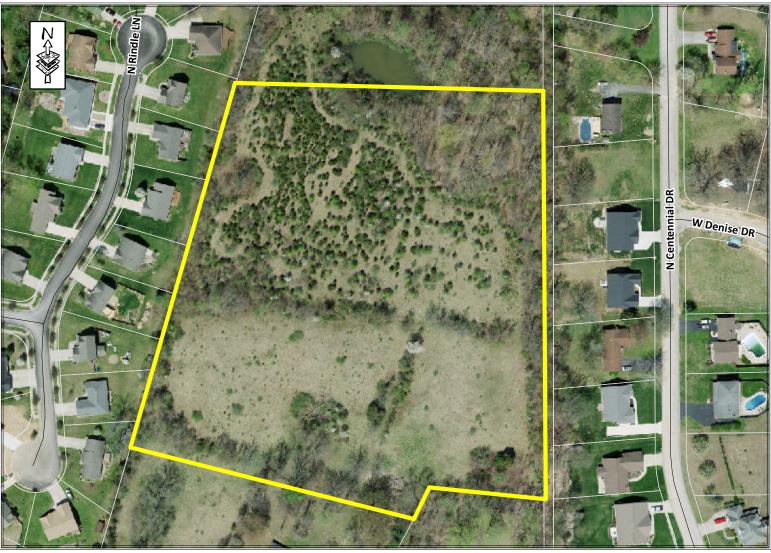


PC 21-20 Case Number: Meeting Date: November 4, 2021 Project Address: 3888 W State Road 46 Project Type: **Development Plan** Approval Flats on 46 Description: **Proposed 168 Units**



LEGAL DESCRIPTION

(Proposed Lot 15 Ellis-Ridge Subdivision)

A part of Southwest Quarter of Section 13, Township 8 North, Range 1 West, Monroe County, Indiana, described as follows:

Commencing at the Northeast corner of said Southwest quarter, thence North 89 degrees 35 minutes 39 seconds West (Indiana state plane, west zone) along the North line thereof 332.12 feet; thence leaving said North line South 16 degrees 19 minutes 31 seconds West 548.86 feet to the Point of Beginning; thence South 16 degrees 19 minutes 31 seconds West 506.27 feet; thence South 61 degrees 16 minutes 20 seconds East 226.13 feet to the west right-of-way line of a proposed road; thence North 28 degrees 43 minutes 40 seconds East 453.40 feet; thence Northwesterly 40.40 feet along a curve to the left having a radius of 25.0 feet and being subtended by a chord bearing North 17 degrees 33 minutes 56 seconds West 36.14 feet; thence North 63 degrees 51 minutes 33 seconds West 221.24 feet; thence Northwesterly 12.98 feet along a curve to the left having a radius of 25.0 feet and being subtended by a chord bearing North 78 degrees 43 minutes 55 seconds West 12.83 feet; thence Northwesterly 94.31 feet along a curve to the right having a radius of 50.0 feet and being subtended by a chord bearing North 39 degrees 34 minutes 10 seconds West 80.94 feet; thence leaving said proposed right-of way North 63 degrees 51 minutes 33 seconds West 0.28 feet to the Point of Beginning, containing 3.002 acres, more or less.

(Proposed Lot 16 Ellis-Ridge Subdivision)

A part of Southeast Quarter of Section 13, Township 8 North, Range 1 West, Monroe County, Indiana, described as follows:

Commencing at the Northwest corner of said Southeast quarter, thence South 89 degrees 35 minutes 39 seconds East (Indiana state plane, west zone) along the North line thereof 21.05 feet; thence leaving said North line South 00 degrees 17 minutes 06 seconds East 705.70 feet to the Point of Beginning; thence South 00 degrees 17 minutes 06 seconds East 516.38 feet; thence North 82 degrees 58 minutes 41 seconds West 216.35 feet; thence South 27 degrees 02 minutes 40 seconds West 45.85 feet; thence North 61 degrees 16 minutes 20 seconds West 191.20 feet to the east right-of-way line of a proposed road; thence North 28 degrees 43 minutes 40 seconds West 448.26 feet; thence Northwesterly 49.31 feet along a curve to the left having a radius of 360.0 feet and being subtended by a chord bearing North 24 degrees 48 minutes 15 seconds East 49.27 feet; thence leaving said east right-of-way line North 89 degrees 38 minutes 11 seconds East 164.55 feet to the Point of Beginning, containing 3.363 acres, more or less.

SHEET NO.	REVISIONS	BY	DATE
		CERTIFIC	ATION DATE
			7/2021

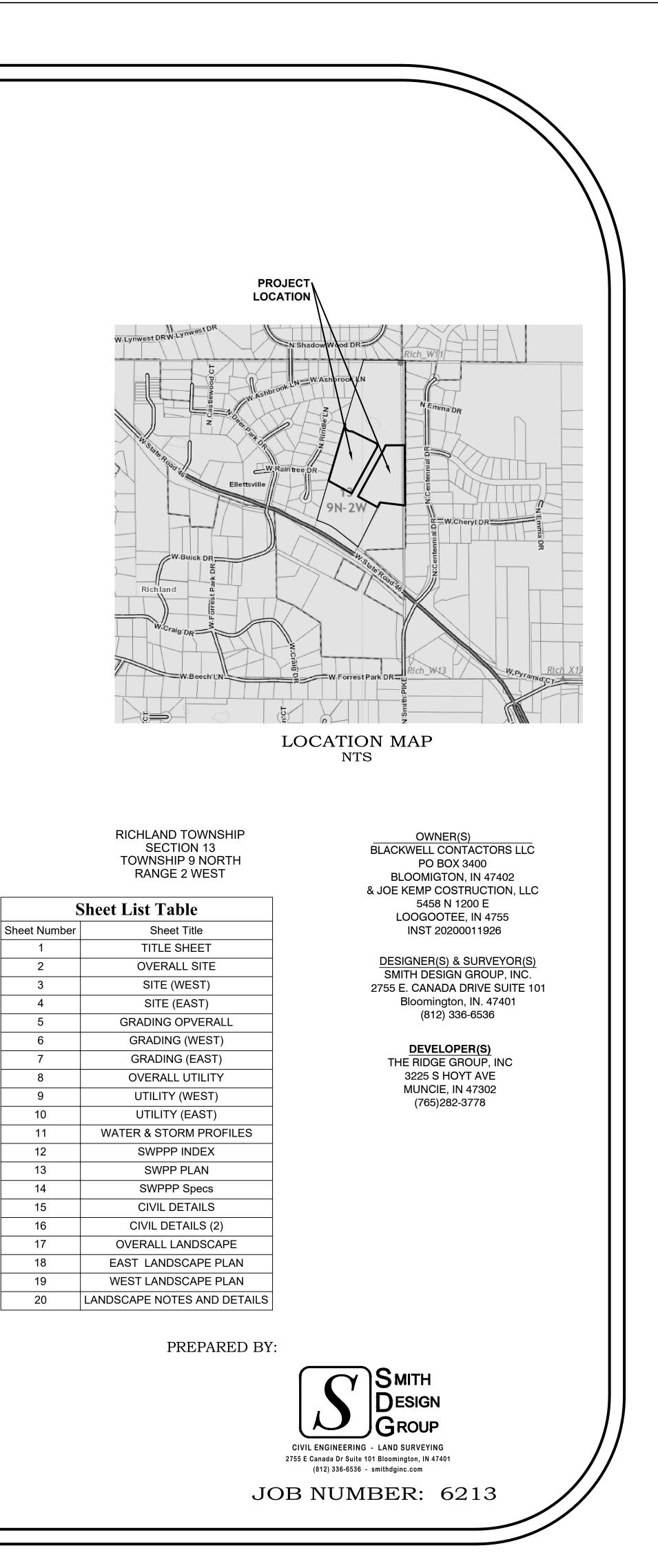
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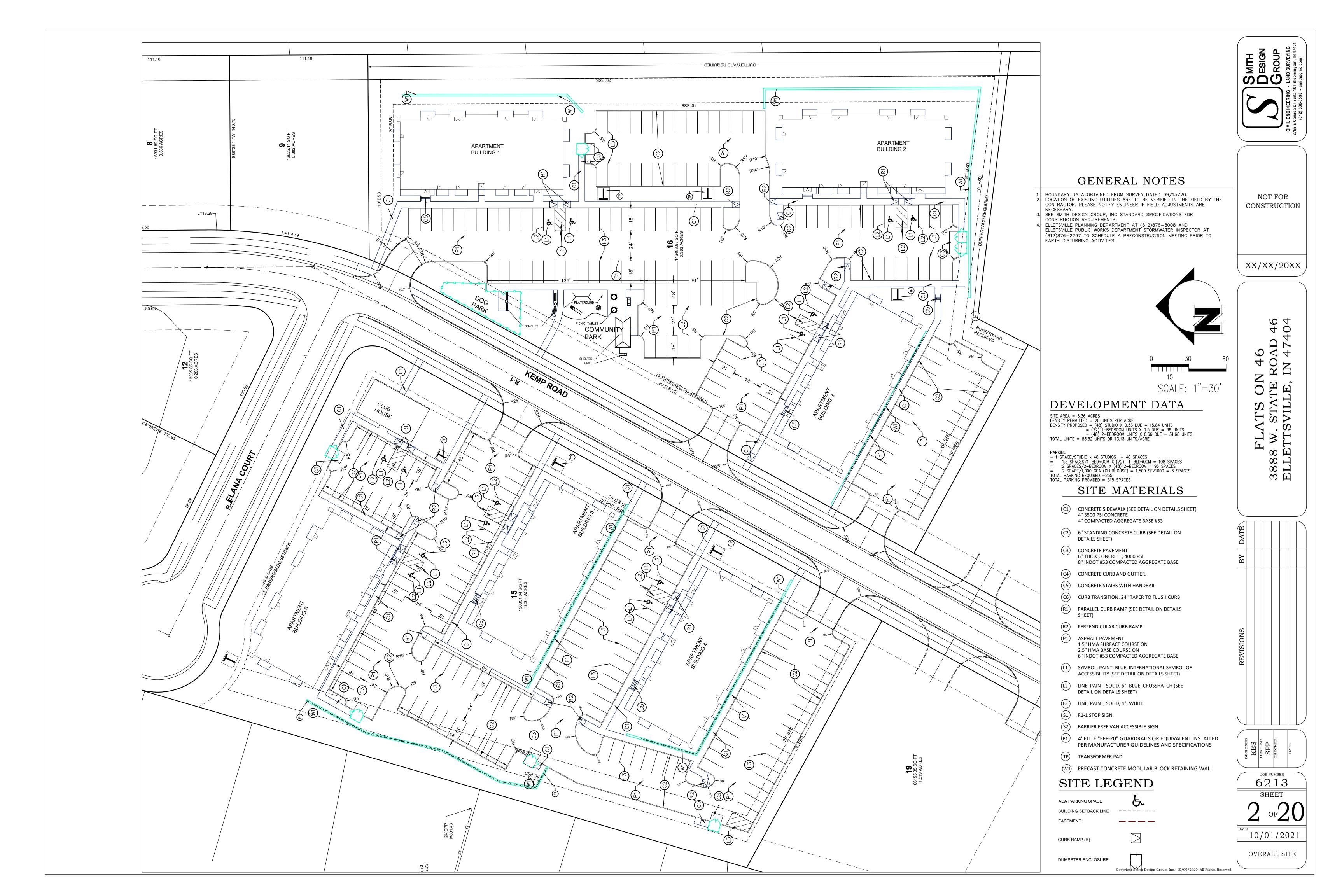
THE FLATS ON 46

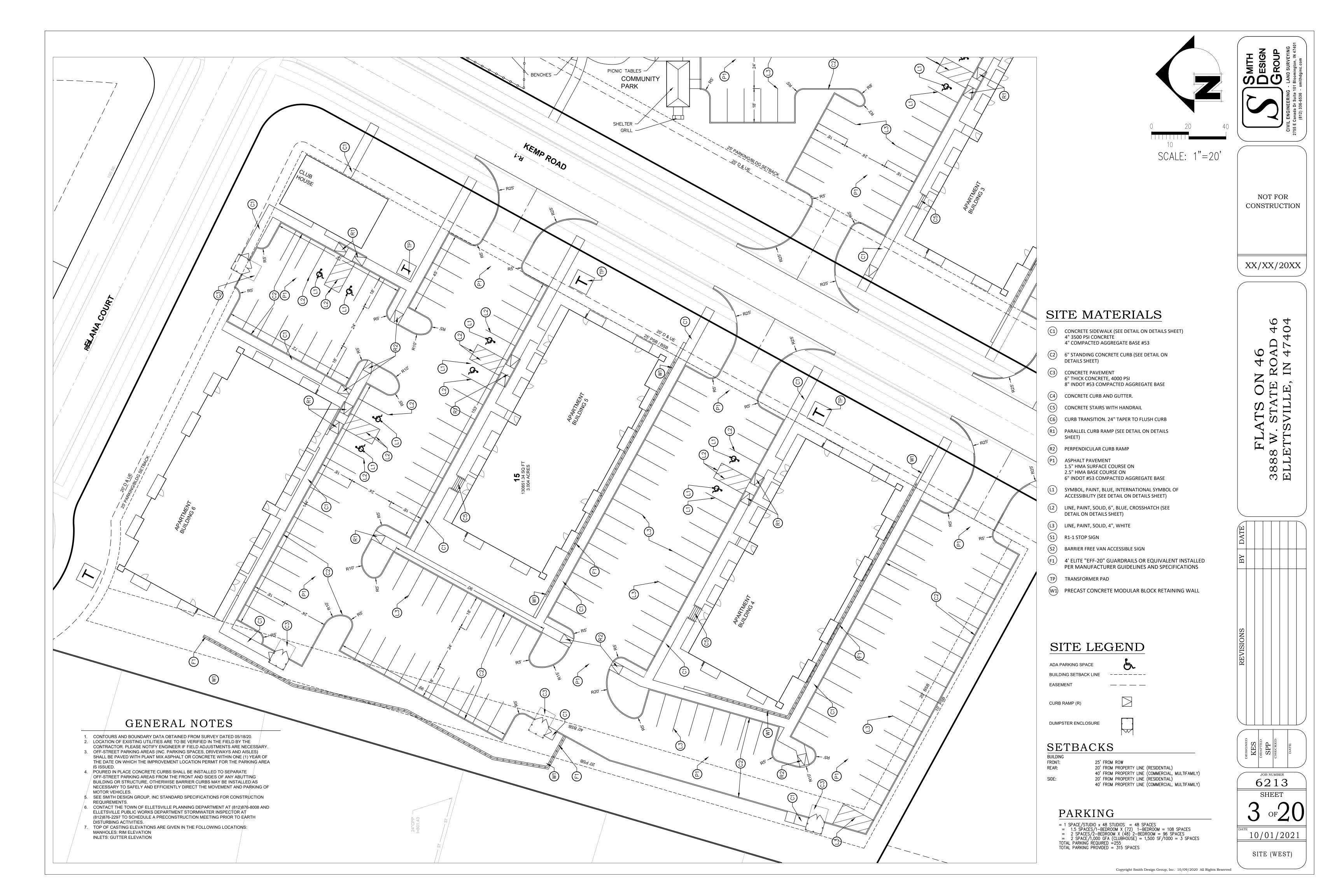
3888 W. STATE ROAD 46 ELLETTSVILLE, IN 47404

