

WASECA MUNICIPAL AIRPORT

35493 110TH STREET, WASECA, MN 56093



SHEET NO.	SHEET NAME
GENERAL	
G001	TITLE SHEET
G002	LIFESAFETY AND CODE PLAN
CIVIL	
C002	LOCATION PLAN AND QUANTITIES
C003	GEOMETRIC PLAN
C004	EROSION CONTROL AND RESTORATION PLAN
C005	STORMWATER POLLUTION CONTROL AND PREVENTION PLAN
C006	STORMWATER POLLUTION CONTROL AND PREVENTION PLAN
C101	TYPICAL SECTIONS AND DETAILS
C201	EXISTING CONDITIONS AND REMOVALS PLAN
C401	UTILITY AND GRADING PLAN
ARCHITECTURAL	
A001	SYMBOLS & ABBREVIATIONS
A100	FLOOR PLAN
A120	ROOF PLAN
A130	REFLECTED CEILING PLANS
A200	ELEVATIONS
A300	BUILDING SECTIONS
A350	WALL SECTIONS AND DETAILS
A600	SCHEDULES AND DETAILS

SHEET NO.	SHEET NAME
STRUCTURAL	
S001	STRUCTURAL NOTES AND ABBREVIATIONS
S110	FOUNDATION PLAN
S500	SCHEDULES AND DETAILS
S501	SECTIONS AND DETAILS
MECHANICAL	
P100	UNDERGROUND PLUMBING PLAN
P500	PLUMBING DETAILS AND SCHEDULES
ELECTRICAL	
E001	NOTES AND SYMBOLS
E201	ELECTRICAL PLAN
E202	ELECTRICAL PLAN - HANGAR

OWNER NATE WILLEY, PE DIRECTOR OF ENGINEERING CITY OF WASECA	PROJECT MANAGER TKDA JOHN PETERSON, PE 444 CEDAR STREET SUITE 1500 SAINT PAUL, MN 55101	CIVIL ENGINEER TAYLOR LAHAISE, PE TKDA 444 CEDAR STREET SUITE 1500 SAINT PAUL, MN 55101
PHONE (D): (507) 835-9716 PHONE (C): (515) 509-1510	EMAIL: JOHN.PETERSON@TKDA.COM PHONE: (651) 292-4558	EMAIL: TAYLOR.LAHAISE@TKDA.COM PHONE: (651) 706-0586
ARCHITECT ANDREW D. GARDNER, AIA, LEAD AP TKDA 444 CEDAR STREET SUITE 1500 SAINT PAUL, MN 55101	STRUCTURAL ENGINEER CRAIG BURSCH, PE TKDA 11 EAST SUPERIOR STREET SUITE 420 DULUTH, MN 55802	MECHANICAL ENGINEER BEN WALSH, PE TKDA 444 CEDAR STREET SUITE 1500 SAINT PAUL, MN 55101
EMAIL: ANDREW.GARDNER@TKDA.COM PHONE: (651) 726-7960	EMAIL: CRAIG.BURSCH@TKDA.COM PHONE: (218) 216-3742	EMAIL: BEN.WALSH@TKDA.COM PHONE: (651) 726-7951
ELECTRICAL ENGINEER TOSHIYA ISOMURA, PE TKDA 444 CEDAR STREET SUITE 1500 SAINT PAUL, MN 55101		
EMAIL: TOSHIYA.ISOMURA@TKDA.COM PHONE: (612) 434-3883		



444 Cedar Street, Suite 1500
Saint Paul, MN 55101
651.292.4400
tkda.com

DESIGNED	DRAWN	CHECKED
ADG	ASC	ADG

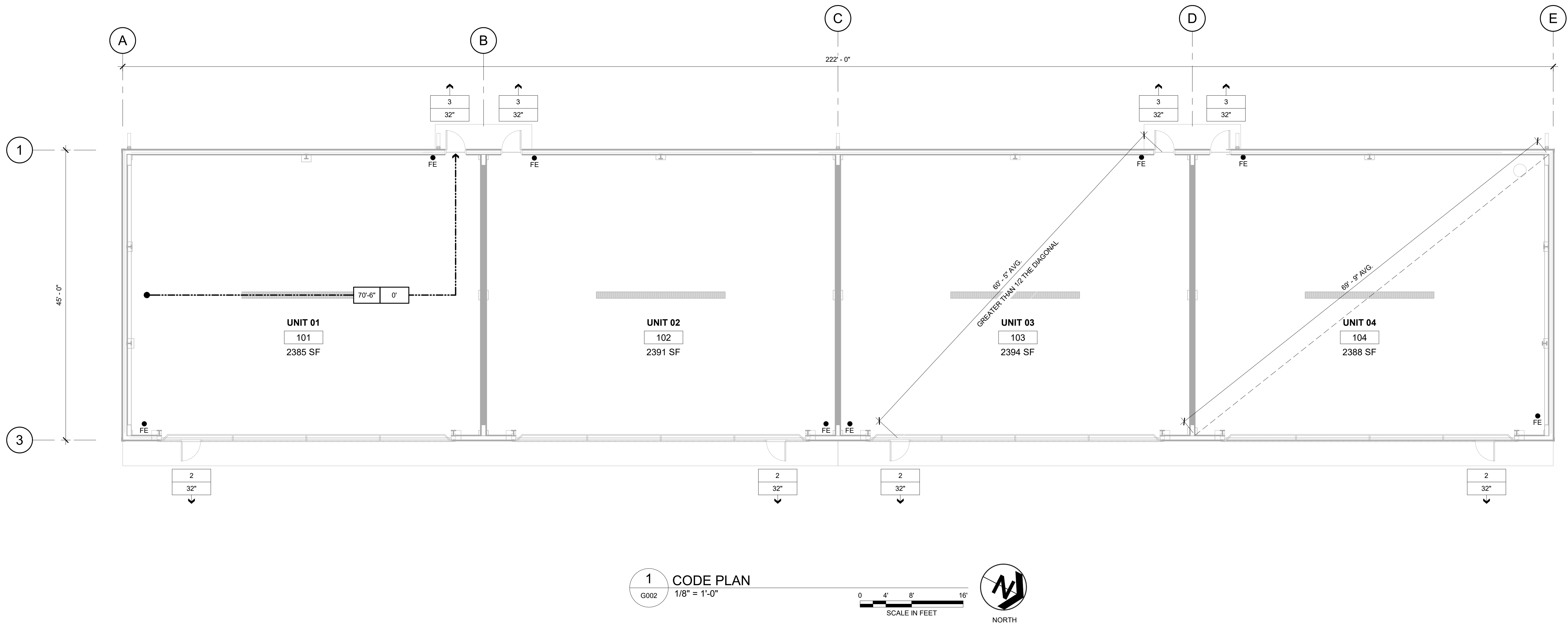
TITLE SHEET

G001

CITY OF WASECA PROJECT NO. 2021-19

18214.000

WASECA
MULTI-UNIT
HANGAR



CODE REVIEW

01. APPLICABLE CODES		
ABBR.	EDITION	TITLE
IMC	2020	INTERNATIONAL MECHANICAL CODE
MAC	2020	MINNESOTA ACCESSIBILITY CODE
MBC	2020	MINNESOTA BUILDING CODE
MFC	2020	MINNESOTA FIRE CODE
NEC	2020	NATIONAL ELECTRIC CODE
UFC	1-200-01	GENERAL BUILDING REQUIREMENT
UFC	1-200-02	HIGH PERFORMANCE AND SUSTAINABILITY BUILDING REQUIREMENTS
02. PROJECT DESCRIPTION		
NEW CONSTRUCTION AVIATION HANGAR WITH CONCRETE FOUNDATIONS, STRUCTURAL STEEL FRAMING AND MINIMAL ELECTRICAL, PROVIDED UNLESS REQUIRED BY LOCAL CODES, FIRE SUPPRESSION SYSTEM NOT REQUIRED BY NFPA 409 FOR TYPE II-B, GROUP III HANGARS.		
03. ENERGY CODE COMPLIANCE		
THE PROJECT SHALL COMPLY WITH ITEM 2 OF SECTION C401.2 OF THE 2020 MINNESOTA STATE COMMERCIAL ENERGY CODE IF REQUIRED.		
04. USE AND OCCUPANCY CLASSIFICATION		
AREAS	OCCUPANCY	IBC
HANGAR	S-1	311.2
05. USE AND OCCUPANCY CLASSIFICATION IN HANGARS (412)		
AREAS	HANGAR TYPE	MSBC
STORAGE (HANGAR)	TYPE II B, GROUP III	412.3.1 - 412.3.8
06. TYPE OF CONSTRUCTION (601)		
TYPE IIB		

07. MODIFIED ALLOWABLE HEIGHT (504)				
OCCUPANCY	RESTRICTING ALLOWABLE HEIGHT (FT / STORY)	SPRINKLER INCREASE (FT / STORY)	MODIFIED ALLOWABLE HEIGHT (FT / STORY)	
S-1	55 / 2	0 / 0	55 / 2	
08. ALLOWABLE AREA (506)				
OCCUPANCY	ALLOWABLE AREA (SF)	FRONTAGE INCREASE (SF)	SPRINKLER INCREASE (SF)	MODIFIED ALLOWABLE AREA (SF)
S-1	17,500	13,125	0	30,625
09. ACCESSORY OCCUPANCY LIMITATION (508.2.1)				
FLOOR	FLOOR AREA	ACCESSORY	ACCESSORY AREA	RATIO (SUM<10%)
LEVEL 1	9,990	N/A	N/A	N/A
10. MINIMUM INTERIOR FINISH RATINGS (803.9)				
OCCUPANCY	EXIT ENCLOSURE AND EXIT PASSAGEWAYS		CORRIDORS	ROOM AND ENCLOSED SPACES
S-1	B		B	C
11. FIRE SUPPRESSION REQUIREMENTS				
SPRINKLERS (903.1)		STANDPIPE (905.1)	FIRE EXTINGUISHERS (906)	
NON-SPRINKLED		NOT REQUIRED	GC TO PROVIDE THROUGHOUT BUILDING	
12. FIRE EXTINGUISHER DISTRIBUTION (906.3)				
OCCUPANCY	PRIMARY CLASSIFICATION OF FIRE AND HAZARD		MAX FLOOR AREA PER A (SF)	MAX TRAVEL DISTANCE (FT)
S-1	CLASS A LIGHT HAZARD		3,000	75

13. FIRE ALARM REQUIREMENTS (907)					
MANUAL INITIATION	AUTOMATIC INITIATION	OCCUPANT NOTIFICATION			
N/A	SPOT SMOKE DETECTORS	AUDIBLE AND VISUAL NOTIFICATION PROVIDED			
14. SMOKE MANAGEMENT SYSTEMS					
SMOKE CONTROL SYSTEM (909)	SMOKE AND HEAT VENTS (910)	PASSIVE SMOKE MANAGEMENT			
NOT REQUIRED	NOT REQUIRED	NOT REQUIRED			
15. OCCUPANT LOAD CALCULATIONS (1004.5)					
LEVEL	SPACE	FUNCTION	AREA (SF)	LOAD FACTOR	OCC.'S
LEVEL 1	HANGAR	HANGAR	9,990	500 gross	20
16. OCCUPANT LOAD SUMMARY AND MIN. EXITS FROM FLOOR					
LEVEL	AREA (SF)	OCCUPANTS	REQUIRED EXITS (1015)	REQUIRED EXIT SEPARATION (1015.2.1)	
LEVEL 1	9,990	20	1	1/2 DIAGONAL	
17. MINIMUM EXITS OR EXIT ACCESSES FROM A SPACE OR AREA (1015.1)					
OCCUPANCY	OCCUPANT COUNT PERMITTING ONE EXIT		OCCUPANT COUNT REQUIRING TWO + EXITS		
S-1	29		50 OR GREATER		
18. COMMON PATH, DEAD-END, AND TRAVEL DISTANCE LIMITS					
OCCUPANCY	COMMON PATH LIMIT (1014.3)	DEAD END LIMIT (1018.4)		TRAVEL DISTANCE LIMIT (1018.2)	
S-1	N/A	N/A		200 FT	

19. MINIMUM EGRESS WIDTHS			
COMPONENT	REQUIREMENT	WIDTH (IN)	IBC
STAIRWAYS	PER PERSON	0.2	1005.3.1
OTHER EGRESS COMPONENTS	PER PERSON	0.15	1005.3.2
DOOR WIDTH INGRESS ACCESS	MINIMUM	32	1008.1.1
EXIT STAIR WIDTH	MINIMUM	36	1009.4 (Ex. 1)
20. MAXIMUM EGRESS COMPONENT CAPACITY			
FLOOR LEVEL 1	RESTRICTING COMPONENT	RESTRICTING EGRESS WIDTH	OCCUPANT LOADING
	DOOR	32 INCHES	3

ROOM SCHEDULE

101	UNIT 01	2385 SF
102	UNIT 02	2391 SF
103	UNIT 03	2394 SF
104	UNIT 04	2388 SF
		9558 SF

CODE PLAN LEGEND			
	AIRCRAFT HANGAR (S) FUNCTION		MEANS OF EGRESS
	FIRE EXTINGUISHER SURFACE MOUNTED		DESIGNATED EXIT

0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS DRAWING ADJUST SCALES ACCORDINGLY.

1 02/17/2022 ISSUED FOR BID
/NO. DATE ISSUE RECORD/
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.
SIGNATURE:
PRINTED NAME: ANDREW GARDNER
LICENSE NO: 57976 DATE: 02/17/2022

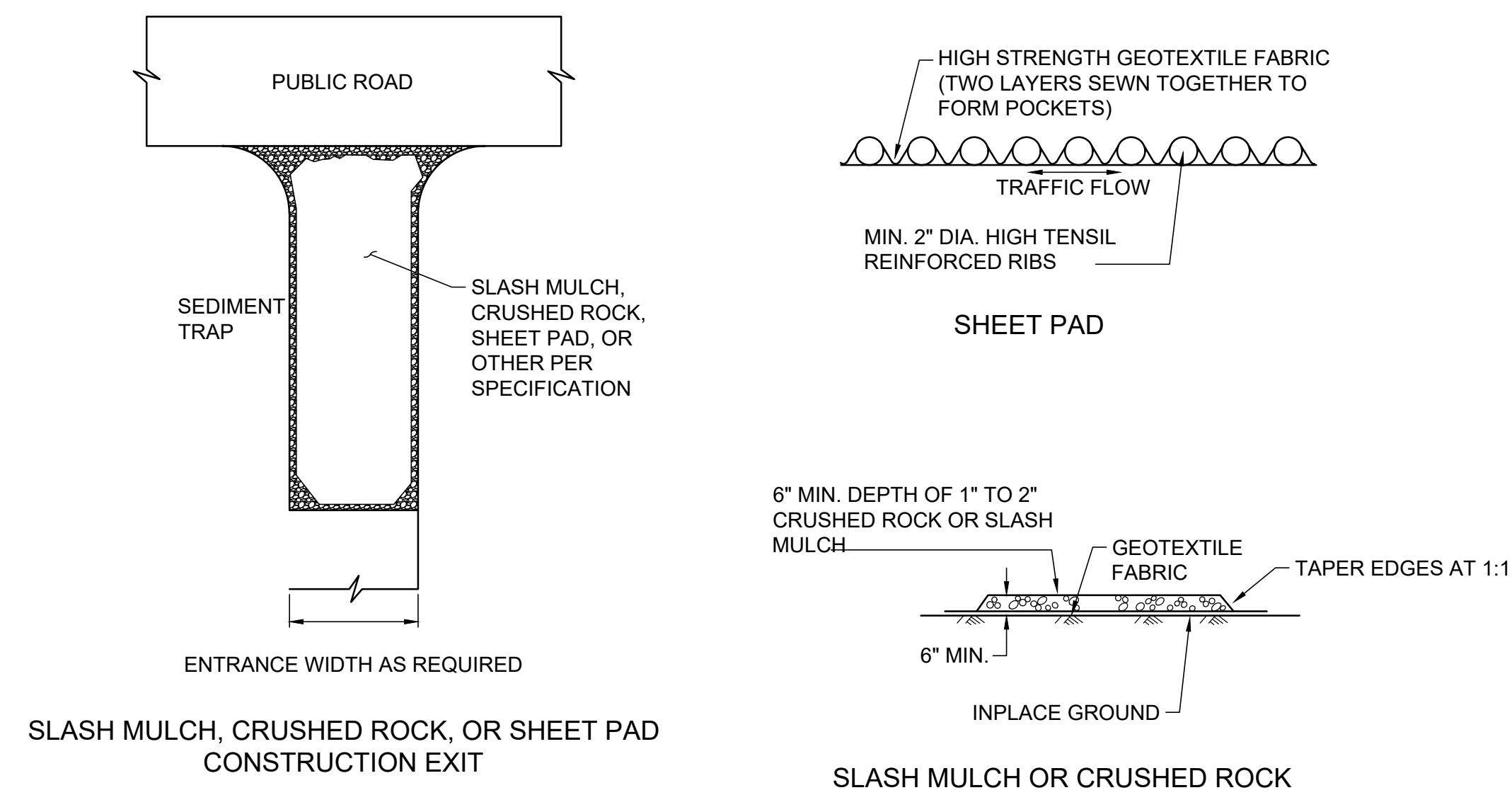
444 Cedar Street, Suite 1500
Saint Paul, MN 55101
651.292.4400
tkda.com

DESIGNED ADG DRAWN ASC CHECKED ADG
LIFESAFETY AND
CODE PLAN

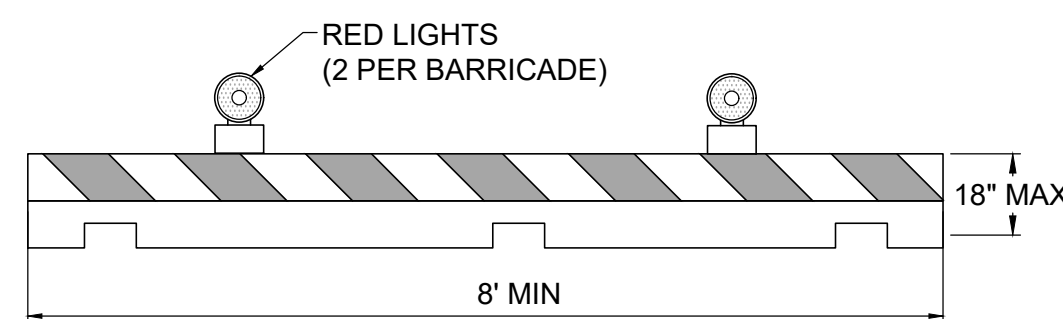
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18214.000

WASECA
MULTI-UNIT
HANGAR



TEMPORARY CONSTRUCTION ENTRANCE



1. LOW PROFILE BARRICADES SHALL BE CONNECTED END-TO-END UNLESS OTHERWISE DIRECTED BY THE ENGINEER. WHERE BARRICADES ARE NOT CONNECTED, BARRICADES SHALL BE PLACED WITH A MAXIMUM 12-FOOT SPACE BETWEEN SECTIONS
2. 1" WIDE REFLECTORIZED TAPE (RED) @ 45° ANGLE BOTH SIDES; (1' TAPE/ 1' GAP)
3. LIGHT UNIT SHALL BE RED & EITHER STEADY BURNING OR FLASHING; MOUNTING APPROVED BY THE ENGINEER

LOW PROFILE BARRICADES

NO SCALE

QUANTITIES					
NOTE	ITEM NO.	DESCRIPTION	UNIT	ESTIMATED	FINAL
	01 35 13-1	HAUL ROUTES	LUMP SUM	1	
	01 35 13-2	CONTRACTOR'S SITE	LUMP SUM	1	
	01 71 13-1	MOBILIZATION	LUMP SUM	1	
	02 41 13-1	REMOVE ASPHALT PAVEMENT	SQUARE YARD	55	
	03 10 00-1	HANGAR CAST-IN-PLACE CONCRETE (TOTAL) - DIV 03	LUMP SUM	1	
	13 34 19-1	METAL HANGAR BUILDING (TOTAL) - DIV 05-13	LUMP SUM	1	
	22 05 00-1	HANGAR PLUMBING CONSTRUCTION (TOTAL)	LUMP SUM	1	
	26 05 00-1	HANGAR ELECTRICAL CONSTRUCTION (TOTAL) - DIV 26	LUMP SUM	1	
	31 23 00-1	COMMON EXCAVATION	CUBIC YARD	475	
	31 23 00-2	SUBGRADE EXCAVATION	CUBIC YARD	2,500	
	31 23 00-4	GRANULAR MATERIAL (CV)	CUBIC YARD	3,000	
	31 23 00-7	WATER	M. GALLON	80	
	31 23 00-9	TOPSOIL PLACEMENT, 6" DEPTH	SQUARE YARD	2,880	
	31 25 00-2	APRON INLET PROTECTION	EACH	4	
	31 25 00-5	SEDIMENT CONTROL LOG	LINEAR FOOT	60	
	31 37 00-1	RIP RAP, CLASS II	CUBIC YARD	7	
	32 11 23-1	4" AGGREGATE BASE	SQUARE YARD	220	
	32 11 23-2	6" AGGREGATE BASE	SQUARE YARD	1,067	
	32 02 00-1	TACK COAT	GALLON	90	
	32 02 00-2	TYPE SP9.5 WEARING COURSE MIXTURE 3C	TON	220	
	32 16 01-1	CONCRETE WALK, 4" THICK	SQUARE FOOT	1,700	
	32 16 01-2	CONCRETE VALLEY GUTTER, 3" WIDE	LINEAR FOOT	220	
	32 32 15-1	MODULAR BLOCK RETAINING WALL	LINEAR FOOT	190	
	32 90 00-1	LANDSCAPING ROCK	CUBIC YARD	30	
	32 90 00-2	METAL EDGING	LINEAR FOOT	110	
	32 92 00-1	SEEDING, CLASS II	ACRE	0.4	
	32 92 00-4	EROSION CONTROL BLANKET	SQUARE YARD	540	
	33 41 16-1	6" INSPECTION TEE AND EXTENSION	LUMP SUM	1	
	33 42 00-1	12" CLASS 3 RC PIPE	LINEAR FOOT	25	
	33 42 00-2	12" RC PIPE APRON	EACH	2	
	33 42 00-3	AGGREGATE BEDDING	CUBIC YARD	13	
	07 21 00-1	BID ALT NO. 1 - HANGAR INSULATION	LUMP SUM	1	
	13 34 19-2	BID ALT NO. 2 - LINER PANEL, BELOW 8'	LUMP SUM	1	
	13 24 19-3	BID ALT NO. 3 - LINER PANEL, ABOVE 8' AND CEILING	LUMP SUM	1	

EARTHWORK SUMMARY

ALL VOLUMES ARE BASE ON 3D TERRAIN SOFTWARE MODELING

EXCAVATION

2,975 C.Y.

