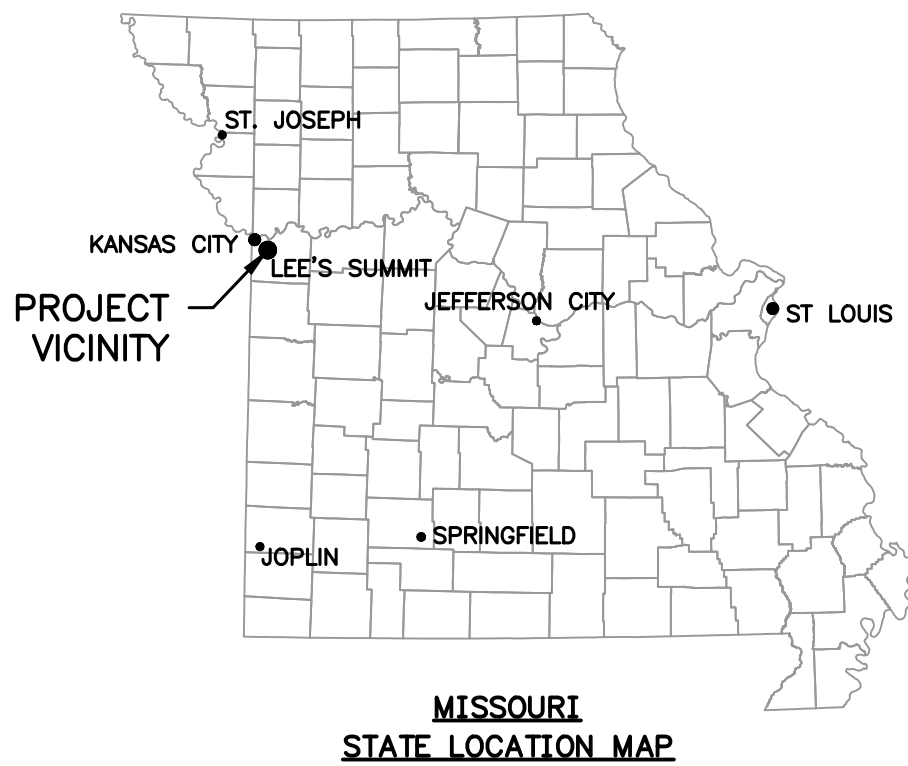


SUMMIT VIEW FARMS 3RD PLAT
LOTS 51-74 AND TRACT C

MASS GRADING, EROSION CONTROL,
PAVING, STORM AND SANITARY PLANS
LEE’S SUMMIT, JACKSON COUNTY, MISSOURI
SECTION 26, TOWNSHIP 47 N, RANGE 32 W
LRA NO. 0318050.01

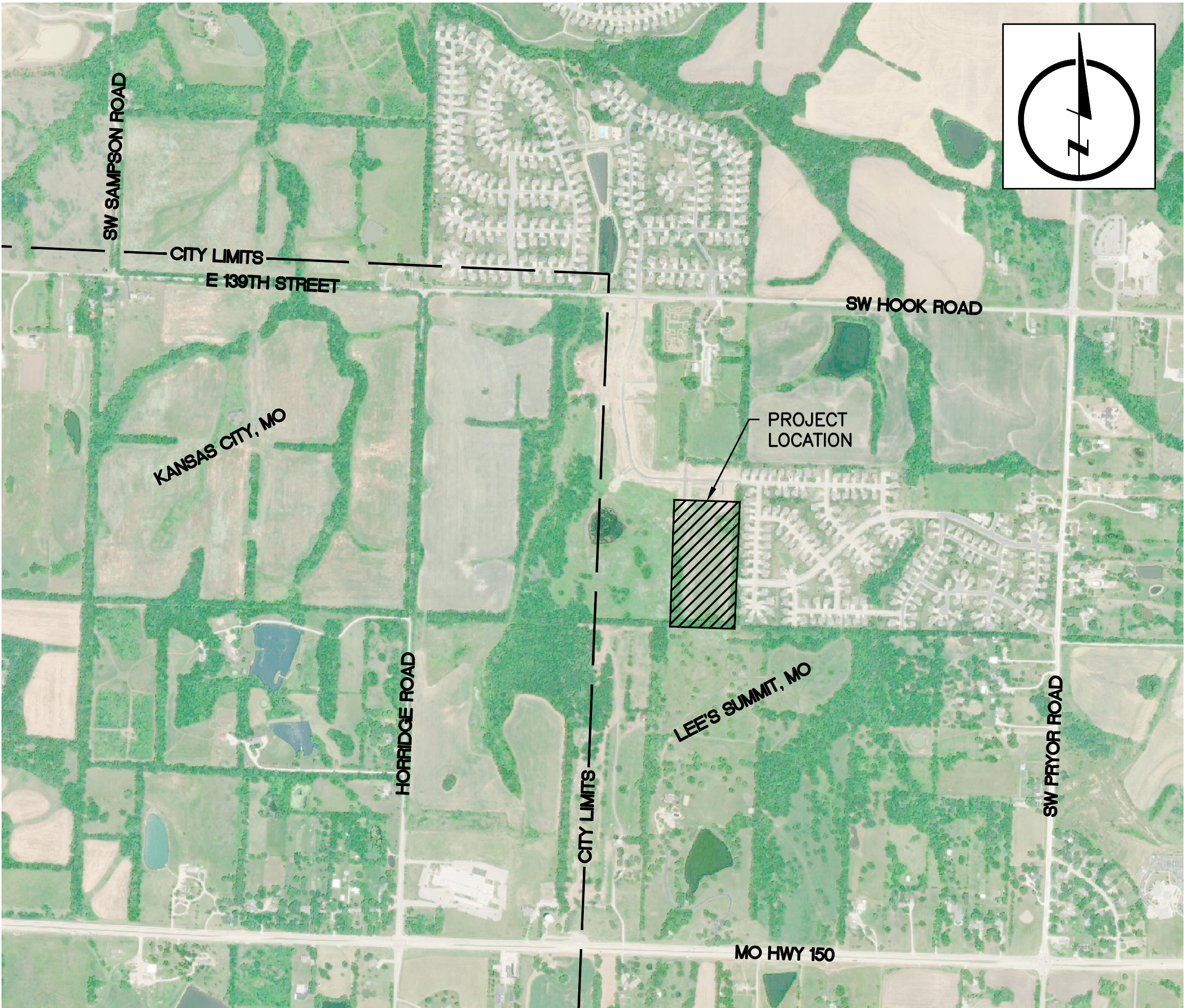


OWNER CONTACT
BILL KENNEY
SUMMIT VIEW FARMS DEVELOPMENT GROUP, LLC
P.O. BOX 291
LEE’S SUMMIT, MO 64063
billkenney9@gmail.com
(816) 838-0552

CONSULTANT CONTACT
DAN MCGHEE
LARKIN LAMP RYNEARSON
9001 STATE LINE ROAD, SUITE 200
KANSAS CITY, MO 64114
Dan.McGhee@LRA-inc.com
(816) 361-0440

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- 03 EXISTING CONDITIONS PLAN SHEET
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LOCATION MAP



ALL UTILITIES ARE SHOWN BASED ON THE INFORMATION AVAILABLE TO THE ENGINEER. THERE IS NO GUARANTEE ALL FACILITIES ARE SHOWN OR THAT THE LOCATION, DEPTH, AND SIZE OF EACH FACILITY IS CORRECT. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES AND SERVICE LINES PRIOR TO CONSTRUCTION. COORDINATE NECESSARY RELOCATIONS WITH UTILITY COMPANIES.

UTILITIES		
ELECTRIC:	EVERGY	(816) 471-5275
GAS:	SPIRE ENERGY	(816) 756-5252
TELEPHONE:	AT&T	(816) 325-5607
CABLE:	SPECTRUM	(816) 358-8833
WATER:	LEE'S SUMMIT WATER UTILITIES	(816) 969-1900
SEWER:	LEE'S SUMMIT WATER UTILITIES	(816) 969-1900

RECORD DRAWING
THIS RECORD DRAWING IS A FINAL RECORD OF THE INSTRUCTIONS PROVIDED FOR CONSTRUCTION AND MAY NOT ACCURATELY REFLECT ALL ACTUAL WORK IN PLACE. REVISIONS HAVE BEEN PREPARED BASED ON INFORMATION FURNISHED BY OTHERS. THOSE RELYING ON THIS RECORD DRAWING ARE ADVISED TO VERIFY ALL INFORMATION.



APPROVED: MARK DANIEL MCGHEE JR., PE

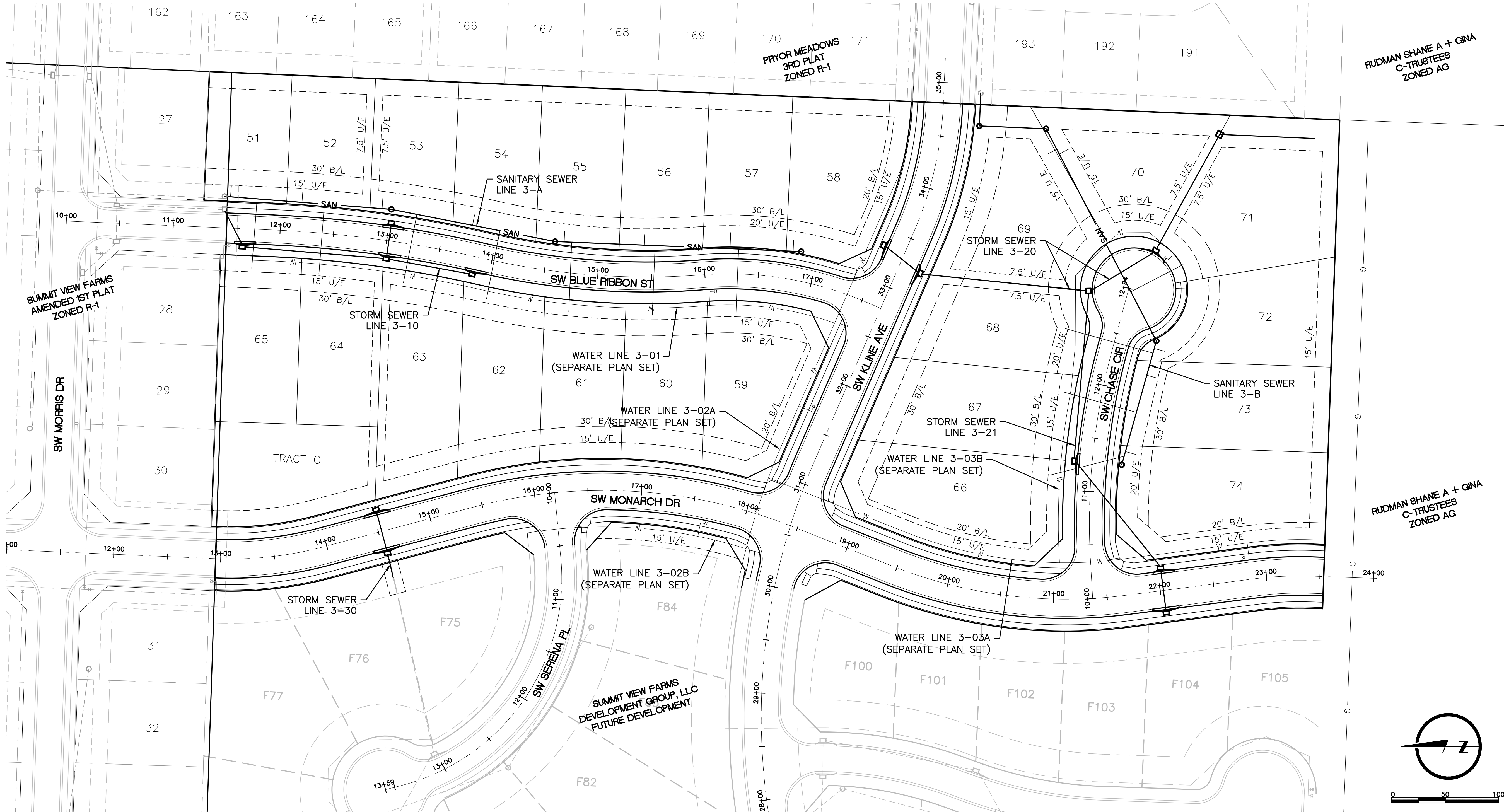
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9001 State Line Rd., Suite 200
Kansas City , Missouri 64114
www.LRA-Inc.com
816.361.0440 | P
816.361.0045 | F

GENERAL NOTES:

- ALL CONSTRUCTION TO FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813.
- ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE ENGINEERING DEPARTMENT OF THE CITY OF LEE'S SUMMIT, MISSOURI.
- LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS, NOT SLOPE MEASUREMENTS.
- NO GEOLOGICAL INVESTIGATION THIS BEEN PERFORMED ON THIS PLAT.
- THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY COMPANY RECORDS AND APPARENT FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STAT OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT-OF-WAY DO SO ONLY AFTER GIVING NOTICE TO, AND OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 72 HOURS ADVANCE NOTICE. THE CONTRACTOR MAY ALSO UTILIZE THE FOLLOWING TOLL FREE PHONE NUMBER PROVIDED BY "MISSOURI ONE CALL SYSTEM, INC.": 1-(800)-DIG-RITE OR 811. THIS PHONE NUMBER IS APPLICABLE ANYWHERE WITHIN THE STATE OF MISSOURI PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY ALL THOSE COMPANIES WHICH ARE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED.
- PRIOR TO ORDERING PRECAST STRUCTURES, SHOP DRAWINGS SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL.
- THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE.
- CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS THEREFROM SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES.
- ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, OR AS DIRECTED BY THE OWNER.
- ALL EXCAVATION SHALL BE UNCLASSIFIED.
- THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASES OF CONSTRUCTION, AND SHALL KEEP THE STREETS CLEAN OF MUD AND DEBRIS.
- ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED. ALL EXISTING UTILITIES SHALL BE ADJUSTED AS REQUIRED.
- SUBGRADE SOIL FOR ALL CONCRETE STRUCTURES, REGARDLESS OF THE TYPE OR LOCATION, SHALL BE FIRM, DENSE AND THOROUGHLY COMPACTED AND CONSOLIDATED; SHALL BE FREE FROM MUCK AND MUD; AND SHALL BE SUFFICIENTLY STABLE TO REMAIN FIRM AND INTACT UNDER THE FEET OF THE WORKMEN OR MACHINERY ENGAGED IN SUBGRADE SURFACING, LAYING REINFORCING STEEL, AND DEPOSITING CONCRETE THEREON. IN ALL CASES WHERE SUBSOIL IS MUCKY OR WORKS INTO MUD OR MUCK DURING SUCH OPERATION, A SEAL COURSE OF EITHER CONCRETE OR ROCK SHALL BE PLACED BELOW SUGRADE TO PROVIDE A FIRM BASE FOR WORKING AND STRUCTURE CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT PUBLIC WORKS INSPECTIONS AT 816-969-1800 TO OBTAIN A PUBLIC WORKS CONSTRUCTION PERMIT. PERMITS ARE ISSUED BY THE DEVELOPMENT ENGINEERING DIVISION AFTER PLANS ARE APPROVED FOR PERMITTING AND FEES ARE PAID.
- THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT ENGINEERING FIELD ENGINEERING INSPECTORS AT 816-969-1200 PRIOR TO ANY LAND DISTURBANCE.
- THE CONTRACTOR SHALL CONTACT THE CITY'S RIGHT-OF-WAY INSPECTOR AT 816-969-1800 PRIOR TO ANY LAND DISTURBANCE ACTIVITIES WITHIN THE RIGHT-OF-WAY. THESE ACTIVITIES MAY REQUIRE A PERMIT.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TRAFFIC HANDLING MEASURES NECESSARY TO ENSURE THAT THE GENERAL PUBLIC IS PROTECTED AT ALL TIMES. TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD - LATEST EDITION).

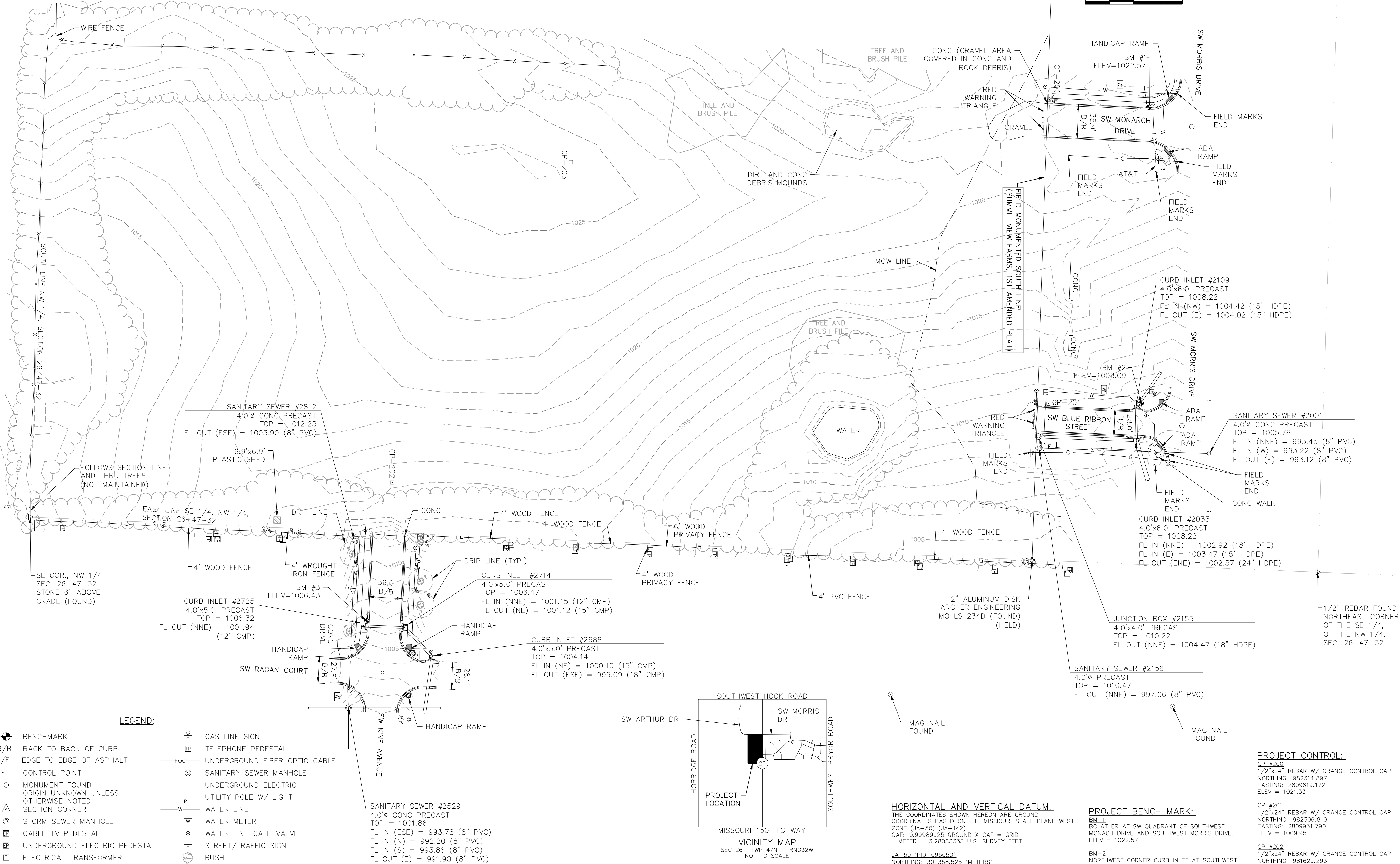


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REVISIONS 08/19/18 - RESUBMITAL PER ADJUSTED LAYOUT 09/19/18 - RESUBMITAL PER CITY COMMENTS				
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SUMMIT VIEW FARMS 3RD PLAT LEE'S SUMMIT, MISSOURI				
MASS GRADING, EROSION CONTROL, PAVING, STORM AND SANITARY PLANS				
GENERAL LAYOUT PLAN SHEET				
LARKIN LAMP RYNEARSON - ENGINEERS MEO Certificate of Authority No. 2013011903				
STATE OF MISSOURI MARK DANIEL MCGHEE JR. PE-2008019568 09-19-2018				
MARK DANIEL MCGHEE JR. PE - 2008019568				
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UTILITY STATEMENT:

THE UNDERGROUND UTILITIES SHOWN HEREON ARE FROM FIELD SURVEY INFORMATION OF ONE-CALL LOCATED UTILITIES, FIELD SURVEY INFORMATION OF ABOVE GROUND OBSERVABLE EVIDENCE, AND/OR THE SCALING AND PLOTTING OF EXISTING UTILITY MAPS AND DRAWINGS AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHERMORE, THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES BY EXCAVATION UNLESS OTHERWISE NOTED ON THIS SURVEY.
MISSOURI ONE CALL TICKET #181713504, #181713505, #181713506, #181713507 AND #181713508



- LEGEND:**
- B/B BACK TO BACK OF CURB
 - E/E EDGE TO EDGE OF ASPHALT
 - CONTROL POINT
 - MONUMENT FOUND ORIGIN UNKNOWN UNLESS OTHERWISE NOTED
 - SECTION CORNER
 - STORM SEWER MANHOLE
 - CABLE TV PEDESTAL
 - UNDERGROUND ELECTRIC PEDESTAL
 - ELECTRICAL TRANSFORMER
 - FIRE HYDRANT
 - BARBED WIRE FENCE
 - WOOD FENCE
 - GATE POST
 - UNDERGROUND GAS
 - GAS LINE SIGN
 - TELEPHONE PEDESTAL
 - UNDERGROUND FIBER OPTIC CABLE
 - SANITARY SEWER MANHOLE
 - UNDERGROUND ELECTRIC
 - UTILITY POLE W/ LIGHT
 - WATER LINE
 - WATER METER
 - WATER LINE GATE VALVE
 - STREET/TRAFFIC SIGN
 - BUSH
 - DECIDUOUS TREE
 - TREE LINE
 - EXISTING GRADE 1' CONTOUR
 - EXISTING GRADE 5' CONTOUR

REFERENCE SURVEY

- TOPOGRAPHIC SURVEY, PREPARED BY: HDR ENGINEERING INC. PROJECT #: 239662 AND DATED: JANUARY 6, 2015.
- TOPOGRAPHIC SURVEY, PREPARED BY: PHOENIX ENGINEERING & SURVEYING, LLC, PROJECT #: 02067A AND DATED: OCTOBER 22, 2003.

HORIZONTAL AND VERTICAL DATUM:

THE COORDINATES SHOWN HEREON ARE GROUND COORDINATES BASED ON THE MISSOURI STATE PLANE WEST ZONE (JA-50) (JA-142)
CAF: 0.99989925 GROUND X CAF = GRID
1 METER = 3.28083333 U.S. SURVEY FEET

JA-50 (PID-095050)
NORTHING: 302358.525 (METERS)
EASTING: 854683.866 (METERS)
ELEV = 289.8 (METERS)

JA-142 (PID-095142)
NORTHING: 302106.953 (METERS)
EASTING: 858960.056 (METERS)
ELEV = 318.0 (METERS)

PROJECT BENCH MARK:

BM-1
1/2"x24" REBAR W/ ORANGE CONTROL CAP
NORTHING: 982314.897
EASTING: 2809619.172
ELEV = 1021.33

BM-2
NORTHWEST CORNER CURB INLET AT SOUTHWEST QUADRANT OF SOUTHWEST MORRIS AND BLUE RIBBON.
ELEV = 1008.09

BM-3
NORTHWEST CORNER CURB INLET AT SOUTHWEST QUADRANT OF REGAN AND KLINE.
ELEV = 1006.43

PROJECT CONTROL:

CP #200
1/2"x24" REBAR W/ ORANGE CONTROL CAP
NORTHING: 982314.897
EASTING: 2809619.172
ELEV = 1021.33

CP #201
1/2"x24" REBAR W/ ORANGE CONTROL CAP
NORTHING: 982306.810
EASTING: 2809931.790
ELEV = 1009.95

CP #202
1/2"x24" REBAR W/ ORANGE CONTROL CAP
NORTHING: 981629.293
EASTING: 2810013.131
ELEV = 1016.27

CP #203
1/2"x24" REBAR W/ ORANGE CONTROL CAP
NORTHING: 981813.846
EASTING: 2809682.206
ELEV = 1026.15

NOTE:

TOPOGRAPHIC AND BOUNDARY SURVEY WAS PERFORMED BY KAW VALLEY ENGINEERING, INC.

MASS GRADING, EROSION CONTROL,
PAVING, STORM AND SANITARY PLANS

EXISTING CONDITIONS PLAN

SUMMIT VIEW FARMS 3RD PLAT
LEE'S SUMMIT, MISSOURI

LARKIN/
LAMP RYNEARSON

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TMO Certificate of Authority No. 2013011903



MARK DANIEL MCGHEE JR.

PE - 2008019568

SHEET

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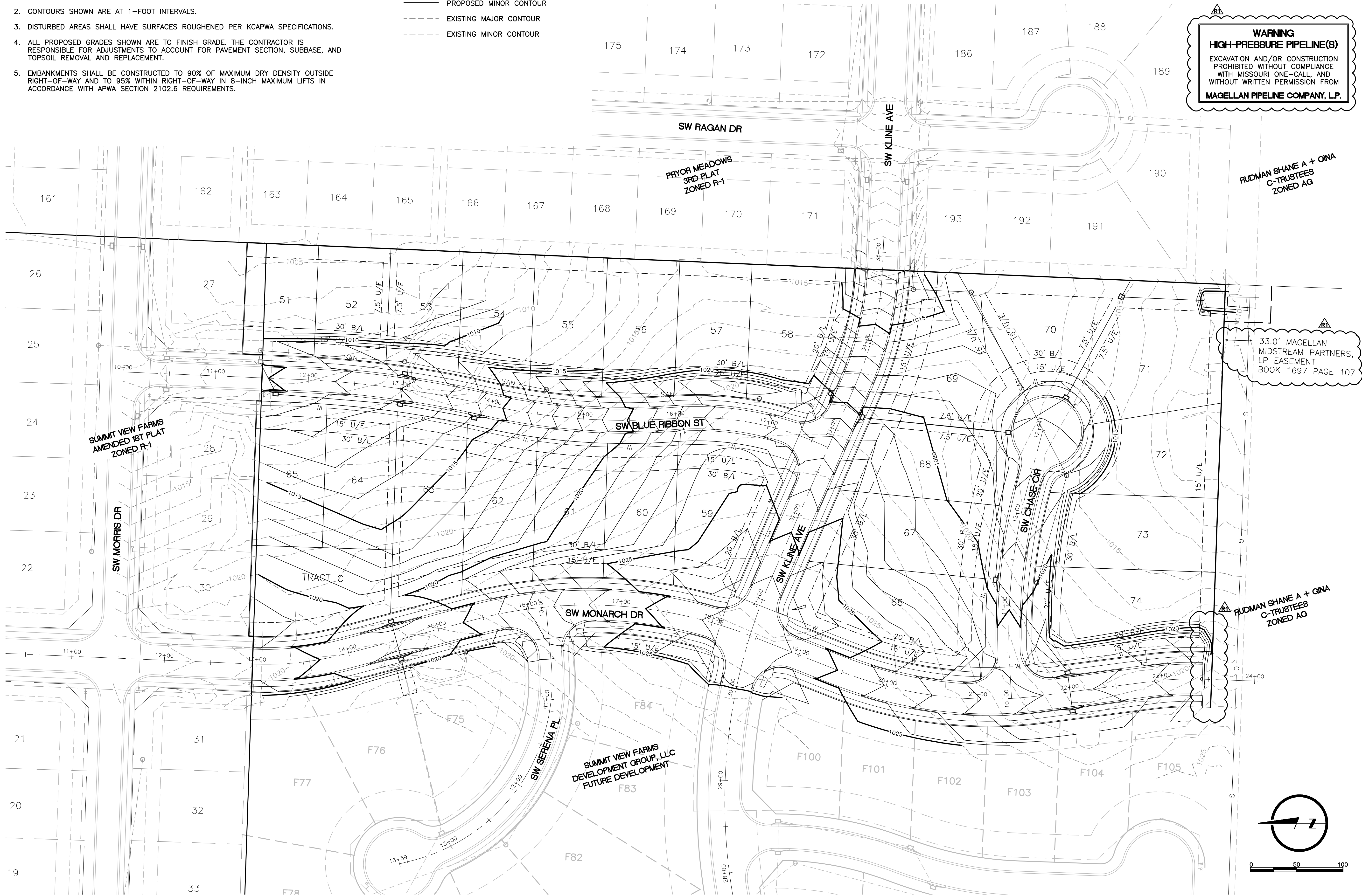
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GENERAL NOTES:

1. SLOPES SHALL BE GRADED AS SHOWN ON THE PLANS WITH A MAXIMUM SLOPE OF 3:1 UNLESS NOTED OTHERWISE.
2. CONTOURS SHOWN ARE AT 1-FOOT INTERVALS.
3. DISTURBED AREAS SHALL HAVE SURFACES ROUGHENED PER KCAPWA SPECIFICATIONS.
4. ALL PROPOSED GRADES SHOWN ARE TO FINISH GRADE. THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTMENTS TO ACCOUNT FOR PAVEMENT SECTION, SUBBASE, AND TOPSOIL REMOVAL AND REPLACEMENT.
5. EMBANKMENTS SHALL BE CONSTRUCTED TO 90% OF MAXIMUM DRY DENSITY OUTSIDE RIGHT-OF-WAY AND TO 95% WITHIN RIGHT-OF-WAY IN 8-INCH MAXIMUM LIFTS IN ACCORDANCE WITH APWA SECTION 2102.6 REQUIREMENTS.

LEGEND

- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR



WARNING
HIGH-PRESSURE PIPELINE(S)
EXCAVATION AND/OR CONSTRUCTION
PROHIBITED WITHOUT COMPLIANCE
WITH MISSOURI ONE-CALL, AND
WITHOUT WRITTEN PERMISSION FROM
MAGELLAN PIPELINE COMPANY, LP.

33.0' MAGELLAN
MIDSTREAM PARTNERS,
LP EASEMENT
BOOK 1697 PAGE 107

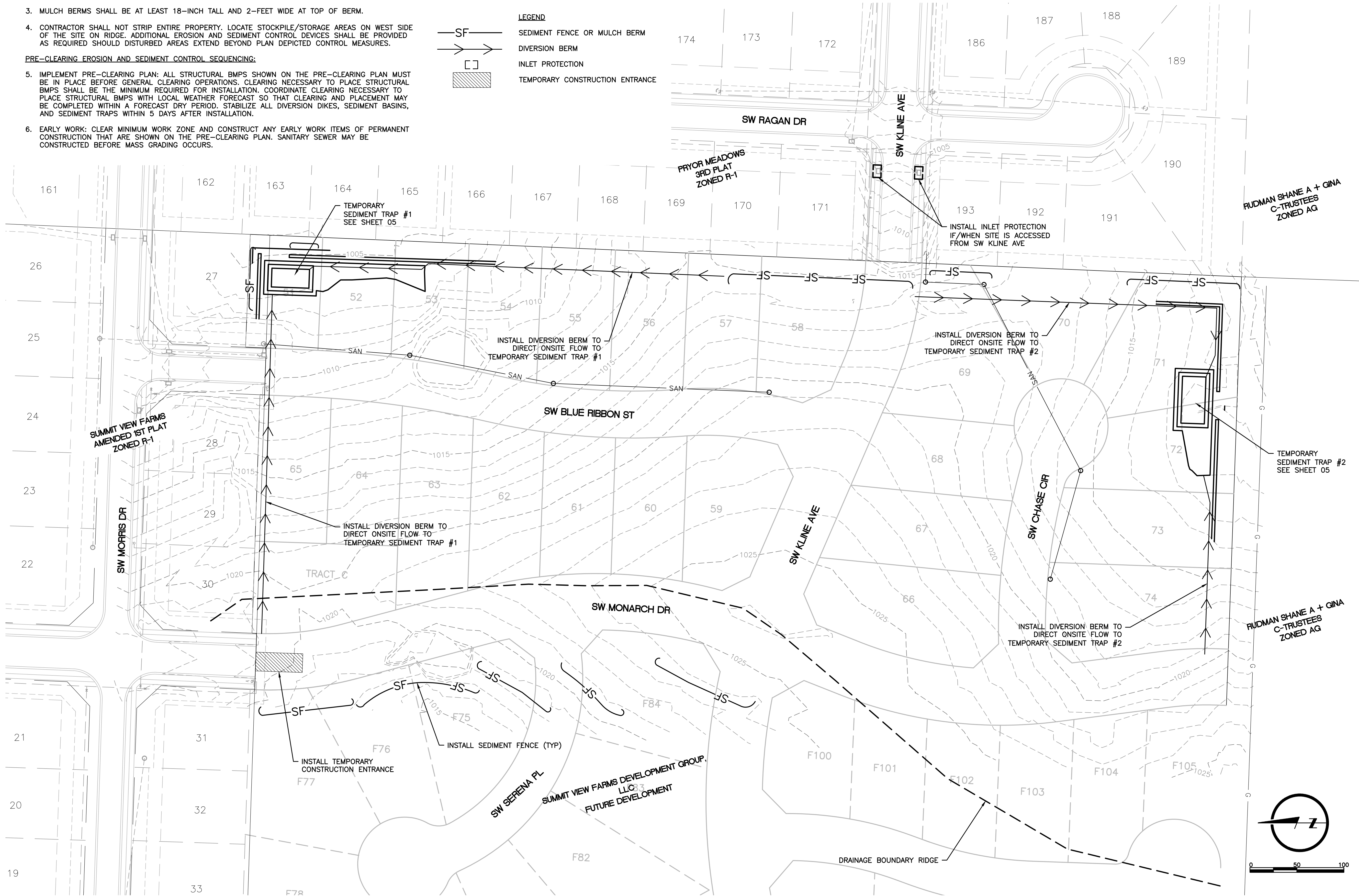
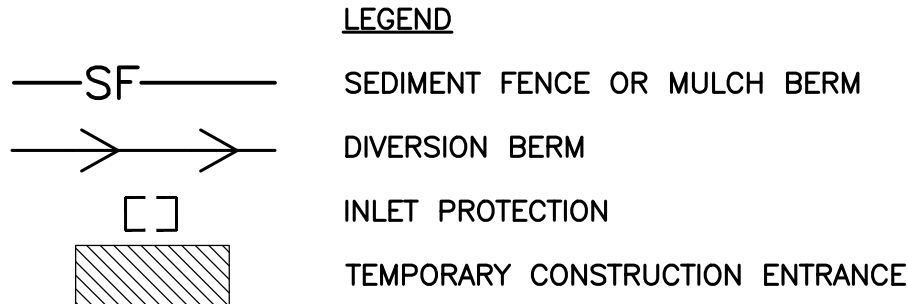
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MASS GRADING, EROSION CONTROL, PAVING, STORM AND SANITARY PLANS				
MASS GRADING PLAN				
LARKIN LAMP RYNEARSON - ENGINEERS NO Certificate of Authority No. 2013011903				
MARK DANIEL MCGHEE JR. PE - 2008019568				
SHEET				
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GENERAL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL PUBLIC ROADWAYS ADJACENT TO THE CONSTRUCTION SITE FREE OF DIRT AND DEBRIS RESULTING FROM ACTIVITIES RELATED TO THE CONSTRUCTION OF THIS PROJECT.
2. CONTRACTOR SHALL UTILIZE TEMPORARY CONSTRUCTION ENTRANCE FOR ACCESS TO SITE.
3. MULCH BERMS SHALL BE AT LEAST 18-INCH TALL AND 2-FEET WIDE AT TOP OF BERM.
4. CONTRACTOR SHALL NOT STRIP ENTIRE PROPERTY. LOCATE STOCKPILE/STORAGE AREAS ON WEST SIDE OF THE SITE ON RIDGE. ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PROVIDED AS REQUIRED SHOULD DISTURBED AREAS EXTEND BEYOND PLAN DEPICTED CONTROL MEASURES.

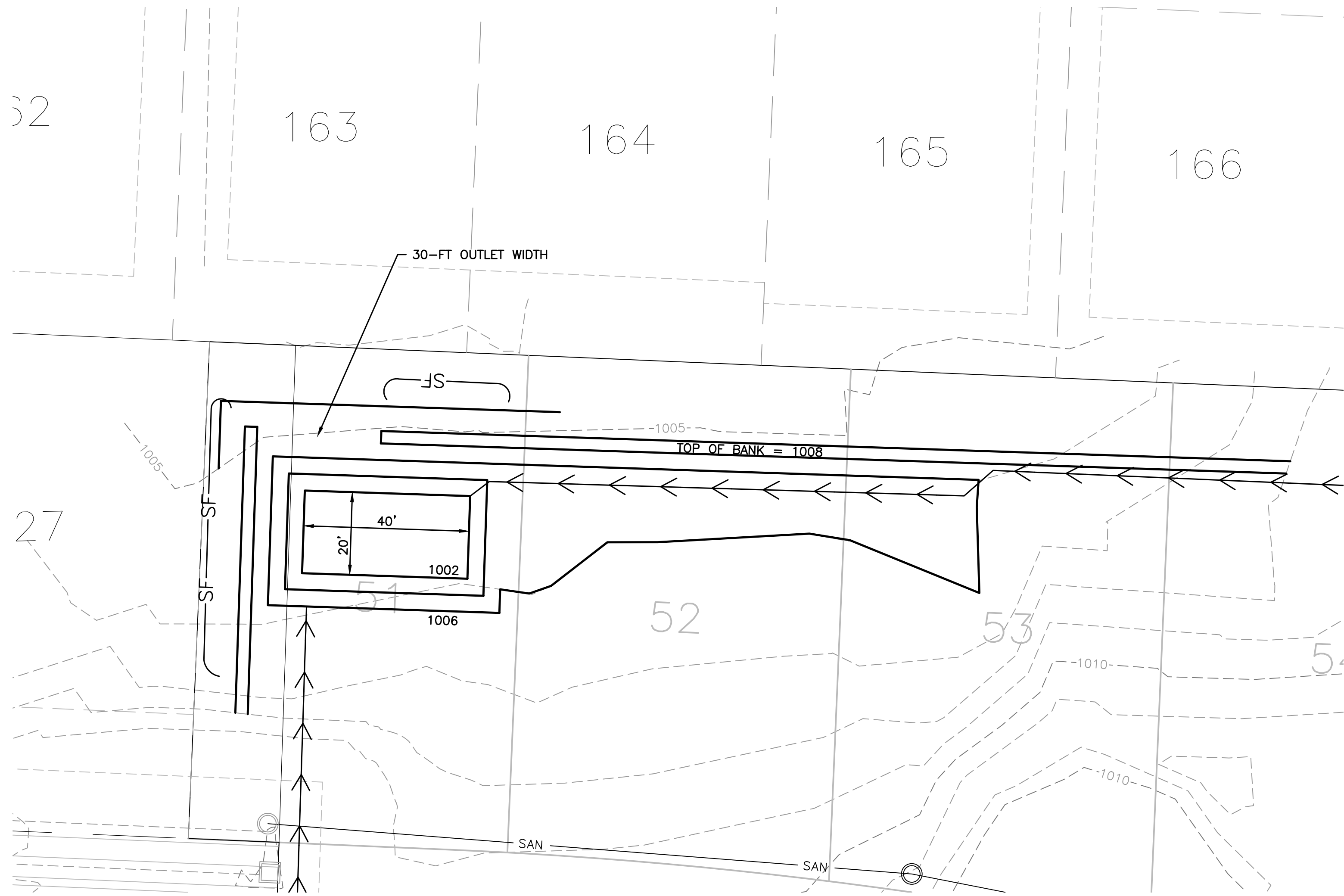
PRE-CLEARING EROSION AND SEDIMENT CONTROL SEQUENCING:

5. IMPLEMENT PRE-CLEARING PLAN: ALL STRUCTURAL BMPs SHOWN ON THE PRE-CLEARING PLAN MUST BE IN PLACE BEFORE GENERAL CLEARING OPERATIONS. CLEARING NECESSARY TO PLACE STRUCTURAL BMPs SHALL BE THE MINIMUM REQUIRED FOR INSTALLATION. COORDINATE CLEARING NECESSARY TO PLACE STRUCTURAL BMPs WITH LOCAL WEATHER FORECAST SO THAT CLEARING AND PLACEMENT MAY BE COMPLETED WITHIN A FORECAST DRY PERIOD. STABILIZE ALL DIVERSION DIKES, SEDIMENT BASINS, AND SEDIMENT TRAPS WITHIN 5 DAYS AFTER INSTALLATION.
6. EARLY WORK: CLEAR MINIMUM WORK ZONE AND CONSTRUCT ANY EARLY WORK ITEMS OF PERMANENT CONSTRUCTION THAT ARE SHOWN ON THE PRE-CLEARING PLAN. SANITARY SEWER MAY BE CONSTRUCTED BEFORE MASS GRADING OCCURS.



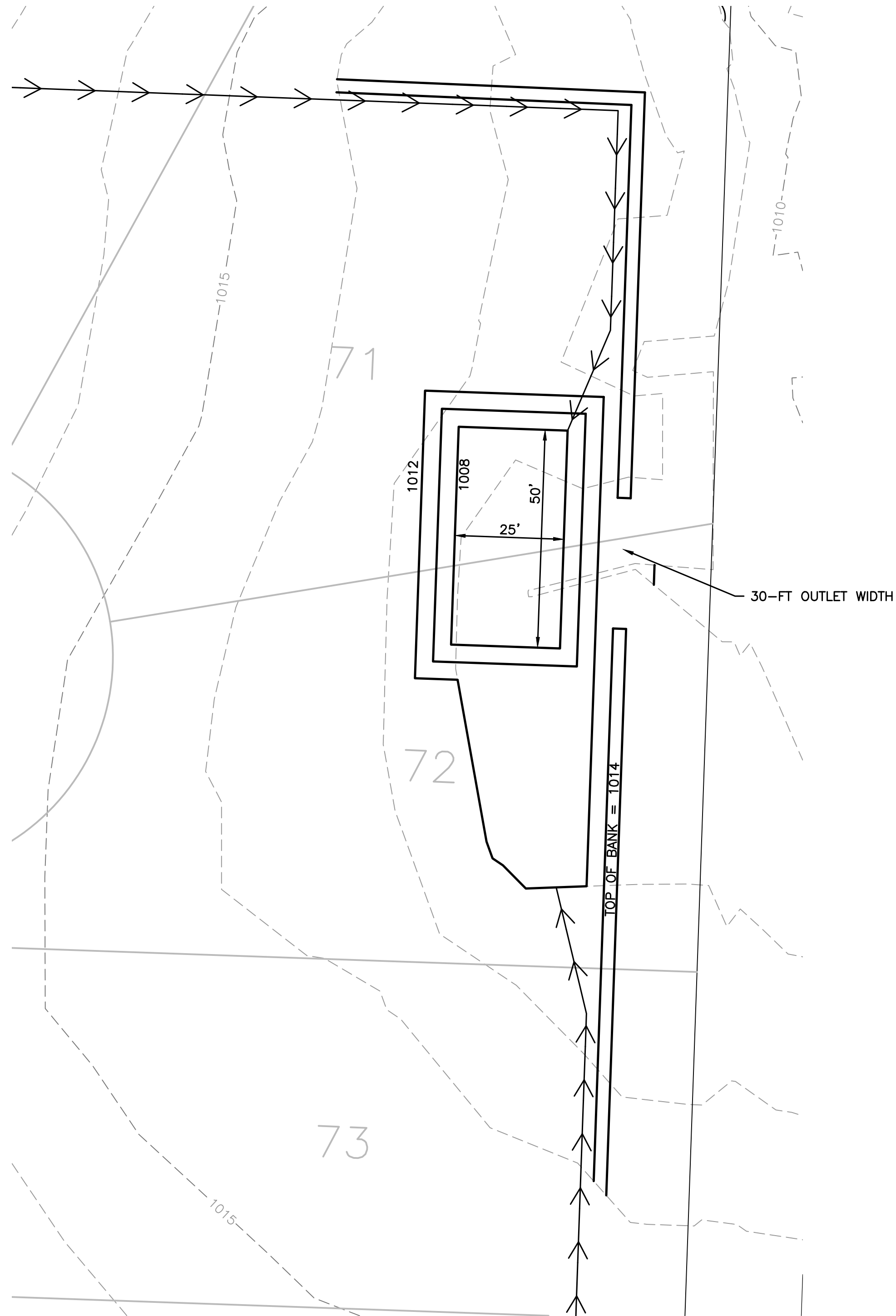
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MASS GRADING, EROSION CONTROL, PAVING, STORM AND SANITARY PLANS PRE CLEARING EROSION AND SEDIMENT CONTROL PLAN				
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MARK DANIEL MCGHEE JR. PE - 2008019568				
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SEDIMENT TRAP #1 PLAN

TRIBUTARY DRAINAGE AREA	4.08 AC
VOLUME REQUIRED (67 CY/AC)	7,381 CF
DESIGN VOLUME PROVIDED (4-FT DEPTH)	7,799 CF
TOP OF BANK ELEVATION	1008
OUTLET WIDTH	30 Ft
TOP OF OUTLET ELEVATION	1007

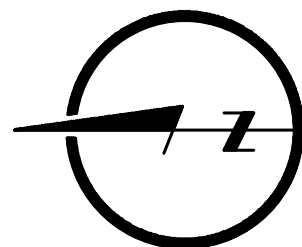


SEDIMENT TRAP #2 PLAN

TRIBUTARY DRAINAGE AREA	4.72 AC
VOLUME REQUIRED (67 CY/AC)	8,538 CF
DESIGN VOLUME PROVIDED (4-FT DEPTH)	8,983 CF
TOP OF BANK ELEVATION	1014
OUTLET WIDTH	30 Ft
TOP OF OUTLET ELEVATION	1013

GENERAL NOTES:

1. TEMPORARY SEDIMENT TRAPS HAVE BEEN DESIGNED PER KC APWA SECTION 5100 DESIGN CRITERIA.
2. REFER TO SHEET 09 FOR TYPICAL KC APWA TEMPORARY SEDIMENT TRAP CONSTRUCTION DETAIL.
3. EXISTING CONTOURS ARE SHOWN AT 1-FT INTERVALS ON THIS SHEET.



