Posting Date: August 7, 2019

#### NOTICE OF A REGULAR MEETING BONDURANT PLANNING AND ZONING COMMISSION AUGUST 8, 2019

**NOTICE IS HEREBY GIVEN** that a regular meeting of the Planning and Zoning Commission will be held at 6:00 p.m., on Thursday, August 8, 2019, in the Community Room at the Bondurant City Center, 200 Second Street, Northeast, Bondurant, Polk County, Iowa. Said meeting is open and the public is encouraged to attend.

#### **AGENDA**

- 1. Call to Order
- 2. Roll Call
- 3. Perfecting and Approval of the Agenda
- 4. Approval of the Commission Minutes July 25, 2019
- 5. Guests requesting to address the Planning and Zoning Commission
- 6. **RESOLUTION NO. PZ-190808-17** Resolution regarding the Site Plan and Final Plat for 89 Paine Street, Southeast
- 7. **RESOLUTION NO. PZ-190808-18** Resolution regarding the Preliminary Plat for DR Horton
- 8. **RESOLUTION NO. PZ-190808-19** Resolution regarding the Site Plan for Park Side Townhomes
- 9. Reports/Comments and appropriate action thereon:
  - a. Commission Members
  - b. Commission Chair
  - c. City Administrator
  - d. City Council Liaison
- 10. Adjournment

Planning & Zoning Commission Meetings:

- Regular Meeting, August 22, 2019
- Regular Meeting, September 12, 2019
- Regular Meeting, September 26, 2019
- Regular Meeting, October 10, 2019
- Regular Meeting, October 24, 2019
- Regular Meeting, November 14, 2019
- Regular Meeting, December 12, 2019

# CITY OF BONDURANT PLANNING AND ZONING COMMISSION JULY 25, 2019 MINUTES

#### 1. Call to Order

Commission Chair Torey Cuellar called the meeting to order at 6:01 p.m.

#### 2. Roll Call

Roll call was taken and a quorum was declared.

Present: Commission Member Torey Cuellar, Commission Member Angela McKenzie,

Commission Member Brian Clayton, Commission Member Karen Keeran,

Commission Member Andy Mains,

Absent: Commission Member Kristin Brostrom, Commission Member Joe Phearman

City Officials

Present: City Administrator Marketa Oliver, City Clerk Shelby Hagan, Council Member

Doug Elrod, Planning Intern Nelson Loring

3. Perfecting and Approval of the Agenda

Motion by Clayton, seconded by Keeran, to approve the agenda. Vote on Motion 5-0. Motion declared carried unanimously.

4. Approval of the Commission Minutes – July 11, 2019

Motion by McKenzie, seconded by Mains, to approve the July 11, 2019 minutes. Vote on Motion 5-0. Motion declared carried unanimously.

- 5. Guests requesting to address the Commission None.
- 6. **RESOLUTION NO. PZ-190725-16** Resolution regarding the Final Plat of Park Side Plat 2

Motion by Clayton, seconded by McKenzie, to approve RESOLUTION PZ-190725-16. Roll Call: Ayes: McKenzie, Clayton, Cuellar Mains, Keeran Nays: None. Absent: Phearman, Brostrom. Motion Carried 5-0.

- 11. Reports/Comments and appropriate action thereon:
  - a. Commission Member Comments

Mains - None.

Clayton - None.

McKenzie – Questioned Hines property, Habitat for Humanity projects. Keeran – Questioned old Huber location?

- b. Commission Chair Comments None.
- c. City Administrator Comments Updated the Commission on the DR Horton project and staffing changes.
- d. City Council Liaison Open House on July 31 regarding the LOSST election, Council update.

#### 12. Adjournment

Moved by Cuellar, seconded by McKenzie to ad	djourn the meeting at 6:32 p.m. Vote on Motion 5
Motion declared carried unanimously.	

-	
ATTEST:	Shelby Hagan, City Clerk
Torey Cuellar, Commission Chair	

## PLANNING AND ZONING COMMISSION RESOLUTION NO. PZ-190808-17

#### RESOLUTION REGARDING THE SITE PLAN AND FINAL PLAT FOR 89 PAINE STREET, SOUTHEAST

WHEREAS, Civil Design Advantage submitted a Site Plan and Final Plat for 89 Paine Street, Southeast; AND

WHEREAS, the owner is DNG Properties, LLC and the developer is T2 Holdings, LLC; AND

WHEREAS, the site address is 89 Paine Street, Southeast; AND

WHEREAS, the zoning for the property is C-2, Central Commercial District; AND

WHEREAS, legal description is as follows:

LOT 1, BONDURANT COMMERCIAL BUSINESS PARK PLAT 2, AN OFFICIAL PLAT IN BONDURANT, POLK COUNTY, IOWA. CONTAINING 45,237 SF (1.04 AC).

NOW, THEREFORE, BE IT RESOLVED, by the Planning and Zoning Commission of the City of Bondurant, Iowa, that the Site Plan and Final Plat for 89 Paine Street, Southeast is approved and forwarded to the City Council with a recommendation for approval of same.

Moved by	, Seconded by	to adopt.
ATTEST: I, Shelby Hagan, City Clerk Zoning Commission held on August 8	. , ,	hat at a meeting of the Planning and s the above was adopted.
IN WITNESS WHEREOF, I have hereun	to set my hand the day and year	above written.
		Shelby Hagan, City Clerk

Action	Yay	Nay	Abstain	Absent
McKenzie				
Clayton				
Mains				
Keeran				
Cuellar				
Phearman				
Brostrom				

Karen Keeran.	Vice Chair	



## OWNER

DNG PROPERIES LLC PO BOX 67 BONDURANT, IA 50035

## **DEVELOPER**

T2 HOLDINGS LLC CONTACT: TRAVIS M. SISSON 5700 UNIVERSITY AVE STE 220 WEST DES MOINES, IA 50266

#### **ENGINEER**

CIVIL DESIGN ADVANTAGE. LLC CONTACT: ERIN OLLENDIKE 3405 SE CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 PH. (515) 369-4400 FX. (515) 369-4410

#### **SURVEYOR**

CIVIL DESIGN ADVANTAGE, LLC CONTACT: MIKE BROONER 3405 SE CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 PH. (515) 369-4400 FX. (515) 369-4410

#### SUBMITTAL DATES

-FIRST SUBMITTAL: 07/22/2019

#### LEGAL DESCRIPTION

LOT 1, BONDURANT COMMERCIAL BUSINESS PARK PLAT 2, AN OFFICIAL PLAT IN BONDURANT, POLK COUNTY, IOWA. CONTAINING 45,237 SF (1.04 AC).

#### SITE ADDRESS

89 PAINE STREET SE

#### ZONING

C-2 CENTRAL COMMERCIAL DISTRICT

#### DATE OF SURVEY

JUNE 12, 2019

## **BENCHMARKS**

USGS BM MONUMENT A STANDARD DISK, STAMPED J33 1934, 1.9 MILES SOUTH FOR ENTERPRISE ALONG THE CHICAGO, ROCK ISLAND AND PACIFIC RAILWAY FROM THE STATION AT ENTERPRISE, POLK COUNTY, OPPOSITE POLE 83+5, AT A CONCRETE CULVERT, IN THE SOUTHEAST CORNER, 1.1 FEET NORTH OF THE SOUTH SIDE AND 11.3 FEET EAST OF THE EAST RAIL. ELEVATION=938.93

FLAG BOLT ON FIRE HYDRANT 400 FEET +/-NORTH OF WASHINGTON AVENUE SE, NORTHEAST SIDE OF PAINE STREET SE. ELEVATION=977.15

## **DEVELOPMENT SUMMARY**

1.04 ACRES (45,213 SF)

#### PARKING:

1 SPACE PER 200 SF = 25 STALLS

#### TOTAL PROVIDED:

#### **ACCESSIBLE PARKING:**

REQUIRED (26-50 SPACES PROVIDED) = 2 STALLS

#### PROVIDED

= 2 STALLS

## **BULK REGULATIONS**

MINIMUM LOT AREA: FRONT YARD SETBACK: 50 FEET REAR YARD SETBACK: 25 FEET SIDE YARD SETBACK: NONE

- IF ADJACENT TO ZONE 'R', A BUFFER SHALL BE PROVIDED BY ANY ONE OR APPROVED COMBINATION OF THE FOLLOWING OPTIONS:
  - 1) A BUFFER YARD OF 15 FEET IN WIDTH: 1 6-FOOT HIGH MASONRY WALL TO BE DESIGNED WITH FACE BRICK, STUCCO OR SIMILAR FINISHED SURFACE FACING TOWARD THE RESIDENTIAL DISTRICT; OR
- 2) A BUFFER YARD OF 26 FEET OR MORE IN WIDTH: 5 OVER STORY TREES, 10 UNDER STORY TREES, AND 20 SHRUBS FOR EACH 100 LINEAR FEET; OR
- 3) A BUFFER YARD 35 FEET OR MORE IN WIDTH; 4-FOOT HIGH EARTH BERM OR OPAQUE WOOD FENCE; AND 4 OVER STORY TREES, 6 CONIFEROUS TREES, AND 15 SHRUBS FOR EACH 100 LINEAL FEET. REAR YARD SETBACK: 25 FEET

# BONDURANT, IOWA

#### INDEX OF SHEETS

- **DESCRIPTION**
- COVER SHEET
- DIMENSION PLAN
- GRADING PLAN
- EROSION & SEDIMENT CONTROL PLAN
- UTILITY PLAN
- LANDSCAPE PLAN

## GENERAL LEGEND

## PROPOSED PROJECT BOUNDARY LOT LINE SECTION LINE CENTER LINE RIGHT OF WAY PERMANENT EASEMENT TEMPORARY EASEMENT TYPE SW-501 STORM INTAKE TYPE SW-503 STORM INTAKE TYPE SW-505 STORM INTAKE TYPE SW-506 STORM INTAKE TYPE SW-513 STORM INTAKE TYPE SW-401 STORM MANHOLE TYPE SW-402 STORM MANHOLE TYPE SW-301 SANITARY MANHOLE STORM/SANITARY CLEANOUT WATER VALVE FIRE HYDRANT ASSEMBLY DETECTABLE WARNING PANEL STORM SEWER STRUCTURE NO. L-10 STORM SEWER PIPE NO. SANITARY SEWER STRUCTURE NO. SANITARY SEWER PIPE NO. SANITARY SEWER WITH SIZE SANITARY SERVICE —s—s—s— STORM SEWER STORM SERVICE WATERMAIN WITH SIZE WATER SERVICE SAWCUT (FULL DEPTH)

• • • • • •

EXISTING	
SANITARY MANHOLE	(S)
WATER VALVE BOX	$\bowtie$
FIRE HYDRANT	Þ
WATER CURB STOP	W
WELL	WELL
STORM SEWER MANHOLE	(ST)
STORM SEWER SINGLE INTAKE	
STORM SEWER DOUBLE INTAKE	
FLARED END SECTION	
ROOF DRAIN/ DOWNSPOUT	RD
DECIDUOUS TREE	
CONIFEROUS TREE	
DECIDUOUS SHRUB	
CONIFEROUS SHRUB	time)
ELECTRIC POWER POLE	<b>=</b>
GUY ANCHOR	$\rightarrow$
STREET LIGHT	○——≪
POWER POLE W/ TRANSFORMER	<b>-</b>
UTILITY POLE W/ LIGHT	<b>∳</b> ≪
ELECTRIC BOX	[]E
ELECTRIC TRANSFORMER	E
ELECTRIC MANHOLE OR VAULT	E
TRAFFIC SIGN	•
TELEPHONE JUNCTION BOX	T
TELEPHONE MANHOLE/VAULT	T
TELEPHONE POLE	<del>-</del>
GAS VALVE BOX	Ň
CABLE TV JUNCTION BOX	TV
CABLE TV MANHOLE/VAULT	(TV)
MAIL BOX	M
BENCHMARK	○BM
SOIL BORING	- <del>∳</del> \$B
UNDERGROUND TV CABLE	—— — TV— — ——
GAS MAIN	——————————————————————————————————————
FIBER OPTIC	——————————————————————————————————————
UNDERGROUND TELEPHONE	
OVERHEAD ELECTRIC	—— — OE— — —
UNDERGROUND ELECTRIC	——————————————————————————————————————
FIELD TILE	— — — TILE — — —
SANITARY SEWER W/ SIZE	8"S
STORM SEWER W/ SIZE	15 <u>" RCP</u>

\_\_\_\_\_8"W \_\_\_\_

### **UTILITY WARNING**

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.



3405 SE CROSSROADS DR. SUITE G, GRIMES, IOWA 50111 PH: (515) 369-4400 Fax: (515) 369-4410 PROJECT NO. 1904.199

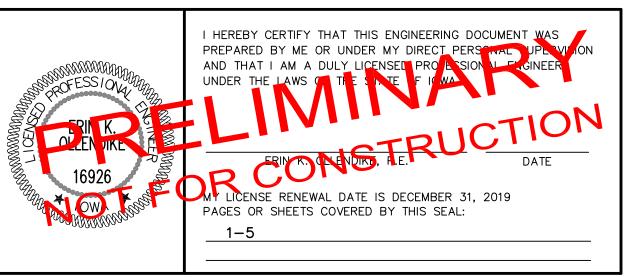


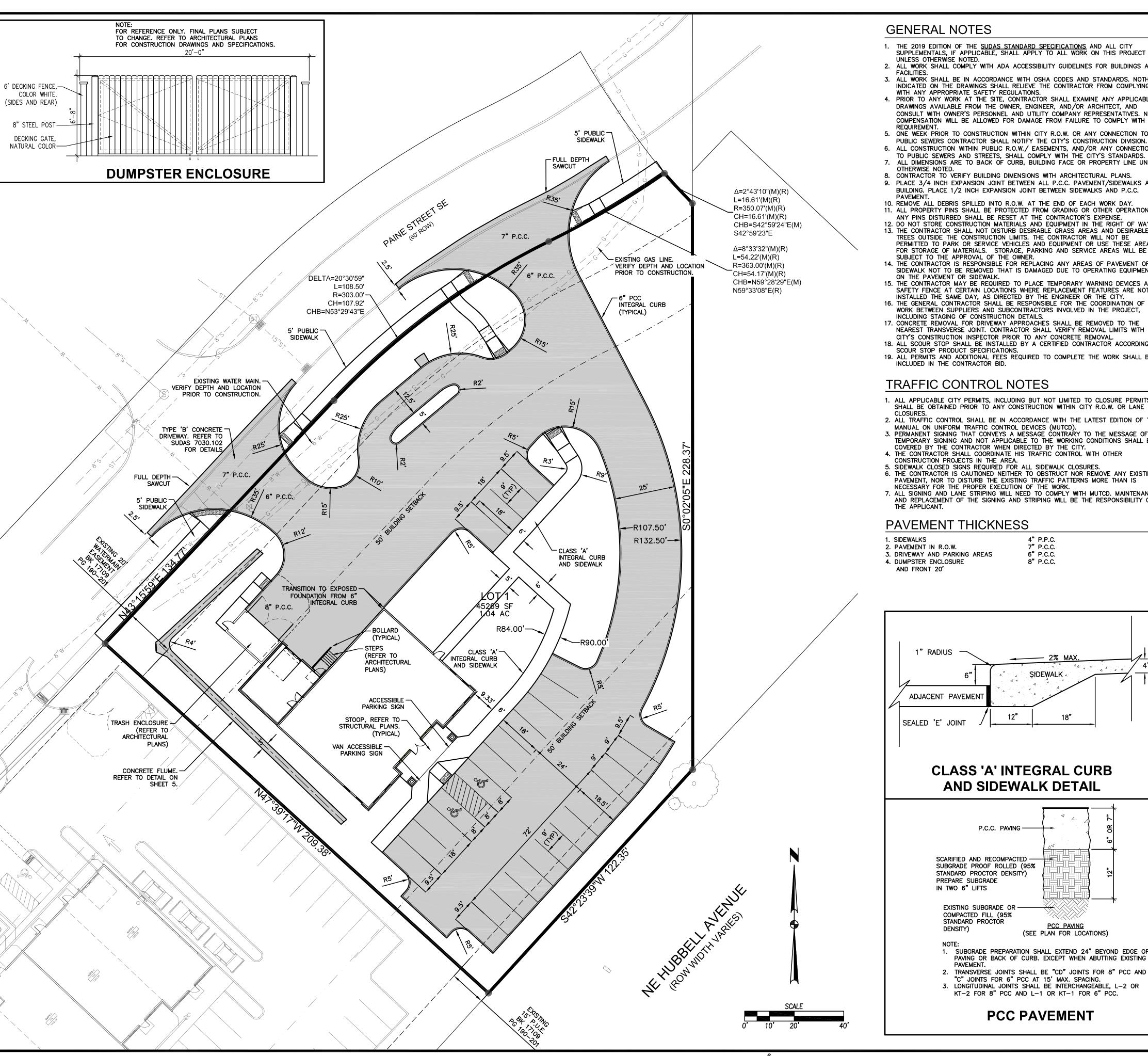
SILT FENCE

ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS OR SIMILAR TEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC R.O.W.

WATER MAIN W/ SIZE

THE 2019 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.





#### GENERAL NOTES

- 1. THE 2019 EDITION OF THE <u>SUDAS STANDARD SPECIFICATIONS</u> AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT
- 2. ALL WORK SHALL COMPLY WITH ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND
- 3. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS
- 4. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS
- 5. ONE WEEK PRIOR TO CONSTRUCTION WITHIN CITY R.O.W. OR ANY CONNECTION TO
- PUBLIC SEWERS CONTRACTOR SHALL NOTIFY THE CITY'S CONSTRUCTION DIVISION. 6. ALL CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS, AND/OR ANY CONNECTION
- TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE CITY'S STANDARDS. 7. ALL DIMENSIONS ARE TO BACK OF CURB, BUILDING FACE OR PROPERTY LINE UNLESS
- 8. CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS. 9. PLACE 3/4 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDING. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C.
- 10. REMOVE ALL DEBRIS SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY. 11. ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS.
- ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE. 12. DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT OF WAY. 13. THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS
- SUBJECT TO THE APPROVAL OF THE OWNER. 14. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT
- ON THE PAVEMENT OR SIDEWALK. 15. THE CONTRACTOR MAY BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT
- INSTALLED THE SAME DAY, AS DIRECTED BY THE ENGINEER OR THE CITY. 16. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT, INCLUDING STAGING OF CONSTRUCTION DETAILS.
- 17. CONCRETE REMOVAL FOR DRIVEWAY APPROACHES SHALL BE REMOVED TO THE NEAREST TRANSVERSE JOINT. CONTRACTOR SHALL VERIFY REMOVAL LIMITS WITH CITY'S CONSTRUCTION INSPECTOR PRIOR TO ANY CONCRETE REMOVAL. 18. ALL SCOUR STOP SHALL BE INSTALLED BY A CERTIFIED CONTRACTOR ACCORDING TO
- SCOUR STOP PRODUCT SPECIFICATIONS. 19. ALL PERMITS AND ADDITIONAL FEES REQUIRED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE CONTRACTOR BID.

#### TRAFFIC CONTROL NOTES

- 1. ALL APPLICABLE CITY PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY R.O.W. OR LANE
- 2. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 3. PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE
- COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY. 4. THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER
- CONSTRUCTION PROJECTS IN THE AREA.
- 5. SIDEWALK CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES.6. THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK
- 7. ALL SIGNING AND LANE STRIPING WILL NEED TO COMPLY WITH MUTCD. MAINTENANCE AND REPLACEMENT OF THE SIGNING AND STRIPING WILL BE THE RESPONSIBILITY OF THE APPLICANT.

4" P.P.C.

7" P.C.C.

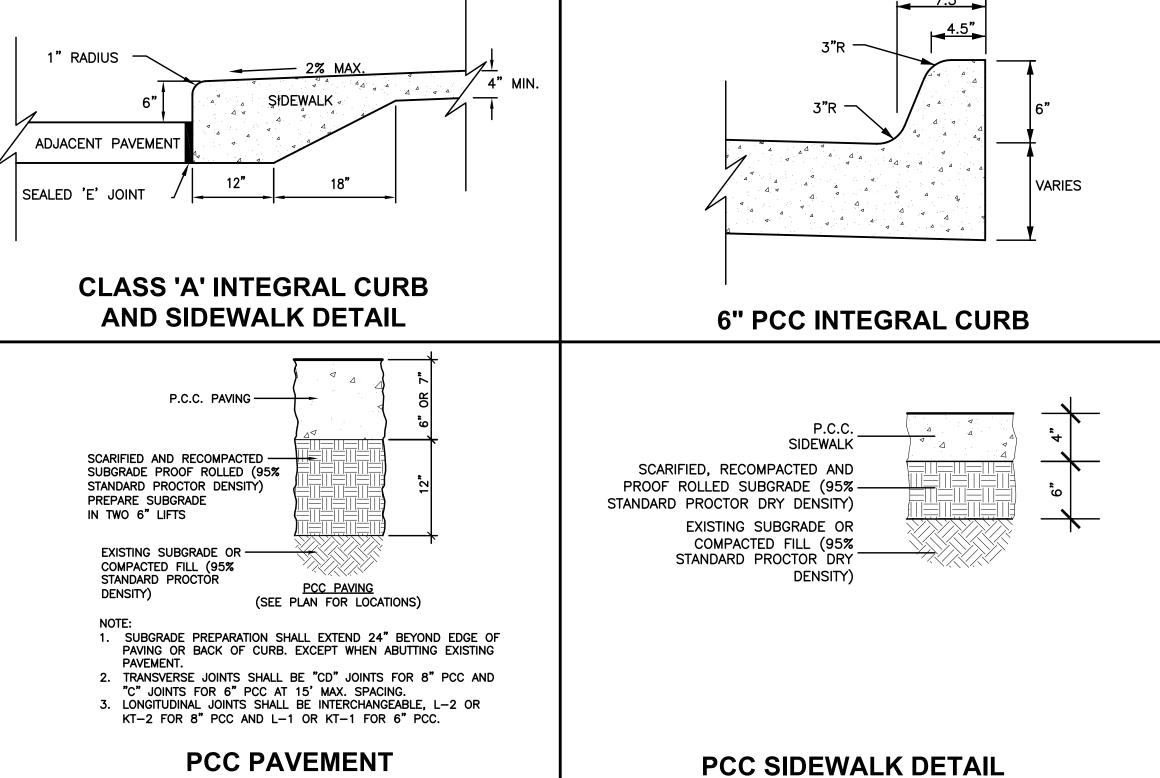
#### PAVEMENT THICKNESS

- 2. PAVEMENT IN R.O.W.
- 3. DRIVEWAY AND PARKING AREAS 6" P.C.C. 8" P.C.C. 4. DUMPSTER ENCLOSURE
- AND FRONT 20'

#### **DEMOLITION NOTES**

- PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER OR ENGINEER AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
- PRIOR TO DEMOLITION, CONTRACTOR SHALL NOTIFY IN WRITING (48 HRS NOTICE) THE
  - APPROPRIATE UTILITY COMPANIES

  - CIVIL DESIGN ADVANTAGE
  - DO NOT DISTURB EXISTING UTILITIES UNLESS OTHERWISE NOTED. COORDINATE REMOVAL OR ABANDONMENT OF ALL UTILITIES WITH THE APPROPRIATE UTILITY SUPPLIER AND
- REGULATORY AGENCIES. PROTECT EXISTING UTILITIES THAT ARE TO REMAIN. THE LOCATIONS OF ALL UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES
- OTHER THAN THOSE SHOWN ON THE PLAN MAY BE PRESENT. BACKFILL ALL EXCAVATIONS WITH COHESIVE MATERIAL COMPACTED TO 95% MAXIMUM STANDARD PROCTOR DRY DENSITY AND MOISTURE RANGE OF OPTIMUM MOISTURE TO 4% ABOVE OPTIMUM MOISTURE. TESTING OF BACKFILL TO BE BY A GEOTECHNICAL ENGINEER EMPLOYED BY THE OWNER. IN THE EVENT OF A TEST FAILURE, ANY RETESTING SHALL BE PAID FOR BY THE CONTRACTOR.
- FIELD VERIFY EXISTING GRADES AND LOCATION OF EXISTING UTILITIES, CONDUIT, LINES, POLES, TREES, PAVING, BUILDING AND OTHER SITE FEATURES PRIOR TO DEMOLITION AND
- IMMEDIATELY INFORM THE ENGINEER AND/OR OWNER OF ANY DISCREPANCIES. DEMOLITION NOTES AS SHOWN ON THE PLAN ARE NOT ALL INCLUSIVE. CONTRACTOR TO ABANDON IN PLACE OR REMOVE AND DISPOSE OF ALL EXISTING SITE IMPROVEMENTS
- ABOVE AND BELOW GROUND TO COMPLY WITH THE GENERAL INTENT OF THIS DOCUMENT ALL CONSTRUCTION/DEMOLITION DEBRIS SHALL BE DISPOSED OF OFFSITE IN FULL
- COMPLIANCE WITH CURRENT ENVIRONMENTAL REGULATIONS. CONSTRUCTION LIMITS SHALL BE CONFINED TO THE SITE BOUNDARY AS NOTED. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- ALL WORK SHALL BE IN ACCORDANCE WITH OSHA STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.



GH/JWM 369 1, S 

E. CF. GF (515) PHONE:

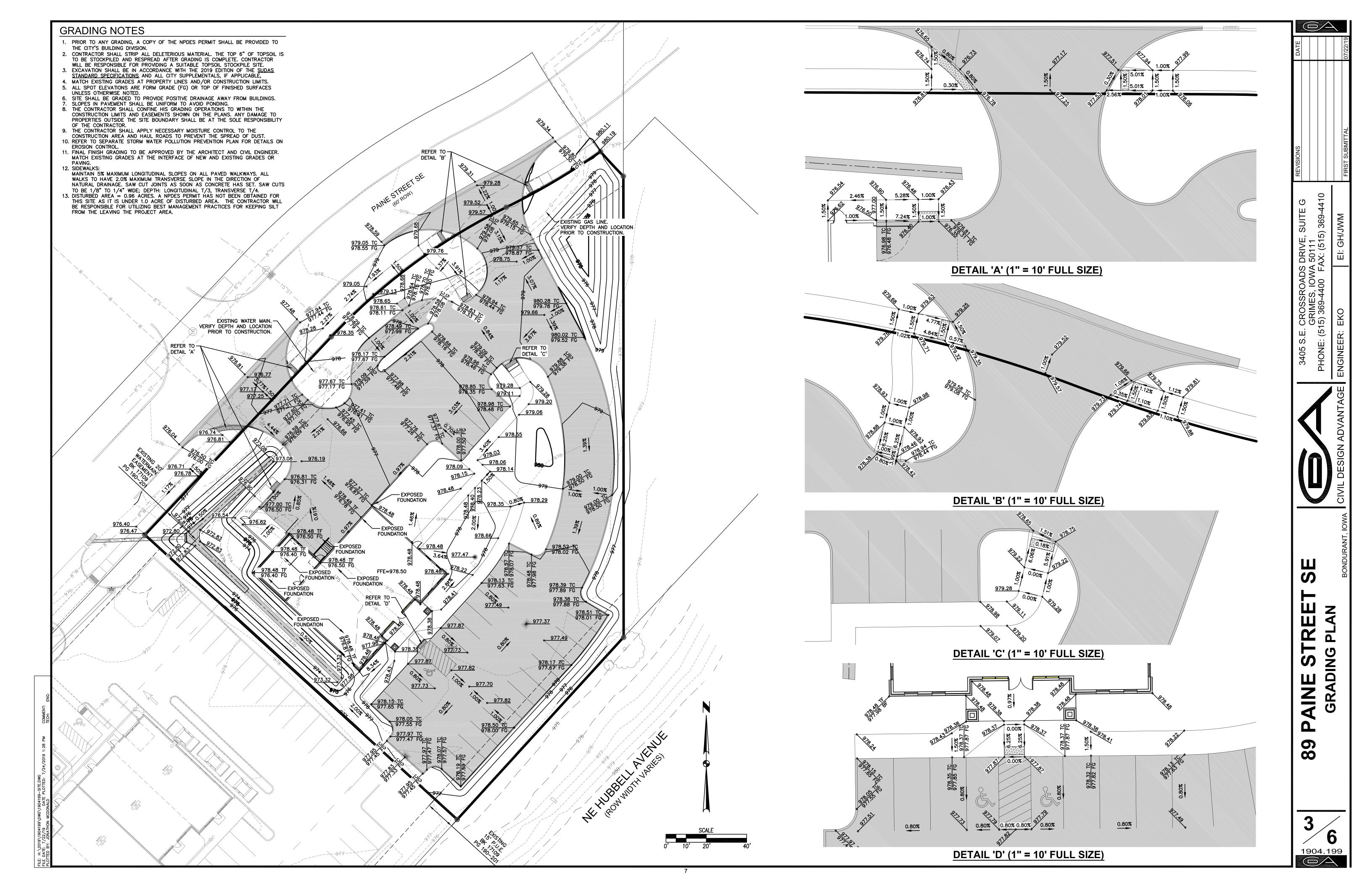


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1904.199



# 89 PAINE STREET SE

## EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP

NOT TO SCALE



### NOTES:

- 1. IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE IS TO CONFORM WITH THE GENERAL PERMIT #2
- 2. DISTURBED AREAS SHALL BE TEMPORARILY SEEDED OR MULCHED IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.

#### STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	Ŀ	1,037
2	FILTER SOCK	LF	184
3	SEEDING, FERTILIZING, AND MULCHING	AC	0.63
4	INLET PROTECTION DEVICES	EA	3
5	CONCRETE WASHOUT PIT	EA	1

## DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO AN UNKNOWN TRIBUTARY OF SANTIAGO CREEK ±5,000 FT
TOTAL AREA DISTURBED TO DISCHARGE POINT
STORAGE VOLUME REQUIRED (# OF ACRES\*3600 CU FT)

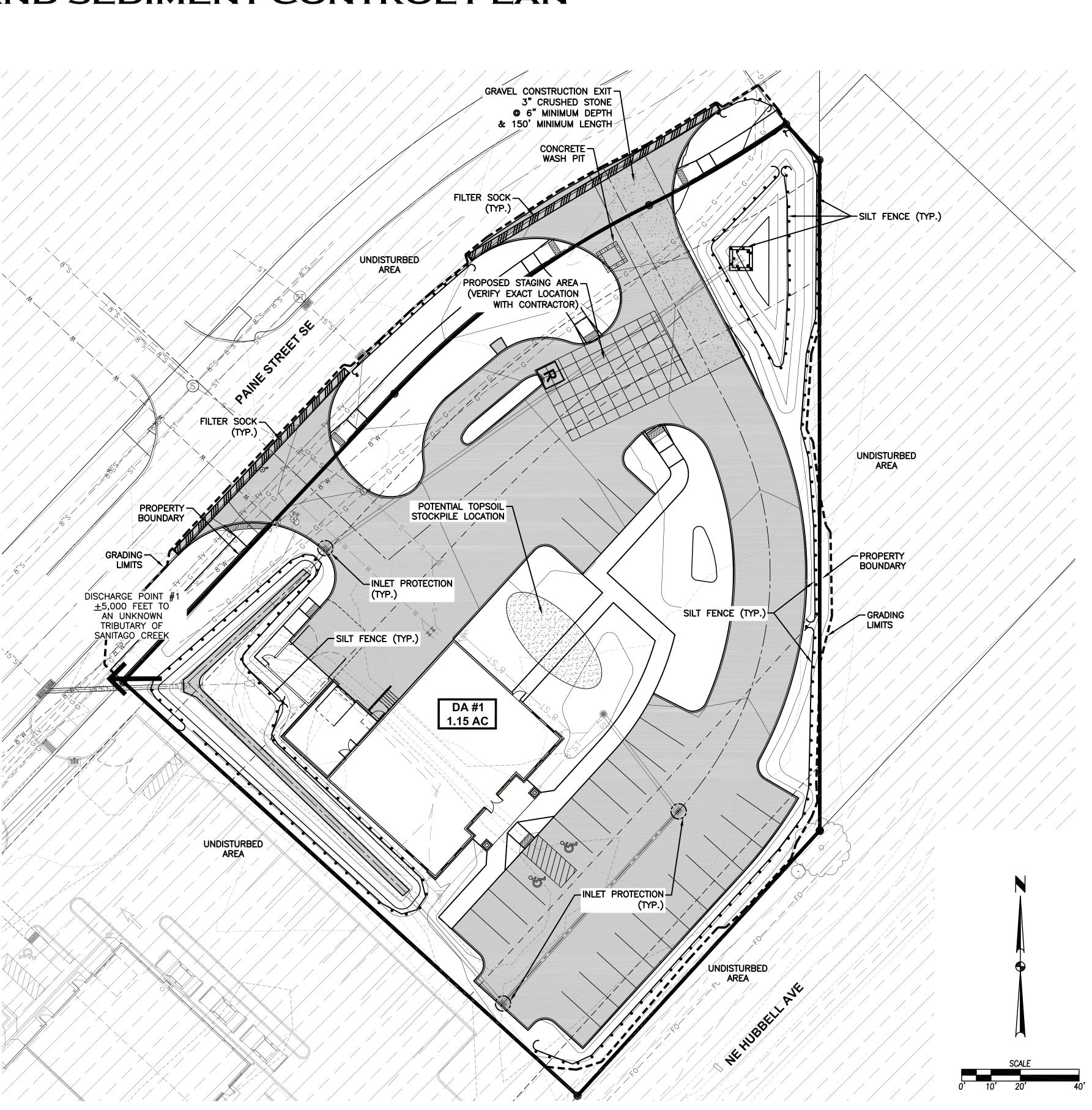
VOLUME PROVIDED IN FILTER SOCK (184 LF @ 2.0 CU FT/LF OF SOCK) VOLUME PROVIDED IN SILT FENCE (1034 LF @ 4.5 CU FT/LF OF FENCE)

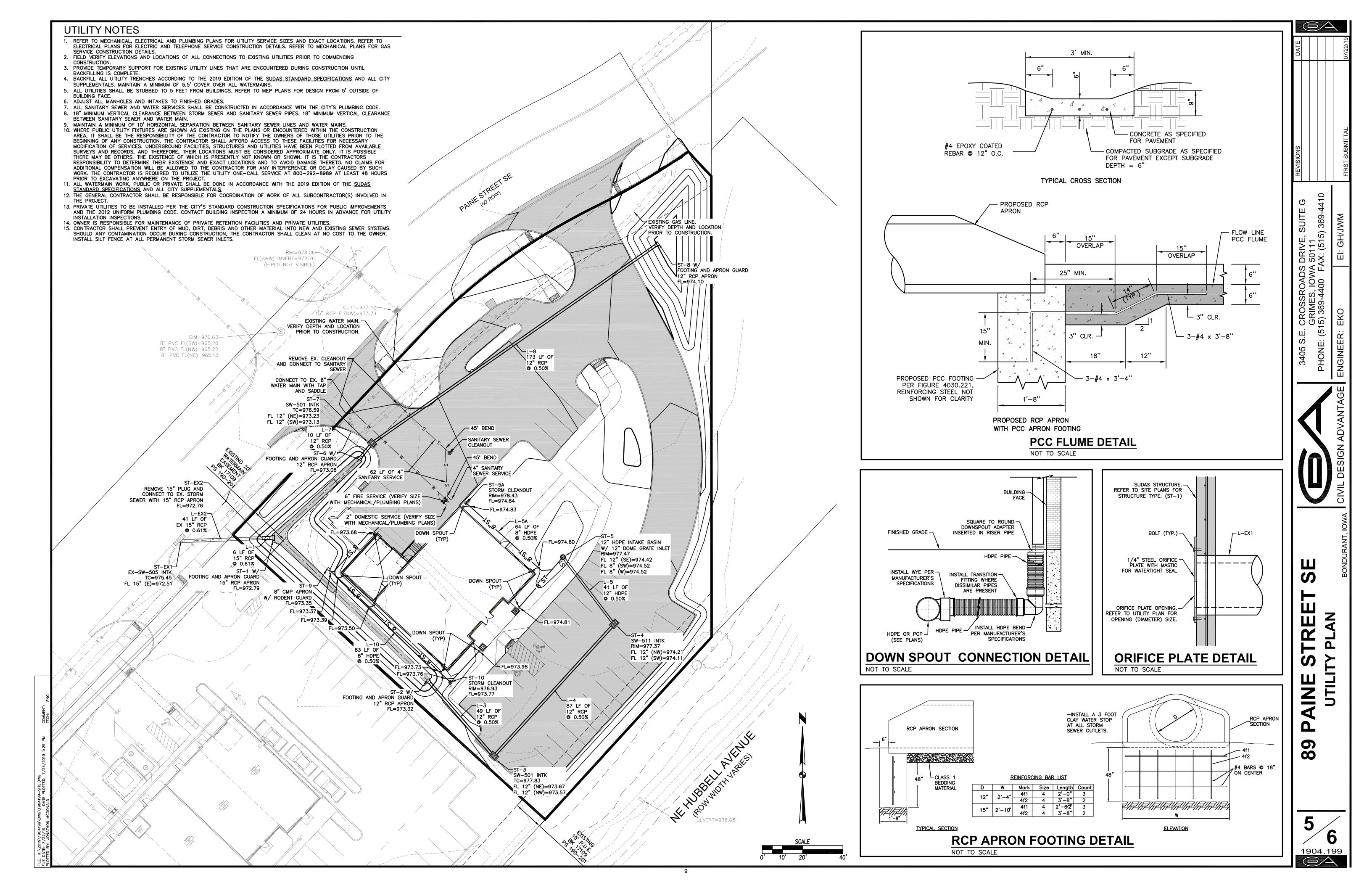
1.15 ACRES 4,140 CU FT

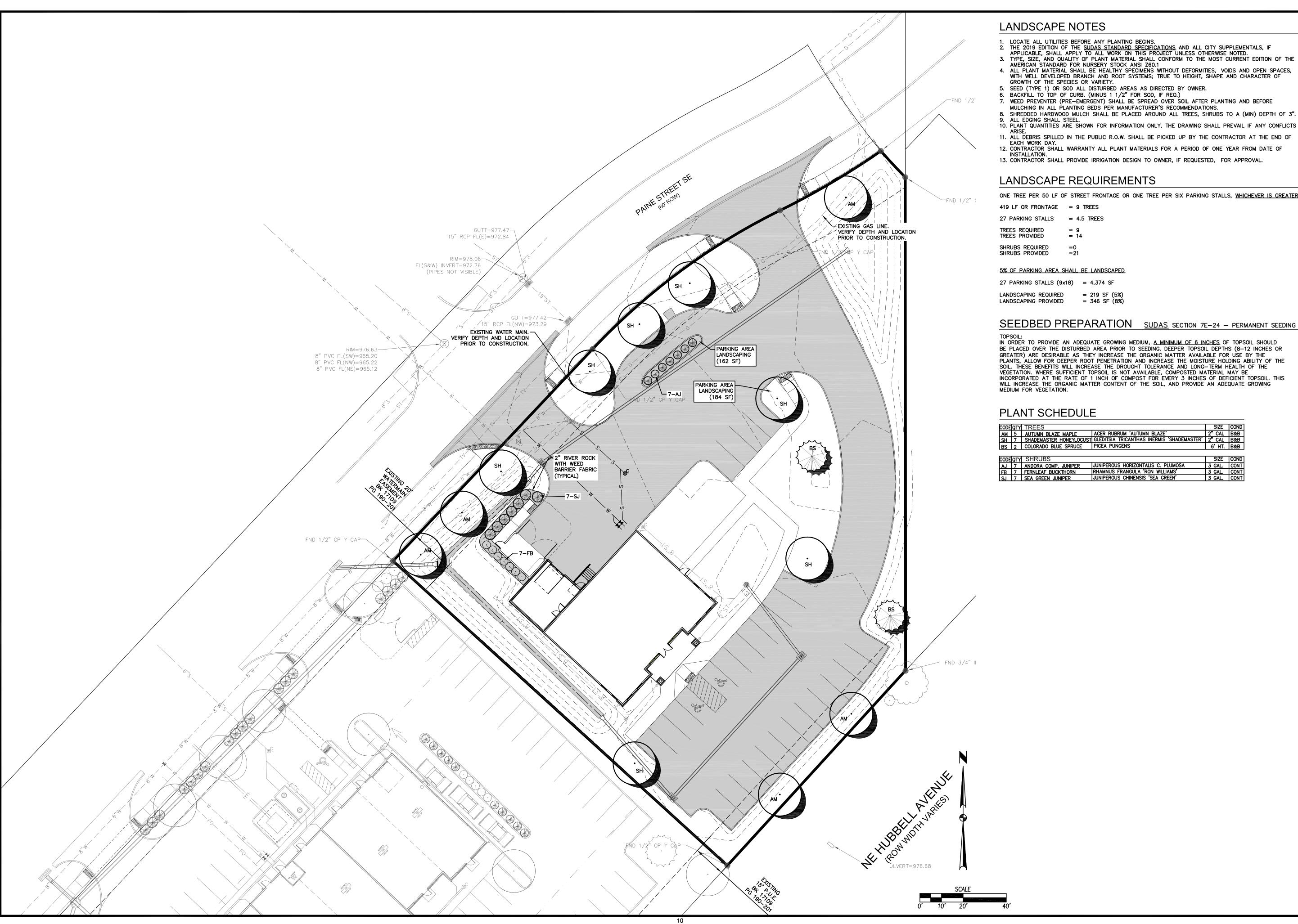
368 CU FT 4,653 CU FT 5,021 CU FT

## SWPPP LEGEND

DRAINAGE ARROW GRADING LIMITS	X.XX %	AREA TO BE SEEDED	* * * * * * * * * * * * * * * * * * * *
FILTER SOCK		STRAW MAT	
SILT FENCE	• • • •	LINIDIOTUDDED ADEA	× × × × × × × × × × × × × × × × × × ×
DITCH CHECK		UNDISTURBED AREA	
INLET PROTECTION	$\bigcirc$	RIP-RAP	
PORTABLE RESTROOM	R	GRAVEL ENTRANCE	
TEMPORARY STANDPIPE	<b>(</b> :::)	STAGING AREA	
CONCRETE WASHOUT PIT		TEMPORARY SEDIMENT TRAP	(TST #
33.73.72.12 W. 13.733 7 7 7 7	: :	TEMPORARY SEDIMENT BASIN	TSB#







## LANDSCAPE NOTES

- LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
   THE 2019 EDITION OF THE <u>SUDAS STANDARD SPECIFICATIONS</u> AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
   TYPE, SIZE, AND QUALITY OF PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT EDITION OF THE
- AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1
- 4. ALL PLANT MATERIAL SHALL BE HEALTHY SPECIMENS WITHOUT DEFORMITIES, VOIDS AND OPEN SPACES, WITH WELL DEVELOPED BRANCH AND ROOT SYSTEMS; TRUE TO HEIGHT, SHAPE AND CHARACTER OF GROWTH OF THE SPECIES OR VARIETY.
- 5. SEED (TYPE 1) OR SOD ALL DISTURBED AREAS AS DIRECTED BY OWNER.
- 6. BACKFILL TO TOP OF CURB. (MINUS 1 1/2" FOR SOD, IF REQ.)
- WEED PREVENTER (PRE-EMERGENT) SHALL BE SPREAD OVER SOIL AFTER PLANTING AND BEFORE MULCHING IN ALL PLANTING BEDS PER MANUFACTURER'S RECOMMENDATIONS.
- 8. SHREDDED HARDWOOD MULCH SHALL BE PLACED AROUND ALL TREES, SHRUBS TO A (MIN) DEPTH OF 3". 9. ALL EDGING SHALL STEEL.
- 11. ALL DEBRIS SPILLED IN THE PUBLIC R.O.W. SHALL BE PICKED UP BY THE CONTRACTOR AT THE END OF
- EACH WORK DAY.
- 12. CONTRACTOR SHALL WARRANTY ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF
- INSTALLATION. 13. CONTRACTOR SHALL PROVIDE IRRIGATION DESIGN TO OWNER, IF REQUESTED, FOR APPROVAL.