475 C.Y. COMMON EXCAVATION

2,500 C.Y. SUBGRADE EXCAVATION

2,208 C.Y. SUBGRADE EX.

92 C.Y. AS DIRECTED BY ENGINEER

EMBANKMENT

3,820 C.Y.

3.000 C.Y. GRAN. MATL. REQUIRED

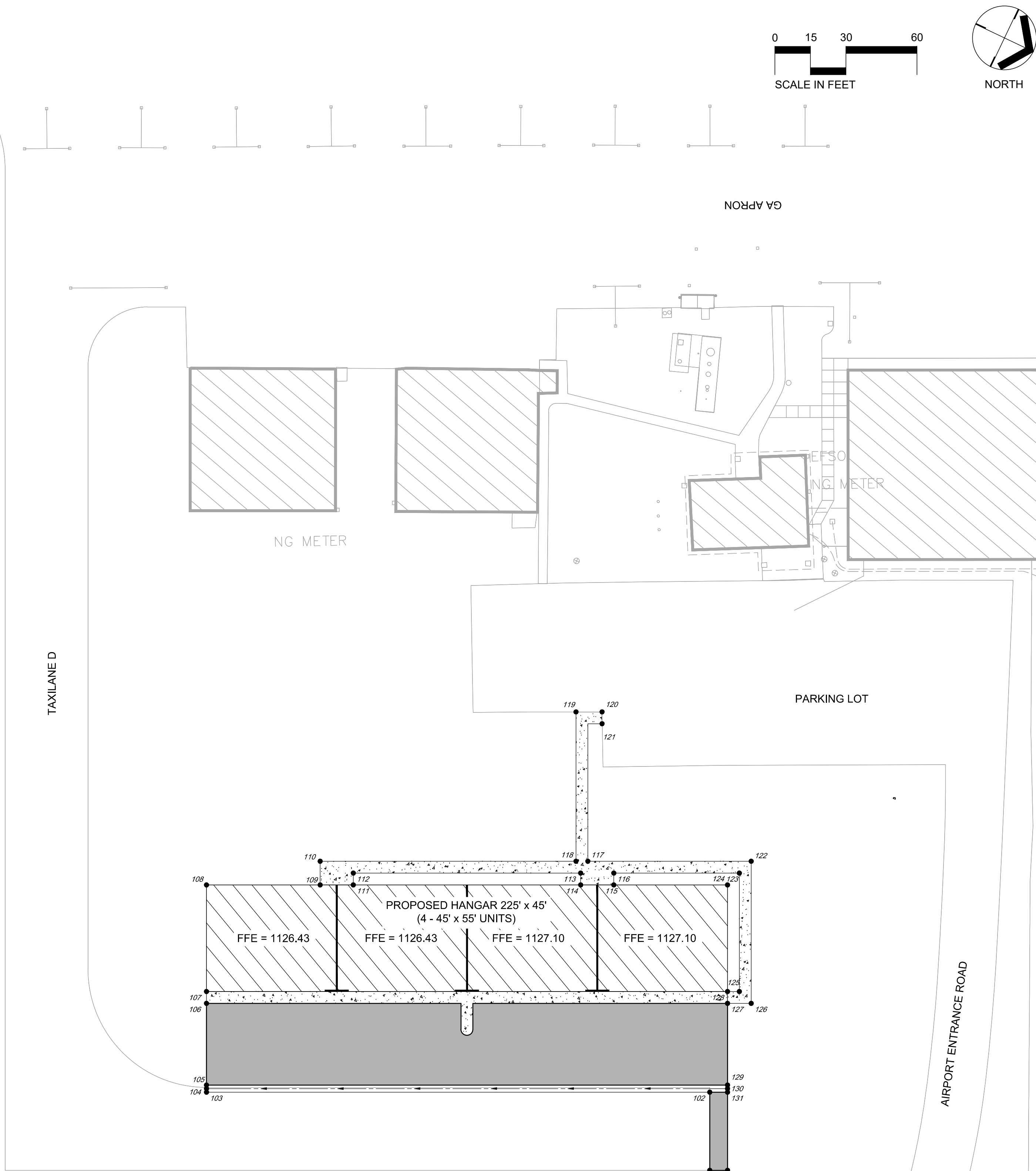
340 C.Y. REGULAR MATL. REQUIRED (R)

2,208 C.Y. SUBGRADE EX.

00 C.Y. EMB. GRANULAR

92 C.Y. AS DIRECTED BY ENGINEER

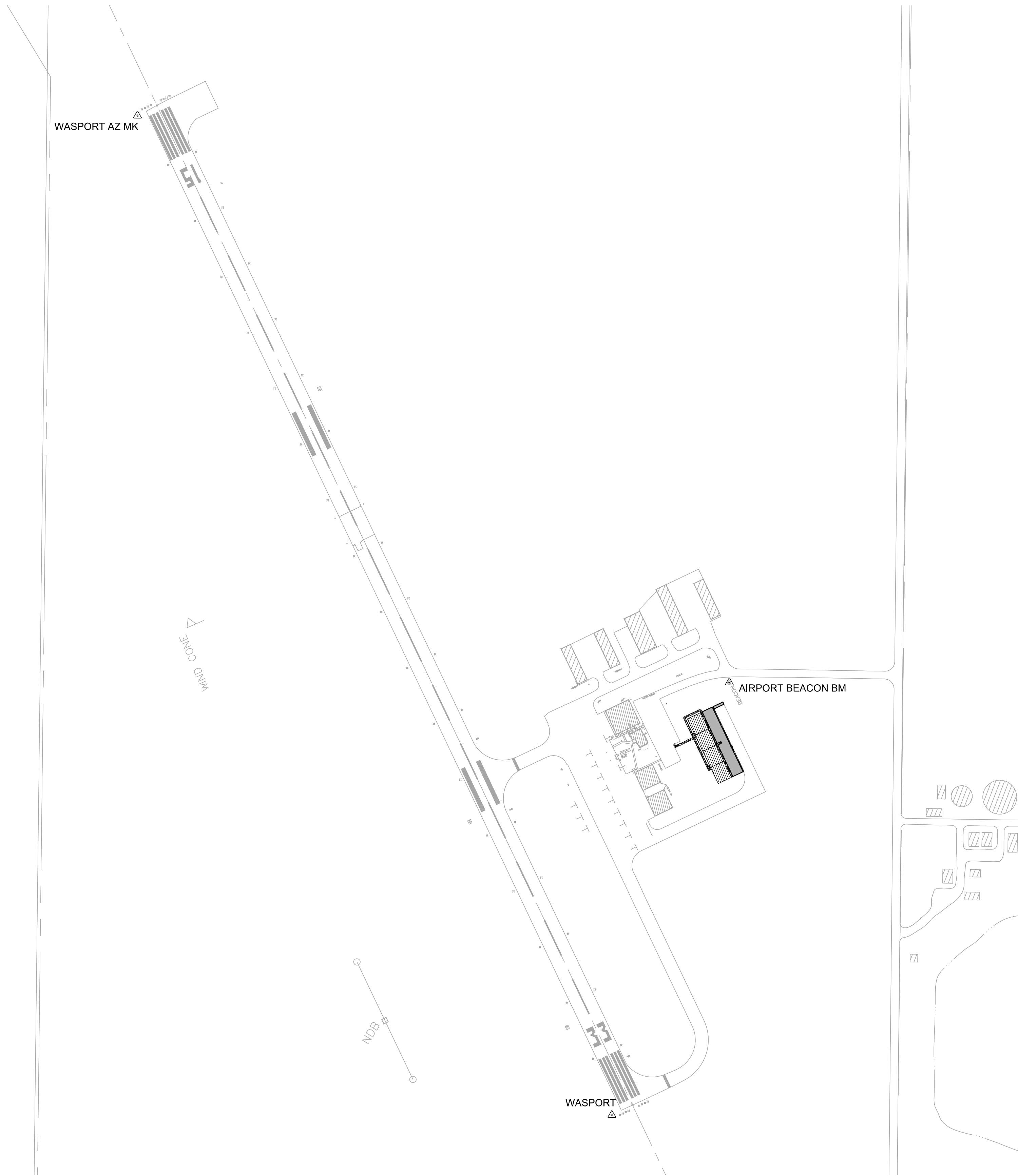
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PROJECT CONTROL POINTS			
POINT NO.	NORTHING	EASTING	TYPE
101	187683.06	333778.59	BITUMINOUS EDGE
102	187668.89	333748.79	BITUMINOUS EDGE
103	187476.98	333840.04	BITUMINOUS EDGE
104	187476.34	333838.69	CONCRETE VALLEY GUTTER
105	187475.70	333837.34	BITUMINOUS EDGE
106	187460.88	333806.18	BITUMINOUS EDGE
107	187458.73	333801.66	HANGAR BUILDING CORNER
108	187439.41	333761.02	HANGAR BUILDING CORNER
109	187482.76	333740.41	CONCRETE SIDEWALK CORNER
110	187478.46	333731.38	CONCRETE SIDEWALK CORNER
111	187495.40	333734.40	CONCRETE SIDEWALK CORNER
112	187493.25	333729.88	CONCRETE SIDEWALK CORNER
113	187579.95	333688.66	CONCRETE SIDEWALK CORNER
114	187582.10	333693.17	CONCRETE SIDEWALK CORNER
115	187594.74	333687.16	CONCRETE SIDEWALK CORNER
116	187592.59	333682.65	CONCRETE SIDEWALK CORNER
117	187590.54	333682.84	CONCRETE SIDEWALK CORNER
118	187576.02	333684.99	CONCRETE SIDEWALK CORNER
119	187548.95	333628.06	CONCRETE STAIR CORNER
120	187558.88	333623.32	CONCRETE STAIR CORNER
121	187561.03	333627.84	CONCRETE STAIR CORNER
122	187642.83	333653.22	CONCRETE SIDEWALK CORNER
123	187640.46	333659.88	CONCRETE SIDEWALK CORNER
124	187638.09	333666.55	HANGAR BUILDING CORNER
125	187661.93	333705.04	CONCRETE SIDEWALK CORNER
126	187668.59	333707.41	CONCRETE SIDEWALK CORNER
127	187659.56	333711.70	CONCRETE SIDEWALK CORNER
128	187657.41	333707.19	HANGAR BUILDING CORNER
129	187674.38	333742.86	BITUMINOUS EDGE
130	187675.02	333744.21	CONCRETE VALLEY GUTTER
131	187675.67	333745.57	BITUMINOUS EDGE
132	187689.84	333775.37	BITUMINOUS EDGE

GEOMETRIC PLAN

SURVEY CONTROL POINTS						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
WASPORT	13+98.96	70.30'LT	186420.934	333434.444	1117.567	RUNWAY 33 / GSID STATION # 33303
WASPORT AZ MK	47+97.02	67.50'LT	189490.910	331977.728	1124.909	RUNWAY 15 / GSID STATION # 33304
AIRPORT BEACON BM	-	-	-	-	1129.122	S.W. ANCHOR BOLT AT AIRPORT BEACON



SURVEY CONTROL POINT LOCATIONS



WASECA MUNICIPAL
 AIRPORT
 35493 110TH STREET
 WASECA, MN 56093

WASECA
 MULTI-UNIT
 HANGAR

NO.	DATE	ISSUED FOR BID	ISSUE RECORD
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION,
 OR REPORT WAS PREPARED BY ME OR UNDER MY
 DIRECT SUPERVISION AND THAT I AM A DULY
 LICENSED PROFESSIONAL ENGINEER UNDER THE
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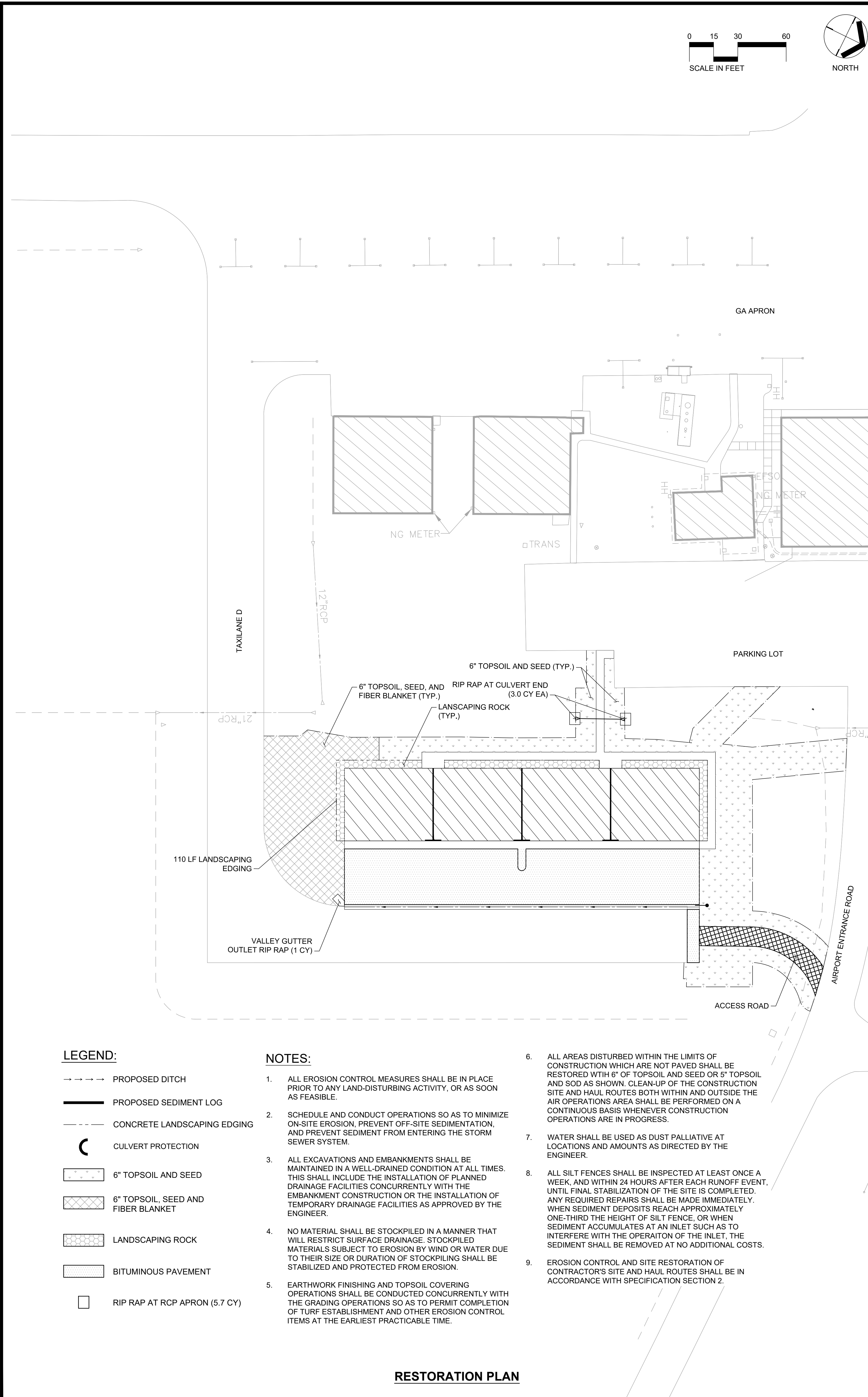
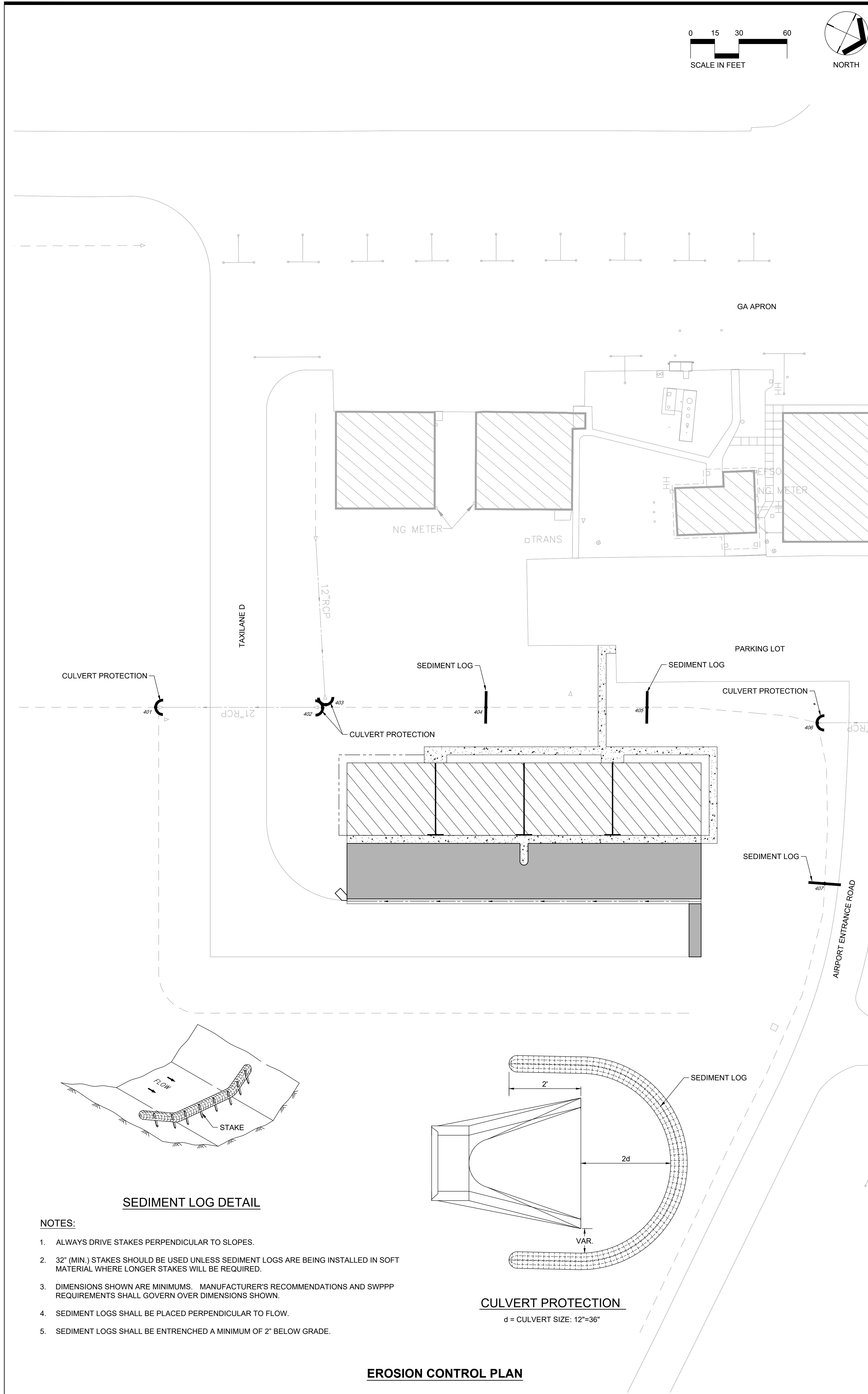
SIGNATURE: *Taylor M. Lahaise*
 PRINTED NAME: TAYLOR M. LAHAISE
 LICENSE NO: 57107 DATE: 2/17/22

444 Cedar Street, Suite 1500
 Saint Paul, MN 55101
 651.292.4400
 tkda.com

DESIGNED TML DRAWN TML CHECKED JNP

GEOMETRIC
 PLAN

C003



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STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

PROJECT DESCRIPTION/LOCATION

THE PROJECT IS LOCATED AT THE WASECA MUNICIPAL AIRPORT IN THE CITY OF WASECA IN WASECA COUNTY, MINNESOTA.

