

Index

A

Abandoning structures	79
Abandoning wells	81
Acceptance	30
Active voice-imperative mood	2
Adhesive anchors	233
Admixtures	195
Adverse weather days	59
Aggregate	
Base course	117
Concrete	197
Definition	117
HMA pavements	176
Aggregate testing	529
Agricultural limestone treatment	387
Air entrainment	204
Air-entraining admixtures	195
Altered quantities	63
Antistripping additives for asphalt mixes	177
Approved product lists	36
Archeological and historical findings	48
Asphalt	
Aggregate sampling and testing	164
Base	130
Binders	177
Curb	190
Flumes	190
Materials certification and acceptance	172
Materials volume-temperature correction	174
Pavement	176
Pavers	166
Plants	165
Rumble strips	190
ASR testing of coarse aggregates for concrete	199

B

Barbed wire	359
Barricades	41
Base aggregate	
Classifications	118
Compaction	124
Physical properties	120
Sampling and testing	117
Base patching	140
Beam guard	349
Bearings assemblies	253
Bidding	
Bid bond	13
Bidder disqualification	14
Bidding requirements and conditions	10
Examining contract documents	11
Interpreting bid proposal quantities	11
Irregular proposals	12
Issuing proposals	10
Proposal content	10
Proposal opening	13
Proposal preparation	11
Proposal rejection	12
Proposal submittal	13
Proposal withdrawal	13
Blast cleaning of metal	265
Bolts	251
Borrow Excavation	101
Breaker run	127

Index

Breaker run, definition	117
Bridge deck crack and surface sealing	232
Bronze castings	250
Burning	42, 72
By-Products	119
<u>C</u>	
Calendar day contracts	58
Camber in steel bridges	255
Catch basins	343
Cement	195
Camplng and testing	195
Weighing equipment	208
Change orders	
Eliminated work	18
For differing site conditions	17
For engineer-ordered suspensions	17
For extra work	17
For significant changes in the character of the work	18
Revising contract time	18
Channels, streams, and waterways	96
Claims process	31
Cleanup	
Borrow pits	101
Final	23
Clear protective coating	233
Clearing and grubbing	72
Clearing the roadside	75
Coarse aggregates for concrete	198
Coarse aggregates, definition	197
Cofferdams	93
Cold weather	
Concrete bridges	229
Concrete pavement	151
Concreting	213
HMA paving	167
Pavement marking	451
Coloring concrete	143
Compensable delays	59
Completion date contract	58
Compost	400
Concrete	195
Aggregate	197
Central-mixed, definition	208
Cold weather	213
Curing blankets	227
Curing materials	201
Cylinders	213
Delivery time	208
Hot weather	212
Mixers	207, 209
Mixing time	212
Placing	212
Proportioning	202, 205
Shrink mixed, definition	208
Slump	212
Transit-mixed, definition	208
Concrete barrier	329
Concrete base	131
Concrete bridges	215
Clear protective coating	216
Compressive strength	231
Continuous wet curing	227
Curing	227
Falsework	217, 219
Loading	230
Maturity	231
Substructure	221

Index

Superstructure	222
Surface finish	224
Surface repair	277
Concrete control cabinet bases	469
Concrete corrugated median	367
Concrete curb and gutter	322
Concrete deck overlay and repair	275
Concrete mixing plant	211
Concrete pavement	
Approach slabs	154
Appurtenant construction	157
Compressive strength	153
Cores	153
Crack repair	154, 156, 161
Curing	151
Curing compound	146
Gaps	154
Joints	149
Repair and replacement	157, 159
Ride	533
SHES repair and replacement	159
Surface finish	150
Thickness	153
Concrete Prestressed	236
Concrete sign supports	413
Concrete testing	
Class I	522
Class II and III	528
General	520
Construction loads on structures	56
Construction over navigable water	46
Continuous diamond grinding	162
Contract	
Nullifying the award	16
Award and execution	15
Bond requirement	15
Cancellation of award	15
Conditional acceptance	31
Coordination of contract documents	28
Execution	15
Failure to execute	16
Final acceptance	31
Intent	17
Revisions	17
Subletting	50
Contract time	57
Contractor responsibility for work	43
Control of the work	27
Controlled Low-Strength Backfill	349
Copper sheet	250
Corrugated concrete median	367
Cost reduction incentive	24
Crack sealer for bridge decks	216
Crack sealing	232
Cracked and seated pavement	137
Cribs	93
Crushed stone, definition	117, 117
Culverts	242, 302, 307, 308, 310
Curb repair of concrete bridge deck	276
Curing compound	201, 215
Curing concrete prestressed members	239

