UTAH DFCM

SOUTHERN UTAH UNIVERSITY
TENNIS COURTS REBUILD
(Post-Tensioned Concrete Slab)

MANAGED BY:

DIVISION OF FACILITIES CONSTRUCTION
AND MANAGEMENT
DFCM PROJECT #09119730

State of Utah - Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION
AND MANAGEMENT
4110 State Office Building / Salt Lake City, Utah 84114 / 801 538-3018

APPROVALS:

Prime Agency Date

DFCM Date

APPROVAL DOES NOT RELIEVE A/E OF DESIGN LIABILITY

CONSTRUCTION DRAWINGS
AUGUST 2009

LICENSED PROFESSIONAL ENGINEER
10/23/09
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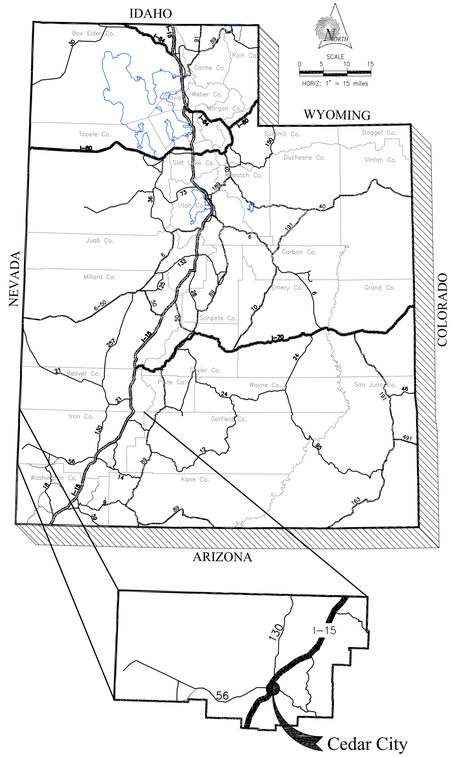
AREA MAP



LOCATION MAP

ABBREVIATIONS

AB	ANCHOR BOLT
ALT.	ALTERNATE
ALUM.	ALUMINUM
ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
∠	ANGLE
APPROX.	APPROXIMATELY
ASSY.	ASSEMBLY
@	AT (MEASUREMENTS)
AVG.	AVERAGE
B.M.	BENCH MARK
BSC	BITUMINOUS SURFACE COURSE
B.F.	BLIND FLANGE
B.W.	BOTH WAYS
BOT.	BOTTOM
BLDG.	BUILDING
BLM	BUREAU OF LAND MANAGEMENT
℄	CENTER LINE
CO	CLEAN OUT
CONC.	CONCRETE
CONT.	CONTINUOUS
CMP	CORRUGATED METAL PIPE
CPLG.	COUPLING
CFS	CUBIC FEET PER SECOND
DPLG.	CUBIC
CU. YD.	CUBIC YARD
DEG. OR °	DEGREE
Δ	DELTA
DET.	DETAIL
DIAG.	DIAGONAL
DIA. OR ø	DIAMETER
DIM	DIMENSION
DIST.	DISTRIBUTION
DWG	DRAWING
DIP	DUCTILE IRON PIPE
EA.	EACH
E.F.	EACH FACE
E.W.	EACH WAY
E	EAST
ELL.	ELBOW
ELEV. OR EL.	ELEVATION
EXIST.	EXISTING
FT OR '	FEET
FG	FINISHED GRADE
FS	FINISHED SURFACE
FTG.	FITTING
FLG	FLANGE
FLEX.	FLEXIBLE
℄	FLOW LINE
GALV.	GALVANIZED
GPM	GALLONS PER MINUTE
G.V.	GATE VALVE
GA.	GAUGE
HDPE	HIGH DENSITY POLYETHYLENE
H.W.L.	HIGH WATER LEVEL
HORIZ.	HORIZONTAL
IN. OR "	INCH
ID	INSIDE DIAMETER
INSUL.	INSULATION
INV.	INVERT
JT.	JOINT
J.B.	JUNCTION BOX
L	LENGTH
LN.	LINEAL
LN. FT.	LINEAL FEET
MH	MANHOLE
MFR.	MANUFACTURER
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MJ	MECHANICAL JOINT
MGD	MILLIONS OF GALLONS PER DAY
MIN.	MINIMUM
N	NORTH
NO. OR #	NUMBER
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
PERP.	PERPENDICULAR
PL.	PLATE
±	PLUS OR MINUS
PE	POLYETHYLENE
PE. PIPE	POLYETHYLENE PIPE
PVC	POLYVINYL-CHLORIDE
LB. OR #	POUND
PSI	POUNDS PER SQUARE INCH
PG	PRESSURE GAUGE
℄	PROPERTY LINE
R	RADIUS
RED.	REDUCER
REM.	REMOVE
REQ'D.	REQUIRED
REV.	REVISION
R/W	RIGHT-OF-WAY
SCH	SCHEDULE
SHT.	SHEET
SL	SLOPE
S	SOUTH
SPEC	SPECIFICATION
SQ.	SQUARE
SQ. FT.	SQUARE FEET
SQ. IN.	SQUARE INCHES
ST. STL.	STAINLESS STEEL
STD.	STANDARD
STA	STATION
STL.	STEEL
SYM.	SYMMETRICAL
TYP.	TYPICAL
UBC	UNTREATED BASE COURSE
UDOT	UTAH DEPARTMENT OF TRANSPORTATION
VERT.	VERTICAL
VOL.	VOLUME
WS	WATER SURFACE
WT.	WEIGHT
W	WEST
W/REQ'D.	WHERE REQUIRED
W/	WITH
W/O	WITHOUT

PLAN SHEET INDEX

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REV NO.	COMMENT	DATE
1	...	...

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SOUTHERN UTAH UNIVERSITY

TENNIS COURTS REBUILD

(POST-TENSIONED CONCRETE SLAB)

AREA MAP, LOCATION MAP, ABBREVIATIONS, & SHEET INDEX

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	
03418	JDF	DRL	JKP	2 of 14	G2

CODE ANALYSIS

APPLICABLE CODES

	Year		Year
International Building Code	2006	National Electrical Code	N/A
International Mechanical Code	N/A	Uniform Code for Building Conservation	N/A
International Fuel Gas Code	N/A	ADA Accessibility Guidelines	YES
International Plumbing Code	N/A		
International Fire Code	N/A		
International Energy Conservation Code	N/A		

A. Occupancy and Group: OUTDOOR TENNIS COURTS OCCUPANCY B (LESS THAN 50 PEOPLE)

Change in Use: Yes _____ No __X__ Mixed Occupancy: Yes _____ No __X__

Special Use and Occupancy (e.g. High Rise, Covered Mall): N/A

B. Seismic Design Category: D Design Wind Speed: 90 mph

C. Type of Construction (circle one):

I A | I B | II A | II B | III A | III B | IV HT | V A | (V B)

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours):

North: N/A South: N/A East: N/A West: N/A

E. Mixed Occupancies: N/A Nonseparated Uses: N/A

F: Sprinklers:

Required: N/A Provided: N/A

Type of Sprinkler System (IBC 903.3.1) N/A

G: Number of Stories: 1 Building Height: NONE - NO EXTERIOR WALLS

H: Actual Area per Floor (square feet): 43,928 (POST-TENSIONED CONCRETE SLAB ON GRADE TENNIS COURT)

I: Tabular Area: (table 503): NOT REGULATED BY CODE, SLAB ON GRADE IS FOR TENNIS COURT ONLY (NON-STRUCTURAL SLAB)

J: Area Modifications:

a) $A_a = \left\{ A_t + \left[A_t \times I_f \right] + \left[A_t \times I_s \right] \right\}$ $I_f = \left[F/P - 0.25 \right] W / 30$

N/A

b) Sum of the Ratio Calculations for Mixed Occupancies:

$$\frac{\text{Actual Area}}{\text{Allowable Area}} \leq 1$$

N/A

c) Total Allowable Area for:

1) One Story: _____

2) Two Story: $A_a(2)$_____ N/A (SLAB ON GRADE)

3) Three Story: $A_a(3)$_____

d) Unlimited Area Building: Yes N/A No _____ Code Section: _____

K. Fire Resistance Rating Requirements for Building Elements (hours). N/A

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls	N/A	N/A	Floors - Ceiling Floors	N/A	N/A
Interior Bearing Walls	N/A	N/A	Roofs - Ceiling Roofs	N/A	N/A
Exterior Non-Bearing Walls	N/A	N/A	Exterior Doors and Windows	N/A	N/A
Structural Frame	N/A	N/A	Shaft Enclosures	N/A	N/A
Partitions - Permanent	N/A	N/A	Fire Walls	N/A	N/A
Fire Barriers	N/A	N/A	Fire Partitions	N/A	N/A
			Smoke Partitions	N/A	N/A

L. Design Occupant Load: 49 (24 PLAYERS, 25 SPECTATORS)

Exit Width Required: _____ Exit Width Provided: _____

M. Minimum Number of Required Plumbing Facilities: N/A

a) Water Closets - Required (m) _____ (f) _____ Provided (m) _____ (f) _____

b) Urinals - Required (m) _____ (f) _____ Provided (m) _____ (f) _____

c) Lavatories - Required (m) _____ (f) _____ Provided (m) _____ (f) _____

d) Bath Tubs or Showers: _____

e) Drinking Fountains: _____ Service Sinks: _____

FOOTNOTES:

1) In case of conflict with the U.S. Department of Justice Federal Registers Parts I through X - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.

2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to:

a) High Rise Requirements.
b) Atriums.
c) Performance Based Criteria.
d) Means or Egress Analysis.
e) Fire Assembly Locator Sheet.
f) Exterior and Interior Accessibility Route.
g) Fire Stopping, Including Tested Design Number.

DESIGN CRITERIA

1. PRESERVE EXISTING ASPHALT COURT AND BASE IN PLACE.
2. INSTALL NEW POST-TENSIONED CONCRETE SLAB TENNIS COURT WITH SURFACING OVER EXISTING ASPHALT TENNIS COURT PER POST-TENSIONING INSTITUTE INSTALLATION CRITERIA.
3. MODIFY AND CORRECT EXISTING DEVIATIONS IN COURT SURFACE BY CONSTRUCTING FLAT PLAN SURFACE PER CURRENT APPLICABLE TENNIS COURT STANDARDS.
4. PRESERVE EXISTING LIGHT POLES IN PLACE.
5. INSTALL NEW TENNIS POSTS AND MISCELLANEOUS AMENITIES.
6. IMPLEMENT ADA ACCESSIBILITY (UTAH DFCM DESIGN REQUIREMENTS SECTION 2.5).
7. COMPLY WITH THE CURRENT STATE OF UTAH DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT DESIGN REQUIREMENTS.
8. COMPLY WITH 2006 IBC AND 2008 NEC.

CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SOUTHERN UTAH UNIVERSITY STANDARDS, AND THE PROJECT DRAWINGS AND SPECIFICATIONS.
2. CONSTRUCTION STAKING FOR THE SITE SHALL BE PROVIDED BY THE CONTRACTOR PER THE BID SCHEDULE & SECTION 01019SP OF THE PROJECT SPECIFICATIONS.
3. THE CONTRACTOR SHALL PROVIDE ALL QUALITY CONTROL TESTING THROUGH A QUALIFIED TESTING AGENT PER THE PROJECT SPECIFICATIONS.
4. ALL IMPROVEMENTS SHALL BE INSTALLED AT THE LOCATIONS, ELEVATIONS, AND DEPTHS SHOWN ON THE DRAWINGS AND/OR AS REQUIRED BY THE ENGINEER. THE CONTRACTOR SHALL NOT MOVE THE ALIGNMENT OR LOCATION OF ANY OF THE SHOWN OR INTENDED IMPROVEMENTS WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER WILL COORDINATE WITH THE CONTRACTOR TO RELOCATE PLANNED IMPROVEMENTS WHICH CONFLICT WITH ACTUAL SITE CONDITIONS.
5. ANY DEBRIS RESULTING FROM THE PROJECT SHALL BE DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR DISPOSAL SITES AT WHICH DEBRIS MAY BE LAWFULLY WASTED. FINAL GRADING OF DISTURBED AREAS IS SUBJECT TO THE ENGINEER'S APPROVAL AND SHALL BE COMPLETED IN A NEAT WORKMANLIKE MANNER.
6. PROPER SIGNING AND FLAGGING SHALL BE REQUIRED (SEE TRAFFIC CONTROL NOTES).
7. CONSTRUCTION WORK WILL BE ALLOWED ON SATURDAYS AND HOLIDAYS OBSERVED BY SOUTHERN UTAH UNIVERSITY.
8. ALL LABORERS AND OPERATORS WORKING ON THE PROJECT SHALL BE A MINIMUM OF 18 YEARS OF AGE AND SHALL PROVIDE PROOF OF AGE UPON REQUEST BY THE ENGINEER. IF PROOF IS NOT GIVEN, THE ENGINEER SHALL HAVE THE AUTHORITY TO STOP WORK AS NEEDED.
9. THE CONTRACTOR SHALL BE RESPONSIBLE TO ACQUIRE ANY NECESSARY TEMPORARY PERMITS FOR THIS PROJECT.
10. THE OWNER SHALL BE RESPONSIBLE FOR ACQUIRING ALL BUILDING PERMITS FOR THIS PROJECT.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL OSHA REGULATIONS AND STANDARDS ARE COMPLIED WITH ON THE PROJECT SITE DURING THE CONSTRUCTION PERIOD.
12. WORK INTENDED BY THE DRAWINGS AND SPECIFICATIONS BUT NOT SPECIFICALLY IDENTIFIED IN A PARTICULAR BID ITEM SHALL BE CONSIDERED INCIDENTAL TO THE OTHER BID ITEMS.
13. THE CONTRACTOR IS RESPONSIBLE FOR DUST ABATEMENT AND ANY LIABILITY ISSUES RELATED TO DUST WHICH MAY BE CAUSED BY THIS PROJECT.
14. ALL DISTANCES AND DATA SHALL BE CHECKED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. IN CASE OF CONFLICT, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY SO THAT CLARIFICATION MAY BE MADE PRIOR TO THE START OF THE WORK.
15. THE CONTRACTOR'S PERSONNEL, EQUIPMENT, AND OPERATIONS SHALL COMPLY FULLY WITH ALL APPLICABLE STANDARDS, REGULATIONS, AND REQUIREMENTS OF EXISTING FEDERAL, STATE, AND LOCAL GOVERNMENTAL AGENCIES.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL LOCAL, STATE, AND FEDERAL PERMITS REQUIRED FOR STORM WATER POLLUTION PREVENTION AS A RESULT OF CONSTRUCTION ACTIVITIES.

TRAFFIC CONTROL NOTES

1. THE CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN ALL ROAD CONSTRUCTION BARRICADES, CHANNELING DEVICES, CONSTRUCTION SIGNS, AND FLAGGING PERSONNEL IN ACCORDANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND SECTION 02005 OF THE PROJECT SPECIFICATIONS.
2. THE CONTRACTOR SHALL MAINTAIN TRAFFIC ACCESS FOR LOCAL RESIDENTS TO PROPERTIES ALONG THE CONSTRUCTION BOUNDARIES.
3. THE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION EQUIPMENT FROM THE ROADWAY DURING NIGHT AND NON-CONSTRUCTION HOURS.
4. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO DAYLIGHT HOURS ONLY.
5. THE CONTRACTOR SHALL PROVIDE FULL, TWO-WAY TRAFFIC WIDTH DURING NIGHT AND NON-CONSTRUCTION HOURS.
6. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER AND APPROVED BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK IN THE ROADWAYS.
7. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL AND PROTECTION OF PEDESTRIANS IN AND AROUND THE WORK.

LEGEND

DETAIL DESIGNATION / DETAIL - TITLE / NOT TO SCALE / DRAWING NUMBER — DETAIL REFERENCING

A / ~ — SECTION REFERENCING

W — EXIST. WATER PIPELINE
S — EXIST. SEWER PIPELINE
IRR — NEW IRRIGATION PIPELINE
IRR — EXIST. IRRIGATION PIPELINE
SD — EXIST. STORM DRAIN
G — EXIST. GAS LINE
OHE — EXIST. OVERHEAD ELECTRIC
UGE — EXIST. UNDERGROUND ELECTRIC
T — EXIST. TELEPHONE LINE
FO — EXIST. FIBER OPTIC LINE
C — EXIST. CABLE TV
EXIST. PROPERTY LINE
NEW CHAIN LINK FENCE
EXIST. CHAIN LINK FENCE
SURFACE WATER FLOW
TENNIS COURT NET

MATCHLINE SEE DWG XX01 — PLAN SHEET MATCH LINE

2.0% — SLOPE AND DIRECTION
105 / 4393.40 — GRADE POINT (POINT NO. & ELEV.)
BLEACHERS
BENCH
COURT LIGHTING
LITTER RECEPTACLE

EXISTING	NEW	
○ ⊠	○ ⊠	TENNIS NET POST
⊗	⊗	CENTER ANCHOR

REV NO.	COMMENT	DATE
1	...	...

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SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	
03418	JDF	DRL	JKP	3 of 14	G3

SPECIAL INSPECTION AND TESTING UNDER THE PROVISIONS OF IBC 1704 AND FOR MISCELLANEOUS AREAS

FABRICATORS (IBC 1704.2)

☐ Approved Fabricator	Fabricators Name:
☐ Unapproved Fabricator	Fabricators Name:

In-plant inspections
☐ Steel Construction ☐ Welding ☐ Details

STEEL (IBC 1704.3)

Item			Detailed Instructions and Frequencies
High Strength Bolting(1704.3.3)	☐ Continuous	☐ Periodic	
WELDING (1704.3.1)			
Details (1704.3.2)			
Complete & partial penetration groove welds	☐ Continuous	☐ Periodic	
Multipass fillet welds	☐ Continuous	☐ Periodic	
Single-pass fillet welds > 5/16"	☐ Continuous	☐ Periodic	
Single-pass fillet welds ≤ 5/16"	☐ Continuous	☐ Periodic	
Floor & roof deck welds	☐ Continuous	☐ Periodic	
REINFORCEMENT STEEL	☐ Continuous		
Verification of weldability	☐ Continuous	☐ Periodic	
Shear wall and shear reinforcement	☐ Continuous	☐ Periodic	
Other reinforcement	☐ Continuous	☒ Periodic	INSPECTION AT PRE-POUR
Steel frame joint details	☐ Continuous	☐ Periodic	

CONCRETE CONSTRUCTION (IBC 1704.4)

Item			Detailed Instructions and Frequencies
Materials (1704.4.1)	☐ Continuous	☒ Periodic	SUBMITTALS PER SPECIFICATIONS
Steel placement	☐ Continuous	☒ Periodic	INSPECTION AT PRE-POUR
Steel welding	☐ Continuous	☐ Periodic	
Bolts prior & during placement	☐ Continuous	☐ Periodic	
Use of required design mix	☐ Continuous	☒ Periodic	SUBMITTALS PER SPECIFICATIONS
Concrete sampling for strength test, slump, air content, and temperature of concrete	☐ Continuous	☒ Periodic	SUBMITTALS PER SPECIFICATIONS
Concrete & shoterete placement	☐ Continuous	☐ Periodic	
Curing temperature and techniques	☐ Continuous	☐ Periodic	
Pre-stressed concrete	☐ Continuous	☐ Periodic	
Pre-cast concrete	☐ Continuous	☐ Periodic	
Posttensioned concrete	☐ Continuous	☒ Periodic	INSPECTIONS AT PRE-POUR, HALF-TENSIONING, & FINAL TENSIONING
Form work	☐ Continuous	☐ Periodic	

MASONRY CONSTRUCTION (IBC 1704.5)

Item			Detailed Instructions and Frequencies
As masonry construction begins:			
Site prepared mortar	☐ Continuous	☐ Periodic	
Construction of mortar joints	☐ Continuous	☐ Periodic	
Location of reinforcement, connectors, pre-stressing tendons and anchorages	☐ Continuous	☐ Periodic	
Pre-stressing technique	☐ Continuous	☐ Periodic	
Grade and size of pre-stressing tendons and anchorages	☐ Continuous	☐ Periodic	
Inspection program verify:			
Size and location of structural elements	☐ Continuous	☐ Periodic	
Type, size and location of anchors	☐ Continuous	☐ Periodic	
Size, grade and type of reinforcement	☐ Continuous	☐ Periodic	
Welding of reinforcement	☐ Continuous	☐ Periodic	
Cold and hot weather protection	☐ Continuous	☐ Periodic	
Application and measurement of pre-stressing force	☐ Continuous	☐ Periodic	
Prior to grouting verify			
Clean grout space	☐ Continuous	☐ Periodic	
Placement of reinforcement	☐ Continuous	☐ Periodic	
Grout mix	☐ Continuous	☐ Periodic	
Mortar joints	☐ Continuous	☐ Periodic	
Grout placement	☐ Continuous	☐ Periodic	
Grout and mortar specimens and prisms	☐ Continuous	☐ Periodic	
Construction and submittal compliance verification	☐ Continuous	☐ Periodic	
Empirical masonry – Cat. I-III (1708.1.1)	☐ Continuous	☐ Periodic	
Empirical masonry – Cat. IV (1708.1.1)	☐ Continuous	☐ Periodic	
Engineered masonry – Cat. I-III 1708.1.1	☐ Continuous	☐ Periodic	
Engineered masonry – Cat. IV (1708.1.1)	☐ Continuous	☐ Periodic	
Engineering & pre-stressing steel (1708.3)	☐ Continuous	☐ Periodic	
Structural steel (1708.4)	☐ Continuous	☐ Periodic	
Qualification of mechanical & electrical equipment (1708.5)	☐ Continuous	☐ Periodic	
Seismically isolated structures (1708.6)	☐ Continuous	☐ Periodic	
Testing for seismic resistance is	☐ Continuous	☐ Periodic	

WOOD CONSTRUCTION (IBC 1704.6)

Item			Detailed Instructions and Frequencies
Prefabricated elements & assembly	☐ Continuous	☐ Periodic	

SOILS CONSTRUCTION (IBC 1704.7)

Item			Detailed Instructions and Frequencies
Site preparation	☐ Continuous	☐ Periodic	
Structural fill material	☐ Continuous	☐ Periodic	
Structural fill lift thickness	☐ Continuous	☐ Periodic	
Structural fill soil densities	☐ Continuous	☐ Periodic	
Backfill soils materials	☐ Continuous	☐ Periodic	
Backfill soil densities	☐ Continuous	☐ Periodic	

PILE FOUNDATIONS (IBC 1704.8)

Item			Detailed Instructions and Frequencies
Observe driving operation and reporting	☐ Continuous	☐ Periodic	
Verify placement & installation data	☐ Continuous	☐ Periodic	

PIER FOUNDATIONS (IBC 1704.9)

Item			Detailed Instructions and Frequencies
Observe drilling operation and reporting	☐ Continuous	☐ Periodic	
Verify placement & installation data	☐ Continuous	☐ Periodic	

SPRAYED FIRE-RESISTANT MATERIALS (IBC 1704.10)

Item			Detailed Instructions and Frequencies
Structural member surface conditions	☐ Continuous	☐ Periodic	
Material application	☐ Continuous	☐ Periodic	
Material thickness	☐ Continuous	☐ Periodic	
Material density	☐ Continuous	☐ Periodic	
Bonding strength	☐ Continuous	☐ Periodic	

MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS (IBC 1704.11)

Item			Detailed Instructions and Frequencies
Material and installation	☐ Continuous	☐ Periodic	

EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS) (IBC 1704.12)

Item			Detailed Instructions and Frequencies
Material and installation	☐ Continuous	☐ Periodic	

ALTERNITIVE CONSTRUCTION METHODS OR MATERIALS (IBC 1704.13)

Item			Detailed Instructions and Frequencies
Material and installation	☐ Continuous	☐ Periodic	

EPOXY (IBC 1704.13)

Item			Detailed Instructions and Frequencies
Material and installation (specify locations)	☐ Continuous	☐ Periodic	

SMOKE CONTROL (IBC 1704.14)

Item			Detailed Instructions and Frequencies
Material	☐ Continuous	☐ Periodic	

Installation	☐ Continuous	☐ Periodic	

Special inspection for seismic resistance (IBC 1707)

Item			Detailed Instructions and Frequencies
Structural Steel (1707.2)	☐ Continuous	☐ Periodic	
Structural Wood (1707.3)	☐ Continuous	☐ Periodic	
Cold-formed steel framing (1707.4)	☐ Continuous	☐ Periodic	
Pier foundations (1707.5)	☐ Continuous	☐ Periodic	
Storage racks & access floors (1707.6)	☐ Continuous	☐ Periodic	
Architectural components (1707.7)	☐ Continuous	☐ Periodic	
Mechanical & electrical items (1707.8)	☐ Continuous	☐ Periodic	
Designated systems verification (1707.9)	☐ Continuous	☐ Periodic	
Seismic isolation systems (1707.10)	☐ Continuous	☐ Periodic	

MISCELLANEOUS AREAS
These inspections are recommended by the Architect/Engineer and approved by DFCM.

