

**CITY OF WEST DES MOINES  
PLAN AND ZONING COMMISSION COMMUNICATION**

**Meeting Date:** July 22, 2019

**Item:** Courtyards at King's Landing, Northeast corner of S. 100th Street and Stagecoach Drive – Subdivide property into 79 footprint lots, 1 street lot and 2 outlots – Caliber Iowa LLC – PP-004322-2019

**Requested Action:** Recommend Approval of Preliminary Plat

**Case Advisor:** J. Bradley Munford 

**Applicant's Request:** Eric Cannon of Snyder and Associates, on behalf of the applicant, Caliber Iowa, LLC. and with permission of the property owner, Sugar Creek Estates, LLC. is requesting approval of a Preliminary Plat for approximately 24.6 acres located at Northeast corner of S. 100th Street and Stagecoach Drive. The applicant proposes to subdivide the property into 79 footprint lots for the future development of detached townhomes, one street lot for dedication to the City, 1 outlot for area to be dedicated to the City as part of Parkland Dedication requirements and 1 outlot for the private streets, stormwater detention areas and common ground within the development. Review of the associated site plan will be brought to the Plan and Zoning Commission and City Council at an upcoming meeting after site plan and architecture details are resolved.

**History:** The property was annexed into the City in 2002 as a part of the Mills Civic Parkway Annexation. The Medium Density Comprehensive Plan designation was established in September of 2010. On April 15, 2019 the City Council approved a zoning request to consistency zone the property as Residential Medium Density (RM-8).

**City Council Subcommittee:** The Courtyards at King's Landing (fka Courtyards at Sugar Creek) was presented to Development and Planning Subcommittee as an informational item at the May 20, 2019 meeting. The Subcommittee was supportive of the development.

**Staff Review and Comment:** This request was distributed to other City departments and other agencies for their review and comment. There are no outstanding issues. Staff would note the following:

- **Easternmost Access from Stagecoach Drive:** The narrow triangular shape of this property along with topography and existing infrastructure has made providing two points of access to the development challenging. When driving west on Stagecoach Drive, you encounter a hill that slopes down towards Sugar Creek and the recently built bridge that crosses the creek. The 800 feet on the north side of Stagecoach beginning at the west end of the bridge is the entire frontage of the applicant's property. Within these 800 feet, the site needs to provide 2 points of access that comply with the Fire Code, meet the separation distance and expected turn lane storage requirements between the two drives and provide safe sight distance for drivers accessing Stagecoach Drive from the easternmost drive within the development. The topography and proximity of the drive to the bridge make it difficult to strictly comply with code and the desired sight distance. To address this issue and eliminate the need to sprinkler more than half of the dwellings until an alternate secondary access can be provided for the development, the applicant is proposing that the easternmost access into the site be a one-way in only drive. The one-way in only drive will eliminate outbound traffic turning onto Stagecoach Drive from the intersection reducing the possibility of vehicle crashes due to limited sight distance because of the bridge. While eastbound traffic has more visibility of west-bound traffic, staff still has concerns with the accident potential, especially when Stagecoach Drive is widened in the future. Staff is comfortable with using the one-way in only drive in the interim, but recommends a condition of approval that address the maximum width of the drive and the addition of traffic control signage and road markings, as well as a condition that requires the developer execute an agreement in conjunction with the Final Plat acknowledging an agreeing that the easternmost drive will be disconnected from Stagecoach Drive upon provision of a secondary access point to the development. Whether the balance of the drive will need to be removed will be decided by the homeowner's association and would be at the association's expense.
- **Parkland Dedication:** Per City Code, parkland dedication is required of all residential developments creating more than three new dwellings. Based on the proposed 79 dwelling units, this development is required to

dedicate 1.41 acres. Additionally, per an arrangement when the Majestic Oaks development immediately to the east was platted (under the same ownership at the time), this development is required to provide their parkland dedication as well. This results in another .29 acres of dedication for a total of 1.7 acres. Sugar Creek runs along the entire eastern boundary of the development with a continuous public trail planned for along the creek and extending from the Raccoon River to the northwestern edge of the City (I-80). The developer will be dedicating to the City all the ground from the centerline of Sugar Creek to a line generally 10 feet west of the planned trail (identified as Outlot 'X' on the plat drawing). The dedication of the ground fulfills their obligations, therefore, the trail itself will be constructed by the City.

- ***Sanitary Sewer Connection Fees:*** As part of the Tiburon development to the north, the developer paid the Grand Avenue West Sanitary Sewer Connection Fee District per acre fee on ground being required as part of parkland dedication but was not required to pay fees for any excess parkland ground that was dedicated to the City. Consistent with that done as part of the Tiburon development, Staff recommends that this same approach be applied to the ground included in Outlot 'X' (115,003 square feet or 2.64 acres) resulting in fees being paid on 1.7 acres, but not on the balance 0.94 acres. The Grand Avenue West Sanitary Sewer Fee District per acre fee at this time is \$4,940.00. It should be noted, any reduction in Water District fees would need to be negotiated directly with West Des Moines Water Works.
- ***Sugar Creek Buffer and Measuring of Setback:*** Some of the bends in Sugar Creek are known to experience bank erosion issues due to water volumes and velocity during heavy rains. Rather than have these areas be part of private homeowner's properties requiring individuals to figure out how to address the erosion, the City prefers these areas be located outside of the boundaries of their lots. While the ground could be retained in an outlot and maintained by a homeowner's association, ideally the City will obtain ownership thus allowing for stream bank maintenance as necessary. As outlined in a previous bullet, in conjunction with the provision of parkland dedication, the developer will be dedicating the ground immediately adjacent to the west side of the creek which will allow the City to maintain Sugar Creek banks as needed and appropriate. Since this area is located within the current plat boundaries and the development is utilizing footprint lots which does not give individual residents any rights to install amenities outside of the defined building footprint, unlike traditional single-family detached lots which have 'rear yards' for personal amenities, the applicant may use the area within outlot 'X' to fulfill the 35' rear yard setback required along the east.
- ***Private Streets:*** The developer is proposing private streets within the development. The City does not currently have any restrictions against the implementation of private streets. A homeowner's association will need to be established in conjunction with the recordation of the Final Plat identifying the association's responsibility for snow removal and on-going maintenance and repair of the roadways. It should be noted that the private streets do not meet City standards for right-of-way and do not accommodate the provision of sidewalks while providing minimum required driveway lengths and therefore would not be eligible in the future to be dedicated to and/or maintained by the City as a public street.

The private street stub at the northwest corner of the development could possibly create a situation where a future public street from the west connects to the private streets within this development creating a situation in which general public traffic would be utilizing the private streets. Additionally, since the connection would likely not include a turnaround for City service vehicles. To allow for City vehicles and the general public to drive through the development to reach Stagecoach Drive. Staff recommends a condition of approval that the applicant execute a public access easement prior to consideration of the associated Final Plat by the City Council.

**Comprehensive Plan Consistency:** The project has been reviewed for consistency with the Comprehensive Plan. Based upon that review, a finding has been made that the proposed project is consistent with the Comprehensive Plan in that the project is consistent with all of the goals and policies of the Comprehensive Plan and the land use map of the Comprehensive Plan.

**Findings:** This proposed project was distributed to various city departments for review and comment. Based upon that review, the following findings have been made on the proposed project:

1. The proposed development and use is consistent with the West Des Moines Comprehensive Plan in that the project has been reviewed for consistency with the Comprehensive Plan. Based upon that review, a finding has

been made that the proposed project is consistent with the Comprehensive Plan in that the project is consistent with all of the goals and policies of the Comprehensive Plan.

2. The proposed development and use does assure compatibility of property uses within the zone and general area in that this project was reviewed by various City Departments for compliance with the Zoning Ordinance.
3. All applicable standards and conditions have been imposed which protects the public health, safety and welfare in that this project was reviewed by various City Departments and public agencies for compliance with the various state and local regulations. Based upon that review a finding is made that the project has been adequately conditioned to protect the health, welfare and safety of the community.
4. There is adequate on-site and off-site public infrastructure to support the proposed development in that this project was reviewed by various public agencies and City Departments and public utilities to ensure that either the petitioner will construct or the project has been conditioned to construct adequate public infrastructure to serve the development.
5. The proposed development and use has met the requirements contained in the City Code in that this project was reviewed by various City Departments and the project has complied with or has been conditioned to comply with all City Code requirements.
6. The proposed development and use is in keeping with the scale and nature of the surrounding neighborhood in that the proposed project is consistent with the zoning designation and Comprehensive Plan which designates this site as suitable for development such as that proposed by this project.

**Staff Recommendation And Conditions Of Approval:** Based upon the preceding review and a finding of consistency with the goals and policies of the Comprehensive Plan, staff recommends the Plan and Zoning Commission adopt a resolution recommending the City Council approve the Courtyards at King's Landing Preliminary Plat to create 79 footprint lots, one street lot, one outlot for area to be dedicated to the City as part of Parkland Dedication requirements and one outlot for the private streets, stormwater detention areas and common ground within the development, subject to the applicant meeting all City Code requirements and the following conditions of approval:

1. The applicant acknowledging and agreeing that the easternmost access to Stagecoach Drive is temporary and will be disconnected from Stagecoach Drive when the planned connection to the west is completed. The applicant will need to execute a formal agreement acknowledging and agreeing to such for recordation with the Final Plat.
2. The applicant acknowledging and agreeing that the easternmost access drive off Stagecoach Drive is a one-way in only drive and shall remain as such until it is disconnected from Stagecoach Drive. Additionally, while the drive is in use as an access from Stagecoach Drive, the developer shall restrict the drive to a maximum of 20 feet in width and install and maintain appropriate traffic control design measures acceptable to the City, as well as all pavement markings and signage in accordance with MUTCD requirements to inform drivers that the easternmost drive is a one-way in only drive. Finally, the applicant ensuring enforcement as an access-in only drive. Upon removal, the developer will need to modify signage to indicate it as a dead-end.
3. The City Council allowing all excess ground included in Outlot 'X' adjacent to Sugar Creek beyond that required as part of Parkland Dedication be exempted from payment of Grand Avenue West Sanitary Sewer Connection Fees.
4. The applicant acknowledging and agreeing to execute a public access easement that will allow City vehicles and the general public to drive through the development to access Stagecoach Drive prior to City Council consideration of the associated Final Plat.
5. The applicant acknowledging and agreeing to submit a revised preliminary plat that reflects minor revisions requested by Staff prior to City Council consideration of the preliminary plat.
6. The applicant acknowledging that prior to issuance of any building permits for buildings within The Courtyards at Kings Landing development, that the associated Final Plat must be approved by the City Council and recorded with Dallas County.

**Applicant:**

Caliber Iowa LLC  
Nick Jensen  
720 86<sup>th</sup> Street, Suite 120  
West Des Moines, Iowa 50266  
[Nick@caliberiowa.com](mailto:Nick@caliberiowa.com)

**Applicant Representative:**

Snyder and Associates  
Eric Cannon  
2727 SW Snyder Blvd  
Ankeny, IA 50023  
[Ecannon@snyder-associates.com](mailto:Ecannon@snyder-associates.com)

**ATTACHMENTS:**

- Attachment A - Plan and Zoning Commission Resolution
- Exhibit A - Conditions of Approval
- Attachment B - Location Map
- Attachment C - Preliminary Plat

RESOLUTION NO. PZC-19-059

**A RESOLUTION OF THE PLAN AND ZONING COMMISSION OF THE CITY OF WEST DES MOINES, RECOMMENDING TO THE CITY COUNCIL THAT IT APPROVE COURTYARDS AT KING'S LANDING PRELIMINARY PLAT TO SUBDIVIDE THE PROPERTY INTO 79 FOOTPRINT LOTS, ONE STREET LOT AND 2 OUTLOTS FOR PARKLAND DEDICATION AND PRIVATE STREETS, STORMWATER DETENTION AND COMMON AREAS WITHIN THE DEVELOPMENT.**

**WHEREAS**, pursuant to the provisions of Title 10, Chapter 1 et seq, of the West Des Moines Municipal Code, the applicant, Caliber Iowa LLC, has requested approval for a Preliminary Plat (PP-004322-2019) to create 79 footprint lots, one public street lot, one outlot for parkland dedication and one outlot for private streets, stormwater detention and common areas within the development on the 24.6 acre site located at Northeast corner of S. 100th Street and Stagecoach Drive; and

**WHEREAS**, studies and investigations were made, and staff reports and recommendations were submitted which is made a part of this record and herein incorporated by reference; and

**WHEREAS**, on July 22, 2019, this Commission held a duly-noticed public meeting to consider the application for Courtyards at King's Landing Preliminary Plat (PP-004322-2019).

**NOW, THEREFORE, THE PLAN AND ZONING COMMISSION OF THE CITY OF WEST DES MOINES DOES RESOLVE AS FOLLOWS:**

**SECTION 1.** The findings, for approval, in the staff report or as amended orally at the Plan and Zoning Commission meeting are adopted.

