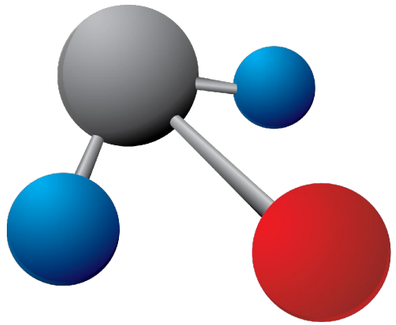
Beach 2025 Street and Utility Improvements



INDEX OF DRAWINGS

CITY COUNCIL

WALTER LOSINSKI — MAYOR
JOHN STONEHOCKER
ANDY ZACHMANN
TOM MARMAN
SARAH ROSS
LYNN SWANSON
BEVERLY WOLFF

ENGINEERING TEAM

CIVIL ENGINEER
Advanced Engineering and Environmental Services, Inc.

CERTIFICATION

CIVIL ENGINEER
Advanced Engineering and Environmental Services, Inc.

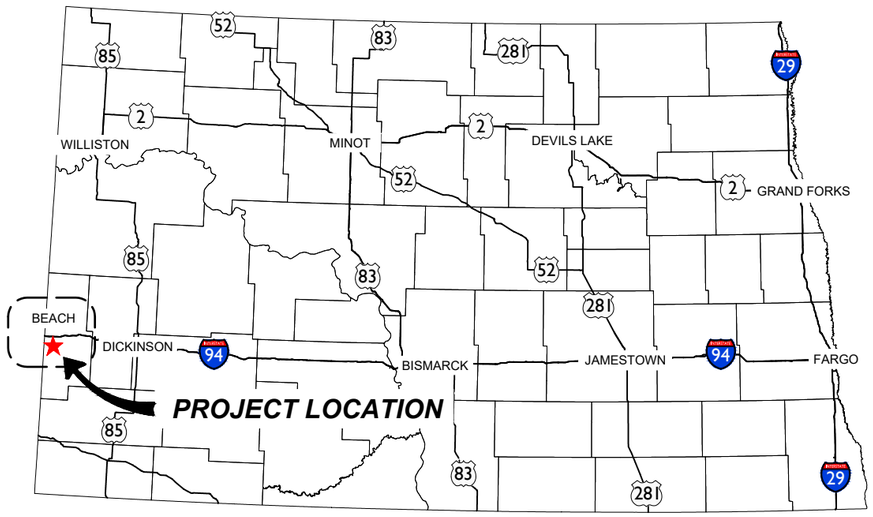
PREPARED FOR:
City of Beach

AE2S Project No.: 05066-2022-001

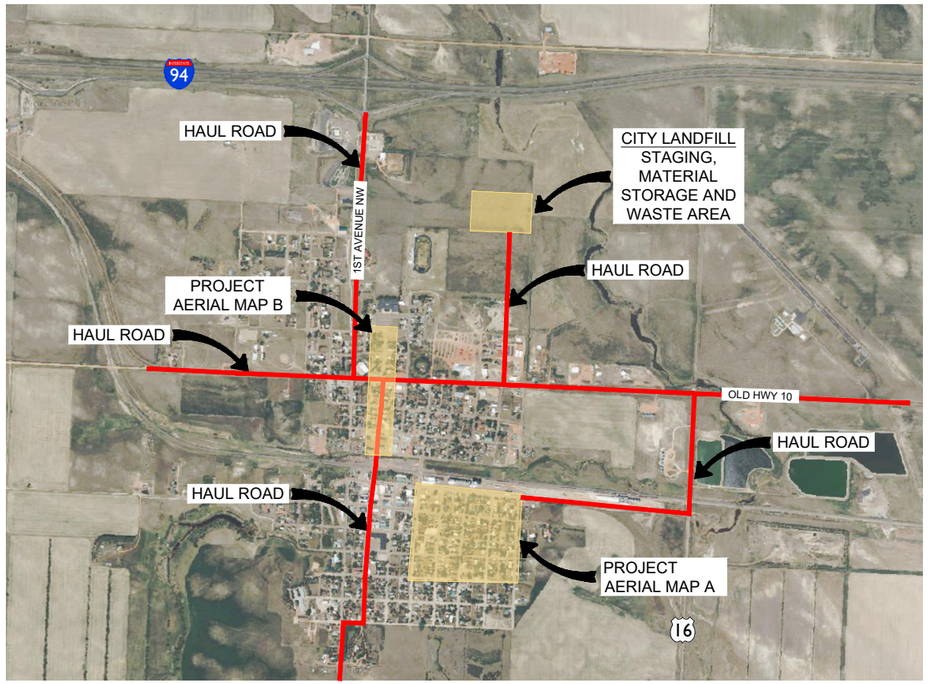
November 2024

PROJECT DRAWINGS

Advanced Engineering and Environmental Services, LLC
1815 Schafer St Ste 301 Bismarck, ND 58501
(t) 701-221-0530 www.ae2s.com



1 G1 **LOCATION MAP**
GOLDEN VALLEY COUNTY, NORTH DAKOTA



2 G1 **PROJECT VICINITY MAP**
BEACH, NORTH DAKOTA

3 G1 **PROJECT AERIAL MAP A SHEET INDEX**
BEACH, NORTH DAKOTA

4 G1 **PROJECT AEIRLA MAP B SHEET INDEX**
BEACH, NORTH DAKOTA

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

NORTH

SCALE: NONE

SYM	DATE	APPR

PROJECT TITLE:
BEACH 2025 STREET AND UTILITY IMPROVEMENTS
Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
SHEET INDEX AND LOCATION MAP

CLIENT: **CITY OF BEACH**
BEACH, ND

PREPARED BY: JG
CHECKED BY: TN
APPROVED BY: EL

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO:

SHEET DESIGNATOR:

SHEET NO: **G1**

CONSTRUCTION NOTES

THESE NOTES ARE NOT ALL-INCLUSIVE. ALL WORK MUST COMPLY WITH CONSTRUCTION SPECIFICATIONS.

GENERAL NOTES:

1. THESE NOTES APPLY TO THE ENTIRE PLAN SET EXCEPT AS INDICATED OTHERWISE. CONTRACTOR SHOULD NOTE THAT ADDITIONAL CONSTRUCTION NOTES AND REQUIREMENTS ARE INCLUDED ON INDIVIDUAL DRAWINGS AND IN THE SPECIFICATIONS.
2. THIS PLAN SET HAS A LEGEND WITH A LIST OF GENERAL ABBREVIATIONS, SYMBOLS, AND MATERIALS LISTED ON IT. SOME SYMBOLS, MATERIALS, AND ABBREVIATIONS MAY NOT BE UTILIZED ON THIS SPECIFIC PROJECT.
3. ALL CONTOURS, ELEVATIONS, AND COORDINATES FOR THE PROJECT ARE BASED ON NAD83 STATE PLANE COORDINATE SYSTEM, NORTH DAKOTA SOUTH ZONE AND NAVD-88.
4. THE AERIAL PHOTOGRAPHY SHOWN ON THE CONSTRUCTION PLAN SHEETS WAS COLLECTED IN 2017 BY WSN. THEREFORE, ACTUAL FIELD CONDITIONS MAY VARY FROM THOSE DISPLAYED IN THE CONSTRUCTION PLANS.
5. ALL PAVEMENT REMOVAL AND RESTORATION QUANTITIES LISTED IN THE PLANS REFER TO THE BASE BID ONLY. REFER TO ALTERNATIVE BID TAB FOR LIST OF QUANTITIES FOR FULL STREET WIDTH REPLACEMENT.
6. ITEMS NOT INCLUDED IN THE BID FORM AS A PAY ITEM BUT INCLUDED ELSEWHERE IN THE PLANS SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER AND SHALL BE CONSIDERED INCIDENTAL ITEMS. ENGINEER SHALL REVIEW AND VERIFY ACTUAL PAID QUANTITIES IN THE FIELD.
7. CONTRACTOR SHALL PROVIDE A ONE (1) WEEK NOTICE TO ENGINEER, OWNER, AND PROPERTY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION.
8. COLOR IS USED ON THESE PLANS TO DESIGNATE VARIOUS SYMBOLS AND QUANTITIES. CONTRACTOR MUST ENSURE THAT PERSONNEL WORKING ON THIS PROJECT ARE IN POSSESSION OF COLORED PLANS ONLY.
9. MISCELLANEOUS ITEMS SUCH AS MAILBOXES, ROAD SIGNS, FENCES, LIGHT AND POWER POLES, AND CULVERTS, UNLESS SPECIFICALLY CALLED OUT, SHALL BE PROTECTED OR REMOVED AND REPLACED BY THE CONTRACTOR INCIDENTAL TO THE CONTRACT.
10. CONTRACTOR SHALL LIMIT CONSTRUCTION WORK TO THE AREA BOUNDED BY THE PUBLIC SIDEWALKS, PROPERTY LINES, CONSTRUCTION LIMITS, OR R.O.W. UNLESS APPROVED BY ENGINEER. IN NO CASE SHALL MATERIALS OR EQUIPMENT BE PLACED ON THE PUBLIC SIDEWALK OR ON PRIVATE PROPERTY, UNLESS WRITTEN AUTHORIZATION IS PROVIDED IN ADVANCE BY AN APPROPRIATE ENTITY. CONTRACTOR SHALL LIMIT CONSTRUCTION TO ONE AREA (PER CONSTRUCTION CREW) OF THE PROJECT UNLESS OTHERWISE APPROVED BY THE ENGINEER. ANY DAMAGE FROM CONSTRUCTION ACTIVITIES OUTSIDE OF THE CONSTRUCTION LIMITS OR R.O.W. SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
11. MANHOLE CASTINGS AND VALVE COVERS SHALL BE COVERED AND PROTECTED DURING PAVING AND SEAL COAT OPERATIONS FROM MATERIALS THAT MAY ADHERE TO THE CASTING SURFACE. ALL MANHOLE CASTINGS AND GATE VALVE BOXES SHALL BE ADJUSTED TO FINAL GRADE AND CLEANED OF ANY FOREIGN MATERIAL, INCIDENTAL TO CONTRACT.
12. THE OWNER WILL INITIALLY FURNISH AND SET CONSTRUCTION STAKES AND MARKS FOR PIPELINE ALIGNMENT AND PROJECT CONTROL. THESE STAKES AND MARKS WILL BE SET ONLY AT THE ONSET OF THE PROJECT AND SHALL CONSTITUTE THE FIELD CONTROL FOR THE CONTRACTOR'S USE IN ESTABLISHING ALL NECESSARY CONTROL TO PERFORM THE WORK. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL STAKES AND MARKS. THE OWNER AND ENGINEER ARE NOT RESPONSIBLE FOR STAKES AND MARKS DESTROYED OR DISTURBED. THE CONTRACTOR SHALL HIRE THE ENGINEER/SURVEYOR AND PAY TO RESET ANY DESTROYED OR DISTURBED STAKES AND MARKS AT ENGINEER'S CURRENT HOURLY AND REIMBURSABLE FEES. BEFORE THE SURVEY CREW LEAVES THE SITE, THE CONTRACTOR SHALL DETERMINE THE MEANING OF ALL STAKES, MEASUREMENTS, AND MARKS.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINAGE AND EROSION CONTROL DURING CONSTRUCTION AND AT PROJECT COMPLETION. AN EROSION CONTROL PLAN WILL BE PREPARED AND SUBMITTED BY THE CONTRACTOR TO THE NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY AND ENGINEER PER SPECIAL PROVISIONS BEFORE COMMENCEMENT OF WORK.
14. CONTRACTOR TO PROVIDE AND MAINTAIN ADEQUATE DEWATERING EQUIPMENT TO REMOVE AND DISPOSE OF ANY SURFACE AND GROUNDWATER ENTERING THE TRENCH. ALL COSTS ASSOCIATED WITH CONTRACTOR SELECTED DEWATERING METHODS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
15. ALL BOLTS AND ANCHOR BOLTS INSTALLED THROUGHOUT THE PROJECT SHALL BE STAINLESS STEEL, UNLESS OTHERWISE NOTED IN THE DRAWINGS AND SPECIFICATIONS.
16. ONLY THOSE ROADS DESIGNATED AS TRUCK ROUTES CAN BE USED FOR THIS PROJECT, UNLESS OTHER ARRANGEMENTS ARE MADE AND APPROVED BY THE ENGINEER AND LOCAL GOVERNING AGENCY. LOAD LIMITS ARE ONLY MAXIMUM LIMITS AND DO NOT REPRESENT THE LOAD CARRYING CAPACITY OF THE HAUL ROAD. DAMAGE TO ANY ROAD (HAUL ROAD OR OTHERWISE) CAUSED BY THE CONTRACTOR SHALL BE INCIDENTAL AND REPAIRED TO PRECONSTRUCTION CONDITION AT THE CONTRACTORS EXPENSE REGARDLESS OF LOAD LIMITS PROVIDED. CONTRACTOR MUST MEET WITH INSPECTORS FROM GOVERNING AUTHORITY FOR PRE AND POST CONSTRUCTION INSPECTIONS.
17. THE CONTRACTOR SHALL PROVIDE AND INSTALL DETECTOR TAPE ON ALL SANITARY SEWER GRAVITY MAIN AND TRACER WIRE AND DETECTOR TAPE ON ALL WATER MAINS AND SANITARY SEWER FORCE MAINS. MATERIALS AND INSTALLATION SHALL BE PER SPECIFICATIONS.
18. CONTRACTOR SHALL SALVAGE EXISTING TOPSOIL TO FULL DEPTH OR A MAXIMUM OF 8 INCHES FROM THE ENTIRE AREA TO BE DISTURBED AND WHERE EXCAVATED MATERIAL IS STOCKPILED (EXCLUDING TOPSOIL STOCKPILES). TOPSOIL SHALL BE FREE FROM VEGETATION, FOR REPLACEMENT DURING RESTORATION. THE TOPSOIL SHALL BE STRIPPED AND STOCKPILED PRIOR TO PIPELINE EXCAVATION PERFORMED BY BACKHOE. ANY CONTAMINATED TOPSOIL SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING MINIMUM TESTING PRIOR TO PLACEMENT OF ALL MATERIALS REQUIRING COMPACTION CONTROL. A MINIMUM OF ONE 5 POINT PROCTOR FOR EACH TYPE OF MATERIAL ENCOUNTERED, WITH MATERIAL SAMPLES SPLITS SUBMITTED TO THE ENGINEER FOR ENGINEER'S REFERENCE AND IDENTIFICATION. THIS REQUIREMENT WILL APPLY TO "COMMON EXCAVATION - TYPE A" AND PIPE BACKFILL MATERIAL. THE COST OF TESTING WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE BID PRICE FOR RESPECTIVE ITEMS.

    WATER REQUIRED FOR COMPACTION PURPOSES SHALL NOT BE MEASURED OR PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE PRICE OF THE ITEM BEING PLACED.

TRAFFIC NOTES:

1. CONTRACTOR WILL GIVE THE ENGINEER A MINIMUM OF SEVEN (7) DAYS NOTICE PRIOR TO PLACING TRAFFIC CONTROL SIGNS FOR UNDERGROUND CONSTRUCTION, PAVEMENT REPLACEMENT, AND STREETSCAPE CONSTRUCTION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INFORM RESIDENTS AND BUSINESS OWNERS TO MOVE VEHICLES AND OF NO PARKING CONDITIONS TO ACCOMMODATE CONSTRUCTION ACTIVITIES A MINIMUM OF 48 HOURS IN ADVANCE. CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ACCESS AT ALL TIMES. CONTRACTOR SHALL MINIMIZE DISRUPTION OF TRAFFIC ON STREETS AND SIDEWALKS DURING THE ENTIRE CONSTRUCTION PERIOD.
3. CONTRACTOR SHALL FOLLOW THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS AND GUIDES FOR TRAFFIC CONTROL FOR STREET AND HIGHWAY CONSTRUCTION.

REMOVAL NOTES:

1. CONTRACTOR SHALL SAW CUT FULL DEPTH ALL CURB AND GUTTER, SIDEWALK, AND PAVEMENT PRIOR TO REMOVAL. IN FRONT OF ALL RECESSED PORTIONS OF BUILDINGS, CONCRETE SHALL BE REMOVED WITHIN BUILDING ENTRANCES BY MEANS OF FULL-DEPTH SAW CUT. ALL WORK INCIDENTAL TO CONTRACT.
2. THE OWNER RESERVES THE RIGHT TO INSPECT AND RETAIN ANY REMOVED VALVES, HYDRANTS, STREETLIGHT POLES AND BASES, TRAFFIC SIGNS AND POSTS, MANHOLE FRAMES, CATCH BASIN FRAMES, SOIL MATERIALS, OR OTHER SALVAGEABLE MATERIAL AND SHALL BE RELOCATED TO A DESIGNATED SITE AS APPROVED BY THE OWNER. EXCESS EXCAVATED MATERIAL INCLUDING SUBGRADE, PIPE, STUMPS, ROOTS, ASPHALT AND CONCRETE PAVEMENT, SIDEWALK, CURB AND GUTTER, AND ANY OTHER ITEMS THE CITY DOES NOT WISH TO SALVAGE SHALL BECOME CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY, INCIDENTAL TO THE CONTRACT.
3. ALL PATCH AREAS SHALL BE SAW-CUT TO PRODUCE A VERTICAL EDGE. EDGE SHALL BE TACK COATED IMMEDIATELY BEFORE PAVING.
4. ALL PIPELINES AND SERVICE LEADS THAT WILL BE REPLACED SHALL BE REMOVED TO THE GREATEST EXTENT POSSIBLE WHEN NEW PIPING IS TO BE INSTALLED IN THE SAME ALIGNMENT OR TRENCH PROXIMITY AS EXISTING PIPE. CONTRACTOR SHALL PLUG OPEN ENDS OF ABANDONED PIPES WITH GROUT WHEN IT IS NOT PRACTICAL TO REMOVE ABANDONED PIPE. ALL PIPE TO BE ABANDONED IN PLACE SHALL BE APPROVED BY THE ENGINEER. REMOVAL AND DISPOSAL OR PLUGGING OF ABANDONED PIPE SHALL BE INCIDENTAL TO PIPELINE INSTALLATION.
5. ALL MANHOLES THAT WILL BE REPLACED SHALL BE REMOVED TO THE GREATEST EXTENT POSSIBLE WHEN NEW MANHOLES, INLETS, AND PIPING IS TO BE INSTALLED IN THE SAME LOCATION/ALIGNMENT OR TRENCH PROXIMITY AS EXISTING PIPE.

UTILITY NOTES:

1. THE APPROXIMATE LOCATION OF KNOWN EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. OTHER UNKNOWN UTILITIES MAY EXIST. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES OR REPAIRING ANY DAMAGE WHICH OCCURS BECAUSE OF THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES INCIDENTAL TO CONTRACT. NOT ALL OVERHEAD UTILITIES ARE SHOWN ON THE PLANS.
2. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION, ELEVATION, SIZE, AND MATERIAL OF THE EXISTING UNDERGROUND PIPING AT THE POINTS OF CONNECTION. APPROVED TRANSITIONS SHALL BE USED TO MAKE ALL CONNECTIONS. PRECISE LOCATION AND ARRANGEMENT OF CONNECTIONS OF NEW PIPELINES WITH EXISTING PIPELINES ARE TO BE FIELD VERIFIED. PROVIDE FITTINGS, ADAPTERS, SOLID SLEEVE CLOSURES, HARNESSED MECHANICAL COUPLINGS, AND ROTATE FITTINGS, AND DEFLECT JOINTS (WITHIN MANUFACTURER'S SPECIFICATIONS) AS REQUIRED TO MAKE CONNECTIONS. PROVIDE TEMPORARY PLUG WITH FACTORY OUTLET SIZED AS REQUIRED FOR CONTRACTOR'S TESTING AND DISINFECTION WORK BEFORE MAKING CONNECTION. ANY DIFFERENT FITTINGS NECESSARY TO MAKE ALL CONNECTIONS SHALL BE INCIDENTAL.
3. CONTRACTOR SHALL CALL THE NORTH DAKOTA ONE CALL (1-800-795-0555) TO LOCATE UNDERGROUND FACILITIES PRIOR TO ANY EXCAVATION. ONE-CALL DOES NOT GUARANTEE LOCATION OF UTILITIES. ADDITIONAL UNMARKED UTILITIES MAY BE PRESENT WITHIN THE PROJECT AREA.
4. UTILITY APPURTENANCES SHALL BE ADJUSTED AND/OR REMOVED BY RESPECTIVE UTILITY COMPANIES. UTILITY COMPANIES SHALL BE CONTACTED BY CONTRACTOR TO COORDINATE ADJUSTMENTS.
5. THE PROTECTION, TEMPORARY SUPPORT, ADJUSTMENT, OR REQUIRED RELOCATION OF ANY UTILITIES AND STRUCTURES (UNDERGROUND, SURFACE, OR OVERHEAD) IS TO BE COORDINATED WITH THE CONTRACTOR AND THE OWNER OF EACH UTILITY BEFORE CONSTRUCTION/INSTALLATION IS STARTED. CONTRACTOR IS RESPONSIBLE FOR ALL RELATED COSTS.
6. WHERE EXISTING UTILITY WIRES (TELEPHONE, ELECTRIC, FIBER OPTIC) ARE LOCATED ADJACENT TO OR ABOVE THE PROPOSED WORK, CONTRACTOR SHALL TEMPORARILY SUPPORT EXISTING WIRES AND INSTALL PIPING UNDER EXISTING WIRES. ANY DECISION TO HAVE THE EXISTING UTILITIES RELOCATE WIRES WILL BE AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL HAVE THE UTILITY COMPANY PROVIDE AN ON-SITE REPRESENTATIVE TO INSPECT THE EXCAVATION AND TEMPORARY SUPPORT OF THE EXISTING UTILITY WIRES TO ENSURE THEY CONCUR WITH THE METHOD USED FOR TEMPORARY SUPPORT. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETION OF WORK AS INDICATED AND MEETING ALL UTILITY REQUIREMENTS TO ENSURE A FINAL INSTALLATION THAT BENEFITS BOTH THE CITY AND THE UTILITY COMPANY.

PROTECTION NOTES:

1. DURING CONSTRUCTION PROVIDE BARRIERS AROUND EXCAVATIONS AS NECESSARY TO PROTECT THE PUBLIC. CONTRACTOR TO LIMIT LENGTH OF OPEN TRENCH TO 100 FEET MAXIMUM. NO OPEN TRENCH SHALL BE LEFT UNATTENDED. ALL TRENCHES TO BE BACKFILLED AND PROTECTED PRIOR TO THE END OF EACH WORKDAY. COSTS FOR THESE MEASURES SHALL BE INCIDENTAL TO THE CONTRACT.
2. UNDERGROUND SPRINKLER SYSTEMS AND LANDSCAPING FEATURES SHALL BE PROTECTED BY CONTRACTOR. ANY DAMAGED COMPONENTS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL CONTACT PROPERTY OWNER PRIOR TO REMOVING ANY SPRINKLER OR LANDSCAPING ITEMS AND COORDINATE TEMPORARY INTERRUPTIONS AND FINAL INSPECTIONS OF REPAIRED/REPLACED ITEMS.
3. CONTRACTOR MUST RE-ESTABLISH ANY DISTURBED PROPERTY PINS OR CONTROL POINTS WITH SERVICES OF REGISTERED LAND SURVEYOR (RLS) REGISTERED IN NORTH DAKOTA. CONTRACTOR MUST SUBMIT CERTIFICATE OF SURVEY FOR EACH PROPERTY WITH RE-ESTABLISHED PROPERTY PINS. THE COST FOR RLS SERVICES SHALL BE INCIDENTAL.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING OSHA STANDARDS FOR EXCAVATION AND TRENCHING.
5. CONTRACTOR SHALL CLEAN STREETS, DRIVEWAYS, INTERSECTIONS, ETC. AFFECTED BY CONSTRUCTION ACTIVITIES INSIDE OR OUTSIDE OF CONSTRUCTION LIMITS DURING CONSTRUCTION PERIOD ON A DAILY BASIS. CONTRACTOR SHALL REPAIR AND CLEAN PAVEMENTS TO THE CONDITION THEY WERE IN PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO REOPENING LANE PORTIONS TO TRAFFIC BEFORE PAYMENT FOR RESTORATION BID ITEMS WILL BE PAID.
6. CONTRACTOR TO PROVIDE CONCRETE TRUCK WASH OUT AREA AT SITE EXIT. CLEAN UP AND REMOVE WASH OUT DEBRIS FROM THE SITE ON A WEEKLY BASIS.
7. CONTRACTOR SHALL TAKE MEASURES TO PROTECT EXISTING ASPHALT AND CONCRETE SURFACES NOT SCHEDULED FOR REPLACEMENT FROM DAMAGE. ANY DAMAGE SHALL BE REPLACED OR REPAIRED AT THE CONTRACTORS EXPENSE.
8. CONTRACTOR SHALL NOT DISTURB, DAMAGE, OR REMOVE ANY EXISTING TREES OR BUSHES. NOTIFY THE ENGINEER PRIOR TO REMOVAL OF ANY TREES.

PIPELINE INSTALLATION NOTES:

1. ALL EXISTING SANITARY SERVICES THAT ARE CONNECTED TO THE SANITARY SEWER ARE BEING REPLACED FROM THE NEW SANITARY SEWER MAIN TO 2' BEYOND THE CURB LINE, UNLESS OTHERWISE SPECIFIED.
2. CONTRACTOR SHALL VERIFY THE LOCATION, SIZE, AND MATERIAL OF THE EXISTING SANITARY SEWER MAINS, WATERMAINS AND LEADS AT THE POINTS OF CONNECTION. APPROVED COUPLINGS SHALL BE USED TO MAKE CONNECTIONS AFTER VERIFICATION. RECONNECTION OF SANITARY SEWER MAINS, WATER MAINS, AND SERVICE LEADS SHALL BE INCIDENTAL TO PIPELINE INSTALLATION.
3. CONTRACTOR SHALL MAINTAIN SANITARY SEWER SERVICE AT ALL TIMES DURING CONSTRUCTION. IF REQUIRED, THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT TO PROVIDE TEMPORARY BYPASS PUMPING AND ASSOCIATED PIPING AROUND CONSTRUCTION AREA.
4. WHEN SOFT OR UNSTABLE MATERIAL IS ENCOUNTERED AT THE TRENCH SUBGRADE WHICH WILL NOT UNIFORMLY SUPPORT THE PIPE, EXCAVATE THE MATERIAL TO THE DEPTH DIRECTED BY THE ENGINEER AND BACKFILL TO TRENCH BOTTOM ELEVATION WITH TYPE A1 MATERIAL INCIDENTAL TO THE CONTRACT.
5. WATERMAIN DEFLECTIONS FROM A STRAIGHT LINE OR GRADE ARE TO BE MADE WITH FITTINGS, DEFLECTED JOINTS, SHORTER PIPE SECTIONS, OR A COMBINATION OF THESE METHODS TO CONFORM TO THE ALIGNMENT AND PROFILE INDICATED ON THE DRAWINGS AND SPECIFIED. DEFLECTED JOINTS ARE NOT TO EXCEED THE MANUFACTURER RECOMMENDED VALUES SPECIFIED FOR THE PIPE JOINT.
6. WATERMAIN MINIMUM DEPTH OF COVER SHALL BE 7 FEET 6 INCHES MEASURED FROM THE GROUND SURFACE TO THE TOP OF THE PIPE UNLESS OTHERWISE SHOWN ON THE PLANS. PIPES SHALL BE LOWERED, AS REQUIRED, TO AVOID CONFLICTS WITH EXISTING UTILITIES AND TO MAINTAIN SPECIFIED AND REQUIRED SEPARATIONS.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR, REPLACEMENT AND REROUTING OF ALL WATERMAIN SERVICE LINES DAMAGED DURING PIPELINE CONSTRUCTION. INCIDENTAL TO CONTRACT.
8. WATER SERVICE SHALL NOT BE INTERRUPTED. WATER TRANSMISSION VIA THE EXISTING DISTRIBUTION SYSTEM IS CRITICAL AND CONTRACTOR SHALL PROTECT EXISTING AND NEW PIPES TO ENSURE WATER QUANTITY AND QUALITY IS IN NO WAY DISRUPTED.
9. IF CONTRACTOR EXPOSES SANITARY SEWER MAIN PIPES WHILE INSTALLING NEW WATERMAIN, CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS NECESSARY TO PROVIDE A MINIMUM 10 FT. HORIZONTAL OR 1.5' VERTICAL SEPARATION BETWEEN NEW/EXISTING WATER MAIN AND NEW/EXISTING SANITARY PIPE. CONTRACTOR SHALL COMPLY WITH UPPER MISSOURI DISTRICT HEALTH UNIT REGULATIONS (10 STATE STANDARDS). ALL COSTS TO ASSURE SEPARATION OR CONTAINMENT SHALL BE INCIDENTAL TO THE CONTRACT.
10. LOCATING EXISTING WATER AND SEWER SERVICE LINES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. EXACT LOCATION OF EXISTING WATER AND SEWER SERVICE LINES ARE NOT KNOWN.
11. THE CONTRACTOR SHALL MAINTAIN WATER SERVICES TO ALL RESIDENTS AT ALL TIMES EXCEPT FOR SHORT PERIODS WHEN MAKING THE NEW CONNECTION. THE CONTRACTOR SHALL NOTIFY THE RESIDENTS 24 HOURS IN ADVANCE WHEN WATER SERVICE WILL BE DISCONNECTED. THE CONTRACTOR MUST PROVIDE FOR CONTINUOUS WATER SERVICE TO ADJACENT PROPERTY. ANY METHOD USED MUST HAVE THE APPROVAL OF THE ENGINEER. IF THE CONTRACTOR ELECTS TO SET UP A TEMPORARY WATER SUPPLY, POLYETHYLENE PIPE OR ANOTHER PIPE APPROVED BY THE ENGINEER MUST BE USED. RUBBERIZED GARDEN HOSE MAY NOT BE USED.
12. CONTRACTOR SHALL USE ANY MEANS AT HIS DISPOSAL, INCLUDING TRENCH BOX TECHNOLOGY TO ENSURE SERVICE PIPE TOP OF TRENCH WIDTH DOES NOT EXCEED THE WIDTHS INDICATED ON THE DRAWINGS.
13. THE SIZE OF THE EXISTING WATER AND SEWER SERVICE LINES IS UNKNOWN. ALL CONNECTIONS AND FITTINGS REQUIRED TO CONNECT THE NEW SERVICE LINES TO THE EXISTING SERVICE LINES SHALL BE CONSIDERED INCIDENTAL. THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE THE SERVICE LINES FROM THE EXISTING CONNECTION POINT TO THE LOCATION OF THE TAP ON THE EXISTING MAIN AND SHALL ALSO BE CONSIDERED INCIDENTAL.
14. CONTRACTOR SHALL ALLOW THE OWNER'S REPRESENTATIVE ON SITE TO COLLECT GPS DATA ON THE INSTALLED UTILITIES AND APPURTENANCES.

COORDINATION NOTES:

1. CONTRACTOR WILL BE REQUIRED TO LIMIT STAGING AREAS TO THOSE AREAS SHOWN ON THE DRAWINGS OR AS DETERMINED IN THE FIELD BY THE ENGINEER AND THE OWNER.
2. DESIGNATED HAUL ROUTES SHALL BE REQUESTED BY THE CONTRACTOR IN ADVANCE AND APPROVED BY THE ENGINEER AND THE OWNER.
3. CONSTRUCTION ON A CITY BLOCK SHALL PROCEED CONTINUOUSLY FROM ONE END TO THE OTHER. TRAFFIC SHALL BE MAINTAINED INTO PROPERTY ENTRIES, UNLESS OTHERWISE APPROVED BY PROPERTY OWNER. THE MAXIMUM LENGTH OF OPEN TRENCH SHALL BE 100 FEET UNLESS ADDITIONAL CREWS ARE PROVIDED FOR SEPARATE LOCATIONS. CONTRACTOR SHALL RESTORE SURFACES AS WORK PROGRESSES AND NOT WAIT UNTIL THE END OF THE PROJECT.
4. CONTRACTOR SHALL COORDINATE THE SUPPORT OF UTILITY CROSSINGS WITH UTILITY COMPANY, TRAFFIC CONTROL, AND PEDESTRIAN CROSSING ISSUES WITH THE ENGINEER AND OWNER, AND MOBILITY ISSUES WITH OTHER CONSTRUCTION SITES IN THE AREA.
5. CONTRACTOR SHALL MAINTAIN CONTINUOUS ACCESS TO EXISTING FACILITIES, DRIVEWAYS, AND PARKING LOTS AFFECTED BY CONSTRUCTION FOR THE DURATION OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INFORM RESIDENTS AND BUSINESS OWNERS TO MOVE VEHICLES AND OF NO PARKING CONDITIONS TO ACCOMMODATE CONSTRUCTION AND CONSTRUCTION RELATED ACTIVITIES A MINIMUM OF 48 HOURS IN ADVANCE. CONTRACTORS'S RESPONSIBILITY TO MAINTAIN ACCESS AT ALL TIMES.
6. CONTRACTOR SHALL NOTIFY ENGINEER, OWNER, AND PROPERTY OWNERS AT LEAST 48 HOURS IN ADVANCE (EXCLUDING WEEKENDS AND HOLIDAYS) OF TEMPORARY DISRUPTION OF TRAFFIC OR ACCESS, WHEN SECTIONS OF SIDEWALK AND/OR ROAD WILL BE REMOVED AND REPLACED, OR WHEN WATER SERVICE WILL BE DISRUPTED.
7. COORDINATE STORAGE AND STOCKPILE SITES WITH THE ENGINEER AND OWNER.
8. CONTRACTOR SHALL PROVIDE A TEMPORARY 4" (MINIMUM) GRAVEL DRIVING SURFACE WITHIN 72 HOURS OF CLOSING ROADWAY. IN ADDITION, THE CONTRACTOR SHALL ALSO PROVIDE ALL NECESSARY TRAFFIC CONTROL AND SIGNAGE AS REQUIRED TO CLOSE THE ROADWAY AND DETOUR TRAFFIC. AFTER SURFACE RESTORATION IS COMPLETE, TEMPORARY GRAVEL SHALL BE STOCKPILED WITHIN THE CONSTRUCTION LIMITS. THE SALVAGED GRAVEL WILL BECOME THE PROPERTY OF THE OWNER. TEMPORARY GRAVEL SHALL BE CONSIDERED INCIDENTAL TO CONTRACT.
9. CONTRACTOR SHALL COORDINATE THE OPERATION OF EXISTING PIPELINES, VALVES, AND HYDRANTS WITH CITY PERSONNEL. GREAT CARE MUST BE USED IN OPERATING VALVES AND HYDRANTS ON THE EXISTING WATER SYSTEM (DUE TO AGE AND CONDITION). ANY MAIN BREAKS CAUSED BY CONTRACTOR WILL BE CORRECTED AND PAID FOR BY CONTRACTOR INCIDENTAL TO CONTRACT.

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

SYM	DATE	APPR

GENERAL NOTES

1. THE INFORMATION DEPICTED WITHIN THESE DRAWINGS IS COMPILED FROM LEGACY DRAWINGS AND FIELD SURVEYS FROM PREVIOUS PROJECTS, SITE VISITS, CONSTRUCTION OBSERVATION TIES AND PHOTOGRAPHS, AND THE MEMORIES OF CITY STAFF AND CONSTRUCTION OBSERVERS.
2. THE LOCATIONS OF KNOWN UNDERGROUND UTILITIES ARE SHOWN ON THE CONSTRUCTION DRAWINGS IN AN APPROXIMATE WAY ONLY. ADDITIONAL ACTIVE AND INACTIVE UTILITIES MAY BE PRESENT.
3. COORDINATE ALL ON-SITE STORAGE WITH OWNER TO AVOID CONFLICTS WITH EXISTING UTILITIES.
4. MAINTAIN OWNER EGRESS TO SITE AT ALL TIMES.

