

File: F:\2019\0001-0500\019-0012-B\40-Design\AutoCAD\Final Plans\Sheets\GNCA\Site Disturbance\C_GEN01_B190012.dwg ~ Layout: GENERAL NOTES ~ Last Saved By: mdielbott ~ Plot Date: 2019.10.01 03:03 PM

GENERAL NOTES:

1. THE INTENT OF THIS LAND DISTURBANCE PLAN IS TO ASSIST THE DEVELOPER IN HIS RESPONSIBILITY TO PROVIDE ALL MATERIALS, TOOLS, EQUIPMENT AND LABOR NECESSARY TO CONTROL EROSION, SILTATION AND DISCHARGES OF SOIL MATERIAL (SEDIMENT) INTO DOWNSTREAM SYSTEMS OR RECEIVING CHANNELS. THIS SHALL BE REQUIRED DURING ALL PHASES OF CONSTRUCTION AND UNTIL SUITABLE GROUND COVER IS ESTABLISHED FOR ALL DISTURBED AREAS. IF ANY METHOD OF CONTROL FAILS, THE DEVELOPER SHALL NOTIFY THE OWNER IMMEDIATELY, SO THAT THE OWNER OR HIS AGENT CAN REVIEW THE DEVELOPER'S PROPOSED METHOD OF REPAIR.

THIS PLAN INDICATES THE CRITICAL AREA(S) OF CONCERN AND THESE AREA(S) WILL BE CONTROLLED AS A MINIMUM. THE CONTROL MAY CONSIST OF TEMPORARY CONTROL MEASURES AS SHOWN ON THE PLANS OR ORDERED BY THE OWNER DURING THE LIFE OF THE CONTRACT TO CONTROL EROSION OR WATER POLLUTION, THROUGH THE USE OF BERMS, DIKES, DAMS, SEDIMENT BASINS, FIBER MATS, NETTING, STRAW BALES, GRAVEL, MULCHES, GRASSES, SLOPE DRAINS, DIVERSION SWALES OR OTHER EROSION CONTROL DEVICES OR METHODS. THE OWNER HAS THE AUTHORITY TO LIMIT THE SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY THE CONSTRUCTION OPERATIONS AND TO DIRECT THE DEVELOPER TO PROVIDE IMMEDIATE PERMANENT OR TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT STREAMS OR OTHER WATER COURSES, LAKES, PONDS, OR OTHER AREAS OF WATER IMPOUNDMENT OR CONVEYANCES.

THE TEMPORARY POLLUTION CONTROL PROVISIONS CONTAINED HEREIN SHALL BE COORDINATED WITH ANY PERMANENT EROSION CONTROL FEATURES SPECIFIED ELSEWHERE IN THE CONTRACT TO THE EXTENT PRACTICAL TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS EROSION CONTROL THROUGHOUT THE CONSTRUCTION AND POST CONSTRUCTION PERIOD.

2. THIS SEDIMENTATION CONTROL PLAN MAKES USE OF THE FOLLOWING APPLICATIONS:
- PRESERVATION OF EXISTING VEGETATION
 - SEDIMENT BARRIERS
 - SEDIMENT TRAPS
 - INLET PROTECTION
 - OUTLET PROTECTION
 - SOIL RETAINING SYSTEMS
 - SLOPE DRAINS
 - SUBSURFACE DRAINS

PHYSICAL DESCRIPTION OF EACH SPECIFIC SEDIMENT CONTROL DEVICE TO BE UTILIZED IS CALLED OUT ON THE PLANS WITH INSTALLATION PROCEDURES, CONSTRUCTION SPECIFICATIONS AND MAINTENANCE ARRANGEMENT AS CALLED FOR ON THE DETAIL SHEET. IN ADDITION TO THE MEASURES SPECIFIED, THE FOLLOWING GENERAL PRACTICES SHALL BE ADHERED TO WHEN APPLICABLE.

A) CLEARING AND GRUBBING WITHIN 50' OF A DEFINED DRAINAGE COURSE SHOULD BE AVOIDED WHEN POSSIBLE. WHERE CHANGES TO A DEFINED DRAINAGE COURSE OCCUR, WORK SHOULD BE DELAYED UNTIL ALL MATERIALS AND EQUIPMENT NECESSARY TO PROTECT AND COMPLETE THE DRAINAGE CHANGE ARE ON SITE. CHANGES SHALL BE COMPLETED AS QUICKLY AS POSSIBLE ONCE THE WORK HAS BEEN INITIATED. THE AREA IMPACTED BY THE CONSTRUCTION ACTIVITIES SHALL BE REVEGETATED OR PROTECTED FROM EROSION AS SOON AS POSSIBLE. AREAS WITHIN 50' OF A DEFINED DRAINAGE WAYS SHOULD BE RECONTOURED AS NEEDED OR OTHERWISE PROTECTED WITHIN FIVE (5) WORKING DAYS AFTER GRADING HAS CEASED.

B) WHERE SOIL DISTURBING ACTIVITIES CEASE IN AN AREA FOR MORE THAN 14 DAYS, THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE EROSION CONTROL MEASURES. IF THE SLOPE OF THE AREA IS GREATER THAN 3:1 OR IF THE SLOPE IS GREATER THAN 3% AND GREATER THAN 150 FEET IN LENGTH, THEN THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE EROSION CONTROL MEASURES IF ACTIVITIES CEASE FOR MORE THAN SEVEN (7) DAYS.

C) EXISTING VEGETATION SHALL BE PRESERVED TO THE EXTENT AND WHERE PRACTICAL. IN NO CASE SHALL DISTURBED AREAS REMAIN WITHOUT VEGETATIVE GROUND COVER FOR A PERIOD IN EXCESS OF 60 DAYS.

D) ADDITIONAL SITE MANAGEMENT PRACTICES WHICH SHALL BE ADHERED TO DURING THE CONSTRUCTION PROCESS SHALL INCLUDE:

SOLID AND HAZARDOUS WASTE MANAGEMENT INCLUDING PROVIDING TRASH CONTAINERS AND REGULAR SITE CLEAN UP FOR PROPER DISPOSAL OF SOLID WASTE SUCH AS BUILDING MATERIAL, PRODUCT/MATERIAL SHIPPING WASTE, FOOD CONTAINERS AND CUPS, AND PROVIDING CONTAINERS FOR THE PROPER DISPOSAL OF WASTE PAINTS SOLVENTS, AND CLEANING COMPOUNDS.

PROVISIONS OF PORTABLE TOILETS FOR PROPER DISPOSAL OF SANITARY SEWAGE.

STORAGE OF CONSTRUCTION MATERIALS AWAY FROM DRAINAGE COURSES AND LOW AREAS.

INSTALLATION OF CONTAINMENT BERMS AND USE OF DRIP PANS AT PETROLEUM PRODUCT AND LIQUID STORAGE TANKS AND CONTAINERS.

3. ALL DISTURBED AREAS SHALL BE SEEDED, FERTILIZED AND MULCHED, OR SODDED, IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS ADOPTED BY THE CITY OF LEE'S SUMMIT AND GOOD ENGINEERING PRACTICES. THIS SHALL BE COMPLETED WITHIN FOURTEEN (14) DAYS AFTER COMPLETING THE WORK, IN ANY AREA. IF THIS IS OUTSIDE OF THE SEEDING PERIOD, SILT BARRIERS OR OTHER SIMILARLY EFFECTIVE MEASURES SHALL BE PROVIDED UNTIL SUCH TIME THAT THE AREAS CAN BE SEEDED.

4. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO ALL CURRENT STANDARDS AND SPECIFICATIONS ADOPTED BY THE CITY OF LEE'S SUMMIT. THE DEVELOPER WILL BE RESPONSIBLE FOR DETERMINING ALL ADDITIONAL STANDARDS, SPECIFICATIONS OR REQUIREMENTS WHICH ARE REQUIRED BY GOVERNING AGENCIES (INCLUDING LOCAL, STATE AND FEDERAL AUTHORITIES) HAVING JURISDICTION OVER THE WORK PROPOSED BY THESE CONSTRUCTION DRAWINGS.

5. ALL EROSION CONTROL MEASURES, TEMPORARY OR PERMANENT, REQUIRE MAINTENANCE TO PRESERVE THEIR EFFECTIVENESS. ALL EROSION CONTROL DEVICES SHALL BE INSPECTED IMMEDIATELY AFTER EACH HEAVY RAINSTORM AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHOULD BE MADE IMMEDIATELY. ALL COSTS ASSOCIATED WITH THE REPAIR WORK INCLUDING RELATED INCIDENTALS WILL BE THE DEVELOPER'S RESPONSIBILITY AND SHALL BE INCLUDED IN THE DEVELOPER'S BID FOR THE PROPOSED WORK.

6. ALL EROSION CONTROL MEASURES TO BE PER APWA KANSAS CITY METRO CHAPTER STANDARD DETAILS.

7. THE DEVELOPER MUST REMOVE AT HIS COST ANY BAD SUBSURFACE SOIL WHICH WOULD NOT BE ABLE TO SUPPORT ANY PROPOSED PUBLIC IMPROVEMENT. BACKFILL SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL SECTIONS 2100 AND 2201 ENTITLED "GRADING AND SITE PREPARATION" AND "SUBGRADE PREPARATION".

8. THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTORS 48 HOURS PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200

9. TREE CLEARING TO HAPPEN BETWEEN NOVEMBER 1 AND MARCH 31. TREES CLEARED BETWEEN APRIL 1 AND OCTOBER 31 MUST BE TREES GREATER THAN 1,000 FEET FROM FORESTED OR WOODED AREAS OR TREES LESS THAN 3 INCHES IN DIAMETER, AT BREAST HEIGHT, AND NOT MIXED WITH LARGER TREES. IF LARGER TREES NEED TO BE CLEARED, A SURVEY OF THE TREES MUST BE CONDUCTED TO MAKE SURE THERE ARE NO BAT ROOSTS IN THE TREES. TREE CLEARING TO BE CONDUCTED BY CUTTING DOWN AND MULCHING OR BY PUSHING OVER AND MULCHING. TREES SHALL NOT BE BURNED DOWN.

ESTIMATE OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	AS-BUILT
PRIVATE GRADING				
1	EXCAVATION	C.Y.	119,945	
2	EMBANKMENT	C.Y.	78,200	
PUBLIC GRADING				
3	EXCAVATION	C.Y.	853	
4	EMBANKMENT	C.Y.	4,803	
SITE DISTURBANCE				
5	INLET PROTECTION	EA	85	
6	SILT FENCE	L.F.	2,463	
7	DIVERSION BERM	L.F.	2,991	
8	VEHICLE TRACKING CONTROL	EA	2	
9	CONCRETE WASHOUT	EA	2	
10	ROCK DITCH CHECK	EA	74	
11	SEDIMENT TRAP	EA	7	
12	SOIL STABILIZATION BLANKET	S.Y.	9642	
13	SEED & MULCH	AC.	12.79	
14	DISTURBED AREA	AC.	24.55	
15	TREE CLEARING	AC.	1.60	

SUMMARY OF QUANTITIES AS INDICATED ABOVE AND ANY QUANTITIES AS SHOWN WITHIN THE PLANS HAVE BEEN PROVIDED FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR USE IN PREPARATION OF CONTRACT DOCUMENTS. QUANTITIES INTENDED FOR, BUT NOT LIMITED TO, THE PREPARATION OF PROPOSALS AND BID DOCUMENTS SHALL BE INDEPENDENTLY EVALUATED BY THE ESTIMATING PARTY BASED UPON THE CONTENTS OF THESE PLANS.

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MO# 2015000555

GENERAL NOTES
SITE GRADING & SITE DISTURBANCE PLANS

ARIA APARTMENTS
PHASE 1

LEE'S SUMMIT, MO

REVISIONS DESCRIPTION

NO. REV.

DATE

REVISIONS PER CITY COMMENTS

BY

2020.07.22

REVISIONS

2020

drawn by: M.J.D.

checked by: N.D.H.

designed by: M.J.D.