	Detailed Instructions and Frequencies		
Suspended Ceiling Grid Clips	☐ Continuous	☐ Periodic	
Suspended Ceiling wire spacing (Seismic)	☐ Continuous	☐ Periodic	
Soils backfill (specify locations and frequency)	☐ Continuous	☐ Periodic	
Soils for curb and gutter (specify locations and frequency)	☐ Continuous	☐ Periodic	
Soils for parking lots (specify locations and frequency)	☐ Continuous	☐ Periodic	
Soils for utility trench backfill	☐ Continuous	☐ Periodic	
Reinforcement for slab on grade sidewalks and drive approaches (specify locations and frequency)	☐ Continuous	☐ Periodic	
Reinforcement for interior slab on grade (specify locations and frequency)	☐ Continuous	☐ Periodic	
Concrete testing for slab on grade sidewalks and drive approaches (specify locations and frequency)	☐ Continuous	☒ Periodic	INSPECTIONS & SUBMITTALS FOR STAIRS PER SPECIFICATIONS
Concrete testing for interior slab on grade (specify locations and frequency)	☐ Continuous	☐ Periodic	
Masonry Veneer (specify locations and frequency)	☐ Continuous	☐ Periodic	
Asphalt inspection (specify locations and frequency)	☐ Continuous	☐ Periodic	
Asphalt testing (specify locations and frequency)	☐ Continuous	☐ Periodic	
Inspection of seismic resistance (specify locations and frequency)	☐ Continuous	☐ Periodic	
Steam and water line welding (specify locations and frequency)	☐ Continuous	☐ Periodic	
Seismic supports for duct work and sealing of joints for duct work	☐ Continuous	☐ Periodic	
Seismic supports for electrical raceways, cable trays and lights	☐ Continuous	☐ Periodic	
Seismic supports for plumbing lines including gas, water and steam and condensation	☐ Continuous	☐ Periodic	
Seismic bracing for mechanical units both on slab and suspended	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	

Special Inspectors Shall:

- Be approved by the Building Official prior to performing any duties;
- Provide proof of licensure as a special inspector by the State of Utah for each type of inspection;
- Inspection reports are to meet the requirements of IBC 1704.1.2 and DFCM standards;
- Inspection reports are to be submitted to the code consultant, architect, DFCM project manager, and the State of Utah Building Official within 48 hrs. of inspections;
- A final inspection report shall be submitted following completion of the project documenting the types of special inspections performed and a statement indicating that the structure is in compliance with the drawings, specifications and applicable codes. IBC 1704.1.2

Updated October 8, 2009

SPECIAL INSPECTION NOTES:

1. SPECIAL INSPECTIONS ARE REQUIRED AS SHOWN.
2. STANDARD INSPECTIONS & SUBMITTALS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS SHALL ALSO BE PROVIDED.

REV NO.	COMMENT	DATE
1	...	...

State of Utah
Department of Administrative Services
Division of Facilities & Construction Management
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Salt Lake City, Utah 84114
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ISSUE TYPE: CONSTRUCTION DRAWINGS
ISSUE DATE: AUGUST 2009
DFCM PROJECT NO.: #09119730
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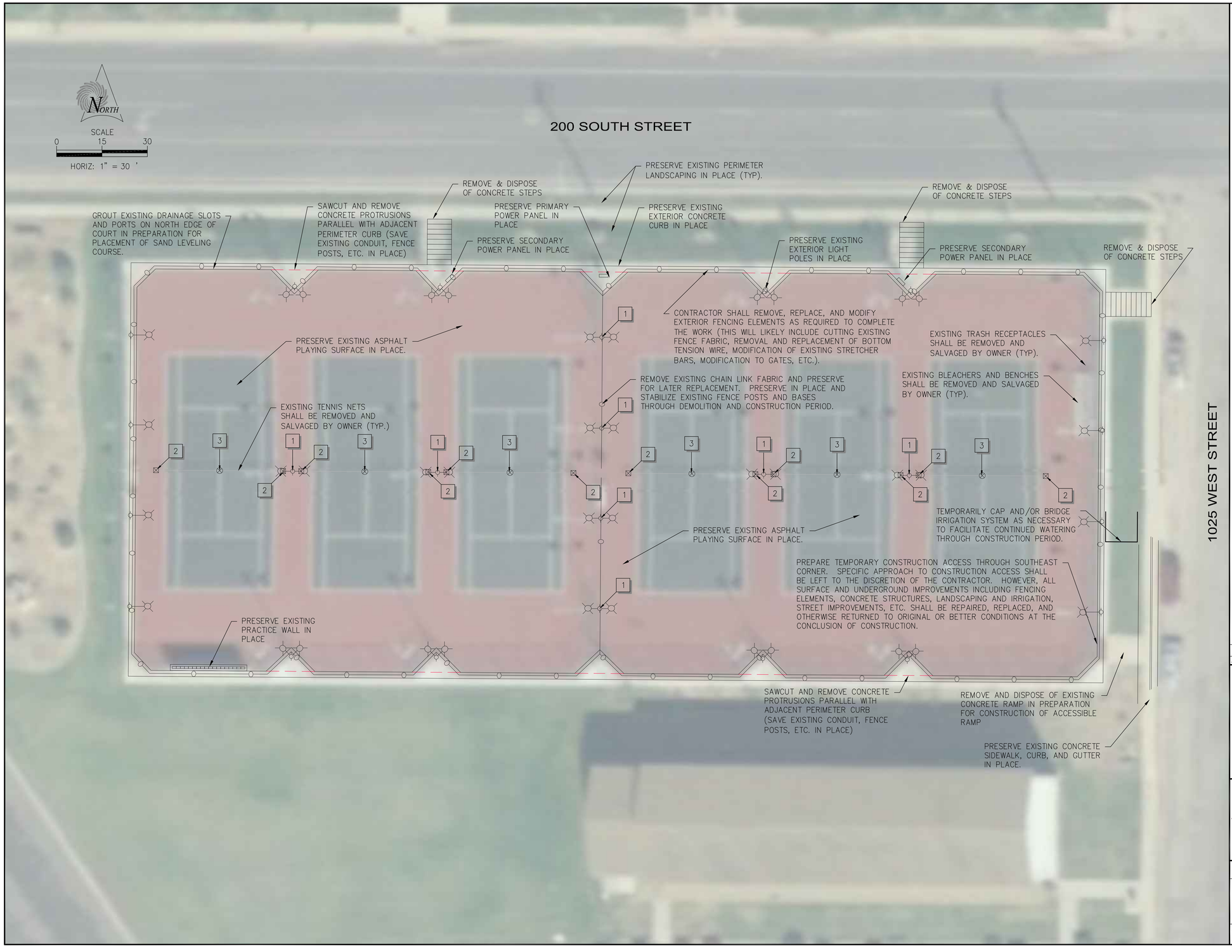
SOUTHERN UTAH UNIVERSITY
TENNIS COURTS REBUILD
(POST-TENSIONED CONCRETE SLAB)
SPECIAL INSPECTION CHECKLIST

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	
03418	JDF	DRL	JKP	4 of 14	G4



DEMOLITION NOTES:

1 SAVE EXISTING LIGHT POLE IN PLACE.

2 REMOVE AND SALVAGE EXISTING TENNIS POST TO LOCATION SPECIFIED BY SOUTHERN UTAH UNIVERSITY. DISPOSE OF TENNIS POST FOUNDATION.

3 REMOVE AND DISPOSE OF EXISTING NET CENTER ANCHOR.

1. CONTRACTOR SHALL PRESERVE PERIMETER CONCRETE CURB AND CHAIN LINK FENCE IN PLACE UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL PROTECT AND PRESERVE LIGHT POSTS IN PLACE AND SHALL TAKE ALL MEASURES NECESSARY TO ENSURE THAT THEY REMAIN PLUMB AND STABLE DURING CONSTRUCTION.
3. CONTRACTOR SHALL REMOVE AND DISPOSE OF LOOSE DIRT AND DEBRIS FROM EXISTING SURFACE PRIOR TO PLACEMENT OF SAND LEVELING COURSE.

REV NO.	COMMENT	DATE
1	...	...

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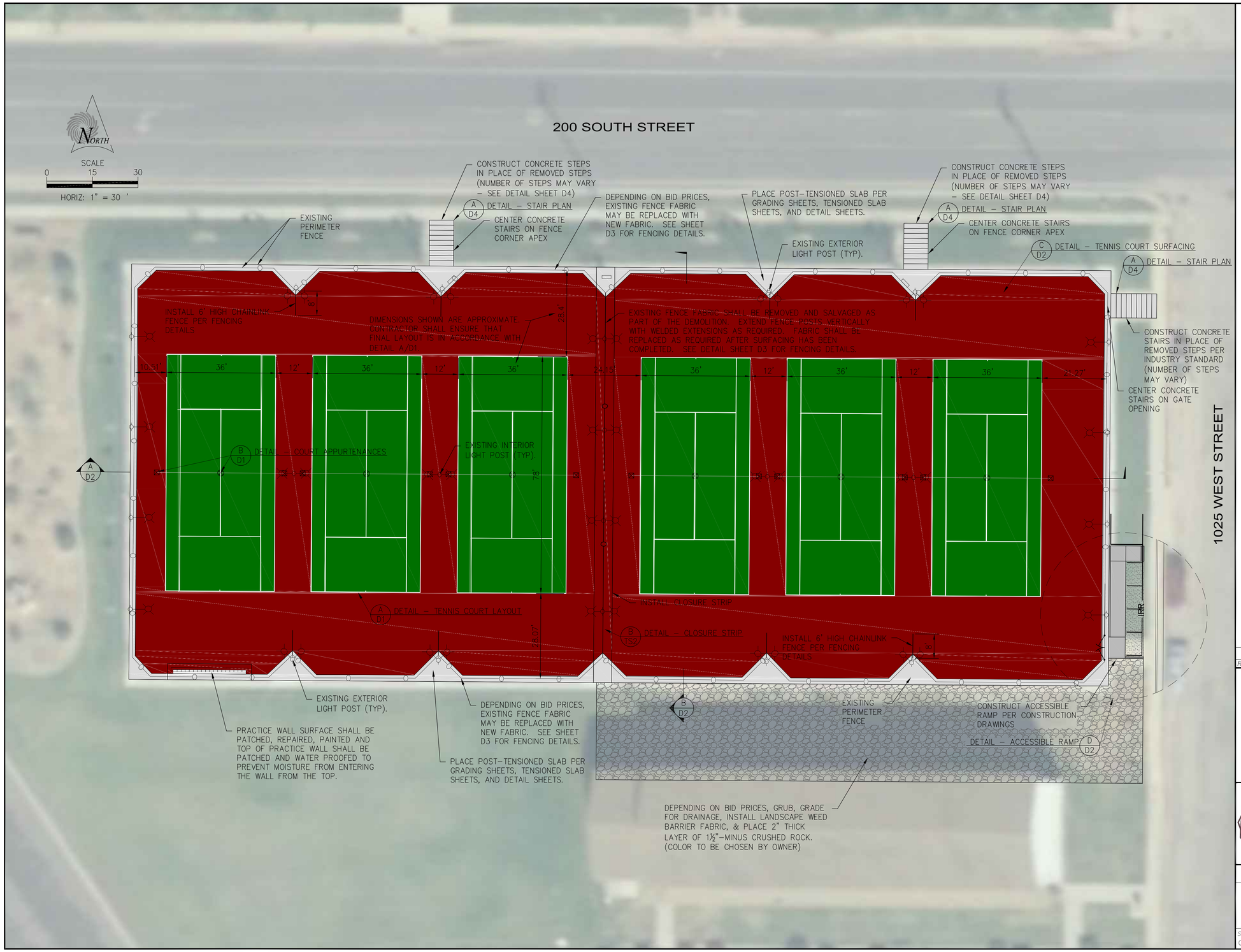
SOUTHERN UTAH UNIVERSITY

TENNIS COURTS REBUILD
(POST-TENSIONED CONCRETE SLAB)
DEMOLITION PLAN

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	
03418	JDF	DRL	JKP	5 of 14	DP1



CONSTRUCTION NOTES:

1. SEE THE GRADING PLAN, TENSIONED SLAB PLAN & DETAILS, AND DETAIL SHEETS FOR ADDITIONAL INFORMATION ON CONSTRUCTION REQUIREMENTS.
2. SEE SHEET D2 FOR ADDITIONAL INFORMATION ON TENNIS COURT SURFACING REQUIREMENTS.
3. THE CONTRACTOR SHALL ENSURE THAT ALL WORK IS COMPLETED IN A NEAT, WORKMANLIKE MANNER.