D

Dampproofing	289
Deck overlay for concrete bridges	277
Deck repair of concrete bridges	277
Default on contract	60
Definitions	4

Index

<u>Delays</u>	
<u>Compensable</u>	59
<u>Excusable</u>	58
<u>Non-Compensable</u>	58
<u>Delineators and Markers</u>	407
<u>Dense-graded base</u>	123
<u>Diamond grinding</u>	162
<u>Diaphragms</u>	254
<u>Differing site conditions</u>	17
<u>Disposing of materials</u>	77, 89, 110
<u>Dispute resolution</u>	39
<u>Dowel bars</u>	157, 158, 245
<u>Drain tile</u>	348
<u>Drainage during construction</u>	86
<u>Drilling wells</u>	424
<u>DTI washers</u>	429
<u>Dust control</u>	90
<u>Base course</u>	121
<u>Haul roads</u>	365
<u>Surface treatment</u>	370
E	
<u>Elastomeric bearings</u>	252
<u>Electrical</u>	
<u>Service</u>	476
<u>Wiring</u>	470
<u>Eliminated work</u>	18, 67
<u>Elongated aggregate</u>	198
<u>Embankment</u>	98
<u>Emulsified Asphalts</u>	172
<u>Endwalls</u>	242
<u>Engineer authority</u>	27
<u>Engineer-ordered suspensions</u>	17
<u>Environmental protection</u>	45
<u>Equipment</u>	56
<u>Erecting steel bridges</u>	264
<u>Erosion control</u>	46
<u>Bales</u>	377, 380
<u>Cleaning sediment basins</u>	380
<u>General requirements</u>	377
<u>Geotextile</u>	377
<u>Jute fabric</u>	377
<u>Mat</u>	377, 379
<u>Mobilization</u>	380
<u>Silt fence</u>	377, 380
<u>Silt screen</u>	378
<u>Tracking pads</u>	379
<u>Turbidity barriers</u>	381
<u>Excavation</u>	85
<u>Below subgrade</u>	86
<u>Borrow</u>	101
<u>Common</u>	85
<u>For Structures</u>	93
<u>Marsh</u>	85, 88
<u>Rock</u>	85, 87
<u>Stone piles and fences</u>	85
<u>Excusable delays</u>	58
<u>Expansion device</u>	223
<u>Expansion joints</u>	146
<u>Expense rates for equipment</u>	65
E	
<u>Fabrication Library</u>	27
<u>Falsework for concrete bridges</u>	215
<u>Fence</u>	
<u>Chain link</u>	359
<u>Property and right-of-way</u>	359
<u>Woven wire</u>	359

Index

Fertilizer	387, 397, 400
Field facilities	433
Final acceptance	69
Final Payment	69
Fine aggregate	197
Concrete	198
Definition	197
Finish grading	100
Finishing roadway	112
Flaggers	20
Flame cutting of structural steel	257
Fly ash	200, 205
Force account	64
Forms	218
Concrete	215
Concrete bridges	217
Concrete pavement	147
Curb and gutter	322
Insulated	224
Lined	219
Metal	218
Timber	218
Foundation seal	94
Fractured face, definition	117
G	
General Information, Definitions, and Terms	2
Geogrid	443
Geotextiles	443
Girders	254
Grading	89
Granular backfill	104
Granular subbase	138
Gravel, definition	117
H	
Haul roads, maintenance and repair	365
Hazardous substances	48
Heating asphaltic materials	174
Heating concrete	229
Heavy loads	56
Herbicides	401
High mast lighting	488
High-strength bolts	251
Historical markers	356
HMA pavement	176
Density	186
Mixture design	179
Pay adjustment	189
Ride	533
Thickness	186
Hot weather concreting	212
Hot-poured elastic joint sealer	216
Hydrated lime	177
Hydraulic fills	98
I	
Inlets	343
Inspection	30
Inspectioning structural steel	262
Insurance	48
Intelligent transportation systems	
Cable	504
Cameras	509
Communication systems	511
Communication vault	503
Conduit	501
Controllers and detectors	507
General requirements	499

