

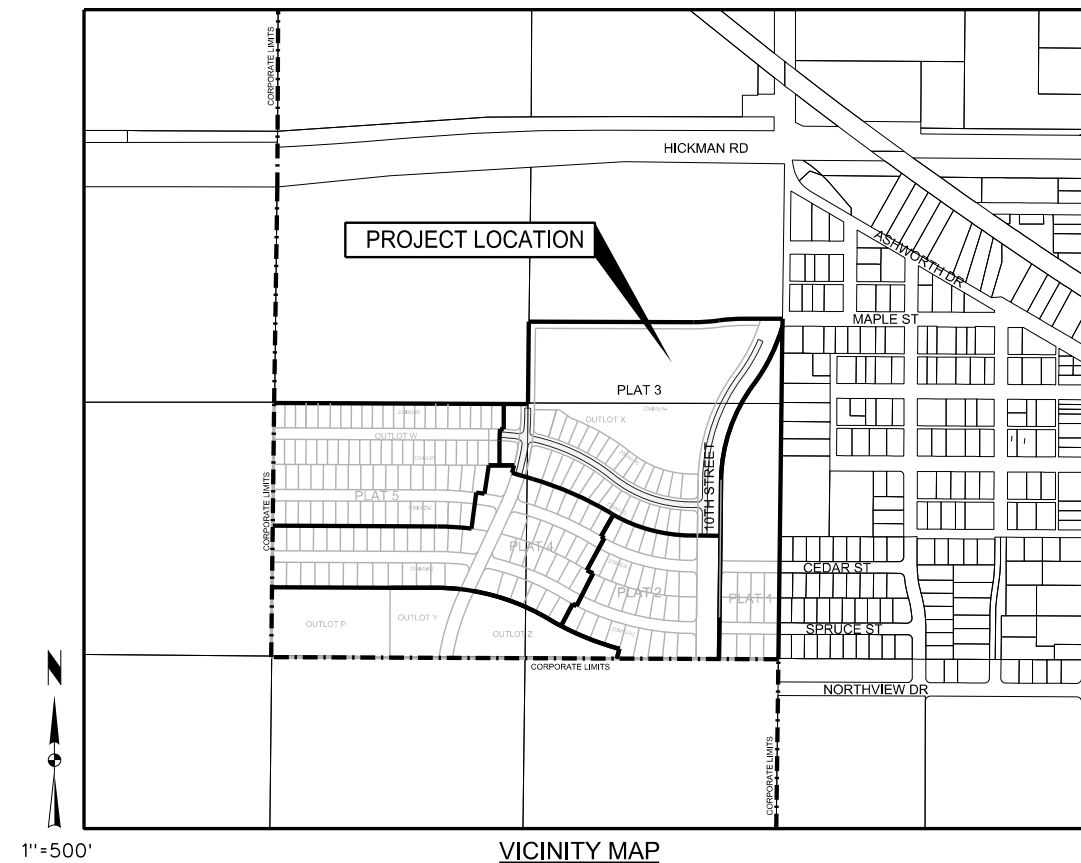
# CONSTRUCTION DOCUMENTS

## FOR

# SPRING CREST PLAT 3

## SINGLE FAMILY RESIDENTIAL DEVELOPMENT

## CITY OF WAUKEE, DALLAS COUNTY, IOWA



1" = 500'

**RECORD DRAWINGS**  
 THESE PLANS HAVE BEEN REVISED AFTER CONSTRUCTION TO CONFORM WITH INFORMATION FURNISHED BY THE CONTRACTOR AND CONSTRUCTION REVIEWER AND TO REFLECT MEASUREMENTS MADE FOR THE PREPARATION OF FINAL ESTIMATES OF QUANTITIES.

**OWNER/DEVELOPER**  
 SPRING CREST PARTNERS LLC  
 9550 HICKMAN RD, SUITE 100  
 CLIVE, IA 50325  
 CONTACT: NICK HALFILL  
 PHONE: 515-986-5994

**ENGINEER/PROJECT MANAGER**  
 SNYDER & ASSOCIATES INC  
 2727 SNYDER BLVD  
 ANKENY, IA 50023  
 CONTACT: ERIC CANNON  
 PHONE: 515-964-2020

**INDEX OF SHEETS**

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2. PROJECT INFORMATION
3. HYDRANT COVERAGE PLAN
4. OVERALL SITE GRADING PLAN
5. DETAILED GRADING PLAN
6. EROSION AND SEDIMENT CONTROL PLAN
- 7-8. SANITARY SEWER AND WATER MAIN PLAN AND PROFILE
9. WATER MAIN PLAN AND PROFILE
- 10-11. STORM SEWER PLAN AND PROFILE
- 12-14. PAVEMENT AND STORM SEWER PLAN AND PROFILE
15. STORM SEWER PLAN AND PROFILE
16. INTERSECTION DETAILS
- 17-18. MISCELLANEOUS DETAILS
19. LANDSCAPE PLAN

	<p>I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.</p> <p style="text-align: right;">Eric D. Cannon, P.E. <span style="float: right;">2-26-20</span>  <small>Date</small></p> <p>License Number 18954  <small>My License Renewal Date is December 31, 2019</small></p> <p>Pages or sheets covered by this seal:          Sheets 1-18</p>
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6	REVISED PER AS-BUILT SURVEY	09/21/18	RSN	DATE	BY
5	REVISED PAVEMENT QUANTITIES	04/16/18	JWM	DATE	BY
4	REVISED AS PER CITY COMMENTS	04/06/18	JWM	DATE	BY
3	REVISED AS PER CITY COMMENTS	03/28/18	JWM	DATE	BY
MARK		REVISION	EDC	DATE	BY
Engineer:	KMM	Checked By:	JWM	Date:	11/15/17
Technician:	JWM	Scale:	1" = 500'	Field Bk:	
Project No:	117.0794	Sheet	1 of 19		

SPRING CREST PLAT 3

TITLE SHEET

SNYDER & ASSOCIATES, INC.

2727 S.W. SNYDER BLVD.  
 ANKENY, IOWA 50023  
 515-964-2020 | www.snyder-associates.com

	<p>Project No: 117.0794</p> <p>Sheet 1 of 19</p>
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LEGEND

Table with columns: Features, Existing, Proposed. Lists symbols for Spot Elevation, Contour Elevation, Fence, Tree, Sanitary Manhole, Storm Sewer, etc.

UTILITY CONTACT INFORMATION

UTILITY CONTACT FOR MAPPING INFORMATION SHOWN AS RECEIVED FROM THE IOWA ONE CALL DESIGN REQUEST SYSTEM, TICKET NUMBER 551604197.

Table listing utility contacts: G1-GAS, W1-WATER, S1-SANITARY SEWER, E1-ELECTRIC, C1-COMMUNICATION, C2-COMMUNICATION, CLEAR PER MAP, NO RESPONSE.

GENERAL NOTES

- A. NOTIFY UTILITY PROVIDERS PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES... B. CONSTRUCTION OF ALL STREET AND UTILITY IMPROVEMENTS... C. LENGTH OF UTILITIES SHOWN ON PLANS... D. ALL TRAFFIC CONTROL SHALL BE PROVIDED... E. NOTIFY OWNER, ENGINEER AND CITY OF WAUKEE... F. CONSTRUCT MANHOLES AND APPURTENANCES... G. IN THE EVENT OF A DISCREPANCY... H. ALL FIELD TILES ENCOUNTERED... I. DIMENSIONS, BUILDING LOCATION... J. CONTRACTOR TO LOAD AND TRANSPORT... K. CONTRACTOR TO STRIP, SALVAGE AND RE-SPREAD... L. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS... M. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING... N. THE ADJUSTMENT OF ANY EXISTING UTILITY... O. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING EROSION... P. CONTRACTOR TO COORDINATE NATURAL GAS... Q. IF STORM SEWER CROSSES ABOVE WATER MAIN... R. A PRECONSTRUCTION MEETING... S. ALL STAKING SHALL BE DONE... T. ANY CHANGES PROPOSED... U. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES... V. ALL SANITARY SEWER AND STORM SEWER... W. ALL CONNECTIONS TO EXISTING... X. PLACE 3/4" EXPANSION JOINT... Y. AS-BUILTS SHALL BE PROVIDED... Z. ALL UTILITIES SHALL BE CONSTRUCTED... AA. CONSTRUCTION OPERATIONS... BB. AN APPROVED SITE PLAN... CC. CONTRACTOR IS RESPONSIBLE... DD. ALL NEW AND RELOCATED... EE. CONTRACTOR TO INSTALL REAR YARD... FF. THE INDIVIDUAL HOME OWNERS...

Table: WATER MAIN QUANTITIES. Columns: Description, Quantity. Rows: 8" PVC MAIN (1646 LF), 8" VALVE (7 EA), 12" PVC MAIN (1106 LF), 12" VALVE (1 EA), HYDRANT ASSEMBLY (9 EA), TEMPORARY BLOWOFF HYDRANT (4 EA), RELOCATED HYDRANT ASSEMBLY (1 EA), CONNECT TO EXISTING (2 EA).

Table: SANITARY SEWER QUANTITIES. Columns: Description, Quantity. Rows: 8" TRUSS PIPE (1761 LF), 12" TRUSS PIPE (456 LF), MANHOLES SW-301 (11 EA), CLEANOUT (1 EA), CONNECT TO EXISTING (1 EA).

Table: STORM SEWER QUANTITIES. Columns: Description, Quantity. Rows: SW-511 INTAKE (2 EA), SW-505 INTAKE (8 EA), SW-506 INTAKE (8 EA), SW-503 INTAKE (5 EA), SW-501 INTAKE (3 EA), 24" NYLOPLST DRAIN BASIN W/ DOMED GRATE (3 EA), MANHOLES SW-401(48") (8 EA), MANHOLES SW-401(84") (1 EA), MANHOLES SW-401(96") (3 EA), MANHOLES SW-401(120") (1 EA), 4" PVC PERFORATED SUBDRAN (2137 LF), 8" PVC PERFORATED SUBDRAN (83 LF), SUBDRAN CLEANOUT TYPE A-1 (5 EA), SUBDRAN OUTLET STRUCTURE (14 EA), 8" PVC PERFORATED SUMPDRAN (121 LF), 18" HDPE STORM SEWER (229 LF), 24" HDPE STORM SEWER (293 LF), 12" RCP (52 LF), 12" FES W FOOTING AND APRON GUARD (1 EA), 15" RCP (825 LF), 15" FES W FOOTING AND APRON GUARD (1 EA), 18" RCP (795 LF), 24" RCP (1058 LF), 24" FES W FOOTING AND APRON GUARD (2 EA), 30" RCP (303 LF), 30" FES W FOOTING AND APRON GUARD (1 EA), 36" RCP (386 LF), 36" FES W FOOTING (1 EA), 42" RCP (86 LF), 48" RCP (389 LF), 48" FES W FOOTING (2 EA), 54" RCP (467 LF), 60" RCP (340 LF), 60" FES W FOOTING (1 EA), RIP RAP CLASS "E" (56 TONS).

Table: PAVEMENT QUANTITIES. Columns: Description, Quantity. Rows: 7" PCC (LOCUST) (3375 SY), 8" PCC (11TH STREET) (1415 SY), 9" PCC (10TH ST) (3246 SY), 12" SUBGRADE PREP (8884 SY), 4" PCC SIDEWALK AND RAMPS (61 SY), 6" PCC TRAIL AND RAMPS (31 SY), DETECTABLE WARNINGS (120 SF).

UTILITY WARNING

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN COMPRISE ALL SUCH ITEMS IN THE AREA...

UTILITY QUALITY SERVICE LEVELS

QUALITY LEVELS OF UTILITIES ARE SHOWN IN THE PARENTHESES WITH THE UTILITY TYPE AND WHEN APPLICABLE, SIZE. THE QUALITY LEVELS ARE BASED ON THE CI/ ASCE 38-02 STANDARD.

QUALITY LEVEL (D) INFORMATION IS DERIVED FROM EXISTING UTILITY RECORDS OR ORAL RECOLLECTIONS.

QUALITY LEVEL (C) INFORMATION IS OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION WITH QUALITY D INFORMATION.

QUALITY LEVEL (B) INFORMATION IS OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES.

QUALITY LEVEL (A) IS HORIZONTAL AND VERTICAL POSITION OF UNDERGROUND UTILITIES OBTAINED BY ACTUAL EXPOSURE OR VERIFICATION OF PREVIOUSLY EXPOSED SUBSURFACE UTILITIES, AS WELL AS THE TYPE, SIZE, CONDITION, MATERIAL, AND OTHER CHARACTERISTICS.

BENCHMARKS

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A) IARTN DERIVED - US SURVEY FEET. BM1 ELEV=1035.08 BURY BOLT ON HYDRANT ON SOUTH SIDE OF CEDAR STREET SOUTH OF LIGHT POLE, SOUTHEAST OF SITE.

CONTROL POINTS

- CP1 N=586093.79 E=1533347.30 1/2" REBAR WITH YELLOW CAP AT NORTHWEST CORNER OF LOT 29 OF SOUTHVIEW ESTATES, SOUTHEAST CORNER OF SITE. CP2 N=586456.49 E=1533349.96 1/2" REBAR WITH ORANGE CAP AT WEST END OF CEDAR STREET PAVEMENT, SOUTHEAST CORNER OF SITE. CP3 N=587886.78 E=1533378.54 MAG NAIL IN ASPHALT ON WEST SIDE OF 10TH STREET, NORTH EAST CORNER OF SITE. CP4 N=588428.84 E=1530732.77 IOWA DOT ALUMINUM MONUMENT SOUTH OF HIGHWAY 6 IN LINE WITH NORTH 1/4 CORNER OF SECTION, NORTHWEST OF SITE.



ZONING

EXISTING: PUD: PLANNED UNIT DEVELOPEMENT WITH UNDERLYING R-2 ZONING

BULK REGULATIONS AND SETBACKS

PUD MINIMUM LOT WIDTH 55 FEET FRONT YARD 30 FEET SIDE YARD 5 FEET REAR YARD 30 FEET MINIMUM LOT 7,150SF SINGLE FAMILY

R-4 MINIMUM LOT AREA 3500 SF MINIMUM LOT WIDTH 20 FEET PER UNIT 75' OVERALL FRONT YARD 30 FEET SIDE YARD 7 FEET MINIMUM ONE SIDE 15 FEET TOTAL REAR YARD 30 FEET

SPRING CREST PLAT 3

PROJECT INFORMATION

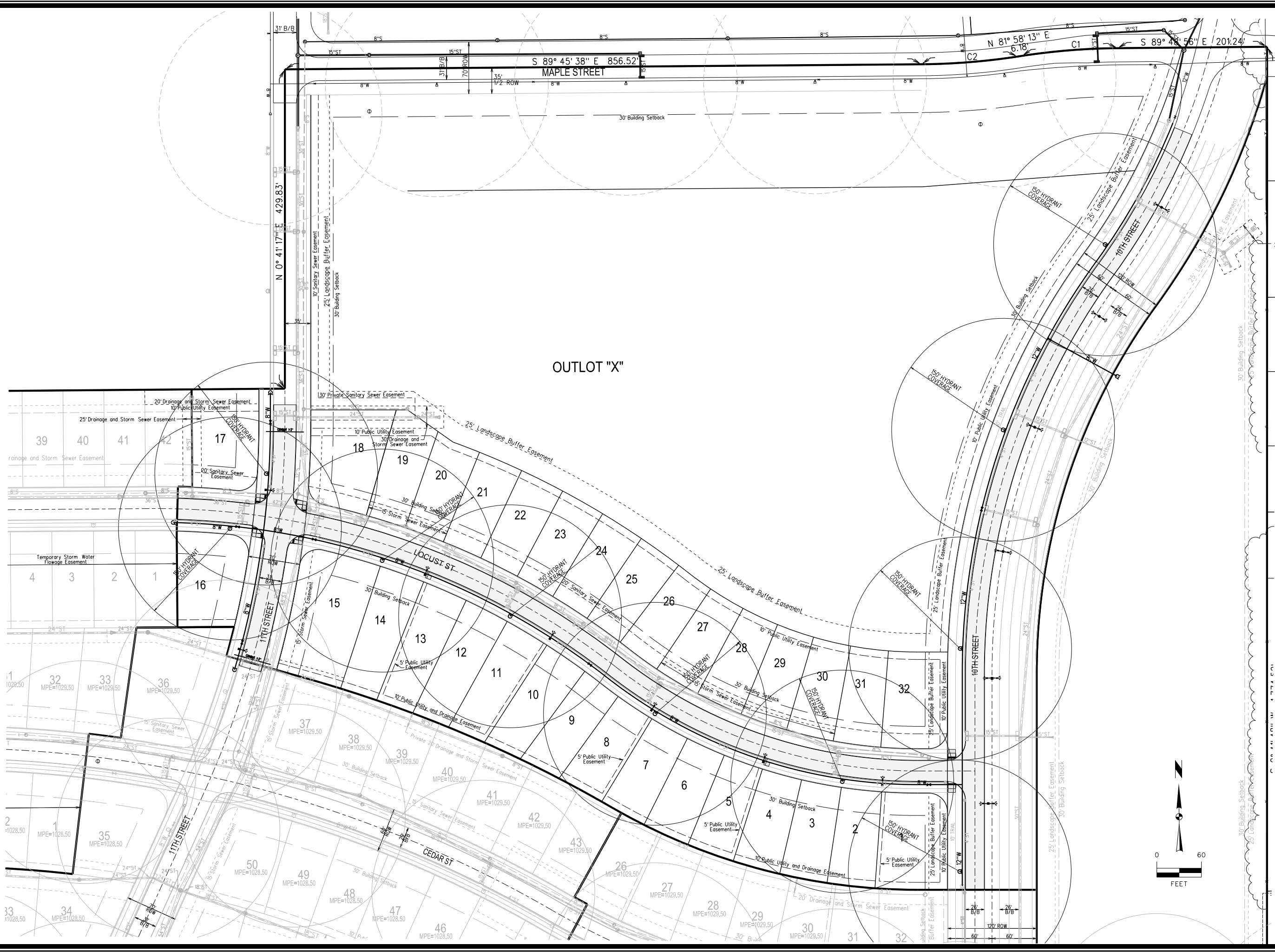
WAUKEE, IA

SNYDER & ASSOCIATES, INC. I

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Snyder & Associates logo and contact information: Project No: 117.0794, Sheet 2 of 19



# SPRING CREST PLAT 3

## HYDRANT COVERAGE PLAN



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# SNYDER & ASSOCIATES, INC.