REV NO.	COMMENT	DATE
1	...	...

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SOUTHERN UTAH UNIVERSITY

TENNIS COURTS REBUILD
(POST–TENSIONED CONCRETE SLAB)
SITE PLAN

SEI. NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	
03418	JDF	DRL	JKP	6 of 14	SP1

GRADING SPECIAL NOTES:

1. FINISHED COURT SURFACE SHALL BE ON A TRUE PLANE SLOPED GENERALLY AS SHOWN. CONTRACTOR SHALL FIELD VERIFY ALL POINTS TO ENSURE THAT FINAL SURFACE IS PLANAR.

GRADING NOTES:

1. FINISH GRADING OF THE TENNIS COURTS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE USTA HANDBOOK OF TENNIS RULES AND REGULATIONS, NCAA REGULATIONS, AND ASBA REGULATIONS.
2. NORTHINGS AND EASTINGS PROVIDED IN THE GRADING PLAN SHEETS POINTS TABLES ARE IN PROJECT COORDINATES.
3. SPOT ELEVATIONS GIVEN IN THE GRADING PLAN SHEETS ARE TO FINISHED SURFACE UNLESS NOTED OTHERWISE IN THE POINTS TABLES.
4. ALL GRADING SHALL BE COMPLETED IN A NEAT, WORKMANLIKE MANNER.
5. PER THE BID SCHEDULE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING. THE ENGINEER MAY, AT HIS DISCRETION, SPOT CHECK THE CONSTRUCTION STAKING WORK COMPLETED BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ERRORS ARE ENCOUNTERED IN THE GRADING PLAN SHEETS AND SHALL WORK WITH THE ENGINEER TO DERIVE A SOLUTION PRIOR TO CONTINUING WITH THE WORK.

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TENNIS COURTS REBUILD
(POST-TENSIONED CONCRETE SLAB)
GRADING PLAN

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	
03418	JDF	DRL	JKP	7 of 14	GP1

POINT DATA				
POINT NUMBER	RAW DESCRIPTION	ELEVATION	NORTHING	EASTING
100	BASE	5805.776	50000.0000	40000.0000
101	CP-PARK	5807.542	50050.6750	40111.4810
102	CP-HARRIS	5804.099	50060.9060	39683.4170
103	CP-SOUTH	5809.432	49849.8010	39688.9440
104	CP-NORTH	5808.445	49969.4980	39798.3260
500	FINISH GRADE	5809.743	49850.6112	39598.5569
501	FINISH GRADE	5809.757	49850.4780	39618.5565
502	FINISH GRADE	5809.771	49850.3448	39638.5561
503	FINISH GRADE	5809.785	49850.2115	39658.5556
504	FINISH GRADE	5809.799	49850.0783	39678.5552
505	FINISH GRADE	5809.813	49849.9451	39698.5547
506	FINISH GRADE	5809.827	49849.8118	39718.5543
507	FINISH GRADE	5809.841	49849.6786	39738.5538
508	FINISH GRADE	5809.855	49849.5454	39758.5534
509	FINISH GRADE	5809.869	49849.4122	39778.5530
510	FINISH GRADE	5809.883	49849.2789	39798.5525
511	FINISH GRADE	5809.897	49849.1457	39818.5521
512	FINISH GRADE	5809.911	49849.0125	39838.5516
513	FINISH GRADE	5809.925	49848.8792	39858.5512
514	FINISH GRADE	5809.939	49848.7460	39878.5507
515	FINISH GRADE	5809.953	49848.6128	39898.5503
516	FINISH GRADE	5809.577	49870.6108	39598.6902
517	FINISH GRADE	5809.591	49870.4775	39618.6897
518	FINISH GRADE	5809.605	49870.3443	39638.6893
519	FINISH GRADE	5809.619	49870.2111	39658.6888
520	FINISH GRADE	5809.633	49870.0779	39678.6884
521	FINISH GRADE	5809.647	49869.9446	39698.6880
522	FINISH GRADE	5809.661	49869.8114	39718.6875
523	FINISH GRADE	5809.675	49869.6782	39738.6871
524	FINISH GRADE	5809.689	49869.5449	39758.6866
525	FINISH GRADE	5809.703	49869.4117	39778.6862
526	FINISH GRADE	5809.717	49869.2785	39798.6857
527	FINISH GRADE	5809.731	49869.1453	39818.6853
528	FINISH GRADE	5809.745	49869.0120	39838.6848
529	FINISH GRADE	5809.759	49868.8788	39858.6844
530	FINISH GRADE	5809.773	49868.7456	39878.6840
531	FINISH GRADE	5809.787	49868.6123	39898.6835
532	FINISH GRADE	5809.411	49890.6103	39598.8234
533	FINISH GRADE	5809.425	49890.4771	39618.8230

POINT DATA				
POINT NUMBER	RAW DESCRIPTION	ELEVATION	NORTHING	EASTING
534	FINISH GRADE	5809.439	49890.3439	39638.8225
535	FINISH GRADE	5809.453	49890.2106	39658.8221
536	FINISH GRADE	5809.467	49890.0774	39678.8216
537	FINISH GRADE	5809.481	49889.9442	39698.8212
538	FINISH GRADE	5809.495	49889.8110	39718.8207
539	FINISH GRADE	5809.509	49889.6777	39738.8203
540	FINISH GRADE	5809.523	49889.5445	39758.8199
541	FINISH GRADE	5809.537	49889.4113	39778.8194
542	FINISH GRADE	5809.551	49889.2780	39798.8190
543	FINISH GRADE	5809.565	49889.1448	39818.8185
544	FINISH GRADE	5809.579	49889.0116	39838.8181
545	FINISH GRADE	5809.593	49888.8784	39858.8176
546	FINISH GRADE	5809.607	49888.7451	39878.8172
547	FINISH GRADE	5809.621	49888.6119	39898.8167
548	FINISH GRADE	5809.245	49910.6099	39598.9566
549	FINISH GRADE	5809.259	49910.4766	39618.9562
550	FINISH GRADE	5809.273	49910.3434	39638.9557
551	FINISH GRADE	5809.287	49910.2102	39658.9553
552	FINISH GRADE	5809.301	49910.0770	39678.9549
553	FINISH GRADE	5809.315	49909.9437	39698.9544
554	FINISH GRADE	5809.329	49909.8105	39718.9540
555	FINISH GRADE	5809.343	49909.6773	39738.9535
556	FINISH GRADE	5809.357	49909.5441	39758.9531
557	FINISH GRADE	5809.371	49909.4108	39778.9526
558	FINISH GRADE	5809.385	49909.2776	39798.9522
559	FINISH GRADE	5809.399	49909.1444	39818.9518
560	FINISH GRADE	5809.413	49909.0111	39838.9513
561	FINISH GRADE	5809.427	49908.8779	39858.9509
562	FINISH GRADE	5809.441	49908.7447	39878.9504
563	FINISH GRADE	5809.455	49908.6115	39898.9500
564	FINISH GRADE	5809.079	49930.6094	39599.0899
565	FINISH GRADE	5809.093	49930.4762	39619.0894
566	FINISH GRADE	5809.107	49930.3430	39639.0890
567	FINISH GRADE	5809.121	49930.2097	39659.0885
568	FINISH GRADE	5809.135	49930.0765	39679.0881
569	FINISH GRADE	5809.149	49929.9433	39699.0876
570	FINISH GRADE	5809.163	49929.8101	39719.0872
571	FINISH GRADE	5809.177	49929.6768	39739.0868
572	FINISH GRADE	5809.191	49929.5436	39759.0863

POINT DATA				
POINT NUMBER	RAW DESCRIPTION	ELEVATION	NORTHING	EASTING
573	FINISH GRADE	5809.205	49929.4104	39779.0859
574	FINISH GRADE	5809.219	49929.2772	39799.0854
575	FINISH GRADE	5809.233	49929.1439	39819.0850
576	FINISH GRADE	5809.247	49929.0107	39839.0845
577	FINISH GRADE	5809.261	49928.8775	39859.0841
578	FINISH GRADE	5809.275	49928.7442	39879.0836
579	FINISH GRADE	5809.289	49928.6110	39899.0832
580	FINISH GRADE	5808.913	49950.6090	39599.2231
581	FINISH GRADE	5808.927	49950.4758	39619.2226
582	FINISH GRADE	5808.941	49950.3425	39639.2222
583	FINISH GRADE	5808.955	49950.2093	39659.2218
584	FINISH GRADE	5808.969	49950.0761	39679.2213
585	FINISH GRADE	5808.983	49949.9428	39699.2209
586	FINISH GRADE	5808.997	49949.8096	39719.2204
587	FINISH GRADE	5809.011	49949.6764	39739.2200
588	FINISH GRADE	5809.025	49949.5432	39759.2195
589	FINISH GRADE	5809.039	49949.4099	39779.2191
590	FINISH GRADE	5809.053	49949.2767	39799.2187
591	FINISH GRADE	5809.067	49949.1435	39819.2182
592	FINISH GRADE	5809.081	49949.0103	39839.2178
593	FINISH GRADE	5809.095	49948.8770	39859.2173
594	FINISH GRADE	5809.109	49948.7438	39879.2169
595	FINISH GRADE	5809.123	49948.6106	39899.2164
596	FINISH GRADE	5808.747	49970.6085	39599.3563
597	FINISH GRADE	5808.761	49970.4753	39619.3559
598	FINISH GRADE	5808.775	49970.3421	39639.3554
599	FINISH GRADE	5808.789	49970.2089	39659.3550
600	FINISH GRADE	5808.803	49970.0756	39679.3545
601	FINISH GRADE	5808.817	49969.9424	39699.3541
602	FINISH GRADE	5808.831	49969.8092	39719.3537
603	FINISH GRADE	5808.845	49969.6759	39739.3532
604	FINISH GRADE	5808.859	49969.5427	39759.3528
605	FINISH GRADE	5808.873	49969.4095	39779.3523
606	FINISH GRADE	5808.887	49969.2763	39799.3519
607	FINISH GRADE	5808.901	49969.1430	39819.3514
608	FINISH GRADE	5808.915	49969.0098	39839.3510
609	FINISH GRADE	5808.929	49968.8766	39859.3505
610	FINISH GRADE	5808.943	49968.7434	39879.3501
611	FINISH GRADE	5808.957	49968.6101	39899.3497

GRADING NOTES:

1. FINISH GRADING OF THE TENNIS COURTS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE USTA HANDBOOK OF TENNIS RULES AND REGULATIONS, NCAA REGULATIONS, AND ASBA REGULATIONS.
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REV NO.	... COMMENT	... DATE

