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DEBORAH L PEYTON, RECORDER/REGISTRAR
DELAWARE COUNTY IOWA

call ⊗ Prepared by/Return to: Nathan P. Kass, Fehr Graham
1919 210th Street, Manchester, Iowa 52057, Ph. (563)927-2060

CHANNEL MITIGATION PLAN
FOR
MANCHESTER WEST COMMERCIAL SUBDIVISION
MANCHESTER, IOWA
FEBRUARY 2014
PROJECT No. 122059.MS (13-854)

Owner:
City of Manchester
208 East Main Street
Manchester, Iowa 52057

Developer:
Royal Oaks Development
8650 Enterprise Drive
Peosta, Iowa 52068

Across Lot A of
Manchester West Commercial Subdivision
Section 1 – T88N – R6W, City of
Manchester, Delaware County, Iowa



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.

Nathan P. Kass 4/3/2014

Nathan P. Kass, P.E. Date
License Number 18659
My license renewal date is December 31, 2015.
Pages covered by this seal: All Sheets

State of Iowa)
ss.
County of Delaware)

Subscribed and sworn to before me by Nathan P. Kass this 3rd day of April, 2014.

Christina Richter
Christina Richter, Notary Public



TABLE OF CONTENTS

I.	Site Description	1
II.	Objectives	1
III.	Site Selection	1
IV.	Site Protection Instrument	1
V.	Baseline Information	2
VI.	Determination of Credits	2
VII.	Mitigation Work Plan	2
VIII.	Maintenance Plan	2
IX.	Performance Standards	2
X.	Monitoring Requirements	3
XI.	Long-term Management Plan	3
XII.	Adaptive Management Plan	3
XIII.	Financial Assurances	3

Appendices

Site Map	A.01
Seed Mixture for Native Grasses	A.02
Iowa Department of Natural Resources Section 401 Certification	A.03
Dedication of Land to the City of Manchester	A.04
Letter of Commitment	A.05
US Army Corps of Engineers Report Forms	A.06

I. SITE DESCRIPTION

The site consists of a commercial development converting existing agricultural row crops and pasture in Section 1, Township 88 North, Range 6 West, in the City of Manchester, Delaware County, Iowa. An existing waterway flows through the south side site. Flow in the channel is seasonal, and fed by both surface runoff and subsurface tiling upstream in the watershed. A wetlands area has been delineated that will be affected by construction, but has been determined to be less than 0.1 acre. A separate, larger wetlands was also delineated east of the channel relocation. This wetlands is reserved from development and is not to be disturbed. See the Site Map in A.01 of the Appendix.

II. OBJECTIVES

The project relocates approximately the west 400 feet of the channel to provide a storm water detention area for the development. As such, the restoration of the channel includes planting typical native vegetation on the side slopes of the waterway and on adjacent disturbed areas. This vegetation will help the water quality because the channel will be longer and flatter than the previous channel, which will slow the water down allowing sediment to settle out and water to infiltrate into the soils reducing other pollutants to filter out.

III. SITE SELECTION

The site was selected due to the ability maximize the developable area of the site, level terrain, and existing location of the water way as it entered the development site. The waterway enters the site near the southwest corner and ran easterly adjacent to the south property line before leaving the site. The existing wetlands occupy a slough that crosses the south end of the property west to east. Relocating and extending the channel length allows for establishment of the necessary vegetation. This location allows for maximum development potential elsewhere on the site. The proposed channel has capacity to carry extreme storm events yet maintain the ecologic and environmental benefit features due to its length and gradient. The use of natural vegetation will be self-sustaining and identifiable for preservation of the site.

IV. SITE PROTECTION INSTRUMENT

The channel itself will be inside a parcel to be dedicated to the City of Manchester so that there is low probability of change of ownership. This ensures that the channel is not restricted artificially or further altered without authorization and will be maintained. The 2.85-acre wetland area will also be included in the dedicated parcel to preservation of the wetland. The dedication will be part of the subdivision recorded at the Delaware County Recorder's Office. The City of Manchester is responsible for maintenance.

V. BASELINE INFORMATION

The existing channel is well defined both visually and topographically, and existing vegetation found (reed canary grass and smooth brome grass) along with hydric soils (Floyd loam) indicated that wetlands were indeed supported and present. See the site map of the delineated wetlands and proposed channel/mitigation location in A.01 of the appendix.

VI. DETERMINATION OF CREDITS

The existing channel to be relocated is approximately 400 feet. The relocation will reestablish the channel with a length of approximately 600 feet. With the restoration required to be at least the same length as the original channel, the proposed channel will exceed the requirement.

VII. MITIGATION WORK PLAN

Detailed plans and specifications are included in the construction plans, Iowa SUDAS, and supplemental specifications. The general plan is to seed the area with native species and use rip rap in strategic locations to prevent scour and erosion, and use rolled erosion control product and/or mulch to protect the seed until established, as well as protect the soils from erosion until the vegetation is established. Additional information includes control of invasive and non-native species by mowing and spraying. Reseeding shall be completed as necessary. Seed mixture for the native grasses is shown in A.02 of the Appendix.