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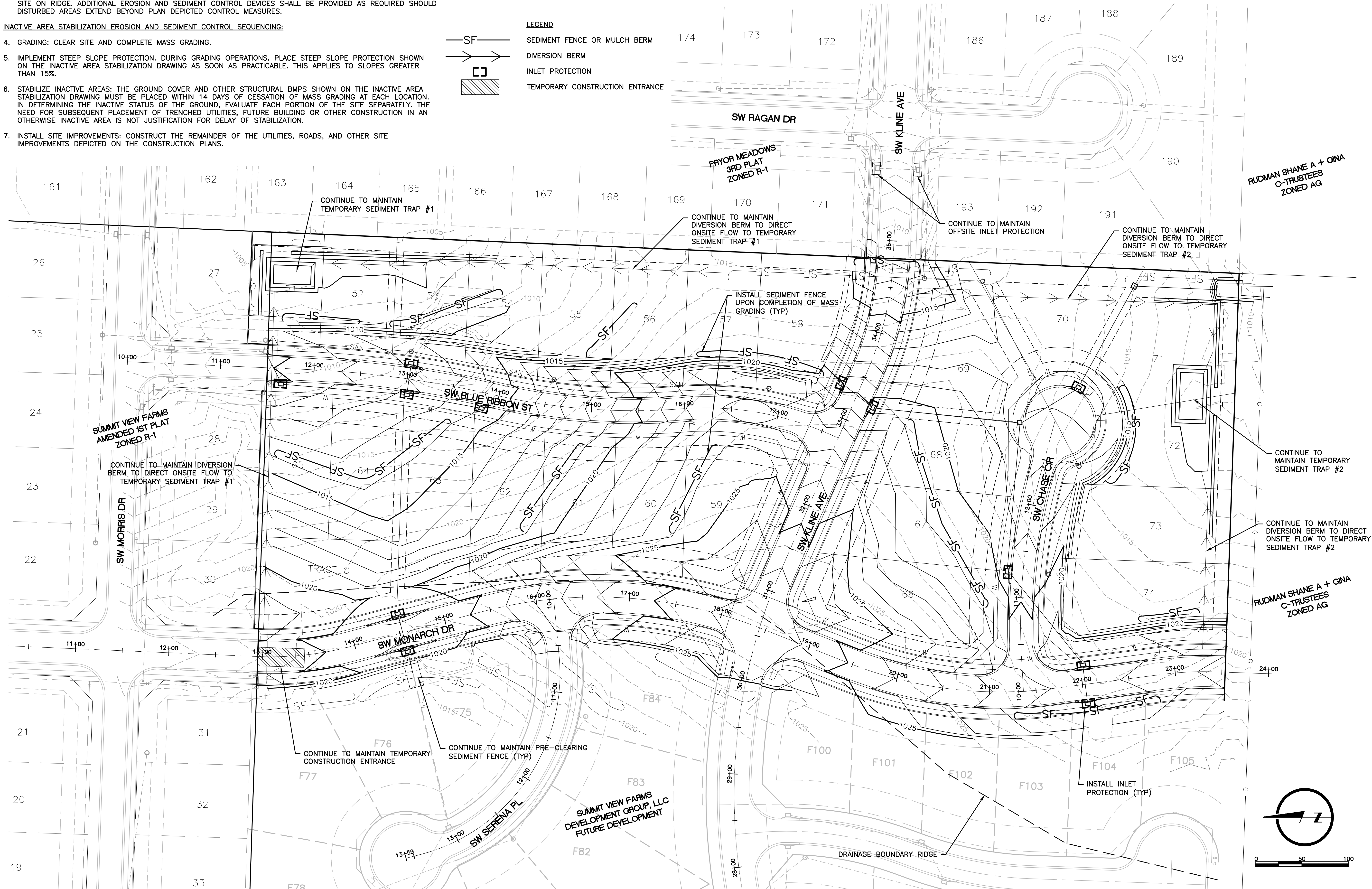
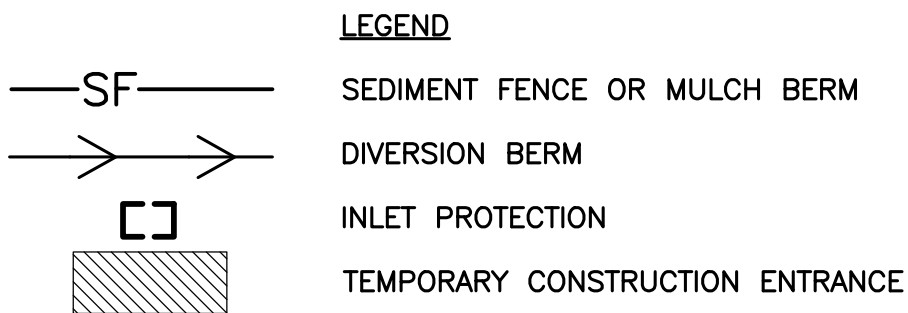
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MASS GRADING, EROSION CONTROL, PAVING, STORM AND SANITARY PLANS TEMPORARY SEDIMENT TRAP EROSION AND SEDIMENT CONTROL PLAN				
LARKIN LAMP RYNEARSON - ENGINEERS IACO Certificate of Authority No. 2013011803				
MARK DANIEL MCGHEE JR. PE - 2008019568				
SHEET				
06 OF 31				

GENERAL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL PUBLIC ROADWAYS ADJACENT TO THE CONSTRUCTION SITE FREE OF DIRT AND DEBRIS RESULTING FROM ACTIVITIES RELATED TO THE CONSTRUCTION OF THIS PROJECT.
2. DISTURBED AREAS SHALL HAVE SURFACES ROUGHENED IN ACCORDANCE WITH KCAPWA SPECIFICATIONS.
3. CONTRACTOR SHALL NOT STRIP ENTIRE PROPERTY. LOCATE STOCKPILE/STORAGE AREAS ON WEST SIDE OF THE SITE ON RIDGE. ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PROVIDED AS REQUIRED SHOULD DISTURBED AREAS EXTEND BEYOND PLAN DEPICTED CONTROL MEASURES.

INACTIVE AREA STABILIZATION EROSION AND SEDIMENT CONTROL SEQUENCING:

4. GRADING: CLEAR SITE AND COMPLETE MASS GRADING.
5. IMPLEMENT STEEP SLOPE PROTECTION. DURING GRADING OPERATIONS. PLACE STEEP SLOPE PROTECTION SHOWN ON THE INACTIVE AREA STABILIZATION DRAWING AS SOON AS PRACTICABLE. THIS APPLIES TO SLOPES GREATER THAN 15%.
6. STABILIZE INACTIVE AREAS: THE GROUND COVER AND OTHER STRUCTURAL BMPs SHOWN ON THE INACTIVE AREA STABILIZATION DRAWING MUST BE PLACED WITHIN 14 DAYS OF CESSATION OF MASS GRADING AT EACH LOCATION. IN DETERMINING THE INACTIVE STATUS OF THE GROUND, EVALUATE EACH PORTION OF THE SITE SEPARATELY. THE NEED FOR SUBSEQUENT PLACEMENT OF TRENCHED UTILITIES, FUTURE BUILDING OR OTHER CONSTRUCTION IN AN OTHERWISE INACTIVE AREA IS NOT JUSTIFICATION FOR DELAY OF STABILIZATION.
7. INSTALL SITE IMPROVEMENTS: CONSTRUCT THE REMAINDER OF THE UTILITIES, ROADS, AND OTHER SITE IMPROVEMENTS DEPICTED ON THE CONSTRUCTION PLANS.



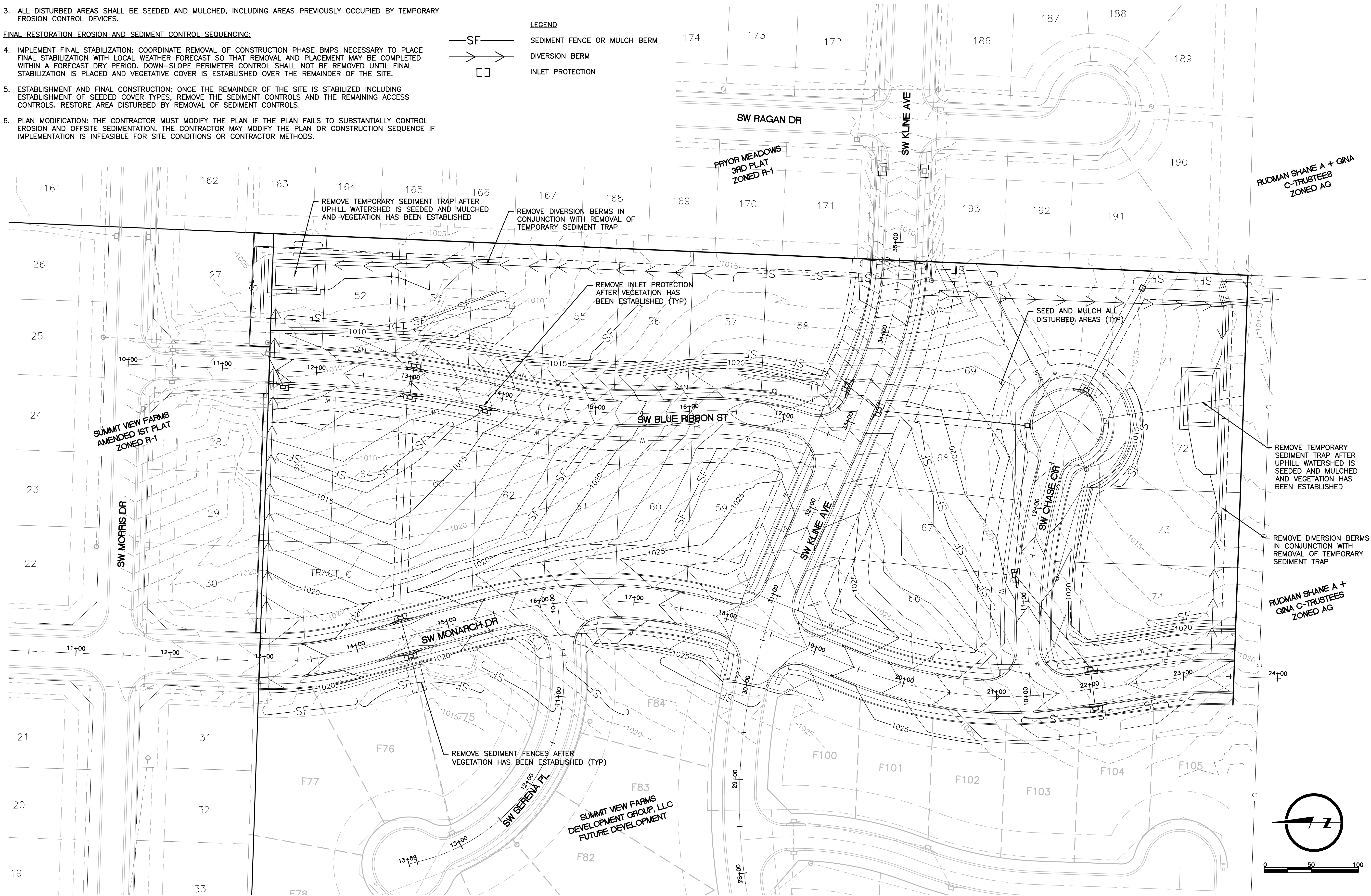
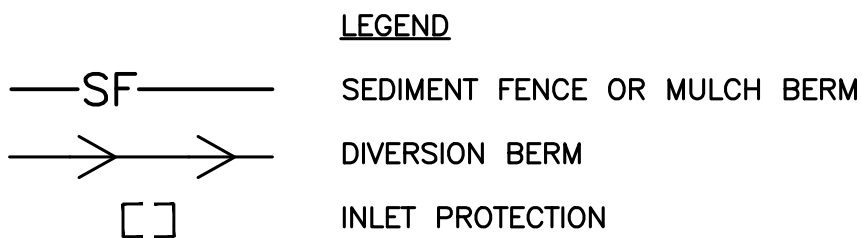
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SUMMIT VIEW FARMS 3RD PLAT LEE'S SUMMIT, MISSOURI				
MASS GRADING, EROSION CONTROL, PAVING, STORM, AND SANITARY PLANS INACTIVE AREA EROSION AND SEDIMENT CONTROL PLAN				
LARKIN LAMP RYNEARSON - ENGINEERS TMO Certificate of Authority No. 2013011903				
STATE OF MISSOURI MARK DANIEL MCGHEE JR. PE-2008019568 09-19-2018				
MARK DANIEL MCGHEE JR. PE - 2008019568				
SHEET				
07 OF 31				

GENERAL NOTES:

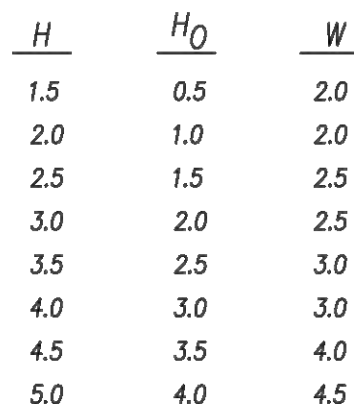
1. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL PUBLIC ROADWAYS ADJACENT TO THE CONSTRUCTION SITE FREE OF DIRT AND DEBRIS RESULTING FROM ACTIVITIES RELATED TO THE CONSTRUCTION OF THIS PROJECT.
2. DISTURBED AREAS SHALL HAVE SURFACES ROUGHENED IN ACCORDANCE WITH KCAPWA SPECIFICATIONS.
3. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED, INCLUDING AREAS PREVIOUSLY OCCUPIED BY TEMPORARY EROSION CONTROL DEVICES.

FINAL RESTORATION EROSION AND SEDIMENT CONTROL SEQUENCING:

4. IMPLEMENT FINAL STABILIZATION: COORDINATE REMOVAL OF CONSTRUCTION PHASE BMPS NECESSARY TO PLACE FINAL STABILIZATION WITH LOCAL WEATHER FORECAST SO THAT REMOVAL AND PLACEMENT MAY BE COMPLETED WITHIN A FORECAST DRY PERIOD. DOWN-SLOPE PERIMETER CONTROL SHALL NOT BE REMOVED UNTIL FINAL STABILIZATION IS PLACED AND VEGETATIVE COVER IS ESTABLISHED OVER THE REMAINDER OF THE SITE.
5. ESTABLISHMENT AND FINAL CONSTRUCTION: ONCE THE REMAINDER OF THE SITE IS STABILIZED INCLUDING ESTABLISHMENT OF SEEDED COVER TYPES, REMOVE THE SEDIMENT CONTROLS AND THE REMAINING ACCESS CONTROLS. RESTORE AREA DISTURBED BY REMOVAL OF SEDIMENT CONTROLS.
6. PLAN MODIFICATION: THE CONTRACTOR MUST MODIFY THE PLAN IF THE PLAN FAILS TO SUBSTANTIALLY CONTROL EROSION AND OFFSITE SEDIMENTATION. THE CONTRACTOR MAY MODIFY THE PLAN OR CONSTRUCTION SEQUENCE IF IMPLEMENTATION IS INFEASIBLE FOR SITE CONDITIONS OR CONTRACTOR METHODS.



DRAWN BY JAN	DESIGNED BY MDM	DATE 09-19-2018	JOB NUMBER-TASKS 0318050.01	BOOK AND PAGE
REVISIONS				
08/19/18 - RESUBMITAL PER ADJUSTED LAYOUT				
09/19/18 - RESUBMITAL PER CITY COMMENTS				
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SUMMIT VIEW FARMS 3RD PLAT LEE'S SUMMIT, MISSOURI				
MASS GRADING, EROSION CONTROL, PAVING, STORM AND SANITARY PLANS FINAL RESTORATION EROSION AND SEDIMENT CONTROL PLAN				
LARKIN LAMP RYNEARSON - ENGINEERS TMO Certificate of Authority No. 2013011803				
MARK DANIEL MCGHEE JR. PE - 2008019568				
SHEET				
08 OF 31				



1. The area under the embankment shall be cleared, grubbed, and stripped of any vegetation and root mat.
2. Fill material for the embankment shall be free of roots or other woody vegetation, organic material, large stones, and other objectionable material. The embankment should be compacted in 6-inch layers by traversing with construction equipment.
3. The earthen embankment shall be stabilized immediately after installation.
4. Construction operations shall be carried out to minimize erosion and water pollution.
5. The structure shall be removed and the area stabilized when the upslope drainage area has been stabilized.
6. All cut and fill slopes shall be 2H : 1V or flatter, except for excavated, wet storage areas which may be at a maximum 1H : 1V grade.

Maintenance for Sediment Trap:

1. Check sediment traps after periods of significant runoff.
2. Remove sediment and restore the trap to its original dimensions when sediment accumulates to 20% of the storage capacity.
3. Immediately repair any erosion damage to the embankment and outlet.
4. Keep outlet and pool area free of all trash and other debris.

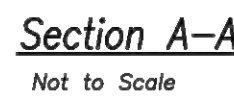


1. The inlet protection device shall be constructed in a manner that will facilitate clean-out and disposal of trapped sediment and minimize interference with construction activities.
2. The inlet protection devices shall be constructed in such manner that any resultant ponding stormwater will not cause excessive inconvenience or damage to adjacent areas or structures.
3. Geometry of the design will be a horseshoe shape around the culvert inlet.
4. The toe of the riprap shall be no closer than 24" from the culvert opening to provide an acceptable emergency outlet for flows from larger storm events.
5. Storage requirements equivalent to that of temporary sediment trap.
6. 67 C.Y./Acre wet storage below base of stone.
7. 67 C.Y./Acre dry storage from base of stone to top of stone berm.

The image contains two technical drawings of a drainage structure, likely a trench or ditch.

The top drawing is a **Side Elevation**. It shows a cross-section of the structure. The top surface is labeled "Existing Pavement". The bottom surface is labeled "Non-Woven Geotextile". The structure has a width of "50' Min." and a depth of "6" Min.". A "Mountable Berm (Optional)" is shown on the right side. The slope of the berm is labeled "5:1". A dimension of "3'" is shown for the width of the berm. The drawing is labeled "Side Elevation" and "Not to Scale".

The bottom drawing is a **Section A-A**. It shows a cross-section of the structure. The top surface is labeled "Existing Ground". The bottom surface is labeled "Non-Woven Geotextile". The structure has a width of "20' Min." and a depth of "3" Min.". The drawing is labeled "Section A-A" and "Not to Scale".



Not to Scale

1. Check sediment traps after periods of significant runoff.
2. Remove sediment and restore the trap to its original dimensions when sediment accumulates to 20% of the storage capacity.
3. Immediately repair any erosion damage to the embankment and outlet.
4. Keep outlet and pool area free of all trash and other debris.

Excavated material shall be used for perimeter berm. Soil for berm shall be compacted in the same manner as trench backfill.

Existing Grade

4:1

3:1

Construction Fence (optional)

Slope

Vehicle Tracking Control

1. Concrete washout areas shall be installed prior to any concrete placement on site.
2. Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
3. Vehicle tracking control is required at the access point to all concrete washout areas.
4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
4. Concrete washout areas shall remain in place until all concrete for the project is placed.
5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas shall be stabilized with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.

1. Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
3. If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 3:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
6. Divert all surface runoff and drainage from the entrance to a sediment control device.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

1. Reshape entrance as needed to maintain function and integrity of Installation. Top dress with clean aggregate as needed.

PENSIONS	DRAWN BY
09/10/18 – RESUBMITAL PER ADJUSTED LAYOUT	AJM
09/19/18 – RESUBMITAL PER CITY COMMENTS	DESIGNED BY
	MDM
	DATE
	09-19-2018
	JOB NUMBER/TASKS
	0318050.01
	BOOK AND PAGE

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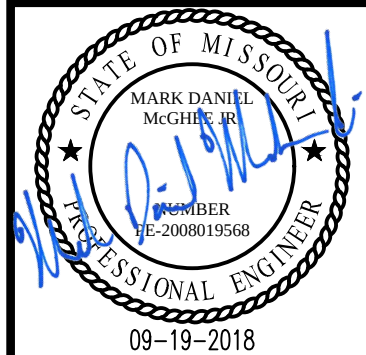
LARKIN
LAMP RYNEARSON

**SUMMIT VIEW FARMS 3RD PLAT
LEE'S SUMMIT, MISSOURI**

**MASS GRADING, EROSION CONTROL,
PAVING, STORM AND SANITARY PLANS**

EROSION CONTROL DETAILS

LARKIN LAMP RYNEARSON - ENGINEERS
MO Certificate of Authority No. 2013011903

TABLE 1. *MOQUEL* ID

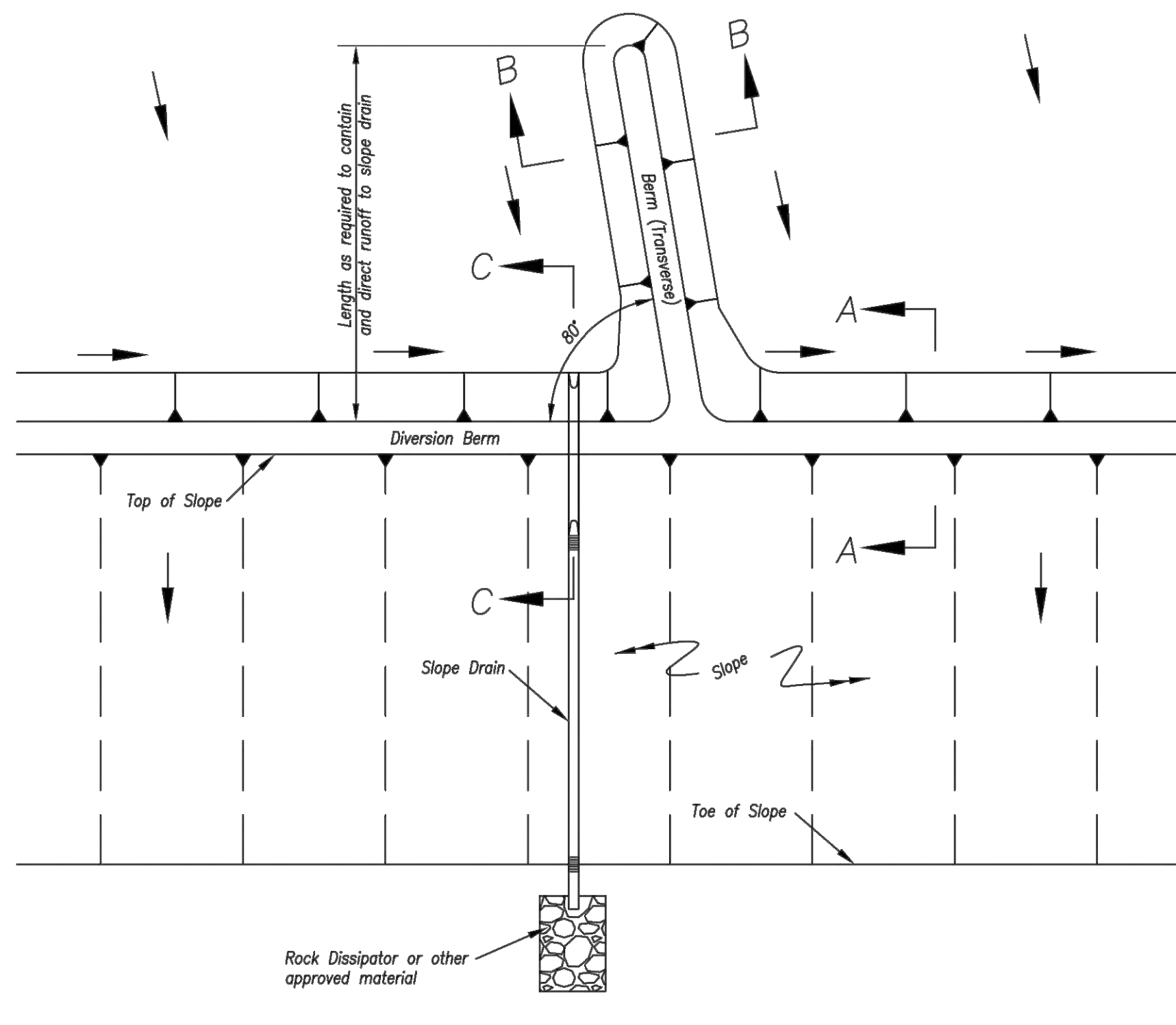
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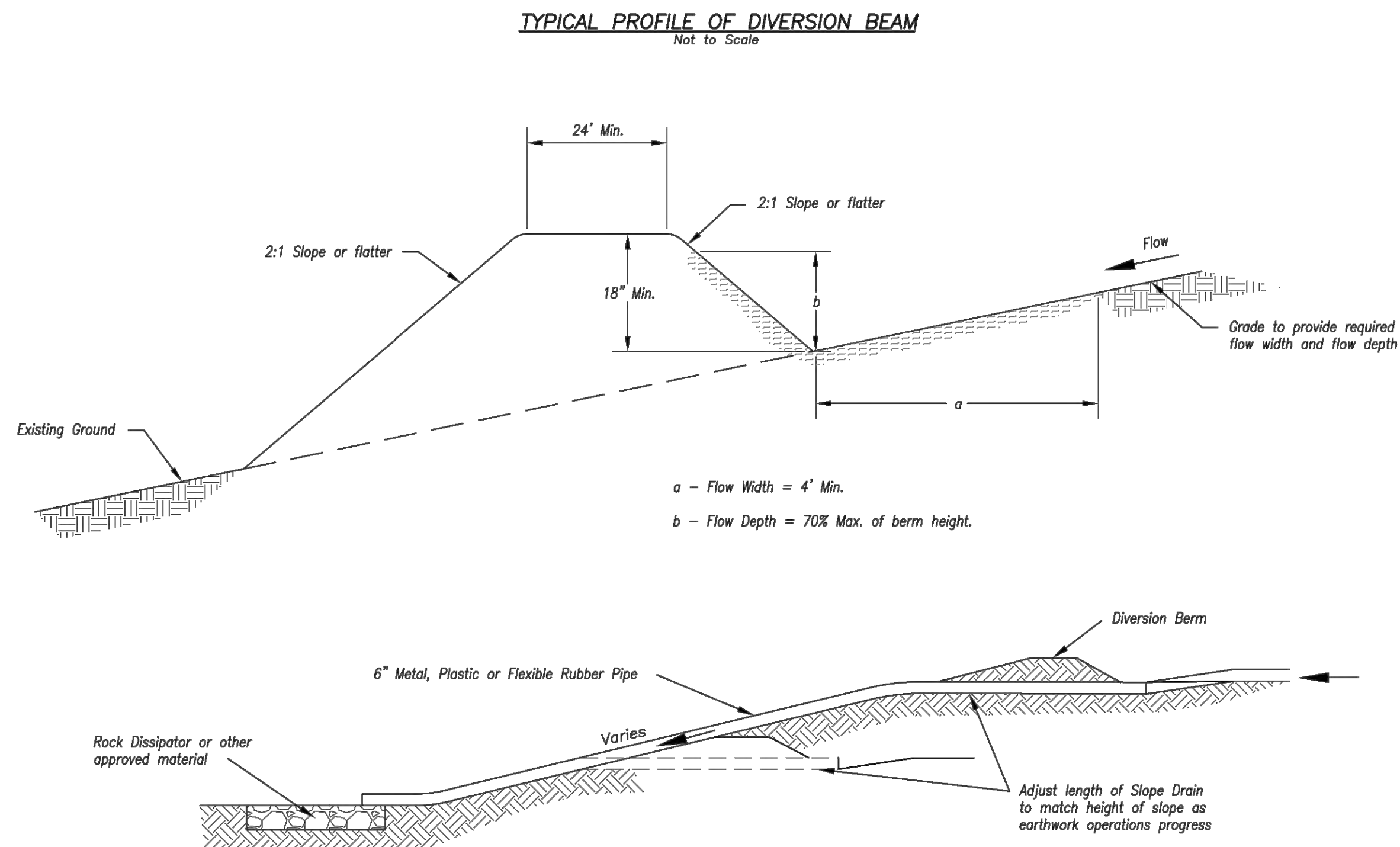
TYPICAL PLAN VIEW OF DIVERSION BERM
AND SLOPE DRAIN

Notes for Diversion Berm:

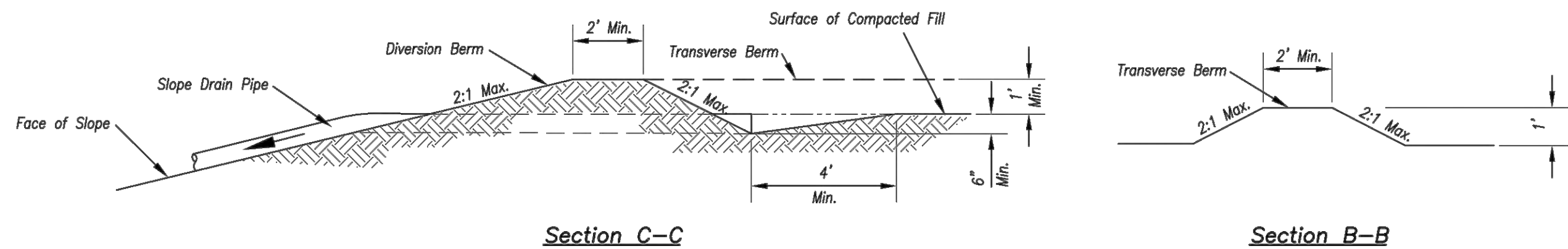
1. Slope drains are optional, but may be required by the engineer if the berm is at the top of a steep slope.
2. Diversion berms must be installed as a first step in the land-disturbing activity and must be functional prior to upslope land disturbance.
3. The berm should be adequately compacted to prevent failure.
4. Temporary or permanent seeding and mulch shall be applied to the berm immediately following its construction.
5. Place the berm so to minimize damages by construction operations and traffic.
6. The berm must discharge to a temporary sediment trap or stabilized area.
7. All trees, brush, stumps, obstructions and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of diversion.
8. The diversion shall be excavated or shaped to line, grade and cross-section as required to meet the criteria specified herein, free of irregularities which will impede flow.
9. Fills shall be compacted as needed to prevent unequal settlement that would cause damage in the completed diversion. Fill shall be composed of soil which is free from excessive organic debris, rocks or other objectionable materials.

Maintenance:

1. Berm shall be reshaped, compacted, and stabilized as necessary to maintain its function.
2. Breaches in the berm shall be repaired immediately.



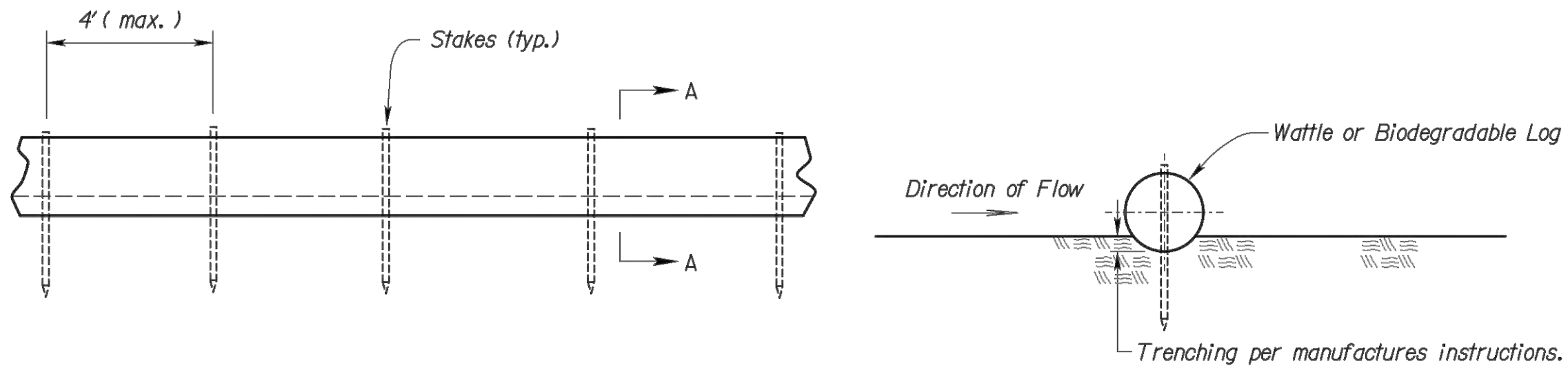
TYPICAL PROFILE OF DIVERSION BEAM
Not to Scale



Section C-C

Section B-B

TYPICAL PROFILE OF DIVERSION BERM WITH SLOPE DRAIN



Typical Elevation

Section A-A

Notes for Wattles and Biodegradable Log Slope Protection:

1. The Slope barriers shall be placed along contour lines, with a short section turned upgrade at each end of the barrier. The maximum length of the slope barrier shall not exceed 250 feet, and the barrier ends need to be staggered.
2. Install wattles and biodegradable logs per manufacturer's instructions.
3. Spacing of stakes per manufacturer's instructions with 4' max. spacing. Length of stakes shall be a minimum of 2 times the diameter of the log with minimum of 24".

WATTLES AND BIODEGRADABLE LOG

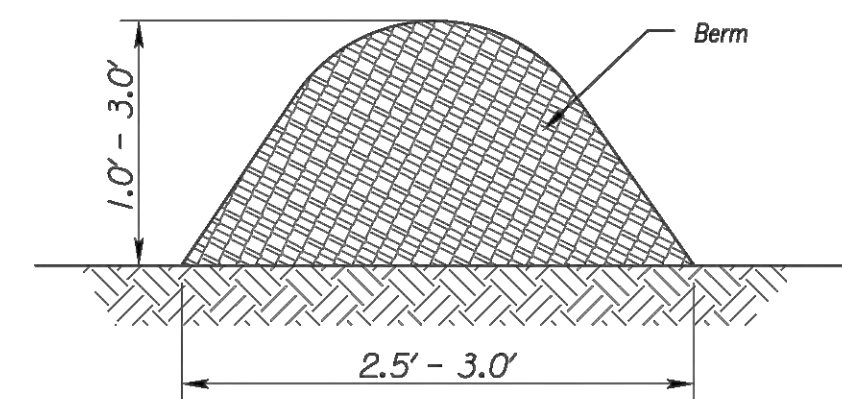


Figure 1
(Perimeter Control)

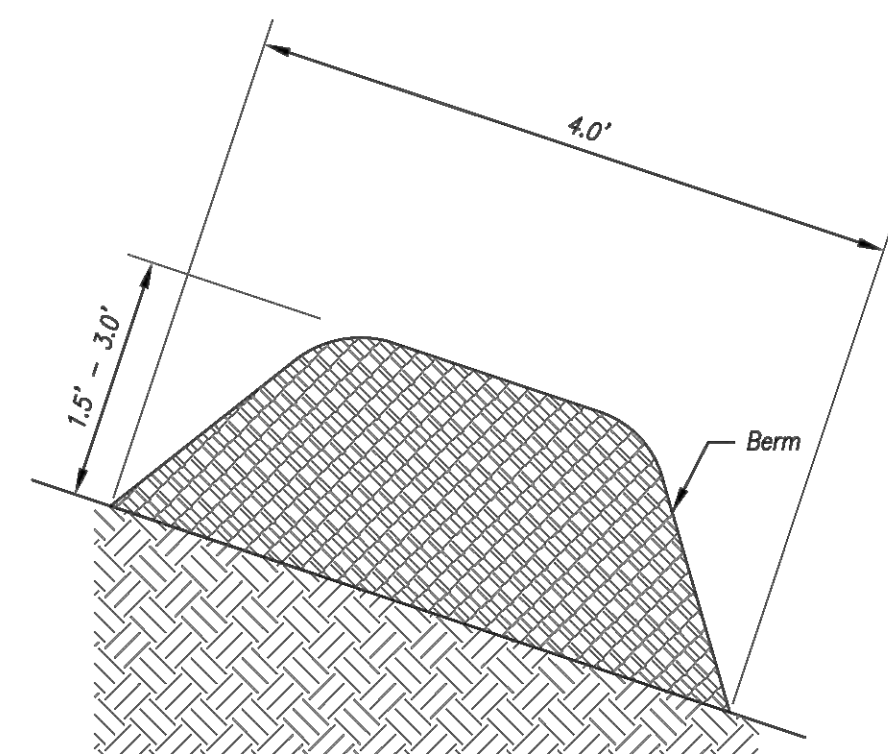


Figure 2
(Steep Slopes)

Notes for Mulch and Compost Filter Beam:

1. The sediment control berm shall be placed uncompacted in a windrow at locations shown on the plans or as directed by the engineer.
2. Parallel to the base of the slope, or around the perimeter of other affected areas, construct a 1 to 3 foot high by 2.5 to 3 foot wide berm (see Figure 1). For maximum water treatment ability or for steep slopes, construct a 1.5 to 3 foot high trapezoidal berm that is a minimum of 4 feet wide at the base (see Figure 2). In extreme conditions, or where specified by the engineer, a second berm shall be constructed at the top of the slope. Engineer will specify berm requirements.
3. If berm is to be left as permanent or part of the natural landscape, the compost berm may be seeded during application for permanent vegetation.
4. Do not use compost or wood mulch berms in any runoff channels or concentrated flow areas.
5. Wood mulch shall consist of tree and shrub debris resulting from clearing and grubbing and shall be ground by the mechanical means such as a chipper, hammermill, tub grinder or other approved method.
Mulch sizing varies with a maximum width of 2" and a maximum length of 10".

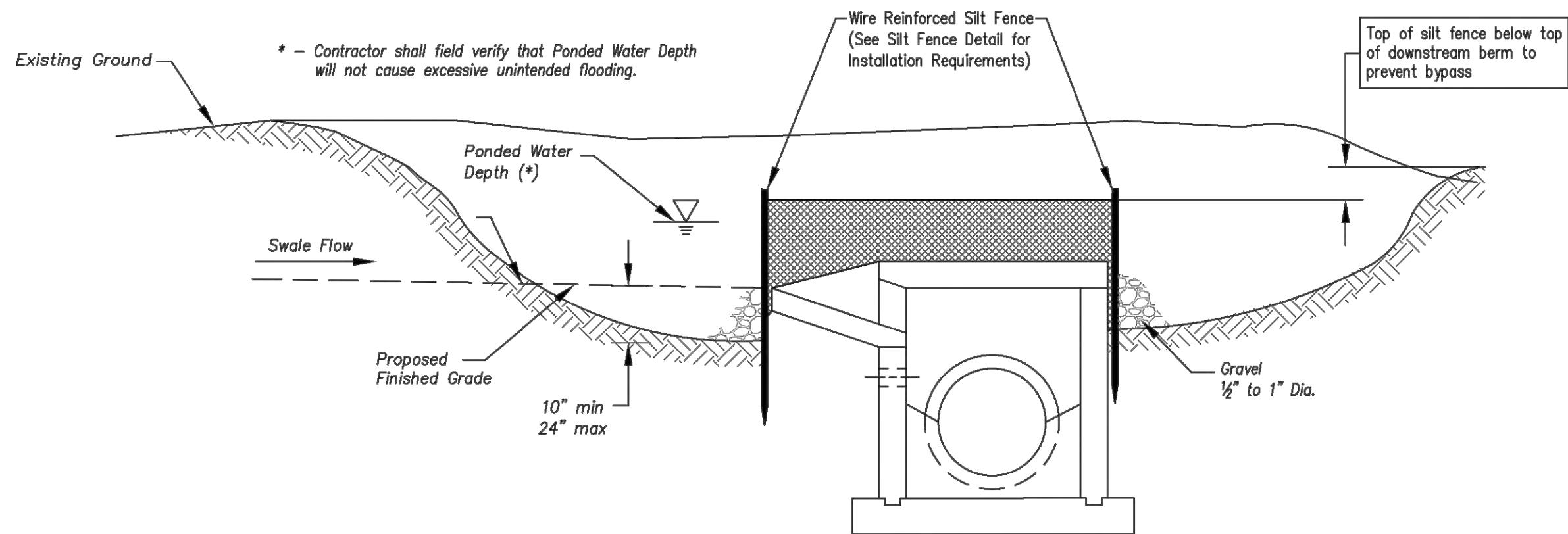
Maintenance for Mulch and Compost Filter Beam:

1. Berm shall be reshaped and material added as necessary to maintain function and dimensions.
2. Breaches in the berm shall be repaired promptly.

