CITY OF WEST DES MOINES
STAFF REPORT COMMUNICATION

Meeting Date: November 1, 2021

ITEM: 21 WDM, 950 Jordan Creek Parkway – Approve Site Plan to allow construction of a Mixed Use project at the southwest corner of Jordan Creek Parkway and Ashworth Road – Jordan Creek Associates, LLC – SP-005148-2021

Resolution: Approval of Site Plan

Background: Jordan Creek Associates, LLC represented by John Lassaux, Director of Development with CRG Residential, is requesting, with consent on file from the current property owners, approval of the Site Plan for the approximately 10-acre property generally located at the southwest corner of Jordan Creek Parkway and Ashworth Road. The applicant proposes to construct a mixed-use building consisting of a 15,000sf restaurant, 8,000sf of commercial space, and 199 multifamily residential units with an internal parking structure.

At this time Jordan Creek Associates, LLC does not own any of the property within the development area, but the city has obtained current property owner authorization from the five (5) individual residential property owners as well as Czech Mate, LLC and Hope K. Farms LLC for the application. The City also has a parcel of land within the development which the applicant is in the process of acquiring for the development. Approval of the site plan at this time will signify the City consent to the application and pending development. The application is moving forward at this time to facilitate the completion of the development agreement and construction of 76th Street and necessary infrastructure for the project.

Staff Review & Comment:

- *History:* The property was annexed into the City in 2001 as a part of the Ashworth Road annexation which brought in approximately 200 acres of property along the north and south sides of Ashworth Road from 74th Street (Jordan Creek Parkway) to 88th Street. The property had remained Unzoned since the time of annexation into the city until October 2020 when the Village on Jordan Creek PUD was approved to allow Medium Density Residential and Office. The PUD was amended in June 2021 to revise the zoning east of the 76th Street extension to Support Commercial zoning to allow the proposed Mixed-Use development. The property is currently used for single family detached residential homes and a portion is undeveloped.

- *Key Development Aspects:*
    1. *Parking Stall Dimension Waiver*: The applicant has requested that the minimum dimension for required parking stalls be waived for the parking structure to reduce the stall dimension from the code required 9' wide by 19' in length to a minimum dimension of 9' wide by 18' in length. Staff reviewed other metro communities and presented information to the Development and Planning Subcommittee for discussion. Parking stall dimensions vary across the metro from 17' to 19' in length, therefore, the subcommittee was supportive of the applicant requesting the waiver from the standard parking stall dimensions for the parking structure.

    2. *City Consent:* The City purchased 7630 Ashworth Road which was recently replatted with the final plat for The Village on Jordan Creek Parkway Plat 1 to create Outlot Z, Lot 3, and a portion of Street Lot "A" which is 76th Street future ROW. Lot 3 is on the east side of the future 76th Street ROW and makes up a portion of the development area for this mixed-use project. With approval of this action the City is consenting as a current property owner to the Site Plan. It is intended that Lot 3, which is not a buildable lot on its own, will be acquired

by the developer of the property east of 76th Street to be incorporated into the future mixed-use development. A condition of approval requiring acquisition of Lot 3 and a lot tie agreement has been included.

3. *Architecture*: The building is a four-story structure containing commercial areas at the northeast corner and east side of the building. The center core of the building is a parking structure wrapped with multifamily units. The primary cladding for the building is two tones of brick used on the lower two levels with fiber cement panel as a secondary material on the upper stories of the structure. Architectural metal is used as an accent and trim material for balconies and for the drop off canopy on the north side of the building. The use of individual unit balconies, vertical recesses within the façades with inset alternating material panels helps to break the overall length and mass of the building facades. Outdoor active space is provided with exterior unit balconies, a central residential courtyard interior to the structure and a commercial plaza on the east side of the building.

- *Traffic Impact Study Findings:* A traffic study for this development was completed on May 11, 2021. The proposed development is expected to generate more traffic than what was analyzed in previous traffic studies for the area, with earlier studies assuming the site would be developed as medium density residential or office. Recommendations for full-build street geometry and traffic control, as well as triggers for possible future improvements, are detailed within the study.

  Although most of the site's traffic is expected to use Ashworth Road or Jordan Creek Parkway, a portion of the site's traffic that is going to/from the south is expected to use 76th Street. This may create concerns about the amount of "cut-through" traffic, speeding, reckless driving, etc., through the single-family residential area to the south. Comparing the proposed plan to the office land use scenario, the number of vehicles using Aspen Drive to go to or from the southeast or southwest is lower during the AM peak hour and higher during the PM peak hour. During the off-peak travel periods, the proposed land use plan will have higher traffic levels than the office land use scenario. Retail and apartments typically have higher traffic levels than office complexes during nighttime hours and weekends, when many neighborhood residents are likely to be home. As a result, the traffic from the proposed uses will be more visible to the residents in the neighborhood during the off-peak periods.

  To minimize the impact to neighborhood residents as much as possible, a street connection between 76th Street and the future right in/right out (RI/RO) on Jordan Creek Parkway was included as part of this development. This street connection will help bleed off trips that are heading south, providing them a quicker route than traveling through the residential area.

- *Developer Responsibilities:* A development agreement is being negotiated to identify obligations of both the developer and the City for the proposed development. Until a development agreement that provides otherwise is approved by the City Council, the developer will be responsible for all costs associated with construction of all streets (76th Street and the east west connector street), storm sewers, sanitary sewers, drainage way improvements, detention basins, water mains, buffers and other improvements as required for rights-of-way or public easements within the PUD. The following items are under consideration for the development agreement:

  1. *City Initiated and Constructed*
     - 76th Street from Ashworth Road southerly to its current terminus just north of Aspen Drive (paving/curbs/water main/storm sewer/sanitary sewer)
     - Future traffic signal installation at Ashworth Road and 76th Street intersection
  2. *Developer Initiated, Constructed, and Reimbursed by the City*
     - Public sidewalk paving along the east side of 76th Street from Ashworth Road to current terminus of 76th Street

- Public sidewalk paving along the south side of Ashworth Road from east side of 76th Street to Jordan Creek Parkway
- Public sidewalk paving along the west side of Jordan Creek Parkway from Ashworth Road to southern project boundary
- Construction of a private east-west street between Jordan Creek Parkway and 76th Street
- Public sidewalk paving along the north and south sides of the east-west connector street from Jordan Creek Parkway to 76th Street
- Regional underground detention basin for the project site and 76th Street area

3. *Developer Initiated, Constructed by MidAmerican Energy, and Reimbursed by the City*
   - Installation of public street lights along 76th Street from Ashworth Road to current terminus of 76th Street, east-west public street from Jordan Creek Parkway to 76th Street; and Ashworth Road from Jordan Creek Parkway to east side of 76th Street; and possibly along Jordan Creek Parkway from Ashworth Road to the project's southern property line.
   - Undergrounding of MidAmerican power line along Ashworth Road from 76th Street to Jordan Creek Parkway

4. *Developer Paid and Reimbursed by the City*
   - Water Connection Fees
   - Sewer Connection Fees
   - Sewer Capital Charges
   - Building Permits Fees
   - Fire Department Fees

- *Conditions of Approval:* Jordan Creek Associates, LLC, currently does not own any of the property within the development area, therefore, all easements and agreements for the project as noted below will be conditions of the site plan approval until transfer of ownership can be completed. It is staff's understanding that closing on the properties will take place within the next few months and at that time the applicant will execute a lot tie agreement for all properties into one parcel prior to issuance of a building permit. At that time all easements and agreements will be executed and recorded. No building permits will be issued until such time as all conditions of approval are completed and executed to staff's acceptance.

- *Development & Planning Subcommittee:* The Development and Planning Subcommittee discussed the previously approved Comprehensive Plan and PUD amendment for the subject site at the May 3, 2021 meeting. The discussion included the density and intensity of the mixed-use development in comparison with the current PUD allowances, the building height and setbacks of the development, the parking reduction requested by the applicant and the buffers and loading areas for the development. The Subcommittee noted their concern over the minimum setback provided along the west property line (76th Street) but was agreeable to the reduction being this was internal to the development. They felt the development did a good job of minimizing the impacts on the residential to the south which was the area of most concern.

  The Zone Change application to modify the PUD, the Preliminary Plat and the Site Plan application were then presented at the Subcommittee meeting on May 17th, 2021 as an upcoming project, however, there was no discussion on the applications. Due to the applicant choosing to lot tie the subject properties the Preliminary Plat application has been withdrawn.

  The Subcommittee also met on September 7, 2021 to discuss the request to waive the parking stall dimension for the parking structure to reduce the parking stall length from 19 feet to 18 feet as part of the Site Plan approval. Council Members present at the subcommittee meeting were

supportive of approving the waiver as part of the site plan to reduce parking stall length from 19 feet to 18 feet for the parking structure.

- *Vesting of Entitlement:* Per City Code, entitlement (approval to construct or implement) shall remain in effect so long as substantial site work has progressed beyond grading and completion of structural foundations and twenty-five percent (25%) of the total building area has occurred above grade within twenty-four (24) months of the effective date of the approval, unless a greater time period is authorized at time of the original entitlement, or by approval of an extension of the original entitlement. It is the responsibility of the developer to be aware of this deadline and request an extension of the approval prior to the expiration date.

Outstanding Issues: There are no outstanding issues.

Staff would note as part of this approval, the follow is being requested:

- A waiver of the parking stall dimensions for the parking structure to reduce the overall required stall dimension from 19 feet in length to 18 feet in length.

Plan and Zoning Commission Action:

Date:	October 25, 2021
Vote:	5-0 for approval, Commission Members Conlin and Crowley were absent
Recommendation:	Approval of the Site Plan

Recommendation: Approve the Site Plan request, subject to the applicant meeting all City Code requirements and the following conditions of approval:

1. Execution of all required Sanitary Sewer Easements prior to issuance of any building permit for the project.
2. Execution of an Ingress/Egress Easement for the East/West Private Street prior to issuance of any building permit for the project.
3. Execution of all required Water Easements prior to issuance of any building permit for the project.
4. Execution of the Parkland Dedication Agreement prior to issuance of any building permit for the project.
5. Execution of the Storm Water Management Facility Maintenance Easement and Agreement prior to issuance of any building permit for the project.
6. Acquisition of city property (Lot 3 in Village on Jordan Creek Parkway Plat 1) prior to issuance of any building permit for the project.
7. Transfer of ownership and an executed Lot Tie Agreement(s) for all properties within the project boundary prior to issuance of any building permit for the project.
8. City Council granting a waiver of the minimum parking stall dimensions for the parking structure to reduce the overall required stall dimension from 19 feet in length to 18 feet in length.
9. Proof of payment to MidAmerican for streetlights along the east side of 76th Street for the development site prior to issuance of any building permit for the project.

Lead Staff Member: Karen Marren

Approval Meeting Dates:

Plan and Zoning Commission	October 25, 2021
City Council: Approval	November 1, 2021

Staff Report Reviews:

Plan & Zoning Commission	☒ Development Coordinator (or) ☒ Director	☒ Legal Department
City Council	☒ Director ☐ Appropriations/Finance	☒ Legal Department ☐ Agenda Acceptance

Publications (if applicable)

Published In:	Des Moines Register Community Section
Date(s) Published	n/a
Date(s) of Mailed Notices	n/a

Council Subcommittee Review (if applicable)

Subcommittee	Development & Planning
Date Reviewed	9/7/21
Recommendation	☒ Yes ☐ No ☐ Split

Location Map

Exterior Materials

Primary Brick

Infill & Accent Brick

Fiber Cement Panel

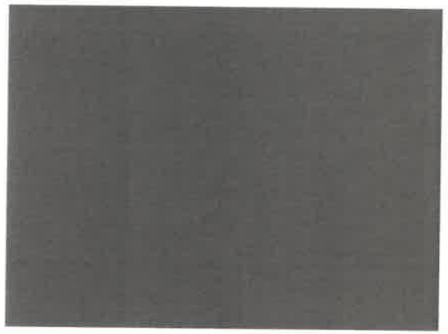
Architectural Metals

Sliding Balcony Door

Vinyl Hung Windows

Window & Storefront Glazing

Fiber Cement Panel
James Hardie - Rich Espresso

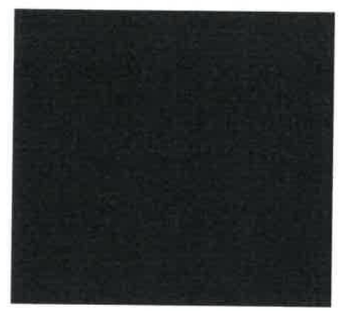


Primary Brick
Sioux City Brick - Cordovan Bronze

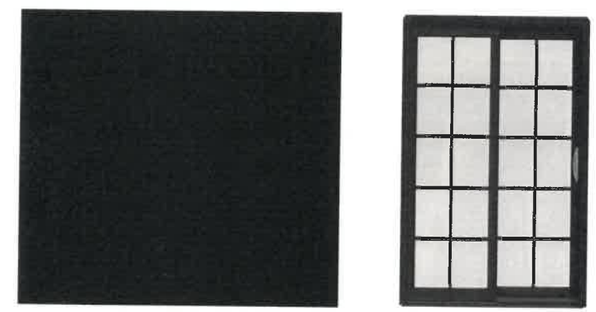
Accent Brick
Sioux City Brick - Silverstone Gray Western

Architectural Metals
Tiger - Terra Powder Coat (or similar)

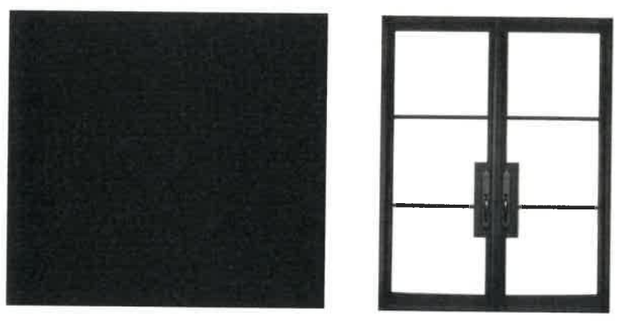
Vinyl Hung Windows
Lindsay Windows - Midnight Black



Sliding Balcony Door
Lindsay - Midnight Black



Aluminum Storefront
Kawneer - Anodized Black (or similar) with Clear Glazing



Original Concept Rendering

PLANS INCLUDED ARE FOR ILLUSTRATIVE PURPOSES ONLY – APPROVED PLANS ON FILE WITH THE CITY

CRG RESIDENTIAL

glc

Exterior Materials Selections

JORDAN CREEK: MIXED-USE
West Des Moines, IA

BSB DESIGN
BSBDESIGN.COM

The drawings presented are illustrative of character and design intent only, and are subject to change based upon final design considerations (i.e. applicable codes, structural, and MEP design requirements, unit plan / floor plan changes, etc.) © 2021 BSB Design, Inc.

July 21, 2021 | MU210165.00

North Elevation
1/16" = 1'-0"

East Elevation
1/16" = 1'-0"

South Elevation
1/16" = 1'-0"

West Elevation
1/16" = 1'-0"

Exterior Materials

Primary Brick

Infill & Accent Brick

Fiber Cement Panel

Architectural Metals

Sliding Balcony Door

Vinyl Hung Windows

Fiber Cement Accent Panel

Window & Storefront Glazing

CRG RESIDENTIAL

glc

Exterior Elevations

JORDAN CREEK: MIXED-USE

West Des Moines, IA

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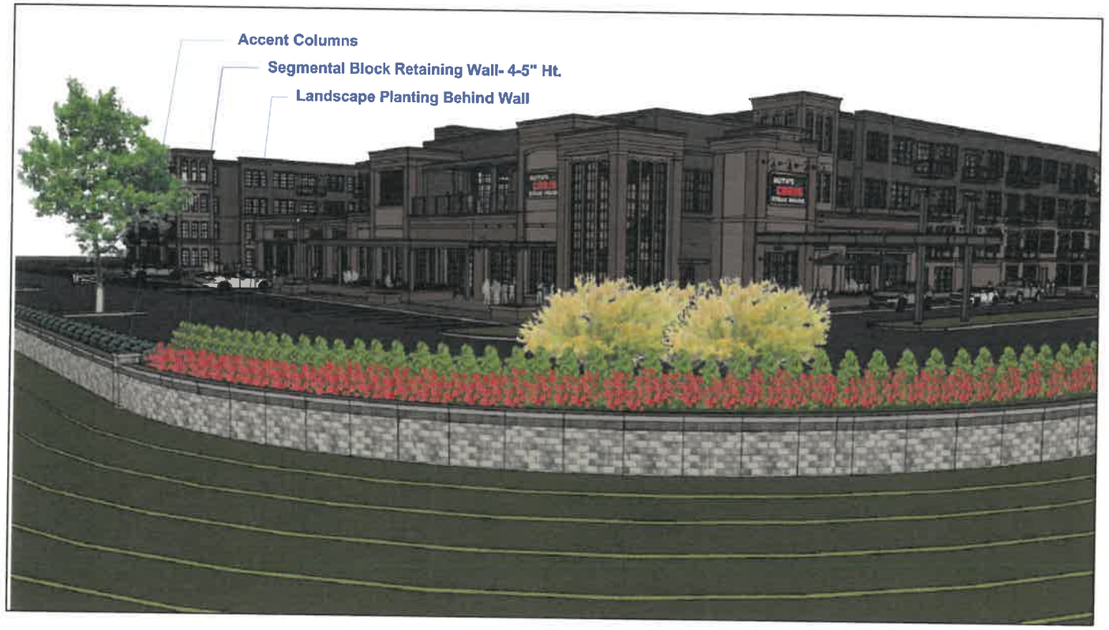
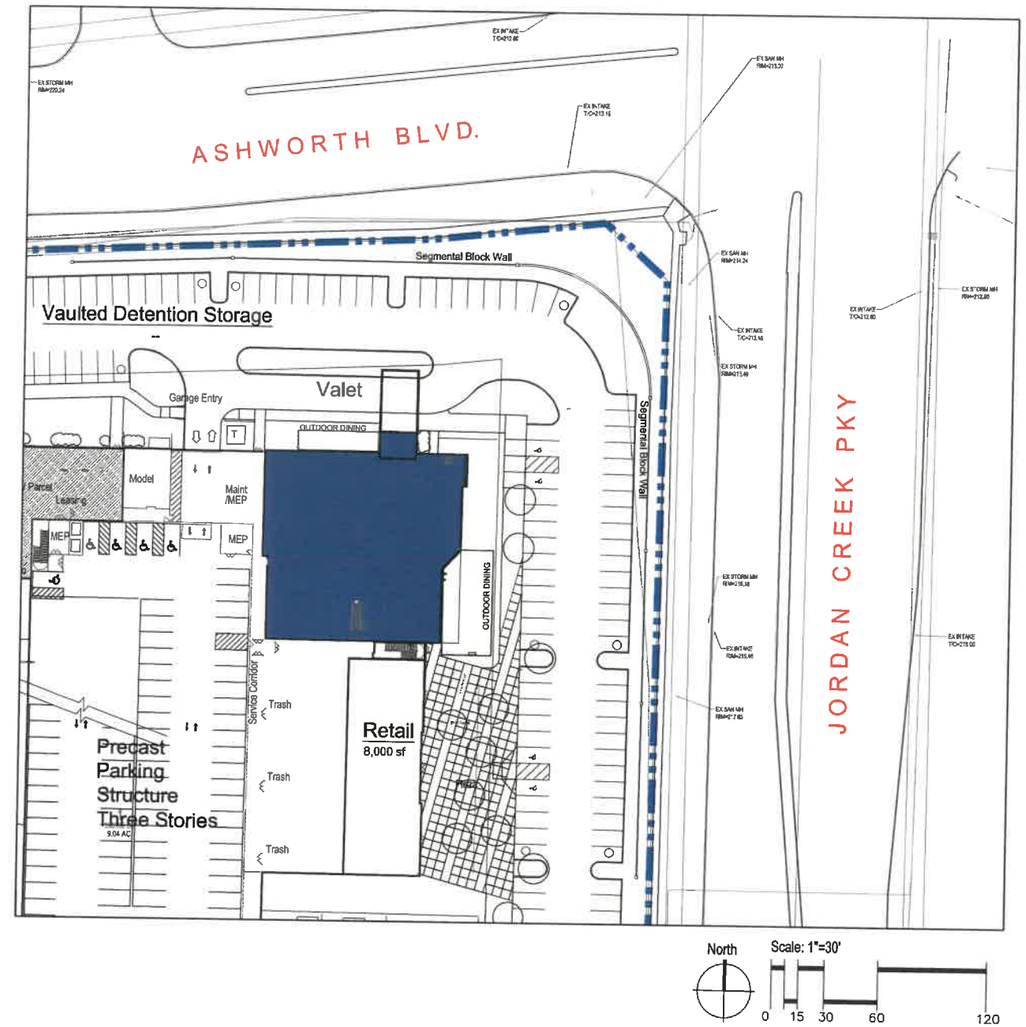
August 25, 2021 | MU210165.00





Bishop Engineering

CRG RESIDENTIAL

glc

Retaining Wall
JORDAN CREEK -MIXED USE
West Des Moines, Iowa

Date: July 27, 2021

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21WDM
SITE IMPROVEMENT PLAN

SHEET INDEX:

C0.1	COVER SHEET
C0.2	SITE SURVEY
C.03	PROPOSED LOT LAYOUT
C1.1	DEMO PLAN
C2.1-C2.2	LAYOUT PLAN
C3.1-C3.2	GRADING PLAN
C4.1-C4.2	UTILITY PLAN
C5.1-C5.5	LANDSCAPE PLAN
C6.1-C6.3	DETAILS SHEET
C7.1	SWPPP

CITY CASE NUMBER:
SP-005148-2021

PROPERTY DESCRIPTION:
LOT 1 AND LOT 3 OF THE VILLAGE ON JORDAN CREEK PARKWAY PLAT 1, AN OFFICIAL PLAT, WEST DES MOINES, DALLAS COUNTY, IOWA

AND

COMMENCING AT THE NORTHEAST CORNER OF SECTION 11 IN TOWNSHIP 78 NORTH, OF RANGE 26 WEST OF THE 5TH P.M., DALLAS COUNTY, IOWA, THENCE SOUTH 45 FEET; THENCE SOUTHWESTERLY PARALLEL WITH THE NORTH LINE OF SAID SECTION 11, 580 FEET TO THE PLACE OF BEGINNING; THENCE SOUTH 300 FEET; THENCE SOUTHWESTERLY PARALLEL WITH THE NORTH LINE OF SAID SECTION 11, 145 FEET; THENCE NORTH 300 FEET; THENCE NORTHEASTERLY PARALLEL WITH THE NORTH LINE OF SAID SECTION 11, 145 FEET TO THE PLACE OF BEGINNING; EXCEPT PART TAKEN FOR ROAD.

AND

COMMENCING AT THE NORTHEAST CORNER OF SECTION 11 IN TOWNSHIP 78 NORTH OF RANGE 26 WEST OF THE 5TH P.M., WEST DES MOINES, DALLAS COUNTY, IOWA, THENCE SOUTH 45 FEET, THENCE SOUTHWESTERLY PARALLEL WITH THE NORTH LINE OF THE SAID SECTION 433 FEET TO THE POINT OF BEGINNING, THENCE SOUTH 300 FEET, THENCE SOUTHWESTERLY PARALLEL WITH THE NORTH LINE OF SAID SECTION, 147 FEET, THENCE NORTH 300 FEET, THENCE NORTHEASTERLY PARALLEL WITH THE NORTH LINE SAID SECTION, 147 FEET TO THE PLACE OF BEGINNING, EXCEPT LAND DEEDED TO THE CITY WEST DES MOINES IN BOOK 2001, PAGE 13369,

AND

THE WEST 150 FEET OF THE EAST 433 FEET OF THE SOUTH 300 FEET OF THE NORTH 345 FEET OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 11 IN TOWNSHIP 78 NORTH OF RANGE 26 WEST OF THE 5TH P.M., DALLAS COUNTY, IOWA, EXCEPT THAT PART DEEDED TO THE CITY OF WEST DES MOINES IN WARRANTY DEED IN BOOK 2001, PAGE 15371,

AND

THE SOUTH 150 FEET OF THE NORTH 195 FEET OF THE EAST 283 FEET OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 11, TOWNSHIP 78 NORTH, RANGE 26 WEST OF THE 5TH P.M., DALLAS COUNTY, IOWA, EXCEPT THAT PART DEEDED TO THE CITY OF WEST DES MOINES IN WARRANTY DEED RECORDED IN BOOK 2001, PAGE 11233 AND QUIT CLAIM DEED RECORDED IN BOOK 2001, PAGE 12444,

AND

SOUTH 150 FEET OF THE NORTH 345 FEET OF THE EAST 283 FEET OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 11 IN TOWNSHIP 78 NORTH OF RANGE 26 WEST OF THE 5TH CITY OF WEST DES MOINES, DALLAS COUNTY, IOWA, EXCEPT THE EAST 62.50 FEET THEREOF.

