MANDAN ARCHITECTURAL REVIEW COMMISSION
AGENDA
JULY 8, 2025
VETERAN'S CONFERENCE ROOM
CITY HALL, 205 SECOND AVENUE NW
1:00 PM
WWW.CITYOFMANDAN.COM

The public may access the Teams meeting online at:

https://teams.microsoft.com/l/meetup-join/19%3ameeting_NWRkZjA5NDktMDhiYy00YjUzLWI0YjMtM2ZmYjk4YTk3YzBh%40thread.v2/0?context=%7b%22Tid%22%3a%2285e60136-b696-4b97-8775-5816d76f9434%22%2c%22Oid%22%3a%22ad33f291-b7bf-430c-b0b3-d00d1fdb0c71%22%7d
Meeting ID: 240 150 832 879
Passcode: WF6Cs39S

A. ROLL CALL

B. MINUTES

1. May 27th MARC Meeting Minutes

C. OLD BUSINESS

D. NEW BUSINESS

1. Ideal Dentistry

E. OTHER BUSINESS

F. UNFINISHED BUSINESS

G. ADJOURN

MARC Members	**Support Staff (City of Mandan)**
Matthew Bradley - President	Brittany Thomas - Permit Technician
Victoria Vayda-Hammond - Vice President	Vacant - Planner
Jordan Singer - Building Official	Madison Cermak - Business Development
Jarek Wigness - City Engineer	
Mitch Bitz - Fire Chief	
Shane Weltikol - Resident	
Kendra Rennich - Resident	

Kari Nardello - Resident
Ryan Welder - Resident

Please note: If any commission member would like additional information, please feel free to contact the Building Inspections Department at 667-3230 prior to the meeting.

May 27th MARC Meeting Minutes

Meeting roll call members, Jodan Singer, Victoria Vayda-Hammond, Matthew Bradley, Kari Nardello, Ryan Welder, Riley McAdoo-Roesler, Shane Weltikol, Mitch Bitz.

Abe Ulmer, and Tyler were also in attendance.

Nardello made a motion to approve the May 13th MARC Meeting Minutes.

Welder seconded the motion.

MARC Members had a unanimous vote to approve the May 14th MARC meeting minutes.

New Business

Project at 3729 Memorial Highway for ABRA. The building will have an expansion to the South side, and a fascia remodel to the North end. The west side has a future right of way of 35 feet. Landscaping will also be planted with shrubs and trees and extra parking on the South side of the lot. On the front there will be steel paneling, which will be a lighter gray color, below that will be a Waynes coating which would be in a darker gray color, the overhead and store front will be a clear coating with a black roof. The new addition is pre engineered and will be a solar white color, a canopy will be placed above the egress door as well, and they will have glass door.

Weltikol made a motion to approve the plan.

Bitz seconded the motion.

MARC members unanimously approved and passed the project.

The meeting was adjourned.

ARCHITECTURAL REVIEW COMMISSION APPLICATION

CITY OF MANDAN
WHERE THE WEST BEGINS

Applications need to be submitted to the Building Inspections Department no later than 12 p.m. (noon) on the Wednesday prior to the scheduled meeting at which consideration is desired. Digital submittals will be accepted. If paper copies are submitted a copy of the following information is required. They shall be no larger than 11 x 17 and need to have complete sets, drawn to scale. Incomplete applications will not be accepted. If you have any question call the Building Inspections department at 701-667-3230.

1. Description of Proposed Activity: Ideal Image Dentistry New Building & Parking Lot
2. Name of Owner: BS Real Estate LLC - Lech Brady
   Mailing Address: 2431 Stewart Drive, Bismarck, ND 58503
   Phone (Cell) 701-391-0415 (Office)
3. Name of Architect if applicable: ILSE - Abe Ulmer
   Mailing Address: 4215 OLD RED Trail NW Mandan, ND 58554
   Phone (Cell) 701-220-0968 Office) 701-663-5184
4. Name of Contractor: Northwest Contracting Inc.
   Mailing Address: 2840 Valley Forge St. Bismarck, ND 58503
   Phone (Cell) 701-319-0570 (Office) 701-255-7727
5. Parcel Address: 516 Main Street East
6. Legal Description:
   Lot 4-15 Block 2 Addition Mandan Proper
   Section 27 Township 139 N Range 81 W
7. Zoning: DF - Downtown Fringe
8. Special Purpose District:
9. Existing Land Use: OLD Hardees Site
10. Lot Size (Sq Ft) 39,065 SF
    Existing Bldg Area (Sq Ft) 5,300 SF (to be demolished)
    Proposed Bldg Area (Sq Ft) phase 1 = 5,400 SF phase 2 = 5,140 SF
11. Estimated Cost of Project: $ 2,369,000

➢ Is this project receiving incentives from the City of Mandan? Yes___ No___
If you are receiving incentives please indicate which programs have been applied for.

I understand the procedures for Architectural Review and have received the checklist (see attached sheet) to be followed for approval as set forth in Chapter 111-1 of the Mandan City Code.

Approvals are subject to compliance with Federal, State and Local regulations.

Applicant: _____ Date: 5-6-25
Authorized Representative

Revised (9-20)

CHECK LIST FOR ARCHITECTURAL REVIEW COMMISSION APPLICATION

Applications need to be submitted to the Building Inspections Department no later than 12 p.m. (noon) on the Wednesday prior to the scheduled meeting at which consideration is desired. Digital submittals will be accepted. If paper copies are submitted ten (10) copies of the following information are required. Eight (8) copies shall be no larger than 11 x 17 and two copies shall be complete sets, drawn to scale. Incomplete applications will not be accepted. If you have any question call the Building Inspections department at 701-667-3230.

A. Plot Plan - Drawn to Scale

__X__1. Boundaries-**Indicate North Arrow**

__X__2. Road(s) fronted upon

__X__3. Utility lines or easements-existing and planned

__X__4. Major topographic features-existing and planned-drainage

__X__5. Landscaping and major vegetative cover-existing and planned

_____6. Location of structure(s) on site; existing and proposed

a. Includes dimensions
b. Includes set back distances
c. Includes exterior security and area lighting, **fire hydrants (must indicate if 350 feet or less from proposed project)**, etc.
d. Dumpsters and screen walls

__X__7. Vehicular and pedestrian plans.
a. Parking. Include number of spaces including handicapped parking, location, hard surfacing, etc.

__X__8. Signage

B. Photos and/or Samples of Proposed Building Exterior, Including Exterior Colors

C. Elevation Architectural Plans to Scale

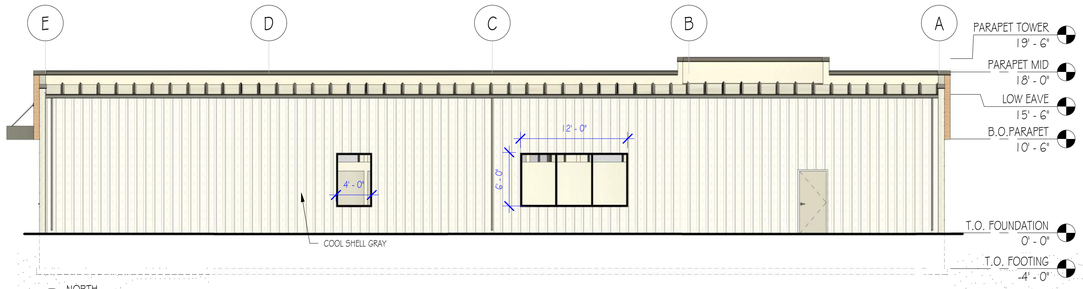
__X__1. Elevation drawings to include ALL sides.

D. Two Copies of the Storm Water Management Systems. This must be certified by an engineer. If not applicable, submit in writing why you think it should not affect the existing system.

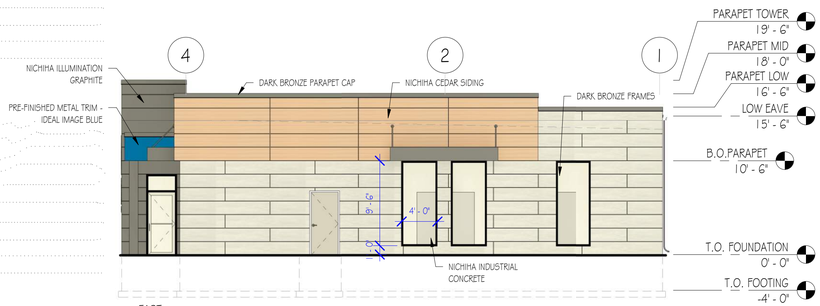
E. The owner, whenever possible, and the contractor or a representative needs to be present at the scheduled meeting.

Note: If your project is for exterior improvements to a building with no additions, driveway, sidewalk, landscaping, or grading to the lot only the information in sections B and C are required. Incomplete applications will not be accepted.

The Architectural Review Board has a regularly scheduled meeting every 2nd and 4th **Tuesday at 1 p.m. in City Hall.** Applications may be accepted and/or scheduled up to the prior Wednesday at 12 p.m. (noon).

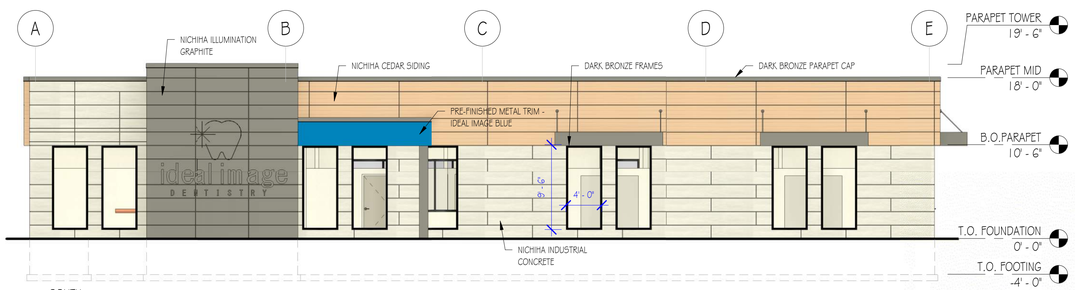


1 NORTH
1/8" = 1'-0"

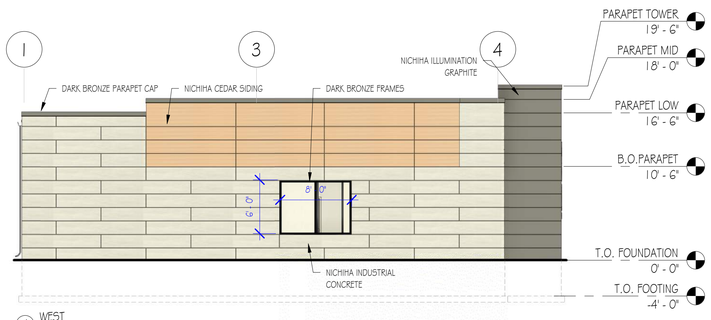


2 EAST
1/8" = 1'-0"

REFER TO COLORS ON RENDERINGS SHEET A2.2 FOR MATERIALS. COLORS IN ELEVATIONS ARE FOR MATERIAL DISTINCTION BETWEEN EACH OTHER.