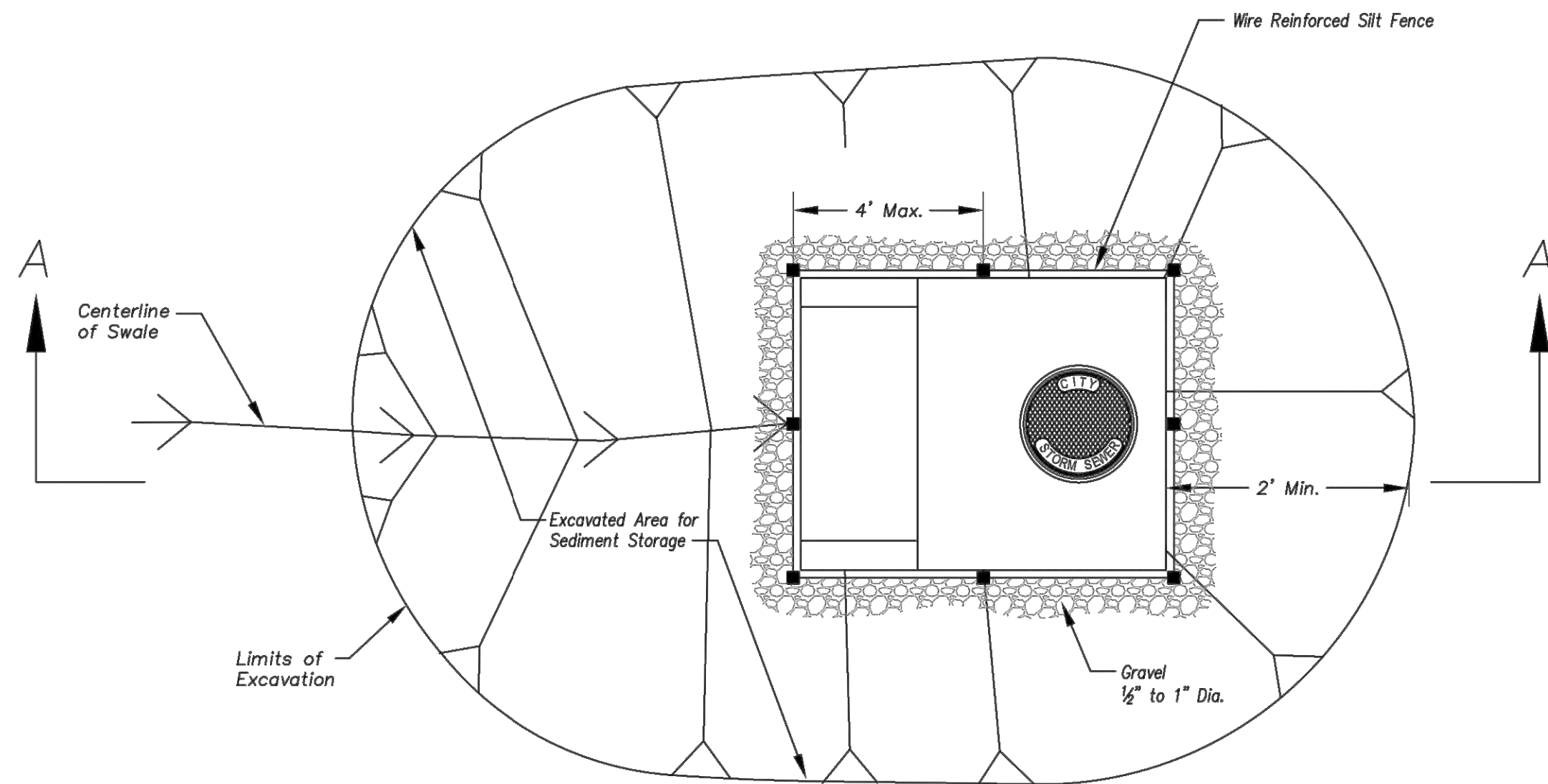
MULCH OR COMPOST FILTER BERMS

AMERICAN PUBLIC WORKS ASSOCIATION Kansas City Metro Chapter  AMERICAN PUBLIC WORKS ASSOCIATION		KANSAS CITY METRO CHAPTER
DIVERSION BERMS AND SLOPE DRAINS	STANDARD DRAWING NUMBER ESC-05 ADOPTED: 10/24/2016	
WATTLES/BIODEGRADABLE LOG AND MULCH/COMPOST FILTER BERM	STANDARD DRAWING NUMBER ESC-04 ADOPTED: 10/24/2016	

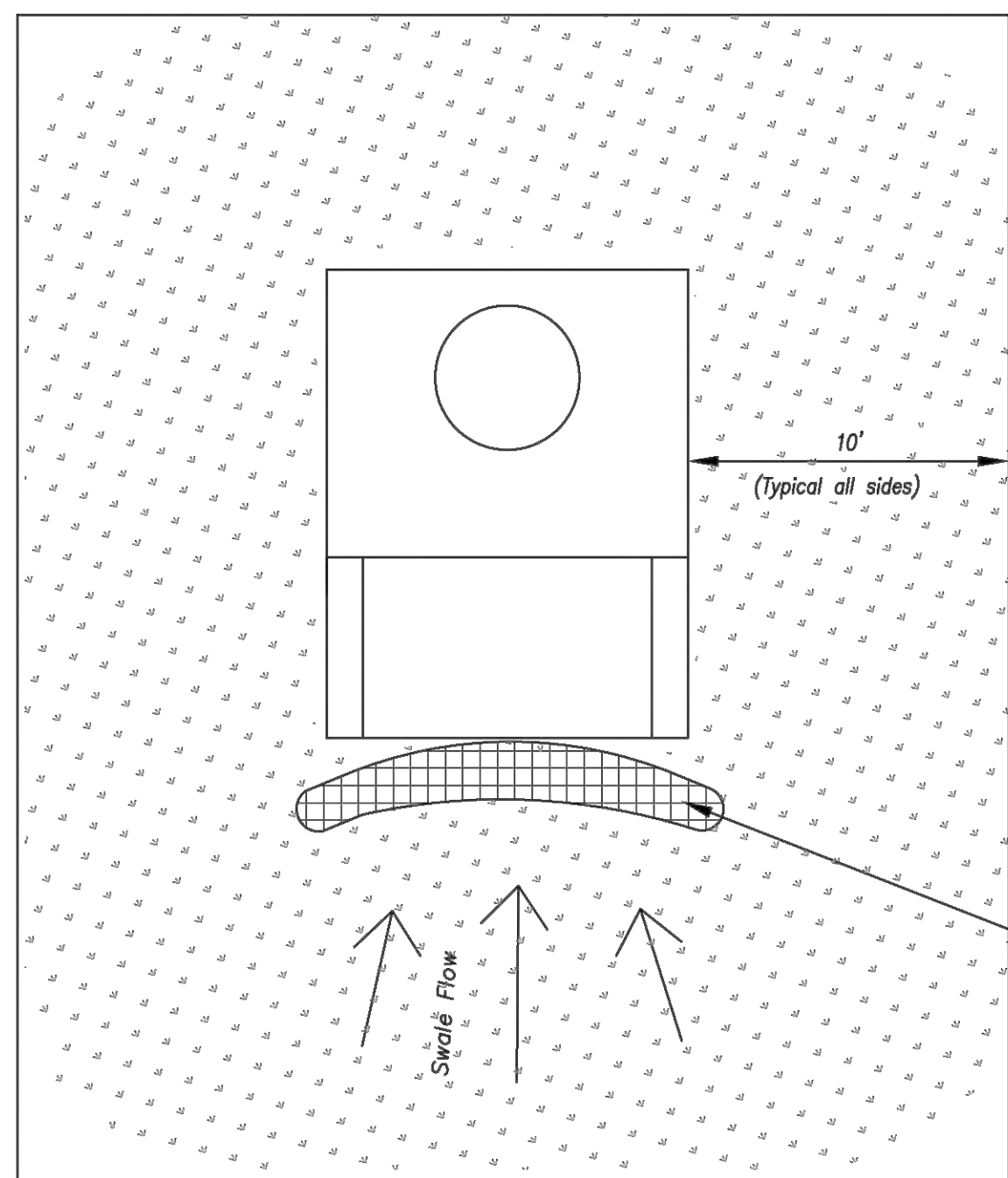
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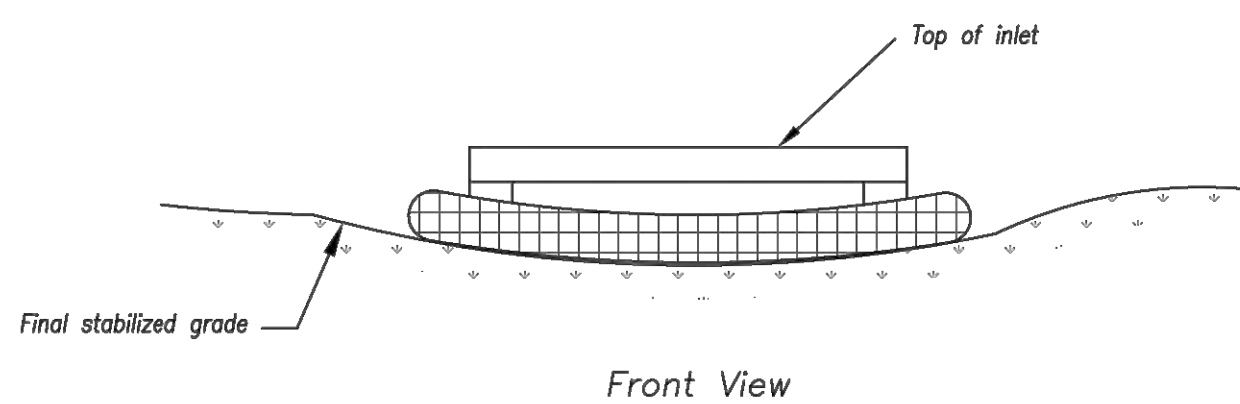
Section A-A
Not to Scale



PLAN
NOT TO SCALE
EARLY STAGE AREA INLET
(ALL OPEN BOXES AND INLETS NOT AT FINAL GRADE)



Plan
Not to Scale



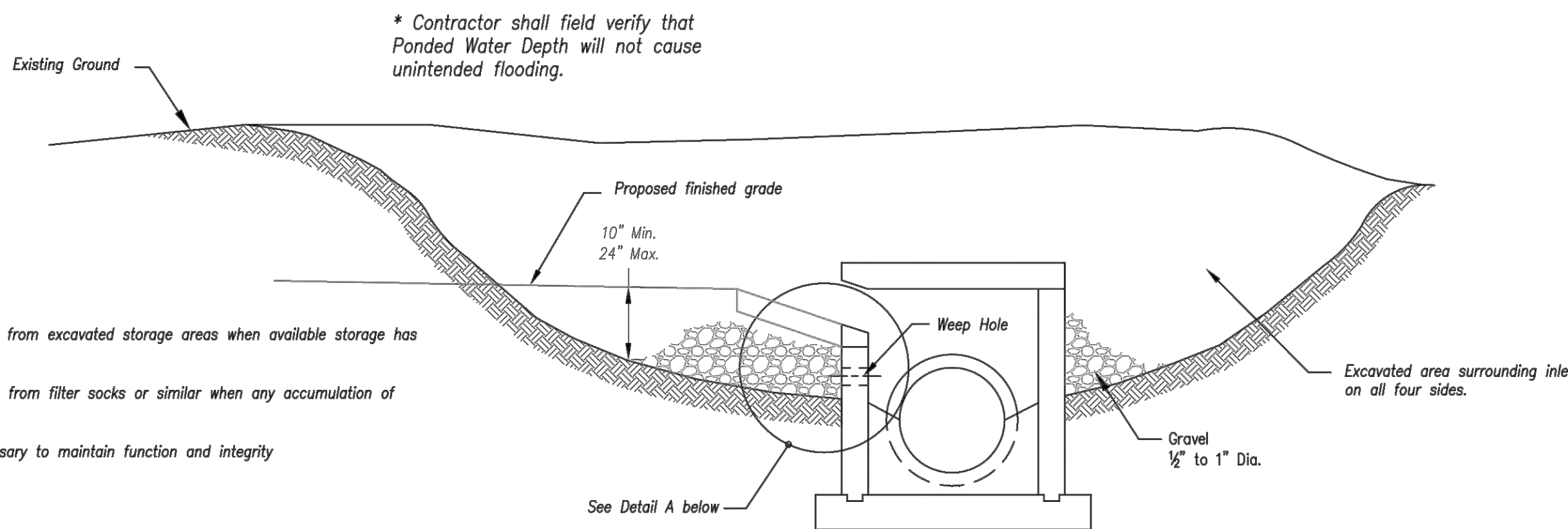
LATE STAGE AREA INLET
(Area inlets at final grade and existing inlets)

Notes:

1. Early Stage Area Inlet Sediment Barrier to be installed immediately after inlet or junction box is constructed.
2. Silt fence shall remain in place until excavated area is removed and Late Stage Area Inlet is being installed.
3. Backfill excavated area ONLY after final grading of the site. Stabilization of the site is to immediately follow.
4. Wire reinforced silt fence may be used in place of silt fence attached to wood frame.

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.

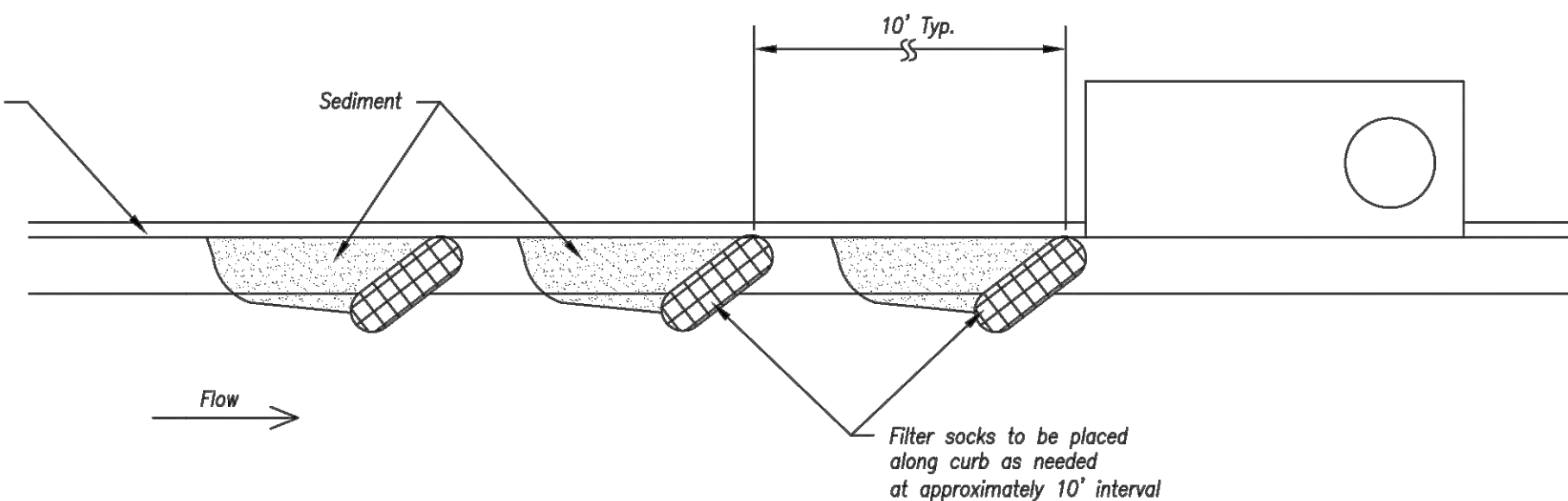


Maintenance:

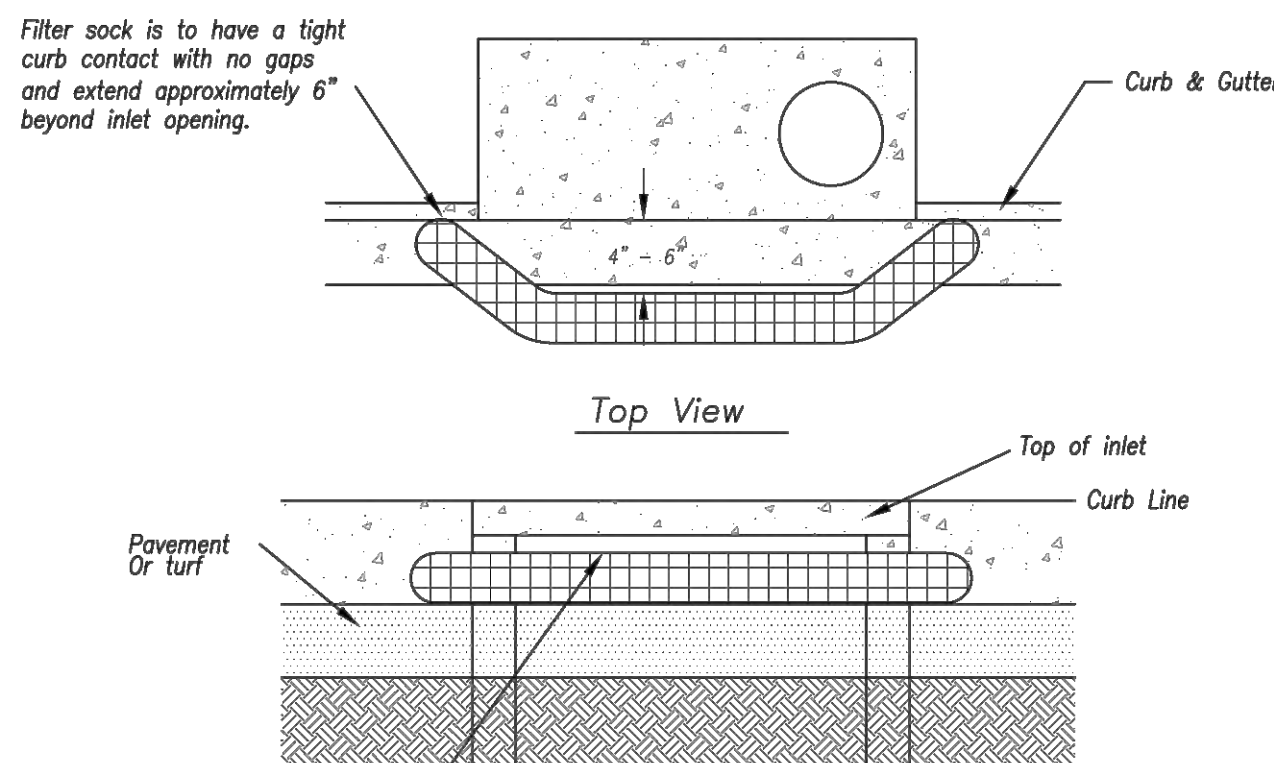
1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.

Notes:

1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" x 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
3. Contractor to field verify ponding water shall not create a traffic hazard.

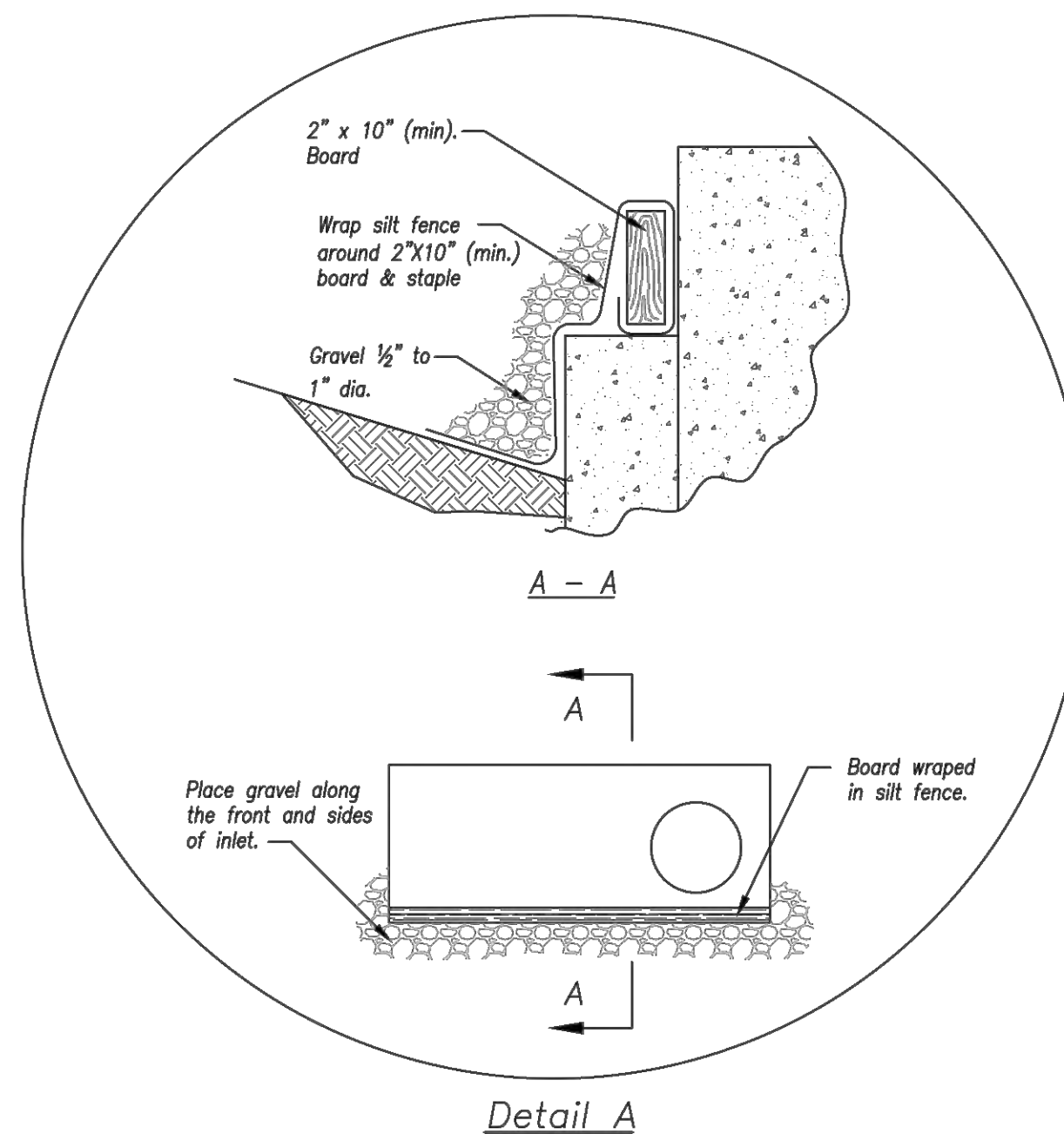


On Grade Curb Inlet Protection



Sump Inlet Sediment Filter

LATE STAGE CURB INLET
(After Pouring Curb and Inlet Throat)



EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)

AMERICAN PUBLIC WORKS ASSOCIATION



KANSAS CITY
METRO CHAPTER

CURB INLET PROTECTION

STANDARD DRAWING
NUMBER ESC-06

ADOPTED:
10/24/2016

AREA INLET AND
JUNCTION BOX PROTECTION

STANDARD DRAWING
NUMBER ESC-07

ADOPTED:
10/24/2016

DESIGNED BY	AM
DATE	09-19-2018
JOB NUMBER-TASKS	0318050.01
BOOK AND PAGE	

PERSONS	09/10/18 - RESUBMITAL PER ADJUSTED LAYOUT	816.361.0040 P
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MASS GRADING, EROSION CONTROL,
PAVING, STORM AND SANITARY PLANS

EROSION CONTROL DETAILS

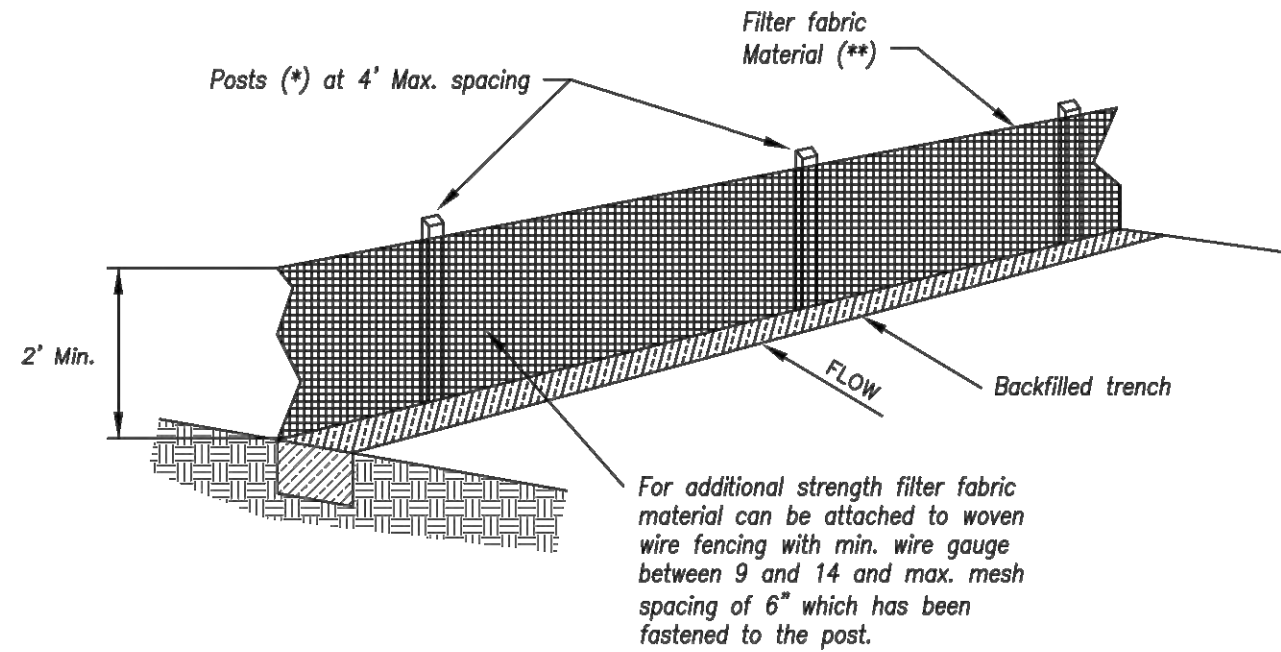
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Two Certificate of Authority No. 2013011503



MARK DANIEL MCGHEE JR.
PE - 2008019568

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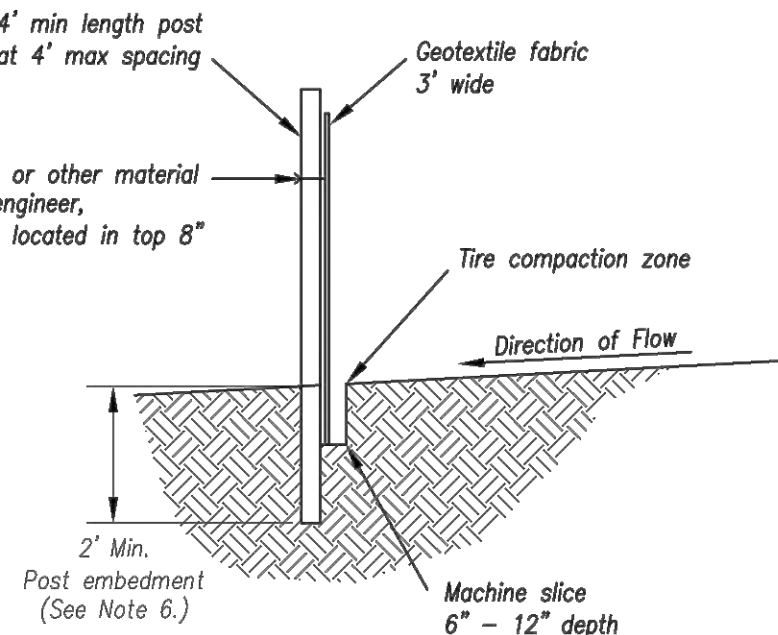
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- (*) **POSTS**
- MIN. LENGTH 4'
 - HARDWOOD 1 3/8" x 1 3/8"
 - NO.2 SOUTHERN PINE 2 3/8" x 2 3/8"
 - STEEL 1.33 LB/FT

(**) - Geotextile Fabric shall meet the requirements of AASHTO M288

SILT FENCE DETAILS
Not to Scale

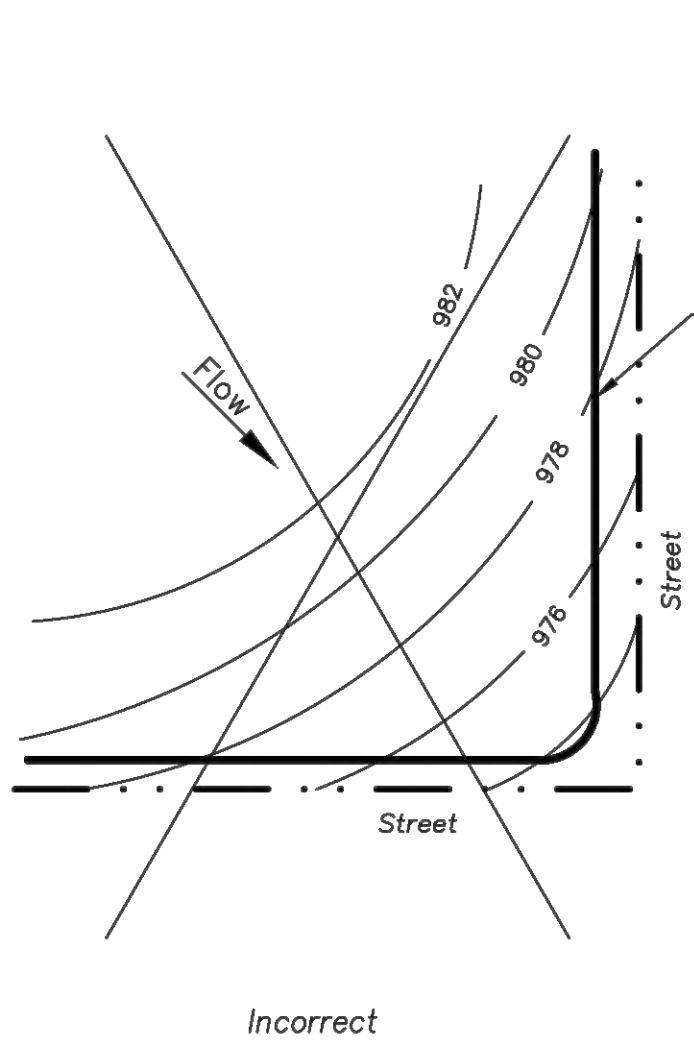


Notes:

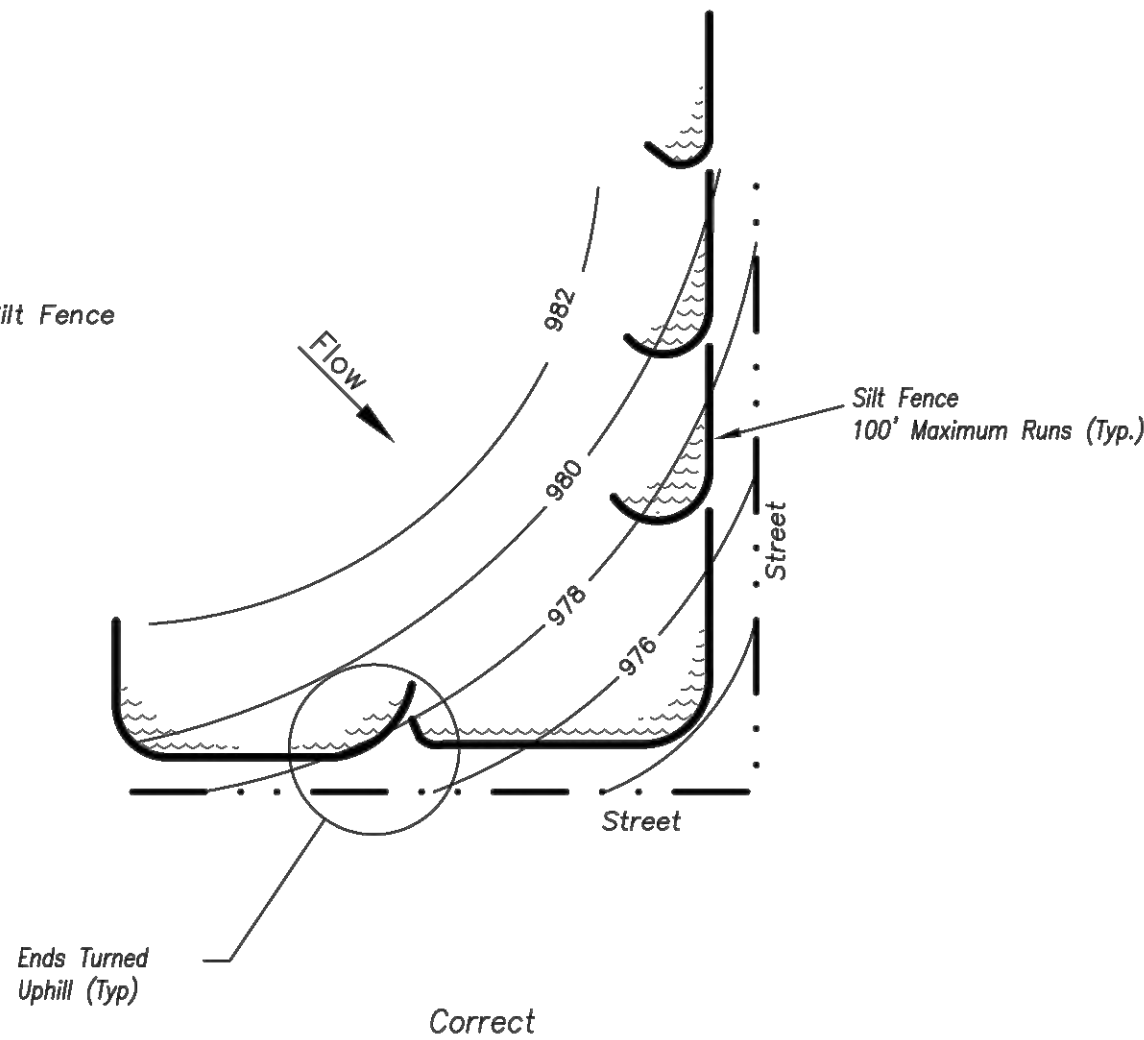
1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2' into the ground.
6. Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches 1/3 the height of silt fence.
2. Repair as necessary to maintain function and structure.



Incorrect

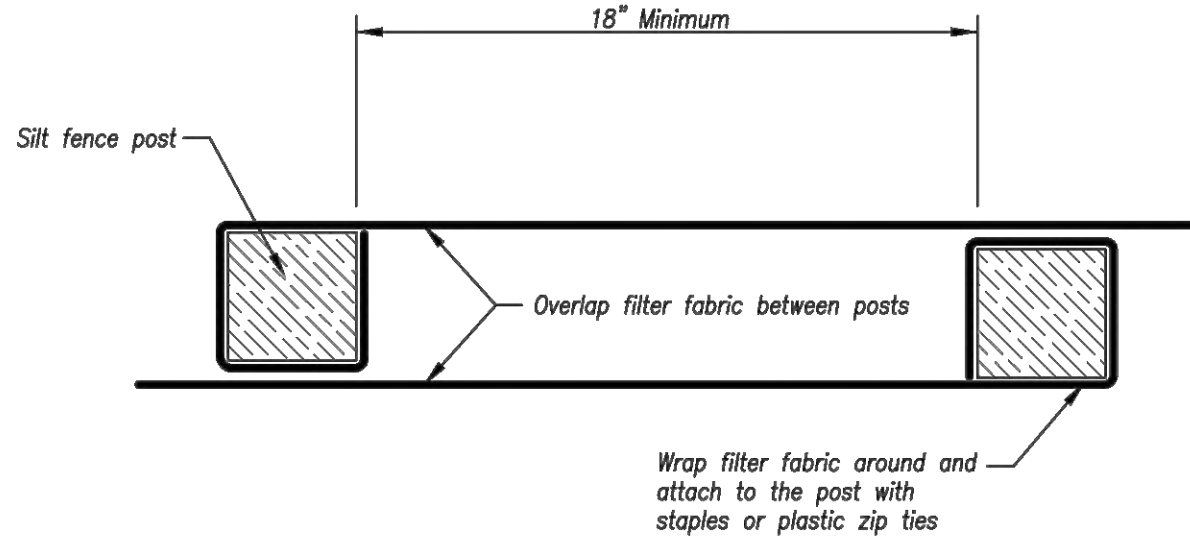
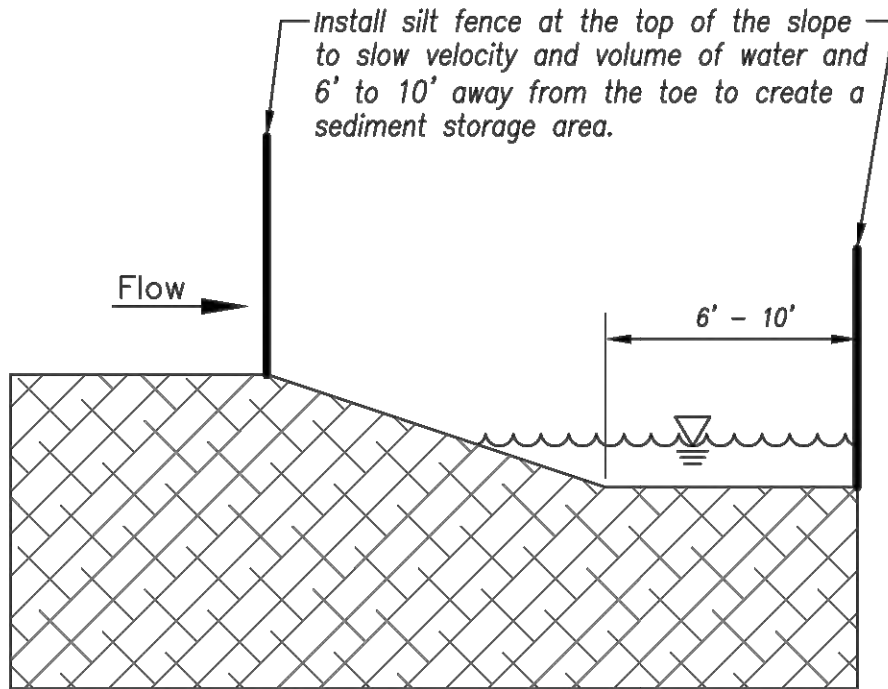


Ends Turned Uphill (Typ)

Correct

Figure A

SILT FENCE LAYOUT
Not to Scale



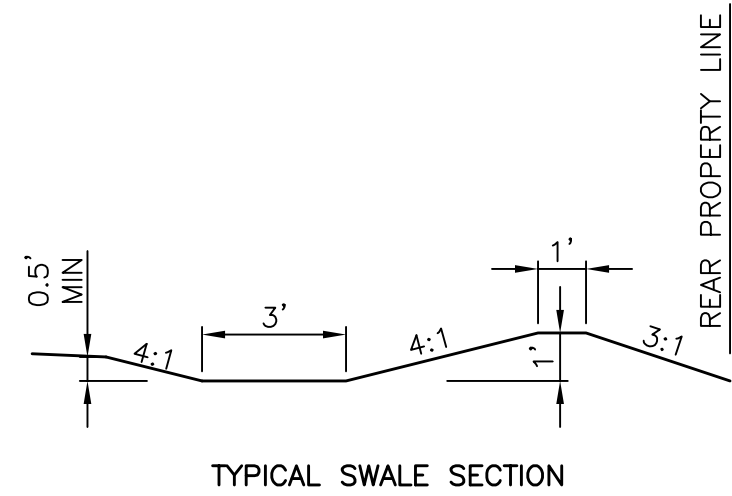
JOINING FENCE SECTIONS
Not to Scale

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

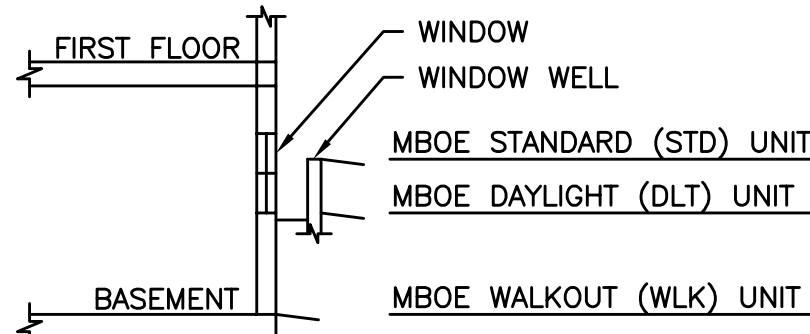
Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

DESIGNED BY NDW	DATE 09-19-2018	JOB NUMBER-TASKS 0318050.01	BOOK AND PAGE
PERSONS			
09/10/18 - RESUBMITAL PER ADJUSTED LAYOUT			
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9001 State Line Rd., Suite 200 Kansas City, Missouri 64114 www.LRA-inc.com			
LARKIN/RYNEARSON		SUMMIT VIEW FARMS 3RD PLAT LEE'S SUMMIT, MISSOURI	
MASS GRADING, EROSION CONTROL, PAVING, STORM AND SANITARY PLANS		EROSION CONTROL DETAILS	
LARKIN LAMP RYNEARSON - ENGINEERS			
Two Certificate of Authority No. 2013011503			
			
MARK DANIEL MCGHEE JR. PE - 2008019568			
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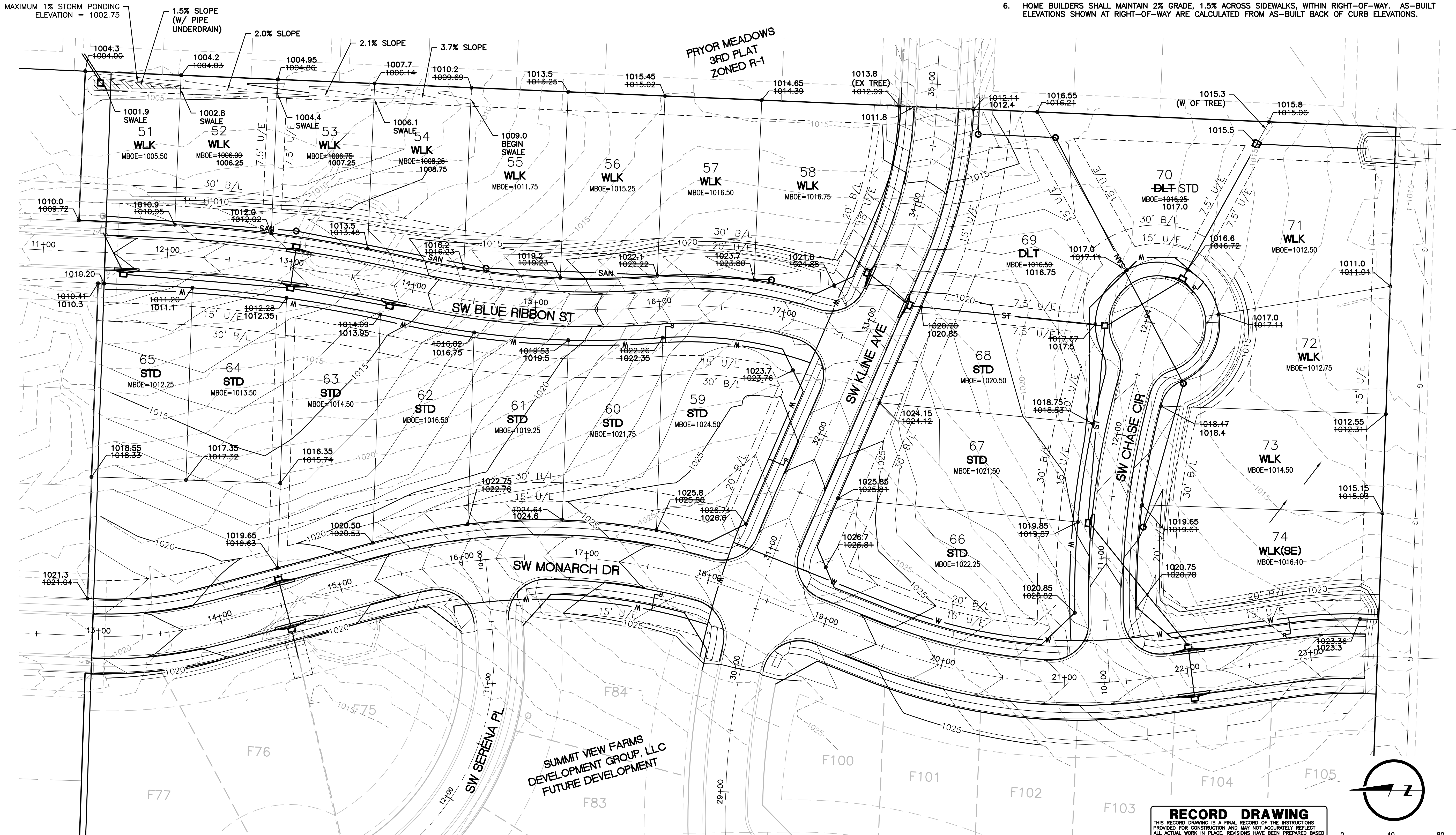
LOT	1% STORM SWALE DEPTH
52	0.38 FEET
53	0.35 FEET
54	0.27 FEET



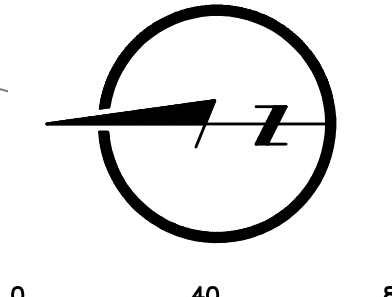
TYPICAL UNIT SECTION
NOT TO SCALE

GENERAL NOTES:

1. MINIMUM BUILDING OPENING ELEVATIONS (MBOE'S) SHOWN REPRESENT THE MINIMUM RECOMMENDED ELEVATIONS THAT WILL PROVIDE ADEQUATE POSITIVE STORM WATER DRAINAGE TO THE LOWEST POINT ON THE LOT FROM THE ANTICIPATED LOW SIDE OF THE BUILDING. THE HOME BUILDER SHALL BE RESPONSIBLE FOR ENSURING ADEQUATE POSITIVE DRAINAGE AWAY FROM ALL BUILDING OPENINGS TO PREVENT LOCALIZED STRUCTURE FLOODING.
2. A DAYLIGHT OR STANDARD UNIT MAY BE CONSTRUCTED ON WALKOUT LOT, AND A STANDARD UNIT MAY BE CONSTRUCTED ON A DAYLIGHT LOT.
3. A DAYLIGHT UNIT IS DEFINED AS A UNIT HAVING A WINDOW ON THE BASEMENT LEVEL WITH AT LEAST 5'-4" OF CLEARANCE FROM THE FINISHED FIRST FLOOR ELEVATION TO THE BOTTOM OF THE WINDOW. CLEARANCES LESS THAN 5'-4" ARE DEFINED AS STANDARD UNITS, WHETHER OR NOT A WINDOW WELL IS REQUIRED.
4. REFER TO SANITARY SEWER SHEETS FOR SEWER MAIN AND LATERAL ELEVATIONS. BASEMENT ELEVATION MAY NEED TO BE HIGHER THAN MBOE SHOWN FOR GRAVITY BASEMENT SEWER SERVICE.
5. ALL FRONT LOT ELEVATIONS ARE PROPOSED ELEVATIONS.
6. HOME BUILDERS SHALL MAINTAIN 2% GRADE, 1.5% ACROSS SIDEWALKS, WITHIN RIGHT-OF-WAY. AS-BUILT ELEVATIONS SHOWN AT RIGHT-OF-WAY ARE CALCULATED FROM AS-BUILT BACK OF CURB ELEVATIONS.

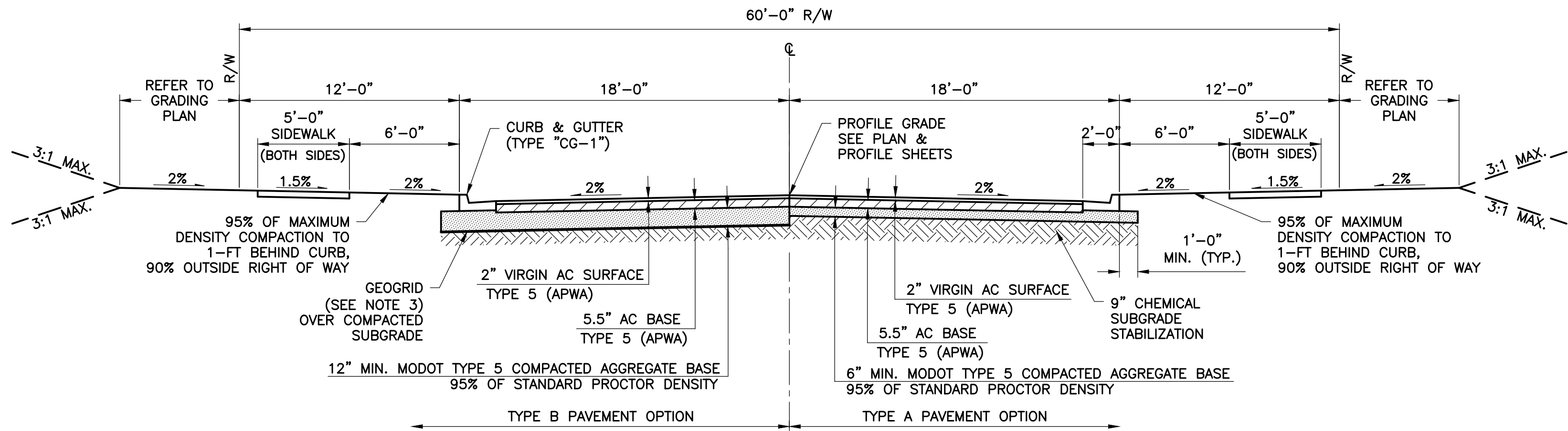


RECORD DRAWING
THIS RECORD DRAWING IS A FINAL RECORD OF THE INSTRUCTIONS PROVIDED FOR CONSTRUCTION AND MAY NOT ACCURATELY REFLECT ALL ACTUAL WORK IN PLACE. REVISIONS HAVE BEEN PREPARED BASED ON INFORMATION FURNISHED BY OTHERS. THOSE RELYING ON THIS RECORD DRAWING ARE ADVISED TO VERIFY ALL INFORMATION.