VIII. MAINTENANCE PLAN

The site will be visually inspected approximately every three months during the growing season, or after extreme storm events as appropriate. Mowing and/or spraying requirements will be evaluated and performed as necessary. Excessive siltation will be removed as necessary to allow for healthy growth of desirable vegetation.

IX. PERFORMANCE STANDARDS

Establishment of vegetation will be the main performance criteria. Adequate cover density and growth of the vegetation to prevent erosion and promote the natural filtration of the water is the goal. The emergent plantings will be required to exhibit a minimum absolute aerial cover of 60%, with greater than 50% native or planted species by the end of the second growing season. Plantings shall exhibit a minimum absolute aerial cover of 85% by the end of the fifth growing season, with greater than 75% native or planted species.

X. MONITORING REQUIREMENTS

The density of the desirable vegetation will be monitored not less than annually for a minimum of five years. An annual report will be provided by December of each year to the Rock Island District Office on the standard US Army Corps of Engineers reporting form found in A.04 of the Appendix.

XI. LONG-TERM MANAGEMENT PLAN

The channel will continue to be visually monitored to evaluate the need for control of invasive and non-native species. Maintenance of the channel is critical for the performance of upstream drainage and property impact. Thus, the City of Manchester inherently is motivated to maintain these facilities and mitigation in peak condition.

XII. ADAPTIVE MANAGEMENT PLAN

The City of Manchester will be responsible for continued monitoring of the site. The City currently utilizes Iowa SUDAS and best management practices that will provide guidance for managing unforeseen issues.