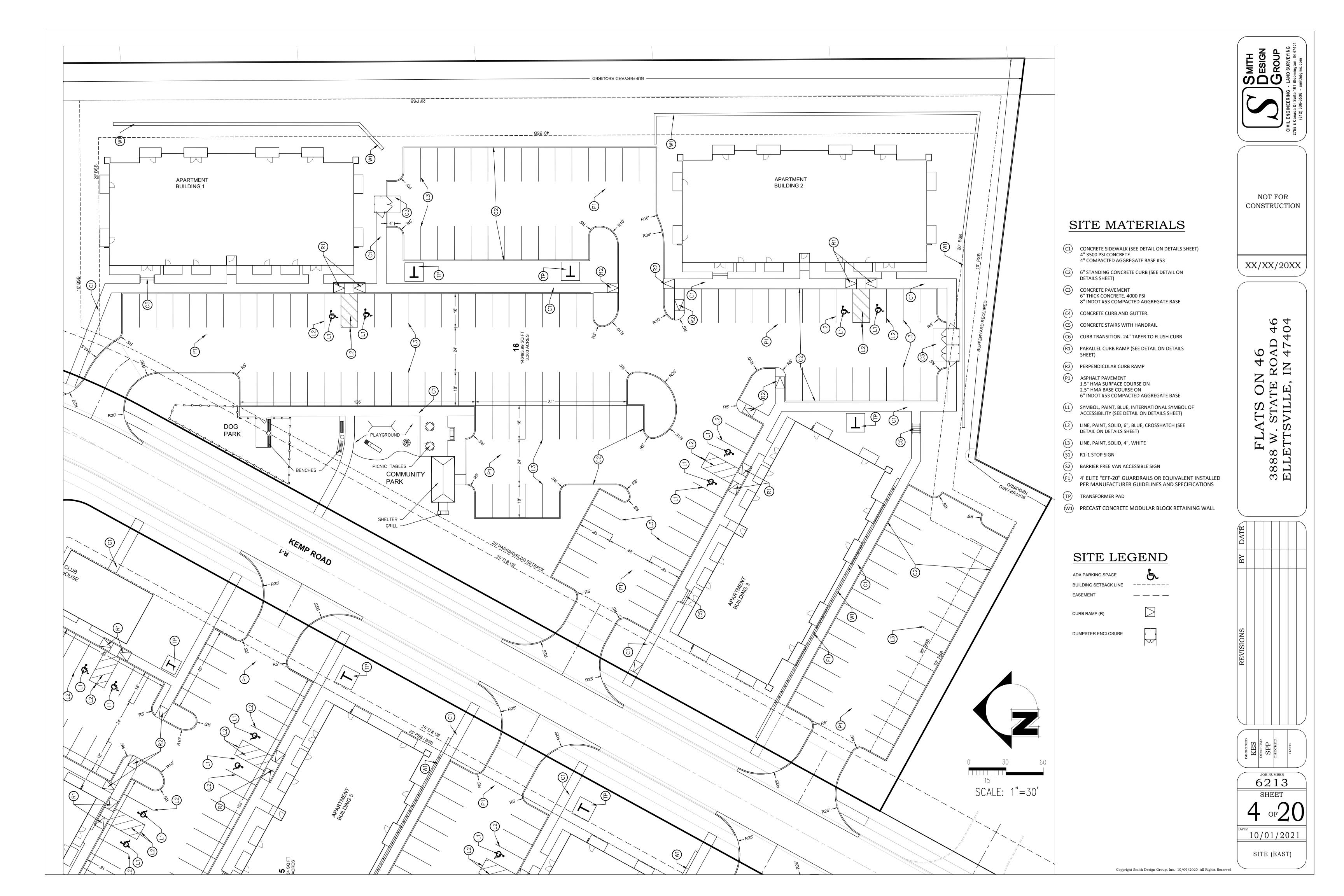


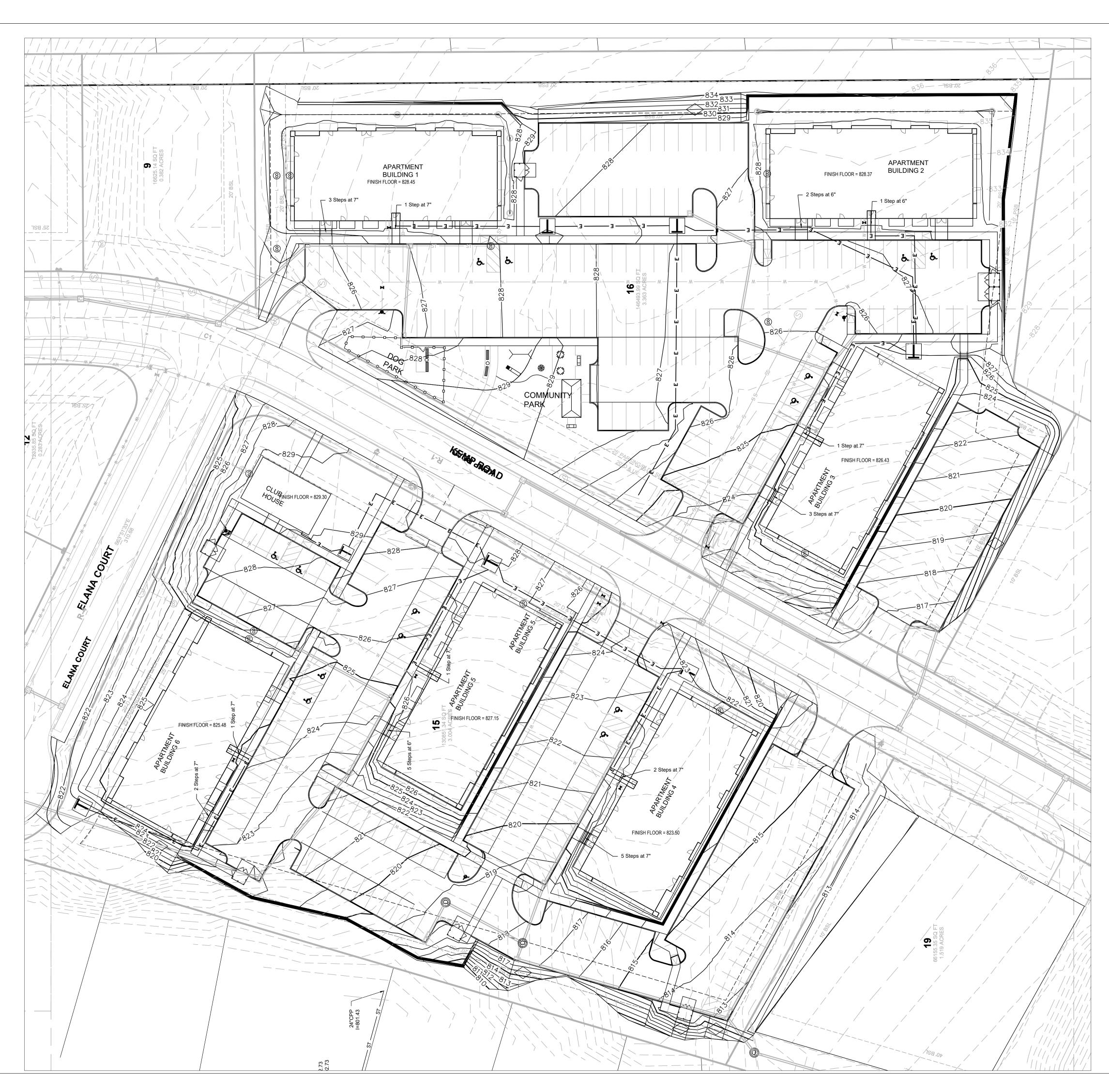
NOTE : WATER AND STORM SEWER SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE ELLETTSVILLE CONSTRUCTION SPECIFICATIONS. SANITARY SEWER SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE TO THE ERSC CONSTRUCTION SPECIFICATIONS. ALL OTHER WORK SHALL BE IN ACCORDANCE WITH THE 2021 SMITH DESIGN GROUP, INC. STANDARD SPECIFICATIONS.











GRADING LEGEND

EXISTING MINOR CONTOUR	XXX
EXISTING MAJOR CONTOUR	XXX
PROPOSED MINOR CONTOUR	xxx
PROPOSED MAJOR CONTOUR	xxx
EXISTING ELEVATION	EX XXX.XX
PROPOSED ELEVATION	XXX.XX
EDGE OF PAVEMENT ELEVATION	EP = XXX. XX
TOP OF CURB ELEVATION	TC = XXX.XX
HIGH POINT	XXX.XX HP
LOW POINT	XXX.XX LP
FINISH FLOOR ELEVATION	FF = XXX.XX
TOP OF RETAINING WALL	TW=XXX.XX
BOTTOM OF RETAINING WALL	BW=XXX.XX
TOP OF RAMP	TR=XXX.XX
BOTTOM OF RAMP	BR=XXX.XX

GENERAL NOTES

- 1. CONTOURS AND BOUNDARY DATA OBTAINED FROM SURVEY DATED 05/18/20.
- LOCATION OF EXISTING UTILITIES ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR. PLEASE NOTIFY ENGINEER IF FIELD ADJUSTMENTS ARE NECESSARY.
- OFF-STREET PARKING AREAS (INC. PARKING SPACES, DRIVEWAYS AND AISLES) SHALL BE PAVED WITH PLANT MIX ASPHALT OR CONCRETE WITHIN ONE (1) YEAR OF THE DATE ON WHICH THE IMPROVEMENT LOCATION PERMIT FOR THE PARKING AREA IS ISSUED. 4. POURED IN PLACE CONCRETE CURBS SHALL BE INSTALLED TO SEPARATE
- OFF-STREET PARKING AREAS FROM THE FRONT AND SIDES OF ANY ABUTTING BUILDING OR STRUCTURE, OTHERWISE BARRIER CURBS MAY BE INSTALLED AS NECESSARY TO SAFELY AND EFFICIENTLY DIRECT THE MOVEMENT AND PARKING OF MOTOR VEHICLES. 5. SEE SMITH DESIGN GROUP, INC STANDARD SPECIFICATIONS FOR
- CONSTRUCTION REQUIREMENTS.
 CONTACT THE TOWN OF ELLETSVILLE PLANNING DEPARTMENT AT (812)876-8008 AND
- ELLETSVILLE PUBLIC WORKS DEPARTMENT STORMWATER INSPECTOR AT (812)876-2297 TO SCHEDULE A PRECONSTRUCTION MEETING PRIOR TO EARTH DISTURBING ACTIVITIES.
 TOP OF CASTING ELEVATIONS ARE GIVEN IN THE FOLLOWING LOCATIONS:
- MANHOLES: RIM ELEVATION INLETS: GUTTER ELEVATION

LEGEND

_____ SANITARY LATERAL

WATER VALVE FIRE HYDRANT

WATER METER

STORM INLET

STORM MANHOLE

STORM YARD INLET

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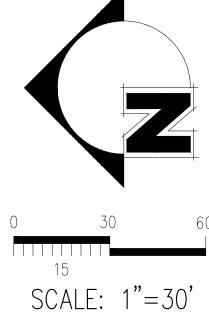
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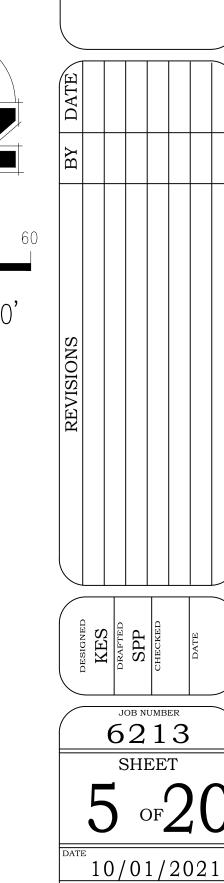
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SANITARY SEWER MANHOLE

SANITARY CLEANOUT

WATER AIR RELEASE VALVE





GRADING OPVERALL

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NOT FOR

CONSTRUCTION

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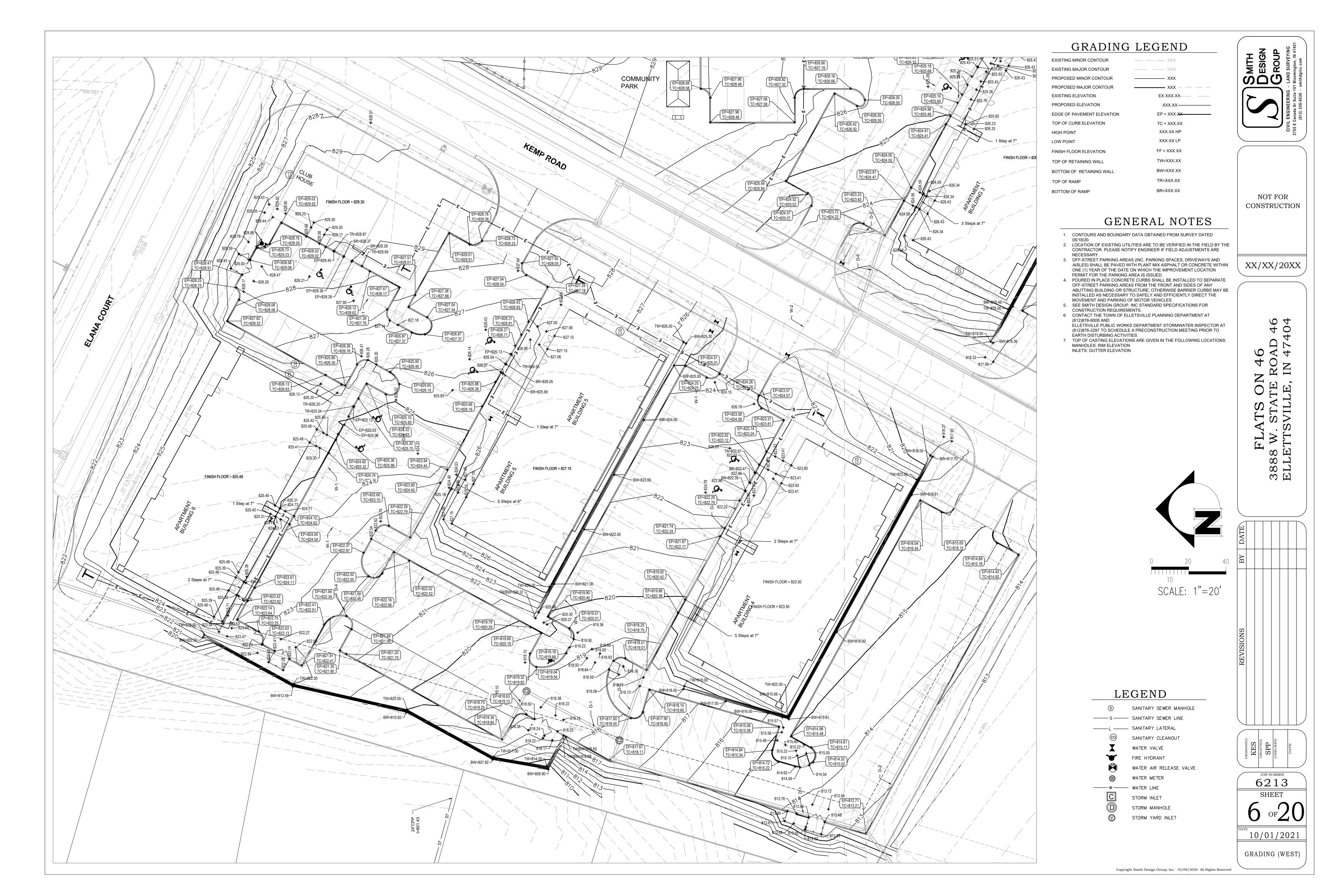
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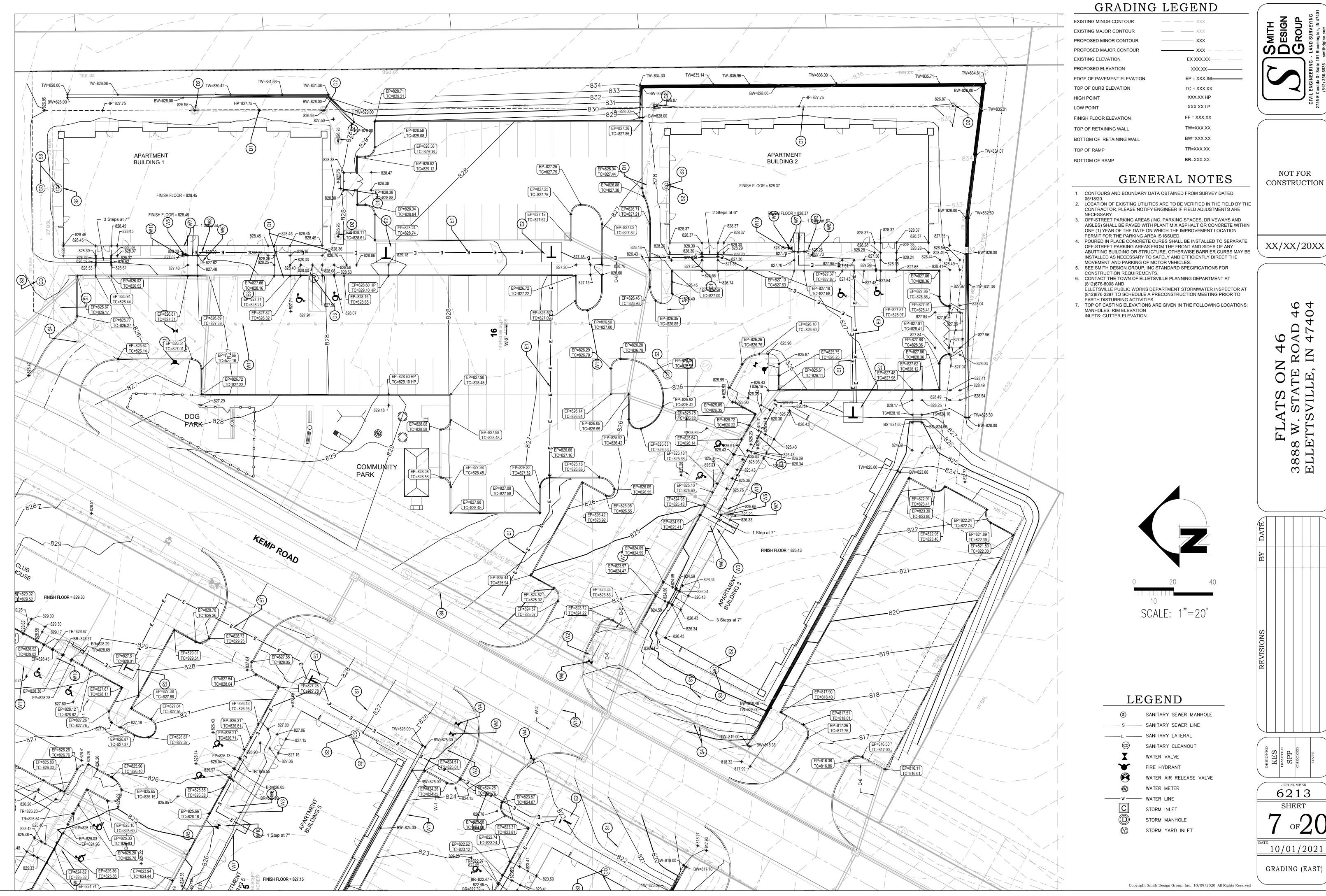
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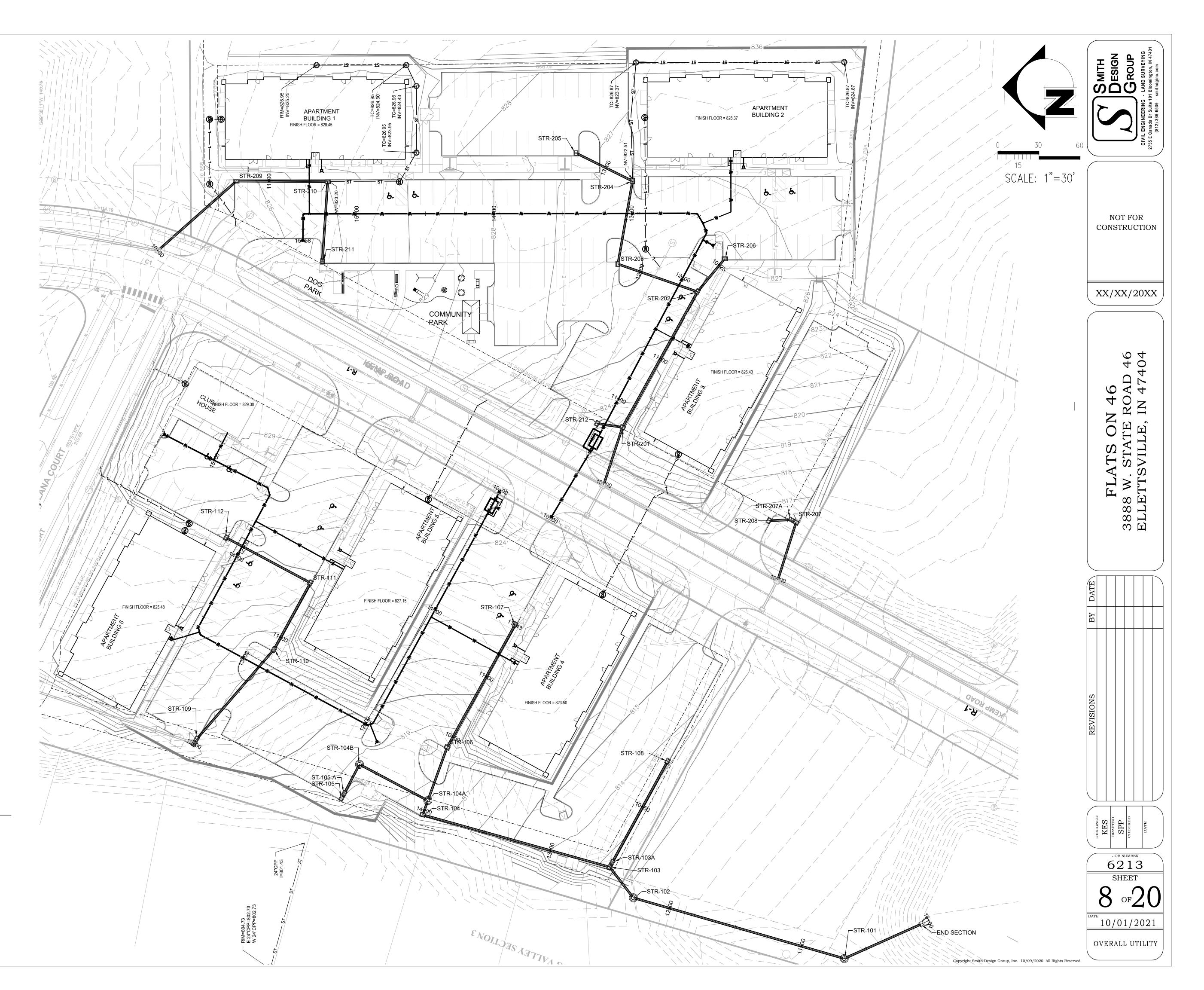
UTILITY LEGEND