3 SOUTH
1/8" = 1'-0"



4 WEST
1/8" = 1'-0"

Northwest Contracting Inc.
2840 Valley Forge St.
BISMARCK, ND 58503
TEL (701) 255-7727
www.northwestcontracting.com

Northwest Contracting, Inc., prepared this construction plan for its own use and reserves unto itself all rights to the construction plan. This construction plan is not to be used by anyone other than Northwest Contracting, Inc., for any purpose and Northwest Contracting, Inc., disclaims all responsibility for unauthorized use of this plan. This plan is an unpublished work, to which Northwest Contracting, Inc., reserves its common law rights pursuant to Title 17 of the United States Code. Unauthorized use, copying or publication of this plan is prohibited.

REVISIONS

Project Name

Enter address here

ELEVATIONS

NOT FOR CONSTRUCTION
05/02/2025

PROJECT NO:	Project Number
DRAWN BY:	Author
DATE:	Issue Date
SHEET NUMBER	A2.1

Northwest Contracting Inc.

2840 Valley Forge St.
BISMARCK, ND 58503
TEL (701) 255-7727

www.northwestcontracting.com

Northwest Contracting, Inc., prepared this construction plan for its own use and reserves unto itself all rights to the construction plan. This construction plan is not to be used by anyone other than Northwest Contracting, Inc., for any purpose and Northwest Contracting, Inc., disclaims all responsibility for unauthorized use of this plan. This plan is an unpublished work, to which Northwest Contracting, Inc., reserves its common law rights pursuant to Title 17 of the United States Code. Unauthorized use, copying or publication of this plan is prohibited.

REVISIONS

Project Name

Enter address here

ELEVATIONS

NOT FOR CONSTRUCTION
05/02/2025

PROJECT NO: Project Number

DRAWN BY: Author

DATE: Issue Date

SHEET NUMBER
A2.2

LEGEND

- EXISTING GUY WIRE
- EXISTING POWER POLE
- EXISTING SANITARY MANHOLE
- EXISTING ELECTRIC BOX
- EXISTING SIGN
- EXISTING TV/TELEPHONE PEDESTAL
- EXISTING LIGHT POLE
- EXISTING GATE VALVE
- EXISTING FIRE HYDRANT
- EXISTING CURB STOP
- EXISTING CURB & GUTTER
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING UNDERGROUND GAS
- EXISTING UNDERGROUND ELECTRIC
- EXISTING UNDERGROUND CTV
- EXISTING OVERHEAD POWER
- 1780 EXISTING CONTOUR
- EXISTING BUILDING
- EXISTING ASPHALT
- EXISTING CONCRETE
- EXISTING LANDSCAPE ROCK
- EXISTING TREES/SHRUBS

GENERAL NOTES:

SPECIFICATIONS: All work shall conform to the Project Manual and Specifications as supplemented by or modified by the following plan notes. All work in the City of Mandan Right of Way shall conform to the City of Mandan Construction Specifications and Details.

PERMITS: The Contractor is required to obtain all permits that may be required prior to construction. The Contractor may also be required to complete and file a Notice of Intent (NOI) with the North Dakota Dept. of Environmental Quality if site disturbance is over 1 Acre. The Contractor shall also notify the City of Mandan prior to working within the City ROW.

CONTRACTOR PARKING STAGING AREA: The Contractor shall not use private property to park vehicles, store materials, or use as a staging area without written permission from the owner of that property. Any damages to private property shall be repaired to the satisfaction of the owner by and at the Contractor's expense.

BENCHMARK: Benchmarks and survey Control points for this project are shown on the plan or will be established by the Engineer. Care shall be taken as to not cover, remove, damage, obscure, move or destroy set benchmarks, lath, hubs, property pins, or other survey monuments. Any damaged or destroyed control points shall be replaced at the Contractor's expense.

SURVEYING: The Contractor shall be responsible for all layout surveying and staking needed for construction activities. Project construction staking shall be provided by the Contractor. Any damaged or destroyed control points will be replaced by the Engineer at the Contractors expense. Electronic files and control point information will be available through the Engineer for use of grading contractors utilizing GPS equipment.

PROTECTION OF EXISTING UTILITIES: The Contractor is advised that existing utilities are shown in their approximate location and have been taken from information supplied by North Dakota One Call and documents of record. The contractor shall exercise care in construction operations to ensure that existing utilities, pavement, trees, shrubs, grasses, seeded areas, fences, signs, conduits, private irrigation systems, and other site improvements located on or around the construction limits are not disturbed. The Contractor is responsible for locating and protecting all existing utilities. The Contractor shall be responsible for repairing any damage to existing utilities caused by the construction process. Any discrepancies shall immediately be brought to the attention of the Architect/Engineer.

PROPERTY MODIFICATION: A Minor Plat process is being conducted to combine the property parcels into one lot at this time. No work shall be permitted on the east building addition till the Minor Plat process has been completed.

N

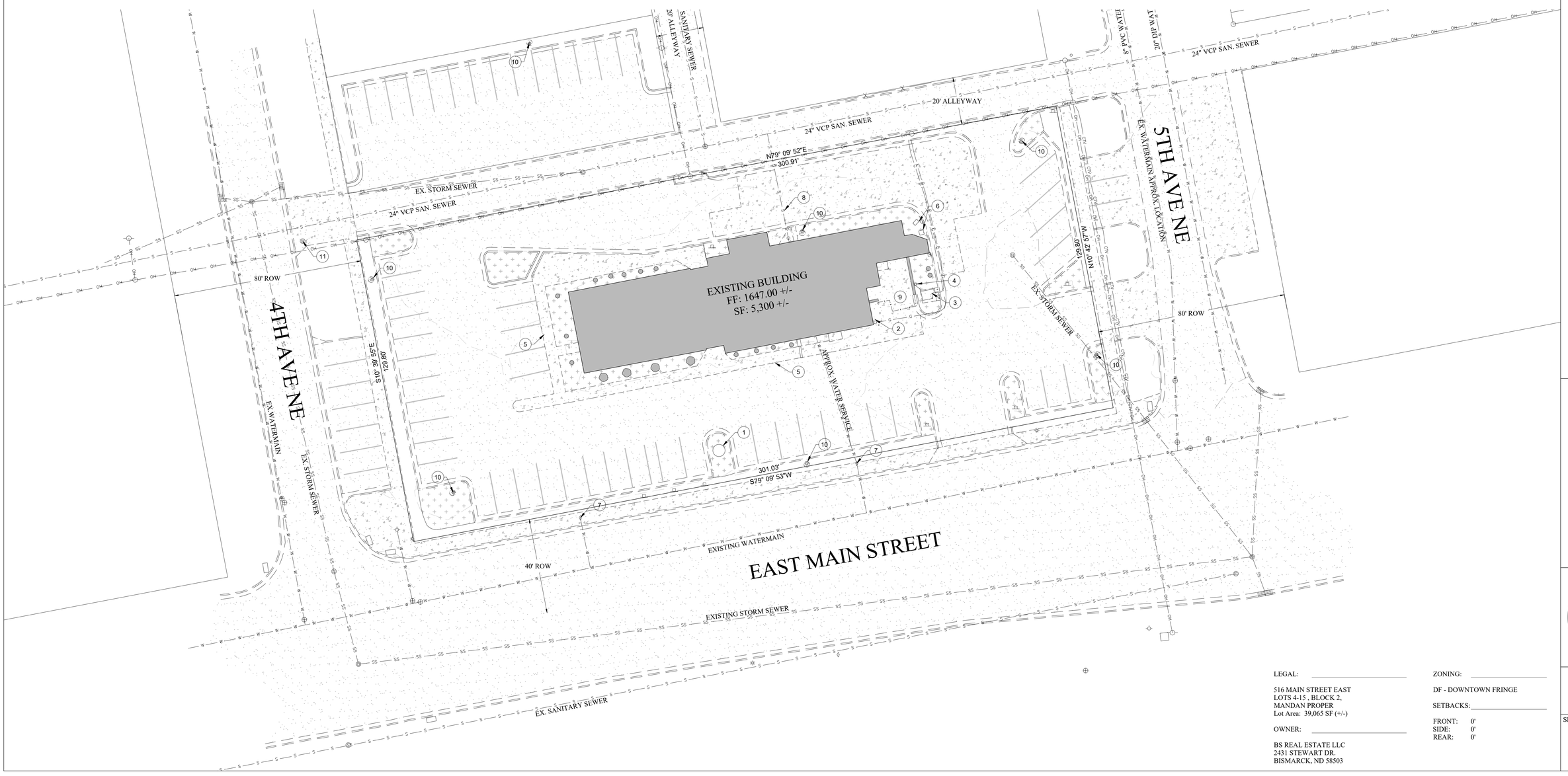
SCALE: 1" = 20'

0 20 40

SURVEY INFO: VERT. DATUM: NAVD88
HORIZONTAL COORDINATE: NAD83 ND SOUTH , INTERNATIONAL FEET
MEASUREMENTS HAVE BEEN ESTABLISHED BY RTK FROM THE "BSMK" CORS
STATION AND ARE REPORTED IN GRID.

(#) CALL OUTS:

1. EXISTING PYLON SIGN
2. EXISTING GAS METER
3. EXISTING ELEC. TRANSFORMER
4. EXISTING ELEC. METER
5. EXISTING THICKENED EDGE SIDEWALK
6. EXISTING MENU BOARD
7. EXISTING WATER SERVICE LOCATION FROM CURB STOP TO BLDG HAS NOT BEEN VERIFIED
8. EXISTING SANITARY SEWER SERVICE TO BLDG. HAS NOT BEEN VERIFIED
9. EXISTING DUMPSTER PAD
10. EXISTING PRIVATE LIGHT POLE
11. EXISTING UTILITY MANHOLE



LEGAL:

516 MAIN STREET EAST
LOTS 4-15 , BLOCK 2,
MANDAN PROPER
Lot Area: 39,065 SF (+/-)

OWNER:

BS REAL ESTATE LLC
2431 STEWART DR.
BISMARCK, ND 58503

ZONING:

DF - DOWNTOWN FRINGE

SETBACKS:

FRONT: 0'
SIDE: 0'
REAR: 0'

REVISIONS		
REV#	DESCRIPTION	BY	DATE

IDEAL IMAGE DENTISTRY

516 EAST MAIN STREET
LOTS 4-15, BLOCK 2, MANDAN PROPER
MANDAN, NORTH DAKOTA

Independent Land Surveying & Engineering Inc.
4215 OLD RED TRAIL NW, Mandan, ND 58554
Phone: 701-663-5184 PROJ # 25019

REGISTERED PROFESSIONAL ENGINEER
ABRAHM E. ULMER
PE-6693
DATE: 5/7/2025
NORTH DAKOTA

C100

SHEET

EXISTING CONDITIONS

LEGEND

- CONSTRUCTION LIMITS
- SIDEWALK REMOVAL
- CONCRETE REMOVAL
- ASPHALT REMOVAL
- CURB REMOVAL
- PROPOSED EROSION CONTROL

GENERAL NOTES:

CONSTRUCTION LIMITS: The Contractor shall make all effort to minimize the disturbed areas, especially outside the construction limits. The construction limits of the project are limited to the areas shown on the plans to be disturbed. All areas disturbed outside the construction limits shall be restored to the original condition and seeded at the contractors expense.

