
BRICK PAVER WALKWAY DETAIL
NOT TO SCALE



FULL DEPTH ASPHALT PAVEMENT DETAIL
NOT TO SCALE

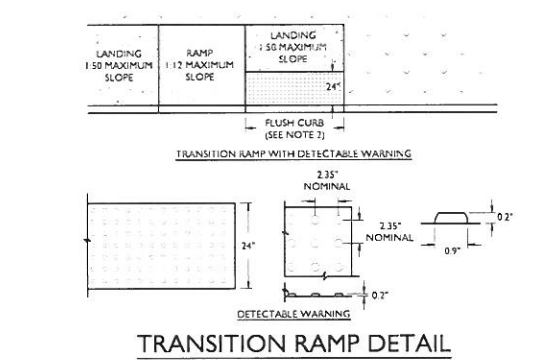


DEPRESSED CURB DETAIL
NOT TO SCALE



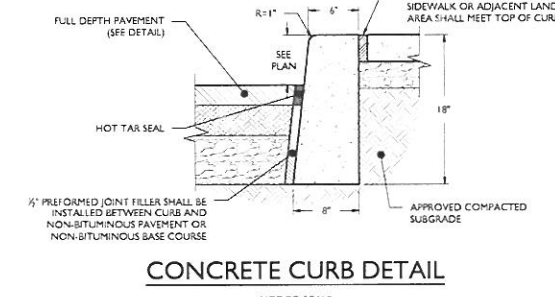
CURB RAMP DETAIL
NOT TO SCALE

NOTES
1. CROSS SLOPE ON RAMP SHALL NOT EXCEED 2%.
2. A FLUSH CURB SHALL HAVE A MINIMUM WIDTH OF 36". SEE PLAN FOR EXACT WIDTH.
3. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
4. VISUAL CONTRAST: THERE SHALL BE A MINIMUM OF 70% CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE.
5. DETECTABLE WARNING STRIP REQUIRED WHERE RAMP DIRECTS PEDESTRIAN TRAFFIC TOWARDS VEHICLE TRAVEL WAY. WARNING STRIP SHALL BE CAST-IN-PLACE.
6. RAMP SHALL HAVE A MAXIMUM RISE OF 6" WITHOUT A HANDRAIL.



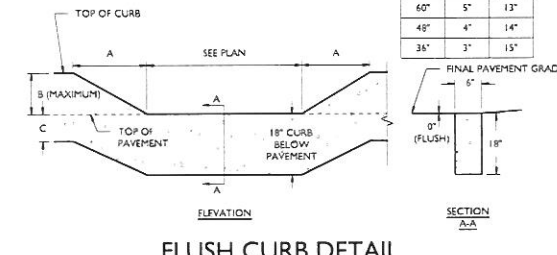
TRANSITION RAMP DETAIL
NOT TO SCALE

NOTES
1. CROSS SLOPE ON RAMP SHALL NOT EXCEED 2%.
2. A FLUSH CURB SHALL HAVE A MINIMUM WIDTH OF 36". SEE PLAN FOR EXACT WIDTH.
3. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
4. VISUAL CONTRAST: THERE SHALL BE A MINIMUM OF 70% CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE.
5. DETECTABLE WARNING STRIP REQUIRED WHERE RAMP DIRECTS PEDESTRIAN TRAFFIC TOWARDS VEHICLE TRAVEL WAY. WARNING STRIP SHALL BE CAST-IN-PLACE.
6. RAMP SHALL HAVE A MAXIMUM RISE OF 6" WITHOUT A HANDRAIL.



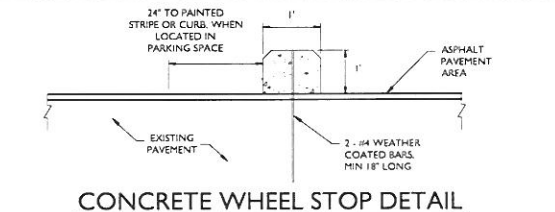
CONCRETE CURB DETAIL
NOT TO SCALE

NOTES
1. CONCRETE SHALL BE 3500 PSI AT 28 DAYS, AIR-ENTRAINED.
2. TRANSVERSE EXPANSION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS WITH PRE-MOLDED BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM SURFACE.
3. HALF DEPTH CONTRACTION JOINTS SHALL BE PROVIDED AT 10 FOOT INTERVALS.
4. 18" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.