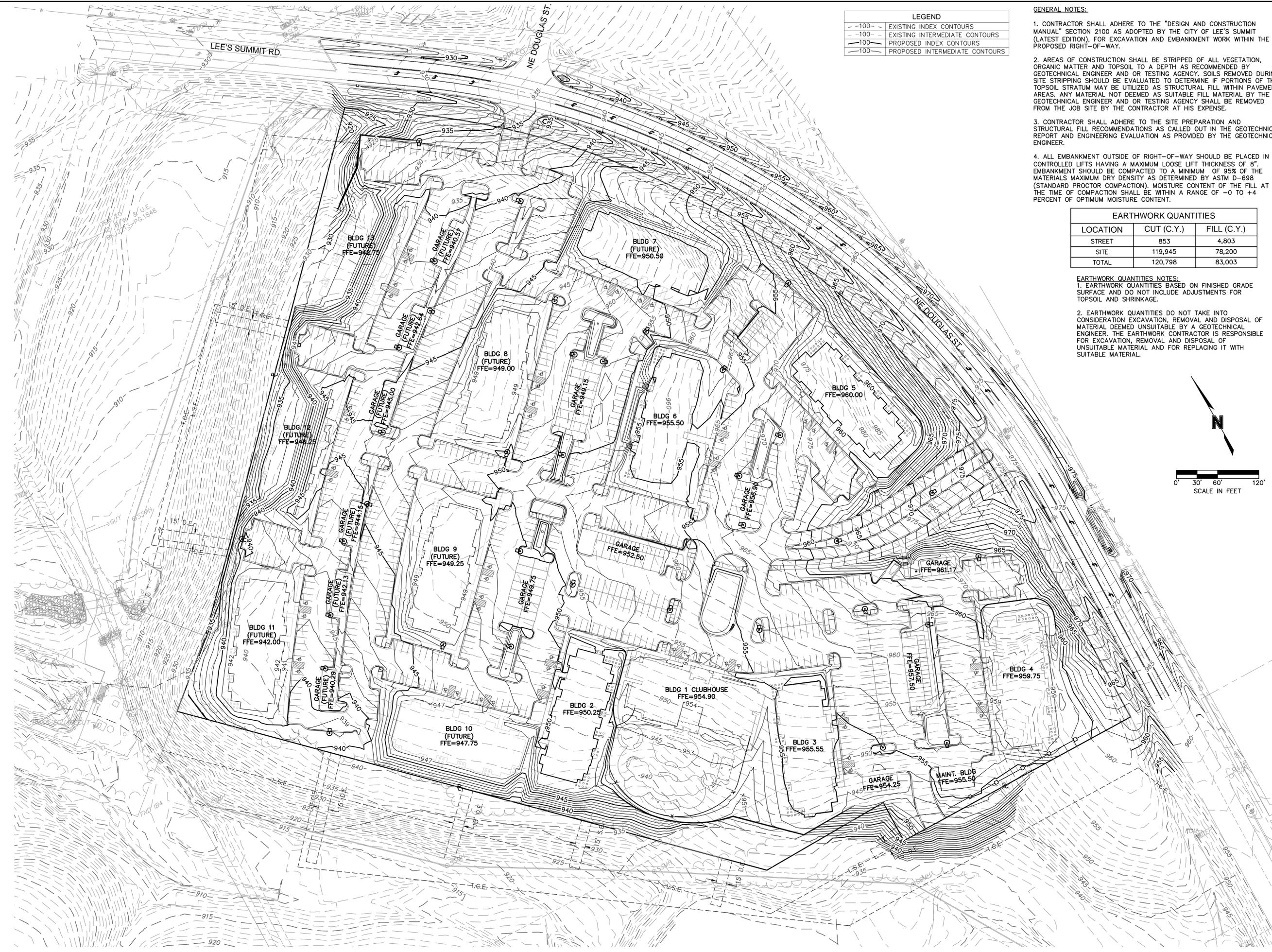
QA/QC by: N.D.H.

project no.: 019-0012-B

date: 2020.06.12

SHEET
C101

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LEGEND

- 100- EXISTING INDEX CONTOURS
- 100 EXISTING INTERMEDIATE CONTOURS
- 100 PROPOSED INDEX CONTOURS
- 100 PROPOSED INTERMEDIATE CONTOURS

- GENERAL NOTES:**
- CONTRACTOR SHALL ADHERE TO THE "DESIGN AND CONSTRUCTION MANUAL" SECTION 2100 AS ADOPTED BY THE CITY OF LEE'S SUMMIT (LATEST EDITION), FOR EXCAVATION AND EMBANKMENT WORK WITHIN THE PROPOSED RIGHT-OF-WAY.
 - AREAS OF CONSTRUCTION SHALL BE STRIPPED OF ALL VEGETATION, ORGANIC MATTER AND TOPSOIL TO A DEPTH AS RECOMMENDED BY GEOTECHNICAL ENGINEER AND OR TESTING AGENCY. SOILS REMOVED DURING SITE STRIPPING SHOULD BE EVALUATED TO DETERMINE IF PORTIONS OF THE TOPSOIL STRATUM MAY BE UTILIZED AS STRUCTURAL FILL WITHIN PAVEMENT AREAS. ANY MATERIAL NOT DEEMED AS SUITABLE FILL MATERIAL BY THE GEOTECHNICAL ENGINEER AND OR TESTING AGENCY SHALL BE REMOVED FROM THE JOB SITE BY THE CONTRACTOR AT HIS EXPENSE.
 - CONTRACTOR SHALL ADHERE TO THE SITE PREPARATION AND STRUCTURAL FILL RECOMMENDATIONS AS CALLED OUT IN THE GEOTECHNICAL REPORT AND ENGINEERING EVALUATION AS PROVIDED BY THE GEOTECHNICAL ENGINEER.
 - ALL EMBANKMENT OUTSIDE OF RIGHT-OF-WAY SHOULD BE PLACED IN CONTROLLED LIFTS HAVING A MAXIMUM LOOSE LIFT THICKNESS OF 8". EMBANKMENT SHOULD BE COMPACTED TO A MINIMUM OF 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-698 (STANDARD PROCTOR COMPACTION). MOISTURE CONTENT OF THE FILL AT THE TIME OF COMPACTION SHALL BE WITHIN A RANGE OF -0 TO +4 PERCENT OF OPTIMUM MOISTURE CONTENT.

EARTHWORK QUANTITIES

LOCATION	CUT (C.Y.)	FILL (C.Y.)
STREET	853	4,803
SITE	119,945	78,200
TOTAL	120,798	83,003

- EARTHWORK QUANTITIES NOTES:**
- EARTHWORK QUANTITIES BASED ON FINISHED GRADE SURFACE AND DO NOT INCLUDE ADJUSTMENTS FOR TOPSOIL AND SHRINKAGE.
 - EARTHWORK QUANTITIES DO NOT TAKE INTO CONSIDERATION EXCAVATION, REMOVAL AND DISPOSAL OF MATERIAL DEEMED UNSUITABLE BY A GEOTECHNICAL ENGINEER. THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR EXCAVATION, REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL AND FOR REPLACING IT WITH SUITABLE MATERIAL.

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MO# 2015000555

NO. REV.	DATE	REVISIONS PER CITY COMMENTS	REVISIONS DESCRIPTION	BY

GRADING PLAN
SITE GRADING & SITE DISTURBANCE PLANS

2020

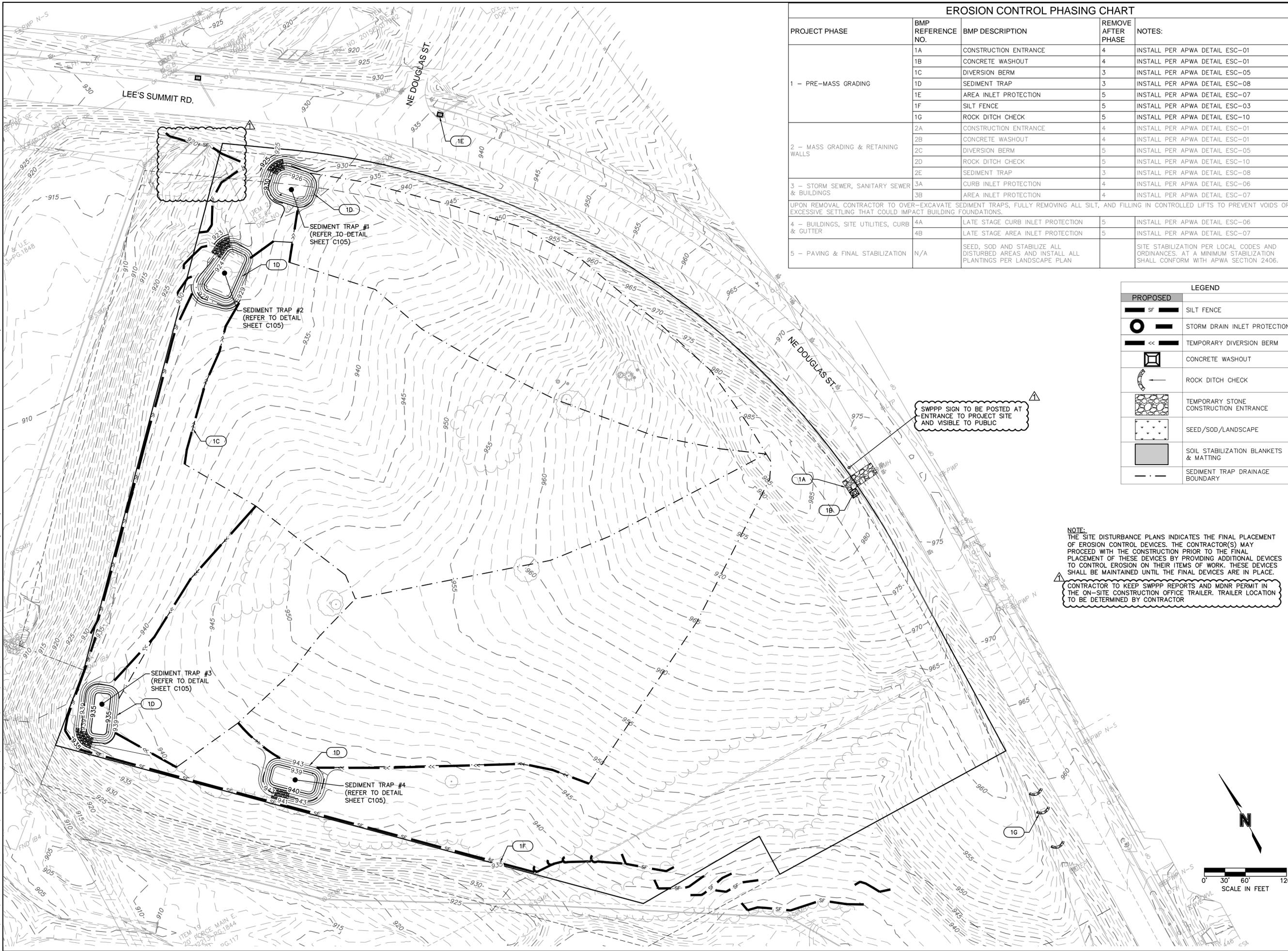
ARIA APARTMENTS
PHASE 1

LEE'S SUMMIT, MO

drawn by: M.J.D.
checked by: N.D.H.
designed by: M.J.D.
QA/QC by: N.D.H.
project no.: 019-0012-B
date: 2020.06.12

SHEET
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EROSION CONTROL PHASING CHART

PROJECT PHASE	BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER PHASE	NOTES:
1 - PRE-MASS GRADING	1A	CONSTRUCTION ENTRANCE	4	INSTALL PER APWA DETAIL ESC-01
	1B	CONCRETE WASHOUT	4	INSTALL PER APWA DETAIL ESC-01
	1C	DIVERSION BERM	3	INSTALL PER APWA DETAIL ESC-05
	1D	SEDIMENT TRAP	3	INSTALL PER APWA DETAIL ESC-08
	1E	AREA INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-07
	1F	SILT FENCE	5	INSTALL PER APWA DETAIL ESC-03
	1G	ROCK DITCH CHECK	5	INSTALL PER APWA DETAIL ESC-10
2 - MASS GRADING & RETAINING WALLS	2A	CONSTRUCTION ENTRANCE	4	INSTALL PER APWA DETAIL ESC-01
	2B	CONCRETE WASHOUT	4	INSTALL PER APWA DETAIL ESC-01
	2C	DIVERSION BERM	5	INSTALL PER APWA DETAIL ESC-05
	2D	ROCK DITCH CHECK	5	INSTALL PER APWA DETAIL ESC-10
3 - STORM SEWER, SANITARY SEWER & BUILDINGS	3A	CURB INLET PROTECTION	4	INSTALL PER APWA DETAIL ESC-06
	3B	AREA INLET PROTECTION	4	INSTALL PER APWA DETAIL ESC-07
UPON REMOVAL CONTRACTOR TO OVER-EXCAVATE SEDIMENT TRAPS, FULLY REMOVING ALL SILT, AND FILLING IN CONTROLLED LIFTS TO PREVENT VOIDS OR EXCESSIVE SETTLING THAT COULD IMPACT BUILDING FOUNDATIONS.				
4 - BUILDINGS, SITE UTILITIES, CURB & GUTTER	4A	LATE STAGE CURB INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-06
	4B	LATE STAGE AREA INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-07
5 - PAVING & FINAL STABILIZATION	N/A	SEED, SOD AND STABILIZE ALL DISTURBED AREAS AND INSTALL ALL PLANTINGS PER LANDSCAPE PLAN		SITE STABILIZATION PER LOCAL CODES AND ORDINANCES. AT A MINIMUM STABILIZATION SHALL CONFORM WITH APWA SECTION 2406.