MARK	REVISION	DATE	BY
5	REVISED PAVEMENT QUANTITIES	04/16/18	JMM
4	REVISED AS PER CITY COMMENTS	04/06/18	JMM
3	REVISED AS PER CITY COMMENTS	03/28/18	JMM

Engineer: KMM  
Checked By: EDC  
Scale: 1"=60'  
Technician: JMM  
Date: 11/15/17  
Field Bk: P/B

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**BENCHMARKS**

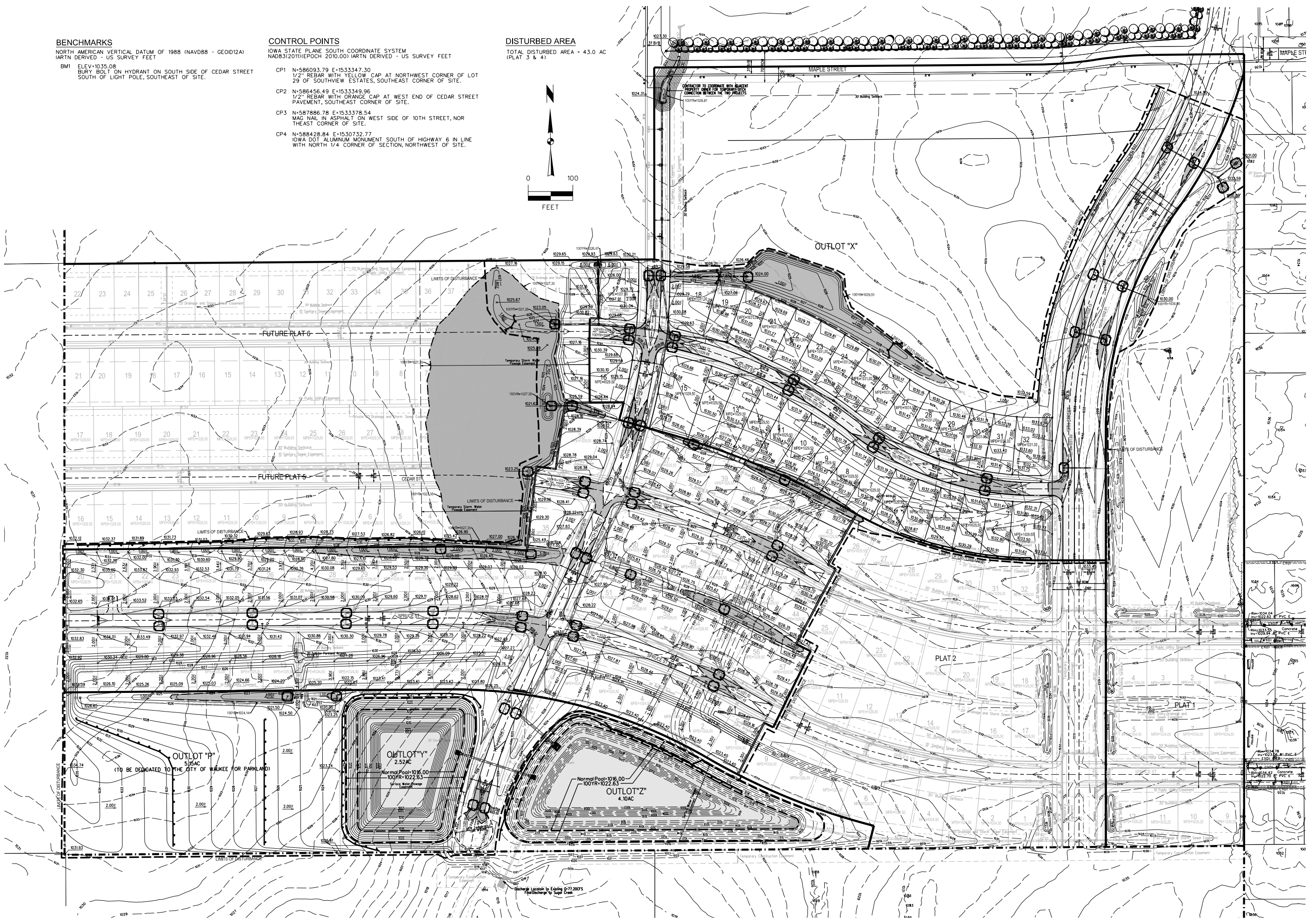
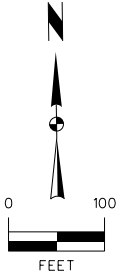
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A)  
 IARTN DERIVED - US SURVEY FEET  
 BM1 ELEV=1035.08  
 BURY BOLT ON HYDRANT ON SOUTH SIDE OF CEDAR STREET  
 SOUTH OF LIGHT POLE, SOUTHEAST OF SITE.

**CONTROL POINTS**

IOWA STATE PLANE SOUTH COORDINATE SYSTEM  
 NAD83(2011)EPOCH 2010.00 IARTN DERIVED - US SURVEY FEET  
 CP1 N=586093.79 E=1533347.30  
 1/2" REBAR WITH YELLOW CAP AT NORTHWEST CORNER OF LOT  
 29 OF SOUTHWIND ESTATES, SOUTHEAST CORNER OF SITE.  
 CP2 N=586456.49 E=1533349.96  
 1/2" REBAR WITH ORANGE CAP AT WEST END OF CEDAR STREET  
 PAVEMENT, SOUTHEAST CORNER OF SITE.  
 CP3 N=587886.78 E=1533378.54  
 MAG NAIL IN ASPHALT ON WEST SIDE OF 10TH STREET, NOR  
 THEAST CORNER OF SITE.  
 CP4 N=588428.84 E=1530732.77  
 IOWA DOT ALUMINUM MONUMENT SOUTH OF HIGHWAY 6 IN LINE  
 WITH NORTH 1/4 CORNER OF SECTION, NORTHWEST OF SITE.

**DISTURBED AREA**

TOTAL DISTURBED AREA = 43.0 AC  
 (PLAT 3 & 4)



**SPRING CREST PLAT 3**

**OVERALL GRADING PLAN**

**SNYDER & ASSOCIATES, INC.**



Project No: 117.0794

Sheet 4 of 19

5	REVISED PAVEMENT QUANTITIES	04/16/18	JMM
4	REVISED AS PER CITY COMMENTS	04/06/18	JMM
3	REVISED AS PER CITY COMMENTS	03/28/18	JMM
MARK	REVISION	DATE	BY
Engineer:	KMM	Checked By:	EDC
Technician:	JMM	Date:	11/15/17
Field Bk:		Scale:	1" = 100'
Project No:	117.0794	Sheet	4 of 19

**WAUKEE, IA**  
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# SPRING CREST PLAT 3

## DETAILED GRADING PLAN



Project No: 117.0794  
Sheet 5 of 19

WAUKEE, IA

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5	REVISED PAVEMENT QUANTITIES	04/16/18	JMM
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Engineer: KMM  
Checked By: EDC  
Scale: 1" = 60'  
Date: 11/15/17  
Field Bk: 117.0794  
Project No: 117.0794  
Sheet 5 of 19

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**POLLUTION PREVENTION NOTES**

- A. POLLUTION PREVENTION AND EROSION PROTECTION**
1. CODE COMPLIANCE: THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE POLLUTION AND SOIL EROSION CONTROL REQUIREMENTS OF THE IOWA CODE, THE IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR), NPDES PERMIT AND THE US CLEAN WATER ACT AND ANY ORDINANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT AGAINST EROSION AND POLLUTION FROM THIS PROJECT SITE AND OFF-SITE BORROW OR DEPOSIT AREAS DURING PERFORMANCE OR AS A RESULT OF PERFORMANCE.
  2. DAMAGE CLAIMS: THE CONTRACTOR WILL HOLD THE OWNER AND ARCHITECT / ENGINEER HARMLESS FROM ANY AND ALL CLAIMS OF ANY TYPE WHATSOEVER RESULTING FROM DAMAGES TO ADJOINING PUBLIC OR PRIVATE PROPERTY, INCLUDING REASONABLE ATTORNEY FEES INCURRED TO OWNERS FURTHER IF THE CONTRACTOR FAILS TO TAKE NECESSARY STEPS TO PROMPTLY REMOVE EARTH, SEDIMENTATION OR DEBRIS WHICH COMES ONTO ADJOINING PUBLIC OR PRIVATE PROPERTY. THE OWNER MAY, BUT NEED NOT, REMOVE SUCH ITEMS AND DEDUCT THE COST THEREOF FROM AMOUNTS DUE TO THE CONTRACTOR.
- B. STORM WATER DISCHARGE PERMIT**
1. THIS PROJECT REQUIRES COVERAGE UNDER THE NPDES GENERAL PERMIT NO. 2 FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE IDNR AS REQUIRED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR COMPLIANCE WITH AND FULFILLMENT OF ALL REQUIREMENTS OF THE NPDES GENERAL PERMIT NO. 2 INCLUDING OBTAINING AND MAINTAINING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND POSSIBLY OBTAINING THE GENERAL PERMIT COVERAGE FROM THE IDNR.
  2. ALL DOCUMENTS RELATED TO THE STORM WATER DISCHARGE PERMIT, INCLUDING, BUT NOT LIMITED TO, THE NOTICE OF INTENT, PROOF OF PUBLICATION, DISCHARGE AUTHORITY LETTER, CURRENT SWPPP, SITE INSPECTION LOG, AND OTHER ITEMS, SHALL BE KEPT ON SITE AT ALL TIMES AND MUST BE PRESENTED TO ANY JURISDICTION AGENCIES UPON REQUEST. FAILURE TO COMPLY WITH THE NPDES PERMIT REQUIREMENTS IS A VIOLATION OF THE CLEAN WATER ACT AND THE CODE OF IOWA.
  3. A NOTICE OF DISCONTINUATION MUST BE FILED WITH THE IDNR UPON FINAL STABILIZATION OF THE DISTURBED SITE AND REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES. ALL PLANS, INSPECTION REPORTS, AND OTHER DOCUMENTS MUST BE KEPT ON SITE FOR A PERIOD OF THREE YEARS AFTER PROJECT COMPLETION. THE CONTRACTOR SHALL RETAIN A RECORD COPY AND PROVIDE THE ORIGINAL DOCUMENTS TO THE OWNER UPON PROJECT ACCEPTANCE AND/OR SUBMITTAL OF THE NOTICE OF DISCONTINUATION.
- C. POLLUTION PREVENTION PLAN:**
1. THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS A SEPARATE DOCUMENT IN ADDITION TO THESE PLAN DRAWINGS. THE CONTRACTOR SHOULD REFER TO THE SWPPP FOR ADDITIONAL REQUIREMENTS AND MODIFICATIONS TO THE POLLUTION PREVENTION PLAN MADE DURING CONSTRUCTION.
  2. THE SWPPP ILLUSTRATES GENERAL MEASURES AND BEST MANAGEMENT PRACTICES (BMP) FOR COMPLIANCE WITH THE PROJECT'S NPDES PERMIT COVERAGE. ALL BMP'S AND EROSION CONTROL MEASURES REQUIRED AS A RESULT OF CONSTRUCTION ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY, NOTE AND IMPLEMENT. ADDITIONAL BMP'S FROM THOSE SHOWN ON THE PLAN MAY BE REQUIRED.
  3. THE SWPPP AND SITE MAP SHOULD BE EXPEDITIOUSLY REVISED TO REFLECT CONSTRUCTION PROGRESS AND CHANGES AT THE PROJECT SITE.
  4. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL PERMIT AND SWPPP INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING BMP'S UNLESS INFEASIBLE OR NOT APPLICABLE:
    - a. UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE WHEN DISCHARGING FROM BASINS, PROVIDE AND MAINTAIN NATURAL BUFFERS AROUND SURFACE WATERS, DIRECT STORM WATER TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORM WATER INFILTRATION AND MINIMIZE SOIL COMPACTION.
    - b. INSTALL PERIMETER AND FINAL SEDIMENT CONTROL MEASURES SUCH AS SILT BARRIERS, DITCH CHECKS, DIVERSION BERMS, OR SEDIMENTATION BASINS DOWNSTREAM OF SOIL DISTURBING ACTIVITIES PRIOR TO SITE CLEARING AND GRADING OPERATIONS.
    - c. PRESERVE EXISTING VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION OPERATIONS AT ANY TIME.
    - d. MAINTAIN ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES IN WORKING ORDER, INCLUDING CLEANING, REPAIRING, REPLACING, AND SEDIMENT REMOVAL, THROUGHOUT THE PERMIT PERIOD. CLEAN OR REPLACE SILT CONTROL DEVICES WHEN THE MEASURES HAVE LOST 50% OF THEIR ORIGINAL CAPACITY.
    - e. INSPECT THE PROJECT AREA AND CONTROL DEVICES (BY QUALIFIED PERSONNEL ASSIGNED BY THE CONTRACTOR) EVERY SEVEN CALENDAR DAYS. RECORD THE FINDINGS OF THESE INSPECTIONS AND ANY REQUIRED ACTIONS IN THE SWPPP WITH A COPY SUBMITTED WEEKLY TO THE OWNER OR ENGINEER DURING CONSTRUCTION. REVISE THE SWPPP AND IMPLEMENT ANY RECOMMENDED MEASURES WITHIN 7 DAYS.
    - f. PREVENT ACCUMULATION OF EARTH AND DEBRIS FROM CONSTRUCTION ACTIVITIES ON ADJOINING PUBLIC OR PRIVATE PROPERTIES, INCLUDING STREETS, DRIVEWAYS, SIDEWALKS, DRIVEWAYS, OR UNDERGROUND SEWERS. REMOVE ANY ACCUMULATION OF EARTH OR DEBRIS IMMEDIATELY AND TAKE REMEDIAL ACTIONS FOR FUTURE PREVENTION.
    - g. INSTALL NECESSARY CONTROL MEASURES SUCH AS SILT BARRIERS, EROSION CONTROL MATS, MULCH, DITCH CHECKS OR RIPRAP AS SOON AS AREAS REACH THEIR FINAL GRADES AND AS CONSTRUCTION OPERATIONS PROGRESS TO ENSURE CONTINUOUS RUNOFF CONTROL. PROVIDE INLET AND OUTLET CONTROL MEASURES AS SOON AS STORM SEWERS ARE INSTALLED.
    - h. CONTRACTOR TO STRIP, SALVAGE AND RE-SPREAD TOPSOIL PER SECTION 2010 OF IOWA'S STANDARD SPECIFICATIONS OR PROVIDE THE CITY WITH A TOPSOIL PRESERVATION PLAN. TOPSOIL TO BE RE-SPREAD SHALL BE FREE OF ROCK AND BE SUITABLE FOR THE GROWTH OF GRASS. COORDINATE LOCATION OF STOCKPILE WITH OWNER.
    - i. STABILIZE UNDEVELOPED, DISTURBED AREAS WITH MULCH, TEMPORARY SEED MIX, PERMANENT SEED MIX OR SOO AS SOON AS PRACTICAL UPON COMPLETION OR DELAY OF GRADING OPERATIONS. INITIAL STABILIZATION MEASURES NO LATER THAN 14 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY HAS FINISHED OR IS PLANNED TO BE DELAYED MORE THAN 21 CALENDAR DAYS.
    - j. COORDINATE LOCATIONS OF STAGING AREAS WITH THE OWNER AND RECORD IN THE SWPPP. UNLESS NOTED OTHERWISE, STAGING AREAS SHOULD CONTAIN THE FOLLOWING: JOB TRAILERS, FUELING, A VEHICLE MAINTENANCE AREA, TEMPORARY SANITARY FACILITIES, MATERIAL STORAGE, AND CONCRETE WASHOUT FACILITY. CONTROL RUNOFF FROM STAGING AREAS WITH DIVERSION BERMS AND/OR SILT BARRIERS AND DIRECT TO A SEDIMENT BASIN OR OTHER CONTROL DEVICE WHERE POSSIBLE. CONCRETE WASHOUT MUST BE CONTAINED ONSITE.
    - k. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND SITE WASTE PRIOR TO FILING OF THE "NOTICE OF DISCONTINUATION".