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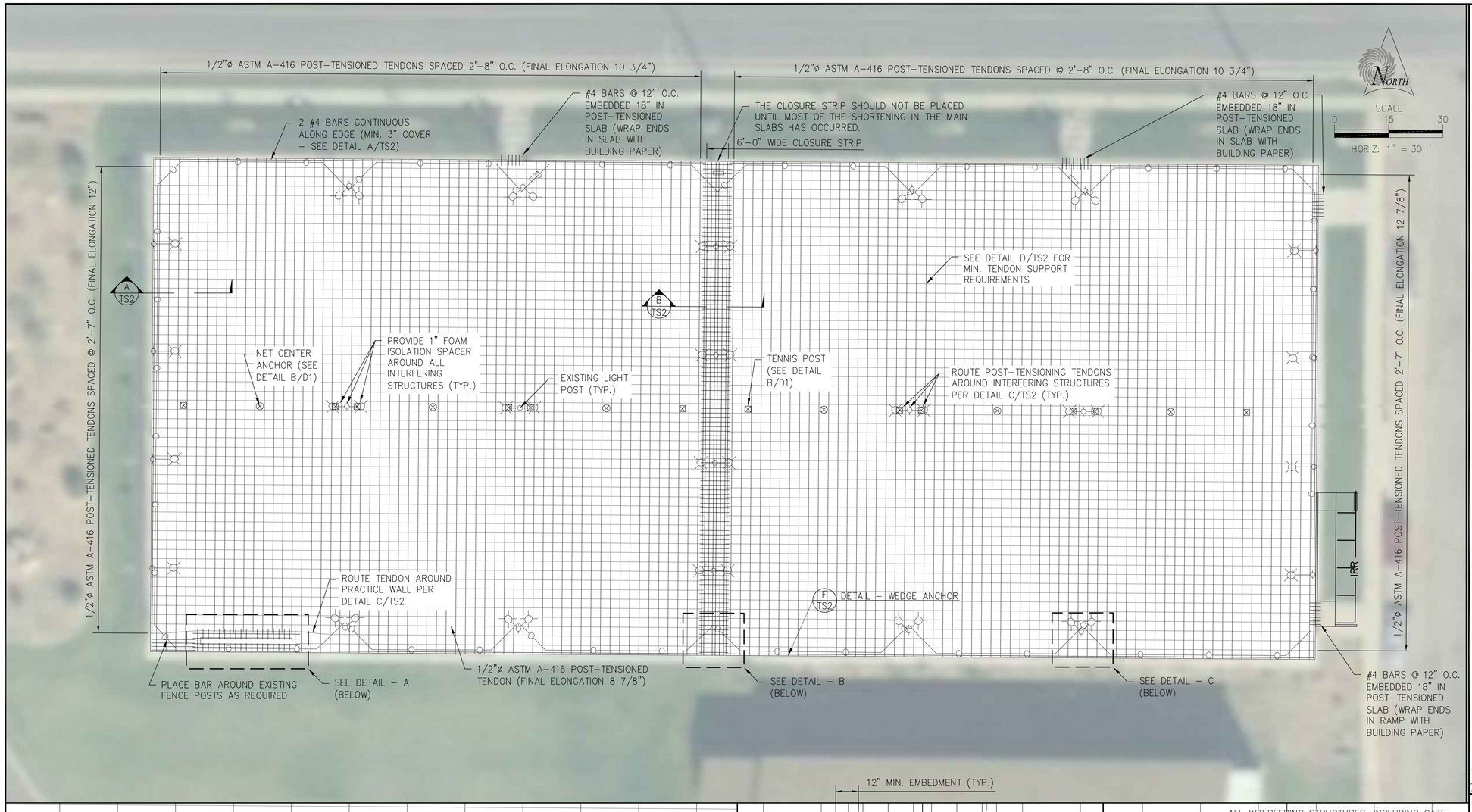
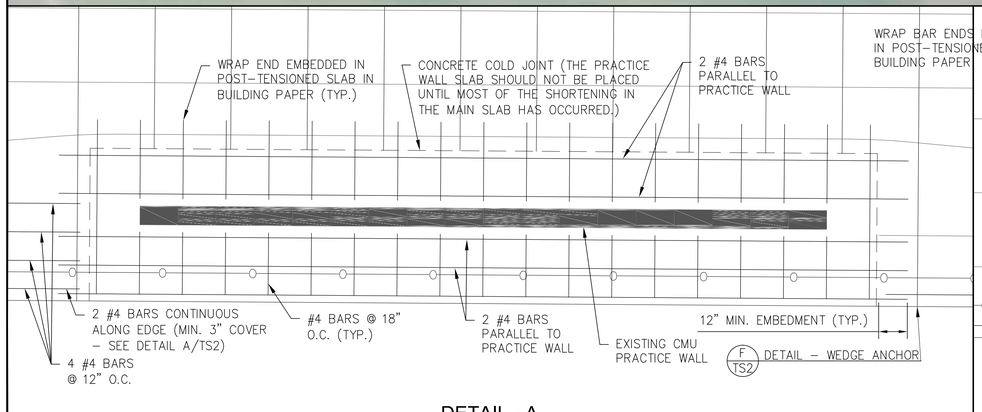
TENNIS COURTS REBUILD
(POST-TENSIONED CONCRETE SLAB)
GRADING POINT DATA

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	
03418	JDF	DRL	JKP	8 of 14	GP2

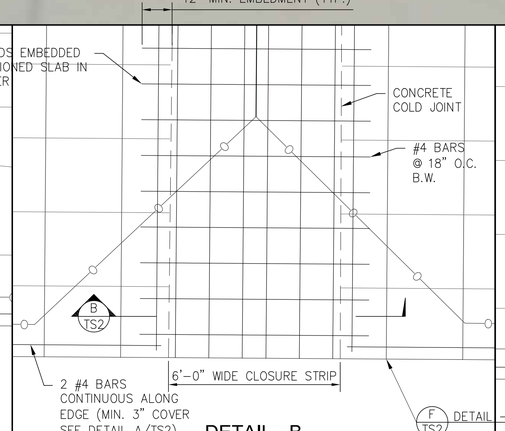


POST-TENSIONED SLAB NOTES:

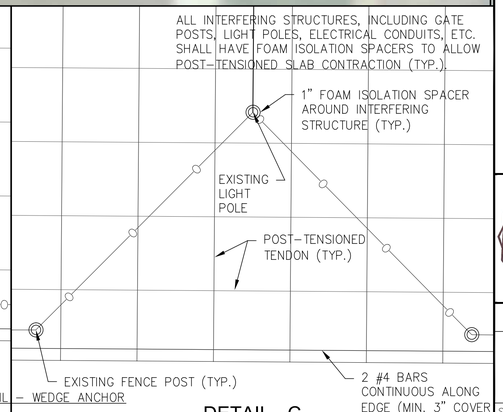
1. SAND LEVELING COURSE SHALL BE COMPACTED TO 95% MAXIMUM MODIFIED PROCTOR DENSITY.
2. POLYETHYLENE SHEETING SHALL BE PLACED IN A "SHINGLE" FASHION, STARTING ON THE LOW EDGE OF THE COURT SURFACE AND PROCEEDING TO THE HIGH EDGE.
3. POST-TENSIONING TENDONS SHALL BE ½" DIAMETER GRADE 270 KSI SINGLE-STRANDED UNBONDED TENDONS WITH WEDGE TYPE ANCHORING SYSTEMS.
4. POST-TENSIONING TENDONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-416 AND THE FINAL TENDON ASSEMBLY SHALL CONFORM TO THE POST-TENSIONING INSTITUTE'S (PTI) SPECIFICATION FOR UNBONDED SINGLE STRAND TENDONS.
5. TENDONS SHALL BE STRAIGHT, UNIFORMLY SPACED, AND INSTALLED PER MANUFACTURER RECOMMENDATIONS, BUT MAY BE MOVED HORIZONTALLY UP TO 12 INCHES TO AVOID OBSTRUCTIONS IN THE SLAB.
6. TENDONS SHALL BE PROPERLY SUPPORTED OR CHAIRED IN THE MIDDLE OF THE SLAB AND SHOULD BE SECURED TO MAINTAIN THEIR HORIZONTAL AND VERTICAL POSITIONS DURING PLACEMENT OF THE CONCRETE.
7. SLAB CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI. THE CONTRACTOR SHALL SUBMIT A CONCRETE MIX DESIGN, INCLUDING PROJECTED CURE RATE FROM 0 TO 28 DAYS, TO THE ENGINEER AT LEAST ONE WEEK PRIOR TO PLACING THE SLAB.
8. THE CONCRETE MIX DESIGN SHALL BE SELECTED TO MINIMIZE EARLY CURING AND SHRINKAGE CRACKING THAT MAY FORM PRIOR TO TENDON STRESSING.
9. THE CONTRACTOR SHALL PROVIDE MEANS TO ENSURE THAT CONCRETE IS NOT SPLATTERED ON EXISTING FENCE POSTS, LIGHT POLES, GATE POSTS, CONDUITS, OR OTHER EXISTING FACILITIES DURING CONSTRUCTION OF SLAB.
10. SLABS ON EITHER SIDE OF THE CLOSURE STRIP SHALL BE PLACED IN INDIVIDUAL, CONTINUOUS POURS (NO CONSTRUCTION JOINTS SHALL BE ALLOWED IN THE FIELD).
11. SLAB STRESSING SHALL OCCUR AT A CONCRETE STRENGTH OF 2,000 PSI OR GREATER. CONTRACTOR MAY CONSIDER TENSIONING UP TO 50% OF THE MAXIMUM ULTIMATE TENSILE STRENGTH 24 HOURS AFTER PLACEMENT OF CONCRETE.
12. TENDONS OVER 120 FEET IN LENGTH SHALL BE STRESSED FROM BOTH ENDS SIMULTANEOUSLY.
13. TENDONS SHALL BE TEMPORARILY STRESSED TO 80% OF THEIR MINIMUM ULTIMATE TENSILE STRENGTH TO OVERCOME FRICTION AND TO ENABLE WEDGE SEATING. FINAL TENDON ELONGATION SHALL BE AS SHOWN IN THE DRAWINGS.



DETAIL - A



DETAIL - B



DETAIL - C

REV NO.	...	COMMENT	...	DATE
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SOUTHERN UTAH UNIVERSITY

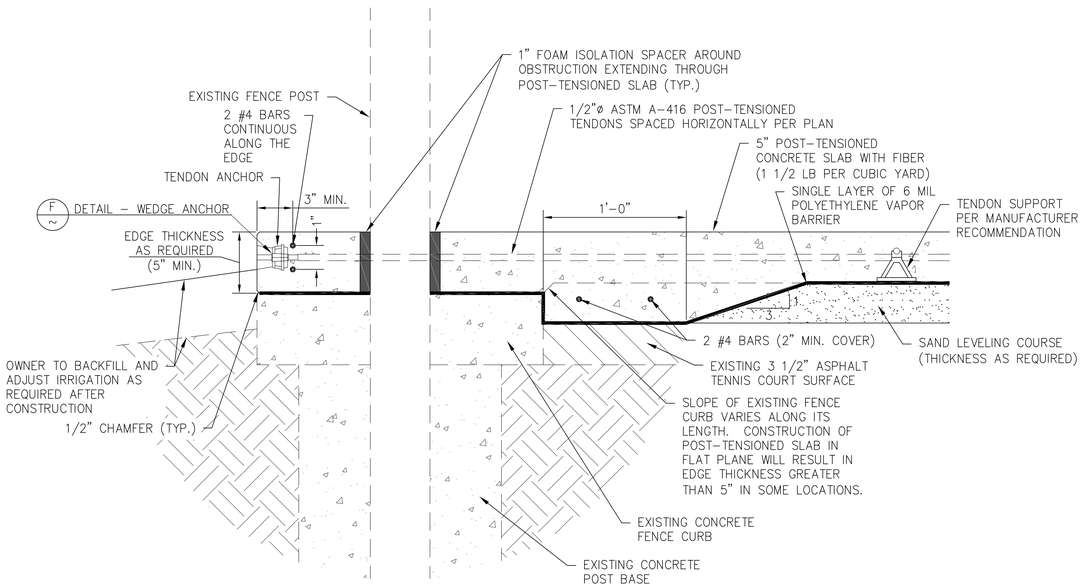
TENNIS COURTS REBUILD

(POST-TENSIONED CONCRETE SLAB)