THE PLANNED SCOPE OF THE PROJECT INCLUDES: CONSTRUCTION OF A 4-UNIT HANGAR BUILDING, SITE GRADING, ASPHALT PAVING, CONCRETE SIDEWALKS, AND ELECTRICAL UTILITIES.

THE SWPPP MUST BE AMENDED TO DOCUMENT ANY CHANGES TO EROSION AND SEDIMENT CONTROLS, METHODS OR PRACTICES. THESE AMENDMENTS MUST BE TIMELY, AND AN UPDATED SWPPP NEEDS TO BE KEPT AT THE SITE ENTRANCE AND/OR JOB TRAILER AT ALL TIMES.

RESPONSIBILITIES

PROVIDE A CERTIFIED EROSION CONTROL SUPERVISOR PER MNDOT SPECIFICATION 2573.3.A.1. EROSION CONTROL SUPERVISOR WILL OVERSEE IMPLEMENTATION OF SWPPP AND INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPs BEFORE, DURING AND AFTER CONSTRUCTION UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED.

PROVIDE AT LEAST ONE CERTIFIED INSTALLER PER MNDOT SPECIFICATION 2573.3.A.2. FOR EACH CONTRACTOR OR SUBCONTRACTOR THAT PLACES THE PRODUCTS LISTED IN MNDOT SPECIFICATION SECTION 2573.3.A.2.

THE CONTRACTOR MUST PROVIDE PROOF OF TRAINING CERTIFICATION FOR EROSION CONTROL SUPERVISOR AND EROSION CONTROL INSTALLERS PRIOR TO BEGINNING THE WORK

ANY CHANGES TO THE SWPPP MUST BE DOCUMENTED BY THE EROSION CONTROL SUPERVISOR, APPROVED BY THE ENGINEER AND ADDED TO THE SWPPP.

CHAIN OF RESPONSIBILITY

THE CONTRACTOR IS THE PERMITEE FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION PERMIT. THE CONTRACTOR IS RESPONSIBLE TO SUBMIT AND OBTAIN THE PERMIT, THEN COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION PERMIT AT ALL TIMES UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA. THE PROJECT ENGINEER WILL ENSURE THAT THE CONTRACTOR'S EROSION AND SEDIMENT CONTROL SUPERVISOR FULFILLS THEIR DUTIES.

LAND FEATURE CHANGES

TOTAL DISTURBED AREA	0.90 ACRES
WITHIN THE DISTURBED AREA: TOTAL EXISTING IMPERVIOUS SURFACE AREA	0.02 ACRES
WITHIN THE DISTURBED AREA: TOTAL PROPOSED IMPERVIOUS SURFACE AREA	0.52 ACRES
TOTAL PROPOSED NET CHANGE IN IMPERVIOUS SURFACE AREA	0.50 ACRES

SOIL TYPES

SOIL TYPES TYPICALLY FOUND ON THIS PROJECT ARE LEAN CLAY (CL).

ENVIRONMENTAL REVIEW

THERE ARE NO STORMWATER MITIGATION MEASURES REQUIRED AS A RESULT OF AN ENVIRONMENTAL, ARCHEOLOGICAL OR AGENCY REVIEW. ALL MITIGATION MEASURES HAVE BEEN ADDRESSED IN THIS PLAN SET OR THE SPECIAL PROVISIONS.

THIS PROJECT IS NOT LOCATED IN A WELL HEAD PROTECTION AREA.

THIS PROJECT IS NOT LOCATED IN A DRINKING WATER SUPPLY MANAGEMENT AREA (DWSMA).

THIS PROJECT IS NOT LOCATED IN A KARST AREA.

THIS PROJECT IS NOT LOCATED IN AN EMERGENCY RESPONSE AREA (ERA) PER DEPARTMENT OF HEALTH.

IF IT BECOMES NECESSARY TO DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMITS, OPERATIONS SHOULD CEASE AND DETERMINATION MADE IF ADDITIONAL PERMITS ARE NEEDED OR EXISTING PERMITS NEED TO BE MODIFIED.

TEMPORARY DEWATERING ACTIVITIES MAY BE REQUIRED FOR SITE GRADING AND UTILITY WORK. CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE PERMIT. SUBMIT A SITE MANAGEMENT PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK.

WATERBODY	NO WORK DURING
LAKES	APRIL 1 - JUNE 30
NON-TROUT STREAMS	MARCH 15 - JUNE 15
TROUT STREAMS	SEPTEMBER 1 - APRIL 1

SEE DNR PERMIT FOR MORE INFORMATION

SPECIAL AND IMPAIRED WATERS

THERE ARE NO SPECIAL OR IMPAIRED WATERS LOCATED WITHIN ONE MILE (AERIAL RADIUS) OF THE PROJECT LIMITS.

AREAS OF ENVIRONMENTAL SENSITIVITY (AES)

WETLANDS AND EXISTING STORMWATER FACILITIES WITHIN AND NEAR THE PROJECT BOUNDARY ARE SHOWN ON DRAINAGE PLANS.

PROJECT ORGANIZATION CONTACTS		PHONE
PROJECT ENGINEER	TAYLOR M. LAHAISE	651-706-0586
SWPPP DESIGNER CERTIFIED IN DESIGN OF CONSTRUCTION SWPPP	JONATHAN N. LIBBY	651-726-7946
CITY OF WASECA (OWNER)	NATE WILLEY	507-835-9716
RESIDENT PROJECT REPRESENTATIVE		
CONSTRUCTION SITE MANAGER (CONTRACTOR)		
WASECA SOIL & WATER CONSERVATION DISTRICT	MARK SCHAEZTKE	507-835-0603
MINNESOTA POLLUTION CONTROL AGENCY STORMWATER HOTLINE	651-757-2119 OR 800-657-3804	
MPCA DUTY OFFICER 24 HR EMERGENCY NOTIFICATION	651-649-5451 OR 800-422-0798	

INSPECTION TIMEFRAMES

INSPECT THE ENTIRE CONSTRUCTION SITE A MINIMUM OF ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. INSPECT ALL TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT, EROSION PREVENTION AND SEDIMENT CONTROL BMPs, SURFACE WATERS AND CONSTRUCTION SITE EXITS UNTIL ALL CONSTRUCTION IS COMPLETE AND THE SITE HAS UNDERGONE FINAL STABILIZATION. RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES IN WRITING WITHIN 24 HOURS. SUBMIT INSPECTION REPORTS IN A FORMAT THAT IS ACCEPTABLE TO THE PROJECT ENGINEER.

EROSION AND SEDIMENT CONTROL MEASURES

AREA	TIME FRAME
ESTABLISH SEDIMENT CONTROL DEVICES ON ALL DOWN GRADIENT PERIMETERS AND UPGRADIENT OF ANY BUFFER ZONES	BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN
REPAIR, REPLACE OR SUPPLEMENT PERIMETER CONTROL BMPs	WHEN THEY BECOME NONFUNCTIONAL, OR WHEN SEDIMENT ACCUMULATES TO HALF THE HEIGHT AND/OR DEPTH OF THE BMP BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY
REPLACE, REPAIR OR SUPPLEMENT ALL NONFUNCTIONAL BMPs	BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY
REPAIR, REPLACE, OR SUPPLEMENT INLET PROTECTION BMPs	WHEN THEY BECOME NONFUNCTIONAL, OR WHEN SEDIMENT ACCUMULATES TO HALF THE HEIGHT AND/OR DEPTH OF THE BMP BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY
REMOVE TRACKED SEDIMENT FROM PAVED SURFACES BOTH ON AND OFF SITE (LIGHTLY WET PRIOR TO SWEEPING)	WITHIN 24 HOURS OF DISCOVERY
REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS AND RESTABILIZE	WITHIN 7 DAYS OF DISCOVERY

- PROVIDE PERIMETER CONTROL AROUND ALL STOCKPILES AND DO NOT PLACE THEM IN NATURAL BUFFER AREAS, SURFACE WATERS OR STORMWATER CONVEYANCES. TOPSOIL BERMS MUST BE STABILIZED IN ORDER TO BE CONSIDERED PERIMETER CONTROL BMPs.
- PROTECT STORM SEWER INLETS AT ALL TIMES WITH THE APPROPRIATE INLET PROTECTION BMP AND PROVIDE EMERGENCY OVERFLOW CAPABILITIES. SILT FENCE PLACED IN THE INLET GRATE IS NOT AN ACCEPTABLE INLET PROTECTION BMP FOR GRADING OPERATIONS.
- PLACE AND MAINTAIN CONSTRUCTION EXITS OF SUFFICIENT SIZE TO PREVENT TRACKING OF SEDIMENT ONTO PAVED SURFACES BOTH ON AND OFF THE PROJECT SITE. REGULAR STREET SWEEPING IS NOT AN ACCEPTABLE ALTERNATIVE TO PROPER CONSTRUCTION EXIT INSTALLATION AND MAINTENANCE.
- PROVIDE SCOUR PROTECTION AT OUTFALL OF DEWATERING ACTIVITIES. PROVIDE STABILIZATION IN TRENCHES CUT FOR DEWATERING OR SITE DRAINING PURPOSES.
- PREPARE AND SUBMIT A SITE MANAGEMENT PLAN AND CONTACT ALL APPROPRIATE AUTHORITIES PRIOR TO WORKING IN SURFACE WATERS.
- MAINTAIN ALL BMPs UNTIL WORK HAS BEEN COMPLETED, SITE HAS GONE UNDER FINAL STABILIZATION FOR PERMIT TERMINATION, AND THE NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE MPCA.

STABILIZATION

AREA	TIME FRAME	NOTES
LAST 200 LINEAL FEET OF DRAINAGE DITCH OR SWALE	WITHIN 24 HOURS OF CONNECTION TO SURFACE WATER OR PROPERTY EDGE	2A, 3A
REMAINING PORTIONS OF DRAINAGE DITCH OR SWALE	7 DAYS	3A
PIPE AND CULVERT OUTLETS	24 HOURS	
EXPOSED SOILS AND STOCKPILES	7 DAYS	1A
WHEN CONSTRUCTION HAS TEMP. OR PERM. CEASED	INITIATE IMMEDIATELY	

- TEMPORARY SOIL STOCKPILES WITHOUT SIGNIFICANT CLAY OR SILT AND STOCKPILED AND CONSTRUCTED ROAD BASE ARE EXEMPT FROM THE STABILIZATION REQUIREMENT.
- STABILIZE WETTED PERIMETER OF DITCH (I.E. WHERE THE DITCH GETS WET).
- APPLICATION OF MULCH, HYDROMULCH (SLOPE>2%), DISCANCHORED MULCH (SLOPE>2%),TACKIFIER AND POLYACRYLAMIDE ARE NOT ACCEPTABLE STABILIZATION METHODS IN DITCHES AND SWALES.

MATERIAL STORAGE, WASTE MANAGEMENT, FUELING AND DUST CONTROL

- PROVIDE A SPILL KIT AT EACH WORK LOCATION ON THE SITE. ENSURE ALL SPILLS ARE CLEANED UP IMMEDIATELY.
- STORE ALL LIQUID CHEMICALS UNDER COVER WITH SECONDARY CONTAINMENT. CREATE AND FOLLOW A WRITTEN DISPOSAL PLAN FOR ALL WASTE MATERIALS. STORE, COLLECT AND DISPOSE OF ALL SOLID WASTE.
- FUEL AND MAINTAIN VEHICLES IN A DESIGNATED CONTAINED AREA WHENEVER FEASIBLE. USE DRIP PANS OR ABSORBENT MATERIALS TO PREVENT SPILLS OR LEAKED CHEMICALS FROM DISCHARGING TO SURFACE WATER OR STORMWATER CONVEYANCES.
- PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS. LIQUID AND SOLID WASHOUT WASTES MUST NOT CONTACT THE GROUND. DESIGN THE CONTAINMENT SO THAT IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR CONTAINMENT AREA.
- USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT DISCHARGE OR PLACEMENT OF BITUMINOUS GRINDINGS, CUTTINGS, MILLINGS, AND OTHER BITUMINOUS WASTES FROM AREAS OF EXISTING OR FUTURE VEGETATED SOILS AND FROM ALL WATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES.
- USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT CONCRETE DUST, STREET SWEEPING DUST, SAWCUT SLURRY, PLANING WASTE, CONCRETE WASH OUT, AND OTHER CONCRETE WASTES FROM LEAVING MNDOT RIGHT OF WAY, DEPOSITING IN EXISTING OR FUTURE VEGETATED AREAS, AND FROM ENTERING STORMWATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES.



WASECA MUNICIPAL
AIRPORT

35493 110TH STREET
WASECA, MN 56093

WASECA
MULTI-UNIT
HANGAR

SIGNATURE:
PRINTED NAME: TAYLOR M. LAHAISE
LICENSE NO: 57107 DATE: 2/17/22



444 Cedar Street, Suite 1500
Saint Paul, MN 55101
651.292.4400
tkda.com

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STORMWATER
POLLUTION
PREVENTION PLAN

C005

18214.000

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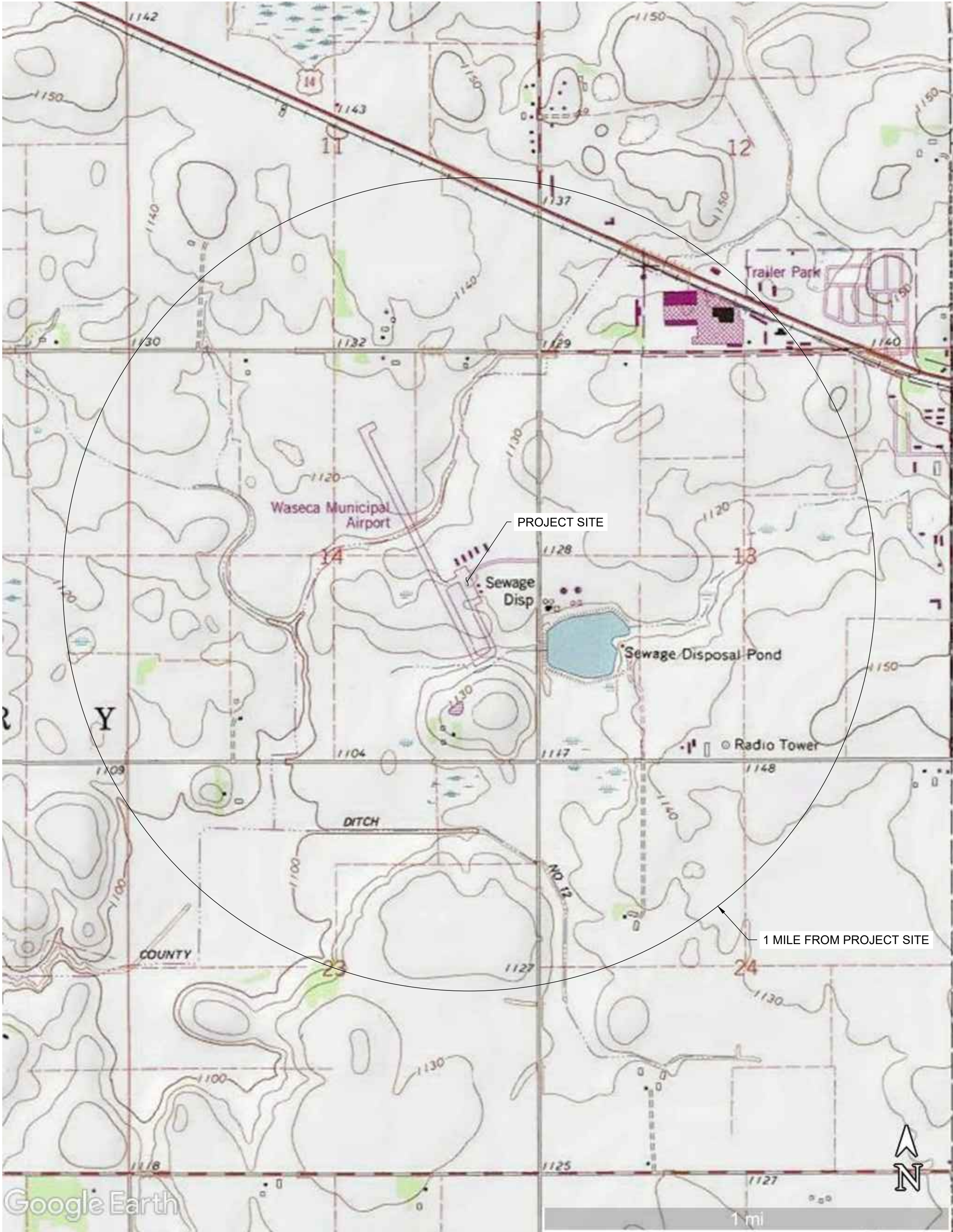
IMPORTANT SWPPP NOTES FOR CONSTRUCTION ACTIVITY

1. PREPARE AND SUBMIT A SITE MANAGEMENT PLAN FOR THE ENGINEER'S ACCEPTANCE FOR CONCRETE MANAGEMENT, CONCRETE SLURRY APPLICATION AREAS, WORK IN AND NEAR AREAS OF ENVIRONMENTAL SENSITIVITY, AREAS IDENTIFIED IN THE PLANS AS "SITE MANAGEMENT PLAN AREA", ANY WORK THAT WILL REQUIRE DEWATERING, AND AS REQUESTED BY THE ENGINEER. SUBMIT ALL SITE MANAGEMENT PLANS TO THE ENGINEER IN WRITING. ALLOW A MINIMUM OF 7 DAYS FOR OWNER AND ENGINEER TO REVIEW AND ACCEPT SITE MANAGEMENT PLAN SUBMITTALS. WORK WILL NOT BE ALLOWED TO COMMENCE IF A SITE MANAGEMENT PLAN IS REQUIRED UNTIL ACCEPTANCE HAS BEEN GRANTED BY THE ENGINEER. THERE WILL BE NO EXTRA TIME ADDED TO THE CONTRACT DUE TO THE UNTIMELY SUBMITTAL.
2. ENGINEERED SOIL SHALL REMAIN UNCONTAMINATED (NOT MIXED WITH OTHER SOIL) BEFORE AND DURING INSTALLATION. PLACEMENT OF ENGINEERED SOILS SHALL BE ON DRY NATIVE SOIL ONLY.
3. ROUTE STORMWATER AROUND UNSTABILIZED AREAS OF THE SITE WHENEVER FEASIBLE.
4. CONSTRUCTION PROJECT SHOULD BE PHASED TO MINIMIZE THE DURATION OF EXPOSED SOILS.
5. MINIMIZE COMPACTION OF SOILS AND PRESERVE TOPSOIL IN AREAS WHERE VEGETATION WILL BE ESTABLISHED.
6. DIRECT DISCHARGES FROM BMPS TO VEGETATED AREAS WHENEVER FEASIBLE. PROVIDE VELOCITY DISSIPATION DEVICES AS NEEDED TO PREVENT EROSION.
7. FLOATING SILT CURTAIN IS ALLOWED AS PERIMETER CONTROL FOR IN WATER WORK ONLY. PLACE THE FLOATING SILT CURTAIN AS CLOSE TO SHORE AS POSSIBLE. PLACE PERIMETER CONTROL BMP ON LAND IMMEDIATELY AFTER THE IN WATER WORK IS COMPLETED.
8. SILT FENCE OR FABRIC PLACED UNDER THE GRATE IS NOT AN APPROVED FORM OF INLET PROTECTION.
9. DISCHARGE TURBID OR SEDIMENT LADEN WATER TO TEMPORARY SEDIMENT BASINS WHENEVER FEASIBLE.
10. PROVIDE STABILIZATION IN ANY TRENCHES CUT FOR DEWATERING OR SITE DRAINING PURPOSES.
11. REMOVE SEDIMENT FROM STORMWATER SYSTEM AND BMPS AT THE END OF PROJECT.
12. PRESERVE A 50 FOOT NATURAL BUFFER OR (IF BUFFER IS INFEASIBLE) PROVIDE A DOUBLE ROW OF SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF LAND DISTURBANCE AND STORMWATER FLOWS TO THE SURFACE WATER.
13. SUBSOIL ALL DISTURBED GREEN SPACES EXCEPT AS LISTED IN MNDOT 2574.3A.5.
14. ALL PORTABLE TOILETS MUST BE ANCHORED TO PREVENT TIPPING, EQUIPPED WITH SPILL PANS AND BE PLACE AT LEAST 25 FEET AWAY FROM STORM INLETS.
15. REMOVE ALL TEMPORARY BMPS AFTER FINAL STABILIZATION.