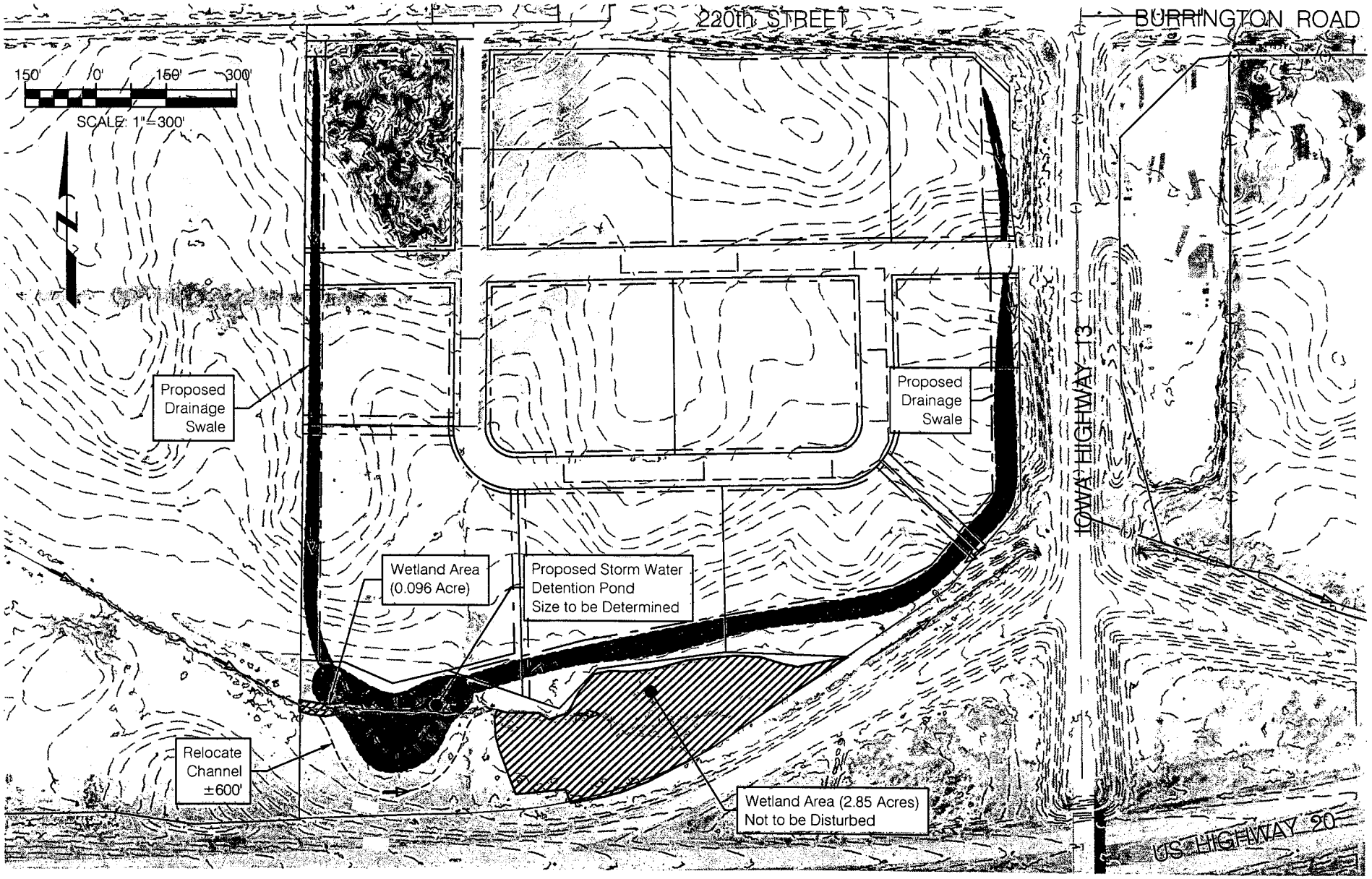
XIII. FINANCIAL ASSURANCES

The City of Manchester has available bonding capacity as required by law that will allow for continued maintenance. A local storm water ordinance also may be a source of funding. Following dedication of the parcel that includes the proposed storm water detention facility, proposed stream channel, and 2.85-acre wetland, the City will execute a letter of commitment and submit the letter to the US Corps of Engineers and the Iowa Department of Natural Resources. The letter of commitment will document that the City is committed to maintain the new stream channel in perpetuity and the channel will not be subject to uses incompatible with the function of the stream. The letter will also include a commitment by the City to preserve the 2.85-acre wetland in perpetuity, not to be subject to uses incompatible with wetland functions. If changes should occur which will result in incompatible use or loss of the mitigated channel or wetland, the US Corps of Engineers and Iowa Department of Natural Resources will be notified in advance. Alternative mitigation will be provided by the City at that time.

APPENDIX 1

Site Map

MANCHESTER WEST COMMERCIAL SUBDIVISION
MANCHESTER, IOWA - Project No. 122059.MS



TeKippe Engineering, P.C.
Serving Eastern Iowa Since 1980
West Union - Manchester - Cedar Rapids

STREAM CHANNEL MITIGATION LOCATION MAP

Plot Date: December 4, 2012
File Name: M:\Projects\2012\122059MS\Dwg\122059ms-Prelim.dwg

PRELIM

SHEET A.01

APPENDIX 2

Seed Mixture for Native Grasses

SEED MIXTURE FOR NATIVE GRASSES

Between April 1 and June 30 and between August 1 and August 31, the following seed mixture for areas designated for native grass:

Common Name	Scientific Name	PLS (per acre)	PLS (per ha)
Grain rye	Secake cereake	22.5 lbs.	25 kg
Canada wild rye	Elymus Canadensis	12 lbs.	13 kg
Switchgrass	Panicum virgatum	2 lbs.	2.2 kg
Big bluestem	Andropogon gerardi	8 lbs.	9 kg
Indiangrass	Sorghastrum nutans	8 lbs.	9 kg
Little bluestem	Schizachyrium scoparium	4 lbs.	4.5 kg
Sideoats grama	Bouteloua curtipendula	3 lbs.	3.4 kg
Blue grama	Bouteloua gracilis	3 lbs.	3.4 kg
Purple prairie clover	Dalea purpurea	4 oz.	280 g
Blackeyed Susan	Rudbeckia hirta	4 oz.	280 g
Prairie blazing star	Liatris pycnostachya	4 oz.	280 g
Butterfly weed	Asclepias tuberose	4 oz.	280 g
Wild bergamot	Monarda fistulosa	4 oz.	280 g
Gray-headed coneflower	Ratibida pinnata	4 oz.	280 g
New England aster	Symphyotrichum novae-angliae	2 oz.	140 g

Furnish seed certified as Source Identified Class (Yellow Tag) Source G0-Iowa. Grain Rye is excluded from this requirement.

APPENDIX 3

Iowa Department of Natural Resources Section 401 Certification

IOWA DEPARTMENT OF NATURAL RESOURCES

SECTION 401 WATER QUALITY CERTIFICATION

Certification issued to: **Effective:** January 2, 2013

Royal Oaks Development
8650 Enterprise Drive
Peosta, IA 52068

Prepared By: Christine M. Schwake Date Executed: January 2, 2013
Christine M. Schwake, IDNR, Wallace State Office Building, Des Moines, IA 50319-0034 (515) 281-6615

STATE OF IOWA COUNTY OF POLK
I HEARBY CERTIFY I AM THE OFFICIAL AND LAWFUL CUSTODIAN OF THE PUBLIC RECORDS MAINTAINED BY THE IOWA DEPARTMENT OF NATURAL RESOURCES AND THE FOREGOING DOCUMENT IS A TRUE AND ACCURATE PHOTOCOPY OF THE RECORD COPY MAINTAINED IN MY CUSTODY AS A PUBLIC RECORD OF THE DEPARTMENT IN THE ORDINARY COURSE OF ITS BUSINESS. EXECUTED AT DES MOINES BY CRAIG OTTO (515-281-4790) ON JANUARY 2, 2013
Craig Otto

Project certified: US Army Corps of Engineers, No. CEMVR-OD-P-2011-0744
State 401 Water Quality Certification, No. 12-N-055-12-05-S

Project Description: Royal Oaks Development will construct 13 commercial lots (subject to change depending on the needs of potential buyers) in S1, T88N, R6W, in Delaware County. Lot A will be dedicated to the City of Manchester in order to protect wetlands and for storm water detention pond maintenance.

The existing channel has a bottom width of approximately 1 to 2 feet. Depth is variable with an average of approximately 3' from top of bank to flow line. Top width is approximately 20'.