POST-TENSIONED SLAB REINFORCEMENT PLAN

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.
03418	JDF	DRL	JKP	9 of 14

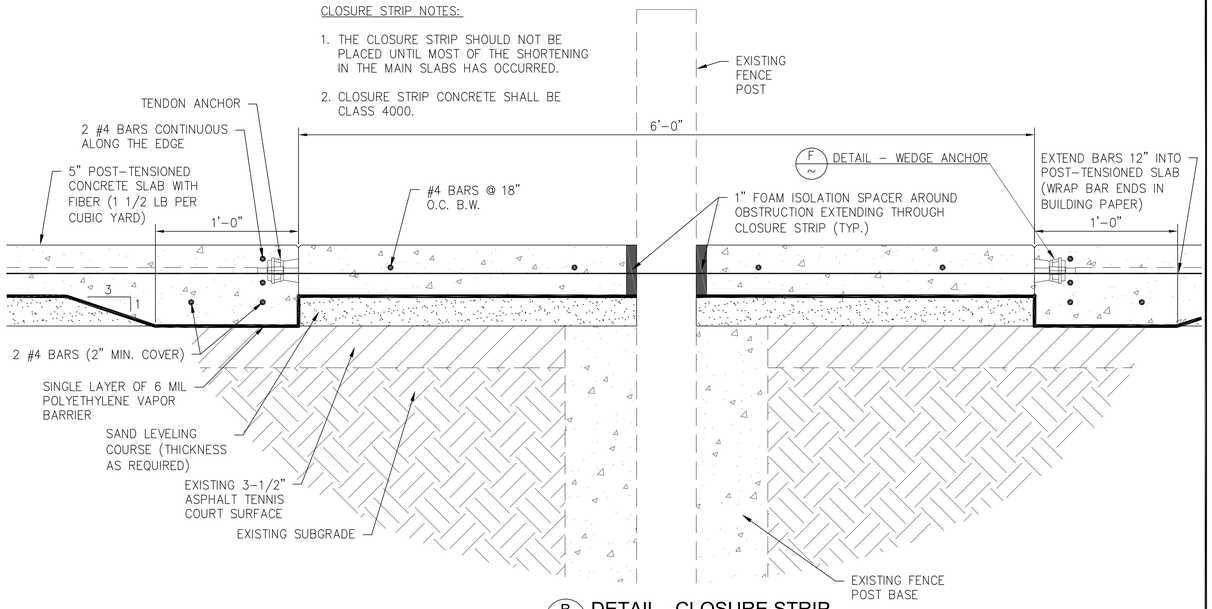
TS1



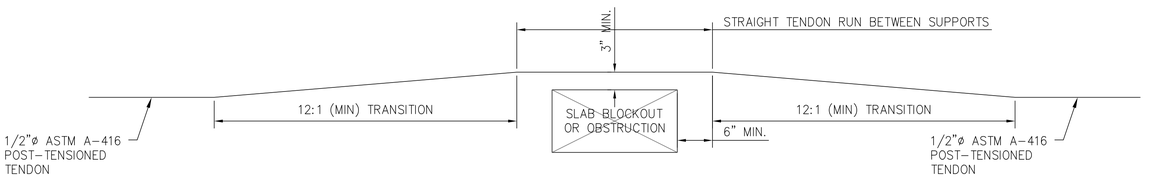
A DETAIL - SLAB EDGE
NOT TO SCALE

CLOSURE STRIP NOTES:

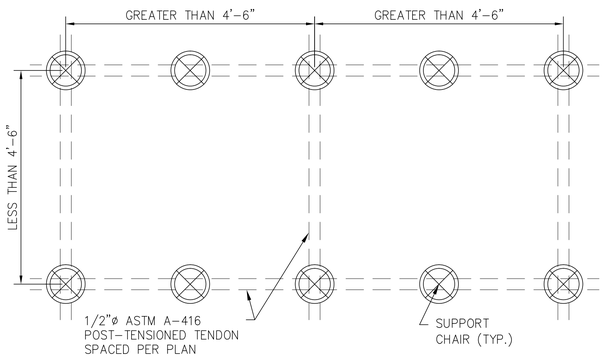
1. THE CLOSURE STRIP SHOULD NOT BE PLACED UNTIL MOST OF THE SHORTENING IN THE MAIN SLABS HAS OCCURRED.
2. CLOSURE STRIP CONCRETE SHALL BE CLASS 4000.



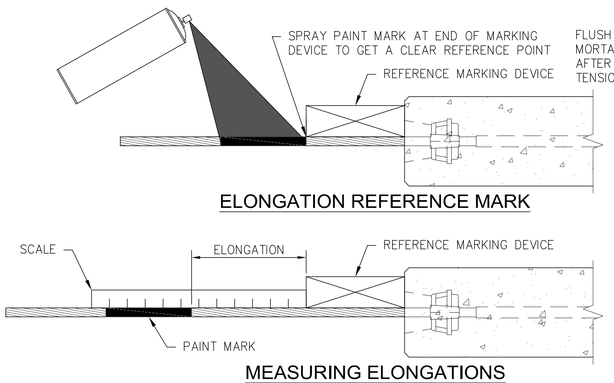
B DETAIL - CLOSURE STRIP
NOT TO SCALE



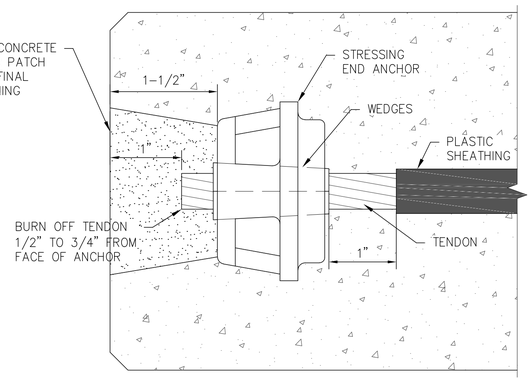
C DETAIL - TENDON DEVIATION
NOT TO SCALE



D DETAIL - TENDON SUPPORTS
NOT TO SCALE



E DETAIL - ELONGATION PROCEDURE
NOT TO SCALE



F DETAIL - WEDGE ANCHOR
NOT TO SCALE

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SOUTHERN UTAH UNIVERSITY
TENNIS COURTS REBUILD
(POST–TENSIONED CONCRETE SLAB)
POST–TENSIONED SLAB DETAILS

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	
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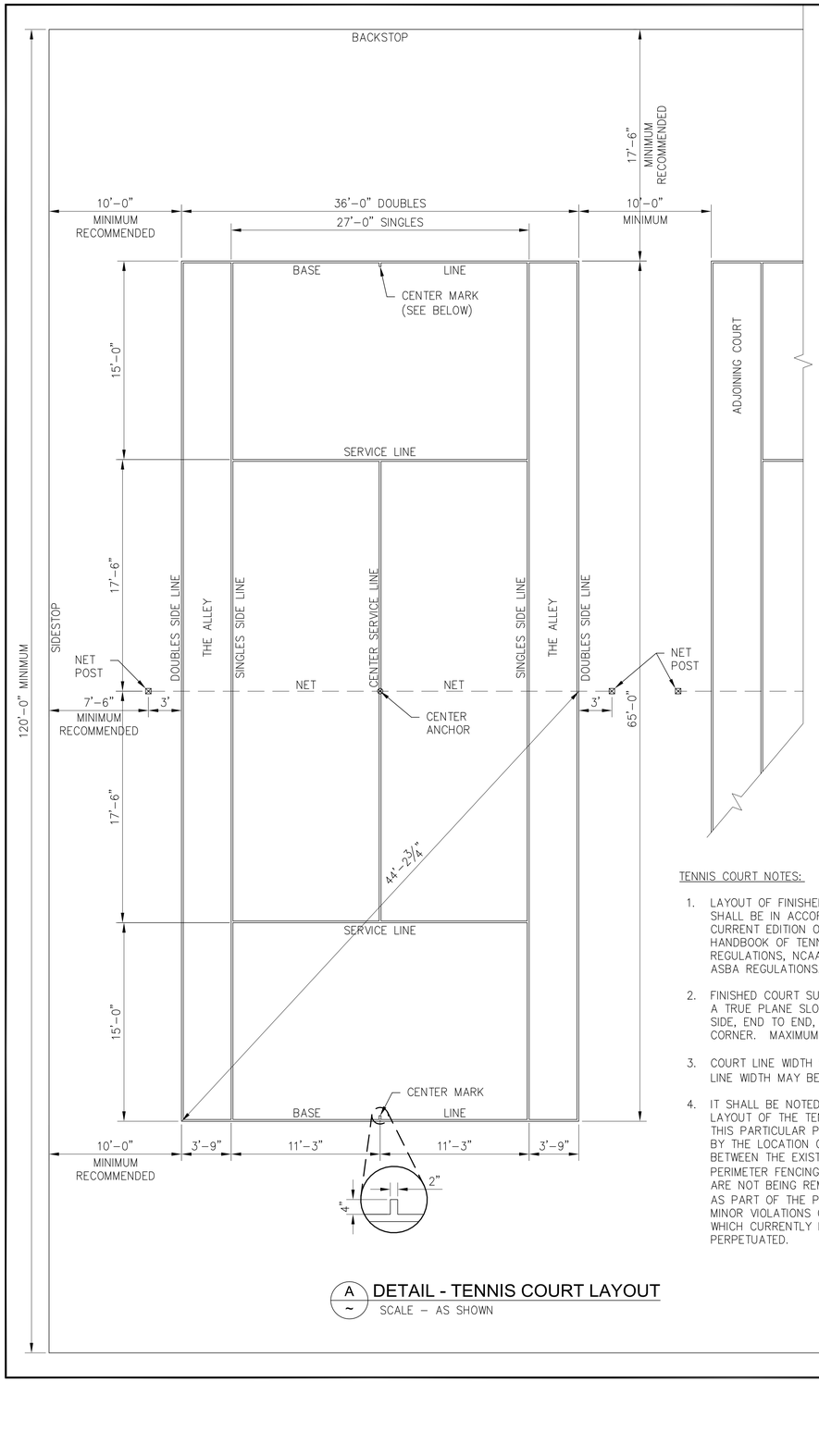
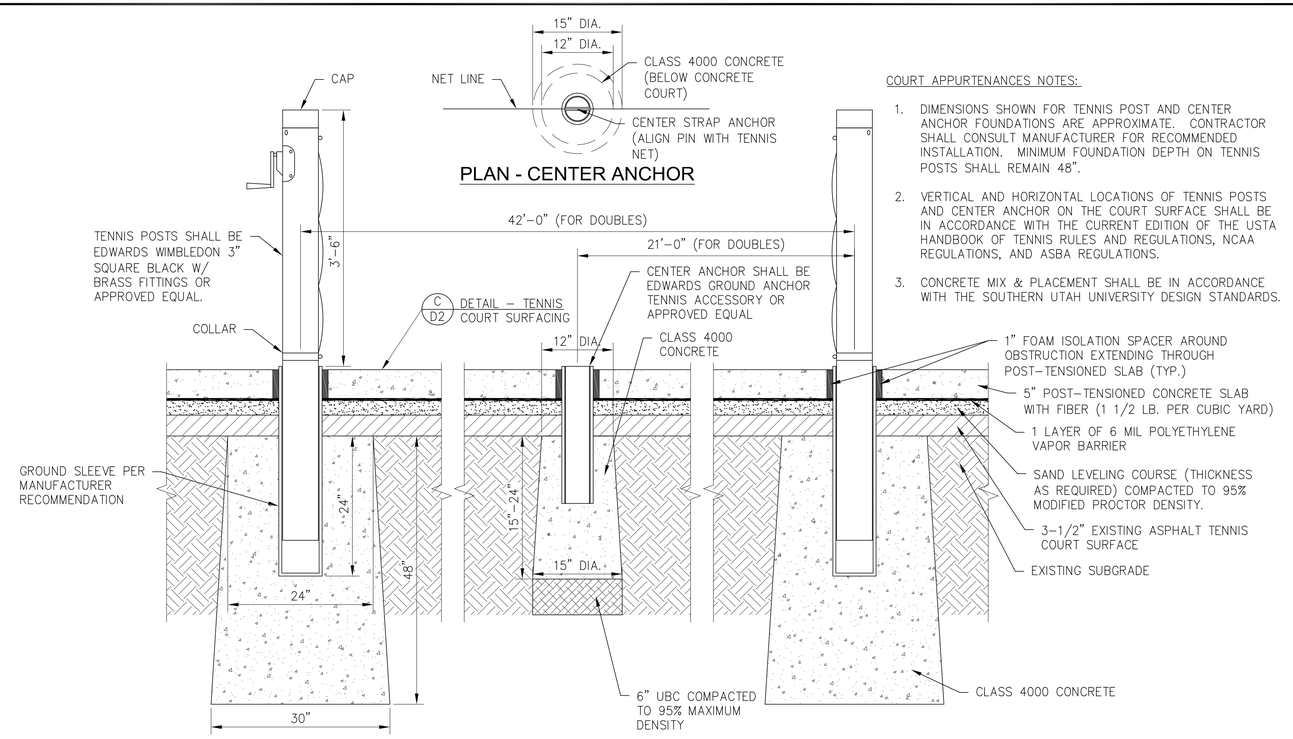


A ~ DETAIL - TENNIS COURT LAYOUT
SCALE – AS SHOWN

TENNIS COURT NOTES:

1. LAYOUT OF FINISHED TENNIS COURTS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE USTA HANDBOOK OF TENNIS RULES AND REGULATIONS, NCAA REGULATIONS, AND ASBA REGULATIONS.
2. FINISHED COURT SURFACE SHALL BE ON A TRUE PLANE SLOPED FROM SIDE TO SIDE, END TO END, OR CORNER TO CORNER. MAXIMUM SLOPE SHALL BE 1%.
3. COURT LINE WIDTH SHALL BE 2". BASE LINE WIDTH MAY BE 4"
4. IT SHALL BE NOTED THAT THE GENERAL LAYOUT OF THE TENNIS COURTS FOR THIS PARTICULAR PROJECT IS GOVERNED BY THE LOCATION OF LIGHT POSTS BETWEEN THE EXISTING COURTS AND THE PERIMETER FENCING AND CURB (WHICH ARE NOT BEING REMOVED OR REPLACED AS PART OF THE PROJECT). THUS, MINOR VIOLATIONS ON SIDE CLEARANCES WHICH CURRENTLY EXIST WILL BE PERPETUATED.