PIPE AND STRUCTURE NOTES

1. SIZE AND ELEVATION OF CULVERTS, STORM SEWER PIPES, CATCH BASINS, PONDS, INFILTRATION/FILTRATION BASINS, PERMEABLE DITCH BLOCKS AND OVERFLOW DEVICES HAVE BEEN SPECIFICALLY DESIGNED TO CONFORM TO CITY OF WASECA, FAA, MPCA, AND MNDOT DESIGN STANDARDS AND PERMIT REQUIREMENTS. THE DESIGN COMPUTATIONS ARE ON FILE WITH CITY OF WASECA. CHANGING THESE ITEMS OR THE DIRECTION OF FLOW FROM WHAT IS SHOWN ON THE PLANS MAY CAUSE PROBLEMS OFF THE PROJECT AND COULD MEAN THE PROJECT IS OUT OF COMPLIANCE WITH APPROVED DRAINAGE PERMITS. ANY CHANGES OF THE DRAINAGE SYSTEM MUST BE APPROVED BY THE ENGINEER.
2. SUBSURFACE DRAINAGE TILES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED, REPLACED OR REROUTED, AND CONNECTED TO THE EXISTING TILE OR DRAINAGE SYSTEM TO ENSURE THAT EXISTING UPLAND DRAINAGE IS PERPETUATED. THIS SHALL BE DONE TO THE APPROVAL AND SATISFACTION OF THE ENGINEER.

OFFSITE FLOW INFORMATION DRAWING



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AIRPORT
35493 110TH STREET
WASECA, MN 56093

WASECA
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HANGAR

1	2/17/2022	ISSUED FOR BID
NO.	DATE	ISSUE RECORD
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.		

SIGNATURE:
PRINTED NAME: TAYLOR M. LAHAISE
LICENSE NO: 57107 DATE: 2/17/22

444 Cedar Street, Suite 1500
Saint Paul, MN 55101
651.292.4400
tkda.com

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TML	TML	JNP

STORMWATER
POLLUTION
PREVENTION PLAN

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18214.000



GENERAL NOTES:

1. COMMON EXCAVATION WILL BE MEASURED FROM EXISTING GROUND OR BOTTOM OF CONCRETE PAVEMENTS TO THE BOTTOM OF THE CRUSHED AGGREGATE BASE OR TO THE BOTTOM OF THE FINISHED TOPSOIL AS SHOWN ON THE CROSS SECTIONS.
2. SUBGRADE EXCAVATION WILL BE MEASURED FROM THE BOTTOM OF THE CRUSHED AGGREGATE BASE TO THE BOTTOM OF THE SUBCUT AS SHOWN ON THE TYPICAL SECTIONS. ADDITIONAL SUBGRADE EXCAVATION TO REMOVE UNSUITABLE MATERIAL AS DIRECTED BY THE ENGINEER WILL BE MEASURED AND PAID AS SUBGRADE EXCAVATION.
3. TOPSOIL STRIPPING BENEATH EMBANKMENTS WILL BE CONSIDERED INCIDENTAL.
4. THE BOTTOM OF THE SUBGRADE EXCAVATION SHALL BE ALONG A LINE NO STEEPER THAN 20:1.

EXISTING CONDITIONS NOTES:

1. UTILITY LOCATIONS SHOWN ARE CONSIDERED APPROXIMATE. ACTUAL LOCATIONS AND DEPTH SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD PRIOR TO CONSTRUCTION.
2. LBR DESIGNATION INDICATES ITEMS LOCATED BY RECORDS. THE SIZE AND LOCATION OF THESE ITEMS MAY VARY SUBSTANTIALLY.

REMOVALS PLAN NOTES:

1. ALL REMOVAL LIMITS SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER PRIOR TO REMOVAL.
2. ITEMS THAT ARE TO BE REMOVED ARE IDENTIFIED BY DARK SHADING OR CROSSHATCHING.
3. LIMITS OF NEW CONSTRUCTION ARE SHOWN FOR REFERENCE ONLY. THEY DO NOT REPRESENT LIMITS OF REMOVAL.
4. BITUMINOUS SHALL BE SAW CUT FULL DEPTH PRIOR TO REMOVAL AND SHALL BE CONSIDERED INCIDENTAL TO REMOVAL.
5. ALL MATERIALS REMOVED UNDER THIS CONTRACT NOT REQUIRED IN THE FINAL WORK, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ARTICLE 2.35 OF THE SPECIAL CONDITIONS.
6. ALL ITEMS DESIGNATED TO BE REMOVED AND SALVAGED SHALL BE SUITABLY STORED IN A MANNER APPROVED BY THE ENGINEER.

UTILITY PLAN NOTES:

1. COORDINATE UTILITY CONSTRUCTION WITH REMOVALS TO PROVIDE CONTINUOUS SERVICE.
3. VERIFY EXISTING INVERT ELEVATIONS WHERE NEW UTILITY CONNECTS TO EXISTING UTILITY PRIOR TO CONSTRUCTION.
4. VERIFY LOCATION AND ELEVATION OF UTILITY CROSSINGS PRIOR TO CONSTRUCTION.

GRADING AND PAVING PLAN NOTES:

1. SPOT ELEVATIONS SHOWN ON PLAN ARE FINISHED GRADE.
2. VERIFY EXISTING ELEVATIONS ALONG EDGES WHERE NEW PAVEMENT MATCHES EXISTING.
3. ALL AREAS DISTURBED WITHIN THE GRADING LIMITS SHALL BE RESTORED WITH 6" OF TOPSOIL AND SEED, OR 5" OF TOPSOIL AND SOD.

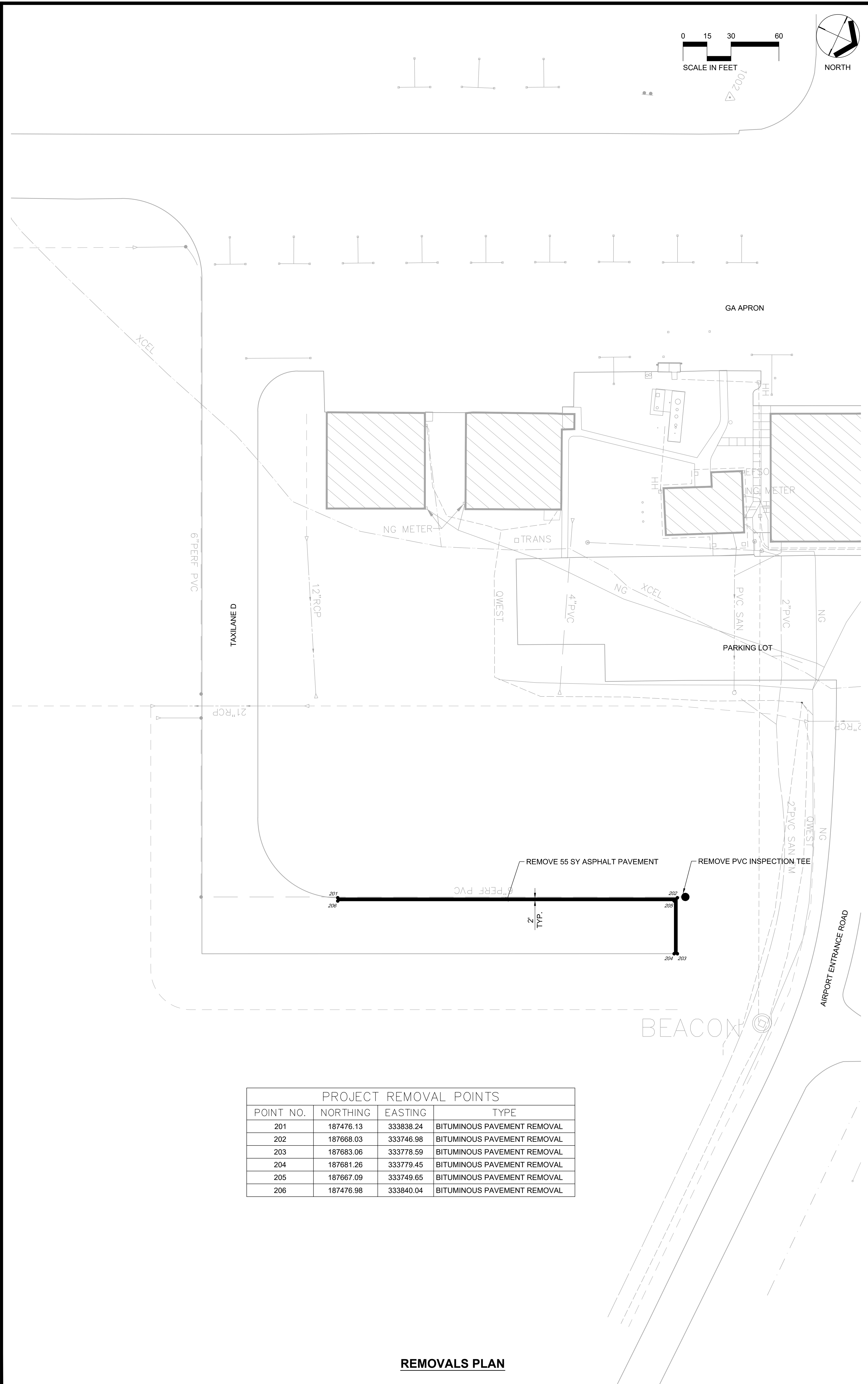
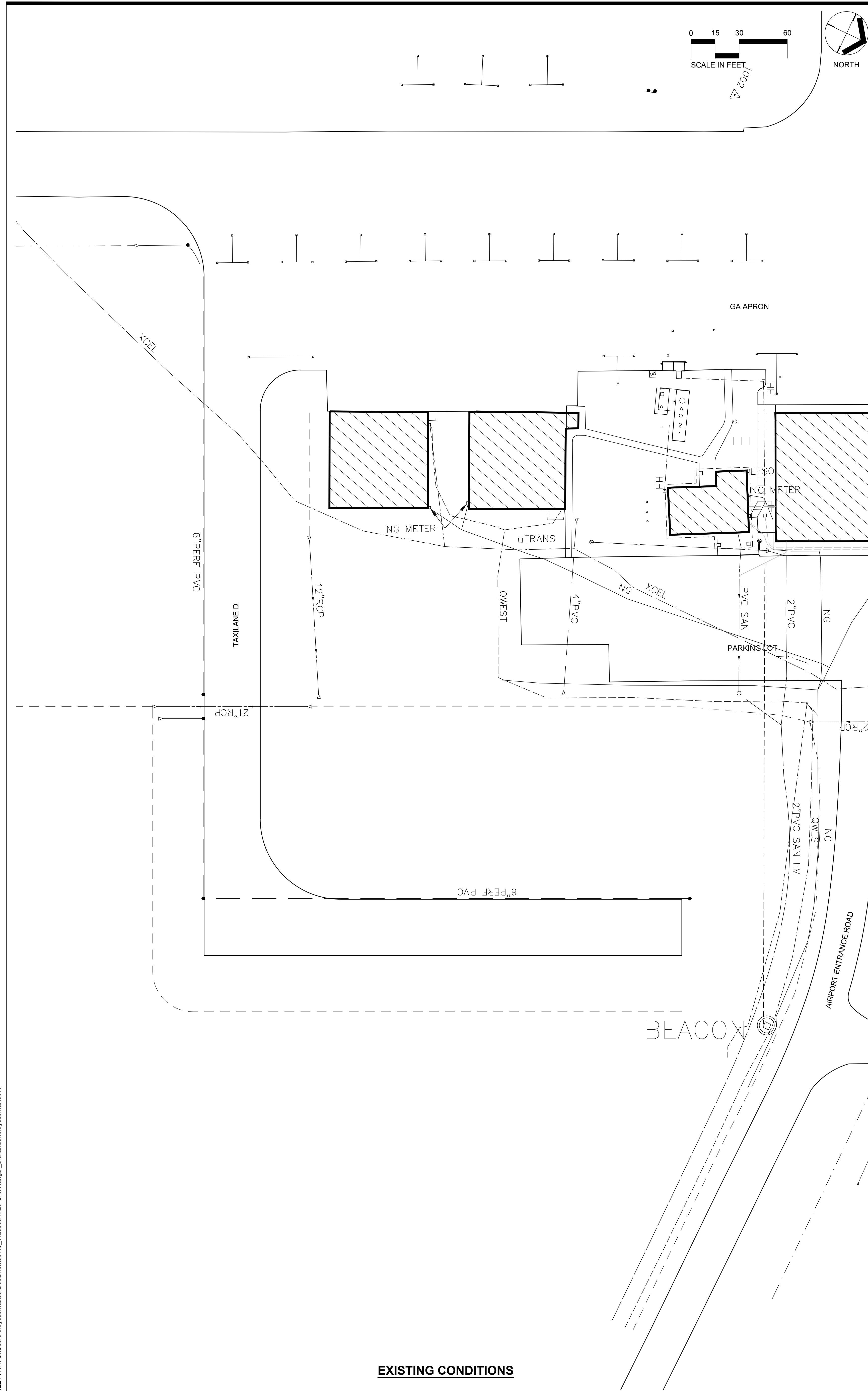


1. VERIFY EXISTING INVERT ELEVATIONS WHERE NEW UTILITY CONNECTS TO EXISTING UTILITY PRIOR TO CONSTRUCTION.
2. VERIFY LOCATION AND ELEVATION OF UTILITY CROSSINGS PRIOR TO CONSTRUCTION.
3. ALL CULVERTS SHALL BE IN PLACE PRIOR TO SUBDRAIN CONSTRUCTION. ALL ELECTRICAL DUCTS SHALL BE INSTALLED AFTER SUBDRAINS AND FABRIC HAVE BEEN INSTALLED.
4. SUBDRAINS SHALL BE 6" PERFORATED PVC.
5. PRECAST CONCRETE HEADWALL SHALL BE INSTALLED ON ALL OUTLET ENDS. REFER TO MVDOT STANDARD PLATE 3131C.
6. GRADES ON SUBDRAINS SHALL PARALLEL FINISHED GRADE, EXCEPT AT VERTICAL CURVES AND CROSSEVER TAXIWAYS.
7. INSPECTION TEES SHALL BE LOCATED IMMEDIATELY UPSTREAM OF CONNECTIONS.
8. CONNECTIONS SHALL BE PVC CROSSES OR WYES. PLUG ALL UPSTREAM ENDS OF SUBDRAINS.

SUBDRAIN EDGE DETAIL
NOT TO SCALE



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[illegible]