OWNER:
DENNIS SHAFFER AND TERESA MOON
KEVIN AND STEPHANI JOHNSON
MICHAEL GLAZA AND ANNETTE HITCHCOCK
KARLA SPRANK
STONY LAKE, LLC
CZECH MATE, LLC

PREPARED FOR:
JORDAN CREEK ASSOCIATES LLC
805 CITY CENTER DRIVE SUITE 160
CARMEL, INDIANA 46032
JOHN LASSAUX

ZONING:
VILLAGES ON JORDAN CREEK PUD

COMPREHENSIVE PLAN :
SUPPORT COMMERCIAL

BUILDING BREAKDOWN:
199 RESIDENTIAL UNITS- LEASED
198 UNITS WILL HAVE BALCONIES MEETING MINIMUM SQUARE FOOTAGE REQUIREMENTS
1 UNIT WILL HAVE JULIET BALCONY

GENERAL NOTES:

1. ALL CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS, DSM METRO DESIGN STANDARDS AND WDM ADDENDUMS. AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENTS AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, THE CONTRACTOR SHALL CONTACT THE WDM ENGINEERING SERVICES (222-3475) TO SCHEDULE ANY REQUIRED INSPECTIONS. ROW EXCAVATION PERMITS CAN BE OBTAINED AT THE PUBLIC SERVICE FACILITY (222-3480). IT IS IMPORTANT TO NOTE CITY APPROVAL OF THIS PLAN IS SUBJECT TO THE APPLICANT OBTAINING ALL NECESSARY EASEMENTS/AGREEMENTS AND APPLICABLE PERMITS.
2. IN EVENT OF A DISCREPANCY BETWEEN THE QUANTITY ESTIMATES AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. ANY DAMAGE TO SAID UTILITIES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT O.S.H.A. CODES AND STANDARDS. NOTHING INDICATED ON THESE PLANS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE APPROPRIATE SAFETY REGULATIONS.
5. ALL NECESSARY CONSTRUCTION SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES REQUIRED DURING CONSTRUCTION WILL BE FURNISHED BY THE CONTRACTOR. SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES MUST BE IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS."
6. BISHOP ENGINEERING SHALL NOT BE LIABLE FOR ANY INJURIES THAT HAPPEN ON SITE. THIS SHALL INCLUDE BUT NOT BE LIMITED TO TRENCH COLLAPSES FROM VARYING SOIL CONDITIONS OR INJURIES CAUSED BY UNDERGROUND UTILITIES INCLUDING UTILITIES THAT ARE NOT SHOWN ON PLAN.
7. THE CONTRACTOR IS LIABLE FOR ALL DAMAGES TO PUBLIC OR PRIVATE PROPERTY CAUSED BY THEIR ACTION OR INACTION IN PROVIDING FOR STORM WATER FLOW DURING CONSTRUCTION. DO NOT RESTRICT FLOWS IN EXISTING DRAINAGE CHANNELS, STORM SEWER, OR FACILITIES.
8. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A SCHEDULE FOR PERFORMANCE OF WORK ITEMS. THIS SCHEDULE SHALL BE PROVIDED BY THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. NO WORK SHALL BEGIN UNTIL A SCHEDULE HAS BEEN SUBMITTED AND ACCEPTED. THE CONTRACTOR SHALL THEN PERFORM WORK TO CONFORM TO THE ACCEPTED SCHEDULE.
9. LABORATORY TESTS SHALL BE PERFORMED BY THE OWNER UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL PROVIDE SAMPLES OF MATERIAL REQUIRED FOR LABORATORY TESTS AND TESTING IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
10. SOIL IMPORT OR EXPORT ON THIS PROJECT SHALL BE CONSIDERED INCIDENTAL AND WILL NOT BE MEASURED OR PAID FOR SEPARATELY.
11. THE CONTRACTOR SHALL PROTECT ALL STRUCTURES NOT SHOWN AS REMOVALS ON THE PLANS.
12. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL WORK WITH OWNER OR OWNERS REPRESENTATIVE ON ALL REQUIRED STORM WATER DISCHARGE PERMITS FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES AND THE CITY OF WEST DES MOINES.
13. GRADING AND EROSION CONTROL SHALL BE DONE IN ACCORDANCE WITH THE APPROVED GRADING PLAN, SWPPP, NPDES DOCUMENTS, AND IOWA DEPARTMENT OF NATURAL RESOURCES REQUIREMENTS.
14. THE CONTRACTOR SHALL PICK UP ANY DEBRIS SPILLED ONTO THE ADJACENT RIGHT OF WAY OR ABUTTING PROPERTIES AS THE RESULT OF CONSTRUCTION, AT THE END OF EACH WORK DAY.
15. CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REMOVAL OF ALL MUD THAT HAS BEEN TRACKED OR WASHED UNTO ADJACENT PROPERTY OR RIGHT OF WAY UNTIL SUCH TIME THAT PERMANENT VEGETATION HAS BEEN ESTABLISHED. CONTRACTOR TO PROVIDE CONTACT INFORMATION FOR INDIVIDUAL RESPONSIBLE FOR THESE ACTIVITIES TO CITY OF WEST DES MOINES UPON PROJECT AWARD.
16. DISPOSE OF ALL EXCESS MATERIALS AND TRASH IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS. PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIALS NOT DESIRABLE FOR INCORPORATION INTO THE PROJECT.

PAVING NOTES:

1. THE PAVING/ GRADING CONTRACTOR SHALL BACKFILL THE PAVING SLAB AND FINE GRADE THE RIGHT OF WAY AS SOON AFTER THE PAVING AS POSSIBLE. ALL AREAS SHALL BE SEEDED IN ACCORDANCE WITH CITY OF WEST DES MOINES STANDARD SPECIFICATIONS
2. SUBGRADE PREPARATION AND PAVEMENTS WILL BE CONSTRUCTED FOLLOWING RECOMMENDATIONS IN THE SOILS REPORT. APPROVED SOILS ENGINEER MUST SIGN OFF ON SUBBASE PRIOR TO ANY PAVEMENT BEING PLACED.
3. SEE DETAILS FOR ALL PAVEMENT THICKNESS.
4. DETECTABLE WARNING PANEL(S) CALLED OUT ON PLANS SHALL BE PER A.D.A. REGULATIONS. PANEL TYPE & COLOR SHALL BE PER CITY STANDARD.
5. ALL WALKS, PARKING LOTS, HANDICAP PARKING, RAMPS, ETC. SHALL COMPLY WITH ALL A.D.A. AND CITY CODES. HANDICAP PARKING SIGNAGE IS REQUIRED FOR ALL HANDICAP STALLS AND SHALL BE CONSIDERED INCIDENTAL. IN EVENT OF A DISCREPANCY BETWEEN THE PLANS AND THE A.D.A/CITY CODES THE A.D.A/CITY CODES SHALL GOVERN. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING A.D.A. CODES ARE MET.

UTILITY NOTES:

1. QUANTITY CALLOUTS ON PIPE LENGTHS ARE APPROXIMATE AND SHOULD BE USED FOR REFERENCE ONLY.
2. THE CONTRACTOR SHALL PROVIDE AS-BUILTS OF ALL UTILITIES, INCLUDING DEPTH AND LOCATION OF ALL SERVICES.
3. THE CONTRACTOR SHALL COORDINATE THE ADJUSTMENT OF ANY AND ALL EXISTING AND PROPOSED UTILITIES TO PROPOSED GRADES. EXISTING UTILITIES SHALL BE RAISED OR LOWERED IN ACCORDANCE WITH THE UTILITY OWNER REQUIREMENTS. ANY NECESSARY ADJUSTMENTS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
4. ACTIVE EXISTING FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE REPAIRED, REROUTED, OR CONNECTED TO PUBLIC OR PRIVATE STORM SEWER TO REMAIN IN SERVICE.
5. ALL PROPOSED RCP STORM SEWER PIPE JOINTS SHALL BE FABRIC WRAPPED AND THE LAST 3 PIPE SECTIONS ON THE APRON SHALL BE TIED WITH RF-14 TYPE II CONNECTORS. ALL APRONS SHALL HAVE A STANDARD FOOTING AND TRASH GUARD.
6. ALL RIP RAP CALLED OUT ON PLANS SHALL BE UNDERLAIN WITH ENGINEERING FABRIC.
7. ALL STRUCTURE SIZES CALLED OUT ON PLANS ARE MINIMUM INSIDE WALL DIMENSIONS.
8. ALL STRUCTURES CALLED OUT AS "MODIFIED" OR "SPECIAL" SHALL BE ENGINEERED BY THE PRECASTER TO ENSURE STRUCTURE STABILITY. MODIFICATIONS INCLUDE ADDITIONAL WALL LENGTH TO ACCOUNT FOR LARGE PIPE DIAMETERS AND ADDITIONAL WALL WIDTH & BASE DEPTH TO ACCOUNT FOR DEEPER STRUCTURES. ANY AND ALL MODIFICATIONS TO STANDARD STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO BID
9. SANITARY SEWER SERVICE CONNECTIONS SHALL BE PLACED AT A SLOPE OF NO LESS THAN 2%. SERVICES SHALL MAINTAIN 18" OF VERTICAL SEPARATION FROM THE WATERMAIN WITH 18" OF COMPACTED LOW PERMEABILITY SOIL BETWEEN THE UTILITIES WITHIN 10' OF THE CROSSING.
10. MANDREL AND PRESSURE TESTS SHALL BE REQUIRED FOR ALL PROPOSED SANITARY LINES. TELEVISING OF THE SANITARY SEWER SYSTEM SHALL BE COMPLETED PRIOR TO PAVING UNLESS OTHERWISE APPROVED BY JURISDICTION.
11. WATERMAINS SHALL BE C-900, SIZE OF WATERMAIN AS SHOWN ON PLANS.
12. THRUST BLOCKS SHALL BE INSTALLED AS REQUIRED AND SHALL BE CONSIDERED INCIDENTAL TO WATERMAIN CONSTRUCTION.
13. PROPOSED WATERMAIN SHALL BE PRESSURE TESTED, BACTERIA TESTED AND CHLORINATED. THE FILLING OF THE WATER MAIN SHALL BE DONE BY THE CITY OF WEST DES MOINES.
14. TRACER WIRE SHALL BE ADDED TO ALL WATER MAIN, BROUGHT TO THE SURFACE AT EVERY HYDRANT. AND VALVES WHERE REQUIRED BY WDMWW.
15. ALL HYDRANTS WILL IMMEDIATELY BE COVERED WITH A BLACK PLASTIC BAG (OR EQUIVALENT) ONCE THE HYDRANT IS INSTALLED. WEST DES MOINES WATER WORKS WILL NOTIFY THE CONTRACTOR WHEN THE BAGS CAN BE REMOVED.
16. THE MINIMUM HYDRANT LEAD SHALL BE 3.5 FEET.
17. ANY AND ALL HYDRANT AND VALVE EXTENSIONS, TOGETHER WITH VERTICAL BENDS, SHALL BE CONSIDERED INCIDENTAL TO WATER MAIN CONSTRUCTION. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR INCIDENTAL ITEMS.

UTILITY CONFLICT NOTES:

1. UTILITY CONFLICTS MAY EXIST ACROSS THE SITE WITH NEW UTILITIES, GRADING, PAVING ETC. MOST UTILITY CONFLICTS HAVE BEEN CALLED OUT FOR CONTRACTOR CONVENIENCE.
2. CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY CONFLICTS THAT ARE EITHER CALLED OUT ON THE PLANS OR THAT CAN BE SEEN ON THE PLANS BETWEEN AN EXISTING UTILITY AND PROPOSED CONSTRUCTION.
3. WHERE THE STORM SEWER OR SANITARY SEWER CROSSES OVER OR LESS THAN 18 INCHES BELOW THE WATER MAIN THE CONTRACTOR SHALL LOCATE ONE FULL LENGTH OF SEWER PIPE OF WATER MAIN MATERIAL OR REINFORCED CONCRETE PIPE WITH FLEXIBLE O-RING GASKET JOINTS SO BOTH JOINTS ARE AS FAR AS POSSIBLE FROM THE WATER MAIN (REFERENCE DETAIL ON SHEET C6.1).
4. FOR ALL CRITICAL CROSSINGS WITH EXISTING UTILITIES, THE ELEVATION OF THE EXISTING UTILITY SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. NOTIFY BISHOP ENGINEERING PRIOR TO CONSTRUCTION IF A CONFLICT EXISTS.

STAKING NOTES:

1. CONTRACTOR IS REQUIRED TO HAVE ALL STAKING DONE UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR AND IN COORDINATION WITH THE PROJECT ENGINEER.
2. CONTRACTOR IS REQUIRED TO HAVE ALL STAKING DONE DIRECTLY UNDER THE GENERAL CONTRACTOR BY A SINGLE COMPANY.
3. STAKING DOES NOT RELIEVE CONTRACTOR OF ULTIMATE RESPONSIBILITY TO CONSTRUCT THE PROJECT PER PLAN.

PAVEMENT SAWCUT NOTES:

1. CONTRACTOR TO PROVIDE SAWCUT JOINTING PLAN TO DAVID BENTZ, BISHOP ENGINEERING (515-276-0467 OR DBENTZ@BISHOPENGR.COM) PRIOR TO ANY CONCRETE PAVEMENT INSTALLATION.
2. PAVEMENT MAY BE REQUIRED TO BE REMOVED AND REPLACED IF PLACED WITHOUT AN APPROVED PLAN.
3. LONGITUDINAL JOINTS IN DRIVE LANES & THE OUTER MOST JOINT OF ALL PARKING AREAS SHALL BE SUDAS TYPE 'L-1' OR 'L-2' JOINTS AND HAVE STEEL. INTERIOR PARKING LOT JOINTS, OTHER THAN THE OUTER MOST JOINT, DO NOT NEED STEEL AND SHALL BE SUDAS TYPE 'B' OR TYPE 'K' JOINTS.
4. ALL TRANSVERSE JOINTS SHALL BE SUDAS TYPE 'C' OR TYPE 'DW' JOINTS WITH STEEL IN THE CASE OF A DAY'S WORK JOINT.

SPECIFICATIONS NOTES:

1. IN THE EVENT OF A DISCREPANCY BETWEEN THE PROJECT SPECIFICATIONS AND: CITY OF WEST DES MOINES REQUIREMENTS AND SPECIFICATIONS, PLUMBING CODE, AND URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENT (SUDAS 2021), THE CITY OF WEST DES MOINES STANDARD SPECIFICATIONS SHALL GOVERN.
2. FOR ALL SPECIFICATION DISCREPANCIES, PROJECT ENGINEER SHALL BE CONTACTED PRIOR TO PROCEEDING WITH CONSTRUCTION. IF ENGINEER IS NOT CONTACTED, CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PROBLEMS THAT RESULT FROM SAID DISCREPANCIES.
3. FOR ALL SPECIFICATION DISCREPANCIES, CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FROM THE CITY OF WEST DES MOINES ENGINEERING DEPARTMENT FOR ANY CHANGES TO PROPOSED SITE INFRASTRUCTURE OR GRADES PRIOR TO PROCEEDING WITH ANY CHANGES.

REQUIRED AS-BUILT NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COST OF AS-BUILT TOPO OF ALL DETENTION PONDS & DETENTION POND STORM SEWER.
2. CONTRACTOR SHALL CONTACT BISHOP ENGINEERING (DAVID BENTZ AT 515-276-0467) TO PERFORM SAID AS-BUILT SURVEYS.
3. IF ANYTHING HAS BEEN CONSTRUCTED INCORRECTLY, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBSEQUENT AS-BUILT SURVEYS UNTIL ISSUES HAVE BEEN RECTIFIED.

EARTHWORK BALANCE NOTES:

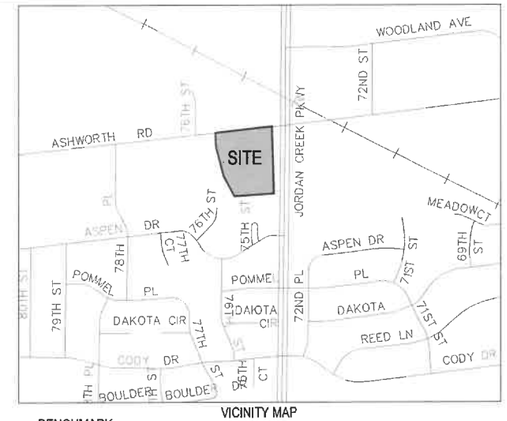
1. SOIL IMPORT OR EXPORT ON THIS PROJECT SHALL BE CONSIDERED INCIDENTAL AND WILL NOT BE MEASURED OR PAID FOR SEPARATELY. CONTRACTOR RESPONSIBLE FOR MAKING THE SITE EARTHWORK BALANCE.
2. THIS INCLUDES BUT IS NOT LIMITED TO TOPSOIL, POOR SOILS AND STRUCTURAL FILL NECESSARY TO MEET PROJECT PLANS AND SPECIFICATIONS.

STORM & SANITARY TELEVISING NOTES:

1. CONTRACTOR IS REQUIRED TO TELEVISE ALL SANITARY AND STORM SEWER SYSTEM PRIOR TO PAVING OPERATIONS.
2. CONTRACTOR SHALL SEND VIDEO INSPECTION TO THE ENGINEER FOR APPROVAL PRIOR TO PAVING.

WEST DES MOINES UTILITY NOTES:

1. ALL WATER MAIN, PUBLIC OR PRIVATE AND ASSOCIATED SERVICES SHALL BE INSTALLED ACCORDING TO SUDAS 2021 EDITION & WEST DES MOINES WATER WORKS STANDARD SPECIFICATIONS.
2. CONTRACTOR SHALL NOTIFY WEST DES MOINES WATER WORKS (515-222-3465) AT LEAST 1 WEEK PRIOR TO BUILDING CONSTRUCTION.
3. ANY WATER USE FROM A HYDRANT, PUBLIC OR PRIVATE, REQUIRES THE USE OF A WEST DES MOINES WATER WORKS HYDRANT METER. CALL 515-222-3465 TO RESERVE A METER.
4. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE WEST DES MOINES WATER WORKS AND THE CITY'S CROSS CONNECTION CONTROL/CONTAINMENT PROVISIONS.
5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
6. PRIVATE UTILITIES TO BE INSTALLED PER THE CITY OF WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS AND THE 2015 UNIFORM PLUMBING CODE. CONTACT BUILDING INSPECTIONS (515-222-3630) A MIN. OF 24 HOURS IN ADVANCE FOR UTILITY INSTALLATION INSPECTIONS.
7. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF AN APPROVED BACKFLOW PREVENTION ASSEMBLY(IES) FOR CONTAINMENT IN ALL NEW CONSTRUCTION. BACKFLOW PREVENTION TO BE INSTALLED PER CITY ORDINANCE 1297,54-1998. CONTRACTOR SHALL NOTIFY WEST DES MOINES WATER WORKS, WILLIAM MABUCE, ENGINEERING TECHNICIAN (515-222-3510) A MIN OF 24 HOURS AFTER INSTALLATION AND TESTING OF ALL BACKFLOW DEVICES TO SCHEDULE FINAL INSPECTION.
8. ALL LIGHTS ARE TO BE DOWNCAST CUTOFF VARIETY. WALLPACKS ARE PROHIBITED. THEN MAXIMUM ILLUMINATION ALLOWED AT THE PROPERTY LINE IS ONE FOOTCANDLE.
9. CONTACT WEST DES MOINES WATER WORKS (222-3465) TO SCHEDULE PRESSURE AND FLOW TEST PRIOR TO DESIGNING THE FIRE SUPPRESSION SYSTEM.
10. PER CITY OF WEST DES MOINES SPECIFICATIONS NO MORE THAN 12 INCHES OF ADJUSTMENT RINGS MAY BE USED ON A SANITARY SEWER STRUCTURE. IF MORE THAN 12 INCHES OF ADJUSTING RINGS ARE REQUIRED A NEW BARREL SECTION WILL NEED TO BE INSTALLED.
11. ALL RETAINING WALLS OVER 4 FEET IN HEIGHT NEED TO BE CERTIFIED BY A STRUCTURAL ENGINEER.



VICINITY MAP
NOT TO SCALE

BENCHMARK:
BASIS OF BEARING OBTAINED FROM GPS OBSERVATIONS DATUM = NAD 83, IOWA SOUTH
BENCHMARK DATUM = CITY OF WEST DES MOINES DATUM

POINT #9000
NORTHING = 576769.79
EASTING = 1555321.63
ELEVATION = 222.94
DESCRIPTION: SET 3/4" IRON PIPE W/ RPC

WEST DES MOINES BM#119
SE CORNER OF EP TRUE PARKWAY AND 81ST ST
ELEV=210.03

WEST DES MOINES BM#122
NORTHEAST CORNER OF ASHWORTH ROAD AND 63RD ST
ELEV=220.62

OPEN SPACE REQUIREMENTS:
25% REQUIRED OPEN SPACE = 98,433 SF

IMPERVIOUS/OPEN SPACE:
TOTAL SITE AREA =393,730 (100%)
PROPOSED IMPERVIOUS AREA=233,272SF (59.3%)
TOTAL OPEN SPACE=160,458 SF (40.7%)

PARKLAND AREAS=56,729 SF (14.3%)
OPEN SPACE=106,729 SF (27.1%)
EXISTING IMPERVIOUS AREA =39,112 SF

REQUIRED PARKING:
199- 1&2 BR * 1.50 SPACES/UNIT=299 STALLS
VISITOR - 1 SPACE/10 UNITS=20 STALLS
RESIDENTIAL REQUIRED TOTAL=319 STALLS

RETAIL
8000 SF - 3.5SPACES/1000 SF=28 STALLS

RESTAURANT
15,000 SF -8/1000 SF=120 STALLS

TOTAL REQUIRED=467 STALLS (INCL. 11 ADA)

PARKING PROVIDED:
SURFACE PARKING = 161STALLS (INCL. 8 ADA)
GARAGE PARKING = 288 STALLS (INCL. 11 ADA)
TOTAL PARKING = 449 STALLS WITH 19 ADA STALLS

LEGEND:

—SAN—	SANITARY SEWER
—ST—	STORM SEWER
—W—	WATER LINE
—G—	GAS LINE
—U/E—	UNDERGROUND ELECTRIC
—O/E—	OVERHEAD ELECTRIC
—TELE—	TELEPHONE LINE
—F/O—	FIBER OPTIC
—CATV—	CABLE TV
	STORM MANHOLE
	CURB INTAKE
	SURFACE INTAKE
	FLARED END SECTION
	SANITARY MANHOLE
	CLEANOUT
	FIRE HYDRANT
	SPRINKLER
	IRRIGATION CONTROL VALVE
	WATER MANHOLE
	WELL
	WATER VALVE
	WATER SHUT OFF
	YARD HYDRANT
	ELECTRIC MANHOLE
	ELECTRIC METER
	ELECTRIC RISER
	ELECTRIC VAULT
	POWER POLE
	TRANSFORMER POLE
	LIGHT POLE
	ELECTRIC JUNCTION BOX
	ELECTRIC PANEL
	TRANSFORMER
	GROUND LIGHT
	GUY WIRE
	ELECTRIC HANDHOLE
	GAS METER
	GAS VALVE
	AIR CONDITIONING UNIT
	TELEPHONE RISER
	TELEPHONE VAULT
	TELEPHONE MANHOLE
	TRAFFIC SIGNAL MANHOLE
	FIBER OPTIC MANHOLE
	FIBER OPTIC RISER
	FIBER OPTIC FAULT
	CABLE TV RISER
	SIGN
	BOLLARD
	DENOTES NUMBER OF PARKING STALLS
	PROPERTY CORNER - FOUND AS NOTED
	PROPERTY CORNER- PLACED AS NOTED
	SECTION CORNER - FOUND AS NOTED

ABBREVIATIONS:

AC	ACRES
ASPH	ASPHALT
BK	BOOK
CONC	CONCRETE
D	DEEDED DISTANCE
EX	EXISTING
ENCL	ENCLOSURE
FF	FINISHED FLOOR
FL	FLOW LINE
FRAC	FRACTIONAL
M	MEASURED DISTANCE
MH	MANHOLE
OPC	ORANGE PLASTIC CAP
P	PLATTED DISTANCE
PG	PAGE
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PRA	PREVIOUSLY RECORDED AS
PUE	PUBLIC UTILITY EASEMENT
ROW	RIGHT OF WAY
RPC	RED PLASTIC CAP
SF	SQUARE FEET
SAN	SANITARY
TYP	TYPICAL
YPC	YELLOW PLASTIC CAP
N	NORTH
S	SOUTH
E	EAST
W	WEST

UTILITY NOTE:
THE LOCATION OF THE UTILITIES INDICATED ON THE PLANS HAVE BEEN TAKEN FROM THE FIELD SURVEY, EXISTING PUBLIC RECORDS, AND PLANS PROVIDED BY OTHERS. SURFACE UTILITY LOCATIONS HAVE BEEN FIELD LOCATED BY BISHOP ENGINEERING, UNLESS OTHERWISE NOTED. ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE LOCATIONS ONLY. BISHOP ENGINEERING DOES NOT GUARANTEE THE UNDERGROUND LOCATION OF ANY UTILITIES SHOWN. IT SHALL BE THE DUTY OF THE CONTRACTOR TO DETERMINE THE LOCATION AND DEPTH OF ANY UNDERGROUND UTILITIES SHOWN AND IF ANY ADDITIONAL UTILITIES, OTHER THAN THOSE SHOWN ON THE PLANS, MAY BE PRESENT. A REQUEST WAS MADE TO IOWA ONE CALL FOR UTILITY PROVIDERS TO VERIFY, LOCATE, AND MARK THEIR UTILITIES IN THE FIELD.