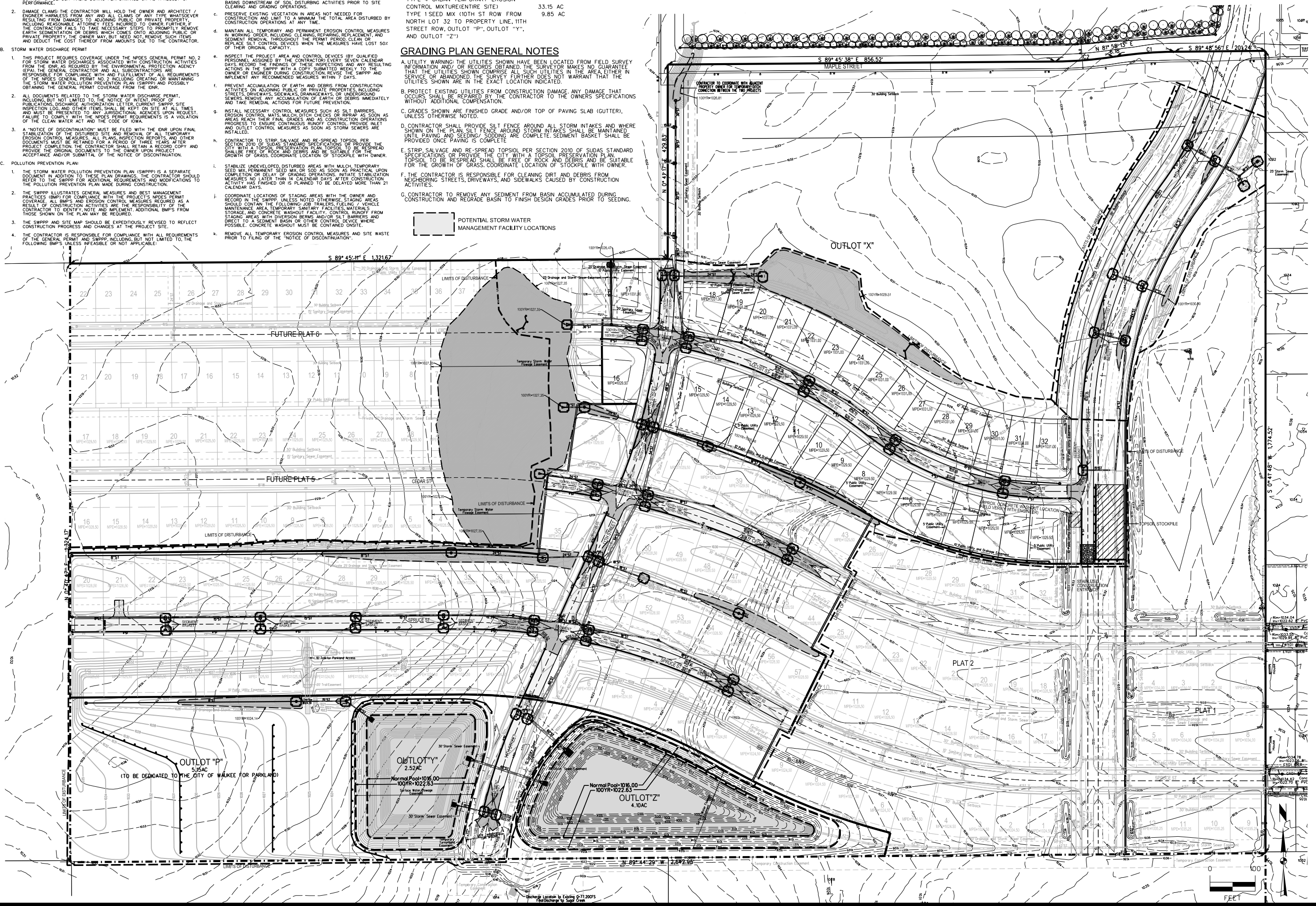
**STORMWATER MANAGEMENT QUANTITIES**

SILT FENCE	8200 LF
SEDIMENT BASKET	42 EA
TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE (ENTIRE SITE)	33.15 AC
TYPE 1 SEED MIX (10TH ST ROW FROM NORTH LOT 32 TO PROPERTY LINE, 11TH STREET ROW, OUTLOT "P", OUTLOT "Y", AND OUTLOT "Z")	9.85 AC

**GRADING PLAN GENERAL NOTES**

1. UTILITY WARNING: THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
2. PROTECT EXISTING UTILITIES FROM CONSTRUCTION DAMAGE. ANY DAMAGE THAT OCCURS SHALL BE REPAIRED BY THE CONTRACTOR TO THE OWNER'S SPECIFICATIONS WITHOUT ADDITIONAL COMPENSATION.
3. GRADES SHOWN ARE FINISHED GRADE AND/OR TOP OF PAVING SLAB (GUTTER), UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL PROVIDE SILT FENCE AROUND ALL STORM INTAKES AND WHERE SHOWN ON THE PLAN. SILT FENCE AROUND STORM INTAKES SHALL BE MAINTAINED UNTIL PAVING AND SEEDING/ SOODING ARE COMPLETE. SEDIMENT BASKET SHALL BE PROVIDED ONCE PAVING IS COMPLETE.
5. STRIP, SALVAGE AND RE-SPREAD TOPSOIL PER SECTION 2010 OF IOWA'S STANDARD SPECIFICATIONS OR PROVIDE THE CITY WITH A TOPSOIL PRESERVATION PLAN. TOPSOIL TO BE RE-SPREAD SHALL BE FREE OF ROCK AND BE SUITABLE FOR THE GROWTH OF GRASS. COORDINATE LOCATION OF STOCKPILE WITH OWNER.
6. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM NEIGHBORING STREETS, DRIVEWAYS, AND SIDEWALKS CAUSED BY CONSTRUCTION ACTIVITIES.
7. CONTRACTOR TO REMOVE ANY SEDIMENT FROM BASIN ACCUMULATED DURING CONSTRUCTION AND REGRADE BASIN TO FINISH DESIGN GRADES PRIOR TO SEEDING.

POTENTIAL STORM WATER MANAGEMENT FACILITY LOCATIONS



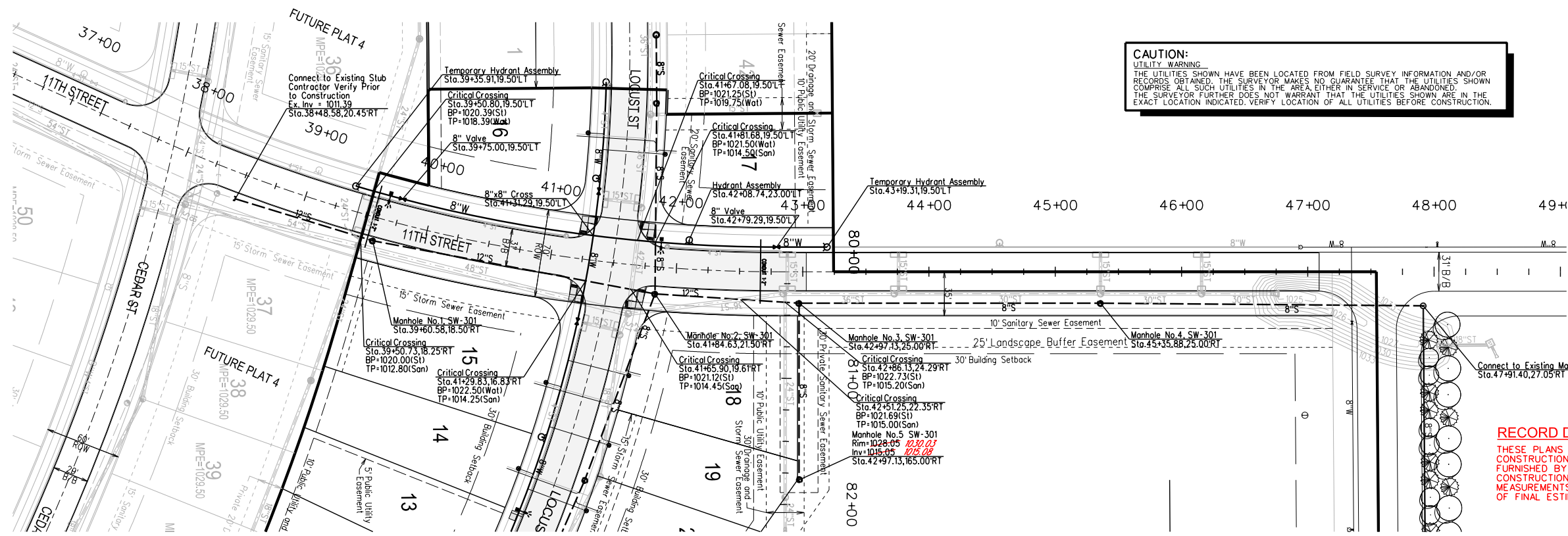
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4	REVISED AS PER CITY COMMENTS	04/06/18	JWM
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MARK REVISION DATE BY  
 Engineer: KMM Checked By: EDC  
 Date: 11/15/17 Scale: 1"=100'  
 Technician: JWM Date: 11/15/17 Field By: JWM  
 Project No: 117.0794 Sheet 6 of 19

**WAUKEE, IA**  
 2727 S.W. SNYDER BLVD.  
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**SNYDER & ASSOCIATES, INC.**  
 EROSION AND SEDIMENT CONTROL PLAN  
**SPRING CREST PLAT 3**  
 Sheet 6 of 19

Project No: 117.0794  
 Sheet 6 of 19

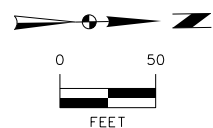


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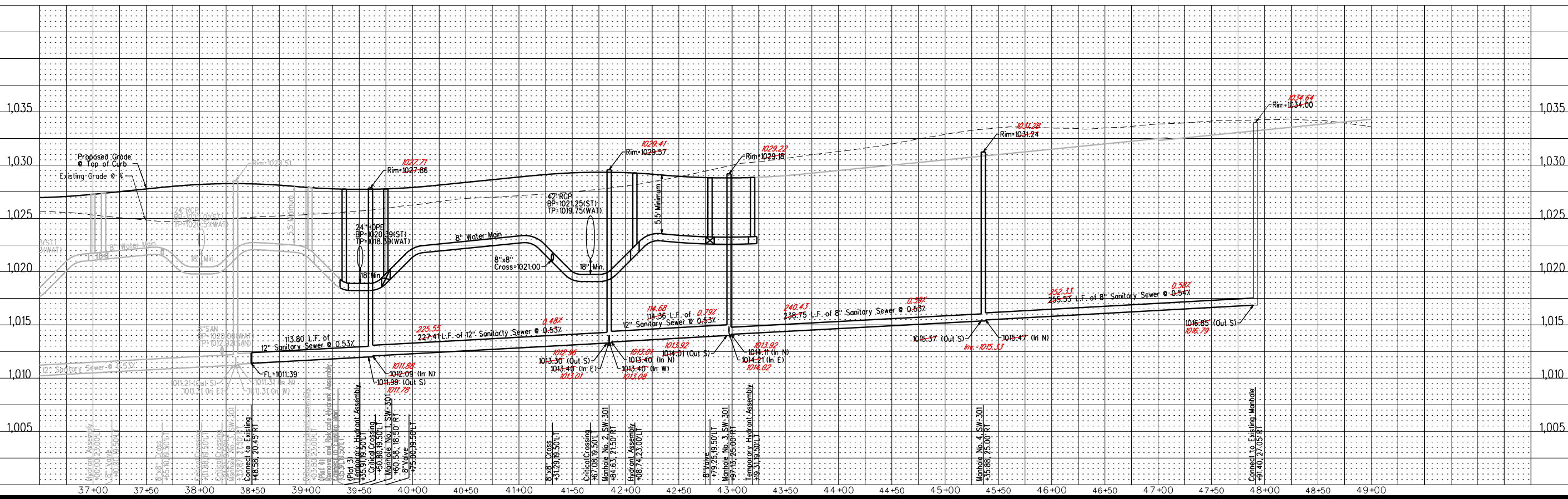
**BENCHMARKS**  
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88 - GEOD12A)  
IARTN DERIVED - US SURVEY FEET  
ELEV=1035.08  
BURY BOLT ON HYDRANT ON SOUTH SIDE OF CEDAR STREET  
SOUTH OF LIGHT POLE, SOUTHEAST OF SITE.

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**RECORD DRAWINGS**  
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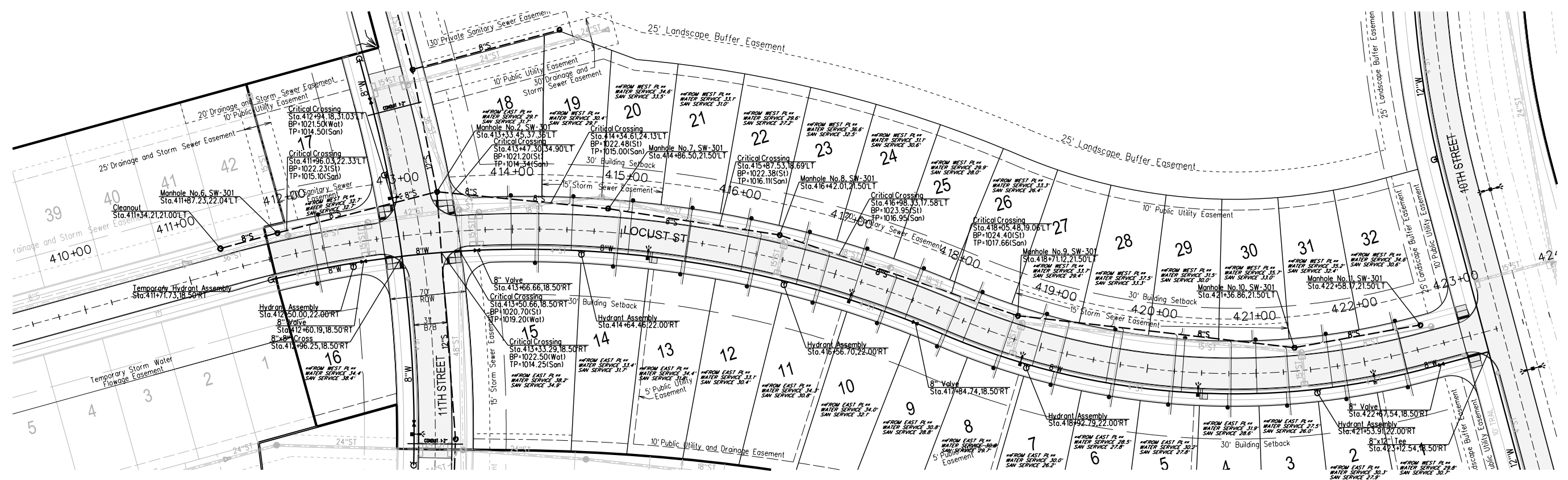


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Engineer:	KMM	Checked By:	EDC
Technician:	JWM	Date:	11/15/17
Field Bk:		Scale:	1" = 50'
Project No:	117.0794	Sheet	7 of 19

**SPRING CREST PLAT 3**  
**SANITARY SEWER AND WATER MAIN PLAN AND PROFILE**  
**WAUKEE, IA**  
**SNYDER & ASSOCIATES, INC.**  
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**SNYDER & ASSOCIATES**  
Project No: 117.0794  
Sheet 7 of 19