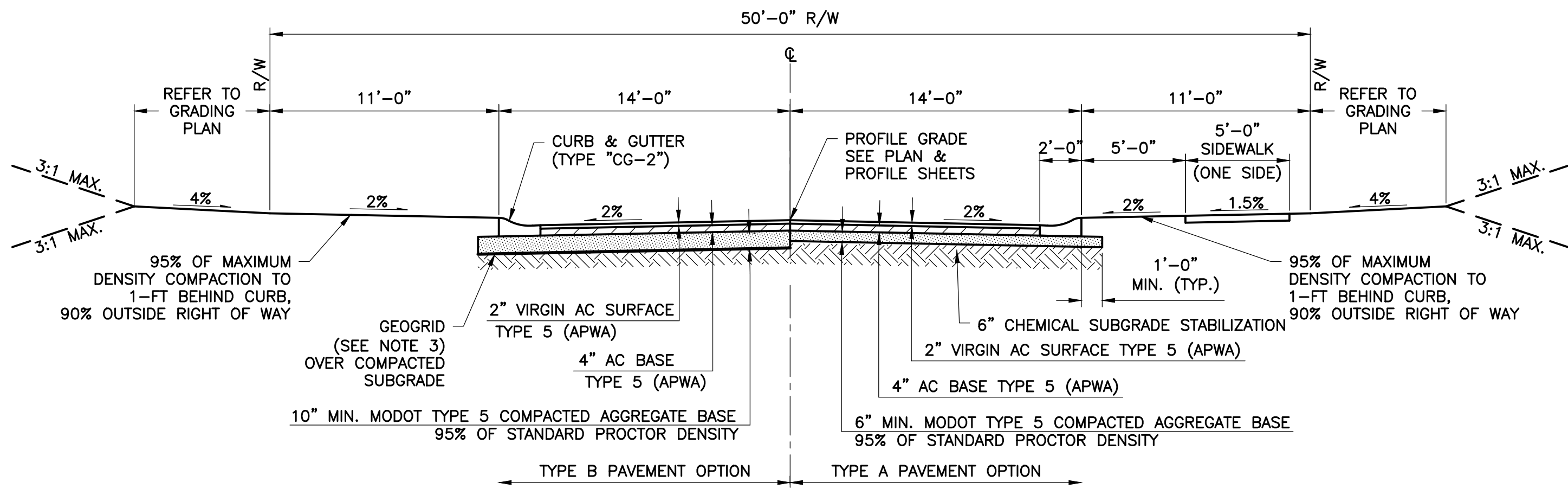


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09/10/18 - RESUBMITAL PER ADJUSTED LAYOUT				
09/19/18 - RESUBMITAL PER CITY COMMENTS				
10/05/18 - RESUBMITAL PER CITY COMMENTS				
03/01/19 - REVISION 1				
10/13/19 - AS-CRABED MASTER DRAINAGE PLAN				
10/30/19 - AS-CRABED MASTER DRAINAGE PLAN				
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SUMMIT VIEW FARMS 3RD PLAT LEE'S SUMMIT, MISSOURI				
MASS GRADING, EROSION CONTROL, PAVING, STORM AND SANITARY PLANS				
MASTER DRAINAGE PLAN				
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MARK DANIEL MCGHEE JR. PE - 2008019568				
SHEET				
13 OF 31				

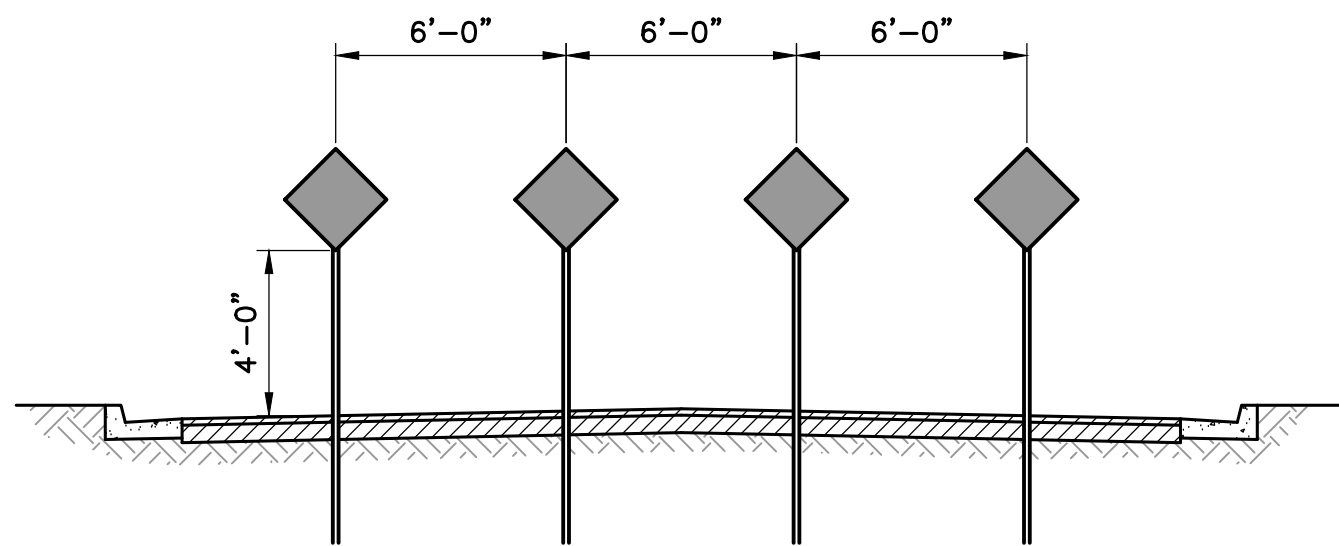
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TYPICAL 36' COLLECTOR STREET SECTION
NOT TO SCALE



TYPICAL 28' LOCAL/ACCESS STREET SECTION
NOT TO SCALE



TYPE OM4-3 END PAVEMENT MARKERS
NOT TO SCALE

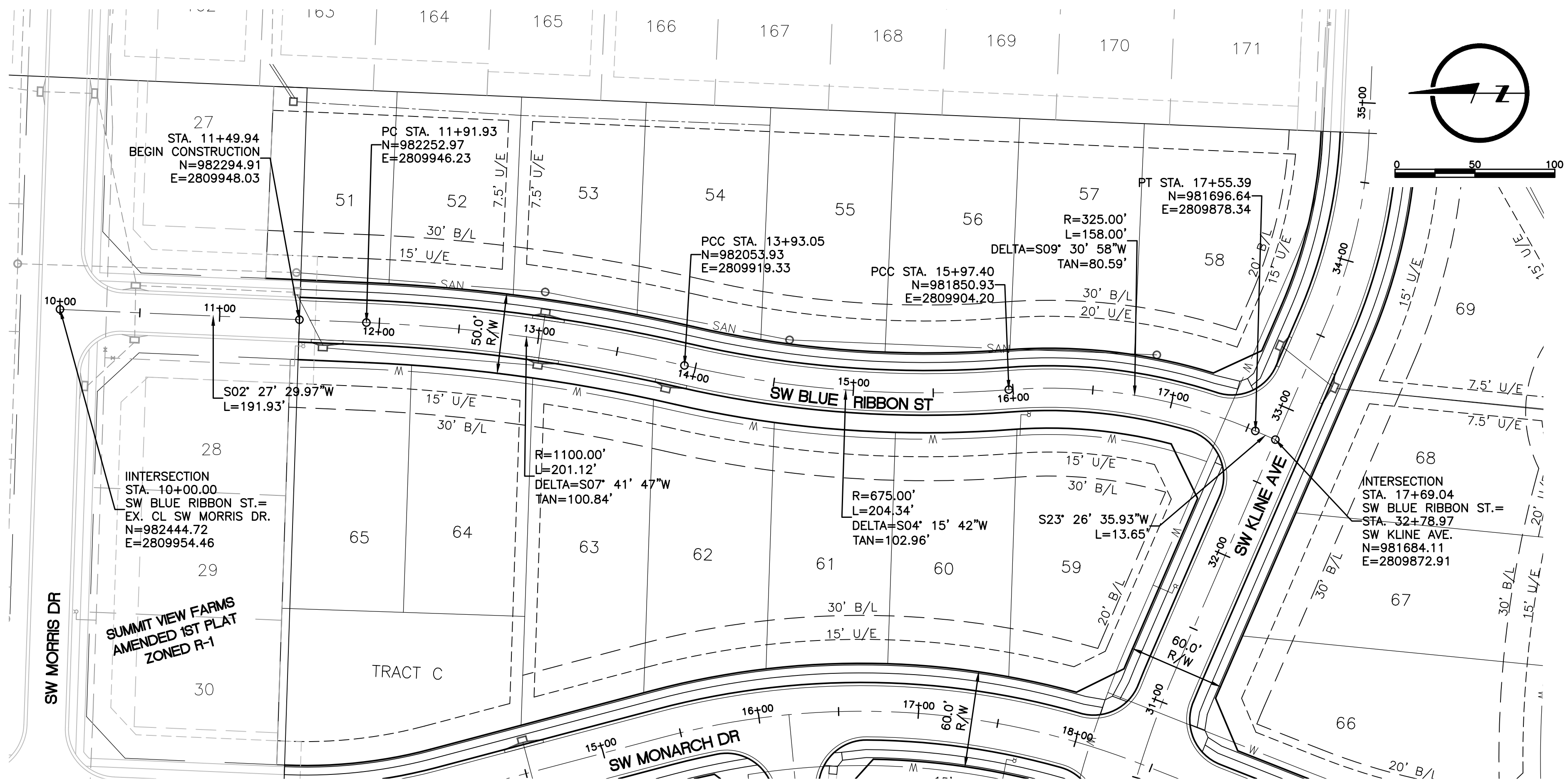
1. TYPE OM4-3 OBJECT MARKERS (SIZE 18"x18") ARE TO BE INSTALLED AT THE TERMINATION POINTS OF SW MONARCH DR., SW KLINE AVE, AND SW SERENA PL.
2. SIGN INSTALLATION AND MATERIALS TO CONFORM TO THE CITY OF LEE'S SUMMIT STANDARD DESIGN CRITERIA.

GENERAL NOTES

1. REFER TO LEE'S SUMMIT STANDARD DETAIL GEN-4 FOR CURB SECTIONS AND ADDITIONAL NOTES. SEE SHEET 28 OF 31.
2. GEOGRID MUST MEET SPECIFICATIONS OF LEE'S SUMMIT SECTION 2200, 2201.6.C.
3. MATERIAL DEPTHS PROVIDED ARE CITY'S ABSOLUTE MINIMUM ACCEPTABLE DEPTHS.
4. ALL SIDEWALK SHOWN ALONG TRACTS SHALL BE CONSTRUCTED DURING PUBLIC INFRASTRUCTURE CONSTRUCTION.
5. ADA ACCESSIBLE RAMPS SHALL BE CONSTRUCTED DURING PUBLIC INFRASTRUCTURE CONSTRUCTION.

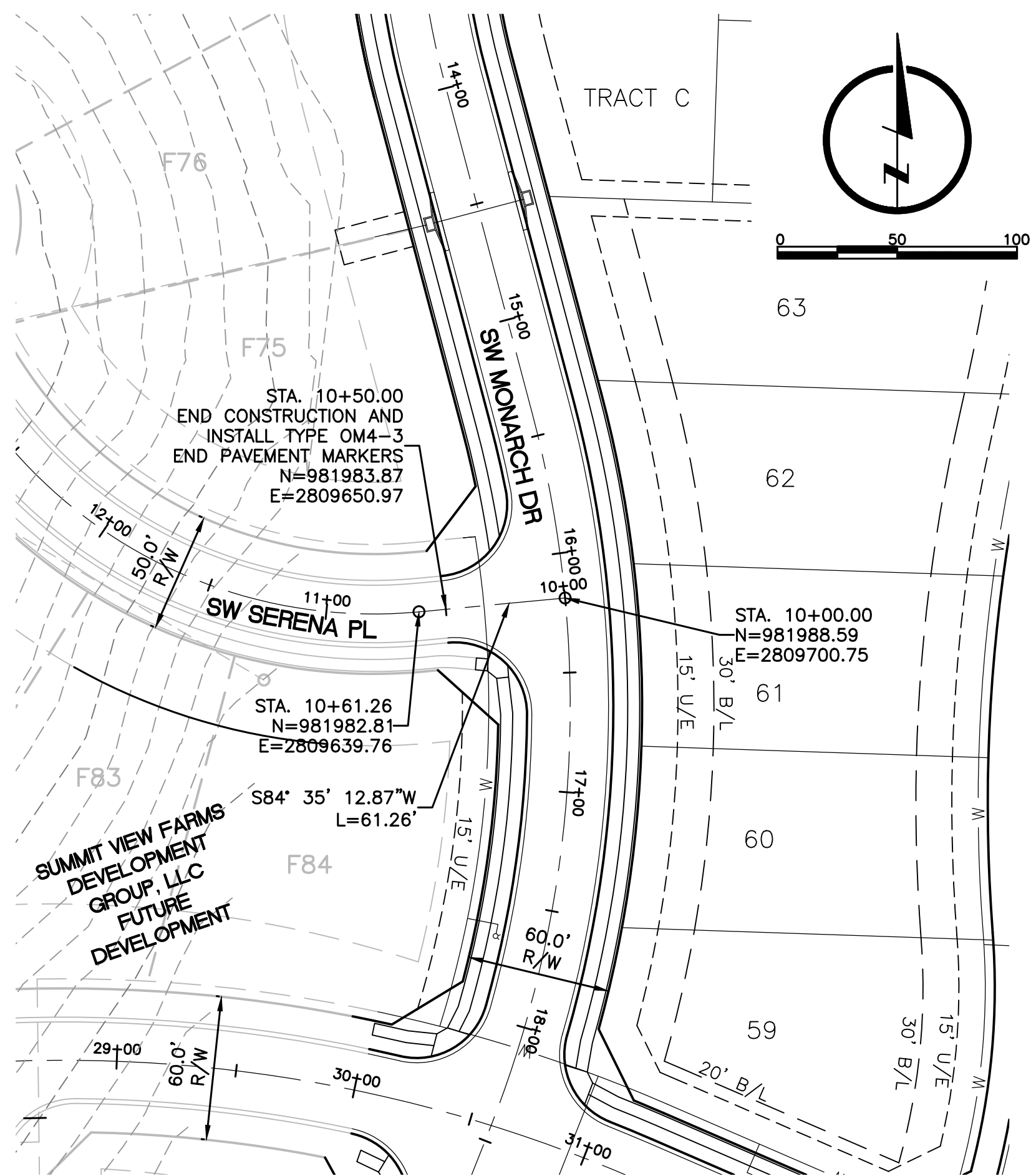
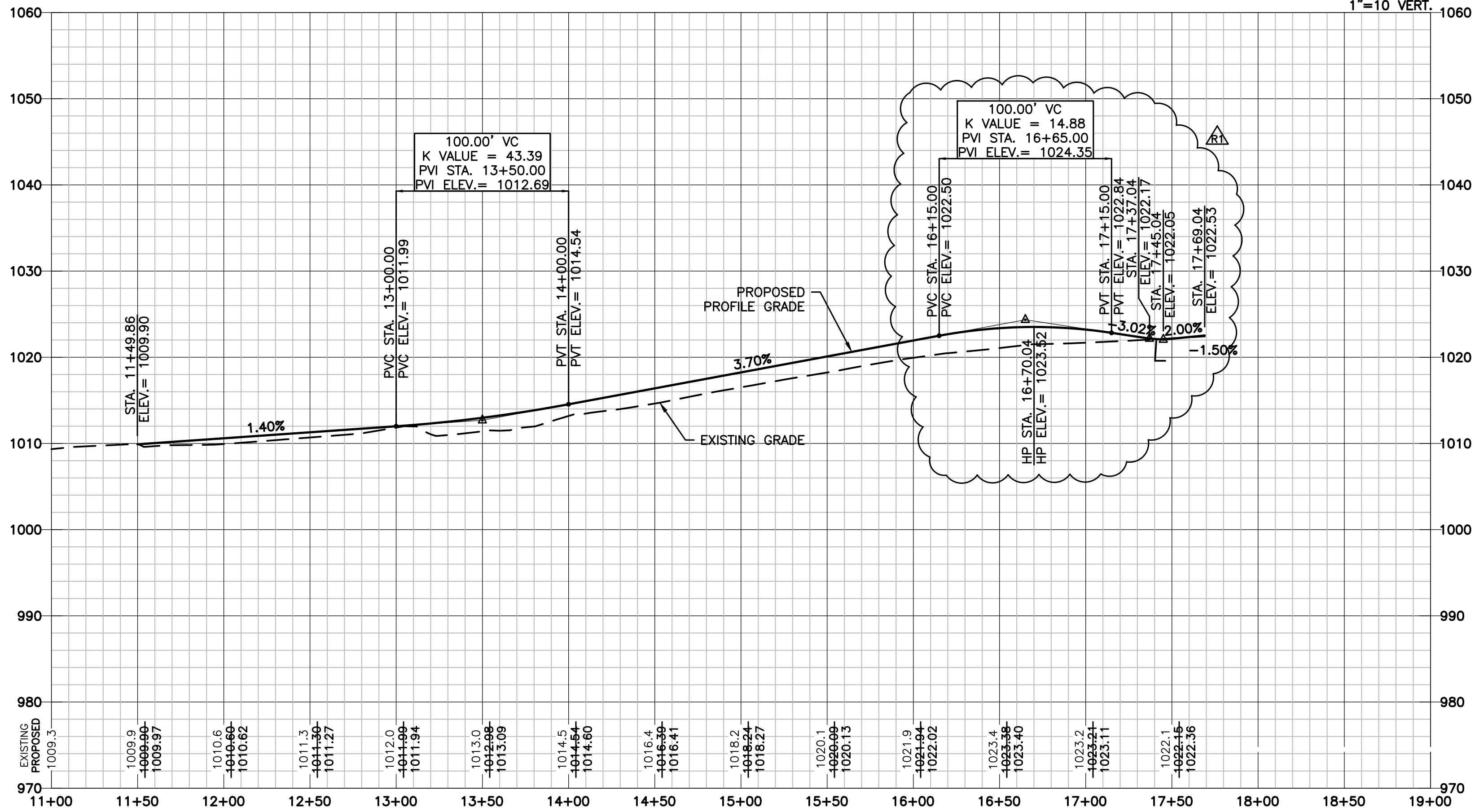
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REVISIONS				
08/19/18 - RESUBMITAL PER ADJUSTED LAYOUT				
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SUMMIT VIEW FARMS 3RD PLAT LEE'S SUMMIT, MISSOURI				
MASS GRADING, EROSION CONTROL, PAVING, STORM AND SANITARY PLANS TYPICAL STREET SECTION AND DETAILS SHEET				
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SHEET				
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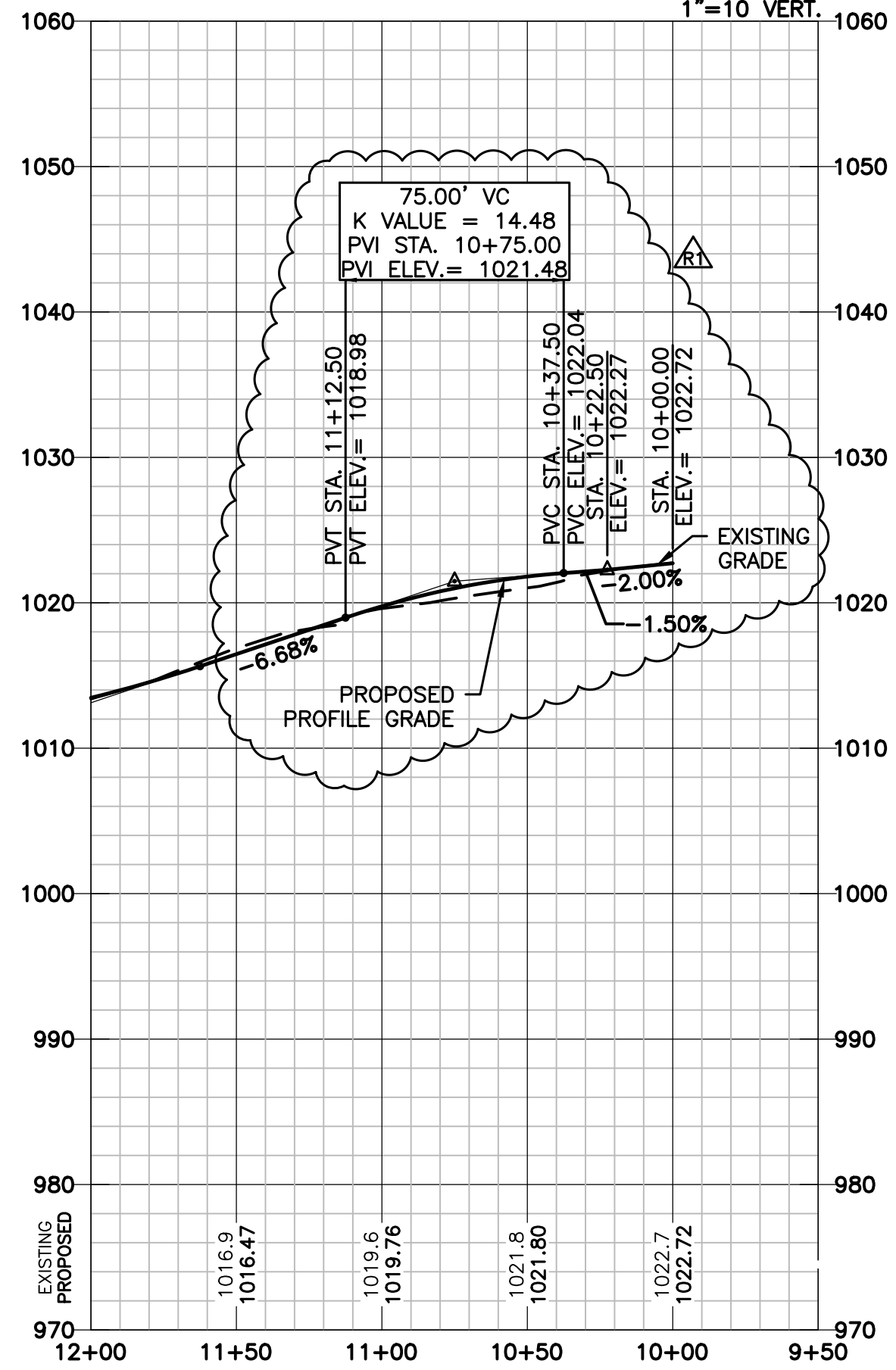
SW BLUE RIBBON ST

Scales: 1"=50 HOR.
1"=10 VERT.



SW SERENA PL

Scales: 1"=50 HOR.
1"=10 VERT.



MASS GRADING, EROSION CONTROL,
PAVING, STORM AND SANITARY PLANS
SW BLUE RIBBON STREET
STREET PLAN/PROFILE SHEET

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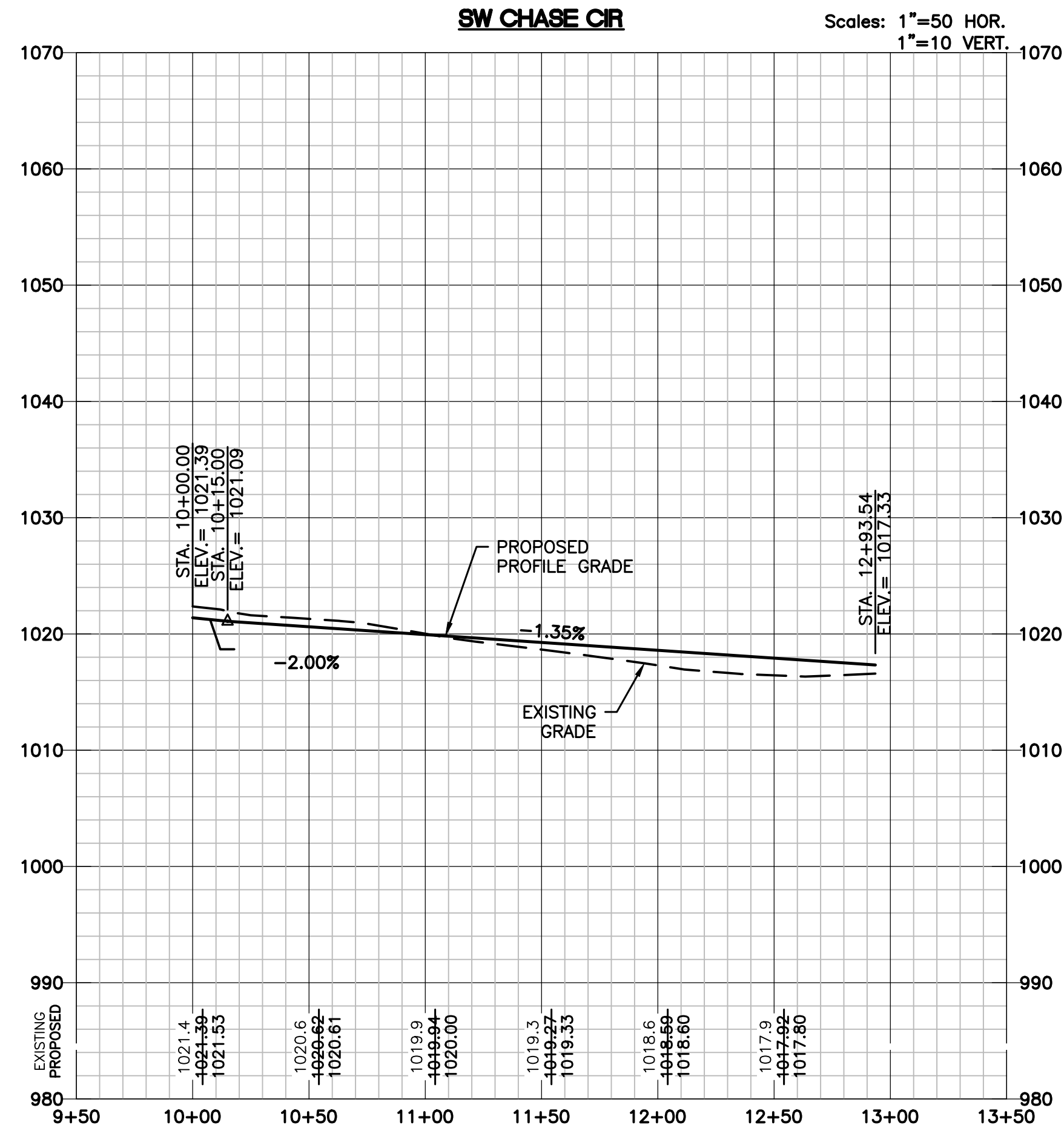
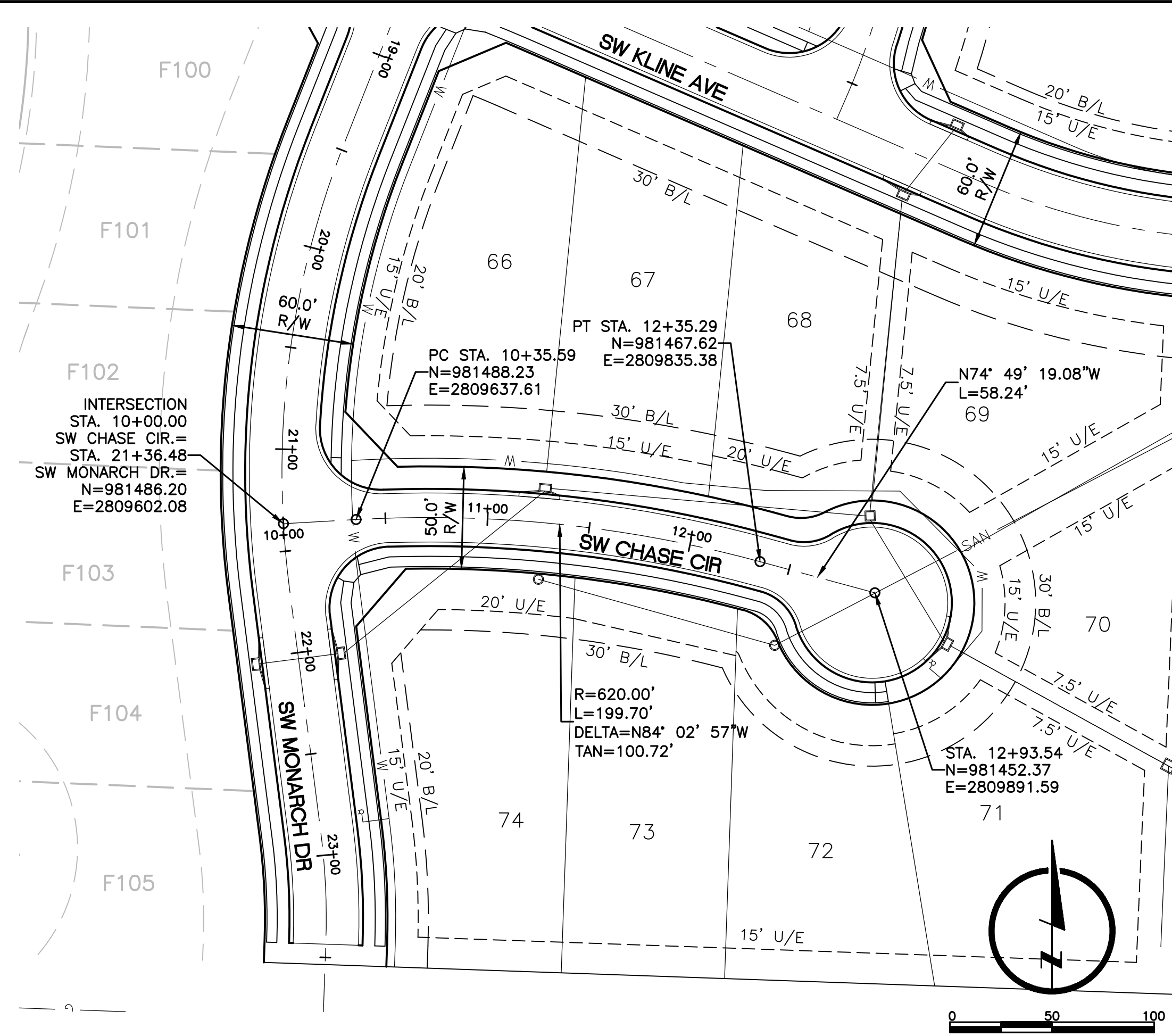
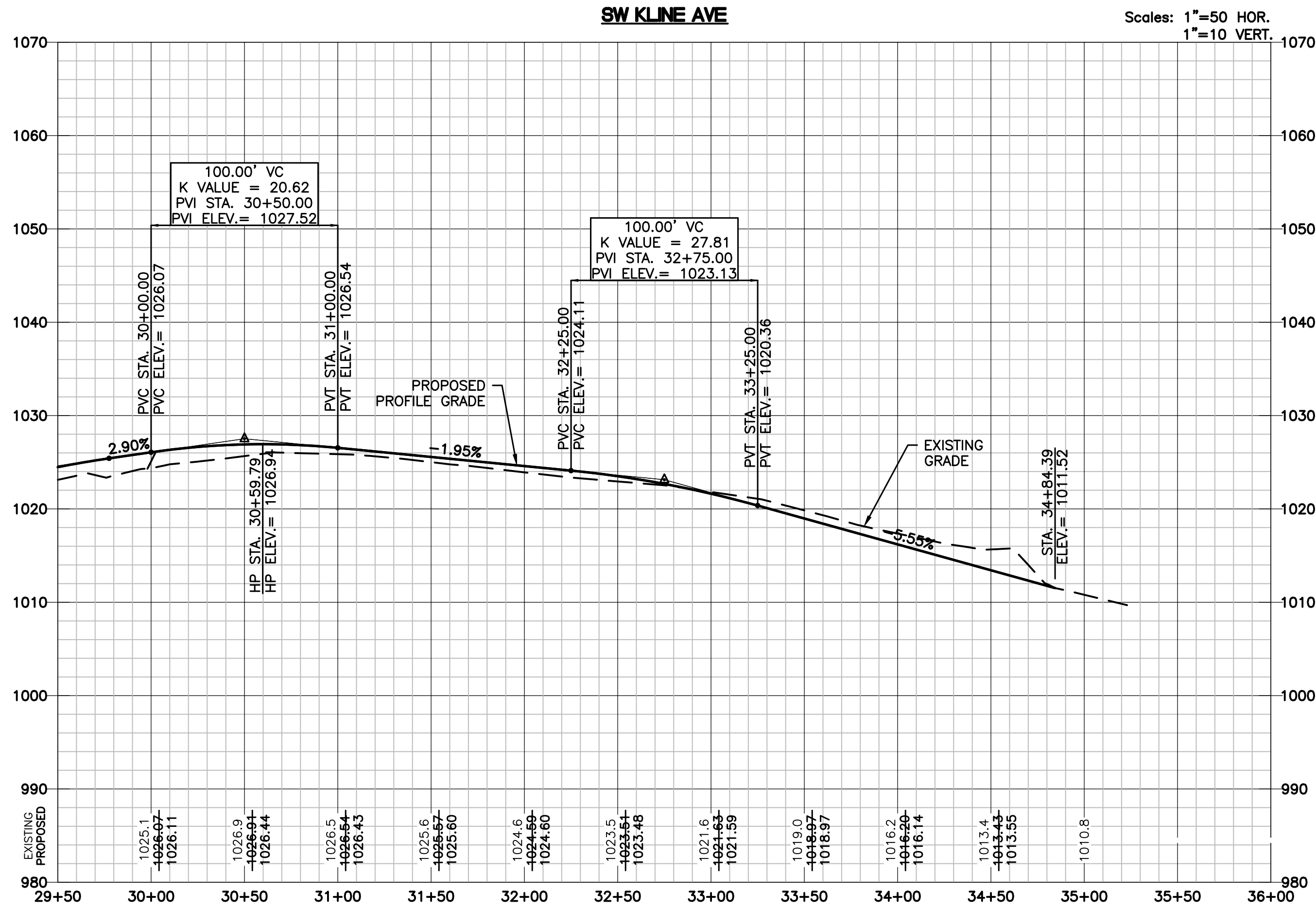
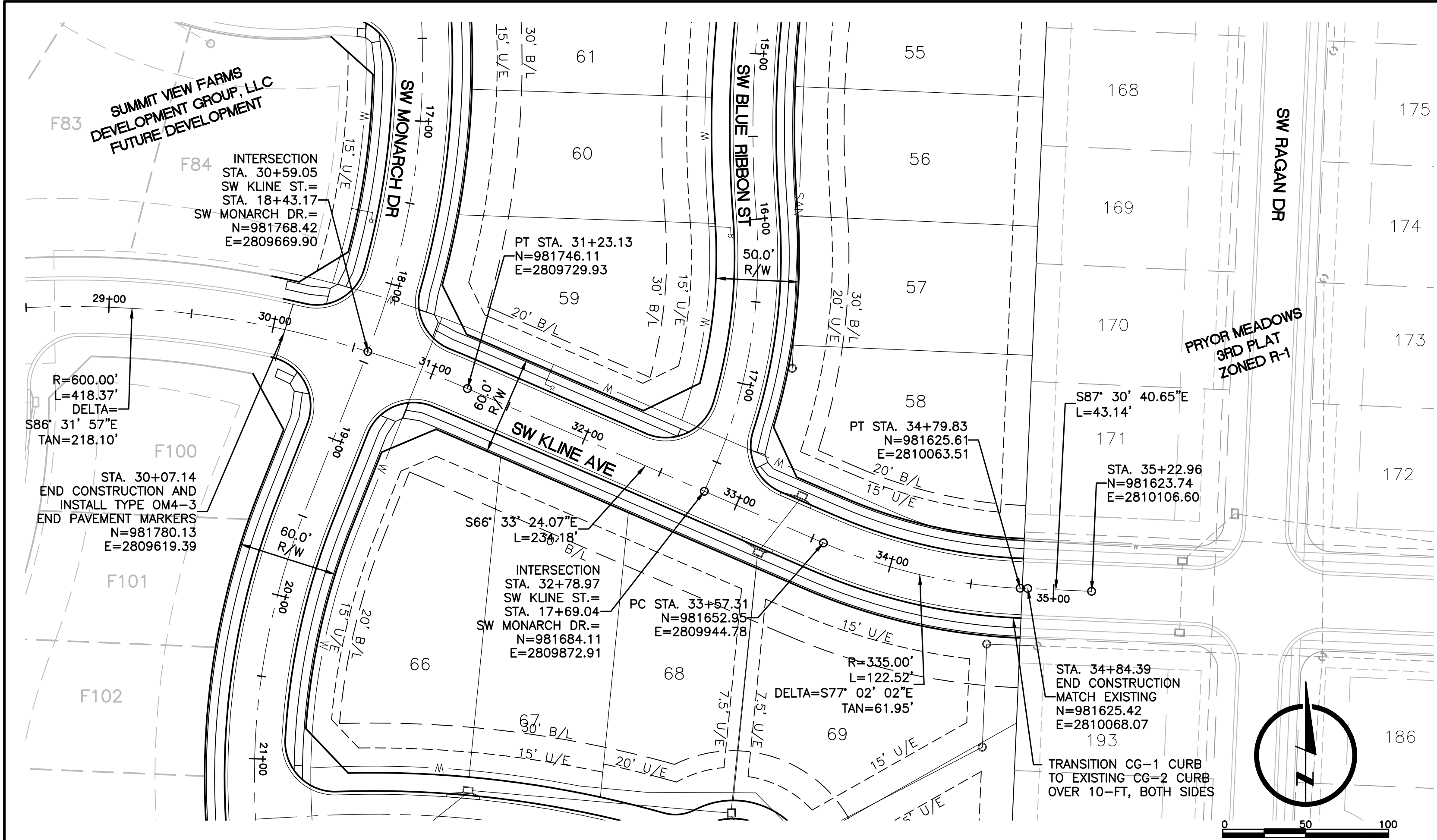
02-04-2020

MARK DANIEL MCGHEE, JR.

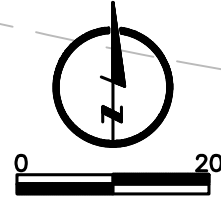
PE - 2008019568

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REVISIONS				
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09/19/18 - RESUBMITAL PER CITY COMMENTS				
02/04/2020 - AS-BUILT				
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MASS GRADING, EROSION CONTROL, PAVING, STORM AND SANITARY PLANS SW KLINE AVENUE AND SW CHASE CIRCLE STREET PLAN/PROFILE SHEET				
LARKIN LAMP RYNEARSON - ENGINEERS MIO Certificate of Authority No. 2013011903				
MARK DANIEL MCGHEE JR. PE - 2008019568				
SHEET				
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|---|--------------------------|
| REVISIONS | DRAWN BY |
| 08/19/18 – RESUBMITAL PER ADJUSTED LAYOUT | AJM |
| 09/19/18 – RESUBMITAL PER CITY COMMENTS | MDM |
| DATE | JOB NUMBER/TASKS |
| 03/01/19 – REVISION 1 | 10-05-2018
0318050.01 |
| | BOOK AND PAGE |

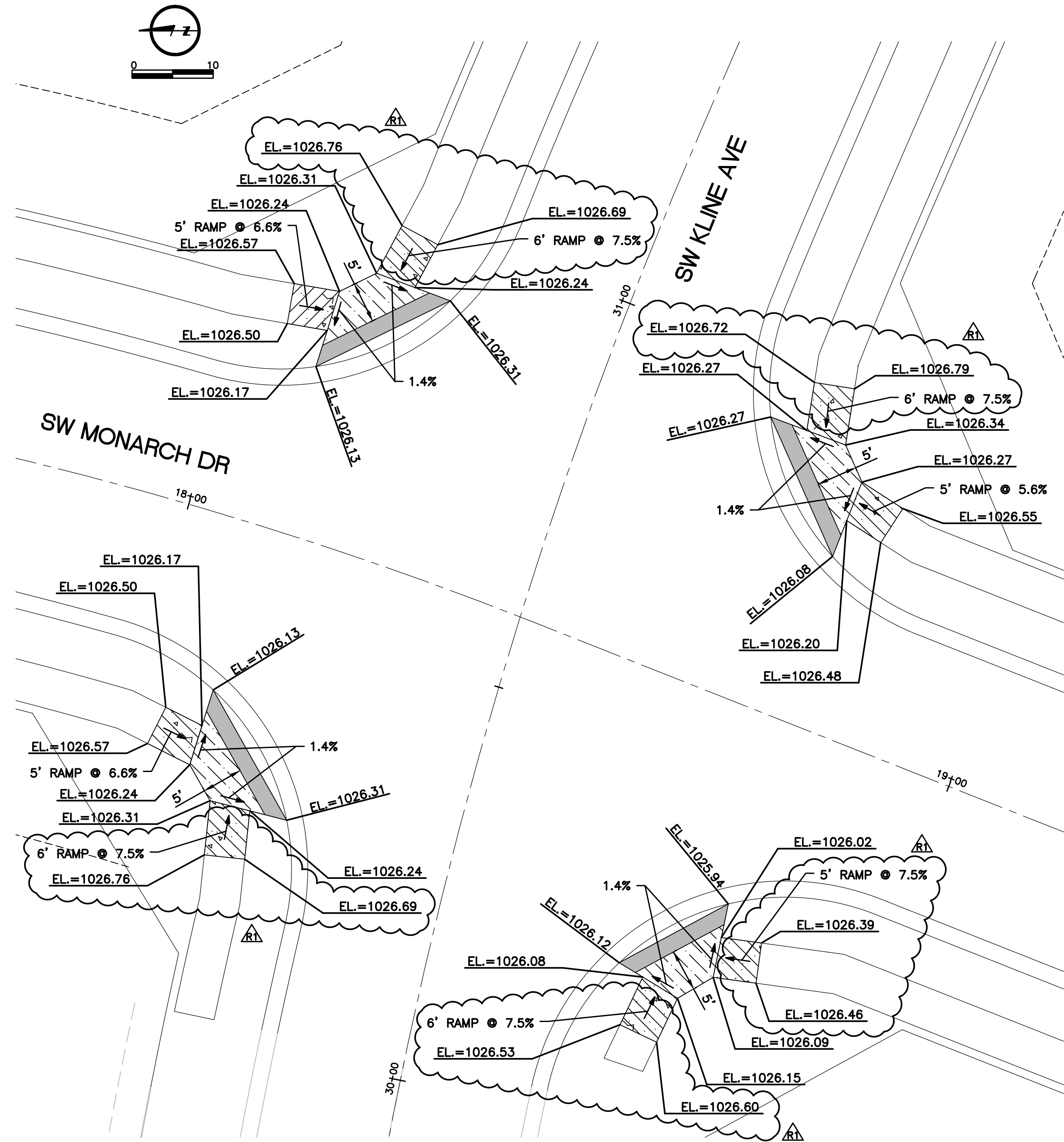
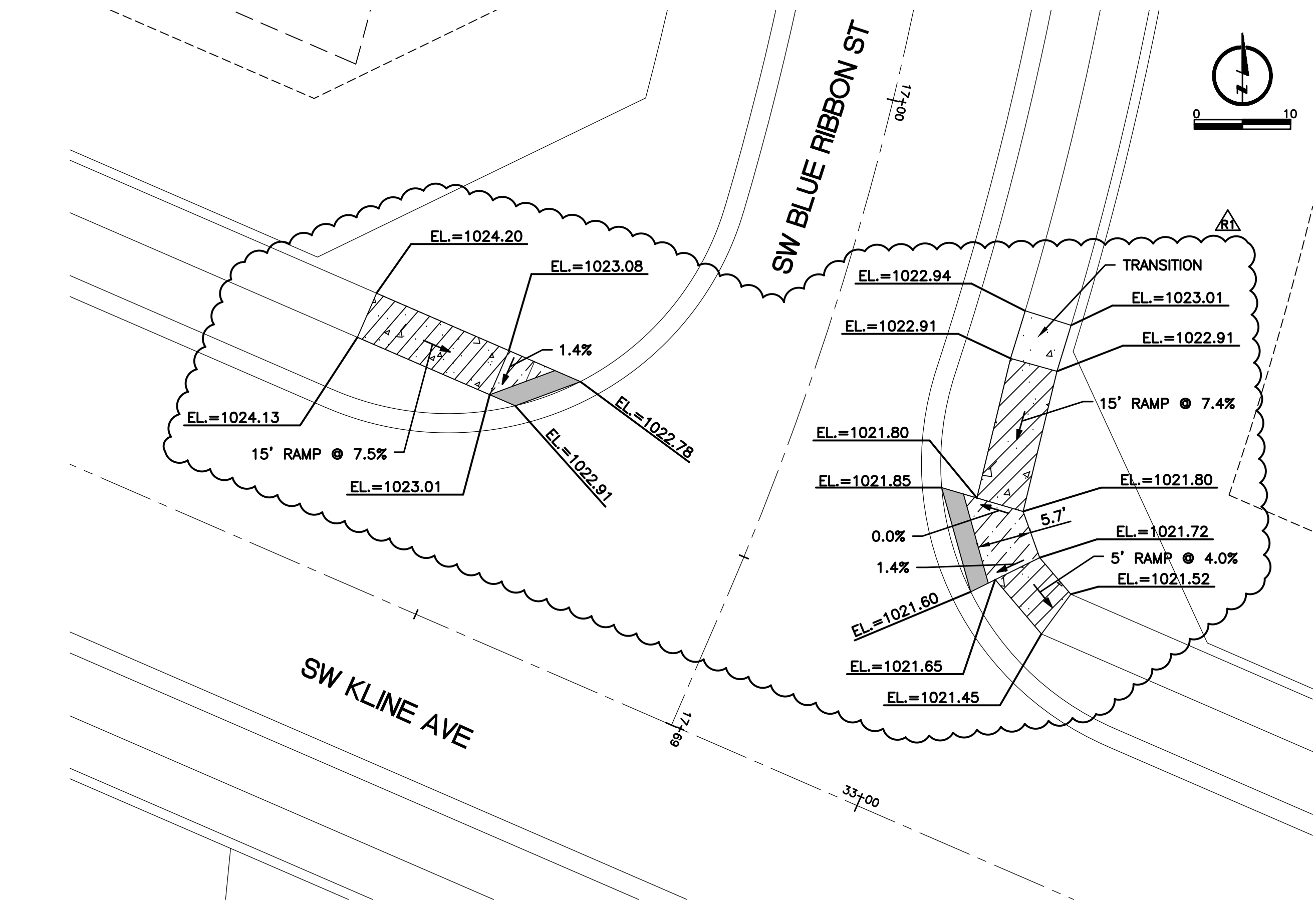
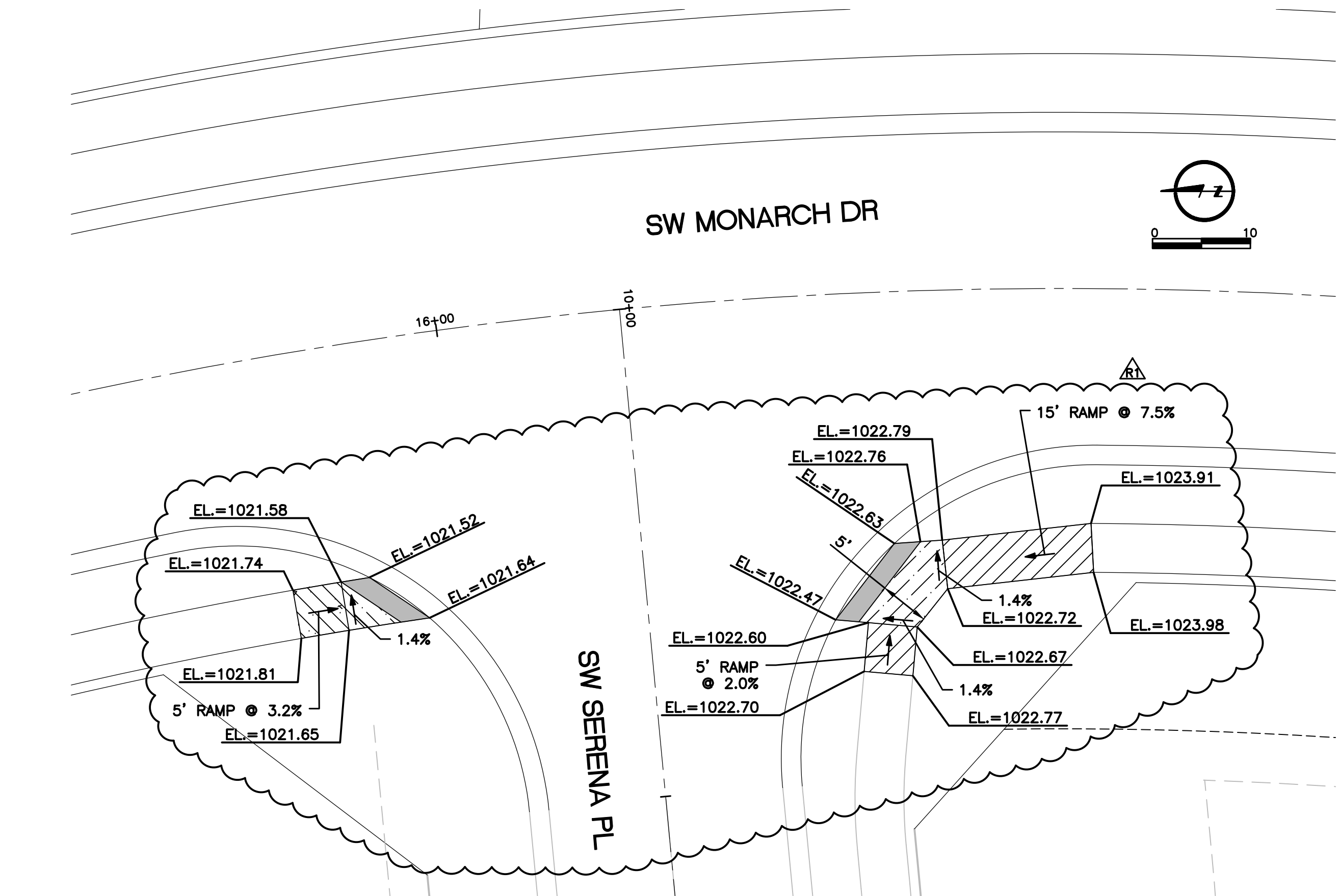


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INTERSECTION LAYOUT PLAN

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NOTE:
SEE SHEET 28 FOR ADA RAMP STANDARD DETAIL.