PROJECT TITLE:

2025 STREET AND UTILITY IMPROVEMENTS

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE: **GENERAL NOTES**

CLIENT: **CITY OF BEACH**, BEACH, ND

PREPARED BY: JG
CHECKED BY: TN
APPROVED BY: EL

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO:

SHEET DESIGNATOR:

SHEET NO: **G2**

CIVIL ABBREVIATIONS

(OTHER ABBREVIATIONS MAY APPEAR ON DRAWINGS ASSOCIATED WITH SPECIFIC WORK)

&	- AND
∠	- ANGLE
@	- AT
℄	- CENTERLINE
°	- DEGREES
Δ	- DELTA
Ø	- DIAMETER
□	- SQUARE
±	- PLUS / MINUS
ABS	- ACRYLONITRILE-BUTADIENE-STYRENE
ACI	- AMERICAN CONCRETE INSTITUTE
ACP	- ASBESTOS CEMENT PIPE
ADD'L	- ADDITIONAL
ADDM.	- ADDENDUM
ADJ.	- ADJUSTABLE
AGGR.	- AGGREGATE
ALT.	- ALTERNATE
APPR.	- APPROACH
APPROX.	- APPROXIMATE
APPURT.	- APPURTENANCE
ARCH.	- ARCHITECT or ARCHITECTURAL
AR MH	- AIR RELEASE MANHOLE
ARV	- AIR RELEASE VALVE
ASSY.	- ASSEMBLY
ASTM	- AMERICAN SOCIETY FOR TESTING MATERIALS
AVE	- AVENUE
AVV	- AIR / VACUUM VALVE
BFV	- BUTTERFLY VALVE
BITUM.	- BITUMINOUS
BL	- BUILDING LINE
BLDG.	- BUILDING
BLK.	- BLOCK
B.O.	- BY OTHERS
BP	- BEGINNING OF PROJECT
BRG.	- BEARING
BSMT.	- BASEMENT
BVC	- BEGIN VERTICAL CURVE
C-C	- CENTER TO CENTER
C&G	- CURB AND GUTTER
CB	- CATCH BASIN
CDF	- CONTROLLED DENSITY FILL
CF	- CUBIC FEET
CI	- CAST IRON
CIP	- CAST IRON PIPE
C.I.P.	- CAST IN PLACE
CJ	- CONSTRUCTION JOINT
CL	- CENTERLINE
CMP	- CORRUGATED METAL PIPE
CO	- CLEANOUT
CONC.	- CONCRETE
CONSTR.	- CONSTRUCTION
CONT.	- CONTINUOUS
CNTRL.	- CONTROL
CSP	- CORRUGATED STEEL PIPE
CSV	- CURB STOP VALVE
CTR	- CENTER
CU	- COPPER
CY	- CUBIC YARD
DEPR.	- DEPRESSION
DTL	- DETAIL
DI or D.I.	- DUCTILE IRON
DIA.	- DIAMETER
DIM.	- DIMENSION
DIP	- DUCTILE IRON PIPE
DIST.	- DISTANCE
DR	- DRIVE
DRWY	- DRIVEWAY
DWG.	- DRAWING
E.	- EAST
E-W	- EAST TO WEST
EA.	- EACH
E.F.	- EACH FACE
EJ	- EXPANSION JOINT
ELEC.	- ELECTRICAL
ELEV.	- ELEVATION
EP	- END OF PROJECT
EQ.	- EQUAL
EVC	- END VERTICAL CURVE
E.W.	- EACH WAY
EXIST.	- EXISTING
EXP.	- EXPANSION
FDN.	- FOUNDATION
FIN.	- FINISH
FL	- FLOW LINE OR FLANGE
FLR.	- FLOOR
FM	- FORCE MAIN
FRP	- FIBERGLASS REINFORCED PLASTIC
FT.	- FOOT
G&S	- GROOVE AND SHOULDER
GA.	- GAGE
GALV.	- GALVANIZED
GR.	- GRADE
GRD.	- GROUND
GV	- GATE VALVE
H	- HATCH
HDD	- HORIZONTAL DIRECTIONAL DRILLING
HDPE	- HIGH DENSITY POLYETHYLENE
HORZ.	- HORIZONTAL
HR.	- HANDRAIL
HT.	- HEIGHT
HYD	- HYDRANT
I.D.	- INSIDE DIAMETER
I.E.	- INVERT ELEVATION
IN.	- INCH
INSUL	- INSULATION
INV.	- INVERT
JT.	- JOINT
K	- RATE OF CURVATURE
L	- LENGTH OF CURVE
LB	- POUND
LCCP	- LINED CONCRETE CYLINDER PIPE
LF	- LINEAR FEET
LVC	- LENGTH OF VERTICAL CURVE
LVL	- LEVEL
MAX.	- MAXIMUM
MECH	- MECHANICAL
MFG.	- MANUFACTURER
MH	- MANHOLE
MJ or M.J.	- MECHANICAL JOINT
MIN.	- MINIMUM
MNDOT	- MINNESOTA DEPARTMENT OF TRANSPORTATION
MTDOT	- MONTANA DEPARTMENT OF TRANSPORTATION
MTR.	- METER
N.	- NORTH
N-S	- NORTH TO SOUTH
NA	- NOT APPLICABLE
NDDOT	- NORTH DAKOTA DEPARTMENT OF TRANSPORTATION
NPT	- NIPPLE
NTS	- NOT TO SCALE
O.C.	- ON CENTER
O.D.	- OUTSIDE DIAMETER
OH.	- OVERHEAD
OPNG.	- OPENING
OSHA	- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PC	- POINT OF CURVATURE
PC	- PRECAST
P.C.C.	- PORTLAND CEMENT CONCRETE
PE	- POLYETHYLENE
PE or P.E.	- PLAIN END
PEP	- POLYETHYLENE PIPE
PI	- POINT OF INTERSECTION
PO	- PUSH ON
POLY	
PRV	- PRESSURE REDUCING VALVE
PSI	- POUNDS PER SQUARE INCH
PT	- POINT OF TANGENCY
PLV	- PLUG VALVE
PVC	- POLYVINYL CHLORIDE
PVI	- POINT OF VERTICAL INTERSECTION
R or RAD	- RADIUS
R.	- RISER
RCCP	- REINFORCED CONCRETE CYLINDER PIPE
RCP	- REINFORCED CONCRETE PIPE
RDL	- ROOF DRAIN LINE
RES	- RESERVOIR
REQ'D.	- REQUIRED
REQ'MTS.	- REQUIREMENTS
RJ	- RESTRAINED JOINT
S.	- SOUTH
S-N	- SOUTH TO NORTH
SAN	- SANITARY
SCH.	- SCHEDULE
SD	- STORM DRAIN
SECT.	- SECTION
SF	- SQUARE FEET
SIM.	- SIMILAR
SS	- SANITARY SEWER
SSSL	- SANITARY SEWER SERVICE LEAD
ST	- STREET
STA	- STATION
STD.	- STANDARD
STL.	- STEEL
STN. STL.	- STAINLESS STEEL
STR.	- STRUCTURAL
STRUCT	- STRUCTURAL
SUP.	- SUPPORT
SWPP	- STORM WATER POLLUTION PROTECTION
SY	- SQUARE YARD
TEMP.	- TEMPORARY
THK.	- THICK
TOC	- TOP OF CASTING
T.O.P.	- TOP OF PIPE
TOS	- TOP OF STEEL
TYP.	- TYPICAL
UON	- UNLESS OTHERWISE NOTED
USACE	- U.S. ARMY CORPS OF ENGINEERS
VCP	- VITRIFIED CLAY PIPE
VERT.	- VERTICAL
W.	- WEST
W-E	- WEST TO EAST
W/	- WITH
W/O	- WITHOUT
WM	- WATERMAIN
WRF	- WATER RECLAMATION FACILITY
WSL	- WATER SERVICE LEAD
WTF	- WATER TREATMENT FACILITY
WTP	- WATER TREATMENT PLANT
WWF	- WELDED WIRE FABRIC
WWTP	- WASTE WATER TREATMENT PLANT

CIVIL BOUNDARY LEGEND

- SECTION LINE
- PROPERTY BOUNDARY
- PROPERTY LINE / LOT LINE
- EASEMENT LINE
- R/W — RIGHT-OF-WAY
- P/E — PERMANENT EASEMENT
- C/E — CONSTRUCTION EASEMENT

CIVIL UTILITY LEGEND

EXISTING	PROPOSED	
	SS	SANITARY SEWER
	SSFM	SANITARY SEWER FORCEMAIN
		SANITARY MANHOLE
		SANITARY CLEANOUT
	SD	STORM DRAIN PIPE
		AREA INLET
		BEEHIVE INLET
		CURB INLET
		STORM MANHOLE
		FES OUTFALL
W	W	WATER LINE
		CURB STOP
		GATE VALVE
		FIRE HYDRANT
		WATER CROSS
		WATER TEE
		WATER FITTING
		WATER CAP
		WATER COUPLING
		WATER REDUCER
		SADDLE
CTV		CABLE TV LINE
TV		CABLE TV PEDESTAL
T		TELEPHONE LINE
T		TELEPHONE PEDESTAL
TFO		FIBER OPTIC LINE
TFO		FIBER OPTIC PEDESTAL
C		COMMUNICATIONS LINE
MDU		GAS LINE
X G X		GAS LINE-ABANDONED
UGE		ELECTRIC, UNDERGROUND
OHE		ELECTRIC, OVERHEAD
		ELECTRIC UTILITY POLE
		ELECTRIC BOX
C		ELECTRIC GUY
		ELECTRIC LIGHT
		MAILBOX
		UNKNOWN MANHOLE
		UNKNOWN VALVE
		SIGN

CIVIL TOPOGRAPHIC LEGEND

EXISTING	PROPOSED	
		BUILDING
X	X	FENCE, BARBED WIRE
XX	XX	FENCE, WOVEN WIRE
		FENCE, CHAINLINK
		FENCE, WOOD
		FENCE, VINYL
		TREE - GROUP
		TREE - CONIFEROUS
		TREE - DECIDUOUS
		SHRUB / BUSH
		SIGN
		MILE POST
		BORE HOLE
ROW		RIGHT-OF-WAY MONUMENT
900	900	CONTOUR - INDEX / CONTOUR - INTERMEDIATE

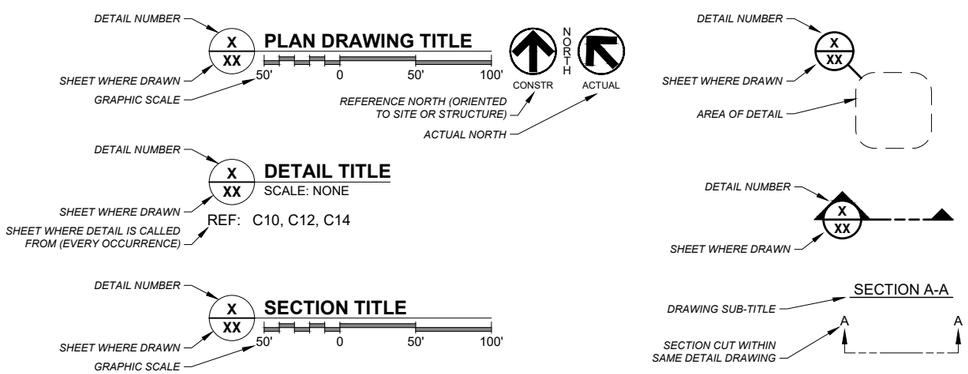
CIVIL SURFACE LEGEND

EXISTING	PROPOSED	
		BITUMINOUS PAVEMENT - USDA ELIGIBLE (BASE BID)
		CONCRETE - USDA ELIGIBLE (BASE BID)
		GRAVEL
		BITUMINOUS PAVEMENT-CITY
		CONCRETE-CITY
		CONCRETE-REMOVED AND REPLACED WITH TOPSOIL

CIVIL DRAWING SYMBOLS

- BREAKLINE (OBJECT CONTINUES, DRAWING ENDS)
- DIRECTION OF FLOW
- 1 — EXISTING NOTES
- 1 — DEMOLITION NOTES
- 1 — CONSTRUCTION NOTES
- 1 — PIPING SCHEDULE ITEMS

DRAWING, SECTION AND DETAIL CONVENTIONS



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

APPR	DATE	SYM

PROJECT TITLE:

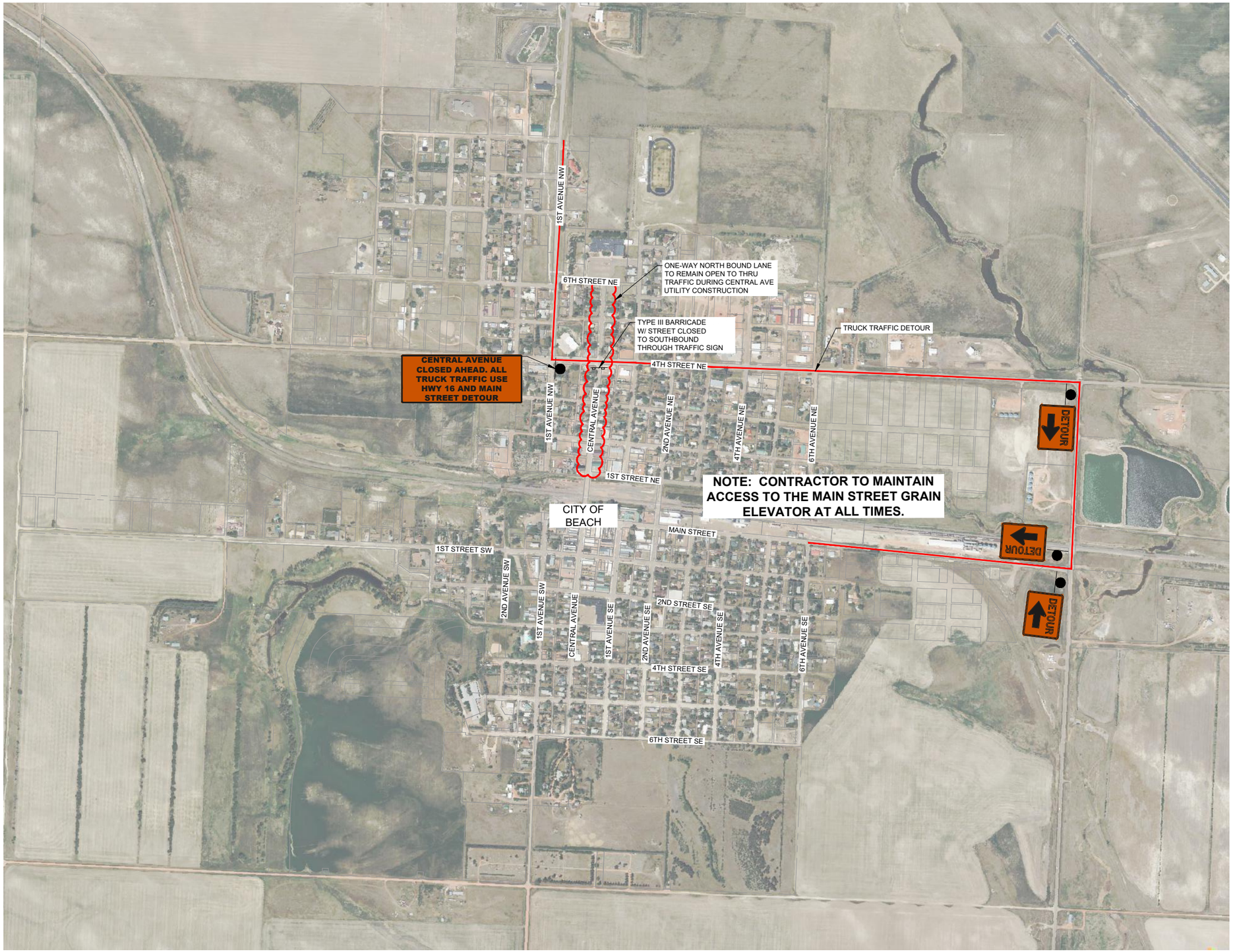
2025 STREET AND UTILITY IMPROVEMENTS

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:

CIVIL NOTES AND ABBREVIATIONS

CLIENT: CITY OF BEACH, ND		PREPARED BY: JG
		CHECKED BY: TN
		APPROVED BY: EL
PROJECT NO: 05066-2022-001	SHEET DESIGNATOR:	SHEET NO: G3
DATE: NOVEMBER 2024		
ALT. PROJECT NO:		



1 G4 **TRAFFIC CONTROL**
BEACH, ND

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

NORTH

SCALE: NONE

GENERAL NOTES

1. THIS TRAFFIC CONTROL PLAN APPLIES TO THE UTILITY REPLACEMENT WORK BEING DONE ON CENTRAL AVE AND MAIN STREET. CONTRACTOR IS RESPONSIBLE FOR CREATING A TRAFFIC CONTROL PLAN FOR THE REMAINDER OF THE PROJECT.
2. THIS TRAFFIC CONTROL PLAN ONLY APPLIES TO TRUCK TRAFFIC AND GENERAL TRAFFIC. CONTRACTOR IS RESPONSIBLE TO MAINTAIN ACCESS TO THE LOCAL HOME OWNERS ALONG THE PROJECT CORRIDOR AT ALL TIMES.

SYM	DATE	APPR

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS
Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
TRAFFIC CONTROL

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: JG
CHECKED BY: TN
APPROVED BY: EL

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO:

SHEET DESIGNATOR:

SHEET NO:
G4

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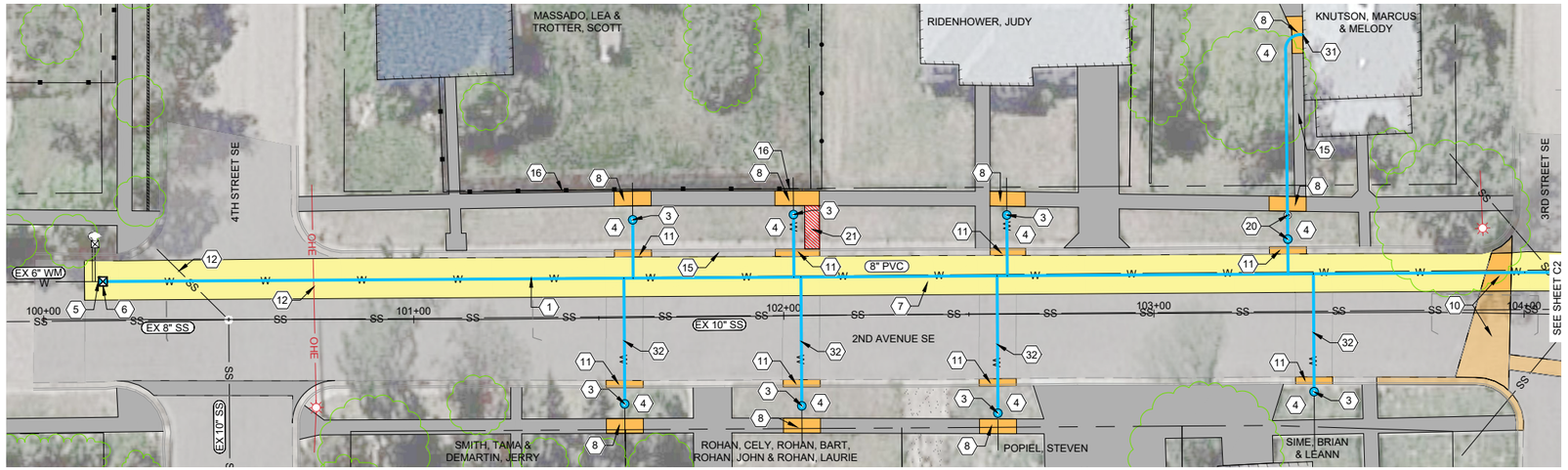
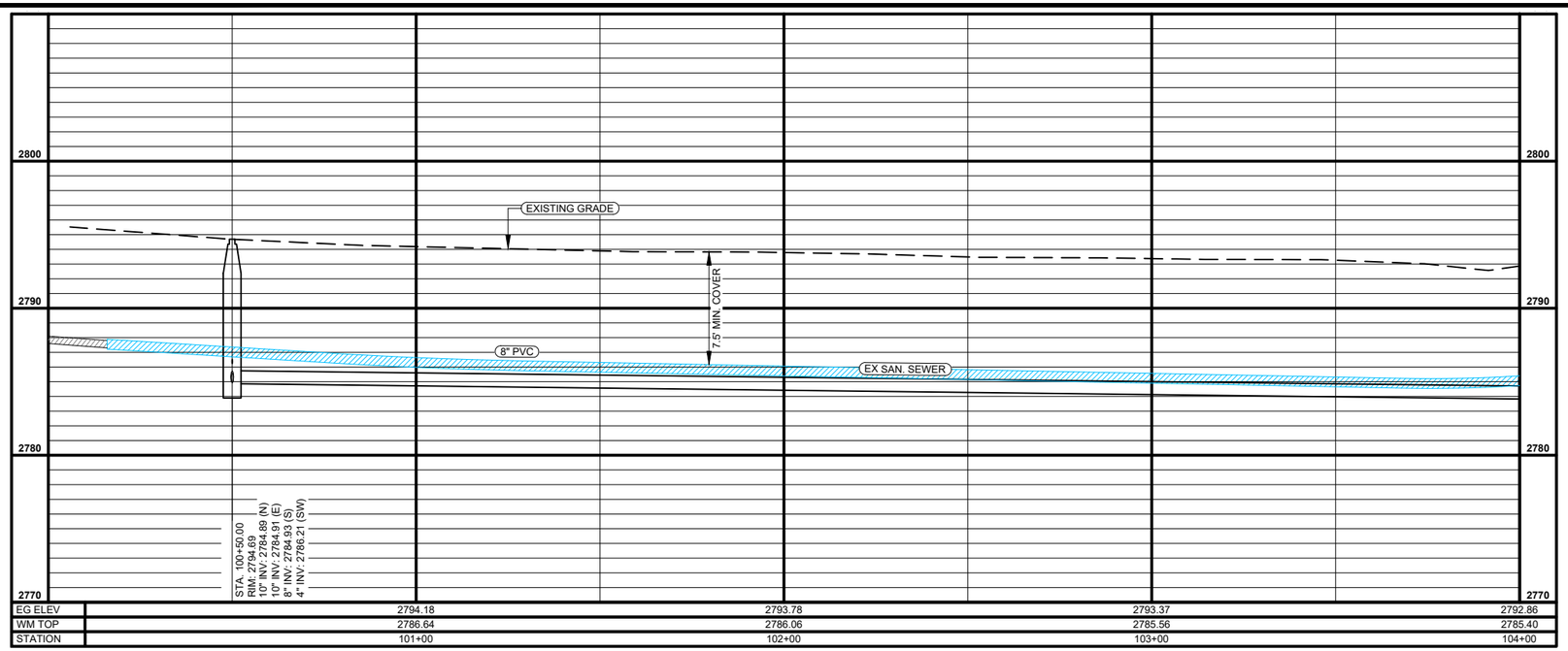
Plotted By: Trenton Hintz Date: Tuesday, November 19, 2024



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	100+16.00 - 10.26' L	104+00.00 - 11.15' L	384 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
101+56.91 - 10.71' L	101+56.71 - 23.72' R	1.0" WM SERVICE	34 LF
101+59.39 - 10.69' L	101+59.48 - 26.42' L	1.0" WM SERVICE	16 LF
102+02.83 - 10.44' L	102+02.93 - 27.31' L	1.0" WM SERVICE	17 LF
102+04.75 - 10.43' L	102+04.55 - 24.37' R	1.0" WM SERVICE	35 LF
102+57.64 - 10.38' L	102+57.70 - 26.73' R	1.0" WM SERVICE	37 LF
102+60.40 - 10.38' L	102+60.38 - 26.78' L	1.0" WM SERVICE	16 LF
103+36.30 - 10.49' L	103+40.59 - 75.08' L	1.0" WM SERVICE	68 LF
103+43.10 - 10.50' L	103+43.15 - 21.35' R	1.0" WM SERVICE	32 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" X 6" REDUCER CONNECT TO EX.	100+16.00 - 10.26' L
8" GATE VALVE & BOX	100+16.00 - 10.26' L



EG ELEV	2794.18	2793.78	2793.37	2792.86
WM TOP	2786.64	2786.06	2785.56	2785.40
STATION	101+00	102+00	103+00	104+00

REMOVAL QUANTITIES	
ASPHALT	449 SY
CURB AND GUTTER	82 LF
CONCRETE SIDEWALK	366 SF
VALLEY GUTTER	71 SF
4" TOPSOIL	92 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	449 SY
8" CLASS 5 AGGREGATE BASE	449 SY
CURB & GUTTER	82 LF
4" CONCRETE SIDEWALK	319 SF
VALLEY GUTTER	71 SF
4" TOPSOIL	97 SY
HYDROSEED	97 SY

REMOVAL QUANTITIES-CITY	
CURB & GUTTER	46 LF
VALLEY GUTTER	302 SF

RESTORATION QUANTITIES-CITY	
CURB & GUTTER	46 SF
VALLEY GUTTER	302 SF

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
10. REMOVE AND REPLACE EXISTING CONCRETE VALLEY GUTTER. SEE DETAIL 4/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
16. PROTECT EXISTING FENCE. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
20. CONTRACTOR SHALL REMOVE EXISTING LEAD SERVICE LINE. CONTRACTOR SHALL INSTALL NEW WATER SERVICE LINE FROM MAIN TO EXISTING BUILDING. SEE DETAIL 2/C33.
21. REMOVE AND DISPOSE EXISTING CONCRETE. REPLACE WITH TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
31. NEW SERVICE LINE SHALL TIE INTO THE EXISTING METER INSIDE THE HOUSE. CONTRACTOR SHALL COORDINATE WITH THE HOMEOWNER AND RECEIVE PERMISSION PRIOR TO ACCESSING THEIR PROPERTY TO PERFORM NECESSARY PLUMBING TIE-INS.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

PROJECT TITLE:

2025 STREET AND UTILITY IMPROVEMENTS

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SYM	DATE	APPR

SHEET TITLE:

2ND AVENUE SE - 4TH STREET SE TO 3RD STREET SE

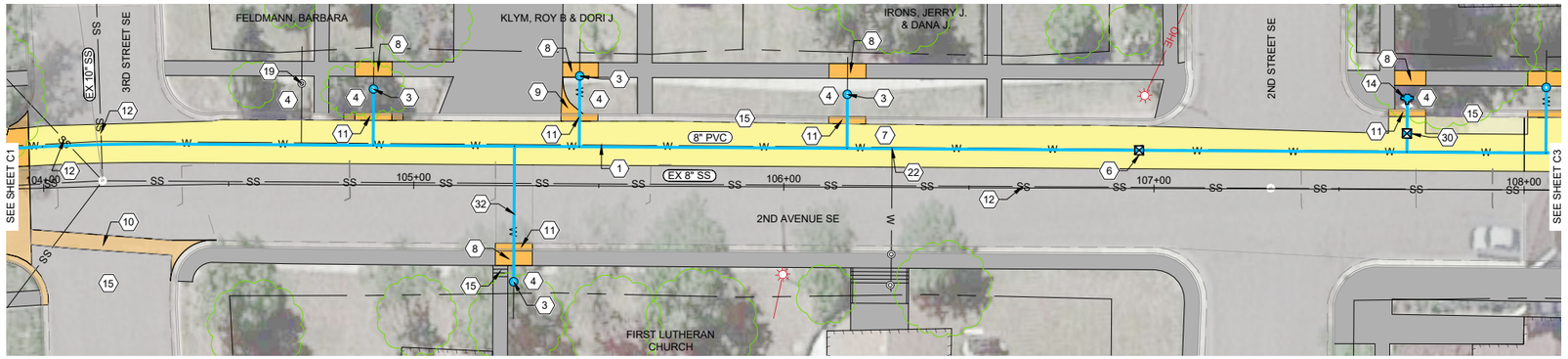
CLIENT: **CITY OF BEACH**, BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**

SHEET NO: **C1**



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	104+00.00 - 11.15' L	108+00.00 - 10.01' L	400 LF
6"	107+68.28 - 10.10' L	107+68.32 - 24.65' L	15 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
104+88.99 - 10.67' L	104+89.01 - 25.85' L	1.0" WM SERVICE	15 LF
105+27.18 - 10.60' L	105+27.12 - 25.95' R	1.0" WM SERVICE	37 LF
105+44.67 - 10.58' L	105+44.70 - 29.62' L	1.0" WM SERVICE	19 LF
106+17.02 - 10.46' L	106+17.04 - 25.03' L	1.0" WM SERVICE	15 LF

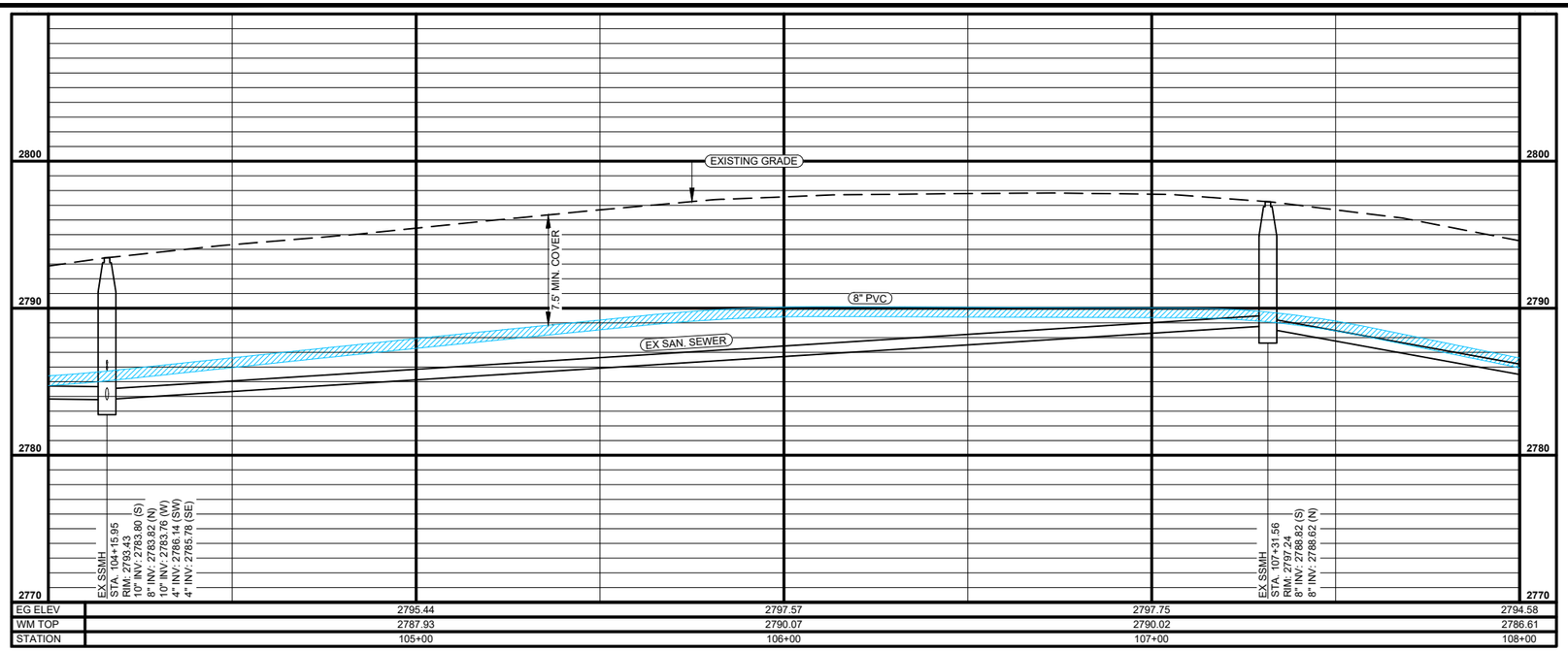
WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX	106+95.96 - 10.30' L
8" X 6" TEE	107+68.28 - 10.10' L
6" GATE VALVE & BOX	107+68.27 - 15.10' L
6" HYDRANT	107+68.32 - 24.65' L

REMOVAL QUANTITIES	
ASPHALT	507 SY
CURB AND GUTTER	50 LF
CONCRETE SIDEWALK	192 SF
CONCRETE DRIVEWAY	18 SF
4" TOPSOIL	53 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	507 SY
8" CLASS 5 AGGREGATE BASE	507 SY
CURB & GUTTER	50 LF
4" CONCRETE SIDEWALK	192 SF
6" CONCRETE DRIVEWAY	18 SF
4" TOPSOIL	53 SY
HYDROSEED	53 SY

REMOVAL QUANTITIES-CITY	
ASPHALT	13 SY
CURB & GUTTER	6 LF
VALLEY GUTTER	168 SF

RESTORATION QUANTITIES-CITY	
4 1/2" ASPHALT	13 SY
8" CLASS 5 AGGREGATE BASE	13 SY
CURB AND GUTTER	16 LF
VALLEY GUTTER	168 SF



AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

SYM	DATE	APPR

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
6. REMOVE AND DISPOSE EXISTING GATE VALVE AND INSTALL AND FURNISH NEW GATE VALVE. SEE DETAIL 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
10. REMOVE AND REPLACE EXISTING CONCRETE VALLEY GUTTER. SEE DETAIL 4/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND MAINTAIN A MINIMUM OF 18" VERTICAL SEPARATION FOR SANITARY AND WATER UTILITY CROSSING.
14. REMOVE AND REPLACE HYDRANT AND ALL ADDITIONAL APPURTENANCES, INCIDENTAL TO THE CONTRACT. SEE DETAIL 3/C33.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
19. ABANDON EXISTING WATER SERVICE IN PLACE. REMOVE AND DISPOSE THE TOP 3' OF THE EXISTING CURB STOP. INCIDENTAL TO CONTRACT.
22. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATER SERVICE LINE.
30. FURNISH AND INSTALL NEW 6" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS
Advanced Engineering and Environmental Services, LLC www.ae2s.com

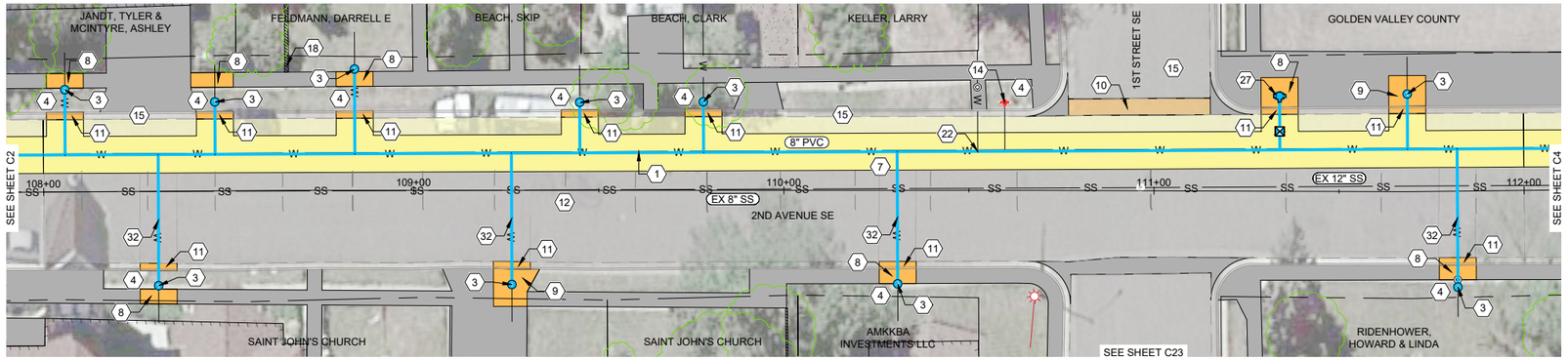
SHEET TITLE:
2ND AVENUE SE - 3RD STREET SE TO 50' N OF 2ND STREET SE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C2**



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	108+00.00 - 10.01' L	112+00.00 - 11.34' L	400 LF
6"	111+33.97 - 11.18' L	111+33.83 - 25.76' L	15 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
108+05.85 - 10.00' L	108+05.90 - 27.65' L	1.0" WM SERVICE	18 LF
108+31.00 - 9.92' L	108+30.90 - 25.56' R	1.0" WM SERVICE	35 LF
108+46.38 - 9.88' L	108+46.42 - 24.06' L	1.0" WM SERVICE	14 LF
108+84.07 - 9.89' L	108+83.98 - 32.78' L	1.0" WM SERVICE	23 LF
109+26.37 - 10.05' L	109+26.51 - 25.48' R	1.0" WM SERVICE	36 LF
109+44.89 - 10.13' L	109+44.83 - 23.80' L	1.0" WM SERVICE	14 LF
109+78.30 - 10.26' L	109+78.24 - 23.94' L	1.0" WM SERVICE	14 LF
110+30.61 - 10.47' L	110+30.75 - 25.28' R	1.0" WM SERVICE	36 LF
111+68.62 - 11.50' L	111+68.69 - 26.40' L	1.0" WM SERVICE	15 LF
111+82.02 - 11.43' L	111+81.83 - 25.95' R	1.0" WM SERVICE	37 LF

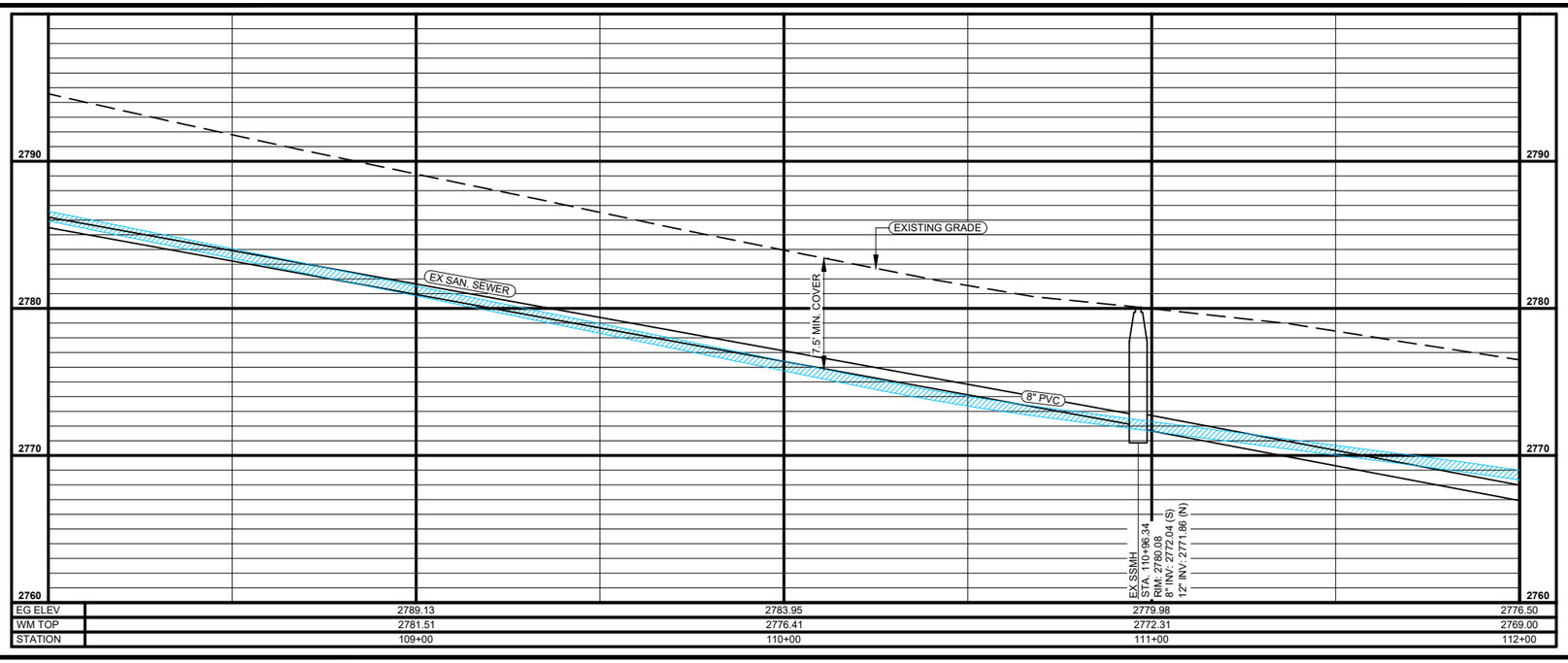
WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" X 6" TEE	111+33.97 - 11.18' L
6" GATE VALVE & BOX	111+33.92 - 16.18' L
6" HYDRANT	111+33.83 - 25.76' L

REMOVAL QUANTITIES	
ASPHALT	480 SY
CURB AND GUTTER	110 LF
CONCRETE SIDEWALK	326 SF
CONCRETE DRIVEWAY	185 SF
4" TOPSOIL	71 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	480 SY
8" CLASS 5 AGGREGATE BASE	480 SY
CURB & GUTTER	110 LF
4" CONCRETE SIDEWALK	326 SF
6" CONCRETE DRIVEWAY	185 SF
4" TOPSOIL	71 SY
HYDROSEED	71 SY

REMOVAL QUANTITIES-CITY	
ASPHALT	168 SY
VALLEY GUTTER	172 SF

RESTORATION QUANTITIES-CITY	
4 1/2" ASPHALT	168 SY
8" CLASS 5 AGGREGATE BASE	168 SY
VALLEY GUTTER	172 SF



EG ELEV	2789.13	2783.95	2779.98	2776.50
WM TOP	2781.51	2776.41	2772.31	2769.00
STATION	109+00	110+00	111+00	112+00

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

NORTH

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Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
10. REMOVE AND REPLACE EXISTING CONCRETE VALLEY GUTTER. SEE DETAIL 4/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
14. REMOVE EXISTING HYDRANT AND ALL ADDITIONAL APPURTENANCES. REMOVAL INCIDENTAL TO CONTRACT.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
18. PROTECT EXISTING RETAINING WALL. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
22. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATER SERVICE LINE.
27. FURNISH AND INSTALL NEW FIRE HYDRANT AND GATE VALVE. SEE DETAILS 3/C33, 4/C33 AND 4/C32.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR | DATE | SYM

STATUS:

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

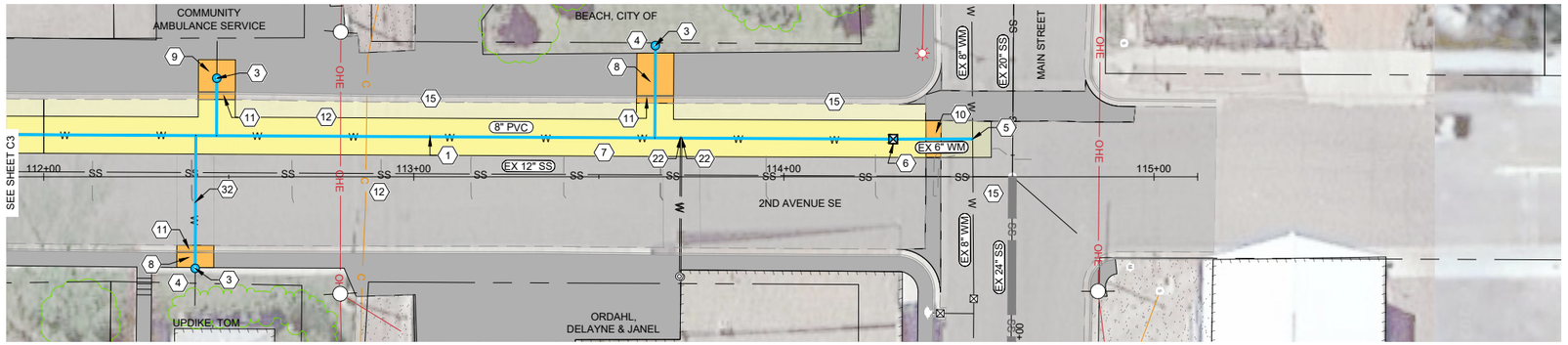
SHEET TITLE:
2ND AVENUE SE - 50' N OF 2ND STREET SE TO 85' N OF 1ST STREET SE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C3**



WATERMAIN INSTALLATION

SIZE	START STATION	END STATION	LENGTH
8"	120+00.00 - 11.34' L	114+51.00 - 10.22' L	251 LF

WATER SERVICE INSTALLATION

START STATION	END STATION	DESCRIPTION	LENGTH
112+41.11 - 11.13' L	112+40.93 - 24.74' R	1.0" WM SERVICE	36 LF
112+46.71 - 11.10' L	112+46.78 - 26.60' L	1.0" WM SERVICE	15 LF
113+65.14 - 10.49' L	113+65.26 - 35.41' L	1.0" WM SERVICE	25 LF

WATERMAIN STRUCTURE INSTALLATION

STRUCTURE	STATION
8" GATE VALVE & BOX	114+29.52 - 10.17' L
8" TEE CONNECT TO EX.	114+51.00 - 10.22' L

REMOVAL QUANTITIES

ASPHALT	290 SY
CURB AND GUTTER	30 LF
CONCRETE SIDEWALK	156 SF
CONCRETE DRIVEWAY	87 SF
VALLEY GUTTER	41 SF
4" TOPSOIL	14 SY

RESTORATION QUANTITIES

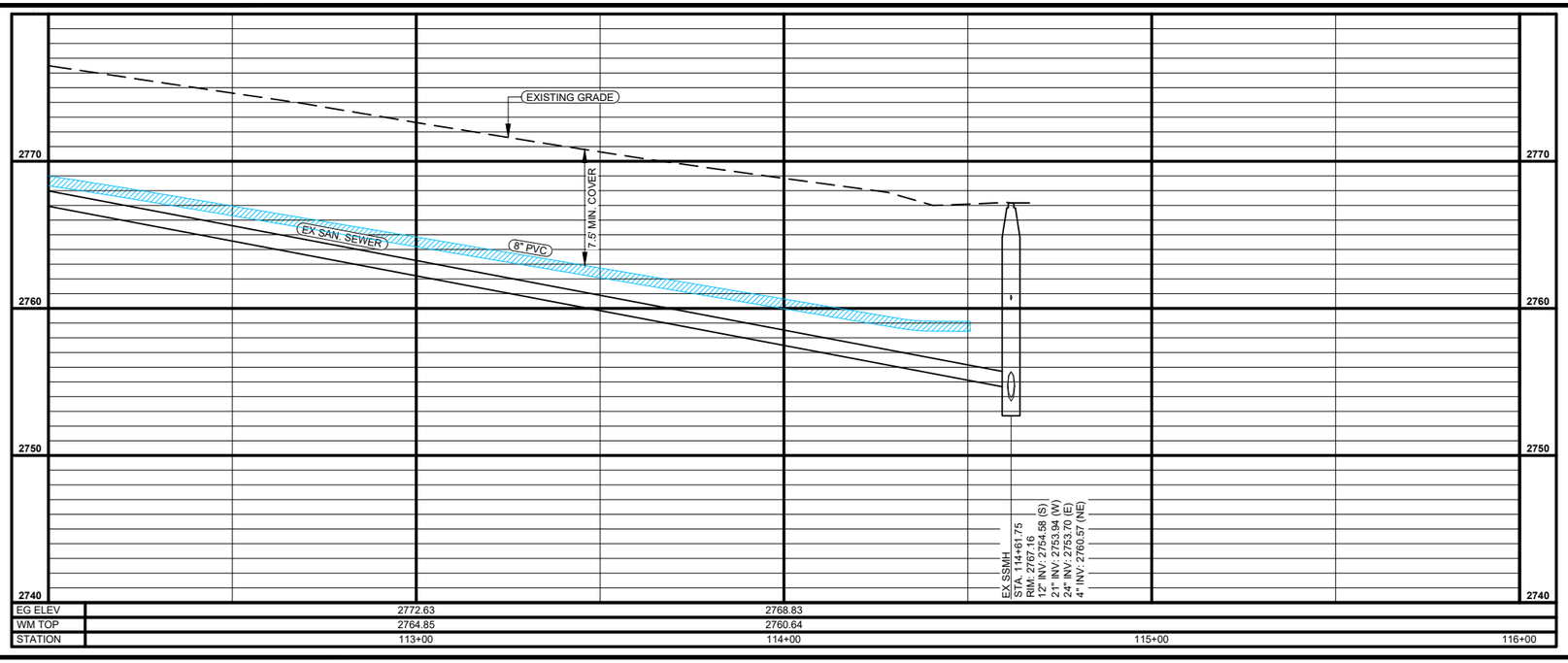
4 1/2" ASPHALT	275 SY
8" CLASS 5 AGGREGATE BASE	275 SY
ASPHALT MILLINGS	15 SY
CURB & GUTTER	30 LF
4" CONCRETE SIDEWALK	156 SF
6" CONCRETE DRIVEWAY	87 SF
VALLEY GUTTER	41 SF
4" TOPSOIL	14 SY
HYDROSEED	14 SY

REMOVAL QUANTITIES-CITY

ASPHALT	108 SY

RESTORATION QUANTITIES-CITY

4 1/2" ASPHALT	108 SY
8" CLASS 5 AGGREGATE BASE	108 SY



EG ELEV	2772.63	2768.83		
WM TOP	2764.85	2760.64		
STATION	113+00	114+00	115+00	116+00

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
2. ABANDON EXISTING GATE VALVE IN PLACE. INCIDENTAL TO CONTRACT. SEE DETAIL 5/C33.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. REMOVE AND DISPOSE EXISTING GATE VALVE AND INSTALL AND FURNISH NEW 8" GATE VALVE. SEE DETAIL 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
10. REMOVE AND REPLACE EXISTING CONCRETE VALLEY GUTTER. SEE DETAIL 4/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
22. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATER SERVICE LINE.