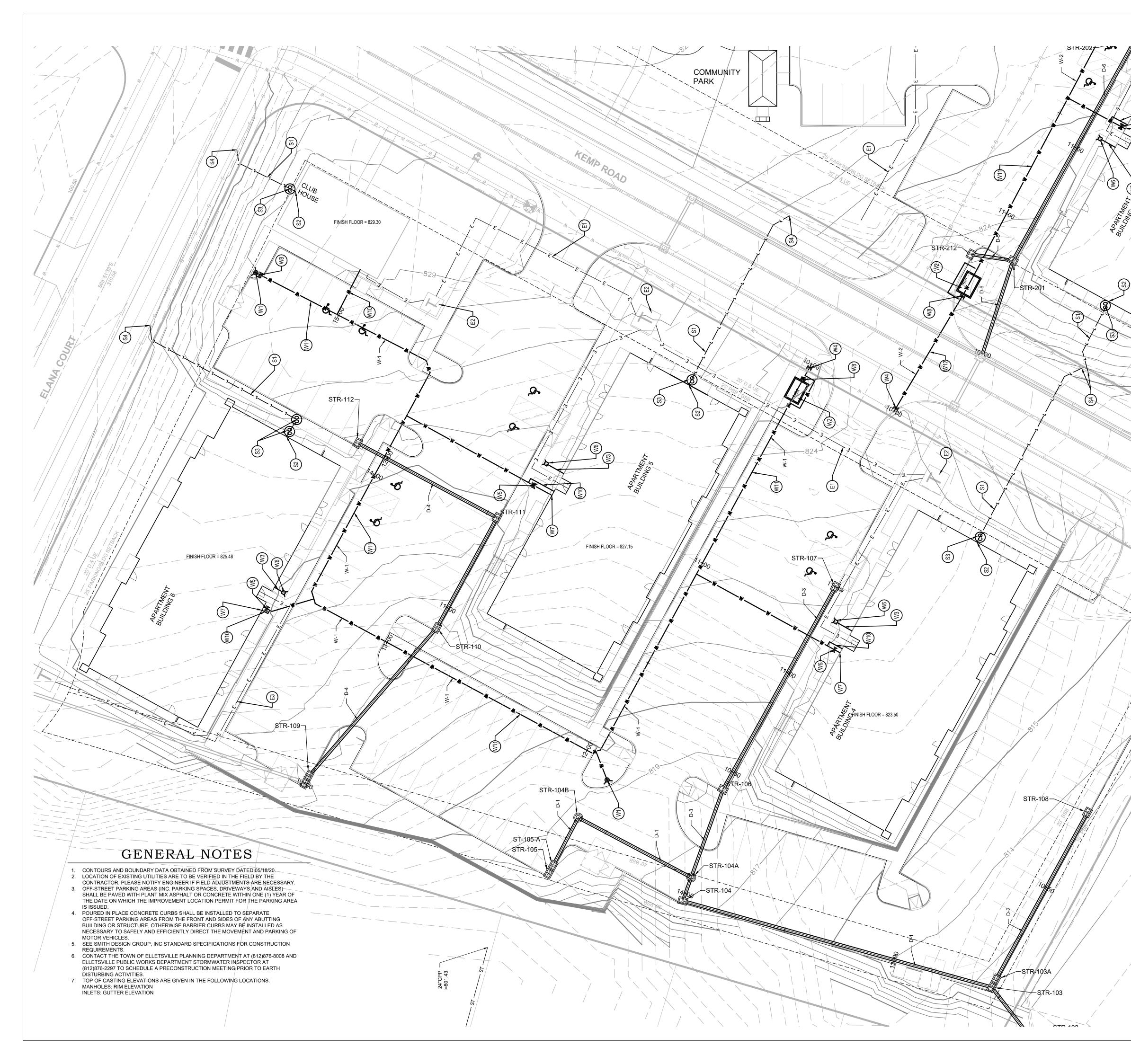
FIRE HYDRANT SINGLE)
WATER METER PIT	
FIRE DEPARTMENT CONNECTION	F
WATER VALVE	M
WATER AIR RELEASE VALVE	Ř
STORM SEWER MANHOLE	\bigcirc
STORM SEWER INLET	C
STORM YARD INLET	\bigcirc
STORM SEWER END SECTION	\square
SANITARY MANHOLE	S
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WATER LINE	w
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SEWER LATERAL	—L —L —
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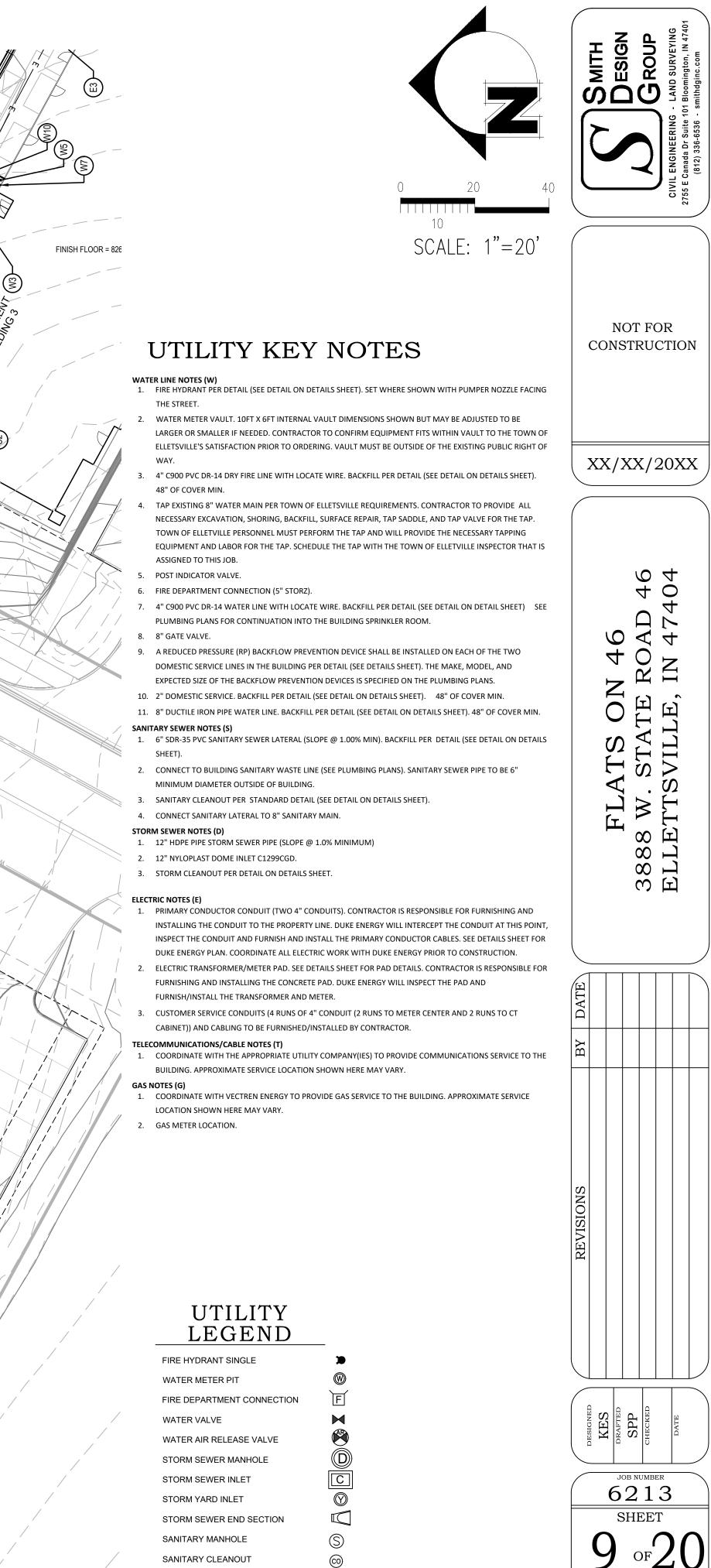
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GENERAL NOTES

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- 5. SEE SMITH DESIGN GROUP, INC STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.
- 6. CONTACT THE TOWN OF ELLETSVILLE PLANNING DEPARTMENT AT (812)876-8008 AND ELLETSVILLE PUBLIC WORKS DEPARTMENT STORMWATER INSPECTOR AT (812)876-2297 TO SCHEDULE A PRECONSTRUCTION MEETING PRIOR TO EARTH
- DISTURBING ACTIVITIES. 7. TOP OF CASTING ELEVATIONS ARE GIVEN IN THE FOLLOWING LOCATIONS: MANHOLES: RIM ELEVATION INLETS: GUTTER ELEVATION