REVISIONS	DATE	BY	DESCRIPTION
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100	03/01/19	MDM	REVISION 1

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INTERSECTION LAYOUT PLAN

SUMMIT VIEW FARMS 3RD PLAT
LEE'S SUMMIT, MISSOURI

LARKIN LAMP RYNEARSON - ENGINEERS
MEO Certificate of Authority No. 2013011903

STATE OF MISSOURI
MARK DANIEL MCGHEE, JR.
PE - 2008019568
03-01-2019

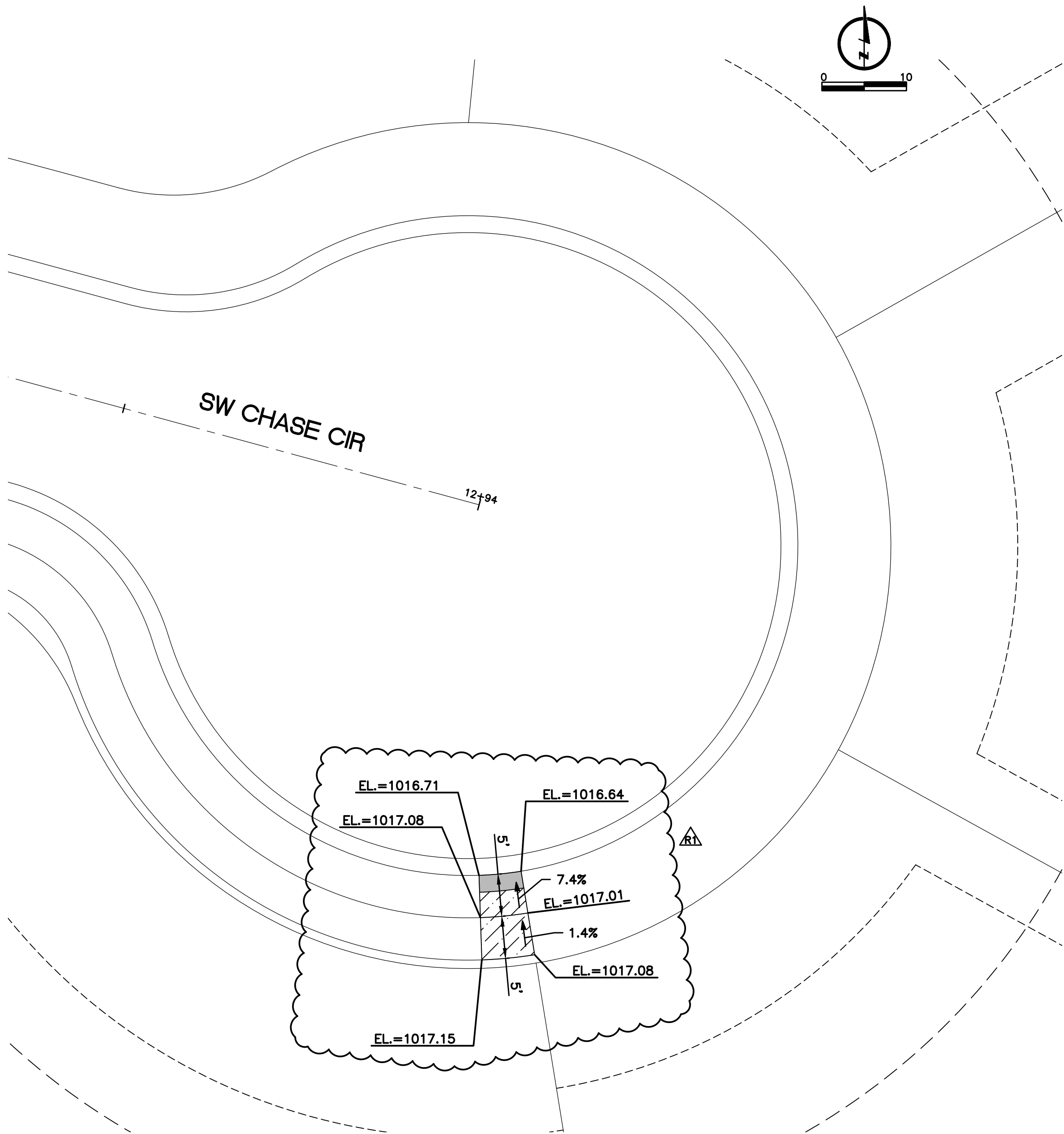
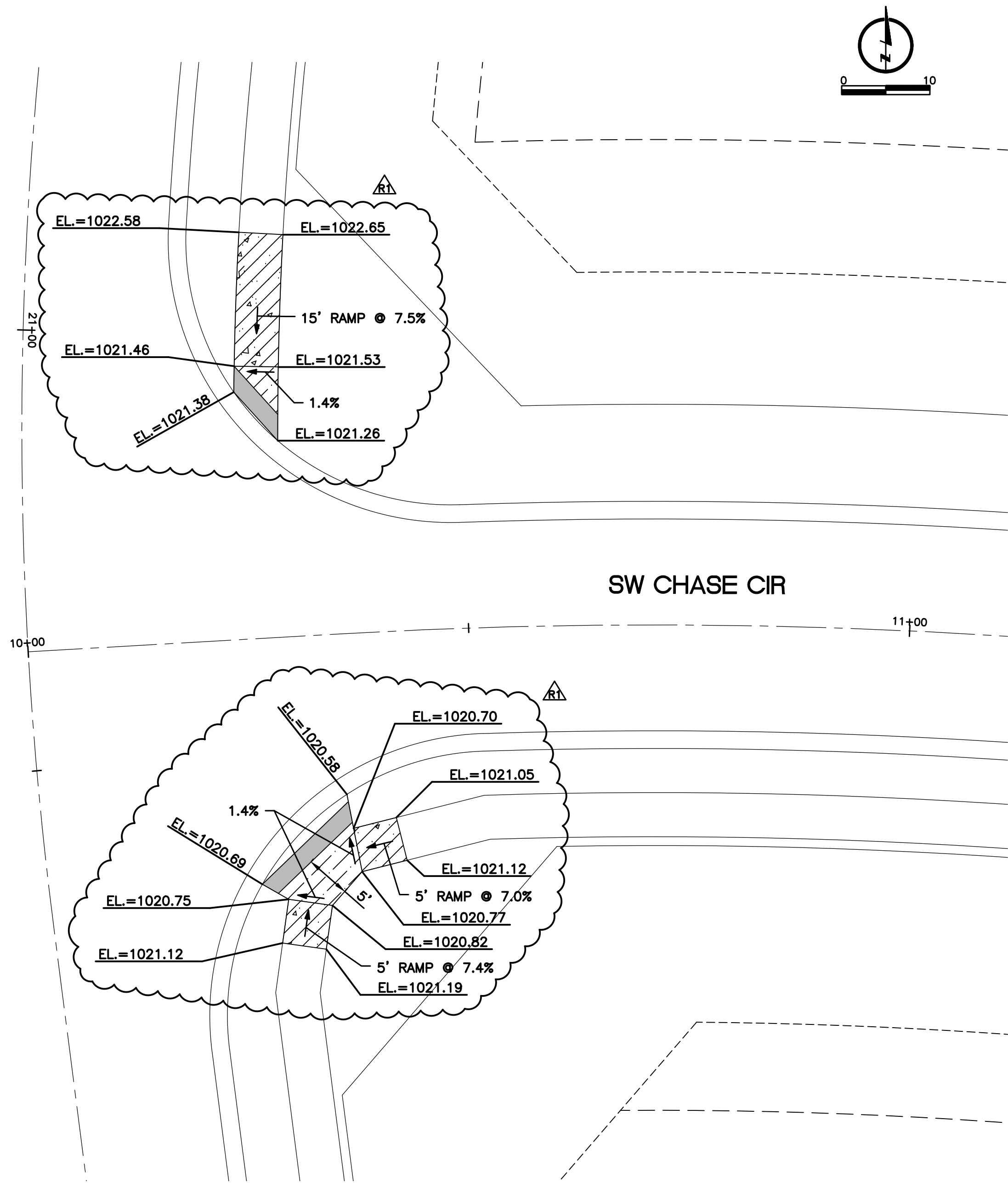
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PE - 2008019568

NOTE:
SEE SHEET 28 FOR ADA RAMP STANDARD DETAIL.

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SW MONARCH DR



NOTE:
SEE SHEET 28 FOR ADA RAMP STANDARD DETAIL.

MASS GRADING, EROSION CONTROL,
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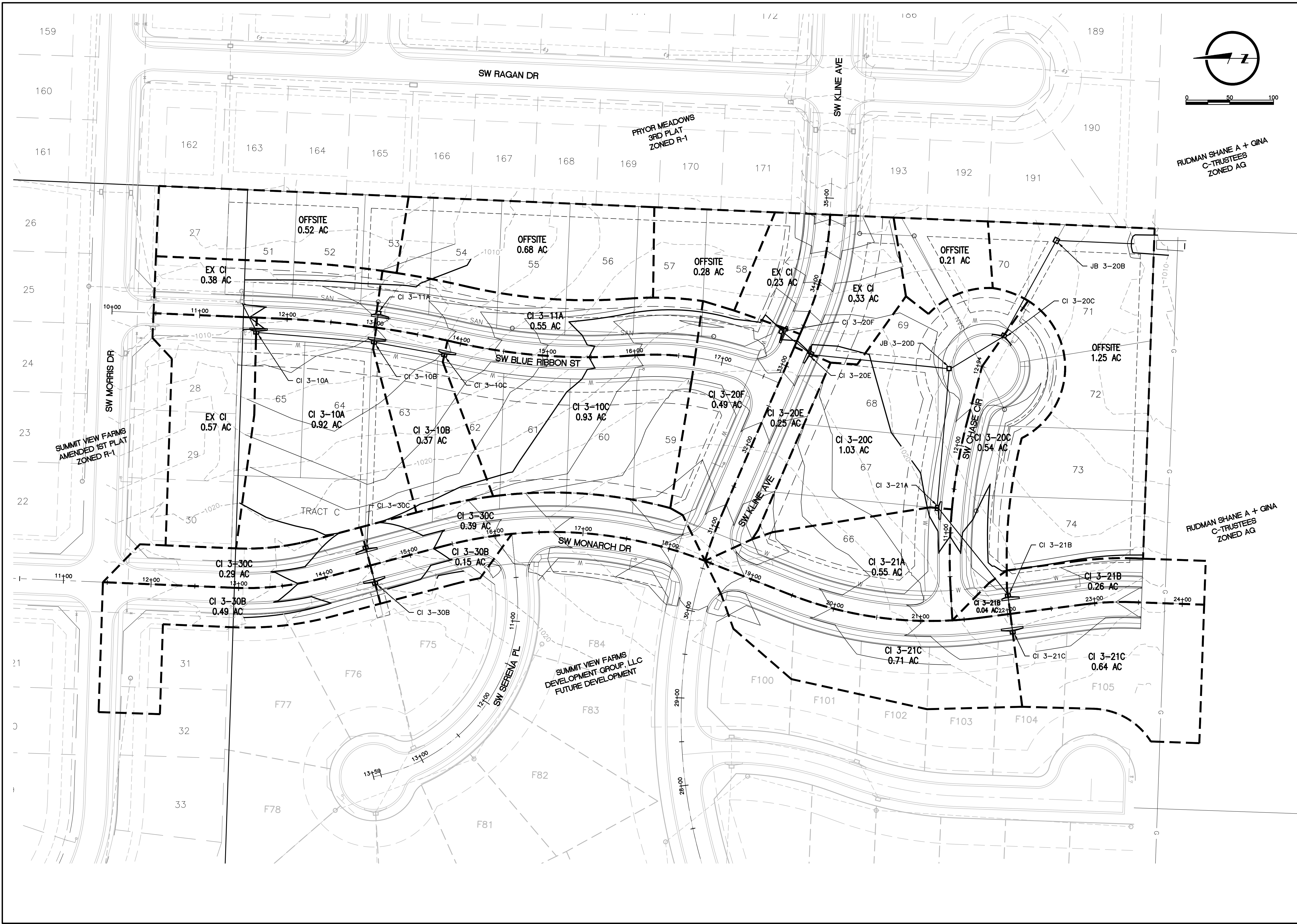
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SUMMIT VIEW FARMS 3RD PLAT
LEE'S SUMMIT, MISSOURI

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DATE	10-05-2018
JOB NUMBER-TASKS	031850.01
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REVISIONS	08/19/18 - RESUBMITAL PER ADJUSTED LAYOUT
	09/19/18 - RESUBMITAL PER CITY COMMENTS
	03/01/19 - REVISION 1

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PERSONS		REVISIONS		LAYOUT		CITY COMMENTS			
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LARKIN/ LAMP RYNEARSON		SUMMIT VIEW FARMS 3RD PLAT LEE'S SUMMIT, MISSOURI		DRAINAGE AREA MAP		MASS GRADING, EROSION CONTROL, PAVING, STORM AND SANITARY PLANS			
LARKIN LAMP RYNEARSON - ENGINEERS MEO Certificate of Authority No. 2013011903		STATE OF MISSOURI MARK DANIEL MCGHEE JR. PE-2008019568 09-19-2018		SHEET		22 OF 31			

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SUMMIT VIEW FARMS 3RD PLAT STORM SEWER CALCULATIONS																																												
PIPE	NODE UPSTREAM DOWNSTREAM	INLET TC (MIN)	INLET AREA (ACRES)	RUNOFF COEFF.	TOTAL CA (ACRES)	10% STORM INTENSITY (IN/HR)	10% RUNOFF (CFS)	TOTAL 10% RUNOFF (CFS)	10% RUNOFF CAPTURED (CFS)	10% PIPE FLOW (CFS)	DESIGN VELOCITY (FT/S)	FULL FLOW VELOCITY (FT/S)	FULL FLOW CAPACITY (CFS)	TOTAL 1% RUNOFF (CFS)	1% PIPE FLOW (CFS)	1% STORM	10% STORM HGL UPSTREAM DOWNSTREAM (FT)	1% STORM HGL UPSTREAM DOWNSTREAM (FT)	INVERT UPSTREAM DOWNSTREAM (FT)	SECTION MATERIAL	SECTION SIZE	SLOPE (%)	LENGTH (FT)	10% SPREAD (FT)	25% SPREAD (FT)																			
LINE 3-10																																												
1	CI 3-10A JB 103633	7.0	0.92	0.51	0.47	6.8	3.19	3.64	2.71	8.73	6.39	6.03	10.65	7.44	13.24	SUR.	1006.54 1006.03	1007.37 1006.75	1005.40 1005.00	HDPE	18"	1.03	38.87	11.55	N/A																			
2	CI 3-10B CI 3-10A	6.6	0.37	0.51	0.19	6.9	1.30	2.45	2.00	6.02	4.89	6.27	11.07	5.24	9.08	SUR.	1008.35 1006.93	1010.01 1009.00	1007.40 1005.90	HDPE	18"	1.11	134.93	10.12	N/A																			
3	CI 3-10C CI 3-10B	7.2	0.93	0.51	0.47	6.7	3.19	3.19	2.04	2.04	3.78	7.14	8.77	5.62	2.66	SUR.	1010.07 1008.71	1011.09 1010.96	1009.50 1008.00	HDPE	15"	1.84	81.39	9.73	N/A																			
LINE 3-11																																												
4	CI 3-11A CI 3-10B	7.0	0.55	0.65	0.36	6.8	2.43	2.43	1.99	1.99	3.04	5.34	7.83	4.27	3.00	SUR.	1008.81 1008.72	1011.01 1010.94	1008.25 1007.90	HDPE	15"	1.03	34.00	10.09	N/A																			
LINE 3-20																																												
5	JB 3-20B FES 3-20A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	17.25	6.14	6.13	29.23	N/A	29.76	PIPE	1010.10 1009.63	1010.79 1010.34	1008.70 1008.25	RCP	30"	0.54	83.57	N/A	N/A																			
6	CI 3-20C JB 3-20B	7.3	1.57	0.54	0.85	6.7	5.69	5.99	5.99	17.25	6.43	8.57	42.05	10.91	29.76	PIPE	1011.90 1010.49	1012.36 1011.59	1010.50 1009.20	HDPE	30"	1.05	123.63	11.93 (N) 9.56 (S)	N/A																			
7	JB 3-20D CI 3-20C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11.59	5.51	7.28	22.88	N/A	18.85	PIPE	1012.95 1012.28	1013.31 1012.70	1011.75 1011.00	HDPE	24"	1.02	73.28	N/A	N/A																			
8	CI 3-20E JB 3-20D	6.0	0.25	0.70	0.18	7.1	1.28	1.28	1.23	3.26	4.92	5.92	7.27	2.17	4.55	PIPE	1015.69 1013.55	1015.86 1013.90	1015.00 1013.00	HDPE	15"	1.27	157.88	5.92	6.42																			
9	CI 3-20F CI 3-20E	6.9	0.49	0.60	0.29	6.8	2.37	2.37	2.03	2.03	4.11	5.66	6.94	3.53	2.68	PIPE	1016.53 1015.94	1016.66 1016.18	1016.00 1015.50	RCP	15"	1.16	43.29	6.97	7.57																			
LINE 3-21																																												
10	CI 3-21A JB 3-20D	6.5	0.55	0.55	0.30	6.9	2.10	2.10	1.79	8.33	6.33	6.13	10.84	3.69	14.30	SUR.	1015.07 1013.24	1016.71 1013.75	1013.95 1012.25	HDPE	18"	1.07	159.59	9.84	N/A																			
11	CI 3-21B CI 3-21A	6.6	0.30	0.71	0.21	6.9	1.46	1.46	1.46	6.54	5.43	5.98	10.56	2.57	11.51	SUR.	1016.74 1015.40	1019.74 1018.20	1015.75 1014.45	HDPE	18"	1.01	128.57	4.30 (N) 7.66 (S)	4.65 (N) 8.32 (S)																			
12	CI 3-21C CI 3-21B	6.8	1.35	0.55	0.74	6.8	5.08	5.08	5.08	5.08	5.77	5.74	7.05	8.94	8.94	SUR.	1017.66 1017.04	1021.12 1020.32	1016.75 1016.25	RCP	15"	1.19	42.00	9.94 (N) 9.61 (S)	10.83 (N) 10.46 (S)																			
LINE 3-30																																												
13	CI 3-30B FES 3-30A	7.4	0.64	0.66	0.42	6.7	2.83	2.83	2.83	6.13	8.54	11.84	14.53	4.99	10.80	PIPE	1015.75 1014.13	1015.95 1014.36	1014.75 1013.56	HDPE	15"	5.06	42.00	9.08 (N) 6.31 (S)	9.88 (N) 6.85 (S)																			
14	CI 3-30C CI 3-30B	6.4	0.68	0.70	0.48	6.9	3.30	3.30	3.30	3.30	3.93	5.74	7.05	5.81	5.81	SUR.	1016.48 1016.17	1017.18 1016.84	1015.75 1015.25	RCP	15"	1.19	23.50	7.91 (N) 8.68 (S)	8.60 (N) 9.45 (S)																			

NOTES
REFER TO STORM SEWER PLAN AND PROFILE SHEETS FOR FINAL PIPE MATERIALS, ELEVATIONS, AND SLOPES.

RIP RAP CALCULATIONS
Using USDA, SCS (1975) procedure (containing nomographs)
Minimum tailwater condition
1% Storm depth of flow at pipe outlet = 2.11 ft (pipe is 85% full)
1% Storm pipe velocity = 6.72 ft/s
D₅₀ Riprap size = intersection of depth and velocity curve = 0.6 ft (using 9-inches)
Apron length corresponding to depth and velocity intersection, at 2.11 ft depth = 18 feet (use 20 feet)

DRAWN BY
AJM

DESIGNED BY
MDM

DATE
09-19-2018

JOB NUMBER-TASKS
031850.01

BOOK AND PAGE

REVISIONS

08/19/18 - RESUBMITAL PER ADJUSTED LAYOUT

09/19/18 - RESUBMITAL PER CITY COMMENTS

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MASS GRADING, EROSION CONTROL,
PAVING, STORM AND SANITARY PLANS

DRAINAGE CALCULATIONS

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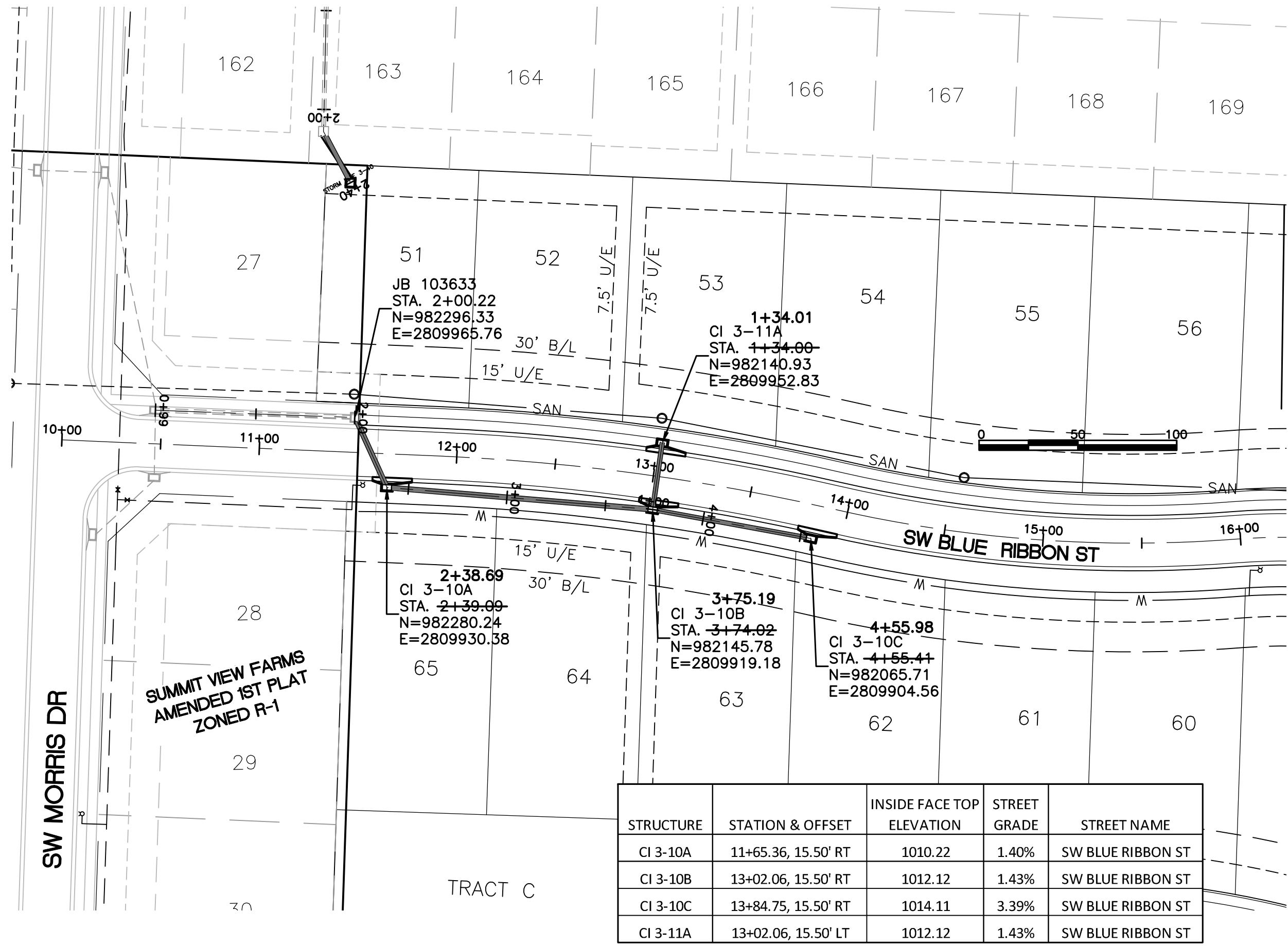
MARK DANIEL MCGHEE JR.
PE - 2008019568

SHEET

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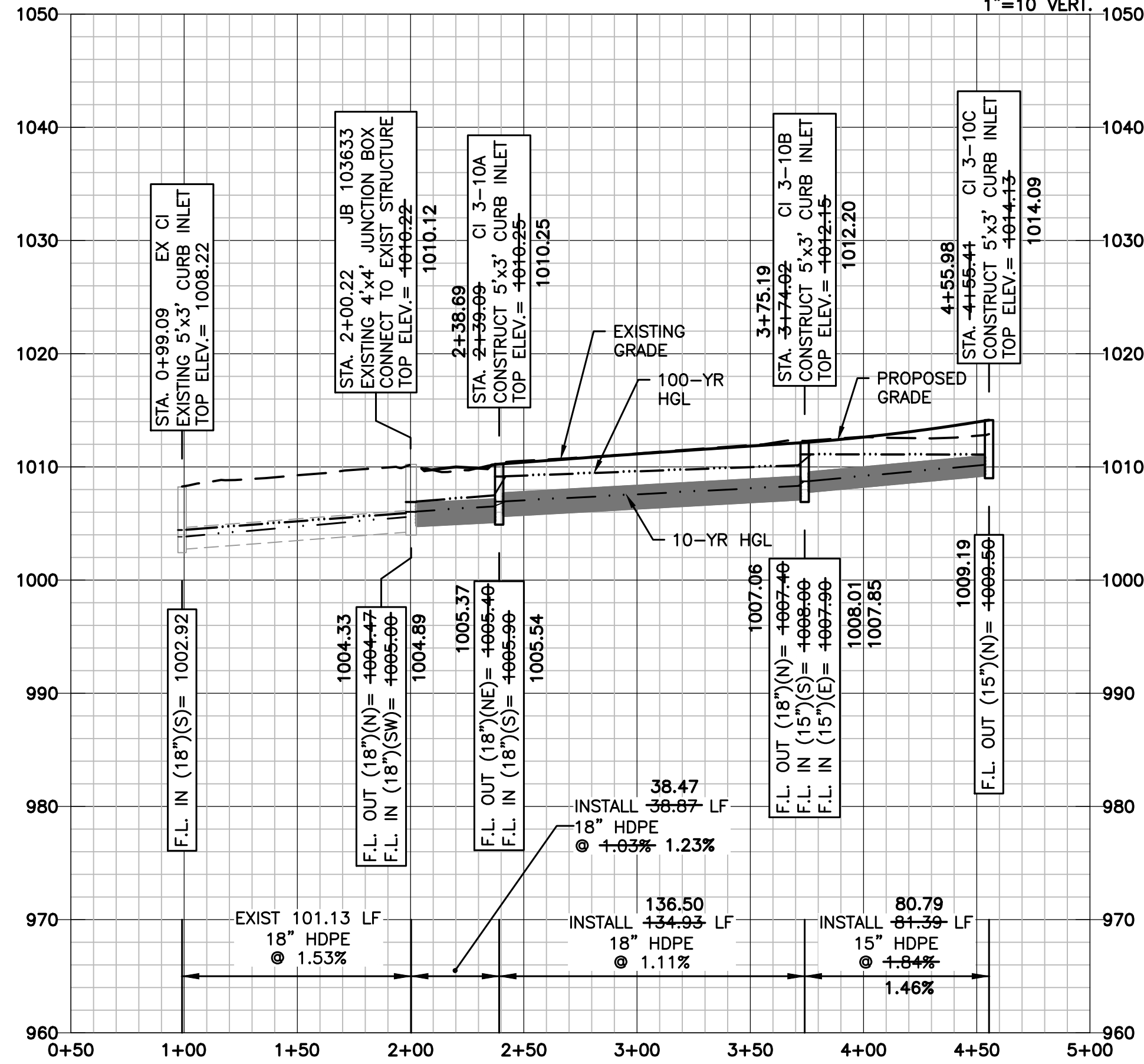
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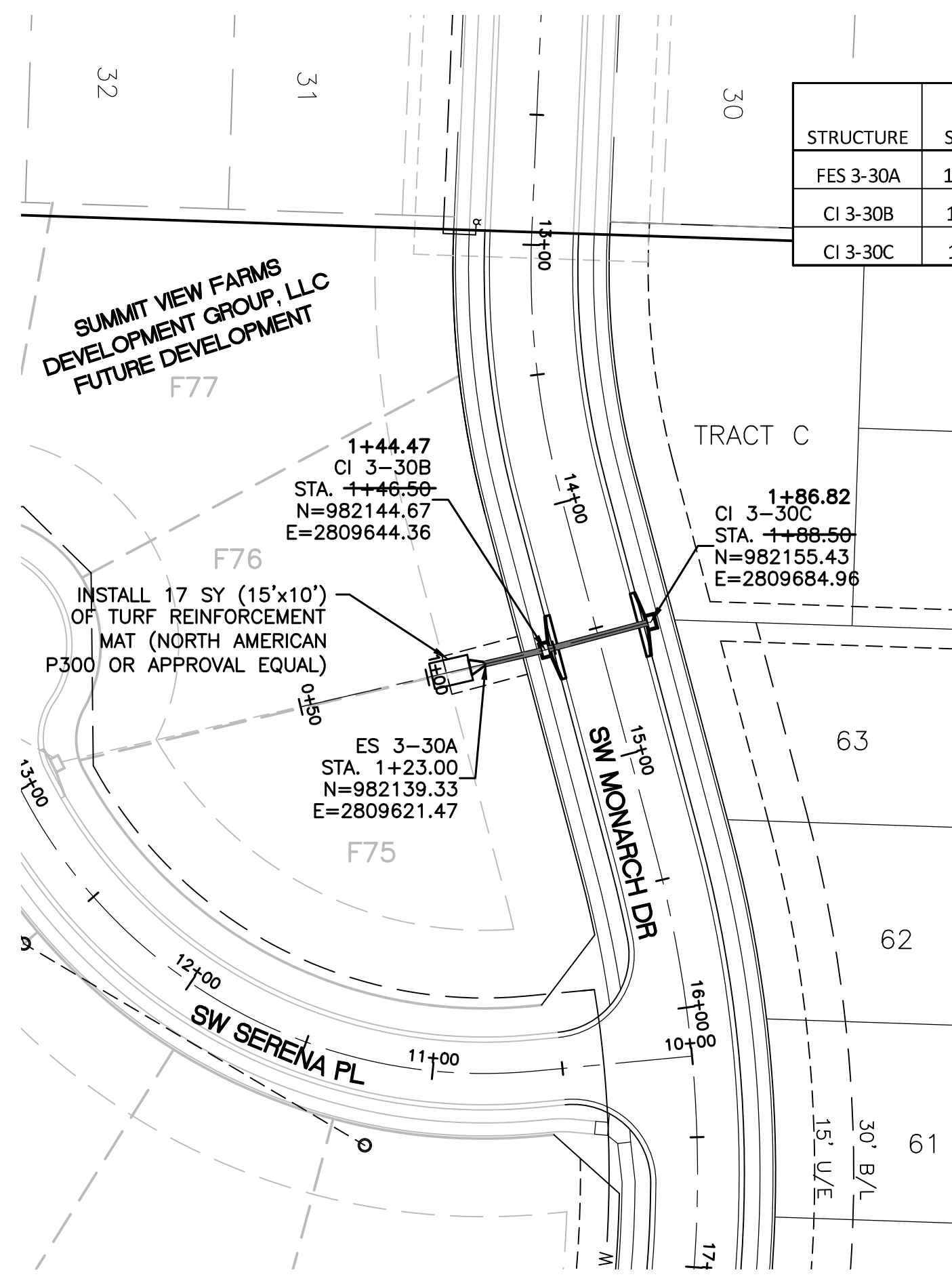
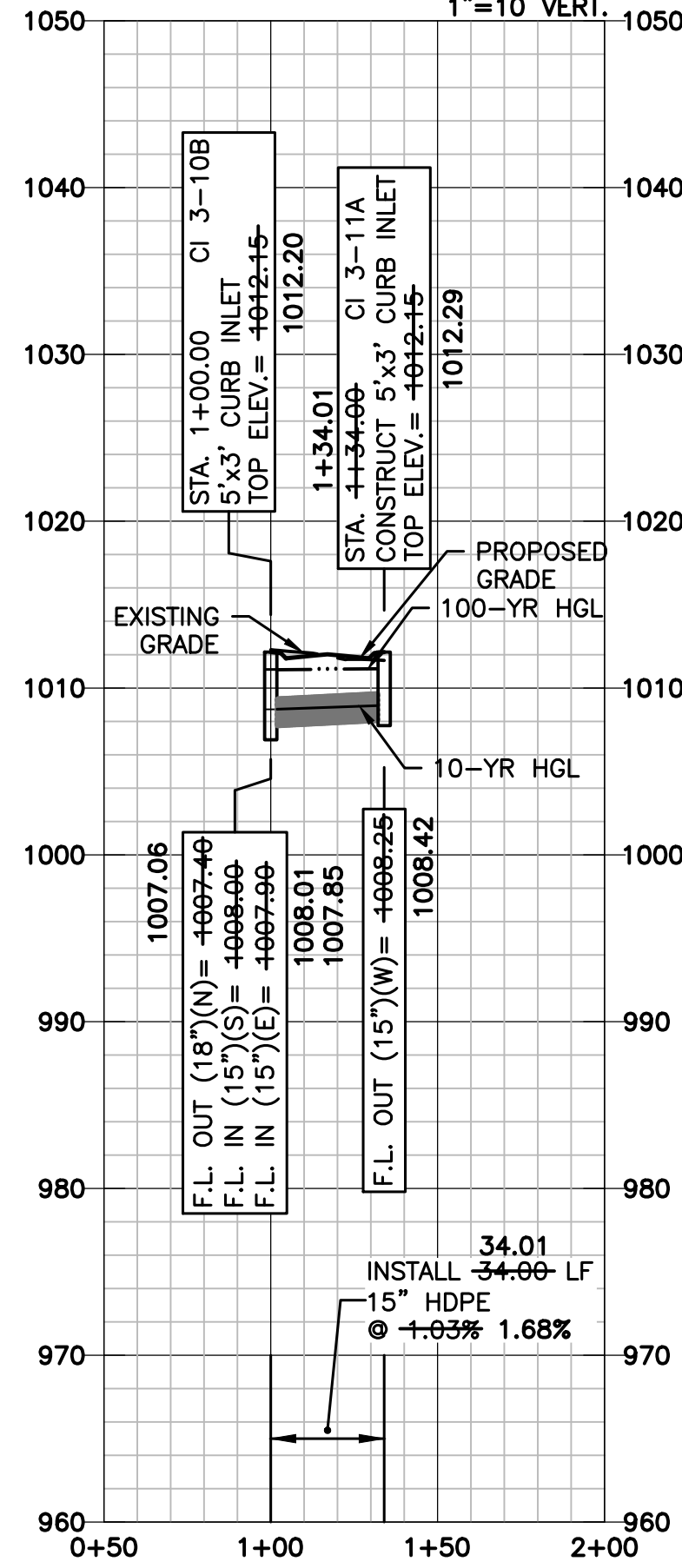
STORM LINE 3-10

Scales: 1"=50 HOR.
1"=10 VERT.



STORM LINE 3-11

Scales: 1"=50 HOR.
1"=10 VERT.

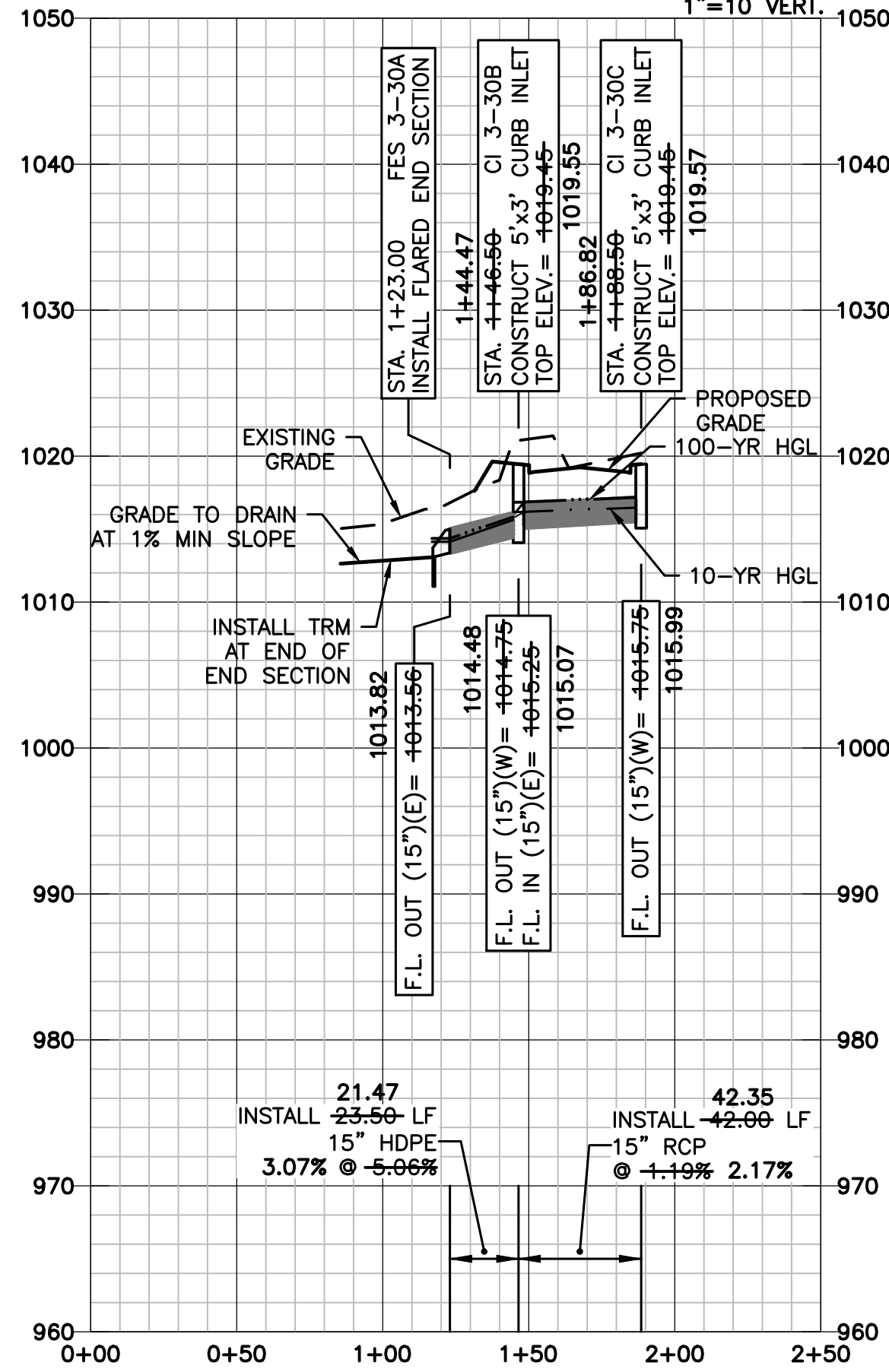


STORM SEWER NOTES (APPLICABLE TO ALL STORM PLAN AND PROFILE SHEETS):

- POLYPROPYLENE PIPE OR CONCRETE PIPE MAY BE USED IN LIEU OF HDPE PIPE. ALL PIPE SHALL MEET CITY SPECIFICATIONS (LEES SUMMIT SECTION 2600).
- PROPOSED CURB INLETS SHALL CONFORM TO CITY STANDARD DETAIL STM-1 AND JUNCTION BOXES TO STM-3.
- COORDINATES AND TOP ELEVATIONS SHOWN ARE LOCATED AT CENTER OF STRUCTURES. ROAD OFFSETS ARE AT INSIDE FACE OF CURB INLETS.
- PIPE LENGTHS AND SLOPES ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- INSIDE FRONT FACE OF CURB INLETS SHALL BE LOCATED 1.5 FEET BEHIND BACK OF CURB. STRUCTURE SHALL BE PARALLEL WITH CURB ALIGNMENT AND TOP SHALL BE SLOPED TO CONFORM TO GRADE OF STREET.
- WATER MAINS AND STORM SEWERS SHALL HAVE AT LEAST 5'-FT OF CLEAR HORIZONTAL SEPARATION.

STORM LINE 3-30

Scales: 1"=50 HOR.
1"=10 VERT.