EROSION CONTROL:

-Erosion control measures shall be installed prior to any construction activities.

-Projects disturbing one or more acres shall have a NDPDES permit to discharge storm water runoff. If the project is an acre or more the Contractor will also be required to complete and file a Notice of Intent (NOI) with the North Dakota Dept. of Environmental Quality. No land disturbing activities shall occur until a NDPDES permit has been issued by the NDDEQ. The Contractor shall check with the local officials to be sure all local storm water management considerations are addressed.

-Best management practices shall be utilized for all erosion control. All surface water shall not leave the site without passing through Best Management Practice erosion control measures.

-The BMP's shall be inspected daily by the permittee/contractor and maintained as necessary to ensure their continued functioning.

-The Contractor shall prevent the erosion of exposed soil surfaces and trapping sediments being transported, and erosion and sedimentation into existing storm sewer and adjacent properties will be minimized.

-De-watering of storm water on site and of trenches due to ground water shall be the Contractors responsibility. There shall be no standing water on site.

-Mud tracking onto adjacent streets shall be kept to a minimum. The Contractor shall be responsible for cleaning any mud or debris tracked from the construction site onto adjacent streets. The Contractor shall remove all soil and sediment tracked or deposited off-site on pavement areas. Soil removal shall be accomplished by shoveling or sweeping on a daily basis. Street washing will not be allowed.

-The BMP's shown on the plans are the minimum requirements for the anticipated site conditions. As construction progresses and unexpected or seasonal conditions dictate, the permittee/contractor shall anticipate that more BMP's may be necessary to ensure erosion and sediment control on site.

-All temporary erosion and sediment control measures shall be properly disposed of within thirty (30) days after final site stabilization is achieved or after the temporary measures are no longer needed.

TOPSOIL REMOVAL: Existing Topsoil shall be removed to its full depth and stockpiled onsite. Removal of Topsoil is based on 6" average depth assumed in dirtwork calculations. Contractor shall reuse a portion of stockpiled topsoil in proposed green areas shown on the plans.

GENERAL NOTES CONTINUED:

TESTING: Testing shall be conducted according to project specifications. The Contractor shall provide at its expense the necessary testing and inspection services required by the plans and specifications. The Contractor shall employ an accredited independent testing laboratories certified through the American Association of State Highway and Transportation Officials (AASHTO). All site grading and compaction testing shall be to 95% density with a moisture content between +3% to -3% optimum moisture as per ASTM D698. The Contractor shall be responsible for scheduling tests according to specifications and shall supply test results to the project Engineer/Architect, and to the Owner.

EXCESS MATERIAL: Any surplus dirt material to be utilized shall be placed prior to placement of the topsoil and to the same density and moisture requirements as specified. This embankment of extra material shall be considered incidental to project. All areas to receive fill shall be cleared and grubbed, topsoil removed and stockpiled, and scarified and compacted prior to placing excess material for embankment.

TRAFFIC CONTROL: Contractor shall be responsible for traffic control during construction. the Contractor shall furnish and install traffic control measures prior to any construction work. Every effort shall be made to minimize the disruption of traffic during construction activities.

PAVEMENT REMOVAL: Removals of pavements shown are an estimated guideline for minimum removals necessary for the proposed construction. The Contractor shall be responsible for confirming the removal limits to help facilitate construction.

-All pavement designated for removal shall be saw cut full depth prior to removal.

-Contractor shall notify City prior to any removals in the City Right of Way.

CLEANUP: All trash on site from construction activities shall be disposed of off site by the Contractor. This shall be considered incidental to the project. Prior to final inspection the Contractor shall sweep and clean the construction site and streets of all debris.

N

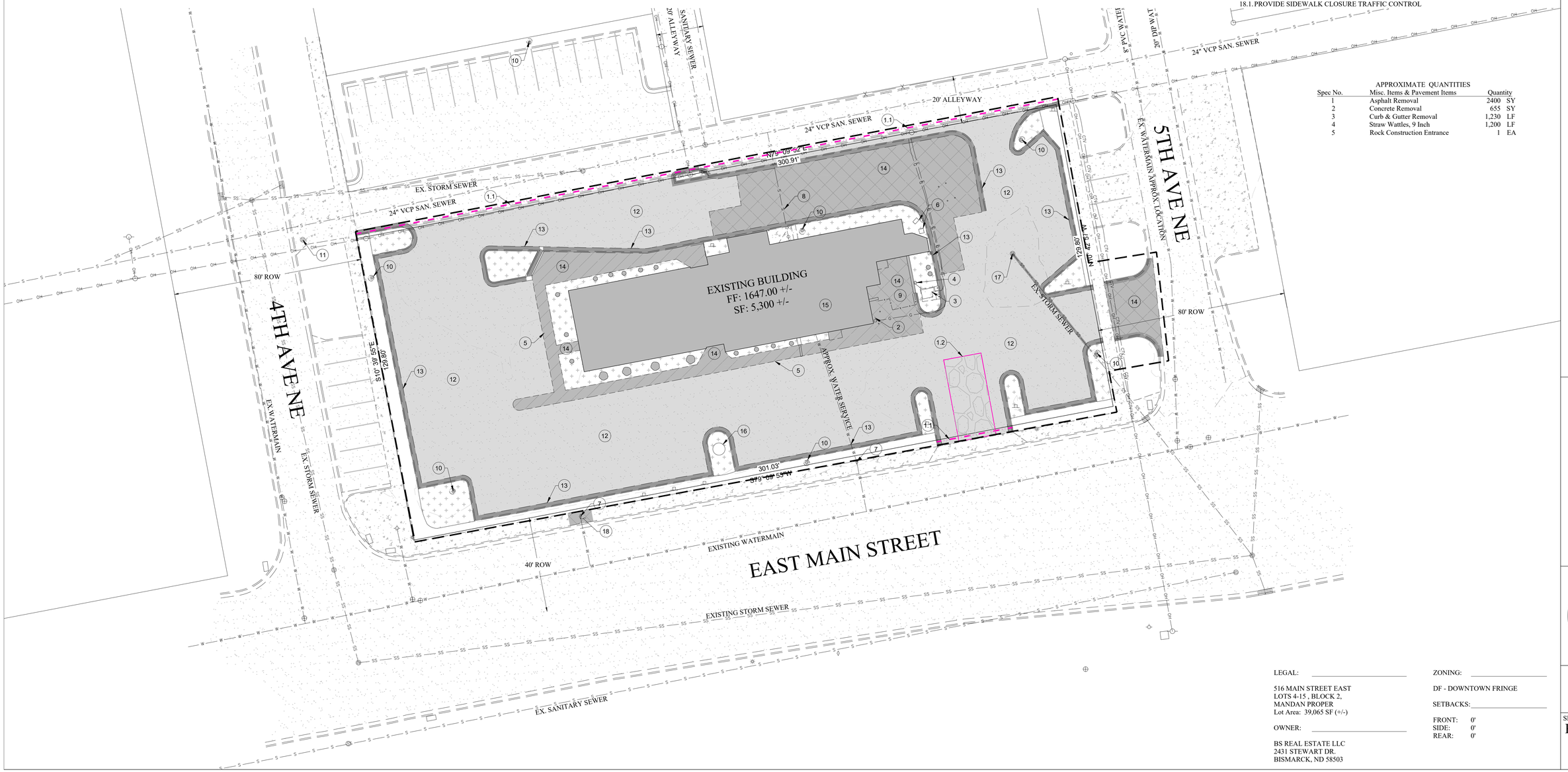
SCALE: 1" = 20'

0 20 40

SURVEY INFO: VERT. DATUM: NAVD88
HORIZONTAL COORDINATE: NAD83 ND SOUTH , INTERNATIONAL FEET
MEASUREMENTS HAVE BEEN ESTABLISHED BY RTK FROM THE "BSMK" CORS
STATION AND ARE REPORTED IN GRID.

(#) CALL OUTS:

1. INSTALL EROSION CONTROL MEASURES PRIOR TO CONSTRUCTION
   1.1. INSTALL 9" FIBER ROLLS
   1.2. INSTALL ROCK CONSTRUCTION ENTRANCE
2. REMOVE EXISTING GAS METER - COORDINATE WITH UTILITY COMPANY
3. REMOVE EXISTING ELEC. TRANSFORMER - COORDINATE WITH UTILITY COMPANY
4. REMOVE EXISTING ELEC. METER - COORDINATE WITH UTILITY COMPANY
5. REMOVE EXISTING THICKENED EDGE SIDEWALK
6. REMOVE EXISTING MENU BOARD
7. VERITY EXISTING WATER SERVICE LOCATION, SIZE, TYPE, & DEPTH
8. VERIFY EXISTING SANITARY SEWER SERVICE LOCATION, SIZE, TYPE, & DEPTH
9. REMOVE EXISTING DUMPSTER PAD
10. REMOVE EXISTING PRIVATE LIGHT POLES & CONCRETE BASES
11. PROTECT EXISTING UTILITY MANHOLE
12. REMOVE ASPHALT PAVEMENT
13. REMOVE CURB AND GUTTER
14. REMOVE CONCRETE (THICKNESS VARIES)
15. REMOVE EXISTING BUILDING & FOUNDATION
16. REMOVE EXISTING PYLON SIGN & FOUNDATION
17. REMOVE EXISTING STORM INLET & 50' OF EXISTING 12" PVC STORM SEWER
18. REMOVE & REPLACE CONCRETE SIDEWALK AS NECESSARY TO CONNECT TO WATER SERVICE
    18.1. PROVIDE SIDEWALK CLOSURE TRAFFIC CONTROL



APPROXIMATE QUANTITIES

Spec No.	Misc. Items & Pavement Items	Quantity
1	Asphalt Removal	2400 SY
2	Concrete Removal	655 SY
3	Curb & Gutter Removal	1,230 LF
4	Straw Wattles, 9 Inch	1,200 LF
5	Rock Construction Entrance	1 EA

LEGAL:

516 MAIN STREET EAST
LOTS 4-15 , BLOCK 2,
MANDAN PROPER
Lot Area: 39,065 SF (+/-)

OWNER:

BS REAL ESTATE LLC
2431 STEWART DR.
BISMARCK, ND 58503

ZONING:

DF - DOWNTOWN FRINGE

SETBACKS:

FRONT: 0'
SIDE: 0'
REAR: 0'

REVISIONS

REV#	DESCRIPTION	BY	DATE

IDEAL IMAGE DENTISTRY

516 EAST MAIN STREET
LOTS 4-15, BLOCK 2, MANDAN PROPER
MANDAN, NORTH DAKOTA

Independent Land Surveying & Engineering Inc.
4215 OLD RED TRAIL NW, Mandan, ND 58554
Phone: 701-663-5184 PROJ # 25019

REGISTERED PROFESSIONAL ENGINEER
ABRAHM E. JUMEB
PE-6693
DATE: 5/7/2025
NORTH DAKOTA

C200

SHEET
REMOVALS & EROSION CONTROL

LEGEND

- PROPOSED BUILDING ADDITION
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE PAVEMENT
- FUTURE CONCRETE SIDEWALK & BLDG
- PROPOSED SANITARY CLEANOUT
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED WATER SERVICE
- PROPOSED CURB STOP
- PROPOSED STORM INLET
- 1810 PROPOSED CONTOUR
- CONSTRUCTION LIMITS
- # PROPOSED PARKING STALL COUNT
- PROPOSED LANDSCAPE
- PROPOSED CURB & GUTER

GENERAL NOTES:

SPECIFICATIONS: All work shall conform to the Project Manual and Specifications as supplemented by or modified by the following plan notes. All work in the City of Mandan Right of Way shall conform to the City of Mandan Construction Specifications and Details.