LEGEND	
	SILT FENCE
	STORM DRAIN INLET PROTECTION
	TEMPORARY DIVERSION BERM
	CONCRETE WASHOUT
	ROCK DITCH CHECK
	TEMPORARY STONE CONSTRUCTION ENTRANCE
	SEED/SOD/LANDSCAPE
	SOIL STABILIZATION BLANKETS & MATTING
	SEDIMENT TRAP DRAINAGE BOUNDARY

NOTE:
THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE CONSTRUCTION PRIOR TO THE FINAL PLACEMENT OF THESE DEVICES BY PROVIDING ADDITIONAL DEVICES TO CONTROL EROSION ON THEIR ITEMS OF WORK. THESE DEVICES SHALL BE MAINTAINED UNTIL THE FINAL DEVICES ARE IN PLACE.

CONTRACTOR TO KEEP SWPPP REPORTS AND MDNR PERMIT IN THE ON-SITE CONSTRUCTION OFFICE TRAILER. TRAILER LOCATION TO BE DETERMINED BY CONTRACTOR



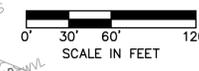
NICHOLAS D. HEISER, P.E.
MO# 2015000555

NO.	REV.	DATE	REVISIONS DESCRIPTION
1		2020.07.22	REVISIONS PER CITY COMMENTS

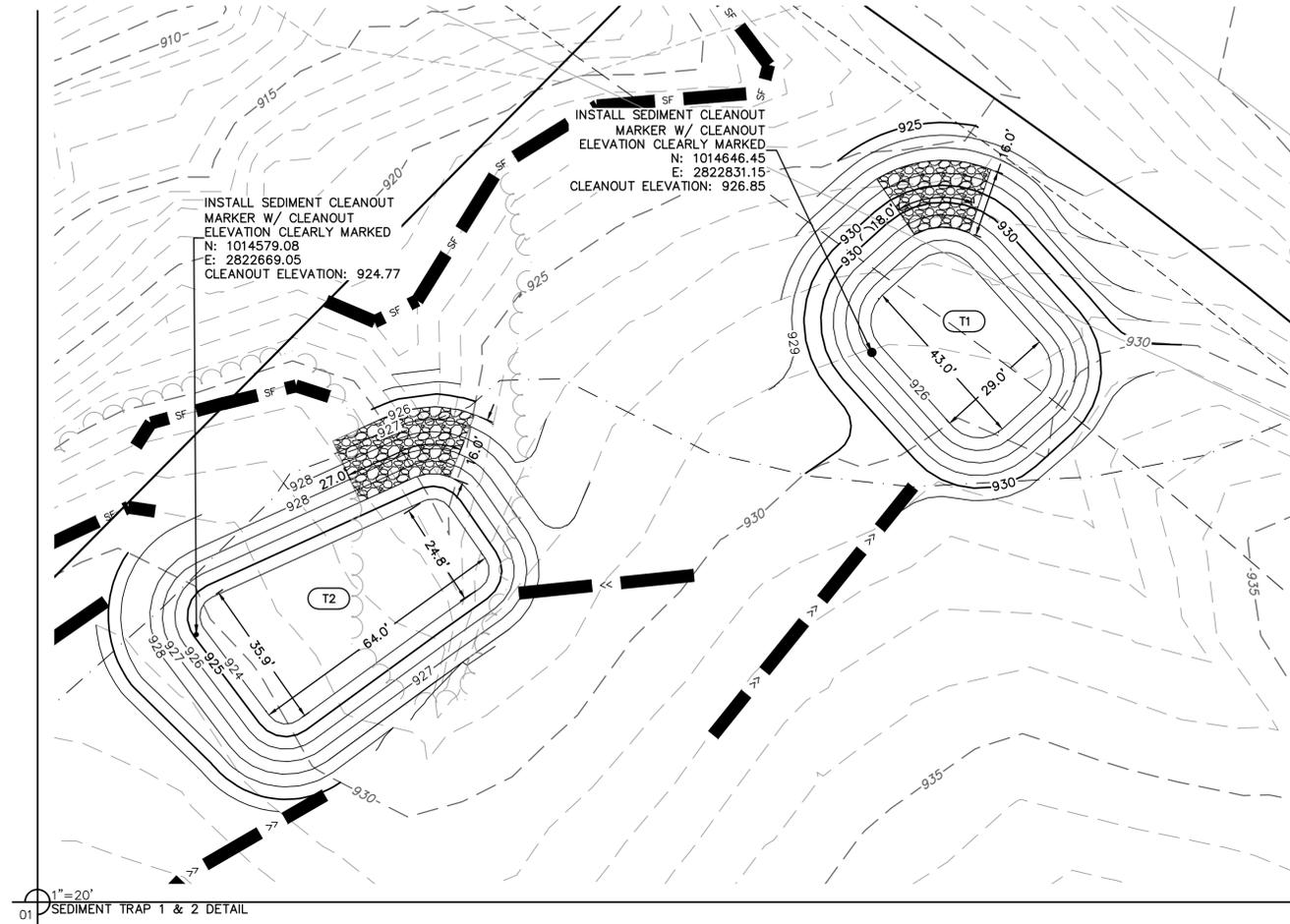
EROSION CONTROL PLAN - PHASE 1
SITE GRADING & SITE DISTURBANCE PLANS
ARIA APARTMENTS
PHASE 1
LEE'S SUMMIT, MO

SHEET C104

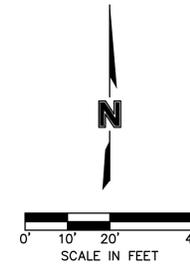
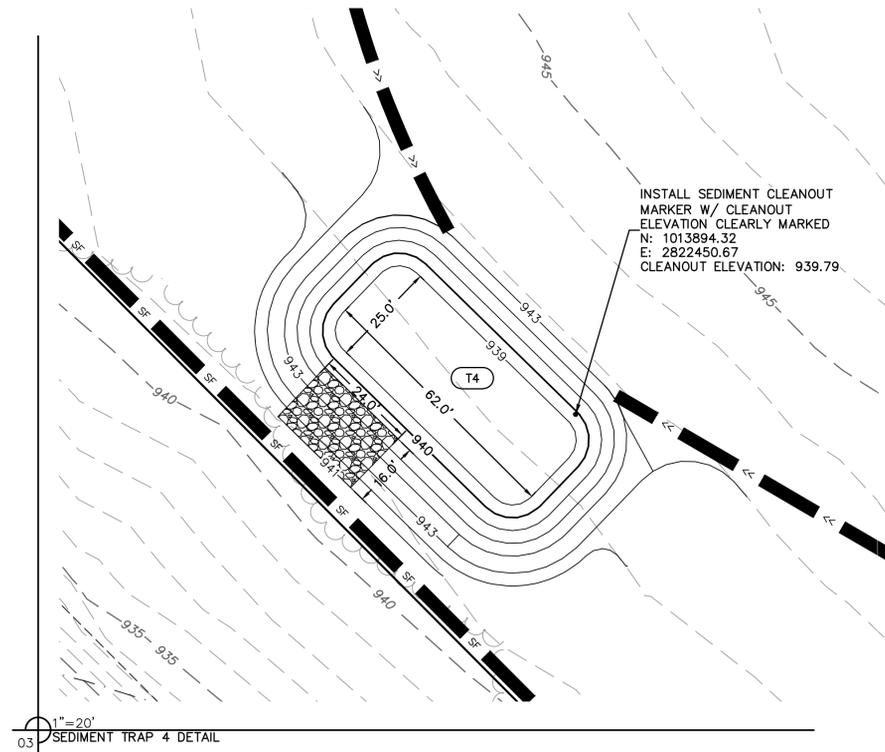
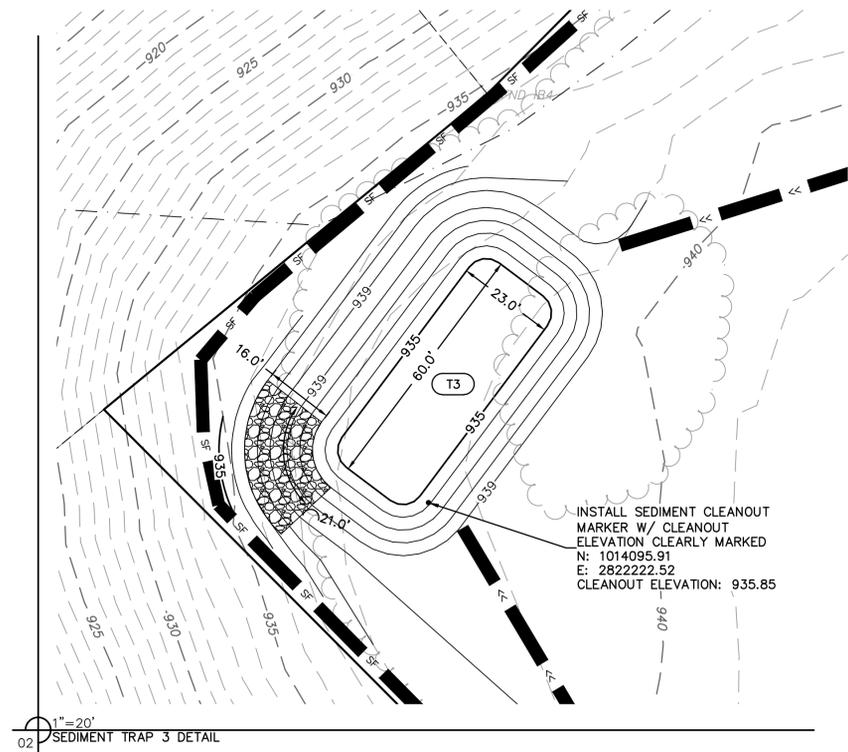
drawn by: M.J.D.
checked by: N.D.H.
designed by: M.J.D.
QA/QC by: N.D.H.
project no.: 019-0012-B
date: 2020.06.12



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TRAP	TRIBUTARY AREA (AC.)	REQUIRED VOLUME (C.F.)	BOTTOM ELEVATION (FT.)	BERM HEIGHT "H" (FT.)	SPILLWAY HEIGHT "H ₀ " (FT.)	STORAGE VOLUME (C.F.)	BERM TOP WIDTH "W" (MIN.) (FT.)	BERM TOP ELEVATION (FT.)	SPILLWAY LENGTH (FT.)	EXCAVATED DEPTH (FT.)	EXCAVATED VOLUME (C.F.)	SEDIMENT CLEANOUT VOLUME (C.F.)	SEDIMENT CLEANOUT ELEVATION (FT.)
1	3.00	5400.00	926	3	2	5553.17	2.5	930	18	4	2891.05	1110.63	926.85
2	4.70	8460.00	924	3	2	8525.72	2.5	928	29	4	4199.50	1705.14	924.77
3	3.50	6300.00	935	2	1	6448.12	2	939	21	4	3358.43	1289.62	935.85
4	3.85	6930.00	939	2	1	7015.97	2	943	24	4	3584.98	1403.19	939.79



LEGEND	
PROPOSED	
SF	SILT FENCE
<<	TEMPORARY DIVERSION BERM
(Rock pattern)	SEDIMENT TRAP ROCK SPILLWAY

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NICHOLAS D. HEISER, P.E.
MO# 2015000555