## LANDSCAPE REQUIREMENTS

ONE TREE PER 50 LF OF STREET FRONTAGE OR ONE TREE PER SIX PARKING STALLS, WHICHEVER IS GREATER.

419 LF OR FRONTAGE = 9 TREES

27 PARKING STALLS = 4.5 TREES

TREES PROVIDED = 14

SHRUBS PROVIDED

27 PARKING STALLS (9x18) = 4,374 SF

LANDSCAPING REQUIRED = 219 SF (5%) LANDSCAPING PROVIDED = 346 SF (8%)

### SEEDBED PREPARATION SUDAS SECTION 7E-24 - PERMANENT SEEDING

IN ORDER TO PROVIDE AN ADEQUATE GROWING MEDIUM, <u>A MINIMUM OF 6 INCHES</u> OF TOPSOIL SHOULD BE PLACED OVER THE DISTURBED AREA PRIOR TO SEEDING. DEEPER TOPSOIL DEPTHS (8-12 INCHES OR GREATER) ARE DESIRABLE AS THEY INCREASE THE ORGANIC MATTER AVAILABLE FOR USE BY THE PLANTS, ALLOW FOR DEEPER ROOT PENETRATION AND INCREASE THE MOISTURE HOLDING ABILITY OF THE SOIL. THESE BENEFITS WILL INCREASE THE DROUGHT TOLERANCE AND LONG-TERM HEALTH OF THE VEGETATION. WHERE SUFFICIENT TOPSOIL IS NOT AVAILABLE, COMPOSTED MATERIAL MAY BE INCORPORATED AT THE RATE OF 1 INCH OF COMPOST FOR EVERY 3 INCHES OF DEFICIENT TOPSOIL. THIS WILL INCREASE THE ORGANIC MATTER CONTENT OF THE SOIL, AND PROVIDE AN ADEQUATE GROWING MEDIUM FOR VEGETATION.

### PLANT SCHEDULE

CODE	QTY.	TREES		SIZE	COND
АМ	5	AUTUMN BLAZE MAPLE	ACER RUBRUM 'AUTUMN BLAZE'	2" CAL	B&B
SH	7	SHADEMASTER HONEYLOCUST	GLEDITSIA TRICANTHAS INERMIS 'SHADEMASTER'	2" CAL	B&B
BS	2	COLORADO BLUE SPRUCE	PICEA PUNGENS	6' HT.	B&B
					•
	OTV	CHDIIDC		CI7E	LCOND
CODE	QTY	SHRUBS		SIZE	COND
	QTY.	ANDORA COMP. JUNIPER	JUNIPEROUS HORIZONTALIS C. PLUMOSA	SIZE 3 GAL.	COND
CODE	QTY. 7 7	ANDORA COMP. JUNIPER	JUNIPEROUS HORIZONTALIS C. PLUMOSA RHAMNUS FRANGULA 'RON WILLIAMS'		

4410 369 DRIVE, S 50111 AX: (515)

E. CROSSRC GRIMES, I (515) 369-440 PHONE: (



STREET ANDSCAPE PL **PAINE** 

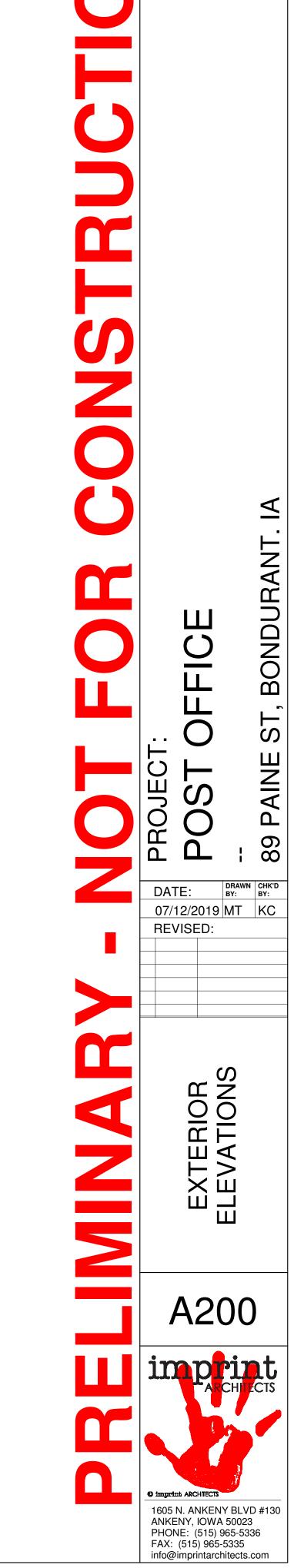
68

ROOF PLAN 121'-9 91/128"

ROOF 112'-0"

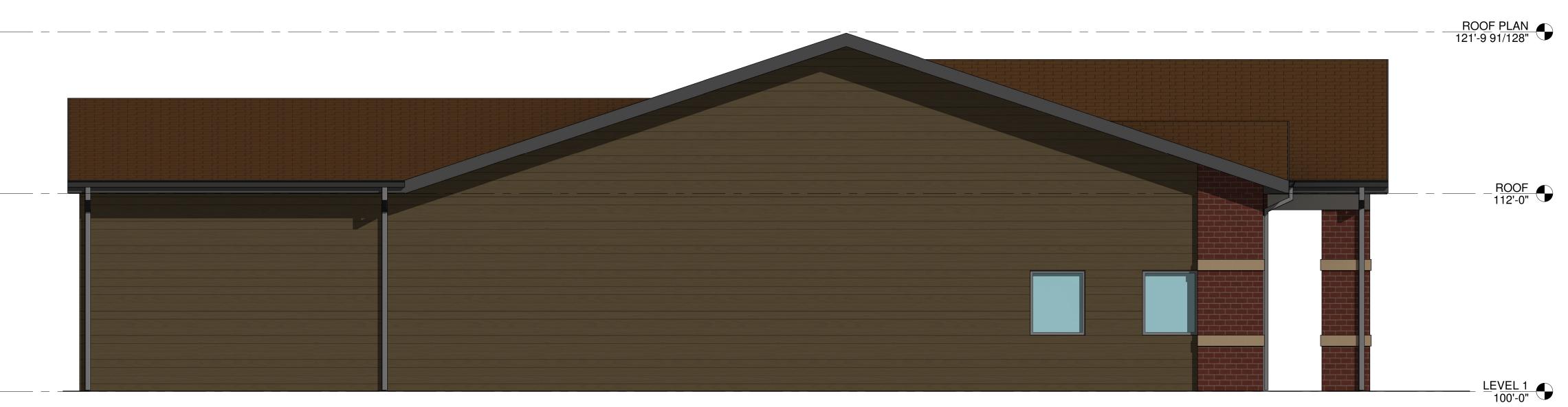
LEVEL 1 100'-0"





2 NORTH 1/4" = 1'-0"

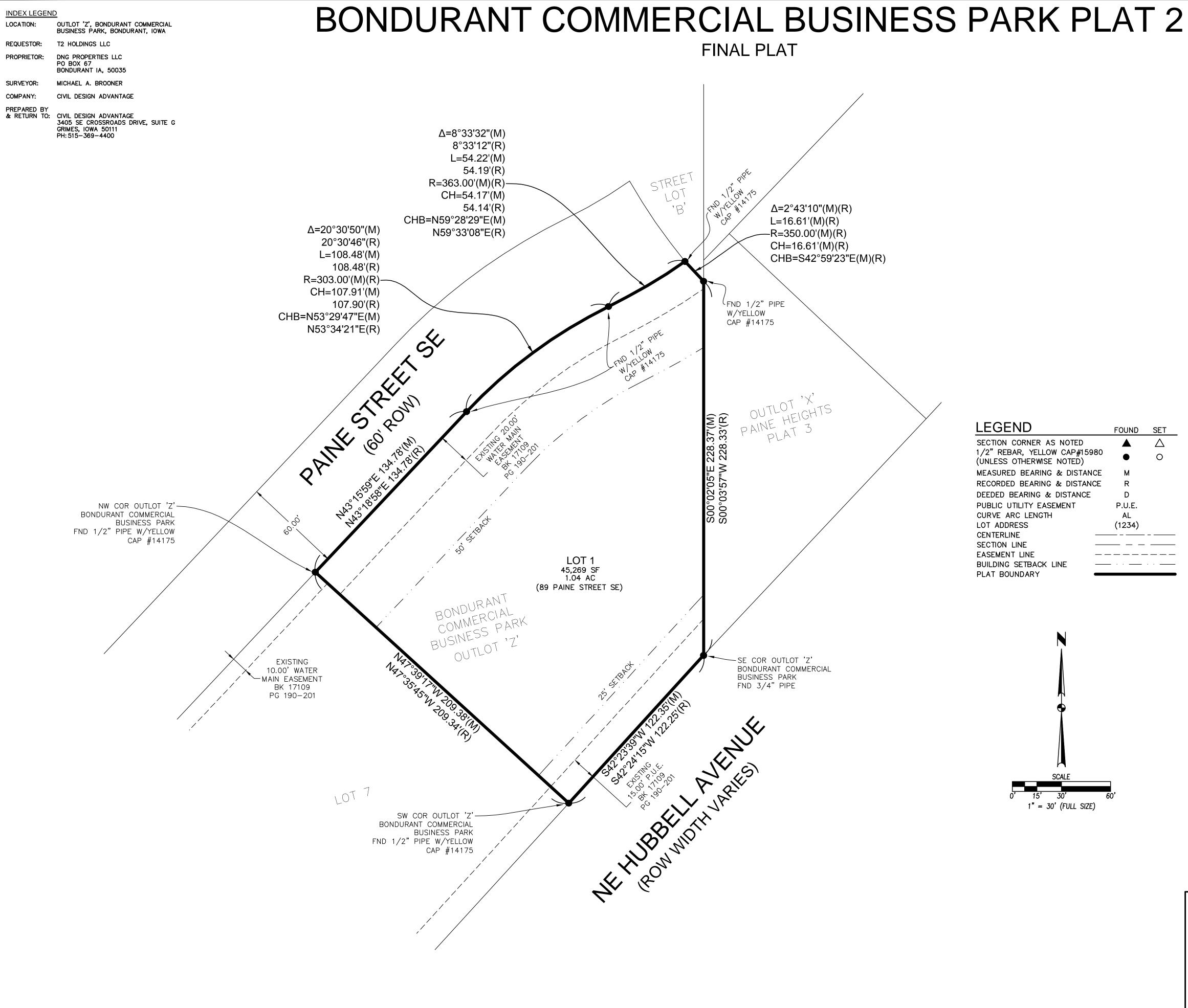
3 SOUTH 1/4" = 1'-0"



1605 N. ANKENY BLVD #130 ANKENY, IOWA 50023 PHONE: (515) 965-5336 FAX: (515) 965-5335 info@imprintarchitects.com

1 EAST 1/4" = 1'-0"

**2** WEST 1/4" = 1'-0"



## PLAT DESCRIPTION

OUTLOT 'Z', BONDURANT COMMERCIAL BUSINESS PARK, AN OFFICAL PLAT IN THE CITY OF BONDURANT, POLK COUNTY, IOWA.

#### **OWNER**

DNG PROPERIES LLC PO BOX 67 BONDURANT, IA 50035

### **DEVELOPER**

T2 HOLDINGS LLC 5700 UNIVERSITY AVENUE, SUITE 220 WEST DES MOINES, IA 50266

### **ENGINEER / SURVEYOR**

CIVIL DESIGN ADVANTAGE 3405 SE CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111

### DATE OF SURVEY

JUNE 12, 2019

## ZONING

C-2 CENTRAL COMMERCIAL DISTRICT

## **BULK REGULATIONS**

MINIMUM LOT AREA: NONE FRONT YARD SETBACK: 50 FEET SIDE YARD SETBACK: NONE

- IF ADJACENT TO ZONE 'R', A BUFFER SHALL BE PROVIDED BY ANY ONE OR APPROVED COMBINATION OF THE FOLLOWING OPTIONS:

1) A BUFFER YARD OF 15 FEET IN WIDTH; 1 6-FOOT HIGH MASONRY WALL TO BE DESIGNED WITH FACE BRICK, STUCCO OR SIMILAR FINISHED SURFACE

FACING TOWARD THE RESIDENTIAL DISTRICT; OR

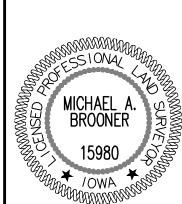
2) A BUFFER YARD OF 26 FEET OR MORE IN WIDTH; A 5 OVER STORY TREES, 10 UNDER STORY TREES, AND 20 SHRUBS FOR EACH 100 LINEAR FEET: OR

3) A BUFFER YARD 35 FEET OR MORE IN WIDTH; 4-FOOT HIGH EARTH BERM OR OPAQUE WOOD FENCE; AND 4 OVER STORY TREES, 6 CONIFEROUS TREES, AND 15 SHRUBS FOR EACH 100 LINEAL

REAR YARD SETBACK: 25 FEET

### NOTES

- 1. ANY SET MONUMENTATION SHOWN ON THIS PLAT WILL BE COMPLETED WITHIN ONE YEAR FROM THE DATE THIS PLAT WAS RECORDED.
- 2. LOTS MAY BE SUBJECT TO MINIMUM PROTECTION ELEVATIONS AND OTHER ELEVATION RESTRICTIONS NOT SHOWN ON THIS PLAT. REFER TO THE APPROVED PROJECT ENGINEERING DOCUMENTS FOR ANY ELEVATION RESTRICTIONS.



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 PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF IOWA.

MICHAEL A. BROONER, P.L.S.

THIS SHEET

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2020 PAGES OR SHEETS COVERED BY THIS SEAL:

1904.199 

3405 S.E. CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 HONE: (515) 369-4400 FAX: (515) 369-4410

OMME RK PI PLAT **D** 

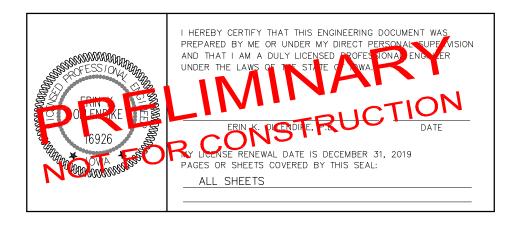
ANT USINE NDUR/

## 89 PAINE STREET SE

# STORM WATER MANAGEMENT PLAN BONDURANT, IOWA

CDA PROJECT NO. 1904.199





CIVIL DESIGN ADVANTAGE 3405 SE Crossroads Drive, Suite G GRIMES, IOWA 50111 (515) 369-4400

PREPARED BY: CIVIL DESIGN ADVANTAGE, LLC

PREPARED ON: JULY 22, 2019



3405 SE Crossroads Dr., SUITE G GRIMES, IA 50111

PROJECT:	89 Paine Street SE	JOB NO.	1904	4.199	Page	1 of	Pages
SUBJECT:	Stormwater Calculations	DATE:	07/22/19	COMP. BY:	JMM	OK'D BY:	

#### **Project Description:**

#### **Existing Site Conditions**

Bondurant Commercial Business Park Plat 2 - Lot 1 is located at 89 Paine Street SE, north of NE Hubbell Avenue in Bondurant, Iowa. The property was mass graded with the construction of the Bondurant Commercial Business Park Plat 1 and is zoned for commercial development. Refer to Bondurant Commercial Business Park Storm Water Management Plan prepared by Bishop Engineering for existing calculations.

#### **Proposed Site Conditions**

Proposed site improvements consist of a post office with associated loading dock, access drives, parking, and utilities. A future building addition is also shown and accounted for in the detention analysis. Grades generally follow existing drainage patterns, flowing to an existing low point in the west corner of the site.

#### **Storm Water Analysis:**

#### **Storm Sewer Analysis**

Storm sewer pipes were designed to convey the 5-year post-developed storm event with overflow paths defined to provide routing for larger storm events. The Rational Method was used to determine the flow rate for each drainage area and the Manning's equation was used to size the pipes.

Lot 1 of Bondurant Commercial Business Park Plat 2 was formerly know as Outlot 'Z' of Bondurant Commercial Business Park Plat 1 and was designed with an allowable release rate of 1.88 cfs during the 100-year storm event. Refer to the Storm Water Management Plan titled "Bondurant Commercial Business Park" dated January 23, 2018 for calculations.

#### **DB 1 (PROPOSED AREA = 1.03 AC)**

Rainfall Return	(Allowable Release), cfs	Post-Developed
Frequency	(Allowable Release), cis	Runoff Release,
(Yrs)		cfs
5	-	1.32
100	1.88	1.81

#### **Detention Basin Summary**

Listed in the table below are the summaries of the detention basin

	Normal Pool Elevation	100 yr Detention Elevation	Detention Overflow Elevation	Detention Freeboard, Feet	100 yr Detention Release, cfs
POND 1	Dry-Bottom	976.15	976.43	0.28	1.76



3405 SE Crossroads Dr., SUITE G GRIMES, IA 50111

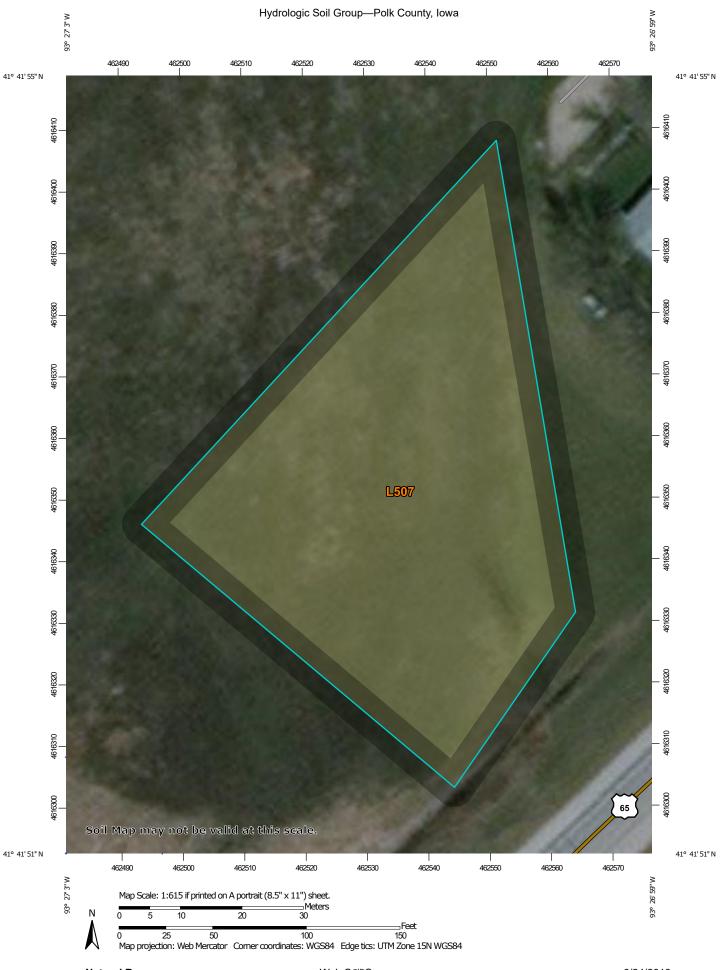
PROJECT:	89 Paine Street SE	JOB NO	190	4.199	Page	1 of	_Pages
SUBJECT:	Stormwater Calculations	DATE:	07/22/19	COMP. BY:	JMM	OK'D BY:_	

#### **Assumptions:**

- \* See attached Hydrologic Soil Map in this section. For this analysis, Hydrologic Soil Group C will be used.
- \* Assumed a 15 minute time of concentration for post-developed calculations.
- \* Assumed a 15 minute time of concentration for storm sewer design.

Land Use or Surface Characteristics	C Soils	C Soils
Impervious Open Space - Good Condition	<u>5-yr</u> 0.95 0.35	100-yr 0.98 0.55

Cover Type	C Soils
Impervious	98
Open Space - Good Condition	74



#### MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mapped at Area of Interest (AOI) С 1:12.000. Area of Interest (AOI) C/D Soils Warning: Soil Map may not be valid at this scale. D Soil Rating Polygons Enlargement of maps beyond the scale of mapping can cause Not rated or not available Α misunderstanding of the detail of mapping and accuracy of soil **Water Features** line placement. The maps do not show the small areas of A/D Streams and Canals contrasting soils that could have been shown at a more detailed Transportation B/D Rails ---Please rely on the bar scale on each map sheet for map measurements. Interstate Highways C/D Source of Map: Natural Resources Conservation Service **US Routes** Web Soil Survey URL: D Major Roads Coordinate System: Web Mercator (EPSG:3857) Not rated or not available -Local Roads Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts Soil Rating Lines Background distance and area. A projection that preserves area, such as the Aerial Photography Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. B/D Soil Survey Area: Polk County, Iowa Survey Area Data: Version 20, Sep 11, 2018 Soil map units are labeled (as space allows) for map scales 1:50.000 or larger. Not rated or not available Date(s) aerial images were photographed: Apr 4, 2015—Feb 21, 2017 **Soil Rating Points** The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background A/D imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. B/D

#### **Hydrologic Soil Group**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
L507	Canisteo clay loam, Bemis moraine, 0 to 2 percent slopes	C/D	0.9	100.0%
Totals for Area of Inter	est	0.9	100.0%	

#### **Description**

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

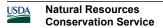
Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

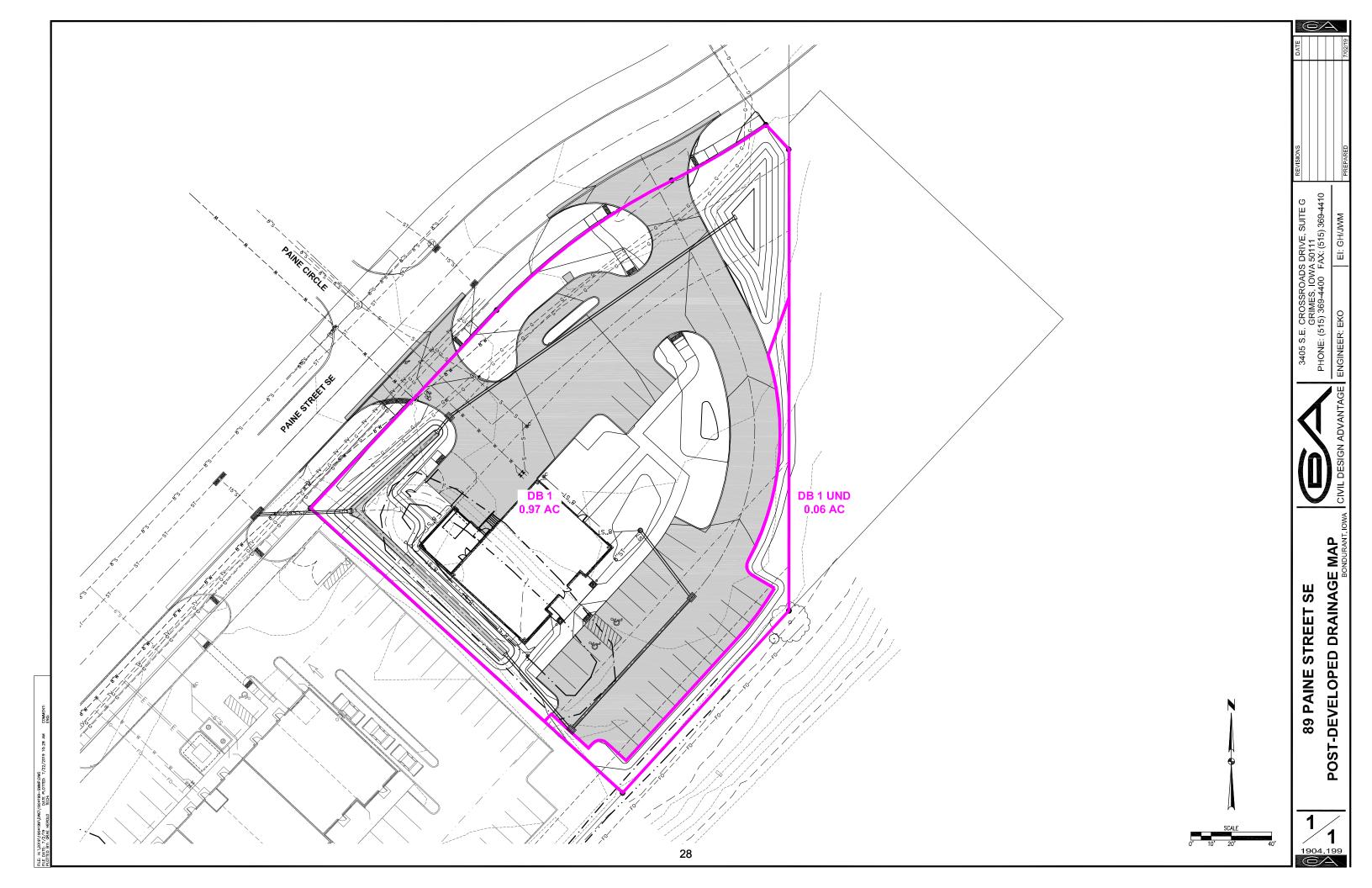
#### Rating Options

Aggregation Method: Dominant Condition



Component Percent Cutoff: None Specified

Tie-break Rule: Higher



## CIVIL DESIGN ADVANTAGE

3405 SE Crossroads Dr., SUITE G GRIMES, IA 50111

PROJECT:	89 Paine Street SE	JOB NO.	1904.199	Page _	1	_of	Pages
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SUBJECT: Stormwater Calculations DATE: 07/22/19 COMP. BY: JMM OK'D BY:

Detention									
Post-Developed Curve Number Calculations									
Drainage	Lawn	Lawn	Imperv.	Imperv.	Total Area	Total Area	Composite		
Area ID	CN	Area, SF	CN	Area, SF	SF	Acres	CN		
DB 1	74	14,074	98	28,336	42,410	0.97	90		
DB 1 UND	74	2,828	98	0	2,828	0.06	74		

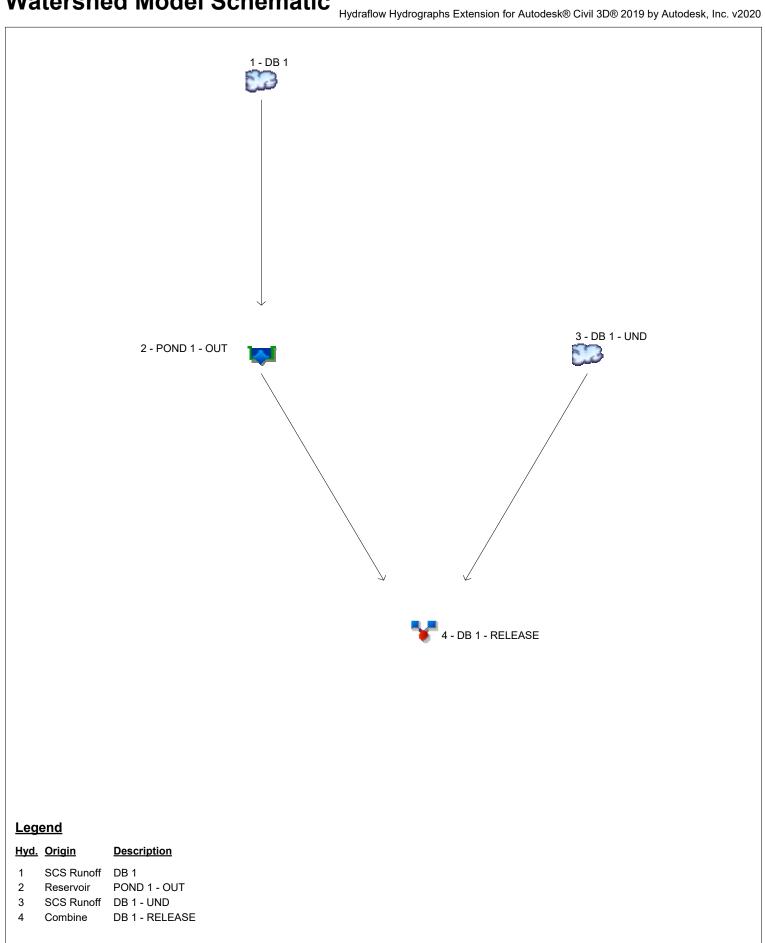
<sup>\*</sup> Curve Number calculated for DB 1 includes impervious area associated with future building addition.

## **Hydraflow Table of Contents**

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# Hydrograph Return Period Recap Hydraffow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. Hydrograph No. type (origin)		Peak Outflow (cfs)								Hydrograph	
		hyd(s)	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	Description
1	SCS Runoff					3.281				6.833	DB 1
2	Reservoir	1				1.298				1.757	POND 1 - OUT
3	SCS Runoff					0.149				0.416	DB 1 - UND
4	Combine	2, 3				1.319				1.806	DB 1 - RELEASE

Proj. file: Post-Developed Hydraflow.gpw

Tuesday, 07 / 2 / 2019

# Hydrograph Summary Report Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

			_		_			TISIOTI TOI AUTOGE	
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	3.281	2	722	9,405				DB 1
2	Reservoir	1.298	2	734	9,403	1	974.78	2,370	POND 1 - OUT
3	SCS Runoff	0.149	2	718	298				DB 1 - UND
4	Combine	1.319	2	734	9,701	2, 3			DB 1 - RELEASE
– Pos	st-Developed	Hydraflov	w.gpw		Return F	Period: <b>5</b> 8⁄	ear	Tuesday, 0	07 / 2 / 2019

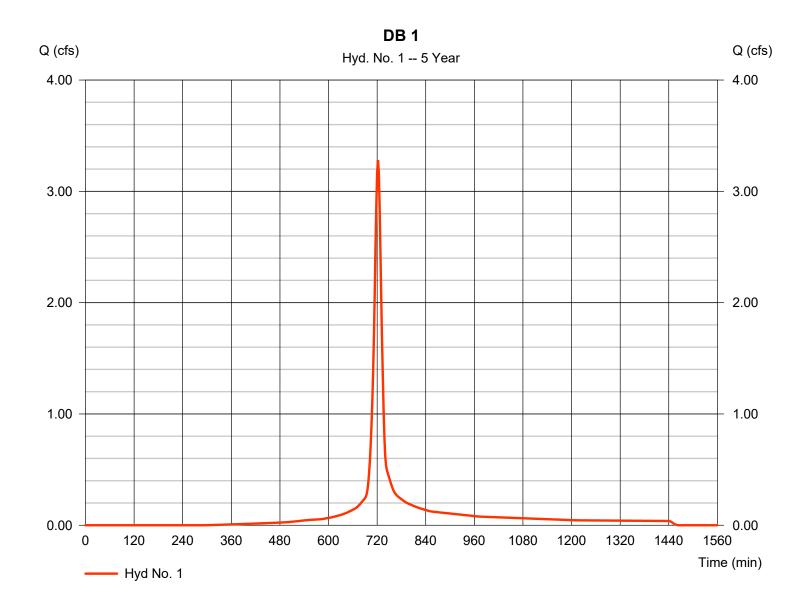
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Tuesday, 07 / 2 / 2019

## Hyd. No. 1

DB 1

Hydrograph type = SCS Runoff Peak discharge = 3.281 cfsStorm frequency = 5 yrsTime to peak = 722 min Time interval = 2 min Hyd. volume = 9.405 cuftCurve number Drainage area = 0.970 ac= 90 Basin Slope = 0.0 %Hydraulic length = 0 ftTc method Time of conc. (Tc) = 15.00 min = User Total precip. = 3.81 inDistribution = Type II Storm duration = 24 hrs Shape factor = 484



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

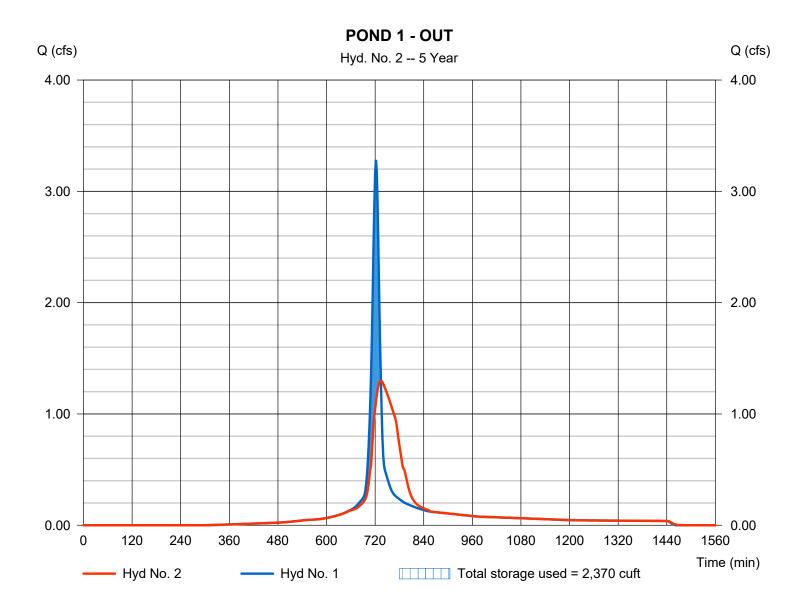
Tuesday, 07 / 2 / 2019

## Hyd. No. 2

POND 1 - OUT

Hydrograph type = Reservoir Peak discharge = 1.298 cfsStorm frequency = 5 yrsTime to peak = 734 min Time interval = 2 min Hyd. volume = 9,403 cuftMax. Elevation Inflow hyd. No. = 1 - DB 1 = 974.78 ftReservoir name = POND 1 Max. Storage = 2,370 cuft

Storage Indication method used.