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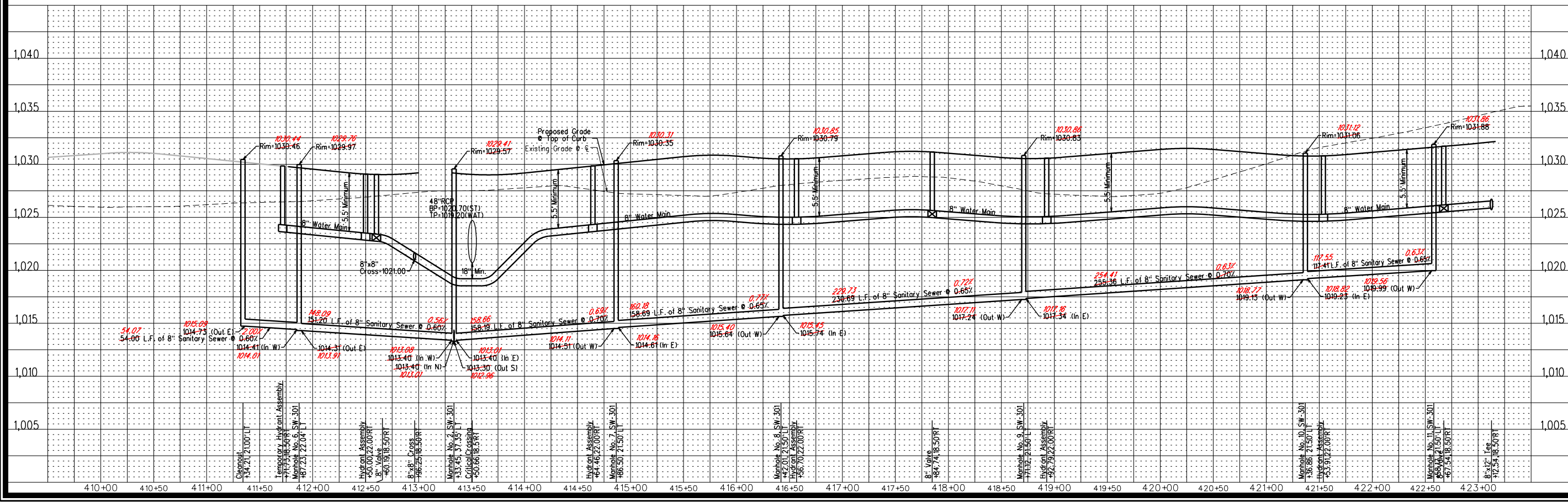
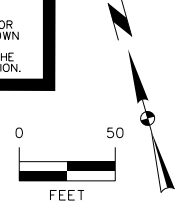
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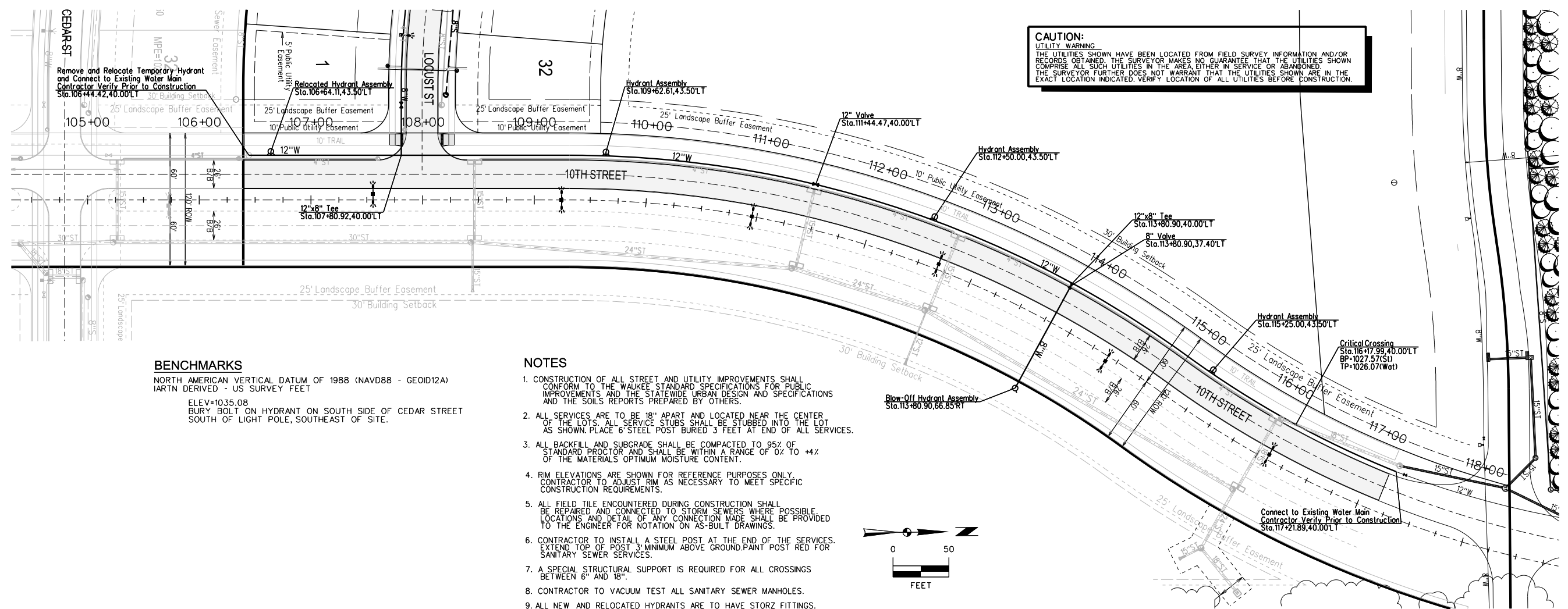
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2	REVISED AS PER CITY COMMENTS	03/28/18	JMM
1	REVISED AS PER CITY COMMENTS	03/28/18	JMM

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**SPRING CREST PLAT 3**  
**SANITARY SEWER AND WATER MAIN PLAN AND PROFILE**  
**SNYDER & ASSOCIATES, INC.**

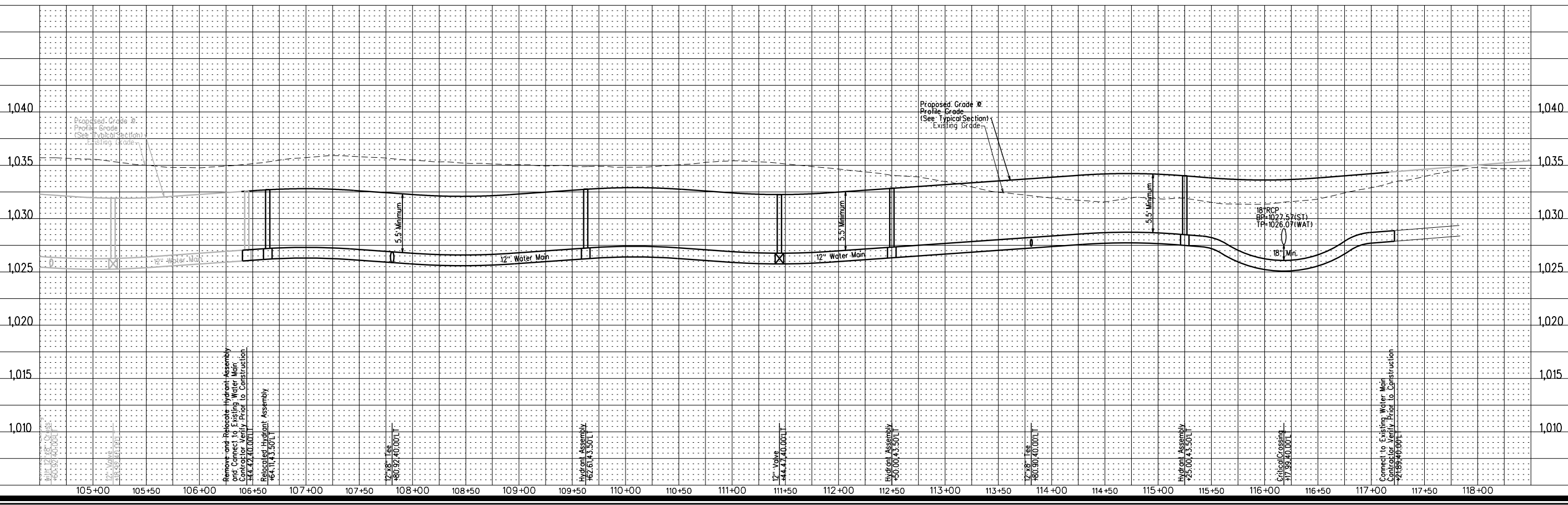
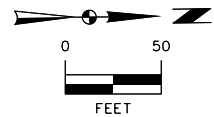


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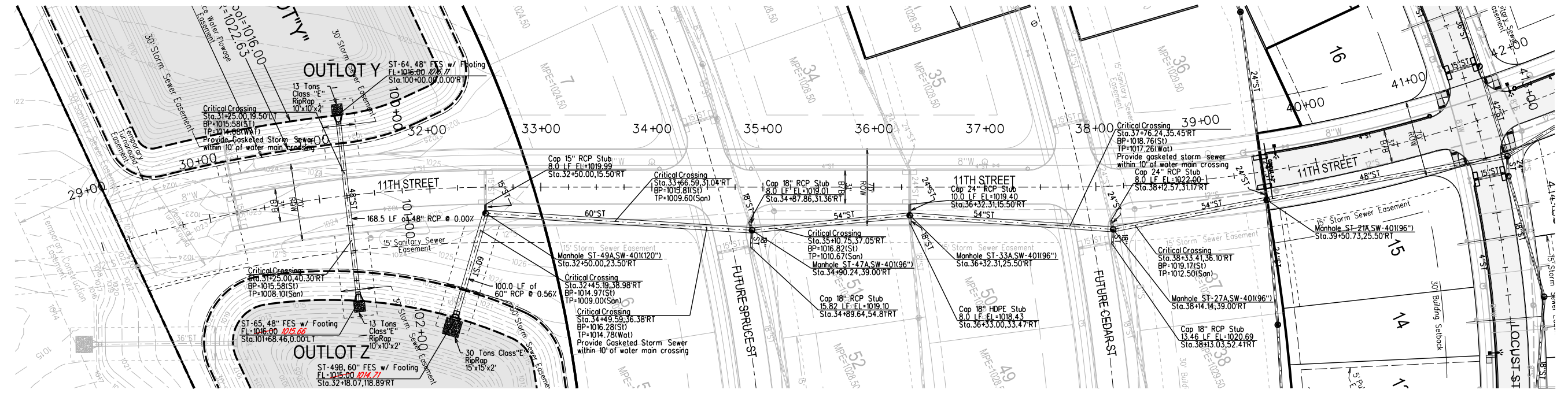
MARK	REVISION	DATE	BY
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Engineer: KMM  
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Field Bk: Pg: 9 of 19

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**SPRING CREST PLAT 3**  
**WATER MAIN PLAN AND PROFILE**  
**SNYDER & ASSOCIATES, INC.**

Project No: 117.0794  
Sheet 9 of 19



**BENCHMARKS**

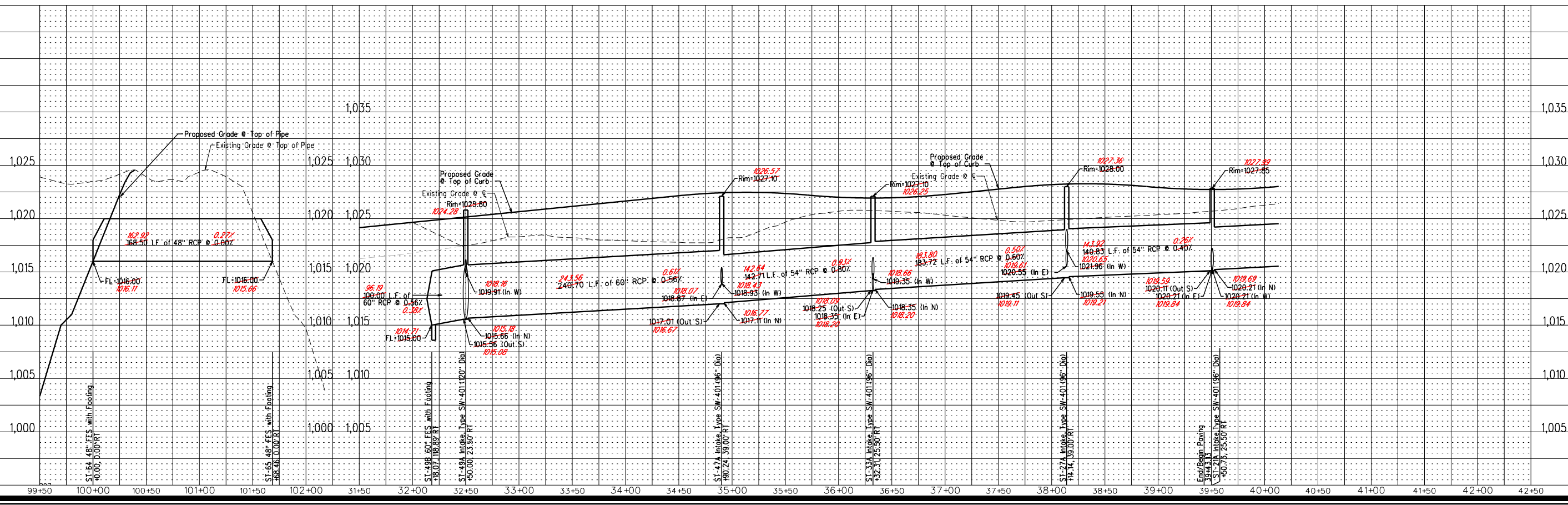
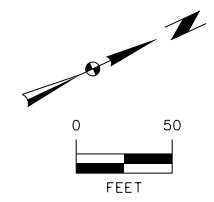
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			Sheet 10 of 19

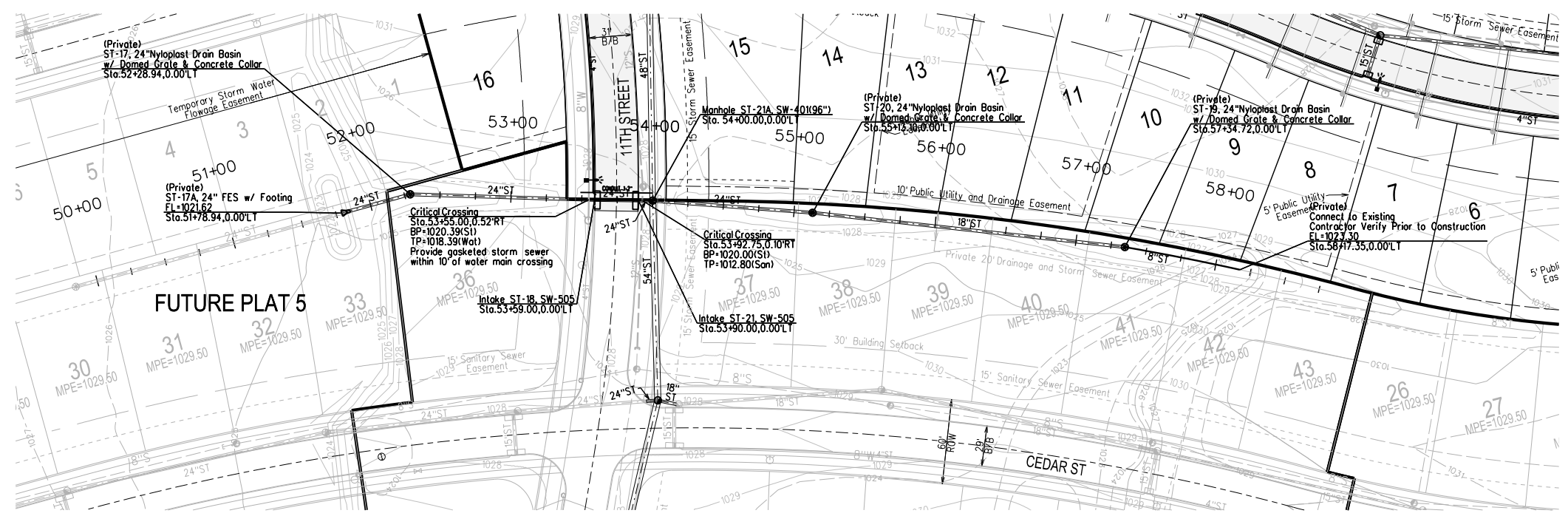
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**SPRING CREST PLAT 3**  
**STORM SEWER PLAN AND PROFILE**

**SNYDER & ASSOCIATES, INC.**

Project No: 117.0794  
 Sheet 10 of 19



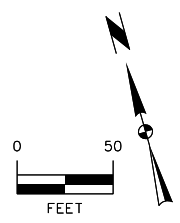
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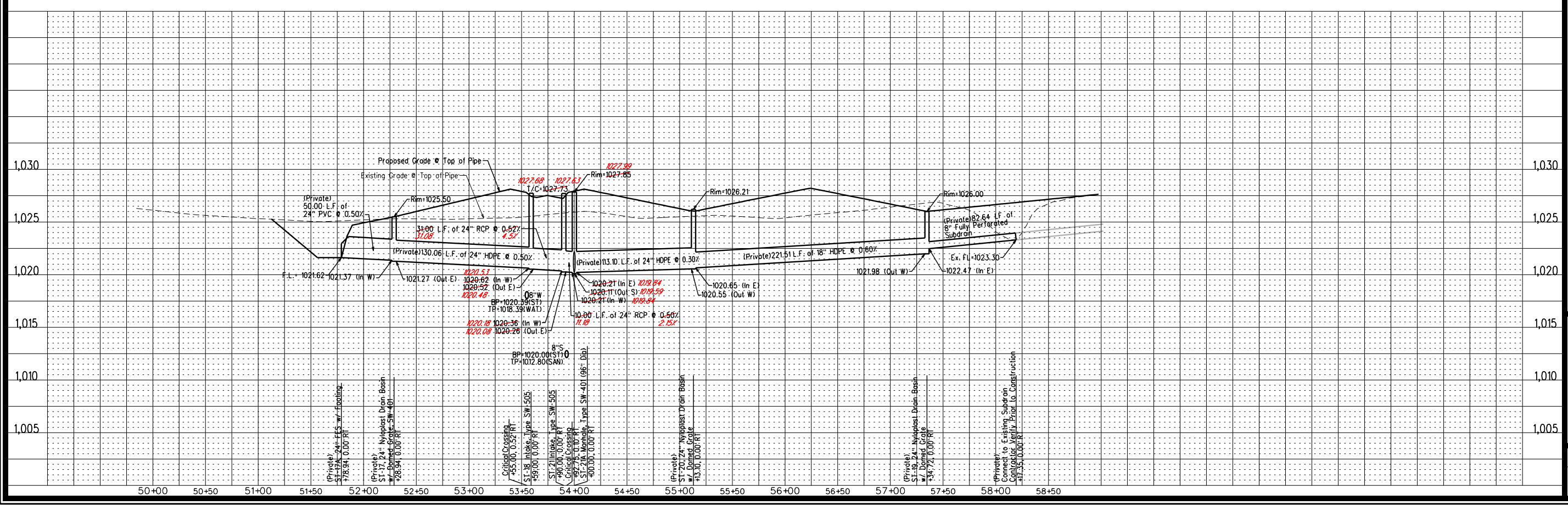
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**SPRING CREST PLAT 3**  
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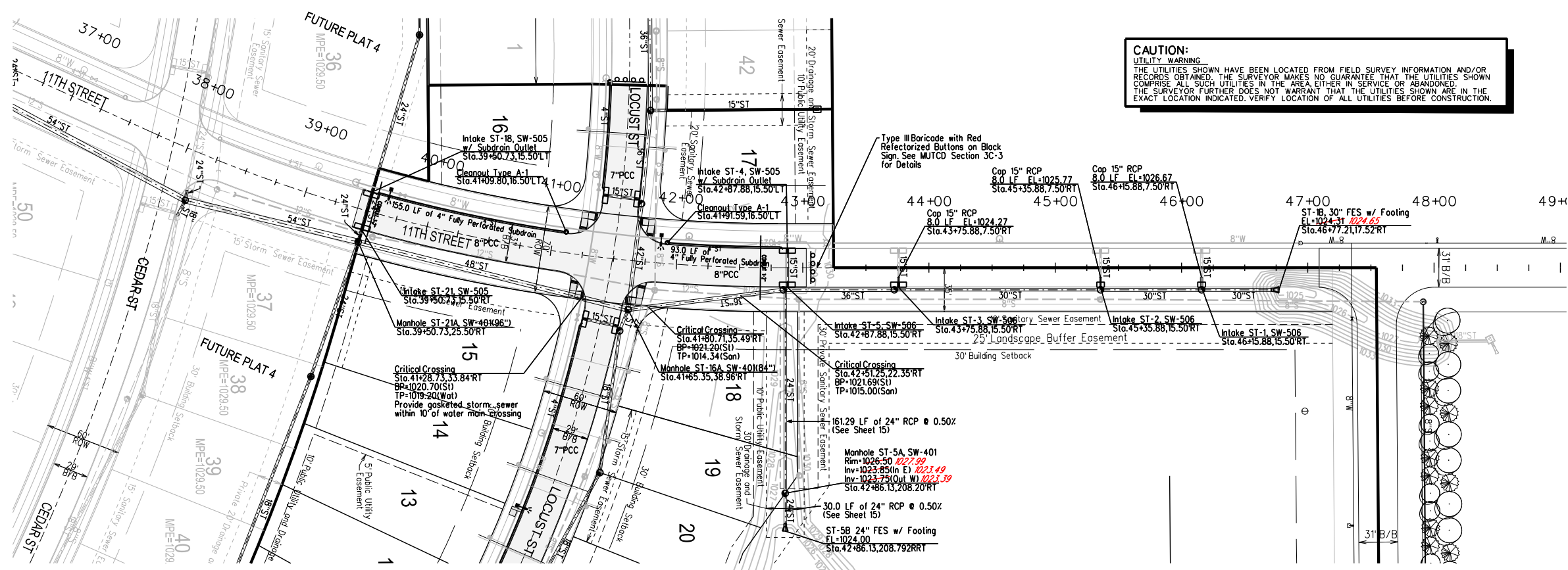
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Sheet 11 of 19