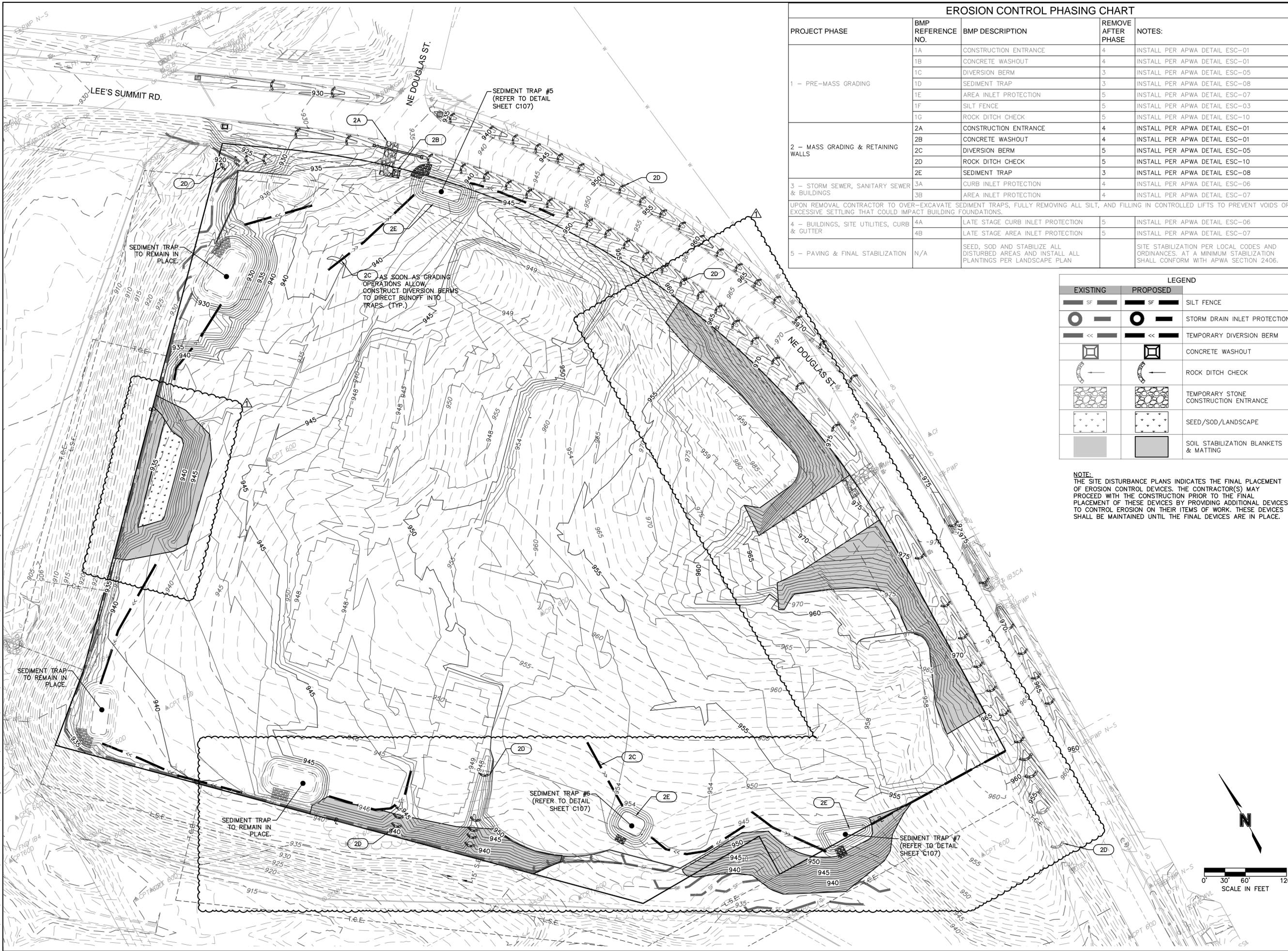
NO. REV.	DATE	REVISIONS DESCRIPTION
1	2020.07.22	REVISIONS PER CITY COMMENTS

EROSION CONTROL PLAN - PHASE 1 DETAILS
SITE GRADING & SITE DISTURBANCE PLANS
ARIA APARTMENTS
PHASE 1
LEE'S SUMMIT, MO 2020

drawn by: M.J.D.
checked by: N.D.H.
designed by: M.J.D.
QA/QC by: N.D.H.
project no.: 019-0012-B
date: 2020.06.12

SHEET C105

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EROSION CONTROL PHASING CHART

PROJECT PHASE	BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER PHASE	NOTES:
1 - PRE-MASS GRADING	1A	CONSTRUCTION ENTRANCE	4	INSTALL PER APWA DETAIL ESC-01
	1B	CONCRETE WASHOUT	4	INSTALL PER APWA DETAIL ESC-01
	1C	DIVERSION BERM	3	INSTALL PER APWA DETAIL ESC-05
	1D	SEDIMENT TRAP	3	INSTALL PER APWA DETAIL ESC-08
	1E	AREA INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-07
	1F	SILT FENCE	5	INSTALL PER APWA DETAIL ESC-03
	1G	ROCK DITCH CHECK	5	INSTALL PER APWA DETAIL ESC-10
2 - MASS GRADING & RETAINING WALLS	2A	CONSTRUCTION ENTRANCE	4	INSTALL PER APWA DETAIL ESC-01
	2B	CONCRETE WASHOUT	4	INSTALL PER APWA DETAIL ESC-01
	2C	DIVERSION BERM	5	INSTALL PER APWA DETAIL ESC-05
	2D	ROCK DITCH CHECK	5	INSTALL PER APWA DETAIL ESC-10
	2E	SEDIMENT TRAP	3	INSTALL PER APWA DETAIL ESC-08
3 - STORM SEWER, SANITARY SEWER & BUILDINGS	3A	CURB INLET PROTECTION	4	INSTALL PER APWA DETAIL ESC-06
	3B	AREA INLET PROTECTION	4	INSTALL PER APWA DETAIL ESC-07
UPON REMOVAL CONTRACTOR TO OVER-EXCAVATE SEDIMENT TRAPS, FULLY REMOVING ALL SILT, AND FILLING IN CONTROLLED LIFTS TO PREVENT VOIDS OR EXCESSIVE SETTLING THAT COULD IMPACT BUILDING FOUNDATIONS.				
4 - BUILDINGS, SITE UTILITIES, CURB & GUTTER	4A	LATE STAGE CURB INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-06
	4B	LATE STAGE AREA INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-07
5 - PAVING & FINAL STABILIZATION	N/A	SEED, SOD AND STABILIZE ALL DISTURBED AREAS AND INSTALL ALL PLANTINGS PER LANDSCAPE PLAN		SITE STABILIZATION PER LOCAL CODES AND ORDINANCES. AT A MINIMUM STABILIZATION SHALL CONFORM WITH APWA SECTION 2406.

EXISTING		PROPOSED		
	SF		SF	SILT FENCE
				STORM DRAIN INLET PROTECTION
				TEMPORARY DIVERSION BERM
				CONCRETE WASHOUT
				ROCK DITCH CHECK
				TEMPORARY STONE CONSTRUCTION ENTRANCE
				SEED/SOD/LANDSCAPE
				SOIL STABILIZATION BLANKETS & MATTING

NOTE:
THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE CONSTRUCTION PRIOR TO THE FINAL PLACEMENT OF THESE DEVICES BY PROVIDING ADDITIONAL DEVICES TO CONTROL EROSION ON THEIR ITEMS OF WORK. THESE DEVICES SHALL BE MAINTAINED UNTIL THE FINAL DEVICES ARE IN PLACE.

OLSSON - CIVIL ENGINEERING
REGISTERED PROFESSIONAL ENGINEER
NO. 07222020
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STATE OF MISSOURI

NICHOLAS D. HEISER, P.E.

NUMBER 07222020

PE-2019000555

REGISTERED PROFESSIONAL ENGINEER

BY: _____

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1	2020.07.22	REVISIONS PER CITY COMMENTS

EROSION CONTROL PLAN - PHASE 2

SITE GRADING & SITE DISTURBANCE PLANS

2020

LEE'S SUMMIT, MO

drawn by: _____ M.J.D.

checked by: _____ N.D.H.

designed by: _____ M.J.D.

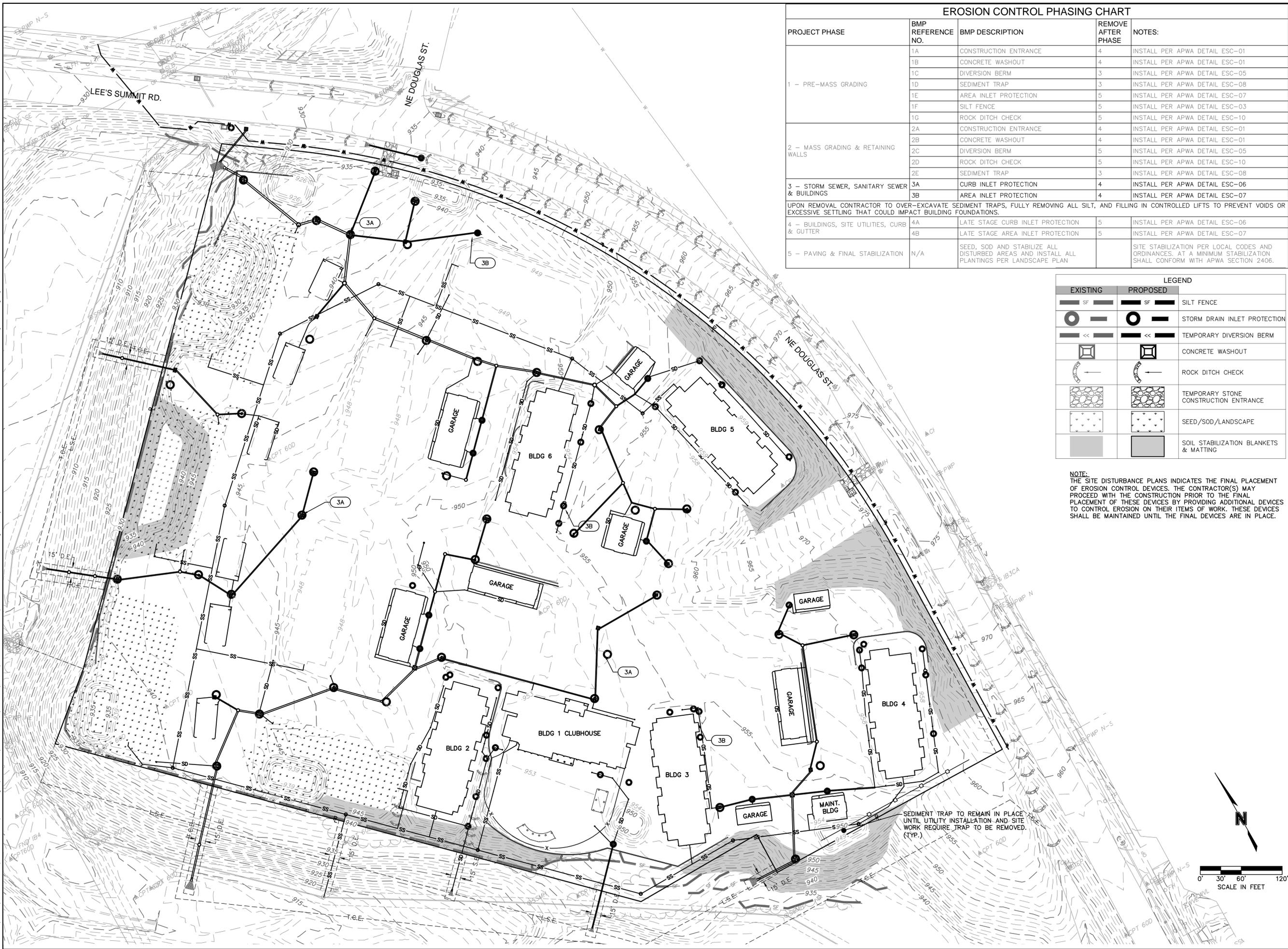
QA/QC by: _____ N.D.H.

project no.: 019-0012-B

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EROSION CONTROL PHASING CHART