MASS GRADING, EROSION CONTROL,
PAVING, STORM AND SANITARY PLANS
STORM SEWER PLAN AND PROFILE
LINES 3-10, 3-11 AND 3-30

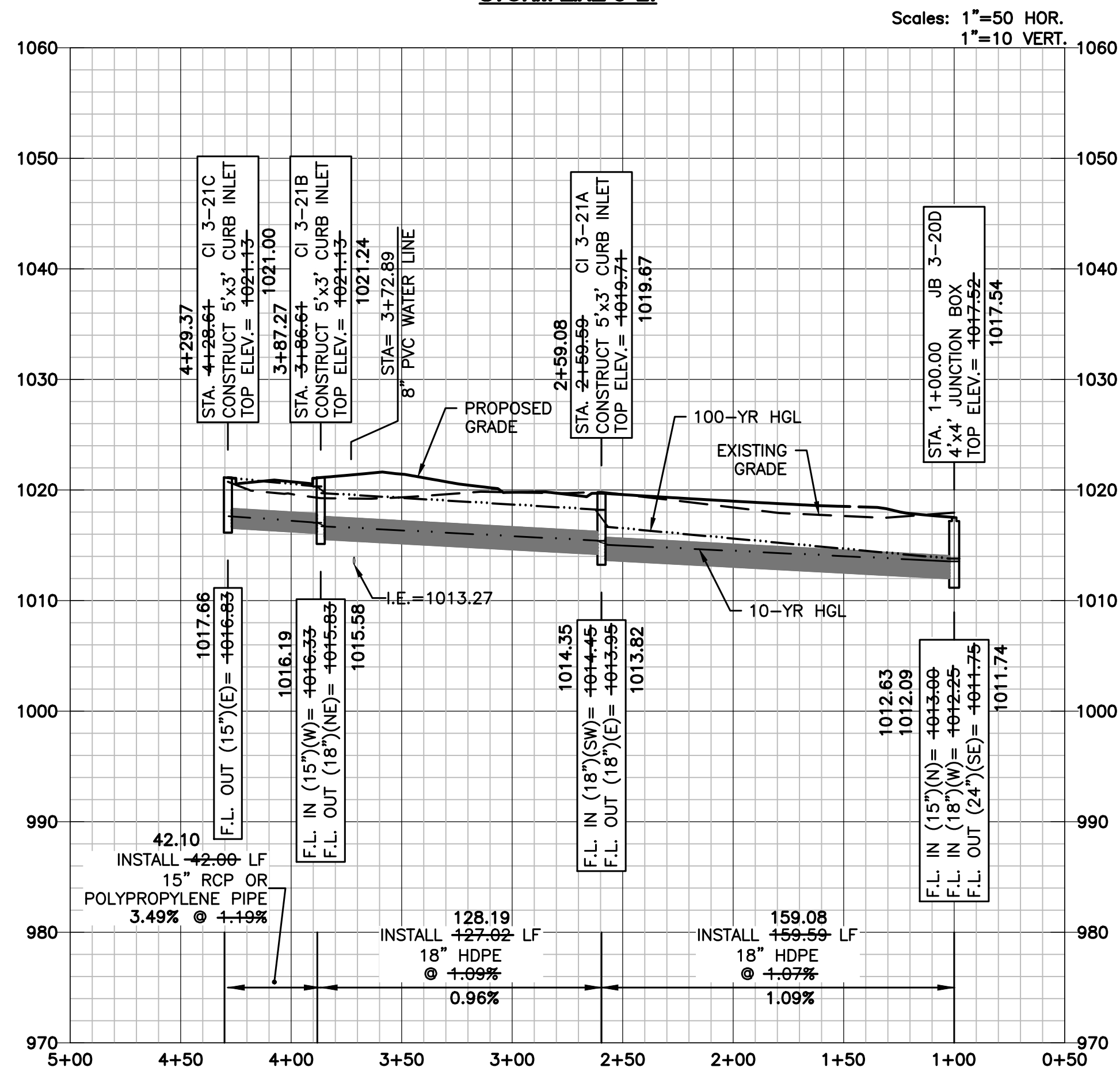
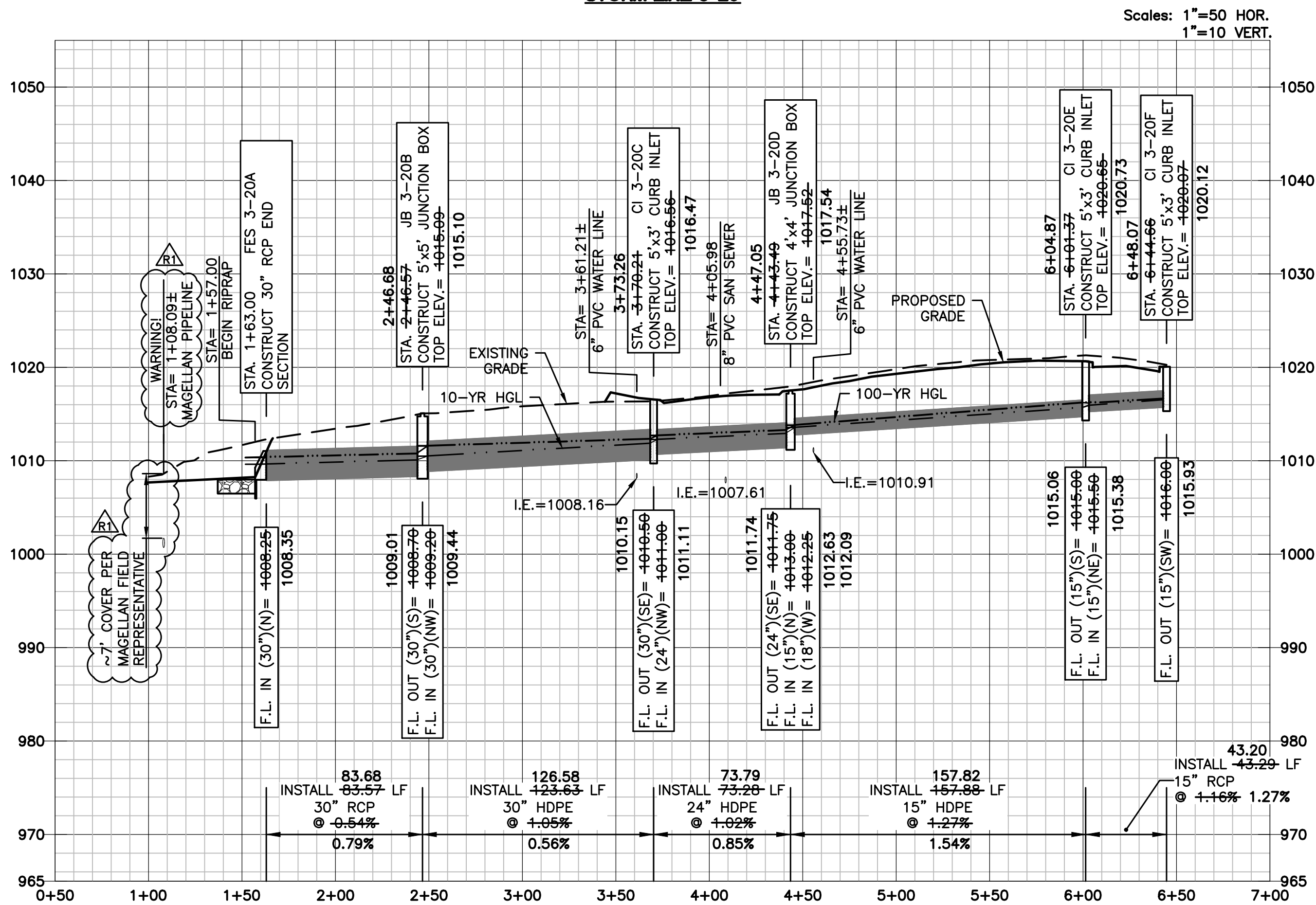
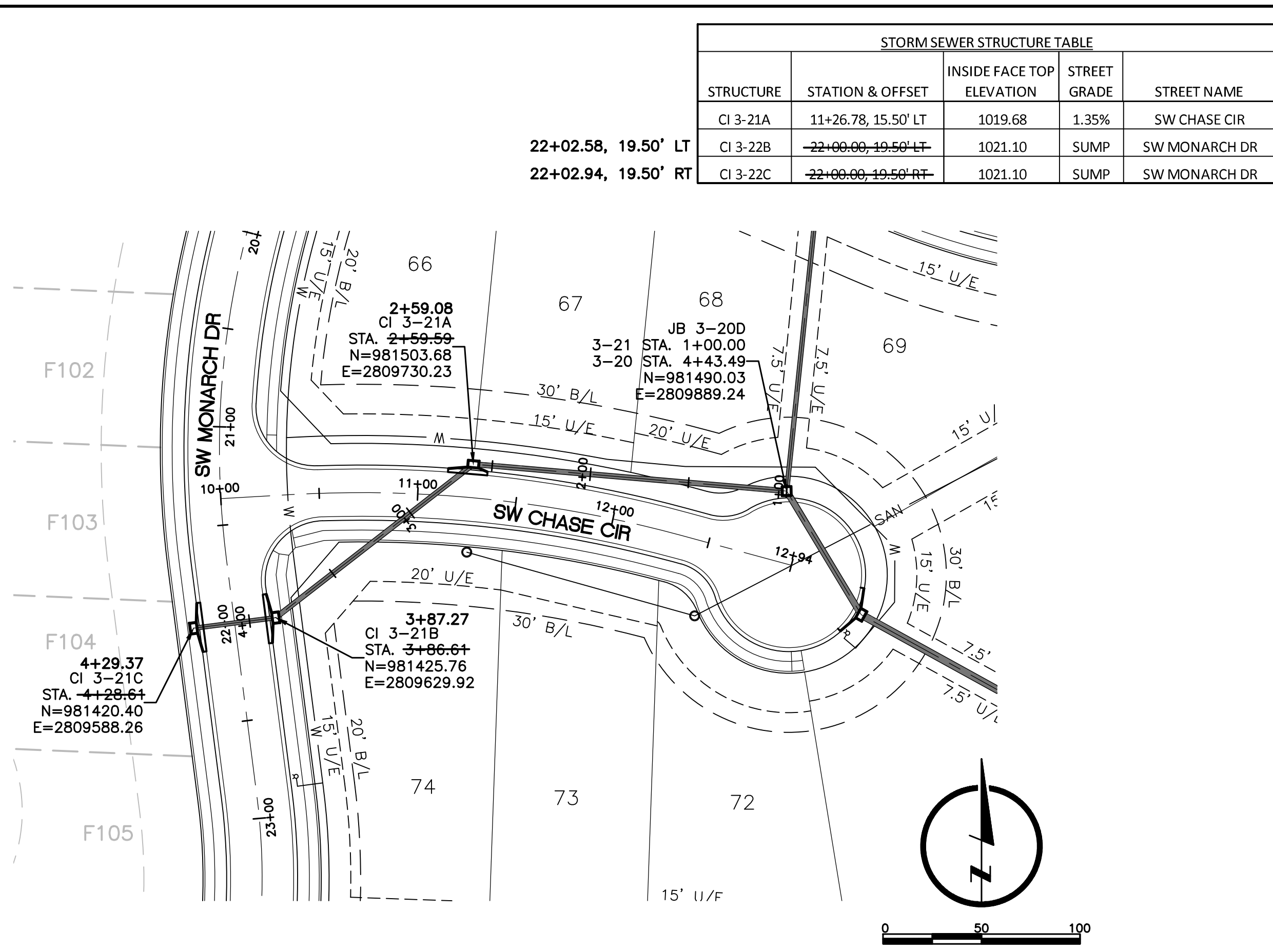
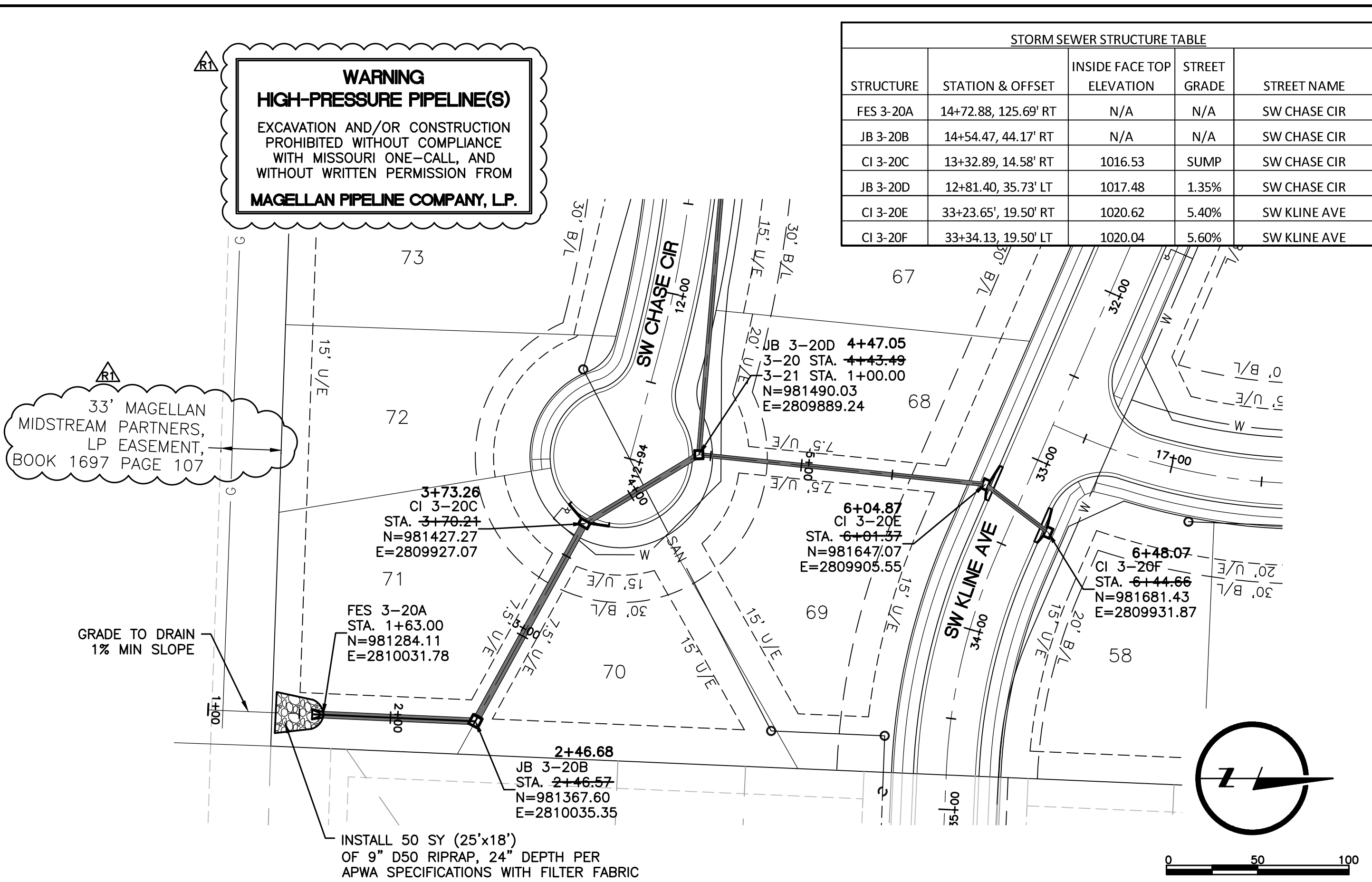
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MARK DANIEL MCCHIE JR.
PE - 2008019568

SHEET

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STRUCTURE	STATION & OFFSET	INSIDE FACE TOP ELEVATION	STREET GRADE	STREET NAME
FES 3-20A	14+72.88, 125.69' RT	N/A	N/A	SW CHASE CIR
JB 3-20B	14+54.47, 44.17' RT	N/A	N/A	SW CHASE CIR
CI 3-20C	13+32.89, 14.58' RT	1016.53	SUMP	SW CHASE CIR
JB 3-20D	12+81.40, 35.73' LT	1017.48	1.35%	SW CHASE CIR
CI 3-20E	33+23.65', 19.50' RT	1020.62	5.40%	SW KLINE AVE
CI 3-20F	33+34.13, 19.50' LT	1020.04	5.60%	SW KLINE AVE

STRUCTURE	STATION & OFFSET	INSIDE FACE TOP ELEVATION	STREET GRADE	STREET NAME
CI 3-21A	11+26.78, 15.50' LT	1019.68	1.35%	SW CHASE CIR
CI 3-22B	22+00.00, 19.50' LT	1021.10	SUMP	SW MONARCH DR
CI 3-22C	22+00.00, 19.50' RT	1021.10	SUMP	SW MONARCH DR

REVISIONS

NO.	DATE	DESCRIPTION
1	09/19/18	RESUBMITAL PER ADJUSTED LAYOUT
2	09/19/18	RESUBMITAL PER CITY COMMENTS
3	03/01/19	REVISION 1
4	02/04/2020	AS-BUILT

DESIGNED BY JAM
DATE 09-19-2018
JOB NUMBER-TASKS 031850.01
BOOK AND PAGE

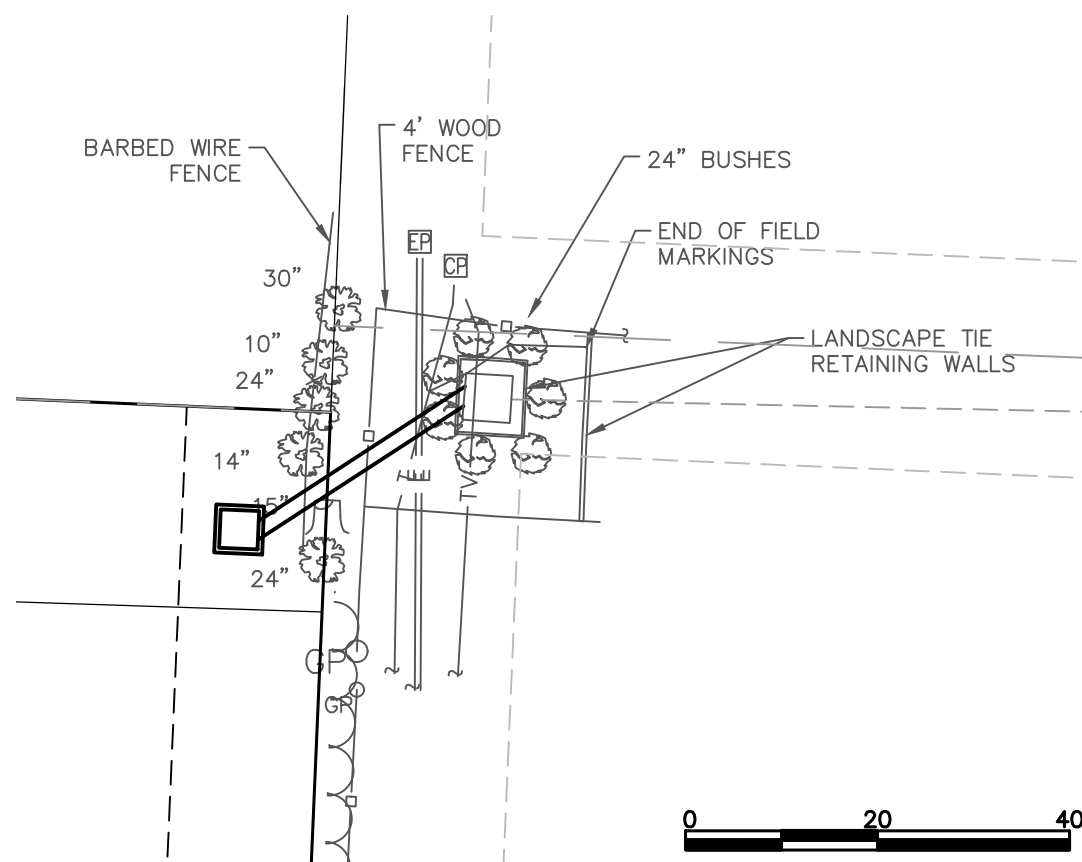
MASS GRADING, EROSION CONTROL PAVING, STORM AND SANITARY PLANS
STORM SEWER PLAN AND PROFILE
LINES 3-20 AND 3-21

LARKIN/LAMP RYNEARSON - ENGINEERS
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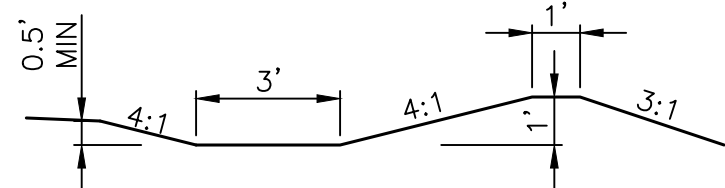
STATE OF MISSOURI
MARK DANIEL MCSHIEE JR.
Professional Engineer
02-04-2020
PE - 2008019568

BOOK AND PAGE

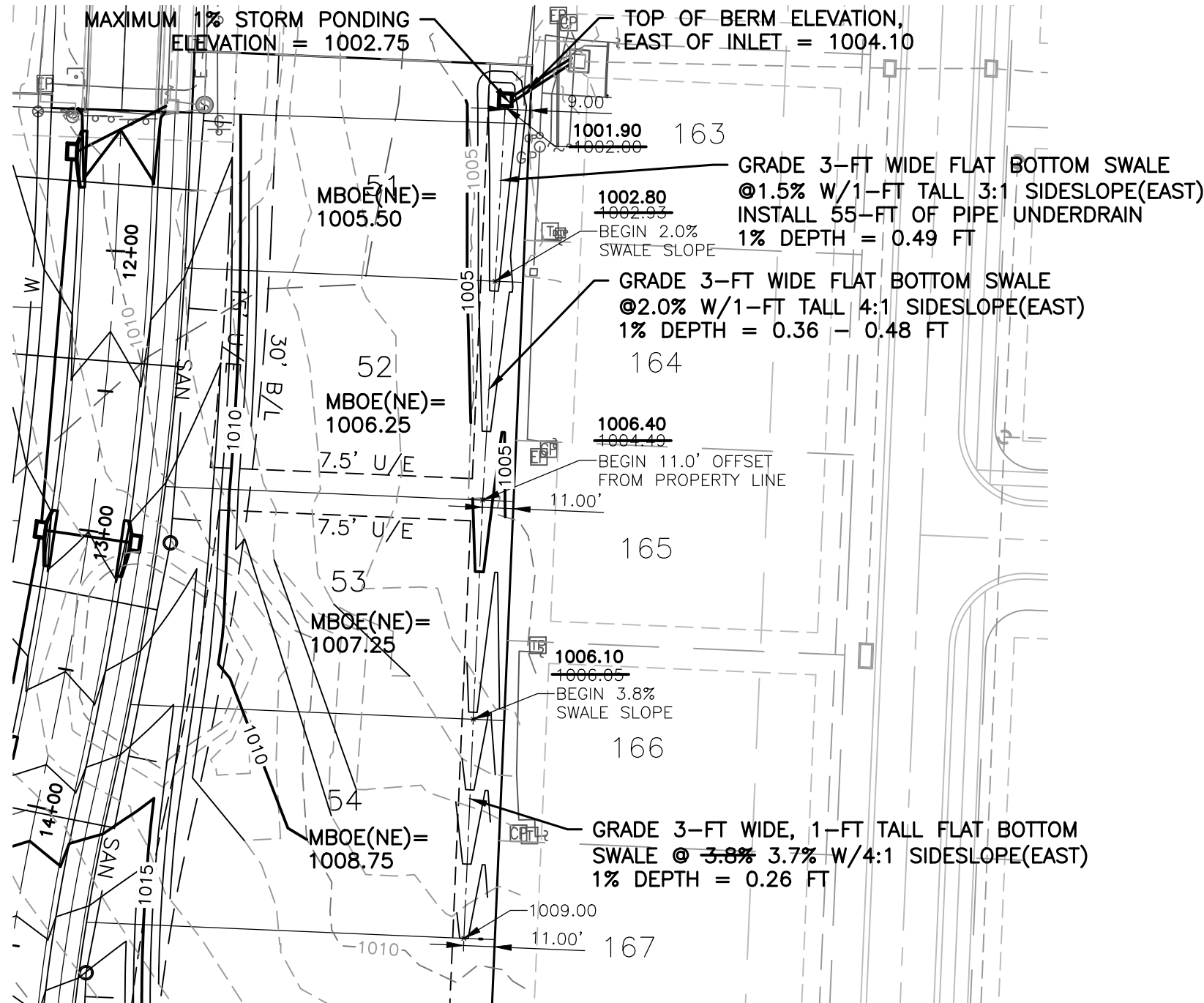
25 OF 31



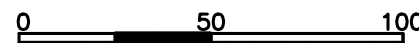
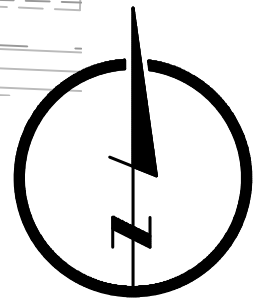
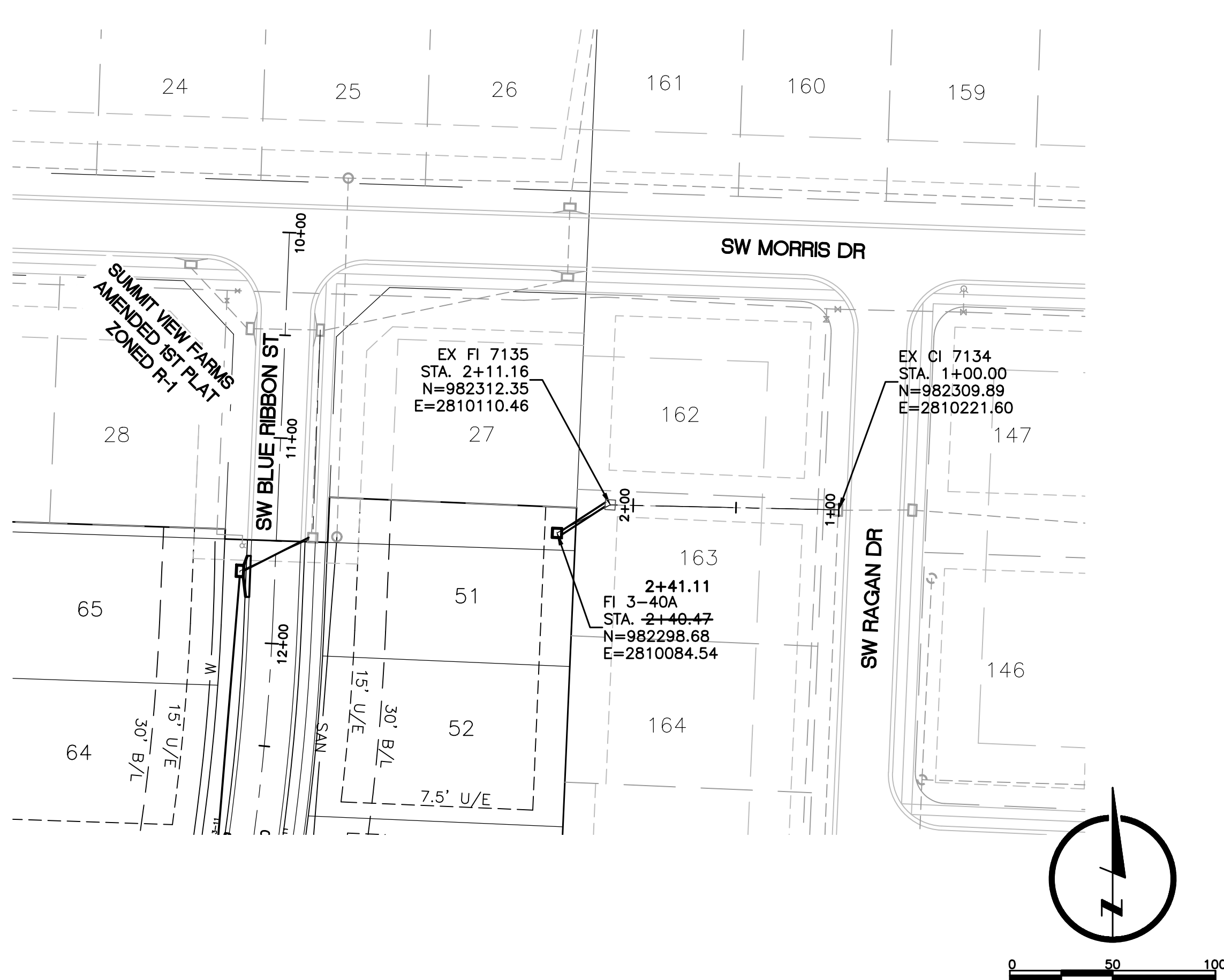
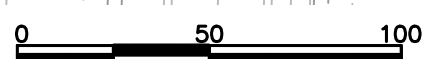
EXISTING CONDITIONS
WITH PROPOSED
EXTENSION SUPERIMPOSED



TYPICAL SWALE SECTION



GRADING DETAIL

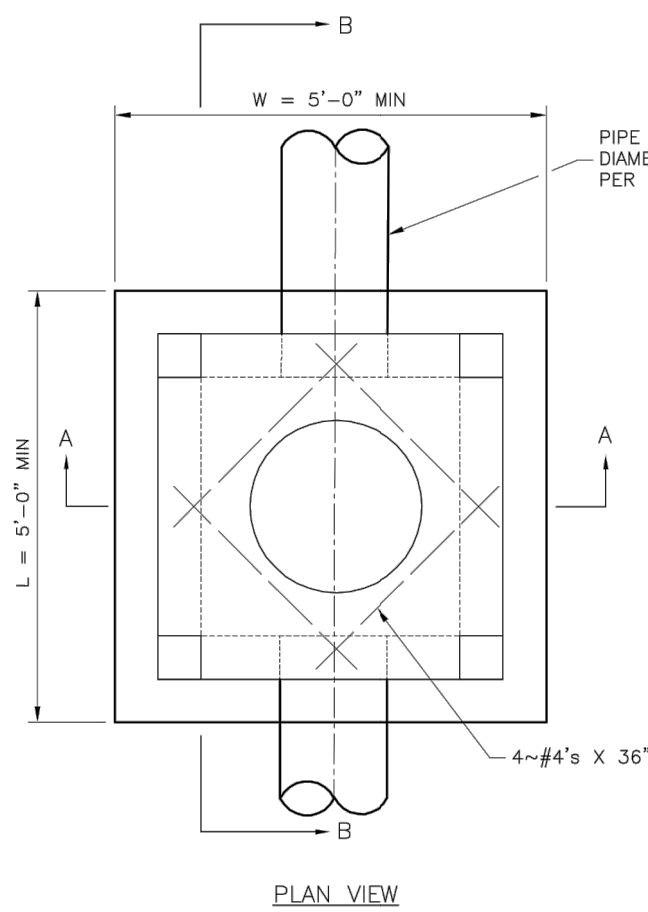


PIPE	NODE UPSTREAM DOWNSTREAM	INLET TC (MIN)	INLET AREA (ACRES)	RUNOFF COEFF.	TOTAL CA (ACRES)	10% STORM INTENSITY (IN/HR)	10% RUNOFF (CFS)	TOTAL 10% RUNOFF (CFS)	10% RUNOFF CAPTURED (CFS)	10% PIPE FLOW (CFS)	DESIGN VELOCITY (FT/S)	FULL FLOW VELOCITY (FT/S)	FULL FLOW CAPACITY (CFS)
LINE 3-40													
1	EX FI 7135 EX CI 7134	5.0	0.00	0.51	0.00	7.4	0.00	0.00	0.00	3.96	5.84	8.69	15.35
2	FI 3-40A EX FI 7135	8.25	1.20	0.51	0.61	6.5	3.96	3.96	3.96	3.96	5.75	6.87	8.43

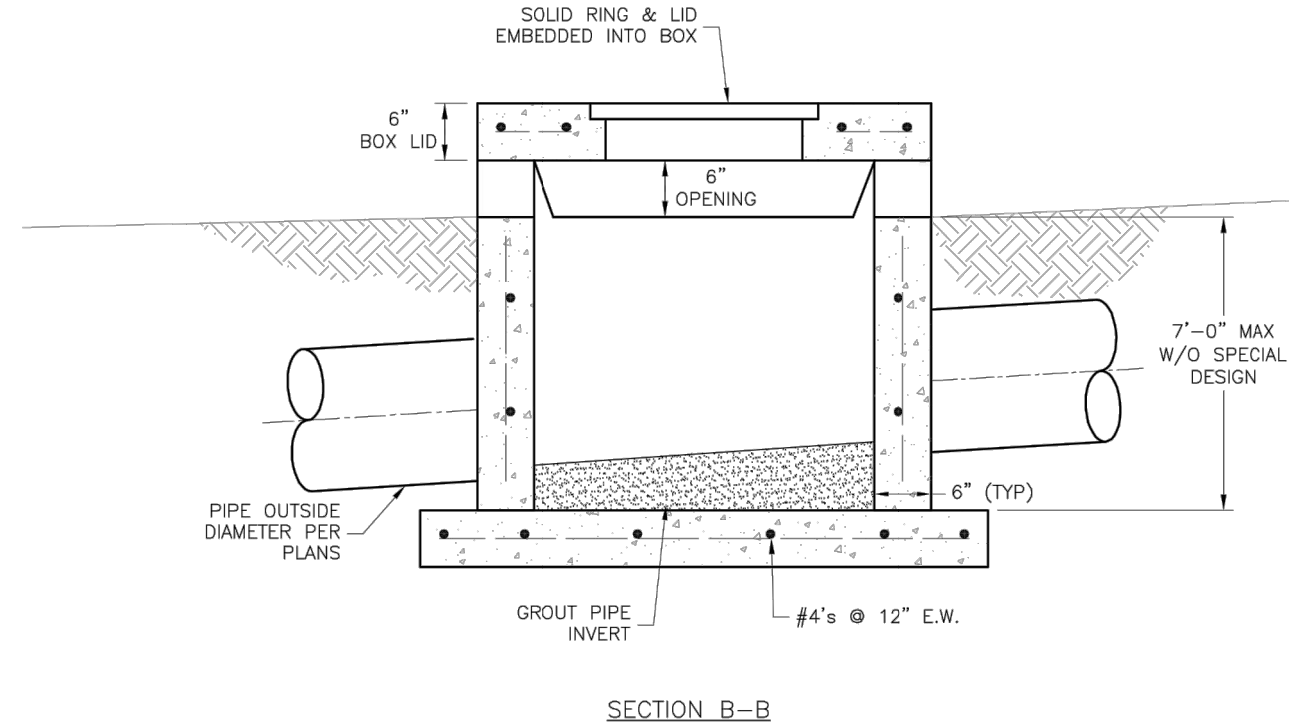
PIPE	TOTAL 1% RUNOFF (CFS)	1% PIPE FLOW (CFS)	1% STORM	10% STORM HGL UPSTREAM DOWNSTREAM (FT)	1% STORM HGL UPSTREAM DOWNSTREAM (FT)	INVERT UPSTREAM DOWNSTREAM (FT)	SECTION MATERIAL	SECTION SIZE	SLOPE (%)	LENGTH (FT)	OPENING CAPACITY (20% CLOGGED) (CFS)
LINE 3-40											
1	0.00	6.98	PIPE	997.92 989.58	998.18 990.56	997.16 989.06	CMP	18"	7.29	111.16	-
2	6.98	6.98	PIPE	1000.80 1000.10	1001.08 1000.37	1000.00 999.50	HDPE	15"	1.71	29.31	10.2

NOTES
FIELD INLET CAPACITY IS CALCULATED AT TOP OF HIGHEST WINDOW ELEVATION

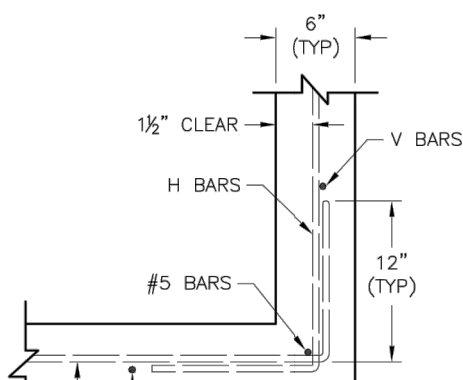
THE FULL FLOW PIPE CAPACITY (8.43 CFS) AND FIELD INLET OPENING CAPACITY (10.2 CFS) EXCEEDS THE 1% STORM PEAK RUNOFF RATE (6.98 CFS). THE EXTENSION IS DESIGNED TO CONVEY THE 1% STORM.



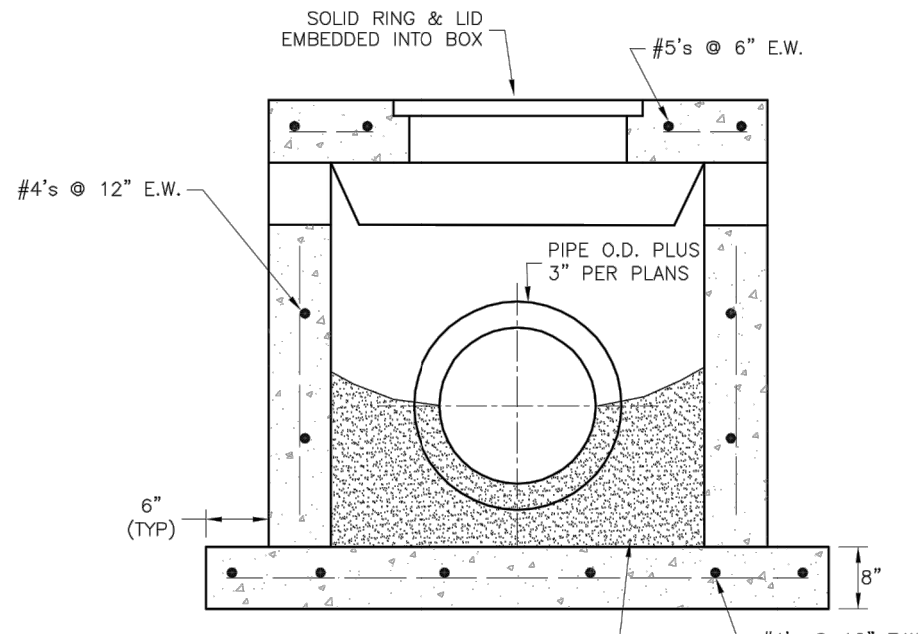
PLAN VIEW



SECTION B-B



WALL CORNER DETAIL

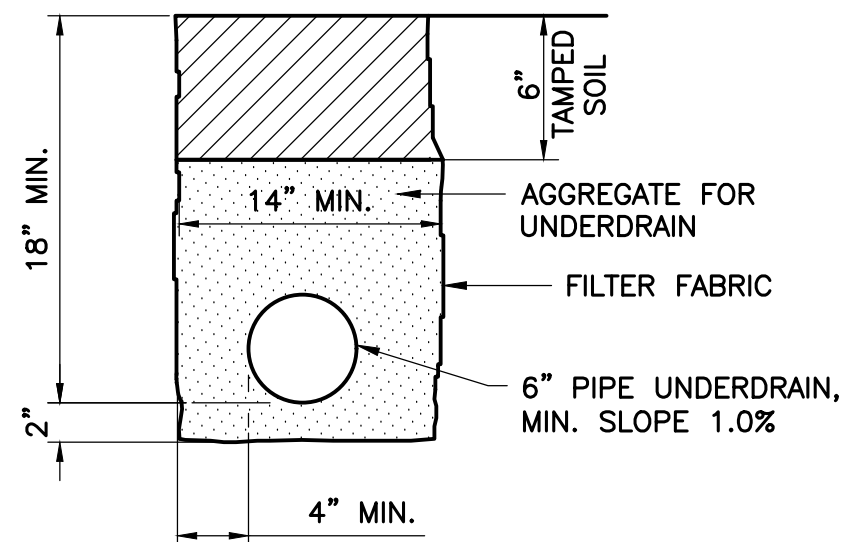


SECTION A-A

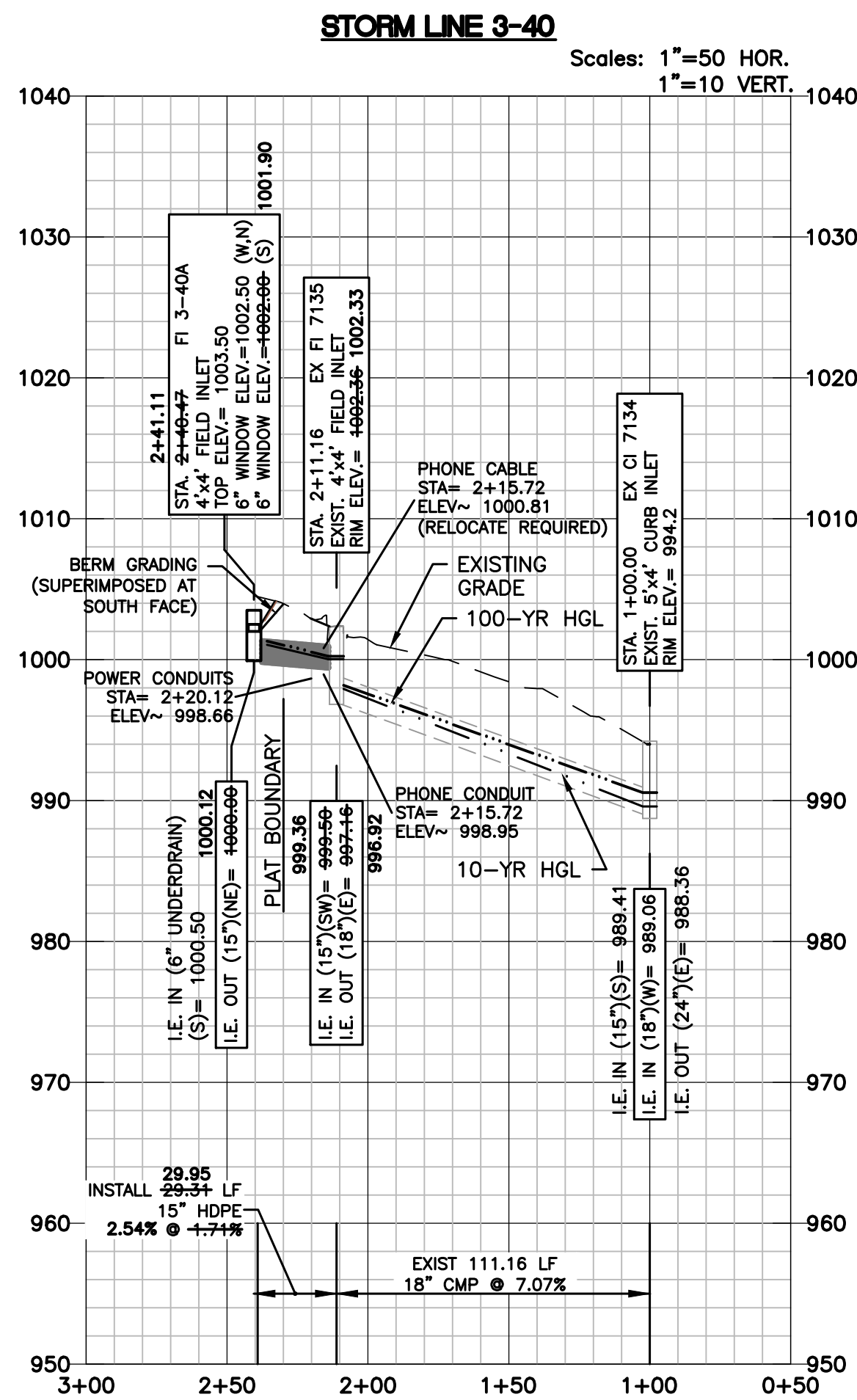
- GENERAL NOTES:
1. LOCATE RING AND COVER OVER OUTLET ON BLANK WALL.
 2. USE 3/4" CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
 3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
 4. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 3' ON BLANK WALL IF POSSIBLE.
 5. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS OF THE STRUCTURE.
 6. THE MINIMUM REINFORCING SHALL BE 1 H-BAR OVER A CAST-IN-PLACE PIPE AND 2 H-BARS OVER A PRECAST BOXOUT.
 7. SHOW FIELD INLET ORIENTATION ON PLANS PLUS NUMBER AND SIDE OF OPENINGS.
 8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
 9. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

NOTES:

1. EXISTING UTILITY LOCATIONS AND ELEVATIONS SHALL BE FIELD VERIFIED.
2. REMOVE AND REPLACE EXISTING WOOD FENCE FOR STORM SEWER PIPE INSTALLATION.
3. REMOVE LANDSCAPE TIMBERS ON WEST SIDE OF EXISTING FIELD INLET. TRANSITION GRADE AT INLET TO EXISTING GRADE.
4. MINIMIZE IMPACT TO EXISTING HEDGE ROW AT REAR OF LOTS 51 THROUGH 54 FOR SWALE GRADING.
5. MINIMUM BUILDING OPENING ELEVATIONS (MBOE) ARE INDICATED ON THE LOW SIDE OF THE LOT, FOR THE NORTHEAST CORNER OF THE FUTURE HOMES.