In May 2011, a wetland delineation was performed on the project site. A 2.46-acre Palustrine, Emergent, wetland was delineated. Dominant vegetation is reed canary grass. An intermittent tributary stream flows through the wetland from west to east. The drainage area is 1.059 square miles. This wetland will be avoided and deeded to the City of Manchester.

The project area was revised and expanded westward to include Lot 280010000110. A wetland delineation was completed in September 2012 on this lot. A 0.096-acre Palustrine, Emergent, wetland was delineated in the stream channel. Dominant vegetation is reed canary grass.

A storm water detention basin will be constructed in the southwest corner of the property, which will permanently impact the 0.096-acre wetland and 400 feet of tributary stream. Six hundred feet of new stream channel will be excavated and graded along the south side of the storm water detention and basin to divert offsite stream flow and runoff, from the watershed, around the storm water detention and re-enter the original channel downstream of the detention. The storm water detention will capture storm water flows from the project site by way of surface runoff and drainage swales along the west side and east side of the property. In this manner, hydrologic changes to the large wetland will be minimal.

The 400 feet of stream impacted by the storm water detention and basin will be replaced with 600 feet of new channel. Channel bottom width will vary from 5 to 8 feet. Side slopes will be 4h to 1v. Channel depth will be approximately 3 feet varying with topography and the depth of the detention pond berm. Top width will typically be in the range of 25 feet to 40 feet. Due to the tight curvature of the new channel, the outside bank will be armored with riprap to a vertical height of 4 to 6 feet. Construction of the 600 feet of new channel should adequately offset the impacts to the 400 feet of existing channel.

The area where the new diversion channel will be constructed is presently in permanent vegetation. The channel banks and other disturbed areas will be seeded with a native vegetative mix.

The storm water detention, new stream channel, and the large wetland will be dedicated to the City of Manchester. A development agreement between Royal Oaks Development and the City will be recorded and a copy of the recorded document will be provided to the Corps and to the IDNR. The Section 401 Water Quality Certification will also be recorded with copies provided to both the Corps and IDNR.

Monitoring of the new channel and native vegetative seedlings will be required for a period of 5 years, or until fully successful reports have been submitted for 2 consecutive years. Annual monitoring reports will be required to be submitted to the Corps and the IDNR. The Corps will determine when further monitoring is no longer required.

The western prairie fringed orchid, prairie bush clover, and northern monkshood are all listed species for Delaware County, Iowa. The dominant vegetation in the wetlands is reed canary grass. The dominant vegetation in non-wetland grass areas is brome grass. In the northern part of the property there is an old sand and gravel pit which has been overgrown with trees (mostly in the last 20 years).

Water quality use designation:

This reach of a tributary to the Maquoketa River is designated as Class A1 Primary contact recreational use. These are waters in which recreational or other uses may result in prolonged and direct contact with the water, involving considerable risk of ingesting water in quantities sufficient to pose a health hazard. This reach of a tributary to the Maquoketa River is also designated as Class B(WW-1) which are waters in which temperature, flow and other habitat

characteristics are suitable to maintain warm water game fish populations along with a resident aquatic community that includes a variety of native nongame fish and invertebrate species. All surface waters in Iowa, including wetlands and those designated for Class "A", "B", and/or "C" are classified for the following general uses: livestock and wildlife watering, noncontact recreation, crop irrigation, and industrial, agricultural, domestic, and other incidental withdrawal uses.

The Iowa Department of Natural Resources (IDNR) has issued this State 401 Water Quality Certification pursuant to Section 401 of the Clean Water Act. The Army Corps of Engineers (Corps) requires state Certification before a Section 404 permit can be issued. Section 401 Certification represents the IDNR's concurrence that the project certified is consistent with the Water Quality Standards of the state of Iowa as set forth in Chapter 61, Iowa Administrative Code.

Subject to the attached conditions, incorporated by reference herein, the IDNR has determined that there is reasonable assurance the proposed activities will be conducted in a manner that will not violate water quality standards of the state of Iowa.

GENERAL CONDITIONS

1. Prior to construction, the permittee is responsible for securing and for compliance with such other permits or approvals as may be required by the IDNR, federal, state, or local governmental agencies for the project activities described.

2. You are encouraged to conduct your construction activities during a period of low flow.

3. Clearing of vegetation, including trees located in or immediately adjacent to waters of the state, shall be limited to that which is absolutely necessary for construction of the project. All vegetative clearing material shall be removed to an upland, non-wetland disposal site.

4. All construction debris shall be disposed of on land in such a manner that it cannot enter a waterway or wetland. Construction equipment, activities, and materials shall be kept out of the water to the maximum extent possible. Equipment for handling and conveying materials during construction shall be operated to prevent dumping or spilling the material into waterbodies, streams or wetlands except as approved herein. Care shall be taken to prevent any petroleum products, chemicals, or other deleterious materials from entering waterbodies, streams or wetlands.