SANITARY CLEANOUT WATER LINE SEWER LINE

SEWER LATERAL

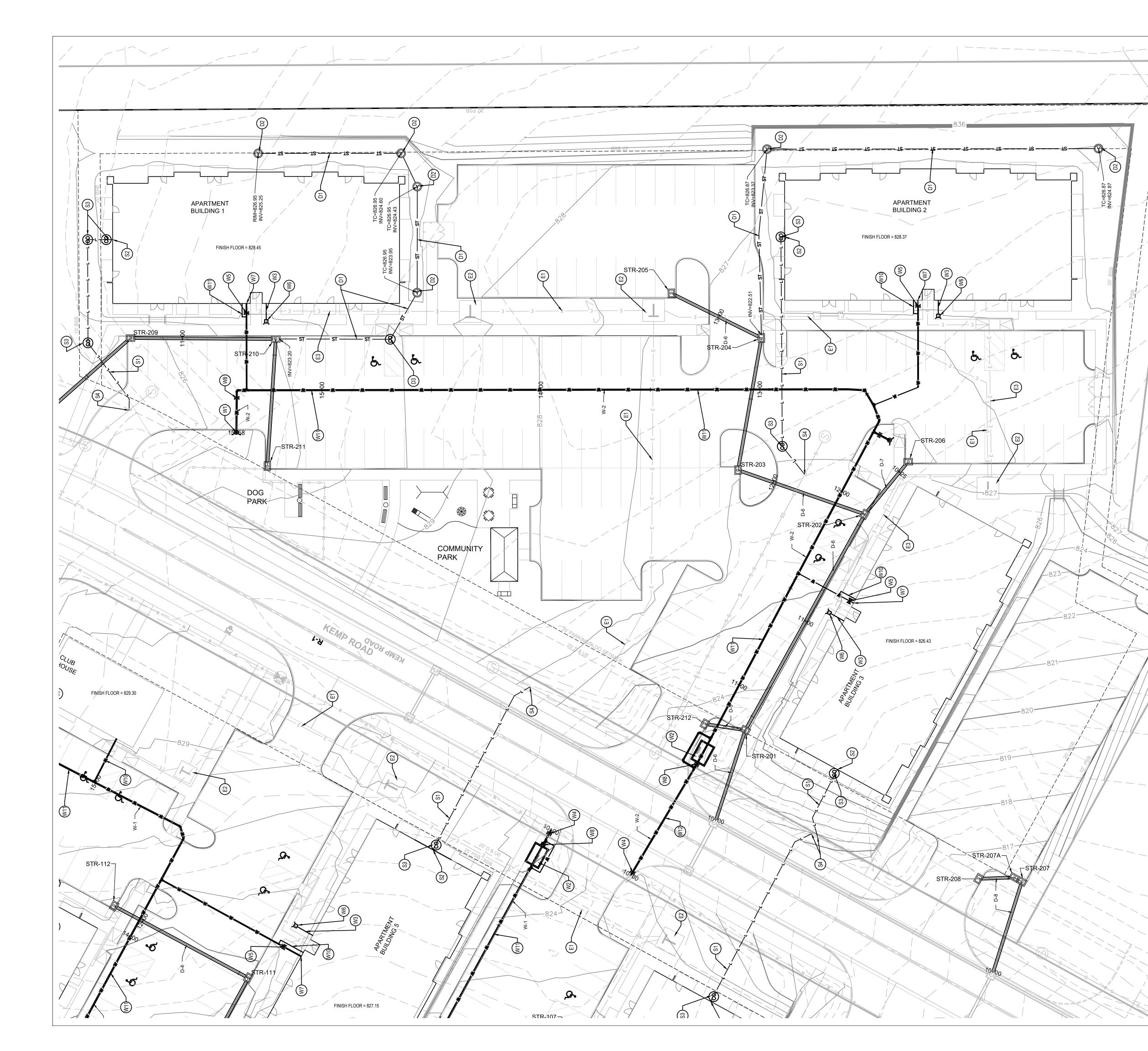
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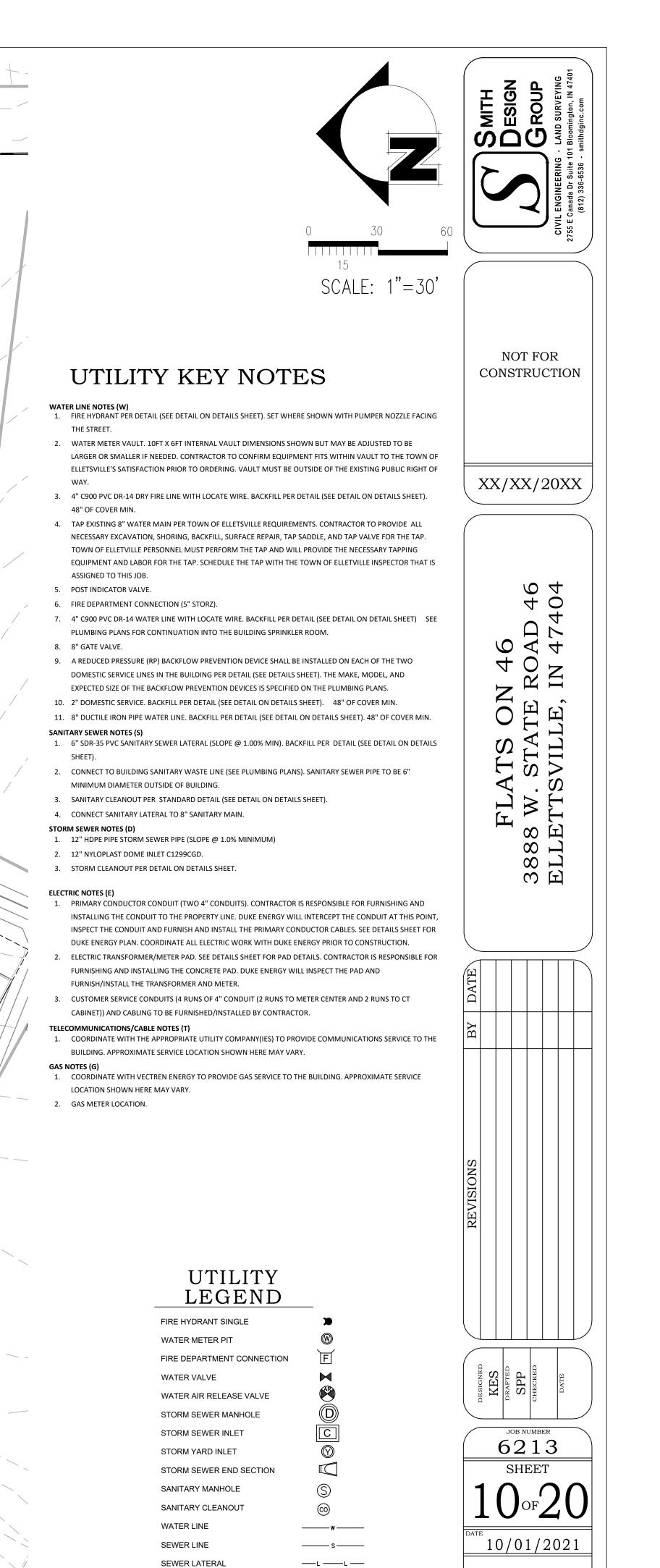
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UTILITY (WEST)

10/01/2021





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UTILITY (EAST)

NARRATIVE SEC. A - CONSTRUCTION PLAN ELEMENTS

A1 — Plan Index Shown on this sheet.

A2 - 11x17 Plat

Included with submission.

A3 - Narrative describing nature and purpose of project The purpose of this project is for development of multifamily residential site

A4 - Vicinity Map Shown on title sheet

A5 - Legal Description Lots 16 and Lot 17 of the Ellis-Ridge Subdivision

A6 – Site Improvements Shown on Site Plan.

A7 – Hydrologic Unit Code The HUC code is 05120202010100

A8 - Notation of any State or Federal permits

A9 — Specific points where storm water discharge leaves the site The runoff from the site will drain to the north and south to storm sewer infrastructure within the Ellis-Ridge Subdivision to common detention ponds.

A10 - Location of Wetlands, lakes, and water courses No known wetlands exist on site based on a review of the National Wetlands Inventory Map. No known lakes or water courses exist on site. An existing manmade pond is on-site but will be removed as a part of this project.

A11 - Identification of all receiving waters Jacks Defeat Creek is the receiving water.

A12 - Groundwater discharge There are no known sinkholes on site.

A13 - Floodplains, floodway fringes, floodways None exist on site.

A14 - Peak Discharges Pre-construction (10-year): 95.55 cfs Post-construction (10-year) (detained): 79.69 cfs

A15 — Adjacent Properties Residential use is to the north, east and west. Commercial uses are to the south.

A16 — Disturbed Areas Extents of disturbed areas are shown on the Grading Plan.

A17 - Vegetative Cover Existing vegetation consists of woods and grass area

A18 — Soils Map See map and legend this sheet.

A19 — Storm Water Drainage Systems See utility plan for existing and proposed storm water drainage systems.

A20 Off site construction activities Not required

A21 - Proposed stockpile and/or borrow/disposal area locations

Temporary stockpile location is shown on the SWPPP. A22 — Existing Topography

See grading plan.

A23 — Proposed Topography See grading plan.

SECTION B STORMWATER POLLUTION PREVENTION PLAN - CONSTRUCTION COMPONENT

B1 — Description of potential pollutant sources assoc. w/constr. Possible pollutants associated with construction include trucks used for delivery of fuel and maintenance of vehicles. Some pollutants associated with construction include grit and sediment due to grading and clearing, rust and brake dust from the construction vehicles and various fluids that may be used to lubricate or maintain construction equipment. Other pollutants may be possible, but are not foreseeable at this time. Specifications shown on the erosion control notes address recommendations used for spills and other groundwater contaminants due to construction. B2 - Sequence describing storm water quality measures implementation relative to land disturbing activity

Indicated in the General Erosion Control Sequence.

B3 – Stable construction entrance location and specifications Entrance will be within the Ellis-Ridge Subdivisions and will utilize the construction entrance as shown on the Ellis Ridge Subdivision plans. Specifications are shown on the SWPP Specifications sheet.

B4- Sediment control measures for sheet flow Silt fence will be utilized. Locations are shown on the erosion control plan and detailed on the details sheet. Specifications are shown on SWPP Specifications sheet.

B5 - Sediment control measures for concentrated flow areas Temporary sediment trap will be installed within the Ellis Ridge Subdivision and rip rap will be used as shown on the erosion control plan. Specifications are shown on the SWPP Specifications sheet.

B6 – Storm sewer inlet protection measure location & spec's.

Curb and Yard Inlet protection are shown on the erosion control plan and specifications are shown on the SWPP specifications notes sheet. B7 — Runoff control measures

Three detention basins will be utilized for this project with the Ellis-Ridge Subdivision of the site.

B8 - Storm water outlet protection specifications Rip rap will be utilized as shown on the erosion control plan. The specifications are shown on the SWPP specifications sheet.

B9 — Grade stabilization structure locations and specifications Retaining walls will be required in some areas for grade stabilization.

B10 -Location, dimensions, specifications, & constr. details of each storm water quality measure. Typical storm water quality measures include temporary sediment basins as shown on the grading plan and detailed on the details sheet and the erosion control notes sheet. Specifications are shown on the SWPP Specifications sheet.

B11 - Temporary surface stabilization methods appropriate for each season Season specific temporary surface stabilization methods and specifications are outlined on the SWPP specifications sheet.

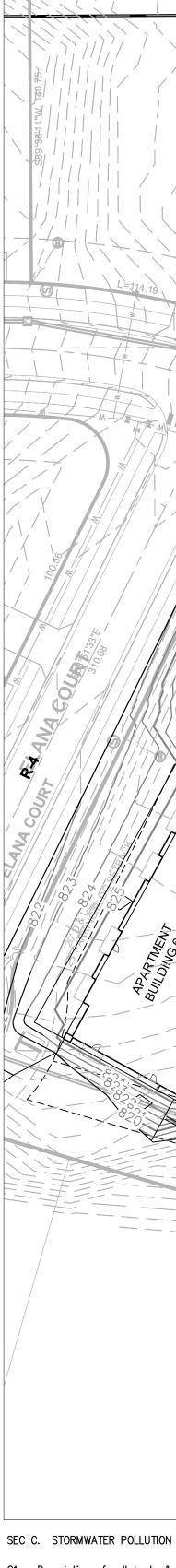
B12 - Permanent surface stabilization specifications Permanent surface stabilization methods are shown on the erosion control notes sheet. Specifications are contained in the project manual.

B13 — Material handling and spill prevention plan

Specifications for material handling and spill prevention are noted on the SWPP specifications sheet.

B14 - Monitoring and maintenance guidelines for each proposed storm water quality measure Specifications for temporary erosion control devices is noted on the SWPP specifications sheet.

B15 – Erosion & sediment control specifications for individual building lots Individual lot erosion & sediment control specifications details are on the SWPP plan sheet.



C1 - Description of pollutants & their sources associated with the proposed land use Pollutants associated with post construction use include lawn fertilizers, pesticides, household chemicals, oils, grease, petroleum products, solvents and vehicle fluids, dust and paint products. Other pollutants associated with vehicle repair and maintenance may be present.

C2 - Sequence describing storm water quality measures implementation Site surface restoration will occur at the end of land disturbing activity. A general sequence of construction is shown on the SWPPP.

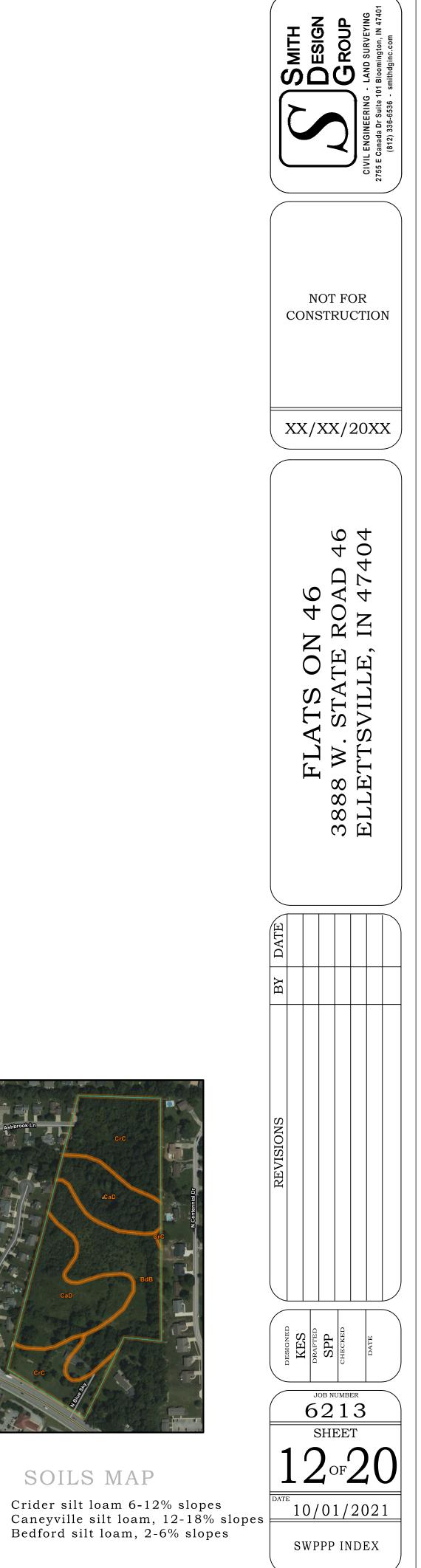
C3 - Description of proposed post-construction storm water quality measures Post construction storm water quality will consist of re-establishment of vegetative cover. Runoff from the paved surface areas of the site will be directed to a detention pond within the Ellis-Ridge Subdivision. The amended soils and infiltration properties thereof combined with an the rain garden areas.

C4 - Location, dimensions, specifications, and construction details of each storm water quality measure The location of said features described above are shown on the grading plan. Specifications are contained in the project manual.

C5 — Description of maintenance guidelines for post construction storm water quality measures Maintenance of post construction storm water quality measures will consist of mowing and re-seeding as required to maintain vegetative cover. The Owner's Association will be responsible for future maintenance and removal of any accumulated sediment and trash on site.

underdrain will provide for site water quality enhancement. Native plants will also be planted within





CrC-

CaD-

BdB-

GENERAL CONSTRUCTION SEQUENCE

- 1. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL COORDINATE AN ON SITE MEETING WITH THE TOWN OF ELLETTSVILLE PLANNING 48 HOURS PRIOR TO BEGINNING CONSTRUCTION OR PROVIDE START DATE AT PRE-CONSTRUCTION MEETING.
- TEMPORARY CONSTRUCTION ENTRANCE SHALL BE AS SHOWN IN THE ELLIS-RIDGE SUBDIVISION PLANS.
 POST THE NOI APPLICATION LETTER AND LOCAL GRADING PERMIT, PROPERTY OWNER CONTACT
- INFORMATION, IDEM SPILL EMERGENCY REPORTING LINE AND SPILL KIT LOCATION.4. INSTALL TEMPORARY SILT FENCE
- CLEAR EXISTING TREES AND STOCKPILE TOPSOIL. LOCATION MAY VARY BASED ON CONTRACTOR PREFERENCE, HOWEVER ENSURE COMPLIANCE WITH THE INDIANA STORM WATER QUALITY MANUAL.
 INSTALL TEMPORARY DIVERSION DITCHES
- 7. COMPLETE SITE EARTHWORK TO CREATE BUILDING PAD AND PARKING LOT.
- 8. INSTALL UTILITY INFRASTRUCTURE.
- INSTALL PERMANENT ROCK CHUTE AND TEMPORARY ROCK DAMS AT PIPE OUTLETS.
 INSTALL TEMPORARY CONCRETE WASHOUT. LOCATION MAY VARY BASED ON CONTRACTOR PREFERENCE, HOWEVER ENSURE COMPLIANCE WITH THE INDIANA STORM WATER QUALITY MANUAL.
- 11. INSTALL CONCRETE CURBS.
- 12. INSTALL AGGREGATE BASE ON ROADS.
- 13. INSTALL ASPHALT AND CONCRETE PAVEMENT ALONG WITH CONCRETE WALK.
 14. REPLACE TOPOSIL IN LAWN AREAS
- 15. INSTALL PERMANENT LAWNS. ALL DISTURBED AREAS TO BE MULCH SEEDED
- 16. ONCE LAWNS ARE ESTABLISHED, REMOVE SILT FENCE AND OTHER EROSION CONTROL MEASURES AND PATCH ANY BARE SPOTS.
- 17. AFTER STABILIZATION, CONTACT TOWN OF ELLETTSVILLE PLANNING DEPARTMENT FOR FINAL INSPECTION AND FILE NOTICE OF TERMINATION (NOT)