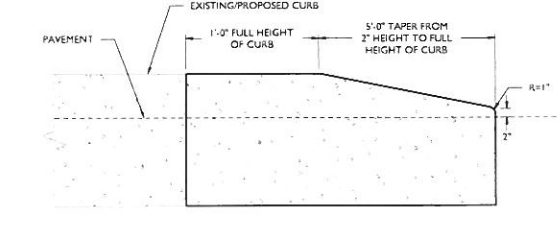
FLUSH CURB DETAIL
NOT TO SCALE

FLUSH CURB DIMENSIONS	A	B	C
72"	6"	12"	
60"	5"	13"	
48"	4"	14"	
36"	3"	15"	

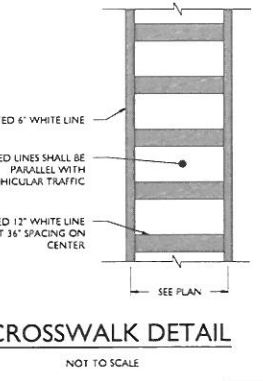


CONCRETE WHEEL STOP DETAIL
NOT TO SCALE

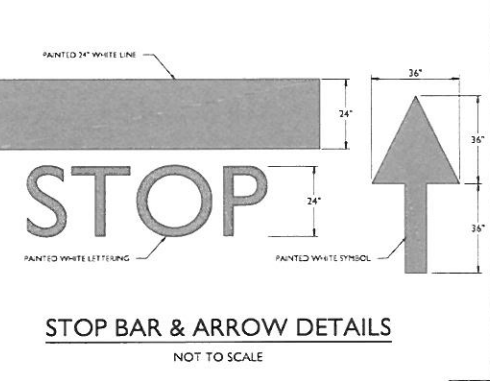
NOTES
1. ON CONCRETE PAVEMENT, SECURE WHEEL STOP WITH EPOXY BONDING AGENT.
2. WHEEL STOP SHALL BE 6" LONG.
3. WHEEL STOP SHALL BE PREFABRICATED CONCRETE.