5. Erosion control features (i.e., silt fences, silt ditches, silt dikes, silt basins, etc.) must be installed to provide continuous erosion control throughout the construction and post construction period as well as the revegetation of all disturbed areas upon project completion. Where siltation control features have been reduced in capacity by 50% or more, the features shall be restored to their original condition with a minimum of delay.

6. All disturbed areas not covered with riprap shall be seeded with native grasses, excluding Reed Canarygrass (*Phalaris arundinacea*) or any aggressive or invasive species, during an optimal seeding period. If excavation and construction are completed

outside an optimal seeding period, temporary erosion control protection shall be implemented immediately upon completion of excavation and construction and shall be maintained until such time as seeding can be completed during an optimal period. The applicant shall monitor revegetated areas continuously to assure success of revegetation. If rye is initially planted to stabilize the soil then native warm season grasses shall be planted during the following growing season.

7. Riprap shall consist of clean native fieldstone, clean quarry run rock or clean broken concrete. If broken concrete is used all reinforcement material shall be completely removed from it; if removal is not possible, said reinforcement material shall be cut flush with the flat surface of the concrete. It shall be the applicant's responsibility to maintain the riprap such that any reinforcement material that becomes exposed in the future is removed. The concrete pieces shall be appropriately graded and no piece shall be larger than 3 feet across the longest flat surface. No asphalt or petroleum based material shall be used as or included in riprap material.

MITIGATION CONDITIONS

1. The storm water detention, new stream channel, and the large wetland will be dedicated to the City of Manchester. A development agreement between Royal Oaks Development and the City will be recorded and a copy of the recorded document will be provided to the Corps and to the IDNR. The Section 401 Water Quality Certification will also be recorded with copies provided to both the Corps and IDNR. **If the development agreement cannot be filed in the manner indicated, Royal Oaks Development shall provide the Corps and IDNR with documentation of agreements, contracts, deeds, etc., demonstrating to the Corps' and IDNR's satisfaction that the mitigation areas will be protected from future activities that may interfere with or be detrimental to the functions and values to a level of assurance equivalent to that provided by the aforementioned filing process.**

2. An as-built plan shall be submitted to the IDNR and to the Corps upon completion.

3. Monitoring of the new channel and native vegetative seedlings will be required for a period of 5 years, or until fully successful reports have been submitted for 2 consecutive years. Annual monitoring reports will be required to be submitted to the Corps and the IDNR. The Corps will determine when further monitoring is no longer required. Annual monitoring reports shall be submitted to the IDNR and to the Corps' office by December 31.

4. The results of the annual monitoring will be documented on the Rock Island District Standard Mitigation Reporting Form available at: http://www.mvr.usace.army.mil/Missions/Regulatory.aspx - then click on "Wetland Mitigation", then click on "Wetland Mitigation Monitoring Report". All annual monitoring reports shall be readable and formatted for 8.5" x 11" paper.

5. Royal Oaks Development shall assume all liability for accomplishing any needed corrective work.

6. The mitigation site will be visually inspected approximately every 3 months during the growing season, or after extreme storm events as appropriate. Mowing and/or spraying requirements will be evaluated and performed as necessary. Excessive siltation will be removed as necessary to allow for healthy growth of desirable vegetation.

7. The main performance criteria will be the successful establishment of vegetation. Adequate cover density and growth of the vegetation to prevent erosion and promote the natural filtration of the water is the goal. The emergent plantings will be required to exhibit a minimum absolute aerial cover of 60%, with greater than 50% native or planted species by the end of the second growing season. Plantings shall exhibit a minimum absolute aerial cover of 85% by the end of the fifth growing season, with greater than 75% native or planted species.

8. Following dedication of the parcel that includes the storm water detention facility, new stream channel, and 2.85-acre wetland, the City of Manchester will execute a letter of commitment and submit the letter to the Corps and IDNR. The letter of commitment will document that the City is committed to maintaining the new stream channel in perpetuity and the channel will not be subject to uses incompatible with the function of the stream. The letter will also include a commitment by the City to preserve the 2.85-acre wetland in perpetuity, not to be subject to uses incompatible with wetland functions. If changes should occur which result in incompatible use or loss of the mitigated channel or wetland, the Corps and IDNR will be notified in advance. Alternative mitigation will be provided by the City at that time.

APPENDIX 4

Dedication of Land to the City of Manchester

COPY

FILED

DEC 31 2013

CARLA K. BECKER
DELAWARE COUNTY AUDITOR

FILED

DEC 31 2013

ANDREA SCHMIDT
DELAWARE COUNTY ASSESSOR

[redacted]