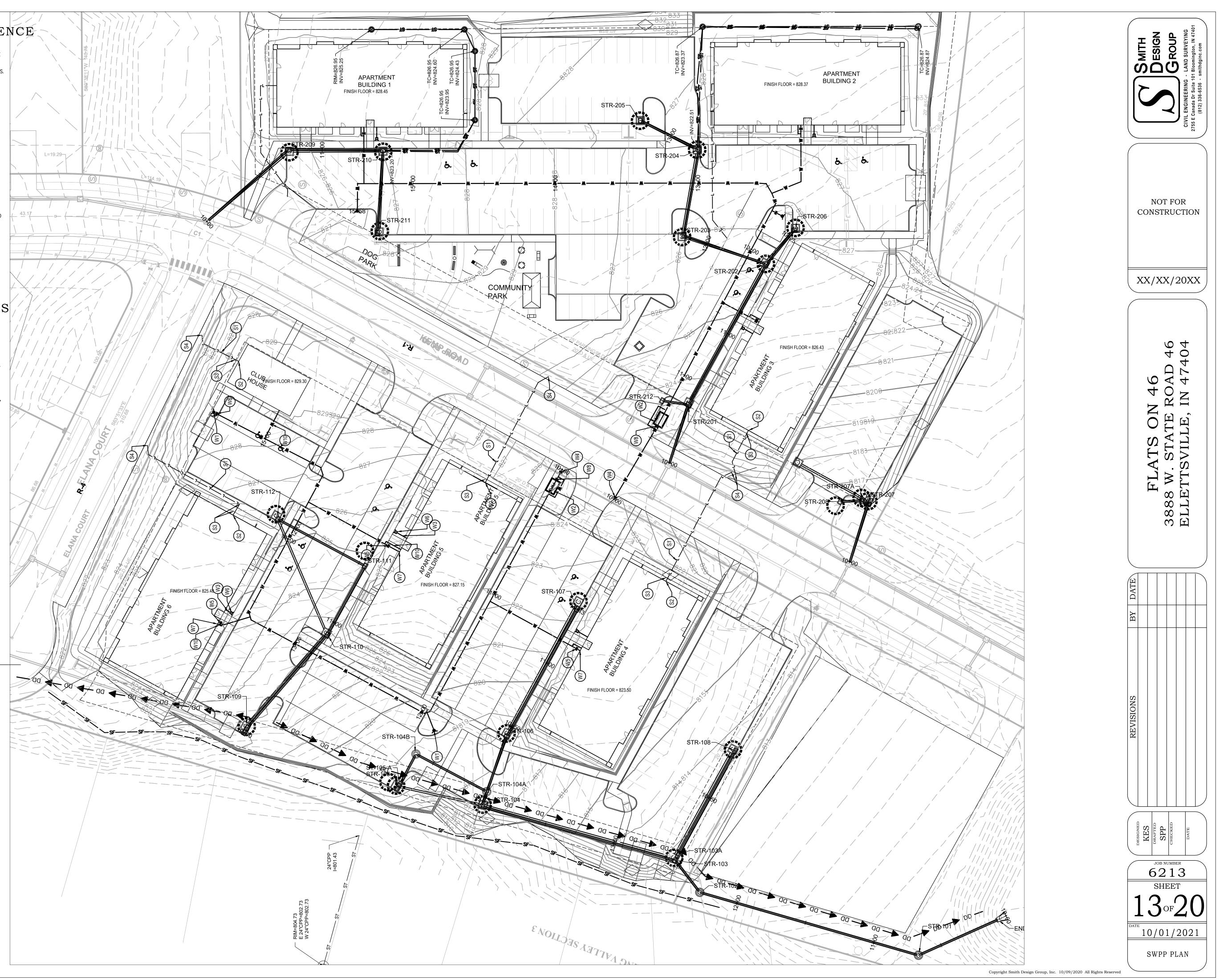
SWPP GENERAL REQUIREMENTS

- 1. CONSTRUCTION SEQUENCE ABOVE IS GENERAL GUIDANCE FORE CONSTRUCTION AND CONTRACTOR MAY ADJUST AS NECESSARY KEEPING THE SITE IN FULL COMPLIANCE.
- ANY BARE EARTH AREAS TO REMAIN IDLE FOR MORE THAN 7 DAYS SHALL BE TEMPORARY OR PERMANENTLY STABILIZED BY THE END OF NEXT BUSINESS DAY FROM CEASING OF LAND
- DISTURBING ACTIVITIES. MULCH SEEDED MUST BE DONE IN ACCORDANCE WITH TABLE BELOWCONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING ALL EROSION CONTROL DEVICES.CONTRACTOR SHALL INSPECT AND REPAIR, AS NECESSARY, ALL EROSION CONTROL DEVICES AND
- EQUIPMENT WEEKLY AND PRIOR TO AND IMMEDIATELY FOLLOWING ANY RAIN EVENT.. 5. INSPECTIONS SHALL BE CONDUCTED BY A QUALIFIED INDIVIDUAL.
- 6. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A LOG BOOK OF ALL RAIN EVENTS, INSPECTIONS, REPAIR AND MAINTENANCE WORK AND EQUIPMENT ON SITE . LOG BOOK SHALL BE MADE AVAILABLE FOR REVIEW UPON MS4'S REQUEST WITHIN 48 HOURS.

TEMPORARY SEEDING RECOMMENDATIONS					
SEED SPECIES *	RATE/ACRE	PLANTING DEPTH	OPTIMUM DATES **		
WHEAT OR RYE	150 LBS	1 TO 1?IN.	9/5 TO 10/30		
SPRING OATS	100 LBS	1 IN.	3/1 TO 4/15		
ANNUAL RYEGRASS	40 LBS	?IN	3/1 TO 5/1		
			8/1 TO 9/1		
GERMAN MILLET	40 LBS	1 TO 2 IN.	5/1 TO 6/1		
SUDANGRASS	35 LBS	1 TO 2 IN.	5/1 TO 7/30		
* PERENNIAL SPECIES MAY BE USED AS A TEMPORARY COVER, ESPECIALLY IF THE AREA TO BE SEEDED WILL REMAIN IDLE FOR MORE THAN A YEAR (PRACTICE 3.12).					
** SEEDING DONE OUTSIDE THE OPTIMUM DATES INCREASES THE CHANCES OF SEEDING FAILURE.					

EROSION CONTROL LEGEND

SILT FENCE	SF SF
DIVERSION DITCH	
TREE PROTECTION FENCE	TPF TPF
ROCK CHECK DAM	
ROCK CHECK DAM	
TEMPORARY CONSTRUCTION ENTRANCE	
CONCRETE WASHOUT	
ROCK CHUTE	
EROSION CONTROL BLANKET. NORTH ANERICAN GREEN # SC150BN OR EQUAL.	
CURB INLET PROTECTION	
YARD INLET PROTECTION	\bigcirc



PART	1 —	GENERAL		
1.01		ATED WORK		
	Β.		Grading	
		Section 02930 - Soddir Section 02910 - Protec		ees
1.02		ERENCES	с II. 1. с	
	Α.	The latest issue of the the extent indicated he	reinafter.	
		Department of En	er Quality Manual pu vironmental Manager	Iblished by the Indiana nent October 2007
		edition. (ISWQM) 2. Indiana Code 327		
		3. 2014 Indiana Depa Specifications (IND		ation Standard
1.03		CAL JURISDICTION When the work is within	the invision of	a local municipality
	Λ.	MS4 district or Soil and inspect, review, approve	I Water Conservation	District that will
		work being completed, that agency shall super	the specifications ar	nd requirements of
		specifications if said ag are more stringent.		
PART	2 -	- PRODUCTS		
2.01		TERIALS		
1	Α.	Aggregates for use in c shall be in accordance		
		as follows: 1. Coarse aggregates		
			Section 904.03 table	(e).
			Section 904.04 table	(f) of the INDOTSS an
	Β.	Pipe material for use in shall be in accordance	conjunction with er	
		as follows: 1. Corrugated Polyeth	ylene Drainage Tubir	ng and Smooth Wall
		Polyethylene Pipe and 907.21 of the	shall be in accordar	nce with Section 907.17
	C.	Geotextile 1. Geotextiles for use	under rip rap shall	be in accordance
	D.	Silt Fence shall conform		hysical properties
		as shown on the table Sediment B	below. <i>arriers and Filters: S</i>	ilt Fence Table 2.
				Silt Fence (Minimum) Non-woven fabric
		Filtering efficiency	85%	85%
		Tensile strength at 20% elongation:		
		Standard strength	30 lbs./linear in. 50 lbs./linear in.	50 lbs./linear in. 70 lbs./linear in.
		Extra strength	JUIUS./IIIIcal III.	
		Extra strength Slurry flow rate Water flow rate	0.3 gal./min./sq.ft.	4.5 gal./min./sq.ft. 220 gal./min./sq.ft.
		Slurry flow rate Water flow rate UV resistance		4.5 gal./min./sq.ft. 220 gal./min./sq.ft. 85% 5 feet
	F	Slurry flow rate Water flow rate UV resistance Post Spacing	0.3 gal./min./sq.ft. 15 gal./min./sq.ft. 70% 7 feet	220 gal./min./sq.ft. 85%
	Ε.	Slurry flow rate Water flow rate UV resistance Post Spacing Temporary Gravel Constr 1. Construction entra	0.3 gal./min./sq.ft. 15 gal./min./sq.ft. 70% 7 feet uction Entrances nces shall be install	220 gal./min./sq.ft. 85% 5 feet
	E. F.	Slurry flow rate Water flow rate UV resistance Post Spacing Temporary Gravel Constr 1. Construction entral specified in ISWQ Erosion Control Blankets	0.3 gal./min./sq.ft. 15 gal./min./sq.ft. 70% 7 feet uction Entrances nces shall be install M Chapter 7.	220 gal./min./sq.ft. 85% 5 feet ed using materials
		Slurry flow rate Water flow rate UV resistance Post Spacing Temporary Gravel Constr 1. Construction entrat specified in ISWQ Erosion Control Blankets 1. Erosion control bla the type indicated	0.3 gal./min./sq.ft. 15 gal./min./sq.ft. 70% 7 feet uction Entrances nces shall be install M Chapter 7. nkets and turf reinf on the plans as m	220 gal./min./sq.ft. 85% 5 feet ed using materials forcement shall be nanufactured by North
		Slurry flow rate Water flow rate UV resistance Post Spacing Temporary Gravel Constr 1. Construction entrat specified in ISWQ Erosion Control Blankets 1. Erosion control Blankets 1. Erosion control bla the type indicated American Green o Temporary Seeding	0.3 gal./min./sq.ft. 15 gal./min./sq.ft. 70% 7 feet uction Entrances nces shall be install M Chapter 7. nkets and turf reinf on the plans as m r equal approved by	220 gal./min./sq.ft. 85% 5 feet ed using materials forcement shall be nanufactured by North r Owner's Representative
	F.	Slurry flow rate Water flow rate UV resistance Post Spacing Temporary Gravel Constr 1. Construction entrat specified in ISWQ Erosion Control Blankets 1. Erosion control bla the type indicated American Green o Temporary Seeding 1. Grass species reco follows during the	0.3 gal./min./sq.ft. 15 gal./min./sq.ft. 70% 7 feet uction Entrances nces shall be install M Chapter 7. nkets and turf reinf on the plans as m r equal approved by mmended for tempo se time periods:	220 gal./min./sq.ft. 85% 5 feet orcement shall be nanufactured by North of Owner's Representative prary seeding shall be a
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- 3.02 INSTALLATION AND MAINTENANCE
 - A. All installation of erosion control devices and maintenance shall be in accordance with Section 205 on the INDOTSS and Section 7 of the ISWQM.
 - B. Temporary gravel construction entrance
 - 1. Remove existing vegetation and topsoil from entrance area. 2. Install a culvert pipe under the drive if necessary to maintain proper public road drainage.

- 3. Compact subgrade soil prior to placing stone.
- 4. Place #2 stone to the dimensions indicated on the plan and in the Temporary Gravel Construction Entrance Detail. 5. Inspect entrance pad daily and after storm events or heavy use.
- 6. Reshape pad as needed for drainage and runoff control. 7. Top dress with clean stone as needed.
- 8. Immediately remove mud and sediment tracked or washed onto public roads by brushing or sweeping. Flushing should only be used if the water is conveyed into a sediment trap or basin.
- 9. Repair any broken road pavement immediately. C. Temporary Diversion Ditch
 - 1. Remove brush, trees, stumps, and debris from route of diversion.
 - 2. Set alignment and grades to fit site needs, maintaining a stable and positive grade towards the outlet.
 - 3. Construct diversion in accordance with the Temporary Diversion Ditch Detail and at the location indicated on the
 - 4. Construct the diversion ridge in six to eight inch lifts. 5. Compact each lift by driving wheels of construction
 - equipment along the ridge. 6. Overfill and compact ridge to design height plus 10 percent. 7. Leave sufficient area along the diversion to permit
 - clean-out and regrading.
 - 8. Vegetate the ridge immediately after construction, unless the diversion will be in place less than 15 days.
 - 9. Inspect weekly and within 24 hours following each storm
- event. 10. Remove sediment from the channel and reinforce the ridge
- as needed. 11. Check outlets and make necessary repairs immediately. 12. When the work area has been stabilized, remove the ridge, fill the channel to blend with the natural around, remove
- temporary slope drains, and stabilize all disturbed areas. D. Rock Check Dam 1. Excavate a cut-off trench into the channel bottom and ditch banks at the locations shown on the plan, extending 18
 - inches beyond the top of ditch bank. 2. Place uniform or revetment rip rap in the cut-off trench and channel in accordance with the Rock Check Dam Detail. The center of the dam must be at least nine inches lower than the uppermost points of contact between the rip rap dam and channel banks.
 - 3. Extend rip rap at least 18 inches beyond the channel banks to prevent overflow water from undercutting the dam as it
 - re-enters the channel. 4. Place filter medium on the up-slope side of the dam and over the entire face of the dam up to the base of the overflow weir notch.
 - 5. Inspect check dams and the channel within 24 hours after each storm event, and repair any damage immediately.
 - 6. If significant erosion occurs between dams, install a riprap liner in that portion of the channel. 7. Remove sediment accumulated behind each dam when it reaches
 - 1/2 the height of the dam to maintain channel capacity, to allow drainage through the dam, and to prevent large flows from displacing sediment. 8. Add rock to the dams as needed to maintain design height and
 - cross section. 9. When the dams are no longer needed, remove the rock and
- stabilize channel, using an erosion-resistant lining if necessary. E. Rock Lined Chute.
 - 1. Divert surface water runoff around the structure during construction so site can be properly dewatered. 2. Excavate the apron area subgrade below the design elevation
 - of finished grade to allow for thickness of rip rap at the locations shown on the plans. 3. Compact the subgrade.
 - 4. Place the geotextile fabric on the compacted subgrade. If more than one piece is needed, the upstream piece should overlap the downstream piece by one-foot minimum.
 - 5. Install rip rap in accordance with the Rock Chute Detail and the rip rap quantity given in the structure data table on the plans. 6. Top of the rip rap chute shall be level with or slightly
 - below the receiving channel. 7. Blend the rip rap chute smoothly to the surrounding grade.
 - 8. Construct a small plunge pool within the outlet apron.
 - 9. Rip rap aprons must be level with or lower than the channel grade and should not restrict flow.
 - 10. Construct a permanent diversion ridge on either side of the riprap lined chute to collect storm water runoff and direct its flow into the chute.
 - 11. Inspect rock chutes 24 hours after storm events and at least every 7 days for stone displacement and for erosion at the sides and ends of the apron.
 - 12. Make needed repairs immediately; use appropriate size stone, and do not place them above finished grade.
- F. Inlet Protection
 - 1. Stone a. Excavate the basin around the inlet one to two feet deep
 - below the top of casting elevation in accordance with the Inlet Protection Detail.
 - b. Stockpile or spread excavated material so that it will
 - c. Install weep holes in the inlet so that the pool area
 - drains slowly. d. Cover weep holes with filter fabric and one foot of #5 stone.
 - e. If necessary, excavated material may be placed on the downstream side of the excavation to prevent by-pass flow.
 - f. Inspect the inlet protection within 24 hours after each
 - storm event; removing sediment when pool area is approximately $\frac{1}{2}$ full of sediment and making needed repairs immediately. g. When the contributing drainage area has been stabilized, remove and properly dispose of all construction material
 - and sediment, then stabilize. h. Remove sediment when pool area is approximately 1/2 full
 - of sediment. i. Remove and replace stone if sediment hinders drainage. j. Once permanent stabilization occurs, removed sediment
 - basin, weep holes, fill basin with soil, compact and grade to finished elevation. 2. Silt Fence.
 - a. Dig an eight-inch deep, four-inch wide trench around the perimeter of the inlet.
 - b. If using pre-assembled silt fence and posts, drive the posts into the soil, tightly stretching the silt fence and posts by placing a piece of lathe over the fabric and fastening it to the post.

not block flow or wash back into the excavation.