PROPOSED CONTOURS: The final contours shown on the plans represent the finished surface to the topsoil, pavement, surfacing, storm sewers, etc. The Contractor is to make allowances as required to account for topsoil and pavement surfacing when completing the site grading.

SURVEYING: The Contractor shall be responsible for all layout surveying and staking needed for dirt work construction activities. The Engineer shall supply an electronic file and a minimum of 5 control monuments at the site for the use of the site grading Contractor in laying out the work. Care shall be taken as to not cover, remove, damage, obscure, move or destroy set survey monuments.

SUBGRADE PREPARATION & TRENCHING DENSITY REQUIREMENTS: Areas to receive Fill, Gravel Base, Pavement, and the bottom of cut areas shall be scarified to a minimum depth of 6 inches specified and compacted. Contractor shall be required to manipulate substandard areas by working the soil until the specified density and uniform moisture content are achieved. Fill material shall be placed in lifts not exceeding eight inches loose thickness. All Trenches, Fill, and Gravel base shall be compacted to 95% density with a moisture content between +3% to -3% optimum moisture as per ASTM D698.

BUILDING CONSTRUCTION TYPE:	PRE-ENGINEERED METAL BUILDING
NUMBER OF STORIES:	1 LEVEL - MAX BLDG HEIGHT PARAPET = 19.5'
FIRE SUPPRESSION SYSTEM:	NONE
TOTAL BUILDING AREA:	PRO. BLDG. 10,540 SF
REQUIRED PARKING:	EAST BLDG: 3 PER DOCTOR x 2 DOCTORS = 6 STALLS + 1 PER 2 EMPLOYEES x 13 EMPLOYEES = 7 STALLS WEST BLDG: 5,140 SF @ $\frac{1}{400}$ SF = 13 STALLS
TOTAL REQUIRED PARKING:	26 SPACES SPACES PROVIDED = 49

GENERAL NOTES CONTINUED:

CONCRETE: All Concrete in the city Right of Way shall be in accordance with he City of Mandan Construction Specifications.
- -All Concrete shall have 28 day strength of 4,000 psi, with a maximum allowable slump of 4 inches, and air entrainment content between 5% to 7%. The Contractor shall provide a mix design to be approved by the Engineer.
- -All Concrete placed next to the building and/or structures shall have $\frac{3}{4}$" expansion material installed and sealed.
- -Thickened edge sidewalk shall have continuous reinforcement of #4 grade deformed bars tied together at 24" on center to be tied together and placed at the vertical center of the concrete slab.
- -Proposed concrete shall be 6" concrete reinforced with Macro Fiber.
- -Macro Fiber reinforcement shall be used where called out in the plans. Macro fiber reinforcement shall meet the standards of ASTM C1116/C1116M, Type III fiber reinforced concrete, & ASTM D7508. Concrete shall have 4#'s Macro Fiber per Cubic Yard of Concrete Mix.
- -Concrete joints shall be a maximum of 10'x10', and a concrete jointing plan shall be required by the Contractor and approved prior to implementation.
- -All Construction joints shall be formed with a keyway or tied together with 18" tie bars drilled $\frac{1}{2}$ length into existing concrete every 24".
- -Concrete Construction joints shall be saw cut 1/3 the concrete depth, 1/4" wide, cleaned, and sealed with caulking and backer rod. Backer rod shall meet the requirements of ASTM D 5249 type 1. Joint Sealant shall be a cold applied joint sealant specifically manufactured for exterior pavements. Sealant shall be a one part silicone, or electromeric sealant complying with ASTM C920. Sealant shall be white or gray to match concrete color, with a low modulus and be capable of withstanding repeated joint movement without losing adhesion to the concrete without cohesion failure. Joints shall be clean and free of debris per manufactures instructions.
- -Curing Compounds shall conform to ASTM C309- Type 2 white pigmented. Curing Compound coverage shall be per manufactures recommendations.
- -Concrete tests shall be done per the following: Minimum one test per day or one test per 50 Cubic Yards of concrete poured for parking lot pavement or sidewalks.

PAVEMENT MARKING/STRIPING: Contractor to stripe entire parking lot after pavement operations are complete as per layout on plan sheets. All paint shall meet the NDDOT specifications. Stripes shall be 4" wide yellow paint. Blue Striping and symbols shall be installed at handicap stalls, along with access aisle diagonal painted with blue lines spaced at 2' on center. All paint shall be applied at 110 SF/GAL.

AGGREGATE BASE: All new aggregate base shall be Class 5 Gravel per NDDOT specifications or approved equal. Gravel shall be installed to the thickness as shown on plan details (see sheet C701), and compacted to 95% Standard Proctor density with a moisture content between +3% to -3% optimum moisture as per ASTM D698. Aggregate Base is calculated using 1.875 Ton per Cubic Yard conversion.

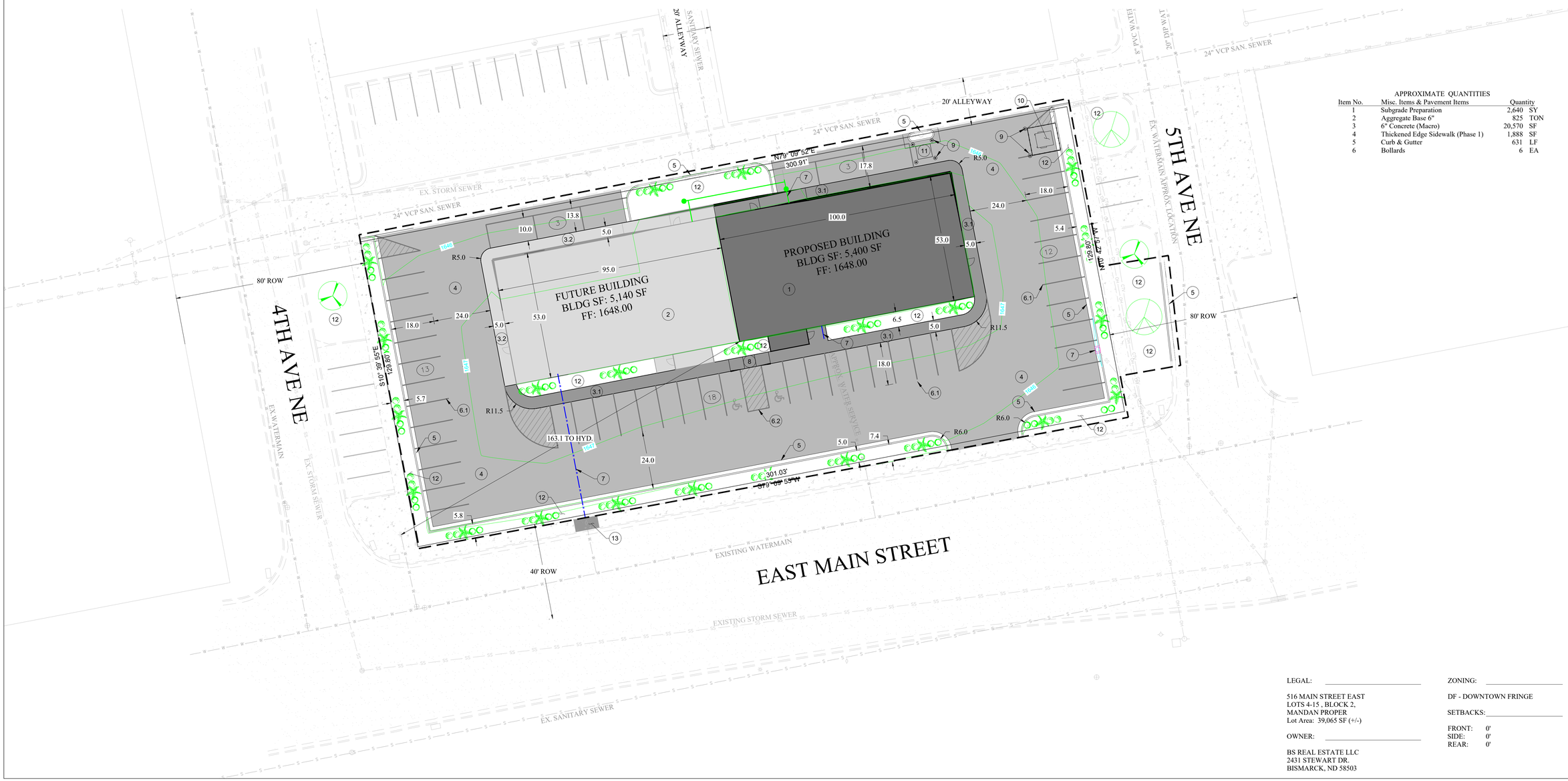
N

SCALE: 1" = 20'

0 20 40

SURVEY INFO: VERT. DATUM: NAVD88
HORIZONTAL COORDINATE: NA083 ND SOUTH , INTERNATIONAL FEET
MEASUREMENTS HAVE BEEN ESTABLISHED BY RTK FROM THE "BSMK" CORS STATION AND ARE REPORTED IN GRID.