Book 2013 Page 4005

Document 2013 4005 Type 06 002 Pages 30
Date 12/31/2013 Time 12:20:36PM
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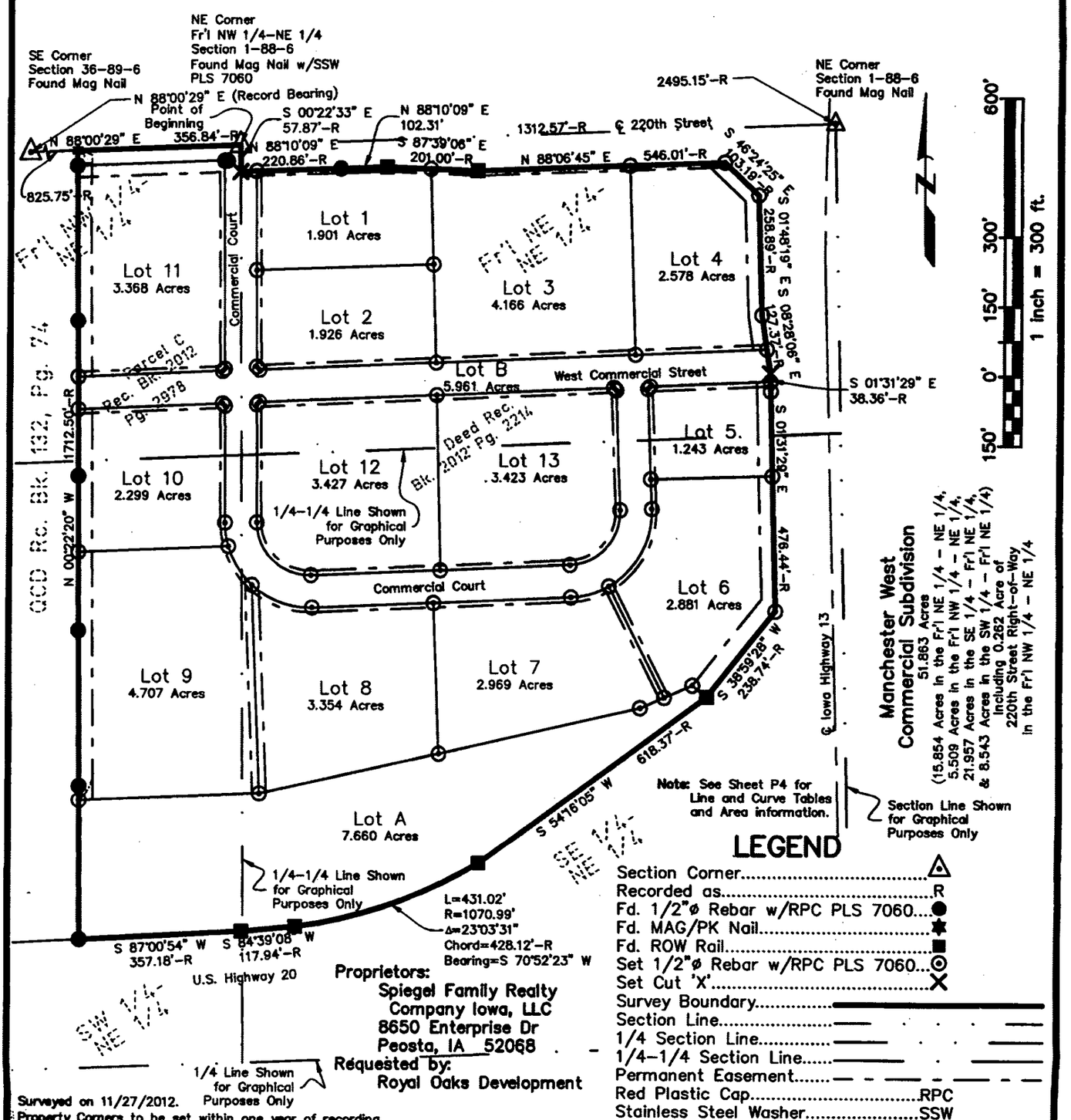
DEBORAH L PEYTON, RECORDER/REGISTRAR
DELAWARE COUNTY IOWA

Prepared by/Return to: FEHR GRAHAM, 1919 210th St, Manchester, IA 52057 Ph. (563)927-2060

Final Plat

MANCHESTER WEST COMMERCIAL SUBDIVISION

of Parcel C and the East 1/2 Fr'l NE 1/4 Except Highway R.O.W.
in Section 1-T88N-R6W, City of Manchester, Delaware County, Iowa



Manchester West Commercial Subdivision
51.863 Acres
(15.854 Acres in the Fr'l NE 1/4 - NE 1/4, 5.509 Acres in the Fr'l NW 1/4 - NE 1/4, 21.957 Acres in the SE 1/4 - Fr'l NE 1/4, & 8.543 Acres in the SW 1/4 - Fr'l NE 1/4) Including 0.262 Acre of 220th Street Right-of-Way in the Fr'l NW 1/4 - NE 1/4

LEGEND

Section Corner	△
Recorded as	R
Fd. 1/2"ø Rebar w/RPC PLS 7060	●
Fd. MAG/PK Nail	★
Fd. ROW Rail	■
Set 1/2"ø Rebar w/RPC PLS 7060	⊙
Set Cut 'X'	X
Survey Boundary	———
Section Line	—— . . . ——
1/4 Section Line	—— . ——
1/4-1/4 Section Line	—— . ——
Permanent Easement	— — — — — —
Red Plastic Cap	RPC
Stainless Steel Washer	SSW

Proprietors:
Spiegel Family Realty Company Iowa, LLC
8650 Enterprise Dr
Peosta, IA 52068

Requested by:
Royal Oaks Development

Surveyed on 11/27/2012.
Property Corners to be set within one year of recording.