UTILITY MAPS PROVIDED BY:
1. ELECTRIC (MIDAMERICAN / 515-252-6632)
2. FIBER OPTIC (AUREON / 515-830-0445)
3. FIBER OPTIC (VERIZON / 319-393-9704)
4. TELEPHONE (CENTURYLINK / 303-453-6927)
5. GAS (MIDAMERICAN / 515-252-6632)
6. WATER (WDM WATER WORKS / 515-222-3510)
7. FIBER OPTIC (UPN / 816-425-3556)

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com

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TOPSOIL NOTES:
1. STRIP AND STOCKPILE THE TOP 8" OF SOIL ON ALL DISTURBED AREAS.
2. RESPREAD TOPSOIL TO A MINIMUM DEPTH OF 8" ON ALL GREEN (NON PAVED) AREAS. IMPORT TOPSOIL AS NECESSARY TO ACHIEVE A MINIMUM DEPTH OF 6".
3. **TOPSOIL SHALL BE FREE OF ALL ROCK AND DEBRIS LARGER THAN 3/4" IN SIZE.**
4. TOPSOIL IS DEFINED AS: FERTILE, FRIABLE LOAM, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, FROM WELL DRAINED SITE FREE FROM FLOODING, NOT IN FROZEN OR MUDDY CONDITIONS; REASONABLE FREE FROM SUBSOIL, CLAY LUMPS, ROOTS, GRASS, WEEDS, STONES LARGER THAN 3/4 INCH IN DIAMETER, AND FOREIGN MATTER; ACIDITY RANGE (PH) OF 6.5 TO 7.5; CONTAINING MINIMUM 4 PERCENT AND MAXIMUM 20 PERCENT ORGANIC MATTER.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL TOPSOIL REQUIREMENTS OF NPDES GENERAL PERMIT NO. 2 ARE MET.

LICENSED PROFESSIONAL ENGINEER DAVID B. BENTZ 17143 IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

SIGNED: _____ DATE: _____
DAVID B. BENTZ, PE. 17143
LICENSE RENEWAL DATE: DEC. 31, 2021
PAGES OR SHEETS COVERED BY THIS SEAL: C0.1 - C7.1

Bishop Engineering
"Planning Your Successful Development"
3501 104th Street
Des Moines, Iowa 50322-3625
Phone: (515)276-0467 Fax: (515)276-0217
Civil Engineering & Land Surveying Established 1959

21WDM
SITE IMPROVEMENT PLAN
COVER SHEET

REFERENCE NUMBER:

DRAWN BY: BGA
CHECKED BY: DBB

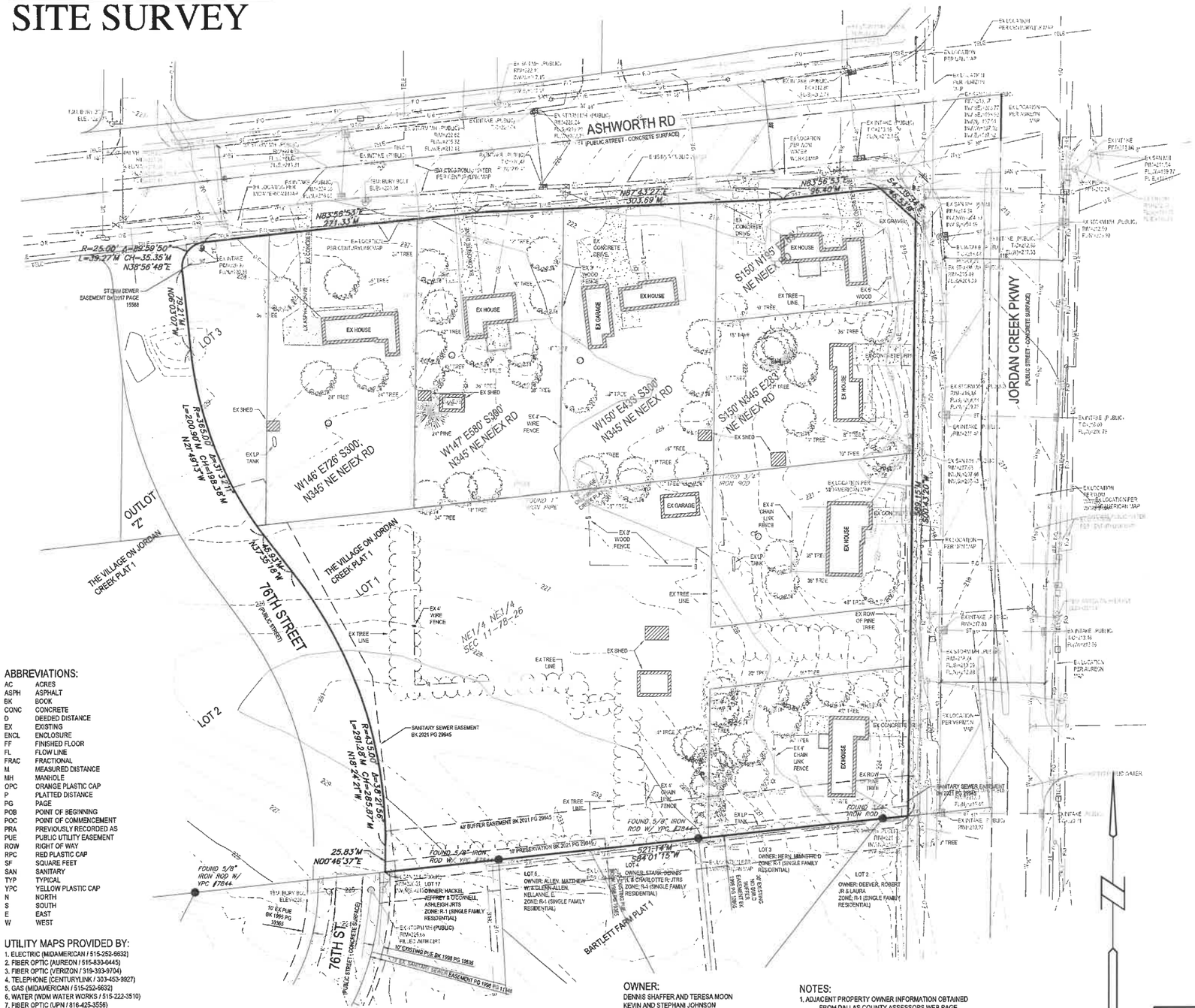
REVISION DATE:
2021-04-23 CITY SUBMITTAL
2021-06-04 CITY SUBMITTAL
2021-07-23 CITY SUBMITTAL
2021-09-08 CITY SUBMITTAL
2021-10-07 BID SET

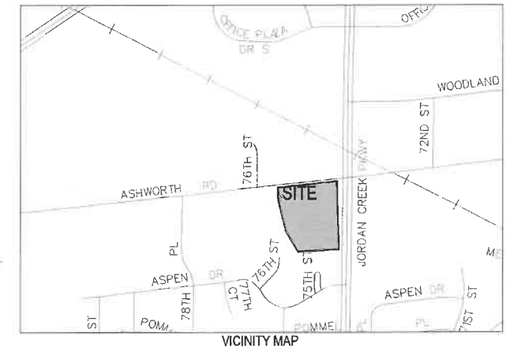
PROJECT NUMBER: 200656

SHEET NUMBER: C0.1

10/26/2021 7:21:48 AM L:\LAND PROJECTS 2020\200656\DWG\C0 COVER.DWG

21 WDM
SITE SURVEY





VICINITY MAP
NOT TO SCALE

PROPERTY DESCRIPTION:

LOT 1 AND OUTLOT Y OF THE VILLAGE ON JORDAN CREEK PARKWAY PLAT 1, AN OFFICIAL PLAT, WEST DES MOINES, DALLAS COUNTY, IOWA AND A PORTION OF THE NORTH 345 FEET OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 11, TOWNSHIP 78 NORTH, RANGE 26 WEST OF THE 5TH P.M., DALLAS COUNTY, IOWA, ALL MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT SOUTHEAST CORNER OF SAID LOT 1; THENCE S84°0'15"W ALONG THE SOUTH LINE OF SAID BLOT 1, A DISTANCE OF 521.14 TO THE SOUTHWEST CORNER OF SAID LOT 1; THENCE N00°46'37"E ALONG THE WEST LINE OF SAID LOT 1, A DISTANCE OF 25.83 FEET; THENCE NORTHWESTERLY ALONG THE W EST LINE OF SAID LOT 1 AND ALONG A 435.00 FOOT RADIUS CURVE CONCAVE SOUTHWESTERLY, A DISTANCE OF 291.28 FEET, SAID CURVE HAVING A CHORD BEARING OF N18°24'21"W AND A CHORD LENGTH OF 285.87 FEET; THENCE N37°35'18"W ALONG THE WEST LINE OF SAID LOT 1, A DISTANCE OF 45.93 FEET; THENCE NORTHWESTERLY ALONG THE WEST LINE OF SAID LOT 1 AND THE WEST LINE OF SAID OUTLOT Y AND ALONG A 365.00 FOOT RADIUS CURVE CONCAVE NORTHEASTERLY, A DISTANCE OF 200.90 FEET, SAID CURVE HAVING A CHORD BEARING OF N21°49'13"W AND A CHORD LENGTH OF 198.38 FEET; THENCE N00°00'07"W ALONG THE WEST LINE OF SAID OUTLOT Y, A DISTANCE OF 79.21 FEET; THENCE NORTHEASTERLY ALONG THE WEST LINE OF SAID OUTLOT Y AND ALONG A 25.00 FOOT RADIUS CURVE CONCAVE SOUTHEASTERLY, A DISTANCE OF 39.27 FEET TO THE SOUTH RIGHT OF WAY LINE OF ASHWORTH ROAD AS IT IS PRESENTLY ESTABLISHED, SAID CURVE HAVING A CHORD BEARING OF N38°56'53"E AND A CHORD LENGTH OF 35.36 FEET; THENCE N83°56'53"E ALONG SAID SOUTH RIGHT OF WAY LINE, A DISTANCE OF 271.33 FEET; THENCE N87°43'27"E ALONG SAID SOUTH RIGHT OF WAY LINE, A DISTANCE OF 303.69 FEET; THENCE N83°56'53"E ALONG SAID SOUTH RIGHT OF WAY LINE, A DISTANCE OF 96.40 FEET; THENCE S47°39'34"E ALONG SAID SOUTH RIGHT OF WAY LINE, A DISTANCE OF 46.53 FEET TO THE WEST RIGHT OF WAY LINE OF SAID JORDAN CREEK PARKWAY; THENCE S00°43'20"W ALONG SAID WEST RIGHT OF WAY LINE, A DISTANCE OF 589.15 FEET TO THE POINT OF BEGINNING.

SUBJECT TO AND TOGETHER WITH ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORD.

CONTAINING 393,731 SQUARE FEET (9.04 ACRES)

ADDRESS:
TO BE DETERMINDED

ZONING:
VILLAGES ON JORDAN CREEK PUD

BENCHMARK:
BASIS OF BEARING OBTAINED FROM GPS OBSERVATIONS
DATUM = NAD 83, IOWA SOUTH
BENCHMARK DATUM = CITY OF WEST DES MOINES DATUM

POINT #9000
NORTHING = 579769.79
EASTING = 1555321.63
ELEVATION = 222.94
DESCRIPTION: SET 3/4" IRON PIPE W/ RPC

ON SITE TBM
DESCRIPTION: BURY BOLT ON HYDRANT ALONG SOUTH R.O.W. OF ASHWORTH ROAD 586' + / - WEST OF JORDAN CREEK PKWY
ELEVATION = 226.08

OFF SITE TBM
DESCRIPTION: ARROW ON HYDRANT ALONG EAST R.O.W. OF JORDAN CREEK PKWY 464' + / - SOUTH OF ASHWORTH ROAD
ELEVATION = 221.09

LEGEND:

- SAN — SANITARY SEWER
- ST — STORM SEWER
- W — WATER LINE
- G — GAS LINE
- U/E — UNDERGROUND ELECTRIC
- O/E — OVERHEAD ELECTRIC
- TELE — TELEPHONE LINE
- F/O — FIBER OPTIC
- CATV — CABLE TV
- STORM MANHOLE
- CURB INTAKE
- SURFACE INTAKE
- FLARED END SECTION
- SANITARY MANHOLE
- CLEANOUT
- FIRE HYDRANT
- SPRINKLER
- IRRIGATION CONTROL VALVE
- WATER MANHOLE
- WELL
- WATER VALVE
- WATER SHUT OFF
- YARD HYDRANT
- ELECTRIC MANHOLE
- ELECTRIC METER
- ELECTRIC RISER
- ELECTRIC VAULT
- POWER POLE
- TRANSFORMER POLE
- LIGHT POLE
- ELECTRIC JUNCTION BOX
- ELECTRIC PANEL
- TRANSFORMER
- GROUND LIGHT
- GUY WIRE
- ELECTRIC HANDHOLE
- GAS METER
- GAS VALVE
- AIR CONDITIONING UNIT
- TELEPHONE RISER
- TELEPHONE VAULT
- TELEPHONE MANHOLE
- TRAFFIC SIGNAL MANHOLE
- FIBER OPTIC MANHOLE
- FIBER OPTIC RISER
- FIBER OPTIC FAULT
- CABLE TV RISER
- SIGN
- BOLLARDS
- DENOTES NUMBER OF PARKING STALLS
- PROPERTY CORNER - FOUND AS NOTED
- PROPERTY CORNER- PLACED 3/4" IRON PIPE WITH YELLOW PLASTIC CAP ID # 14775 OR AS NOTED
- SECTION CORNER - FOUND AS NOTED
- SITE CONTROL POINT - MONUMENT AS NOTED

ABBREVIATIONS:

AC	ACRES
ASPH	ASPHALT
BK	BOOK
CONC	CONCRETE
D	DEEDED DISTANCE
EX	EXISTING
ENCL	ENCLOSURE
FF	FINISHED FLOOR
FL	FLOW LINE
FRAC	FRACTIONAL
M	MEASURED DISTANCE
MH	MANHOLE
OPC	ORANGE PLASTIC CAP
P	PLATTED DISTANCE
PG	PAGE
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PRA	PREVIOUSLY RECORDED AS
PUE	PUBLIC UTILITY EASEMENT
ROW	RIGHT OF WAY
RPC	RED PLASTIC CAP
SF	SQUARE FEET
SAN	SANITARY
TYP	TYPICAL
YPC	YELLOW PLASTIC CAP
N	NORTH
S	SOUTH
E	EAST
W	WEST

UTILITY MAPS PROVIDED BY:

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PREPARED FOR:

JORDAN CREEK PARTNERS LLC
805 CITY CENTER DRIVE SUITE 160
CARMEL, INDIANA 46032
JOHN LASSAUX

OWNER:

DENNIS SHAFFER AND TERESA MOON
KEVIN AND STEPHANI JOHNSON
MICHAEL GLASA AND ANNETTE HITCHCOCK
KARLA STESSMAN
STONY LAKE, LLC
CZECH MATE, LLC

NOTES:

1. ADJACENT PROPERTY OWNER INFORMATION OBTAINED FROM DALLAS COUNTY ASSESSORS WEB PAGE
2. PARENTHESIS ( ) DENOTES PREVIOUSLY RECORDED BEARINGS AND DISTANCES

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GRAPHIC SCALE
50 0 25 50 100
SCALE: 1" = 50'
FIELD WORK COMPLETED ON: 3-5-2021

LICENSED PROFESSIONAL LAND SURVEYOR
LARRY D. HYLER, P.L.S.
No. 14775
IOWA

I HEREBY CERTIFY THAT THIS LAND SURVEYING DOCUMENT WAS PREPARED AND THE RELATED SURVEY WORK WAS PERFORMED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF IOWA.

SIGNED: _____ DATE: _____
LARRY D. HYLER, P.L.S. 14775
LICENSE RENEWAL DATE: DEC. 31, 2022
PAGES OR SHEETS COVERED BY THIS SEAL: C0.1

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"Planning Your Successful Development"
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Des Moines, Iowa 50322-3625
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Civil Engineering & Land Surveying Established 1959

JORDAN CREEK MIXED USE
WEST DES MOINES, IOWA
SITE SURVEY

REFERENCE NUMBER:

DRAWN BY: MDM

CHECKED BY:

REVISION DATE:

PROJECT NUMBER: 200656

SHEET NUMBER: C0.2

10/19/2021 3:48:52 PM L:\LAND PROJECTS 2020\200656\DWG\C0 SITE SURVEY.DWG

10/19/2021 3:49:15 PM LIL AND PROJECTS 2020\200656\DWG\C03 LOT LAYOUT.DWG

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21WDM
SITE IMPROVEMENT PLAN

PROPOSED LOT LAYOUT

REFERENCE NUMBER:

DRAWN BY: BGA

CHECKED BY: DBB

REVISION DATE:
2021-04-23 CITY SUBMITTAL
2021-06-04 CITY SUBMITTAL
2021-07-23 CITY SUBMITTAL
2021-09-08 CITY SUBMITTAL
2021-10-07 BID SET

PROJECT NUMBER: 200656

SHEET NUMBER: C0.3

WATER DEMO PLAN NOTES:

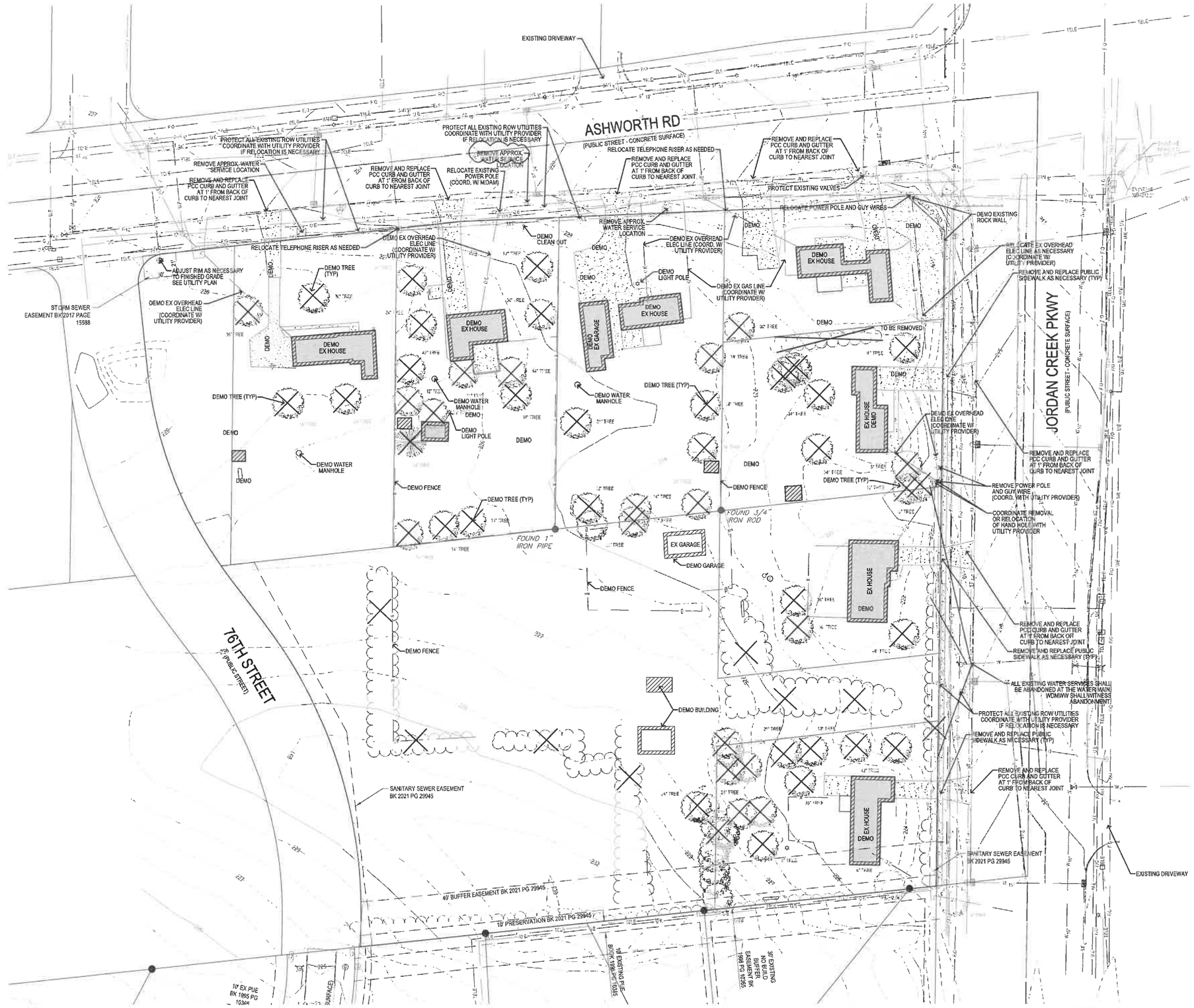
1. ALL EXISTING WATER SERVICES SHALL BE ABANDONED AT THE WATER MAIN. WEST DES MOINES WATER WORKS SHALL WITNESS ALL ABANDONMENT.
2. CONTACT WEST DES MOINES WATER WORKS CUSTOMER SERVICE AT 515-222-3450 TO SCHEDULE REMOVAL OF METERS AND METER READ DEVICES PRIOR TO STRUCTURE DEMOLITION.
3. ABANDON ALL WELLS, COORDINATE WITH DALLAS COUNTY ENVIRONMENTAL HEALTH.
4. WEST DES MOINES WATER WORKS REQUIRES DISCONNECTION AT THE MAIN EVEN IF UNDER PAVING
5. SCHEDULE ASHWORTH RESIDENTIAL SERVICE DISCONNECTS DURING ONE LARGE PIPE SHUTDOWN INSTEAD OF MULTIPLE INDIVIDUAL SHUTDOWNS.
6. VERIFY THAT THE 7630 WATER SERVICE HAS BEEN PROPERLY ABANDONED.

WATER DEMO PLAN QUANTITY :

7 SERVICES TO BE ABANDONED AT THE WATER MAIN PER THE WEST DES MOINES WATER WORKS CUSTOMER SERVICE DATABASE. 7450,7520,7550,7580 ASHWORTH ROAD, AND 880, 920 AND 970 JORDAN CREEK DRIVE. INCLUDING STOP BOXES

DEMO PLAN NOTES:

1. SAWCUT & REMOVE ALL PAVEMENT TO FULL DEPTH OF SLAB.
2. PROTECT ALL TREES NOT CALLED OUT FOR REMOVAL WITH ORANGE CONSTRUCTION FENCE AT THE DRIP LINE.
3. PAVEMENT STRIPING CALLED OUT FOR REMOVAL SHALL BE SANDBLASTED. NO GRINDING WILL BE ALLOWED.
4. CONTRACTOR TO REMOVE ANY EXISTING SEPTIC TANKS, METER PITS, AND FUEL TANKS.
5. CONTRACTOR TO ABANDON ANY ENCOUNTERED WELLS.
6. CONTRACTOR SHALL COORDINATE ALL UTILITY RELOCATIONS AND DISCONNECTION WITH THE UTILITY PROVIDER.
7. CONTRACTOR TO REMOVE ALL EXISTING DRIVE APPROACHES AND REPLACE CURB TO MATCH EX STREET IN KIND AND THICKNESS
8. CONTRACTOR TO PROTECT ALL RIGHT OF WAY UTILITIES.
9. ALL DEMOLITION SHALL ADHERE TO THE CURRENT SUDAS SPECIFICATIONS FOR DEMOLITION FOUND IN SECTION 1110. PLEASE REFER TO SECTION 1110, 3.03 SPECIFICALLY FOR REMOVAL OF ANY FUEL STORAGE TANKS.
10. REMOVE AND PROPERLY DISPOSE OF ALL STRUCTURES, RASH, RUBBISH, BASEMENT WALLS, FLOORS, FOUNDATIONS, SIDEWALKS, STEPS AND DRIVEWAYS FROM THE SPECIFIED PARCEL.
11. REMOVE THE MATERIALS FROM THE DEMOLITION SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
12. REMOVE AND DISPOSE OF APPLIANCES AND OTHER ITEMS THAT MAY CONTAIN REFRIGERANTS IN ACCORDANCE WITH 40 CFR PART 82. THESE INCLUDE BUT ARE NOT LIMITED TO: REFRIGERATORS, FREEZERS, DEHUMIDIFIERS, AND PORTABLE OR CENTRAL AIR CONDITIONERS.
13. REMOVE AND LEGALLY DISPOSE OF MERCURY-CONTAINING MATERIALS.
14. DISCONNECT ALL UTILITY SERVICES BEFORE DEMOLITION
15. REMOVAL OF THE SEPTIC SYSTEMS SHALL COMPLY WITH ALL DALLAS COUNTY AND STATE OF IOWA REQUIREMENTS.
16. FUEL TAKES, ABOVE OR BELOW GRAND SHALL BE CAREFULLY REMOVED AND DISPOSED OF IN A SAFE MANNER IN ACCORDANCE WITH THE STATE FIRE MARSHAL'S REGULATIONS AND THOSE OF THE IOWA DEPARTMENT OF NATURAL RESOURCES.
17. ALL WELLS SHALL BE PLUGGED AND ABANDONED IN ACCORDANCE WITH THE IOWA ADMINISTRATIVE CODE, AND IOWA DEPARTMENT OF NATURAL RESOURCES.
18. CONTRACTOR SHALL COORDINATE THE REMOVAL OF EXISTING GAS AND WATER SERVICES WITH MIDAMERICAN ENERGY, WEST DES MOINES WATER WORK.
19. A DEMOLITION PERMIT SHALL BE RECEIVED FROM THE WEST DES MOINES DEVELOPMENT SERVICES DEPARTMENT PRIOR TO BEGINNING DEMOLITION OF ANY STRUCTURE ON PROPERTY.