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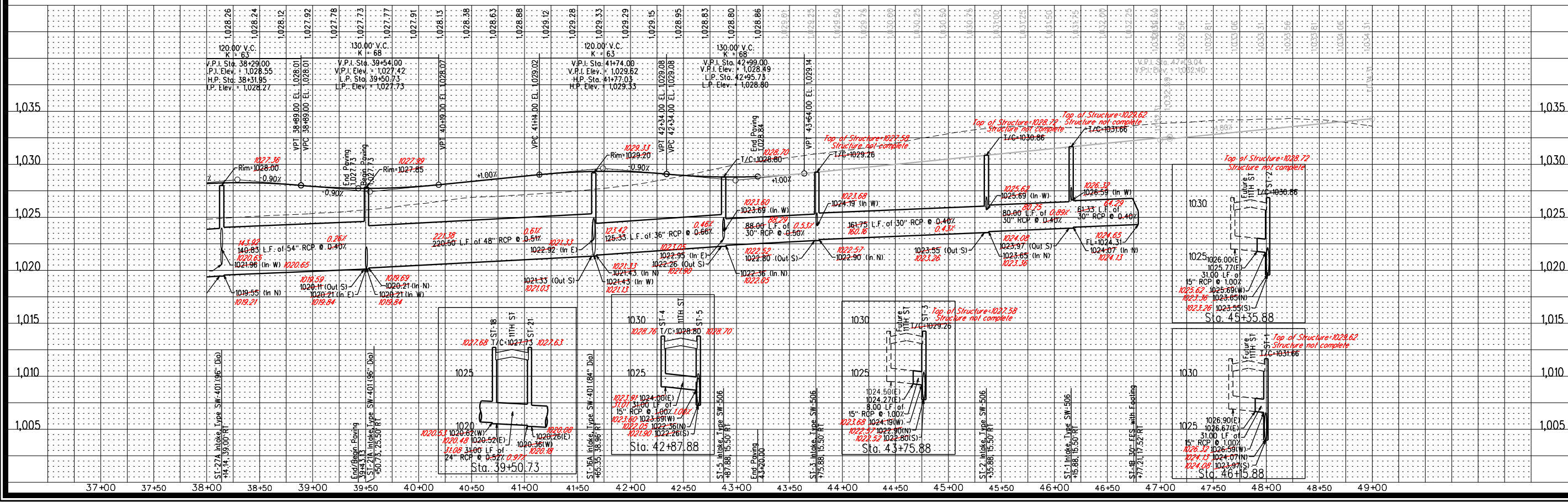
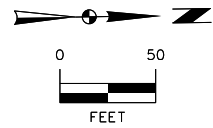


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**SPRING CREST PLAT 3**  
PAVEMENT AND STORM SEWER PLAN AND PROFILE

**SNYDER & ASSOCIATES**  
Project No: 117.0794  
Sheet 12 of 19

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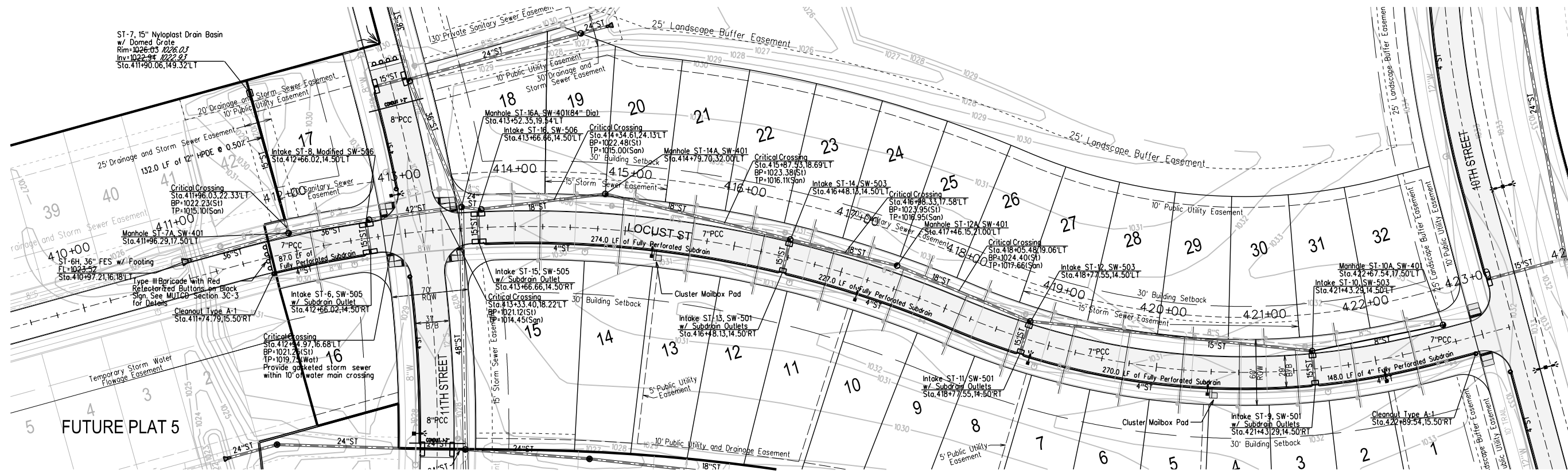
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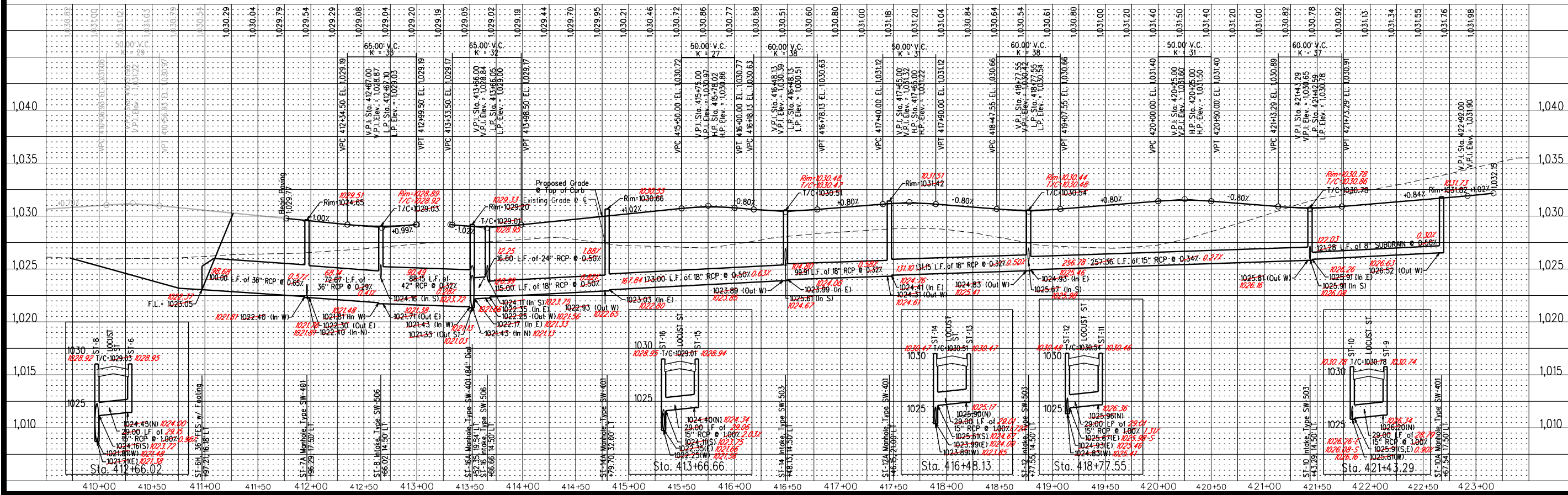
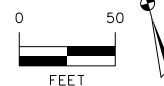


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  - A SPECIAL STRUCTURAL SUPPORT IS REQUIRED FOR ALL CROSSINGS BETWEEN 6" AND 18".
  - GASKETED STORM SEWER TO WITHIN 10' OF ALL WATER MAIN CROSSINGS.

**CAUTION:**  
 UTILITY WARNING  
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 THESE PLANS HAVE BEEN REVISED AFTER CONSTRUCTION TO CONFORM WITH INFORMATION FURNISHED BY THE CONTRACTOR AND CONSTRUCTION REVIEWER AND TO REFLECT MEASUREMENTS MADE FOR THE PREPARATION OF FINAL ESTIMATES OF QUANTITIES.



**SPRING CREST PLAT 3**

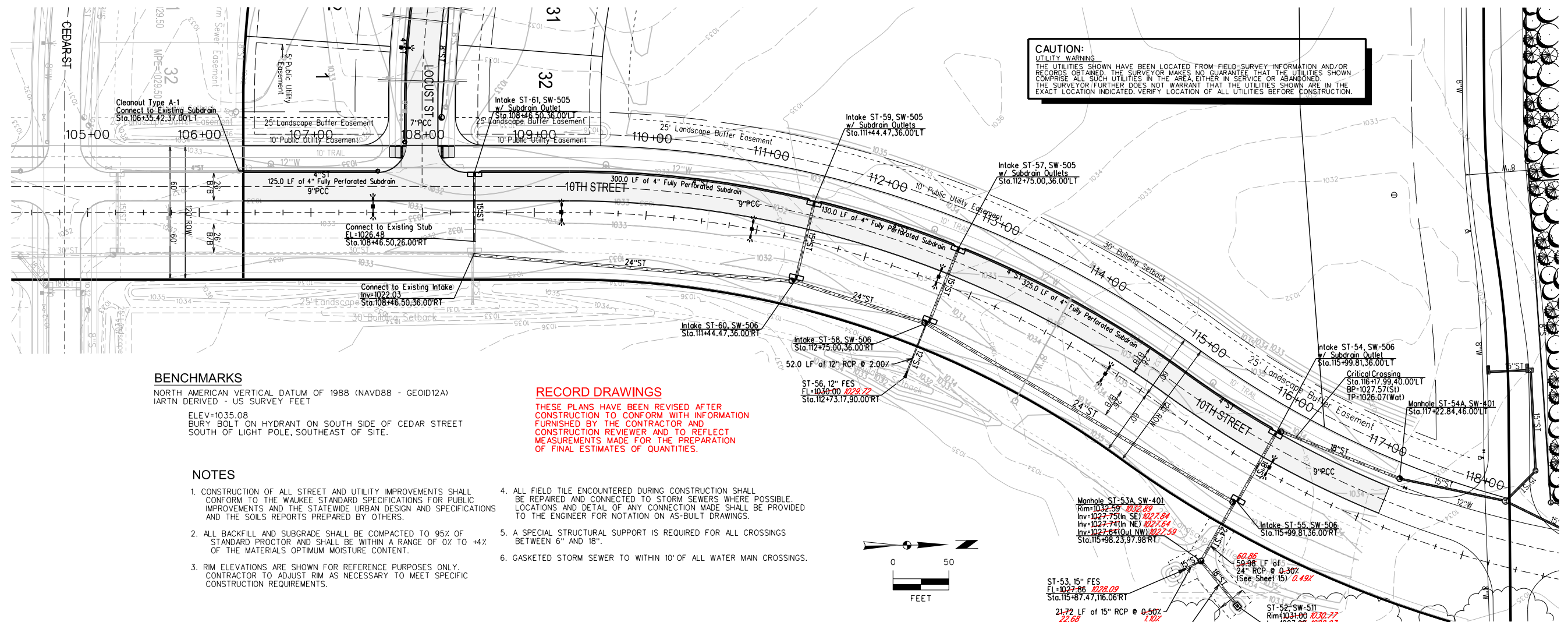
**PAVEMENT AND STORM SEWER PLAN AND PROFILE**  
**SNYDER & ASSOCIATES, INC.**



Project No: 117.0794  
 Sheet 13 of 19

6	REVISED PER AS-BUILT SURVEY	09/21/18	JMM	11/15/17	EDC	1"=50'
5	REVISED PAVEMENT QUANTITIES	04/16/18	JMM	11/15/17	EDC	1"=50'
4	REVISED AS PER CITY COMMENTS	04/06/18	JMM	11/15/17	EDC	1"=50'
3	REVISED AS PER CITY COMMENTS	03/28/18	JMM	11/15/17	EDC	1"=50'
2	REVISED AS PER CITY COMMENTS	03/28/18	JMM	11/15/17	EDC	1"=50'
1	REVISED AS PER CITY COMMENTS	03/28/18	JMM	11/15/17	EDC	1"=50'

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 2727 S.W. SNYDER BLVD.  
 ANKENY, IOWA 50023  
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**BENCHMARKS**

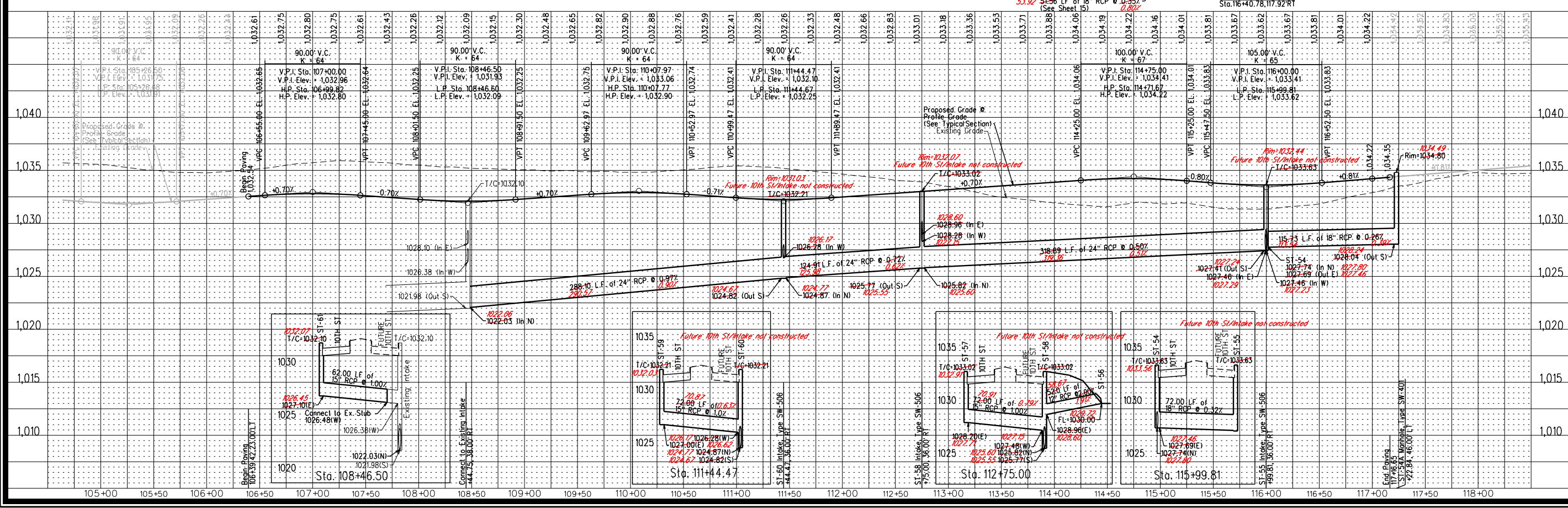
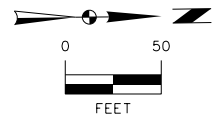
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A)  
 IARTN DERIVED - US SURVEY FEET  
 ELEV=1035.08  
 BURY BOLT ON HYDRANT ON SOUTH SIDE OF CEDAR STREET  
 SOUTH OF LIGHT POLE, SOUTHEAST OF SITE.