SYM	DATE	APPR

PROJECT TITLE:

2025 STREET AND UTILITY IMPROVEMENTS

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:

2ND AVENUE SE - 85' N OF 1ST STREET SE TO 30' N OF MAIN STREET

CLIENT:

CITY OF BEACH

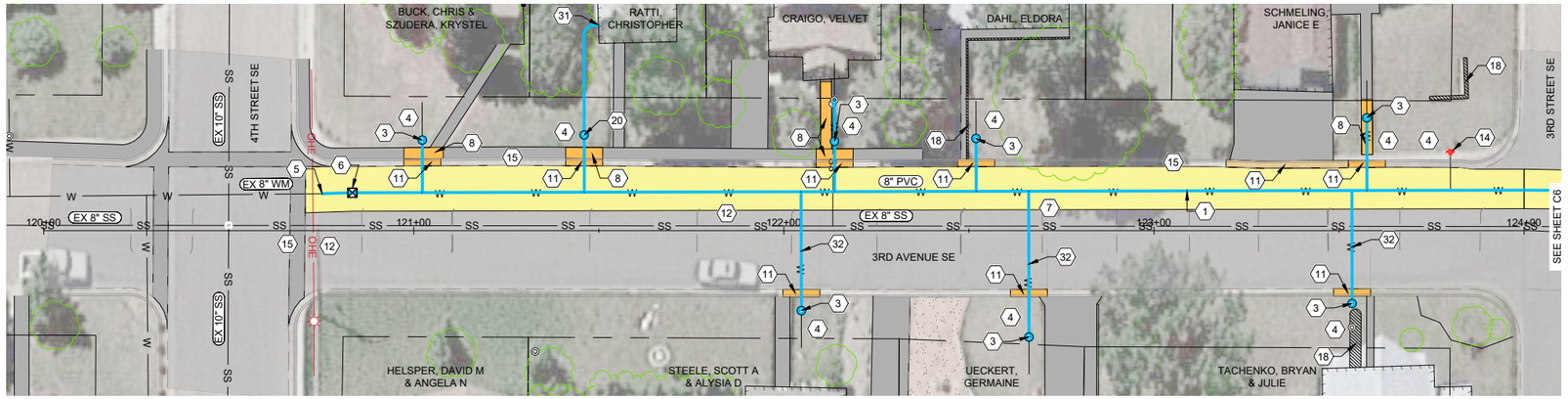
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**

SHEET NO: **C4**



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	120+75.18 - 10.00' L	124+00.00 - 10.92' L	325 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
121+02.32 - 10.26' L	121+02.29 - 24.43' L	1.0" WM SERVICE	14 LF
121+46.07 - 10.36' L	121+49.90 - 55.50' L	1.0" WM SERVICE	48 LF
122+04.65 - 10.49' L	122+04.72 - 21.60' R	1.0" WM SERVICE	32 LF
122+13.71 - 10.51' L	122+13.66 - 35.17' L	1.0" WM SERVICE	25 LF
122+51.95 - 10.59' L	122+51.92 - 24.86' L	1.0" WM SERVICE	14 LF
122+66.13 - 10.62' L	122+66.21 - 28.73' R	1.0" WM SERVICE	39 LF
123+53.45 - 10.82' L	123+53.52 - 19.68' R	1.0" WM SERVICE	30 LF
123+57.54 - 10.82' L	123+57.49 - 30.40' L	1.0" WM SERVICE	20 LF

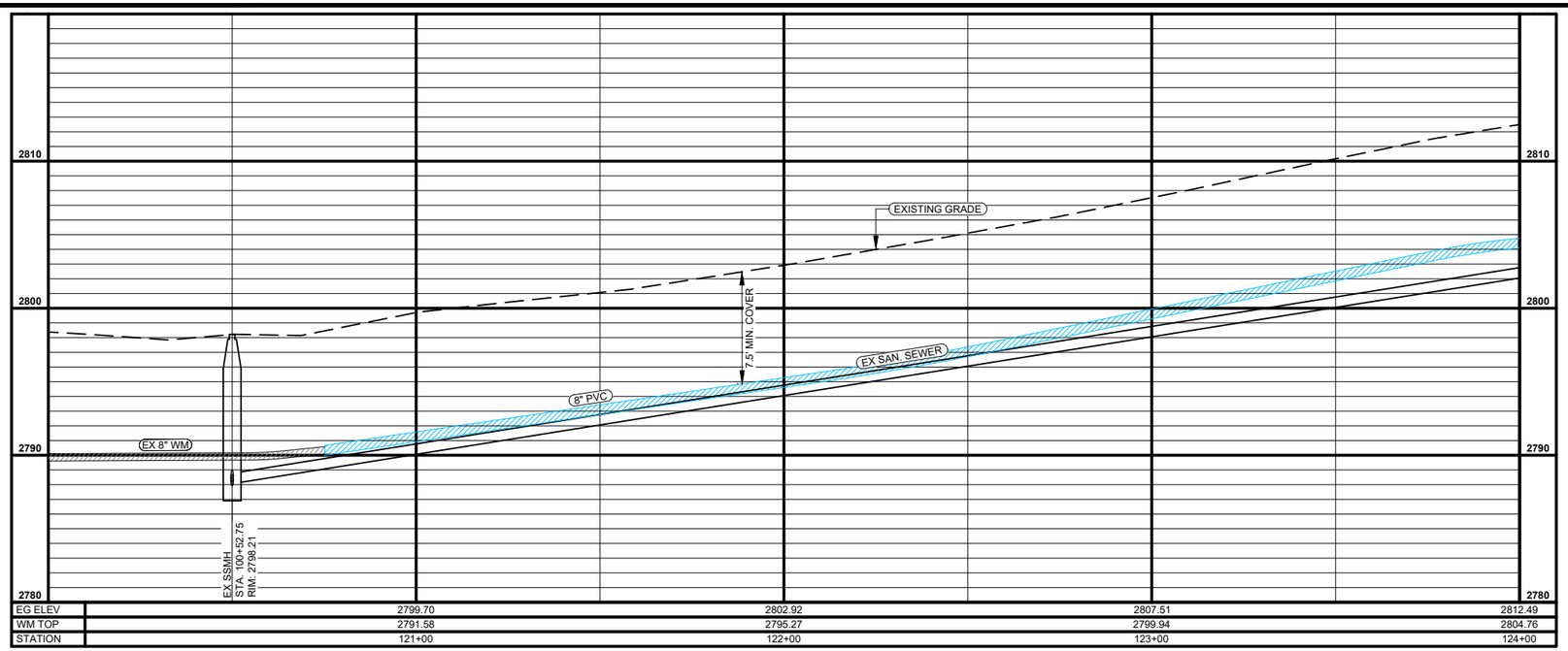
WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX CONNECT TO EX.	120+75.18 - 10.00' L

REMOVAL QUANTITIES	
ASPHALT	426 SY
CURB AND GUTTER	80 LF
CONCRETE SIDEWALK	191 SF
4" TOPSOIL	93 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	426 SY
8" CLASS 5 AGGREGATE BASE	426 SY
CURB & GUTTER	80 LF
4" CONCRETE SIDEWALK	191 SF
4" TOPSOIL	93 SY
HYDROSEED	93 SY

REMOVAL QUANTITIES-CITY	
CURB & GUTTER	33 LF

RESTORATION QUANTITIES-CITY	
CURB AND GUTTER	33 LF



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

NORTH

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Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
2. REMOVE AND DISPOSE OR ABANDON IN PLACE (WHERE APPLICABLE) EXISTING GATE VALVE. INCIDENTAL TO CONTRACT. SEE DETAIL 5/C33.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. REMOVE AND SALVAGE EXISTING GATE VALVE AND RETURN TO OWNER. INSTALL AND FURNISH NEW 8" GATE VALVE. SEE DETAIL 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
14. REMOVE EXISTING HYDRANT AND ALL ADDITIONAL APPURTENANCES. ABANDON 6" HYDRANT LEAD IN PLACE. REMOVAL INCIDENTAL TO CONTRACT.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
18. PROTECT EXISTING BRICK LANDSCAPING. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
20. CONTRACTOR SHALL REMOVE EXISTING LEAD SERVICE LINE. CONTRACTOR SHALL INSTALL NEW WATER SERVICE LINE FROM MAIN TO EXISTING BUILDING. SEE DETAIL 2/C33.
25. REMOVE AND SALVAGE EXISTING GATE VALVE TO OWNER.
31. NEW SERVICE LINE SHALL TIE INTO THE EXISTING METER INSIDE THE HOUSE. CONTRACTOR SHALL COORDINATE WITH THE HOMEOWNER AND RECEIVE PERMISSION PRIOR TO ACCESSING THEIR PROPERTY TO PERFORM NECESSARY PLUMBING TIE-INS.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

SHEET TITLE:
3RD AVENUE SE - 4TH STREET SE TO 3RD STREET SE

CLIENT:
CITY OF BEACH
BEACH, ND

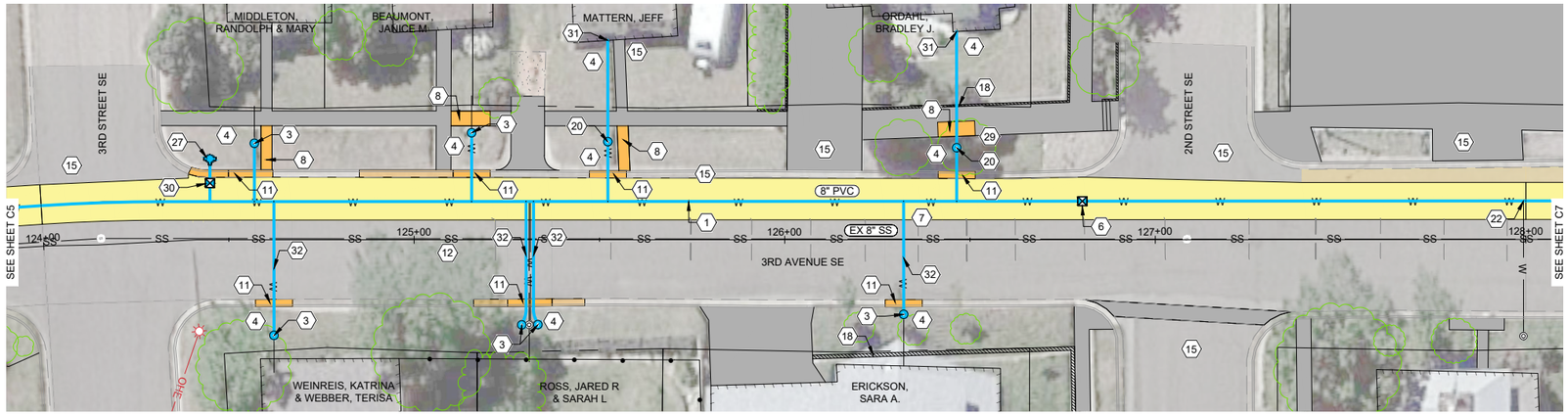
PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C5**

STATUS. | SYM | DATE | APPR

Advanced Engineering and Environmental Services, LLC www.ae2s.com



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	124+00.00 - 10.92' L	128+00.00 - 10.37' L	401 LF
6"	124+44.90 - 10.28' L	124+44.90 - 21.84' L	12 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
124+56.90 - 10.29' L	124+56.89 - 25.98' L	1.0" WM SERVICE	16 LF
124+62.17 - 10.29' L	124+62.19 - 25.80' R	1.0" WM SERVICE	36 LF
125+15.53 - 10.32' L	125+15.52 - 28.84' L	1.0" WM SERVICE	19 LF
125+30.21 - 10.32' L	125+29.06 - 22.96' R	1.0" WM SERVICE	33 LF
125+32.21 - 10.32' L	125+33.39 - 22.89' R	1.0" WM SERVICE	33 LF
125+52.28 - 10.33' L	125+52.26 - 53.75' L	1.0" WM SERVICE	43 LF
126+32.08 - 10.37' L	126+32.10 - 20.14' R	1.0" WM SERVICE	31 LF
126+46.41 - 10.38' L	126+46.39 - 56.12' L	1.0" WM SERVICE	46 LF

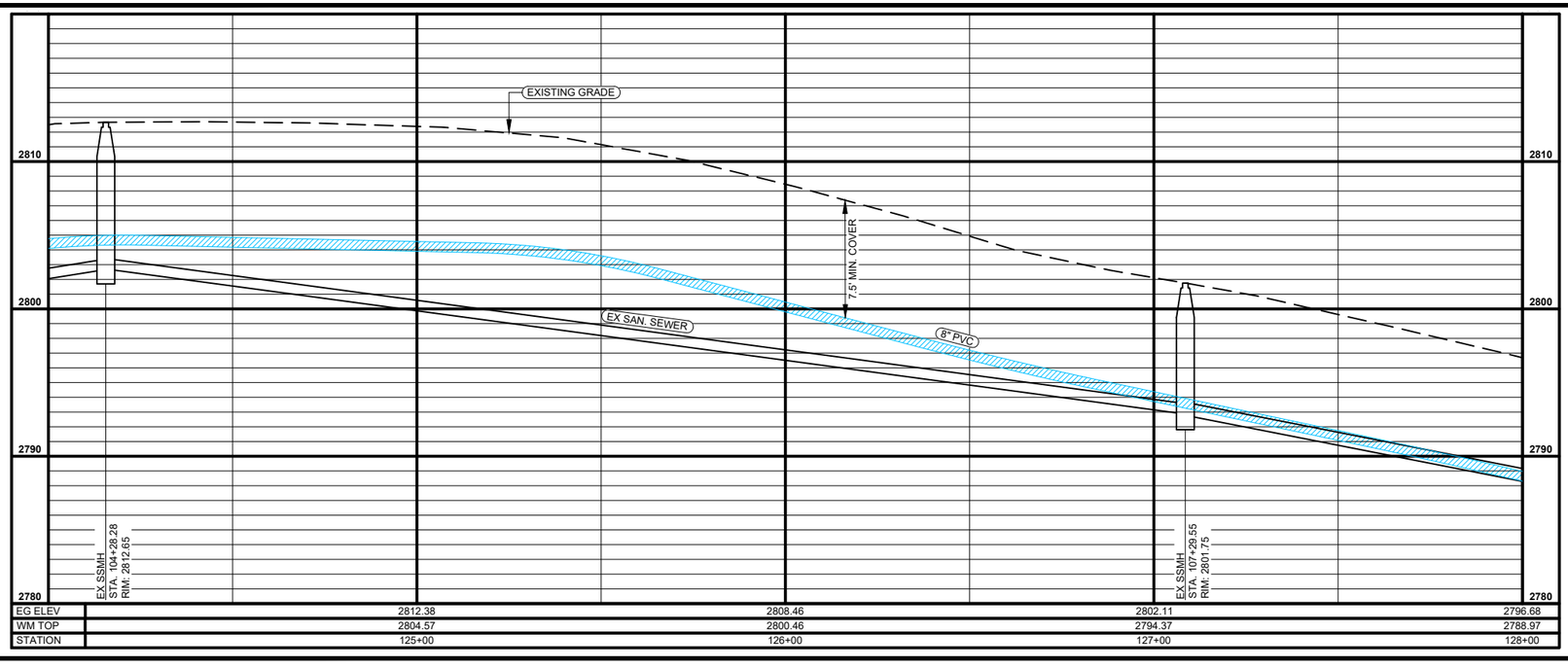
WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" X 6" TEE	124+44.90 - 10.28' L
6" GATE VALVE & BOX	124+44.90 - 15.28' L
6" HYDRANT	124+44.90 - 21.84' L
8" GATE VALVE & BOX	126+80.31 - 10.39' L

REMOVAL QUANTITIES	
ASPHALT	490 SY
CURB AND GUTTER	84 LF
CONCRETE SIDEWALK	154 SF
4" TOPSOIL	93 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	490 SY
8" CLASS 5 AGGREGATE BASE	490 SY
CURB & GUTTER	84 LF
4" CONCRETE SIDEWALK	154 SF
4" TOPSOIL	93 SY
HYDROSEED	93 SY

REMOVAL QUANTITIES-CITY	
ASPHALT	25 SY
CURB & GUTTER	43 LF

RESTORATION QUANTITIES-CITY	
4 1/2" ASPHALT	25 SY
8" CLASS 5 AGGREGATE BASE	25 SY
CURB AND GUTTER	43 LF



EG ELEV	2812.38	2808.46	2802.11	2796.68
WM TOP	2804.57	2800.46	2794.37	2788.97
STATION	125+00	126+00	127+00	128+00

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

APPR. | DATE | SYM | STATUS:

NORTH

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Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
6. FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
18. PROTECT EXISTING RETAINING WALL. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
20. CONTRACTOR SHALL REMOVE OR ABANDON IN PLACE EXISTING LEAD SERVICE LINE. CONTRACTOR SHALL INSTALL NEW WATER SERVICE LINE FROM MAIN TO EXISTING BUILDING. SEE DETAIL 2/C33.
22. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATER SERVICE LINE.
27. FURNISH AND INSTALL NEW FIRE HYDRANT AND GATE VALVE. SEE DETAILS 3/C33, 4/C33 AND 4/C32.
29. CONTRACTOR SHALL PROTECT TREES EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED OR RESTORED AT THE CONTRACTORS EXPENSE.
30. FURNISH AND INSTALL NEW 6" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
31. NEW SERVICE LINE SHALL TIE INTO THE EXISTING METER INSIDE THE HOUSE. CONTRACTOR SHALL COORDINATE WITH THE HOMEOWNER AND RECEIVE PERMISSION PRIOR TO ACCESSING THEIR PROPERTY TO PERFORM NECESSARY PLUMBING TIE-INS.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS
Advanced Engineering and Environmental Services, LLC www.ae2s.com

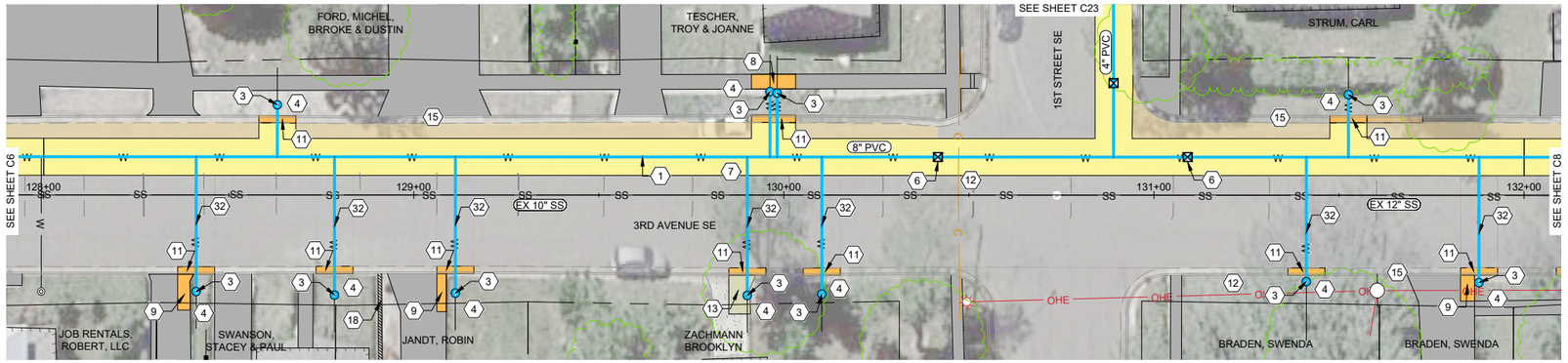
SHEET TITLE:
3RD AVENUE SE - 3RD STREET SE TO 75' N OF 2ND STREET SE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

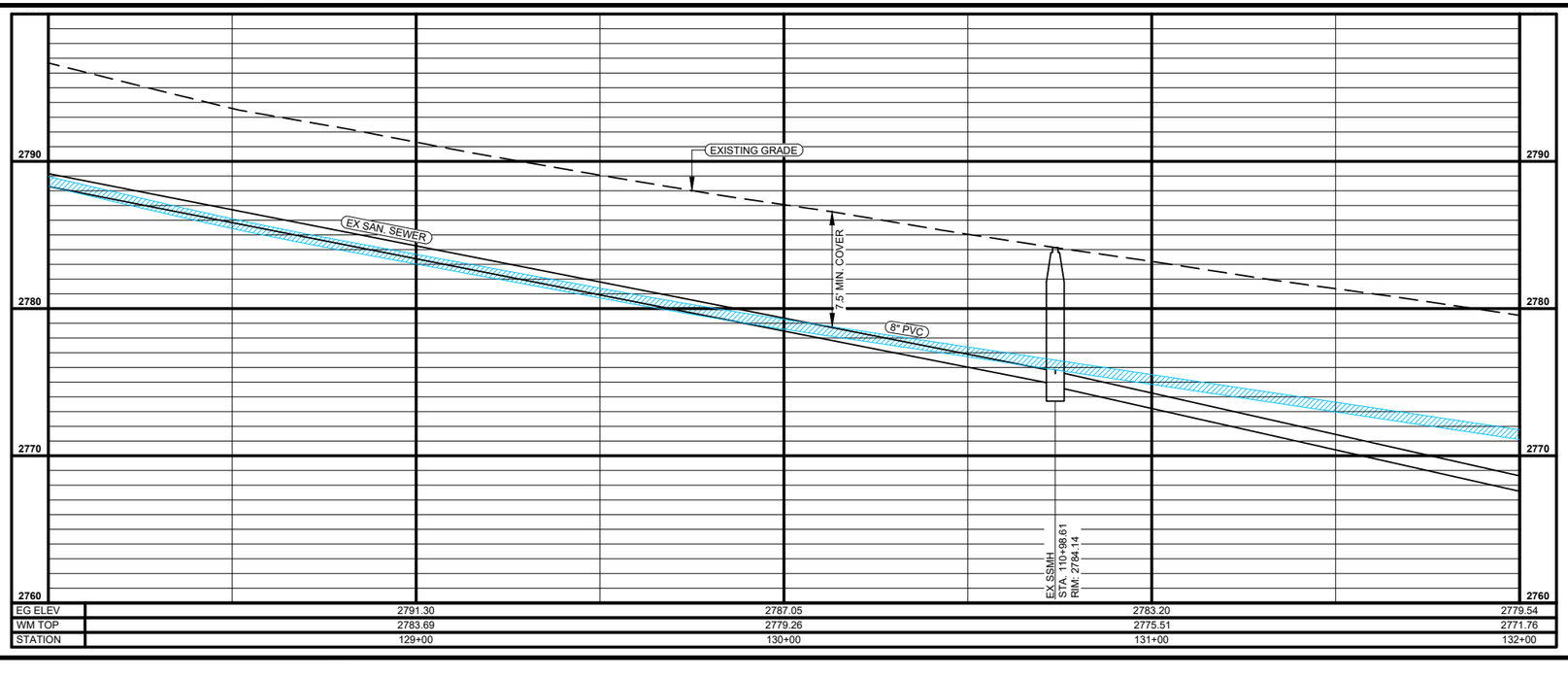
SHEET DESIGNATOR: **CIV**
SHEET NO: **C6**



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	128+00.00 - 10.37' L	132+00.00 - 10.25' L	400 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
128+41.20 - 10.36' L	128+41.19 - 26.11' R	1.0" WM SERVICE	36 LF
128+63.13 - 10.35' L	128+63.13 - 24.43' L	1.0" WM SERVICE	14 LF
128+78.59 - 10.34' L	128+78.58 - 27.05' R	1.0" WM SERVICE	37 LF
129+11.24 - 10.34' L	129+11.23 - 26.54' R	1.0" WM SERVICE	37 LF
129+90.11 - 10.31' L	129+90.10 - 27.16' R	1.0" WM SERVICE	37 LF
129+96.24 - 10.31' L	129+96.25 - 27.98' L	1.0" WM SERVICE	18 LF
129+98.15 - 10.31' L	129+98.16 - 27.57' L	1.0" WM SERVICE	17 LF
130+10.25 - 10.31' L	130+10.24 - 26.79' R	1.0" WM SERVICE	37 LF
131+41.16 - 10.27' L	131+41.15 - 23.44' R	1.0" WM SERVICE	34 LF
131+52.52 - 10.27' L	131+52.52 - 27.15' L	1.0" WM SERVICE	17 LF
131+87.81 - 10.26' L	131+87.80 - 23.68' R	1.0" WM SERVICE	34 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX	130+41.60 - 10.30' L
8" X 4" TEE	130+89.06 - 10.29' L
8" GATE VALVE & BOX	131+09.06 - 10.28' L



EG ELEV	2791.30	2787.05	2783.20	2779.54
WM TOP	2783.69	2779.26	2775.51	2771.76
STATION	129+00	130+00	131+00	132+00

REMOVAL QUANTITIES	
ASPHALT	460 SY
CURB AND GUTTER	100 LF
CONCRETE SIDEWALK	48 SF
CONCRETE DRIVEWAY	88 SF
GRAVEL	63 SF
4" TOPSOIL	85 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	460 SY
8" CLASS 5 AGGREGATE BASE	460 SY
CURB & GUTTER	100 LF
4" CONCRETE SIDEWALK	48 SF
6" CONCRETE DRIVEWAY	88 SF
GRAVEL	63 SF
4" TOPSOIL	85 SY
HYDROSEED	85 SY

REMOVAL QUANTITIES-CITY	
ASPHALT	152 SY
CURB & GUTTER	15 LF

RESTORATION QUANTITIES-CITY	
4 1/2" ASPHALT	152 SY
8" CLASS 5 AGGREGATE BASE	152 SY
CURB AND GUTTER	15 LF

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
6. FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
13. RESTORE GRAVEL SURFACE PER DETAIL 1/C35.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
18. PROTECT EXISTING RETAINING WALL. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR | DATE | SYM

STATUS:

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

SHEET TITLE:
3RD AVENUE SE - 75' N OF 2ND ST SE TO 110' N OF 1ST ST SE

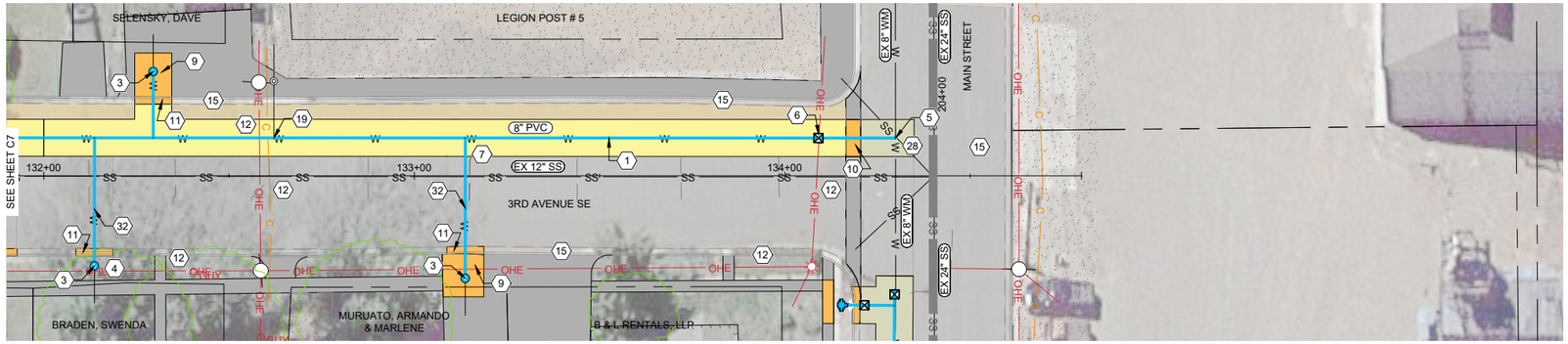
CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**

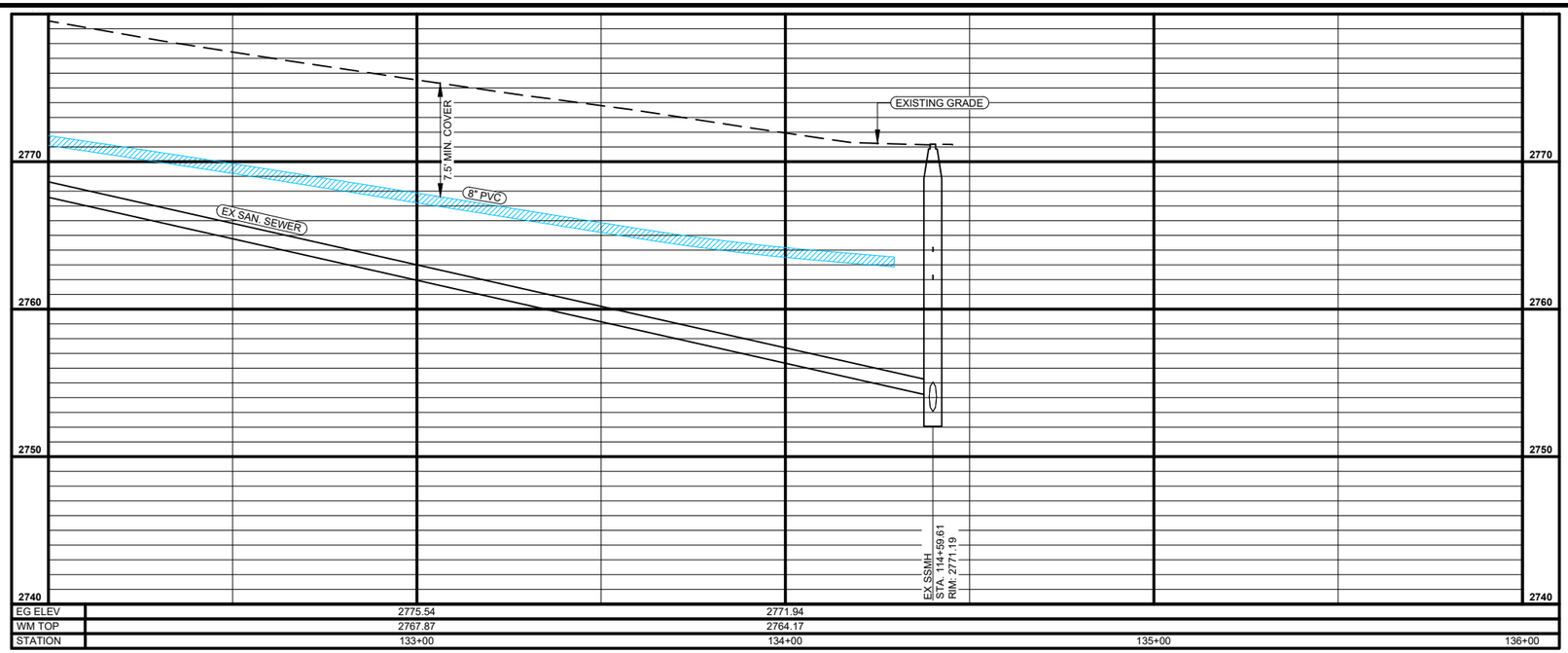
SHEET NO: **C7**



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	132+00.00 - 10.25' L	134+29.86 - 10.21' L	230 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
132+13.71 - 10.25' L	132+13.70 - 24.35' R	1.0" WM SERVICE	35 LF
132+29.55 - 10.25' L	132+29.55 - 28.16' L	1.0" WM SERVICE	18 LF
133+13.77 - 10.22' L	133+13.76 - 27.69' R	1.0" WM SERVICE	38 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX	134+09.06 - 10.19' L
8" TEE CONNECT TO EX.	134+29.86 - 10.21' L



REMOVAL QUANTITIES	
ASPHALT	261 SY
CURB AND GUTTER	30 LF
CONCRETE DRIVEWAY	247 SF
VALLEY GUTTER	40 SF
4" TOPSOIL	7 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	245 SY
8" CLASS 5 AGGREGATE BASE	245 SY
6" ASPHALT MILLINGS	144 SF
CURB & GUTTER	30 LF
6" CONCRETE DRIVEWAY	247 SF
VALLEY GUTTER	40 SF
4" TOPSOIL	7 SY
HYDROSEED	7 SY

REMOVAL QUANTITIES-CITY	
ASPHALT	94 SY

RESTORATION QUANTITIES-CITY	
4 1/2" ASPHALT	94 SY
8" CLASS 5 AGGREGATE BASE	94 SY

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. REMOVE AND DISPOSE EXISTING GATE VALVE AND FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAIL 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
10. REMOVE AND REPLACE EXISTING CONCRETE VALLEY GUTTER. SEE DETAIL 4/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
19. ABANDON EXISTING WATER SERVICE IN PLACE. REMOVE AND DISPOSE EXISTING CURB STOP. INCIDENTAL TO CONTRACT.
28. REMOVE AND DISPOSE EXISTING BITUMINOUS PAVEMENT. FURNISH AND INSTALL NEW 12" GRAVEL SURFACE. SEE DETAIL 1/C35.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR | DATE | SYM

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS
Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
3RD AVENUE SE - 110' N OF 1ST STREET SE TO MAIN STREET

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C8**

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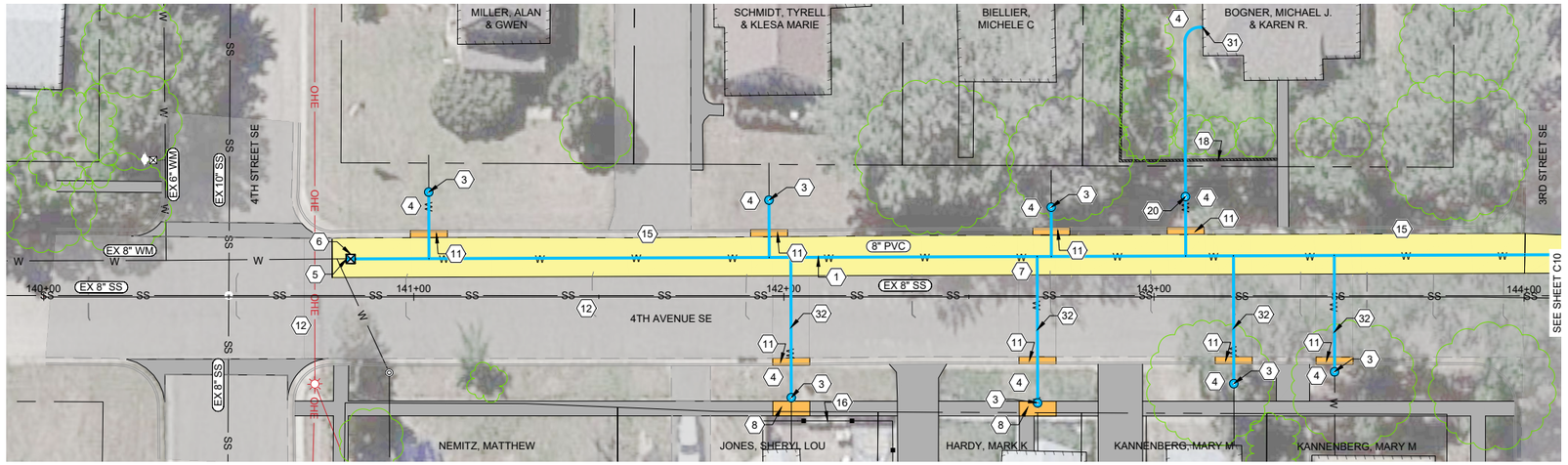


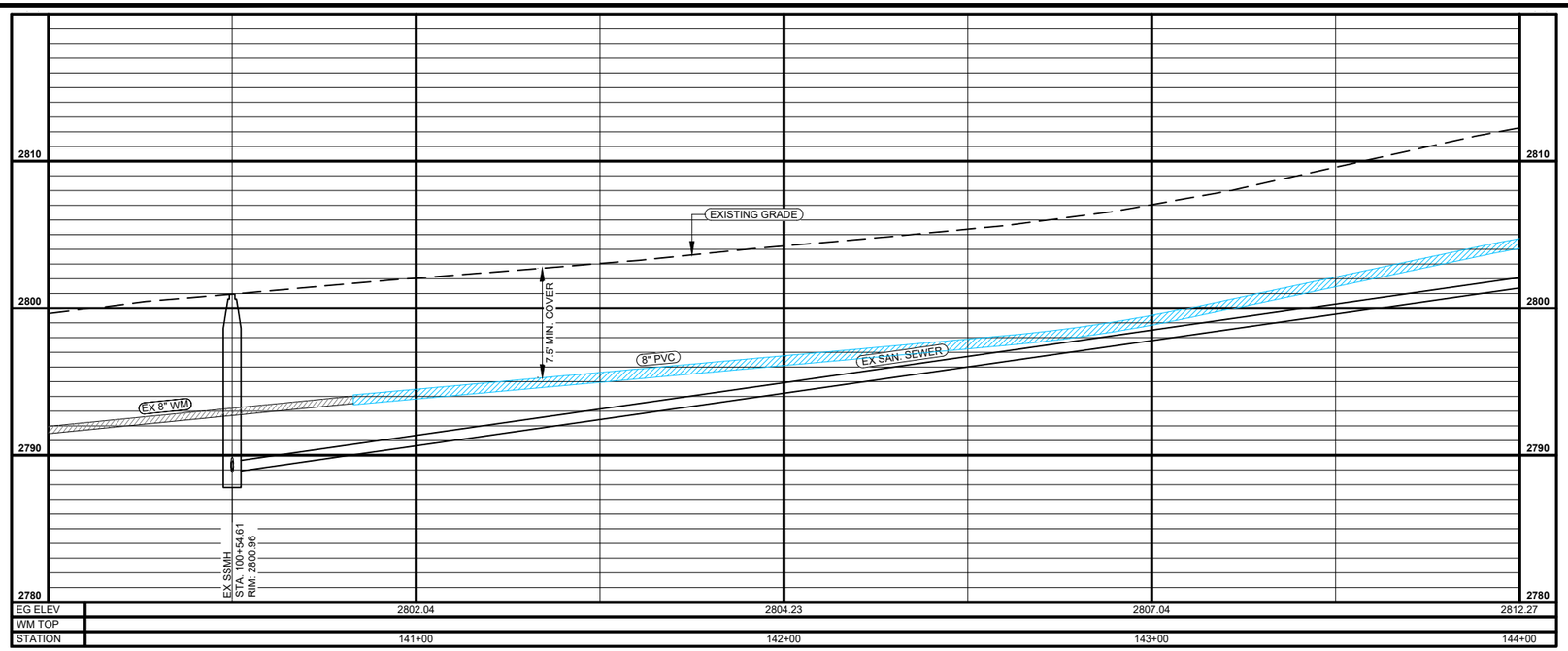
WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	140+82.94 - 10.25' L	144+00.00 - 11.56' L	317 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
141+04.10 - 10.33' L	141+04.04 - 28.28' L	1.0" WM SERVICE	18 LF
141+96.02 - 10.68' L	141+95.97 - 26.13' L	1.0" WM SERVICE	15 LF
142+01.86 - 10.67' L	142+01.99 - 27.23' R	1.0" WM SERVICE	38 LF
142+68.42 - 10.90' L	142+68.56 - 28.66' R	1.0" WM SERVICE	40 LF
142+72.27 - 10.93' L	142+72.23 - 24.19' L	1.0" WM SERVICE	13 LF
143+08.56 - 11.05' L	143+13.15 - 72.81' L	1.0" WM SERVICE	65 LF
143+21.44 - 11.10' L	143+21.56 - 23.45' L	1.0" WM SERVICE	35 LF
143+48.68 - 11.19' L	143+48.79 - 20.26' R	1.0" WM SERVICE	31 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
CONNECT TO EX.	140+75.37 - 10.23' L
8" GATE VALVE & BOX	140+80.37 - 10.25' L