- c. If assembling the silt fence and post on-site, drive the posts into the soil and then secure the silt fence to the posts by placing a piece of lathe over the fabric and fastening it to the post.
- d. Use the wrap join method when joining posts. e. Place the bottom 12 inches of silt fence into the eight-inch deep trench, laying the remaining four inches in the bottom of the trench and extending away from
- the inlet. f. Backfill the trench with soil material and compact it in place.
- g. Brace the posts by nailing braces into each corner posts or utilize rigid panels to support fabric.
- h. If storm water may bypass the structure, set the top of the silt fence at least six inches lower than the ground elevation on the down-slope side of the storm inlet, build a temporary dike compacted six inches higher than the silt fence on the down-slope side of the of storm inlet and use in conjunction with excavated
- drop inlet protection. i. Inspect daily and within 24 hours after each storm event and make needed repairs immediately.
- j. Remove sediment from the pool area to provide storage for the next storm. Avoid damaging or undercutting the
- fabric during sediment removal. k. When the contributing drainage area has been stabilized, remove and properly dispose of all construction material and sediment, grade the area to the elevation of the top of the inlet, then stabilize.
- G. Curb Inlet Protection. 1. Fill UV stabilized geotextile fabric bags approximately
 - full with washed gravel or aggregate.
 - 2. For inlets located on a slope gradient:
 - a. At a position up slope of the inlet, lay bags tightly in a row curving up slope from the inlet and away from the curb.
 - b. Overlap bags onto the curb and extend a minimum of three feet into the street, keeping bags tightly abutted together.
 - c. For additional layers of bags, overlap the bags with the row beneath and leave a one-bag gap (at or below curb height) in the middle of the top row to serve as a spillway. If the spillway height is higher than the top of the curb, place additional bags along the curb to prevent bypass flow.
 - d. For additional storage capacity, construct a series of stone bag barriers along the curb so each one traps small amounts of sediment.
 - 3. For inlets located in a sump position: a. Place bags in an arc around the curb inlet.
 - b. Overlap bags onto the curb, keeping bags tightly abutted together.
 - c. For additional layers of bags, overlap the bags with the row beneath and leave a one-bag gap (at or below curb height) in the middle of the top row to serve as a spillway. If the spillway height is higher than the top of the curb, place additional bags along the curb to prevent bypass flow.
 - 4. Place a traffic barricade at each installed measure for
 - safety and to prevent measure integrity. 5. Inspect daily and removed accumulated sediment from paved area (do not flush with water) within 24 hours after each
 - storm event. 6. Deposit sediment in area where it will not re-enter the
 - paved area or storm drains. 7. Inspect for damage by vehicular traffic and repair if needed. 8. When the contributing drainage areas have been stabilized, remove inlet protection.
- H. Temporary Sediment Trap.
 - 1. Divert run-off from non-disturbed areas away from the trap. 2. Clear all existing vegetation and topsoil from the
 - embankment area. 3. Using compactable material, construct the embankment at the location indicated on the plans and in accordance with the Temporary Sediment Trap Detail.
 - 4. Construct the embankment six inches above design elevation to allow for settling.
 - 5. Excavate a trapezoidal outlet section from the embankment. 6. Install geotextile fabric in the trapezoidal outlet section, extending the fabric up the sides of the outlet section to the top of the embankment.
 - 7. Place INDOT revetment rip rap in accordance with the detail to create a dense mass. The spillway crest must be level with a minimum depth of 1 |feet, measured from the highest stones in the spillway weir notch to the top of the dam.
 - 8. Cover the upstream face of the riprap outlet section with a 12-inch thick layer of INDOT CA No.5 aggregate. 9. On the downstream side of the spillway, construct an outlet
 - apron at the toe of the embankment. Construct the apron as indicated on the plans and in accordance with the Temporary Sediment Trap Detail.
 - 10. Place geotextile fabric or aggregate bedding material on the compacted and smoothed foundation and install riprap as indicated on the plans and in accordance with the Temporary Sediment Trap Detail.
 - 11. Construct a small plunge pool within the outlet apron. Riprap aprons must be level with or slightly lower than the receiving channel and should not produce an overfall or restrict flow of the water conveyance structure.
 - 12. Stabilize the embankment and other disturbed areas with seed and mulch (anchored in place) or another suitable erosion
 - resistant cover. 13. Inspect within 24 hours of a rain event and at least once every seven days.
 - 14. Remove sediment when it has accumulated to one-half the design depth.
 - 15. Check the embankment for erosion and piping holes and repair immediately. 16. Check pool area side slopes for erosion and repair
 - immediately.
 - 17. Replace spillway aggregate facing is the sediment pool does not dewater with 48-72 hours following a storm water runoff event.
 - 18. Inspect vegetation and reseed if necessary.
 - 19. Check the spillway depth periodically to ensure a minimum of 1|feet. depth from the lowest point of the settled embankment to highest point of the spillway crest, and fill any low areas to maintain design elevation.
 - 20. Promptly replace any displaced riprap, being careful that no stones in the spillway are above design grade.
- 21. After all disturbed areas have been stabilized, remove the structure and sediment, smooth the site to blend with adjoining areas, and stabilize.

I. Silt Fence.

trench

immediately.

table below.

apparent.

Seed Species*

Wheat or rye

Annual ryegrass

German millet

Corn (broadcast)

3.04 CLEAN UP

3.03 MAINTENANCE & INSPECTIONS

Sudangrass

Buckwheat

Sorghum

(Practice 3.12).

Spring oats

Exhibit 3.11-B. Temporary Seeding Recommendations.

J. Temporary Seeding

- 1. Plan for the fence to be at least ten feet from the toe of the slope to provide a sediment storage area. 2. Provide access to the area for maintenance.
- 3. Locate silt fence outlet at location shown on the plans.
- 4. Locate the outlet weir posts four feet apart and place a 2 X 4 horizontal brace between the posts. 5. Excavate the foundation for the outlet one foot deep, five
- feet wide and a minimum of five feet in length. 6. Install uniform rip rap in the outlet area.
- 7. Along the entire intended fence line, dig an eight inch deep by four-inch wide trench.
- 8. Install the silt fence with filter fabric located on the up-slope side of the excavated trench and the support posts on the down-slope side of the trench.
- 9. Install support posts at least 18 inches into the ground, tightly stretching the fabric between the posts as each is driven into the soil. A minimum of 12 inches of the filter fabric should extend into the trench.

10. Lay the lower four inches of filter fabric on the bottom of

12. Inspect the silt fence at least every seven days and within

13. If fence fabric tears, starts to decompose, or in any way

becomes ineffective, replace the affected portion

14. Remove deposited sediment when it is causing the filter

fabric to bulge or when it reaches half the height of the

15. Take care to avoid undermining the fence during clean out.

16. After the contributing drainage area has been stabilized,

dates for planting as shown in the table below.

(d), (e), (f), and (g) of the INDOTSS.

<u>Rate/acre</u>

150 lbs.

100 lbs

40 lbs.

40 lbs

35 lbs.

60 lbs.

300 lbs.

35 lbs.

A. The general contractor is responsible for inspection and

a 48 hr time frame should they be requested.

based on the prosecution of the work.

re-installation of said device.

on public roads or streets.

4.01 MATERIAL HANDLING & SPILL PREVENTION

or at designated areas on site.

be recycled as scrap metal.

activities.

are washed onsite. d. Mortar-mixing stations exist.

F. Concrete Waste Management -

E. Maintain all equipment to avoid leaks.

determining that erosion control measures are installed as shown

inspections made and corrective measures taken shall be recorded

and kept in a location where they may be made available to the

Indiana Department of Environmental Management inspectors within

on the plans. Inspection of all storm water pollution prevention

practice measures shall be made by a trained individual on a

weekly basis and after every 1/2inch rainfall event. Records of

B. Additional erosion control measures may need to be installed

is required throughout construction. Failure to remove

of any erosion control device will result in the required

A. When construction is completed and the area is stabilized,

that minimizes site disturbance and seed immediately.

PART 4 – MATERIAL HANDLING, SPILL PREVENTION & SPILL CLEAN UP

B. All silt, dust or debris shall be cleaned from adjoining public

A. Throughout construction operators of equipment that carry

B. Used oils, fuels, antifreeze and other materials may be

with all Federal, State and Local requirements.

C. Place all drained lubricants, fuels, etc. in closed containers.

D. Drain oil filters when hot and dispose of used filters, oil cans

implemented on construction projects where:

and grease tubes properly. Drained metal cans and filters can

potential pollutants shall take every available measure to

prevent possible spills. Vehicle operators of all kinds shall

not allow the seepage or dumping of potential contaminant fluids

or other contaminant materials onto the ground. Vehicle washing

prevent the possibility of contaminants entering the ground water

considered hazardous and must be disposed of at approved sites.

For disposal site information contact the IDEM at 888-233-7745.

Remove them from the site for disposal or recycling in accordance

1. Concrete waste management procedures and practices are

a. Concrete is used as a construction material or where

b. Slurries containing Portland cement concrete or asphalt

grinding, grooving, and hydro-concrete demolition.

c. Concrete trucks and other concrete-coated equipment

concrete are generated, such as from saw cutting, coring,

concrete dust and debris result from demolition

and fluid changing shall take place offsite at areas set up to

C. Removal of accumulated sediment from any erosion control device

accumulated sediment can result in failure of the device. Failure

remove erosion control measures no longer necessary in a manner

**Seeding done outside the optimum dates increases the chances of seeding failure.

fence at its lowest point or is causing the fabric to bulge.

remove the fence and sediment deposits, bring the disturbed

1. Determine the appropriate seed species based on the optimum

or by broadcasting and cover to the depth as shown in the

2. Apply seed uniformly with a drill or culti-packer - seeder

3. Mulch seeded areas in accordance with Section 621.05 (c),

4. Inspect weekly after planting to see that vegetative stands

5. Check for erosion damage within 24 hours after storm events

6. Topdress fall seeded wheat or rye seedings with 50 lbs/acre

of nitrogen in February or March if nitrogen deficiency is

Planting Depth

3/1 to 4/15

3/1 to 5/1

8/1 to 9/1

5/1 to 6/1

5/1 to 7/30

4/15 to 6/1

5/1 to 7/15

1 to $1\frac{1}{2}$ in.

l in.

1⁄4 in.

1 to 2 in.

are adequately established; re-seed if necessary.

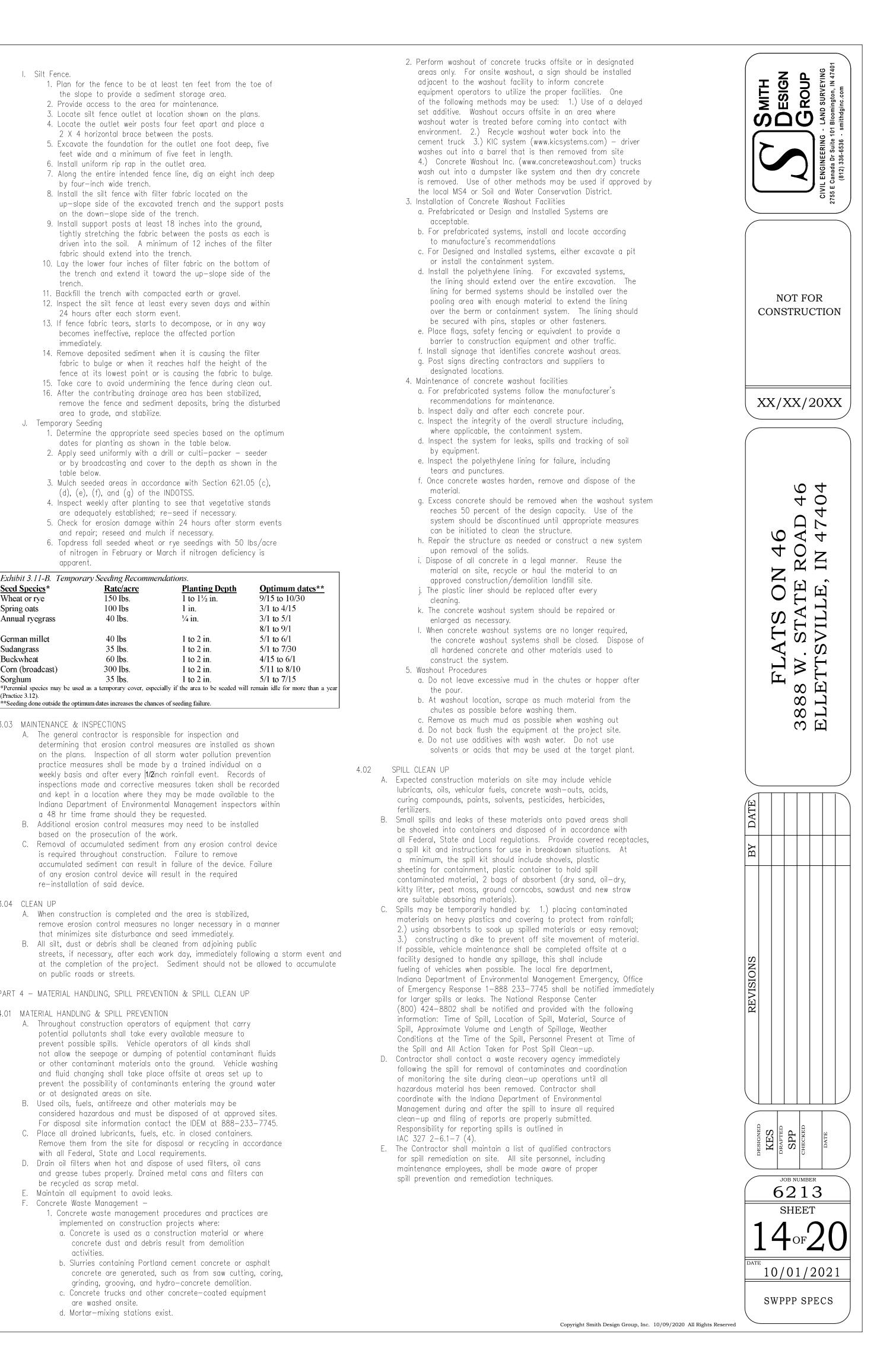
and repair; reseed and mulch if necessary.

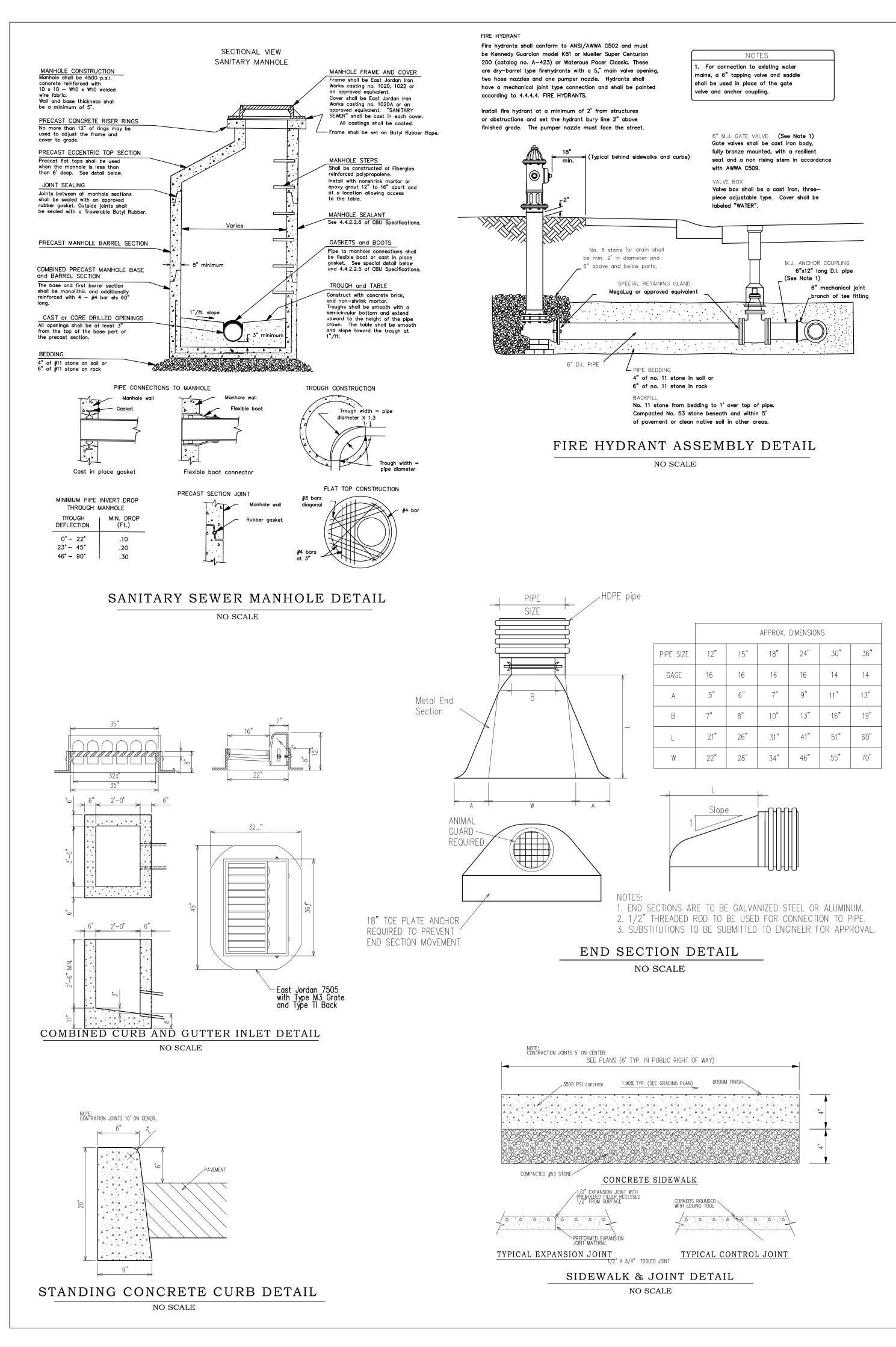
11. Backfill the trench with compacted earth or gravel.