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**NOTES**

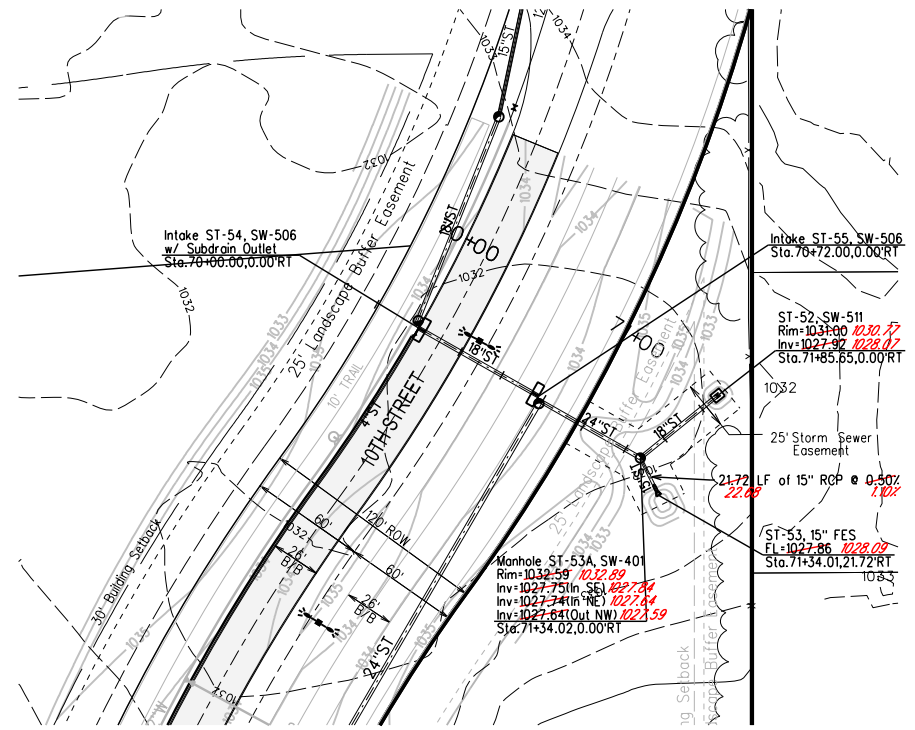
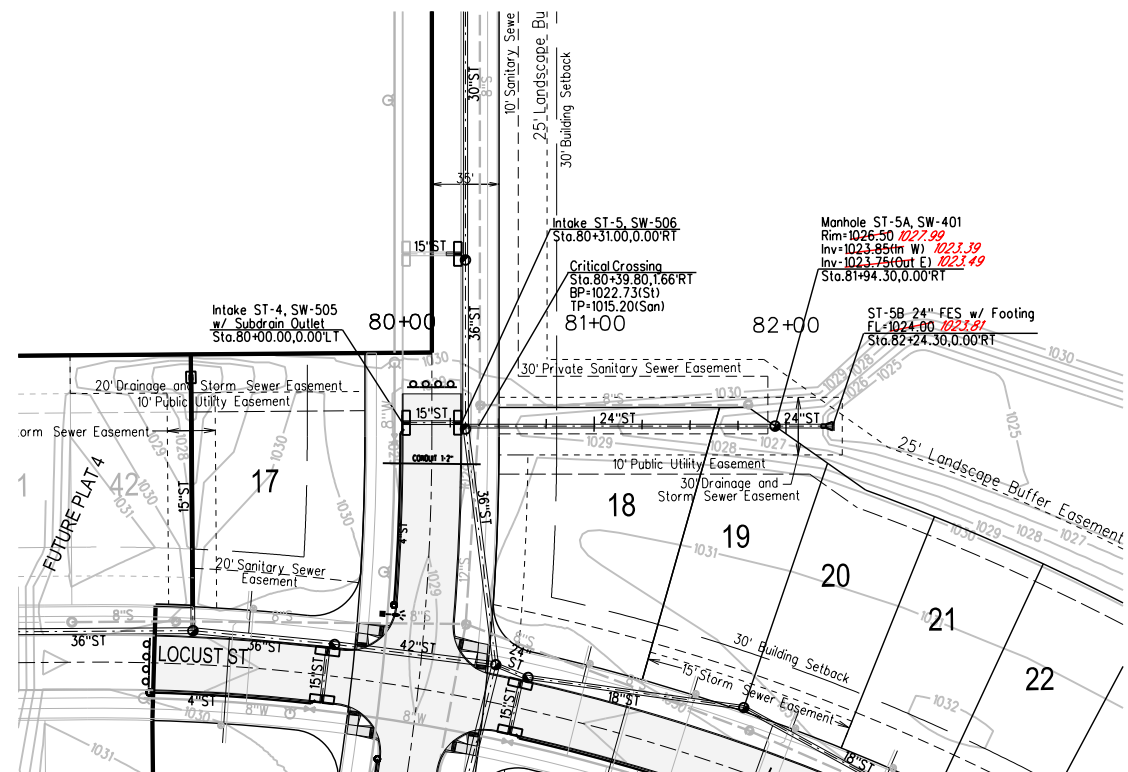
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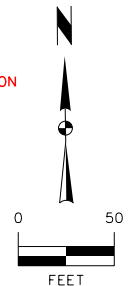
6	REVISED PER AS-BUILT SURVEY	09/21/18	RSN
5	REVISED QUANTITIES	04/16/18	JWM
4	REVISED AS PER CITY COMMENTS	04/06/18	JWM
3	REVISED AS PER CITY COMMENTS	03/28/18	JWM

MARK REVISION BY DATE BY  
 Engineer: KMM Checked By: EDC  
 Technician: JWM Date: 11/15/17  
 Scale: 1"=50'  
 Field Bk: 117.0794  
 Project No: 117.0794  
 Sheet 14 of 19

**SPRING CREST PLAT 3**  
**PAVEMENT AND STORM SEWER PLAN AND PROFILE**  
**WAUKEE, IA**  
**SNYDER & ASSOCIATES, INC.**



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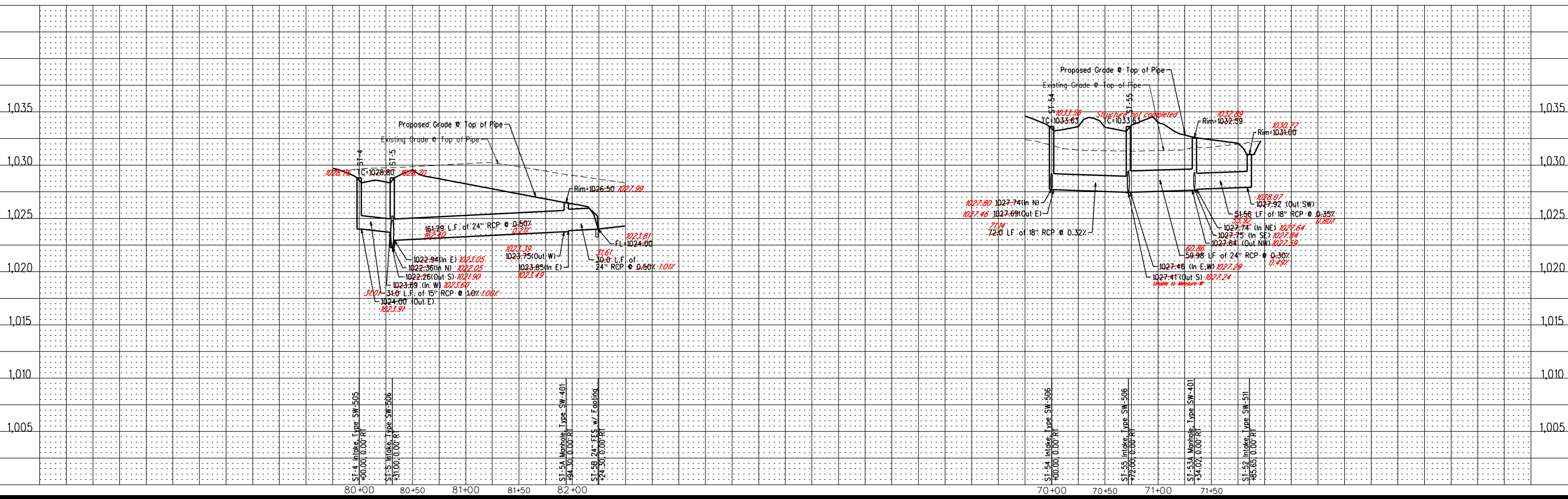
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**SPRING CREST PLAT 3**

**STORM SEWER PLAN AND PROFILE**

**SNYDER & ASSOCIATES, INC.**

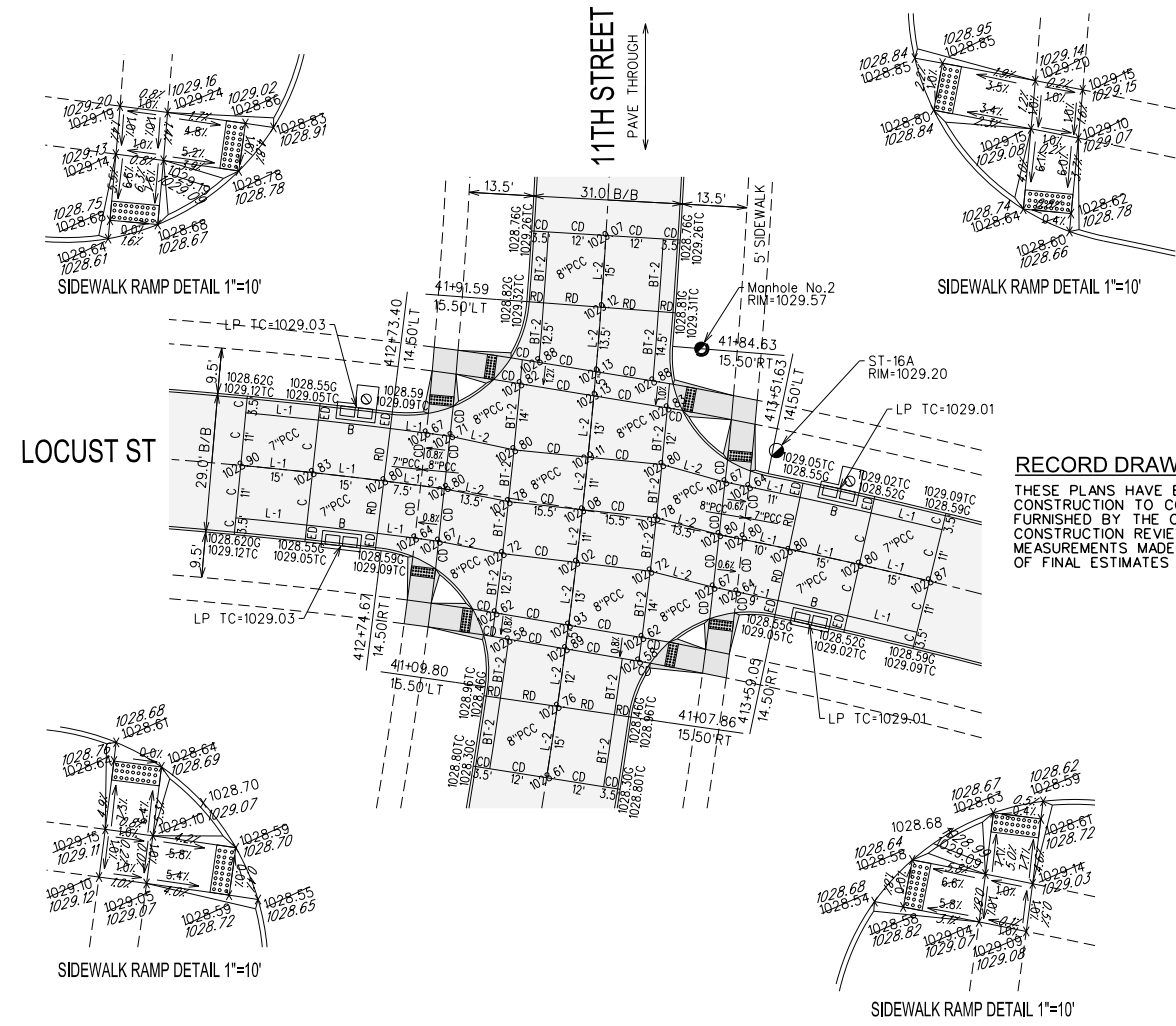
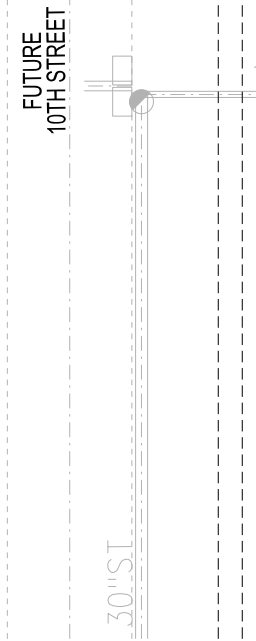
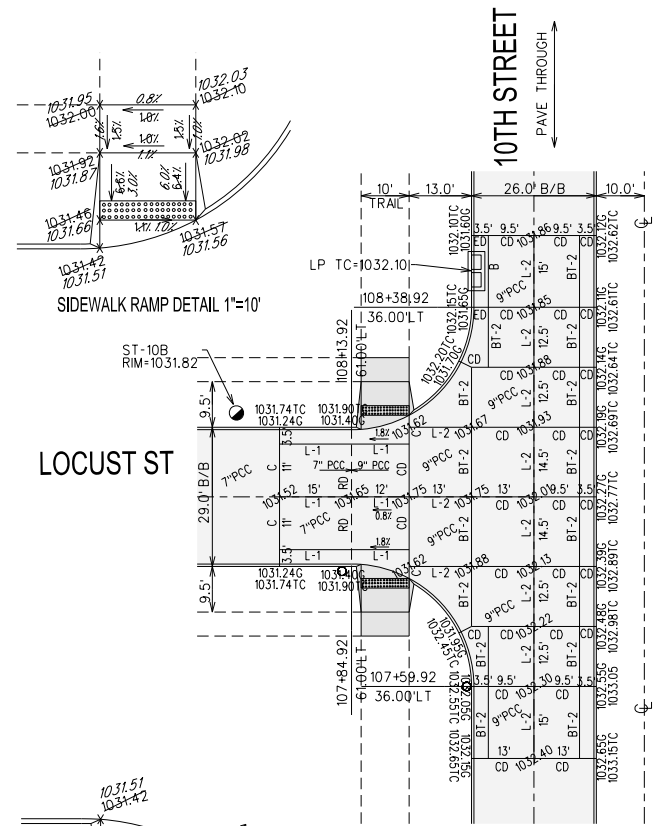


Project No: 117.0794

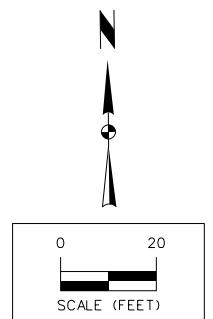
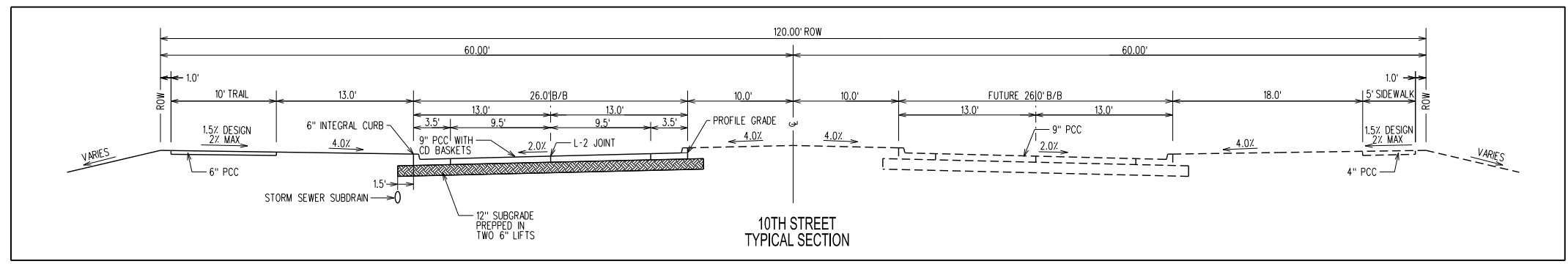
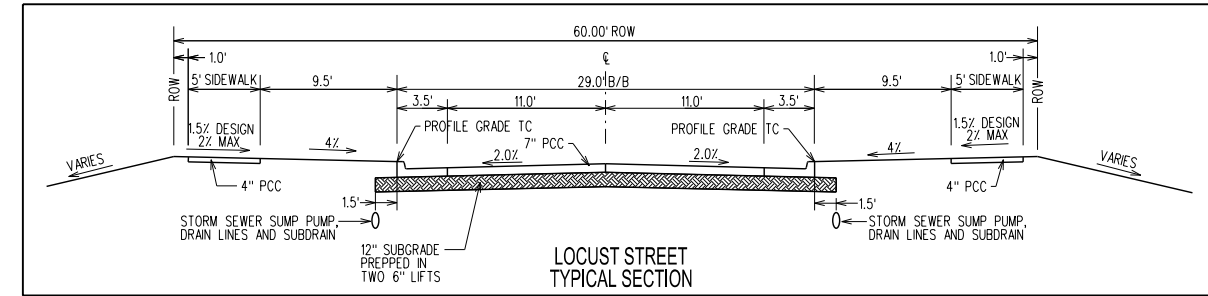
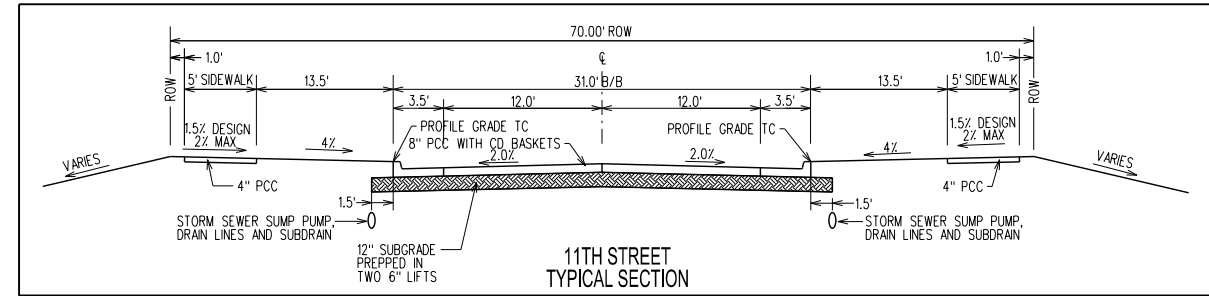
Sheet 15 of 19