(#) CALL OUTS:
1. PROPOSED BUILDING
2. FUTURE BUILDING
3. PROPOSED CONCRETE SIDEWALK
   - 3.1. THICKENED EDGE SIDEWALK
   - 3.2. FUTURE THICKENDED EDGE SIDEWALK
4. PROPOSED CONCRETE PAVEMENT
5. PROPOSED STANDARD CURB & GUTTER
6. PROPOSED PARKING STRIPING
   - 6.1. STRIPE 4" LINES FOR PARKING STALL STRIPING
   - 6.2. PROPOSED HC PARKING STALLS - PROVIDE STRIPING & APPROPRIATE SIGNAGE
7. PROPOSED WATER, SANITARY SEWER, & STORM MODIFICATIONS - SEE PLAN SHEET C400
8. PROPOSED CURB RAMP - SEE DETAIL SHEET C700
9. PROPOSED BOLLARD (x6)
10. PROPOSED DUMPSTER SCREENING - 6' TALL METAL SIDING
11. PROPOSED TRANSFORMER PAD
12. PROPOSED LANDSCAPE - SEE PLAN SHEET C600
13. PROPOSED 4" THICK CITY SIDEWALK



APPROXIMATE QUANTITIES

Item No.	Misc. Items & Pavement Items	Quantity	
1	Subgrade Preparation	2,640	SY
2	Aggregate Base 6"	825	TON
3	6" Concrete (Macro)	20,570	SF
4	Thickened Edge Sidewalk (Phase 1)	1,888	SF
5	Curb & Gutter	631	LF
6	Bollards	6	EA

LEGAL:
516 MAIN STREET EAST
LOTS 4-15 , BLOCK 2,
MANDAN PROPER
Lot Area: 39,065 SF (+/-)

OWNER:
BS REAL ESTATE LLC
2431 STEWART DR.
BISMARCK, ND 58503

ZONING:
DF - DOWNTOWN FRINGE

SETBACKS:
FRONT: 0'
SIDE: 0'
REAR: 0'

REVISIONS			
REV#	DESCRIPTION	BY	DATE

IDEAL IMAGE DENTISTRY

516 EAST MAIN STREET
LOTS 4-15, BLOCK 2, MANDAN PROPER
MANDAN, NORTH DAKOTA

Independent Land Surveying & Engineering Inc.
4215 OLD RED TRAIL NW, Mandan, ND 58554
Phone: 701-663-5184 PROJ # 25019

REGISTERED PROFESSIONAL ENGINEER
ABRAHM E. OLMER
PE-6693
DATE: 5/7/2025
NORTH DAKOTA

C300

SHEET
PROPOSED CONDITIONS

LEGEND

- PROPOSED SANITARY CLEANOUT
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED STORM INLET
- PROPOSED WATER SERVICE
- PROPOSED CURB STOP
- 1810 PROPOSED CONTOUR
- CONSTRUCTION LIMITS

GENERAL NOTES:

WATER SERVICE:
-Materials, Construction Method, Pressure Testing, and Bacterial Testing shall comply with City of Mandan Construction Specifications, unless noted otherwise.
-Water service shall be installed with a minimum of 8.0' of cover.
-A pressure test shall be performed by the contractor under the supervision of the City and/or Engineer to meet City requirements.
-Disinfection of water piping shall conform to applicable ND State Dept. of Health requirements and City of Mandan Standards for disinfecting water lines to carry safe, treated water.
-All plan footages are approximate, exact lengths to be determined by the Contractor in the field.

SANITARY SEWER SERVICE:
-Materials, Construction Method, and Testing shall comply with City of Mandan Construction Specifications, unless noted otherwise.
-All plan footages are approximate, exact lengths to be determined by the Contractor in the field.

STORM SEWER:
-Drain Basin Inlets called out to be Nyloplast shall be Nyloplast Drain Basins made by ADS/Hancor or approved equal.
-Nyloplast manholes and Inlets shall be installed in accordance with manufacturers recommendations.
-Contractor shall connect to the existing Storm Sewer. Verify exact location, depth, and type of pipe.
-Contractor shall order the drain basin to be a minimum of 6" extra in height to allow for field height adjustment.
-All plan footages are approximate, exact lengths to be determined by the Contractor in the field.

GENERAL NOTES CONTINUED:

SUBGRADE PREPARATION & TRENCHING DENSITY REQUIREMENTS: Areas to receive Fill, Gravel Base, Pavement, and the bottom of fill areas shall be scarified to a minimum depth of 6 inches specified and compacted. Contractor shall be required to manipulate substandard areas by working the soil until the specified density and uniform moisture content are achieved. Fill material shall be placed in lifts not exceeding eight inches loose thickness. All fill material shall be compacted to 95% density with a moisture content between +3% to -3% optimum moisture as per ASTM D698. Testing frequency shall be one passing test for every 5000 SF of area for every lift of fill material. Trench backfill shall have a testing frequency of one test per every 300 lineal foot of compacted utility trench for every 2 vertical foot of backfill.

UTILITY ADJUSTMENTS:
-Contractor shall adjust all sanitary clean out castings, valve boxes, manhole castings, and inlet castings to final grade prior to pavement or landscape placement. See sheet C800 for adjustment details.

APPROXIMATE QUANTITIES

Spec No.	Watermain Items	Quantity	
1	1" Water Service Pipe	69	LF

Spec No.	Sanitary Sewer Items	Quantity	
2	6" Sanitary Sewer Pipe	10	LF
3	6" Sanitary Cleanout & Casting	1	EA

Spec No.	Sanitary Sewer Items	Quantity	
4	24" Nyloplast Drain Basin	1	EA

N

SCALE: 1" = 20'

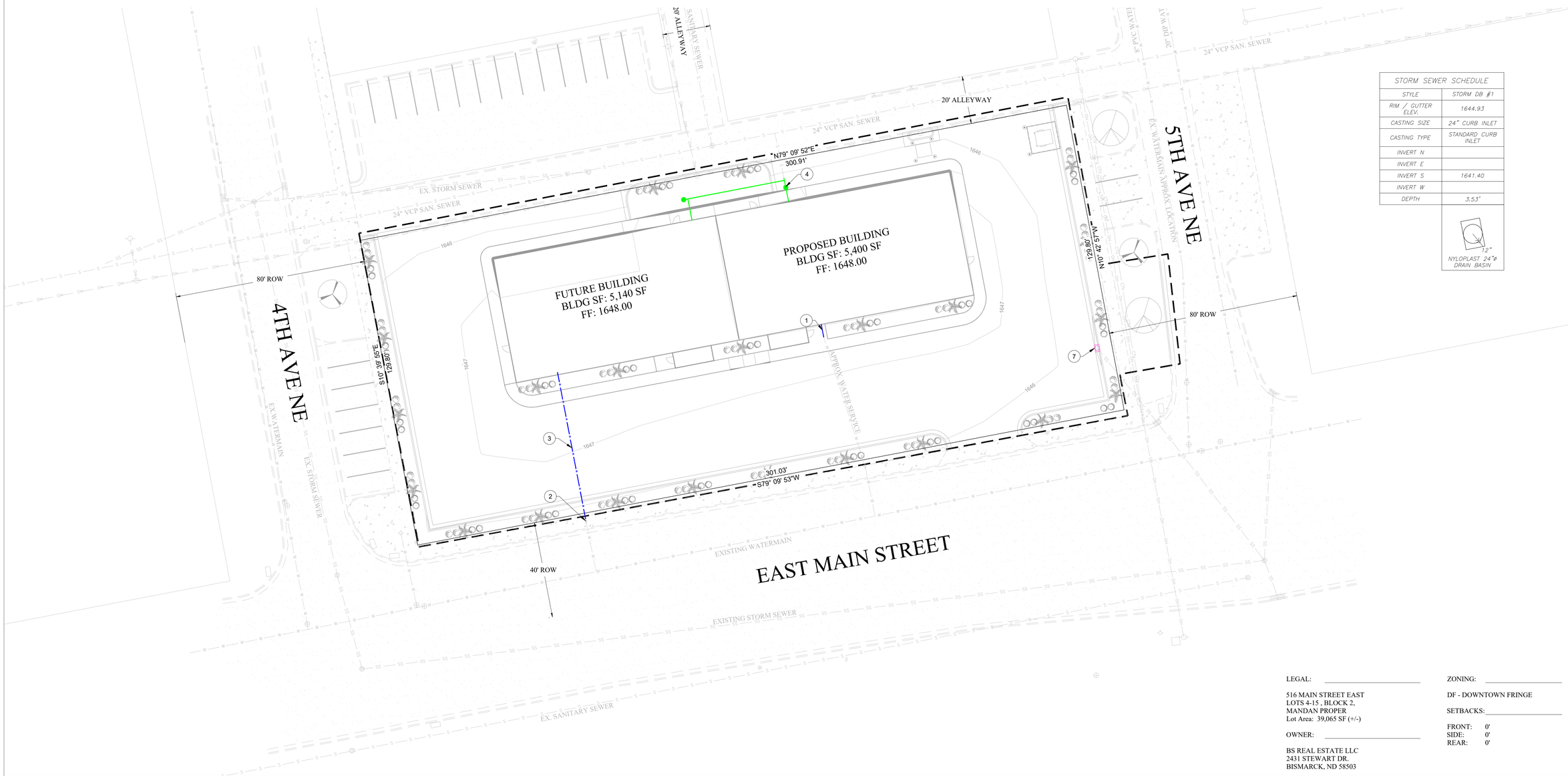
0 20 40

SURVEY INFO: VERT. DATUM: NAVD88
HORIZONTAL COORDINATE: NAD83 ND SOUTH , INTERNATIONAL FEET
MEASUREMENTS HAVE BEEN ESTABLISHED BY RTK FROM THE "BSMK" CORS STATION AND ARE REPORTED IN GRID.

(#) CALL OUTS:
WATER SERVICE:
1. CONNECT TO EXISTING 1" WATER SERVICE (VERIFY LOCATION, ELEVATION, PIPE SIZE, & TYPE) & INSTALL 6 LF 1" WATER SERVICE TO BUILDING
2. CONNECT TO EXISTING 1" WATER SERVICE (VERIFY LOCATION, ELEVATION, PIPE SIZE, & TYPE) & VERIFY IF WATER SERVICE IS LIVE.
3. INSTALL 62 LF 1" WATER SERVICE PIPE & PLUG FOR FUTURE BUILDING

SANITARY SEWER:
4. CONNECT TO EXISTING 4" SANITARY SEWER SERVICE (VERIFY LOCATION, ELEVATION, PIPE SIZE, TYPE) & INSTALL 4"x4" WYE & 45° BEND, & 9 LF 4" SEWER SERVICE PIPE WITH CLEANOUT & CASTING
5. INSTALL 43 LF 4" SEWER SERVICE PIPE WITH CLEANOUT & CASTING
6. INSTALL 4"x4" WYE & 45° BEND, & 9 LF SEWER SERVICE PIPE, & 4" PLUG. MARK END OF PIPE WITH 2X4 TO SURFACE FOR FUTURE CONNECTION.