**SECTION 2.** PRELIMINARY PLAT (PP-004322-2019) to subdivide the property into 79 footprint lots, one street lot and 2 outlots, is recommended to the City Council for approval, subject to compliance with all the conditions in the staff report including conditions added at the meeting, and attached hereto as Exhibit "A." Violation of any such conditions shall be grounds for revocation of the permit, as well as any other remedy which is available to the City.

PASSED AND ADOPTED on July 22, 2019.

\_\_\_\_\_  
Erica Andersen, Chairperson  
Plan and Zoning Commission

ATTEST:

\_\_\_\_\_  
Recording Secretary

I HEREBY CERTIFY that the foregoing resolution was duly adopted by the Plan and Zoning Commission of the City of West Des Moines, Iowa, at a regular meeting held on July 22, 2019, by the following vote:

AYES:

NAYS:

ABSTENTIONS:

ABSENT:

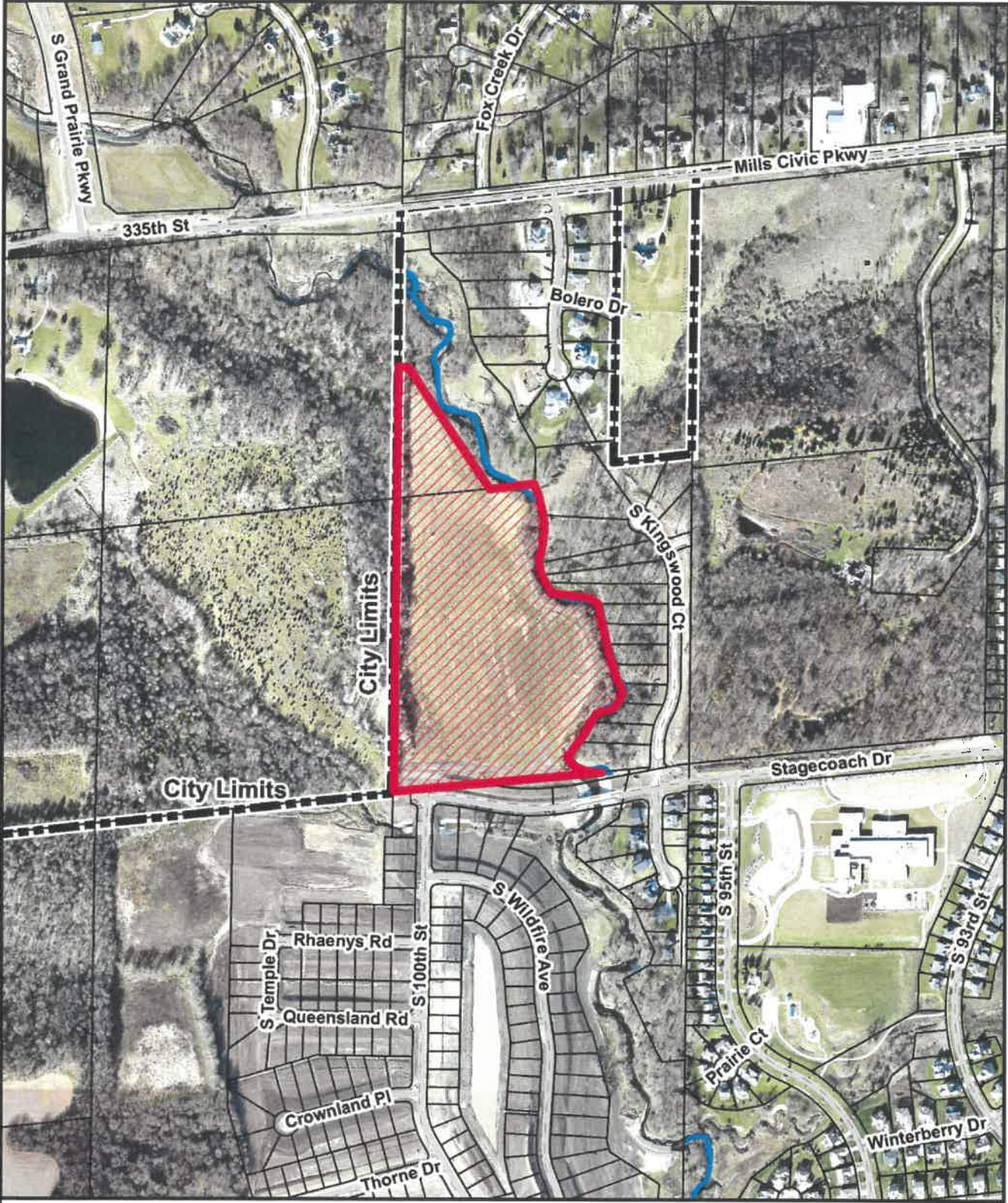
ATTEST:

\_\_\_\_\_  
Recording Secretary

**Exhibit A**  
**CONDITIONS OF APPROVAL**

1. The applicant acknowledging and agreeing that the easternmost access to Stagecoach Drive is temporary and will be disconnected from Stagecoach Drive when the planned connection to S. Grand Prairie Parkway is completed to the west. The applicant will need to execute a formal agreement acknowledging and agreeing to such for recordation with the Final Plat.
2. The applicant acknowledging and agreeing that the easternmost access drive off Stagecoach Drive is a one-way in only drive and shall remain as such until it is disconnected from Stagecoach Drive. Additionally, while the drive is in use as an access from Stagecoach Drive, the developer shall restrict the drive to a maximum of 20 feet in width and install and maintain appropriate traffic control design measures acceptable to the City, as well as all pavement markings and signage in accordance with MUTCD requirements to inform drivers that the easternmost drive is a one-way in only drive. Finally, the applicant ensuring enforcement as an access-in only drive. Upon removal, the developer will need to modify signage to indicate it as a dead-end.
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**Courtyards at Kings Landing**



NOT TO SCALE

[https://wamiowa.sharepoint.com/sites/ds/CommDev Documents/Development Projects/Courtyards at Kings Landing \(fka Courtyards at Sugar Creek or Sugar Creek Estates\)/Courtyards at Kings Landing \(fka Courtyards at Sugar Creek\) Preliminary Plat and Site Plan/PP-004322-2019\\_SR\\_Courtyards at Kings Landing\\_PZ\\_07-22-2019.docx](https://wamiowa.sharepoint.com/sites/ds/CommDev/Documents/Development%20Projects/Courtyards%20at%20Kings%20Landing%20(fka%20Courtyards%20at%20Sugar%20Creek%20or%20Sugar%20Creek%20Estates)/Courtyards%20at%20Kings%20Landing%20(fka%20Courtyards%20at%20Sugar%20Creek)%20Preliminary%20Plat%20and%20Site%20Plan/PP-004322-2019_SR_Courtyards%20at%20Kings%20Landing_PZ_07-22-2019.docx)



# PRELIMINARY PLAT

## FOR

# COURTYARDS AT KINGS LANDING

## SINGLE FAMILY RESIDENTIAL DEVELOPMENT

### CITY OF WEST DES MOINES, DALLAS COUNTY, IOWA

**APPLICANT**

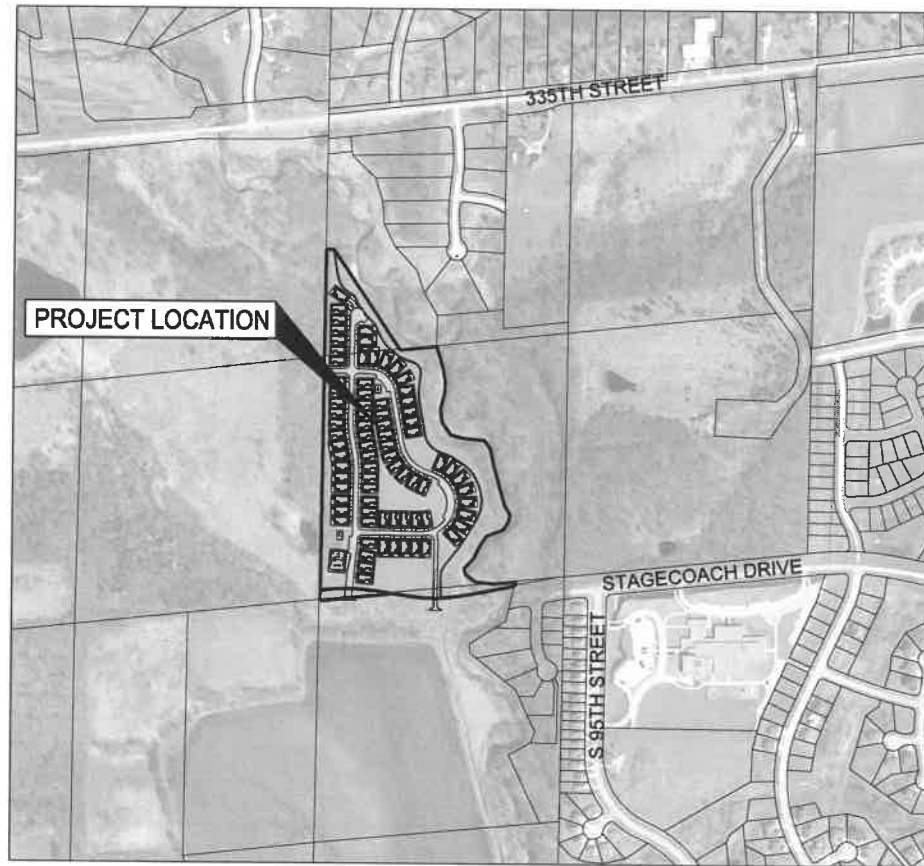
COURTYARDS AT KINGS LANDING LLC  
 720 S 68TH STREET SUITE 120  
 WEST DES MOINES, IOWA 50266  
 CONTACT: NICK JENSEN  
 PHONE: (515) 650-0530

**OWNER**

SUGAR CREEK ESTATES, LLC  
 2400 86TH STREET, SUITE 24  
 DES MOINES, IA 50313  
 CONTACT: DEREK TEMPLE  
 PHONE: 515-276-3456

**ENGINEER**

SNYDER & ASSOCIATES, INC.  
 2727 SW SNYDER BLVD.  
 ANKENY, IOWA 50023  
 CONTACT: ERIC CANNON, P.E.  
 PHONE: (515) 964-2020




SCALE: 1"=1000'

VICINITY MAP

**INDEX OF SHEETS**

1. TITLE SHEET
2. PROJECT INFORMATION
3. OVERALL SITE LAYOUT PLAN
4. OVERALL GRADE PLAN
- 5-8. DIMENSION AND UTILITY PLAN
- 9-12. STORM SEWER PLAN
- 13-16. GRADING AND EROSION CONTROL PLAN
- 17-19. PLANTING NOTES AND DETAILS
20. INTERSECTION AND MISCELLANEOUS DETAILS




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. Guldenpfennig, ASLA      Date \_\_\_\_\_

License Number      668

Pages or sheets covered by this seal:  
 Sheets: 17-19



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.

Eric D. Cannon, P.E.      Date \_\_\_\_\_

License Number      18954

My License Renewal Date is December 31, 2019

Pages or sheets covered by this seal:  
 Sheets: 1-16, 20

MARK	REVISION	DATE
3	AS PER CITY COMMENTS	7/19/19
2	AS PER CITY COMMENTS	7/10/19
1	AS PER CITY COMMENTS	6/11/19

Engineer: KMM    Checked By: EDC    Scale: 1"=500'  
 Technician: RMM    Date: 04/29/19    Field Bk:    Pg:     
 Project No: 117.0693A    Sheet 1 of 1

**COURTYARDS AT KINGS LANDING**  
**TITLE SHEET**  
 WEST DES MOINES, IA  
 2727 S.W. SNYDER BLVD.  
 ANKENY, IOWA 50023  
 515-964-2020 | www.snyder-associates.com  
**SNYDER & ASSOCIATES, INC.**





LEGEND

Table with columns for Features, Existing, and Proposed. Lists various utility and site features with their corresponding symbols and codes.

UTILITY QUALITY SERVICE LEVELS

QUALITY LEVELS OF UTILITIES ARE SHOWN IN THE PARENTHESSES 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.

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 CONTACT INFORMATION

Table listing utility providers and contact information: W-WATER (WEST DES MOINES WATER WORKS), E1-ELECTRIC (MIDAMERICAN ENERGY), S-SANITARY SEWER (DES MOINES METRO WASTEWATER), CLEAR PER MAP (WEST DES MOINES TRAFFIC, CENTURYLINK, MEDIACOM COMMUNICATIONS CORP).



GENERAL NOTES

- A. NOTIFY UTILITY PROVIDERS PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES AND COORDINATE WITH UTILITY PROVIDERS AS NECESSARY DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION, AND DEPTH OF ALL UTILITIES.
B. LENGTH OF UTILITIES SHOWN ON PLANS ARE DIMENSIONED FROM CENTERLINE OF STRUCTURE TO CENTERLINE OF STRUCTURE.
C. ALL TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

WEST DES MOINES STANDARD NOTES

- 1. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
2. CONTACT BUILDING INSPECTION (515-222-3630) A MINIMUM OF 24 HOURS IN ADVANCE FOR PRIVATE UTILITY INSTALLATION INSPECTIONS.