PROJECT PHASE	BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER PHASE	NOTES:
1 - PRE-MASS GRADING	1A	CONSTRUCTION ENTRANCE	4	INSTALL PER APWA DETAIL ESC-01
	1B	CONCRETE WASHOUT	4	INSTALL PER APWA DETAIL ESC-01
	1C	DIVERSION BERM	3	INSTALL PER APWA DETAIL ESC-05
	1D	SEDIMENT TRAP	3	INSTALL PER APWA DETAIL ESC-08
	1E	AREA INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-07
	1F	SILT FENCE	5	INSTALL PER APWA DETAIL ESC-03
	1G	ROCK DITCH CHECK	5	INSTALL PER APWA DETAIL ESC-10
2 - MASS GRADING & RETAINING WALLS	2A	CONSTRUCTION ENTRANCE	4	INSTALL PER APWA DETAIL ESC-01
	2B	CONCRETE WASHOUT	4	INSTALL PER APWA DETAIL ESC-01
	2C	DIVERSION BERM	5	INSTALL PER APWA DETAIL ESC-05
	2D	ROCK DITCH CHECK	5	INSTALL PER APWA DETAIL ESC-10
3 - STORM SEWER, SANITARY SEWER & BUILDINGS	2E	SEDIMENT TRAP	3	INSTALL PER APWA DETAIL ESC-08
	3A	CURB INLET PROTECTION	4	INSTALL PER APWA DETAIL ESC-06
	3B	AREA INLET PROTECTION	4	INSTALL PER APWA DETAIL ESC-07
UPON REMOVAL CONTRACTOR TO OVER-EXCAVATE SEDIMENT TRAPS, FULLY REMOVING ALL SILT, AND FILLING IN CONTROLLED LIFTS TO PREVENT VOIDS OR EXCESSIVE SETTLING THAT COULD IMPACT BUILDING FOUNDATIONS.				
4 - BUILDINGS, SITE UTILITIES, CURB & GUTTER	4A	LATE STAGE CURB INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-06
	4B	LATE STAGE AREA INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-07
5 - PAVING & FINAL STABILIZATION	N/A	SEED, SOD AND STABILIZE ALL DISTURBED AREAS AND INSTALL ALL PLANTINGS PER LANDSCAPE PLAN		SITE STABILIZATION PER LOCAL CODES AND ORDINANCES. AT A MINIMUM STABILIZATION SHALL CONFORM WITH APWA SECTION 2406.

EXISTING		PROPOSED		
	SF		SF	SILT FENCE
				STORM DRAIN INLET PROTECTION
	<<		<<	TEMPORARY DIVERSION BERM
				CONCRETE WASHOUT
				ROCK DITCH CHECK
				TEMPORARY STONE CONSTRUCTION ENTRANCE
				SEED/SOD/LANDSCAPE
				SOIL STABILIZATION BLANKETS & MATTING

NOTE:
THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE CONSTRUCTION PRIOR TO THE FINAL PLACEMENT OF THESE DEVICES BY PROVIDING ADDITIONAL DEVICES TO CONTROL EROSION ON THEIR ITEMS OF WORK. THESE DEVICES SHALL BE MAINTAINED UNTIL THE FINAL DEVICES ARE IN PLACE.

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MO# 2015000555

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1	2020.07.22	REVISIONS PER CITY COMMENTS

EROSION CONTROL PLAN - PHASE 3
SITE GRADING & SITE DISTURBANCE PLANS

ARIA APARTMENTS
PHASE 1

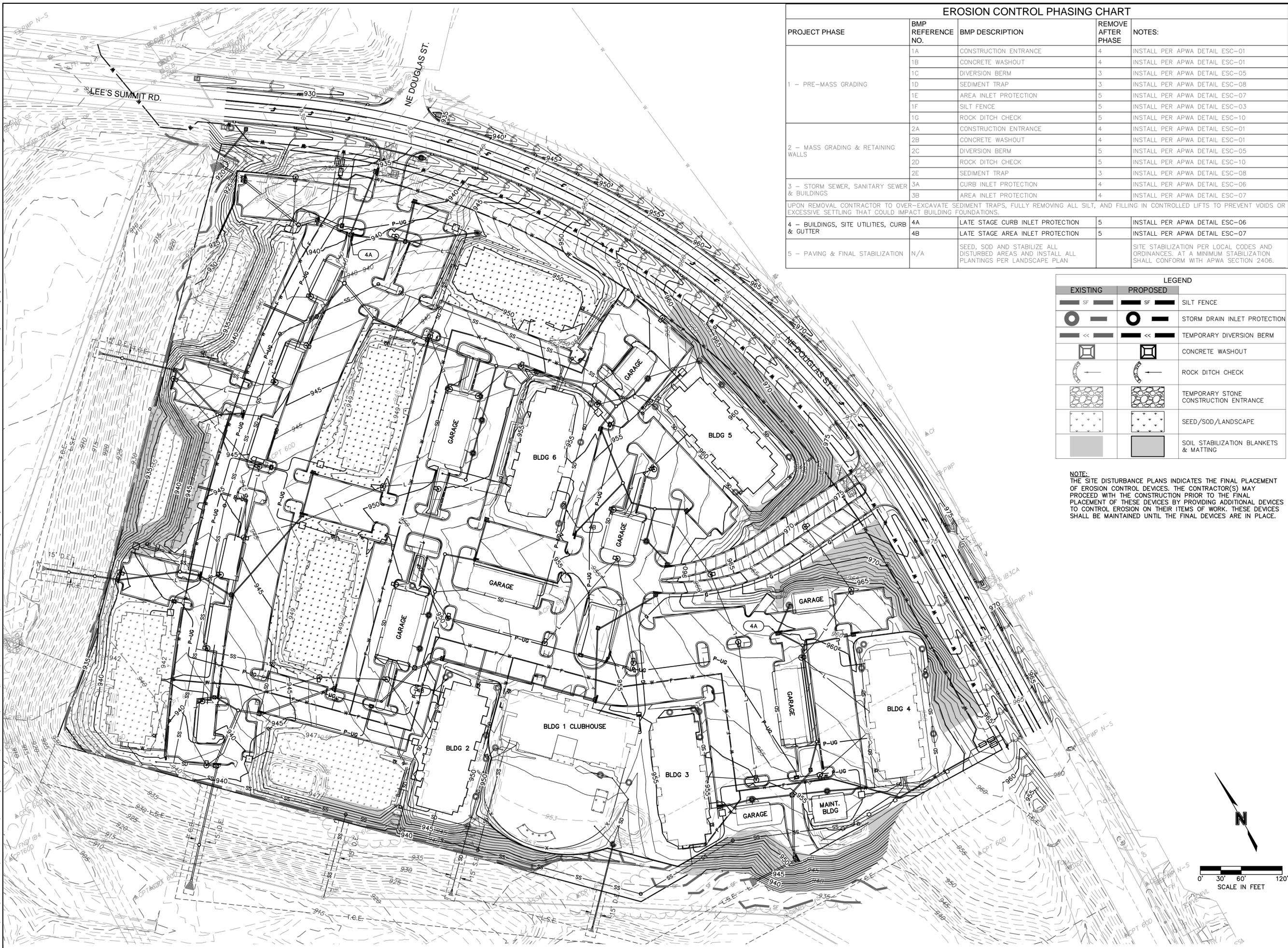
2020

LEE'S SUMMIT, MO

drawn by: _____	M.J.D.
checked by: _____	N.D.H.
designed by: _____	M.J.D.
QA/QC by: _____	N.D.H.
project no.: _____	019-0012-B
date: _____	2020.06.12

SHEET C108

File: F:\2019\0001-0500\019-0012-B\40-Design\AutoCAD\Final Plans\Sheets\GNCV\Site Disturbance\C.ERC04_B190012.dwg ~ Layout: Erosion Control Plan - PHASE 4 ~ Last Saved By: cabbidgleyev ~ Plot Date: 2019.10.01 03:03 PM



EROSION CONTROL PHASING CHART

PROJECT PHASE	BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER PHASE	NOTES:
1 - PRE-MASS GRADING	1A	CONSTRUCTION ENTRANCE	4	INSTALL PER APWA DETAIL ESC-01
	1B	CONCRETE WASHOUT	4	INSTALL PER APWA DETAIL ESC-01
	1C	DIVERSION BERM	3	INSTALL PER APWA DETAIL ESC-05
	1D	SEDIMENT TRAP	3	INSTALL PER APWA DETAIL ESC-08
	1E	AREA INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-07
	1F	SILT FENCE	5	INSTALL PER APWA DETAIL ESC-03
	1G	ROCK DITCH CHECK	5	INSTALL PER APWA DETAIL ESC-10
2 - MASS GRADING & RETAINING WALLS	2A	CONSTRUCTION ENTRANCE	4	INSTALL PER APWA DETAIL ESC-01
	2B	CONCRETE WASHOUT	4	INSTALL PER APWA DETAIL ESC-01
	2C	DIVERSION BERM	5	INSTALL PER APWA DETAIL ESC-05
	2D	ROCK DITCH CHECK	5	INSTALL PER APWA DETAIL ESC-10
3 - STORM SEWER, SANITARY SEWER & BUILDINGS	2E	SEDIMENT TRAP	3	INSTALL PER APWA DETAIL ESC-08
	3A	CURB INLET PROTECTION	4	INSTALL PER APWA DETAIL ESC-06
	3B	AREA INLET PROTECTION	4	INSTALL PER APWA DETAIL ESC-07
UPON REMOVAL CONTRACTOR TO OVER-EXCAVATE SEDIMENT TRAPS, FULLY REMOVING ALL SILT, AND FILLING IN CONTROLLED LIFTS TO PREVENT VOIDS OR EXCESSIVE SETTLING THAT COULD IMPACT BUILDING FOUNDATIONS.				
4 - BUILDINGS, SITE UTILITIES, CURB & GUTTER	4A	LATE STAGE CURB INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-06
	4B	LATE STAGE AREA INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-07
5 - PAVING & FINAL STABILIZATION	N/A	SEED, SOD AND STABILIZE ALL DISTURBED AREAS AND INSTALL ALL PLANTINGS PER LANDSCAPE PLAN		SITE STABILIZATION PER LOCAL CODES AND ORDINANCES. AT A MINIMUM STABILIZATION SHALL CONFORM WITH APWA SECTION 2406.

EXISTING		PROPOSED		
	SF		SF	SILT FENCE
				STORM DRAIN INLET PROTECTION
	<<		<<	TEMPORARY DIVERSION BERM
				CONCRETE WASHOUT
				ROCK DITCH CHECK
				TEMPORARY STONE CONSTRUCTION ENTRANCE
				SEED/SOD/LANDSCAPE
				SOIL STABILIZATION BLANKETS & MATTING

NOTE:
THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE CONSTRUCTION PRIOR TO THE FINAL PLACEMENT OF THESE DEVICES BY PROVIDING ADDITIONAL DEVICES TO CONTROL EROSION ON THEIR ITEMS OF WORK. THESE DEVICES SHALL BE MAINTAINED UNTIL THE FINAL DEVICES ARE IN PLACE.