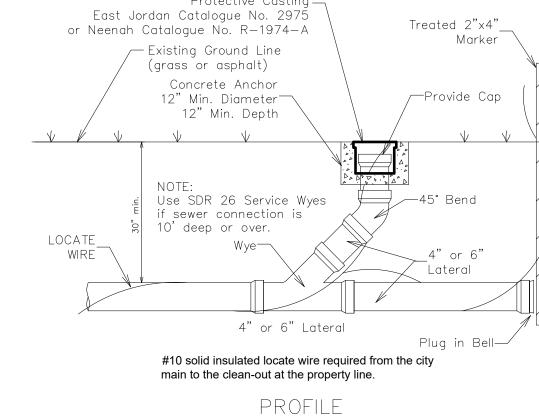
24 hours after each storm event.

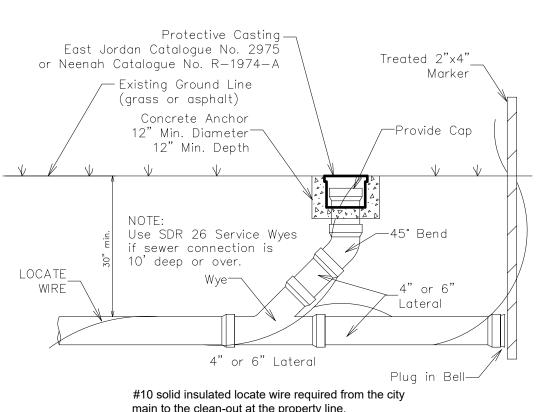
area to grade, and stabilize.

the trench and extend it toward the up-slope side of the









SANITARY SEWER CLEAN OUT

NO SCALE

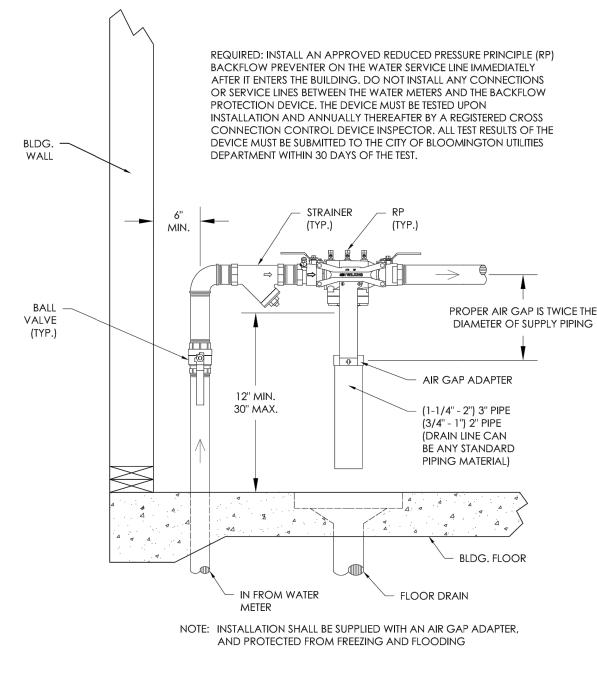
BLOCK NUMBER AND

DIRECTIONAL REQUIRED.

COORDINATE BLOCK NUMBER

WITH STREET DEPARTMENT

PRIOR TO OBTAINING SIGN.



BACKFLOW PREVENTER DETAIL NO SCALE

LENGTH NEEDED X 9"

(BLUE BACKGROUND)

(PUBLIC STREET)

SIGN POST TYPE I

STREET GUIDE SIGN D3 SHALL BE IN ACCORDANCE

CONTRACTOR TO COORDINATE SIGNAGE WITH TOWN OF

WITH TOWN OF ELLETTSVILLE SIGN DETAILS

ELLETTSVILLE PUBLIC WORKS DEPARTMENT

-R1-1 30"X30"

LENGTH NEEDED X 9"

(GREEN BACKGROUND)

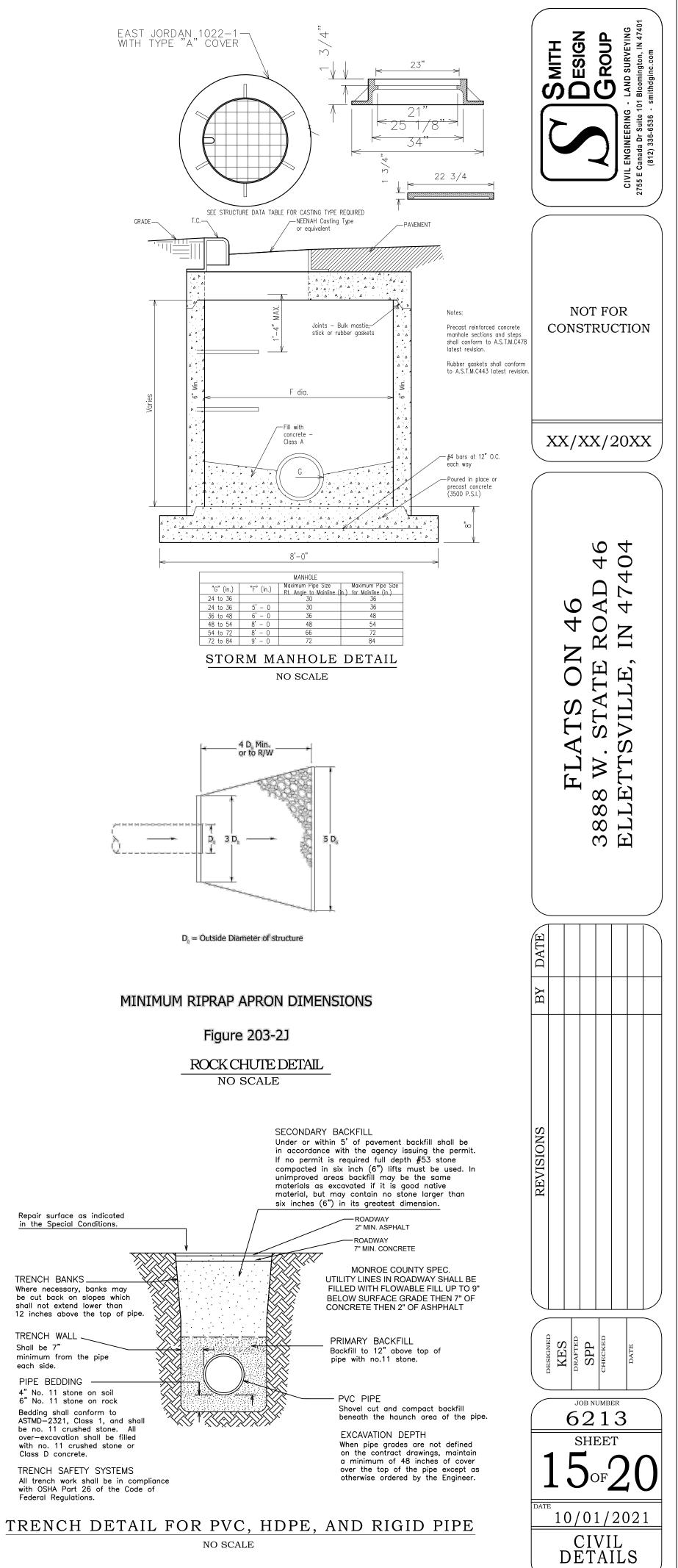
(PRIVATE INTERSECTING STREET)

STOP SIGN AND STREET SIGN DETAIL NO SCALE

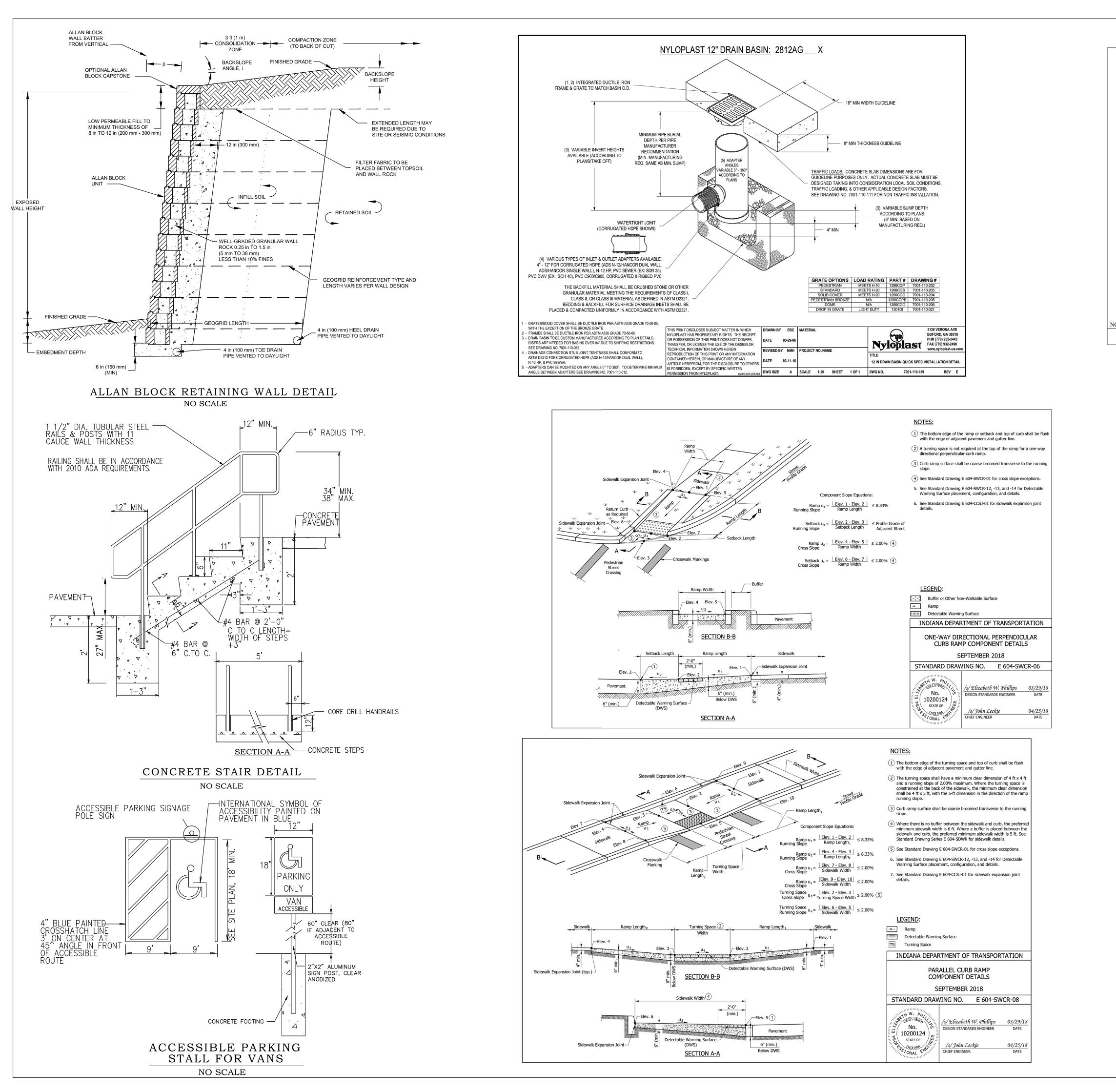
DUNN STREE

[STOP]

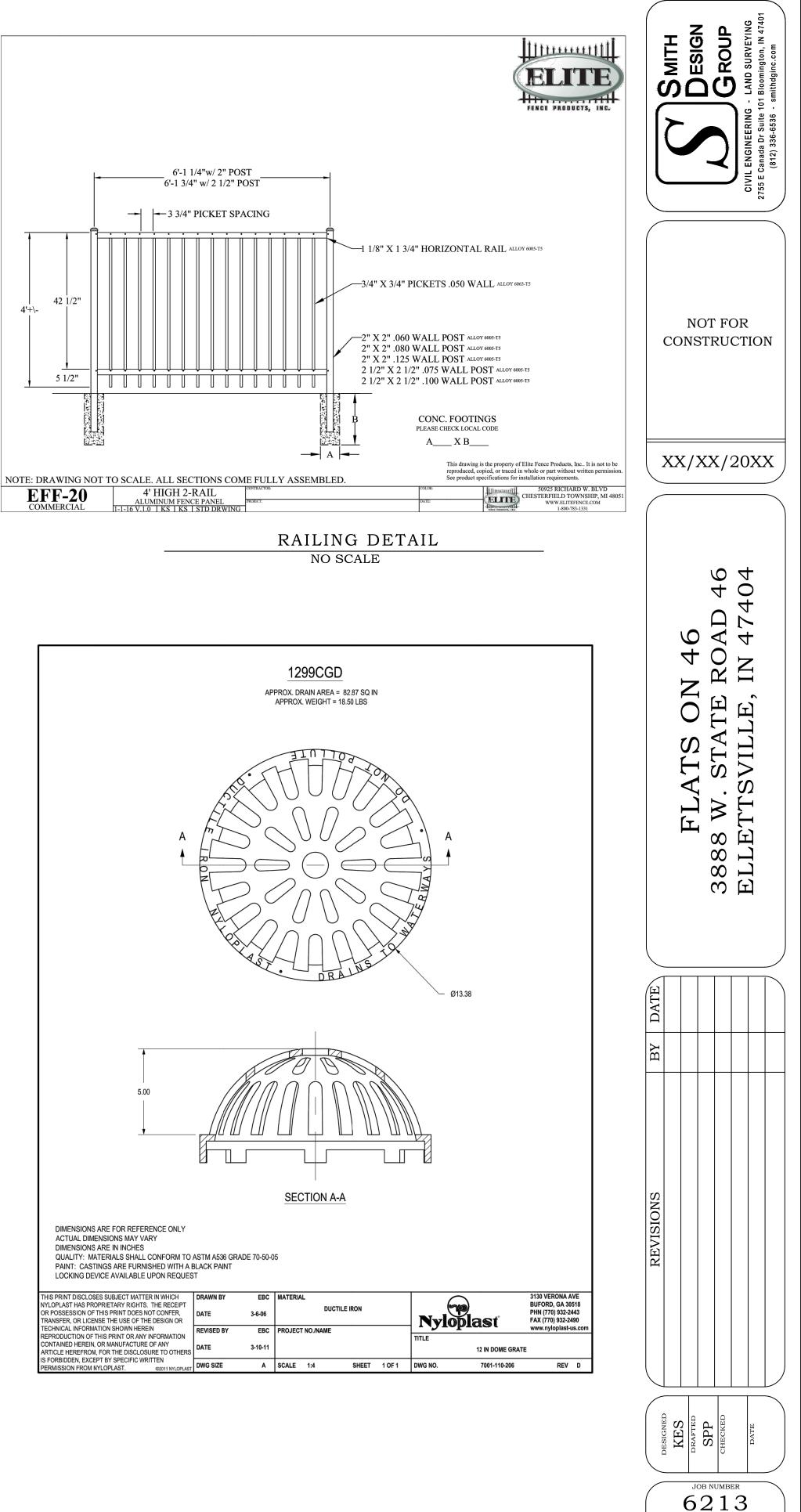
MIN.