SIGNATURE:
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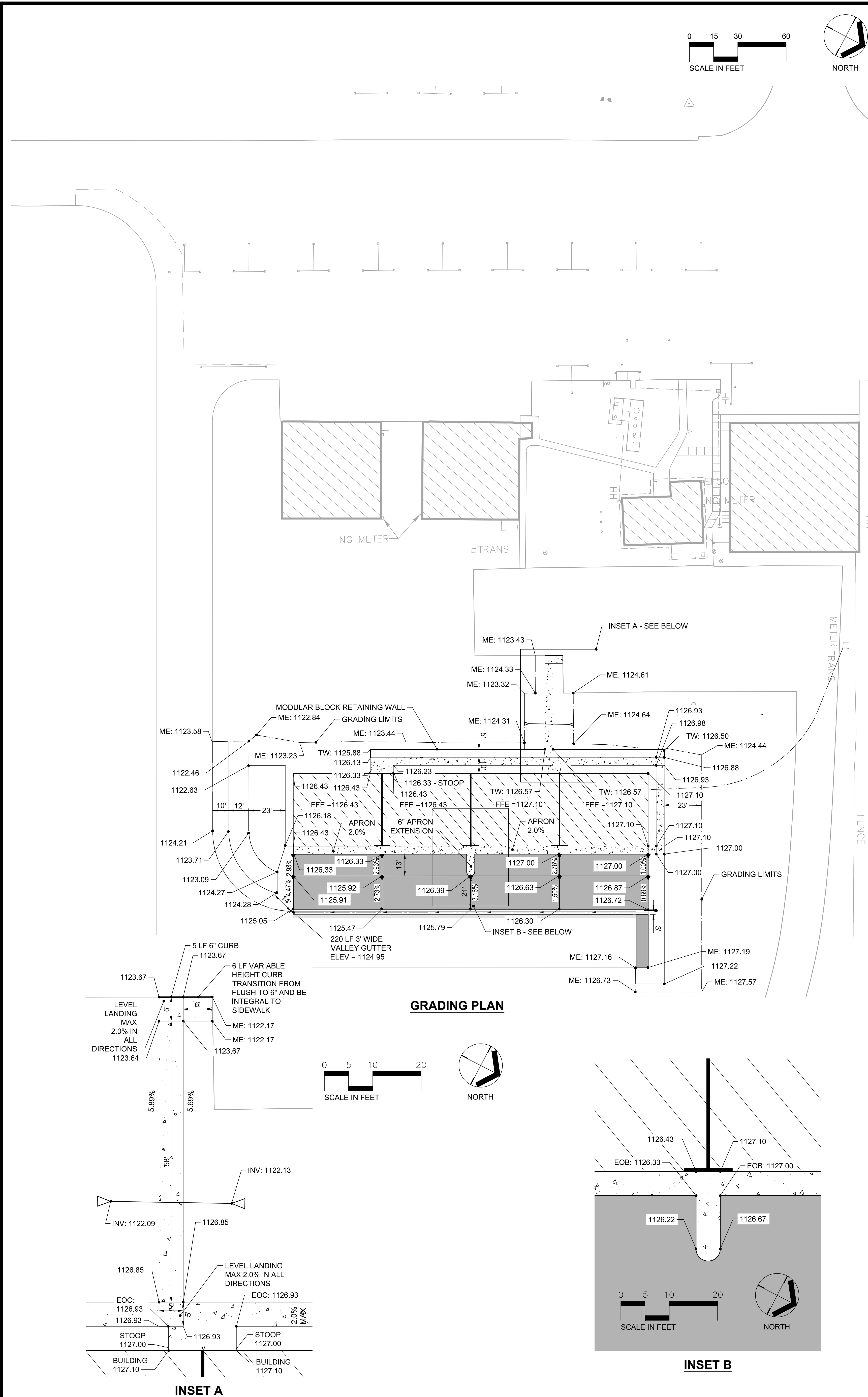
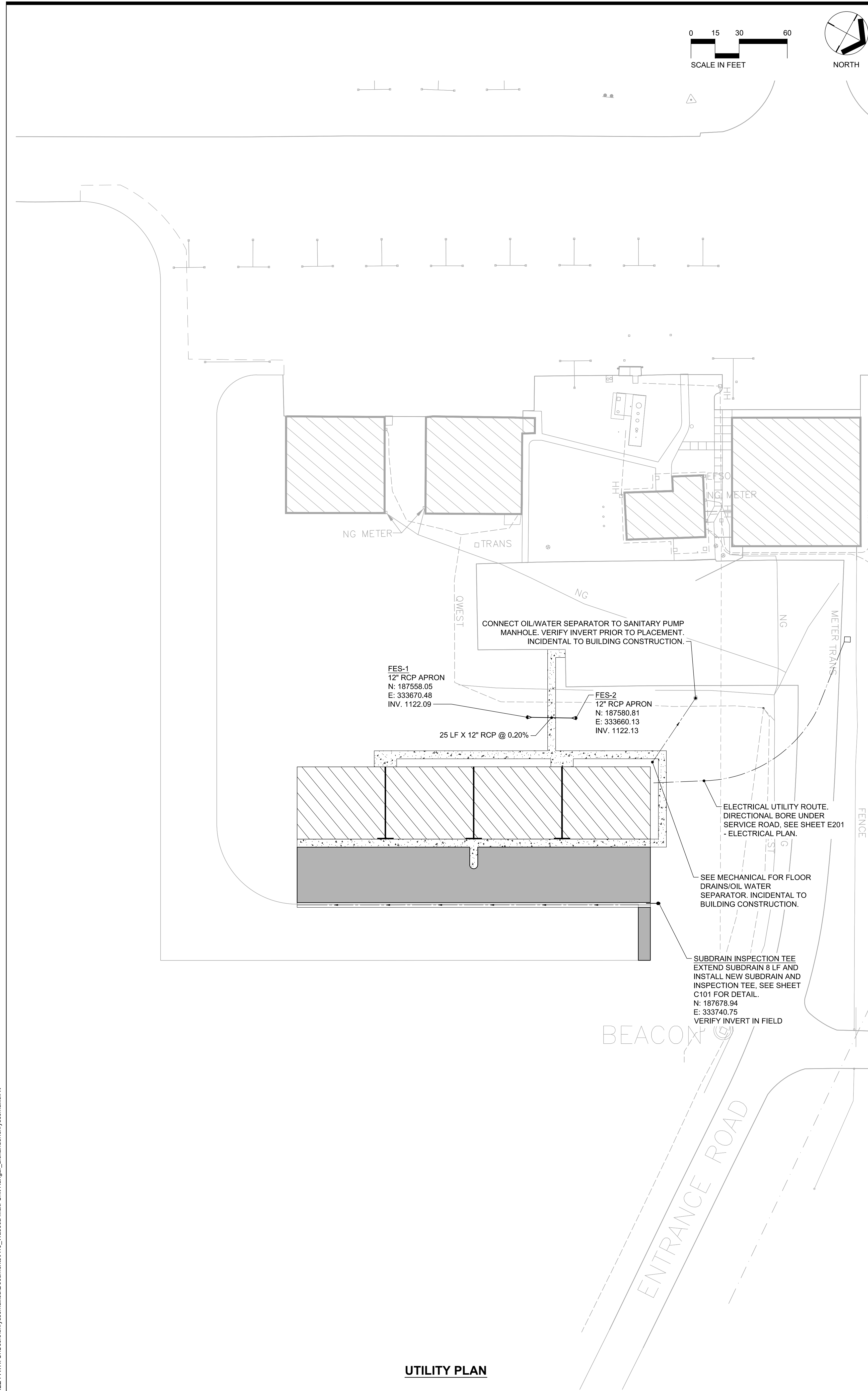


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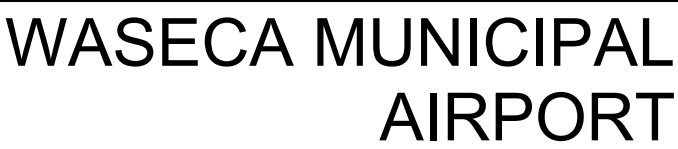
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EXISTING		
CONDITIONS AND		
REMOVALS PLAN		

C201



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1. DRAWINGS ARE DIAGRAMMATIC IN NATURE, FIELD VERIFY EXISTING CONDITIONS AND CONNECTION POINTS PRIOR TO STARTING WORK. FULLY COORDINATE WORK WITH OTHER TRADES.
2. DRAWINGS ARE FOR GENERAL INFORMATION ONLY, AND DO NOT INDICATE ALL REQUIREMENTS. REFER TO THE RELEVANT DESIGN SPECIFICATIONS AND ACTUAL FIELD CONDITIONS TO DETERMINE THE FULL SCOPE OF CONSTRUCTION ACTIVITIES.
3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND BE FAMILIAR WITH THE RULES AND REGULATIONS OF THE FEDERAL, STATE, COUNTY AND CITY. REPORT ALL DISCREPANCIES TO THE OWNER.
4. TEMPORARY SHUTDOWNS OF BUILDING SYSTEMS MUST BE COORDINATED AND APPROVED BY OWNER.
5. PROTECT ALL WORK WHICH IS TO REMAIN, INCLUDING ANY EXISTING STRUCTURAL MEMBERS, MECHANICAL PIPES, DISCONNECTS, LIGHTS, CONVENIENCE OUTLETS, COLUMNS, PIPING, ETC.
6. REMOVE FROM THE SITE AND DISPOSE OF IN A LAWFUL MANNER ALL DEBRIS AND MATERIALS GENERATED ANY DEMOLITION AND CONSTRUCTION.
7. THE CONTRACTOR IS TO PROMPTLY REPAIR ALL DAMAGE CAUSED TO ADJACENT AREAS BY CONSTRUCTION AT NO ADDITIONAL EXPENSE TO THE OWNER. CONTRACTOR IS TO PATCH AS REQUIRED TO MATCH EXISTING ADJACENT AREA IN COLOR, FINISH AND COLOR TO THE SATISFACTION OF THE ARCHITECT/ENGINEER AND OWNER.
8. ANY DOWATERING OR REMOVING OF SURFACE WATER FOR ANY PORTION OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.



WASECA, MN 56093

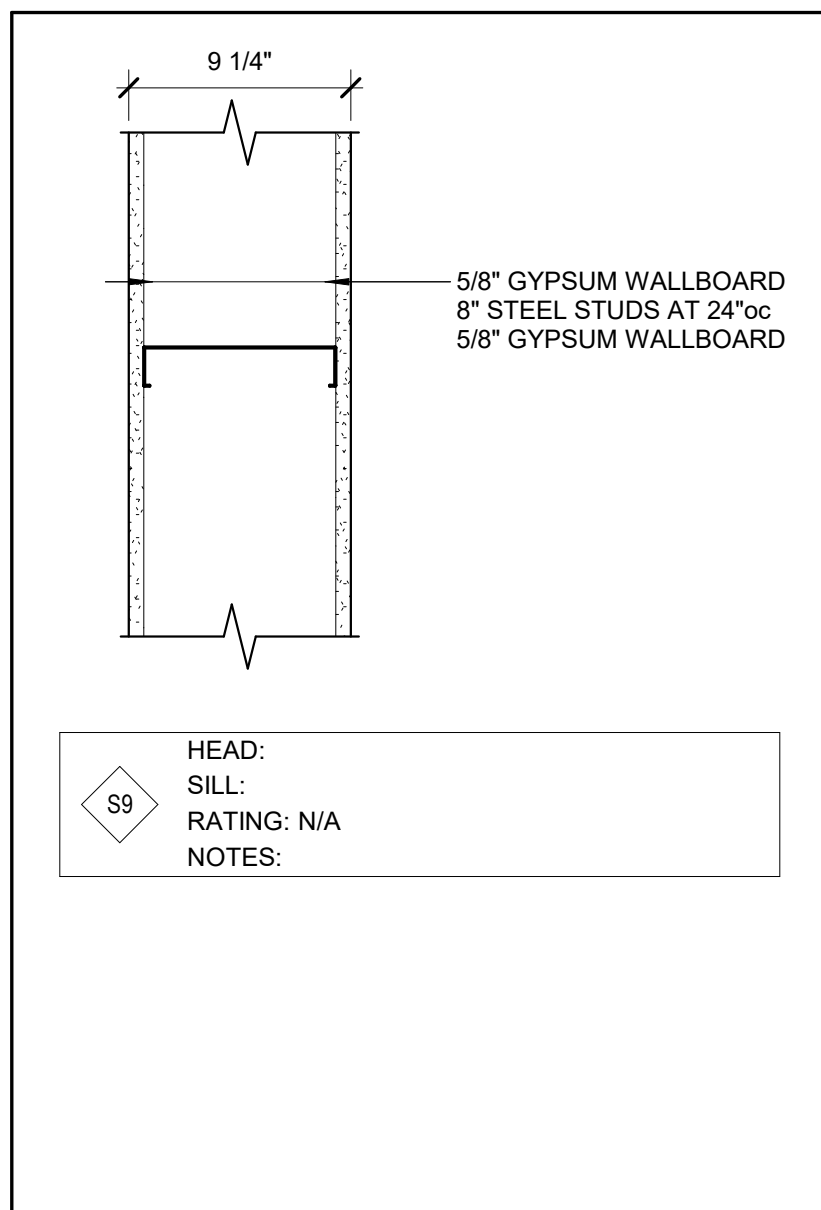
BUILDING SECTION	REVISION CLOUD NUMBER = REVISION ON THIS SHEET	DETAIL TITLE BUBBLE
WALL SECTION	MATCH LINE INDICATES PLAN BREAK LOCATIONS	NORTH ARROW INDICATES PROJECT NORTH UNLESS OTHERWISE NOTED
EXTERIOR OR BUILDING ELEVATION	DETAIL SECTION TOP LINE = DRAWING NUMBER BOTTOM LINE = SHEET NUMBER	ELEVATION INDICATOR LEVEL NAME XXXX - X" TOP LINE = LEVEL IDENTIFICATION BOTTOM LINE = ELEVATION HEIGHT
INTERIOR ELEVATION 1. SIM. 4. A800 3.	DETAIL CLOUD TOP LINE = DRAWING NUMBER BOTTOM LINE = SHEET NUMBER	COLUMN GRID CALL OUT HORIZONTAL LINES = LETTERS VERTICAL LINES = NUMBERS
ROOM IDENTIFICATION Room Name 101 150 SF TOP LINE = ROOM NAME INSIDE BOX = ROOM NUMBER BOTTOM LINE = ROOM AREA	WINDOW OR GLAZING TAG THE NUMBER IDENTIFIES THE WINDOW OR GLASS TYPE	DOOR TAG THE NUMBER IS RELATIVE TO THE ROOM THAT THE DOOR PROVIDES ACCESS TO
WALL OR PARTITION TAG NUMBER = PARTITION TYPE	OCCUPANCY LOAD XXX OCC THE NUMBER DETERMINES THE SPECIFIC ITEM	SPOT ELEVATION INDICATES KEYNOTE PER SHEET

NOTE: ALL SYMBOLS MAY NOT BE USED IN A DRAWING SET

	EARTH		WOOD BLOCKING
	SAND		FINISHED WOOD
	GRANULAR FILL		PLYWOOD
	BITUMINOUS		STEEL STUD (PLAN)
	CAST-IN-PLACE CONCRETE		MISC. METAL (LARGE SCALE)
	PRECAST CONCRETE		BATT INSULATION
	CMU (PLAN)		BOARD INSULATION
	CMU (DETAIL)		TAPERED INSULATION
	BRICK		FIBER OR CELLULOSE
	GYPSUM BOARD		EXISTING CONDITION (PLAN)
	FIBER REINFORCED CONCRETE BOARD		EXISTING CONDITION (DETAIL)

FLOOR PLAN SYMBOLS			
	EXISTING DOOR TO REMAIN		EXIST WALL TO REMAIN
	DEMO EXISTING DOOR		DEMO WALL
	DOOR *REFER TO DOOR SCHED.		METAL STUD WALL *REF WALL TYPES
	INTERIOR OR EXTERIOR WINDOW *REF WINDOW TYPES		C.M.U. WALL *REF WALL TYPES
	LOUVER *REF TO MECHANICAL		P/C WALL (INSULATED) *REF WALL TYPES
	RECESSED CABINET FE (FEC) BROCKET MTD. FE (FE)		CONG. WALL *REF WALL TYPES
			CHAINLINK FENCE *REF WALL TYPES
			ACCORDION PARTITION
REFLECTED CEILING PLAN SYMBOLS			
	EXISTING 2 X 4 LIGHT *REF ELEC		MECH SUPPLY AIR DIFFUSER *REF MECH
	DEMO LIGHT *REF ELEC		RETURN AIR REGISTER *REF MECH
	FLUORESCENT LIGHT FIXTURE *REF ELEC		EXHAUST AIR REGISTER *REF MECH
	SUSPENDED FLUORESCENT LIGHT FIXTURE *REF ELEC		SPRINKLER HEAD
	RECESSED LIGHT *REF ELEC		ELEC POWER POLE

NOTE: MECH & ELEC FIXTURES FOR REFERENCE ONLY, SEE MECH & ELEC SERIES SHEETS



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ON ORIGINAL DRAWING. IF NOT ONE
GIVING ADJUST SCALES ACCORDINGLY

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SIGNATURE: 
 PRINTED NAME: ANDREW GARDNER
 LICENSE NO: 57976 DATE: 02/17/2022



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Saint Paul, MN 55101
651.292.4400
tkda.com

DESIGNED	DRAWN	CHECKED
ADG	ASC	ADG

SYMBOLS & ABBREVIATIONS

A001

18214.000



5493 110TH STREET

WASECA, MN 56093
CITY OF WASECA PROJECT NO. 2021-19

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BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS DRAWING ADJUST SCALES ACCORDINGLY.

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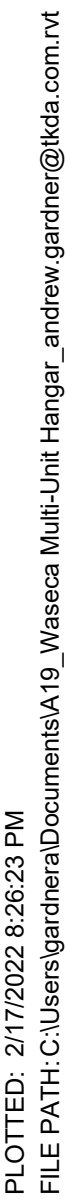
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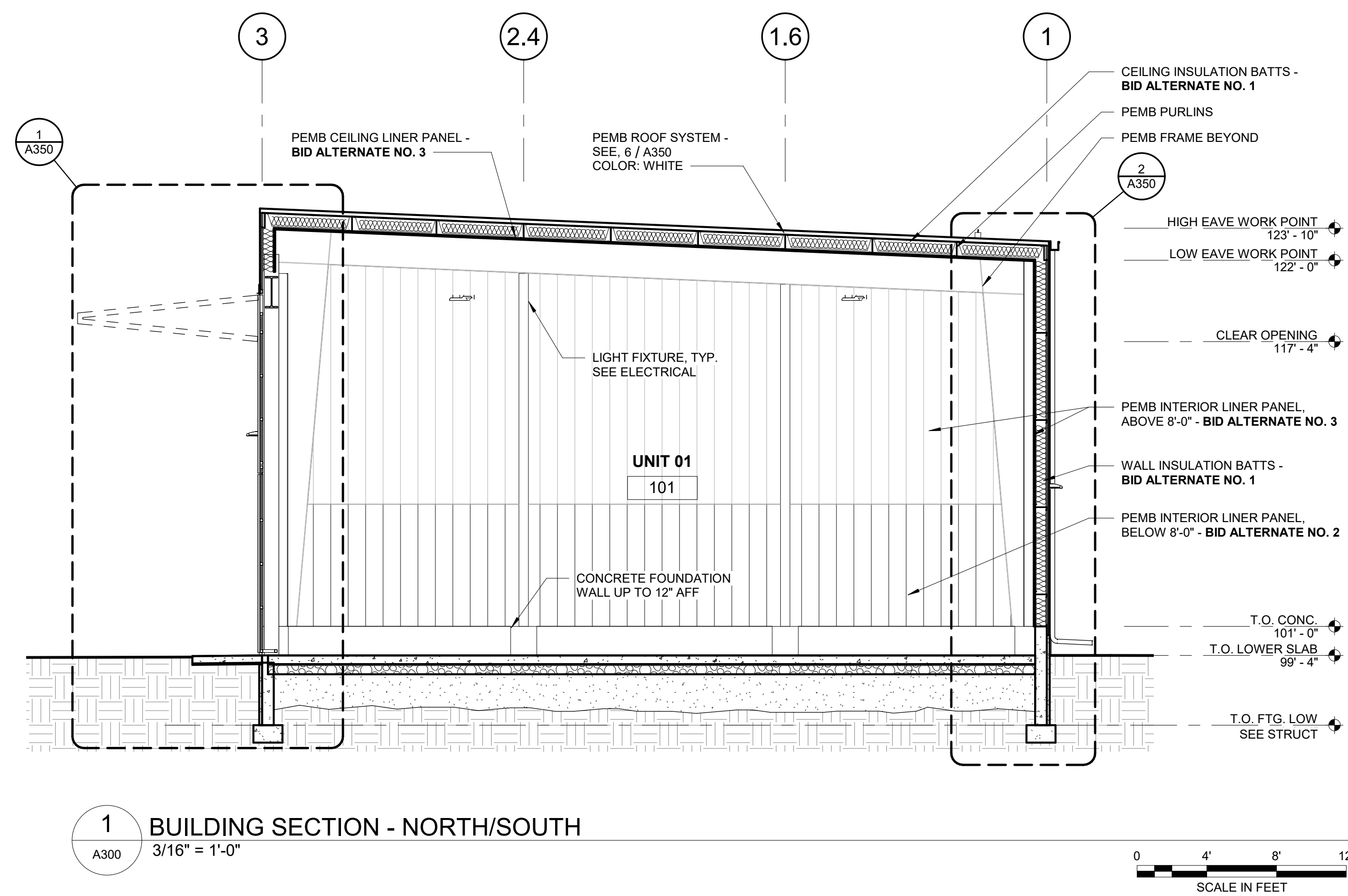




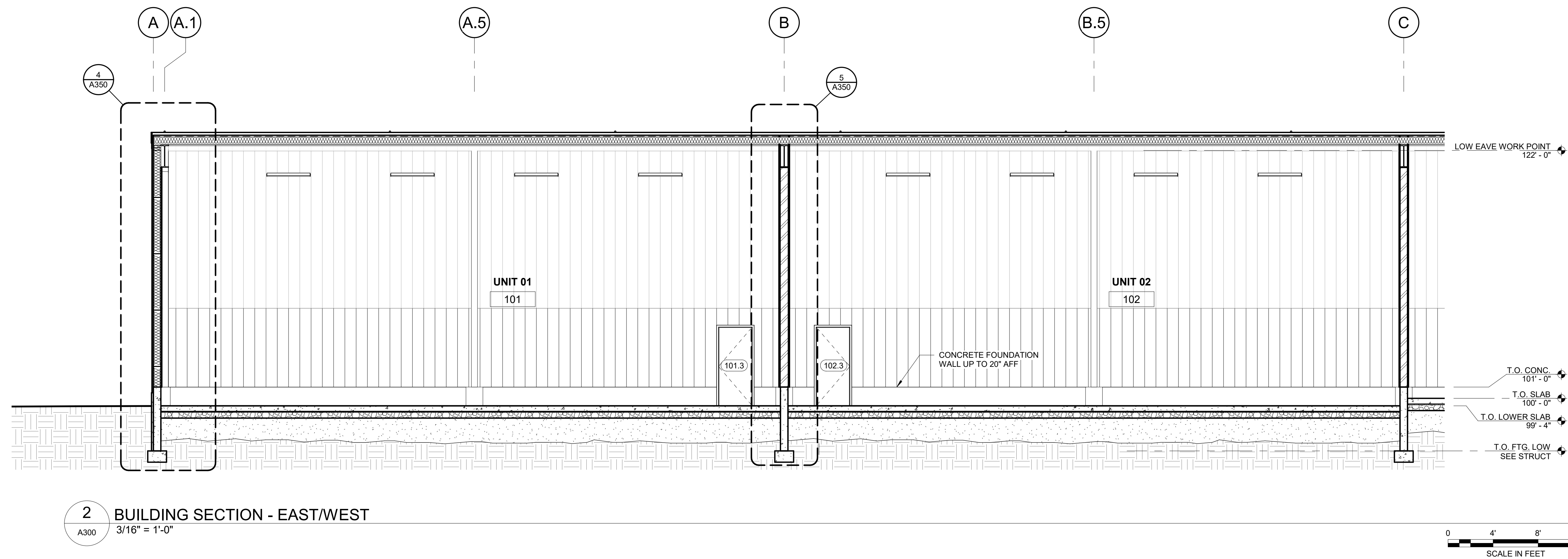
NOTE: PROVIDE ALL TRIM, FLASHING AND FASTENERS PER PRE-ENGINEERED METAL BUILDING SUPPLIER