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EROSION CONTROL PLAN - PHASE 4
SITE GRADING & SITE DISTURBANCE PLANS

ARIA APARTMENTS
PHASE 1

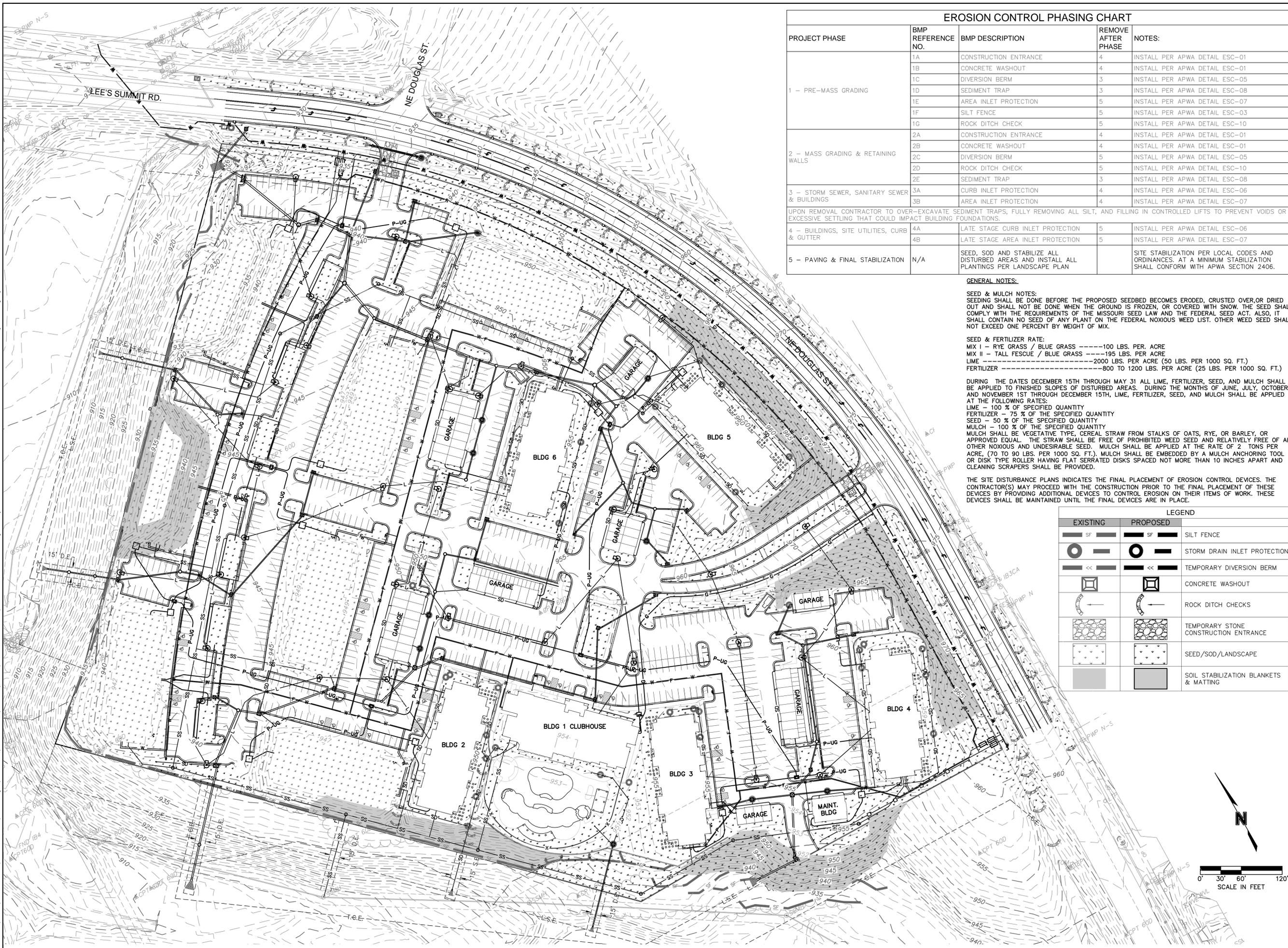
LEE'S SUMMIT, MO

2020

drawn by: M.J.D.
checked by: N.D.H.
designed by: M.J.D.
QA/QC by: N.D.H.
project no.: 019-0012-B
date: 2020.06.12

SHEET
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File: F:\2019\0001-0500\019-0012-B\40-Design\AutoCAD\Final Plans\Sheets\GNCV\Site Disturbance\c.ERC05_B190012.dwg ~ Layout: Erosion Control Plan - PHASE 5 ~ Last Saved By: cabbajaliev ~ Plot Date: 2019.10.01 03:03 PM



EROSION CONTROL PHASING CHART

PROJECT PHASE	BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER PHASE	NOTES:
1 - PRE-MASS GRADING	1A	CONSTRUCTION ENTRANCE	4	INSTALL PER APWA DETAIL ESC-01
	1B	CONCRETE WASHOUT	4	INSTALL PER APWA DETAIL ESC-01
	1C	DIVERSION BERM	3	INSTALL PER APWA DETAIL ESC-05
	1D	SEDIMENT TRAP	3	INSTALL PER APWA DETAIL ESC-08
	1E	AREA INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-07
	1F	SILT FENCE	5	INSTALL PER APWA DETAIL ESC-03
	1G	ROCK DITCH CHECK	5	INSTALL PER APWA DETAIL ESC-10
2 - MASS GRADING & RETAINING WALLS	2A	CONSTRUCTION ENTRANCE	4	INSTALL PER APWA DETAIL ESC-01
	2B	CONCRETE WASHOUT	4	INSTALL PER APWA DETAIL ESC-01
	2C	DIVERSION BERM	5	INSTALL PER APWA DETAIL ESC-05
	2D	ROCK DITCH CHECK	5	INSTALL PER APWA DETAIL ESC-10
	2E	SEDIMENT TRAP	3	INSTALL PER APWA DETAIL ESC-08
3 - STORM SEWER, SANITARY SEWER & BUILDINGS	3A	CURB INLET PROTECTION	4	INSTALL PER APWA DETAIL ESC-06
	3B	AREA INLET PROTECTION	4	INSTALL PER APWA DETAIL ESC-07
UPON REMOVAL CONTRACTOR TO OVER-EXCAVATE SEDIMENT TRAPS, FULLY REMOVING ALL SILT, AND FILLING IN CONTROLLED LIFTS TO PREVENT VOIDS OR EXCESSIVE SETTLING THAT COULD IMPACT BUILDING FOUNDATIONS.				
4 - BUILDINGS, SITE UTILITIES, CURB & GUTTER	4A	LATE STAGE CURB INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-06
	4B	LATE STAGE AREA INLET PROTECTION	5	INSTALL PER APWA DETAIL ESC-07
5 - PAVING & FINAL STABILIZATION	N/A	SEED, SOD AND STABILIZE ALL DISTURBED AREAS AND INSTALL ALL PLANTINGS PER LANDSCAPE PLAN		SITE STABILIZATION PER LOCAL CODES AND ORDINANCES. AT A MINIMUM STABILIZATION SHALL CONFORM WITH APWA SECTION 2406.

GENERAL NOTES:

SEED & MULCH NOTES:
SEEDING SHALL BE DONE BEFORE THE PROPOSED SEEDBED BECOMES ERODED, CRUSTED OVER, OR DRIED OUT AND SHALL NOT BE DONE WHEN THE GROUND IS FROZEN, OR COVERED WITH SNOW. THE SEED SHALL COMPLY WITH THE REQUIREMENTS OF THE MISSOURI SEED LAW AND THE FEDERAL SEED ACT. ALSO, IT SHALL CONTAIN NO SEED OF ANY PLANT ON THE FEDERAL NOXIOUS WEED LIST. OTHER WEED SEED SHALL NOT EXCEED ONE PERCENT BY WEIGHT OF MIX.

SEED & FERTILIZER RATE:
MIX I - RYE GRASS / BLUE GRASS -----100 LBS. PER ACRE
MIX II - TALL FESCUE / BLUE GRASS -----195 LBS. PER ACRE
LIME -----2000 LBS. PER ACRE (50 LBS. PER 1000 SQ. FT.)
FERTILIZER -----800 TO 1200 LBS. PER ACRE (25 LBS. PER 1000 SQ. FT.)

DURING THE DATES DECEMBER 15TH THROUGH MAY 31 ALL LIME, FERTILIZER, SEED, AND MULCH SHALL BE APPLIED TO FINISHED SLOPES OF DISTURBED AREAS. DURING THE MONTHS OF JUNE, JULY, OCTOBER, AND NOVEMBER 1ST THROUGH DECEMBER 15TH, LIME, FERTILIZER, SEED, AND MULCH SHALL BE APPLIED AT THE FOLLOWING RATES:
LIME - 100 % OF SPECIFIED QUANTITY
FERTILIZER - 75 % OF THE SPECIFIED QUANTITY
SEED - 50 % OF THE SPECIFIED QUANTITY
MULCH - 100 % OF THE SPECIFIED QUANTITY
MULCH SHALL BE VEGETATIVE TYPE, CEREAL STRAW FROM STALKS OF OATS, RYE, OR BARLEY, OR APPROVED EQUAL. THE STRAW SHALL BE FREE OF PROHIBITED WEED SEED AND RELATIVELY FREE OF ALL OTHER NOXIOUS AND UNDESIRABLE SEED. MULCH SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ. FT.). MULCH SHALL BE EMBEDDED BY A MULCH ANCHORING TOOL OR DISK TYPE ROLLER HAVING FLAT SERRATED DISKS SPACED NOT MORE THAN 10 INCHES APART AND CLEANING SCRAPERS SHALL BE PROVIDED.

THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE CONSTRUCTION PRIOR TO THE FINAL PLACEMENT OF THESE DEVICES BY PROVIDING ADDITIONAL DEVICES TO CONTROL EROSION ON THEIR ITEMS OF WORK. THESE DEVICES SHALL BE MAINTAINED UNTIL THE FINAL DEVICES ARE IN PLACE.

EXISTING		PROPOSED		
	SF		SF	SILT FENCE
				STORM DRAIN INLET PROTECTION
	<<		<<	TEMPORARY DIVERSION BERM
				CONCRETE WASHOUT
				ROCK DITCH CHECKS
				TEMPORARY STONE CONSTRUCTION ENTRANCE
				SEED/SOD/LANDSCAPE
				SOIL STABILIZATION BLANKETS & MATTING



NICHOLAS D. HEISER, P.E.
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1		2020.07.22	REVISIONS PER CITY COMMENTS

EROSION CONTROL PLAN - PHASE 5
SITE GRADING & SITE DISTURBANCE PLANS
ARIA APARTMENTS
PHASE 1
LEE'S SUMMIT, MO

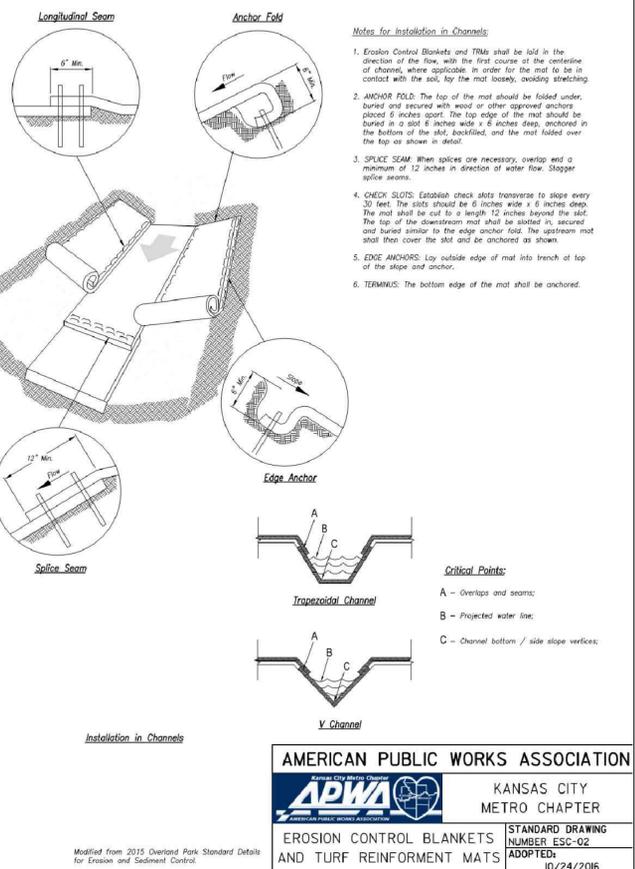
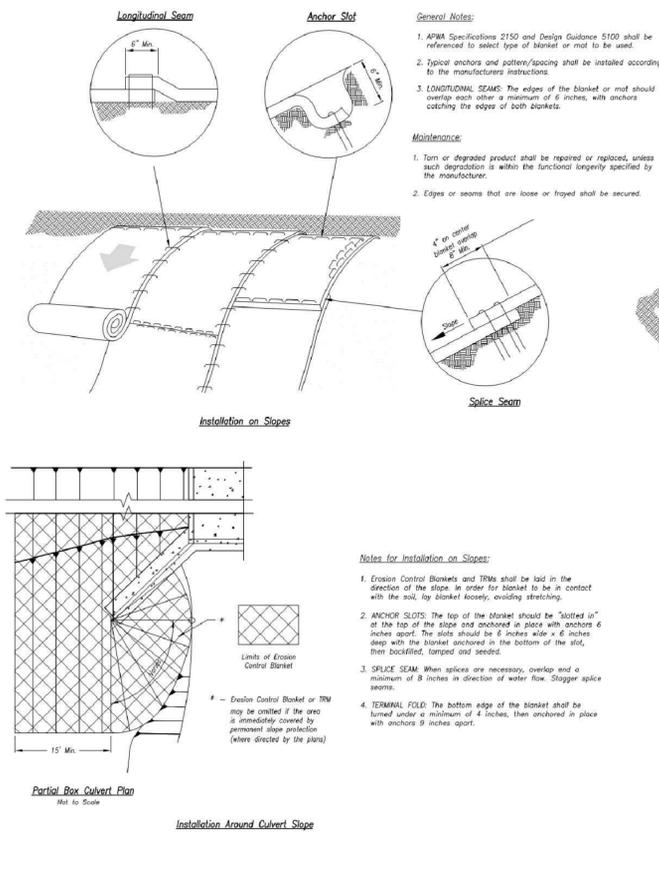
drawn by: M.J.D.
checked by: N.D.H.
designed by: M.J.D.
QA/QC by: N.D.H.
project no.: 019-0012-B
date: 2020.06.12