WEST DES MOINES WATER WORKS STANDARD NOTES

- 1. ALL WATER WORK PUBLIC OR PRIVATE SHALL BE DONE IN ACCORDANCE WITH WEST DES MOINES WATER WORKS STANDARD SPECIFICATIONS.
2. CONTRACTOR SHALL NOTIFY WEST DES MOINES WATER WORKS (515-222-3465) AT LEAST ONE WEEK PRIOR TO BUILDING CONSTRUCTION.

LEGAL DESCRIPTION

PART OF OUTLOT "Y", TIBURON, AN OFFICIAL PLAT AND PARCEL 17-121 AS RECORDED IN BOOK 2016, PAGE 22954 OF THE DALLAS COUNTY RECORDER'S OFFICE, ALL BEING IN THE WEST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 15, TOWNSHIP 78 NORTH, RANGE 26 WEST OF THE 5TH P.M., CITY OF WEST DES MOINES, DALLAS COUNTY, IOWA, CONTAINING 26.00 AC (1,176,278 S.F.).

ZONING

RM - MEDIUM DENSITY RESIDENTIAL

COMPREHENSIVE LAND USE

EXISTING: SINGLE FAMILY RESIDENTIAL
PROPOSED: MEDIUM DENSITY RESIDENTIAL DISTRICT

FIRM DESIGNATION

THIS SITE IS WITHIN ZONE "A" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS REFERENCED ON FLOOD INSURANCE RATE MAP (FIRM), MAP NO 19153C0315F, MAP REVISED MARCH 16, 2019

IMPERVIOUS AREA

384,069 SF TOTAL IMPERVIOUS AREA (32.4% OF SITE)

PARKING REQUIREMENTS

REQUIRED
1 SPACES PER DWELLING
79 X 1 = 79 SPACES REQUIRED
20 SPACE PER 1000 SF OF CLUBHOUSE ASSEMBLY AREA
1,400 SF OF ASSEMBLY AREA = 28 STALLS

PARKLAND DEDICATION

PARKLAND REQUIREMENT: 1.70 ACRES
PARKLAND DEDICATED: 5.42 ACRES (OUTLOT X)

CITY OF WEST DES MOINES CONTROL DATUM

CITY OF WEST DES MOINES DATUM (GEOD12) NAVD88 - 774.01'
WEST DES MOINES BM#087
3960 FEET WEST OF INTERSECTION OF SOUTH 88TH STREET (DALLAS COUNTY); 5 FEET WEST OF EAST/WEST FENCE, 10 FEET EAST OF NORTH/SOUTH FENCE, ON 335TH STREET ACROSS FROM HOUSE # 3307 AND #3309. ELEVATION=167.68

BENCHMARKS

CITY OF WEST DES MOINES 1988 (NAVD88 - GEOD12A) IARTN DERIVED - US SURVEY FEET
BM1 ELEVATION=194.80
CITY OF WEST DES MOINES BENCHMARK #37 CONCRETE MONUMENT WITH BRASS DISK SOUTHWEST CORNER OF SITE.

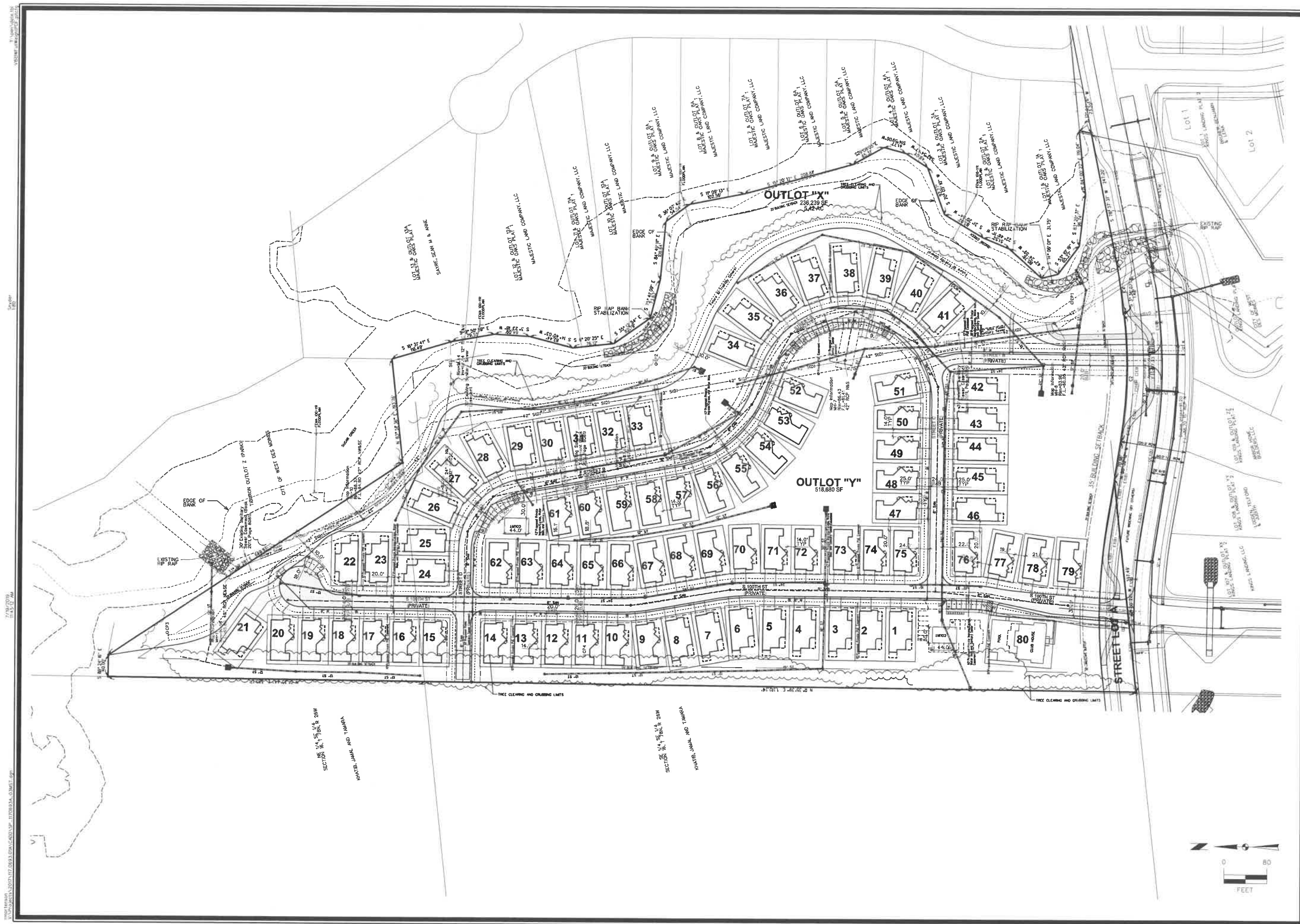
CONTROL POINTS

- CP1 N=565217.15 E=1546019.43
1/2" REBAR WITH RED SNYDER CONTROL CAP SOUTHEAST CORNER OF SITE, AS SHOWN ON SURVEY.
CP2 N=565984.37 E=1545902.36
1/2" REBAR WITH RED SNYDER CONTROL CAP CENTER OF SITE ALONG EAST TREE LINE, AS SHOWN ON SURVEY.

Table with columns: MARK, AS PER CITY COMMENTS, REVISION, DATE, BY. Includes revision history and project information like Project No: 117.0693A and Sheet 2 of 20.

PROJECT INFORMATION
WEST DES MOINES, IA
2727 S.W. SNYDER BLVD. ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com
COURTYARDS AT KINGS LANDING
PROJECT INFORMATION
SNYDER & ASSOCIATES, INC.





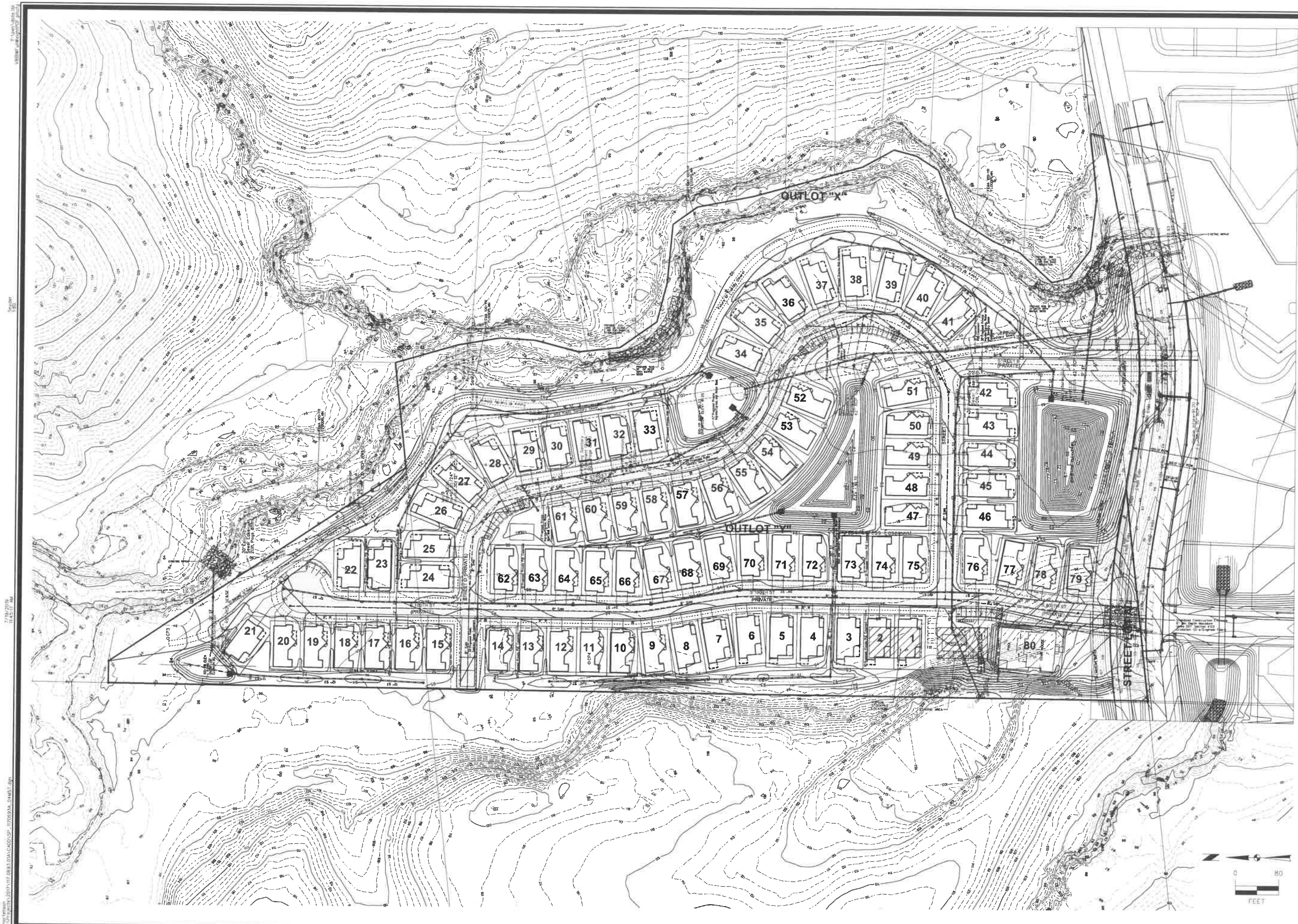
7/7/2019 11:51:12 AM  
 2777 S.W. SNYDER BLVD. ANKENY, IOWA 50023  
 515-964-2020 | www.snyder-associates.com

3	AS PER CITY COMMENTS	7/7/19	RMM
2	AS PER CITY COMMENTS	7/10/19	RMM
1	AS PER CITY COMMENTS	6/11/19	RMM
MARK	REVISION	DATE	BY
Engineer: KMM	Checked By: EDC	Scale: 1"=80'	
Technician: RMM	Date: 04/29/19	Field Bk:	Pg:

**COURTYARDS AT KINGS LANDING**  
**OVERALL SITE LAYOUT**  
**SNYDER & ASSOCIATES, INC.**  
 WEST DES MOINES, IA  
 2727 S.W. SNYDER BLVD.  
 ANKENY, IOWA 50023  
 515-964-2020 | www.snyder-associates.com







7/19/19  
 7/10/19  
 6/17/19  
 117.0693A  
 117.0693A  
 117.0693A

3	AS PER CITY COMMENTS	7/19/19	RMM
2	AS PER CITY COMMENTS	7/10/19	RMM
1	AS PER CITY COMMENTS	6/17/19	RMM
MARK	REVISION	DATE	BY
Engineer:	KMM	Checked By:	EDC
Technician:	RMM	Date:	04/29/19
		Scale:	1"=80'
		Filed By:	
		Page:	
Project No:			117.0693A
			Sheet 4 of 20