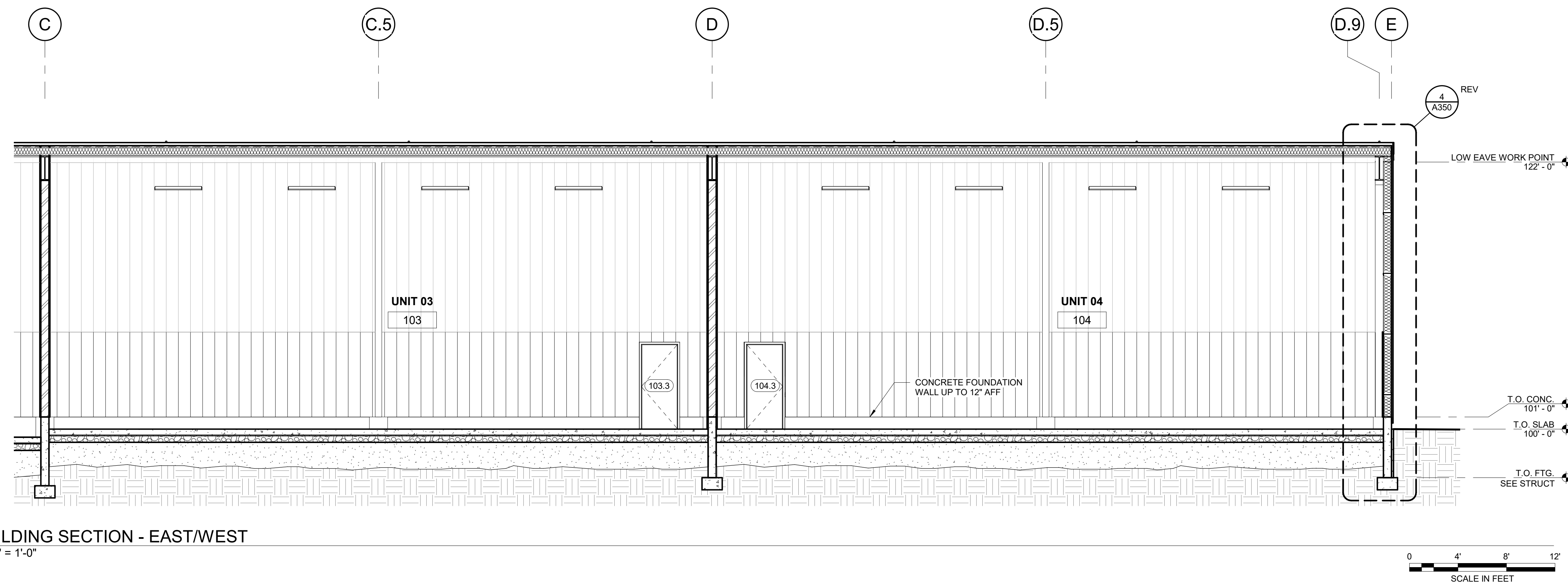
WASECA
MULTI-UNIT
HANGAR



1 BUILDING SECTION - NORTH/SOUTH
A300 $3/16" = 1'-0"$



2 BUILDING SECTION - EAST/WEST
A300 3/16" = 1'-0"



3 BUILDING SECTION - EAST/WEST
A300 3/16" = 1'-0"

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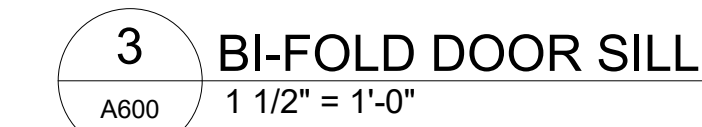
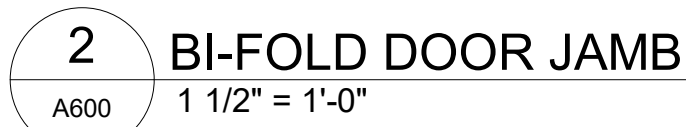
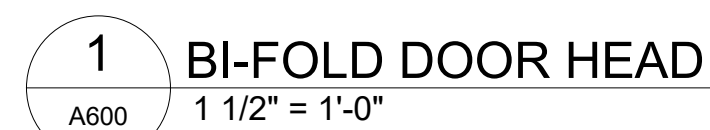
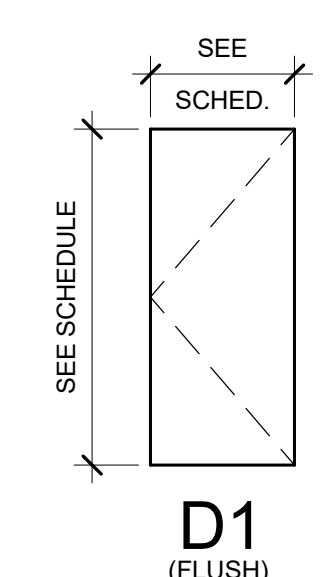
44 Cedar Street, Suite 1500
Saint Paul, MN 55101
651.292.4400
kda.com

DESIGNED	DRAWN	CHECKED
ADG	ASC	ADG

BUILDING SECTIONS

A300

8214.000

18214.000

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STRUCTURAL NOTES

A. DESIGN AND CONSTRUCTION:

- DESIGN IN ACCORDANCE WITH THE FOLLOWING CODES:
 - MINNESOTA BUILDING CODE 2020 (INCORPORATING 2018 IBC)
 - A.C.I. 318-14
 - TMS 402/602-16
 - A.I.S.C. 360-16
 - M.B.M.A.

2. DESIGN LOADS:

RISK CATEGORY II

FLOOR:

LIVE LOAD = 125 PSF (LIGHT STORAGE)

EQUIPMENT LOAD:

CESSNA 425 CORSAIR AIRCRAFT = 5,000 POUNDS (EMPTY)

ROOF:

ROOFING AND SUPERIMPOSED DEAD LOAD = 10 PSF
 MISC. MECH. ROOF LOAD = 5 PSF
 ROOF LIVE LOAD = 20 PSF
 GROUND SNOW LOAD, PG = 50 PSF
 FLAT ROOF SNOW LOAD, PF = 42 PSF (+ DRIFT PER CODE AS APPLICABLE)
 SNOW EXPOSURE FACTOR, CE = 1.0
 SNOW LOAD IMPORTANCE FACTOR = 1.0
 THERMAL FACTOR = 1.2

WIND LOADS:

BASIC WIND SPEED = 109 MPH (ULTIMATE)

EXPOSURE = C

INTERNAL PRESSURE COEFFICIENT = 0.18+/-

WIND LOAD ON COMPONENTS AND CLADDING SHALL BE AS PER 2018 IBC.

SEISMIC LOADS:

DELETED FROM MINNESOTA BUILDING CODE

LATERAL SOIL LOAD = 40 PCF EQUIV. FLUID PRESSURE

3. SPECIAL INSPECTION:

THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION (PER SECTION 1704 OF THE MN BUILDING CODE):

- FOUNDATION CAPACITY
- CONCRETE CYLINDER (7 DAY, TWO AT 28 DAYS, AND SPARE) AND SLUMP
- CONCRETE REINFORCING
- EXPANSION AND ADHESIVE ANCHORS

PROVIDE MINIMUM 24-HOUR NOTICE TO INSPECTOR.

B. FOUNDATION

- FOUNDATIONS SHALL BEAR ON UNDISTURBED, UNFROZEN SUBGRADE, EXCEPT WHERE COMPACTED ENGINEERED-FILL IS SPECIFIED ON PLANS AND IN SPECIFICATION.

- ALLOWABLE SOIL BEARING PRESSURE = 3000 PSF PER REPORT #B2110818 PREPARED BY BRAUN INTERTEC AND DATED 12/16/2021.

C. DEMOLITION

- CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS (INCLUDING UTILITIES AND POSSIBLE PRESENCE OF HAZARDOUS MATERIALS) PRIOR TO STARTING WORK, AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR ADDITIONAL WORK THAT MAY BE REQUIRED.

- CONTRACTOR IS RESPONSIBLE FOR ALL SHORING, SHIELDING, TEMPORARY WALLS, WATER SPRAY, ETC. AS REQUIRED TO PROTECT EXISTING WORK TO REMAIN, AND TO PREVENT THE SPREAD OF DUST AND DEBRIS.

- CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO SURROUNDING STRUCTURES AND EQUIPMENT DUE TO DEMOLITION WORK. THIS INCLUDES REQUIRED CLEANUP DUE TO SPREAD OF DUST AND DEBRIS. CONTRACTOR MAY WISH TO DOCUMENT CONDITION OF NEARBY STRUCTURES PRIOR TO BEGINNING DEMOLITION AS A DEFENSE AGAINST DAMAGE CLAIMS.

- MATERIAL NOTED TO BE SALVAGED SHALL BE REMOVED AND HANDLED SO AS TO PREVENT DAMAGE. ALL MATERIALS FROM DEMOLITION NOT NOTED TO BE SALVAGED SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER BY THE CONTRACTOR.

- CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF ALL WORKERS, TENANTS, AND THE PUBLIC DURING HIS WORK. BARRICADES, WARNING SIGNS, TRAFFIC CONTROL, ETC. SHALL BE PROVIDED AND MAINTAINED AS REQUIRED.

D. CONCRETE AND GROUT (CAST-IN-PLACE):

CONCRETE MIX DESIGN TABLE					
LOCATION	f _c (PSI)	TEST AGE (DAYS)	MAX W/C RATIO	AIR CONTENT (%)	MAX. AGGREGATE SIZE
INTERIOR SLAB ON GRADE	4000	28	0.5	--	3/4"
SIDEWALKS, STOODPS, EXTERIOR SLABS ON GRADE	4000	28	0.45	6.0	3/4"
FOUNDATION WALLS	4000	28	0.5	6.0	3/4"
FOOTINGS	4000	28	0.5	--	3/4"

- CONCRETE MIX DESIGNS SHALL MEET THE REQUIREMENTS OF THE SPECIFICATIONS.

- CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. CONTRACTOR SHALL NOT BEGIN CONCRETE INSTALLATION UNTIL CONCRETE MIX DESIGNS HAVE BEEN APPROVED BY ENGINEER.

- CONCRETE REINFORCEMENT SHALL BE ASTM A615, GRADE 60 Fy = 60,000 PSI (EXCEPT REINFORCEMENT TO BE WELDED SHALL BE ASTM A706). EPOXY COATED REINFORCEMENT SHALL BE ASTM A775, GRADE 60. HANDLE EPOXY COATED REINFORCEMENT WITH WEB SLINGS; REPAIR DAMAGE TO COATING.

- ALL CONCRETE SHOWN ON "S" SERIES DRAWINGS SHALL BE REINFORCED U.N.O. (EXCEPT GROUT AND LEAN CONCRETE, WHICH SHALL HAVE DOWELS AS NOTED). SECTIONS AND PLANS SHOWN WITHOUT REINFORCEMENT ARE INTENDED TO SHOW DIMENSIONS AND DETAILS OF CONSTRUCTION ONLY. REINFORCEMENT OF THESE SECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH DETAILS SHOWING REINFORCEMENT.

4. REINFORCEMENT DETAILING REQUIREMENTS:

- COVER IS DEFINED AS CLEAR COVER MEASURED TO THE EDGE OF THE BAR. MINIMUM CONCRETE COVER SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE ON PLANS OR DETAILS.
- ALL CONCRETE PLACED AGAINST EARTH = 3 INCHES
- ALL CONCRETE EXPOSED TO WEATHER OR EARTH = 2 INCHES
- ALL REINFORCING STEEL IN CONCRETE SHALL BE LAPPED IN ACCORDANCE WITH ACI STANDARD 318-14 PER TABLE. WHERE BARS OF DIFFERENT SIZES ARE LAPPED, THE LAP LENGTH SHALL BE BASED ON THE SMALLER BAR. WHERE BARS ARE SHOWN SPLICED THEY MAY RUN CONTINUOUS AT CONTRACTOR'S OPTION.
- REINFORCING STEEL SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.
- PROVIDE BENT CORNER REBAR TO MATCH AND LAP WITH HORIZONTAL REBAR AT CORNERS AND INTERSECTIONS OF WALLS AND GRADE BEAMS. DOWEL ALL VERTICAL WALL AND COLUMN REBAR TO FOUNDATIONS.
- PROVIDE 1-#5 REINFORCING BAR PER MAT AT EACH SIDE AROUND OPENINGS AND AT ALL RE-ENTRANT CORNERS IN CONCRETE WALLS AND SLABS. BARS SHALL EXTEND 24 INCHES BEYOND THE CORNERS OF THE OPENINGS. ALSO PROVIDE #5 DIAGONAL BARS AT EACH CORNER OF OPENING.
- SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. REBAR FABRICATION SHALL NOT BEGIN UNTIL SHOP DRAWINGS HAVE BEEN APPROVED BY THE ENGINEER. ALL SPLICE LOCATIONS ARE SUBJECT TO ENGINEER'S APPROVAL. PLACE REBAR PER CRSI STANDARDS.

- ALL BARS AND DOWELS SHALL BE SUPPORTED AND WIRED IN PLACE. DOWELS SHALL BE WIRED IN PLACE, NOT PUSHED INTO FRESH CONCRETE. BAR SUPPORTS IN CONTACT WITH EXPOSED SURFACES SHALL HAVE PLASTIC TIPS.

- REBAR NOTED TO BE DRILLED INTO CONCRETE AND SET WITH ADHESIVE TO USE HILTI ADHESIVE HIT HY 200 ADHESIVE "SAFE SET SYSTEM" AS DOCUMENTED BY ICC-ES REPORT ESR-3187 AS REVISED APRIL 2020. CONTRACTOR MAY SUBMIT ALTERNATE FOR APPROVAL WITH ALLOWABLE LOAD VALUES EQUAL TO OR EXCEEDING THOSE FOR HILTI.

7. CONCRETE PLACEMENT REQUIREMENTS:

- CONCRETE SHALL NOT BE PLACED ON FROZEN GROUND.
- MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED.
- ALL EXPOSED EDGES SHALL BE FINISHED WITH A STANDARD EDGER
- SEE SPECIFICATIONS FOR CURING.

- FOR DETAILS AND LOCATION OF MECHANICAL AND ELECTRICAL WORK, SEE M-SERIES AND E-SERIES DRAWINGS.

- SIZES AND LOCATIONS OF EQUIPMENT BASES, SUMPS, AND EQUIPMENT ANCHOR BOLTS SHOWN ON DRAWINGS ARE APPROXIMATE. THE GENERAL CONTRACTOR SHALL VERIFY ALL SIZES AND LOCATIONS WITH MECHANICAL AND ELECTRICAL DIVISIONS.

- GROUT SHALL BE NON-SHRINK, NON-METALLIC, FIVE STAR PRODUCTS, INC., FIVE STAR GROUT; ASTM C-827, C-191, AND C-109, OR PRIOR APPROVED EQUAL. GROUT SHALL BE MIXED AND INSTALLED PER MANUFACTURER'S RECOMMENDATION; MINIMUM COMPRESSIVE STRENGTH SHALL BE 5000 PSI IN 7 DAYS.

E. CONCRETE SLABS ON GRADE

- THE CONTROL OR CONSTRUCTION JOINTS SHALL BE PLACED AS SHOWN ON DRAWINGS. THE JOINTS SHALL ALIGN WITH THE COLUMNS WHERE FEASIBLE AND SHALL BE SPACED AS NOTED BELOW:

EXTERIOR SLABS = 24 TIMES SLAB THICKNESS, MINIMUM
 INTERIOR SLABS = 36 TIMES SLAB THICKNESS, MINIMUM

- THE PANELS FORMED BY CONTROL OR CONSTRUCTION JOINTS SHALL NOT BE "L" SHAPED AND A RECTANGULAR PANEL'S ASPECT RATIO SHALL NOT EXCEED 1.5.

F. METAL FABRICATIONS:

- MATERIAL SPECIFICATIONS, UNLESS NOTED OTHERWISE ON PLAN:

- CHANNELS, ANGLES, PLATES, AND BARS ASTM A36 (Fy = 36 KSI)
- PIPPS ASTM A53 (Fy = 35 KSI)

2. CONNECTIONS:

- WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY CODE, 24TH EDITION (2020). WELDING ELECTRODES SHALL BE E70XX, UNLESS NOTED OTHERWISE. ALL WELDING SHALL BE BY AWS CERTIFIED WELDERS. WELDS WHICH ARE FOUND TO BE FAULTY SHALL BE REWORKED BY THE CONTRACTOR AT NO COST.

3. FABRICATION:

- SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. STEEL FABRICATION SHALL NOT BEGIN UNTIL SHOP DRAWINGS HAVE BEEN APPROVED BY THE ENGINEER.
- STEEL SHALL BE FABRICATED IN A LICENSED STEEL FABRICATION SHOP.
- ALL WELDS ON HANDRAIL AND GUARDRAIL SHALL BE GROUND SMOOTH.
- STEEL SHALL BE SHOP PRIMED AND PAINTED WITH FABRICATOR'S STANDARD.

4. ERECTION:

- FIELD CUTTING OF STEEL OR OTHER FIELD MODIFICATIONS ARE PROHIBITED WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.
- PAINT SYSTEM SHALL BE REPAIRED IN THE FIELD AT THE LOCATION OF ANY FIELD WELDS OR DAMAGED AREAS WITH A SYSTEM AND COLOR CONSISTENT WITH THE SPECIFIED PAINT SYSTEM.

G. PRE-ENGINEERED METAL BUILDING:

- PRE-ENGINEERED METAL BUILDINGS SHALL BE DESIGNED AND CONSTRUCTED PER THE MINNESOTA STATE BUILDING CODE TO SAFELY SUSTAIN THE LOADS LISTED IN "A" ABOVE. ALL POINT LOADS SHOWN ON THE DRAWINGS, AND ALL DEAD LOADS, PORTIONS OF BUILDINGS SUBJECT TO SNOWDRIFTING SHALL BE DESIGNED TO SAFELY SUSTAIN SNOWDRIFT LOADINGS AS DEFINED BY THE BUILDING CODE REFERENCED ABOVE.

- SUBMIT STRUCTURAL CALCULATIONS PREPARED AND SIGNED BY A PROFESSIONAL ENGINEER DULY LICENSED IN THE STATE OF MINNESOTA. ALSO SUBMIT SHOP DRAWINGS FOR APPROVAL. INCLUDE ANCHOR BOLT PLACEMENT PLAN AND COLUMN REACTIONS WITH SUBMITTAL. FABRICATION SHALL NOT BEGIN UNTIL SHOP DRAWINGS HAVE BEEN APPROVED BY THE ENGINEER.

- LATERAL DRIFT OF BUILDING UNDER FULL DESIGN WIND LOAD SHALL BE LESS THAN THE BUILDING HEIGHT/180.

- METAL BUILDING MANUFACTURER SHALL BE RESPONSIBLE FOR SIZING AND PLACING LATERAL BRACING AND OTHER STRUCTURAL MEMBERS SUCH THAT THEY DO NOT INTERFERE WITH ANY WALL OPENINGS.