SHEET
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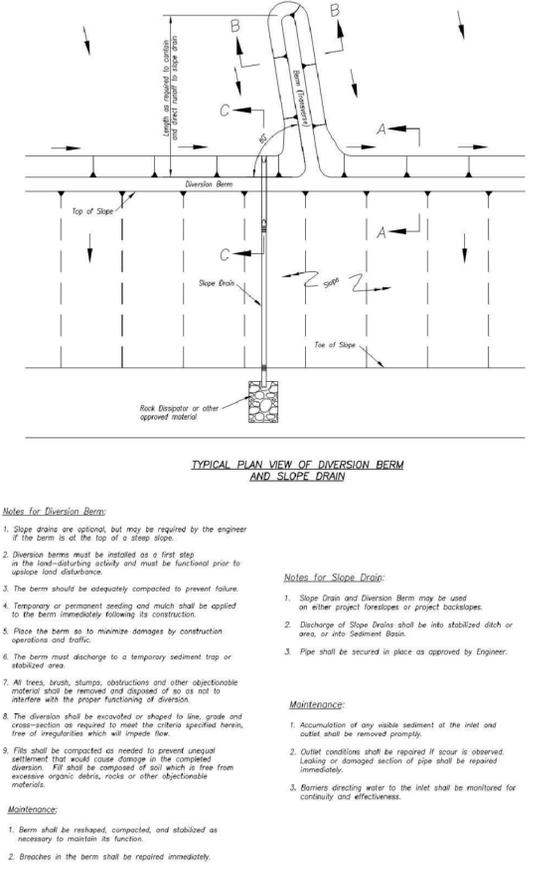


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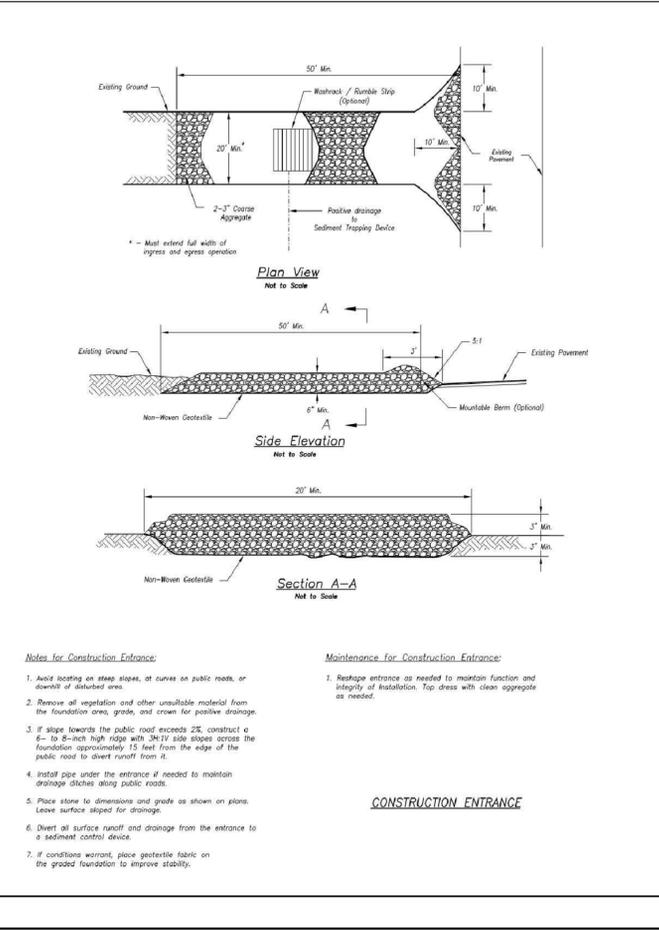
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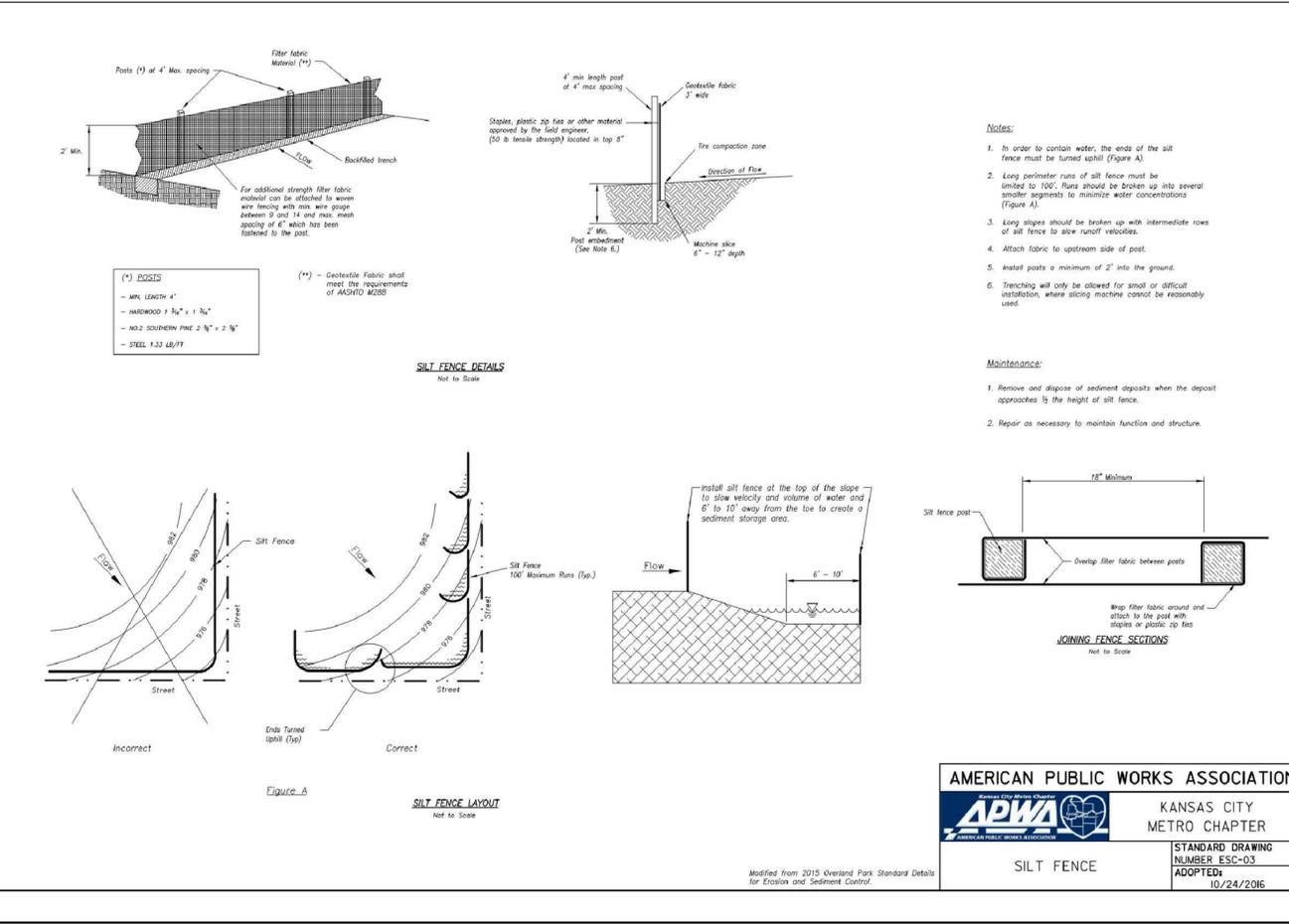
AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
EROSION CONTROL BLANKETS AND TURF REINFORCEMENT MATS
STANDARD DRAWING NUMBER ESC-02
ADOPTED 10/24/2016



AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
DIVERSION BERMS AND SLOPE DRAINS
STANDARD DRAWING NUMBER ESC-05
ADOPTED 10/24/2016



AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT
STANDARD DRAWING NUMBER ESC-01
ADOPTED 10/24/2016



AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
SILT FENCE
STANDARD DRAWING NUMBER ESC-03
ADOPTED 10/24/2016

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STATE OF MISSOURI
NICHOLAS D. HEISER, P.E.
MO# 2015000555