# **Pond Report**

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Tuesday, 07 / 2 / 2019

#### Pond No. 1 - POND 1

#### **Pond Data**

Contours -User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 972.79 ft

#### Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	972.79	00	0	0
0.21	973.00	201	21	21
1.21	974.00	1,448	824	846
2.21	975.00	2,450	1,949	2,795
3.21	976.00	3,590	3,020	5,815
3.59	976.38	4,306	1,500	7,315

Culvert / Ori	fice Structur	es		Weir Structures						
	[A]	[B]	[C]	[PrfRsr]		[A]	[B]	[C]	[D]	
Rise (in)	= 7.00	0.00	0.00	0.00	Crest Len (ft)	= 0.00	0.00	0.00	0.00	
Span (in)	= 7.00	0.00	0.00	0.00	Crest El. (ft)	= 0.00	0.00	0.00	0.00	
No. Barrels	= 1	0	0	0	Weir Coeff.	= 3.33	3.33	3.33	3.33	
Invert El. (ft)	= 972.79	0.00	0.00	0.00	Weir Type	=				
Length (ft)	= 47.00	0.00	0.00	0.00	Multi-Stage	= No	No	No	No	
Slope (%)	= 0.50	0.00	0.00	n/a						
N-Value	= .013	.013	.013	n/a						
Orifice Coeff.	= 0.60	0.60	0.60	0.60	Exfil.(in/hr)	= 0.000 (by	Contour)			
Multi-Stage	= n/a	No	No	No	TW Elev. (ft)	= 0.00				

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

#### Stage / Storage / Discharge Table

Storage cuft	Elevation ft	CIv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0	972.79	0.00										0.000
21	973.00	0.14 ic										0.135
846	974.00	0.94 oc										0.940
2 795	975 00	1 38 oc										1.382
,												1.713
-,												1.824
	<b>cuft</b> 0 21	cuft ft  0 972.79 21 973.00 846 974.00 2,795 975.00 5,815 976.00	cuft         ft         cfs           0         972.79         0.00           21         973.00         0.14 ic           846         974.00         0.94 oc           2,795         975.00         1.38 oc           5,815         976.00         1.71 oc	cuft         ft         cfs         cfs           0         972.79         0.00            21         973.00         0.14 ic            846         974.00         0.94 oc            2,795         975.00         1.38 oc            5,815         976.00         1.71 oc	cuft         ft         cfs         cfs         cfs           0         972.79         0.00             21         973.00         0.14 ic             846         974.00         0.94 oc             2,795         975.00         1.38 oc             5,815         976.00         1.71 oc	cuft         ft         cfs         cfs         cfs           0         972.79         0.00             21         973.00         0.14 ic             846         974.00         0.94 oc             2,795         975.00         1.38 oc             5,815         976.00         1.71 oc	cuft         ft         cfs         cfs         cfs         cfs         cfs           0         972.79         0.00               21         973.00         0.14 ic               846         974.00         0.94 oc               2,795         975.00         1.38 oc               5,815         976.00         1.71 oc	cuft         ft         cfs         cm         cm <td>cuft         ft         cfs         cfs<td>cuft         ft         cfs         cfs<td>cuft         ft         cfs         cfs<td>cuft         ft         cfs         cfs</td></td></td></td>	cuft         ft         cfs         cfs <td>cuft         ft         cfs         cfs<td>cuft         ft         cfs         cfs<td>cuft         ft         cfs         cfs</td></td></td>	cuft         ft         cfs         cfs <td>cuft         ft         cfs         cfs<td>cuft         ft         cfs         cfs</td></td>	cuft         ft         cfs         cfs <td>cuft         ft         cfs         cfs</td>	cuft         ft         cfs         cfs

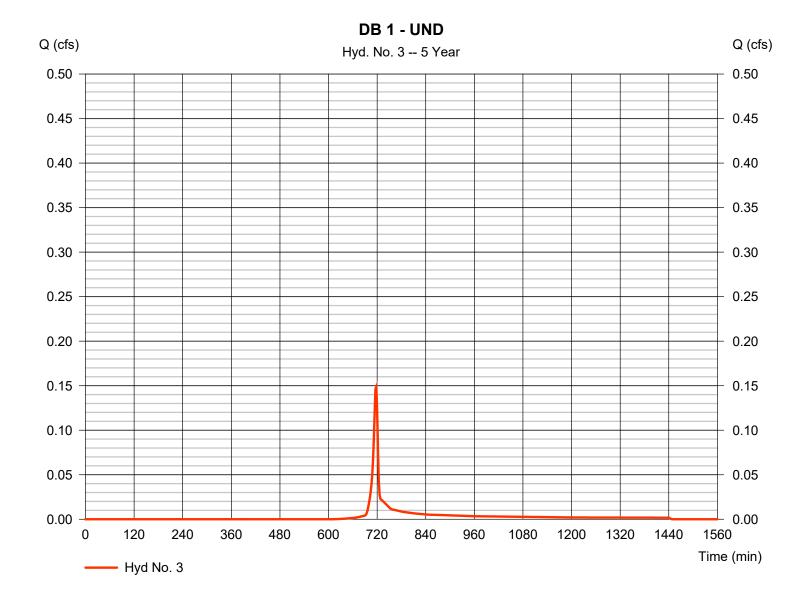
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Tuesday, 07 / 2 / 2019

## Hyd. No. 3

DB 1 - UND

Hydrograph type = SCS Runoff Peak discharge = 0.149 cfsStorm frequency = 5 yrsTime to peak = 718 min Time interval = 2 min Hyd. volume = 298 cuft Drainage area Curve number = 0.060 ac= 74 Hydraulic length = 0 ftBasin Slope = 0.0 %Tc method Time of conc. (Tc)  $= 6.00 \, \text{min}$ = User Total precip. = 3.81 inDistribution = Type II Storm duration = 24 hrs Shape factor = 484



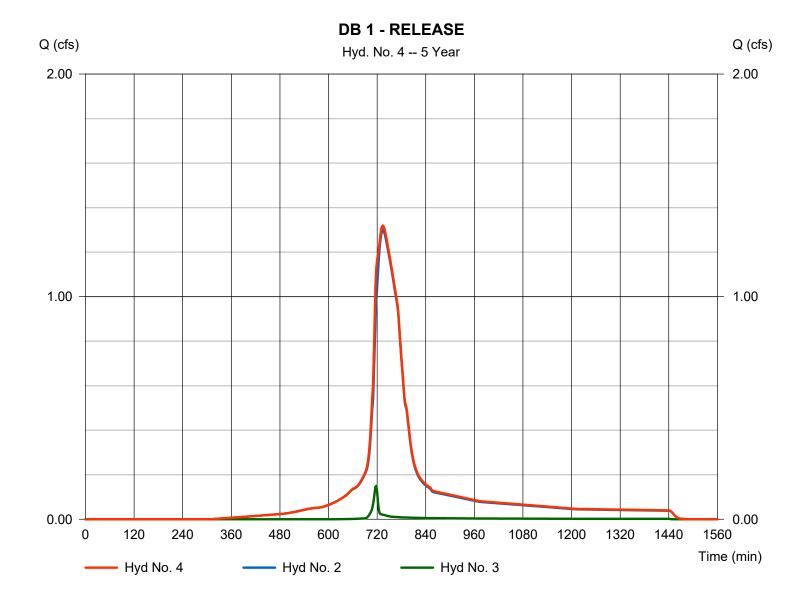
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Tuesday, 07 / 2 / 2019

## Hyd. No. 4

DB 1 - RELEASE

Hydrograph type = Combine = 1.319 cfsPeak discharge Storm frequency = 5 yrsTime to peak = 734 min Time interval = 2 min Hyd. volume = 9,701 cuftInflow hyds. = 2, 3 Contrib. drain. area = 0.060 ac



# Hydrograph Summary Report Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	6.833	2	722	20,395				DB 1
2	Reservoir	1.757	2	738	20,394	1	976.15	6,397	POND 1 - OUT
3	SCS Runoff	0.416	2	716	847				DB 1 - UND
4	Combine	1.806	2	736	21,241	2, 3			DB 1 - RELEASE
 Pos	st-Developed	Hydraflov	w.gpw		Return		) Year	Tuesday, (	07 / 2 / 2019

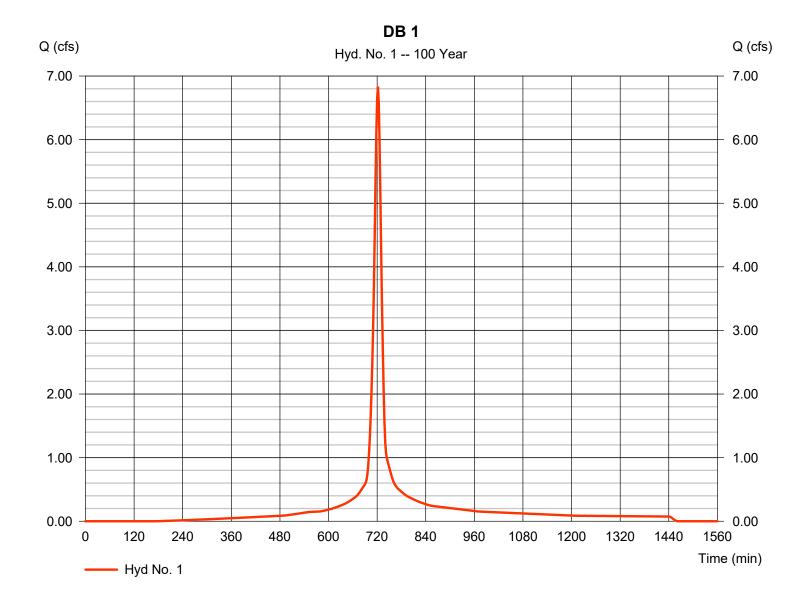
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Tuesday, 07 / 2 / 2019

## Hyd. No. 1

DB 1

Hydrograph type = SCS Runoff Peak discharge = 6.833 cfsStorm frequency = 100 yrsTime to peak = 722 min Time interval = 2 min Hyd. volume = 20.395 cuft Drainage area Curve number = 0.970 ac= 90 Basin Slope = 0.0 %Hydraulic length = 0 ftTc method Time of conc. (Tc) = 15.00 min = User Total precip. = 7.12 inDistribution = Type II Storm duration = 24 hrs Shape factor = 484



Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

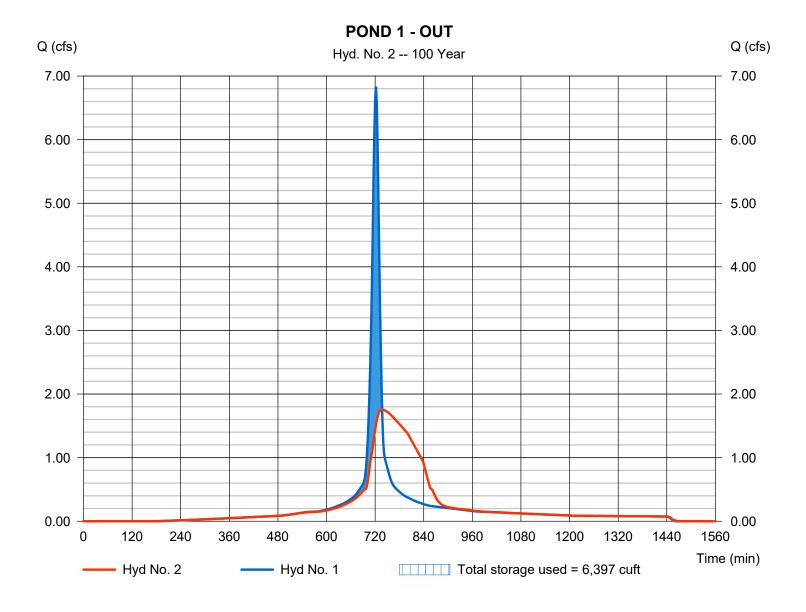
Tuesday, 07 / 2 / 2019

## Hyd. No. 2

POND 1 - OUT

Hydrograph type = 1.757 cfs= Reservoir Peak discharge Storm frequency = 100 yrsTime to peak = 738 min Time interval = 2 min Hyd. volume = 20,394 cuftInflow hyd. No. Max. Elevation = 976.15 ft = 1 - DB 1 Reservoir name = POND 1 Max. Storage = 6,397 cuft

Storage Indication method used.



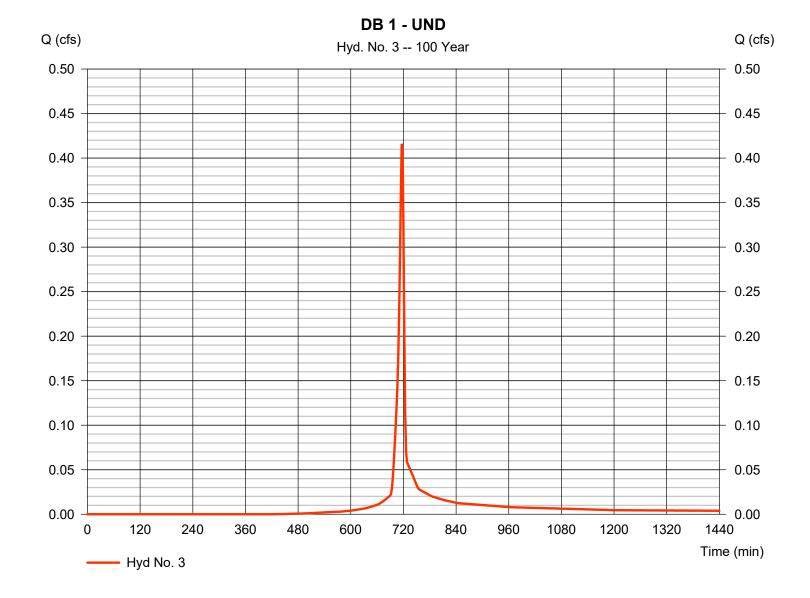
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

Tuesday, 07 / 2 / 2019

## Hyd. No. 3

DB 1 - UND

Hydrograph type = SCS Runoff Peak discharge = 0.416 cfsStorm frequency = 100 yrsTime to peak = 716 min Time interval = 2 min Hyd. volume = 847 cuft Drainage area Curve number = 0.060 ac= 74 Basin Slope = 0.0 %Hydraulic length = 0 ftTc method Time of conc. (Tc)  $= 6.00 \, \text{min}$ = User Total precip. = 7.12 inDistribution = Type II Storm duration = 24 hrs Shape factor = 484



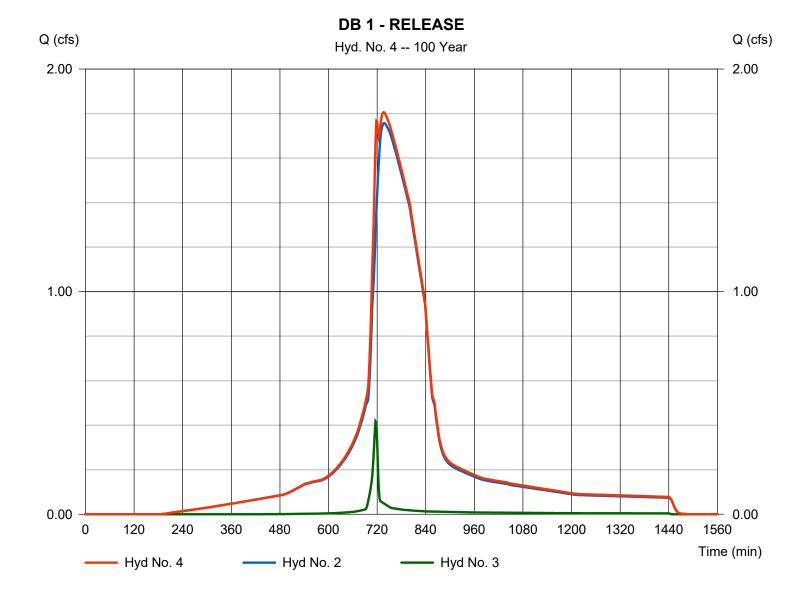
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020

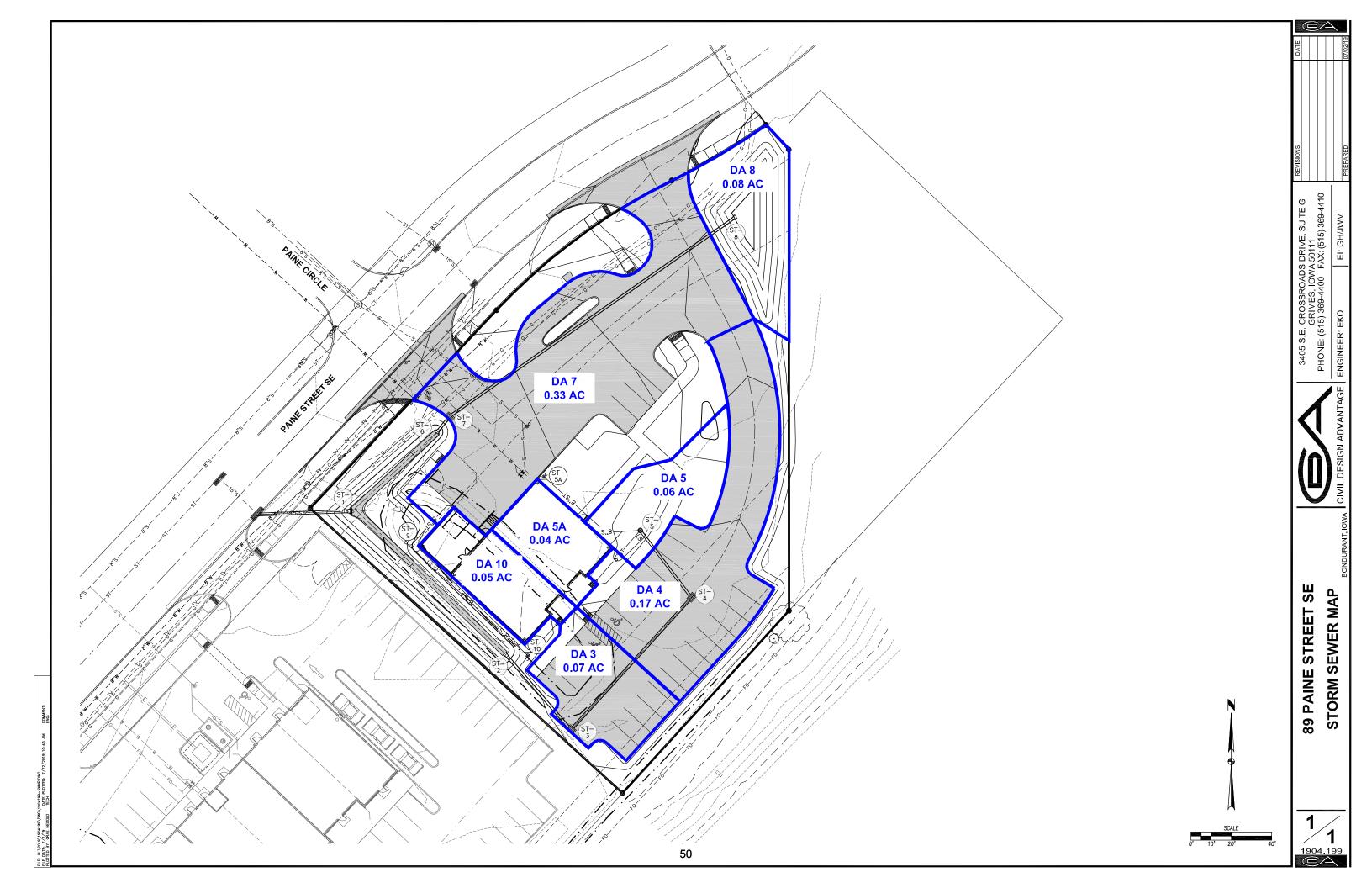
Tuesday, 07 / 2 / 2019

## Hyd. No. 4

DB 1 - RELEASE

Hydrograph type = Combine Peak discharge = 1.806 cfsStorm frequency = 100 yrsTime to peak = 736 min Time interval = 2 min Hyd. volume = 21,241 cuft Inflow hyds. = 2, 3 Contrib. drain. area = 0.060 ac





 Project:
 89 Paine Street SE

 Proj. No.:
 1904.199

 Designed:
 JMM

 Date:
 7/22/2019

Structure   Location   Type or   Structure   Storm Sewer   Fl. (out)		List of Intakes and Utility A	ccesses					List of	Storm S	Sewer I	Pipe									Storm S	ewer Pip	e Design I	nformatio	on					
Number   Standard		, /													Manning's r	า -	RCP =	0.013	PVC =	0.011					Design S	orm =	5	year	
Name	Structure	Location Type or		Note	Pipe	Stru	ıcture		Storm S	ewer		FL(out)	FI(in) N	Note	Drainage	С	Equiv.	Accumulated	Time of	Rainfall	Storm	Sump	Sump	Pipe C	apacity	Flow \	√elocity	Travel	Note
ST-EXT EXTRACE TO 675.73   LEX ST-EXT								Material				Э										Lines						Time min.	
ST-PK    CONNECTION   FL 972.76   L-EXI ST-FLX ST-FLX RCP   15   41   0.01   972.76   972.76   L-1   ST-EXI ST-FLX ST-F	01 #	Troad Fiair	Licvation		L #	01#	01#		mones	1001	70				71, 40103		Ort	20/1	111111.	11//111	013	unito	013	013	013	10300	10300	111111.	
ST-1	ST- EX1	EX INTAKE	TC 975.73																										
ST-2 ST-20 S	ST- EX2	CONNECTION	FL 972.76		L- EX2	ST- E1X	ST- EX2	RCP	15						0.00	0.00	0.000	0.000	15	4.12	0.00			0.00	5.04	1.27	4.11	0.54	
ST-3   SW-591 INTAKE   TC 577:65   L3 ST-2 ST-3 RCP   12 49 0.509 573.27   273.57   0.07 0.95 0.067 0.300 15 4.12 1.23   1.23 2.52 2.39 3.21 0.0	ST- 1	15" RCP APRON	FL 972.79		L- 1	ST- EX2	ST- 1	RCP	15	6	0.61	972.76 9	72.79		0.00	0.00	0.000	0.000	15	4.12	0.00			0.00	5.04	1.27	4.11	0.08	
ST-3   SW-501 INTAKE   RM 977-87   L-3   ST-2   ST-3   RCP   12   49   050   973.27   973.57   0.07   0.95   0.097   0.300   15   4.12   1.23   1.23   2.52   3.19   3.21   0.5   ST-5   1.75   NTOPHAST INTAKE   RM 977-87   L-5   ST-6   ST-7   ST-5   1.75   NTOPHAST INTAKE   RM 977-87   L-5   ST-6   ST-7   ST-5   ST																													
ST-4   SW-51 INTAKE   RIM 977-37   L-4   ST-3   ST-4   RCP   12   87   0.50   87-5.0   97-5.0   97-5.0   97-5.0   0.50   0.233   15   4.12   0.96   0.98   0.252   2.98   3.21   0.55																													
ST-S   15'NYLOPLASTINTAKE RIM 97'47'   L-S   ST-4   ST-5   HOPE   12   41   0.50   974.21'   974.81   0.06   0.59   0.038   0.038   15   4.12   0.30   0.30   2.38   2.43   3.79   0.07   0.16   1.01   2.12   2.20   0.07																													
ST-6A STORM CLEANOUT RIM 978.43 L-5A ST-6 ST-5A HDPE 8 58 0.50 974.52 974.81 0.04 0.95 0.038 15 4.12 0.16 0.16 1.01 2.12 2.89 0.00																													$\vdash$
ST- 6										41 50	0.50	974.21 9	774.42																
ST-7 SW-901 INTAKE TC 976.59  12 RCP APRON FL 974.10  1-8 ST-7 ST-6 ST-7 RCP 12 10 0.50 973.08 973.13  12 RCP APRON FL 974.10  1-8 ST-7 ST-8 RCP 12 170 0.50 973.29 974.10  ST-9 ST-0 STORM CLEANOUT RM 976.93  ST-10 STORM CLEANOUT RM 976.93  1-10 ST-9 ST-10 HOPE 8 83 0.50 973.35 973.77  1-10 ST-0 ST-0 RCP	S1- 5A	STORM CLEANOUT	RIM 978.43		L- 5A	51-5	S1- 5A	HUPE	δ	58	0.50	974.52	974.81		0.04	0.95	0.038	0.038	15	4.12	0.16			0.16	1.01	2.12	2.89	0.46	
ST-7 SW-601 INTAKE TC 976.50 ST-8 12 RCP APRON FL 974.10 L-8 ST-7 ST-8 RCP 12 10 0.50 973.08 973.13 L-8 ST-7 ST-8 RCP 12 170 0.50 973.28 974.10 ST-9 S**CMP APRON FL 973.36 ST-10 STORM CLEANOUT RIM 976.93 ST-10	ST- 6	12" ΒΩΡ ΔΡΡΩΝΙ	FI 973.08																										
ST-8 12'RCPARRON FL 974.10  L-8 ST-7 ST-8 RCP 12 173 0.50 973.23 974.10  D08 0.35 0.028 15 4.12 0.12 0.12 2.52 1.58 3.21 1.  ST-9 8'CMPAPRON FL 973.35					1 - 7	ST- 6	ST- 7	RCP	12	10	0.50	973.08	73 13		0.33	0.88	0.290	0.318	15	4 12	1 31			1 31	2.52	3 25	3 21	0.05	$\overline{}$
ST-10 STORM CLEANOUT RIM 976.93  L-10 ST-9 ST-10 HDPE 8 83 0.50 973.35 973.77																												1.82	
ST-10 STORM CLEANOUT RIM 976.93 L-10 ST-9 ST-10 HDPE 8 83 0.50 973.35 973.77 0.05 0.95 0.048 0.048 15 4.12 0.20 0.20 1.01 2.26 2.89 0.048														-															
Notes: Notes: Notes:	ST- 10	STORM CLEANOUT	RIM 976.93		L- 10	ST- 9	ST- 10	HDPE	8	83	0.50	973.35	973.77		0.05	0.95	0.048	0.048	15	4.12	0.20			0.20	1.01	2.26	2.89	0.61	
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### **CIVIL DESIGN ADVANTAGE**

3405 SE Crossroads Dr., SUITE G GRIMES, IA 50111

PROJECT: <u>89 Paine Street SE</u> \_\_\_\_\_\_ JOB NO. \_\_\_\_\_\_ Page \_\_\_1 \_\_ of \_\_\_\_ Pages

SUBJECT: Stormwater Calculations DATE: 07/22/19 COMP. BY: JMM OK'D BY:

Storm Sev	Storm Sewer										
Post-Deve	Post-Developed Composite C-factor Calculations (5-Year - C Soils)										
Drainage	Lawn	Lawn	Imperv.	Imperv.	Total Area	Total Area	Composite				
Area ID	C-Factor	Area, SF	C-Factor	Area, SF	SF	Acres	C-Factor				
DA 3	0.35	0	0.95	2,884	2,884	0.07	0.95				
DA 4	0.35	168	0.95	7,360	7,528	0.17	0.94				
DA 5	0.35	1,522	0.95	1,032	2,554	0.06	0.59				
DA 5A	0.35	0	0.95	1,813	1,813	0.04	0.95				
DA 7	0.35	1,728	0.95	12,740	14,468	0.33	0.88				
DA 8	0.35	3,323	0.95	0	3,323	0.08	0.35				
DA 10	0.35	0	0.95	2,183	2,183	0.05	0.95				

	Storm Sewer Post-Developed Composite C-factor Calculations (100-Year - C Soils)											
Drainage	Lawn	Lawn	Imperv.	Imperv.	Total Area	Total Area	Composite					
Area ID	C-Factor	Area, SF	C-Factor	Area, SF	SF	Acres	C-Factor					
DA 3	0.55	0	0.98	2,884	2,884	0.07	0.98					
DA 4	0.55	168	0.98	7,360	7,528	0.17	0.97					
DA 5	0.55	1,522	0.98	1,032	2,554	0.06	0.72					
DA 5A	0.55	0	0.98	1,813	1,813	0.04	0.98					
DA 7	0.55	1,728	0.98	12,740	14,468	0.33	0.93					
DA 8	0.55	3,323	0.98	0	3,323	0.08	0.55					
DA 10	0.55	0	0.98	2,183	2,183	0.05	0.98					



#### 3405 SE CROSSROADS DRIVE, SUITE G GRIMES, IA 50111

Q = C \* I \* A

0.98 7.44

0.07

0.51

Page \_\_\_\_ of Pages PROJECT: 89 Paine Street SE JOB NO. 1904.199 SUBJECT: Intake Capacity Calculations DATE: 07/22/19 DESIGNED: JMM CHECKED:

**INTAKE CAPACITY CALCULATIONS** 

**EQUATIONS** 

 $Q = 0.67 A_g (2gd)^{0.5}$  (SUDAS Equation 2C-3.12) 1. ORIFICE:

WHERE - Q = flow, cfs

 $A_q$  = Clear opening of the grate,  $ft^2$ g = gravitational constant (32.16 ft/s<sup>2</sup>)d = average depth across the grate, ft

 $Q = 3.0 P d^{1.5}$  (SUDAS Equation 2C-3.11) 2. WEIR:

WHERE - Q = flow, cfs

P= Perimeter of the grate disregarding the side against the curb, ft

d = average depth across the grate, ft

**CALCULATIONS** 

1. Solve for required head given flow and open area for casting using Orifice Equation:

LOCATION: **ST-3** 

 $Q_{100} = 0.51$  cfs (From Rational Equation) INPUT:  $A_q = 1.95$  sq. ft. (Open Area of Casting)

Required Depth at Grate: d = 0.002 ft.

2. Solve for required head given flow and open perimeter of casting using Weir Equation:

LOCATION: **ST - 3** 

INPUT:  $Q_{100} = 0.51$  cfs (From Rational Equation)

P = 5.86 ft. (Open Perimeter of Casting)

Required Depth at Grate: d = 0.094ft.

GOVERNING EQUATION: Weir Equation

Required Depth = 0.094 ft = 1.1inches

The 100-year elevation is 977.33 + 0.094 = 977.42



#### 3405 SE CROSSROADS DRIVE, SUITE G GRIMES, IA 50111

Q = C

0.97 7.44

0.17

1.23

PROJECT: 89 Paine Street SE JOB NO. 1904.199 Page \_\_\_\_\_ of \_\_\_\_ Pages SUBJECT: Intake Capacity Calculations DATE: 07/22/19 DESIGNED: JMM CHECKED:

\_\_\_\_\_

#### **INTAKE CAPACITY CALCULATIONS**

#### **EQUATIONS**

1. ORIFICE:  $Q = 0.67 A_q (2gd)^{0.5}$  (SUDAS Equation 2C-3.12)

WHERE - Q = flow, cfs

A<sub>g</sub> = Clear opening of the grate, ft<sup>2</sup> g = gravitational constant (32.16 ft/s<sup>2</sup>) d = average depth across the grate, ft

2. WEIR:  $Q = 3.0 P d^{1.5}$  (SUDAS Equation 2C-3.11)

WHERE - Q = flow, cfs

P= Perimeter of the grate disregarding the side against the curb, ft

d = average depth across the grate, ft

#### **CALCULATIONS**

1. Solve for required head given flow and open area for casting using Orifice Equation:

LOCATION: ST - 4

INPUT:  $Q_{100} = 1.23$  cfs (From Rational Equation)  $A_g = 2.62$  sq. ft. (Open Area of Casting)

Required Depth at Grate: d = 0.008 ft.

2. Solve for required head given flow and open perimeter of casting using Weir Equation:

LOCATION: ST - 4

INPUT:  $Q_{100} = 9.91$  cfs (From Rational Equation)

P = 5.86 ft. (Open Perimeter of Casting)

Required Depth at Grate: d = 0.682 ft.

GOVERNING EQUATION: Weir Equation

Required Depth = 0.682 ft = 8.2 inches

The 100-year elevation is 977.37 + 0.682 = 978.05



#### 3405 SE CROSSROADS DRIVE, SUITE G GRIMES, IA 50111

Q = C

0.93 7.44

0.33

2.28

 PROJECT:
 89 Paine Street SE
 JOB NO.
 1904.199
 Page
 of
 Pages

SUBJECT: Intake Capacity Calculations DATE: 07/22/19 DESIGNED: JMM CHECKED:

#### **INTAKE CAPACITY CALCULATIONS**

#### **EQUATIONS**

1. ORIFICE:  $Q = 0.67 A_q (2gd)^{0.5}$  (SUDAS Equation 2C-3.12)

WHERE - Q = flow, cfs

 $A_g$  = Clear opening of the grate,  $ft^2$ g = gravitational constant (32.16 ft/s<sup>2</sup>)

d = average depth across the grate, ft

<u>2. WEIR:</u>  $Q = 3.0 P d^{1.5}$  (SUDAS Equation 2C-3.11)

WHERE - Q = flow, cfs

P= Perimeter of the grate disregarding the side against the curb, ft

d = average depth across the grate, ft

#### **CALCULATIONS**

1. Solve for required head given flow and open area for casting using Orifice Equation:

LOCATION: ST - 7

INPUT:  $Q_{100} = 2.28$  cfs (From Rational Equation)

 $A_g = 1.95$  sq. ft. (Open Area of Casting)

Required Depth at Grate: d = 0.047 ft.

2. Solve for required head given flow and open perimeter of casting using Weir Equation:

LOCATION: ST - 7

INPUT:  $Q_{100} = 2.28$  cfs (From Rational Equation)

P = 5.86 ft. (Open Perimeter of Casting)

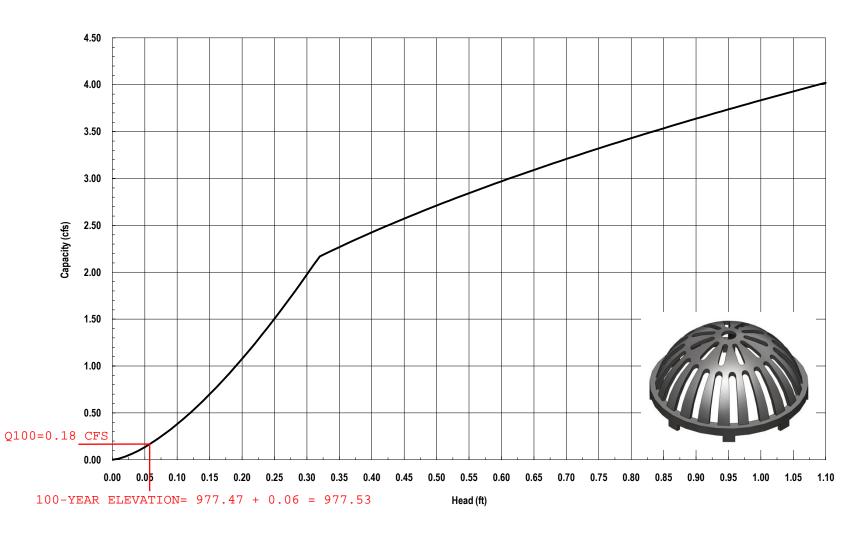
Required Depth at Grate: d = 0.256 ft.

GOVERNING EQUATION: Weir Equation

Required Depth = 0.256 ft = 3.1 inches

The 100-year elevation is 976.09 + 0.256 = 976.35

 $\begin{array}{c} ST-5 \\ \text{Nyloplast 15" Dome Grate Inlet Capacity Chart} \end{array}$ 







## VEENSTRA & KIMM, INC.

3000 Westown Parkway • West Des Moines, Iowa 50266-1320 515-225-8000 • 515-225-7848 (FAX) • 800-241-8000 (WATS)

July 30, 2019

Marketa Oliver
City Administrator
City of Bondurant
200 Second Street NE
P.O. Box 37
Bondurant, Iowa 50035

BONDURANT, IOWA 89 PAINE STREET SE SITE PLAN REVIEW COMMENTS

The writer has completed a preliminary review of the first submittal of the site plan for 89 Paine Street SE received from Civil Design Advantage on July 30, 2019. The items included in the site plan submittal were:

- Final Plat of Bondurant Commercial Business Park Plat 2
- Exterior elevation views of the building
- Site plan
- Stormwater management plan

Based on review of the submittal documents the following comments are offered:

- The final plat involves a replat of the existing Outlot Z of the Bondurant
   Commercial Business Park to Lot 1 of Bondurant Commercial Business Park Plat 2.
   The boundaries of the final plat coincide with the original boundary of Outlot Z.
- 2. When the Bondurant Commercial Business Park was originally presented to the City there was an indication the intent was for Outlot Z in the newly created Bondurant Commercial Business Park to be combined at some point in time with Outlot X in Paine Heights Plat 3 to create one developable lot. Although the final plat does not coincide with the earlier verbal indication the final plat appears to be an acceptable approach as the writer is not aware of any binding commitment to combine the two outlots.

- 3. The site plan indicates the zoning at 89 Paine Street SE is C-2. The bulk regulations are shown on the site plan.
- 4. The site plan notes if the property is adjacent to an R district a buffer that meets one of the three options is to be provided. Outlot X in Paine Heights Plat 3 is zoned as R-2. It would appear the zoning ordinance would require a buffer as 89 Paine Street SE adjoins a residential lot even though that lot by itself may not be developable. The site plan does not appear to provide a buffer.
- 5. The site plan shows a portion of the water main along the easterly side of Paine Street SE. The water main depiction ends near the center of the lot. The water main continues northeasterly across Paine Street SE. The site plan should show the balance of the water main.
- 6. The construction plans for the Bondurant Commercial Business Park shows the water service to the building.
- 7. The site plan shows the existing sanitary sewer stub and the sanitary sewer service extending to the new building.
- 8. The site plan indicates a total of 27 parking stalls will be provided. The required minimum number of parking stalls is 25.
- The site plan indicates two handicap accessible parking stalls provided near the front entrance of the building. Two handicap accessible parking stalls are required.
- 10. Access to the site is provided by two driveways. The southwesterly driveway is opposite the intersection of Paine Street SE and Paine Circle. This location aligning with the street intersection is satisfactory.
- 11. The second driveway is located near the northeast corner of the site. The centerline to centerline separation between the two driveways is approximately 140 feet. This separation distance would be satisfactory.
- 12. The site plan indicates on the northwesterly side of the building there appears to be a drive-thru drop off as well as four parking stalls. The majority of the parking stalls are located on the southeasterly side of the building.
- 13. The solid waste receptacle and loading dock are located on the northwesterly side of the building facing Paine Street SE.
- 14. The frontage of the building is to the southeast toward NE Hubbell Avenue with all of the transportation access from the rear of the building from Paine Street SE.

Marketa Oliver July 30, 2019 Page 3

- 15. The site plan includes sidewalk access both to the northeasterly and southeasterly faces of the new building.
- 16. The site plan includes an erosion control plan. The site will disturb more than one acre. The applicant will need to obtain a General Permit No. 2 from the Iowa Department of Natural Resources. A copy of the Storm Water Pollution Prevention Plan and the General Permit No. 2 will need to be provided to the City prior to the start of construction.
- 17. The stormwater plan indicates there is stormwater detention provided at both the southwesterly corner of the lot and the northerly corner of the lot.
- 18. The discharge from the stormwater detention basin is through a 15-inch pipe that connects to the existing stub pipe constructed at the intake on the southeasterly side of Paine Street SE just southwesterly of the northwesterly corner of the site.
- 19. The internal storm sewer system includes a pipe extending from the northeasterly end of the northwesterly stormwater detention basin across the driveway to the northerly detention basin.
- 20. The storm sewer system includes a storm sewer that starts at the southeasterly corner of the southwesterly detention basin and extends under the main parking lot.
- 21. The storm sewer system includes direct connection of roof leaders.
- 22. The stormwater management plan indicates that 0.97 acres of the site would be tributary to the onsite stormwater detention.
- 23. The stormwater management plan indicates that an area of 0.60 acres located along the southeasterly side of the driveway and parking lot is undetained. This area drains overland away from the site. A portion of the undetained area drains directly to the highway right-of-way. A portion of the undetained area drains to the adjoining Outlot X in Paine Heights Plat 3.
- 24. As part of the Bondurant Commercial Business Park an allowable release rate from the site in a 100 year storm developed condition was set at 1.88 cfs.
- 25. The analysis was completed using the Rational Method which is allowed for a site of this size.
- 26. The time of concentration used in the analysis was 15 minutes. For a site of this size a 15 minute time of concentration is allowed under SUDAS. However, the actual time of concentration will quite likely be less than 15 minutes.

Marketa Oliver July 30, 2019 Page 4

- 27. In sites where the actual time of concentration is shorter than the evaluated time of concentration used in sizing the stormwater detention facilities it is quite likely the peak runoff from very intense rainfalls and the volume of rainfall will slightly exceed the calculated volumes. Typically, the City does not require additional sizing for this time of concentration difference. Rather, the City looks to the freeboard in the stormwater detention basin as a means of accommodating the differential.
- 28. The City generally prefers a 1-foot freeboard. For this site the freeboard provided is 0.28 feet. In this instance the combination of the assumed time of concentration of 15 minutes and the freeboard of 0.28 feet increases the potential for overtopping of the basin in a major rainfall event. Given the potential for overtopping the applicant will need to provide additional information on the flow path in the event of an overtopping of the basin to document any overtopping flow does not adversely impact adjoining properties.
- 29. The stormwater management plan indicates that the peak runoff from a 100 year developed condition event for the detained area would be 6.833 cfs.
- 30. The evaluation indicates that the maximum release rate from the stormwater detention pond under a 100 year storm event would be 1.76 cfs.
- 31. The submittal does not include information on the orifice to control the release rate. Based on the capacity of the 15-inch outlet storm sewer an orifice will be necessary to restrict the maximum release rate to 1.76 cfs.
- 32. The stormwater report indicates the maximum runoff rate from the 0.05 acre undetained area is 0.42 cfs.
- 33. The routing analysis completed as part of the stormwater report indicates that the peak instantaneous runoff from the site would be 1.82 cfs. This maximum runoff is less than the arithmetic sum of the release rate from the detention pond and the peak runoff from the undetained area due to the different timing of the release events. The maximum runoff rate from the undetained area will occur before the peak release rate from the detention basin. Likewise, once the detention basin reaches its peak runoff the runoff rate from the undetained area will have decreased significantly from its peak runoff rate.
- 34. The peak runoff rate from the site calculated by the routing analysis of 1.81 cfs is less than the allowable release rate from the site of 1.88 cfs.
- 35. The City has historically allowed this type of analysis in looking at the net impact of detained and undetained areas from a single site.