**COURTYARDS AT KINGS LANDING**  
**MASTER GRADE PLAN**  
**SNYDER & ASSOCIATES, INC.**

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

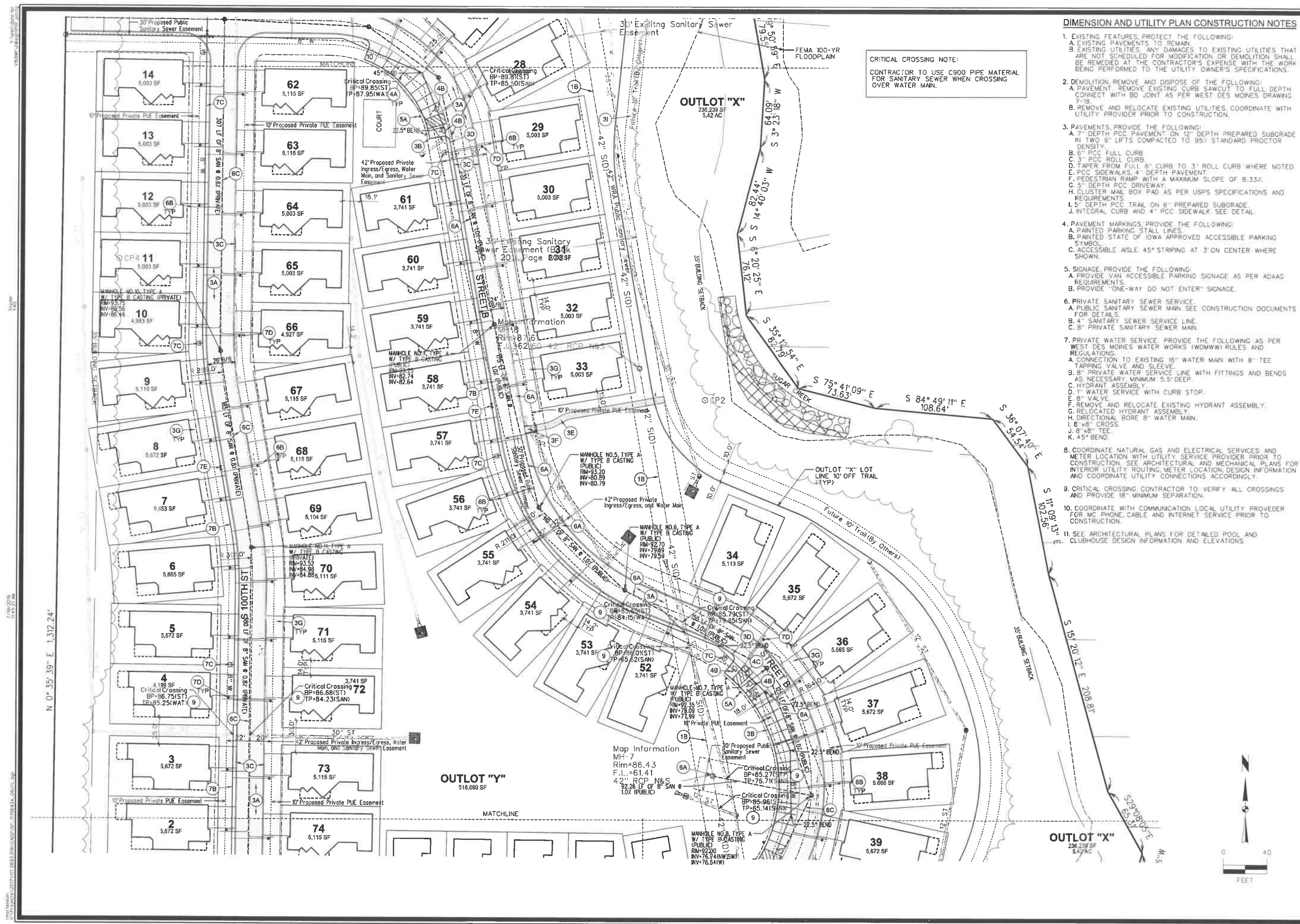


Project No: 117.0693A  
 Sheet 4 of 20









**DIMENSION AND UTILITY PLAN CONSTRUCTION NOTES**

- EXISTING FEATURES, PROTECT THE FOLLOWING:
  - EXISTING PAVEMENTS TO REMAIN.
  - EXISTING UTILITIES, ANY DAMAGES TO EXISTING UTILITIES THAT ARE NOT SCHEDULED FOR MODIFICATION OR DEMOLITION SHALL BE REMEDIATED AT THE CONTRACTOR'S EXPENSE WITH THE WORK BEING PERFORMED TO THE UTILITY OWNER'S SPECIFICATIONS.
- DEMOLITION, REMOVE AND DISPOSE OF THE FOLLOWING:
  - REMOVE EXISTING CURB SAWCUT TO FULL DEPTH CONNECT WITH BD JOINT AS PER WEST DES MOINES DRAWING 7-18.
  - REMOVE AND RELOCATE EXISTING UTILITIES, COORDINATE WITH UTILITY PROVIDER PRIOR TO CONSTRUCTION.
- PAVEMENTS, PROVIDE THE FOLLOWING:
  - 7" DEPTH PCC PAVEMENT ON 12" DEPTH PREPARED SUBGRADE IN TWO 6" LIFTS COMPACTED TO 95% STANDARD PROCTOR DENSITY.
  - 6" PCC FULL CURB.
  - 3" PCC ROLL CURB.
  - TAPER FROM FULL 6" CURB TO 3" ROLL CURB WHERE NOTED.
  - PCC SIDEWALKS, 4" DEPTH PAVEMENT.
  - PEDESTRIAN RAMP WITH A MAXIMUM SLOPE OF 8.33%.
  - 5" DEPTH PCC DRIVEWAY.
  - CLUSTER MAIL BOX PAD AS PER USPS SPECIFICATIONS AND REQUIREMENTS.
  - 5" DEPTH PCC TRAIL ON 6" PREPARED SUBGRADE.
  - INTEGRAL CURB AND 4" PCC SIDEWALK SEE DETAIL.
- PAVEMENT MARKINGS, PROVIDE THE FOLLOWING:
  - PAINTED PARKING STALL LINES.
  - PAINTED STATE OF IOWA APPROVED ACCESSIBLE PARKING SYMBOL.
  - ACCESSIBLE AISLE 45° STRIPING AT 3' ON CENTER WHERE SHOWN.
- SIGNAGE, PROVIDE THE FOLLOWING:
  - PROVIDE VAN ACCESSIBLE PARKING SIGNAGE AS PER ADAAG REQUIREMENTS.
  - PROVIDE "ONE-WAY DO NOT ENTER" SIGNAGE.
- PRIVATE SANITARY SEWER SERVICE.
  - PUBLIC SANITARY SEWER MAIN. SEE CONSTRUCTION DOCUMENTS FOR DETAILS.
  - 4" SANITARY SEWER SERVICE LINE.
  - 8" PRIVATE SANITARY SEWER MAIN.
- PRIVATE WATER SERVICE. PROVIDE THE FOLLOWING AS PER WEST DES MOINES WATER WORKS (WDMWW) RULES AND REGULATIONS.
  - CONNECTION TO EXISTING 16" WATER MAIN WITH 8" TEE TAPPING VALVE AND SLEEVE.
  - 8" PRIVATE WATER SERVICE LINE WITH FITTINGS AND BENDS AS NECESSARY, MINIMUM 5.5' DEEP.
  - HYDRANT ASSEMBLY.
  - WATER SERVICE WITH CURB STOP.
  - 8" VALVE.
  - REMOVE AND RELOCATE EXISTING HYDRANT ASSEMBLY.
  - RELOCATED HYDRANT ASSEMBLY.
  - DIRECTIONAL BORE 8" WATER MAIN.
  - 8" x 8" CROSS.
  - 45° BEND.
- COORDINATE NATURAL GAS AND ELECTRICAL SERVICES AND METER LOCATION WITH UTILITY SERVICE PROVIDER PRIOR TO CONSTRUCTION. SEE ARCHITECTURAL AND MECHANICAL PLANS FOR INTERIOR UTILITY ROUTING, METER LOCATION, DESIGN INFORMATION AND COORDINATE UTILITY CONNECTIONS ACCORDINGLY.
- CRITICAL CROSSING CONTRACTOR TO VERIFY ALL CROSSINGS AND PROVIDE 18" MINIMUM SEPARATION.
- COORDINATE WITH COMMUNICATION LOCAL UTILITY PROVIDER FOR MC PHONE, CABLE AND INTERNET SERVICE PRIOR TO CONSTRUCTION.
- SEE ARCHITECTURAL PLANS FOR DETAILED POOL AND CLUBHOUSE DESIGN INFORMATION AND ELEVATIONS.

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3	AS PER CITY COMMENTS	7/19/19	RMM
2	AS PER CITY COMMENTS	7/19/19	RMM
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**COURTYARDS AT KINGS LANDING**  
 DIMENSION AND UTILITY PLAN  
**SNYDER & ASSOCIATES, INC.**  
 WEST DES MOINES, IA  
 2727 S.W. SNYDER BLVD.  
 ANKENY, IOWA 50023  
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 COURTYARDS AT KINGS LANDING  
 DIMENSION AND UTILITY PLAN  
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**DIMENSION AND UTILITY PLAN CONSTRUCTION NOTES**

- EXISTING FEATURES, PROTECT THE FOLLOWING:
  - EXISTING PAVEMENTS TO REMAIN.
  - EXISTING UTILITIES. ANY DAMAGES TO EXISTING UTILITIES THAT ARE NOT SCHEDULED FOR MODIFICATION OR DEMOLITION SHALL BE REMEDIATED AT THE CONTRACTOR'S EXPENSE WITH THE WORK BEING PERFORMED TO THE UTILITY OWNER'S SPECIFICATIONS.
- DEMOLITION, REMOVE AND DISPOSE OF THE FOLLOWING:
  - PAVEMENT. REMOVE EXISTING CURB SAWCUT TO FULL DEPTH. CONNECT WITH BD JOINT AS PER WEST DES MOINES DRAWING 7-18.
  - REMOVE AND RELOCATE EXISTING UTILITIES. COORDINATE WITH UTILITY PROVIDER PRIOR TO CONSTRUCTION.
- PAVEMENTS, PROVIDE THE FOLLOWING:
  - 7" DEPTH PCC PAVEMENT ON 12" DEPTH PREPARED SUBGRADE IN TWO 6" LIFTS COMPACTED TO 95% STANDARD PROCTOR DENSITY.
  - 6" PCC FULL CURB.
  - 3" PCC ROLL CURB.
  - TAPER FROM FULL 6" CURB TO 3" ROLL CURB WHERE NOTED.
  - PCC SIDEWALKS, 4" DEPTH PAVEMENT.
  - PEDESTRIAN RAMP WITH A MAXIMUM SLOPE OF 8.33%.
  - 5" DEPTH PCC DRIVEWAY.
  - CLUSTER MAIL BOX PAD AS PER USPS SPECIFICATIONS AND REQUIREMENTS.
  - 5" DEPTH PCC TRAIL ON 6" PREPARED SUBGRADE.
  - INTEGRAL CURB AND 4" PCC SIDEWALK SEE DETAIL.
- PAVEMENT MARKINGS, PROVIDE THE FOLLOWING:
  - PAINTED PARKING STALL LINES.
  - PAINTED STATE OF IOWA APPROVED ACCESSIBLE PARKING SYMBOL.
  - ACCESSIBLE AISLE 45° STRIPING AT 3' ON CENTER WHERE SHOWN.
- SIGNAGE, PROVIDE THE FOLLOWING:
  - PROVIDE VAN ACCESSIBLE PARKING SIGNAGE AS PER ADAAG REQUIREMENTS.
  - PROVIDE "ONE-WAY DO NOT ENTER" SIGNAGE.
- PRIVATE SANITARY SEWER SERVICE. SEE CONSTRUCTION DOCUMENTS FOR DETAILS.
  - 4" SANITARY SEWER SERVICE LINE.
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  - PRIVATE WATER SERVICE LINE WITH FITTINGS AND BENDS AS NECESSARY MINIMUM 5.5' DEEP.
  - HYDRANT ASSEMBLY.
  - 1" WATER SERVICE WITH CURB STOP.
  - 8" VALVE.
  - REMOVE AND RELOCATE EXISTING HYDRANT ASSEMBLY.
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- SEE ARCHITECTURAL PLANS FOR DETAILED POOL AND CLUBHOUSE DESIGN INFORMATION AND ELEVATIONS.

CRITICAL CROSSING NOTE:  
 CONTRACTOR TO USE C900 PIPE MATERIAL FOR SANITARY SEWER WHEN CROSSING OVER WATER MAIN.