REMOVAL QUANTITIES	
ASPHALT	383 SY
CURB AND GUTTER	80 LF
CONCRETE SIDEWALK	80 SF
4" TOPSOIL	103 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	383 SY
8" CLASS 5 AGGREGATE BASE	383 SY
CURB & GUTTER	80 LF
4" CONCRETE SIDEWALK	80 SF
4" TOPSOIL	103 SY
HYDROSEED	103 SY



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. REMOVE AND DISPOSE EXISTING GATE VALVE AND INSTALL AND FURNISH NEW 8" GATE VALVE. SEE DETAIL 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
16. PROTECT EXISTING FENCE. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
18. PROTECT EXISTING RETAINING WALL. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
20. CONTRACTOR SHALL REMOVE OR ABANDON IN PLACE EXISTING LEAD SERVICE LINE. CONTRACTOR SHALL INSTALL NEW WATER SERVICE LINE FROM MAIN TO EXISTING BUILDING. SEE DETAIL 2/C33.
31. NEW SERVICE LINE SHALL TIE INTO THE EXISTING METER INSIDE THE HOUSE. CONTRACTOR SHALL COORDINATE WITH THE HOMEOWNER AND RECEIVE PERMISSION PRIOR TO ACCESSING THEIR PROPERTY TO PERFORM NECESSARY PLUMBING TIE-INS.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

SHEET TITLE:
4TH AVENUE SE - 4TH STREET SE
TO 3RD STREET SE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

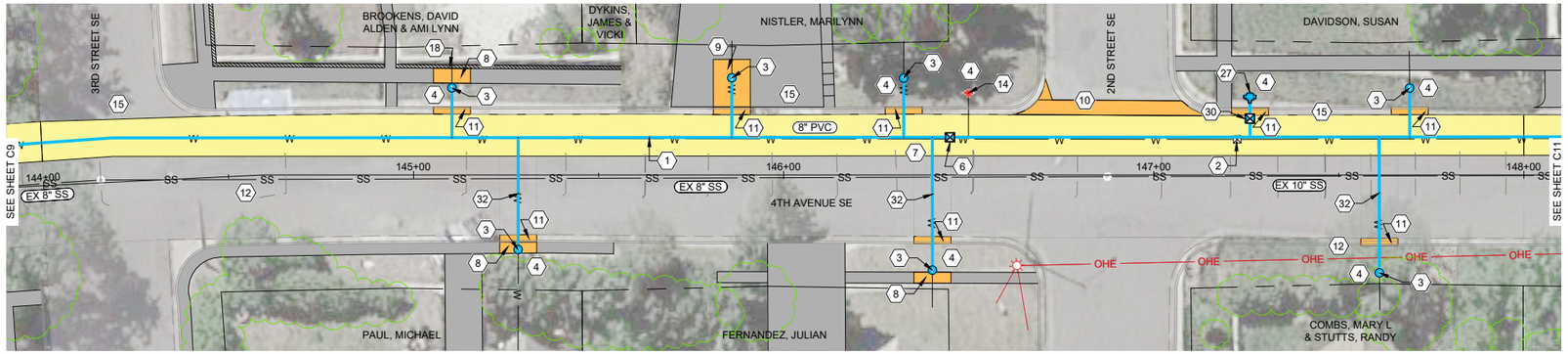
PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: CIV
SHEET NO: C9

APPR | DATE | SYM

AE2S Advanced Engineering and Environmental Services, LLC www.ae2s.com

Plotted By: Trenton Hintz Date: Tuesday, November 19, 2024



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	144+00.00 - 11.56' L	148+00.00 - 10.27' L	401 LF
6"	147+25.99 - 10.21' L	147+25.99 - 21.11' L	11 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
145+10.38 - 10.05' L	145+10.37 - 23.49' L	1.0" WM SERVICE	13 LF
145+28.26 - 10.06' L	145+28.28 - 20.15' R	1.0" WM SERVICE	30 LF
145+86.00 - 10.10' L	145+85.99 - 26.18' L	1.0" WM SERVICE	16 LF
146+32.44 - 10.14' L	146+32.43 - 26.12' L	1.0" WM SERVICE	16 LF
146+40.17 - 10.15' L	146+40.20 - 25.71' R	1.0" WM SERVICE	36 LF
147+60.93 - 10.24' L	147+60.96 - 26.44' R	1.0" WM SERVICE	37 LF
147+69.15 - 10.24' L	147+69.14 - 23.43' L	1.0" WM SERVICE	13 LF

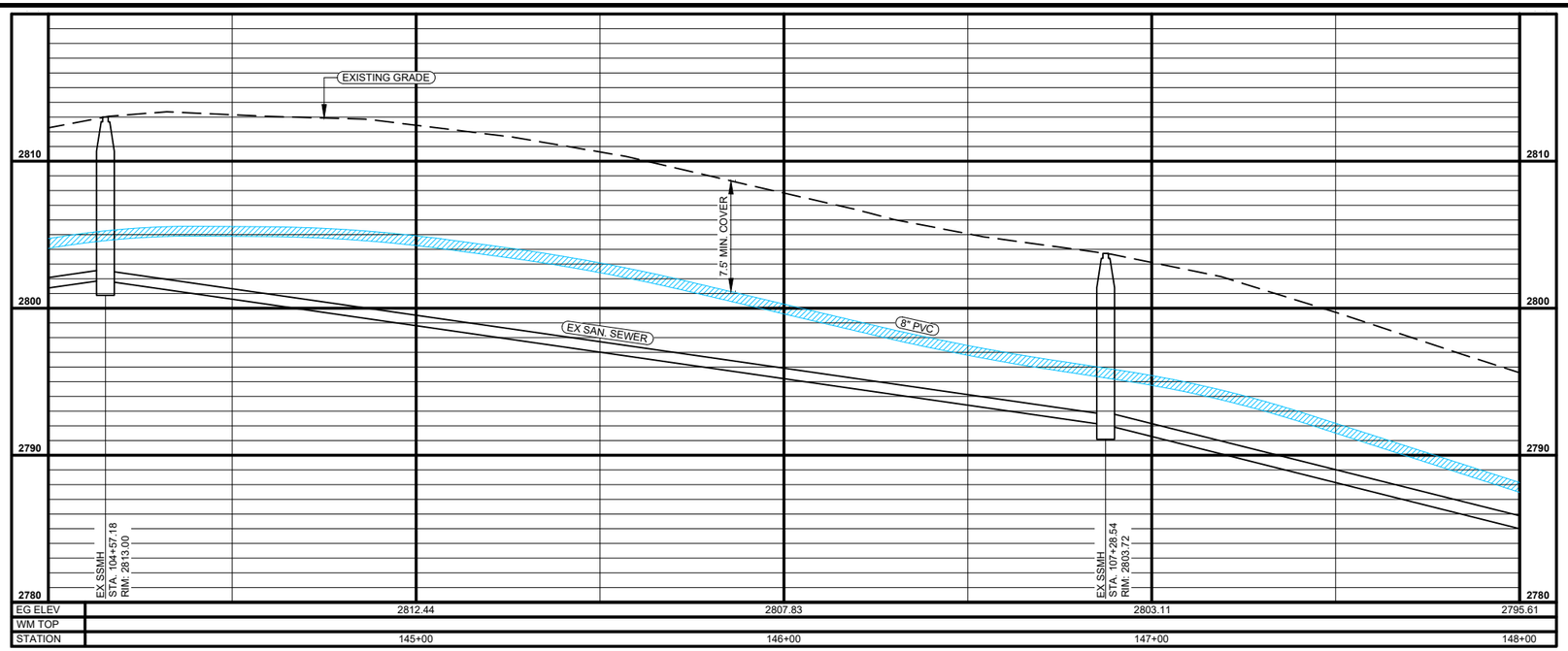
WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX	146+44.95 - 10.15' L
8" X 6" TEE	147+25.99 - 10.21' L
6" GATE VALVE & BOX	147+25.99 - 15.21' L
6" HYDRANT	147+25.99 - 21.11' L

REMOVAL QUANTITIES	
ASPHALT	491 SY
CURB AND GUTTER	80 LF
CONCRETE SIDEWALK	100 SF
CONCRETE DRIVEWAY	129 SF
4" TOPSOIL	79 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	491 SY
8" CLASS 5 AGGREGATE BASE	491 SY
CURB & GUTTER	80 LF
4" CONCRETE SIDEWALK	100 SF
6" CONCRETE DRIVEWAY	129 SF
4" TOPSOIL	79 SY
HYDROSEED	79 SY

REMOVAL QUANTITIES-CITY	
VALLEY GUTTER	187 SF

RESTORATION QUANTITIES-CITY	
VALLEY GUTTER	187 SF



AE2S
Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
2. REMOVE AND DISPOSE (WHERE APPLICABLE) EXISTING GATE VALVE. INCIDENTAL TO CONTRACT. SEE DETAIL 5/C33.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
6. REMOVE AND DISPOSE EXISTING GATE VALVE AND INSTALL AND FURNISH NEW GATE VALVE. SEE DETAIL 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
10. REMOVE AND REPLACE EXISTING CONCRETE VALLEY GUTTER. SEE DETAIL 4/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
14. REMOVE EXISTING HYDRANT AND ALL ADDITIONAL APPURTENANCES. ABANDON 6" HYDRANT LEAD IN PLACE. REMOVAL INCIDENTAL TO CONTRACT.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
18. PROTECT EXISTING RETAINING WALL. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
27. FURNISH AND INSTALL NEW FIRE HYDRANT AND GATE VALVE. SEE DETAILS 3/C33, 4/C33 AND 4/C32.
30. FURNISH AND INSTALL NEW 6" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR | DATE | SYM

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

Advanced Engineering and Environmental Services, LLC www.ae2s.com

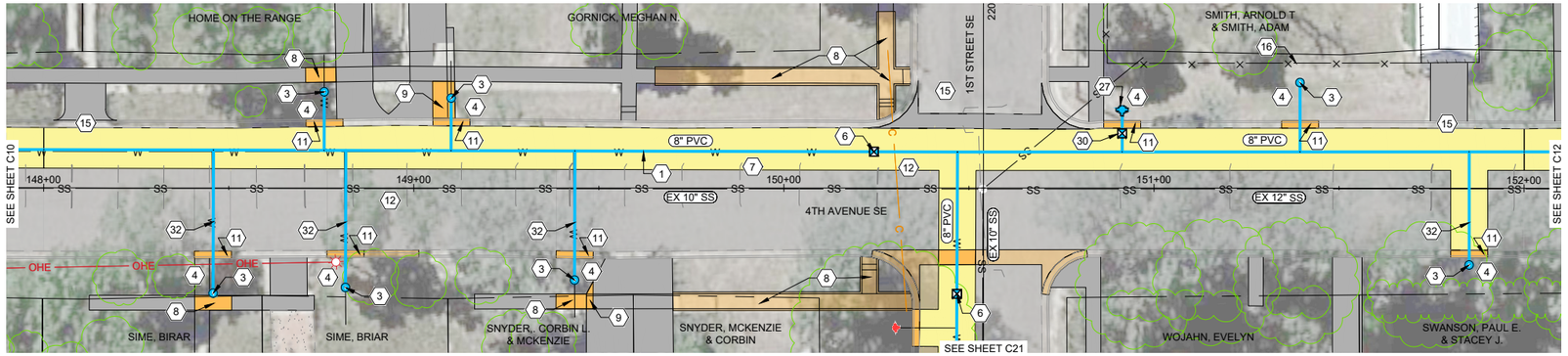
SHEET TITLE:
4TH AVENUE SE - 3RD STREET SE TO 100' N OF 2ND STREET SE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C10**



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	148+00.00 - 10.27' L	152+00.00 - 9.81' L	400 LF
6"	150+91.38 - 9.72' L	150+91.37 - 21.14' L	11 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
148+45.89 - 10.21' L	148+45.79 - 28.41' R	1.0" WM SERVICE	39 LF
148+75.77 - 10.14' L	148+75.81 - 25.92' L	1.0" WM SERVICE	16 LF
148+81.63 - 10.12' L	148+81.53 - 26.88' R	1.0" WM SERVICE	37 LF
149+10.07 - 10.05' L	149+10.11 - 24.21' L	1.0" WM SERVICE	14 LF
149+43.53 - 9.97' L	149+43.44 - 24.88' R	1.0" WM SERVICE	35 LF
151+39.43 - 9.76' L	151+39.42 - 28.45' L	1.0" WM SERVICE	19 LF
151+85.14 - 9.80' L	151+85.16 - 20.74' R	1.0" WM SERVICE	31 LF

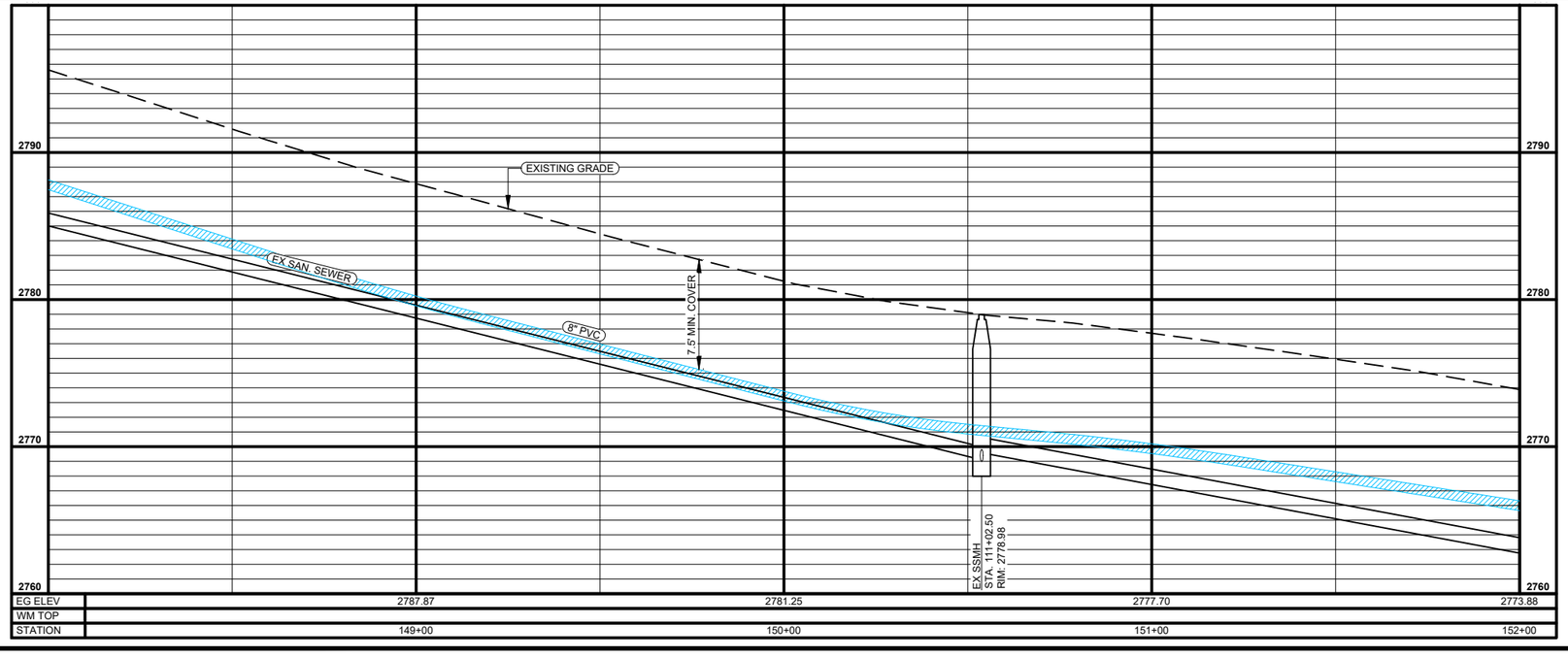
WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX	150+24.31 - 9.76' L
8" X 8" TEE	150+46.91 - 9.70' L
8" X 6" TEE	150+91.38 - 9.72' L
6" GATE VALVE & BOX	150+91.37 - 14.72' L
6" HYDRANT	150+91.37 - 21.14' L

REMOVAL QUANTITIES	
ASPHALT	551 SY
CURB AND GUTTER	80 LF
CONCRETE SIDEWALK	104 SF
CONCRETE DRIVEWAY	70 SF
4" TOPSOIL	83 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	551 SY
8" CLASS 5 AGGREGATE BASE	551 SY
CURB & GUTTER	80 LF
4" CONCRETE SIDEWALK	104 SF
6" CONCRETE DRIVEWAY	70 SF
4" TOPSOIL	83 SY
HYDROSEED	83 SY

REMOVAL QUANTITIES-CITY	
CURB & GUTTER	15 LF
CONCRETE SIDEWALK	754 SF

RESTORATION QUANTITIES-CITY	
CURB AND GUTTER	15 LF
CONCRETE SIDEWALK	831 SF



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
6. FURNISH AND INSTALL NEW GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
16. PROTECT EXISTING FENCE. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
27. FURNISH AND INSTALL NEW FIRE HYDRANT AND GATE VALVE. SEE DETAILS 3/C33, 4/C33 AND 4/C32.
30. FURNISH AND INSTALL NEW 6" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR | DATE | SYM

STATUS:

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

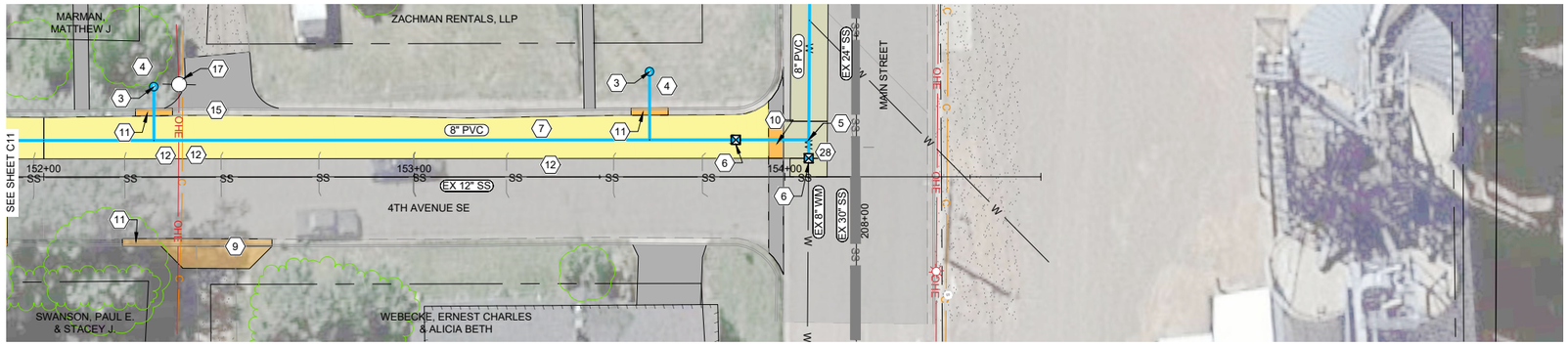
SHEET TITLE:
4TH AVENUE SE - 100' N OF 2ND ST SE TO 130' N OF 1ST ST SE

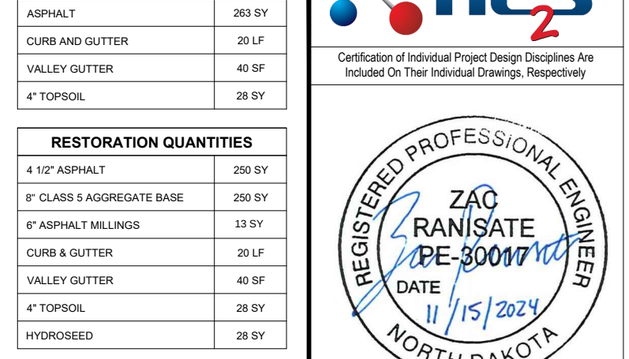
CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C11**





REMOVAL QUANTITIES	
ASPHALT	263 SY
CURB AND GUTTER	20 LF
VALLEY GUTTER	40 SF
4" TOPSOIL	28 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	250 SY
8" CLASS 5 AGGREGATE BASE	250 SY
6" ASPHALT MILLINGS	13 SY
CURB & GUTTER	20 LF
VALLEY GUTTER	40 SF
4" TOPSOIL	28 SY
HYDROSEED	28 SY

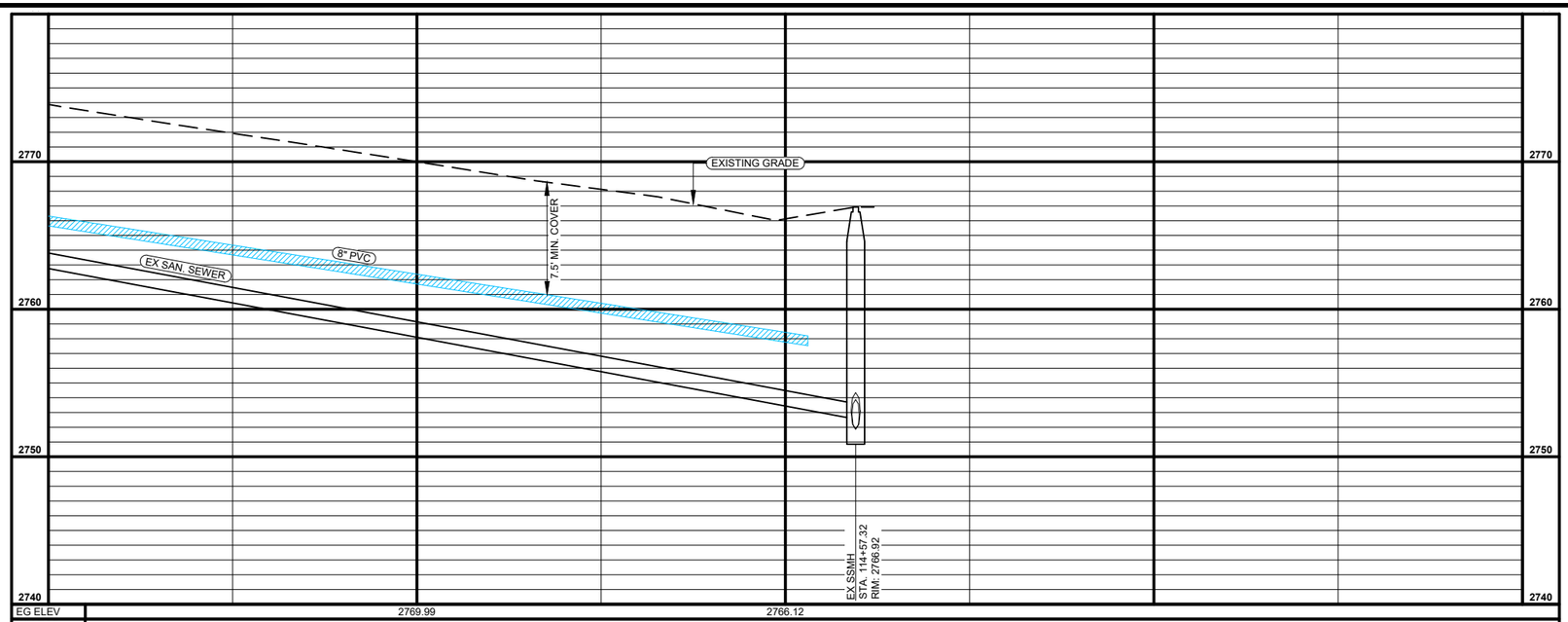
REMOVAL QUANTITIES-CITY	
CURB & GUTTER	40 LF
CONCRETE DRIVEWAY	144 SF

RESTORATION QUANTITIES-CITY	
CURB AND GUTTER	40 LF
CONCRETE DRIVEWAY	144 SF

WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	152+00.00 - 9.81' L	154+06.44 - 9.99' L	206 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
152+29.74 - 9.84' L	152+29.73 - 24.31' L	1.0" WM SERVICE	14 LF
153+63.50 - 9.95' L	153+63.48 - 28.39' L	1.0" WM SERVICE	18 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX	153+86.76 - 9.97' L
8" TEE CONNECT TO EX.	154+06.44 - 9.99' L



AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

SYM	DATE	APPR

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
10. REMOVE AND REPLACE EXISTING CONCRETE VALLEY GUTTER. SEE DETAIL 4/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
17. SUPPORT EXISTING POWER POLE. INCIDENTAL TO CONTRACT.
28. REMOVE AND DISPOSE EXISTING BITUMINOUS PAVEMENT. FURNISH AND INSTALL NEW 6" ASPHALT MILLINGS SURFACE. SEE DETAIL 1/C35.

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

SHEET TITLE:
4TH AVENUE SE - 130' N OF 1ST STREET SE TO MAIN STREET

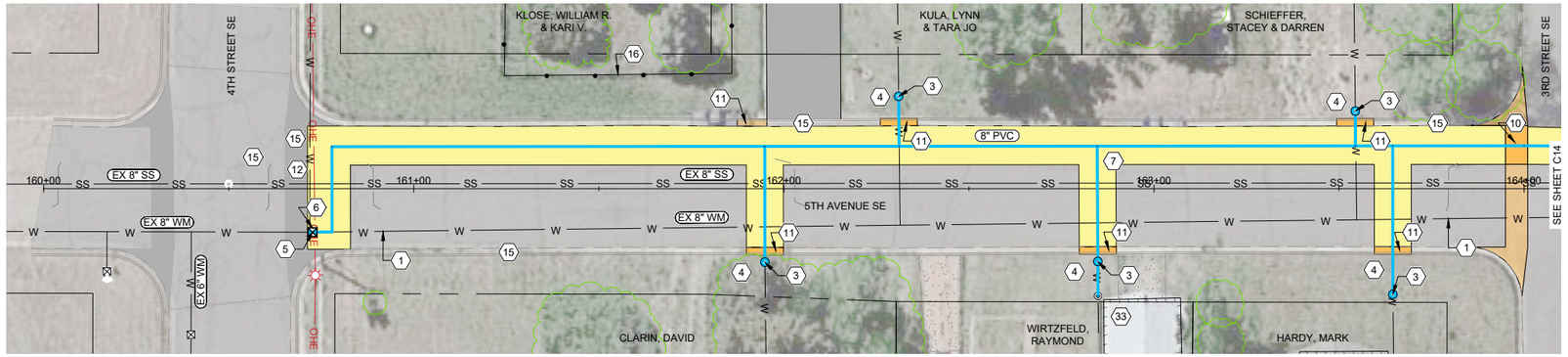
CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**

SHEET NO: **C12**



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	160+72.63 - 11.75' R	160+77.89 - 11.69' R	5 LF
8"	160+77.89 - 11.69' R	160+77.88 - 11.32' L	23 LF
8"	160+77.88 - 11.32' L	164+00.00 - 11.57' L	322 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
161+94.83 - 11.41' L	161+94.86 - 19.85' R	1.0" WM SERVICE	31 LF
162+31.12 - 11.44' L	162+30.98 - 24.88' L	1.0" WM SERVICE	13 LF
162+84.67 - 11.48' L	162+84.87 - 28.95' R	1.0" WM SERVICE	40 LF
163+54.41 - 11.54' L	163+54.40 - 20.93' L	1.0" WM SERVICE	9 LF
163+64.50 - 11.54' L	163+64.53 - 28.53' R	1.0" WM SERVICE	40 LF

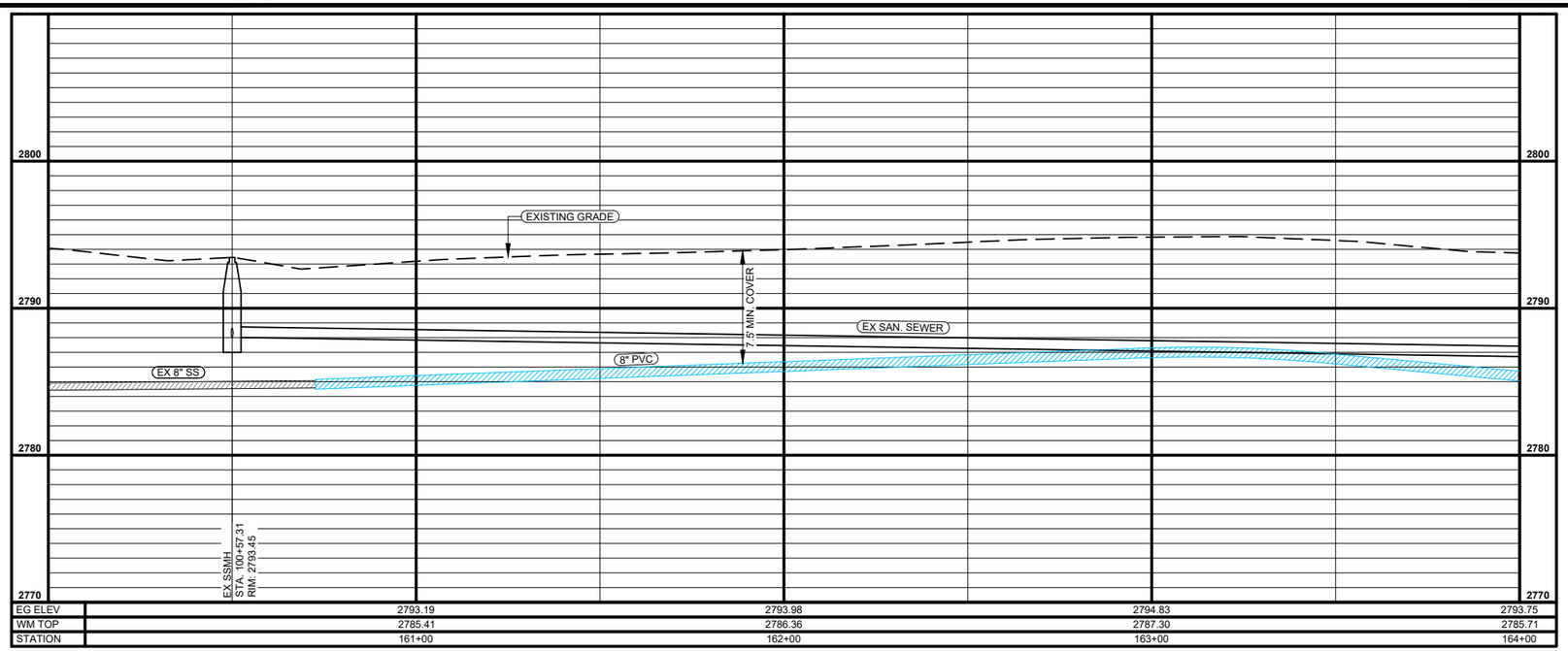
WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX CONNECT TO EX.	160+72.63 - 11.75' R
8" 90° BEND	160+77.89 - 11.69' R
8" 90° BEND	160+77.88 - 11.32' L

REMOVAL QUANTITIES	
ASPHALT	497 SY
CURB AND GUTTER	50 LF
VALLEY GUTTER	63 SF
4" TOPSOIL	54 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	497 SY
8" CLASS 5 AGGREGATE BASE	497 SY
CURB & GUTTER	50 LF
VALLEY GUTTER	63 SF
4" TOPSOIL	54 SY
HYDROSEED	54 SY

REMOVAL QUANTITIES-CITY	
VALLEY GUTTER	248 SF

RESTORATION QUANTITIES-CITY	
VALLEY GUTTER	248 SF



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. REMOVE AND DISPOSE EXISTING GATE VALVE AND INSTALL AND FURNISH NEW 8" GATE VALVE. SEE DETAIL 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
10. REMOVE AND REPLACE EXISTING CONCRETE VALLEY GUTTER. SEE DETAIL 4/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
16. PROTECT EXISTING FENCE. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
17. SUPPORT EXISTING POWER POLE. INCIDENTAL TO CONTRACT.
18. PROTECT EXISTING RETAINING WALL. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
33. PROTECT EXISTING BUILDING. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

APPR | DATE | SYM

STATUS:

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS
Advanced Engineering and Environmental Services, LLC www.ae2s.com

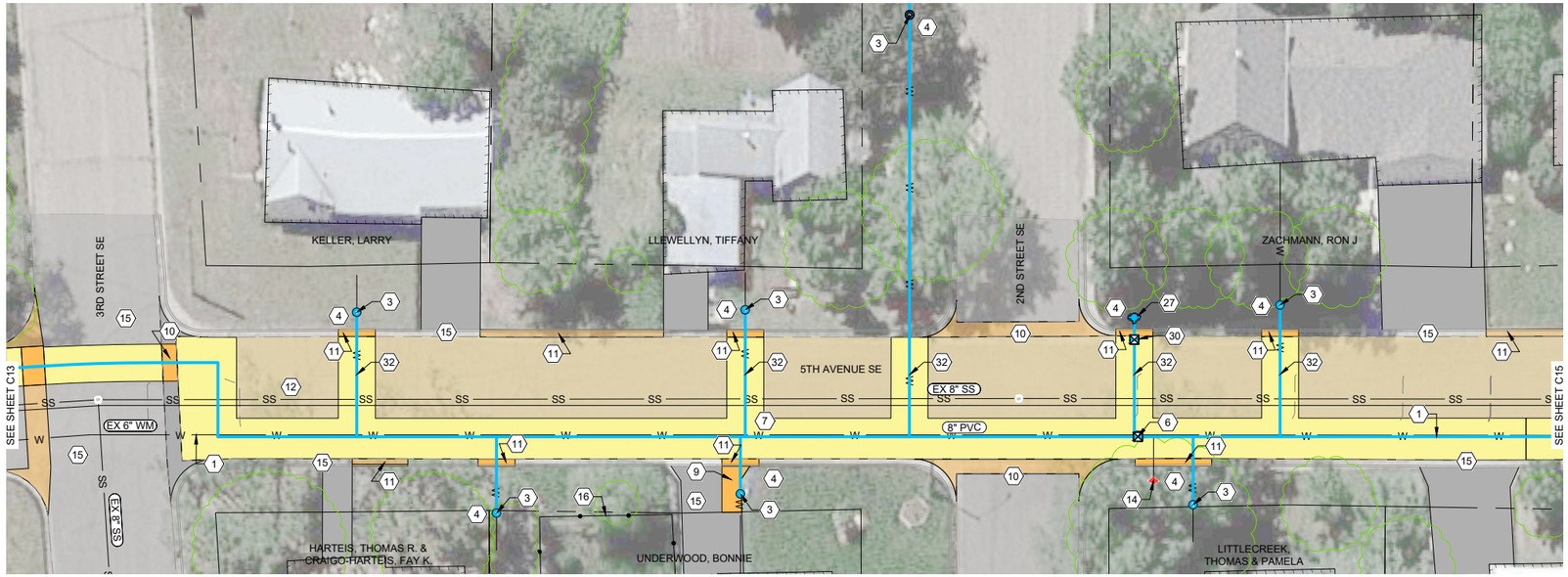
SHEET TITLE:
5TH AVENUE SE - 4TH STREET SE TO 3RD STREET SE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: CIV
SHEET NO: C13



REMOVAL QUANTITIES	
ASPHALT	639 SY
CURB AND GUTTER	81 LF
CONCRETE DRIVEWAY	69 SF
VALLEY GUTTER	40 SF
4" TOPSOIL	108 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	639 SY
8" CLASS 5 AGGREGATE BASE	639 SY
CURB & GUTTER	81 LF
6" CONCRETE DRIVEWAY	69 SF
VALLEY GUTTER	40 SF
4" TOPSOIL	108 SY
HYDROSEED	108 SY

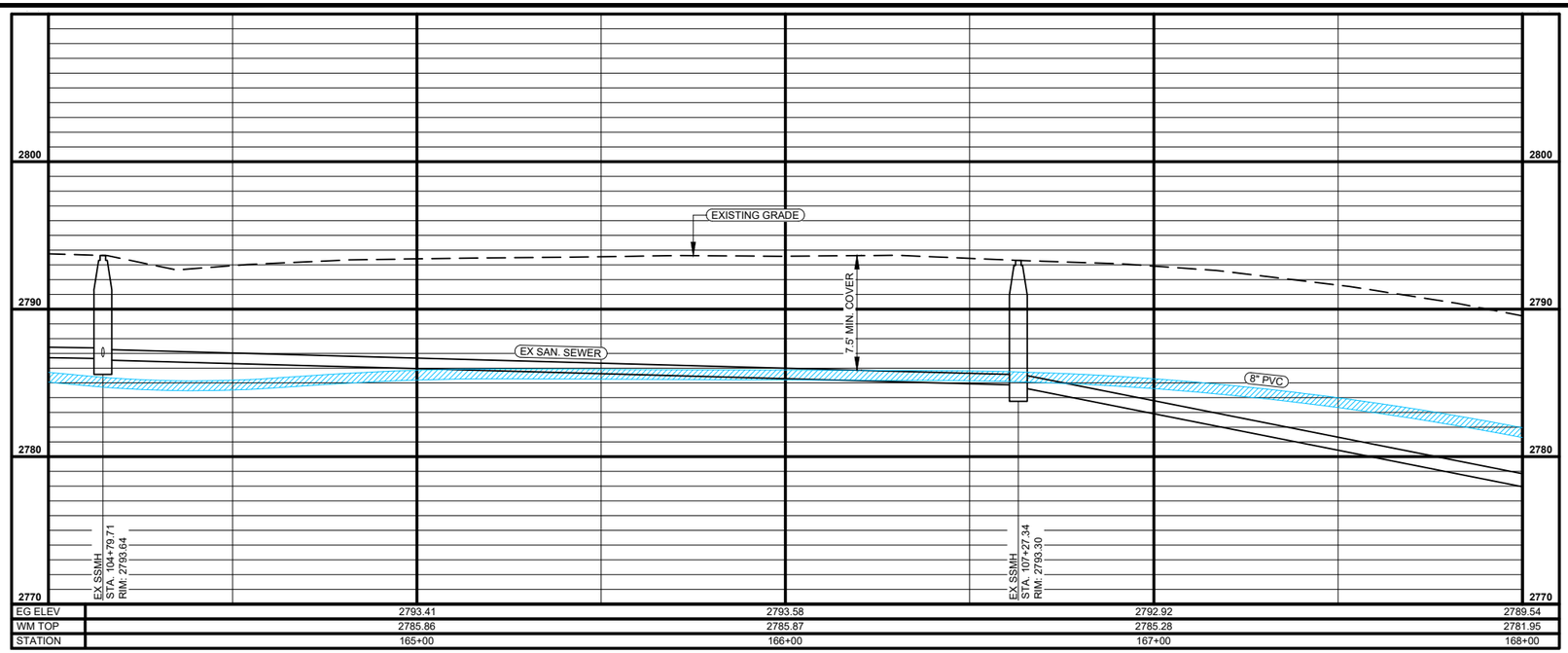
REMOVAL QUANTITIES-CITY	
ASPHALT	727 SY
CURB & GUTTER	76 LF
VALLEY GUTTER	363 SF

RESTORATION QUANTITIES-CITY	
4 1/2" ASPHALT	727 SY
8" CLASS 5 AGGREGATE BASE	727 SY
CURB & GUTTER	76 LF
VALLEY GUTTER	363 SF

WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	164+00.00 - 11.57' L	164+47.03 - 11.55' L	48 LF
8"	164+47.03 - 11.55' L	164+47.03 - 8.49' R	20 LF
8"	164+47.03 - 8.49' R	168+00.00 - 8.45' R	353 LF
6"	166+94.31 - 8.46' R	166+94.31 - 23.73' L	32 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
164+84.50 - 8.48' R	164+84.50 - 25.11' L	1.0" WM SERVICE	34 LF
165+22.21 - 8.48' R	165+22.21 - 29.08' R	1.0" WM SERVICE	21 LF
165+88.04 - 8.47' R	165+88.04 - 23.89' R	1.0" WM SERVICE	15 LF
165+89.34 - 8.47' R	165+89.33 - 25.77' L	1.0" WM SERVICE	34 LF
166+33.62 - 8.47' R	166+33.71 - 125.45' L	1.0" WM SERVICE	133 LF
167+10.20 - 8.46' R	167+10.20 - 26.81' R	1.0" WM SERVICE	18 LF
167+33.66 - 8.46' R	167+33.65 - 21.05' L	1.0" WM SERVICE	36 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" 90° BEND	164+47.03 - 11.55' L
8" 90° BEND	164+47.03 - 8.49' R
8" X 6" TEE	166+94.31 - 8.46' R
6" GATE VALVE & BOX	166+94.31 - 17.73' L
6" HYDRANT	166+94.31 - 23.73' L
8" GATE VALVE & BOX	166+95.32 - 8.46' R



EG ELEV	2793.41	2793.58	2792.92	2789.54
WM TOP	2785.86	2785.87	2785.28	2781.95
STATION	165+00	166+00	167+00	168+00

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
6. REMOVE AND DISPOSE EXISTING GATE VALVE AND INSTALL AND FURNISH NEW GATE VALVE. SEE DETAIL 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
10. REMOVE AND REPLACE EXISTING CONCRETE VALLEY GUTTER. SEE DETAIL 4/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
14. REMOVE EXISTING HYDRANT AND ALL ADDITIONAL APPURTENANCES. ABANDON 6" HYDRANT LEAD IN PLACE. REMOVAL INCIDENTAL TO CONTRACT.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
16. PROTECT EXISTING FENCE. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
27. FURNISH AND INSTALL NEW FIRE HYDRANT AND GATE VALVE. SEE DETAILS 3/C33, 4/C33 AND 4/C32.
30. FURNISH AND INSTALL NEW 6" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR	DATE	SYM

STATUS:

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
5TH AVENUE SE - 3RD STREET SE TO 120' N OF 2ND STREET SE