Marketa Oliver July 30, 2019 Page 5

- 36. The stormwater drainage report indicates the maximum storage volume in the detention basin would be 6,397 cubic feet.
- 37. The bottom elevation of the stormwater detention basin is shown as Elevation 972.79.
- 38. The stormwater report indicates the maximum water depth in a 100 year event would be 976.15, or a maximum water depth of 3.36 feet.
- 39. The detention overflow elevation is 976.43. As discussed earlier the freeboard is 0.28 feet, or less than the freeboard the City normally targets as acceptable for small sites using the Rational Method unless the applicant demonstrates released flow from the basin will not adversely impact downstream property owners.
- 40. The stormwater management report includes sizing calculations for the storm sewers and intakes. A review of the calculations indicate the sizing analysis for the storm sewers and intakes is satisfactory.

If you have any questions or comments concerning the project, please contact the writer at 225-8000, or at <a href="mailto:bveenstra@v-k.net">bveenstra@v-k.net</a>.

VEENSTRA & KIMM, INC.

H. R. Veenstra Jr.

HRVJr:paj 4285-085

cc: John Horton, City of Bondurant Erin Ollendike, Civil Design Advantage



#### 89 Paine Street SE Site Plan First Submittal

Thursday, August 8<sup>th</sup>, 2019

#### VICINITY MAP

NOT TO SCALE



#### **SUMMARY**

The legal description of the site is LOT 1 Bondurant Commercial Business Park Plat 2, AN OFFICAL PLAT IN BONDURANT, POLK COUNTY, IOWA. CONTAINING 45,237 SF (1.04 AC). The site will contain the new post office. The site is located at 89 Paine Street SE. The area is currently zoned C-2 General Commercial District and is compatible with the surrounding land uses. Staff recommends that the site plan is approved due to the adherence of city code, zoning code, and the comprehensive plan.

#### **Background**

This report covers the first submittal of site plans for 89 Paine Street SE owned by DNG Properties LLC and to be developed by T2 Holdings LLC. The site would contain a new US post office. This is the first site submittal to be reviewed by the planning and zoning commission on August 8<sup>th</sup>, 2019. The report is written by Nelson Loring, Planning Intern for the City of Bondurant.

#### **Site Description**

The site plans include the design for dimensions grading, erosion and sediment control, utilities, and landscaping. Landscaping requirements for trees are 9 and 14 are being planted. There are also plans for 21 shrubs to be added and there are none required. 219 SF of landscaping is required, and 346 SF is provided. Trees to be planted include 5 Autumn Blaze Maples, 7 Shademaster Honeylocust, and 2 Colorado Blue Spruce along with 7 of Andorra comp Juniper, Fernleaf Buckhorn, and Sea Green Juniper.



Figure 1. Landscaping Site Features. From the left: Autumn Blaze Maple, Shademaster Honeylocust, Colorado Blue Spruce, Andorra comp Juniper, Fernleaf Buckhorn, and Sea Green Juniper.

#### **Zoning History**

The site is currently zoned C-2 General Commercial District. In the Bondurant 2030 plan, the future land use is identified as multi-family residential. The site was multi-family residential R-3 before it was rezoned in 2019 to C-2 General Commercial District. Multifamily residential is zoned for up to 20 units per acre, while there would be no residential use at this site currently. C-2 allows for most commercial businesses to be located within the zone, so there is no conflict between the post office and zoning code.

#### Compatibility

The site is along Highway 65/ NE Hubbell Ave. The surrounding area is largely residential, with commercial areas adjacent to the site. There are three commercial buildings adjacent to the site, which contain a mix of retail and services. The site is at the center of two residential areas, with a neighborhood further north on Paine St SE with homes built in the 1970s. Newer construction homes are located to the east of the site. Access to the site provided only through Paine Street, so can come from Washington Street or Paine Street SE. NE Hubbell, Brick St Se, and 3rd Street SE4<sup>th</sup> all connect with Washington Ave SE which leads to the access at Paine Street SE.

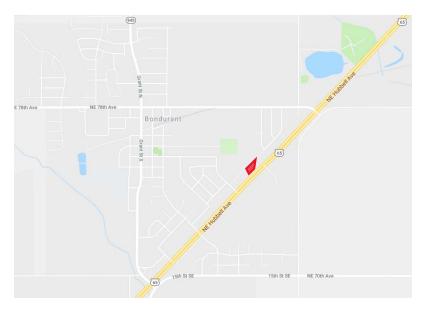


Figure 2. Street Map of Approximate Site Location. The site is surrounded by residential and commercial land uses.

#### **Comprehensive Plan**

The current zone of the site is general commercial district, while the Bondurant 2030 Plan had the area slated for multifamily residential. The post office is mentioned in the comprehensive plan under Key Aspects of the Downtown Growth Area within the Civic Campus section. The section calls for the maintenance of "the city hall, library, and post office as a civic campus at the north end of main street". While the plan does not state a need for a new post office, it does strive to improve Bondurant's public institutions and facilities, which a post office would fall under. One of the plan's goals relevant to this site is the surrounding commercial area in the 2030 plan was intended to be office space, which does not deviate too much from the current general commercial C-2 zone.

#### **Analysis**

Since the neighboring uses are also commercial, 89 Paine Street is not incompatible with immediate land uses. The surrounding commercial business is conducive to a post office, as a post office falls under commercial use. The residential areas surrounding the area benefit from a convenient proximity to commercial areas. Homes nearby would not be negatively impacted by traffic as there is already existing commercial business on Paine Street. Adding the post office should only add postal worker traffic and the postal customers, but since there is already traffic to the commercial buildings, there impact on traffic should be negligible. While the rezoning of the land has changed the land use away from the intended land use, it achieves other goals set out by the comprehensive plan to improve civic buildings. The additional landscaping planting of trees and shrubs will be a pleasant addition to the site and including more than necessary is desirable as trees along the street are supported in the comprehensive plan. There does not seem to be any conflicts with the site plan and the city code or comprehensive plan.

#### Recommendations

Staff recommends the approval of the site plans, as they fall under the rezoned C-2 zone and promote aspects of the comprehensive plan. The site plans comply with City Code and pose no threat to safety, health, or welfare to the public. It is recommended that the plans be approved since the site is within all relevant codes and regulations.

One recommendation/preference would be to replace the Juniper with a Boxwood, as they are more aesthetically pleasing.

# PLANNING AND ZONING COMMISSION RESOLUTION NO. PZ-190808-18

#### RESOLUTION REGARDING THE PRELIMINARY PLAT FOR DR HORTON

WHEREAS, Stubbs Engineering submitted a Preliminary Plat for DR Horton; AND

WHEREAS, the owner and developer is DR Horton; AND

WHEREAS, the site address is subdivision including Cove Street, Southeast, Michael Street, Southeast and Dee Street, Southeast; AND

WHEREAS, the zoning for the property is R-2, Medium Residential District; AND

WHEREAS, legal description is as follows:

Outlot W in CLARENCE OLESON VISTA ESTATES PLAT 4, an Official Plat; AND that part of Lot 25, CLARENCE OLESON VISTA ESTATES PLAT 4, being described as Beginning a the Northern most corner of Outlot W, Clarence Oleson Vista Estates Plat 4, thence South 43°23'40" West along the Easterly line of said Lot 25, a distance of 150.51 feet; thence South 23°32'06" East along the Easterly line 213.39 feet; thence South 40°40'39" West along said Easterly line, 172.19 feet; thence South 32°32'38" West along said Easterly line, 125.41 feet to the Southern most corner of said Lot 25; thence Northwesterly along the Southwesterly line of said Lot 25 and curve concave Southwesterly whose radius is 330.22 feet, whose arc length is 29.21 feet and whose chord bears North 59°59'04" West, 29.20 feet; thence North 50°07'45" East, 80 feet; thence North 32°32'38" East, 66.25 feet; thence North 15°00'00" East, 28.41 feet; thence North 2°00'00" East, 400.15 feet; thence North 30°00'00" East, 77.89 feet to said Easterly line; thence South 41°21'10" East along said Easterly line, 100 feet to the Point of Beginning, All now including in and forming a part of the City of Bondurant, Polk County, Iowa AND

That part of W 1/2 and the SE 1/4 of Section 31, Township 80 North, Range 22 West of the 5th P.M., lying East of Highway 65, Except Clarence Oleson Vista Estates Plats 1 through 5, all in Polk County, Iowa, subject to easements and restrictions of record

	-	Plat for DR H proval of same	orton is approved	and forwarded	to the City C	council with	а
	Moved by		, Seconded by		to ado	pt.	
	. , ,		of Bondurant, hereby 2019; among other pr	•	•	•	ıd
IN WITNE	SS WHEREOF,	I have hereunto	set my hand the day	and year above v	written.		

NOW, THEREFORE, BE IT RESOLVED, by the Planning and Zoning Commission of the City of Bondurant, Iowa,

Action	Yay	Nay	Abstain	Absent
McKenzie				
Clayton				
Mains				
Keeran				
Cuellar				
Phearman				
Brostrom				

Karen Keeran, Vice Chair

10,000 SQ. FT. FOR TWO FAMILY DWELLINGS ADD 2,000 SQ. FT. FOR EACH ADDITIONAL UNIT

MINIMUM LOT WIDTH: 65 FT. SINGLE FAMILY

85 FT. TWO FAMILY ADD 20 FT. FOR EVERY ADDITIONAL UNIT

75 FT. FOR CORNER LOTS

SETBACKS:

FRONT YARD: 30 FT.

15 FT. TOTAL SIDE YARD, 5 FT. MIN ON EACH SIDE, 1 & 1 ½ STORIES 15 FT. TOTAL SIDE YARD, 7 FT. MIN ON EACH SIDE, 2 & 3 STORIES

REAR YARD:

**HEIGHT:** 

MAXIMUM HEIGHT: MAXIMUM NUMBER OF STORIES: 3 STORIES

### LEGAL DESCRIPTION (AS RECORDED):

Outlot W in CLARENCE OLESON VISTA ESTATES PLAT 4, an Official Plat; AND that part of Lot 25, CLARENCE OLESON VISTA ESTATES PLAT 4, being described as Beginning a the Northern most corner of Outlot W, Clarence Oleson Vista Estates Plat 4, thence South 43°23'40" West along the Easterly line of said Lot 25, a distance of 150.51 feet; thence South 23°32'06" East along the Easterly line 213.39 feet; thence South 40°40'39" West along said Easterly line, 172.19 feet; thence South 32°32'38" West along said Easterly line, 125.41 feet to the Southern most corner of said Lot 25; thence Northwesterly along the Southwesterly line of said Lot 25 and curve concave Southwesterly whose radius is 330.22 feet, whose arc length is 29.21 feet and whose chord bears North 59°59'04" West, 29.20 feet; thence North 50°07'45" East, 80 feet; thence North 32°32'38" East, 66.25 feet; thence North 15°00'00" East, 28.41 feet; thence North 2°00'00" East, 400.15 feet; thence North 30°00'00" East, 77.89 feet to said Easterly line; thence South 41°21'10" East along said Easterly line, 100 feet to the Point of Beginning, All now including in and forming a part of the City of Bondurant, Polk County, Iowa

That part of W 1/2 and the SE 1/4 of Section 31, Township 80 North, Range 22 West of the 5th P.M., lying East of Highway 65, Except Clarence Oleson Vista Estates Plats 1 through 5, all in Polk County, Iowa, subject to easements and restrictions of record

# PRELIMINARY PLAT

FOR

# BONDURANT SUBDIVISION COVE ST, MICHAEL ST & DEE ST BONDURANT, IA

### **VICINITY MAP:**



# SHEET INDEX:

- 1 COVER SHEET
- 2 LOT LAYOUT
- 3 GRADING & UTILITIES

### OWNER/DEVELOPER:

DR HORTON 1910 SW PLAZA SHOPS LANE ANKENY, IA 50023 CONTACT: JOSH MOULTON PHONE: (515) 965-7876

#### **ENGINEER/SURVEYOR:**

STUBBS ENGINEERING 431 NE 72ND ST PLEASANT HILL, IA 50327 CONTACT: BRANDEN STUBBS PHONE: (515) 979-8499

BONDURANT SUBDIVISION COVE ST, MICHAEL ST & DEE BONDURANT, IA



COVER

-E W- EXISTING WATER

-E SS- EXISTING SANITARY -P W- PROPOSED WATER -P ST- PROPOSED STORM

-P SS- PROPOSED SANITARY FIRE HYDRANT WATER MAIN VALVE STORM INTAKE T STORM FLARED END

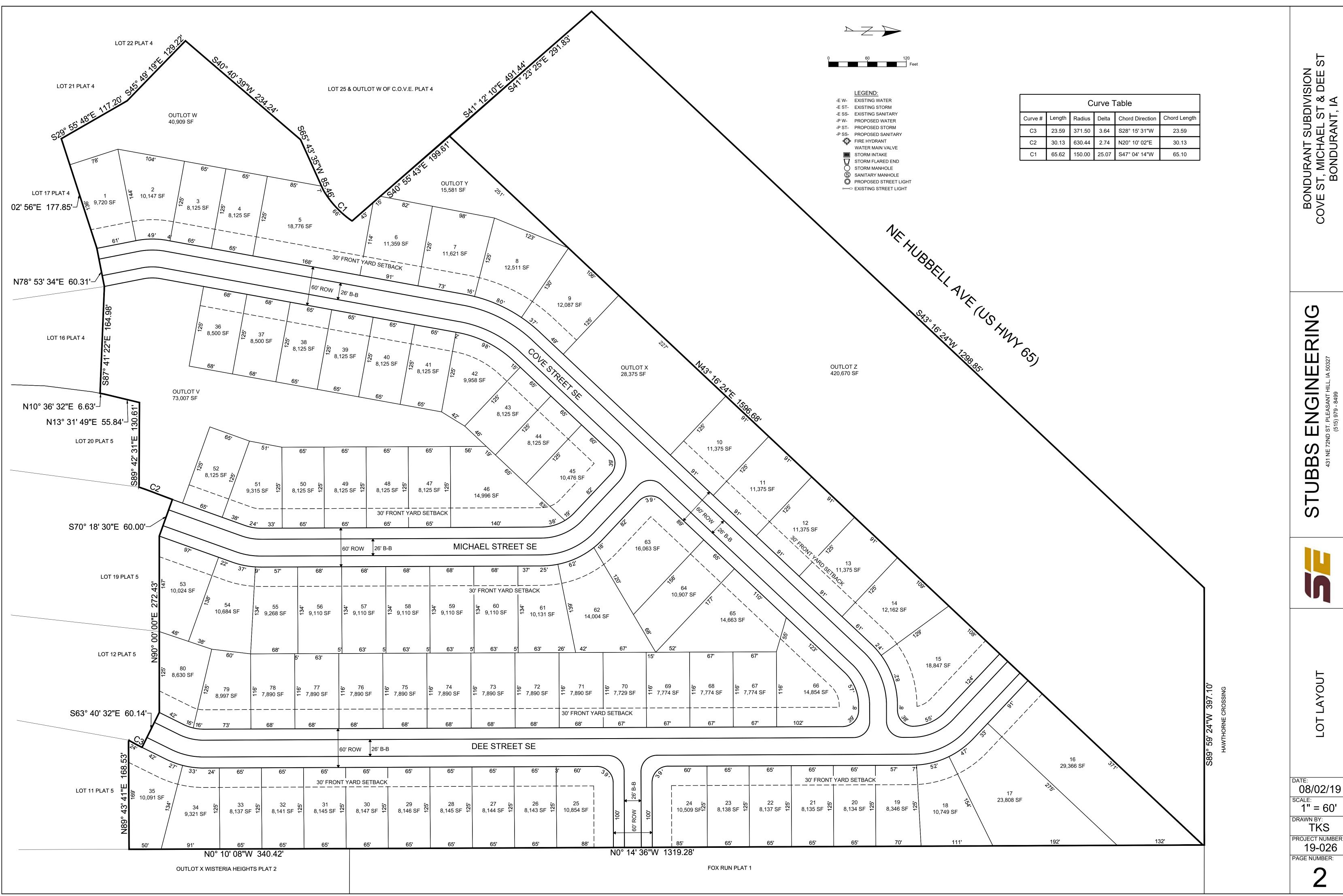
STORM MANHOLE

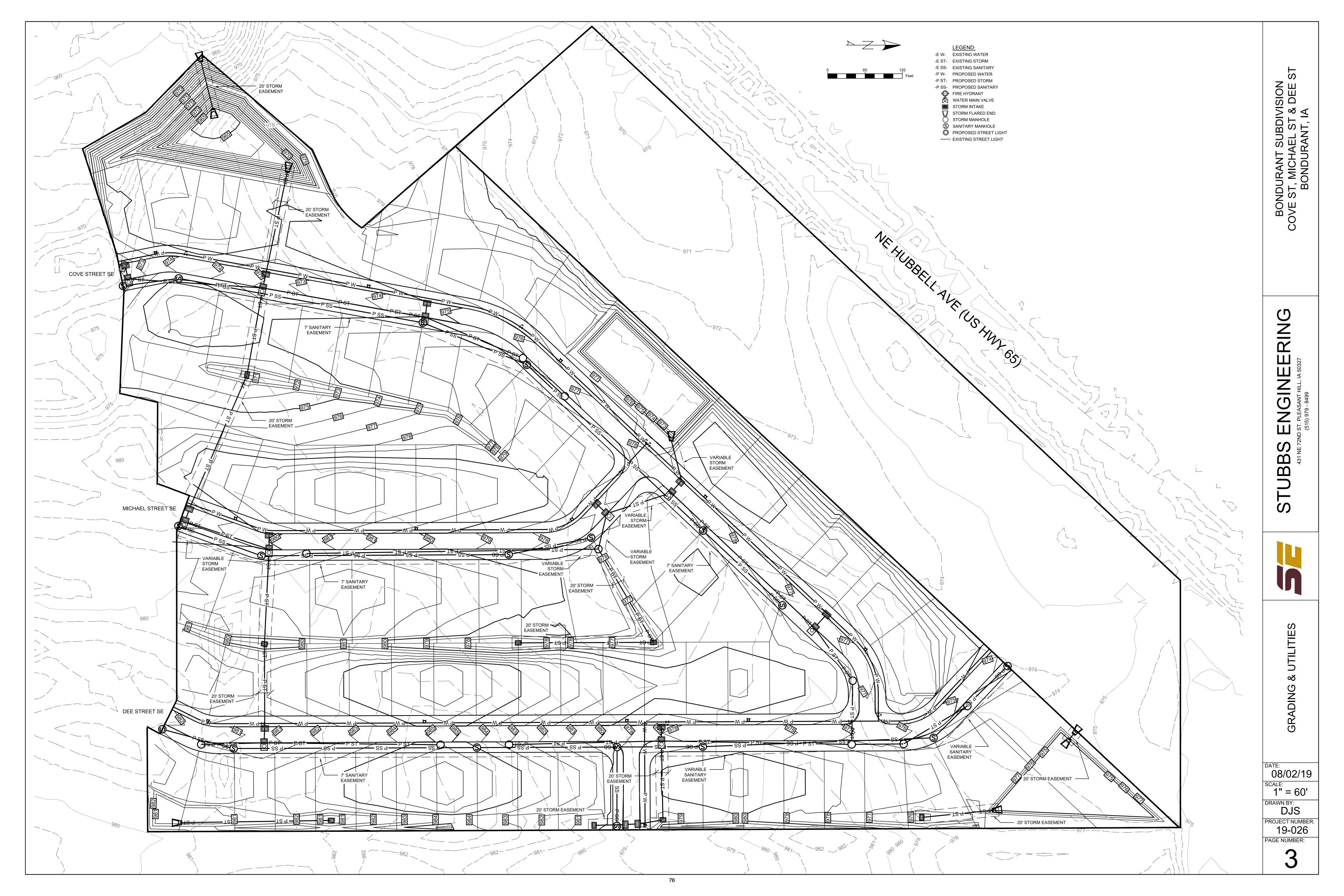
S SANITARY MANHOLE PROPOSED STREET LIGHT

○ EXISTING STREET LIGHT

08/02/19

DRAWN BY: TKS PROJECT NUMBER 19-026 PAGE NUMBER:





# STORM WATER CALCULATIONS

**FOR** 

# **BONDURANT SUBDIVISION**

# COVE ST, MICHAEL ST & DEE ST BONDURANT, IA

**AUGUST 1, 2019** 

**VICINITY MAP:** 



### **STUBBS ENGINEERING**

431 NE 72<sup>ND</sup> ST, PLEASANT HILL, IA 50327

Table 1: Runoff Summary

Runoff Recurrence	Pre-Development	Post-Development	Contributing
Interval	Peak Discharge	Peak Discharge	Offsite Discharge
	(cfs)	(cfs)	(cfs)
5 yr	34.50	19.80	10.57
100 yr	108.95	57.28	33.11

Table 2: Allowable Release Rate

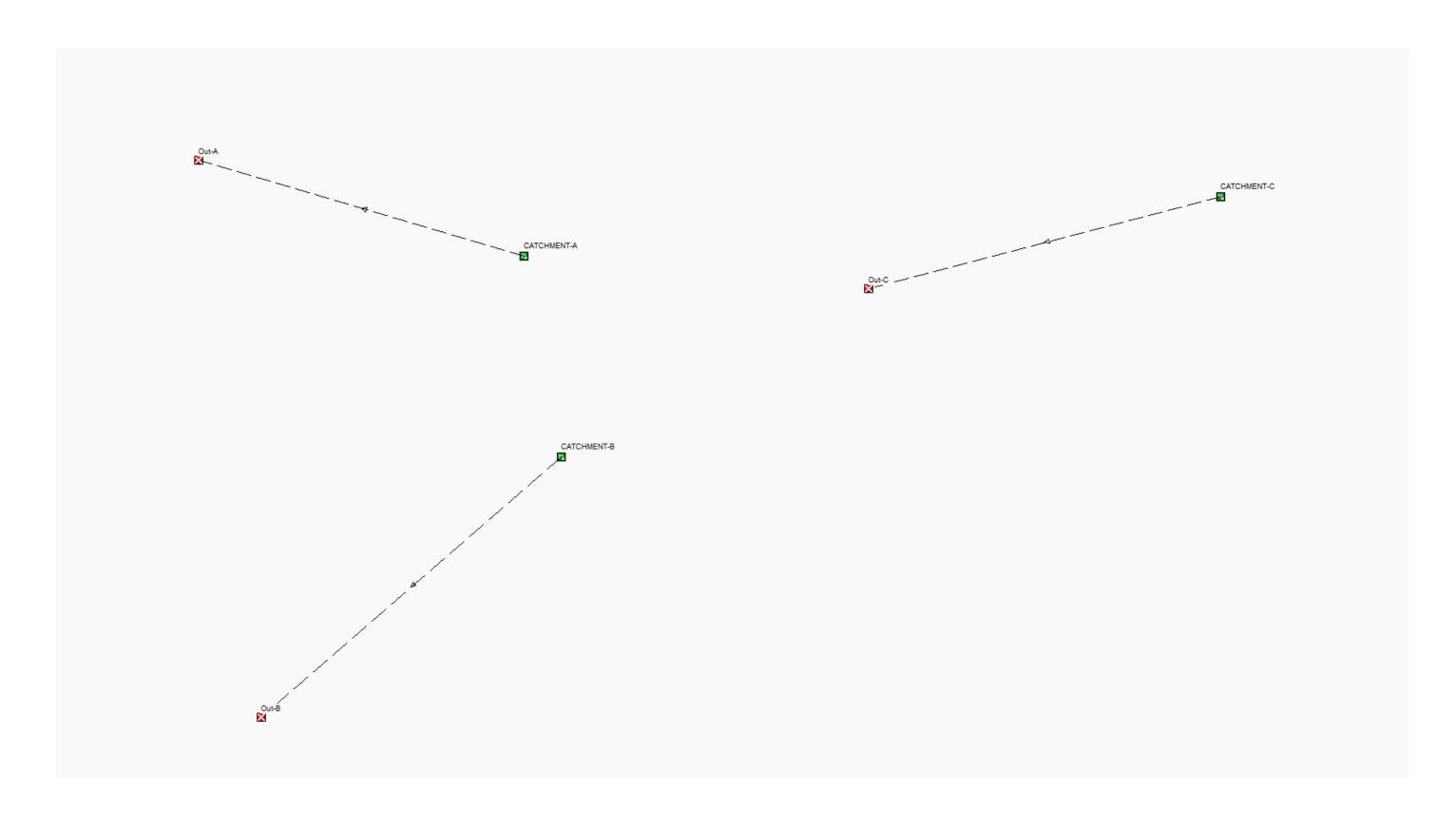
Allowable Release		On Site Pre-		Contributing Off
Rate (cfs)		Developed Peak	Site Developed	
		Discharge Rate – 5		Peak Discharge –
		yr		100 yr
67.61	=	34.50	+	33.11

Table 3: Proposed Release Rate

Overflow Release Rate (cfs)		On Site Post- Developed Peak
		Discharge Rate – 100 yr
57.28	=	57.28

<sup>\*</sup>Offsite discharge routed through proposed storm sewer & basins.

# EXISTING DRAINAGE AREA CATCHMENT C 7.31 ACRES CATCHMENT A 16.97 ACRES FLOWPATH CATCHMENT B 10.50 ACRES



#### **Project Description**

File Name ..... Existing Storm Results

#### **Project Options**

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

#### **Analysis Options**

Start Analysis On	May 09, 2019	00:00:00
End Analysis On	May 10, 2019	00:00:00
Start Reporting On	May 09, 2019	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	30	seconds

#### **Number of Elements**

	Qty
Rain Gages	2
Subbasins	3
Nodes	3
Junctions	0
Outfalls	3
Flow Diversions	0
Inlets	0
Storage Nodes	0
Links	0
Channels	0
Pipes	0
Pumps	0
Orifices	0
Weirs	0
Outlets	0
Pollutants	0
Land Uses	0

#### **Rainfall Details**

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Period	Rainfall Depth (inches)	Rainfall Distribution
1	5-Year	Time Series	5-Year	Cumulative	inches	lowa	Polk	5	3.81	SCS Type II 24-hr
1	100-Year	Time Series	100-Year	Cumulative	inches	lowa	Polk	100	7.12	SCS Type II 24-hr

#### **Subbasin Summary**

SN Subbasin	Area	Return	Peak Rate	Weighted	Total	Total	Total	Peak	Time of
ID		Period	Factor	Curve	Rainfall	Runoff	Runoff	Runoff	Concentration
				Number			Volume		
	(ac)	(years)			(in)	(in)	(ac-in)	(cfs)	(days hh:mm:ss)
1 CATCHMENT-A	16.97	5	484.00	71.00	3.81	1.27	21.48	24.05	0 00:17:46
2 CATCHMENT-B	10.50	5	484.00	71.00	3.81	1.27	13.29	10.45	0 00:32:42
3 CATCHMENT-C	7.31	100	484.00	71.00	7.12	3.83	27.96	33.11	0 00:17:00

#### **Node Summary**

Element Type	Peak Inflow
	(cfs)
Outfall	24.05
Outfall	10.45
Outfall	33.11
	Type Outfall Outfall

#### **Subbasin Hydrology**

#### Subbasin: CATCHMENT-A

#### Input Data

Area (ac)	16.97
Peak Rate Factor	484.00
Weighted Curve Number	71.00
Rain Gage ID	

#### **Composite Curve Number**

	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Meadow	16.97	-	71.00
Composite Area & Weighted CN	16.97		71.00

#### **Time of Concentration**

TOC Method : SCS TR-55

Sheet Flow Equation :

 $Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))$ 

#### Where :

Tc = Time of Concentration (hr)

n = Manning's roughness

Lf = Flow Length (ft)

P = 2 yr, 24 hr Rainfall (inches)

Sf = Slope (ft/ft)

#### Shallow Concentrated Flow Equation:

V = 16.1345 \* (Sf^0.5) (unpaved surface) V = 20.3282 \* (Sf^0.5) (paved surface)

V = 20.3282 \* (Sf\*0.5) (paved surface)
V = 15.0 \* (Sf\*0.5) (grassed waterway surface)
V = 10.0 \* (Sf\*0.5) (nearly bare & untilled surface)
V = 9.0 \* (Sf\*0.5) (cultivated straight rows surface)
V = 7.0 \* (Sf\*0.5) (short grass pasture surface)
V = 5.0 \* (Sf\*0.5) (woodland surface)
V = 2.5 \* (Sf\*0.5) (forest w/heavy litter surface)

Tc = (Lf / V) / (3600 sec/hr)

#### Where:

Tc = Time of Concentration (hr)

Lf = Flow Length (ft)

V = Velocity (ft/sec)

Sf = Slope (ft/ft)

#### Channel Flow Equation :

 $V = (1.49 * (R^{(2/3)}) * (Sf^{(0.5)}) / n$ 

R = Aq / Wp

Tc = (Lf / V) / (3600 sec/hr)

#### Where:

Tc = Time of Concentration (hr)

Lf = Flow Length (ft)

R = Hydraulic Radius (ft)

Aq = Flow Area (ft²)

Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)

Sf = Slope (ft/ft)

n = Manning's roughness

Sheet Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	.24	0.00	0.00
Flow Length (ft):	100	0.00	0.00
Slope (%):	3.27	0.00	0.00
2 yr, 24 hr Rainfall (in) :	3.08	0.00	0.00
Velocity (ft/sec):	0.14	0.00	0.00
Computed Flow Time (min):	11.95	0.00	0.00
Shallow Concentrated Flow Computations	Subarea A	Subarea B	Subarea C
Flow Length (ft):	660.54	0.00	0.00
Slope (%):	1.37	0.00	0.00
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec):	1.89	0.00	0.00
Computed Flow Time (min) :	5.82	0.00	0.00
Total TOC (min)17.77			

Total Rainfall (in)	3.81
Total Runoff (in)	1.27
Peak Runoff (cfs)	24.05
Weighted Curve Number	71.00
Time of Concentration (days hh:mm:ss)	0 00:17:46

#### Subbasin: CATCHMENT-B

#### Input Data

Area (ac)	10.50
Peak Rate Factor	484.00
Weighted Curve Number	71.00
Rain Gage ID	

#### **Composite Curve Number**

iposite cui ve ivuilibei			
	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Meadow	10.50	-	71.00
Composite Area & Weighted CN	10.50		71.00

#### **Time of Concentration**

	Subarea	Subarea	Subarea
Sheet Flow Computations	Α	В	С
Manning's Roughness :	.24	0.00	0.00
Flow Length (ft):	100	0.00	0.00
Slope (%):	1.06	0.00	0.00
2 yr, 24 hr Rainfall (in) :	3.08	0.00	0.00
Velocity (ft/sec):	0.09	0.00	0.00
Computed Flow Time (min):	18.75	0.00	0.00
	Subarea	Subarea	Subarea
Shallow Concentrated Flow Computations	Α	В	С
Shallow Concentrated Flow Computations Flow Length (ft):	A 1440.64	0.00	0.00
•			
Flow Length (ft):	1440.64	0.00	0.00
Flow Length (ft) : Slope (%) :	1440.64 1.13	0.00 0.00	0.00
Flow Length (ft) : Slope (%) : Surface Type :	1440.64 1.13 Unpaved	0.00 0.00 Unpaved	0.00 0.00 Unpaved

Total Rainfall (in)	3.81
Total Runoff (in)	1.27
Peak Runoff (cfs)	10.45
Weighted Curve Number	71.00
Time of Concentration (days hh:mm:ss)	0 00:32:43

#### Subbasin: CATCHMENT-C

#### Input Data

Area (ac)	7.31
Peak Rate Factor	484.00
Weighted Curve Number	71.00
Rain Gage ID	

#### **Composite Curve Number**

iposite cui ve ivuilibei			
	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Meadow	7.31	-	71.00
Composite Area & Weighted CN	7.31		71 00

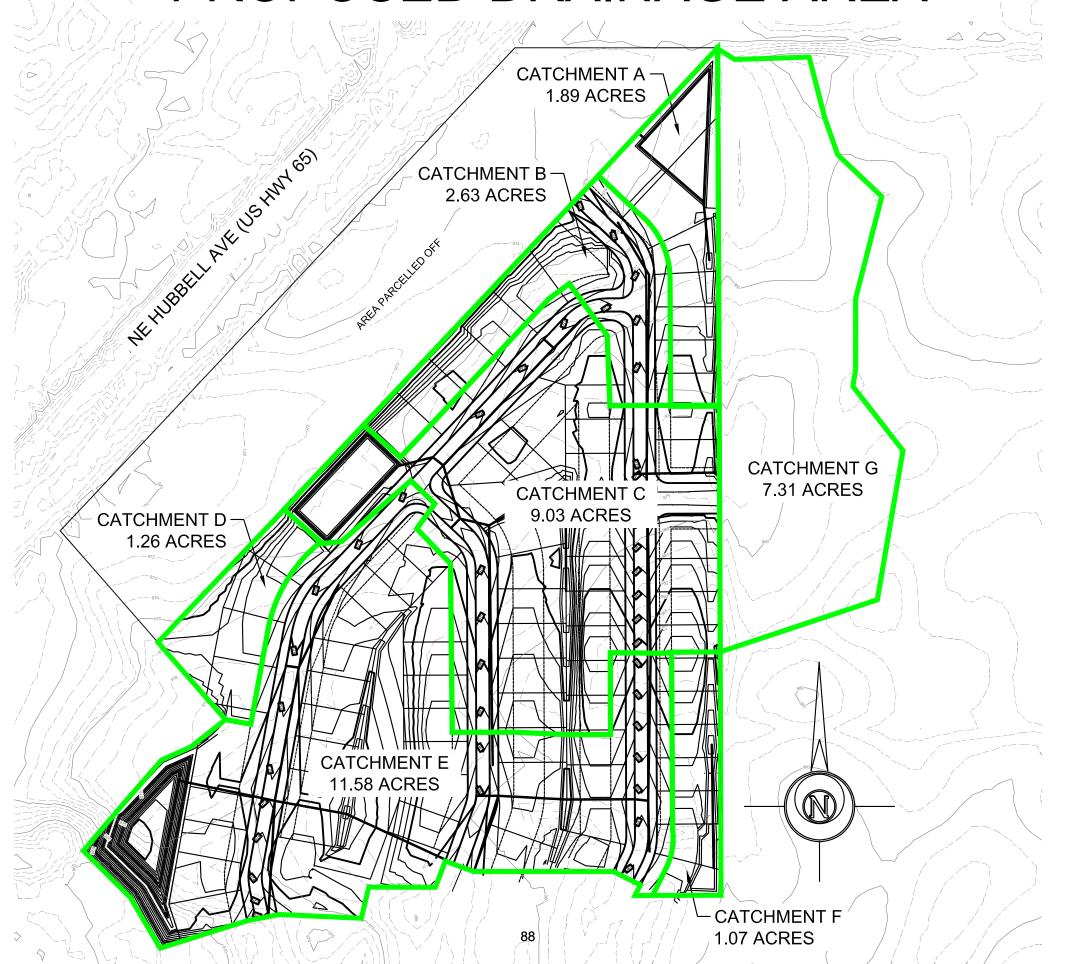
#### **Time of Concentration**

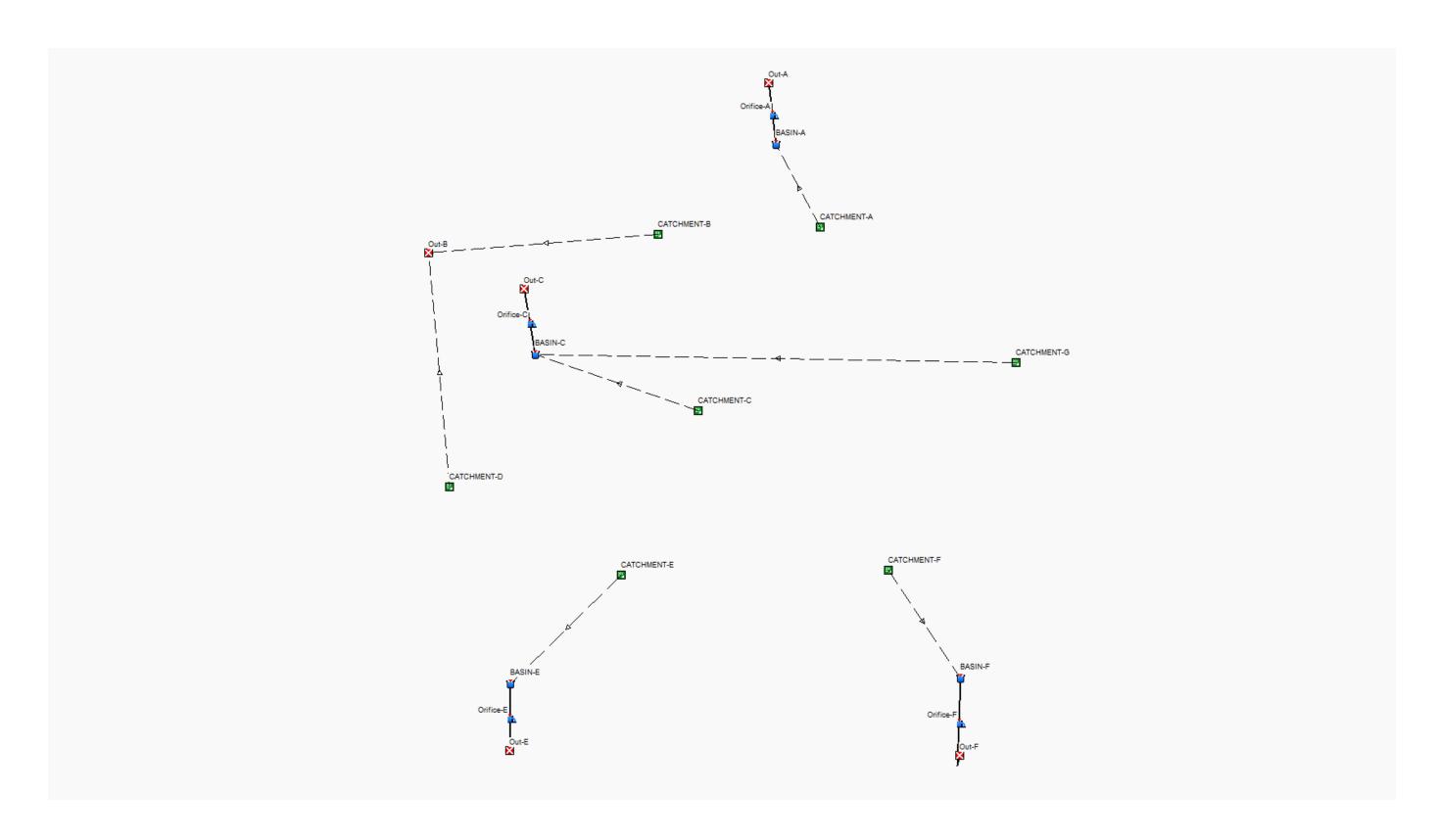
	Subarea	Subarea	Subarea
Sheet Flow Computations	Α	В	С
Manning's Roughness :	.24	0.00	0.00
Flow Length (ft):	100	0.00	0.00
Slope (%):	2.27	0.00	0.00
2 yr, 24 hr Rainfall (in) :	3.08	0.00	0.00
Velocity (ft/sec):	0.12	0.00	0.00
Computed Flow Time (min):	13.83	0.00	0.00
	Subarea	Subarea	Subarea
Shallow Concentrated Flow Computations	Α	В	С
Flow Length (ft):	348.4	0.00	0.00
Slope (%):	1.28	0.00	0.00
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec):	1.83	0.00	0.00
Computed Flow Time (min):	3.17	0.00	0.00
Total TOC (min)17.00			