PROF. ENGINEER & LAND SURVEYOR
LYLE G. TeKIPPE 7060
IOWA

I hereby certify that this land surveying document was prepared and the related survey work was performed by me or under my direct personal supervision and that I am a duly licensed Land Surveyor under the laws of the State of Iowa. The unadjusted error of closure does not exceed 1:10,000 for the subdivision boundary and does not exceed 1:5,000 for any individual lot.

Lyle G. TeKippe, P.E. & P.L.S. — 12-19-13 Date
License Number 7060
My license renewal date is **December 31, 2014.**
Sheets covered by this seal: **Sheets P1 through P4**

FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL

©2013 FEHR GRAHAM

M: \Projects\2012\122059MS\Dwg_122059ms-Plat.dwg
Field Book: Manchester 39 Pages: 62-63
Project No. 13-854 (122059.MS) Sheet P1

OWNER'S ACKNOWLEDGMENT

(Copy of Page 7 of Recorded Document in Book 2013, Page 4005, Delaware County, Iowa)

I, A.J. Spiegel, President of Spiegel Family Realty Company Iowa, LLC, State of Iowa, hereby certify that the above survey, as shown by the attached Plat, is made with my free consent, and in accordance with my desire.

A.J. Spiegel

State of Iowa)
) SS
Dubuque County)

On this 7th day of December, 2013, before me, the undersigned, a Notary Public in and for the State of Iowa, personally appeared **A.J. Spiegel**, to me personally known, who, being by me duly sworn, did say that he is the President of said corporation; that said instrument was signed on behalf of said corporation by authority of its Board Directors; and that the said A.J. Spiegel as such officer, acknowledge the execution of said instrument to be the voluntary act and deed of said corporation, by it and by him voluntarily executed.

THOMAS J ALLENDORF
Notarial Seal - Iowa
Commission # 716727
My Commission Expires 5/24/14

Notary Public in and for the State of Iowa
My commission expires 5-24-14

DEDICATION

The undersigned owner of the land described in the foregoing surveyor's certificate have caused said tract to be surveyed and subdivided in the manner shown on the above plat, which shall hereafter be known as ***West Commercial Subdivision, City of Manchester, Delaware County, Iowa.*** Lot A, as shown on the above plat, is hereby dedicated for perpetual use as storm water detention, storm water conveyance, and wetland preservation. The road right-of-way along West Commercial Street, Commercial Court, and 220th Street, as shown as Lot B on the above plat, is hereby dedicated to public use forever for street purposes. All public easements shown on the above plat are further hereby granted to the ***City of Manchester, Iowa,*** for the purpose of installing and maintaining public utilities or other facilities, in, under or over said easements.

IN WITNESS WHEREOF, we have set our hands this 7th day of December, 2013.

A.J. Spiegel

State of Iowa)
) SS
Dubuque County)

On this 7th day of December, 2013, before me, the undersigned, a Notary Public in and for the State of Iowa, personally appeared **A.J. Spiegel**, to me personally known, who, being by me duly sworn, did say that he is the President of said corporation; that said instrument was signed on behalf of said corporation by authority of its Board Directors; and that the said A.J. Spiegel as such officer, acknowledge the execution of said instrument to be the voluntary act and deed of said corporation, by it and by him voluntarily executed.

THOMAS J ALLENDORF
Notarial Seal - Iowa
Commission # 716727
My Commission Expires 5/24/14

Notary Public in and for the State of Iowa
My commission expires 5-24-14

APPENDIX 5

Letter of Commitment

Manchester
IOWA
FAMILY. COMMUNITY. OPPORTUNITY.

March 28, 2014

Christine M. Schwake
Iowa Department of Natural Resources
Wallace Building
502 East 9th Street
Des Moines, Iowa 50319

Re: Letter of Commitment for Commercial Development is Sec. 1-88N-6W, Delaware Co.
State 401 Water Quality Certification No. 12-N-055-12-05-S
US Army Corps of Engineers Permit No. CEMVR-OD-P-2011-0744

Dear Ms. Schwake:

Per Condition 8 of the Section 401 Water Quality Certification dated January 2, 2013, issued to Royal Oaks Development, this letter hereby commits the City of Manchester as legal owner of Lot A of Manchester West Commercial Subdivision (as recorded in Book 2013, Page 4005 in Delaware County Recorder's Office, Delaware County, Iowa), as per the dedication therein, to maintain the mitigated stream channel in perpetuity as constructed. The channel will not be subject to uses incompatible with the function of the stream. The City of Manchester further commits to preserve the 2.85-acre wetland in perpetuity, not to be subject to uses incompatible with wetland functions. If changes should occur with result in incompatible use or loss of the mitigated channel or wetland, the US Army Corps of Engineers and Iowa Department of Natural Resources will be notified in advance, and will be subject to alternative mitigation provided by the City of Manchester at that time.

Sincerely,

Timothy J. Vick
City Manager

State of Iowa)
ss.
County of Delaware)

Subscribed and sworn to before me by Timothy J. Vick this 28th day of March, 2014.