UNDERDRAIN

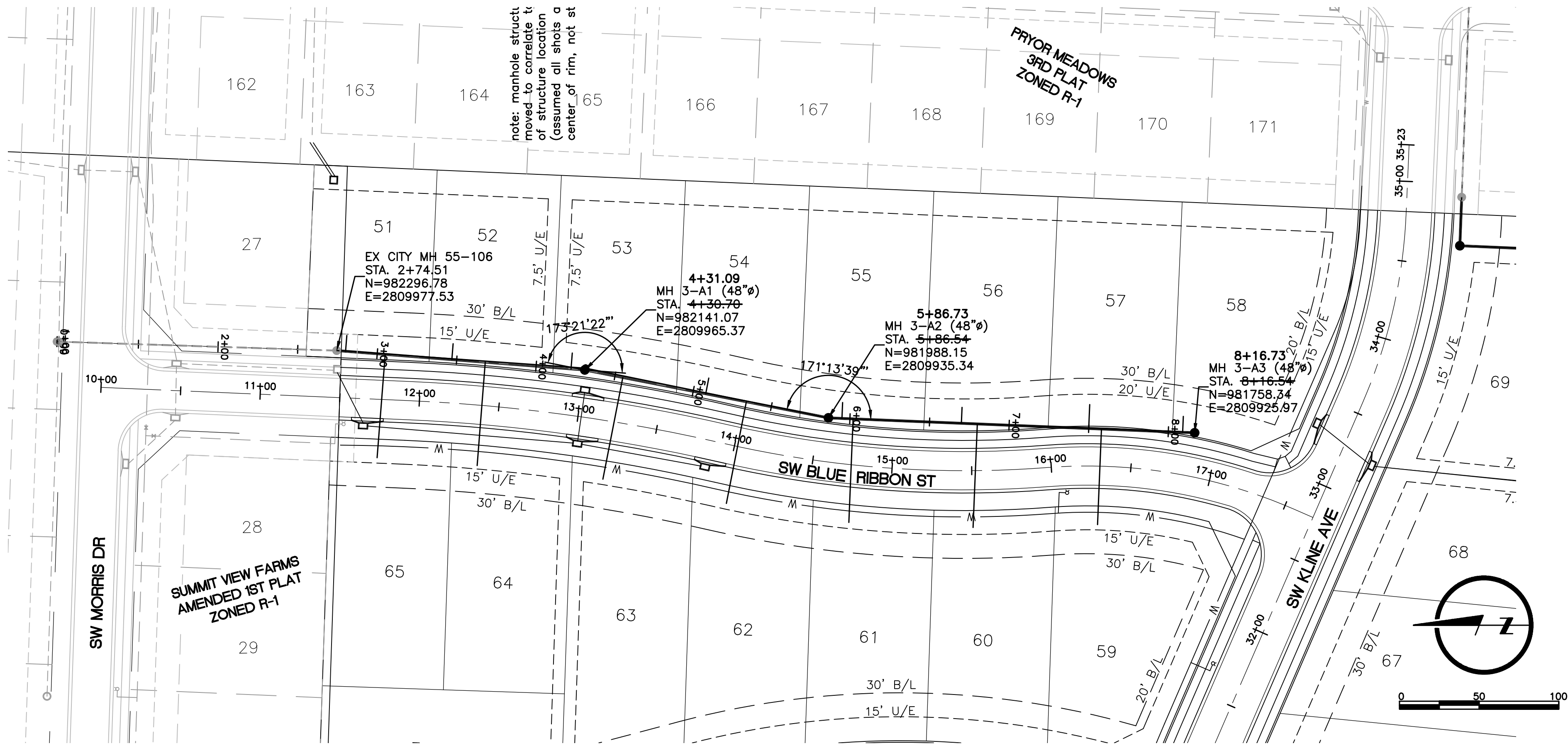


LEE'S SUMMIT
MISSOURI

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

Drawn By: MAF
Checked By: GL
Date: 04/03/20
Proj #: STM-2

STM-2

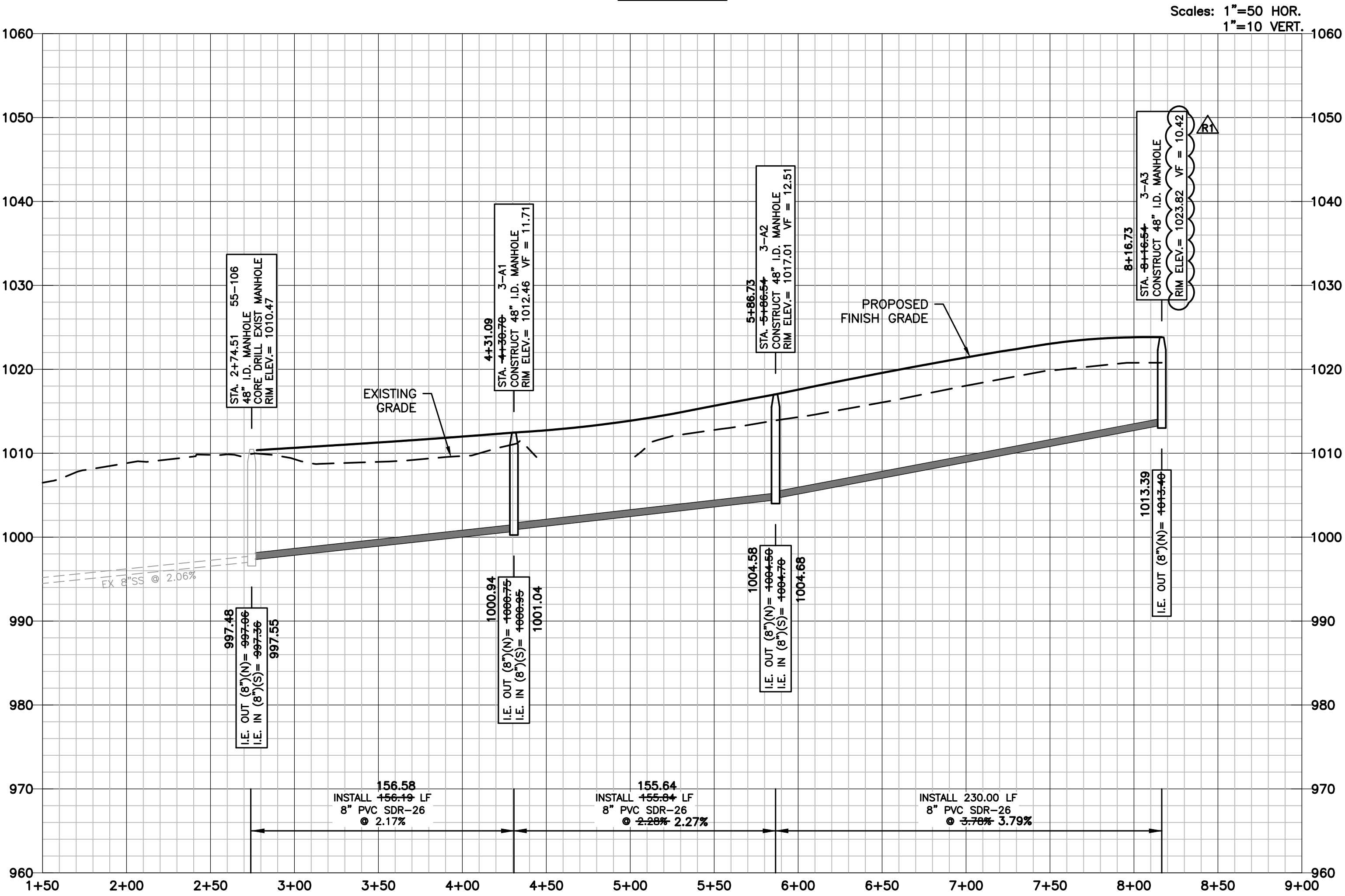


- SANITARY SEWER NOTES (APPLICABLE TO ALL SANITARY SEWER PLAN AND PROFILE SHEETS):**
- PROPOSED MANHOLES SHALL CONFORM TO CITY STANDARD DETAIL SAN-2.
 - COORDINATES, ROAD OFFSETS, AND TOP ELEVATIONS SHOWN ARE LOCATED AT CENTER OF STRUCTURES.
 - PIPE LENGTHS AND SLOPES ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
 - ALL SANITARY SEWER LATERALS SHALL OF A TRENCH CHECK, CONSISTING OF FLOWABLE BACKFILL, INSTALLED DURING CONSTRUCTION. REFER TO LEES SUMMIT SPECIFICATION SECTION 3500.
 - TRACER WIRE SHALL BE INSTALLED ON ALL SERVICE LATERALS PER CITY STANDARD DETAIL SAN-1.
 - WATER MAINS AND SANITARY SEWER MAINS (INCLUDING STRUCTURES) SHALL HAVE AT LEAST 10'-FT OF HORIZONTAL SEPARATION FROM EDGE OF WATER PIPE TO EDGE OF SEWER PIPE OR SEWER STRUCTURE.
 - WATER MAINS AND SANITARY SEWERS SHALL HAVE AT LEAST 18-INCHES OF VERTICAL SEPARATION FROM EDGE OF PIPE TO EDGE OF PIPE. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.

SANITARY SEWER STRUCTURE TABLE		
STRUCTURE	STATION & OFFSET	STREET NAME
MH 3-A1	13+00.19, 29.40' LT	SW BLUE RIBBON ST
MH 3-A2	14+56.25, 27.50' LT	SW BLUE RIBBON ST
MH 3-A3	16+85.16, 27.35' LT	SW BLUE RIBBON ST

Sewer Line	Main Station	Sewer Main Invert Elevation	Lateral Stub Length	Minimum Lateral Stub Elevation	Minimum Service Floor Elevation	Lot
3-A	2+80	997.48	10	999.01	1000.90	51
3-A	2+95	997.80	65	1000.43	1002.30	65
3-A	3+47	998.93	10	1000.46	1002.35	52
3-A	3+68	999.39	65	1002.02	1003.90	64
3-A	4+22	1000.56	10	1002.09	1003.95	53
3-A	4+55	1001.50	65	1004.13	1006.05	63
3-A	5+08	1002.71	10	1004.24	1006.10	54
3-A	5+34	1003.30	65	1005.93	1007.85	62
3-A	5+95	1005.02	10	1006.55	1008.40	55
3-A	6+02	1005.28	65	1007.91	1009.80	61
3-A	6+70	1007.86	10	1009.39	1011.25	56
3-A	6+80	1008.24	65	1010.87	1012.80	60
3-A	7+50	1010.88	15	1012.51	1014.35	57
3-A	7+58	1011.19	60	1013.72	1015.60	59
3-A	8+09	1013.11	10	1014.64	1016.50	58

NOTE: DESIGN LATERAL INFORMATION SHOWN. LATERAL LOCATIONS AND ELEVATIONS WERE NOT AS-BUILT.



DRAWN BY
JAM

DESIGNED BY
MDM

DATE
03/01/19

JOB NUMBER-TASKS
09-19-2018

BOOK AND PAGE
031850.01

REVISIONS

08/19/18 - RESUBMITAL PER ADJUSTED LAYOUT

09/19/18 - RESUBMITAL PER CITY COMMENTS

03/01/19 - REVISION 1

02/04/2020 - AS-BUILTS

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SUMMIT VIEW FARMS 3RD PLAT
LEE'S SUMMIT, MISSOURI

MASS GRADING, EROSION CONTROL,
PAVING, STORM AND SANITARY PLANS
SANITARY SEWER PLAN AND PROFILE
LINE 3-A

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TMO Certificate of Authority No. 2013011903

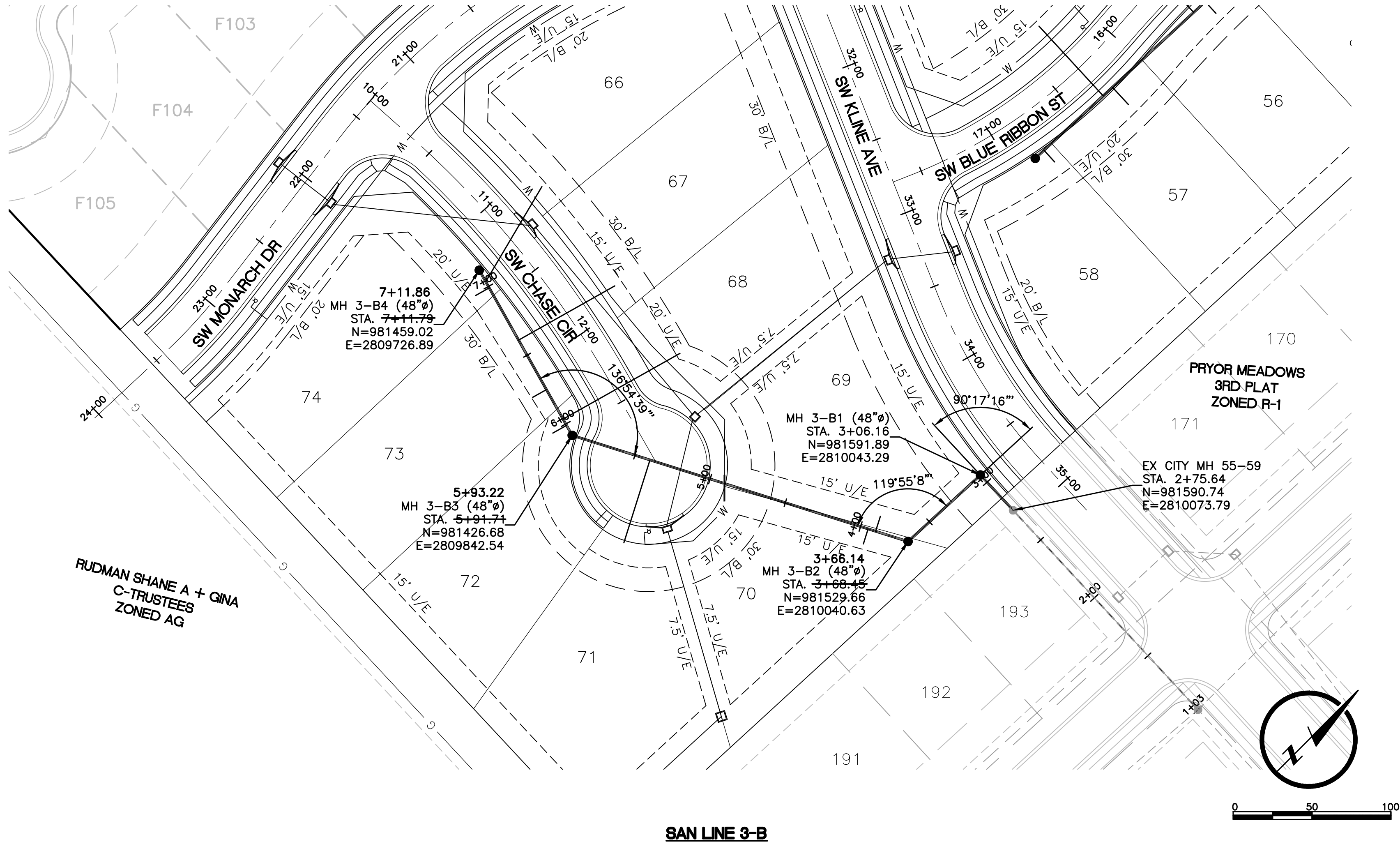
STATE OF MISSOURI
MARK DANIEL MCGHEE JR.
PE-2008019568
PROFESSIONAL ENGINEER
02-04-2020

MARK DANIEL MCGHEE JR.
PE - 2008019568

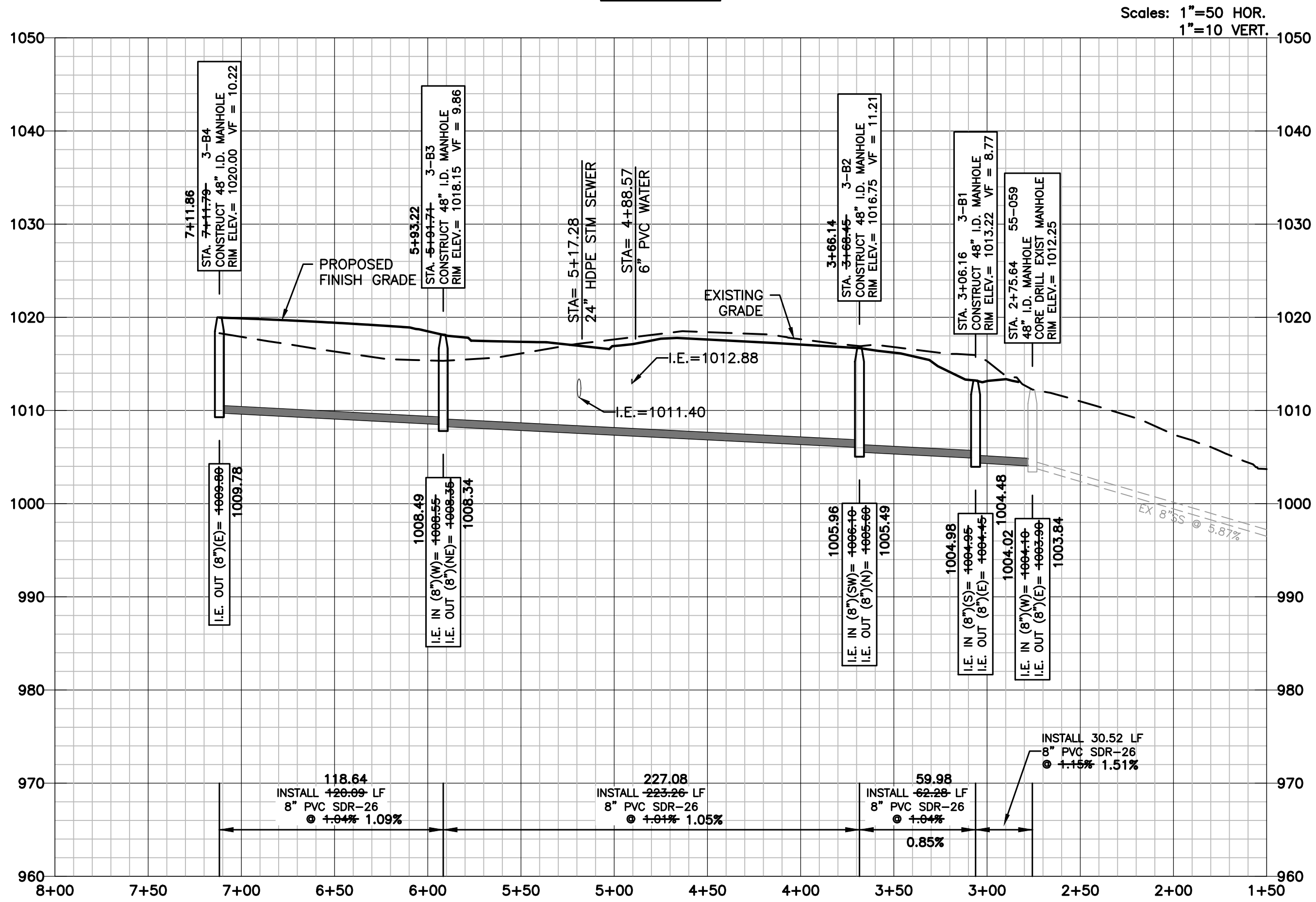
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SAN LINE 3-B



SANITARY SEWER STRUCTURE TABLE		
STRUCTURE	STATION & OFFSET	STREET NAME
MH 3-B1	34+62.86, 35.04' RT	SW KLINE AVE
MH 3-B2	34+65.33, 97.25' RT	SW KLINE AVE
MH 3-B3	12+52.92, 37.63' RT	SW CHASE CIR
MH 3-B4	11+27.49, 27.78' RT	SW CHASE CIR

Sewer Line	Main Station	Sewer Main Invert Elevation	Lateral Stub Length	Minimum Lateral Stub Elevation	Minimum Service Floor Elevation	Lot
3-B	3+90	1006.32	10	1007.85	1009.70	69
3-B	3+95	1006.37	10	1007.90	1009.75	70
3-B	5+40	1007.83	55	1010.26	1012.20	71
3-B	5+99	1008.63	10	1010.16	1012.40	72
3-B	6+03.5	1008.67	85	1011.70	1013.75	68
3-B	6+25	1008.90	10	1010.43	1012.20	73
3-B	6+61	1009.27	70	1012.00	1013.90	67
3-B	6+99	1009.67	10	1011.20	1013.00	74
3-B	7+03.5	1009.71	70	1012.44	1014.35	66

NOTE: DESIGN LATERAL INFORMATION SHOWN. LATERAL LOCATIONS AND ELEVATIONS WERE NOT AS-BUILT.

DRAWN BY
JAM

DESIGNED BY
MDM

DATE
09-19-2018

JOB NUMBER-TASKS
0319050.01

BOOK AND PAGE

PERSONS

08/19/18 - RESUBMITAL PER ADJUSTED LAYOUT

09/19/18 - RESUBMITAL PER CITY COMMENTS

02/04/2020 - ASBUILT

LARKIN/RYNEARSON

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Kansas City, Missouri 64114
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SUMMIT VIEW FARMS 3RD PLAT
LEE'S SUMMIT, MISSOURI

MASS GRADING, EROSION CONTROL,
PAVING, STORM AND SANITARY PLANS
SANITARY SEWER PLAN AND PROFILE
LINE 3-B

LARKIN LAMP RYNEARSON - ENGINEERS
MEO Certificate of Authority No. 2013011903

STATE OF MISSOURI

MARK DANIEL MCGHEE JR.

PROFESSIONAL ENGINEER

02-04-2020

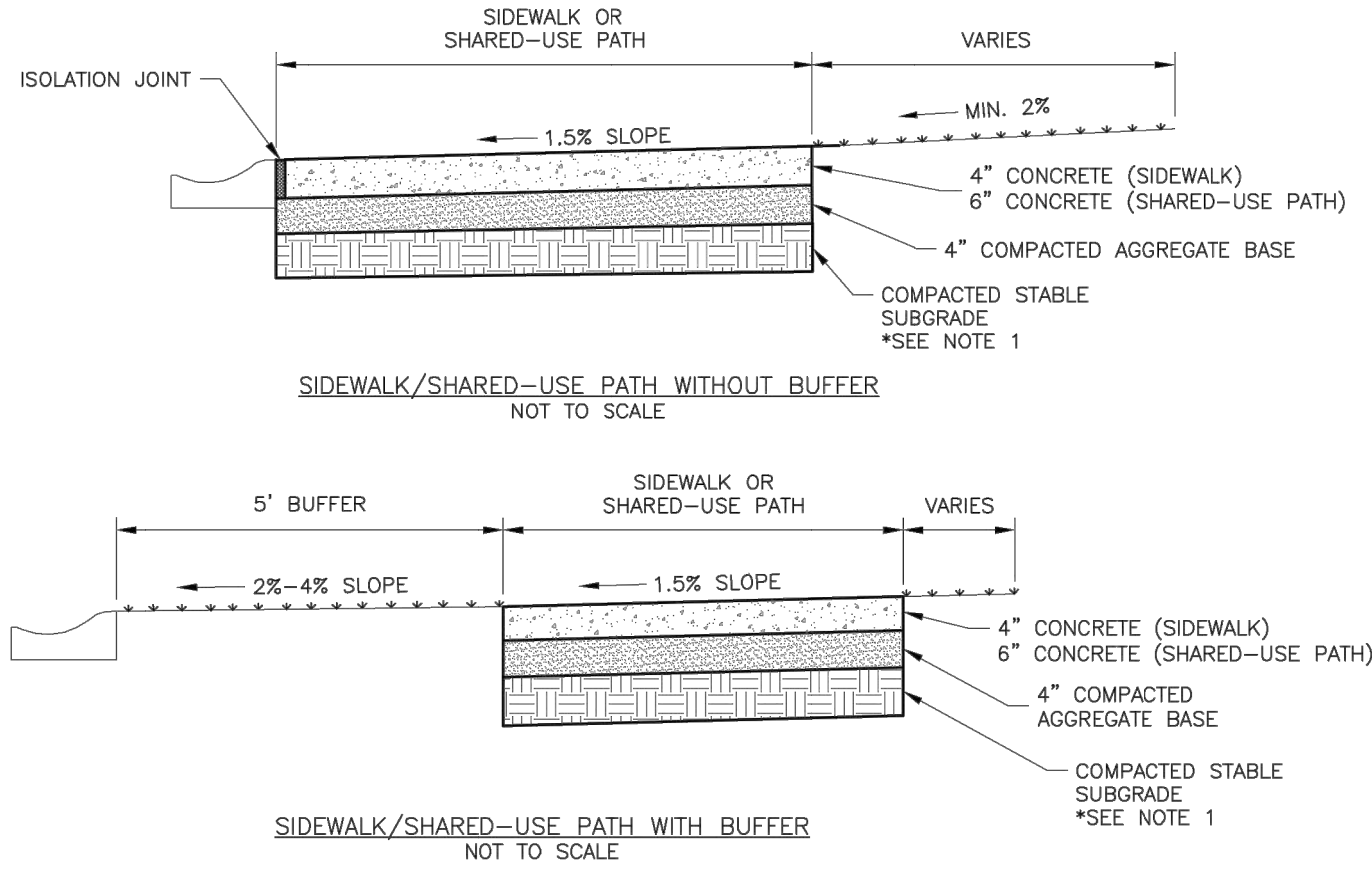
MARK DANIEL MCGHEE JR.

PE - 2008019568

SHEET

27 OF 31

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GENERAL NOTES:

- SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
- 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
- KOMMB 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS AND SHARED-USE PATHS OR AS APPROVED BY THE CITY INSPECTOR.
- ALL SIDEWALKS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
- AN EXPANSION JOINT SHALL BE PLACED AT A MAXIMUM OF 150 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK, BUT NO GREATER THAN 10 FT.
- SHARED-USE PATH WIDTH SHALL BE 10 FT. WIDE.
- SIDEWALK FINISHING (NO PICTURE FRAMING) AS DIRECTED BY CITY INSPECTOR.
- WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.



LEE'S SUMMIT
MISSOURI

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

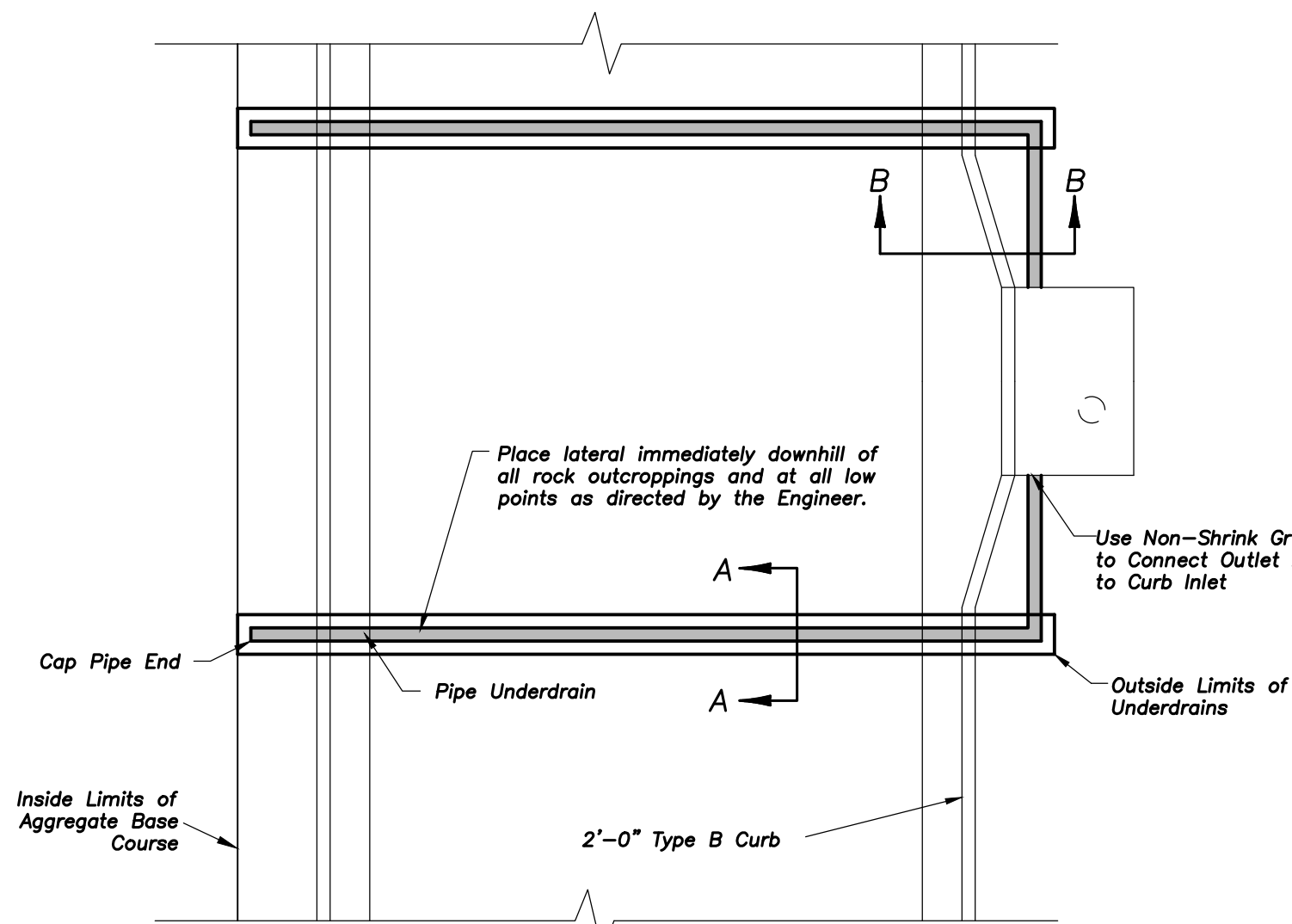
SIDEWALK/SHARED-USE PATH DETAIL

Date: 04/17

Drawn By: MJF

Checked By: DL

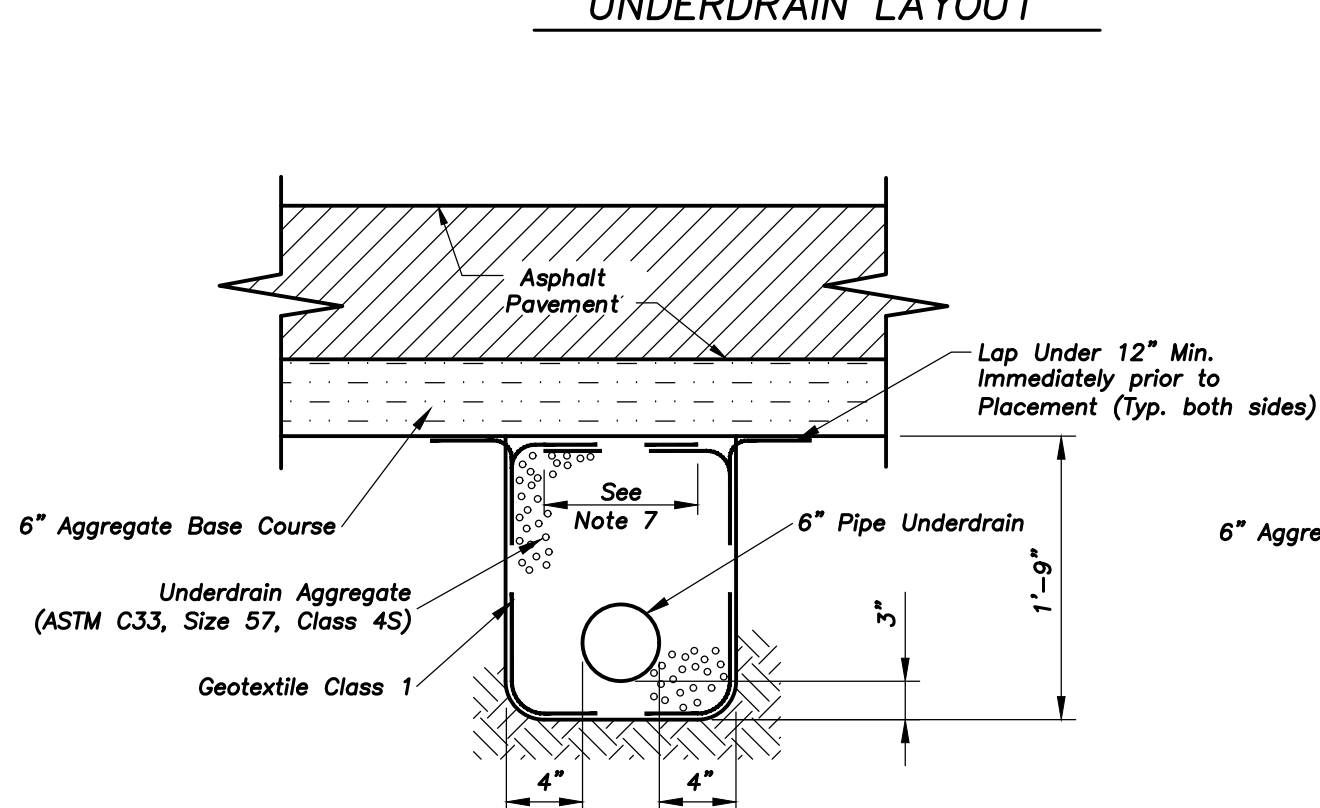
GEN-2



UNDERDRAIN LAYOUT

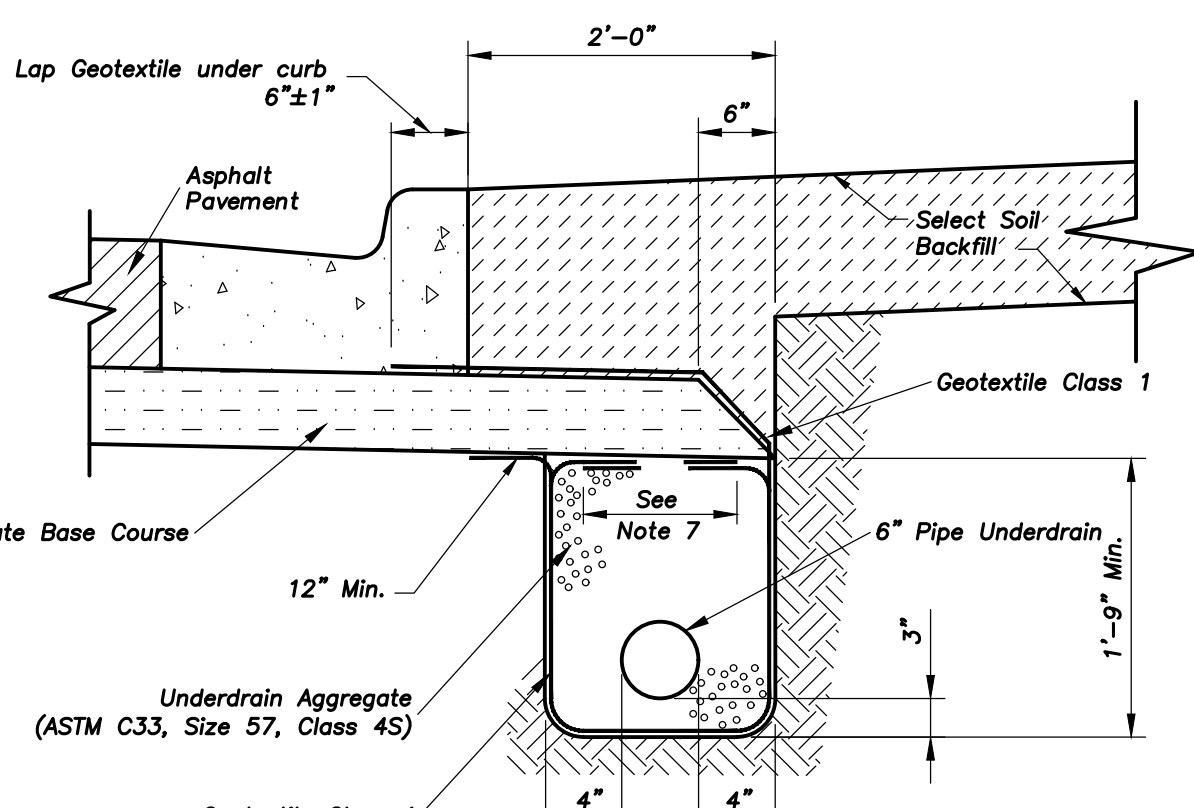
Underdrain Notes:

- A minimum of 12" of select soil (topsoil) shall be placed on exposed rock cut or fill slopes outside the limits of the roadway. All rock and shale slopes shall be benched at a maximum of 2' vertical intervals prior to placement of select soil.
- All underdrain pipes shall be installed at a minimum slope of 1%. Pipe shall be installed with the perforations placed down.
- Construct underdrain and fold geotextile over underdrain aggregate to protect the underdrain until the Aggregate Base Course is constructed. Fold the geotextile back and construct the Aggregate Base Course. Geotextile seams shall be overlapped at a minimum of 12".



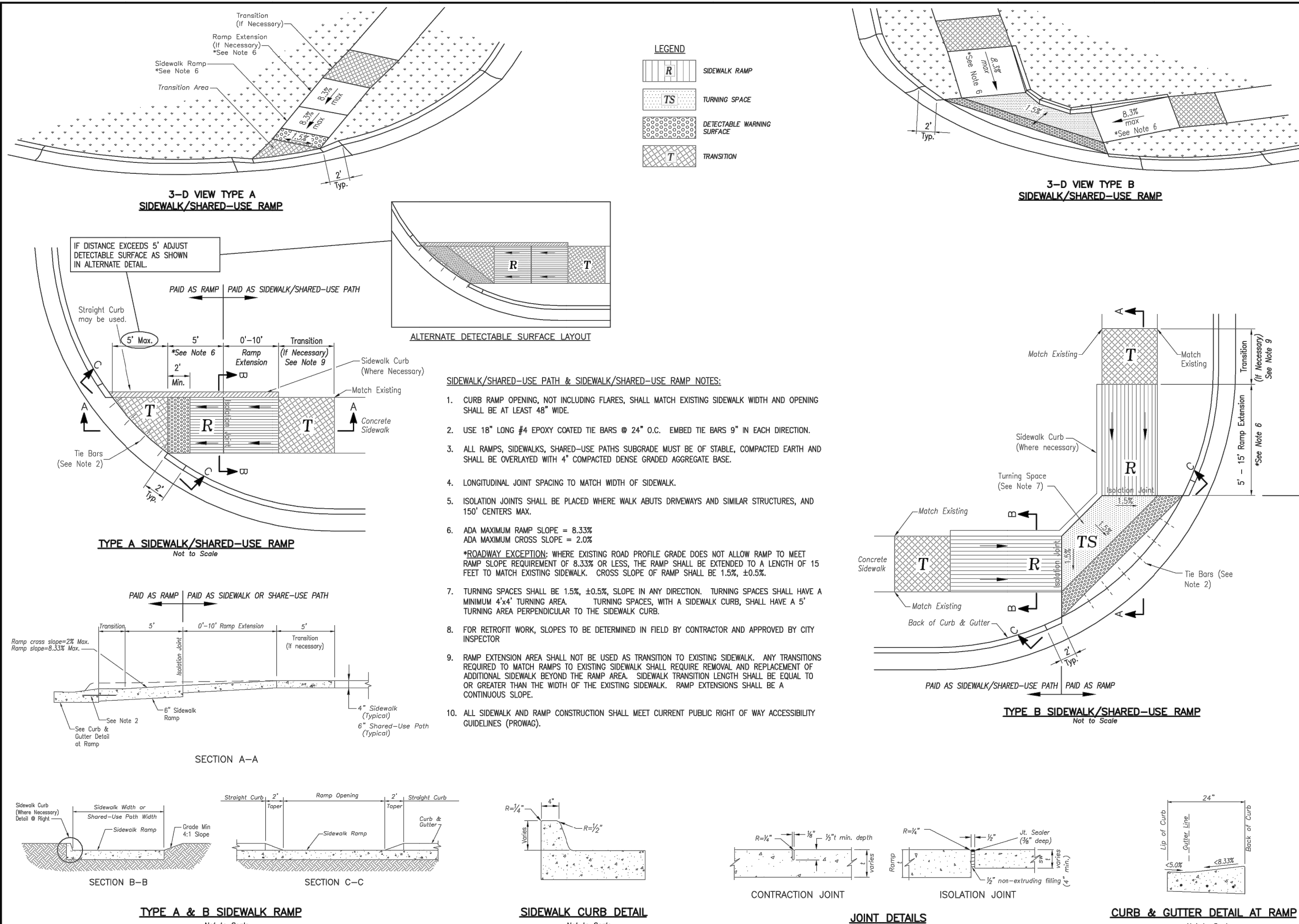
PIPE UNDERDRAIN LATERAL A-A

Not to Scale



PIPE UNDERDRAIN BEHIND CURB B-B

Not to Scale



PAID AS RAMP PAID AS SIDEWALK/SHARED-USE PATH

LEE'S SUMMIT
MISSOURI

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

ADA RAMP RETROFIT DETAIL

STANDARD DETAILS

CITY OF LEE'S SUMMIT, MO

LEE'S SUMMIT, JACKSON COUNTY, MO

Sheet Name:

Drawn By: MJF

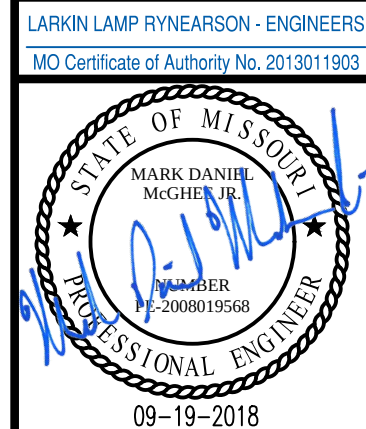
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Date: 04/17

Proj #

GEN-3A

MASS GRADING, EROSION CONTROL,
PAVING, STORM AND SANITARY PLANS



MARK DANIEL MCGHEE JR.

PE - 2008019568

SHEET

28 OF 31

LARKIN/
LAMP RYNEARSON

LEE'S SUMMIT
MISSOURI

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

ADA RAMP RETROFIT DETAIL

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Sheet Name:

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GEN-3A

MASS GRADING, EROSION CONTROL,
PAVING, STORM AND SANITARY PLANS

MARK DANIEL MCGHEE JR.

PE - 2008019568

09-19-2018

FE - 2008019568

SHEET

28 OF 31

MASS GRADING, EROSION CONTROL,
PAVING, STORM AND SANITARY PLANS

MARK DANIEL MCGHEE JR.