STORM SEWER:
7. REMOVE INLET & 50 LF 12" PVC STORM PIPE, & INSTALL DRAIN BASIN #1



STORM SEWER SCHEDULE	
STYLE	STORM DB #1
RIM / GUTTER ELEV.	1644.93
CASTING SIZE	24" CURB INLET
CASTING TYPE	STANDARD CURB INLET
INVERT N	
INVERT E	
INVERT S	1641.40
INVERT W	
DEPTH	3.53'

12"
NYLOPLAST 24"ø DRAIN BASIN

LEGAL:

516 MAIN STREET EAST
LOTS 4-15 , BLOCK 2,
MANDAN PROPER
Lot Area: 39,065 SF (+/-)

OWNER:

BS REAL ESTATE LLC
2431 STEWART DR.
BISMARCK, ND 58503

ZONING:

DF - DOWNTOWN FRINGE

SETBACKS:

FRONT: 0'
SIDE: 0'
REAR: 0'

REVISIONS			
REV#	DESCRIPTION	BY	DATE

IDEAL IMAGE DENTISTRY

516 EAST MAIN STREET
LOTS 4-15, BLOCK 2, MANDAN PROPER
MANDAN, NORTH DAKOTA

Independent Land Surveying & Engineering Inc.
4215 OLD RED TRAIL NW, Mandan, ND 58554
Phone: 701-663-5184 PROJ # 25019

REGISTERED PROFESSIONAL ENGINEER
ABRAHM E. ULMER
PE-6693
DATE: 5/7/2025
NORTH DAKOTA

C400

SHEET
PROPOSED UTILITIES

LEGEND

1810	PROPOSED CONTOUR
1810	EXISTING CONTOUR
1.00%	DRAINAGE SLOPE
× 55.00	SPOT ELEVATION (FLOW LINE ELEV.) F: 55.00 = FUTURE GRADE TC: 55.00 = TOP CURB/TOP CONCRETE GRADE GR: 55.00 = FINISHED GROUND GRADE
	CONSTRUCTION LIMITS

* ALL ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.

GENERAL NOTES:

PROPOSED CONTOURS: The final contours and control point elevations shown on the drawings represent the finished surface to the topsoil, pavement, surfacing, storm sewers, etc. The Contractor is to make allowances as required to account for topsoil and pavement surfacing when completing the site grading. See plan sheet C700 & C701 for typical sections.

CONSTRUCTION LIMITS: The contractor shall make all effort to minimize the disturbed areas. The Construction limits of the project are limited to the areas shown on the plans to be disturbed. All areas disturbed outside of the construction limits shall be restored to the original condition and seeded at the Contractors expense.

WATER: The Contractor is to make all arrangements and pay for water usage, rental, and/or hookup for water meter from the contractors water supply source. All costs to load, haul, and apply the water required for compaction will be considered incidental to the project. An estimated amount of water has been added to the plan quantity to be used for compaction and for use as a dust palliative during construction.

SUBGRADE PREPARATION & TRENCHING DENSITY REQUIREMENTS: Areas to receive Fill, Gravel Base, Pavement, and the bottom of fill areas shall be scarified to a minimum depth of 12 inches specified and compacted. Contractor shall be required to manipulate substandard areas by working the soil until the specified density and uniform moisture content are achieved. Fill material shall be placed in lifts not exceeding eight inches loose thickness. All fill material shall be compacted to 95% density with a moisture content between +3% to -3% optimum moisture as per ASTM D698. Testing frequency shall be one passing test for every 5000 SF of area for every lift of fill material. Trench backfill shall have a testing frequency of one test per every 300 lineal foot of compacted utility trench for every 2 vertical foot of backfill.

GRADING TOLERANCE: Subgrade embankment shall have the surface built to true lines, grades, and cross section shown on the plans, or as directed by the Engineer.
-In those areas upon which aggregate base or pavement base is to be placed, the top of the subgrade be of such smoothness that it will not vary more than 0.05' from true grade as established by grade hubs.
-In landscape areas outside of pavement limits, the surface shall be of such smoothness that it will not vary more than 0.10' from true grade established by grade hubs.
-Any deviation in excess of these amounts shall be corrected by loosening, adding, or removing materials, and reshaping and recompacting to required density.

GENERAL NOTES CONTINUED:

HAUL ROAD RESTRICTIONS: The Contractor shall contact the appropriate State, County, Township, or City officials to determine if there are any "No Haul Routes" prior to preparing a bid for this project.

UNCLASSIFIED EXCAVATION: This item shall consist of excavating, hauling, placement, disposal, and compaction of embankment material in conformity with the dimensions and typical sections shown on the plans and with the lines and grades established by the Engineer. Unclassified Excavation has been calculated by the method of average end areas with an assumption of 6" existing topsoil and pavement removed. Embankment of material shall be considered incidental to the excavation.
-Dirt Calculations included 6" topsoil and pavement removal. Total calculated dirt cut volume is 247 CY and total dirt fill volume is 616 CY. These calculations assumed no shrinkage.

BORROW MATERIAL: Borrow Material shall be satisfactory soil imported from off-site for use as fill or backfill.
-Satisfactory soils shall be soil classification groups GW, GP, GM, GC, SW, SP, SM, SC, and CL according to ASTM D 2487, or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
-Unsatisfactory soils from group ML, OL, CH, MH, OH, and PT according to ASTM D 2487, or a combination of these.

WASTE: All material removed which is not designated to be salvaged shall become the property of the Contractor. Cost to transport and dispose of this material shall be considered incidental to material removed.

N

SCALE: 1" = 20'

0 20 40

SURVEY INFO: VERT. DATUM: NAVD88
HORIZONTAL COORDINATE: NAD83 ND SOUTH , INTERNATIONAL FEET
MEASUREMENTS HAVE BEEN ESTABLISHED BY RTK FROM THE "BSMK" CORS STATION AND ARE REPORTED IN GRID.

(#) CALL OUTS:
1. SHAPE AREA FOR POSITIVE DRAINAGE
2. 20' THICKENED EDGE SIDEWALK RAMP HEIGHT VARIES FROM 6" - 18" HEIGHT
3. 18" TALL THICKENED EDGE SIDEWALK
4. 2' CURB BULL NOSE CURB
5. EXPOSED FOOTING WALL HEIGHT VARIES FROM 0" - 12" HEIGHT
6. FUTURE EXPOSED FOOTING WALL
7. FUTURE THICKENED EDGE SIDEWALK RAMP

APPROXIMATE QUANTITIES

Item No.	Misc. Items & Pavement Items	Quantity
1	Subgrade Preparation	2,640 SY
2	Unclassified Excavation	247 CY
3	Borrow Material	369 CY

LEGAL:

516 MAIN STREET EAST
LOTS 4-15 , BLOCK 2,
MANDAN PROPER
Lot Area: 39,065 SF (+/-)

OWNER:

BS REAL ESTATE LLC
2431 STEWART DR.
BISMARCK, ND 58503

ZONING:

DF - DOWNTOWN FRINGE

SETBACKS:

FRONT: 0'
SIDE: 0'
REAR: 0'

REVISIONS		
REV#	DESCRIPTION	BY	DATE

IDEAL IMAGE DENTISTRY

516 EAST MAIN STREET
LOTS 4-15, BLOCK 2, MANDAN PROPER
MANDAN, NORTH DAKOTA

Independent Land Surveying & Engineering Inc.
4215 OLD RED TRAIL NW, Mandan, ND 58554
Phone: 701-663-5184 PROJ # 25019

REGISTERED PROFESSIONAL ENGINEER
ABRAHM E. ULMER
PE-6693
DATE: 5/7/2025
NORTH DAKOTA

C500

SHEET
PROPOSED GRADING

LEGEND

AMERICAN LINDEN - Tilia americana 'Boulevard'
H=50-60', S=25'
SIZE= 1" CALIPER, QUANTITY = 2

NEW HORIZON ELM - Ulmus 'New Horizon'
H=50-60', S=25'-30'
SIZE=1.5" CALIPER, QUANTITY=2

FRITSCH SPIREA - Spiraea fritschiana
H=2-3', S=3-5'
SIZE = 2 GAL, QUANTITY = 46

TINY WINE NINEBARK - Phsocarpus opulifolius
H=3-4", S=3-4"
SIZE = 2 GAL, QUANTITY = 46

MOPS MUGO PINE - Pinus mugo 'Mops'
H=3-4', S=3-4'
SIZE = 2 GAL, QUANTITY = 23

PERMANENT LANDSCAPE AREA

GENERAL NOTES:

LANDSCAPE AREAS:
-Contractor shall obtain all necessary permits for planting work within City Right of Way.
-All landscape plantings are to be watered by the landscape contractor the same day that planting occurs, and continue watering until irrigation system is fully operational, or until final acceptance of the project.
-All plant materials shall be guaranteed one (1) full year upon total completion and acceptance by owner.

TOPSOIL & SEEDING:
-6 Inch thick topsoil shall be installed in all disturbed areas that do not receive concrete or asphalt.
-Topsoil shall be clean, free of stones, weeds, and other undesirable debris.
-After spreading, any large still clods and hard lumps shall be broken with a pulverizer or by other effective means.
-Topsoil in all areas shall be shaped for positive drainage, and have a smooth uniform appearance.
-Fertilizer shall be a 10-10-10 mixture applied at a rate of 4 lbs per 1000 square feet. Fertilize soil during the seeding process using an appropriate application process.
-Seeding shall be performed only during the seasons when satisfactory results can be expected.
-Seed shall be drill seeded to a depth of $\frac{1}{4}$" to $\frac{1}{2}$" depth, at a rate of 200 lbs per acre.
-Irrigated Seed mix shall be 60% Kentucky Blue Grass, 30% Perennial Rye, and 10% Creeping Red Fescue or approved equal. All seed shall be free of all prohibited noxious weeds. When dormant seeding in late fall, 20 pounds of oats or rye seed per acre shall be added to the mixture as a nurse crop. All seed shall be free of all prohibited noxious weeds. Seed which has become wet, moldy, or otherwise damaged shall not be acceptable.
-Hydro-mulch shall be utilized in all areas seeded. Hydro-mulch shall be a wood cellulose fiber mulch that has not been treated with any germination or growth inhibitive substances. The mulch shall be treated with a tack and fiber to enhance seed and mulch placement and adherence to the soil. Hydro Mulch shall be applied at a rate of 2,000 lbs per acre.

TREE PLANTING:
-All Planted Trees shall have 4" thick organic wood mulch placed around the tree in a muttle ring that conforms to the detail provided.
-Organic Wood Mulch shall be a shredded hardwood bark mulch. No filter fabric or edging around trees located outside shrub beds.
-All Planted Trees shall have 20 gallon Tree Watering Bags furnished and installed. Tree water bags shall be Treegator original watering bags or approved equal.

GENERAL NOTES CONTINUED:

SHRUB PLANTING: Shrubs shall be installed in planting beds to include 3" Landscape Rock Mulch as specified with weed barrier fabric.

LANDSCAPE ROCK: Landscape rock shall be placed in all planting areas. Landscape Rock shall be 2"-4" Landscape Rock or approved equal and placed at a 3" minimum depth. Weed barrier fabric shall be installed under all landscape rock beds.