Total Rainfall (in)	. 3.81
Total Runoff (in)	. 1.27
Peak Runoff (cfs)	. 10.57
Weighted Curve Number	71.00
Time of Concentration (days hh:mm:ss)	0.00-17-00

# PROPOSED DRAINAGE AREA

7 -- 1/ 18 / / L 7 - 1 - 1 - 100 / 1





#### **Project Description**

File Name ...... Proposed 100-Year Storm Results

#### **Project Options**

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

#### **Analysis Options**

Start Analysis On	Apr 08, 2019	00:00:00
End Analysis On	Apr 09, 2019	00:00:00
Start Reporting On	Apr 08, 2019	00:00:00
Antecedent Dry Days	. 0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	. 30	seconds

#### **Number of Elements**

	Qt
Rain Gages	7
Subbasins	7
Nodes	9
Junctions	0
Outfalls	5
Flow Diversions	0
Inlets	0
Storage Nodes	4
Links	4
Channels	0
Pipes	0
Pumps	0
Orifices	4
Weirs	0
Outlets	0
Pollutants	0
Land Uses	0

#### **Rainfall Details**

SN	Rain Gage	Data	Data Source	Rainfall	Rain	State	County	Return	Rainfall	Rainfall
	ID	Source	ID	Type	Units			Period	Depth	Distribution
				• •				(years)	(inches)	
1	100-Year	Time Series	100-Year	Cumulative	inches	None	None	100	7.12	SCS Type II 24-hr

#### **Subbasin Summary**

SN Subbasin ID	Area	Peak Rate Factor	5	Total Rainfall		Total Runoff		Time of Concentration
15		1 dotor	Number	rtairiiaii	rtunon	Volume	rtunon	Concontitution
	(ac)			(in)	(in)	(ac-in)	(cfs)	(days hh:mm:ss)
1 CATCHMENT-A	1.89	484.00	72.00	7.12	3.93	7.43	9.22	0 00:15:00
2 CATCHMENT-B	2.63	484.00	75.26	7.12	4.28	11.27	13.94	0 00:15:00
3 CATCHMENT-C	9.03	484.00	75.20	7.12	4.28	38.62	47.78	0 00:15:00
4 CATCHMENT-D	1.26	484.00	67.14	7.12	3.42	4.31	5.35	0 00:15:00
5 CATCHMENT-E	11.58	484.00	70.47	7.12	3.77	43.63	54.24	0 00:15:00
6 CATCHMENT-F	1.07	484.00	72.00	7.12	3.93	4.21	5.22	0 00:15:00
7 CATCHMENT-G	7.31	484.00	71.00	7.12	3.83	27.96	34.69	0 00:15:00

#### **Node Summary**

SN Element ID	Element Type	Peak Inflow
		(cfs)
1 Out-A	Outfall	0.46
2 Out-B	Outfall	18.40
3 Out-C	Outfall	35.27
4 Out-E	Outfall	0.64
5 Out-F	Outfall	2.51
6 BASIN-A	Storage Node	8.81
7 BASIN-C	Storage Node	78.81
8 BASIN-E	Storage Node	52.08
9 BASIN-F	Storage Node	4.98

#### **Link Summary**

SN Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Diameter or Height	
				(in)	(cfs)
1 Orifice-A	Orifice	BASIN-A	Out-A	4.500	0.46
2 Orifice-C	Orifice	BASIN-C	Out-C	28.000	35.27
3 Orifice-E	Orifice	BASIN-E	Out-E	2.750	0.64
4 Orifice-F	Orifice	BASIN-F	Out-F	12.000	2.51

#### **Subbasin Hydrology**

#### Subbasin: CATCHMENT-A

#### Input Data

Area (ac)	1.89
Peak Rate Factor	484.00
Weighted Curve Number	72.00
Rain Gage ID	100-Year

#### **Composite Curve Number**

	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Lots	1.89	-	72.00
Composite Area & Weighted CN	1.89		72.00

#### **Time of Concentration**

TOC Method : SCS TR-55

Sheet Flow Equation :

 $Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))$ 

#### Where:

Tc = Time of Concentration (hr)

n = Manning's roughness

Lf = Flow Length (ft)

P = 2 yr, 24 hr Rainfall (inches)

Sf = Slope (ft/ft)

#### Shallow Concentrated Flow Equation:

V = 16.1345 \* (Sf^0.5) (unpaved surface)

V = 20.3282 \* (Sf^0.5) (paved surface)

V = 20.3282 \* (Sf\*0.5) (paved surface)
V = 15.0 \* (Sf\*0.5) (grassed waterway surface)
V = 10.0 \* (Sf\*0.5) (nearly bare & untilled surface)
V = 9.0 \* (Sf\*0.5) (cultivated straight rows surface)
V = 7.0 \* (Sf\*0.5) (short grass pasture surface)
V = 5.0 \* (Sf\*0.5) (woodland surface)
V = 2.5 \* (Sf\*0.5) (forest w/heavy litter surface)

Tc = (Lf / V) / (3600 sec/hr)

#### Where:

Tc = Time of Concentration (hr)

Lf = Flow Length (ft)

V = Velocity (ft/sec)

Sf = Slope (ft/ft)

#### Channel Flow Equation:

 $V = (1.49 * (R^{(2/3)}) * (Sf^{(0.5)}) / n$ 

R = Aq / Wp

Tc = (Lf / V) / (3600 sec/hr)

#### Where:

Tc = Time of Concentration (hr)

Lf = Flow Length (ft)

R = Hydraulic Radius (ft)

Aq = Flow Area (ft²)

Wp = Wetted Perimeter (ft)

V = Velocity (ft/sec)

Sf = Slope (ft/ft)

n = Manning's roughness

User-Defined TOC override (minutes): 15.00

Total Rainfall (in)	7.12
Total Runoff (in)	3.93
Peak Runoff (cfs)	9.22
Weighted Curve Number	72.00
Time of Concentration (days hh:mm:ss)	0 00:15:00

#### Subbasin: CATCHMENT-B

#### Input Data

Area (ac)	2.63
Peak Rate Factor	484.00
Weighted Curve Number	75.26
Rain Gage ID	100-Year

#### **Composite Curve Number**

nposite curve number			
	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Impervious	0.33	-	98.00
Lots	2.30	-	72.00
Composite Area & Weighted CN	2.63		75.26

#### Time of Concentration

User-Defined TOC override (minutes): 15

Total Rainfall (in)	7.12
Total Runoff (in)	4.28
Peak Runoff (cfs)	13.94
Weighted Curve Number	75.26
Time of Concentration (days hh:mm:ss)	0 00:15:00

#### Subbasin: CATCHMENT-C

#### Input Data

Area (ac)	9.03
Peak Rate Factor	484.00
Weighted Curve Number	75.20
Rain Gage ID	100-Year

#### **Composite Curve Number**

iposite curve number			
	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Lots	7.82	-	72.00
Grass	0.06	-	55.00
Impervious	1.15	-	98.00
Composite Area & Weighted CN	9.03		75.20

#### Time of Concentration

User-Defined TOC override (minutes): 15

Total Rainfall (in)	7.12
Total Runoff (in)	4.28
Peak Runoff (cfs)	47.78
Weighted Curve Number	75.20
Time of Concentration (days hh:mm:ss)	0 00:15:00

#### Subbasin: CATCHMENT-D

#### Input Data

Area (ac)	1.26
Peak Rate Factor	484.00
Weighted Curve Number	67.14
Rain Gage ID	100-Year

#### **Composite Curve Number**

iposite our re rumber			
	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Grass	0.36	-	55.00
Lots	0.90	-	72.00
Composite Area & Weighted CN	1.26		67.14

#### Time of Concentration

User-Defined TOC override (minutes): 15

Total Rainfall (in)	7.12
Total Runoff (in)	3.42
Peak Runoff (cfs)	5.35
Weighted Curve Number	67.14
Time of Concentration (days hh:mm:ss)	0 00:15:00

#### Subbasin: CATCHMENT-E

#### Input Data

Area (ac)	11.58
Peak Rate Factor	484.00
Weighted Curve Number	70.47
Rain Gage ID	100-Year

#### **Composite Curve Number**

nposite Curve Number			
	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Impervious	1.04	-	98.00
Grass	2.63	-	55.00
Lots	7.91	-	72.00
Composite Area & Weighted CN	11.58		70.47

#### **Time of Concentration**

User-Defined TOC override (minutes): 15

Total Rainfall (in)	7.12
Total Runoff (in)	3.77
Peak Runoff (cfs)	54.24
Weighted Curve Number	70.47
Time of Concentration (days hh:mm:ss)	0 00:15:00

#### Subbasin: CATCHMENT-F

#### Input Data

Area (ac)	1.07
Peak Rate Factor	484.00
Weighted Curve Number	72.00
Rain Gage ID	100-Year

#### **Composite Curve Number**

	Area	Soli	Curve
Soil/Surface Description	(acres)	Group	Number
Lots	1.07	-	72.00
Composite Area & Weighted CN	1.07		72.00

#### **Time of Concentration**

User-Defined TOC override (minutes): 15

Total Rainfall (in)	7.12
Total Runoff (in)	
Peak Runoff (cfs)	5.22
Weighted Curve Number	72.00
Time of Concentration (days hh:mm:ss)	0 00:15:00

#### Subbasin: CATCHMENT-G

#### Input Data

Area (ac)	7.31
Peak Rate Factor	484.00
Weighted Curve Number	71.00
Rain Gage ID	100-Year

#### **Composite Curve Number**

	Area	5011	Curve
Soil/Surface Description	(acres)	Group	Number
Meadow	7.31	-	71.00
Composite Area & Weighted CN	7.31		71.00

#### **Time of Concentration**

User-Defined TOC override (minutes): 15

Total Rainfall (in)	7.12
Total Runoff (in)	3.83
Peak Runoff (cfs)	34.69
Weighted Curve Number	71.00
Time of Concentration (days hh:mm:ss)	0 00:15:00

#### **Storage Nodes**

#### Storage Node : BASIN-A

#### Input Data

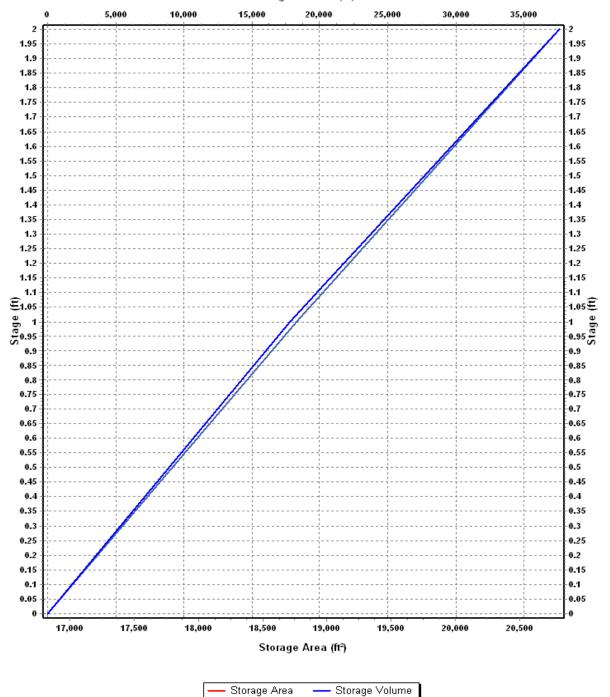
Invert Elevation (ft)	975.00
Max (Rim) Elevation (ft)	977.00
Max (Rim) Offset (ft)	2.00
Initial Water Elevation (ft)	975.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

# Storage Area Volume Curves Storage Curve : BASIN A

Stage	Storage	Storage
	Area	Volume
(ft)	(ft²)	(ft³)
0	16830	0.000
1	18766	17798.00
2	20807	37584.50

#### Storage Area Volume Curves

#### Storage Volume (ft³)



#### Storage Node : BASIN-A (continued)

#### **Outflow Orifices**

	Element Orific D Type		Flap Gate	Circular Orifice	Rectangular Orifice	Rectangular Orifice		Orifice Coefficient
				Diameter	Height	Width	Elevation	
				(in)	(in)	(in)	(ft)	
1 (	Orifice-A Side	CIRCUL	AR No	4.50			0.00	0.61

#### **Output Summary Results**

Peak Inflow (cfs)	8.81
Peak Lateral Inflow (cfs)	8.81
Peak Outflow (cfs)	0.46
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	975.90
Max HGL Depth Attained (ft)	0.9
Average HGL Elevation Attained (ft)	975.38
Average HGL Depth Attained (ft)	0.38
Time of Max HGL Occurrence (days hh:mm)	0 14:02
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

#### Storage Node : BASIN-C

#### Input Data

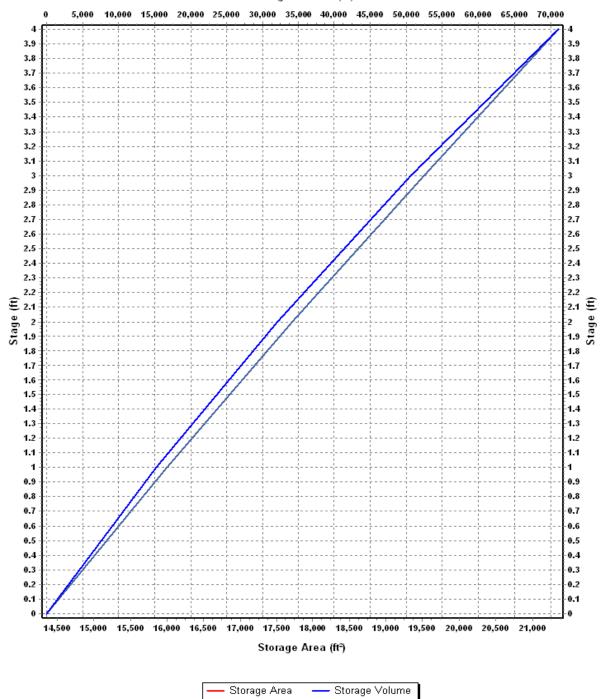
Invert Elevation (ft)	973.00
Max (Rim) Elevation (ft)	977.00
Max (Rim) Offset (ft)	4.00
Initial Water Elevation (ft)	973.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

# Storage Area Volume Curves Storage Curve : BASIN C

Stage	Storage Area	Storage Volume
(ft)	(ft <sup>2</sup> )	(ft³)
0	14356	0.000
1	16000	15178.00
2	17716	32036.00
3	19513	50650.50
4	21355	71084.50

#### Storage Area Volume Curves

Storage Volume (ft³)



#### Storage Node : BASIN-C (continued)

#### **Outflow Orifices**

SN Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice	Rectangular Orifice	Rectangular Orifice		Orifice Coefficient
				Diameter	Height	Width	Elevation	
				(in)	(in)	(in)	(ft)	
1 Orifice-C	Side	CIRCULAI	R No	28.00			973.00	0.61

#### **Output Summary Results**

Peak Inflow (cfs)	78.81 35.27 0.00 976.97 3.97 973.43 0.43 0 12:19 0.000 0
Total Time Flooded (min)	

#### Storage Node : BASIN-E

#### Input Data

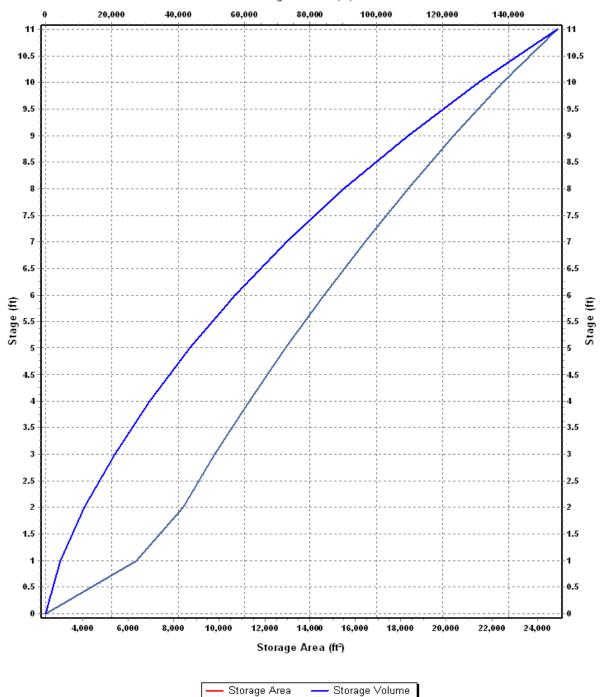
Invert Elevation (ft)	965.00
Max (Rim) Elevation (ft)	976.00
Max (Rim) Offset (ft)	11.00
Initial Water Elevation (ft)	965.00
Initial Water Depth (ft)	
Ponded Area (ft²)	0.00
Evaporation Loss	

# Storage Area Volume Curves Storage Curve : BASIN E

Stage	Storage	Storage
_	Area	Volume
(ft)	(ft <sup>2</sup> )	(ft³)
0	2378	0.000
1	6380	4379.00
2	8413	11775.50
3	9820	20892.00
4	11324	31464.00
5	12925	43588.50
6	14622	57362.00
7	16416	72881.00
8	18307	90242.50
9	20295	109543.50
10	22488	130935.00
11	24873	154615.50

#### Storage Area Volume Curves

#### Storage Volume (ft³)



### Storage Node : BASIN-E (continued)

#### **Outflow Orifices**

SN Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice	Rectangular Orifice	Rectangular Orifice		Orifice Coefficient
				Diameter	Height	Width	Elevation	
				(in)	(in)	(in)	(ft)	
1 Orifice-E	Side	CIRCULA	R No	2.75			0.00	0.61

### **Output Summary Results**

Peak Inflow (cfs)	52.08
Peak Lateral Inflow (cfs)	52.08
Peak Outflow (cfs)	0.64
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	974.94
Max HGL Depth Attained (ft)	9.94
Average HGL Elevation Attained (ft)	969.76
Average HGL Depth Attained (ft)	4.76
Time of Max HGL Occurrence (days hh:mm)	1 00:00
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

### Storage Node : BASIN-F

#### Input Data

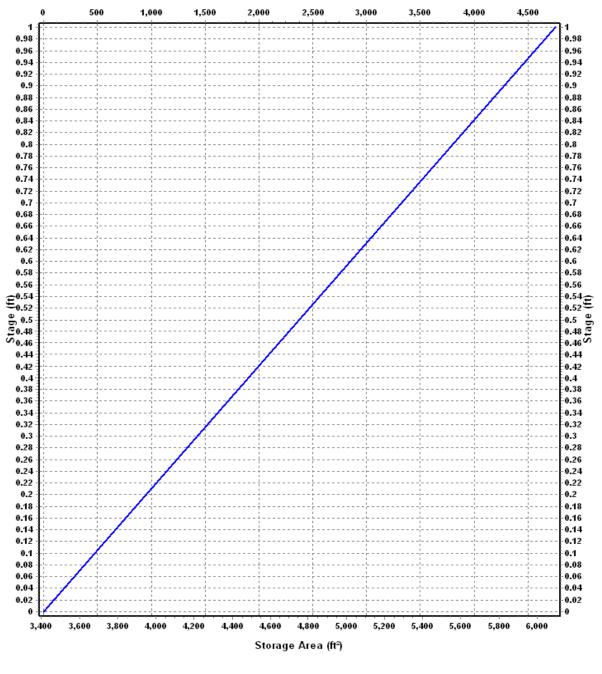
Invert Elevation (ft)	981.00
Max (Rim) Elevation (ft)	982.00
Max (Rim) Offset (ft)	1.00
Initial Water Elevation (ft)	981.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

## Storage Area Volume Curves Storage Curve : BASIN F

Stage	Storage	Storage
	Area	Volume
(ft)	(ft²)	(ft³)
0	3411	0.000
1	6096	4753.50

#### Storage Area Volume Curves

#### Storage Volume (ft³)



— Storage Area — Storage Volume

### Storage Node : BASIN-F (continued)

#### **Outflow Orifices**

SN Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice	Rectangular Orifice	Rectangular Orifice		Orifice Coefficient
				Diameter	Height	Width	Elevation	
				(in)	(in)	(in)	(ft)	
1 Orifice-F	Side	CIRCULA	R No	12.00			0.00	0.61

### **Output Summary Results**

Peak Inflow (cfs)	4.98
Peak Lateral Inflow (cfs)	4.98
Peak Outflow (cfs)	2.51
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	981.95
Max HGL Depth Attained (ft)	0.95
Average HGL Elevation Attained (ft)	981.11
Average HGL Depth Attained (ft)	0.11
Time of Max HGL Occurrence (days hh:mm)	0 12:18
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

## PLANNING AND ZONING COMMISSION RESOLUTION NO. PZ-190808-19

#### RESOLUTION REGARDING THE SITE PLAN FOR PARK SIDE TOWNHOMES

WHEREAS, Snyder & Associates submitted a Site Plan for Park Side Townhomes; AND

WHEREAS, the owner and developer is Parkside Land Company, LLC; AND

WHEREAS, the site address is located inside the Park Side P.U.D.; AND

WHEREAS, the zoning for the property is R-5, Park Side Planned Unit Development; AND

WHEREAS, legal description is as follows:

LOTS 66-81 AND OUTLOT "Z" OF PARK SIDE PLAT 2, AN OFFICIAL PLAT INCLUDED IN AND FORMING A PART OF THE CITY OF BONDURANT, POLK COUNTY, IOWA AND INCLUDING 3.22 ACRES (140,303 S.F.).

PROPERTY SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

NOW, THEREFORE, BEIT RESOLVED, that the Site Plan for Park Side T recommendation for approval of sar	ownhomes is approved and forw	
Moved by	, Seconded by	to adopt.
ATTEST: I, Shelby Hagan, City Clerk Zoning Commission held on August 8		
IN WITNESS WHEREOF, I have hereur	nto set my hand the day and year ab	oove written.
		Shelby Hagan, City Clerk

Action	Yay	Nay	Abstain	Absent
McKenzie				
Clayton				
Mains				
Keeran				
Cuellar				
Phearman				
Brostrom				

Karen Keeran	Vice Chair	

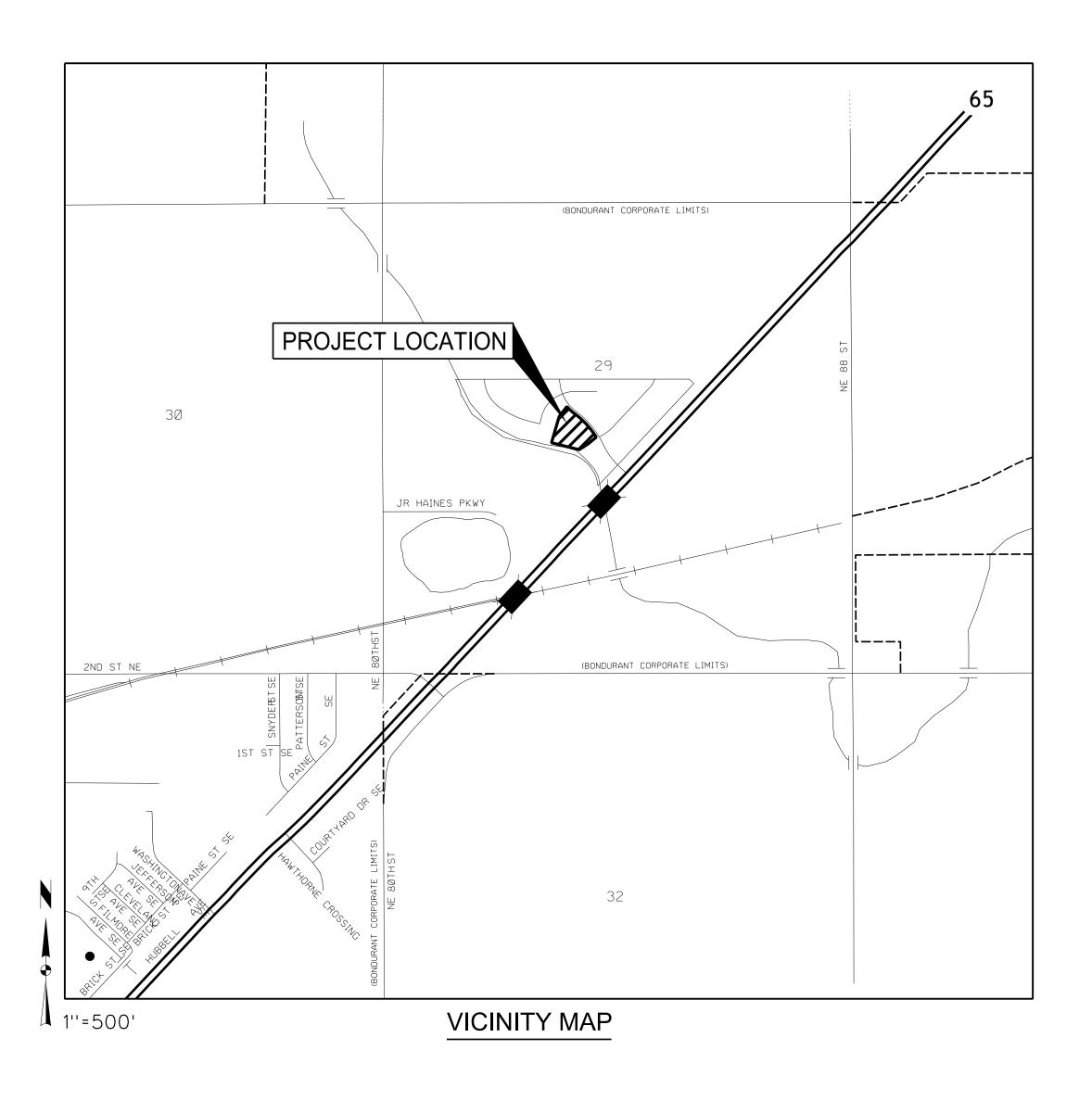
## SITE PLAN

## **FOR**

# PARK SIDE TOWNHOMES

## CITY OF BONDURANT, POLK COUNTY, IOWA

OWNER/DEVELOPER



## **INDEX OF SHEETS**

C100 TITLE SHEET

C101 PROJECT INFORMATION

C200 DIMENSION PLAN

C300 GRADING AND EROSION CONTROL PLAN

C500 PLANTING PLAN

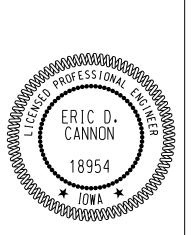


I hereby certify that the portion o this technical submission described below was prepared by me or under m direct supervision and responsible charge. I am a duly licensed

Professional Landscape Architect under the laws of the State of Iowa

Clay R. Schneckloth, ASLA icense Number 512

Pages or sheets covered by this seal: SHEET C500



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.

License Number 18954 My License Renewal Date is December 31, 2019

Pages or sheets covered by this seal: SHEETS C100-C300

Project No: 1180725

& ASSOCIATES

Fence (Silt)

Tree Line

D

93.0

^93~

Fiber Optic -— $F\cap(*)$ —- **FO**— Underground Electric ——E(\*)—— **E** — Overhead Electric ---OE(\*)--- **OE** ----Gas Main with Size Water Main with Size Sanitary Sewer with Size

---4" G(\*)--- **---4" G---**High Pressure Gas Main with Size --4" HPG(\*)-- -4" HPG---8" W(\*)-- **8" W** --8" S(\*)-- \_\_<u>8"\_S</u>\_\_ --DUCT(\*)--Duct Bank Test Hole Location for SUE w/ID

(\*) Denotes the survey quality service level for utilities

Sanitary Manhole Storm Sewer with Size Storm Manhole Single Storm Sewer Intake Double Storm Sewer Intake Fire Hydrant Fire Hydrant on Building Water Main Valve Water Service Valve Well Utility Pole Guy Anchor Utility Pole with Light Utility Pole with Transformer Street Light ----Yard Light Electric Box Electric Transformer Traffic Sign Communication Pedestal Communication Manhole Communication Handhole Fiber Optic Manhole Fiber Optic Handhole Gas Valve Gas Manhole Gas Apparatus Fence Post or Guard Post Underground Storage Tank Above Ground Storage Tank Satellite Dish Mailbox

## 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.

## UTILITY WARNING

Soil Boring

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, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN ARE IN THE EXACT LOCATION INDICATED EXCEPT WHERE NOTED AS QUALITY LEVEL A.

## **UTILITY CONTACT INFORMATION**

UTILITY CONTACT FOR MAPPING INFORMATION SHOWN AS RECEIVED FROM THE IOWA ONE CALL DESIGN REQUEST SYSTEM, TICKET NUMBER 551600734.

G1-GAS E1-ELECTRIC MIDAMERICAN ENERGY CRAIG RANFELD

OE1-OVERHEAD ELECTRIC 515-252-6632 MECDSMDesignLocates@midamerican.com

STORM SEWER CITY OF BONDURANT SANITARY SEWER PATRICK COLLISON

515-971-6856 pcollison@cityofbondurant.com

FO1-FIBER OPTIC BONDURANT-FARRAR COMMUNITY SCHOOL KENDALL MILLER

515-979-4929

kendall\_miller@bondurant.k12.ia.us

C1-COMMUNICATION

CENTURYLINK TOM STURMER

720-578-8090 thomas.sturmer@centurylink.com

W1-WATER SOUTHEAST POLK RURAL WATER DISTRICT JANA HODGES

> 515-283-8729 hodges@dmww.com

MEDIACOM COMMUNICATIONS CLEAR PER EMAIL

PAUL MAY 515-246-2252 pmay@mediacomcc.com **GENERAL NOTES** 

A. CONSTRUCTION OF ALL STREET AND UTILITY IMPROVEMENTS SHALL CONFORM TO 2019 SUDAS STANDARD SPECIFICATIONS.

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) WHEN CONSTRUCTION ACTIVITIES OBSTRUCT PORTIONS OF THE ROADWAY FLAGGERS SHALL BE PROVIDED. FLAGGERS SHALL CONFORM TO THE MUTCD IN APPEARANCE, EQUIPMENT AND ACTIONS.

D. NOTIFY OWNER, ENGINEER AND CITY OF BONDURANT AT LEAST 48 HOURS PRIOR TO BEGINNING

E. CONSTRUCT MANHOLES AND APPURTENANCES AS WORK PROGRESSES. BACKFILL WITH SUITABLE MATERIAL AND COMPACT TO 95% MAXIMUM DENSITY.

F.IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITY ESTIMATES AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN.

G. ALL FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE RECONNECTED AND NOTED ACCORDINGLY ON THE AS-BUILT DOCUMENTS.

H. DIMENSIONS, BUILDING LOCATION, UTILITIES AND GRADING OF THIS SITE ARE BASED ON AVAILABLE INFORMATION AT THE TIME OF LAYOUT. DEVIATIONS MAY BE NECESSARY IN THE FIELD. ANY SUCH CHANGES OR CONFLICTS BETWEEN THIS PLAN AND FIELD CONDITIONS ARE TO BE REPORTED TO THE ARCHITECT/ENGINEER PRIOR TO STARTING CONSTRUCTION.

I. THE ADJUSTMENT OF ANY EXISTING UTILITY APPURTANENCES TO FINAL GRADE IS CONSIDERED INCIDENTAL TO THIS PROJECT.

J. THE PUBLIC 8-INCH WATER MAIN AND 8-INCH SANITARY SEWER AND ASSOCIATED SERVICES (1-INCH WATER AND 4-INCH SANITARY) WERE INSTALLED WITH THE PARK SIDE PLAT 1 PUBLIC IMPROVEMENTS.

K. PRIOR TO THE ISTALLATION OF ANY ENTRANCE SIGN, THE DEVELOPER SHALL SUBMIT THE SIGN PERMIT APPLICATION TO THE CITY OF BONDURANT.

## PROPERTY DESCRIPTION

LOTS 66-81 AND OUTLOT "Z" OF PARK SIDE PLAT , AN OFFICIAL PLAT INCLUDED IN AND FORMING A PART OF THE CITY OF BONDURANT, POLK COUNTY, IOWA AND INCLUDING 3.22 ACRES (140,303 S.F.). PROPERTY SUBJECT TO ANY AND ALL EASEMENTS

OF RECORD.

R-5: PARK SIDE PLANNED UNIT DEVELOPMENT

## **BULK REGULATIONS**

AREA C: SINGLE FAMILY ATTACHED TOWNHOMES 1. ZONING ITEMS NOT ADDRESSED WITHIN THESE BULK REGULATIONS SHALL REFER TO CITY OF BONDURANT, R-2: MEDIUM DENSITY RESIDENTIAL

A. ONE-STORY, TWO-STORY, AND ONE AND ONE-HALF STORY ATTACHED OR DETACHED TOWNHOMES WITH OR WITHOUT

3. PERMITTED USES - ACCESSORY A. CLUBHOUSE STRUCTURE AND ACCOMPANYING AMENITIES.

4. AREA AND SIZE REGULATIONS A. IT IS ANTICIPATED THAT THE TOWNHOMES WILL BE PLATTED WITH "POSTAGE STAMP" LOTS AND THAT THE COMMON AREA WILL BE OWNED AND MAINTAINED BY THE HOMEOWNER'S

ASSOCIATION. B. FRONT YARD SETBACKS ALONG PRIVATE STREETS SHALL BE A MINIMUM OF 25 FEET FROM BACK OF ROLLED CURB. INCLUDING 5 FOOT SIDEWALK.

C. BUILDING SEPARATION SHALL BE A MINIMUM OF 10 FEET D. REAR YARD SETBACKS SHALL BE A MINIMUM OF 20 FEET FOR PRINCIPAL STRUCTURES AROUND THE PERIMETER BOUNDARY OF THE DEVELOPMENT

E. DECKS THAT ARE NOT COVERED SHALL BE ABLE TO EXTEND A MAXIMUM OF 10-FEET INTO THE PERIMETER REAR YARD. F. MINIMUM FINISH AREA FOR THE TOWNHOME UNITS SHALL BE

900 SQUARE FEET FOR A RANCH PLAN AND 1,000 SQUARE FEET FOR A TWO-STORY PLAN PER UNIT G. TWO PARKING STALLS SHALL BE PROVIDED FOR EACH UNIT.

## BENCHMARKS

1-800-292-8989 | 🗐

WWW.iowaonecall.com Know what's below.

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A) IARTN DERIVED - US SURVEY FEET

BM1 ELEV=956.40 CUT TRIANGLE ON SANITARY STRUCTURE, NORTHEAST OF BASEBALL FIELDS.

## PARKING REQUIREMENTS:

2 SPACES REQUIRED PER UNIT 16 UNITS= 32 SPACES REQUIRED

32 GARAGE SPACES PROVIDED 32 DRIVEWAY SPACES PROVIDED
64 TOTAL SPACES PROVIDED

**OPEN SPACE** 140,303 SF BUILDABLE LAND 0.20 MINIMUM OPEN SPACE RATIO 28,060 SF MINIMUM OPEN SPACE (84,469 SF PROVIDED) (0.60 PROPOSED OPEN SPACE RATIO)

AREA SCHEDULE			
AREAS (SF)	UNIT A-R	UNIT A-L	
MAIN LIVING AREA	675	675	
UPPER LIVING AREA	900	914	
TOTAL LIVING AREA	1575	1589	
BASEMENT FINISHED	-	-	
BASEMENT UNFINISHED	N/A	N/A	
GARAGE	433	433	
TOTAL ALL AREAS	2008	2022	

## **CONTROL POINTS**

IOWA REGIONAL COORDINATE SYSTEM ZONE 8 (AMES-DES MOINES) NAD83(2011)(EPOCH 2010.00) IARTN DERIVED - US SURVEY FEET

CP1 N=7531695.12 E=18576662.30 1/2" REBAR WITH RED CAP 24' NORTH OF SANITARY STRUCTURE, NORTHEAST OF BASEBALL FIELDS.

CP2 N=7532164.93 E=18575543.00 1/2" REBAR WITH RED CAP 5' WEST OF 18" CMP, NORTH OF BASEBALL FIELDS.

CP3 N=7532810.46 E=18575053.98 1/2" REBAR WITH RED CAP 50'EAST OF CREEK AT NORTH FENCE LINE, NORTHWEST CORNER OF SITE.

CP4 N=7532813.30 E=18576080.19 1/2" REBAR WITH RED CAP 4' SOUTH OF NORTH FENCE LINE, NORTH SIDE OF SITE.

CP5 N=7532794.90 E=18577691.66 1/2" REBAR WITH RED CAP SOUTH OF ENTRANCE, NORTHEAST CORNER OF SITE.

CP6 N=7532449.68 E=18576087.35 1/2" REBAR WITH RED CAP AT APPROXIMATE CENTER

## 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 INCLUDING CREATING OR 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 PUBLICATIONS, DISCHARGE AUTHORIZATION LETTER, CURRENT SWPPP, SITE INSPECTION LOG, AND OTHER ITEMS, SHALL BE KEPT ON SITE AT ALL TIMES AND MUST BE PRESENTED TO ANY 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 YEAR'S 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.

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.

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:

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 AND LIMIT TO A MINIMUM THE TOTAL AREA DISTURBED BY CONSTRUCTION OPERATIONS AT ANY TIME.

d. 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.

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 RESULTING 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.

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.

h. RESPREAD A MINIMUM OF 4 INCHES OF TOPSOIL (INCLUDING TOPSOIL FOUND IN SOD) 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, OR SOD AS SOON AS PRACTICAL UPON COMPLETION OR DELAY OF GRADING OPERATIONS. INITIATE STABILIZATION MEASURES NO LATER THAN 14 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY HAS FINISHED OR IS PLANNED TO BE DELAYED MORE THAN 21 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 MAINTENANCE AREA 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.

k. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND SITE WASTE PRIOR TO FILING OF THE "NOTICE OF DISCONTINUATION".