Laura K. Thomas
Notary Public

LAURA K. THOMAS
Commission Number 718135
My Commission Expires
August 26, 2014

Cc: Mr. Marlyn Schafer, US Army Corps of Engineers, Rock Island District
Nathan Kass, Fehr Graham

APPENDIX 6

US Army Corps of Engineers Report Forms

Department of the Army – Rock Island District
Standard Mitigation Reporting Form

1. Site Identification

COE Project Number: CEMVR-OD-P-

Name and contact number for the Permittee or agent:
Royal Oaks Development
Agent: Nathan P. Kass, PE & LSI
563-927-2060
The party responsible for monitoring and the dates of Monitoring:
City of Manchester
2013-2018
Mitigation Purpose:
Relocation and restoration of stream channel

Mitigation Site Location Information (**See Figure 1**):
County: Delaware
Section: 1 Township: 88N Range: 6W
HUC 8 Watershed:
USGS Quad:
Landmarks/Directions: Northwest of intersection of Iowa Highway 13 and US Highway 20

Date of Report

Check applicable box below:

Report #1 ☐
Report #2 ☐
Report #3 ☐
Report #4 ☐
Report #5 ☐

Date of Mitigation Site Completion:

2. Mitigation Site Description (e.g., Restoration Techniques, Control Structure, Plantings)

Approximately 400 feet of stream channel
Rip rap to prevent scouring and erosion at curves in channel
Native grasses seeding; stabilize seeding with mulch and/or rolled erosion control product

3. Project Mitigated by the Mitigation Site.

Permit No.	Project Location (County)	Emergent (acres)	Forested (acres)	Scrub-Shrub (acres)	*Other (acres)	Stream Channel Length (feet)
	Delaware					400

* Replace "Other' with actual type of impacts ("Open Water", "Upland", "Woodland", etc.)

4. Mitigation Design Objectives/Performance Measures

	Mitigation					
Type:	Emergent (acres)	Forested (acres)	Open-Water (acres)	*Other (acres)	Total (acres)	Stream Channel Length (feet)
Restoration:						400
Creation:						200
Enhancement:						
Preservation:						
Total:						**600**

* Replace "Other' with actual type of impacts ("Open Water", "Upland", "Woodland", etc.)

5. Actual Delineated Wetland Acreage – [YEAR] (See **Figure 2**)

	Mitigation					
Type:	Emergent (acres)	Forested (acres)	Scrub-Shrub (acres)	*Other (acres)	Total (acres)	Stream Channel Length (feet)
Restoration:						
Creation:						
Enhancement:						
Preservation:						
Observed Total:						
Designed Total:						
Difference :						

* Replace "Other' with actual type of impacts ("Open Water", "Upland", "Woodland", etc.)

6. Annual Progression Of Delineated Wetland

	Year 1 [YEAR:]	Year 2 [YEAR:]	Year 3 [YEAR:]	Year 4 [YEAR:]	Year 5 [YEAR:]
Delineated Wetland (acres):					
Percent of Mitigation Completed :	%	%	%	%	%

7. Monitoring Data Summary

*Site monitoring was conducted [# OF SITE VISITS] during [YEAR]. A spring visit was made on [DATE] to document hydrology and vegetation and summer/fall visit(s) were made on [DATE(S)] to document soils and to map vegetation. Ground-level photographs of the site were taken during both visits; the photographs depict existing hydrology and the development of the site's vegetation (see **Figure 2** for photo point locations).*

Hydrology

Vegetation

Soils

8. Other 404 Permit Requirements Related to Mitigation

Requirement/Special Conditions		Status of Requirement or Permit Condition
	→	
	→	
	→	
	→	
	→	
	→	
	→	
Total % of Permit Conditions Complete	%	The number of Permit Conditions that are fully satisfied (as a % of the total).

9. Conclusions

10. Specific recommendations for remedial actions.

11. Vegetation Community Species List

Community ID Number	Dominant Plant Species	Stratum (ground, shrub, etc.)	Relative Cover %	Indicator Status	Percent of Dominant Species that are **OBL**, **FACW**, or **FAC** (Excluding FAC-)
1	Common name (*Scientific name*)				[ ] %
			%		
			%		
			%		
			%		
2			%		[ ] %
			%		
			%		
			%		
			%		
3			%		[ ] %
			%		
			%		
			%		
			%		
4			%		[ ]%
			%		
			%		
			%		
			%		
5			%		[ ]%
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6			%		[ ]%
			%		
			%		
			%		
			%		
7			%		[ ]%
			%		
			%		
			%		
			%		
8			%		[ ]%
			%		
			%		
			%		
			%		

Notes:

13. Vegetative cover map indicating the dominant species in each area, an assessment of wetland hydrology according to the 1987 Corps of Engineers Wetland Delineation Manual, a map with drawn boundaries in relation to the boundaries approved in your original mitigation plan. Identify areas meeting the definition of wetland in the 1987 Corps of Engineers Wetland Delineation Manual, and any corrective actions taken or needed:

14. Photos [Photo Page]