6	REVISED PER AS-BUILT SURVEY	RSN	09/21/18
5	REVISED PAVEMENT QUANTITIES	JWM	04/16/18
4	REVISED AS PER CITY COMMENTS	JWM	04/06/18
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MARK		REVISION	DATE
Engineer: KMM		Checked By: EDC	Scale: 1"=50'
Technician: JWM		Date: 11/15/17	Field Bk: Pg:
Project No: 117.0794		Sheet 15 of 19	

**WAUKEE, IA**  
 2727 S.W. SNYDER BLVD.  
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**SPRING CREST PLAT 3**

**INTERSECTION DETAILS**

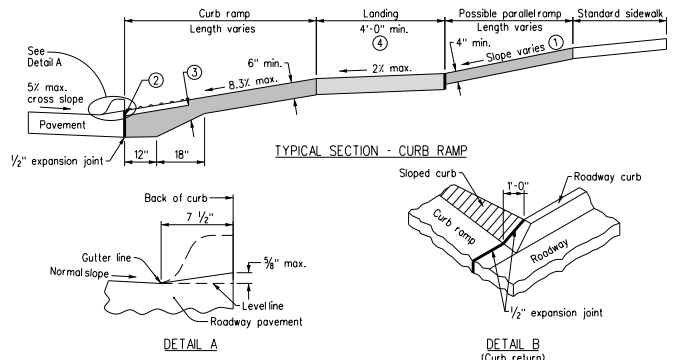
**SNYDER & ASSOCIATES, INC.**



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3	REVISED AS PER CITY COMMENTS	JMM	03/28/18
MARK	REVISION	DATE	BY
Engineer:	KMM	Checked By:	EDC
Technician:	JMM	Date:	11/15/17
Scale:	1"=20'	Field Bk:	
Project No:	117.0794	Sheet	16 of 19

**WAUKEE, IA**

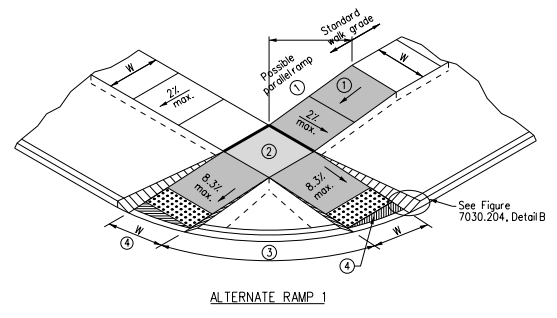
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1 GENERAL SIDEWALK DETAILS

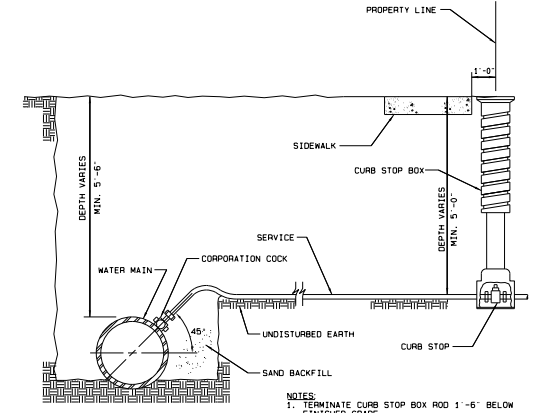
If crosswalks are marked, locate ramps, exclusive of flares, within the crosswalk markings.

- Parallel ramp: If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and landing due to limited ramp length, provide a parallel ramp to make up the elevation difference between the landing and the standard sidewalk.
- The length of the parallel ramp is not required to exceed 15 feet, regardless of the resulting slope. Do not exceed 8.33% slope for parallel ramps shorter than 15 feet.
- Install a 24 inch wide (min.) strip of detectable warnings at the back of curb. Extend the detectable warnings across the full width of the ramp.
- Provide a minimum of 6 inches of concrete below the detectable warning panel.
- Landing: Maximum slope of 2% in any direction.

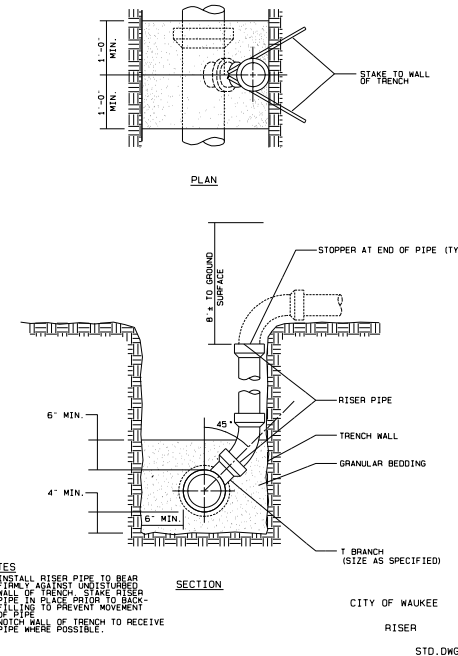


2 CURB RAMPS WITHIN INTERSECTION RADIUS FOR CLASS B OR C SIDEWALK

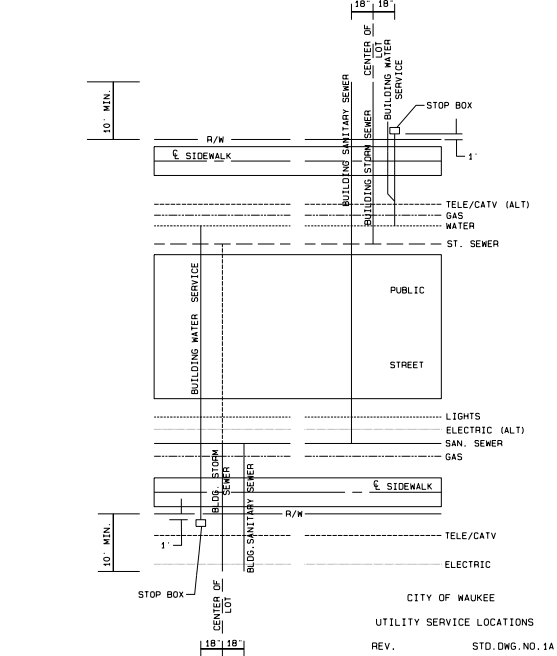
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- The length of the parallel ramp is not required to exceed 15 feet, regardless of the resulting slope. Do not exceed 8.33% slope for parallel ramps shorter than 15 feet.
- Landing: Maximum slope of 2% in any direction.
- Island width: 5 foot minimum. If island is less than 5 feet, eliminate island and provide alternate 2.
- Unless curb ramp is aligned perpendicular to the street radius, provide an area of special shaping at the bottom of the ramp to provide a smooth transition to the gutterline. 2% maximum slope in any direction.



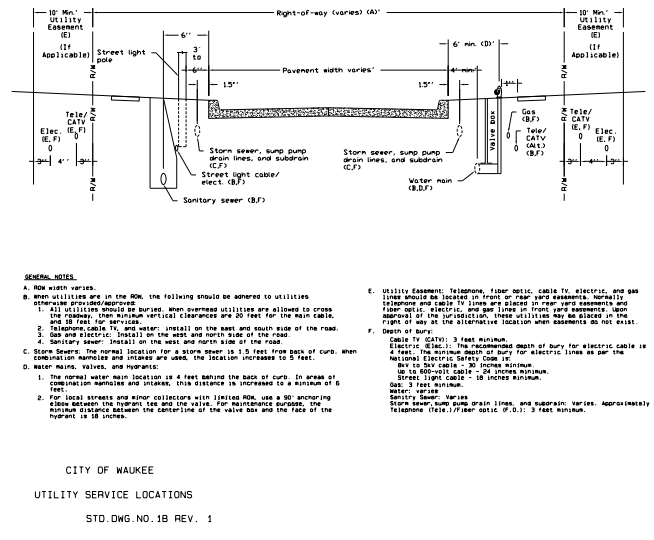
3 CITY OF WAUKEE WATER SERVICE CONNECTION



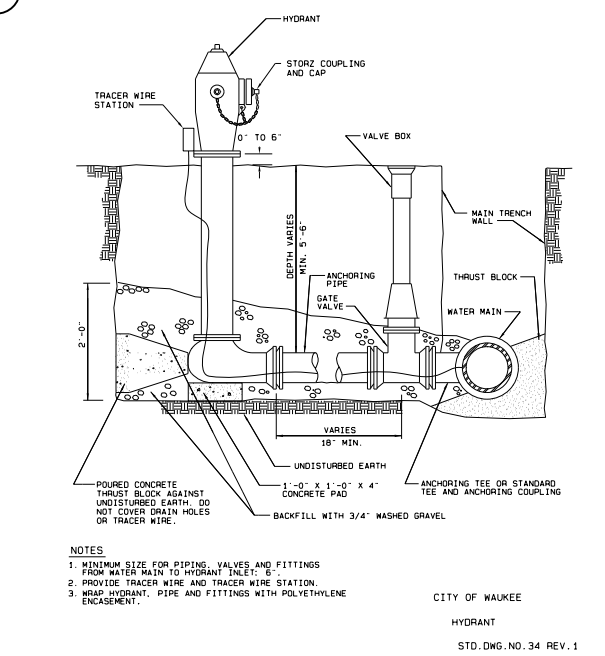
4 CITY OF WAUKEE RISER



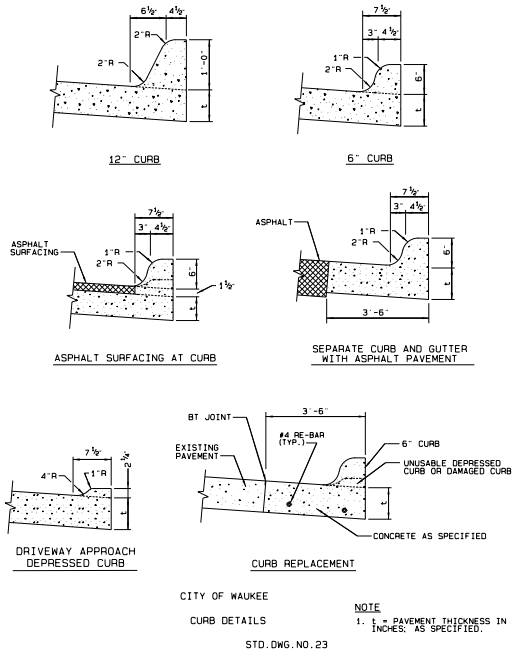
5 CITY OF WAUKEE UTILITY SERVICE LOCATIONS



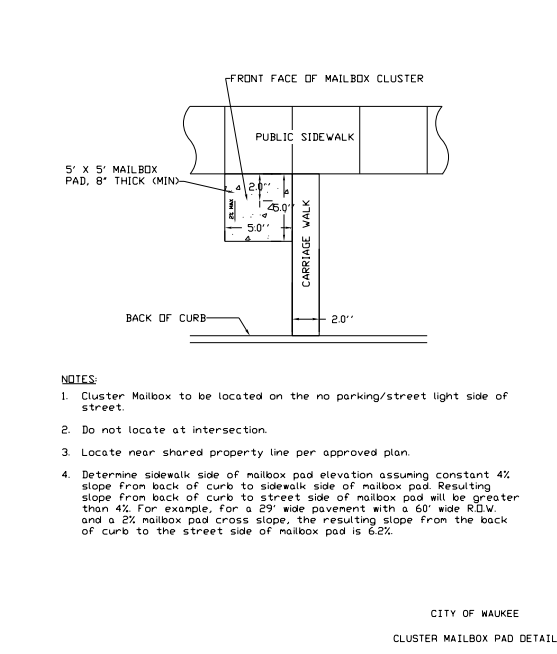
6 CITY OF WAUKEE UTILITY SERVICE LOCATIONS



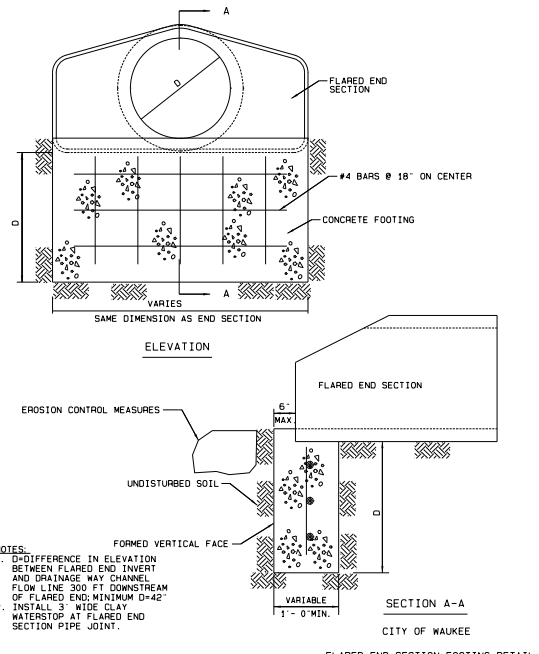
7 CITY OF WAUKEE HYDRANT



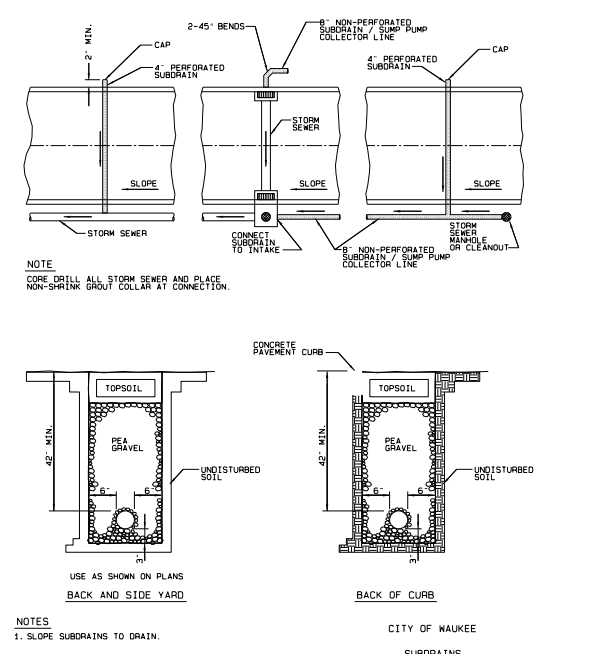
8 CITY OF WAUKEE CURB DETAILS



9 CITY OF WAUKEE CLUSTER MAILBOX PAD



10 CITY OF WAUKEE FLARED END SECTION



11 CITY OF WAUKEE SUBDRAINS

5	REVISED PAVEMENT QUANTITIES	04/16/18	JWM
4	REVISED AS PER CITY COMMENTS	04/06/18	JWM
3	REVISED AS PER CITY COMMENTS	03/28/18	JWM
MARK	REVISION	DATE	BY
	Engineer: KMM	Checked By: EDC	Scale: 1"=20'
	Technician: JWM	Date: 11/15/17	Field No: 117.0794

**WAUKEE, IA**

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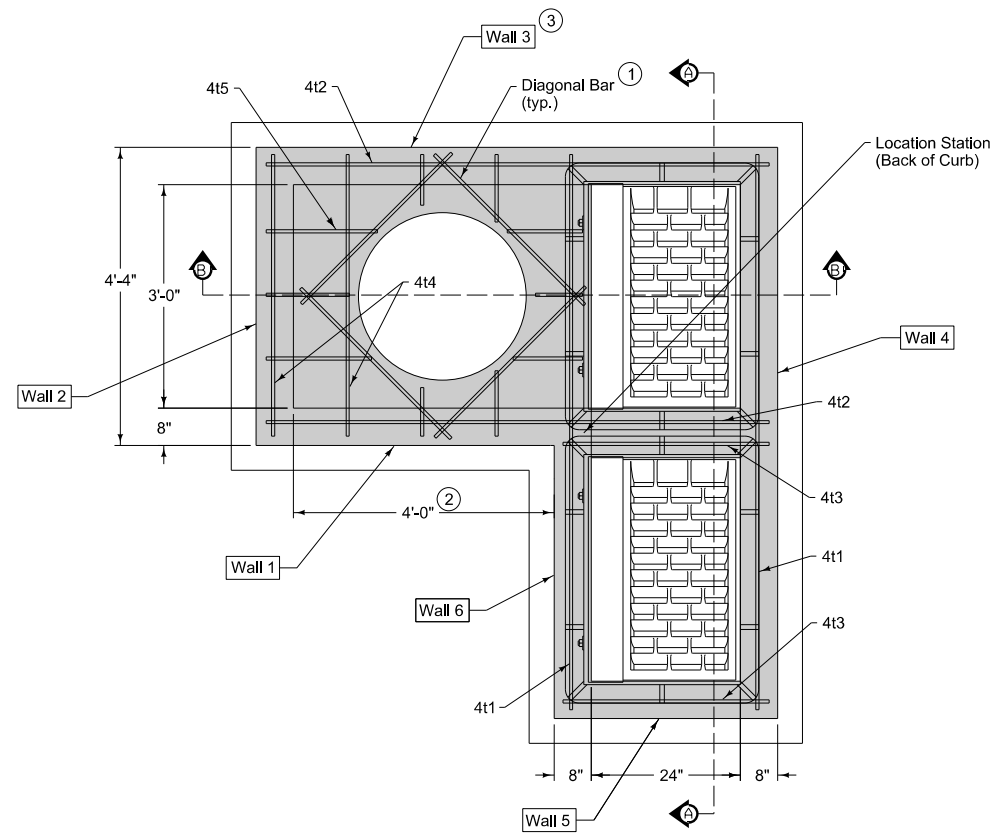
Project No: 117.0794