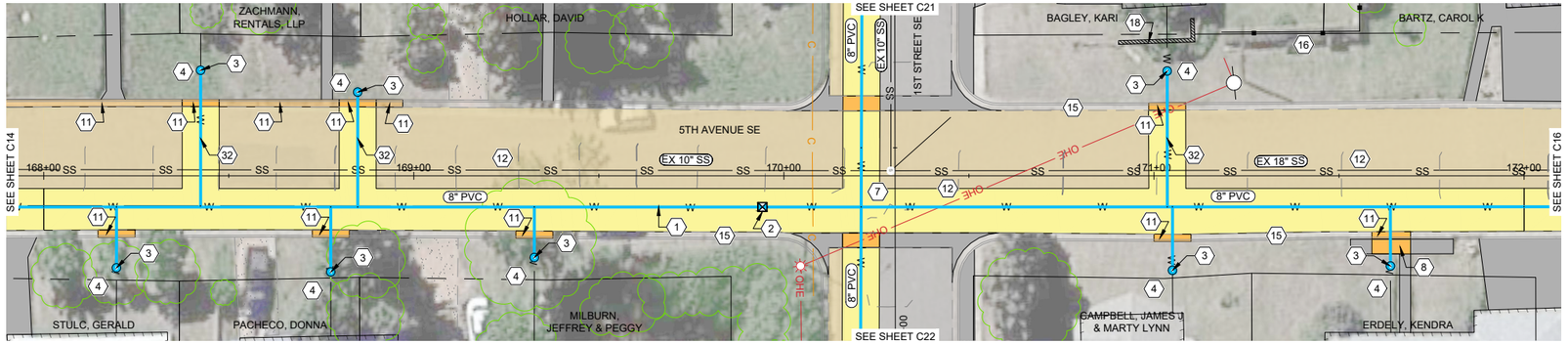
CLIENT: **CITY OF BEACH**, BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**

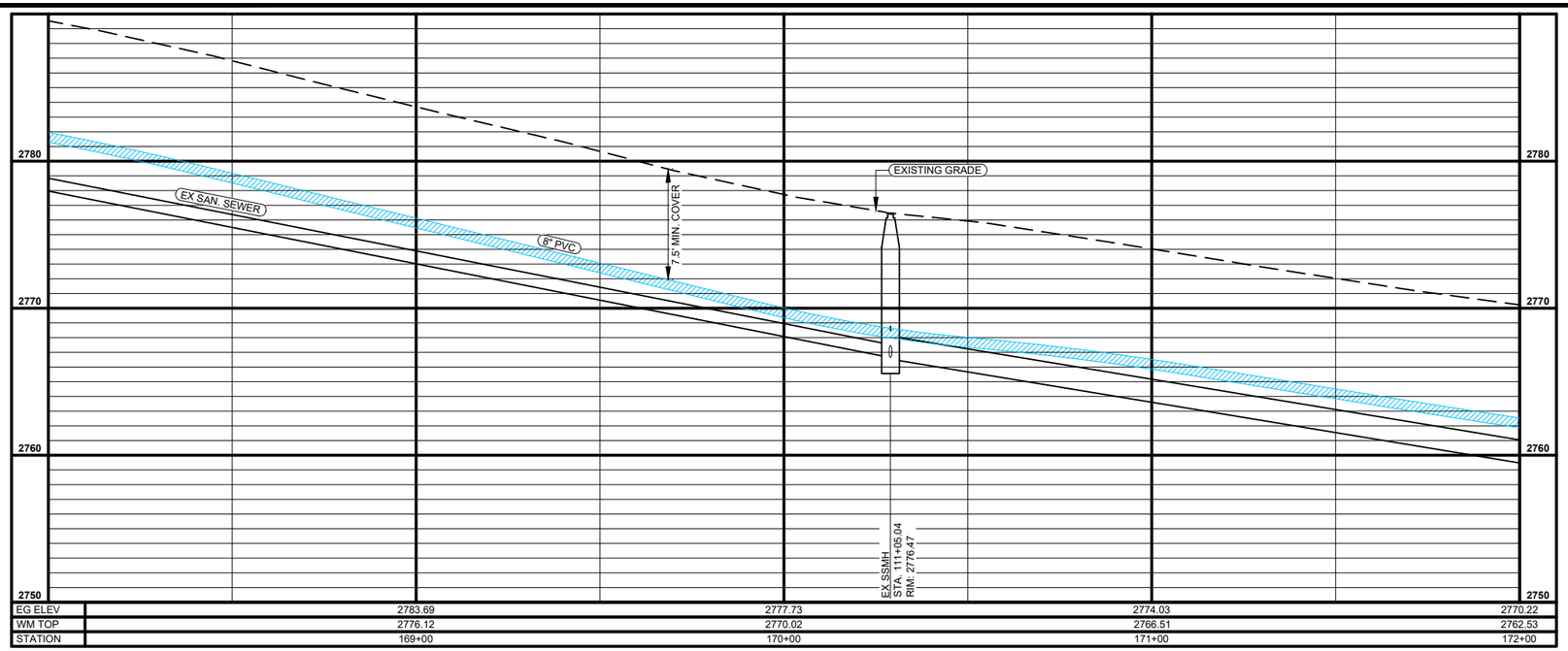
SHEET NO: **C14**



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	168+00.00 - 8.45' R	172+00.00 - 8.38' R	400 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
168+19.67 - 8.45' R	168+19.67 - 24.85' R	1.0" WM SERVICE	16 LF
168+42.38 - 8.14' R	168+42.42 - 28.50' L	1.0" WM SERVICE	37 LF
168+77.59 - 8.44' R	168+77.59 - 25.96' R	1.0" WM SERVICE	18 LF
168+84.85 - 8.44' R	168+84.85 - 22.60' L	1.0" WM SERVICE	31 LF
169+32.58 - 8.44' R	169+32.58 - 22.08' R	1.0" WM SERVICE	14 LF
171+03.58 - 8.40' R	171+03.57 - 28.28' L	1.0" WM SERVICE	37 LF
171+05.00 - 8.40' R	171+05.00 - 25.53' R	1.0" WM SERVICE	17 LF
171+63.87 - 8.39' R	171+63.87 - 24.38' R	1.0" WM SERVICE	16 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX	169+94.19 - 8.43' R
8" CROSS	170+20.86 - 8.43' R



REMOVAL QUANTITIES	
ASPHALT	615 SY
CURB AND GUTTER	80 LF
CONCRETE SIDEWALK	42 SF
4" TOPSOIL	100 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	615 SY
8" CLASS 5 AGGREGATE BASE	615 SY
CURB & GUTTER	80 LF
4" CONCRETE SIDEWALK	42 SF
4" TOPSOIL	100 SY
HYDROSEED	100 SY

REMOVAL QUANTITIES-CITY	
ASPHALT	860 SY
CURB & GUTTER	77 LF

RESTORATION QUANTITIES-CITY	
4 1/2" ASPHALT	860 SY
8" CLASS 5 AGGREGATE BASE	860 SY
CURB & GUTTER	77 LF

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
2. REMOVE AND DISPOSE EXISTING GATE VALVE AND INSTALL AND FURNISH NEW 8" GATE VALVE. SEE DETAIL 4/C33.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
6. FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
16. PROTECT EXISTING FENCE. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
18. PROTECT EXISTING RETAINING WALL. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR | DATE | SYM

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS
Advanced Engineering and Environmental Services, LLC www.ae2s.com

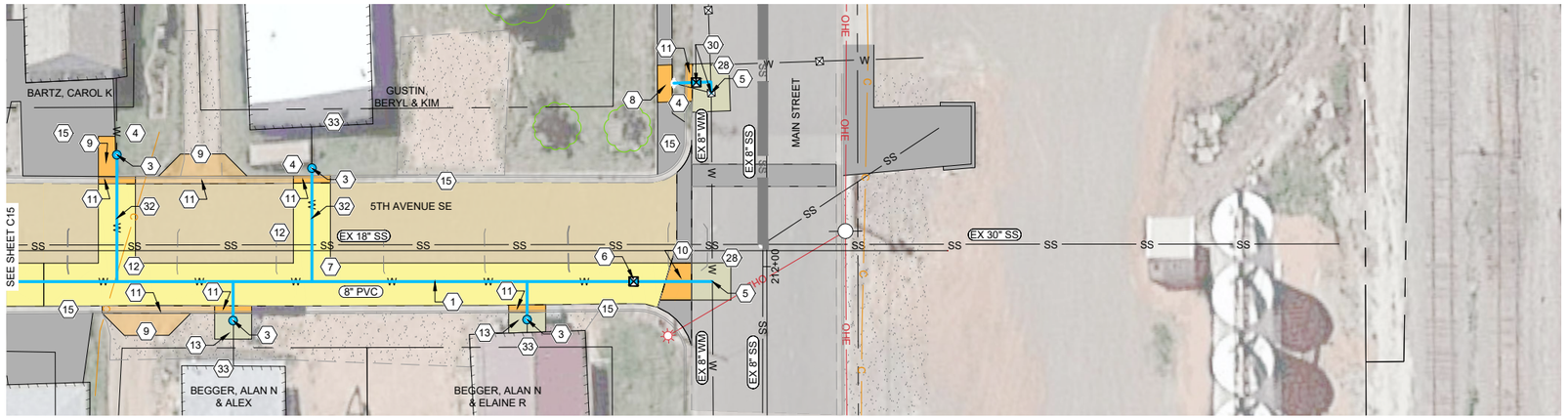
SHEET TITLE:
5TH AVENUE SE - 120' N OF 2ND ST SE TO 150' N OF 1ST ST SE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

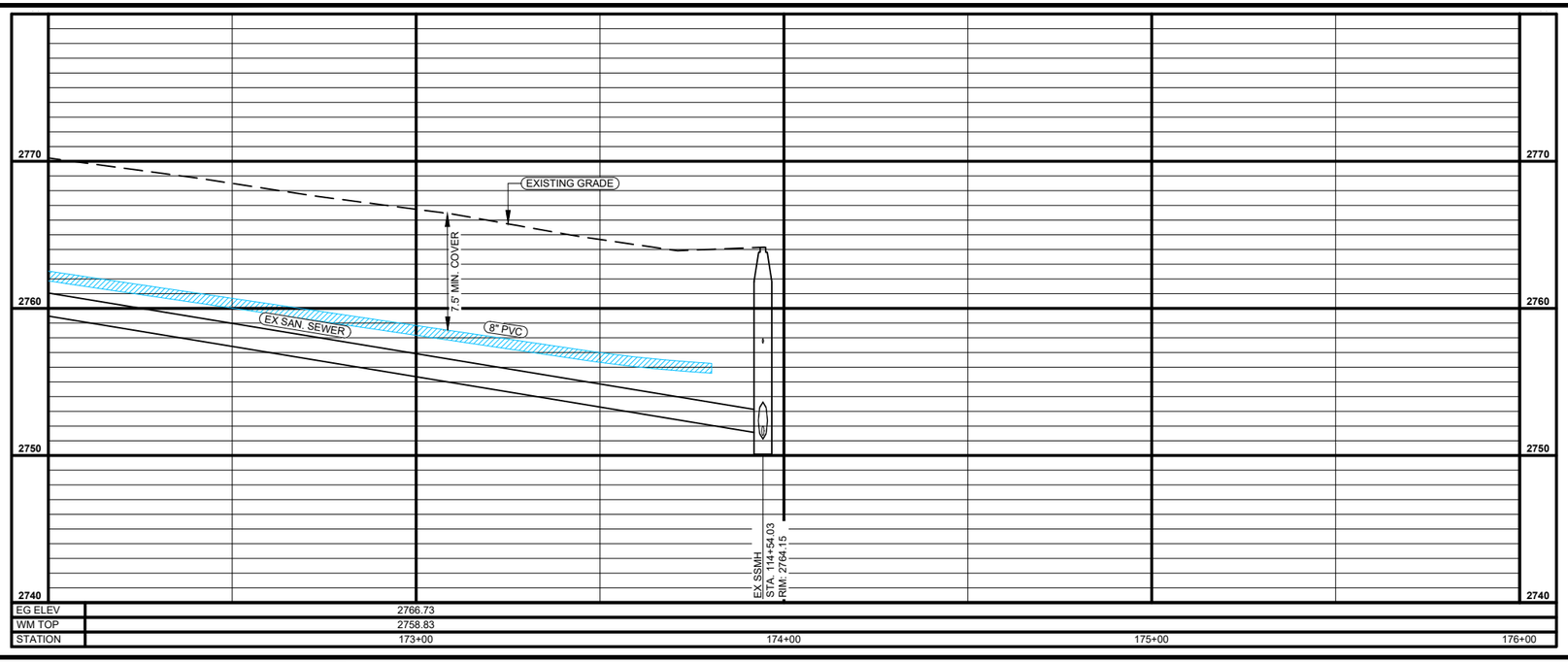
SHEET DESIGNATOR: **CIV**
SHEET NO: **C15**



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	172+00.00 - 8.38' R	173+80.68 - 8.32' R	181 LF
8"	173+80.37 - 42.61' L	173+80.27 - 45.58' L	3 LF
6"	173+80.27 - 45.58' L	173+70.26 - 45.23' L	10 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
172+19.79 - 8.37' R	172+19.78 - 25.90' L	1.0" WM SERVICE	34 LF
172+51.19 - 8.36' R	172+51.19 - 18.90' R	1.0" WM SERVICE	11 LF
172+72.48 - 8.35' R	172+72.48 - 22.28' L	1.0" WM SERVICE	31 LF
173+30.61 - 8.34' R	173+30.62 - 18.64' R	1.0" WM SERVICE	10 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX	173+59.40 - 8.33' R
8" TEE CONNECT TO EX.	173+80.68 - 8.32' R
8" X 6" TEE	173+80.27 - 45.58' L
6" GATE VALVE & BOX	173+76.28 - 45.44' L



REMOVAL QUANTITIES	
ASPHALT	288 SY
CURB AND GUTTER	50 LF
CONCRETE SIDEWALK	41 SF
CONCRETE DRIVEWAY	51 SF
VALLEY GUTTER	70 SF
4" TOPSOIL	18 SY
GRAVEL	125 SF

RESTORATION QUANTITIES	
4 1/2" ASPHALT	261 SY
8" CLASS 5 AGGREGATE BASE	261 SY
6" ASPHALT MILLINGS	237 SF
CURB & GUTTER	50 LF
CONCRETE SIDEWALK	41 SF
6" CONCRETE DRIVEWAY	51 SF
VALLEY GUTTER	70 SF
4" TOPSOIL	18 SY
HYDROSEED	18 SY
GRAVEL	125 SF

REMOVAL QUANTITIES-CITY	
ASPHALT	363 SY
CURB & GUTTER	73 LF

RESTORATION QUANTITIES-CITY	
4 1/2" ASPHALT	363 SY
8" CLASS 5 AGGREGATE BASE	363 SY
CURB & GUTTER	73 LF
CONCRETE DRIVEWAY	216 SF

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. REMOVE AND DISPOSE EXISTING GATE VALVE AND INSTALL AND FURNISH NEW 8" GATE VALVE. SEE DETAIL 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
10. REMOVE AND REPLACE EXISTING CONCRETE VALLEY GUTTER. SEE DETAIL 4/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
13. RESTORE GRAVEL SURFACE PER DETAIL 1/C35.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
28. REMOVE AND DISPOSE EXISTING BITUMINOUS PAVEMENT. FURNISH AND INSTALL NEW 6" ASPHALT MILLINGS SURFACE. SEE DETAIL 1/C35.
30. REMOVE AND DISPOSE EXISTING GATE VALVE AND FURNISH AND INSTALL NEW 6" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.
33. PROTECT EXISTING BUILDING. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

APPR | DATE | SYM

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS
Advanced Engineering and Environmental Services, LLC www.ae2s.com

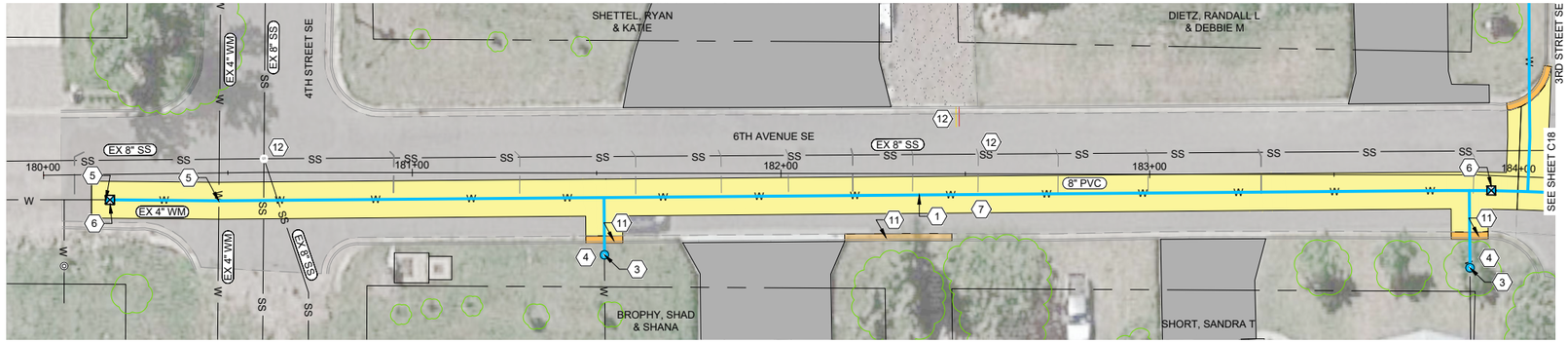
SHEET TITLE:
5TH AVENUE SE - 150' N OF 1ST STREET SE TO MAIN STREET

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C16**



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	180+17.93 - 6.59' R	184+00.00 - 3.96' R	382 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
181+52.01 - 6.63' R	181+52.18 - 22.17' R	1.0" WM SERVICE	16 LF
183+86.68 - 4.21' R	183+86.90 - 25.16' R	1.0" WM SERVICE	21 LF

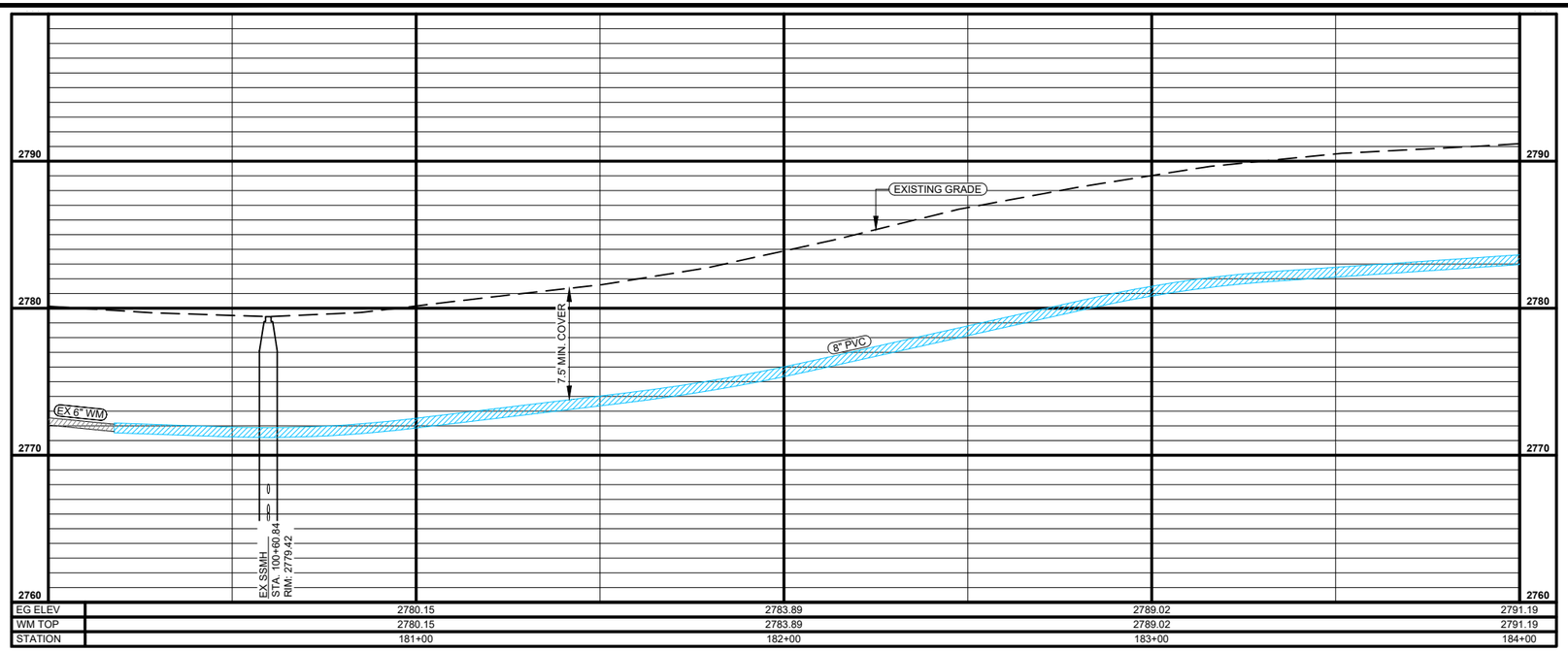
WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX CONNECT TO EX.	180+17.93 - 6.59' R
8" X 4" CROSS	180+47.50 - 7.54' R
8" GATE VALVE & BOX	183+92.80 - 3.94' R

REMOVAL QUANTITIES	
ASPHALT	449 SY
CURB AND GUTTER	20 LF
4" TOPSOIL	29 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	449 SY
8" CLASS 5 AGGREGATE BASE	449 SY
CURB & GUTTER	20 LF
4" TOPSOIL	23 SY
HYDROSEED	23 SY

REMOVAL QUANTITIES-CITY	
CURB & GUTTER	29 LF

RESTORATION QUANTITIES-CITY	
CURB AND GUTTER	29 LF



EG ELEV	2780.15	2783.89	2789.02	2791.19
WM TOP	2780.15	2783.89	2789.02	2791.19
STATION	181+00	182+00	183+00	184+00

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. REMOVE AND DISPOSE EXISTING NEW GATE VALVE AND INSTALL AND FURNISH NEW 8" GATE VALVE. SEE DETAIL 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

APPR | DATE | SYM

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

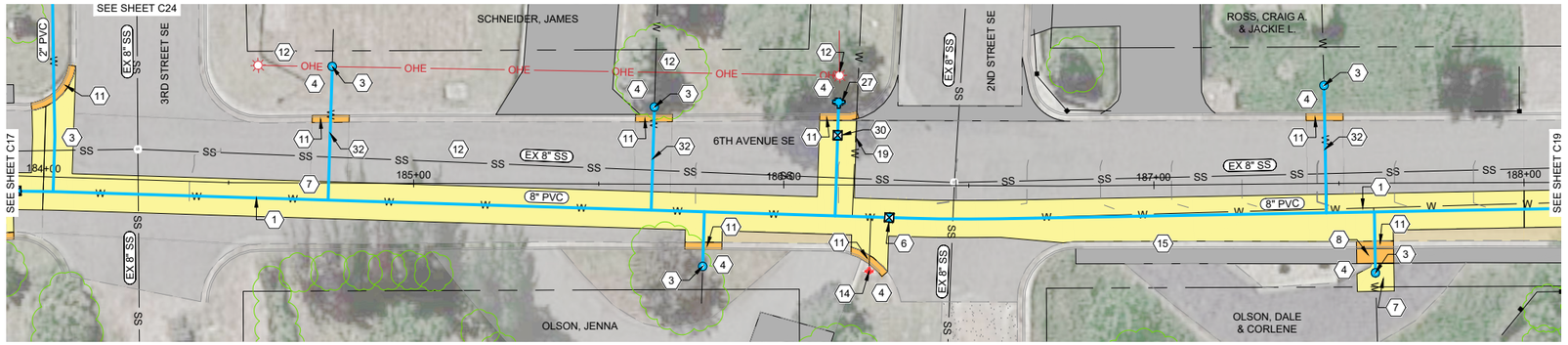
SHEET TITLE:
6TH AVENUE SE - 4TH STREET SE TO 3RD STREET SE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C17**



WATERMAIN INSTALLATION

SIZE	START STATION	END STATION	LENGTH
8"	184+00.00 - 3.96' R	188+00.00 - 7.20' R	400 LF
6"	186+13.92 - 8.41' R	186+14.70 - 22.35' L	31 LF

WATER SERVICE INSTALLATION

START STATION	END STATION	DESCRIPTION	LENGTH
184+76.89 - 4.63' R	184+77.90 - 31.48' L	1.0" WM SERVICE	36 LF
185+64.19 - 7.06' R	185+64.97 - 20.80' L	1.0" WM SERVICE	28 LF
185+78.56 - 7.46' R	185+78.15 - 22.17' R	1.0" WM SERVICE	15 LF
187+46.50 - 7.93' R	187+46.22 - 26.45' L	1.0" WM SERVICE	34 LF
187+59.53 - 7.78' R	187+59.76 - 24.23' R	1.0" WM SERVICE	16 LF

WATERMAIN STRUCTURE INSTALLATION

STRUCTURE	STATION
8" X 2" TEE	184+02.68 - 3.94' R
8" X 6" TEE	186+13.92 - 8.41' R
6" GATE VALVE & BOX	186+14.47 - 13.36' L
6" HYDRANT	186+14.70 - 22.35' L
8" GATE VALVE & BOX	186+28.53 - 8.77' R

REMOVAL QUANTITIES

ASPHALT	520 SY
CURB AND GUTTER	71 LF
CONCRETE SIDEWALK	40 SF
ASPHALT DRIVEWAY	68 SF
4" TOPSOIL	68 SY

RESTORATION QUANTITIES

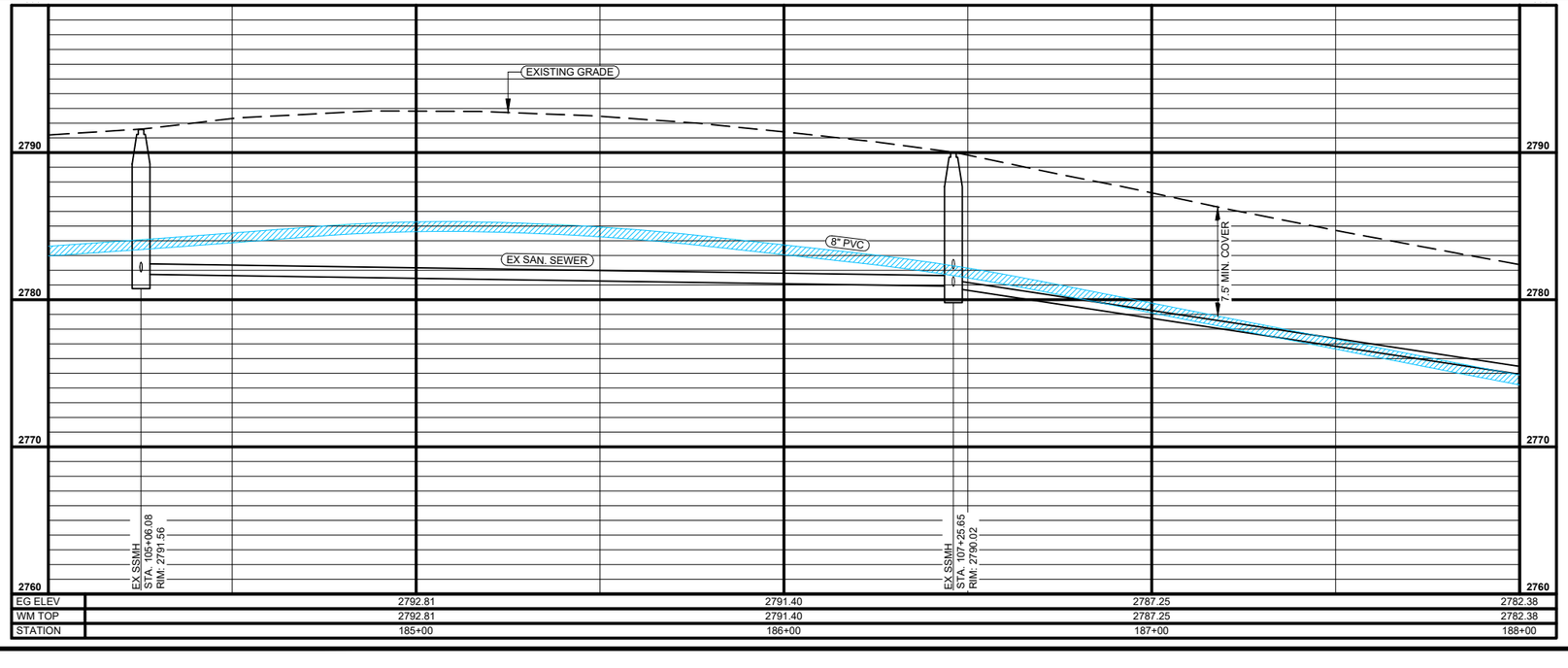
4 1/2" ASPHALT	520 SY
8" CLASS 5 AGGREGATE BASE	520 SY
CURB & GUTTER	71 LF
4" CONCRETE SIDEWALK	40 SF
4 1/2" ASPHALT DRIVEWAY	68 SF
6" CLASS 5 AGGREGATE BASE	68 SF
4" TOPSOIL	68 SY
HYDROSEED	68 SY

REMOVAL QUANTITIES-CITY

ASPHALT	23 SY

RESTORATION QUANTITIES-CITY

4 1/2" ASPHALT	23 SY
8" CLASS 5 AGGREGATE BASE	23 SY



EG ELEV	2792.81	2791.40	2787.25	2782.38
WM TOP	2792.81	2791.40	2787.25	2782.38
STATION	185+00	186+00	187+00	188+00

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
6. FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
14. REMOVE EXISTING HYDRANT AND ALL ADDITIONAL APPURTENANCES. ABANDON 6" HYDRANT LEAD IN PLACE. REMOVAL INCIDENTAL TO CONTRACT.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
16. PROTECT EXISTING FENCE. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
19. ABANDON EXISTING WATER SERVICE IN PLACE. REMOVE AND DISPOSE EXISTING CURB STOP. INCIDENTAL TO CONTRACT.
27. FURNISH AND INSTALL NEW FIRE HYDRANT AND GATE VALVE. SEE DETAILS 3/C33, 4/C33 AND 4/C32.
30. FURNISH AND INSTALL NEW 6" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR | DATE | SYM

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS
Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
6TH AVENUE SE - 3RD STREET SE TO 135' N OF 2ND STREET SE

CLIENT: **CITY OF BEACH**, BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**

SHEET NO: **C18**

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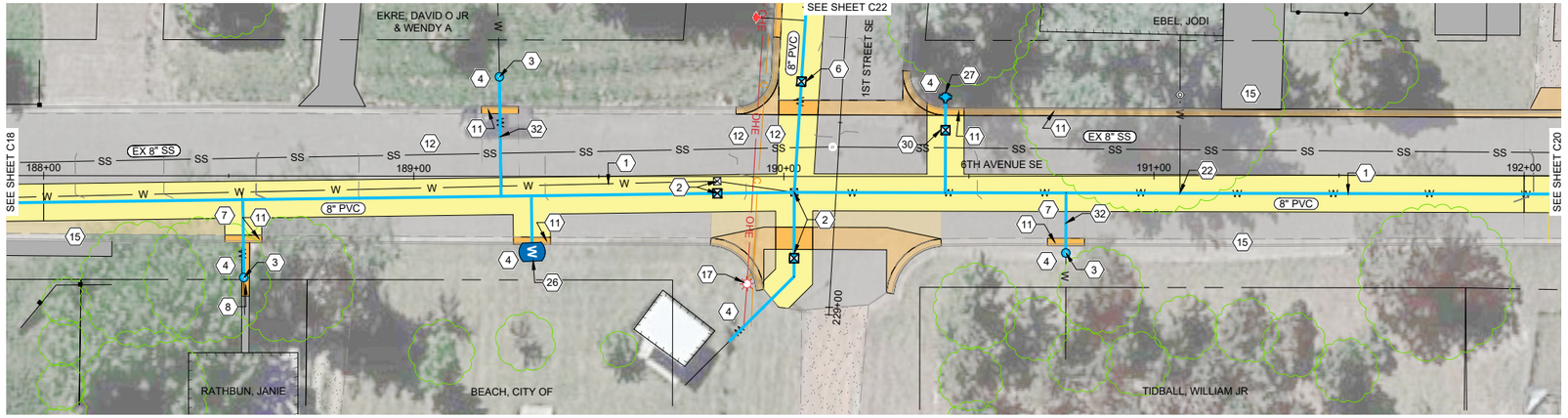


WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	188+00.00 - 7.20' R	192+00.00 - 4.90' R	400 LF
6"	190+43.61 - 4.38' R	190+43.67 - 21.52' L	26 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
188+53.82 - 6.44' R	188+54.14 - 27.50' R	1.0" WM SERVICE	21 LF
189+23.59 - 5.40' R	189+23.11 - 26.85' L	1.0" WM SERVICE	32 LF
189+31.78 - 5.27' R	189+32.01 - 20.44' R	1.0" WM SERVICE	15 LF
190+76.20 - 4.57' R	190+76.10 - 20.81' R	1.0" WM SERVICE	16 LF

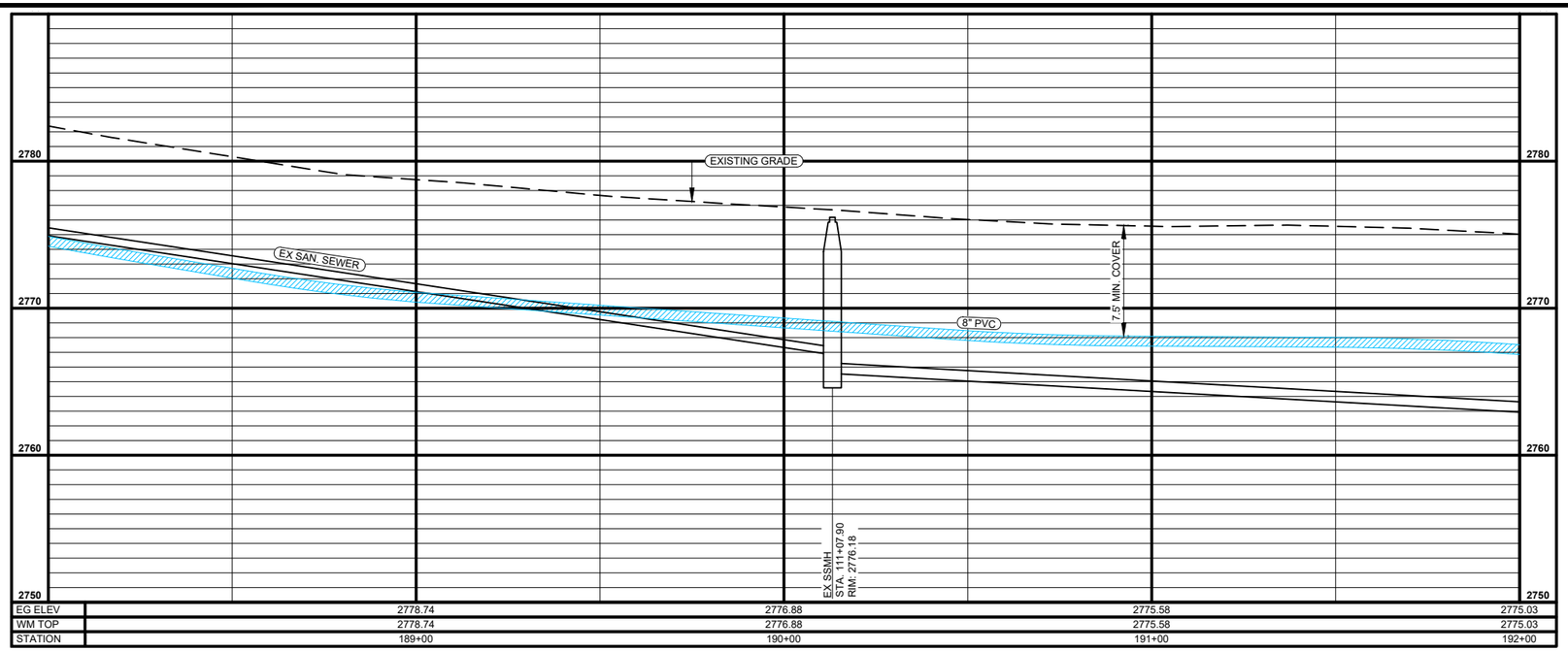
WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
METER PIT	189+32.01 - 20.44' R
8" GATE VALVE & BOX	189+82.02 - 4.57' R
8" CROSS	190+02.79 - 4.29' R
8" X 6" TEE	190+43.61 - 4.38' R
6" GATE VALVE & BOX	190+43.65 - 12.52' L
6" HYDRANT	190+43.67 - 21.52' L

REMOVAL QUANTITIES	
ASPHALT	497 SY
CURB AND GUTTER	50 LF
CONCRETE SIDEWALK	29 SF
VALLEY GUTTER	2 SF
4" TOPSOIL	52 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	497 SY
8" CLASS 5 AGGREGATE BASE	497 SY
CURB & GUTTER	50 LF
4" CONCRETE SIDEWALK	29 SF
VALLEY GUTTER	2 SF
4" TOPSOIL	52 SY
HYDROSEED	52 SY

REMOVAL QUANTITIES-CITY	
ASPHALT	53 SY
CURB & GUTTER	151 LF

RESTORATION QUANTITIES-CITY	
4 1/2" ASPHALT	53 SY
8" CLASS 5 AGGREGATE BASE	53 SY
CURB AND GUTTER	151 LF



Plotted By: Trenton Hintz Date: Tuesday, November 19, 2024

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
2. REMOVE AND DISPOSE EXISTING GATE VALVE AND INSTALL AND FURNISH NEW 8" GATE VALVE. SEE DETAIL 4/C33.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
6. FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
17. SUPPORT EXISTING POWER POLE. INCIDENTAL TO CONTRACT.
22. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATER SERVICE LINE.
26. FURNISH AND INSTALL NEW WATER METER PIT. SEE DETAIL 1/C37.
27. FURNISH AND INSTALL NEW FIRE HYDRANT AND GATE VALVE. SEE DETAILS 3/C33, 4/C33 AND 4/C32.
30. FURNISH AND INSTALL NEW 6" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR | DATE | SYM | STATUS:

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

Advanced Engineering and Environmental Services, LLC www.ae2s.com

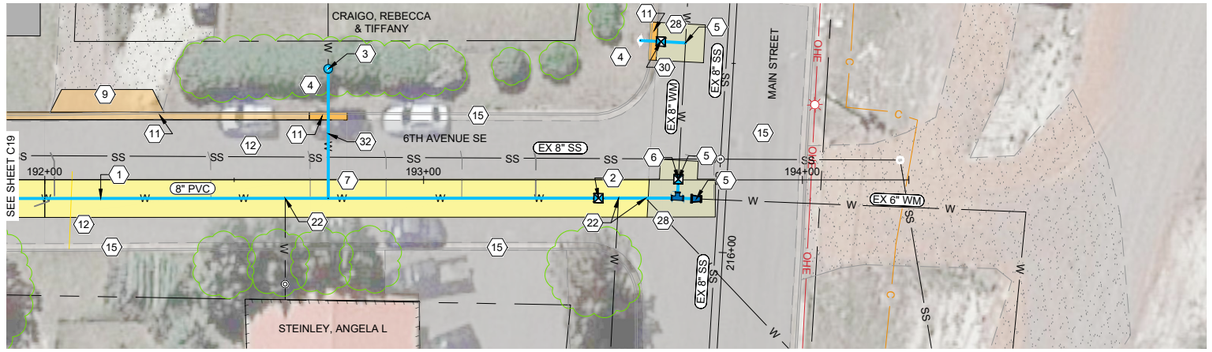
SHEET TITLE:
6TH AVENUE SE - 135' N OF 2ND ST SE TO 170' N OF 1ST ST SE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

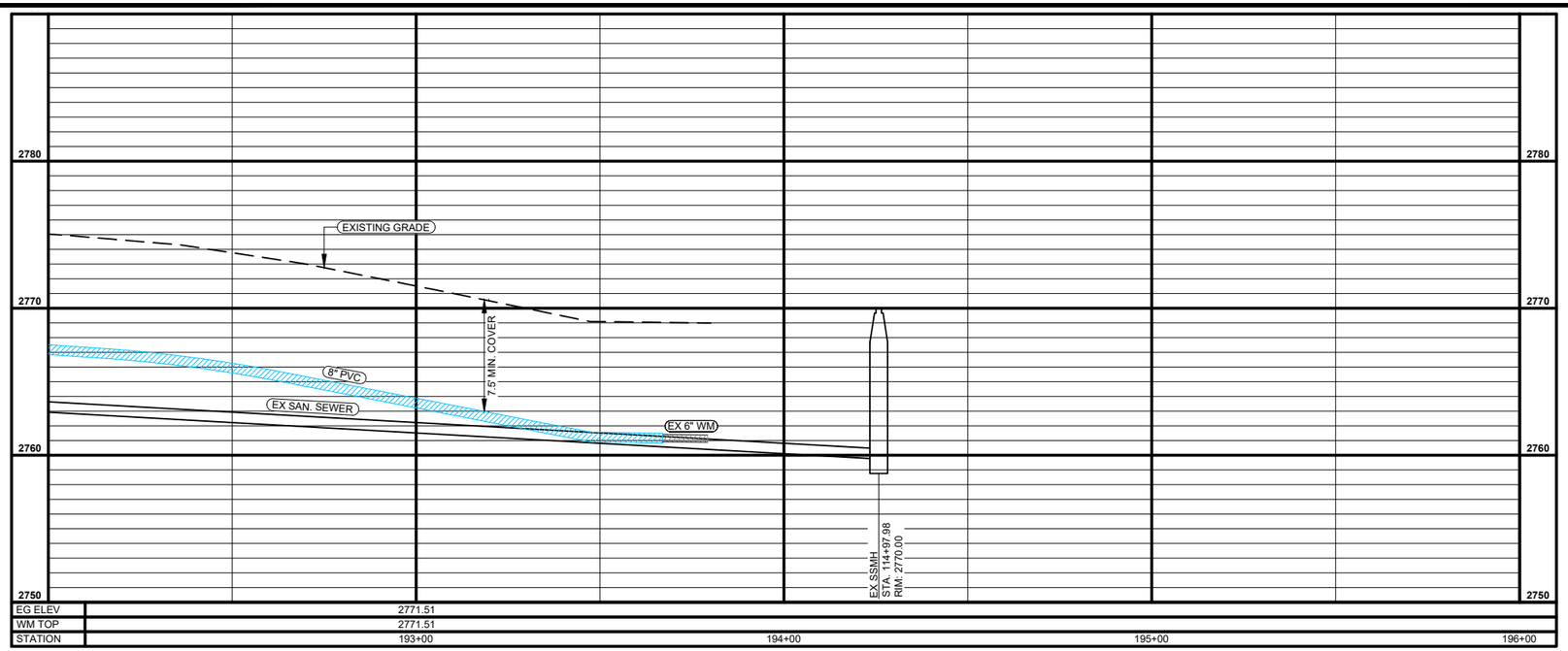
SHEET DESIGNATOR: **CIV**
SHEET NO: **C19**