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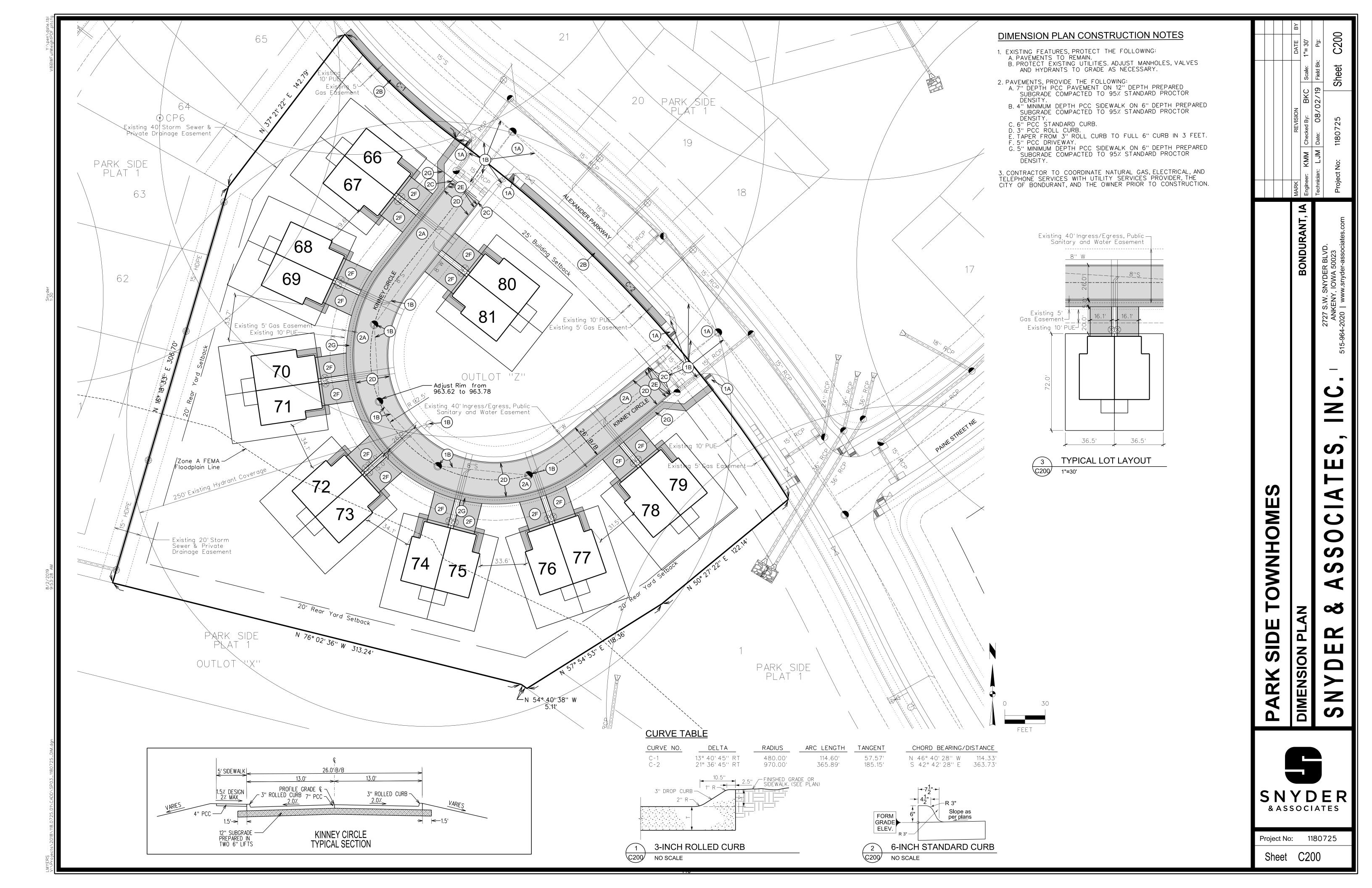
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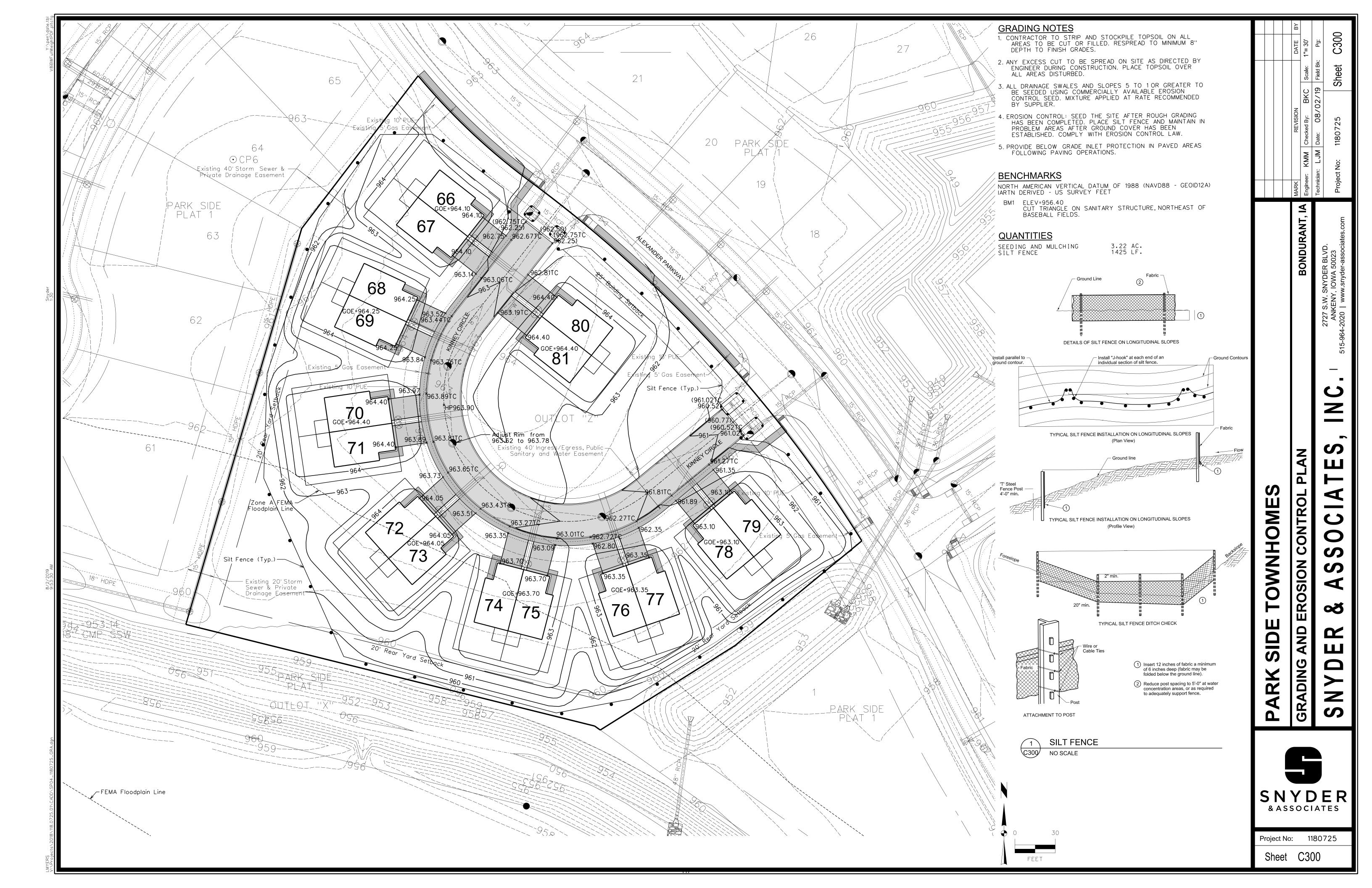
SNYDER & ASSOCIATES

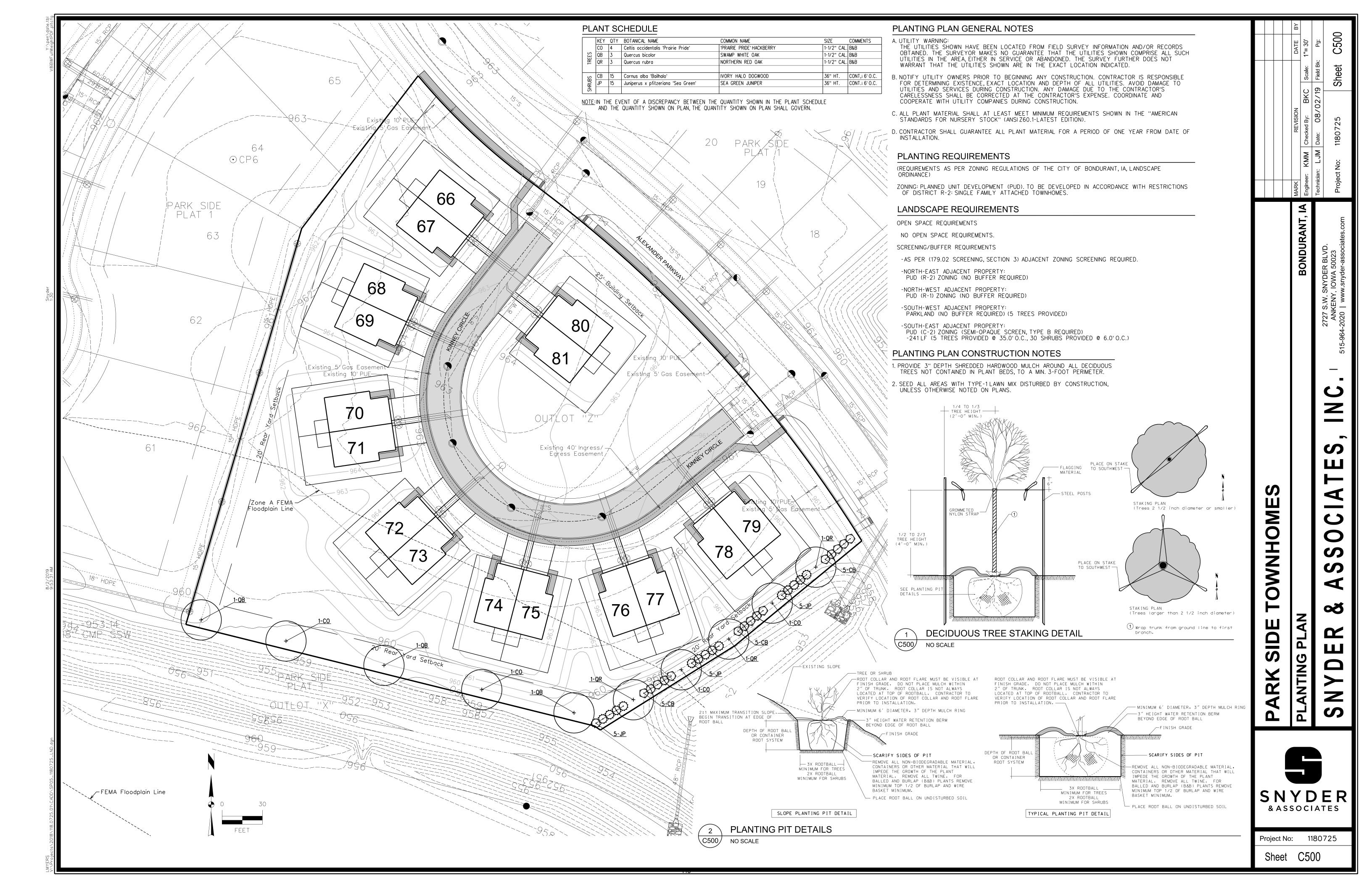
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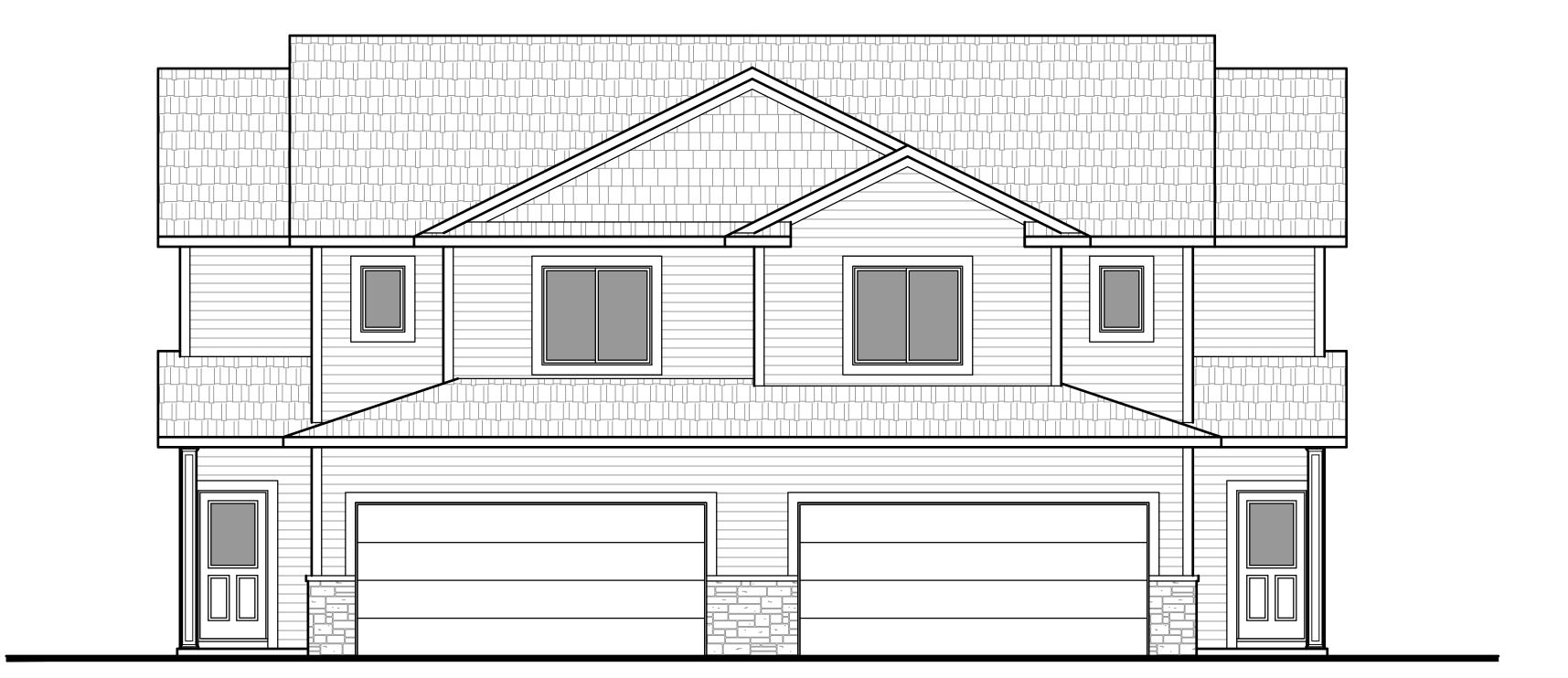
Project No: 1180725

Sheet C101









## GENERAL NOTES

A. Builder shall be responsible for grading of site and lots. B. Perform excavation according to good common construction practices to the lines, grades and elevations indicated on Drawings.

C. Provide foundation drainage as specified by governing codes. D. Provide soil poisoning to control termites as required by governing codes II CONCRETE

III MASONRY A. Brick Veneer

1. Provide modular size brick veneer units complying with governing codes. Brick type shall be specified by Builder.

2. Provide mortar in accordance with governing codes.

A. All concrete shall be designed and specified by others.

A. All structural steel shall comply with appropriate governing codes. WOOD AND PLASTICS

A. Lumber and manufactured/engineered wood products shall, in addition to complying with governing codes, comply with:
1. "Product Use Manual" of the Western Wood products Association for selection and use of

products included in that manual. 2. "Plywood Specification and Grade Guide" of the American Plywood Association.

. American Wood Preservers Association standards and recommendations for fire—retardan and preservative pressure treated lumber and plywood.

a. All wood indicated as "pressure treated" or "treated" shall be preservative pressure

b. All wood indicated as "fire-retardant" shall be fire-retardant pressure treated. B. Framing lumber: provide lumber and materials meeting or exceeding the following standards of

1. All engineered wood products shall be handled and installed in strict accordance with manufacturers/specifications recommendations unless otherwise noted on drawings

2. All headers and beams shall be free from splits, checks and shakes. 3. Ceiling joists are designed for no attic storage unless noted otherwise.

Load bearing frame members, except plates: Doug Fir Larch #2 or better Sole, top and double plates: Southern Pine Fir #2 or better Exterior deck framing: Southern Yellow pine #2 or better CCA .40 Pressure treated Exterior decking and railings: Ponderosa Pine #2 or better CCA .40 Pressure treated 5. Rough Hardware:

a. Steel Items: b. Comply with governing codes.

c. Use galvanized at exterior locations.

C. Truss layout is schematic only. Truss manufacturer shall be responsible for the design (including spacing) of all trusses. Trusses to be designed and certified by an Engineer

licensed in the State of lowa. D. Main Stair construction shall consist of 3-2x12 stringers, 3/4" thick tread and 1/2" thick risers. Basement Stair construction shall consist of 3-2X12 stringers and 2X10 tread, Unless noted otherwise. E. All wood plates bearing on concrete or masonry shall be of decay—resistant material as required

by governing codes. F. Interior trim shall be selected by Builder.

G. All exterior framing and decking shall be constructed of decay—resistant lumber CCA .40 or equal. VI THERMAL & MOISTURE PROTECTION A. Thermal building insulation at assemblies adjacent to exterior or unheated spaces meeting the requirements of governing codes and, unless otherwise noted, meeting the

following minimum requirements: 1. Foundation walls: a. Basement: glass fiber, vinyl faced blankets, R-15. Unless noted otherwise on plans.

b. Crawl Space: glass fiber, unfaced blankets, R-15. Unless noted otherwise on plans. 2. Exterior frame walls:

a. 2x4: glass fiber, batts, R-13 +5. Unless noted otherwise on plans. b. 2x6: glass fiber, batts, R-21 (Min.). Unless noted otherwise on plans.

3. Ceilings: a. Attic areas: glass fiber, blown, R-49. Unless noted otherwise on plans. b. Vaulted rafters: glass fiber, batts, R-30. Unless noted otherwise on plans. 4. Framed floors over unheated areas: glass fiber batts, R-30 (Min.). Unless noted otherwise on plans.

B. Install 4 mil polyethylene vapor barrier to inside face of studs at all exterior walls except bathrooms. Unless noted otherwise on plans. C. Roofing shall be specified by Builder and as shown on Drawings.

D. Siding shall be specified by Builder and as shown on Drawings. E. Flashing and sheet metal required to prevent penetration of water through the exterior shell of the building. In addition to complying with governing codes, comply with pertinent recommendations contained in current edition of "Architectural Sheet Metal Manual" published

by SMACNA. All iron sheet metal flashing shall be hot-dip galvanized complying with ASTM F. Gutters and down spouts as specified by Builder. Down spout and splash locations shall be determined by Sub Contractor(and approved by Builder) so as to provide positive roof and site

G. Attic and roof ventilation as required by governing codes and as shown on Drawings.

Provide appropriate soffit and roof vents as specified/approved by Builder.

H. Foundation moisture protection 1. Waterproof foundation wall as specified by Builder.

2. Sump pit and pump as specified by Builder and as shown on Drawings. 3. Perforated foundation drain tile as specified by Builder.

## VII DOORS & WINDOWS.

A. Doors: 1. Doors as follows and as specified by Builder:

a. Entry doors and sidelights: as specified by Builder. b. House/Garage doors: insulated steel door, flush with closer. c. Overhead Garage doors: insulated, as specified by Builder. d. Patio doors (hinged): full glass as specified by Builder.

e. Sliding glass doors: as specified by Builder. f. Interior doors: as specified by Builder.

1. Windows as follows and as specified by Builder: a. Living levels (including walkout basement): polyvinyl or metal clad.

b. Basement: aluminum. 2. Units of the size, style and quantity shown on Drawings. 3. Glazing shall be double-pane insulating glass in living areas.

4. Tempered glass in all windows as required by governing codes. 5. Install emergency egress units as required by governing codes. C. Finish hardware shall be specified by Builder. Install all hardware required by governing code

VIII FINISHES A. Gypsum Panels: 1. Gypsum panels, unless otherwise noted shall be provided as follows:

a. Exterior walls: 1—layer 1/2" regular panels to interior face. b. Interior partitions: 1-layer 1/2\* regular panels each side.

c. Ceiling: 1-layer 5/8" regular panels. d. Garage: provide 5/8" type "X" panels as required by code.

e. Showers: Concrete board behind tile showers. 2. Provide metal corner bead and trim at all locations shown on Drawinas and as recommended by gypsum wallboard manufacturer.

compound as required. B. Finishes shown on Drawings shall be specified by Builder.

IX SPECIALTIES A. Fireplaces shall be as follows:

1. Pre-manufactured gas (non-wood burning) units of the style and size shown on the

2. Manufacturer and model shall be specified by Builder.

3. Sub Contractor(s) shall be responsible for proper installation of fireplace unit, venting, hearth, mantle and related components as recommended by manufacturer and as required by governing codes.

3. Tape, float and sand joints and fasteners of gypsum wallboard with 3-coats of joint

B. Shower, tub and tub/shower enclosures shall be constructed of approved safety glazing as specified by Builder.

C. Guardrails shall be provided as shown on Drawings and at unenclosed floor openings , open sides of stairways, landings and ramps, balconies, porches or decks which are more than 30 inches above grade or floor below. The top of guardrails shall not be less than 36 inches in height. Open guardrails shall have intermediate rails or an ornamental pattern such that a

sphere 4 inches in diameter cannot pass through. X MECHANICAL A. General:

1. Information and layouts shown on Drawings are only schematic in design, and shall be reviewed by Sub Contractors, Suppliers and Building Officials for compliance with governing codes and good common construction practices. 2. Equipment and fixtures shall be specified by Builder.

3. Design and installation of equipment shall be the responsibility of the appropriate licensed B. Plumbing:

1. Plumbing rough—in shall be provided to washer box for clothes washer. 2. Gas lines and valves to dryer, range and fireplace as specified by Builder.

C. Heating, Ventilating & Air Conditioning: 1. Furnace: gas, forced air as specified by Builder 2. All HVAC equipment shall be individually switched

> 3. Dryer vent shall exhaust to exterior. 4. Mechanical exhaust ventilation where indicated in bathrooms, water closet compartments and laundry rooms shall exhaust to exterior and provide a minimum of 5 air changes per

XI ELECTRICAL A. General:

1. Information and layouts shown on Drawings are only schematic in design, and shall be reviewed by Sub Contractors, Suppliers and Building Officials for compliance with governing codes and good common construction practices. 2. Equipment and fixtures shall be specified by Builder.

3. Design and installation of equipment shall be the responsibility of the appropriate licensed B. Install ground-fault circuit-interrupters (GFI or GFCI) meeting the requirements of

all governing codes. All outdoor, bedroom (s), bath and garage wall receptacles shall be provided with ground-fault circuit protection.

C. Install locally certified smoke detectors meeting the requirements of all governing codes. Smoke detectors shall be 110 volt powered, equipped with a battery backup and sound an alarm audible in all sleeping areas.

## FRAMING NOTES

EXTERIOR HEADERS:

OPENINGS LESS THAN 6'-0" IN WIDTH - 2-2x10 WITH FLAT 2x4 ON TRUSSES: BOTTOM OPENINGS 6'-0" OR GREATER IN WIDTH - 2-2x12 UNLESS OTHERWISE SPECIFIED ON PLANS. SEE DETAIL ON SHEET D1

INTERIOR HEADERS: IN NON BEARING PARTITION WALLS - 2x4 3/4" OSB 2x6 FRAMING TAP CON OR RAMSET AND BRACED TO FOUNDATION TIES; OSB TO HANG EXTEND OVER FOUNDATION CAP STOOP:

SOLID BLOCKING AS REQUIRED BY CODES. NO BRIDGING:

BASEMENT STAIRS: 3/4" AWAY FROM FRAMED OR FURRED WALLS. 1/2" RISERS, 3/4" TREADS WITH 1" OVERHANG ON FRONT, GLUED AND NAILED; TREADS HANG OVER ENDS 1 1/2" OR 2 1/4" WITH SKIRT BOARD. (USE SCRAPS WHERE POSSIBLE.) MAIN STAIRS:

OSB FLUSH FOR 1x6 Baluster plate <u>unless specified</u> UPPER FLOOR **BALCONIES:** 

TUB/SHOWERS: 5', 4' AND 3' EXACT OPENINGS. AS NOTED ON PLAN EXTERIOR DOORS: 3/4" OSB SPACER BETWEEN DOOR SILL AND FLOOR DECK, SLIDING GLASS DOORS INSTALL DIRECTLY TO FLOOR DECK. 24" o.c. WITH BRACING AS SPECIFIED BY TRUSS MANUFACTURER.

24" o.c. WITH BRACING AS SHOWN ON PLANS RAFTERS: VAULT 2x10 16" o.c. / 2x6 SUB FASCIA, LOOKOUTS AS REQUIRED.

OSB SHEATHING ON FRONT ELEVATION, ALL INSIDE CORNERS, OUTSIDE CORNERS, AND EXTERIOR FACE OF ALL GABLES. RIGID FOAM SHEATHING ON ALL OTHER AREAS. SHEATHING IS ALSO REQUIRED ON THE OUTSIDE FACE OF ANY/ALL WALLS THAT ADJOIN ENCLOSED UNIDER SPACES SUCH AS PORCH ROOFS OR ATTIC SPACES. UNLESS NOTED OTHERWISE ON PLANS.

CAULK BEHIND WINDOWS AND AND DOORS.
HOUSE WRAP OVER ALL EXTERIOR WALLS AND GABLES;
INSTALLED TO BE WATER TIGHT PER MFGR'S SPECIFICATIONS

FLASHING: 2x4 UNDER RIDGE ON ALL GABLES.
RUBBER FLASHING 18" WIDE UNDER ALUMINUM FLASHING CONTINUOUS FLASHING ALONG SHED ROOFS AND STOOPS

FRAMER SHALL PROVIDE CLEAR CHASES FOR PLUMBING AND MECHANICAL SYSTEMS.

C.Y. CUBIC YARD D.P. DAMP-PROOFING

D.L. DEAD LOAD DEP. DEPRESSED

DIM. DIMENSION D.W. DISH WASHER

D.H. DOUBLE HUNG

D.S. DOWNSPOUT D. DRAIN

ELEC. ELECTRIC(AL)
E.P. ELECTRICAL PANEL

L. ELEVATION

EQ. EQUAL EST. ESTIMATE

DN. DOWN

DWR. DRAWER

DWG. DRAWING E.F. OR EA.F. EACH FACE

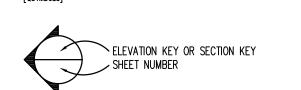
DET. OR DTL. DETAIL
DIAM. OR Ø DIAMETER

**EXTERIOR WALLS:** 

SIDING:

THE FRAMER SHALL ADJUST LAYOUT OR PLACEMENT OF FRAMING MEMBERS TO PROVIDE REQUIRED CLEARANCES FOR ALL MECHANICAL AND PLUMBING SYSTEMS WHILE MAINTAINING STRUCTURAL INTEGRITY.

## SYMBOLS CONCRETE



✓ SHEET NUMBER

DETAIL NUMBER OR SECTION KEY

INTERIOR ELEVATION KEY

SHEET NUMBER

CENTERLINE

ROUND OR DIAMETER

HEADER TYPE

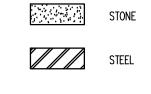
WINDOW MARK

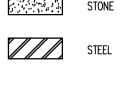
SAND OR GRAVEL FILL

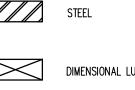
WOOD STUD PARTITION

EARTH

PENNY

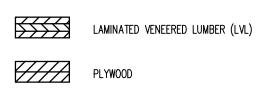


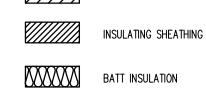


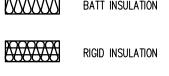


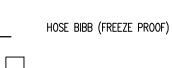


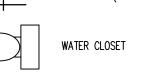


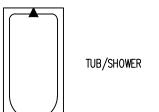


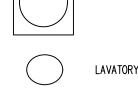






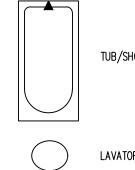


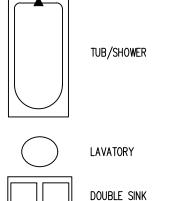




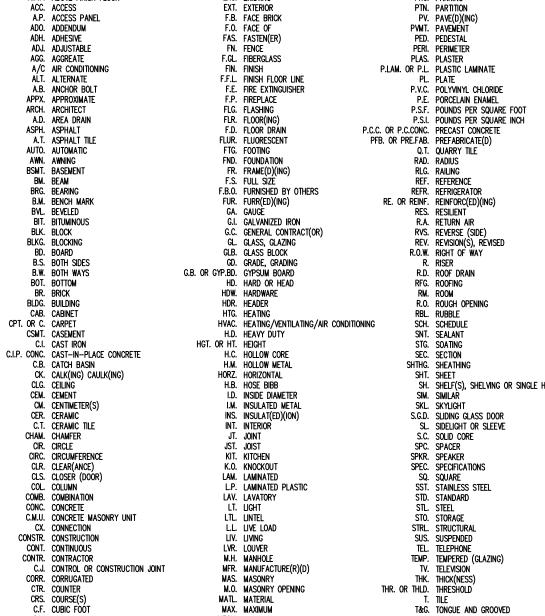


CONCRETE BLOCK





## **ABBREVIATIONS**



M.C. OR MED.CAB. MEDICINE CABINET

MM. MILLIMETER

MOD. MODULAR

MULL. MULLION

NOM. NOMINAL

PNL. PANEL PAR. PARALLEL

OA. OVERALL O.H. OR O'HEAD. OVERHEAD

MISC. MISCELLANEOUS

MLD. MOLDING, MOULDING

N.I.C. NOT IN CONTRACT N.T.S. NOT TO SCALE

O.H.G.D. OVERHEAD GARAGE DOOR PNT. PAINT(ED)

MMB. MEMBRANE MET. OR MTL. METAL

CHT. SHEET SH. SHELF(S), SHELVING OR SINGLE HUNG T&G. TONGUE AND GROOVED T.O.C. TOP OF CONCRETE
T.O.F. TOP OF FOUNDATION TR. TRANSOM OR TREAD INF. UNFINISHED V.B. VAPOR BARRIER

W.T.W. WALL TO WALL

W.H. WALL HUNG

W.C. WATER CLOSET
W.P. WATER PROOFING

W.W.M. WELDED WIRE MESH

W. WIDTH, WIDE

W.I. WROUGHT IRON

WIN. WINDOW WF. WIDE FLANGE

W/O. WITHOUT WD. WOOD

AREA SCHEDULE MAIN LIVING AREA UPPER LIVING AREA

1575

N/A

N/A

2022

TOTAL LIVING AREA

BASEMENT FINISHED

BASEMENT UNFINISHED

BASEMENT UNFINISHED

TOTAL ALL AREAS

GARAGE

SHEET INDEX

MAIN FLOOR PLAN UPPER FLOOR PLAN EXTERIOR ELEVATIONS

BUILDING SECTIONS

DETAILS

COMMON WALL SECTIONS

ROOF PLAN, STAIR SECTION &

MAIN FLOOR PLAN - ELECTRICAL UPPER FLOOR PLAN - ELECTRICAL

SHEET INDEX, TYPICAL NOTES, AREA SCHEDULE

FOUNDATION PLAN & FOUNDATION DETAILS

GARAGE	433
TOTAL ALL AREAS	2008
QSQFT]	
AREA SCHEDU	LE
UNIT A-L	
MAIN LIVING AREA	675
UPPER LIVING AREA	914
TOTAL LIVING AREA	1589
BASEMENT FINISHED	_

RESIDENTIAL CONVENTIONAL FOOTING DIMENSIONS:
ASSUMING 2,000 P.S.F. IS REQUIRED FOR THE FOOTING, THE FOLLOWING ADJUSTED FOOTING DIMENSIONS MAY BE USED FOR THE SOIL CONDITIONS SPECIFIED IN THE TABLE BELOW, UNLESS SPECIFIC ENGINEERING PROBLE

DESIGN DATA

SOIL PRESSURE (ASSUMED)

ROOF (SNOW) 30 PSF 30 PSF

CONTINUOUS 1500 PSF

ISOLATED 2000 PSF

STRUCTURAL STEEL Fy = 36 KSI

REINFORCING STEEL Fy = 60 KSI

CONCRETE

FOOTINGS, PADS AND
INTERIOR SLABS

Fc = 3500 PSI

FRAMING LUMBER

2x6 AND LARGER  $F_b = 1200$  PSI

2x6 STUDS  $F_b = 725 PSI$  E = 1500 KSI

2x4 STUDS  $F_b = 800$  PSI

 $\underline{MICRO-LAMS\ (12")} \qquad \qquad F_{C} = \underline{2800\ PSI}$ 

E = 1700 KSI $F_{C} = 625 \text{ PSI}$ 

 $F_c = 1000 PSI$ 

E = 1500 KSI

 $F_c = 600 PSI$ 

E = 2000 KSI

LIVE LOADS

WIND LOADS

90 MPH EXPOSURE B

IMPORTANCE FACTOR = 1.0

**BUILDING MATERIALS** 

SOIL BEARING PRESSURE	CONVENTIONAL FOOTING DIMENSION & REINFORCEMENT
2,000 P.S.F.	8"x 16" WITH TWO #4 REINFORCEMENT BARS
1,850 P.S.F.	9"x 20" WITH TWO #4 REINFORCEMENT BARS
1,500 P.S.F.	10"x 24" WITH TWO #5 REINFORCEMENT BARS
1,250 P.S.F.	11"x 28" WITH THREE #5 REINFORCEMENT BARS
1,000 P.S.F.	12"x 32" WITH THREE #5 REINFORCEMENT BARS

THE DIMENSIONS SPECIFIED IN THIS TABLE ARE TYPICALLY ACCEPTED DIMENSIONS FOR CONVENTIONALLY DESIGNED SINGLE FAMILY DWELLING STRUCTURES OF ONE OR TWO STORIES IN HEIGHT INTENDED TO BE CONSTRUCTED ON UNDISTURBED, NON-EXPANSIVE SOILS.

SPRINGWOOD **HOLDINGS** [515] 491.4090 Project No.: 30600217 02.22.17 Drawn By: JA/TK/SH/SF

Builder:

Revisions: ------Sheet Title:

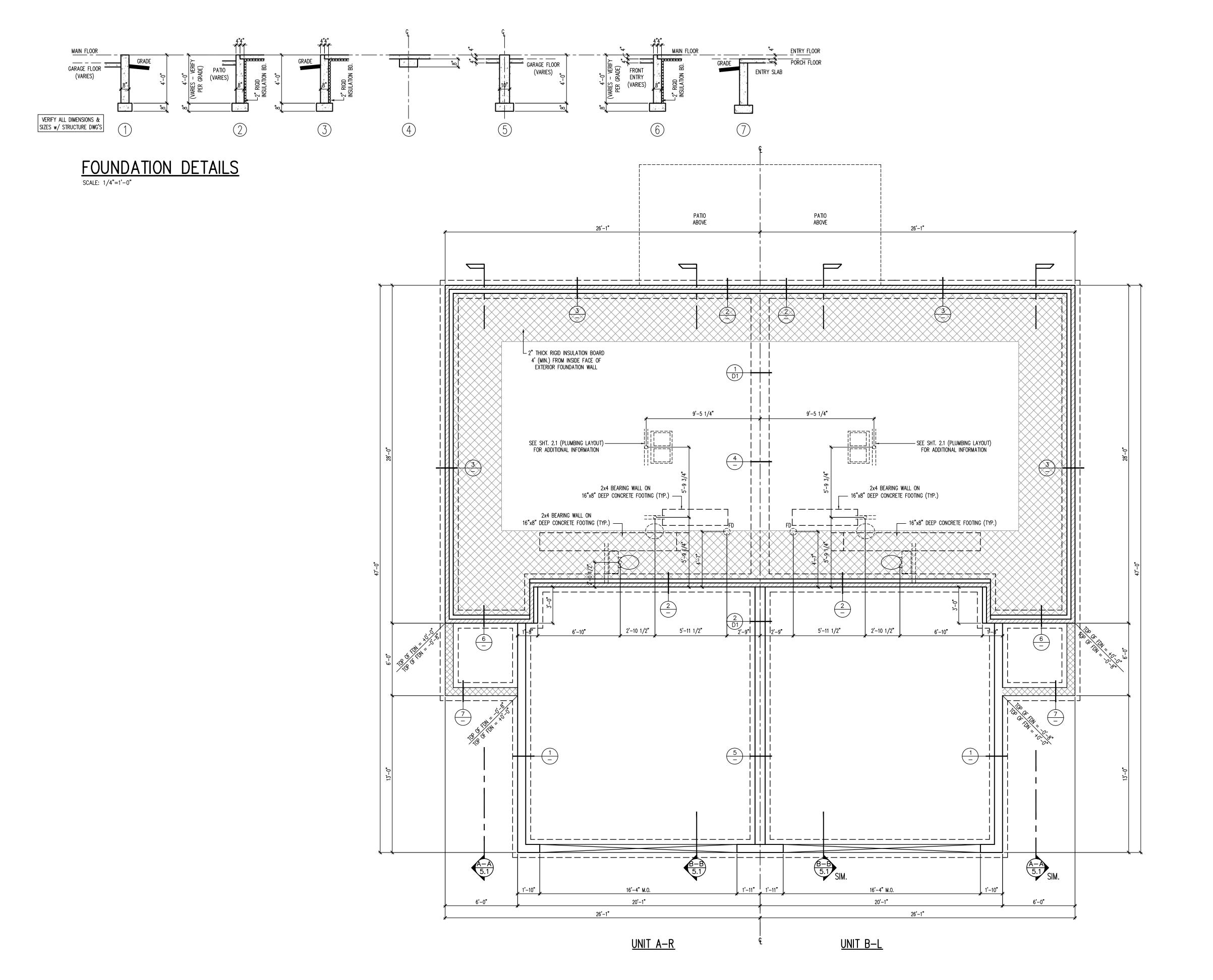
COVER SHEET

ALL STRUCTURE AND BEAMS TO BE SIZED BY TRUSS OR JOIST MANUFACTURER

119

for

7



## FOUNDATION PLAN

120

## TYPICAL NOTES:

## 2009 INTERNATIONAL BUILDING CODE:

1. TYPICAL CONSTRUCTION ASSEMBLIES

A ROOF CONSTRUCTION:
COMPOSITE ROOF SHINGLES ON #30 FELT ON 1/2" OSB ROOF
SHEATHING. USE 14" ALUMINUM FLASHING IN ALL VALLEYS UNDER
FROST GUARD/FELT.
½" FIRE RESISTIVE PLYWOOD ROOF SHEATHING REQUIRED ON
ROOF FRAMING MEMBERS AS NOTED ON ROOF PLANS.
CEILINGS:
FRAMED 16" O.C. = 1/2" GYPSUM BOARD
FRAMED 24" O.C. = 5/8" GYPSUM BOARD OR 1/2" CEILING
GYPSUM BOARD

FRAMED 24" O.C. = 5/8" GYPSUM BOARD OR 1/2" CEILING GYPSUM BOARD

B EXTERIOR WALL CONSTRUCTION
SIDING (AS NOTED ON ELEVATIONS) ON HOUSE WRAP (HOUSE WRAP SEAMS TO BE TAPED) OVER EXTERIOR WALL SHEATHING

AS NOTED BELOW:
7/16" OSB ON ALL ELEVATIONS, U.N.O.
7/16" OSB ON FACE OF ALL GABLES
7/16" OSB ON ALL INSIDE AND OUTSIDE CORNERS
INTERIOR: 1/2" GYPSUM WALL BOARD OVER 4 MIL POLY.
VAPOR BARRIER

C EXTERIOR MASONRY:
STONE VENEER OVER HOUSE WRAP ON 7/16" OSB
BRICK VENEER W/ MASONRY TIES 16" O.C. HORIZONTAL &
VERTICAL OVER HOUSE WRAP ON 7/16" OSB
D COMMONWALL CONSTRUCTION

2— HOUR FIRE RESISTIVE ASSEMBLY:
2— PARALLEL 1 HOUR RATED 2X4 WALLS FRAMED 16" O.C. AND SPACED 2" APART (FRAME DIMENSION) WITH 1 LAYER OF 5/8" TYPE "X" GYPSUM WALLBOARD ON EACH FACE OF EACH WALL. MAINTAIN SEPARATION FROM TOP OF FOUNDATION TO UNDERSIDE OF ROOF DECK.. (SEE DETAIL SHEET D1)
E COMMON GARAGE WALL CONSTRUCTION
2— HOUR FIRE RESISTIVE ASSEMBLY:

2— HOUR FIRE RESISTIVE ASSEMBLY:
2— PARALLEL 1 HOUR RATED 2X4 WALLS FRAMED 16" O.C. AND SPACED 2" APART (FRAME DIMENSION) WITH 1 LAYER OF 5/8" TYPE "X" GYPSUM WALLBOARD ON EACH FACE OF EACH WALL MAINTAIN SEPARATION FROM TOP OF FOUNDATION TO UNDERSIDE OF ROOF DECK.. (SEE DETAIL SHEET D1)

F BASEMENT AND GARAGE FLOOR CONSTRUCTION
4" CONCRETE SLAB (MINIMUM) ON COMPACTED GRANULAR

FILL.