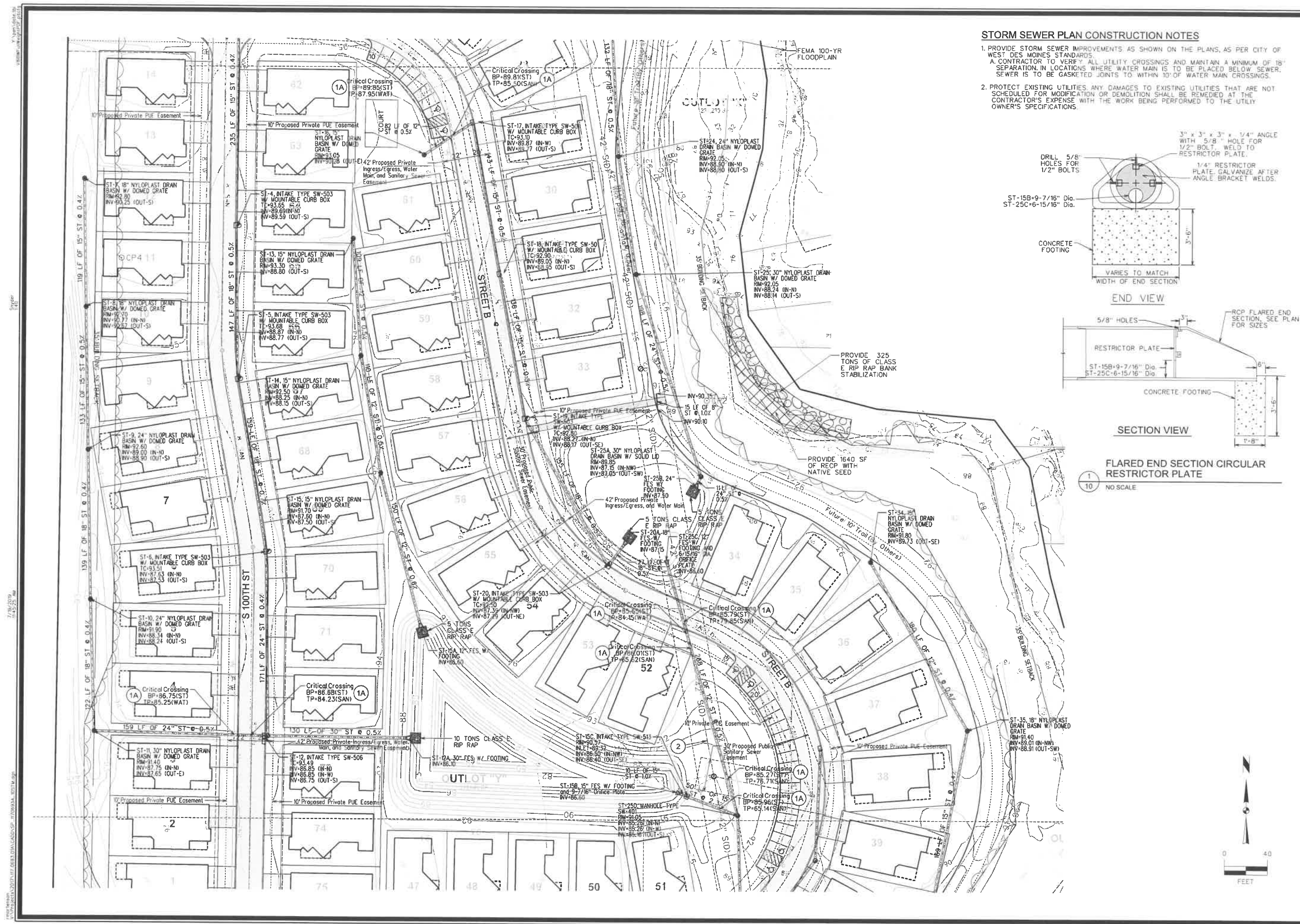


**COURTYARDS AT KINGS LANDING**  
**DIMENSION AND UTILITY PLAN**  
**SNYDER & ASSOCIATES, INC.**  
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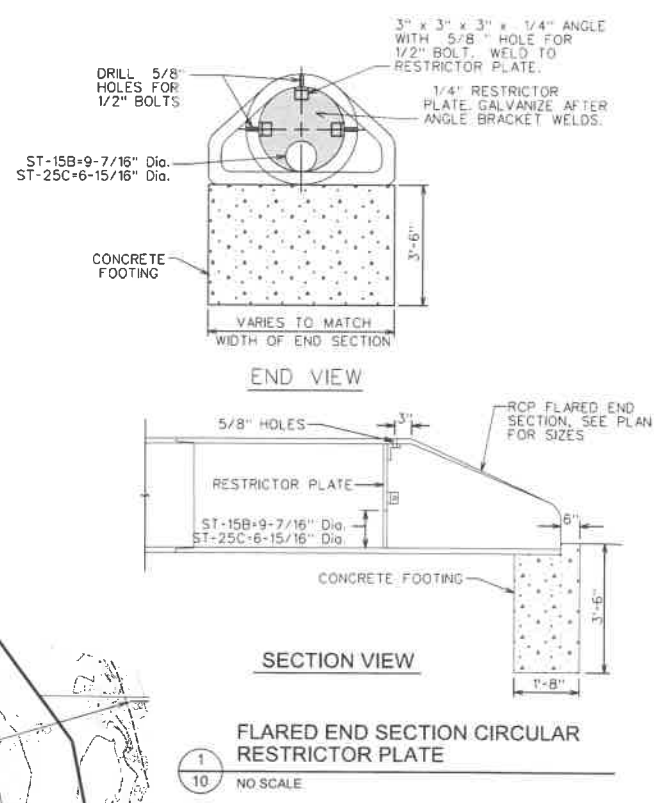






**STORM SEWER PLAN CONSTRUCTION NOTES**

1. PROVIDE STORM SEWER IMPROVEMENTS AS SHOWN ON THE PLANS, AS PER CITY OF WEST DES MOINES STANDARDS.  
 A. CONTRACTOR TO VERIFY ALL UTILITY CROSSINGS AND MAINTAIN A MINIMUM OF 18" SEPARATION IN LOCATIONS WHERE WATER MAIN IS TO BE PLACED BELOW SEWER. SEWER IS TO BE GASKETED JOINTS TO WITHIN 10' OF WATER MAIN CROSSINGS.
2. PROTECT EXISTING UTILITIES. ANY DAMAGES TO EXISTING UTILITIES THAT ARE NOT SCHEDULED FOR MODIFICATION OR DEMOLITION SHALL BE REMEDIATED AT THE CONTRACTOR'S EXPENSE WITH THE WORK BEING PERFORMED TO THE UTILITY OWNER'S SPECIFICATIONS.

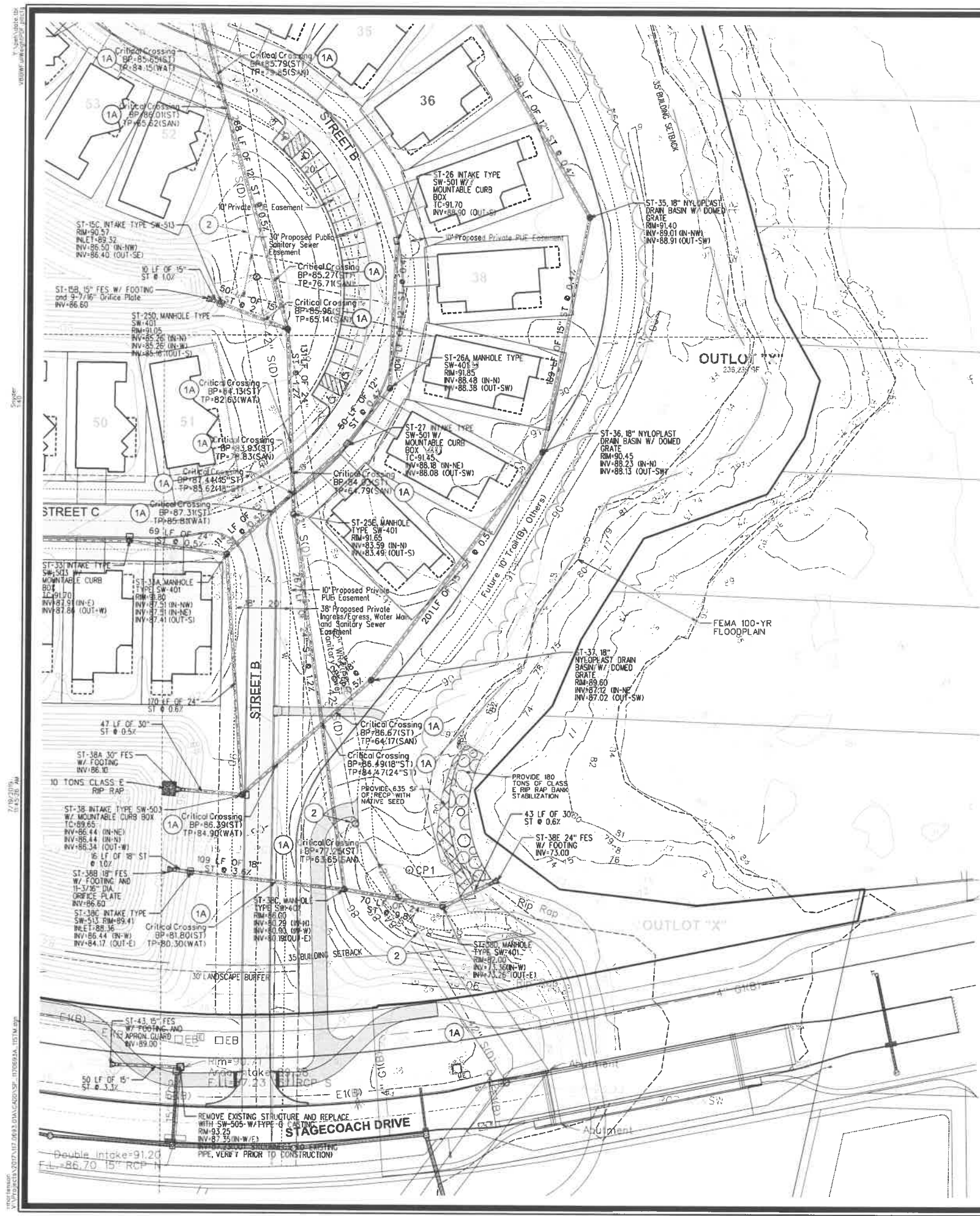


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**COURTYARDS AT KINGS LANDING**  
**STORM SEWER PLAN**  
**WEST DES MOINES, IA**  
**SNYDER & ASSOCIATES, INC.**