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	192+00.00 - 4.90' R	193+71.99 - 5.02' R	172 LF
8"	193+66.99 - 4.82' R	193+67.25 - 0.18' L	5 LF
6"	193+69.13 - 36.16' L	193+57.25 - 36.78' L	12 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
192+74.84 - 4.87' R	192+74.83 - 29.28' L	1.0" WM SERVICE	34 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX	193+46.16 - 4.83' R
8" TEE	193+66.99 - 4.82' R
8" X 6" REDUCER CONNECT TO EX.	193+71.99 - 5.02' R
8" GATE VALVE & BOX	193+67.25 - 0.18' L
8" X 6" TEE	193+69.13 - 36.16' L
6" GATE VALVE & BOX	193+62.63 - 36.50' L



REMOVAL QUANTITIES	
ASPHALT	216 SY
CURB AND GUTTER	20 LF
4" TOPSOIL	26 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	177 SY
8" CLASS 5 AGGREGATE BASE	177 SY
6" ASPHALT MILLINGS	39 SY
CURB & GUTTER	20 LF
4" TOPSOIL	26 SY
HYDROSEED	26 SY

REMOVAL QUANTITIES-CITY	
CURB & GUTTER	70 LF

RESTORATION QUANTITIES-CITY	
CURB AND GUTTER	70 LF
CONCRETE DRIVEWAY	155 SF

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
2. REMOVE AND DISPOSE EXISTING GATE VALVE AND INSTALL AND FURNISH NEW 8" GATE VALVE. SEE DETAIL 4/C33.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
22. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATER SERVICE LINE.
28. REMOVE AND DISPOSE EXISTING BITUMINOUS PAVEMENT. FURNISH AND INSTALL NEW 6" ASPHALT MILLINGS SURFACE. SEE DETAIL 1/C35.
30. FURNISH AND INSTALL NEW 6" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR | DATE | SYM

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

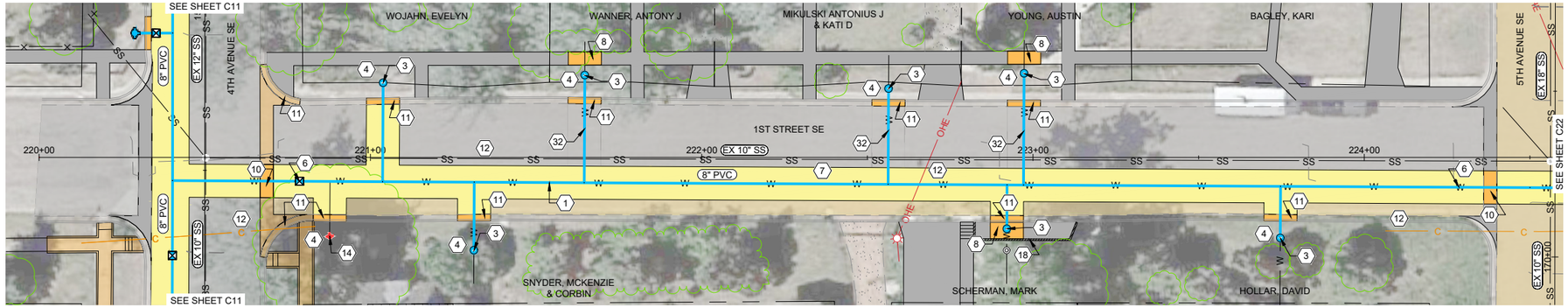
SHEET TITLE:
6TH AVENUE SE - 170' N OF 1ST ST SE TO 30' N OF MAIN STREET

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C20**



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	220+40.29 - 7.00' R	224+50.00 - 9.12' R	410 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
221+03.68 - 7.33' R	221+03.84 - 22.51' L	1.0" WM SERVICE	30 LF
221+31.35 - 7.47' R	221+31.24 - 28.01' R	1.0" WM SERVICE	21 LF
221+64.53 - 7.64' R	221+64.70 - 24.81' L	1.0" WM SERVICE	32 LF
222+56.25 - 8.12' R	222+56.40 - 20.75' L	1.0" WM SERVICE	29 LF
222+92.17 - 8.30' R	222+92.10 - 21.54' R	1.0" WM SERVICE	13 LF
222+97.13 - 8.33' R	222+97.31 - 25.36' L	1.0" WM SERVICE	34 LF
223+74.72 - 8.73' R	223+74.64 - 24.29' R	1.0" WM SERVICE	16 LF

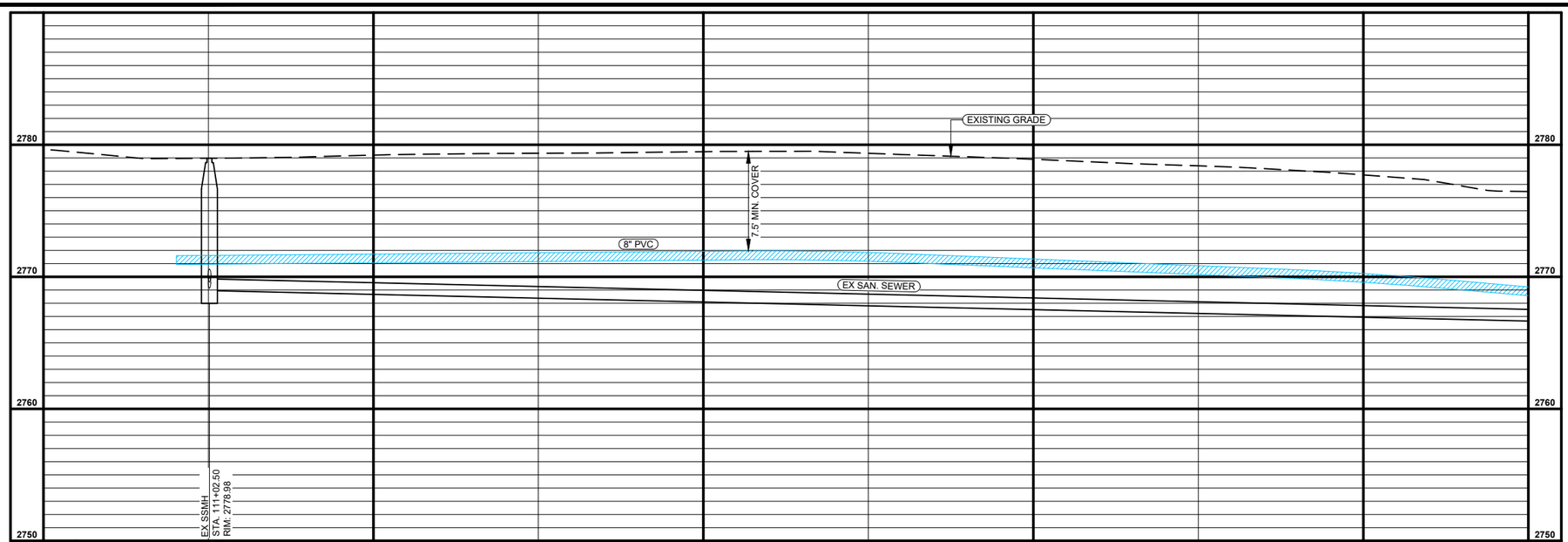
WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX	220+78.60 - 7.20' R
8" GATE VALVE & BOX	224+28.60 - 9.01' R

REMOVAL QUANTITIES	
ASPHALT	446 SY
CURB AND GUTTER	80 LF
CONCRETE SIDEWALK	130 SF
VALLEY GUTTER	80 SF
4" TOPSOIL	80 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	446 SY
8" CLASS 5 AGGREGATE BASE	446 SY
CURB & GUTTER	80 LF
4" CONCRETE SIDEWALK	130 SF
VALLEY GUTTER	80 SF
4" TOPSOIL	80 SY
HYDROSEED	80 SY

REMOVAL QUANTITIES-CITY	
ASPHALT	153 SY
CURB AND GUTTER	36 LF
VALLEY GUTTER	179 SF

RESTORATION QUANTITIES-CITY	
4 1/2" ASPHALT	153 SY
8" CLASS 5 AGGREGATE BASE	153 SY
CURB AND GUTTER	36 LF
VALLEY GUTTER	179 SF



EG ELEV	2779.21	2779.47	2778.90	2777.71
WM TOP	2771.72	2771.92	2771.35	2770.25
STATION	221+00	222+00	223+00	224+00

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

APPR	DATE	SYM

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
6. FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
10. REMOVE AND REPLACE EXISTING CONCRETE VALLEY GUTTER. SEE DETAIL 4/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
14. REMOVE EXISTING HYDRANT AND ALL ADDITIONAL APPURTENANCES. ABANDON 6" HYDRANT LEAD IN PLACE. REMOVAL INCIDENTAL TO CONTRACT.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
18. PROTECT EXISTING RETAINING WALL. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
19. ABANDON EXISTING WATER SERVICE IN PLACE. REMOVE AND DISPOSE EXISTING CURB STOP. INCIDENTAL TO CONTRACT.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

Advanced Engineering and Environmental Services, LLC www.ae2s.com

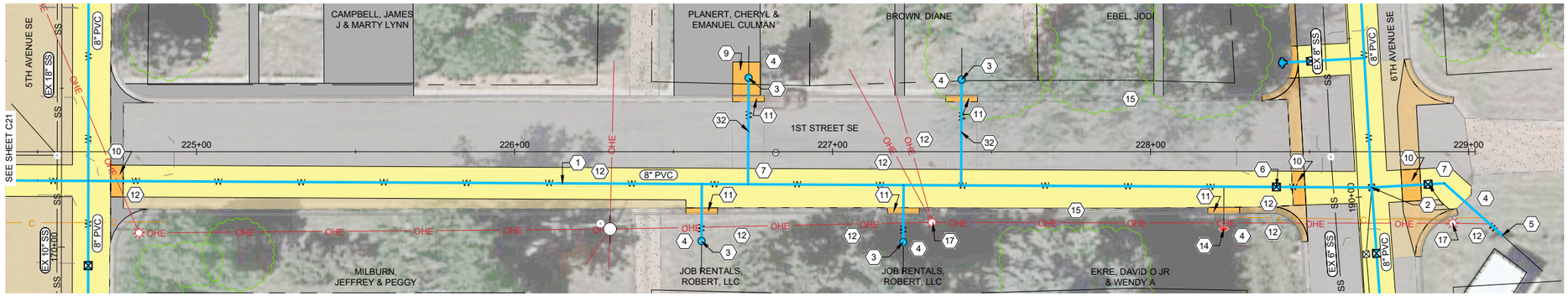
SHEET TITLE:
1ST STREET SE - 4TH AVENUE SE TO 5TH AVENUE SE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C21**



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	224+50.00 - 9.12' R	228+69.56 - 11.28' R	420 LF
8"	228+69.56 - 11.28' R	229+10.68 - 26.34' R	47 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
226+58.90 - 10.19' R	226+58.81 - 28.12' R	1.0" WM SERVICE	18 LF
226+73.43 - 10.27' R	226+73.60 - 23.21' L	1.0" WM SERVICE	33 LF
227+22.34 - 10.52' R	227+22.24 - 28.48' R	1.0" WM SERVICE	18 LF
227+40.43 - 10.62' R	227+40.61 - 22.68' L	1.0" WM SERVICE	33 LF

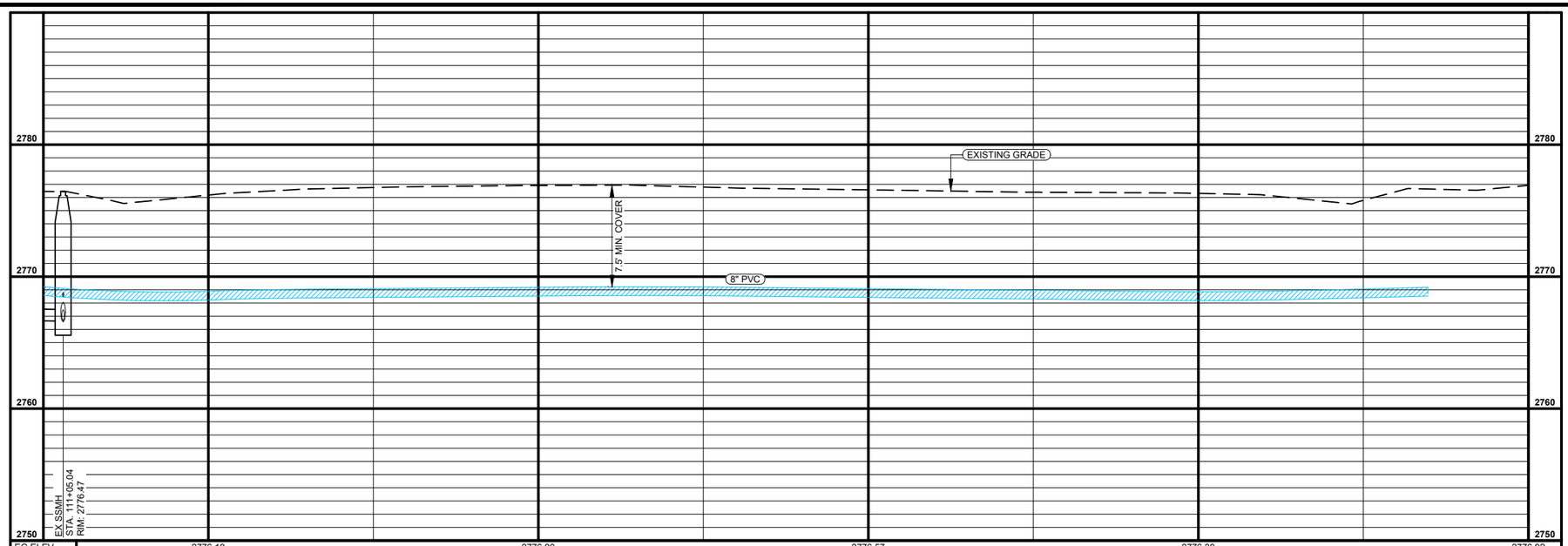
WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" CROSSING	224+65.98 - 9.20' R
8" GATE VALVE & BOX	228+39.57 - 11.13' R
8" CROSSING	228+69.56 - 11.28' R
8" GATE VALVE & BOX	228+87.34 - 10.27' R
8" 45° BEND	228+92.34 - 9.98' R
8" X 4" REDUCER CONNECT TO EX.	229+10.68 - 26.34' R

REMOVAL QUANTITIES	
ASPHALT	514 SY
CURB AND GUTTER	50 LF
CONCRETE DRIVEWAY	91 SF
VALLEY GUTTER	143 SF
4" TOPSOIL	75 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	514 SY
8" CLASS 5 AGGREGATE BASE	514 SY
CURB & GUTTER	50 LF
6" CONCRETE DRIVEWAY	91 SF
VALLEY GUTTER	143 SF
4" TOPSOIL	75 SY
HYDROSEED	75 SY

RESTORATION QUANTITIES-CITY	
ASPHALT	65 SY
CURB AND GUTTER	76 LF
VALLEY GUTTER	432 SF

REMOVAL QUANTITIES-CITY	
4 1/2" ASPHALT	65 SY
8" CLASS 5 AGGREGATE BASE	65 SY
CURB AND GUTTER	76 LF
VALLEY GUTTER	432 SF



EG ELEV	2776.18	2776.90	2776.57	2776.30	2776.92
WM TOP	2768.89	2769.19	2769.09	2768.86	
STATION	225+00	226+00	227+00	228+00	229+00

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

NORTH

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Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
2. REMOVE AND DISPOSE EXISTING GATE VALVE AND INSTALL AND FURNISH NEW 8" GATE VALVE. SEE DETAIL 4/C33.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
6. FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
10. REMOVE AND REPLACE EXISTING CONCRETE VALLEY GUTTER. SEE DETAIL 4/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
14. REMOVE EXISTING HYDRANT AND ALL ADDITIONAL APPURTENANCES. ABANDON 6" HYDRANT LEAD IN PLACE. REMOVAL INCIDENTAL TO CONTRACT.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
17. SUPPORT EXISTING POWER POLE. INCIDENTAL TO CONTRACT.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR | DATE | SYM

STATUS:

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

SHEET TITLE:
1ST STREET SE - 5TH AVENUE SE TO 6TH AVENUE SE

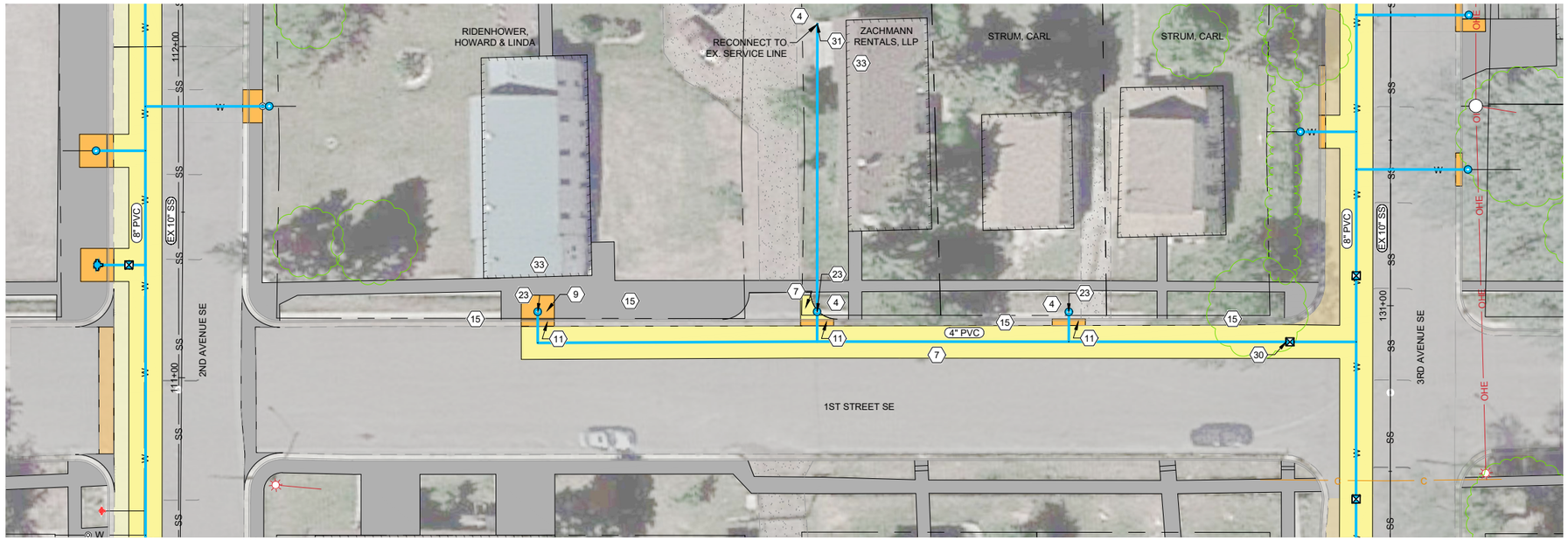
CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C22**

Advanced Engineering and Environmental Services, LLC www.ae2s.com



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
4"	130+89.06 - 10.29' L	130+89.11 - 173.01' L	163 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
130+89.09 - 97.02' L	130+98.09 - 97.02' L	1.0" WM SERVICE	9 LF
130+89.11 - 173.01' L	131+84.99 - 172.98' L	1.0" WM SERVICE	96 LF
130+89.11 - 173.01' L	130+98.07 - 257.31' L	1.0" WM SERVICE	94 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" X 4" TEE	130+89.06 + 10.29' L
4" GATE VALVE & BOX	130+89.07 - 30.29' L

REMOVAL QUANTITIES	
ASPHALT	276 SY
CURB AND GUTTER	30 LF
CONCRETE SIDEWALK	74 SF
4" TOPSOIL	14 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	276 SY
8" CLASS 5 AGGREGATE BASE	276 SY
CURB & GUTTER	30 LF
4" CONCRETE SIDEWALK	74 SF
4" TOPSOIL	14 SY
HYDROSEED	14 SY

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

SYM	DATE	APPR

NORTH

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Scale in Feet

CONSTRUCTION NOTES

4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
13. RESTORE GRAVEL SURFACE PER DETAIL 1/C35.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
23. FURNISH AND INSTALL NEW 1" WATER SERVICE LINE WITH CURB STOP. SEE DETAIL 2/C33.
30. FURNISH AND INSTALL NEW 4" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
31. NEW SERVICE LINE SHALL TIE INTO THE EXISTING METER INSIDE THE HOUSE. CONTRACTOR SHALL COORDINATE WITH THE HOMEOWNER AND RECEIVE PERMISSION PRIOR TO ACCESSING THEIR PROPERTY TO PERFORM NECESSARY PLUMBING TIE-INS.
33. PROTECT EXISTING BUILDING. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
1ST STREET SE - 2ND AVENUE SE TO 3RD AVENUE SE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C23**

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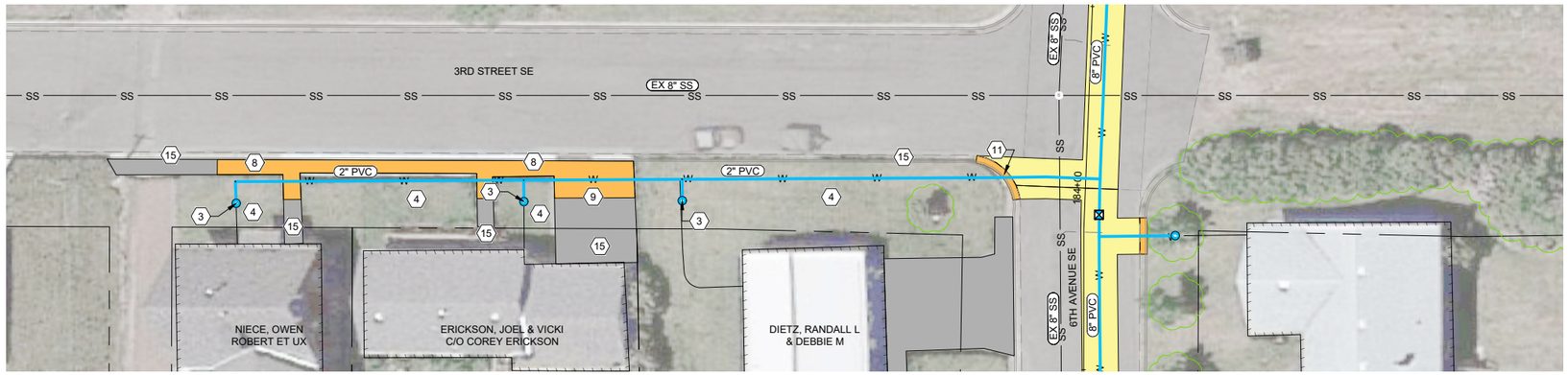
Plotted By: Trenton Hintz Date: Tuesday, November 19, 2024



WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
2"	184+02.68 - 3.94' L	183+96.21 - 154.35' L	158 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
183+98.13 - 110.86' L	183+92.25 - 110.60' L	1.0" WM SERVICE	6 LF
183+96.21 - 154.35' L	183+90.31 - 154.09' L	1.0" WM SERVICE	6 LF
183+96.21 - 154.35' L	183+86.77 - 233.10' L	1.0" WM SERVICE	85 LF

REMOVAL QUANTITIES	
CURB AND GUTTER	16 LF
CONCRETE SIDEWALK	421 SF
CONCRETE DRIVEWAY	224 SF
4" TOPSOIL	200 SY

RESTORATION QUANTITIES	
CURB & GUTTER	16 LF
4" CONCRETE SIDEWALK	421 SF
6" CONCRETE DRIVEWAY	224 SF
4" TOPSOIL	200 SY
HYDROSEED	200 SY

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

NORTH

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Scale in Feet

CONSTRUCTION NOTES

3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

STATUS:

SYM	DATE	APPR

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

Advanced Engineering and Environmental Services, LLC www.ae2s.com

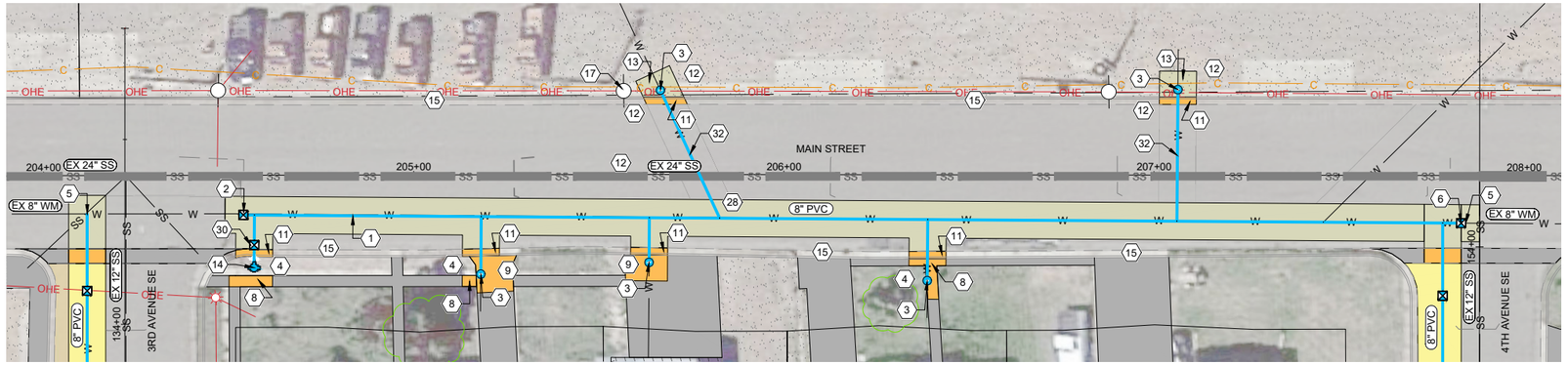
SHEET TITLE:
3RD STREET SE - 5TH AVENUE SE TO 6TH AVENUE SE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C24**



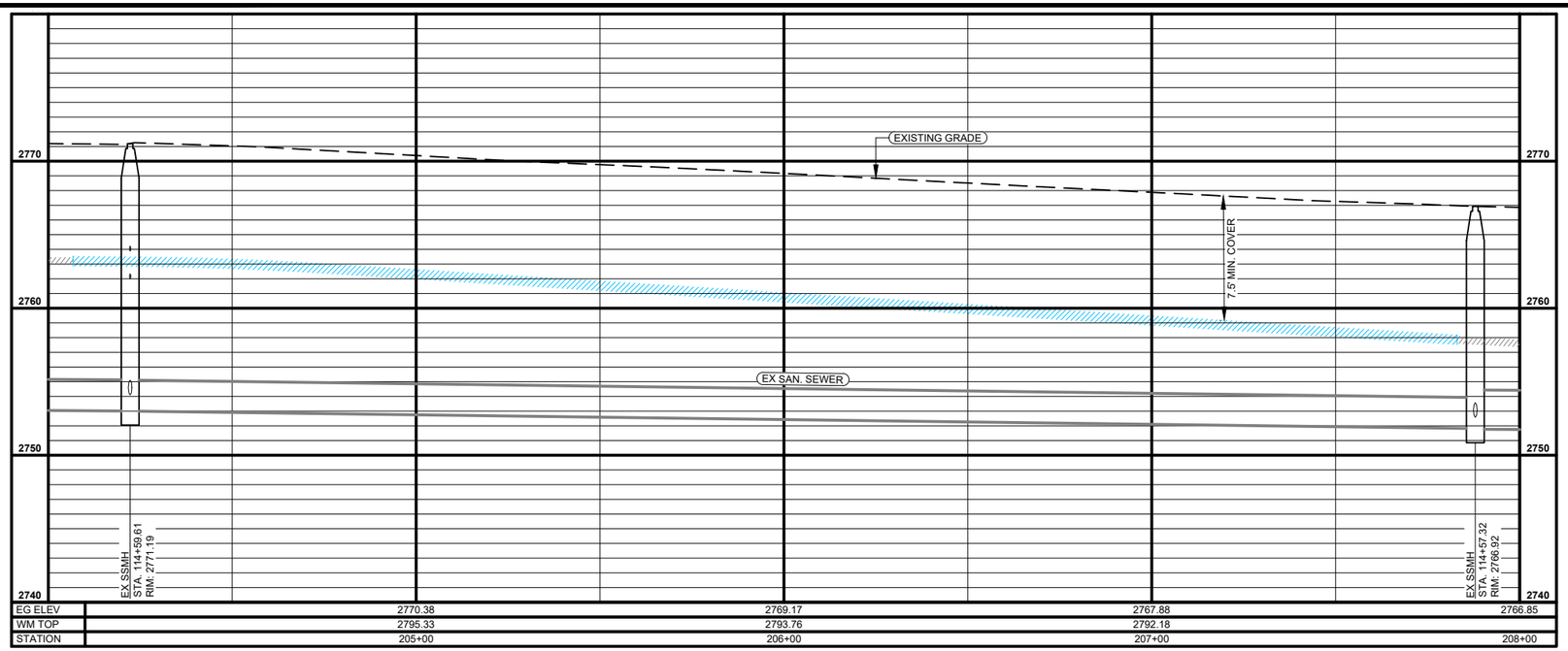
WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	204+53.95 - 10.75' R	207+82.99 - 12.88' R	329 LF
6"	204+56.92 - 10.77' R	204+56.80 - 25.04' R	14 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
205+18.18 - 11.29' R	205+18.05 - 26.87' R	1.0" WM SERVICE	16 LF
205+63.63 - 11.67' R	205+63.53 - 23.76' R	1.0" WM SERVICE	12 LF
205+82.66 - 11.77' R	205+66.59 - 22.79' L	1.0" WM SERVICE	38 LF
206+38.87 - 12.08' R	206+38.78 - 28.62' R	1.0" WM SERVICE	17 LF
207+06.20 - 12.45' R	207+06.43 - 23.11' L	1.0" WM SERVICE	36 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
CONNECT TO EX. 8" GATE VALVE & BOX	204+53.95 - 10.75' R
8" X 6" TEE	204+56.92 - 10.77' R
6" GATE VALVE & BOX	204+56.86 - 18.88' R
6" HYDRANT	204+56.80 - 25.04' R
8" TEE	207+77.99 - 12.85' R
8" GATE VALVE & BOX	207+82.99 - 12.88' R

REMOVAL QUANTITIES	
ASPHALT	444 SY
CURB AND GUTTER	60 LF
CONCRETE SIDEWALK	92 SF
CONCRETE DRIVEWAY	182 SF
GRAVEL	140 SF
4" TOPSOIL	16 SY

RESTORATION QUANTITIES	
ASPHALT MILLINGS	443 SY
CURB & GUTTER	60 LF
4" CONCRETE SIDEWALK	92 SF
6" CONCRETE DRIVEWAY	182 SF
GRAVEL	140 SF
4" TOPSOIL	16 SY
HYDROSEED	16 SY



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

NORTH

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Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
2. REMOVE AND DISPOSE EXISTING GATE VALVE AND INSTALL AND FURNISH NEW 8" GATE VALVE. SEE DETAIL 4/C33.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
13. RESTORE GRAVEL SURFACE PER DETAIL 1/C35.
14. REMOVE EXISTING HYDRANT AND ALL ADDITIONAL APPURTENANCES. REMOVAL INCIDENTAL TO CONTRACT. FURNISH AND INSTALL NEW FIRE HYDRANT AND GATE VALVE. SEE DETAILS 3/C33, 4/C33 AND 4/C32.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
17. SUPPORT EXISTING POWER POLE. INCIDENTAL TO CONTRACT.
28. REMOVE AND DISPOSE EXISTING BITUMINOUS PAVEMENT. FURNISH AND INSTALL NEW 6" ASPHALT MILLINGS SURFACE. SEE DETAIL 1/C35.
30. FURNISH AND INSTALL NEW 6" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR | DATE | SYM

STATUS:

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

SHEET TITLE:
MAIN STREET - 3RD AVENUE SE TO 4TH AVENUE SE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C25**

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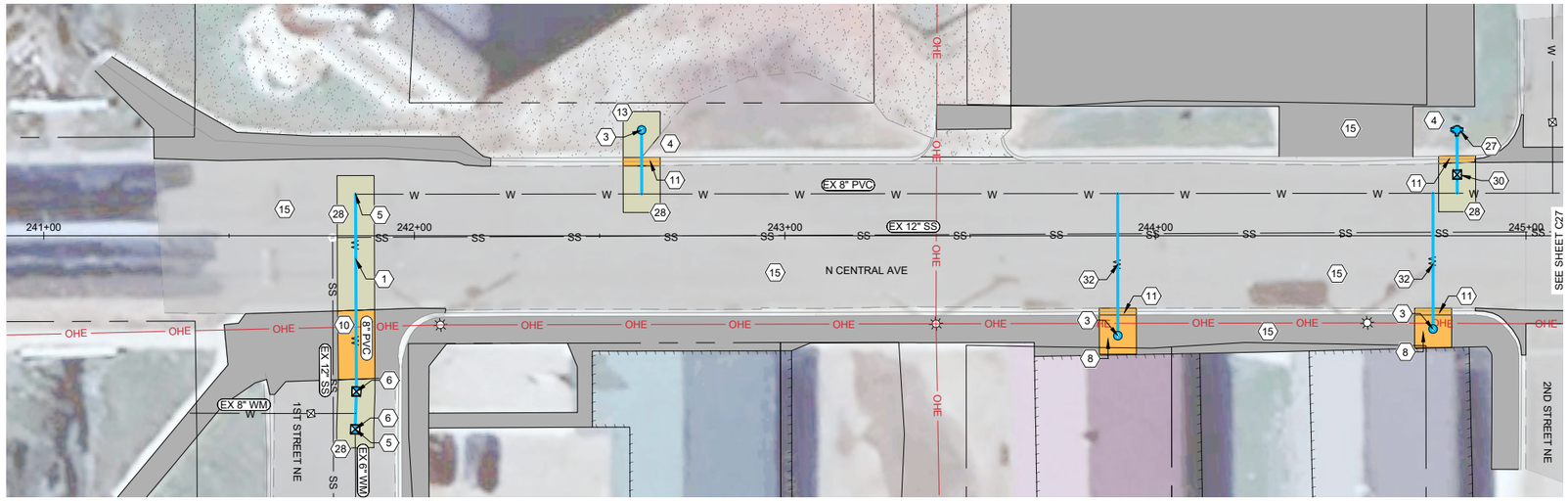
Advanced Engineering and Environmental Services, LLC www.ae2s.com



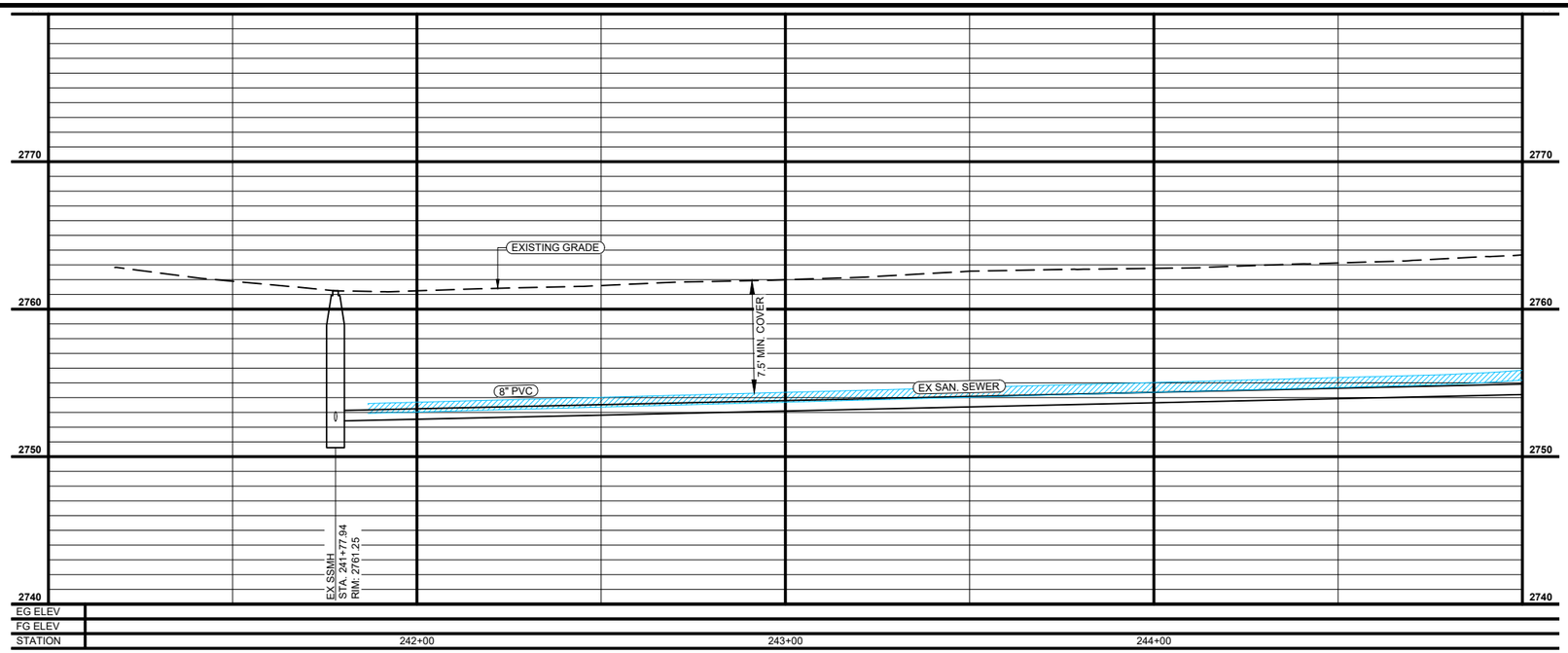
REMOVAL QUANTITIES	
ASPHALT	90 SY
CURB AND GUTTER	40 LF
CONCRETE SIDEWALK	193 SF
VALLEY GUTTER	184 SF
GRAVEL	109 SF
4" TOPSOIL	15 SY

RESTORATION QUANTITIES	
ASPHALT MILLINGS	90 SY
CURB & GUTTER	40 LF
4" CONCRETE SIDEWALK	193 SF
VALLEY GUTTER	184 SF
GRAVEL	109 SF
4" TOPSOIL	15 SY
HYDROSEED	15 SY

WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	241+84.05 - 52.19' R	241+84.16 - 11.21' L	63 LF
6"	244+81.41 - 11.48' L	244+81.37 - 28.59' L	17 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
242+61.35 - 11.28' L	242+61.34 - 28.52' L	1.0" WM SERVICE	17 LF
243+89.81 - 11.40' L	243+89.84 - 26.94' R	1.0" WM SERVICE	38 LF
244+74.88 - 11.47' L	244+74.91 - 25.15' R	1.0" WM SERVICE	37 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" X 6" REDUCER CONNECT TO EX.	241+84.05 - 52.19' R
8" X 8" TEE CONNECT TO EX.	241+84.19 - 47.90' R
8" GATE VALVE & BOX	241+84.38 - 42.01' R
8" 90° BEND CONNECT TO EX.	241+86.45 - 11.21' L
8" X 6" TEE	244+81.41 - 11.48' L
6" GATE VALVE & BOX	244+81.40 - 16.48' L
6" HYDRANT	244+81.37 - 28.59' L



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

NORTH

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Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. REMOVE AND DISPOSE EXISTING GATE VALVE AND INSTALL AND FURNISH NEW 8" GATE VALVE. SEE DETAIL 4/C33.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
10. REMOVE AND REPLACE EXISTING CONCRETE VALLEY GUTTER. SEE DETAIL 4/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
13. RESTORE GRAVEL SURFACE PER DETAIL 1/C35.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
27. FURNISH AND INSTALL NEW FIRE HYDRANT AND GATE VALVE. SEE DETAILS 3/C33, 4/C33 AND 4/C32.
28. REMOVE AND DISPOSE EXISTING BITUMINOUS PAVEMENT. FURNISH AND INSTALL NEW 6" ASPHALT MILLINGS SURFACE. SEE DETAIL 1/C35.
30. FURNISH AND INSTALL NEW 6" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR. | DATE | SYM.