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4'+\-

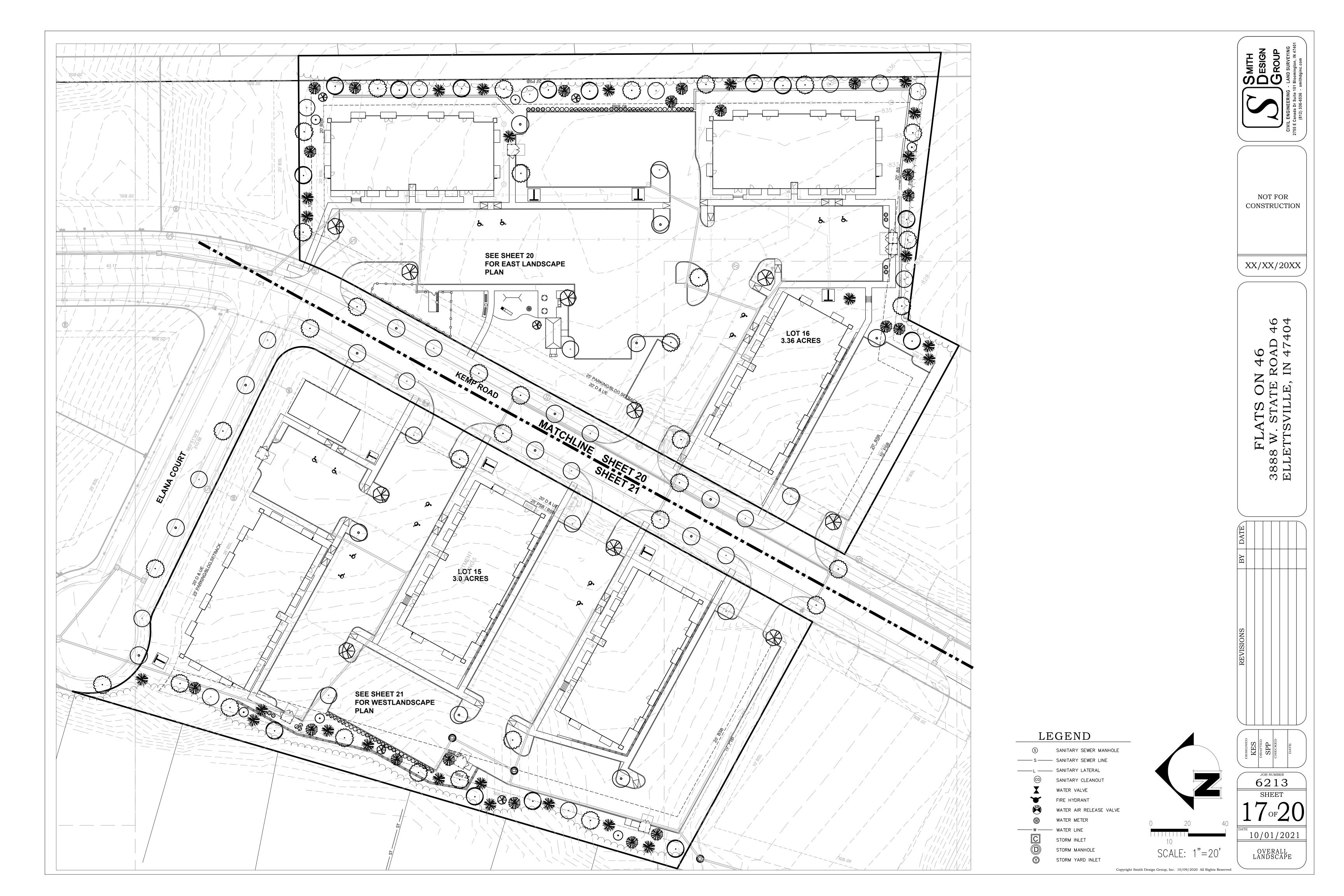


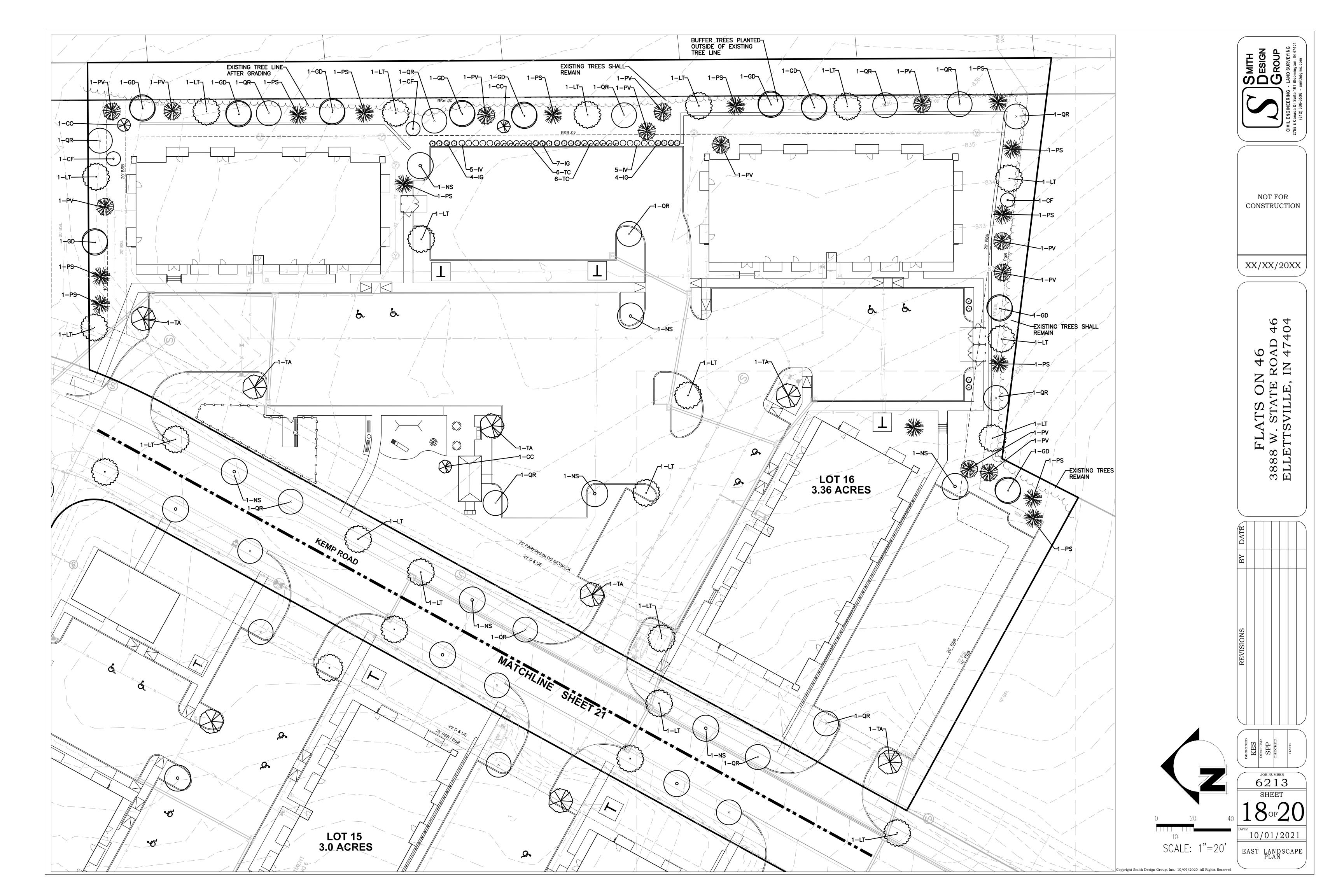
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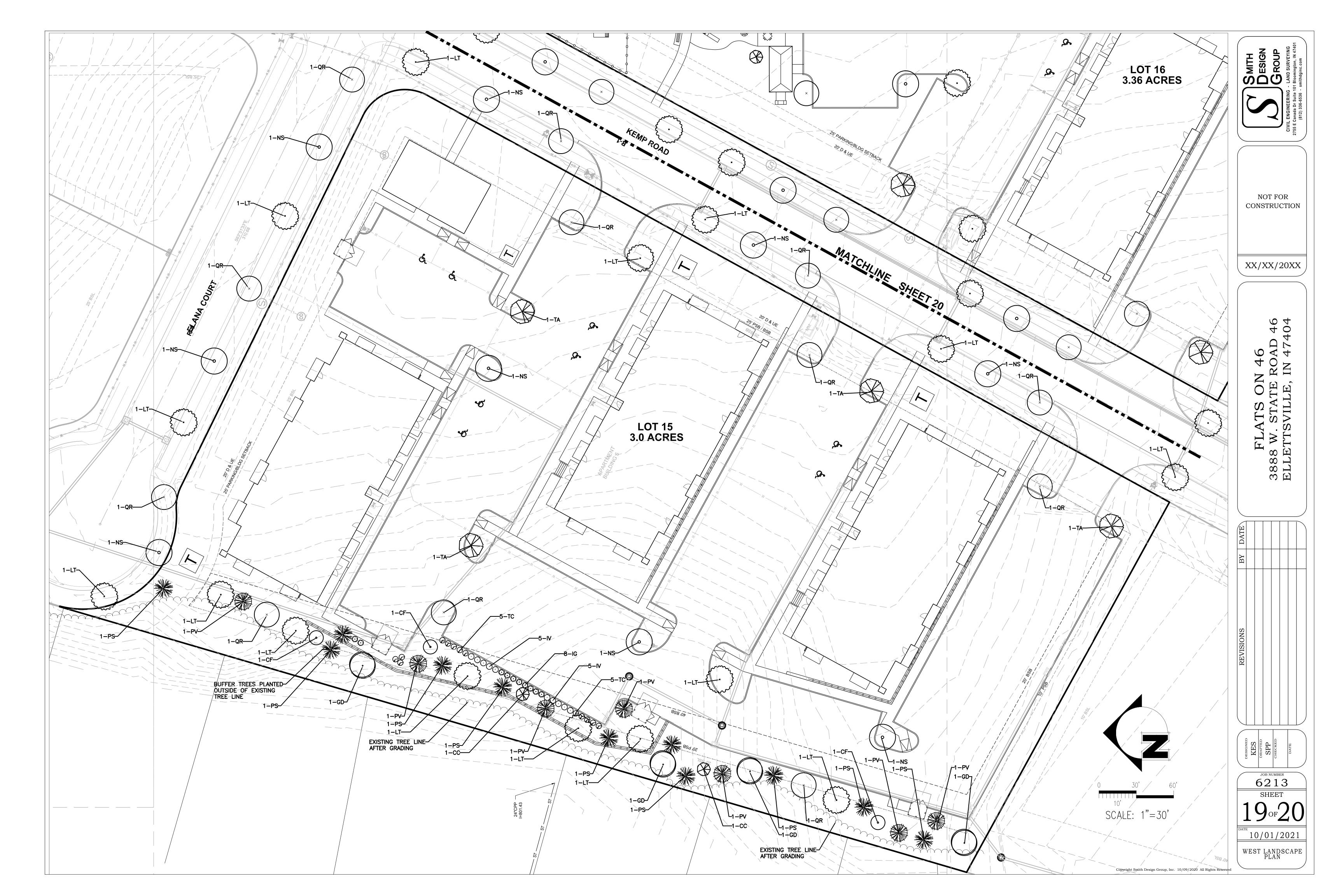
SHEET

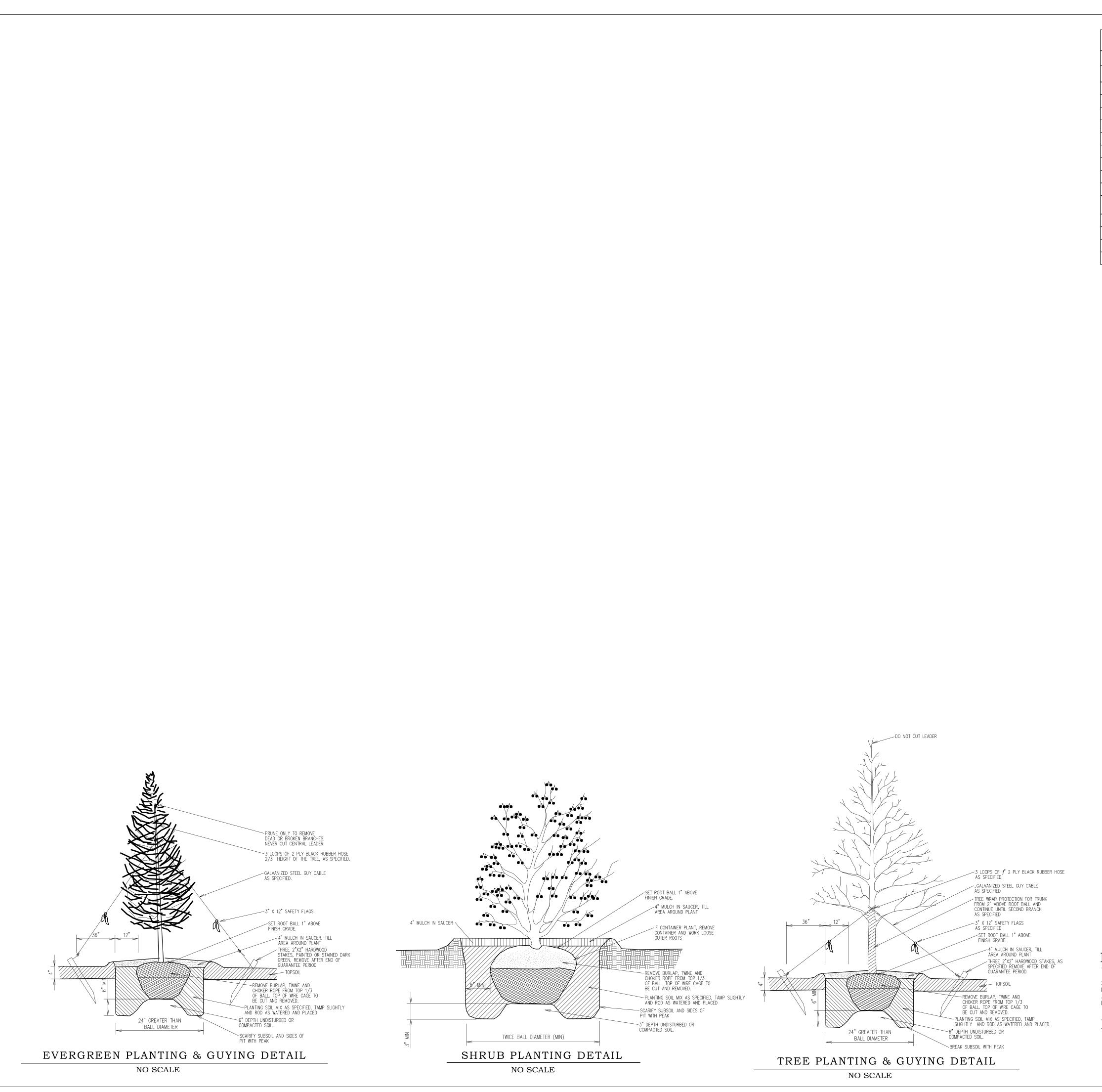
10/01/2021

CIVIL DETAILS (2)









PLANT TABLE						
КЕҮ	QTΥ	BOTANICAL NAME	COMMON NAME	SIZE	D-VALUE	
		TREES				
СС	5	CERCUS canadensis	Eastern Redbud	2" Caliper		
CF	6	CORNUS florida	Flowering Dogwood	2" Caliper		
GD	14	GYMNOCLADUS dioica	Kentucky Coffee Tree	2" Caliper		
LT	34	LIRIODENDRON tulipfera	Tulip Tree	2" Caliper		
PS	25	PINUS strobus	White Pine	6' Hgt.		
P٧	19	PINUS virginiana	Virginia Pine	6' Hgt.		
NS	16	NYSSA sylvatica	Black Tupelo	2"Caliper		
QR	26	QUERCUS rubra	Northern Red Oak	2"Caliper		
TA	10	TILIA americana	Basswood	2" Caliper		
SHRUBS						
IG	29	ILEX glabra	Inkberry	3 Gallon		
IV	20	ITEA virginica	Virginia Sweetspire	3 Gallon		
тс	25	TAXUS Canadensis	Canadian Yew	3 Gallon		

Flats on SR 46 Ellettsville

Zone PUD

Landscape Requirements Lot 16 Multi Family 3.36 Acres

Street Trees Required

1 canopy tree per 40 feet of property that abuts a public right-of-way or public street, entrance drives excluded from calculation Kemp Road = 498lf-81lf (drives)=417 LF = 11 Trees Required

Interior plantings for Multifamily Development lot 16 Lot Area 3.36 acres. Buildings, parking lots, walks, and buffer = 2.26 AC.

Area not covered = 1.1 AC Area not covered by structure, parking lot or buffer shall have 14 large canopy trees, 5 evergreen trees and 5 med or small canopy trees required.

17 large canopy trees required, 6 evergreen trees required, and 6 med or small trees required.

36 shrubs required per acre of site not covered by parking lot, walks, or structure or buffer. **40 Shrubs required**

Buffer Zone Lot 16

Existing Tree lines shall be preserved

Buffer shall be 6' high and 10 feet wide between multifamily area and single-family lots/ Buffer shall be a mix of evergreen and deciduous trees at 20' on center

Buffed Yard 944' = 48 trees required

Landscape Requirements Lot 15 Multi Family 3.0 Acres

Street Trees Required

1 canopy tree per 40 feet of property that abuts a public right-of-way or public street, entrance drives excluded from Calculation

Kemp Road = 476 lf-81 lf (drives)=395 LF = 10 Trees Required Elana Court = 349 lf = 9 trees required

Interior plantings for Multifamily Development

Lot Area 3.0 acres. Buildings, parking lots, walks, and buffer = 2.1 AC Area not covered = .9 AC

LANDSCAPE NOTES

 PLANT MATERIAL SUBSTITUTIONS MUST BE APPROVED IN WRITING BY PLANNING PRIOR TO INSTALLATION.
 ALL LANDSCAPED BEDS AND ISLANDS SHALL RECEIVE A MINIMUM OF 18" OF PLANTING MIX, 4" OF SHREDDED HARDWOOD BARK MULCH. BEDS SHALL HAVE A SPADE CUT EDGE.
 THE PROPERTY OWNERS ARE RESPONSIBLE FOR MAINTAINING EXISTING AND NEW LANDSCAPING AS SHOWN ON THE APPROVED PLAN.

FINISH LAWN TYPE

FINISHED SEED MIXTURE shall be 50 lb/ac of Perennial Ryegrass, 50 lb/ac of Certified Common Kentucky Bluegrass, and 50 lb/ac Merit Kentucky Bluegrass or approved equivalent. Contractor shall seed at a rate of 150 lbs/acre.