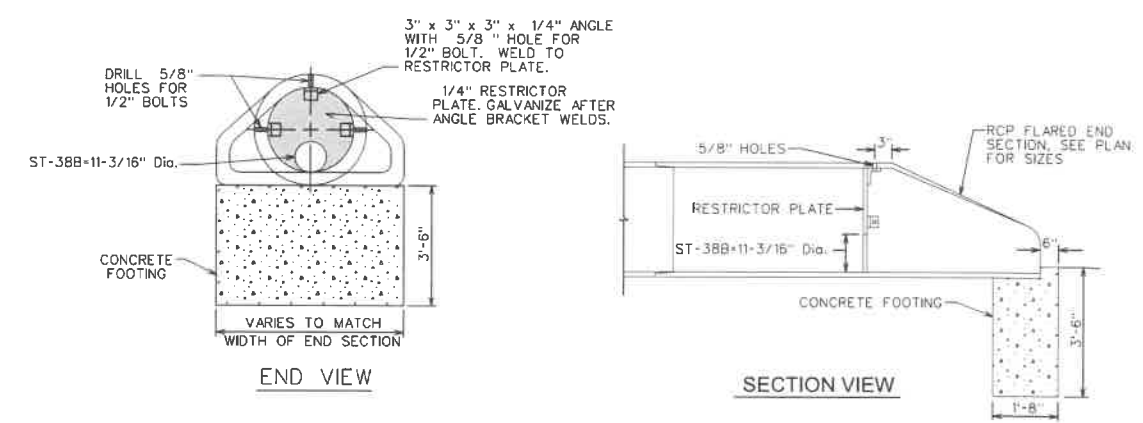


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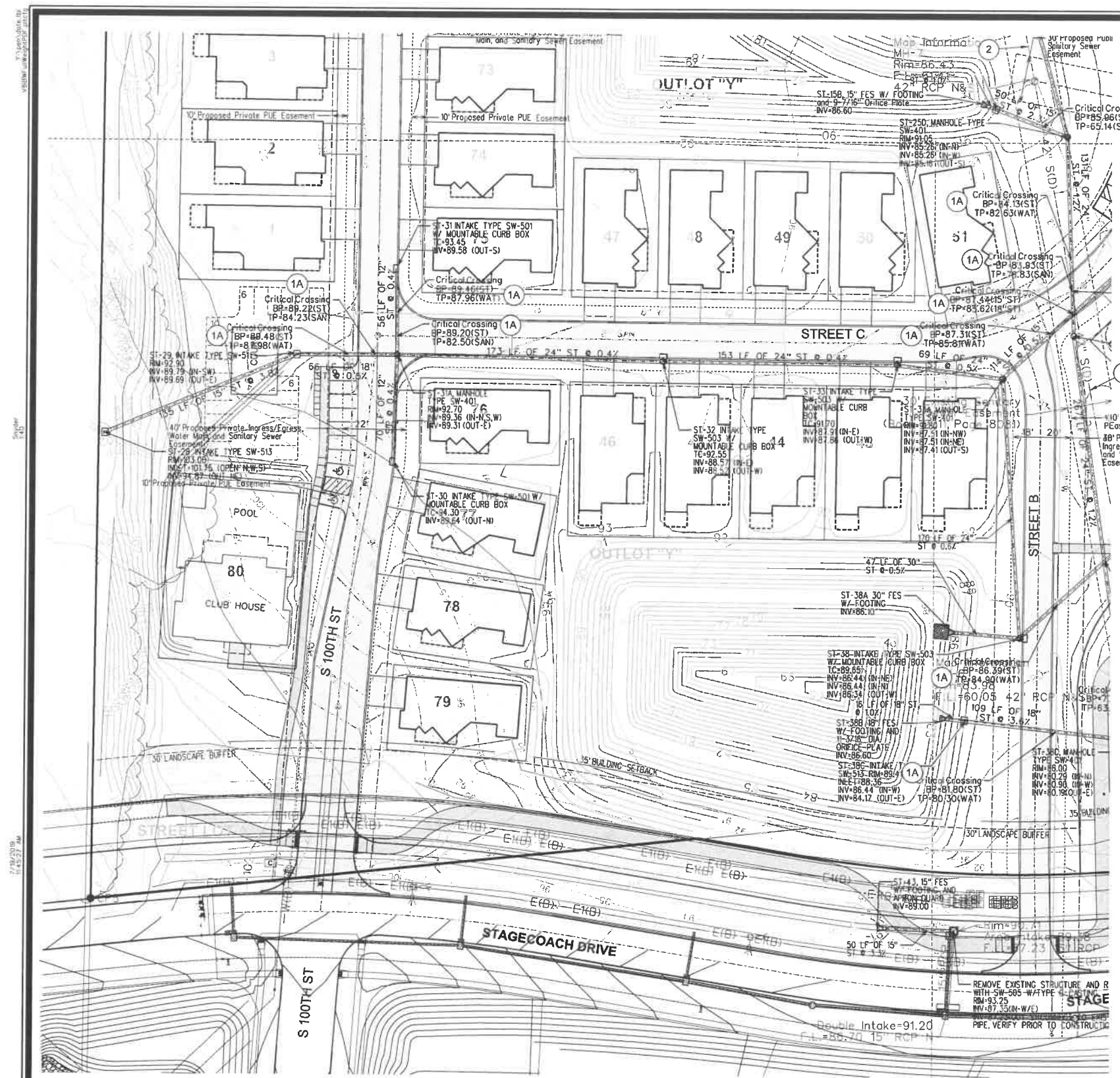


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**COURTYARDS AT KINGS LANDING**  
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**STORM SEWER PLAN CONSTRUCTION NOTES**

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**COURTYARDS AT KINGS LANDING**  
**STORM SEWER PLAN**

**WEST DES MOINES, IA**  
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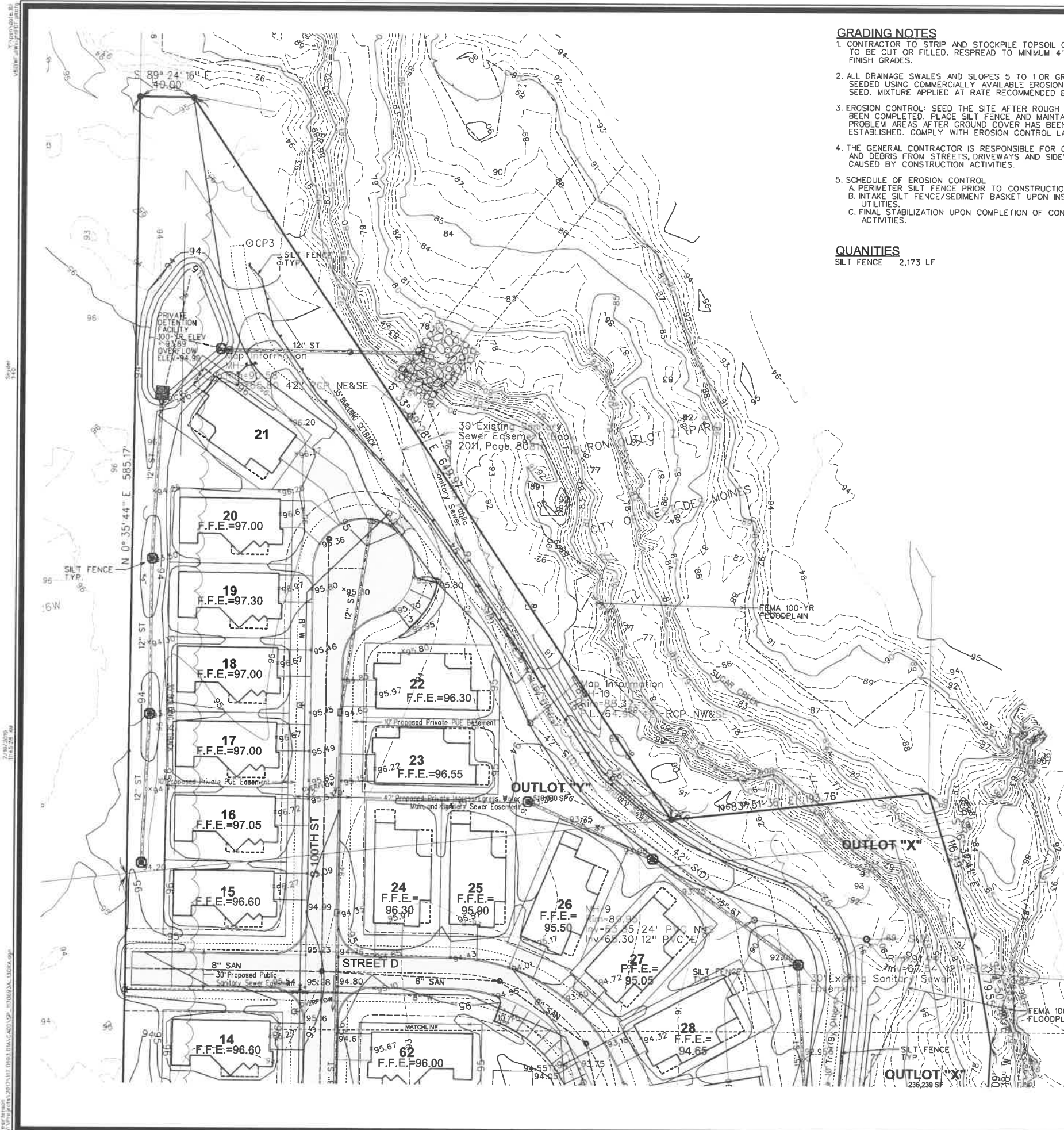
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**GRADING NOTES**

- CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL ON ALL AREAS TO BE CUT OR FILLED. RESPREAD TO MINIMUM 4" DEPTH TO FINISH GRADES.
- ALL DRAINAGE SWALES AND SLOPES 5 TO 1 OR GREATER TO BE SEEDED USING COMMERCIALLY AVAILABLE EROSION CONTROL SEED. MIXTURE APPLIED AT RATE RECOMMENDED BY SUPPLIER.
- EROSION CONTROL: SEED THE SITE AFTER ROUGH GRADING HAS BEEN COMPLETED. PLACE SILT FENCE AND MAINTAIN IN PROBLEM AREAS AFTER GROUND COVER HAS BEEN ESTABLISHED. COMPLY WITH EROSION CONTROL LAW.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM STREETS, DRIVEWAYS AND SIDEWALKS CAUSED BY CONSTRUCTION ACTIVITIES.
- SCHEDULE OF EROSION CONTROL
  - PERIMETER SILT FENCE PRIOR TO CONSTRUCTION.
  - INTAKE SILT FENCE/SEDIMENT BASKET UPON INSTALLATION OF UTILITIES.
  - FINAL STABILIZATION UPON COMPLETION OF CONSTRUCTION ACTIVITIES.

**QUANTITIES**

SILT FENCE 2,173 LF

**POLLUTION PREVENTION NOTES**

**A. POLLUTION PREVENTION AND EROSION PROTECTION**

- CODE COMPLIANCE: THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL POTENTIAL POLLUTION AND SOIL EROSION CONTROL REQUIREMENTS OF THE IOWA CODE, THE IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR) NPDES PERMIT, THE U.S. CLEAN WATER ACT AND ANY LOCAL ORDINANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT AGAINST EROSION AND POLLUTION FROM THIS PROJECT SITE AND ALL OFF-SITE BORROW OR DEPOSIT AREAS DURING PERFORMANCE OR AS A RESULT OF PERFORMANCE.
- 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 OWNER, 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**

- 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 AS SPECIFIED IN THE CONTRACT DOCUMENTS.
- ALL DOCUMENTS RELATED TO THE STORM WATER DISCHARGE PERMIT, INCLUDING BUT NOT LIMITED TO THE NOTICE OF INTENT, PROOF OF PUBLICATIONS, DISCHARGE AUTHORIZATION LETTER, CURRENT SWPPP LOG AND OTHER ITEMS, SHALL BE KEPT ON SITE AT ALL TIMES AND MUST BE PRESENTED TO THE APPLICABLE JURISDICTIONAL AGENCIES UPON REQUEST. FAILURE TO COMPLY WITH THE NPDES PERMIT REQUIREMENTS IS A VIOLATION OF THE CLEAN WATER ACT AND THE CODE OF IOWA.
- 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 RETAINED 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**

- 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.
- 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.
- THE SWPPP AND SITE MAP SHOULD BE EXPEDITIOUSLY REVISED TO REFLECT CONSTRUCTION PROGRESS AND CHANGES AT THE PROJECT SITE.
- 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:
  - 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.
  - 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.
  - PRESERVE EXISTING VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION AND LIMIT TO A MINIMUM THE TOTAL AREA DISTURBED BY CONSTRUCTION OPERATIONS AT ANY TIME.
  - MAINTAIN ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES IN WORKING ORDER, INCLUDING CLEANING, REPAIRING, REPLACEMENT AND SEDIMENT REMOVAL THROUGHOUT THE PERMIT PERIOD. CLEAN OR REPLACE SILT CONTROL DEVICES WHEN THE MEASURES HAVE LOST 50% OF THEIR ORIGINAL CAPACITY.
  - 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 RESULTING ACTIONS IN THE SWPPP WITH A COPY SUBMITTED WEEKLY TO THE ENGINEER DURING CONSTRUCTION. REVISE THE SWPPP AND IMPLEMENT ANY RECOMMENDED MEASURES WITHIN 48 HOURS.
  - PREVENT ACCUMULATION OF EARTH AND DEBRIS FROM CONSTRUCTION ACTIVITIES ON ADJOINING PUBLIC OR PRIVATE PROPERTIES, INCLUDING STREETS, DRIVEWAYS, SIDEWALKS, DRAINAGEWAYS, OR UNDERGROUND SEWERS. REMOVE ANY ACCUMULATION OF EARTH OR DEBRIS IMMEDIATELY AND TAKE REMEDIAL ACTIONS FOR FUTURE PREVENTION.
  - 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.
  - RESPREAD A MINIMUM OF 4 INCHES OF TOPSOIL (INCLUDING TOPSOIL FOUND IN SOIL) ON ALL DISTURBED AREAS, EXCEPT WHERE PAVEMENT, BUILDINGS OR OTHER IMPROVEMENTS ARE LOCATED.
  - STABILIZE UNDEVELOPED DISTURBED AREAS WITH MULCH, TEMPORARY SEED MIX, PERMANENT SEED MIX, SOIL OR SOON AS PRACTICABLE. IMMEDIATELY UPON COMPLETION OR DELAY OF GRADING OPERATIONS, INITIATE STABILIZATION MEASURES IMMEDIATELY AFTER CONSTRUCTION ACTIVITY IS FINALLY COMPLETED OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WHICH WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
  - 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 (VEHICLE) AND WASTE OIL STORAGE, TEMPORARY SANITARY FACILITIES, MATERIALS 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.
  - REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND SITE WASTE PRIOR TO FILING OF THE "NOTICE OF DISCONTINUATION".