STATUS:

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

SHEET TITLE:
NORTH CENTRAL AVENUE - 1ST STREET NE TO 2ND STREET NE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C26**

AE2S
Advanced Engineering and Environmental Services, LLC www.ae2s.com

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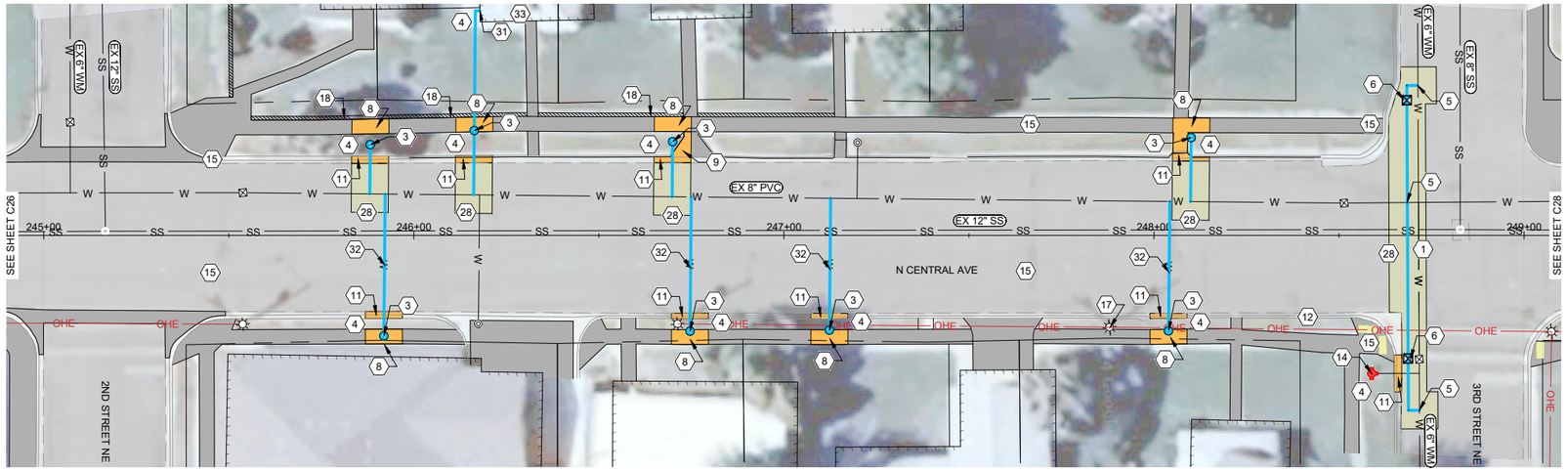


REMOVAL QUANTITIES	
ASPHALT	165 SY
CURB AND GUTTER	90 LF
CONCRETE SIDEWALK	364 SF
4" TOPSOIL	48 SY

RESTORATION QUANTITIES	
ASPHALT MILLINGS	164 SY
CURB & GUTTER	90 LF
4" CONCRETE SIDEWALK	364 SF
4" TOPSOIL	48 SY
HYDROSEED	48 SY

WATERMAIN INSTALLATION

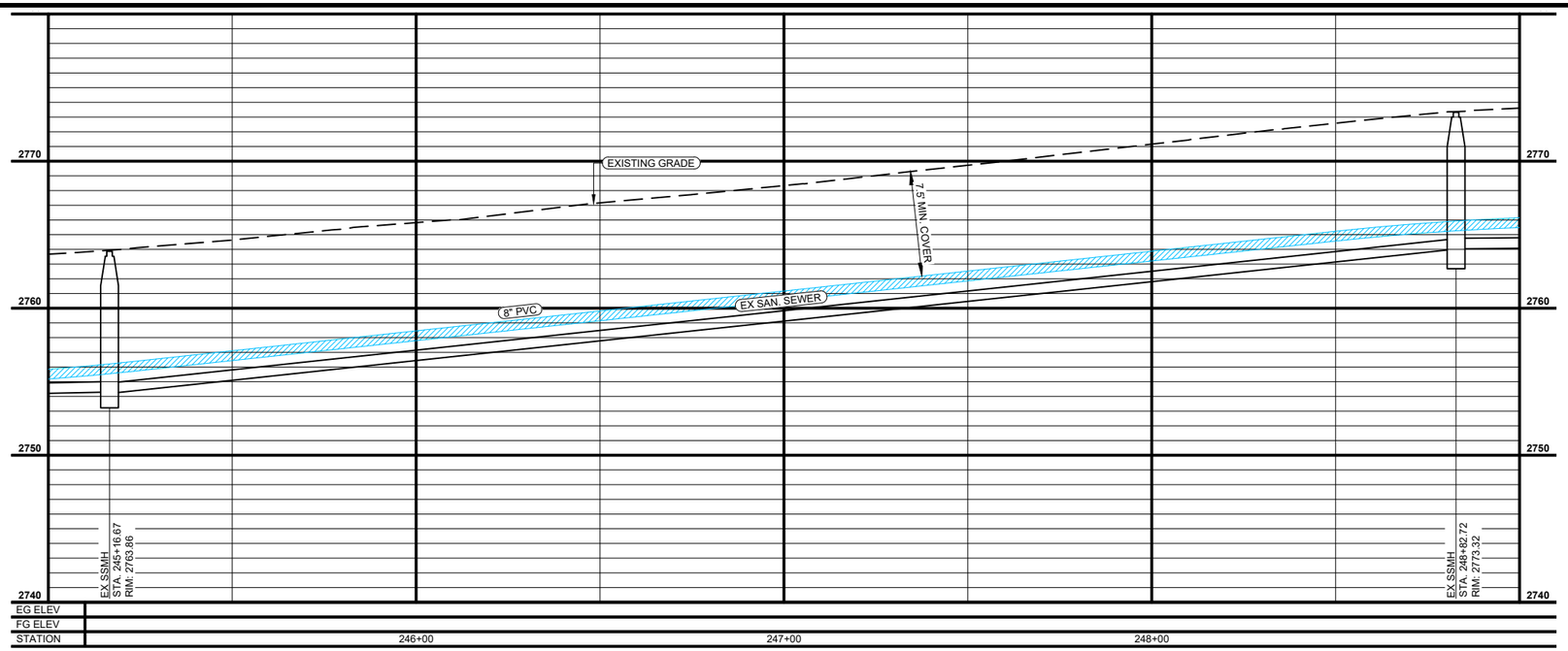
SIZE	START STATION	END STATION	LENGTH
8"	248+71.29 - 40.52' L	248+71.71 - 47.23' R	94 LF

WATER SERVICE INSTALLATION

START STATION	END STATION	DESCRIPTION	LENGTH
245+88.11 - 11.22' L	245+88.23 - 24.50' L	1.0" WM SERVICE	13 LF
245+92.28 - 11.18' L	245+91.92 - 27.12' R	1.0" WM SERVICE	38 LF
246+16.17 - 10.96' L	246+17.88 - 60.66' L	1.0" WM SERVICE	51 LF
246+69.79 - 10.45' L	246+69.93 - 25.31' L	1.0" WM SERVICE	15 LF
246+74.96 - 10.41' L	246+74.62 - 25.84' R	1.0" WM SERVICE	36 LF
247+12.63 - 10.05' L	247+12.29 - 25.58' R	1.0" WM SERVICE	36 LF
248+04.25 - 9.19' L	248+03.92 - 25.77' R	1.0" WM SERVICE	35 LF
248+09.88 - 9.13' L	248+10.04 - 26.42' L	1.0" WM SERVICE	17 LF

WATERMAIN STRUCTURE INSTALLATION

STRUCTURE	STATION
8" X 6" TEE CONNECT TO EX.	248+71.29 - 40.52' L
8" 90° BEND	248+68.29 - 40.51' L
8" GATE VALVE & BOX	248+68.31 - 36.51' L
8" X 8" CROSS CONNECT TO EX.	248+68.44 - 8.88' L
8" GATE VALVE & BOX	248+68.64 - 33.24' R
8" 90° BEND	248+68.71 - 47.24' R
8" X 6" TEE CONNECT TO EX.	248+71.71 - 47.23' R



Plotted By: Trenton Hintz Date: Tuesday, November 19, 2024

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

NORTH

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Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
14. REMOVE EXISTING HYDRANT AND ALL ADDITIONAL APPURTENANCES. ABANDON 6" HYDRANT LEAD IN PLACE. REMOVAL INCIDENTAL TO CONTRACT.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
17. SUPPORT EXISTING POWER POLE. INCIDENTAL TO CONTRACT.
18. PROTECT EXISTING RETAINING WALL. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
28. REMOVE AND DISPOSE EXISTING BITUMINOUS PAVEMENT. FURNISH AND INSTALL NEW 6" ASPHALT MILLINGS SURFACE. SEE DETAIL 1/C35.
31. NEW SERVICE LINE SHALL TIE INTO THE EXISTING METER INSIDE THE HOUSE. CONTRACTOR SHALL COORDINATE WITH THE HOMEOWNER AND RECEIVE PERMISSION PRIOR TO ACCESSING THEIR PROPERTY TO PERFORM NECESSARY PLUMBING TIE-INS.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.
33. PROTECT EXISTING BUILDING. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

APPR | DATE | SYM

STATUS:

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
NORTH CENTRAL AVENUE - 2ND STREET NE TO 3RD STREET NE

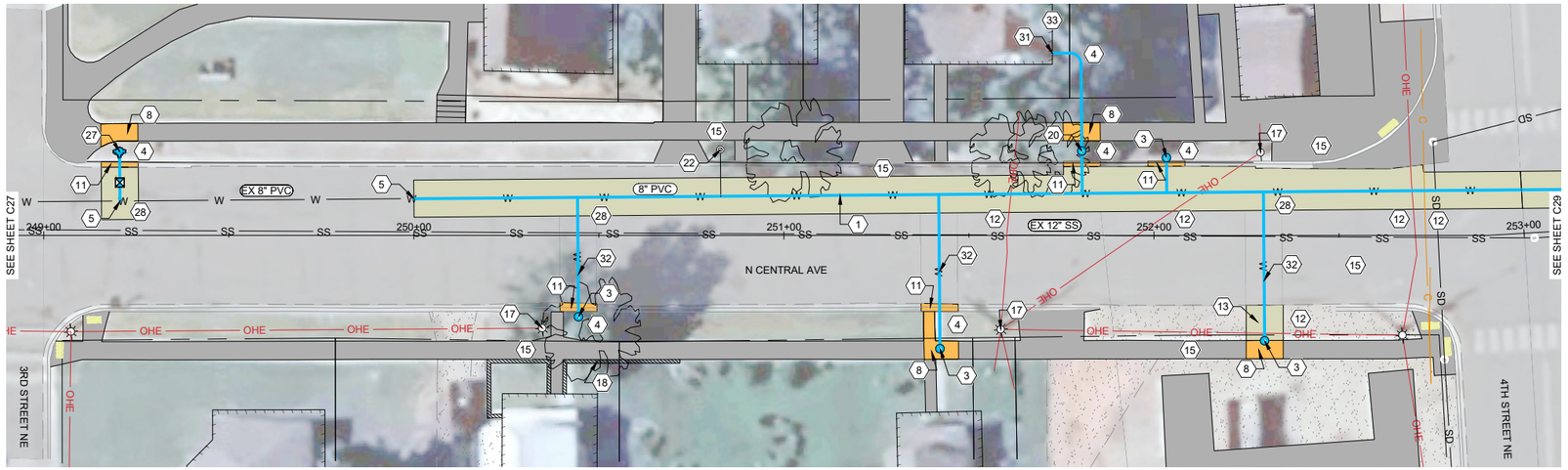
CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**

SHEET NO: **C27**



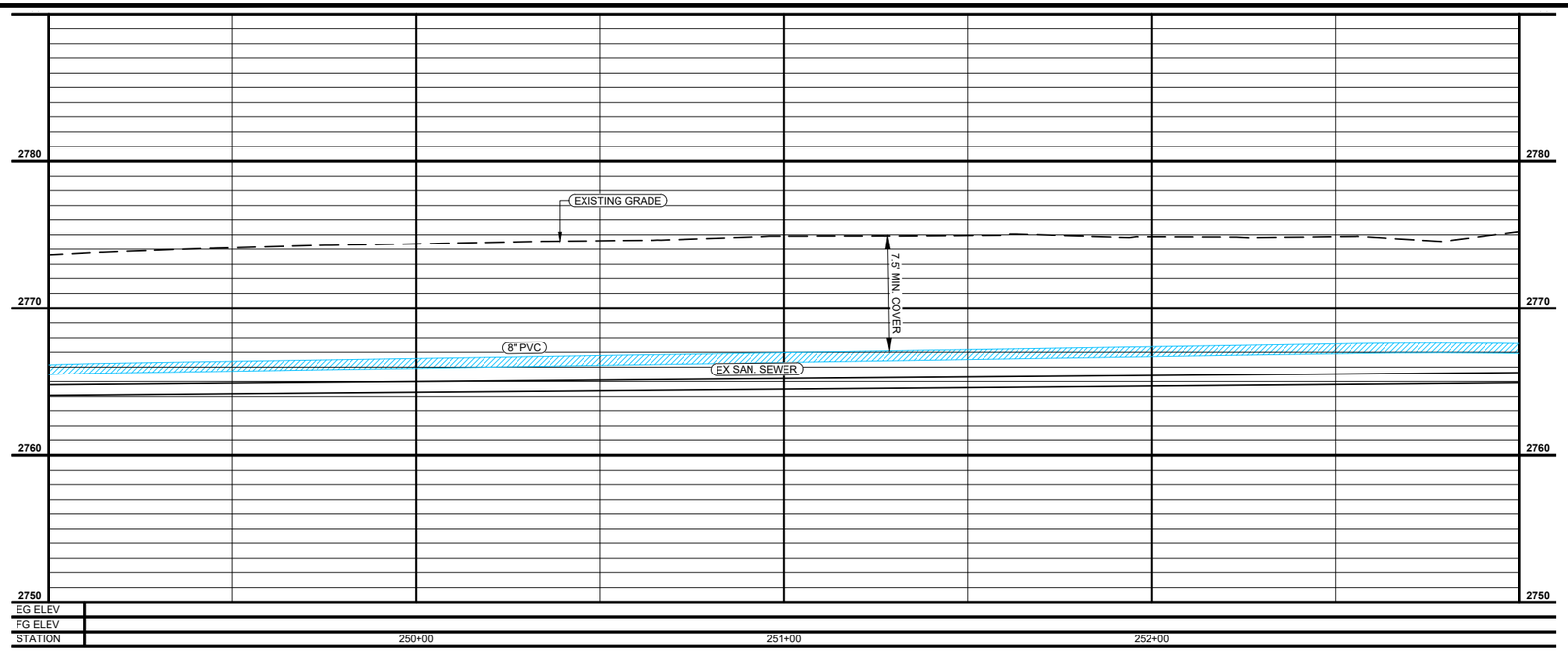
REMOVAL QUANTITIES	
ASPHALT	367 SY
CURB AND GUTTER	50 LF
CONCRETE SIDEWALK	218 SF
GRAVEL	96 SF
4" TOPSOIL	33 SY

RESTORATION QUANTITIES	
6" ASPHALT MILLINGS	367 SY
CURB & GUTTER	50 LF
4" CONCRETE SIDEWALK	218 SF
GRAVEL	96 SF
4" TOPSOIL	33 SY
HYDROSEED	33 SY

WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	250+00.00 - 12.66' L	253+00.00 - 12.04' L	299 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
250+44.25 - 10.28' L	250+44.51 - 21.98' R	1.0" WM SERVICE	32 LF
251+41.84 - 11.06' L	251+42.17 - 30.58' R	1.0" WM SERVICE	42 LF
251+80.58 - 11.37' L	251+72.52 - 49.20' L	1.0" WM SERVICE	44 LF
252+03.42 - 11.56' L	252+03.35 - 20.97' L	1.0" WM SERVICE	9 LF
252+29.56 - 11.76' L	252+29.89 - 28.46' R	1.0" WM SERVICE	40 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" X 6" TEE CONNECT TO EX.	249+20.61 - 9.30' L
6" GATE VALVE & BOX	249+20.57 - 14.30' L
6" HYDRANT	249+20.50 - 22.69' L



AE2S
Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
13. RESTORE GRAVEL SURFACE PER DETAIL 1/C35.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
17. SUPPORT EXISTING POWER POLE. INCIDENTAL TO CONTRACT.
18. PROTECT EXISTING RETAINING WALL. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
20. CONTRACTOR SHALL REMOVE OR ABANDON IN PLACE EXISTING LEAD SERVICE LINE. CONTRACTOR SHALL INSTALL NEW WATER SERVICE LINE FROM MAIN TO EXISTING BUILDING. SEE DETAIL 2/C33.
22. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATER SERVICE LINE.
27. FURNISH AND INSTALL NEW FIRE HYDRANT AND 6" GATE VALVE. SEE DETAILS 3/C33, 4/C33 AND 4/C32.
28. REMOVE AND DISPOSE EXISTING BITUMINOUS PAVEMENT. FURNISH AND INSTALL NEW 6" ASPHALT MILLINGS SURFACE. SEE DETAIL 1/C35.
31. NEW SERVICE LINE SHALL TIE INTO THE EXISTING METER INSIDE THE HOUSE. CONTRACTOR SHALL COORDINATE WITH THE HOMEOWNER AND RECEIVE PERMISSION PRIOR TO ACCESSING THEIR PROPERTY TO PERFORM NECESSARY PLUMBING TIE-INS.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.
33. PROTECT EXISTING BUILDING. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

APPR | DATE | SYM

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS
Advanced Engineering and Environmental Services, LLC www.ae2s.com

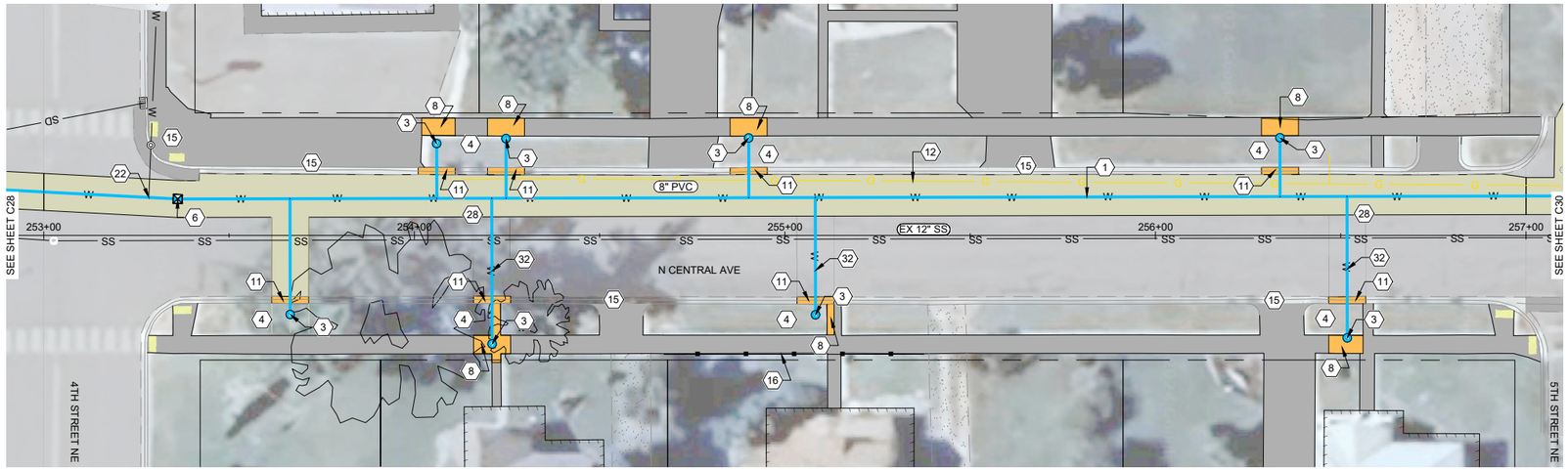
SHEET TITLE:
NORTH CENTRAL AVENUE - 3RD STREET NE TO 4TH STREET NE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C28**



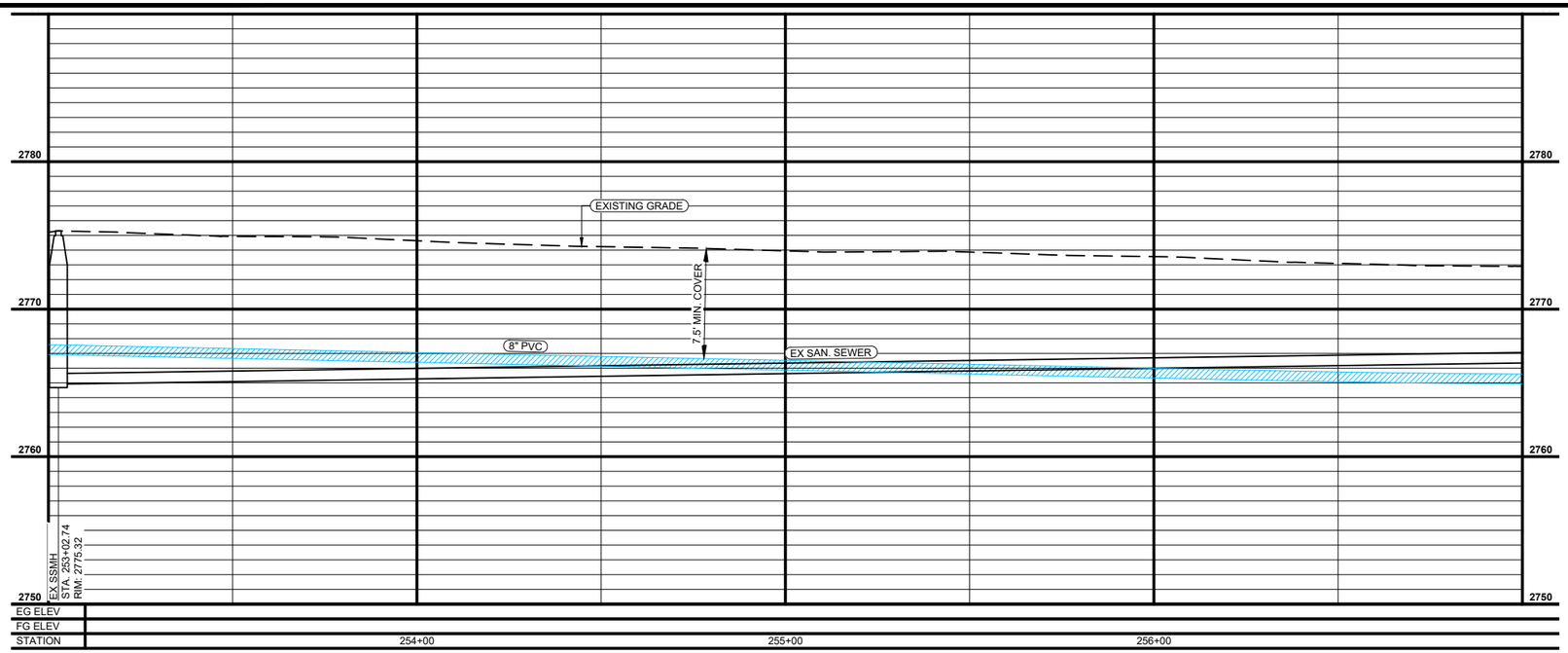
REMOVAL QUANTITIES	
ASPHALT	516 SY
CURB AND GUTTER	70 LF
CONCRETE SIDEWALK	328 SF
4" TOPSOIL	62 SY

RESTORATION QUANTITIES	
6" ASPHALT MILLINGS	516 SY
CURB & GUTTER	70 LF
4" CONCRETE SIDEWALK	328 SF
4" TOPSOIL	62 SY
HYDROSEED	62 SY

WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	253+00.00 - 12.04' L	257+00.00 - 10.63' L	400 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
253+66.45 - 9.91' L	253+66.52 - 21.35' R	1.0" WM SERVICE	31 LF
254+06.06 - 10.00' L	254+06.03 - 24.82' L	1.0" WM SERVICE	15 LF
254+20.91 - 10.03' L	254+20.99 - 29.30' R	1.0" WM SERVICE	39 LF
254+24.77 - 10.04' L	254+24.74 - 26.16' L	1.0" WM SERVICE	16 LF
254+90.25 - 10.18' L	254+90.22 - 26.33' L	1.0" WM SERVICE	16 LF
255+08.21 - 10.22' L	255+08.28 - 21.43' R	1.0" WM SERVICE	32 LF
256+33.62 - 10.49' L	256+33.59 - 26.36' L	1.0" WM SERVICE	16 LF
256+51.68 - 10.53' L	256+51.76 - 27.68' R	1.0" WM SERVICE	38 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX	253+36.15 - 9.85' L



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
6. REMOVE AND DISPOSE EXISTING GATE VALVE AND INSTALL AND FURNISH NEW 8" GATE VALVE. SEE DETAIL 4/C33.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
16. PROTECT EXISTING FENCE. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
22. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATER SERVICE LINE.
28. REMOVE AND DISPOSE EXISTING BITUMINOUS PAVEMENT. FURNISH AND INSTALL NEW 6" ASPHALT MILLINGS SURFACE. SEE DETAIL 1/C35.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR | DATE | SYM

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

SHEET TITLE:
NORTH CENTRAL AVENUE - 4TH STREET NE TO 5TH STREET NE

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C29**

Advanced Engineering and Environmental Services, LLC www.ae2s.com

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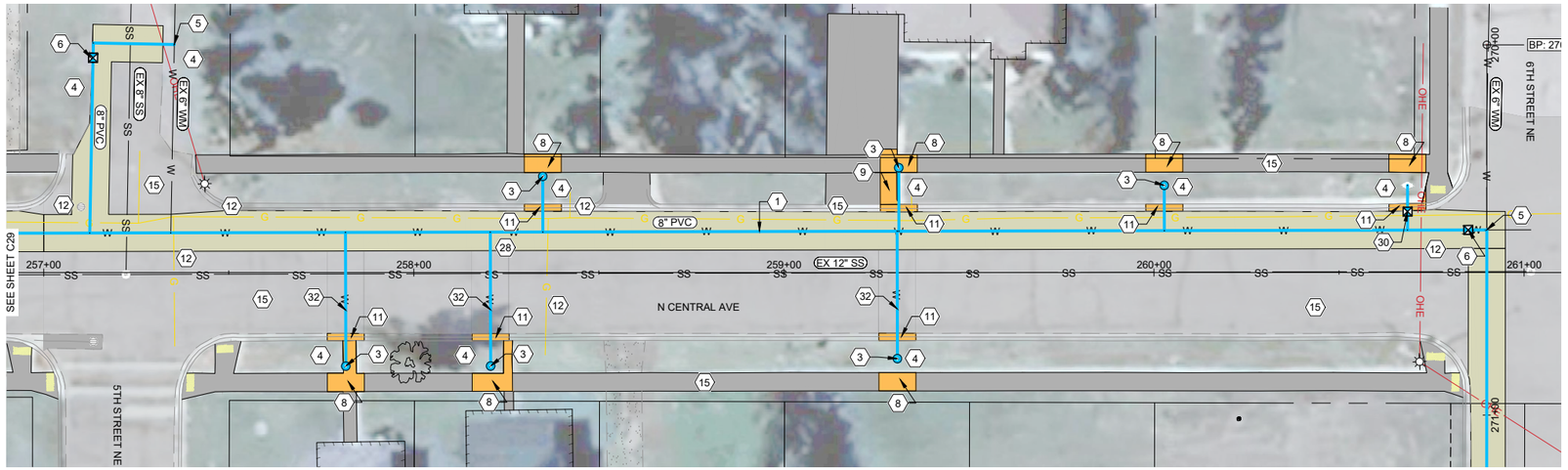


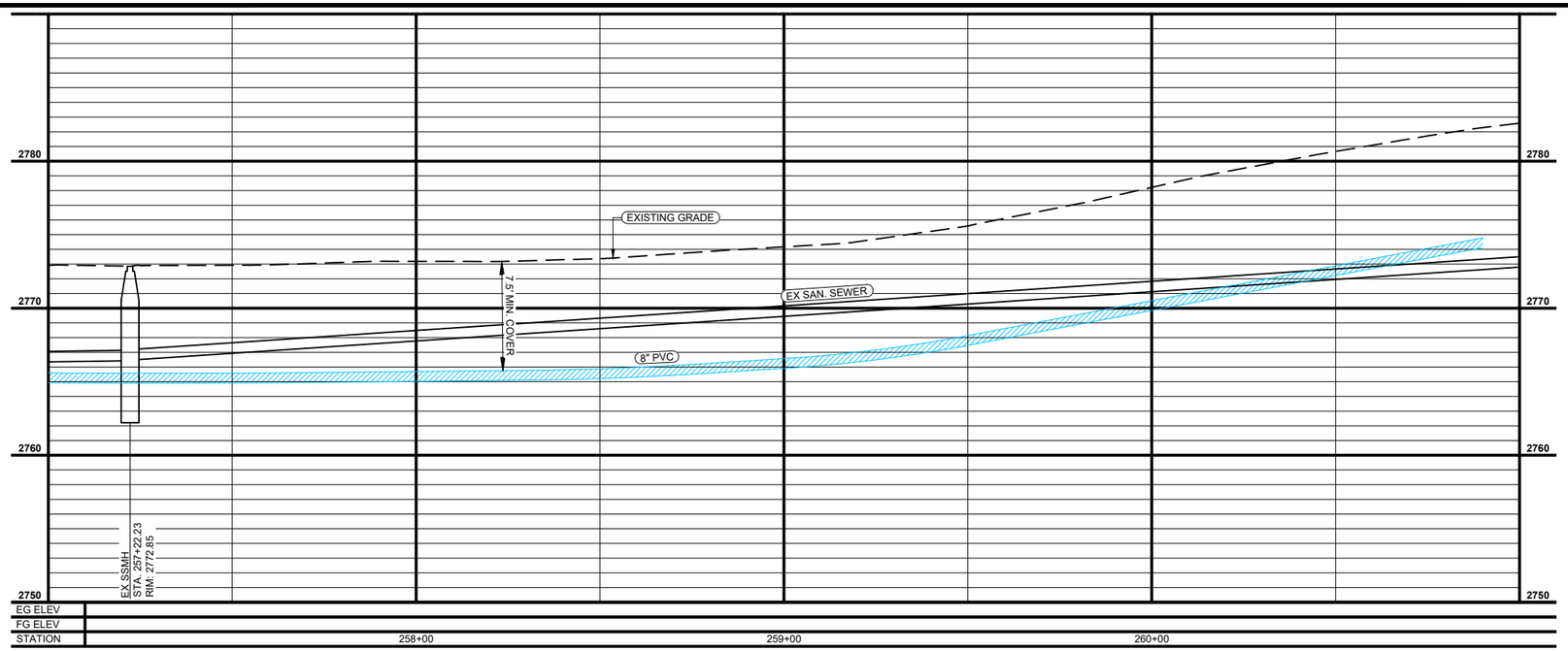
REMOVAL QUANTITIES	
ASPHALT	512 SY
CURB AND GUTTER	70 LF
CONCRETE SIDEWALK	382 SF
CONCRETE DRIVEWAY	68 SF
4" TOPSOIL	83 SY

RESTORATION QUANTITIES	
6" ASPHALT MILLINGS	512 SY
CURB & GUTTER	70 LF
4" CONCRETE SIDEWALK	382 SF
6" CONCRETE DRIVEWAY	68 SF
4" TOPSOIL	83 SY
HYDROSEED	83 SY

WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	257+00.00 - 10.63' L	260+89.90 - 11.49' L	390 LF
8"	257+12.44 - 10.66' L	257+35.30 - 61.57' L	73 LF
6"	260+68.50 - 11.44' L	260+68.47 - 23.53' L	12 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
257+81.56 - 10.81' L	257+81.64 - 25.29' R	1.0" WM SERVICE	36 LF
258+20.69 - 10.90' L	258+20.77 - 25.27' R	1.0" WM SERVICE	36 LF
258+34.88 - 10.93' L	258+34.85 - 25.94' L	1.0" WM SERVICE	15 LF
259+30.59 - 11.14' L	259+30.66 - 23.29' R	1.0" WM SERVICE	34 LF
259+31.08 - 11.14' L	259+31.04 - 28.29' L	1.0" WM SERVICE	17 LF
260+02.79 - 11.30' L	260+02.76 - 23.51' L	1.0" WM SERVICE	12 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" X 8" TEE	257+12.44 - 10.66' L
8" GATE VALVE & BOX	257 + 13.34 - 57.99' L
8" 90° BEND	257+13.42 - 61.99' L
8" X 6" TEE CONNECT TO EX.	257+35.30 - 61.57' L
8" X 6" TEE	260+68.50 - 11.44' L
6" GATE VALVE & BOX	260+68.49 - 16.44' L
8" GATE VALVE & BOX	260+84.90 - 11.48' L
8" X 6" TEE CONNECT TO EX.	260+89.90 - 11.49' L



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

NORTH

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Scale in Feet

CONSTRUCTION NOTES

1. REMOVE AND DISPOSE OF EXISTING WATERMAIN PIPE. IF ABANDONDED IN PLACE PLUG AND CAP PIPE ENDS. INCIDENTAL TO CONTRACT.
3. REMOVE, DISPOSE AND REPLACE WATER SERVICE LINE. CONTRACTOR SHALL REMOVE AND DISPOSE EXISTING CURB STOP. WATERMAIN AND SERVICES ARE SHOWN FOR REFERENCE ONLY AND CONTRACTOR TO FIELD LOCATE WATERMAIN AND ALL ADDITIONAL SERVICES THAT ARE NOT SHOWN ON PLANS. SEE DETAIL 2/C33.
4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
8. REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK. SEE DETAIL 3/C34.
9. REMOVE AND REPLACE EXISTING 6" CONCRETE DRIVEWAY. SEE DETAILS 1/C34 AND 1/C35.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
22. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATER SERVICE LINE.
27. FURNISH AND INSTALL NEW FIRE HYDRANT AND GATE VALVE. SEE DETAILS 3/C33, 4/C33 AND 4/C32.
28. REMOVE AND DISPOSE EXISTING BITUMINOUS PAVEMENT. FURNISH AND INSTALL NEW 6" ASPHALT MILLINGS SURFACE. SEE DETAIL 1/C35.
30. FURNISH AND INSTALL NEW 6" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
32. NEW SERVICE LINE SHALL BE INSTALLED USING THE TRENCHLESS METHOD.

APPR | DATE | SYM

STATUS:

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

SHEET TITLE:
NORTH CENTRAL AVENUE - 5TH STREET NE TO 6TH STREET NE

CLIENT:
CITY OF BEACH
BEACH, ND

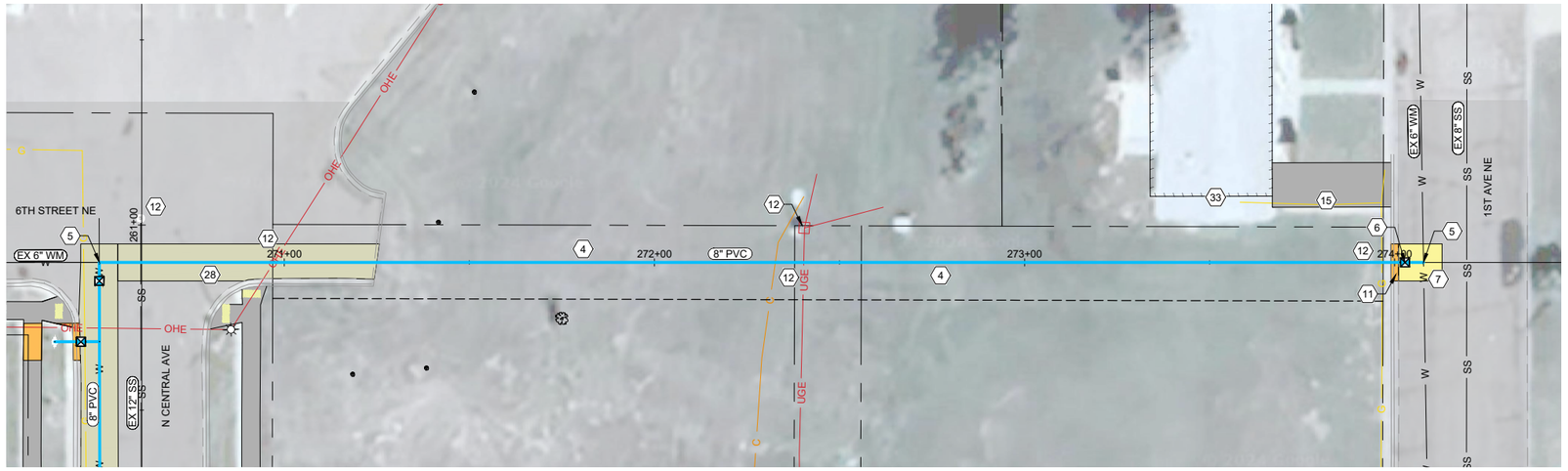
PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

SHEET DESIGNATOR: **CIV**
SHEET NO: **C30**

AE2S
Advanced Engineering and Environmental Services, LLC www.ae2s.com

Plotted By: Trenton Hintz Date: Tuesday, November 19, 2024

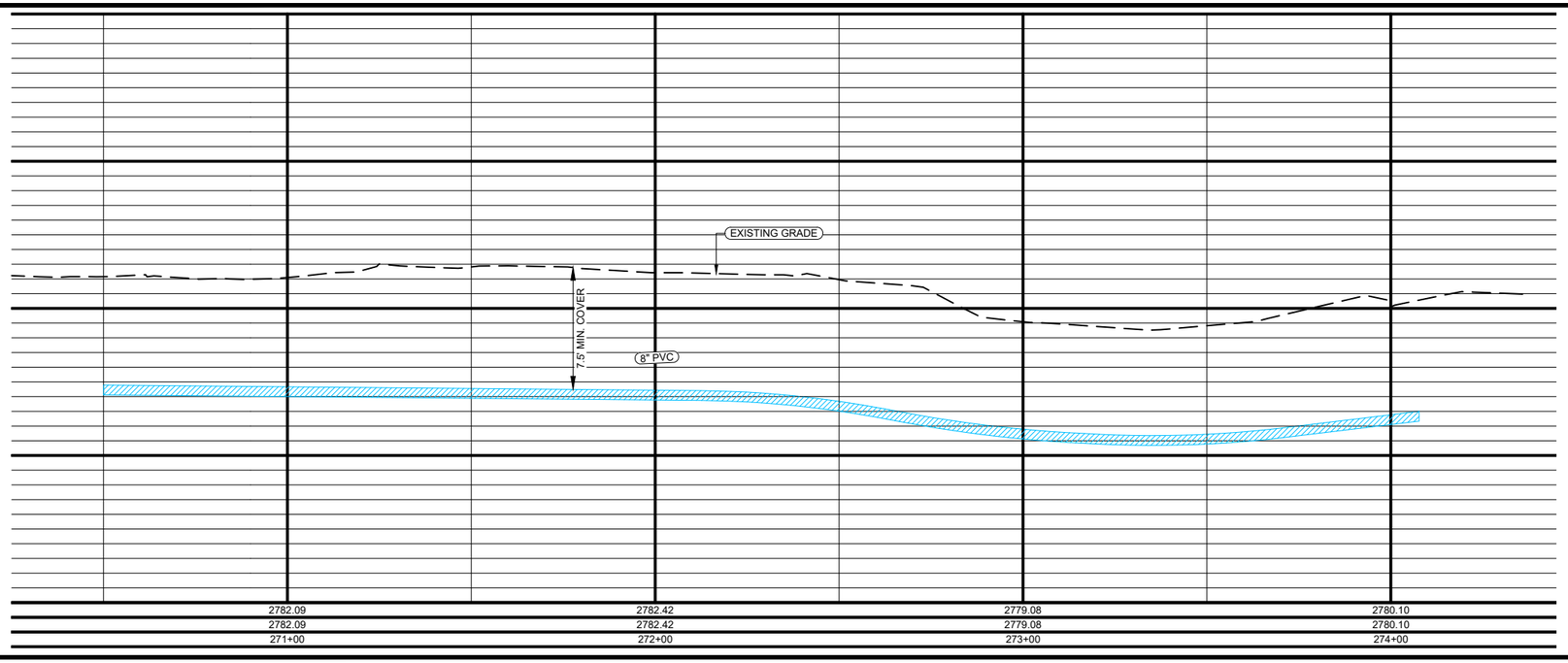


REMOVAL QUANTITIES	
ASPHALT	88 SY
CURB AND GUTTER	10 LF
4" TOPSOIL	304 SY

RESTORATION QUANTITIES	
4 1/2" ASPHALT	13 SY
8" CLASS 5 AGGREGATE BASE	13 SY
ASPHALT MILLINGS	75 SY
CURB & GUTTER	10 LF
4" TOPSOIL	304 SY
HYDROSEED	304 SY

WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	270+50.00 - 0.00 R	274+07.79 - 0.00' R	358 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" X 8" TEE CONNECT TO EX	270+50.00 - 0.00' R
8" GATE VALVE & BOX	274+02.79 - 0.00' R
8" X 6" TEE CONNECT TO EX.	274+07.79 - 0.00' R



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

SYM	DATE	APPR

NORTH

0 20
Scale in Feet

CONSTRUCTION NOTES

4. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.
5. FURNISH AND INSTALL ALL FITTINGS AND APPURTENANCES NECESSARY TO CONNECT TO EXISTING WATERMAIN.
6. FURNISH AND INSTALL NEW 8" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.
7. REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT. SEE DETAIL 1/C35.
11. REMOVE AND REPLACE EXISTING CURB AND GUTTER. SEE DETAIL 5/C35.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
15. CONTRACTOR SHALL PROTECT CURB, GUTTER, SIDEWALKS AND DRIVEWAYS EXCEPT WHERE REMOVAL IS DESIGNATED. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
28. REMOVE AND DISPOSE EXISTING BITUMINOUS PAVEMENT. FURNISH AND INSTALL NEW 6" ASPHALT MILLINGS SURFACE. SEE DETAIL 1/C35.
33. PROTECT EXISTING BUILDING. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

SHEET TITLE:
6TH STREET NW - N CENTRAL AVENUE TO 1ST AVENUE NE

CLIENT:
CITY OF BEACH
BEACH, ND

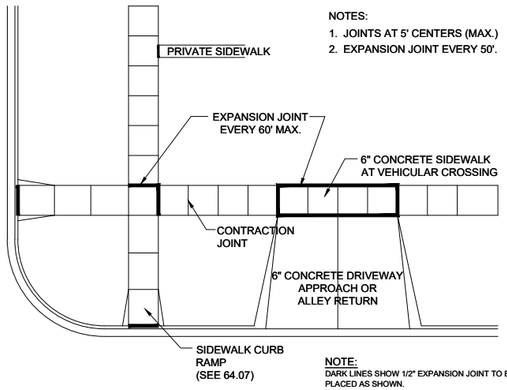
PREPARED BY: TH
CHECKED BY: JG
APPROVED BY: ZR

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO: ----

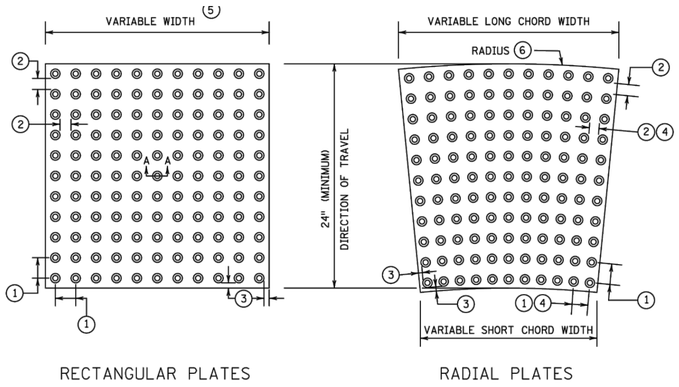
SHEET DESIGNATOR: **CIV**

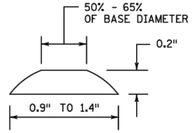
SHEET NO: **C31**

AE2S Advanced Engineering and Environmental Services, LLC www.ae2s.com



1 C32 SIDEWALK JOINTING PLAIN
NOT TO SCALE





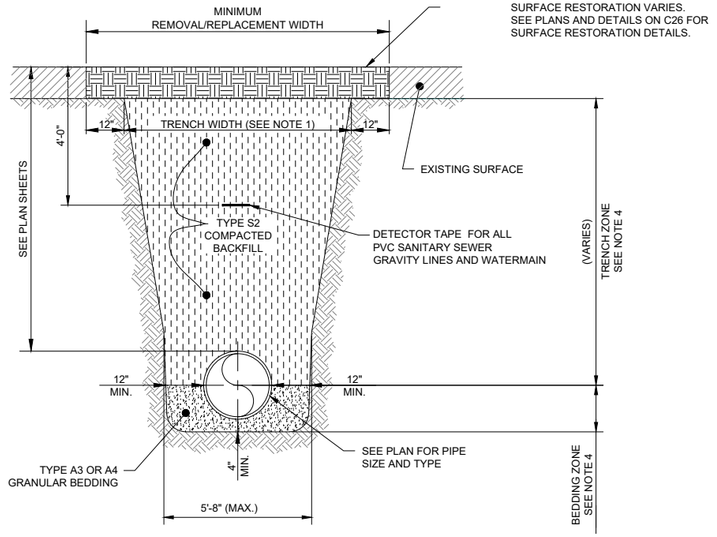
TYPICAL RADIAL TRUNCATED DOME PLATES			
RADIUS (FEET) ⑦	LONG CHORD WIDTH (INCHES)	SQ. FT. PER PLATE	PLATES REQUIRED FOR 90 DEGREE TURN
10	23-1/2	3.53	8
15	18-13/16	2.93	15
15	23-1/2	3.67	12
20	18-13/16	3.00	20
20	18-7/8	2.98	20
25	20-1/2	3.28	23
25	23-9/16	3.77	20
30	22-5/8	3.65	25
35	22	3.56	30

DETECTABLE WARNING SURFACE SHALL BE PAID FOR AS TRUNCATED DOMES BY THE SQUARE FOOT.