Index

Microwave detector	504
<u>J</u>	
Joints	
Concrete bridges	222
Concrete pavement	149
Filler for concrete bridges	215
Filler for concrete pavement	154
Repair of concrete bridge decks	276
Junction boxes	468
<u>L</u>	
Labor compliance	41
Landmark reference monuments	368
Legal relations and responsibility to the public	41
Legal rights	44
Liability of public officials	44
Liquidated damages	59
Loading zones	325
Locating no-passing zones	455
Lumber and timber	268
Luminaire arms	482
Luminaires	486
<u>M</u>	
Magnesium chloride for dust control	370
Maintenance and traffic control	20
Major items	18
Manholes	343
Marsh excavation	88
Materials	35
Approval by certification	37
Sampling and testing	37
Maturity	153, 231
Measurement	
Area	62
Volume	62
Weight	62
Measurement and payment	62
Milled and re-laid pavement	134
Mineral filler	165
Minor items	18
Mobilization	366
Monotube arms	482
Mortar	300
Mortar strength	198
Mulching	375, 403
<u>N</u>	
Natural material, definition	117
Navigable water	46
Nighttime Operations	41
Non-compensable delays	58
Nonconforming materials	40
Nonconforming work	28
Notification for change orders	18
Noxious weeds	112
<u>O</u>	
Obliterating old road	114
Open-graded base	126
Opening to traffic	152
Ordinary compaction	169
Ordinary surface finish	224
Overhead Sign Supports	429
Overlays of bridge decks	275
<u>P</u>	
Paint	
Epoxy system	292

Index

Mixing	296
Prime coat	292
Removing	296
Wood	293
Painting	
General requirements	291
Lumber and timber	274
Metal	294
Rustic timber items	357
Shop	296
Steel bridges	265
Steel sheet piling	281
Pavement Marking	450
Pavement markings, temporary	457
Pavement sawing	514
Payment	63, 68
Peat humus	374
PG asphalts	172
Pigmented surface sealer	232
Piles	
Cast in place concrete piles	315
Driving piles	316
Painting piles	319
Pile driving equipment	317
Pile driving resistance - modified Gates equation	318
Pile points	316, 319
Pre-boring	319
Precast concrete piles	315
Splices	316
Steel piles	315
Test piles	318
Pit run	129
Pit run, definition	117
Placing concrete bridges	220
Placing steel reinforcement in bridges	247
Plant establishment period	404
Plant materials	398
Poles	479
Precast concrete	37
Precast concrete barrier	329
Preparation of foundation	86, 108
Presplitting rock	87
Pressure treated lumber and timber	270
Prestressed concrete	37, 236
Cylinders	240
Plant certification	237
Sampling and testing	240
Slump	236
Price adjustments	66
Price adjustments for contract revisions	63
Progress payments	68
Progress schedules	
Bar chart	51
Critical path method	54
Relationship bar chart	52
Project engineer	30
Project inspector	30
Prosecution and progress	50
Protective surface treatment	232
Pull boxes	468
Pulverized and re-laid pavement	133
Q	
QMP	516
Concrete General	520
Ancillary Concrete	528
Asphaltic mixtures	180
Base Aggregate	529

Index

Concrete Pavement	522
Concrete Structures	522
Ride	533
Quality management program	39, 516