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21WDM
SITE IMPROVEMENT PLAN
DEMO PLAN

REFERENCE NUMBER:

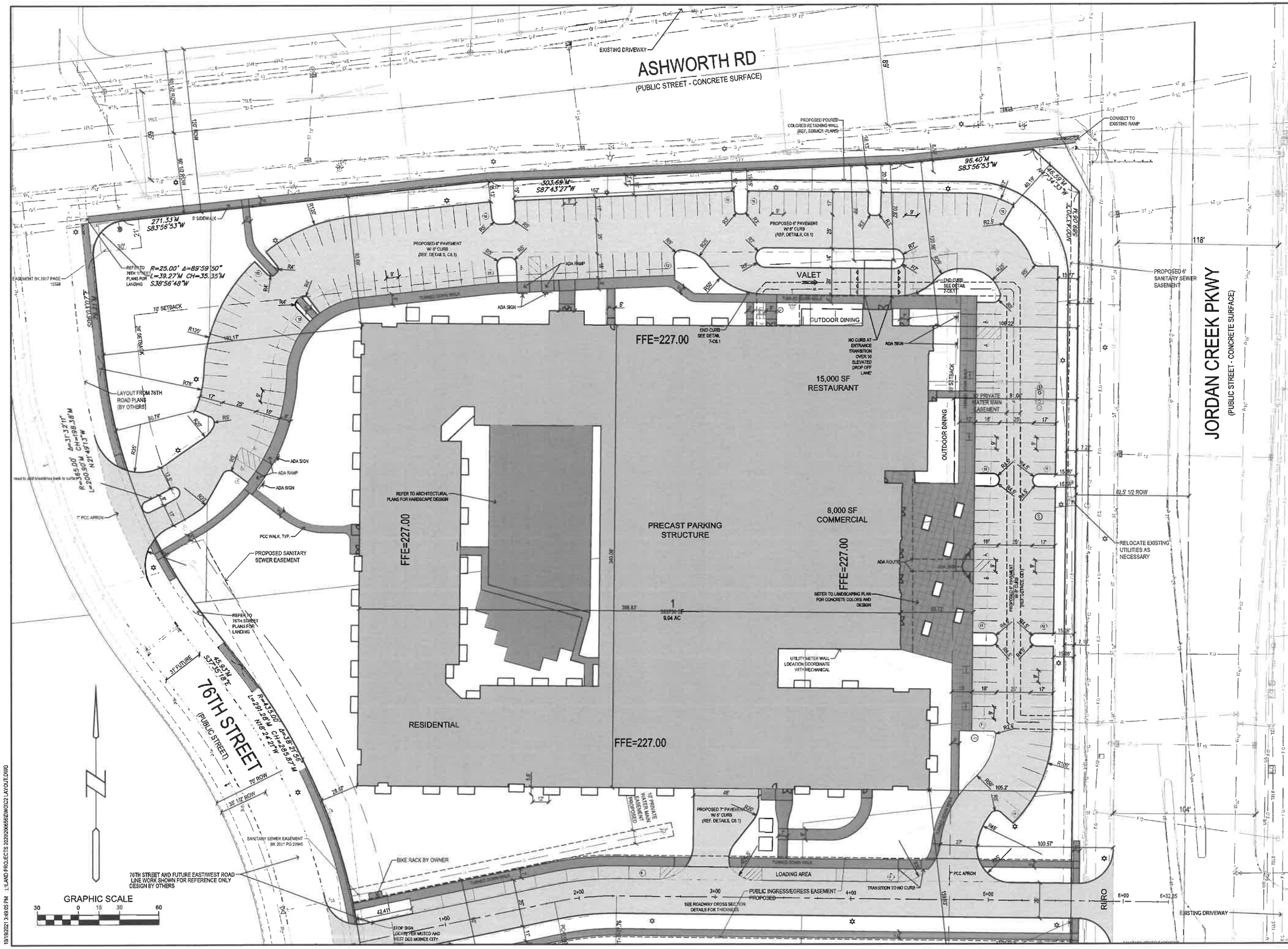
DRAWN BY: BGA

CHECKED BY: DBB

REVISION DATE:
2021-04-23 CITY SUBMITTAL
2021-06-04 CITY SUBMITTAL
2021-07-23 CITY SUBMITTAL
2021-09-08 CITY SUBMITTAL
2021-10-07 BID SET

PROJECT NUMBER: 200656

SHEET NUMBER: C1.1



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21WDM
SITE IMPROVEMENT PLAN
LAYOUT PLAN

REFERENCE NUMBER:

DRAWN BY: BGA

CHECKED BY: DBB

REVISION DATE:
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2021-06-04 CITY SUBMITTAL
2021-07-23 CITY SUBMITTAL
2021-09-08 CITY SUBMITTAL
2021-10-07 BID SET

PROJECT NUMBER: 200656

SHEET NUMBER: C2.1

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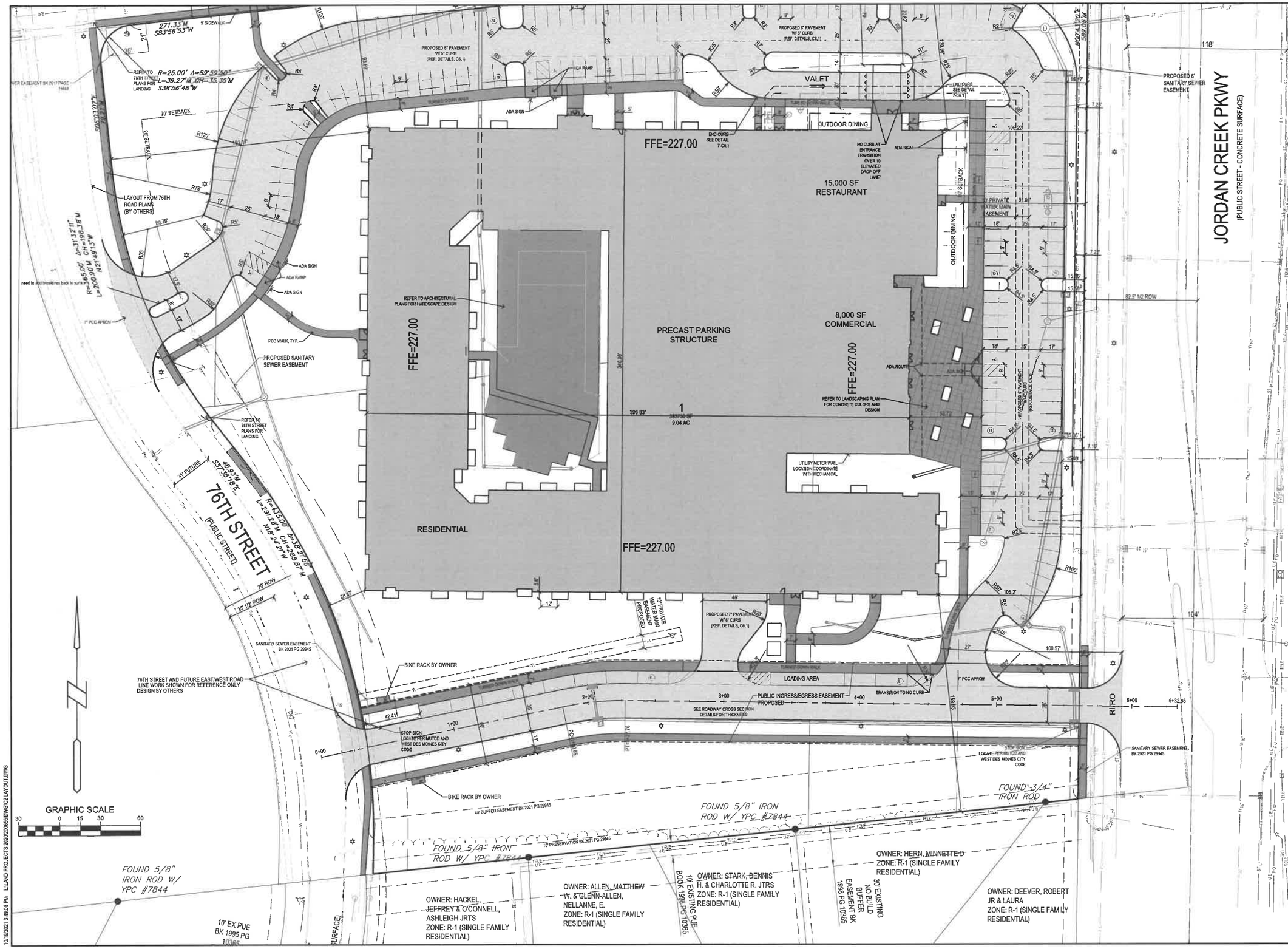

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21WDM
SITE IMPROVEMENT PLAN
LAYOUT PLAN

REFERENCE NUMBER:

DRAWN BY: SGA

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REVISION DATE:
2021-04-23 CITY SUBMITTAL
2021-06-04 CITY SUBMITTAL
2021-07-23 CITY SUBMITTAL
2021-09-08 CITY SUBMITTAL
2021-10-07 BID SET

PROJECT NUMBER: 200656

SHEET NUMBER: C2.2

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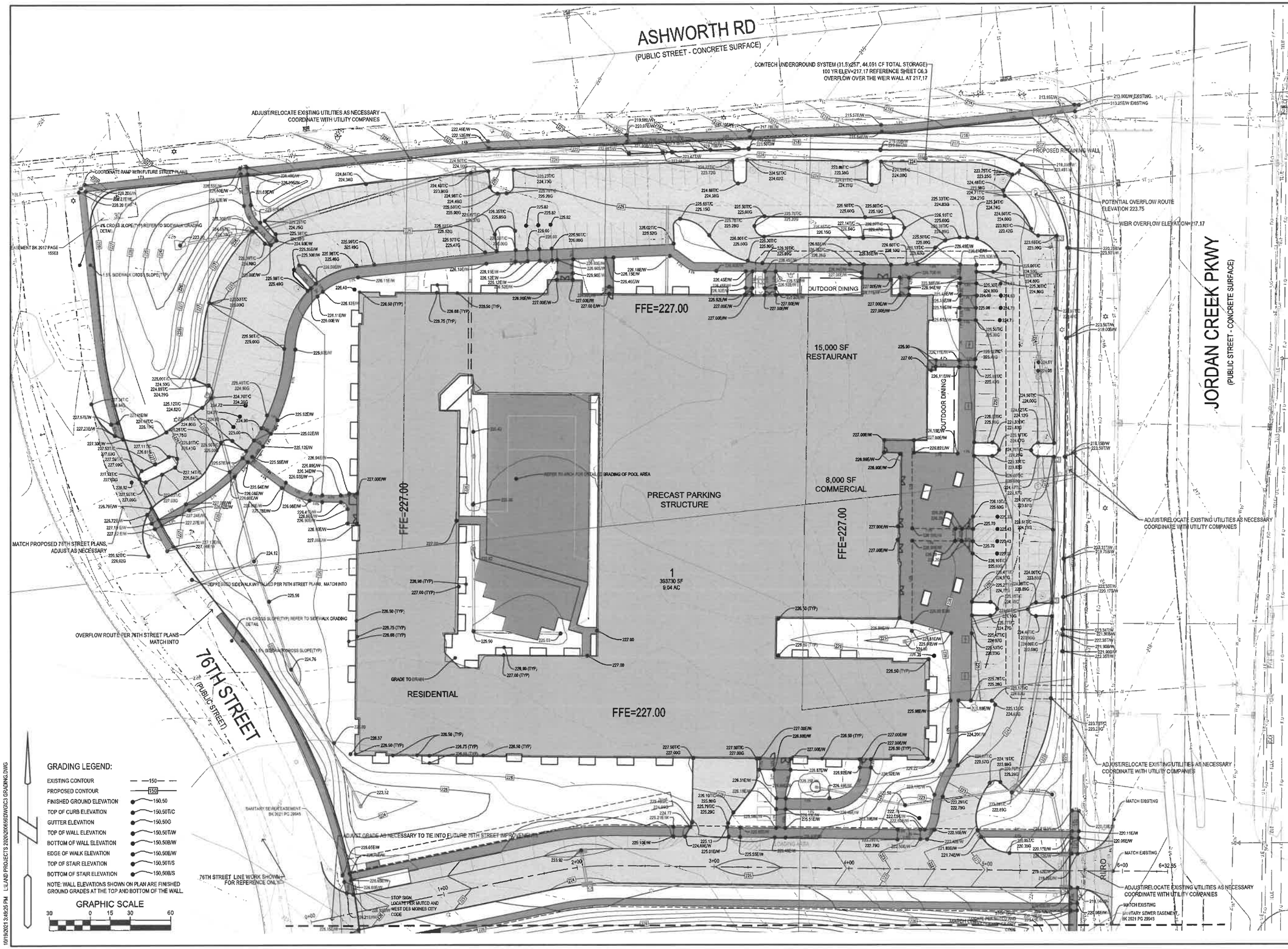

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21WDM
SITE IMPROVEMENT PLAN
GRADING PLAN

REFERENCE NUMBER:

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2021-07-23 CITY SUBMITTAL
2021-09-08 CITY SUBMITTAL
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PROJECT NUMBER: 200656

SHEET NUMBER: C3.1

TOPSOIL NOTES:

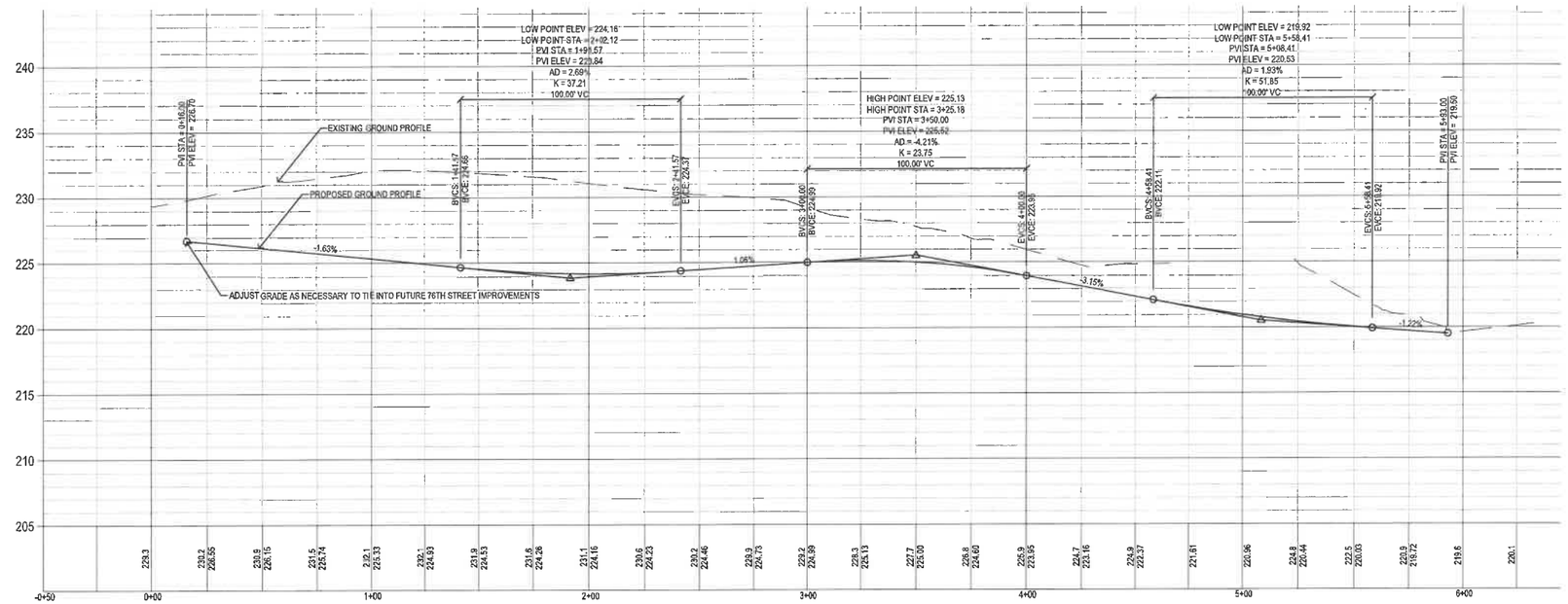
1. STRIP AND STOCKPILE THE TOP 8" OF SOIL ON ALL DISTURBED AREAS.
2. RESPREAD TOPSOIL TO A MINIMUM DEPTH OF 8" ON ALL GREEN (NON PAVED) AREAS. IMPORT TOPSOIL AS NECESSARY TO ACHIEVE A MINIMUM DEPTH OF 6".
3. **TOPSOIL SHALL BE FREE OF ALL ROCK AND DEBRIS LARGER THAN 3/4" IN SIZE.**
4. TOPSOIL IS DEFINED AS: FERTILE, FRIABLE LOAM, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, FROM WELL DRAINED SITE FREE FROM FLOODING, NOT IN FROZEN OR MUDDY CONDITIONS; REASONABLE FREE FROM SUBSOIL, CLAY LUMPS, ROOTS, GRASS, WEEDS, STONES LARGER THAN 3/4 INCH IN DIAMETER, AND FOREIGN MATTER; ACIDITY RANGE (PH) OF 5.5 TO 7.5; CONTAINING MINIMUM 4 PERCENT AND MAXIMUM 20 PERCENT ORGANIC MATTER.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL TOPSOIL REQUIREMENTS OF NPDES GENERAL PERMIT NO. 2 ARE MET.

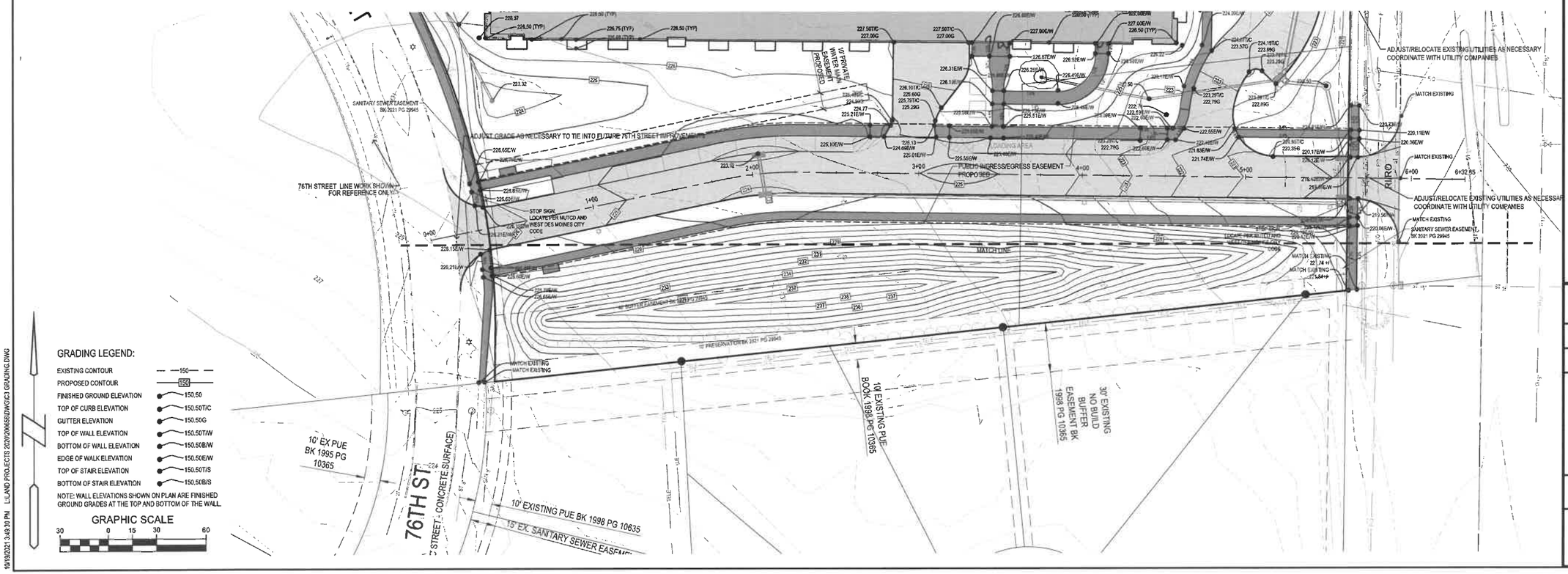
BUILDING DOOR ELEVATIONS:

1. THE ELEVATIONS SHOWN AT THE BUILDING DOORS AND BUILDING WALLS ON THE GRADING PLAN ARE FOR COORDINATION ONLY. BUILDING ARCHITECTURAL/STRUCTURAL PLANS AND DETAILS SHALL GOVERN FOR BUILDING DOOR ELEVATIONS, STOOP SLOPES AND EXPOSED WALLS OR FOOTINGS.
2. CONTRACTOR TO COORDINATE AND VERIFY ALL BUILDING AND DOOR ELEVATIONS WITH EXTERIOR IMPROVEMENTS TO MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDING PRIOR TO CONSTRUCTION. IF THERE IS A DISCREPANCY, CONTRACTOR TO CONTACT OWNER/ENGINEER FOR DIRECTION PRIOR TO CONSTRUCTION AND/OR INSTALLATION.

ADA RAMP & LANDING NOTES:

1. RAMPS ON SIDEWALKS THAT EXCEED 5% RUNNING SLOPE MUST HAVE A MINIMUM OF 5'X5' LANDING AT THE TOP AND BOTTOM OF THE RAMP. THE LANDING SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.
2. NOT ALL RAMPS AND LANDINGS ARE CALLED OUT ON PLANS. ANYWHERE A WALK EXCEEDS 5% SLOPE, AS SHOWN ON THE GRADING PLAN, SHALL BE CONSIDERED AN ADA RAMP AND THEREFORE MUST HAVE LANDINGS.





GRADING LEGEND:

EXISTING CONTOUR	150
PROPOSED CONTOUR	150
FINISHED GROUND ELEVATION	150.50
TOP OF CURB ELEVATION	150.50T/C
GUTTER ELEVATION	150.50G
TOP OF WALL ELEVATION	150.50T/W
BOTTOM OF WALL ELEVATION	150.50B/W
EDGE OF WALK ELEVATION	150.50E/W
TOP OF STAIR ELEVATION	150.50T/S
BOTTOM OF STAIR ELEVATION	150.50B/S

NOTE: WALL ELEVATIONS SHOWN ON PLAN ARE FINISHED GROUND GRADES AT THE TOP AND BOTTOM OF THE WALL.