G FRAME FLOOR CONSTRUCTION
FINISH FLOORING ( AS NOTED ON FLOOR PLANS) ON 3/4"
FLOOR SHEATHING ON ENGINEERED FLOOR TRUSSES OR AS NOTED
(SIZE AND SPACING AS NOTED ON FLOOR PLANS)
MAIN FLOOR CEILINGS: 5/8" GYPSUM BOARD

MAIN FLOOR CEILINGS: 5/8" GYPSUM BOARD
FRAMED 24" O.C.: 5/8" GYPSUM BOARD

2 WINDOWS
ROUGH OPENING OF WINDOWS TO BE NOTED IN FT./IN. ON

TYPICAL HEAD HEIGHTS FOR WINDOWS TO BE 6'-11 1/2", U.N.O.

A CASEMENT WINDOWS
WINDOW HINGE NOTED ON EXTERIOR ELEVATIONS

B SLIDING WINDOWS
NOTED ON PLANS AS SL

FLOOR PLANS, U.N.O.

C SINGLE HUNG WINDOWS

NOTED ON PLANS AS SH

D DOUBLE HUNG WINDOWS

NOTED ON PLANS AS DH

3 <u>DOORS</u>

DOOR SIZES NOTED ON FLOOR PLANS IN FT./IN ON FLOOR PLANS, U.N.O.

TYPICAL HEAD HEIGHT FOR DOORS TO BE 6'-11" (+ADJUSTMENT FOR FLOORING MATERIAL).

A WOOD JAMBS AND CASING
ROUGH OPENING FOR HINGED DOORS TO BE 2" WIDER THAN
DOOR SIZES NOTED ON PLAN, BI-FOLD DOORS TO BE 2-1/4"
WIDER THAN DOOR SIZE NOTED ON PLANS.
ROUGH OPENING FOR BI-PASS DOORS TO BE 1" WIDER THAN
DOOR SIZE NOTED ON PLANS.

B GYPSUM BOARD OPENINGS
ROUGH OPENINGS FOR BI-PASS DOORS TO BE SAME AS DOOR
SIZE NOTED ON PLANS.
ROUGH OPENINGS FOR BI-FOLD DOORS TO BE 1-1/4" WIDER
THAN DOOR SIZE NOTED ON PLAN.

ingwood Holdings

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AREA SCHEDULE

UNIT A-R

MAIN LIVING AREA 675

UPPER LIVING AREA 900

TOTAL LIVING AREA 1575

BASEMENT FINISHED 
BASEMENT UNFINISHED N/A

GARAGE 433

TOTAL ALL AREAS 2008

[QSQFT]

AREA SCHEDULE	
UNIT A-L	
MAIN LIVING AREA	675
UPPER LIVING AREA	914
TOTAL LIVING AREA	1589
BASEMENT FINISHED	_
BASEMENT UNFINISHED	N/A
GARAGE	433
TOTAL ALL AREAS	2022
QSQFT]	

ALL EXTERIOR FRAME
DIMENSIONS INCLUDE 1/2"
THICK WALL SHEATHING

ADJUST PLACEMENT OF FRAMING
MEMBERS AS REQUIRED TO PROVIDE
REQUIRED CLEARANCE FOR PLUMBING
AND MECHANICAL SYSTEMS

HOLD ALL DOOR AND WINDOW ROUGH
OPENINGS 5" (MIN.) FROM INTERSECTING
WALLS TO ALLOW FOR TRIM

ALL STRUCTURE AND BEAMS TO BE SIZED BY TRUSS OR JOIST MANUFACTURER

Builder:
SPRINGWOOD
HOLDINGS
[515] 491.4090
Project No.: 30600217

Project No.: 30600217

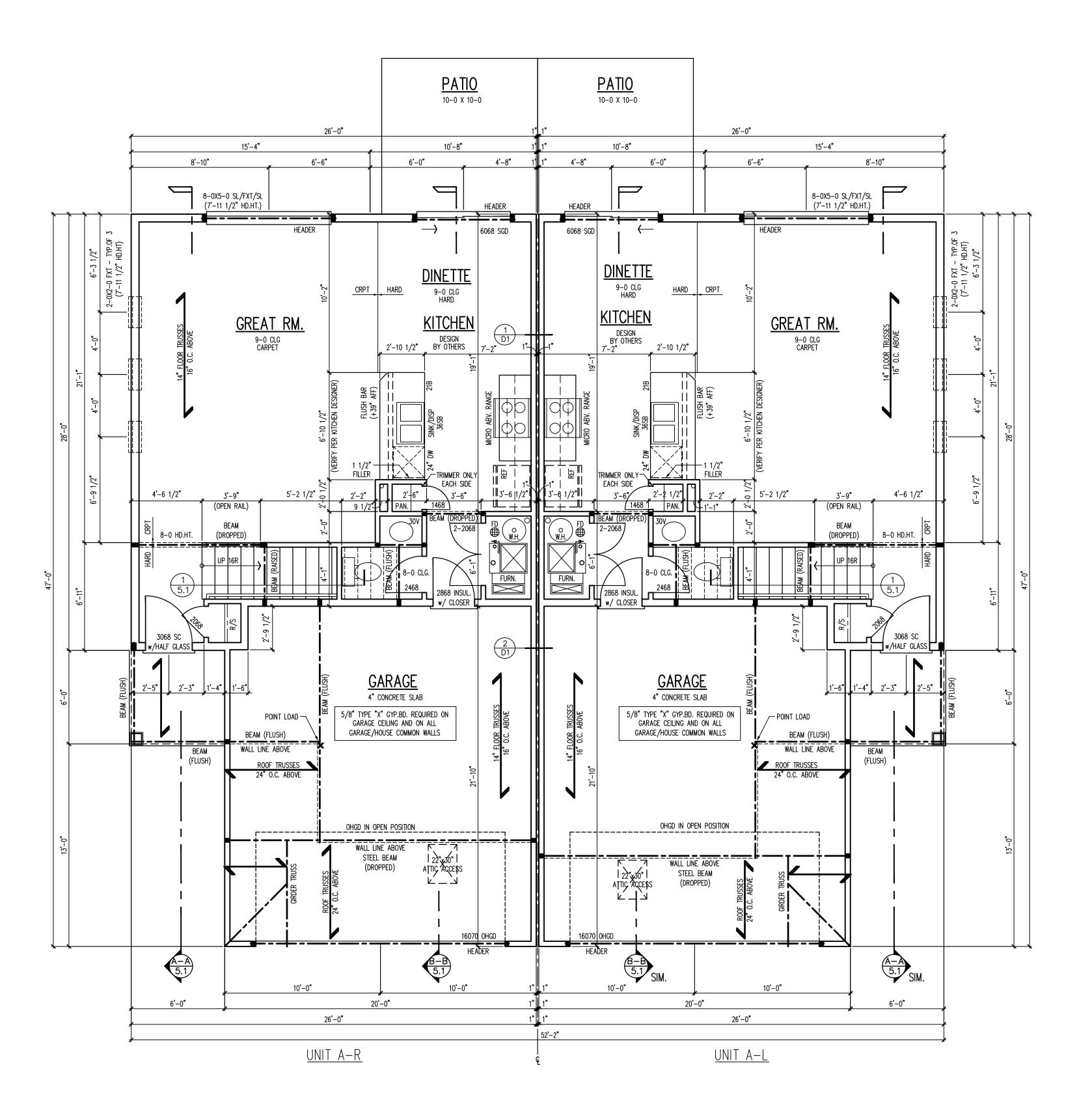
Date: 02.22.17

Drawn By: JA/TK/SH/SR

Revisions: --

Sheet Title:
FOUNDATION PLAN
FOUNDATION DETAILS

UNIT A
Sheet No.:



## MAIN FLOOR PLAN

121

## TYPICAL NOTES:

## 2009 INTERNATIONAL BUILDING CODE:

1. TYPICAL CONSTRUCTION ASSEMBLIES A ROOF CONSTRUCTION: COMPOSITE ROOF SHINGLES ON #30 FELT ON 1/2" OSB ROOF SHEATHING. USE 14" ALUMINUM FLASHING IN ALL VALLEYS UNDER FROST GUARD/FELT. 1/2" FIRE RESISTIVE PLYWOOD ROOF SHEATHING REQUIRED ON ROOF FRAMING MEMBERS AS NOTED ON ROOF PLANS.  $\overline{\text{FRAMED }}$  16" O.C. = 1/2" GYPSUM BOARD

FRAMED 24" O.C. = 5/8" GYPSUM BOARD OR 1/2" CEILING GYPSUM BOARD B EXTERIOR WALL CONSTRUCTION SIDING (AS NOTED ON ELEVATIONS) ON HOUSE WRAP (HOUSE

WRAP SEAMS TO BE TAPED) OVER EXTERIOR WALL SHEATHING AS NOTED BELOW: 7/16" OSB ON ALL ELEVATIONS, U.N.O. 7/16" OSB ON FACE OF ALL GABLES 7/16" OSB ON ALL INSIDE AND OUTSIDE CORNERS INTERIOR: 1/2" GYPSUM WALL BOARD OVER 4 MIL POLY.

C <u>EXTERIOR MASONRY:</u> STONE VENEER OVER HOUSE WRAP ON 7/16" OSB BRICK VENEER W/ MASONRY TIES 16" O.C. HORIZONTAL & VERTICAL OVER HOUSE WRAP ON 7/16" OSB D <u>COMMONWALL CONSTRUCTION</u>

2- HOUR FIRE RESISTIVE ASSEMBLY: 2- PARALLEL 1 HOUR RATED 2X4 WALLS FRAMED 16" O.C SPACED 2" APART (FRAME DIMENSION) WITH 1 LAYER OF 5/8" TYPE "X" GYPSUM WALLBOARD ON EACH FACE OF EACH WALL. MAINTAIN SEPARATION FROM TOP OF FOUNDATION TO UNDERSIDE OF ROOF DECK.. (SEE DETAIL SHEET D1) E COMMON GARAGE WALL CONSTRUCTION

2- HOUR FIRE RESISTIVE ASSEMBLY: 2- PARALLEL 1 HOUR RATED 2X4 WALLS FRAMED 16" O.C. AND SPACED 2" APART (FRAME DIMENSION) WITH 1 LAYER OF 5/8" TYPE "X" GYPSUM WALLBOARD ON EACH FACE OF EACH WALL. MAINTAIN SEPARATION FROM TOP OF FOUNDATION TO UNDERSIDE OF ROOF DECK.. (SEE DETAIL SHEET D1) BASEMENT AND GARAGE FLOOR CONSTRUCTION 4" CONCRETE SLAB (MINIMUM) ON COMPACTED GRANULAR

G FRAME FLOOR CONSTRUCTION FINISH FLOORING ( AS NOTED ON FLOOR PLANS) ON 3/4" FLOOR SHEATHING ON ENGINEERED FLOOR TRUSSES OR AS NOTED (SIZE AND SPACING AS NOTED ON FLOOR PLANS) MAIN FLOOR CEILINGS: 5/8" GYPSUM BOARD

FRAMED 24" O.C.: 5/8" GYPSUM BOARD

ROUGH OPENING OF WINDOWS TO BE NOTED IN FT./IN. ON FLOOR PLANS, U.N.O. TYPICAL HEAD HEIGHTS FOR WINDOWS TO BE 6'-11 1/2", U.N.O.

A <u>CASEMENT WINDOWS</u> WINDOW HINGE NOTED ON EXTERIOR ELEVATIONS B <u>SLIDING WINDOWS</u> NOTED ON PLANS AS SL

C <u>SINGLE HUNG WINDOWS</u> NOTED ON PLANS AS SH D <u>DOUBLE HUNG WINDOWS</u>

NOTED ON PLANS AS DH DOOR SIZES NOTED ON FLOOR PLANS IN FT./IN ON FLOOR PLANS, U.N.O.

TYPICAL HEAD HEIGHT FOR DOORS TO BE 6'-11" (+ADJUSTMENT FOR FLOORING MATERIAL). A WOOD JAMBS AND CASING ROUGH OPENING FOR HINGED DOORS TO BE 2" WIDER THAN DOOR SIZES NOTED ON PLAN, BI-FOLD DOORS TO BE 2-1/4" WIDER THAN DOOR SIZE NOTED ON PLANS.

DOOR SIZE NOTED ON PLANS. B GYPSUM BOARD OPENINGS ROUGH OPENINGS FOR BI-PASS DOORS TO BE SAME AS DOOR SIZE NOTED ON PLANS. ROUGH OPENINGS FOR BI-FOLD DOORS TO BE 1-1/4" WIDER THAN DOOR SIZE NOTED ON PLAN.



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AREA SCHEDULE	
UNIT A-R	_
MAIN LIVING AREA	675
UPPER LIVING AREA	900
TOTAL LIVING AREA	1575
BASEMENT FINISHED	- 0
BASEMENT UNFINISHED	N/A
GARAGE	433
TOTAL ALL AREAS	2008

AREA SCHEDULE	
UNIT A-L	
MAIN LIVING AREA	675
UPPER LIVING AREA	914
TOTAL LIVING AREA	1589
BASEMENT FINISHED	_
BASEMENT UNFINISHED	N/A
GARAGE	433
TOTAL ALL AREAS	2022
[QSQFT]	

ALL EXTERIOR FRAME DIMENSIONS INCLUDE 1/2" THICK WALL SHEATHING ADJUST PLACEMENT OF FRAMING MEMBERS AS REQUIRED TO PROVIDE REQUIRED CLEARANCE FOR PLUMBING AND MECHANICAL SYSTEMS HOLD ALL DOOR AND WINDOW ROUGH OPENINGS 5" (MIN.) FROM INTERSECTING WALLS TO ALLOW FOR TRIM

ALL STRUCTURE AND BEAMS TO BE SIZED BY TRUSS OR JOIST MANUFACTURER

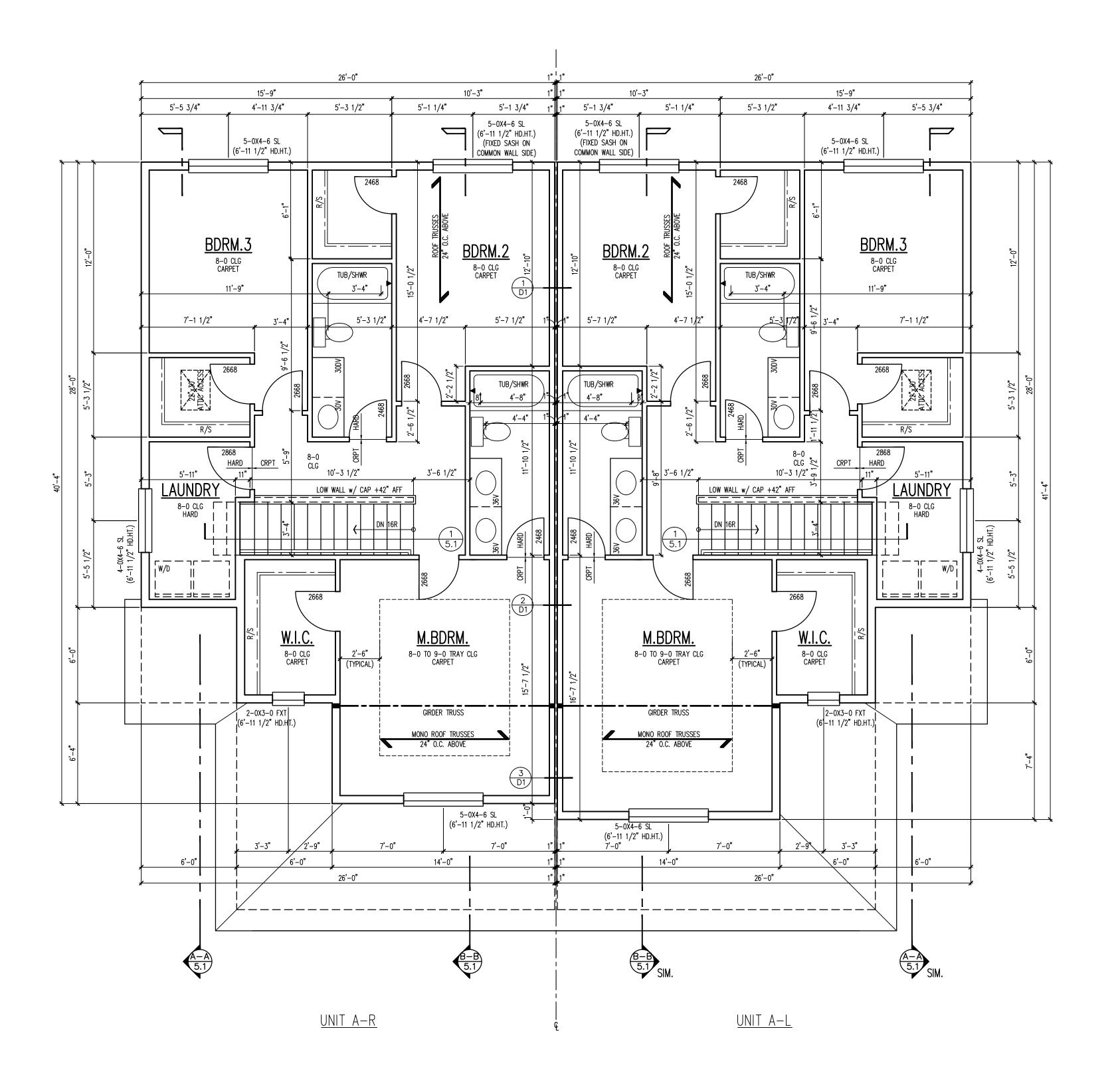
SPRINGWOOD HOLDINGS Project No.: 30600217 02.22.17

[515] 491.4090 Drawn By: JA/TK/SH/SR Revisions: --

--Sheet Title: MAIN FLOOR PLAN

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UNIT A Sheet No.:



## UPPER FLOOR PLAN SCALE: 1/4"=1'-0"

122

## TYPICAL NOTES:

## 2009 INTERNATIONAL BUILDING CODE:

1. TYPICAL CONSTRUCTION ASSEMBLIES

A ROOF CONSTRUCTION:
COMPOSITE ROOF SHINGLES ON #30 FELT ON 1/2" OSB ROOF
SHEATHING. USE 14" ALUMINUM FLASHING IN ALL VALLEYS UNDER
FROST GUARD/FELT.

½" FIRE RESISTIVE PLYWOOD ROOF SHEATHING REQUIRED ON
ROOF FRAMING MEMBERS AS NOTED ON ROOF PLANS.
CEILINGS:
CENTRE 40" O 0 1/4 (0" OVERHAL BOADS

FRAMED 16" O.C. = 1/2" GYPSUM BOARD
FRAMED 24" O.C. = 5/8" GYPSUM BOARD OR 1/2" CEILING
GYPSUM BOARD

B EXTERIOR WALL CONSTRUCTION
SIDING (AS NOTED ON ELEVATIONS) ON HOUSE WRAP (HOUSE
WRAP SEAMS TO BE TAPED) OVER EXTERIOR WALL SHEATHING
AS NOTED BELOW:
7/16" OSB ON ALL ELEVATIONS, U.N.O.
7/16" OSB ON FACE OF ALL GABLES
7/16" OSB ON ALL INSIDE AND OUTSIDE CORNERS

INTERIOR: 1/2" GYPSUM WALL BOARD OVER 4 MIL POLY.

C EXTERIOR MASONRY:
STONE VENEER OVER HOUSE WRAP ON 7/16" OSB
BRICK VENEER W/ MASONRY TIES 16" O.C. HORIZONTAL &
VERTICAL OVER HOUSE WRAP ON 7/16" OSB
D COMMONWALL CONSTRUCTION

2— HOUR FIRE RESISTIVE ASSEMBLY:
2— PARALLEL 1 HOUR RATED 2X4 WALLS FRAMED 16" O.C. AND SPACED 2" APART (FRAME DIMENSION) WITH 1 LAYER OF 5/8"
TYPE "X" GYPSUM WALLBOARD ON EACH FACE OF EACH WALL. MAINTAIN SEPARATION FROM TOP OF FOUNDATION TO UNDERSIDE OF ROOF DECK.. (SEE DETAIL SHEET D1)
F. COMMON GARAGE WALL CONSTRUCTION

E COMMON GARAGE WALL CONSTRUCTION

2— HOUR FIRE RESISTIVE ASSEMBLY:

2— PARALLEL 1 HOUR RATED 2X4 WALLS FRAMED 16" O.C. AND SPACED 2" APART (FRAME DIMENSION) WITH 1 LAYER OF 5/8"

TYPE "X" GYPSUM WALLBOARD ON EACH FACE OF EACH WALL MAINTAIN SEPARATION FROM TOP OF FOUNDATION TO UNDERSIDE OF ROOF DECK.. (SEE DETAIL SHEET D1)

F BASEMENT AND GARAGE FLOOR CONSTRUCTION

4" CONCRETE SLAB (MINIMUM) ON COMPACTED GRANULAR FILL.

G FRAME FLOOR CONSTRUCTION

FINISH FLOORING ( AS NOTED ON FLOOR PLANS) ON 3/4"
FLOOR SHEATHING ON ENGINEERED FLOOR TRUSSES OR AS NOTED
(SIZE AND SPACING AS NOTED ON FLOOR PLANS)
MAIN FLOOR CEILINGS: 5/8" GYPSUM BOARD
FRAMED 24" O.C.: 5/8" GYPSUM BOARD

2 <u>WINDOWS</u>

ROUGH OPENING OF WINDOWS TO BE NOTED IN FT./IN. ON FLOOR PLANS, U.N.O.

TYPICAL HEAD HEIGHTS FOR WINDOWS TO BE 6'-11 1/2", U.N.O.

A CASEMENT WINDOWS
WINDOW HINGE NOTED ON EXTERIOR ELEVATIONS
B SLIDING WINDOWS

B <u>SLIDING WINDOWS</u>

NOTED ON PLANS AS SL

C. SINGLE HUNG WINDOWS

C SINGLE HUNG WINDOWS
NOTED ON PLANS AS SH
D DOUBLE HUNG WINDOWS
NOTED ON PLANS AS DH

3 <u>DOORS</u>

DOOR SIZES NOTED ON FLOOR PLANS IN FT./IN ON FLOOR PLANS, U.N.O.

TYPICAL HEAD HEIGHT FOR DOORS TO BE 6'-11" (+ADJUSTMENT FOR FLOORING MATERIAL).

A WOOD JAMBS AND CASING
ROUGH OPENING FOR HINGED DOORS TO BE 2" WIDER THAN
DOOR SIZES NOTED ON PLAN, BI-FOLD DOORS TO BE 2-1/4"
WIDER THAN DOOR SIZE NOTED ON PLANS.
ROUGH OPENING FOR BI-PASS DOORS TO BE 1" WIDER THAN
DOOR SIZE NOTED ON PLANS.

B GYPSUM BOARD OPENINGS
ROUGH OPENINGS FOR BI-PASS DOORS TO BE SAME AS DOOR
SIZE NOTED ON PLANS.
ROUGH OPENINGS FOR BI-FOLD DOORS TO BE 1-1/4" WIDER
THAN DOOR SIZE NOTED ON PLAN.



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Builder:

2008

AREA SCHEDULE		
UNIT A-L		_
MAIN LIVING AREA	675	4
UPPER LIVING AREA	914	
TOTAL LIVING AREA	1589	
BASEMENT FINISHED	_	_
BASEMENT UNFINISHED	N/A	
GARAGE	433	
TOTAL ALL AREAS	2022	_
[ACAET]		Т

AREA SCHEDULE

MAIN LIVING AREA

UPPER LIVING AREA

TOTAL LIVING AREA

BASEMENT FINISHED

BASEMENT UNFINISHED

TOTAL ALL AREAS

ALL EXTERIOR FRAME
DIMENSIONS INCLUDE 1/2"
THICK WALL SHEATHING

ADJUST PLACEMENT OF FRAMING
MEMBERS AS REQUIRED TO PROVIDE
REQUIRED CLEARANCE FOR PLUMBING
AND MECHANICAL SYSTEMS

HOLD ALL DOOR AND WINDOW ROUGH OPENINGS 5" (MIN.) FROM INTERSECTING WALLS TO ALLOW FOR TRIM

ALL STRUCTURE AND BEAMS TO BE

Date: 02.22.17

Drawn By: JA/TK/SH/SR

Revisions: ---Sheet Title:

UPPER FLOOR PLAN

SPRINGWOOD

HOLDINGS

Project No.: 30600217

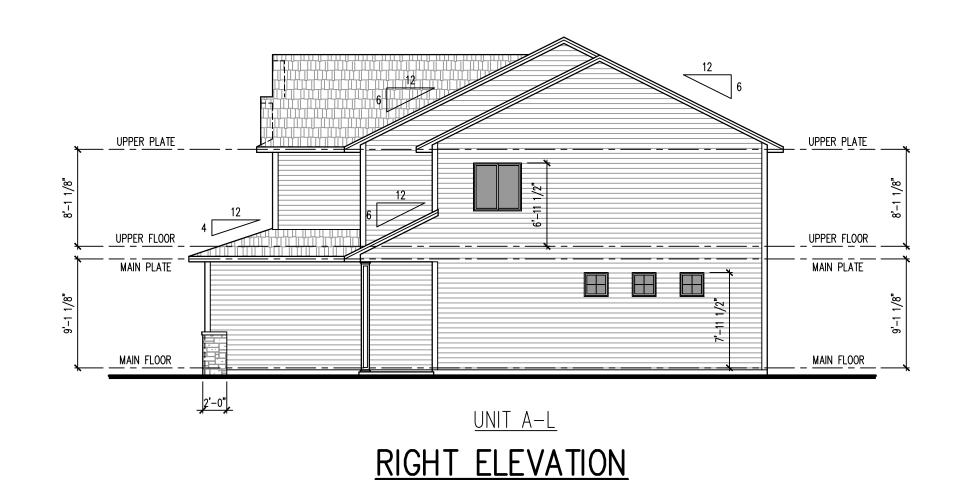
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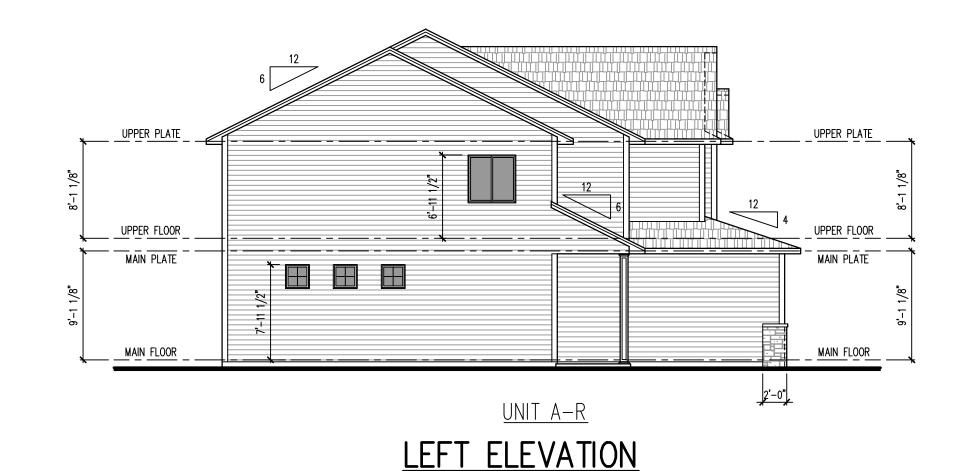
--UNIT A

ALL STRUCTURE AND BEAMS TO BE
SIZED BY TRUSS OR JOIST MANUFACTURER

3.









FRONT ELEVATION

SCALE: 1/4"=1'-0"

TYPICAL NOTES:

## 2009 INTERNATIONAL BUILDING CODE:

1. TYPICAL CONSTRUCTION ASSEMBLIES

A ROOF CONSTRUCTION:
COMPOSITE ROOF SHINGLES ON #30 FELT ON 1/2" OSB ROOF
SHEATHING. USE 14" ALUMINUM FLASHING IN ALL VALLEYS UNDER
FROST GUARD/FELT.
½" FIRE RESISTIVE PLYWOOD ROOF SHEATHING REQUIRED ON
ROOF FRAMING MEMBERS AS NOTED ON ROOF PLANS.
CEILINGS:

FRAMED 16" O.C. = 1/2" GYPSUM BOARD
FRAMED 24" O.C. = 5/8" GYPSUM BOARD OR 1/2" CEILING
GYPSUM BOARD

B EXTERIOR WALL CONSTRUCTION
SIDING (AS NOTED ON ELEVATIONS) ON HOUSE WRAP (HOUSE
WRAP SEAMS TO BE TAPED) OVER EXTERIOR WALL SHEATHING
AS NOTED BELOW:
7/16" OSB ON ALL ELEVATIONS, U.N.O.
7/16" OSB ON FACE OF ALL GABLES
7/16" OSB ON ALL INSIDE AND OUTSIDE CORNERS

INTERIOR: 1/2" GYPSUM WALL BOARD OVER 4 MIL POLY.
VAPOR BARRIER
C EXTERIOR MASONRY:
STONE VENEER OVER HOUSE WRAP ON 7/16" OSB
BRICK VENEER W/ MASONRY TIES 16" O.C. HORIZONTAL &

VERTICAL OVER HOUSE WRAP ON 7/16" OSB

D COMMONWALL CONSTRUCTION
2— HOUR FIRE RESISTIVE ASSEMBLY:
2— PARALLEL 1 HOUR RATED 2X4 WALLS FRAMED 16" O.C. AND SPACED 2" APART (FRAME DIMENSION) WITH 1 LAYER OF 5/8" TYPE "X" GYPSUM WALLBOARD ON EACH FACE OF EACH WALL. MAINTAIN SEPARATION FROM TOP OF FOUNDATION TO UNDERSIDE OF ROOF DECK.. (SEE DETAIL SHEET D1)

UNDERSIDE OF ROOF DECK.. (SEE DETAIL SHEET D1)

E COMMON GARAGE WALL CONSTRUCTION
2— HOUR FIRE RESISTIVE ASSEMBLY:
2— PARALLEL 1 HOUR RATED 2X4 WALLS FRAMED 16" O.C. AND SPACED 2" APART (FRAME DIMENSION) WITH 1 LAYER OF 5/8"

TYPE "X" GYPSUM WALLBOARD ON EACH FACE OF EACH WALL MAINTAIN SEPARATION FROM TOP OF FOUNDATION TO UNDERSIDE OF ROOF DECK.. (SEE DETAIL SHEET D1)

F BASEMENT AND GARAGE FLOOR CONSTRUCTION
4" CONCRETE SLAB (MINIMUM) ON COMPACTED GRANULAR
FILL.

G FRAME FLOOR CONSTRUCTION
FINISH FLOORING ( AS NOTED ON FLOOR PLANS) ON 3/4"
FLOOR SHEATHING ON ENGINEERED FLOOR TRUSSES OR AS NOTED
(SIZE AND SPACING AS NOTED ON FLOOR PLANS)
MAIN FLOOR CEILINGS: 5/8" GYPSUM BOARD
FRAMED 24" O.C.: 5/8" GYPSUM BOARD

FRAMED 24" O.C.: 5/8" GYPSUM BOARD

2 WINDOWS

ROUGH OPENING OF WINDOWS TO BE NOTED IN FT./IN. ON

FLOOR PLANS, U.N.O.

TYPICAL HEAD HEIGHTS FOR WINDOWS TO BE 6'-11 1/2", U.N.O.

A CASEMENT WINDOWS
WINDOW HINGE NOTED ON EXTERIOR ELEVATIONS

B <u>SLIDING WINDOWS</u>
NOTED ON PLANS AS SL
C <u>SINGLE HUNG WINDOWS</u>
NOTED ON PLANS AS SH

NOTED ON PLANS AS SH
D DOUBLE HUNG WINDOWS
NOTED ON PLANS AS DH

DOOR SIZES NOTED ON FLOOR PLANS IN FT./IN ON FLOOR PLANS, U.N.O.

TYPICAL HEAD HEIGHT FOR DOORS TO BE 6'-11" (+ADJUSTMENT FOR FLOORING MATERIAL).

A WOOD JAMBS AND CASING
ROUGH OPENING FOR HINGED DOORS TO BE 2" WIDER THAN
DOOR SIZES NOTED ON PLAN, BI-FOLD DOORS TO BE 2-1/4"
WIDER THAN DOOR SIZE NOTED ON PLANS.
ROUGH OPENING FOR BI-PASS DOORS TO BE 1" WIDER THAN
DOOR SIZE NOTED ON PLANS.

B GYPSUM BOARD OPENINGS
ROUGH OPENINGS FOR BI-PASS DOORS TO BE SAME AS DOOR SIZE NOTED ON PLANS.
ROUGH OPENINGS FOR BI-FOLD DOORS TO BE 1-1/4" WIDER THAN DOOR SIZE NOTED ON PLAN.



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		2
AREA SCHEDU	LE	
UNIT A-R		
MAIN LIVING AREA	675	_
UPPER LIVING AREA	900	
TOTAL LIVING AREA	1575	
BASEMENT FINISHED	- ()	
BASEMENT UNFINISHED	N/A	
GARAGE	433	
TOTAL ALL AREAS	2008	

AREA SCHEDU	LE	
UNIT A-L		(
MAIN LIVING AREA	675	
UPPER LIVING AREA	914	
TOTAL LIVING AREA	1589	
BASEMENT FINISHED	_	
BASEMENT UNFINISHED	N/A	
GARAGE	433	
TOTAL ALL AREAS	2022	

ALL EXTERIOR FRAME
DIMENSIONS INCLUDE 1/2"
THICK WALL SHEATHING

ADJUST PLACEMENT OF FRAMING
MEMBERS AS REQUIRED TO PROVIDE
REQUIRED CLEARANCE FOR PLUMBING
AND MECHANICAL SYSTEMS

HOLD ALL DOOR AND WINDOW ROUGH
OPENINGS 5" (MIN.) FROM INTERSECTING

ALL STRUCTURE AND BEAMS TO BE SIZED BY TRUSS OR JOIST MANUFACTURER

WALLS TO ALLOW FOR TRIM

Builder:
SPRINGWOOD
HOLDINGS
[515] 491.4090
Project No.: 30600217
Date: 02.22.17
Drawn By: JA/TK/SH/SR

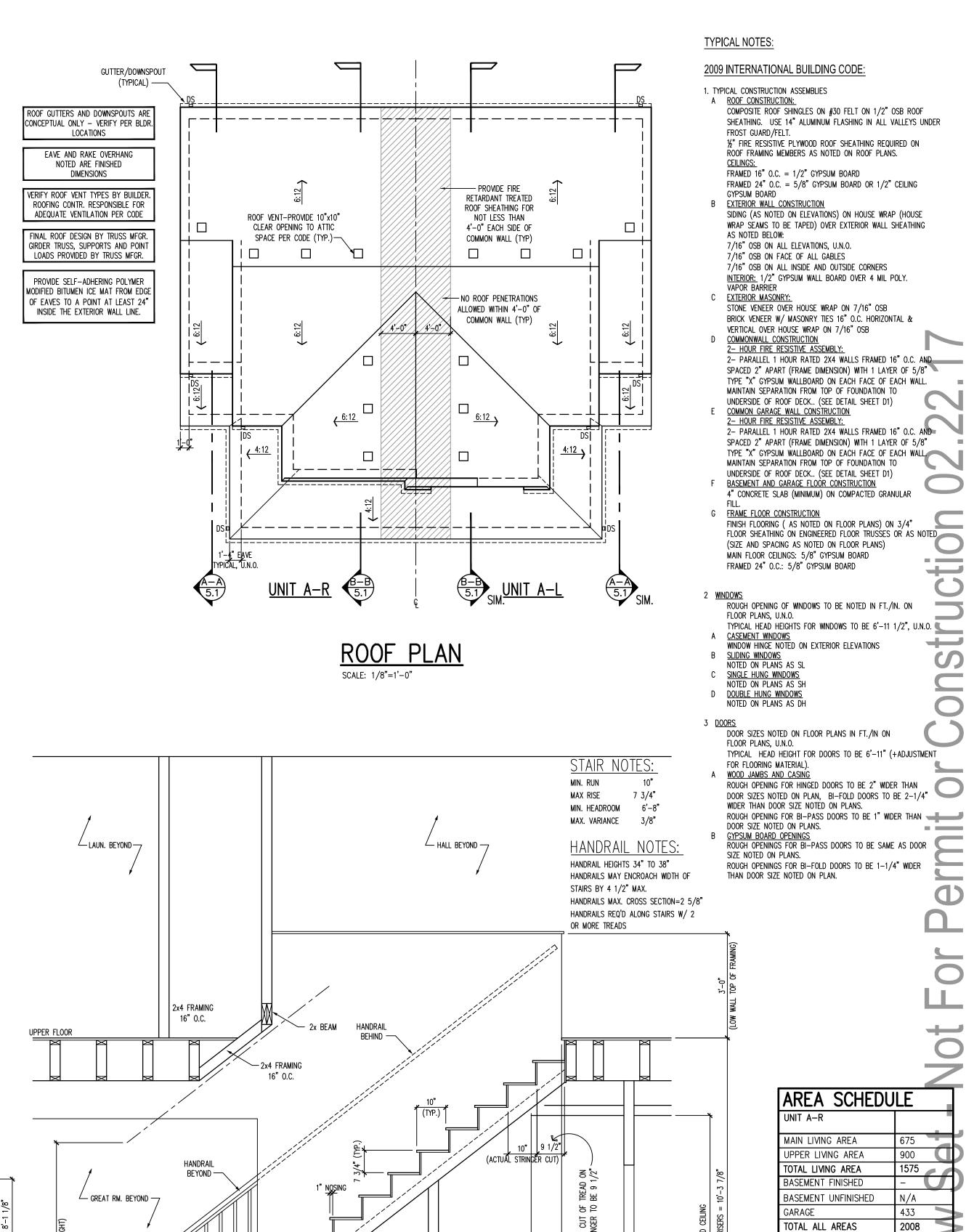
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Drawn By: JA/TK/St

Revisions: ---Sheet Title:

EXTERIOR ELEVATIONS
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UNIT A
Sheet No.:



VANITY

BEYOND -

- WATER CLOSET

BEYOND

(3 THUS, TYP.)