BY: _____
DATE: 2020.07.22
REVISIONS PER CITY COMMENTS

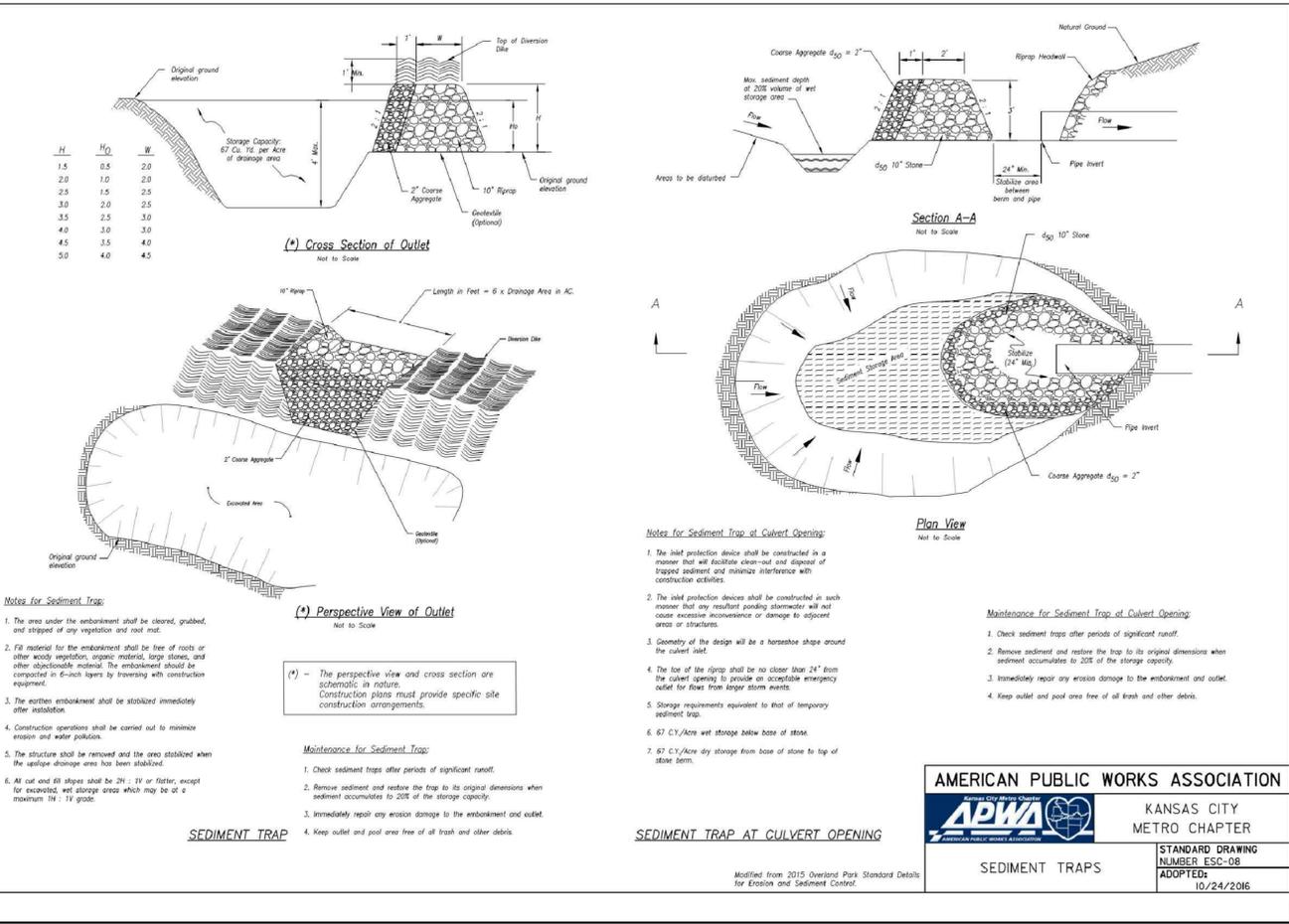
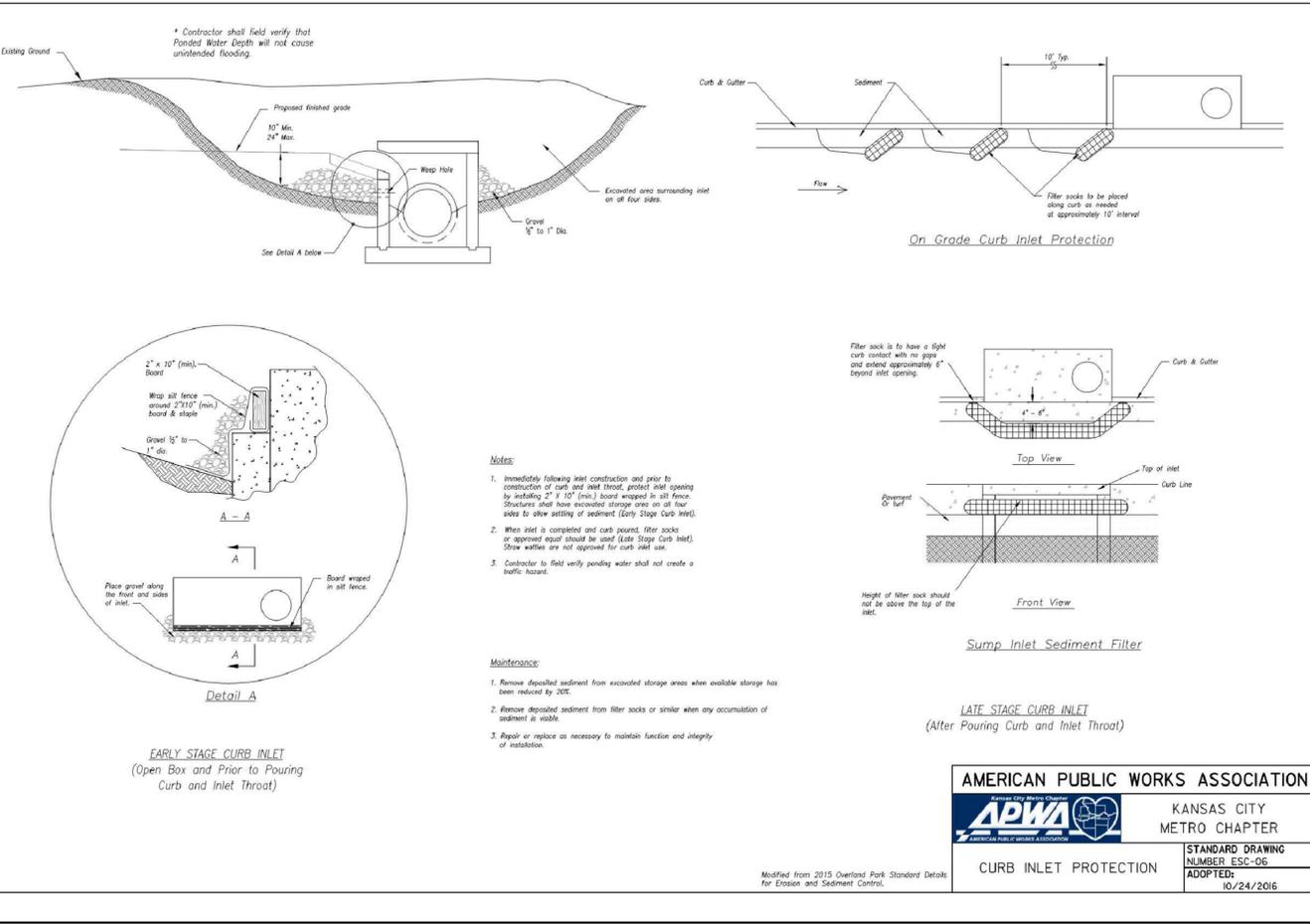
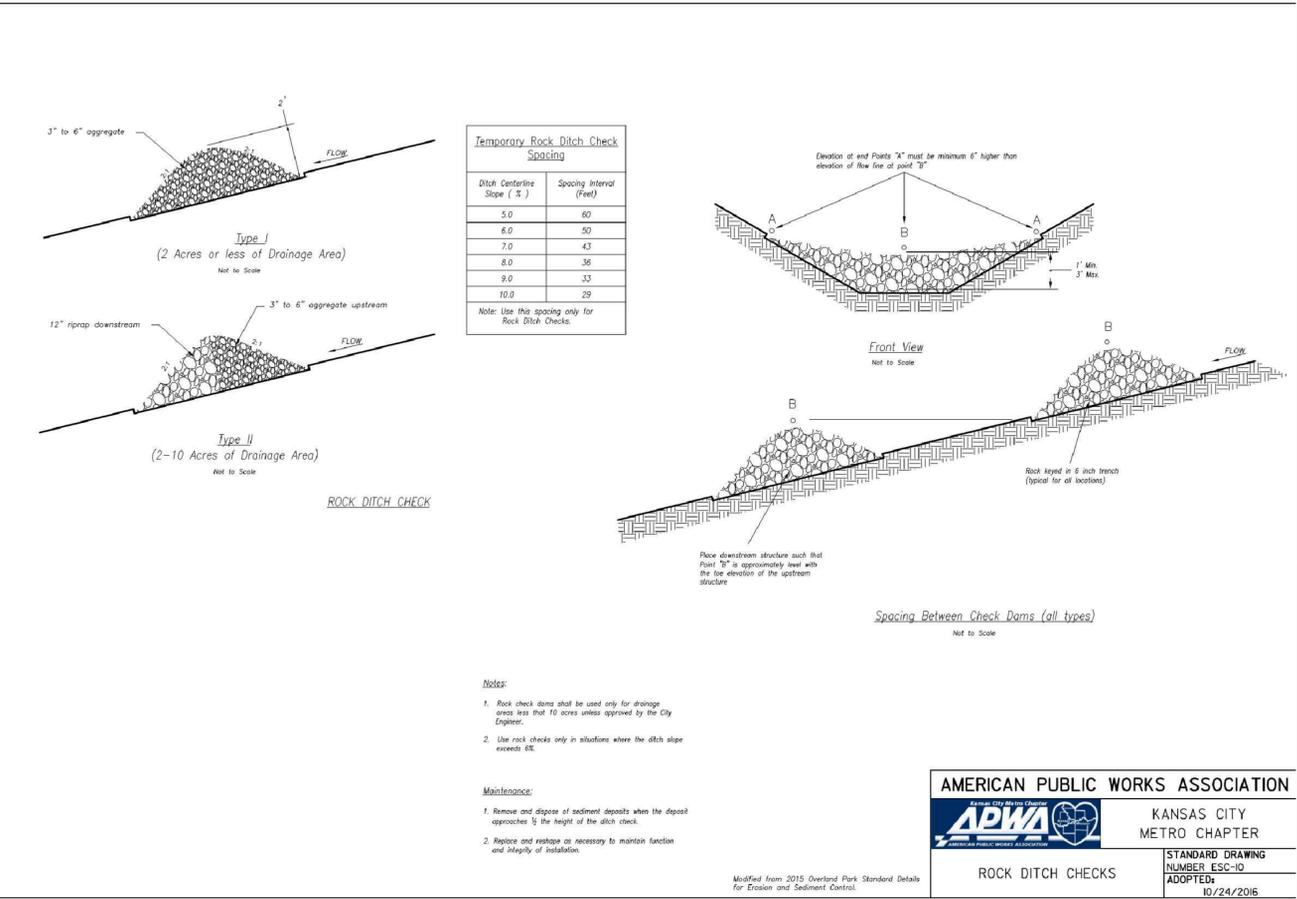
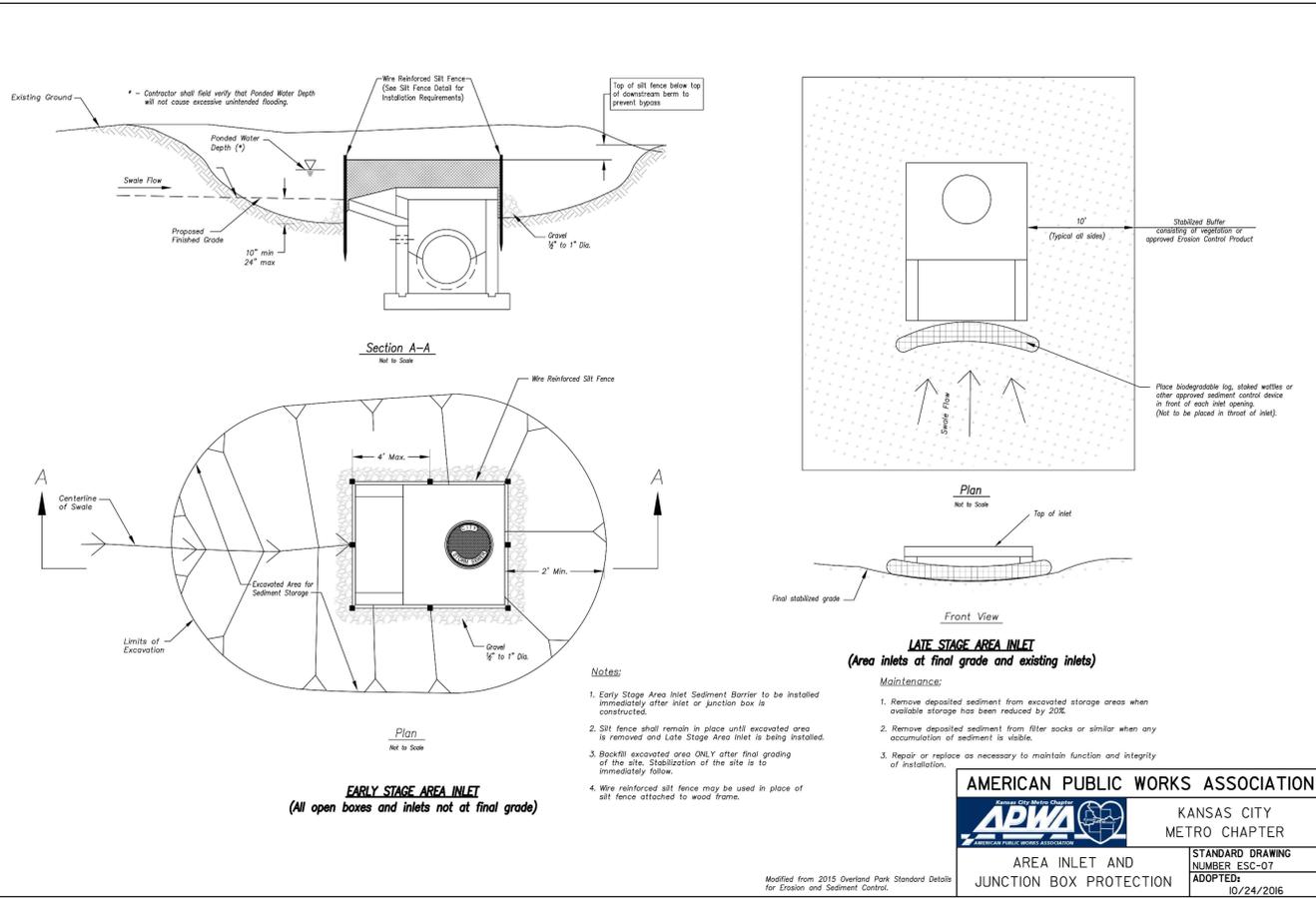
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DATE 2020.07.22
REVISIONS PER CITY COMMENTS

DETAIL SHEET
SITE GRADING & SITE DISTURBANCE PLANS
ARIA APARTMENTS
PHASE 1
LEE'S SUMMIT, MO
2020

drawn by: M.J.D.
checked by: N.D.H.
designed by: M.J.D.
QA/QC by: N.D.H.
project no.: 019-0012-B
date: 2020.06.12

SHEET C111

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REVISIONS

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DETAIL SHEET
SITE GRADING & SITE DISTURBANCE PLANS
ARIA APARTMENTS
PHASE 1

2020

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