B ~ DETAIL - COURT APPURTENANCES
NO SCALE

COURT APPURTENANCES NOTES:

1. DIMENSIONS SHOWN FOR TENNIS POST AND CENTER ANCHOR FOUNDATIONS ARE APPROXIMATE. CONTRACTOR SHALL CONSULT MANUFACTURER FOR RECOMMENDED INSTALLATION. MINIMUM FOUNDATION DEPTH ON TENNIS POSTS SHALL REMAIN 48".
2. VERTICAL AND HORIZONTAL LOCATIONS OF TENNIS POSTS AND CENTER ANCHOR ON THE COURT SURFACE SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE USTA HANDBOOK OF TENNIS RULES AND REGULATIONS, NCAA REGULATIONS, AND ASBA REGULATIONS.
3. CONCRETE MIX & PLACEMENT SHALL BE IN ACCORDANCE WITH THE SOUTHERN UTAH UNIVERSITY DESIGN STANDARDS.

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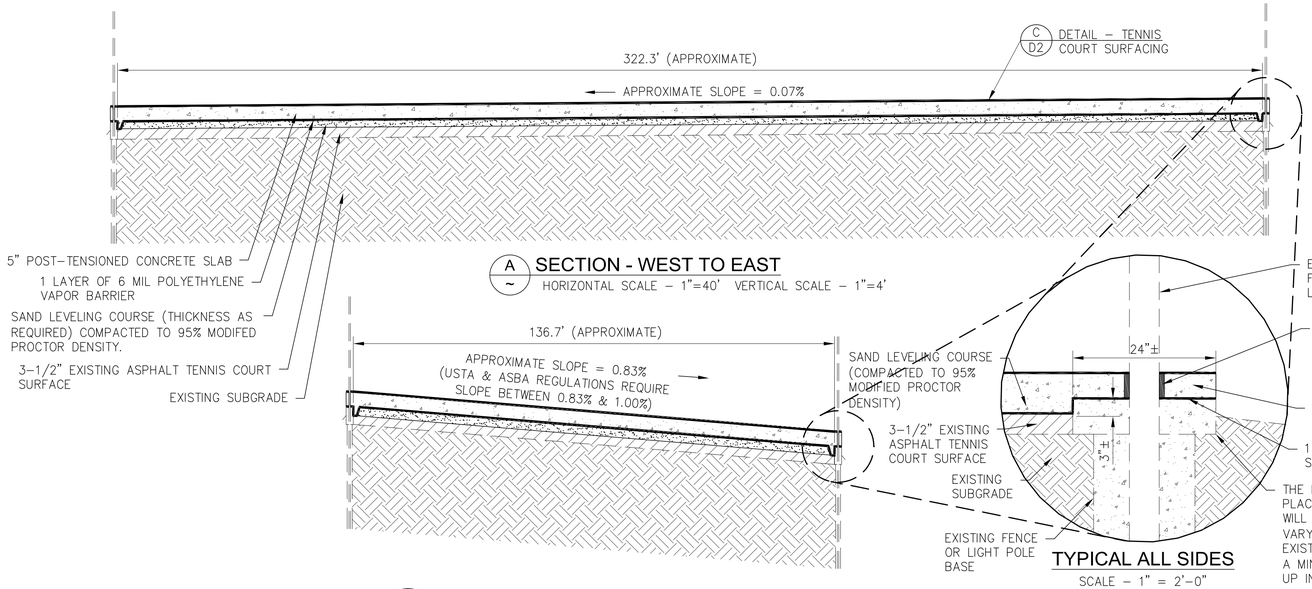
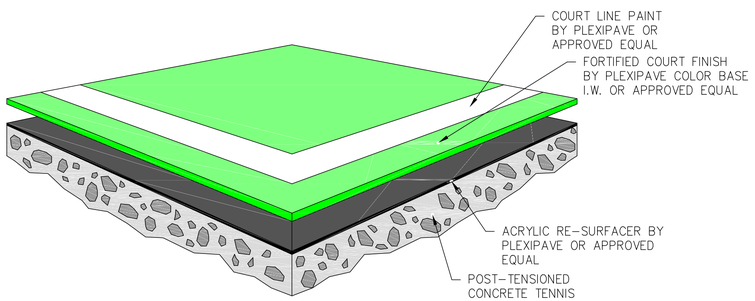
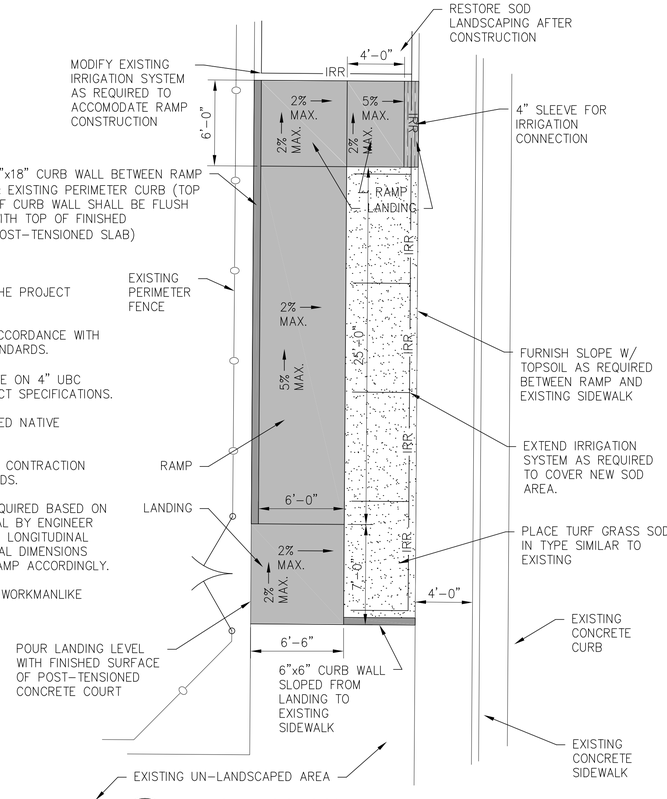




C ~ DETAIL - TENNIS COURT SURFACING
NO SCALE

TENNIS COURT SURFACING NOTES:

1. ALL MATERIALS AND METHODS USED TO COMPLETE TENNIS COURT SURFACING SHALL COMPLY WITH SECTION 13620SP OF THE PROJECT SPECIFICATIONS.
2. FINAL SURFACE SHALL BE FREE FROM CRACKS, BUBBLES, AND OTHER DEFECTS.
3. CONTRACTOR SHALL SUBMIT SAMPLES TO ENGINEER AND OWNER FOR COLOR SELECTION PRIOR TO ORDERING SURFACING PRODUCTS. FINAL APPLICATION SHALL BE COLOR SELECTED BY OWNER.



ACCESSIBLE RAMP NOTES:

1. ALL CONCRETE SHALL BE CLASS 4000 PER THE PROJECT SPECIFICATIONS.
2. CONCRETE MIX & PLACEMENT SHALL BE IN ACCORDANCE WITH THE SOUTHERN UTAH UNIVERSITY DESIGN STANDARDS.
3. RAMPS AND LANDINGS SHALL BE 4" CONCRETE ON 4" UBC COMPACTED TO 95% DENSITY ALL PER PROJECT SPECIFICATIONS.
4. CURB WALLS SHALL BE PLACED ON COMPACTED NATIVE SUBGRADE MATERIAL.
5. CONTRACTOR SHALL INCLUDE EXPANSION AND CONTRACTION JOINTS IN THE RAMP PER INDUSTRY STANDARDS.
6. CONTRACTOR MAY MODIFY DIMENSIONS AS REQUIRED BASED ON FIELD CONDITIONS, BUT SHALL HAVE APPROVAL BY ENGINEER PRIOR TO MAKING ANY SUCH MODIFICATIONS. LONGITUDINAL SLOPE LIMITATIONS GOVERN OVER LONGITUDINAL DIMENSIONS SHOWN – CONTRACTOR SHALL CONSTRUCT RAMP ACCORDINGLY.
7. ALL WORK SHALL BE COMPLETED IN A NEAT, WORKMANLIKE MANNER.

D ~ DETAIL - ACCESSIBLE RAMP
NO SCALE

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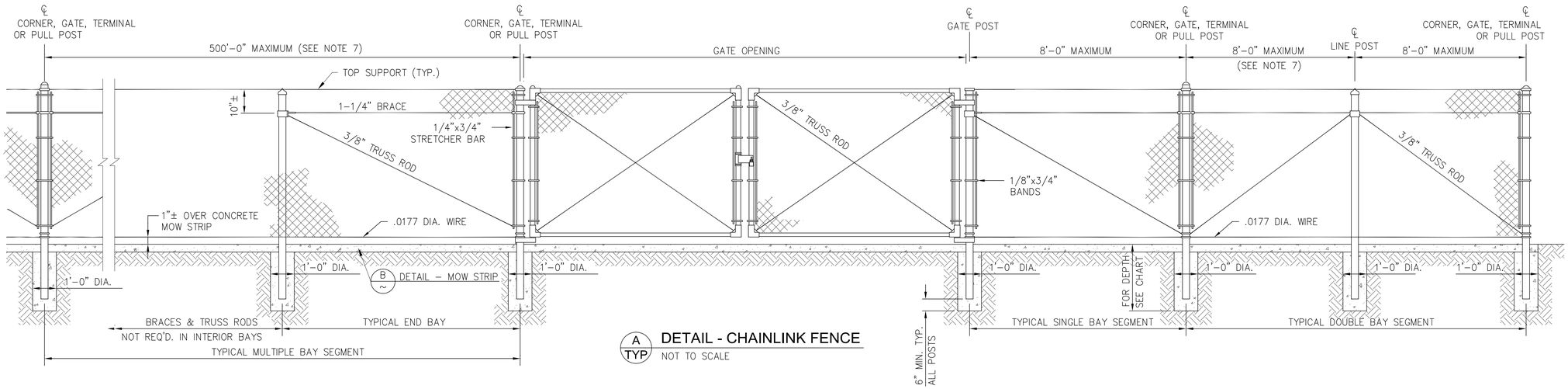
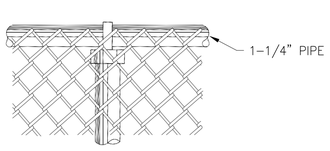
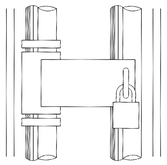


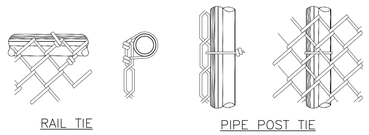
A TYP **DETAIL - CHAINLINK FENCE**
NOT TO SCALE



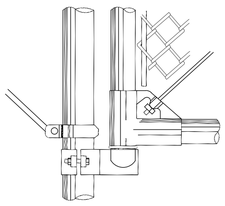
TWISTED SELVAGE



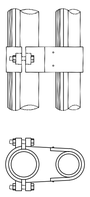
GATE LATCH



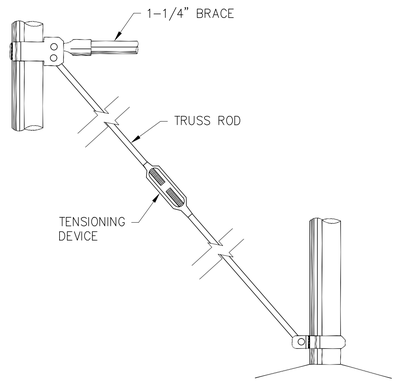
TYPICAL TIE DETAILS



BOTTOM GATE HINGE AND GATE DETAILS
(NOTE: OPTIONAL WELDED OR RIVETED CONSTRUCTION)



TOP GATE HINGE



BRACE AND TRUSS CONNECTIONS

CHAINLINK FENCE NOTES:

1. EXISTING COURT POLES SHALL BE PRIMED & PAINTED BLACK PER PROJECT SPECIFICATIONS.
2. ALL ABOVE GROUND FENCING MATERIALS SHALL BE, BLACK VINYL COATED MATERIALS CONFORMING TO FEDERAL SPECIFICATIONS ASTM F668 CLASS 2B & RRF 191/C.
3. MATERIALS, CONSTRUCTION AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE WRITTEN SPECIFICATIONS.
4. THE TOP SUPPORT SHALL BE 1–1/4" PIPE TUBULAR RAIL.
5. TWISTED SELVAGE, TOP AND BOTTOM, SHALL BE USED.
6. ALL STEEL PIPE MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION A–120, SCHEDULE 40, HOT DIPPED ZINC COATED STEEL PIPE.
7. OPTIONS EXERCISED SHALL BE UNIFORM THROUGHOUT THE PROJECT.
8. LINE POSTS SHALL BE LOCATED AT EQUAL SPACINGS FOR EACH SEGMENT WITH MAXIMUM SPACING AS FOLLOWS:
   A. UNDER 500 FT RADIUS TO 200 FT RADIUS – NOT MORE THAN 8 FEET.
   B. UNDER 200 FT RADIUS TO 100 FT RADIUS – NOT MORE THAN 6 FEET.
   C. NEVER MORE THAN 8 FEET.
9. THE MINIMUM HEIGHT OF FABRIC ON FENCES AND GATES SHALL BE AS SHOWN ON THE PLAN LAYOUT.
10. CONCRETE FOR POST BASES SHALL HAVE A MINIMUM OF 6 SACKS OF CEMENT PER CUBIC YARD.
11. FASTEN FABRIC TO TOP RAIL AND BOTTOM TENSION CABLE AT 24 INCH INTERVALS. FASTEN TO LINE POSTS AT 14 INCH INTERVALS.
12. SECTION 02810 OF THE PROJECT SPECIFICATIONS STATES THAT FENCING FABRIC SHALL BE 11 GAUGE. HOWEVER, FOR THIS PROJECT ALL CHAINLINK FENCING FABRIC SHALL BE 9 GAUGE UNLESS SHOWN OTHERWISE ON THE PLAN SHEETS.
13. WHERE CERTAIN FENCING ELEMENTS ARE NOT AVAILABLE IN VINYL COATED, POWDER COATING MAY BE AN ACCEPTABLE ALTERNATE PER THE APPROVAL OF THE ENGINEER.

Gate Table			
Gate Posts and Gate Frames			
Height	Gate Opening	Gate Post ϕ	Gate Frame ϕ
Under 6'	Single to 6' or Double to 12'	2"	1-1/2"
6' and Higher	Single to 6' or Double to 12'	2-1/2"	1-1/2"
6' and Higher	Single to 13' or Double to 26'	3-1/2"	1-1/2"

Fence Table						
Fabric Gage	Fabric Height	Post Depth	Length of End, Corner, or Pull Posts	Length of Line Posts	Diameter of Posts	
					End, Corner, & Pull Posts	Line Posts
9	4'	2'	6'	5'-8"	2"	1-1/2"
9	6'	3'	9'	8'-8"	2-1/2"	2"
9	8'	3'-6"	11'-6"	11'-2"	2-1/2"	2"
9	10'	4'	14'	13'-2"	2-1/2"	2"
9	12'	4'-6"	16'-6"	16'-2"	3"	2"

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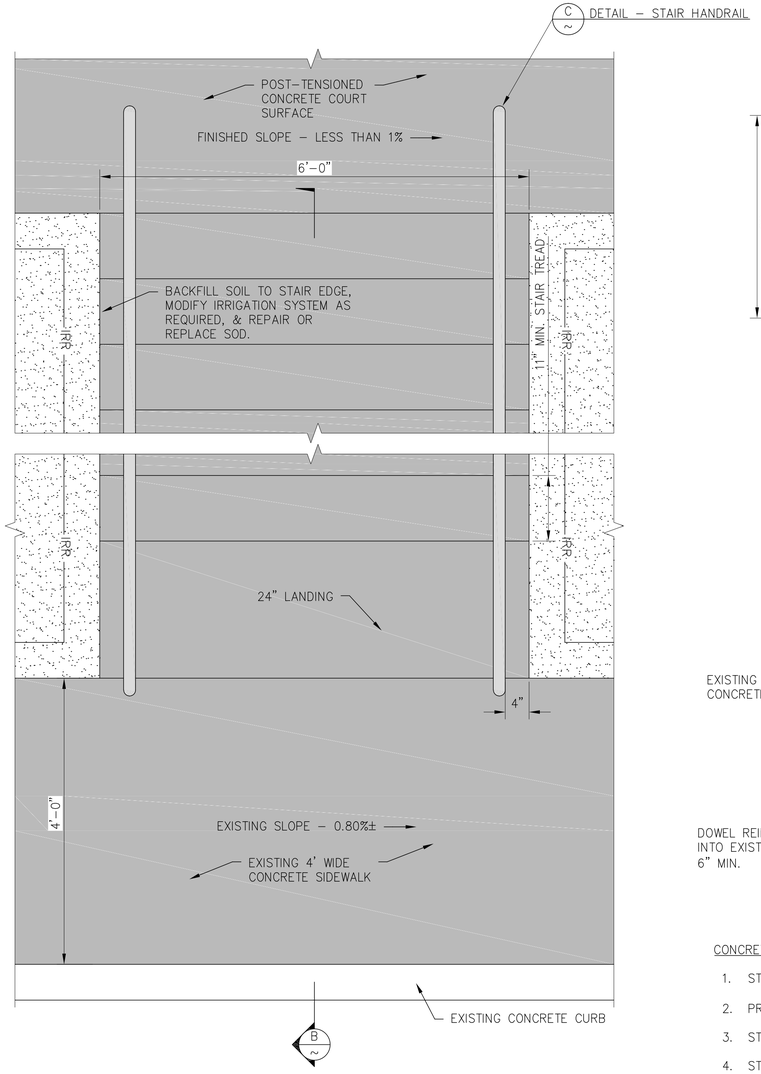
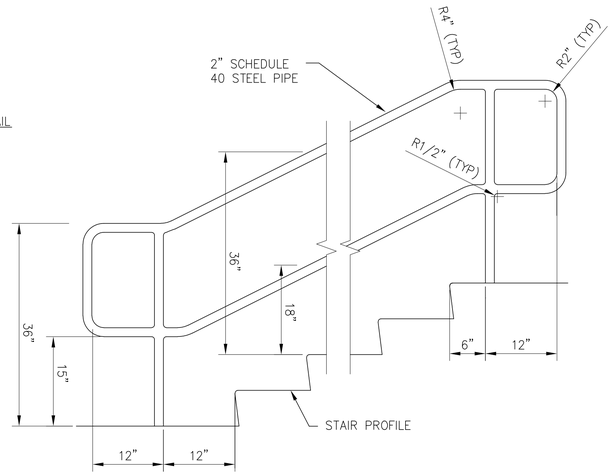


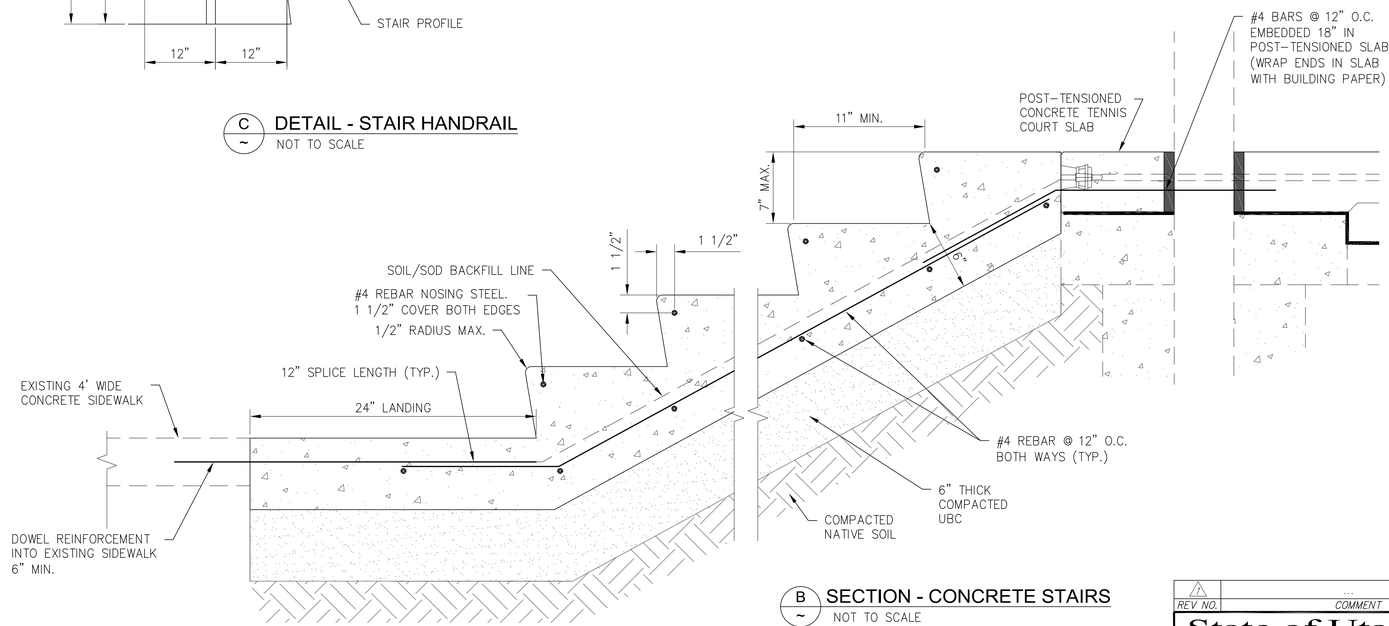
A DETAIL - STAIR PLAN
NOT TO SCALE



C DETAIL - STAIR HANDRAIL
NOT TO SCALE

STAIR HANDRAIL NOTES:

1. ALL PIPE SHALL BE SCHEDULE 40 STEEL HOT DIP GALVANIZED AFTER FABRICATION.
2. WELDED JOINTS SHALL BE GROUND SMOOTH.
3. HANDRAIL SHALL BE POURED IN CONCRETE OR CORE DRILLED/SLEEVED AND GROUTED IN.
4. GRIPPING SURFACES SHALL BE UNINTERRUPTED BY NEWEL POSTS, OTHER CONSTRUCTION ELEMENTS, OR OBSTRUCTIONS.
5. TOP OF HANDRAIL GRIPPING SURFACE SHALL BE MOUNTED BETWEEN 34 AND 38 INCHES ABOVE STAIR NOSINGS.
6. HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS.



B SECTION - CONCRETE STAIRS
NOT TO SCALE

CONCRETE STAIRS NOTES:

1. STAIRWAYS SHALL HAVE CONTINUOUS HANDRAILS ON BOTH SIDES OF STAIRS PER STAIR HANDRAIL DETAILS..
2. PROVIDE 1/2 INCH RADIUS ON ALL EXPOSED CONCRETE EDGES.
3. STAIRS SHALL BE CONSTRUCTED SUCH THAT WATER WILL NOT ACCUMULATE ON WALKING SURFACES.
4. STAIRS SHALL NOT HAVE A VERTICAL RISE OF GREATER THAN 12 FEET BETWEEN LANDINGS.
5. STAIR TREADS AND RISERS SHALL BE OF UNIFORM SIZE AND SHAPE. THE TOLERANCE BETWEEN THE LARGEST AND SMALLEST RISER OR BETWEEN THE LARGEST AND SMALLEST TREAD SHALL NOT EXCEED 0.375 INCH IN ANY FLIGHT OF STAIRS.
6. THE RADIUS OF CURVATURE AT THE LEADING EDGE OF THE TREAD SHALL NOT BE GREATER THAN 0.5 INCH.
7. RISERS SHALL BE VERTICAL OR SLOPED FROM THE UNDERSIDE OF THE LEADING EDGE OF THE TREAD ABOVE AT AN ANGLE NOT MORE THAN 30 DEGREES FROM THE VERTICAL.
8. THE LEADING EDGE (NOSINGS) OF TREADS SHALL PROJECT NOT MORE THAN 1.25 INCHES BEYOND THE TREAD BELOW AND ALL PROJECTIONS OF THE LEADING EDGES SHALL BE OF UNIFORM SIZE.
9. THE WALKING SURFACE OF TREADS SHALL NOT BE SLOPED STEEPER THAN ONE UNIT VERTICAL IN 48 UNITS HORIZONTAL (2–PERCENT SLOPE) IN ANY DIRECTION.
10. ALL CONCRETE SHALL BE CLASS 4000 PER THE PROJECT SPECIFICATIONS.
11. CONCRETE MIX & PLACEMENT SHALL BE IN ACCORDANCE WITH THE SOUTHERN UTAH UNIVERSITY DESIGN STANDARDS.

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