**D. PROJECT SPECIFIC REQUIREMENTS FOR POLLUTION PREVENTION AND EROSION PROTECTION**

- RESPONSIBILITIES OF THE OWNER:
  - SIGN NPDES CERTIFICATION STATEMENT AS PERMITEE.
  - ALL REQUIREMENTS NOT ASSIGNED TO OTHERS.
- RESPONSIBILITIES OF THE ENGINEER:
  - CREATE THE INITIAL SWPPP.
  - PUBLISH THE PUBLIC NOTICE OF STORM WATER DISCHARGE.
  - FILE THE NOTICE OF INTENT WITH APPLICATION FEE FOR NPDES GENERAL PERMIT NO. 2 COVERAGE.
  - SUBMIT THE NOTICE OF DISCONTINUATION.
- RESPONSIBILITIES OF THE CONTRACTOR:
  - SIGN NPDES CERTIFICATION STATEMENT AS CO-PERMITEE AND COORDINATING CERTIFICATION OF SUBCONTRACTOR CO-PERMITEES.
  - COMPLY WITH THE REQUIREMENTS OF THE GENERAL PERMIT NO. 2 AND THE SWPPP.
  - INSTALL, MAINTAIN, AND REMOVE EROSION CONTROL AND POLLUTION PREVENTION MEASURES.
  - WEEKLY INSPECTIONS AND CORRESPONDING RECORDS.
  - UPDATE AND MAINTAIN THE ONSITE SWPPP.
  - COOPERATE TO PROVIDE INFORMATION UNDER THE RESPONSIBILITY OF OTHERS.



**COURTYARDS AT KINGS LANDING**

**GRADING AND EROSION CONTROL PLAN**

**SNYDER & ASSOCIATES, INC.**



Project No: 117.0693A

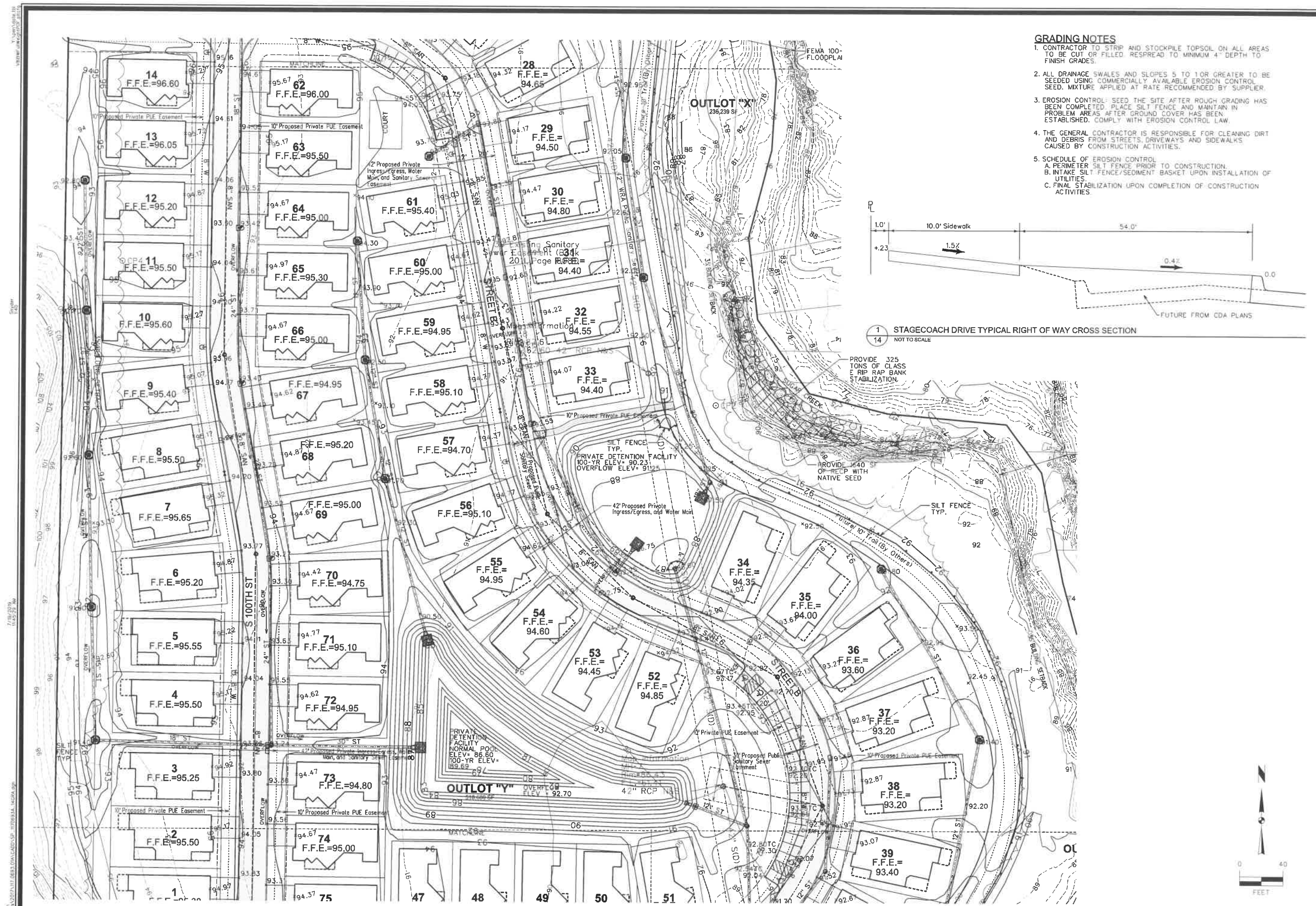
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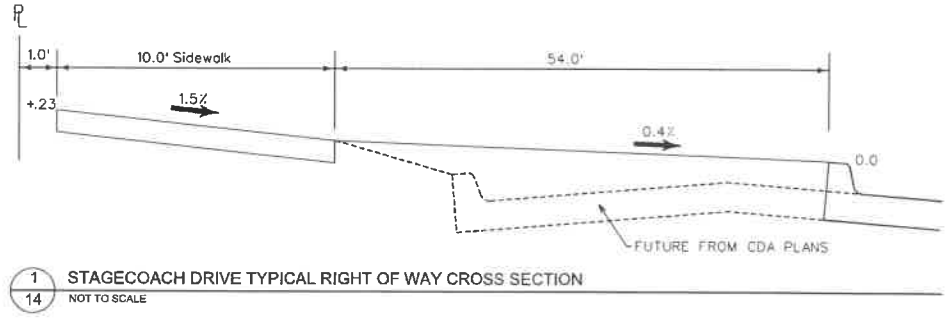
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  3. EROSION CONTROL: SEED THE SITE AFTER ROUGH GRADING HAS BEEN COMPLETED. PLACE SILT FENCE AND MAINTAIN IN PROBLEM AREAS AFTER GROUND COVER HAS BEEN ESTABLISHED. COMPLY WITH EROSION CONTROL LAW.
  4. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM STREETS, DRIVEWAYS AND SIDEWALKS CAUSED BY CONSTRUCTION ACTIVITIES.
  5. SCHEDULE OF EROSION CONTROL
    - A. PERIMETER SILT FENCE PRIOR TO CONSTRUCTION.
    - B. INTAKE SILT FENCE/SEDIMENT BASKET UPON INSTALLATION OF UTILITIES.
    - C. FINAL STABILIZATION UPON COMPLETION OF CONSTRUCTION ACTIVITIES.



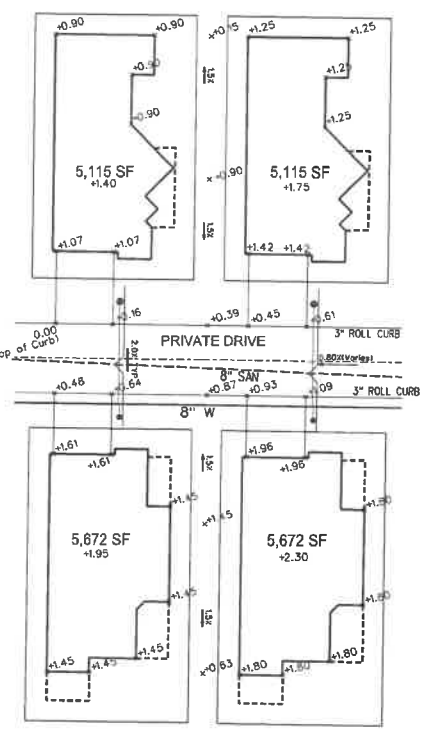
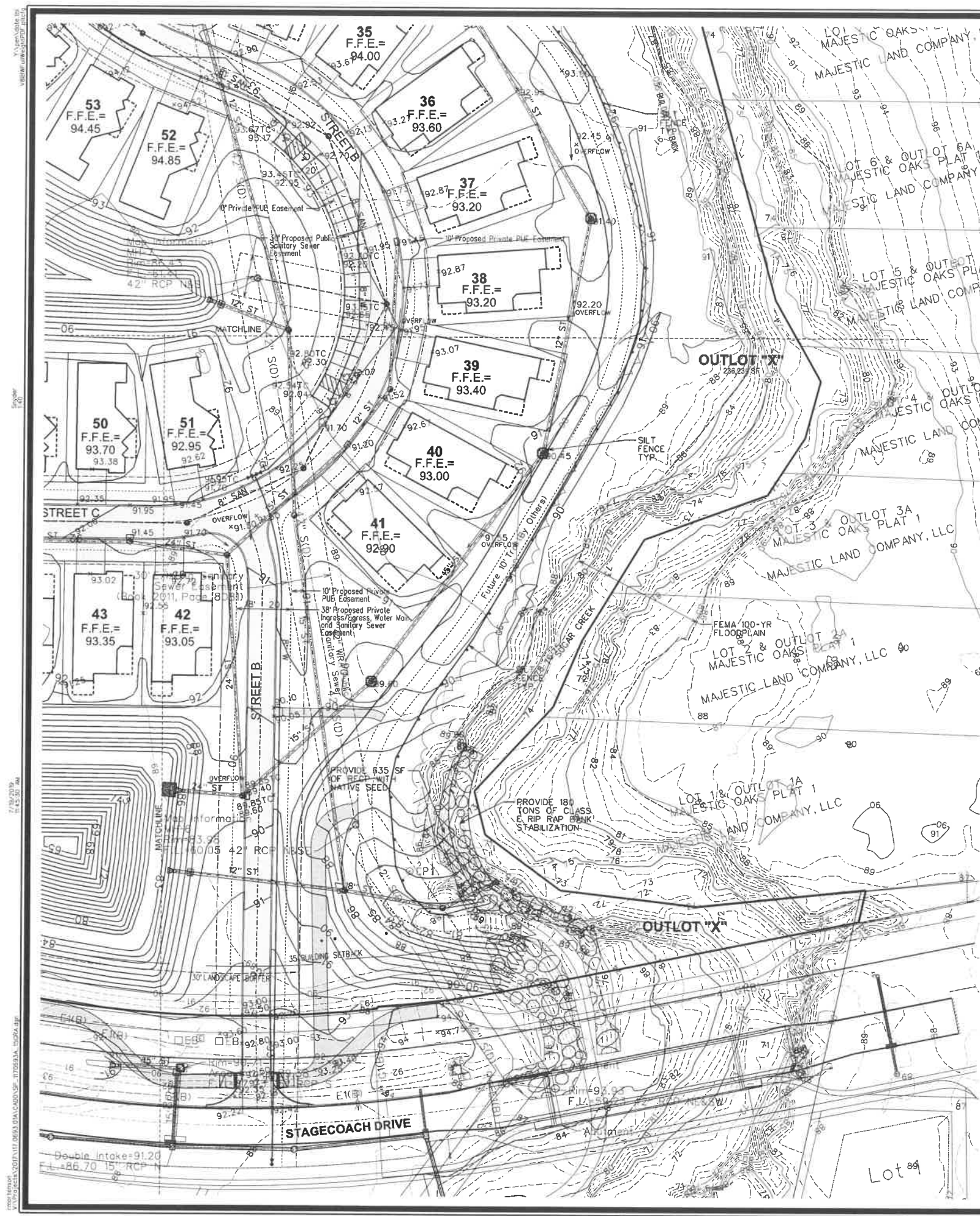
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**GRADING AND EROSION CONTROL PLAN**  
**SNYDER & ASSOCIATES, INC.**



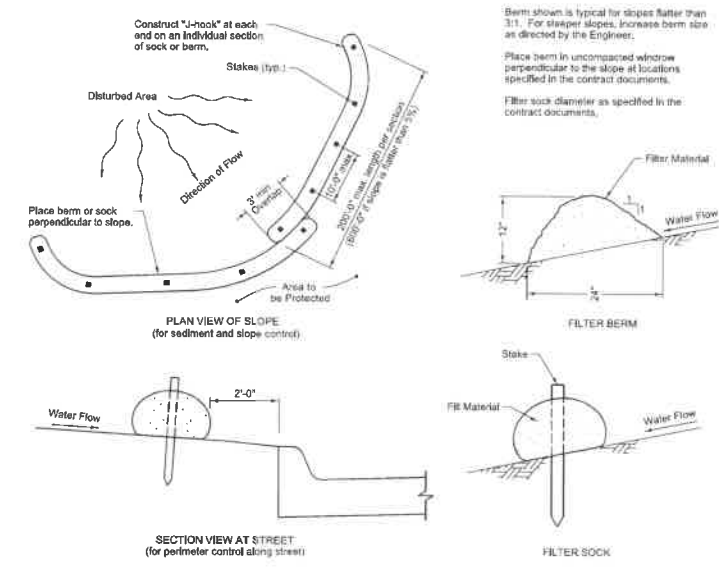
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2	AS PER CITY COMMENTS	7/17/19	MM
1	AS PER CITY COMMENTS	6/11/19	MM
DATE	REVISION	DATE	BY
04/29/19	EDC	04/29/19	MM
Scale: 1"=40'	Field Bk:		
Project No: 117.0693A	Sheet 14 of 20		