GRAPHIC SCALE

30 0 15 30 60

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21WDM
SITE IMPROVEMENT PLAN

GRADING PLAN/ROADWAY PROFILE

REFERENCE NUMBER:

DRAWN BY: BGA

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PROJECT NUMBER: 200656

SHEET NUMBER: C3.2

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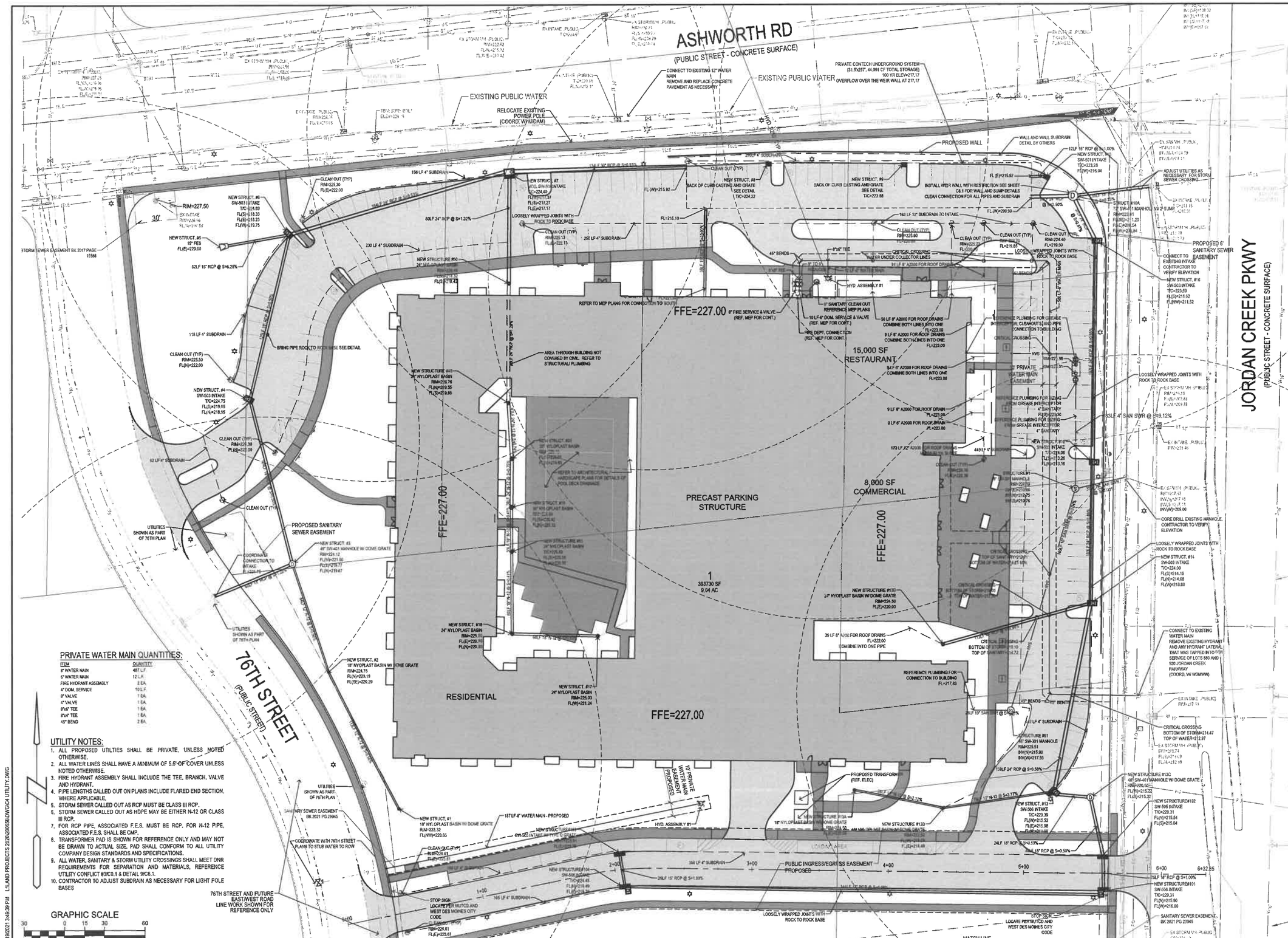

PRIVATE WATER MAIN QUANTITIES:

ITEM	QUANTITY
8" WATER MAIN	487 L.F.
6" WATER MAIN	12 L.F.
FIRE HYDRANT ASSEMBLY	2 EA.
4" DOM. SERVICE	10 L.F.
8" VALVE	1 EA.
4" VALVE	1 EA.
8"x8" TEE	1 EA.
8"x4" TEE	1 EA.
45° BEND	2 EA.

UTILITY NOTES:

1. ALL PROPOSED UTILITIES SHALL BE PRIVATE, UNLESS NOTED OTHERWISE.
2. ALL WATER LINES SHALL HAVE A MINIMUM OF 5.5' OF COVER UNLESS NOTED OTHERWISE.
3. FIRE HYDRANT ASSEMBLY SHALL INCLUDE THE TEE, BRANCH, VALVE AND HYDRANT.
4. PIPE LENGTHS CALLED OUT ON PLANS INCLUDE FLARED END SECTION, WHERE APPLICABLE.
5. STORM SEWER CALLED OUT AS RCP MUST BE CLASS III RCP.
6. STORM SEWER CALLED OUT AS HDPE MAY BE EITHER N-12 OR CLASS III RCP.
7. FOR RCP PIPE, ASSOCIATED F.E.S. MUST BE RCP. FOR N-12 PIPE, ASSOCIATED F.E.S. SHALL BE CMP.
8. TRANSFORMER PAD IS SHOWN FOR REFERENCE ONLY AND MAY NOT BE DRAWN TO ACTUAL SIZE. PAD SHALL CONFORM TO ALL UTILITY COMPANY DESIGN STANDARDS AND SPECIFICATIONS.
9. ALL WATER, SANITARY & STORM UTILITY CROSSINGS SHALL MEET DNR REQUIREMENTS FOR SEPARATION AND MATERIALS. REFERENCE UTILITY CONFLICT #3/C3.1 & DETAIL 9/C6.1.
10. CONTRACTOR TO ADJUST SUBDRAIN AS NECESSARY FOR LIGHT POLE BASES

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UTILITY PLAN

21WDM
SITE IMPROVEMENT PLAN

REFERENCE NUMBER:

DRAWN BY: BGA

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REVISION DATE:
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2021-10-07 BID SET

PROJECT NUMBER: 200656

SHEET NUMBER: C4.1

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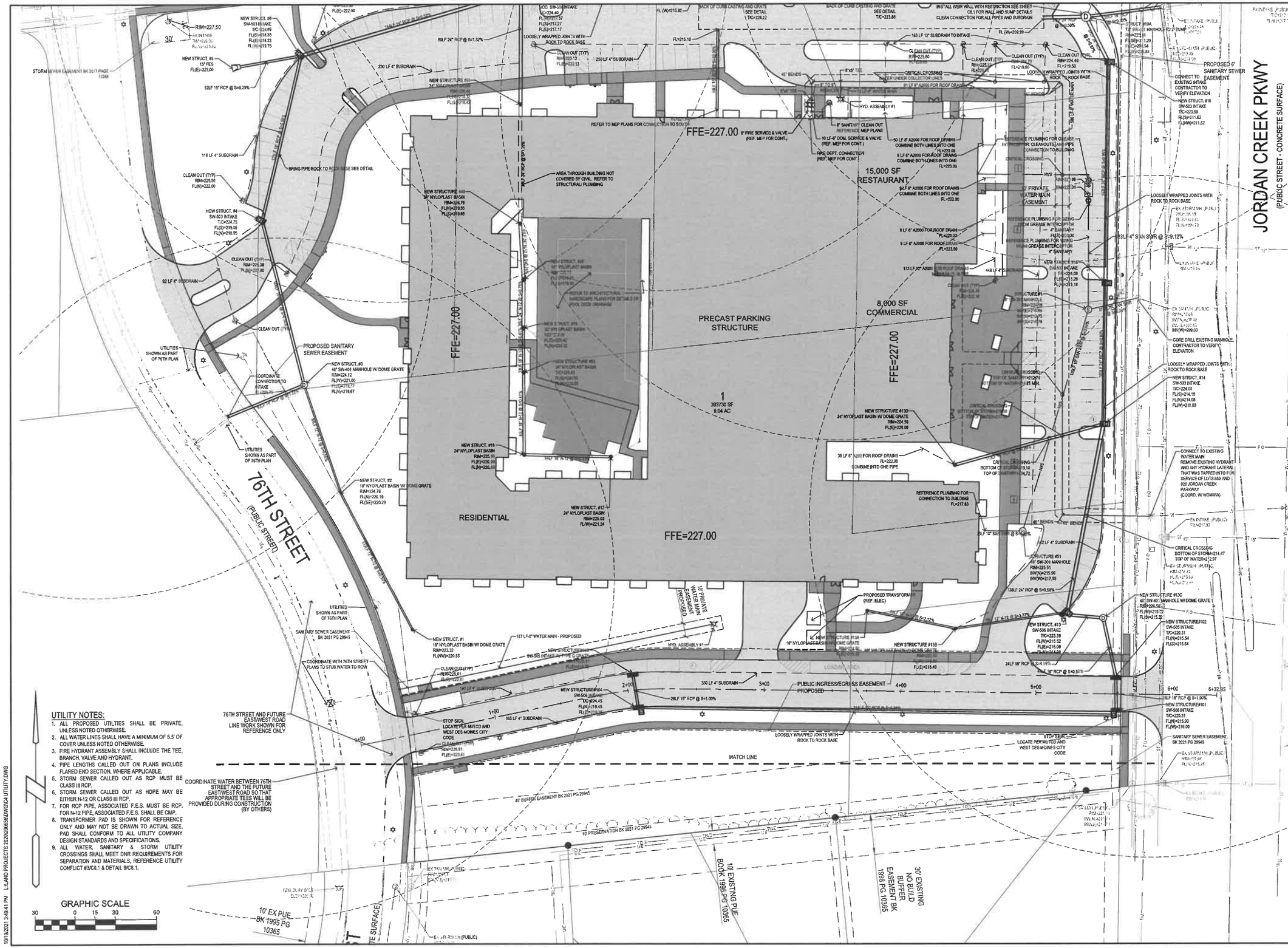

UTILITY NOTES:

1. ALL PROPOSED UTILITIES SHALL BE PRIVATE, UNLESS NOTED OTHERWISE.
2. ALL WATER LINES SHALL HAVE A MINIMUM OF 5.5' OF COVER UNLESS NOTED OTHERWISE.
3. FIRE HYDRANT ASSEMBLY SHALL INCLUDE THE TEE, BRANCH, VALVE AND HYDRANT.
4. PIPE LENGTHS CALLED OUT ON PLANS INCLUDE FLARED END SECTION, WHERE APPLICABLE.
5. STORM SEWER CALLED OUT AS RCP MUST BE CLASS III RCP.
6. STORM SEWER CALLED OUT AS HDPE MAY BE EITHER N-12 OR CLASS III RCP.
7. FOR RCP PIPE, ASSOCIATED F.E.S. MUST BE RCP. FOR N-12 PIPE, ASSOCIATED F.E.S. SHALL BE CMP.
8. TRANSFORMER PAD IS SHOWN FOR REFERENCE ONLY AND MAY NOT BE DRAWN TO ACTUAL SIZE. PAD SHALL CONFORM TO ALL UTILITY COMPANY DESIGN STANDARDS AND SPECIFICATIONS.
9. ALL WATER, SANITARY & STORM UTILITY CROSSINGS SHALL MEET DNR REQUIREMENTS FOR SEPARATION AND MATERIALS, REFERENCE UTILITY CONFLICT #3/C0.1 & DETAIL 9/C6.1.

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21WDM SITE IMPROVEMENT PLAN

UTILITY PLAN

REFERENCE NUMBER:

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PROJECT NUMBER: 200656

SHEET NUMBER: C4.2

LANDSCAPE NOTES:

1. ALL SODDING & LANDSCAPE PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE.
2. SOD ALL DISTURBED AREAS WITHIN THE CONTRACT LIMITS, UNLESS NOTED OTHERWISE. SOD LIMITS SHOWN ON PLAN ARE FOR REFERENCE ONLY. FINAL LIMITS MAY CHANGE BASED ON CONSTRUCTION ACTIVITIES.
3. STAKE SOD ON ALL SLOPES 3 : 1 OR GREATER.
4. PLANT QUANTITIES ARE FOR CONTRACTORS CONVENIENCE. THE DRAWING SHALL PREVAIL IF A CONFLICT OCCURS.
5. ALL PLANT MATERIAL SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).
6. CONTRACTOR SHALL WARRANTY ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM THE DATE OF INITIAL ACCEPTANCE.
7. FOR WARRANTY PURPOSES, THE DATE OF INITIAL ACCEPTANCE SHALL BE SUBMITTED IN WRITING TO THE OWNER AND/OR OWNER'S REPRESENTATIVE AFTER ALL PLANT MATERIALS HAVE BEEN INSTALLED AND REVIEWED BY OWNER OR OWNER'S REPRESENTATIVE. PLANT MATERIALS WILL ONLY BE ACCEPTED IF THEY ARE IN AN ALIVE AND THRIVING CONDITION.
8. CONDITIONAL ACCEPTANCE OF PLANT MATERIAL MAY BE GIVEN FOR PLANTS INSTALLED IN A DORMANT CONDITION WITH INITIAL ACCEPTANCE OCCURRING THE FOLLOWING SPRING ONCE THEY ARE SHOWN TO BE ALIVE AND THRIVING.
9. IT IS THE CONTRACTORS RESPONSIBILITY TO REMOVE IDENTIFICATION TAGS AND CORDS ON ALL PLANT MATERIAL PRIOR TO THE COMPLETION OF THE CONTRACT. IDENTIFICATION TAGS (INCLUDING SIZING INFORMATION) MUST BE LEFT ON UNTIL AFTER ACCEPTANCE BY OWNER OR OWNER'S REPRESENTATIVE.
10. CONTRACTOR SHALL PLACE SHREDDED HARDWOOD MULCH AROUND ALL TREES, SHRUBS AND GROUND COVER BEDS TO A DEPTH OF 4 INCHES, UNLESS NOTED.
11. STAKING AND GUYING OF TREES SHALL BE AT THE DISCRETION OF THE CONTRACTOR BASED ON CURRENT ACCEPTED NURSERY STANDARDS. GENERALLY, TREES IN LARGE OPEN AREAS SUBJECT O SIGNIFICANT WIND SHALL BE STAKED. STAKE AND WRAP TREES IMMEDIATELY AFTER PLANTING. CONTRACTOR SHALL ADJUST AND MAINTAIN GUYING TENSION THROUGHOUT THE PLANT ESTABLISHMENT PERIOD. REMOVE ALL STAKES AND GUY WIRES NO MORE THAN ONE YEAR AFTER INSTALLATION.
12. THE LANDSCAPING CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED BEFORE STARTING ANY SITE WORK OR PLANTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES.
13. NO LANDSCAPE MATERIAL SHALL BE SUBSTITUTED WITHOUT THE AUTHORIZATION OF THE LANDSCAPE ARCHITECT.
14. ALL EDGING SHALL BE NATURAL LIMESTONE EDGING (6" WIDE BY 4" THICK) AS SUPPLIED BY WEBER STONE OR APPROVED EQUAL..
15. CONTRACTOR SHALL BE RESPONSIBLE MAINTAINING APPROPRIATE LEVEL OF WATERING FOR ALL NEW PLANTS FOR A PERIOD OF 30 DAYS.
16. ALL SHRUB AND PERENNIAL PLANTING BEDS SHALL BE MULCHED WITH 4" THICK SHREDDED HARDWOOD MULCH.
17. ALL BEDS TO RECEIVE GRANULAR PRE-EMERGENT WEED CONTROL BEFORE AND AFTER MULCH/ROCK IS INSTALLED.

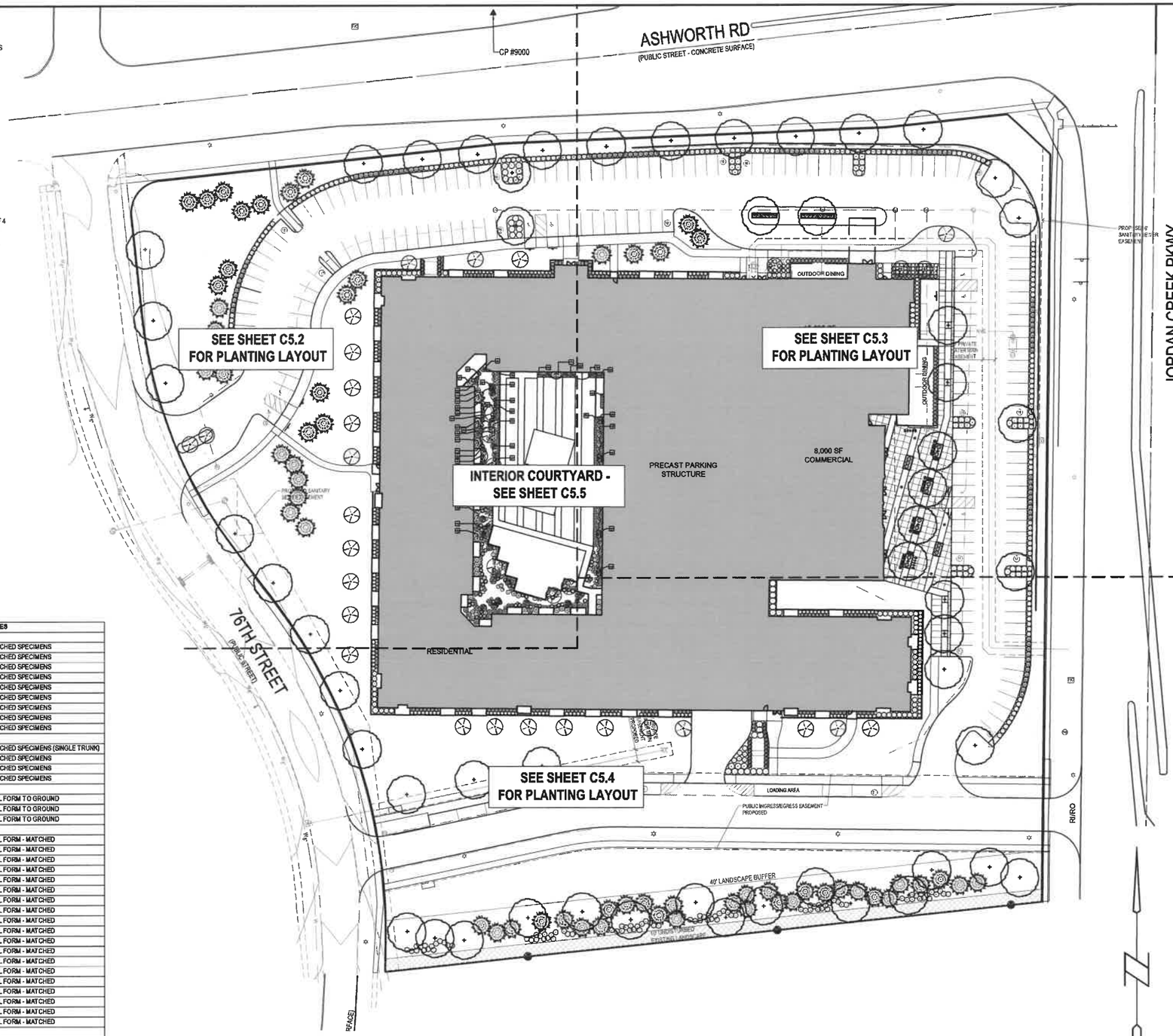
GENERAL LANDSCAPE REQUIREMENTS

TOTAL SQUARE FOOTAGE OF PROJECT AREA	361,640 SF
REQUIRED OPEN SPACE(25%)	90,410 SF
GENERAL OPEN SPACE REQUIREMENT	
TOTAL REQUIRED TREES (2 / 3,000 SF REQ. OPEN SPACE)	61
TOTAL REQUIRED EVERGREEN (50% OF TOTAL)	*(31)*
TOTAL TREES PROVIDED (OVERSTORY AND EVERGREEN)	*72*
TOTAL EVERGREEN PROVIDED	*31*
TOTAL REQUIRED SHRUBS (3 / 3,000 SF REQ. OPEN SPACE)	91
TOTAL SHRUBS PROVIDED	*310*
SOUTH BUFFER REQUIREMENTS	
TOTAL LENGTH OF BUFFER	522 LF
REQUIRED OVERSTORY TREES (1 / 35 LF)	15
TOTAL PROVIDED	*15*
REQUIRED EVERGREEN TREES (2 / 35 LF)	30
TOTAL PROVIDED (EVERGREEN SUBSTITUTION)	*30*
REQUIRED SHRUBS (6 / 35 LF)	90
TOTAL PROVIDED	*90*

PLANTING SCHEDULE

CODE	QUAN	COMMON NAME	LATIN NAME	SIZE	ROOT	NOTES
			OVERSTORY TREES			
DG	3	OCTOBER GLORY MAPLE	ACER RUBRUM 'OCTOBER GLORY'	2.0" CAL	B&B	MATCHED SPECIMENS
GB	4	GINKGO	GINKGO BILOBA 'PRINCETON SENTRY'	2.0" CAL	B&B	MATCHED SPECIMENS
SH	13	SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE'	2.0" CAL	B&B	MATCHED SPECIMENS
KC	7	KENTUCKY COFFEETREE	GYMNOLADUS DIOICUS	2.0" CAL	B&B	MATCHED SPECIMENS
TT	2	TULIP TREE	LIRIODENDRON TULIPIFERA	2.0" CAL	B&B	MATCHED SPECIMENS
WO	6	WHITE OAK	QUERCUS ALBA	2.0" CAL	B&B	MATCHED SPECIMENS
BO	2	BURR OAK	QUERCUS MACROCARPA	2.0" CAL	B&B	MATCHED SPECIMENS
RO	14	RED OAK	QUERCUS RUBRA	2.0" CAL	B&B	MATCHED SPECIMENS
RL	2	REDMOND LINDEN	TILIA AMERICANA'REDMOND'	2.0" CAL	B&B	MATCHED SPECIMENS
			ORNAMENTAL TREE			
SB	4	AUTUMN BRILLIANCE SERVICEBERRY	AMELANCHIER GRANDIFLORA 'AUTUMN BRILLIANCE'	1.5" CAL	B&B	MATCHED SPECIMENS (SINGLE TRUNK)
PF	7	PRAIRIE FIRE CRABAPPLE	MALUS X 'PRAIRIE FIRE'	1.5" CAL	B&B	MATCHED SPECIMENS
ST	7	SHOW TIME CRABAPPLE	MALUX X. 'SHOW TIME'	1.5" CAL	B&B	MATCHED SPECIMENS
NP	10	NEWPORT PLUM	PRUNUS CERASIFERA	1.5" CAL	B&B	MATCHED SPECIMENS
			EVERGREEN TREES			
WP	11	WHITE PINE	PINUS STROBUS	6'	B&B	FULL FORM TO GROUND
NS	18	NORWAY SPRUCE	PICEA ABIES	6'	B&B	FULL FORM TO GROUND
BH	33	BLACK HILLS SPRUCE	PICEA GLAUCA DENSATA	6'	B&B	FULL FORM TO GROUND
			SHRUBS			
RB	13	REDLEAF BARBERRY	BERBERIS THUMBERGII ATROPURPUREA'	#5	CONT	FULL FORM - MATCHED
BX	77	BOXWOOD - GREEN MOUND	BUXUS X 'GREEN MOUND'	#5	CONT	FULL FORM - MATCHED
DB	28	DWARF BUSH HONEYSUCKLE	DIERVILLA LONICERA	#5	CONT	FULL FORM - MATCHED
ID	22	ISANTI DOGWOOD	CORNUS SERICEA 'ISANTI'	#5	CONT	FULL FORM - MATCHED
LH	7	LIMELIGHT HYDRANGEA	HYDRANGEA PANICULATA 'LIMELIGHT'	#5	CONT	FULL FORM - MATCHED
LL	18	LITTLE LIME HYDRANGEA	HYDRANGEA PANICULATA 'JANE'	#5	CONT	FULL FORM - MATCHED
SG	10	SPRING GLORY FORSYTHIA	FORSYTHIA X 'SPRING GLORY'	#5	CONT	FULL FORM - MATCHED
LD	41	LITTLE DEVIL NINEBARK	PHYSOCARPUS OPULIFOLIUS 'LITTLE DEVIL'	#5	CONT	FULL FORM - MATCHED
FS	35	FRAGRANT SUMAC	RHUS AROMATICA	#5	CONT	FULL FORM - MATCHED
GL	58	GROW LO SUMAC	RHUS AROMATICA 'GROW LOW'	#5	CONT	FULL FORM - MATCHED
KR	14	KNOCKOUT ROSE	ROSA X 'RADRAZZ'	#5	CONT	FULL FORM - MATCHED
AW	181	ANTHONY WATERER SPIREA	SPIRAEA BUMALDA 'ANTHONY WATERER'	#5	CONT	FULL FORM - MATCHED
GF	99	GOLD FLAME SPIREA	SPIRAEA BUMALDA 'GOLDFLAME'	#5	CONT	FULL FORM - MATCHED
DK	13	DWARF KOREAN LILAC	SYRINGA MEYERI 'PALIBIN'	#5	CONT	FULL FORM - MATCHED
EA	28	EMERALD ARBORVITAE	THUJA OCCIDENTALIS 'SMARAGD'	4'	B&B	FULL FORM - MATCHED
WG	80	WOODWARD GLOBE ARBORVITAE	THUJA OCCIDENTALIS 'WOODWARD'	2'	B&B	FULL FORM - MATCHED
AV	5	ARROWWOOD VIBURNUM	VIBURNUM DENTATUM	#5	CONT	FULL FORM - MATCHED
CV	3	COMPACT VIBURNUM	VIBURNUM TRILOBUM 'COMPACTA'	#5	CONT	FULL FORM - MATCHED
JV	2	JUDD VIBURNUM	VIBURNUM JUDDI	30"	B&B	FULL FORM - MATCHED
			ORNAMENTAL GRASSES			
KF	110	KARL FOERSTER FEATHER REED GRASS	CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	#1	CONT	FULLY ROOTED IN CONTAINER
SS	53	SHENANDOAH SWITCHGRASS	PANICUM VIRGATUM 'SHENANDOAH'	#1	CONT	FULLY ROOTED IN CONTAINER
			PERENNIALS			
SD	16	STELLA D'ORO DAYLILY	HEMEROCALLIS X 'STELLA D'ORO'	#1	CONT	FULLY ROOTED IN CONTAINER
HS	12	ASSORTED HOSTA	HOSTA SP.	#1	CONT	FULLY ROOTED IN CONTAINER
PH	69	PATRIOT HOSTA	HOSTA X 'PATRIOT'	#1	CONT	FULLY ROOTED IN CONTAINER
BE	32	BLACK EYED SUSAN	RUDBECKIA FULGIDA 'GOLDSTURM'	#1	CONT	FULLY ROOTED IN CONTAINER

SOD: PROVIDE AND INSTALL SOD FROM LOCAL SUPPLIERS. AREAS TO BE SODDED MUST BE FREE OF ALL CONSTRUCTION DEBRIS AND ANY DIRT CLUMPS OVER 1" IN DIAMETER. THOROUGHLY WATER SOD UPON INSTALLATION. CONTRACTOR TO MAINTAIN WATERING UNTIL SOD IS ESTABLISHED (ROOTS KNITTED INTO SUBSURFACE)



IRRIGATION NOTES:

- FOR BIDDING PURPOSES, THIS PROJECT DOES NOT INCLUDE A SITE IRRIGATION SYTEM.
- CONTRACTOR SHALL SUBMIT TO THE OWNER OR OWNER'S REPRESENTATIVE A SEPARATE PROPOSAL FOR A SITE IRRIGATION SYSTEM. PROPOSAL SHALL BE DESIGN/BUILD FOR A COMPLETE OPERATIONAL IRRIGATION SYSTEM APPROPRIATE FOR THE SITE. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DESIGN, COORDINATION, TESTING, PERMITS, INSPECTIONS, ETC.