- ANCHOR RODS SHALL BE DESIGNED BY THE METAL BUILDING MANUFACTURER AND SHALL BE FURNISHED AND INSTALLED BY THE GENERAL CONTRACTOR. THE CONTRACTOR AND THE METAL BUILDING MANUFACTURER SHALL COORDINATE THE LOCATION, SIZE, AND NUMBER OF ANCHOR RODS TO BE EMBEDDED IN THE FOUNDATION.

H. GENERAL CONSTRUCTION:

- THE STRUCTURAL ENGINEER SHALL NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

- ANY TEMPORARY FACILITIES PLACED BY THE CONTRACTOR FOR CONSTRUCTION OPERATIONS, SUCH AS CRANE BASES, TRAILERS, SHEET PILING, ETC., SHALL BE LOCATED SO AS NOT TO INTERFERE WITH PERMANENT BUILDING CONSTRUCTION, IF INTERFERENCE OCCURS, CONTRACTOR SHALL REMOVE OR RELOCATE HIS TEMPORARY FACILITIES AT HIS OWN EXPENSE.

- PLACE BACKFILL EVENLY ON EACH SIDE OF WALLS TO PREVENT ECCENTRIC LOADING ON WALLS. DO NOT OPERATE HEAVY EQUIPMENT OR SELF-PROPELLED COMPACTORS WITHIN 5 FEET OF NEW OR EXISTING BASEMENT WALLS - USE HAND COMPACTION ONLY.

- CHECK ARCHITECTURAL, MECHANICAL AND ELECTRICAL PLANS TO VERIFY SIZE, LOCATION AND NUMBER OF OPENINGS IN THE STRUCTURE.

- THE CONTRACTOR IS RESPONSIBLE FOR STABILITY BRACING AND SHORING OF THE STRUCTURE DURING CONSTRUCTION, INCLUDING ALL CONSTRUCTION LOADS.

- THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE WORK OF ALL SUBCONTRACTORS.

- THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL FOUNDATION WORK WITH THE LOCATION OF ALL SUBGRADE MECHANICAL AND ELECTRICAL WORK. THE CONTRACTOR SHALL PROVIDE ADDITIONAL REINFORCEMENT AROUND ALL PENETRATIONS IN FOUNDATION WALLS, UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. MECHANICAL AND ELECTRICAL WORK IS NOT PERMITTED TO BE EMBEDDED IN FOUNDATIONS OR PLACED BENEATH FOUNDATION BEARINGS.

- CONTRACTOR SHALL BE AWARE OF OVERHEAD POWER LINES, SUBFLOOR ELECTRICAL CONDUIT, SUBGRADE UTILITIES OR TUNNELS AT THE SITE. VERIFY UTILITY LOCATIONS WITH GOPHER STATE ONE-CALL (651-454-0002) AND UTILITY COMPANIES.

- ANY ENGINEERING DESIGN PROVIDED BY OTHERS SHALL BE SUBMITTED FOR REVIEW AND SHALL BEAR THE SIGNATURE AND VALID REGISTRATION NUMBER OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MINNESOTA.

- UNLESS OTHERWISE NOTED, DETAILS ON STRUCTURAL DRAWINGS ARE TYPICAL AS INDICATED BY CUTS, REFERENCES OR TITLES.

- VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.

- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE BUILDING AND/OR SITE.

ABBREVIATIONS

A.D.	AREA DRAIN	J.B.E.	JOIST BEARING ELEVATION
ADD'L.	ADDITIONAL	JST.	JOIST
A.F.F.	ABOVE FINISHED FLOOR	JT.	JOINT
AGG.	AGGREGATE	K.	KIP(S)
ALT.	ALTERNATE	K.O.	KNOCK OUT
ALUM.	ALUMINUM	KSI	KIPS PER SQUARE INCH
ANCH.	ANCHOR	LB.	POUND
APPROX.	APPROXIMATE(LY)	L.L.	LIVE LOAD
ANCHOR ROD	ANCHOR ROD	LLH	LONG LEG HORIZONTAL
ARCH.	ARCHITECTURAL	LLV	LONG LEG VERTICAL
ASSY.	ASSEMBLY	LOC.	LOCATION
		LONG.	LONGITUDINAL
B.BM.	BOND BEAM	L.P.	LOW POINT
BD.	BOARD	L.T. GA	LIGHT GAUGE
B.F.E.	BOTTOM OF FOOTING ELEVATION	L.T. WT.	LIGHT WEIGHT
BLDG.	BUILDING	MAS.	MASONRY
BLK.	BLOCK	MAT'L.	MATERIAL
BLKG.	BLOCKING	MAX.	MAXIMUM
BM.	BEAM	MECH.	MECHANICAL
B.O.	BOTTOM OF	MEZZ.	MEZZANINE
BOT.	BOTTOM	MFR.	MANUFACTURER
B.PL.	BASE PLATE	M.H.	MANHOLE
BRDG.	BRIDGING	MIN.	MINIMUM
BRG.	BEARING	MISC.	MISCELLANEOUS
BRKT.	BRACKET	MRK.	MARK
B.S.	BACK TO BACK	M.O.	MASONRY OPENING
B.T.O.B.	BACK TO BACK	MTL.	METAL
BTWN.	BETWEEN		
CANT.	CANTILEVER	N.A.	NOT APPLICABLE
CF.	CUBIC FEET	N.I.C.	NOT IN CONTRACT
CHK'D.	CHECKERED	NO.#	NUMBER
C.I.P.	CAST IN PLACE	NOM.	NOMINAL
C.J.	CONSTRUCTION JOINT	NORM.	NORMAL
CL.	CENTERLINE	N.S.	NEAR SIDE
CLG.	CEILING	N.T.S.	NOT TO SCALE
CLR.	CLEAR		
CMU	CONCRETE MASONRY UNIT	O.C.	ON CENTER
C.O.	CLEAN OUT	O.D.	OUTSIDE DIAMETER
COL.	COLUMN	O.F.	OUTSIDE FACE
CONC.	CONCRETE	PL.	OVERHEAD
COND.	CONDITION	OPNG.	OPENING
CONN.	CONNECT(ION)	OPP.	OPPOSITE
CONSTR.	CONSTRUCTION	O.T.O.	OUT TO OUT
CONT.	CONTINUOUS		
CONT.D	CONTINUED	PIC	PRECAST CONCRETE
CONTR.	CONTRACTOR	PED.	PEDESTAL
COORDINATE	COORDINATE	PERIM.	PERIMETER
C.T.	CONTRACTION JOINT	PLATE	PLATE
C.T.O.C.	CENTER TO CENTER	PLF	POUNDS PER LINEAR FOOT
C.Y.	CUBIC YARDS	PNL.	PANEL
		PRE-FAB	PRE-FABRICATED
DBL.	DOUBLE	PRELIM.	PRELIMINARY
DEG.	DEGREE	PROJ.	PROJECTION
DIA./Ø	DIAMETER	PSF	POUNDS PER SQ. FOOT
DIAG.	DIAGONAL	PSI	POUNDS PER SQUARE INCH
DIM.	DIMENSION	PT.	POINT
DIR.	DIRECTION	P.T.	POST TENSION(ED)
D.L.	DEAD LOAD	PVC	POLY(VINYL) CHLORIDE
DOWN	DOWN		
DO	DITTO	R	RADIUS
DTL	DETAIL	R/C	REINFORCED CONCRETE
DWG.	DRAWING	R.D.	ROOF DRAIN
DWL(S)	DOWEL(S)	REF.	REFERENCE
		REINF.	REINFORCED OR REINFORCING
EA.	EACH	REQ'D	REQUIRED
E.E.	EACH END	RET.	RETURN
E.F.	EACH FACE	REV.	REVISION OR REVISED
E.J.	EXPANSION JOINT	RF	ROOF
EL.	ELEVATION	R.O.	ROUGH OPENING
ELEC.	ELECTRICAL		
ELEV.	ELEVATOR	SCHED.	SCHEDULE
EMBED.	EMBEDMENT	SECT.	SECTION
E.O.S.	EDGE OF SLAB	SF	SQUARE FEET
EQ.=	EQUAL	SHT.	SHEET
EQUIP.	EQUIPMENT	SPA	SPACES
E.S.	EACH SIDE	SLV.	SLEEVE
E.W.	EACH WAY	S.O.G.	SLAB ON GRADE
EXIST.	EXISTING	SPEC.	SPECIFICATION
EXP.	EXPANSION	SQ.	SQUARE
EXT.	EXTERIOR	S.S.	STAINLESS STEEL
EXTD	EXTENDED	STA.	STATION
EXTN	EXTENSION	STD.	STANDARD
		STIFF.	STIFFENER
F.D.	FLOOR DRAIN	STL.	STEEL
FDN.	FOUNDATION	STRUCT.	STRUCTURAL
F.F.	FINISHED FLOOR	SUPPT.	SUPPORT
F.F.E.	FINISHED FLOOR ELEVATION	SYM.	SYMMETRICAL
FLG.	FLANGE	SYS.	SYSTEM
FLOOR	FLOOR		
FRMG.	FRAMING	T.	TON(S)
F.S.	FAR SIDE	T&B	TOP & BOTTOM
FT.	FOOT OR FEET	TEMP.	TEMPORARY
FTG.	FOOTING	T.F.E.	TOP OF FOOTING ELEVATION
		T&G	TONGUE & GROOVE
GA.	GAGE	THK.	THICKNESS
GALV.	GALVANIZE(D)	THRD.	THREADED
G.C.	GENERAL CONTRACTOR	THRU	THROUGH
GEN.	GENERAL	T.O.F.	TOP OF
GLU-LAM	GLUE LAMINATED LUMBER	T.O.C.	TOP OF CONCRETE ELEVATION
G.P.	GUSSET PLATE	T.O.G.	TOP OF GRATING ELEVATION
GR.	GRADE	T.O.P.C.	TOP OF PILE CAP ELEVATION
G.R.	GUARD RAIL	T.O.S.	TOP OF STEEL ELEVATION
GR.BM	GRADE BEAM	T.O.W.	TOP OF WALL ELEVATION
GRTG.	GRATING	T.P.E.	TOP OF PIER ELEVATION
		TRANS.	TRANSVERSE
H.D.	HUB DRAIN	TT	DOUBLE TEE
HK.	HOOK	TYP.	TYPICAL
H.M.	HOLLOW METAL		
HORIZ.	HORIZONTAL	U.N.O.	UNLESS NOTED OTHERWISE
H.P.	HIGH POINT	UIS	UNDERSIDE
H.R.	HANDRAIL		
H.S.	HEADED STUD	V.	VENT
HT.	HEIGHT	VER.	VERIFY
		VERT.	VERTICAL
I.D.	INSIDE DIAMETER	VOL.	VOLUME
I.E.	INVERT ELEVATION		
I.F.	INSIDE FACE	W/	WITH
IN.	INCH	W/O	WITHOUT
INFO.	INFORMATION	W.P.	WORKING POINT
INSUL.	INSULATION	W.S.	WATERSTOP
INT.	INTERIOR	WT.	WEIGHT
INV.	INVERT	WWR	WELDED WIRE REINFORCING



WASECA MUNICIPAL AIRPORT

35493 110TH STREET
 WASECA, MN 56093
 CITY OF WASECA PROJECT NO. 2021-19

WASECA MULTI-UNIT HANGAR

ALL CONTRACTORS AND SUBCONTRACTORS
 SHALL VERIFY ALL DIMENSIONS BY MEASUREMENT
 AT THE BUILDING AND/OR SITE.



BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS DRAWING ADJUST SCALES ACCORDINGLY.

ISSUE FOR BID

1	2/17/2022	ISSUE FOR BID
NO.	DATE	ISSUE RECORD

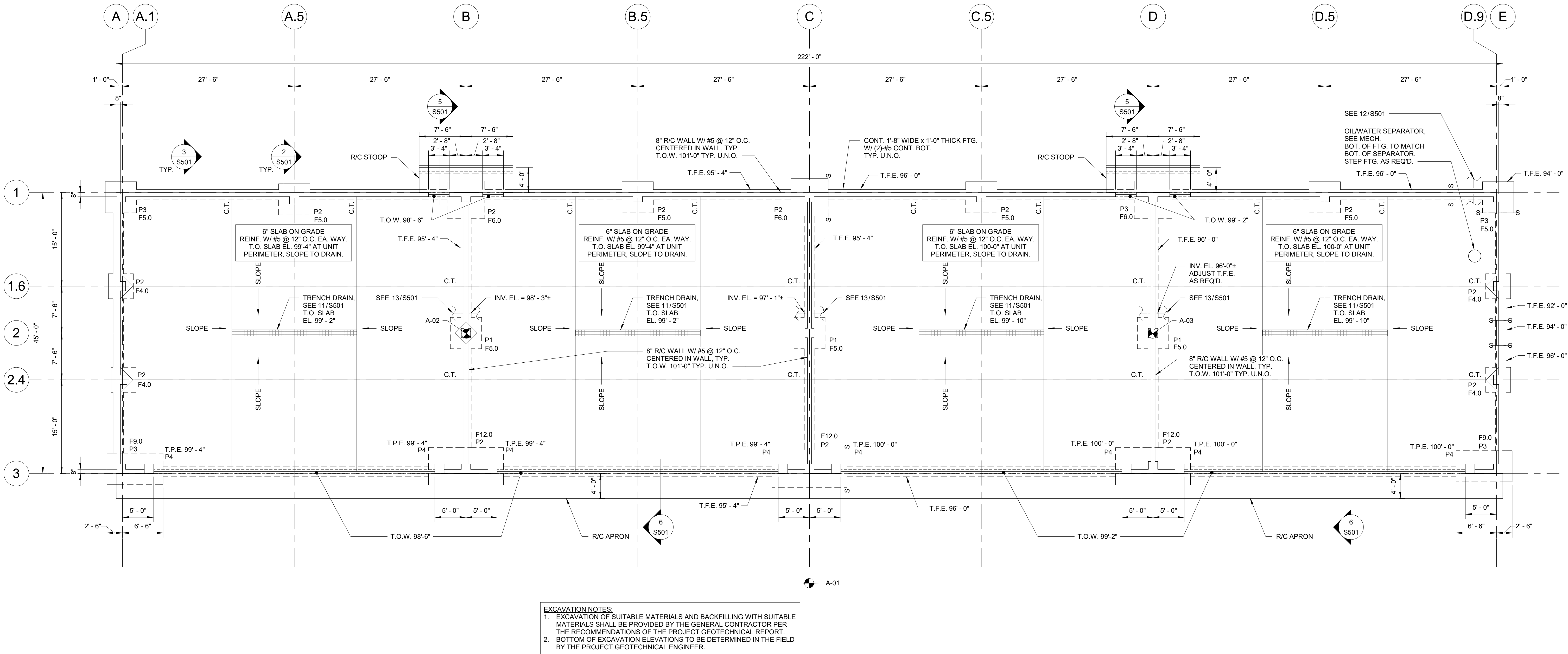
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

Craig W. Bursch

SIGNATURE: _____
 PRINTED NAME: CRAIG W. BURSCH
 LICENSE NO: 40415 DATE: 2/17/2022



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1 FOUNDATION PLAN
 S110 1/8" = 1'-0"

FOUNDATION PLAN LEGEND

- FX.X INDICATES R/C SPREAD FOOTING. SEE SHEET S500 FOR SCHEDULE.
- PX INDICATES R/C PIER. SEE SHEET S500 FOR SCHEDULE.
- S—S INDICATES APPROX. FOOTING STEP LOCATION. SEE 1/S501.
- — INDICATES UNDERFLOOR PIPE. VERIFY SIZE AND LOCATION WITH MECHANICAL DRAWINGS.
- C.T. INDICATES CONTRACTION JOINT IN SLAB ON GRADE. SEE 7/S501.
- A-0X INDICATES APPROX. SOIL BORING LOCATION. SEE GEOTECHNICAL REPORT FOR INFORMATION.
- — INDICATES CONCRETE WALL.

FLOOR AND FOUNDATION PLAN NOTES

- SEE SHEET S001 FOR STRUCTURAL NOTES AND ABBREVIATIONS.
- PIER AND FOOTING SIZES AND LOCATIONS TO BE VERIFIED WITH PRE-ENGINEERED METAL BUILDING DESIGN DRAWINGS BY OTHERS.
- T.O.W. = 101'-0" TYP. U.N.O.
- T.F.E. = 101'-0" TYP. U.N.O.
- SEE SHEETS S500 & S501 TYPICAL SLAB ON GRADE AND FOUNDATION DETAILS.
- FOR ALL SLAB AREAS TO RECEIVE MOISTURE SENSITIVE FINISHES, COORDINATE THE USE AND LOCATION OF VAPOR BARRIER(S) WITH ARCHITECTURAL.
- VERIFY ALL FLOOR SLOPES AND SLAB DEPRESSIONS WITH ARCHITECTURAL AND MECHANICAL.
- MAINTAIN SLAB THICKNESS THROUGH SLOPED AREAS OF THE SLAB.
- ALL SPREAD FOOTINGS ARE TO BE CENTERED ON COLUMNS AND ALL STRIP FOOTINGS ARE TO BE CENTERED ON WALLS. U.N.O.
- ALL STRIP FOOTING REINFORCEMENT TO RUN CONTINUOUS THROUGH SPREAD FOOTINGS.
- SEE DETAIL 5/S500 FOR ADDITIONAL REINFORCEMENT AROUND OPENINGS.