PE - 2008019568

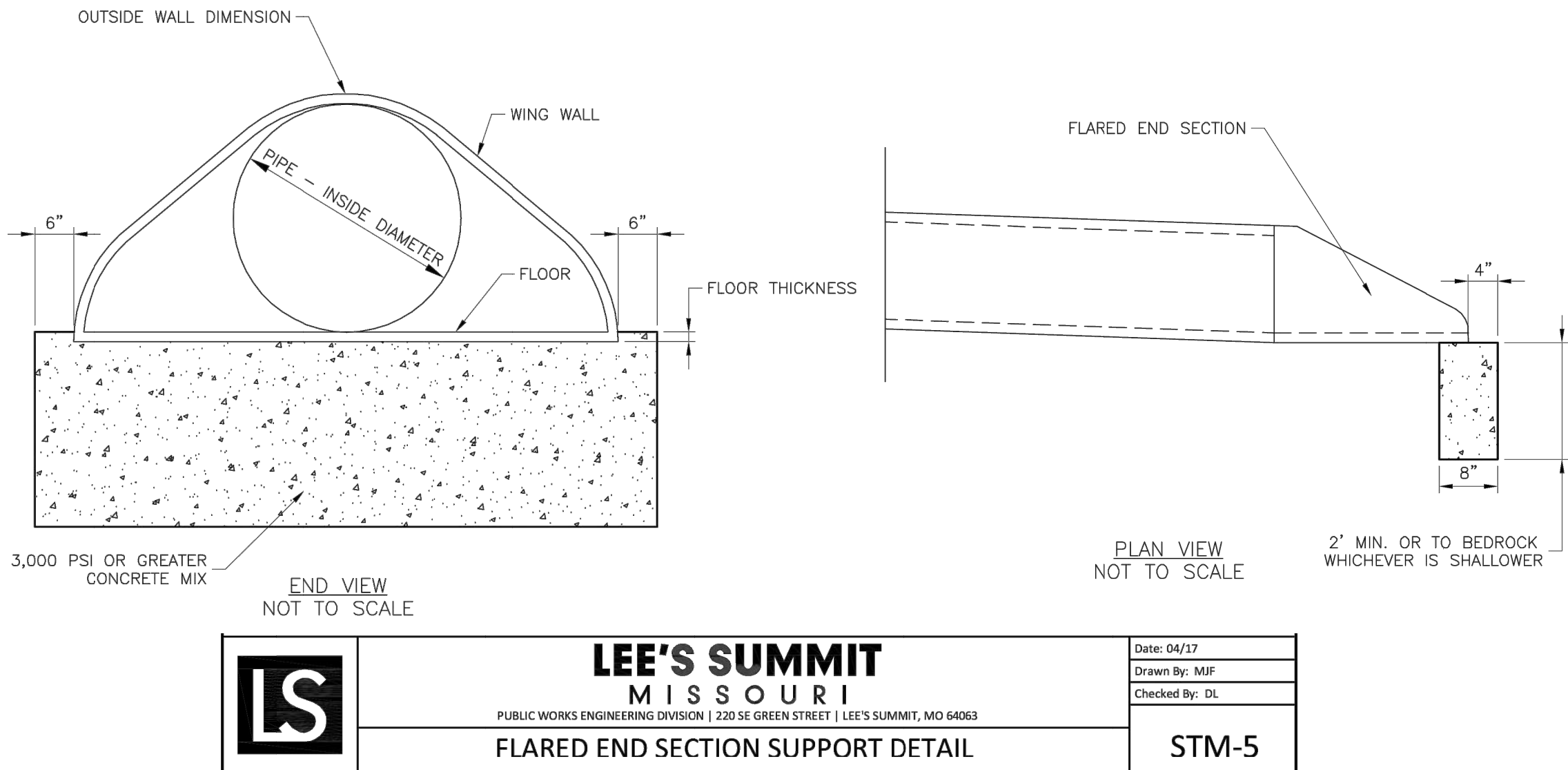
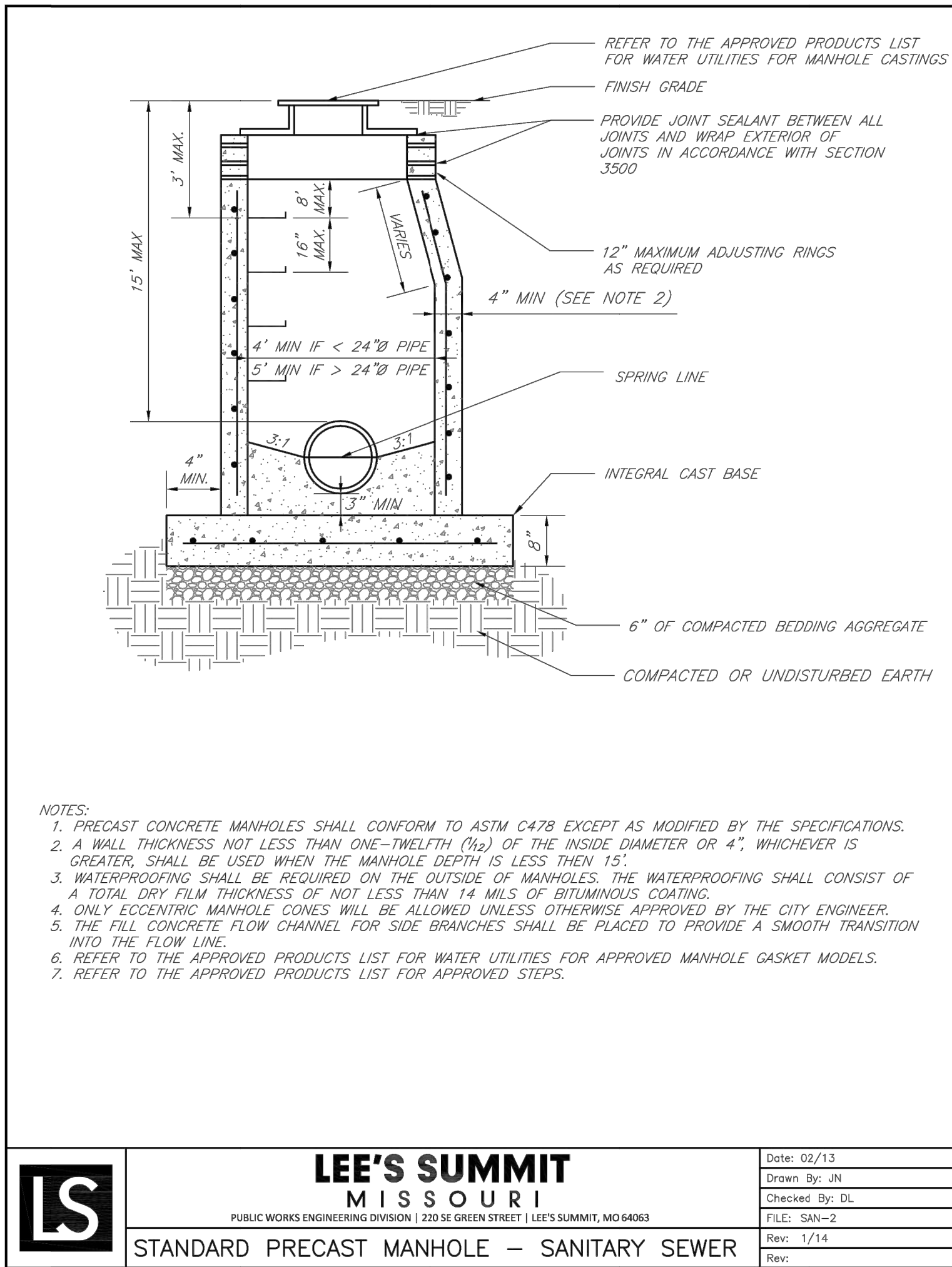
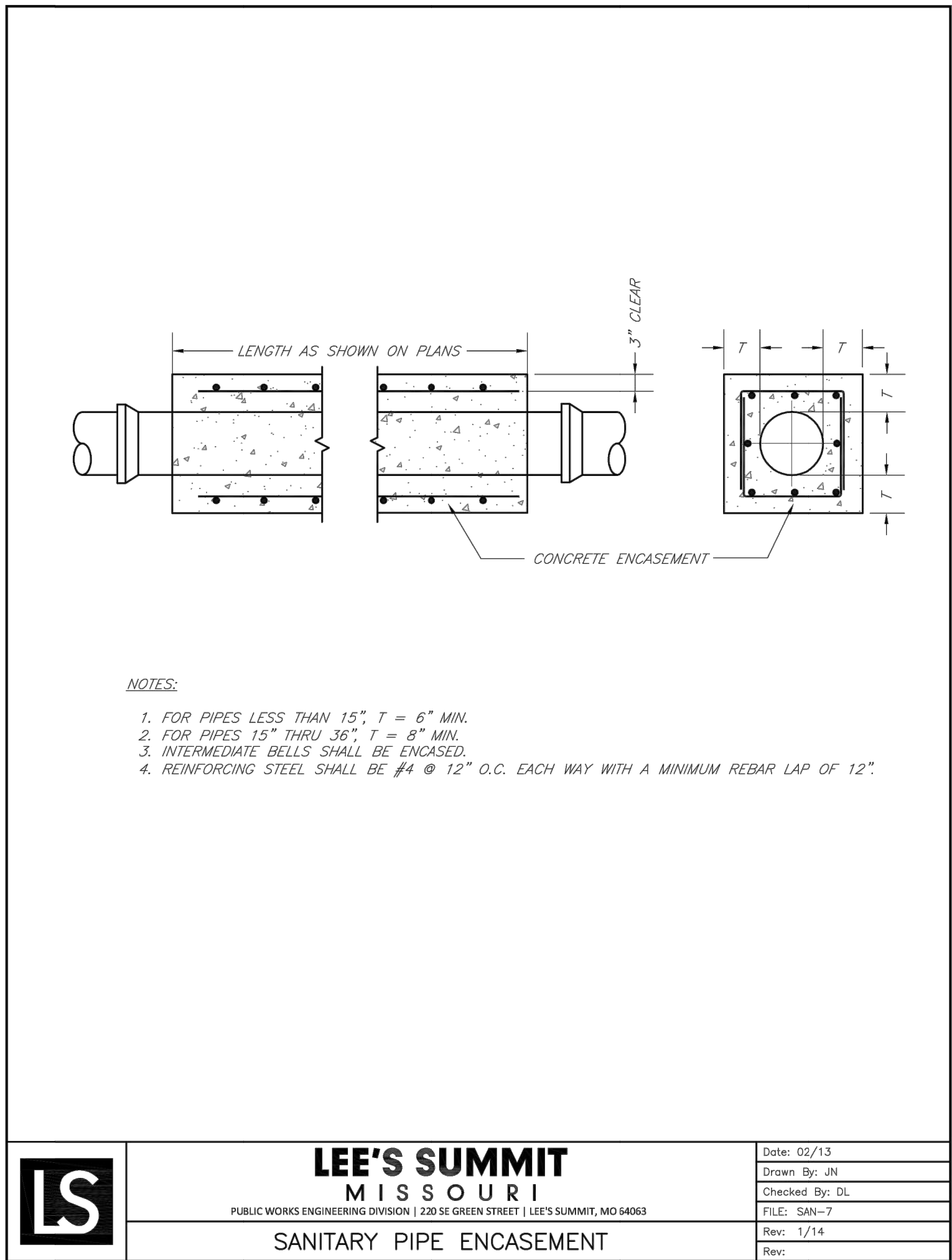
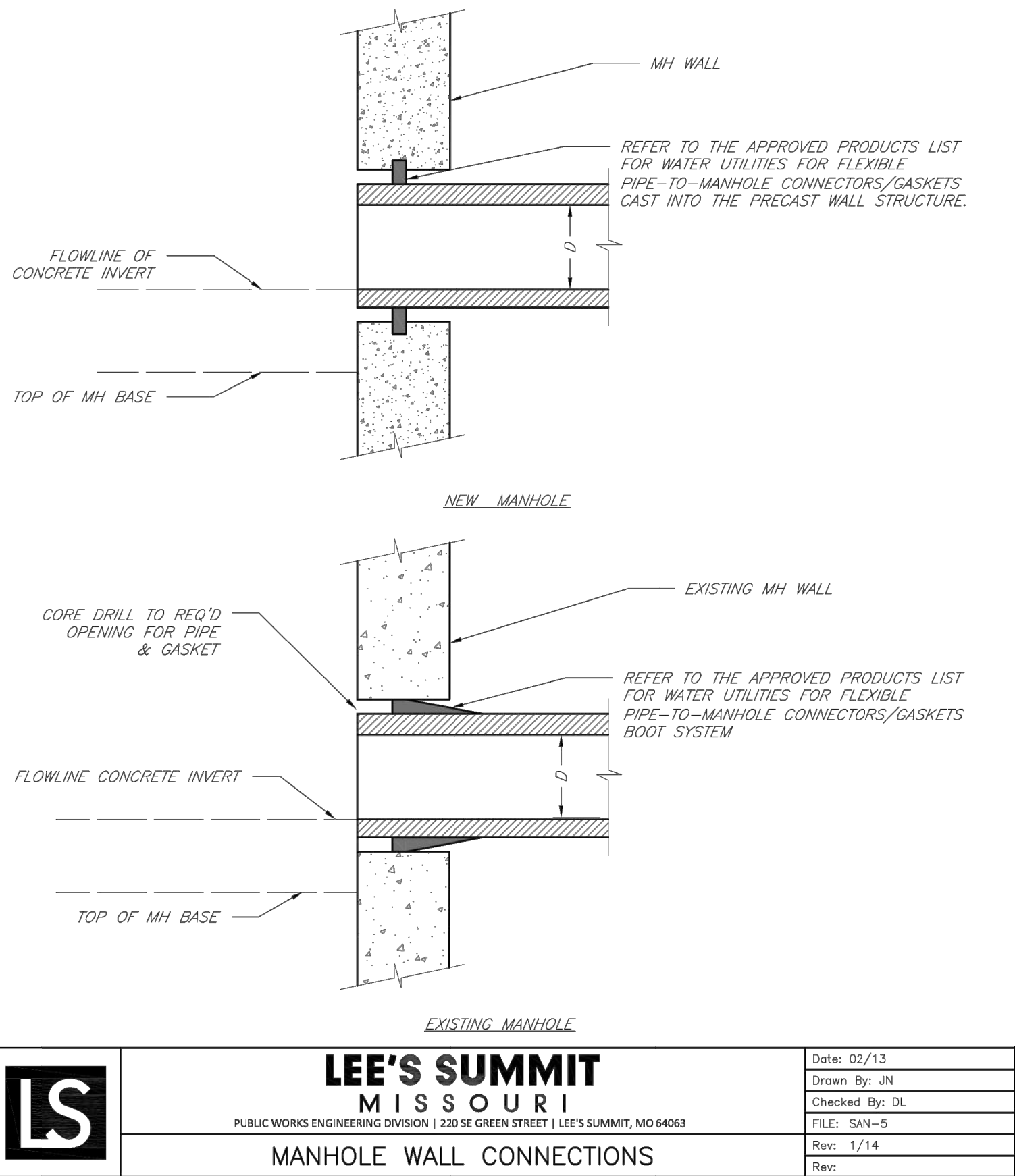
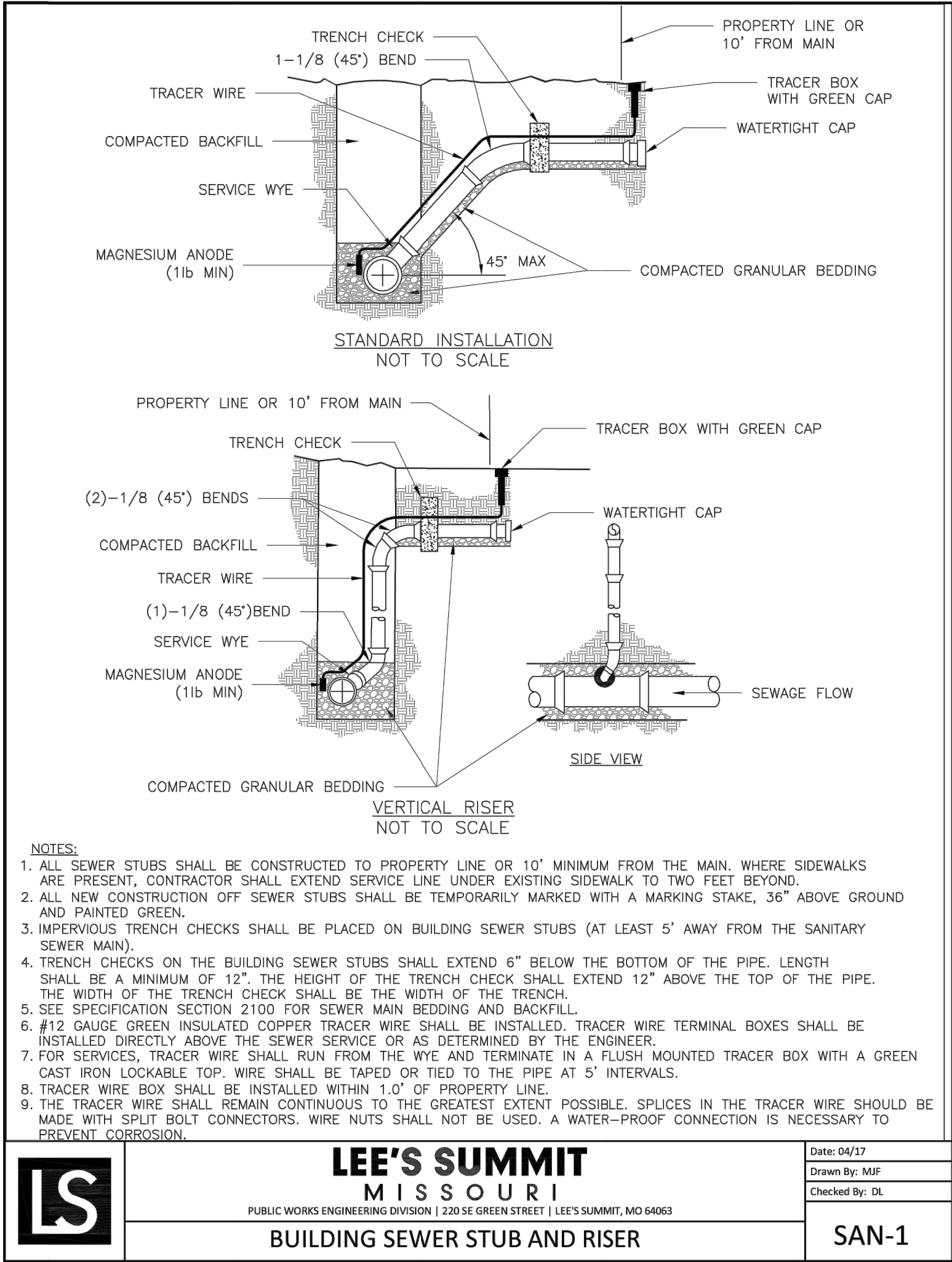
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FE - 2008019568

SHEET

28 OF 31

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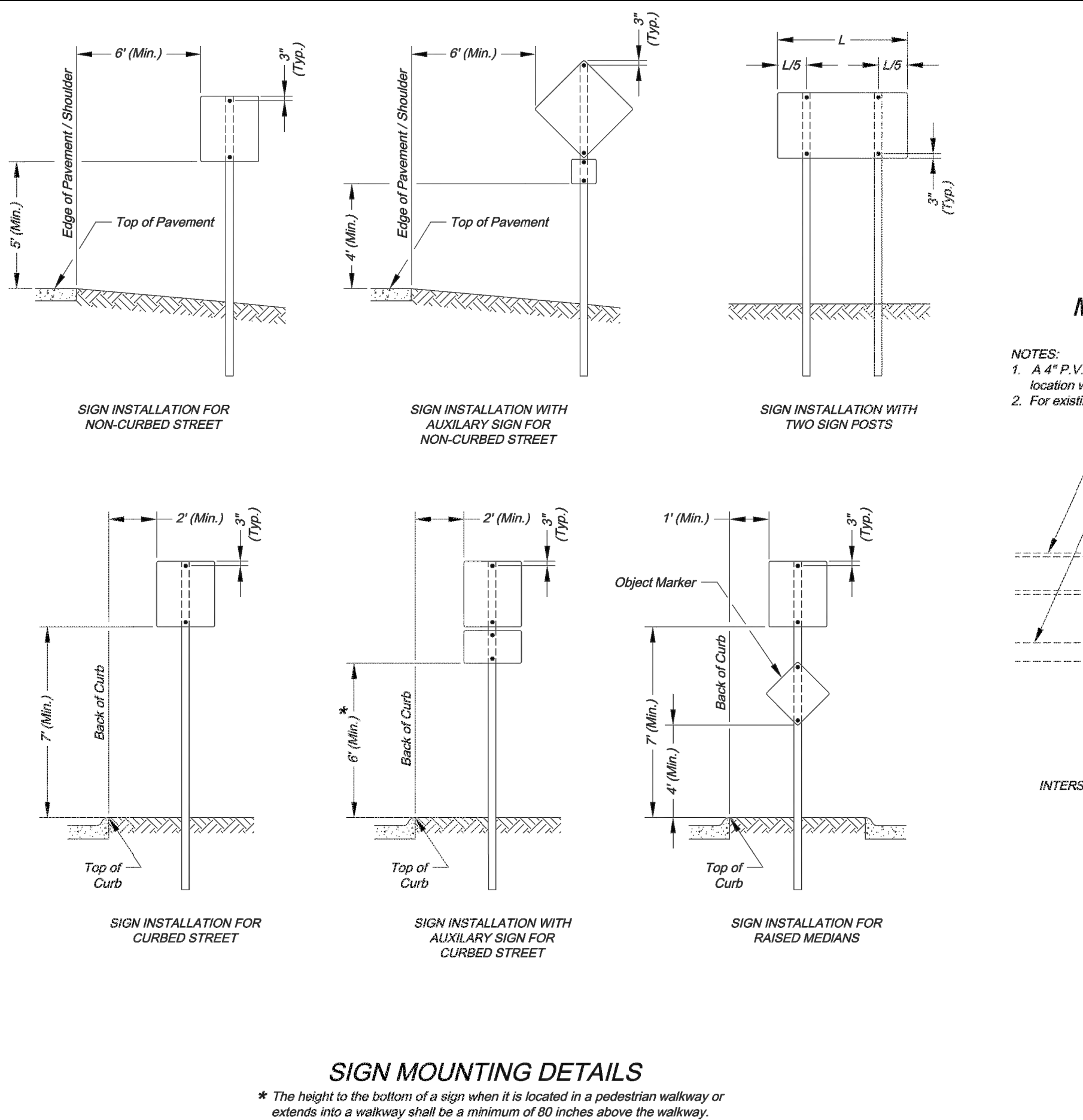


REVISIONS	DRAWN BY	JN	
	DESIGNED BY	MDM	
	DATE	09-19-2018	
	JOB NUMBER-TASKS	0316050.01	
		BOOK AND PAGE	

LARKIN/RYNEARSON	9001 State Line Rd., Suite 200 Kansas City, Missouri 64114 www.LRA-inc.com	816.361.0440 P 816.361.0045 F
	DETAIL SHEET	
	MASS GRADING, EROSION CONTROL, PAVING, STORM AND SANITARY PLANS	
	DETAIL SHEET	

LARKIN LAMP RYNEARSON - ENGINEERS MO Certificate of Authority No. 2013011903
STATE OF MISSOURI MARK DANIEL MCGHEE JR. Professional Engineer No. 2008019568 09-19-2018
MARK DANIEL MCGHEE JR. PE - 2008019568
SHEET
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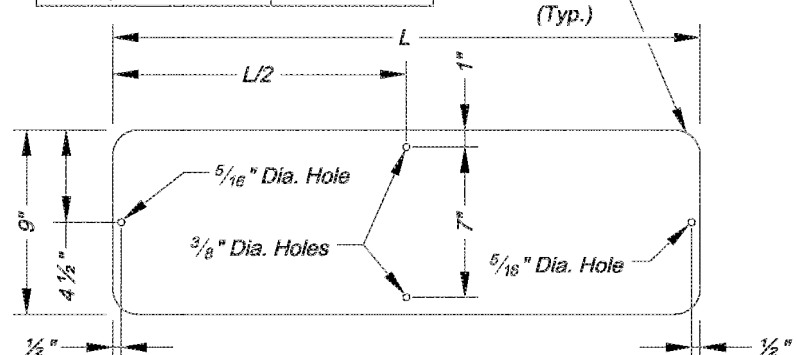
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STANDARD ABBREVIATION LISTS

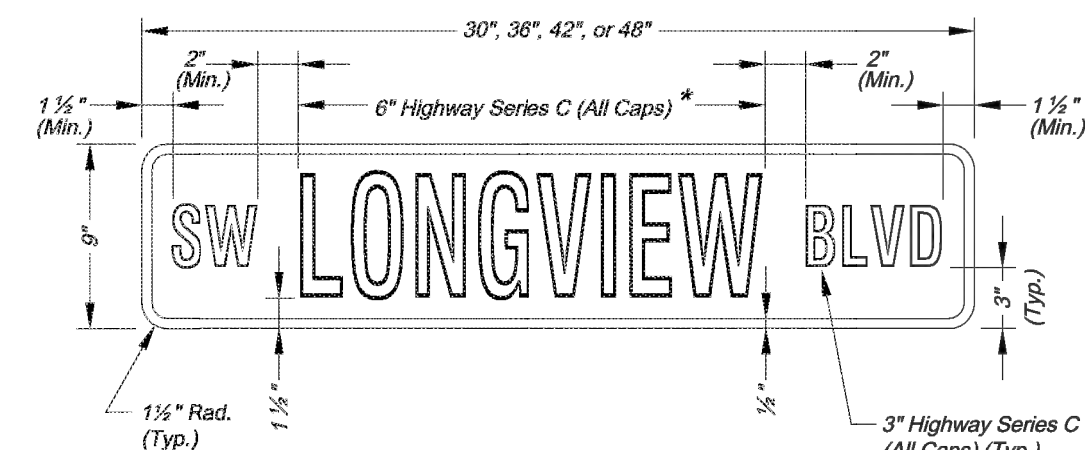
Named Streets	
Avenue	AVE
Boulevard	BLVD
Circle	CIR
Creek	CR
Court	CT
Crossing	XING
Drive	DR
Highway	HWY
Lane	LN
Parkway	PKWY
Place	PL
Road	RD
Street	ST
Terrace	TER
Trail	TRL
Way	WAY

Numbered Streets	
First	ST
Second	ND
Third	RD
Fourth to Tenth	TH



STREET NAME SIGN BLANK DETAILS

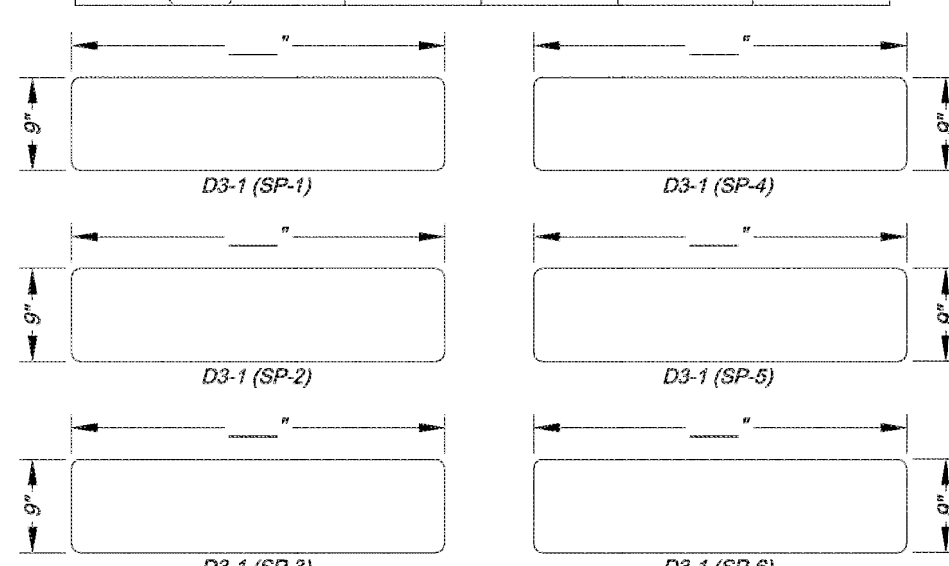
For Mounting on Square Steel Posts



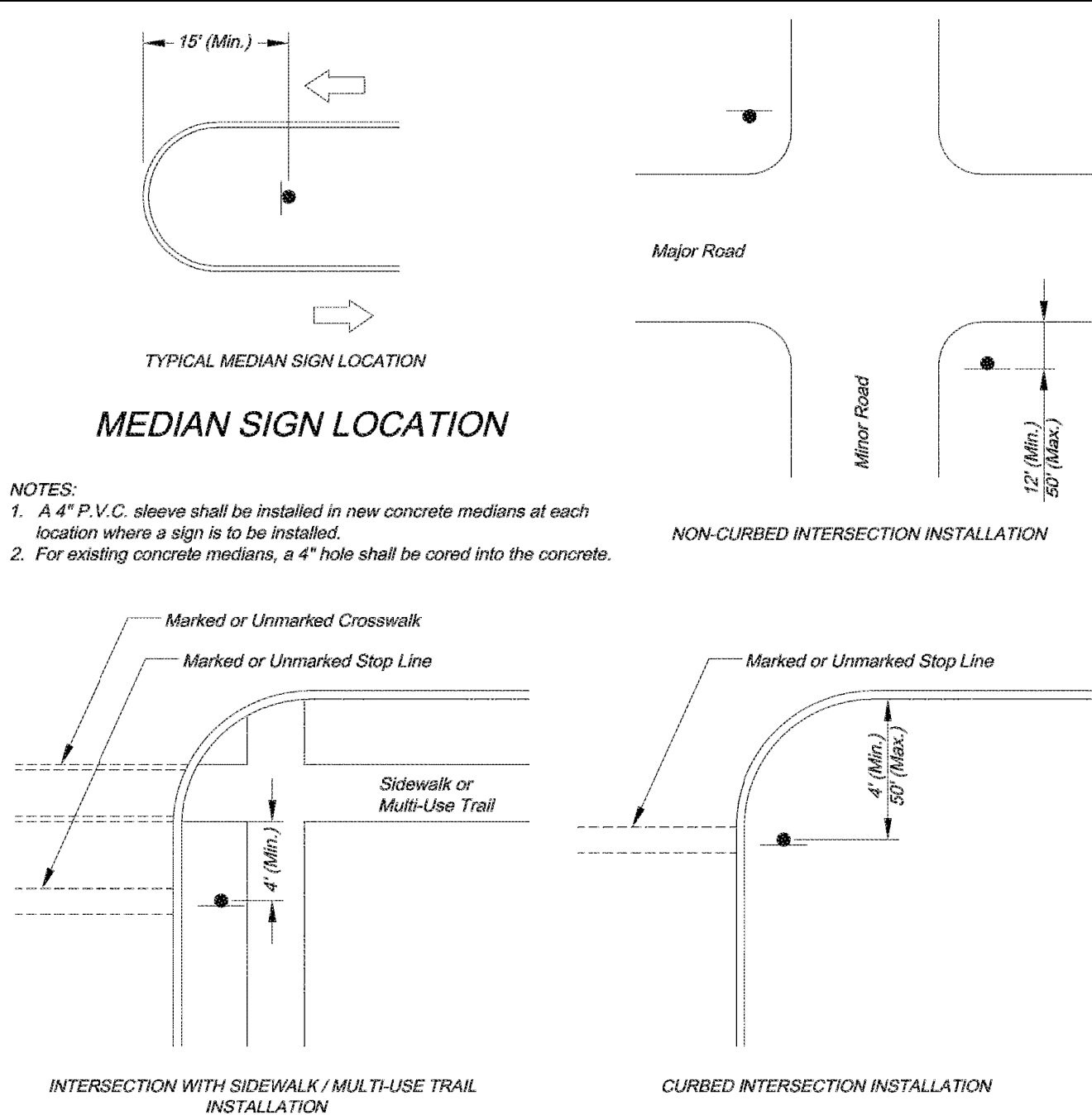
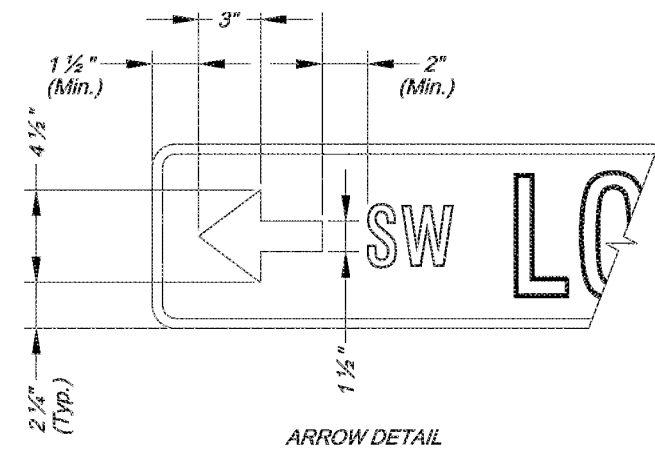
* Use Highway Series B (All Caps) in lieu of series C if necessary to fit text on a 36" sign blank.

STREET NAME SIGN QUANTITIES

Sign Designation	Sign Size	Sign Area (Sq. Ft.)	Number	Quantity (Sq. Ft.)
D3-1 (SP-1)	9" x	Sq. Ft.	1	1
D3-1 (SP-2)	9" x			
D3-1 (SP-3)	9" x			
D3-1 (SP-4)	9" x			
D3-1 (SP-5)	9" x			
D3-1 (SP-6)	9" x			

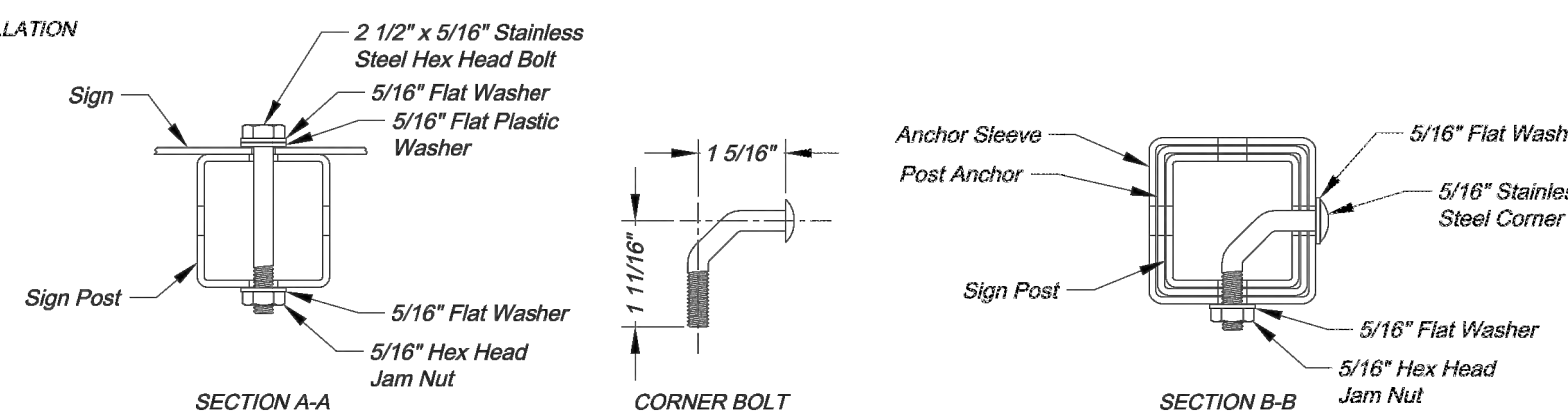


PROJECT SIGN DETAILS



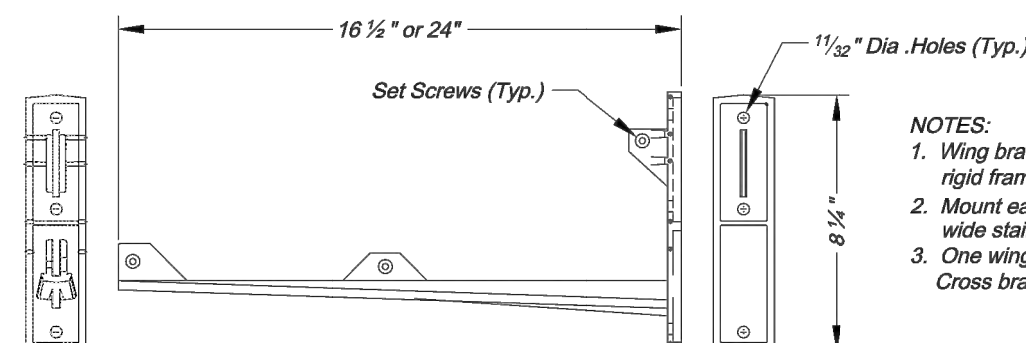
- NOTES:**
- A 4" P.V.C. sleeve shall be installed in new concrete medians at each location where a sign is to be installed.
 - For existing concrete medians, a 4" hole shall be cored into the concrete.

CONTROL SIGN LOCATION

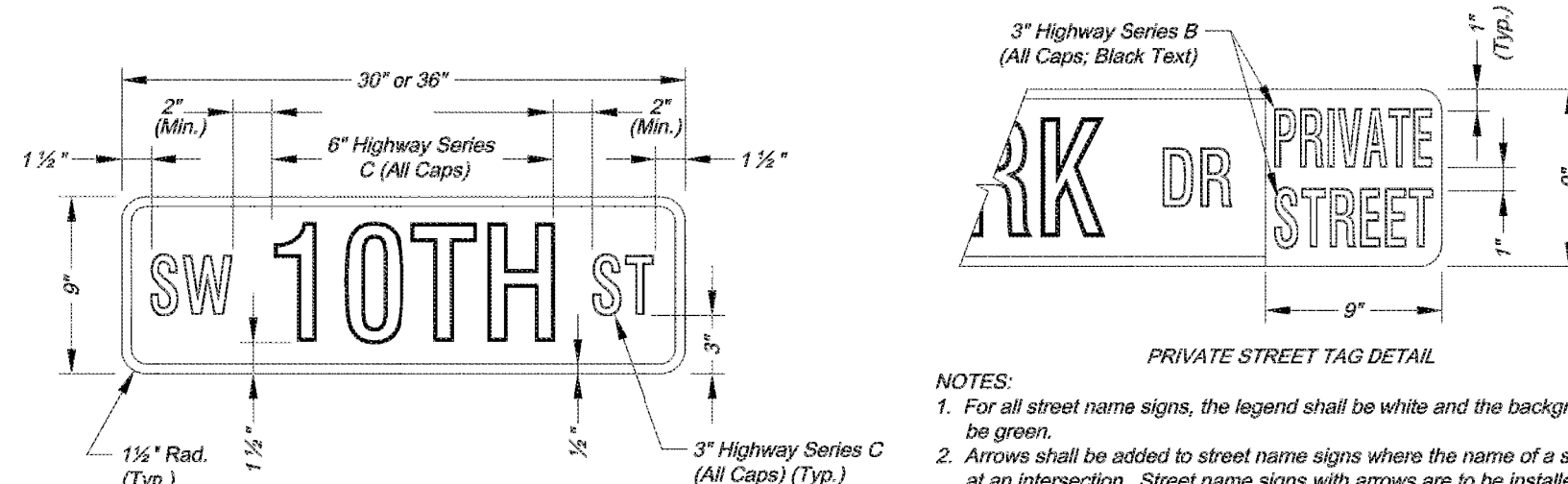


SQUARE STEEL POST DETAILS

- SQUARE STEEL POST NOTES:**
- Square steel sign posts and break-away anchor shall consist of the following materials:
 - Sign Post - 14 Ga. 2" x 2" Square Steel Post
 - Post Anchor - 12 Ga. 2 1/4" x 2 1/4" x 36" Square Steel Post
 - Anchor Sleeve - 12 Ga. 2 1/4" x 2 1/4" x 18" Square Steel Post
 - 14 Gauge posts must meet a certified minimum yield strength of 60,000 psi.
 - In all installations the first hole above the finished grade line on the sign post, anchor, and anchor sleeve must be in line for the insertion of the corner bolt.
 - The maximum area for one sign post is 9.0 square feet. A sign or combination of signs with an area greater than 9.0 square feet will require two posts. Also, signs with a width greater than 36" (not including 36" x 36" diamond shaped signs) will require two posts.

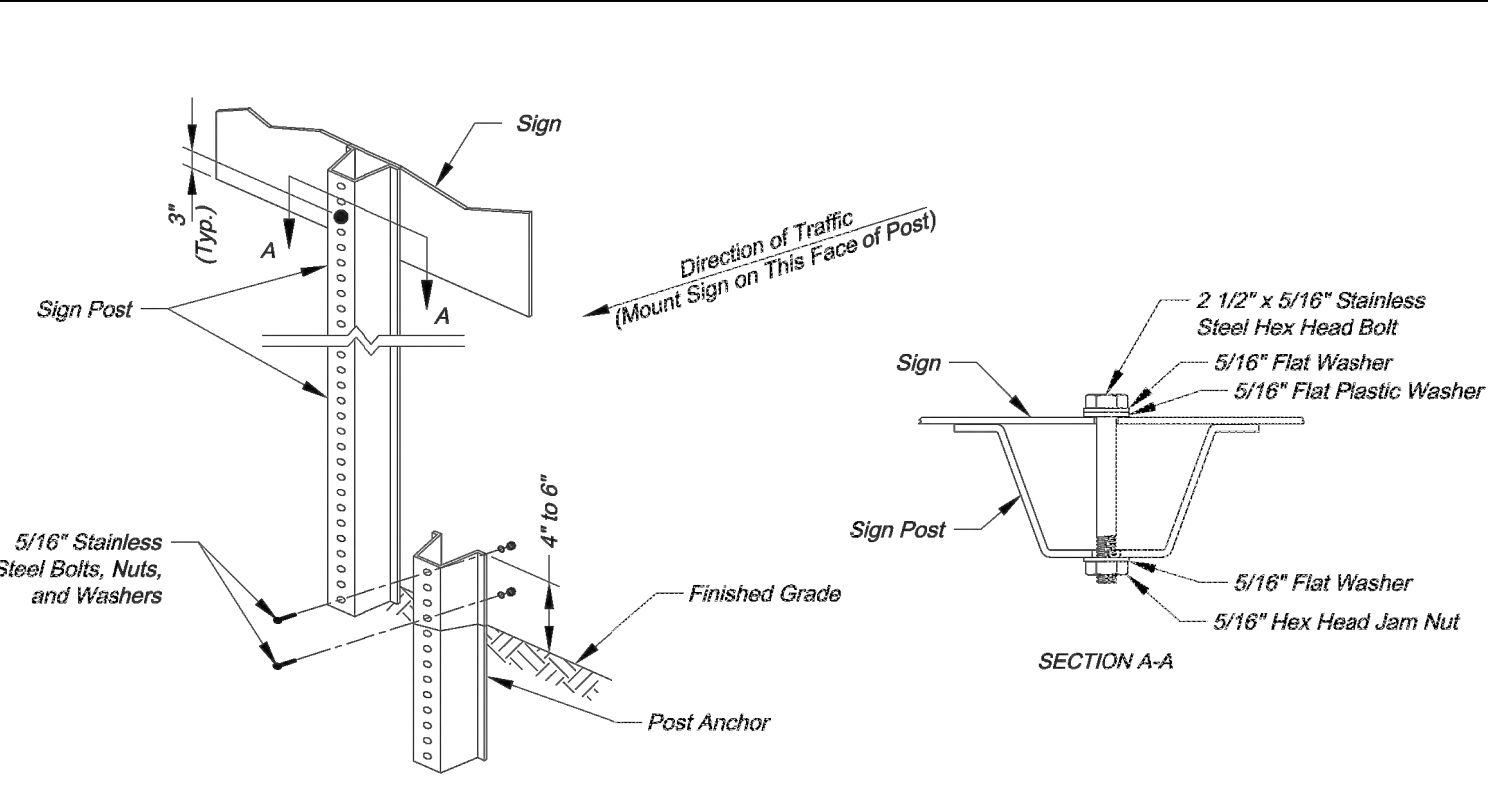


WING BRACKET MOUNTING DETAILS



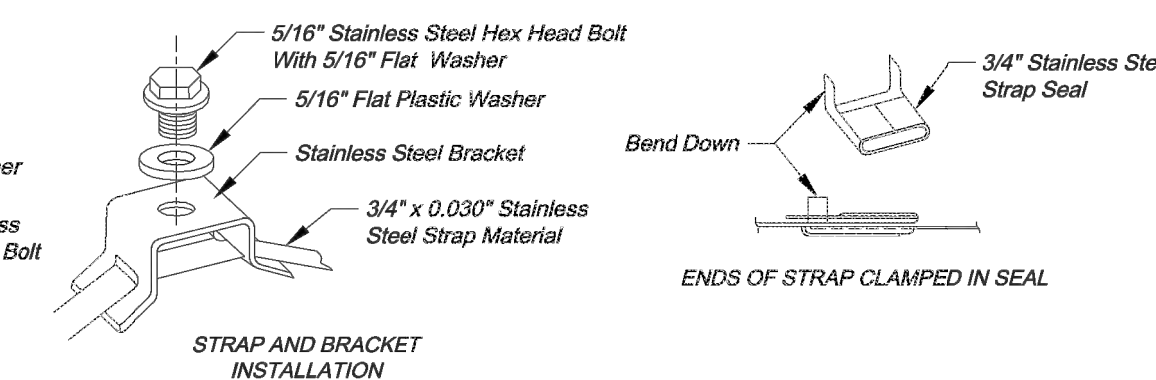
STREET NAME SIGN FACE DETAILS

- NOTES:**
- For all street name signs, the legend shall be white and the background shall be green.
 - Arrows shall be added to street name signs where the name of a street changes at an intersection. Street name signs with arrows are to be installed on each side of the intersection to indicate the change in names. Arrows shall be white.
 - The "PRIVATE STREET" tag should be added to the end of street name signs to indicate where a street that is outside the right-of-way intersects a public street. The background for the "PRIVATE STREET" tag shall be yellow.



U-STEEL POST DETAILS

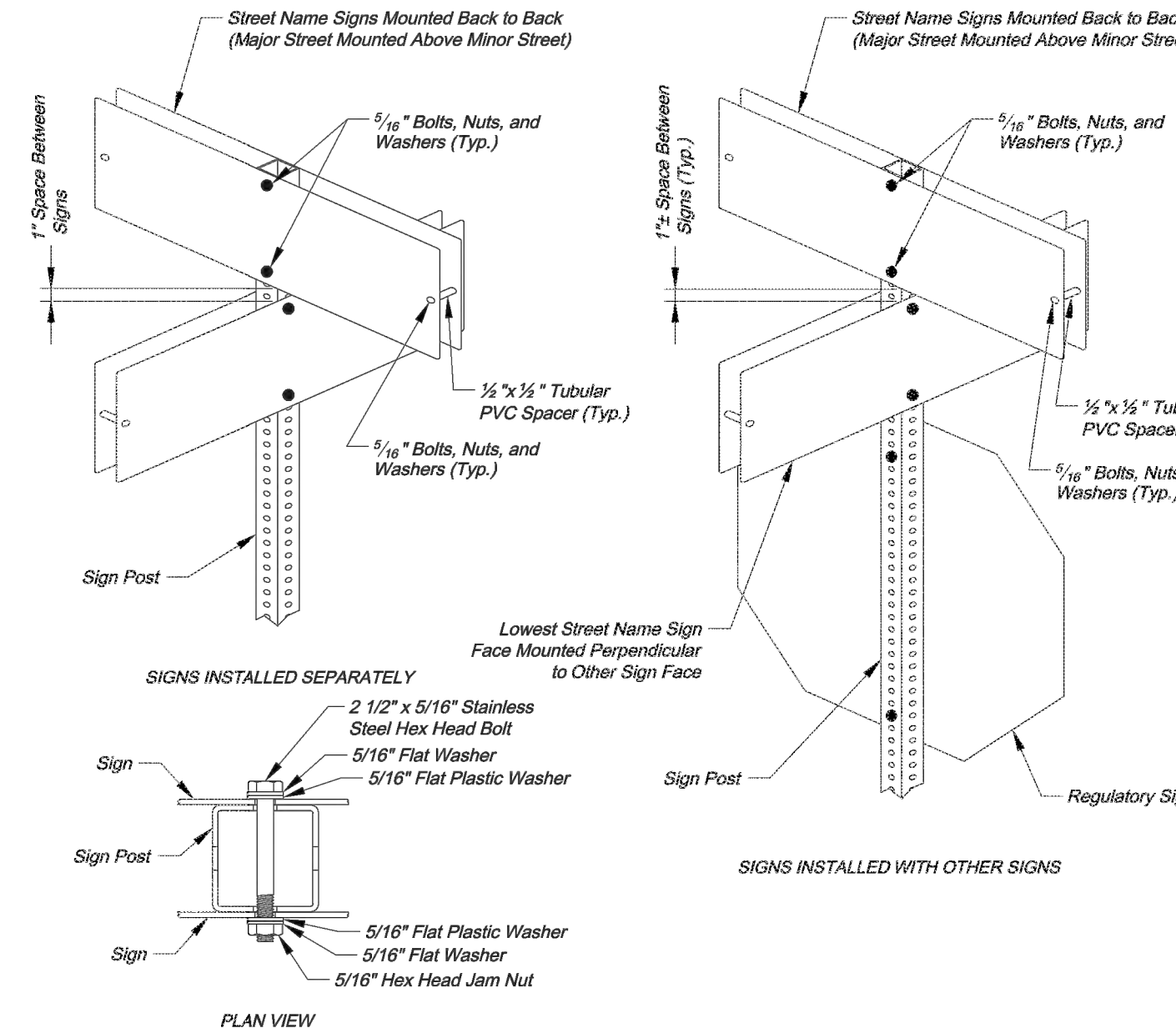
- U-STEEL POST NOTES:**
- Splice shall be positioned entirely between finished grade line and 18" above finished grade line. Only one splice will be allowed per post.
 - U-Steel post shall be 3 lb./ft., galvanized according to ASTM A123.
 - U-Steel post can be used for installation of signs with an area of less than 2.5 square feet.
 - All posts shall be embedded a minimum of 3 feet.



STRAP TYPE SIGN SUPPORT DETAILS

- METAL POLE SIGN MOUNTING NOTES:**
- Signs on metal poles shall be attached with two brackets and stainless steel bands.
 - Holes in sign for attachment to the mounting brackets shall be offset a minimum of 2 inches from the edge of the sign.
 - Holes in sign shall be located such that the sign is level.
 - All strap, bracket, and seal materials should be Type 201 stainless steel.

- PERMANENT SIGNING GENERAL NOTES:**
- All signing shall be in accordance with the latest edition of the *Manual on Uniform Traffic Control Devices (MUTCD)*.
 - The Contractor is responsible for avoiding any and all utilities when installing sign posts, whether the utility is indicated on the plans or not.
 - All workmanship and materials shall be subject to the inspection and approval of the Public Works Department of the City of Lee's Summit.
 - The Contractor shall stake the location of all sign posts to be installed. The City Inspector shall inspect the staking prior to installation. Minor relocation to avoid conflicts may be allowed with the approval of the City Traffic Engineer or designee.
 - Signs shown to be installed on the side of metal poles shall be mounted with stainless steel straps or wing brackets as detailed. No signs are to be installed on wood poles. See Traffic Signal Standard Drawings for the installation of signs on mast arms.
 - All post mounted signs shall be installed with breakaway anchors according to the Standard Drawings.
 - Existing permanent signs and posts removed by the Contractor for construction purposes which are not to be reinstalled shall be delivered to the City's Public Works Maintenance Facility (1971 SE Hamblen Road). The Contractor shall be responsible for removing and storing equipment in good condition and it is fully responsible for the equipment until it is delivered.
 - All Stop, Yield, or street name signs shall be maintained in a conspicuous location for the driving public. All Stop and Yield signs removed for construction purposes can be temporarily erected in reflectorized drums (no less than 7 feet above the pavement surface) until they can be reinstalled. Any temporary Stop or Yield sign installation to be left in place overnight will require prior approval from the City Inspector.



SQUARE STEEL POST MOUNTING DETAILS

DRAWN BY JAM	DESIGNED BY MDM	DATE 09-19-2018	JOB NUMBER-TASKS 0318050.01	BOOK AND PAGE
REVISIONS				
08/19/18 - RESUBMITAL PER ADJUSTED LAYOUT				
09/19/18 - RESUBMITAL PER CITY COMMENTS				
9001 State Line Rd., Suite 200 Kansas City, Missouri 64114 www.LRA-inc.com				
LARKIN/RYNEARSON				
MASS GRADING, EROSION CONTROL, PAVING, STORM AND SANITARY PLANS				
SUMMIT VIEW FARMS 3RD PLAT LEE'S SUMMIT, MISSOURI				
DETAIL SHEET				
STATE OF MISSOURI MARK DANIEL MCGHEE JR. REGISTERED PROFESSIONAL ENGINEER No. 2008019568 09-19-2018				
MARK DANIEL MCGHEE JR. PE - 2008019568				
SHEET				
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