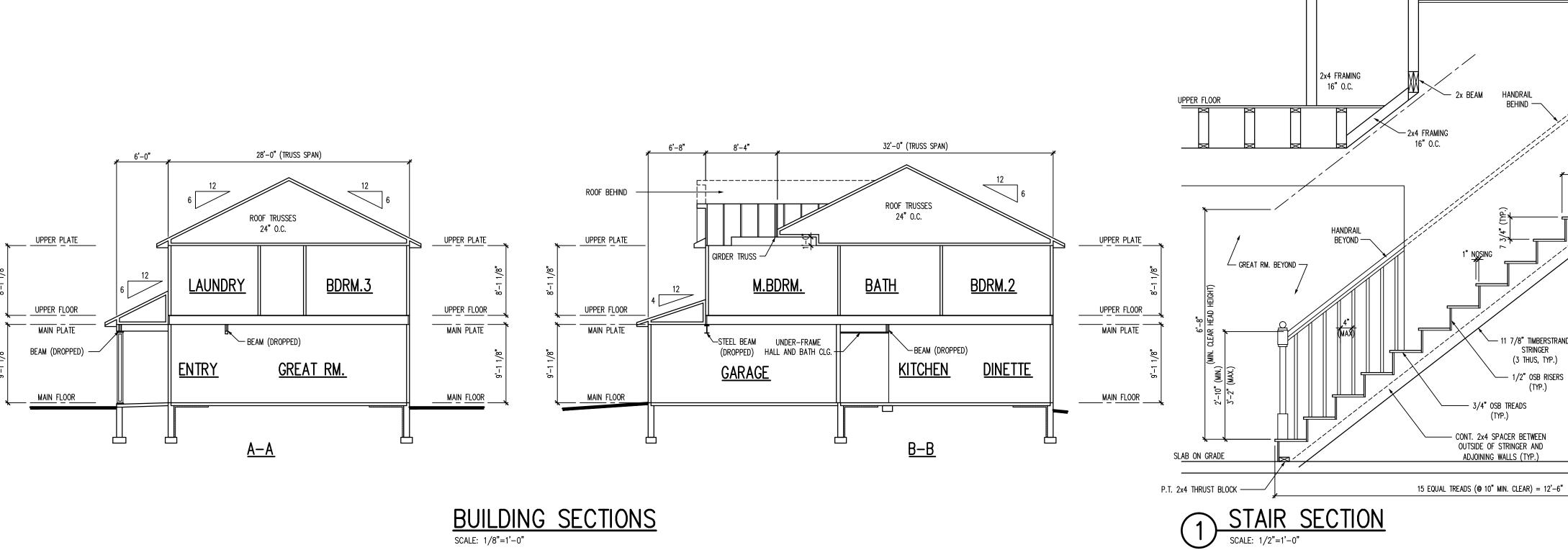
— 1/2" OSB RISERS (TYP.)

— 3/4" OSB TREADS

CONT. 2x4 SPACER BETWEEN

OUTSIDE OF STRINGER AND

ADJOINING WALLS (TYP.)



STAIR SECTION

SCALE: 1/2"=1'-0"

COMPOSITE ROOF SHINGLES ON #30 FELT ON 1/2" OSB ROOF SHEATHING. USE 14" ALUMINUM FLASHING IN ALL VALLEYS UNDER 1/2" FIRE RESISTIVE PLYWOOD ROOF SHEATHING REQUIRED ON ROOF FRAMING MEMBERS AS NOTED ON ROOF PLANS.

FRAMED 24" O.C. = 5/8" GYPSUM BOARD OR 1/2" CEILING

WRAP SEAMS TO BE TAPED) OVER EXTERIOR WALL SHEATHING INTERIOR: 1/2" GYPSUM WALL BOARD OVER 4 MIL POLY.

2- PARALLEL 1 HOUR RATED 2X4 WALLS FRAMED 16" O.C. SPACED 2" APART (FRAME DIMENSION) WITH 1 LAYER OF 5/8" TYPE "X" GYPSUM WALLBOARD ON EACH FACE OF EACH WALL. MAINTAIN SEPARATION FROM TOP OF FOUNDATION TO UNDERSIDE OF ROOF DECK.. (SEE DETAIL SHEET D1)

2- PARALLEL 1 HOUR RATED 2X4 WALLS FRAMED 16" O.C. AND SPACED 2" APART (FRAME DIMENSION) WITH 1 LAYER OF 5/8" TYPE "X" GYPSUM WALLBOARD ON EACH FACE OF EACH WALL MAINTAIN SEPARATION FROM TOP OF FOUNDATION TO UNDERSIDE OF ROOF DECK.. (SEE DETAIL SHEET D1)

FINISH FLOORING ( AS NOTED ON FLOOR PLANS) ON 3/4" FLOOR SHEATHING ON ENGINEERED FLOOR TRUSSES OR AS NOTED

ROUGH OPENING OF WINDOWS TO BE NOTED IN FT./IN. ON

DOOR SIZES NOTED ON FLOOR PLANS IN FT./IN ON TYPICAL HEAD HEIGHT FOR DOORS TO BE 6'-11" (+ADJUSTMENT

ROUGH OPENING FOR HINGED DOORS TO BE 2" WIDER THAN DOOR SIZES NOTED ON PLAN, BI-FOLD DOORS TO BE 2-1/4" ROUGH OPENING FOR BI-PASS DOORS TO BE 1" WIDER THAN

ROUGH OPENINGS FOR BI-PASS DOORS TO BE SAME AS DOOR ROUGH OPENINGS FOR BI-FOLD DOORS TO BE 1-1/4" WIDER

> AREA SCHEDULE 2008

AREA SCHEDU	LE >
UNIT A-L	
MAIN LIVING AREA	675
UPPER LIVING AREA	914
TOTAL LIVING AREA	1589
BASEMENT FINISHED	_
BASEMENT UNFINISHED	N/A
GARAGE	433
TOTAL ALL AREAS	2022

ALL EXTERIOR FRAME DIMENSIONS INCLUDE 1/2" THICK WALL SHEATHING ADJUST PLACEMENT OF FRAMING MEMBERS AS REQUIRED TO PROVIDE REQUIRED CLEARANCE FOR PLUMBING AND MECHANICAL SYSTEMS HOLD ALL DOOR AND WINDOW ROUGH OPENINGS 5" (MIN.) FROM INTERSECTING

ALL STRUCTURE AND BEAMS TO BE SIZED BY TRUSS OR JOIST MANUFACTURER

WALLS TO ALLOW FOR TRIM

SPRINGWOOD HOLDINGS [515] 491.4090 Project No.: 30600217

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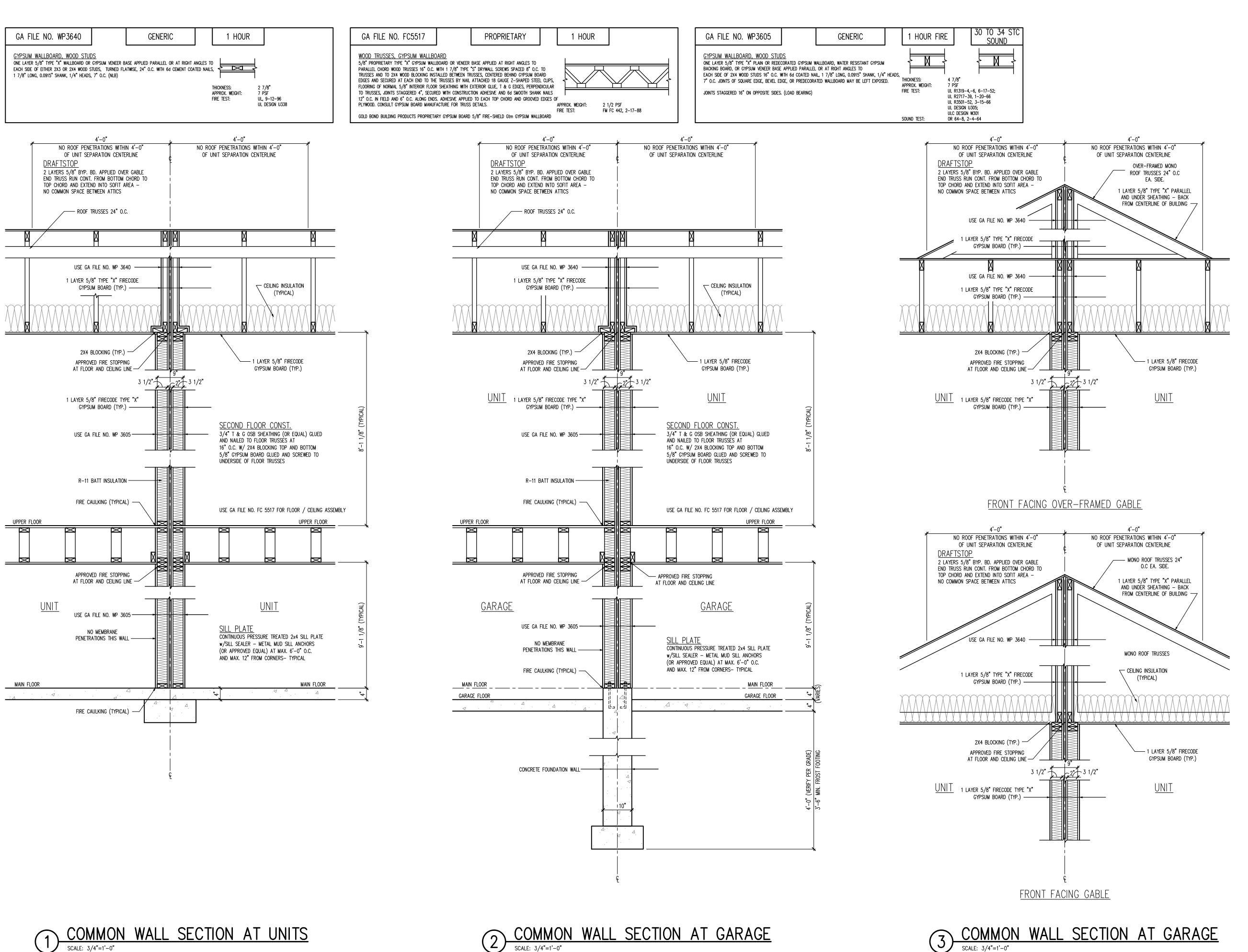
02.22.17 Drawn By: JA/TK/SH/SR Revisions: ------

Sheet Title:

ROOF PLAN STAIR SECTION BUILDING SECTIONS

UNIT A Sheet No.:

124



TYPICAL NOTES:

2009 INTERNATIONAL BUILDING CODE: 1. TYPICAL CONSTRUCTION ASSEMBLIES A <u>ROOF CONSTRUCTION:</u> COMPOSITE ROOF SHINGLES ON #30 FELT ON 1/2" OSB ROOF SHEATHING. USE 14" ALUMINUM FLASHING IN ALL VALLEYS UNDER FROST GUARD/FELT. 1/2" FIRE RESISTIVE PLYWOOD ROOF SHEATHING REQUIRED ON ROOF FRAMING MEMBERS AS NOTED ON ROOF PLANS.

FRAMED 16" O.C. = 1/2" GYPSUM BOARD

FRAMED 24" O.C. = 5/8" GYPSUM BOARD OR 1/2" CEILING GYPSUM BOARD B EXTERIOR WALL CONSTRUCTION SIDING (AS NOTED ON ELEVATIONS) ON HOUSE WRAP (HOUSE WRAP SEAMS TO BE TAPED) OVER EXTERIOR WALL SHEATHING

AS NOTED BELOW: 7/16" OSB ON ALL ELEVATIONS, U.N.O. 7/16" OSB ON FACE OF ALL GABLES 7/16" OSB ON ALL INSIDE AND OUTSIDE CORNERS INTERIOR: 1/2" GYPSUM WALL BOARD OVER 4 MIL POLY. VAPOR BARRIER

C <u>EXTERIOR MASONRY:</u> STONE VENEER OVER HOUSE WRAP ON 7/16" OSB BRICK VENEER W/ MASONRY TIES 16" O.C. HORIZONTAL & VERTICAL OVER HOUSE WRAP ON 7/16" OSB

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COMMON GARAGE WALL CONSTRUCTION <u>2- HOUR FIRE RESISTIVE ASSEMBLY:</u> 2- PARALLEL 1 HOUR RATED 2X4 WALLS FRAMED 16" O.C. AND SPACED 2" APART (FRAME DIMENSION) WITH 1 LAYER OF 5/8" TYPE "X" GYPSUM WALLBOARD ON EACH FACE OF EACH WALL. MAINTAIN SEPARATION FROM TOP OF FOUNDATION TO

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ROUGH OPENING OF WINDOWS TO BE NOTED IN FT./IN. ON FLOOR PLANS, U.N.O. TYPICAL HEAD HEIGHTS FOR WINDOWS TO BE 6'-11 1/2", U.N.O.

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NOTED ON PLANS AS SL SINGLE HUNG WINDOWS NOTED ON PLANS AS SH D <u>DOUBLE HUNG WINDOWS</u> NOTED ON PLANS AS DH

DOOR SIZES NOTED ON FLOOR PLANS IN FT./IN ON FLOOR PLANS, U.N.O. TYPICAL HEAD HEIGHT FOR DOORS TO BE 6'-11" (+ADJUSTMENT

THAN DOOR SIZE NOTED ON PLAN.

FOR FLOORING MATERIAL). A <u>WOOD JAMBS AND CASING</u> ROUGH OPENING FOR HINGED DOORS TO BE 2" WIDER THAN DOOR SIZES NOTED ON PLAN, BI-FOLD DOORS TO BE 2-1/4" WIDER THAN DOOR SIZE NOTED ON PLANS.

ROUGH OPENING FOR BI-PASS DOORS TO BE 1" WIDER THAN ————— DOOR SIZE NOTED ON PLANS. GYPSUM BOARD OPENINGS ROUGH OPENINGS FOR BI-PASS DOORS TO BE SAME AS DOOR SIZE NOTED ON PLANS. ROUGH OPENINGS FOR BI-FOLD DOORS TO BE 1-1/4" WIDER

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eview

SPRINGWOOD **HOLDINGS** [515] 491.4090 Project No.: 30600217

02.22.17 Drawn By: JA/TK/SH/SI Revisions: --

--Sheet Title: COMMON WALL SECTIONS

Sheet No.:

ALL STRUCTURE AND BEAMS TO BE SIZED BY TRUSS OR JOIST MANUFACTURER

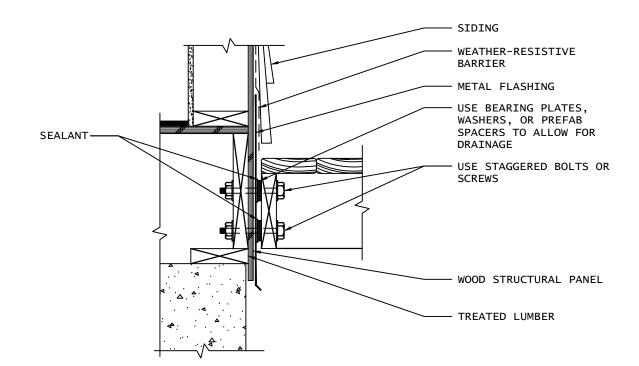
ALL EXTERIOR FRAME DIMENSIONS INCLUDE 1/2"

THICK WALL SHEATHING

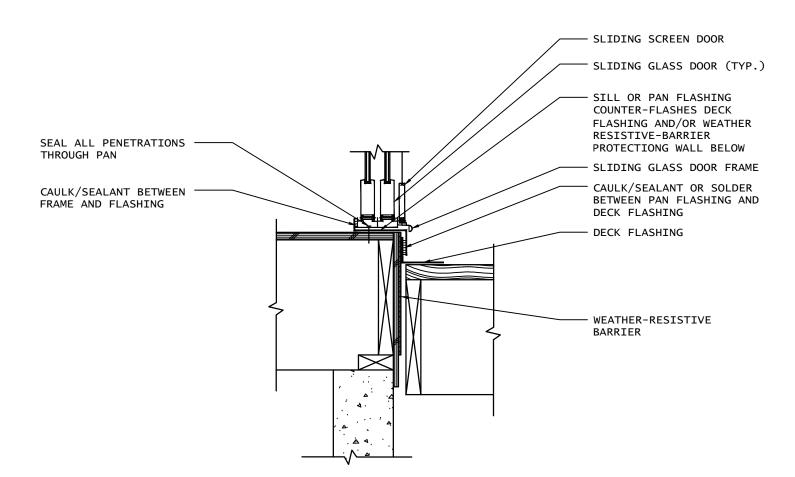
ADJUST PLACEMENT OF FRAMING MEMBERS AS REQUIRED TO PROVIDE

REQUIRED CLEARANCE FOR PLUMBING AND MECHANICAL SYSTEMS

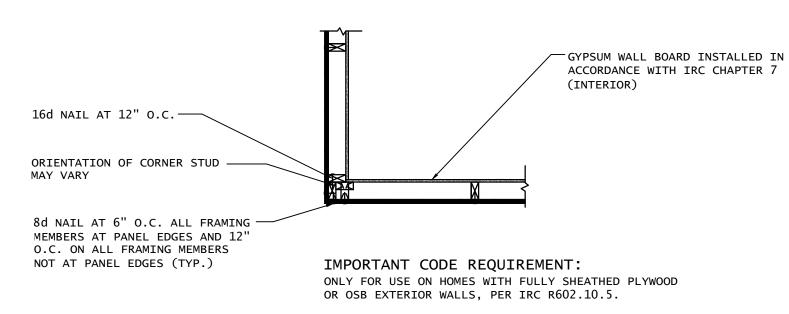
HOLD ALL DOOR AND WINDOW ROUGH OPENINGS 5" (MIN.) FROM INTERSECTING WALLS TO ALLOW FOR TRIM



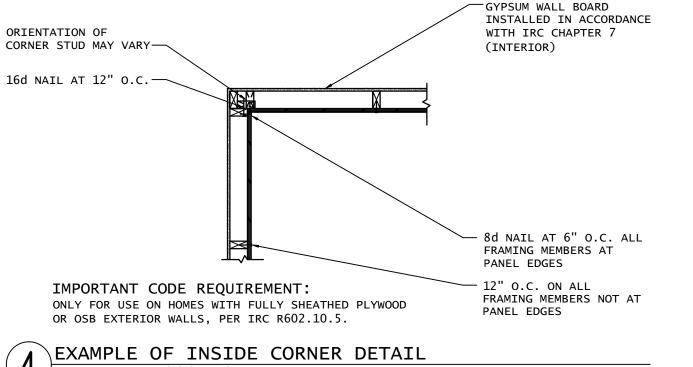
## WEATHER-RESISTIVE SYSTEM AT AN EXTERIOR DECK



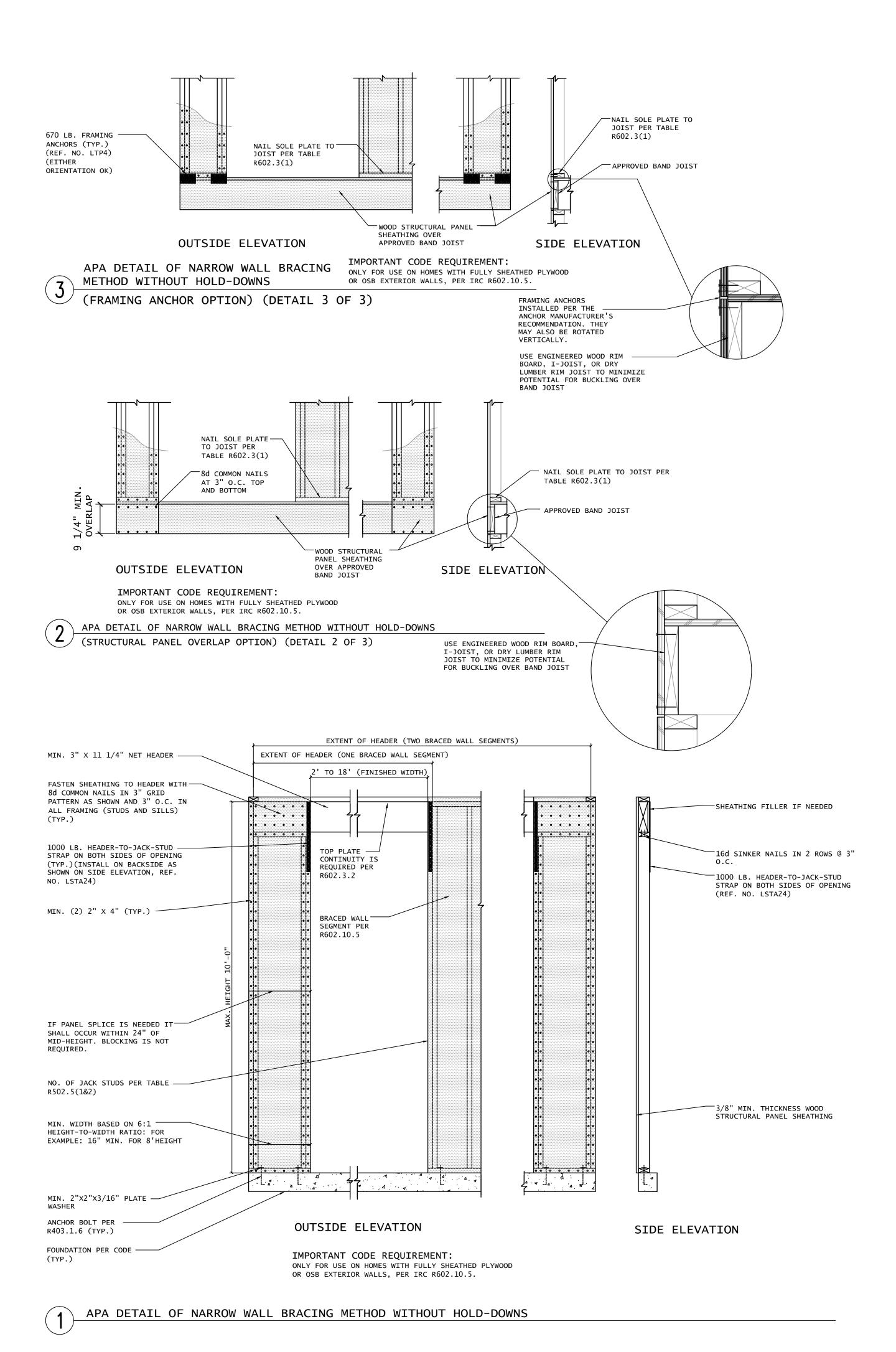
# 6 SILL FLASHING AT SLIDING GLASS DOOR



## 5 EXAMPLE OF OUTSIDE CORNER DETAIL PER IRC R602.10.5



4) PER IRC R602.10.5



TYPICAL NOTES:

## 2009 INTERNATIONAL BUILDING CODE:

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SPRINGWOOD HOLDINGS [515] 491.4090

Project No.: 30600217 02.22.17 Drawn By: JA/TK/SH/SF Revisions: --

--Sheet Title: DETAILS

Sheet No.:

ALL STRUCTURE AND BEAMS TO BE SIZED BY TRUSS OR JOIST MANUFACTURER

ALL EXTERIOR FRAME DIMENSIONS INCLUDE 1/2"

THICK WALL SHEATHING

ADJUST PLACEMENT OF FRAMING

MEMBERS AS REQUIRED TO PROVIDE

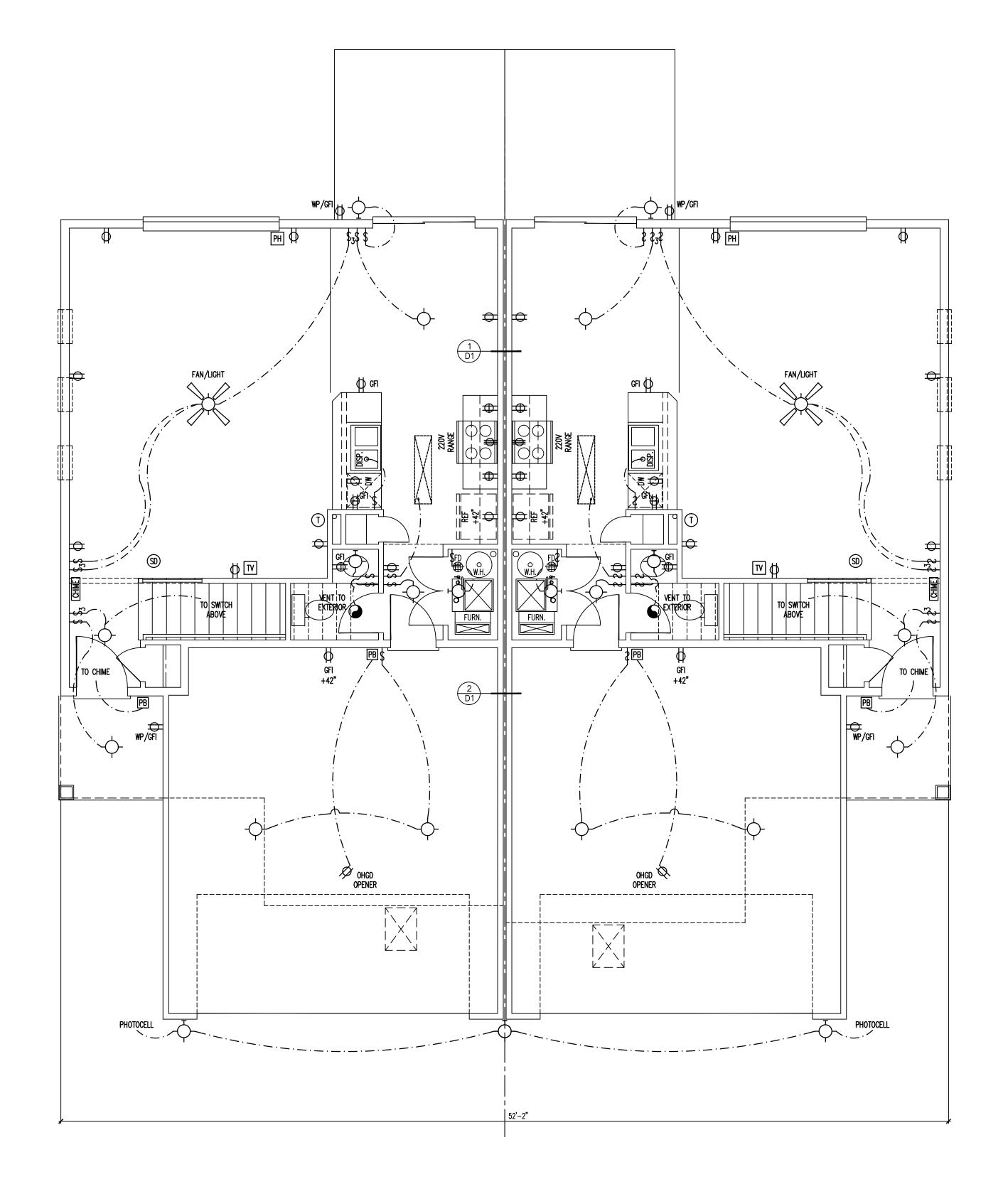
REQUIRED CLEARANCE FOR PLUMBING

AND MECHANICAL SYSTEMS

HOLD ALL DOOR AND WINDOW ROUGH

OPENINGS 5" (MIN.) FROM INTERSECTING

WALLS TO ALLOW FOR TRIM



MAIN FLOOR PLAN — ELECTRICAL

SCALE: 1/4"=1'-0"



MECHANICAL AND ELECTRICAL KEY

DUPLEX CONVENIENCE OUTLET DUPLEX OUTLET ABOVE COUNTER WEATHERPROOF DUPLEX OUTLET

HALF-SWITCHED DUPLEX OUTLET

WALL SWITCH THREE-WAY SWITCH FOUR-WAY SWITCH RHEOSTAT SWITCH

GROUND-FAULT CIRCUIT-INTERRUPTER DUPLEX OUTLET

CEILING MOUNTED INCANDESCENT LIGHT FIXTURE E-STAR COMPLIANT FLUORESCENT LIGHT FIXTURE WALL MOUNTED INCANDESCENT LIGHT FIXTURE RECESSED INCANDESCENT LIGHT FIXTURE

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SPRINGWOOD HOLDINGS [515] 491.4090

02.22.17

Project No.: 30600217 Drawn By: JA/TK/SH/SR

--Sheet Title: MAIN FLOOR PLAN

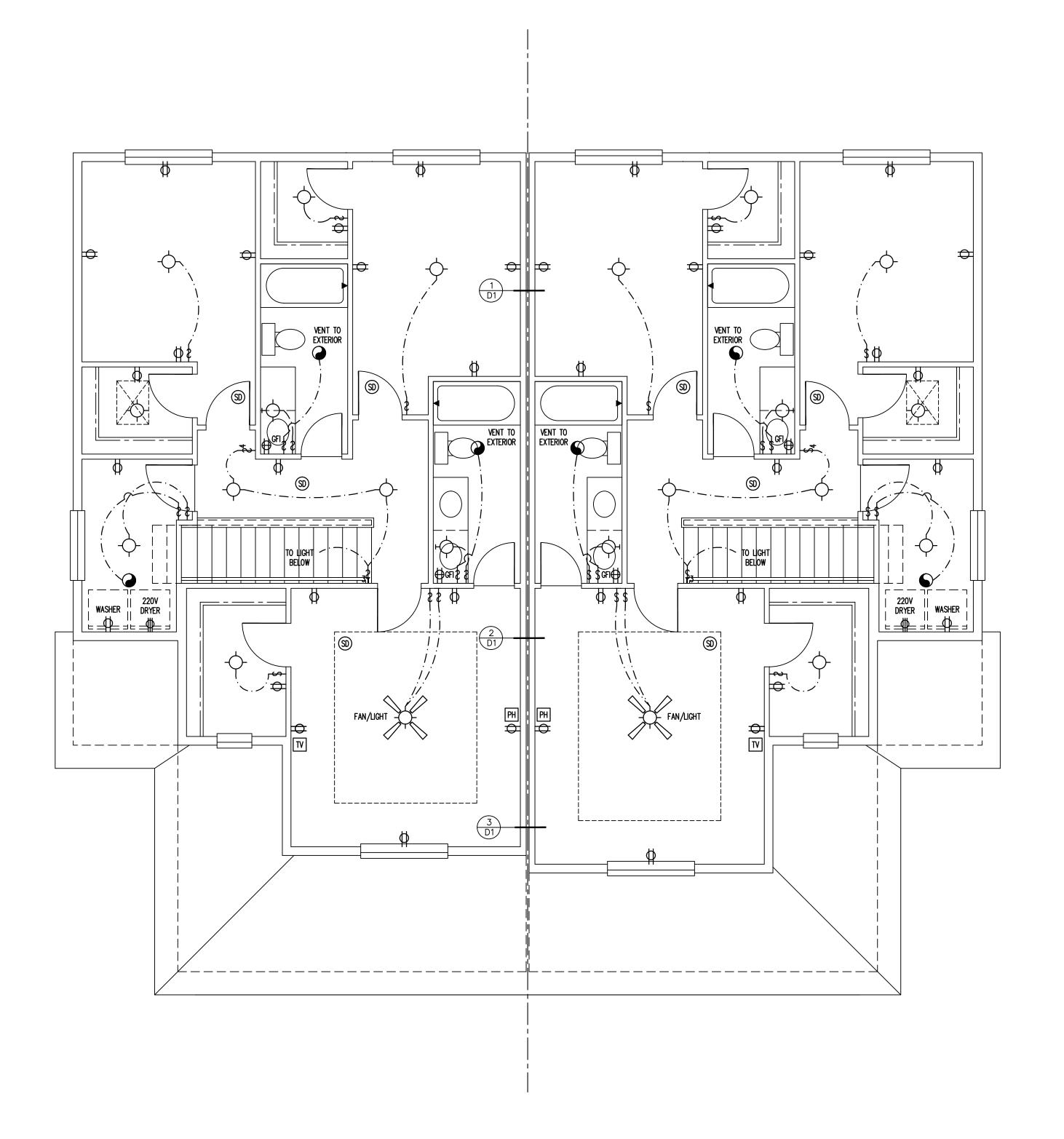
UNIT A Sheet No.:

ALL STRUCTURE AND BEAMS TO BE SIZED BY TRUSS OR JOIST MANUFACTURER

HOLD ALL DOOR AND WINDOW ROUGH OPENINGS 5" (MIN.) FROM INTERSECTING WALLS TO ALLOW FOR TRIM

ALL EXTERIOR FRAME DIMENSIONS INCLUDE 1/2" THICK WALL SHEATHING

ADJUST PLACEMENT OF FRAMING MEMBERS AS REQUIRED TO PROVIDE REQUIRED CLEARANCE FOR PLUMBING AND MECHANICAL SYSTEMS



UPPER FLOOR PLAN — ELECTRICAL
SCALE: 1/4"=1'-0"

MECHANICAL AND ELECTRICAL KEY DUPLEX CONVENIENCE OUTLET DUPLEX OUTLET ABOVE COUNTER WEATHERPROOF DUPLEX OUTLET GROUND-FAULT CIRCUIT-INTERRUPTER DUPLEX OUTLET HALF-SWITCHED DUPLEX OUTLET WALL SWITCH THREE-WAY SWITCH FOUR-WAY SWITCH RHEOSTAT SWITCH

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EXHAUST FAN/LIGHT COMBINATION (VENT TO EXTERIOR)

COMBINATION CARBON MONOXIDE & SMOKE DETECTOR

TRACK LIGHT

FLUORESCENT LIGHT FIXTURE S EXHAUST FAN (VENT TO EXTERIOR)

GDO OUTLET FOR GARAGE DOOR OPENER

PUSHBUTTON SWITCH SMOKE DETECTOR

CENTRAL VACUUM OUTLET

RETURN AIR PASS THROUGH

RETURN AIR ATTIC DUCT

TELEVISION

RETURN AIR GRILLE (SIZE NOTED ON PLANS)

0

SPRINGWOOD

HOLDINGS

[515] 491.4090

Revisions: --

Sheet Title:

ELECTRICAL

UNIT A

Sheet No.:

UPPER FLOOR PLAN

Project No.: 30600217

Drawn By: JA/TK/SH/SR

02.22.17

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CEILING FAN (PROVIDE ADEQUATE SUPPORT) CEILING FAN WITH INCANDESCENT LIGHT FIXTURE (PROVIDE ADEQUATE SUPPORT)

128

ALL STRUCTURE AND BEAMS TO BE SIZED BY TRUSS OR JOIST MANUFACTURER

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August 2, 2019

Ms. Marketa Oliver City Administrator City of Bondurant 200 Second Street NE Bondurant, Iowa 50035

RE: SITE PLAN SUBMITTAL

PARK SIDE TOWNHOMES

PARK SIDE PLAT 2

PART OF THE SW 1/4 OF SEC. 36, T80N, R24W

S&A Project No. 118.0725.01

#### Dear Marketa:

On behalf of Parkside Land Company, LLC, as owner and developer, please find accompanying the Site Plan and associated items for the above referenced project. We respectfully request the City's review and approval of these documents that include eight bi-attached townhomes (16 units total) on approximately 3.22 acres. These documents have been prepared in accordance with City standards, ordinances, and the Park Side PUD requirements. A PDF of the Site Plan will be submitted via email.

Included with this submittal are the following:

- 1. Four (4) folded full size copies of the Site Plan, and
- 2. Three (3) copies of the building elevations.

We respectfully request the City's review and approval of these items. Please let me know if you have any questions or require further information. Thank you.

Sincerely,

SNYDER & ASSOCIATES, INC.

Brent K. Culp

**Enclosure** 

Cc: John Larson, Parkside Land Company, LLC (w/encl.)

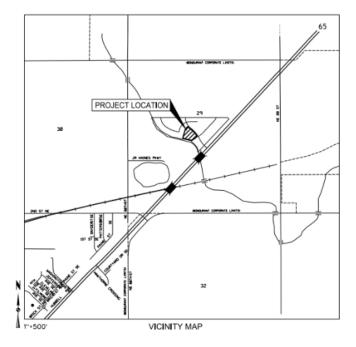
Bob Veenstra, V&K Engineering (PDF emailed)

File



#### Park Side Townhomes Park Side Plat 2

Thursday, August 8th, 2019



#### **SUMMARY**

Legal description of lot: LOTS 66-81 AND OUTLOT "Z" OF PARK SIDE PLAT 2, AN OFFICIAL PLAT INCLUDED IN AND FORMING A PART OF THE CITY OF BONDURANT, POLK COUNTY, IOWA AND INCLUDING 3.22 ACRES (140,303 S.F.).

Parkside Land Company, LLC is seeking approval of eight town homes with a total of 16 units on 3.22 acres of land on Parkside Plat 2. The Site is currently zoned R-5 Planned Unit Development. Staff recommends that the plans be approved since they follow all applicable regulations as well as the comprehensive plan.

#### **Background**

This report analyzes the submittal of site plans for Parkside Plat 2 townhomes. The property is owned and developed by Parkside Land Company LLC. 8 townhomes will be constructed on 3.22 acres of land within the R-5 Parkside planned unit development. The report is written by Nelson Loring, Planning Intern for the City of Bondurant.

#### **Site Description**

Site plans include grading, planting plan, dimension plan, and the townhome design plans. The townhomes will have a total of two floors, with an upper floor containing a master bedroom, two additional bedrooms, two bathrooms, and a laundry room. The lower level contains the garage, a toilet room, kitchen, dinette, a great room, and access to a porch. The plant schedule includes 4 Prairie Pride Hackberry, 3 Swamp White Oak, and 3 Northern Red Oak. 15 Ivory Halo Dogwood and 15 Sea Green Juniper is planned for shrubbery. The figures below pertain to the site plan's planting, building size, and the bulk regulations that the development must follow per the R-5 PUD zoning designation.



Figure 1. Trees and Shrubbery. Trees from the left: Prairie Pride Hackberry, Swamp White Oak, and Northern Red Oak. Shrubs include from the left: Ivory Halo Dogwood and Sea Green Juniper

AREA SCHEDULE			
AREAS (SF)	UNIT A-R	UNIT A-L	
MAIN LIVING AREA	675	675	
UPPER LIVING AREA	900	914	
TOTAL LIVING AREA	1575	1589	
BASEMENT FINISHED	-	-	
BASEMENT UNFINISHED	N/A	N/A	
GARAGE	433	433	
TOTAL ALL AREAS	2008	2022	

Figure 2. Area Schedule. The total square footage the different floors and accessory structures of the townhomes.

#### Summary of Park Side PUD Bulk Regulations Area C: Single Family Attached Townhomes

(A) Minimum Lot Area	
(B) Minimum Floor Area	900 sq. ft. Ranch
	1000 sq. ft. Two-Story
(C) Lot Width	
(D) Front Yard	25 ft. with 5 ft. sidewalk
(E) Side Yard	10 ft. building separation
(F) Rear Yard	20 ft.
(G) Maximum Height	35 ft. 12ft. Accessory Buildings
(H) Maximum Stories	3
	1 Accessory
(I) Accessory Building	1,000 sq. ft. Garage Max
	160 sq. ft Shed Max

Figure 3. The R-5 PUD Bulk Regulations for Parkside Townhomes.

#### **Zoning History**

The site is currently zoned R-5 as a Planned Unit Development to Park Side PUD bulk regulations. The comprehensive plan had the area slated from single family residential as the proposed land use. Before it was zoned R-5 it was zoned as an agricultural district.

#### Compatibility

The surrounding area consists of agricultural, medium industrial, and park land uses. The townhomes would be across the Santiago Creek from the Bondurant Recreational Sports Complex, soccer fields and Lake Petocka. Across NE Hubbell Ave is the planned industrial park. The only other residential neighborhoods in the area are those under development in the rest of the Parkside planned unit development zone.

#### **Comprehensive Plan**

The comprehensive plan states that multi-family housing is best suited near parks which lake Patoka and the soccer fields fall under. One of the guiding principles of the comprehensive plan is that 'We will grow thoughtfully, in a planned manner" which is exactly what this planned unit development is allowing for. The design is not haphazard development, and the location is appropriate for community identity as it is being located near the park. The townhomes also fall under the guiding principle of "We will develop a healthy housing mixes" by providing other housing than detached single family homes. The townhomes adhere to the policy 4.1 (Maintain a diversity of single-family and multi-family housing that provide ample choices in housing style).

#### **Analysis**

The Townhomes in Parkside Plat 2 are compatible with the land use and surrounding area. Townhomes are welcome additions to the PUD as they provide a mix of housing types as well as bring more residents closer to parks. The future industrial site will not be incompatible with this development due to the highway separation as well as the setbacks for both developments. The townhomes will add needed density to Bondurant as well as providing much needed housing variety.

#### Recommendations

Staff recommends the approval of the site plans. The site complies with all city regulations and the comprehensive plan. The zoning code is also complying with the standards set out for townhomes in the Parkside PUD. Staff has one recommendation regarding the plant schedule. The alternating shrubbery on the southeast side of the site might better be served by a larger shrub than the Sea Green Juniper. A shrub of the boxwood variety might be preferred due to the greater privacy it would provide for the site.