IRRIGATION:Landscape Contractor shall be responsible for design-build irrigation system.
-Design shall be approved by the Owner prior to installation.
-Design should encompass all landscape areas that irrigated shrub bed areas. Irrigation shall not be installed within city boulevards
-Care shall be taken in vicinity of all walkways and driveways to minimize over spray.
-Soaker Hose shall be installed on all shrubs and trees.
-Irrigation shall be installed per City's irrigation policy.
-Care shall be taken in vicinity of all walkways and driveways to minimize over spray.
-Contractor shall coordinate installation of all conduits needed under drive areas with General Contractor.
-Contractor shall install controller along with rain sensors and all associated electrical wiring in accordance with irrigation industries standard practices.
-Contractor shall warranty any manufacturer or installation defects for 1 year from project acceptance.
-Contractor shall provide 2 fall blow outs, and 2 spring start ups.

N

SCALE: 1" = 20'

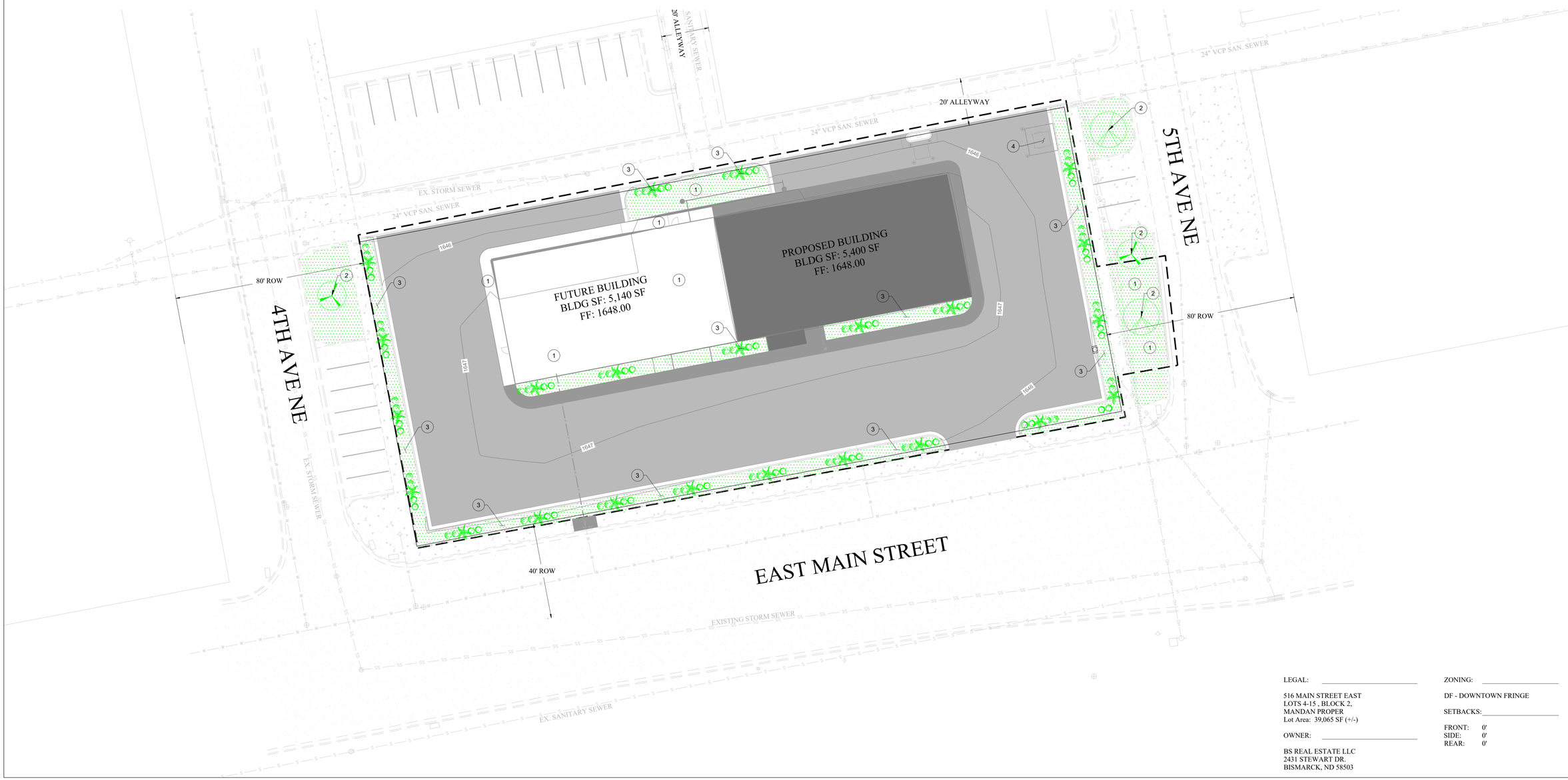
0 20 40

SURVEY INFO: VERT. DATUM: NAVD88
HORIZONTAL COORDINATE: NAD83 ND SOUTH , INTERNATIONAL FEET
MEASUREMENTS HAVE BEEN ESTABLISHED BY RTK FROM THE "BSMK" CORS
STATION AND ARE REPORTED IN GRID.

(#) CALL OUTS:
1. PLACE 6" TOPSOIL, SEEDING, & HYDRO-MULCH
2. TREE PLANTING - TYPICAL
3. INSTALL SHRUB BED PLANTINGS, WEED BARRIER FABRIC, & ROCK MULCH AS SPECIFIED
4. PROPOSED DUMPSTER SCREENING - 6' TALL METAL SIDING

APPROXIMATE QUANTITIES

Item No.	Misc. Items & Pavement Items	Quantity
1	Trees	4 EA
2	Shrubs	115 EA



LEGAL:
516 MAIN STREET EAST
LOTS 4-15 , BLOCK 2,
MANDAN PROPER
Lot Area: 39,065 SF (+/-)

OWNER:
BS REAL ESTATE LLC
2431 STEWART DR.
BISMARCK, ND 58503

ZONING:
DF - DOWNTOWN FRINGE

SETBACKS:
FRONT: 0'
SIDE: 0'
REAR: 0'

REV#	DESCRIPTION	BY	DATE

REVISIONS

IDEAL IMAGE DENTISTRY
516 EAST MAIN STREET
LOTS 4-15, BLOCK 2, MANDAN PROPER
MANDAN, NORTH DAKOTA

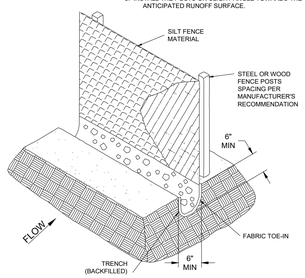
Independent Land Surveying & Engineering Inc.
4215 OLD RED TRAIL NW, Mandan, ND 58554
Phone: 701-663-5184 PROJ # 25019

REGISTERED PROFESSIONAL ENGINEER
ABRAHAM E. JUMEB
PE-6693
DATE: 5/7/2025
NORTH DAKOTA

C600

SHEET
PROPOSED LANDSCAPING

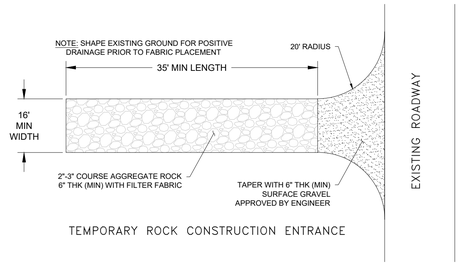
NOTES:
1. SILT FENCE FABRIC SHALL BE ONE OF THE FOLLOWING:
   A. BURLAP: AASHTO M182
   B. POLYPROPYLENE FABRIC: ASTM D4397
   C. NYLON NETTING REINFORCED FABRIC
   D. PREMANUFACTURED SILT FENCE MEETING EQUAL PROPERTIES OF ABOVE.
2. SILT FENCE FABRIC SHALL HAVE A MINIMUM BURSTING STRENGTH 150 PSI
3. SILT FENCE FABRIC SHALL HAVE EDGES TREATED TO PREVENT UNRAVELING.
4. MINIMUM HEIGHT OF THE SILT FENCE TO BE 2'-6" WITH A MINIMUM OF 6" CLEARANCE BETWEEN THE TOP OF THE SILT FENCE AND THE TOP OF THE POSTS.
5. INSTALL THE POSTS ON SLIGHT ANGLE TOWARDS THE ANTICIPATED RUNOFF SURFACE.



SILT FENCE DETAIL

1 SILT FENCE

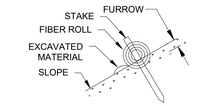
SCALE - NTS



TEMPORARY ROCK CONSTRUCTION ENTRANCE

2 ROCK CONSTRUCTION ENTRANCE

SCALE - NTS

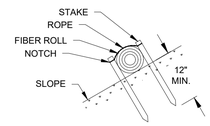


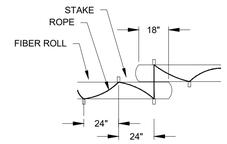
NOTES:

1. FIBER ROLL SPACING VARIES DEPENDING UPON SLOPE INCLINATION.

SLOPE	SPACING
2:1	10 FEET
3:1	15 FEET
4:1	20 FEET

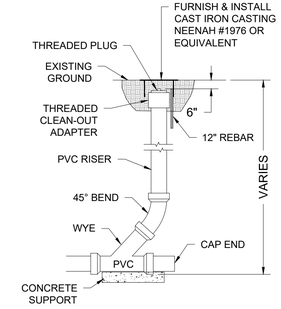
2. INSTALLATION SHOWN ARE FOR SLOPE INCLINATION OF 1:10 & STEEPER.