R

Railing	283
Railroad insurance	45
Ramp meters	493
Ready-mix concrete	208
Reclaimed Asphalt	178
Reference monuments	368
Reinforcement	147
Reinforcement in prestressed concrete members	237
Reinforcing steel	244
Removing structures	23, 76, 79
Reprocessed material	117
Requests for information	20
Restoring and protecting property	42
Retainage	69
Retaining Walls	242
Retarders	196, 204
Revising contract time	18
Riprap	335
Rock disposal	88
Rock excavation	87
Rodent protection	401, 404
Rollers for structure bearing	260
Rubbed surface finish for concrete	224
Rubber tire roller	99
Rubbilized pavement	135
Rumble strips	159, 190

S

Sack rubbed surface finish for concrete	224
Safety islands	325
Salvaged	
Apron endwalls	309
Culvert pipe	309
Sand barrels	352
Sand blasting metal	265
Sand, definition	117
Sawing pavement	514
Schedules	51
Scope of work	17
Seal coat	192
Seed and seeding	389
Select crushed material	128
Definition	117
Severe weather	59
Shaping shoulders	124
Shear studs	253
Sheet piling	281
Shop assembly for structural steel	256
Shop drawings	27, 255
Shoring	280
Shoulders	124
Shoulders asphaltic	190
Shrinkage	100
Shrubs and trees inspection	398
Sidewalks	325
Sign	
Base materials	415
Face materials	415
Sign Bridges	429
Significant changes in the character of work	18
Signing	415
Silt fence	377, 380

Index

Slag	200
Slip-formed concrete pavement	148
Slope paving	333
Slopes	100
Slump for underwater placement	221
Sodding	396
Special compaction	99
Splicing steel reinforcement	246
Staking	29, 458
Stamping concrete	144
Standard compaction	99
Standards for lighting and traffic signals	479
State Owned Signs and Supports	422
Steel	
Bridges	249
Castings	249
Diaphragms	265
Forgings	250
Girders	254
Grid floors	288
Piles	315
Reinforcement	244
Sheet piling	281
Structures	249
Steps	325
Stiffeners for steel bridges	260
Storm sewer	337
Structural plate pipe and pipe arch	312
Structural steel	249
Structural Steel Sign Supports	412
Structure backfill	106
Structures	
Backfilling	95, 100
Concrete	215
Steel	249
Temporary	311
Subgrade approval	89
Subgrade improvement	104
Subletting the contract	50
Substantial completion	31
Substituting equipment, methods, and materials	57
Surplus materials	89, 96
I	
Tack coat	173, 173
Temporary pavement markings	457
Temporary roads	21
Temporary shoring	280
Temporary structures	311
Terminating the contract	61
Terms	4
Third-party beneficiary	43
Tie bars	157, 245
Time extensions	58
Tining	150
Tolerances	27
Topsoil and salvaged topsoil	372
Tort claims	43
Traffic control	436
Opening to traffic	22
Road closed to through traffic	21
Road closed to traffic	21
Road open to all traffic	22
Suspensions	22
Traffic signals	484, 493
Transfer devices for asphaltic mix	166
Treated lumber and timber	268
Tree and shrub planting	402

Index

Trees and shrubs	75, 89
Trombone arms	482
Truck aprons	158
Truck scales	166
Tubular Steel Sign Posts	410
Turf drag	150
Turn-of-nut method for steel erection	259

U

Unacceptable work	28
Unauthorized work	28
Underdrains	346
Unsuitable materials	89
US-made materials	36
Utilities	47

V

Virgin materials, definition	117
------------------------------	-----

W

Warm mix additives	178
Warning signs	41
Water	371
Water in concrete	196
Waterproofing	289
Waterproofing concrete bridge joints	224
Water-reducing admixtures	196
Waterstops for concrete bridges	224
Weather delays	59
Weathering steel	265
Weed barrier fabric	401, 404
Weighing equipment for asphaltic materials	165
Weighing equipment for concrete mixes	206
Welded steel pipe	250
Welding inspection	262
Welding shear studs	262
Welding steel bridges	261
Wells	424
WMA pavement	176
Wood posts	410
Wood preservatives	270, 356
Working day contracts	57

Z

Zinc sheet	250
------------	-----