WASECA MUNICIPAL AIRPORT

35493 110TH STREET
 WASECA, MN 56093
 CITY OF WASECA PROJECT NO. 2021-19

WASECA
 MULTI-UNIT
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 LAWS OF THE STATE OF MINNESOTA

SIGNATURE: *Craig W. Bursch*
 PRINTED NAME: CRAIG W. BURSCH
 LICENSE NO: 40415 DATE: 2/17/2022



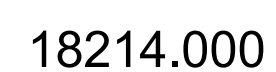
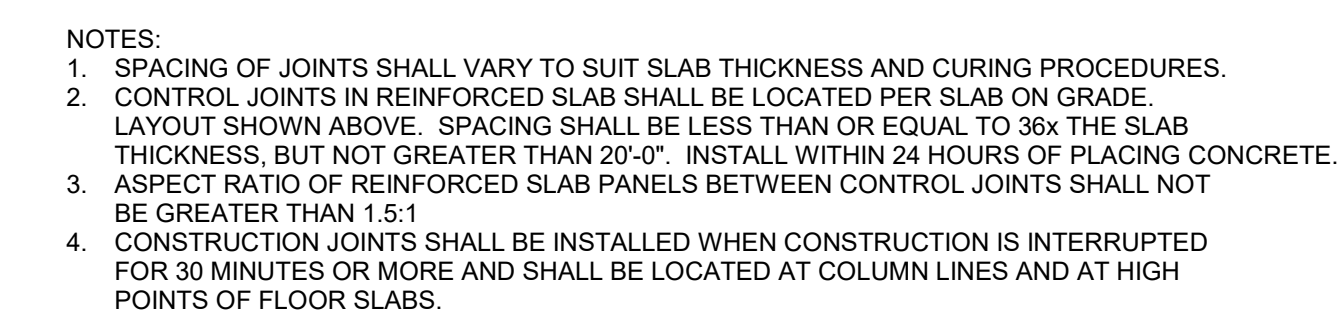
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 Saint Paul, MN 55101
 651.292.4400
 tkda.com

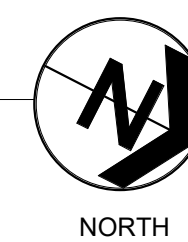
DESIGNED	DRAWN	CHECKED
CWB	GB	CWB

FOUNDATION PLAN

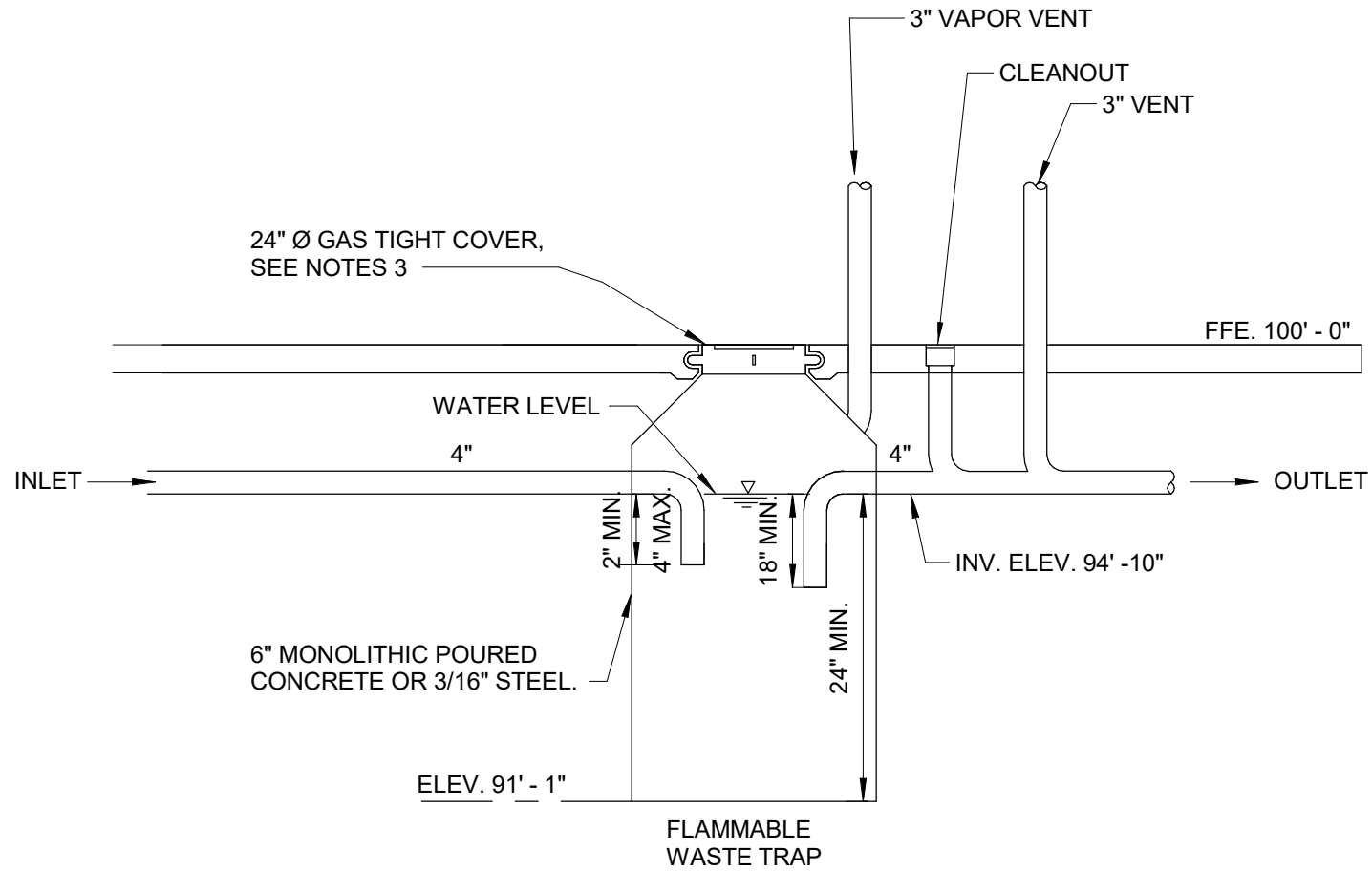
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- NOTES:
- SEE PLAN FOR ORIENTATION OF PIPING.
 - FLAMMABLE WASTE TRAP SHALL HAVE A MIN CAPACITY OF 35 CUBIC FEET.
 - HEAVY DUTY MANHOLE COVER REQUIRED FOR VEHICLE TRAFFIC AREAS.

1

P500

FLAMMABLE WASTE TRAP

NOT TO SCALE

FLAMMBLE WASTE TRAP							
UNIT NO.	SERVES	MANUFACTURER	MODEL	CAPACITY CU. FT.	DIAMETER	HEIGHT	REMARKS
FWT-1	OIL AND FLAMMABLE WASTE	MIDWEST TANK	A1006	35	42"	107"	4"Ø INLET AND OUTLET, 3"Ø VENT, GAS TIGHT COVER DESIGNED FOR HEAVY DUTY LOADING.

PLUMBING FIXTURE SCHEDULE						
UNIT NO.	MANUFACTURER	MODEL NO.	MOUNTING HEIGHT	FINISH	ACCESSORIES	REMARKS
FCO-1	WATTS	CO-300-MF FRAME CO-380 PLUG	FLOOR SET	DUCTILE IRON	ROUND COATED DUCTILE IRON FRAME WITH ANCHOR FLANGES AND HEAVY DUTY SCORIATED COVER	
TD-1	WATTS	DEAD LEVEL D	FLOOR SET	DUCTILE IRON	6" WIDTH, DI FRAMES AND GRATES, POLYPROPYLENE OR POLYETHYLENE CONSTRUCTION WITH DUCTILE IRON FRAMES AND HEAVY DUTY DUCTILE IRON GRATES WITH MECHANICAL LOCKING SYSTEM, PROPER END CAPS, END FRAMES, BRACKET WEDGES AND 4" OUTLETS.	



WASECA MUNICIPAL

AIRPORT

35493 110TH STREET
WASECA, MN 56093
CITY OF WASECA PROJECT NO. 2021-19

WASECA

MULTI-UNIT

HANGAR



BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS DRAWING ADJUST SCALES ACCORDINGLY.

ISSUED FOR BID

1	2/17/2022	ISSUED FOR BID
NO.	DATE	ISSUE RECORD

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE: _____
PRINTED NAME: _____
LICENSE NO: _____ DATE: _____



444 Cedar Street, Suite 1500
Saint Paul, MN 55101
651.292.4400
tkda.com

DESIGNED	DRAWN	CHECKED
BWW	NMS	MSY

PLUMBING DETAILS

AND SCHEDULES

P500

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WASECA
MULTI-UNIT
HANGAR

A. GENERAL

1. THE ELECTRICAL INSTALLATION, AS A MINIMUM, SHALL MEET THE NATIONAL ELECTRICAL CODE AND LOCAL REGULATIONS.
2. ASCERTAIN THAT LIGHTING SYSTEM COMPONENTS (INCLUDING FAA APPROVED EQUIPMENT) ARE COMPATIBLE IN ALL RESPECTS WITH EACH OTHER AND THE REMAINDER OF THE NEW/EXISTING SYSTEM. NON-COMPATIBLE COMPONENTS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE AIRPORT SPONSOR WITH A SIMILAR UNIT APPROVED BY THE ENGINEER (DIFFERENT MODEL OR DIFFERENT MANUFACTURER) THAT IS COMPATIBLE WITH THE REMAINDER OF THE AIRPORT LIGHTING SYSTEM.
3. SHOULD THE CONTRACTOR SELECT TO FURNISH AND INSTALL AIRPORT LIGHTING EQUIPMENT REQUIRING ADDITIONAL WIRING, TRANSFORMERS, ADAPTERS, MOUNTINGS, ETC., TO THOSE SHOWN ON THE DRAWINGS AND/OR LISTED IN THE SPECIFICATIONS, THE COST FOR THESE ITEMS SHALL BE INCIDENTAL TO THE EQUIPMENT COST.
4. THE CONTRACTOR-INSTALLED EQUIPMENT (INCLUDING FAA APPROVED) SHALL GENERATE NO ELECTROMAGNETIC INTERFERENCE IN THE EXISTING AND/OR NEW COMMUNICATIONS, WEATHER, AND AIR TRAFFIC CONTROL EQUIPMENT. EQUIPMENT GENERATING SUCH INTERFERENCE SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST WITH EQUIPMENT MEETING THE APPLICABLE SPECIFICATIONS WHICH GENERATES NO ELECTROMAGNETIC INTERFERENCE.
5. WHEN A SPECIFIC TYPE, STYLE, CLASS, ETC. OF APPROVED EQUIPMENT IS SPECIFIED ONLY THAT TYPE, STYLE, CLASS, ETC. WILL BE ACCEPTABLE EVEN THOUGH EQUIPMENT OF OTHER TYPES, STYLES, CLASSES, ETC. MAY BE FAA APPROVED FOR THE APPLICATION.
6. INSTRUCTIONS FROM THE ENGINEER TO THE CONTRACTOR REGARDING CHANGES TO OR DEVIATIONS FROM THE PLANS AND SPECIFICATIONS SHALL BE IN WRITING WITH RATIFIERS SENT TO THE AIRPORT SPONSOR AND THE FAA FIELD OFFICE (ADO/FAO). THE CONTRACTOR SHALL ACCEPT ONLY SUCH WRITTEN INSTRUCTIONS FROM THE ENGINEER REGARDING ANY CHANGES FROM THE PLANS AND SPECIFICATIONS.
7. UNLESS OTHERWISE NOTED, LIGHT SHADED LINES INDICATE EXISTING CONDITIONS, HEAVY LINES INDICATE NEW WORK, CROSSHATCHED INDICATES REMOVAL.
8. CONDUCTORS SHALL BE COPPER, MINIMUM SIZE #12 AWG. INSULATION FOR CONDUCTORS SHALL BE TYPE "XHHW".
9. ELECTRICAL EQUIPMENT SHALL BE NEW, U.L. LISTED AND APPROVED FOR INTENDED USE.
10. THE ELECTRICAL WORK SHALL INCLUDE COMPLETE TESTING OF ALL EQUIPMENT AND WIRING. WORKMANSHIP SHALL BE IN ACCORDANCE WITH NECA STANDARD INSTALLATION.
11. ALL PARTS OF THE SYSTEM SHALL BE GROUNDED WITH CODE GAUGE INSULATED COPPER EQUIPMENT GROUND CONDUCTOR.
12. ELECTRICAL EQUIPMENT EXPOSED TO WEATHER SHALL BE WEATHERPROOF.
13. PROVIDE MINIMUM 10 FEET SLACK CONDUCTOR FOR SPARE WIRING INSIDE WIREWAYS OR PULLBOXES.

B. GROUNDING

- GROUND NON-CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT WITH NO. 6 AWG COPPER CONDUCTOR. CONDUCTOR SHALL BE RUN INSIDE CABINETS AND IN CONDUITS TOGETHER WITH OTHER WIRES. WHERE THIS IS NOT FEASIBLE, RUN THE EXPOSURE WIRE PARALLEL OR AT RIGHT ANGLES TO THE BUILDING LINES AND/OR MANHOLES AND SECURE IT AT LEAST EVERY 24 INCHES AND WITHIN 6 INCHES FROM BENDS OR JUNCTIONS. WHERE SUBJECT TO PHYSICAL DAMAGE, USE NO. 4 AWG.
- GROUND CONNECTIONS TO GROUND RODS, BUSES, PANELS, ETC. SHALL BE MADE WITH PRESSURE TYPE SOLDERLESS LUGS AND GROUND CLAMPS. SOLDERED OR BOLT AND WASHER TYPE CONNECTIONS ARE NOT ACCEPTABLE. CLEAN ALL METAL SURFACES BEFORE MAKING GROUND CONNECTIONS. ALL GROUNDING AND GROUND CONNECTIONS SHALL BE MADE USING CADWELD EXOTHERMIC WELDS.
- TOPS OF GROUND RODS SHALL BE 12 INCHES BELOW GRADE.
- THE RESISTANCE TO GROUND OF THE VAULT GROUNDING SYSTEM WITH THE COMMERCIAL POWER LINE NEUTRAL DISCONNECTED SHALL NOT EXCEED 10 OHMS.

C. POWER AND CONTROL

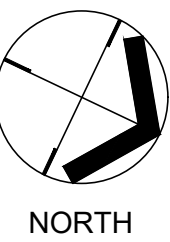
1. STENCIL ALL ELECTRICAL EQUIPMENT TO IDENTIFY FUNCTION, CIRCUIT VOLTAGE AND PHASE. WHERE THE EQUIPMENT CONTAINS FUSES, ALSO STENCIL THE FUSE OR FUSE LINK AMPERE RATING. WHERE THE EQUIPMENT DOES NOT HAVE SUFFICIENT STENCILING AREA, THE STENCILING SHALL BE DONE ON THE WALL NEXT TO THE UNIT. THE LETTERS SHALL BE ONE INCH HIGH AND PAINTED IN WHITE OR BLACK PAINT TO PROVIDE THE HIGHEST CONTRAST WITH THE BACKGROUND.
2. COLOR CODE ALL PHASE WIRING BY THE USE OF COLORED WIRE, INSULATION AND/OR COLORED TAPE. WHERE TAPE IS USED, THE WIRE INSULATION SHALL BE BLACK. BLACK AND RED SHALL BE USED FOR SINGLE-PHASE, THREE-WIRE SYSTEMS AND BLACK, RED AND BLUE SHALL BE USED FOR THREE-PHASE SYSTEMS.
3. BRANCH CIRCUIT CONDUCTORS CONNECTED TO A PARTICULAR PHASE SHALL BE IDENTIFIED WITH THE SAME COLOR. THE COLOR CODING SHALL BE EXTENDED TO THE POINT OF UTILIZATION.
4. POWER AND CONTROL CIRCUIT CONDUCTORS SHALL BE COPPER. ALUMINUM WILL NOT BE ACCEPTED. THIS INCLUDES WIRE, CABLE, BUSSES, TERMINALS, SWITCH/PANEL COMPONENTS, ETC.
5. LOW VOLTAGE (600V) AND HIGH VOLTAGE (5000V) CONDUCTORS SHALL BE INSTALLED IN SEPARATE RACEWAYS.
6. NEATLY LACE WIRING IN DISTRIBUTION PANELS, SWITCHES AND JUNCTION/PULL BOXES.
7. CIRCUIT CABINETS SHALL NOT BE USED AS PULL/JUNCTION BOXES. ONLY WIRING TERMINATING AT THE EQUIPMENT SHALL BE BROUGHT INTO THESE ENCLOSURES.
8. SPLICES AND JUNCTION POINTS SHALL BE PERMITTED ONLY IN JUNCTION BOXES, DOTS EQUIPPED WITH REMOVABLE COVERS, AND AT EASILY ACCESSIBLE LOCATIONS.
9. CIRCUIT BREAKERS IN POWER DISTRIBUTION PANEL(S) SHALL BE THERMAL-MAGNETIC, MOLDED CASE PERMANENT TRIP WITH 100 AMPERE, MINIMUM, FRAME.
10. STEEL CONDUITS, FITTINGS, NUTS, BOLTS, ETC., SHALL BE GALVANIZED.
11. USE DOUBLE LOCK NUTS AT EACH CONDUIT TERMINATION.
12. BOTH ENDS OF EACH CONTROL CONDUCTOR SHALL BE TERMINATED AT A TERMINAL BLOCK. THE TERMINAL BLOCKS SHALL BE OF PROPER RATING AND SIZE, AND THEY SHALL BE LOCATED IN EQUIPMENT ENCLOSURES OR SPECIAL TERMINAL CABINETS.
13. CONTROL CONDUCTOR TERMINATIONS SHALL BE OF THE OPEN-EYE CONNECTOR/SCREW TYPE. SOLDERED, CLOSED-EYED TERMINATIONS OR TERMINATIONS WITHOUT CONNECTIONS ARE NOT ACCEPTABLE.
14. IN TERMINAL BLOCK CABINETS THE MINIMUM SPACING BETWEEN PARALLEL TERMINAL BLOCKS SHALL BE 6 INCHES. THE MINIMUM SPACING BETWEEN TERMINAL BLOCK SIDES/ENDS AND CABINET SIDES/BOTTOM/TOP SHALL BE 5 INCHES. THE MINIMUM SPACING WILL BE INCREASED AS REQUIRED BY THE NUMBER OF CONDUCTORS. ADDITIONAL SPACING SHALL BE PROVIDED AT CONDUCTOR ENTRANCES.
15. BOTH ENDS OF CONTROL CONDUCTORS SHALL BE IDENTIFIED AS TO THE CIRCUIT, TERMINAL BLOCK, AND TERMINAL NUMBER.
16. A SEPARATE AND CONTINUOUS NEUTRAL CONDUCTOR SHALL BE INSTALLED AND CONNECTED FOR EACH BREAKER CIRCUIT IN THE POWER PANEL(S) FROM THE NEUTRAL BAR TO EACH POWER/CONTROL CIRCUIT. (SHARED NEUTRAL IS NOT ALLOWED.)

D. ABBREVIATIONS

AFB	ABOVE FINISH FLOOR	LEV	LEVEL TRANSMITTER
AFG	ABOVE FINISH GRADE	MIN	MINIMUM
AST	ABOVE GROUND STORAGE TANK	MLO	MAIN LUG ONLY
BLDG.	BUILDING	MOTV	MOTOR OPERATED VALVE
CKT	CIRCUIT	NTS	NOT TO SCALE
COMM	COMMUNICATION	OWS	OIL/WATER SEPARATOR
CV	CONTROL VALVE	PB	PUSH BUTTON
EFSS	EMERGENCY FUEL SHUT OFF	PLC	PROGRAMMABLE LOGIC CONTROLLER
E.P.	EXPLOSION PROOF	TYP	TYPICAL
EQUIP.	EQUIPMENT	UG	UNDERGROUND
FOIT	INDICATING FLOWMETER W/ TRANSMITTER	UST	UNDERGROUND STORAGE TANK
GFI	GROUND FAULT INTERRUPTER	WP	WEATHERPROOF (NEMA 3R)
GND	GROUND	W/	WITH
GSE	GROUND SUPPORT EQUIPMENT	XFMR	TRANSFORMER
IS	INTRINSICALLY SAFE	ZS	POSITION LIMIT SWITCH
LA	LIGHTNING ARRESTER		
LDP	LEAK DETECTION PROBE		

E. SYMBOLS

EXISTING	PROPOSED
ELECTRICAL DUCT BANK	
ELECTRICAL HANDHOLE	
LIGHT POLE	
EFSS (HORN STROBE & PUSHBUTTON)	
JUNCTION BOX	
PANELBOARD	
FIRE ALARM/NAC PANEL	
24VDC POWER SUPPLY	
MONITOR MODULE (FIRE ALARM SYSTEM MONITORED)	
MOTOR	
DEVICE (AS NOTED)	
POST MOUNTED RECEPTACLE	
SPECIAL RECEPTACLE (AS NOTED)	
PLAN NOTE	
CONDUIT-UNDERGROUND	



E202

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PURCHASE SCHEDULE								
	SOURCE	MOUNTING	LAMPS	FEATURES	VOLTAGE	BALLAST	MANUFACTURER	NOTES
	LED	SURFACE	APPROX 99W/4000K/ 12000 LUMENS	22 GAUGE COLD ROLLED STEEL, DIFFUSED ACRYLIC LENS	120 - 277V	INTEGRAL DRIVER	LITHONIA VAP 12000LM FST MD MVOLT G210 40K 80CRI	1
	LED	SURFACE	APPROX 39W/4000K/ 2200LUMENS	DIE-CAST, ALUMINUM HOUSING, DARK BRONZE, INTEGRAL PHOTO CONTROL	120 - 277V	INTEGRAL DRIVER	LITHONIA TWX2 LED P3 40K MVOLT PE STONCO WP30 HUBBELL LNC2	2

ALL DIMENSIONS ARE IN INCHES INSIDE HANGAR.
INPUT SET TO "2". PROVIDE INTEGRAL PHOTOCCELL.

- ## NOTES:
- 1 PROVIDE 100A 120/240VAC 1PH 3W SUBPANEL INSIDE EACH HANGAR.
 - 2 PROVIDE SUSPENDED HIGH-BAY LIGHTS.
 - 3 PROVIDE 240V 1PH STRAP LIFT DOOR OPENER.
 - 4 PROVIDE RECEPTACLES TO CONFORM TO NEC SECTION 513 AIRCRAFT HANGARS

[illegible]

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION,
OR REPORT WAS PREPARED BY ME OR UNDER MY
DIRECT SUPERVISION AND THAT I AM A DULY
LICENSED PROFESSIONAL ENGINEER UNDER THE
LAWS OF THE STATE OF MINNESOTA

SIGNATURE: Christopher J. Leiter
 PRINTED NAME: CHRISTOPHER J. LEITER
 LICENSE NO: 47889 DATE: 2/17/22



444 Cedar Street, Suite 1500
Saint Paul, MN 55101
651.292.4400
tkda.com

DESIGNED	TJ	DRAWN	TJ	CHECKED	CJL
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ELECTRICAL
PLAN -
HANGAR