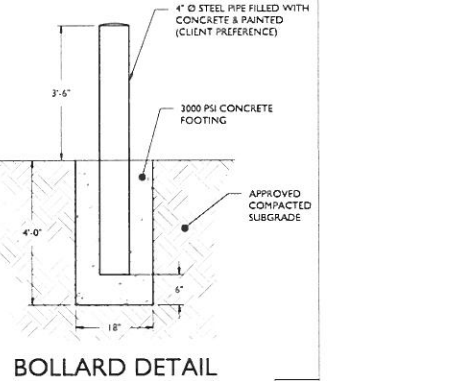
CURB TAPER DETAIL
NOT TO SCALE



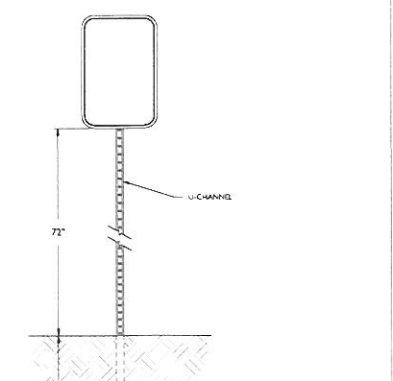
CROSSWALK DETAIL
NOT TO SCALE



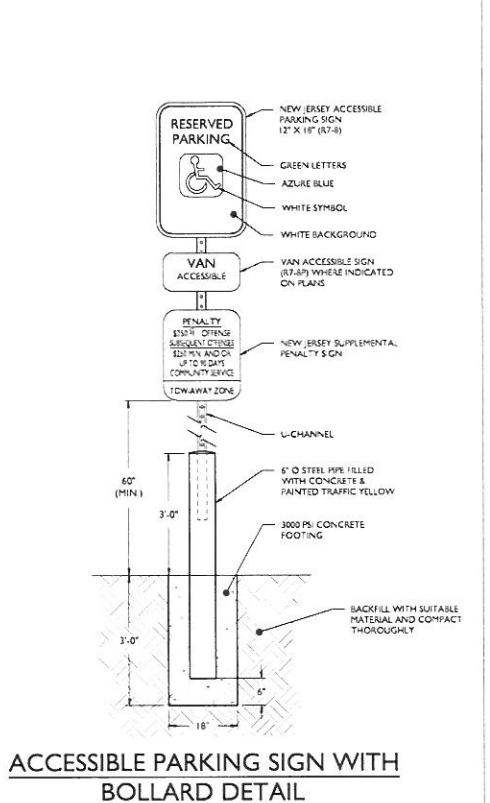
STOP BAR & ARROW DETAILS
NOT TO SCALE



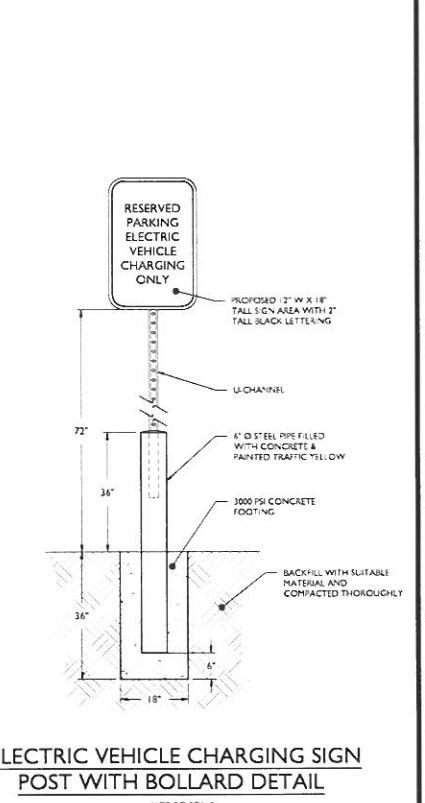
BOLLARD DETAIL
NOT TO SCALE



SIGN POST DETAIL
NOT TO SCALE



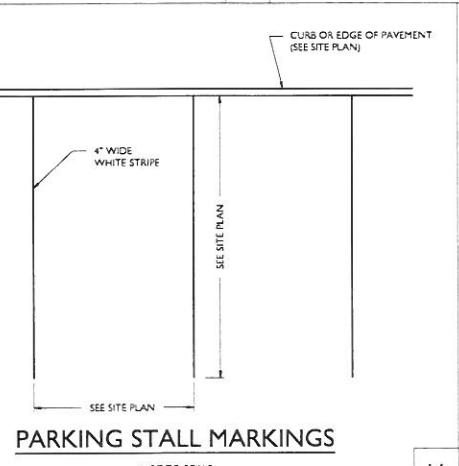
ACCESSIBLE PARKING SIGN WITH BOLLARD DETAIL
NOT TO SCALE



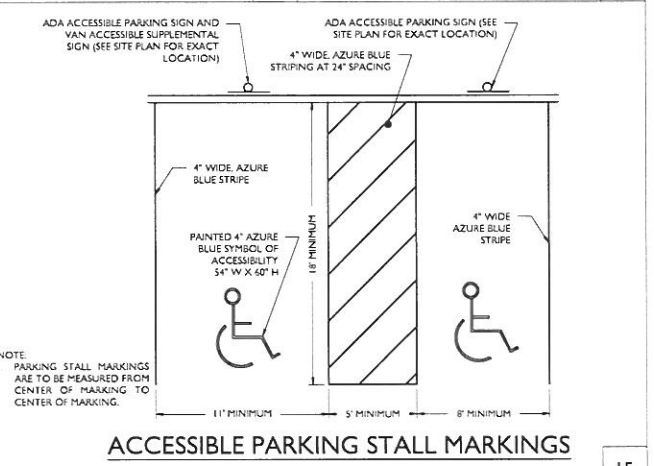
ELECTRIC VEHICLE CHARGING SIGN POST WITH BOLLARD DETAIL
NOT TO SCALE

MUT CD NUMBER	TEXT	COLOR		SIZE OF SIGN (WIDTH X HEIGHT)	TYPE OF MOUNT
		LEGEND	BACKGROUND		
STOP SIGN (R1-1)	STOP	WHITE	RED	36" X 36"	GROUND
DO NOT ENTER (R5-1)	DO NOT ENTER	RED	WHITE	30" X 10"	GROUND

NOTE
1. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), EXCEPT AS NOTED.
2. ALL SIGNS SHALL BE MOUNTED AS TO NOT OBSTRUCT THE SHARP OF STOP (R1-1) AND YIELD (R5-1) SIGNS.



PARKING STALL MARKINGS
NOT TO SCALE



ACCESSIBLE PARKING STALL MARKINGS
NOT TO SCALE

SIGN DATA TABLE
NOT TO SCALE

STONEFIELD
engineering & design

Rutherford, NJ · New York, NY · Boston, MA
Princeton, NJ · Tampa, FL · Detroit, MI
www.stonefieldeng.com

Headquarters: 92 Park Avenue, Rutherford, NJ 07070
Phone: 201.340.4468 · Fax: 201.340.4472

NOT APPROVED FOR CONSTRUCTION

ZUIDEMA REALTY, LLC
PROPOSED MULTI-FAMILY RESIDENTIAL BUILDING

BLOCK 45, LOT 9.01
90 MIDLAND AVENUE
BERGEN COUNTY, NEW JERSEY

AFTON M. SAVITZ, P.E.
NEW JERSEY LICENSE No. 37674
LICENSED PROFESSIONAL ENGINEER

STONEFIELD
engineering & design

SCALE: AS SHOWN PROJECT ID: RUT-129217
TITLE: CONSTRUCTION DETAILS
DRAWING: C-10