GRAPHIC SCALE
40 0 20 40 80

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21WDM
SITE IMPROVEMENT PLAN

LANDSCAPE PLAN

REFERENCE NUMBER:

DRAWN BY: BGA

CHECKED BY: DBB

REVISION DATE:
2021-04-23 CITY SUBMITTAL
2021-06-04 CITY SUBMITTAL
2021-07-23 CITY SUBMITTAL
2021-09-08 CITY SUBMITTAL
2021-10-07 BID SET

PROJECT NUMBER: 200656

SHEET NUMBER: C5.1

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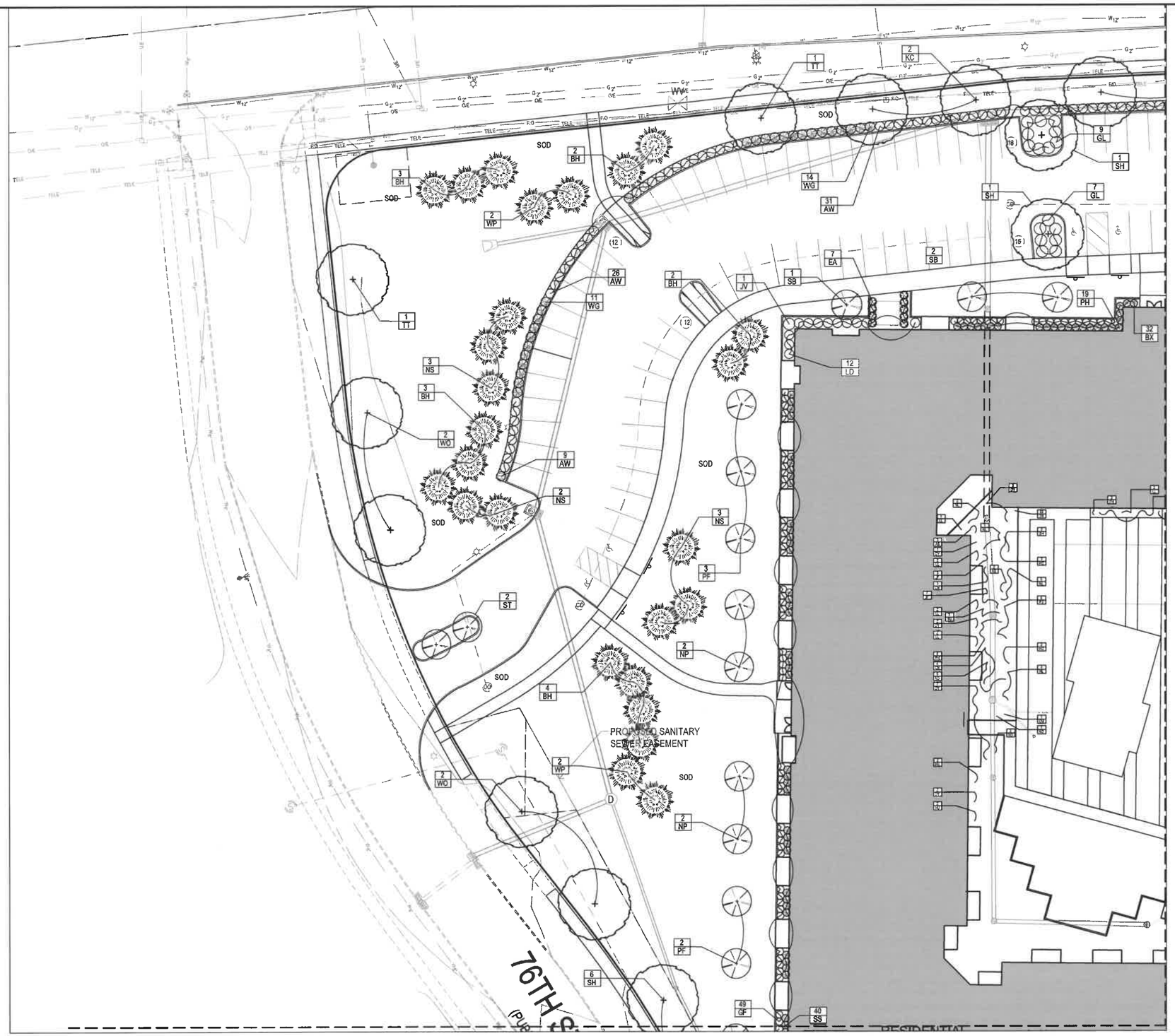

GRAPHIC SCALE

20 0 10 20 40

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21WDM
SITE IMPROVEMENT PLAN

LANDSCAPE PLAN

REFERENCE NUMBER:

DRAWN BY: BGA

CHECKED BY: DBB

REVISION DATE:
2021-04-23 CITY SUBMITTAL
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2021-07-23 CITY SUBMITTAL
2021-09-08 CITY SUBMITTAL
2021-10-07 BID SET

PROJECT NUMBER: 200656

SHEET NUMBER: C5.2

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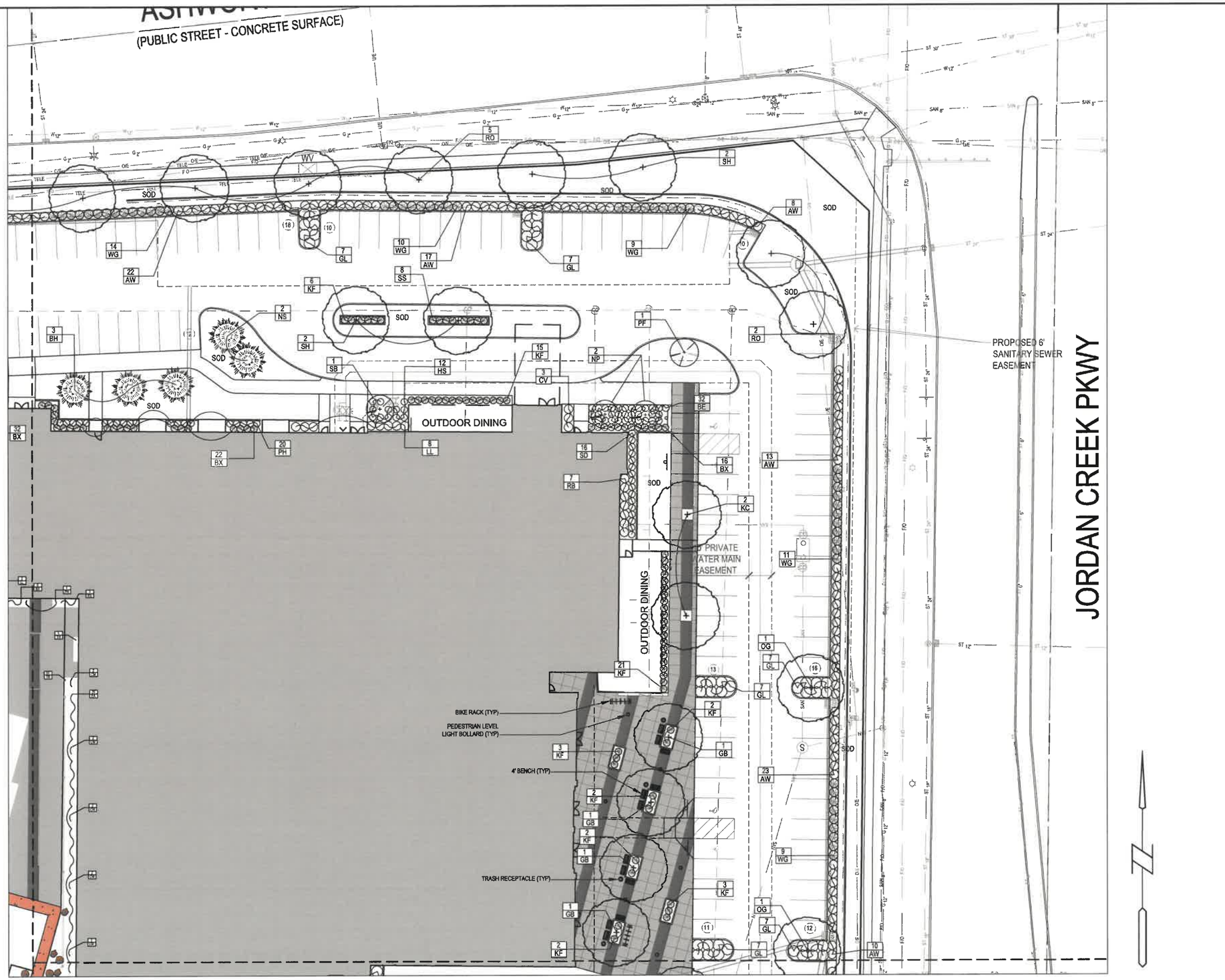

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SITE IMPROVEMENT PLAN

LANDSCAPE PLAN

REFERENCE NUMBER:

DRAWN BY: BGA

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REVISION DATE:
2021-04-23 CITY SUBMITTAL
2021-06-04 CITY SUBMITTAL
2021-07-23 CITY SUBMITTAL
2021-09-08 CITY SUBMITTAL
2021-10-07 BID SET

PROJECT NUMBER: 200656

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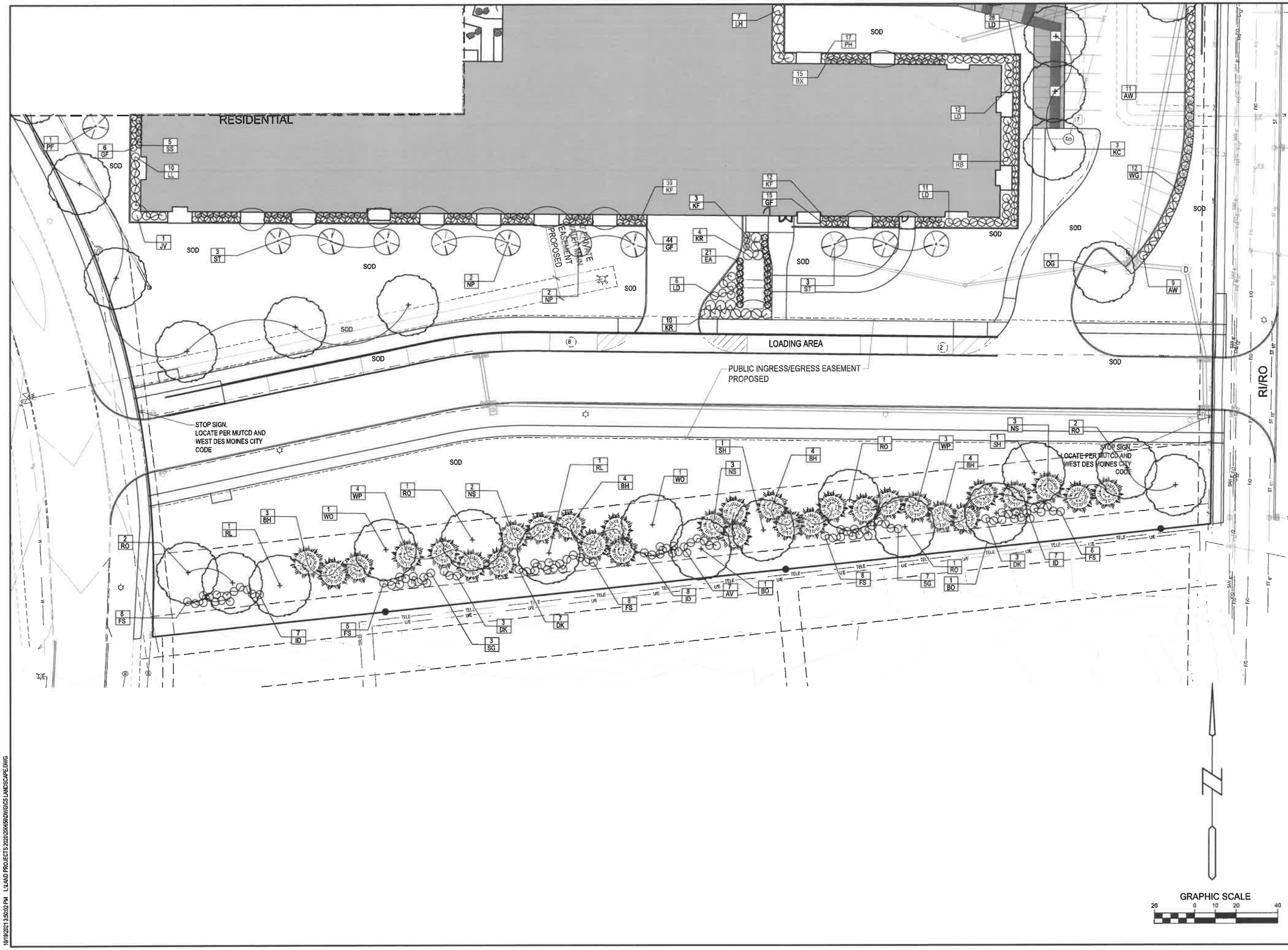

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SITE IMPROVEMENT PLAN

LANDSCAPE PLAN

REFERENCE NUMBER:

DRAWN BY: BGA

CHECKED BY: DBB

REVISION DATE:
2021-04-23 CITY SUBMITTAL
2021-06-04 CITY SUBMITTAL
2021-07-23 CITY SUBMITTAL
2021-09-08 CITY SUBMITTAL
2021-10-07 BID SET

PROJECT NUMBER: 200656

SHEET NUMBER: C5.4

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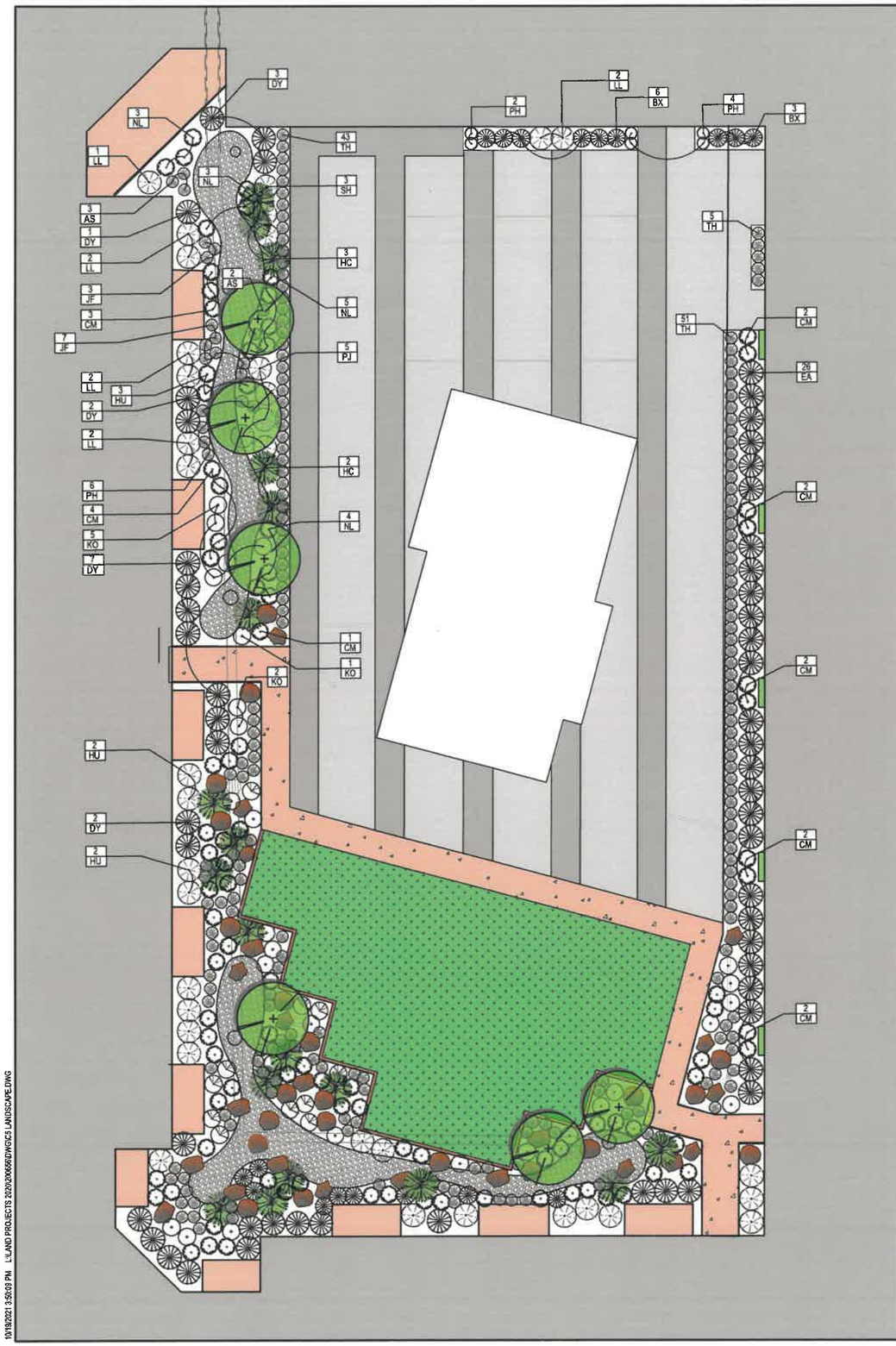

NOTE: IRRIGATION WITHIN THE COURTYARD IS HIGHLY RECOMMENDED TO MAINTAIN THE PLANTING BEDS. ARCHITECT TO IDENTIFY STUB OUT FROM BUILDING FOR WATER SUPPLY AND WIRING AS WELL AS INTERNAL LOCATION FOR BACKFLOW AND CONTROLLER WITHIN BUILDING MECHANICAL ROOM.

LEGEND

CANOPY TREE: QUAKING ASPEN (ALTERNATE, WHITESPIRE BIRCH)

DWARF EVERGREEN TREE: SLENDER HINOKI CYPRESS

EVERGREEN SHRUBS: EMERALD ARBORVITAE, DENSIFORMIS YEW, BOXWOOD

DECIDUOUS SHRUBS: RHODODENDRON, AZALEA, VIBURNUM, HYDRANGEA, CLETHRA, DAPHNE

PERENNIALS: ASSORTED HOSTA, ASTILBE, LITTLE BLUESTEM, TUFTED HAIR GRASS, FOREST GRASS

GRANITE BOULDER GROUPING

DRY CREEK BED

GRAPHIC SCALE

10 0 5 10 20

GREENSCREEN - 48" WIDE STANDARD

DRY STREAM BED

QUAKING ASPEN

SLENDER HINOKI CYPRESS

DENSIFORMIS YEW

CHICAGOLAND BOXWOOD

NORTHERN LIGHTS AZALEA

PJM RHODODENDROM

CAROL MACKII DAPHNE

COMPACT VIBURNUM

STRAWBERRY HYDRANGEA

LITTLE LIME HYDRANGEA

ASSORTED HOSTA

ASSORTED ASTILBE

TUFTED HAIR GRASS

JAPANESE FOREST GRASS

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SITE IMPROVEMENT PLAN

LANDSCAPE PLAN

REFERENCE NUMBER:

DRAWN BY: BGA

CHECKED BY: DBB

REVISION DATE:
2021-04-23 CITY SUBMITTAL
2021-06-04 CITY SUBMITTAL
2021-07-23 CITY SUBMITTAL
2021-09-08 CITY SUBMITTAL
2021-10-07 BID SET

PROJECT NUMBER: 200656

SHEET NUMBER: C5.5

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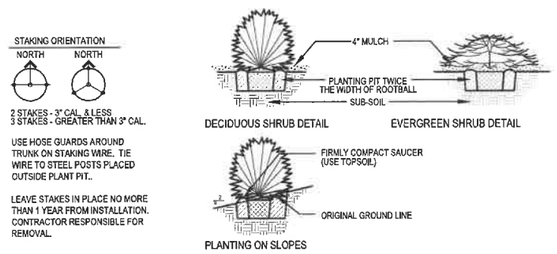
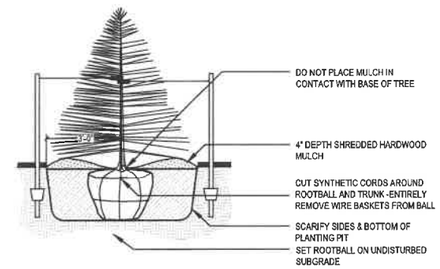
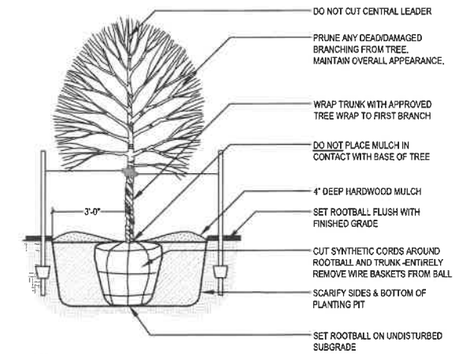


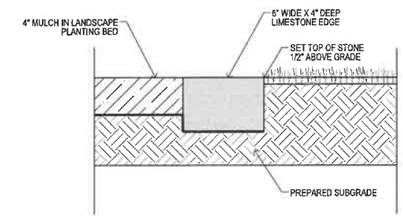
SHRUB PLANTING (TYP)
SCALE: NOT TO SCALE



EVERGREEN TREE PLANTING (B&B)
SCALE: NOT TO SCALE



DECIDUOUS TREE PLANTING (TYP.)
SCALE: NOT TO SCALE



LIMESTONE EDGING
SCALE: NOT TO SCALE

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21WDM
SITE IMPROVEMENT PLAN

LANDSCAPE DETAILS

REFERENCE NUMBER:

DRAWN BY: BGA

CHECKED BY: DBB

REVISION DATE:
2021-04-23 CITY SUBMITTAL
2021-06-04 CITY SUBMITTAL
2021-07-23 CITY SUBMITTAL
2021-09-08 CITY SUBMITTAL
2021-10-07 BID SET

PROJECT NUMBER: 200656

SHEET NUMBER: C5.6

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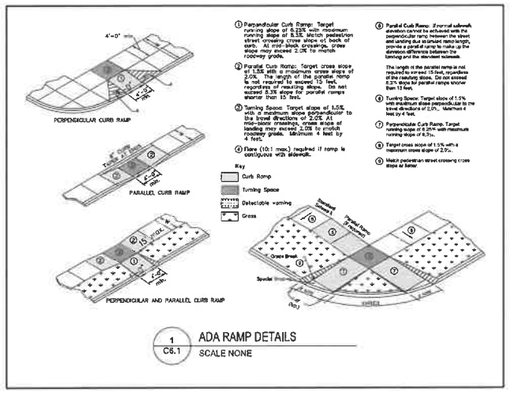
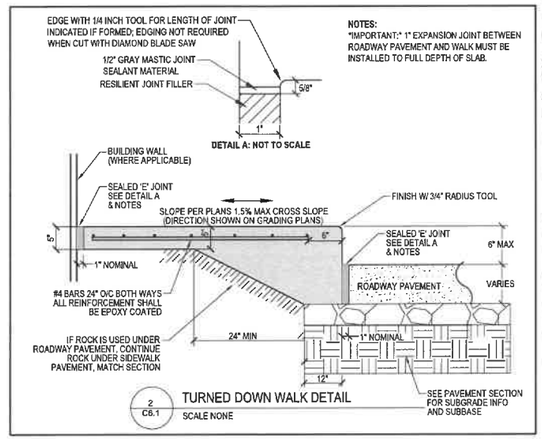
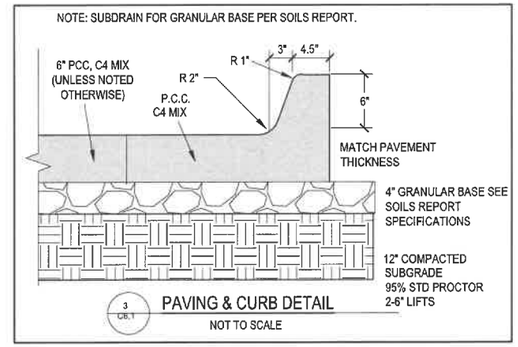