Sheet 17 of 19

**SPRING CREST PLAT 3**

MISCELLANEOUS DETAILS



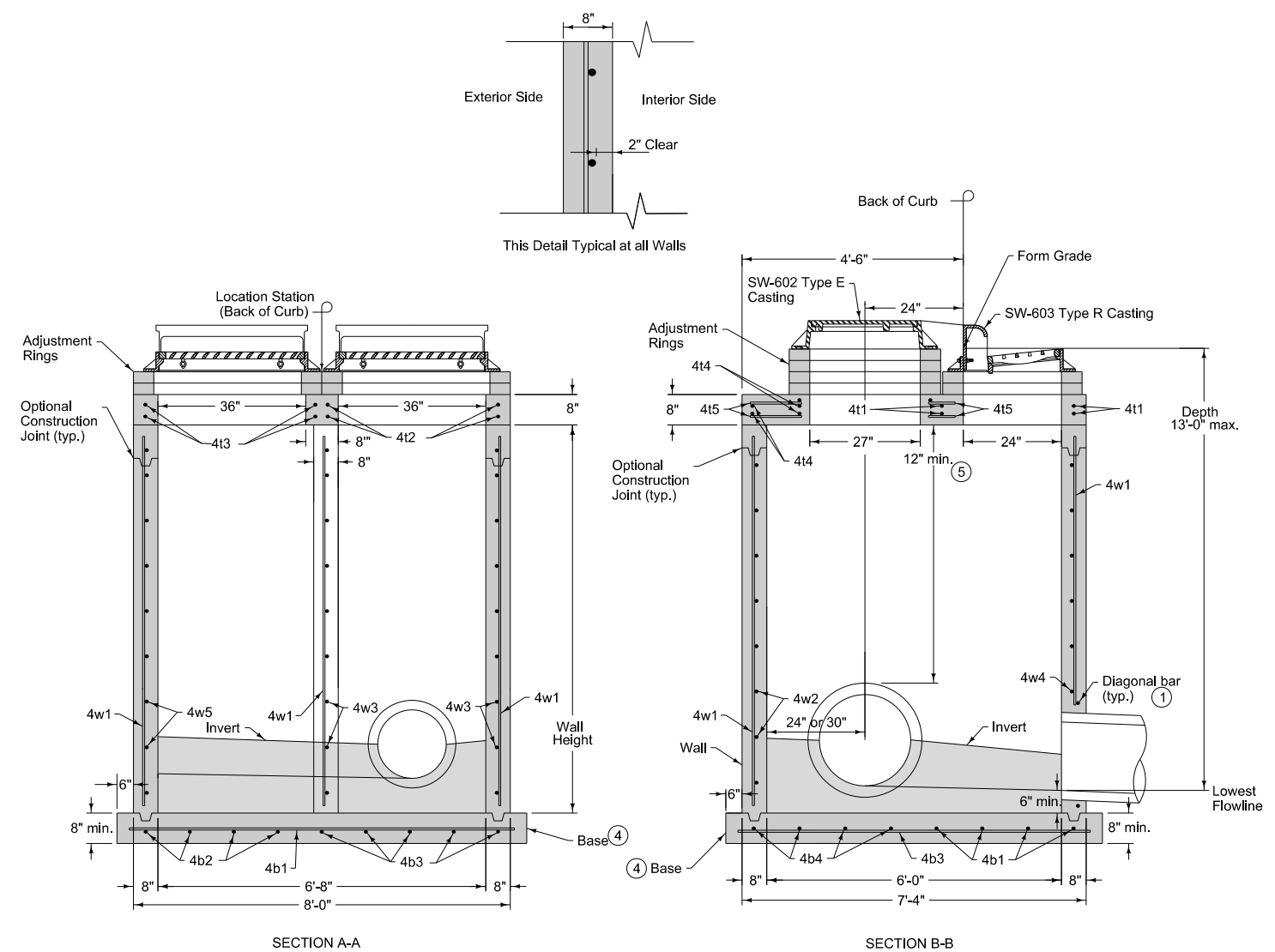


Maximum pipe diameters are set based on maximum structure depth of 6 feet-6 inches and the objective of placement of the centerline of the pipe on the centerline of the manhole opening for maintenance purposes.

Refer to SW-514 for boxout details.

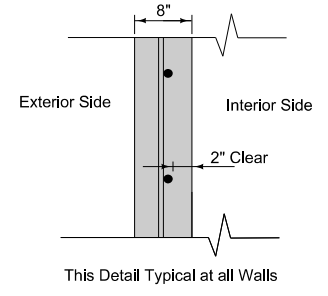
Wall	Max. Dia.
1	30" (2)
2	24"
3	36" (3)
4	42"

- (1) Install four #4 diagonal bars at manhole opening and at all pipe openings.
- (2) If Wall 1 is widened to 4 feet, the maximum pipe diameter can be increased to 36 inches.
- (3) If Wall 1 is widened to 4 feet, the maximum pipe diameter in Wall 3 can be increased to 42 inches.



Mark	Size	Location	Shape	Count	Length	Spacing
4t1	4	Top	—	4	7'-4"	See Detail
4t2	4	Top	—	4	6'-8"	See Detail
4t3	4	Top	—	4	2'-8"	See Detail
4t4	4	Top	—	8	3'-8"	12"
4t5	4	Top	—	6	4'-2"	12"
4b1	4	Base	—	4	7'-10"	12"
4b2	4	Base	—	4	3'-2"	12"
4b3	4	Base	—	5	7'-2"	12"
4b4	4	Base	—	4	4'-2"	12"
4w1	4	Walls	—	29	Wall Height minus 4"	12"
4w2	4	Wall 2	—	Varies	4'-0"	5"
4w3	4	Walls 1 and 3	—	Varies	7'-0"	5"
4w4	4	Wall 4	—	Varies	7'-8"	5"
4w5	4	Wall 5	—	Varies	3'-0"	5"
4w6	4	Wall 6	—	Varies	4'-2"	5"

- (1) Install four #4 diagonal bars at manhole opening and at all pipe openings.
- (4) Cast-in-place base shown. If base is precast integral with walls, the footprint of base is not required to extend beyond the outer edge of the walls.
- (5) 12 inch minimum wall height above all pipes.



**SPRING CREST PLAT 3**

**MODIFIED SW-506**

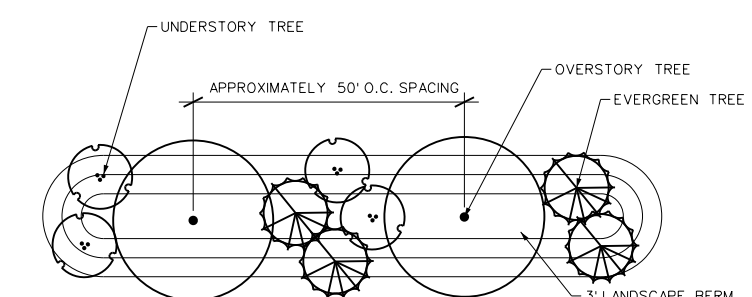
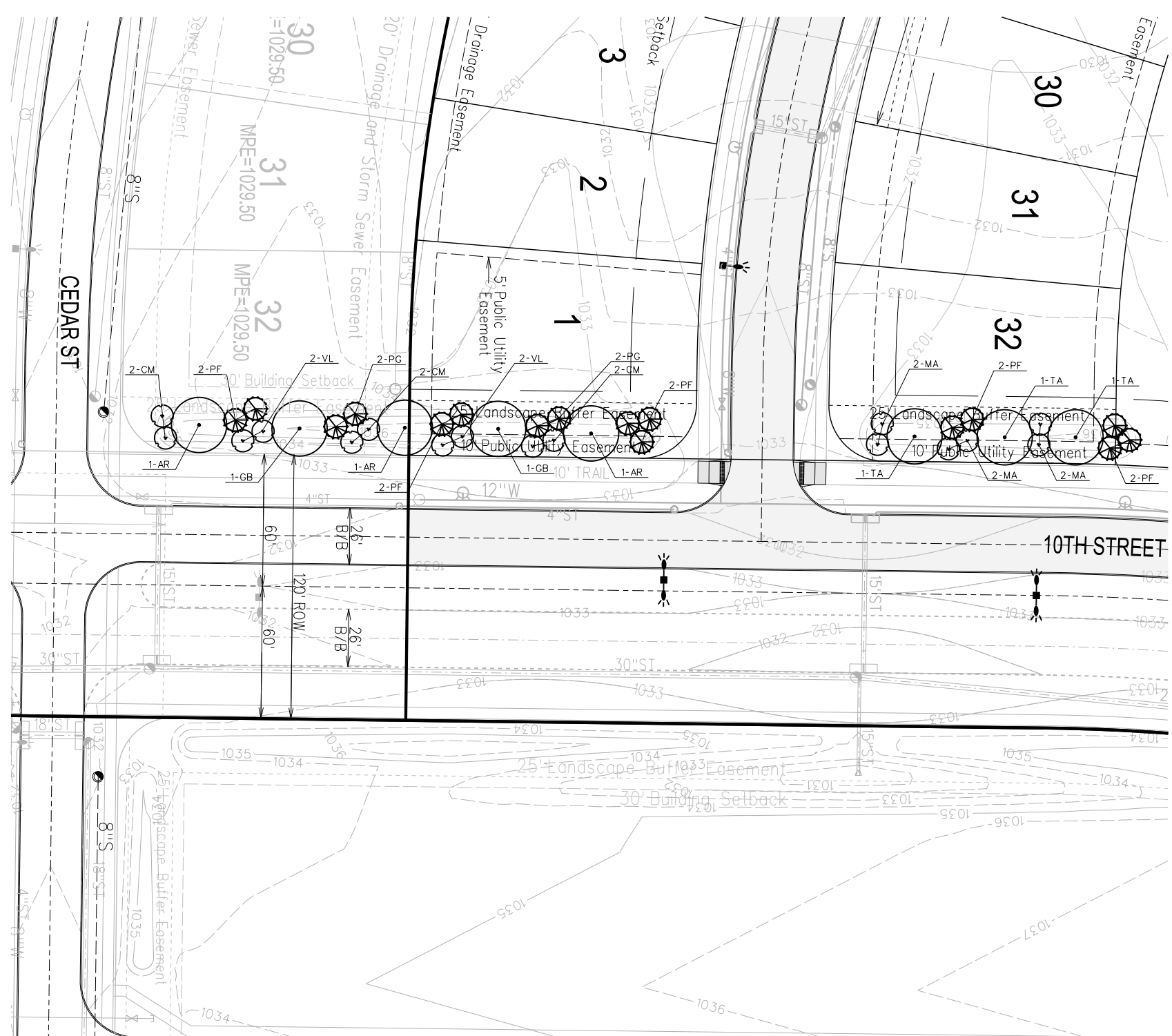
**SNYDER & ASSOCIATES, INC.**



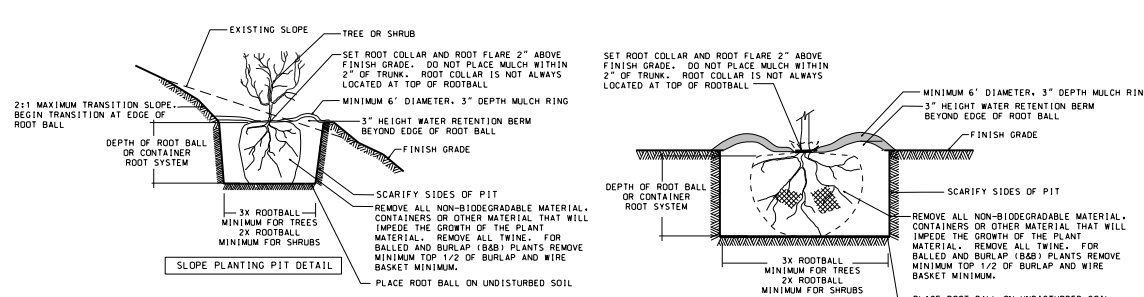
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Engineer: **KMM** Checked By: **EDC** Scale: 1"=20'  
 Technician: **JWM** Date: 11/15/17 Field Bk:   
 Project No: 117.0794 Sheet 18 of 19

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2 TYPICAL LANDSCAPE BUFFER ARRANGEMENT  
 13 NO SCALE



3 PLANTING PIT DETAILS  
 13 NO SCALE

PLANT SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
AR	Acer rubrum 'Sun Valley'	SUN VALLEY MAPLE	8'-0" HT.	CNT.
GB	Ginkgo biloba 'Princeton Sentry'	PRINCETON SENTRY GINKGO	8'-0" HT.	CNT.
TA	Tilia americana 'Boulevard'	BOULEVARD LINDEN	8'-0" HT.	CNT.
CM	Cornus mas 'Golden Glory'	GOLDEN GLORY DOGWOOD	6' HT.	B&B
MA	Malus 'Adirondack'	ADIRONDACK CRABAPPLE	6' HT.	B&B
PF	Pinus flexilis 'Vanderwolf's Pyramid'	VANDERWOLF PINE	6' HT.	B&B
PG	Picea glauca var. densata	BLACK HILLS SPRUCE	6' HT.	B&B
VL	Viburnum lentago	NANNYBERRY VIBURNUM	6' HT.	B&B, MULTISTEM

PLANTING PLAN GENERAL NOTES

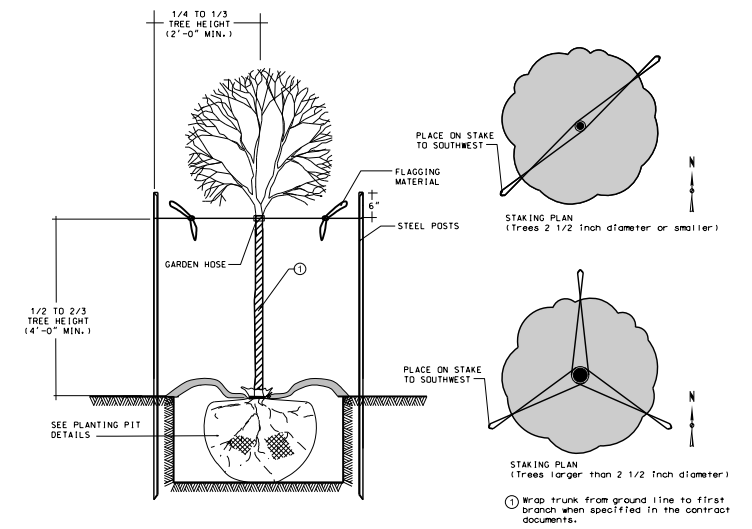
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- NOTIFY UTILITY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION AND DEPTH OF ALL UTILITIES. AVOID DAMAGE TO UTILITIES AND SERVICES DURING CONSTRUCTION. ANY DAMAGE DUE TO THE CONTRACTOR'S CARELESSNESS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. COORDINATE AND COOPERATE WITH UTILITY COMPANIES DURING CONSTRUCTION.
- ALL PLANT MATERIAL SHALL AT LEAST MEET MINIMUM REQUIREMENTS SHOWN IN THE "AMERICAN STANDARDS FOR NURSERY STOCK" (ANSI Z60.1-LATEST EDITION).
- CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.
- PROVIDE 3-INCH DEPTH SHREDDED HARDWOOD MULCH AROUND ALL PLANTINGS TO A MIN. 3-FOOT PERIMETER, AND IN ALL AREAS INDICATED ON PLAN.

LANDSCAPE REQUIREMENTS AND CALCULATIONS

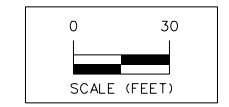
(LANDSCAPE CALCULATIONS BASED UPON CITY OF WAUKEE ZONING CODE REQUIREMENTS)

WEST PROPERTY LINE ALONG 10TH STREET  
 BUFFER REQUIREMENT: PER 50' OF 25' WIDE BUFFER  
 1 OVERSTORY TREES  
 2 EVERGREEN TREES  
 2 UNDERSTORY TREES  
 3' HIGH BERM

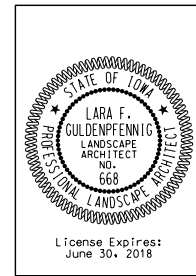
WEST PROPERTY LINE 390 LF/50 LF = 7.8 PLANT UNITS  
 8 OVERSTORY TREES REQUIRED (8 PROVIDED)  
 16 EVERGREEN TREES REQUIRED (16 PROVIDED)  
 16 UNDERSTORY TREES REQUIRED (16 PROVIDED)



1 DECIDUOUS TREE STAKING DETAIL  
 13 NO SCALE



SCALE (FEET)



I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly licensed Professional Landscape Architect under the laws of the State of Iowa.

Lara F. Guldenfennig, ASLA Date \_\_\_\_\_  
 License Number 668  
 Pages or sheets covered by this seal: \_\_\_\_\_

License Expires: June 30, 2018

SPRING CREST PLAT 3

LANDSCAPE PLAN

SNYDER & ASSOCIATES, INC.