WEST DES MOINES, IA  
 2727 S.W. SNYDER BLVD.  
 ANKENY, IOWA 50023  
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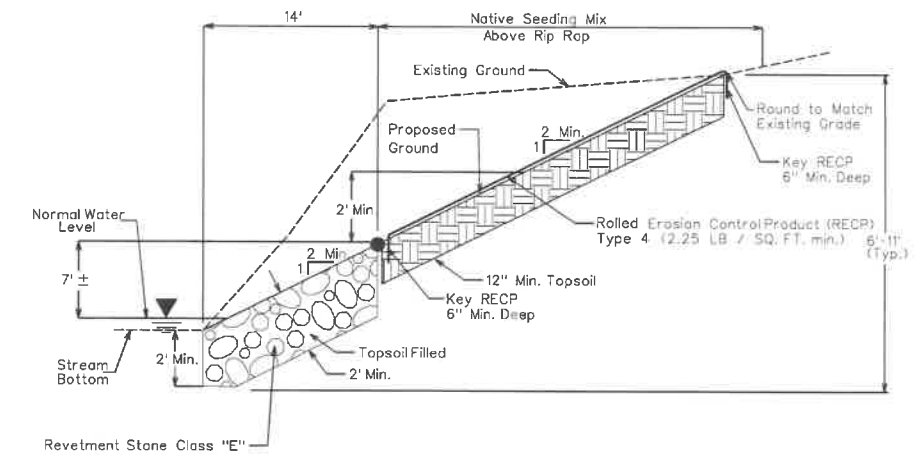




TYPICAL UNIT GRADING DETAIL  
SCALE 1"=30'



1 TYPICAL PLACEMENT OF BERM OR SOCK  
15 NO SCALE



2 TYPICAL SECTION - ROCK TOE PROTECTION & BANK SHAPING WITHOUT BENCH  
15 NO SCALE

- GRADING NOTES**
- CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL ON ALL AREAS TO BE CUT OR FILLED. RESPREAD TO MINIMUM 4" DEPTH TO FINISH GRADES.
  - ALL DRAINAGE SWALES AND SLOPES 5 TO 1 OR GREATER TO BE SEEDED USING COMMERCIALY AVAILABLE EROSION CONTROL SEED. MIXTURE APPLIED AT RATE RECOMMENDED BY SUPPLIER.
  - EROSION CONTROL SEED THE SITE AFTER ROUGH GRADING HAS BEEN COMPLETED. PLACE SILT FENCE AND MAINTAIN IN PROBLEM AREAS AFTER GROUND COVER HAS BEEN ESTABLISHED. COMPLY WITH EROSION CONTROL LAW.
  - THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM STREETS, DRIVEWAYS AND SIDEWALKS CAUSED BY CONSTRUCTION ACTIVITIES.
  - SCHEDULE OF EROSION CONTROL
    - PERIMETER SILT FENCE PRIOR TO CONSTRUCTION.
    - INTAKE SILT FENCE/SEDIMENT BASKET UPON INSTALLATION OF UTILITIES.
    - FINAL STABILIZATION UPON COMPLETION OF CONSTRUCTION ACTIVITIES.

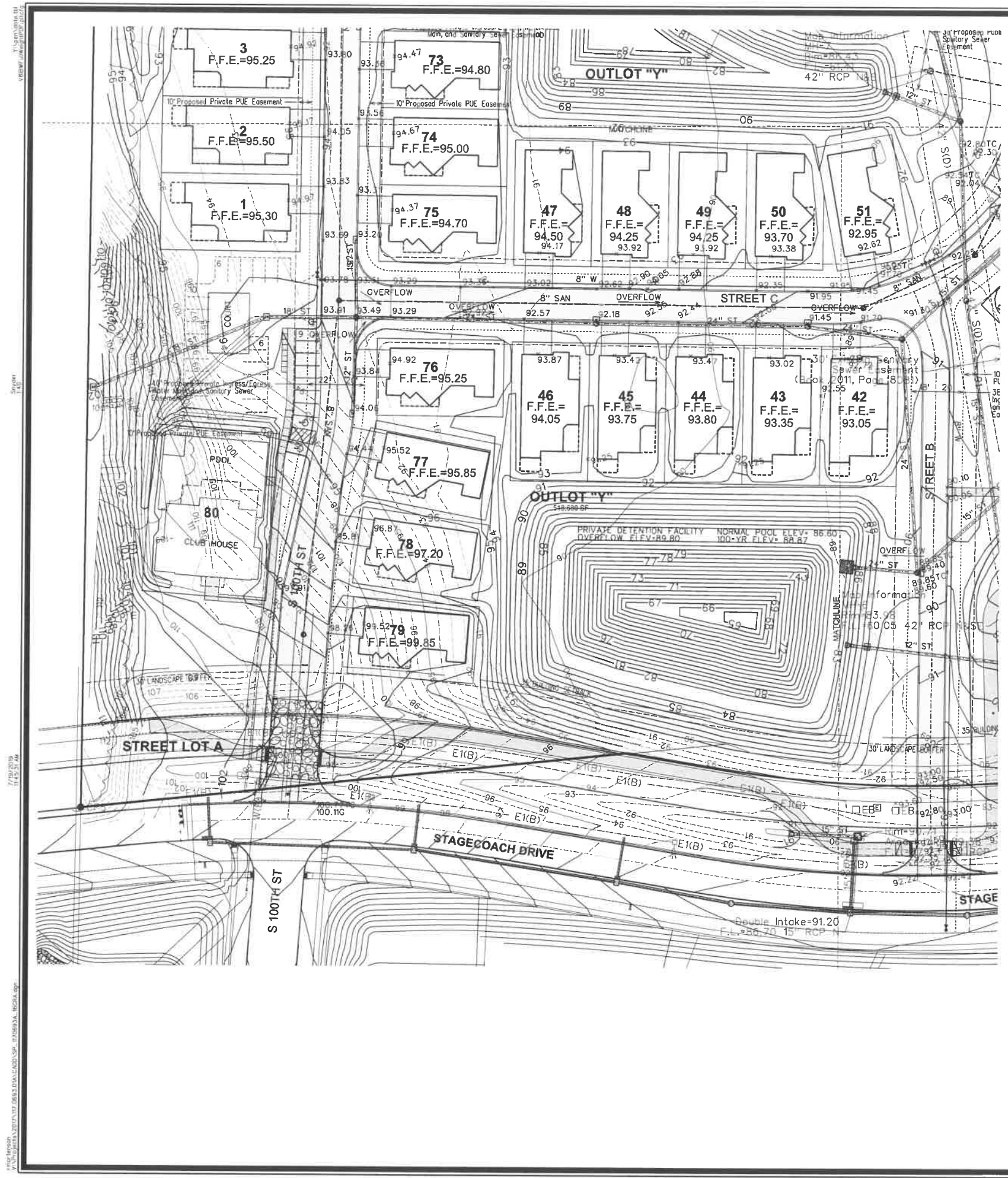
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2	AS PER CITY COMMENTS	7/20/19	RMM
1	AS PER CITY COMMENTS	6/17/19	RMM
MARK	REVISION	DATE	BY
Engineer:	KMM	Checked By:	EDC
Scale:	1"=40'		
Field BC:			
Project No:	117.0693A		
Sheet	15 of 20		

**COURTYARDS AT KINGS LANDING**  
**GRADING AND EROSION CONTROL PLAN**  
**SNYDER & ASSOCIATES, INC.**

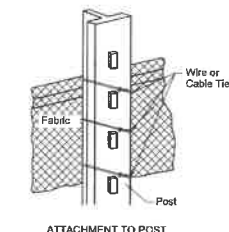


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 Sheet 15 of 20

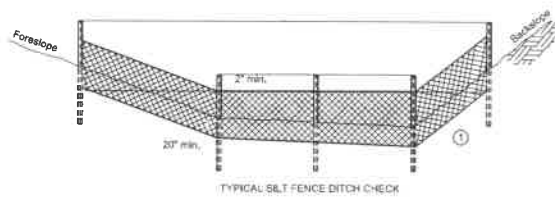
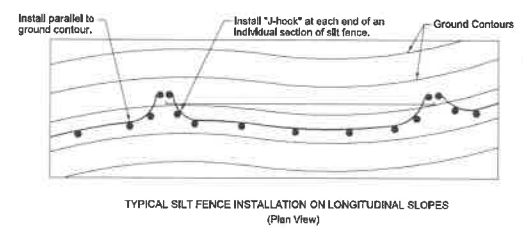
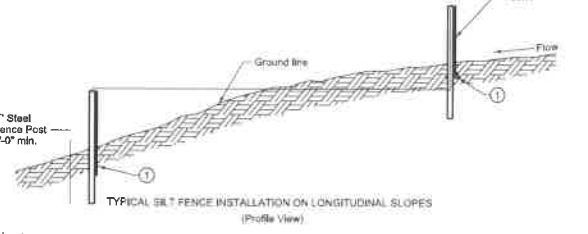
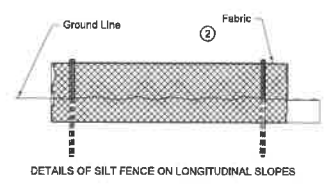
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 PLOT: 15 of 20



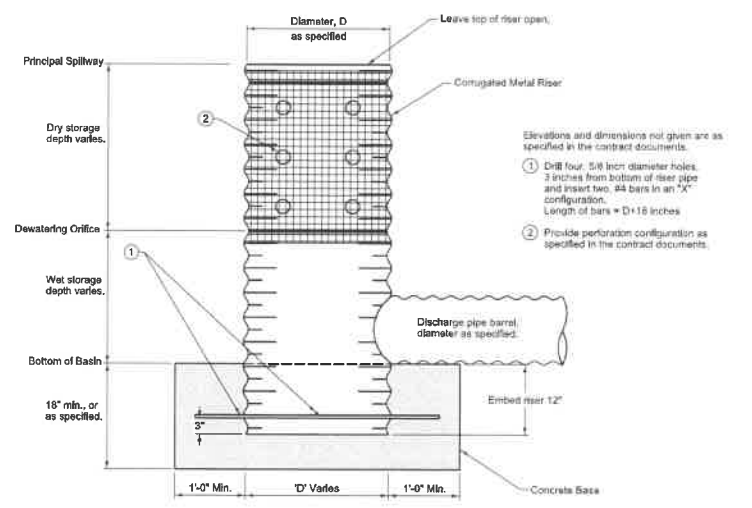
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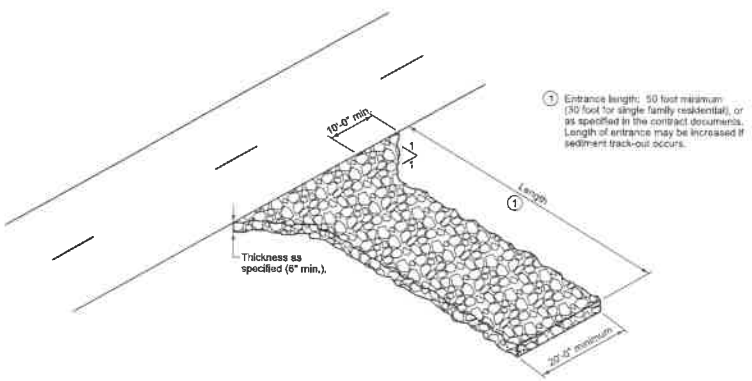
- Insert 12 inches of fabric a minimum of 6 inches deep (fabric may be folded below the ground line).
- Reduce post spacing to 5'-0" at water concentration areas, or as required to adequately support fence.



### SILT FENCE



SEDIMENT BASIN DEWATERING DEVICE (PERFORATED RISER)



STABILIZED CONSTRUCTION ENTRANCE



3	AS PER CITY COMMENTS	7/19/19	RMM	7/19/19	RMM	7/19/19	RMM	7/19/19	RMM	7/19/19	RMM
2	AS PER CITY COMMENTS	7/19/19	RMM	7/19/19	RMM	7/19/19	RMM	7/19/19	RMM	7/19/19	RMM
1	AS PER CITY COMMENTS	6/17/19	RMM	6/17/19	RMM	6/17/19	RMM	6/17/19	RMM	6/17/19	RMM

MARK: \_\_\_\_\_  
 Engineer: KMM  
 Checked By: EDC  
 Date: 04/29/19  
 Scale: 1"=40'  
 Field Bk: \_\_\_\_\_  
 Project No: 117.0693A  
 Sheet 16 of 20

**WEST DES MOINES, IA**

**COURTYARDS AT KINGS LANDING**

**GRADING AND EROSION CONTROL PLAN**

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