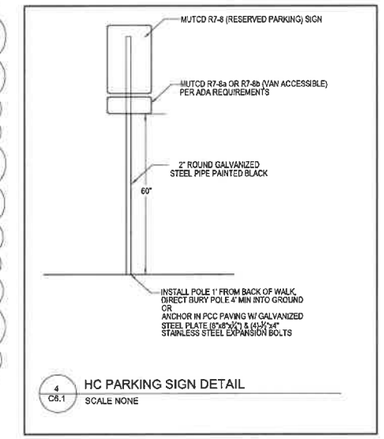
1 C6.1 ADA RAMP DETAILS
SCALE NONE



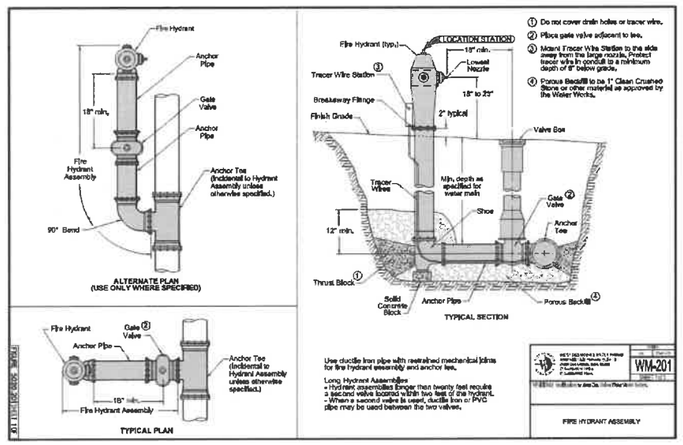
2 C6.1 TURNED DOWN WALK DETAIL
SCALE NONE

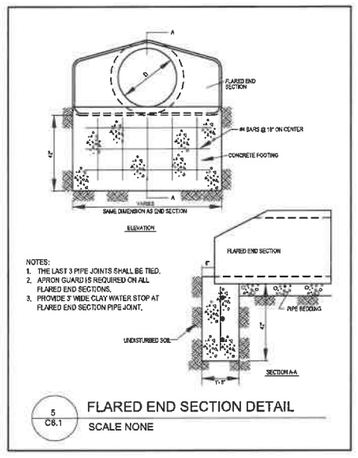


3 C6.1 PAVING & CURB DETAIL
NOT TO SCALE

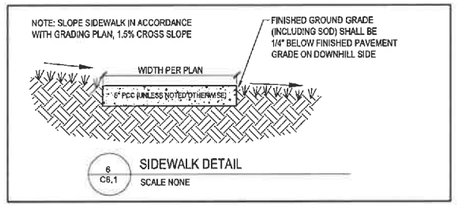


4 C6.1 HC PARKING SIGN DETAIL
SCALE NONE

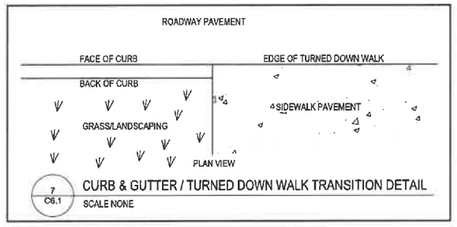




5 C6.1 FLARED END SECTION DETAIL
SCALE NONE

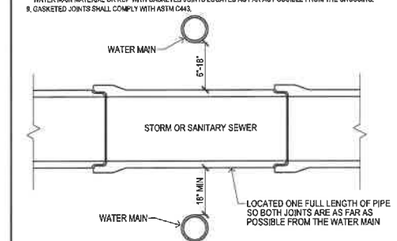


6 C6.1 SIDEWALK DETAIL
SCALE NONE

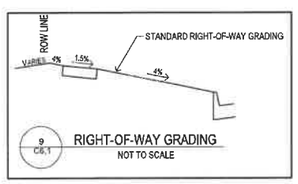


7 C6.1 CURB & GUTTER / TURNED DOWN WALK TRANSITION DETAIL
SCALE NONE

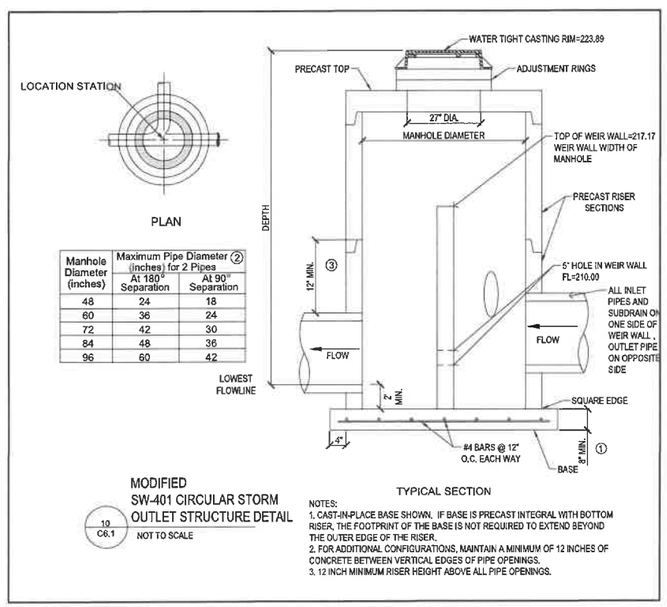
NOTES:
1. THIS DETAIL SHALL APPLY ANY TIME A STORM SEWER OR SANITARY SEWER CROSSES OVER OR LESS THAN 18 INCHES BELOW A WATER MAIN.
2. WHEN WATER MAIN CROSSES UNDER STORM OR SANITARY SEWER THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 18" OF SEPARATION.
3. STORM OR SANITARY SEWER MAY NOT BE PLACED CLOSER THAN 6" BELOW A WATER MAIN.
4. MAINTAIN THE MAXIMUM FEASIBLE SEPARATION IN ALL CASES.
5. SEWER AND WATER PIPES MUST BE ADEQUATELY SUPPORTED & HAVE WATERTIGHT JOINTS.
6. CONTRACTOR SHALL INSTALL LOW PERMEABILITY SOIL FOR BACKFILL MATERIAL WITHIN 10 FEET OF THE CROSSING.
7. IN SANITARY SEWER CROSSINGS, CONTRACTOR SHALL INSTALL ONE FULL LENGTH OF SANITARY SEWER OF WATER MAIN PIPE MATERIAL WITH WATERTIGHT JOINTS LOCATED AS FAR AS POSSIBLE FROM THE CROSSING.
8. IN STORM SEWER CROSSINGS, THE CONTRACTOR SHALL INSTALL ON FULL LENGTH OF STORM SEWER PIPE OF WATER MAIN MATERIAL OR RCP WITH GASKETED JOINTS LOCATED AS FAR AS POSSIBLE FROM THE CROSSING.
9. GASKETED JOINTS SHALL COMPLY WITH ASTM C443.



8 C6.1 WATER MAIN & STORM OR SANITARY SEWER CROSSING DETAIL
SCALE NONE



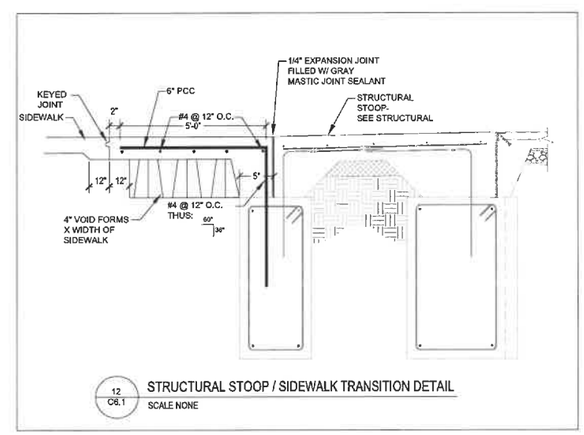
9 C6.1 RIGHT-OF-WAY GRADING
NOT TO SCALE



Manhole Diameter (inches)	Maximum Pipe Diameter ② (inches) for 2 Pipes	
	At 180° Separation	At 90° Separation
48	24	18
60	36	24
72	42	30
84	48	36
96	60	42

10 C6.1 MODIFIED SW-401 CIRCULAR STORM OUTLET STRUCTURE DETAIL
NOT TO SCALE

NOTES:
1. CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH BOTTOM RISER, THE FOOTPRINT OF THE BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE RISER.
2. FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES OF CONCRETE BETWEEN VERTICAL EDGES OF PIPE OPENINGS.
3. 12 INCH MINIMUM RISER HEIGHT ABOVE ALL PIPE OPENINGS.



12 C6.1 STRUCTURAL STOOP / SIDEWALK TRANSITION DETAIL
SCALE NONE

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21WDM
SITE IMPROVEMENT PLAN
DETAILS SHEET

REFERENCE NUMBER:

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2021-07-23 CITY SUBMITTAL
2021-09-08 CITY SUBMITTAL
2021-10-07 BID SET

PROJECT NUMBER: 200656

SHEET NUMBER: C6.1

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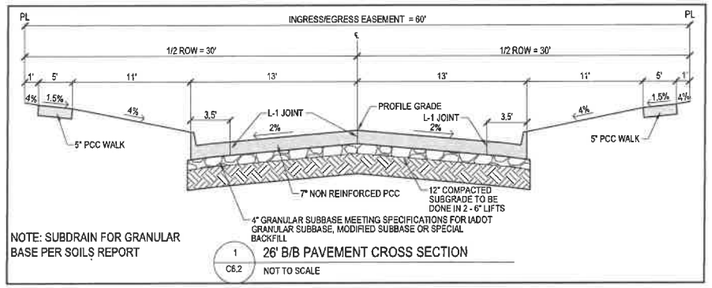
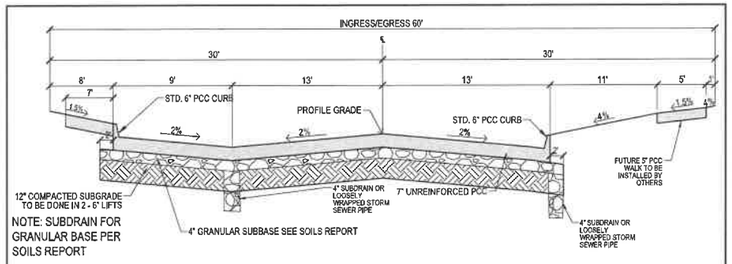


NOTE: SUBDRAIN FOR GRANULAR BASE PER SOILS REPORT

1 / C6.2 26' B/B PAVEMENT CROSS SECTION

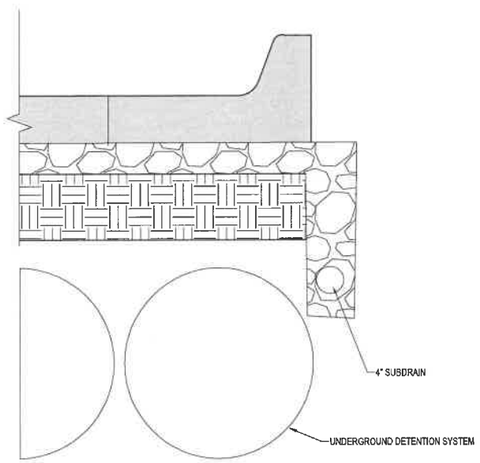
NOT TO SCALE



NOTE: SUBDRAIN FOR GRANULAR BASE PER SOILS REPORT

2 / C6.2 PAVEMENT CROSS SECTION: 35' B/B STREET W/ PARALLEL PARKING

SCALE NONE



3 / C6.2 SUBDRAIN NEAR UNDERGROUND DETENTION

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2021-09-08 CITY SUBMITTAL
2021-10-07 BID SET

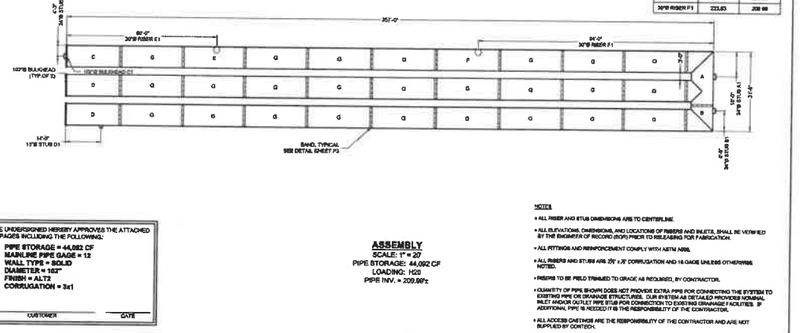
PROJECT NUMBER: 200656

SHEET NUMBER: C6.2

L:\LAND PROJECTS 2020\200656\DWG\C6 DETAILS.DWG

STUB INFORMATION		
PIECE	STUB INVERT	SYSTEM INVERT
24"Ø STUB A1	215.52	209.99
24"Ø STUB B1	208.39	209.99
24"Ø STUB C3	215.52	209.99
18"Ø STUB D1	215.10	209.99

RISER INFORMATION		
PIECE	RIM ELEV.	SYSTEM
30"Ø RISER E1	223.77	209.99
30"Ø RISER F1	223.83	209.99



THE UNDERSIGNED HEREBY APPROVES THE ATTACHED (4) PAGES INCLUDING THE FOLLOWING:

- PIPE STORAGE = 44,082 CF
- MAINLINE PIPE GAGE = 12
- WALL TYPE = SOLID
- DIAMETER = 102"
- FINISH = ALT2
- CORRUGATION = 3x1

CUSTOMER DATE

ASSEMBLY
SCALE: 1" = 20'
PIPE STORAGE: 44,082 CF
LOADING: HC0
PIPE INV. = 209.99'±

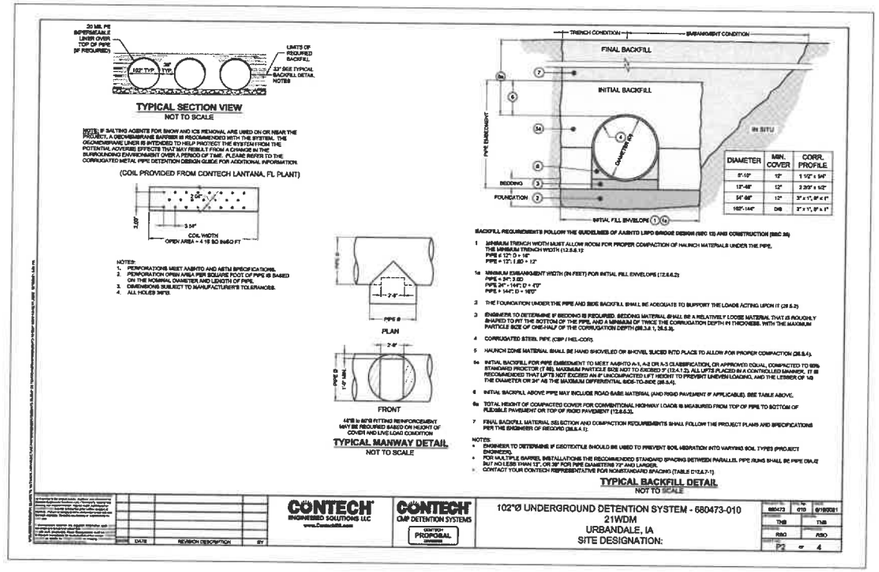
NOTES
- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE.
- ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD (EOR) PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2⅔" x ½" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE AS REQUIRED, BY CONTRACTOR.
- CONNECTIVITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO ANY OTHER DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NORMAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL ACCESS CASTINGS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE NOT SUPPLIED BY CONTECH.

CONTECH ENGINEERED SOLUTIONS LLC www.ContechES.com
CONTECH CMP DETENTION SYSTEMS — CONTECH PROPOSAL DRAWING

102"Ø UNDERGROUND DETENTION SYSTEM - 680473-010
21WDM
URBANDALE, IA
SITE DESIGNATION:

REV.	DATE	REVISION DESCRIPTION	BY
1	10/14/2021	PER EOR	RBO

DRAWN BY	CHK'D BY	DATE
BBA/TS	EYS	6/18/2021
THB	THB	
RBO	RBO	
P1 of 4		



DIAMETER	MIN. COVER	CORR. PROFILE
8"-12"	12"	1 1/2" x 3/4"
12"-48"	12"	3 2/3" x 1/2"
54"-66"	12"	3" x 1", 5" x 1"
102"-144"	24"	3" x 1", 5" x 1"

TYPICAL SECTION VIEW
NOT TO SCALE

NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, A DEWATERING BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GROUNDWATER LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.

(COIL PROVIDED FROM CONTECH LANTANA, FL PLANT)

COIL WIDTH
OPEN AREA = 4.19 SQ INS/0.0 FT

NOTES:
1. PERFORATIONS MEET AASHTO AND ASTM SPECIFICATIONS.
2. PERFORATION OPEN AREA PER SQUARE FOOT OF PIPE IS BASED ON THE NOMINAL DIAMETER AND LENGTH OF PIPE.
3. DIMENSIONS SUBJECT TO MANUFACTURER'S TOLERANCES.
4. ALL HOLES WFB.

TYPICAL MANWAY DETAIL
NOT TO SCALE

BACKFILL REQUIREMENTS FOLLOW THE GUIDELINES OF AASHTO LRFD BRIDGE DESIGN (SEC 12) AND CONSTRUCTION (SEC 26)

1. MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER THE PIPE. THE MINIMUM TRENCH WIDTH (12.8.6.1)
   PIPE ≤ 12": D + 16"
   PIPE > 12": 1.25 D + 12"
1a. MINIMUM EMBANKMENT WIDTH (IN FEET) FOR INITIAL FILL ENVELOPE (12.8.6.2)
   PIPE ≤ 54": D + 6'
   PIPE > 54": D + 10'
   PIPE > 144": D + 16'
2. THE FOUNDATION UNDER THE PIPE AND SIDE BACKFILL SHALL BE ADEQUATE TO SUPPORT THE LOADS ACTING UPON IT (26.6.2)
3. EVALUATION TO DETERMINE IF BEDDING IS REQUIRED. BEDDING MATERIAL SHALL BE A RELATIVELY LOOSE MATERIAL THAT IS ROUGHLY SHAPED TO THE LOWER SECTION OF THE PIPE, AND A MINIMUM OF THREE THE CORRUGATION DEPTH IN THICKNESS, WITH THE MAXIMUM PARTICLE SIZE OF ONE-HALF OF THE CORRUGATION DEPTH (26.3.2.1, 26.3.3).
4. CORRUGATED STEEL PIPE (CSP) (140.-000).
5. HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION (26.5.4).
5a. INITIAL BACKFILL FOR PIPE EMBEDMENT TO MEET AASHTO A-1, A-2 OR A-3 CLASSIFICATION, OR APPROVED EQUAL, COMPACTED TO 95% STANDARD PROCTOR (T 99). MAXIMUM PARTICLE SIZE NOT TO EXCEED 1" (12.8.3.2). ALL LIFTS PLACED IN A CONTROLLED MANNER. IT IS RECOMMENDED THAT LIFTS NOT EXCEED AN 8" UNCOMPACTED LIFT HEIGHT TO 2/3 THE DIAMETER OR 24" AS THE MAXIMUM DIFFERENTIAL RISE TO AVOID (26.5.4).
6. INITIAL BACKFILL ABOVE PIPE MAY INCLUDE ROAD BASE MATERIAL (AND RIGID PAVEMENT IF APPLICABLE). SEE TABLE ABOVE.
6a. TOTAL HEIGHT OF COMPACTED COVER FOR COMMERCIAL HIGHWAY LOADS IS MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT (12.8.5.3).
7. FINAL BACKFILL MATERIAL SELECTION AND COMPACTION REQUIREMENTS SHALL FOLLOW THE PROJECT PLANS AND SPECIFICATIONS PER THE ENGINEER OF RECORD (26.5.4.1).

NOTES:
- ENGINEER TO DETERMINE IF GEOTEXTILE SHOULD BE USED TO PREVENT SOIL MIGRATION INTO VARYING SOIL TYPES (PROJECT SPECIFIC).
- FOR MULTIPLE BARREL INSTALLATIONS THE RECOMMENDED STANDARD SPACING BETWEEN PARALLEL PIPE RUNS SHALL BE PIPE DIA.E BUT NO LESS THAN 12", OR 36" FOR PIPE DIAMETERS 72" AND LARGER.
- CONTACT YOUR CONTECH REPRESENTATIVE FOR NONSTANDARD SPACING (TABLE D12J.7-1)

TYPICAL BACKFILL DETAIL
NOT TO SCALE

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BBA/TS	EYS	6/18/2021
THB	THB	
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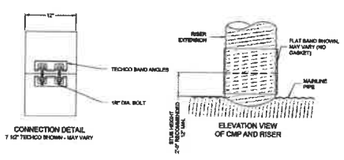
P2 of 4		



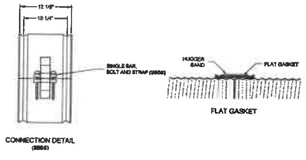
CONNECTION DETAIL
7 1/2" TECHCO SHOWN - MAY VARY

ELEVATION VIEW
OF CMP AND RISER

PLAIN END CMP RISER PIPE

GENERAL NOTES:
1. DELIVERED BAND STYLE AND FASTENER TYPE MAY VARY BY FABRICATION PLANT.
2. JOINT IS TO BE ASSEMBLED PER AASHTO BRIDGE CONSTRUCTION SPECIFICATION SEC 26.4.2.4.
3. BAND MATERIAL AND GAGE TO BE SAME AS RISER MATERIAL.
4. IF RISER HAS A HEIGHT OF COVER OF 19' OR MORE, USE A SLIP JOINT.
5. BANDS ARE NORMALLY FURNISHED AS FOLLOWS:
   - 12" THRU 48" 1-PIECE
   - 54" 2-PIECES
   - 60" 3-PIECES
6. ALL RISER JOINT COMPONENTS WILL BE FIELD ASSEMBLED.
7. MANHOLE RISERS IN APPLICATIONS WHERE TRAFFIC LOADS ARE IMPOSED REQUIRE SPECIAL DESIGN CONSIDERATIONS.
8. DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES.

12" RISER BAND DETAIL
NOT TO SCALE



CONNECTION DETAIL
(SHOWN)

FLAT GASKET

2 2/3"x1/2" RE-ROLLED END HEL-COR PIPE

GENERAL NOTES:
1. JOINT IS TO BE ASSEMBLED PER AASHTO BRIDGE CONSTRUCTION SPECIFICATION SEC 26.4.2.4.
2. BAND MATERIALS ANCHOR COATING CAN VARY BY LOCATION. CONTACT YOUR CONTECH REPRESENTATIVE FOR AVAILABILITY.
3. BANDS ARE SHAPED TO MATCH THE PIPE-ARCH WHEN APPLICABLE.
4. BANDS ARE NORMALLY FURNISHED AS FOLLOWS:
   - 12" THRU 48" 1-PIECE
   - 54" THRU 96" 2-PIECES
   - 102" THRU 144" 3-PIECES
5. BAND FASTENERS ARE ATTACHED WITH SPOT WELDS, RIVETS OR HAND WELDS.
6. ALL CMP IS REROLLED TO HAVE AVERAGE END CORRUGATIONS OF 2 2/3"x1/2"
7. DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
8. ORDER SHALL DESIGNATE GASKET OPTION, IF REQUIRED (SEE DETAILS ABOVE).