ALL TRUNCATED DOME SYSTEMS SHALL BE PLACED IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER.

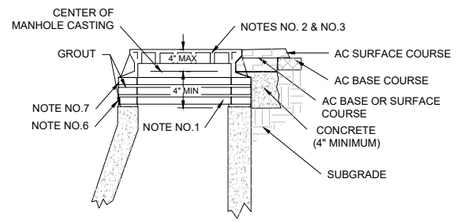
1. CENTER TO CENTER DOME SPACING: 1.6" MINIMUM, 2.4" MAXIMUM.
2. BASE TO BASE DOME SPACING: 0.65" MINIMUM.
3. DOME BASE TO PLATE EDGE SPACING: 0.35" MINIMUM, 0.75" MAXIMUM.
4. SPACING VARIES ON RADIAL PLATES.
5. TYPICAL WIDTHS AVAILABLE: 12", 18", 24", 30", 36". CHECK WITH MANUFACTURERS FOR AVAILABLE WIDTHS.
6. ON RADIAL PLATE, RADIUS DEFINED AT BACK OF CURB.
7. TYPICAL RADII. CHECK WITH MANUFACTURERS FOR AVAILABLE RADII.

3 C32 DETECTABLE WARNING SURFACE
NOT TO SCALE

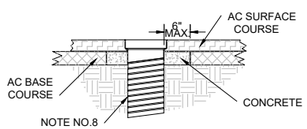


NOTES:
1. CONTRACTOR SHALL COMPLY WITH CURRENT OSHA TRENCH REGULATIONS.
2. DEWATERING SHALL BE IMPLEMENTED IN AREAS OF HIGH GROUNDWATER.
3. TRENCH ZONE BACKFILL MAY VARY.
4. SEE SPECIFICATIONS FOR COMPACTION REQUIREMENTS.
5. PROVIDE ROCK STABILIZATION IF REQUIRED.
6. IN AREAS OF GROUNDWATER PROVIDE DEWATERING, INCIDENTAL TO PIPE INSTALLATION

2 C32 OPEN-CUT TRENCH SECTION
NOT TO SCALE



MANHOLE CASTING STANDARD ADJUSTMENT



VALVE BOX ADJUSTMENT

NOTES:
1. USE PRECAST CONCRETE ADJUSTING RINGS FOR ADJUSTMENT OF MANHOLES. GROUT SHALL BE PLACED BETWEEN ALL SURFACES. GROUT ON THE INSIDE EDGE OF ADJUSTING RINGS SHALL HAVE A SMOOTH FINISH.
2. MANHOLE CASTING SHALL BE ADJUSTED TO CONFORM WITH SLOPE AND GRADE OF PROPOSED CONCRETE OR PAVEMENT.
3. MANHOLE CASTING SHALL BE ADJUSTED AFTER THE AC LEVELING COURSE OR THE AC BASE COURSE HAS BEEN PLACED.
4. INLET AND MANHOLE CASTINGS SHALL BE CONSIDERED ADJUSTED ONLY WHEN RAISED OR LOWERED BY ADDING OR REMOVING ADJUSTING RINGS OR GROUT.
5. ADAPTOR RING SHALL BE AMERICAN HIGHWAY PRODUCTS MANHOLE RISER OR AN APPROVED EQUAL.
6. EXTERIOR MANHOLE CHIMNEY SEAL AS MANUFACTURED BY CRETEX OR AN APPROVED EQUAL.
7. ANY ADJUSTMENT 8" GREATER, USE PRECAST 8" CONCRETE RING MANUFACTURED BY CRETEX OR AN APPROVED EQUAL.
8. CURB BOX ADJUSTMENT PERFORMED BY EXPOSING CURB BOX AND ADJUSTING BY NORMAL METHOD. BACKFILL ACCORDING TO SPECIFICATIONS. IF EXISTING CURB BOX IS EXTENDED TO MAXIMUM PRIOR TO ADJUSTMENTS PROVIDE NEW LONGER VALVE BOX INCIDENTAL TO CONTRACT.

4 C32 MANHOLE AND VALVE BOX ADJUSTMENT
NOT TO SCALE

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Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:

APPR	DATE	SYM

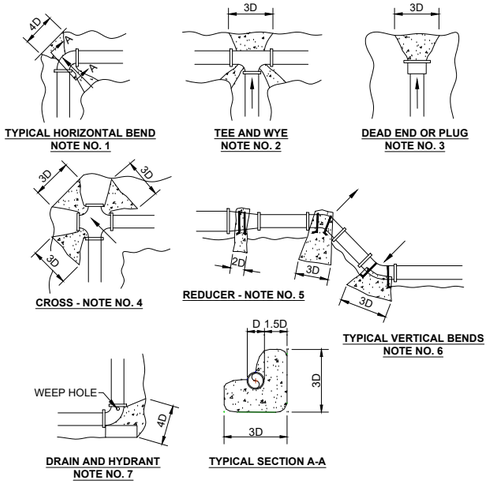
PROJECT TITLE:
2025 STREET AND UTILITY IMPROVEMENTS

SHEET TITLE:
DETAILS

CLIENT:
CITY OF BEACH
BEACH, ND

PREPARED BY: JG
CHECKED BY: TN
APPROVED BY: EL

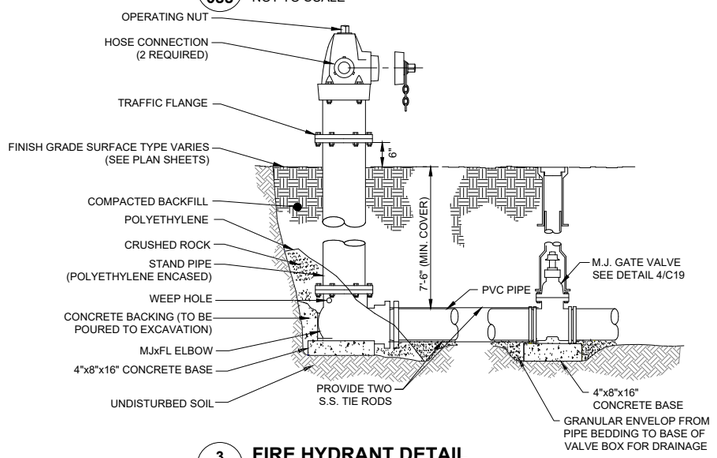
PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO:
SHEET DESIGNATOR:
SHEET NO: **C32**



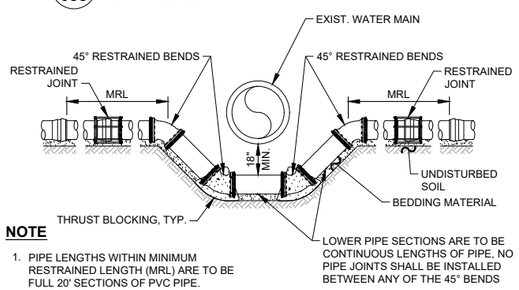
NOTES:

1. BLOCKING OF TYPICAL HORIZONTAL BEND WILL INCLUDE ALL BENDS 11 1/4" (1/32) TO 90° (1/4)
2. BLOCK TEE AS SHOWN. IN THE EVENT THAT ONE SIDE OF THE MAIN IS PLUGGED, 2 THRUST BLOCKS WILL BE REQUIRED.
3. BLOCKING OF PLUG IS TO INCLUDE PLYBOARD BETWEEN THE PLUG AND CONCRETE.
4. BLOCKING OF CROSS WITH 2 PLUGS IS AS SHOWN. WITH ONLY 1 PLUG PROCEED SAME AS TEE.
5. INSTALL CONCRETE ANCHOR AND TIE DOWNS AS SHOWN IF SIZE IS REDUCED 2 PIPE SIZES OR MORE.
6. ALL VERTICAL BENDS TO BE BLOCKED AND TIED DOWN AS SHOWN.
7. WHEN TIES ARE NOT REQUIRED, ALL HYDRANTS TO BE BLOCKED AS SHOWN. KEEP CONCRETE AWAY FROM WEEP HOLES.
8. THE END AREA OF CONCRETE THRUST BLOCKS SHALL BE SUBMITTED WITH SOIL BEARING CHARACTERISTICS TO THE ENGINEER FOR APPROVAL. MINIMUM RESISTANCE REQUIRED SHALL BE FOR 1.5 TIMES WORKING PRESSURE OF PIPE. REFER TO SUBSURFACE INVESTIGATION REPORT FOR DESIGN RECOMMENDATIONS.

1 C33 CONCRETE THRUST BLOCKING DETAIL
NOT TO SCALE



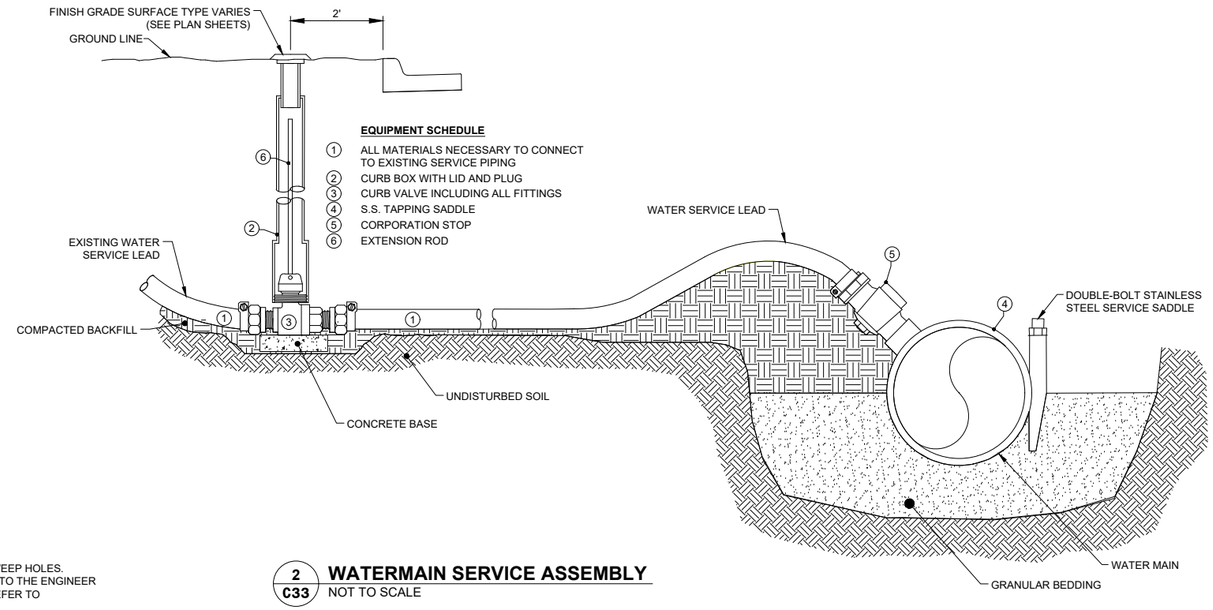
3 C33 FIRE HYDRANT DETAIL
NOT TO SCALE



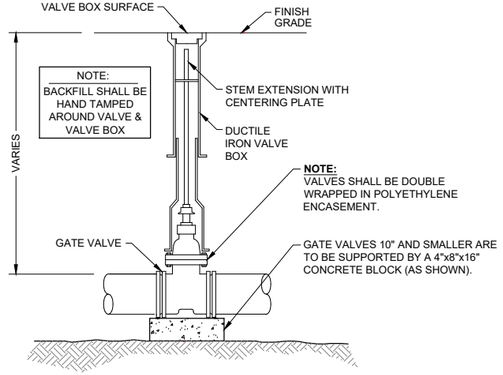
NOTE

1. PIPE LENGTHS WITHIN MINIMUM RESTRAINED LENGTH (MRL) ARE TO BE FULL 20' SECTIONS OF PVC PIPE.

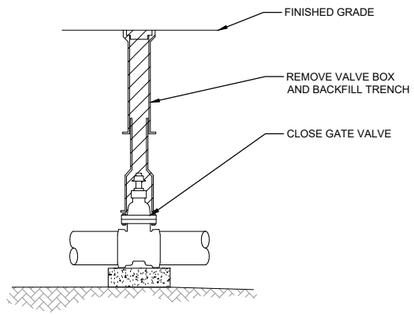
6 C33 WATERMAIN CROSSING DETAIL
NOT TO SCALE



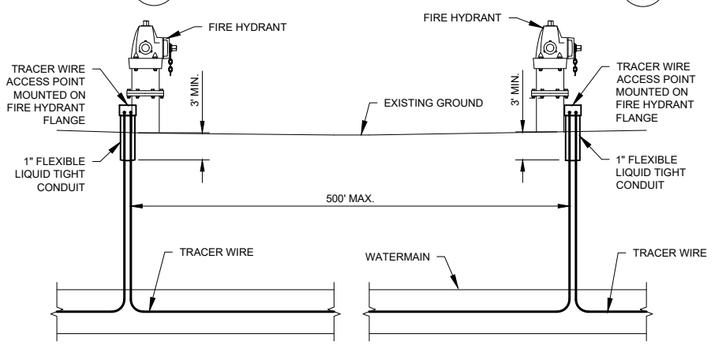
2 C33 WATERMAIN SERVICE ASSEMBLY
NOT TO SCALE



4 C33 GATE VALVE DETAIL
NOT TO SCALE



5 C33 ABANDON GATE VALVE
NOT TO SCALE



7 C33 TRACER WIRE ACCESS BOX DETAIL
NOT TO SCALE

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ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS: | APPR | DATE | SYM

2025 STREET AND UTILITY IMPROVEMENTS

Advanced Engineering and Environmental Services, LLC www.ae2s.com

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SHEET TITLE: **DETAILS**

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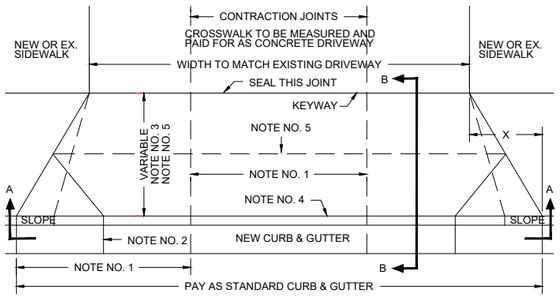
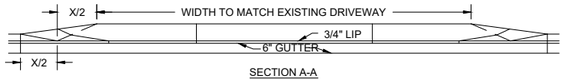
PREPARED BY: JG
CHECKED BY: TN
APPROVED BY: EL

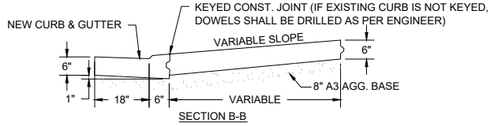
PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO:
SHEET DESIGNATOR:
SHEET NO: **C33**



PLAN VIEW



SECTION A-A



SECTION B-B

NOTES:

1. CENTER JOINT TO BE USED ON ALL DRIVEWAYS 18' IN WIDTH OR LESS. JOINT SHALL BE A KEYED CONSTRUCTION OR CONTRACTION JOINT SCORED 1/3 THE DEPTH OF THE CONCRETE. JOINT SHALL BE SEALED. DRIVEWAYS 19' TO 30' IN TOP WIDTH SHALL BE DIVIDED INTO 3 PARTS. DRIVEWAYS 31' AND LARGER SHALL BE DIVIDED INTO 4 PARTS.

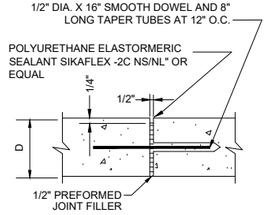
2. THIS SHALL BE A CONTRACTION JOINT SCORED 1/3 THE DEPTH OF THE CONCRETE. JOINT SHALL BE SEALED.

3. WHEN THE DISTANCE IS 4.0' X = 2.0' WHEN THE DISTANCE IS 6.5' X = 3.0' WHEN THE DISTANCE IS 8.0' X = 4.0' WHEN THE DISTANCE IS 9.5' OR OVER X = 5.0' TO 6.0' AS DIRECTED BY ENGINEER

4. THIS JOINT IS OPTIONAL WHEN POURED CONTINUOUS.

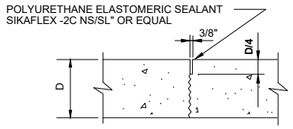
5. WHEN THE LENGTH IS 9.5' OR OVER, A HORIZONTAL CONTRACTION JOINT SHALL BE SCORED OR SAWED. JOINT SHALL BE SEALED.

1 C34 TYPICAL CONCRETE DRIVEWAY
NOT TO SCALE



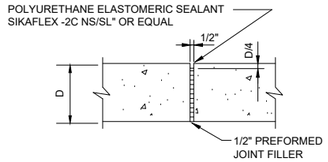
NOTE: DOWELS SHALL BE GREASED FULL LENGTH. PAPER TUBES SHALL BE CRIMPED ON ONE END. DOWELS SHALL BE SUPPORTED BY AN APPROVED SUPPORT MADE OF NO. 7 AWG WIRE, SPACED AT 12" O.C.

TYPE 8



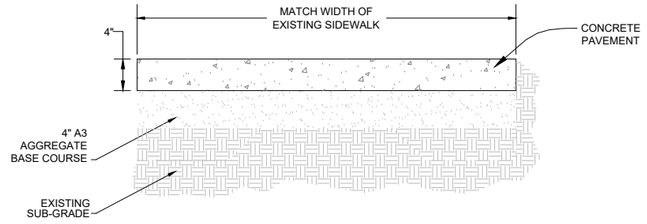
NOTE: GROOVE MAY BE EITHER SAWED OR TOOLED

TYPE 4



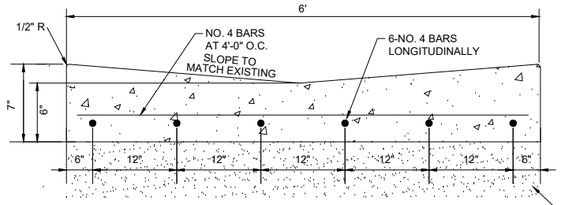
TYPE 7

2 C34 TYPICAL CONCRETE JOINTS
NOT TO SCALE

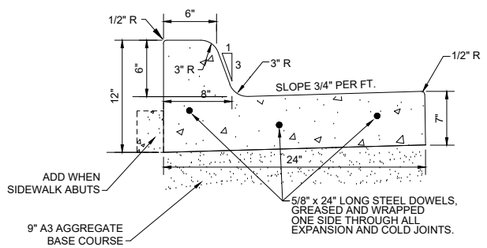


NOTES:
1. PLACE TYPE 4 JOINTS TO FORM APPROX. 4' SQUARES.
2. DOWEL LONGITUDINALLY AT 12" O.C. INTO EXISTING SIDEWALK. TYPE 8 JOINT. SEE DETAIL
3. PLACE TYPE 7 JOINTS EVERY 50' AND AT CHANGE IN DIRECTION.

3 C34 TYPICAL CONCRETE SIDEWALK
NOT TO SCALE

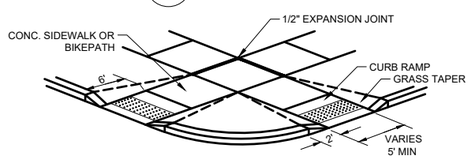


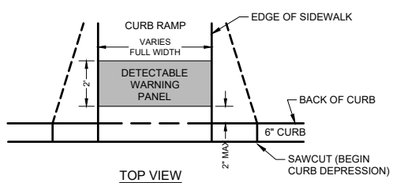
4 C34 VALLEY GUTTER-SECTION VIEW
NOT TO SCALE



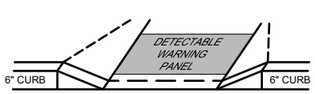
NOTE:
1. SAW OR TOOL CONTRACTION JOINT EVERY 10 FEET.
2. PLACE TYPE 8 JOINT AT BEGINNING OF RADIUS, ISOLATION OF STRUCTURES, AND OTHER PERMANENT FACILITIES, AND AT 300 FOOT INTERVAL ON STRAIGHT RUNS.

5 C34 CURB AND GUTTER
NOT TO SCALE

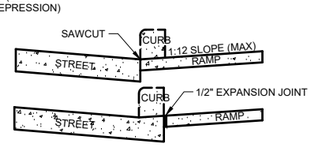




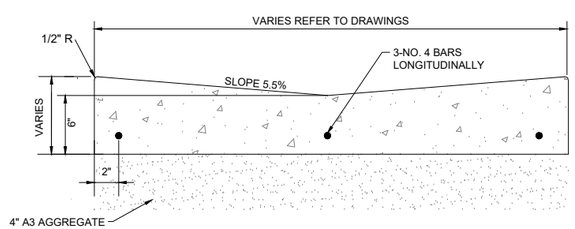
TOP VIEW



FRONT VIEW



6 C34 CURB RAMP DETAIL
NOT TO SCALE



7 C34 VALLEY GUTTER-TIE TO EXISTING
NOT TO SCALE

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ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

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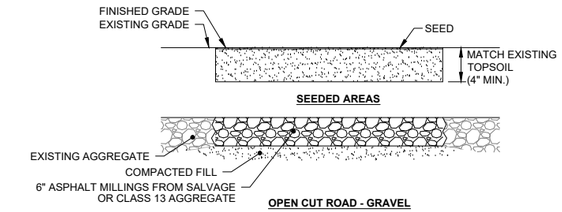
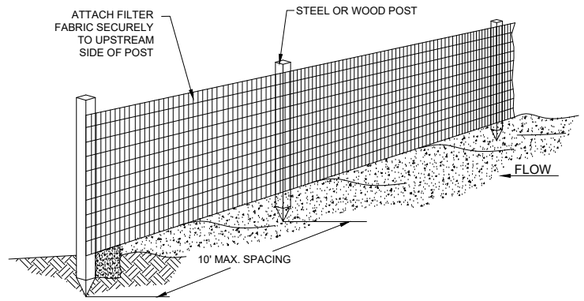
BEACH, ND

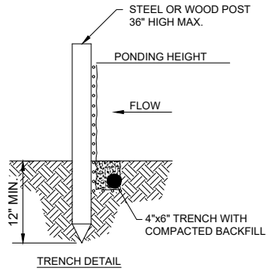
PREPARED BY: JG
CHECKED BY: TN
APPROVED BY: EL

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO:
SHEET DESIGNATOR:
SHEET NO: **C34**

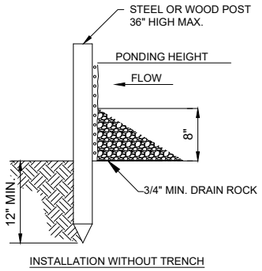


1 C35 RESTORATION DETAILS
NOT TO SCALE





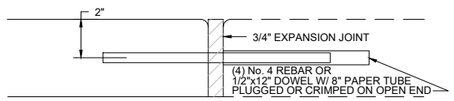
TRENCH DETAIL



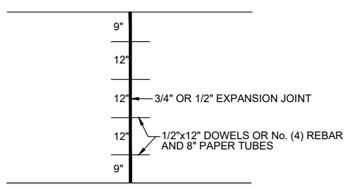
INSTALLATION WITHOUT TRENCH

NOTES:
1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

2 C35 SILT FENCE
NOT TO SCALE

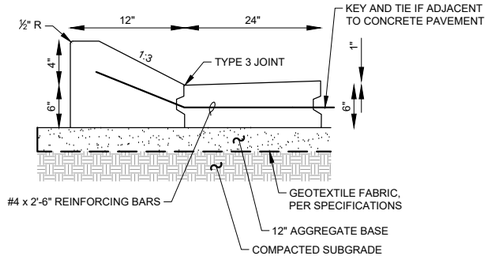


END OF SIDEWALK RUN OR AT EXPANSION JOINT, APPROXIMATELY 100' INTERVALS

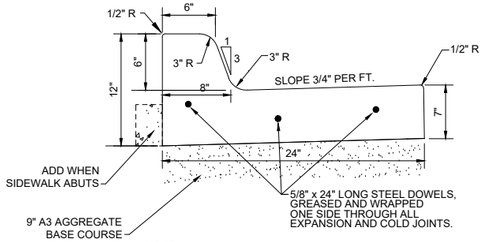


TYPICAL 4.5' WIDE SIDEWALK AT LOT LINES, CROSSWALKS OR 100' INTERVALS

3 C35 STANDARD CONCRETE SIDEWALK DOWELS
NOT TO SCALE



5 C35 CURB AND GUTTER
NOT TO SCALE



NOTE:
1. SAW OR TOOL CONTRACTION JOINT EVERY 10 FEET.
2. PLACE TYPE 8 JOINT AT BEGINNING OF RADIUS, ISOLATION OF STRUCTURES, AND OTHER PERMANENT FACILITIES, AND AT 300 FOOT INTERVAL ON STRAIGHT RUNS.

6 C35 SANITARY SEWER CLEANOUT
NOT TO SCALE

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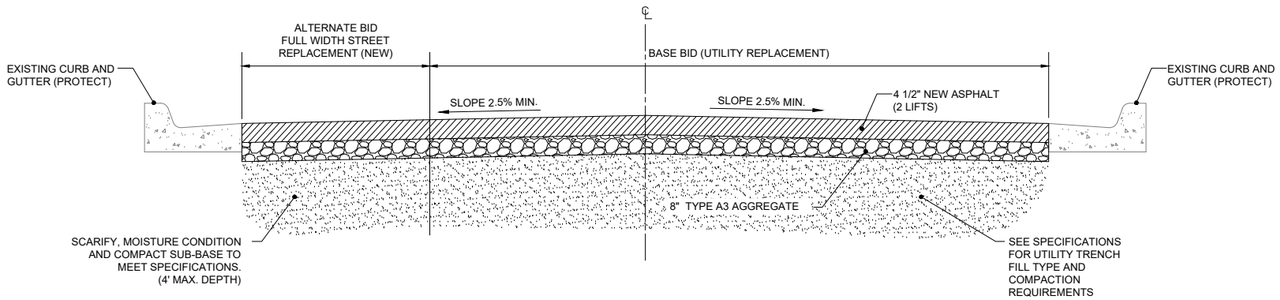
SHEET NO.
C35



1
C36 **ROAD RECONSTRUCTION TYPICAL SECTION-RESIDENTIAL STREETS**
NOT TO SCALE

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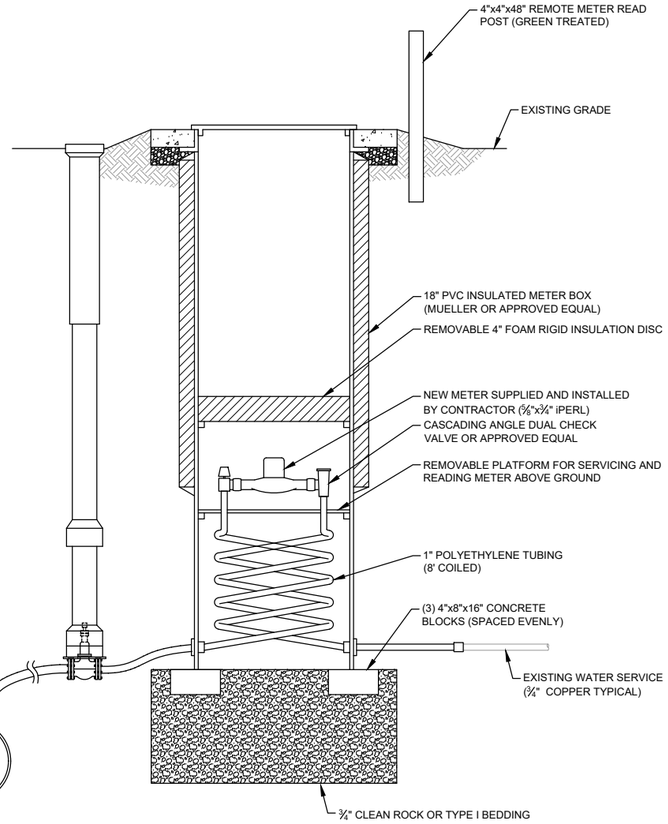
SHEET DESIGNATOR:

SHEET NO:
C36



NOTE:
1" MIP x 1" MIP INLET/OUTLET
CONNECTIONS FOR 1" METER SETTINGS

1 C37 **WATER METER PIT**
NOT TO SCALE

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CLIENT:
CITY OF BEACH
BEACH, ND

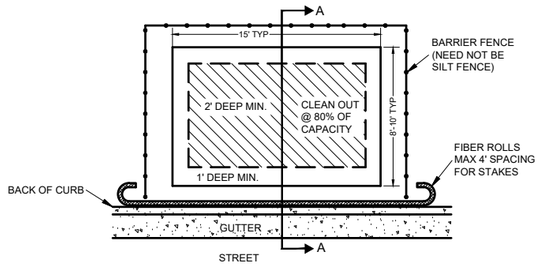
PREPARED BY: JG
CHECKED BY: TN
APPROVED BY: EL

PROJECT NO: 05066-2022-001
DATE: NOVEMBER 2024
ALT. PROJECT NO:

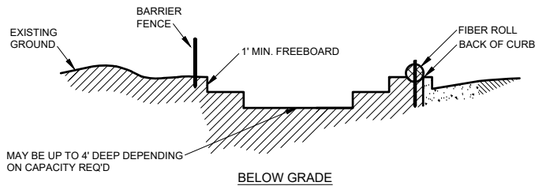
SHEET DESIGNATOR:

SHEET NO:
C37

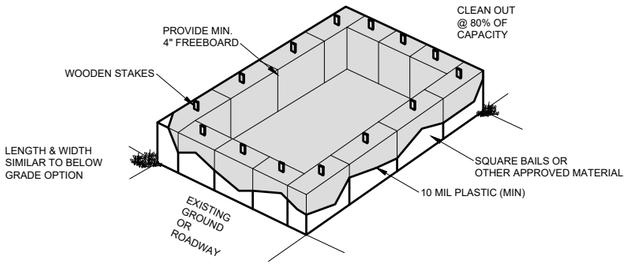
File: W:\B\Beach\05066-2022-001\CAD\Dwg\01-Civil\Plan Sheets\Details.dwg
Plotted By: Trenton Hintz Date: Tuesday, November 19, 2024



BELOW GRADE
PLAN VIEW

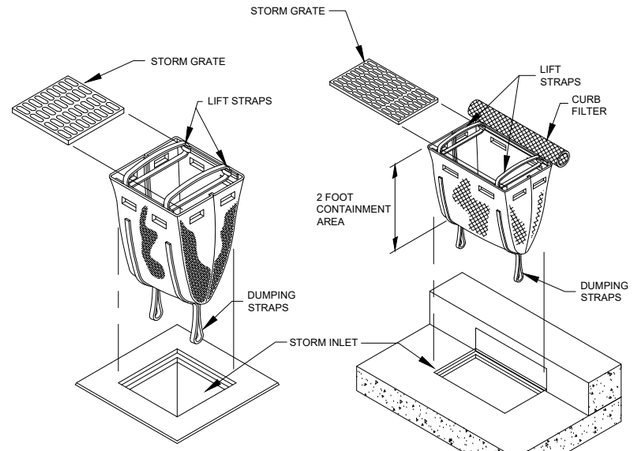


BELOW GRADE
SECTION A-A



ABOVE GRADE

1 C38 CONCRETE WASHOUT
69.11

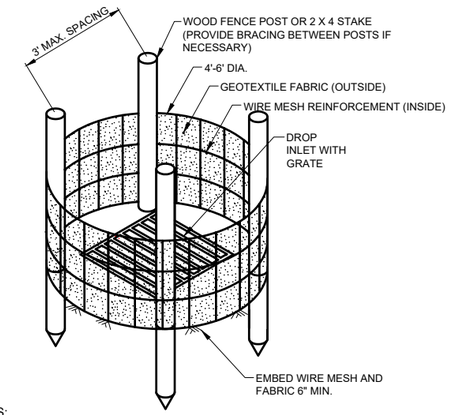


DANDY SACK ™

DANDY CURB SACK ™

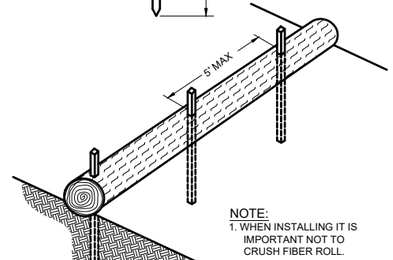
NOTES:
1. ALL FILTER BAGS SHALL BE DANDY CURB SACKS, DANDY SACKS OR APPROVED EQUAL.
2. INSTALL AS PER MANUFACTURERS SPECIFICATIONS:
   a) Remove the grate from the catch basin.
   b) Stand the grate on end. Move the top lifting straps out of the way and place the grate into the Dandy Curb Sack or Dandy Sack unit so that the grate is below the top straps and above the lower straps. The grate should be cradled between the upper and lower straps.
   c) Holding the lifting devices, insert the grate into the inlet, then lower back edge with cylindrical tube (Dandy Curb Sack only) into place, being careful that the grate remains in place and being careful not to damage the unit. The cylindrical tube should partially block the curb hood opening when installed properly (Dandy Curb Sack only).

2 C38 INLET PROTECTION
69.04



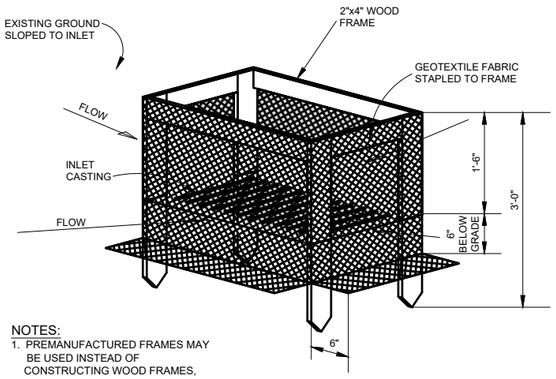
NOTES:
1. INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.
2. MANUFACTURED ALTERNATIVES MAY BE SUBSTITUTED, SUBJECT TO THE ENGINEER'S APPROVAL.
3. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

3 C38 AREA DRAIN INLET PROTECTION TYPE 1
69.06



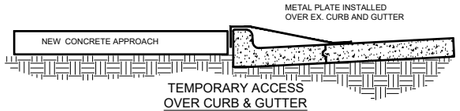
NOTE:
1. WHEN INSTALLING IT IS IMPORTANT NOT TO CRUSH FIBER ROLL.

6 C38 FIBER ROLL
69.05

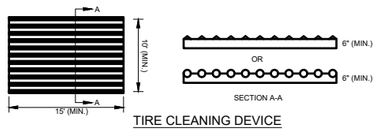


NOTES:
1. PREMANUFACTURED FRAMES MAY BE USED INSTEAD OF CONSTRUCTING WOOD FRAMES, PROVIDING THAT ADEQUATE SUPPORT FOR THE GEOTEXTILE FABRIC IS PROVIDED.

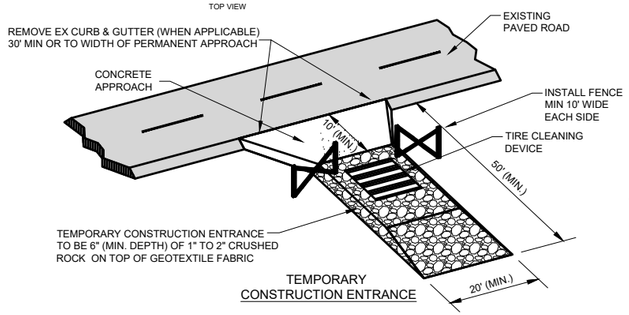
4 C38 AREA DRAIN INLET PROTECTION TYPE 2
69.06A



TEMPORARY ACCESS
OVER CURB & GUTTER



TIRE CLEANING DEVICE



TEMPORARY
CONSTRUCTION ENTRANCE

NOTES:
1. THE LOCATION OF CONSTRUCTION ENTRANCES SHALL BE AS SHOWN ON THE PLANS AND SHALL COINCIDE WITH THE PERMANENT ACCESS. IF THIS IS NOT PRACTICAL, THE CONTRACTOR SHALL COORDINATE THE LOCATIONS WITH THE ENGINEER.
2. EXISTING CURB AND GUTTER SHALL BE REMOVED AND A CONCRETE APPROACH SHALL BE INSTALLED AS SHOWN. CONCRETE APPROACH MAY BE TEMPORARY OR INSTALLED AS THE PERMANENT APPROACH TO THE SITE. APPROACH SHALL BE SLOPED TO MATCH PROPOSED SITE GRADES OR MINIMUM 2% TOWARDS EXISTING STREET. METAL PLATE MAY BE INSTALLED TO BRIDGE CURB & GUTTER IN LIEU OF C&G REMOVAL IF NO PERMANENT APPROACH IS TO BE INSTALLED.
3. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL REMOVE THE TEMPORARY CONSTRUCTION ENTRANCE UNLESS NOTED OTHERWISE, AND THE SITE SHALL BE RESTORED TO IT'S PREVIOUS CONDITION.
4. ENTRANCES SHALL BE MAINTAINED IN A MANNER TO MINIMIZE THE TRACKING OF SEDIMENT ONTO PAVED SURFACES.
5. FENCE SHALL BE INSTALLED ON EACH SIDE OF TIRE CLEANING DEVICE, SPACED TO FORCE TRAFFIC OVER DEVICE. FENCE POSTS SHALL BE METAL OR 4x4 WOOD, MINIMUM 4' TALL.

5 C38 TEMPORARY CONSTRUCTION ENTRANCE
69.03

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
ZAC RANISATE
PE-30017
DATE 11/15/2024
NORTH DAKOTA

STATUS:	SYM	DATE	APPR

2025 STREET AND UTILITY IMPROVEMENTS

Advanced Engineering and Environmental Services, LLC www.ae2s.com

PROJECT TITLE:

SHEET TITLE: **DETAILS**

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