3 FIBER ROLLS / STRAW WATTLES

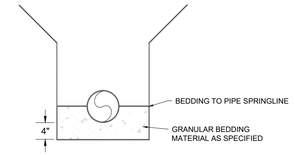
SCALE - NTS



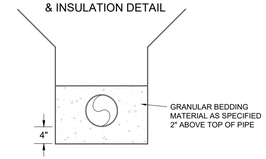
CLEANOUT DETAIL

4 SANITARY CLEANOUT DETAIL

SCALE - NTS



SEWERMAIN BEDDING & INSULATION DETAIL

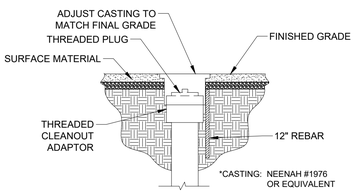


WATERMAIN BEDDING DETAIL

SAND CUSHION BEDDING-SUPPORT ENTIRE LENGTH OF PIPE SPECIAL COMPACTION REQUIRED TO PIPE SPRING LINE

5 WATER & SEWER BEDDING DETAIL

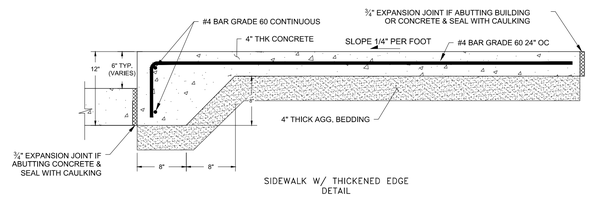
SCALE - NTS



CLEANOUT ADJUSTMENT

6 CLEANOUT ADJUSTMENT DETAIL

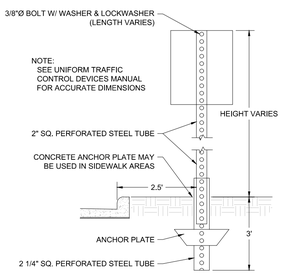
SCALE - NTS



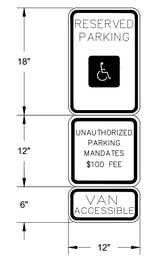
SIDEWALK W/ THICKENED EDGE DETAIL

7 THICKENED EDGE SIDEWALK DETAIL

SCALE - NTS



TYPICAL SIGN DETAIL



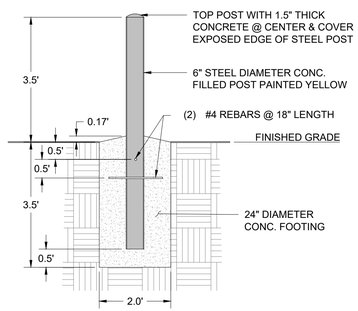
NORTH DAKOTA REQUIRES SPECIFIC SIGN COLOR DESIGNS FOR ACCESSIBLE PARKING SIGNS. THE "RESERVED PARKING" SIGN FOR HANDICAP SPACES HAS GREEN CHARACTERS AND BORDER, A BLUE SQUARE WITH AN OUTLINED HANDICAP SYMBOL, ALL ON A WHITE BACKGROUND

NORTH DAKOTA REQUIRES USERS TO BE INFORMED WITH A SEPARATE SIGN WHICH STATES "UNAUTHORIZED PARKING MANDATES $100 FEE"

"VAN ACCESSIBLE" SIGN MAY BE EITHER GREEN OR BLACK ON A WHITE BACKGROUND FOR PARKING SIGNAGE

8 SIGN & HC SIGNAGE DETAILS

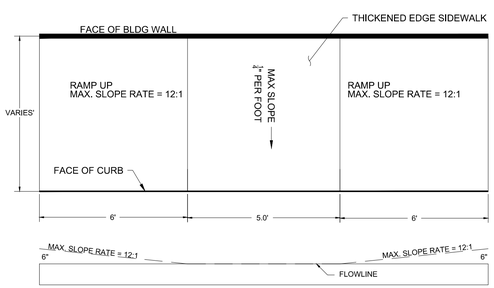
SCALE - NTS



BOLLARD DETAIL

9 BOLLARD DETAIL

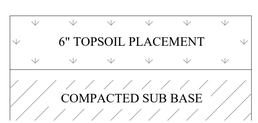
SCALE - NTS



HANDICAP RAMP TYPE 1

10 CURB RAMP DETAIL

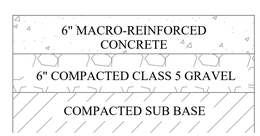
SCALE - NTS



TYPICAL LANDSCAPE SECTION

11 TYPICAL GREENSPACE CROSS SECTION

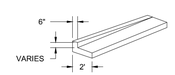
SCALE - NTS



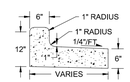
TYPICAL PAVEMENT SECTION PARKING AREAS

12 TYPICAL CONCRETE PAVEMENT SECTION

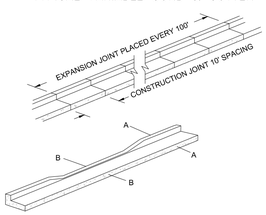
SCALE - NTS



TYPICAL VARIABLE CURB & GUTTER

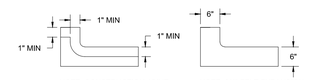


OUTFLOW FULL CURB



SECTION A - A FULL CURB

TYPICAL CURB & GUTTER



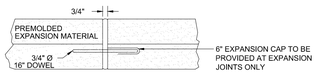
NOTE: CONSTRUCTION JOINT 10' SPACING

SECTION VIEW OF CONSTRUCTION JOINT (SAW CUT ON SLABS HAND EDGE ON CURB & GUTTER)

NOTE: 3/4" FELT EXPANSION JOINT PLACED EVERY 100'

SECTION VIEW OF EXPANSION JOINT

NOTE: EXPANSION CAPS TO BE OF 30 GA. STEEL ONE-HALF DOWEL TO BE COATED WITH HEAVY GREASE TO BE PLACED EVERY 100', AND AT ALL CURVE P.C. & P.T.'S



ELEVATION OF EXPANSION JOINT

13 CURB & GUTTER DETAILS

SCALE - NTS

REV#	DESCRIPTION	BY	DATE

REVISIONS

IDEAL IMAGE DENTISTRY

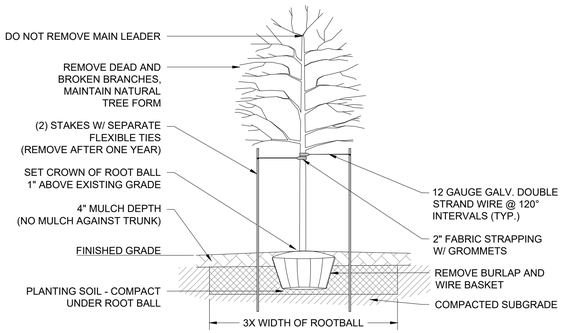
516 EAST MAIN STREET
LOTS 4-15, BLOCK 2, MANDAN PROPER
MANDAN, NORTH DAKOTA

Independent Land Surveying & Engineering Inc.
4215 OLD RED TRAIL NW, Mandan, ND 58554
Phone: 701-663-5184 PROJ # 25019

REGISTERED PROFESSIONAL ENGINEER
ABRAHM E. ULMER
PE-6693
DATE: 5/7/2025
NORTH DAKOTA

C700

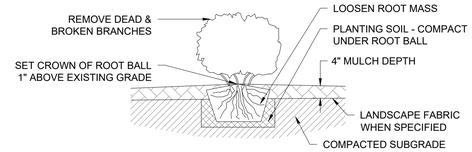
SHEET
DETAILS



DECIDUOUS PLANTING DETAIL

14 TREE PLANTING DETAIL

SCALE - NTS



SHRUB PLANTING DETAIL

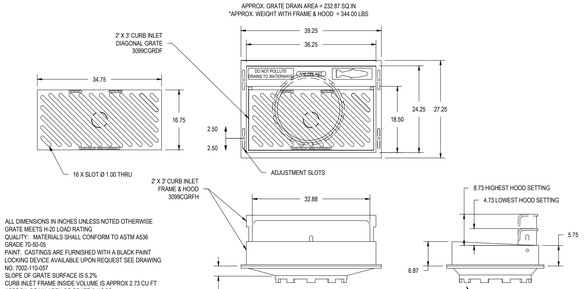
15 SHRUB PLANTING DETAIL

SCALE - NTS

INTENTIONALLY LEFT BLANK

3099CGRDF & 3099CGRFH

APPROX. GRATE DRAIN AREA = 232.87 SQ IN
*APPROX. WEIGHT WITH FRAME & HOOD = 344.00 LBS



ALL DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE
GRATE MEETS H-20 LOAD RATING
QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
LOCKING DEVICE AVAILABLE UPON REQUEST SEE DRAWING NO. 7002-110-057
SLOPE OF GRATE SURFACE IS 5.2%
CURB INLET FRAME INSIDE VOLUME IS APPROX 2.73 CU FT
APPROX. DRAIN AREA OF GRATE & HOOD
LOWEST SETTING = 369.54 SQ IN
LOWEST + 1" SETTING = 402.41 SQ IN
LOWEST + 2" SETTING = 435.29 SQ IN
LOWEST + 3" SETTING = 468.16 SQ IN
HIGHEST SETTING = 501.044 SQ IN

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

DRAWN BY	EBC	MATERIAL	DUCTILE IRON
DATE	4-10-06		
APPD BY	CJA	PROJECT NO./NAME	
DATE	4-10-06		
DWG SIZE	A	SCALE 1:16	SHEET 1 OF 1

Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2489
www.nyloplast-us.com

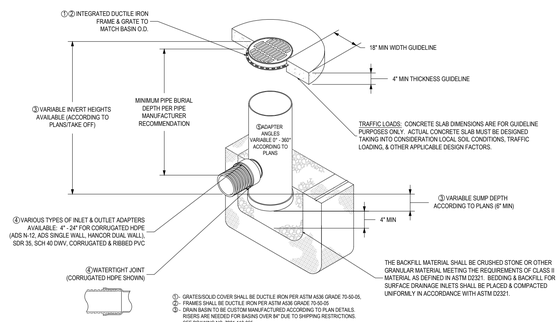
TITLE
2 FT X 3 FT CURB INLET DIAGONAL GRATE ASSEMBLY

DWG NO. 7002-110-046 REV B

16 NYLOPLAST CURB INLET

SCALE - NTS

NYLOPLAST 24" DRAIN BASIN: 2824AG _ _X



①- GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
②- FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
③- DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
④- DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
⑤- ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-013.

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	2496GGP	7001-110-216
STANDARD	MEETS H-20	2496GGS	7001-110-217
SOLID COVER	MEETS H-20	2496GGC	7001-110-218
DOME	N/A	2496GGD	7001-110-219
DROP IN GRATE	LIGHT DUTY	2424DI	7001-110-076

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

DRAWN BY	EBC	MATERIAL	
DATE	4-3-06		
APPD BY	CJA	PROJECT NO./NAME	
DATE	4-3-06		
DWG SIZE	A	SCALE 1:40	SHEET 1 OF 1

Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2489
www.nyloplast-us.com

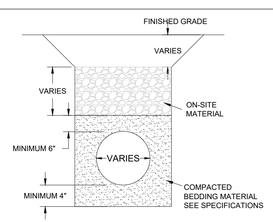
TITLE
24 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-192 REV B

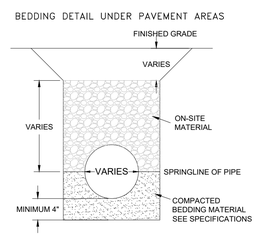
17 NYLOPLAST DRAIN BASIN

SCALE - NTS

INTENTIONALLY LEFT BLANK



BEDDING DETAIL UNDER PAVEMENT AREAS



BEDDING DETAIL UNDER LANDSCAPE AREAS

18 STORM SEWER BEDDING DETAIL

SCALE - NTS

INTENTIONALLY LEFT BLANK

REVISIONS			
REV#	DESCRIPTION	BY	DATE

IDEAL IMAGE DENTISTRY
516 EAST MAIN STREET
LOTS 4-15, BLOCK 2, MANDAN PROPER
MANDAN, NORTH DAKOTA

Independent Land Surveying & Engineering Inc.
4215 OLD RED TRAIL NW, Mandan, ND 58554
Phone: 701-663-5184 PROJ # 25019

REGISTERED PROFESSIONAL ENGINEER
ABRAHM E. ULMER
PE-6693
DATE: 5/7/2025
NORTH DAKOTA

C701

SHEET
DETAILS