H-12 HUGGER BAND DETAIL
NOT TO SCALE

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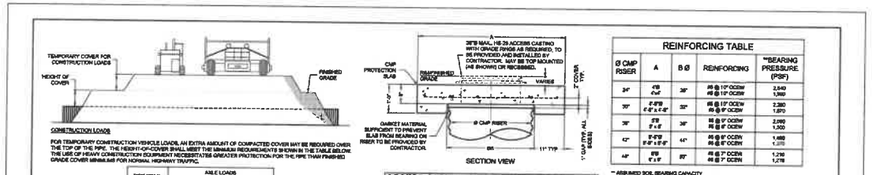
P3 of 4		



REINFORCING TABLE				
Ø CMP RISER	A	B Ø	REINFORCING	**BEARING PRESSURE (PSF)
24"	4'6 4"x4"	36"	#5 @ 10" OCEW #5 @ 10" OCEW	2,840 1,360
30"	5'-6"0 4'-6" x 5'-6"	32"	#5 @ 10" OCEW #5 @ 10" OCEW	2,380 1,070
36"	6'0 5' x 6'	36"	#5 @ 8" OCEW #5 @ 8" OCEW	2,080 1,320
42"	6'-6"0 5'-6" x 6'-6"	41"	#5 @ 8" OCEW #5 @ 8" OCEW	1,460 1,200
48"	8'0 6' x 8'	50"	#5 @ 7" OCEW #5 @ 7" OCEW	1,210 1,210

** ASSUMED SOIL BEARING CAPACITY

CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (KIPS)			
	27-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.5
48-72	2.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.5
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM
NOT TO SCALE

SPECIFICATION FOR CORRUGATED STEEL PIPE-ALUMINIZED TYPE 2 (ST2)

SCOPE
THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE CORRUGATED STEEL PIPE (CSP) DETAILED IN THE PROJECT PLANS.

MATERIAL
THE ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M274 OR ASTM A929.

PIPE
THE CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M36 OR ASTM A760. THE PIPE SIZES, GAGES AND CORRUGATIONS SHALL BE AS SHOWN ON THE PROJECT PLANS.

ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.

HANDLING AND ASSEMBLY
SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION (NCSPA)

INSTALLATION
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II OR ASTM A798 AND #1 CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

MATERIAL SPECIFICATION
NOT TO SCALE

ACCESS CASTING NOT SUPPLIED BY CONTECH

NOTES:
1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION AND ACI 350.
2. DESIGN LOAD HS20
3. EARTH COVER = 2' MAX.
4. CONCRETE STRENGTH = 4,000 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE BASE PLANE.

MANHOLE CAP DETAIL
NOT TO SCALE

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P4 of 4		

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21WDM
SITE IMPROVEMENT PLAN

DETAILS SHEET

REFERENCE NUMBER:

DRAWN BY: BGA

CHECKED BY: DBB

REVISION DATE:
2021-04-23 CITY SUBMITTAL
2021-06-04 CITY SUBMITTAL
2021-07-23 CITY SUBMITTAL
2021-09-08 CITY SUBMITTAL
2021-10-07 BID SET

PROJECT NUMBER: 200656

SHEET NUMBER: C6.3

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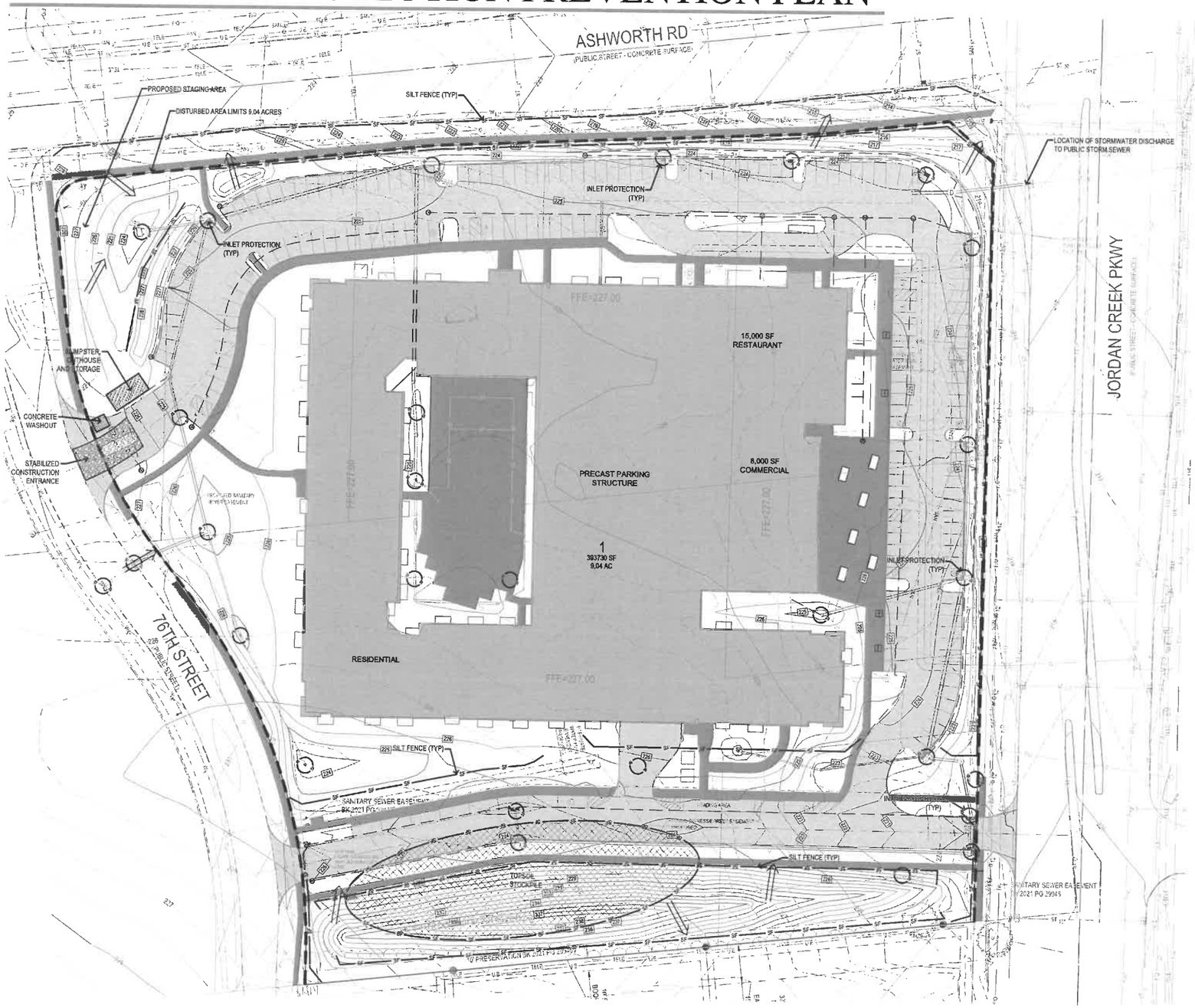
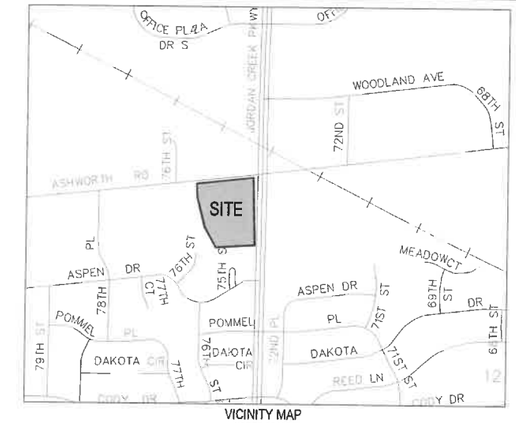
STORM WATER POLLUTION PREVENTION PLAN





VICINITY MAP
NOT TO SCALE

QUANTITY:

SILT FENCE-2300 LF
INLET PROTECTION- 28 EA

EROSION CONTROL NOTES:

1. SEE SUPPLEMENTAL DETAIL STORM WATER POLLUTION PLAN NARRATIVE FOR ALL EROSION CONTROL MEASURES, ADDITIONAL DETAILS AND NOTE. ADDITIONAL NOTES AND MEASURES IN NARRATIVE SHALL BE CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE ORIGINAL BID.
2. SWPPP PLAN AND NARRATIVE ARE CONSIDERED A LIVING DOCUMENT AND WILL NEED PERIODIC UPDATES AND ADJUSTMENTS AS NECESSARY DEPENDING ON SITE CONDITIONS TO ASSURE COMPLIANCE WITH NPDES GENERAL PERMIT NO. 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UPDATE THE SWPPP AND IMPLEMENT ANY AND ALL MEASURES NECESSARY TO COMPLY WITH SAID PERMIT NO. 2.
3. INSTALL PERIMETER SILT FENCE AS SHOWN ON PLANS PRIOR TO CONSTRUCTION.
4. INSTALL INTAKE PROTECTION WITH SILT FENCE IMMEDIATELY AFTER STORM SEWER CONSTRUCTION.
5. INSTALL FINISHED PAVING INLET PROTECTION IMMEDIATELY AFTER PAVING IS COMPLETED AROUND INTAKE.
6. OTHER EROSION CONTROL TYPES MAY NOT BE SUBSTITUTED FOR SILT FENCE.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING A CONCRETE WASHOUT IN ACCORDANCE WITH NPDES GENERAL PERMIT NO. 2 DURING ALL CONCRETE WORK.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING TEMPORARY RESTROOM FACILITIES. SANITARY WASTE SHALL BE DISPOSED OF PER ALL FEDERAL, STATE AND LOCAL REGULATIONS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL TOPSOIL REQUIREMENTS OF NPDES GENERAL PERMIT NO. 2 ARE MET.
10. CONTRACTOR TO MEET PREPARATION OF SEED BED FROM THE CITY OF WDM STANDARD CONSTRUCTION SPECIFICATIONS MANUAL, SECTION 3 PART 9

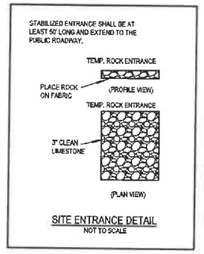
EROSION CONTROL REMOVAL NOTES:

1. AFTER FINAL STABILIZATION HAS OCCURED, AS DEFINED IN NPDES GENERAL PERMIT NO. 2, CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY EROSION CONTROL DEVICES INCLUDING, BUT NOT LIMITED TO: SILT FENCE, INLET PROTECTION, AND TEMPORARY STANDPIPES.

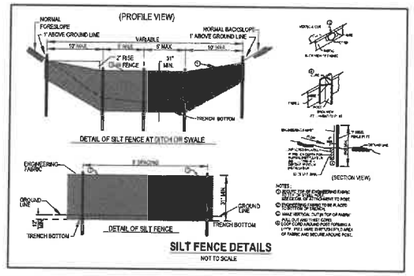
TOPSOIL NOTES:

1. STRIP AND STOCKPILE THE TOP 8" OF SOIL ON ALL DISTURBED AREAS.
2. RESPREAD TOPSOIL TO A MINIMUM DEPTH OF 8" ON ALL GREEN (NON PAVED) AREAS. IMPORT TOPSOIL AS NECESSARY TO ACHIEVE A MINIMUM DEPTH OF 8".
3. **TOPSOIL SHALL BE FREE OF ALL ROCK AND DEBRIS LARGER THAN 3/4" IN SIZE.**
4. TOPSOIL IS DEFINED AS: FERTILE, FRIABLE LOAM, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, FROM WELL DRAINED SITE FREE FROM FLOODING, NOT IN FROZEN OR MUDDY CONDITIONS; REASONABLE FREE FROM SUBSOIL, CLAY LUMPS, ROOTS, GRASS, WEEDS, STONES LARGER THAN 3/4 INCH IN DIAMETER, AND FOREIGN MATTER; ACIDITY RANGE (PH) OF 5.5 TO 7.5; CONTAINING MINIMUM 4 PERCENT AND MAXIMUM 20 PERCENT ORGANIC MATTER.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL TOPSOIL REQUIREMENTS OF NPDES GENERAL PERMIT NO. 2 ARE MET.

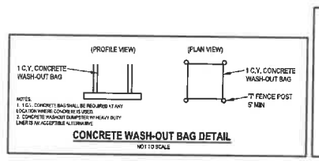
GRAPHIC SCALE
40 0 20 40 80



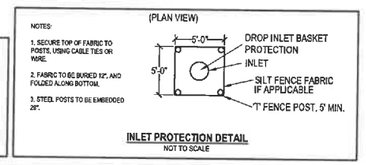
SITE ENTRANCE DETAIL
NOT TO SCALE



SILT FENCE DETAILS
NOT TO SCALE



CONCRETE WASH-OUT BAG DETAIL
NOT TO SCALE



INLET PROTECTION DETAIL
NOT TO SCALE

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com

UTILITY NOTE:

THE LOCATION OF THE UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS AND ARE APPROXIMATE LOCATIONS. THE EXACT LOCATIONS OF ALL UTILITIES MUST BE ASCERTAINED IN THE FIELD. IT SHALL BE THE DUTY OF THE CONTRACTOR TO DETERMINE WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT.

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21WDM
SITE IMPROVEMENT PLAN
SWPPP

REFERENCE NUMBER:

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PROJECT NUMBER: 200656

SHEET NUMBER: C7.1

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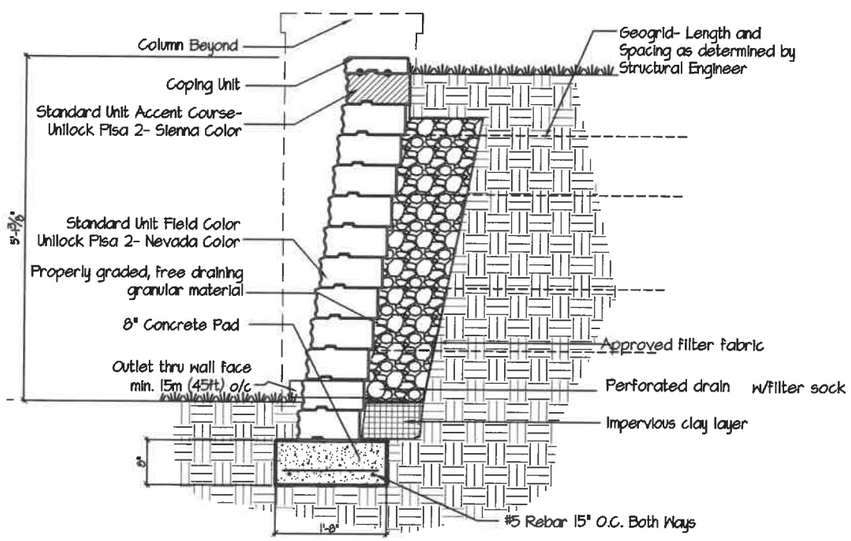
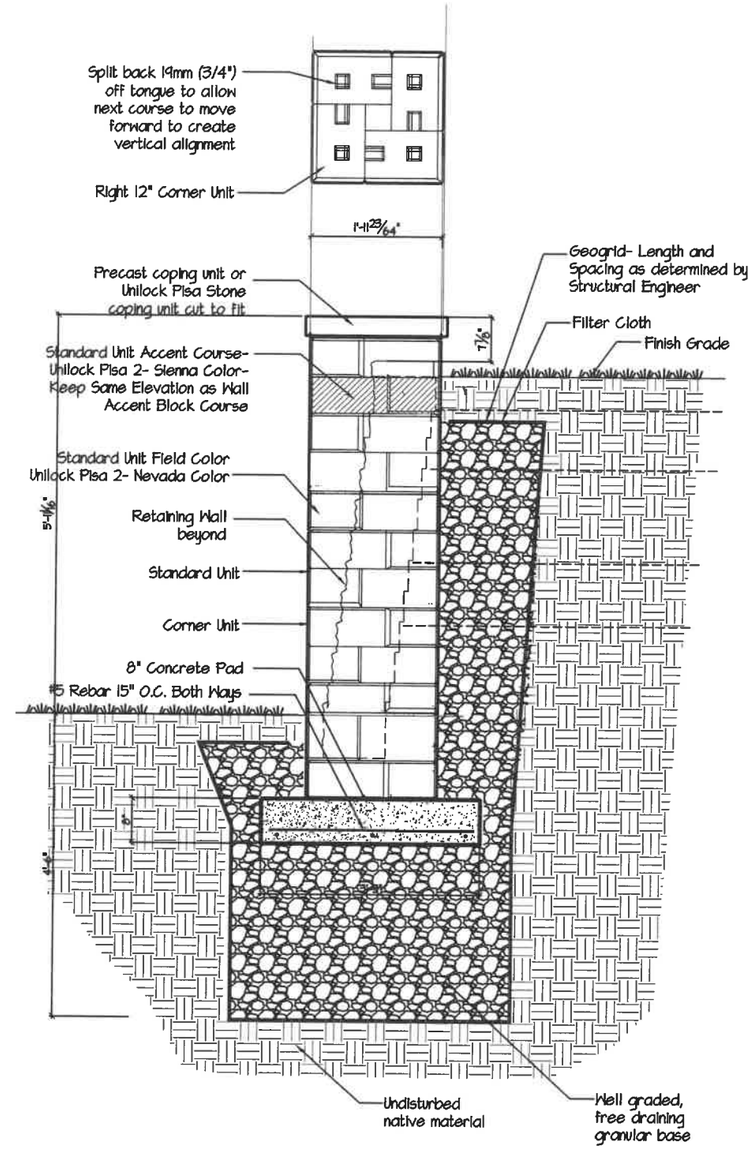


- RETAINING WALL SECTION

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



- WALL COLUMN SECTION

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

A RESOLUTION OF THE PLAN AND ZONING COMMISSION
NO. PZC-21-089

WHEREAS, pursuant to the provisions of Title 9, Zoning of the West Des Moines Municipal Code, the applicant, Jordan Creek Associates, LLC, represented by John Lassaux, Director of Development CRG Residential, with consent on file from the existing property owners of 7450, 7520, 7550 and 7580 Ashworth Road and 950 and 970 Jordan Creek Parkway, request approval of the Site Plan for the approximately 10-acre property generally located at the southwest corner of Jordan Creek Parkway and Ashworth Road as depicted on the location map included in the staff report. With approval of this action the City is consenting as a current property owner to the Site Plan. The applicant requests approval of the Site Plan and associated site improvements; and

WHEREAS, the Site Plan request complies with the findings stated in the applicable provisions of Title 9, the Comprehensive Plan and City Code.

NOW THEREFORE, the Plan and Zoning Commission of the City of West Des Moines recommends the City Council approve the Site Plan (SP-005148-2021), subject to compliance with all the conditions of approval as stated in the staff report, including conditions added at the meeting, and attached hereto as Exhibit "A", if applicable.

PASSED AND ADOPTED on October 25, 2021.

Erica Andersen

Erica Andersen, Chair
Plan and Zoning Commission

I HEREBY CERTIFY that the foregoing resolution was duly adopted by the Plan and Zoning Commission of the City of West Des Moines, Iowa, at a regular meeting on October 25, 2021, by the following vote:

AYES: Andersen, Costa, Davis, Drake, Hatfield

NAYS:

ABSTENTIONS:

ABSENT: Conlin, Crowley

ATTEST: Jennifer Canaday

Recording Secretary

Prepared by: Karen Marren, City of West Des Moines Development Services Dept., PO Box 65320, West Des Moines, Iowa 50265-0320 515-222-3620
When Recorded, Return to: City Clerk, City of West Des Moines, PO Box 65320, West Des Moines, IA 50265-0320

RESOLUTION

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WEST DES MOINES, APPROVING A SITE PLAN TO ALLOW CONSTRUCTION OF A MIXED-USE BUILDING

WHEREAS, pursuant to the provisions of Title 9, Zoning, of the West Des Moines Municipal Code, the applicant, Jordan Creek Associates, LLC, represented by John Lassaux, Director of Development CRG Residential, with consent on file from the existing property owners of 7450, 7520, 7550 and 7580 Ashworth Road and 950 and 970 Jordan Creek Parkway, requests approval of 21 WDM Site Plan for that property generally located at the southwest corner of Jordan Creek Parkway and Ashworth Road and legally described in attached Exhibit 'B' for the purpose of constructing a mixed-use building consisting of a 15,000sf restaurant, 8,000sf of commercial space, and 199 multifamily residential units with an internal parking structure and associated site improvements; and

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

WHEREAS, the Site Plan complies with findings stated in the applicable provisions of Title 9, Chapter 1, Subsection 8, the Comprehensive Plan and City Code.

WHEREAS, on October 25, 2021, the Plan and Zoning Commission recommended to the City Council, by a 5-0 vote, for approval of the Site Plan; and

WHEREAS, on this day the City Council held a duly noticed meeting to consider the application for the Site Plan; and

WHEREAS, the City Council is assigning an address of 950 Jordan Creek Parkway for the development; and

WHEREAS, with approval of this action the City is consenting as a current property owner to the Site Plan.

NOW, THEREFORE, The City Council does approve the 21 WDM Site Plan (SP-005148-2021), subject to compliance with all of the conditions of approval, including any conditions added at the meeting, attached hereto as Exhibit "A". Violation of any such conditions shall be grounds for revocation of the permit, as well as any other remedy which is available to the City.

PASSED AND ADOPTED on November 1, 2021.

_____
Steven K. Gaer, Mayor

ATTEST:

_____
Ryan Jacobson, City Clerk

I HEREBY CERTIFY that the foregoing resolution was duly adopted by the City Council of the City of West Des Moines, Iowa, at a regular meeting held on November 1, 2021, by the following vote.

Exhibit A: Conditions of Approval

1. Execution of all required Sanitary Sewer Easements prior to issuance of any building permit for the project.
2. Execution of an Ingress/Egress Easement for the East/West Private Street prior to issuance of any building permit for the project.
3. Execution of all required Water Easements prior to issuance of any building permit for the project.
4. Execution of the Parkland Dedication Agreement prior to issuance of any building permit for the project.
5. Execution of the Storm Water Management Facility Maintenance Easement and Agreement prior to issuance of any building permit for the project.
6. Acquisition of city property (Lot 3 in Village on Jordan Creek Parkway Plat 1) prior to issuance of any building permit for the project.
7. Transfer of ownership and an executed Lot Tie Agreement(s) for all properties within the project boundary prior to issuance of any building permit for the project.
8. City Council granting a waiver of the minimum parking stall dimensions for the parking structure to reduce the overall required stall dimension from 19 feet in length to 18 feet in length.
9. Proof of payment to MidAmerican for the streetlights along the east side of 76th Street for the development site prior to issuance of any building permit for the project.

Exhibit B: Legal Description

LOT 1 AND LOT 3 OF THE VILLAGE ON JORDAN CREEK PARKWAY PLAT 1, AN OFFICIAL PLAT, WEST DES MOINES, DALLAS COUNTY, IOWA

AND

COMMENCING AT THE NORTHEAST CORNER OF SECTION 11 IN TOWNSHIP 78 NORTH, OF RANGE 26 WEST OF THE 5TH P.M., DALLAS COUNTY, IOWA, THENCE SOUTH 45 FEET; THENCE SOUTHWESTERLY PARALLEL WITH THE NORTH LINE OF SAID SECTION 11, 580 FEET TO THE PLACE OF BEGINNING; THENCE SOUTH 300 FEET; THENCE SOUTHWESTERLY PARALLEL WITH THE NORTH LINE OF SAID SECTION 11, 146 FEET; THENCE NORTH 300 FEET; THENCE NORTHEASTERLY PARALLEL WITH THE NORTH LINE OF SAID SECTION 11, 146 FEET TO THE PLACE OF BEGINNING; EXCEPT PART TAKEN FOR ROAD.

AND

COMMENCING AT THE NORTHEAST CORNER OF SECTION 11 IN TOWNSHIP 78 NORTH OF RANGE 26 WEST OF THE 5TH P.M., WEST DES MOINES, DALLAS COUNTY, IOWA, THENCE SOUTH 45 FEET, THENCE SOUTHWESTERLY PARALLEL WITH THE NORTH LINE OF THE SAID SECTION 433 FEET TO THE POINT OF BEGINNING, THENCE SOUTH 300 FEET, THENCE SOUTHWESTERLY PARALLEL WITH THE NORTH LINE OF SAID SECTION, 147 FEET, THENCE NORTH 300 FEET, THENCE NORTHEASTERLY PARALLEL WITH THE NORTH LINE SAID SECTION, 147 FEET TO THE PLACE OF BEGINNING, EXCEPT LAND DEEDED TO THE CITY WEST DES MOINES IN BOOK 2001, PAGE 13369.

AND

THE WEST 150 FEET OF THE EAST 433 FEET OF THE SOUTH 300 FEET OF THE NORTH 345 FEET OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 11 IN TOWNSHIP 78 NORTH OF RANGE 26 WEST OF THE 5TH P.M., DALLAS COUNTY, IOWA, EXCEPT THAT PART DEEDED TO THE CITY OF WEST DES MOINES IN WARRANTY DEED IN BOOK 2001, PAGE 16371.

AND

THE SOUTH 150 FEET OF THE NORTH 195 FEET OF THE EAST 283 FEET OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 11, TOWNSHIP 78 NORTH, RANGE 26 WEST OF THE 5TH P.M., DALLAS COUNTY, IOWA, EXCEPT THAT PART DEEDED TO THE CITY OF WEST DES MOINES IN WARRANTY DEED RECORDED IN BOOK 2001, PAGE 11203 AND QUIT CLAIM DEED RECORDED IN BOOK 2001, PAGE 12444.

AND

SOUTH 150 FEET OF THE NORTH 345 FEET OF THE EAST 283 FEET OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 11 IN TOWNSHIP 78 NORTH OF RANGE 26 WEST OF THE 5TH CITY OF WEST DES MOINES, DALLAS COUNTY, IOWA, EXCEPT THE EAST 82.50 FEET THEREOF.